UHF DIGITAL BASE-REPEATER

NXR-800

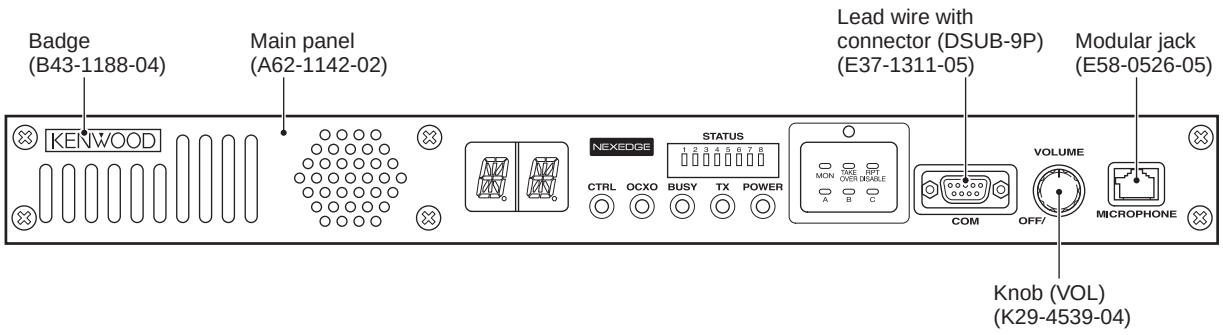
SERVICE MANUAL

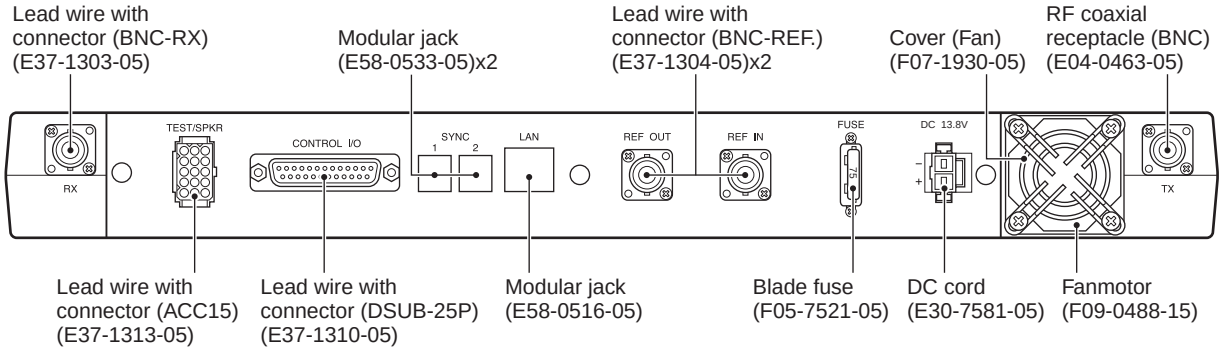
K5 version

KENWOOD

JVCKENWOOD Corporation

RQ022 (K) B5B-7118-00





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This product complies with the **RoHS** directive for the European market.

This product uses Lead Free solder.

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GENERAL

INTRODUCTION

SCOPE OF THIS MANUAL

This manual is intended for use by experienced technicians familiar with similar types of commercial grade communications equipment. It contains all required service information for the equipment and is current as of the publication date. Changes which may occur after publication are covered by either Service Bulletins or Manual Revisions. These are issued as required.

ORDERING REPLACEMENT PARTS

When ordering replacement parts or equipment information, the full part identification number should be included. This applies to all parts : components, kits, or chassis. If the part number is not known, include the chassis or kit number of which it is a part, and a sufficient description of the required component for proper identification.

PERSONAL SAFETY

The following precautions are recommended for personal safety :

- DO NOT transmit if someone is within two feet (0.6 meter) of the antenna.
- DO NOT transmit until all RF connectors are secure and any open connectors are properly terminated.
- SHUT OFF this equipment when near electrical blasting caps or while in an explosive atmosphere.
- All equipment should be properly grounded before powerup for safe operation.
- This equipment should be serviced by only qualified technicians.

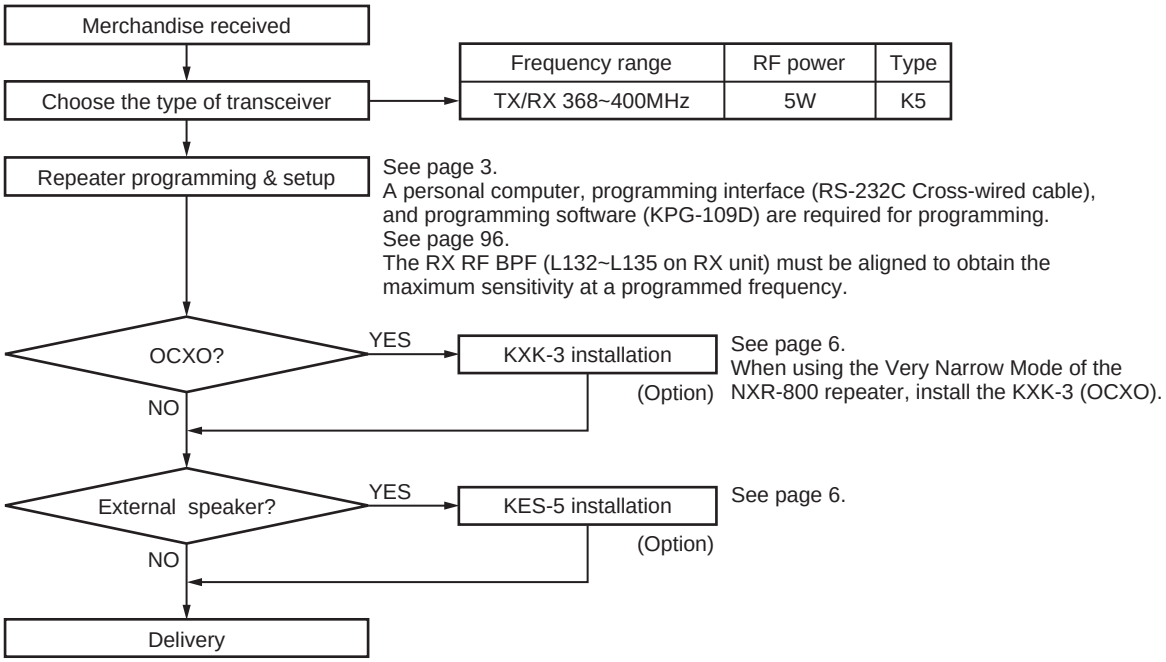
SERVICE

This transceiver is designed for easy servicing. Refer to the schematic diagrams, printed circuit board views, and alignment procedures contained within.

NOTE

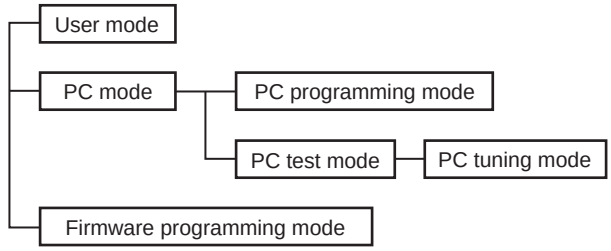
You must use KPG-109D version 4.50 or later for this transceiver. KPG-109D version earlier than version 4.50 will not work properly.

SYSTEM SET-UP



REALIGNMENT

1. Modes



Mode	Function
User mode	Use this mode for normal operation.
PC mode	Use this mode to make various settings by means of the FPU through the RS-232C port.
PC programming mode	Use to read and write frequency data and other features to and from the repeater.
PC test mode	Use to check the repeater using the PC. This feature is included in the FPU.
Firmware programming mode	Use when changing the firmware program of the flash memory.

2. How to Enter Each Mode

Mode	Operation
User mode	Power ON
PC mode	Received commands from PC
Firmware programming mode	Received commands from PC

3. PC Mode

3-1. Preface

The NXR-800 repeater is programmed by using a personal computer, programming interface and programming software (KPG-109D).

3-2. Connection Procedure

1. Connect the NXR-800 to the personal computer with the interface cable.
2. When power is applied, the user mode is entered immediately. When the PC sends a command, the repeater enters the PC mode and displays “PC” on the 17-segment LED. When data is being transmitted to the PC from the repeater, the TX LED flashes. The BUSY LED flashes when data from the PC is being received by the repeater.

Note:

- The data stored in the personal computer must match the model type, when it is written into the flash memory.
- Change the NXR-800 to PC mode, then attach the RS-232C Cross-wired cable.

REALIGNMENT

3-3. Programming Software Description

The KPG-109D is the programming software for NXR-800 supplied on a CD-ROM. This software runs under Windows XP, Vista, 7 or 8 on a PC.

The data can be input to or read from NXR-800 and edited on the screen. The programmed or edited data can be printed out. It is also possible to tune the transceiver.

3-4. Programming With PC

Data can be programmed into the flash memory in RS-232C format via the COM connector.

Note:

To use the KCT-53U USB adapter, the USB driver needs to be installed onto the PC.

The latest version of the USB driver is available for download from the following URL:

http://www.kenwood.com/usb-com/

(This URL may change without notice.)

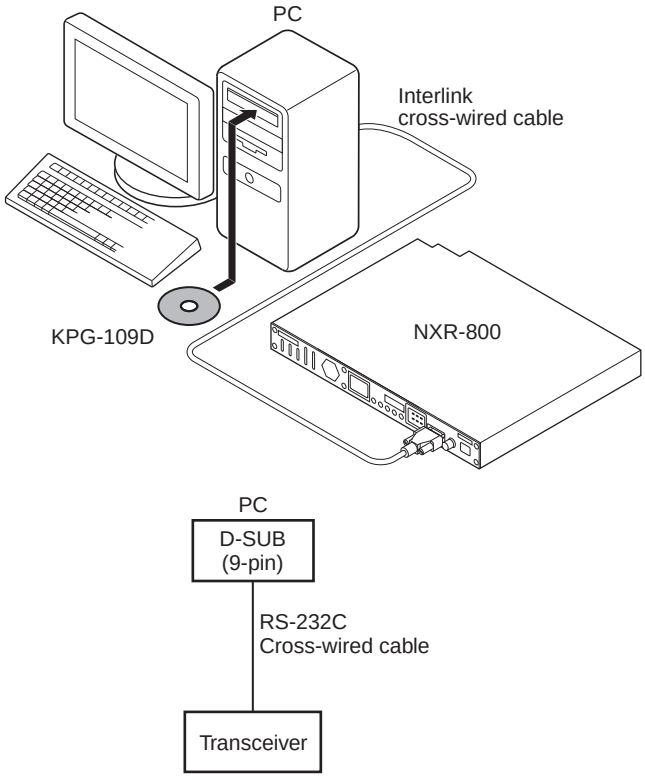


Fig. 1

4. Firmware Programming Mode

4-1. Preface

The NXR-800 uses flash memory to allow it to be easily upgraded when new features are released in the future.

4-2. Connection Procedure

Connect the NXR-800 to the personal computer with the RS-232C Cross-wired cable. (Connection is the same as in the PC mode.)

Note:

You can only program firmware from the DB-9 COM connector on the front panel. Using the 25-pin logic interface on the rear panel will not work.

4-3. Programming

1. Start up the programming software (Fpro. exe).
   The Fpro. exe exists in the KPG-109D installed holder.
2. Set the communications speed (normally, 115200 bps) and communications port in the configuration item.
3. Set the firmware to be updated by file name item.
4. Turn the NXR-800 power on.
5. Check the connection between the NXR-800 and the personal computer, and make sure that the NXR-800 is in the program mode.
6. Press write button in the window. A window opens on the display to indicate progress of writing.
7. If writing ends successfully, the NXR-800 restarts.
8. If you want to continue programming other NXR-800s, repeat steps 3 to 6.

Note:

It automatically enters the firmware program mode by the writing request from the programming software (KPG-109D).

4-4. Function

Baud rate is decided automatically with setting of programming software.

Note:

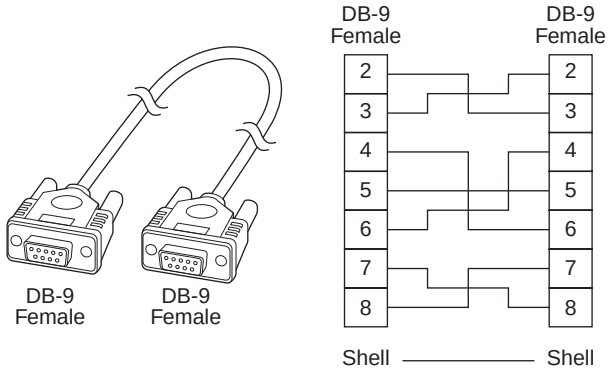
Normally, write in the high-speed mode (115200 bps).

Cross-wired cable

There are a few types of null modem cable available in the market. Make sure to use one of the following null modem cables that meets the following specifications.

Cable Specification: Null modem cable with full handshaking (cross-wired) or InterLink cable that is usually used to transfer files between PCs.

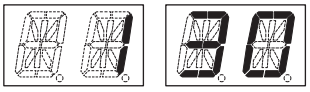
Connector Specification (both cable ends): DB-9 female



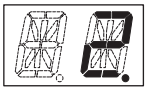
OPERATING FEATURES

1. Two 17-segment LED Displays

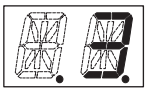
- Channel display (1~30): While operating normally in user mode.



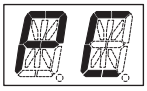
- When the displayed channel is contained in scan sequence, the right side decimal point is displayed.



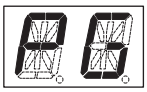
- When the displayed channel is the priority channel, the left side decimal point is displayed.



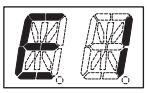
- "PC" is displayed while in PC mode.



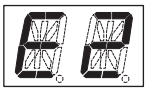
- "PG" is displayed while in firmware programming mode.



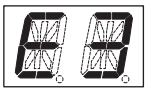
- "E1" is displayed when FPU data is not written.



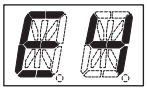
- "E2" is displayed when the channel data is not written.



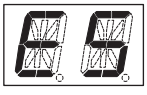
- "E3" is displayed when PLL is unlocked.
  Receiver PLL unlocked = BUSY LED blinks.
  Transmitter PLL unlocked = TX LED blinks.



- "E4" is displayed when PTT is attempted on a channel number that has no frequency data programmed.

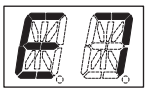


- "E5" is displayed when IP address configuration is error.



- "E6" is displayed when no frame clock is entered.

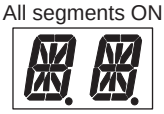
- "E7" is displayed when the thermal protection occurs.

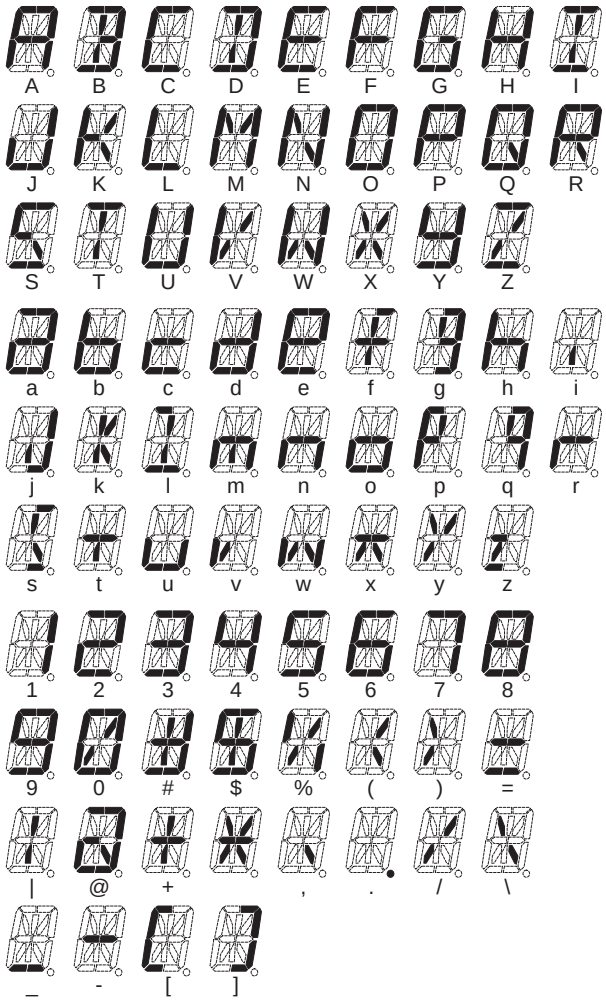


- "E8" is displayed when Failure Input port becomes active.

- "SC" is displayed while in scan mode.

All segments ON





INSTALLATION

1. OCXO (KXK-3)

1. Before installing the KXK-3, be sure to turn the power off.
2. Remove the top cover of the TX unit.
3. Mount the KXK-3 using the 5 screws.
4. Carefully connect and lock the flat cable to CN1 and CN803, with the conductor side facing in.
5. Connect the coaxial cable to CN2 and CN407.
6. Connect the 2-pin cable to CN3 and CN807.

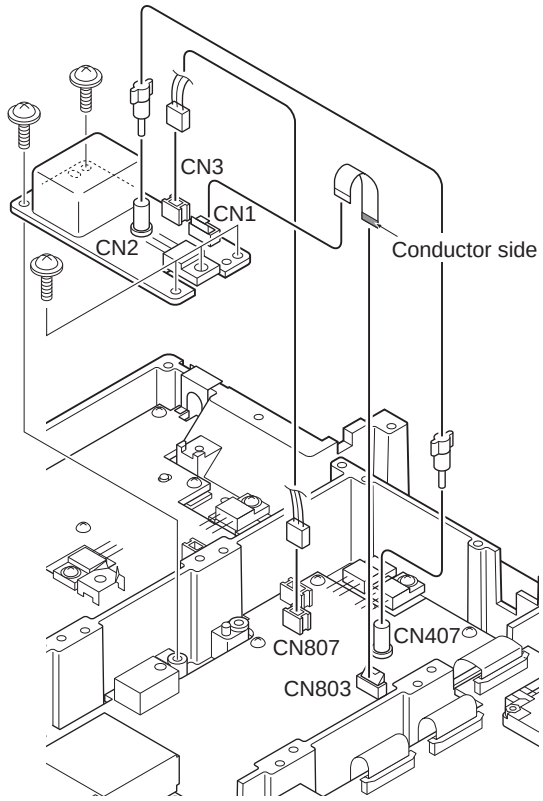


Fig. 1

2. External Speaker (KES-5)

The NXR-800 has a internal built-in speaker, and the external speaker output from the TEST/SPKR connector (15-pin) on the rear of the radio is 3W/4Ω. Use external speaker KES-5.

2-1. Connection for the KES-5 With the NXR-800 When taking the AF output from the TEST/SPKR connector (15-pin) on the rear of the radio

The following tools are required for changing the connector.

• Extracting tool

The following extracting tool is recommended:
Molex Inc. Order No.: 11-03-0002 (W05-0878-00)

1. Remove the connector with jumper from the external speaker connector on the rear panel of the radio. (Fig. 2-1)
   Note: Save the jumper, which is required when the radio is used without the external speaker.
2. Remove the terminals with the jumper from the connector housing holes number 9 and 12 using the extracting tool.
   Removing the jumper lead (Fig. 2-2)
   1) Insert the extracting tool (11-03-0002) into the connector while pushing the jumper lead in the direction of (a).
   2) Push the extracting tool into collapse the barbs of the crimp terminal.
   3) Pull out the lead while continuing to push the extracting tool in the direction (b).
3. Reinsert the terminal with the black and white stripe lead into hole number 12, and the terminal with the black lead into hole number 6. (Fig. 2-3)
4. Attach the connector to the external speaker connector on the radio.

Note:

- Relationship between TEST/SPKR connector (15-pin) connection and speaker output.
- When pins 9 and 12 are shorted: Built-in internal speaker is used.
- When pins 9 and 12 are open and output is from pins 6 and 12: KES-5 is used.

Square-type plug
(E31-3228-05)
Accessory

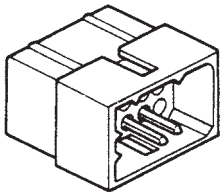
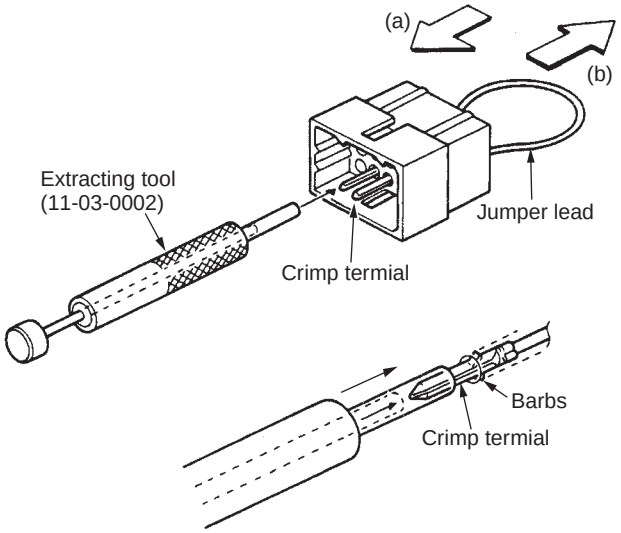


Fig. 2-1



INSTALLATION

Fig. 2-2

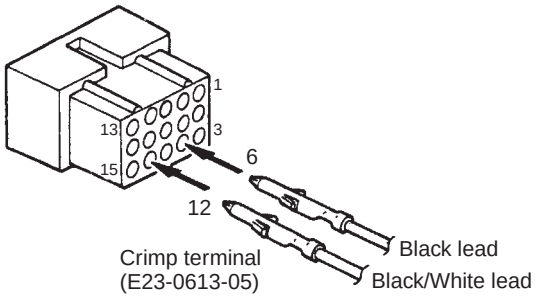


Fig. 2-3

3. How to Attach the Supplied Accessories

1. Attach the front glass to the front panel with the supplied screw. (①)
2. To attach the handles on the both sides of the chassis, refer to illustration. (②)

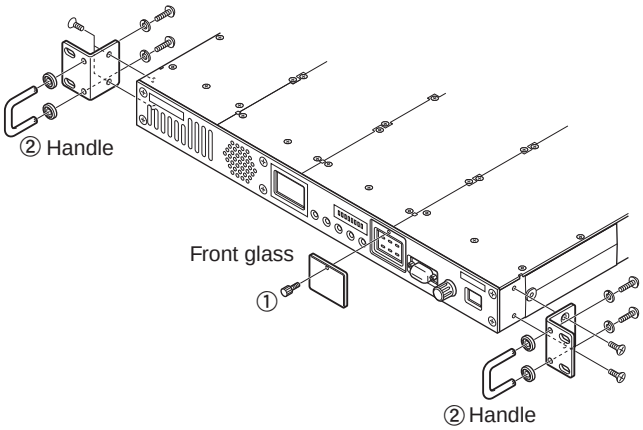


Fig. 3

CIRCUIT DESCRIPTION

1. Outline

The NXR-800 is a UHF repeater operating in the 368~400MHz frequency range.

2. Transmitter unit

The transmitter unit (X56-312 A/3) consists of the following circuit.

(1) Internal/external reference circuit
(2) Transmitter reference 19.2MHz PLL circuit
(3) Transmitter Modulation 19.2MHz PLL circuit
(4) Transmitter DDS circuit
(5) Transmitter main PLL circuit
(6) Driver circuit
(7) Modulation level adjustment circuit
(8) AVR circuit
(9) Other circuits

2-1. Internal/external reference circuit

The internal/external reference circuit automatically switches signals used as reference signals among the 5.99MHz internal DDS, the 10MHz external reference signal and the 10MHz OCXO unit.

If no OCXO unit is installed, and there is no external reference signal, the 5.99MHz internal DDS (IC601) is selected as the reference signal.

If the OCXO unit is installed and there is no external reference signal, the 10MHz OCXO unit is selected as the reference signal.

If an external reference signal (CN408/ 10MHz/ 0dBm or higher/ Zin=50Ω) is input, the external reference signal is selected as the reference signal irrespective of an existing OCXO unit.

The internal/external reference circuit consists of Q419, Q418, D401, D402, D405, D404, D410, D411, Q430, Q422, D601, D607, IC405 and IC406.

The DDS circuit consists of X601, IC602, IC601, Q606, CF601, Q603, D602 and D608.

If either the OCXO 10MHz or external reference 10MHz is selected as the reference signal, the reference output terminal outputs the reference signal (CN403/ 10MHz/ +5dBm or higher/ Zout=50Ω). This circuit consists of Q431, Q420 and Q425.

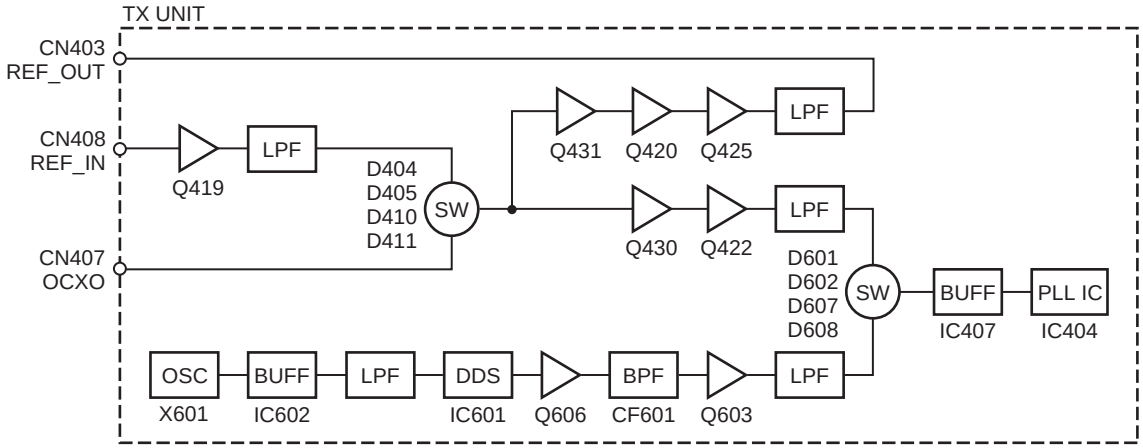


Fig. 1 Internal/external reference circuit

2-2. Transmitter reference 19.2MHz PLL circuit

The transmitter reference 19.2MHz PLL circuit produces a reference frequency signal for the transmitter modulation 19.2MHz PLL circuit and the Receiver unit (X55-310) Receiver DDS circuit.

This circuit consists of Q401, Q402, Q412, Q415, Q416, Q417, X401, IC401, IC404, and IC407.

The 5.99MHz or 10MHz signal produced by the internal/external reference circuit is amplified by IC407 and supplied to the PLL IC (IC404) reference signal pin.

The VCXO (X401) signal enters buffer amp Q417 and is amplified by Q415. The higher harmonic wave is attenuated by LPF and returns to IC404. Its phase is compared with that of the reference frequency 10kHz.

The phase difference signal produced by the comparing phase is converted to a DC voltage by a lag-lead type loop filter. This DC voltage is input to the X401 control voltage terminal for controlling the VCXO oscillating frequency.

The DC voltage passes through the IC401 operational amplifier, and is output as a voltage signal (CVT-REF) for monitoring the reference 19.2MHz PLL circuit lock voltage.

The stabilized 19.2MHz reference oscillating signal enters the Q417 buffer amplifier and is amplified by Q412 and Q416. The higher harmonic wave is attenuated by LPF, fed to IC302 and used as the reference frequency signal for the transmitter modulation 19.2MHz PLL circuit.

The 19.2MHz reference oscillating signal is also used as the reference signal for the receiver unit (X55-310).

It enters the Q417 buffer amplifier for the receiver unit (X55-310) and is amplified by Q401. The higher harmonic wave is attenuated by LPF and is output from CN406.

CIRCUIT DESCRIPTION

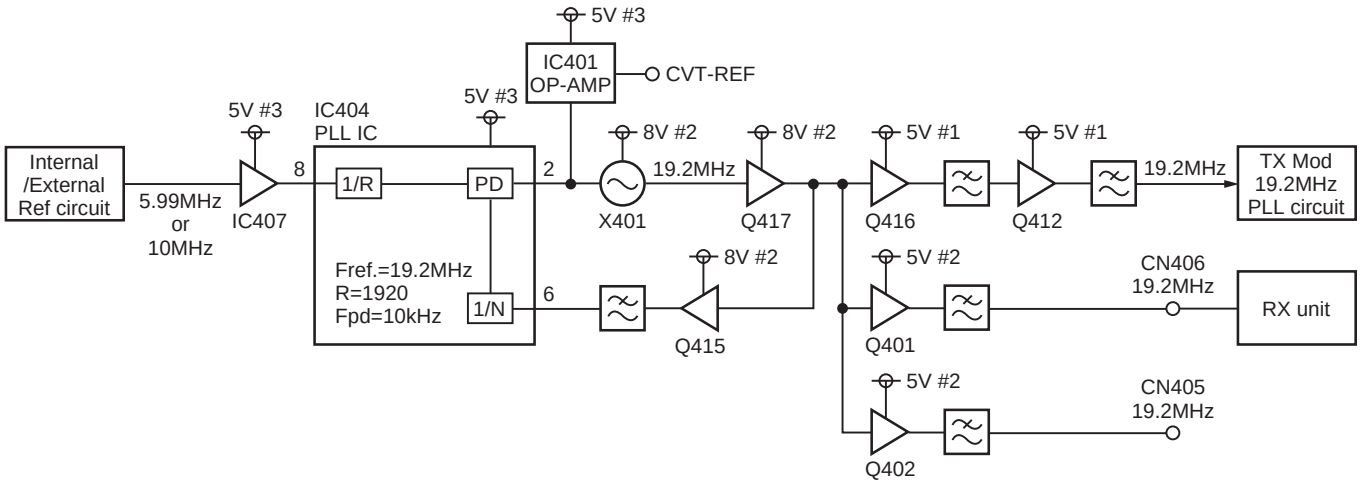


Fig. 2 Transmitter reference 19.2MHz PLL circuit

2-3. Transmitter modulation 19.2MHz PLL circuit

The transmitter modulation 19.2MHz PLL circuit produces the reference frequency signal for the Transmitter DDS circuit and modulates the low-frequency components.

The circuit consists of IC302, IC303, IC305, IC306, X301, Q304, Q305, and Q307.

The signal generated by the VCXO (X301) is fed to the buffer amplifier Q307.

The VCXO (X301) signal enters buffer amplifier Q307 and is amplified by Q305. The higher harmonic wave is attenuated by the LPF and returns to IC303. Its phase is compared with that of the reference frequency 5kHz.

The phase difference signal produced by the comparing phase is converted to a DC voltage by a lag-lead type loop filter. This DC voltage is input to the IC305 invert amplifier (B/2) and is synthesized with the modulating signal. This DC voltage is input to the X301 control voltage terminal for controlling the VCXO oscillating frequency 19.2MHz.

The DC voltage passes through the IC306 operational amplifier, and is output as a voltage signal (CVT-MOD) for monitoring the modulating 19.2MHz PLL circuit lock voltage.

The 19.2MHz oscillating signal is fed to the Q307 buffer amplifier and is amplified by Q304. The higher harmonic wave is attenuated by the LPF, fed to IC307, and is used as the reference frequency signal of the transmitter DDS circuit.

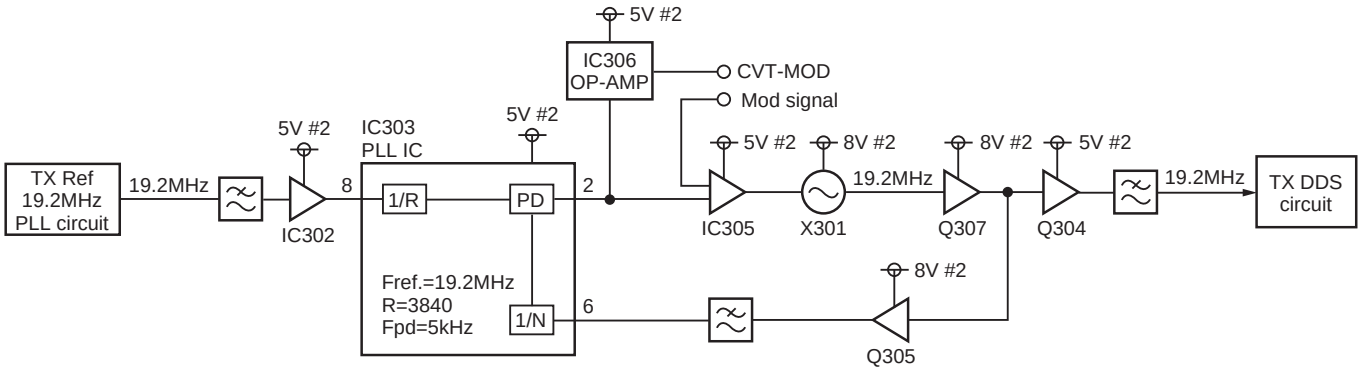


Fig. 3 Transmitter modulation 19.2MHz PLL circuit

CIRCUIT DESCRIPTION

2-4. Transmitter DDS circuit

The transmitter DDS circuit produces the transmitter main PLL reference frequency signal 4.5MHz.

This circuit consists of IC307, IC202, CF201, Q210, Q211, Q212 and Q213.

The 19.2MHz signal from the transmitter modulation 19.2MHz PLL circuit is amplified by IC307 and supplied to the IC202 reference signal pin.

IC202 produces the transmitter main PLL 4.5MHz reference frequency signal based on 19.2MHz on signal.

The spurious output by IC202 is attenuated by CF201 and LPF, 4.5MHz reference frequency signal is amplified by Q211, Q212, and Q213, and fed to the transmitter main PLL.

The comparison frequency of the transmitter main PLL is 100kHz and the PLL frequency step is 100kHz.

However, minute frequency step such as 2.5kHz and 3.125kHz because the DDS output frequency is variable.

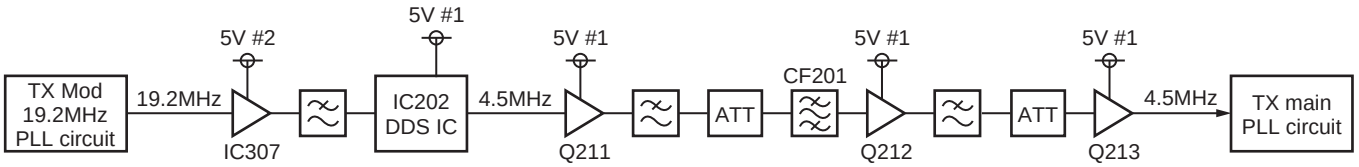


Fig. 4 Transmitter DDS circuit

2-5. Transmitter main PLL circuit

The transmitter main PLL circuit consists of the VCO (Q102 and Q103), PLL IC (IC101), IC102, Q104 and Q106 and produces the transmitter frequency signal.

The VCO Q102 produces transmitter frequencies from 368.000MHz to 383.995MHz.

The VCO Q103 produces transmitter frequencies from 384.000MHz to 400.000MHz.

The signal produced by the VCO (Q102 or Q103) is fed to the buffer amplifier and is amplified by Q106. The higher harmonic wave is attenuated by LPF and returns to the PLL IC (IC101).

IC101 divides the VCO oscillating frequency signal and transmitter PLL reference signal (4.5MHz), and compares the phase with the 100kHz comparison frequency.

The phase difference signal produced by the comparing phase is converted to a DC voltage by a lag-lead type loop filter.

The DC signal is applied to varicaps D101, D102, D107, and D108 to lock the VCO oscillator frequency with the desired oscillator frequency.

At the same time, the DC signal passes through the IC102 operational amplifier for monitoring the transmitter main PLL lock voltage.

The output from the VCO passes through the buffer amplifier Q104 and is supplied to the drive circuit.

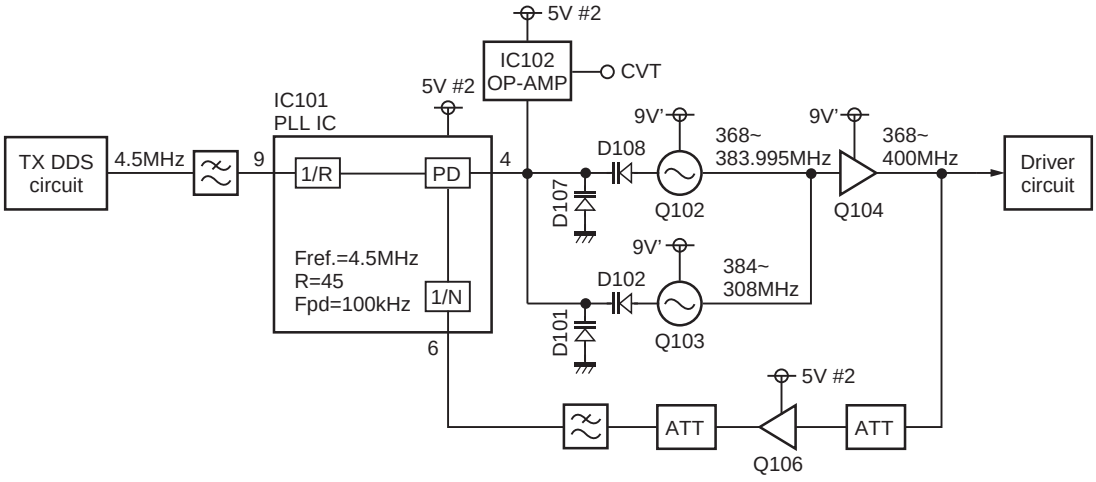


Fig. 5 Transmitter main PLL circuit

CIRCUIT DESCRIPTION

2-6. Driver circuit

The driver circuit amplifies the transmitter frequency signal to the level required for input to the Final Unit (X45-382 A/5).

This circuit consists of RF amplifiers Q201, Q202 and Q203, switches Q204 and Q205, and operating amplifier IC201.

DC switches Q204 and Q205, turns the power supply voltage of RF amplifiers Q201, Q202, and Q203 on and off.

The transmitter main PLL circuit output is attenuated by attenuators R201, R202 and R203, by approximately 7dB. So, the input level to Q201 is approximately -12dBm (63µW).

Q201 amplifies it by approximately 12dB. So, the output level is approximately 0dBm (1mW).

The Q201 output is amplified by Q202 by approximately 10dB. Furthermore, it is amplified by Q203 by approximately 10dB. The Q203 output is approximately +20dBm (100mW). This output level is output from driver output connector CN802 and is connected to the Final Unit (X45-382 A/5).

Q203 has an AGC (Auto Gain Control) circuit. D201 rectifies a part of the Q203 output and converts it into DC voltage. It is compared with the control voltage (D_PC) by the operation amplifier IC201. The Q203 Gate terminal voltage is controlled for the stabilizing Q203 output (+20dBm).

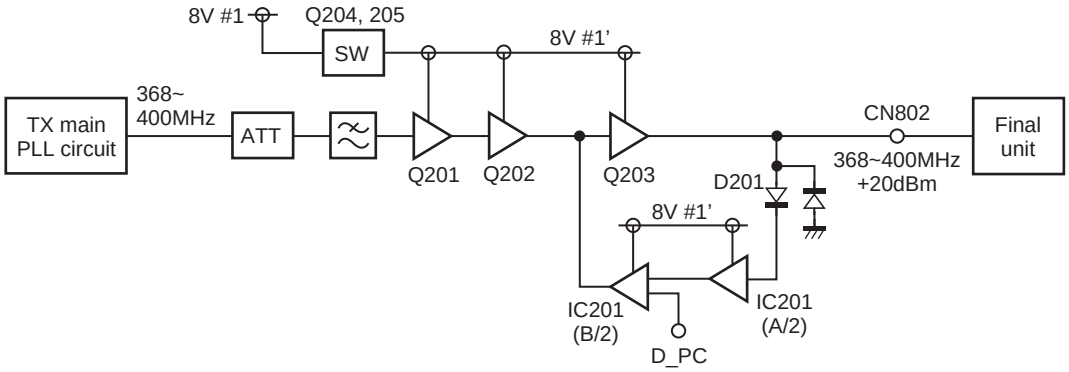


Fig. 6 Driver circuit

2-7. Modulation level adjustment circuit

The level adjustment circuit adjusts the modulation signal level to provide the required level of modulation. This circuit consists of IC301, IC304, IC305, and IC308.

The audio signal comes from the Control Unit (X53-413) through pin 4. The modulating signal is input to IC304 from this.

IC304 is an electronic volume control IC.

The modulation waveform balance adjustment, maximum AF Dev. change, and adjustment are performed according to data from the MPU using the FPU.

The modulation signal is produced by the modulating low-pitched tone to the transmitter modulation 19.2MHz PLL circuit and adds the high-pitched modulation to the transmitter main PLL.

IC305 is an inverting amplifier (B/2) for inverting the amplification (A/2) of the modulating signal and synthesizing the VCXO (X301) control voltage and modulating signal.

IC301 is a reference voltage generator (A/2) in modulating level adjusting circuit and non-inverting amplification of modulating signal with a cutoff signal of approximately 9kHz (B/2).

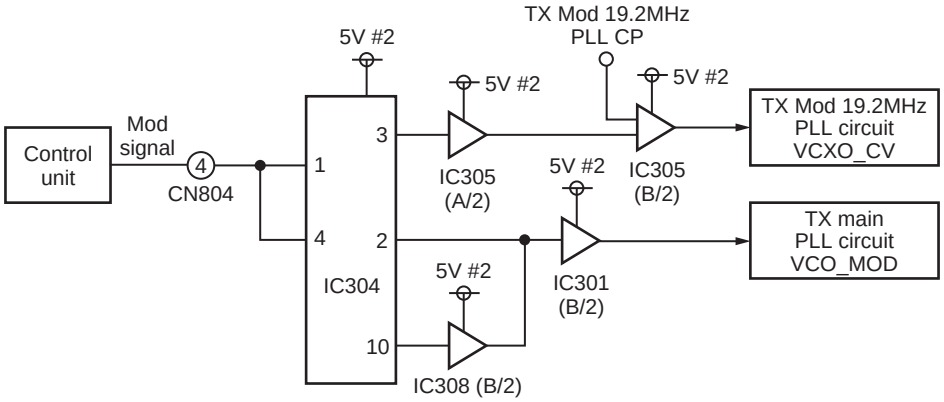


Fig. 7 Modulation level adjustment circuit

CIRCUIT DESCRIPTION

2-8. AVR circuit

IC104, IC603, IC704, IC705, IC706, IC807, IC808, IC809 and IC810 are AVR ICs.

Each circuit contains its own power regulator IC to maintain isolation between circuits.

2-9. Other circuits

In addition, IC701 is an EEPROM. The transmitter adjustment data adjusted for each unit is written into the EEPROM. If the unit is installed in another set, it is not necessary to adjust it again from the beginning, but only fine-tuning is necessary for each unit.

The temperature sensor (IC804) monitors the temperature of the transmitter unit (X56-312 A/3).

The D/A converters (IC701 and IC802) converts the AGC setting (D_PC) of the driver circuit and control voltage value (PWR_CONT, PWR_PRT) of the Final Unit (X45-382 A/5).

The A/D converter (IC803) converts the transmitter unit (X56-312 A/3) temperature, VCO & VCXO control voltage (CVT, CVT-REF and CVT-MOD), Final Unit (X45-382 A/5) PA current(PA_CURR), fan current (FAN_CURR), detection voltage (FWD_PWR, RFL_PWR), etc.

The shift register (IC703) controls each part of the transmitter unit (X56-312 A/3) based on serial data of the Control Unit (X53-413).

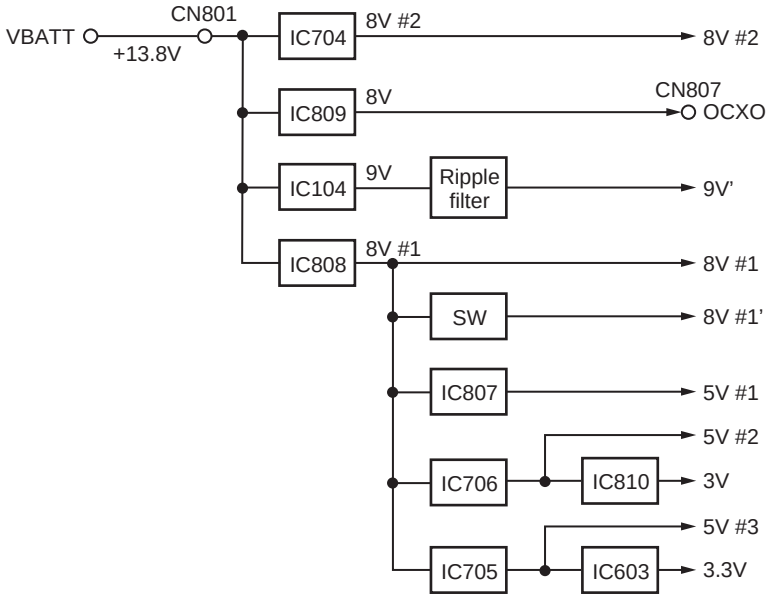


Fig. 8 AVR circuit

3. Final unit

The RF final amplifier unit (X45-382 A/5) amplifies the transmitter power to a specified level.

This unit consists of the following circuits:

(1) Transmitter power module
(2) High pass filter
(3) Forward/Reflect power detector circuit
(4) Antenna switch
(5) Harmonic filter circuit
(6) APC circuit
(7) High temperature detector circuit
(8) FAN action control circuit
(9) Current detector circuit
(10) AVR Circuit
(11) Other Circuits

3-1. Transmitter power module

The power module IC10 uses power module RA13H3340 M131 to improve its efficiency. The driver output of the transmitter unit passes through an attenuator and enters the power module IC10 pin 1. Power module IC10 amplifies the RF power according to the voltage at the amplification control pin 2 (VGG) and outputs it through pin 4 (Pout).

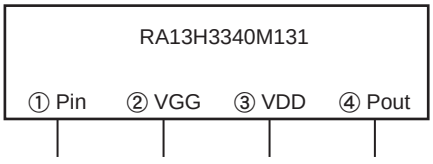


Fig. 9 Transmitter power module

CIRCUIT DESCRIPTION

3-2. Forward/Reflect power detector circuit

The forward / Reflect power detector circuit consists of a CM coupling type detection circuit formed by a Micro strip line and the differential amplifier IC4.

A part of the transmitter power is detected by diodes D9 and D10 and is converted into DC voltage.

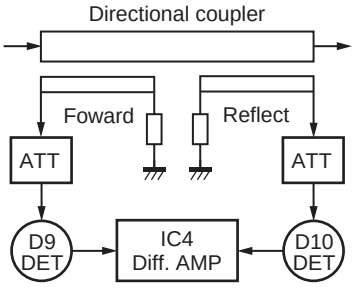


Fig. 10 Forward/Reflect power detector circuit

3-3. Antenna switch

If a common antenna is used for the transmitter signal and receiver signal, switch transmitter and receiver signals by connecting CN19 to the RX Unit.

If different antennas are used for the transmitter and receiver, it functions as an On/Off switch for the transmitter circuit.

3-4. Harmonic filter circuit

The harmonic filter circuit uses a three-stage “pi” type Chebyshev type LPF.

This circuit removes harmonics from the transmitter output and sends the filtered signal to the antenna connecter (CN22).

3-5. APC circuit

The APC circuit stabilizes the transmitter power so that the output power specified by the Control Voltage from the MPU is obtained. It consists of a Forward/Reflect power detector circuit and Differential amplifiers (IC2 and IC5).

It compares the voltage detected by the Forward/Reflect power detector circuit (voltage detected by the Forward Power) and the Control Voltage (PWR_CONT) from the MPU (IC802: X56-312 A/3). It stabilizes the output power by changing pin 2 (Vgg).

The voltage detected (that detected Reflect Power) by the Forward/Reflect power detector circuit is compared to the Control Voltage (PWR_PRT) from the MPU (IC802: X56-312 A/3). When a load V.S.W.R. is connected to the Antenna Connecter and is more than 1.5, it functions so that the output power gets smaller as the detection voltage (that detected Reflect Power) gets larger.

3-6. High temperature detector circuit

The high temperature detector circuit consists of a thermal switch IC (IC7) and a switching FET (Q2).

This circuit lowers the transmitter power when the final unit temperature is too high (83°C or higher).

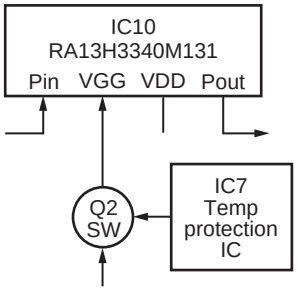


Fig. 12 High temperature detector circuit

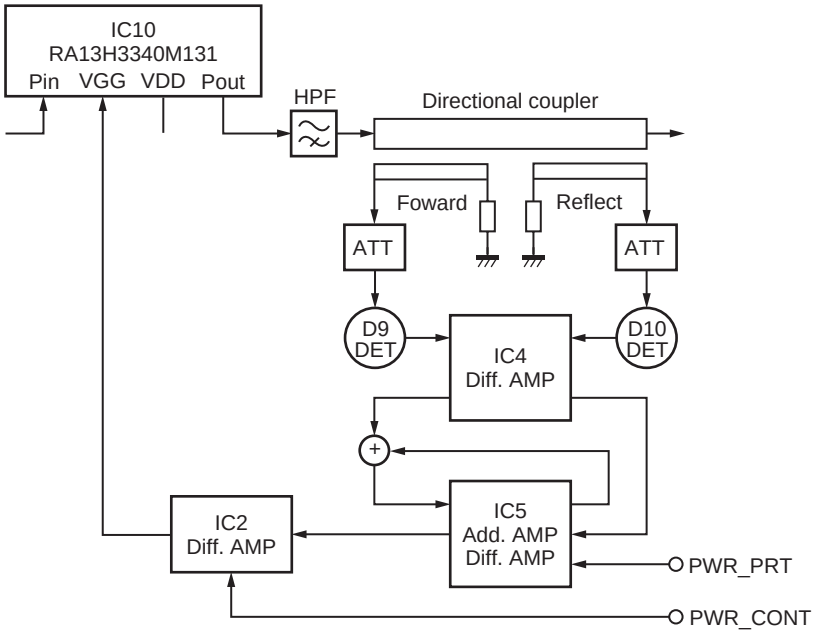


Fig. 11 APC circuit

CIRCUIT DESCRIPTION

3-7. FAN action control circuit

The FAN action control circuit consists of a FAN, a current detection resistance (R11), a Differential amplifier (IC15), a Switching FET (Q3), and a Switching FET (Q14). It detects the normal and abnormal state by monitoring the current flowing FAN motor, and stops operation when failure occurs.

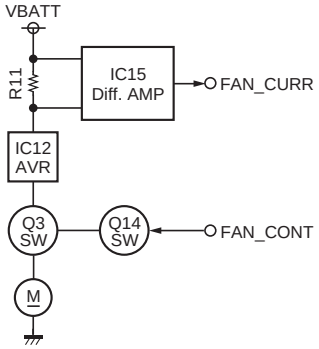


Fig. 13 FAN action control circuit

3-8. Current detector circuit

The current detector circuit monitors the current of the Power Amplifier Module. It consists of a current detection resistance (R4) and a current detection IC (IC1). It detects the normal and abnormal state of the Power Amplifier Module by monitoring the current of the Power Amplifier Module. If a failure occurs, it stops operation.

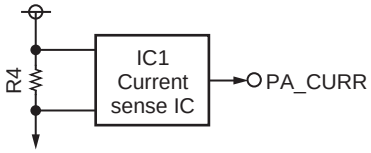


Fig. 14 Current detector circuit

3-9. AVR circuit

IC3, IC11 and IC12 are AVR ICs.

They maintain isolation of each power supply.

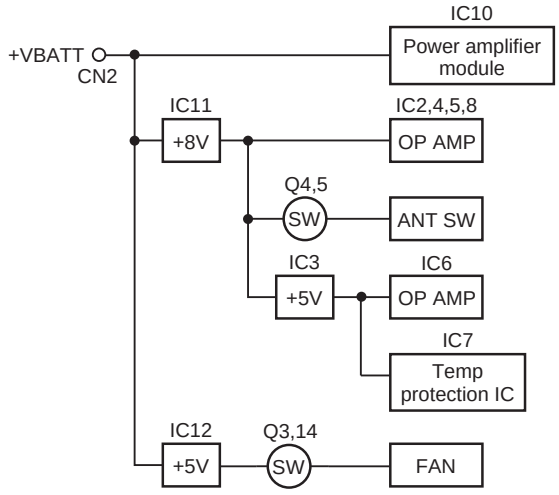


Fig. 15 AVR circuit

3-10. Other circuits

Circuit IC9 saves various adjustment values of the Final Unit in the EEPROM.

4. Receiver Unit

The receiver unit (X55-310) consists of the following circuits:

(1) Front-end circuit
(2) 1st-Mixer circuit
(3) 1st-IF circuits
(4) Demodulator circuits
(5) Squelch circuit
(6) Receiver DDS circuit
(7) Receiver PLL circuits
(8) AVR circuit
(9) Other circuits

There are five modulating modes that can receiver demodulate, including Analog_Wide, Analog_Narrow, NXDN_Narrow, and NXDN_Very-Narrow.

4-1. Front-end circuit

The front-end circuit consists of L132 and L133 helical BPF, Q1 Low Noise Amplifier (LNA), and L134 and L135 helical BPF. Adjusting four helical BPF forms the BPF having a pass band width of 5MHz with a center frequency from 368 to 400MHz.

+9V is applied to the Q1 collector power supply. The collector current is monitored by the IC4 current detection circuit. Detected DC voltage is input to pin 15 of IC30 (ADC).

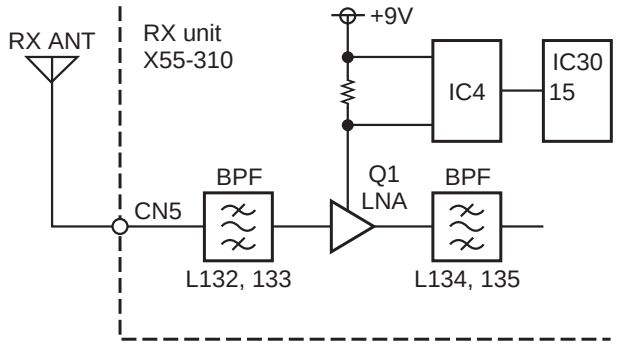


Fig. 16 Front-end circuit

CIRCUIT DESCRIPTION

4-2. 1st-Mixer circuit

The unwanted out-of-band RF components produced by Q1 are attenuated by the BPF. Only the desired signal is transmitted to the A1 Double Balanced Mixer (DBM). Here, the desired signal is mixed with the first hetero signal. 49.95MHz is produced as the 1st Intermediate Frequency (IF1).

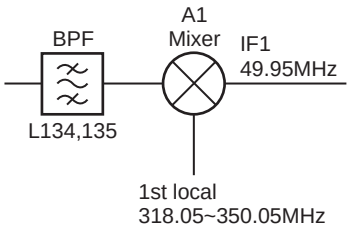


Fig. 17 1st-Mixer circuit

4-3. 1st-IF circuits

The IF1 signal produced by the 1st-Mixer circuit is transmitted through either one of two 1st-IF circuits with different bandwidth. The signal passes through the WIDE band consisting of D9, D22, XF1, Q19, XF3, Q28, D13 and D24 only in Analog_Wide mode. Meanwhile, the signal passes through the NARROW band consisting of D10, D23, XF2, Q20, XF4, Q29, D14 and D25 only in Analog_Narrow, NXDN_Narrow or NXDN_Very-Narrow mode.

XF1 and XF2 is 2 pole and XF3 and XF4 are 4 pole Monolithic Crystal Filters (MCF). They are BPF for removing spurious noise occurring close to the desired signal. The DC switch consists of Q31, Q32, Q26 and Q25, switches the WIDE and NARROW bands of the 1st-IF circuits.

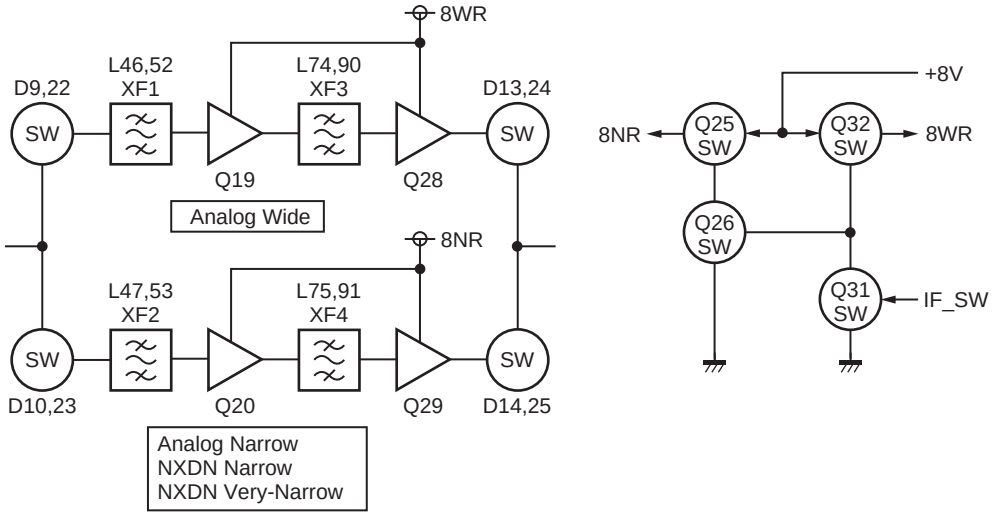


Fig. 18 1st-IF circuits

4-4. Demodulator circuits

The desired signal that passed through the 1st-IF circuits passes through the distributor consisting of LC parts and is fed to the IF system IC_IC12, IC13. The signal in Analog_Wide or Analog_Narrow mode is mixed with the second local oscillator hetero signal by the mixer in IC12. 450kHz is produced as the 2nd Intermediate Frequency (IF2).

It passes through D15, CF2, D16, D19, CF5 and D20 path if the modulation mode is Analog_Wide. It passes through D15, CF3, D16 and D19, CF7 and D20 path if the modulation mode is Analog_Narrow. The baseband signal FM-detected by the quadrature detection circuit consisting of L128, Q57, and Q58 and is amplified to a signal level of approximately 100mVrms by IC20 and is then transmitted to the control unit (X53-413) from CN42 (pin 12).

The signal in NXDN_Narrow or NXDN_Very-Narrow mode is mixed with the second local oscillator hetero signal by the mixer in IC13. 450kHz is produced as the 2nd Intermediate Frequency (IF2). Here, irrespective of modulation modes, it passes through the CF4 and CF6 path. It is transmitted as the baseband signal via IC14 to the CN43 control unit, X53-414.

CF2, CF3, CF4, CF5, CF6 and CF7 are hexode Ceramic Filters. They are BPF for removing spurious noise occurring close to the desired signal.

CIRCUIT DESCRIPTION

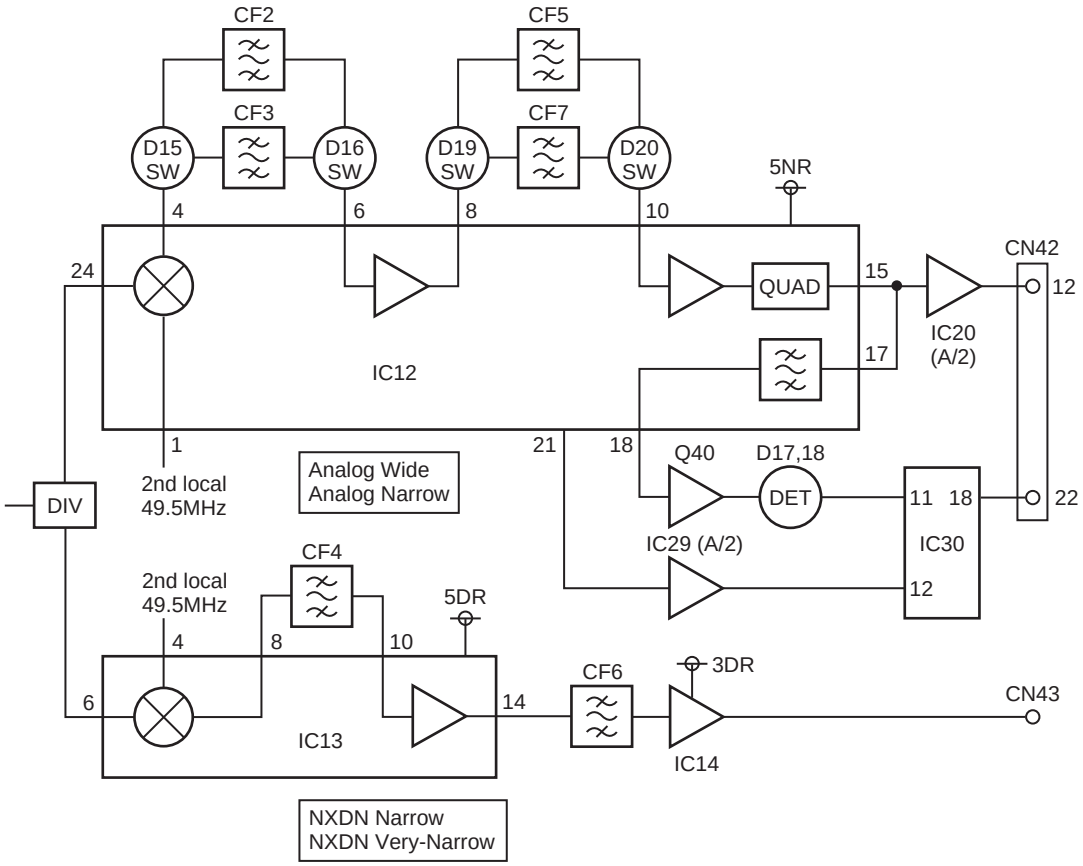


Fig. 19 Demodulator circuits

4-5. Squelch circuit

The desired noise of the noise component output from IF system IC_IC12 (pin 18) is extracted by the BPF. After passing through Q40, it is DC-detected as the squelch voltage by D17, D18 and input to ADC_IC30 (pin 11).

The MPU mounted in the control unit (X53-413) compares it with a predetermined reference voltage and turns the Audio signal on and off. The strength of the receiver signal input from CN5 is output as the RSSI voltage from IF system IC_IC12 (pin 21), and is input to_IC30 (ADC) pin 12 via IC29 A/2.

4-6. Receiver DDS circuit

The 19.2MHz Internal reference clock produced by transmitter unit (X56-312 A/3) is distributed to CN45 of the receiver unit (X55-310). It passes through Q39, Q30, and IC8, and is input to IC7 (DDS-IC) pin 6 as the Master clock. Approximately 6MHz signal is generated as the 1st-PLL Reference clock.

IC7 has a resolution of 32 bits for realizing the frequency step minters than the 1st-PLL comparison frequency. The generated Reference clock is output via Q12, CF1, and Q5. CF1 is a Ceramic Filter. It is the BPF for removing unnecessary spurious noise included in the generated Reference clock.

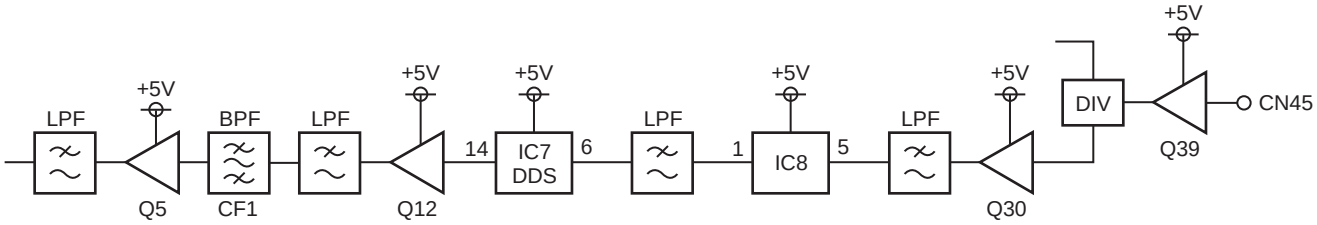


Fig. 20 Receiver DDS circuit

CIRCUIT DESCRIPTION

4-7. Receiver PLL circuits

The receiver unit (X55-310) has the 1st-PLL circuit for controlling the VCO that generates the hetero signal to the first local oscillator, and the 2nd-PLL circuit for controlling the VCO that generates the hetero signal to the second local oscillator.

The 1st-PLL circuit consists of the VCO (Q7 and Q8), the Buffer amplifier (Q17), the RF amplifiers (Q16 and Q3), the PLL-IC (IC5), the Active loop filters (Q2 and Q4) and the Band switches (Q14, Q10, Q11 and Q59). The signal in the 318.05~334.00MHz band generated by VCO Q7 and the 334.05~350.05MHz band generated by VCO Q8 is input to IC5 (pin5) via Q17 and Q16 as the Fin signal. The 6MHz reference signal generated by the DDS-IC (IC7) is input to IC5 (pin8) via Q3. Two signals, Fin and REFin, are phase-compared as the 100kHz comparison frequency by each frequency divider. The VCO output with the frequency synchronized is input to the 1st-Mixer as the first local oscillator Lower hetero signal approximately +17dBm via Q17, Q23, and Q18. The control voltage is input to IC30 (ADC) pin16 via IC6.

Meanwhile, the 2nd-PLL circuit consists of the VCO (Q24), the Buffer amplifier (Q33), the RF amplifier (Q38, Q22), and the PLL-IC (IC11). The 99.0MHz signal generated by Q24 is input to IC11 (pin5) as the Fin signal via Q38. The 19.2MHz Internal reference clock distributed by the transmitter unit (X56-312) is input as the REFin signal to IC11 (pin8) via Q22. Two signals, Fin and REFin, are phase-compared by each frequency divider as the comparison frequency of 200kHz. The VCO output with the frequency synchronized is input to IC9 (prescaler IC) pin2 via Q33 and Q21. The 49.5MHz signal is frequency-divided into halves by IC9 and is excited by Q53 and distributed. One is input to IC12 (pin1) via Buffer amplifier_Q35. The other is input to IC13 (pin4) via Buffer amplifier_Q36. Both are input as approximately –16dBm for the second local oscillator Lower hetero signal. The control voltage at this point is input to IC30 (ADC) pin10 via IC33.

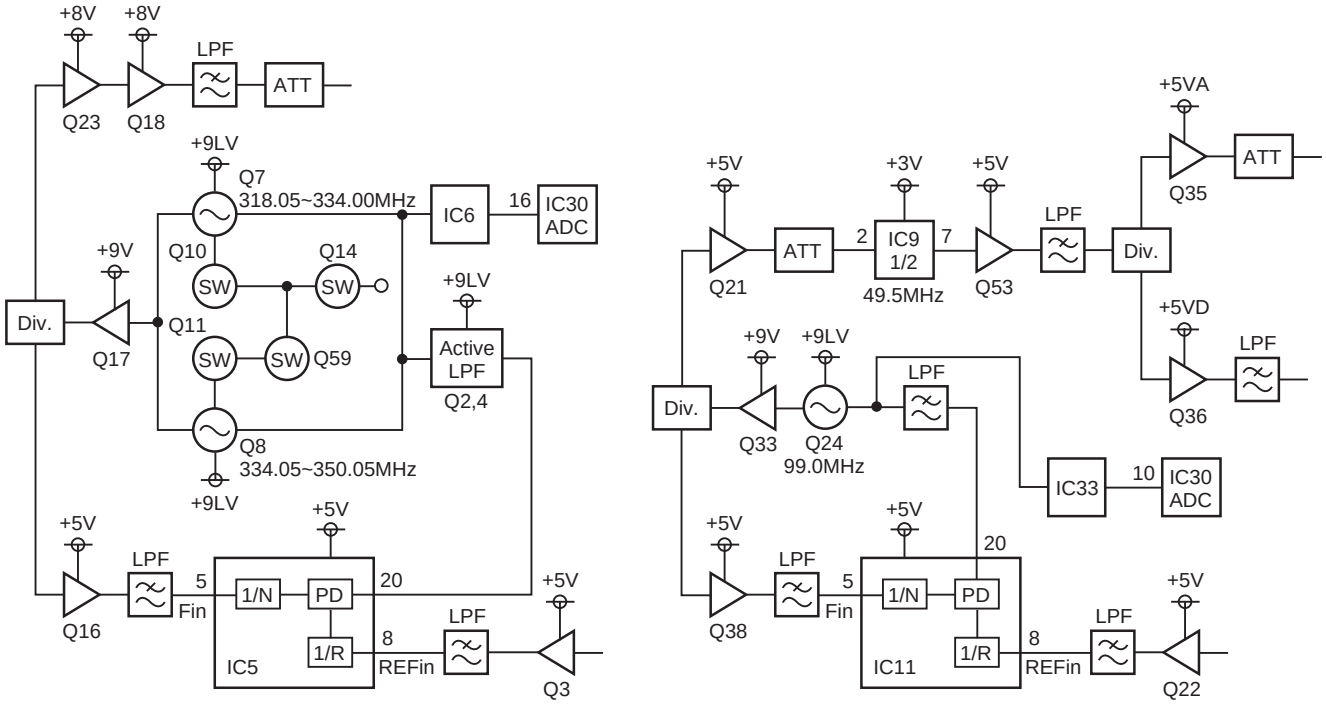


Fig. 21 Receiver PLL circuits

4-8. AVR circuit

The power supply voltage supplied from the power unit (X45-382 C/5) is distributed from the receiver unit (X55-310) CN44 to IC24 (8V), IC25 (8V), IC26 (9V), and IC27 (9V) via the Q52 DC switch. The output of IC24 is supplied to the 1st-IF circuits, the 1st-Local amplifiers and the IF system IC_IC12 via IC15 (5V). Further, the output of IC25 is distributed to IC16 (5V), IC17 (5V), IC18 (5V) and IC19 (5V). The output of IC16 is supplied to IF system IC_IC13. The output of IC17 is supplied to the 2nd-Local amplifiers. The output of IC18 is supplied to the 1st-PLL and the 2nd-PLL. The output of IC19 is supplied to the DDS circuit. The output of IC26 is supplied to LNA_Q1. The output of IC27 is supplied to the VCO buffer amplifiers_Q17, Q33, the 1st-VCO and the 2nd-VCO via Active ripple filters_Q9, Q27, and to the Active loop filter_Q2, Q4 via the Active ripple filters_Q6.

CIRCUIT DESCRIPTION

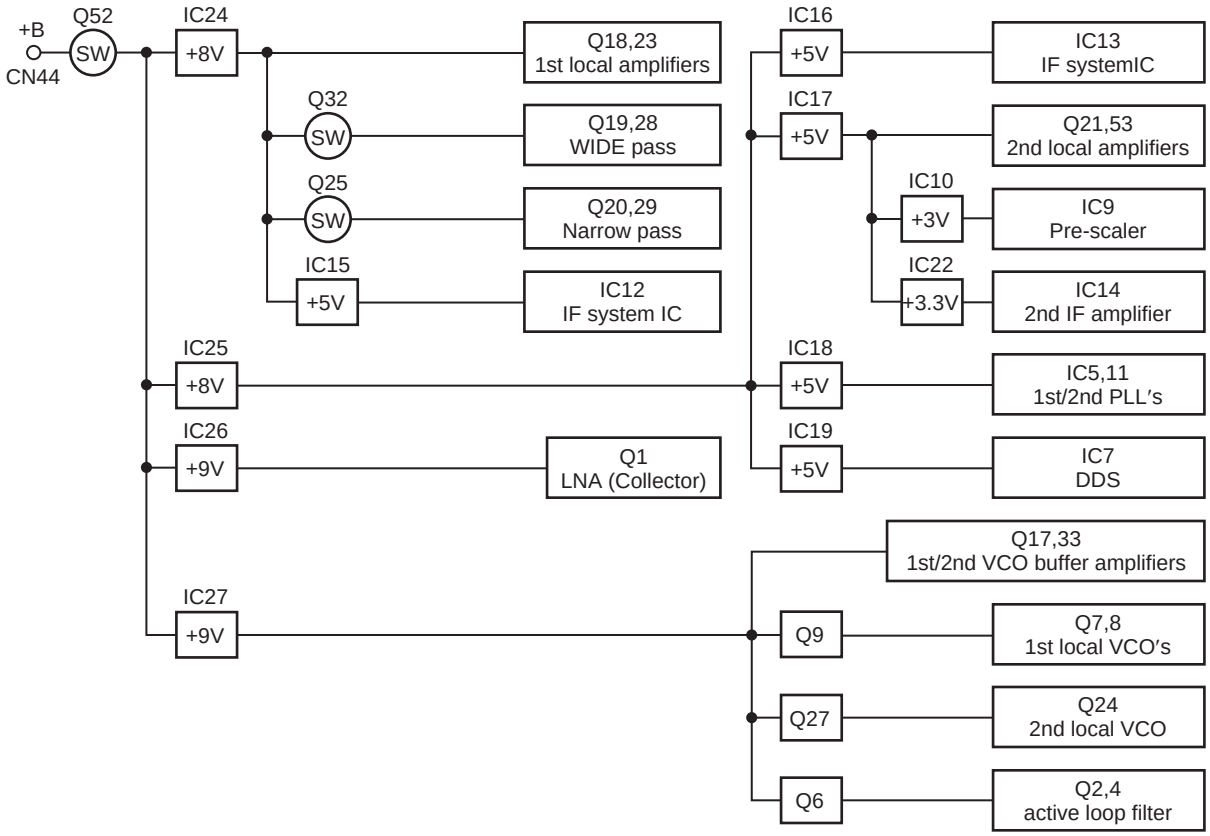


Fig. 22 AVR circuit

4-9. Other circuits

Other circuits include the EEPROM (IC31), the temperature sensor IC (IC35), the DAC (IC23) and the ADC (IC30). IC31 saves various adjustment values of the receiver unit. IC35 is built-in for detecting changes in temperature. IC23 offsets the RSSI voltage (pin 1) (detected by the IF system IC (IC12)) and the 1st-VCO_A, VCO_B control voltage (pin 2, pin 3).

IC30 monitors the 1st-VCO control voltage (pin 16), the LNA current detection value (pin 15), the temperature detected by the temperature sensor IC (IC35 pin 14), the RSSI voltage detected by the IF system IC (IC12 pin 12), the squelch voltage detected by the IF system IC (IC12 pin 11), and the control voltage of the 2nd-VCO (pin 10), and outputs each state in serial data (IC30 pin 18), sends the signal from CN42 (pin 22) to the control unit (X53-413). The signal is processed by the MPU.

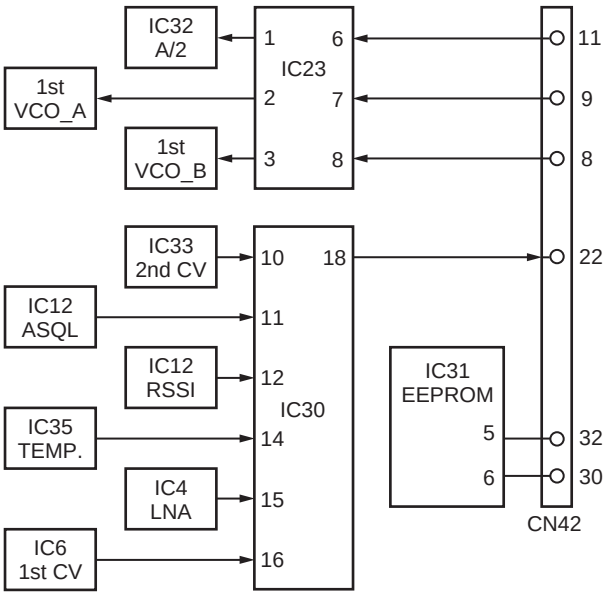


Fig. 23 Other circuits

CIRCUIT DESCRIPTION

5. Baseband Signal Processing Part

The baseband circuit is located on unit X53-413. This circuit enables the selection of the Analog Signal Processing mode and the Digital Signal Processing mode, and adjusts the level of the baseband signals in each mode. This circuit consists of IC2, IC3, IC5, IC8, IC9, IC12, IC14, IC19, IC20 and IC21.

The type of input modulation signals are local microphone terminal, low-speed data (LSD), high-speed data (HSD), external audio input (TA), and external data input (TD), and also the type of output demodulation signals are receiving audio output (RA), and receiving data output (RD).

The multiplexer (IC2, IC3, IC14) selects the signal path, the electronic volume (IC8) adjusts the signal level, and the operational amplifiers (IC5, IC9, IC12, IC19, IC20, and IC21) amplify and sum various signals.

5-1. Demodulation circuit (Analog/NXDN signal processing)

In case of the Analog Signal Processing mode, the detected audio signal obtained from the IF SYSTEM IC (X55-310 IC8) is amplified by IC5 (A/2), input into the AINR terminal of CODEC IC (IC4), and then processed as an audio signal by the DSP (IC37). The processed audio signal from the AOUTR terminal of IC4 is amplified to a sufficient level by IC12 (A/2), and is then passed through the anti-aliasing filter at IC12 (B/2).

In case of the NXDN Signal Processing mode, the detected audio/data signal obtained from the IF SYSTEM IC (X55-307 IC7) is input into the ADC (X53-414 IC312). Receiving signal processing is performed by RX_DSP (X53-414 IC323), and voice decode processing is performed by TX_VOCODER DSP (X53-414 IC324). The processed audio signal from the AOUTL terminal of CODEC IC (X53-414 IC309) is amplified to a sufficient level by IC20 (D/4), and is then passed through the anti-aliasing filter at IC20 (C/4).

The audio signal path is selected by multiplexer (IC14) depending on the Analog mode (IC14 is setting Y=Y0) or the NXDN mode (IC14 is setting Y=Y1). The audio signal is then routed through an electronic volume (IC8) V3/V4 to multiplexer IC (IC25), and is amplified to a sufficient level to drive the loudspeaker using an audio power amplifier (IC29).

5-2. Audio amplifier aircuit

The audio amplifier circuit is located in the control section of the Control unit (X53-413).

The 3W output audio power is available from the pin 15 test connector “SPO, SPG” on the rear panel to the external speaker in the case of a 13.8V power supply voltage and 4 ohm load.

5-3. Microphone circuit

The signal from the microphone is passed through the AGC circuit located in the DISPLAY circuit (X56-312 B/3) so that it may not saturate. This circuit consists of IC926, D933, D934 Q931, and Q932. The AGC controls the amplifier gains using the detected audio signal depending on the positive and negative peaks of the signal amplitude. The audio signal goes to the control section of the Control unit (X53-413) from the DISPLAY circuit (X56-312 B/3).

5-4. Modulation circuit (Analog/NXDN signal processing)

The transmitting audio signal goes to the input terminal of the multiplexer IC (IC3) for microphone muting.

In case of the Analog Signal Processing mode (multiplexer IC3 is setting X=X0), the audio signal is amplified by IC9 (A/4), input to the AINL terminal of the CODEC IC (IC4), and audio processed by the DSP (IC37). The processed audio signal from the the AOUTL terminal of IC4 is amplified to a sufficient level by IC9 (B/4), and is then passed through an anti-aliasing filter at IC9 (C/4), and amplified by the summing (TD) amplifier IC9 (D/4).

On the other hand, in the case of the NXDN Signal Processing mode (multiplexer IC3 is setting X=X1), the audio signal is amplified by IC20 (A/4), input to the AINL terminal of the CODEC IC (X53-414 IC309), and processed by the TX_VOCODER DSP (X53-414 IC324). The processed audio signal from the AOUTR terminal of IC309 passes through the anti-aliasing filter at IC19 (B/2).

6. Control Circuit

The control circuit consists of two units, X53-413 and X53-414.

Unit X53-413 mainly has the power supply circuit, baseband signal path selection circuit (level adjustment is included), analog mode voice codec circuit, and RF controller circuit.

Unit X53-414 has the mode selection (analog or NXDN) circuit, NXDN mode communication processing circuit, LAN interface circuit, and Compact Flash interface circuit.

6-1. X53-413

RF control MPU

The IC34 RF control MPU is a 16-bit single chip microprocessor incorporating 256 kilobytes of ROM and 20 kilobytes of RAM.

This MPU controls the Flash memory, DSP, receiver unit, transmitter unit, and EEPROM of each unit, and the display circuit, and has communication I/F with external devices.

DSP

The DSP circuit is in charge of the filtering of transmitting and receiving signals, and the encoding and decoding of sub-audible signals (encode: QT, DQT, DTMF, decode: QT, DQT, DTMF).

This circuit consists of IC37, IC30, IC31, IC4, IC5, IC9, and IC12.

The receiving signal, DET is converted from analog to digital by IC4 with a sampling frequency of 16.128kHz. The digitized audio signal is sent to the DSP (IC37) to process the sub-audible signal and audio signal. The processed digital audio signal is applied to CODEC IC4, and is converted from digital to analog. The analog signal is output from pin 16 (AOUTR). The audio signal is then amplified by IC12 (A/2), passes through the low-pass filter at IC12 (B/2), is selected by the multiplexer IC14 (Y0=Y) and is then input into an

CIRCUIT DESCRIPTION

electronic volume IC8.

On the other hand, the transmitting audio signal output from IC3 is amplified by IC9 (A/4), applied to pin 3 (AINL) of CODEC IC4, and is then converted from analog to digital at a sampling frequency of 16.128kHz. The digitized transmitting audio signal is AGC-processed, pre-emphasized and filtered, except for the 300Hz to 3kHz range, by DSP IC37, and is then feed back to CODEC IC4, converted from digital to analog, and the analog signal is output from pin 15 (AOUTL). The transmitting signal from the AOUTL is amplified by IC9 (B/4), passed through the IC9 (C/4) low-pass filter, and sent to the IC9 (D/4) summing amplifier.

IC31 is a counter IC. The clock required for the CODEC and DSP is generated by dividing the 16.515072MHz clock signal supplied by the DSP IC37.

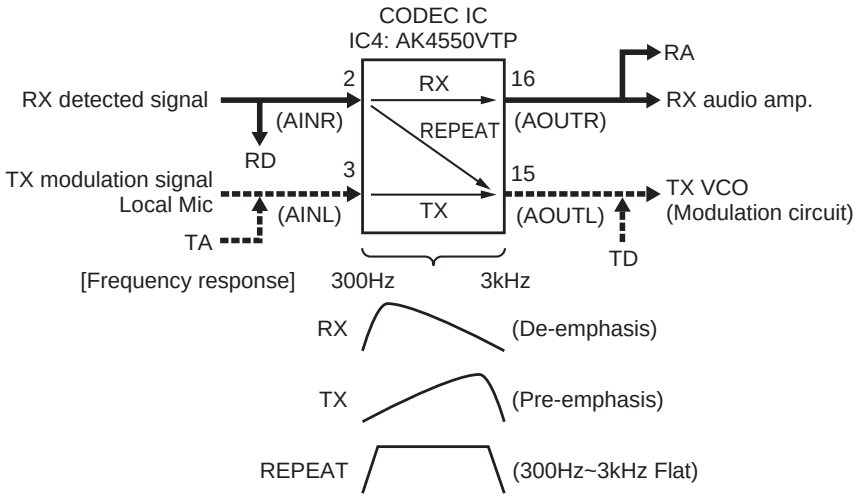


Fig. 24 An audio signal course and the frequency characteristic

Shift register circuit

The MPU (IC34) transmits serial data to shift registers IC923 from IC923 to IC960 and from IC960 to IC963 in the display circuit (X56-312 B/3, C/3).

Additionally, it transmit serial data to the control unit (X53-413) IC1 and IC22 and the transmitter unit (X56-312) IC703. This serial data can control various functions of each unit.

Power supply circuit

This circuit consists of X53-413 IC6, IC10, IC11, IC15, IC16 and 18, and X53-414 IC305, IC306, IC307 and IC329.

IC10 is a DC/DC converter that converts 13.8V to 5.0V. IC11 is a DC/DC converter that converts 13.8V to 8.0V. IC16 is the 5.0V AVR and connected to IC10. IC6, IC15, IC305 and IC329 is the 3.3V AVR. IC18 is the 1.8V AVR. IC306 is the 1.5V AVR. IC18 and IC306 is connected to IC329.

Flash memory (RF control MPU)

IC17 is an 8M bit Flash memory and contains MPU firmware for controlling the RF.

EEPROMs circuit

The EEPROM is a built in receiver unit (X55-310), transmitter unit (X56-312) and Final unit (X45-382).

The RF control MPU controls these EEPROMs by the IIC bus.

6-2. X53-414

Main MPU

The Main MPU (IC703) is a 32-bit RISC microprocessor incorporating a 16 kilobytes cache memory.

The main MPU controls the Flash memory, SDRAM, SRAM, LAN IC, RS-232C driver, receiver and real-time clock (RTC) IC besides RF control MPU and UART communication with modem control MPU.

LAN interface

NXR-800 is equipped with a 100Base-TX or 10Base-T LAN interface. This circuit consists of IC719, IC720 and J700. IC719 is a control IC. IC720 is a EEPROM, and saves the MAC address.

Real time clock (RTC) circuit

This circuit consists of IC710 and X701. IC710 is a Real Time Clock. X701 is a crystal oscillator. IC710 is connected to IC703 (Main_MPU) via the IIC bus. The oscillating frequency of X701 is 32.768kHz. It is backed up by a rechargeable lithium battery (BA300). The IC710 clock data is used after resetting the backup.

RS-232C circuit

NXR-800 is equipped with a RS-232C interface. It is connected to a PC with pin 9 female RS-232C cross-wired cable. It uses the FPU and writes the firmware. IC705 is a RS-232C driver receiver IC, and interfaces at the TTL level.

CIRCUIT DESCRIPTION

Modem control MPU

Modem control MPU (IC325) is 16-bit single chip microprocessor incorporating 256 kilobytes of ROM and 20 kilobytes of RAM.

This MPU controls the Flash memory, two DSPs, the OCXO unit in the transmitter unit (X42-328) and the PLL circuit.

It also monitors the external power supply voltage. If the voltage is abnormal, it stops the system.

RX DSP (IC323)

In NXDN mode, the IF signal input from the ADC (IC312) to the RX DSP is limited to a narrow band or a very narrow band. So, it passes through the IF band limitation band.

This signal is demodulated by the wave detection processing part. The demodulated wave is made to pass through the baseband limitation filter (root nyquist cosine filter and 1/sinc filter).

This signal is symbol-detected and bit-judged, and is then converted to NXDN data. Its frame timing is detected and decoded for CAI (Common Air Interface: NXDN format) data error correction.

Audio data is vocoder decode processed by the IC324 TX_Vocoder_DSP. It is then converted into the PCM signal. It is analog-output as an audio signal by the DAC part of the Audio codec IC (IC309 AOUTL terminal).

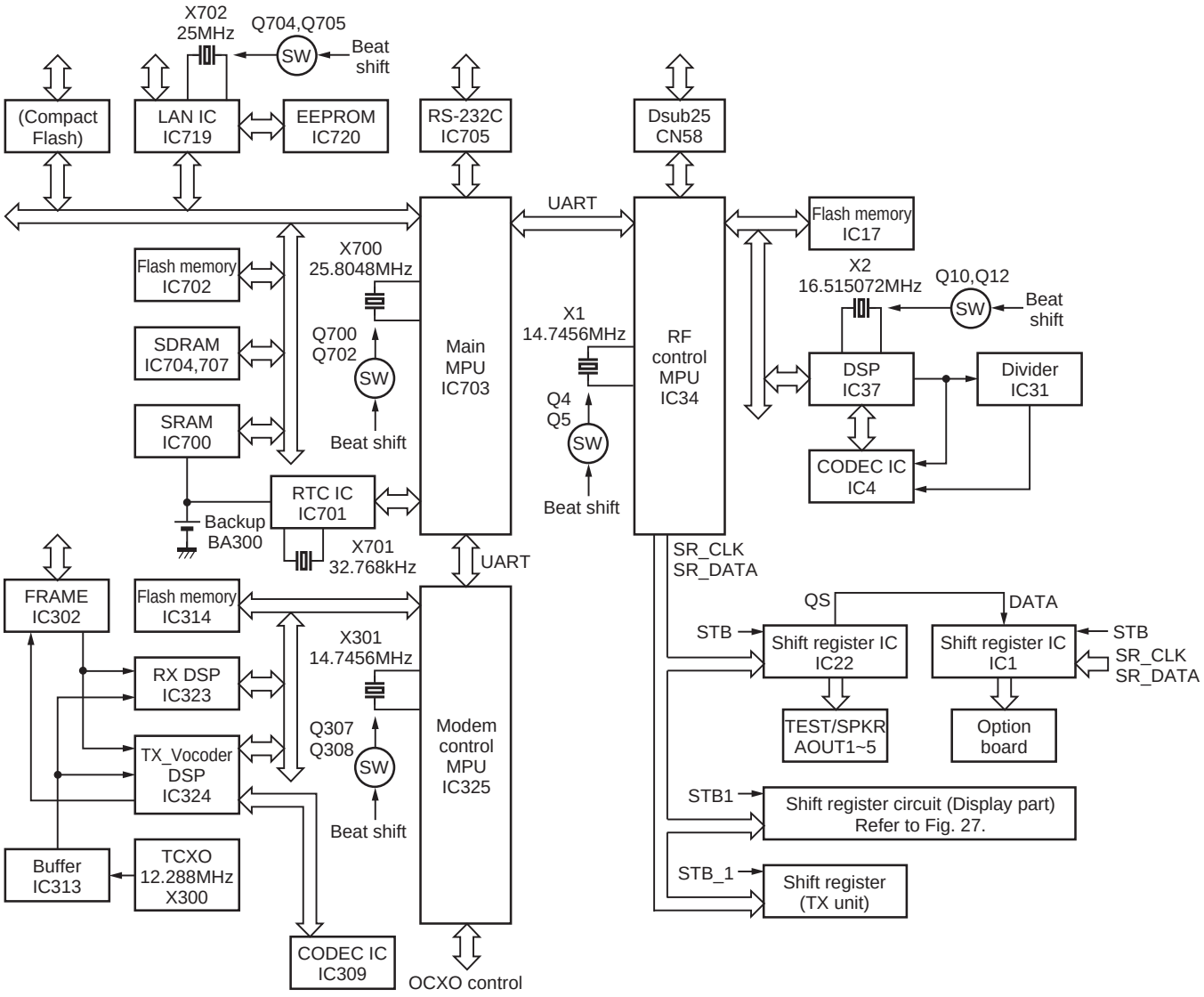


Fig. 25 Control circuit

CIRCUIT DESCRIPTION

TX_Vocoder DSP

In NXDN mode, the AMBE+2 (TM) vocoder processing is performed by the IC324 TX_Vocoder_DSP.

Audio signal input from the Audio codec IC ADC part (IC309 AINL) terminal is vocoder encode processed and converted to audio data.

CAI data is encoded for correcting errors and converted to transmitter data.

This data is framed, converted to symbol values and made to pass the baseband limitation filter (root nyquist cosine filter and sinc filter). The passed signal turns into a modulating signal. It is output as an analog signal by the Audio codec IC DAC part (IC309 AOUTR terminal).

Power supply voltage monitoring circuit

This circuit always monitors the external power supply voltage assuming that the abnormal power supply voltage is applied. This circuit consists of X53-413 R67, R68, R71, and R79 and IC7, and X53-414 IC308. If the voltage is reduced, these circuits interrupt the Modem control MPU (IC325) and NXR-800 rapidly shift to the power down state. The IC325 A/D converter (pin 124) monitors the voltage. It detects the voltage rises and returns to the normal voltage range.

Reset circuit

Reset system diagrams of each device of NXR-800 are attached. With regard to the priority of the reset signal of each device, IC303 that prepares the reset signal of IC325 has the highest priority. Software of IC325 can activate devices including IC323, IC324, IC703, IC700, IC702, IC719, IC34, and IC17. Software of IC703 can activate the reset of IC325.

Clock shift circuit

NXR-800 control unit has a crystal oscillation circuit shown below.

X53-4130-10:

14.7456MHz (IC34 and X1)
16.515072MHz (IC37 and X2)

X53-4140-10:

14.7456MHz (IC325 and X301)
25.8048MHz (IC37 and X2)
25MHz (IC719 and X702)

Each oscillation circuit turns on the NPN transistor “2SC4738(GR)F” and staggers the oscillating frequency by approximately –70ppm. This may prevent interference against transmitter and receiver frequencies. Each transistor is turned on and off by the FPU.

Flash memory (Main MPU)

IC702 is a 128M bit Flash memory and contains the firmware of the Main MPU.

Flash memory (Modem control MPU)

IC314 is an 8M bit Flash memory and contains the firmware of the Modem control MPU, RX DSP, and TX_Vocoder_DSP.

SDRAM

IC704 and IC707 are program execution 128M bit memory used by the Main MPU.

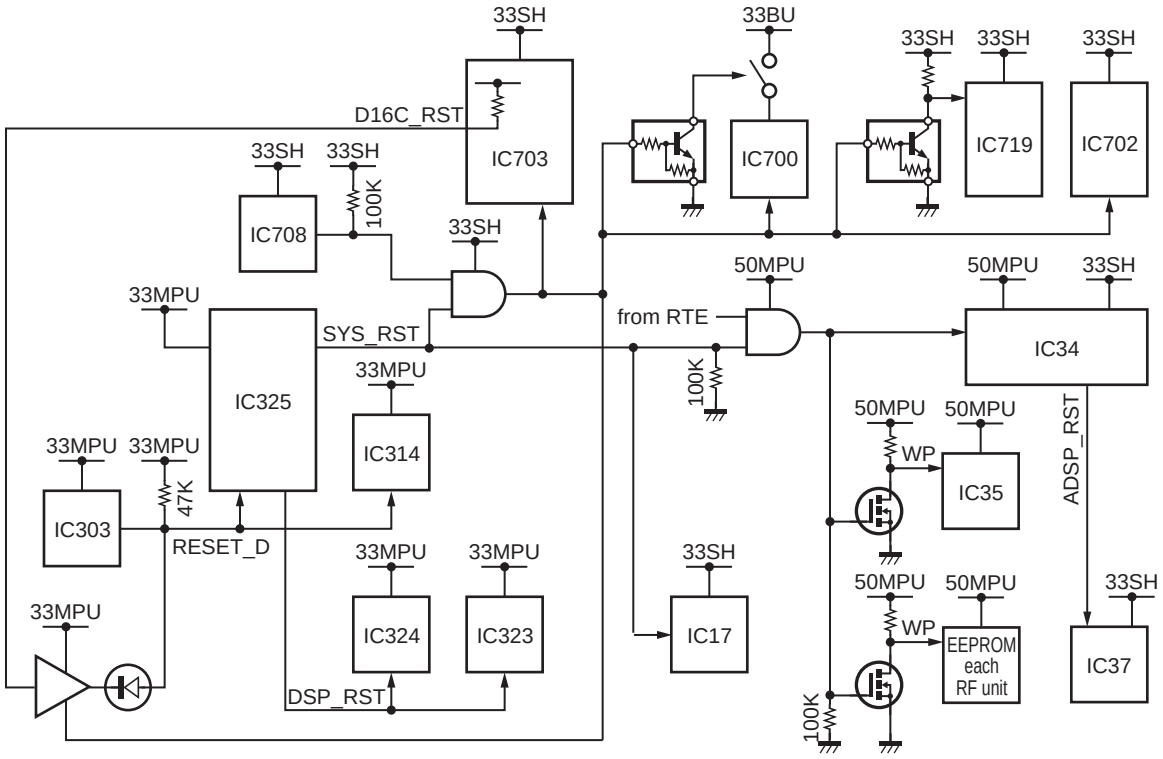


Fig. 26 Reset circuit

CIRCUIT DESCRIPTION

SRAM

IC700 is a memory backed up by a lithium battery (BA300).

The memory size is 16M bits. It contains data required for the system backup.

Frame synchronizing signal transmitter and receiver circuit

J702 and J703 are connectors for synchronizing with other repeaters in NXDN trunking mode. The differential rectangular wave that conforms to RS-485, 12.5Hz or 25Hz is input to and output from this connector for synchronizing multiple repeaters.

In the repeater system, any given repeater outputs a synchronizing signal and that synchronous signal is input to other remaining repeaters.

With regards to the output of the synchronous signal, the frame signal generated by TX_Vocoder_DSP (IC324) is differentially output by IC302.

With regards to the input of the synchronous signal, IC302 receives a differential signal, and is input to the interruption of the RX DSP (IC323) and TX_Vocoder_DSP (IC324).

12.288MHz clock circuit

The clock circuit is installed in the control unit (X53-414) for operating the RX DSP and TX_Vocoder DSP.

The clock circuit consists of X300 (12.288MHz TCXO), Q304, and IC313.

The purpose of this PLL circuit is to synchronize with the 19.2MHz reference signal controlled by the 10MHz OCXO (deviation+/-0.4ppm) in the transmitter unit (X56-312).

12.288MHz from X300 is amplified by Q304, IC313 and becomes a clock for the RX DSP and TX_Vocoder DSP.

7. Display Circuit

7-1. Display circuit

The display circuit (X56-312 B/3,C/3) consists of various types of LEDs, 17-segment type D960, D961 (red), D921 (red: transmission), two-color type D920 (green: busy), D922 (green: power on, red blinking: abnormal voltage), D923 (green: CTRL), two-color type D924 (red: OCXO error, green: OCXO normality, orange: external reference signal), 8-bit status LEDs D925 to D932, and LEDs with built in switches S920 to S925.

IC920 to IC925 and IC960 to IC963 are in charge of displaying present channels and states on the front panel. IC923 to IC925 and IC960 to IC963 are shift registers that convert the MPU serial data to parallel data and turn on LEDs.

7-2. Key switches circuit

The logic signals from the front panel key and channel switches (channel selector) are entered directly into the RF MPU (IC34).

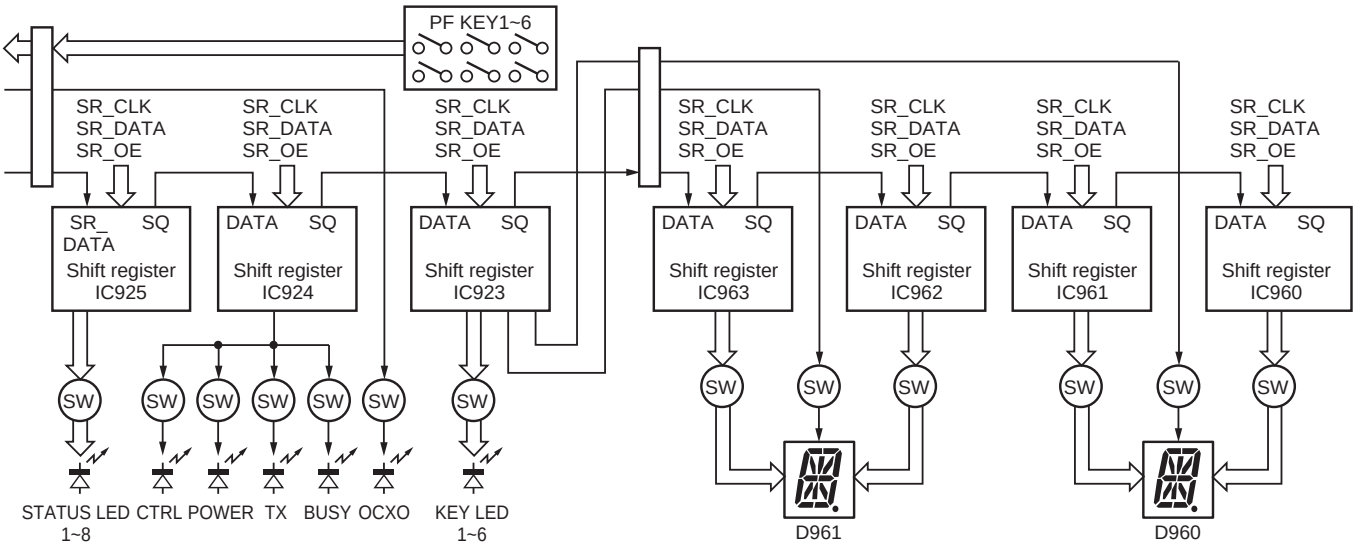


Fig. 27 Shift register circuit (Display part)

COMPONENTS DESCRIPTION

FINAL UNIT (X45-3820-14)

Ref. No.	Part Name	Description
IC1	IC	Current monitor
IC2	IC	OP AMP
IC3	IC	Voltage regulator
IC4~6	IC	OP AMP
IC7	IC	Temperature sensor
IC8	IC	OP AMP
IC9	IC	EEPROM
IC10	IC	Power module
IC11,12	IC	Voltage regulator
IC15	IC	OP AMP
Q2, 3	FET	DC switch
Q4~6,8,14	FET	DC switch
D4	Surge absorber	Surge protection
D5,6	Diode	Surge protection
D7	Zener diode	Overvoltage protection
D9,10	Diode	Detector
D11,14~16	Diode	RF switch
D19	Zener diode	Overvoltage protection
D902	Varistor	Surge protection

CONTROL UNIT (X53-4130-10)

Ref. No.	Part Name	Description
IC1	IC	Shift register
IC2,3	IC	Multiplexer
IC4	IC	CODEC
IC5	IC	OP AMP
IC6	IC	Voltage regulator
IC7	IC	OP AMP
IC8	IC	D/A converter
IC9	IC	OP AMP
IC10,11	IC	DC/DC converter control
IC12	IC	OP AMP
IC14	IC	Multiplexer
IC15,16	IC	Voltage regulator
IC17	IC	Flash memory
IC18	IC	Voltage regulator
IC19~21	IC	OP AMP
IC22	IC	Shift register
IC23	IC	NAND gate
IC25	IC	Analog switch
IC27,28	IC	Buffer
IC29	IC	AF PA
IC30	IC	NAND gate
IC31	IC	Divider
IC32,33	IC	Buffer
IC34	IC	MPU
IC35	IC	EEPROM
IC36	IC	Buffer
IC37	IC	DSP
IC38	IC	AND gate
IC39,40	IC	Buffer
IC41,50	IC	AND gate
Q1	Transistor	Inverter
Q2,3	FET	DC/DC converter
Q4,5	Transistor	Clock shift switch
Q6,7	Transistor	AF mute switch
Q8	Transistor	Power switch
Q9	FET	Power switch
Q10	Transistor	Clock shift switch
Q11	Transistor	Buffer AMP
Q12	Transistor	Clock shift switch
Q13	Transistor	Buffer AMP
Q14~17	Transistor	DC/DC converter
Q18	FET	Inverter
Q19	FET	Pull up switch
Q20~23	Transistor	Power switch
Q25	Transistor	OP CONT switch
Q26	Transistor	AF mute switch
Q27~29	Transistor	Buffer AMP
D1,2	Diode	DC/DC converter
D3~5	Diode	Surge protector
D6	Zener diode	Surge protector
D7~12	Diode	Surge protector
D13	Zener diode	Surge protector
D14~18,20,23	Diode	Surge protector
D24,25	Varistor	Current protector
D26	Diode	Diode switch
D28	Diode	Surge protector
D29	Zener diode	Surge protector
D30	Diode	Surge protector
D31	Zener diode	Surge protector

COMPONENTS DESCRIPTION

Ref. No.	Part Name	Description
D32	Diode	Surge protector
D33	Zener diode	Surge protector
D36,37	Diode	Surge protector
D38,39	Diode	Diode switch

CONTROL UNIT (X53-4140-10)

Ref. No.	Part Name	Description
IC300,301	IC	Buffer
IC302	IC	RS-485 driver/reciever
IC303	IC	Voltage detector
IC304	IC	Buffer
IC305~307	IC	Voltage regulator
IC308	IC	Voltage detector
IC309	IC	CODEC
IC312	IC	A/D converter
IC313	IC	Inverter
IC314	IC	Flash memory
IC323,324	IC	DSP
IC325	IC	MPU
IC327	IC	AND gate
IC329	IC	Voltage regulator
IC330	IC	Buffer
IC700	IC	SRAM
IC701	IC	RTC IC
IC702	IC	Flash memory
IC703	IC	MPU
IC704	IC	SDRAM
IC705	IC	RS-232C driver/reciever
IC707	IC	SDRAM
IC708	IC	Voltage detector
IC709	IC	Buffer
IC710,711	IC	NAND gate
IC712,713	IC	OR gate
IC714~718	IC	Octal buffer
IC719	IC	LAN IC
IC720	IC	EEPROM
IC721	IC	AND gate
IC722	IC	OR gate
IC723	IC	NAND gate
IC724,725	IC	Buffer
IC726	IC	AND gate
IC727,728	IC	Buffer
Q301	Transistor	DC switch
Q302	Transistor	Power switch
Q303	Transistor	Control switch
Q304	Transistor	Reference AMP
Q307,308	Transistor	Clock shift switch
Q309	FET	Switch
Q700,702 Q704,705	Transistor	Clock shift switch
Q706	Transistor	Control switch
Q707	Transistor	MIC switch
D300	Diode	DC switch
D701	Diode	Switch
D702	Diode	Voltage protector

RX UNIT (X55-3100-14)

Ref. No.	Part Name	Description
IC4	IC	OP AMP
IC5	IC	Frequency PLL
IC6	IC	OP AMP
IC7	IC	DDS
IC8	IC	Buffer AMP
IC9	IC	1/2 divider
IC10	IC	Voltage regulator
IC11	IC	Frequency PLL
IC12	IC	IF system
IC13	IC	IF system
IC14	IC	OP AMP
IC15,16	IC	Voltage regulator
IC17~19	IC	Voltage regulator
IC20	IC	OP AMP
IC22	IC	Voltage regulator
IC23	IC	DAC
IC24,25	IC	Voltage regulator
IC26~28	IC	Voltage regulator
IC29	IC	OP AMP
IC30	IC	ADC
IC31	IC	EEPROM
IC32	IC	OP AMP
IC33	IC	OP AMP
IC35	IC	Temperature sensor

COMPONENTS DESCRIPTION

Ref. No.	Part Name	Description
Q1	Transistor	LNA
Q2	Transistor	PLL active filter AMP
Q3	Transistor	RF AMP
Q4	Transistor	PLL active filter AMP
Q5	Transistor	RF AMP
Q6	Transistor	Ripple filter AMP
Q7,8	FET	Oscillator
Q9	Transistor	Ripple filter AMP
Q10,11	Transistor	DC switch
Q12	Transistor	RF AMP
Q13	Transistor	DC switch
Q14,15	FET	DC switch
Q16,17	Transistor	RF AMP
Q18~20	FET	RF AMP
Q21~23	Transistor	RF AMP
Q24	FET	Oscillator
Q25,26	FET	DC switch
Q27	Transistor	Ripple filter AMP
Q28,29	FET	RF AMP
Q30	Transistor	RF AMP
Q31,32	FET	DC switch
Q33	Transistor	RF AMP
Q34	Transistor	DC switch
Q35,36	Transistor	RF AMP
Q37	FET	DC switch
Q38~40	Transistor	RF AMP
Q50~52	FET	DC switch
Q53	Transistor	RF AMP
Q56	FET	DC switch
Q57	Transistor	DC switch
Q58~61	FET	DC switch
D3~6	Variable capaci-tance diode	Frequency control
D9,10	Diode	RF switch
D11,12	Variable capaci-tance diode	Frequency control
D13~16	Diode	RF switch
D17,18	Diode	Detector
D19,20	Diode	RF switch
D21	LED	PLL indicator
D22~25	Diode	RF switch
D26	Diode	Surge protection

TX UNIT (X56-3120-14)

Ref. No.	Part Name	Description
IC101	IC	RF PLL
IC102	IC	OP AMP
IC104	IC	Voltage regulator
IC201	IC	APC AMP
IC202	IC	4.5MHz DDS
IC301	IC	OP AMP
IC302	IC	Buffer AMP
IC303	IC	PLL
IC304	IC	Digital potentiometer
IC305	IC	Summing AMP
IC306	IC	OP AMP
IC307	IC	Buffer AMP
IC308	IC	OP AMP
IC401	IC	OP AMP
IC404	IC	19.2MHz PLL
IC405,406	IC	Comparator
IC407	IC	Buffer AMP
IC408,409	IC	OP AMP
IC601	IC	5.99MHz DDS
IC602	IC	Buffer AMP
IC603	IC	Voltage regulator
IC701	IC	DAC
IC702	IC	EEPROM
IC703	IC	Shift register
IC704~706	IC	Voltage regulator
IC801	IC	Voltage reference
IC802	IC	DAC
IC803	IC	ADC
IC804	IC	Temperature sensor
IC805,806	IC	3-state buffer
IC807~809	IC	Voltage regulator
IC812	IC	Line switch
IC920~922	IC	3-state buffer
IC923~925	IC	Shift register
IC926	IC	OP AMP
IC960~963	IC	Shift register
Q101	FET	DC switch
Q102,103	FET	RF VCO
Q104	Transistor	RF AMP
Q105	Transistor	Ripple filter AMP

COMPONENTS DESCRIPTION

Ref. No.	Part Name	Description
Q106	Transistor	RF AMP
Q107~109	Transistor	DC switch
Q110	FET	DC switch
Q201,202	Transistor	RF AMP
Q203	FET	RF driver AMP
Q204,205,210	FET	DC switch
Q211~213	Transistor	RF AMP
Q301,302	FET	DC switch
Q303	Transistor	DC switch
Q304,305,307 Q401,402	Transistor	RF AMP
Q405,407~409	FET	DC switch
Q410	Transistor	DC switch
Q412	Transistor	RF AMP
Q413,414	FET	DC switch
Q415~419	Transistor	RF AMP
Q420	FET	RF AMP
Q421	FET	DC switch
Q422	FET	RF AMP
Q423,424	FET	DC switch
Q425	FET	RF AMP
Q426,428,429	FET	DC switch
Q430,431	FET	RF AMP
Q601,602	FET	DC switch
Q603	Transistor	RF AMP
Q604,605	FET	DC switch
Q606	Transistor	RF AMP
Q607~609 Q701,702	FET	DC switch
Q920~930	Transistor	DC switch

Ref. No.	Part Name	Description
Q931,932	Transistor	Audio level limiter
Q960~976	Transistor	DC switch
D101,102	Variable Capacitance diode	Frequency control
D106	Variable Capacitance diode	Moduration control
D107,108	Variable Capacitance diode	Frequency control
D112	Variable Capacitance diode	Moduration control
D201	Diode	Detector
D202	LED	Output indicator
D301	LED	PLL indicator
D401~403	Diode	Detector
D404,405	Diode	RF switch
D408	Diode	Detector
D409	Surge absorber	Ref signal output
D410~413	Diode	RF switch
D601,602	Diode	RF switch
D603~606	Zener diode	Limiter
D607,608	Diode	RF switch
D920	LED	BUSY
D921	LED	TX
D922	LED	POWER
D923	LED	CTRL
D924	LED	OCXO
D925~932	LED	Status 8~Status 1
D933,934	Diode	Audio level limiter
D935,936	Diode	Surge protection
D960,961	LED	17-segment

TERMINAL FUNCTION

Final Unit (X45-3820-14) (A/5)

Pin No.	Name	I/O	Function
CN1 (To X56-312 A/3 CN802)			
1	TX SIGNAL	I	TX driver input signal (Coaxial)
CN2 (To X45-382 C/5 CN29)			
1	SB	I	Power supply input
CN8			
1	-	O	12V supply output for FAN
2	-	-	Ground
CN19			
1	MONITOR	O	Receive signal input (Coaxial)
CN20 (To X56-312 A/3 CN806)			
1	GND	-	Ground
2	GND	-	Ground
3	NC	-	No connection
4	GND	-	Ground
5	PA_CURR	O	Power module current monitor
6	GND	-	Ground
7	FAN_CURR	O	FAN current monitor
8	GND	-	Ground
9	FWD_PWR	O	TX Forward power detection
10	GND	-	Ground
11	RFL_PWR	O	TX Reflect power detection
12	GND	-	Ground
13	PWR_PRT	I	TX power protection
14	GND	-	Ground
15	PWR_CONT	I	TX power control
16	GND	-	Ground
17	FAN_CONT	I	FAN1 control
18	GND	-	Ground
19	FAN_CONT2	I	FAN2 control
20	GND	-	Ground
21	TEMP_RST	I	Reset input for temperature detect IC
22	GND	-	Ground
23	ANT_SW	I	Antenna switch
24	GND	-	Ground
25	TEMP_PRT	O	High temperature detect
26	D_GND	-	Digital ground
27	CONT_5.0V	I	Switched 5V supply
28	D_GND	-	Digital ground
29	SCL	I	Clock input for EEPROM
30	D_GND	-	Digital ground
31	SDA	I/O	Data input/output for EEPROM
32	D_GND	-	Digital ground
33	GND	-	Ground
34	WP	I	Write protection input for EEPROM
35	GND	-	Ground
36	GND	-	Ground
CN21 (To X45-382 C/5 CN30)			
1	E	-	Ground

Final Unit (X45-3820-14) (C/5)

Pin No.	Name	I/O	Function
CN11 (To X53-413 CN4)			
1	E	-	Ground
2	-	-	No connection
3	SB	O	Power supply output
4	SB	O	Power supply output
CN12 (To X56-312 CN801)			
1	E	-	Ground
2	SB	O	Power supply output
3	SB	O	Power supply output
CN15 (To X55-310 CN44)			
1	E	-	Ground
2	SB	O	Power supply output
3	SB	O	Power supply output

Final Unit (X45-3820-14) (E/5)

Pin No.	Name	I/O	Function
CN905 (To X56-311 B/3 CN923)			
1	VOLUME_IN	O	Volume control output for AF signal
2	33MPU	I	3.3V constant voltage
3	GND	-	Ground
4	33AUD	I	3.3V constant voltage
5	SB	I	Power supply input
6	SCM_EN	-	No connection
7	GND	-	Ground
8	PTT_TXD_SCM	O	PTT output
9	HOOK_RXD_SCM	O	Hook detection output
10	MIG	-	MIC ground
11	MIC	O	MIC signal output

TERMINAL FUNCTION

Control Unit (X53-4130-10)

Pin No.	Name	I/O	Function
CN1 (To X53-414 CN401)			
1	PTT_TXD_SCM	-	No connection
2	GND	-	Ground
3	LO_VOL_DET	O	Low voltage detection signal
4	NC	-	No connection
5	TD_SW	I	TD terminal input signal mute switch
6	MICAD_SW	I	Microphone input signal switch, changed to analog modulation or NXDN modulation
7	MIC_SW	I	Microphone mute switch
8	RXAD_SW	I	Speaker signal switch, changed to analog reception signal or NXDN reception signal
9	PATH_SW	I	Analog or NXDN modulation route selector switch
10	BEEP_SW	I	Beep sound mute switch
11	TA_SW	I	TA input mute switch
12	TAAD_SW	I	TA input signal, changed to analog modulation or NXDN modulation
13	EVOL_LD	I	Load for electronic volume
14	GND	-	Ground
15	EVOL_CLK	I	Clock for electronic volume
16	PTT_AM16C	O	PTT signal
17	EVOL_DATA	I	Data for electronic volume
18	INSP_SW	-	No connection
19	AF_MUTE	I	Speaker output mute switch
20	SCM_EN	-	No connection
21	AMP_SW	I	Speaker amplifier power ON/OFF switch
22	HOOK_RXD_SCM	-	No connection
23	NC	-	No connection
24	INRA_SW	-	No connection
25	MIC_D_IN	O	NXDN transmission signal output
26	BEEP	I	Beep sound signal input
27	RX_AUDIO_D	I	NXDN reception signal input
28	GND	-	Ground
29	MOD_D_OUT	I	NXDN modulation signal input
30	PWR_ST_R	I	Switch for red LED (Power sourse)
31	VOLUME_IN	O	Volume control input for AF signal
32	OCXO_ST_G	I	Switch for green LED (OCXO)
33	OCXO_ST_R	I	Switch for red LED (OCXO)
34	RX_POWER_SAVE	I	RX unit power saving signal
35	GND	-	Ground
36	GND	-	Ground

Pin No.	Name	I/O	Function
CN2 (To X53-414 CN402)			
1	SYS_RST	I	System reset signal from modem control MPU
2	GND	-	Ground
3	BER_CLK	I	Serial clock for measurement bit error rate
4	BER_DAT	I	Serial data for measurement bit error rate
5	A16C_CK_SFT	I	“Frequency shift” signal to RF control MPU
6	TRUNKING	O	“Trunking mode” signal to Main MPU
7	ADSP_CK_SFT	I	“Frequency shift” signal to Analog mode DSP
8	GND	-	Ground
9	RADIO_ERR	O	“Detect accident of RF block” signal to Main MPU
10	QT_DQT	O	“Detect QT or DQT” signal to Main MPU
11	TX_STATE	O	“During the transmission” signal to Main MPU
12	RF_PTT	O	“Press-to-talk-switch” signal to Main MPU
13	GND	-	Ground
14	STXO_ARXO	I	UART signal from Main CPU to RF control MPU
15	SRXO_ATXO	O	UART signal from RF control MPU to Main MPU
16	GND	-	Ground
17	SC_SH	O	“Squelch control” signal to Main MPU
18	E_PTT_SH	O	“External press-to-talk-switch” signal to Main MPU
19	NC	-	No connection
20	50MPU_CONT	I	5V regurator control
21	33SH	I	3.3V constant voltage
22	33MPU_A	O	3.3V constant voltage
23	50MPU_A	O	5V constant voltage
24	33MPU_A_GND	-	Ground
25	33MPU	O	3.3V constant voltage
26	33MPU	O	3.3V constant voltage
27	33MPU_A_GND	-	Ground
28	DC50	O	5V constant voltage
29	DC50	O	5V constant voltage
30	DC50	O	5V constant voltage
31	DC50	O	5V constant voltage
32	50MPU_A_GND	-	Ground
33	50MPU	O	5V constant voltage
34	50MPU_A_GND	-	Ground
35	GND	-	Ground
36	HI_VOL_DET	O	Voltage monitor

TERMINAL FUNCTION

Pin No.	Name	I/O	Function
CN3 (To X56-312 B/3 CN921)			
1	DC8	O	8V constant voltage
2	GND	-	Ground
3	DC8	O	8V constant voltage
4	DC8	O	8V constant voltage
5	50MPU	O	5V constant voltage
6	50MPU	O	5V constant voltage
7	GND	-	Ground
8	DC8	O	8V constant voltage
9	K5	O	Key Scan
10	K4	O	Key Scan
11	K3	I	Key Scan
12	K2	I	Key Scan
13	K1	I	Key Scan
14	GND	-	Ground
15	STB1	O	Shift Register Strobe
16	GND	-	Ground
17	SR_DATA	O	Shift Register Data
18	GND	-	Ground
19	SR_CLK	O	Shift Register Clock
20	GND	-	Ground
21	SR_OE	O	Shift Register Output Enable
22	GND	-	Ground
23	PTT_TXD_SCM	I	MIC PTT
24	SCM_EN	-	No connection
25	HOOK_RXD_SCM	I	HOOK detect input
26	GND	-	Ground
27	OCXO_ST_G	O	OCXO Green LED Switch
28	PWR_ST_R	O	POWER Red LED Switch
29	OCXO_ST_R	O	OCXO Red LED Switch
30	SB	O	Power supply output
31	VOLUME_IN	I	Volume control input for AF signal
32	33AUD	O	3.3V constant voltage
33	33MPU	O	3.3V constant voltage
34	MIC	I	MIC Signal Input
35	GND	-	Ground
36	MIG	-	MIC Ground
CN4 (To X45-382 C/5 CN11)			
1	E	-	Earth
2	NC	-	No connection
3	SB	I	Power supply input
4	SB	I	Power supply input

Pin No.	Name	I/O	Function
CN56 (To X56-312 A/3 CN804)			
1	GND	-	Ground
2	GND	-	Ground
3	PAG	O	POCSAG Switch
4	GND	-	Ground
5	CONT_5.0V	O	5V constant voltage
6	D_GND	-	Ground
7	CONT_5.0V	O	5V constant voltage
8	D_GND	-	Ground
9	SDA	I/O	EEPROM Data
10	D_GND	-	Ground
11	SCK	O	EEPROM Clock
12	TEMP_PRT	I	Temperature Sensor Protection Signal
13	ANT_SW	O	Transmission antenna switch
14	DDS_EN	I/O	Enable for DDS / Hardware version DC signal
15	VR_EN	O	Enable for electronic volume
16	440_EN	O	Enable for PLL
17	132_EN	O	Enable for PLL
18	440_CE	O	PLL chip select
19	132_CE	O	PLL chip select
20	LDT	I	PLL lock detection
21	2DA_EN	O	Enable for 2ch DAC
22	3DA_EN	O	Enable for 3ch DAC
23	2DA_CE	O	Chip select for 2ch DAC
24	SR_OE	O	Shift Register Output Enable
25	8AD_EN	O	Enable for 8ch DC
26	SR_EN	O	Shift Register Strobe
27	SDI1	I	Analog data of 8ch ADC
28	SDO0	O	Data for 3 line serial
29	SCLK1	O	Clock 1 for 3 line serial
30	SCLK0	O	Clock for 3 line serial
31	SDO1	O	Data 1 for 3 line serial
32	GND	-	Ground
33	MOD	O	Modulating signal
34	WP	O	Write protection of EEPROM
35	GND	-	Ground
36	GND	-	Ground
CN57 (To X55-310 CN42)			
1	GND	-	Ground
2	GND	-	Ground
3	WP	O	Write protection of EEPROM
4	D_GND	-	Digital Ground

TERMINAL FUNCTION

Pin No.	Name	I/O	Function
5	E2PROM_SDA	I/O	Data of EEPROM
6	CONT_5.0V	-	5V constant voltage
7	E2PROM_SCL	O	Clock of EEPROM
8	D_GND	-	Digital Ground
9	AD_CS	O	Enable for 8ch DAC
10	IF_BW_SW	O	IF_ bandwidth switch
11	AD_DAT_WRITE	O	Data 0 for 3 line serial
12	NC (IF_NW_SW)	-	No connection
13	AD_CLK	O	Clock 0 for 3 line serial
14	GND	-	Ground
15	AD_DAT_READ	I	Analog data of 8ch ADC
16	NC	-	No connection
17	CONT_5.0V	-	5V constant voltage
18	PLL_LOCK_DET	I	PLL1,2 lock detection
19	NC(AGC_RSSI)	-	No connection
20	PLL2_EN	O	PLL 2 enabling signal
21	FM_RSSI	I	RSSI signal input
22	NC	-	No connection
23	GND	-	Ground
24	PLL_PWR_SAVE	O	PLL1,2 chip selection signal
25	RX_AUDIO	I	Reception audio signal
26	SIF_DAT	O	Data 0 for 3 line serial
27	GND	-	Ground
28	SIF_CLK	O	Clock 0 for 3 line serial
29	3DA_EN	O	Enable for 3ch DAC
30	PLL1_EN	O	PLL 1 enabling signal
31	VCO_BAND_SW	O	VCO bandwidth switch
32	DDS_EN	O	Enable for DDS
33	RX_POWER_SAVE	O	Power saving signal of RX unit
34	NC	-	No connection
35	GND	-	Ground
36	GND	-	Ground
CN58 (To CONTROL I/O D-sub 25-pin Connector)			
1	NC	-	No connection
2	NC	-	No connection
3	NC	-	No connection
4	NC (RSSI)	-	No connection (RSSI)
5	BER_CLK	O	for Bit Error Rate Clock
6	NC	-	No connection
7	EMON	I	External monitor switch input “L”=Monitor on, “H”=Monitor off
8	NC	-	No connection

Pin No.	Name	I/O	Function
9	EPTT	I	External press-to-talk switch input “L”=PTT on, “H”=PTT off
10	AI1	I	Programmable function input 1
11	SC	O	Squelch control output “L”=Busy, “H”=Not busy
12	AI2	I	Programmable function input 2
13	BER_DAT	O	for Bit Error Rate Data
14	AI3	I	Programmable function input 3
15	TXG	-	TX siganal ground for TA,TD
16	DG	-	Control line ground
17	IO1	I/O	Programmable function input/output 1
18	TD	I	TX-DATA input (data or Signaling) Input impedance=600Ω Coupling=AC coupling Deviation=0.75kHz (Wide)/ 0.75kHz (Narrow) at 100Hz 0.5Vpp input
19	IO2		Programmable function input/output 2
20	TA	I	TX audio input (voice) Input impedance=600Ω Coupling=AC coupling Frequency response=Pre-emphasis curve Deviation=60% deviation at 1kHz 280mVrms±25mV input
21	IO3	I/O	Programmable function input/output 3
22	RD	O	RX-DATA output (data or Signaling) output impedance=1kΩ or less Coupling=AC coupling Non-squelched Frequency respones=±2.5dB at 10~3000Hz Output level=70~90mVrms (standard modulation)
23	IO4		Programmable function input/output 4
24	RA	O	RX-Audio output (voice) output impedance=1kΩ or less Coupling=AC coupling Squelched Frequency respones=De-emphasis curve Output level=360~440mVrms (standard modulation)
25	IO5	I/O	Programmable function input/output 5
26	RXG	-	RX siganal ground for RA, RD
27	IO6	I/O	Programmable function input/output 6
28	SPM	I	Speaker mute signal input. “L”=Mute on
29	NC	-	No connection
30	NC	-	No connection
CN59 (To TEST/SPKR 15-pin Connector)			
1	AO5	O	Auxiliary output 5
2	AO4	O	Auxiliary output 4

TERMINAL FUNCTION

Pin No.	Name	I/O	Function
3	AO3	O	Auxiliary output 3
4	SPO	O	Speaker AF output
5	AO2	O	Auxiliary output 2
6	SPO	O	Speaker AF output
7	AO1	O	Auxiliary output 1
8	SPI	I	Internal speaker AF input
9	RSSI	O	RSSI output (Analog signal output)
10	RD	O	RX-DATA output (Equal to D-sub connector terminal No22)
11	GND	-	Ground
12	SPG	-	Speaker ground
13	GND	-	Ground
14	SPG	-	Speaker ground
15	NC	-	No connection
16	NC	-	No connection
17	SB	O	Power supply output
18	NC	-	No connection
19	SB	O	Power supply output
20	NC	-	No connection
CN60 (To Internal Speaker)			
1	SPO	O	Internal speaker AF output
2	SPG	-	Internal speaker ground

Control Unit (X53-4140-10)

Serial data inable signal to potentiometer of OCXO unit

Pin No.	Name	I/O	Function
CN300 (To X55-310 CN43)			
	RX_IF_VN	I	2nd IF signal (450 kHz) of NXDN mode
CN400 (To X56-312 A/3 CN805)			
1	GND	-	Ground
2	GND	-	Ground
3	REF_SW2	O	Control signal for reference clock change circuit
4	WP	O	Write protection signal to EEPROM
5	REF_SW	O	Control signal for reference clock change circuit
6	OX_SCL	O	ADC of OCXO unit (for electric current detection) to serial clock
7	EXT_EXIST	I	External reference clock detection signal
8	OX_SDA	I/O	ADC of OCXO unit (for electric current detection) to serial data input/output
9	REF_EXIST	I	Reference clock detection signal
10	IMP_H_L	-	No connection
11	REF_IN_OUT	O	Control signal for reference clock change circuit
12	GND	-	Ground
13	OX_SDI2	I	Serial data input from potentiometer of OCXO unit
14	GND	-	Ground
15	OCXO_VR_EN	O	Serial data enable signal to potentiometer of OCXO unit
16	GND	-	Ground
17	OCXO_ON	O	Power source control of OCXO unit
18	GND	-	Ground
19	OCXO_CURR	I	Monitor of the voltage which detects current of OCXO unit
20	GND	-	Ground
21	OCXO_EXIST	I	Detection signal of OCXO unit presence
22	GND	-	Ground
23	VCXO_DA_EN	O	DDS (5.99MHz) to serial data enabling signal
24	GND	-	Ground
25	REF_LDT	I	Lock detection signal from PLL (19.2MHz)
26	GND	-	Ground
27	PLL_19_EN	O	Serial data enabling signal to PLL (19.2MHz)
28	GND	-	Ground
29	PLL_19_CE	-	No connection
30	GND	-	Ground
31	OX_SDO2	O	DAC of OCXO unit to serial data output
32	GND	-	Ground
33	OX_SCLK2	O	DAC of OCXO unit to serial clock output
34	33MPU	O	3.3V constant voltage
35	GND	-	Ground
36	GND	-	Ground
CN401 (To X53-413 CN1)			
1	GND	-	Ground
2	GND	-	Ground
3	RX_POWER_SAVE	O	Power saving signal of RX unit
4	OCXO_ST_R	O	OCXO LED red control
5	OCXO_ST_G	O	OCXO LED green control
6	VOLUME_IN	I	Voltage monitor for audio level control
7	PWR_ST_R	O	POWER LED red control
8	MOD_D_OUT	O	Transmission modulating signal of NXDN mode
9	GND	-	Ground
10	RX_AUDIO_D	O	Reception demodulating signal of NXDN mode
11	BEEP	O	Beep sound signal output
12	MIC_D_IN	I	Audio signal before the transmission compressing of the NXDN mode

TERMINAL FUNCTION

Pin No.	Name	I/O	Function
13	INRA_SW	-	No connection
14	NC	-	No connection
15	HOOK_RXD_SCM	I	Hook detection input
16	AMP_SW	O	Power source control of audio power amplifier
17	SCM_EN	-	No connection
18	AF_MUTE	O	Audio mute control
19	INSP_SW	-	No connection
20	EVOL_DATA	O	Serial data to DAC (for audio level adjustment)
21	PTT_AM16C	I	"Press-to-talk-switch" signal to Main MPU
22	EVOL_CLK	O	Serial clock to DAC (for audio level adjustment)
23	GND	-	Ground
24	EVOL_LD	O	Serial load to DAC (for audio level adjustment)
25	TAAD_SW	O	Route formation signal of audio circuit
26	TA_SW	O	Route formation signal of audio circuit
27	BEEP_SW	O	Route formation signal of audio circuit
28	PATH_SW	O	Route formation signal of audio circuit
29	RXAD_SW	O	Route formation signal of audio circuit
30	MIC_SW	O	Route formation signal of audio circuit
31	MICAD_SW	O	Route formation signal of audio circuit
32	TD_SW	O	Route formation signal of audio circuit
33	NC	-	No connection
34	LO_VOL_DET	I	Detection of voltage for low voltage state
35	GND	-	Ground
36	PTT_TXD_SCM	-	No connection
CN402 (To X53-413 CN2)			
1	HI_VOL_DET	I	Voltage monitor
2	GND	-	Ground
3	50MPU_A_GND	-	Ground
4	50MPU	I	5V constant voltage
5	50MPU_A_GND	-	Ground
6	DC50	I	5V constant voltage
7	DC50	I	5V constant voltage
8	DC50	I	5V constant voltage
9	DC50	I	5V constant voltage
10	33MPU_A_GND	-	Ground
11	33MPU	I	3.3V constant voltage
12	33MPU	I	3.3V constant voltage
13	33MPU_A_GND	-	Ground
14	50MPU_A	I	5V constant voltage
15	33MPU_A	I	3.3V constant voltage

Pin No.	Name	I/O	Function
16	33SH	O	3.3V constant voltage
17	50MPU_CONT	O	5V regurator control
18	NC	-	No connection
19	E_PTT_SH	I	"External press-to-talk-switch" signal to Main MPU
20	SC_SH	I	"Squelch control" signal to Main MPU
21	GND	-	Ground
22	SRXD_ATXO	O	UART signal from RF control MPU to Main MPU
23	STXO_ARXO	I	UART signal from Main MPU to RF control MPU
24	GND	-	Ground
25	RF_PTT	I	"Press-to-talk-switch" signal to Main MPU
26	TX_STATE	I	"During the transmission" signal to Main MPU
27	QT_DQT	I	"Detect QT or DQT" signal to Main MPU
28	RADIO_EER	I	"Detect accident of RF block" signal to Main MPU
29	GND	-	Ground
30	ADSP_CK_SFT	O	"Frequency shift" signal to Analog mode DSP
31	TRUKING	I	"Trunking mode" signal to Main MPU
32	A16C_CK_SFT	O	"Frequency shift" signal to RF control MPU
33	BER_DAT	O	Serial data for measurement bit error rate
34	BER_CLK	O	Serial clock for measurement bit error rate
35	GND	-	Ground
36	SYS_RST	O	System reset signal from modem control MPU
CN713 (To COM D-sub 9-pin connector)			
1	CD	-	No connection
2	DSR	I	Data Set Ready
3	RD	I	Receive Data
4	RTS	O	Request to Send
5	SD	O	Send Data
6	CTS	I	Clear to Send
7	DTR	O	Data Terminal Ready
8	RI	-	No connection
9	GND	-	Ground

RX Unit (X55-3100-14)

Pin No.	Name	I/O	Function
CN5 (To RX ANT)			
1	RX_SIGNAL	I	Receive signal input (Coaxial)
CN41			
1	MONITOR_PORT	O	Use for RX BPF tuning (Coaxial)

TERMINAL FUNCTION

Pin No.	Name	I/O	Function
CN42 (To X53-413 CN57)			
1	GND	-	Ground
2	GND	-	Ground
3	NC	-	No connection
4	RX_POWER_SAVE	I	RX power save
5	DDS_EN	I	Enable input for DDS
6	VCO_BAND_SW	I	VCO band switch
7	PLL1_EN	I	Enable input for PLL1
8	DA_EN	I	Enable input for DA
9	SIF_CLK	I	Clock input for PLL1/PLL2/DDS/DA
10	GND	-	Ground
11	SIF_DAT	I	Data input for PLL1/PLL2/DDS/DA
12	RX_AUDIO	O	RX audio output
13	PLL_PWR_SAVE	I	Enable input for PLL1/PLL2
14	GND	-	Ground
15	NC	-	No connection
16	FM_RSSI	O	FM RSSI output
17	PLL2_EN	I	Enable input for PLL2
18	NC (AGC_RSSI)	-	No connection
19	PLL_LOCK_DET	O	PLL1/PLL2 lock detect output
20	CONT_5.0V	I	Switched 5V supply
21	NC	-	No connection
22	AD_CLK	O	AD logic data output
23	GND	-	Ground
24	AD_CLK	I	Clock input for AD
25	NC (IF_NW_SW)	-	No connection
26	AD_DAT_WRITE	I	Serial data input for AD
27	IF_BW_SW	I	IF bandwith switch input
28	AD_CS	I	Enable input for AD
29	D_GND	-	Ground
30	E2PROM_SCL	I	Clock input for EEPROM
31	CONT_5.0V	I	Switched 5V supply
32	E2PROM_SDA	I/O	Data input/output for EEPROM
33	D_GND	-	Digital ground
34	WP	I	Write protection input for EEPROM
35	GND	-	Ground
36	GND	-	Ground
CN43 (To X53-414 CN300)			
1	RX_IF_VN	O	RX NXDN detection output
CN44 (To X45-382 C/5 CN15)			
1	E	-	Ground
2	B	I	Power supply input
3	B	I	Power supply input
CN45 (To X56-312 A/3 CN406)			
1	REF1	I	Reference signal input
CN46			
1	-	I	Use for RX MCF tuning
2	GND	-	Ground
CN47			
1	-	O	Use for RX MCF tuning
2	-	-	Ground

TX Unit (X56-3120-14) (A/3)

Pin No.	Name	I/O	Function
CN403			
1	REF_OUT (10MHz)	O	Reference signal distribution (coaxial)
CN405 (To X53-414 CN302)			
1	REF2 (19.2MHz)	O	Not used (DSP reference signal output (coaxial))
CN406 (To X55-310 CN45)			
1	REF1 (19.2MHz)	O	RX reference signal output (coaxial)
CN407 (To X42-328 CN2: OCXO Optional unit)			
1	OCXO	I	OCXO (Optional unit) reference signal input (coaxial)
CN408			
1	REF_IN (10MHz)	I	External reference signal input (coaxial)
CN801 (To X45-382 C/5 CN12)			
1	E	-	Ground
2	B	I	Power supply (Vcc)
3	B	I	Power supply (Vcc)
CN802 (To X45-382 A/5 CN1)			
1	TX OUT	O	TX driver output signal (coaxial)
CN803 (To X42-328 CN1: OCXO Optional unit)			
1	33MPU	O	Switched 3.3V power supply
2	GND	-	Ground
3	OX_SDA	I/O	OCXO EEPROM serial data
4	OX_SCL	O	OCXO EEPROM serial clock
5	OCXO_VR_EN	O	Enable output for OCXO IC3 (potentiometer)
6	OCXO_ON	O	OCXO power on signal
7	OX_SCLK2	O	Serial clock output for OCXO IC3 (potentiometer)
8	OCXO_CURR	I	OCXO current detection signal
9	OX_SDI2	I	Serial data input for OCXO IC3 (potentiometer)
10	OCXO_EXIST	I	OCXO detection signal

TERMINAL FUNCTION

Pin No.	Name	I/O	Function
11	OX_SDO2	O	Serial data output for OCXO IC3 (potentiometer)
12	GND	-	Ground
13	REF_SW2	O	OCXO reference signal output switch
CN804 (To X53-413 CN56)			
1	GND	-	Ground
2	GND	-	Ground
3	WP	I	EEPROM write protect signal input
4	MOD	I	Moduration signal input
5	GND	-	Ground
6	SDO1	I	Serial data input for IC101, IC202, IC303, IC802, IC803
7	SCLK0	I	Serial clock input for IC703
8	SCLK1	I	Serial clock input for IC101, IC202, IC303, IC802, IC803
9	SDO0	I	Serial data input for IC701, IC703
10	SDI1	O	Serial data output for IC803
11	SR_EN	I	Enable input for IC701, IC703
12	8AD_EN	I	Enable input for IC803
13	SR_OE	I	Enable input for IC703
14	2DA_CE	I	Chip enable input for IC802
15	3DA_EN	I	Enable input for IC701
16	2DA_EN	I	Enable input for IC802
17	LDT	O	RF PLL lock detect output
18	132_CE	I	Chip enable input for IC303
19	440_CE	I	Chip enable input for IC101
20	132_EN	I	Load enable input for IC303
21	440_EN	I	Load enable input for IC101
22	VR_EN	I	Load enable input for IC304
23	DDS_EN/VER	I/O	Load enable input for IC202 / Hardware version control signal output
24	ANT_SW	I	TX antenna switch input
25	TEMP_PRT	O	Temp protection signal output
26	SCK	I	EEPROM Clock
27	D_GND	-	Ground
28	SDA	I/O	EEPROM Data
29	D_GND	-	Ground
30	CONT_5.0V	I	Switched 5V power supply
31	D_GND	-	Ground
32	CONT_5.0V	I	Switched 5V power supply
33	GND	-	Ground
34	PAG	I	POCSAG Switch
35	GND	-	Ground
36	GND	-	Ground

Pin No.	Name	I/O	Function
CN805 (To X53-414 CN400)			
1	GND	-	Ground
2	GND	-	Ground
3	33MPU	I	Switched 3.3V power supply
4	OX_SCLK2	I	Serial clock input for IC601, IC404
5	GND	-	Ground
6	OX_SDO2	I	Serial data input for IC601, IC404
7	GND	-	Ground
8	PLL_19_CE	I	100kohm load
9	GND	-	Ground
10	PLL_19_EN	I	Enable input for IC404
11	GND	-	Ground
12	REF_LDT	O	19.2MHz PLL lock detect output
13	GND	-	Ground
14	VCXO_DA_EN	I	Enable input for IC601
15	GND	-	Ground
16	OCXO_EXIST	O	OCXO detection signal
17	GND	-	Ground
18	OCXO_CURR	O	OCXO current detection signal
19	GND	-	Ground
20	OCXO_ON	I	OCXO power on signal
21	GND	-	Ground
22	OCXO_VR_EN	I	Enable input for OCXO IC3 (potentiometer)
23	GND	-	Ground
24	OX_SDI2	O	Serial data output for OCXO IC3 (potentiometer)
25	GND	-	Ground
26	REF_IN_OUT	I	Reference clock switched signal input
27	IMP_H_L	I	100kohm load
28	REF_EXIST	O	Reference detector signal output
29	OX_SDA	I/O	OCXO EEPROM serial data
30	EXT_EXIST	O	External reference detector signal output
31	OX_SCL	I	OCXO EEPROM serial clock
32	REF_SW	I	Reference signal output switch
33	WP	I	EEPROM write protect signal input
34	REF_SW2	I	OCXO reference signal output switch
35	GND	-	Ground
36	GND	-	Ground
CN806 (To X45-382 A/5 CN20)			
1	GND	-	Ground
2	GND	-	Ground
3	WP	O	EEPROM write potect signal output

TERMINAL FUNCTION

Pin No.	Name	I/O	Function
4	GND	-	Ground
5	D_GND	-	Ground
6	SDA	I/O	EEPROM Data
7	D_GND	-	Ground
8	SCK	O	EEPROM Clock
9	D_GND	-	Ground
10	CONT_5.0V	O	Switched 5V power supply
11	D_GND	-	Ground
12	TEMP_PRT	I	Temp protection signal input
13	GND	-	Ground
14	ANT_SW	O	TX anntena switch output
15	GND	-	Ground
16	TEMP_RST	O	Tempereture sensor reset signal output
17	GND	-	Ground
18	FAN_CONT2	O	FAN2 control signal output
19	GND	-	Ground
20	FAN_CONT	O	FAN1 control signal output
21	GND	-	Ground
22	PWR_CONT	O	Power control signal output
23	GND	-	Ground
24	PWR_PRT	O	Power protection signal output
25	GND	-	Ground
26	RFL_PWR	I	Reflect power signal input
27	GND	-	Ground
28	FWD_PWR	I	Forward power signal input
29	GND	-	Ground
30	FAN_CURR	I	Fan current monitor signal input
31	GND	-	Ground
32	PA_CURR	I	PA current monitor signal input
33	GND	-	Ground
34	NC	-	No connection
35	GND	-	Ground
36	GND	-	Ground
CN807 (To X42-328 CN3: OCXO Optional unit)			
1	8OCXO	O	OCXO power supply 8V
2	GND	-	Ground

TX Unit (X56-3120-14) (B/3)

Pin No.	Name	I/O	Function
CN920 (To X56-312 C/3 CN960)			
1	DC8	O	8V Power supply
2	GND	-	Ground
3	50MPU	O	Switched 5V power supply
4	STB	O	Shift Register Strobe
5	SR_OE	O	Shift Register Output Enable
6	SR_CLK	O	Shift Register Clock
7	SR_DATA	O	Shift Register Data
8	LED1	O	D960 segment “F” control
9	GND	-	Ground
10	LED10	O	D961 segment “F” control
CN921 (To X53-413 CN3)			
1	MIG	-	MIC Ground
2	GND	-	Ground
3	MIC	O	MIC Signal Input
4	33MPU	I	Switched 3.3V power supply
5	33AUD	I	Switched 3.3V power supply
6	VOLUME_IN	O	Volume control output for AF signal
7	SB	I	Power supply output
8	OCXO_ST_R	I	OCXO Red LED Switch
9	PWR_ST_R	I	POWER Red LED Switch
10	OCXO_ST_G	I	OCXO Green LED Switch
11	GND	-	Ground
12	HOOK_RXD_SCM	O	HOOK detect signal
13	SCM_EN	-	No connection
14	PTT_TXD_SCM	O	MIC PTT
15	GND	-	Ground
16	SR_OE	I	Shift Register Output Enable
17	GND	-	Ground
18	SR_CLK	I	Shift Register Clock
19	GND	-	Ground
20	SR_DATA	I	Shift Register Data
21	GND	-	Ground
22	STB1	I	Shift Register Strobe
23	GND	-	Ground
24	K1	O	Key Scan
25	K2	O	Key Scan
26	K3	O	Key Scan
27	K4	I	Key Scan
28	K5	I	Key Scan
29	DC8	I	8V Power supply
30	GND	-	Ground
31	50MPU	I	Switched 5V power supply
32	50MPU	I	Switched 5V power supply
33	DC8	I	8V Power supply

TERMINAL FUNCTION

Pin No.	Name	I/O	Function
34	DC8	I	8V Power supply
35	GND	-	Ground
36	DC8	I	8V Power supply
CN923 (To X45-382 E/5 CN905)			
1	VOLUME_IN	I	Volume control input for AF signal
2	33MPU	O	Switched 3.3V power supply
3	GND	-	Ground
4	33AUD	O	Switched 3.3V power supply
5	SB	O	Power supply output
6	SCM_EN	-	No connection
7	GND	-	Ground
8	PTT_TXD_SCM	I	MIC PTT
9	HOOK_RXD_SCM	I	HOOK detect signal
10	MIG	-	MIC ground
11	MIC	I	MIC signal input

TX Unit (X56-3120-14) (C/3)

Pin No.	Name	I/O	Function
CN960 (To X56-312 B/3 CN920)			
1	DC8	I	8V Power supply
2	GND	-	Ground
3	50MPU	I	Switched 5V power supply
4	STB	I	Shift Register Strobe
5	SR_OE	I	Shift Register Output Enable
6	SR_CLK	I	Shift Register Clock
7	SR_DATA	I	Shift Register Data
8	LED1	I	D960 segment “F” control
9	GND	-	Ground
10	LED10	I	D961 segment “F” control

COM D-sub 9-pin Connector

Pin No.	Pin Name	I/O	Signal Type	Description / port Type	Specification	Min	Typ	Max	Unit	Remarks
1	CD	I	Digital	Carrier Detect	Input voltage range	–30	-	30	V	Conform to RS-232C
2	RD	I	Digital	Receive Data	Input voltage range	–30	-	30	V	
3	SD	O	Digital	Send Data	Voltage swing	±5	±5.2	-	V	
4	DTR	O	Digital	Data Terminal Ready	Voltage swing	±5	±5.2	-	V	
5	SG	-	GND	Signal GND	-	-	-	-	-	
6	DSR	I	Digital	Data Set Ready	Input voltage range	–30	-	30	V	
7	RTS	O	Digital	Request to Send	Voltage swing	±5	±5.2	-	V	
8	CTS	I	Digital	Clear to Send	Input voltage range	–30	-	30	V	
9	CI	I	Digital	Ringer DET	Input voltage range	–30	-	30	V	

TERMINAL FUNCTION

Microphone Connector

Pin No.	Pin Name	I/O	Signal Type	Description /port Type	Specification	Min	Typ	Max	Unit	Remarks
1	NC	-	-	-	-	-	-	-	-	-
2	SB	-	Power	Power	Voltage value	10.8	13.8	15.9	V	Related to DC power supply terminal input voltage.
					Allowable current value	-	-	0.2	A	
3	GND	-	GND	Digital GND	Allowable current value	-	-	0.2	A	-
4	PTT	I	Digital	PTT Signal CMOS Active Low	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU
5	MIG	-	-	MIC GND	-	-	-	-	-	-
6	MIC	I	Analog	MIC Input	Input amplitude value (60%Dev@1kHz)	4	5.5	7	mVrms	-
					Input impedance (DC to 10kHz)	-	600	-	Ω	
					Allowable frequency	0.3	-	3	kHz	
7	HOOK	I	Digital	HOOK Detect Signal CMOS Active Low	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU
8	NC	-	-	-	-	-	-	-	-	-

LAN Connector (RJ-45)

Pin No.	Pin Name	I/O	Signal Type	Description /port Type	Specification	Min	Typ	Max	Unit	Remarks
1	TD+	O	Analog	TX Signal +	-	0.95	-	1.05	V	Conform to IEEE802.3
2	TD–	O	Analog	TX Signal –	-	0.95	-	1.05	V	Conform to IEEE802.3
3	RD+	I	Analog	RX Signal +	-	-	-	-	-	Use Designated Transformer
4	NC	-	-	-	-	-	-	-	-	-
5	NC	-	-	-	-	-	-	-	-	-
6	RD–	I	Analog	RX Signal –	-	-	-	-	-	Use Designated Transformer
7	NC	-	-	-	-	-	-	-	-	-
8	NC	-	-	-	-	-	-	-	-	-

SYNC Connector

Pin No.	Pin Name	I/O	Signal Type	Description /port Type	Specification	Min	Typ	Max	Unit	Remarks
1	FRMA	I/O	-	RS-485 Differential Signal A	[Input] VID=VA–VB	–12	-	12	V	Conform to RS-485
					[Output] (No load) VOD=|VA–VB|	3	4.3	-	V	
2	NC	-	-	-	-	-	-	-	-	-
3	NC	-	-	-	-	-	-	-	-	-
4	FRMB	I/O	-	RS-485 Differential Signal B	[Input] VID=VA–VB	–12	-	12	V	Conform to RS-485
					[Output] (No load) VOD=|VA–VB|	3	4.3	-	V	

TERMINAL FUNCTION

CONTROL I/O D-sub 25-pin Connector

Pin No.	Pin Name	I/O	Signal Type	Signal Summary	Specification	Min	Typ	Max	Unit	Remarks
1	NC (RSSI)	-	-	-	-	-	-	-	-	-
2	NC	-	-	-	-	-	-	-	-	-
3	NC	-	-	-	-	-	-	-	-	-
4	AI1	I	Digital	Programmable Function Input 1 /CMOS	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
5	AI2	I	Digital	Programmable Function Input 2 /CMOS	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
6	AI3	I	Digital	Programmable Function Input 3 /CMOS	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
7	DG	-	GND	Digital GND	-	-	-	-	-	-
8	TD	I	Analog	TX Data Input (signaling)	INPUT: 0.1kHz/0.5Vp-p	0.7	0.75	0.8	kHzDEV	NFM
					Input impedance	-	600	-	Ω	600Ω PD is applied to GND.
9	TA	I	Analog	TX Audio Input (voice)	1kHz/60% Dev	270	280	290	mV	NFM
					Input impedance	-	600	-	Ω	600Ω PD is applied to GND.
10	RD	O	Analog	RX Data Output (signaling) Not squelched	INPUT: 60% Dev.	75	80	85	mV	-
11	RA	O	Analog	RX Audio Output (voice) Squelched	INPUT: 60% Dev.	380	400	420	mV	-
12	RXG	-	GND	RX Signal GND	-	-	-	-	-	-
13	SPM	I	Digital	Speaker Mute /CMOS	VIH	0.7Vcc	-	5.5	V	Vcc=3.3V±2%
					VIL	-	-	0.3Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
14	BER_CLK	O	Digital	for Bit Error Rate Clock	VOH (IO=–50µA)	Vcc–0.1	Vcc	-	V	
					VOL (IO=50µA)	-	0	0.1	V	
15	EMON	I	Digital	External Monitor Switch	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	-
16	EPTT	I	Digital	External PTT Switch	VIH	0.8Vcc	-	Vcc	V	Vcc=5V ±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
17	SC	O	Digital	Squelch Control	VOH (IO=–200µA)	Vcc–2.0	-	Vcc	V	
					VOL (IO=200µA)	-	-	0.45	V	
18	BER_DAT	O	Digital	for Bit Error Rate Data	VOH (IO=–50µA)	Vcc–0.1	Vcc	-	V	
					VOL (IO=50µA)	-	0	0.1	V	

TERMINAL FUNCTION

Pin No.	Pin Name	I/O	Signal Type	Signal Summary	Specification	Min	Typ	Max	Unit	Remarks
19	TXG	-	GND	TX Signal GND	-	-	-	-	-	-
20	IO1	I	Digital	Programmable Function I/O 1	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
		O			VOH (IO=–200μA)	Vcc–2.0	-	Vcc	V	
					VOL (IO=200μA)	-	-	0.45	V	
21	IO2	I	Digital	Programmable Function I/O 2	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
		O			VOH (IO=–200μA)	Vcc–2.0	-	Vcc	V	
					VOL (IO=200μA)	-	-	0.45	V	
22	IO3	I	Digital	Programmable Function I/O 3	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
		O			VOH (IO=–200μA)	Vcc–2.0	-	Vcc	V	
					VOL (IO=200μA)	-	-	0.45	V	
23	IO4	I	Digital	Programmable Function I/O 4	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
		O			VOH (IO=–200μA)	Vcc–2.0	-	Vcc	V	
					VOL (IO=200μA)	-	-	0.45	V	
24	IO5	I	Digital	Programmable Function I/O 5	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
		O			VOH (IO=–200μA)	Vcc–2.0	-	Vcc	V	
					VOL (IO=200μA)	-	-	0.45	V	
25	IO6	I	Digital	Programmable Function I/O 6	VIH	0.8Vcc	-	Vcc	V	Vcc=5V±2%
					VIL	0	-	0.2Vcc	V	
					Input impedance	-	47k	-	Ω	47kΩ PU to Vcc
		O			VOH (IO=–200μA)	Vcc–2.0	-	Vcc	V	
					VOL (IO=200μA)	-	-	0.45	V	

TERMINAL FUNCTION

TEST/SPKR 15-pin Connector

Pin No.	Pin Name	I/O	Signal Type	Con-figuration Change	Signal Summary	Specification	Min	Typ	Max	Unit	Remarks
1	SB	-	-	No	Power Supply	Voltage value	10.8	13.8	15.9	V	Related to DC power supply terminal input voltage.
						Supply current	-	-	1	A	
2	SB	-	-	No	Power Supply	Voltage value	10.8	13.8	15.9	V	Related to DC power supply terminal input voltage.
						Supply current	-	-	1	A	
3	NC	-	-	-	-	-	-	-	-	-	-
4	GND	-	GND	No	Digital GND	-	-	-	-	-	-
5	GND	-	GND	No	Digital GND	-	-	-	-	-	-
6	SPG	-	GND	No	Speaker GND	-	-	-	-	-	-
7	RD	O	Analog	No	RX Data Output (signaling) Not squelched	INPUT: 60% Dev.	75	80	85	mV	-
8	RSSI	O	Analog	No	RSSI Output	Amplitude value	0	-	5	V	-
						Allowable Load value	10k	-	-	Ω	-
9	SPI	I	Analog	No	Internal Speaker Input	-	-	-	-	-	-
10	AO1	O	Digital	default	Auxiliary Output 1 Open collector	External voltage value	-	-	16	V	-
						Supply current	-	-	200	mA	-
				$R520=47k D5=delete	Auxiliary Output 1 Open collector with PU	PU resistor	-	47k	-	Ω	Vcc=5V±2%
						VOL (IO=0mA)	-	-	0.1	V	-
11	AO2	O	Digital	default	Auxiliary Output 2 Open collector	External Voltage value	-	-	16	V	-
						Supply current	-	-	200	mA	-
				$R519=47k D12=delete	Auxiliary Output 2 Open collector with PU	PU resistor	-	47k	-	Ω	Vcc=5V±2%
						VOL (IO=0mA)	-	-	0.1	V	-
12	SPO	O	Analog	No	External Speaker Output	Output level	-	-	3	W	-
						Output impedance	-	-	4	Ω	-
13	AO3	O	Digital	default	Auxiliary Output 3 Open collector	External voltage value	-	-	16	V	-
						Supply current	-	-	200	mA	-
				$R518=47k D28=delete	Auxiliary Output 3 Open collector with PU	PU resistor	-	47k	-	Ω	Vcc=5V±2%
						VOL (IO=0mA)	-	-	0.1	V	-
14	AO4	O	Digital	default	Auxiliary Output 4 Open collector	External voltage value	-	-	16	V	-
						Supply current	-	-	200	mA	-
				$R517=47k D30=delete	Auxiliary Output 4 Open collector with PU	PU resistor	-	47k	-	Ω	Vcc=5V±2%
						VOL (IO=0mA)	-	-	0.1	V	-
15	AO5	O	Digital	default	Auxiliary Output 5 Open collector	External voltage value	-	-	16	V	-
						Supply current	-	-	200	mA	-
				$R516=47k D32=delete	Auxiliary Output 5 Open collector with PU	PU resistor	-	47k	-	Ω	Vcc=5V±2%
						VOL (IO=0mA)	-	-	0.1	V	-

NXR-800

PARTS LIST

⚠indicates safety critical components.
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

L : Scandinavia **K** : USA **P** : Canada
Y : PX (Far East, Hawaii) **T** : England **E** : Europe
C : China **X** : Australia **M** : Other Areas

NXR-800
FINAL UNIT (X45-3820-14)

Ref. No.	Address	Parts No.	Description	Destination
			NXR-800	
1	3A	A62-1142-02	MAIN PANEL	
3	1E	B10-2781-04	FRONT GLASS ACCESSORY	
4	3A	B11-1841-04	FILTER(PF)	
5	3A	B11-1842-04	FILTER(17SEG)	
6	3A	B11-1843-04	FILTER(LED)	
7	3A	B11-1844-04	FILTER(STATUS)	
8	3A	B42-7296-04	STICKER(NEXEDGE)	
9	3A	B43-1188-04	BADGE	
10	1F	B62-1994-30	INSTRUCTION MANUAL	
12	2B	E04-0463-05	RF COAXIAL RECEPTACLE(BNC)	
13	1F	E30-3427-45	DC CORD ACCESSORY	
14	1B	E30-7581-05	DC CORD	
15	2C	E30-7582-05	TRUNK CABLE	
16	1B,2C	E30-7583-05	TRUNK CABLE	
17	1B,1C	E37-1295-05	FLAT CABLE(36P)	
18	1B	E37-1299-05	LEAD WIRE WITH TERMINAL(FUSE-DC+)	
19	1B	E37-1300-05	LEAD WIRE WITH TERMINAL(FUSE-DC-)	
20	1B	E37-1301-05	LEAD WIRE WITH TERMINAL(DC-PA+)	
21	1B	E37-1302-05	LEAD WIRE WITH TERMINAL(DC-PA-)	
22	2C	E37-1303-05	LEAD WIRE WITH CONNECTOR(BNC-RX)	
23	1D	E37-1304-05	LEAD WIRE WITH CONNECTOR(BNC-REF)	
24	1B	E37-1305-05	LEAD WIRE WITH CONNECTOR(DC-TX)	
25	1C	E37-1306-05	LEAD WIRE WITH CONNECTOR(DC-CONT)	
26	2C	E37-1307-05	LEAD WIRE WITH CONNECTOR(DC-RX)	
28	1D	E37-1310-05	LEAD WIRE WITH CONNECTOR(DSUB-25P)	
29	3B	E37-1311-05	LEAD WIRE WITH CONNECTOR(DSUB-9P)	
30	2D	E37-1313-05	LEAD WIRE WITH CONNECTOR(ACC15)	
31	3B	E37-1314-05	LEAD WIRE WITH CONNECTOR(DISP-MIC)	
32	3B	E37-1315-05	LEAD WIRE WITH CONNECTOR(DISP-17SEG)	
33	2B	E37-1316-05	LEAD WIRE WITH CONNECTOR(SP)	
34	1E	E37-1381-05	15P PLUG ACCESSORY	
36	1D,1E	F05-7521-05	BLADE FUSE(7.5A/32V) ACCESSORY	
37	2A	F07-1930-05	COVER(FAN)	
38	1D	F09-0445-05	CAP(25P)	
39	3B	F09-0484-05	CAP(9P)	
40	2A	F09-0488-15	FANMOTOR	
42	3A	G10-1343-04	FIBROUS SHEET(FRONT PANEL)	
44	3C	G10-1396-04	FIBROUS SHEET(SHIELDING COVER)	
45	2B	G11-4408-04	RUBBER SHEET(CONT-TR)	
47	3A	G13-2163-04	CUSHION(PF)	
52	3B	J19-5496-12	HOLDER(DISP)	
53	1C	J19-5546-05	HOLDER(COMPACT FLASH)	
54	1E	J29-0725-04	BRACKET(SIDE) ACCESSORY	
55	3A	J39-0655-03	SPACER(SP)	
56	2D	J61-0307-05	BAND(DC)	
58	1E	K01-0421-05	HANDLE ACCESSORY	
59	3A	K29-4539-04	KNOB(VOLUME)	
61	1F	L79-1419-05	LINE FILTER	
A	1E	N08-0563-04	DRESSED SCREW(FRONT GLASS)	
B	3B,1D	N09-2292-05	HEXAGON HEAD SCREW(DSUB)	
D	2C,1D	N30-2606-48	PAN HEAD MACHINE SCREW(BNC)	
E	2A	N30-3016-43	PAN HEAD MACHINE SCREW(FAN)	
F	2D,3D	N32-3006-43	FLAT HEAD MACHINE SCREW(TOP,REAR)	
G	3A,1E	N32-4008-43	FLAT HEAD MACHINE SCREW(PANEL)	
H	1B,1C	N67-3008-48	PAN HEAD SEMS SCREW(AVR)	
J	3B	N80-2006-43	PAN HEAD TAPTITE SCREW(DISP)	
K	1D	N80-2608-43	PAN HEAD TAPTITE SCREW(FUSE)	
L	1B,2C	N87-2608-48	BRAZIER HEAD TAPTITE SCREW(PCB)	
64	3A	T07-0347-15	SPEAKER	
-		X53-4130-11	SERVICE CONTROL UNIT	
-		X53-4140-11	SERVICE CONTROL UNIT	
			FINAL UNIT (X45-3820-14)	
C1		CD04BQ1H101M	ELECTRO 100UF 50WV	
C2		CD04BQ1H101M	ELECTRO 100UF 50WV	
C7		CE32BM1V220M	CHIP EL 22UF 35WV	
C8		CE32BM1V220M	CHIP EL 22UF 35WV	
C10		CK73GB1H471K	CHIP C 470PF K	
C11		CK73GB1H471K	CHIP C 470PF K	
C15		CK73GB1H103K	CHIP C 0.010UF K	
C16		CK73GB1H103K	CHIP C 0.010UF K	
C17		CK73GB1H103K	CHIP C 0.010UF K	
C21		CK73GB1H471K	CHIP C 470PF K	
C25		CK73GB1H103K	CHIP C 0.010UF K	
C26		CK73GB1H103K	CHIP C 0.010UF K	
C29		CK73GB1H471K	CHIP C 470PF K	
C30		CK73GB1H471K	CHIP C 470PF K	
C32		CE32BM1V220M	CHIP EL 22UF 35WV	
C33		CE32AU1E100M	CHIP EL 10UF 25WV	
C36		CK73GB1H471K	CHIP C 470PF K	
C37		CK73GB1H103K	CHIP C 0.010UF K	
C38		CE32AU1E100M	CHIP EL 10UF 25WV	
C39		CK73GB1H471K	CHIP C 470PF K	
C40		CK73GB1H103K	CHIP C 0.010UF K	
C41		CK73GB1H471K	CHIP C 470PF K	
C42		CK73GB1H471K	CHIP C 470PF K	
C44		CE32CL1V100M	CHIP EL 10UF 35WV	
C45		CK73GB1H471K	CHIP C 470PF K	
C46		CK73GB1H471K	CHIP C 470PF K	
C47		CK73GB1H103K	CHIP C 0.010UF K	
C49		CK73GB1H473K	CHIP C 0.047UF K	
C50		CK73GB1H471K	CHIP C 470PF K	
C51		CK73GB1H471K	CHIP C 470PF K	
C52		CK73GB1H471K	CHIP C 470PF K	
C53		CK73GB1H103K	CHIP C 0.010UF K	
C54		CK73GB1H471K	CHIP C 470PF K	
C58		CK73GB1H471K	CHIP C 470PF K	
C59		CK73GB1H103K	CHIP C 0.010UF K	

PARTS LIST

FINAL UNIT (X45-3820-14)

Ref. No.	Address	Parts No.	Description			Destination
C60		C93-0599-05	CHIP C	470PF	K	
C61		CK73GB1H471K	CHIP C	470PF	K	
C62		CK73GB1H103K	CHIP C	0.010UF	K	
C63		CK73GB1H471K	CHIP C	470PF	K	
C64		CK73GB1H471K	CHIP C	470PF	K	
C65		CK73GB1H471K	CHIP C	470PF	K	
C67		CK73GB1H471K	CHIP C	470PF	K	
C68		CE32CL1V100M	CHIP EL	10UF	35WV	
C70		CK73GB1H103K	CHIP C	0.010UF	K	
C71		CK73GB1H471K	CHIP C	470PF	K	
C72		CK73GB1H471K	CHIP C	470PF	K	
C73		CK73GB1H471K	CHIP C	470PF	K	
C74		CK73GB1H471K	CHIP C	470PF	K	
C75		CK73GB1H471K	CHIP C	470PF	K	
C77		CK73GB1H471K	CHIP C	470PF	K	
C78		CK73GB1H471K	CHIP C	470PF	K	
C80		CK73GB1H103K	CHIP C	0.010UF	K	
C82		CK73GB1H104K	CHIP C	0.10UF	K	
C83		CK73GB1H471K	CHIP C	470PF	K	
C85		CC73GCH1H080D	CHIP C	8.0PF	D	
C86		CK73GB1H103K	CHIP C	0.010UF	K	
C87		CC73GCH1H180J	CHIP C	18PF	J	
C88		CK73GB1H471K	CHIP C	470PF	K	
C89		CK73GB1H471K	CHIP C	470PF	K	
C90		CK73GB1H471K	CHIP C	470PF	K	
C94		CC73GCH1H101J	CHIP C	100PF	J	
C95		CK73GB1H471K	CHIP C	470PF	K	
C96		CK73GB1H471K	CHIP C	470PF	K	
C97		CK73GB1H471K	CHIP C	470PF	K	
C98		CK73GB1H471K	CHIP C	470PF	K	
C99		CK73GB1H471K	CHIP C	470PF	K	
C100		CK73GB1H471K	CHIP C	470PF	K	
C101		CK73GB1H471K	CHIP C	470PF	K	
C102		CK73GB1H471K	CHIP C	470PF	K	
C104		CK73GB1H471K	CHIP C	470PF	K	
C105		C93-0599-05	CHIP C	470PF	K	
C106		CK73GB1H471K	CHIP C	470PF	K	
C108		CK73GB1H471K	CHIP C	470PF	K	
C109		CK73GB1H471K	CHIP C	470PF	K	
C112		CK73GB1H471K	CHIP C	470PF	K	
C113		CK73GB1H472K	CHIP C	4700PF	K	
C114		CK73GB1H472K	CHIP C	4700PF	K	
C115		CK73GB1H471K	CHIP C	470PF	K	
C116		C93-0552-05	CHIP C	2.0PF	C	
C117		CK73GB1H103K	CHIP C	0.010UF	K	
C119		CC73GCH1H1R5C	CHIP C	1.5PF	C	
C122		C93-0570-05	CHIP C	68PF	J	
C123		C93-0566-05	CHIP C	33PF	J	
C124		CC73GCH1H180J	CHIP C	18PF	J	
C126		C93-0556-05	CHIP C	6.0PF	D	
C127		CK73GB1H471K	CHIP C	470PF	K	
C128		CK73GB1H471K	CHIP C	470PF	K	
C131		C93-0560-05	CHIP C	10PF	D	
C133		CK73GB1H471K	CHIP C	470PF	K	
C134		CK73GB1H471K	CHIP C	470PF	K	
C138		CE32CL1V100M	CHIP EL	10UF	35WV	
C141		C93-0599-05	CHIP C	470PF	K	
C147		C93-0560-05	CHIP C	10PF	D	
C149		C93-0558-05	CHIP C	8.0PF	D	
C150		CK73GB1H104K	CHIP C	0.10UF	K	

Ref. No.	Address	Parts No.	Description				Destination
C158		C93-0557-05	CHIP C	7.0PF	D		
C161		CC73FCH1H080D	CHIP C	8.0PF	D		
C162		CK73GB1H104K	CHIP C	0.10UF	K		
C167		CK73GB1H104K	CHIP C	0.10UF	K		
C169		CK73GB1H471K	CHIP C	470PF	K		
C170		CK73GB1H471K	CHIP C	470PF	K		
C187		C92-0905-05	OS-CON	47UF	35WV		
C188		C92-0905-05	OS-CON	47UF	35WV		
C189		CK73GB1H103K	CHIP C	0.010UF	K		
C190		CK73GB1H471K	CHIP C	470PF	K		
C191		CK73GB1E105K	CHIP C	1.0UF	K		
C193		CC73FCH1H220J	CHIP C	22PF	J		
C900		CK73GB1H104K	CHIP C	0.10UF	K		
C901		CK73GB1H102K	CHIP C	1000PF	K		
C902		CC73GCH1H101J	CHIP C	100PF	J		
C904		CC73GCH1H101J	CHIP C	100PF	J		
C905		CK73FB0J106K	CHIP C	10UF	K		
C906		CK73GB1H102K	CHIP C	1000PF	K		
C907		CK73GB1H102K	CHIP C	1000PF	K		
C908		CK73GB1H102K	CHIP C	1000PF	K		
C909		CC73GCH1H101J	CHIP C	100PF	J		
C910		CC73GCH1H101J	CHIP C	100PF	J		
C912		CC73GCH1H101J	CHIP C	100PF	J		
C913		CC73GCH1H101J	CHIP C	100PF	J		
C914		CK73GB1H104K	CHIP C	0.10UF	K		
C915		CC73GCH1H101J	CHIP C	100PF	J		
C916		CK73GB1H102K	CHIP C	1000PF	K		
CN1		E04-0193-05	PIN SOCKET				
CN2		E23-0902-05	TERMINAL				
CN8		E41-2671-05	PIN ASSY				
CN11		E41-2673-05	PIN ASSY				
CN12		E41-2672-05	PIN ASSY				
CN15		E41-2672-05	PIN ASSY				
CN19		E04-0193-05	PIN SOCKET				
CN20		E40-6656-05	PIN ASSY				
CN905		E41-1483-05	PIN ASSY				
J901		E58-0526-05	MODULAR JACK				
CN4		J13-0071-05	FUSE HOLDER				
L1		L92-0179-05	CHIP FERRITE				
L3		L79-0558-05	FILTER				
L4		L92-0131-05	CHIP FERRITE				
L9		L34-4638-05	AIR-CORE COIL				
L10		L34-4606-15	AIR-CORE COIL				
L12		L34-4518-05	AIR-CORE COIL				
L13		L34-4518-05	AIR-CORE COIL				
L14		L34-4518-05	AIR-CORE COIL				
L15		L34-4518-05	AIR-CORE COIL				
L17		L34-4523-05	AIR-CORE COIL				
L900		L92-0447-05	BEADS CORE				
CP1		RK75GB1J103J	CHIP-COM	10K	J	1/16W	
R1		RK73FB2B271J	CHIP R	270	J	1/8W	
R2		RK73FB2B180J	CHIP R	18	J	1/8W	
R3		RK73FB2B271J	CHIP R	270	J	1/8W	
R4		R92-3604-05	CHIP R	0.047	D	1W	
R9		RK73GB2A101J	CHIP R	100	J	1/10W	
R11		RS14DB3A4R7J	FL-PROOF RS	4.7	J	1W	
R12		RK73GB2A473J	CHIP R	47K	J	1/10W	
R13		RK73GB2A473J	CHIP R	47K	J	1/10W	

PARTS LIST

FINAL UNIT (X45-3820-14)

Ref. No.	Address	Parts No.	Description			Destination
R15		RK73GB2A332J	CHIP R	3.3K	J 1/10W	
R17		RK73GB2A103J	CHIP R	10K	J 1/10W	
R18		RK73GB2A473J	CHIP R	47K	J 1/10W	
R20		RK73GB2A104J	CHIP R	100K	J 1/10W	
R21		RK73GB2A824J	CHIP R	820K	J 1/10W	
R22		RK73GB2A824J	CHIP R	820K	J 1/10W	
R23		RK73FB2B000J	CHIP R	0	J 1/8W	
R25		RK73GB2A104J	CHIP R	100K	J 1/10W	
R26		RK73EB2E101J	CHIP R	100	J 1/4W	
R27		RK73GB2A224J	CHIP R	220K	J 1/10W	
R28		RK73GB2A474J	CHIP R	470K	J 1/10W	
R29		RK73GB2A562J	CHIP R	5.6K	J 1/10W	
R30		RK73GB2A562J	CHIP R	5.6K	J 1/10W	
R31		RK73GB2A104J	CHIP R	100K	J 1/10W	
R32		RK73GB2A104J	CHIP R	100K	J 1/10W	
R33		RK73GB2A564J	CHIP R	560K	J 1/10W	
R34		RK73FB2B8R2J	CHIP R	8.2	J 1/8W	
R35		RK73GB2A683J	CHIP R	68K	J 1/10W	
R36		RK73GB2A683J	CHIP R	68K	J 1/10W	
R37		RK73GB2A564J	CHIP R	560K	J 1/10W	
R38		RK73FB2B151J	CHIP R	150	J 1/8W	
R39		RK73GB2A824J	CHIP R	820K	J 1/10W	
R40		RK73GB2A824J	CHIP R	820K	J 1/10W	
R41		RK73GB2A000J	CHIP R	0	J 1/10W	
R42		RK73FB2B8R2J	CHIP R	8.2	J 1/8W	
R44		RK73FB2B8R2J	CHIP R	8.2	J 1/8W	
R45		RK73GB2A000J	CHIP R	0	J 1/10W	
R46		RK73GB2A000J	CHIP R	0	J 1/10W	
R47		RK73FB2B151J	CHIP R	150	J 1/8W	
R49		RK73GB2A000J	CHIP R	0	J 1/10W	
R50		RK73GB2A104J	CHIP R	100K	J 1/10W	
R51		RK73GB2A104J	CHIP R	100K	J 1/10W	
R52		RK73FB2B8R2J	CHIP R	8.2	J 1/8W	
R53		RK73GB2A184J	CHIP R	180K	J 1/10W	
R54		RK73GB2A184J	CHIP R	180K	J 1/10W	
R55		RK73GB2A104J	CHIP R	100K	J 1/10W	
R56		RK73GB2A104J	CHIP R	100K	J 1/10W	
R57		RK73GB2A104J	CHIP R	100K	J 1/10W	
R58		RK73GB2A104J	CHIP R	100K	J 1/10W	
R59		RK73GB2A562J	CHIP R	5.6K	J 1/10W	
R60		RK73GB2A562J	CHIP R	5.6K	J 1/10W	
R61		RK73EB2E820J	CHIP R	82	J 1/4W	
R62		RK73GH2A563D	CHIP R	56K	D 1/10W	
R63		RK73GH2A333D	CHIP R	33K	D 1/10W	
R64		RK73GB2A474J	CHIP R	470K	J 1/10W	
R65		RK73GB2A473J	CHIP R	47K	J 1/10W	
R66		RK73GB2A100J	CHIP R	10	J 1/10W	
R67		RS14DB3A121J	FL-PROOF RS	120	J 1W	
R68		RK73GB2A104J	CHIP R	100K	J 1/10W	
R69		RK73GB2A103J	CHIP R	10K	J 1/10W	
R70		RK73GB2A000J	CHIP R	0	J 1/10W	
R71		RK73GB2A000J	CHIP R	0	J 1/10W	
R72		RK73GB2A000J	CHIP R	0	J 1/10W	
R75		RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R76		RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R78		RK73GB2A104J	CHIP R	100K	J 1/10W	
R89		RK73GB2A000J	CHIP R	0	J 1/10W	
R92		RK73GB2A104J	CHIP R	100K	J 1/10W	
R102		RK73GH2A471D	CHIP R	470	D 1/10W	
R104		RK73GB2A393J	CHIP R	39K	J 1/10W	

Ref. No.	Address	Parts No.	Description			Destination
R105		RK73GB2A000J	CHIP R	0	J 1/10W	
R106		RK73GB2A474J	CHIP R	470K	J 1/10W	
R107		RK73GB2A000J	CHIP R	0	J 1/10W	
R110		RK73GB2A394J	CHIP R	390K	J 1/10W	
R121		RK73GH2A103D	CHIP R	10K	D 1/10W	
R123		RK73GB2A103J	CHIP R	10K	J 1/10W	
R124		RK73FB2B6R8J	CHIP R	6.8	J 1/8W	
R125		R92-1061-05	JUMPER REST		0 OHM	
R133		RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R136		RK73GB2A394J	CHIP R	390K	J 1/10W	
R137		RK73GB2A104J	CHIP R	100K	J 1/10W	
R138		RK73GB2A104J	CHIP R	100K	J 1/10W	
R139		RK73GB2A104J	CHIP R	100K	J 1/10W	
R140		RK73GB2A104J	CHIP R	100K	J 1/10W	
R142		RK73GB2A000J	CHIP R	0	J 1/10W	
R148		RK73GB2A000J	CHIP R	0	J 1/10W	
R150		RK73GB2A000J	CHIP R	0	J 1/10W	
R156		RK73GB2A000J	CHIP R	0	J 1/10W	
R900		RK73GB2A000J	CHIP R	0	J 1/10W	
R901		RK73GB2A182J	CHIP R	1.8K	J 1/10W	
R902		RK73GB2A000J	CHIP R	0	J 1/10W	
R903		RK73GB2A681J	CHIP R	680	J 1/10W	
R905		RK73GB2A000J	CHIP R	0	J 1/10W	
R906		RK73GB2A000J	CHIP R	0	J 1/10W	
R907		RK73GH2A153D	CHIP R	15K	D 1/10W	
R909		RK73GB2A000J	CHIP R	0	J 1/10W	
R910		RK73GB2A182J	CHIP R	1.8K	J 1/10W	
R911		RK73GB2A000J	CHIP R	0	J 1/10W	
R912		RK73GB2A000J	CHIP R	0	J 1/10W	
R914		RK73GB2A222J	CHIP R	2.2K	J 1/10W	
VR1		R32-0744-05	SEMI FIXED VARIABLE RESISTOR(220)			
VR2		R32-0754-05	SEMI FIXED VARIABLE RESISTOR(10K)			
VR902		R31-0668-15	VARIABLE RESISTOR(10K)			
D4		Z5W27V	SURGE ABSORBER			
D5		DSM3MA1-RPB	DIODE			
D6		1SS355	DIODE			
D7		02CZ5.6(Y)F	ZENER DIODE			
D9		HSB88WS	DIODE			
D10		HSB88WS	DIODE			
D11		L8103R	DIODE			
D14		L8103R	DIODE			
D15		L8103R	DIODE			
D16		L8103R	DIODE			
D19		02CZ4.7(Y)F	ZENER DIODE			
D902		AVRM16270MABB	VARISTOR			
IC1		LTC6101BIS5-F	ANALOGUE IC			
IC2		NJM2904E-ZB	ANALOGUE IC			
IC3		TA78L05FF	BIPOLAR IC			
IC4		NJM2904E-ZB	ANALOGUE IC			
IC5		NJM2904E-ZB	ANALOGUE IC			
IC6		NJM2904E-ZB	ANALOGUE IC			
IC7		S-8130AC	MOS-IC			
IC8		NJM2904E-ZB	ANALOGUE IC			
IC9		S24CS02AFJTBG	ROM IC			
IC10	1A	RA13H3340M131	MOS-IC			
IC11	1B	NJM7808FA-ZB	BIPOLAR IC			
IC12	1B	NJM7805FA-ZB	BIPOLAR IC			
IC15		NJM2904E-ZB	ANALOGUE IC			
Q2		SSM3K15TE(F)	FET			

If a part reference number is listed in a shaded box, that part does not come with the PCB.

PARTS LIST

FINAL UNIT (X45-3820-14)
CONTROL UNIT (X53-4130-10)

Ref. No.	Address	Parts No.	Description			Destination
Q3		SSM3J01F	FET			
Q4		2SJ506-E(S)	FET			
Q5		SSM3K15TE(F)	FET			
Q6		SSM3K15TE(F)	FET			
Q8		SSM3K15TE(F)	FET			
Q14		SSM3K15TE(F)	FET			
CONTROL UNIT (X53-4130-10)						
C1 -5		CK73GB1H102K	CHIP C	1000PF	K	
C6		CC73GCH1H101J	CHIP C	100PF	J	
C7		CK73GB1H102K	CHIP C	1000PF	K	
C8		CC73GCH1H101J	CHIP C	100PF	J	
C9		CK73GB1H102K	CHIP C	1000PF	K	
C10		CC73GCH1H101J	CHIP C	100PF	J	
C12 -16		CK73GB1H102K	CHIP C	1000PF	K	
C18 -28		CK73GB1H102K	CHIP C	1000PF	K	
C29		CC73GCH1H101J	CHIP C	100PF	J	
C30 -33		CK73GB1H102K	CHIP C	1000PF	K	
C34		CC73GCH1H101J	CHIP C	100PF	J	
C35		CK73GB1H102K	CHIP C	1000PF	K	
C36		CC73GCH1H101J	CHIP C	100PF	J	
C37		CK73GB1H104K	CHIP C	0.10UF	K	
C39 -47		CK73GB1H102K	CHIP C	1000PF	K	
C49		CC73GCH1H101J	CHIP C	100PF	J	
C50 -53		CK73GB1H102K	CHIP C	1000PF	K	
C54		CC73GCH1H101J	CHIP C	100PF	J	
C55		CK73GB1H102K	CHIP C	1000PF	K	
C56		CC73GCH1H101J	CHIP C	100PF	J	
C57		CK73GB1H102K	CHIP C	1000PF	K	
C58		CC73GCH1H101J	CHIP C	100PF	J	
C60 -62		CK73GB1H102K	CHIP C	1000PF	K	
C63		CK73GB1H104K	CHIP C	0.10UF	K	
C64		CK73GB1H102K	CHIP C	1000PF	K	
C65		CK73FB0J106K	CHIP C	10UF	K	
C66		CK73GB1H102K	CHIP C	1000PF	K	
C67		CK73FB0J106K	CHIP C	10UF	K	
C68		CK73GB1H102K	CHIP C	1000PF	K	
C69		CK73GB1H104K	CHIP C	0.10UF	K	
C70		CK73GB1H102K	CHIP C	1000PF	K	
C71		CK73FB0J106K	CHIP C	10UF	K	
C72		CK73GB1E105K	CHIP C	1.0UF	K	
C73		CC73GCH1H101J	CHIP C	100PF	J	
C74		CK73GB1H104K	CHIP C	0.10UF	K	
C75		CC73GCH1H101J	CHIP C	100PF	J	
C76		CK73GB1H102K	CHIP C	1000PF	K	
C77		C93-1824-05	CHIP C	100UF	M	
C78		CK73FB0J106K	CHIP C	10UF	K	
C79 -82		CK73GB1H104K	CHIP C	0.10UF	K	
C83 -86		CK73FB0J106K	CHIP C	10UF	K	
C87		C93-1824-05	CHIP C	100UF	M	
C88		CK73GB1H103K	CHIP C	0.010UF	K	
C89 ,90		CC73GCH1H221J	CHIP C	220PF	J	
C92		CC73GCH1H100D	CHIP C	10PF	D	
C95		C93-1824-05	CHIP C	100UF	M	
C96		CC73GCH1H101J	CHIP C	100PF	J	
C97		CK73GB1H104K	CHIP C	0.10UF	K	
C98		CK73FB0J106K	CHIP C	10UF	K	
C99		CK73GB1H102K	CHIP C	1000PF	K	

Ref. No.	Address	Parts No.	Description			Destination
C102		CC73GCH1H150J	CHIP C	15PF	J	
C103		CC73GCH1H101J	CHIP C	100PF	J	
C104-106		CD04BQ1H221M	ELECTRO	220UF	50WV	
C107		CK73GB1H102K	CHIP C	1000PF	K	
C108		CK73GB1H104K	CHIP C	0.10UF	K	
C109		CK73GB1H102K	CHIP C	1000PF	K	
C110		C93-1824-05	CHIP C	100UF	M	
C111		CK73GB1H104K	CHIP C	0.10UF	K	
C119		CC73GCH1H181J	CHIP C	180PF	J	
C120		CK73GB1H102K	CHIP C	1000PF	K	
C121		CK73FB0J106K	CHIP C	10UF	K	
C122		CC73GCH1H101J	CHIP C	100PF	J	
C123		CK73GB1H472K	CHIP C	4700PF	K	
C125		CK73GB1H472K	CHIP C	4700PF	K	
C127		CK73GB1H182K	CHIP C	1800PF	K	
C128		CC73GCH1H101J	CHIP C	100PF	J	
C130		CD04BQ1H221M	ELECTRO	220UF	50WV	
C131		CE32AU1C330M	CHIP EL	33UF	16WV	
C133		CD04BQ1H221M	ELECTRO	220UF	50WV	
C134		CK73GB1H104K	CHIP C	0.10UF	K	
C137,138		CK73GB1H102K	CHIP C	1000PF	K	
C139,140		CE32AU1C330M	CHIP EL	33UF	16WV	
C141		CK73GB1H102K	CHIP C	1000PF	K	
C144		CE32AU1C330M	CHIP EL	33UF	16WV	
C145		CK73GB1H182K	CHIP C	1800PF	K	
C146		CK73GB1H104K	CHIP C	0.10UF	K	
C152		CK73GB1H102K	CHIP C	1000PF	K	
C155		CC73GCH1H181J	CHIP C	180PF	J	
C157		CE32AU1C330M	CHIP EL	33UF	16WV	
C159		CK73GB1H102K	CHIP C	1000PF	K	
C161		CK73GB1H102K	CHIP C	1000PF	K	
C162		CE32AU1C330M	CHIP EL	33UF	16WV	
C165		CK73GB1H102K	CHIP C	1000PF	K	
C166		CE32AU1C330M	CHIP EL	33UF	16WV	
C169		CK73FB0J106K	CHIP C	10UF	K	
C170		CK73GB1H102K	CHIP C	1000PF	K	
C172		CK73FB0J106K	CHIP C	10UF	K	
C173		CC73GCH1H101J	CHIP C	100PF	J	
C174		CK73GB1H102K	CHIP C	1000PF	K	
C175		CC73GCH1H391J	CHIP C	390PF	J	
C177		CC73GCH1H101J	CHIP C	100PF	J	
C178		CK73FB0J106K	CHIP C	10UF	K	
C188,189		CK73GB1H104K	CHIP C	0.10UF	K	
C190		CK73GB1E105K	CHIP C	1.0UF	K	
C192,193		CK73GB1E105K	CHIP C	1.0UF	K	
C194		CC73GCH1H560J	CHIP C	56PF	J	
C195		CC73GCH1H181J	CHIP C	180PF	J	
C196		CC73GCH1H101J	CHIP C	100PF	J	
C197		CC73GCH1H330J	CHIP C	33PF	J	
C199		C93-1824-05	CHIP C	100UF	M	
C200		CK73FB0J106K	CHIP C	10UF	K	
C202		CK73GB1E105K	CHIP C	1.0UF	K	
C203		CC73GCH1H101J	CHIP C	100PF	J	
C204		CC73GCH1H121J	CHIP C	120PF	J	
C205		CK73GB1H182K	CHIP C	1800PF	K	
C206		C93-1824-05	CHIP C	100UF	M	
C207		CK73GB1H102K	CHIP C	1000PF	K	
C208		CK73FB0J106K	CHIP C	10UF	K	
C209		CK73GB1H103K	CHIP C	0.010UF	K	
C212		CC73GCH1H120J	CHIP C	12PF	J	

PARTS LIST

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Ref. No.	Address	Parts No.	Description			Destination
C213		CK73GB1H103K	CHIP C	0.010UF	K	
C215		CK73GB1H104K	CHIP C	0.10UF	K	
C216		CC73GCH1H100D	CHIP C	10PF	D	
C219		CC73GCH1H100D	CHIP C	10PF	D	
C222		CC73GCH1H150J	CHIP C	15PF	J	
C223		CK73GB1H103K	CHIP C	0.010UF	K	
C224		CK73GB1E105K	CHIP C	1.0UF	K	
C225		CK73GB1H104K	CHIP C	0.10UF	K	
C226		CK73FB0J106K	CHIP C	10UF	K	
C227		CK73GB1H102K	CHIP C	1000PF	K	
C229		CC73GCH1H101J	CHIP C	100PF	J	
C230		CK73GB1E105K	CHIP C	1.0UF	K	
C234,235		CK73GB1H104K	CHIP C	0.10UF	K	
C236		C90-4120-05	ELECTRO	470UF	35WV	
C237		CK73GB1H104K	CHIP C	0.10UF	K	
C239		C92-0777-05	ELECTRO	1000UF	25WV	
C244		CK73GB1H104K	CHIP C	0.10UF	K	
C245		CK73FB0J106K	CHIP C	10UF	K	
C246,247		CK73GB1H102K	CHIP C	1000PF	K	
C248,249		CK73GB1H104K	CHIP C	0.10UF	K	
C250		CK73FB0J106K	CHIP C	10UF	K	
C251		CK73GB1H102K	CHIP C	1000PF	K	
C252		CK73FB0J106K	CHIP C	10UF	K	
C253-255		CK73GB1H103K	CHIP C	0.010UF	K	
C256		CK73GB1H104K	CHIP C	0.10UF	K	
C257		CK73FB0J106K	CHIP C	10UF	K	
C258		CK73GB1H103K	CHIP C	0.010UF	K	
C262		CK73FB0J106K	CHIP C	10UF	K	
C263		CK73GB1H102K	CHIP C	1000PF	K	
C265		CK73GB1H104K	CHIP C	0.10UF	K	
C266-270		CK73GB1H103K	CHIP C	0.010UF	K	
C271		CK73FB0J106K	CHIP C	10UF	K	
C272,273		CK73GB1H103K	CHIP C	0.010UF	K	
C274		CK73GB1H472K	CHIP C	4700PF	K	
C275		CC73GCH1H120J	CHIP C	12PF	J	
C276		CC73GCH1H100D	CHIP C	10PF	D	
C277		CK73GB1H103K	CHIP C	0.010UF	K	
C278		CK73FB0J106K	CHIP C	10UF	K	
C279		CK73GB1H103K	CHIP C	0.010UF	K	
C280		CC73GCH1H100D	CHIP C	10PF	D	
C281		CC73GCH1H150J	CHIP C	15PF	J	
C282		CK73GB1H103K	CHIP C	0.010UF	K	
C283		CK73GB1H104K	CHIP C	0.10UF	K	
C284-288		CK73GB1H103K	CHIP C	0.010UF	K	
C289		CK73GB1H102K	CHIP C	1000PF	K	
C290-297		CK73GB1H103K	CHIP C	0.010UF	K	
C299,300		CK73GB1H103K	CHIP C	0.010UF	K	
C302		CK73GB1H103K	CHIP C	0.010UF	K	
C304		CC73GCH1H101J	CHIP C	100PF	J	
C305,306		CK73GB1H102K	CHIP C	1000PF	K	
C307-310		CC73GCH1H101J	CHIP C	100PF	J	
C311,312		CK73GB1H102K	CHIP C	1000PF	K	
C313		CC73GCH1H101J	CHIP C	100PF	J	
C314		CK73GB1H102K	CHIP C	1000PF	K	
C315		CC73GCH1H101J	CHIP C	100PF	J	
C316		CK73GB1H102K	CHIP C	1000PF	K	
C317		CK73GB1H103K	CHIP C	0.010UF	K	
C318		CC73GCH1H101J	CHIP C	100PF	J	
C319		CK73GB1H102K	CHIP C	1000PF	K	
C320		CK73GB1H103K	CHIP C	0.010UF	K	

Ref. No.	Address	Parts No.	Description			Destination
C321		CC73GCH1H101J	CHIP C	100PF	J	
C322,323		CK73GB1H102K	CHIP C	1000PF	K	
C324		CK73GB1H103K	CHIP C	0.010UF	K	
C325		CC73GCH1H101J	CHIP C	100PF	J	
C326,327		CK73GB1H102K	CHIP C	1000PF	K	
C328		CK73GB1H103K	CHIP C	0.010UF	K	
C329-331		CK73GB1H102K	CHIP C	1000PF	K	
C332		CK73GB1H103K	CHIP C	0.010UF	K	
C333-339		CK73GB1H102K	CHIP C	1000PF	K	
C340		CK73GB1H103K	CHIP C	0.010UF	K	
C342,343		CK73GB1H102K	CHIP C	1000PF	K	
C344		CK73GB1H103K	CHIP C	0.010UF	K	
C345		CK73GB1H104K	CHIP C	0.10UF	K	
C346,347		CK73GB1H102K	CHIP C	1000PF	K	
C348		CK73GB1H103K	CHIP C	0.010UF	K	
C350		CK73GB1H102K	CHIP C	1000PF	K	
C351		CK73GB1H103K	CHIP C	0.010UF	K	
C352,353		CK73GB1H102K	CHIP C	1000PF	K	
C354		CK73GB1H103K	CHIP C	0.010UF	K	
C355		CC73GCH1H101J	CHIP C	100PF	J	
C356		CK73GB1H102K	CHIP C	1000PF	K	
C357		CK73GB1H103K	CHIP C	0.010UF	K	
C358		CK73GB1H102K	CHIP C	1000PF	K	
C359		CC73GCH1H101J	CHIP C	100PF	J	
C360		CK73GB1H102K	CHIP C	1000PF	K	
C361		CK73GB1H103K	CHIP C	0.010UF	K	
C362		CK73GB1H102K	CHIP C	1000PF	K	
C363		CC73GCH1H101J	CHIP C	100PF	J	
C364		CK73GB1H102K	CHIP C	1000PF	K	
C365		CK73GB1H103K	CHIP C	0.010UF	K	
C366-368		CK73GB1H102K	CHIP C	1000PF	K	
C369		CK73GB1H103K	CHIP C	0.010UF	K	
C370-372		CK73GB1H102K	CHIP C	1000PF	K	
C373		CC73GCH1H101J	CHIP C	100PF	J	
C374		CK73GB1H103K	CHIP C	0.010UF	K	
C375,376		CK73GB1H102K	CHIP C	1000PF	K	
C377		CC73GCH1H101J	CHIP C	100PF	J	
C379,380		CK73GB1H102K	CHIP C	1000PF	K	
C381		CC73GCH1H101J	CHIP C	100PF	J	
C382		CK73GB1H103K	CHIP C	0.010UF	K	
C383,384		CK73GB1H102K	CHIP C	1000PF	K	
C385		CC73GCH1H101J	CHIP C	100PF	J	
C386,387		CK73GB1H102K	CHIP C	1000PF	K	
C388		CC73GCH1H101J	CHIP C	100PF	J	
C389,390		CK73GB1H102K	CHIP C	1000PF	K	
C394		C92-0905-05	OS-CON	47UF	35WV	
C395		CK73GB1H103K	CHIP C	0.010UF	K	
C396-399		CK73GB1H102K	CHIP C	1000PF	K	
C400,401		CE32AU1C330M	CHIP EL	33UF	16WV	
C403		CK73GB1E105K	CHIP C	1.0UF	K	
C404		CK73FB0J106K	CHIP C	10UF	K	
C405,406		CC73GCH1H101J	CHIP C	100PF	J	
C407		CK73GB1H102K	CHIP C	1000PF	K	
C408-410		CK73GB1E105K	CHIP C	1.0UF	K	
C413		CK73GB1H104K	CHIP C	0.10UF	K	
C414		CK73GB1H103K	CHIP C	0.010UF	K	
C415		CK73GB1H104K	CHIP C	0.10UF	K	
C416		CK73GB1H103K	CHIP C	0.010UF	K	
C417		CK73GB1E105K	CHIP C	1.0UF	K	
C418-420		CK73GB1H102K	CHIP C	1000PF	K	

PARTS LIST

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Ref. No.	Address	Parts No.	Description	Destination
C421		CC73GCH1H101J	CHIP C 100PF J	
C422-424		CK73GB1H102K	CHIP C 1000PF K	
C425,426		CC73GCH1H101J	CHIP C 100PF J	
C427-435		CK73GB1H102K	CHIP C 1000PF K	
C436		CK73GB1E105K	CHIP C 1.0UF K	
C437,438		CC73GCH1H101J	CHIP C 100PF J	
C440		CK73GB1H102K	CHIP C 1000PF K	
C442		CC73GCH1H101J	CHIP C 100PF J	
C444		CK73GB1H102K	CHIP C 1000PF K	
C445		CK73GB1H104K	CHIP C 0.10UF K	
C446		CC73GCH1H391J	CHIP C 390PF J	
C447		CC73GCH1H101J	CHIP C 100PF J	
C448,449		CK73GB1H102K	CHIP C 1000PF K	
C450		CC73GCH1H101J	CHIP C 100PF J	
C452,453		CK73GB1H102K	CHIP C 1000PF K	
C456,457		CK73GB1H102K	CHIP C 1000PF K	
C463		CK73GB1H104K	CHIP C 0.10UF K	
C467,468		CK73GB1H102K	CHIP C 1000PF K	
C469,470		CC73GCH1H101J	CHIP C 100PF J	
C471		CK73GB1H102K	CHIP C 1000PF K	
C473-475		CK73GB1H102K	CHIP C 1000PF K	
C477		CK73GB1E105K	CHIP C 1.0UF K	
C499		C92-0905-05	OS-CON 47UF 35WV	
C500		CK73GB1H104K	CHIP C 0.10UF K	
C510		CK73FB0J106K	CHIP C 10UF K	
CN1 -3		E40-6656-05	PIN ASSY(36P)	
CN4		E41-2673-05	PIN ASSY(4P)	
CN56,57		E40-6656-05	PIN ASSY(36P)	
CN58		E40-5960-05	PIN ASSY(30P)	
CN59		E40-6102-05	PIN ASSY(20P)	
CN60		E41-2735-05	PIN ASSY(2P)	
F1 ,2		F53-0315-15	FUSE(250MA)	
F3		F53-0328-15	FUSE(5A)	
L3 -14		L92-0447-05	BEADS CORE	
L15		L33-1476-05	SMALL FIXED INDUCTOR(68UH)	
L16		L33-1475-05	SMALL FIXED INDUCTOR(33UH)	
L17 ,18		L92-0447-05	BEADS CORE	
L19		L33-1475-05	SMALL FIXED INDUCTOR(33UH)	
L20 -22		L92-0447-05	BEADS CORE	
L32 -40		L92-0447-05	BEADS CORE	
L43		L92-0447-05	BEADS CORE	
L44 -49		L92-0467-05	CHIP FERRITE	
X1		L77-1984-05	CRYSTAL RESONATOR(14.7456MHZ)	
X2		L77-1987-05	CRYSTAL RESONATOR(16.515072MHZ)	
CP8		RK75GB1JR00	CHIP-COM 0 1/16W	
CP10		RK75GB1JR00	CHIP-COM 0 1/16W	
CP13		RK75GB1JR00	CHIP-COM 0 1/16W	
CP19		RK75GB1JR00	CHIP-COM 0 1/16W	
CP25,26		RK75GB1JR00	CHIP-COM 0 1/16W	
R1 ,2		RK73GB2A000J	CHIP R 0 J 1/10W	
R6		RK73GB2A101J	CHIP R 100 J 1/10W	
R7 -17		RK73GB2A000J	CHIP R 0 J 1/10W	
R18 ,19		RK73GB2A101J	CHIP R 100 J 1/10W	
R21 -45		RK73GB2A000J	CHIP R 0 J 1/10W	
R47 -49		RK73GB2A000J	CHIP R 0 J 1/10W	
R51 -61		RK73GB2A000J	CHIP R 0 J 1/10W	
R62		RK73GB2A101J	CHIP R 100 J 1/10W	
R63 ,64		RK73GB2A332J	CHIP R 3.3K J 1/10W	

Ref. No.	Address	Parts No.	Description	Destination
R65		RK73GB2A183J	CHIP R 18K J 1/10W	
R66		RK73GB2A823J	CHIP R 82K J 1/10W	
R67		RK73GH2A822D	CHIP R 8.2K D 1/10W	
R68		RK73GH2A332D	CHIP R 3.3K D 1/10W	
R69 ,70		RK73GB2A000J	CHIP R 0 J 1/10W	
R71		RK73GH2A473D	CHIP R 47K D 1/10W	
R72 -76		RK73GB2A000J	CHIP R 0 J 1/10W	
R77		RK73GH2A104D	CHIP R 100K D 1/10W	
R78		RK73GB2A104J	CHIP R 100K J 1/10W	
R79		RK73GH2A332D	CHIP R 3.3K D 1/10W	
R80		RK73GB2A123J	CHIP R 12K J 1/10W	
R81 ,82		RK73GB2A563J	CHIP R 56K J 1/10W	
R83		RK73GB2A124J	CHIP R 120K J 1/10W	
R84		RK73GB2A473J	CHIP R 47K J 1/10W	
R85		RK73GB2A000J	CHIP R 0 J 1/10W	
R86		RK73GB2A473J	CHIP R 47K J 1/10W	
R87		RK73GB2A223J	CHIP R 22K J 1/10W	
R88		RK73GB2A000J	CHIP R 0 J 1/10W	
R89		RK73GB2A103J	CHIP R 10K J 1/10W	
R90		RK73GB2A153J	CHIP R 15K J 1/10W	
R91		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R92		RK73GB2A562J	CHIP R 5.6K J 1/10W	
R93 ,94		RK73GB2A000J	CHIP R 0 J 1/10W	
R95		RK73GB2A470J	CHIP R 47 J 1/10W	
R96		RK73GB2A223J	CHIP R 22K J 1/10W	
R98		RK73GB2A103J	CHIP R 10K J 1/10W	
R100		RK73GB2A473J	CHIP R 47K J 1/10W	
R101		RK73GB2A000J	CHIP R 0 J 1/10W	
R102		RK73GB2A123J	CHIP R 12K J 1/10W	
R103-105		RK73GB2A473J	CHIP R 47K J 1/10W	
R106-108		RK73GB2A000J	CHIP R 0 J 1/10W	
R109		RK73GB2A153J	CHIP R 15K J 1/10W	
R111		RK73GB2A823J	CHIP R 82K J 1/10W	
R112		RK73GB2A123J	CHIP R 12K J 1/10W	
R113		RK73GB2A823J	CHIP R 82K J 1/10W	
R114		RK73GB2A223J	CHIP R 22K J 1/10W	
R115		RK73GB2A154J	CHIP R 150K J 1/10W	
R116		RK73GB2A223J	CHIP R 22K J 1/10W	
R127		RK73GB2A473J	CHIP R 47K J 1/10W	
R128-130		RK73GB2A000J	CHIP R 0 J 1/10W	
R131-133		RK73GB2A473J	CHIP R 47K J 1/10W	
R135		RK73GB2A000J	CHIP R 0 J 1/10W	
R137		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R138		RK73GB2A473J	CHIP R 47K J 1/10W	
R141-144		RK73GB2A000J	CHIP R 0 J 1/10W	
R145		RK73GB2A104J	CHIP R 100K J 1/10W	
R146-148		RK73GB2A000J	CHIP R 0 J 1/10W	
R149		RK73GB2A333J	CHIP R 33K J 1/10W	
R150		RK73GB2A563J	CHIP R 56K J 1/10W	
R151		RK73GB2A124J	CHIP R 120K J 1/10W	
R152		RK73GB2A104J	CHIP R 100K J 1/10W	
R153		RK73GB2A000J	CHIP R 0 J 1/10W	
R154,155		RK73GB2A333J	CHIP R 33K J 1/10W	
R156,157		RK73GH2A104D	CHIP R 100K D 1/10W	
R158		RK73GB2A333J	CHIP R 33K J 1/10W	
R159		RK73GB2A000J	CHIP R 0 J 1/10W	
R160,161		RK73GB2A563J	CHIP R 56K J 1/10W	
R162		RK73GB2A224J	CHIP R 220K J 1/10W	
R163		RK73GB2A000J	CHIP R 0 J 1/10W	
R165		RK73GB2A104J	CHIP R 100K J 1/10W	

PARTS LIST

CONTROL UNIT (X53-4130-10)

Ref. No.	Address	Parts No.	Description	Destination
R166		RK73GB2A333J	CHIP R 33K J 1/10W	
R167		RK73GB2A473J	CHIP R 47K J 1/10W	
R168		RK73GB2A563J	CHIP R 56K J 1/10W	
R169		RK73GB2A333J	CHIP R 33K J 1/10W	
R171		RK73GB2A183J	CHIP R 18K J 1/10W	
R172,173		RK73GB2A473J	CHIP R 47K J 1/10W	
R174		RK73GB2A683J	CHIP R 68K J 1/10W	
R175		RK73GB2A393J	CHIP R 39K J 1/10W	
R176		RK73GB2A473J	CHIP R 47K J 1/10W	
R177,178		RK73GB2A000J	CHIP R 0 J 1/10W	
R179		RK73GB2A473J	CHIP R 47K J 1/10W	
R181,182		RK73GB2A103J	CHIP R 10K J 1/10W	
R183		RK73GB2A000J	CHIP R 0 J 1/10W	
R184		RK73GB2A473J	CHIP R 47K J 1/10W	
R191		RK73GB2A000J	CHIP R 0 J 1/10W	
R193		RK73GB2A103J	CHIP R 10K J 1/10W	
R194		RK73GB2A473J	CHIP R 47K J 1/10W	
R195,196		RK73GB2A000J	CHIP R 0 J 1/10W	
R197		RK73GB2A103J	CHIP R 10K J 1/10W	
R198		RK73GB2A473J	CHIP R 47K J 1/10W	
R199		RK73GB2A103J	CHIP R 10K J 1/10W	
R200,201		RK73GB2A000J	CHIP R 0 J 1/10W	
R202		RK73GB2A473J	CHIP R 47K J 1/10W	
R203		RK73GB2A104J	CHIP R 100K J 1/10W	
R204		RK73GB2A473J	CHIP R 47K J 1/10W	
R205		RK73GB2A104J	CHIP R 100K J 1/10W	
R206		RK73GB2A122J	CHIP R 1.2K J 1/10W	
R207,208		RK73GB2A473J	CHIP R 47K J 1/10W	
R210		RK73GB2A000J	CHIP R 0 J 1/10W	
R211,212		RK73GB2A473J	CHIP R 47K J 1/10W	
R215		RK73GB2A473J	CHIP R 47K J 1/10W	
R216,217		RK73GB2A000J	CHIP R 0 J 1/10W	
R218,219		RK73GB2A473J	CHIP R 47K J 1/10W	
R220,221		RK73GB2A000J	CHIP R 0 J 1/10W	
R222		RK73GB2A473J	CHIP R 47K J 1/10W	
R230,231		RK73GB2A473J	CHIP R 47K J 1/10W	
R232		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R233		RK73GB2A000J	CHIP R 0 J 1/10W	
R234,235		RK73GB2A473J	CHIP R 47K J 1/10W	
R237		RK73GB2A473J	CHIP R 47K J 1/10W	
R240-243		RK73GB2A473J	CHIP R 47K J 1/10W	
R245,246		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R247		RK73GB2A473J	CHIP R 47K J 1/10W	
R249,250		RK73GB2A000J	CHIP R 0 J 1/10W	
R251		RK73GB2A473J	CHIP R 47K J 1/10W	
R254		RK73GB2A473J	CHIP R 47K J 1/10W	
R261,262		RK73GB2A473J	CHIP R 47K J 1/10W	
R267-271		RK73GB2A473J	CHIP R 47K J 1/10W	
R273		RK73GB2A473J	CHIP R 47K J 1/10W	
R275		RK73GB2A473J	CHIP R 47K J 1/10W	
R277		RK73GB2A473J	CHIP R 47K J 1/10W	
R279		RK73GB2A103J	CHIP R 10K J 1/10W	
R281		RK73GB2A103J	CHIP R 10K J 1/10W	
R283		RK73GB2A000J	CHIP R 0 J 1/10W	
R286-288		RK73GB2A000J	CHIP R 0 J 1/10W	
R289		RK73GB2A473J	CHIP R 47K J 1/10W	
R290		RK73GB2A000J	CHIP R 0 J 1/10W	
R292-294		RK73GB2A000J	CHIP R 0 J 1/10W	
R296,297		RK73GB2A473J	CHIP R 47K J 1/10W	
R299,300		RK73GB2A103J	CHIP R 10K J 1/10W	

Ref. No.	Address	Parts No.	Description	Destination
R301,302		RK73GB2A104J	CHIP R 100K J 1/10W	
R303-315		RK73GB2A473J	CHIP R 47K J 1/10W	
R316-338		RK73GB2A000J	CHIP R 0 J 1/10W	
R340		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R342-351		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R352		RK73GB2A471J	CHIP R 470 J 1/10W	
R353-357		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R358		RK73GB2A122J	CHIP R 1.2K J 1/10W	
R359		RK73GB2A000J	CHIP R 0 J 1/10W	
R360		RK73GB2A122J	CHIP R 1.2K J 1/10W	
R361-377		RK73GB2A000J	CHIP R 0 J 1/10W	
R378,379		RK73GB2A122J	CHIP R 1.2K J 1/10W	
R380		RK73GB2A000J	CHIP R 0 J 1/10W	
R389-396		RK73GB2A000J	CHIP R 0 J 1/10W	
R398-404		RK73GB2A000J	CHIP R 0 J 1/10W	
R406-409		RK73GB2A000J	CHIP R 0 J 1/10W	
R410		RK73GB2A684J	CHIP R 680K J 1/10W	
R411		RK73GB2A224J	CHIP R 220K J 1/10W	
R412		RK73GB2A103J	CHIP R 10K J 1/10W	
R413		RK73GB2A104J	CHIP R 100K J 1/10W	
R414		RK73GB2A000J	CHIP R 0 J 1/10W	
R415-418		RK73GB2A104J	CHIP R 100K J 1/10W	
R419,420		RK73GB2A000J	CHIP R 0 J 1/10W	
R426		RS14KB3D220J	FL-PROOF RS 22 J 2W	
R428-430		RK73GB2A000J	CHIP R 0 J 1/10W	
R432		RK73GB2A470J	CHIP R 47 J 1/10W	
R433		RK73GB2A473J	CHIP R 47K J 1/10W	
R434		RK73GB2A470J	CHIP R 47 J 1/10W	
R435		RK73GB2A473J	CHIP R 47K J 1/10W	
R436-446		RK73GB2A000J	CHIP R 0 J 1/10W	
R448-454		RK73GB2A000J	CHIP R 0 J 1/10W	
R455		RK73GB2A104J	CHIP R 100K J 1/10W	
R457		RK73GB2A473J	CHIP R 47K J 1/10W	
R458,459		RK73GB2A104J	CHIP R 100K J 1/10W	
R460,461		RK73GB2A103J	CHIP R 10K J 1/10W	
R467,468		RK73GB2A000J	CHIP R 0 J 1/10W	
R469		RK73GB2A103J	CHIP R 10K J 1/10W	
R470		RK73GB2A000J	CHIP R 0 J 1/10W	
R471-473		RK73GB2A104J	CHIP R 100K J 1/10W	
R474		RK73GB2A000J	CHIP R 0 J 1/10W	
R475		RK73GB2A104J	CHIP R 100K J 1/10W	
R477		RK73GB2A104J	CHIP R 100K J 1/10W	
R478		RK73GB2A103J	CHIP R 10K J 1/10W	
R479		RK73GB2A000J	CHIP R 0 J 1/10W	
R482		RK73GB2A000J	CHIP R 0 J 1/10W	
R484		RK73GB2A000J	CHIP R 0 J 1/10W	
R491-495		RK73GB2A000J	CHIP R 0 J 1/10W	
R501		RK73GB2A000J	CHIP R 0 J 1/10W	
R502		RK73GB2A183J	CHIP R 18K J 1/10W	
R507-510		RK73GB2A183J	CHIP R 18K J 1/10W	
R511-515		RK73GB2A123J	CHIP R 12K J 1/10W	
R522,523		RK73GB2A000J	CHIP R 0 J 1/10W	
R524,525		RK73GB2A473J	CHIP R 47K J 1/10W	
R526,527		RK73GB2A121J	CHIP R 120 J 1/10W	
R528-535		RK73GB2A000J	CHIP R 0 J 1/10W	
R536		RK73GB2A104J	CHIP R 100K J 1/10W	
R540		RK73GB2A222J	CHIP R 2.2K J 1/10W	
R541		RK73GB2A123J	CHIP R 12K J 1/10W	
R552		RK73GB2A000J	CHIP R 0 J 1/10W	

PARTS LIST

CONTROL UNIT (X53-4130-10)
CONTROL UNIT (X53-4140-10)

Ref. No.	Address	Parts No.	Description	Destination
D1 ,2		CMS05-Q	DIODE	
D3 ,4		DA204U	DIODE	
D5		1SS355	DIODE	
D6		02DZ18F-X	ZENER DIODE	
D7 -11		DA204U	DIODE	
D12		1SS355	DIODE	
D13		02DZ18F-X	ZENER DIODE	
D14 -18		DA204U	DIODE	
D20		DA204U	DIODE	
D23		DA204U	DIODE	
D24		SMD185F-2	VARISTOR	
D25		MINISMDC020F	VARISTOR	
D26		1SS388F	DIODE	
D28		1SS355	DIODE	
D29		DZ2J180(H)	ZENER DIODE	
D30		1SS355	DIODE	
D31		DZ2J180(H)	ZENER DIODE	
D32		1SS355	DIODE	
D33		DZ2J180(H)	ZENER DIODE	
D36 ,37		DA204U	DIODE	
D38 ,39		1SS388F	DIODE	
IC1		BU4094BCFV	MOS-IC	
IC2 ,3		BU4053BCFV	MOS-IC	
IC4		AK4550VTP	MOS-IC	
IC5		NJM2732V	BI-POLAR IC	
IC6		XC6209B332P-G	MOS-IC	
IC7		TA75S01F-F	MOS-IC	
IC8		M62364FP-F	MOS-IC	
IC9		NJM2734V	BI-POLAR IC	
IC10,11		NJM2340RB1	MOS-IC	
IC12		NJM2732V	BI-POLAR IC	
IC14		BU4053BCFV	MOS-IC	
IC15		BA33BC0FP	MOS-IC	
IC16		XC6209B502P-G	MOS-IC	
IC17		**Note 1(BGA)**	ROM IC	
IC18		XC6201P182M-G	MOS-IC	
IC19		NJM2732V	BI-POLAR IC	
IC20,21		NJM2734V	BI-POLAR IC	
IC22		BU4094BCFV	MOS-IC	
IC23		74AHC1G00GW	MOS-IC	
IC25		74HC1G66GW	MOS-IC	
IC27		TC7SET126FU-F	MOS-IC	
IC28		TC7SH126FU-F	MOS-IC	
IC29	2C	LA4425A	MOS-IC	
IC30		74AHC1G00GW	MOS-IC	
IC31		TC74VHC4040FK	MOS-IC	
IC32,33		TC7SH126FU-F	MOS-IC	
IC34		30625MGP490GU	MICROPROCESSOR IC	
IC35		S24CS02AFJTBG	ROM IC	
IC36		TC74VHCT541AK	MOS-IC	
IC37		320VC5402PGE	MICROPROCESSOR IC	
IC38		TC7SET08FU-F	MOS-IC	
IC39		TC7SH125FU-F	MOS-IC	
IC40		TC7SH126FU-F	MOS-IC	
IC41		KIC7SH08FU-P	MOS-IC	
IC50		KIC7SH08FU-P	MOS-IC	
Q1		RT1N141M-T111	TRANSISTOR	
Q2 ,3		2SJ506-E(S)	FET	
Q4 ,5		2SC4738F	TRANSISTOR	
Q6		KRC401-P	DIGITAL TRANSISTOR	
Q7 ,8		RT1N141M-T111	TRANSISTOR	
Q9		2SJ506-E(S)	FET	
Q10		2SC4738F	TRANSISTOR	
Q11		2SD2114K(W)	TRANSISTOR	
Q12		2SC4738F	TRANSISTOR	
Q13		2SD2114K(W)	TRANSISTOR	
Q14		2SC4116(Y)F	TRANSISTOR	
Q15		2SA1586(Y)F	TRANSISTOR	
Q16		2SC4116(Y)F	TRANSISTOR	
Q17		2SA1586(Y)F	TRANSISTOR	
Q18		KTK5132E-P	FET	
Q19		HN1L02FU(F)	FET	
Q20		2SA1955A-F	TRANSISTOR	
Q21		RT1N441M-T111	TRANSISTOR	
Q22		2SA1955A-F	TRANSISTOR	
Q23		RT1N441M-T111	TRANSISTOR	
Q25 ,26		RT1N441M-T111	TRANSISTOR	
Q27 -29		2SD2114K(W)	TRANSISTOR	

CONTROL UNIT (X53-4140-10)

C302		CC73HCH1H101J	CHIP C	100PF	J	
C303		CK73HB1H102K	CHIP C	1000PF	K	
C305		CK73HB1A104K	CHIP C	0.10UF	K	
C306		CK73HB1H102K	CHIP C	1000PF	K	
C308,309		CK73HB1H102K	CHIP C	1000PF	K	
C311		CK73HB1A104K	CHIP C	0.10UF	K	
C312-317		CK73HB1H102K	CHIP C	1000PF	K	
C320		CC73HCH1H101J	CHIP C	100PF	J	
C322,323		CK73HB1H102K	CHIP C	1000PF	K	
C324		CC73HCH1H101J	CHIP C	100PF	J	
C326-329		CK73HB1H102K	CHIP C	1000PF	K	
C331		CK73HB1H102K	CHIP C	1000PF	K	
C333-335		CK73HB1H102K	CHIP C	1000PF	K	
C337		CK73HB1H102K	CHIP C	1000PF	K	
C339		CC73HCH1H101J	CHIP C	100PF	J	
C341,342		CK73HB1H102K	CHIP C	1000PF	K	
C343		CC73HCH1H101J	CHIP C	100PF	J	
C344		CK73HB1H102K	CHIP C	1000PF	K	
C345		CC73HCH1H101J	CHIP C	100PF	J	
C346-348		CK73HB1H102K	CHIP C	1000PF	K	
C349		CC73HCH1H101J	CHIP C	100PF	J	
C350		CK73HB1H102K	CHIP C	1000PF	K	
C352		CK73HB1H102K	CHIP C	1000PF	K	
C353		CC73HCH1H101J	CHIP C	100PF	J	
C354		CK73HB1H102K	CHIP C	1000PF	K	
C355		CK73HB1E103K	CHIP C	0.010UF	K	
C356		CC73HCH1H101J	CHIP C	100PF	J	
C357,358		CK73HB1H102K	CHIP C	1000PF	K	
C359,360		CK73HB1A104K	CHIP C	0.10UF	K	
C361		CK73HB1H102K	CHIP C	1000PF	K	
C362		CK73HB1E103K	CHIP C	0.010UF	K	
C364-366		CK73HB1H102K	CHIP C	1000PF	K	
C369,370		CK73HB1H102K	CHIP C	1000PF	K	
C371		CK73HB1A104K	CHIP C	0.10UF	K	
C373,374		CK73HB1H102K	CHIP C	1000PF	K	
C376-378		CK73HB1H102K	CHIP C	1000PF	K	
C379		CK73HB1A104K	CHIP C	0.10UF	K	
C380,381		CK73HB1H102K	CHIP C	1000PF	K	
C383-386		CK73HB1H102K	CHIP C	1000PF	K	
C388-390		CK73HB1H102K	CHIP C	1000PF	K	

Note 1 : This part cannot be replaced. Therefore, this part is not supplied as a service part.
If a part reference number is listed in a shaded box, that part does not come with the PCB.

PARTS LIST

CONTROL UNIT (X53-4140-10)

Ref. No.	Address	Parts No.	Description			Destination
C391		CK73GB1E105K	CHIP C	1.0UF	K	
C393-395		CK73HB1H102K	CHIP C	1000PF	K	
C397,398		CK73HB1H102K	CHIP C	1000PF	K	
C401		CC73HCH1H101J	CHIP C	100PF	J	
C402		CK73HB1H102K	CHIP C	1000PF	K	
C405,406		CK73HB1H102K	CHIP C	1000PF	K	
C409		CK73HB1H102K	CHIP C	1000PF	K	
C410		CC73HCH1H101J	CHIP C	100PF	J	
C412-415		CK73HB1H102K	CHIP C	1000PF	K	
C417,418		CE32AU1C330M	CHIP EL	33UF	16WV	
C419		CC73HCH1H101J	CHIP C	100PF	J	
C420		CK73HB1A104K	CHIP C	0.10UF	K	
C421		CK73HB1H102K	CHIP C	1000PF	K	
C422		CE32AU1C330M	CHIP EL	33UF	16WV	
C424		CK73HB1H102K	CHIP C	1000PF	K	
C426-430		CK73HB1H102K	CHIP C	1000PF	K	
C433		CK73HB1H102K	CHIP C	1000PF	K	
C435-437		CK73HB1H102K	CHIP C	1000PF	K	
C439		CE32AU1C330M	CHIP EL	33UF	16WV	
C440-442		CK73HB1H102K	CHIP C	1000PF	K	
C443,444		CE32AU1C330M	CHIP EL	33UF	16WV	
C445		CK73HB1A104K	CHIP C	0.10UF	K	
C447		CK73HB1A104K	CHIP C	0.10UF	K	
C448		CE32AU1C330M	CHIP EL	33UF	16WV	
C449,450		CK73HB1A104K	CHIP C	0.10UF	K	
C453		CK73GB1H103K	CHIP C	0.010UF	K	
C462		CK73HB1E103K	CHIP C	0.010UF	K	
C463		CC73HCH1H100D	CHIP C	10PF	D	
C466		CK73GB1H104K	CHIP C	0.10UF	K	
C467		CK73GB1H103K	CHIP C	0.010UF	K	
C471		CK73HB1H102K	CHIP C	1000PF	K	
C475		CK73FB0J106K	CHIP C	10UF	K	
C476		CK73HB1A104K	CHIP C	0.10UF	K	
C478		CK73HB1H102K	CHIP C	1000PF	K	
C480		CK73FB0J106K	CHIP C	10UF	K	
C482		CK73HB1A104K	CHIP C	0.10UF	K	
C487		CK73HB1H102K	CHIP C	1000PF	K	
C491		CK73FB0J106K	CHIP C	10UF	K	
C493,494		CK73HB1A104K	CHIP C	0.10UF	K	
C495		CK73GB1E105K	CHIP C	1.0UF	K	
C501		CK73HB1A104K	CHIP C	0.10UF	K	
C504		CK73HB1A104K	CHIP C	0.10UF	K	
C506		CK73HB1H472K	CHIP C	4700PF	K	
C516		CK73HB1H102K	CHIP C	1000PF	K	
C526-529		CK73FB0J106K	CHIP C	10UF	K	
C531		CK73HB1H102K	CHIP C	1000PF	K	
C533-536		CK73HB1H102K	CHIP C	1000PF	K	
C537		CK73FB0J106K	CHIP C	10UF	K	
C538,539		CK73HB1H102K	CHIP C	1000PF	K	
C543		CK73FB0J106K	CHIP C	10UF	K	
C544-546		CK73HB1H102K	CHIP C	1000PF	K	
C547		CK73FB0J106K	CHIP C	10UF	K	
C548		CK73HB1E103K	CHIP C	0.010UF	K	
C549		CC73HCH1H120G	CHIP C	12PF	G	
C550,551		CC73HCH1H100D	CHIP C	10PF	D	
C552		CC73HCH1H150J	CHIP C	15PF	J	
C553		CK73HB1E103K	CHIP C	0.010UF	K	
C557		CK73HB1H102K	CHIP C	1000PF	K	
C565		CK73FB0J106K	CHIP C	10UF	K	
C566		CK73HB1H102K	CHIP C	1000PF	K	

Ref. No.	Address	Parts No.	Description			Destination
C567		CK73HB1E103K	CHIP C	0.010UF	K	
C569		CE32AU1C330M	CHIP EL	33UF	16WV	
C570,571		CK73HB1H102K	CHIP C	1000PF	K	
C572		CE32BM1E470M	CHIP EL	47UF	25WV	
C574		CK73HB1H102K	CHIP C	1000PF	K	
C575-588		CK73HB1E103K	CHIP C	0.010UF	K	
C590-601		CK73HB1E103K	CHIP C	0.010UF	K	
C700		CK73HB1E103K	CHIP C	0.010UF	K	
C701		CK73HB1A104K	CHIP C	0.10UF	K	
C702		CK73HB1H102K	CHIP C	1000PF	K	
C703		CC73HCH1H150J	CHIP C	15PF	J	
C704,705		CK73FB0J106K	CHIP C	10UF	K	
C706		CK73HB1H102K	CHIP C	1000PF	K	
C707		CC73HCH1H080D	CHIP C	8.0PF	D	
C708		CK73HB1A104K	CHIP C	0.10UF	K	
C709		CK73FB0J106K	CHIP C	10UF	K	
C710		CK73HB1E103K	CHIP C	0.010UF	K	
C711		CK73FB0J106K	CHIP C	10UF	K	
C712		CK73HB1H102K	CHIP C	1000PF	K	
C713		CK73HB1A104K	CHIP C	0.10UF	K	
C714		CK73FB0J106K	CHIP C	10UF	K	
C715		CK73HB1A104K	CHIP C	0.10UF	K	
C716		CK73HB1H102K	CHIP C	1000PF	K	
C717		CK73HB1A104K	CHIP C	0.10UF	K	
C718		CC73HCH1H080D	CHIP C	8.0PF	D	
C719		CK73FB0J106K	CHIP C	10UF	K	
C720		CK73HB1A104K	CHIP C	0.10UF	K	
C721		CC73HCH1H100D	CHIP C	10PF	D	
C722,723		CK73HB1H102K	CHIP C	1000PF	K	
C724		CK73HB1A104K	CHIP C	0.10UF	K	
C725		CK73HB1H102K	CHIP C	1000PF	K	
C726		CK73FB0J106K	CHIP C	10UF	K	
C727		CC73HCH1H020B	CHIP C	2.0PF	B	
C728		CK73HB1E103K	CHIP C	0.010UF	K	
C729		CC73HCH1H020B	CHIP C	2.0PF	B	
C730		CK73HB1A104K	CHIP C	0.10UF	K	
C732		CK73HB1H102K	CHIP C	1000PF	K	
C733-741		CK73HB1A104K	CHIP C	0.10UF	K	
C742		CK73FB0J106K	CHIP C	10UF	K	
C743,744		CK73HB1A104K	CHIP C	0.10UF	K	
C746-750		CK73GB1E105K	CHIP C	1.0UF	K	
C751		CK73HB1E103K	CHIP C	0.010UF	K	
C754-758		CK73HB1A104K	CHIP C	0.10UF	K	
C767,768		CK73HB1H102K	CHIP C	1000PF	K	
C769		CK73FB0J106K	CHIP C	10UF	K	
C770-773		CK73HB1A104K	CHIP C	0.10UF	K	
C775		CK73HB1H102K	CHIP C	1000PF	K	
C776-780		CK73HB1E103K	CHIP C	0.010UF	K	
C781		CK73HB1A104K	CHIP C	0.10UF	K	
C782,783		CC73HCH1H120G	CHIP C	12PF	G	
C784,785		CK73HB1A104K	CHIP C	0.10UF	K	
C786		CC73HCH1H150J	CHIP C	15PF	J	
C787		CC73HCH1H100D	CHIP C	10PF	D	
C788		CK73FB0J106K	CHIP C	10UF	K	
C789-793		CK73HB1A104K	CHIP C	0.10UF	K	
C794		CK73FB0J106K	CHIP C	10UF	K	
C795		CK73HB1A104K	CHIP C	0.10UF	K	
C796,797		CK73HB1E103K	CHIP C	0.010UF	K	
C798		CK73HB1A104K	CHIP C	0.10UF	K	
C799,800		CK73HB1E103K	CHIP C	0.010UF	K	

PARTS LIST

CONTROL UNIT (X53-4140-10)

Ref. No.	Address	Parts No.	Description	Destination
C801		CK73HB1H102K	CHIP C 1000PF K	
C802,803		CK73HB1A104K	CHIP C 0.10UF K	
C804		CK73FB0J106K	CHIP C 10UF K	
C805-807		CK73HB1E103K	CHIP C 0.010UF K	
C808		CK73HB1H102K	CHIP C 1000PF K	
C809		CK73HB1A104K	CHIP C 0.10UF K	
C812		CK73HB1A104K	CHIP C 0.10UF K	
C813-815		CK73HB1H102K	CHIP C 1000PF K	
C816-818		CK73HB1A104K	CHIP C 0.10UF K	
C819		CK73HB1H102K	CHIP C 1000PF K	
C820,821		CK73HB1A104K	CHIP C 0.10UF K	
C822		CK73HB1H102K	CHIP C 1000PF K	
C825		CK73HB1H102K	CHIP C 1000PF K	
C826,827		CC73HCH1H101J	CHIP C 100PF J	
C828		CK73HB1H102K	CHIP C 1000PF K	
C829		CC73HCH1H101J	CHIP C 100PF J	
C830		CK73HB1H102K	CHIP C 1000PF K	
C831		CC73HCH1H101J	CHIP C 100PF J	
C832		CK73HB1H102K	CHIP C 1000PF K	
C833,834		CK73HB1A104K	CHIP C 0.10UF K	
C835-837		CK73HB1H102K	CHIP C 1000PF K	
C838,839		CC73HCH1H101J	CHIP C 100PF J	
C841-848		CC73GCH1H470J	CHIP C 47PF J	
C850		CC73GCH1H470J	CHIP C 47PF J	
C851-869		CC73HCH1H470J	CHIP C 47PF J	
C870-873		CK73HB1H102K	CHIP C 1000PF K	
CN300		E04-0193-05	PIN SOCKET	
CN400-402		E40-6656-05	PIN ASSY(36P)	
CN713		E41-2263-05	PIN ASSY(9P)	
J700		E58-0516-05	MODULAR JACK(LAN)	
J701		E58-0543-05	RECTANGULAR RECEPTACLE	
J702,703		E58-0533-05	MODULAR JACK(SYNC)	
L300-307		L92-0447-05	BEADS CORE	
L310		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L313-316		L92-0447-05	BEADS CORE	
L317,318		L33-1500-05	CHOKE COIL	
L319-325		L92-0447-05	BEADS CORE	
L326-331		L92-0467-05	CHIP FERRITE	
X300		L77-3112-05	TCXO(12.288MHZ)	
X301		L77-1984-05	CRYSTAL RESONATOR(14.7456MHZ)	
X700		L77-1985-05	CRYSTAL RESONATOR(25.8048MHZ)	
X701		L77-1802-05	CRYSTAL RESONATOR(32.768KHZ)	
X702		L77-1986-05	CRYSTAL RESONATOR(25MHZ)	
CP7 -11		RK75HA1J104J	CHIP-COM 100K J 1/16W	
CP13		RK75HA1J104J	CHIP-COM 100K J 1/16W	
CP14-16		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP18		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP20		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP37		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP43		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP47		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP50		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP60		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP62		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP68		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP75-78		RK75HA1JR00J	CHIP-COM 0 J 1/16W	
CP83-98		RK75HA1J390J	CHIP-COM 39 J 1/16W	
R300,301		RK73GB2A000J	CHIP R 0 J 1/10W	

Ref. No.	Address	Parts No.	Description	Destination
R302		RK73HB1J000J	CHIP R 0 J 1/16W	
R303		RK73GB2A000J	CHIP R 0 J 1/10W	
R312-317		RK73HB1J000J	CHIP R 0 J 1/16W	
R318,319		RK73HB1J101J	CHIP R 100 J 1/16W	
R320-337		RK73HB1J000J	CHIP R 0 J 1/16W	
R339		RK73HB1J473J	CHIP R 47K J 1/16W	
R340-350		RK73HB1J000J	CHIP R 0 J 1/16W	
R352-354		RK73HB1J000J	CHIP R 0 J 1/16W	
R356-360		RK73HB1J000J	CHIP R 0 J 1/16W	
R363-386		RK73HB1J000J	CHIP R 0 J 1/16W	
R387		RK73HB1J104J	CHIP R 100K J 1/16W	
R388-390		RK73GB2A000J	CHIP R 0 J 1/10W	
R392		RK73HB1J103J	CHIP R 10K J 1/16W	
R393-395		RK73HB1J000J	CHIP R 0 J 1/16W	
R397		RK73HB1J000J	CHIP R 0 J 1/16W	
R398		RK73HB1J104J	CHIP R 100K J 1/16W	
R399		RK73HB1J151J	CHIP R 150 J 1/16W	
R401		RK73HB1J000J	CHIP R 0 J 1/16W	
R403		RK73GB2A000J	CHIP R 0 J 1/10W	
R404,405		RK73HB1J000J	CHIP R 0 J 1/16W	
R406		RK73GB2A000J	CHIP R 0 J 1/10W	
R408		RK73HB1J000J	CHIP R 0 J 1/16W	
R410		RK73GB2A103J	CHIP R 10K J 1/10W	
R411		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R413		RK73GB2A103J	CHIP R 10K J 1/10W	
R414		RK73HB1J000J	CHIP R 0 J 1/16W	
R415		RK73HB1J100J	CHIP R 10 J 1/16W	
R416		RK73HB1J104J	CHIP R 100K J 1/16W	
R417		RK73HB1J000J	CHIP R 0 J 1/16W	
R418		RK73GB2A104J	CHIP R 100K J 1/10W	
R420		RK73HB1J000J	CHIP R 0 J 1/16W	
R421		RK73HB1J100J	CHIP R 10 J 1/16W	
R423		RK73HB1J000J	CHIP R 0 J 1/16W	
R424		RK73GB2A681J	CHIP R 680 J 1/10W	
R425		RK73HB1J000J	CHIP R 0 J 1/16W	
R428		RK73GB2A100J	CHIP R 10 J 1/10W	
R431		RK73HB1J000J	CHIP R 0 J 1/16W	
R432		RK73GB2A220J	CHIP R 22 J 1/10W	
R433		RK73HB1J105J	CHIP R 1.0M J 1/16W	
R440		RK73GB2A220J	CHIP R 22 J 1/10W	
R442		RK73HB1J683J	CHIP R 68K J 1/16W	
R446,447		RK73HB1J000J	CHIP R 0 J 1/16W	
R449		RK73HB1J683J	CHIP R 68K J 1/16W	
R451		RK73HB1J473J	CHIP R 47K J 1/16W	
R452-454		RK73HB1J100J	CHIP R 10 J 1/16W	
R457-461		RK73HB1J473J	CHIP R 47K J 1/16W	
R469		RK73HB1J470J	CHIP R 47 J 1/16W	
R470		RK73HB1J102J	CHIP R 1.0K J 1/16W	
R484		RK73HB1J000J	CHIP R 0 J 1/16W	
R486-489		RK73HB1J000J	CHIP R 0 J 1/16W	
R491-505		RK73HB1J000J	CHIP R 0 J 1/16W	
R516-518		RK73HB1J473J	CHIP R 47K J 1/16W	
R521		RK73HB1J000J	CHIP R 0 J 1/16W	
R522		RK73HB1J473J	CHIP R 47K J 1/16W	
R526		RK73HB1J000J	CHIP R 0 J 1/16W	
R527		RK73HB1J473J	CHIP R 47K J 1/16W	
R528,529		RK73HB1J000J	CHIP R 0 J 1/16W	
R530		RK73HB1J473J	CHIP R 47K J 1/16W	
R531,532		RK73HB1J000J	CHIP R 0 J 1/16W	
R533,534		RK73HB1J473J	CHIP R 47K J 1/16W	

PARTS LIST

CONTROL UNIT (X53-4140-10)

Ref. No.	Address	Parts No.	Description				Destination
R535-539		RK73HB1J000J	CHIP R	0	J	1/16W	
R540-542		RK73HB1J473J	CHIP R	47K	J	1/16W	
R543		RK73HB1J000J	CHIP R	0	J	1/16W	
R546		RK73HB1J000J	CHIP R	0	J	1/16W	
R547,548		RK73HB1J473J	CHIP R	47K	J	1/16W	
R549		RK73HB1J000J	CHIP R	0	J	1/16W	
R550		RK73HB1J473J	CHIP R	47K	J	1/16W	
R551,552		RK73HB1J000J	CHIP R	0	J	1/16W	
R553-555		RK73HB1J473J	CHIP R	47K	J	1/16W	
R556,557		RK73HB1J000J	CHIP R	0	J	1/16W	
R559		RK73HB1J102J	CHIP R	1.0K	J	1/16W	
R560		RK73HB1J103J	CHIP R	10K	J	1/16W	
R561		RK73HB1J000J	CHIP R	0	J	1/16W	
R562		RK73HB1J103J	CHIP R	10K	J	1/16W	
R564-566		RK73HB1J000J	CHIP R	0	J	1/16W	
R567		RK73HB1J473J	CHIP R	47K	J	1/16W	
R568		RK73HB1J000J	CHIP R	0	J	1/16W	
R569		RK73HB1J224J	CHIP R	220K	J	1/16W	
R570		RK73HB1J000J	CHIP R	0	J	1/16W	
R573-576		RK73HB1J000J	CHIP R	0	J	1/16W	
R577,578		RK73HB1J473J	CHIP R	47K	J	1/16W	
R579		RK73HB1J000J	CHIP R	0	J	1/16W	
R581		RK73HB1J000J	CHIP R	0	J	1/16W	
R582		RK73HB1J473J	CHIP R	47K	J	1/16W	
R583		RK73HB1J000J	CHIP R	0	J	1/16W	
R584		RK73HB1J473J	CHIP R	47K	J	1/16W	
R585,586		RK73HB1J000J	CHIP R	0	J	1/16W	
R587		RK73HB1J473J	CHIP R	47K	J	1/16W	
R588		RK73HB1J000J	CHIP R	0	J	1/16W	
R589		RK73HB1J473J	CHIP R	47K	J	1/16W	
R590		RK73HB1J000J	CHIP R	0	J	1/16W	
R591		RK73HB1J223J	CHIP R	22K	J	1/16W	
R592-600		RK73HB1J000J	CHIP R	0	J	1/16W	
R602		RK73HB1J103J	CHIP R	10K	J	1/16W	
R604		RK73HB1J103J	CHIP R	10K	J	1/16W	
R605-610		RK73HB1J000J	CHIP R	0	J	1/16W	
R612-616		RK73HB1J000J	CHIP R	0	J	1/16W	
R620-623		RK73HB1J000J	CHIP R	0	J	1/16W	
R624		RK73HB1J473J	CHIP R	47K	J	1/16W	
R626		RK73HB1J473J	CHIP R	47K	J	1/16W	
R627		RK73HB1J000J	CHIP R	0	J	1/16W	
R629-631		RK73HB1J000J	CHIP R	0	J	1/16W	
R632		RK73HB1J101J	CHIP R	100	J	1/16W	
R634		RK73HB1J473J	CHIP R	47K	J	1/16W	
R635,636		RK73HB1J000J	CHIP R	0	J	1/16W	
R637-640		RK73HB1J473J	CHIP R	47K	J	1/16W	
R641		RK73HB1J000J	CHIP R	0	J	1/16W	
R642		RK73HB1J101J	CHIP R	100	J	1/16W	
R643		RK73HB1J473J	CHIP R	47K	J	1/16W	
R644		RK73HB1J000J	CHIP R	0	J	1/16W	
R646		RK73HB1J473J	CHIP R	47K	J	1/16W	
R648		RK73HB1J000J	CHIP R	0	J	1/16W	
R649		RK73HB1J101J	CHIP R	100	J	1/16W	
R650		RK73HB1J473J	CHIP R	47K	J	1/16W	
R651-653		RK73HB1J000J	CHIP R	0	J	1/16W	
R656,657		RK73HB1J000J	CHIP R	0	J	1/16W	
R660-664		RK73HB1J000J	CHIP R	0	J	1/16W	
R667,668		RK73HB1J000J	CHIP R	0	J	1/16W	
R672-674		RK73HB1J473J	CHIP R	47K	J	1/16W	
R678,679		RK73HB1J000J	CHIP R	0	J	1/16W	

Ref. No.	Address	Parts No.	Description				Destination
R680		RK73HB1J473J	CHIP R	47K	J	1/16W	
R685-687		RK73HB1J000J	CHIP R	0	J	1/16W	
R690		RK73HB1J000J	CHIP R	0	J	1/16W	
R700,701		RK73HB1J103J	CHIP R	10K	J	1/16W	
R702,703		RK73HB1J473J	CHIP R	47K	J	1/16W	
R709,710		RK73HB1J104J	CHIP R	100K	J	1/16W	
R711		RK73GB2A000J	CHIP R	0	J	1/10W	
R712-714		RK73HB1J100J	CHIP R	10	J	1/16W	
R715		RK73GB2A000J	CHIP R	0	J	1/10W	
R716		RK73HB1J000J	CHIP R	0	J	1/16W	
R718		RK73HB1J104J	CHIP R	100K	J	1/16W	
R719		RK73HB1J472J	CHIP R	4.7K	J	1/16W	
R720		RK73HB1J100J	CHIP R	10	J	1/16W	
R721		RK73GB2A000J	CHIP R	0	J	1/10W	
R722		RK73HB1J472J	CHIP R	4.7K	J	1/16W	
R725,726		RK73HB1J000J	CHIP R	0	J	1/16W	
R727		RK73HB1J103J	CHIP R	10K	J	1/16W	
R729,730		RK73HB1J000J	CHIP R	0	J	1/16W	
R731		RK73HB1J103J	CHIP R	10K	J	1/16W	
R732		RK73HB1J390J	CHIP R	39	J	1/16W	
R733		RK73HB1J104J	CHIP R	100K	J	1/16W	
R734		RK73HB1J102J	CHIP R	1.0K	J	1/16W	
R735,736		RK73HB1J000J	CHIP R	0	J	1/16W	
R738		RK73HB1J104J	CHIP R	100K	J	1/16W	
R742		RK73HB1J104J	CHIP R	100K	J	1/16W	
R743,744		RK73HB1J153J	CHIP R	15K	J	1/16W	
R745		RK73HB1J104J	CHIP R	100K	J	1/16W	
R754		RK73HB1J103J	CHIP R	10K	J	1/16W	
R756		RK73HB1J000J	CHIP R	0	J	1/16W	
R758		RK73HB1J103J	CHIP R	10K	J	1/16W	
R759		RK73HB1J000J	CHIP R	0	J	1/16W	
R760		RK73HB1J103J	CHIP R	10K	J	1/16W	
R761-764		RK73GB2A221J	CHIP R	220	J	1/10W	
R765		RK73GB2A000J	CHIP R	0	J	1/10W	
R766		RK73HB1J000J	CHIP R	0	J	1/16W	
R767		RK73HB1J102J	CHIP R	1.0K	J	1/16W	
R768-770		RK73HB1J000J	CHIP R	0	J	1/16W	
R772-777		RK73HB1J104J	CHIP R	100K	J	1/16W	
R779		RK73HB1J104J	CHIP R	100K	J	1/16W	
R780		RK73HB1J000J	CHIP R	0	J	1/16W	
R781-784		RK73HB1J104J	CHIP R	100K	J	1/16W	
R785		RK73HB1J272J	CHIP R	2.7K	J	1/16W	
R786-788		RK73HB1J104J	CHIP R	100K	J	1/16W	
R794		RK73HB1J104J	CHIP R	100K	J	1/16W	
R796		RK73HB1J104J	CHIP R	100K	J	1/16W	
R799-803		RK73HB1J104J	CHIP R	100K	J	1/16W	
R805-808		RK73HB1J103J	CHIP R	10K	J	1/16W	
R816		RK73HB1J105J	CHIP R	1.0M	J	1/16W	
R817		RK73HB1J821J	CHIP R	820	J	1/16W	
R818		RK73HB1J104J	CHIP R	100K	J	1/16W	
R820		RK73HB1J103J	CHIP R	10K	J	1/16W	
R821		RK73HB1J000J	CHIP R	0	J	1/16W	
R822		RK73HB1J103J	CHIP R	10K	J	1/16W	
R824		RK73HB1J103J	CHIP R	10K	J	1/16W	
R826		RK73HB1J103J	CHIP R	10K	J	1/16W	
R828		RK73HB1J104J	CHIP R	100K	J	1/16W	
R829		RK73HH1J113D	CHIP R	11K	D	1/16W	
R830		RK73HB1J104J	CHIP R	100K	J	1/16W	
R832		RK73HB1J104J	CHIP R	100K	J	1/16W	
R833		RK73HB1J000J	CHIP R	0	J	1/16W	

PARTS LIST

CONTROL UNIT (X53-4140-10)
RX UNIT (X55-3100-14)

Ref. No.	Address	Parts No.	Description				Destination
R834		RK73HB1J104J	CHIP R	100K	J	1/16W	
R835		RK73HB1J000J	CHIP R	0	J	1/16W	
R837		RK73GH2A49R9D	CHIP R	49.9	D	1/10W	
R839		RK73GB2A000J	CHIP R	0	J	1/10W	
R840		RK73GH2A49R9D	CHIP R	49.9	D	1/10W	
R842-845		RK73HB1J104J	CHIP R	100K	J	1/16W	
R867,868		RK73GH2A24R9D	CHIP R	24.9	D	1/10W	
R869		RK73HB1J331J	CHIP R	330	J	1/16W	
R870		RK73HB1J000J	CHIP R	0	J	1/16W	
R871-873		RK73HB1J103J	CHIP R	10K	J	1/16W	
R874		RK73HB1J000J	CHIP R	0	J	1/16W	
R875,876		RK73GH2A24R9D	CHIP R	24.9	D	1/10W	
R877,878		RK73HB1J103J	CHIP R	10K	J	1/16W	
R879		RK73GB2A000J	CHIP R	0	J	1/10W	
R880,881		RK73HB1J104J	CHIP R	100K	J	1/16W	
R884,885		RK73HB1J000J	CHIP R	0	J	1/16W	
R886		RK73HB1J221J	CHIP R	220	J	1/16W	
R887		RK73HB1J000J	CHIP R	0	J	1/16W	
R888		RK73HB1J221J	CHIP R	220	J	1/16W	
R889		RK73HB1J103J	CHIP R	10K	J	1/16W	
R890		RK73HB1J000J	CHIP R	0	J	1/16W	
R891		RK73HB1J104J	CHIP R	100K	J	1/16W	
R892,893		RK73HB1J000J	CHIP R	0	J	1/16W	
R894		RK73HB1J103J	CHIP R	10K	J	1/16W	
R897		RK73HB1J104J	CHIP R	100K	J	1/16W	
R902,903		RK73HB1J000J	CHIP R	0	J	1/16W	
R907		RK73HB1J000J	CHIP R	0	J	1/16W	
R909		RK73HB1J000J	CHIP R	0	J	1/16W	
R910		RK73HB1J473J	CHIP R	47K	J	1/16W	
R911		RK73HB1J000J	CHIP R	0	J	1/16W	
R912		RK73HB1J473J	CHIP R	47K	J	1/16W	
R913,914		RK73HB1J000J	CHIP R	0	J	1/16W	
R915		RK73HB1J473J	CHIP R	47K	J	1/16W	
R916,917		RK73HB1J000J	CHIP R	0	J	1/16W	
R919-923		RK73HB1J000J	CHIP R	0	J	1/16W	
R924		RK73HB1J104J	CHIP R	100K	J	1/16W	
R926		RK73HB1J473J	CHIP R	47K	J	1/16W	
R927-933		RK73HB1J000J	CHIP R	0	J	1/16W	
R934,935		RK73HB1J474J	CHIP R	470K	J	1/16W	
R936		RK73HB1J104J	CHIP R	100K	J	1/16W	
R942		RK73HB1J104J	CHIP R	100K	J	1/16W	
R943		RK73HB1J000J	CHIP R	0	J	1/16W	
R945-950		RK73HB1J000J	CHIP R	0	J	1/16W	
R951		RK73HB1J104J	CHIP R	100K	J	1/16W	
R952,953		RK73HB1J000J	CHIP R	0	J	1/16W	
R960		RK73GB2A000J	CHIP R	0	J	1/10W	
R970,971		RK73HB1J000J	CHIP R	0	J	1/16W	
S700		S79-0473-05	DIP SWITCHES				
D300		1SS388F	DIODE				
D701		1SS388F	DIODE				
D702		1SS355	DIODE				
IC300,301		TC7SET126FU-F	MOS-IC				
IC302		ISL8485EIBZ	MOS-IC				
IC303		BU4829FVE	MOS-IC				
IC304		TC7SH125FU-F	MOS-IC				
IC305		XC6209B332P-G	MOS-IC				
IC306		BA15BC0FP	MOS-IC				
IC307		XC6201P152P-G	MOS-IC				

Ref. No.	Address	Parts No.	Description				Destination
IC308		XC61CN2702N-G	MOS-IC				
IC309		AK4550VTP	MOS-IC				
IC312		ADCS7476AIMF	MOS-IC				
IC313		TC7WU04FK-F	MOS-IC				
IC314		**Note 1(BGA)**	ROM IC				
IC323,324		**Note 1(BGA)**	MICROPROCESSOR IC				
IC325		30625MGP490GU	MICROPROCESSOR IC				
IC327		TC7SH08FU-F	MOS-IC				
IC329	1C	BA33DD0WT	MOS-IC				
IC330		TC7SH126FU-F	MOS-IC				
IC700		62167EV30LL45	SRAM IC				
IC701		RV5C386A	MOS-IC				
IC702		29PL127JKCDC	ROM IC				
IC703		**Note 1(BGA)**	MICROPROCESSOR IC				
IC704		EM639165TS6IG	DRAM IC				
IC705		ADM3202ARUZ	MOS-IC				
IC707		EM639165TS6IG	DRAM IC				
IC708		BU4829FVE	MOS-IC				
IC709		TC7SH126FU-F	MOS-IC				
IC710,711		74AHC1G00GW	MOS-IC				
IC712,713		TC7SH32FU-F	MOS-IC				
IC714-716		TC74LCX244FK	MOS-IC				
IC717,718		TC74LCX245FK	MOS-IC				
IC719		LAN91C111I-NU	MOS-IC				
IC720		AT93C46DN-SH	ROM IC				
IC721		TC7SH08FU-F	MOS-IC				
IC722		TC7SH32FU-F	MOS-IC				
IC723		74AHC1G00GW	MOS-IC				
IC724		TC7SH125FU-F	MOS-IC				
IC725		TC7SH126FU-F	MOS-IC				
IC726		TC7SH08FU-F	MOS-IC				
IC727,728		TC7SH126FU-F	MOS-IC				
Q301		RT1N141M-T111	TRANSISTOR				
Q302		2SA1955A-F	TRANSISTOR				
Q303		LTA044EUBFS8	TRANSISTOR				
Q304		2SC4738F	TRANSISTOR				
Q307,308		2SC4738F	TRANSISTOR				
Q309		SSM6N16FE-F	FET				
Q700		2SC4738F	TRANSISTOR				
Q702		2SC4738F	TRANSISTOR				
Q704,705		2SC4738F	TRANSISTOR				
Q706		RT1N141M-T111	TRANSISTOR				
Q707		RT1N441M-T111	TRANSISTOR				
BA300		W09-1004-05	LITHIUM CELL				

RX UNIT (X55-3100-14)

D21		B30-2205-05	LED(YG)			
C7		CC73GCH1H471J	CHIP C	470PF	J	
C10		CC73GCH1H080B	CHIP C	8.0PF	B	
C12		CC73GCH1H100C	CHIP C	10PF	C	
C14		CC73GCH1H471J	CHIP C	470PF	J	
C15		CK73GB1H104K	CHIP C	0.10UF	K	
C17		CC73GCH1H471J	CHIP C	470PF	J	
C18		CK73GB1H104K	CHIP C	0.10UF	K	
C24		CC73GCH1H471J	CHIP C	470PF	J	
C25		CK73GB1H104K	CHIP C	0.10UF	K	
C26		CC73GCH1H471J	CHIP C	470PF	J	
C27		CK73GB1H102K	CHIP C	1000PF	K	

Note 1 : This part cannot be replaced. Therefore, this part is not supplied as a service part.
If a part reference number is listed in a shaded box, that part does not come with the PCB.

PARTS LIST

RX UNIT (X55-3100-14)

Ref. No.	Address	Parts No.	Description			Destination
C32		CC73GCH1H151J	CHIP C	150PF	J	
C33		CC73GCH1H271J	CHIP C	270PF	J	
C34		CC73GCH1H471J	CHIP C	470PF	J	
C35		CC73GCH1H471J	CHIP C	470PF	J	
C36		CK73GB1H102K	CHIP C	1000PF	K	
C37		CK73FB1E224K	CHIP C	0.22UF	K	
C38		CS77MA1VR33M	CHIP TNTL	0.33UF	35WV	
C39		CC73GCH1H271J	CHIP C	270PF	J	
C41		CC73GCH1H471J	CHIP C	470PF	J	
C42		CC73GCH1H471J	CHIP C	470PF	J	
C43		CC73GCH1H561J	CHIP C	560PF	J	
C44		CK73GB1H103K	CHIP C	0.010UF	K	
C45		CK73GB1H104K	CHIP C	0.10UF	K	
C46		CC73GCH1H561J	CHIP C	560PF	J	
C47		CC73GCH1H471J	CHIP C	470PF	J	
C48		CK73GB1H104K	CHIP C	0.10UF	K	
C50		CE32BM1E470M	CHIP EL	47UF	25WV	
C51		CK73GB1H104K	CHIP C	0.10UF	K	
C53		CC73GCH1H271J	CHIP C	270PF	J	
C54		CC73GCH1H101J	CHIP C	100PF	J	
C55		CC73GCH1H080B	CHIP C	8.0PF	B	
C56		CC73GCH1H271J	CHIP C	270PF	J	
C58		CS77MB21C220M	CHIP TNTL	22UF	16WV	
C59		CK73GB1H104K	CHIP C	0.10UF	K	
C60		CC73GCH1H471J	CHIP C	470PF	J	
C61		CC73GCH1H471J	CHIP C	470PF	J	
C62		CK73GB1H104K	CHIP C	0.10UF	K	
C63		CK73GB1H104K	CHIP C	0.10UF	K	
C64		CK73GB1H104K	CHIP C	0.10UF	K	
C65		CK73GB1H104K	CHIP C	0.10UF	K	
C66		CK73GB1H104K	CHIP C	0.10UF	K	
C67		CS77MB21C220M	CHIP TNTL	22UF	16WV	
C68		CC73GCH1H101J	CHIP C	100PF	J	
C69		CC73GCH1H471J	CHIP C	470PF	J	
C70		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C74		CC73GCH1H100C	CHIP C	10PF	C	
C75		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C76		CC73GCH1H330J	CHIP C	33PF	J	
C77		CK73GB1H104K	CHIP C	0.10UF	K	
C79		CS77BA1E010M	CHIP TNTL	1.0UF	25WV	
C81		CK73GB1H104K	CHIP C	0.10UF	K	
C83		CC73GCH1H471J	CHIP C	470PF	J	
C84		CC73GCH1H471J	CHIP C	470PF	J	
C85		CC73GCH1H471J	CHIP C	470PF	J	
C86		CC73GCH1H100C	CHIP C	10PF	C	
C87		CK73GB1H104K	CHIP C	0.10UF	K	
C88		CK73GB1H103K	CHIP C	0.010UF	K	
C89		CC73GCH1H100C	CHIP C	10PF	C	
C90		CK73GB1H103K	CHIP C	0.010UF	K	
C91		CC73GCH1H150G	CHIP C	15PF	G	
C92		CC73GCH1H080B	CHIP C	8.0PF	B	
C93		CC73GCH1H060B	CHIP C	6.0PF	B	
C94		CC73GCH1H070B	CHIP C	7.0PF	B	
C95		CC73GCH1H050B	CHIP C	5.0PF	B	
C96		CE32BM1E470M	CHIP EL	47UF	25WV	
C97		CK73GB1H104K	CHIP C	0.10UF	K	
C98		CC73GCH1H471J	CHIP C	470PF	J	
C99		CC73GCH1H471J	CHIP C	470PF	J	
C100		CK73GB1H103K	CHIP C	0.010UF	K	
C102		CC73GCH1H471J	CHIP C	470PF	J	

Ref. No.	Address	Parts No.	Description			Destination
C103		CC73GCH1H060D	CHIP C	6.0PF	D	
C104		CC73GCH1H471J	CHIP C	470PF	J	
C105		CC73GCH1H060B	CHIP C	6.0PF	B	
C106		CC73GCH1H060B	CHIP C	6.0PF	B	
C107		CC73GCH1H330J	CHIP C	33PF	J	
C108		CC73GCH1H560J	CHIP C	56PF	J	
C109		CK73GB1H103K	CHIP C	0.010UF	K	
C110		CK73GB1H103K	CHIP C	0.010UF	K	
C112		CC73GCH1H220J	CHIP C	22PF	J	
C113		CC73GCH1H060B	CHIP C	6.0PF	B	
C114		CC73GCH1H060B	CHIP C	6.0PF	B	
C115		CC73GCH1H120J	CHIP C	12PF	J	
C116		CC73GCH1H560J	CHIP C	56PF	J	
C117		CC73GCH1H121J	CHIP C	120PF	J	
C118		CC73GCH1H471J	CHIP C	470PF	J	
C119		CC73GCH1H471J	CHIP C	470PF	J	
C120		CC73GCH1H471J	CHIP C	470PF	J	
C122		CC73GCH1H120J	CHIP C	12PF	J	
C123		CC73GCH1H070B	CHIP C	7.0PF	B	
C124		CC73GCH1H070B	CHIP C	7.0PF	B	
C125		CC73GCH1H120J	CHIP C	12PF	J	
C126		CK73GB1H104K	CHIP C	0.10UF	K	
C128		CC73GCH1H560J	CHIP C	56PF	J	
C129		CK73GB1H103K	CHIP C	0.010UF	K	
C130		CK73GB1H103K	CHIP C	0.010UF	K	
C131		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C132		CC73GCH1H471J	CHIP C	470PF	J	
C133		CC73GCH1H471J	CHIP C	470PF	J	
C134		CC73GCH1H471J	CHIP C	470PF	J	
C137		CC73GCH1H060D	CHIP C	6.0PF	D	
C138		CC73GCH1H220J	CHIP C	22PF	J	
C139		CE32BM1E470M	CHIP EL	47UF	25WV	
C140		CK73GB1H103K	CHIP C	0.010UF	K	
C141		CK73GB1H103K	CHIP C	0.010UF	K	
C142		CC73GCH1H0R5C	CHIP C	0.5PF	C	
C143		CC73GCH1H0R5C	CHIP C	0.5PF	C	
C144		CK73GB1H104K	CHIP C	0.10UF	K	
C145		CK73GB1H104K	CHIP C	0.10UF	K	
C146		CK73GB1H104K	CHIP C	0.10UF	K	
C147		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C149		CC73GCH1H220J	CHIP C	22PF	J	
C150		CC73GCH1H180J	CHIP C	18PF	J	
C151		CC73GCH1H120J	CHIP C	12PF	J	
C154		CK73GB1H104K	CHIP C	0.10UF	K	
C155		CK73GB1H104K	CHIP C	0.10UF	K	
C156		CC73GCH1H100C	CHIP C	10PF	C	
C157		CC73GCH1H471J	CHIP C	470PF	J	
C158		CC73GCH1H471J	CHIP C	470PF	J	
C159		CK73GB1H104K	CHIP C	0.10UF	K	
C160		CK73GB1H104K	CHIP C	0.10UF	K	
C161		CC73GCH1H1R5C	CHIP C	1.5PF	C	
C162		CC73GCH1H070D	CHIP C	7.0PF	D	
C163		CC73GCH1H020B	CHIP C	2.0PF	B	
C164		CK73GB1H104K	CHIP C	0.10UF	K	
C165		CS77MB21C100M	CHIP TNTL	10UF	16WV	
C166		CC73GCH1H220J	CHIP C	22PF	J	
C167		CC73GCH1H180J	CHIP C	18PF	J	
C168		CC73GCH1H471J	CHIP C	470PF	J	
C169		CC73GCH1H120J	CHIP C	12PF	J	
C170		CK73GB1H104K	CHIP C	0.10UF	K	

PARTS LIST

RX UNIT (X55-3100-14)

Ref. No.	Address	Parts No.	Description			Destination
C171		CK73GB1H104K	CHIP C	0.10UF	K	
C172		CK73GB1H473K	CHIP C	0.047UF	K	
C173		CK73GB1H103K	CHIP C	0.010UF	K	
C174		CK73GB1H103K	CHIP C	0.010UF	K	
C175		CC73GCH1H101J	CHIP C	100PF	J	
C176		CK73GB1H104K	CHIP C	0.10UF	K	
C177		CC73GCH1H471J	CHIP C	470PF	J	
C178		CC73GCH1H471J	CHIP C	470PF	J	
C179		CC73GCH1H471J	CHIP C	470PF	J	
C180		CK73GB1H104K	CHIP C	0.10UF	K	
C183		CE32AU1E100M	CHIP EL	10UF	25WV	
C185		CC73GCH1H471J	CHIP C	470PF	J	
C186		CC73GCH1H471J	CHIP C	470PF	J	
C187		CC73GCH1H220J	CHIP C	22PF	J	
C188		CK73GB1H103K	CHIP C	0.010UF	K	
C192		CC73GCH1H471J	CHIP C	470PF	J	
C193		CK73GB1H104K	CHIP C	0.10UF	K	
C194		CC73GCH1H080D	CHIP C	8.0PF	D	
C195		CC73GCH1H471J	CHIP C	470PF	J	
C196		CK73GB1H103K	CHIP C	0.010UF	K	
C197		CK73GB1H103K	CHIP C	0.010UF	K	
C198		CC73GCH1H471J	CHIP C	470PF	J	
C199		CK73GB1H103K	CHIP C	0.010UF	K	
C203		CC73GCH1H471J	CHIP C	470PF	J	
C204		CC73GCH1H471J	CHIP C	470PF	J	
C205		CC73GCH1H471J	CHIP C	470PF	J	
C206		CC73GCH1H100C	CHIP C	10PF	C	
C211		CK73GB1H103K	CHIP C	0.010UF	K	
C212		CK73GB1H103K	CHIP C	0.010UF	K	
C213		CK73GB1H473K	CHIP C	0.047UF	K	
C214		CC73GCH1H040C	CHIP C	4.0PF	C	
C215		CK73GB1H103K	CHIP C	0.010UF	K	
C216		CK73GB1H473K	CHIP C	0.047UF	K	
C217		CK73GB1H104K	CHIP C	0.10UF	K	
C218		CK73GB1H473K	CHIP C	0.047UF	K	
C220		CC73GCH1H040C	CHIP C	4.0PF	C	
C221		CK73GB1H104K	CHIP C	0.10UF	K	
C222		CK73GB1H104K	CHIP C	0.10UF	K	
C223		CK73GB1H103K	CHIP C	0.010UF	K	
C224		CK73GB1H104K	CHIP C	0.10UF	K	
C225		CK73GB1H473K	CHIP C	0.047UF	K	
C227		CC73GCH1H471J	CHIP C	470PF	J	
C228		CK73FB1E474K	CHIP C	0.47UF	K	
C229		CK73FB1E474K	CHIP C	0.47UF	K	
C230		CC73GCH1H820J	CHIP C	82PF	J	
C231		CK73GB1H473K	CHIP C	0.047UF	K	
C232		CC73GCH1H470J	CHIP C	47PF	J	
C233		CK73GB1H473K	CHIP C	0.047UF	K	
C234		CC73GCH1H270J	CHIP C	27PF	J	
C235		CC73GCH1H270J	CHIP C	27PF	J	
C236		CK73GB1H104K	CHIP C	0.10UF	K	
C237		CK73GB1H102K	CHIP C	1000PF	K	
C238		CC73GCH1H090D	CHIP C	9.0PF	D	
C239		CE32AU1C330M	CHIP EL	33UF	16WV	
C240		CS77MB21C100M	CHIP TNTL	10UF	16WV	
C241		CC73GCH1H220J	CHIP C	22PF	J	
C242		CC73GCH1H220J	CHIP C	22PF	J	
C243		CC73GCH1H820J	CHIP C	82PF	J	
C244		CC73GCH1H100D	CHIP C	10PF	D	
C245		CK73GB1H102K	CHIP C	1000PF	K	

Ref. No.	Address	Parts No.	Description			Destination
C248		CC73GCH1H471J	CHIP C	470PF	J	
C249		CC73GCH1H080D	CHIP C	8.0PF	D	
C250		CK73GB1H104K	CHIP C	0.10UF	K	
C251		CK73GB1H104K	CHIP C	0.10UF	K	
C252		CC73GCH1H151J	CHIP C	150PF	J	
C253		CC73GCH1H080D	CHIP C	8.0PF	D	
C254		CC73GCH1H120J	CHIP C	12PF	J	
C255		CK73GB1H104K	CHIP C	0.10UF	K	
C256		CK73GB1H102K	CHIP C	1000PF	K	
C257		CK73GB1H103K	CHIP C	0.010UF	K	
C258		CK73GB1H473K	CHIP C	0.047UF	K	
C260		CC73GCH1H471J	CHIP C	470PF	J	
C261		CK73GB1H103K	CHIP C	0.010UF	K	
C262		CK73GB1H102K	CHIP C	1000PF	K	
C263		CK73GB1H102K	CHIP C	1000PF	K	
C264		CS77MA1ER47M	CHIP TNTL	0.47UF	25WV	
C265		CC73GCH1H470J	CHIP C	47PF	J	
C266		CC73GCH1H471J	CHIP C	470PF	J	
C267		CC73GCH1H471J	CHIP C	470PF	J	
C268		CK73GB1H473K	CHIP C	0.047UF	K	
C269		CK73GB1H473K	CHIP C	0.047UF	K	
C270		CS77MA1ER68M	CHIP TNTL	0.68UF	25WV	
C271		CC73GCH1H471J	CHIP C	470PF	J	
C272		CK73GB1H104K	CHIP C	0.10UF	K	
C273		CC73GCH1H220J	CHIP C	22PF	J	
C274		CK73GB1H473K	CHIP C	0.047UF	K	
C275		CC73GCH1H020B	CHIP C	2.0PF	B	
C277		CK73GB1H102K	CHIP C	1000PF	K	
C278		CC73GCH1H080D	CHIP C	8.0PF	D	
C279		CK73GB1H473K	CHIP C	0.047UF	K	
C280		CC73GCH1H080B	CHIP C	8.0PF	B	
C281		CC73GCH1H030B	CHIP C	3.0PF	B	
C282		CS77MB21C150M	CHIP TNTL	15UF	16WV	
C284		CK73GB1H473K	CHIP C	0.047UF	K	
C285		CC73GCH1H471J	CHIP C	470PF	J	
C287		CC73GCH1H390J	CHIP C	39PF	J	
C288		CC73GCH1H220J	CHIP C	22PF	J	
C289		CC73GCH1H270J	CHIP C	27PF	J	
C290		CK73GB1H473K	CHIP C	0.047UF	K	
C291		CK73GB1E105K	CHIP C	1.0UF	K	
C295		CK73GB1H102K	CHIP C	1000PF	K	
C296		CS77MA1ER68M	CHIP TNTL	0.68UF	25WV	
C297		CC73GCH1H120J	CHIP C	12PF	J	
C298		CK73GB1H102K	CHIP C	1000PF	K	
C300		CC73GCH1H220G	CHIP C	22PF	G	
C301		CK73GB1H473K	CHIP C	0.047UF	K	
C302		CC73GCH1H100D	CHIP C	10PF	D	
C303		CK73GB1E105K	CHIP C	1.0UF	K	
C304		CK73GB1H473K	CHIP C	0.047UF	K	
C306		CK73GB1H102K	CHIP C	1000PF	K	
C307		CK73GB1H103K	CHIP C	0.010UF	K	
C308		CK73GB1H103K	CHIP C	0.010UF	K	
C309		CC73GCH1H471J	CHIP C	470PF	J	
C310		CK73GB1H102K	CHIP C	1000PF	K	
C311		CC73GCH1H080D	CHIP C	8.0PF	D	
C314		CK73GB1H104K	CHIP C	0.10UF	K	
C315		CC73GCH1H270G	CHIP C	27PF	G	
C316		CK73GB1H473K	CHIP C	0.047UF	K	
C317		CC73GCH1H151J	CHIP C	150PF	J	
C318		CK73GB1H103K	CHIP C	0.010UF	K	

PARTS LIST

RX UNIT (X55-3100-14)

Ref. No.	Address	Parts No.	Description			Destination
C319		CK73GB1H103K	CHIP C	0.010UF	K	
C320		CE32BM1E470M	CHIP EL	47UF	25WV	
C324		CC73GCH1H471J	CHIP C	470PF	J	
C325		CC73GCH1H270G	CHIP C	27PF	G	
C326		CC73GCH1H151J	CHIP C	150PF	J	
C327		CK73GB1H102K	CHIP C	1000PF	K	
C329		CK73GB1H103K	CHIP C	0.010UF	K	
C330		CK73GB1H102K	CHIP C	1000PF	K	
C331		CC73GCH1H020B	CHIP C	2.0PF	B	
C333		CC73GCH1H151J	CHIP C	150PF	J	
C334		CK73GB1H103K	CHIP C	0.010UF	K	
C335		CK73GB1H103K	CHIP C	0.010UF	K	
C336		CC73GCH1H471J	CHIP C	470PF	J	
C337		CC73GCH1H560J	CHIP C	56PF	J	
C340		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C341		CK73GB1H473K	CHIP C	0.047UF	K	
C342		CK73GB1H473K	CHIP C	0.047UF	K	
C343		CC73GCH1H220J	CHIP C	22PF	J	
C347		CK73GB1H103K	CHIP C	0.010UF	K	
C348		CK73GB1H103K	CHIP C	0.010UF	K	
C349		CC73GCH1H680J	CHIP C	68PF	J	
C350		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C351		CK73GB1H102K	CHIP C	1000PF	K	
C352		CK73GB1H473K	CHIP C	0.047UF	K	
C353		CK73GB1H102K	CHIP C	1000PF	K	
C355		CK73GB1H103K	CHIP C	0.010UF	K	
C356		CK73GB1H473K	CHIP C	0.047UF	K	
C357		CK73GB1H103K	CHIP C	0.010UF	K	
C358		CK73GB1H473K	CHIP C	0.047UF	K	
C359		CC73GCH1H471J	CHIP C	470PF	J	
C360		CC73GCH1H471J	CHIP C	470PF	J	
C361		CK73GB1H102K	CHIP C	1000PF	K	
C362		CC73GCH1H270J	CHIP C	27PF	J	
C363		CK73GB1H473K	CHIP C	0.047UF	K	
C365		CK73GB1H104K	CHIP C	0.10UF	K	
C366		CK73GB1H104K	CHIP C	0.10UF	K	
C367		CC73GCH1H330J	CHIP C	33PF	J	
C368		CC73GCH1H330J	CHIP C	33PF	J	
C369		CK73FB1E474K	CHIP C	0.47UF	K	
C370		CK73FB1E474K	CHIP C	0.47UF	K	
C371		CK73GB1H102K	CHIP C	1000PF	K	
C372		CK73GB1H473K	CHIP C	0.047UF	K	
C373		CK73GB1H103K	CHIP C	0.010UF	K	
C375		CK73GB1H103K	CHIP C	0.010UF	K	
C377		CK73GB1H103K	CHIP C	0.010UF	K	
C379		CC73GCH1H121J	CHIP C	120PF	J	
C380		CC73GCH1H560J	CHIP C	56PF	J	
C381		CE32BM1E470M	CHIP EL	47UF	25WV	
C382		CK73GB1H104K	CHIP C	0.10UF	K	
C383		CK73GB1H104K	CHIP C	0.10UF	K	
C385		CK73GB1H104K	CHIP C	0.10UF	K	
C386		CK73GB1H104K	CHIP C	0.10UF	K	
C387		CC73GCH1H270J	CHIP C	27PF	J	
C388		CC73GCH1H820J	CHIP C	82PF	J	
C389		CK73GB1H473K	CHIP C	0.047UF	K	
C390		CK73GB1H104K	CHIP C	0.10UF	K	
C391		CK73GB1H103K	CHIP C	0.010UF	K	
C392		CK73GB1H103K	CHIP C	0.010UF	K	
C394		CK73GB1H102K	CHIP C	1000PF	K	
C395		CK73GB1H102K	CHIP C	1000PF	K	

Ref. No.	Address	Parts No.	Description			Destination
C396		CK73GB1H104K	CHIP C	0.10UF	K	
C397		CK73GB1H104K	CHIP C	0.10UF	K	
C398		CK73GB1H104K	CHIP C	0.10UF	K	
C400		CC73GCH1H220J	CHIP C	22PF	J	
C401		CK73GB1H473K	CHIP C	0.047UF	K	
C402		CC73GCH1H560J	CHIP C	56PF	J	
C403		CK73GB1H104K	CHIP C	0.10UF	K	
C405		CK73GB1H102K	CHIP C	1000PF	K	
C406		CK73GB1H103K	CHIP C	0.010UF	K	
C407		CC73GCH1H560J	CHIP C	56PF	J	
C408		CC73GCH1H220J	CHIP C	22PF	J	
C409		CK73GB1H102K	CHIP C	1000PF	K	
C410		CK73GB1H104K	CHIP C	0.10UF	K	
C411		CC73GCH1H121J	CHIP C	120PF	J	
C412		CK73GB1H104K	CHIP C	0.10UF	K	
C413		CK73GB1H103K	CHIP C	0.010UF	K	
C414		CK73GB1H104K	CHIP C	0.10UF	K	
C415		CK73GB1H103K	CHIP C	0.010UF	K	
C416		CK73GB1H103K	CHIP C	0.010UF	K	
C417		CK73GB1H104K	CHIP C	0.10UF	K	
C418		CK73GB1H103K	CHIP C	0.010UF	K	
C419		CK73GB1H103K	CHIP C	0.010UF	K	
C420		CK73GB1H102K	CHIP C	1000PF	K	
C421		CK73GB1H473K	CHIP C	0.047UF	K	
C422		CK73GB1H473K	CHIP C	0.047UF	K	
C423		CK73GB1H103K	CHIP C	0.010UF	K	
C424		CK73GB1H103K	CHIP C	0.010UF	K	
C425		CK73GB1H104K	CHIP C	0.10UF	K	
C427		CK73FB1E474K	CHIP C	0.47UF	K	
C428		CC73GCH1H560J	CHIP C	56PF	J	
C429		CC73GCH1H560J	CHIP C	56PF	J	
C430		CK73GB1H102K	CHIP C	1000PF	K	
C431		CK73GB1H473K	CHIP C	0.047UF	K	
C432		CK73GB1H102K	CHIP C	1000PF	K	
C434		CK73GB1H473K	CHIP C	0.047UF	K	
C435		CK73GB1H473K	CHIP C	0.047UF	K	
C436		CC73GCH1H220G	CHIP C	22PF	G	
C437		CK73GB1H102K	CHIP C	1000PF	K	
C438		CK73GB1H473K	CHIP C	0.047UF	K	
C439		CK73GB1H104K	CHIP C	0.10UF	K	
C440		CK73FB1E474K	CHIP C	0.47UF	K	
C441		CK73FB1E474K	CHIP C	0.47UF	K	
C442		CK73FB1E474K	CHIP C	0.47UF	K	
C443		CK73GB1H473K	CHIP C	0.047UF	K	
C444		CK73GB1H473K	CHIP C	0.047UF	K	
C445		CC73GCH1H270G	CHIP C	27PF	G	
C446		CE32AU1E100M	CHIP EL	10UF	25WV	
C447		CK73FB1E474K	CHIP C	0.47UF	K	
C448		CK73GB1H104K	CHIP C	0.10UF	K	
C449		CK73GB1H473K	CHIP C	0.047UF	K	
C450		CK73FB1E474K	CHIP C	0.47UF	K	
C451		CK73FB1E474K	CHIP C	0.47UF	K	
C452		CK73GB1H104K	CHIP C	0.10UF	K	
C453		CK73GB1H104K	CHIP C	0.10UF	K	
C454		CK73FB1E474K	CHIP C	0.47UF	K	
C455		CK73FB1E474K	CHIP C	0.47UF	K	
C456		CK73GB1H473K	CHIP C	0.047UF	K	
C458		CK73GB1H104K	CHIP C	0.10UF	K	
C459		CC73GCH1H221J	CHIP C	220PF	J	
C460		CK73FB1E474K	CHIP C	0.47UF	K	

PARTS LIST

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Ref. No.	Address	Parts No.	Description			Destination
C461		CC73GCH1H221J	CHIP C	220PF	J	
C462		CK73GB1H104K	CHIP C	0.10UF	K	
C463		CK73FB1E474K	CHIP C	0.47UF	K	
C464		CK73FB1E474K	CHIP C	0.47UF	K	
C465		CK73FB1E474K	CHIP C	0.47UF	K	
C466		CK73GB1H473K	CHIP C	0.047UF	K	
C467		CK73GB1H102K	CHIP C	1000PF	K	
C468		CK73GB1H104K	CHIP C	0.10UF	K	
C469		CK73GB1H473K	CHIP C	0.047UF	K	
C470		CC73GCH1H471J	CHIP C	470PF	J	
C471		CK73GB1H104K	CHIP C	0.10UF	K	
C472		CK73GB1H104K	CHIP C	0.10UF	K	
C473		CC73GCH1H270J	CHIP C	27PF	J	
C474		CK73FB1E474K	CHIP C	0.47UF	K	
C475		CC73GCH1H181J	CHIP C	180PF	J	
C476		CE32AU1E100M	CHIP EL	10UF	25WV	
C477		CK73GB1H104K	CHIP C	0.10UF	K	
C478		CK73FB1E474K	CHIP C	0.47UF	K	
C479		CC73GCH1H120G	CHIP C	12PF	G	
C480		CE32CL1V100M	CHIP EL	10UF	35WV	
C481		CE32CL1V100M	CHIP EL	10UF	35WV	
C482		CE32CL1V100M	CHIP EL	10UF	35WV	
C483		CC73GCH1H101J	CHIP C	100PF	J	
C484		CC73GCH1H471J	CHIP C	470PF	J	
C485		CC73GCH1H471J	CHIP C	470PF	J	
C486		CC73GCH1H471J	CHIP C	470PF	J	
C487		CC73GCH1H471J	CHIP C	470PF	J	
C488		CC73GCH1H471J	CHIP C	470PF	J	
C489		CK73GB1H102K	CHIP C	1000PF	K	
C491		CK73GB1H104K	CHIP C	0.10UF	K	
C492		C93-1824-05	CHIP C	100UF	M	
C493		CK73GB1H473K	CHIP C	0.047UF	K	
C494		CK73FB0J106K	CHIP C	10UF	K	
C495		CK73GB1H104K	CHIP C	0.10UF	K	
C498		CC73GCH1H470J	CHIP C	47PF	J	
C499		CK73FB0J106K	CHIP C	10UF	K	
C500		CC73GCH1H471J	CHIP C	470PF	J	
C501		CC73GCH1H471J	CHIP C	470PF	J	
C502		CC73GCH1H471J	CHIP C	470PF	J	
C503		CC73GCH1H471J	CHIP C	470PF	J	
C504		CC73GCH1H471J	CHIP C	470PF	J	
C505		CK73FB0J106K	CHIP C	10UF	K	
C506		CK73GB1H102K	CHIP C	1000PF	K	
C507		CK73GB1H104K	CHIP C	0.10UF	K	
C508		CK73FB0J106K	CHIP C	10UF	K	
C509		CC73GCH1H101J	CHIP C	100PF	J	
C510		CK73GB1H104K	CHIP C	0.10UF	K	
C516		CK73GB1H473K	CHIP C	0.047UF	K	
C517		CK73FB0J106K	CHIP C	10UF	K	
C518		CK73GB1H104K	CHIP C	0.10UF	K	
C519		CC73GCH1H471J	CHIP C	470PF	J	
C520		CK73GB1H103K	CHIP C	0.010UF	K	
C521		CK73GB1H104K	CHIP C	0.10UF	K	
C522		CK73GB1H103K	CHIP C	0.010UF	K	
C523		CK73GB1H104K	CHIP C	0.10UF	K	
C524		CK73FB1H333K	CHIP C	0.033UF	K	
C525		CC73GCH1H471J	CHIP C	470PF	J	
C527		CK73GB1H104K	CHIP C	0.10UF	K	
C532		CK73GB1H104K	CHIP C	0.10UF	K	
C533		CE32CL1V100M	CHIP EL	10UF	35WV	

Ref. No.	Address	Parts No.	Description			Destination
C534		CE32CL1V100M	CHIP EL	10UF	35WV	
C535		CE32CL1V100M	CHIP EL	10UF	35WV	
C536		CE32CL1V100M	CHIP EL	10UF	35WV	
C537		CC73GCH1H471J	CHIP C	470PF	J	
C538		CC73GCH1H471J	CHIP C	470PF	J	
C539		CC73GCH1H471J	CHIP C	470PF	J	
C540		CC73GCH1H471J	CHIP C	470PF	J	
C541		CK73GB1H104K	CHIP C	0.10UF	K	
C542		CK73GB1H104K	CHIP C	0.10UF	K	
C543		CK73GB1H473K	CHIP C	0.047UF	K	
C544		CC73GCH1H470J	CHIP C	47PF	J	
C545		CC73GCH1H471J	CHIP C	470PF	J	
C546		CC73GCH1H471J	CHIP C	470PF	J	
C547		CC73GCH1H471J	CHIP C	470PF	J	
C548		CC73GCH1H471J	CHIP C	470PF	J	
C549		CC73GCH1H470J	CHIP C	47PF	J	
C550		CK73GB1H103K	CHIP C	0.010UF	K	
C551		CK73GB1H103K	CHIP C	0.010UF	K	
C552		CK73GB1H103K	CHIP C	0.010UF	K	
C553		CK73GB1H103K	CHIP C	0.010UF	K	
C554		CK73GB1H473K	CHIP C	0.047UF	K	
C555		CE32BM1V220M	CHIP EL	22UF	35WV	
C556		CC73GCH1H471J	CHIP C	470PF	J	
C557		CK73GB1H473K	CHIP C	0.047UF	K	
C558		CC73GCH1H471J	CHIP C	470PF	J	
C559		CK73GB1H104K	CHIP C	0.10UF	K	
C560		CC73GCH1H471J	CHIP C	470PF	J	
C561		CC73GCH1H471J	CHIP C	470PF	J	
C562		CK73GB1H473K	CHIP C	0.047UF	K	
C563		CC73GCH1H471J	CHIP C	470PF	J	
C564		CK73GB1H103K	CHIP C	0.010UF	K	
C565		CC73GCH1H471J	CHIP C	470PF	J	
C566		CK73GB1H473K	CHIP C	0.047UF	K	
C567		CE32CL1V100M	CHIP EL	10UF	35WV	
C568		CC73GCH1H470J	CHIP C	47PF	J	
C569		CC73GCH1H471J	CHIP C	470PF	J	
C570		CC73GCH1H470J	CHIP C	47PF	J	
C571		C92-0904-05	OS-CON	22UF	35WV	
C572		CK73GB1H103K	CHIP C	0.010UF	K	
C573		CK73GB1H103K	CHIP C	0.010UF	K	
C574		CK73GB1H104K	CHIP C	0.10UF	K	
C575		CK73GB1H104K	CHIP C	0.10UF	K	
C576		CK73GB1H104K	CHIP C	0.10UF	K	
C577		CK73GB1H103K	CHIP C	0.010UF	K	
C578		CC73GCH1H151J	CHIP C	150PF	J	
C579		CC73GCH1H560J	CHIP C	56PF	J	
C580		CK73GB1H103K	CHIP C	0.010UF	K	
C581		CK73GB1H103K	CHIP C	0.010UF	K	
C582		CK73GB1H103K	CHIP C	0.010UF	K	
C583		CK73GB1H102K	CHIP C	1000PF	K	
C584		CK73GB1H103K	CHIP C	0.010UF	K	
C585		CK73GB1H102K	CHIP C	1000PF	K	
C586		CC73GCH1H471J	CHIP C	470PF	J	
C587		CK73FB1E474K	CHIP C	0.47UF	K	
C588		CK73FB1E474K	CHIP C	0.47UF	K	
C589		CK73FB1E474K	CHIP C	0.47UF	K	
C590		CK73FB1E474K	CHIP C	0.47UF	K	
C591		CK73GB1H102K	CHIP C	1000PF	K	
C618		CC73GCH1H101J	CHIP C	100PF	J	
C619		CK73GB1H104K	CHIP C	0.10UF	K	

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Ref. No.	Address	Parts No.	Description	Destination
C620		CK73GB1H102K	CHIP C 1000PF K	
C621		CK73GB1H104K	CHIP C 0.10UF K	
C622		CK73GB1H104K	CHIP C 0.10UF K	
C624		CC73GCH1H101J	CHIP C 100PF J	
C625		CE32BM1E470M	CHIP EL 47UF 25WV	
C626		CS77BA1E010M	CHIP TNTL 1.0UF 25WV	
C627		CE32BM1E470M	CHIP EL 47UF 25WV	
C628		CK73GB1H104K	CHIP C 0.10UF K	
C630		CK73GB1H104K	CHIP C 0.10UF K	
C652		CK73GB1H104K	CHIP C 0.10UF K	
C655		CK73FB0J106K	CHIP C 10UF K	
C657		CC73GCH1H270J	CHIP C 27PF J	
C658		CK73FB1E474K	CHIP C 0.47UF K	
C659		CC73GCH1H101J	CHIP C 100PF J	
C660		CC73GCH1H050C	CHIP C 5.0PF C	
C661		CK73GB1H104K	CHIP C 0.10UF K	
C671		CK73GB1H104K	CHIP C 0.10UF K	
C677		CK73GB1H104K	CHIP C 0.10UF K	
CN1		E23-1280-05	TERMINAL	
CN2		E23-1280-05	TERMINAL	
CN3		E23-1280-05	TERMINAL	
CN4		E23-1280-05	TERMINAL	
CN5		E04-0460-05	RF COAXIAL RECEPTACLE(SMB)	
CN8		E23-1280-05	TERMINAL	
CN9		E23-1280-05	TERMINAL	
CN10		E23-1280-05	TERMINAL	
CN11		E23-1280-05	TERMINAL	
CN12		E23-1280-05	TERMINAL	
CN13		E23-1280-05	TERMINAL	
CN14		E23-1280-05	TERMINAL	
CN15		E23-1280-05	TERMINAL	
CN16		E23-1280-05	TERMINAL	
CN17		E23-1280-05	TERMINAL	
CN18		E23-1280-05	TERMINAL	
CN19		E23-1280-05	TERMINAL	
CN20		E23-1280-05	TERMINAL	
CN21		E23-1280-05	TERMINAL	
CN22		E23-1280-05	TERMINAL	
CN23		E23-1280-05	TERMINAL	
CN24		E23-1280-05	TERMINAL	
CN25		E23-1280-05	TERMINAL	
CN26		E23-1280-05	TERMINAL	
CN27		E23-1280-05	TERMINAL	
CN28		E23-1280-05	TERMINAL	
CN29		E23-1280-05	TERMINAL	
CN30		E23-1280-05	TERMINAL	
CN31		E23-1280-05	TERMINAL	
CN32		E23-1280-05	TERMINAL	
CN33		E23-1280-05	TERMINAL	
CN34		E23-1280-05	TERMINAL	
CN35		E23-1280-05	TERMINAL	
CN38		E23-1280-05	TERMINAL	
CN39		E23-1280-05	TERMINAL	
CN41		E04-0154-05	PIN SOCKET	
CN42		E40-6656-05	PIN ASSY	
CN43		E04-0193-05	PIN SOCKET	
CN44		E41-2672-05	PIN ASSY	
CN45		E04-0193-05	PIN SOCKET	
CN46		E41-2735-05	PIN ASSY	

Ref. No.	Address	Parts No.	Description	Destination
CN47		E41-2735-05	PIN ASSY	
CN61		E23-1280-05	TERMINAL	
CN62		E23-1280-05	TERMINAL	
CN69		E23-1330-05	TERMINAL	
E1		F10-2379-04	SHIELDING CASE	
E2		F10-2409-04	SHIELDING CASE	
E3		F10-3080-04	SHIELDING CASE	
CF1		L72-1019-05	CERAMIC FILTER	
CF2		L72-1028-05	CERAMIC FILTER	
CF3		L72-1027-05	CERAMIC FILTER	
CF4		L72-1027-05	CERAMIC FILTER	
CF5		L72-1028-05	CERAMIC FILTER	
CF6		L72-1028-05	CERAMIC FILTER	
CF7		L72-1027-05	CERAMIC FILTER	
L2		L34-4616-05	AIR-CORE COIL	
L5		L34-4604-15	AIR-CORE COIL	
L8		L41-1075-33	SMALL FIXED INDUCTOR(0.01UH)	
L9		L41-1075-33	SMALL FIXED INDUCTOR(0.01UH)	
L10		L41-6885-33	SMALL FIXED INDUCTOR(0.68UH)	
L11		L41-1295-33	SMALL FIXED INDUCTOR(1.2UH)	
L12		L34-4605-15	AIR-CORE COIL	
L13		L41-1295-33	SMALL FIXED INDUCTOR(1.2UH)	
L14		L41-1805-33	SMALL FIXED INDUCTOR(18UH)	
L16		L41-2705-33	SMALL FIXED INDUCTOR(27UH)	
L17		L41-1098-40	SMALL FIXED INDUCTOR(10NH)	
L18		L41-1098-40	SMALL FIXED INDUCTOR(10NH)	
L20		L41-2705-33	SMALL FIXED INDUCTOR(27UH)	
L21		L41-1098-40	SMALL FIXED INDUCTOR(10NH)	
L22		L41-1098-40	SMALL FIXED INDUCTOR(10NH)	
L23		L41-2705-33	SMALL FIXED INDUCTOR(27UH)	
L26		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L27		L41-1098-40	SMALL FIXED INDUCTOR(10NH)	
L28		L34-4891-05	AIR-CORE COIL	
L29		L41-1098-40	SMALL FIXED INDUCTOR(10NH)	
L30		L34-4891-05	AIR-CORE COIL	
L31		L41-2275-33	SMALL FIXED INDUCTOR(0.022UH)	
L32		L41-8275-33	SMALL FIXED INDUCTOR(0.082UH)	
L33		L41-2785-33	SMALL FIXED INDUCTOR(0.27UH)	
L34		L41-1205-33	SMALL FIXED INDUCTOR(12UH)	
L35		L41-3395-33	SMALL FIXED INDUCTOR(3.3UH)	
L36		L41-2275-33	SMALL FIXED INDUCTOR(0.022UH)	
L37		L41-1205-33	SMALL FIXED INDUCTOR(12UH)	
L38		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L39		L41-2275-33	SMALL FIXED INDUCTOR(0.022UH)	
L40		L41-1098-40	SMALL FIXED INDUCTOR(1.0UH)	
L41		L41-1098-40	SMALL FIXED INDUCTOR(1.0UH)	
L42		L41-1575-33	SMALL FIXED INDUCTOR(0.015UH)	
L43		L41-3395-33	SMALL FIXED INDUCTOR(3.3UH)	
L44		L41-3395-33	SMALL FIXED INDUCTOR(3.3UH)	
L45		L41-1575-33	SMALL FIXED INDUCTOR(0.015UH)	
L46		L34-4749-05	COIL	
L47		L34-4749-05	COIL	
L48		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L49		L41-2705-33	SMALL FIXED INDUCTOR(27UH)	
L50		L41-2275-33	SMALL FIXED INDUCTOR(0.022UH)	
L51		L92-0140-05	CHIP FERRITE	
L52		L34-4749-05	COIL	
L53		L34-4749-05	COIL	
L54		L41-1075-33	SMALL FIXED INDUCTOR(0.01UH)	

PARTS LIST

RX UNIT (X55-3100-14)

Ref. No.	Address	Parts No.	Description	Destination
L55		L41-1575-33	SMALL FIXED INDUCTOR(0.015UH)	
L56		L41-8295-33	SMALL FIXED INDUCTOR(8.2UH)	
L57		L41-1075-33	SMALL FIXED INDUCTOR(0.01UH)	
L58		L41-1885-33	SMALL FIXED INDUCTOR(0.18UH)	
L59		L41-1885-33	SMALL FIXED INDUCTOR(0.18UH)	
L60		L41-2275-33	SMALL FIXED INDUCTOR(0.022UH)	
L61		L41-2275-33	SMALL FIXED INDUCTOR(0.022UH)	
L62		L41-1075-33	SMALL FIXED INDUCTOR(0.01UH)	
L66		L41-8275-33	SMALL FIXED INDUCTOR(0.082UH)	
L67		L41-5675-33	SMALL FIXED INDUCTOR(0.056UH)	
L68		L41-8295-33	SMALL FIXED INDUCTOR(8.2UH)	
L69		L41-1595-33	SMALL FIXED INDUCTOR(1.5UH)	
L70		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L71		L41-1595-33	SMALL FIXED INDUCTOR(1.5UH)	
L72		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L73		L41-2285-33	SMALL FIXED INDUCTOR(0.22UH)	
L74		L34-4749-05	COIL	
L75		L34-4749-05	COIL	
L76		L41-1075-33	SMALL FIXED INDUCTOR(0.01UH)	
L77		L92-0140-05	CHIP FERRITE	
L78		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L79		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L80		L41-1575-33	SMALL FIXED INDUCTOR(0.015UH)	
L81		L41-8285-33	SMALL FIXED INDUCTOR(0.82UH)	
L82		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L83		L41-6895-33	SMALL FIXED INDUCTOR(6.8UH)	
L86		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L87		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L88		L41-8295-33	SMALL FIXED INDUCTOR(8.2UH)	
L89		L41-6895-33	SMALL FIXED INDUCTOR(6.8UH)	
L90		L34-4749-05	COIL	
L91		L34-4749-05	COIL	
L92		L41-1075-33	SMALL FIXED INDUCTOR(0.01UH)	
L93		L41-1085-33	SMALL FIXED INDUCTOR(0.1UH)	
L94		L39-1476-05	TOROIDAL COIL	
L95		L39-1476-05	TOROIDAL COIL	
L96		L41-6895-33	SMALL FIXED INDUCTOR(6.8UH)	
L97		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L98		L41-1895-33	SMALL FIXED INDUCTOR(1.8UH)	
L99		L41-1895-33	SMALL FIXED INDUCTOR(1.8UH)	
L100		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L101		L41-1595-33	SMALL FIXED INDUCTOR(1.5UH)	
L102		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L103		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L106		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L107		L41-6895-33	SMALL FIXED INDUCTOR(6.8UH)	
L108		L41-4775-33	SMALL FIXED INDUCTOR(0.047UH)	
L109		L41-4775-33	SMALL FIXED INDUCTOR(0.047UH)	
L110		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L111		L41-1595-33	SMALL FIXED INDUCTOR(1.5UH)	
L112		L39-1476-05	TOROIDAL COIL	
L113		L39-1476-05	TOROIDAL COIL	
L114		L41-6875-33	SMALL FIXED INDUCTOR(0.068UH)	
L115		L41-8275-33	SMALL FIXED INDUCTOR(0.082UH)	
L116		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L117		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L118		L41-6875-33	SMALL FIXED INDUCTOR(0.068UH)	
L119		L41-2285-33	SMALL FIXED INDUCTOR(0.22UH)	
L120		L41-8295-33	SMALL FIXED INDUCTOR(8.2UH)	
L121		L41-1595-33	SMALL FIXED INDUCTOR(1.5UH)	

Ref. No.	Address	Parts No.	Description	Destination
L122		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L123		L41-3395-33	SMALL FIXED INDUCTOR(3.3UH)	
L124		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L125		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L126		L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	
L127		L41-8295-33	SMALL FIXED INDUCTOR(8.2UH)	
L128		L34-4725-05	COIL	
L129		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L130		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L131		L41-5685-33	SMALL FIXED INDUCTOR(0.56UH)	
L132		L79-1941-05	HELICAL BLOCK	
L133		L79-1941-05	HELICAL BLOCK	
L134		L79-1941-05	HELICAL BLOCK	
L135		L79-1941-05	HELICAL BLOCK	
L136		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L137		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L143		L41-8278-55	SMALL FIXED INDUCTOR(82NH)	
L144		L41-1088-55	SMALL FIXED INDUCTOR(100NH)	
XF1		L71-0661-05	MCF(49.95MHZ)	
XF2		L71-0660-05	MCF(49.95MHZ)	
XF3		L71-0663-05	MCF(49.950MHZ)	
XF4		L71-0662-05	MCF(49.950MHZ)	
R1		RK73GB2A182J	CHIP R 1.8K J 1/10W	
R2		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R4		RK73FB2B680J	CHIP R 68 J 1/8W	
R5		RK73GB2A000J	CHIP R 0 J 1/10W	
R8		RK73GB2A120J	CHIP R 12 J 1/10W	
R9		RK73GB2A332J	CHIP R 3.3K J 1/10W	
R10		RK73GB2A103J	CHIP R 10K J 1/10W	
R11		RK73GB2A681J	CHIP R 680 J 1/10W	
R12		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R13		RK73GB2A682J	CHIP R 6.8K J 1/10W	
R14		RK73FB2B100J	CHIP R 10 J 1/8W	
R15		RK73GB2A000J	CHIP R 0 J 1/10W	
R16		RK73GB2A000J	CHIP R 0 J 1/10W	
R17		RK73GB2A181J	CHIP R 180 J 1/10W	
R19		RK73GB2A104J	CHIP R 100K J 1/10W	
R20		RK73GB2A104J	CHIP R 100K J 1/10W	
R21		RK73GB2A684J	CHIP R 680K J 1/10W	
R22		RK73GB2A474J	CHIP R 470K J 1/10W	
R23		RK73GB2A000J	CHIP R 0 J 1/10W	
R24		RK73GB2A100J	CHIP R 10 J 1/10W	
R25		RK73GB2A561J	CHIP R 560 J 1/10W	
R26		RK73GB2A000J	CHIP R 0 J 1/10W	
R27		RK73GB2A000J	CHIP R 0 J 1/10W	
R28		RK73GB2A100J	CHIP R 10 J 1/10W	
R29		RK73GB2A152J	CHIP R 1.5K J 1/10W	
R30		RK73GB2A684J	CHIP R 680K J 1/10W	
R31		RK73GB2A471J	CHIP R 470 J 1/10W	
R32		RK73GB2A104J	CHIP R 100K J 1/10W	
R33		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R34		RK73GB2A471J	CHIP R 470 J 1/10W	
R36		RK73GB2A103J	CHIP R 10K J 1/10W	
R37		RK73GB2A123J	CHIP R 12K J 1/10W	
R38		RK73GB2A220J	CHIP R 22 J 1/10W	
R39		RK73GB2A000J	CHIP R 0 J 1/10W	
R40		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R42		RK73GB2A000J	CHIP R 0 J 1/10W	
R43		RK73GB2A000J	CHIP R 0 J 1/10W	

PARTS LIST

RX UNIT (X55-3100-14)

Ref. No.	Address	Parts No.	Description				Destination
R44		RK73GB2A000J	CHIP R	0	J	1/10W	
R45		RK73GB2A471J	CHIP R	470	J	1/10W	
R46		RK73GB2A330J	CHIP R	33	J	1/10W	
R47		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R48		RK73FB2B271J	CHIP R	270	J	1/8W	
R50		RK73FB2B180J	CHIP R	18	J	1/8W	
R52		RK73GB2A100J	CHIP R	10	J	1/10W	
R53		RK73GB2A000J	CHIP R	0	J	1/10W	
R54		RK73GB2A000J	CHIP R	0	J	1/10W	
R55		RK73FB2B271J	CHIP R	270	J	1/8W	
R56		RK73GB2A100J	CHIP R	10	J	1/10W	
R57		RK73GB2A470J	CHIP R	47	J	1/10W	
R60		RK73GB2A100J	CHIP R	10	J	1/10W	
R61		RK73GB2A470J	CHIP R	47	J	1/10W	
R62		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R63		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R64		RK73GB2A000J	CHIP R	0	J	1/10W	
R65		RK73GB2A103J	CHIP R	10K	J	1/10W	
R66		RN73GE1J391D	CHIP R	390	D	1/16W	
R67		RN73GE1J391D	CHIP R	390	D	1/16W	
R68		RK73GB2A392J	CHIP R	3.9K	J	1/10W	
R69		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R70		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R71		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R72		RK73GB2A2R2J	CHIP R	2.2	J	1/10W	
R73		RK73GB2A104J	CHIP R	100K	J	1/10W	
R75		RK73GB2A103J	CHIP R	10K	J	1/10W	
R76		RK73GB2A103J	CHIP R	10K	J	1/10W	
R77		RK73GB2A470J	CHIP R	47	J	1/10W	
R78		RK73GB2A470J	CHIP R	47	J	1/10W	
R79		RK73GB2A100J	CHIP R	10	J	1/10W	
R80		RK73GB2A271J	CHIP R	270	J	1/10W	
R81		RK73FB2B000J	CHIP R	0	J	1/8W	
R82		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R83		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R84		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R85		RK73GB2A333J	CHIP R	33K	J	1/10W	
R86		RK73GB2A104J	CHIP R	100K	J	1/10W	
R88		RK73GB2A103J	CHIP R	10K	J	1/10W	
R89		RK73GB2A100J	CHIP R	10	J	1/10W	
R90		RK73GB2A330J	CHIP R	33	J	1/10W	
R91		RK73GB2A331J	CHIP R	330	J	1/10W	
R92		RK73GB2A104J	CHIP R	100K	J	1/10W	
R93		RK73GB2A105J	CHIP R	1.0M	J	1/10W	
R94		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R95		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R96		RK73GB2A100J	CHIP R	10	J	1/10W	
R97		RK73GB2A101J	CHIP R	100	J	1/10W	
R98		RK73GB2A331J	CHIP R	330	J	1/10W	
R99		RK73GB2A331J	CHIP R	330	J	1/10W	
R100		RK73GB2A000J	CHIP R	0	J	1/10W	
R101		RK73FB2B100J	CHIP R	10	J	1/8W	
R102		RK73GB2A101J	CHIP R	100	J	1/10W	
R103		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R104		RK73GB2A123J	CHIP R	12K	J	1/10W	
R105		RK73GB2A123J	CHIP R	12K	J	1/10W	
R106		RK73GB2A105J	CHIP R	1.0M	J	1/10W	
R107		RK73GB2A103J	CHIP R	10K	J	1/10W	
R108		RK73GB2A103J	CHIP R	10K	J	1/10W	
R110		RK73GB2A182J	CHIP R	1.8K	J	1/10W	

Ref. No.	Address	Parts No.	Description				Destination
R112		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R114		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R115		RK73FB2B220J	CHIP R	22	J	1/8W	
R116		RK73GB2A101J	CHIP R	100	J	1/10W	
R117		RK73FB2B220J	CHIP R	22	J	1/8W	
R118		RK73FB2B220J	CHIP R	22	J	1/8W	
R119		RK73GB2A103J	CHIP R	10K	J	1/10W	
R120		RK73GB2A103J	CHIP R	10K	J	1/10W	
R122		RK73GB2A101J	CHIP R	100	J	1/10W	
R123		RK73GB2A153J	CHIP R	15K	J	1/10W	
R124		RK73GB2A392J	CHIP R	3.9K	J	1/10W	
R125		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R128		RK73GB2A101J	CHIP R	100	J	1/10W	
R129		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R130		RK73FB2B100J	CHIP R	10	J	1/8W	
R131		RK73FB2B100J	CHIP R	10	J	1/8W	
R132		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R133		RK73GB2A123J	CHIP R	12K	J	1/10W	
R134		RK73GB2A104J	CHIP R	100K	J	1/10W	
R135		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R136		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R137		RK73GB2A101J	CHIP R	100	J	1/10W	
R138		RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R139		RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R140		RK73GB2A181J	CHIP R	180	J	1/10W	
R141		RK73GB2A181J	CHIP R	180	J	1/10W	
R142		RK73FB2B100J	CHIP R	10	J	1/8W	
R145		RK73GB2A100J	CHIP R	10	J	1/10W	
R146		RK73GB2A101J	CHIP R	100	J	1/10W	
R147		RK73GB2A271J	CHIP R	270	J	1/10W	
R148		RK73GB2A561J	CHIP R	560	J	1/10W	
R149		RK73GB2A821J	CHIP R	820	J	1/10W	
R150		RK73FB2B101J	CHIP R	100	J	1/8W	
R151		RK73GB2A000J	CHIP R	0	J	1/10W	
R152		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R153		RK73GB2A101J	CHIP R	100	J	1/10W	
R154		RK73GB2A000J	CHIP R	0	J	1/10W	
R155		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R156		RK73GB2A680J	CHIP R	68	J	1/10W	
R157		RK73GB2A151J	CHIP R	150	J	1/10W	
R158		RK73GB2A101J	CHIP R	100	J	1/10W	
R159		RK73GB2A000J	CHIP R	0	J	1/10W	
R160		RK73GB2A3R3J	CHIP R	3.3	J	1/10W	
R161		RK73GB2A000J	CHIP R	0	J	1/10W	
R163		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R164		RK73GB2A104J	CHIP R	100K	J	1/10W	
R165		RK73GB2A273J	CHIP R	27K	J	1/10W	
R166		RK73GB2A273J	CHIP R	27K	J	1/10W	
R167		RK73GB2A000J	CHIP R	0	J	1/10W	
R169		RK73GB2A103J	CHIP R	10K	J	1/10W	
R171		RK73GB2A103J	CHIP R	10K	J	1/10W	
R172		RK73GB2A100J	CHIP R	10	J	1/10W	
R173		RN73GE1J271D	CHIP R	270	D	1/16W	
R174		RK73GB2A153J	CHIP R	15K	J	1/10W	
R175		RK73GB2A153J	CHIP R	15K	J	1/10W	
R176		RK73GB2A100J	CHIP R	10	J	1/10W	
R177		RK73GB2A470J	CHIP R	47	J	1/10W	
R178		RK73GB2A103J	CHIP R	10K	J	1/10W	
R179		RK73GB2A103J	CHIP R	10K	J	1/10W	
R180		RK73GB2A100J	CHIP R	10	J	1/10W	

PARTS LIST

RX UNIT (X55-3100-14)

Ref. No.	Address	Parts No.	Description				Destination
R181		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R183		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R184		RK73GB2A000J	CHIP R	0	J	1/10W	
R185		RK73GB2A100J	CHIP R	10	J	1/10W	
R186		RK73GB2A104J	CHIP R	100K	J	1/10W	
R187		RK73GB2A104J	CHIP R	100K	J	1/10W	
R189		RK73FB2B101J	CHIP R	100	J	1/8W	
R190		RK73FB2B101J	CHIP R	100	J	1/8W	
R191		RK73FB2B271J	CHIP R	270	J	1/8W	
R192		RK73FB2B271J	CHIP R	270	J	1/8W	
R193		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R194		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R195		RK73GB2A181J	CHIP R	180	J	1/10W	
R196		RK73FB2B100J	CHIP R	10	J	1/8W	
R197		RK73FB2B100J	CHIP R	10	J	1/8W	
R198		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R199		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R200		RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R201		RK73GB2A330J	CHIP R	33	J	1/10W	
R202		RK73GB2A2R2J	CHIP R	2.2	J	1/10W	
R203		RK73GB2A104J	CHIP R	100K	J	1/10W	
R204		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R205		RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R206		RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R207		RK73GB2A470J	CHIP R	47	J	1/10W	
R208		RK73GB2A151J	CHIP R	150	J	1/10W	
R209		RK73GB2A101J	CHIP R	100	J	1/10W	
R210		RK73GB2A100J	CHIP R	10	J	1/10W	
R211		RK73GB2A104J	CHIP R	100K	J	1/10W	
R212		RK73GB2A100J	CHIP R	10	J	1/10W	
R213		RK73GB2A563J	CHIP R	56K	J	1/10W	
R214		RK73GB2A563J	CHIP R	56K	J	1/10W	
R215		RK73GB2A181J	CHIP R	180	J	1/10W	
R217		RK73GB2A104J	CHIP R	100K	J	1/10W	
R218		RK73GB2A180J	CHIP R	18	J	1/10W	
R219		RK73GB2A180J	CHIP R	18	J	1/10W	
R220		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R221		RK73GB2A471J	CHIP R	470	J	1/10W	
R222		RK73GB2A331J	CHIP R	330	J	1/10W	
R223		RK73GB2A180J	CHIP R	18	J	1/10W	
R224		RK73GB2A100J	CHIP R	10	J	1/10W	
R225		RK73GB2A180J	CHIP R	18	J	1/10W	
R226		RK73GB2A101J	CHIP R	100	J	1/10W	
R229		RK73GB2A101J	CHIP R	100	J	1/10W	
R230		RK73GB2A100J	CHIP R	10	J	1/10W	
R231		RK73GB2A680J	CHIP R	68	J	1/10W	
R232		RK73GB2A100J	CHIP R	10	J	1/10W	
R233		RK73GB2A000J	CHIP R	0	J	1/10W	
R234		RK73GB2A101J	CHIP R	100	J	1/10W	
R236		RK73GB2A180J	CHIP R	18	J	1/10W	
R237		RK73GB2A180J	CHIP R	18	J	1/10W	
R238		RK73GB2A181J	CHIP R	180	J	1/10W	
R239		RK73GB2A100J	CHIP R	10	J	1/10W	
R240		RK73GB2A471J	CHIP R	470	J	1/10W	
R241		RK73GB2A103J	CHIP R	10K	J	1/10W	
R242		RK73GB2A470J	CHIP R	47	J	1/10W	
R243		RK73GB2A470J	CHIP R	47	J	1/10W	
R244		RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R245		RK73GB2A473J	CHIP R	47K	J	1/10W	
R247		RK73GB2A470J	CHIP R	47	J	1/10W	

Ref. No.	Address	Parts No.	Description				Destination
R248		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R249		RK73GB2A272J	CHIP R	2.7K	J	1/10W	
R250		RK73GB2A272J	CHIP R	2.7K	J	1/10W	
R251		RK73GB2A390J	CHIP R	39	J	1/10W	
R252		RK73GB2A151J	CHIP R	150	J	1/10W	
R254		RK73GB2A331J	CHIP R	330	J	1/10W	
R255		RK73GB2A391J	CHIP R	390	J	1/10W	
R256		RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R257		RK73GB2A331J	CHIP R	330	J	1/10W	
R258		RK73GB2A391J	CHIP R	390	J	1/10W	
R259		RK73GB2A272J	CHIP R	2.7K	J	1/10W	
R260		RK73GB2A272J	CHIP R	2.7K	J	1/10W	
R261		RK73GB2A123J	CHIP R	12K	J	1/10W	
R262		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R263		RK73GB2A183J	CHIP R	18K	J	1/10W	
R264		RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R265		RK73GB2A181J	CHIP R	180	J	1/10W	
R266		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R267		RK73GB2A103J	CHIP R	10K	J	1/10W	
R268		RK73GB2A154J	CHIP R	150K	J	1/10W	
R269		RK73GB2A470J	CHIP R	47	J	1/10W	
R270		RK73GB2A103J	CHIP R	10K	J	1/10W	
R271		RK73GB2A103J	CHIP R	10K	J	1/10W	
R272		RK73GB2A104J	CHIP R	100K	J	1/10W	
R273		RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R274		RK73GB2A153J	CHIP R	15K	J	1/10W	
R275		RK73GB2A223J	CHIP R	22K	J	1/10W	
R276		RK73GB2A183J	CHIP R	18K	J	1/10W	
R277		RK73GB2A103J	CHIP R	10K	J	1/10W	
R278		RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R279		RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R280		RK73GB2A103J	CHIP R	10K	J	1/10W	
R281		RK73GB2A103J	CHIP R	10K	J	1/10W	
R284		RK73GB2A471J	CHIP R	470	J	1/10W	
R285		RK73GB2A334J	CHIP R	330K	J	1/10W	
R286		RK73GB2A183J	CHIP R	18K	J	1/10W	
R287		RK73GB2A273J	CHIP R	27K	J	1/10W	
R288		RK73GB2A560J	CHIP R	56	J	1/10W	
R290		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R291		RK73GB2A122J	CHIP R	1.2K	J	1/10W	
R292		RK73GB2A000J	CHIP R	0	J	1/10W	
R293		RK73GB2A183J	CHIP R	18K	J	1/10W	
R294		RK73GB2A223J	CHIP R	22K	J	1/10W	
R295		RK73GB2A104J	CHIP R	100K	J	1/10W	
R296		RK73GB2A473J	CHIP R	47K	J	1/10W	
R297		RK73GB2A473J	CHIP R	47K	J	1/10W	
R298		RK73GB2A473J	CHIP R	47K	J	1/10W	
R300		RK73GB2A103J	CHIP R	10K	J	1/10W	
R306		RK73GB2A473J	CHIP R	47K	J	1/10W	
R307		RK73GB2A000J	CHIP R	0	J	1/10W	
R308		RK73GB2A000J	CHIP R	0	J	1/10W	
R309		RK73GB2A000J	CHIP R	0	J	1/10W	
R310		RK73GB2A000J	CHIP R	0	J	1/10W	
R311		RK73GB2A474J	CHIP R	470K	J	1/10W	
R317		RK73GB2A100J	CHIP R	10	J	1/10W	
R318		RK73GB2A100J	CHIP R	10	J	1/10W	
R319		RK73GB2A100J	CHIP R	10	J	1/10W	
R321		RK73GB2A104J	CHIP R	100K	J	1/10W	
R323		RK73GB2A000J	CHIP R	0	J	1/10W	
R324		RK73GB2A104J	CHIP R	100K	J	1/10W	

PARTS LIST

RX UNIT (X55-3100-14)

Ref. No.	Address	Parts No.	Description				Destination
R325		RK73GB2A104J	CHIP R	100K	J	1/10W	
R326		RK73GB2A000J	CHIP R	0	J	1/10W	
R327		RK73GB2A103J	CHIP R	10K	J	1/10W	
R328		RK73GB2A000J	CHIP R	0	J	1/10W	
R330		RK73GB2A104J	CHIP R	100K	J	1/10W	
R332		RK73GB2A101J	CHIP R	100	J	1/10W	
R333		RK73GB2A104J	CHIP R	100K	J	1/10W	
R334		RK73GB2A101J	CHIP R	100	J	1/10W	
R335		RK73GB2A104J	CHIP R	100K	J	1/10W	
R337		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R338		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R340		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R341		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R342		RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R343		RK73GB2A104J	CHIP R	100K	J	1/10W	
R344		RK73GB2A473J	CHIP R	47K	J	1/10W	
R345		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R346		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R347		RK73GB2A101J	CHIP R	100	J	1/10W	
R348		RK73GB2A331J	CHIP R	330	J	1/10W	
R349		RK73GB2A470J	CHIP R	47	J	1/10W	
R350		RK73GB2A221J	CHIP R	220	J	1/10W	
R351		RK73GB2A221J	CHIP R	220	J	1/10W	
R352		RK73GB2A473J	CHIP R	47K	J	1/10W	
R353		RK73GB2A470J	CHIP R	47	J	1/10W	
R357		RK73GB2A471J	CHIP R	470	J	1/10W	
R358		RK73GB2A100J	CHIP R	10	J	1/10W	
R359		RK73GB2A221J	CHIP R	220	J	1/10W	
R360		RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R361		RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R362		RK73GB2A101J	CHIP R	100	J	1/10W	
R363		RK73GB2A100J	CHIP R	10	J	1/10W	
R364		RK73GB2A470J	CHIP R	47	J	1/10W	
R366		RK73GB2A331J	CHIP R	330	J	1/10W	
R367		RK73GB2A331J	CHIP R	330	J	1/10W	
R368		RK73GB2A272J	CHIP R	2.7K	J	1/10W	
R369		RK73GB2A272J	CHIP R	2.7K	J	1/10W	
R370		RK73GB2A272J	CHIP R	2.7K	J	1/10W	
R371		RK73GB2A391J	CHIP R	390	J	1/10W	
R372		RK73GB2A391J	CHIP R	390	J	1/10W	
R373		RK73GB2A272J	CHIP R	2.7K	J	1/10W	
R375		RK73GB2A105J	CHIP R	1.0M	J	1/10W	
R376		RK73GB2A105J	CHIP R	1.0M	J	1/10W	
R377		RK73GB2A000J	CHIP R	0	J	1/10W	
R379		RK73GB2A101J	CHIP R	100	J	1/10W	
R380		RK73GB2A104J	CHIP R	100K	J	1/10W	
R381		RK73GB2A223J	CHIP R	22K	J	1/10W	
R382		RK73GB2A104J	CHIP R	100K	J	1/10W	
R383		RK73GB2A104J	CHIP R	100K	J	1/10W	
R384		RK73GB2A104J	CHIP R	100K	J	1/10W	
R385		RK73GB2A101J	CHIP R	100	J	1/10W	
R388		RK73GB2A000J	CHIP R	0	J	1/10W	
R390		RK73GB2A471J	CHIP R	470	J	1/10W	
R391		RK73GB2A000J	CHIP R	0	J	1/10W	
R392		RK73GB2A000J	CHIP R	0	J	1/10W	
R393		RK73GB2A103J	CHIP R	10K	J	1/10W	
R394		RK73GB2A000J	CHIP R	0	J	1/10W	
R396		RK73GB2A101J	CHIP R	100	J	1/10W	
R400		RK73GB2A000J	CHIP R	0	J	1/10W	
R401		RK73GB2A000J	CHIP R	0	J	1/10W	

Ref. No.	Address	Parts No.	Description				Destination
R403		RK73GB2A000J	CHIP R	0	J	1/10W	
R405		RK73GB2A153J	CHIP R	15K	J	1/10W	
R406		RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R407		RK73GB2A000J	CHIP R	0	J	1/10W	
R410		RK73GB2A000J	CHIP R	0	J	1/10W	
R417		RK73GB2A000J	CHIP R	0	J	1/10W	
R422		RK73GB2A000J	CHIP R	0	J	1/10W	
R423		RK73GB2A000J	CHIP R	0	J	1/10W	
R424		RK73GB2A000J	CHIP R	0	J	1/10W	
R425		RK73GB2A000J	CHIP R	0	J	1/10W	
R427		RK73GB2A000J	CHIP R	0	J	1/10W	
R428		RK73GB2A470J	CHIP R	47	J	1/10W	
R430		RN73GE1J271D	CHIP R	270	D	1/16W	
R431		RN73GE1J271D	CHIP R	270	D	1/16W	
R432		RK73GB2A103J	CHIP R	10K	J	1/10W	
R435		RK73GB2A473J	CHIP R	47K	J	1/10W	
R436		RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R437		RK73GB2A000J	CHIP R	0	J	1/10W	
R455		RK73GB2A104J	CHIP R	100K	J	1/10W	
R459		RK73GB2A000J	CHIP R	0	J	1/10W	
R462		RK73GB2A000J	CHIP R	0	J	1/10W	
R468		RK73GB2A000J	CHIP R	0	J	1/10W	
D3		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE				
D4		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE				
D5		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE				
D6		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE				
D9		1SV308	DIODE				
D10		1SV308	DIODE				
D11		KV1470-G	VARIABLE CAPACITANCE DIODE				
D12		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE				
D13		1SV308	DIODE				
D14		1SV308	DIODE				
D15		DAN222WM	DIODE				
D16		DAN222WM	DIODE				
D17		MA3J742	DIODE				
D18		MA3J742	DIODE				
D19		DAN222WM	DIODE				
D20		DAN222WM	DIODE				
D22		1SV308	DIODE				
D23		1SV308	DIODE				
D24		1SV308	DIODE				
D25		1SV308	DIODE				
D26		DA2J101	DIODE				
IC4		TA75S01F-F	MOS-IC				
IC5		ADF4111BCP7	MOS-IC				
IC6		LMC7101BIM5	MOS-IC				
IC7		AD9835BRUZ	MOS-IC				
IC8		NJU6368PF1	MOS-IC				
IC9		UPB1509GV	BI-POLAR IC				
IC10		MM1886A30N	BI-POLAR IC				
IC11		ADF4111BCP7	MOS-IC				
IC12		TA31137FNG	MOS-IC				
IC13		AD607Z	BI-POLAR IC				
IC14		AD8051ART	ANALOGUE IC				
IC15		NJM78L05UA-ZB	BI-POLAR IC				
IC16		NJM78L05UA-ZB	BI-POLAR IC				
IC17		NJM78M05DL1AZB	ANALOGUE IC				
IC18		NJM78M05DL1AZB	ANALOGUE IC				
IC19		NJM78M05DL1AZB	ANALOGUE IC				

PARTS LIST

RX UNIT (X55-3100-14)
TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description	Destination
IC20		BA4558RFVM	BI-POLAR IC	
IC22		XC6204B332M-G	MOS-IC	
IC23		BH2220FVM	ANALOGUE IC	
IC24	2D	NJM7808FA-ZB	BI-POLAR IC	
IC25	2D	NJM7808FA-ZB	BI-POLAR IC	
IC26		NJM2386ADL3-09	ANALOGUE IC	
IC27		NJM2386ADL3-09	ANALOGUE IC	
IC28		AD1582	ANALOGUE IC	
IC29		BU7242FVM	MOS-IC	
IC30		AD7908BRU	MOS-IC	
IC31		S24CS02AFJTBG	ROM IC	
IC32		NJM2732RB1	BIPOLAR IC	
IC33		BU7261G	MOS-IC	
IC35		LM50BIM3/NOPB	MOS-IC	
Q1		2SC5337(QR)	TRANSISTOR	
Q2		2SC4116(BL)F	TRANSISTOR	
Q3		LSCR523EBFS8	TRANSISTOR	
Q4		2SC4116(BL)F	TRANSISTOR	
Q5		LSCR523EBFS8	TRANSISTOR	
Q6		2SC4116(BL)F	TRANSISTOR	
Q7		2SK508NV(K53)	FET	
Q8		2SK508NV(K53)	FET	
Q9		2SC4116(BL)F	TRANSISTOR	
Q10		2SC4116(BL)F	TRANSISTOR	
Q11		2SC4116(BL)F	TRANSISTOR	
Q12		LSCR523EBFS8	TRANSISTOR	
Q13		DSA90010(S)	TRANSISTOR	
Q14		SSM3K15AMFV	FET	
Q15		SSM3K15AMFV	FET	
Q16		2SC3356-A(R24)	TRANSISTOR	
Q17		2SC3356-A(R24)	TRANSISTOR	
Q18		RD01MUS1-T113	FET	
Q19		RD01MUS1-T113	FET	
Q20		RD01MUS1-T113	FET	
Q21		2SC5108(Y)F	TRANSISTOR	
Q22		LSCR523EBFS8	TRANSISTOR	
Q23		2SC3356-A(R24)	TRANSISTOR	
Q24		2SK508NV(K52)	FET	
Q25		SSM3J332R	FET	
Q26		SSM3K15AMFV	FET	
Q27		2SC4116(BL)F	TRANSISTOR	
Q28		3SK317-E	FET	
Q29		3SK317-E	FET	
Q30		LSCR523EBFS8	TRANSISTOR	
Q31		SSM3K15AMFV	FET	
Q32		SSM3J332R	FET	
Q33		2SC5108(Y)F	TRANSISTOR	
Q34		DSA90010(S)	TRANSISTOR	
Q35		2SC5108(Y)F	TRANSISTOR	
Q36		2SC5108(Y)F	TRANSISTOR	
Q37		SSM3K15AMFV	FET	
Q38		2SC5108(Y)F	TRANSISTOR	
Q39		LSCR523EBFS8	TRANSISTOR	
Q40		2SC4617(S)	TRANSISTOR	
Q50		SSM3K15AMFV	FET	
Q51		SSM3K15AMFV	FET	
Q52		2SJ484	FET	
Q53		2SC5108(Y)F	TRANSISTOR	
Q56		SSM3K15AMFV	FET	
Q57		LTA044EEBFS8	DIGITAL TRANSISTOR	
Q58		SSM3K15AMFV	FET	
Q59		SSM3K15AMFV	FET	
Q60		SSM3K15AMFV	FET	
Q61		SSM3K15AMFV	FET	
A1		W02-1940-05	DBM	
-		212-1514-05	INSULATING TUBE	

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description			Destination
D202		B30-2205-05	LED(YG)			
D301		B30-2205-05	LED(YG)			
D920		B30-2265-05	LED(BR/PG)			
D921		B30-2265-05	LED(BR/PG)			
D922		B30-2265-05	LED(BR/PG)			
D923		B30-2265-05	LED(BR/PG)			
D924		B30-2265-05	LED(BR/PG)			
D925		B30-2171-05	LED(D)			
D926		B30-2171-05	LED(D)			
D927		B30-2171-05	LED(D)			
D928		B30-2171-05	LED(D)			
D929		B30-2171-05	LED(D)			
D930		B30-2171-05	LED(D)			
D931		B30-2171-05	LED(D)			
D932		B30-2171-05	LED(D)			
C101		CS77MA1ER47M	CHIP TNTL	0.47UF	25WV	
C102		CK73GB1E105K	CHIP C	1.0UF	K	
C103		CC73GCH1H471J	CHIP C	470PF	J	
C104		CC73GCH1H471J	CHIP C	470PF	J	
C105		CC73GCH1H471J	CHIP C	470PF	J	
C106		CK73GB1H103K	CHIP C	0.010UF	K	
C107		CK73GB1H103K	CHIP C	0.010UF	K	
C108		CC73GCH1H471J	CHIP C	470PF	J	
C109		CK73GB1H104K	CHIP C	0.10UF	K	
C110		CC73GCH1H471J	CHIP C	470PF	J	
C111		CK73GB1H104K	CHIP C	0.10UF	K	
C112		CK73GB1H104K	CHIP C	0.10UF	K	
C113		CC73GCH1H471J	CHIP C	470PF	J	
C114		CK73GB1H104K	CHIP C	0.10UF	K	
C115		CC73GCH1H471J	CHIP C	470PF	J	
C116		CC73GCH1H471J	CHIP C	470PF	J	
C117		CC73GCH1H471J	CHIP C	470PF	J	
C120		CK73GB1H103K	CHIP C	0.010UF	K	
C122		CC73GCH1H471J	CHIP C	470PF	J	
C123		CS77MA1VR22M	CHIP TNTL	0.22UF	35WV	
C124		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C126		CC73GCH1H471J	CHIP C	470PF	J	
C132		CC73GCH1H120G	CHIP C	12PF	G	
C133		CC73GCH1H150G	CHIP C	15PF	G	
C134		CC73GCH1H270J	CHIP C	27PF	J	
C135		CC73GCH1H471J	CHIP C	470PF	J	
C136		CC73GCH1H090B	CHIP C	9.0PF	B	
C137		CK73GB1H103K	CHIP C	0.010UF	K	
C138		CC73GCH1H0R5B	CHIP C	0.5PF	B	
C139		CC73GCH1H020B	CHIP C	2.0PF	B	
C140		CC73GCH1H471J	CHIP C	470PF	J	
C141		CC73GCH1H471J	CHIP C	470PF	J	
C142		CC73GCH1H120G	CHIP C	12PF	G	
C143		CC73GCH1H100D	CHIP C	10PF	D	
C145		CC73GCH1H150G	CHIP C	15PF	G	

If a part reference number is listed in a shaded box, that part does not come with the PCB.

PARTS LIST

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description			Destination
C146		CC73GCH1H471J	CHIP C	470PF	J	
C147		CC73GCH1H0R5B	CHIP C	0.5PF	B	
C148		CC73GCH1H150J	CHIP C	15PF	J	
C149		CK73GB1H103K	CHIP C	0.010UF	K	
C151		CE32CL1V100M	CHIP EL	10UF	35WV	
C152		CC73GCH1H471J	CHIP C	470PF	J	
C153		CC73GCH1H100D	CHIP C	10PF	D	
C154		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C156		CC73GCH1H471J	CHIP C	470PF	J	
C157		CC73GCH1H471J	CHIP C	470PF	J	
C158		CS77MC1C330M	CHIP TNTL	33UF	16WV	
C160		CC73GCH1H471J	CHIP C	470PF	J	
C161		CE32BM1E470M	CHIP EL	47UF	25WV	
C162		CC73GCH1H471J	CHIP C	470PF	J	
C163		CC73GCH1H471J	CHIP C	470PF	J	
C164		CC73GCH1H070D	CHIP C	7.0PF	D	
C166		CC73GCH1H070D	CHIP C	7.0PF	D	
C167		CC73GCH1H070D	CHIP C	7.0PF	D	
C168		CC73GCH1H040C	CHIP C	4.0PF	C	
C169		CC73GCH1H471J	CHIP C	470PF	J	
C170		CC73GCH1H471J	CHIP C	470PF	J	
C171		CK73GB1H103K	CHIP C	0.010UF	K	
C172		CC73GCH1H471J	CHIP C	470PF	J	
C173		CC73GCH1H471J	CHIP C	470PF	J	
C174		CC73GCH1H471J	CHIP C	470PF	J	
C175		CC73GCH1H070D	CHIP C	7.0PF	D	
C176		CC73GCH1H471J	CHIP C	470PF	J	
C177		CK73GB1H104K	CHIP C	0.10UF	K	
C178		CK73GB1H104K	CHIP C	0.10UF	K	
C179		CK73GB1H104K	CHIP C	0.10UF	K	
C180		CK73GB1H104K	CHIP C	0.10UF	K	
C181		CC73GCH1H471J	CHIP C	470PF	J	
C182		CC73GCH1H180G	CHIP C	18PF	G	
C183		CC73GCH1H220J	CHIP C	22PF	J	
C186		CC73GCH1H180G	CHIP C	18PF	G	
C187		C93-1824-05	CHIP C	100UF	M	
C188		CC73GCH1H471J	CHIP C	470PF	J	
C189		CC73GCH1H100C	CHIP C	10PF	C	
C190		CC73GCH1H0R5B	CHIP C	0.5PF	B	
C191		CC73GCH1H020B	CHIP C	2.0PF	B	
C192		CC73GCH1H471J	CHIP C	470PF	J	
C193		CC73GCH1H120G	CHIP C	12PF	G	
C194		CC73GCH1H150G	CHIP C	15PF	G	
C195		CC73GCH1H0R5B	CHIP C	0.5PF	B	
C196		CC73GCH1H471J	CHIP C	470PF	J	
C197		CC73GCH1H471J	CHIP C	470PF	J	
C198		CC73GCH1H471J	CHIP C	470PF	J	
C201		CC73GCH1H471J	CHIP C	470PF	J	
C202		CC73GCH1H070D	CHIP C	7.0PF	D	
C203		CC73GCH1H471J	CHIP C	470PF	J	
C204		CC73GCH1H471J	CHIP C	470PF	J	
C205		CK73GB1H103K	CHIP C	0.010UF	K	
C206		CC73GCH1H471J	CHIP C	470PF	J	
C207		CC73GCH1H070D	CHIP C	7.0PF	D	
C208		CC73GCH1H471J	CHIP C	470PF	J	
C209		CC73GCH1H471J	CHIP C	470PF	J	
C210		CC73GCH1H060D	CHIP C	6.0PF	D	
C211		CC73GCH1H060D	CHIP C	6.0PF	D	
C212		CC73GCH1H471J	CHIP C	470PF	J	
C213		CC73GCH1H471J	CHIP C	470PF	J	

Ref. No.	Address	Parts No.	Description			Destination
C214		CC73GCH1H471J	CHIP C	470PF	J	
C215		CC73GCH1H471J	CHIP C	470PF	J	
C216		CK73GB1H103K	CHIP C	0.010UF	K	
C217		CC73GCH1H100D	CHIP C	10PF	D	
C218		CC73GCH1H120J	CHIP C	12PF	J	
C219		CC73GCH1H471J	CHIP C	470PF	J	
C220		CK73GB1H104K	CHIP C	0.10UF	K	
C221		CC73GCH1H030C	CHIP C	3.0PF	C	
C223		CC73GCH1H471J	CHIP C	470PF	J	
C224		CK73GB1H473K	CHIP C	0.047UF	K	
C225		CC73GCH1H471J	CHIP C	470PF	J	
C226		CC73GCH1H471J	CHIP C	470PF	J	
C227		CK73GB1H103K	CHIP C	0.010UF	K	
C228		CC73GCH1H471J	CHIP C	470PF	J	
C230		CC73GCH1H471J	CHIP C	470PF	J	
C231		CK73GB1H103K	CHIP C	0.010UF	K	
C233		CC73GCH1H010C	CHIP C	1.0PF	C	
C234		CC73GCH1H471J	CHIP C	470PF	J	
C235		CK73GB1H103K	CHIP C	0.010UF	K	
C237		CC73GCH1H471J	CHIP C	470PF	J	
C240		CC73GCH1H221J	CHIP C	220PF	J	
C241		CC73GCH1H820J	CHIP C	82PF	J	
C242		CC73GCH1H330J	CHIP C	33PF	J	
C243		CC73GCH1H471J	CHIP C	470PF	J	
C244		CC73GCH1H471J	CHIP C	470PF	J	
C245		CC73GCH1H470J	CHIP C	47PF	J	
C246		CC73GCH1H471J	CHIP C	470PF	J	
C247		CC73GCH1H471J	CHIP C	470PF	J	
C248		CC73GCH1H151J	CHIP C	150PF	J	
C249		CE32CL1V100M	CHIP EL	10UF	35WV	
C250		CK73GB1H104K	CHIP C	0.10UF	K	
C251		CK73GB1H103K	CHIP C	0.010UF	K	
C252		CK73GB1H103K	CHIP C	0.010UF	K	
C253		CE32CL1V100M	CHIP EL	10UF	35WV	
C254		CK73GB1H104K	CHIP C	0.10UF	K	
C255		CK73GB1H103K	CHIP C	0.010UF	K	
C256		CK73GB1H103K	CHIP C	0.010UF	K	
C257		CK73GB1H104K	CHIP C	0.10UF	K	
C258		CK73GB1H104K	CHIP C	0.10UF	K	
C259		CK73GB1H104K	CHIP C	0.10UF	K	
C260		CK73GB1H104K	CHIP C	0.10UF	K	
C263		CC73GCH1H390J	CHIP C	39PF	J	
C265		CC73GCH1H680J	CHIP C	68PF	J	
C267		CC73GCH1H390J	CHIP C	39PF	J	
C269		CK73GB1H104K	CHIP C	0.10UF	K	
C270		CK73GB1H104K	CHIP C	0.10UF	K	
C271		CK73GB1H104K	CHIP C	0.10UF	K	
C272		CK73GB1H104K	CHIP C	0.10UF	K	
C275		CC73GCH1H471J	CHIP C	470PF	J	
C276		CC73GCH1H271J	CHIP C	270PF	J	
C277		CC73GCH1H471J	CHIP C	470PF	J	
C278		CC73GCH1H391J	CHIP C	390PF	J	
C279		CC73GCH1H471J	CHIP C	470PF	J	
C280		CC73GCH1H271J	CHIP C	270PF	J	
C281		CC73GCH1H471J	CHIP C	470PF	J	
C282		CK73GB1H104K	CHIP C	0.10UF	K	
C283		CK73GB1H104K	CHIP C	0.10UF	K	
C284		CK73GB1H104K	CHIP C	0.10UF	K	
C285		CK73GB1H104K	CHIP C	0.10UF	K	
C286		CK73GB1H103K	CHIP C	0.010UF	K	

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Ref. No.	Address	Parts No.	Description			Destination
C287		CK73GB1H104K	CHIP C	0.10UF	K	
C301		CS77MA1C2R2M	CHIP TNTL	2.2UF	16WV	
C302		CC73GCH1H100D	CHIP C	10PF	D	
C303		CK73GB1H103K	CHIP C	0.010UF	K	
C304		CC73GCH1H331J	CHIP C	330PF	J	
C305		CC73GCH1H180J	CHIP C	18PF	J	
C306		CK73FB0J106K	CHIP C	10UF	K	
C307		CK73GB1H104K	CHIP C	0.10UF	K	
C308		CC73GCH1H471J	CHIP C	470PF	J	
C309		CC73GCH1H331J	CHIP C	330PF	J	
C310		CK73FB0J106K	CHIP C	10UF	K	
C311		C93-1824-05	CHIP C	100UF	M	
C312		CK73GB1H103K	CHIP C	0.010UF	K	
C313		CC73GCH1H121J	CHIP C	120PF	J	
C314		CK73GB1H103K	CHIP C	0.010UF	K	
C315		CK73GB1H103K	CHIP C	0.010UF	K	
C316		CC73GCH1H100D	CHIP C	10PF	D	
C317		CK73GB1H104K	CHIP C	0.10UF	K	
C318		CE32BM1E470M	CHIP EL	47UF	25WV	
C319		CK73GB1H104K	CHIP C	0.10UF	K	
C320		CK73GB1H103K	CHIP C	0.010UF	K	
C321		CC73GCH1H471J	CHIP C	470PF	J	
C323		CK73GB1H103K	CHIP C	0.010UF	K	
C324		CK73GB1H103K	CHIP C	0.010UF	K	
C325		CK73GB1H103K	CHIP C	0.010UF	K	
C326		CK73GB1H103K	CHIP C	0.010UF	K	
C327		CC73GCH1H181J	CHIP C	180PF	J	
C328		C93-1824-05	CHIP C	100UF	M	
C329		C93-1824-05	CHIP C	100UF	M	
C330		CC73GCH1H470J	CHIP C	47PF	J	
C331		CK73GB1H104K	CHIP C	0.10UF	K	
C332		CC73GCH1H331J	CHIP C	330PF	J	
C333		CS77MC1C100M	CHIP TNTL	10UF	16WV	
C334		CK73GB1H103K	CHIP C	0.010UF	K	
C335		CK73GB1H102K	CHIP C	1000PF	K	
C336		CC73GCH1H180J	CHIP C	18PF	J	
C337		CK73GB1H103K	CHIP C	0.010UF	K	
C338		CS77BB21A470M	CHIP TNTL	47UF	10WV	
C339		CC73GCH1H221J	CHIP C	220PF	J	
C340		CK73GB1H103K	CHIP C	0.010UF	K	
C341		CK73GB1H104K	CHIP C	0.10UF	K	
C342		CS77BB21A470M	CHIP TNTL	47UF	10WV	
C343		CK73GB1H103K	CHIP C	0.010UF	K	
C344		CK73GB1H103K	CHIP C	0.010UF	K	
C345		CK73GB1H104K	CHIP C	0.10UF	K	
C346		CK73GB1H103K	CHIP C	0.010UF	K	
C347		CK73GB1H103K	CHIP C	0.010UF	K	
C348		CC73GCH1H221J	CHIP C	220PF	J	
C349		CC73GCH1H100D	CHIP C	10PF	D	
C350		CC73GCH1H100D	CHIP C	10PF	D	
C351		CS77MC1C100M	CHIP TNTL	10UF	16WV	
C352		CC73GCH1H180J	CHIP C	18PF	J	
C353		CK73GB1H103K	CHIP C	0.010UF	K	
C354		CC73GCH1H331J	CHIP C	330PF	J	
C355		CC73GCH1H470J	CHIP C	47PF	J	
C356		CK73GB1H103K	CHIP C	0.010UF	K	
C357		CC73GCH1H181J	CHIP C	180PF	J	
C358		CK73GB1H104K	CHIP C	0.10UF	K	
C359		CC73GCH1H100D	CHIP C	10PF	D	
C360		CK73GB1H103K	CHIP C	0.010UF	K	

Ref. No.	Address	Parts No.	Description			Destination
C361		CK73GB1H104K	CHIP C	0.10UF	K	
C362		CC73GCH1H471J	CHIP C	470PF	J	
C363		CK73GB1H103K	CHIP C	0.010UF	K	
C364		CK73GB1H103K	CHIP C	0.010UF	K	
C365		CC73GCH1H471J	CHIP C	470PF	J	
C366		CC73GCH1H100D	CHIP C	10PF	D	
C367		CK73GB1H103K	CHIP C	0.010UF	K	
C369		CK73GB1H103K	CHIP C	0.010UF	K	
C370		CK73GB1H103K	CHIP C	0.010UF	K	
C372		CC73GCH1H180J	CHIP C	18PF	J	
C373		CC73GCH1H470J	CHIP C	47PF	J	
C375		CK73GB1H103K	CHIP C	0.010UF	K	
C376		CC73GCH1H471J	CHIP C	470PF	J	
C378		CK73FB1C105K	CHIP C	1.0UF	K	
C379		CK73GB1H103K	CHIP C	0.010UF	K	
C381		CK73GB1H103K	CHIP C	0.010UF	K	
C382		CC73GCH1H221J	CHIP C	220PF	J	
C383		CC73GCH1H331J	CHIP C	330PF	J	
C384		CC73GCH1H181J	CHIP C	180PF	J	
C386		CE32CL1V100M	CHIP EL	10UF	35WV	
C387		CK73GB1H104K	CHIP C	0.10UF	K	
C388		CC73GCH1H471J	CHIP C	470PF	J	
C389		CK73GB1H102K	CHIP C	1000PF	K	
C390		CK73GB1H222K	CHIP C	2200PF	K	
C391		C93-1824-05	CHIP C	100UF	M	
C392		CC73GCH1H100D	CHIP C	10PF	D	
C393		CC73GCH1H100D	CHIP C	10PF	D	
C401		CK73GB1H103K	CHIP C	0.010UF	K	
C402		CK73GB1H104K	CHIP C	0.10UF	K	
C403		CK73GB1H104K	CHIP C	0.10UF	K	
C404		CK73GB1H103K	CHIP C	0.010UF	K	
C405		CC73GCH1H471J	CHIP C	470PF	J	
C406		CK73GB1H103K	CHIP C	0.010UF	K	
C407		CK73GB1H103K	CHIP C	0.010UF	K	
C408		CK73GB1H103K	CHIP C	0.010UF	K	
C409		CK73GB1H103K	CHIP C	0.010UF	K	
C410		CK73GB1H103K	CHIP C	0.010UF	K	
C411		CK73GB1H103K	CHIP C	0.010UF	K	
C412		CK73GB1H103K	CHIP C	0.010UF	K	
C413		CC73GCH1H471J	CHIP C	470PF	J	
C414		CK73GB1H103K	CHIP C	0.010UF	K	
C415		CK73GB1H103K	CHIP C	0.010UF	K	
C416		CK73GB1H103K	CHIP C	0.010UF	K	
C419		CK73FB0J106K	CHIP C	10UF	K	
C420		CK73GB1H103K	CHIP C	0.010UF	K	
C422		CK73GB1H103K	CHIP C	0.010UF	K	
C423		CE32BM1E470M	CHIP EL	47UF	25WV	
C425		CC73GCH1H181J	CHIP C	180PF	J	
C427		CC73GCH1H470J	CHIP C	47PF	J	
C429		CC73GCH1H331J	CHIP C	330PF	J	
C430		CC73GCH1H180J	CHIP C	18PF	J	
C433		CC73GCH1H221J	CHIP C	220PF	J	
C435		CK73GB1H104K	CHIP C	0.10UF	K	
C436		CS77MA1C2R2M	CHIP TNTL	2.2UF	16WV	
C437		CK73GB1H103K	CHIP C	0.010UF	K	
C439		CK73GB1H103K	CHIP C	0.010UF	K	
C440		CK73GB1H103K	CHIP C	0.010UF	K	
C441		CK73GB1H103K	CHIP C	0.010UF	K	
C442		CK73GB1H103K	CHIP C	0.010UF	K	
C443		CK73GB1H103K	CHIP C	0.010UF	K	

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Ref. No.	Address	Parts No.	Description	Destination
C445		CS77MA1VR22M	CHIP TNTL 0.22UF 35WV	
C446		CK73FB1E473K	CHIP C 0.047UF K	
C447		CK73FB0J106K	CHIP C 10UF K	
C448		CK73GB1H104K	CHIP C 0.10UF K	
C449		CK73GB1H103K	CHIP C 0.010UF K	
C451		CK73GB1H104K	CHIP C 0.10UF K	
C452		CK73FB0J106K	CHIP C 10UF K	
C453		CC73GCH1H181J	CHIP C 180PF J	
C454		CC73GCH1H470J	CHIP C 47PF J	
C455		CK73GB1H103K	CHIP C 0.010UF K	
C456		CC73GCH1H331J	CHIP C 330PF J	
C457		CC73GCH1H181J	CHIP C 180PF J	
C458		CC73GCH1H470J	CHIP C 47PF J	
C459		CC73GCH1H180J	CHIP C 18PF J	
C460		CC73GCH1H331J	CHIP C 330PF J	
C461		CC73GCH1H221J	CHIP C 220PF J	
C462		CC73GCH1H180J	CHIP C 18PF J	
C463		CK73GB1H104K	CHIP C 0.10UF K	
C464		CK73GB1H103K	CHIP C 0.010UF K	
C465		CK73GB1H103K	CHIP C 0.010UF K	
C466		CC73GCH1H221J	CHIP C 220PF J	
C467		CK73FB1C105K	CHIP C 1.0UF K	
C468		CK73GB1H103K	CHIP C 0.010UF K	
C469		CK73GB1H103K	CHIP C 0.010UF K	
C470		CK73GB1H104K	CHIP C 0.10UF K	
C471		CK73GB1H103K	CHIP C 0.010UF K	
C472		CK73GB1H103K	CHIP C 0.010UF K	
C473		CK73GB1H103K	CHIP C 0.010UF K	
C474		CK73GB1H103K	CHIP C 0.010UF K	
C475		CK73GB1H103K	CHIP C 0.010UF K	
C476		CK73GB1H103K	CHIP C 0.010UF K	
C477		CK73GB1H103K	CHIP C 0.010UF K	
C478		CK73GB1H103K	CHIP C 0.010UF K	
C479		CK73GB1H103K	CHIP C 0.010UF K	
C480		CK73GB1H103K	CHIP C 0.010UF K	
C481		CK73GB1H103K	CHIP C 0.010UF K	
C482		CK73GB1H103K	CHIP C 0.010UF K	
C483		CK73GB1H104K	CHIP C 0.10UF K	
C484		CK73GB1H104K	CHIP C 0.10UF K	
C485		CK73GB1H104K	CHIP C 0.10UF K	
C486		CK73GB1H104K	CHIP C 0.10UF K	
C487		CK73GB1H103K	CHIP C 0.010UF K	
C488		CK73GB1H104K	CHIP C 0.10UF K	
C489		CK73GB1H104K	CHIP C 0.10UF K	
C490		CK73GB1H104K	CHIP C 0.10UF K	
C491		CC73GCH1H470J	CHIP C 47PF J	
C492		CK73GB1H104K	CHIP C 0.10UF K	
C493		CK73GB1H104K	CHIP C 0.10UF K	
C494		CK73GB1H104K	CHIP C 0.10UF K	
C495		CK73GB1H104K	CHIP C 0.10UF K	
C496		CC73GCH1H221J	CHIP C 220PF J	
C497		CK73GB1H104K	CHIP C 0.10UF K	
C498		CC73GCH1H121J	CHIP C 120PF J	
C499		CK73GB1H104K	CHIP C 0.10UF K	
C500		CC73GCH1H271J	CHIP C 270PF J	
C501		CK73GB1H104K	CHIP C 0.10UF K	
C502		CK73GB1H104K	CHIP C 0.10UF K	
C503		CC73GCH1H470J	CHIP C 47PF J	
C504		CC73GCH1H221J	CHIP C 220PF J	
C505		CK73GB1H104K	CHIP C 0.10UF K	

Ref. No.	Address	Parts No.	Description	Destination
C506		CC73GCH1H820J	CHIP C 82PF J	
C507		CC73GCH1H331J	CHIP C 330PF J	
C508		CC73GCH1H331J	CHIP C 330PF J	
C509		CK73GB1H104K	CHIP C 0.10UF K	
C510		CK73GB1H104K	CHIP C 0.10UF K	
C511		CC73GCH1H470J	CHIP C 47PF J	
C512		CC73GCH1H271J	CHIP C 270PF J	
C513		CC73GCH1H221J	CHIP C 220PF J	
C514		CC73GCH1H121J	CHIP C 120PF J	
C515		CC73GCH1H030C	CHIP C 3.0PF C	
C516		CK73GB1H104K	CHIP C 0.10UF K	
C517		CK73GB1H104K	CHIP C 0.10UF K	
C519		CK73GB1H104K	CHIP C 0.10UF K	
C520		CC73GCH1H221J	CHIP C 220PF J	
C521		CK73GB1H104K	CHIP C 0.10UF K	
C522		CK73GB1H104K	CHIP C 0.10UF K	
C523		CK73GB1H104K	CHIP C 0.10UF K	
C524		CK73GB1H104K	CHIP C 0.10UF K	
C525		CK73GB1H104K	CHIP C 0.10UF K	
C526		CK73GB1H104K	CHIP C 0.10UF K	
C527		CK73GB1H104K	CHIP C 0.10UF K	
C529		CK73GB1H104K	CHIP C 0.10UF K	
C530		CK73GB1H104K	CHIP C 0.10UF K	
C531		CK73GB1H104K	CHIP C 0.10UF K	
C532		CK73GB1H104K	CHIP C 0.10UF K	
C533		CC73GCH1H471J	CHIP C 470PF J	
C534		CK73GB1H104K	CHIP C 0.10UF K	
C535		CK73GB1H104K	CHIP C 0.10UF K	
C536		CK73GB1H104K	CHIP C 0.10UF K	
C537		CK73GB1H104K	CHIP C 0.10UF K	
C538		CC73GCH1H471J	CHIP C 470PF J	
C539		CK73GB1H104K	CHIP C 0.10UF K	
C541		CC73GCH1H100D	CHIP C 10PF D	
C542		CC73GCH1H100D	CHIP C 10PF D	
C543		CK73GB1H104K	CHIP C 0.10UF K	
C544		CK73GB1H104K	CHIP C 0.10UF K	
C545		CK73GB1H104K	CHIP C 0.10UF K	
C546		CK73GB1H104K	CHIP C 0.10UF K	
C547		CK73GB1H104K	CHIP C 0.10UF K	
C548		CC73GCH1H471J	CHIP C 470PF J	
C549		CK73GB1H104K	CHIP C 0.10UF K	
C550		CK73GB1H104K	CHIP C 0.10UF K	
C551		CK73GB1H104K	CHIP C 0.10UF K	
C552		CK73GB1H104K	CHIP C 0.10UF K	
C554		CK73GB1H104K	CHIP C 0.10UF K	
C555		CK73GB1H104K	CHIP C 0.10UF K	
C556		CK73GB1H104K	CHIP C 0.10UF K	
C557		CC73GCH1H030C	CHIP C 3.0PF C	
C558		CK73GB1H104K	CHIP C 0.10UF K	
C559		CK73GB1H104K	CHIP C 0.10UF K	
C562		CK73GB1H104K	CHIP C 0.10UF K	
C563		CC73GCH1H121J	CHIP C 120PF J	
C564		CC73GCH1H470J	CHIP C 47PF J	
C565		CK73GB1H104K	CHIP C 0.10UF K	
C568		CC73GCH1H221J	CHIP C 220PF J	
C569		CC73GCH1H271J	CHIP C 270PF J	
C570		CC73GCH1H221J	CHIP C 220PF J	
C571		CC73GCH1H331J	CHIP C 330PF J	
C573		CC73GCH1H331J	CHIP C 330PF J	
C574		CC73GCH1H331J	CHIP C 330PF J	

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Ref. No.	Address	Parts No.	Description			Destination
C575		CC73GCH1H180J	CHIP C	18PF	J	
C576		CC73GCH1H180J	CHIP C	18PF	J	
C577		CC73GCH1H331J	CHIP C	330PF	J	
C578		CC73GCH1H331J	CHIP C	330PF	J	
C579		CC73GCH1H820J	CHIP C	82PF	J	
C580		CC73GCH1H820J	CHIP C	82PF	J	
C581		CC73GCH1H471J	CHIP C	470PF	J	
C582		CC73GCH1H471J	CHIP C	470PF	J	
C583		CK73GB1H104K	CHIP C	0.10UF	K	
C601		CK73GB1H104K	CHIP C	0.10UF	K	
C602		CK73GB1H104K	CHIP C	0.10UF	K	
C603		CK73GB1H104K	CHIP C	0.10UF	K	
C604		CK73GB1H104K	CHIP C	0.10UF	K	
C605		CK73GB1H104K	CHIP C	0.10UF	K	
C610		CK73GB1H104K	CHIP C	0.10UF	K	
C612		CK73GB1H104K	CHIP C	0.10UF	K	
C613		CK73GB1H104K	CHIP C	0.10UF	K	
C614		CC73GCH1H100D	CHIP C	10PF	D	
C616		CC73GCH1H270J	CHIP C	27PF	J	
C619		CC73GCH1H100D	CHIP C	10PF	D	
C620		CK73GB1H104K	CHIP C	0.10UF	K	
C621		CK73GB1H104K	CHIP C	0.10UF	K	
C622		CK73GB1H104K	CHIP C	0.10UF	K	
C623		CK73GB1H104K	CHIP C	0.10UF	K	
C624		CC73GCH1H560J	CHIP C	56PF	J	
C625		CC73GCH1H560J	CHIP C	56PF	J	
C626		CC73GCH1H560J	CHIP C	56PF	J	
C627		CC73GCH1H560J	CHIP C	56PF	J	
C628		CK73GB1H104K	CHIP C	0.10UF	K	
C629		CK73GB1H104K	CHIP C	0.10UF	K	
C630		CK73GB1H104K	CHIP C	0.10UF	K	
C631		CK73GB1H104K	CHIP C	0.10UF	K	
C632		CK73GB1H103K	CHIP C	0.010UF	K	
C633		CK73GB1H103K	CHIP C	0.010UF	K	
C634		CK73GB1H103K	CHIP C	0.010UF	K	
C635		CK73GB1H104K	CHIP C	0.10UF	K	
C636		CK73GB1H104K	CHIP C	0.10UF	K	
C637		CK73GB1H103K	CHIP C	0.010UF	K	
C638		CC73GCH1H470J	CHIP C	47PF	J	
C639		CC73GCH1H180J	CHIP C	18PF	J	
C640		CC73GCH1H181J	CHIP C	180PF	J	
C641		CC73GCH1H331J	CHIP C	330PF	J	
C642		CC73GCH1H221J	CHIP C	220PF	J	
C643		CC73GCH1H471J	CHIP C	470PF	J	
C645		CC73GCH1H471J	CHIP C	470PF	J	
C656		CK73GB1H103K	CHIP C	0.010UF	K	
C657		CK73GB1H103K	CHIP C	0.010UF	K	
C658		CK73GB1H104K	CHIP C	0.10UF	K	
C659		CK73GB1H103K	CHIP C	0.010UF	K	
C660		CK73GB1H103K	CHIP C	0.010UF	K	
C661		CK73FB0J106K	CHIP C	10UF	K	
C662		CK73GB1H104K	CHIP C	0.10UF	K	
C663		CK73GB1H104K	CHIP C	0.10UF	K	
C703		CK73GB1H104K	CHIP C	0.10UF	K	
C704		CK73FB0J106K	CHIP C	10UF	K	
C707		CK73GB1H102K	CHIP C	1000PF	K	
C708		CK73GB1H104K	CHIP C	0.10UF	K	
C709		CE32CL1V100M	CHIP EL	10UF	35WV	
C710		CK73GB1H104K	CHIP C	0.10UF	K	
C711		CK73GB1H103K	CHIP C	0.010UF	K	

Ref. No.	Address	Parts No.	Description			Destination
C712		CC73GCH1H471J	CHIP C	470PF	J	
C713		CC73GCH1H471J	CHIP C	470PF	J	
C714		CK73GB1H103K	CHIP C	0.010UF	K	
C715		CE32CL1V100M	CHIP EL	10UF	35WV	
C716		CK73GB1H103K	CHIP C	0.010UF	K	
C717		CC73GCH1H471J	CHIP C	470PF	J	
C718		CC73GCH1H471J	CHIP C	470PF	J	
C719		CK73GB1H103K	CHIP C	0.010UF	K	
C720		CE32CL1V100M	CHIP EL	10UF	35WV	
C721		CE32CL1V100M	CHIP EL	10UF	35WV	
C722		CK73GB1H103K	CHIP C	0.010UF	K	
C723		CC73GCH1H471J	CHIP C	470PF	J	
C724		CC73GCH1H471J	CHIP C	470PF	J	
C725		CK73GB1H103K	CHIP C	0.010UF	K	
C801		CK73GB1H104K	CHIP C	0.10UF	K	
C802		CK73GB1H104K	CHIP C	0.10UF	K	
C803		CK73GB1H104K	CHIP C	0.10UF	K	
C804		CC73GCH1H471J	CHIP C	470PF	J	
C805		CK73GB1H104K	CHIP C	0.10UF	K	
C806		CE32CL1V100M	CHIP EL	10UF	35WV	
C807		CK73FB1C105K	CHIP C	1.0UF	K	
C808		CK73GB1H104K	CHIP C	0.10UF	K	
C809		CK73GB1H104K	CHIP C	0.10UF	K	
C810		CC73GCH1H471J	CHIP C	470PF	J	
C811		CK73GB1H104K	CHIP C	0.10UF	K	
C812		CK73GB1H103K	CHIP C	0.010UF	K	
C813		CC73GCH1H471J	CHIP C	470PF	J	
C814		CK73GB1H104K	CHIP C	0.10UF	K	
C816		CE32CL1V100M	CHIP EL	10UF	35WV	
C817		CK73GB1H103K	CHIP C	0.010UF	K	
C818		CE32CL1V100M	CHIP EL	10UF	35WV	
C819		CC73GCH1H471J	CHIP C	470PF	J	
C820		CK73GB1H104K	CHIP C	0.10UF	K	
C821		CK73GB1H104K	CHIP C	0.10UF	K	
C822		CK73GB1H103K	CHIP C	0.010UF	K	
C823		CC73GCH1H471J	CHIP C	470PF	J	
C824		CC73GCH1H471J	CHIP C	470PF	J	
C825		CK73GB1H103K	CHIP C	0.010UF	K	
C826		CC73GCH1H471J	CHIP C	470PF	J	
C827		CK73GB1H103K	CHIP C	0.010UF	K	
C848		C92-0904-05	OS-CON	22UF	35WV	
C850		CK73GB1H103K	CHIP C	0.010UF	K	
C856		CE32AU1E100M	CHIP EL	10UF	25WV	
C857		CK73GB1H103K	CHIP C	0.010UF	K	
C858		CC73GCH1H471J	CHIP C	470PF	J	
C859		CC73GCH1H471J	CHIP C	470PF	J	
C860		CK73GB1H103K	CHIP C	0.010UF	K	
C885		CK73GB1H104K	CHIP C	0.10UF	K	
C886		CC73GCH1H270J	CHIP C	27PF	J	
C887		CC73GCH1H100D	CHIP C	10PF	D	
C888		CC73GCH1H270J	CHIP C	27PF	J	
C889		CK73GB1H104K	CHIP C	0.10UF	K	
C890		CK73GB1E105K	CHIP C	1.0UF	K	
C894		CK73GB1H103K	CHIP C	0.010UF	K	
C895		CK73GB1H103K	CHIP C	0.010UF	K	
C896		CC73GCH1H100D	CHIP C	10PF	D	
C897		CK73GB1H104K	CHIP C	0.10UF	K	
C898		CC73GCH1H471J	CHIP C	470PF	J	
C920		CK73GB1H104K	CHIP C	0.10UF	K	
C921		CK73GB1H104K	CHIP C	0.10UF	K	

PARTS LIST

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Ref. No.	Address	Parts No.	Description	Destination
C922		CK73GB1H104K	CHIP C 0.10UF K	
C923		CK73GB1H104K	CHIP C 0.10UF K	
C924		CK73GB1H104K	CHIP C 0.10UF K	
C925		CK73GB1H104K	CHIP C 0.10UF K	
C926		CK73GB1H102K	CHIP C 1000PF K	
C928		CK73GB1H104K	CHIP C 0.10UF K	
C929		CK73GB1H104K	CHIP C 0.10UF K	
C930		CK73GB1E105K	CHIP C 1.0UF K	
C931		CK73GB1E105K	CHIP C 1.0UF K	
C932		CC73GCH1H470J	CHIP C 47PF J	
C933		CS77MA1D1R5M	CHIP TNTL 1.5UF 20WV	
C934		CS77MA1D1R5M	CHIP TNTL 1.5UF 20WV	
C935		CK73GB1H104K	CHIP C 0.10UF K	
C936		CK73GB1H104K	CHIP C 0.10UF K	
C937		CK73GB1H103K	CHIP C 0.010UF K	
C938		CK73FB0J106K	CHIP C 10UF K	
C939		CK73GB1H102K	CHIP C 1000PF K	
C941		CK73GB1H102K	CHIP C 1000PF K	
C943		CK73GB1H104K	CHIP C 0.10UF K	
C960		CK73GB1H104K	CHIP C 0.10UF K	
C961		CK73GB1H104K	CHIP C 0.10UF K	
C962		CK73GB1H104K	CHIP C 0.10UF K	
C963		CK73GB1H104K	CHIP C 0.10UF K	
C964		CK73GB1H104K	CHIP C 0.10UF K	
C965		CK73GB1H104K	CHIP C 0.10UF K	
CN102		E23-1280-05	TERMINAL	
CN103		E23-1280-05	TERMINAL	
CN104		E23-1280-05	TERMINAL	
CN105		E23-1280-05	TERMINAL	
CN106		E23-1280-05	TERMINAL	
CN107		E23-1280-05	TERMINAL	
CN108		E23-1280-05	TERMINAL	
CN109		E23-1280-05	TERMINAL	
CN110		E23-1280-05	TERMINAL	
CN111		E23-1280-05	TERMINAL	
CN112		E23-1280-05	TERMINAL	
CN113		E23-1280-05	TERMINAL	
CN114		E23-1280-05	TERMINAL	
CN115		E23-1280-05	TERMINAL	
CN116		E23-1280-05	TERMINAL	
CN117		E23-1280-05	TERMINAL	
CN118		E23-1280-05	TERMINAL	
CN119		E23-1280-05	TERMINAL	
CN120		E23-1280-05	TERMINAL	
CN121		E23-1280-05	TERMINAL	
CN130		E23-1330-05	TERMINAL	
CN403		E04-0193-05	PIN SOCKET	
CN405		E04-0193-05	PIN SOCKET	
CN406		E04-0193-05	PIN SOCKET	
CN407		E04-0154-05	PIN SOCKET	
CN408		E04-0193-05	PIN SOCKET	
CN801		E41-2672-05	PIN ASSY	
CN802		E04-0193-05	PIN SOCKET	
CN803		E40-6822-05	FLAT CABLE CONNECTOR	
CN804		E40-6656-05	PIN ASSY	
CN805		E40-6656-05	PIN ASSY	
CN806		E40-6656-05	PIN ASSY	
CN807		E41-2671-05	PIN ASSY	
CN920		E41-1493-05	PIN ASSY	
CN921		E40-6656-05	PIN ASSY	

Ref. No.	Address	Parts No.	Description	Destination
CN923		E41-1483-05	PIN ASSY	
CN960		E41-1493-05	PIN ASSY	
E100		F10-3081-04	SHIELDING CASE	
CF201		L72-1029-05	CERAMIC FILTER	
CF601		L72-1019-05	CERAMIC FILTER	
L105		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L106		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L108		L34-4545-05	AIR-CORE COIL	
L109		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L110		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L111		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L112		L41-1875-33	SMALL FIXED INDUCTOR(0.018UH)	
L113		L41-1875-33	SMALL FIXED INDUCTOR(0.018UH)	
L116		L41-1575-33	SMALL FIXED INDUCTOR(0.015UH)	
L117		L41-1875-33	SMALL FIXED INDUCTOR(0.018UH)	
L118		L41-1875-33	SMALL FIXED INDUCTOR(0.018UH)	
L119		L41-1575-33	SMALL FIXED INDUCTOR(0.015UH)	
L120		L41-2275-33	SMALL FIXED INDUCTOR(0.022UH)	
L121		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L122		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L123		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L124		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L125		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L126		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L128		L34-4545-05	AIR-CORE COIL	
L129		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L130		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L131		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L201		L41-1575-33	SMALL FIXED INDUCTOR(0.015UH)	
L202		L41-1575-33	SMALL FIXED INDUCTOR(0.015UH)	
L203		L41-1275-33	SMALL FIXED INDUCTOR(0.012UH)	
L204		L41-1275-33	SMALL FIXED INDUCTOR(0.012UH)	
L205		L34-4604-15	AIR-CORE COIL	
L207		L34-4607-15	AIR-CORE COIL	
L208		L34-4606-15	AIR-CORE COIL	
L210		L41-1595-33	SMALL FIXED INDUCTOR(1.5UH)	
L211		L41-1895-33	SMALL FIXED INDUCTOR(1.8UH)	
L212		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L213		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L214		L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L215		L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L216		L41-2295-33	SMALL FIXED INDUCTOR(2.2UH)	
L217		L41-2295-33	SMALL FIXED INDUCTOR(2.2UH)	
L218		L41-6885-33	SMALL FIXED INDUCTOR(0.68UH)	
L219		L41-6895-33	SMALL FIXED INDUCTOR(6.8UH)	
L301		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L302		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L303		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L304		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L305		L41-3385-33	SMALL FIXED INDUCTOR(0.33UH)	
L306		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L307		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L308		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L309		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L310		L41-3385-33	SMALL FIXED INDUCTOR(0.33UH)	
L311		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L312		L41-3385-33	SMALL FIXED INDUCTOR(0.33UH)	
L313		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	

PARTS LIST

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description	Destination
L314		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L401		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L402		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L403		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L404		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L405		L41-3385-33	SMALL FIXED INDUCTOR(0.33UH)	
L406		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L407		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L408		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L409		L41-3385-33	SMALL FIXED INDUCTOR(0.33UH)	
L410		L41-3385-33	SMALL FIXED INDUCTOR(0.33UH)	
L411		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L412		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L413		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L414		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L415		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L416		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L417		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L418		L41-5685-33	SMALL FIXED INDUCTOR(0.56UH)	
L419		L41-6885-33	SMALL FIXED INDUCTOR(0.68UH)	
L420		L41-6885-33	SMALL FIXED INDUCTOR(0.68UH)	
L421		L41-5685-33	SMALL FIXED INDUCTOR(0.56UH)	
L422		L39-1517-05	TOROIDAL COIL	
L423		L41-3305-33	SMALL FIXED INDUCTOR(33UH)	
L424		L41-3395-33	SMALL FIXED INDUCTOR(3.3UH)	
L425		L41-3305-33	SMALL FIXED INDUCTOR(33UH)	
L426		L41-3395-33	SMALL FIXED INDUCTOR(3.3UH)	
L427		L39-1517-05	TOROIDAL COIL	
L430		L41-5685-33	SMALL FIXED INDUCTOR(0.56UH)	
L431		L41-6885-33	SMALL FIXED INDUCTOR(0.68UH)	
L433		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L434		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L435		L41-3395-33	SMALL FIXED INDUCTOR(3.3UH)	
L601		L41-3305-33	SMALL FIXED INDUCTOR(33UH)	
L602		L41-3305-33	SMALL FIXED INDUCTOR(33UH)	
L603		L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L604		L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L605		L41-2205-33	SMALL FIXED INDUCTOR(22UH)	
L606		L41-1205-33	SMALL FIXED INDUCTOR(12UH)	
L607		L41-1205-33	SMALL FIXED INDUCTOR(12UH)	
L608		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L609		L92-0140-05	CHIP FERRITE	
L610		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L611		L92-0140-05	CHIP FERRITE	
L612		L41-3385-33	SMALL FIXED INDUCTOR(0.33UH)	
L613		L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L614		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L801		L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L812		L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
X301		L77-3065-15	VCXO(19.2MHZ)	
X401		L77-3065-15	VCXO(19.2MHZ)	
X601		L77-3034-05	TCXO(19.2MHZ)	
CP920		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
CP923		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
CP926		RK74GB1J681J	CHIP-COM 680 J 1/16W	
CP928		RK74GB1J681J	CHIP-COM 680 J 1/16W	
CP961		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
CP962		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
CP965		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	

Ref. No.	Address	Parts No.	Description	Destination
CP966		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
CP970		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
CP971		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
CP973		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
CP974		RK74GB1J102J	CHIP-COM 1.0K J 1/16W	
R101		RK73GB2A000J	CHIP R 0 J 1/10W	
R118		RK73GB2A000J	CHIP R 0 J 1/10W	
R119		RK73GB2A820J	CHIP R 82 J 1/10W	
R120		RK73GB2A151J	CHIP R 150 J 1/10W	
R123		RK73GB2A000J	CHIP R 0 J 1/10W	
R124		RK73GB2A105J	CHIP R 1.0M J 1/10W	
R125		RK73GB2A105J	CHIP R 1.0M J 1/10W	
R129		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R131		RN73GE1J101D	CHIP R 100 D 1/16W	
R132		RN73GE1J181D	CHIP R 180 D 1/16W	
R133		RK73GB2A470J	CHIP R 47 J 1/10W	
R134		RK73GB2A220J	CHIP R 22 J 1/10W	
R135		RK73GB2A272J	CHIP R 2.7K J 1/10W	
R137		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R138		RK73GB2A103J	CHIP R 10K J 1/10W	
R139		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R141		RK73GB2A820J	CHIP R 82 J 1/10W	
R142		RK73GB2A331J	CHIP R 330 J 1/10W	
R144		RK73GB2A000J	CHIP R 0 J 1/10W	
R145		RK73GB2A000J	CHIP R 0 J 1/10W	
R146		RK73GB2A271J	CHIP R 270 J 1/10W	
R147		RK73GB2A180J	CHIP R 18 J 1/10W	
R148		RK73GB2A271J	CHIP R 270 J 1/10W	
R149		RK73GB2A221J	CHIP R 220 J 1/10W	
R150		RK73GB2A820J	CHIP R 82 J 1/10W	
R151		RK73GB2A101J	CHIP R 100 J 1/10W	
R152		RK73GB2A000J	CHIP R 0 J 1/10W	
R153		RK73GB2A271J	CHIP R 270 J 1/10W	
R154		RK73GB2A180J	CHIP R 18 J 1/10W	
R155		RK73GB2A682J	CHIP R 6.8K J 1/10W	
R156		RK73GB2A182J	CHIP R 1.8K J 1/10W	
R157		RK73GB2A271J	CHIP R 270 J 1/10W	
R158		RK73GB2A103J	CHIP R 10K J 1/10W	
R159		RK73GB2A104J	CHIP R 100K J 1/10W	
R160		RK73GB2A104J	CHIP R 100K J 1/10W	
R161		RK73GB2A104J	CHIP R 100K J 1/10W	
R164		RK73GB2A104J	CHIP R 100K J 1/10W	
R165		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R166		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R167		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R168		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R170		RK73GB2A000J	CHIP R 0 J 1/10W	
R171		RK73GB2A470J	CHIP R 47 J 1/10W	
R172		RK73GB2A470J	CHIP R 47 J 1/10W	
R173		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R174		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R176		RK73GB2A000J	CHIP R 0 J 1/10W	
R178		RK73GB2A000J	CHIP R 0 J 1/10W	
R179		RK73GB2A224J	CHIP R 220K J 1/10W	
R180		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R181		RK73GB2A184J	CHIP R 180K J 1/10W	
R182		RN73GE1J101D	CHIP R 100 D 1/16W	
R183		RN73GE1J181D	CHIP R 180 D 1/16W	
R184		RK73GB2A470J	CHIP R 47 J 1/10W	
R185		RK73GB2A103J	CHIP R 10K J 1/10W	

PARTS LIST

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description	Destination
R186		RK73GB2A103J	CHIP R 10K J 1/10W	
R187		RK73GB2A000J	CHIP R 0 J 1/10W	
R188		RK73GB2A000J	CHIP R 0 J 1/10W	
R189		RK73GB2A103J	CHIP R 10K J 1/10W	
R190		RK73GB2A103J	CHIP R 10K J 1/10W	
R191		RK73GB2A103J	CHIP R 10K J 1/10W	
R201		RK73GB2A121J	CHIP R 120 J 1/10W	
R202		RK73GB2A470J	CHIP R 47 J 1/10W	
R203		RK73GB2A121J	CHIP R 120 J 1/10W	
R204		RK73GB2A103J	CHIP R 10K J 1/10W	
R205		RK73GB2A272J	CHIP R 2.7K J 1/10W	
R206		RK73GB2A181J	CHIP R 180 J 1/10W	
R207		RK73GB2A121J	CHIP R 120 J 1/10W	
R208		RK73GB2A101J	CHIP R 100 J 1/10W	
R210		RK73GB2A000J	CHIP R 0 J 1/10W	
R212		RK73GB2A562J	CHIP R 5.6K J 1/10W	
R213		RK73GB2A152J	CHIP R 1.5K J 1/10W	
R215		RK73GB2A000J	CHIP R 0 J 1/10W	
R216		RK73GB2A470J	CHIP R 47 J 1/10W	
R218		RK73GB2A000J	CHIP R 0 J 1/10W	
R220		RK73GB2A392J	CHIP R 3.9K J 1/10W	
R221		RK73GB2A103J	CHIP R 10K J 1/10W	
R222		RK73GB2A000J	CHIP R 0 J 1/10W	
R223		RK73GB2A123J	CHIP R 12K J 1/10W	
R224		RK73GB2A221J	CHIP R 220 J 1/10W	
R225		RK73GB2A474J	CHIP R 470K J 1/10W	
R226		RK73GB2A220J	CHIP R 22 J 1/10W	
R227		RK73GB2A000J	CHIP R 0 J 1/10W	
R229		RK73GB2A563J	CHIP R 56K J 1/10W	
R230		RK73FB2B4R7J	CHIP R 4.7 J 1/8W	
R231		RK73GB2A000J	CHIP R 0 J 1/10W	
R232		RK73GB2A000J	CHIP R 0 J 1/10W	
R233		RK73GB2A104J	CHIP R 100K J 1/10W	
R234		RK73GB2A474J	CHIP R 470K J 1/10W	
R235		RK73GB2A474J	CHIP R 470K J 1/10W	
R236		RK73GB2A821J	CHIP R 820 J 1/10W	
R240		RK73GB2A104J	CHIP R 100K J 1/10W	
R241		RK73GB2A000J	CHIP R 0 J 1/10W	
R242		RK73GB2A474J	CHIP R 470K J 1/10W	
R243		RK73GB2A392J	CHIP R 3.9K J 1/10W	
R244		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R245		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R246		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R248		RK73GB2A104J	CHIP R 100K J 1/10W	
R249		RK73GB2A104J	CHIP R 100K J 1/10W	
R250		RK73GB2A473J	CHIP R 47K J 1/10W	
R251		RK73GB2A100J	CHIP R 10 J 1/10W	
R252		RK73GB2A104J	CHIP R 100K J 1/10W	
R253		RK73GB2A331J	CHIP R 330 J 1/10W	
R254		RK73GB2A100J	CHIP R 10 J 1/10W	
R255		RK73GB2A274J	CHIP R 270K J 1/10W	
R256		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R257		RK73GB2A000J	CHIP R 0 J 1/10W	
R258		RK73GB2A000J	CHIP R 0 J 1/10W	
R259		RK73GB2A562J	CHIP R 5.6K J 1/10W	
R260		RK73GB2A331J	CHIP R 330 J 1/10W	
R261		RK73GB2A562J	CHIP R 5.6K J 1/10W	
R262		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R263		RK73GB2A563J	CHIP R 56K J 1/10W	
R264		RK73GB2A100J	CHIP R 10 J 1/10W	

Ref. No.	Address	Parts No.	Description	Destination
R265		RK73GB2A471J	CHIP R 470 J 1/10W	
R266		RK73GB2A000J	CHIP R 0 J 1/10W	
R267		RK73GB2A271J	CHIP R 270 J 1/10W	
R268		RK73GB2A180J	CHIP R 18 J 1/10W	
R269		RK73GB2A271J	CHIP R 270 J 1/10W	
R270		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R271		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R272		RK73GB2A100J	CHIP R 10 J 1/10W	
R274		RK73GB2A221J	CHIP R 220 J 1/10W	
R276		RK73GB2A000J	CHIP R 0 J 1/10W	
R278		RK73GB2A000J	CHIP R 0 J 1/10W	
R279		RK73GB2A000J	CHIP R 0 J 1/10W	
R281		RK73GB2A000J	CHIP R 0 J 1/10W	
R301		RK73GB2A473J	CHIP R 47K J 1/10W	
R302		RK73GB2A473J	CHIP R 47K J 1/10W	
R303		RK73GB2A000J	CHIP R 0 J 1/10W	
R304		RK73GB2A471J	CHIP R 470 J 1/10W	
R305		RK73GB2A104J	CHIP R 100K J 1/10W	
R306		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R307		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R308		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R309		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R310		RK73GB2A104J	CHIP R 100K J 1/10W	
R311		RK73GB2A104J	CHIP R 100K J 1/10W	
R312		RK73GB2A154J	CHIP R 150K J 1/10W	
R313		RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R314		RK73GB2A000J	CHIP R 0 J 1/10W	
R316		RK73GB2A223J	CHIP R 22K J 1/10W	
R317		RK73GB2A104J	CHIP R 100K J 1/10W	
R318		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R319		RK73GB2A104J	CHIP R 100K J 1/10W	
R320		RK73GB2A470J	CHIP R 47 J 1/10W	
R321		RK73GB2A100J	CHIP R 10 J 1/10W	
R322		RK73GB2A100J	CHIP R 10 J 1/10W	
R323		RK73GB2A100J	CHIP R 10 J 1/10W	
R324		RK73GB2A682J	CHIP R 6.8K J 1/10W	
R325		RK73GB2A332J	CHIP R 3.3K J 1/10W	
R326		RK73GB2A100J	CHIP R 10 J 1/10W	
R327		RK73GB2A000J	CHIP R 0 J 1/10W	
R328		RK73GB2A000J	CHIP R 0 J 1/10W	
R329		RK73GB2A104J	CHIP R 100K J 1/10W	
R330		RK73GB2A104J	CHIP R 100K J 1/10W	
R331		RK73GB2A471J	CHIP R 470 J 1/10W	
R332		RK73GB2A471J	CHIP R 470 J 1/10W	
R333		RK73GB2A000J	CHIP R 0 J 1/10W	
R334		RK73GB2A823J	CHIP R 82K J 1/10W	
R335		RK73GB2A223J	CHIP R 22K J 1/10W	
R336		RK73GB2A184J	CHIP R 180K J 1/10W	
R337		RK73GB2A273J	CHIP R 27K J 1/10W	
R338		RK73GB2A105J	CHIP R 1.0M J 1/10W	
R339		RK73GB2A104J	CHIP R 100K J 1/10W	
R340		RK73GB2A101J	CHIP R 100 J 1/10W	
R341		RK73GB2A221J	CHIP R 220 J 1/10W	
R342		RK73GB2A470J	CHIP R 47 J 1/10W	
R343		RK73GB2A000J	CHIP R 0 J 1/10W	
R344		RK73GB2A104J	CHIP R 100K J 1/10W	
R345		RK73GB2A104J	CHIP R 100K J 1/10W	
R346		RK73GB2A104J	CHIP R 100K J 1/10W	
R347		RK73GB2A104J	CHIP R 100K J 1/10W	
R348		RK73GB2A104J	CHIP R 100K J 1/10W	

PARTS LIST

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description	Destination
R349		RK73GB2A104J	CHIP R 100K J 1/10W	
R350		RK73GB2A104J	CHIP R 100K J 1/10W	
R351		RK73GB2A104J	CHIP R 100K J 1/10W	
R352		RK73GB2A123J	CHIP R 12K J 1/10W	
R353		RK73GB2A332J	CHIP R 3.3K J 1/10W	
R355		RK73GB2A221J	CHIP R 220 J 1/10W	
R356		RK73GB2A100J	CHIP R 10 J 1/10W	
R357		RK73GB2A101J	CHIP R 100 J 1/10W	
R358		RK73GB2A105J	CHIP R 1.0M J 1/10W	
R360		RK73GB2A104J	CHIP R 100K J 1/10W	
R362		RK73GB2A100J	CHIP R 10 J 1/10W	
R363		RK73GB2A471J	CHIP R 470 J 1/10W	
R364		RK73GB2A104J	CHIP R 100K J 1/10W	
R367		RK73GB2A104J	CHIP R 100K J 1/10W	
R368		RK73GB2A822J	CHIP R 8.2K J 1/10W	
R369		RK73GB2A000J	CHIP R 0 J 1/10W	
R370		RK73GB2A182J	CHIP R 1.8K J 1/10W	
R371		RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R374		RK73GB2A000J	CHIP R 0 J 1/10W	
R375		RK73GB2A563J	CHIP R 56K J 1/10W	
R376		RK73GB2A563J	CHIP R 56K J 1/10W	
R377		RK73GB2A104J	CHIP R 100K J 1/10W	
R378		RK73GB2A104J	CHIP R 100K J 1/10W	
R379		RK73GB2A000J	CHIP R 0 J 1/10W	
R380		RK73GB2A470J	CHIP R 47 J 1/10W	
R381		RK73GB2A104J	CHIP R 100K J 1/10W	
R401		RK73GB2A000J	CHIP R 0 J 1/10W	
R402		RK73GB2A474J	CHIP R 470K J 1/10W	
R403		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R404		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R406		RK73GB2A100J	CHIP R 10 J 1/10W	
R407		RK73GB2A100J	CHIP R 10 J 1/10W	
R408		RK73GB2A100J	CHIP R 10 J 1/10W	
R409		RK73GB2A000J	CHIP R 0 J 1/10W	
R410		RK73GB2A331J	CHIP R 330 J 1/10W	
R411		RK73GB2A000J	CHIP R 0 J 1/10W	
R412		RK73GB2A331J	CHIP R 330 J 1/10W	
R413		RK73GB2A123J	CHIP R 12K J 1/10W	
R414		RK73GB2A562J	CHIP R 5.6K J 1/10W	
R415		RK73GB2A123J	CHIP R 12K J 1/10W	
R416		RK73GB2A562J	CHIP R 5.6K J 1/10W	
R417		RK73GB2A000J	CHIP R 0 J 1/10W	
R418		RK73GB2A000J	CHIP R 0 J 1/10W	
R422		RK73GB2A474J	CHIP R 470K J 1/10W	
R423		RK73GB2A474J	CHIP R 470K J 1/10W	
R424		RK73GB2A474J	CHIP R 470K J 1/10W	
R425		RK73GB2A104J	CHIP R 100K J 1/10W	
R427		RK73GB2A100J	CHIP R 10 J 1/10W	
R430		RK73GB2A100J	CHIP R 10 J 1/10W	
R431		RK73GB2A100J	CHIP R 10 J 1/10W	
R433		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R434		RK73GB2A000J	CHIP R 0 J 1/10W	
R435		RK73GB2A104J	CHIP R 100K J 1/10W	
R436		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R437		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R438		RK73GB2A104J	CHIP R 100K J 1/10W	
R439		RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R440		RK73GB2A103J	CHIP R 10K J 1/10W	
R442		RK73GB2A470J	CHIP R 47 J 1/10W	
R447		RK73GB2A000J	CHIP R 0 J 1/10W	

Ref. No.	Address	Parts No.	Description	Destination
R452		RK73GB2A000J	CHIP R 0 J 1/10W	
R453		RK73GB2A000J	CHIP R 0 J 1/10W	
R454		RK73GB2A105J	CHIP R 1.0M J 1/10W	
R455		RK73GB2A105J	CHIP R 1.0M J 1/10W	
R457		RK73GB2A104J	CHIP R 100K J 1/10W	
R458		RK73GB2A104J	CHIP R 100K J 1/10W	
R459		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R460		RK73GB2A183J	CHIP R 18K J 1/10W	
R461		RK73GB2A000J	CHIP R 0 J 1/10W	
R463		RK73GB2A000J	CHIP R 0 J 1/10W	
R464		RK73GB2A221J	CHIP R 220 J 1/10W	
R465		RK73GB2A000J	CHIP R 0 J 1/10W	
R466		RK73GB2A470J	CHIP R 47 J 1/10W	
R469		RK73GB2A000J	CHIP R 0 J 1/10W	
R470		RK73GB2A000J	CHIP R 0 J 1/10W	
R471		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R474		RK73GB2A682J	CHIP R 6.8K J 1/10W	
R475		RK73GB2A332J	CHIP R 3.3K J 1/10W	
R476		RK73GB2A000J	CHIP R 0 J 1/10W	
R477		RK73GB2A000J	CHIP R 0 J 1/10W	
R478		RK73GB2A153J	CHIP R 15K J 1/10W	
R479		RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R480		RK73GB2A682J	CHIP R 6.8K J 1/10W	
R481		RK73GB2A182J	CHIP R 1.8K J 1/10W	
R482		RK73GB2A103J	CHIP R 10K J 1/10W	
R483		RK73GB2A562J	CHIP R 5.6K J 1/10W	
R484		RK73GB2A101J	CHIP R 100 J 1/10W	
R485		RK73GB2A392J	CHIP R 3.9K J 1/10W	
R486		RK73GB2A221J	CHIP R 220 J 1/10W	
R487		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R488		RK73GB2A822J	CHIP R 8.2K J 1/10W	
R489		RK73GB2A272J	CHIP R 2.7K J 1/10W	
R490		RK73GB2A470J	CHIP R 47 J 1/10W	
R492		RK73GB2A471J	CHIP R 470 J 1/10W	
R493		RK73GB2A104J	CHIP R 100K J 1/10W	
R494		RK73GB2A123J	CHIP R 12K J 1/10W	
R495		RK73GB2A332J	CHIP R 3.3K J 1/10W	
R496		RK73GB2A100J	CHIP R 10 J 1/10W	
R497		RK73GB2A100J	CHIP R 10 J 1/10W	
R498		RK73GB2A471J	CHIP R 470 J 1/10W	
R499		RK73GB2A682J	CHIP R 6.8K J 1/10W	
R500		RK73GB2A332J	CHIP R 3.3K J 1/10W	
R501		RK73GB2A221J	CHIP R 220 J 1/10W	
R502		RK73GB2A000J	CHIP R 0 J 1/10W	
R503		RK73GB2A100J	CHIP R 10 J 1/10W	
R504		RK73GB2A104J	CHIP R 100K J 1/10W	
R505		RK73GB2A000J	CHIP R 0 J 1/10W	
R506		RK73GB2A101J	CHIP R 100 J 1/10W	
R507		RK73GB2A100J	CHIP R 10 J 1/10W	
R508		RK73GB2A000J	CHIP R 0 J 1/10W	
R509		RK73GB2A000J	CHIP R 0 J 1/10W	
R510		RK73GB2A000J	CHIP R 0 J 1/10W	
R511		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R512		RK73GB2A181J	CHIP R 180 J 1/10W	
R513		RK73GB2A471J	CHIP R 470 J 1/10W	
R514		RK73GB2A100J	CHIP R 10 J 1/10W	
R515		RK73GB2A470J	CHIP R 47 J 1/10W	
R518		RK73GB2A104J	CHIP R 100K J 1/10W	
R519		RK73GB2A124J	CHIP R 120K J 1/10W	
R521		RK73GB2A223J	CHIP R 22K J 1/10W	

PARTS LIST

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description	Destination
R522		RK73GB2A822J	CHIP R 8.2K J 1/10W	
R523		RK73GB2A221J	CHIP R 220 J 1/10W	
R524		RK73GB2A221J	CHIP R 220 J 1/10W	
R525		RK73GB2A470J	CHIP R 47 J 1/10W	
R526		RK73GB2A473J	CHIP R 47K J 1/10W	
R527		RK73GB2A271J	CHIP R 270 J 1/10W	
R528		RK73GB2A152J	CHIP R 1.5K J 1/10W	
R529		RK73GB2A333J	CHIP R 33K J 1/10W	
R530		RK73GB2A180J	CHIP R 18 J 1/10W	
R531		RK73GB2A474J	CHIP R 470K J 1/10W	
R532		RK73GB2A271J	CHIP R 270 J 1/10W	
R533		RK73GB2A104J	CHIP R 100K J 1/10W	
R534		RK73GB2A391J	CHIP R 390 J 1/10W	
R535		RK73GB2A104J	CHIP R 100K J 1/10W	
R536		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R537		RK73GB2A103J	CHIP R 10K J 1/10W	
R538		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R539		RK73GB2A100J	CHIP R 10 J 1/10W	
R540		RK73GB2A474J	CHIP R 470K J 1/10W	
R541		RK73FB2B1R0J	CHIP R 1 J 1/8W	
R542		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R543		RK73GB2A220J	CHIP R 22 J 1/10W	
R544		RK73GB2A104J	CHIP R 100K J 1/10W	
R545		RK73GB2A470J	CHIP R 47 J 1/10W	
R547		RK73GB2A563J	CHIP R 56K J 1/10W	
R548		RK73GB2A473J	CHIP R 47K J 1/10W	
R549		RK73GB2A391J	CHIP R 390 J 1/10W	
R550		RK73GB2A104J	CHIP R 100K J 1/10W	
R551		RK73GB2A473J	CHIP R 47K J 1/10W	
R552		RK73GB2A564J	CHIP R 560K J 1/10W	
R553		RK73GH2A154D	CHIP R 150K D 1/10W	
R554		RK73GB2A120J	CHIP R 12 J 1/10W	
R555		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R557		RK73GB2A563J	CHIP R 56K J 1/10W	
R558		RK73GB2A391J	CHIP R 390 J 1/10W	
R559		RK73GB2A391J	CHIP R 390 J 1/10W	
R560		RK73GB2A120J	CHIP R 12 J 1/10W	
R562		RK73GB2A564J	CHIP R 560K J 1/10W	
R563		RK73GB2A473J	CHIP R 47K J 1/10W	
R564		RK73GH2A154D	CHIP R 150K D 1/10W	
R565		RK73GB2A391J	CHIP R 390 J 1/10W	
R566		RK73GB2A473J	CHIP R 47K J 1/10W	
R567		RK73GB2A104J	CHIP R 100K J 1/10W	
R568		RK73GB2A224J	CHIP R 220K J 1/10W	
R569		RK73GB2A561J	CHIP R 560 J 1/10W	
R570		RK73GB2A473J	CHIP R 47K J 1/10W	
R571		RK73GB2A100J	CHIP R 10 J 1/10W	
R573		RK73GB2A104J	CHIP R 100K J 1/10W	
R574		RK73GB2A103J	CHIP R 10K J 1/10W	
R575		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R576		RK73FB2B1R0J	CHIP R 1 J 1/8W	
R577		RK73GB2A104J	CHIP R 100K J 1/10W	
R578		RK73GB2A000J	CHIP R 0 J 1/10W	
R580		RK73GB2A220J	CHIP R 22 J 1/10W	
R581		RK73GB2A104J	CHIP R 100K J 1/10W	
R582		RK73GB2A474J	CHIP R 470K J 1/10W	
R583		RK73GB2A391J	CHIP R 390 J 1/10W	
R586		RK73GB2A473J	CHIP R 47K J 1/10W	
R588		RK73GB2A333J	CHIP R 33K J 1/10W	
R591		RK73FB2B271J	CHIP R 270 J 1/8W	

Ref. No.	Address	Parts No.	Description	Destination
R592		RK73GB2A473J	CHIP R 47K J 1/10W	
R593		RK73FB2B180J	CHIP R 18 J 1/8W	
R594		RK73FB2B271J	CHIP R 270 J 1/8W	
R595		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R596		RK73GH2A333D	CHIP R 33K D 1/10W	
R597		RK73GH2A473D	CHIP R 47K D 1/10W	
R601		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R602		RK73GB2A104J	CHIP R 100K J 1/10W	
R603		RK73GB2A473J	CHIP R 47K J 1/10W	
R604		RK73GB2A473J	CHIP R 47K J 1/10W	
R605		RK73GB2A333J	CHIP R 33K J 1/10W	
R606		RK73GB2A391J	CHIP R 390 J 1/10W	
R607		RK73GB2A100J	CHIP R 10 J 1/10W	
R608		RK73GB2A103J	CHIP R 10K J 1/10W	
R610		RK73GB2A104J	CHIP R 100K J 1/10W	
R611		RK73GB2A100J	CHIP R 10 J 1/10W	
R612		RK73GB2A471J	CHIP R 470 J 1/10W	
R613		RK73GB2A682J	CHIP R 6.8K J 1/10W	
R614		RK73GB2A332J	CHIP R 3.3K J 1/10W	
R615		RK73GB2A471J	CHIP R 470 J 1/10W	
R616		RK73GB2A000J	CHIP R 0 J 1/10W	
R617		RK73GB2A471J	CHIP R 470 J 1/10W	
R618		RK73GB2A104J	CHIP R 100K J 1/10W	
R619		RK73GB2A100J	CHIP R 10 J 1/10W	
R620		RK73GB2A104J	CHIP R 100K J 1/10W	
R621		RK73GB2A471J	CHIP R 470 J 1/10W	
R622		RK73GB2A331J	CHIP R 330 J 1/10W	
R623		RK73GB2A392J	CHIP R 3.9K J 1/10W	
R624		RK73GB2A474J	CHIP R 470K J 1/10W	
R625		RK73GB2A000J	CHIP R 0 J 1/10W	
R626		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R627		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R628		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R629		RK73GB2A101J	CHIP R 100 J 1/10W	
R630		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R631		RK73GB2A561J	CHIP R 560 J 1/10W	
R637		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R638		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R639		RK73GH2A104D	CHIP R 100K D 1/10W	
R640		RK73GH2A104D	CHIP R 100K D 1/10W	
R642		RK73GB2A000J	CHIP R 0 J 1/10W	
R645		RK73GB2A000J	CHIP R 0 J 1/10W	
R705		RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R706		RK73GB2A100J	CHIP R 10 J 1/10W	
R707		RK73GB2A100J	CHIP R 10 J 1/10W	
R708		RK73GB2A100J	CHIP R 10 J 1/10W	
R709		RK73GB2A474J	CHIP R 470K J 1/10W	
R711		RK73GB2A104J	CHIP R 100K J 1/10W	
R712		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R713		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R714		RK73GB2A104J	CHIP R 100K J 1/10W	
R715		RK73GB2A474J	CHIP R 470K J 1/10W	
R716		RK73GB2A100J	CHIP R 10 J 1/10W	
R717		RK73GB2A100J	CHIP R 10 J 1/10W	
R718		RK73GB2A100J	CHIP R 10 J 1/10W	
R719		RK73GB2A104J	CHIP R 100K J 1/10W	
R720		RK73GB2A104J	CHIP R 100K J 1/10W	
R721		RK73GB2A100J	CHIP R 10 J 1/10W	
R722		RK73GB2A474J	CHIP R 470K J 1/10W	
R725		RK73GB2A100J	CHIP R 10 J 1/10W	

PARTS LIST

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description	Destination
R801		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R802		RK73GB2A104J	CHIP R 100K J 1/10W	
R803		RK73GB2A104J	CHIP R 100K J 1/10W	
R804		RK73GB2A100J	CHIP R 10 J 1/10W	
R805		RK73GB2A100J	CHIP R 10 J 1/10W	
R806		RK73GB2A100J	CHIP R 10 J 1/10W	
R807		RK73GB2A100J	CHIP R 10 J 1/10W	
R812		RK73GB2A000J	CHIP R 0 J 1/10W	
R813		RK73GB2A000J	CHIP R 0 J 1/10W	
R814		RK73GB2A000J	CHIP R 0 J 1/10W	
R815		RK73GB2A000J	CHIP R 0 J 1/10W	
R816		RK73GB2A000J	CHIP R 0 J 1/10W	
R817		RK73GB2A000J	CHIP R 0 J 1/10W	
R818		RK73GB2A000J	CHIP R 0 J 1/10W	
R819		RK73GB2A000J	CHIP R 0 J 1/10W	
R820		RK73GB2A000J	CHIP R 0 J 1/10W	
R821		RK73GB2A000J	CHIP R 0 J 1/10W	
R822		RK73GB2A000J	CHIP R 0 J 1/10W	
R823		RK73GB2A000J	CHIP R 0 J 1/10W	
R824		RK73GB2A000J	CHIP R 0 J 1/10W	
R830		RK73GB2A000J	CHIP R 0 J 1/10W	
R831		RK73GB2A000J	CHIP R 0 J 1/10W	
R832		RK73GB2A000J	CHIP R 0 J 1/10W	
R833		RK73GB2A000J	CHIP R 0 J 1/10W	
R834		RK73GB2A000J	CHIP R 0 J 1/10W	
R835		RK73GB2A000J	CHIP R 0 J 1/10W	
R836		RK73GB2A000J	CHIP R 0 J 1/10W	
R837		RK73GB2A000J	CHIP R 0 J 1/10W	
R840		RK73GB2A000J	CHIP R 0 J 1/10W	
R845		RK73GB2A000J	CHIP R 0 J 1/10W	
R865		RK73GB2A104J	CHIP R 100K J 1/10W	
R866		RK73GB2A000J	CHIP R 0 J 1/10W	
R867		RK73GB2A000J	CHIP R 0 J 1/10W	
R869		RK73GB2A104J	CHIP R 100K J 1/10W	
R870		RK73GB2A101J	CHIP R 100 J 1/10W	
R871		RK73GB2A104J	CHIP R 100K J 1/10W	
R873		RK73GB2A103J	CHIP R 10K J 1/10W	
R877		RK73GB2A104J	CHIP R 100K J 1/10W	
R878		RK73GB2A000J	CHIP R 0 J 1/10W	
R879		RK73GB2A104J	CHIP R 100K J 1/10W	
R886		RK73GB2A000J	CHIP R 0 J 1/10W	
R887		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R888		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R889		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R891		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R893		RK73GB2A103J	CHIP R 10K J 1/10W	
R894		RK73GB2A000J	CHIP R 0 J 1/10W	
R895		RK73GB2A000J	CHIP R 0 J 1/10W	
R920		RK73GB2A000J	CHIP R 0 J 1/10W	
R921		RK73GB2A000J	CHIP R 0 J 1/10W	
R922		RK73GB2A000J	CHIP R 0 J 1/10W	
R923		RK73GB2A000J	CHIP R 0 J 1/10W	
R924		RK73GB2A000J	CHIP R 0 J 1/10W	
R925		RK73GB2A000J	CHIP R 0 J 1/10W	
R926		RK73GB2A000J	CHIP R 0 J 1/10W	
R927		RK73GB2A000J	CHIP R 0 J 1/10W	
R928		RK73GB2A000J	CHIP R 0 J 1/10W	
R929		RK73GB2A000J	CHIP R 0 J 1/10W	
R930		RK73GB2A000J	CHIP R 0 J 1/10W	
R931		RK73GB2A000J	CHIP R 0 J 1/10W	

Ref. No.	Address	Parts No.	Description	Destination
R932		RK73GB2A000J	CHIP R 0 J 1/10W	
R933		RK73GB2A821J	CHIP R 820 J 1/10W	
R934		RK73GB2A000J	CHIP R 0 J 1/10W	
R935		RK73GB2A000J	CHIP R 0 J 1/10W	
R936		RK73GB2A122J	CHIP R 1.2K J 1/10W	
R937		RK73GB2A122J	CHIP R 1.2K J 1/10W	
R938		RK73GB2A821J	CHIP R 820 J 1/10W	
R939		RK73GB2A821J	CHIP R 820 J 1/10W	
R940		RK73GB2A122J	CHIP R 1.2K J 1/10W	
R941		RK73GB2A821J	CHIP R 820 J 1/10W	
R942		RK73GB2A000J	CHIP R 0 J 1/10W	
R943		RK73GH2A224D	CHIP R 220K D 1/10W	
R944		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R945		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R946		RK73GB2A103J	CHIP R 10K J 1/10W	
R947		RK73GB2A000J	CHIP R 0 J 1/10W	
R948		RK73GH2A104D	CHIP R 100K D 1/10W	
R949		RK73GH2A104D	CHIP R 100K D 1/10W	
R950		RK73GH2A822D	CHIP R 8.2K D 1/10W	
R951		RK73GB2A122J	CHIP R 1.2K J 1/10W	
R960		RK73GB2A000J	CHIP R 0 J 1/10W	
R961		RK73GB2A000J	CHIP R 0 J 1/10W	
R962		RK73GB2A000J	CHIP R 0 J 1/10W	
R963		RK73GB2A000J	CHIP R 0 J 1/10W	
R964		RK73GB2A000J	CHIP R 0 J 1/10W	
R965		RK73GB2A000J	CHIP R 0 J 1/10W	
R966		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R967		RK73GB2A102J	CHIP R 1.0K J 1/10W	
S920		S70-0502-05	TACT SWITCH	
S921		S70-0502-05	TACT SWITCH	
S922		S70-0502-05	TACT SWITCH	
S923		S70-0502-05	TACT SWITCH	
S924		S70-0502-05	TACT SWITCH	
S925		S70-0502-05	TACT SWITCH	
D101		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE	
D102		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE	
D106		1SV278F	VARIABLE CAPACITANCE DIODE	
D107		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE	
D108		1SV283-KENW,E	VARIABLE CAPACITANCE DIODE	
D112		1SV278F	VARIABLE CAPACITANCE DIODE	
D201		HSM88AS-E	DIODE	
D401		HSM88AS-E	DIODE	
D402		HSM88AS-E	DIODE	
D403		HSM88AS-E	DIODE	
D404		1SV308	DIODE	
D405		1SV308	DIODE	
D408		HSM88AS-E	DIODE	
D409		CSA70-401L	SURGE ABSORBER	
D410		1SV308	DIODE	
D411		1SV308	DIODE	
D412		DA2J101	DIODE	
D413		DA2J101	DIODE	
D601		1SV308	DIODE	
D602		1SV308	DIODE	
D603		DZ2J030(M)	ZENER DIODE	
D604		DZ2J030(M)	ZENER DIODE	
D605		DZ2J030(M)	ZENER DIODE	
D606		DZ2J030(M)	ZENER DIODE	
D607		1SV308	DIODE	

PARTS LIST

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description	Destination
D608		1SV308	DIODE	
D933		HSM88AS-E	DIODE	
D934		HSM88AS-E	DIODE	
D935		1SS355	DIODE	
D936		1SS355	DIODE	
D960		PSA05-11SRWA	LED	
D961		PSA05-11SRWA	LED	
IC101		LMX2352TMX/NP	ANALOGUE IC	
IC102		BU7261G	MOS-IC	
IC104		NJM2386ADL3-09	ANALOGUE IC	
IC201		BA2904FVM	MOS-IC	
IC202		AD9835BRUZ	MOS-IC	
IC301		BU7242FVM	MOS-IC	
IC302		NJU6368PF1	MOS-IC	
IC303		ADF4001BRUZ	MOS-IC	
IC304		M62364FP-F	MOS-IC	
IC305		BU7242FVM	MOS-IC	
IC306		BU7261G	MOS-IC	
IC307		NJU6368PF1	MOS-IC	
IC308		BU7242FVM	MOS-IC	
IC401		BU7261G	MOS-IC	
IC404		ADF4001BRUZ	MOS-IC	
IC405		BU7261G	MOS-IC	
IC406		BU7261G	MOS-IC	
IC407		NJU6368PF1	MOS-IC	
IC408		TA75S01F-F	MOS-IC	
IC409		TA75S01F-F	MOS-IC	
IC601		AD9835BRUZ	MOS-IC	
IC602		NJU6368PF1	MOS-IC	
IC603		XC6204B332M-G	MOS-IC	
IC701		BH2220FVM	ANALOGUE IC	
IC702		S24CS02AFJTBG	ROM IC	
IC703		BU4094BCFV	MOS-IC	
IC704		NJM78M08DL1AZB	ANALOGUE IC	
IC705		NJM78M05DL1AZB	ANALOGUE IC	
IC706		NJM78M05DL1AZB	ANALOGUE IC	
IC801		AD1582	ANALOGUE IC	
IC802		AD5312BRM	MOS-IC	
IC803		AD7908BRU	MOS-IC	
IC804		LM50BIM3/NOPB	MOS-IC	
IC805		TC7SET126FU-F	MOS-IC	
IC806		TC7SET126FU-F	MOS-IC	
IC807		NJM78M05DL1AZB	ANALOGUE IC	
IC808	1B	NJM7808FA-ZB	BIPOLAR IC	
IC809	1B	NJM7808FA-ZB	BIPOLAR IC	
IC812		TC7W53FK(F)	MOS-IC	
IC920		TC7SET126FU-F	MOS-IC	
IC921		TC7SET126FU-F	MOS-IC	
IC922		TC7SET126FU-F	MOS-IC	
IC923		BU4094BCFV	MOS-IC	
IC924		BU4094BCFV	MOS-IC	
IC925		BU4094BCFV	MOS-IC	
IC926		NJM2732V	BI-POLAR IC	
IC960		BU4094BCFV	MOS-IC	
IC961		BU4094BCFV	MOS-IC	
IC962		BU4094BCFV	MOS-IC	
IC963		BU4094BCFV	MOS-IC	
Q101		SSM3K15AMFV	FET	
Q102		2SK508NV(K52)	FET	
Q103		2SK508NV(K52)	FET	

Ref. No.	Address	Parts No.	Description	Destination
Q104		2SC3356-A(R24)	TRANSISTOR	
Q105		2SC4116(BL)F	TRANSISTOR	
Q106		2SC3356-A(R24)	TRANSISTOR	
Q107		2SC4116(BL)F	TRANSISTOR	
Q108		2SC4116(BL)F	TRANSISTOR	
Q109		DSA90010(S)	TRANSISTOR	
Q110		SSM3K15AMFV	FET	
Q201		2SC3356-A(R24)	TRANSISTOR	
Q202		2SC5337	TRANSISTOR	
Q203		RD01MUS1-T113	FET	
Q204		SSM3K15AMFV	FET	
Q205		SSM3J332R	FET	
Q210		SSM3K15AMFV	FET	
Q211		LSCR523EBFS8	TRANSISTOR	
Q212		LSCR523EBFS8	TRANSISTOR	
Q213		LSCR523EBFS8	TRANSISTOR	
Q301		SSM3K15AMFV	FET	
Q302		SSM3K15AMFV	FET	
Q303		DSA90010(S)	TRANSISTOR	
Q304		LSCR523EBFS8	TRANSISTOR	
Q305		LSCR523EBFS8	TRANSISTOR	
Q307		LSCR523EBFS8	TRANSISTOR	
Q401		LSCR523EBFS8	TRANSISTOR	
Q402		LSCR523EBFS8	TRANSISTOR	
Q405		SSM3K15AMFV	FET	
Q407		SSM3K15AMFV	FET	
Q408		SSM3K15AMFV	FET	
Q409		SSM3K15AMFV	FET	
Q410		DSA90010(S)	TRANSISTOR	
Q412		LSCR523EBFS8	TRANSISTOR	
Q413		SSM3K15AMFV	FET	
Q414		SSM3K15AMFV	FET	
Q415		LSCR523EBFS8	TRANSISTOR	
Q416		LSCR523EBFS8	TRANSISTOR	
Q417		LSCR523EBFS8	TRANSISTOR	
Q418		LSCR523EBFS8	TRANSISTOR	
Q419		LSCR523EBFS8	TRANSISTOR	
Q420		3SK294-FP	FET	
Q421		SSM6L36TU-F	FET	
Q422		RD01MUS1-T113	FET	
Q423		SSM6L36TU-F	FET	
Q424		SSM3K15AMFV	FET	
Q425		RD01MUS1-T113	FET	
Q426		SSM3J332R	FET	
Q428		SSM3K15AMFV	FET	
Q429		SSM3K15AMFV	FET	
Q430		3SK294-FP	FET	
Q431		3SK294-FP	FET	
Q601		SSM3J332R	FET	
Q602		SSM3K15AMFV	FET	
Q603		LSCR523EBFS8	TRANSISTOR	
Q604		SSM3K15AMFV	FET	
Q605		SSM3J332R	FET	
Q606		LSCR523EBFS8	TRANSISTOR	
Q607		SSM3K15AMFV	FET	
Q608		SSM3K15AMFV	FET	
Q609		SSM3K15AMFV	FET	
Q701		SSM3K15AMFV	FET	
Q702		SSM3K15AMFV	FET	
Q920		UMG1N	TRANSISTOR	

If a part reference number is listed in a shaded box, that part does not come with the PCB.

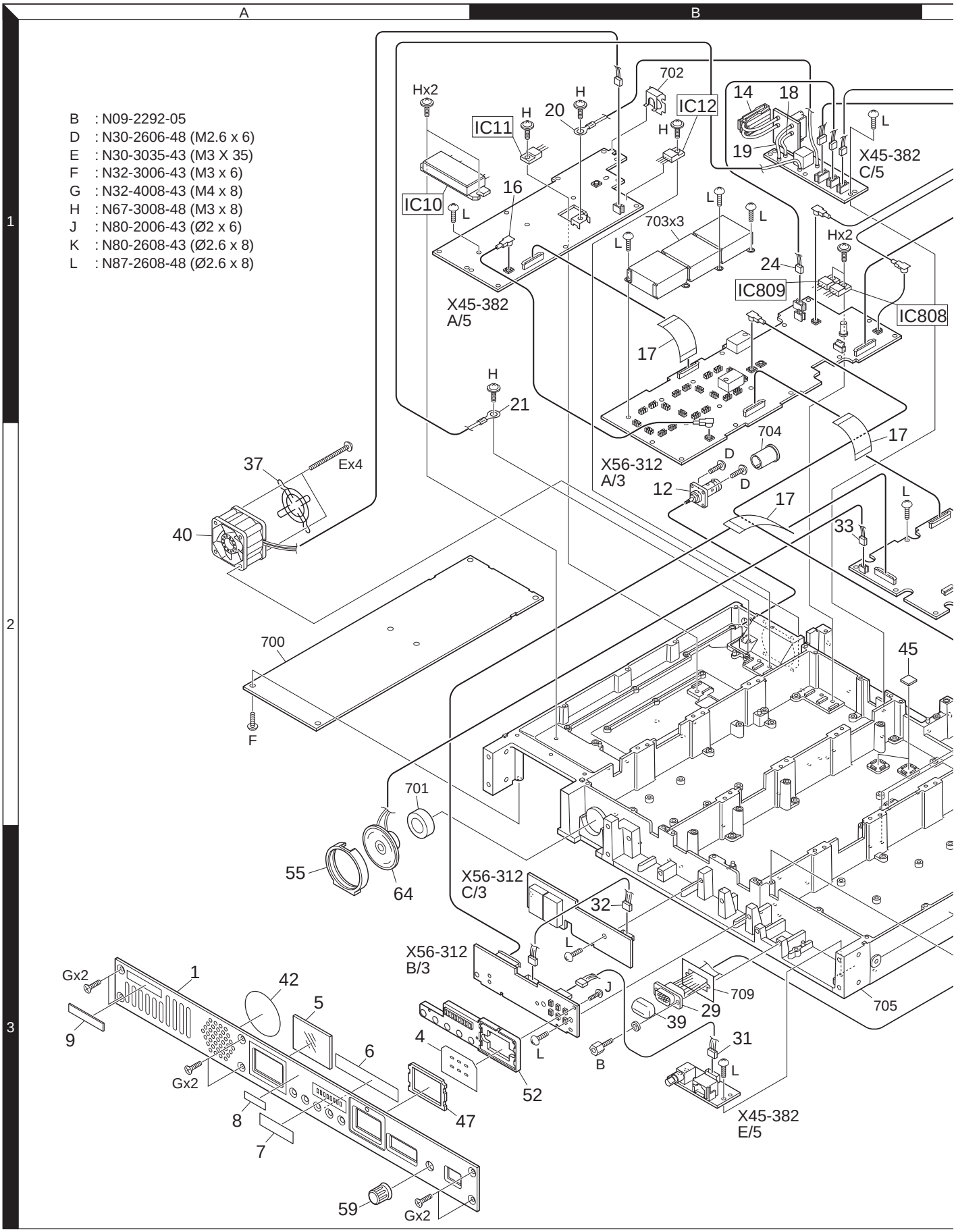
PARTS LIST

TX UNIT (X56-3120-14)

Ref. No.	Address	Parts No.	Description	Destination
Q921		UMG1N	TRANSISTOR	
Q922		UMG1N	TRANSISTOR	
Q923		UMG1N	TRANSISTOR	
Q924		UMG1N	TRANSISTOR	
Q925		UMG1N	TRANSISTOR	
Q926		UMG1N	TRANSISTOR	
Q927		UMG1N	TRANSISTOR	
Q928		UMG1N	TRANSISTOR	
Q929		UMG1N	TRANSISTOR	
Q930		UMG1N	TRANSISTOR	
Q931		2SC4116(Y)F	TRANSISTOR	
Q932		2SA1586(Y)F	TRANSISTOR	
Q960		UMG1N	TRANSISTOR	
Q961		UMG1N	TRANSISTOR	
Q962		UMG1N	TRANSISTOR	
Q963		UMG1N	TRANSISTOR	
Q964		UMG1N	TRANSISTOR	
Q965		UMG1N	TRANSISTOR	
Q966		UMG1N	TRANSISTOR	
Q967		UMG1N	TRANSISTOR	
Q968		UMG1N	TRANSISTOR	
Q969		UMG1N	TRANSISTOR	
Q970		UMG1N	TRANSISTOR	
Q971		UMG1N	TRANSISTOR	
Q972		UMG1N	TRANSISTOR	
Q973		UMG1N	TRANSISTOR	
Q974		UMG1N	TRANSISTOR	
Q975		UMG1N	TRANSISTOR	
Q976		UMG1N	TRANSISTOR	
TH101		157-302-65801	THERMISTOR	
TH102		157-302-65801	THERMISTOR	

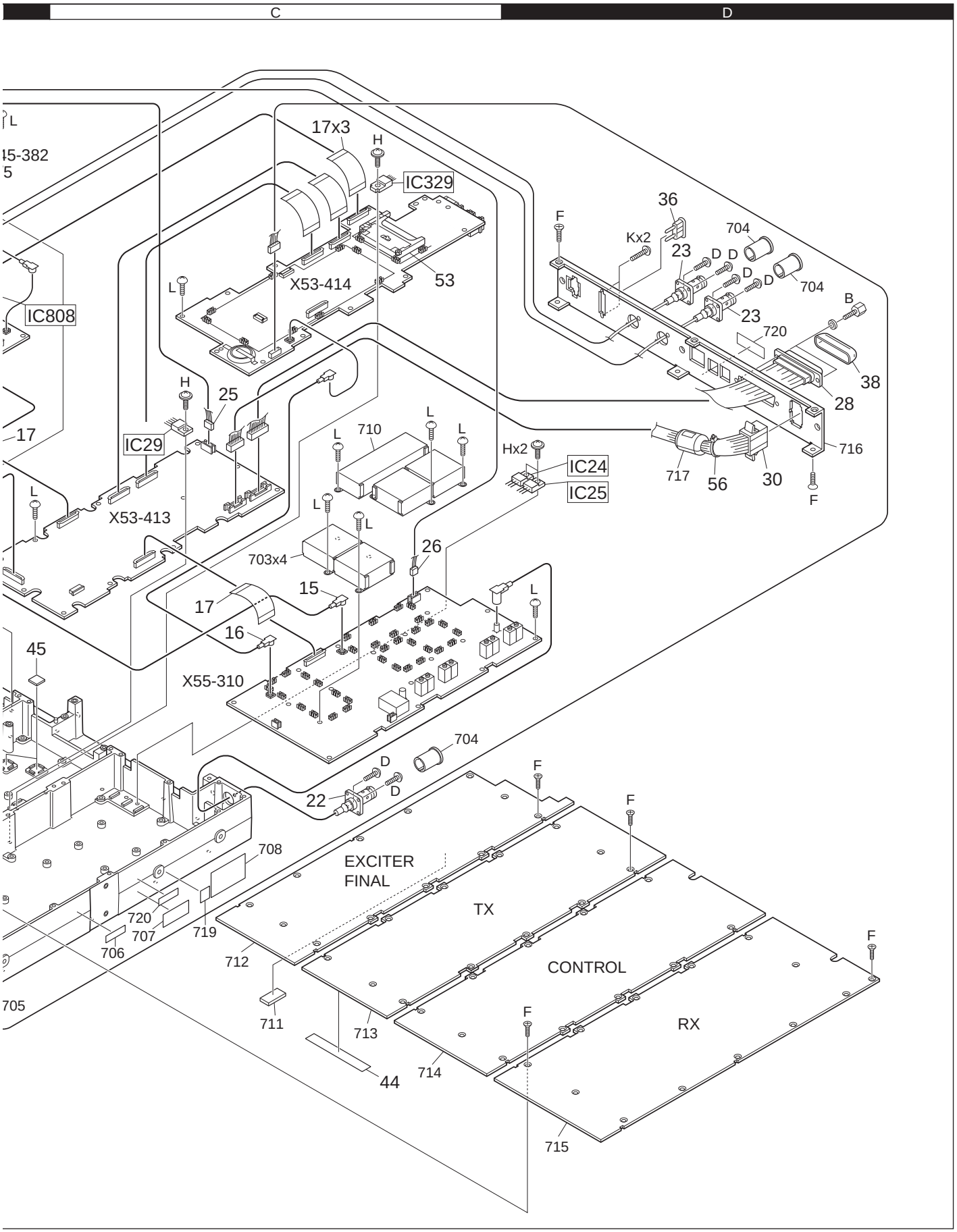
Ref. No.	Address	Parts No.	Description	Destination

EXPLODED VIEW



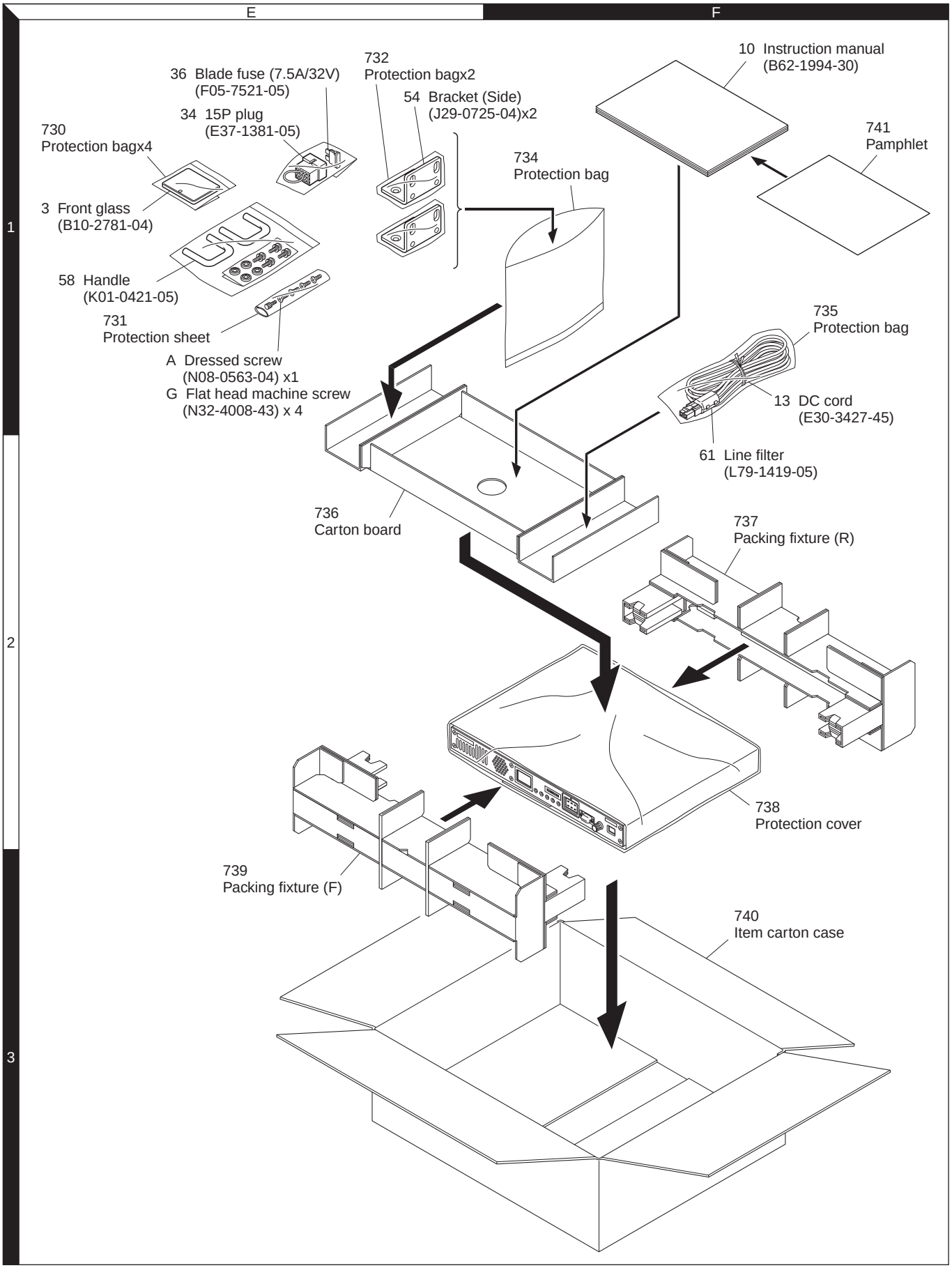
Parts with the exploded numbers larger than 700 are not supplied.
If a part reference number is listed in a box on the exploded view of the PCB, that part does not come with the PCB. These parts must be ordered separately.

EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.
If a part reference number is listed in a box on the exploded view of the PCB, that part does not come with the PCB. These parts must be ordered separately.

PACKING



Parts with the exploded numbers larger than 700 are not supplied.

TROUBLE SHOOTING

Procedure for Traceability of BGA Package and How to Replace Control Unit

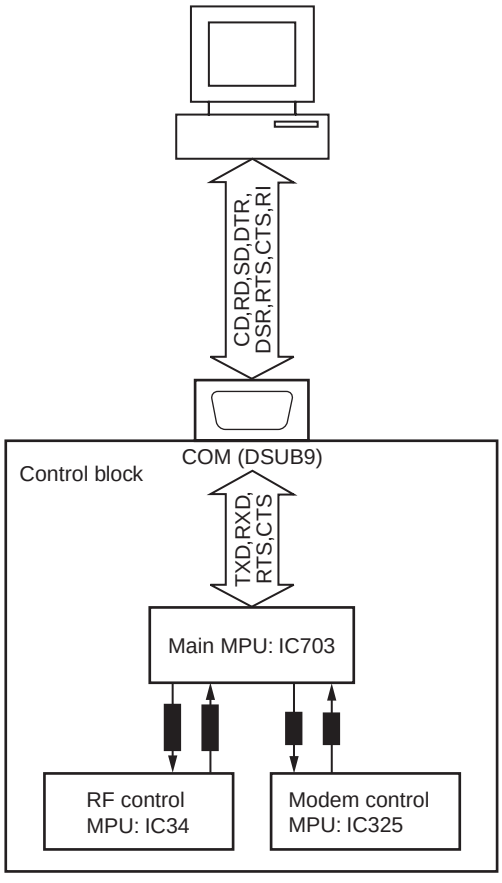
This clause is procedure when you replace Control unit on you repair. Implement traceability of BGA package in order to make sure BGA failure in prior to replace Control Unit. You choose appropriate procedure accordingly.

1. Traceability of BGA Package ICs in Control Unit

The control unit (X53-414) of NXR-800 series have BGA package ICs. BGA package IC is difficult to trace whether it be broken. So, control unit is difficult to confirm whether it has a problem. This document shows a simple method by PC to confirm the control unit has problem. The two methods for traceability in BGA packages IC are provided as below.

1-1. Simplified traceability

a) Open the top cover of control unit.
b) Slide the tab on DIP_SW4 (Ref No. S700) to the ON position. (See Fig. 1.)
c) Connect a cross-wired RS-232C cable to COM port on the front panel of NXR-800. Plug the other end of the cable to PC. (See Fig. 2.)
d) Run a communication software, example a Hyper Terminal in Windows, and set the following parameters.
e) COM port: COM port of NXR-800 used in step c.



Configuration in communication port
Communication speed: 115200bps
Data Length: 8-bit
Parity: None
Stop bits: 1
Flow control: Hardware

f) Apply 13.8VDC to NXR-800. When BGA ICs mounted in this control unit works correctly, the following messages appears on the screen of communication software. If the software doesn't show below messages, it's supposed that BGA package IC is broken.

NEXEDGE IPL 1.00 *1
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CPU[R] Version 1.00 *2
CPU[M] Version 1.00 *3

*1: Appearing this information means the boot program in Main MPU (IC703) is correctly working.
*2: Appearing this information means the boot program at the RF control MPU (IC34) is correctly working.
*3: Appearing this information means the boot program at the Modem control in MPU(IC325) is correctly working.

Note: IPL and CPU[R], CPU[M] version will be updated by any modification or improvement in future.

g) After that slide the tab on DIP_SW4 to OFF position, before close the top cover of control unit.

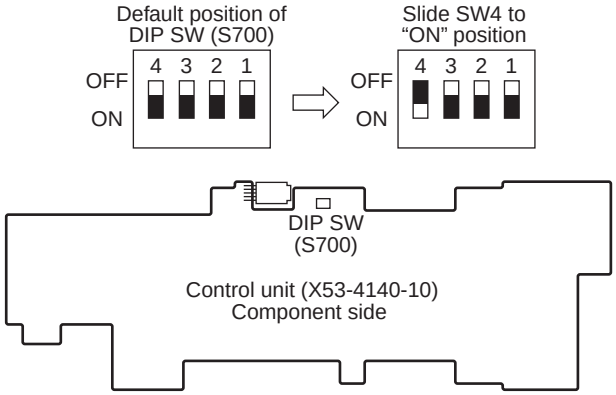


Fig. 1

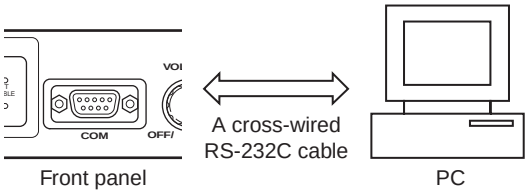
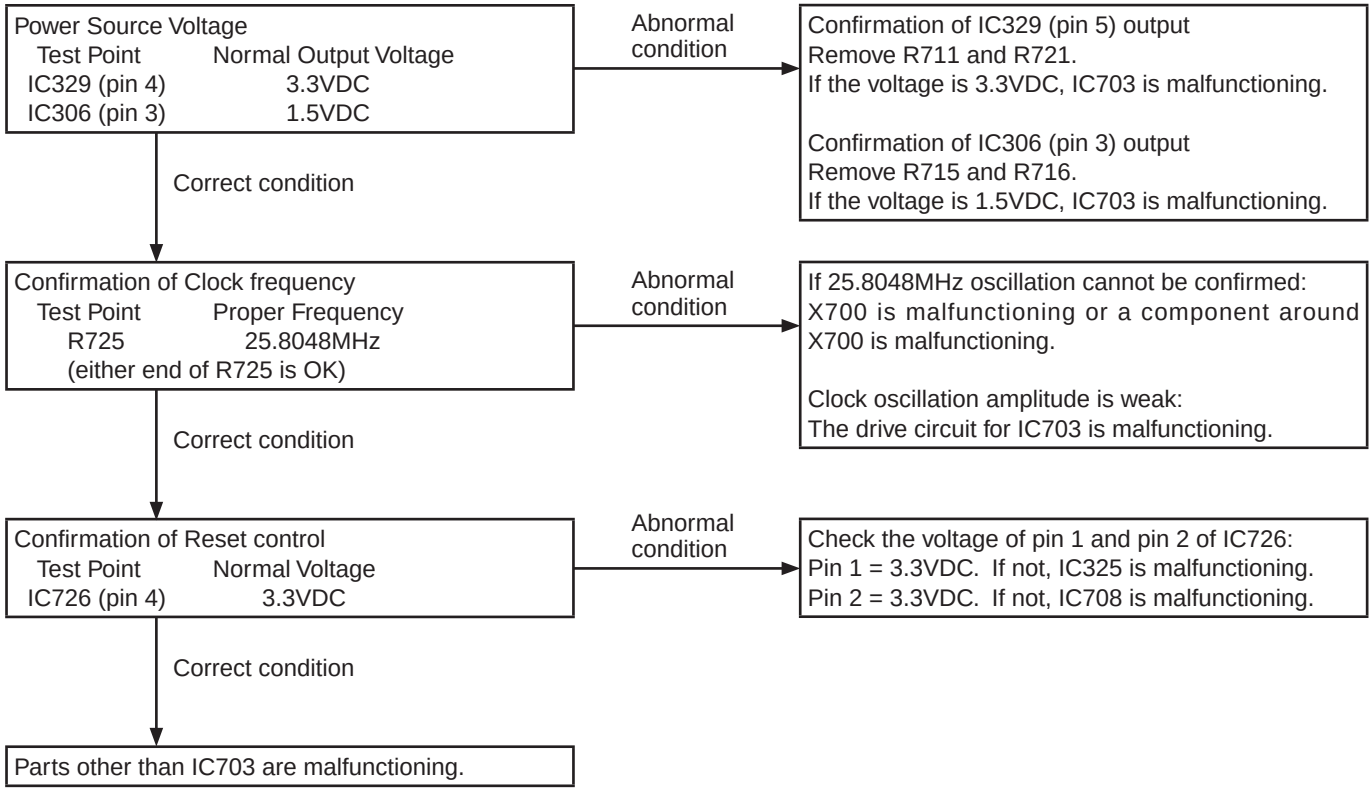


Fig. 2

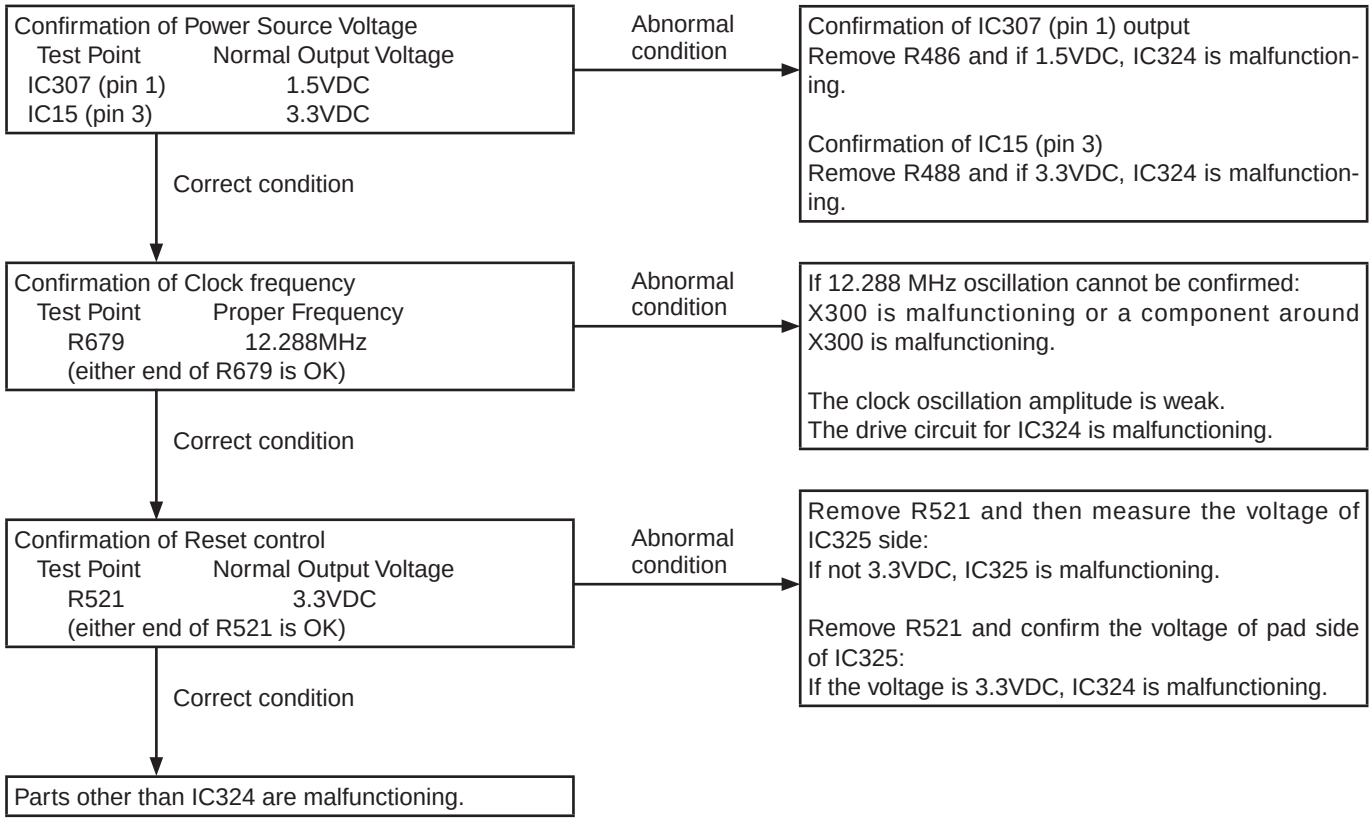
TROUBLE SHOOTING

1-2. Hardware Traceability (Method 1)

Procedure for IC703 (Main MPU) traceability

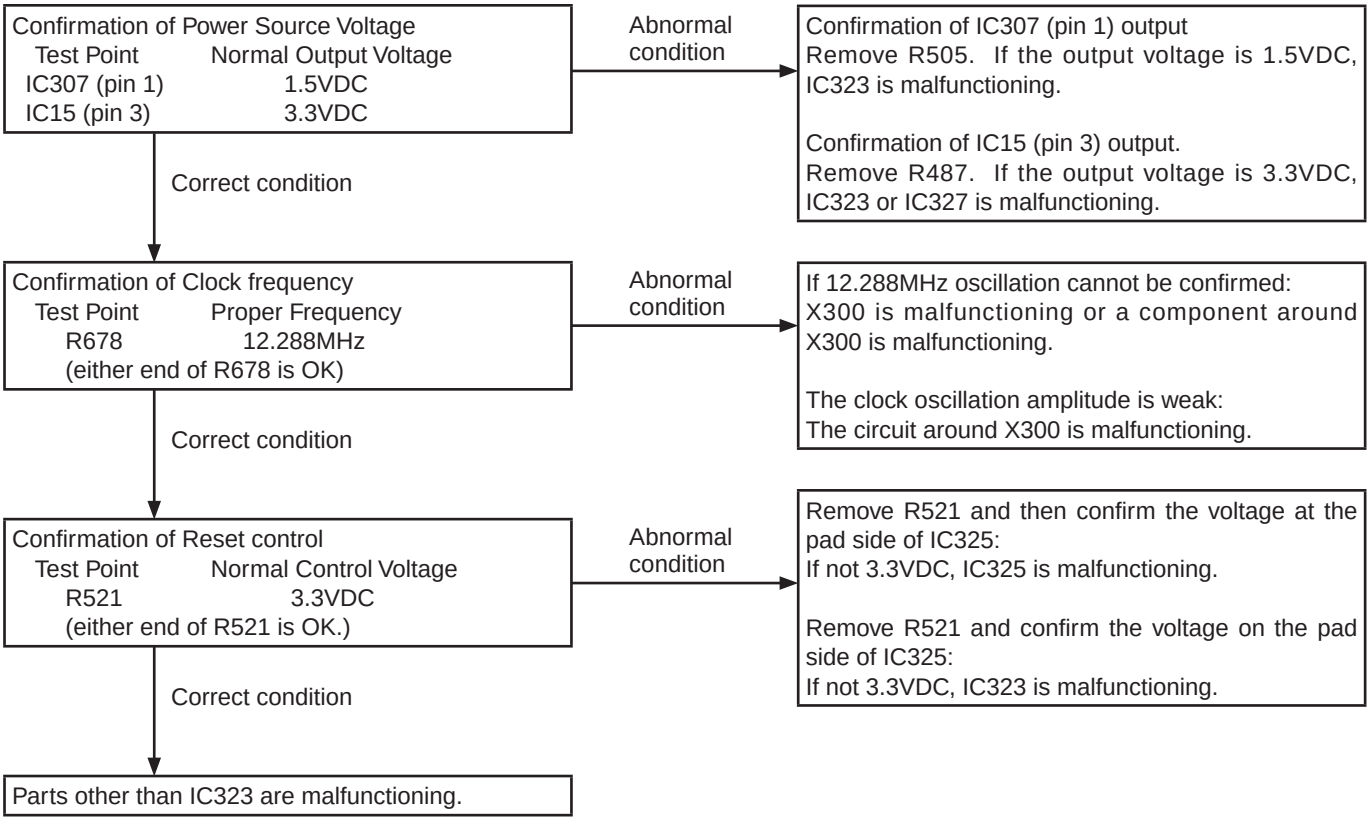


Traceability Procedure of IC324 (TX Vocoder_DSP)

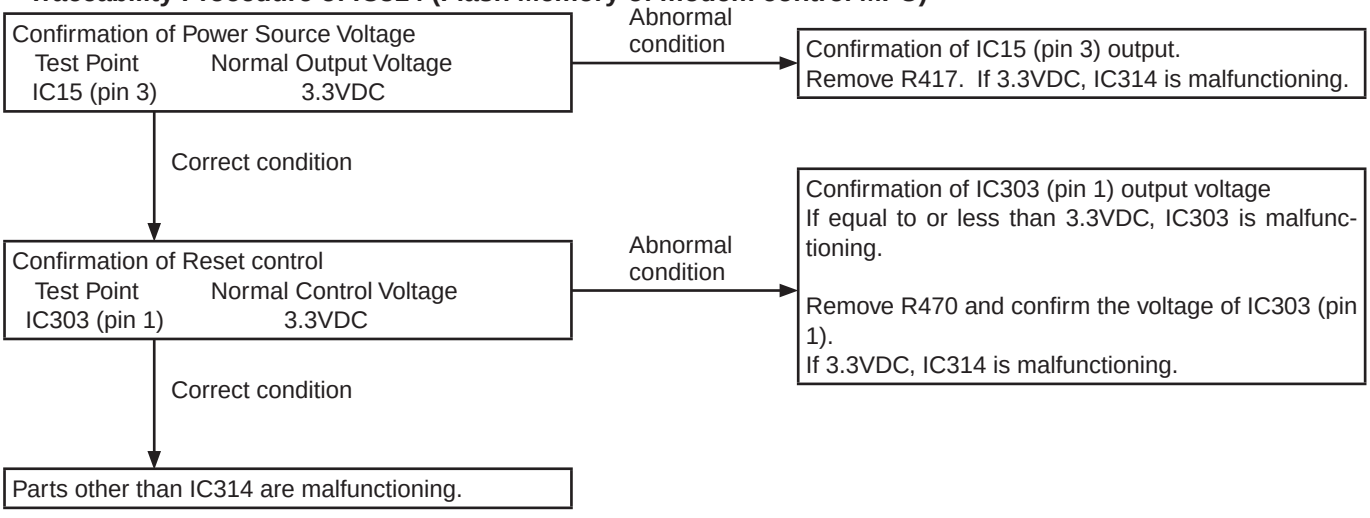


TROUBLE SHOOTING

Traceability Procedure of IC323 (RX_DSP)

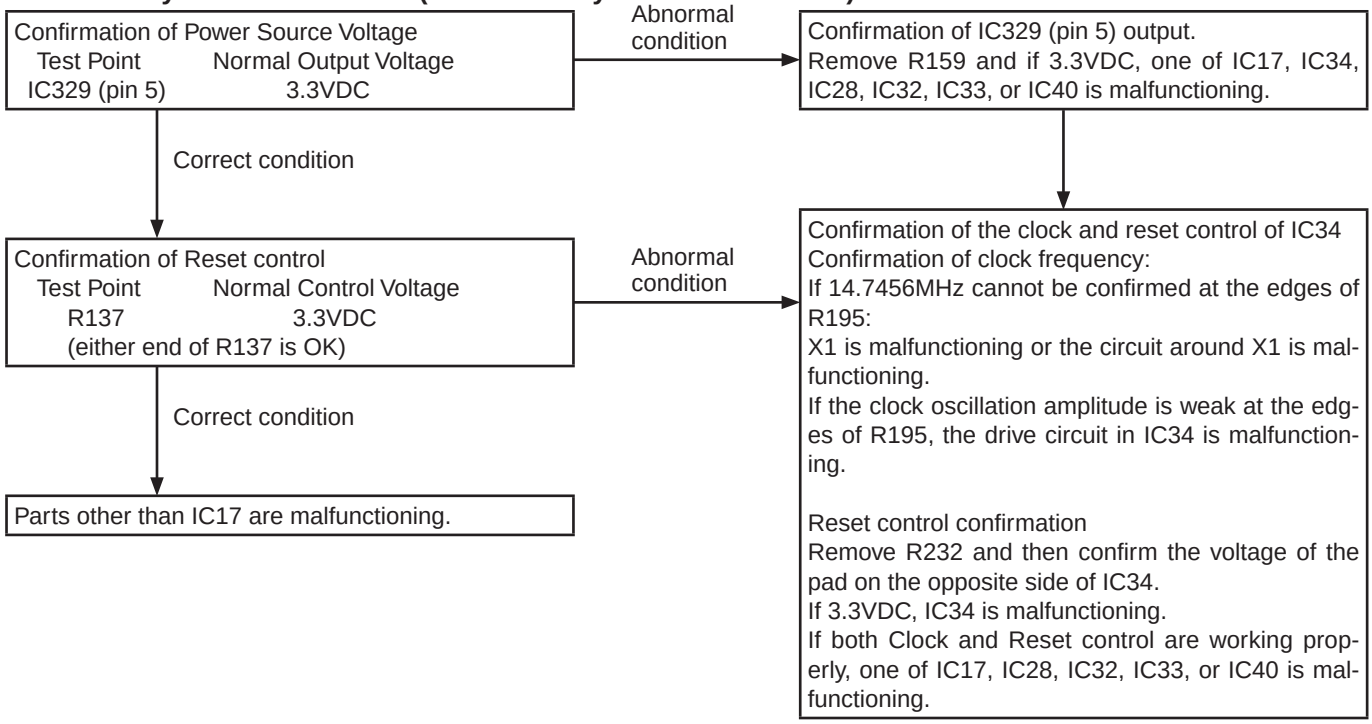


Traceability Procedure of IC314 (Flash Memory of modem control MPU)

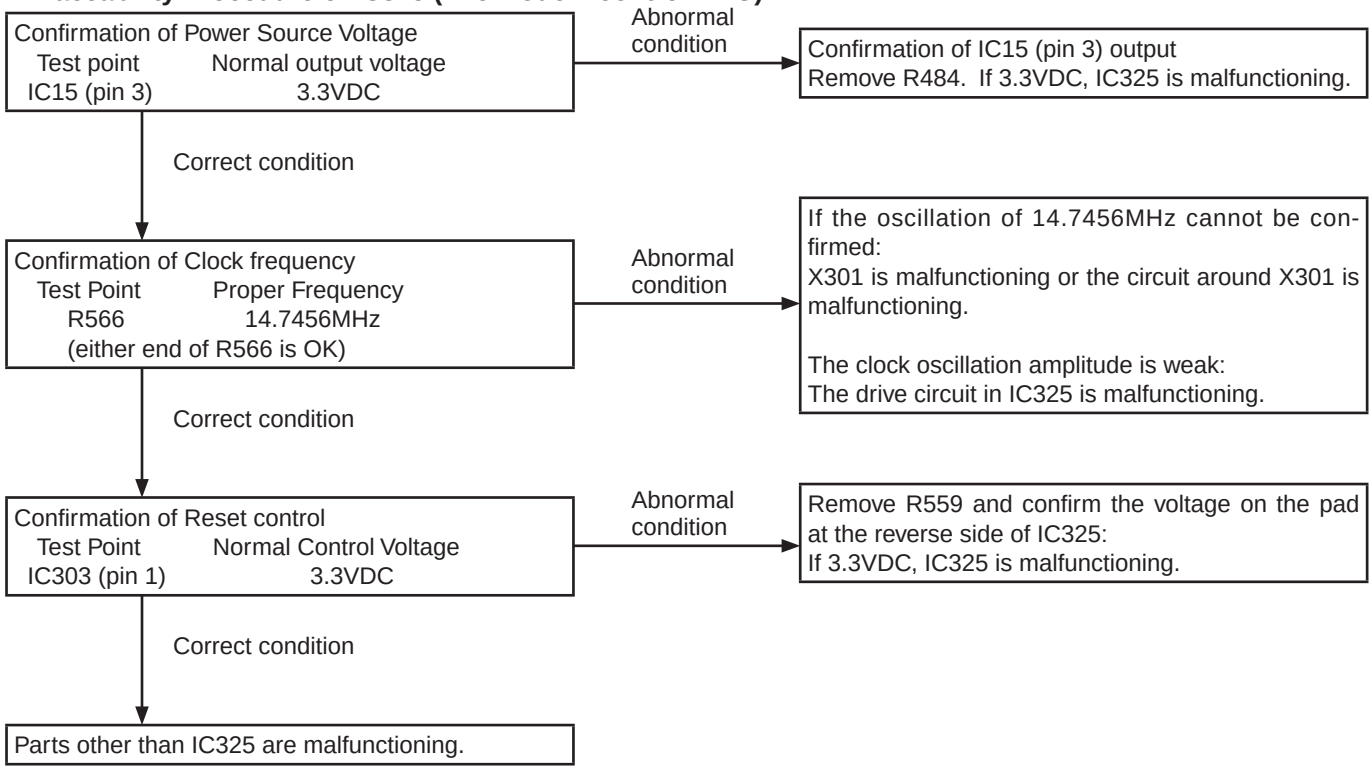


TROUBLE SHOOTING

Traceability Procedure of IC17 (Flash Memory of RF control MPU)

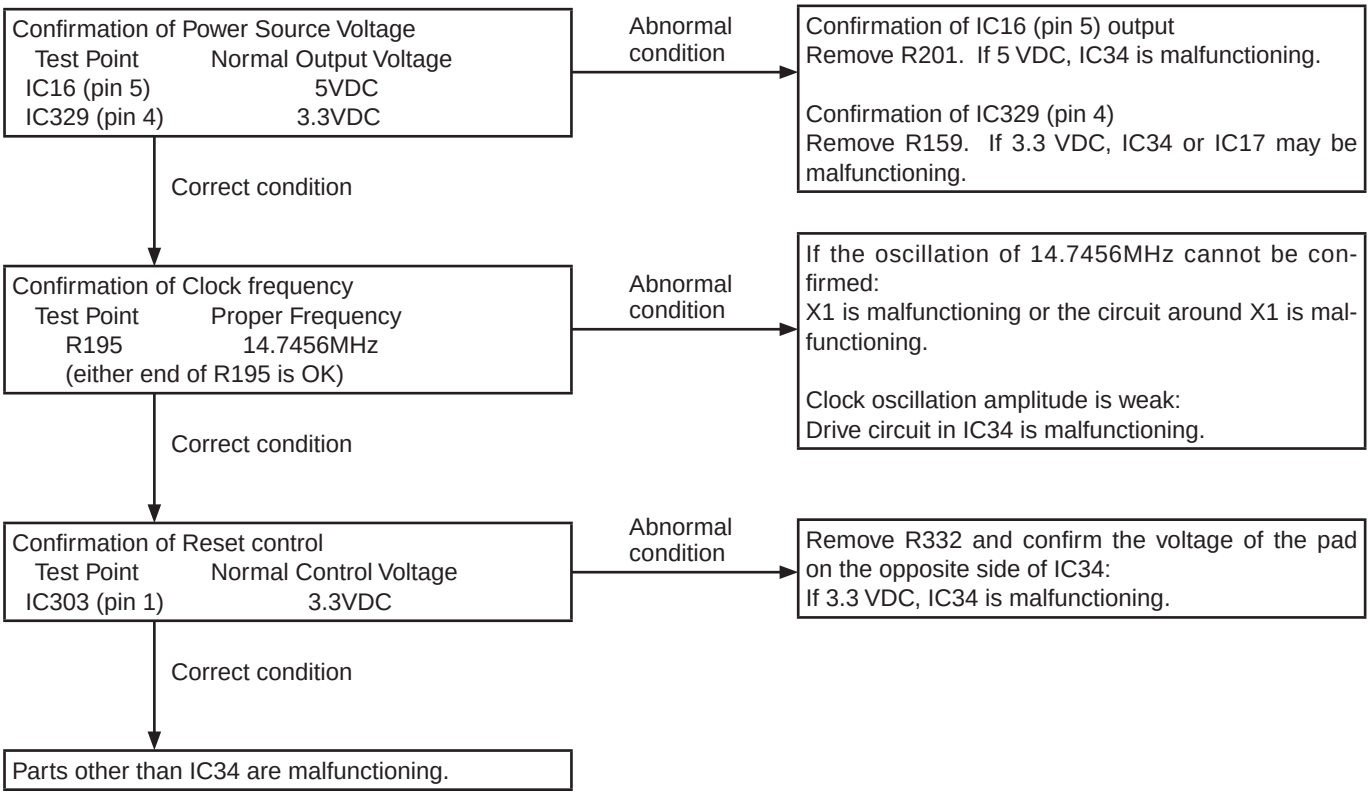


Traceability Procedure of IC325 (The Modem control MPU)



TROUBLE SHOOTING

Traceability Procedure of IC34 (The RF control MPU)



1-3. Hardware traceability (Method 2)

The NXR-800 control circuit executes the following procedures when the system starts up.

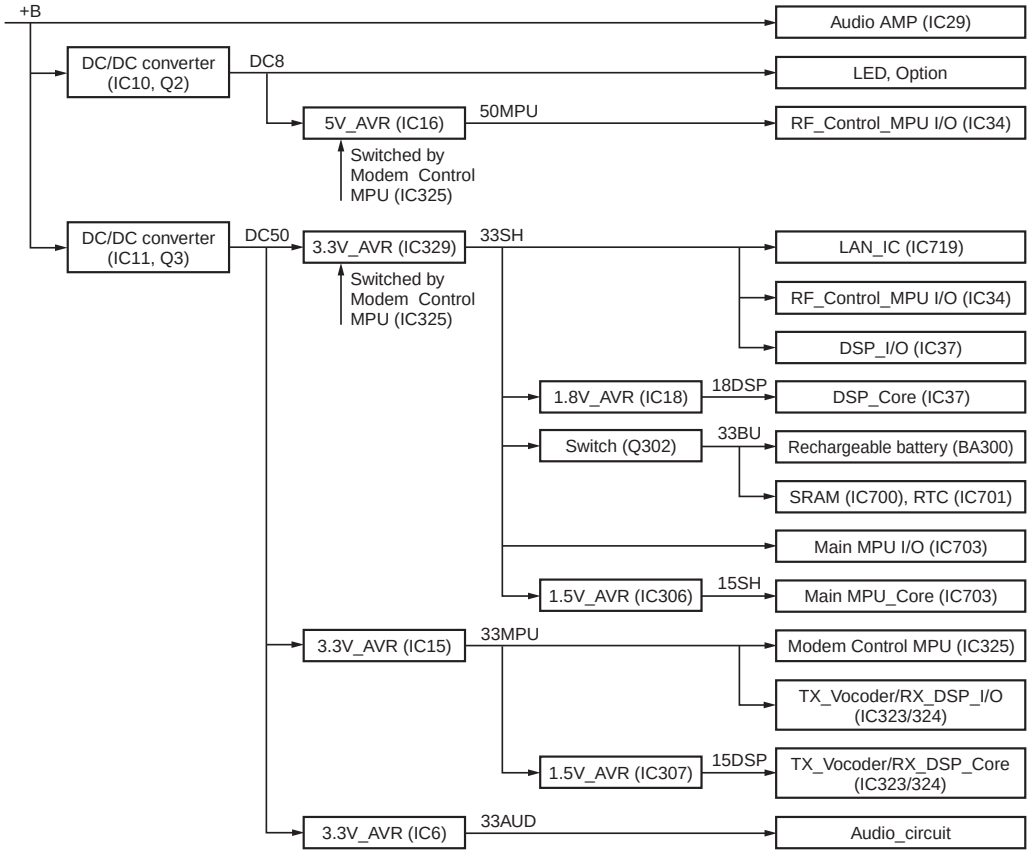
1. An external DC 13.8V power source is applied to the NXR-800 terminal.
2. The Modem control MPU (IC325) starts up.
3. The Modem control MPU (IC325) initiates all circuit blocks.
4. The Main MPU (IC703) and the RF control MPU (IC34) start up.
5. The Main MPU (IC703) confirms the operational status of the Modem control MPU (IC325) and the RF control MPU (IC34) by using 115.2kbps UART communications and then the operation transfer commands will be exchanged in order to integrate all hardware blocks.

The above steps 1 to 5 will be executed as follows.

TROUBLE SHOOTING

External DC 13.8V Power Source applied to the NXR-800 Terminal

Refer to the power supply diagram sequence below.

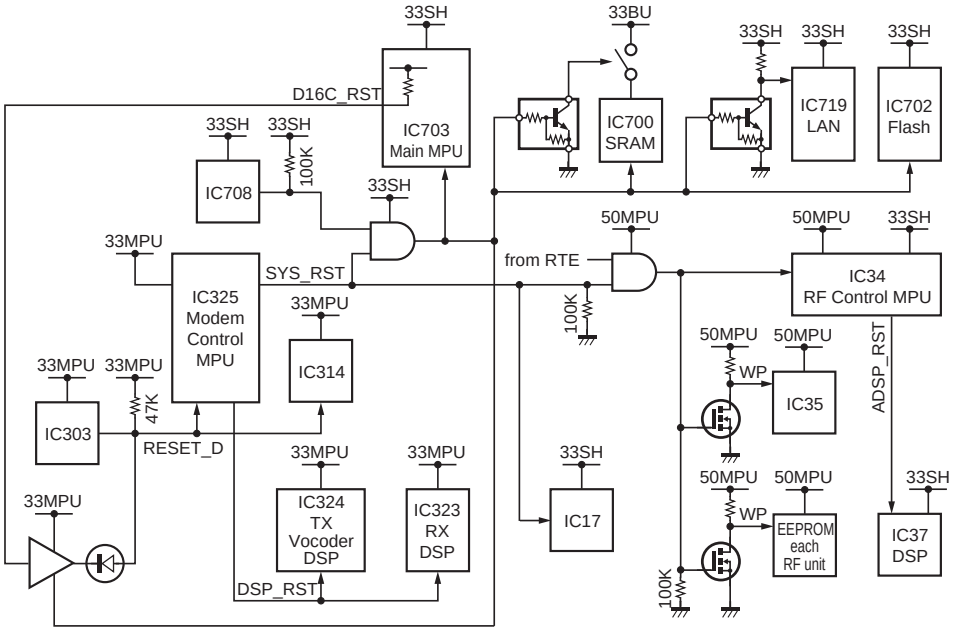


Initialization of the Modem control MPU (IC325) (normal oscillation of X301 and normal reset-unlock of IC303)

Refer to Traceability procedure for IC325.

Unlocking "SYS_RST" Signal on the Modem control MPU (IC325) starts Up all Hardware Blocks

Refer to the Reset circuit below.



Reset circuit

TROUBLE SHOOTING

Start-up of each Control Block

• Main MPU Block

Component elements:
· Main MPU: IC703
· Flash memory: IC702
· SDRAM: IC704 and IC707
· LAN IC: IC719
· RTC: IC701

Overview of Start-up Operation:

When MPU reset line logic switches as high, the MPU starts reading the program from the flash memory and expands the program to SDRAM. Linux OS begins operation on the SDRAM after main MPU transfers the program. Main MPU works usage of Linux OS codes. The other higher-level applications software to the Linux OS will also be expanded in SDRAM. On starting up, main MPU verify the status of the registers in LAN IC except SDRAM which is purpose of backup data even if abnormal symptom detects in either LAN IC or SDRAM, the start-up process is not affected by this error; main MPU behaves operation as if it works properly. To express another word, either Flash memory or SDRAM has defective, a circuit behaves as if main MPU happens malfunction. After executing all initialization routines, the Main MPU verifies the operational status of each MPU then transmits/ receives the operation transfer command set to from the Modem control MPU (IC325) and the RF control MPU (IC34) using 115.2kbps UART communications.

• RF Control MPU Block

Component elements:
· RF control MPU: IC34
· Flash memory: IC17
· DSP: IC37

Overview of Start-up Operation:

When the RF control MPU (IC34) reset line logic switches as high, this MPU reads the boot program from the internal ROM of MPU and then initializes the peripheral devices. After this boot process completes, the MPU starts working with the programs (application programs) stored in flash memory (IC17) to process the preprogrammed tasks. During the process, the MPU transfers the program to the DSP IC (IC37). It also verifies the operating status of DSP at certain interval.

After a series of processes completes, the RF control MPU verifies the operational status and then transmits and receives the operation transfer command set to/from Main MPU (IC703) using 115200bps UART communications.

• Modem Control MPU Block

Component elements:
· Modem control MPU: IC325
· Flash memory: IC314
· RX DSP: IC323
· TX Vocoder DSP: IC324

Overview of Start-up Operation

When the Modem control MPU (IC325) reset line logic switches as high, the MPU reads the boot program from the internal ROM of MPU and then initializes the peripheral devices. After this boot-up process completes, the MPU starts working with the programs (application programs) stored in flash memory (IC314) to process the preprogrammed tasks. During the process, the MPU transfers the program to the RX DSP IC (IC323) and TX Vocoder DSP IC (IC324). It also confirms the operating status of these DSP ICs. After a series of processes completes, the Modem control MPU confirms the operational status and then transmits and receives the operation transfer command set to/from Main MPU (IC703) using 115200 bps UART communications.

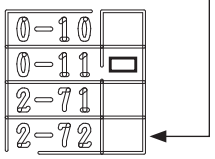
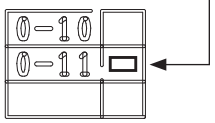
• Possible Symptoms if the Block (mainly BGA IC) Malfunctions

Ref. No.	Element of Block	Presumption Symptoms
IC703	Main MPU	• Since the boot program cannot be executed at all, the LEDs do not light or flash. • The operations that should be executed by IC703 are not processed. • Runaway of IC703.
IC17	Flash Memory on RF control MPU block	• Migrated to the programming mode (Write). (“PG” appears on the 17-segment LED display.) • The operations that should be executed by IC34 are not processed. • Runaway of IC34.
IC314	Flash Memory on Modem control block	• Migrated to the programming mode (Write). (“PG” appears on the 17-segment LED display.) • The operations that should be executed by IC325 are not processed. • Runaway of IC325.
IC323	RX DSP	• While the boot program is executed, the operation stops (the status LED is flashing). • The operations that should be executed by IC323 are not processed. • Runaway of IC323.
IC324	TX Vocoder DSP	• While the boot program is executed, the operation stops (the status LED is flashing). • The operations that should be executed by IC324 are not processed. • Runaway of IC324.

TROUBLE SHOOTING

2. Replacing Control Unit

2-1. Control Unit Information

Original Control Unit	Control Unit (Service unit)	Difference between original unit and Service Unit
X53-4130-10	X53-4130-11	Mounted chip at 0-11 location for Service Unit. 
X53-4140-10	X53-4140-11	Mounted chip at 0-11 location for Service Unit. 

2-2. Supplied Accessories

Item (Including Part Number)	Quantity	
	X53-413	X53-414
Control Unit (X53-413)	1	-
Control Unit (X53-414)	-	1
KENWOOD ESN Label	-	2
NXDN ESN Label	-	1
Addendum (B59-2536-XX)	1	1

2-3. Printed Circuit Board Data

The following data is written on the circuit board:

Data Type	Description
Firmware	NXR-700/800 Firmware
FPU Data (PC programming mode)	NXR-800 Kx type data.
Various Adjustment Data (PC test mode)	General adjustment values for the NXR-700/800.
KENWOOD ESN (X53-414 only)	Model Name: NXR-700/800S Type: Kx The same number as the KENWOOD ESN label is written.
NXDN ESN (X53-414 only)	The same number as the NXDN ESN label is written.

Note: For the X53-414, a UPC code and UPC barcode is not printed on the KENWOOD ESN Label. If necessary, cut the label at the cut-off line and attach only the serial number.

2-4. After Changing the PCB

1. After changing the printed circuit board, write the up-to-date Firmware following the instructions in the “RE-ALIGNMENT 4. Firmware Programming Mode”.
2. Using the KPG-109D, select your desired item (Model Name and Frequency) from the Model > Product Information menu, then use Program > Write Data to the repeater to write the FPU data (PC Programming mode).
   When writing to the repeater, a Warning Message, corresponding to the item selected, appears. Click [OK] to continue writing the data.
3. Enter Program > Test mode, then adjust the various adjustment data (PC Test mode) as described in the “ADJUSTMENT”.
4. For the X53-414, attach the new labels corresponding to the new printed circuit board. (Refer to the images below for label placement.)
5. If necessary, write the FPU data used by the customer with the KPG-109D or KPG-110SM.

Note:

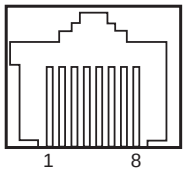
- When a new printed circuit board is used, the KENWOOD ESN changes, as does the Repeater Information display of the KPG-109D, but this does not have any effect on the operation of the transceiver.
- If changing to the original KENWOOD ESN and NXDN ESN, please contact our service center.
- Re-installing other parts from original unit to Service unit is not required after changing to Service unit.

ADJUSTMENT

Test Equipment Required for Alignment

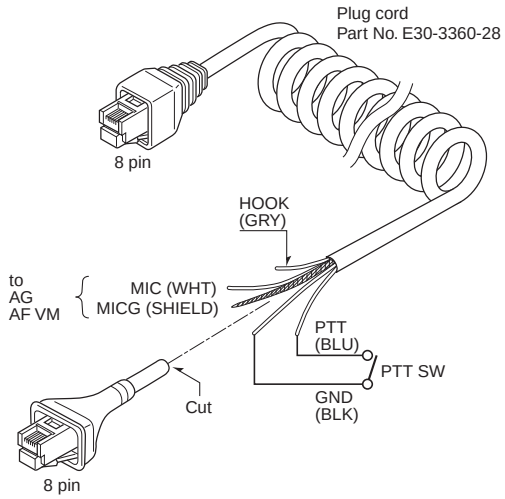
Test Equipment	Major Specifications	
1. Standard Signal Generator (SSG)	Frequency Range Modulation Output	300 to 512MHz Frequency modulation and external modulation 0.1μV to greater than 1mV
2. RF Power Meter	Input Impedance Operation Frequency Measurement Capability	50Ω 300 to 512MHz or more Vicinity of 100W
3. Deviation Meter	Frequency Range	300 to 512MHz
4. Digital Volt Meter (DVM)	Measuring Range Input Impedance	1V to 20V DC High input impedance for minimum circuit loading
5. Oscilloscope		DC through 30MHz
6. High Sensitivity Frequency Counter	Frequency Range Frequency Stability	10Hz to 600MHz 0.2ppm or less
7. DC Ammeter		15A or more
8. AF Volt Meter (AF VM)	Frequency Range Voltage Range	50Hz to 10kHz 3mV to 3V
9. Audio Generator (AG)	Frequency Range Output	50Hz to 5kHz 0 to 1V
10. Distortion Meter	Capability Input Level	1% or less at 1kHz 50mV to 10Vrms
11. Voltmeter	Measuring Rnage Input Impedance	10V to 1.5V DC or less 50kΩ/V or greater
12. 4Ω Dummy Load		Approx. 4Ω, 5W
13. Spectrum Analyzer	Frequency Range Input Level Input Sensitivity Resolution Bandwidth Video Bandwidth	40MHz to 520MHz Up to +20dBm –100dBm 100Hz 100Hz
14. Tracking Generator	Frequency Range Output Level	40MHz to 520MHz –30dBm to 0dBm

MIC connector (Front panel view)

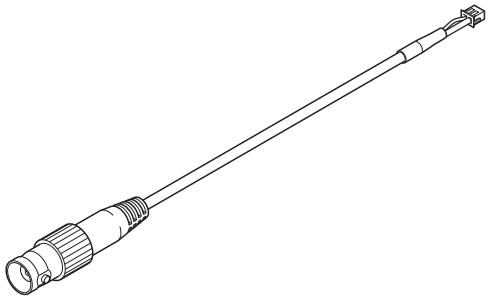


1: NC
2: SB
3: GND
4: PTT
5: MIG
6: MIC
7: HOOK
8: NC

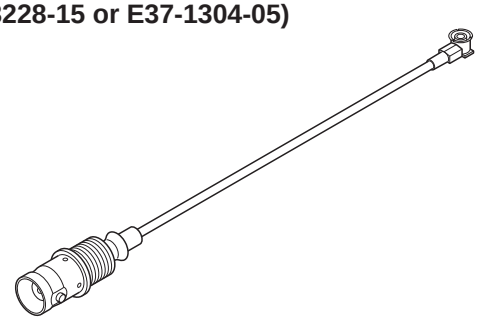
Test cable for microphone input (E30-3360-28)



Jig for MCF adjustment (W05-1000-00)

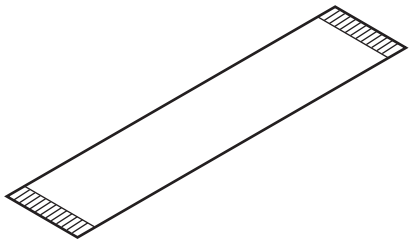


Jig for Drive AMP adjustment (E30-3228-15 or E37-1304-05)

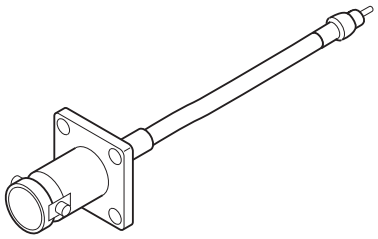


ADJUSTMENT

Flat cable (36-pin) about 256mm (E37-0979-05)



ANT Jig for BPF adjustment (E30-3418-08)



Test Signaling

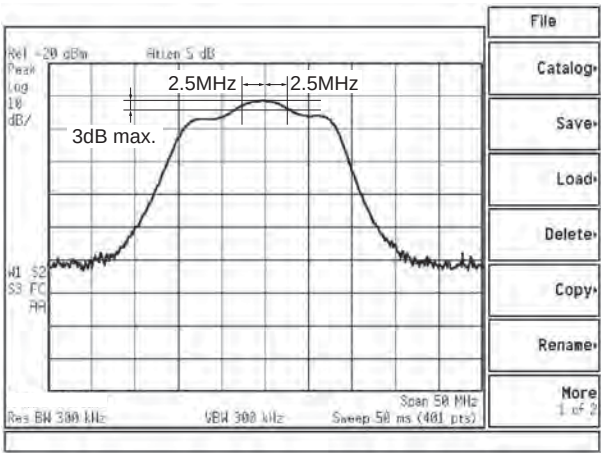
Analog

No.	RX (Decode Signaling)	TX (Encode Signaling)
1	None	None
2	None	100Hz square wave
3	QT 67.0Hz	QT 67.0Hz
4	QT 151.4Hz	QT 151.4Hz
5	QT 210.7Hz	QT 210.7Hz
6	QT 254.1Hz	1QT 254.1Hz
7	DQT D023N	DQT D023N
8	DQT D754I	DQT D754I
9	None	CWID encode (ID: VVV)
10	None	Single tone
11	DTMF decode (Code: 159D)	DTMF encode (Code: 159D)
12	None	DTMF encode (Code: 9)
13	None	Courtesy tone

NXDN

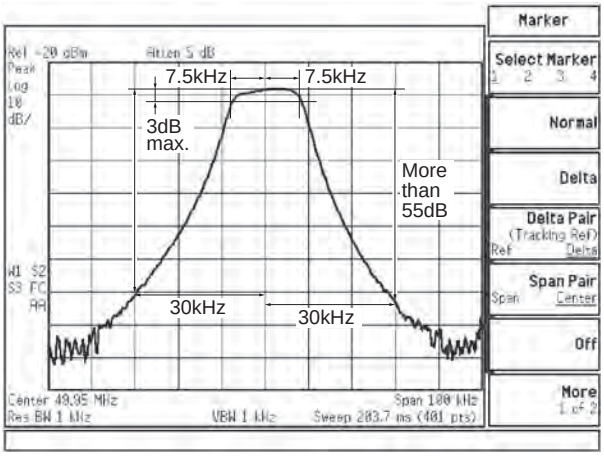
No.	RX (Decode Signaling)	TX (Encode Signaling)
1	RAN1	RAN1
2	RAN1	PN9
3	RAN1	Maximum deviation pattern

- Signaling number 1 is used for link test with voice.
- Signaling number 2 is used for TX modulation signal quality test. i.e, TX adjacent channel power, FSK error, Occupied bandwidth, Emission mask, etc.
- Signaling number 3 is used for TX deviation test. If the modulation mode is very narrow, the modulation frequency is 600Hz. If the modulation mode is narrow, the modulation frequency is 1200Hz.



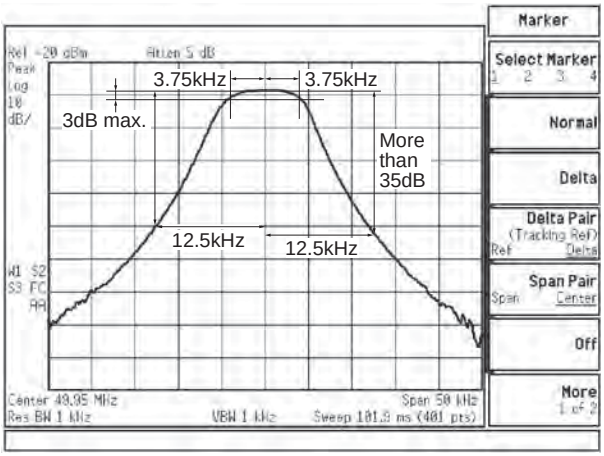
BPF center frequency (Production default):384MHz
Pass bandwidth: ±2.5MHz at 3dB

Fig. 1



Center frequency: 49.95MHz
Pass bandwidth: ±7.5kHz at 3dB

Fig. 2

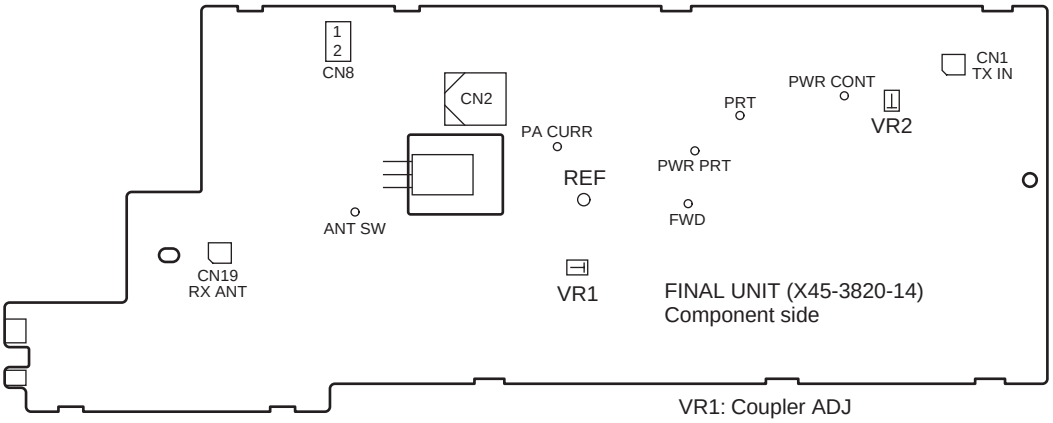


Center frequency: 49.95MHz
Pass bandwidth: ±3.75kHz at 3dB

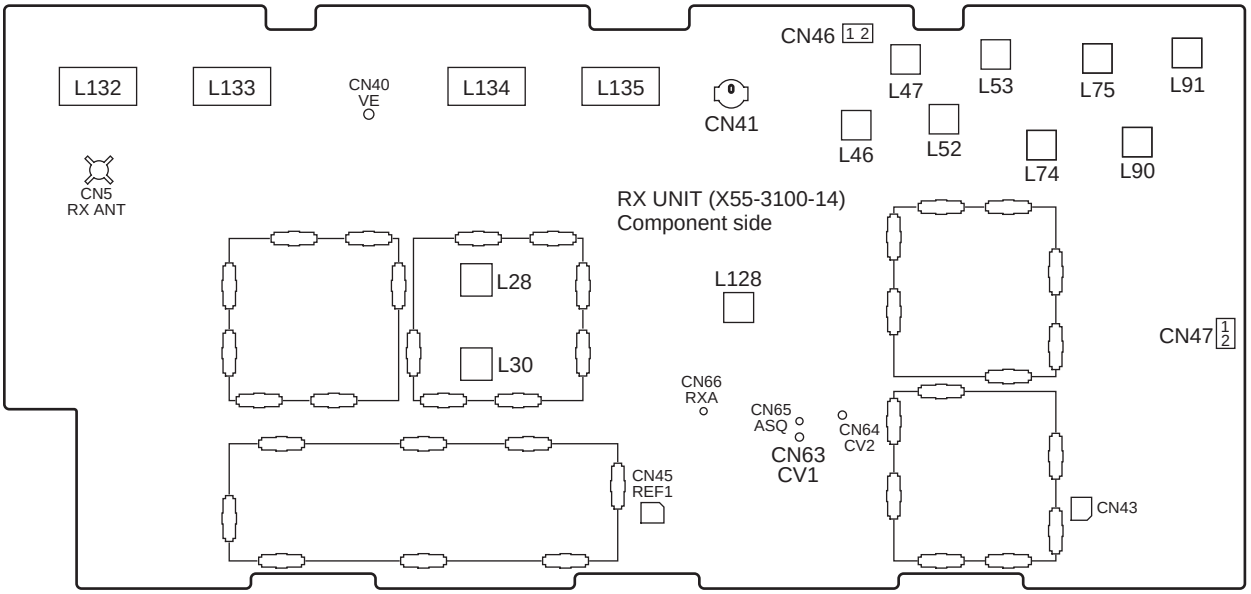
Fig. 3

ADJUSTMENT

Adjustment Points

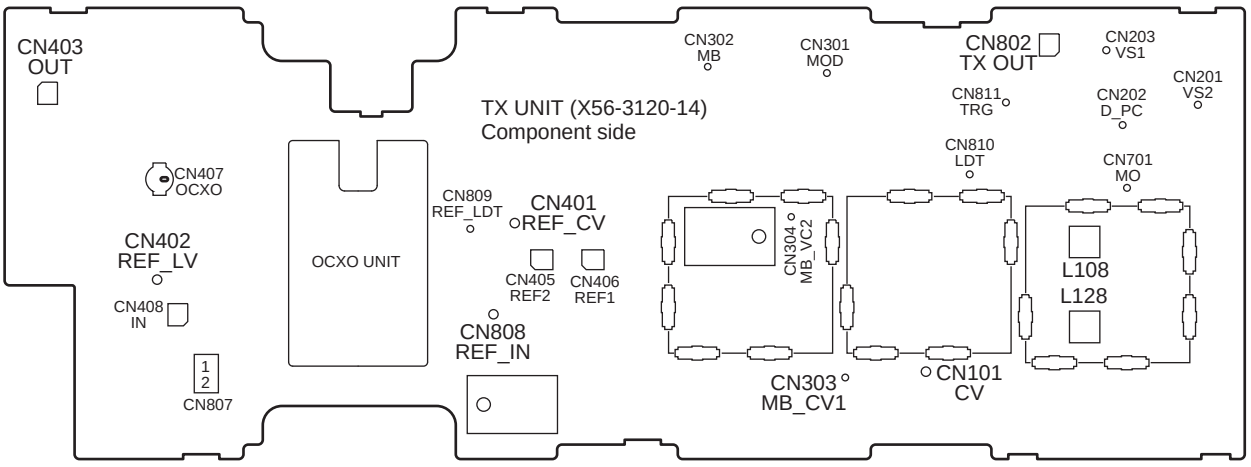


VR1: Coupler ADJ
VR2: High Transmit Power (Pre ADJ)



L28,30: Receive VCO Lock Voltage (Adjustment)
L132~135: BPF

L46,52,74,90: MCF WIDE
L47,53,75,91: MCF NARROW
L128: Discriminator



L108,128: Transmit VCO Lock Voltage (Adjustment)

ADJUSTMENT

Alignment

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Setting	1) Connect the DC power output to the rear panel DC terminal (13.8V). 2) Connect the front panel COM port (D-sub 9-pin connector) to the PC serial port with a cross-wied cable. 3) Activate the FPU to go to the test mode.							
2. Temperature Sensor	1) Receive unit (Celsius or Fahrenheit)	Ther-mometer		Room tempera-ture	RX	PC ADJ	Measuring room temperature, write the value with PC.	
	2) Transmit unit (Celsius or Fahrenheit)				TX			
3. Driver Amplifier Power (Pre ADJ)	1) Low 2) Center 2) High					PC ADJ	Value: 1	Fixed value writing
4. RF Power Down Detection	1) High 2) Low					PC ADJ	Value: 1	Fixed value writing
5. VCO Lock Voltage	1) REF Low SSG frequency: 10MHz –10ppm (9.9999MHz) SSG output: 0dBm	SSG DVM	TX	REF IN REF CV (CN401)			Check	1.0V or more
	2) REF High SSG frequency: 10MHz +10ppm (10.0001MHz) SSG output: 0dBm							2.3V or less
	3) MOD Low SSG frequency: 10MHz –10ppm (9.9999MHz) SSG output: 0dBm			REF IN MB_CV1 (CN303)				1.5V or more
	4) MOD High SSG frequency: 10MHz +10ppm (10.0001MHz) SSG output: 0dBm							2.6V or less
6. Transmit VCO Lock Voltage (Adjustment)	1) A: Low	DVM	TX	CV	TX	L128	Adjust the interval of the L128. 1.30~1.50V	
	2) B: Low					L108	Adjust the interval of the L108. 1.30~1.50V	
7. Receive VCO Lock Voltage (Adjustment) Pre ADJ	1) A: Low	DVM	RX	CV1	RX	L28	Adjust the interval of the L28. 1.15~1.20V	Make the adjustments after inserting the insulating tube in the L28 and L30 coils and applying the high frequency varnish.
	2) B: Low					L30	Adjust the interval of the L30. 1.15~1.20V	
8. Fixation of Oscillation Coil	1) Apply the high-frequency varnish to the adjusted Transmit VCO coil (L128, L108) and cover it with a shield cover. 2) Apply the high-frequency varnish to the adjusted Receive VCO coil (L28, L30) and cover it with a shield cover.							

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
9. Transmit VCO Lock Voltage (Check)	1) A: Low	DVM	TX	CV			Check	0.9V or more
	2) A: High							4.2V or less
	3) B: Low							0.9V or more
	4) B: High							4.2V or less
10. Receive VCO Lock Voltage (Check)	1) A: Low	DVM PC	RX	CV1			Check	0.8V or more
	2) A: High							4.2V or less
	3) B: Low							0.8V or more
	4) B: High							4.2V or less
11. Reference Signal The switching circuit to switch the OCXO and the internal reference oscillation	1) Connecting SSG to REF IN and 50Ω-load parallel. SSG frequency: 10MHz SSG output: +0dBm (224mV)	SSG Spectrum analyzer	Rear TX	REF IN REF OUT			Check	REF OUT: +5dBm or more The OCXO LED (orange) lights.
	2) SSG frequency: 10MHz SSG output: +0dBm (224mV)	SSG Oscilloscope	Rear TX	REF IN REF_LV				REF_LV: 2.0Vp-p or more The OCXO LED (green) lights.
	3) SSG frequency: 10MHz SSG output: +10dBm (708mV)	SSG Spectrum analyzer	Rear TX	REF IN REF OUT				REF OUT: +10dBm or less The OCXO LED (orange) lights.
	4) SSG frequency: 10MHz SSG output: –7dBm (99.9mV)							REF OUT: –50dBm or less The OCXO LED goes off.
12. VCXO	1) Confirm that there is no OCXO and external reference input.	F. counter PC	TX	REF_IN		PC ADJ	5.99MHz+0.3ppm	±0.15ppm (5.99000270~ 5.99000090MHz) It takes a time from movement of adjustment value to stability.
13. Maximum Deviation (NXDN)	1) NXDN Narrow					PC ADJ	Value: 22800	Fixed value writing
	2) NXDN Very Narrow						Value: 10000	
14. Driver Amplifier Power	Disconnect the cable from TX OUT and insert a cable from power meter. After the adjustment, connect the cable to TX OUT. 1) Low 2) Center 3) High	Power meter	TX	TX OUT (CN802)		PC ADJ	+20.0dBm (100mW)	±0.1dB Disconnect the cable from TX OUT and insert a cable from power meter. After the adjustment, connect the cable to TX OUT.

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
15. High Transmit Power (Pre ADJ)	1) Low	Power meter PC	Rear	TX ANT		PC ADJ	Value: 1024	Fixed value writing
					Final	VR2	5.0W	±0.5W
16. Coupler ADJ	1) Low	DVM Power meter	Final	REF	Final	VR1	Adjust to the minimum value.	
17. High Transmit Power (Max power limit ADJ)	1) High	Power meter PC	Rear	TX ANT		PC ADJ	Value: 1024	Fixed value writing
					Final	VR2	7.0W	±0.2W
18. High Transmit Power	Frequency 1) Low 2) Center 3) High Attach the EXCITER/FINAL shield cover.	Power meter Ammeter	Rear	TX ANT		PC ADJ	5.0W	±0.1W 4.4A or less
19. Low Transmit Power	Frequency 1) Low 2) Center 3) High Attach the EXCITER/FINAL shield cover.						0.5W	±0.005W 3.3A or less
20. Deviation (The transmission VCO band is separated into A and B. 3-points for each, i.e., total of 6-points shall be adjusted.)	Modulation pattern : 100Hz square signal Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF LPF: 15kHz De-emp: OFF Detector: (p-p)/2 1) A: Low 2) A: Center 3) A: High 4) B: Low 5) B: Center 6) B: High	Deviation meter Oscilloscope PC	Rear	TX ANT		PC ADJ	±1.10kHz Adjust it into clean square wave with changing “Sub-audible Gain” and “Audible Gain”.	±0.05kHz Connect the deviation meter to the TX ANT end via the ATT.
	Exit “Deviation” screen to “Test Mode” screen, then set test signaling mode to be “NXDN” and signaling number to be “3”. Set Wide/Narrow drop down list to be “Narrow”. Set test channel to be “1”. Deviation meter setting HPF: OFF LPF: 15kHz De-emp: OFF Detector: +peak, –peak Push “Transmit” button, then measure the deviation.						Check	±3.06kHz±0.20kHz Clean sine wave.

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
21. Maximum Deviation (Analog)	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF LPF: 15kHz De-emp: OFF Detector: (p-p)/2 AG setting: 1kHz/45mVrms (Sine wave, Terminal load)	Deviation meter AG DVM	Rear Front	TX ANT MIC		PC ADJ	±4.1kHz	±0.2kHz Connect the deviation meter to the TX ANT end via the ATT.
	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow Connect the deviation meter to the TX ANT end via the ATT. AG setting: 1kHz/55mVrms (Sine wave, Terminal load)						±1.7kHz	±0.1kHz
22. Standard Modulation Check	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF LPF: 15kHz De-emp: OFF Detector: (p-p)/2 AG setting : 1kHz/±3kHz DEV (Sine wave, Terminal load)						Check	4.5mV±1.5mV Connect the deviation meter to the TX ANT end via the ATT.
	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow Connect the deviation meter to the TX ANT end via the ATT. AG setting : 1kHz/±1.5kHz DEV (Sine wave, Terminal load)							5.5mV±1.5mV
23. QT Deviation	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF LPF: 3kHz De-emp: OFF Detector: p-p/2	Deviation meter	Rear	TX ANT		PC ADJ	±0.75kHz	±0.05kHz Connect the deviation meter to the TX ANT end via the ATT.

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
23. QT Deviation	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow	Deviation meter	Rear	TX ANT		PC ADJ	±0.35kHz	±0.05kHz
24. DQT Deviation	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF LPF: 3kHz De-emp: OFF Detector: Peak hold	Deviation meter	Rear	TX ANT		PC ADJ	±0.75kHz	±0.05kHz Connect the deviation meter to the TX ANT end via the ATT.
	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow						±0.35kHz	±0.05kHz
25. CW ID Deviation	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF LPF: 15kHz De-emp: OFF Detector: +peak, –peak	Deviation meter	Rear	TX ANT		PC ADJ	±2.00kHz	±0.05kHz Connect the deviation meter to the TX ANT end via the ATT.
	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow						±1.00kHz	±0.05kHz
26. Test Tone Deviation	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF, LPF: 15kHz De-emp: OFF Detector: +peak, –peak	Deviation meter	Rear	TX ANT		PC ADJ	±3.00kHz	±0.05kHz Connect the deviation meter to the TX ANT end via the ATT.
	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow						±1.50kHz	±0.05kHz

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
27. DTMF Deviation	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF, LPF: 15kHz De-emp: OFF Detector: +peak, –peak	Deviation meter	Rear	TX ANT		PC ADJ	±2.85kHz	±0.05kHz Connect the deviation meter to the TX ANT end via the ATT.
	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow						±1.50kHz	±0.05kHz
28. Courtesy Tone Deviation	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF, LPF: 15kHz De-emp: OFF Detector: +peak, –peak	Deviation meter	Rear	TX ANT		PC ADJ	±1.00kHz	±0.05kHz Connect the deviation meter to the TX ANT end via the ATT.
	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow						±0.50kHz	±0.05kHz
29. TD Deviation	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF, LPF: 3kHz De-emp: OFF Detector: +peak, –peak AG setting : 0.1kHz/0.5Vp-p (177mVrms)	Deviation meter AG DVM	Rear	TX ANT CONTROL I/O jack TD (pin 8)		PC ADJ	±0.75kHz	±0.02kHz Connect the deviation meter to the TX ANT end via the ATT.
	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow						±0.75kHz	±0.02kHz
30. Transmit Audio Input (TA)	1) Channel: 3 (Center) Wide/Narrow: Analog Wide Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF, LPF: 15kHz De-emp: OFF Detector: +peak, –peak AG setting : 1kHz/280mVrms	Deviation meter AG DVM	Rear	TX ANT CONTROL I/O jack TA (pin 9)		PC ADJ	±3.00kHz	±0.03kHz Connect the deviation meter to the TX ANT end via the ATT.

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
30. Transmit Audio Input (TA)	2) Channel: 3 (Center) Wide/Narrow: Analog Narrow	Deviation meter AG DVM	Rear	TX ANT CONTROL I/O jack TA (pin 9)		PC ADJ	±1.50kHz	±0.02kHz
31. BPF	1) Tracking generator Output: –20dBm Spectrum analyzer Frequency: Desired frequency Span: 50MHz	Tracking generator Spectrum analyzer	Rear RX	RX ANT CN41	RX	L132 L133 L134 L135	Adjust it by the programmed frequency to look like the wave in figure 1.	Refer to Fig. 1. (Page 88)
32. MCF	1) Wide Tracking generator Output: –20dBm Spectrum analyzer Frequency: 49.95MHz Span: 100kHz	Tracking generator Spectrum analyzer	Rear RX	CN46 CN47	RX	L46 L52 L74 L90	Adjust it to look like the wave in figure 2.	Refer to Fig. 2. (Page 88)
	2) Narrow Spectrum analyzer Span: 50kHz					L47 L53 L75 L91	Adjust it to look like the wave in figure 3.	Refer to Fig. 3. (Page 88)
33. Discriminator	1) Narrow Frequency: Desired frequency SSG output: –53dBm (501µV) SSG MOD: 1kHz SSG DEV: 1.5kHz AF output: 2V/4Ω	SSG AF V.M	Rear	RX ANT TEST/ SPKR jack SPO (pin 12) 4Ω load	RX	L128	Adjust AF output max.	
34. RD Level	1) Wide/Narrow: Analog Wide Connect the SSG to the RX ANT. SSG setting Frequency: Desired frequency Output: –53dBm (501µV) MOD: 1kHz DEV: ±3.0kHz	SSG AF V.M	Rear	RX ANT CONTROL I/O jack RD (pin 10)		PC ADJ	80mV	±5mV
	2) Wide/Narrow: Analog Narrow SSG setting DEV: ±1.5kHz							
35. RA Level	1) Wide/Narrow: Analog Wide Connect the SSG to the RX ANT. SSG setting Frequency: Desired frequency Output: –53dBm (501µV) MOD: 1kHz DEV: ±3.0kHz	SSG AF V.M	Rear	RX ANT CONTROL I/O jack RA (pin 11)		PC ADJ	400mV	±20mV

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
35. RA Level	2) Wide/Narrow: Analog Narrow SSG setting DEV: ±1.5kHz	SSG AF V.M	Rear	RX ANT CONTROL I/O jack RA (pin 11)		PC ADJ	400mV	±20mV
36. Receiver Sensitivity Check	1) Wide/Narrow: Analog Wide Connect the SSG to the RX ANT. SSG setting Frequency: Desired frequency MOD: 1kHz DEV: ±3.0kHz AF: 0.45V/4Ω	SSG Distortion meter	Rear	RX ANT TEST/ SPKR jack SPO (pin 12) 4Ω load			Check	–115dBm (0.4μV) or less
	2) Wide/Narrow: Analog Narrow SSG setting DEV: ±1.5kHz							
37. Tight Squelch	1) Wide/Narrow: Analog Wide Connect the SSG to the RX ANT. SSG setting Frequency: Desired frequency Output: 12dB SINAD level +7dB MOD: 1kHz DEV: ±3.0kHz	SSG Oscilloscope Audio analyzer	Rear	RX ANT TEST/ SPKR jack SPO (pin 12) 4Ω load		PC ADJ	Adjust it to the level to open the squelch.	
	2) SSG output: OFF						Check	The squelch shall be closed.
	3) Wide/Narrow: Analog Narrow SSG setting DEV: ±1.5kHz					PC ADJ	Adjust it to the level to open the squelch.	
	4) SSG output: OFF						Check	The squelch shall be closed.
38. Open Squelch	1) Wide/Narrow: Analog Wide Connect the SSG to the RX ANT. SSG setting Frequency: Desired frequency Output: 12dB SINAD level –2dB MOD: 1kHz DEV: ±3.0kHz	SSG Oscilloscope Audio analyzer	Rear	RX ANT TEST/ SPKR jack SPO (pin 12) 4Ω load		PC ADJ	Adjust it to the level to open the squelch.	

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
38. Open Squelch	2) SSG output: OFF	SSG Oscilloscope Audio analyzer	Rear	RX ANT TEST/ SPKR jack SPO (pin 12) 4Ω load			Check	The squelch shall be closed.
	3) Wide/Narrow: Analog Narrow SSG setting DEV: ±1.5kHz					PC ADJ	Adjust it to the level to open the squelch.	
	4) SSG output: OFF						Check	The squelch shall be closed.
39. RSSI	Wide/Narrow: Analog Narrow Connect the SSG to the RX ANT. SSG setting Frequency: Desired frequency MOD: 1kHz DEV: ±1.5kHz 1) SSG output: –53dBm (501µV)	SSG AF V.M	Rear	RX ANT TEST/ SPKR jack RSSI (pin 8)		PC ADJ	3.5V	±0.1V
	2) Point: High Level SSG output : 12dB SINAD level +7dB					PC ADJ (Vin4)	Apply the value (Vin4)	
	3) Point: Low Level SSG output : 12dB SINAD level –2dB							
40. Repeater Gain	1) Wide/Narrow: Analog Wide Connect the SSG to the RX ANT. SSG setting Frequency: Desired frequency Output: –53dBm (501µV) MOD: 1.0kHz DEV: ±1.0kHz Connect the deviation meter to the TX ANT end via the ATT. Deviation meter setting HPF: OFF LPF: 15kHz De-emp: OFF Detector: +peak, –peak	SSG Deviation meter	Rear	RX ANT TX ANT		PC ADJ	±1.00kHz	±0.10kHz
	2) Wide/Narrow: Analog Narrow						±1.00kHz	±0.10kHz

ADJUSTMENT

Adjustment for KXK-3 (OCXO unit)

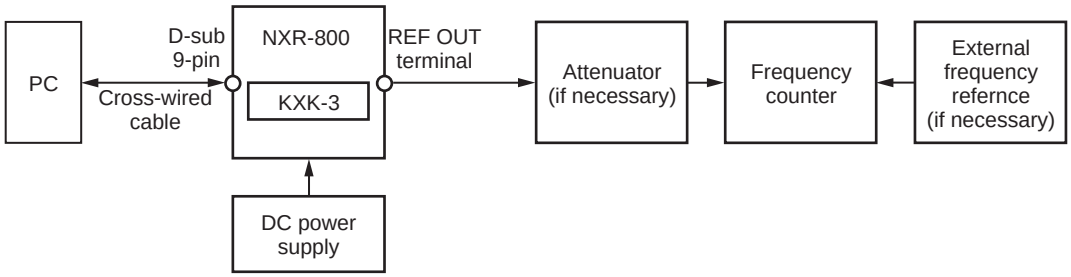
We recommend that the frequency adjustment be checked each time the radio is serviced, or at least once per year. Maintenance should only be performed under normal temperatures.

Test Equipment Required for Alignment

Test Equipment	Major Specifications	
1. Frequency Counter	Frequency Range	Up to 50MHz
	Resolution	9 digits
	Reference Frequency Accuracy	Smaller than 0.01ppm
	Input level	Up to 5Vpp

Adjustment Setup

The KXK-3 OCXO unit must be mounted on the NXR-800 repeater. Adjustment setup is shown as follows.



To adjust the KXK-3 OCXO unit, some preparations are required.

1. The NXR-800 with the KXK-3 OCXO unit must be warmed up at least 24 hours before the adjustment is made. The environment temperature must be stable.
2. The frequency counter (or reference oscillator) must be warmed up as defined by the equipment manufacturer.

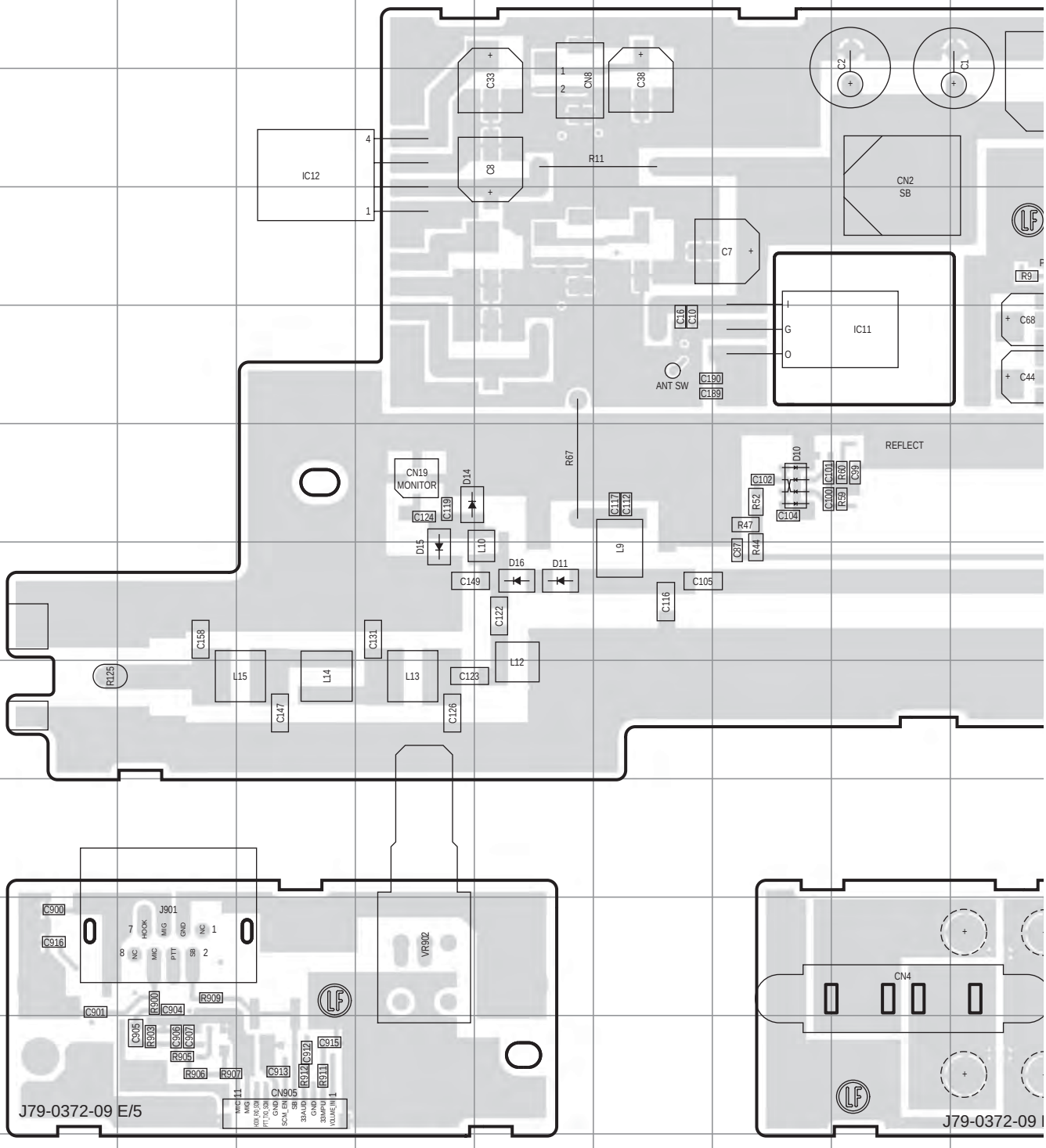
Adjustment

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Setting	1) Connect the DC power output to the rear panel DC terminal (13.8V). 2) Connect the “REF OUT” terminal to the frequency counter. 3) Warm-up the equipment and KXK-3 properly. 4) Connect the front panel COM port (D-sub 9-pin connector) to the PC serial port with a cross-wired cable. 5) Activate the FPU to go to the test mode.							
2. OCXO frequency adjustment		f. counter	Rear	REF OUT		PC ADJ		±0.15ppm 9.99999850MHz~ 10.00000150MHz

Note:
Adjusted data is stored in the KXK-3 internal memory, therefore no re-adjustment is required when the adjusted KXK-3 is moved to another NXR-800.

NXR-800 PC BOARD

FINAL UNIT (X45-3820-14)
Component side view (J79-0372-09)



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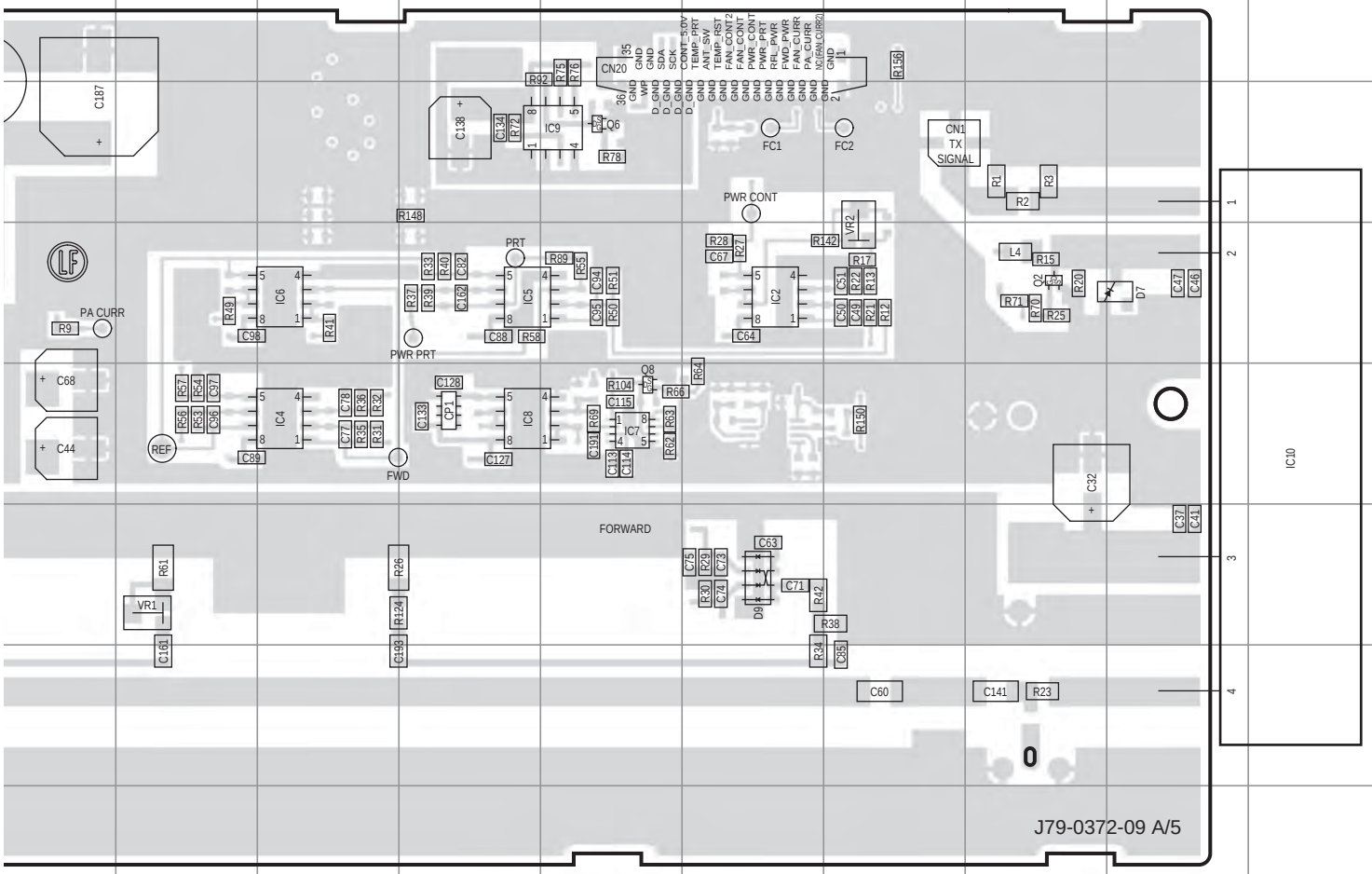
IC2	4O	IC8	5M	IC701	3B	D7	4R	D15	7E
IC4	5L	IC9	3N	Q2	4Q	D9	6O	D16	7F
IC5	4M	IC10	5S	Q6	3N	D10	6H		
IC6	4L	IC11	5I	Q8	5N	D11	7F		
IC7	5N	IC12	3D	D4	10P	D14	6E		

PC BOARD NXR-800

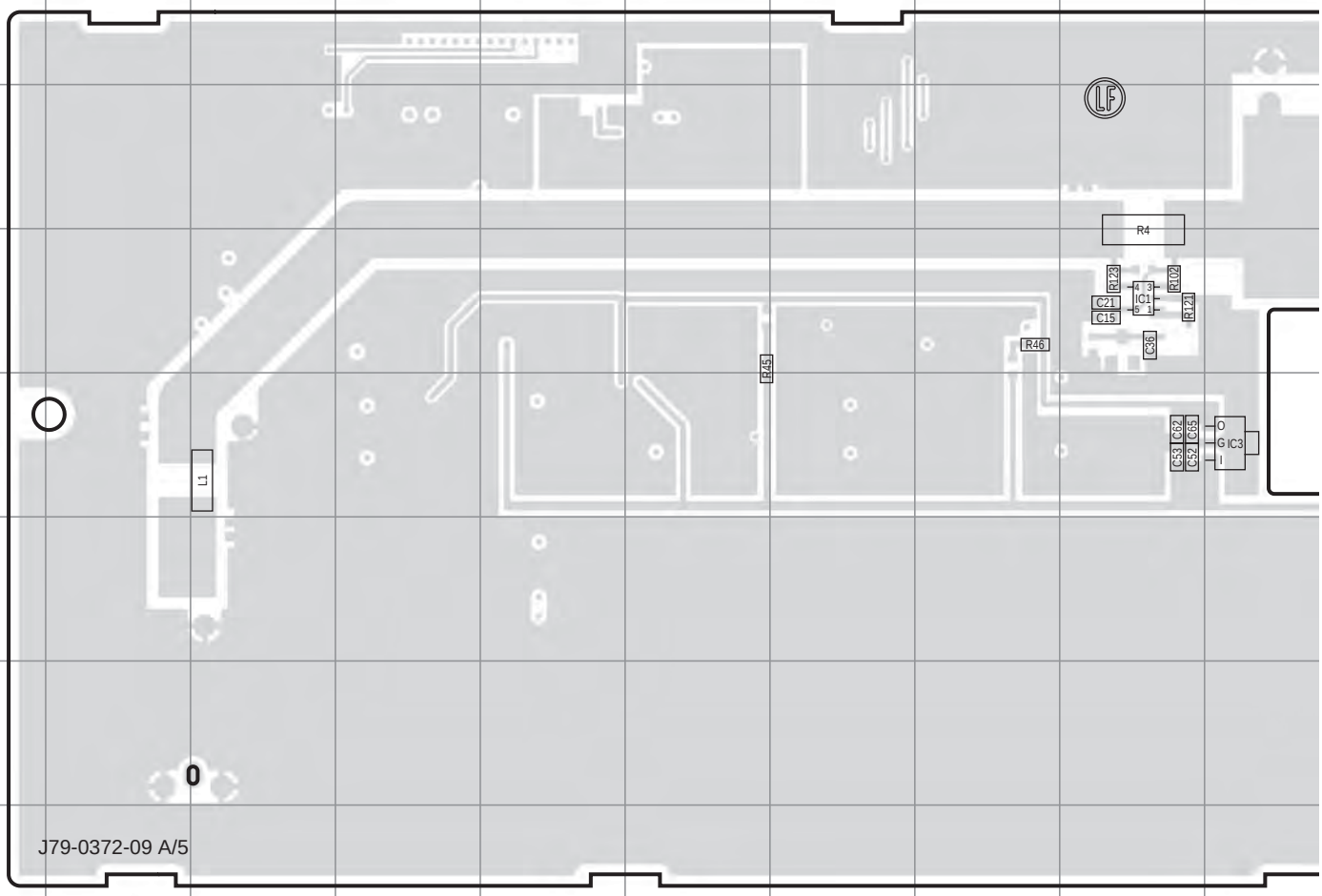
FINAL UNIT (X45-3820-14)
Component side view (J79-0372-09)

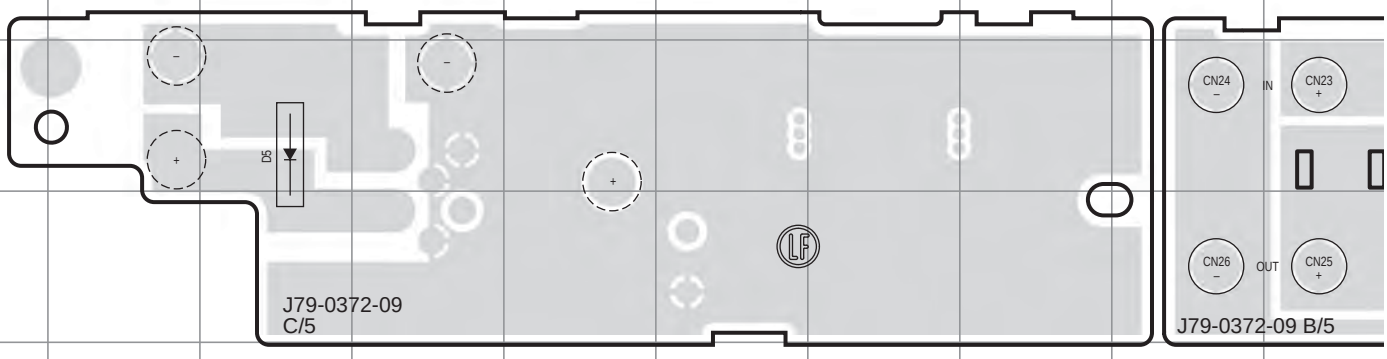


Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

NXR-800 PC BOARD

FINAL UNIT (X45-3820-14)
Foil side view (J79-0372-09)

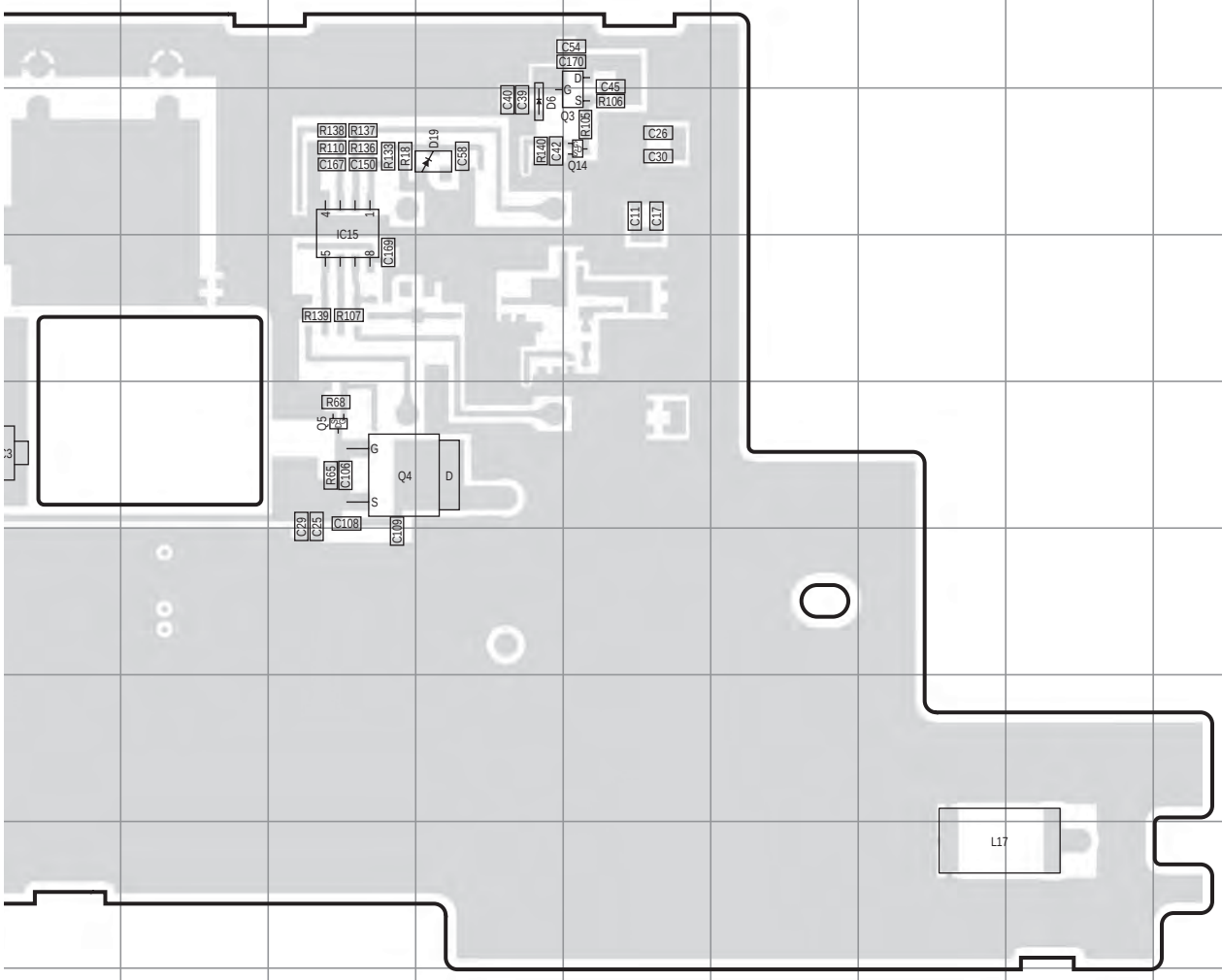


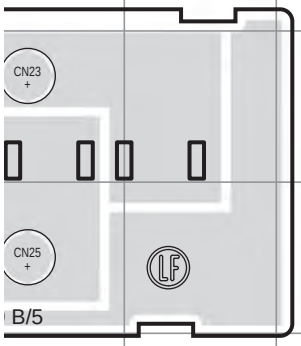


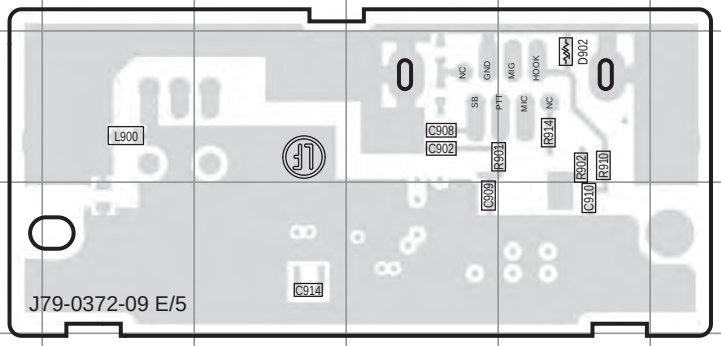
Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	4I	Q3	3N	D6	3M
IC3	5J	Q4	5L	D19	3M
IC15	3L	Q5	5L	D902	10Q
IC702	4R	Q14	3N		
IC703	5R	D5	10C		

PC BOARD NXR-800

FINAL UNIT (X45-3820-14)
Foil side view (J79-0372-09)



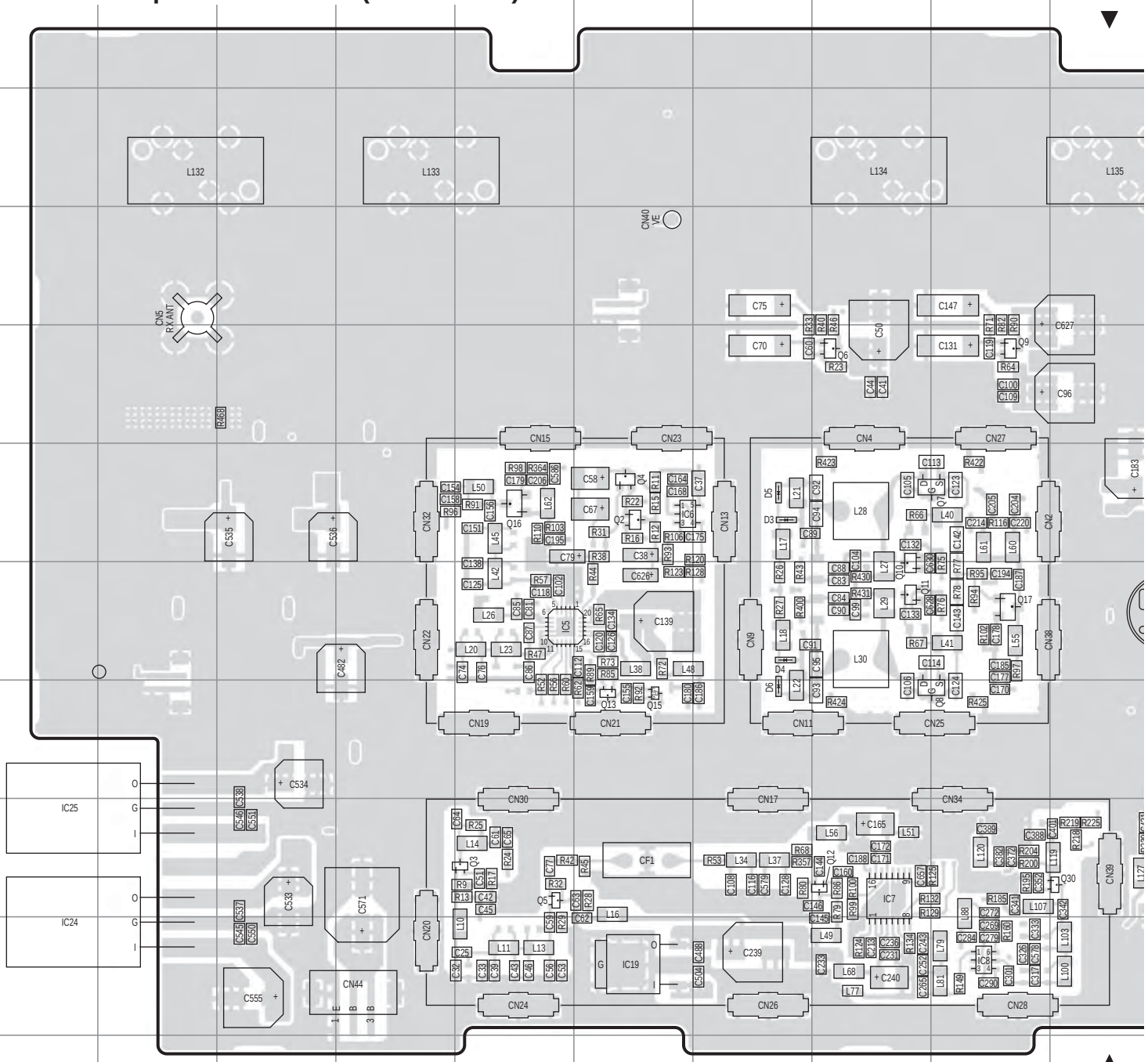




Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

NXR-800 PC BOARD

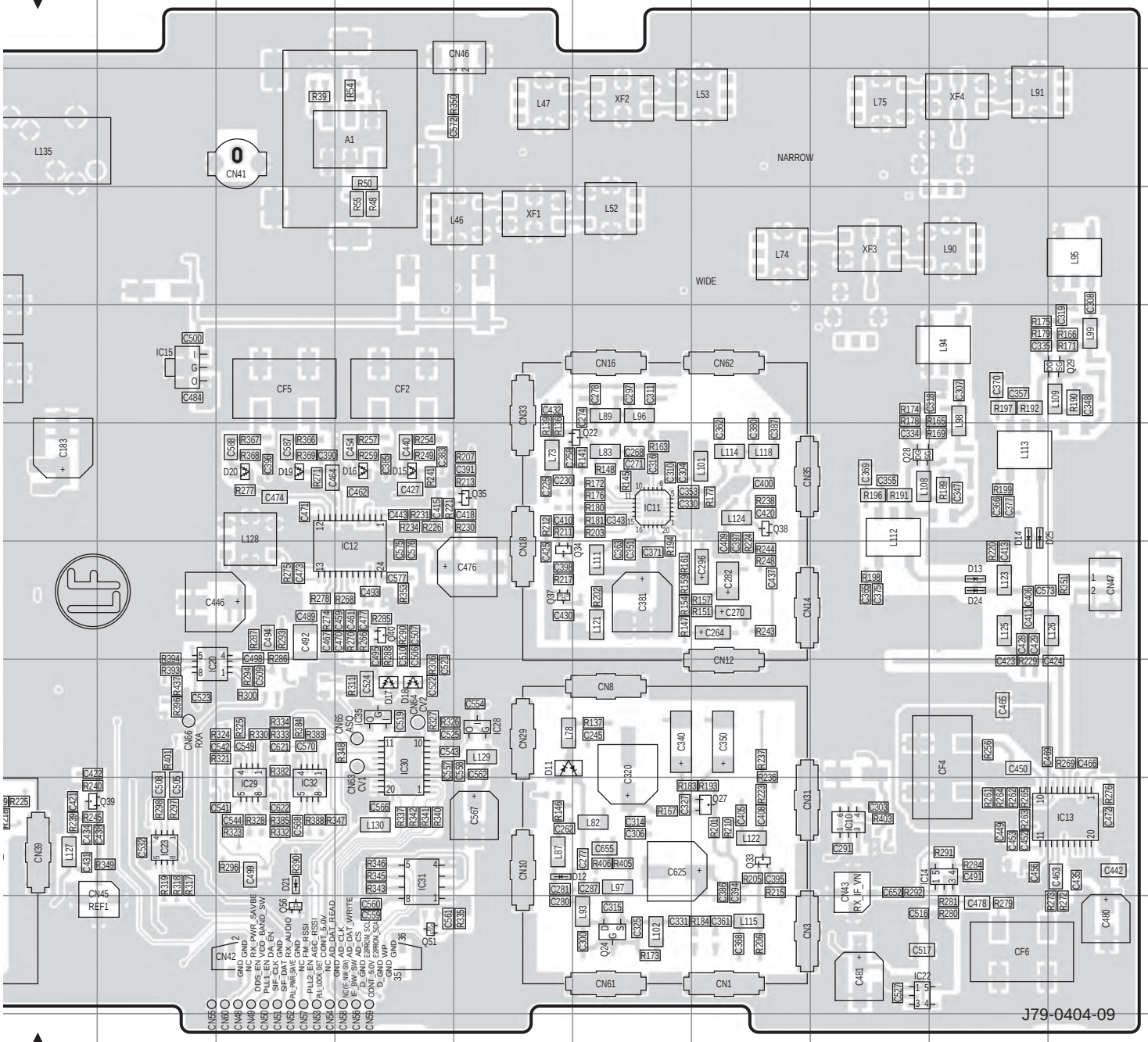
RX UNIT (X55-3100-14)
Component side view (J79-0404-09)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC5	7E	IC15	5K	IC30	8M	Q7	6I	Q17	7I	Q35	6N	D5	6G	D18	8M
IC6	6F	IC19	10F	IC31	9M	Q8	8I	Q22	6O	Q37	7N	D6	8G	D19	6L
IC7	9H	IC20	8K	IC32	8L	Q9	5I	Q24	10O	Q38	6P	D11	8N	D20	6L
IC8	10I	IC22	10Q	IC35	8M	Q10	7H	Q27	9P	Q39	9J	D12	9N	D21	9L
IC10	9Q	IC23	9K	Q2	6F	Q11	7H	Q28	6Q	Q40	7M	D13	7R	D24	7R
IC11	6O	IC24	10A	Q3	9E	Q12	9H	Q29	5S	Q51	10M	D14	6R	D25	6R
IC12	7M	IC25	9A	Q4	6F	Q13	8F	Q30	9J	Q56	10L	D15	6M		
IC13	9S	IC28	8N	Q5	9E	Q15	8F	Q33	9P	D3	6G	D16	6M		
IC14	9R	IC29	8L	Q6	5H	Q16	6E	Q34	7N	D4	7G	D17	8M		

PC BOARD NXR-800

RX UNIT (X55-3100-14)
Component side view (J79-0404-09)



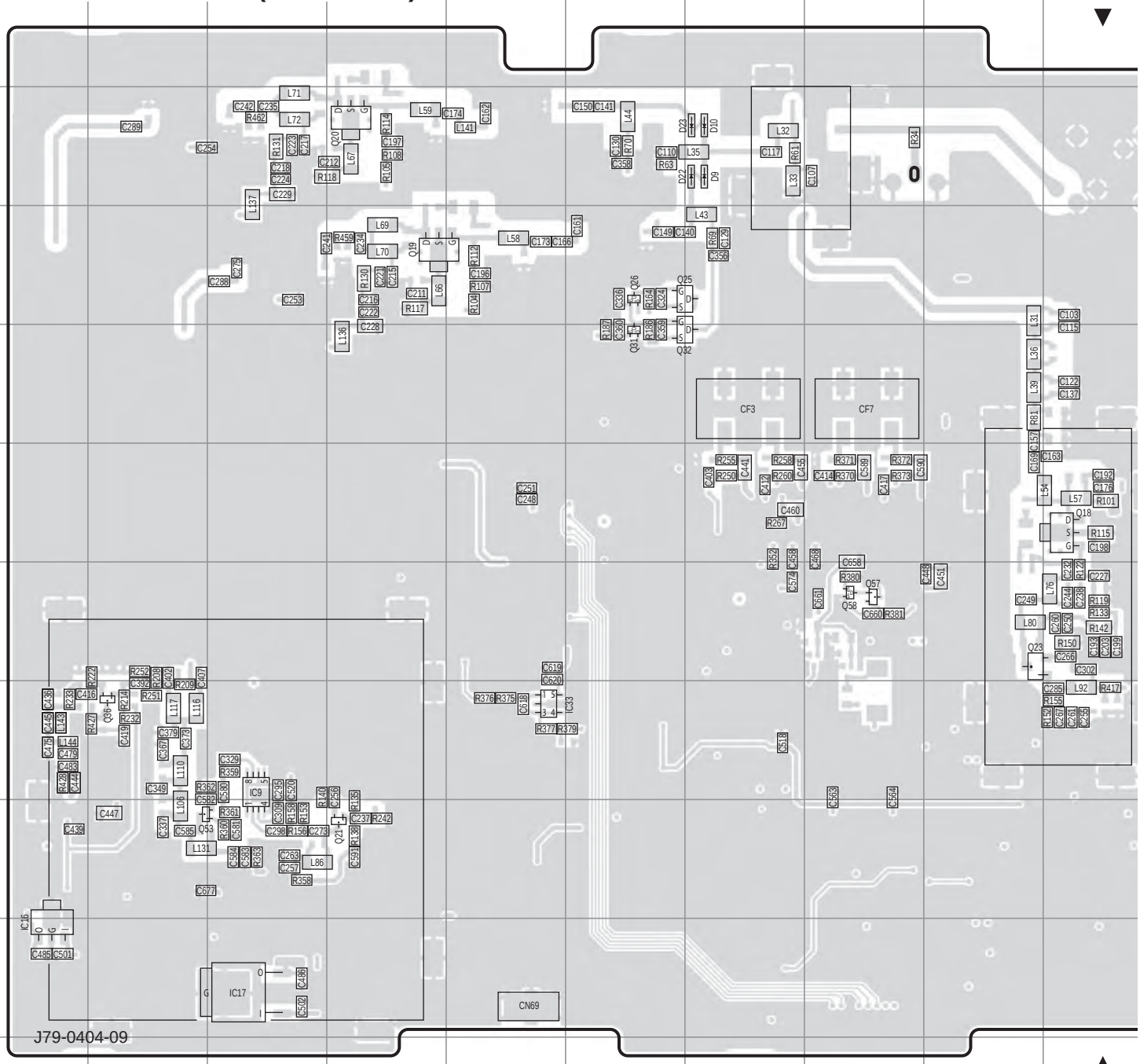
Component side

Layer 1	
Layer 2	
Layer 3	
Layer 4	

Foil side

NXR-800 PC BOARD

RX UNIT (X55-3100-14)
Foil side view (J79-0404-09)



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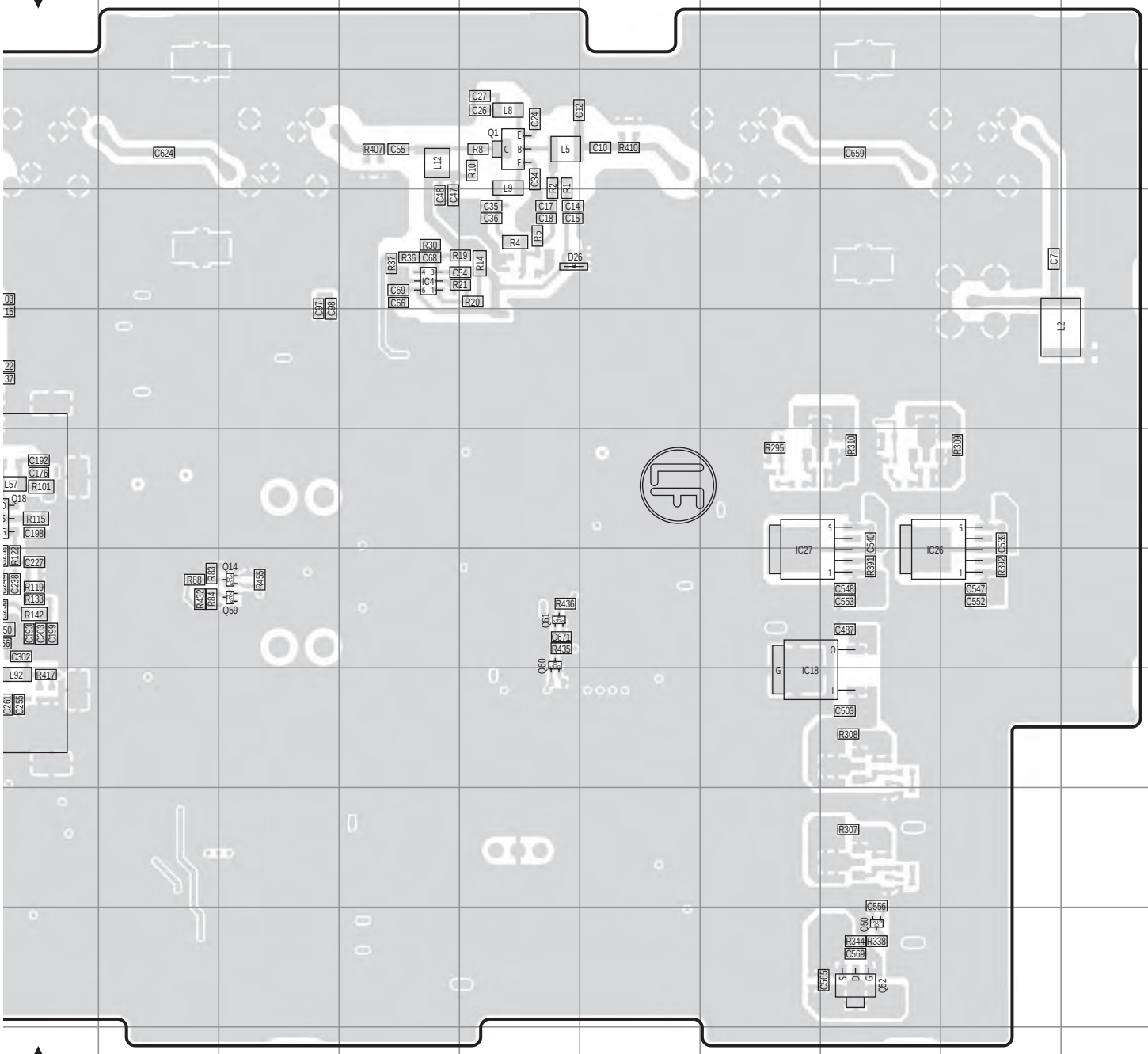
IC9	8C	Q18	6J	Q36	8B	D9	3G
IC16	10A	Q19	4D	Q50	10Q	D10	3G
IC17	10C	Q20	3D	Q52	10Q	D26	4N
IC18	8P	Q21	9D	Q53	9B		
IC26	7Q	Q23	7I	Q57	7H		
IC27	7P	Q25	4G	Q58	7H		
IC33	8E	Q26	4F	Q59	7L		
Q1	3N	Q31	5F	Q60	7N		

PC BOARD NXR-800

RX UNIT (X55-3100-14)
Foil side view (J79-0404-09)



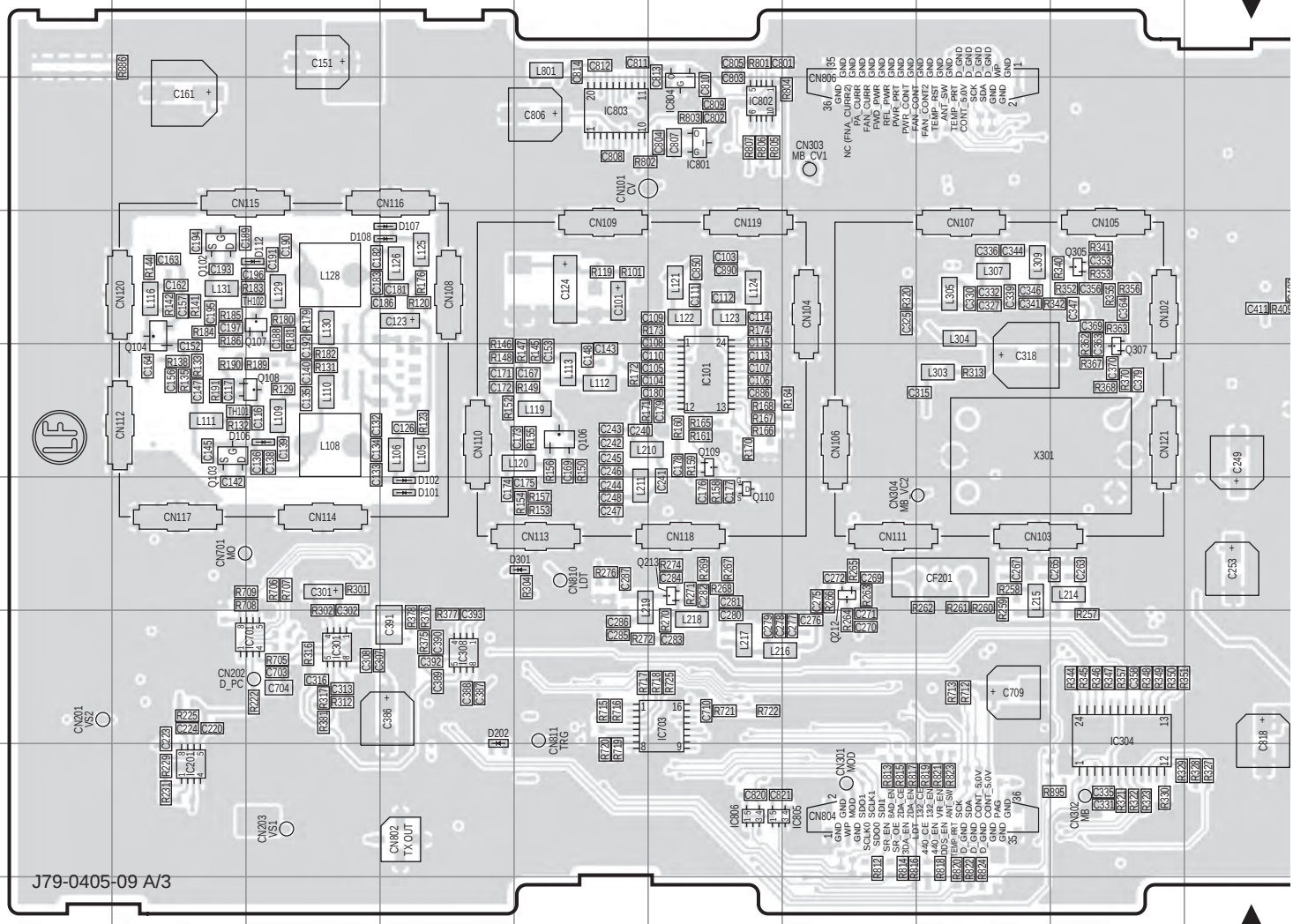
Component side

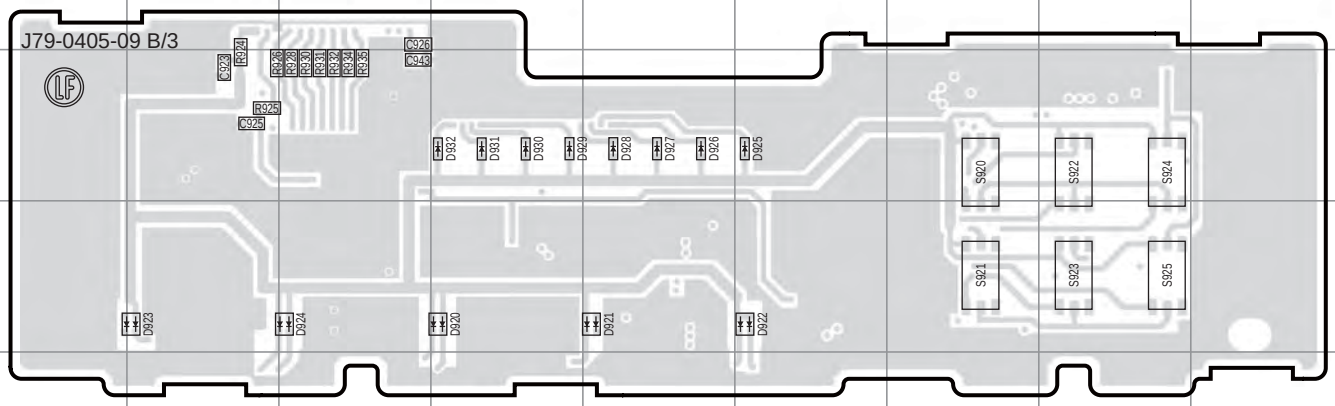
Layer 1	
Layer 2	
Layer 3	
Layer 4	

Foil side

NXR-800 PC BOARD

TX UNIT (X56-3120-14)
Component side view (J79-0405-09)





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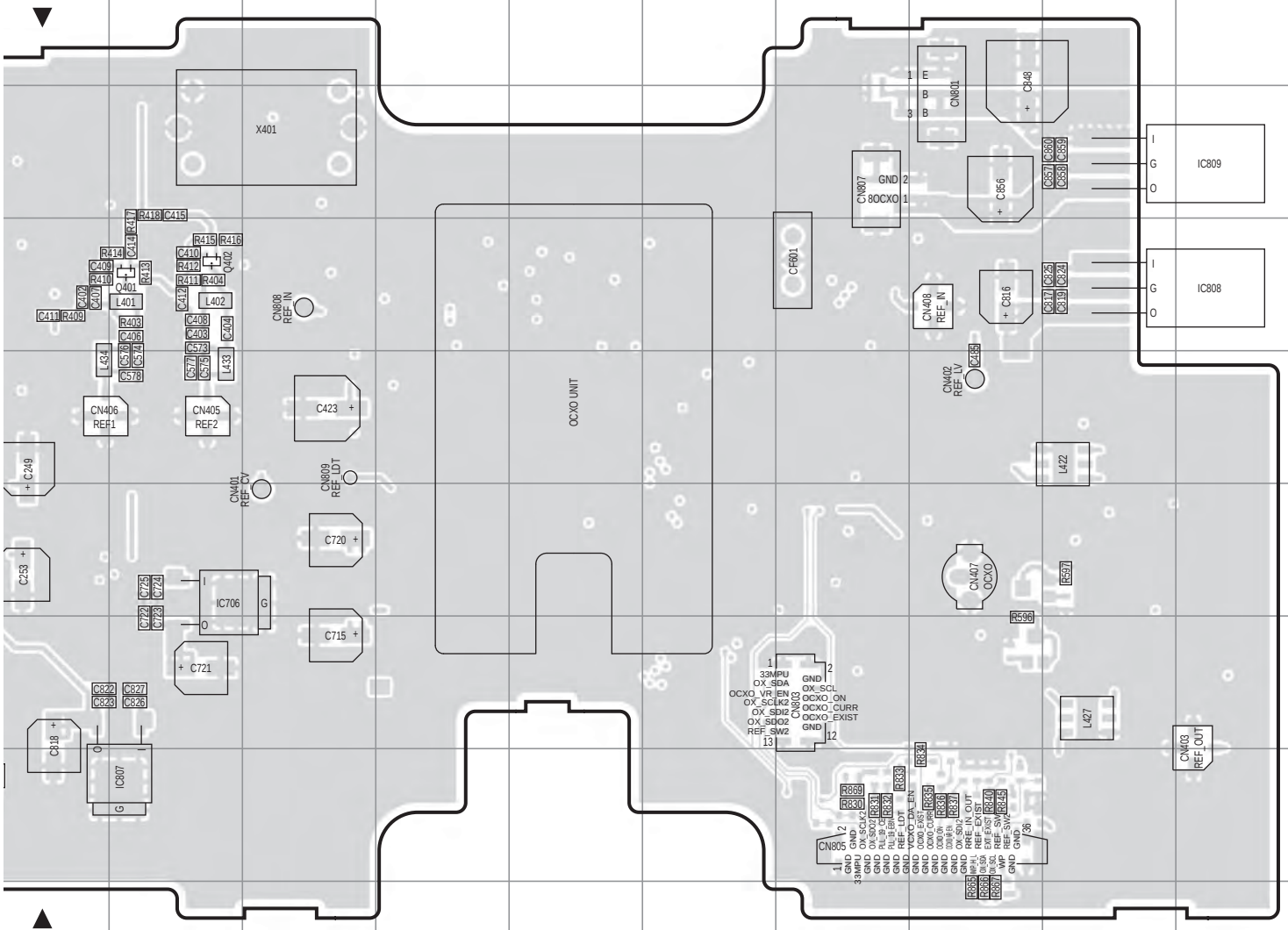
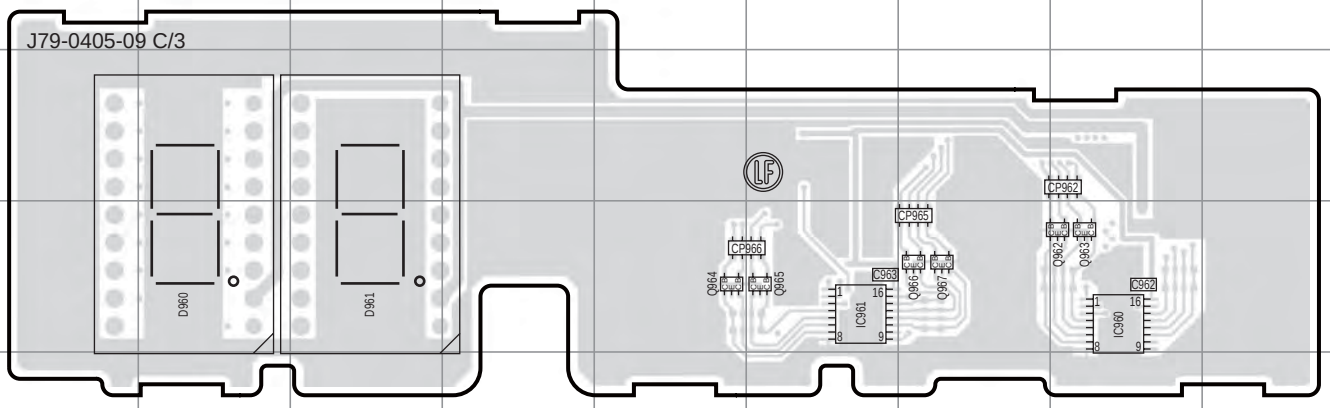
IC101	5F	IC706	6K	IC807	8K	Q104	4B	Q213	6F	Q964	11O	D107	4D	D922	11F	D929	10D
IC201	8B	IC801	3F	IC808	4S	Q106	5E	Q305	4I	Q965	11P	D108	4D	D923	11B	D930	10D
IC301	7C	IC802	3F	IC809	3S	Q107	4C	Q307	5I	Q966	11Q	D112	4C	D924	11C	D931	10D
IC304	7I	IC803	3E	IC960	11R	Q108	5C	Q401	4K	Q967	11Q	D202	7D	D925	10F	D932	10D
IC308	7D	IC804	3F	IC961	11P	Q109	5F	Q402	4K	D101	6D	D301	6E	D926	10E	D960	11D
IC701	7C	IC805	8F	Q102	4B	Q110	6F	Q962	11R	D102	6D	D920	11D	D927	10E	D961	11M
IC703	7F	IC806	8F	Q103	5B	Q212	6G	Q963	11R	D106	5C	D921	11E	D928	10E		

PC BOARD NXR-800

TX UNIT (X56-3120-14)
Component side view (J79-0405-09)





No.	Address
29	10D
30	10D
31	10D
32	10D
60	11L
61	11M

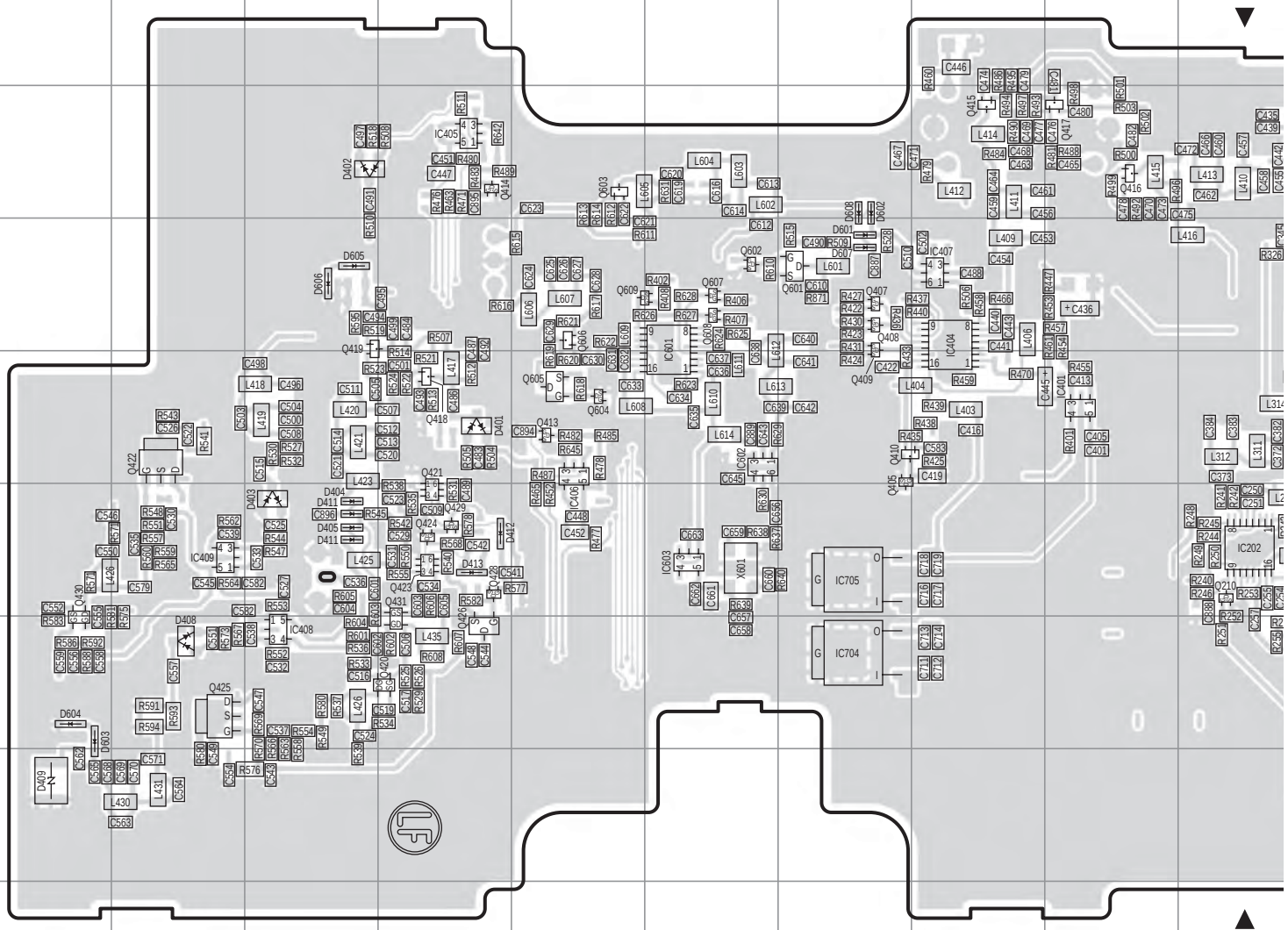
Component side

Layer 1	
Layer 2	
Layer 3	
Layer 4	

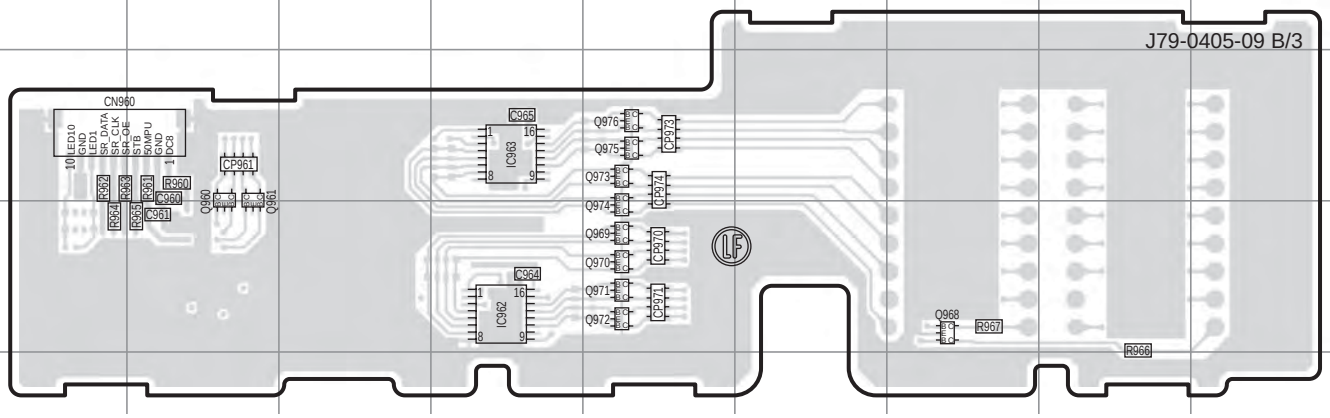
Foil side

NXR-800 PC BOARD

TX UNIT (X56-3120-14)
Foil side view (J79-0405-09)



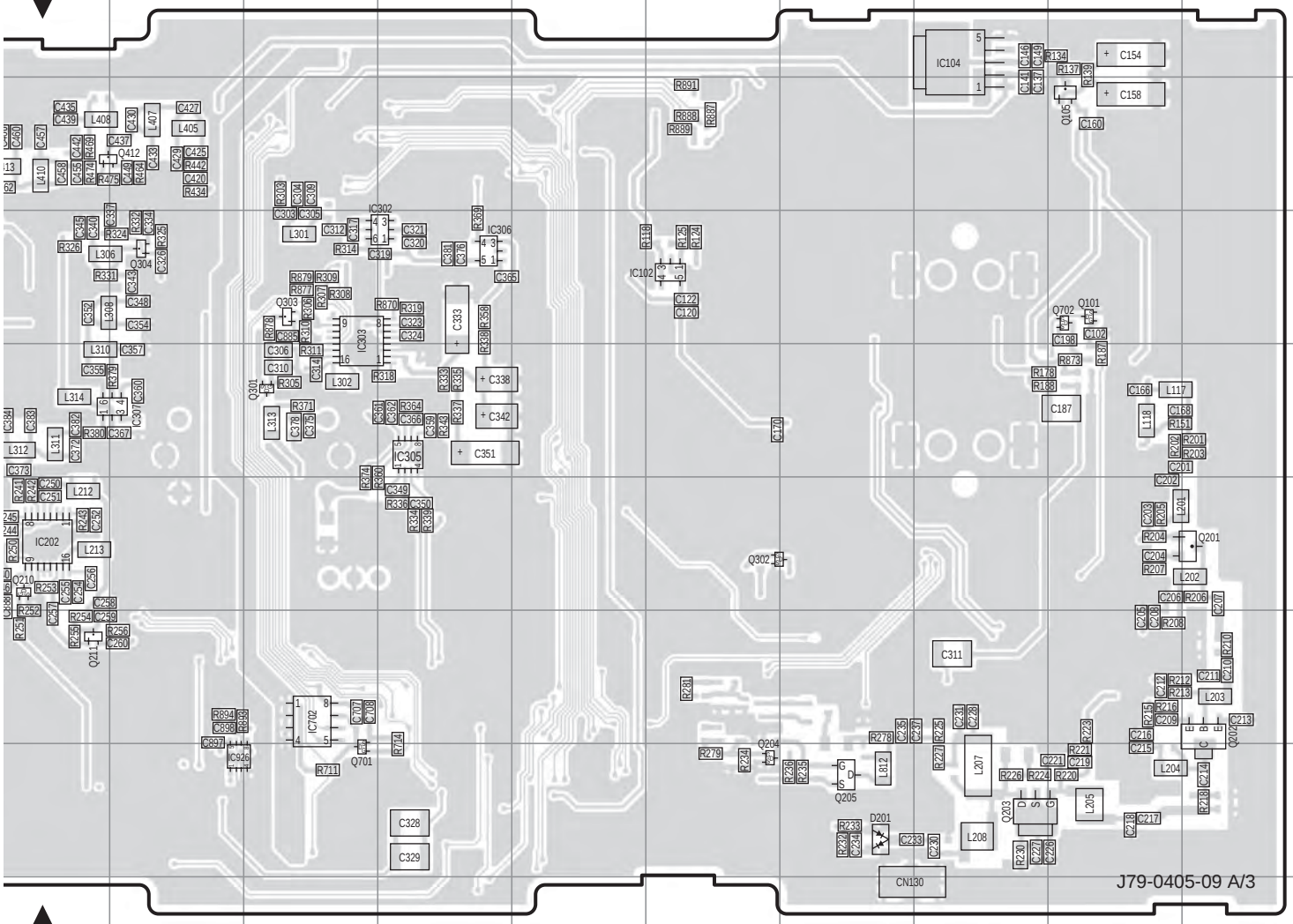
J79-0405-09 B/3

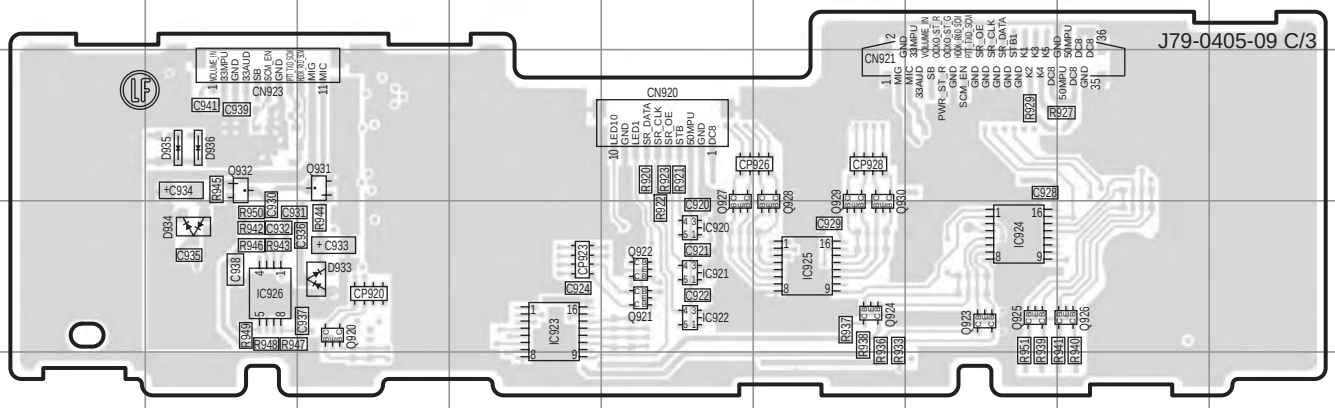


Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Addre
IC102	4O	IC404	4H	IC702	7L	IC926	11L	Q205	8P	Q407	4G	Q417	3I	Q426	6D	Q605	5E
IC104	2Q	IC405	3D	IC704	7G	IC962	11D	Q206	7P	Q408	4G	Q418	5D	Q428	6D	Q606	4E
IC202	6J	IC406	5E	IC705	6G	IC963	10D	Q210	6J	Q409	4G	Q419	5C	Q429	6D	Q607	4F
IC302	4M	IC407	4H	IC920	11O	Q101	4R	Q211	7J	Q410	5H	Q420	7D	Q430	6A	Q608	4F
IC303	4L	IC408	7C	IC921	11O	Q105	3R	Q301	5L	Q412	3J	Q421	6D	Q431	6D	Q609	4F
IC305	5M	IC409	6B	IC922	11O	Q201	6S	Q302	6O	Q413	5E	Q422	5B	Q601	4G	Q701	8L
IC306	4M	IC601	4F	IC923	11N	Q202	7S	Q303	4L	Q414	3D	Q423	6D	Q602	4F	Q702	4R
IC307	5K	IC602	5F	IC924	11Q	Q203	8Q	Q304	4K	Q415	3H	Q424	6D	Q603	3E	Q920	11M
IC401	5I	IC603	6F	IC925	11P	Q204	7P	Q405	5G	Q416	3I	Q425	7B	Q604	5E	Q921	11C

PC BOARD NXR-800

TX UNIT (X56-3120-14)
Foil side view (J79-0405-09)





No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
05	5E	Q922	11O	Q931	10M	Q973	10E	D405	6C	D605	4C
06	4E	Q923	11Q	Q932	10L	Q974	11E	D406	6D	D606	4C
07	4F	Q924	11P	Q960	10B	Q975	10E	D407	6D	D933	11M
08	4F	Q925	11Q	Q961	10B	Q976	10E	D408	7B	D934	11L
09	4F	Q926	11R	Q968	11G	D201	8P	D409	8A	D935	10L
01	8L	Q927	11O	Q969	11E	D401	5D	D601	4G	D936	10L
02	4R	Q928	11P	Q970	11E	D402	3C	D602	3G		
20	11M	Q929	11P	Q971	11E	D403	6C	D603	7A		
21	11O	Q930	11P	Q972	11E	D404	6C	D604	7A		

Component side

Layer 1

Layer 2

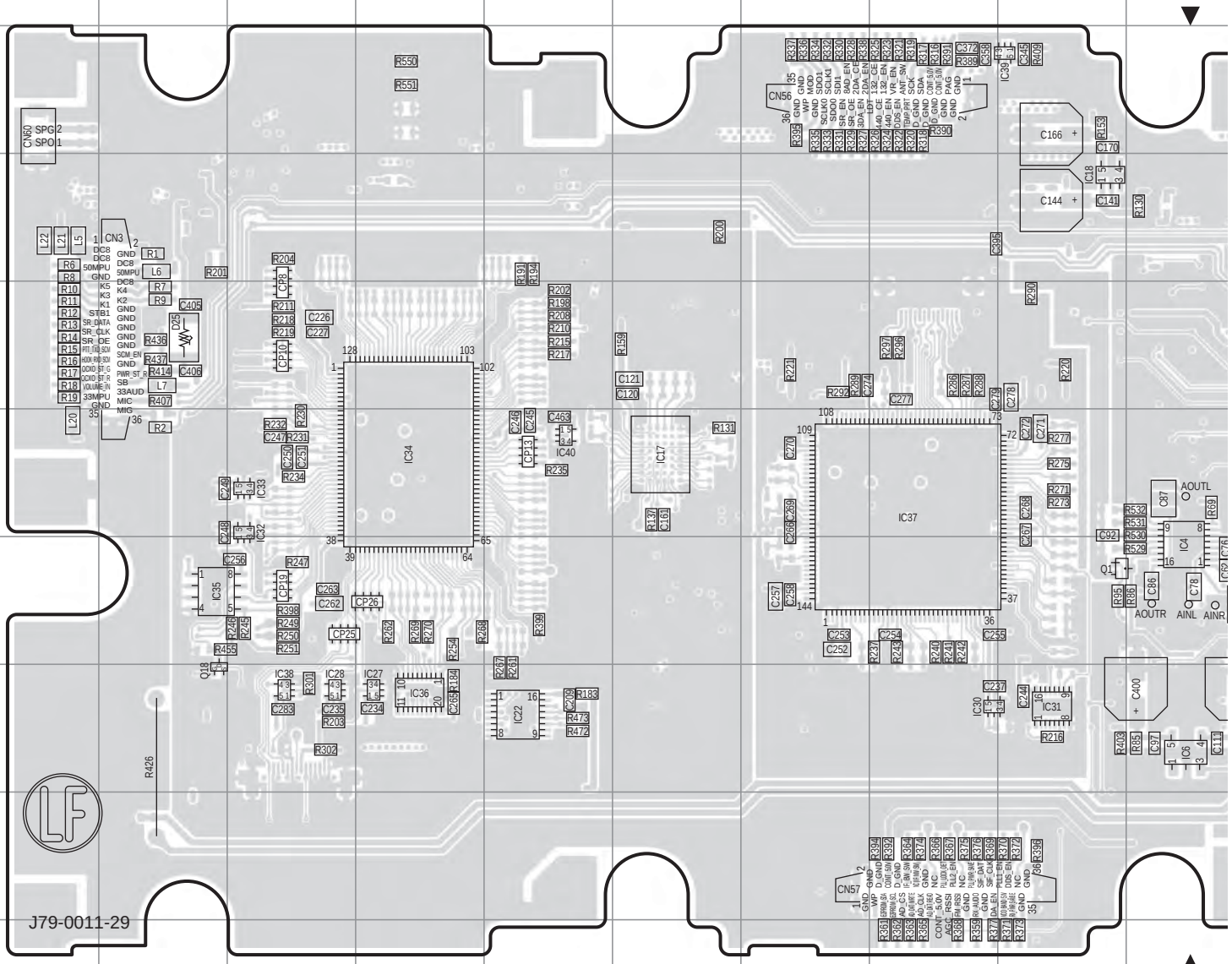
Layer 3

Layer 4

Foil side

NXR-800 PC BOARD

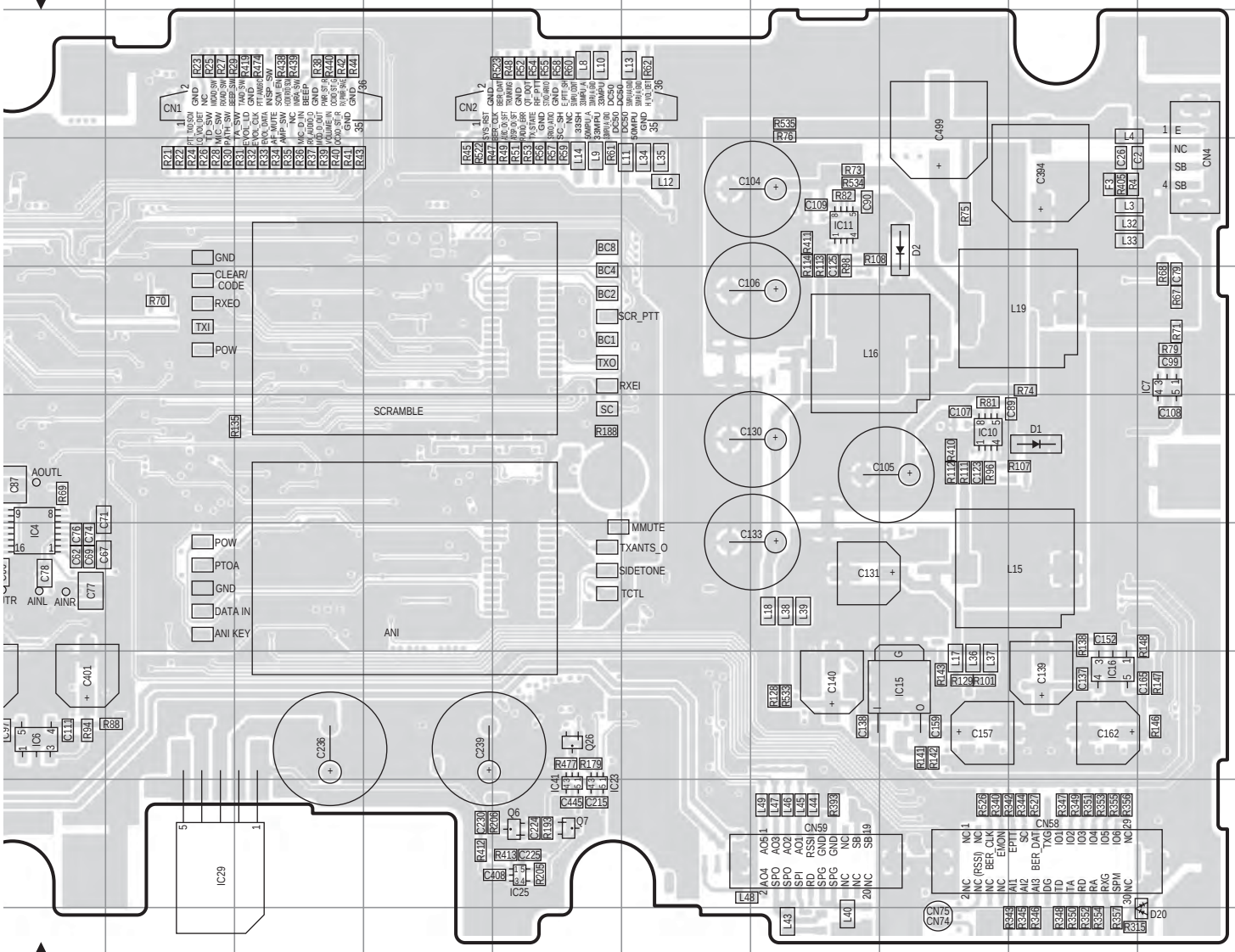
CONTROL UNIT (X53-4130-XX) -10 : K5 -11 : For service
Component side view (J79-0011-29)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC4	7J	IC22	8E	IC33	6C	Q1	7I
IC6	8J	IC23	9N	IC34	6D	Q6	9N
IC7	5S	IC25	9N	IC35	7B	Q7	9N
IC10	6Q	IC27	8D	IC36	8D	Q18	8B
IC11	4P	IC28	8C	IC37	6H	Q26	8N
IC15	8Q	IC29	9K	IC38	8C	D1	6R
IC16	8R	IC30	8H	IC39	3I	D2	4Q
IC17	6F	IC31	8I	IC40	6E	D20	10S
IC18	4I	IC32	6C	IC41	9N	D25	5B

PC BOARD NXR-800

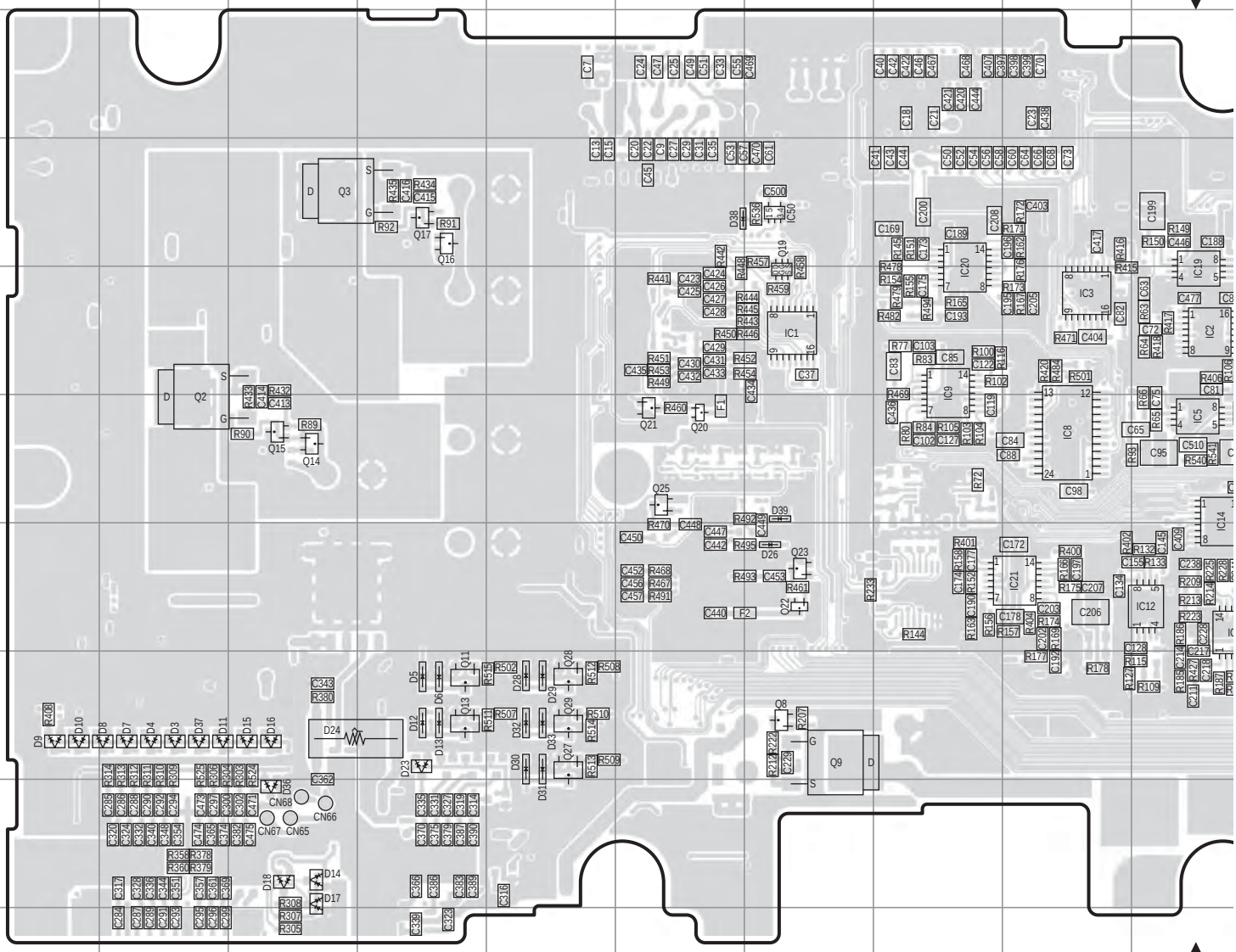
CONTROL UNIT (X53-4130-XX) -10 : K5 -11 : For service
Component side view (J79-0011-29)



Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

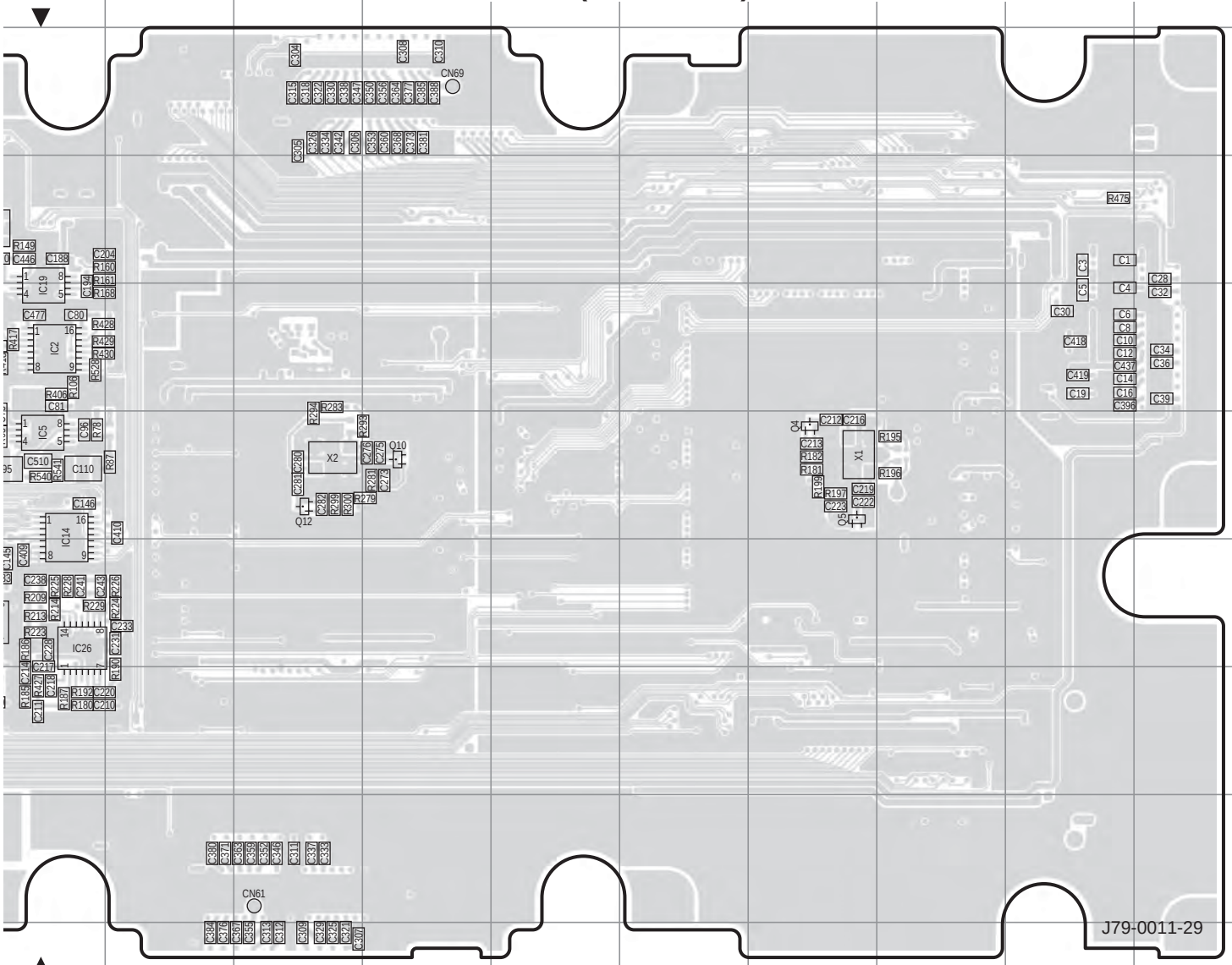
NXR-800 PC BOARD

CONTROL UNIT (X53-4130-XX) -10 : K5 -11 : For service
Foil side view (J79-0011-29)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	5G	Q2	6B	Q17	4D	D6	8D	D23	8D
IC2	5J	Q3	4C	Q19	5G	D7	8B	D24	8C
IC3	5I	Q4	6P	Q20	6F	D8	8B	D26	7G
IC5	6J	Q5	6P	Q21	6F	D9	8A	D28	8E
IC8	6I	Q8	8G	Q22	7G	D10	8A	D29	8E
IC9	5H	Q9	8G	Q23	7G	D11	8B	D30	8E
IC12	7J	Q10	6M	Q25	6F	D12	8D	D31	8E
IC14	6J	Q11	8D	Q27	8E	D13	8D	D32	8E
IC19	5J	Q12	6L	Q28	8E	D14	9C	D33	8E
IC20	5H	Q13	8D	Q29	8E	D15	8C	D36	9C
IC21	7I	Q14	6C	D3	8B	D16	8C	D37	8B
IC26	7J	Q15	6C	D4	8B	D17	9C	D38	4F
IC50	4G	Q16	4D	D5	8D	D18	9C	D39	6G

CONTROL UNIT (X53-4130-XX) -10 : K5 -11 : For service
Foil side view (J79-0011-29)



Component side

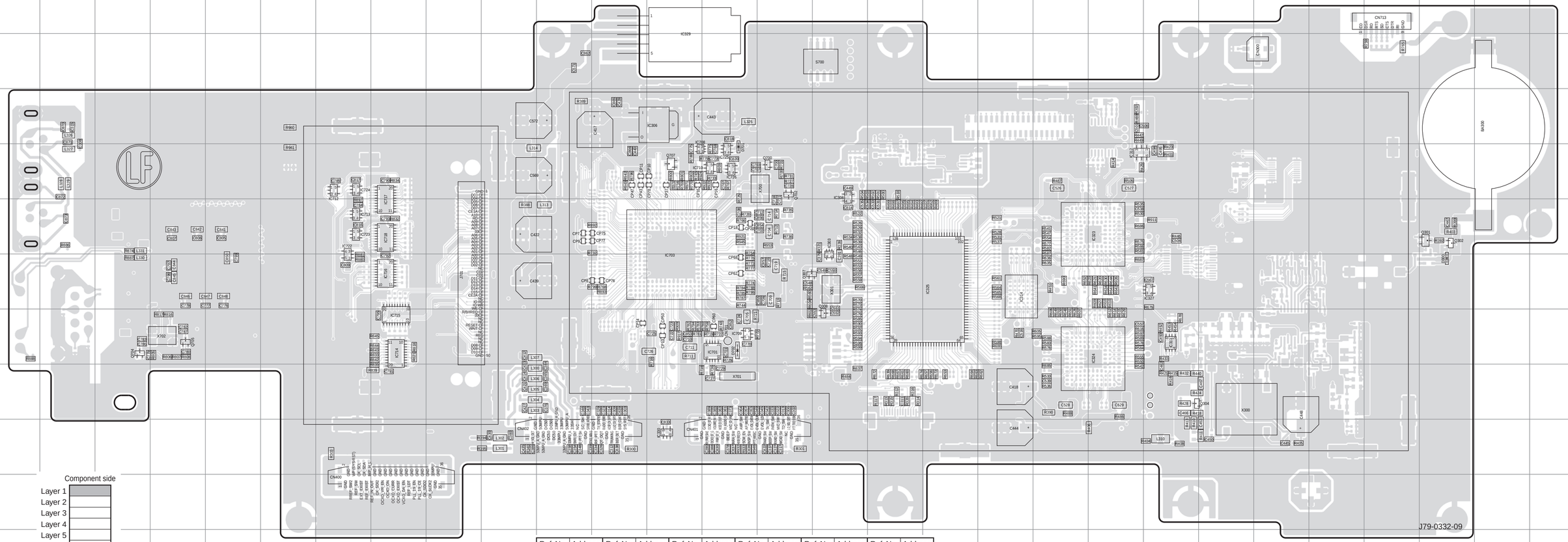
Layer 1	
Layer 2	
Layer 3	
Layer 4	

Foil side

MEMO

CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Component side view (J79-0332-09)

CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Component side view (J79-0332-09)



Component side

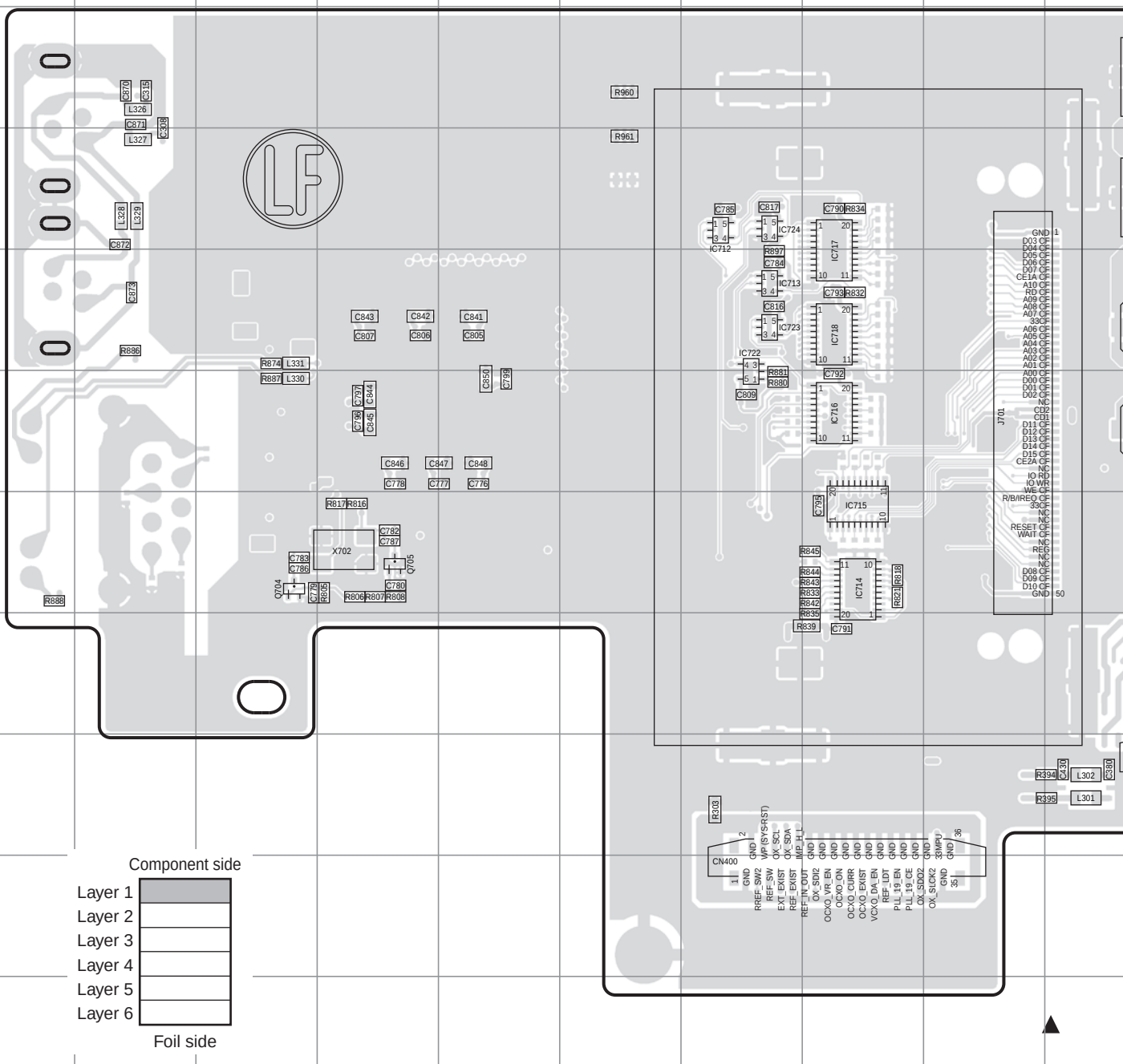
Layer 1	
Layer 2	
Layer 3	
Layer 4	
Layer 5	
Layer 6	

Foil side

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC303	7P	IC324	8U	IC708	5M	IC716	7H	IC726	5N	Q702	5O
IC306	4M	IC325	7R	IC709	8N	IC717	5H	Q301	6AA	Q704	8C
IC308	5P	IC327	7V	IC710	5N	IC718	6H	Q302	6AA	Q705	8D
IC312	5U	IC329	3M	IC712	5G	IC722	7G	Q304	9V	Q707	5M
IC313	8V	IC330	10M	IC713	6G	IC723	6G	Q307	7O	D300	7AA
IC314	7S	IC701	8N	IC714	8H	IC724	5G	Q308	8P	D701	5N
IC323	6U	IC703	7M	IC715	8H	IC725	5N	Q700	5O	D702	8N

A B C D E F G H I J

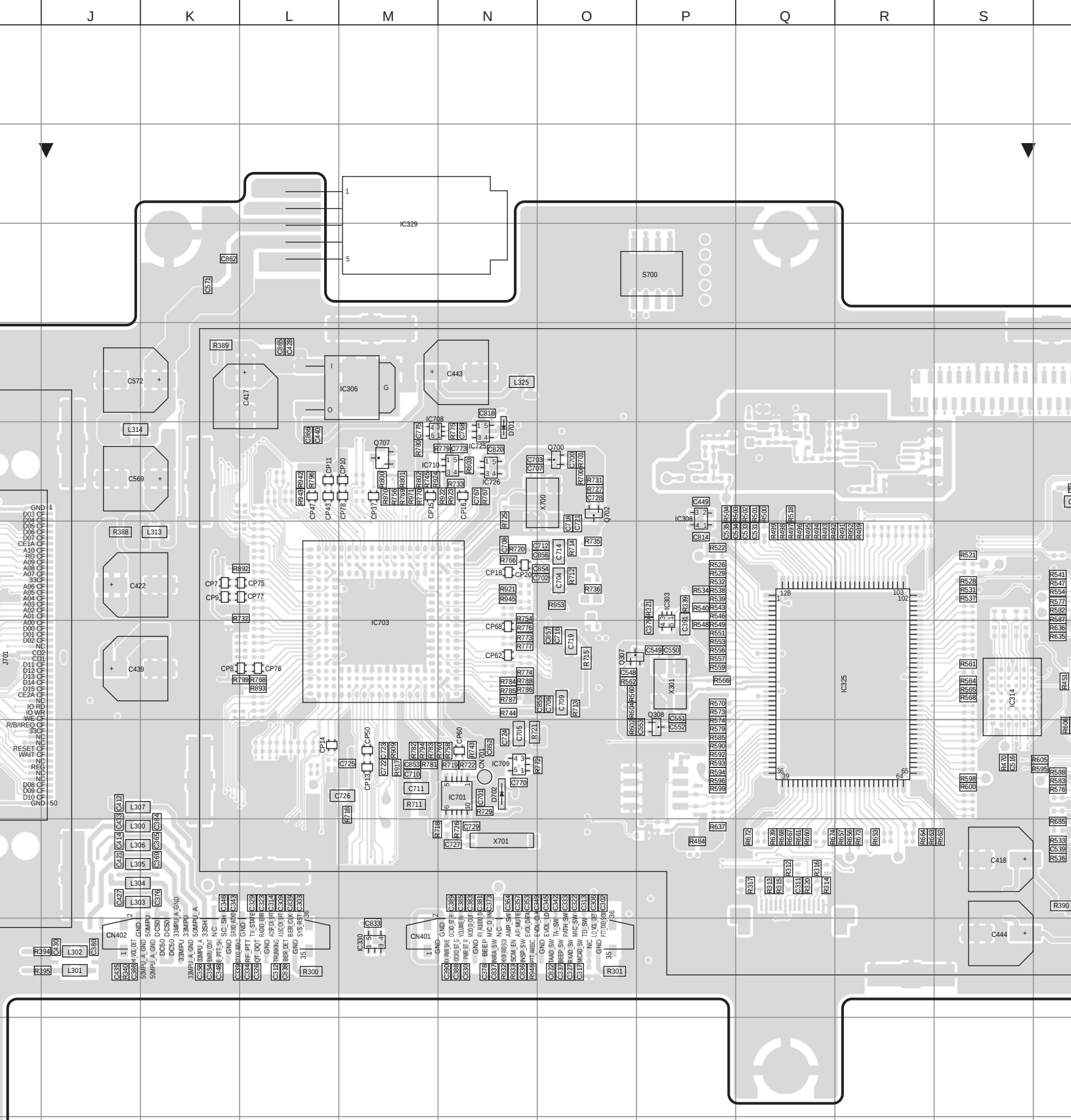
CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Component side view (J79-0332-09)



Component side

Layer 1	
Layer 2	
Layer 3	
Layer 4	
Layer 5	
Layer 6	

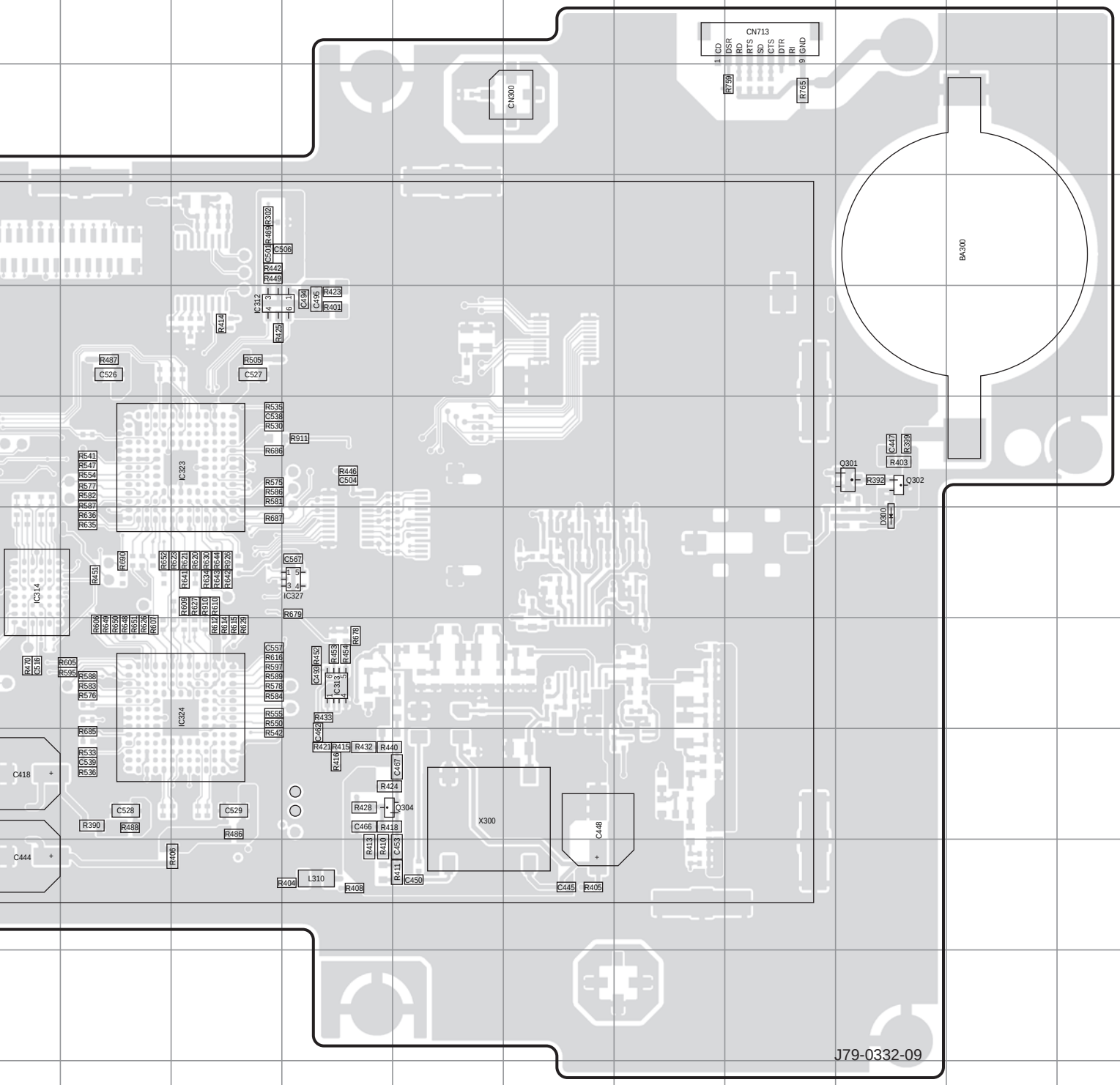
Foil side



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC303	7P	IC324	8U	IC708	5M	IC716	7H	IC726	5N	Q702	5O
IC306	4M	IC325	7R	IC709	8N	IC717	5H	Q301	6AA	Q704	8C
IC308	5P	IC327	7V	IC710	5N	IC718	6H	Q302	6AA	Q705	8D
IC312	5U	IC329	3M	IC712	5G	IC722	7G	Q304	9V	Q707	5M
IC313	8V	IC330	10M	IC713	6G	IC723	6G	Q307	7O	D300	7AA
IC314	7S	IC701	8N	IC714	8H	IC724	5G	Q308	8P	D701	5N
IC323	6U	IC703	7M	IC715	8H	IC725	5N	Q700	5O	D702	8N

PC BOARD NXR-800

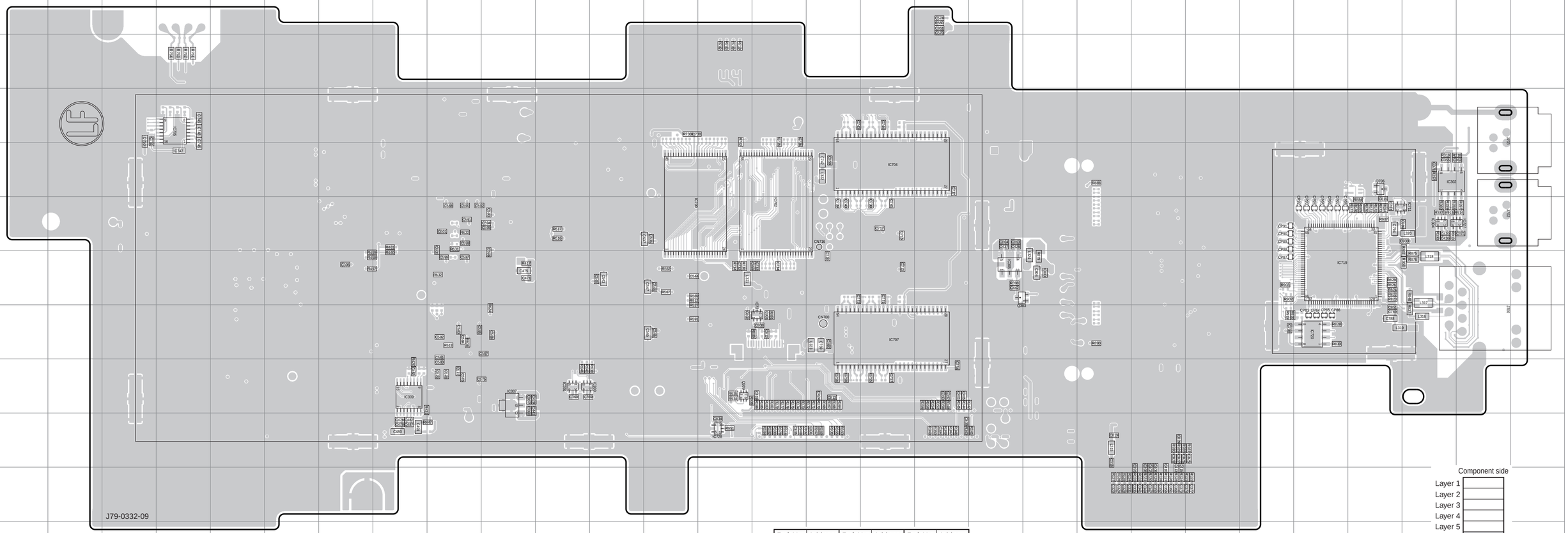
CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Component side view (J79-0332-09)



J79-0332-09

NXR-800 PC BOARD

CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Foil side view (J79-0332-09)



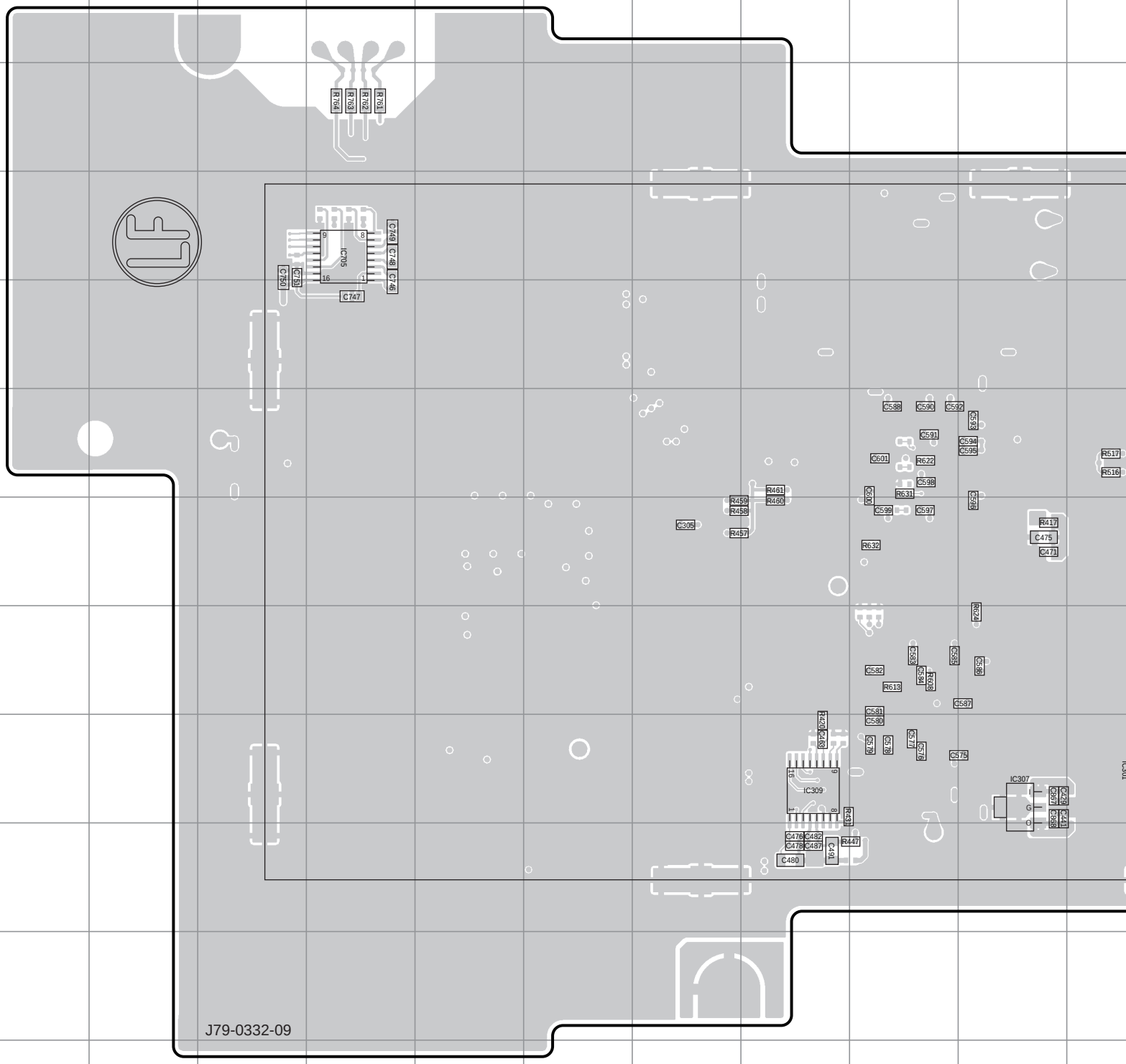
CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Foil side view (J79-0332-09)

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC300	9K	IC700	6M	IC720	8Y
IC301	9K	IC702	6O	IC721	8O
IC302	5AA	IC704	5Q	IC727	6AB
IC304	6AA	IC705	4D	IC728	10N
IC305	7S	IC707	8Q	Q303	7S
IC307	9J	IC711	6Z	Q309	9N
IC309	9H	IC719	7Y	Q706	5Z

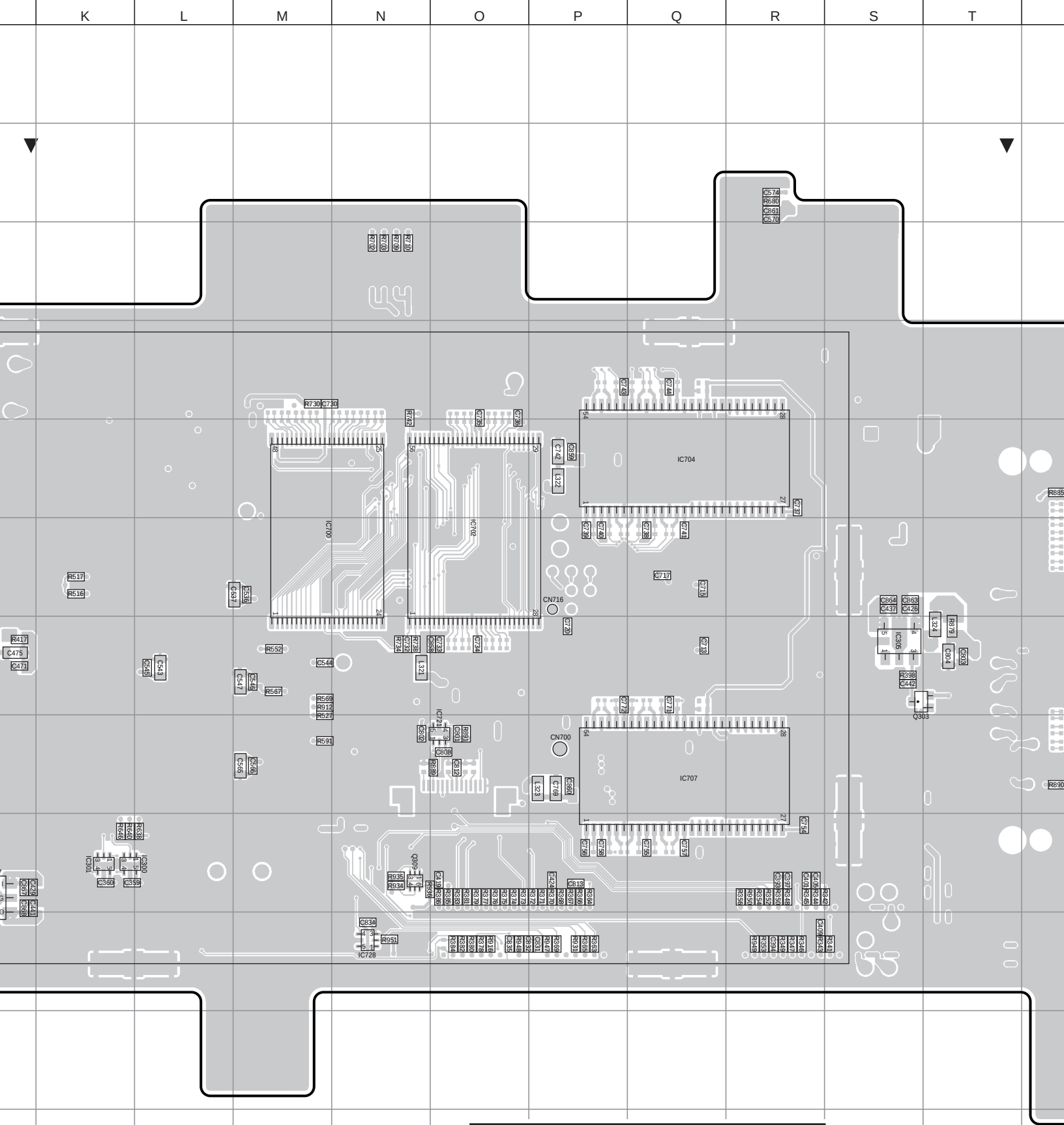
Component side
Layer 1
Layer 2
Layer 3
Layer 4
Layer 5
Layer 6
Foil side

NXR-800 PC BOARD

CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Foil side view (J79-0332-09)



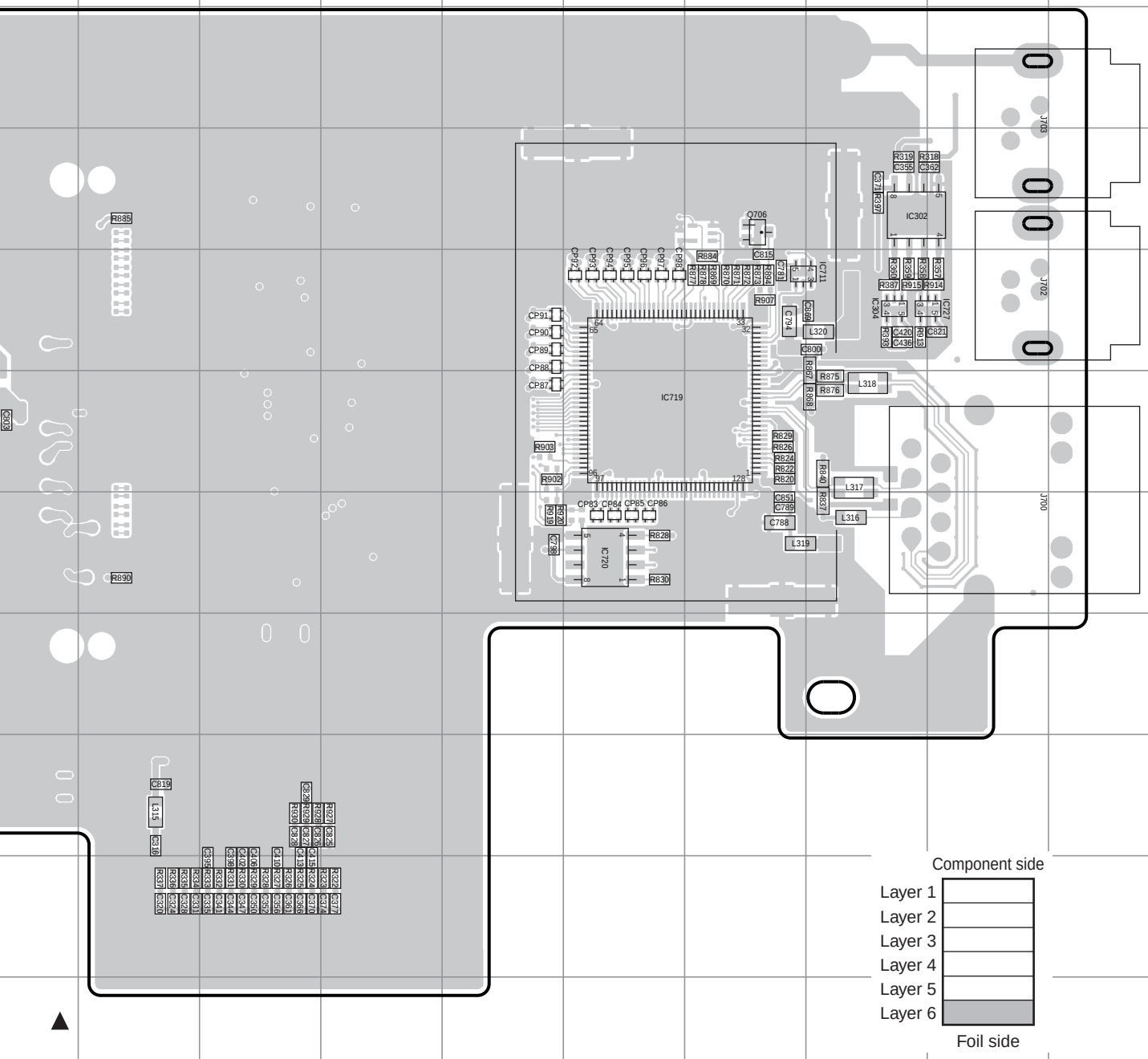
J79-0332-09



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC300	9K	IC700	6M	IC720	8Y
IC301	9K	IC702	6O	IC721	8O
IC302	5AA	IC704	5Q	IC727	6AB
IC304	6AA	IC705	4D	IC728	10N
IC305	7S	IC707	8Q	Q303	7S
IC307	9J	IC711	6Z	Q309	9N
IC309	9H	IC719	7Y	Q706	5Z

T U V W X Y Z AA AB AC

CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Foil side view (J79-0332-09)



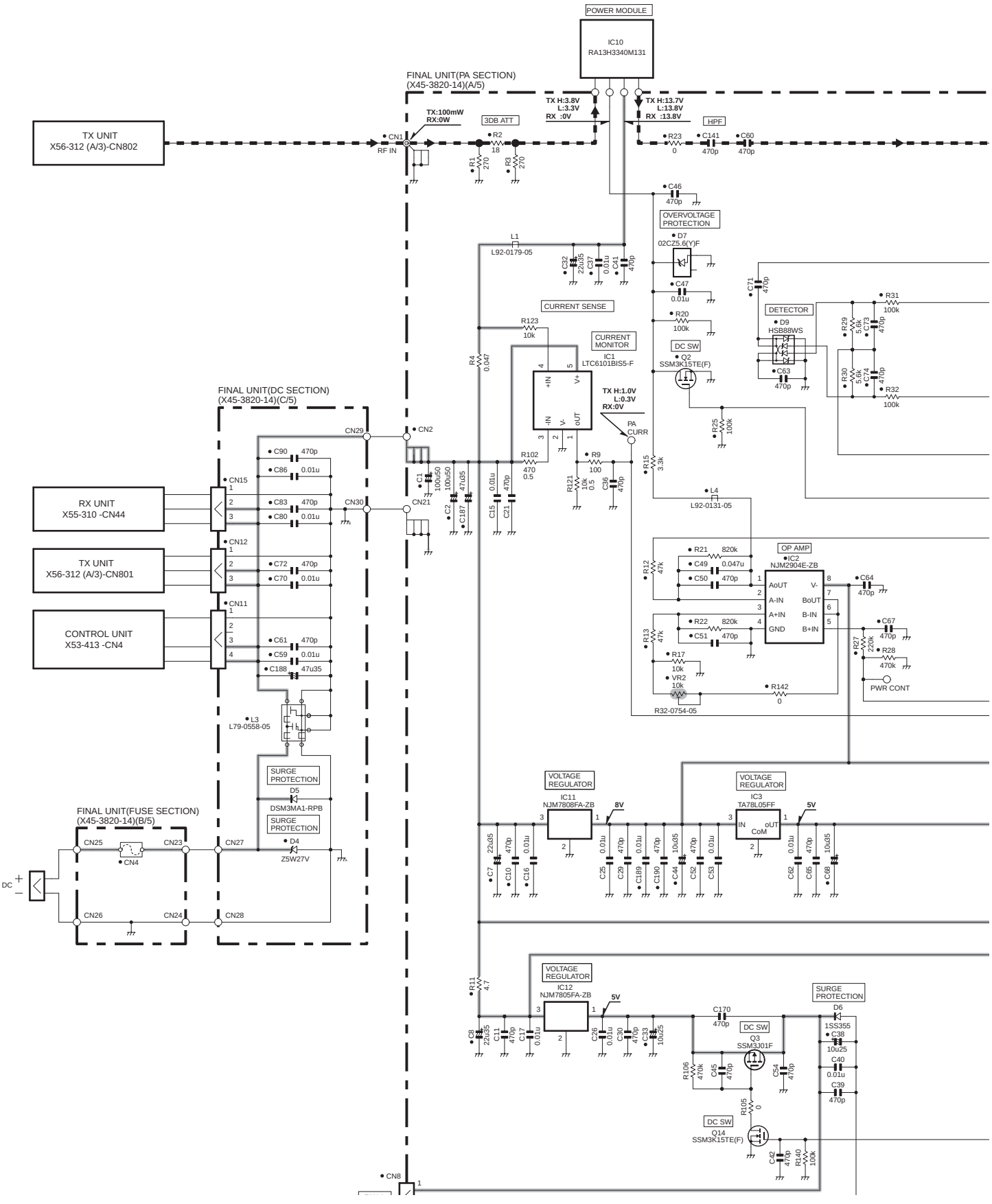
Component side

Layer 1	
Layer 2	
Layer 3	
Layer 4	
Layer 5	
Layer 6	

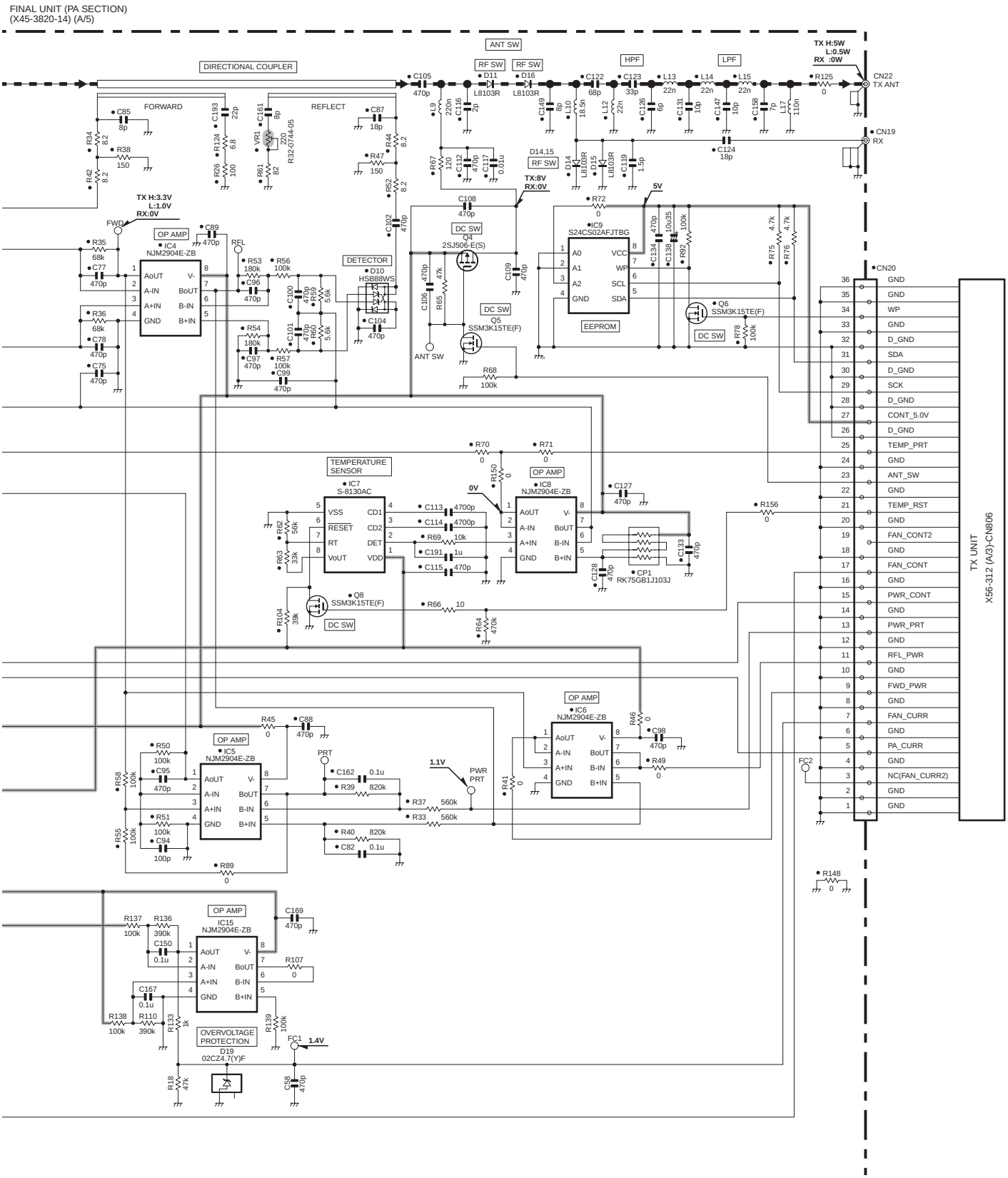
Foil side

MEMO

NXR-800 SCHEMATIC DIAGRAM

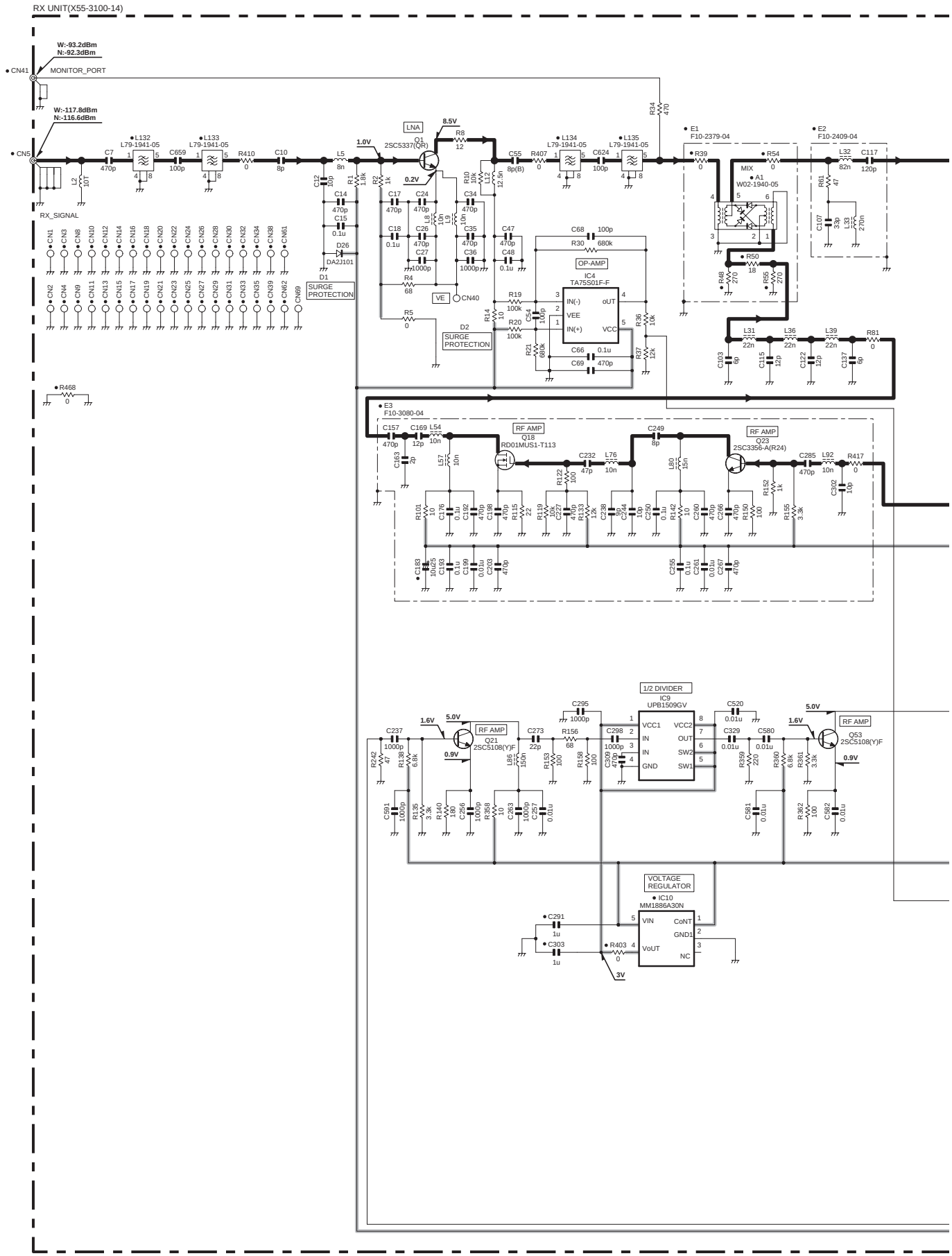


SCHEMATIC DIAGRAM NXR-800



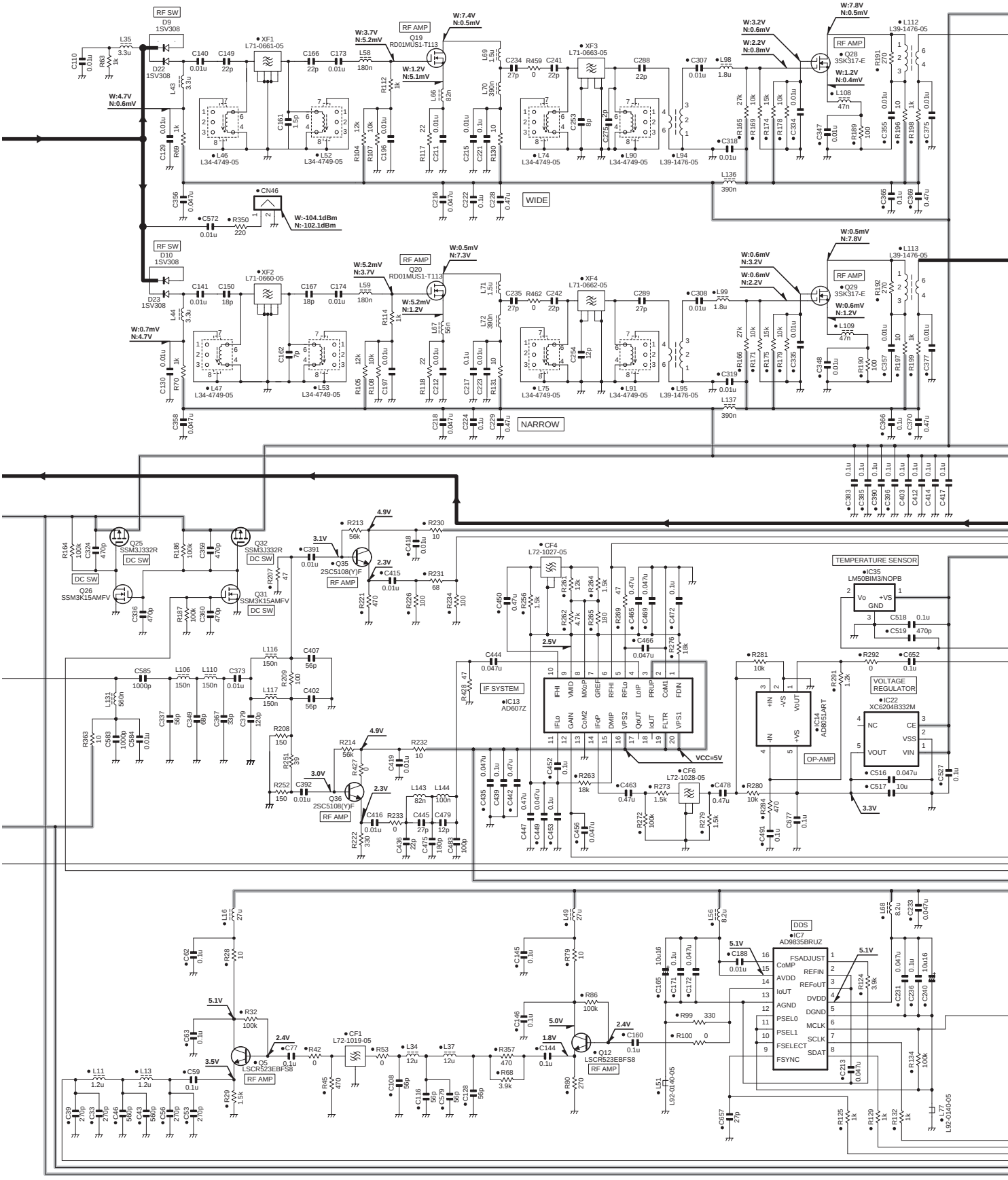
Note : The components marked with a dot (•) are parts of layer 1.

NXR-800 SCHEMATIC DIAGRAM



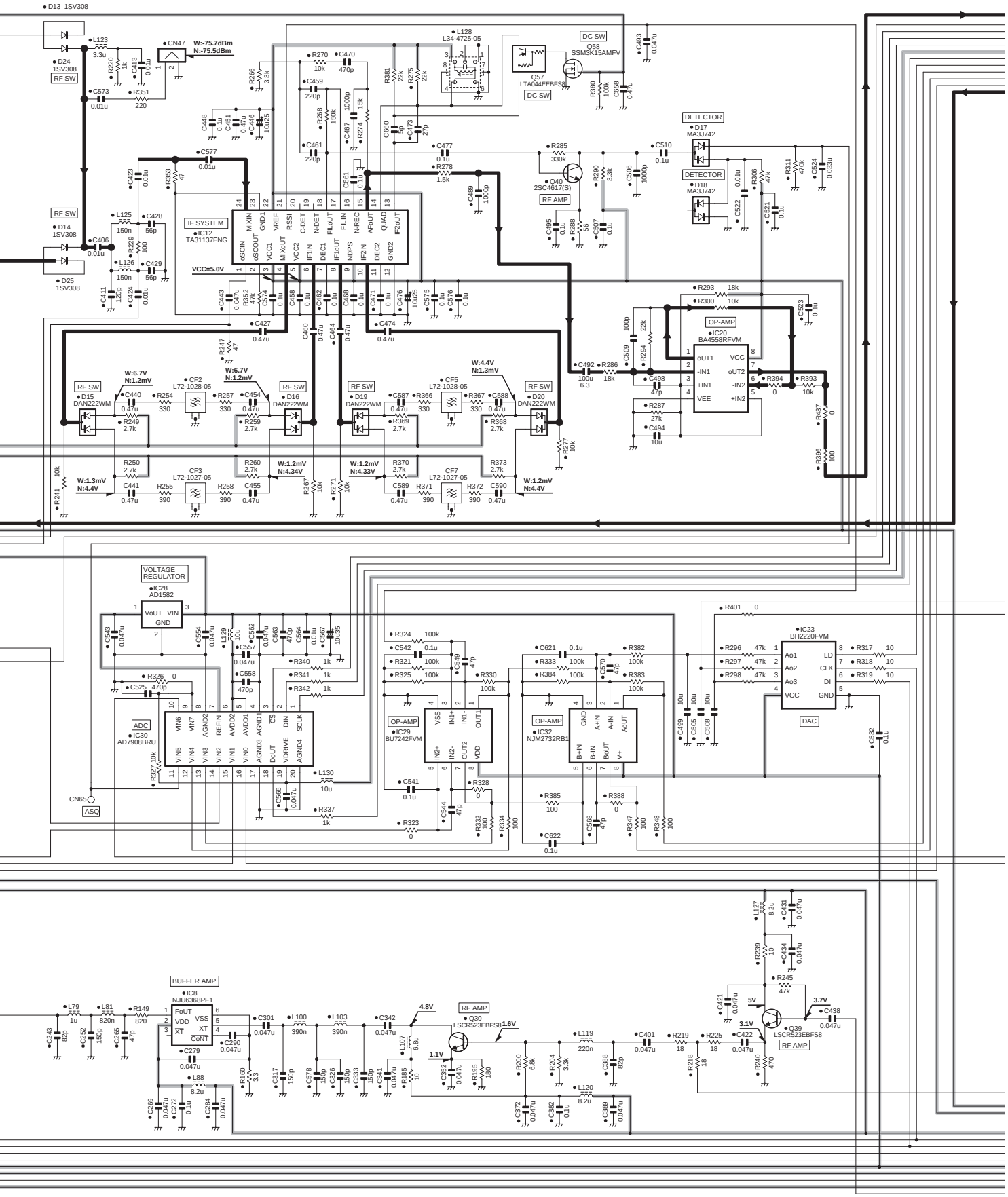
SCHEMATIC DIAGRAM NXR-800

RX UNIT (X55-3100-14)



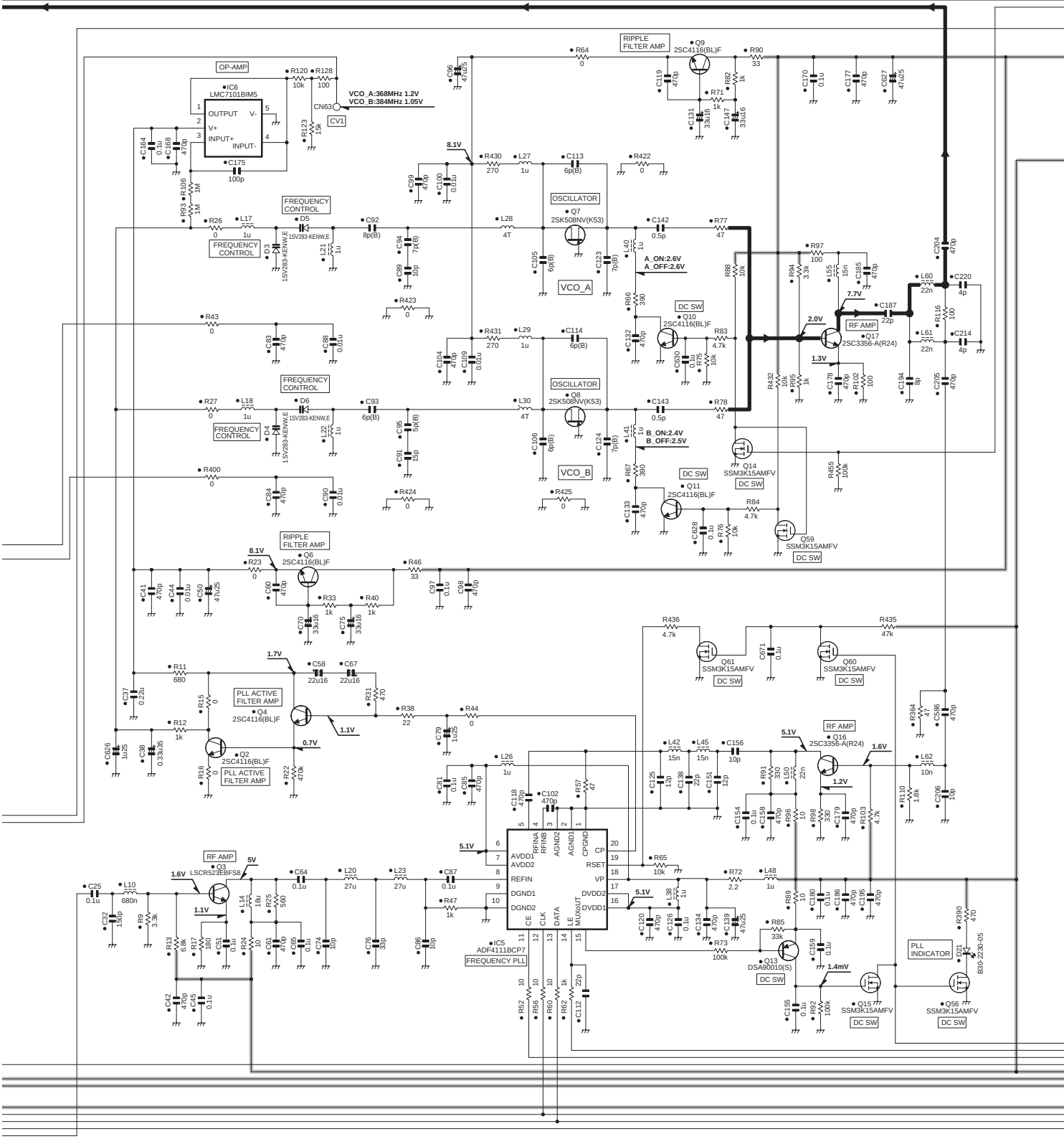
NXR-800 SCHEMATIC DIAGRAM

RX UNIT (X55-3100-14)



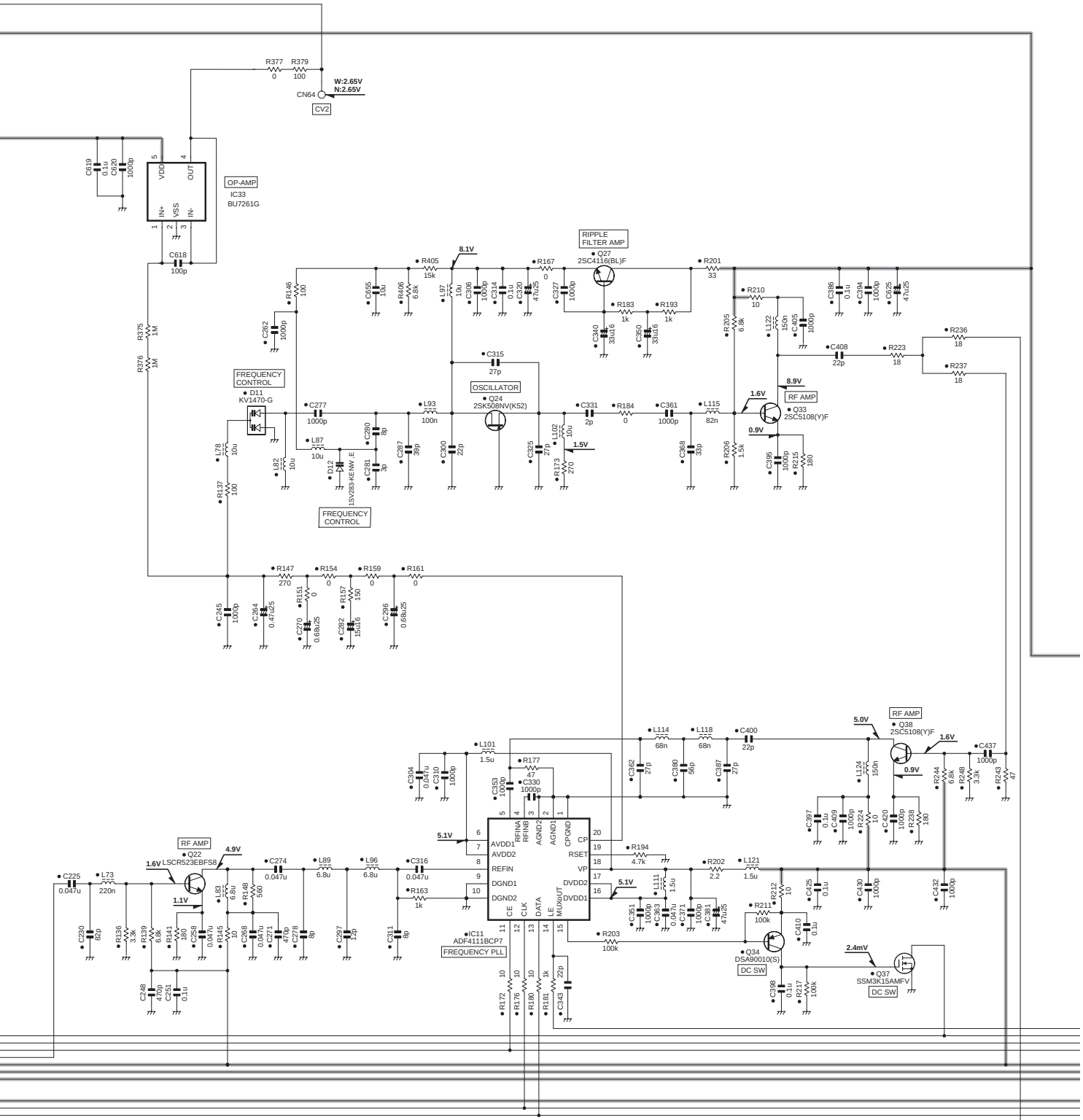
SCHEMATIC DIAGRAM NXR-800

RX UNIT (X55-3100-14)



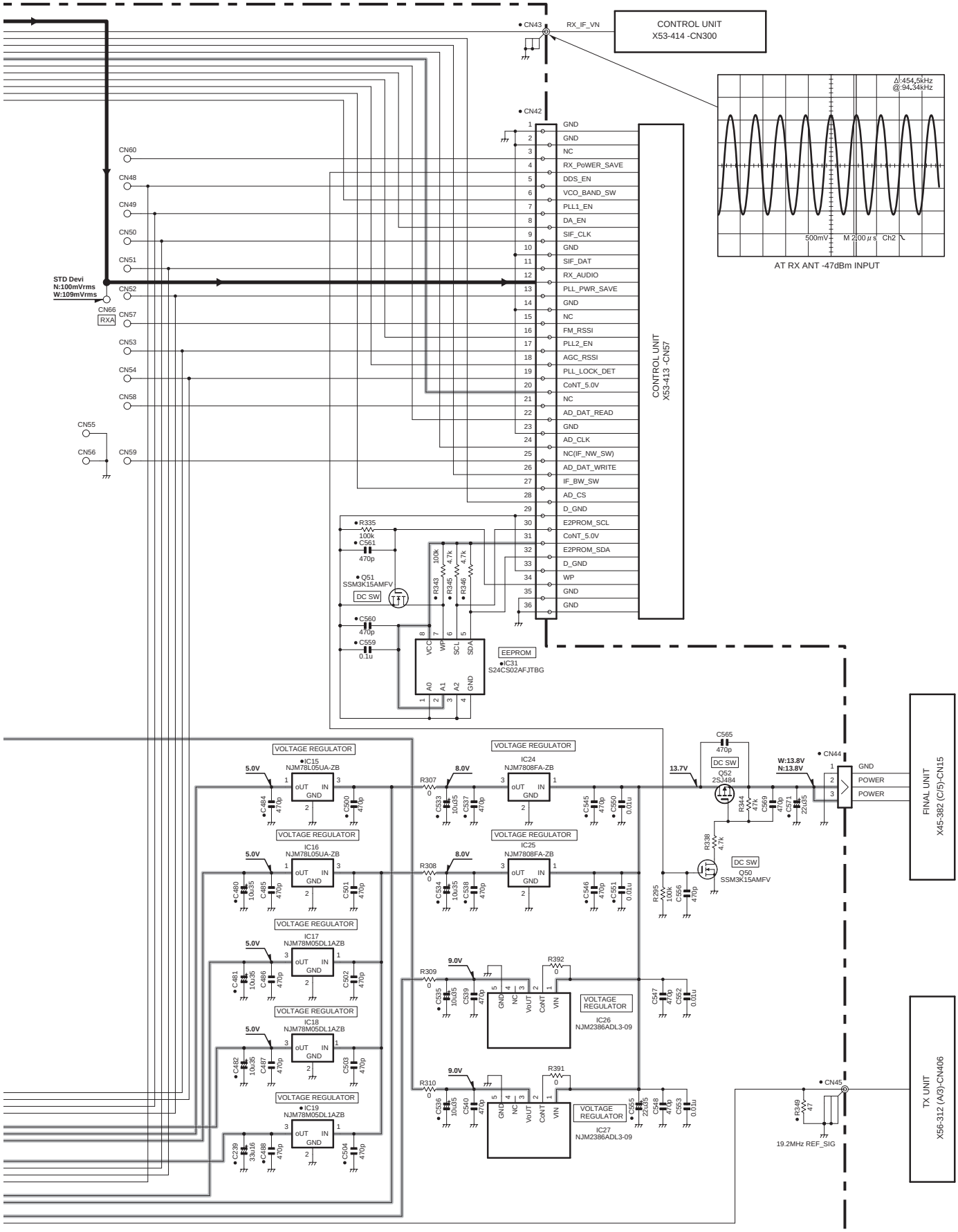
NXR-800 SCHEMATIC DIAGRAM

RX UNIT (X55-3100-14)



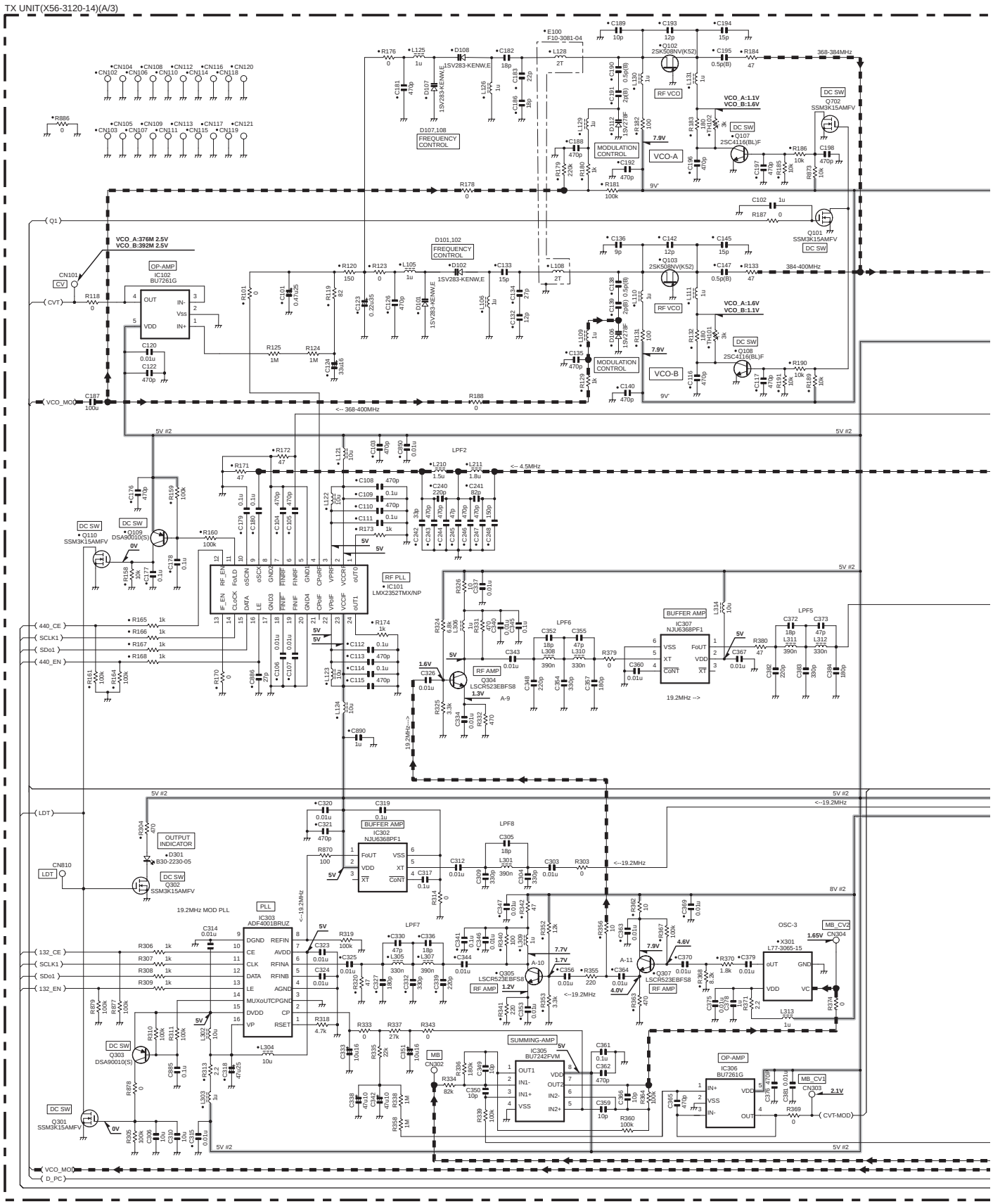
SCHEMATIC DIAGRAM NXR-800

RX UNIT (X55-3100-14)



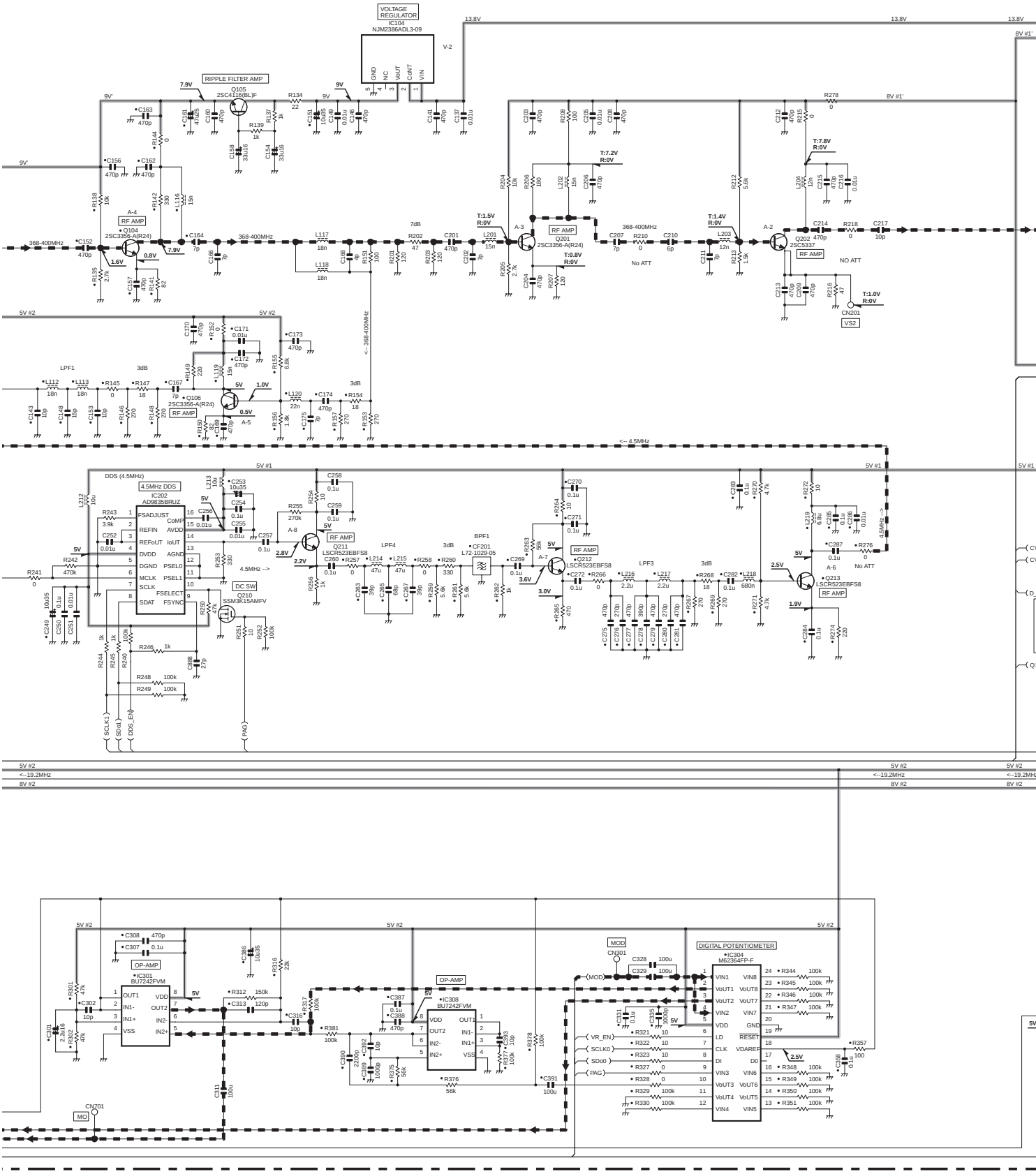
Note : The components marked with a dot (•) are parts of layer 1.

NXR-800 SCHEMATIC DIAGRAM



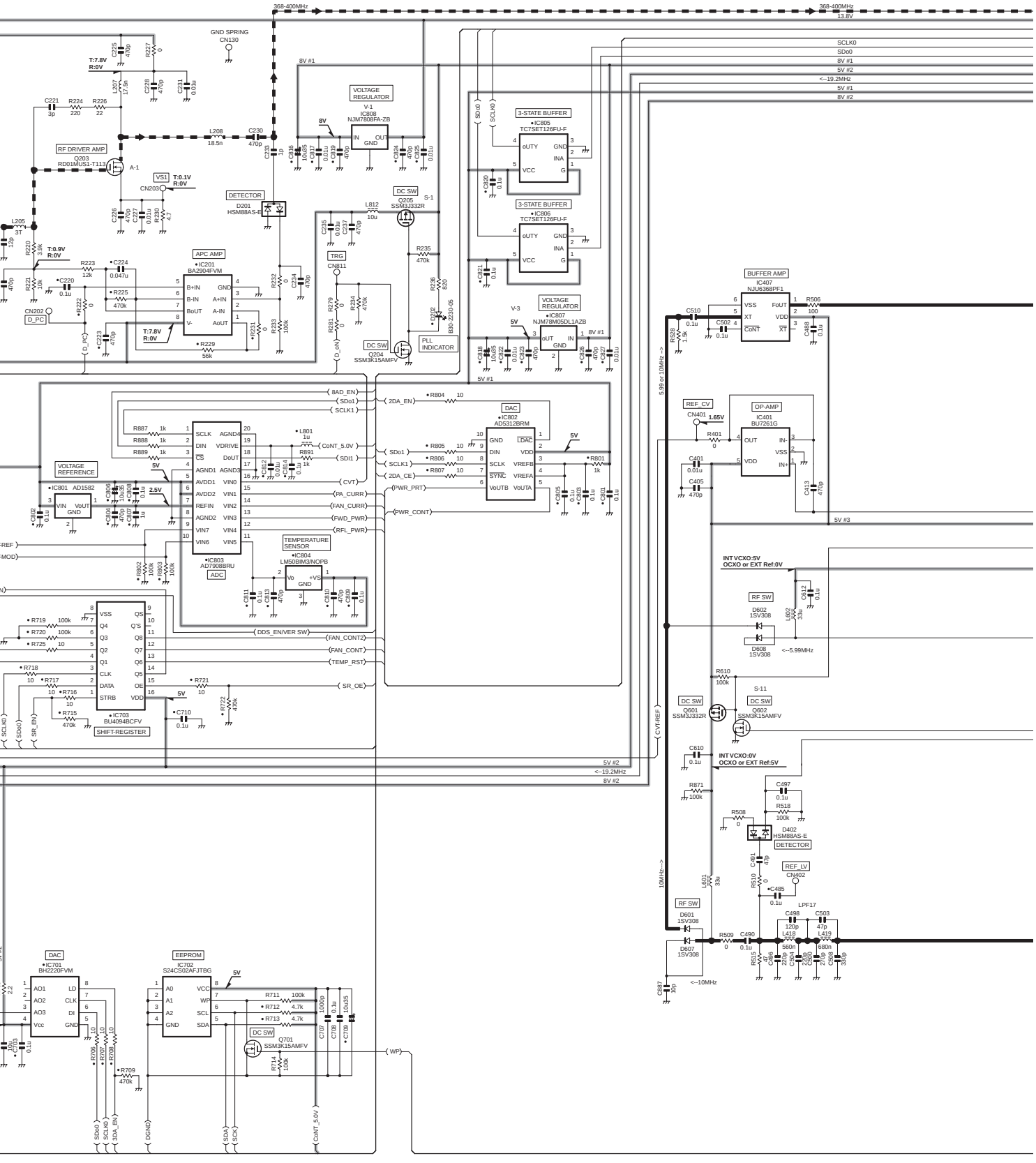
SCHEMATIC DIAGRAM NXR-800

TX UNIT (X56-3120-14) (A/3)



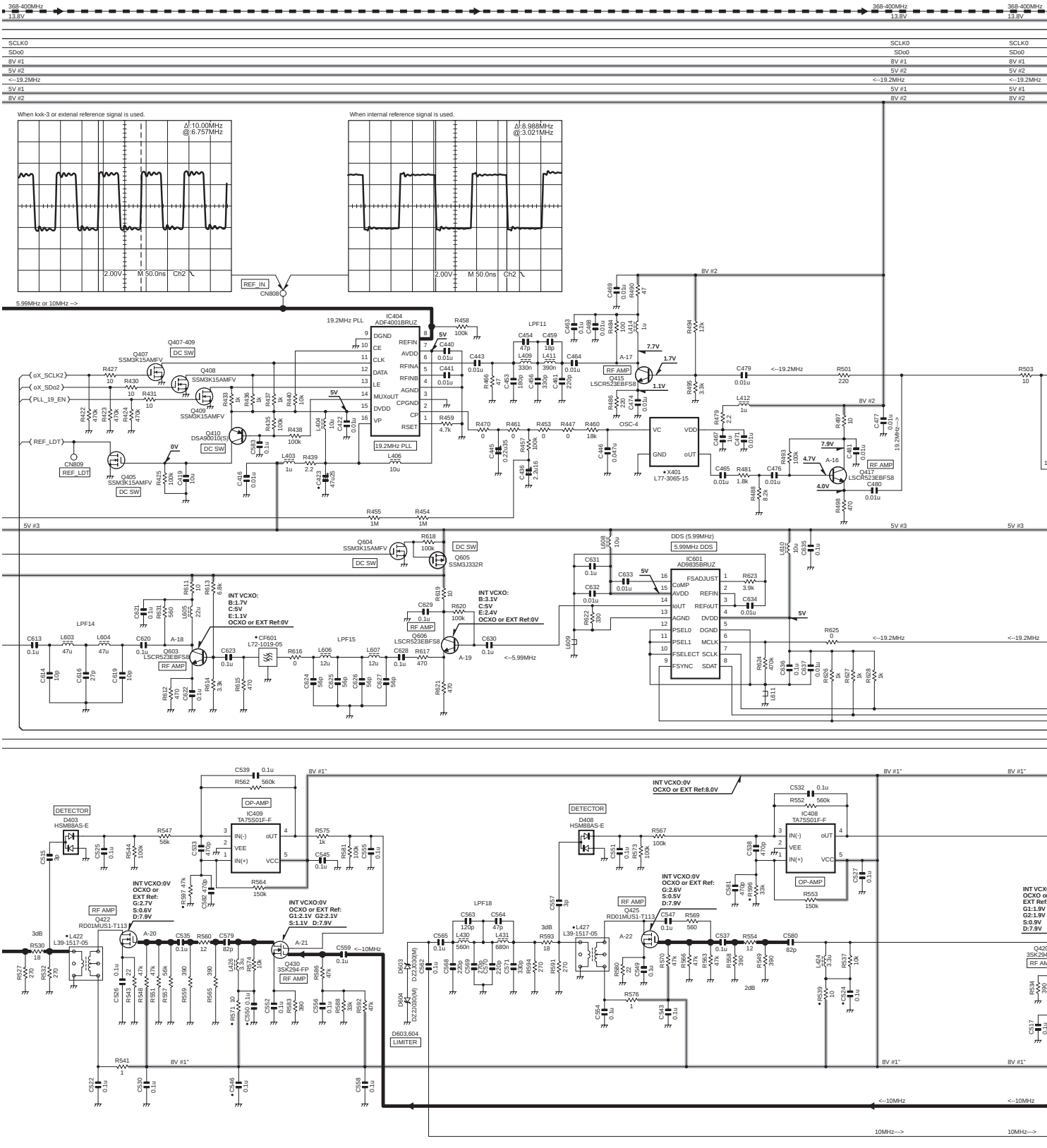
NXR-800 SCHEMATIC DIAGRAM

TX UNIT (X56-3120-14) (A/3)



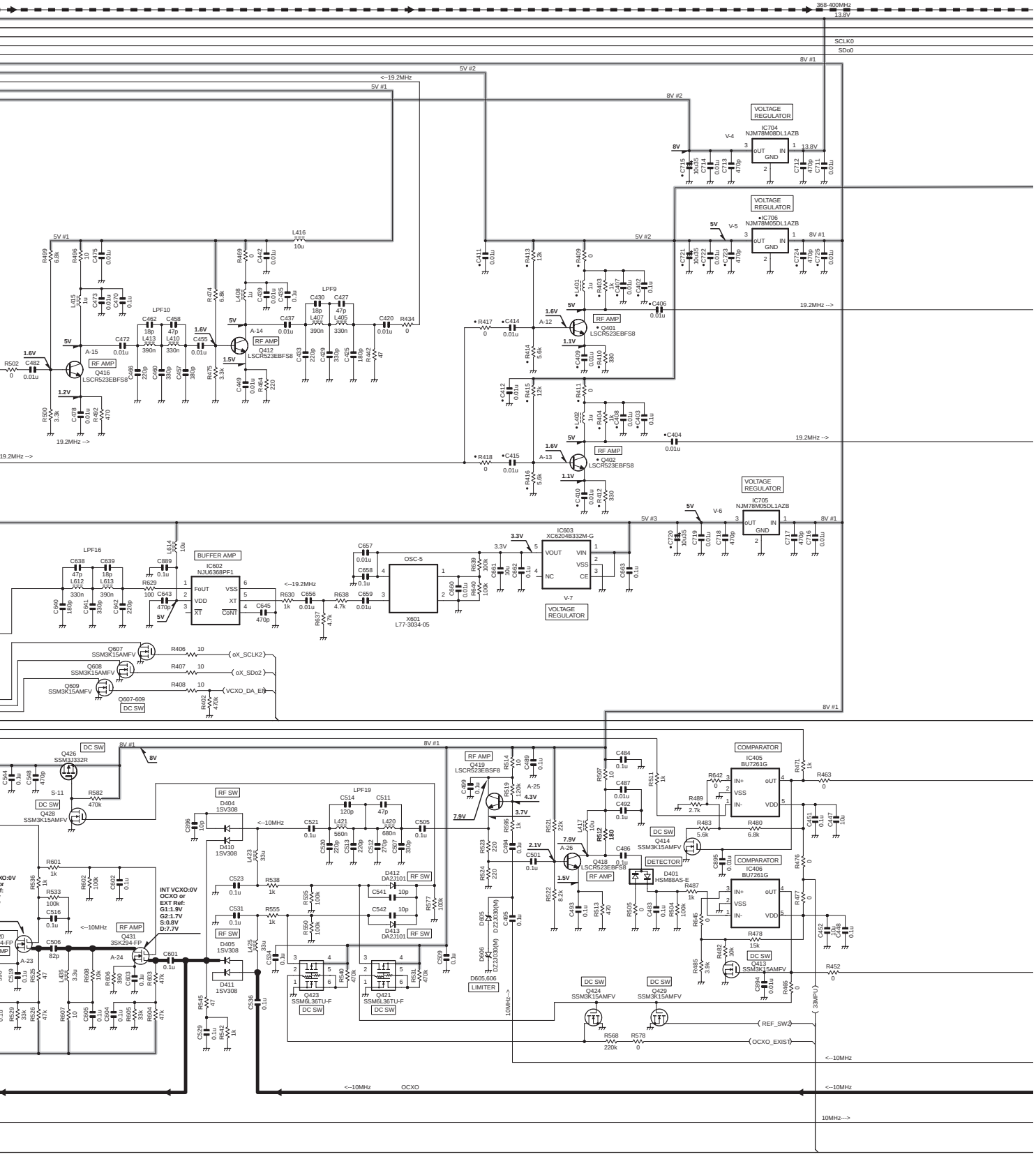
SCHEMATIC DIAGRAM NXR-800

TX UNIT (X56-3120-14) (A/3)

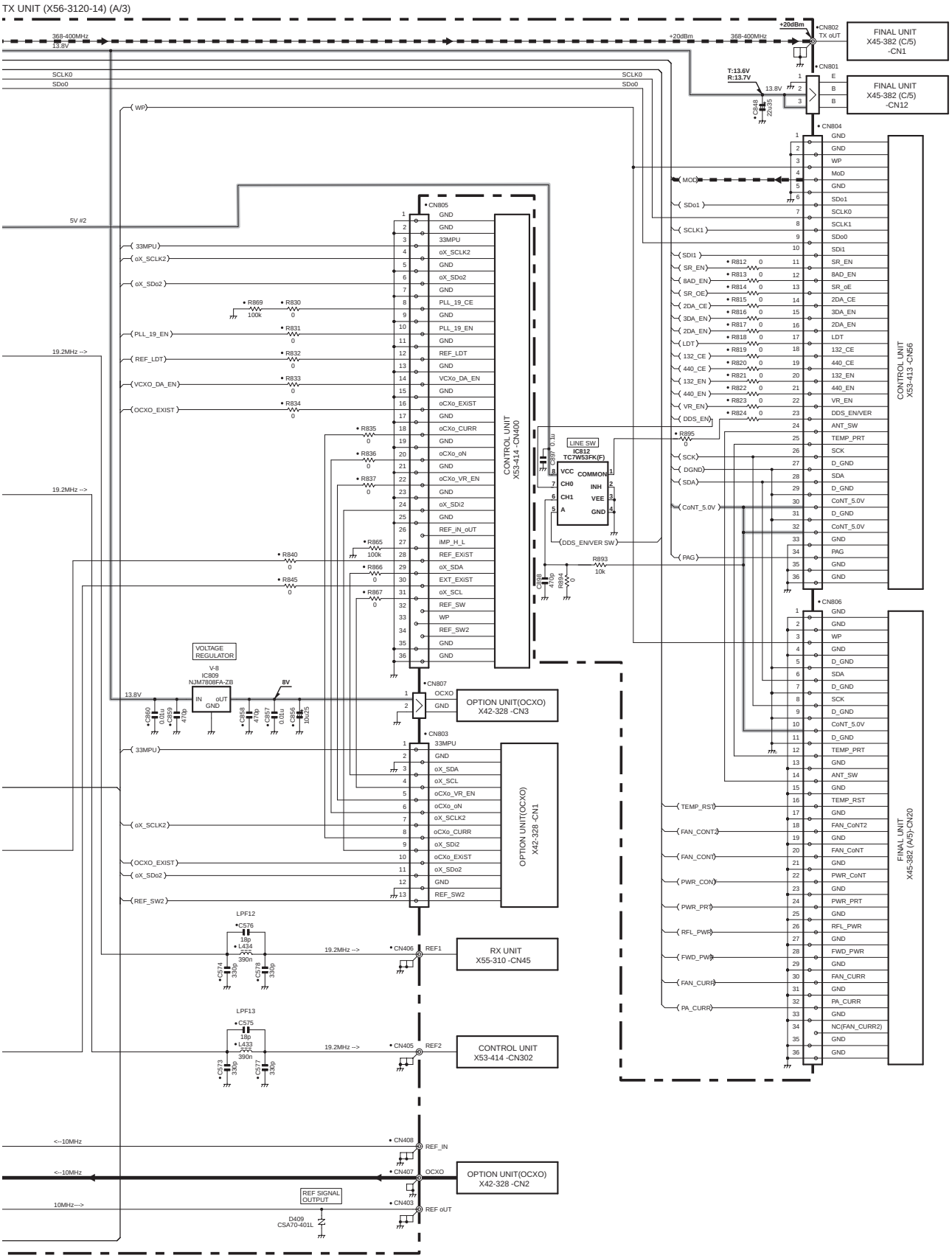


NXR-800 SCHEMATIC DIAGRAM

TX UNIT (X56-3120-14) (A/3)

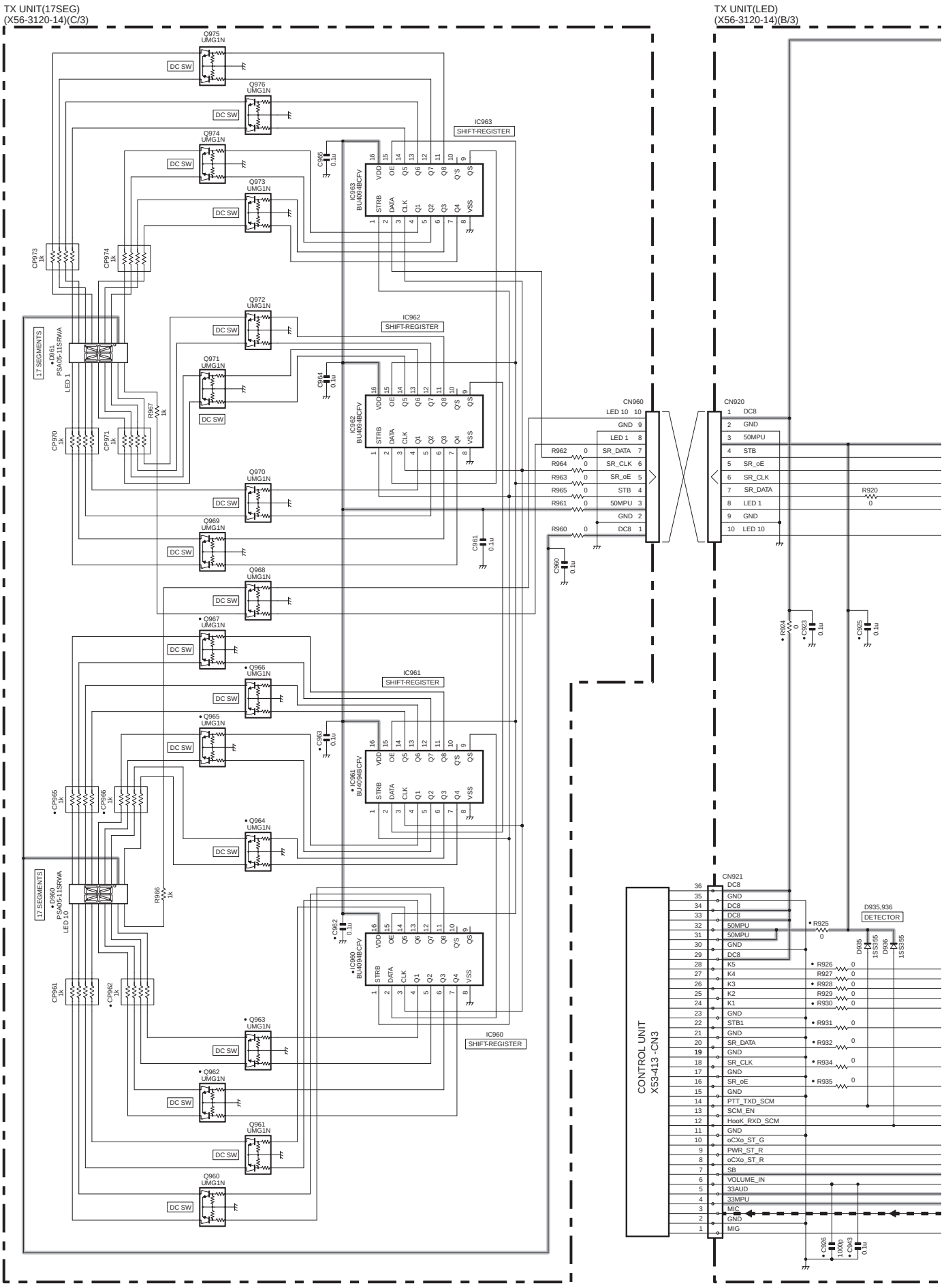


SCHEMATIC DIAGRAM NXR-800



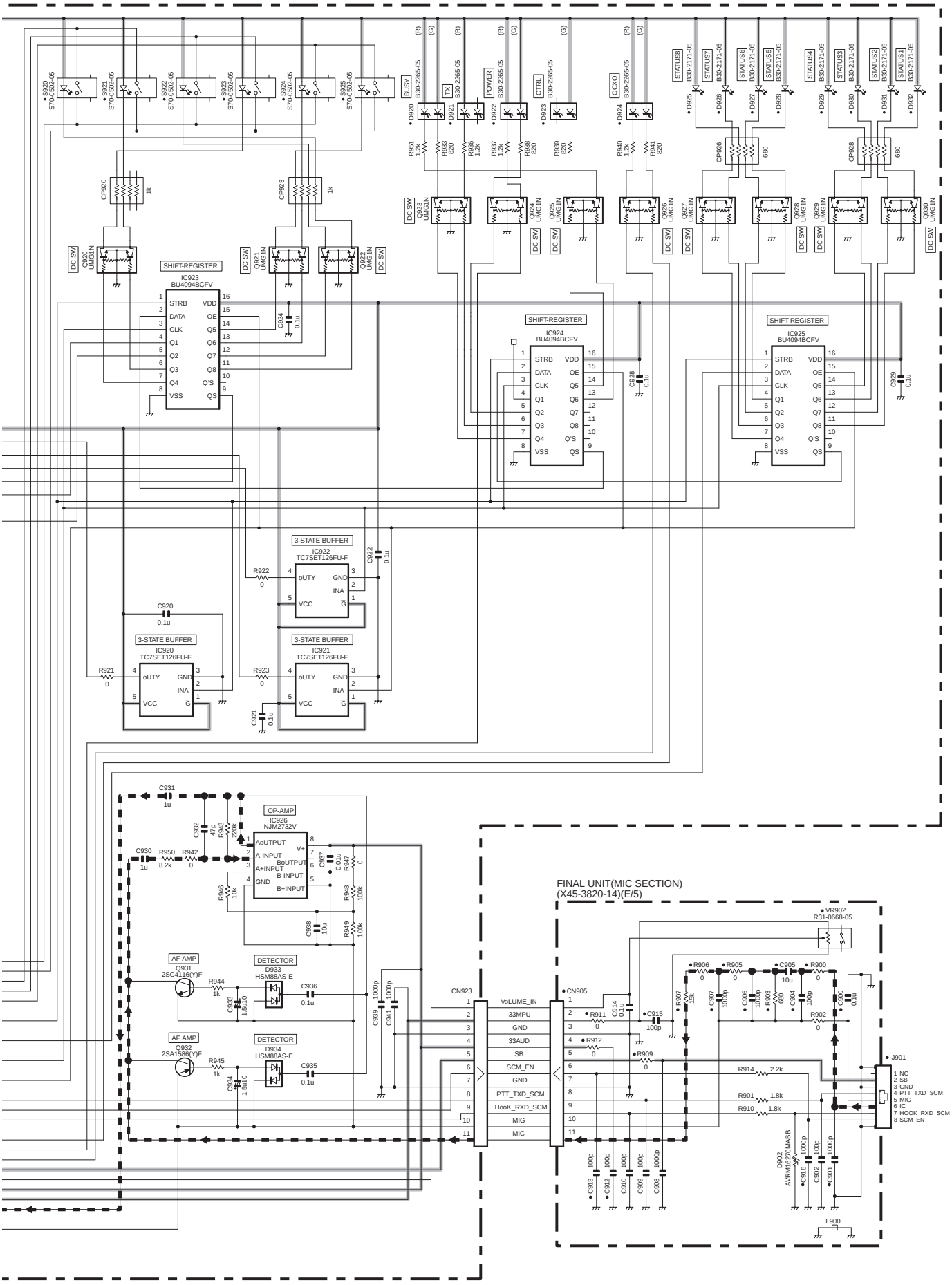
Note : The components marked with a dot (•) are parts of layer 1.

NXR-800 SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM NXR-800

TX UNIT (LED)
(X56-3120-14) (B/3)



Note : The components marked with a dot (•) are parts of layer 1.

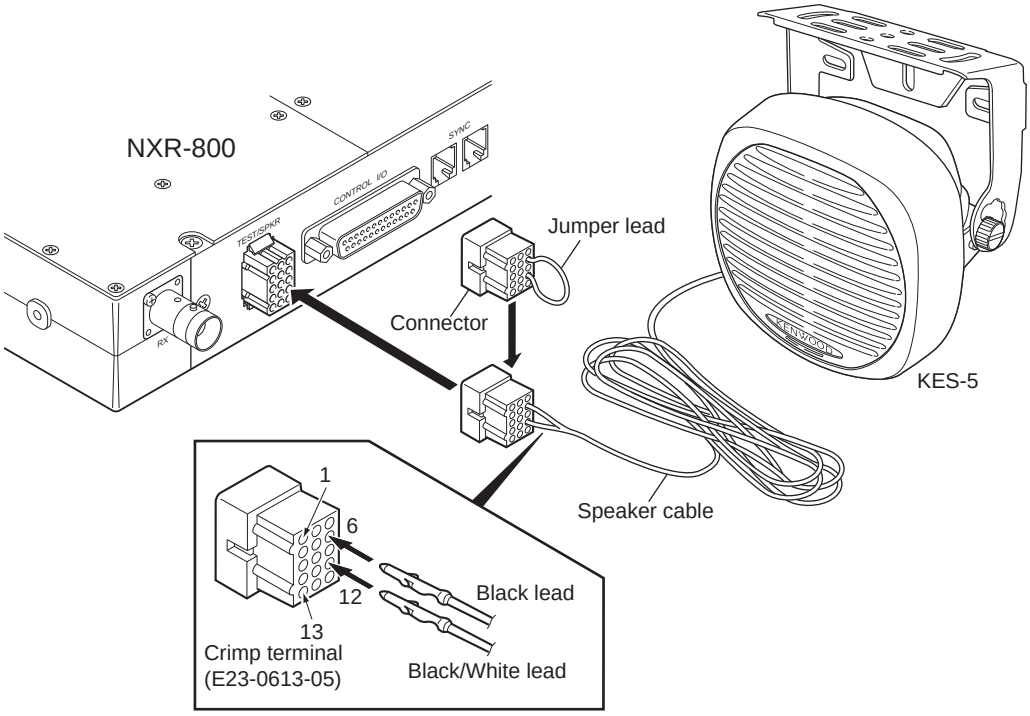
OPTIONAL ACCESSORIES: KES-5 (EXTERNAL SPEAKER)

When Using an External Speaker

1. Make sure the unit's power is tuned off.
2. When using the external speaker, remove the jumper lead from the connector, and attach the speaker cable.
3. When not using the external speaker, replace the jumper lead and insert the connector into the speaker jack (pin 9 and 12).

Specifications

Maximum input power 40W
Impedance..... 4Ω
Dimensions (W x H x D) projection not included
..... 129 x 129 x 77 mm (5.08 x 5.08 x 3.03 in)
Weight ..... 820g (1.8 lb)



MEMO

MEMO

SPECIFICATIONS

GENERAL

Frequency Range ..... 368~400MHz
Channel Spacing
  Wide 25kHz
  Narrow 12.5kHz
  VN 6.25KHz
PLL Channel Step 3.125/ 5/ 6.25kHz
Frequency Stability ..... ±1.5ppm
  with OCXO unit ..... ±1.0ppm
Operating Voltage ..... 10.8~15.9V DC
Operating Temperature Range
  –22°F~+140°F (–30°C~+60°C)
Antenna Impedance 50Ω
Dimensions (W x H x D) (Projections not included)
  19.02 x 1.73 x 13.03 in (483 x 44 x 331 mm)
Weight ..... 11 lbs (5kg)

TRANSMITTER

RF Power Output ..... 5~0.5W
Spurious & Harmonics 73dB
FM Hum & Noise
  Wide 55dB
  Narrow 50dB
Modulation
  Wide 16K0F3E
  Narrow 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W
  VN 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D

RECEIVER

Sensitivity
  Digital@6.25kHz (3% BER) 0.27µV
  Digital@12.5kHz (3% BER) 0.33µV
  Analog (12dB SINAD) 0.30µV
Selectivity
  Analog Wide *1 (±25kHz) 87dB
  Analog Narrow *1 (±12.5kHz) 81dB
Intermodulation Distortion
  Analog Wide (±50kHz/±100kHz) 85dB
  Analog Narrow (±50kHz/±100kHz) 78dB
Spurious & Image 100dB
Audio Distortion (at 0.3W) ..... Less than 2%
Audio Output (EXT. SP) 3W/4Ω

*1: Analog measurements made per TIA/EIA 603.
Without *1: Analog measurements made per TIA/EIA 603A.
JVC KENWOOD Corporation reserves the right to change specifications without prior notice or obligation.

NXR-800

KENWOOD

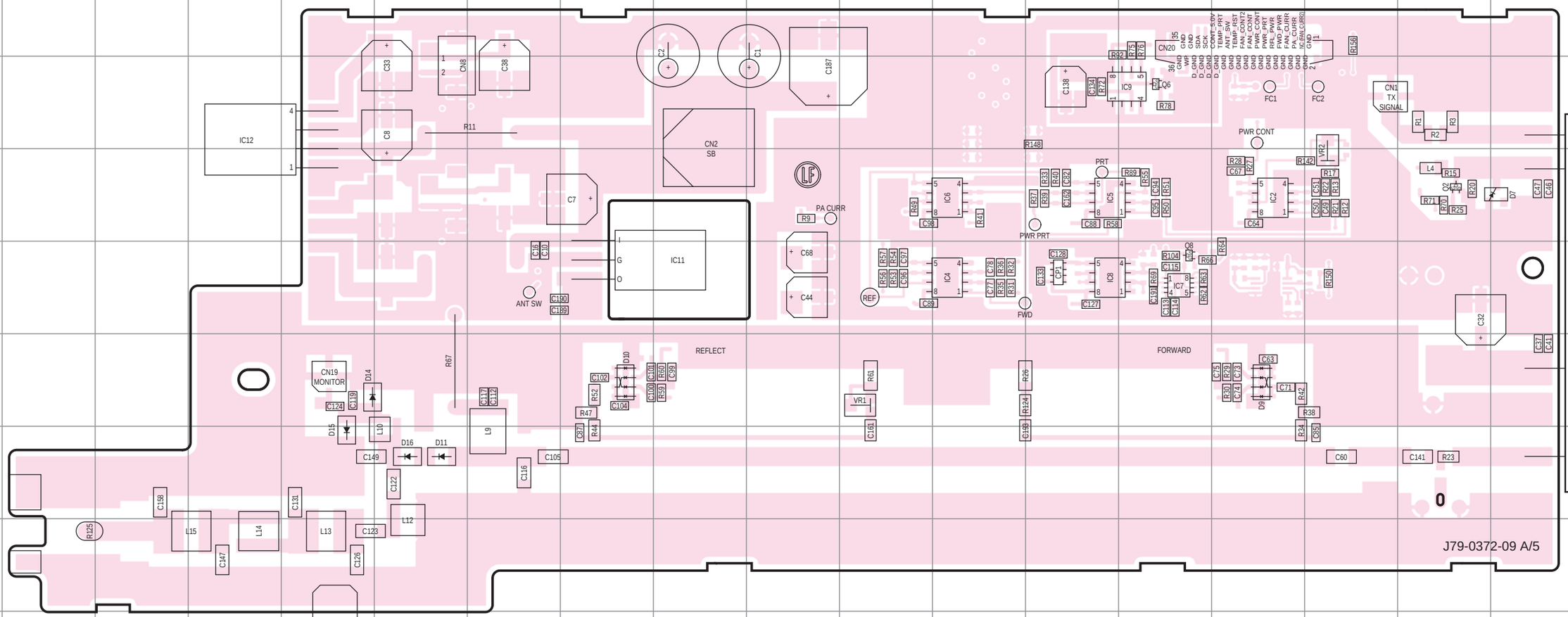
JVC KENWOOD Corporation
Communications Equipment Div

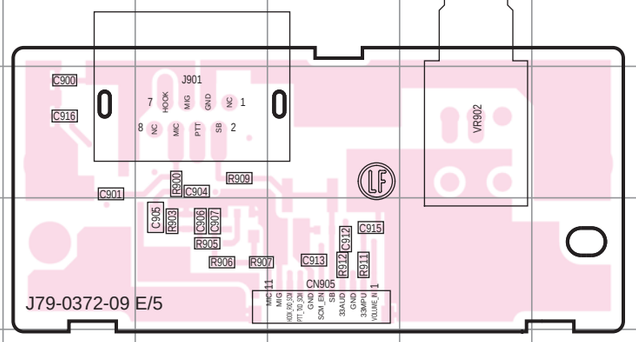
NXR-800 PC BOARD

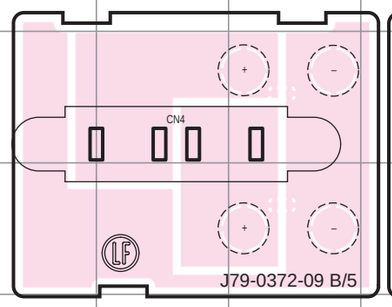
FINAL UNIT (X45-3820-14)
Component side view (J79-0372-09)

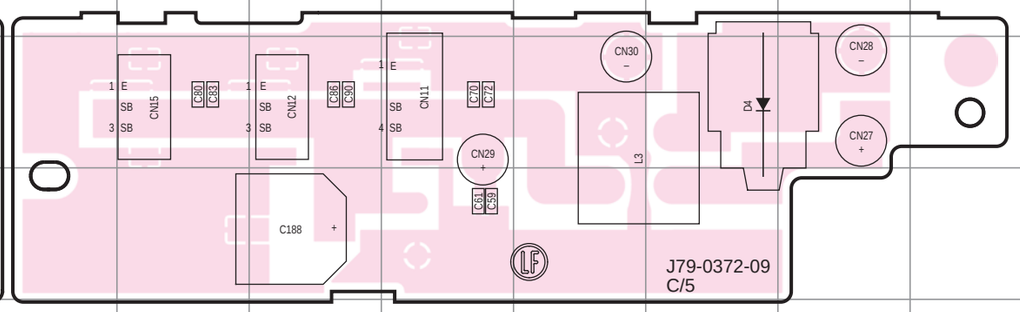
PC BOARD NXR-800

FINAL UNIT (X45-3820-14)
Component side view (J79-0372-09)

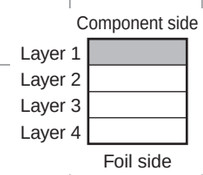








Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC2	4O	IC8	5M	IC701	3B	D7	4R	D15	7E
IC4	5L	IC9	3N	Q2	4Q	D9	6O	D16	7F
IC5	4M	IC10	5S	Q6	3N	D10	6H		
IC6	4L	IC11	5I	Q8	5N	D11	7F		
IC7	5N	IC12	3D	D4	10P	D14	6E		

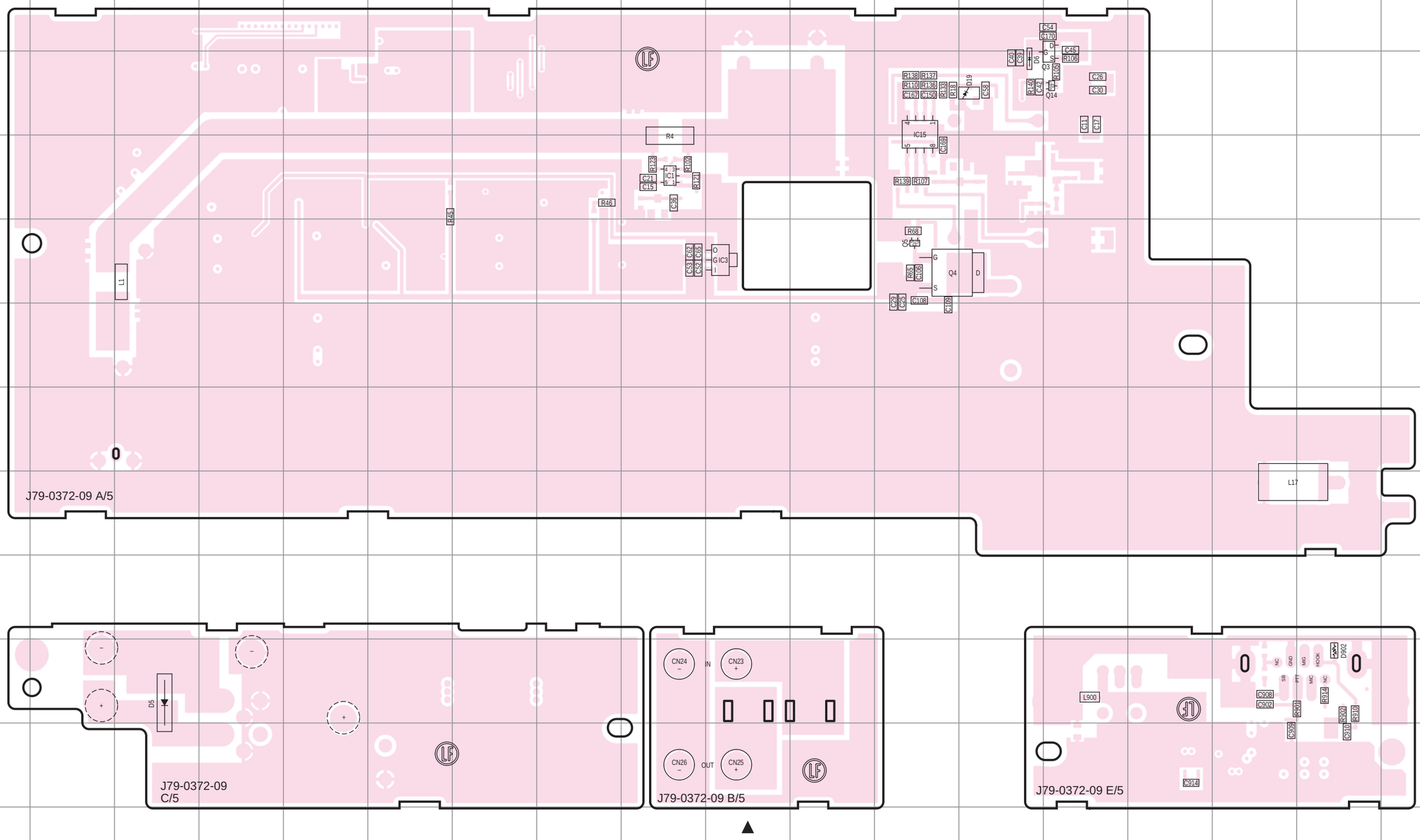


NXR-800 PC BOARD

PC BOARD NXR-800

FINAL UNIT (X45-3820-14)
Foil side view (J79-0372-09)

FINAL UNIT (X45-3820-14)
Foil side view (J79-0372-09)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	4I	Q3	3N	D6	3M
IC3	5J	Q4	5L	D19	3M
IC15	3L	Q5	5L	D902	10Q
IC702	4R	Q14	3N		
IC703	5R	D5	10C		

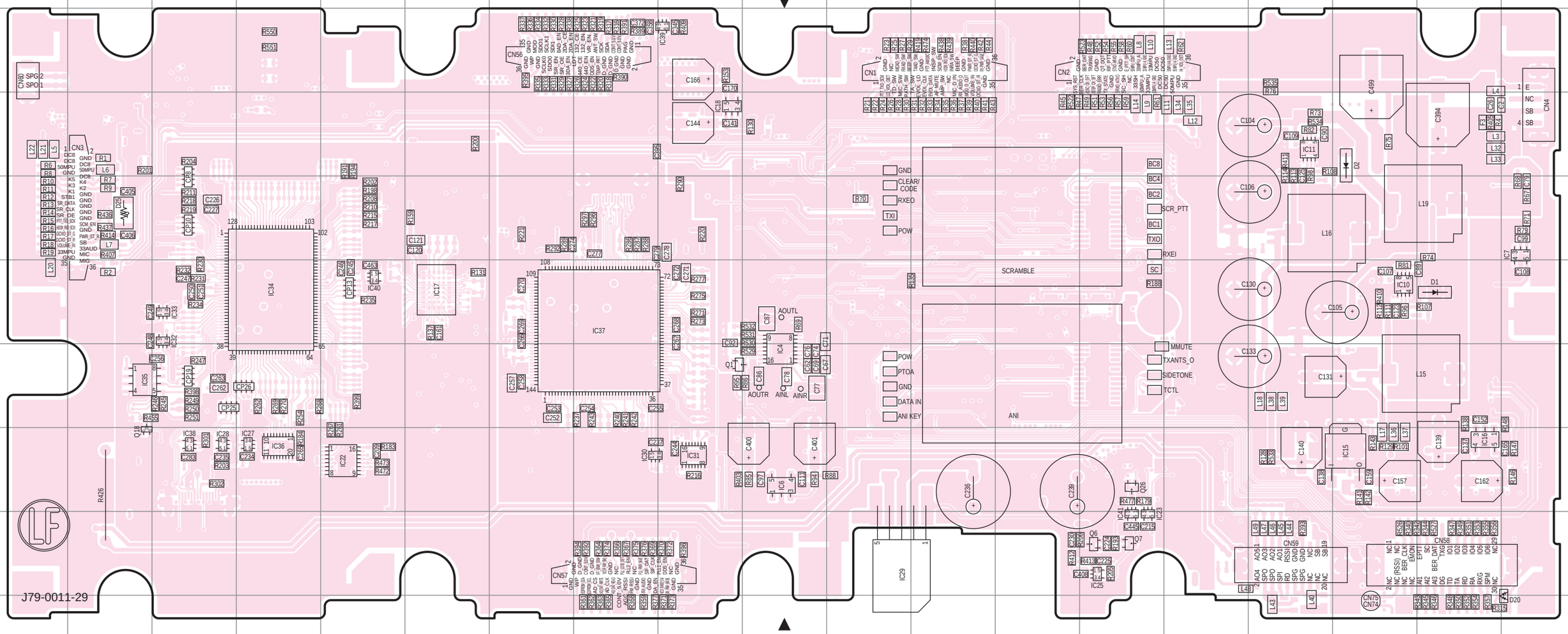
Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

NXR-800 PC BOARD

PC BOARD NXR-800

CONTROL UNIT (X53-4130-XX) -10 : K5 -11 : For service
Component side view (J79-0011-29)

CONTROL UNIT (X53-4130-XX) -10 : K5 -11 : For service
Component side view (J79-0011-29)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC4	7J	IC22	8E	IC33	6C	Q1	7I
IC6	8J	IC23	9N	IC34	6D	Q6	9N
IC7	5S	IC25	9N	IC35	7B	Q7	9N
IC10	6Q	IC27	8D	IC36	8D	Q18	8B
IC11	4P	IC28	8C	IC37	6H	Q26	8N
IC15	8Q	IC29	9K	IC38	8C	D1	6R
IC16	8R	IC30	8H	IC39	3I	D2	4Q
IC17	6F	IC31	8I	IC40	6E	D20	10S
IC18	4I	IC32	6C	IC41	9N	D25	5B

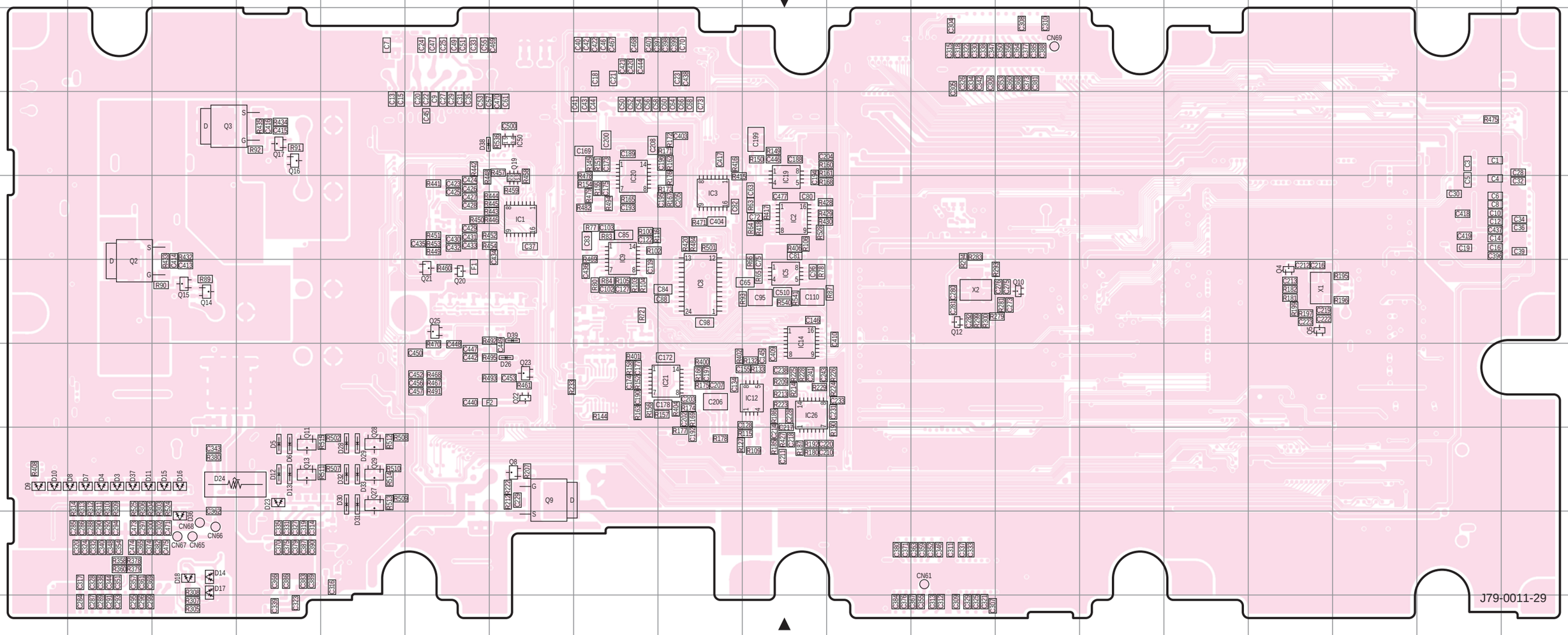
Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

NXR-800 PC BOARD

PC BOARD NXR-800

CONTROL UNIT (X53-4130-XX) -10 : K5 -11 : For service
Foil side view (J79-0011-29)

CONTROL UNIT (X53-4130-XX) -10 : K5 -11 : For service
Foil side view (J79-0011-29)

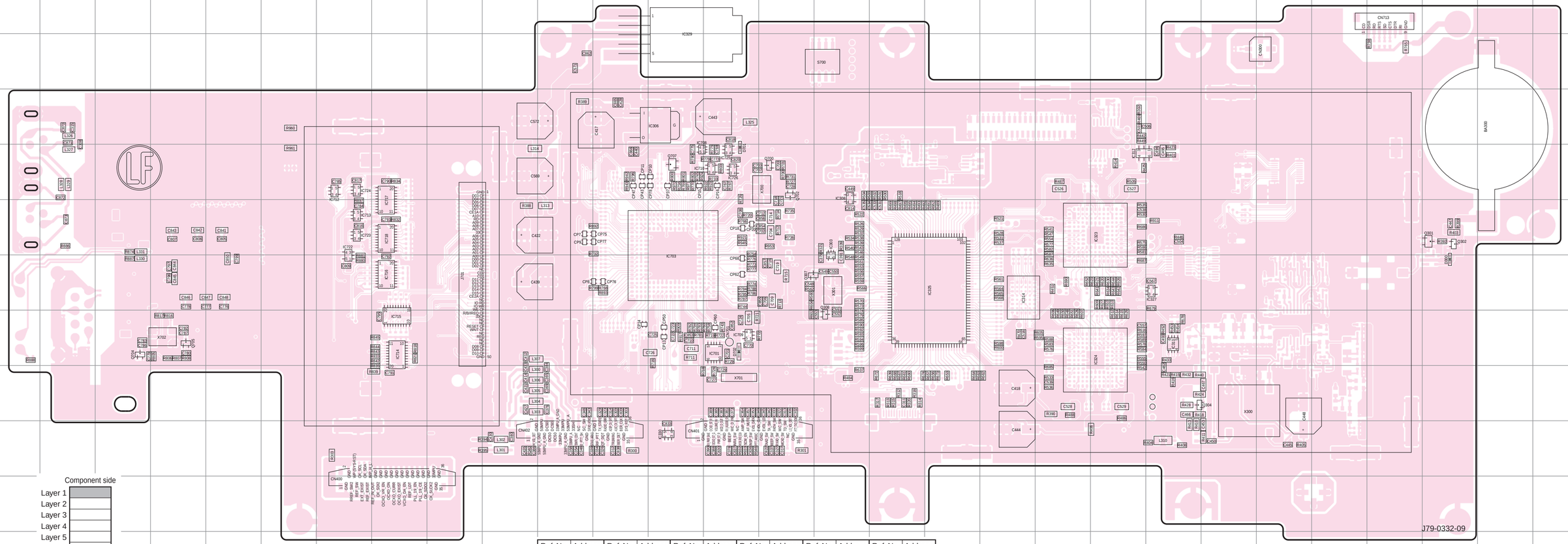


Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	5G	Q2	6B	Q17	4D	D6	8D	D23	8D
IC2	5J	Q3	4C	Q19	5G	D7	8B	D24	8C
IC3	5I	Q4	6P	Q20	6F	D8	8B	D26	7G
IC5	6J	Q5	6P	Q21	6F	D9	8A	D28	8E
IC8	6I	Q8	8G	Q22	7G	D10	8A	D29	8E
IC9	5H	Q9	8G	Q23	7G	D11	8B	D30	8E
IC12	7J	Q10	6M	Q25	6F	D12	8D	D31	8E
IC14	6J	Q11	8D	Q27	8E	D13	8D	D32	8E
IC19	5J	Q12	6L	Q28	8E	D14	9C	D33	8E
IC20	5H	Q13	8D	Q29	8E	D15	8C	D36	9C
IC21	7I	Q14	6C	D3	8B	D16	8C	D37	8B
IC26	7J	Q15	6C	D4	8B	D17	9C	D38	4F
IC50	4G	Q16	4D	D5	8D	D18	9C	D39	6G

Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Component side view (J79-0332-09)

CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Component side view (J79-0332-09)



Component side

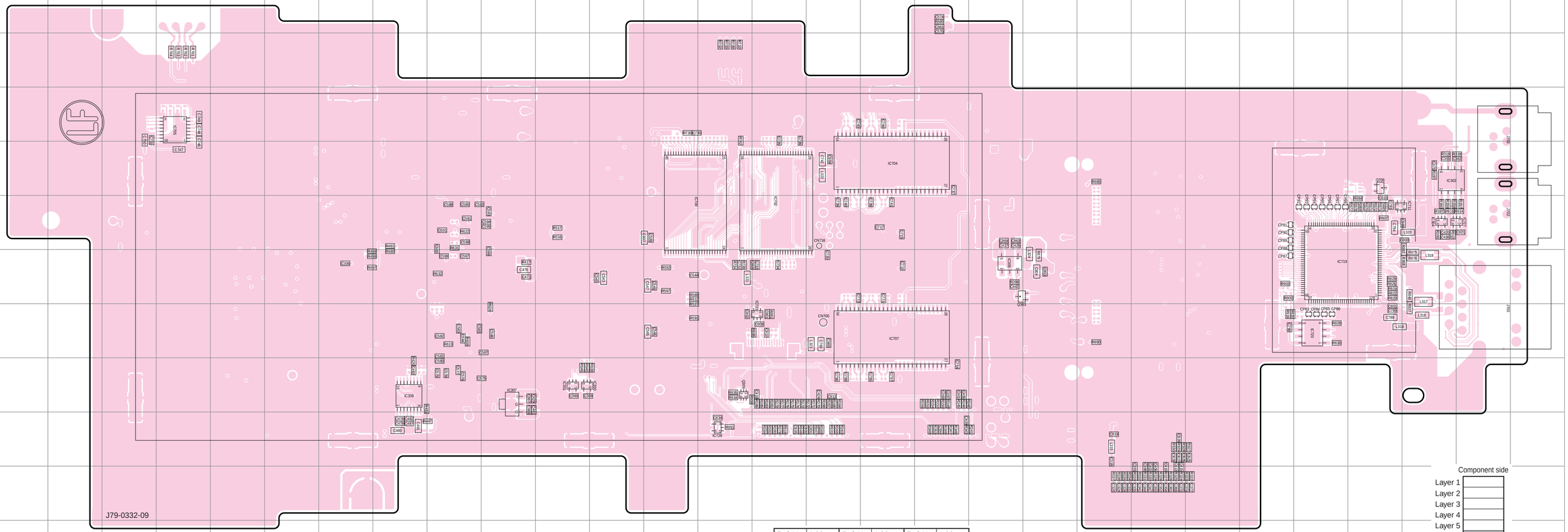
Layer 1
Layer 2
Layer 3
Layer 4
Layer 5
Layer 6

Foil side

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC303	7P	IC324	8U	IC708	5M	IC716	7H	IC726	5N	Q702	5O
IC306	4M	IC325	7R	IC709	8N	IC717	5H	Q301	6AA	Q704	8C
IC308	5P	IC327	7V	IC710	5N	IC718	6H	Q302	6AA	Q705	8D
IC312	5U	IC329	3M	IC712	5G	IC722	7G	Q304	9V	Q707	5M
IC313	8V	IC330	10M	IC713	6G	IC723	6G	Q307	7O	D300	7AA
IC314	7S	IC701	8N	IC714	8H	IC724	5G	Q308	8P	D701	5N
IC323	6U	IC703	7M	IC715	8H	IC725	5N	Q700	5O	D702	8N

NXR-800 PC BOARD

CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Foil side view (J79-0332-09)



CONTROL UNIT (X53-4140-XX) -10 : K5 -11 : For service
Foil side view (J79-0332-09)

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC300	9K	IC700	6M	IC720	8Y
IC301	9K	IC702	6O	IC721	8O
IC302	5AA	IC704	5Q	IC727	6AB
IC304	6AA	IC705	4D	IC728	10N
IC305	7S	IC707	8Q	Q303	7S
IC307	9J	IC711	6Z	Q309	9N
IC309	9H	IC719	7Y	Q706	5Z

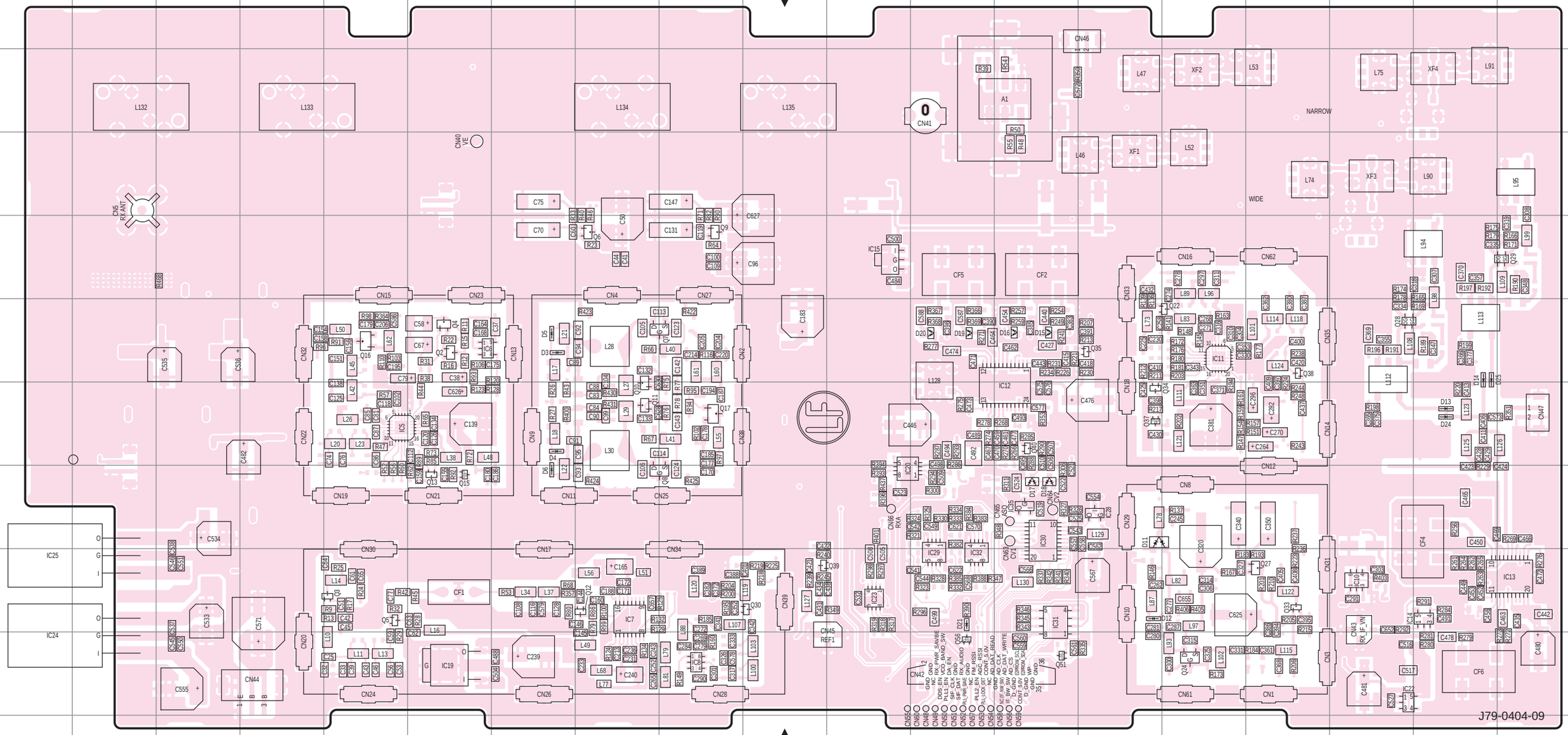
Component side
Layer 1
Layer 2
Layer 3
Layer 4
Layer 5
Layer 6
Foil side

NXR-800 PC BOARD

RX UNIT (X55-3100-14)
Component side view (J79-0404-09)

PC BOARD NXR-800

RX UNIT (X55-3100-14)
Component side view (J79-0404-09)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC5	7E	IC15	5K	IC30	8M	Q7	6I	Q17	7I	Q35	6N	D5	6G	D18	8M
IC6	6F	IC19	10F	IC31	9M	Q8	8I	Q22	6O	Q37	7N	D6	8G	D19	6L
IC7	9H	IC20	8K	IC32	8L	Q9	5I	Q24	10O	Q38	6P	D11	8N	D20	6L
IC8	10I	IC22	10Q	IC35	8M	Q10	7H	Q27	9P	Q39	9J	D12	9N	D21	9L
IC10	9Q	IC23	9K	Q2	6F	Q11	7H	Q28	6Q	Q40	7M	D13	7R	D24	7R
IC11	6O	IC24	10A	Q3	9E	Q12	9H	Q29	5S	Q51	10M	D14	6R	D25	6R
IC12	7M	IC25	9A	Q4	6F	Q13	8F	Q30	9J	Q56	10L	D15	6M		
IC13	9S	IC28	8N	Q5	9E	Q15	8F	Q33	9P	D3	6G	D16	6M		
IC14	9R	IC29	8L	Q6	5H	Q16	6E	Q34	7N	D4	7G	D17	8M		

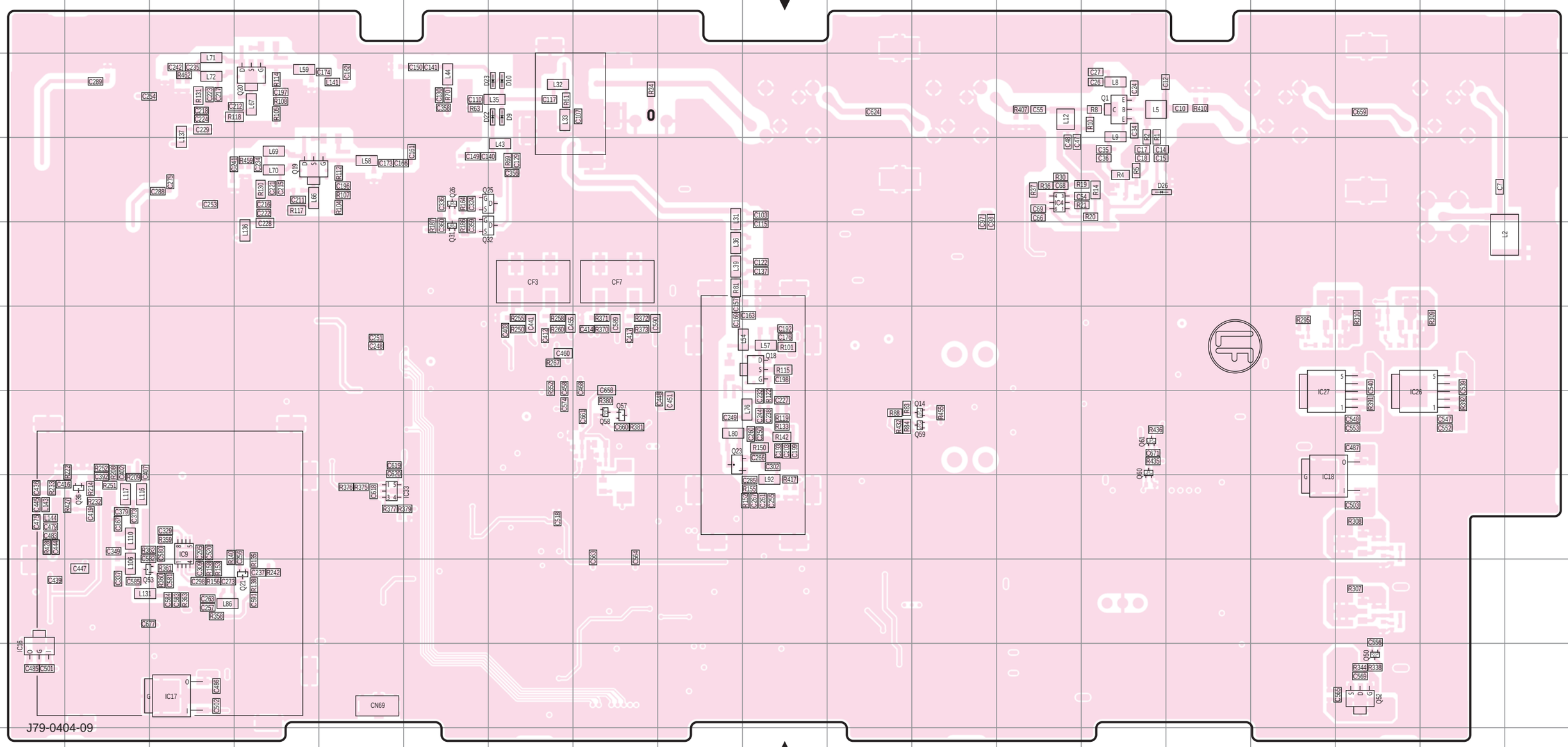
Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

NXR-800 PC BOARD

RX UNIT (X55-3100-14)
Foil side view (J79-0404-09)

PC BOARD NXR-800

RX UNIT (X55-3100-14)
Foil side view (J79-0404-09)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC4	4M	Q14	7L	Q32	5G	Q61	7N
IC9	8C	Q18	6J	Q36	8B	D9	3G
IC16	10A	Q19	4D	Q50	10Q	D10	3G
IC17	10C	Q20	3D	Q52	10Q	D26	4N
IC18	8P	Q21	9D	Q53	9B		
IC26	7Q	Q23	7I	Q57	7H		
IC27	7P	Q25	4G	Q58	7H		
IC33	8E	Q26	4F	Q59	7L		
Q1	3N	Q31	5F	Q60	7N		

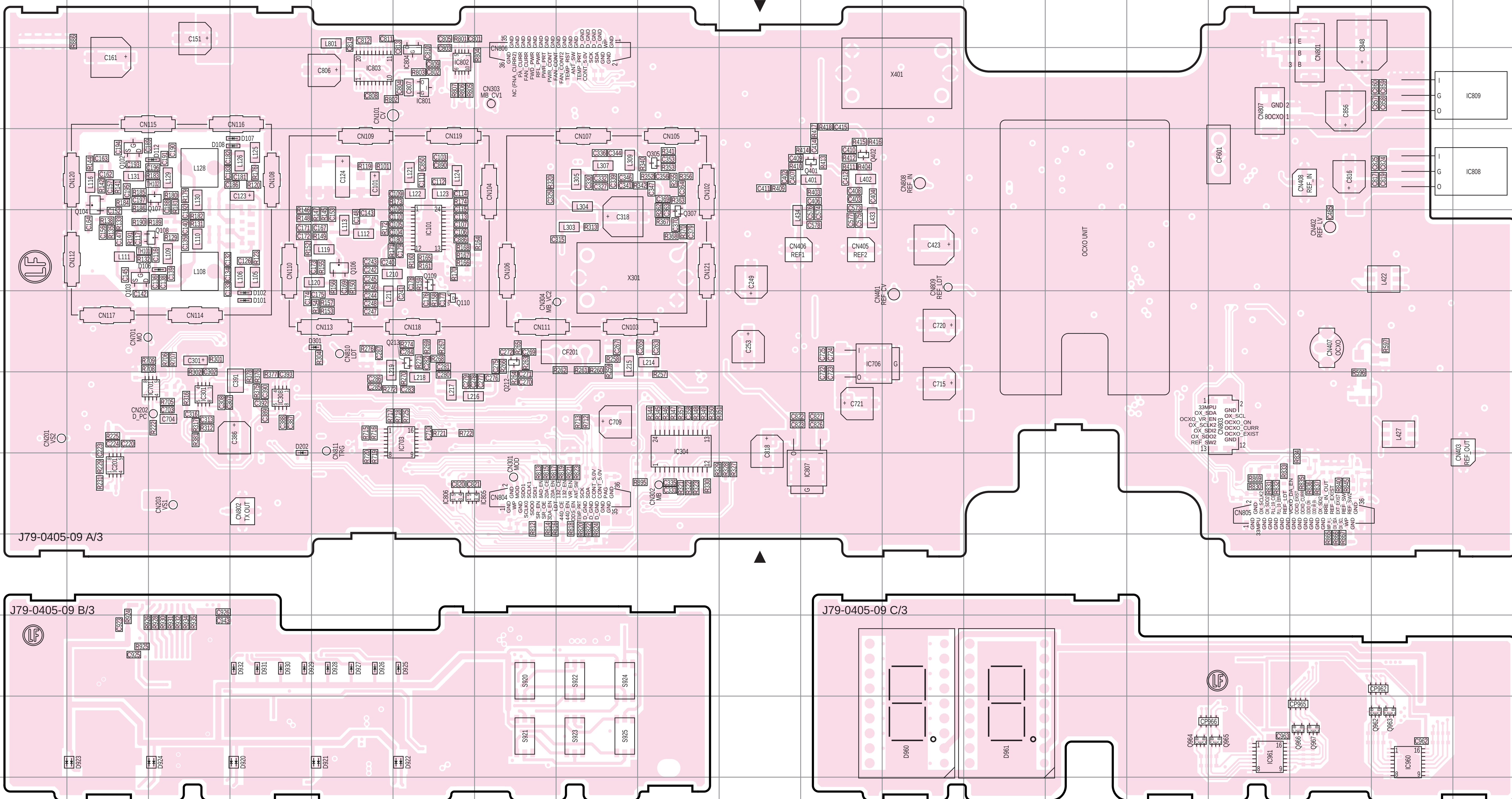
Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

NXR-800 PC BOARD

PC BOARD NXR-800

TX UNIT (X56-3120-14)
Component side view (J79-0405-09)

TX UNIT (X56-3120-14)
Component side view (J79-0405-09)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC101	5F	IC706	6K	IC807	8K	Q104	4B	Q213	6F	Q964	11O	D107	4D	D922	11F	D929	10D
IC201	8B	IC801	3F	IC808	4S	Q106	5E	Q305	4I	Q965	11P	D108	4D	D923	11B	D930	10D
IC301	7C	IC802	3F	IC809	3S	Q107	4C	Q307	5I	Q966	11Q	D112	4C	D924	11C	D931	10D
IC304	7I	IC803	3E	IC960	11R	Q108	5C	Q401	4K	Q967	11Q	D202	7D	D925	10F	D932	10D
IC308	7D	IC804	3F	IC961	11P	Q109	5F	Q402	4K	D101	6D	D301	6E	D926	10E	D960	11L
IC701	7C	IC805	8F	Q102	4B	Q110	6F	Q962	11R	D102	6D	D920	11D	D927	10E	D961	11M
IC703	7F	IC806	8F	Q103	5B	Q212	6G	Q963	11R	D106	5C	D921	11E	D928	10E		

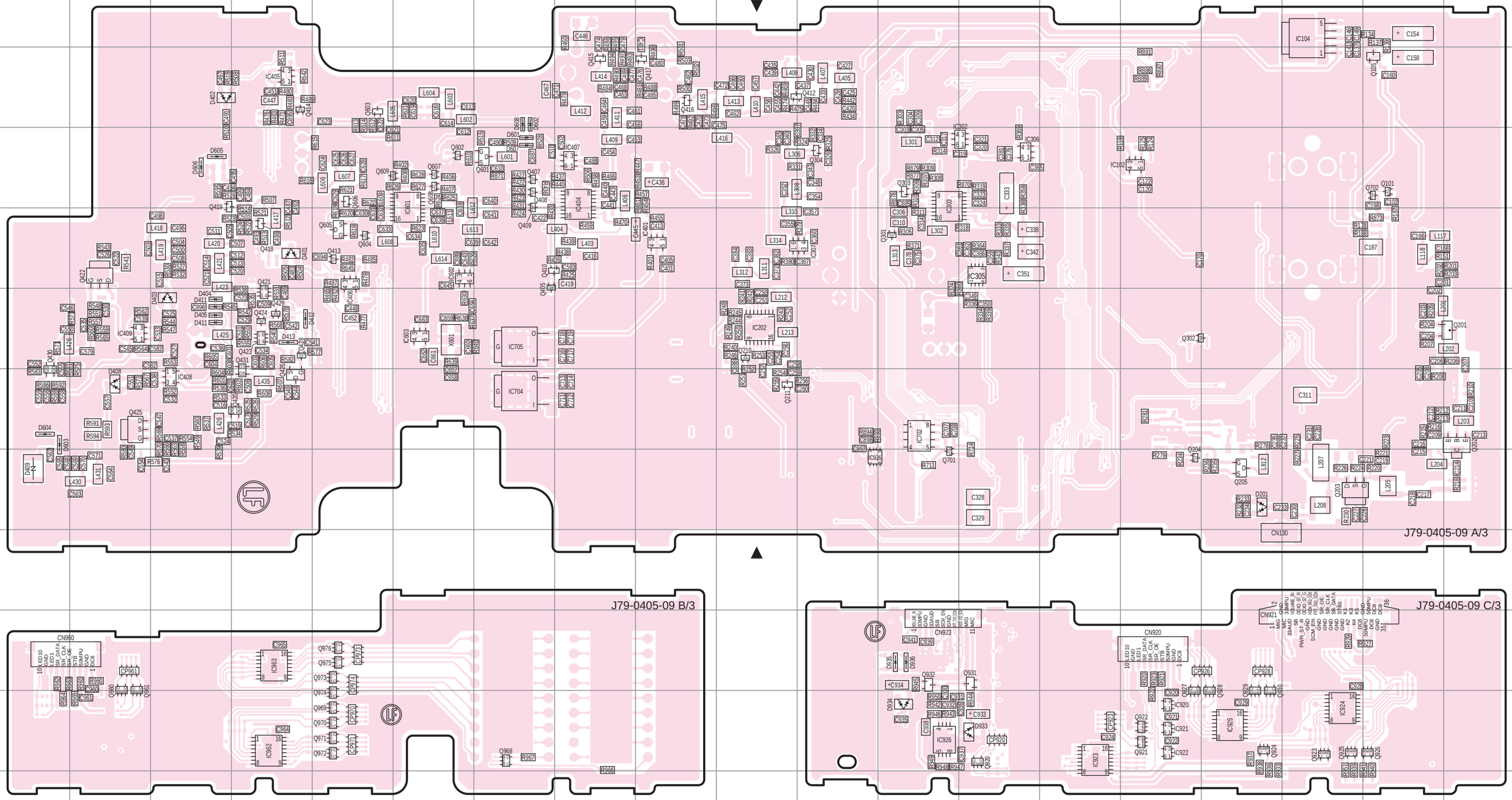
Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

NXR-800 PC BOARD

TX UNIT (X56-3120-14)
Foil side view (J79-0405-09)

PC BOARD NXR-800

TX UNIT (X56-3120-14)
Foil side view (J79-0405-09)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC102	4O	IC404	4H	IC702	7L	IC926	11L	Q205	8P	Q407	4G	Q417	3I	Q426	6D	Q605	5E	Q922	11O	Q931	10M	Q973	10E	D405	6C	D605	4C		
IC104	2Q	IC405	3D	IC704	7G	IC962	11D	Q206	7P	Q408	4G	Q418	5D	Q428	6D	Q606	4E	Q923	11Q	Q932	10L	Q974	11E	D406	6D	D606	4C		
IC202	6J	IC406	5E	IC705	6G	IC963	10D	Q210	6J	Q409	4G	Q419	5C	Q429	6D	Q607	4F	Q924	11P	Q960	10B	Q975	10E	D407	6D	D933	11M		
IC302	4M	IC407	4H	IC920	11O	Q101	4R	Q211	7J	Q410	5H	Q420	7D	Q430	6A	Q608	4F	Q925	11Q	Q961	10B	Q976	10E	D408	7B	D934	11L		
IC303	4L	IC408	7C	IC921	11O	Q105	3R	Q301	5L	Q412	3J	Q421	6D	Q431	6D	Q609	4F	Q926	11R	Q968	11G	D201	8P	D409	8A	D935	10L		
IC305	5M	IC409	6B	IC922	11O	Q201	6S	Q302	6O	Q413	5E	Q422	5B	Q601	4G	Q701	8L	Q927	11O	Q969	11E	D401	5D	D601	4G	D936	10L		
IC306	4M	IC601	4F	IC923	11N	Q202	7S	Q303	4L	Q414	3D	Q423	6D	Q602	4F	Q702	4R	Q928	11P	Q970	11E	D402	3C	D602	3G				
IC307	5K	IC602	5F	IC924	11Q	Q203	8Q	Q304	4K	Q415	3H	Q424	6D	Q603	3E	Q920	11M	Q929	11P	Q971	11E	D403	6C	D603	7A				
IC401	5I	IC603	6F	IC925	11P	Q204	7P	Q405	5G	Q416	3I	Q425	7B	Q604	5E	Q921	11O	Q930	11P	Q972	11E	D404	6C	D604	7A				

Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

TX UNIT
X56-312 (A/3)-CN802

CN1
RF IN

TX:100mW
RX:0W

3DB ATT
R2
18
R1
220
R3
220

POWER MODULE
IC10
RA13H3340M131

TX H:3.8V
L:3.3V
RX :0V

TX H:13.7V
L:13.8V
RX :13.8V

HPF
R23
0
C141
470p
C60
470p

DIRECTIONAL COUPLER

FORWARD
C85
8p
R34
8.2
R38
150
R42
8.2

REFLECT
C87
18p
R47
150
R44
8.2
R52
8.2

C193
22p
R124
47
1/4W
VR1
200
R32-0744-05
C161
8p
R26
100
R61
82

ANT SW
RF SW
D11
L8103R
RF SW
D16
L8103R
C105
470p
L9
22n
C145
2p
C148
10
C140
18.5p
L12
22n
C126
6p
C131
10p
C147
10p
C158
7p
L16
130n
C124
18p
HPF
C122
68p
C123
33p
L13
22n
L14
22n
LPF
L15
22n
R125
0
CN22
TX ANT

TX H:5W
L:0.5W
RX :0W

CN19
RX

D14,15
RF SW
D14
L8103R
D15
L8103R
C119
1.5p

C46
470p
OVERVOLTAGE PROTECTION
D7
02CZ5.6(Y)F
C47
0.01u
R20
100k
DC SW
Q2
SSM3K15TE(F)
R25
100k

L1
L92-0179-05
C32
22n35
C37
0.01u
C41
470p

CURRENT SENSE
R123
10k
R4
0.5W
CURRENT MONITOR
IC1
LTC6101BIS5-F
+IN
-IN
V+
V-
OUT
R102
470
0.5
R9
100
0.5
R121
0.5
C36
470p

TX H:1.0V
L:0.3V
RX:0V
PA CURR
R15
3.3k

DETECTOR
D9
HSB88WS
C71
470p
C63
470p
R31
100k
R29
5.6k
C73
470p
R30
5.6k
C74
470p
R32
100k

FWD
OP AMP
IC4
NJM2904E-ZB
C89
470p
REL
R35
68k
C77
470p
R36
68k
C78
470p
C75
470p
AoUT
A-IN
A+IN
GND
V-
BoUT
B-IN
B+IN
R53
180k
R56
100k
C96
470p
R54
180k
C97
470p
R57
100k
C99
470p
C100
470p
R59
5.6k
C101
470p
R60
5.6k

DETECTOR
D10
HSB88WS
C104
470p
C102
470p

TX H:3.3V
L:1.0V
RX:0V

DC SW
Q4
2SJ506-E(S)
C108
470p
C106
470p
R65
47k
ANT SW
C109
470p
DC SW
Q5
SSM3K15TE(F)
R68
100k

TX:8V
RX:0V
5V
R72
0
IC9
S24CS02AFJTBG
A0
A1
A2
GND
VCC
WP
SCL
SDA
EEPROM
C134
470p
10u35
C138
R82
470k
R75
4.7k
R76
4.7k
DC SW
Q6
SSM3K15TE(F)
R78
100k

FINAL UNIT(PA SECTION)
(X45-3820-14)(A/5)

FINAL UNIT(DC SECTION)
(X45-3820-14)(C/5)

CN29
CN2
CN30
CN21
C90
470p
C86
0.01u
C83
470p
C80
0.01u
C72
470p
C70
0.01u
C61
470p
C59
0.01u
C188
47u35
C1
100u50
100u50
47u35
C187
C15
0.01u
C22
470p

RX UNIT
X55-310 -CN44
CN15
TX UNIT
X56-312 (A/3)-CN801
CN12
CONTROL UNIT
X53-413 -CN4
CN11

L3
L79-0558-05

SURGE PROTECTION
D5
DSM3MA1-RPB
SURGE PROTECTION
D4
Z5W27V

FINAL UNIT(FUSE SECTION)
(X45-3820-14)(B/5)
CN25
CN4
CN23
CN27
CN26
CN24
CN28
DC

R21
820k
C49
0.047u
C50
470p
R12
47k
OP AMP
IC2
NJM2904E-ZB
R22
820k
C51
470p
R13
47k
C64
470p
C67
470p
R27
220k
R28
470k
PWR CONT
R17
10k
VR2
10k
R142
0
R32-0754-05

TEMPERATURE SENSOR
IC7
S-8130AC
VSS
RESET
RT
VoUT
CD1
CD2
DET
VDD
R62
33k
R63
33k
C113
4700p
C114
4700p
R69
10k
C191
1u
C115
470p
0V
R70
0
R71
0
R150
0
OP AMP
IC8
NJM2904E-ZB
C127
470p
C128
470p
CP1
RK75GB1J103J
C133
470p
Q8
SSM3K15TE(F)
DC SW
R104
33k
R66
10
R64
470k

R156
0
CN20
GND
GND
WP
GND
D_GND
SDA
D_GND
SCK
D_GND
CONT_5.0V
D_GND
TEMP_PRT
GND
ANT_SW
GND
TEMP_RST
GND
FAN_CONT2
GND
FAN_CONT
GND
PWR_CONT
GND
PWR_PRT
GND
RFL_PWR
GND
FWD_PWR
GND
FAN_CURR
GND
PA_CURR
GND
NC(FAN_CURR2)
GND
GND
TX UNIT
X56-312 (A/3)-CN806

VOLTAGE REGULATOR
IC11
NJM7808FA-ZB
8V
C7
22n35
C10
470p
C16
0.01u
C25
0.01u
C29
470p
0.01u
C189
470p
C190
470p
C44
10u35
C52
470p
C53
0.01u
VOLTAGE REGULATOR
IC3
TA78L05FF
IN
CoM
oUT
5V
C62
0.01u
C65
470p
C88
10u35

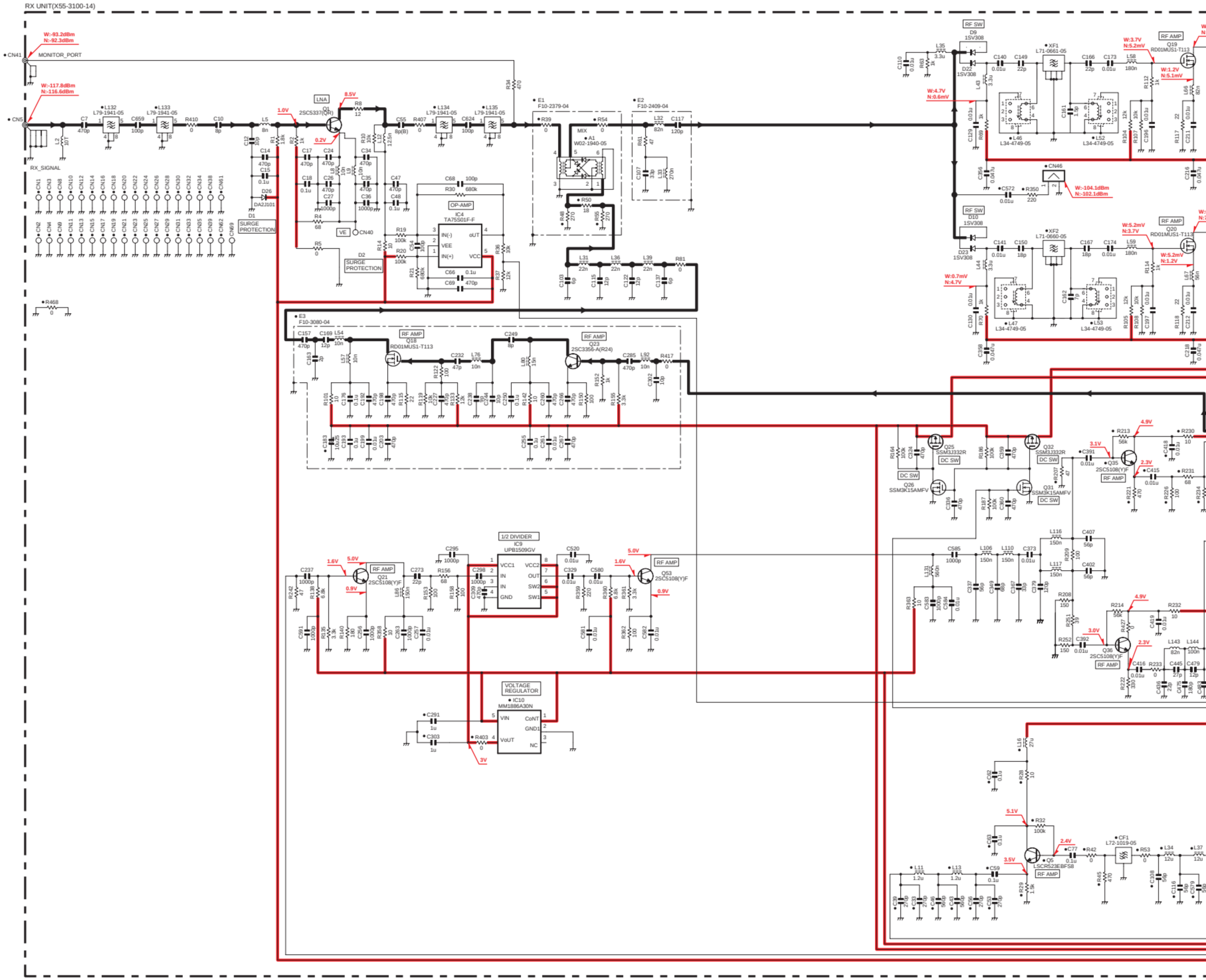
R45
0
C88
470p
OP AMP
IC5
NJM2904E-ZB
R50
100k
C95
470p
R51
100k
C94
100p
R58
10k
R55
33k
R89
0
PRT
C162
0.1u
R39
820k
R37
560k
R33
560k
1.1V
PWR PRT
R40
820k
C82
0.1u
OP AMP
IC6
NJM2904E-ZB
R46
0
C98
470p
R49
0
R41
0
FC2

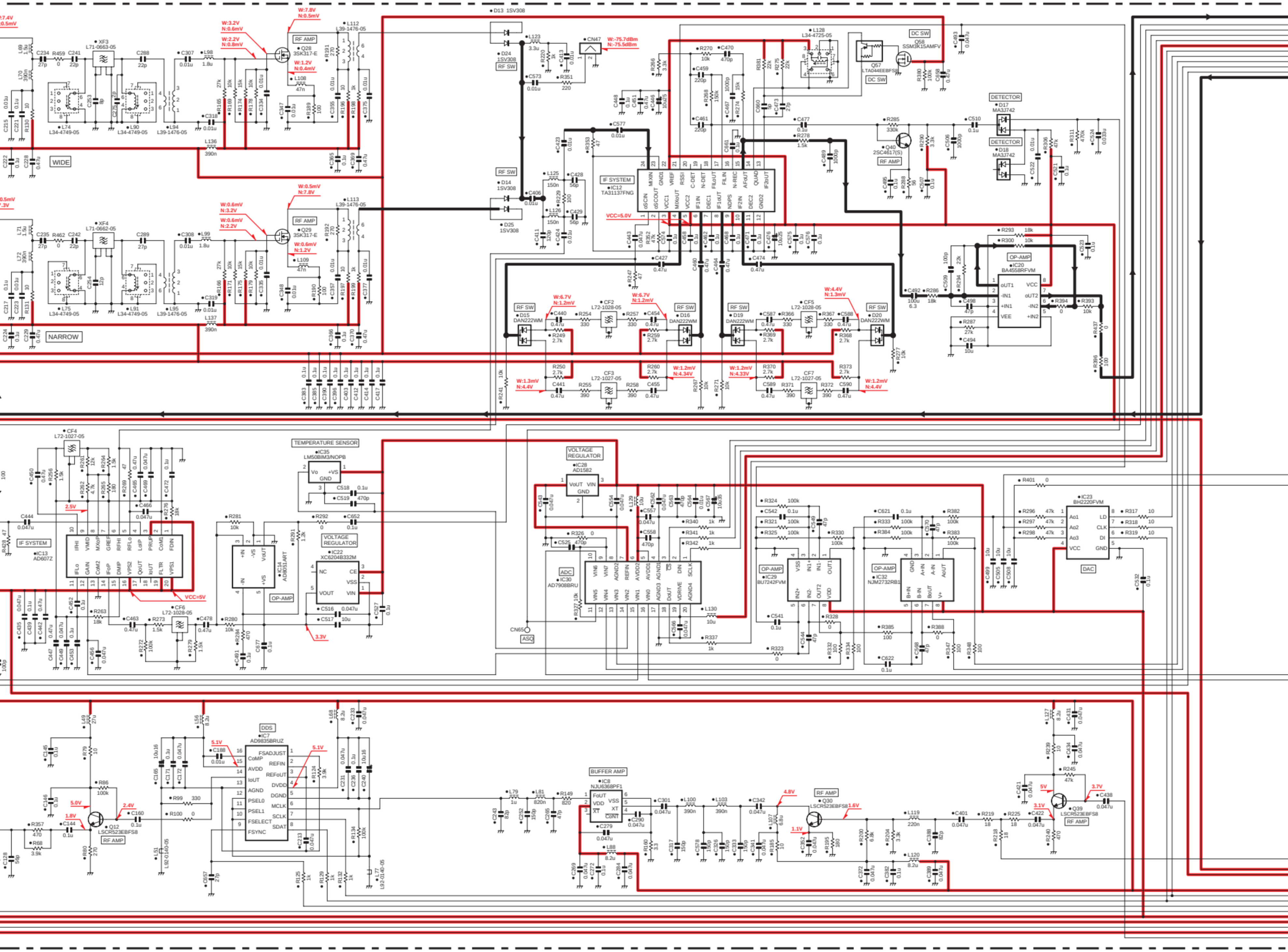
VOLTAGE REGULATOR
IC12
NJM7805FA-ZB
5V
R11
47
C8
22n35
C11
470p
C17
0.01u
C26
0.01u
C39
470p
C93
10u25
C170
470p
DC SW
Q3
SSM3J01F
R106
470k
C45
470p
C54
470p
R105
0
DC SW
Q14
SSM3K15TE(F)
C42
470p
R140
100k
SURGE PROTECTION
D6
1SS355
C38
10u25
C40
0.01u
C39
470p

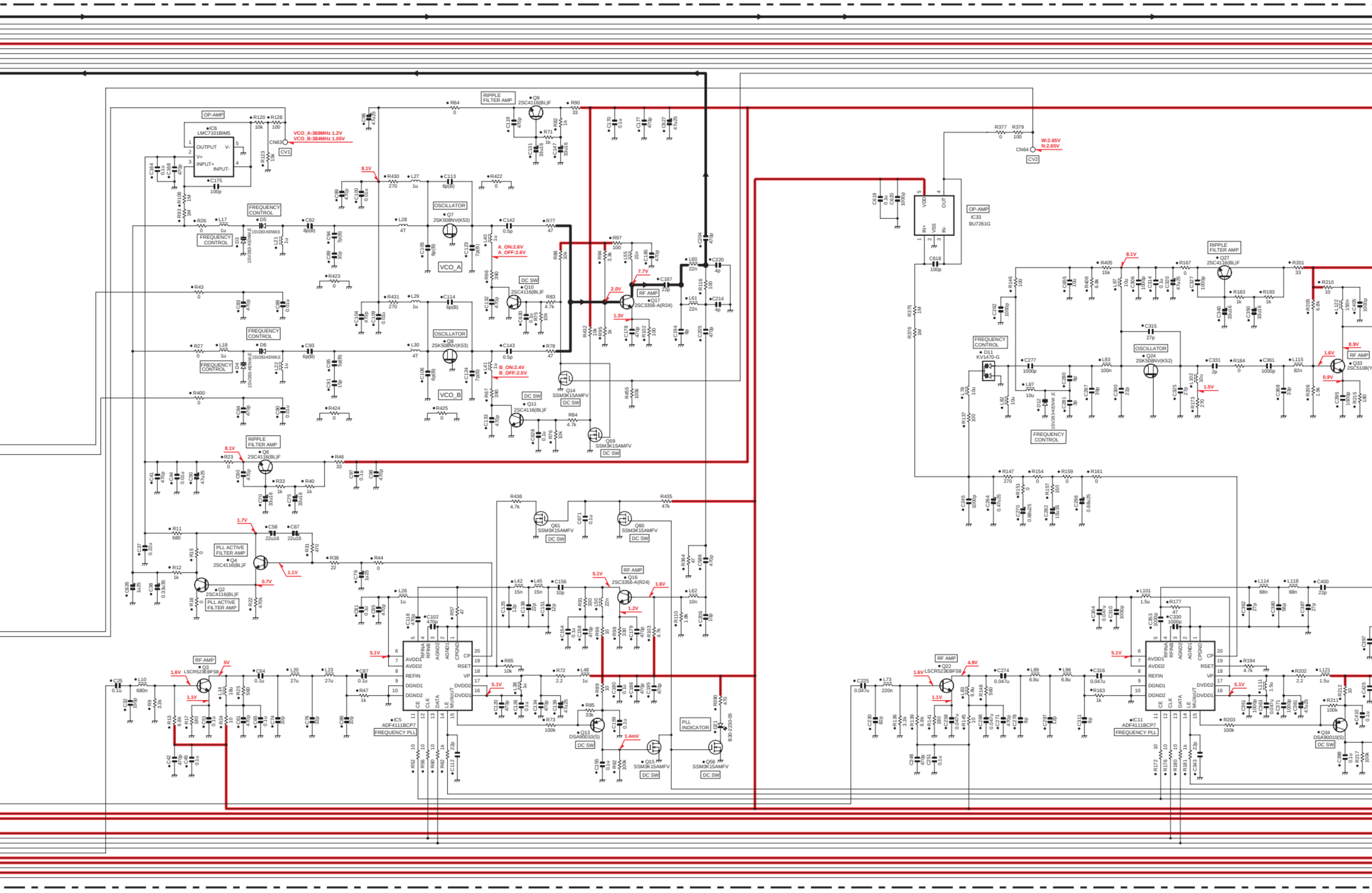
OP AMP
IC15
NJM2904E-ZB
R137
100k
R136
390k
C150
0.1u
C167
0.1u
R138
100k
R110
390k
R103
1k
C169
470p
R107
0
R139
100k
OVERVOLTAGE PROTECTION
D19
02CZ4.7(Y)F
FC1
1.4V
R18
47k
C28
470p

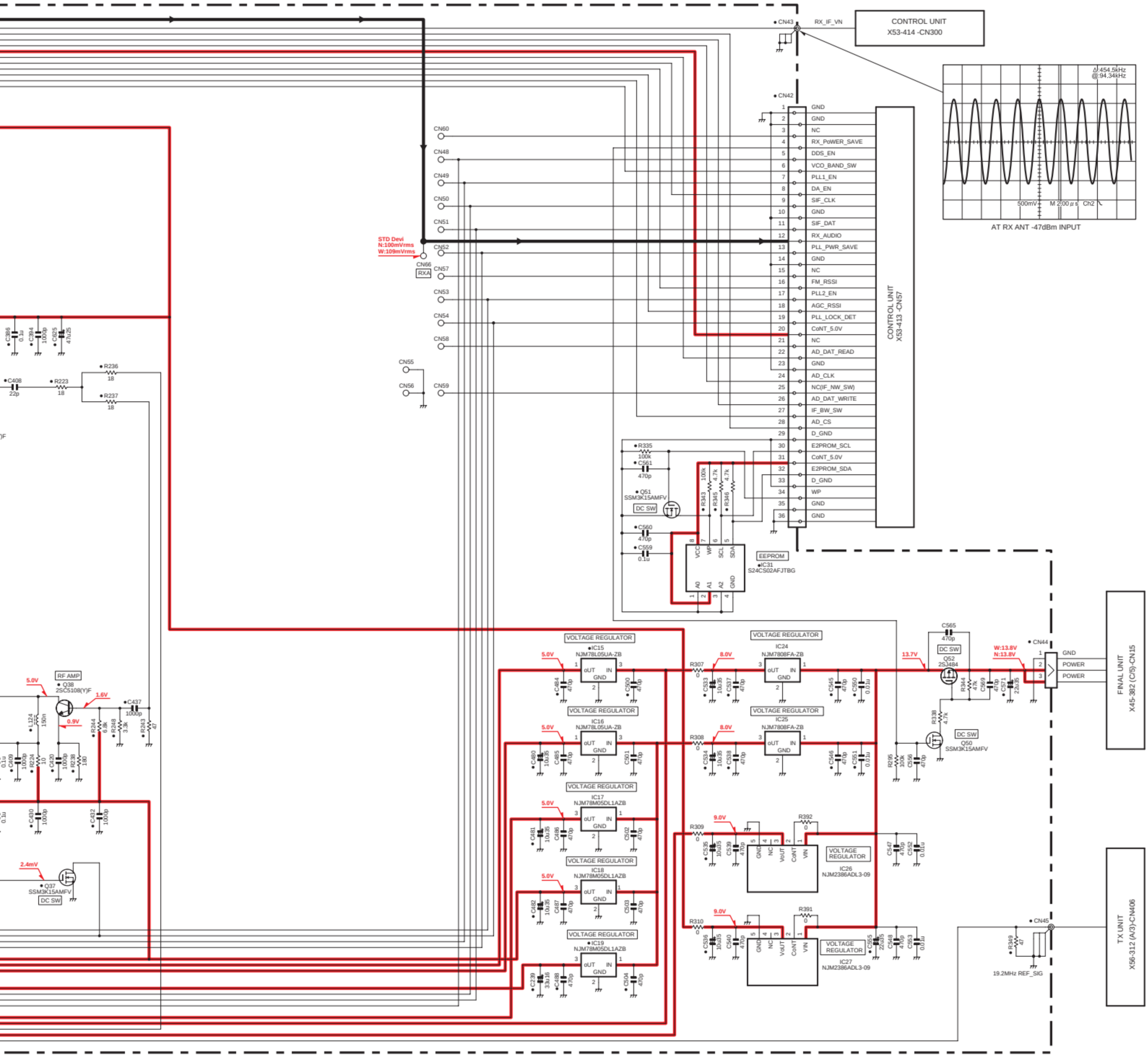
CN8
FAN 1

R148
0

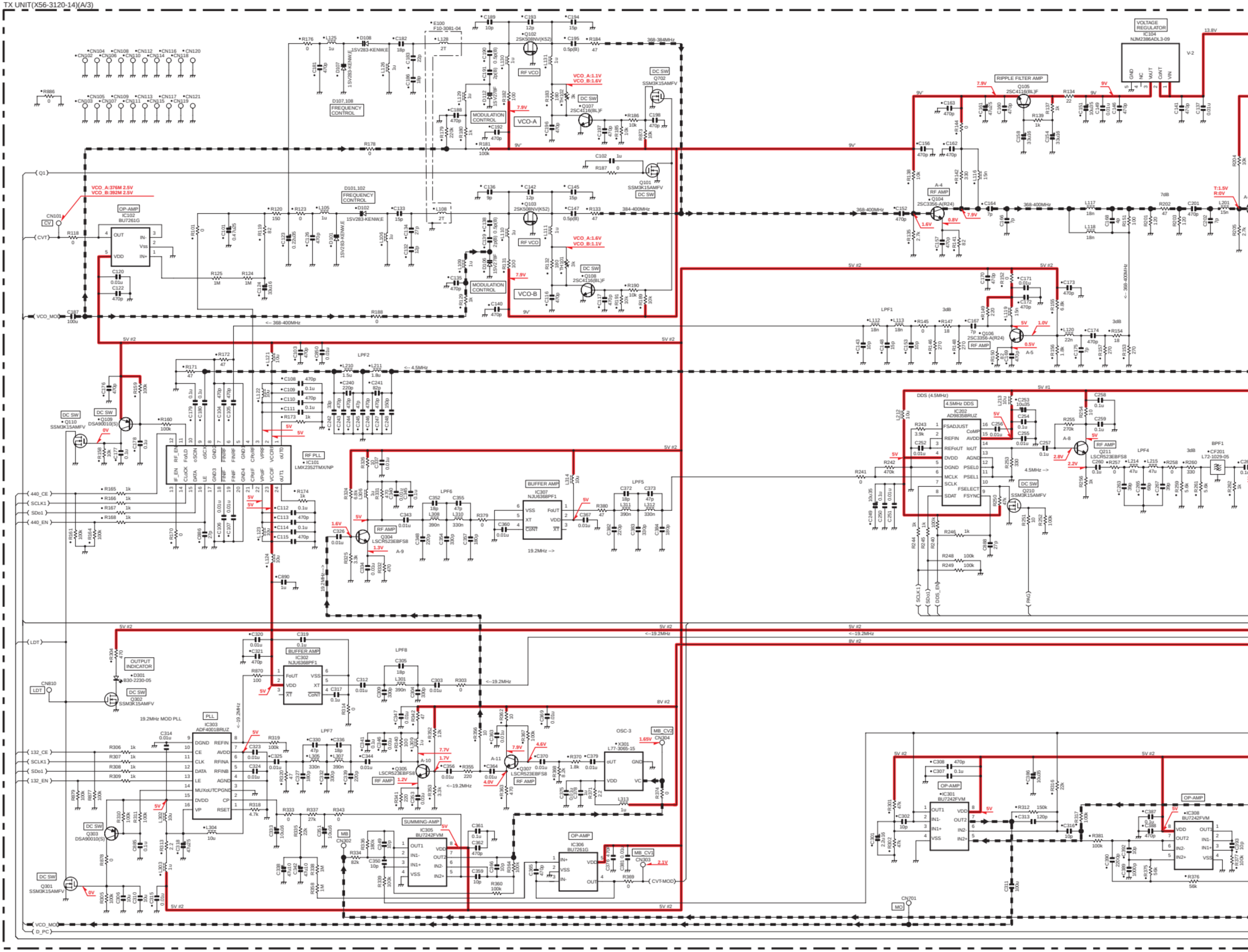

RX UNIT(X55-3100-14)
CN41
MONITOR_PORT
W:-93.2dBm
N:-92.3dBm
CN5
W:-117.8dBm
N:-116.6dBm
RX_SIGNAL
L132 L79-1941-05
L133 L79-1941-05
C7 470p
C659 100p
R410 0
C10 8p
L2 10T
L5 8n
C12 10p
R1 1.8k
R2 1k
1.0V
LNA
Q1 2SC5337(QR)
8.5V
0.2V
R8 12
R10 10k
L12 125n
C55 8p(B)
R407 0
L134 L79-1941-05
C624 100p
L135 L79-1941-05
R34 470
C14 470p
C15 0.1u
D26 DA2J101
D1 SURGE PROTECTION
C17 470p
C24 470p
C18 0.1u
C26 470p
C27 1000p
L8 10n
L9 10n
C34 470p
C35 470p
C36 1000p
R4 68
R5 0
VE
CN40
D2 SURGE PROTECTION
C47 470p
C48 0.1u
C68 100p
R30 680k
OP-AMP
IC4 TA75S01F-F
IN(-) OUT VEE IN(+) VCC
R19 100k
R20 100k
R14 10
C54 100p
R21 680k
C66 0.1u
C69 470p
R36 10k
R37 12k
E1 F10-2379-04
R39 0
MIX
R54 0
A1 W02-1940-05
R50 18
R48 270
R55 270
E2 F10-2409-04
L32 82n
C117 120p
R61 47
C107 33p
L33 270n
L31 22n
L36 22n
L39 22n
R81 0
C103 6p
C115 12p
C122 12p
C137 6p
R468 0
E3 F10-3080-04
C157 470p
C169 12p
L54 10n
C163 2p
L57 10n
RF AMP
Q18 RD01MUS1-T113
C232 47p
L76 10n
C249 8p
L80 15n
RF AMP
Q23 2SC3356-A(R24)
C285 470p
L92 10n
R417 0
C302 10p
R122 100
R152 1k
R101 10
R115 22
R119 10k
R133 12k
R142 10
R150 100
R155 3.3k
1/2 DIVIDER
IC9 UPB1509GV
VCC1 VCC2 IN OUT IN SW2 GND SW1
C295 1000p
C520 0.01u
C329 0.01u
C580 0.01u
C298 1000p
C309 470p
1.6V
5.0V
0.9V
RF AMP
Q21 2SC5108(Y)F
C237 1000p
R242 47
R138 6.8k
R135 3.3k
R140 180
L86 150n
C273 22p
R156 68
R153 100
R158 100
R358 10
1.6V
5.0V
0.9V
RF AMP
Q53 2SC5108(Y)F
R359 220
R360 6.8k
R361 3.3k
R362 180
VOLTAGE REGULATOR
IC10 MM1886A30N
VIN CoNT GND1 VoUT NC
C291 1u
C303 1u
R403 0
3V
RF SW
D9 1SV308
D22 1SV308
L35 3.3u
R63 1k
C110 0.01u
C140 0.01u
C149 22p
XF1 L71-0661-05
C166 22p
C173 0.01u
L58 180n
W:3.7V
N:5.2mV
RF AMP
Q19 RD01MUS1-T113
W:1.2V
N:5.1mV
W:4.7V
N:0.6mV
L46 L34-4749-05
L52 L34-4749-05
C161 1.5p
CN46
W:-104.1dBm
N:-102.1dBm
C572 0.01u
R350 220
RF SW
D10 1SV308
D23 1SV308
C141 0.01u
C150 18p
XF2 L71-0660-05
C167 18p
C174 0.01u
L59 180n
W:5.2mV
N:3.7V
RF AMP
Q20 RD01MUS1-T113
W:5.2mV
N:1.2V
W:0.7mV
N:4.7V
L47 L34-4749-05
L53 L34-4749-05
C162 7p
Q25 SSM3J332R
DC SW
Q26 SSM3K15AMFV
DC SW
Q32 SSM3J332R
DC SW
Q31 SSM3K15AMFV
DC SW
R213 56k
4.9V
R230 10
3.1V
C391 0.01u
Q35 2SC5108(Y)F
RF AMP
2.3V
C415 0.01u
R231 68
L116 150n
C407 56p
C585 1000p
L106 150n
L110 150n
C373 0.01u
L117 150n
C402 56p
R214 56k
4.9V
R232 10
3.0V
C392 0.01u
Q36 2SC5108(Y)F
RF AMP
2.3V
C416 0.01u
R233 0
L143 82n
L144 100n
C445 27p
C479 12p
L16 27u
C82 0.1u
R28 10
5.1V
R32 100k
2.4V
C77 0.1u
R42 0
CF1 L72-1019-05
R53 0
L34 12u
L37 12u
3.5V
Q5 LSCR523EBFS8
RF AMP
R29 1.9k
R45 470
L11 1.2u
L13 1.2u
C59 0.1u

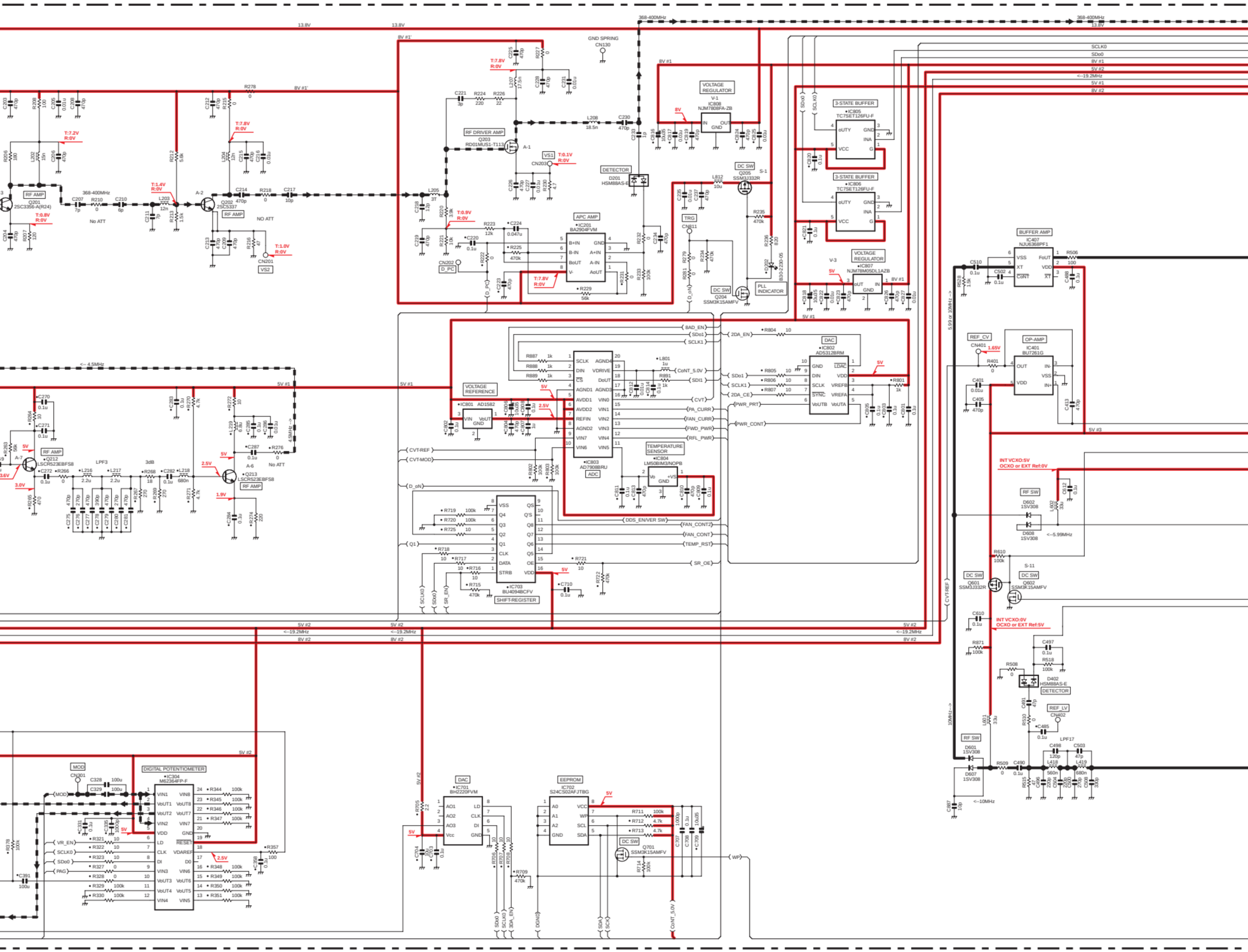

WIDE
NARROW
RF AMP
Q28 3SK317-E
Q29 3SK317-E
XF3 L71-0663-05
XF4 L71-0662-05
L112 L39-1476-05
L113 L39-1476-05
W:7.8V N:0.5mV
W:0.5mV N:7.8V
W:3.2V N:0.6mV
W:2.2V N:0.8mV
W:1.2V N:0.4mV
W:0.6mV N:3.2V
W:0.6mV N:2.2V
W:0.6mV N:1.2V
D13 1SV308
D24 1SV308
D14 1SV308
D25 1SV308
RF SW
CN47
W:-75.7dBm N:-75.5dBm
IF SYSTEM
IC12 TA31137FNG
VCC=5.0V
L128 L34-4725-05
Q57 LTA044EEBFS8
Q58 SSM3K15AMFV
DC SW
DETECTOR
D17 MA3J742
D18 MA3J742
Q40 2SC4617(S)
RF AMP
OP-AMP
IC20 BA4558RFVM
D15 DAN222WM
D16 DAN222WM
D19 DAN222WM
D20 DAN222WM
CF2 L72-1028-05
CF3 L72-1027-05
CF5 L72-1028-05
CF7 L72-1027-05
W:6.7V N:1.2mV
W:1.3mV N:4.4V
W:1.2mV N:4.34V
W:1.2mV N:4.33V
W:4.4V N:1.3mV
W:1.2mV N:4.4V
CF4 L72-1027-05
IF SYSTEM
IC13 AD607Z
2.5V
VCC=5V
CF6 L72-1028-05
TEMPERATURE SENSOR
IC35 LM50BIM3/NOPB
OP-AMP
IC14 AD8051ART
VOLTAGE REGULATOR
IC22 XC6204B332M
3.3V
VOLTAGE REGULATOR
IC28 AD1582
ADC
IC30 AD7908BRU
CN65
ASQ
OP-AMP
IC29 BU7242FVM
OP-AMP
IC32 NJM2732RB1
IC23 BH2220FVM
DAC
DDS
IC7 AD9835BRUZ
5.1V
5.1V
Q12 LSCR523EBFS8
RF AMP
5.0V
1.8V
2.4V
L51 L92-0140-05
L77 L92-0140-05
BUFFER AMP
IC8 NJU6368PF1
Q30 LSCR523EBFS8
RF AMP
4.8V
1.1V
1.6V
Q39 LSCR523EBFS8
RF AMP
5V
3.1V
3.7V

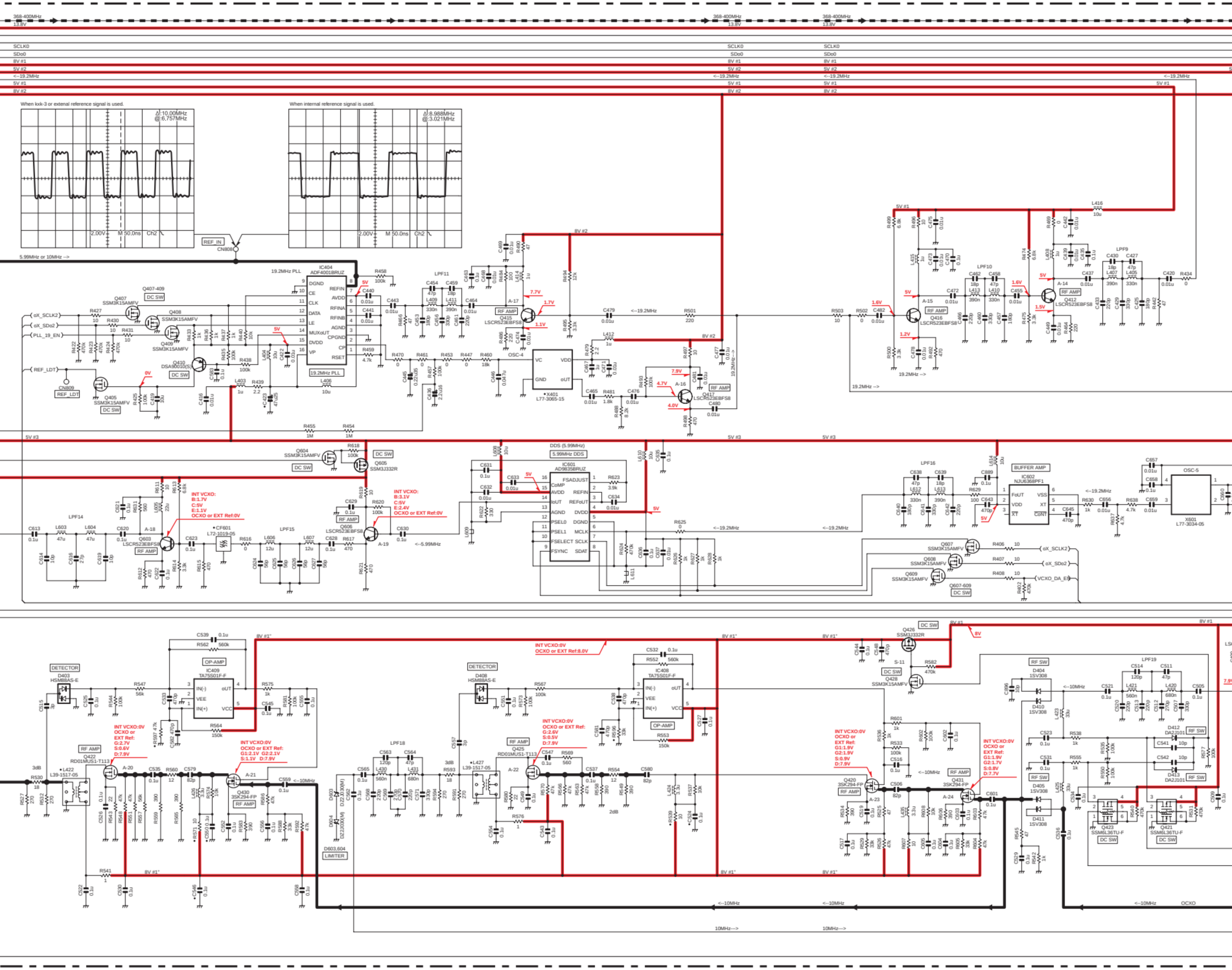

OP-AMP
IC6
LMC7101BIM5
OUTPUT
V-
V+
INPUT+
INPUT-
R120
10k
R128
100
VCO_A:368MHz 1.2V
VCO_B:384MHz 1.05V
CN63
CV1
R123
15k
C175
100p
C164
0.1u
C168
470p
R106
1M
R93
10k
FREQUENCY CONTROL
RIPPLE FILTER AMP
Q9
2SC4116(BL)F
R64
0
R90
33
R82
1k
R71
1k
C119
470p
C131
33u16
C147
33u16
C170
0.1u
C177
470p
C627
47u25
C96
47u25
8.1V
R430
270
L27
1u
C113
6p(B)
R422
0
C99
470p
C100
0.01u
R26
0
L17
1u
D5
1SV283-KENW.E
D3
1SV283-KENW.E
L21
1u
C92
8p(B)
C94
7p(B)
C89
10p
R423
0
L28
4T
OSCILLATOR
Q7
2SK508NV(K53)
C105
6p(B)
C123
7p(B)
L40
1u
C142
0.5p
R77
47
A_ON:2.6V
A_OFF:2.6V
VCO_A
R66
390
DC SW
Q10
2SC4116(BL)F
C132
470p
C630
0.1u
R75
10k
R83
4.7k
R88
10k
R97
100
R94
3.3k
L55
15n
C185
470p
2.0V
7.7V
C187
22p
RF AMP
Q17
2SC3356-A(R24)
1.3V
R432
10k
R95
1k
C178
470p
R102
100
C204
470p
L60
22n
C220
4p
R116
100
L61
22n
C214
4p
C194
8p
C205
470p
R43
0
C83
470p
C88
0.01u
R431
270
L29
1u
C114
6p(B)
C104
470p
C109
0.01u
R27
0
L18
1u
D6
1SV283-KENW.E
D4
1SV283-KENW.E
L22
1u
C93
6p(B)
C95
5p(B)
C91
13p
R424
0
L30
4T
Q8
2SK508NV(K53)
C106
6p(B)
C124
7p(B)
L41
1u
C143
0.5p
R78
47
B_ON:2.4V
B_OFF:2.5V
VCO_B
R67
390
Q11
2SC4116(BL)F
C133
470p
C628
0.1u
R76
10k
R84
4.7k
R425
0
Q14
SSM3K15AMFV
Q59
SSM3K15AMFV
R465
100k
R400
0
C84
470p
C90
0.01u
Q6
2SC4116(BL)F
R23
0
R46
33
C41
470p
C44
0.01u
C50
47u25
C60
470p
R33
1k
R40
1k
C70
33u16
C75
33u16
C97
0.1u
C98
470p
R436
4.7k
R435
47k
Q61
SSM3K15AMFV
C671
0.1u
Q60
SSM3K15AMFV
R11
680
1.7V
C58
22u16
C67
22u16
R31
470
C37
0.22u
R15
0
PLL ACTIVE FILTER AMP
Q4
2SC4116(BL)F
1.1V
R38
22
R44
0
C79
1u25
R12
1k
Q2
2SC4116(BL)F
0.7V
R16
C626
1u25
C38
0.33u35
R22
470k
R364
47
C586
470p
L26
1u
C81
0.1u
C85
470p
C118
470p
C102
470p
R57
47
L42
15n
L45
15n
C156
10p
C125
12p
C138
22p
C151
10p
5.1V
Q16
2SC3356-A(R24)
1.6V
R91
330
L50
22n
1.2V
L62
10n
R110
1.8k
C206
10p
C154
0.1u
C158
470p
R96
10
R98
330
C179
0.1u
R103
4.7k
5.1V
AVDD1
AVDD2
REFIN
DGND1
DGND2
RFINA
RFINB
AGND2
AGND1
CPGND
CP
RSET
VP
DVDD2
DVDD1
CE
CLK
DATA
LE
MUXOUT
R65
10k
R72
2.2
L48
1u
C120
470p
C126
0.1u
L38
1u
C134
470p
C139
47u25
R89
10
C180
0.1u
C186
470p
C195
470p
R85
33k
Q13
DSA90010(S)
R73
100k
C159
0.1u
1.4mV
IC5
ADF4111BCP7
FREQUENCY PLL
R52
10
R56
10
R60
10
R62
1k
C112
22p
C155
0.1u
R92
100k
Q15
SSM3K15AMFV
Q56
SSM3K15AMFV
PLL INDICATOR
D21
B30-2230-05
R390
470
RF AMP
Q3
LSCR523EBFS8
5V
1.6V
1.1V
C25
0.1u
L10
680n
C32
100p
R9
3.3k
R13
6.8k
R17
180
C51
0.1u
R24
10
L14
18u
R25
560
C64
0.1u
C61
470p
C65
0.1u
C74
10p
L20
27u
C76
33p
L23
27u
C86
10p
C87
0.1u
R47
1k
C42
470p
C45
0.1u
R377
0
R379
100
W:2.65V
N:2.65V
CN64
CV2
C619
0.1u
C620
1000p
OP-AMP
IC33
BU7261G
VDD
OUT
IN+
VSS
IN-
C618
100p
R375
1M
R376
1M
R405
15k
8.1V
R167
0
RIPPLE FILTER AMP
Q27
2SC4116(BL)F
R201
33
C262
1000p
R146
100
C655
0.1u
R406
6.8k
L97
10u
C306
1000p
C314
0.1u
C320
47u25
C327
1000p
R183
1k
R193
1k
C340
33u16
C350
33u16
R210
10
R205
6.8k
L122
150n
C409
1000p
C315
27p
FREQUENCY CONTROL
D11
KV1470-G
OSCILLATOR
Q24
2SK508NV(K52)
C277
1000p
L93
100n
C331
2p
R184
0
C361
1000p
L115
82n
1.6V
RF AMP
8.9V
Q33
2SC5108(Y)
0.9V
L78
10u
L82
10u
L87
10u
D12
1SV283-KENW.E
C280
8p
C281
3p
C287
39p
C300
22p
C325
27p
L102
10u
R173
270
1.5V
C368
33p
R206
1.5k
C395
1000p
R215
180
R137
100
R147
270
R154
0
R159
0
R161
0
C245
1000p
C264
0.47u25
R151
0
C270
0.68u25
R157
150
C282
15u16
C296
0.68u25
L101
1.5u
R177
47
C330
1000p
C304
0.047u
C310
1000p
C353
1000p
L114
68n
L118
68n
C400
22p
C362
27p
C380
56p
C387
27p
RF AMP
Q22
LSCR523EBFS8
4.9V
1.6V
1.1V
C225
0.047u
L73
220n
C230
82p
R136
3.3k
R139
6.8k
R141
180
C259
0.047u
L83
10u
R148
560
C274
0.047u
R145
10
C268
0.047u
C271
470p
C276
8p
L89
6.8u
L96
6.8u
C297
10p
C311
8p
C316
0.047u
R163
1k
C248
470p
C251
0.1u
5.1V
IC11
ADF4111BCP7
FREQUENCY PLL
R194
4.7k
R202
2.2
L121
1.5u
5.1V
L111
1.5u
C351
1000p
C363
0.047u
C371
1000p
C381
47u25
R211
100k
R212
10
C410
0.1u
R203
100k
Q34
DSA90010(S)
DC SW
C398
0.1u
R217
100k
R172
10
R176
10
R180
10
R181
1k
C343
22p

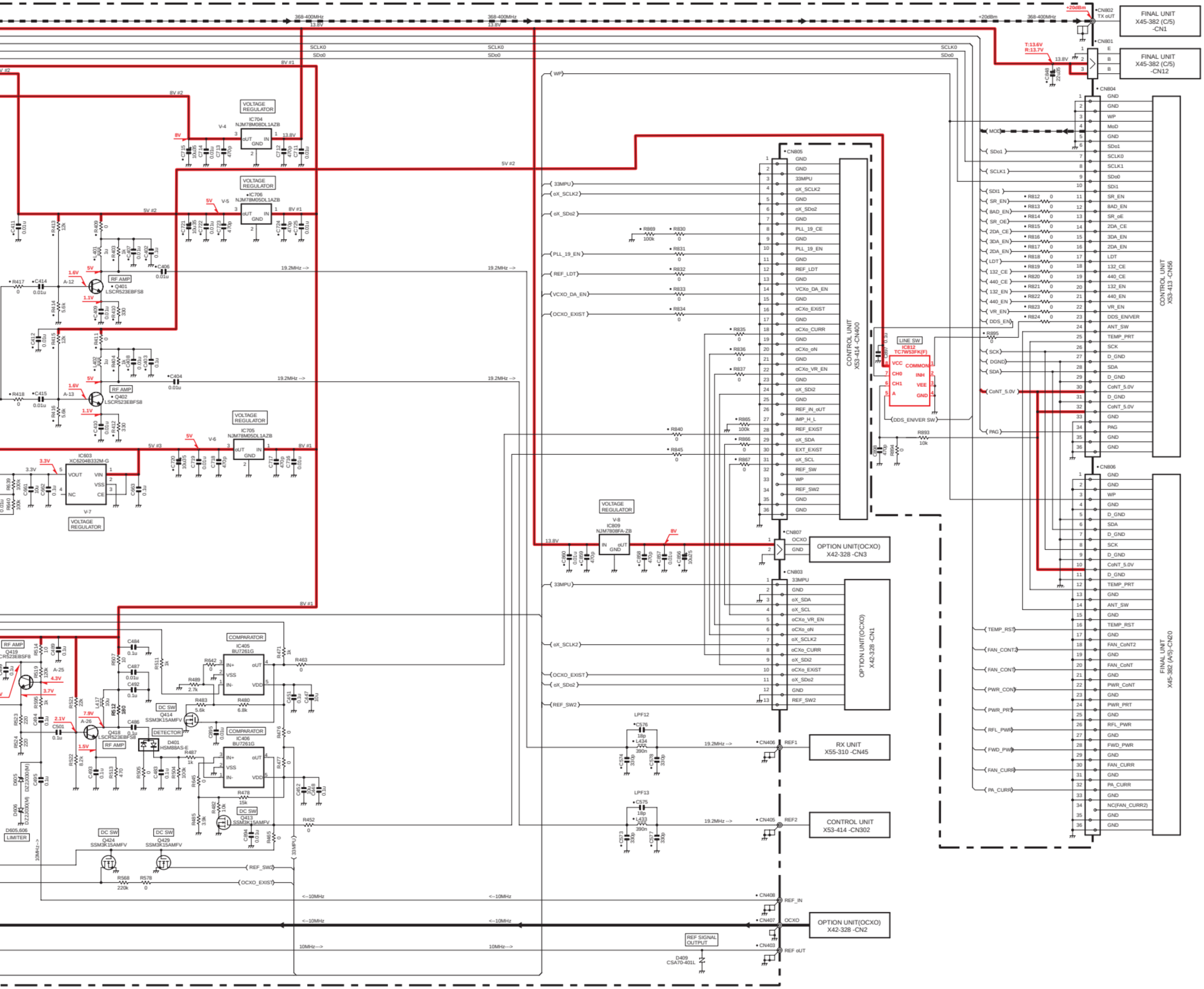

CN43
RX_IF_VN
CONTROL UNIT
X53-414 -CN300
Δ:454.5kHz
@:94.34kHz
500mV
M 2.00 μs
Ch2
AT RX ANT -47dBm INPUT
CN42
1 GND
2 GND
3 NC
4 RX_PoWER_SAVE
5 DDS_EN
6 VCO_BAND_SW
7 PLL1_EN
8 DA_EN
9 SIF_CLK
10 GND
11 SIF_DAT
12 RX_AUDIO
13 PLL_PWR_SAVE
14 GND
15 NC
16 FM_RSSI
17 PLL2_EN
18 AGC_RSSI
19 PLL_LOCK_DET
20 CoNT_5.0V
21 NC
22 AD_DAT_READ
23 GND
24 AD_CLK
25 NC(IF_NW_SW)
26 AD_DAT_WRITE
27 IF_BW_SW
28 AD_CS
29 D_GND
30 E2PROM_SCL
31 CoNT_5.0V
32 E2PROM_SDA
33 D_GND
34 WP
35 GND
36 GND
CONTROL UNIT
X53-413 -CN57
CN60
CN48
CN49
CN50
CN51
CN52
CN57
CN53
CN54
CN58
CN55
CN56
CN59
STD Devi
N:100mVrms
W:109mVrms
CN66
RXA
C386 0.1u
C394 1000p
C625 47u25
C408 22p
R223 18
R236 18
R237 18
)F
RF AMP
Q38
2SC5108(Y)F
5.0V
1.6V
0.9V
C437 1000p
L124 150n
R244 6.8k
R248 3.3k
R243 47
0.1u
C409 1000p
R224 10
C420 1000p
R238 180
0.1u
C430 1000p
C432 1000p
2.4mV
Q37
SSM3K15AMFV
DC SW
R335 100k
C561 470p
Q51
SSM3K15AMFV
DC SW
R343 100k
R345 4.7k
R346 4.7k
C560 470p
C559 0.1u
VCC WP SCL SDA
A0 A1 A2 GND
EEPROM
IC31
S24CS02AFJTBG
VOLTAGE REGULATOR
IC15
NJM78L05UA-ZB
5.0V
oUT IN GND
C484 470p
C500 470p
VOLTAGE REGULATOR
IC16
NJM78L05UA-ZB
5.0V
C480 10u35
C485 470p
C501 470p
VOLTAGE REGULATOR
IC17
NJM78M05DL1AZB
5.0V
C481 10u35
C486 470p
C502 470p
VOLTAGE REGULATOR
IC18
NJM78M05DL1AZB
5.0V
C482 10u35
C487 470p
C503 470p
VOLTAGE REGULATOR
IC19
NJM78M05DL1AZB
C239 33u16
C488 470p
C504 470p
R307 0
8.0V
C533 10u35
C537 470p
VOLTAGE REGULATOR
IC24
NJM7808FA-ZB
C545 470p
C550 0.01u
R308 0
8.0V
C534 10u35
C538 470p
VOLTAGE REGULATOR
IC25
NJM7808FA-ZB
C546 470p
C551 0.01u
R309 0
9.0V
C535 10u35
C539 470p
R392 0
GND NC VoUT CoNT VIN
VOLTAGE REGULATOR
IC26
NJM2386ADL3-09
C547 470p
C552 0.01u
R310 0
9.0V
C536 10u35
C540 470p
R391 0
VOLTAGE REGULATOR
IC27
NJM2386ADL3-09
C555 22u35
C548 470p
C553 0.01u
13.7V
C565 470p
DC SW
Q52
2SJ484
R344 47k
C569 470p
C571 22u35
W:13.8V
N:13.8V
R338 4.7k
DC SW
Q50
SSM3K15AMFV
R295 100k
C556 470p
CN44
1 GND
2 POWER
3 POWER
FINAL UNIT
X45-382 (C/5)-CN15
CN45
R349 47
19.2MHz REF_SIG
TX UNIT
X56-312 (A/3)-CN406

TX UNIT(X56-3120-14)(A/3)









TX UNIT(17SEG)
(X56-3120-14)(C/3)

TX UNIT(LED)
(X56-3120-14)(B/3)

FINAL UNIT(MIC SECTION)
(X45-3820-14)(E/5)

CONTROL UNIT
X53-413 -CN3

17 SEGMENTS

LED 1

LED 10

IC962 SHIFT-REGISTER

IC963 SHIFT-REGISTER

IC961 SHIFT-REGISTER

IC960 SHIFT-REGISTER

IC923 SHIFT-REGISTER

IC924 SHIFT-REGISTER

IC925 SHIFT-REGISTER

3-STATE BUFFER IC922 TC7SET126FU-F

3-STATE BUFFER IC920 TC7SET126FU-F

3-STATE BUFFER IC921 TC7SET126FU-F

OP-AMP IC926 NJM2732V

AF AMP Q931 2SC4116(Y)F

AF AMP Q932 2SA1586(Y)F

DETECTOR D933 HSM88AS-E

DETECTOR D934 HSM88AS-E

D935,936 DETECTOR

CN960
LED 10 10
GND 9
LED 1 8
R962 0 SR_DATA 7
R964 0 SR_CLK 6
R963 0 SR_oE 5
R965 0 STB 4
R961 0 50MPU 3
GND 2
R960 0 DC8 1

CN920
1 DC8
2 GND
3 50MPU
4 STB
5 SR_oE
6 SR_CLK
7 SR_DATA
8 LED 1
9 GND
10 LED 10

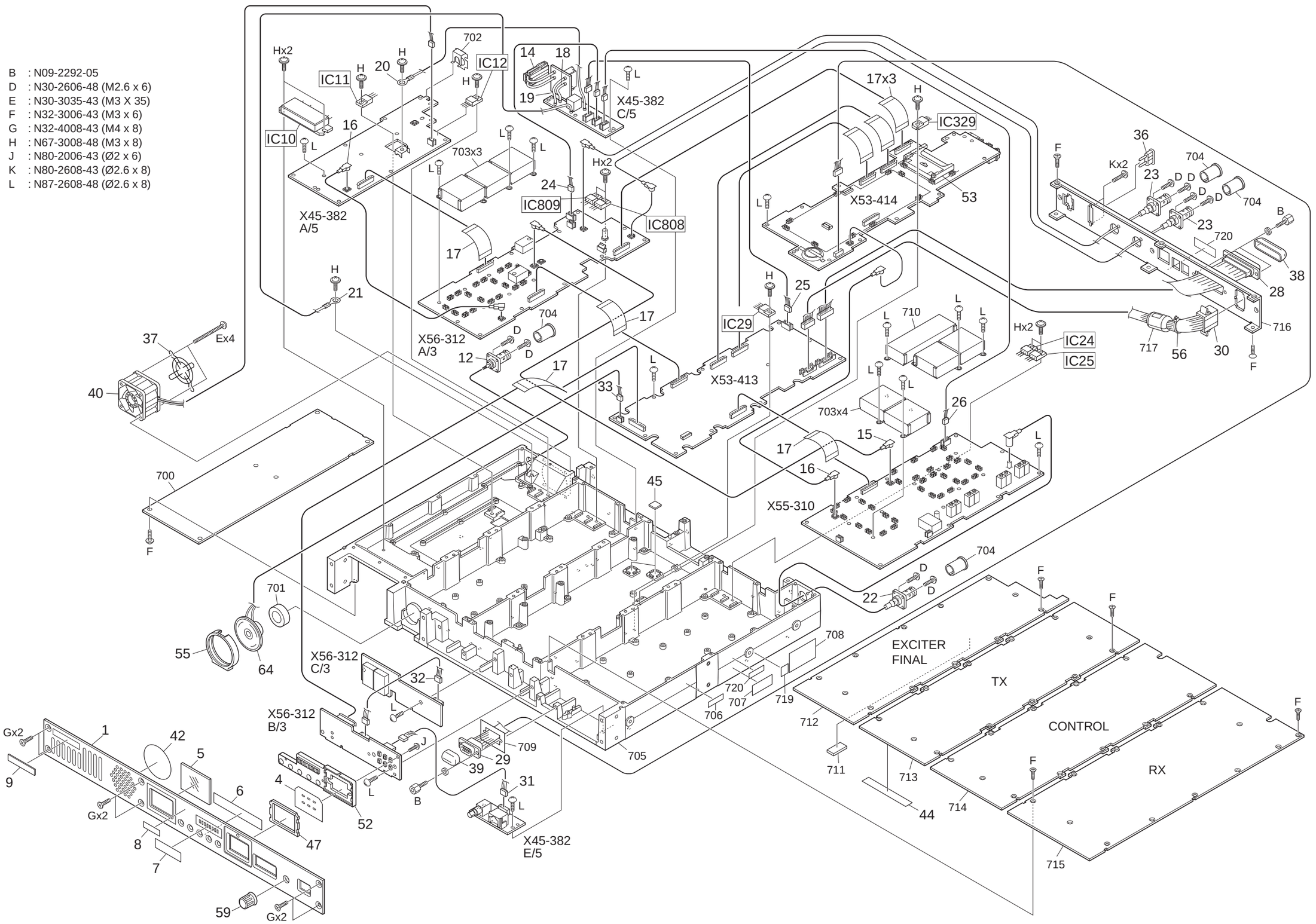
CN921
36 DC8
35 GND
34 DC8
33 DC8
32 50MPU
31 50MPU
30 GND
29 DC8
28 K5
27 K4
26 K3
25 K2
24 K1
23 GND
22 STB1
21 GND
20 SR_DATA
19 GND
18 SR_CLK
17 GND
16 SR_oE
15 GND
14 PTT_TXD_SCM
13 SCM_EN
12 HooK_RXD_SCM
11 GND
10 oCXo_ST_G
9 PWR_ST_R
8 oCXo_ST_R
7 SB
6 VOLUME_IN
5 33AUD
4 33MPU
3 MIC
2 GND
1 MIC

CN923
1 VoLUME_IN
2 33MPU
3 GND
4 33AUD
5 SB
6 SCM_EN
7 GND
8 PTT_TXD_SCM
9 HooK_RXD_SCM
10 MIG
11 MIC

J901
1 NC
2 SB
3 GND
4 PTT_TXD_SCM
5 MIG
6 IC
7 HOOK_RXD_SCM
8 SCM_EN

D902 AVRM1627MA8B

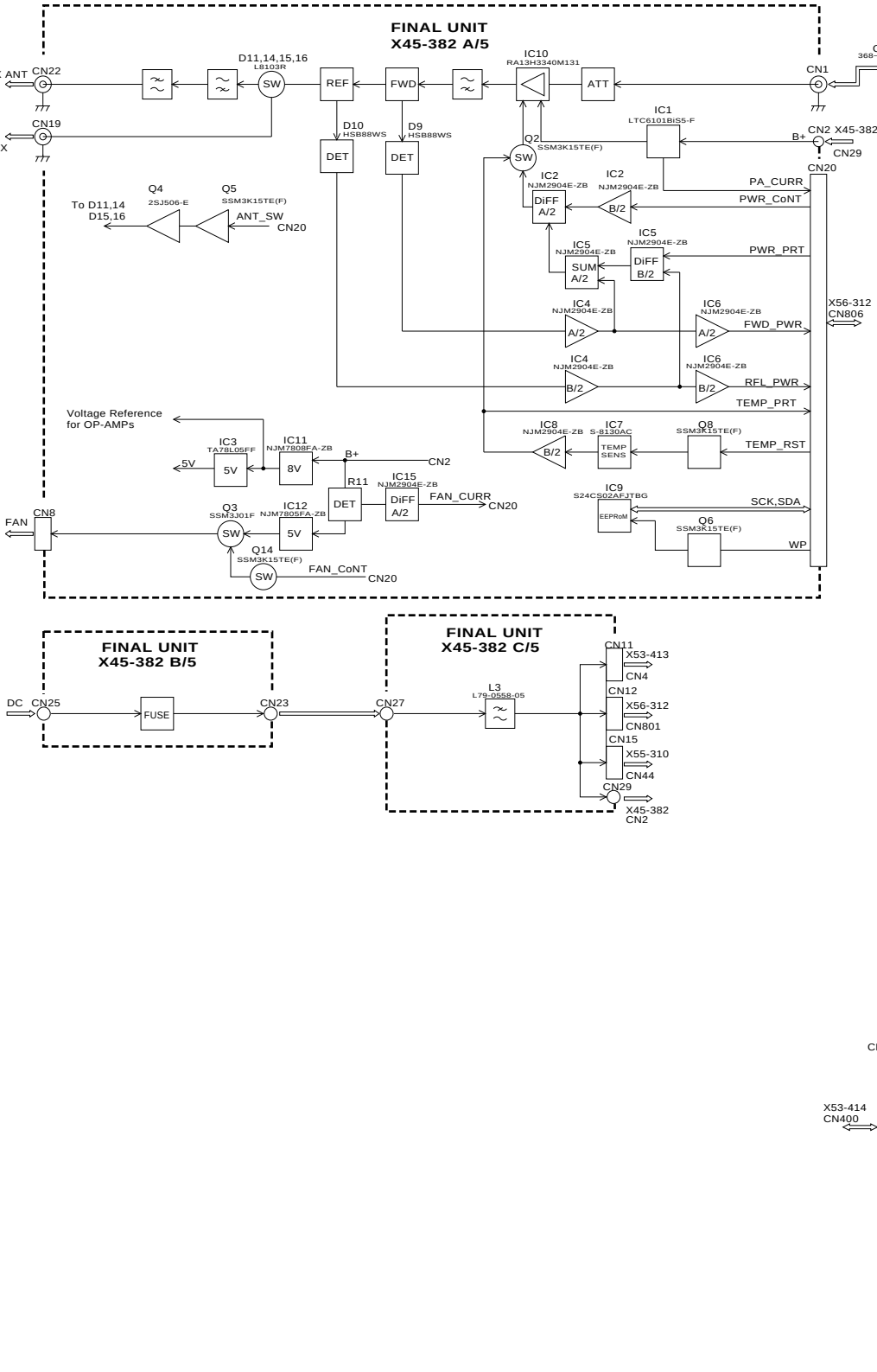
B : N09-2292-05
D : N30-2606-48 (M2.6 x 6)
E : N30-3035-43 (M3 X 35)
F : N32-3006-43 (M3 x 6)
G : N32-4008-43 (M4 x 8)
H : N67-3008-48 (M3 x 8)
J : N80-2006-43 (Ø2 x 6)
K : N80-2608-43 (Ø2.6 x 8)
L : N87-2608-48 (Ø2.6 x 8)

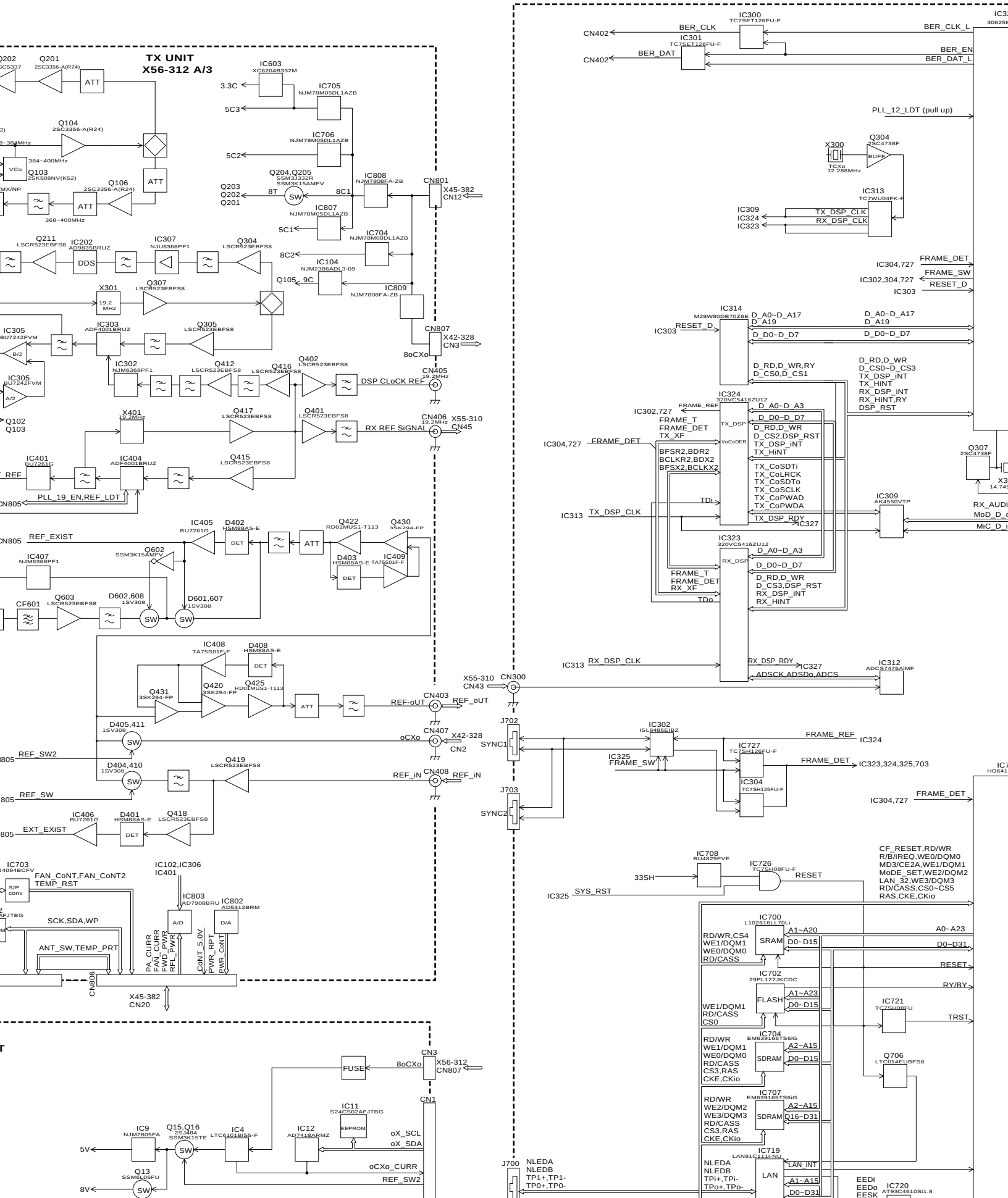


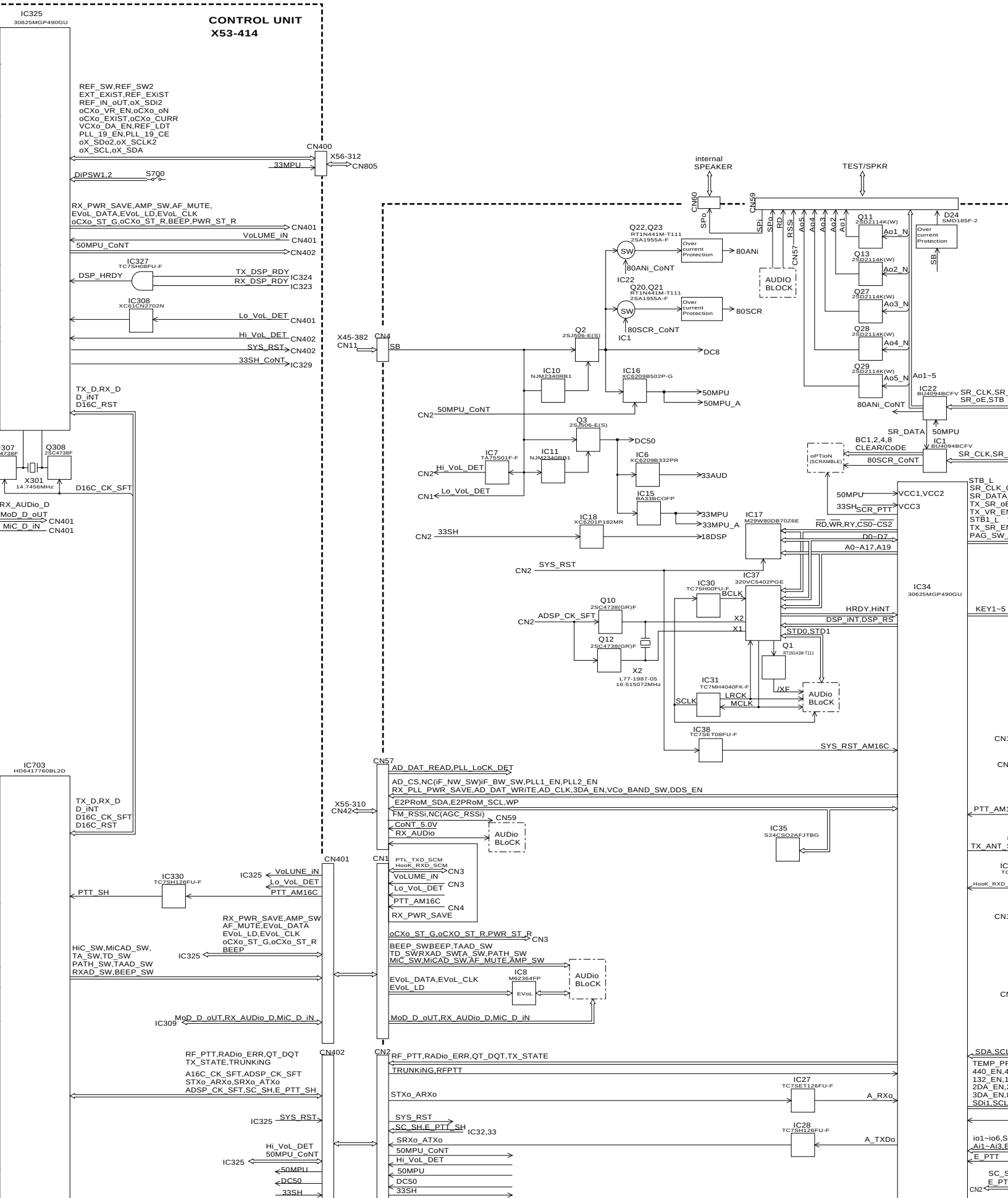
NXR-800 APPENDIX 1 (BLOCK DIAGRAM)

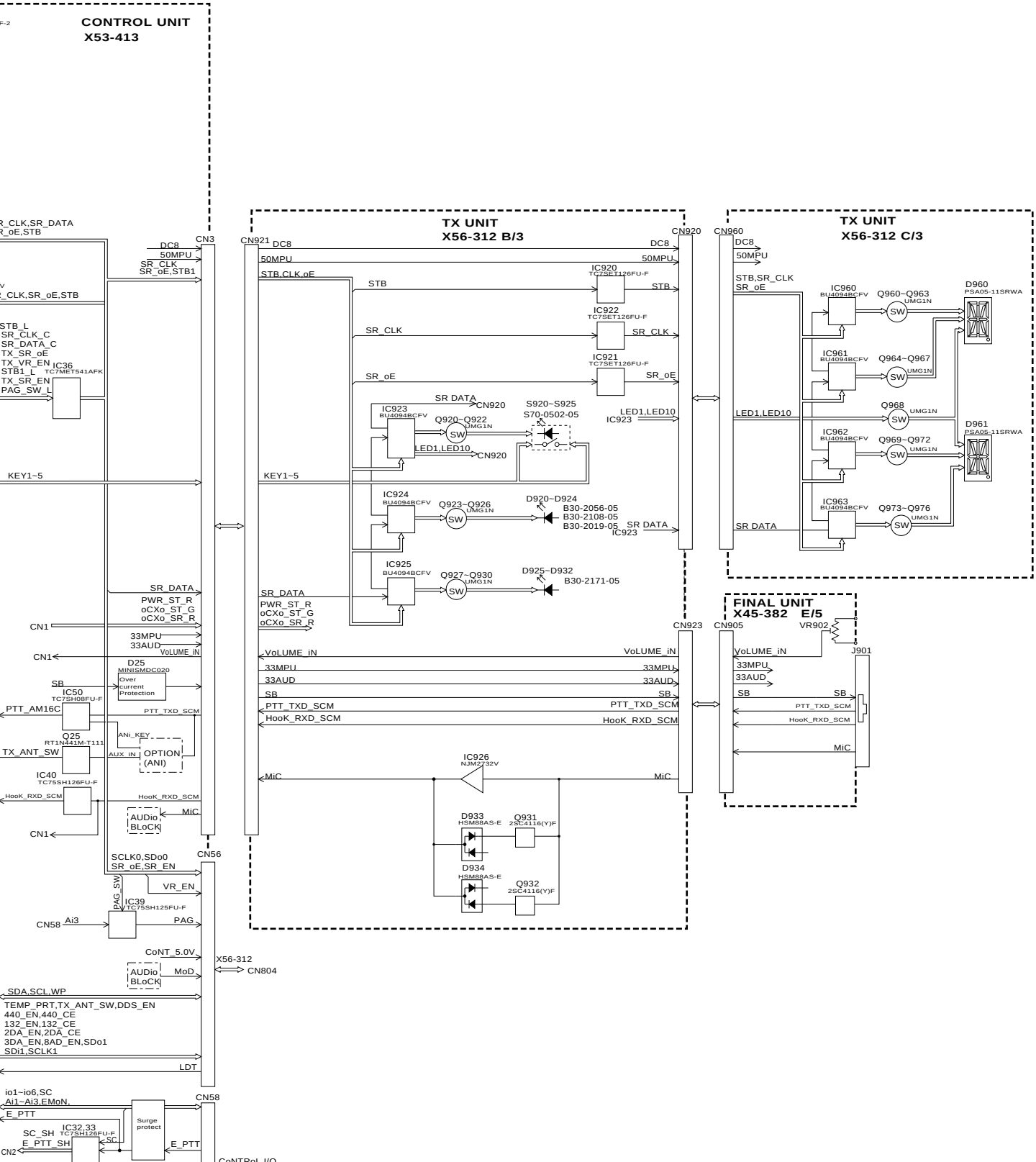
33H: IC702~IC705,IC707~IC724,IC726
IC17,IC34,IC37,IC28,IC30~IC33,IC40
33BU: IC700,IC701

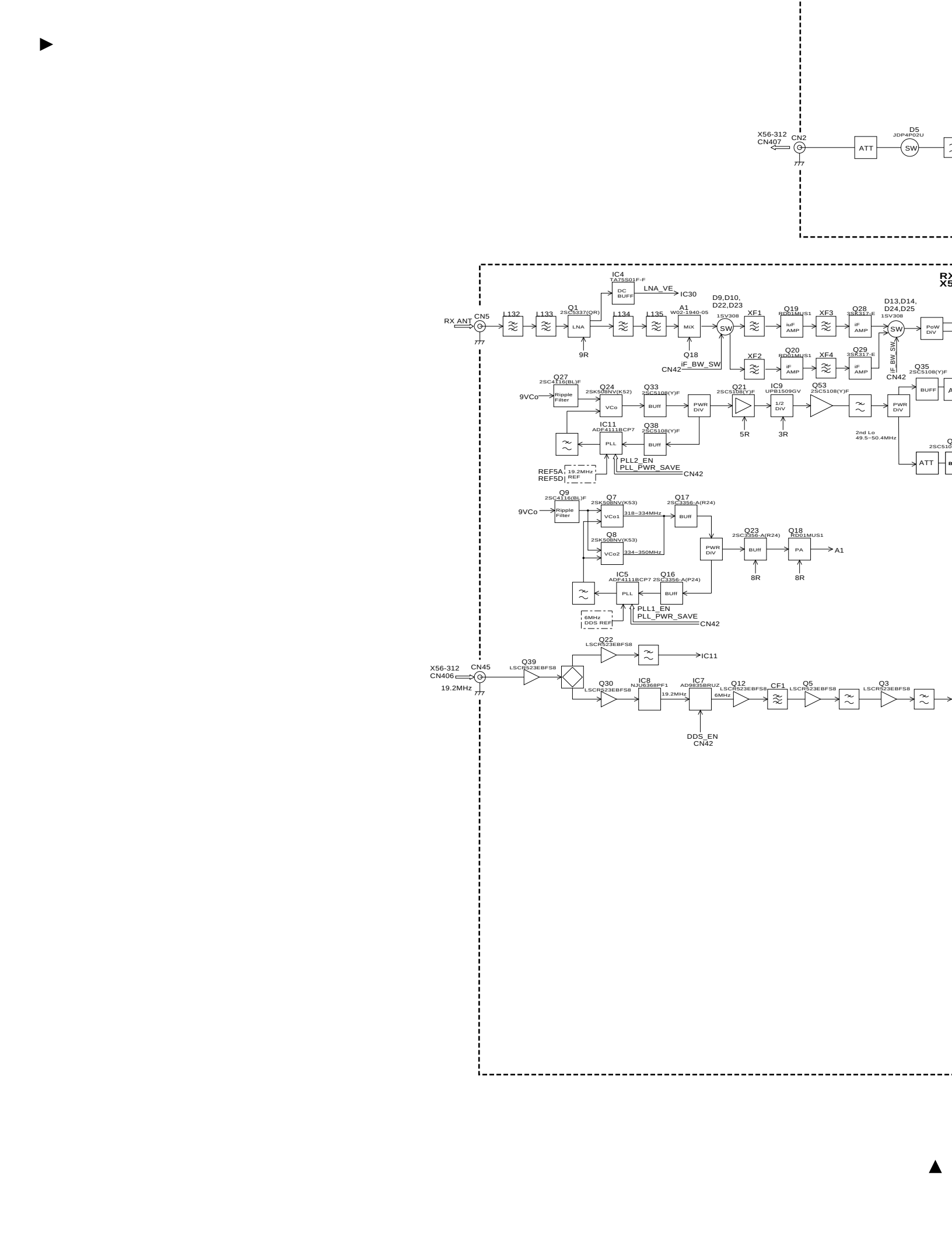
33MPU: IC7,IC303,IC304,IC313,IC314,IC316,IC323,IC324,IC325,IC327,IC725,IC727
33MPU_A:IC309,IC312
33AUD: IC2~IC5,IC8,IC9,IC12,IC14,IC19,IC20,IC21,IC23,IC25,IC41,IC926
33CF: J701
50MPU: IC300~IC302
IC22,IC27,IC35,IC36,IC38,IC39,IC1,IC150
IC920~IC925,IC960~IC963
50MPU_A:IC315
18DSP: IC37,
15SH: IC703
15DSP: IC323,IC324
80ANI:oPTioN(ANi)
80SCR:oPTioN(SCRAMBLE)

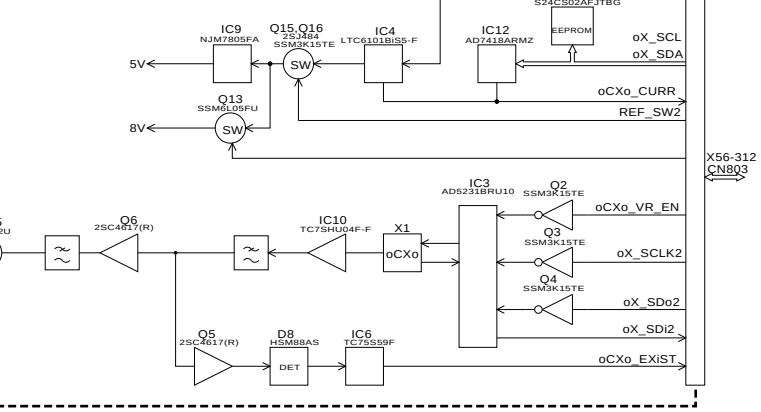

FINAL UNIT
X45-382 A/5
TX ANT
CN22
RX
CN19
D11,14,15,16
L8103R
SW
REF
FWD
IC10
RA13H3340M131
ATT
CN1
CN802
368-400MHz
IC1
LTC6101BIS5-F
B+
CN2 X45-382
CN29
CN20
Q2
SSM3K15TE(F)
D10
HSB88WS
D9
HSB88WS
DET
DET
IC2
NJM2904E-ZB
DiFF
A/2
B/2
PA_CURR
PWR_CoNT
Q4
2SJ506-E
Q5
SSM3K15TE(F)
To D11,14
D15,16
ANT_SW
CN20
IC5
NJM2904E-ZB
SUM
A/2
PWR_PRT
IC4
NJM2904E-ZB
IC6
NJM2904E-ZB
FWD_PWR
X56-312
CN806
RFL_PWR
TEMP_PRT
Voltage Reference
for OP-AMPs
IC3
TA78L05FF
5V
IC11
NJM7808FA-ZB
8V
B+
CN2
IC8
NJM2904E-ZB
IC7
S-8130AC
TEMP
SENS
Q8
SSM3K15TE(F)
TEMP_RST
R11
IC15
NJM2904E-ZB
FAN_CURR
CN20
IC9
S24CS02AFJTBG
EEPRoM
SCK,SDA
Q6
SSM3K15TE(F)
WP
CN8
FAN
Q3
SSM3J01F
IC12
NJM7805FA-ZB
5V
Q14
SSM3K15TE(F)
FAN_CoNT
CN20
FINAL UNIT
X45-382 B/5
DC
CN25
FUSE
CN23
CN27
FINAL UNIT
X45-382 C/5
L3
L79-0558-05
CN11
X53-413
CN4
CN12
X56-312
CN801
CN15
X55-310
CN44
CN29
X45-382
CN2
Q203
RD01MUS1
Q202
2SC5337
D201
HSM88AS-E
IC201
NJM2904E-ZB
IC701
BH2220FVM
D/A
D_PC
Q102
2SK508NV(K52)
VCo MoD
VCo
368-384MHz
Q105
2SC4116(BL)F
Ripple
Filter
9C
8V
IC101
LMX2352TMX/NP
IC102
BU7261G
IC803
(A/D)
CVT
Q213
LSCR523EBFS8
Q212
LSCR523EBFS8
CF201
4.5MHZ
IC306
BU7261G
CVT_MoD
IC305
BU7242FVM
IC304
M62364FP-F
CN804
MoD
IC301
BU7242FVM
VCo MoD
Q102
Q103
IC308
BU7242FVM
CVT_REF
CN805
X601
19.2MHz
IC602
NJU6368PF1
IC601
AD9835BRUZ
DDS
Q606
LSCR523EBFS8
CF60
CN805
REF_iN_oUT
PLL_19_CE
PLL_19_EN
REF_LDT
VCXo_DA_EN
REF_SW,REF_SW2
REF_EXiST
EXT_EXiST
X53-414
CN400
IC404
IC601
D404,D405
IC405,406
IC304,IC803
IC303,IC802
IC701,IC101
IC202,IC812
IC805
IC806
TC7SET126FU-F
IC703
BU4094BCFV
S/P
conv
IC702
S24CS02AFJTBG
EEPROM
IC304
LDT
MOD
CONT_5.0V
33MPU
oX_SDA
oX_SCL
REF_SW2
oCXo_VR_EN
oCXo_oN
oX_SCLK2
oCXo_CURR
oX_SDi2,oX_SDo2
oCXo_EXiST
SCLK0,SDo0,SR_EN
SR_oE,3DA_EN,SCLK1
SDo1,SDi1,440_CE
132_CE,VR_EN
8AD_EN,132_EN,2DA_EN,DDS_EN/VER
440_EN,2DA_CE
CN803
X42-328
CN1
CN804
X53-413
CN56
OPTION:KXK-3
ACCESSORY UNIT
X42-328

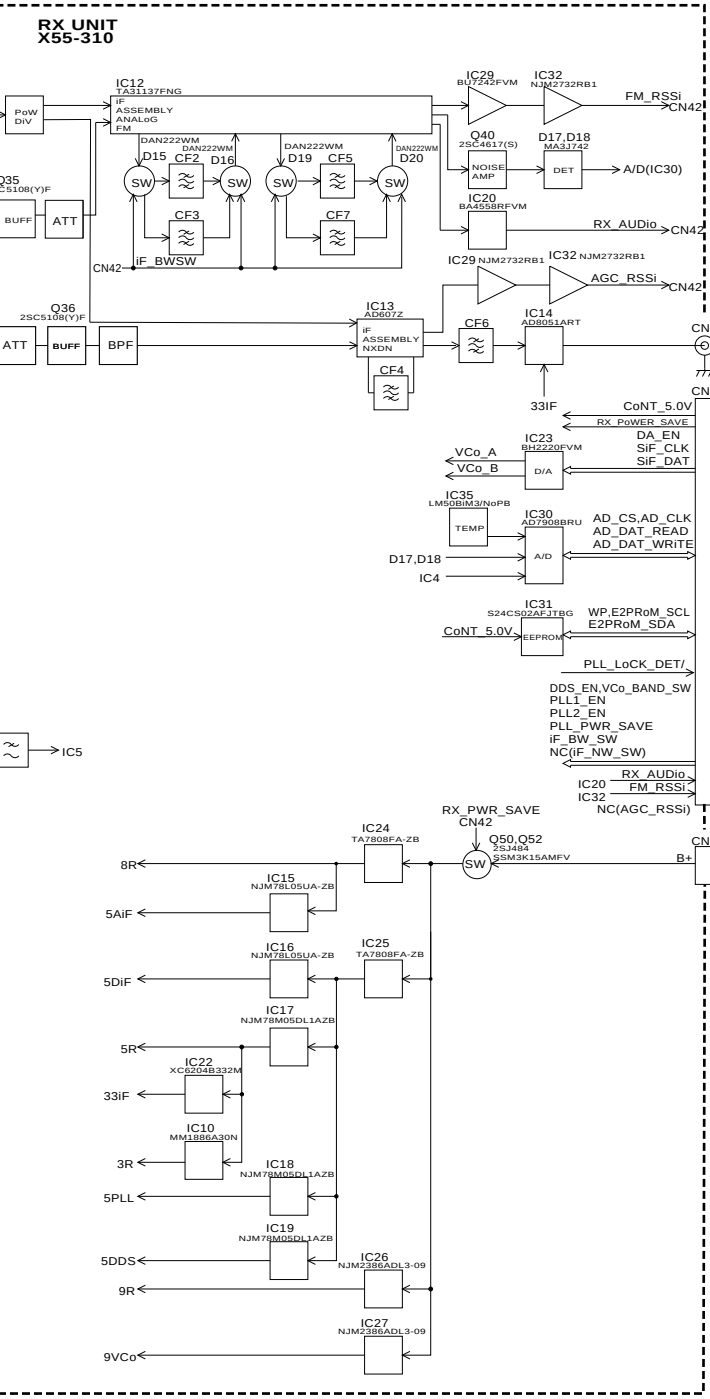

TX UNIT
X56-312 A/3
IC603
XC6204B332M
IC705
NJM78M05DL1AZB
IC706
NJM78M05DL1AZB
IC808
NJM7808FA-ZB
IC807
NJM78M05DL1AZB
IC704
NJM78M08DL1AZB
IC104
NJM2386ADL3-09
IC809
NJM7808FA-ZB
CN801
X45-382
CN12
CN807
X42-328
CN3
8oCXo
CN405
DSP CLoCK REF
CN406
RX REF SiGNAL
X55-310
CN45
CN403
REF-oUT
REF_oUT
CN407
oCXo
X42-328
CN2
CN408
REF_iN
REF_iN
CN806
X45-382
CN20
IC202
AD9835BRUZ
IC307
NJU6368PF1
IC303
ADF4001BRUZ
IC302
NJM6368PF1
IC305
BU7242FVM
IC401
BU7261G
IC404
ADF4001BRUZ
IC405
BU7261G
IC407
NJM6368PF1
IC408
TA75S01F-F
IC406
BU7261G
IC409
TA75S01F-F
IC703
IC102,IC306
IC401
IC803
AD7908BRU
IC802
AD5312BRM
IC9
NJM7805FA
IC4
LTC6101BIS5-F
IC12
AD7418ARMZ
IC11
S24CS02AFJTBG
EEPROM
Q201
2SC3356-A(R24)
Q104
2SC3356-A(R24)
Q103
2SK508NV(K52)
Q106
2SC3356-A(R24)
Q203
Q202
Q201
Q204,Q205
SSM3J332R
SSM3K15AMFV
Q211
LSCR523EBFS8
Q304
LSCR523EBFS8
Q307
LSCR523EBFS8
Q305
LSCR523EBFS8
Q412
LSCR523EBFS8
Q416
LSCR523EBFS8
Q402
LSCR523EBFS8
Q417
LSCR523EBFS8
Q401
LSCR523EBFS8
Q415
LSCR523EBFS8
Q602
SSM3K15AMFV
Q603
LSCR523EBFS8
Q431
3SK294-FP
Q420
3SK294-FP
Q425
RD01MUS1-T113
Q419
LSCR523EBFS8
Q422
RD01MUS1-T113
Q430
3SK294-FP
D403
HSM88AS-E
D602,608
1SV308
D601,607
1SV308
D405,411
1SV308
D404,410
1SV308
D408
HSM88AS-E
D402
HSM88AS-E
D401
HSM88AS-E
CF601
X301
19.2 MHz
X401
19.2MHz
ATT
DET
SW
DDS
VCo
3.3C
5C3
5C2
5C1
8C2
8C1
9C
8T
9C
384~400MHz
368~400MHz
DSP CLoCK REF
RX REF SiGNAL
REF_EXiST
EXT_EXiST
REF_SW2
REF_SW
PLL_19_EN,REF_LDT
FAN_CoNT,FAN_CoNT2
TEMP_RST
SCK,SDA,WP
ANT_SW,TEMP_PRT
PA_CURR
FAN_CURR
FWD_PWR
RFL_PWR
CoNT_5.0V
PWR_RPT
PWR_CoNT
5V
8V
Q13
SSM6L05FU
Q15,Q16
2SJ484
SSM3K15TE
FUSE
8oCXo
X56-312
CN807
CN1
oX_SCL
oX_SDA
oCXo_CURR
REF_SW2
IC300
TC7SET126FU-F
IC301
TC7SET126FU-F
BER_CLK
BER_DAT
CN402
BER_CLK_L
BER_EN
BER_DAT_L
PLL_12_LDT (pull up)
X300
TCXo
12.288MHz
Q304
2SC4738F
BUFF
IC313
TC7WU04FK-F
IC309
IC324
IC323
TX_DSP_CLK
RX_DSP_CLK
IC304,727
FRAME_DET
FRAME_SW
IC302,304,727
RESET_D
IC303
IC314
M29W80DB70Z6E
D_A0~D_A17
D_A19
D_D0~D_D7
D_RD,D_WR,RY
D_CS0,D_CS1
D_RD,D_WR
D_CS0~D_CS3
TX_DSP_iNT
TX_HiNT
RX_DSP_iNT
RX_HiNT,RY
DSP_RST
IC324
320VC5416ZU12
FRAME_REF
TX_DSP
IC302,727
FRAME_T
FRAME_DET
TX_XF
VoCoDER
IC304,727
FRAME_DET
BFSR2,BDR2
BCLKR2,BDX2
BFSX2,BCLKX2
TX_CoSDTi
TX_CoLRCK
TX_CoSDTo
TX_CoSCLK
TX_CoPWAD
TX_CoPWDA
TDi
IC313
TX_DSP_CLK
TX_DSP_RDY
IC327
IC323
320VC5416ZU12
RX_DSP
FRAME_T
FRAME_DET
RX_XF
TDo
IC313
RX_DSP_CLK
RX_DSP_RDY
IC327
ADSCK,ADSDo,ADCS
IC312
ADCS7476AIMF
IC309
AK4550VTP
Q307
2SC4738F
RX_AUDi
MoD_D_
MiC_D_i
X55-310
CN300
CN43
J702
SYNC1
J703
SYNC2
IC302
ISL8485EIBZ
IC325
FRAME_SW
IC727
TC7SH126FU-F
IC304
TC7SH125FU-F
FRAME_REF
IC324
FRAME_DET
IC323,324,325,703
IC304,727
FRAME_DET
IC708
BU4829FVE
33SH
IC325
SYS_RST
IC726
TC7SH08FU-F
RESET
CF_RESET,RD/WR
R/B/iREQ,WE0/DQM0
MD3/CE2A,WE1/DQM1
MoDE_SET,WE2/DQM2
LAN_32,WE3/DQM3
RD/CASS,CS0~CS5
RAS,CKE,CKio
IC700
L102616LL70Li
SRAM
RD/WR,CS4
WE1/DQM1
WE0/DQM0
RD/CASS
A1~A20
D0~D15
A0~A23
D0~D31
RESET
IC702
29PL127JKCDC
FLASH
WE1/DQM1
RD/CASS
CS0
A1~A23
D0~D15
RY/BY
IC721
TC7SH08FU
TRST
IC704
EM639165TS6iG
SDRAM
RD/WR
WE1/DQM1
WE0/DQM0
RD/CASS
CS3,RAS
CKE,CKio
A2~A15
D0~D15
Q706
LTC014EUBFS8
IC707
EM639165TS6iG
SDRAM
RD/WR
WE2/DQM2
WE3/DQM3
RD/CASS
CS3,RAS
CKE,CKio
A2~A15
D16~D31
IC719
LAN91C111i-NU
LAN
NLEDA
NLEDB
TPi+,TPi-
TPo+,TPo-
LAN_iNT
A1~A15
D0~D31
EEDi
EEDo
EESK
IC720
AT93C4610Si1.8
J700
NLEDA
NLEDB
TP1+,TP1-
TP0+,TP0-

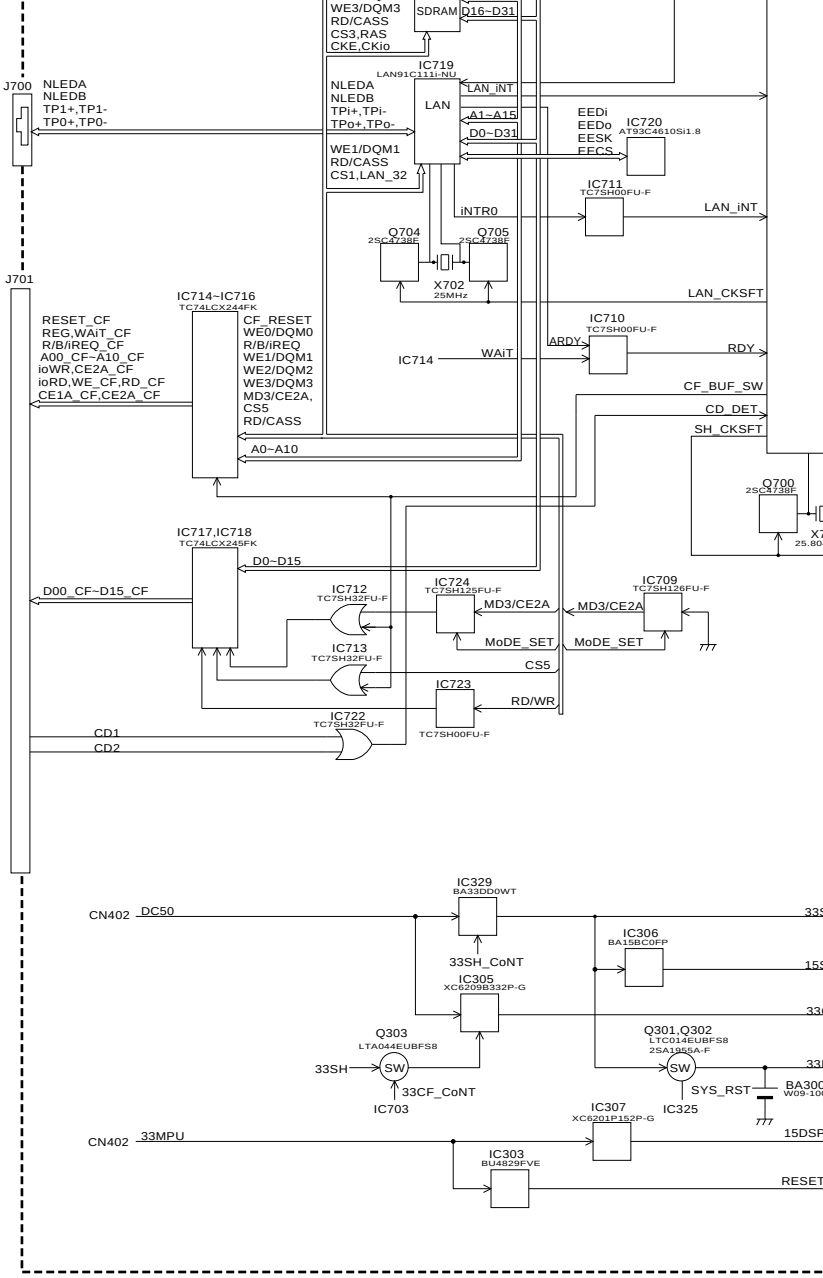

CONTROL UNIT
X53-414
IC325
30625MGP490GU
REF_SW,REF_SW2
EXT_EXiST,REF_EXiST
REF_iN_oUT,oX_SDi2
oCXo_VR_EN,oCXo_oN
oCXo_EXIST,oCXo_CURR
VCXo_DA_EN,REF_LDT
PLL_19_EN,PLL_19_CE
oX_SDo2,oX_SCLK2
oX_SCL,oX_SDA
CN400
X56-312
CN805
33MPU
DiPSW1,2
S700
RX_PWR_SAVE,AMP_SW,AF_MUTE,
EVoL_DATA,EVoL_LD,EVoL_CLK
oCXo_ST_G,oCXo_ST_R,BEEP,PWR_ST_R
CN401
VoLUME_iN
CN401
50MPU_CoNT
CN402
IC327
TC7SH08FU-F
DSP_HRDY
TX_DSP_RDY
RX_DSP_RDY
IC324
IC323
IC308
XC61CN2702N
Lo_VoL_DET
CN401
Hi_VoL_DET
CN402
SYS_RST
CN402
33SH_CoNT
IC329
TX_D,RX_D
D_iNT
D16C_RST
X301
14.7456MHz
D16C_CK_SFT
RX_AUDio_D
MoD_D_oUT
CN401
MiC_D_iN
CN401
IC703
HD6417760BL2D
TX_D,RX_D
D_iNT
D16C_CK_SFT
D16C_RST
IC330
TC7SH126FU-F
IC325
VoLUME_iN
Lo_VoL_DET
PTT_AM16C
PTT_SH
RX_PWR_SAVE,AMP_SW
AF_MUTE,EVoL_DATA
EVoL_LD,EVoL_CLK
oCXo_ST_G,oCXo_ST_R
BEEP
HiC_SW,MiCAD_SW,
TA_SW,TD_SW
PATH_SW,TAAD_SW
RXAD_SW,BEEP_SW
IC309
MoD_D_oUT,RX_AUDio_D,MiC_D_iN
RF_PTT,RADio_ERR,QT_DQT
TX_STATE,TRUNKiNG
A16C_CK_SFT,ADSP_CK_SFT
STXo_ARXo,SRXo_ATXo
ADSP_CK_SFT,SC_SH,E_PTT_SH
IC325
SYS_RST
Hi_VoL_DET
50MPU_CoNT
IC325
50MPU
DC50
33SH
internal
SPEAKER
TEST/SPKR
CN60
CN59
SPo
SPi
RD
RSSi
Ao5
Ao4
Ao3
Ao2
Ao1
CN57
AUDIO
BLOCK
Q22,Q23
RT1N441M-T111
2SA1955A-F
SW
Over
current
Protection
80ANi
80ANi_CoNT
IC22
Q20,Q21
RT1N441M-T111
2SA1955A-F
80SCR
80SCR_CoNT
IC1
Q11
2SD2114K(W)
Ao1_N
Q13
Ao2_N
Q27
Ao3_N
Q28
Ao4_N
Q29
Ao5_N
Ao1~5
D24
SMD185F-2
SB
IC22
BU4094BCFV
SR_CLK,SR_
SR_oE,STB
80ANi_CoNT
X45-382
CN11
CN4
SB
Q2
2SJ506-E(S)
DC8
IC10
NJM2340RB1
IC16
XC6209B502P-G
50MPU
50MPU_A
CN2
50MPU_CoNT
Q3
2SJ506-E(S)
DC50
IC7
TA75S01F-F
IC11
NJM2340RB1
IC6
XC6209B332PR
33AUD
CN2
Hi_VoL_DET
CN1
Lo_VoL_DET
IC15
BA33BCOFP
33MPU
33MPU_A
IC18
XC6201P182MR
18DSP
CN2
33SH
SR_DATA
50MPU
BC1,2,4,8
CLEAR/CoDE
oPTioN
(SCRAMBLE)
80SCR_CoNT
IC1
BU4094BCFV
SR_CLK,SR_
50MPU
33SH
SCR_PTT
VCC1,VCC2
VCC3
IC17
M29W80DB70Z6E
RD,WR,RY,CS0~CS2
D0~D7
A0~A17,A19
CN2
SYS_RST
IC37
320VC5402PGE
IC30
TC75H00FU-F
BCLK
X2
X1
IC34
30625MGP490GU
HRDY,HiNT
DSP_iNT,DSP_RS
STD0,STD1
CN2
ADSP_CK_SFT
Q10
2SC4738(GR)F
Q12
2SC4738(GR)F
X2
L77-1987-05
16.515072MHz
Q1
RT1N141M-T111
/XF
IC31
TC7MH4040FK-F
SCLK
LRCK
MCLK
AUDio
BLoCK
IC38
TC7SET08FU-F
SYS_RST_AM16C
IC35
S24CSO2AFJTBG
X55-310
CN42
CN57
AD_DAT_READ,PLL_LoCK_DET
AD_CS,NC(iF_NW_SW)iF_BW_SW,PLL1_EN,PLL2_EN
RX_PLL_PWR_SAVE,AD_DAT_WRiTE,AD_CLK,3DA_EN,VCo_BAND_SW,DDS_EN
E2PRoM_SDA,E2PRoM_SCL,WP
FM_RSSi,NC(AGC_RSSi)
CN59
CoNT_5.0V
RX_AUDio
AUDio
BLoCK
CN401
CN1
PTL_TXD_SCM
HooK_RXD_SCM
VoLUME_iN
CN3
Lo_VoL_DET
CN3
PTT_AM16C
CN4
RX_PWR_SAVE
oCXo_ST_G,oCXO_ST_R,PWR_ST_R
CN3
BEEP_SWBEEP,TAAD_SW
TD_SWRXAD_SWTA_SW,PATH_SW
MiC_SW,MiCAD_SW,AF_MUTE,AMP_SW
EVoL_DATA,EVoL_CLK
EVoL_LD
IC8
M62364FP
EVoL
AUDio
BLoCK
MoD_D_oUT,RX_AUDio_D,MiC_D_iN
CN402
CN2
RF_PTT,RADio_ERR,QT_DQT,TX_STATE
TRUNKiNG,RFPTT
IC27
TC7SET126FU-F
STXo_ARXo
A_RXo
SYS_RST
SC_SH,E_PTT_SH
IC32,33
IC28
TC7SH126FU-F
SRXo_ATXo
A_TXDo
50MPU_CoNT
Hi_VoL_DET
50MPU
DC50
33SH

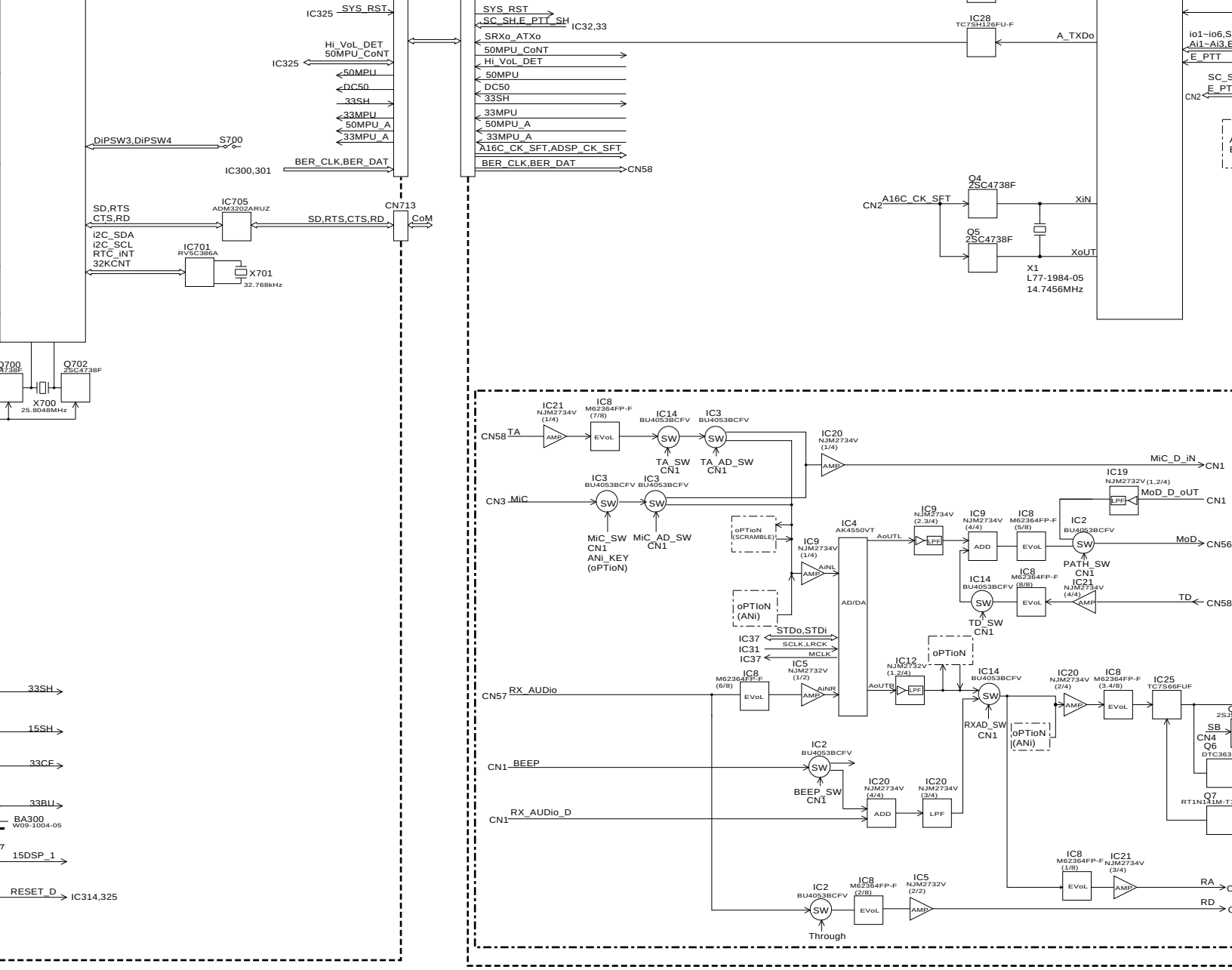

CONTROL UNIT
X53-413
TX UNIT
X56-312 B/3
TX UNIT
X56-312 C/3
FINAL UNIT
X45-382 E/5
CN3
CN921
CN920
CN960
CN923
CN905
CN56
CN58
CN804
X56-312
DC8
50MPU
SR_CLK
SR_oE,STB1
STB,CLK,oE
STB
SR_CLK
SR_oE
SR DATA
LED1,LED10
KEY1~5
SR_DATA
PWR_ST_R
oCXo_ST_G
oCXo_SR_R
33MPU
33AUD
VoLUME_iN
SB
PTT_TXD_SCM
HooK_RXD_SCM
MiC
SCLK0,SDo0
SR_oE,SR_EN
VR_EN
PAG_SW
PAG
CoNT_5.0V
MoD
SDA,SCL,WP
TEMP_PRT,TX_ANT_SW,DDS_EN
440_EN,440_CE
132_EN,132_CE
2DA_EN,2DA_CE
3DA_EN,8AD_EN,SDo1
SDi1,SCLK1
LDT
io1~io6,SC
Ai1~Ai3,EMoN,
E_PTT
SC_SH
E_PTT_SH
CoNTRoL I/O
IC36 TC7MET541AFK
IC50 TC7SH08FU-F
Q25 RT1N441M-T111
IC40 TC75SH126FU-F
IC39 TC75SH125FU-F
IC32,33 TC7SH126FU-F
IC920 TC7SET126FU-F
IC922 TC7SET126FU-F
IC921 TC7SET126FU-F
IC923 BU4094BCFV
IC924 BU4094BCFV
IC925 BU4094BCFV
IC926 NJM2732V
IC960 BU4094BCFV
IC961 BU4094BCFV
IC962 BU4094BCFV
IC963 BU4094BCFV
D25 MINISMDC020
Over current Protection
D920~D924
B30-2056-05
B30-2108-05
B30-2019-05
D925~D932
B30-2171-05
D933 HSM88AS-E
D934 HSM88AS-E
Q931 2SC4116(Y)F
Q932 2SC4116(Y)F
S920~S925
S70-0502-05
Q920~Q922
Q923~Q926
Q927~Q930
Q960~Q963
Q964~Q967
Q968
Q969~Q972
Q973~Q976
UMG1N
D960 PSA05-11SRWA
D961 PSA05-11SRWA
VR902
J901
ANI_KEY
AUX_iN
OPTION (ANI)
AUDio BLoCK
Surge protect


X56-312
CN407
CN2
ATT
D5
JDP4P02U
SW
RX ANT
CN5
L132
L133
Q1
2SC5337(QR)
LNA
9R
IC4
TA75S01F-F
DC BUFF
LNA_VE
IC30
L134
L135
A1
W02-1940-05
MiX
Q18
CN42
iF_BW_SW
D9,D10,
D22,D23
1SV308
XF1
XF2
Q19
RD01MUS1
iuF AMP
XF3
XF4
Q28
3SR317-E
iF AMP
Q20
Q29
D13,D14,
D24,D25
PoW DiV
Q35
2SC5108(Y)F
BUFF
Q27
2SC4116(BL)F
Ripple Filter
9VCo
Q24
2SK508NV(K52)
VCo
Q33
BUff
PWR DiV
Q21
IC9
UPB1509GV
1/2 DiV
Q53
5R
3R
2nd Lo
49.5~50.4MHz
IC11
ADF4111BCP7
PLL
Q38
REF5A
REF5D
19.2MHz REF
PLL2_EN
PLL_PWR_SAVE
Q9
Q7
2SK508NV(K53)
VCo1
318~334MHz
Q17
2SC3356-A(R24)
Q8
VCo2
334~350MHz
Q23
Q18
PA
A1
8R
IC5
Q16
6MHz DDS REF
PLL1_EN
X56-312
CN406
19.2MHz
CN45
Q39
LSCR523EBFS8
Q22
IC11
Q30
IC8
NJU6368PF1
IC7
AD9835BRUZ
Q12
6MHz
CF1
Q5
Q3
DDS_EN


IC9
NJM7805FA
Q15,Q16
2SJ484
SSM3K15TE
IC4
LTC6101BIS5-F
IC12
AD7418ARMZ
S24CS02AFJTBG
EEPROM
oX_SCL
oX_SDA
5V
Q13
SSM6L05FU
8V
oCXo_CURR
REF_SW2
X56-312
CN803
IC3
AD5231BRU10
Q2
SSM3K15TE
oCXo_VR_EN
Q3
SSM3K15TE
oX_SCLK2
Q4
SSM3K15TE
oX_SDo2
oX_SDi2
oCXo_EXiST
Q6
2SC4617(R)
IC10
TC7SHU04F-F
X1
oCXo
Q5
2SC4617(R)
D8
HSM88AS
DET
IC6
TC75S59F

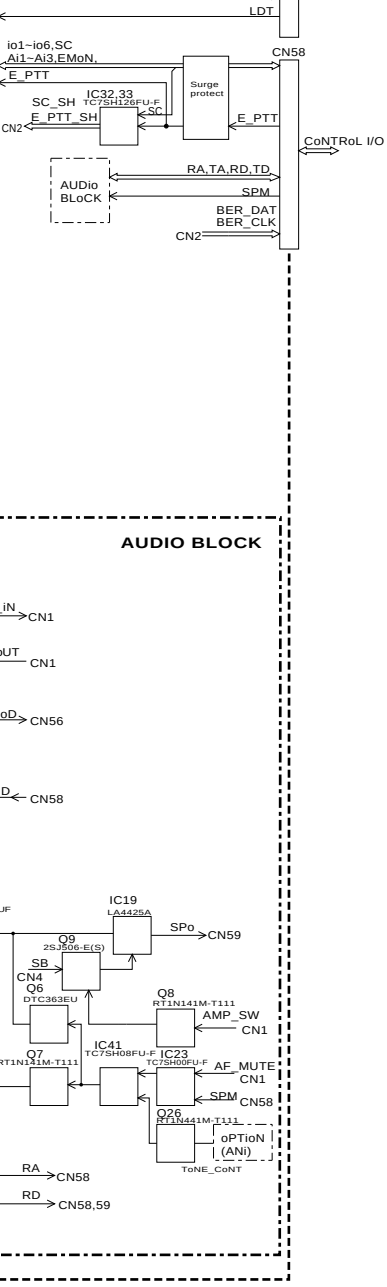

RX UNIT
X55-310
IC12
TA31137FNG
iF
ASSEMBLY
ANALoG
FM
PoW
DiV
DAN222WM
D15
CF2
D16
D19
CF5
D20
CF3
CF7
iF_BWSW
CN42
IC29
BU7242FVM
IC32
NJM2732RB1
FM_RSSi
CN42
Q40
2SC4617(S)
NOISE
AMP
DET
D17,D18
MA3J742
A/D(IC30)
IC20
BA4558RFVM
RX_AUDio
CN42
IC29 NJM2732RB1
IC32 NJM2732RB1
AGC_RSSi
CN42
Q36
2SC5108(Y)F
ATT
BUFF
BPF
IC13
AD607Z
iF
ASSEMBLY
NXDN
CF6
CF4
IC14
AD8051ART
CN43
X53-414
CN300
CN42
33IF
CoNT_5.0V
RX_PoWER_SAVE
IC23
BH2220FVM
D/A
VCo_A
VCo_B
DA_EN
SiF_CLK
SiF_DAT
IC35
LM50BIM3/NoPB
TEMP
IC30
AD7908BRU
A/D
AD_CS,AD_CLK
AD_DAT_READ
AD_DAT_WRiTE
X53-413
CN57
D17,D18
IC4
IC31
S24CS02AFJTBG
EEPROM
CoNT_5.0V
WP,E2PRoM_SCL
E2PRoM_SDA
PLL_LoCK_DET/
DDS_EN,VCo_BAND_SW
PLL1_EN
PLL2_EN
PLL_PWR_SAVE
iF_BW_SW
NC(iF_NW_SW)
IC5
RX_AUDio
IC20
IC32
FM_RSSi
NC(AGC_RSSi)
RX_PWR_SAVE
CN42
IC24
TA7808FA-ZB
Q50,Q52
2SJ484
SSM3K15AMFV
CN44
X45-382
CN11
B+
8R
IC15
NJM78L05UA-ZB
5AiF
IC16
NJM78L05UA-ZB
IC25
TA7808FA-ZB
5DiF
IC17
NJM78M05DL1AZB
5R
IC22
XC6204B332M
33iF
IC10
MM1886A30N
3R
IC18
NJM78M05DL1AZB
5PLL
IC19
NJM78M05DL1AZB
5DDS
IC26
NJM2386ADL3-09
9R
IC27
NJM2386ADL3-09
9VCo


WE3/DQM3
RD/CASS
CS3,RAS
CKE,CKio
SDRAM
D16~D31
IC719
LAN91C111i-NU
J700
NLEDA
NLEDB
TP1+,TP1-
TP0+,TP0-
LAN
NLEDA
NLEDB
TPi+,TPi-
TPo+,TPo-
WE1/DQM1
RD/CASS
CS1,LAN_32
LAN_iNT
A1~A15
D0~D31
EEDi
EEDo
EESK
EECS
IC720
AT93C4610Si1.8
IC711
TC7SH00FU-F
iNTR0
LAN_iNT
Q704
2SC4738F
Q705
2SC4738F
X702
25MHz
LAN_CKSFT
J701
IC714~IC716
TC74LCX244FK
RESET_CF
REG,WAiT_CF
R/B/iREQ_CF
A00_CF~A10_CF
ioWR,CE2A_CF
ioRD,WE_CF,RD_CF
CE1A_CF,CE2A_CF
CF_RESET
WE0/DQM0
R/B/iREQ
WE1/DQM1
WE2/DQM2
WE3/DQM3
MD3/CE2A,
CS5
RD/CASS
IC714
WAiT
ARDY
IC710
TC7SH00FU-F
RDY
CF_BUF_SW
CD_DET
SH_CKSFT
A0~A10
Q700
2SC4738F
IC717,IC718
TC74LCX245FK
D0~D15
D00_CF~D15_CF
IC712
TC7SH32FU-F
IC724
TC7SH125FU-F
MD3/CE2A
IC709
TC7SH126FU-F
MD3/CE2A
MoDE_SET
MoDE_SET
IC713
TC7SH32FU-F
CS5
IC723
RD/WR
IC722
TC7SH32FU-F
TC7SH00FU-F
CD1
CD2
IC329
BA33DD0WT
CN402
DC50
IC306
BA15BC0FP
33SH_CoNT
IC305
XC6209B332P-G
Q303
LTA044EUBFS8
33SH
33CF_CoNT
IC703
Q301,Q302
LTC014EUBFS8
2SA1955A-F
SYS_RST
IC325
IC307
XC6201P152P-G
CN402
33MPU
IC303
BU4829FVE
RESET



33H: IC702~IC705,IC707~IC724,IC726
IC17,IC34,IC37,IC28,IC30~IC33,IC40
33BU: IC700,IC701

33MPU: IC7,IC303,IC304,IC313,IC314,IC316,IC323,IC324,IC325,IC327,IC725,IC727
33MPU_A:IC309,IC312
33AUD: IC2~IC5,IC8,IC9,IC12,IC14,IC19,IC20,IC21,IC23,IC25,IC41,IC926
33CF: J701
50MPU: IC300~IC302
IC22,IC27,IC35,IC36,IC38,IC39,IC1,IC150
IC920~IC925,IC960~IC963
50MPU_A:IC315
18DSP: IC37,
15SH: IC703
15DSP: IC323,IC324
80ANI:oPTioN(ANi)
80SCR:oPTioN(SCRAMBLE)


LDT
io1~io6,SC
Ai1~Ai3,EMoN,
E_PTT
CN58
Surge protect
SC_SH
IC32,33
TC7SH126FU-F
SC
E_PTT_SH
CN2
E_PTT
CoNTRoL I/O
AUDio BLoCK
RA,TA,RD,TD
SPM
BER_DAT
BER_CLK
CN2

AUDIO BLOCK
iN
CN1
oUT
CN1
oD
CN56
D
CN58
IC19
LA4425A
SPo
CN59
Q9
2SJ506-E(S)
SB
CN4
Q6
DTC363EU
Q8
RT1N141M-T111
AMP_SW
CN1
Q7
RT1N141M-T111
IC41
TC7SH08FU-F
IC23
TC7SH00FU-F
AF_MUTE
CN1
SPM
CN58
Q26
RT1N441M-T111
oPTioN
(ANi)
ToNE_CoNT
RA
CN58
RD
CN58,59

TX UNIT X56-312 C/3

CN960: DC8, GND, 50MPU, STB, SR_oE, SR_CLK, SR_DATA, LED 1, GND, LED 10

CN920: DC8, GND, 50MPU, STB, SR_oE, SR_CLK, SR_DATA, LED 1, GND, LED 10

TX UNIT X56-312 B/3

CN921: DC8, GND, DC8, DC8, 50MPU, 50MPU, GND, DC8, K5, K4, K3, K2, K1, GND, STB1, GND, SR_DATA, GND, SR_CLK, GND, SR_oE, GND, PTT_TXD_SCM, SCM_EN, HOOK_RXD_SCM, GND, 0CXo_ST_G, PWR_ST_R, 0CXo_ST_R, GND, VOLUME_IN, 33AUD, 33MPU, MIC, GND, MIG

CN923: VOLUME_IN, 33MPU, GND, 33AUD, SB, SCM_EN, GND, PTT_TXD_SCM, HOOK_RXD_SCM, MIG, MIC

FINAL UNIT X45-382 E/5

CN905: VOLUME_IN, 33MPU, GND, 33AUD, SB, SCM_EN, GND, PTT_TXD_SCM, HooK_RXD_SCM, MiG, MIC

J901: NC, SB, GND, PTT_TXD_SCM, MIC, MIG, HOOK_RXD_SCM, SCM_EN

TEST/SPKR (PANEL VIEW)

SPG, SPG, SPI, SPO, AO5, SB, GND, RS, AO2, AO4, GND, RD, AO1, AO3

INT SP

CONTROL I/O (PANEL VIEW)

SPACE, PROG1, PROG2, PROG3, PROG4, PROG5, PROG6, PROG7, PROG8, PROG9, PROG10, PROG11, PROG12, PROG13, PROG14, PROG15, PROG16, PROG17, PROG18, PROG19, PROG20, PROG21, PROG22, PROG23, PROG24, PROG25, PROG26, PROG27, PROG28, PROG29, PROG30, PROG31, PROG32, PROG33, PROG34, PROG35, PROG36, PROG37, PROG38, PROG39, PROG40, PROG41, PROG42, PROG43, PROG44, PROG45, PROG46, PROG47, PROG48, PROG49, PROG50, PROG51, PROG52, PROG53, PROG54, PROG55, PROG56, PROG57, PROG58, PROG59, PROG60, PROG61, PROG62, PROG63, PROG64, PROG65, PROG66, PROG67, PROG68, PROG69, PROG70, PROG71, PROG72, PROG73, PROG74, PROG75, PROG76, PROG77, PROG78, PROG79, PROG80, PROG81, PROG82, PROG83, PROG84, PROG85, PROG86, PROG87, PROG88, PROG89, PROG90, PROG91, PROG92, PROG93, PROG94, PROG95, PROG96, PROG97, PROG98, PROG99, PROG100, PROG101, PROG102, PROG103, PROG104, PROG105, PROG106, PROG107, PROG108, PROG109, PROG110, PROG111, PROG112, PROG113, PROG114, PROG115, PROG116, PROG117, PROG118, PROG119, PROG120, PROG121, PROG122, PROG123, PROG124, PROG125, PROG126, PROG127, PROG128

OPTION (OCXO) KXK-3

CN3: 8xCXo, GND

CN2: REF_SW2, GND, oX_SDo2, oCXo_EXIST, oX_SDi2, oCXo_CURR, oX_SCLK2, oCXo_VR_EN, oX_SCL, oX_SDA, GND, 33MPU

CN807: 8xCXo, GND, REF_SW2

CN407: oX_SDo2, oCXo_EXIST, oX_SDi2, oCXo_CURR, oX_SCLK2, oCXo_VR_EN, oX_SCL, oX_SDA, GND, 33MPU

OCXO

RX UNIT X55-310

CN42: GND, GND, WP, D_GND, E2PRoM_SDA, CoNT_5.0V, E2PRoM_SCL, D_GND, AD_CS, iF_BW_SW, AD_DAT_WRITE, NC(iF_NW_SW), AD_CLK, GND, AD_DAT_READ, NC, CoNT_5.0V, PLL_LoCK_DET, AGC_RSSI, PLL2_EN, FM_RSSI, NC, GND, PLL_PWR_SAVE, RX_AUDIo, SiF_DAT, GND, SiF_CLK, DA_EN, PLL1_EN, VCo_BAND_SW, DDS_EN, RX_PoWER_SAVE, NC, GND, GND

CN57: GND, GND, WP, D_GND, E2PRoM_SDA, CoNT_5.0V, E2PRoM_SCL, D_GND, AD_CS, iF_BW_SW, AD_DAT_WRITE, NC(iF_NW_SW), AD_CLK, GND, AD_DAT_READ, NC, CoNT_5.0V, PLL_LoCK_DET, AGC_RSSI, PLL2_EN, FM_RSSI, NC, GND, PLL_PWR_SAVE, RX_AUDIo, SiF_DAT, GND, SiF_CLK, DA_EN, PLL1_EN, VCo_BAND_SW, DDS_EN, RX_PoWER_SAVE, NC, GND, GND

CONTROL UNIT1 X53-413

REF1 (19.2MHz) CN45

RX_IF_VN CN43

MONITOR_PORT CN41

RX ANT CN5

CN44: B, B, E

CN4: SB, SB, T, E

CN2: HI_VoL_DET, GND, 50MPU_A_GND, 50MPU, 50MPU_A_GND, 50MPU, DC50, DC50, DC50, 33MPU_A_GND, 33MPU, 33MPU_A_GND, 33MPU_A, 33SH, 50MPU_CoNT, NC, E_PTT_SH, SCM_EN, GND, 0_ATX0, 0_ATX0, GND, RF_PTT, TX_RX_STATE, QT_DQT, RADIO_ERR, GND, ADSP_CK_SFT, TRUNKING, AUDIO_CK_SFT, BER_DAT, BER_CLK, SYS_RST

CN1: GND, GND, RX_PWR_SAVE, SCK_ST_G, 0CXo_ST_G, VOLUME_IN, 0CXo_ST_R, MoD_D_OUT, GND, AUDIO_D, BEEP, MIC_D_IN, MIC_CLK, NC, Hook_RXD_SCM, SCM_EN, AMP_SW, MSP_SW, EVOL_DATA, EVOL_CLK, GND, MOD_LD, TAAD_SW, TA_SW, BEEP_SW, PATH_SW, RXAD_SW, AGC_SW, MICAD_SW, TD_SW, NC, Lo_Vol_DET, GND, PTT_TXD_SCM

CN402: HI_VoL_DET, GND, 50MPU_A_GND, 50MPU, 50MPU_A_GND, 50MPU, DC50, DC50, DC50, 33MPU_A_GND, 33MPU, 33MPU_A_GND, 33MPU_A, 33SH, 50MPU_CoNT, NC, E_PTT_SH, SCM_EN, GND, 0_ATX0, 0_ATX0, GND, RF_PTT, TX_RX_STATE, QT_DQT, RADIO_ERR, GND, ADSP_CK_SFT, TRUNKING, AUDIO_CK_SFT, BER_DAT, BER_CLK, SYS_RST

CN401: GND, GND, RX_PWR_SAVE, SCK_ST_G, 0CXo_ST_G, VOLUME_IN, 0CXo_ST_R, MoD_D_OUT, GND, AUDIO_D, BEEP, MIC_D_IN, MIC_CLK, NC, Hook_RXD_SCM, SCM_EN, AMP_SW, MSP_SW, EVOL_DATA, EVOL_CLK, GND, MOD_LD, TAAD_SW, TA_SW, BEEP_SW, PATH_SW, RXAD_SW, AGC_SW, MICAD_SW, TD_SW, NC, Lo_Vol_DET, GND, PTT_TXD_SCM

CONTROL UNIT2 X53-414

CN400: GND, GND, REF_SW2, WP, REF_SW, oX_SCL, EXT_EXIST, oX_SDA, REF_EXIST, IMP_H_L, REF_IN_oUT, GND, oX_SDi2, GND, oCXo_VR_EN, GND, oCXo_oN, GND, oCXo_CURR, GND, oCXo_EXIST, GND, VCXo_DA_EN, GND, REF_LDT, GND, PLL_19_EN, GND, PLL_19_CE, GND, oX_SDo2, GND, oX_SCLK2, 33MPU, GND, GND

CN805: GND, GND, REF_SW2, WP, REF_SW, oX_SCL, EXT_EXIST, oX_SDA, REF_EXIST, IMP_H_L, REF_IN_oUT, GND, oX_SDi2, GND, oCXo_VR_EN, GND, oCXo_oN, GND, oCXo_CURR, GND, oCXo_EXIST, GND, VCXo_DA_EN, GND, REF_LDT, GND, PLL_19_EN, GND, PLL_19_CE, GND, oX_SDo2, GND, oX_SCLK2, 33MPU, GND, GND

CN56: GND, GND, PAG, GND, CoNT_5.0V, D_GND, CoNT_5.0V, D_GND, SDA, D_GND, SCK, TEMP_PRT, ANT_SW, DDS_EN, VR_EN, 440_EN, 132_EN, 440_CE, 132_CE, LDT, 2DA_EN, 3DA_EN, 2DA_CE, SR_oE, 8AD_EN, SR_EN, SDi1, SDo0, SCLK1, SCLK0, SDo1, GND, MoD, WP, GND, GND

CN804: GND, GND, PAG, GND, CoNT_5.0V, D_GND, CoNT_5.0V, D_GND, SDA, D_GND, SCK, TEMP_PRT, ANT_SW, DDS_ENVER, VR_EN, 440_EN, 132_EN, 440_CE, 132_CE, LDT, 2DA_EN, 3DA_EN, 2DA_CE, SR_oE, 8AD_EN, SR_EN, SDi1, SDo0, SCLK1, SCLK0, SDo1, GND, MoD, WP, GND, GND

FINAL UNIT X45-382 A/5

CN806: GND, GND, NC(FAN_CURR2), GND, PA_CURR, GND, FAN_CURR, GND, FWD_PWR, GND, RFL_PWR, GND, PWR_PRT, GND, PWR_CONT, GND, FAN_CONT, GND, FAN_CONT2, GND, TEMP_RST, GND, ANT_SW, GND, TEMP_PRT, D_GND, CONT_5.0V, D_GND, SCK, D_GND, SDA, D_GND, GND, WP, GND, GND

CN20: GND, GND, NC(FAN_CURR2), GND, PA_CURR, GND, FAN_CURR, GND, FWD_PWR, GND, RFL_PWR, GND, PWR_PRT, GND, PWR_CONT, GND, FAN_CONT, GND, FAN_CONT2, GND, TEMP_RST, GND, ANT_SW, GND, TEMP_PRT, D_GND, CONT_5.0V, D_GND, SCK, D_GND, SDA, D_GND, GND, WP, GND, GND

CN22: TX ANT

CN19: MONITOR PORT

CN8: FAN 1, M

TX UNIT X56-312 A/3

CN21: E, B, CN2

CN802: TX SIGNAL CN1

CN801: E, B, B

CN408: REF_IN(10MHz)

CN403: REF_OUT(10MHz)

CN700: TD+, TD-, RD+, RD-, GND, 12V

J703: FRAME A, FRAME B

J702: FRAME A, FRAME B

J701: GND, DO3 CF, DO2 CF, DO1 CF, DO0 CF, DO6 CF, DO5 CF, DO4 CF, CE1A CF, A10 CF, A11 CF, A09 CF, A08 CF, A12 CF, 32CF, A06 CF, A07 CF, A05 CF, A04 CF, A03 CF, A02 CF, A01 CF, A00 CF, D00 CF, D01 CF, D02 CF, D03 CF, D04 CF, D05 CF, D06 CF, D07 CF, NC, NC, GND, CD1, D11 CF, D12 CF, D13 CF, D14 CF, D15 CF, CE2A CF, NC, IO WR, WE CF, BUSREQ CF, 33CF, NC, NC, RESET CF, WAIT CF, NC, REG, NC, NC, D08 CF, D09 CF, D10 CF, NC, GND, CD2

CN713: GND, RI, DTR, CTS, SD, RTS, RD, DSR, CD

PC CONTROL

RX_IF_VN

CN27, CN23, CN25, CN28, CN24, CN26, CN30, CN29

FINAL UNIT X45-382 C/5

FINAL UNIT X45-382 B/5

DC

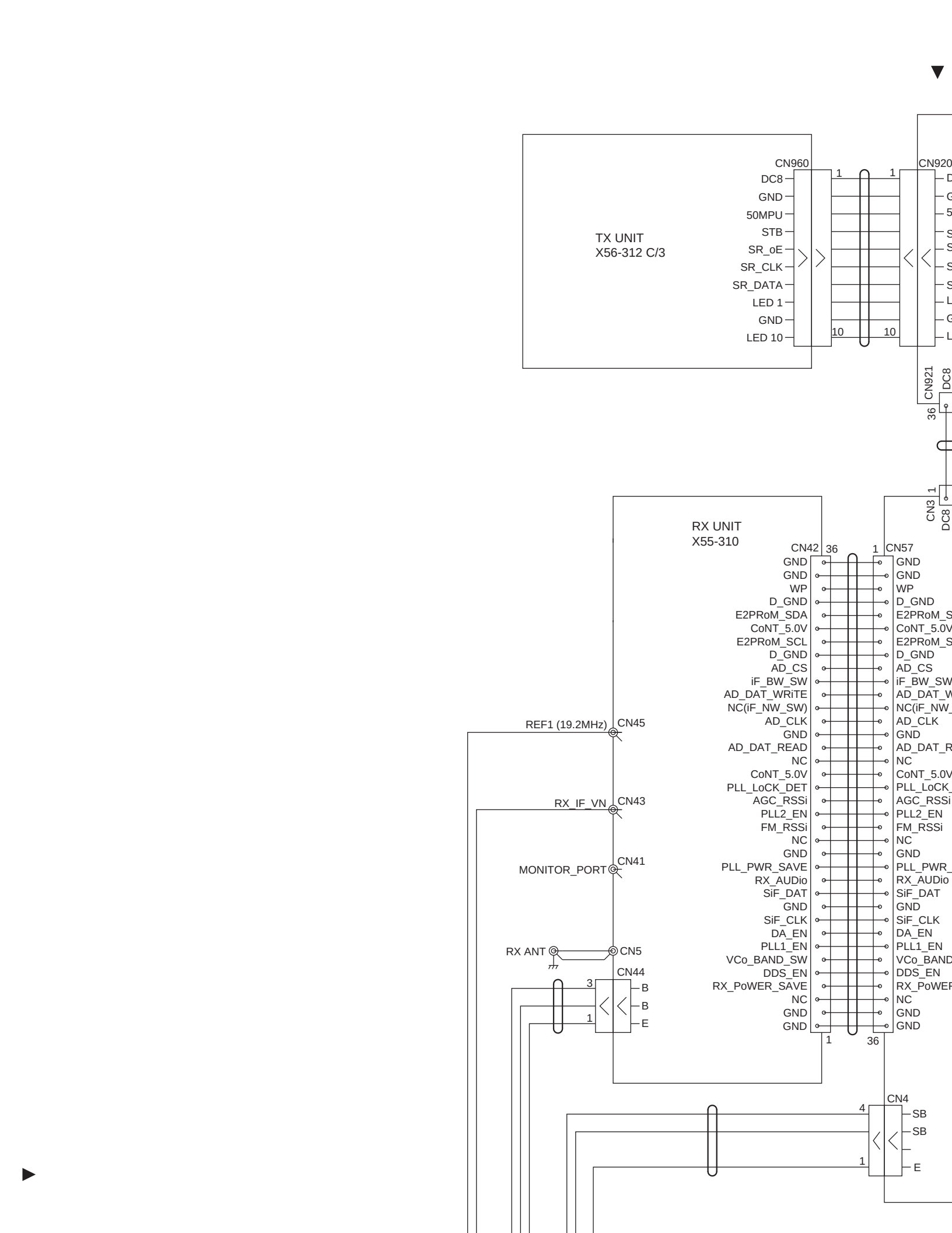
CN11: E, B, B

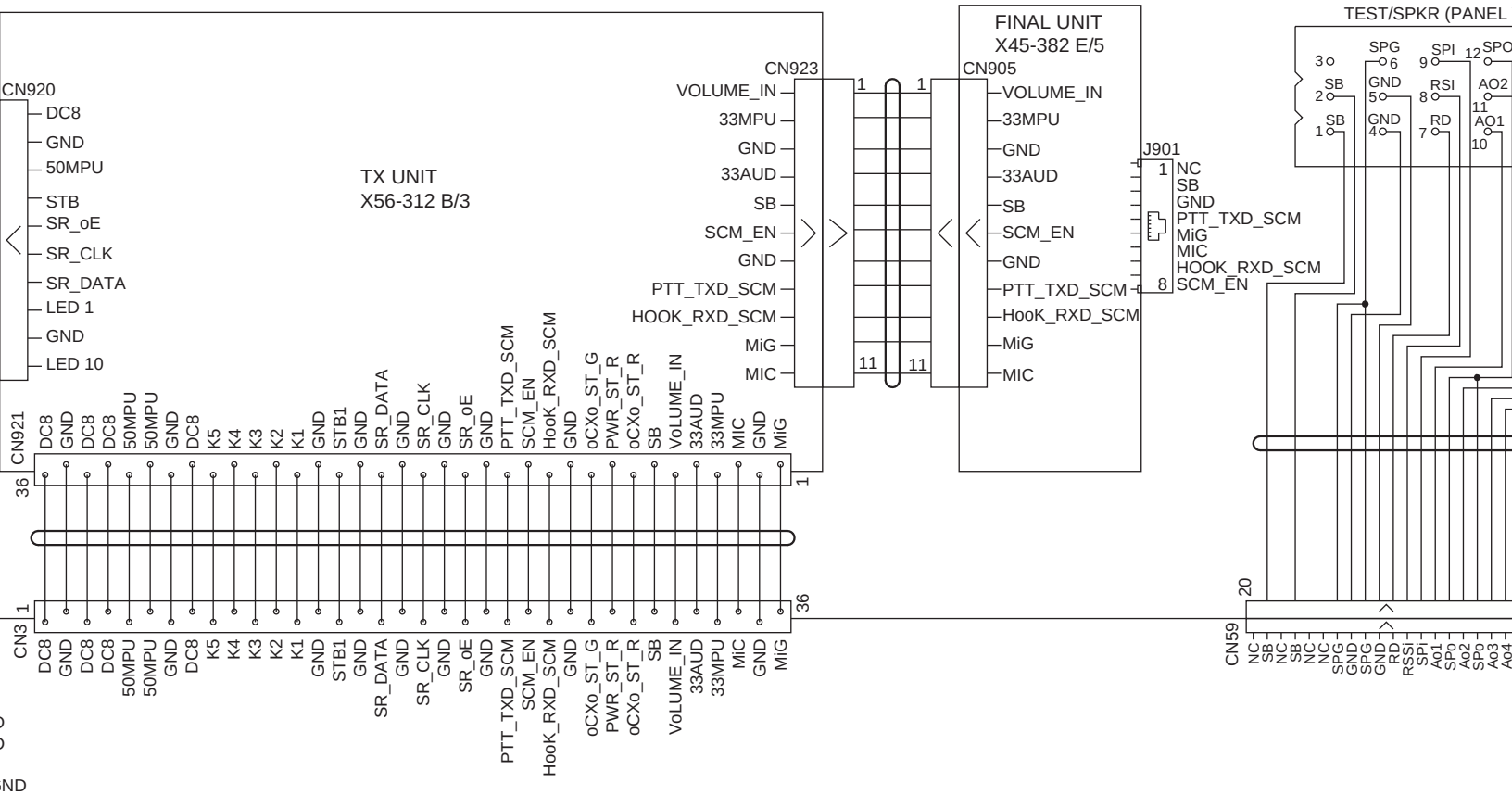
CN15: E, B, B

CN12: E, B, B

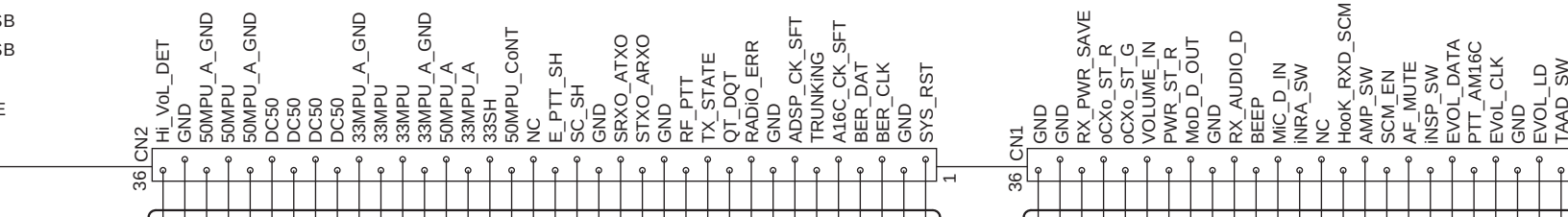
CN405, CN406

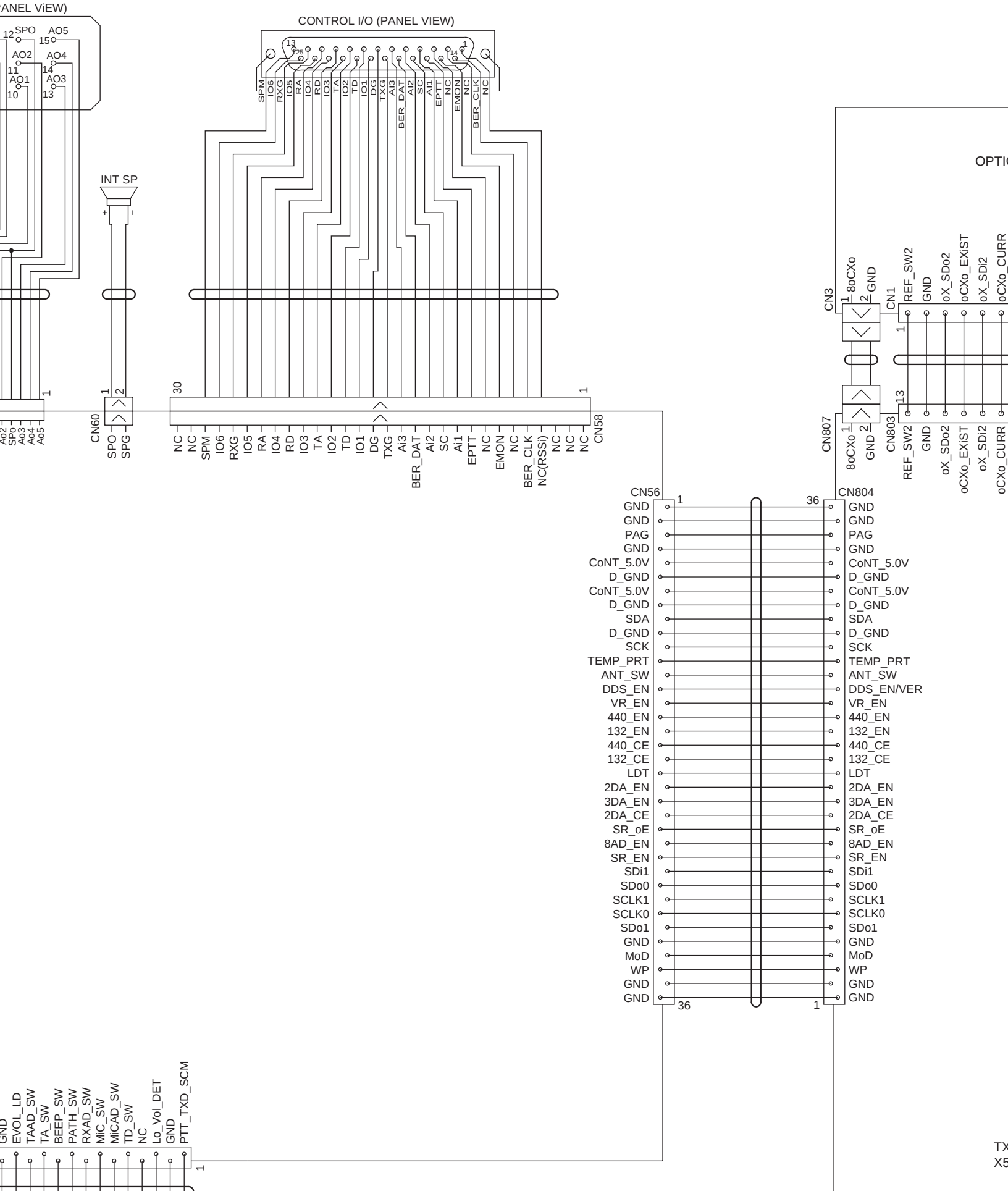
REF1 (19.2MHz)

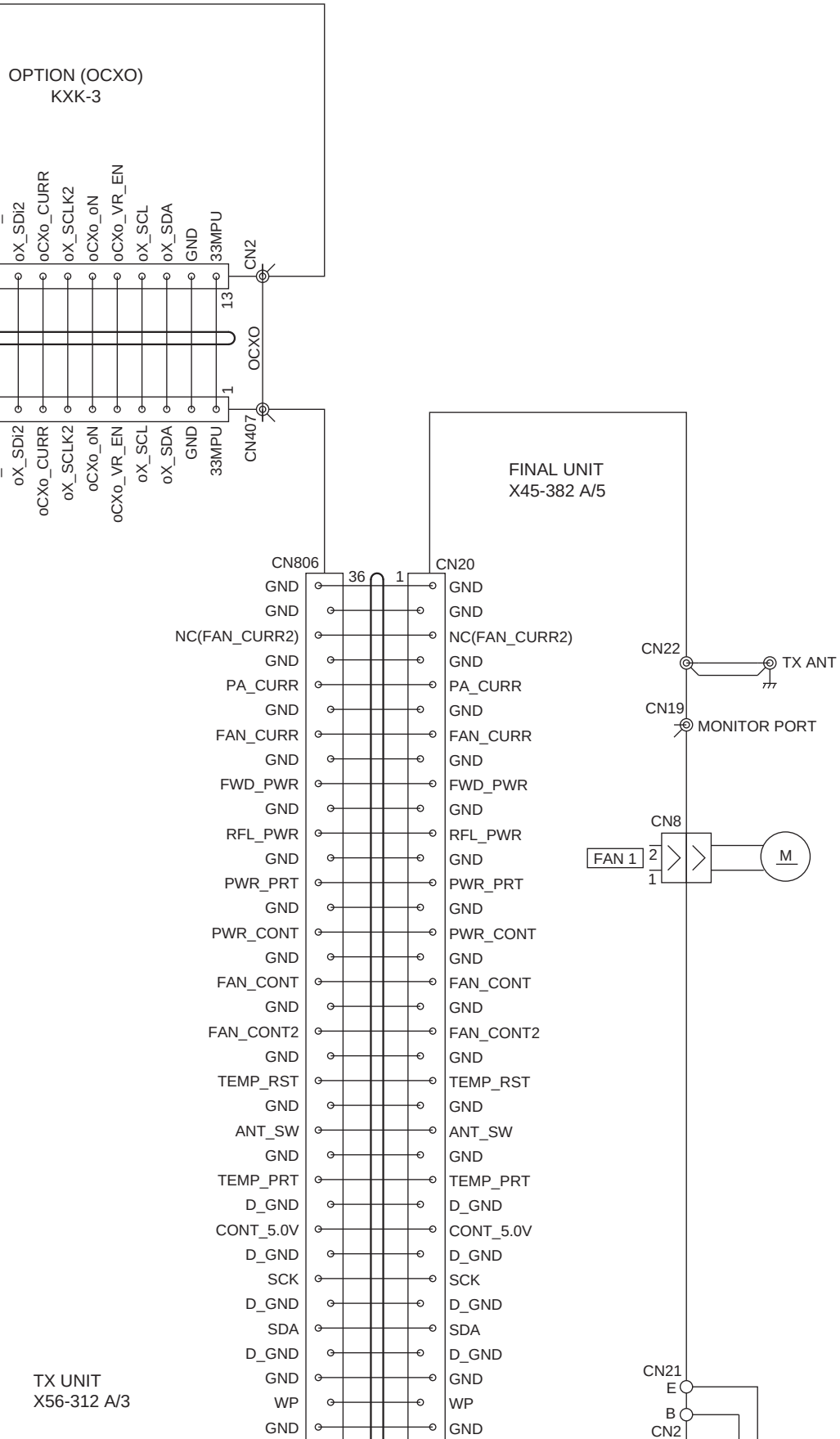

TX UNIT
X56-312 C/3
CN960
DC8
GND
50MPU
STB
SR_oE
SR_CLK
SR_DATA
LED 1
GND
LED 10
CN920
CN921
DC8
CN3
DC8
RX UNIT
X55-310
CN42
CN57
GND
WP
D_GND
E2PRoM_SDA
CoNT_5.0V
E2PRoM_SCL
AD_CS
iF_BW_SW
AD_CLK
AD_DAT_READ
NC
PLL_LoCK_DET
AGC_RSSi
PLL2_EN
FM_RSSi
PLL_PWR_SAVE
RX_AUDio
SiF_DAT
SiF_CLK
DA_EN
PLL1_EN
VCo_BAND_SW
DDS_EN
RX_PoWER_SAVE
REF1 (19.2MHz)
CN45
RX_IF_VN
CN43
MONITOR_PORT
CN41
RX ANT
CN5
CN44
B
E
CN4
SB
E

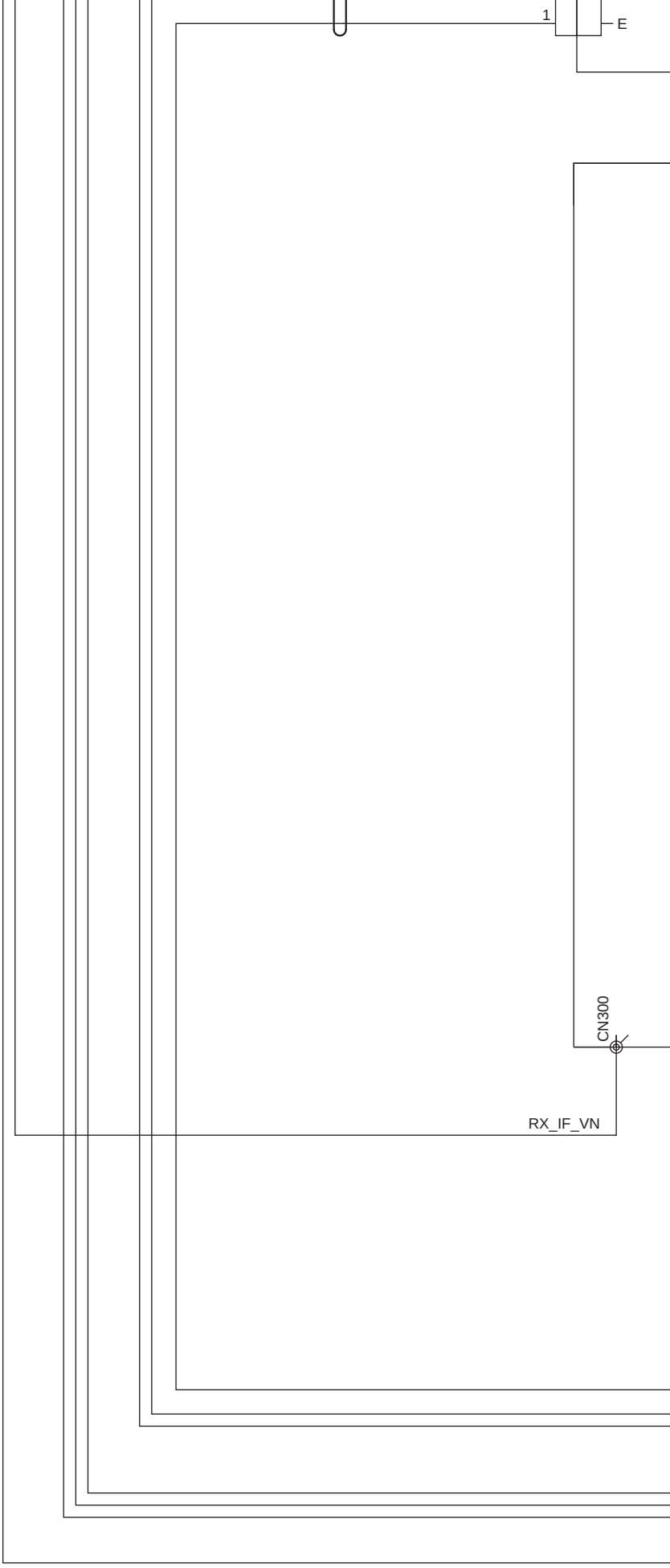


CONTROL UNIT1
X53-413

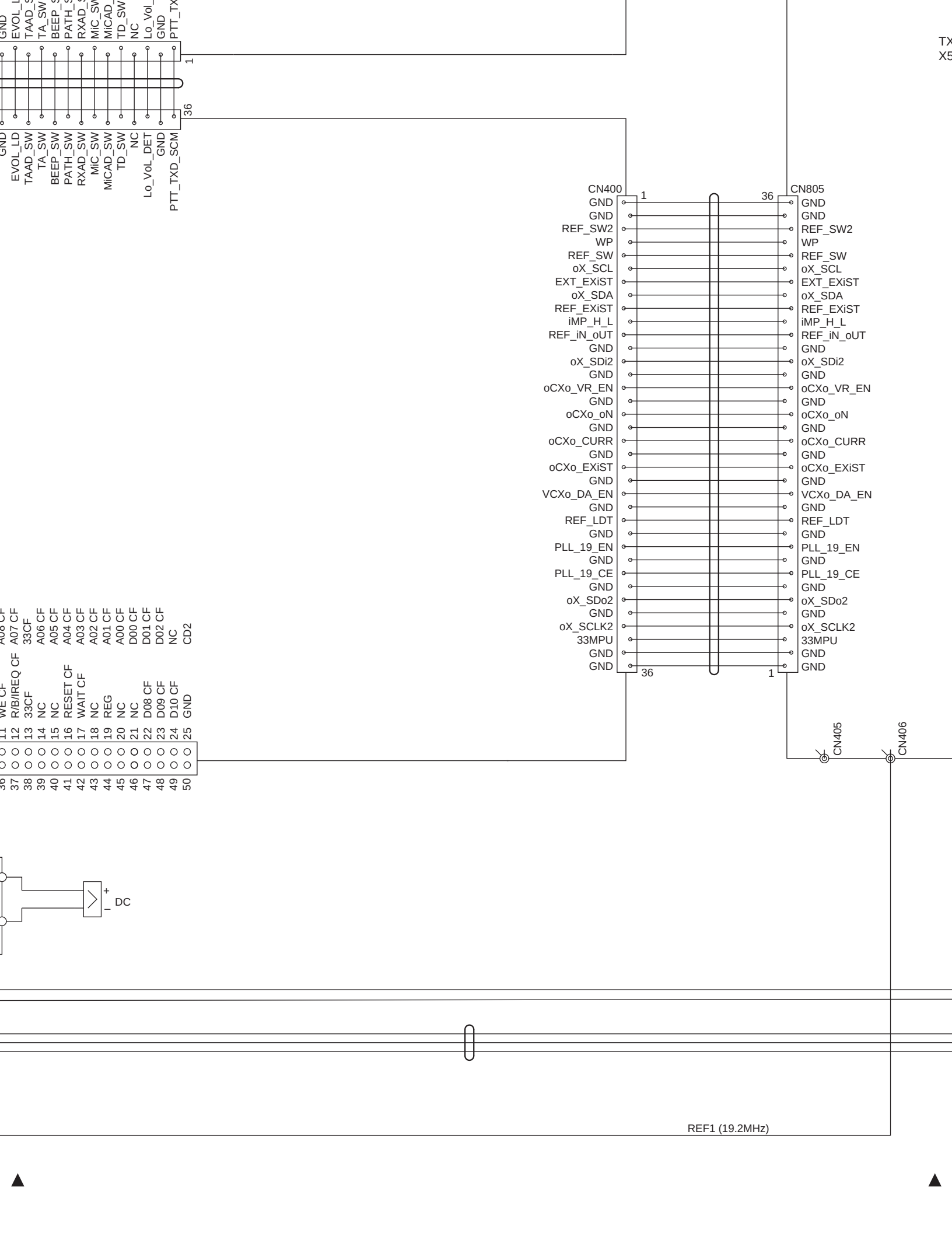



PANEL ViEW)
SPO
AO5
AO2
AO4
AO1
AO3
CONTROL I/O (PANEL VIEW)
INT SP
CN60
SPO
SPG
CN58
NC
SPM
IO6
RXG
IO5
RA
IO4
RD
IO3
TA
IO2
TD
IO1
DG
TXG
Ai3
BER_DAT
Ai2
SC
Ai1
EPTT
EMON
BER_CLK
NC(RSSi)
CN3
8oCXo
GND
CN1
REF_SW2
oX_SDo2
oCXo_EXIST
oX_SDi2
oCXo_CURR
CN807
CN803
CN56
CN804
GND
PAG
CoNT_5.0V
D_GND
SDA
SCK
TEMP_PRT
ANT_SW
DDS_EN
DDS_EN/VER
VR_EN
440_EN
132_EN
440_CE
132_CE
LDT
2DA_EN
3DA_EN
2DA_CE
SR_oE
8AD_EN
SR_EN
SDi1
SDo0
SCLK1
SCLK0
SDo1
MoD
WP
EVOL_LD
TAAD_SW
TA_SW
BEEP_SW
PATH_SW
RXAD_SW
MIC_SW
MICAD_SW
TD_SW
Lo_Vol_DET
PTT_TXD_SCM

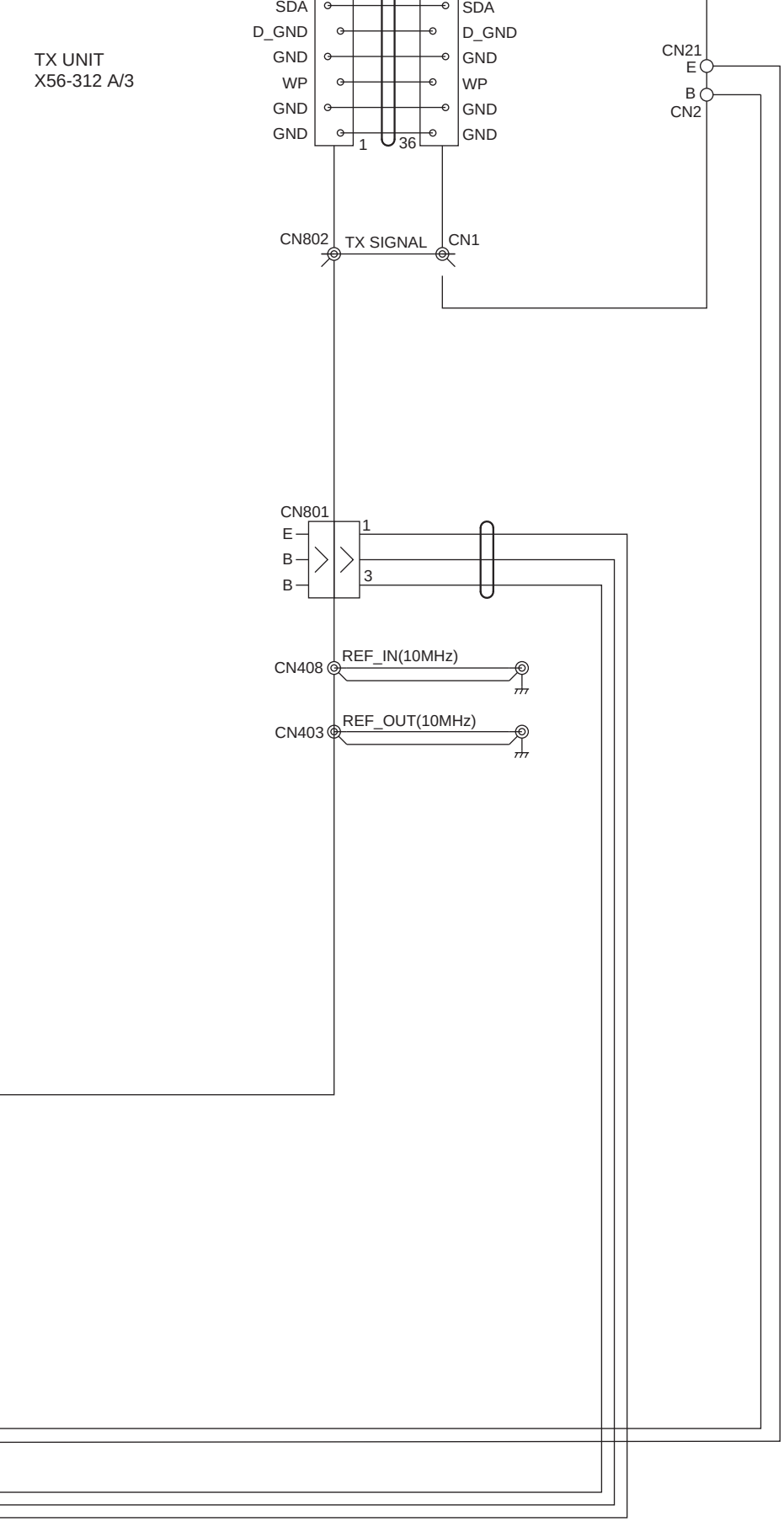

OPTION (OCXO)
KXK-3
oX_SDi2
oCXo_CURR
oX_SCLK2
oCXo_oN
oCXo_VR_EN
oX_SCL
oX_SDA
GND
33MPU
CN2
13
OCXO
1
CN407
FINAL UNIT
X45-382 A/5
CN806
36
1
CN20
GND
NC(FAN_CURR2)
PA_CURR
FAN_CURR
FWD_PWR
RFL_PWR
PWR_PRT
PWR_CONT
FAN_CONT
FAN_CONT2
TEMP_RST
ANT_SW
TEMP_PRT
D_GND
CONT_5.0V
SCK
SDA
WP
CN22
TX ANT
CN19
MONITOR PORT
CN8
FAN 1
2
1
M
CN21
E
B
CN2
TX UNIT
X56-312 A/3


1
E
CN300
RX_IF_VN

CN2
CN402
CN1
CN401
CONTROL UNIT2
X53-414
CN713
PC CONTROL
J700
J703
J702
J701
FRAME A
FRAME B
FINAL UNIT
X45-382 C/5
FINAL UNIT
X45-382 B/5
CN11
CN15
CN12
CN27
CN23
CN25
CN28
CN24
CN26
CN30
CN29


TX
X5
CN400
CN805
GND
REF_SW2
WP
REF_SW
oX_SCL
EXT_EXiST
oX_SDA
REF_EXiST
iMP_H_L
REF_iN_oUT
oX_SDi2
oCXo_VR_EN
oCXo_oN
oCXo_CURR
oCXo_EXiST
VCXo_DA_EN
REF_LDT
PLL_19_EN
PLL_19_CE
oX_SDo2
oX_SCLK2
33MPU
EVOL_LD
TAAD_SW
TA_SW
BEEP_SW
PATH_SW
RXAD_SW
MiC_SW
MiCAD_SW
TD_SW
NC
Lo_VoL_DET
PTT_TXD_SCM
WE CF
R/B/IREQ CF
33CF
RESET CF
WAIT CF
REG
D08 CF
D09 CF
D10 CF
A08 CF
A07 CF
A06 CF
A05 CF
A04 CF
A03 CF
A02 CF
A01 CF
A00 CF
D00 CF
D01 CF
D02 CF
CD2
CN405
CN406
DC
REF1 (19.2MHz)

TX UNIT
X56-312 A/3



NXR-800 APPENDIX 3
(SCHEMATIC DIAGRAM X53-413)

CONTROL UNIT1 (X53-4130-XX)

Note : The components marked with a dot (•) are parts of layer 1.

mV:AC voltage value measured with an electronic voltmeter.
The unit is mVrms.
V:DC voltage value
rms:60% modulation TX signal or RX signal
Audible signal:Measures it by 1kHz
Sub audible signal:Measures it by 100Hz

X53-4130-XX	IC29	R550	R551
-10	NO	0	NO
-11 (for Service)	LA4425A	NO	0

TX UNIT X58-312 (B03)-CN4021

CONTROL UNIT2 X53-414-CN402

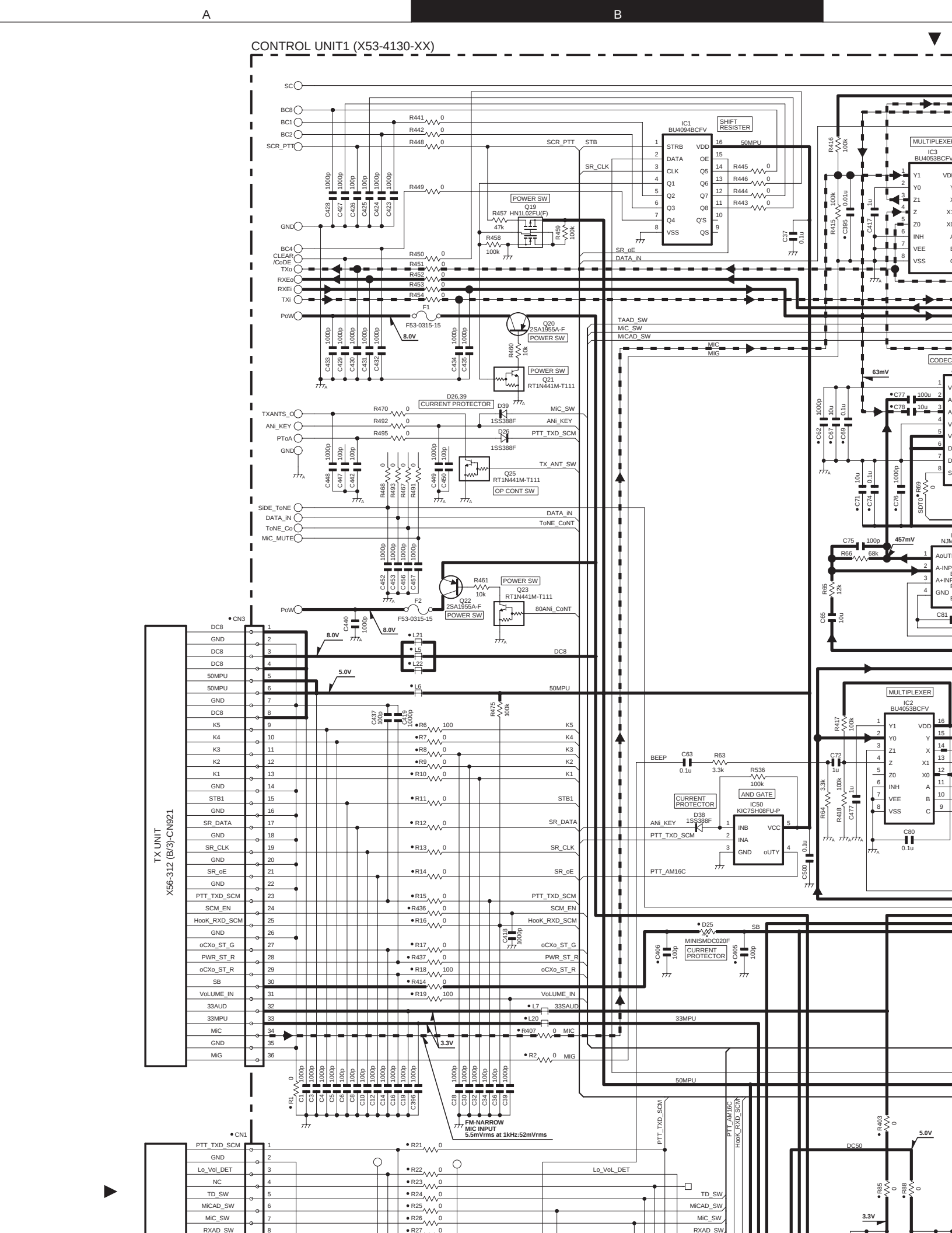
CONTROL UNIT1 X53-414-CN401

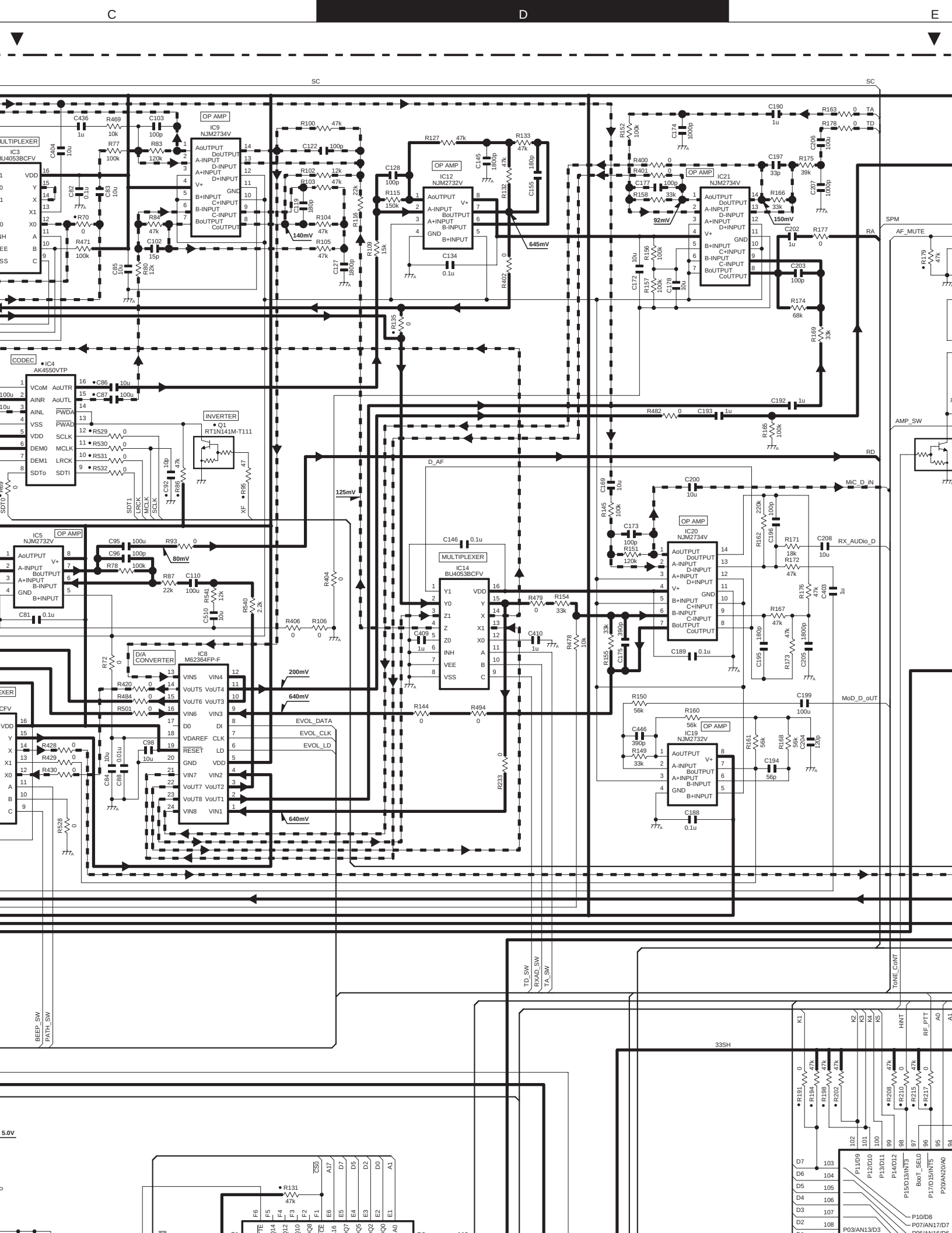
FINAL UNIT X45-3B2 (C5)-CN11

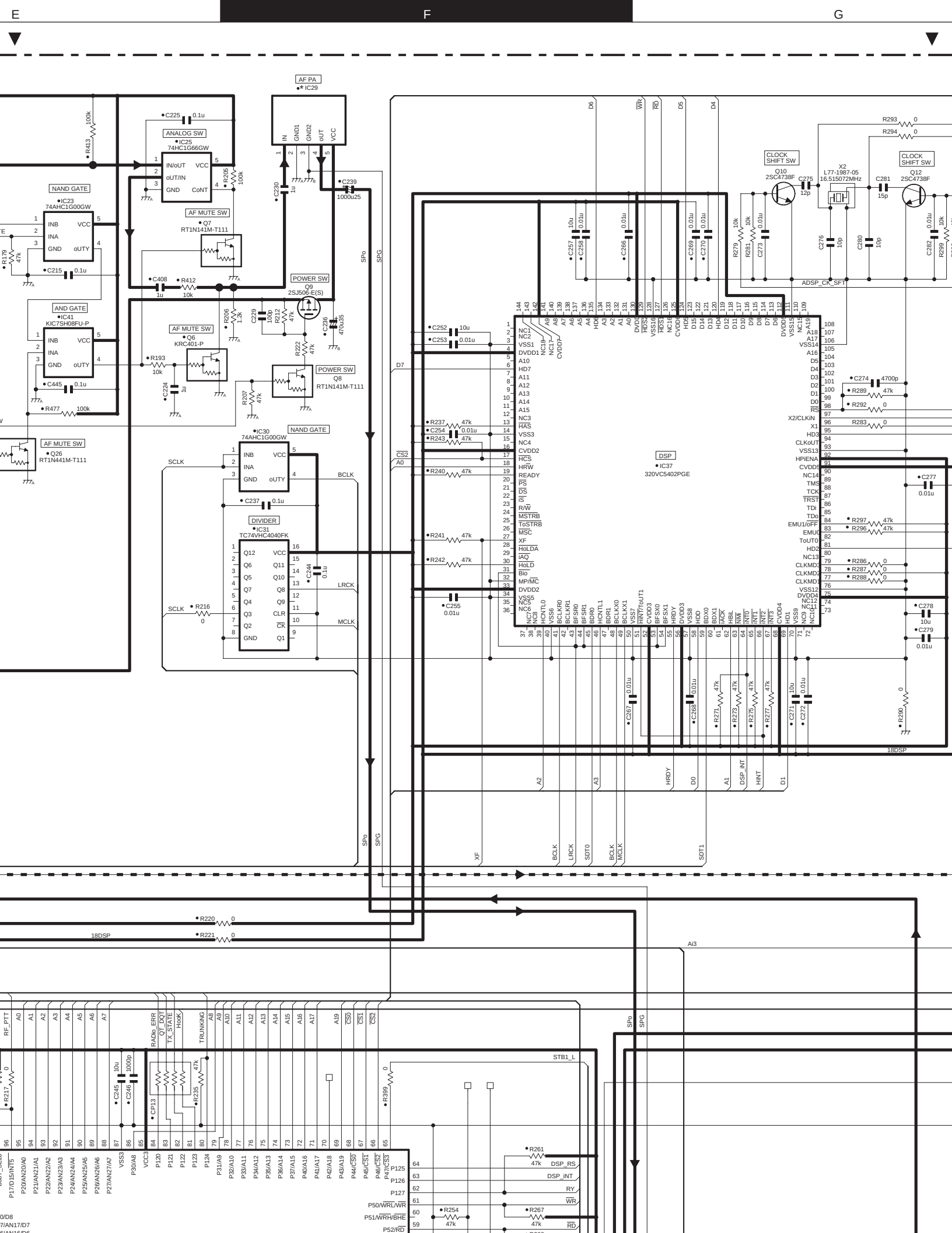
RX UNIT X55-3120-CN402

TESTSPER (PANEL VIEW)

CONTROL I/O (PANEL VIEW)


A
B
CONTROL UNIT1 (X53-4130-XX)
TX UNIT
X56-312 (B/3)-CN921
CN3
CN1
IC1
BU4094BCFV
SHIFT
RESISTER
IC2
BU4053BCFV
MULTIPLEXER
IC3
BU4053BCFV
MULTIPLEXER
IC50
KIC7SH08FU-P
AND GATE
CURRENT
PROTECTOR
POWER SW
OP CONT SW
CODEC
SC
BC8
BC1
BC2
SCR_PTT
GND
BC4
CLEAR
/CoDE
TXo
RXEo
RXEi
TXi
PoW
TXANTS_O
ANi_KEY
PToA
SiDE_ToNE
DATA_iN
ToNE_Co
MiC_MUTE
DC8
50MPU
K5
K4
K3
K2
K1
STB1
SR_DATA
SR_CLK
SR_oE
PTT_TXD_SCM
SCM_EN
HooK_RXD_SCM
oCXo_ST_G
PWR_ST_R
oCXo_ST_R
SB
VoLUME_IN
33AUD
33MPU
MiC
MiG
Lo_Vol_DET
NC
TD_SW
MiCAD_SW
MiC_SW
RXAD_SW
TAAD_SW
MIC
MIG
BEEP
PTT_AM16C
80ANi_CoNT
8.0V
5.0V
3.3V
63mV
457mV
FM-NARROW
MIC INPUT
5.5mVrms at 1kHz:52mVrms

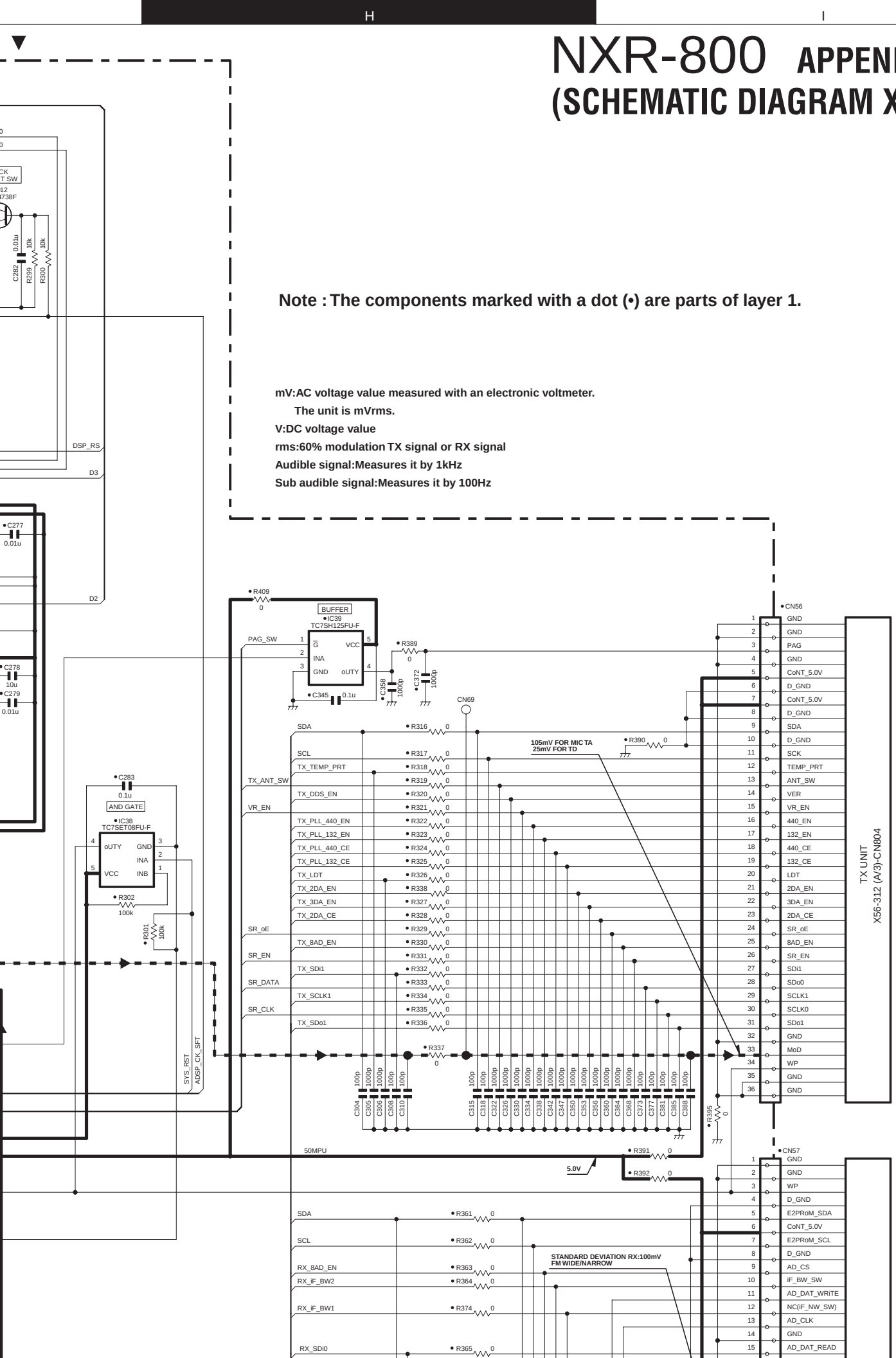

C
D
E
SC
SC
OP AMP
IC9
NJM2734V
MULTIPLEXER
IC3
BU4053BCFV
CODEC
IC4
AK4550VTP
INVERTER
Q1
RT1N141M-T111
D/A CONVERTER
IC8
M62364FP-F
OP AMP
IC12
NJM2732V
OP AMP
IC21
NJM2734V
OP AMP
IC20
NJM2734V
OP AMP
IC19
NJM2732V
MULTIPLEXER
IC14
BU4053BCFV
OP AMP
IC5
NJM2732V
SPM
AF_MUTE
AMP_SW
RA
RD
D_AF
MiC_D_iN
RX_AUDio_D
MoD_D_oUT
ToNE_CoNT
TD_SW
RXAD_SW
TA_SW
BEEP_SW
PATH_SW
EVOL_DATA
EVOL_CLK
EVOL_LD
33SH
5.0V
140mV
645mV
92mV
150mV
125mV
80mV
200mV
640mV
640mV

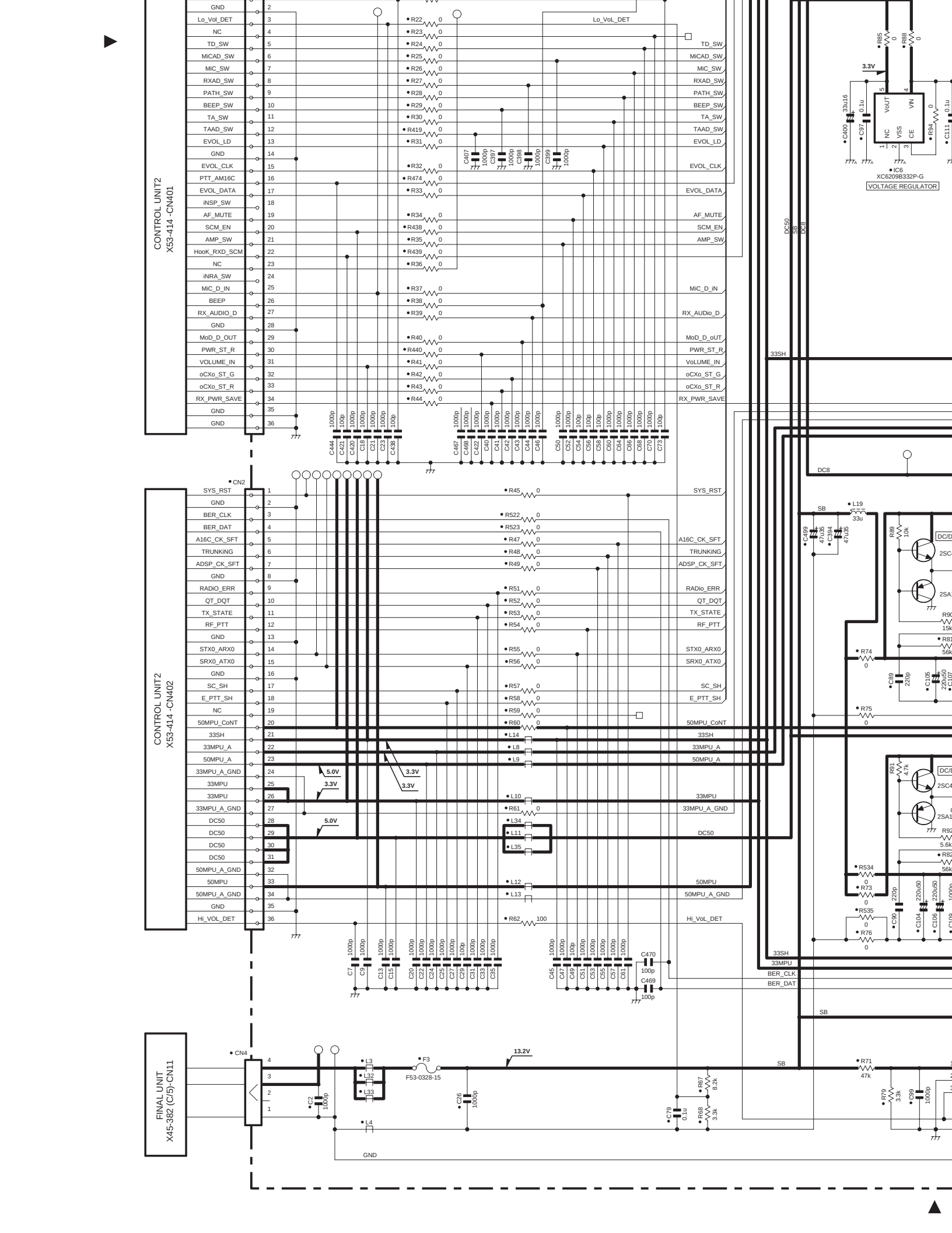

E
F
G
AF PA
IC29
IN
GND1
GND2
OUT
VCC
ANALOG SW
IC25
74HC1G66GW
IN/OUT
OUT/IN
GND
VCC
CONT
AF MUTE SW
Q7
RT1N141M-T111
POWER SW
Q9
2SJ506-E(S)
NAND GATE
IC23
74AHC1G00GW
INB
INA
GND
OUTY
VCC
AND GATE
IC41
KIC7SH08FU-P
AF MUTE SW
Q6
KRC401-P
POWER SW
Q8
RT1N141M-T111
AF MUTE SW
Q26
RT1N441M-T111
NAND GATE
IC30
74AHC1G00GW
DIVIDER
IC31
TC74VHC4040FK
Q12
Q6
Q5
Q7
Q4
Q3
Q2
GND
VCC
Q11
Q10
Q8
Q9
CLR
CK
Q1
SCLK
BCLK
LRCK
MCLK
CLOCK SHIFT SW
Q10
2SC4738F
X2
L77-1987-05
16.515072MHz
CLOCK SHIFT SW
Q12
2SC4738F
ADSP_CK_SFT
DSP
IC37
320VC5402PGE
18DSP
SPo
SPG
CS2
A0
D7
XF
BCLK
LRCK
SDT0
MCLK
SDT1
A2
A3
HRDY
D0
A1
DSP_INT
HINT
D1
Ai3
STB1_L
DSP_RS
DSP_INT
RY
WR
RD

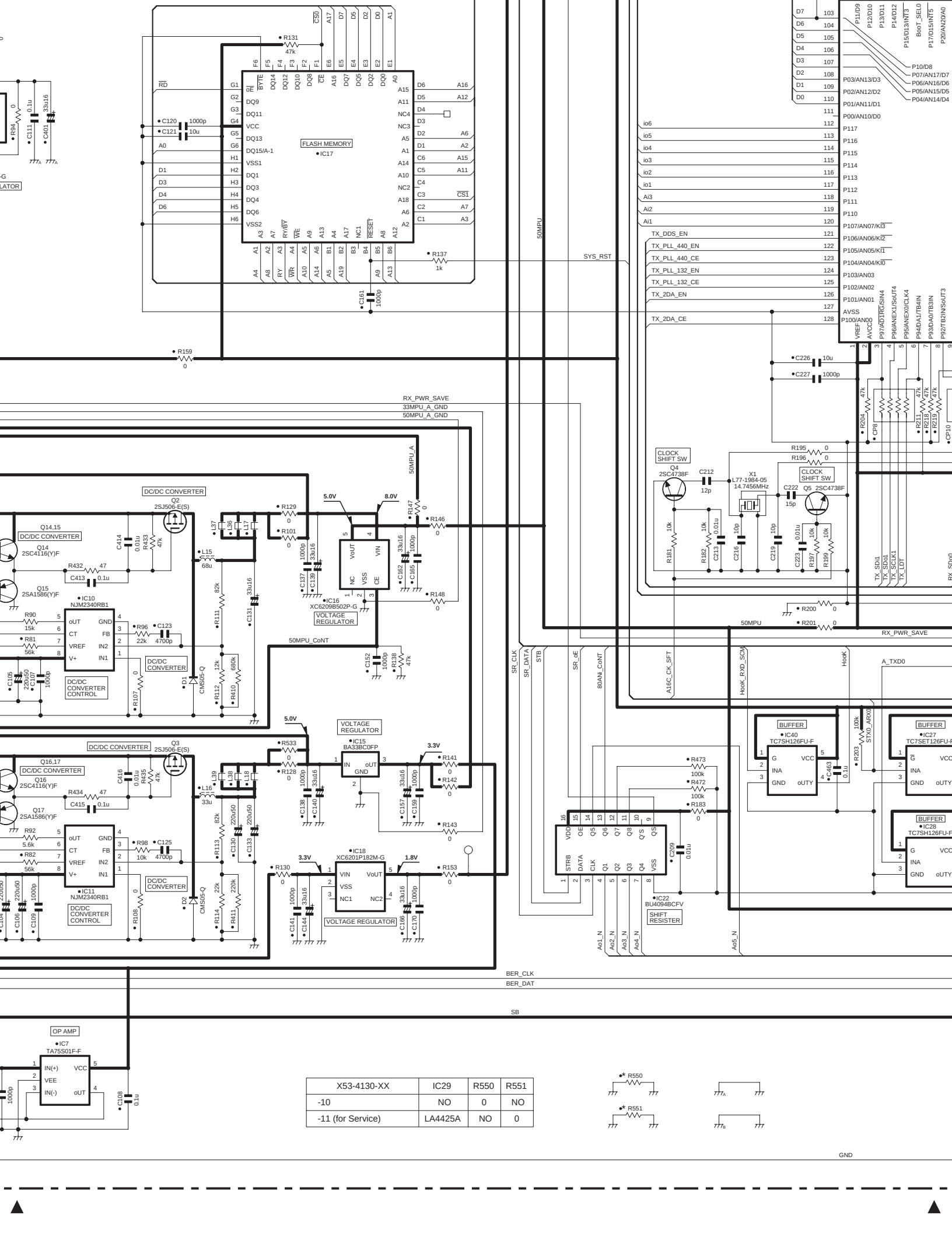
NXR-800 APPENDIX 3
(SCHEMATIC DIAGRAM X53-413)

Note : The components marked with a dot (•) are parts of layer 1.

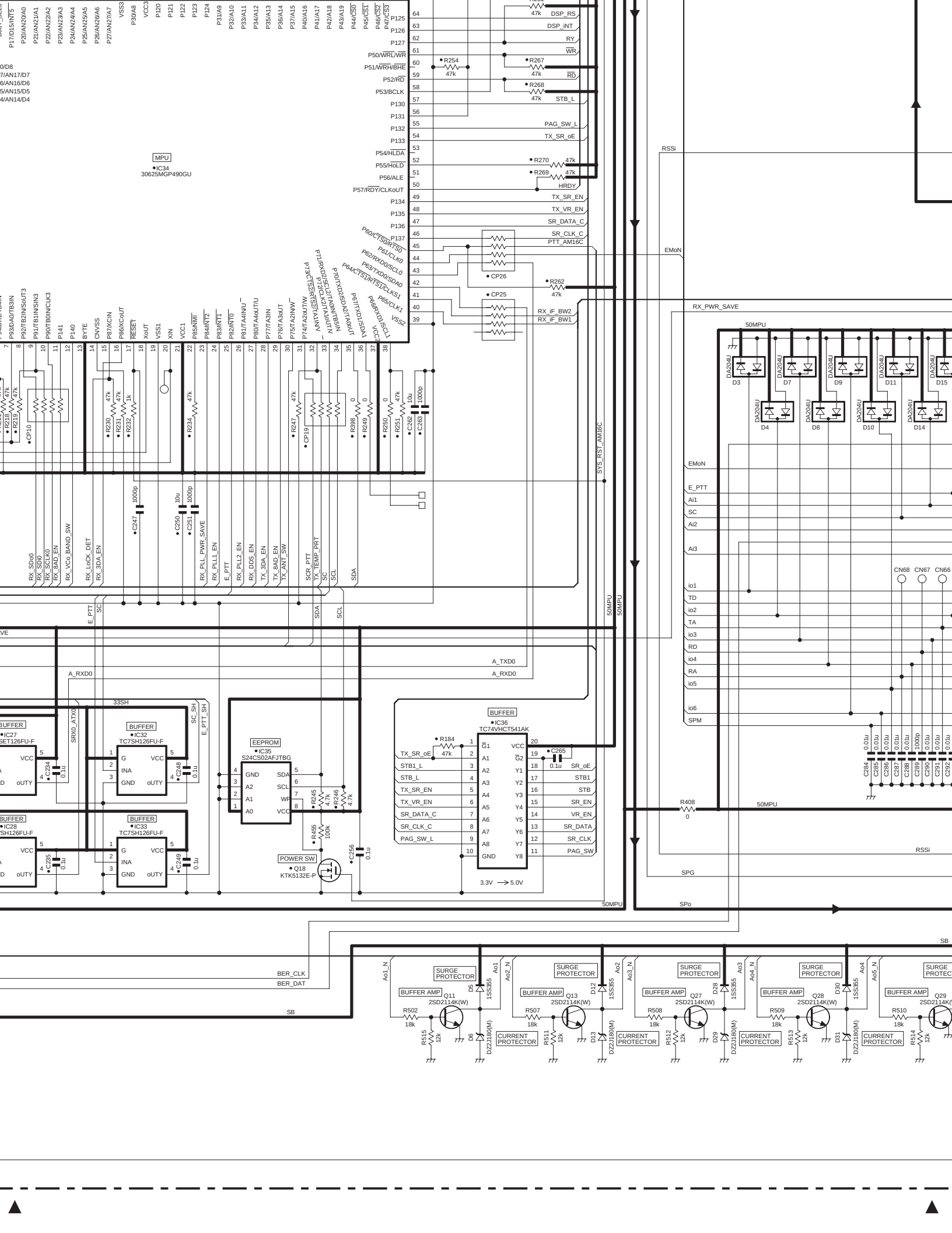
mV:AC voltage value measured with an electronic voltmeter.
The unit is mVrms.
V:DC voltage value
rms:60% modulation TX signal or RX signal
Audible signal:Measures it by 1kHz
Sub audible signal:Measures it by 100Hz

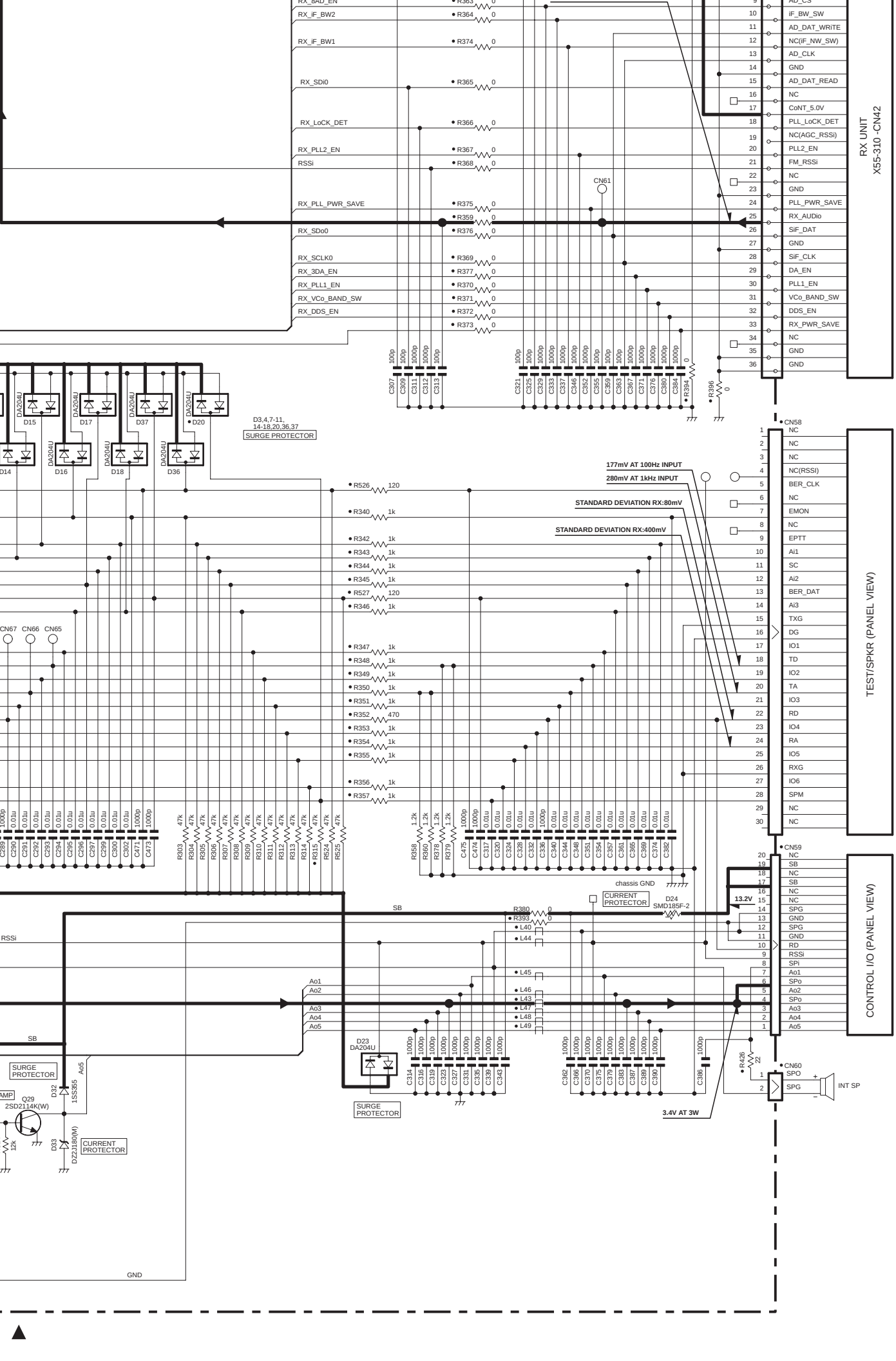



CONTROL UNIT2
X53-414 -CN401
GND
Lo_Vol_DET
NC
TD_SW
MiCAD_SW
MiC_SW
RXAD_SW
PATH_SW
BEEP_SW
TA_SW
TAAD_SW
EVOL_LD
GND
EVOL_CLK
PTT_AM16C
EVOL_DATA
iNSP_SW
AF_MUTE
SCM_EN
AMP_SW
HooK_RXD_SCM
NC
iNRA_SW
MiC_D_IN
BEEP
RX_AUDIO_D
GND
MoD_D_OUT
PWR_ST_R
VOLUME_IN
oCXo_ST_G
oCXo_ST_R
RX_PWR_SAVE
GND
GND
CONTROL UNIT2
X53-414 -CN402
CN2
SYS_RST
GND
BER_CLK
BER_DAT
A16C_CK_SFT
TRUNKiNG
ADSP_CK_SFT
GND
RADiO_ERR
QT_DQT
TX_STATE
RF_PTT
GND
STX0_ARX0
SRX0_ATX0
GND
SC_SH
E_PTT_SH
NC
50MPU_CoNT
33SH
33MPU_A
50MPU_A
33MPU_A_GND
33MPU
33MPU
33MPU_A_GND
DC50
DC50
DC50
DC50
50MPU_A_GND
50MPU
50MPU_A_GND
GND
Hi_VOL_DET
FINAL UNIT
X45-382 (C/5)-CN11
CN4
5.0V
3.3V
13.2V
F3
F53-0328-15
IC6
XC6209B332P-G
VOLTAGE REGULATOR
DC8
SB
33SH
33MPU
BER_CLK
BER_DAT
GND



X53-4130-XX	IC29	R550	R551
-10	NO	0	NO
-11 (for Service)	LA4425A	NO	0


MPU
IC34
30625MGP490GU
BUFFER
IC27
IC32
IC33
IC28
TC7SH126FU-F
EEPROM
IC35
S24CS02AFJTBG
IC36
TC74VHCT541AK
POWER SW
Q18
KTK5132E-P
SURGE PROTECTOR
BUFFER AMP
Q11
Q13
Q27
Q28
Q29
2SD2114K(W)
CURRENT PROTECTOR
3.3V → 5.0V
50MPU
RX_PWR_SAVE
SYS_RST_AM16C
RSSi
EMoN
SPG
SPo
SB
BER_CLK
BER_DAT
A_TXD0
A_RXD0
SRX0_ATX0
33SH
SC_SH
E_PTT_SH
DSP_RS
DSP_INT
RY
WR
RD
STB_L
PAG_SW_L
TX_SR_oE
HRDY
TX_SR_EN
TX_VR_EN
SR_DATA_C
SR_CLK_C
PTT_AM16C
RX_iF_BW2
RX_iF_BW1
RX_SDo0
RX_SDI0
RX_SCLK0
RX_BAD_EN
RX_VCo_BAND_SW
RX_LoCK_DET
RX_3DA_EN
RX_PLL_PWR_SAVE
RX_PLL1_EN
E_PTT
RX_PLL2_EN
RX_DDS_EN
TX_3DA_EN
TX_BAD_EN
TX_ANT_SW
SCR_PTT
TX_TEMP_PRT
SC
SCL
SDA
STB1_L
STB_L
TX_SR_EN
TX_VR_EN
SR_DATA_C
SR_CLK_C
PAG_SW_L
STB1
STB
SR_EN
VR_EN
SR_DATA
SR_CLK
PAG_SW
SR_oE
Ai1
Ai2
Ai3
SC
TD
TA
RD
RA
SPM
io1
io2
io3
io4
io5
io6
Ao1_N
Ao2_N
Ao3_N
Ao4_N
Ao5_N
Ao1
Ao2
Ao3
Ao4
D3
D4
D7
D8
D9
D10
D11
D14
D15
DA204U
1SS355
DZ2J180(M)
CN68
CN67
CN66


RX UNIT
X55-310 -CN42
CN61
RX_8AD_EN
RX_iF_BW2
RX_iF_BW1
RX_SDi0
RX_LoCK_DET
RX_PLL2_EN
RSSi
RX_PLL_PWR_SAVE
RX_SDo0
RX_SCLK0
RX_3DA_EN
RX_PLL1_EN
RX_VCo_BAND_SW
RX_DDS_EN
AD_CS
iF_BW_SW
AD_DAT_WRiTE
NC(iF_NW_SW)
AD_CLK
GND
AD_DAT_READ
NC
CoNT_5.0V
PLL_LoCK_DET
NC(AGC_RSSi)
PLL2_EN
FM_RSSi
NC
GND
PLL_PWR_SAVE
RX_AUDio
SiF_DAT
GND
SiF_CLK
DA_EN
PLL1_EN
VCo_BAND_SW
DDS_EN
RX_PWR_SAVE
NC
GND
GND
D3,4,7-11,
14-18,20,36,37
SURGE PROTECTOR
DA204U
D14
D15
D16
D17
D18
D36
D37
D20
CN58
TEST/SPKR (PANEL VIEW)
177mV AT 100Hz INPUT
280mV AT 1kHz INPUT
STANDARD DEVIATION RX:80mV
STANDARD DEVIATION RX:400mV
NC
NC
NC
NC(RSSI)
BER_CLK
NC
EMON
NC
EPTT
Ai1
SC
Ai2
BER_DAT
Ai3
TXG
DG
IO1
TD
IO2
TA
IO3
RD
IO4
RA
IO5
RXG
IO6
SPM
NC
NC
CN67
CN66
CN65
CN59
CONTROL I/O (PANEL VIEW)
chassis GND
CURRENT PROTECTOR
D24
SMD185F-2
13.2V
SB
RSSi
Ao1
Ao2
Ao3
Ao4
Ao5
D23
DA204U
SURGE PROTECTOR
CN60
SPO
SPG
INT SP
3.4V AT 3W
AMP
Q29
2SD2114K(W)
D22
1SS355
D21
DZ2J180(M)
CURRENT PROTECTOR
GND

NXR-800 APPENDIX 3
(SCHEMATIC DIAGRAM X53-413)

CONTROL UNIT1 (X53-4130-XX)

Note : The components marked with a dot (•) are parts of layer 1.

mV: AC voltage value measured with an electronic voltmeter.
The unit is mVrms.
V:DC voltage value
rms:60% modulation TX signal or RX signal
Audible signal:Measures it by 1kHz
Sub audible signal:Measures it by 100Hz

X53-4130-XX	IC29	R550	R551
-10	NO	0	NO
-11 (for Service)	LA4425A	NO	0

CONTROL UNIT2 (X53-4140-XX)

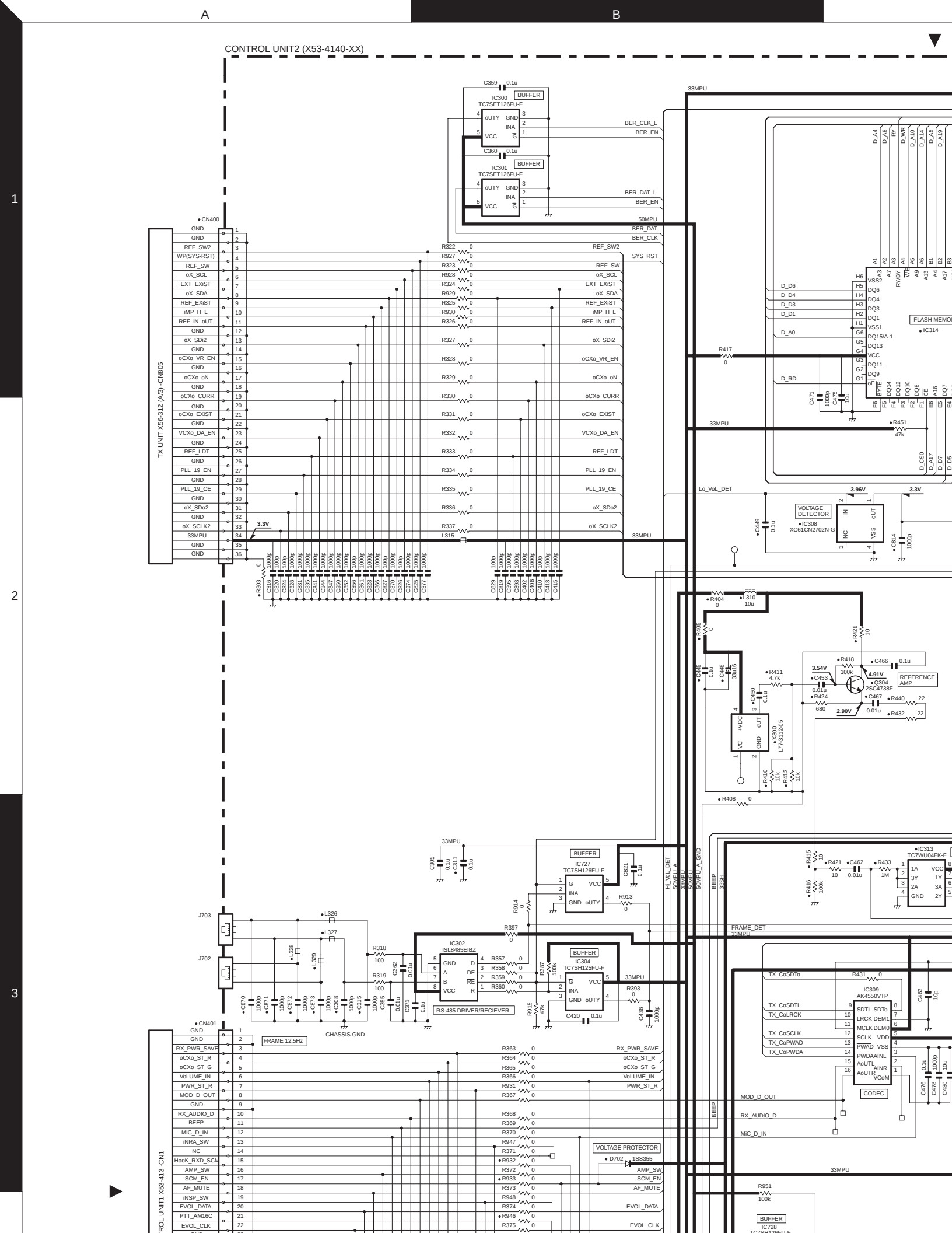
X53-4140-XX	IC329	R960	R961
-10	NO	0	NO
-11 (for Service)	BA15000WT	NO	0

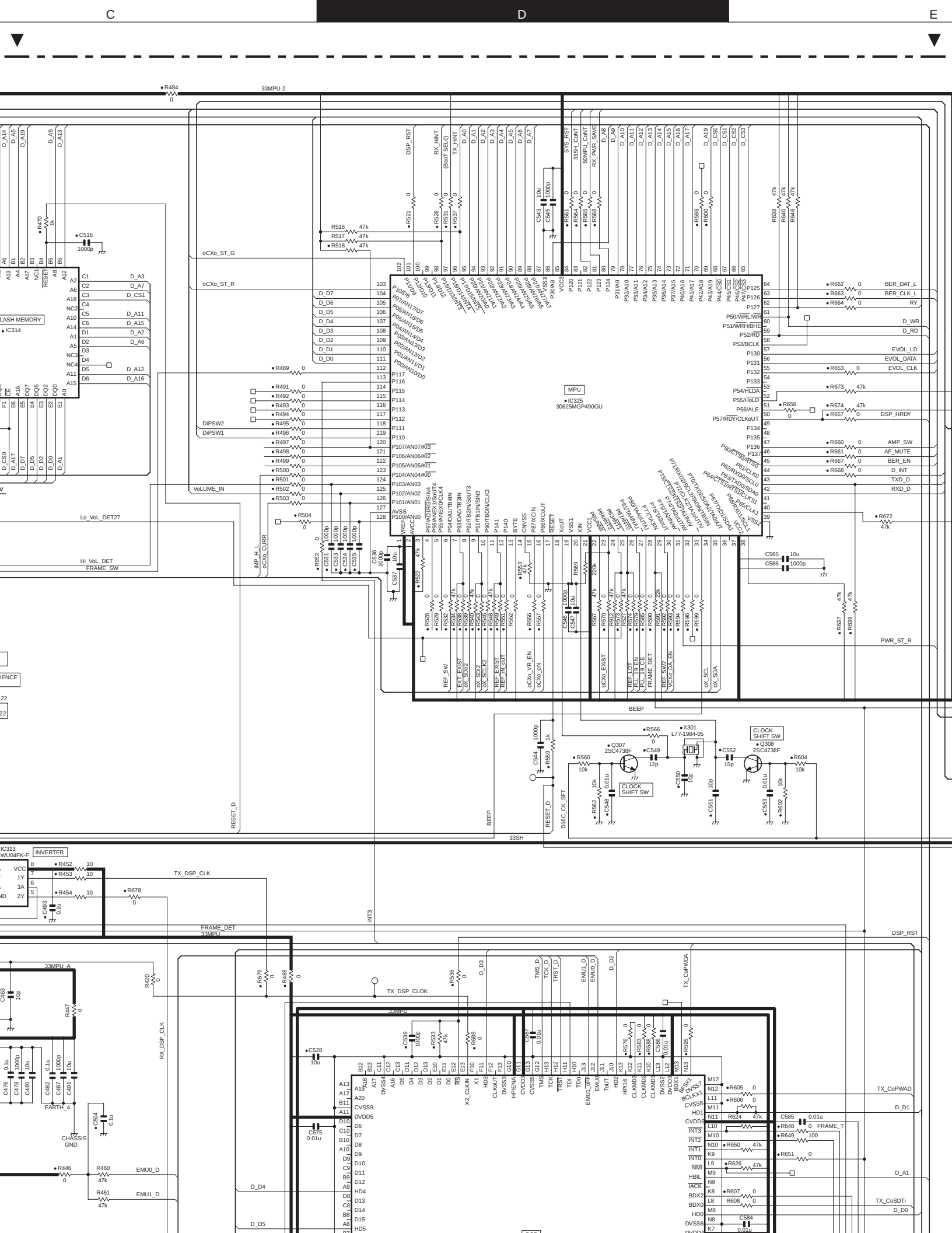
Note : The components marked with a dot (•) are parts of layer 1.

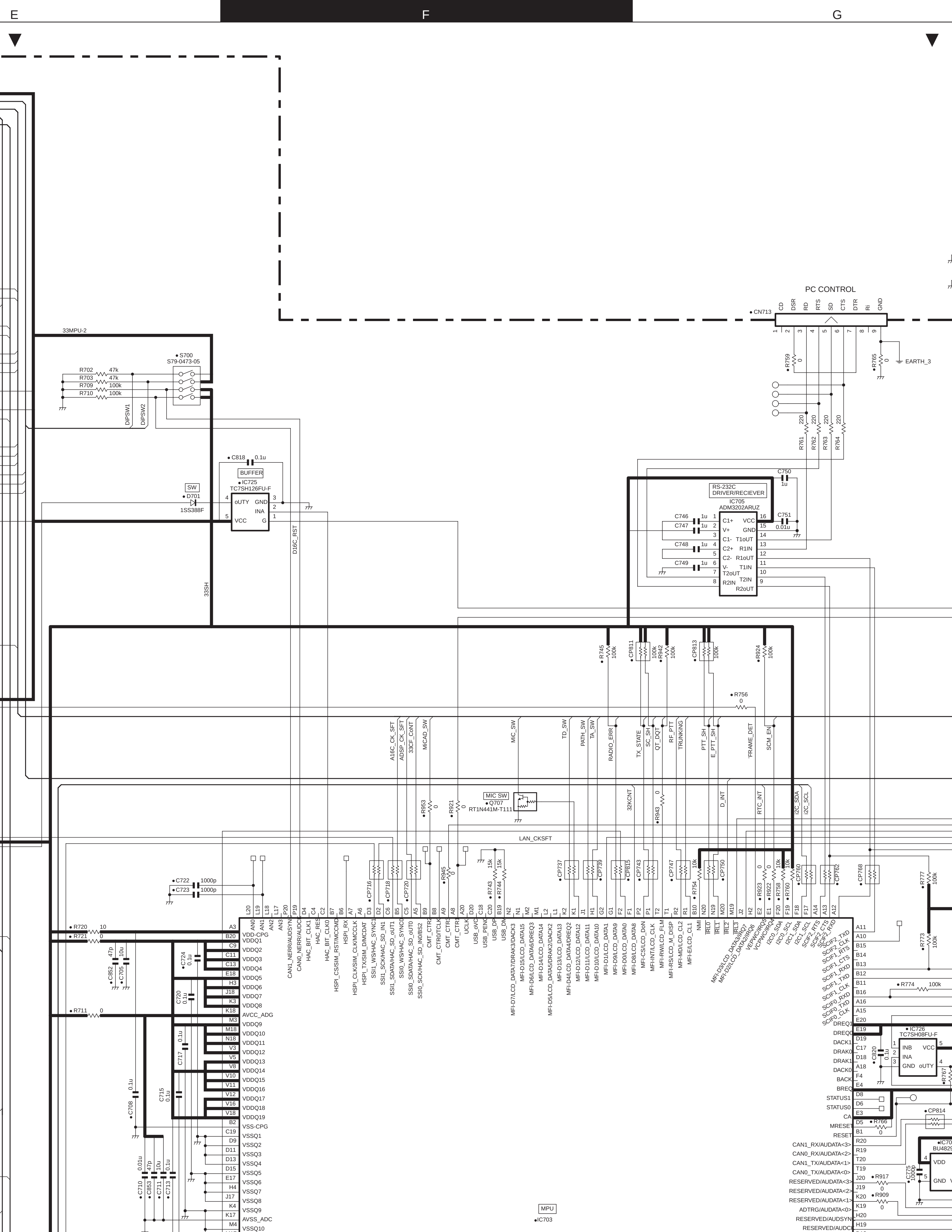
CONTROL UNIT (X53-4130-XX)

TX UNIT (X53-4110-XX) (TXBB)

RX UNIT (X53-4120-XX)


A
B
1
2
3
CONTROL UNIT2 (X53-4140-XX)
TX UNIT X56-312 (A/3) -CN805
CN400
CN401
CONTROL UNIT1 X53-413 -CN1
IC300 TC7SET126FU-F BUFFER
IC301 TC7SET126FU-F BUFFER
BER_CLK_L
BER_EN
BER_DAT_L
BER_DAT
BER_CLK
50MPU
33MPU
SYS_RST
REF_SW2
REF_SW
oX_SCL
EXT_EXiST
oX_SDA
REF_EXiST
iMP_H_L
REF_iN_oUT
oX_SDi2
oCXo_VR_EN
oCXo_oN
oCXo_CURR
oCXo_EXiST
VCXo_DA_EN
REF_LDT
PLL_19_EN
PLL_19_CE
oX_SDo2
oX_SCLK2
3.3V
FLASH MEMORY
IC314
VOLTAGE DETECTOR
IC308 XC61CN2702N-G
3.96V
3.54V
4.91V
2.90V
REFERENCE AMP
Q304 2SC4738F
X303 L77-3112-05
IC313 TC7WU04FK-F
IC309 AK4550VTP
CODEC
IC302 ISL8485EIBZ
RS-485 DRIVER/RECIEVER
IC727 TC7SH126FU-F
IC304 TC7SH125FU-F
J703
J702
CHASSIS GND
FRAME 12.5Hz
FRAME_DET
BEEP
VOLTAGE PROTECTOR
D702 1SS355
TX_CoSDTo
TX_CoSDTi
TX_CoLRCK
TX_CoSCLK
TX_CoPWAD
TX_CoPWDA
MOD_D_OUT
RX_AUDIO_D
MiC_D_IN
RX_PWR_SAVE
oCXo_ST_R
oCXo_ST_G
VoLUME_IN
PWR_ST_R
AMP_SW
SCM_EN
AF_MUTE
EVOL_DATA
EVOL_CLK
Hi_VoL_DET
Lo_VoL_DET
50MPU_A
50MPU_A_GND


C
D
E
MPU
IC325
30625MGP490GU
IC314
FLASH MEMORY
IC313
INVERTER
33MPU-2
33MPU
33SH
BEEP
PWR_ST_R
FRAME_DET
TX_DSP_CLK
TX_DSP_CLOK
RX_DSP_CLK
RESET_D
INT3
DSP_RST
oCXo_ST_G
oCXo_ST_R
VoLUME_IN
Lo_VoL_DET27
Hi_VoL_DET
FRAME_SW
DiPSW2
DiPSW1
CLOCK SHIFT SW
EARTH_4
CHASSIS GND
BER_DAT_L
BER_CLK_L
RY
D_WR
D_RD
EVOL_LD
EVOL_DATA
EVOL_CLK
DSP_HRDY
AMP_SW
AF_MUTE
BER_EN
D_INT
TXD_D
RXD_D
TX_CoPWAD
D_D1
D_A1
TX_CoSDTi
D_D0
EMU0_D
EMU1_D
D_D4
D_D5



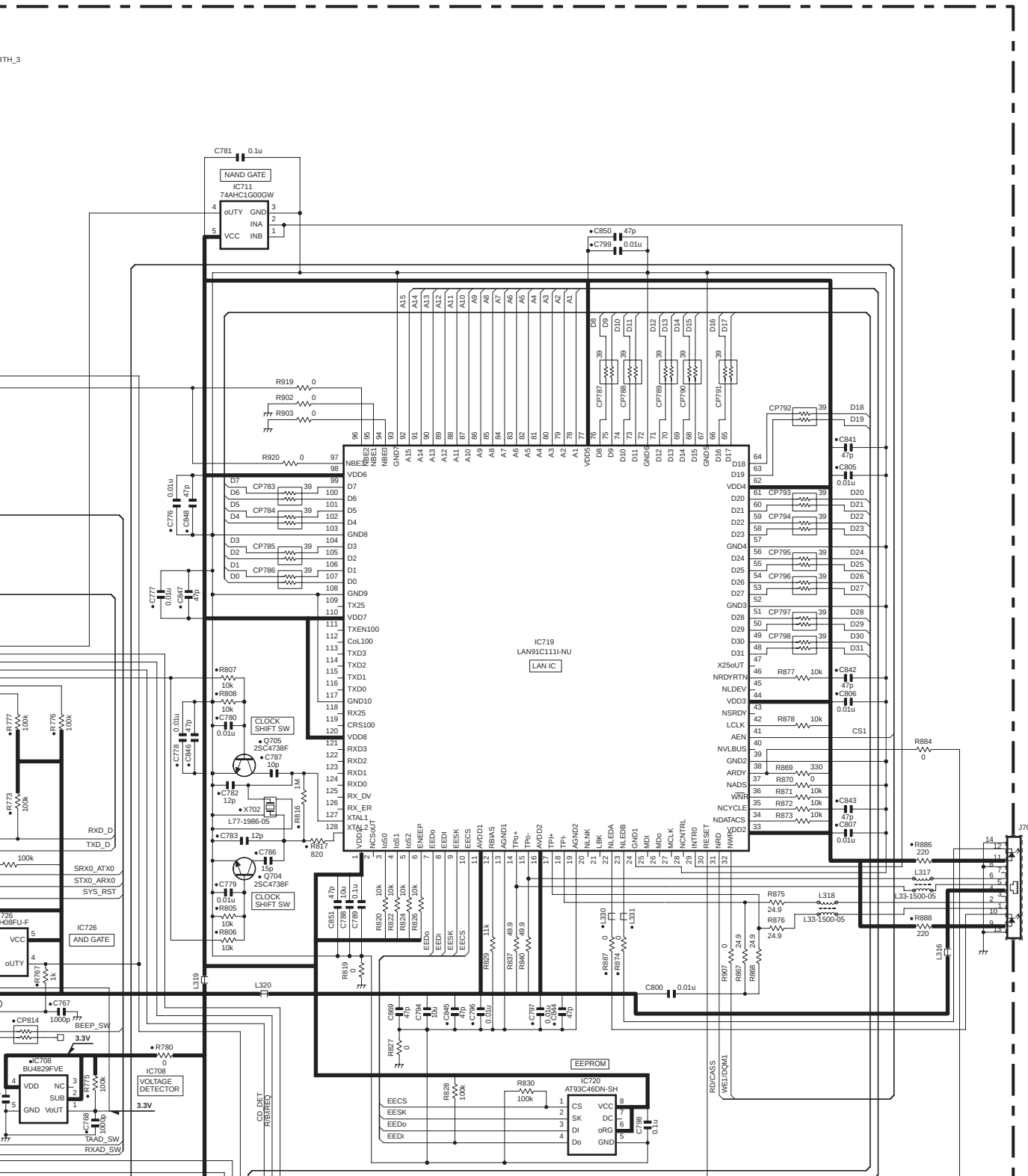
E
F
G
PC CONTROL
CN713
CD DSR RD RTS SD CTS DTR Ri GND
EARTH_3
R759 0
R765 0
R761 220
R762 220
R763 220
R764 220
33MPU-2
S700
S79-0473-05
R702 47k
R703 47k
R709 100k
R710 100k
DIPSW1
DIPSW2
C818 0.1u
BUFFER
IC725
TC7SH126FU-F
SW
D701
1SS388F
oUTY GND INA VCC G
D16C_RST
33SH
RS-232C
DRIVER/RECIEVER
IC705
ADM3202ARUZ
C750 1u
C751 0.01u
C746 1u
C747 1u
C748 1u
C749 1u
C1+ VCC V+ GND C1- T1oUT C2+ R1IN C2- R1oUT V- T1IN T2oUT T2IN R2IN R2oUT
R745 100k
CP811 100k
R942 100k
CP813 100k
R924 100k
R756 0
A16C_CK_SFT
ADSP_CK_SFT
33CF_CoNT
MICAD_SW
MIC_SW
TD_SW
PATH_SW
TA_SW
RADIO_ERR
TX_STATE
SC_SH
QT_DQT
RF_PTT
TRUNKING
PTT_SH
E_PTT_SH
FRAME_DET
SCM_EN
MIC SW
Q707
RT1N441M-T111
R953 0
R921 0
32KCNT
R943 0
D_INT
RTC_INT
I2C_SDA
I2C_SCL
LAN_CKSFT
C722 1000p
C723 1000p
CP716
CP718
CP720
R945 0
R743 15k
R744 15k
CP737
CP739
CP815
CP743
CP747
R754 10k
CP750
R923 0
R922 0
R758 10k
R760 10k
CP760
CP762
CP768
R777 100k
R773 100k
R774 100k
R720 10
R721 0
R711 0
C852 47p
C705 10u
C724 0.1u
C720 0.1u
C717 0.1u
C715 0.1u
C708 0.1u
C710 0.01u
C853 47p
C711 10u
C713 0.1u
VDD-CPG
VDDQ1 … VDDQ19
AVCC_ADG
VSS-CPG
VSSQ1 … VSSQ10
AVSS_ADC
IC726
TC7SH08FU-F
INB VCC INA GND oUTY
C820 0.1u
R767
CP814
R766 0
R917 0
R909 0
C775 1000p
IC70
BU4829
VDD GND
STATUS1
STATUS0
MRESET
RESET
CAN1_RX/AUDATA<3>
CAN0_RX/AUDATA<2>
CAN1_TX/AUDATA<1>
CAN0_TX/AUDATA<0>
RESERVED/AUDATA<3>
RESERVED/AUDATA<2>
RESERVED/AUDATA<1>
ADTRG/AUDATA<0>
RESERVED/AUDSYNC
MPU
IC703

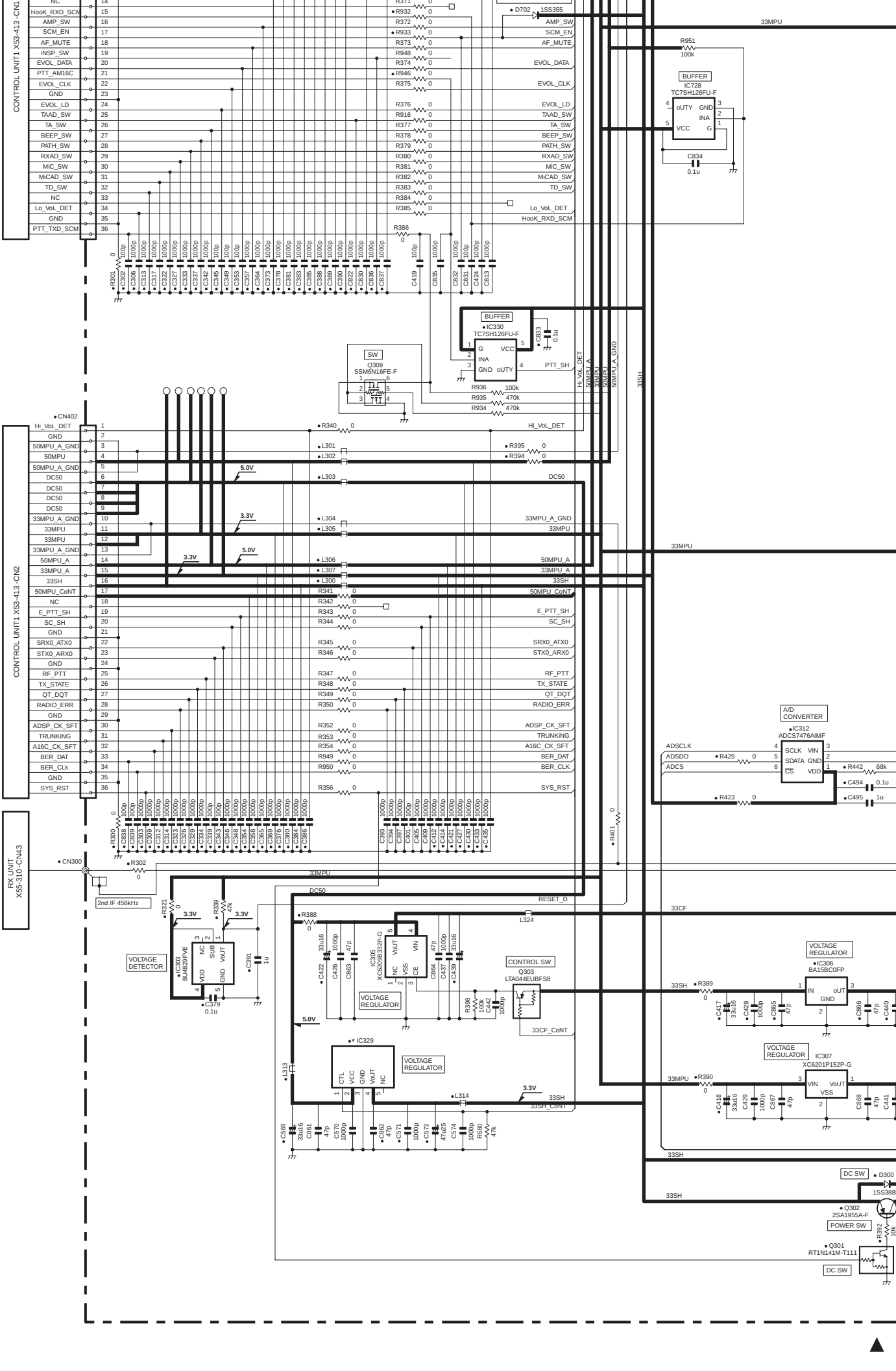
NXR-800 APPENDIX 4 (SCHEMATIC DIAGRAM X53-414)

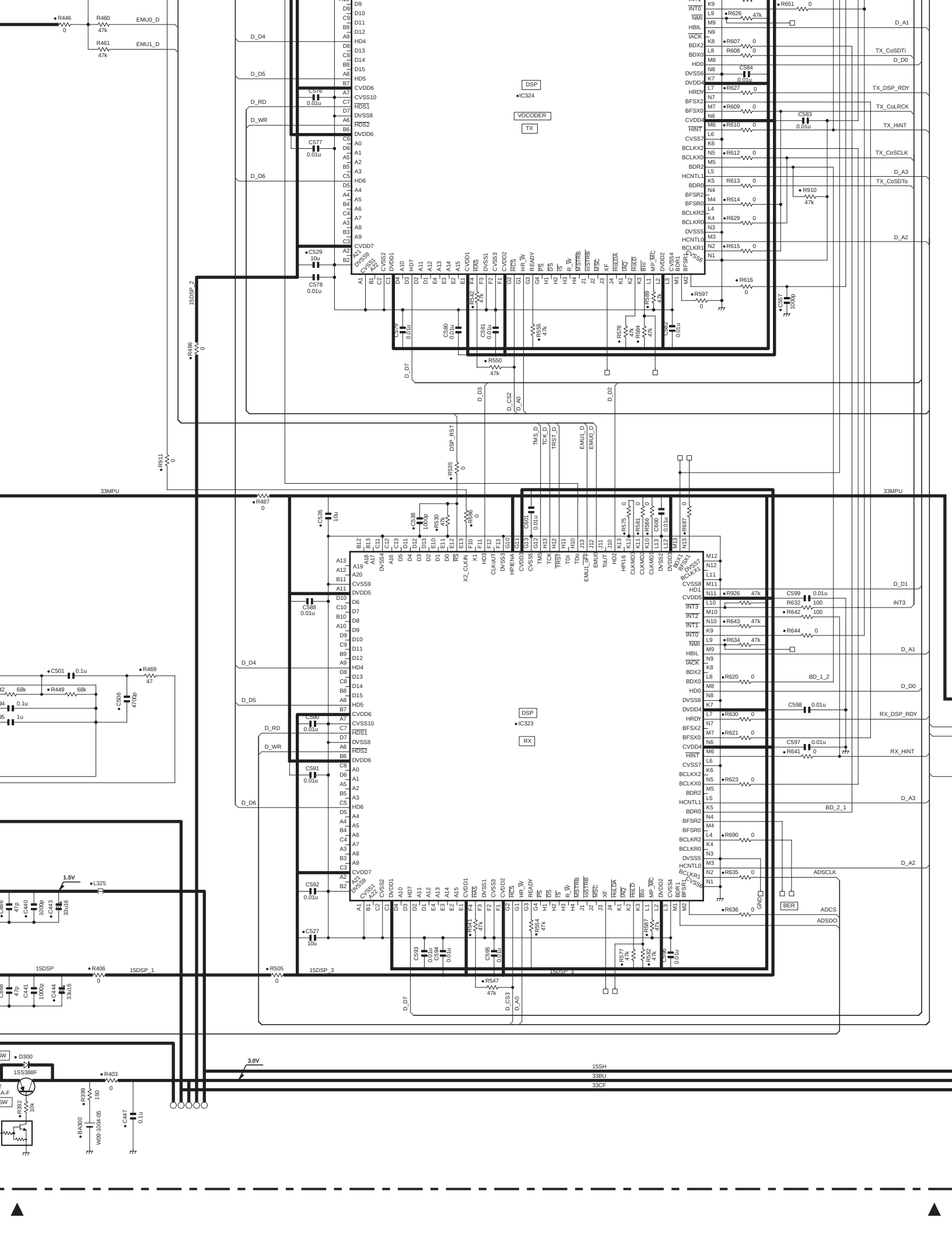
R960
R961

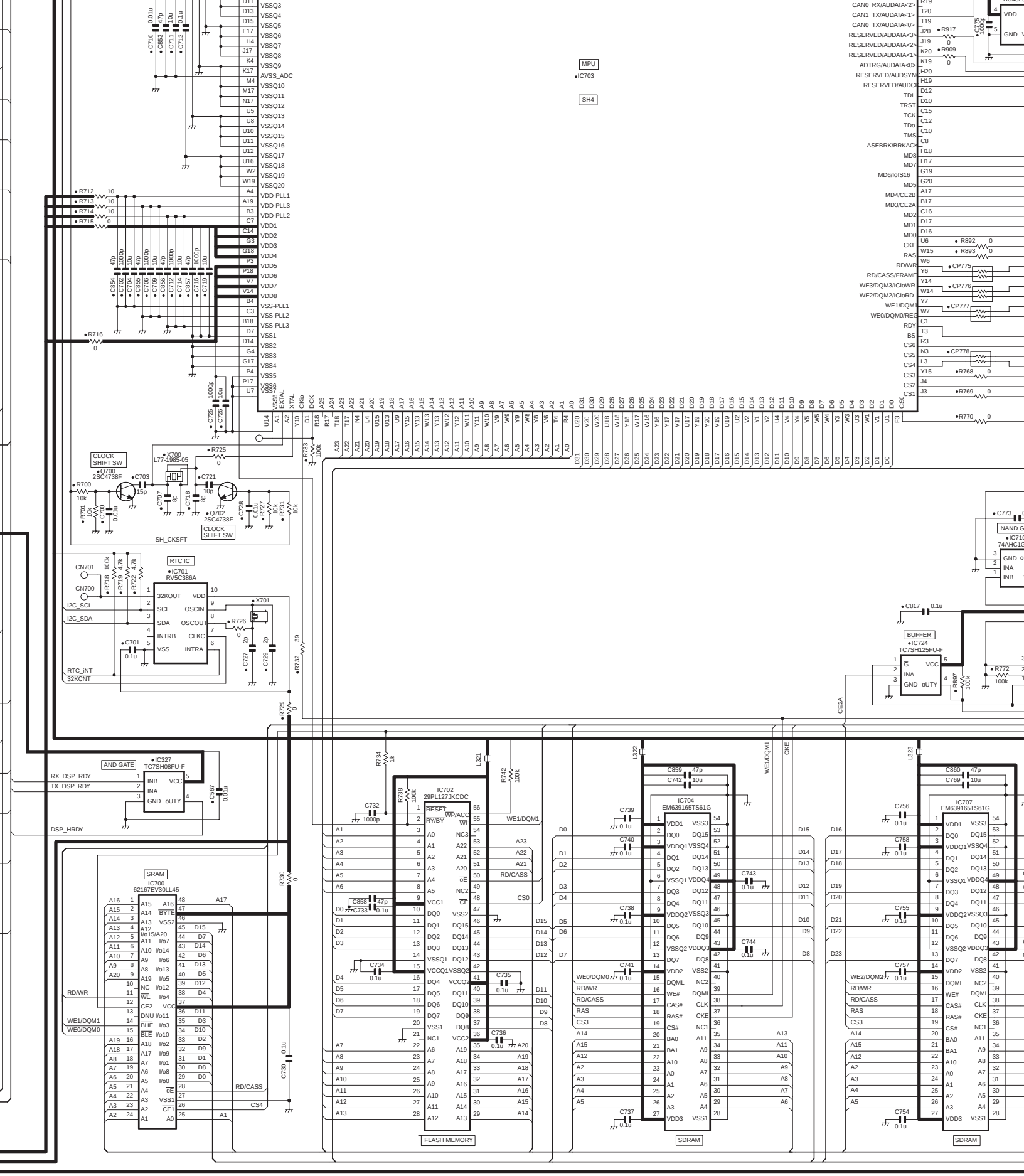
X53-4140-XX	IC329	R960	R961
-10	NO	0	NO
-11 (for Service)	BA33DD0WT	NO	0

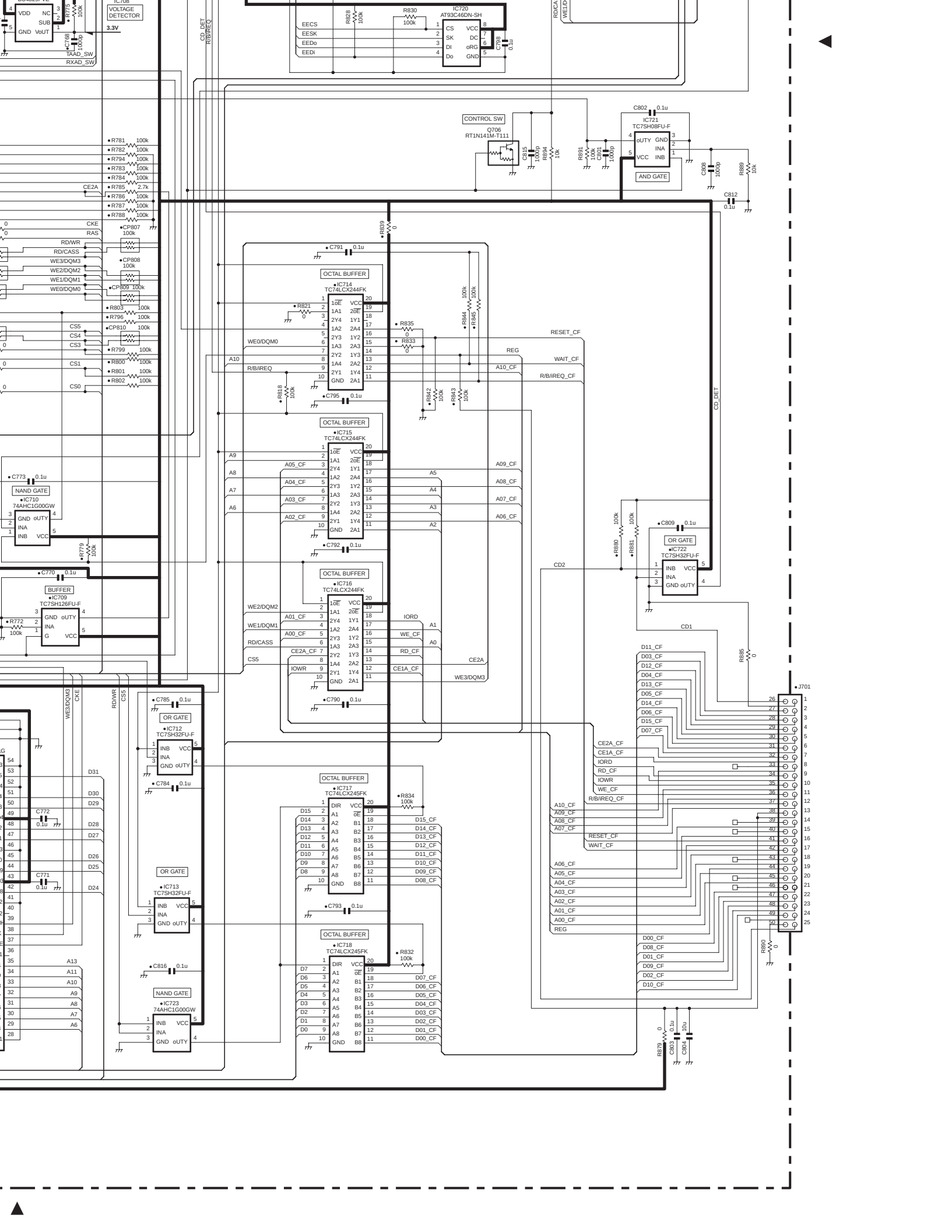
Note : The components marked with a dot (•) are parts of layer 1.




CONTROL UNIT1 X53-413-CN1
NC
HooK_RXD_SCM
AMP_SW
SCM_EN
AF_MUTE
iNSP_SW
EVOL_DATA
PTT_AM16C
EVOL_CLK
GND
EVOL_LD
TAAD_SW
TA_SW
BEEP_SW
PATH_SW
RXAD_SW
MiC_SW
MiCAD_SW
TD_SW
NC
Lo_VoL_DET
GND
PTT_TXD_SCM
D702 1SS355
R951 100k
BUFFER
IC728
TC7SH126FU-F
C834 0.1u
BUFFER
IC330
TC7SH126FU-F
C833 0.1u
PTT_SH
SW
Q309
SSM6N16FE-F
R936 100k
R935 470k
R934 470k
Hi_VoL_DET
50MPU_A_GND
50MPU
50MPU_A_GND
33SH
CN402
CONTROL UNIT1 X53-413-CN2
DC50
33MPU_A_GND
33MPU
50MPU_A
33MPU_A
33SH
50MPU_CoNT
E_PTT_SH
SC_SH
SRX0_ATX0
STX0_ARX0
RF_PTT
TX_STATE
QT_DQT
RADIO_ERR
ADSP_CK_SFT
TRUNKING
A16C_CK_SFT
BER_DAT
BER_CLK
SYS_RST
A/D CONVERTER
IC312
ADCS7476AIMF
ADSCLK
ADSDO
ADCS
R425 0
R442 68k
C494 0.1u
R423 0
C495 1u
RX UNIT
X55-310-CN43
CN300
R302 0
2nd IF 456kHz
R321 0
R339 47k
VOLTAGE DETECTOR
IC303
BU4829FVE
C391 1u
C379 0.1u
R388 0
L324
IC305
XC6209B332P-G
C422 33u6
C426 1000p
C863 47p
C864 47p
C437 1000p
C439 33u6
CONTROL SW
Q303
LTA044EUBFS8
R398 10k
C442 1000p
VOLTAGE REGULATOR
33CF_CoNT
IC329
VOLTAGE REGULATOR
L313
L314
C569 33u16
C570 1000p
C571 1000p
C572 47u25
C574 1000p
R680 47k
VOLTAGE REGULATOR
IC306
BA15BC0FP
R389 0
C447 33u16
C428 1000p
C865 47p
C866 47p
C440
VOLTAGE REGULATOR
IC307
XC6201P152P-G
R390 0
C448 33u16
C429 1000p
C867 47p
C868 47p
C441
DC SW
D300
1SS388
Q302
2SA1955A-F
POWER SW
R392 10k
Q301
RT1N141M-T111
DC SW
5.0V
3.3V
33MPU
33SH
33SH_CoNT
RESET_D


DSP
IC324
VOCODER
TX
DSP
IC323
RX
33MPU
15DSP_2
15DSP_1
15DSP_3
15DSP
1.5V
3.0V
D_D4
D_D5
D_RD
D_WR
D_D6
D_D7
D_D3
D_CS2
D_A0
D_D2
DSP_RST
TMS_D
TCK_D
TRST_D
EMU1_D
EMU0_D
TX_CoSDTi
TX_DSP_RDY
TX_CoLRCK
TX_HiNT
TX_CoSCLK
TX_CoSDTo
D_A3
D_A2
D_A1
D_D0
RX_DSP_RDY
RX_HiNT
BD_1_2
BD_2_1
ADSCLK
ADCS
ADSDO
BER
GND
15SH
33BU
33CF
1SS388F
BA300


MPU
IC703
SH4
CLOCK SHIFT SW
Q700 2SC4738F
Q702 2SC4738F
X700 L77-1985-05
SH_CKSFT
RTC IC
IC701 RV5C386A
32KOUT
SCL
SDA
INTRB
VSS
VDD
OSCIN
OSCOUT
CLKC
INTRA
i2c_SCL
i2c_SDA
RTC_iNT
32KCNT
AND GATE
IC327 TC7SH08FU-F
RX_DSP_RDY
TX_DSP_RDY
DSP_HRDY
SRAM
IC700 62167EV30LL45
RD/WR
WE1/DQM1
WE0/DQM0
RD/CASS
CS4
IC702 29PL127JKCDC
FLASH MEMORY
IC704 EM639165TS61G
SDRAM
IC707 EM639165TS61G
SDRAM
BUFFER
IC724 TC7SH125FU-F
NAND G
IC710 74AHC1G
CE2A
WE1/DQM1
CKE


IC708
VOLTAGE DETECTOR
3.3V
TAAD_SW
RXAD_SW
CD_DET
R/B/IREQ
IC720
AT93C46DN-SH
EECS
EESK
EEDo
EEDi
CONTROL SW
Q706
RT1N141M-T111
IC721
TC7SH08FU-F
AND GATE
RD/CASS
WE1/DQM1
WE0/DQM0
CE2A
CKE
RAS
RD/WR
WE3/DQM3
WE2/DQM2
CS5
CS4
CS3
CS1
CS0
OCTAL BUFFER
IC714
TC74LCX244FK
IC715
IC716
IC717
TC74LCX245FK
IC718
NAND GATE
IC710
74AHC1G00GW
IC723
BUFFER
IC709
TC7SH126FU-F
OR GATE
IC712
TC7SH32FU-F
IC713
IC722
RESET_CF
REG
WAIT_CF
A10_CF
R/B/IREQ_CF
CD_DET
A09_CF
A08_CF
A07_CF
A06_CF
A05_CF
A04_CF
A03_CF
A02_CF
A01_CF
A00_CF
IORD
WE_CF
RD_CF
CE2A_CF
CE1A_CF
IOWR
CD2
CD1
D11_CF
D03_CF
D12_CF
D04_CF
D13_CF
D05_CF
D14_CF
D06_CF
D15_CF
D07_CF
D00_CF
D08_CF
D01_CF
D09_CF
D02_CF
D10_CF
J701

NXR-800 APPENDIX 4 (SCHEMATIC DIAGRAM X53-414)

CONTROL UNIT2 (X53-4140-XX)

X53-4140-XX	IC329	R960	R961
-10	NO	0	NO
-11 (for Service)	BA15000WT	NO	0

Note : The components marked with a dot (•) are parts of layer 1.

TX UNIT (X53-4131-XX) (1/2)

CONTROL UNIT (X53-4140-XX)

RX UNIT (X53-4121-XX)

PC CONTROL

CONTROL UNIT (X53-4140-XX) (2/2)