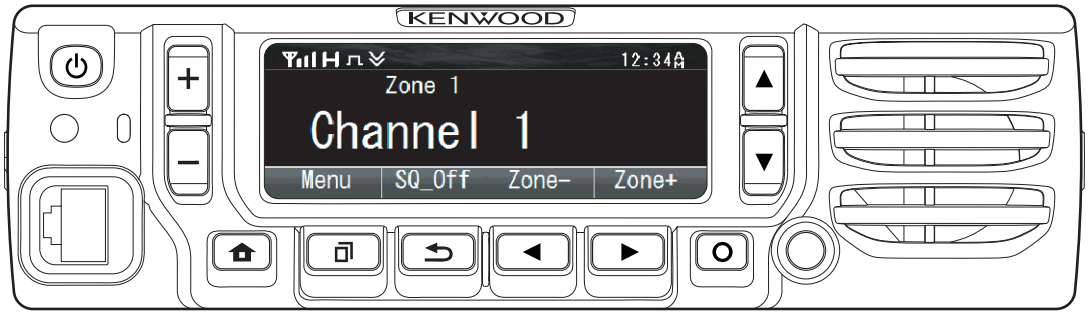
KENWOOD

SERVICE MANUAL

VHF DIGITAL TRANSCEIVER

NX-5700, NX-5700(B)

NX-5700 is a model that operation panel is attached.
NX-5700(B) is a model that operation panel is not attached.
The illustration is NX-5700.



Note :
Lead free solder used in the board (material : Sn, Ag, In, Bi, melting point : 227 Centigrade)

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

This product uses Lead Free solder.

B5B-7172-00

No.RA020<Rev.001>
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SPECIFICATION

GENERAL		
Frequency Range		136~174MHz
Max. Channels per Radio		1024 (Up to 4000)
Zones		128
Max. Channels per Zone		512
Channel Spacing	Analog	12.5 / 15 / 20 / 25 / 30 kHz
	Digital	6.25 / 12.5 kHz
Operating Voltage		13.6V DC ±15%
Operating Temperature Range		-22°F to +140°F (-30°C to +60°C)
Frequency Stability		±1.0ppm
Dimensions (W x H x D) (Projections not included)	Radio only	6.69 x 1.89 x 6.93 in. (170 x 48 x 176 mm)
Weight (net)	Radio only	3.53 lb (1.6 kg)
RECEIVER		
Sensitivity	NXDN 6.25kHz Digital (3%BER)	0.20μV
	NXDN 12.5kHz Digital (3%BER)	0.25μV
	P25 Digital (5% BER)	0.25μV
	P25 Digital (1% BER)	0.40μV
	Analog (12dB SINAD)	0.25μV
Selectivity	P25 Digital	63dB
	Analog @ 12.5kHz	71dB
	Analog @ 25kHz	81dB
Intermodulation Distortion		80dB
Spurious Response		87dB
Audio Distortion		Less than 2%
Audio Output		4W / 4Ω (Remote Control Head: 3W / 4Ω)
TRANSMITTER		
RF Power Output		50W to 5W
Spurious Response		-73dB
FM Hum & Noise	Analog @ 12.5kHz	45dB
	Analog @ 25kHz	50dB
Audio Distortion		Less than 2%
Modulation		16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D, 8K10F1W, 8K10F1E, 8K10F1D

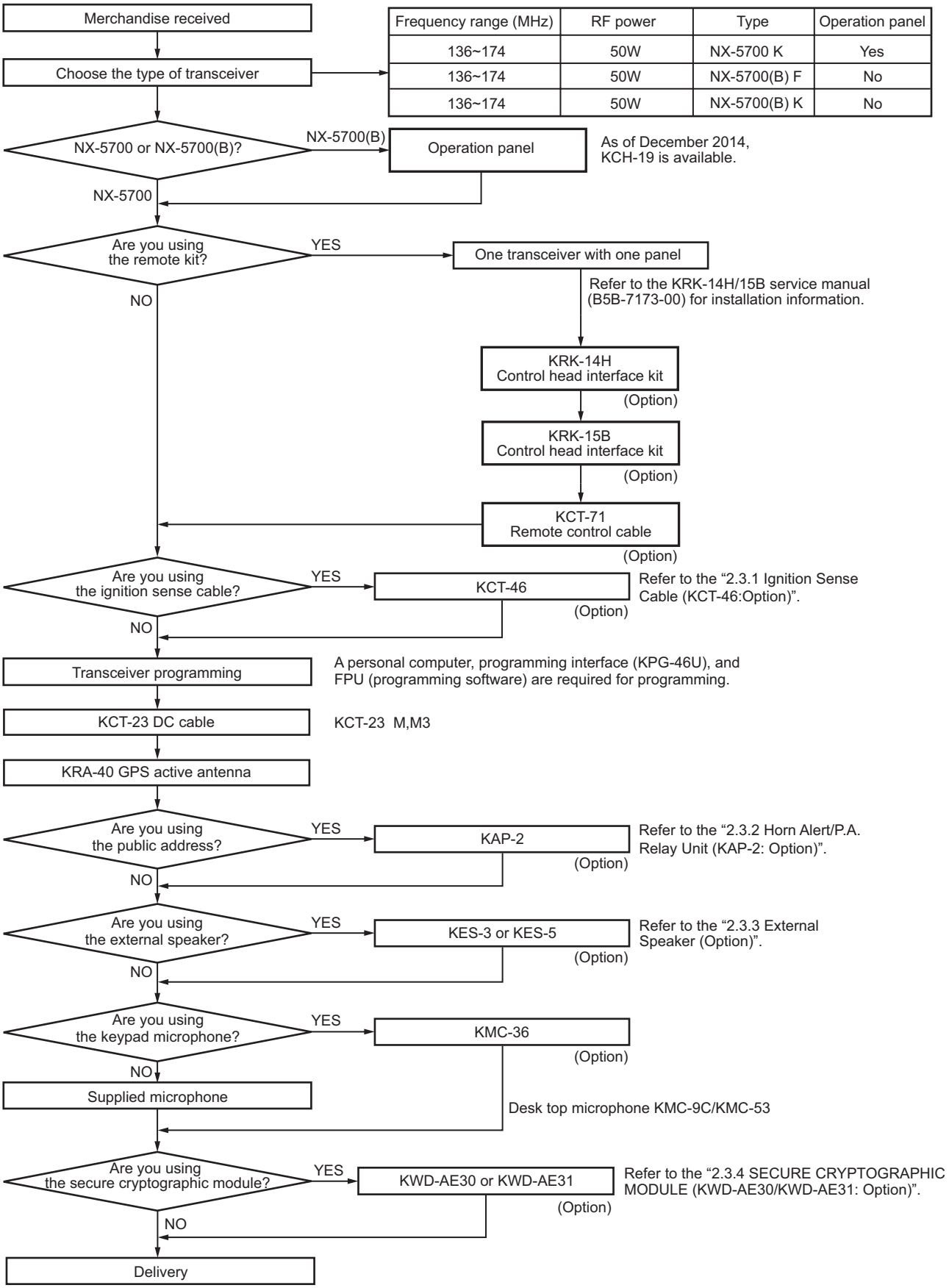
Analog measurements made per TIA/EIA-603 and specifications shown are typical.
Digital measurements made par TIA/EIA 102CAAA (P25) and NXDN CAI (NXDN), and specifications shown are typical.
JVC KENWOOD Corporation reserves the right to change specifications without prior notice or obligation.

SECTION 1
PRECAUTION

This service manual does not describe PRECAUTION.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

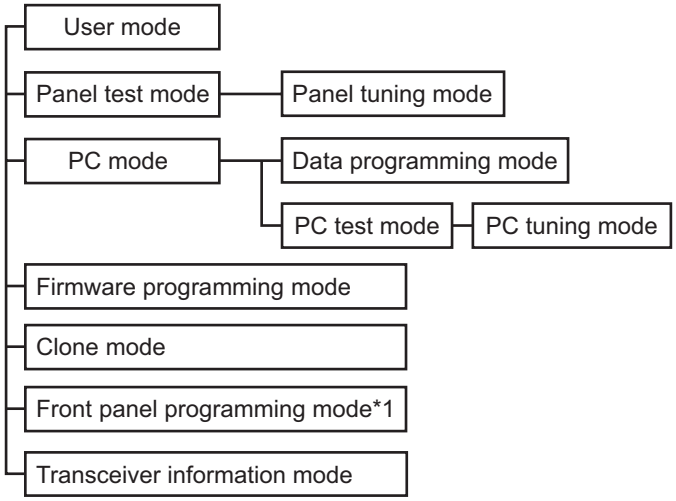
2.1 SYSTEM SET-UP



Frequency range (MHz)	RF power	Type	Operation panel
136~174	50W	NX-5700 K	Yes
136~174	50W	NX-5700(B) F	No
136~174	50W	NX-5700(B) K	No

2.2 REALIGNMENT

2.2.1 Modes



*1:In order to use the Front panel programming mode, it is necessary to purchase the "Front panel program" feature option.

Mode	Function
User mode	For normal use.
Panel test mode	Used by the dealer to check the fundamental characteristics.
Panel tuning mode	Used by the dealer to tune the transceiver.
PC mode	Used for communication between the transceiver and PC.
Data programming mode	Used to read and write frequency data and other features to and from the transceiver.
PC test mode	Used to check the transceiver using the PC. This feature is included in the FPU.
Firmware programming mode	Used when changing the main program of the flash memory.
Clone mode	Used to transfer programming data from one transceiver to another.
Front panel programming mode	Frequency, signaling and features write to the transceiver.
Transceiver information mode	Used to confirm the transcerver firmware version, SCM firmware version and SCM Hardware version.

2.2.2 How to Enter Each Mode

Mode	Operation
User mode	Power ON
Panel test mode*2	• [⮌] + Power ON
	• [▣] + Power ON Select the “Panel Test” using the [▲] / [▼] key. Press the [▣] key.
PC mode	Received commands from PC
Panel tuning mode	[Panel test mode] + [▣]
Firmware programming mode*2	• [AUX (Orange)] + Power ON
	• [▣] + Power ON Select the “Firmware Prog” using the [▲] / [▼] key. Press the [▣] key.
	• If Write is performed by KFL, Firmware programming mode will start automatically.
Clone mode*2	• [◯] + Power ON
	• [▣] + Power ON Select the “Clone” using the [▲] / [▼] key. Press the [▣] key.
Front panel programming mode*2	• Press the PF key to which Front panel programming mode is set during the user mode.
	• Press the [▣] key and enter the Menu mode. Select the any icon assigned the Front panel programming mode using the [▲] / [▼] key. Press [▣] key. Select the “Panel Program” using the [▲] / [▼] key. Press the [▣] key.
Transceiver information mode*2	• [+] + Power ON
	• [▣] + Power ON Select the “Transceiver Info” using the [▲] / [▼] key. Press the [▣] key.

*2 There is the two or three as how to enter.

2.2.3 Panel Test Mode

Setting method refer to ADJUSTMENT.

2.2.4 Panel Tuning Mode

Setting method refer to ADJUSTMENT.

2.2.5 PC Mode

2.2.5.1 Preface

The transceiver is programmed by using a personal computer, programming interface (KPG-46U) and FPU (programming software).

The programming software can be used with a PC. Figure 1 shows the setup of a PC for programming.

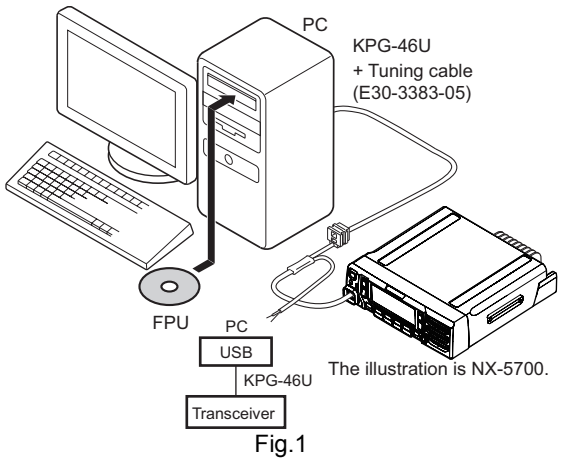


Fig.1

2.2.5.2 Connection procedure

(1) Connects the transceiver to the computer using the interface cable (KPG-46U).

Note:

You must install the KPG-46U driver in the computer to use the USB programming interface cable (KPG-46U).

(2) When the POWER switch on, user mode can be entered immediately. When PC sends command the transceiver enter PC mode, and “PROGRAM” is displayed on the LCD. When data transmitting from the transceiver, the red LED lights.
When data receiving to the transceiver, the green LED lights.

Note:

The data stored in the computer must match the “Model Name” when it is written into the flash memory.

2.2.5.3 KPG-46U description (USB programming interface cable: Option)

The KPG-46U is a cable which connects to a USB port on a computer.
When using the KPG-46U, install the supplied CD (with driver software) in the computer. The KPG-46U driver runs under Windows XP, Vista, 7, 8 or 8.1.
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.)

2.2.5.4 Programming software KPG-D1/D1N description

The FPU is the programming software for the transceiver supplied on a CD. This software runs under Windows Vista, 7, 8 or 8.1 on a PC.
The data can be input to or read from the transceiver and edited on the screen.

2.2.6 Firmware Programming Mode

2.2.6.1 Preface

Flash memory is mounted on the transceiver. This allows the transceiver to be upgrade when new features are released in the future. (For details on how to obtain the firmware, contact Customer Service.)

2.2.6.2 Connection procedure

Connect the transceiver to the personal computer using the programming interface (KPG-46U). (Connection is same as in the PC mode.)

2.2.6.3 Programming

(1) Start up the firmware programming software (KENWOOD Firmware Loader). The KFL.exe exists in the KPG-D1/D1N installed folder.
(2) Set the baud rate to "auto" or 1152000, 576000, 115200, and 57600.
(3) Set the firmware to be upgrade by file name item.
(4) Enter the Firmware programming mode by using section “2.2.2 How to Enter Each Mode”. Then, the yellow LED on the transceiver light and "FIRMWARE PROG" is displayed.
(5) Check the connection between the transceiver and the personal computer, and make sure that the transceiver is in the Program mode.
(6) Press “Write” button in the window. When the transceiver starts to receive data, the “LOADING” display lights.
(7) If writing ends successfully, the checksum is calculated and a result is displayed.
(8) If you want to continue programming other transceivers, repeat step (4) to (7).

Note:

If write is perfomed by KFL, Firmware programming mode will start automatically even if Firmware programming is set to disable in the programming software.

2.2.6.4 Function

If you press the [○] key while “FIRMWARE PROG” is displayed, the checksum is calculated, and a result is displayed. If you press the [○] key again while checksum is displayed, “FIRMWARE PROG” is redisplayed.

2.2.7 Clone Mode

Programming data can be transferred from one transceiver to another by connecting them via their modular microphone jacks. The operation is as follows.

■The following data cannot be cloned.

- Tuning data
- Embedded message with password
- ESN (Electronic Serial Number) data

■Key guide on the Clone/ Front Panel Programming Password input screen.

- Confirm ([▣] key): The password confirmation
- Delete ([⮌] key): Delete the latest digit from the current password number (Press and hold to delete all password numbers)
- Select([▣] key): Determine the latest digit of the password number.

(1) In the source transceiver, enter the clone mode by using section “2.2.2 How to Enter Each Mode”. When the Clone/ Front Panel Programming Password is set to the transceiver, "Input Password" is displayed on the LCD.
If the password is not set, the transceiver displays "CLONE MODE".
(2) When you enter the correct password, “CLONE MODE” is displayed, the transceiver can be used as the cloning source. The following describes how to enter the password.
(3)

- How to enter the password using the MIC keypad;

If one of the keys 0 to 9 is pressed while the “Input Password” is displayed, the password number is displayed on the LCD.
Each press of the key shifts the display in order to the left.
When you enter the password and press [▣] or [*] key, “CLONE MODE” displayed if the entered password is correct. If password is incorrect, “Input Password” is redisplayed.

- How to enter password using the [▲] and [▼] keys;

If the [▲] / [▼] key is pressed while “Input Password” is displayed, the Clone/ Front Panel Programming Password input screen is displayed.
If the [▲] or [▼] key is pressed while the clone/ Front Panel Programming Password input screen is displayed, the number (0 to 9) blinks on the LCD. When you press the [▣] key, currently selected number is determined. If you press the [▣] key after entering password in this procedure, “CLONE MODE” is displayed if entered password is correct. If the password is incorrect, “Input Password” is redisplayed.

(4) Power ON the target transceiver.
(5) Connecting the cloning cable (part No.E30-3382-05) to the modular microphone jacks on the source and target.

(6) Press [ ] key on the source while the source displays "CLONE MODE". The data of the source is sent to the target. While the target is receiving the data, "PROGRAM" is displayed. When cloning of the data is completed, the source displays "END", and the target automatically operates in the User mode. The target can then be operated by the same program as the source.

(7) The other target can be continuously cloned. When the [ ] key on the source is pressed while the source displays "END", the source displays "CLONE MODE". Carry out the operation in step (4) to (6).

Note:

- Cannot be cloned if the password (overwrite password) is programmed to the target.
- "Model name" must be same to clone the transceiver.

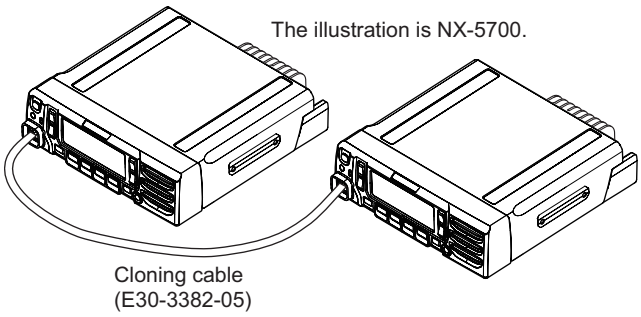


Fig.2

2.2.8 Front Panel Programming Mode

If the Front Panel Programming Mode is used, the frequency or other data of the conventional channel is rewritable only by the transceiver.
Moreover, the conventional channel can be added.

■The following setup items can be changed or added by using the Front panel programming mode.

- RX/TX Frequency
- Channel Type
- Channel Spacing
- Decode QT/DQT/RAN/NAC, Encode QT/DQT/RAN/NAC
- Talkgroup ID List No.
- Transmit Power
- Channel Name

■Key guide on the Clone/ Front Panel Programming Password input screen.

- Confirm ([ ] key): The password confirmation
- Delete ([ ] key): Delete the latest digit from the current password number (Press and hold to delete all password numbers)
- Select ([ ] key): Determine the latest digit of the password number.

2.2.8.1 Enter to the Front panel programming mode.

Enter to the Menu Mode by pressing [Front Panel Mode] PF key or [Menu] key. When the Front Panel Mode is selected, it can enter to the Front panel programming mode.
If the Clone/Front panel programming Password is not set to the transceiver, "Panel Program" is displayed on the LCD.
If the Clone/Front panel programming Password is set to the transceiver, "Panel Program" is displayed on the LCD when you enter the correct password while "Input Password" is displayed.

2.2.8.2 Data Writing

Before moving to next Zone/Channel, "Keep This Change?" appears on the LCD, if you select "OK", the new data is written to memory. If you select "Cancel", the new data not be written; the new data will be erased.

- **The setup items for Front panel programming mode are as follows.**

No.	Setup item	Display	Remarks
1	RX Frequency	RX Frequency	Receive Frequency
2	TX Frequency	TX Frequency	Transmit Frequency
3	Channel Type	Channel Type	Analog/NXDN/P25
4	Channel Spacing	Channel Space	Analog: 12.5kHz/25kHz
			NXDN: 6.25kHz/12.5kHz
			P25: 12.5kHz
5	RX Signaling	RX QT/DQT	Receive QT/DQT
6	TX Signaling	TX QT/DQT	Transmit QT/DQT
7	RX RAN	RX RAN	None, 1~63
8	TX RAN	TX RAN	None, 1~63
9	RX NAC	RX NAC	000~FFF (Hexadecimal) Note: "F7F" cannot set.
10	TX NAC	TX NAC	000~FFF (Hexadecimal) Note: "F7E" and "F7F" cannot set.
11	Talkgroup ID List Number	Talkgroup	None, 1~1500
12	Transmit Power	Transmit Power	Low/Medium/High
13	Channel Name	Channel Name	

• **Key operation**

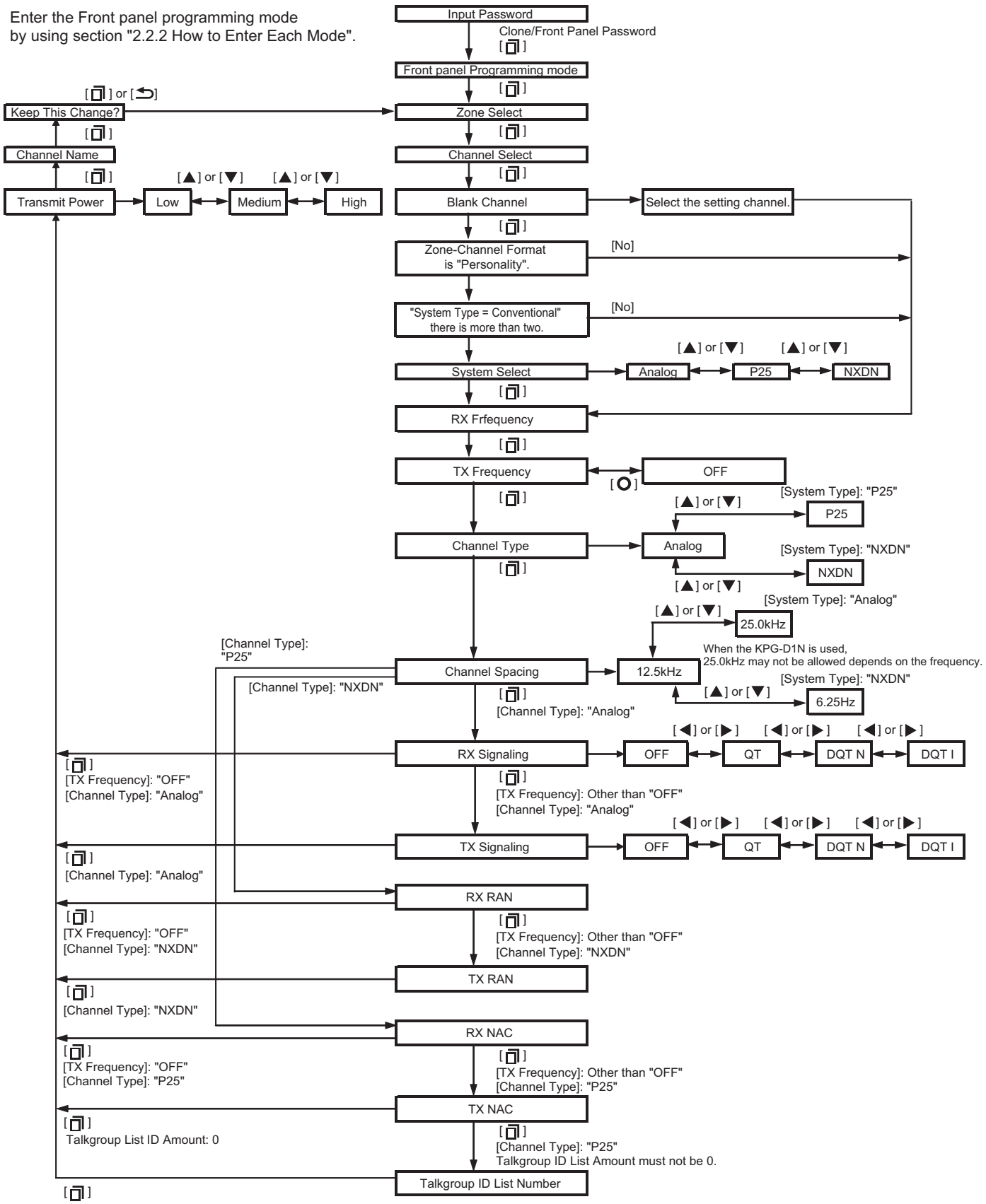
Key\Item	Zone Select	Channel Select	RX Frequency	TX Frequency	Channel Type	Channel Spacing	RX Signaling	TX Signaling
[▣]	Decision	Decision	Decision	Decision	Decision	Decision	Decision	Decision
[⮌]	Unused	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item
[○]	Unused	Unused	Unused	TX Frequency OFF	Unused	Unused	Unused	Unused
[⌂]	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode
[▲]	Zone change	Channel change	Frequency up	Frequency up	Channel type change	Channel Spacing Change	Signaling number change	Signaling number change
[▼]	Zone change	Channel change	Frequency down	Frequency down	Channel type change	Channel Spacing Change	Signaling number change	Signaling number change
[▶]	Unused	Unused	Frequency step change	Frequency step change	Unused	Unused	Signaling type change	Signaling type change
[◀]	Unused	Unused	Frequency step change	Frequency step change	Unused	Unused	Signaling type change	Signaling type change
MIC Keypad [0] ~ [9]	Zone number select	Channel number select	Go to the direct enter mode		Channel number select (1 or 2)	Channel spacing select (1 or 2)	Go to the direct enter mode	
MIC Keypad [*]	Decision	Decision	Decision	Decision	Decision	Decision	Decision	Decision
MIC Keypad [#]	Unused	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item

Key\Item	RX RAN	TX RAN	RX NAC	TX NAC	TG ID List No.	Transmit Power	Channel Name
[▣]	Decision	Decision	Decision	Decision	Decision	Decision	Decision
[⮌]	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item/Delete
[○]	Unused	Unused	Unused	Unused	Unused	Unused	Character/Digit switching
[⌂]	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode	Exit panel program mode
[▲]	RX RAN up	TX RAN up	RX NAC up	TX NAC up	TG List number up	Transmit power change	Go to the direct enter mode
[▼]	RX RAN down	TX RAN down	RX NAC down	TX NAC down	TG List number down	Transmit power change	
[▶]	RX RAN ON/ OFF	RX RAN ON/ OFF	Unused	Unused	Unused	Unused	
[◀]	RX RAN ON/ OFF	RX RAN ON/ OFF	Unused	Unused	Unused	Unused	
MIC Keypad [0] ~ [9]	Go to the direct enter mode				Talkgroup List number select	Transmit power select (1, 2 or 3)	
MIC Keypad [*]	Decision	Decision	Decision	Decision	Decision	Decision	Decision/ Character/ Digit switching
MIC Keypad [#]	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item	Back to the previous item

• **Direct enter mode**

Key\Item	RX Frequency	TX Frequency	RX Signaling	TX Signaling	RX RAN	TX RAN	RX NAC	TX NAC	Channel Name
[▣]	Decision								Character/Channel name decision
[⮌]	Delete								
[◯]	Unused								
[⌂]	Exit panel program mode								
[▲]	Unused								Character selection (upper case character → lower-case character → digit → upper case character...)
[▼]									Character selection (upper case character → lower-case character → digit → upper case character...)
[▶]									Move a cursor to the right
[◀]									Move a cursor to the left
MIC Keypad [0] ~ [9]	Add a digit to the current number								
MIC Keypad [*]	Decision								Input character switching
MIC Keypad [#]	Delete/Back to the previous item								Delete

- **Front panel programming mode flow chart**

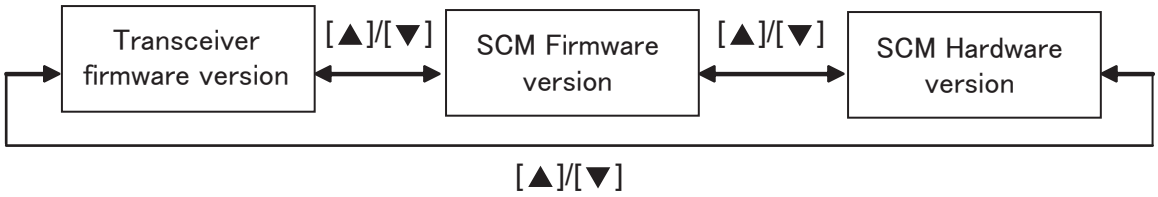


Note: Zone-Channel Format allows you to whether to configure for each zone the channels in the same system, or channels in different system. P25 can be configured for System Select or Channel Type if one or more P25 conventional system is preconfigured by the FPU.

2.2.9 Transceiver Information Mode

Use this function to confirm the transceiver firmware version, SCM Firmware version and SCM Hardware version.

(1) Enter the Transceiver Information mode by using section "2.2.2 How to Enter Each Mode".
(2) The transceiver firmware version appears on the LCD.
(3) Use the [▲] and [▼] keys to select the confirmation items.



(4) To exit the transceiver information mode, turn the transceiver power OFF.

Note:
When the SCM board is not equipped to the transceiver, SCM Firmware Version and SCM Hardware Version are displayed as "-.-.-.".

2.3 INSTALLATION

ATTENTION:
When installing the option, please take measures to prevent static electricity.

2.3.1 Ignition Sense Cable (KCT-46: Option)

The KCT-46 is an optional cable for enabling the ignition function. The ignition function lets you turn the power to the transceiver on and off with the car ignition key.

2.3.1.1 Connecting the KCT-46 cable to the transceiver

(1) Open the KCT-46 fuse holder and insert a mini blade fuse (3A). <1>
(2) While holding a clear protective cover, remove the black cap at the end of the yellow cable (ignition sense cable) of the transceiver. <2>
(3) Connect the plug of the KCT-46 to the yellow cable terminal of the transceiver. <3>
(4) Connect the other end of the KCT-46 to the ignition line of the car. <4>

Note:
You must setup using the KPG-D1/D1N.

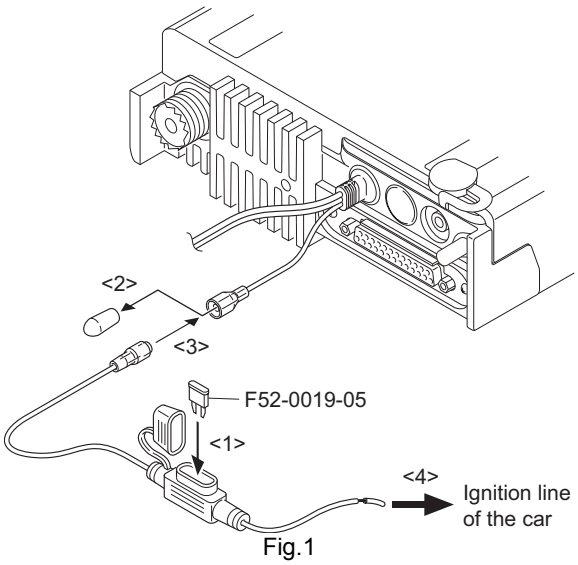


Fig.1

2.3.2 Horn Alert/P.A. Relay Unit (KAP-2: Option)

The Horn alert (max. 2A drive), Public address and External speaker function are enabled by installing the KAP-2 in the transceiver.

2.3.2.1 Installing the KAP-2 unit in the transceiver (The kit A is not used in the KAP-2 accessories)

(1) Remove the cabinet, top packing and shielding plate of the transceiver.
(2) Set the KAP-2 relay unit jumper pins according to the purpose of use.
(3) Remove the 6-pin jumper connector inserted in the TXRX unit (A/2) connector (CN910). <1>

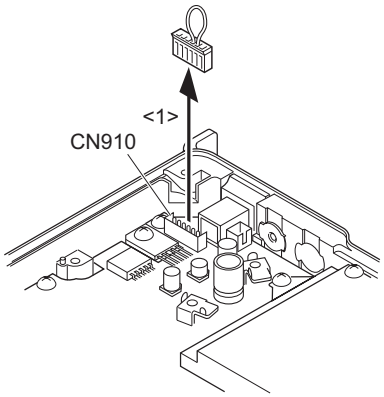


Fig.2-1

(4) Insert one side of the lead wire with connector (E37-1114-05) into the relay unit connector (CN3) <2> and the other side into the TX-RX unit (A/2) connector (CN910) <3>

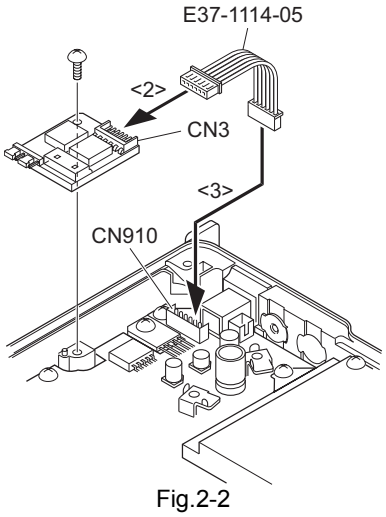


Fig.2-2

(5) Place the relay unit at the position shown in Figure 2-2 and secure it to the chassis with a screw.

(6) Remove the cap on the rear of the chassis by pushing it from the inside with your finger. <4>

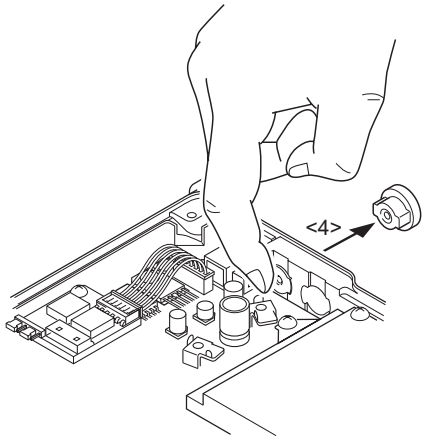


Fig.2-3

(7) Pass the 6-pin connector of the cable (E37-1113-25) through the chassis hole <5> and insert the bush into the shassis hole.
(8) Rotate the bush of the cable 90 degrees counterclockwise as viewed from the rear of the chassis. <6>
(9) Insert the 6-pin connector of the cable into the connector (CN2) of the KAP-2 relay unit. <7>

Note:

You must setup using the KPG-D1/D1N.

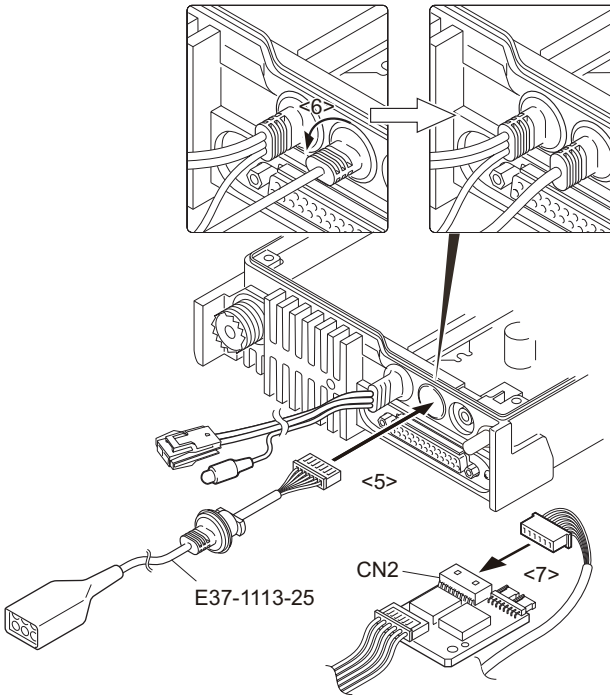
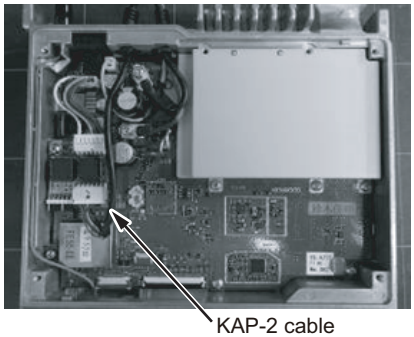


Fig.2-4

(10) Form the KAP-2 cable as shown in the figure.



2.3.3 External Speaker (Option)

2.3.3.1 KES-3

The KES-3 is an external speaker for the 3.5-mm-diameter speaker jack.

■Connection Procedure

Connect the KES-3 to the 3.5-mm-diameter speaker jack on the rear of the transceiver.

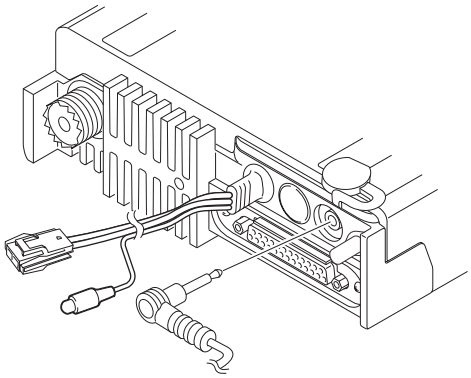


Fig.3-1

2.3.3.2 KES-5

External speaker KES-5 can be installed for KAP-2. If KES-5 is installed, it can be set by changing the CN1 short pin from pins 4 and 5 to pins 5 and 6 on the KAP-2.

KAP-2 CN1 Connect	Set Up
4-5	INT. SP or KES-3
5-6	KES-5

When you use the KES-5, plug the short pin to pins 5 and 6 on the KAP-2.
When you use the INT. SP or KES-3, plug the short pin to pins 4 and 5 on the KAP-2.

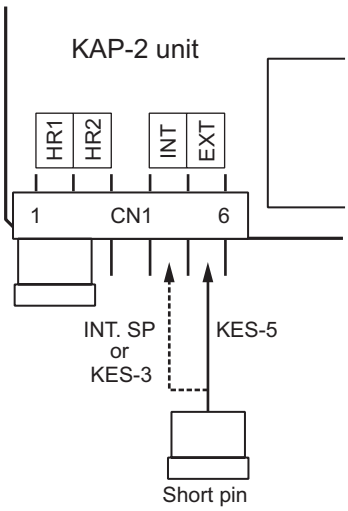


Fig.3-2

■**Connection Procedure**

Insert the crimp terminal into the Square plug supplied with the KAP-2.

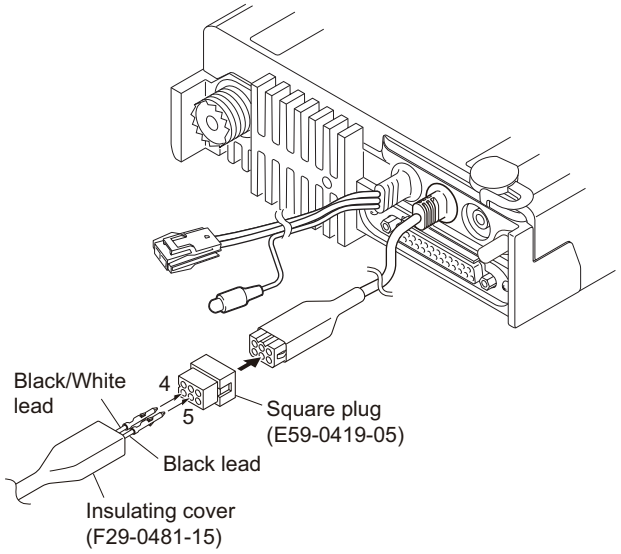
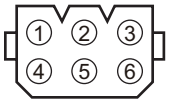


Fig.3-3

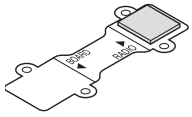
■**KAP-2 Cable (E37-1113-25) 6-pin Connector**



Pin No.	Color	Name
1	Red	HR2
2	Blue	GND
3	Yellow	OSP
4	Green	ESP
5	Brown	GND
6	Black	HR1

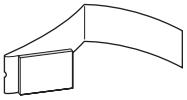
2.3.4 SECURE CRYPTOGRAPHIC MODULE (KWD-AE30/KWD-AE31:Option)

2.3.4.1 SUPPLIED ACCESSORIES



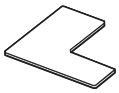
Connecting cable (X42-3330-XX)

Cushion A * (G13-2179-XX)

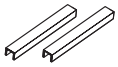


Cushion B (G13-2178-XX)

Cushion C (G1D-0006-XX)



Cushion D * (G1D-0055-XX)



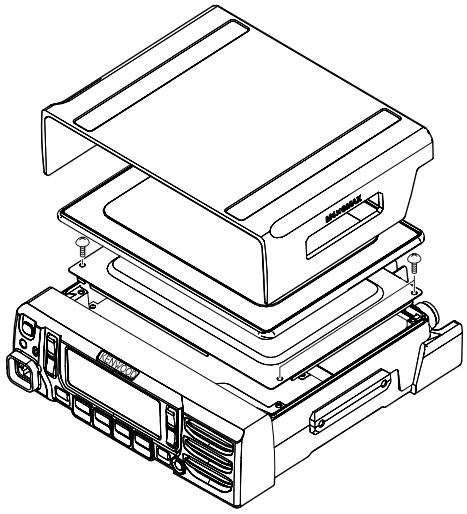
Spacer * (F3K-0004-XX)

Note:

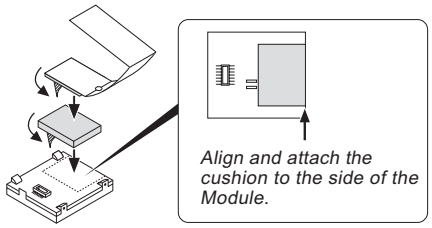
Supplied accessories with * mark are not used for the NX-5700.

2.3.4.2 INSTALLING THE MODULE IN THE TRANSCEIVER

(1) Remove the cabinet, top packing and shielding plate of the transceiver.



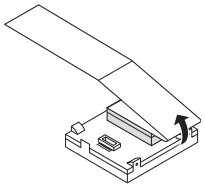
(2) Attach the cushion B and C to the module backside.



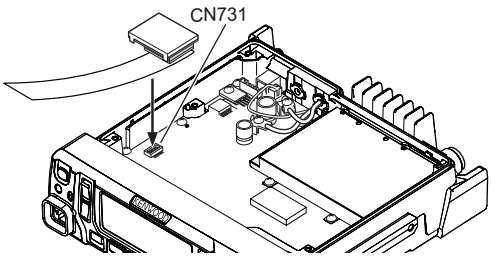
Note:

Refer to the figure for how to attach cushion B. If the release paper is reversed, it cannot be pulled out.

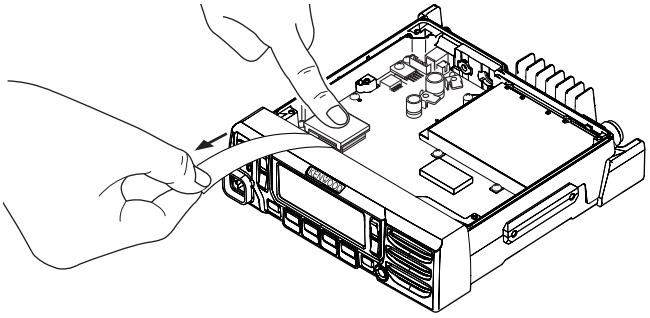
(3) Fold the release paper as indicated in the figure.



(4) Insert the connector of the module the connector (CN731) of the TX/RX PCB into.



(5) Pull and remove the release paper while pressing down on the module with your finger to hold it in place, to attach the module to the TX/RX PCB.



Note:

- When it is necessary to remove the module, do so by peeling the module off using your finger, while pulling it vertically. Do not use a screwdriver or other similar implement to remove the module; you may inadvertently damage the TX/RX PCB and the module.
- Cushion B cannot be reused. Attach a new cushion B when you remove the cushion from the module.

(6) Reinstall the cabinet, top packing and shielding plate of the transceiver.

Note:

- When the KWD-AE30/ KWD-AE31 is installed, select the “Secure Cryptographic Module” checkbox in the Product Information of the Programming software [FPU (Field Programming Unit)], and then set each parameter.
- If the KWD-AE30/ KWD-AE31 connector is not properly installed, the TX/RX indicator will blink red or "No SCM" will appear on the display when the transceiver power is turned on.
- If the Encryption Key data is not written at the Keyloader, or the Encryption Key data is zeroized, "Key Fail" will appear on the display.
- If the KWD-AE30/ KWD-AE31 is installed in other transceivers, the Encryption Key data will be forced to zeroize.

2.3.5 Changing D-SUB 25-pin connector (4 pin, 5 pin) configuration

2.3.5.1 Change configuration of D-SUB 25-pin connector from AUXIO9 to CTS

■4 pin

The output (4 pin) of D-SUB 25-pin connector is configured at the AUXIO9 as the default value.

Remove the R950 chip jumpers and solder the chip jumpers to $R952.

Ref. No.			Function
R950	$R952	Default	AUXIO9
$R950	R952	-	CTS (RS-232C)

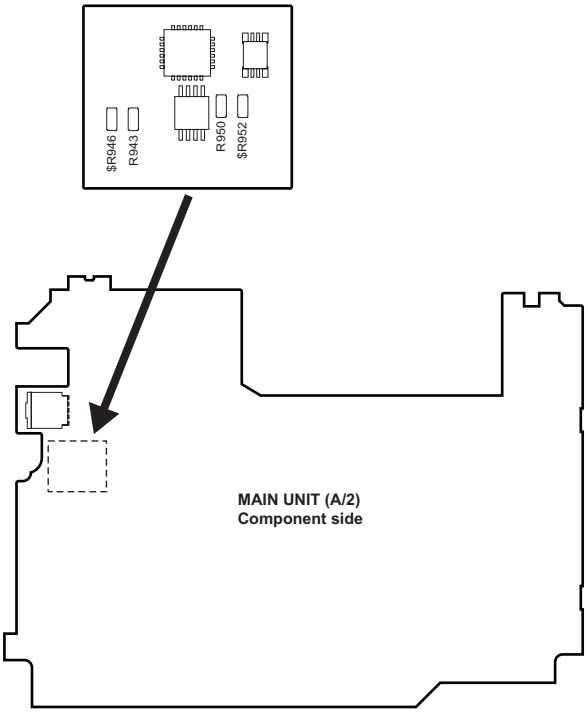
2.3.5.2 Change configuration of D-SUB 25-pin connector from DI to RTS

■5 pin

The input (5 pin) of D-SUB 25-pin connector is configured at the DI as the default value.

Remove the R943 chip jumpers and solder the chip jumpers to $R946.

Ref. No.			Function
R943	$R946	Default	DI
$R943	R946	-	RTS (RS-232C)



2.4 CIRCUIT DESCRIPTION

2.4.1 Overview

The NX-5700 is a VHF Analog FM & Digital Mobile transceiver designed to operate in the frequency range of 136 to 174MHz. The unit consists of a receiver, a transmitter, a phase-locked loop (PLL) frequency synthesizer, a digital control unit, and a power supply circuit.

2.4.2 Frequency Configuration

The receiver is a double-conversion super-heterodyne using first intermediate frequency (IF) of 49.95MHz and second IF of 2.25MHz. Incoming signals from the antenna are mixed with the local signal from the VCO/PLL circuit to produce the first IF of 49.95MHz. This is then mixed with the 47.7MHz second local oscillator output to produce the 2.25MHz second IF. The transmit signal frequency is generated by the TX VCO, and modulated by the signal from the DSP. It is then amplified and fed to the antenna.

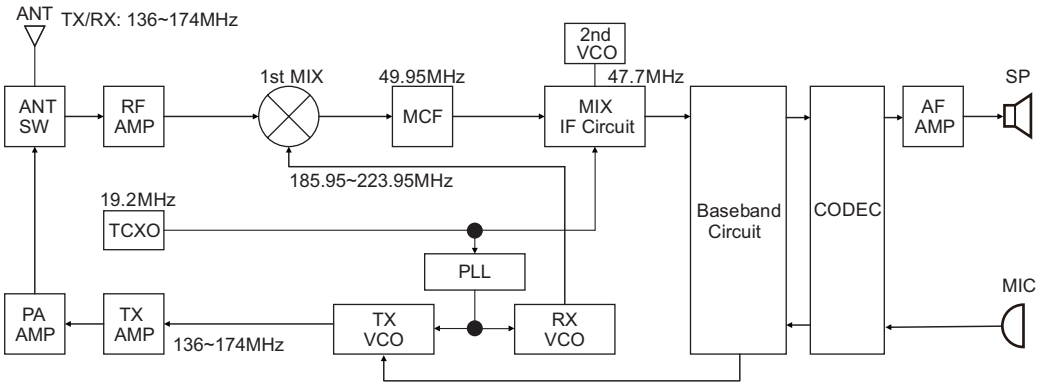


Fig.1 Frequency configuration

2.4.3 Receiver System

2.4.3.1 RF circuit

The receive signal from antenna switch (D310, D311, D312, D313, D314 and D315) is amplified by a RF amplifier (Q502) and passes through the band-pass filter (L517, L516, L514, L511, L509 and L508) to remove unwanted signals. The signal is then fed to the 1st mixer (IC500).

2.4.3.2 IF circuit

The first IF signal is passed through a four-pole monolithic crystal filter (XF600) to reject adjacent channel signal. The filtered first IF signal is amplified by the first IF amplifier (Q604 and Q603) and then applied to the IF system IC (IC600). The IF system IC provides a second mixer, second PLL, AGC and A/D converter.

The second mixer mixes the first IF signal with the 47.7MHz of second local oscillator output and produces the second IF signal of 2.25MHz.

The second IF signal is then be fed into an A/D converter, generates the I and Q data. This data is in the form of SSI (Serial Synchronous Interface), and sent to the DSP (IC706).

2.4.3.3 Audio amplifier circuit

Audio processing (high-pass filter, low-pass filter, de-emphasized and so on) at Analog FM mode and decoding at Digital mode are processed by DSP. SSI signal from DSP is converted to audio signal at IC902. The signal goes to internal speaker and connector for external speaker (J900) through the amplifier (IC903), electronic volume control (IC719) and audio amplifier (IC911).

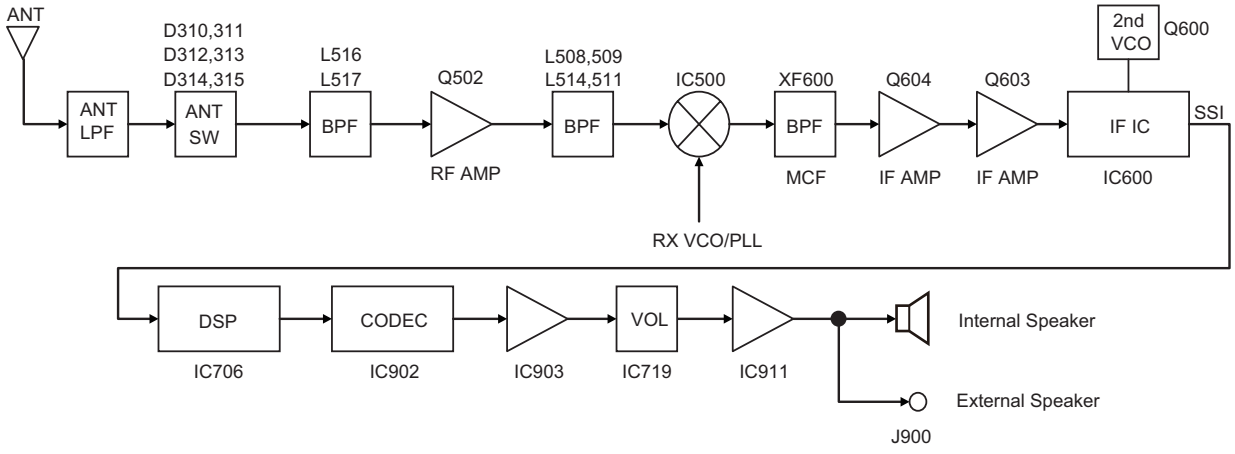


Fig.2 RF and IF circuit

2.4.4 Transmitter System

2.4.4.1 Audio Band Circuit

The signal from microphone is amplified and converted to digital signal by IC902. IC902 includes AGC function.
Digital signal is transferred to IC706 thru SSI.

2.4.4.2 Base Band Circuit

The audio signal transferred from IC902 is processed at IC706. Voice signals of 300Hz or lower and frequencies of 3kHz or higher are cut off and an audio range 300Hz to 3kHz is extracted. The audio signal is then pre-emphasized in FM mode and synthesized with the signals, such as QT and DQT, as required, and is transferred to PLL Frequency Synthesizer block. The DTMF and MSK base band signals are also generated by IC706.
In Digital mode, the audio signal is converted to the 4-Level FSK base band signal and is transferred to PLL Frequency Synthesizer block.
The output level according to the transmit carrier is fine-adjusted according to each modulation method.

2.4.4.3 Drive and Final amplifier

The signal from the TX VCO is amplified by pre-drive amplifier (IC300). The output of the pre-drive amplifier is amplified by the drive amplifier (Q300) and RF Power module (IC302) to 50W (5W when the power is low).
IC300 is MMIC.Q300 is MOS FET. The output of the final amplifier is then passed through the coupler, antenna switch (D310, D311, D312, D313, D314 and D315), harmonic filter (LPF) and applied to the antenna terminal.

2.4.4.4 APC circuit

The Automatic transmission power control (APC) circuit controls the transmitter output in adjusted value by monitoring it with a coupler. RF detection and comparison functions are included in the power-control IC (IC304).
The power control IC output is given as a drive source of the RF power module's gate (IC302), and completes APC feedback loop.
When an normal antenna load is connected, reflected Forward RF Power is detected by the coupler and direct in power-control IC (IC304).Forward RF Power is converted into DC voltage in IC304 and is compared with the APC1.
The output voltage goes through DC amp (IC301 2/2) to Drive amp (Q300) and RF Power module (IC302).
The voltage controls the gate bias1 voltage of Q300 and IC302, and keeps transmission output stable. SPC controls the gate bias2 voltage of IC302 too.

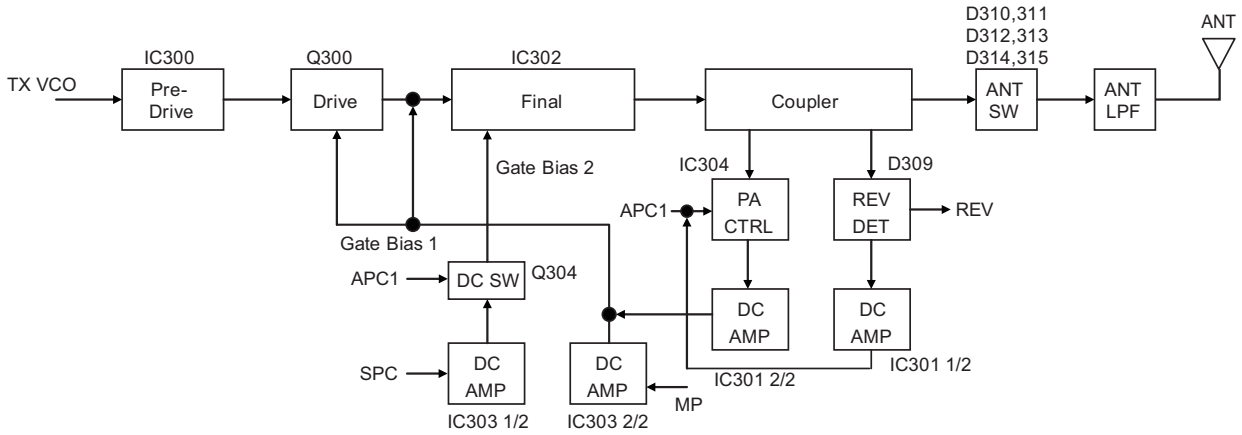


Fig.3 Drive and Final amplifier and APC circuit

2.4.5 PLL Frequency Synthesizer

2.4.5.1 TCXO (X700)

TCXO (X700) generates a reference frequency of 19.2MHz for the PLL frequency synthesizer. This reference signal is buffered by Q700 and IC703. And it is distributed to PLL (IC100), IF IC (IC600), and IC706.
The frequency adjustment is achieved by adjusting a D/A converter (IC715) output in the voltage of the control terminal of TCXO.

2.4.5.2 VCO

There are TX VCO and RX VCO.
The TX VCO (Q107) generates the carrier for the transmitter. The VCO oscillation frequency range is 136 to 174MHz. The transmit frequency range is 136 to 174MHz.
The RX VCO (Q105) generates the 1st local signal for the receiver.
The VCO oscillation frequency range is 185.95 to 223.95MHz. The 1st local signal frequency range is 185.95 to 223.95MHz.
The VCO oscillation frequency is determined by voltage control terminals "CV" and "ASSIST".
The voltage control terminal "CV" is controlled by PLL IC (IC100). The voltage control terminal "ASSIST" is controlled by the control voltage from D/A converter (IC715).
For the modulation input terminal, "VCO_MOD" of TX VCO, the output frequency changes according to the applied voltage. This is used to modulate the VCO output.

2.4.5.3 PLL IC

PLL IC (IC100) compare the difference in phases of the VCO oscillation signal and the TCXO reference frequency. And it returns the difference voltage to the VCO CV terminal and realizes the "Phase Locked Loop".
This allows the VCO oscillation frequency to accurately match (lock) the desired frequency.
When the frequency is controlled by the PLL, the frequency convergence time increases as the frequency difference increases when the set frequency is changed. To supplement this, the MPU is used before control by the PLL IC to bring the VCO oscillation frequency close to the desired frequency. As a result, the VCO CV voltage does not change and is always stable at approx. 2.5V.
The desired frequency is set for the PLL IC by the MPU (IC706) through the 3-line "SDO1", "P_SCK1", "/PCS_RF" serial bus for PLL.
MPU monitors through the “PLD”, whether the PLL IC is locked or not. If the VCO does not lock to desired frequency (unlock), the “PLD” logic is low.

2.4.6 Control Circuit

The control circuit consists of MPU/DSP (IC706) and its peripheral circuits. IC706 mainly performs the following;

(1) Switching between transmission and reception by PTT signal input.
(2) Reading system, zone, frequency, and program data from the memory circuit.
(3) Sending frequency program data to the PLL.
(4) Controlling the audio mute circuit by decode data input.

2.4.6.1 MPU

The MPU/DSP (IC706) is 32bit RISC processor and fixed floating-Point VLIW DSP Fixed/Floating-Point VLIW DSP, equipped with peripheral function.
This MPU operates at 288MHz (MAX) clock and 3.3V/1.8V/1.2V DC. Controls the flash memory, Mobile DDR, the receive circuit, the transmitter circuit, the control circuit, and the display circuit and transfers data to or from an external device.

2.4.6.2 Memory Circuit

Memory circuit consists of the MPU and the Mobile DDR (IC702), the flash memory (IC701). The flash memory has capacity of 512Mbit that contains the transceiver control program for the MPU and stores the data.
It also stores the data for transceiver channels and operating parameter that are written by the FPU. This program can be easily written from external devices. The Mobile DDR has capacity of 512Mbit. The MPU copies the program to the Mobile DDR from Flash memory. And MPU is used as a work area Mobile DDR.

■Flash memory

Note:
The flash memory stores the data that is written by the FPU (KPG-D1/D1N), tuning data (Deviation, Squelch, etc.) , and firmware program (User mode, Test mode, Tuning mode, etc.). This data must be rewritten when replacing the flash memory.

■Mobile DDR (static memory)

Note:
Mobile DDR is used as a work area of the MPU.

2.4.6.3 LCD

LCD interface connector (CN4) of the display unit.
The LCD is controlled using parallel interface from MPU (IC706) through the interface connectors (CN749 of the main unit and CN6 of display unit) and flexible cable.

2.4.6.4 Key Detection Circuit

Keys are detected using I/O Expander IC (IC10) of the display unit. If pressed key is detected by IC10, it is informed to MPU (IC706) of the main unit through serial line.

2.4.6.5 DSP

The DSP circuit consists of a MPU/DSP (IC706) and processes the baseband signal. The DSP operates at 288MHz (MAX) clock, the I/O section operates at 3.3V/1.8V and the core section operates at 1.2V.

The DSP carries out the following processes:

- 4Level FSK processing
- Analog FM pre-emphasis/de-emphasis
- Vocoder processing between audio codec and modulation/demodulation
- CAI processing, such as error correction encoding
- QT/DQT encoding/decoding
- DTMF encoding/decoding
- MSK encoding/decoding
- 2-tone encoding/decoding
- Compressor/expander processing
- Voice scrambler processing
- Transmit/receive audio filtering processing
- Microphone amplifier AGC processing
- Audio mute processing
- Modulation level processing
- Active Noise Reduction
- Voice recording/playback processing
- Voice announce processing

2.4.7 Power Supply Circuit

+B voltage is connected to RF Power Module, 50BU regulator (Q8, Q9 and D11) through the fuse (F1), DC/DC converter IC (IC8) via fuse (F1), SB1 switch (Q5 and Q6) through the fuse (F2) and SB2 switch (Q10 and Q11) through the fuse (F3).

Q8, Q9 and D11 regulates +B voltage to 5V (50BU). Then IC1 regulates 50BU to 3.1V (31BU). Then IC3 regulates 31BU to 1.2V (12BU). 50BU, 31BU and 12BU operate whenever +B is supplied.

IC8 regulates +B voltage to 5.4V (54M). 54M is controlled by BAT_CNT signal from Power management IC (IC2). When Power switch is turned on, BAT_CNT signal is controlled by /PSW signal. 54M goes to DC/DC converter (A1, IC11), AVR ICs (IC5, IC4, IC12, IC14, IC7, IC10, IC6 and IC17).

A1 (12M) is enabled while the 54M is operating. 12M provides the power to the MPU/DSP (IC706) and turns on IC11 (18M). 18M provides the power to the MPU/DSP and Mobile DDR (IC702) and turns on IC5 (33M), IC14 (33OPT). 33M provides the power to the MPU/DSP, Flash memory (IC701) and many control circuits and turns on IC4 (33A), IC10 (50A). Then 33A turns on IC9 (18M_3).

The Power management IC (IC2) watches +B voltage. If +B voltage is higher than 6.2V, IC2 outputs high voltage to the /BINT terminal. If the /BINT is high, SB1 (Q5 and Q6) and SB2 (Q10 and Q11) are turned on by SBC_2 signal from MPU. In the same way, IC12 (33C) and IC6 (50C) are turned on by SBC_2. 50C is fed to IC13 (200C). IC13 (200C) is the DC/DC boost converter. The 200C circuit then outputs approximately +20VDC.

SB1 supplies Sub (Display) unit and D-sub 25 with +B voltage. SB2 supplies Audio power amplifier (IC911) and 9V AVR (IC15) with +B voltage. Then IC15 regulates +B to 9V (90C). Then IC16 regulates 90C to 5V (50CT). If the MPU controls TXC, ANT SW and ASSW signals to High, Q15, Q16 (90T), Q17, Q18 (90ANT) and Q14 are turned on and transmission circuits are enabled to transmit. If the MPU controls RXC signal to High, IC17 (50R) is turned on and reception circuits are enabled to receive.

When the Power management IC and MPU detect /PSW signal (Power switch), /IGN signal (Ignition sense) and /BINT signal, they set the SBC_2 signal to Low, and turn the transceiver power off.

When D1, Q4 detect over-voltage condition, they turn SB1 and SB2 off, and transfer that the MPU through IC2.

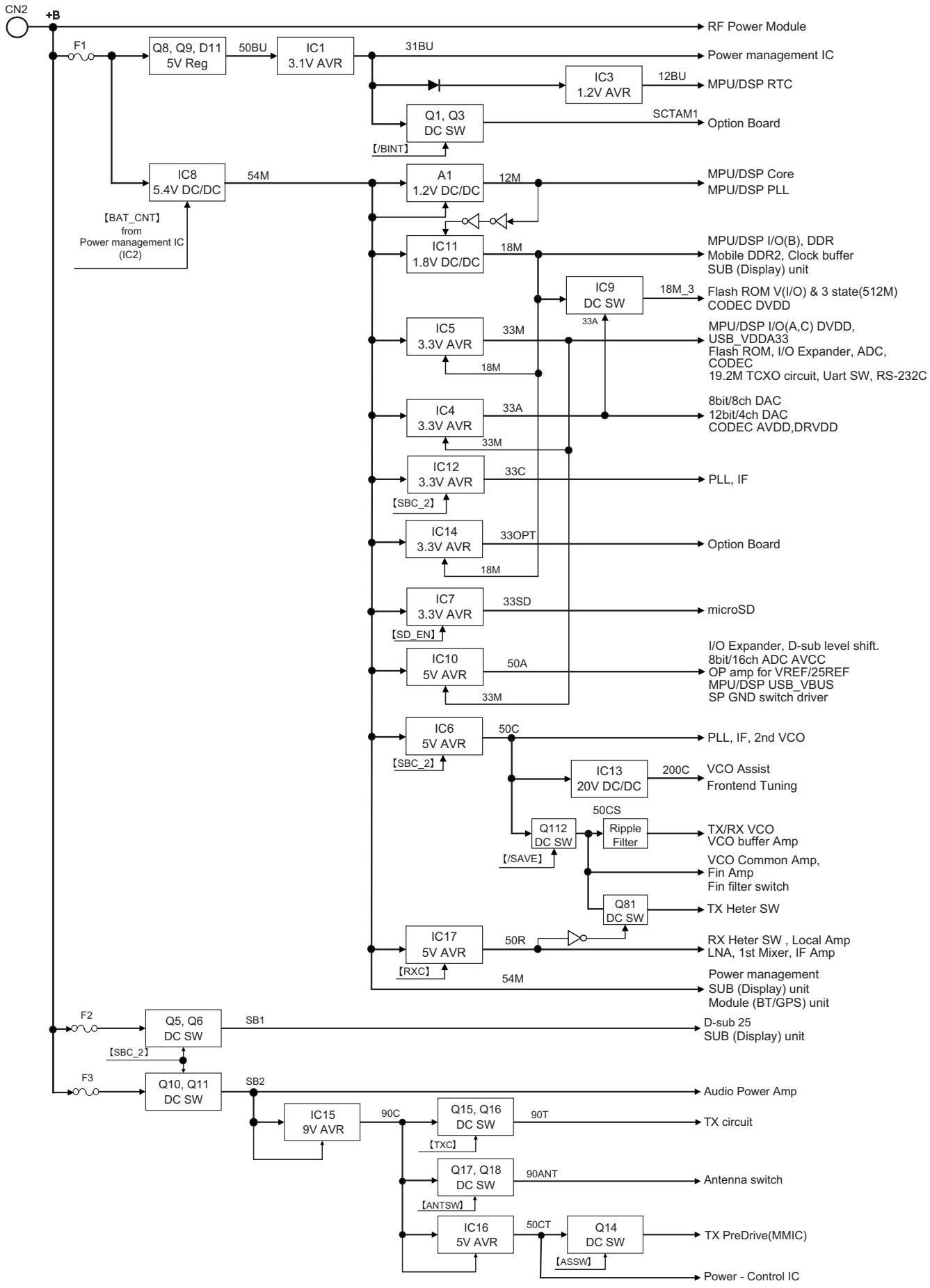


Fig.4 Power supply circuit

2.4.8 Signaling Circuit

2.4.8.1 Encode (QT/DQT/DTMF/2-tone/MSK)

Each signaling data signal of QT, DQT, DTMF, 2-tone and MSK is generated by IC706, superposed on a modulation signal and output to TX VCO and PLL IC.

2.4.8.2 Decode (QT/DQT/DTMF/2-tone/MSK)

The audio signal is removed from the FM detection signal sent to the IC706 and the resulting signal is decoded by IC706.

2.4.9 Bluetooth/GPS Circuit

The main component of the Bluetooth/GPS circuit is Bluetooth / GPS IC (IC5) on BT/GPS unit.
The clocks of Bluetooth/GPS IC require 19.2MHz for core and 32.768kHz slow clock (X1 and X2) for UART.
Bluetooth/GPS IC communicates to the OMAP processor (IC706) on the HCI UART. Interface of UART & Digital audio (PCM) between the OMAP processor (IC706) and the Bluetooth/GPS IC (IC5), have level conversion at the level shift IC (IC6 and IC7) on BT/GPS unit.
The Bluetooth/GPS IC is powered by 1.8V and 3.3V which are supplied from 2 discrete external regulators (IC2 and IC3) on BT/GPS unit.

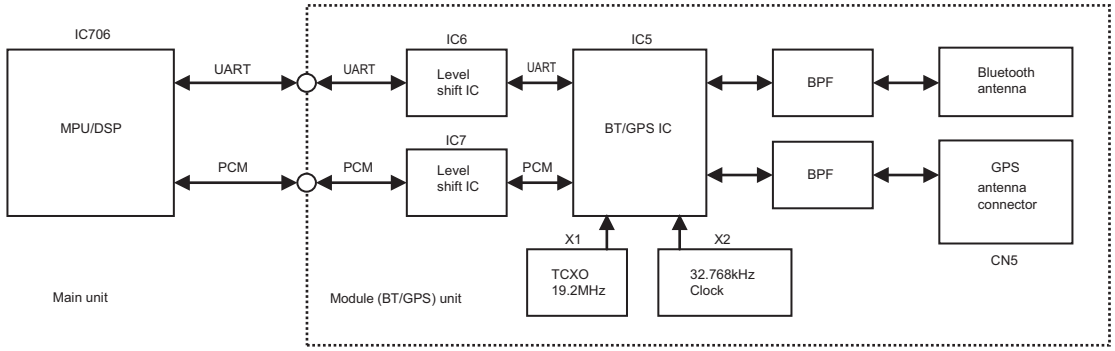


Fig.5 Bluetooth/GPS circuit

2.4.9.1 Bluetooth Circuit

The Bluetooth / GPS IC (IC5) support Bluetooth 3.0 up to HCI level.
TX/RX frequency is 2400-2483.5MHz (79ch Hopping, 2402-2480MHz, 1MHz step). Transmitting power is +2dBm at Bluetooth antenna input.
Using the printed antenna with Bluetooth, and connected to the Bluetooth / GPS IC (IC5) through the saw filter (L11).
Frequency configuration for Bluetooth is following:
There are two LO modes: 2X and Offset LO (OSLO). 2X where LO is 2*RF_FREQ (e.g. when transmitting at 2441MHz it is at 4882MHz). OSLO where LO is at (2/3)*RF_FREQ (e.g. when transmitting at 2441MHz it is at 1627.333MHz).
In RX the 2X is always used.
In GFSK TX if power is >10dBm then OSLO is used
In EDR2 TX if power is >-12dBm then OSLO is used
In EDR3 TX if power is >-12dBm then OSLO is used
Otherwise 2X is used for TX as well.

2.4.9.2 GPS Circuit

The GPS RF signal is received with the active antenna, and connected to the Bluetooth / GPS IC (IC5) through the terminal (CN5) and saw filter (L9).
The output is passed to pin L2 of the GPS IC. The input match for pin L2 comprises of C38, C36 and L7.
The control and data lines for the GPS IC are GPS_PA_EN, BTFM_nSHUTDOWN, GPS_TX and GPS_RX.
GPS_TX and GPS_RX are shared with Bluetooth data line.
Frequency configuration for GPS is following: Lo is GPS: 1571.324MHz

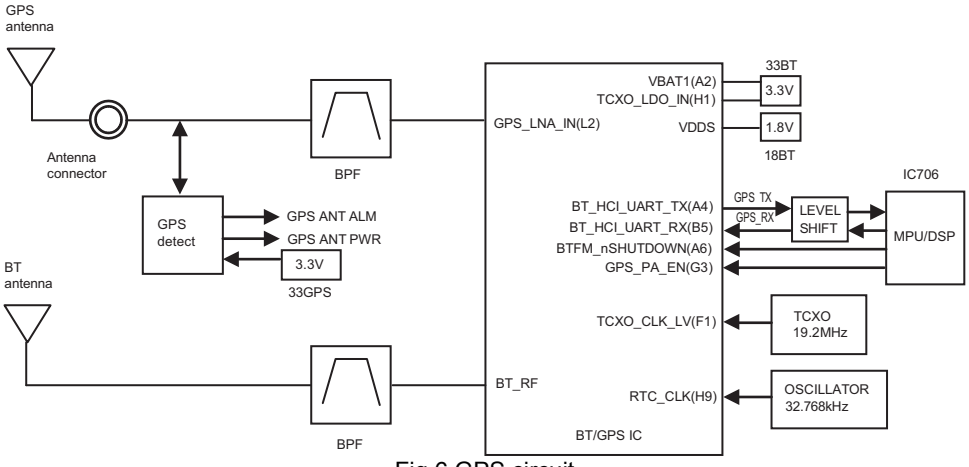


Fig.6 GPS circuit

2.5 COMPONENTS DESCRIPTION

2.5.1 Main unit (XC1-0381-80, XC1-0400-10)

Ref.No	Part Name	Description
IC1	IC	Voltage regulator (31BU)
IC2	IC	Power management
IC3	IC	Voltage regulator (12BU)
IC4	IC	Voltage regulator (33A)
IC5	IC	Voltage regulator (33M)
IC6	IC	Voltage regulator (50C)
IC7	IC	Voltage regulator (33SD)
IC8	IC	DC/DC Converter (54M)
IC9	IC	Load SW (18M SW)
IC10	IC	Voltage regulator (50A)
IC11	IC	DC/DC Converter (18M)
IC12	IC	Voltage regulator (33C)
IC13	IC	DC/DC Converter (200C)
IC14	IC	Voltage regulator (33OPT)
IC15	IC	Voltage regulator (90C)
IC16	IC	Voltage regulator (50CT)
IC17	IC	Voltage regulator (50R)
IC18	IC	Reset
IC100	IC	PLL IC
IC101	IC	Schmitt trigger
IC102	IC	DC AMP (CV/Assist)
IC300	IC	TX pre-drive AMP
IC301	IC	APC
IC302	IC	Power module
IC303	IC	APC
IC304	IC	TX power control
IC500	IC	RX 1st mixer
IC501	IC	DC AMP (TV)
IC600	IC	IF IC
IC701	IC	Flash memory
IC702	IC	Mobile DDR
IC703	IC	Clock buffer
IC704, 705	IC	Logic control
IC706	IC	MPU/DSP
IC707, 708	IC	Analog SW
IC709, 710	IC	Logic control
IC711	IC	I/O expander
IC712	IC	A/D converter
IC714	IC	Analog SW
IC715	IC	D/A converter
IC719	IC	D/A converter
IC720	IC	Reset
IC900	IC	Logic control
IC901	IC	DC AMP (25REF/VREF)
IC902	IC	CODEC
IC903	IC	AF AMP
IC904	IC	Logic control
IC905	IC	Buffer AMP (BER CK/BER DT)
IC906	IC	Level shift
IC907	IC	Analog SW
IC908	IC	Schmitt trigger
IC909	IC	RS-232C driver
IC910	IC	I/O expander
IC911	IC	Audio AMP
IC912	IC	Logic control
Q1	Transistor	DC SW (SCTAM1)
Q3	FET	DC SW
Q4	Transistor	DC SW
Q5	FET	DC SW (SB1)
Q6, 7	Transistor	DC SW
Q8, 9	Transistor	Voltage regulator (50BU)
Q10	FET	DC SW (SB2)
Q11	Transistor	DC SW
Q12	FET	DC SW
Q14	FET	DC SW
Q15	Transistor	DC SW
Q16	FET	DC SW (90T)
Q17	Transistor	DC SW
Q18	FET	DC SW (90ANT)
Q81	FET	T/R SW
Q100	Transistor	DC SW (fin filter)
Q101	FET	DC SW
Q102	Transistor	DC SW (fin filter)
Q103	FET	DC SW
Q104	Transistor	Ripple filter
Q105	FET	VCO oscillation
Q106	Transistor	Fin AMP
Q107	FET	VCO oscillation
Q108	FET	DC SW
Q109	FET	T/R SW (VCO)
Q110, 111	Transistor	Buffer AMP
Q112	FET	DC SW
Q300	FET	TX drive AMP
Q301~303	Transistor	DC SW
Q304, 305	FET	DC SW
Q500	Transistor	RX local AMP
Q502	Transistor	LNA
Q600	FET	VCO oscillation
Q601	Transistor	DC SW
Q602	Transistor	Ripple filter

Ref.No	Part Name	Description
Q603	Transistor	IF AMP
Q604	FET	IF AMP
Q700	Transistor	TCXO buffer
Q701	FET	DC SW
Q703, 704	FET	DC SW
Q705	Transistor	DC SW
Q900, 901	FET	Audio mute
Q902	Transistor	DC SW
Q905, 906	FET	Audio mute
Q907, 908	FET	DC SW
D1	Zener diode	Overvoltage protection
D2	Diode	Reverse current prevention
D3	Zener diode	Overvoltage protection
D4	Diode	Reverse current prevention
D5	Surge absorber	Surge protection
D6	Diode	Backup battery charge
D7~10	Diode	Reverse current prevention
D11	Zener diode	Voltage regulator (50BU)
D12, 13	Diode	Reverse current prevention
D14	Diode	DC/DC converter (54M)
D15	Diode	DC/DC converter (200C)
D16, 17	Diode	Reverse current prevention
D100	Zener diode	Overvoltage protection
D101, 102	Diode	T/R SW (fin filter)
D103, 104	Variable capacitance diode	VCO frequency control
D106~111	Variable capacitance diode	VCO assist tune
D113	Diode	Speed up
D114, 115	Diode	T/R SW (fin filter)
D117	Variable capacitance diode	TX modulation
D300	Diode	T/R SW
D301	Diode	Reverse current prevention
D302	Zener diode	Overvoltage protection
D307	Zener diode	Overvoltage protection
D309	Diode	TX Reverse power detection
D310~315	Diode	Antenna SW
D500	Diode	T/R SW
D501~507	Variable capacitance diode	RX band-pass filter tune
D508, 509	Diode	Overvoltage protection
D510	Variable capacitance diode	RX band-pass filter tune
D600, 601	Variable capacitance diode	VCO frequency control
D602	Diode array	Overvoltage protection
D700, 701	Diode	Reverse current prevention
D702~706	Varistor	Line protection
D708	Zener diode	Overvoltage protection
D710, 711	Diode	Reverse current prevention
D801	Diode	Reverse current prevention
D900	Diode array	External speaker detection
D903	Zener diode	Overvoltage protection
D904	Diode array	Line protection
D905	Diode	Line protection
D906	Zener diode	Overvoltage protection
D907	Diode	Reverse current prevention
D908	Diode array	Line protection
D909	Diode array	External speaker detection
D910~915	Diode array	Line protection
D916	Diode	Reverse current prevention
D917	Zener diode	Overvoltage protection
D918~920	Diode array	Line protection
D921	Diode	Reverse current prevention
D922	Zener diode	Overvoltage protection
D923	Diode array	Line protection
D924	Diode	Reverse current prevention

2.5.2 Module (BT/GPS) unit (XC2-0031-80, XC2-0040-10)

Ref.No	Part Name	Description
IC1	IC	Level converter
IC2	IC	Voltage regulator (18BT)
IC3	IC	Voltage regulator (33BT)
IC4	IC	Voltage regulator (33GPS)
IC5	IC	GPS/Bluetooth
IC6, 7	IC	Level converter
Q1	FET	DC SW

2.5.3 SUB (Display) unit (XC3-0070-20) (Only NX-5700)

Ref.No	Part Name	Description
IC1	IC	Voltage regulator (50M)
IC2	IC	Voltage regulator (30LCD)
IC3	IC	Logic control
IC4	IC	Analog SW
IC6	IC	Illuminance sensor
IC8	IC	LED driver
IC9	IC	Logic control
IC10	IC	I/O expander
IC12	IC	Logic control
Q2	FET	DC SW
Q3, 4	Transistor	DC SW
Q6	Transistor	DC SW
D1, 2	Zener diode	Overvoltage protection
D4~7	LED	LED

Ref.No	Part Name	Description
D9~12	LED	LED
D14~16	LED	LED
D20	Zener diode	Overvoltage protection
D21	LED	LED
D22	Diode	Overvoltage protection
D23, 24	Zener diode	Overvoltage protection
D25	Varistor	Surge protector
D26~32	Zener diode	Overvoltage protection

2.6 TERMINAL FUNCTION

2.6.1 Main unit (XC1-0381-80, XC1-0400-10)

Pin No.	Name	I/O	Function
CN4 (Ignition)			
1	IGN	I	Ignition sense input
2	GND	-	Ground
CN731 (for production)			
1~20	-	-	-
CN735 (to Module (BT/GPS) unit CN1)			
1	GPS_PWR	I	Antenna power supply detection
2	GPS_ALM	I	Antenna open/short detection
3	GND	-	Ground
4	GND	-	Ground
5	GPS_ANT_SW	O	Enable signal for 33GPS
6	GPS_PA_EN	O	GPS receiver part switching signal output
7	BT_SHUTDOWN	O	Shutdown signal output
8	WCLK	O	Audio serial data bus word clock output
9	BCLK	O	Audio serial data bus bit clock output
10	BT_AUD_DI	I	Audio signal input
11	BT_AUD_DO	O	Audio signal output
12	RTS2	O	Serial data output
13	CTS2	I	Serial data input
14	G_RXD2	I	Serial data input
15	G_TXD2	O	Serial data output
16	BT_SW	O	Enable signal for 33BT and 18BT
17	GND	-	Ground
18	GND	-	Ground
19	54M	O	5.4V output
20	54M	O	5.4V output
CN749 (to SUB (Display) unit CN6)			
1	NC (IGN)	-	No connection (Ignition sense input)
2	NC	-	No connection
3	GND	-	Ground
4	54M	O	5.4V output
5	GND	-	Ground
6	GND	-	Ground
7	18M	O	1.8V output
8	D[15]	I/O	LCD driver data output
9	D[14]	I/O	LCD driver data output
10	D[13]	I/O	LCD driver data output
11	D[12]	I/O	LCD driver data output
12	D[11]	I/O	LCD driver data output
13	D[10]	I/O	LCD driver data output
14	D[9]	I/O	LCD driver data output
15	D[8]	I/O	LCD driver data output
16	D[7]	I/O	LCD driver data output
17	D[6]	I/O	LCD driver data output
18	D[5]	I/O	LCD driver data output
19	D[4]	I/O	LCD driver data output
20	D[3]	I/O	LCD driver data output
21	D[2]	I/O	LCD driver data output
22	D[1]	I/O	LCD driver data output
23	D[0]	I/O	LCD driver data output
24	/CS_LCD	O	LCD driver chip-serect signal
25	DC	O	LCD driver data/command switch signal
26	/WR_LCD	O	LCD driver WR signal
27	/RD_LCD	O	LCD driver RD signal
28	PRST	O	LCD driver reset signal
29	/KEYINT	I	Key state change signal
30	I2CCK	O	I2C serial clock
31	I2CDT	I/O	I2C serial data
32	GND	-	Ground
33	USB_D-	I/O	USB0 PHY data minus
34	USB_D+	I/O	USB0 PHY data plus
35	GND	-	Ground
36	33M	O	3.3V output
37	DM/KVL	I/O	MIC data detection
38	GND	-	Ground
39	RXD	I	Serial data input
40	TXD	O	Serial data output
41	/PTT	I	PTT input
42	/PSW	I	Detection signal input of power switch
43	AFO+	O	AF signal output plus
44	AFO-	O	AF signal output minus
45	MIC	I	MIC signal input
46	ME	-	MIC ground
47	R_SET2	I	Radio setting signal 2
48	R_SET1	I	Radio setting signal 1
49	R_SET0	I	Radio setting signal 0

Pin No.	Name	I/O	Function
50	GND	-	Ground
CN900 (to SUB (Display) unit CN2)			
1	SPO	O	Speaker output
2	SPG	-	Speaker ground
3	GND	-	Ground
4	SB1	O	Switched power supply
CN906 (to Main unit B/2 CN907)			
1	NC	-	No connection
2~7	SB1	O	Switched power supply
8	AFO	O	RX filtered AF signal output
9	DI	I	Data signal input
10	50C	O	5V output
11	GND	-	Ground
12	DEO	O	RX detected signal output
13	MI2	I	External MIC signal input
14	ME	-	MIC ground
15	GND	-	Ground
16	RXD0	I	Serial data input 0
17	AUXO2	O	AUX output 2
18	TXD0	O	Serial data output 0
19	AUXO1	O	AUX output 1
20	AUXIO9	I/O	AUX input/output 9
21	AUXIO5	I/O	AUX input/output 5
22	AUXIO8	I/O	AUX input/output 8
23	AUXIO4	I/O	AUX input/output 4
24	TXD2	O	Serial data output 2
25	AUXIO3	I/O	AUX input/output 3
26	RXD2	I	Serial data input 2
27	AUXIO2	I/O	AUX input/output 2
28	AUXIO1	I/O	AUX input/output 1
29	AUXIO7	I/O	AUX input/output 7
30	AUXIO6	I/O	AUX input/output 6
CN907 (to Main unit A/2 CN906)			
1	AUXIO6	I/O	AUX input/output 6
2	AUXIO7	I/O	AUX input/output 7
3	AUXIO1	I/O	AUX input/output 1
4	AUXIO2	I/O	AUX input/output 2
5	RXD2	O	Serial data output 2
6	AUXIO3	I/O	AUX input/output 3
7	TXD2	I	Serial data input 2
8	AUXIO4	I/O	AUX input/output 4
9	AUXIO8	I/O	AUX input/output 8
10	AUXIO5	I/O	AUX input/output 5
11	AUXIO9	I/O	AUX input/output 9
12	AUXO1	I	AUX input 1
13	TXD0	I	Serial data input 0

Pin No.	Name	I/O	Function
14	AUXO2	I	AUX input 2
15	RXD0	O	Serial data output 0
16	GND	-	Ground
17	ME	-	MIC ground
18	MI2	O	External MIC signal output
19	DEO	I	RX detected signal input
20	GND	-	Ground
21	50C	I	5V input
22	DI	O	Data signal output
23	AFO	I	RX filtered AF signal input
24~29	SB1	I	Switched power supply
30	NC	-	No connection
CN910			
1	SB2	O	Switched power supply
2	SPI	O	Speaker output
3	SPO	I	Speaker input
4	PA	O	Control signal of Pubilc address function
5	HOR	O	Control signal of Horn alert function
6	GND	-	Ground
J700 (microSD)			
1	DAT2	I/O	Data 2
2	CD/DAT3	I/O	Data 3
3	CMD	I/O	Command input/output
4	VDD	O	3.3V output
5	CLK	O	Clock output
6	VSS	-	Ground
7	DAT0	I/O	Data 0
8	DAT1	I/O	Data 1
9	CD	I	Card detect switch
10	COMMON	-	Ground
11	GND1	-	Ground
12	GND2	-	Ground
J901 (ACC. D-Sub 25-pin)			
1	NC	-	Refer to “D-sub 25-pin connector specification”.
2	RXD1	I	
3	TXD1	O	
4	AUXIO9	I/O	
5	DI	I	
6	MI2	I	
7	GND	-	
8	AUXIO8	I/O	
9	TXD2	O	
10	RXD2	I	
11	GND	-	

Pin No.	Name	I/O	Function
12	AUXIO7	I/O	Refer to “D-sub 25-pin connector specification”.
13	AUXIO6	I/O	
14	SB	-	
15	AUXO2	O	
16	AUXO1	O	
17	AFO	O	
18	GND	-	
19	DEO	O	
20	AUXIO5	I/O	
21	AUXIO4	I/O	
22	AUXIO3	I/O	
23	AUXIO2	I/O	
24	AUXIO1	I/O	
25	ME	-	

2.6.2 Module (BT/GPS) unit (XC2-0031-80, XC2-0040-10)

Pin No.	Name	I/O	Function
CN1(to Main unit A/2 CN735)			
1	54M	I	5.4V input
2	54M	I	5.4V input
3	GND	-	Ground
4	GND	-	Ground
5	BT_SW	I	Enable signal for 33BT and 18BT
6	G_TXD2	I	Serial data intput
7	G_RXD2	O	Serial data output
8	CTS2	O	Serial data output
9	RTS2	I	Serial data input
10	BT_AUD_DO	I	Audio signal input
11	BT_AUD_DI	O	Audio signal output
12	BCLK	I	Audio serial data bus bit clock input
13	WCLK	I	Audio serial data bus word clock input
14	BT_SHUTDOWN	I	Shutdown signal input
15	GPS_PA_EN	I	GPS receiver part switching signal input
16	GPS_ANT_SW	I	Enable signal for 33GPS
17	GND	-	Ground
18	GND	-	Ground
19	GPS_ALM	O	Antenna open/short detection
20	GPS_PWR	O	Antenna power supply detection

2.6.3 Sub (Display) unit (XC3-0070-20) (Only NX-5700)

Pin No.	Name	I/O	Function
CN2 (to Main unit A/2 CN900)			
1	SP+	I	Speaker output
2	SPG	-	Speaker ground
3	GND	-	Ground
4	SB	I	Switched power supply
CN4 (LCD)			
1	VSSA	-	Ground
2	VSSA	-	Ground
3	VSSA	-	Ground
4	VCC	O	3V output
5	VCC	O	3V output
6	VSSD	-	Ground
7	VSSD	-	Ground
8	VSSD	-	Ground
9	IOVCC	O	1.8V output
10	IOVCC	O	1.8V output
11	RDX	O	LCD driver RD signal
12	WRX	O	LCD driver WR signal
13	DCX	O	LCD driver data/command switch signal
14	CSX	O	LCD driver chip-serect signal
15	DB1	I/O	LCD driver data output
16	DB2	I/O	LCD driver data output
17	DB3	I/O	LCD driver data output
18	DB4	I/O	LCD driver data output
19	DB5	I/O	LCD driver data output
20	DB6	I/O	LCD driver data output
21	DB7	I/O	LCD driver data output
22	DB8	I/O	LCD driver data output
23	DB10	I/O	LCD driver data output
24	DB11	I/O	LCD driver data output
25	DB12	I/O	LCD driver data output
26	DB13	I/O	LCD driver data output
27	DB14	I/O	LCD driver data output
28	DB15	I/O	LCD driver data output
29	DB16	I/O	LCD driver data output
30	DB17	I/O	LCD driver data output
31	CABC	-	No connection
32	RESX	O	LCD driver reset signal
33	IM0	O	Interface mode select
34	LEDA	O	54M output (LED light anode)
35	LED1	I	LED light cathode 1
36	LED2	I	LED light cathode 2
37	LED3	I	LED light cathode 3
38	LED4	-	No connection

Pin No.	Name	I/O	Function
CN5 (Internal speaker)			
1	SPG	-	Speaker ground
2	SP+	O	Speaker output
CN6 (to Main unit A/2 CN749)			
1	GND	-	Ground
2	R_SET0	O	Radio setting signal 0
3	R_SET1	O	Radio setting signal 1
4	R_SET2	O	Radio setting signal 2
5	ME	-	MIC ground
6	MIC	O	MIC signal output
7	AFO-	I	AF signal input minus
8	AFO+	I	AF signal input plus
9	/PSW	O	Detection signal input of power switch
10	/PTT	O	PTT output
11	TXD	I	Serial data input
12	RXD	O	Serial data output
13	GND	-	Ground
14	DM/KVL	I/O	MIC data detection
15	33M	I	3.3V input
16	GND	-	Ground
17	USB_D+	I/O	USB0 PHY data plus
18	USB_D-	I/O	USB0 PHY data minus
19	GND	-	Ground
20	I2CDT	I/O	I2C serial data
21	I2CCK	I	I2C serial clock
22	/KEYINT	O	Key state change signal
23	PRST	I	LCD driver reset signal
24	/RD_LCD	I	LCD driver Read signal
25	/WR_LCD	I	LCD driver Write signal
26	DC	I	LCD driver data/command switch signal
27	/CS_LCD	I	LCD driver chip-serect signal
28	D[0]	I/O	LCD driver data input
29	D[1]	I/O	LCD driver data input
30	D[2]	I/O	LCD driver data input
31	D[3]	I/O	LCD driver data input
32	D[4]	I/O	LCD driver data input
33	D[5]	I/O	LCD driver data input
34	D[6]	I/O	LCD driver data input
35	D[7]	I/O	LCD driver data input
36	D[8]	I/O	LCD driver data input
37	D[9]	I/O	LCD driver data input
38	D[10]	I/O	LCD driver data input
39	D[11]	I/O	LCD driver data input
40	D[12]	I/O	LCD driver data input
41	D[13]	I/O	LCD driver data input
42	D[14]	I/O	LCD driver data input
43	D[15]	I/O	LCD driver data input
44	18M	I	1.8V input
45	GND	-	Ground
46	GND	-	Ground
47	54M	I	5.4V input
48	GND	-	Ground
49	NC	-	No connection
50	NC (IGN)	-	No connection (Ignition sense input)
J1 (MIC jack)			
1	BLC_4/D+2	I/O	Back light control signal / USB PHY data plus
2	SB_2	O	Switched power supply
3	GND	-	Ground
4	PTT/TXD_3	I/O	PTT input / Serial data output
5	ME_3	-	MIC ground
6	MIC_3	I	MIC signal input
7	HOOK/RXD/D-2	I/O	Hook detection / Serial data input / USB PHY data minus
8	DM/KVL_3	I/O	MIC data detection

2.6.4 D-Sub 25-pin connector specification

Pin No.	Pin Name	I/O	Signal Type	Rating and Condition				
				Parameter	Min	Typ	Max	Unit
1	NC	-	-	-				
2	RXD1	I	Digital	Input Voltage Range	-30		30	V
				Threshold Low	0.5	1.3		V
				Threshold High		1.6	2.45	V
				Baud Rate	-		300k	bps
				CL		100		pF
3	TXD1	O	Digital	Voltage Swing (3kΩ Load)	±5	±5.2		V
				Baud Rate	-		300k	bps
				CL		100		pF
4	AUXIO9	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	4	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
	CTS (RS-232C)	I	Digital	Input Voltage Range	-30		30	V
				Threshold Low	0.5	1.3		V
				Threshold High		1.75	2.6	V
5	DI	I	Analog	Input Voltage range (STD Deviation)	-	0.5	-	Vp-p
				Freq Response (STD Dev.) 20~9600Hz	-3		3	dB
	RTS (RS-232C)	O	Digital	Voltage Swing (3kΩ Load)	±5	±5.2		V
6	MI2	I	Analog	Audio Level (STD Deviation)	-	5	-	mVrms
				Allowable Freq	300		3000	Hz
				Input Impedance	-	600	-	Ω
7	GND	-	GND					
8	AUXIO8	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	4	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
9	TXD2	O	Digital	VOH (Io=-1.5mA)	3.7	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
				CL		100		pF
10	RXD2	I	Digital	VIH	2.8	-	5.2	V
				VIL	-	-	0.65	V
				CL		100		pF
11	GND	-	GND					
12	AUXIO7	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	3.7	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
13	AUXIO6	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	3.7	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V

Pin No.	Pin Name	I/O	Signal Type	Rating and Condition				
				Parameter	Min	Typ	Max	Unit
14	SB	-	Power	Voltage	This parameter depends on Battery Voltage			
				Supply Current	-	-	2	A
15	AUXO2	O	Digital	The type of this port is open collector.				
				VOL			0.4	V
				IOL			-500	mA
16	AUXO1	O	Digital	The type of this port is open collector.				
				VOL			0.4	V
				IOL			-500	mA
17	AFO	O	Analog	Output Level		0.7		Vp-p
				Coupling Capacitor		10		uF
				allowable Load	100	-	-	kΩ
				allowable freq	300		3000	Hz
18	GND	-	GND					
19	DEO	O	Analog	Output Level	-	0.28	-	Vp-p
				Coupling Capacitor	-	10	-	uF
				allowable Load	47	-	-	kΩ
				Frequ. Response (STD Dev) Wide 20~4800Hz	-6		1	dB
				4800~7200Hz	-24		1	dB
				Narrow 20~4800Hz	-15		1	dB
20	AUXIO5	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	4	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
21	AUXIO4	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	4	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
22	AUXIO3	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	4	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
23	AUXIO2	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	4	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
24	AUXIO1	I/O	Digital	VIH	4	-	5.2	V
				VIL	-0.5	-	1	V
				VOH (Io=-1.5mA)	4	-	5.2	V
				VOL (Io=1.5mA)	-	-	1.1	V
25	ME	-	Analog	This is GND port for Microphone.				

SECTION 3
DISASSEMBLY

3.1 Precautions for Disassembly

3.1.1 Main PCB (Main unit A/2) disassembly

(1) Remove all screws and antenna terminals on the Main PCB.
(2) Rotate the bush of the power supply cable 90 degrees counterclockwise as viewed from the rear of the chassis <1> and remove the power supply cable from the chassis <2>.
(3) When the speaker phone jack is pushed up, using your finger, from the rear of the chassis <3>, the Main PCB is removed from the chassis.

Note:
The Main PCB and D-sub PCB (Main unit B/2) are connected with a flat cable.
Remove them carefully.

(4) Turn the Main PCB over and remove the flat cable from the connector (CN906). <4>
(5) Remove the Main PCB from the chassis.

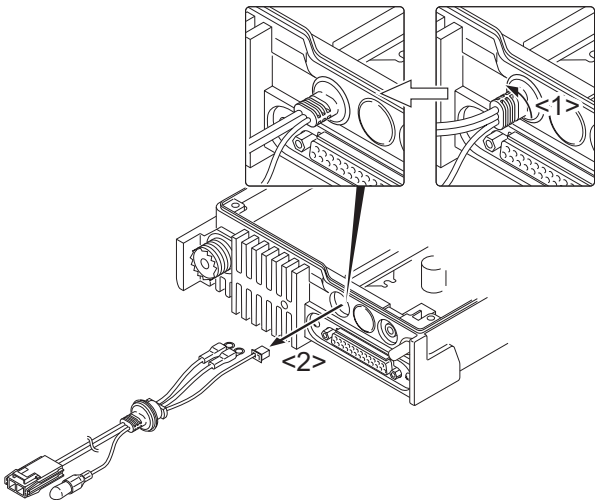


Fig.1-1

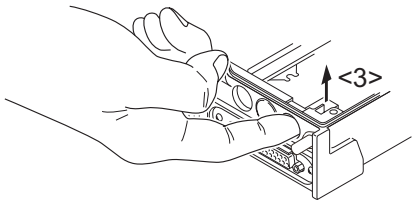


Fig.1-2

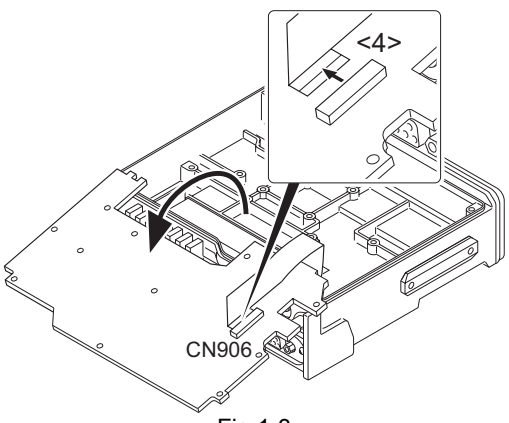


Fig.1-3

3.1.2 Removing the speaker hardware fixture (J2B-0023-00) and holder (J1K-0019-00)

(1) Remove the speaker lead from the holder hook. <1>
(2) Remove the speaker connector from the display unit connector (CN5). <2>
(3) When removing the speaker hardware fixture, insert a flat-head screwdriver at the position shown in Figure 2-1 and tilt it in the direction shown by the arrow. <3>
(4) To remove the holder, insert a flat-head screwdriver into tab of the holder and tilt it in the direction shown by the arrow. <4>

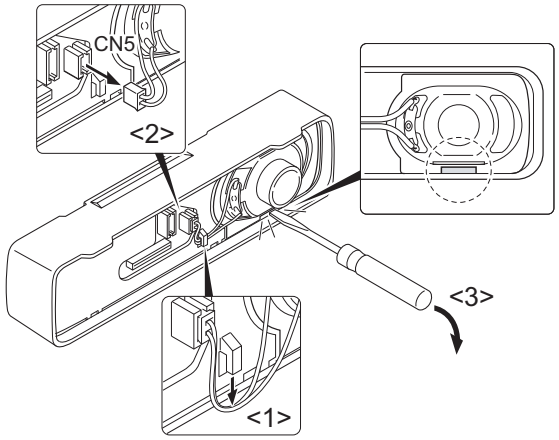


Fig.2-1

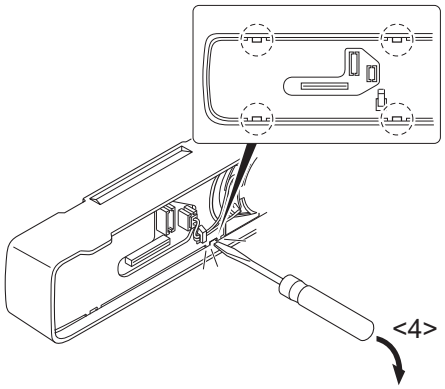


Fig.2-2

3.2 Precautions for Reassembly

3.2.1 Main PCB (Main unit A/2) reassembly

(1) With the Main PCB turned over, insert the flat cable from the D-sub PCB (Main unit B/2) into the connector (CN906) on the Main PCB.
(2) Place the Main PCB at its original position as shown in Figure 3.

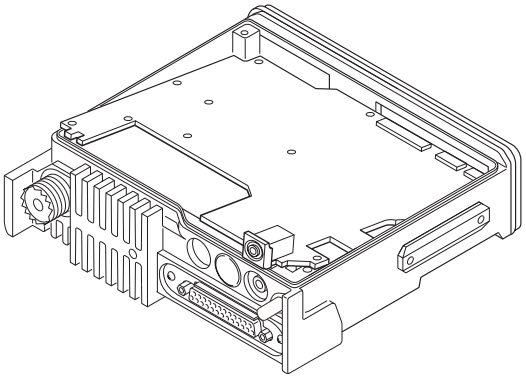


Fig.3

3.2.2 Power supply cable installation procedure

(1) Pass the power supply cable through the chassis hole <1> as shown in Figure 4-1 and insert the bush into the chassis hole.
(2) Rotate the bush of the power supply cable 90 degrees clockwise as viewed from the rear of the chassis. <2>
(3) Align the ignition sense connector (yellow) of the power supply cable around the chemical capacitor (C401) and connect it to the Main unit (A/2) connector (CN4).
(4) Align the + (positive) terminal of the power supply cable (red) as shown in Figure 4-2 and fix it to the terminal strip with a screw.
(5) Align the - (negative) terminal of the power supply cable (black) as shown in Figure 4-2 and fix it to the terminal strip with a screw.

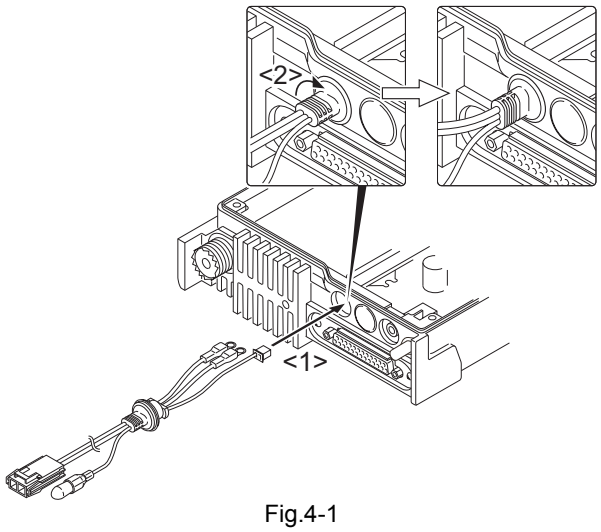


Fig.4-1

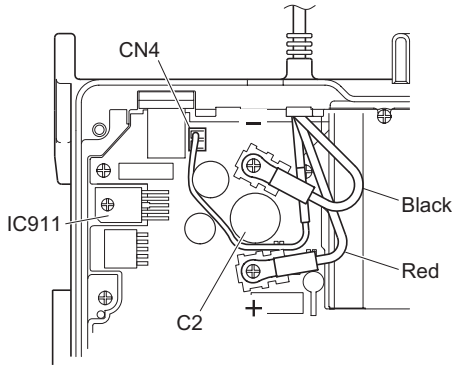
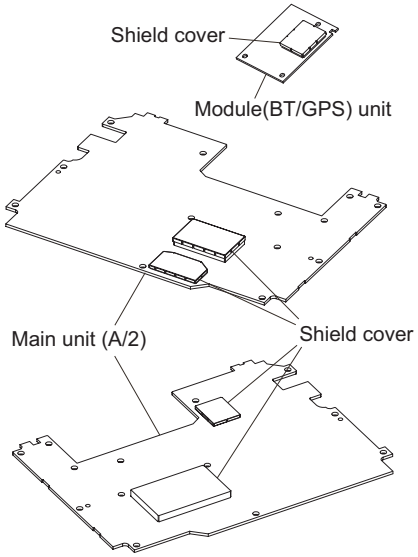


Fig.4-2

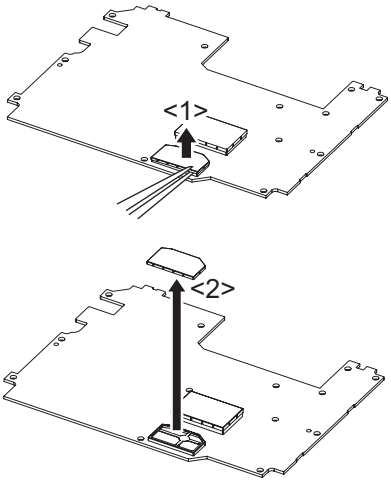
3.2.3 Remove the top cover from the shield cover

(1) There are five shield covers on the Main unit (A/2) and Module (BT/GPS) unit, the top covers can be removed.



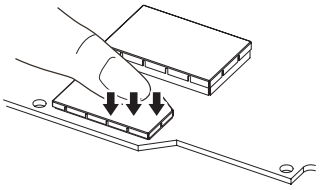
(2) Use tweezers to slightly lift the edge of the top cover. <1>
(3) As you do step 2 above, vary the position you hold the top cover as you lift it, and remove the top cover <2>.

Note:
Once the top cover is removed, it cannot be used again.



Note:

Push evenly on the top cover and be careful that you do not bend it as you install it on the shield cover.



3.2.4 Top packing installation procedure

(1) Place the top packing over the shielding plate.
(2) Fit the convex tab of the top packing into the hollow of the chassis. <1>.
(3) Fit the chassis into the groove of the top packing. <2>
Verify that the top packing is in close contact with the chassis.

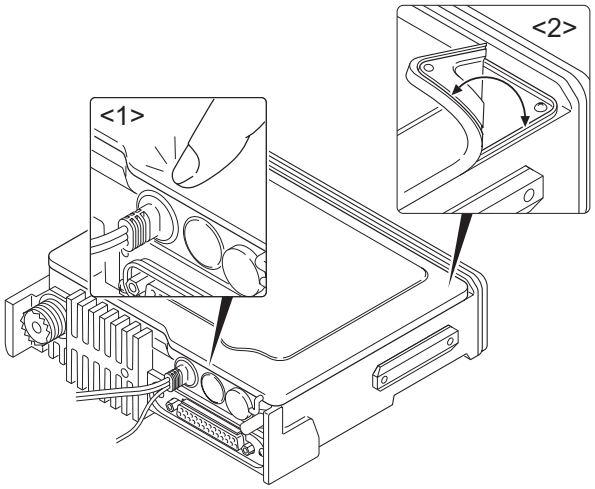


Fig.5

3.2.5 D-sub cap installation procedure

To improve water resistance, fit the D-sub cap into the D-sub terminal hardware fixture of the transceiver in the following order:

(1) Fit the left side <1> of the D-sub cap into the hardware fixture.
(2) Fit the right side <2> of the D-sub cap into the hardware fixture.
(3) Fit the center <3> of the D-sub cap into the hardware fixture.
Verify that the D-sub cap is in close contact with the hardware fixture.

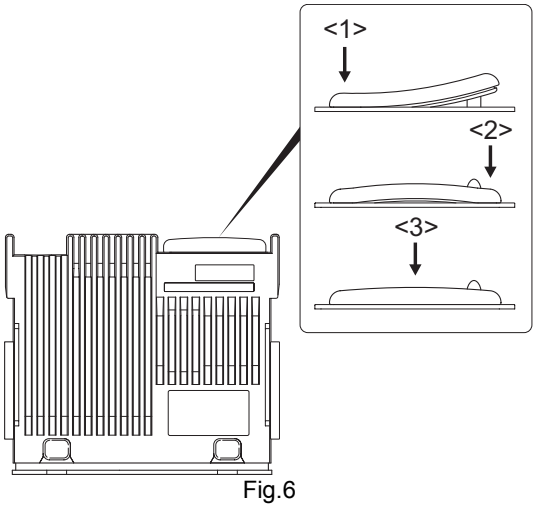


Fig.6

3.2.6 Installing the holder (J1K-0019-00) and speaker hardware fixture (J2B-0023-00)

(1) Insert two tabs of the holder (J1K-0019-00) into the hollows in the top of the panel. <1>
(2) Push the two tabs of the holder in on the opposite side of those in step 1 above and fit them into the hollow in the bottom of the panel. <2>

Note:

Push in the holder until it snaps in place.

(3) Install the speaker holder onto the panel. <3>

Note:

To improve water resistance, fit the panel into the groove of the holder.

(4) Place the speaker into the speaker holder.

Note:

The speaker must not ride on the holder rib.

(5) Place the spacer on the speaker.
(6) Insert the hardware fixture (J2B-0023-00) into the hollow of the panel as shown in Figure 7-3, then push two parts of the hardware fixture and fit it into the hollow of the top of the panel. (Fig. 7-3 <4>)

Note:

Push in the hardware fixture until it snaps in place.

(7) Insert the speaker connector into the display unit connector (CN5).
(8) Place the speaker lead on the holder hook.

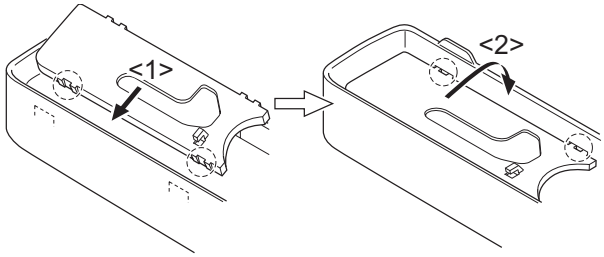


Fig.7-1

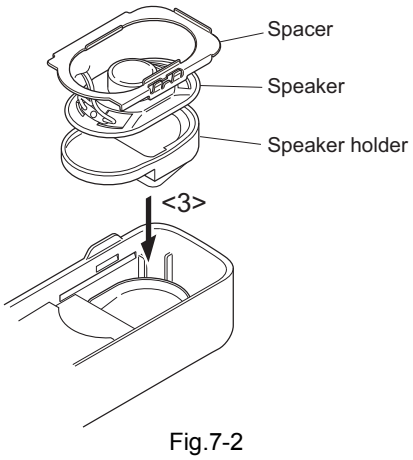


Fig.7-2

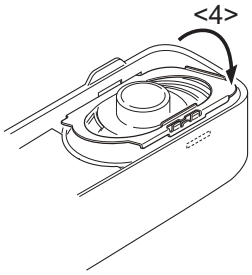
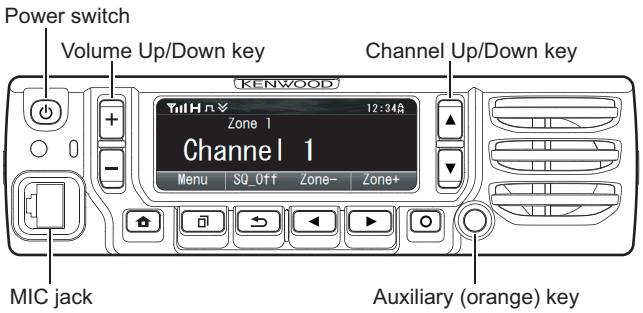


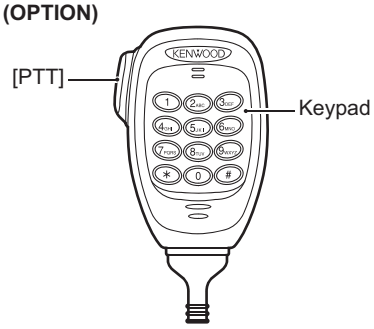
Fig.7-3

SECTION 4
ADJUSTMENT

4.1 Controls



KMC-36 (OPTION)



4.1.1 Preparations for checking/tuning the transceiver

Before attempting to check/tune the transceiver, connect the unit to a suitable power supply.
Whenever the transmitter is turned on, the unit must be connected to a suitable dummy load (i.e. power meter).
The speaker output connector must be terminated with an 4Ω dummy load and connected to an AC voltmeter and an audio distortion meter or a SINAD measurement meter at all times during checking/tuning.

4.2 Panel Test Mode

4.2.1 Test mode operation features

This transceiver has a test mode. To enter test mode, press and hold the [⮌] key while turning the transceiver power ON. Before the transceiver enters test mode, the frequency version information appears on the LCD momentarily. Test mode can be inhibited by programming. To exit test mode, turn the transceiver power OFF. The following functions are available in test mode.

- When the panel test mode is activated, the last used channel and signaling numbers are displayed. When the panel test mode is activated for the first time, the channel and signaling numbers are 1.
- If test signaling 10 (P25 Phase1), 7 (P25 Phase2) and 7 (NXDN Mode) is selected, the result of Bit Error Rate (BER) calculation is displayed on the LCD.

4.2.2 Key operation

Key	"Func" not appears on the sub LCD display	
	Function	Display
[+]	Push: Volume up Hold: Volume up continuously	-
[-]	Push: Volume down Hold: Volume down continuously	-
[▲]	Push: Test channel up Hold: Test channel up continuously	Channel No.
[▼]	Push: Test channel down Hold: Test channel down continuously	Channel No.
[◀]	Push: Squelch level up *1 Hold: Squelch off	Squelch level Squelch off: icon appears
[▶]	Wide/Narrow/ Very Narrow *2	Wide : "w" Narrow: "n" Very Narrow: "v"
[⧉]	Shift to panel tuning mode	-
[⮌]	Function on	"Func" appears on the sub LCD display
[○]	MSK 1200bps and 2400bps *1	2400bps: icon appears
[⌂]	Push: Test signaling up Hold: Test signaling up continuously	Signaling No.
[AUX (Orange)]	-	-
[PTT]	Transmit	-
[0] to [9] and [#], [✱]	-	-

*1: When the mode is selected as Analog, this function is enabled.
*2: When the mode is selected as P25, bandwidth is fixed to Narrow.

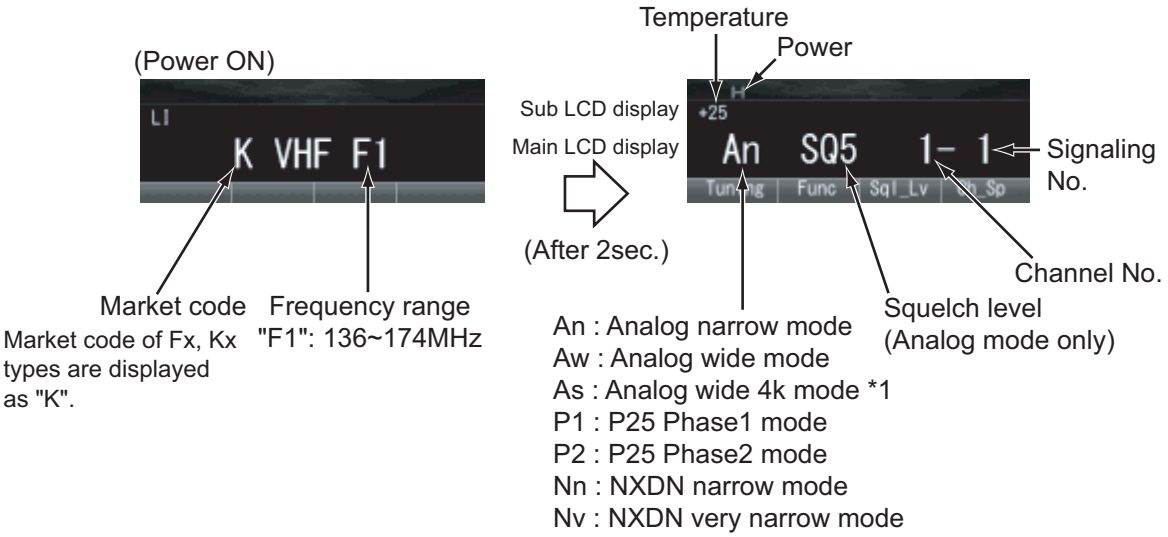
Key	"Func" appears on the sub LCD display	
	Function	Display
[+]	P25 Modulation Type (C4FM/LSM) *3	LSM : icon appears
[-]	Function off	-
[▲]	Talk Around on/off	On: icon appears
[▼]	Mode selection Analog/P25 Phase1 /P25 Phase2/NXDN	Analog: "A" P25 Phase1: "P1" P25 Phase2: "P2" NXDN: "N"
[◀]	-	-

Key	"Func" appears on the sub LCD display	
	Function	Display
[▸]	Key/LCD check	The contents of the pressed key etc., appear.
[▣]	High power/Medium power/Low power	High: "H" Medium: "M" Low: "L"
[⮌]	Function off	-
[◯]	Compander on/off	On: icon appears
[⌂]	External Speaker on/off	On: icon appears
[AUX (Orange)]	Function off	-
[PTT]	Transmit	-
[0] to [9] and [#], [✳]	Function off	-

*3: When the mode is selected as P25, this function is enabled.

- **LED indicator**
  Red LED Lights during transmission.
  Green LED Lights when there is carrier.
- **Sub LCD indicator**
  "Func" Appears at function on.

- **LCD display in panel test mode**



*1: Wide 4k is displayed only when the PC test mode is used. However, it aims at production for factory, or a operation verification of the transceiver. It is not necessary in operation of the transceiver to adjust.

4.2.3 Frequency and Signaling

The transceiver has been adjusted for the frequencies shown in the following table. When required, readjust them following the adjustment procedure to obtain the frequencies you want in actual operation.

(1) Test frequency

CH	RX (MHz)	TX (MHz)
1	155.05000	155.10000
2	136.05000	136.10000
3	173.95000	173.90000
4	155.00000	155.00000
5	155.20000	155.20000
6	155.40000	155.40000
7~16	-	-

(2) Test signaling

■Analog mode signaling

No.	RX	TX
1	None	None
2	None	Square Wave
3	LTR Data	LTR Data
4	QT:67.0Hz	QT:67.0Hz
5	QT:151.4Hz	QT:151.4Hz
6	QT:210.7Hz	QT:210.7Hz
7	QT:254.1Hz	QT:254.1Hz
8	DQT:D023N	DQT:D023N
9	DQT:D754I	DQT:D754I
10	DTMF Decode (CODE: 159D)	DTMF Encode (CODE: 159D)
11	None	DTMF Encode (CODE: 9)
12	2-tone Decode (A: 304.7Hz, B: 3106.0Hz)	2-tone Encode (A: 304.7Hz, B: 3106.0Hz)

No.	RX	TX
13	Single Tone Decode (979.9Hz)	Single Tone Encode (979.9Hz)
14	None	Single Tone Encode (1000Hz)
15	None	MSK PN9
16	MSK Decode	MSK Encode

■P25 Phase1 signaling

No.	RX	TX
1	NAC 293	NAC 293
2	NAC 023	NAC 023
3	NAC 5EA	NAC 5EA
4	None	PN9
5	NAC 293	Symbol Rate Pattern
6	NAC 293	1/3 Deviation Pattern
7	NAC 293	0 Continuous Pattern
8	NAC 293	Fidelity Pattern
9	None	FSW+PN9
10	None	1011Hz Tone Test Pattern
11	Tone Pattern	1011Hz Tone Test Pattern
12	Silence Pattern	Silence Pattern
13	Audio Test Pattern	NAC293 + Audio Test Pattern
14	Vocoder Loop	None

■P25 Phase2 signaling

No.	RX	TX
1	STTP-OB-1031-0	STTP-IB1031-1+Audio
2	None	PN9 Phase2
3	STTP-OB-1031-1	Symbol Rate Pattern Phase2
4	STTP-OB-1031-1	1/3 Deviation Pattern Phase2
5	STTP-OB-1031-1	0 Continuous Pattern
6	STTP-OB-1031-1	0 Burst Pattern
7	STTP-OB-1031	Symmetrical STTP-IB1031-1
8	Tone Pattern (Half rate)	STTP-IB1031-1
9	Silence Pattern (Half Rate)	STP-IB-1 + Silence Pattern (Half Rate)
10	Audio Test Pattern (Half Rate)	STTP-IB1031-1 + Audio Test Pattern (Half Rate)
11	Codec Loop	STTP-IB1031-1 + Codec Loop
12	Vocoder Loop (Half Rate)	STTP-IB1031-1 + Vocoder Loop (Half Rate)

■NXDN Mode signaling

No.	RX	TX
1	RAN1	RAN1
2	None	PN9
3	RAN1	Maximum Deviation Pattern
7	FSW + PN9	FSW + PN9
9	Tone Pattern (1031Hz)	Tone Pattern (1031Hz)

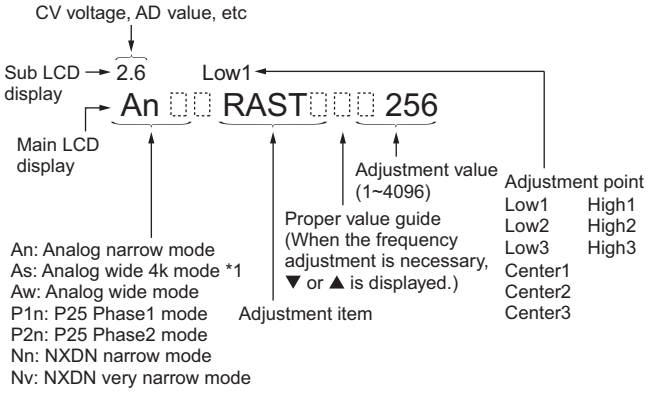
RAN: Radio Access Number
PN9: Pseudo-Random Pattern
No.7, 9 Item: PC test mode only

4.3 Panel Tuning Mode

4.3.1 Transceiver tuning (To enter tuning mode)

To enter tuning mode, press the [▣] key while the transceiver is in test mode. Use the [◯] key to write tuning data through tuning modes, and the [▲]/[▼] key to adjust tuning requirements (1 to 4096 appears on the LCD).
Use the [⌂] key to select the adjustment item through tuning modes. Use the [⮌] key to adjust 4, 6 or 8 reference level adjustments, and use the [▶] key to switch between Wide5k/ Wide4k/Narrow.

- LCD display in panel tuning mode



*1: Wide 4k is displayed only when the PC test mode is used. However, it aims at production for factory, or a operation verification of the transceiver. It is not necessary in operation of the transceiver to adjust.

4.3.2 Key operation

Key	Function	
	Push	Hold (1 second)
[+]	Volume up	Continuation up
[-]	Volume down	Continuation down
[▲]	Adjustment value up	Continuation up
[▼]	Adjustment value down	Continuation down
[◀]	Auto adjustment start	-
[▶]	Wide/Narrow/P25/NXDN	-
[▣]	Shift to panel test mode	-
[⮌]	To enter 5,9 or 17 reference level adjustments	-
[◯]	Writes the adjustment value	-

Key	Function	
	Push	Hold (1 second)
[⌂]	Go to next adjustment item	Back to last adjustment item (At the time of 5, 9 or 17 point adjustment: Adjustment point change)
[AUX (Orange)]	Output tone pattern change of balance adjustment (A change is possible only during balance adjustment.)	-
[PTT] (MIC)	Transmit	
[0] to [9] and [#],[*] (MIC)	-	

4.3.3 5 or 9 reference level adjustments frequency

High Maximum Power, Medium Maximum Power, Low Maximum Power, High Transmit Power Limit, Mid Transmit Power Limit, Low Transmit Power Limit, High Transmit Power, Medium Transmit Power, Low Transmit Power, Maximum Deviation , P25 High Deviation, P25 H-CPM Deviation, NXDN High Deviation, QT Deviation, DQT Deviation, LTR Deviation, DTMF Deviation, Single Tone Deviation, MSK Deviation, CW ID Deviation, Sensitivity 1, Sensitivity 2, RSSI Reference, Open Squelch, Low RSSI, High RSSI, Tight Squelch

Tuning point	Display	RX (MHz)	TX (MHz)
1	Low 1	136.05000	136.10000
2	Low 3	145.55000	145.60000
3	Center 2	155.05000	155.10000
4	High 1	164.55000	164.60000
5	High 3	173.95000	173.90000

Receive Assist, Transmit Assist

Tuning point	Display	RX (MHz)	TX (MHz)
1	Low 1	136.05000	136.10000
2	Low 2	140.80000	140.85000
3	Low 3	145.55000	145.60000
4	Center 1	150.30000	150.35000
5	Center 2	155.05000	155.10000
6	Center 3	159.80000	159.85000
7	High 1	164.55000	164.60000
8	High 2	169.30000	169.35000
9	High 3	173.95000	173.90000

4.3.4 Adjustment item supplement

Adjustment Item	Description
Receive Assist	The lock voltage of VCO (Receive) is adjusted. This item must be adjusted before all adjustment items for receiver section are adjusted.
Transmit Assist	The lock voltage of VCO (Transmit) is adjusted. This item must be adjusted before all adjustment items for transmitter section are adjusted.
Frequency	Frequency is adjusted under receiving condition with SSG. The SSG needs 0.003ppm accuracy so please use a standard oscillator if necessary. This item can be adjusted only in PC Test Mode so that the adjustment value is not changed easily.
Ramp Offset	Adjust this item to the optimal Ramp voltage.
High Maximum Power	High Maximum Power is adjusted.
Medium Maximum Power	Medium Maximum Power is adjusted.
Low Maximum Power	Low Maximum Power is adjusted.
High Transmit Power Limit	High Transmit Power Limit is adjusted.
Medium Transmit Power Limit	Medium Transmit Power Limit is adjusted.
Low Transmit Power Limit	Low Transmit Power Limit is adjusted.
High Transmit Power	High Transmit Power is adjusted.
Medium Transmit Power	Medium Transmit Power is adjusted.
Low Transmit Power	Low Transmit Power is adjusted.
Balance	The transmit modulation frequency response is adjusted. This item is adjusted so that the deviation of 2kHz becomes the same deviation of 20Hz. This item must be adjusted before all adjustment items for deviations are adjusted.
High Deviation (P25/NXDN)	High Deviation of P25/NXDN is adjusted.
Maximum Deviation (Analog Wide/Narrow)	Maximum Deviation of Analog (Wide/Narrow) is adjusted. This item must be adjusted before all adjustment items for tone deviations are adjusted.
QT Deviation	QT tone deviation is adjusted.
DQT Deviation	DQT tone deviation is adjusted.
LTR Deviation	LTR tone deviation is adjusted.

Adjustment Item	Description
DTMF Deviation	DTMF tone deviation is adjusted.
Single Tone Deviation	The deviation of Single Tone used in “2-tone” is adjusted.
MSK Deviation	MSK tone deviation is adjusted.
CWID Deviation	CWID tone deviation is adjusted. CWID is used to inform the others who is transmitting on a 6.25-kHz spacing channel. (In FCC rule, Analog mode or CWID is required for each channel-spacing.)
Sensitivity 1	Band-Pass Filter is adjusted. The performance of Receive Sensitivity is improved.
Sensitivity 2	Band-Pass Filter is adjusted. The performance of Receive Sensitivity is improved.

Adjustment Item	Description
RSSI Reference	The minimum RSSI level for scan stop is adjusted.
Open Squelch	The squelch level at level “5” is adjusted.
Low RSSI	RSSI display level “  “ is adjusted. Both “Low RSSI” and “High RSSI” must be adjusted. (The curve data of RSSI level is applied.)
High RSSI	
Tight Squelch	The squelch level at level “9” is adjusted.

4.3.5 Adjustment item and Display

Order	Adjusutment item	Main LCD display	Sub LCD display	Aw (Analog Wide)	As *2 (Analog Wide 4k)	An (Analog Narrow)	P1 (P25 Phase1)	P2 (P25 Phase2)	Nn (NXDN Narrow)	Nv (NXDN Very Narrow)	Adjust item Number
				Adjustment range							
1	Receive Assist	RAST	(CV voltage)	9 point ADJ							Common Section 2
				1 ~ 4096							
2	Transmit Assist	TAST	(CV voltage)	9 point ADJ							Common Section 3
				1 ~ 4096							
3	RTC Correction	RTC	-	-							Common Section 5
				-2.00~-0.01 ,0.00 ,+0.01~+2.00							
4	Ramp Up Offset	RAMPU	(ADC measurement value)	-							Transmitter Section 1
				1~1024							
5	Ramp Down Offset	RAMPD	(ADC measurement value)	-							Transmitter Section 2
				1~1024							
6	High Maximum Power	MAX_H	-	-	-	5	-	-	-	-	Transmitter Section 3
				1~256							
7	Medium Maximum Power	MAX_M	-	-	-	5	-	-	-	-	Transmitter Section 4
				1~256							
8	Low Maximum Power	MAX_L	-	-	-	5	-	-	-	-	Transmitter Section 5
				1~256							
9	High Transmit Power Limit	H_LMT	-	-	-	5	-	-	-	-	Transmitter Section 6
				1~256							
10	Medium Transmit Power Limit	M_LMT	-	-	-	5	-	-	-	-	Transmitter Section 7
				1~256							
11	Low Transmit Power Limit	L_LMT	-	-	-	5	-	-	-	-	Transmitter Section 8
				1~256							
12	High Transmit Power	H_PWR	-	-	-	5	-	-	-	-	Transmitter Section 9
				1~1024							
13	Medium Transmit Power	M_PWR	-	-	-	5	-	-	-	-	Transmitter Section 10
				1~1024							

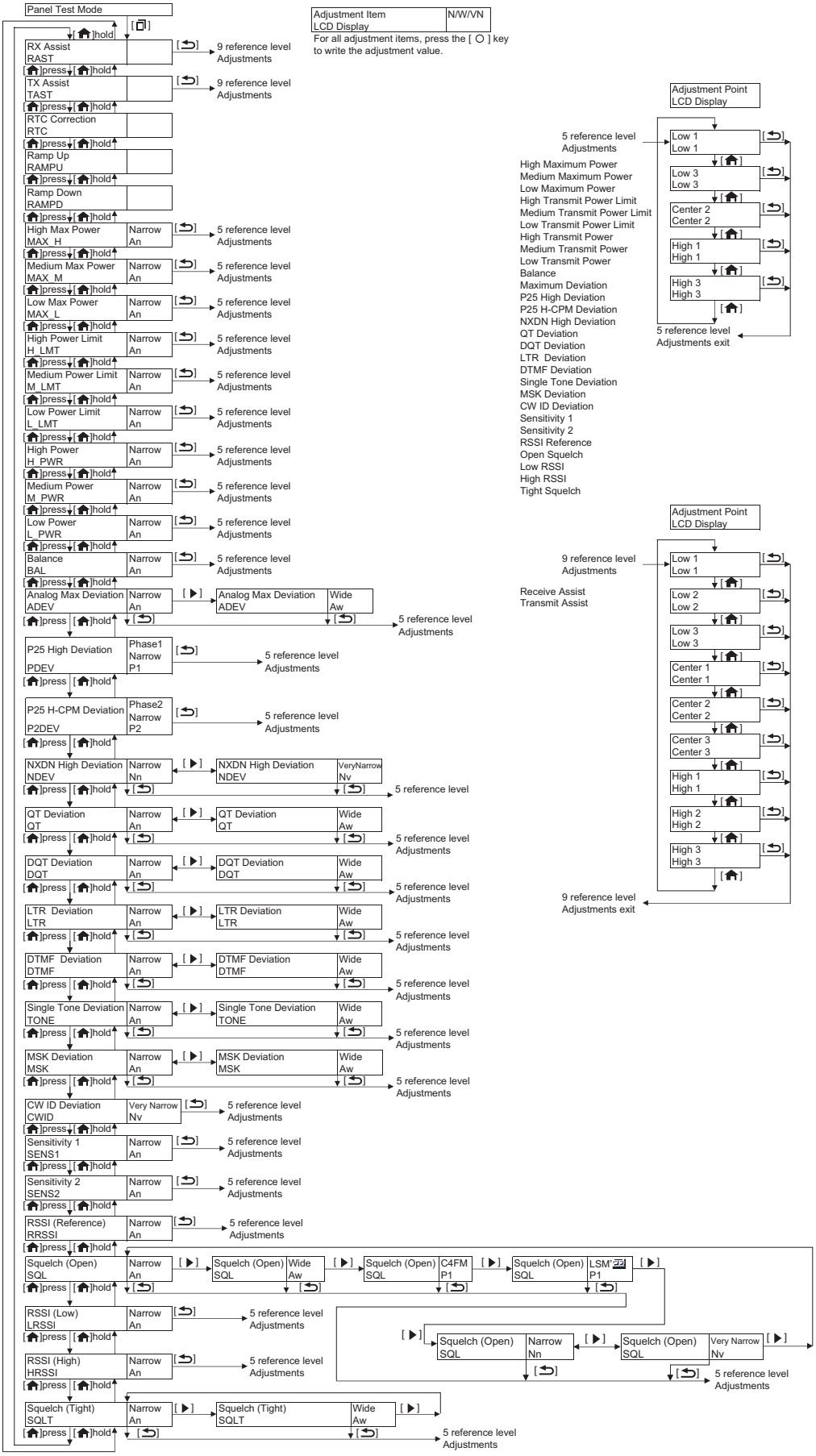
Order	Adjusutment item	Main LCD display	Sub LCD display	Aw (Analog Wide)	As *2 (Analog Wide 4k)	An (Analog Narrow)	P1 (P25 Phase1)	P2 (P25 Phase2)	Nn (NXDN Nar-row)	Nv (NXDN Very Nar-row)	Adjust item Number
				Adjustment range							
14	Low Transmit Power	L_PWR	-	-	-	5	-	-	-	-	Transmitter Section 11
				1~1024							
15	Balance	BAL	(Encode frequency)	-	-	5	-	-	-	-	Transmitter Section 12
				1~1024							
16	Maximum Deviation	ADEV	-	5	5 *2	5	-	-	-	-	Transmitter Section 13
				1~1024							
17	P25 High Deviation	PDEV	-	-	-	-	5	-	-	-	Transmitter Section 14
				1~1024							
18	P25 H-CPM Deviation	P2DEV	(RSSI measurement value)	-	-	-	-	5	-	-	Transmitter Section 15
				1~1024							
19	NXDN High Deviation	NDEV	-	-	-	-	-	-	5	5	Transmitter Section 16
				1~1024							
20	QT Deviation	QT	-	5	5 *2	5	-	-	-	-	Transmitter Section 17
				1~1024							
21	DQT Deviation	DQT	-	5	5 *2	5	-	-	-	-	Transmitter Section 18
				1~1024							
22	LTR Deviation	LTR	-	5	5 *2	5	-	-	-	-	Transmitter Section 19
				1~1024							
23	DTMF Deviation	DTMF	-	5	5 *2	5	-	-	-	-	Transmitter Section 20
				1~1024							
24	Single Tone Deviation	TONE	-	5	5 *2	5	-	-	-	-	Transmitter Section 21
				1~1024							
25	MSK Deviation	MSK	-	5	5 *2	5	-	-	-	-	Transmitter Section 22
				1~1024							
26	CW ID Deviation	CWID	-	-	-	5	-	-	-	-	Transmitter Section 23
				1~1024							
27	Sensitivity 1	SENS1	(RSSI measurement value)	-	-	5	-	-	-	-	Receiver Section 3
				1~256							
28	Sensitivity 2	SENS2	(RSSI measurement value)	-	-	5	-	-	-	-	Receiver Section 2
				1~256							
29	RSSI Reference	RRSSI	(RSSI measurement value)	-	-	5	-	-	-	-	Receiver Section 4
				1~256							
30	Open Squelch	SQL	(ASQDET measurement value)	5	5 *2	5	5 *3	-	5	5	Receiver Section 5
				1~256							
31	Low RSSI	LRSSI	(RSSI measurement value)	-	-	5	-	-	-	-	Receiver Section 6
				1~256							
32	High RSSI	HRSSI	(RSSI measurement value)	-	-	5	-	-	-	-	Receiver Section 7
				1~256							
33	Tight Squelch	SQLT	(ASQDET measurement value)	5	5 *2	5	-	-	-	-	Receiver Section 8
				1~256							

*2: Wide 4k can be set up only when the PC test mode is used.
*3: When P25 Phase1 is selected, in C4FM and LSM, there is an adjustment item, respectively.

4.3.6 Panel tuning mode flow chart

Note:

* In this Panel tuning mode flow chart, the Adjustment item name is modified.



4.4 BER (Bit Error Rate) Measurement

(1) The Panel Test Mode is used to measure the BER (Refer "4.2.1 Test mode operation features").

(2) Select "10" (P25 Phase1), "7" (P25 Phase2) and "7" (NXDN Mode) for test signaling (Refer to "4.2.3 Frequency and Signaling" (2) Test signaling).

Note:

"7" (NXDN Mode) can be selected only by PC test mode.

(3) Select a bandwidth (Narrow/Very Narrow) by pressing the [▸] key. When P25 Phase1 or P25 Phase2 is selected, it is not necessary to select a bandwidth.

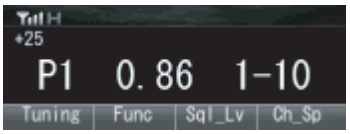
(4) Select a test frequency ("4.2.3 Frequency and Signaling" (2) Test signaling Test frequency).

(5) Measure the BER (Bit Error Rate) using the digital radio tester.

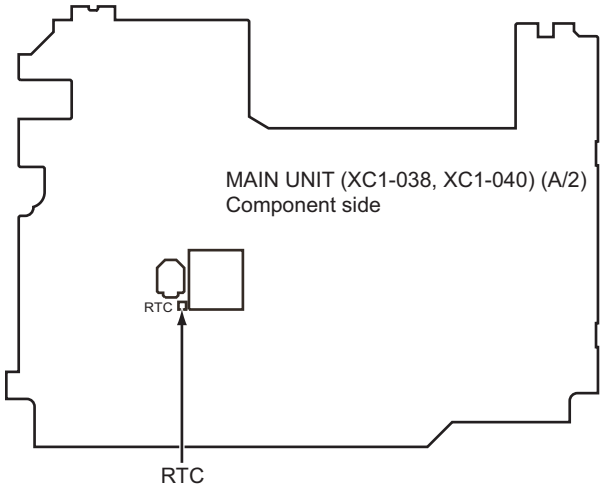
Enter a standard input signal into the transceiver as a standard tone test pattern for P25, FSW+PN9 for NXDN.

(6) Adjust the input signal level to achieve the standard bit error rate (BER).

(For example, if the BER is 0.86%, the display shows "0.86".)



4.5 Adjustment points

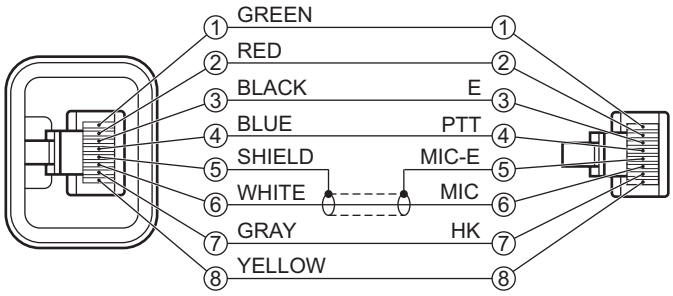


4.6 Test Equipment Required for Alignment

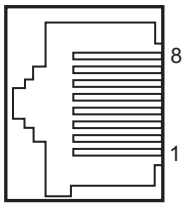
Test Equipment	Major Specifications	
1. Standard Signal Generator (SSG)	Frequency Range Modulation Output	100 to 900MHz Frequency modulation and external modulation -127dBm/0.1uV to greater than -20dBm/22.4mV
	When performing the Frequency adjustment, the following accuracy is necessary. • 0.003ppm Use a standard oscillator for adjustments, if necessary.	
2. Power Meter	Input Impedance Operation Frequency Measurement Capability	50Ω 100 to 900MHz Vicinity of 100W
3. Deviation Meter	Frequency Range	100 to 900MHz
4. Digital Volt Meter (DVM)	Measuring Range Input Impedance	10mV to 20V DC High input impedance for minimum circuit loading
5. Oscilloscope		DC through 30MHz
6. Frequency Counter	Frequency Range Frequency Stability	10Hz to 1000MHz 0.2ppm or less
	To measure the oscillating frequency of the internal clock 32766.00Hz~32770.00Hz for RTC Correction Resolution 0.01Hz is better for accuracy adjustment.	
7. Ammeter		20A or more
8. AF Volt Meter (AF VM)	Frequency Range Voltage Range	50Hz to 10kHz 1mV to 10V
9. Audio Generator (AG)	Frequency Range Output	50Hz to 5kHz or more 0 to 1V
10. Distortion Meter	Capability Input Level	3% or less at 1kHz 50mV to 10Vrms
11. Spectrum Analyzer	Measuring Range	DC to 1GHz or more
12. 4Ω Dummy Load		Approx. 4Ω, 10W
13. Regulated Power Supply		13.6V, approx. 20A (adjustable from 9V to 17V) Useful if ammeter equipped

*The test equipment which is not used for adjustment is contained in this table.

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



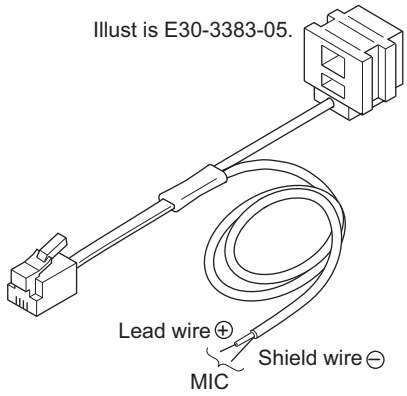
■**MIC connector (Front panel view)**



1 : BLC
2 : +B
3 : GND
4 : PTT/TXD (PC serial data from radio)
5 : MICE
6 : MIC
7 : HOOK/RXD (PC serial data to radio)
8 : DM

■**Tuning cable (E30-3383-05 or E30-7754-05)**

Adapter cable (E30-3383-05) is required for injecting an audio if PC tuning is used.
See “PC Mode” section for the connection.



4.7 Radio check Section

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel test mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Frequency check	1)CH-Sig: 1-1 PTT: ON	1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button.	f. counter	Panel	ANT			Check an internal temperature of radio from 20°C to 33°C.	±0.25ppm ±38.7Hz @155.1MHz
2. High power check	1)CH-Sig: 1-1 PTT: ON TA: OFF	1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button.	Power meter Ammeter	Panel	ANT			Check	45W~55W 13A or less
	2)CH-Sig: 2-1 PTT: ON TA: OFF	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button.	Power meter Ammeter	Panel	ANT			Check	45W~55W 13A or less
	3)CH-Sig: 3-1 PTT: ON TA: OFF	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button.	Power meter Ammeter	Panel	ANT			Check	45W~55W 13A or less

Item	Condition		Measurement			Adjustment			Specifica-tions /Remarks
	Panel test mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
3. Low power check	1)CH-Sig: 1-1 PTT: ON TA: OFF	1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button.	Power meter Ammeter	Panel	ANT			Check	3.5W~6.5W 7A or less
	2)CH-Sig: 2-1 PTT: ON TA: OFF	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button.	Power meter Ammeter	Panel	ANT			Check	3.5W~6.5W 7A or less
	3)CH-Sig: 3-1 PTT: ON TA: OFF	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button.	Power meter Ammeter	Panel	ANT			Check	3.5W~6.5W 7A or less
4. MIC sensitivity check	1)CH-Sig: 1-1 AG: 1kHz PTT: ON	1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 AG: 1kHz PTT: Press [Transmit] button.	Deviation meter Oscillo-scope AG AF VM	Panel	ANT MIC jack			Adjust AG input to get a standard MOD.	5mV ±1mV
5. Sensitivity check	1)CH-Sig: 1-1 SSG output Wide: -117dBm (0.32μV) (MOD: 1kHz/±3kHz) Narrow: -117dBm (0.32μV) (MOD: 1kHz/ ±1.5kHz)	1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 SSG output Wide: -117dBm (0.32μV) (MOD: 1kHz/±3kHz) Narrow: -117dBm (0.32μV) (MOD: 1kHz/±1.5kHz)	SSG AF VM Oscilloscope Distortion meter 4Ω Dummy load	Panel	ANT Ext. SP connec-tor			Check	12dB SINAD or more

4.8 Common Section

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equip-ment	Unit	Ter-minal	Unit	Parts	Method	
1. Setting	1) DC voltage:13.6V 2) SSG standard modulation [Wide] MOD:1kHz,DEV:3kHz [Narrow] MOD:1kHz,DEV:1.5kHz								
2. Receive Assist	1) Adj item: [RAST] Adjust:[****] 2) Adj item: [Low1 RAST]→ [Low2 RAST]→ [Low3 RAST]→ [Center1 RAST]→ [Center2 RAST]→ [Center3 RAST]→ [High1 RAST]→ [High2 RAST]→ [High3 RAST] Adjust:[****] Press [◯] key to store the adjustment value.	1) Adj item: [Receive Assist] 2) Adj item: [Low1]→ [Low2]→ [Low3]→ [Center1]→ [Center2]→ [Center3]→ [High1]→ [High2]→ [High3] Press [Apply All] button to store the adjustment value.				Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	**[PC test mode]** **[Automatic Adjustment]** 1) Press [Tune Assist Voltage] button. 2) Press [Apply All] button to store the adjustment value after the automatic adjustment has finished. **[Manual Adjustment]** [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. **Note:** Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed.	2.5V±0.1V **[Automatic Adjustment]** After the automatic adjustment is performed, verify that the VCO lock voltage is within the voltage range which is specified by the manual adjustment. **[Manual Adjustment]** Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted. **Note:** The assist adjustment value must be between from 340 to 3550.
3. Transmit Assist	1) Adj item: [TAST] Adjust:[****] 2) Adj item: [Low1 TAST]→ [Low2 TAST]→ [Low3 TAST]→ [Center1 TAST]→ [Center2 TAST]→ [Center3 TAST]→ [High1 TAST]→ [High2 TAST]→ [High3 TAST] Adjust:[****] PTT: ON Press [◯] key to store the adjustment value.	1) Adj item: [Transmit Assist] 2) Adj item: [Low1]→ [Low2]→ [Low3]→ [Center1]→ [Center2]→ [Center3]→ [High1]→ [High2]→ [High3] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.				Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	**[PC test mode]** **[Automatic Adjustment]** 1) Press [Tune Assist Voltage] button. 2) Press [Apply All] button to store the adjustment value after the automatic adjustment has finished. **[Manual Adjustment]** [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. **Note:** Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed.	2.5V±0.1V **[Automatic Adjustment]** After the automatic adjustment is performed, verify that the VCO lock voltage is within the voltage range which is specified by the manual adjustment. **[Manual Adjustment]** Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted. **Note:** The assist adjustment value must be between from 340 to 3550.

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equip-ment	Unit	Ter-minal	Unit	Parts	Method	
4. Frequency	*The Frequen-cy adjust-ment can be performed only in PC test mode.	1) Adj item: [Frequency] SSG output: -20dBm (22.4mV) (CW (without mod-ulation)) **Caution:** Perform the fre-quency adjustment under the following conditions. • Temperature range of +20°C to +33°C (+68.0°F to +91.4°F). (The temperature is displayed on the Frequency adjust-ment screen of the KPG-D1/D1N and the LCD of the transceiver.) • Use an accuracy of 0.003ppm for the SSG. (Use a stan-dard oscillator if necessary.)	SSG	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	**[PC test mode]** Press [Start] button of "Auto Tuning". Press [Apply] button to store the adjustment value after the automatic adjustment has finished.	**[PC test mode]** "IF20" value = With-in 0±12 digits. The value of "IF20" will become around "0" after the adjustment has finished. **Remark:** "Frequency" is adjusted under receiving condition with SSG.
5. RTC Corre-citon	1) Adj item: [RTC] Adjust:[****] Press [◯] key to store the ad-justment val-ue.	1) Adj item: [RTC Correction] Data: {****] Press [Apply] button to store the adjust-ment value.	Fre-quency Counter	Panel	TEST POINT (CN715)		[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	**[Panel tuning mode]** Press [◯] key to store the adjustment value. **[PC test mode]** Press [Apply] button to store the adjustment value.	**Remaks:** Change the adjust-ment value so that the frequency cur-rently displayed on "Crystal Oscillation Frequency" on the PC window and the frequency currently displayed on the frequency counter are in agreement.

4.9 Transmitter Section

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Ramp up Offset	1) Adj item: [RAMPU] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Ramp Up Offset] Press [Transmit] button. Press [Apply] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	**[PC test mode]** **[Automatic Adjustment]** 1) Press [Tune Rump Offset] button. 2) Press [Apply All] button to store the adjustment value after the automatic adjustment has finished. **[Manual Adjustment]** 1) Set the adjustment value to “1”. 2) Increase the adjustment value slowly while monitoring the offset monitor value. 3) Set the adjustment value when the offset monitor value exceed “50”.	
2. Ramp down Offset	1) Adj item: [RAMPD] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Ramp Down Offset] Press [Transmit] button. Press [Apply] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	**[PC test mode]** **[Automatic Adjustment]** 1) Press [Tune Rump Offset] button. 2) Press [Apply All] button to store the adjustment value after the automatic adjustment has finished. **[Manual Adjustment]** 1) Set the adjustment value to “1”. 2) Increase the adjustment value slowly while monitoring the offset monitor value. 3) Set the adjustment value when the offset monitor value exceed “20”.	
3. High Maximum Power	1) Adj item: [H_MAX] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [High Maximum Power] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	55W	±1W 15A or less **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
4. Medium Maximum power	1) Adj item: [M_MAX] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Medium Maximum Power] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	55W	±1W 15A or less **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
5. Low Maximum power	1) Adj item: [L_MAX] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Low Maximum Power] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	55W	±1W 15A or less **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
6. High Transmit Power Limit	1) Adj item: [H_LMT] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] PTT : OFF Press [◯] key to store the adjustment value.	1) Adj item: [High Transmit Power Limit] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Apply] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 256 (Fixed)	
7. Medium Transmit Power Limit	1) Adj item: [M_LMT] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] PTT : OFF Press [◯] key to store the adjustment value.	1) Adj item: [Medium Transmit Power Limit] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Apply] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 256 (Fixed)	

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
8. Low Transmit Power Limit	1) Adj item: [L_LMT] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] PTT : OFF Press [◯] key to store the adjustment value.	1) Adj item: [Low Transmit Power Limit] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Apply] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 256 (Fixed)	
9. High Transmit Power	1) Adj item: [H_PWR] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [High Transmit Power] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	50W	±1W 13A or less **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
10. Medium Transmit Power	1) Adj item: [M_PWR] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Medium Transmit Power] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	5W **Note:** Medium transmit power is the purpose of the custom power (adjustment). This power must be lower than High transmit power. In the production, this Medium transmit power is adjusted at 5.0W.	±0.5W 7A or less **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
11. Low Transmit Power	1) Adj item: [L_PWR] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Low Transmit Power] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Power meter Ammeter	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	5W	±0.5W 7A or less **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
12. Balance *1	1) Adj item: [Balance] Adjust:[****] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Balance] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	The Deviation of 20Hz frequency is fixed. Change the 2kHz adjustment value to become the same deviation of 20Hz within the specified range. (a supplementary explanation: Another way to adjust is ready. (Same as TK-5710, the old model of NX-5700). Press [AUX(Orange)] key to switch the tone to 100Hz square wave. Then, make the demodulation waveform shown on oscilloscope into square shape.)	2kHz Tone deviation is within ± 1.0% of 20Hz tone deviation. **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
*1 : Refer to the “4.9.1 Necessary Deviation adjustment item for each signaling and mode” table. Balance adjustment is common with the adjustment of all signaling deviations.									
13. Maximum Deviation *2 [Analog Wide]	1) Adj item: [ADEV] Adjust:[****] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Maxmum Deviation (Analog Wide)] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write fixed value “491” for each adjustment point. (The value is written below.) Transmit at each adjustment point and check that the deviation is between 4150Hz and 4250Hz. Deviation meter LPF: 15kHz HPF: OFF **[Panel tuning mode]** PTT: ON **[PC test mode]** PTT: Press [Transmit] button	4150~4250Hz **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
[Analog Narrow]	1) Adj item: [An ADEV] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Maxmum Deviation (Analog Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write fixed value “491” for each adjustment point. (The value is written below.) Transmit at each adjustment point and check that the deviation is between 2050Hz and 2150Hz. Deviation meter LPF: 15kHz HPF: OFF **[Panel tuning mode]** PTT: ON **[PC test mode]** PTT: Press [Transmit] button	2050~2150Hz **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
*2 : Refer to the “4.9.1 Necessary Deviation adjustment item for each signaling and mode” table. Regarding Maximum Deviation (Analog), it is common with the adjustment of all analog signalings.									
14. P25 High Deviation	1) Adj item: [P1 PDEV] Adjust:[****] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [P25 High Deviation] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write fixed value “493” for each adjustment point. (The value is written below.) Transmit at each adjustment point and check that the deviation is between 2771Hz and 2883Hz. Deviation meter LPF: 3kHz HPF: OFF **[Panel tuning mode]** PTT: ON **[PC test mode]** PTT: Press [Transmit] button	2771~2883Hz **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
15. P25 H-CPM Deviation	1) Adj item: [P2 P2DEV] Adjust:[****] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [P25 H-CPM Deviation] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write fixed value “476” for each adjustment point. (The value is written below.) Transmit at each adjustment point and check that the deviation is between 3090Hz and 3215Hz. Deviation meter LPF: 3kHz HPF: OFF **[Panel tuning mode]** PTT: ON **[PC test mode]** PTT: Press [Transmit] button	3090~3215Hz **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
16. NXDN High Deviation [NXDN Narrow]	1) Adj item: [Nn NDEV] Adjust:[****] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [NXDN High Deviation (NXDN Narrow] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write fixed value “492” for each adjustment point. (The value is written below.) Transmit at each adjustment point and check that the deviation is between 2995Hz and 3117Hz. Deviation meter LPF: 3kHz HPF: OFF **[Panel tuning mode]** PTT: ON **[PC test mode]** PTT: Press [Transmit] button	2995~3117Hz **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
[NXDN Very Narrow]	1) Adj item: [Nv NDEV] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [NXDN High Deviation (NXDN Very Narrow] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write fixed value “491” for each adjustment point. (The value is written below.) Transmit at each adjustment point and check that the deviation is between 1311Hz and 1363Hz. Deviation meter LPF: 3kHz HPF: OFF **[Panel tuning mode]** PTT: ON **[PC test mode]** PTT: Press [Transmit] button	1311~1363Hz **[PC test mode]** Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.
17. QT Deviation *3 [Analog Wide]	1) Adj item: [Aw QT] Adjust:[****] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [QT Deviation (Analog Wide)] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 528	0.75kHz±0.05 kHz

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
[Analog Narrow]	1) Adj item: [An QT] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [QT Deviation (Analog Narrow)] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 528	0.35kHz±0.05 kHz
18. DQT Deviation *3 [Analog Wide]	1) Adj item: [Aw DQT] Adjust:[****] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [DQT Deviation (Analog Wide)] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 433	0.75kHz±0.05 kHz
[Analog Narrow]	1) Adj item: [An DQT] Adjust:[****] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [DQT Deviation (Analog Narrow)] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 433	0.35kHz±0.05 kHz

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
19. LTR Deviation *3 [Analog Wide]	1) Adj item: [Aw LTR] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [LTR Deviation (Analog Wide)] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 480	1.00kHz±0.05 kHz
[Analog Narrow]	1) Adj item: [An LTR] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [LTR Deviation (Analog Narrow)] Deviation meter LPF: 3kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 480	0.75kHz±0.05 kHz
20. DTMF Deviation *3 [Analog Wide]	1) Adj item: [Aw DTMF] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [DTMF Deviation (Analog Wide)] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [OK] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 548	2.50kHz±0.05 kHz

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
[Analog Narrow]	1) Adj item: [An DTMF] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [DTMF Deviation (Analog Narrow)] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 548	1.25kHz±0.05 kHz
21. Single Tone Deviation *3 [Analog Wide]	1) Adj item: [Aw TONE] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Single Tone Deviation (Analog Wide)] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 517	3.00kHz±0.05 kHz
[Analog Narrow]	1) Adj item: [An TONE] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [Single Tone Deviation (Analog Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 517	1.50kHz±0.05 kHz

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
22. MSK Deviation *3 [Analog Wide]	1) Adj item: [Aw MSK] Adjust:[****] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [MSK Deviation (Analog Wide)] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 504	3.00kHz±0.05 kHz
[Analog Narrow]	1) Adj item: [An MSK] Adjust:[****] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [MSK Deviation (Analog Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 504	1.50kHz±0.05 kHz
23. CWID Deviation *3 [Analog Narrow]	1) Adj item: [An CWID] Adjust:[****] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[****] PTT : ON Press [◯] key to store the adjustment value.	1) Adj item: [CWID Deviation (Analog Narrow)] Deviation meter LPF: 15kHz HPF: OFF 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Press [Transmit] button. Press [Apply All] button to store the adjustment value.	Deviation meter Oscilloscope	Panel	ANT	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. 510	1.10kHz±0.10 kHz
*3: Refer to the “4.9.1 Necessary Deviation adjustment item for each signaling and mode” table.									

4.9.1 Necessary Deviation adjustment item for each signaling and mode

The following shows the necessary adjustment items for each signaling deviation. Please read the following table like the following example. In the case of the signaling “QT (Analog Wide)”, this signaling is composed of three elements [Balance, Maximum Deviation (Analog Wide) and QT Deviation (Analog Wide)]. Please adjust Balance and Maximum Deviation (Analog Wide) before adjusting QT Deviation (Analog Wide).

Mode	Signaling	Necessary adjustment and order		
		Wide	Narrow	Very Narrow
Analog	Audio	1. Balance adjust 2. Maximum Deviation [Analog Wide]	1. Balance adjust 2. Maximum Deviation [Analog Narrow]	-
	QT	1. Balance adjust 2. Maximum Deviation [Analog Wide] 3. QT Deviation [Analog Wide]	1. Balance adjust 2. Maximum Deviation [Analog Narrow] 3. QT Deviation [Analog Narrow]	-
	DQT	1. Balance adjust 2. Maximum Deviation [Analog Wide] 3. DQT Deviation [Analog Wide]	1. Balance adjust 2. Maximum Deviation [Analog Narrow] 3. DQT Deviation [Analog Narrow]	-
	LTR	1. Balance adjust 2. Maximum Deviation [Analog Wide] 3. LTR Deviation [Analog Wide]	1. Balance adjust 2. Maximum Deviation [Analog Narrow] 3. LTR Deviation [Analog Narrow]	-
	DTMF	1. Balance adjust 2. Maximum Deviation [Analog Wide] 3. DTMF Deviation [Analog Wide]	1. Balance adjust 2. Maximum Deviation [Analog Narrow] 3. DTMF Deviation [Analog Narrow]	-
	2TONE	1. Balance adjust 2. Maximum Deviation [Analog Wide] 3. Single TONE Deviation [Analog Wide]	1. Balance adjust 2. Maximum Deviation [Analog Narrow] 3. Single TONE Deviation [Analog Narrow]	-
	MSK (Fleet sync)	1. Balance adjust 2. Maximum Deviation [Analog Wide] 3. MSK Deviation [Analog Wide]	1. Balance adjust 2. Maximum Deviation [Analog Narrow] 3. MSK Deviation [Analog Narrow]	-
P25		-	1. Balance adjust 2. P25 High Deviation 3. P25 High Deviation (H-CPM)	-
NXDN	Audio	-	1. Balance adjust 2. High Deviation [NXDN Narrow]	1. Balance adjust 2. High Deviation [NXDN Very Narrow]
	CWID	-	-	1. Balance adjust 2. High Deviation [NXDN Very Narrow] 3. CWID Deviation [NXDN Very Narrow]

- Balance is common with all the above deviation adjustments. If Balance (Transmitter Section 12) has already adjusted, please skip Step1 and adjust from Step2.
- Maximum Deviation (Analog Wide/Narrow) is common with all the analog signaling deviations. If Balance and Maximum Deviation (Analog Wide /Narrow) (Transmitter Section 13) have already adjusted, please skip Step2 and adjust from Step3.

4.10 Receiver Section

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. AF level setting	[Panel test mode] 1) CH-Sig: 1-1 SSG output: -47dBm (1mV) (MOD: 1kHz/ ±1.5kHz)	1) Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 SSG output: -47dBm (1mV) (MOD:1kHz/ ±1.5kHz)	SSG DVM AF VM Dummy load	Panel	ANT Ext. SP connector	Panel	[Panel tuning mode] [+], [-] [PC test mode] [←], [→]	Volume Up/Down knob to obtain 1.41V AF output. (0.5W @ 4Ω load)	1.41V ±0.1V
2. Sensitivity 2	1) Adj item: [An SENS2] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] Adjust:[***] Press [◯] key to store the adjustment value.	1) Adj item: [Sensitivity 2] 2) Adj item: [Low1], [Low3], [Center2], [High1], [High3] Press [Apply All] button to store the adjustment value.	SSG AF VM Dummy load	Panel	ANT Ext. SP connector	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	Write the value as followings. [Low1]: 80 (Fixed) [Low3]: 95 (Fixed)) [Center2]: 125 (Fixed) [High1]: 135 (Fixed) [High3]: 160 (Fixed)	
3. Sensitivity 1	1) Adj item: [An SENS1] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: -100dBm (2.2μV) (MOD: 1kHz/ ±1.5kHz) Adjust:[***] Press [◯] key to store the adjustment value.	1) Adj item: [Sensitivity 1] 2) Adj item: [Low1], [Low3], [Center2], [High1], [High3] SSG output: -100dBm (2.2μV) (MOD: 1kHz/ ±1.5kHz) Press [Apply All] button to store the adjustment value.	SSG AF VM Dummy load	Panel	ANT Ext. SP connector	Panel	[Panel tuning mode] [▲], [▼] [PC test mode] [←], [→]	1) The sub LCD display shows the RSSI value. Change the adjustment value to get maximum RSSI value. 2) Store the adjustment value. **Note:** In the PC test mode, you can also perform the Automatic adjustment. When the Automatic adjustment is performed in the PC test mode, a RSSI value is updated by press [Apply All] button. Press [Apply All] button after the adjustment and check the state of the newest RSSI.	
4. RSSI reference	1) Adj item: [An RRSSI] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level -3dB (MOD: 1kHz/±1.5kHz)	1) Adj item: [RSSI Reference (Analog Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level -3dB (MOD: 1kHz/±1.5kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
5. Open Squelch [Analog Wide]	1) Adj item: [Aw SQL] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -3dB (MOD:1kHz/±3kHz)	1) Adj item: [Open Squelch (Analog Wide)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level -3dB (MOD: 1kHz/±3kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	
[Analog Narrow]	1) Adj item: [An SQL] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -3dB (MOD:1kHz/±1.5kHz)	1) Adj item: [Open Squelch (Analog Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level -3dB (MOD: 1kHz/±1.5kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	
[P25 (C4FM)]	1) Adj item: [P1 SQL] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -1dB (MOD: 1kHz/±2.2kHz)	1) Adj item: [Open Squelch (P25 C4FM)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -1dB (MOD: 1kHz/±2.2kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	
[P25 (LSM)]	1) Adj item: [P1 SQL] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -3dB (MOD: 1kHz/±3.3kHz)	1) Adj item: [Open Squelch (P25 LSM)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -3dB (MOD: 1kHz/±3.3kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
[NXDN Narrow]	1) Adj item: [Nn SQL] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -1dB (MOD: 400Hz/ ±2.5kHz)	1) Adj item: [Open Squelch (NXDN Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -1dB (MOD: 400Hz/ ±2.5kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	
[NXDN Very Narrow]	1) Adj item: [Nv SQL] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -3dB (MOD: 400Hz/ ±1.2kHz)	1) Adj item: [Open Squelch (NXDN Very Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow -3dB (MOD: 400Hz/ ±1.2kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	
6. Low RSSI	1) Adj item: [An LRSSI] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: -118dBm (0.28μV) (MOD: 1kHz/ ±1.5kHz)	1) Adj item: [Low RSSI (Analog Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: -118dBm (0.28μV) (MOD: 1kHz/ ±1.5kHz)	SSG	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	
7. High RSSI	1) Adj item: [An HRSSI] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: -80dBm (22.4μV) (MOD: 1kHz/ ±1.5kHz)	1) Adj item: [High RSSI (Analog Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: -80dBm (22.4μV) (MOD: 1kHz/ ±1.5kHz)	SSG	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	

Item	Condition		Measurement			Adjustment			Specifications /Remarks
	Panel tuning mode	PC test mode	Test-equipment	Unit	Terminal	Unit	Parts	Method	
8. Tight Squelch [Analog Wide]	1) Adj item: [Aw SQLT] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow +6dB (MOD: 1kHz/ ±3kHz)	1) Adj item: [Tight Squelch (Analog Wide)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow +6dB (MOD: 1kHz/±3kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	
[Analog Narrow]	1) Adj item: [An SQLT] Adjust:[***] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow +6dB (MOD: 1kHz/ ±1.5kHz)	1) Adj item: [Tight Squelch (Analog Narrow)] 2) Adj item: [Low1]→ [Low3]→ [Center2]→ [High1]→ [High3] SSG output: 12dB SINAD level at Analog Narrow +6dB (MOD: 1kHz/ ±1.5kHz)	SSG Distortion meter Oscilloscope	Panel	ANT Ext. SP connector	Panel		**[Panel tuning mode]** After input signal from SSG, press [◯] key to store the adjustment value. **[PC test mode]** After input signal from SSG, press [Apply] button to store the adjustment value.	

SECTION 5
TROUBLESHOOTING

5.1 Fault Diagnosis of the BGA (Ball Grid Array) IC

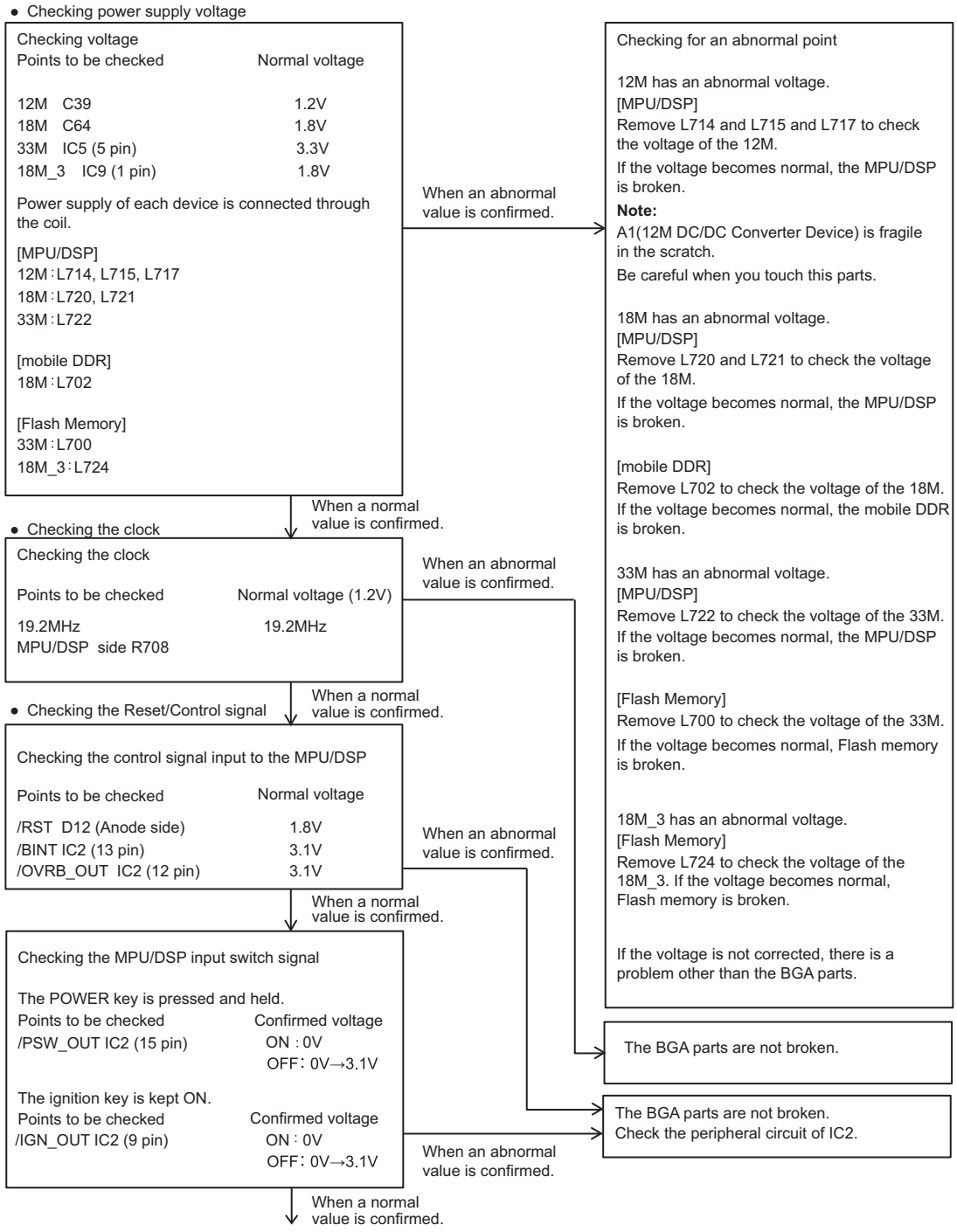
■Overview

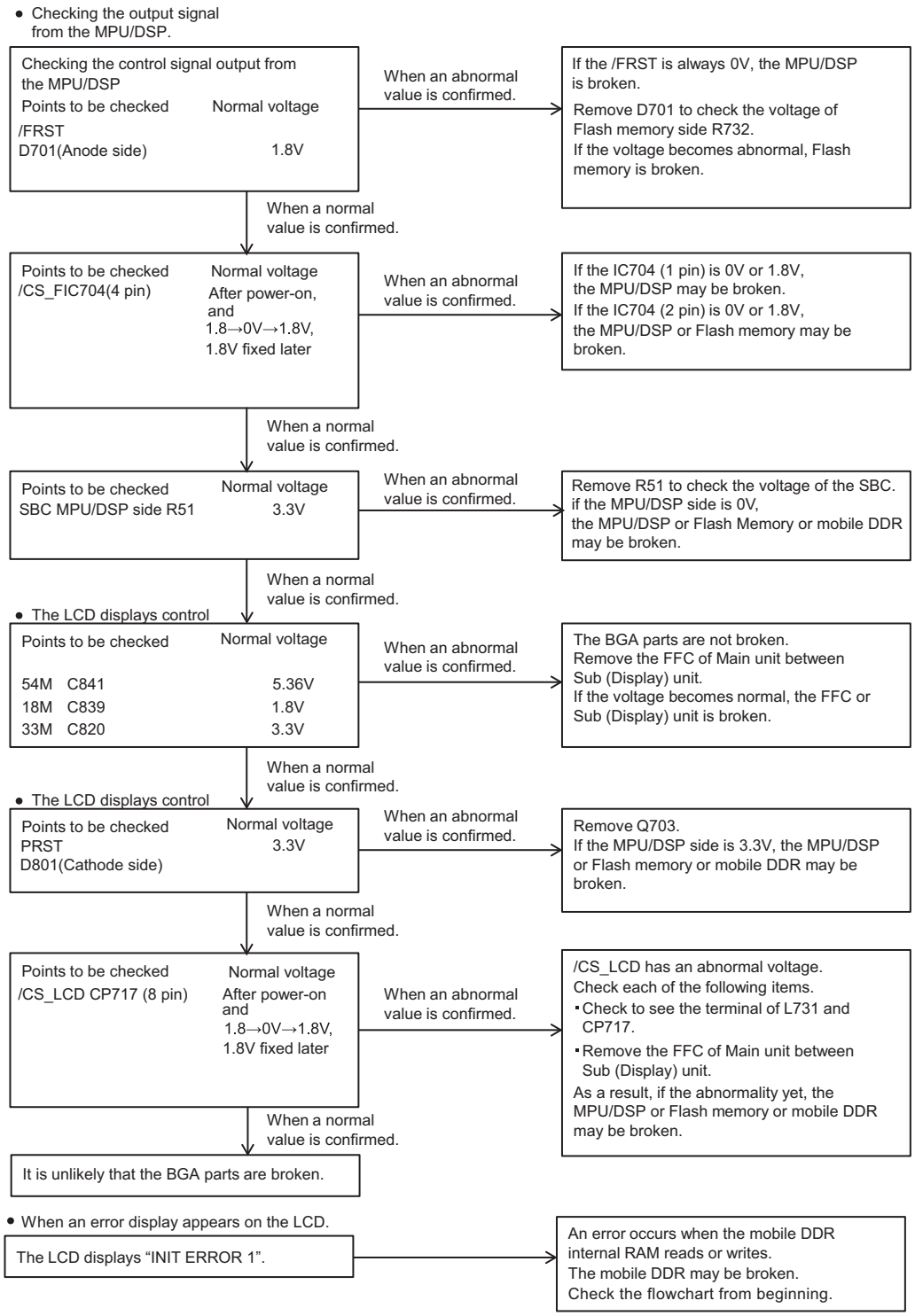
A flowchart for determining whether or not the transceiver can be powered on (the LCD does not function even if the power switch is turned on) due to broken BGA parts.

■BGA parts

MPU/DSP (IC706), mobile DDR (IC702), Flash memory (IC701)

When the BGA IC is problematic, please bring the printed circuit board (XC1-0381-81/XC1-0400-11) in for service. Various ESN/ default adjustment values are written on the printed circuit board for service.
Additionally various ESN stickers are included. (Please refer to "5.4 Replacing Main Unit".)
After the printed circuit board has been readjusted, please attach any ESN stickers to the chassis. When "ESN Validation" is used, you must modify the ESN register.





■Descriptions of signal names

(1) /RST	:MPU/DSP reset signal	LOW → Reset
(2) /BINT	:Battery final voltage monitoring	LOW → Final voltage
(3) /OVRB_OUT	:Battery overvoltage monitoring	LOW → Overvoltage
(4) /PSW_OUT	:Power switch signal	LOW → ON
(5) /IGN_OUT	:Ignition switch signal	LOW → ON
(6) /FRST	:Flash Memory reset signal	LOW → Reset
(7) /CS_F	:Flash Memory chip select signal	LOW → Active
(8) SBC	:Switch +B control	HIGH → ON
(9) 30LCD	:LCD module control 3.0V power supply	
(10) PRST	:LCD reset signal	LOW → Reset
(11) /CS_LCD	:LCD controller chip select signal	LOW → Active

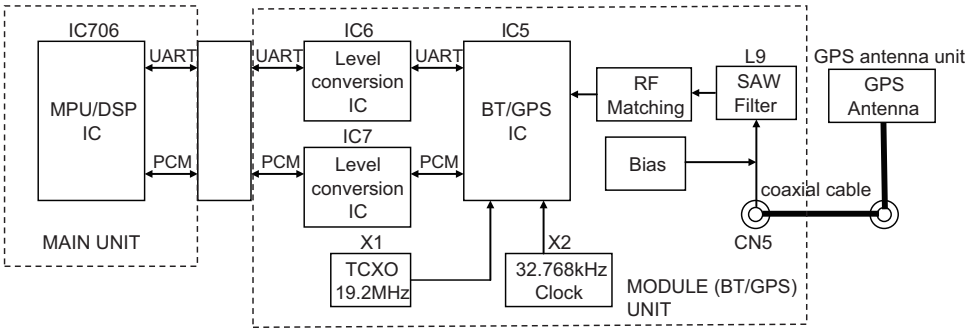
5.2 Failure diagnosis of the GPS section

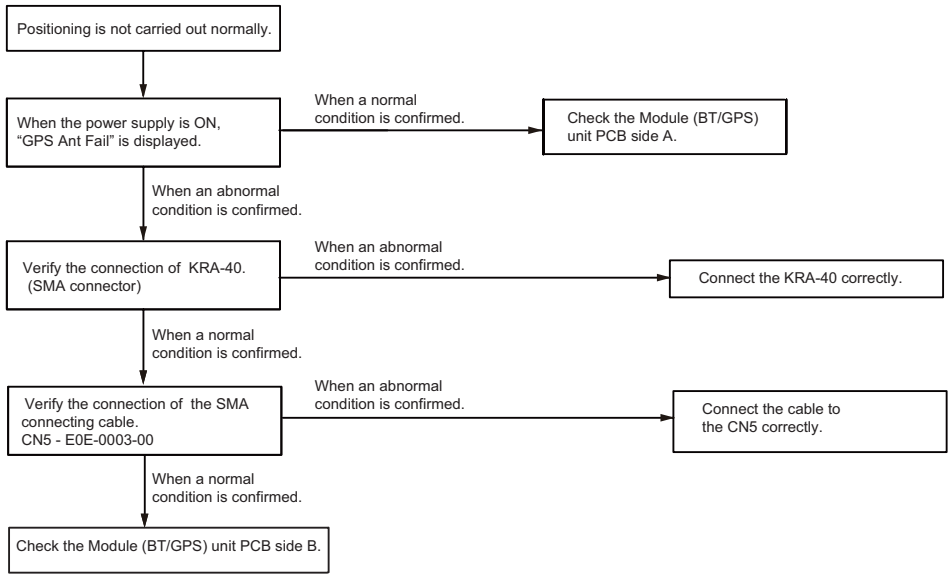
Over view:

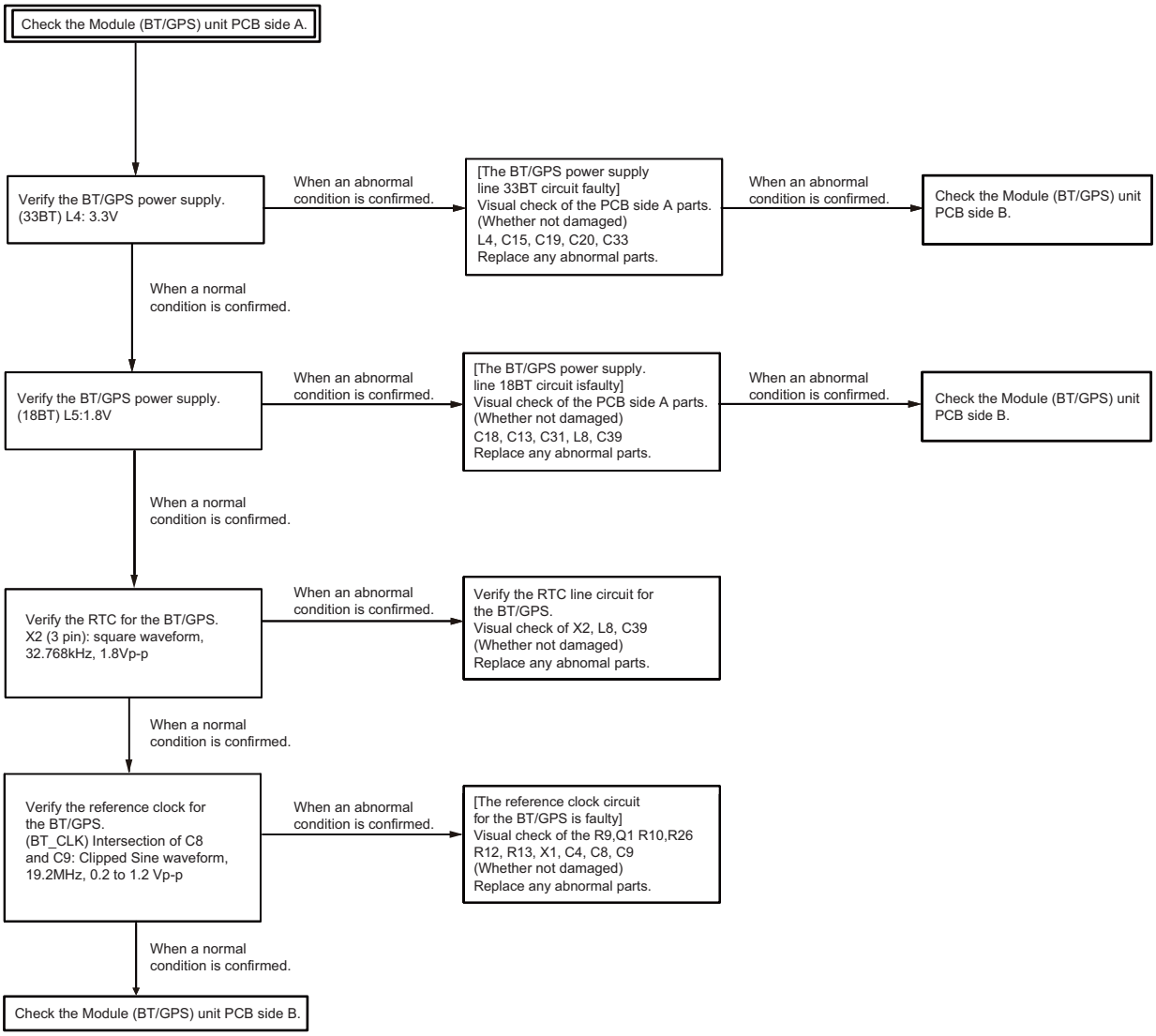
When the GPS function does not operate, use this flowchart to determine the problem.

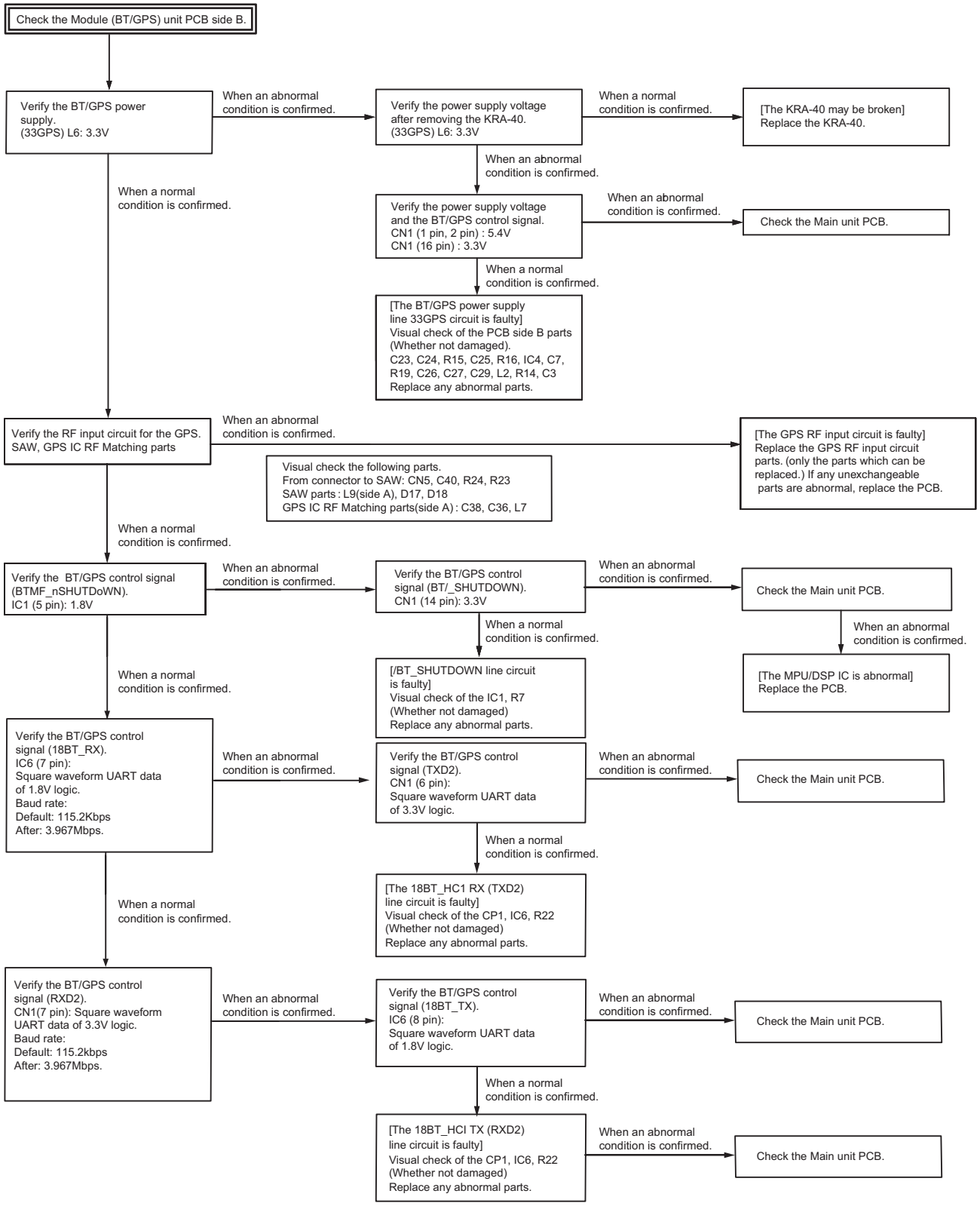
Major parts for a GPS circuit

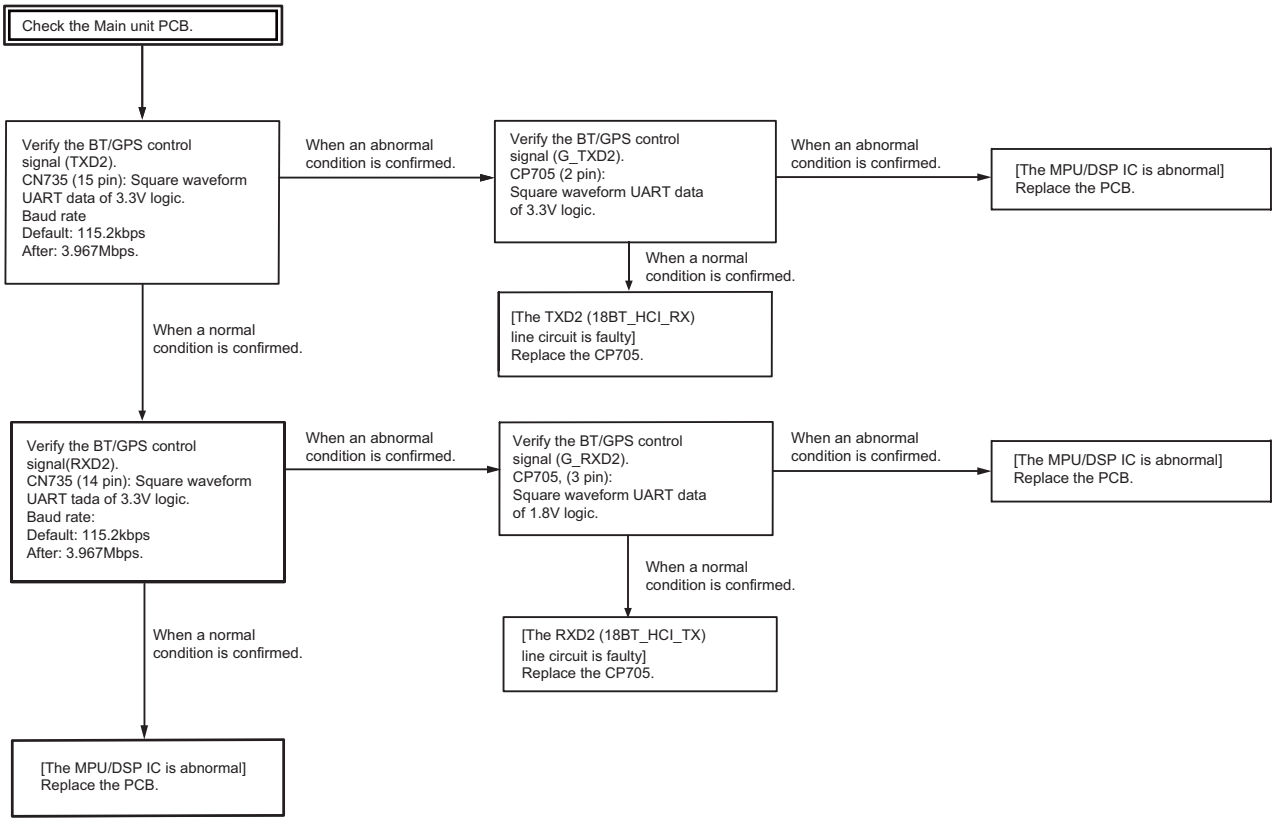
- GPS antenna (KRA-40 (option))
- Coaxial cable (E0E-0003-00)
- SAW Filter (L9)
- Bluetooth/GPS IC (IC5)
- Level conversion IC (IC6,IC7)
- TCXO 19.2MHz (X1)
- 32.768kHz clock (X2)
- 33BT Regulator (IC3)
- 18BT Regulator (IC2)
- 33GPS Regulator (IC4)
- MPU/DSP IC (IC706)






Check the Module (BT/GPS) unit PCB side A.
Verify the BT/GPS power supply.
(33BT) L4: 3.3V
When an abnormal condition is confirmed.
[The BT/GPS power supply line 33BT circuit faulty]
Visual check of the PCB side A parts.
(Whether not damaged)
L4, C15, C19, C20, C33
Replace any abnormal parts.
When an abnormal condition is confirmed.
Check the Module (BT/GPS) unit PCB side B.
When a normal condition is confirmed.
Verify the BT/GPS power supply.
(18BT) L5:1.8V
When an abnormal condition is confirmed.
[The BT/GPS power supply.
line 18BT circuit isfaulty]
Visual check of the PCB side A parts.
(Whether not damaged)
C18, C13, C31, L8, C39
Replace any abnormal parts.
When an abnormal condition is confirmed.
Check the Module (BT/GPS) unit PCB side B.
When a normal condition is confirmed.
Verify the RTC for the BT/GPS.
X2 (3 pin): square waveform,
32.768kHz, 1.8Vp-p
When an abnormal condition is confirmed.
Verify the RTC line circuit for the BT/GPS.
Visual check of X2, L8, C39
(Whether not damaged)
Replace any abnomal parts.
When a normal condition is confirmed.
Verify the reference clock for the BT/GPS.
(BT_CLK) Intersection of C8 and C9: Clipped Sine waveform,
19.2MHz, 0.2 to 1.2 Vp-p
When an abnormal condition is confirmed.
[The reference clock circuit for the BT/GPS is faulty]
Visual check of the R9,Q1 R10,R26 R12, R13, X1, C4, C8, C9
(Whether not damaged)
Replace any abnormal parts.
When a normal condition is confirmed.
Check the Module (BT/GPS) unit PCB side B.


Check the Module (BT/GPS) unit PCB side B.
Verify the BT/GPS power supply.
(33GPS) L6: 3.3V
When an abnormal condition is confirmed.
Verify the power supply voltage after removing the KRA-40.
(33GPS) L6: 3.3V
When a normal condition is confirmed.
[The KRA-40 may be broken]
Replace the KRA-40.
When an abnormal condition is confirmed.
When a normal condition is confirmed.
Verify the power supply voltage and the BT/GPS control signal.
CN1 (1 pin, 2 pin) : 5.4V
CN1 (16 pin) : 3.3V
When an abnormal condition is confirmed.
Check the Main unit PCB.
When a normal condition is confirmed.
[The BT/GPS power supply line 33GPS circuit is faulty]
Visual check of the PCB side B parts (Whether not damaged).
C23, C24, R15, C25, R16, IC4, C7, R19, C26, C27, C29, L2, R14, C3
Replace any abnormal parts.
Verify the RF input circuit for the GPS.
SAW, GPS IC RF Matching parts
When an abnormal condition is confirmed.
[The GPS RF input circuit is faulty]
Replace the GPS RF input circuit parts. (only the parts which can be replaced.) If any unexchangeable parts are abnormal, replace the PCB.
Visual check the following parts.
From connector to SAW: CN5, C40, R24, R23
SAW parts : L9(side A), D17, D18
GPS IC RF Matching parts(side A) : C38, C36, L7
When a normal condition is confirmed.
Verify the BT/GPS control signal (BTMF_nSHUTDoWN).
IC1 (5 pin): 1.8V
When an abnormal condition is confirmed.
Verify the BT/GPS control signal (BT/_SHUTDOWN).
CN1 (14 pin): 3.3V
When an abnormal condition is confirmed.
Check the Main unit PCB.
When an abnormal condition is confirmed.
When a normal condition is confirmed.
[/BT_SHUTDOWN line circuit is faulty]
Visual check of the IC1, R7 (Whether not damaged)
Replace any abnormal parts.
[The MPU/DSP IC is abnormal]
Replace the PCB.
When a normal condition is confirmed.
Verify the BT/GPS control signal (18BT_RX).
IC6 (7 pin):
Square waveform UART data of 1.8V logic.
Baud rate:
Default: 115.2Kbps
After: 3.967Mbps.
When an abnormal condition is confirmed.
Verify the BT/GPS control signal (TXD2).
CN1 (6 pin):
Square waveform UART data of 3.3V logic.
When an abnormal condition is confirmed.
Check the Main unit PCB.
When a normal condition is confirmed.
[The 18BT_HC1 RX (TXD2) line circuit is faulty]
Visual check of the CP1, IC6, R22 (Whether not damaged)
Replace any abnormal parts.
When a normal condition is confirmed.
Verify the BT/GPS control signal (RXD2).
CN1(7 pin): Square waveform UART data of 3.3V logic.
Baud rate:
Default: 115.2kbps
After: 3.967Mbps.
When an abnormal condition is confirmed.
Verify the BT/GPS control signal (18BT_TX).
IC6 (8 pin):
Square waveform UART data of 1.8V logic.
When an abnormal condition is confirmed.
Check the Main unit PCB.
When a normal condition is confirmed.
[The 18BT_HCI TX (RXD2) line circuit is faulty]
Visual check of the CP1, IC6, R22 (Whether not damaged)
Replace any abnormal parts.
When an abnormal condition is confirmed.
Check the Main unit PCB.



■Descriptions of signal names

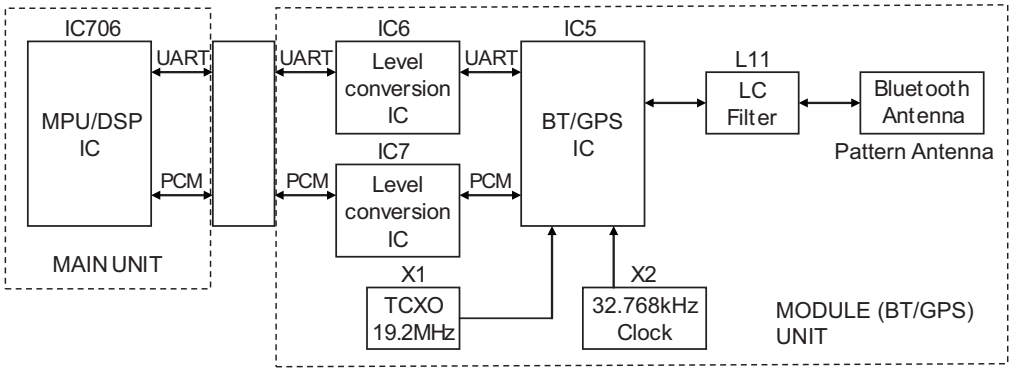
(1) 33BT: BT/GPS IC 3.3V power supply
(2) 18BT: BT/GPS IC 1.8V power supply
(3) 33GPS: BT/GPS IC 3.3V power supply
(4) TXD2: BT/GPS serial data line connected to UART TX of MPU/DSP IC (MPU/DSP to BT/GPS IC)
(5) RXD2:BT/GPS serial data line connected to UART RX of MPU/DSP IC (MPU/DSP to BT/GPS IC)
(6) 18BT_HCI_RX: BT/GPS serial data line connected to UART RX of BT/GPS IC (MPU to BT/GPS IC)
(7) 18BT_HCI_TX: BT/GPS serial data line connected to UART TX of GPS IC (BT/GPS IC to MPU)
(8) /BT_SHUTDOWN: BT/GPS active control of MPU/DSP IC (MPU/DSP to BT/GPS IC) High → Active, Low → Reset

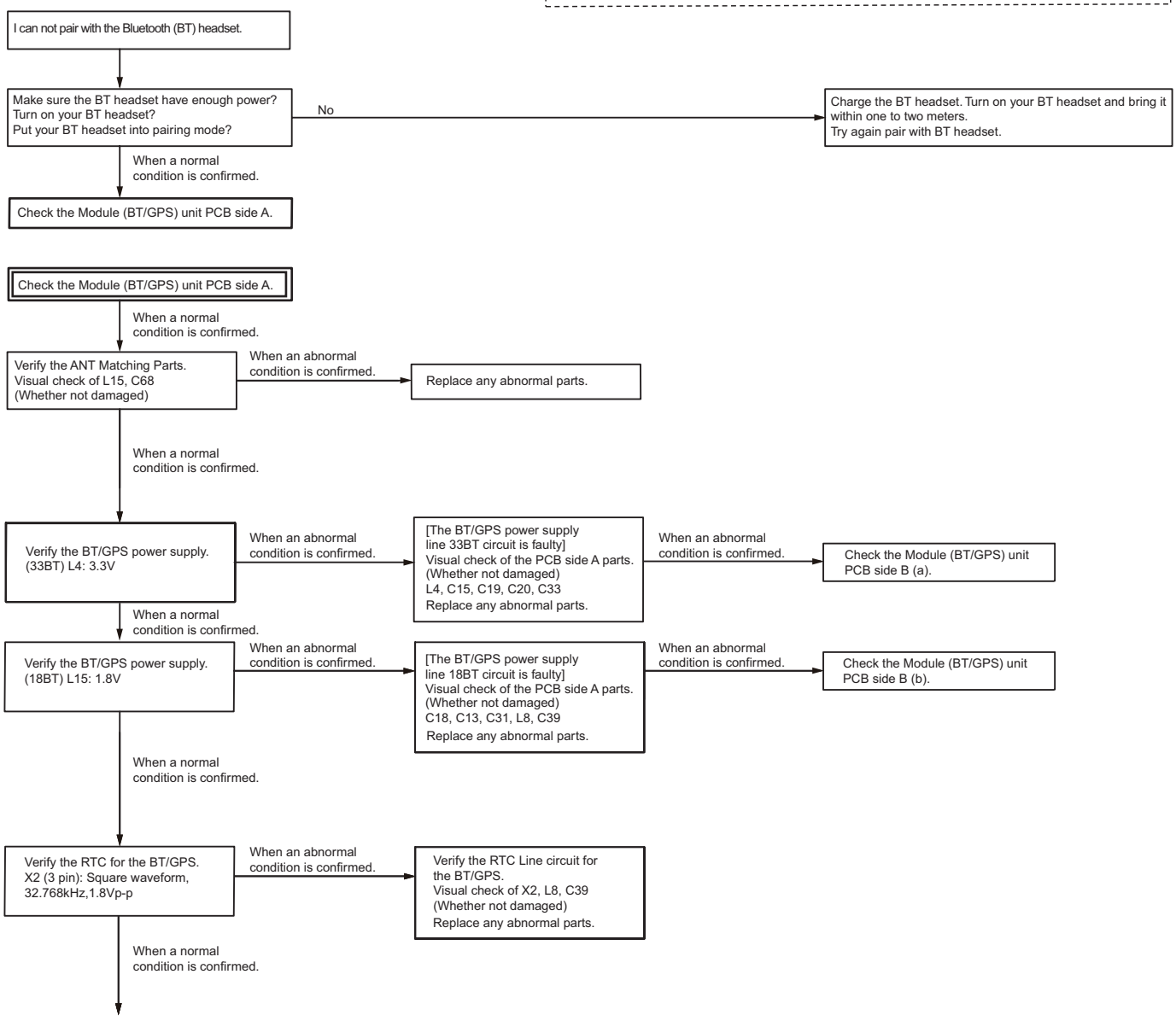
5.3 Failure diagnosis of the Bluetooth section

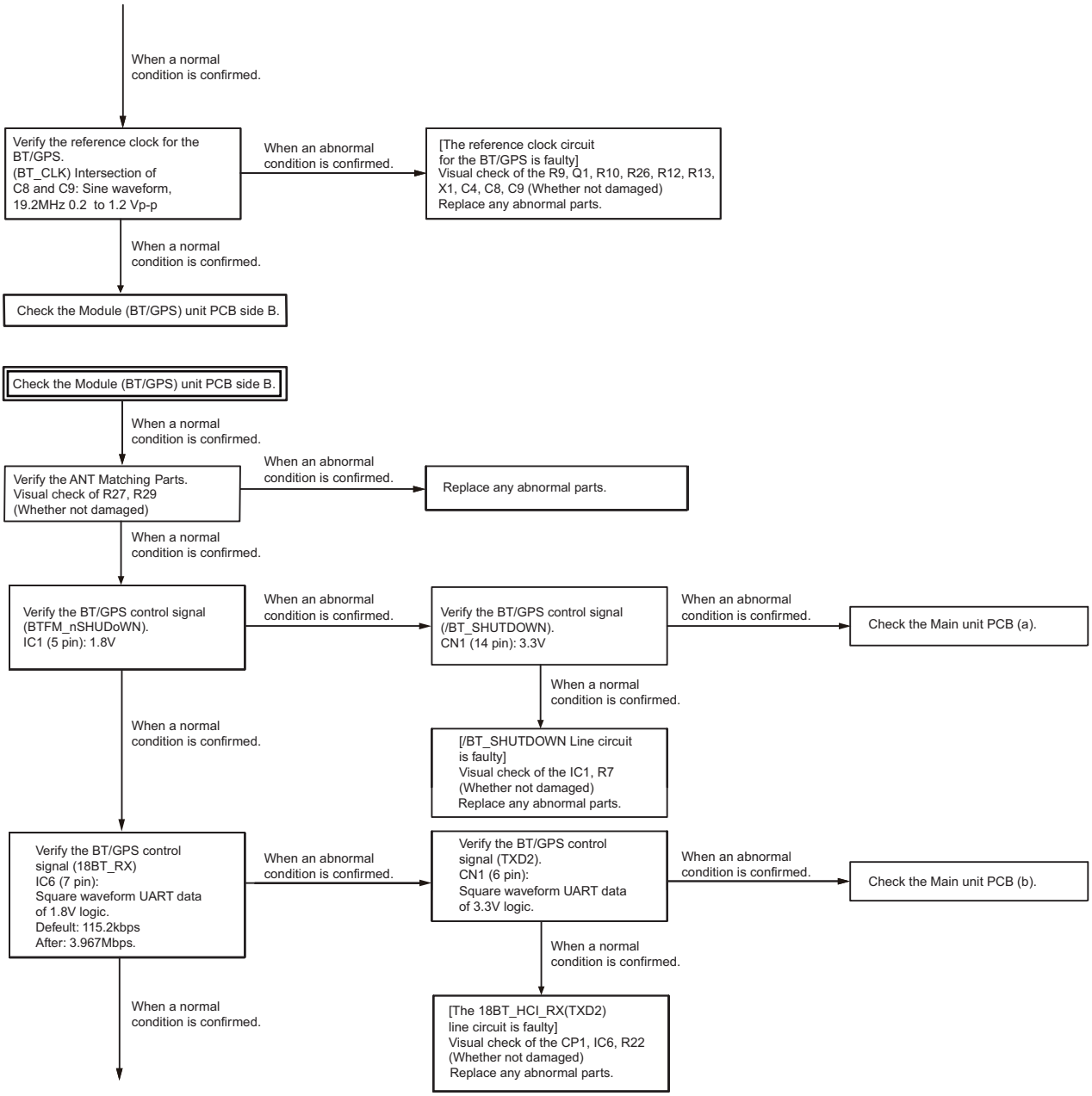
Over view:

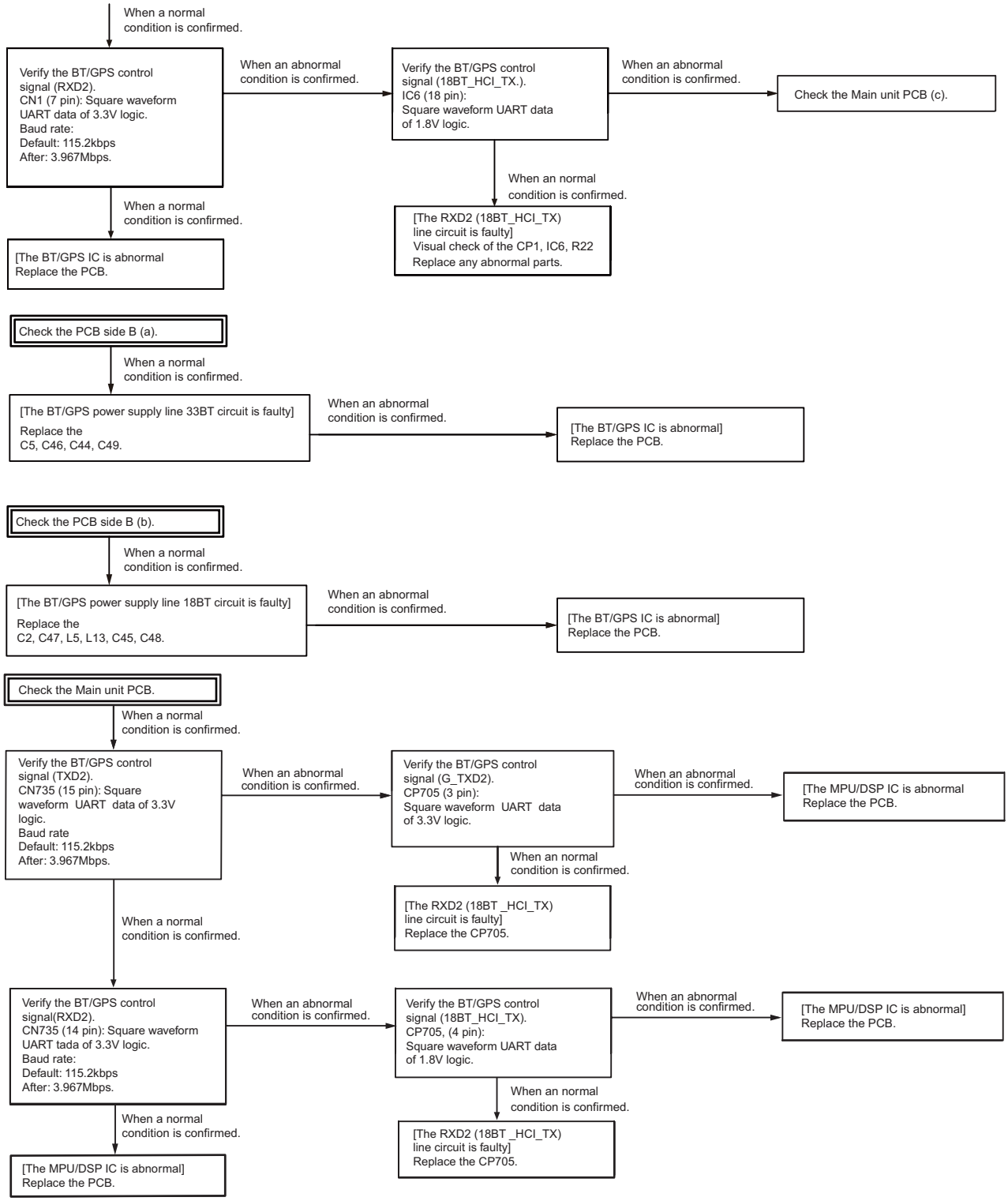
When the Bluetooth function does not operate, use this flowchart to determine the problem.

Major parts for a Bluetooth circuit
- Bluetooth antenna (Pattern Antenna)
- LC filter (L11)
- Bluetooth/GPS (IC5)
- Level conversion IC (IC6, IC7)
- TCXO 19.2MHz (X1)
- 32.768kHz clock (X2)
- 33BT Regulator (IC3)
- 18BT Regulator (IC2)
- MPU/DSP IC (IC706)






When a normal condition is confirmed.
Verify the reference clock for the BT/GPS.
(BT_CLK) Intersection of C8 and C9: Sine waveform, 19.2MHz 0.2 to 1.2 Vp-p
When an abnormal condition is confirmed.
[The reference clock circuit for the BT/GPS is faulty]
Visual check of the R9, Q1, R10, R26, R12, R13, X1, C4, C8, C9 (Whether not damaged)
Replace any abnormal parts.
When a normal condition is confirmed.
Check the Module (BT/GPS) unit PCB side B.
Check the Module (BT/GPS) unit PCB side B.
When a normal condition is confirmed.
Verify the ANT Matching Parts.
Visual check of R27, R29
(Whether not damaged)
When an abnormal condition is confirmed.
Replace any abnormal parts.
When a normal condition is confirmed.
Verify the BT/GPS control signal (BTFM_nSHUDoWN).
IC1 (5 pin): 1.8V
When an abnormal condition is confirmed.
Verify the BT/GPS control signal (/BT_SHUTDOWN).
CN1 (14 pin): 3.3V
When an abnormal condition is confirmed.
Check the Main unit PCB (a).
When a normal condition is confirmed.
[/BT_SHUTDOWN Line circuit is faulty]
Visual check of the IC1, R7
(Whether not damaged)
Replace any abnormal parts.
When a normal condition is confirmed.
Verify the BT/GPS control signal (18BT_RX)
IC6 (7 pin):
Square waveform UART data of 1.8V logic.
Defeult: 115.2kbps
After: 3.967Mbps.
When an abnormal condition is confirmed.
Verify the BT/GPS control signal (TXD2).
CN1 (6 pin):
Square waveform UART data of 3.3V logic.
When an abnormal condition is confirmed.
Check the Main unit PCB (b).
When a normal condition is confirmed.
[The 18BT_HCI_RX(TXD2) line circuit is faulty]
Visual check of the CP1, IC6, R22
(Whether not damaged)
Replace any abnormal parts.
When a normal condition is confirmed.



■Descriptions of signal names

1) 33BT: BT/GPS IC 3.3V power supply
2) 18BT: BT/GPS IC 1.8V power supply
3) TXD2: BT/GPS serial data line connected to UART TX of MPU/DSP IC (MPU/DSP to BT/GPS IC)
4) RXD2:BT/GPS serial data line connected to UART RX of MPU/DSP IC (MPU/DSP to BT/GPS IC)
5) 18BT_HCI_RX: BT/GPS serial data line connected to UART RX of BT/GPS IC (MPU to BT/GPS IC)
6) 18BT_HCI_TX: BT/GPS serial data line connected to UART TX of GPS IC (BT/GPS IC to MPU)
7) /BT_SHUTDOWN: BT/GPS active control of MPU/DSP IC (MPU/DSP to BT/GPS IC) High →Active, Low→Reset

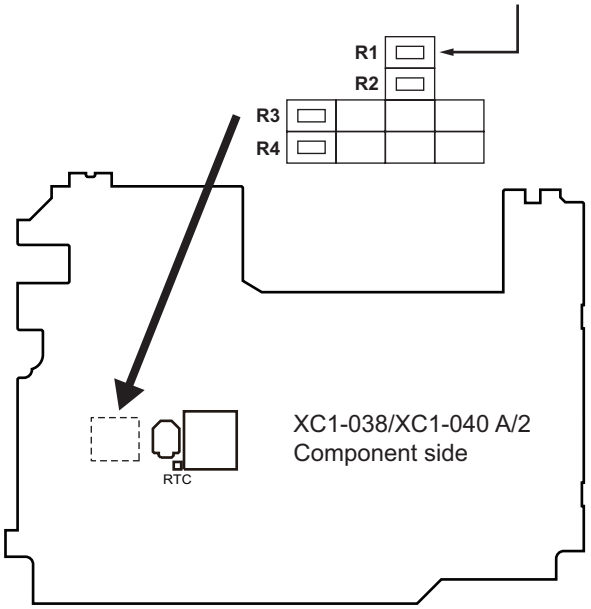
5.4 Replacing Main Unit

■Main unit Information

Model Name	Original Main unit Number	For Service Main unit Number
NX-5700 (F)	XC1-0381-80	XC1-0381-81
NX-5700 (K)	XC1-0400-10	XC1-0400-11

■Method of confirming "Original Main unit" and "Service Main unit"

The 0Ω resistor (R1) is mounted on the "R1" silk print part of the Service Main unit (XC1-0381-81/XC1-0400-11).



XC1-038	XC1-040	R1	R2	R3	R4
1-80	0-10	(None)	0Ω	0Ω	(None)
1-81	0-11	0Ω	0Ω	0Ω	(None)

Note:

- The 0Ω resistor (R1, R2, R3, R4) is used to differentiate the destination with a visual check. These are not connected with any PCB pattern; they are specifically for production control. There is no need to change the mount of these resistors.
- There is no difference between the schematic diagram of the Service Main unit (XC1-0381-81/XC1-0400-11) and the schematic diagram of the original Main unit (XC1-0380-80/XC1-0400-10). (R1, R2, R3 and R4 are connected with GND (ground) only.)

■Supplied Accessories of "Service Main unit"

Item (Including Parts Number)	Quantity
Main Unit (XC1-038, XC1-040)	1
KENWOOD ESN/ NXDN ESN/ Product Number/ MPT ESN/ P25 ESN Label	1

■Service Main unit" Data

The following data is written on the service unit:

Data Type	Desctiption
Firmware	NX-5700 Firmware.
FPU Data (PC programming mode)	XC1-038, XC1-040 (NX-5700) data.
Various Adjustment Data (PC Test mode)	General adjustment values for the XC1-038, XC1-040 (NX-5700).
KENWOOD ESN	Model name: [XC1-038, XC1-040] NX-5700S Type: F (XC1-038), K (XC1-040) The same number as the KENWOOD ESN label is written.
NXDN ESN/MPT ESN/ Product number/ P25 ESN	The same number as the NXDN ESN/ MPT ESN/Product Number/P25 ESN label is written.

■After Changing the PCB

(1) After changing the printed circuit board, write the up-to-date Firmware following the instructions in the "2.2 RE-ALIGNMENT - 2.2.6 Firmware Programming Mode".
  - Write the Firmware in accordance to the Market. If you write different Market Firmware, there are times communication with the FPU is not possible.

(2) Using the KPG-D1/D1N, select your desired item (Model Name and Frequency) from the Model> Product Information menu, then use Program> Write Data to the Transceiver to write the FPU data (PC Programming mode). When writing to the transceiver, 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 "SECTION 4 ADJUSTMENT".

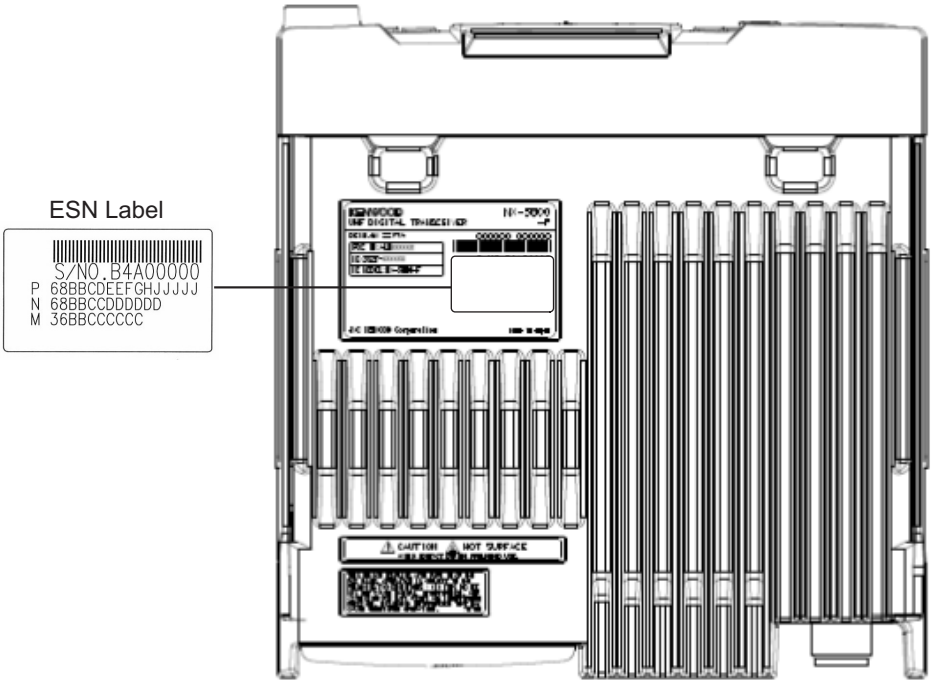
(4) Attach the new labels corresponding to the new printed circuit board. (Refer to the images below for label placement.)

(5) If necessary, write the FPU data used by the customer with the KPG-D1/D1N.

Note:

- When using the ESN Validation function of NXDN Trunking, the NXDN ESN number changes when the circuit board is changed (the number is written on the circuit board); the NXDN Trunking System cannot be accessed. Use the KPG-110SM on the NXDN Trunking System side to reprogram the NXDN ESN number.
- When a new printed circuit board is used, the KENWOOD ESN changes, as does the Transceiver Information display of the KPG-D1/D1N, but this does not have any effect on the operation of the transceiver.
- If changing to the original ESN, please contact our service center.

■ESN Label Layout



MEMO

SCHEMATIC DIAGRAM

■ MAIN UNIT (XC1-0381-80 (NX-5700B(F)), XC1-0400-10 (NX-5700(K), NX-5700B(K)))

MAIN UNIT (XC1-038,XC1-040)

20V DC/DC

POWER MANAGEMENT

OMAP

SDRAM

FLASH ROM

MPU

SCM/BEE

CODEC

8bit/8ch DAC E-Vol

12bit/4ch DAC

Local Filter

TX (E23-1278-05)

RX (E23-1278-05)

Control (E23-1278-05)

MODULE UNIT(BTGPS)(XC2-003, XC2-004) CN1

SUB UNIT(DISPLAY),XC3-007) CN6

SUB UNIT (DISPLAY) (XC3-007)/CN2

Option20pin

SPO/SB1

EXT.SP

D-Sub25

MAIN UNIT(B/2)(XC1-038,XC1-040)

(No.RA020<Rev.001>) 2-1

BLOCK DIAGRAM

■ MAIN, MODULE (BT/GPS) UNIT

Main Unit (XC1-038, XC1-040 A/2)

microSD slot

J700

/SD_DET
SD1_CLK
SD1_CMD
SD1_DAT[0-3]

33SD

IC702 DDR — 18M

DDR_A[0]~DDR_A[13]
DDR_BA[0],DDR_BA[1]
DDR_CAS,DDR_CKE,DDR_CLKN
DDR_CLKP,DDR_CS
DDR_DQM[0],DDR_DQM[1]
DDR_RAS,DDR_WE
DDR_DQS[0],DDR_DQS[1]
DDR_D[0]~DDR_D[15]

IC706

IC701 FLASH — 33M

/CS2,/CS_F,/FRST,/OE,/WP,/WR
ADD[0]~ADD[23]
DATA[0]~DATA[15]

/CS_F

IC704 TC7SZ08FE

/CS2
/CS3

X705 L77-3123-05 19.2MHz
Q700 2SC4617/S/
IC703 CDC3S04YFF

FCNT → TCXO → Buffer → Clock Buffer

33M 33M 33M 18M

/RST
IF_CLK_EN
IF_MAIN_CLK
PLL_CLK

CN749

54M
33M
18M

L726,L728,L729,L730,L731
L79-1984-05

DC,/CS_LCD,/RD_LCD,/WR_LCD
D[0]~D[15]

/CS4,/OE,/WR,ADD[23]
DATA[0]~DATA[15]

PRST,PRST_MON,/KEYINT,I2CCK,I2CDT,USB0_DM,USB0_DP,RXD0,TXD0
/PTT

R_SET0,R_SET1,R_SET2

IC711 I/O EXPANDER — 33M

GPS_PA_EN
/BT_SHUTDOWN
/SD_DET
UART2_SW1
UART2_SW2
UART2_SW3
ESP_DET
IF_CLK_EN
PRSR_MON

I2CCK
I2CDT
UMode
/INT_IO

/DM_EN
DM/KVL
DM_OUT
DM_IN
IC708 TC75ET125FUF
IC710 TC75Z08FE
2909,910 2SC4738(GR)F 2SA1832(GR)F
2925,926 DA3S101F
LIMIT

MIC
ME
AFO+
AFO-

IC913 BUF242UNX 2/2 — 33A

IC902 TLV32AIC3104I — CODEC

VCO_MOD
MI2
ME2
DI
DEO

IC903 BUF242UNX 2/2 — 50A
AFO
AFO_D

CODEC_DI,CODEC_DO
I2CCK,I2CDT,/CRST
BCLK,WCLK,MCLK

18M_3 33A

CN910

SB2
SB2
IC911 LA4425A
SPAF_3
SPAF
IC903 BUF242UNX 1/2 — 50A
AFO_SP

SPO
PA
HOR

Q902 LTC014TEBFS8
SW
AF_MUTE

EXT SP

J900

ESP_DET
Q905 SSM3K335R
SW
EXTSP_EN

D909 DA3S101F
IC900 TC7SET08FUF
Q906 SSM3J332R
SW
IC908 TC7WH14FK-F

D901 DA3S101F
IC912 TC7SET08FUF
Q901 SSM3J332R
SW

CN900

SPO
SPG
SB1
Q900 SSM3K335R
SW
INTSP_EN

To SUB (Display) Unit (XC3-007)

Main Unit
(XC1-038, XC1-040 B/2)

CN907 CN906

D916,D917
D921,D922
DA2J101
DZ2J106(M)
VOLTAGE PROTECT
INV
AUXO1
AUXO2
Q907,Q908 SSM3K335R

SURGE PROTECT

MI2
ME2
DI
DEO
AFO
AO1
AO2
AIO[1-9]

/BER_EN
20o_CLK
/BER_EN
20o_DX
IC905 TC7WT125FUE
IC910 PCA9555AHF
I/O EXPANDER
PA
HOR
50A
/INT25P

IC906 TC7WBD125AFK
LEVEL SHIFT
I2CCK,I2CDT
50A

TXD2/ AUXIO9
RXD2/DI
IC907 BD11600NUX
DPDT SW
AIO9
IC905 TC7SET125FUF
P_TXD2
D33_TXD2
D33_RXD2
P_RXD2
DI
50A UART2_SW3

IC708 BD11600NUX
DPDT SW
G_TXD2
G_RXD2
33M UART2_SW2

IC707 BD11600NUX
DPDT SW
TXD2
RXD2
33M UART2_SW1

SB1
50A

RXD0
TXD0
RTS0
CTS0
IC909 ADM3202ARUZ
RS-232C Driver
33M
RXD1
TXD1
RTS1
CTS1

CN4
IC18 XC61CN5002N-G
VOLTAGE DETECT
Q7 LTC014TEBFS8
/IGN

IGN

---SD(J700)---
SD1_DAT[0]~SD1_DAT[3],SD1_CLK,SD1_CMD
---PLL(IC100)---
SDO1,PLL_MOD,PLD
---DPDT SW(IC714)
/PCS,SCK1,/DMOD_CS,BCLK,TX_PLL_SEL
---BT/GPS IC(XC2-003/004 IC5)---
/BT_SHUTDOWN,GPS_PA_EN
---TX---
ANTSW,/DSW,TXC,ASSW
---IFIC(IC600)---
/IF_REG,IF_CLK,/IF_CS,IF_DI,2nd_VCO
---ADC(IC712),IFIC(IC600)---
SDI0
---DAC(IC715),DAC(IC719),IFIC(IC600),ADC(IC712)---
SCK0,SDO0
---ADC(IC712)---
/ADC
---DAC(IC715)---
/DACCS
---DAC(IC719)---
/EVCS
---5V AVR(IC17)---
RXC
---5V AVR(IC12),DC SW(Q6,Q11)---
SBC_2
---DC SW(Q12)---
/SAVE
---3.3V AVR(IC7)---
SD_EN

IC714 BD11600NUX
DPDT SW
/PCS
SCK1
/DMOD_CS
BCLK
/PCS_RF
P_SCK1
33M TX_PLL_SEL

IC712 ADS7961SRHB
ADC
/ADC
SDI0
SCK0,SDO0
CV,Ramp_Offset,BLVL,THP1,THP2
TEMP,REV,GPS_PWR,GPS_ALM

IC715 DAC124S085CIS
DAC
/DACCS
APC,ASSIST,FCNT

IC719 R2A20178NP
DAC
E-Vol
/EVCS
MP,SPC,TV1,TV2,SPAF,SPAF_3

IC2 MSP430G2533P0
Power Managment
/OVRB_OUT,/IGN_OUT,/PSW_OUT
PWR_CAN,BINT2,/RST,/BINT
/OVRB
P_TXD2
P_RXD2
BAT_CNT
/IGN
/PSW
31BU

GPS_ANT_SW,WCLK,BCLK,BT_AUD_DI,BT_AUD_DO
RTS2,CTS2,BT_SW

CN735 CN1

/BT_SHUTDOWN,GPS_PA_EN
RXD2,TXD2
RTS2,CTS2
BT_AUD_DI,BT_AUD_DO
WCLK,BCLK

GPS_PWR,GPS_ALM
BT_SW,GPS_ANT_SW

GPS_PWR
GPS_ALM
GPS_PA_EN
/BT_SHUTDOWN
G_TXD2
G_RXD2
54M

54M

Module (BT/GPS) Unit (XC2-003, XC2-004)

X2 L77-3121-05 32.768kHz
IC5
33BT 18BT
XO
Q1 EM6M2
DC SW
33BT
TXCO
X1 L77-3123-05 19.2MHz
BLUETOOTH GPS
Bluetooth 2400-2483.5 MHz
L11 L79-1987-05
BPF
GPS 1575.42MHz
L9 L79-1985-05
BPF
33GPS
ANT DET
GPS_PWR GPS_ALM

BTFM_nSHUTDoWN,GPS_PA_EN
18BT_HCI_TX,18BT_HCI_RX
18BT_HCI_CTS,18BT_HCI_RTS
18BT_AUD_OUT,18BT_AUD_IN
18BT_AUD_FSYNC,18BT_AUD_CLK

BT_SW
IC2 BU18TD2WNVX
1.8V AVR
18BT
54M
IC3
3.3V AVR
33BT
GPS_ANT_SW
IC4 NJM2878F4-33
3.3V AVR
33GPS

/BT_SHUTDOWN,GPS_PA_EN
RXD2,TXD2
RTS2,CTS2
BT_AUD_DI,BT_AUD_DO
WCLK,BCLK

LEVEL SHIFT
18BT
33BT
IC1 IC6 IC7 74AVC4TD245GU

GPS_PWR,GPS_ALM
BT_SW,GPS_ANT_SW

/TX_REG
Q102 EMD9
50CS
DC SW
Q100 LTA014YEBFS8
Q101 SSM3K15AMFV
50CS
DC SW
SW
RX BPF
TX BPF
SW
D101 RN262CS
D102 RN262CS
D114 RN262CS
D115 RN262CS
Q106 2SC5108F/Y/
Fin AMP
50CS

IC100 SKY72310362LF
Fin
33C
50C
IC101 TC7SH17FUF
PLD
PLL_CLK
PLL_MOD
SDO1
/PCS_CS
P_SLK1
PLL
Loop Filter
IC102 BA2904FVM 1/2
CV
50C

VCO_MOD
Q107 MCH3914-H/7/
D104 SMV1212-079LF
D106,108,111 SMV1801-079LF
TX VCO
Q108 EM6M2
/T_R
DC SW
Q109 SSM3J19FS
DC SW
RX VCO
Q105 MCH3914-H/7/
D103 SMV1270-079LF
D107,109,110 SMV1801-079LF

Q110 2SC5108F/Y/
BUFF
Q104 DSC9A01/T/ 1SS400SM
Ripple Filter
50CS

CPL

Q111 2SC5108F/Y/
BUFF
50CS

D300 RN262CS
D500 RN262CS
T/R SW

IC300
DRIVE AMP
Q14 EM6M2
DC SW
ASSW
50CT

Q300 RD01MUS2-T113
DRIVE AMP
90T
Gate Bias 1

IC302 RA60H1317M1B
RF POWER MODULE
Gate Bias 2
+B

COUPLER

IC304 AD8315ARM
PA CTRL
50CT
APC1

D309 RB706F-40
REV DET
REV

Q302 LSCR523EBFS8
/DSW
DC SW
Q304 EM6M2
APC1
DC SW
IC303 NJM12904RB1 1/2
Ramp_ Offset
SPC
DC AMP
MP
90T

Q301 LSCR523EBFS8
DC SW
/DSW
DC AMP
DC AMP
90T
DC SW
Q303 LSCR523EBFS8

IC301 NJM12904RB1 1/2
2/2

D310 L8104
D311 L8104
D312 JDP2S12CR
D313 JDP2S12CR

ANT SW
LPF
136～174MHz
ANTSW

Q18 SSM3J334R
Q17 LTC014EEBFS8
DC SW
90C

Q16 SSM3J334R
Q17 LTC014EEBFS8
90T
DC SW
90C
TXC

50CS
Local BUFF
LPF

50C
Ripple Filter
Q600 MCH3914-H/8/
D600 SMV1705-079LF
2nd VCO
Q601 LTC023JEBFS8
SW
2nd_VCO
50C 33C

IF_MAIN_CLK
/IF_CS,SDIO,IF_DI,IF_CLK
/IF_REG,SDO0,SCK0
IF IC
IC600 AD9864BCPZRL

Q603 2SC5066F/O/
IF AMP
50R
Q604 BF5020W
IF AMP
50R

X600 49.95MHz
MCF
L7B-0003-00

IC500 AK1224
1st MIXER
50R

D501,D502,D503,D504 SMV1801-079LF
BPF
IC501 BA2904FVM 1/2
TV2
VC TUNE
200C

Q502 MT3S111
LNA
50R

D505,D506,D507,D510 BBY56-02V
BPF
IC501 BA2904FVM 2/2
TV1
VC TUNE
200C

CN2
DC in (13.6V)
GND
CN1

+B
31BU
IC3 XC6215B122N-G
1.2V AVR
12BU
Q1 KTA2012EP
Q3 SSM3K15AMFV
SCTAM1
DC SW
/BINT

IC1
3.1V AVR
50BU
Q8 LSCR523EBFS8
Q9 DTA523UBFS8
D2 DZ5056(M)
5V
F1 F53-0519-05

54M
12M
18M
18M_3
33M
33A
33C
33OPT
33SD
50A
50R
50C
50CS
200C

IC8 TPS54240DGQ
5.4V DC/DC Converter
54M
BAT_CNT

A1 W02-3785-05
1.2V AVR
Q12 EM6M2
54M
DC SW
IC11 LXDC2HN18F163
1.8V AVR
IC9 XC6102AA07-G
DC SW
IC5 XC6223D331P-G
3.3V AVR
IC4 NJM2878F4-33
3.3V AVR
SBC_2
IC12 NJM2878F4-33
3.3V AVR
IC14 XC6223H331P-G
3.3V AVR
SD_EN
IC7 XC6223H331P-G
3.3V AVR
IC10
5.0V AVR
RXC
IC17
5.0V AVR
SBC_2
IC6
5.0V AVR
Q12 EM6M2
DC SW
/SAVE
IC13 TPS61041DRVR
20V DC/DC Converter

SB1
Q5 MTM981400BF
Q6 LTC014EEBFS8
DC SW
F2 FZA10BS-5R0
SBC_2

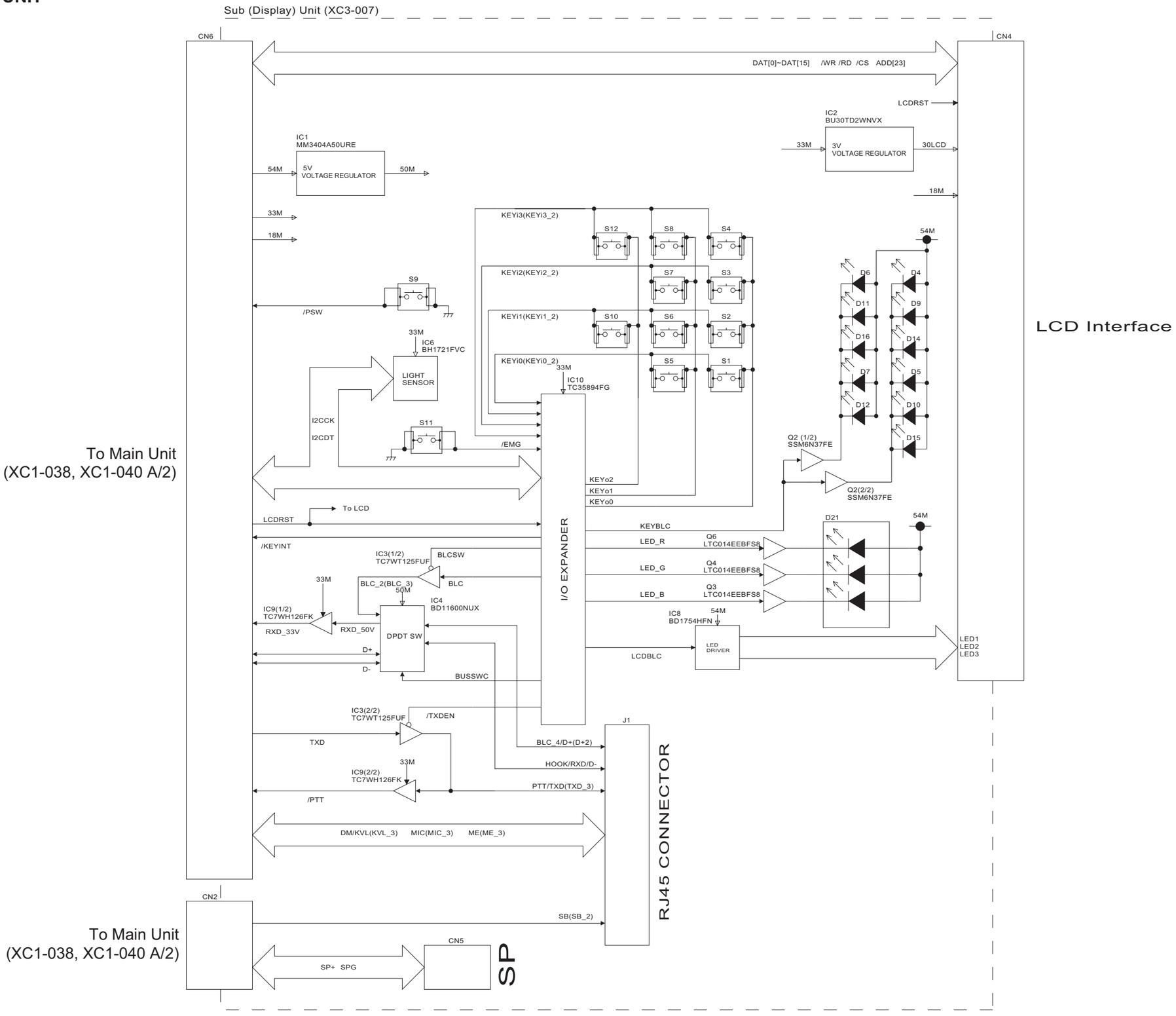
SB2
Q10 MTM981400BF
Q11 LTC014EEBFS8
DC SW
F3 FZA10BS-5R0
SBC_2

90C
IC15 BA00DD0WHFP
9.0V AVR
D1 DZ2J180(M)

50CT
IC16 XC6209B502P-G
5.0V AVR

/OVRB
Q4 LTC014EEBFS8
DC SW

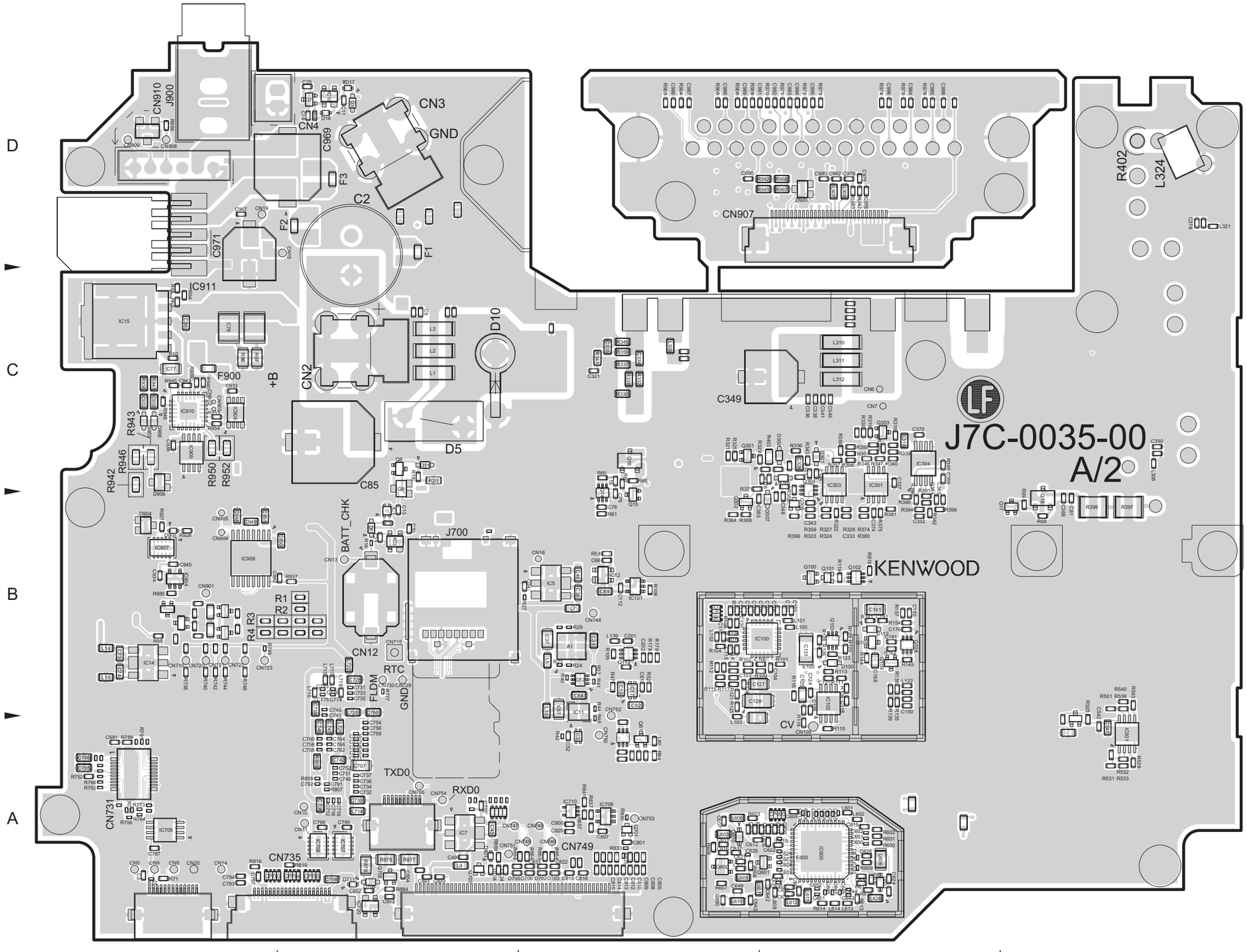
■ SUB (Display) UNIT



PRINTED CIRCUIT BOARD

■ MAIN UNIT (XC1-0381-80 (NX-5700B(F)), XC1-0400-10 (NX-5700(K), NX-5700B(K)))

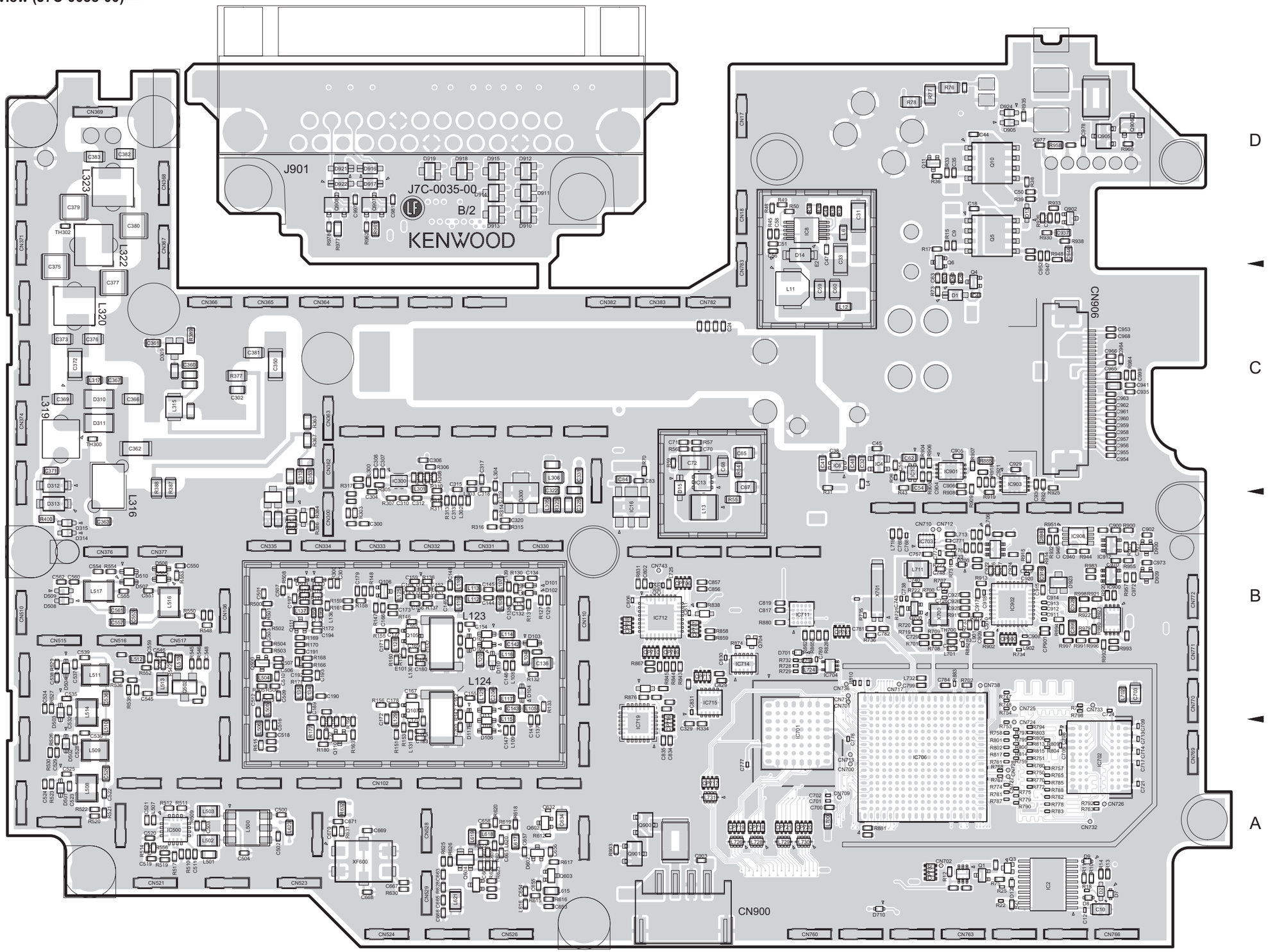
--- Component side view (J7C-0035-00) ---



1 2 3 4 5

■ MAIN UNIT (XC1-0381-80 (NX-5700B(F)), XC1-0400-10 (NX-5700(K), NX-5700B(K)))

--- Foil side view (J7C-0035-00) ---



● ADDRESS TABLE OF BOARD PARTS

Each address may have an address error by one interval.

A-1C: Side – Y axis – X axis

REF.NO.	LOCATION
IC	
IC1	A- 2B
IC2	B- 1A
IC3	A- 2B
IC4	B- 2C
IC5	A- 3B
IC6	B- 2C
IC7	A- 2A
IC8	B- 2D
IC9	A- 3A
IC10	B- 2C
IC11	A- 3B
IC12	A- 3B
IC13	B- 3C
IC14	A- 1B
IC15	A- 1C
IC16	B- 3B
IC17	A- 3B
IC18	A- 2D
IC100	A- 4B
IC101	A- 3B
IC102	A- 4B
IC300	B- 4C
IC301	A- 4C
IC303	A- 4C
IC304	A- 4C
IC500	B- 5A
IC501	A- 5A
IC600	A- 4A
IC701	B- 2A
IC702	B- 1A
IC703	B- 2B
IC704	B- 2B
IC705	A- 1A
IC706	B- 2A
IC707	A- 2A
IC708	A- 2A
IC709	A- 3A
IC710	A- 3A
IC711	B- 2B
IC712	B- 3B
IC714	B- 2B
IC715	B- 3B
IC719	B- 3A
IC720	A- 2A
IC900	B- 1B
IC901	B- 2C
IC902	B- 1B
IC903	B- 1C
IC904	A- 1B
IC905	A- 1C
IC906	A- 1C
IC907	A- 1B
IC908	B- 1B
IC909	A- 1B
IC910	A- 1C
IC912	B- 1B
TRANSISTOR	
Q1	B- 2A
Q3	B- 1A
Q4	B- 2C
Q5	B- 1D
Q6	B- 2D
Q7	A- 2D
Q8	A- 2C
Q9	A- 2C
Q10	B- 1D
Q11	B- 2D
Q12	A- 3B
Q14	A- 3B
Q15	A- 3B
Q16	A- 3C
Q17	A- 5B
Q18	A- 5B
Q81	A- 3A
Q100	A- 4B
Q101	A- 4B
Q102	A- 4B
Q103	A- 4B
Q104	A- 4B
Q105	B- 4B
Q106	B- 4B
Q107	B- 4B
Q108	A- 4B
Q109	A- 4B
Q110	B- 4A
Q111	B- 4B
Q112	A- 3B
Q300	B- 3B
Q301	A- 3C
Q302	A- 3B
Q303	A- 4C
Q304	A- 4C
Q305	A- 4B

REF.NO.	LOCATION
Q500	B- 4B
Q502	B- 5B
Q600	A- 3A
Q601	A- 4A
Q602	B- 3A
Q603	B- 3A
Q604	B- 4A
Q700	B- 2B
Q701	A- 3A
Q703	A- 2A
Q704	B- 2B
Q705	A- 2A
Q900	B- 3A
Q901	B- 3A
Q902	B- 1D
Q905	B- 1D
Q906	B- 1D
Q907	B- 4D
Q908	B- 4D
DIODE	
D1	B- 2C
D2	B- 1A
D3	A- 2D
D4	B- 2C
D5	A- 2C
D6	A- 2B
D7	B- 1A
D8	B- 1A
D9	B- 1A
D10	A- 2C
D11	A- 2C
D12	B- 1A
D13	B- 1D
D14	B- 2D
D15	B- 3C
D16	A- 2D
D17	A- 2D
D100	A- 4B
D101	B- 3B
D102	B- 3B
D103	B- 3B
D104	B- 3B
D106	B- 4A
D107	B- 4B
D108	B- 4A
D109	B- 4B
D110	B- 4B
D111	B- 4B
D113	A- 4B
D114	B- 4B
D115	B- 4B
D117	B- 4B
D300	B- 4B
D301	A- 4C
D302	A- 4C
D307	A- 4B
D309	B- 5C
D310	B- 5C
D311	B- 5C
D312	B- 5C
D313	B- 5B
D314	B- 5B
D315	B- 5B
D500	B- 4B
D501	B- 5A
D502	B- 5A
D503	B- 5B
D504	B- 5B
D505	B- 5B
D506	B- 5B
D507	B- 5B
D508	B- 5B
D509	B- 5B
D510	B- 5B
D600	A- 3A
D601	A- 4A
D602	B- 3A
D700	B- 2B
D701	B- 2B
D702	A- 3A
D703	A- 3A
D704	A- 2A
D705	A- 2A
D706	A- 3A
D708	A- 2A
D710	B- 2A
D711	A- 2A
D801	A- 2A
D900	B- 1B
D903	A- 1C
D904	A- 1B
D905	B- 1D
D906	A- 1C
D907	A- 1B

REF.NO.	LOCATION
D908	A- 1C
D909	B- 1B
D910	B- 3D
D911	B- 3D
D912	B- 3D
D913	B- 4D
D914	B- 4D
D915	B- 4D
D916	B- 4D
D917	B- 4D
D918	B- 4D
D919	B- 4D
D920	A- 4D
D921	B- 4D
D922	B- 4D
D923	B- 1B
D924	B- 1D
RESISTOR	
R1	A- 2B
R2	A- 2B
R3	A- 1B
R8	A- 2D
R10	B- 1A
R11	B- 1A
R12	B- 2A
R13	B- 1A
R14	B- 1A
R15	B- 2D
R16	A- 2B
R17	B- 2D
R18	B- 1A
R19	A- 2C
R20	A- 2C
R21	B- 1A
R22	B- 1A
R23	A- 3B
R24	A- 3B
R25	B- 1A
R26	B- 2C
R27	A- 3B
R29	A- 3B
R30	B- 2D
R31	B- 2C
R32	B- 2D
R33	B- 2D
R34	B- 2D
R35	B- 2D
R36	B- 2D
R37	A- 3B
R38	B- 1D
R39	B- 1D
R40	A- 3B
R41	A- 3B
R42	A- 3A
R43	B- 2C
R44	A- 3B
R45	B- 2D
R46	A- 3A
R47	A- 3B
R48	B- 2D
R49	B- 2D
R50	B- 2D
R51	B- 2C
R52	A- 3B
R53	A- 3B
R54	B- 3C
R55	B- 3B
R56	B- 3C
R57	B- 3C
R58	A- 1B
R59	B- 3C
R60	A- 3C
R61	A- 3B
R62	A- 1C
R63	A- 1C
R64	A- 1C
R65	A- 1C
R66	A- 3C
R67	A- 3C
R68	A- 5B
R69	A- 5B
R70	B- 3C
R71	A- 1A
R72	A- 1A
R73	B- 2C
R75	B- 1A
R76	B- 2D
R77	B- 2D
R78	B- 2D
R84	A- 3A
R96	A- 1C
R97	A- 1C
R100	A- 4B
R101	A- 4B

REF.NO.	LOCATION
R102	A- 3B
R103	A- 3B
R104	A- 3B
R105	A- 3B
R106	A- 3B
R107	A- 3B
R108	A- 3B
R109	A- 3B
R110	A- 4A
R111	A- 4B
R112	A- 3B
R113	A- 4B
R115	A- 3B
R116	A- 4B
R117	A- 3B
R118	A- 4A
R119	A- 4B
R121	A- 3B
R122	A- 4B
R123	A- 4B
R124	A- 3B
R125	A- 3B
R126	A- 4B
R127	B- 3B
R128	A- 4B
R129	A- 4B
R130	B- 3B
R131	B- 3B
R132	B- 3B
R133	B- 3B
R135	A- 4B
R136	B- 4B
R137	B- 4B
R138	A- 4B
R139	A- 4B
R141	A- 4B
R142	B- 4B
R143	B- 4B
R144	A- 4B
R145	A- 4B
R146	B- 4B
R147	B- 4B
R148	B- 4B
R150	B- 4B
R151	B- 4A
R152	B- 4B
R153	B- 4A
R154	A- 4B
R155	B- 4B
R156	B- 4B
R157	A- 4B
R158	B- 4B
R159	B- 4B
R161	B- 4B
R162	A- 4B
R163	B- 4A
R164	B- 4A
R165	B- 4A
R166	B- 4B
R167	B- 4B
R168	B- 4B
R169	B- 4B
R170	B- 4B
R171	B- 4B
R172	B- 4B
R173	B- 4B
R174	B- 4B
R175	B- 4B
R176	B- 4B
R177	B- 4A
R178	A- 3B
R179	A- 3B
R180	B- 4A
R300	B- 4B
R303	B- 4B
R305	B- 4C
R306	B- 4C
R307	B- 4B
R308	B- 4C
R309	B- 4C
R310	B- 4C
R311	B- 4C
R312	B- 4B
R313	B- 4B
R314	B- 4B
R315	B- 3B
R316	B- 4B
R317	B- 4C
R318	A- 4C
R319	A- 4C
R321	A- 3C
R322	A- 4B
R323	B- 3B
R324	A- 4B
R325	A- 3C

REF.NO.	LOCATION
R327	A- 4B
R328	A- 4B
R329	A- 4C
R330	A- 3C
R332	A- 3C
R333	A- 4B
R334	B- 3A
R335	A- 4C
R336	A- 4C
R337	A- 3C
R338	A- 3C
R339	A- 4C
R340	A- 4C
R341	A- 3C
R342	A- 4B
R343	A- 4C
R345	A- 3C
R346	A- 4C
R347	A- 4C
R348	A- 4C
R350	A- 3C
R355	A- 4C
R356	A- 4C
R357	A- 4C
R358	A- 4C
R359	A- 4B
R360	A- 4C
R363	B- 4C
R364	A- 3B
R365	A- 4C
R366	A- 4B
R367	B- 4C
R368	A- 3B
R371	A- 3C
R374	A- 4B
R375	A- 4B
R377	B- 5C
R378	A- 4C
R379	B- 4B
R380	A- 4B
R381	A- 4B
R384	B- 4B
R385	A- 4C
R386	B- 4B
R387	B- 5C
R388	B- 5C
R389	B- 5C
R391	A- 4B
R394	A- 4B
R395	A- 4B
R396	A- 4B
R397	A- 5B
R398	A- 4B
R399	A- 5B
R400	B- 5B
R402	A- 5D
R403	A- 4C
R500	B- 4B
R501	B- 4B
R502	B- 4B
R503	B- 4B
R504	B- 4B
R505	B- 4B
R506	B- 4B
R507	B- 4B
R508	B- 4B
R509	B- 5A
R510	B- 5A
R511	B- 5A
R512	B- 5A
R514	B- 5A
R515	B- 4A
R516	B- 5A
R517	B- 5A
R519	B- 5A
R520	B- 5A
R521	B- 5A
R522	B- 5A
R523	B- 5A
R525	A- 5A
R526	B- 5A
R527	B- 5B
R528	A- 5A
R529	B- 5B
R530	B- 5A
R531	A- 5A
R532	A- 5A
R533	A- 5A
R536	B- 5B
R538	B- 5B
R539	A- 5B
R540	A- 5B
R542	B- 5B
R543	A- 5B
R545	B- 5B

REF.NO.	LOCATION
R546	B- 5B
R548	B- 5B
R550	B- 5B
R551	B- 5B
R552	B- 5B
R553	B- 5B
R554	B- 5B
R556	B- 5A
R600	A- 4A
R601	A- 4A
R602	A- 4A
R603	A- 3A
R604	A- 3A
R605	A- 4A
R606	A- 3A
R607	A- 3A
R608	A- 3A
R609	A- 4A
R610	A- 4A
R611	A- 4A
R612	B- 3A
R613	A- 4A
R614	A- 4A
R615	B- 3A
R616	B- 3A
R617	B- 3A
R618	B- 3A
R619	B- 3A
R620	B- 4A
R621	B- 4A
R622	B- 4A
R623	B- 4A
R624	B- 4A
R625	B- 4A
R626	B- 4A
R628	B- 4A
R630	B- 4A
R631	B- 4A
R632	B- 4A
R700	B- 2B
R701	B- 2B
R702	B- 2B
R707	B- 2B
R708	B- 2B
R709	B- 2B
R719	B- 2B
R720	B- 2B
R721	B- 2B
R722	B- 2B
R727	B- 2B
R728	B- 2B
R729	B- 2B
R731	B- 2B
R732	B- 2B
R733	B- 2B
R734	B- 1B
R735	B- 2B
R736	B- 2B
R738	A- 1B
R740	A- 1B
R742	A- 1B
R744	A- 1B
R746	A- 1B
R747	B- 1B
R748	B- 1B
R749	A- 1B
R750	B- 1A
R751	B- 1A
R752	A- 1A
R753	B- 1A
R754	B- 1B
R755	A- 1A
R756	A- 1A
R757	B- 1A
R758	B- 1A
R759	B- 1A
R760	B- 1A
R761	B- 1A
R762	A- 1A
R763	B- 1A
R764	A- 1A
R765	B- 1A
R766	A- 1A
R767	B- 1A
R768	B- 1A
R770	B- 1A
R772	B- 1A
R773	A- 1A
R774	B- 1A
R775	B- 1A
R777	A- 2B
R778	B- 1A
R779	B- 1A
R781	B- 1A
R782	B- 1A

REF.NO.	LOCATION
R783	B- 1A
R785	B- 1A
R787	B- 1A
R788	B- 1A
R789	A- 1A
R790	B- 1A
R791	A- 1A
R792	B- 1A
R794	B- 1A
R795	B- 1B
R797	B- 1A
R798	B- 1B
R799	B- 1A
R800	B- 1A
R801	B- 1A
R802	B- 1A
R803	B- 1A
R804	B- 1A
R805	A- 2A
R806	B- 1A
R807	A- 2A
R808	A- 2A
R809	B- 1A
R810	B- 2B
R813	B- 1A
R814	B- 1A
R815	B- 1A
R816	A- 1A
R817	B- 1A
R818	A- 4B
R819	A- 2A
R828	B- 2B
R830	A- 3A
R831	B- 3B
R833	A- 3A
R835	A- 3A
R837	A- 3A
R838	B- 3B
R841	A- 3A
R843	B- 3B
R844	B- 3B
R845	B- 3B
R854	A- 3A
R857	A- 3A
R858	B- 3B
R859	B- 3B
R862	B- 2B
R863	A- 3A
R864	A- 3A
R865	B- 2B
R866	B- 4B
R867	B- 3B
R868	A- 3A
R869	A- 2A
R874	B- 3B
R876	B- 3B
R877	A- 2A
R878	A- 2A
R879	A- 2A
R880	B- 2B
R881	B- 2A
R882	B- 2B
R883	B- 2B
R884	A- 2A
R885	B- 2C
R900	B- 1B
R901	B- 1B
R902	B- 1B
R903	B- 3A
R904	B- 2C
R905	B- 2C
R906	B- 2C
R907	B- 2C
R908	B- 2B
R909	B- 2C
R911	B- 2B
R912	B- 2B
R913	B- 2B
R914	B- 1B
R915	B- 1B
R916	B- 1B
R917	B- 1B
R918	B- 2C
R919	B- 1B
R920	B- 1B
R921	B- 1B
R922	B- 1B
R923	B- 1B
R924	B- 1C
R925	B- 1C
R926	B- 1B
R927	A- 1B
R928	A- 1B
R930	B- 1D
R932	B- 1B

REF.NO.	LOCATION
R933	B- 1D
R935	B- 1D
R936	A- 1C
R937	A- 2B
R938	B- 1D
R939	A- 1C
R940	A- 1C
R941	A- 1C
R943	A- 1C
R944	B- 1B
R945	A- 1C
R947	A- 4D
R948	B- 1D
R949	A- 1C
R950	A- 1C
R951	B- 1B
R953	A- 1C
R954	A- 1C
R955	B- 1B
R956	A- 1D
R957	B- 1B
R958	B- 1D
R960	B- 1D
R961	B- 4D
R962	B- 4D
R963	A- 3D
R964	A- 3D
R965	A- 3D
R966	A- 3D
R967	A- 4D
R968	A- 4D
R969	A- 3D
R970	A- 4D
R971	A- 4D
R972	A- 4D
R973	A- 4D
R974	A- 4D
R975	A- 4D
R976	A- 4D
R977	B- 4D
R978	B- 4D
R979	B- 1B
R980	B- 1B
R981	A- 4D
R982	A- 4D
R983	B- 1B
R984	B- 1C
R985	A- 1B
R991	B- 1B
R992	B- 1B
R993	B- 1B
R994	B- 1B
R996	B- 1B
R997	B- 1B
R998	B- 1B
CAPACITOR	
C1	A- 2B
C2	A- 2D
C3	A- 1A
C4	B- 2C
C5	A- 2C
C8	B- 2C
C9	B- 2D
C10	B- 1A
C11	A- 2D
C12	B- 1A
C13	A- 2B
C16	A- 2D
C18	B- 2D
C21	A- 2B
C24	B- 3C
C25	A- 2D
C30	A- 2B
C31	B- 2D
C32	B- 2C
C33	B- 2D
C34	A- 3B
C35	B- 2D
C36	A- 3B
C37	A- 3B
C38	B- 2C
C39	A- 3B
C40	B- 2D
C41	B- 2C
C43	A- 2A
C44	B- 2D
C45	B- 2C
C46	A- 3B
C47	B- 2D
C48	B- 2C
C49	A- 2A
C50	B- 1D
C51	B- 2D
C52	A- 3A

REF.NO.	LOCATION
C53	A- 3B
C54	B- 2C
C55	B- 2C
C56	B- 2D
C57	A- 3B
C58	B- 2D
C59	B- 2C
C60	B- 2C
C61	A- 3B
C62	B- 2C
C63	B- 2C
C64	A- 3B
C65	B- 2C
C66	A- 3B
C67	B- 2C
C68	B- 3C
C69	A- 3B
C70	B- 3C
C71	B- 3C
C72	B- 3C
C73	A- 1B
C74	A- 1B
C75	A- 3B
C76	A- 3B
C77	A- 1C
C78	A- 1C
C80	A- 1C
C81	A- 5B
C82	A- 3B
C83	B- 3C
C84	B- 3C
C85	A- 2C
C100	A- 4B
C101	A- 4B
C102	A- 4B
C103	A- 3B
C104	A- 4B
C106	A- 4B
C107	A- 4B
C108	A- 3B
C109	A- 3B
C110	A- 3B
C111	A- 3B
C112	A- 3B
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C116	A- 3B
C118	A- 4B
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C121	A- 4B
C124	A- 4B
C125	A- 4B
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C129	B- 3B
C131	A- 4B
C132	B- 3B
C133	B- 3B
C134	B- 3B
C135	B- 3B
C136	B- 3B
C137	B- 3A
C138	B- 3B
C139	B- 3B
C141	B- 3A
C142	B- 3B
C143	B- 3B
C144	B- 4B
C145	B- 4B
C146	B- 3B
C147	B- 3A
C148	B- 4B
C149	B- 4B
C150	A- 4B
C151	A- 4B
C152	B- 4B
C153	B- 4B
C154	B- 4B
C155	B- 4B
C156	B- 4B
C157	B- 4B
C159	B- 4B
C161	A- 4B
C162	B- 4B
C164	B- 4B
C165	B- 4B
C166	B- 4B
C167	B- 4B
C168	A- 4B
C169	B- 4B
C170	B- 4A
C171	B- 4B
C172	B- 4B

REF.NO.	LOCATION
C173	B- 4B
C174	B- 4B
C175	B- 4A
C176	A- 4B
C177	B- 4B
C178	B- 4B
C179	B- 4B
C180	B- 4B
C181	A- 4B
C182	A- 4B
C183	B- 4A
C187	B- 4A
C189	B- 4B
C190	B- 4B
C191	B- 4B
C192	B- 4B
C193	B- 4B
C194	B- 4B
C195	B- 4B
C196	B- 4B
C197	B- 4B
C200	B- 4A
C201	A- 3B
C202	A- 3B
C204	B- 4B
C300	B- 4B
C301	B- 4B
C302	B- 5C
C304	B- 4B
C306	B- 4C
C307	B- 4C
C308	B- 4C
C309	B- 4C
C310	B- 4B
C311	B- 4C
C312	B- 4B
C313	B- 4B
C315	B- 4C
C317	B- 4C
C318	B- 4C
C319	B- 4B
C320	B- 3B
C321	A- 3C
C322	B- 3C
C325	B- 3B
C327	A- 4C
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C329	B- 3A
C330	A- 5C
C331	B- 3C
C332	A- 4B
C333	A- 4B
C334	A- 3C
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C338	A- 4C
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C343	A- 4C
C345	A- 4C
C346	A- 4C
C348	A- 4B
C349	A- 4C
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C351	A- 4C
C353	A- 4C
C359	A- 4C
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C362	B- 5C
C363	B- 5B
C364	A- 4B
C365	A- 4B
C366	B- 5C
C367	B- 5C
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C370	A- 4C
C371	B- 5C
C372	B- 5C
C373	B- 5C
C374	A- 4B
C375	B- 5C
C376	B- 5C
C377	B- 5C
C378	A- 5D
C379	B- 5D
C380	B- 5D
C381	B- 5D
C382	B- 5D
C383	B- 5D
C385	A- 4B
C500	B- 4A
C501	B- 4A
C502	B- 4A
C503	B- 4B

REF.NO.	LOCATION
C504	B- 5A
C506	B- 4B
C507	B- 4B
C508	B- 5A
C509	B- 4B
C510	B- 4B
C511	B- 5A
C512	B- 4B
C513	B- 4B
C516	B- 4A
C518	B- 4A
C519	B- 5A
C520	B- 5A
C521	B- 5A
C522	B- 5A
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C528	B- 5A
C529	B- 5A
C530	B- 5A
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C534	B- 5B
C535	B- 5B
C536	B- 5B
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C538	B- 5B
C539	B- 5B
C541	A- 5A
C542	A- 5A
C544	B- 5B
C545	B- 5B
C546	B- 5B
C548	B- 5B
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C553	B- 5B
C554	B- 5B
C555	B- 5B
C557	B- 5B
C559	B- 5B
C560	B- 5B
C561	B- 5B
C562	B- 5B
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C601	A- 4A
C602	A- 4A
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C615	A- 4A
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C617	A- 3A
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C643	A- 4A
C644	A- 4A
C645	A- 3A
C646	A- 4A
C647	A- 4A
C648	A- 4A

REF.NO.	LOCATION
C649	A- 3A
C650	A- 3A
C651	A- 4A
C652	A- 4A
C653	B- 3A
C654	B- 3A
C655	B- 3A
C656	B- 3A
C657	B- 3A
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C659	B- 4A
C660	B- 4A
C661	B- 3A
C662	B- 4A
C663	B- 4A
C665	B- 4A
C666	B- 4A
C667	B- 4A
C668	B- 4A
C669	B- 4A
C670	B- 4A
C671	B- 4A
C681	A- 4A
C700	B- 2A
C701	B- 2A
C702	B- 2A
C703	B- 1B
C704	B- 2B
C705	B- 1A
C706	B- 1A
C707	A- 2A
C708	A- 2A
C709	B- 1A
C711	A- 2A
C712	A- 2A
C713	B- 1A
C714	B- 1A
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C716	A- 2A
C717	B- 1A
C718	A- 2A
C719	A- 2A
C720	A- 2A
C721	B- 1A
C722	B- 2B
C723	A- 2A
C724	B- 1B
C725	A- 2A
C726	B- 2B
C728	B- 2B
C729	B- 2B
C730	A- 2A
C731	A- 2A
C732	A- 2A
C733	A- 2A
C734	A- 2A
C735	A- 2A
C736	A- 2A
C737	A- 2A
C738	B- 2B
C739	A- 2A
C740	B- 2B
C741	A- 2A
C742	A- 2A
C743	B- 2B
C745	A- 2A
C746	A- 2A
C747	A- 2A
C748	B- 2B
C749	A- 2A
C750	A- 2A
C751	A- 2A
C752	A- 2A
C754	A- 2A
C755	A- 2A
C756	A- 2A
C757	B- 2B
C758	A- 2A
C759	A- 2A
C760	A- 2A
C762	A- 2A
C764	A- 2A
C766	A- 2A
C768	B- 2B
C769	B- 2B
C770	B- 2B
C771	B- 2B
C772	B- 2B
C773	A- 2B
C774	A- 2B
C775	A- 2B
C776	A- 2B
C777	B- 2A
C778	B- 2A
C779	B- 2B

REF.NO.	LOCATION
C780	B- 2B
C781	B- 2B
C782	B- 2B
C783	B- 2B
C784	B- 2B
C785	A- 1A
C786	A- 1A
C787	A- 1A
C791	A- 2A
C792	A- 2A
C793	A- 1A
C794	A- 1A
C795	A- 2A
C796	A- 2A
C797	A- 1A
C798	A- 2A
C799	B- 2B
C800	A- 3A
C801	A- 3A
C802	B- 3B
C803	B- 3B
C804	B- 3B
C805	A- 3A
C806	B- 3B
C807	A- 3A
C808	A- 3A
C809	A- 3A
C810	A- 3A
C811	B- 3B
C812	A- 3A
C813	A- 3A
C814	A- 3A
C815	A- 3A
C816	A- 3A
C817	B- 2B
C818	A- 3A
C819	B- 2B
C820	A- 3A
C821	A- 3A
C822	A- 3A
C824	A- 2A
C829	B- 3B
C830	B- 3B
C831	B- 3B
C834	B- 3A
C835	B- 3A
C839	A- 2A
C841	A- 2A
C852	A- 2A
C853	A- 2A
C854	A- 2A
C856	B- 3B
C857	B- 3B
C898	B- 1B
C899	B- 1B
C900	B- 1B
C901	B- 1B
C902	B- 1B
C903	B- 3A
C904	B- 2C
C905	B- 2C
C906	B- 2C
C908	B- 1B
C909	B- 2B
C910	B- 2B
C911	B- 1B
C912	B- 1B
C913	B- 1B
C914	B- 1B
C915	B- 1B
C916	B- 1B
C917	B- 2B
C918	B- 1B
C919	B- 1B
C920	B- 1B
C921	B- 1C
C922	B- 1B
C924	B- 1B
C925	B- 2B
C926	B- 2B
C927	B- 2B
C928	B- 1B
C929	B- 1C
C930	B- 1C
C931	B- 1D
C932	A- 1C
C933	A- 1C
C934	A- 1B
C935	B- 1C
C936	A- 1C
C937	B- 1D
C938	A- 1C
C940	B- 1B
C941	B- 1C
C942	A- 2B

REF.NO.	LOCATION
C943	A- 1C
C944	B- 1D
C945	A- 1B
C946	B- 1B
C947	B- 1D
C948	A- 1B
C949	A- 1B
C950	A- 2B
C951	A- 1B
C952	B- 1D
C953	B- 1C
C954	B- 1C
C955	B- 1C
C956	B- 1C
C957	B- 1C
C958	B- 1C
C959	B- 1C
C960	B- 1C
C961	B- 1C
C962	B- 1C
C963	B- 1C
C964	B- 1C
C965	B- 1C
C966	B- 1C
C967	A- 1D
C968	B- 1C
C969	A- 2D
C970	B- 1B
C971	A- 1D
C972	B- 1B
C973	B- 1B
C975	A- 4D
C976	A- 4D
C977	B- 1D
C978	B- 1D
C979	A- 4D
C980	A- 4D
C981	B- 4D
C982	A- 4D
C983	A- 4D
C984	A- 4D
C985	A- 4D
C986	A- 3D
C987	A- 3D
C988	A- 3D
C989	A- 3D
C990	A- 3D
C991	A- 4D
C992	A- 4D
C993	A- 4D
C994	A- 4D
C995	A- 4D
C996	A- 4D
C997	B- 4D
C998	A- 4D
C999	B- 1C
OTHER	
X700	B- 2B
X701	B- 2B
TH300	B- 5C
TH301	A- 4C
TH302	B- 5D
TH700	B- 2B
CN2	A- 2C
CN3	A- 2D
CN4	A- 1D
CN5	A- 1A
CN6	A- 4C
CN7	A- 4C
CN8	A- 1A
CN9	A- 1A
CN10	A- 2A
CN11	A- 2A
CN12	A- 2B
CN13	A- 2B
CN14	A- 1A
CN15	A- 2D
CN16	A- 3B
CN17	B- 3D
CN18	B- 3D
CN19	A- 1D
CN20	A- 1A
CN102	B- 4A
CN106	B- 5B
CN109	A- 4A
CN110	B- 3B
CN300	B- 4B
CN330	B- 3B
CN331	B- 4B
CN332	B- 4B
CN333	B- 4B
CN334	B- 4B

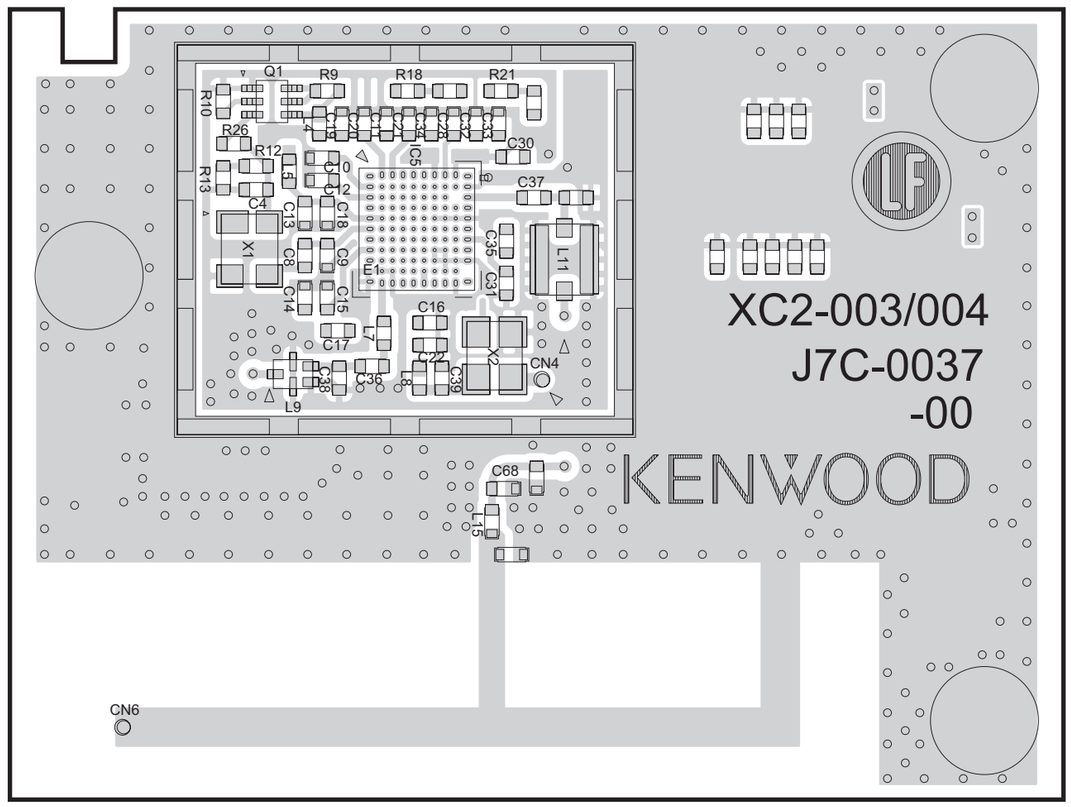
REF.NO.	LOCATION
CN335	B- 4B
CN362	B- 4C
CN363	B- 4C
CN364	B- 4C
CN365	B- 4C
CN366	B- 5C
CN367	B- 5D
CN368	B- 5D
CN369	B- 5D
CN371	B- 5D
CN374	B- 5C
CN376	B- 5B
CN377	B- 5B
CN382	B- 3C
CN383	B- 3C
CN510	B- 5B
CN515	B- 5B
CN516	B- 5B
CN517	B- 5B
CN521	B- 5A
CN523	B- 4A
CN524	B- 4A
CN526	B- 3A
CN528	B- 4A
CN529	B- 4A
CN700	B- 2A
CN701	B- 2B
CN702	B- 2A
CN709	B- 2A
CN710	B- 2B
CN711	B- 2B
CN712	B- 2B
CN713	B- 2A
CN715	A- 2B
CN717	B- 2B
CN719	A- 1B
CN720	A- 1B
CN721	A- 1B
CN722	A- 1B
CN723	A- 1B
CN724	B- 1A
CN725	B- 1B
CN726	B- 1A
CN727	B- 1A
CN728	B- 1A
CN729	A- 2B
CN730	A- 2B
CN731	A- 1A
CN732	B- 1A
CN733	B- 1B
CN735	A- 2A
CN736	B- 2B
CN738	B- 2B
CN743	B- 3B
CN744	A- 3B
CN745	A- 3A
CN746	A- 3A
CN747	A- 2A
CN748	A- 3A
CN749	A- 2A
CN750	A- 3A
CN751	A- 2A
CN752	A- 3B
CN753	A- 3A
CN754	A- 2A
CN755	A- 2A
CN760	B- 2A
CN763	B- 2A
CN766	B- 1A
CN769	B- 1A
CN770	B- 1B
CN771	B- 1B
CN772	B- 1B
CN782	B- 3C
CN783	B- 3C
CN900	B- 3A
CN901	A- 1B
CN902	A- 1C
CN903	A- 1C
CN904	A- 1B
CN905	A- 1B
CN906	B- 1C
CN907	A- 4D
CN908	A- 1D
CN909	A- 1D
CN910	A- 1D
CP100	A- 3B
CP600	A- 4A
CP701	B- 2B
CP702	B- 2A
CP703	A- 1A
CP704	B- 2A
CP705	A- 2A
CP706	B- 3B

REF.NO.	LOCATION
CP707	B- 3B
CP708	B- 3B
CP709	B- 3B
CP710	B- 3B
CP711	B- 3B
CP716	B- 3A
CP717	B- 3A
CP718	B- 2A
CP719	B- 3A
CP720	B- 2A
CP721	B- 2A
CP900	B- 1B
CP901	B- 1B
A1	A- 3B
E2	B- 2D
E100	A- 4B
E101	B- 4B
E600	A- 4A
F1	A- 2D
F2	A- 2D
F3	A- 2D
F900	A- 1C
J700	A- 2B
J900	A- 1D
J901	A- 4D
L1	A- 2C
L2	A- 2C
L3	A- 2C
L4	B- 2C
L5	A- 3B
L6	B- 2D
L7	A- 3B
L9	A- 2A
L10	A- 3B
L11	B- 2C
L12	B- 2C
L13	B- 3B
L14	A- 1B
L15	A- 1B
L16	A- 3C
L80	A- 3A
L100	A- 4B
L101	A- 4B
L102	A- 3B
L103	A- 3A
L104	B- 3B
L105	B- 3B
L106	B- 3B
L107	B- 3B
L108	B- 3B
L109	B- 3A
L112	B- 4B
L113	B- 4B
L114	B- 3B
L115	B- 3B
L116	B- 3B
L117	B- 3B
L118	B- 4B
L119	B- 4B
L120	B- 4B
L121	B- 4B
L122	A- 4B
L123	B- 4B
L124	B- 4B
L125	B- 4B
L128	B- 4B
L129	B- 4B
L130	B- 4B
L131	B- 4A
L132	B- 4A
L134	B- 4B
L135	B- 4B
L136	B- 4B
L137	B- 4B
L139	A- 3B
L300	B- 4C
L301	B- 4C
L302	B- 4B
L303	B- 4C
L304	B- 4C
L305	B- 3B
L306	B- 3C
L308	A- 5C
L309	A- 3C
L310	A- 4C
L311	A- 4C
L312	A- 4C
L313	B- 4C
L315	B- 5C
L316	A- 5C

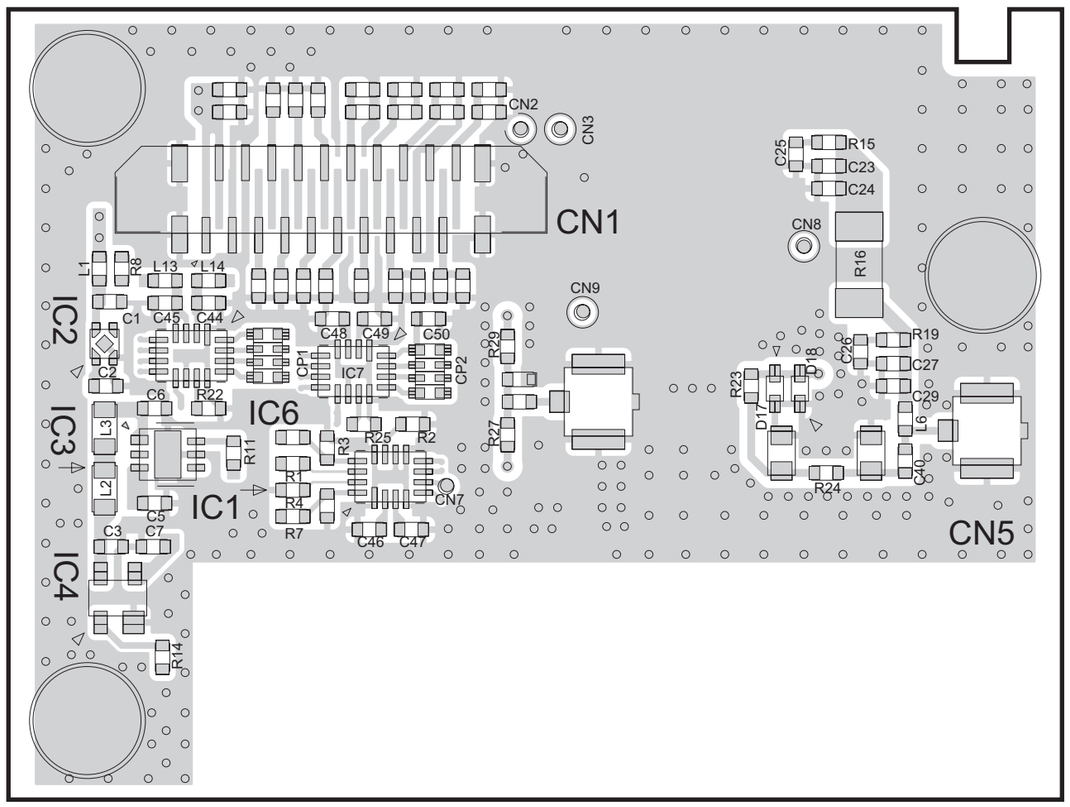
REF.NO.	LOCATION
L317	B- 5C
L318	A- 4C
L319	A- 5C
L320	A- 5C
L321	A- 5D
L322	A- 5D
L323	A- 5D
L324	A- 5D
L500	B- 5A
L501	B- 5A
L502	B- 5A
L503	B- 5A
L504	B- 4B
L505	B- 4B
L506	B- 4A
L507	B- 5A
L508	B- 5A
L509	B- 5A
L510	B- 5A
L511	B- 5B
L512	B- 5B
L513	B- 5B
L514	B- 5B
L515	B- 5B
L516	B- 5B
L517	B- 5B
L600	A- 3A
L601	A- 4A
L602	A- 4A
L603	A- 3A
L604	A- 4A
L605	A- 3A
L606	A- 4A
L607	A- 3A
L608	A- 4A
L609	A- 4A
L610	A- 3A
L611	A- 4A
L612	A- 4A
L613	A- 4A
L614	A- 4A
L615	B- 3A
L616	B- 3A
L617	B- 3A
L618	B- 4A
L619	B- 4A
L620	B- 3A
L621	B- 4A
L623	B- 4A
L626	A- 4A
L700	B- 2A
L701	B- 2B
L702	B- 1B
L706	B- 1B
L711	B- 2B
L713	B- 2B
L714	A- 2A
L715	A- 2B
L716	A- 2B
L717	A- 2B
L718	A- 2B
L719	B- 2B
L720	A- 2B
L721	A- 2A
L722	A- 2B
L723	B- 2B
L724	B- 2B
L725	B- 3B
L726	B- 3A
L728	B- 2A
L729	B- 2A
L730	B- 2A
L731	B- 3A
L732	B- 2B
L901	B- 2B
L902	B- 1B
L906	A- 4D
L907	A- 4D
XF600	B- 4A

■ MODULE (BT/GPS) UNIT (XC2-0031-80 (NX-5700B(F)), XC2-0040-10 (NX-5700(K), NX-5700B(K)))

--- Component side view (J7C-0037-00) ---



--- Foil side view (J7C-0037-00) ---



● **ADDRESS TABLE OF BOARD PARTS**

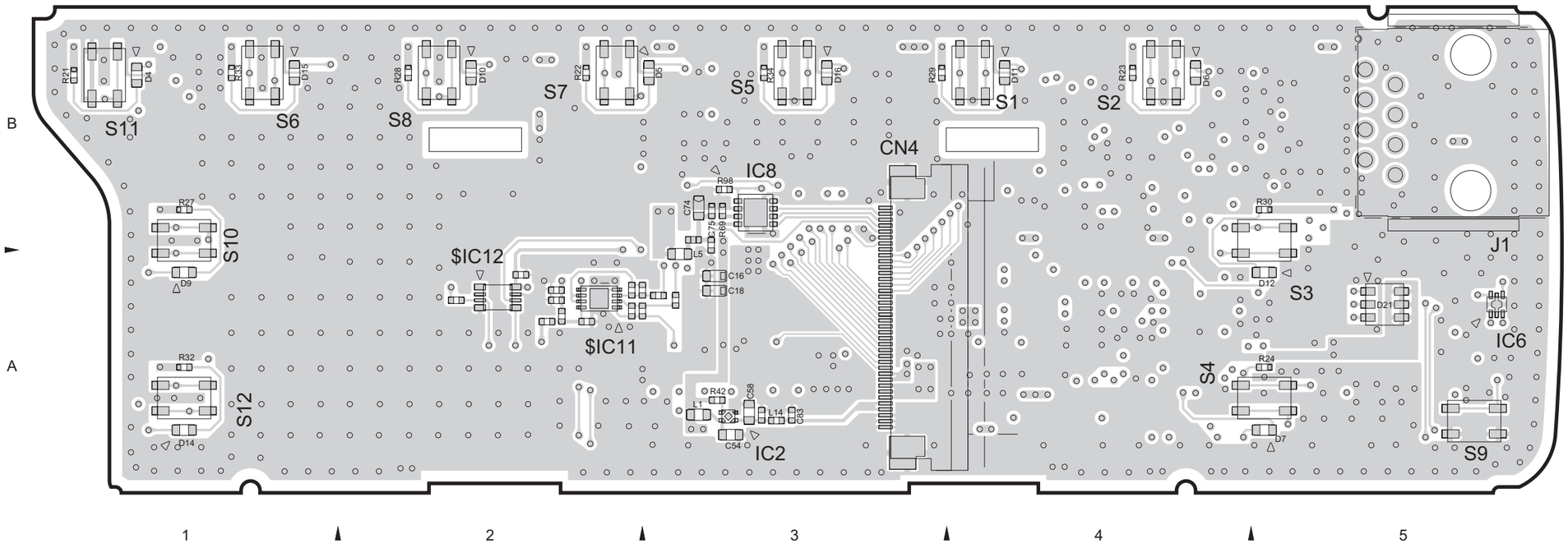
Each address may have an address error by one interval.

A-1C
Side — Y axis
X axis

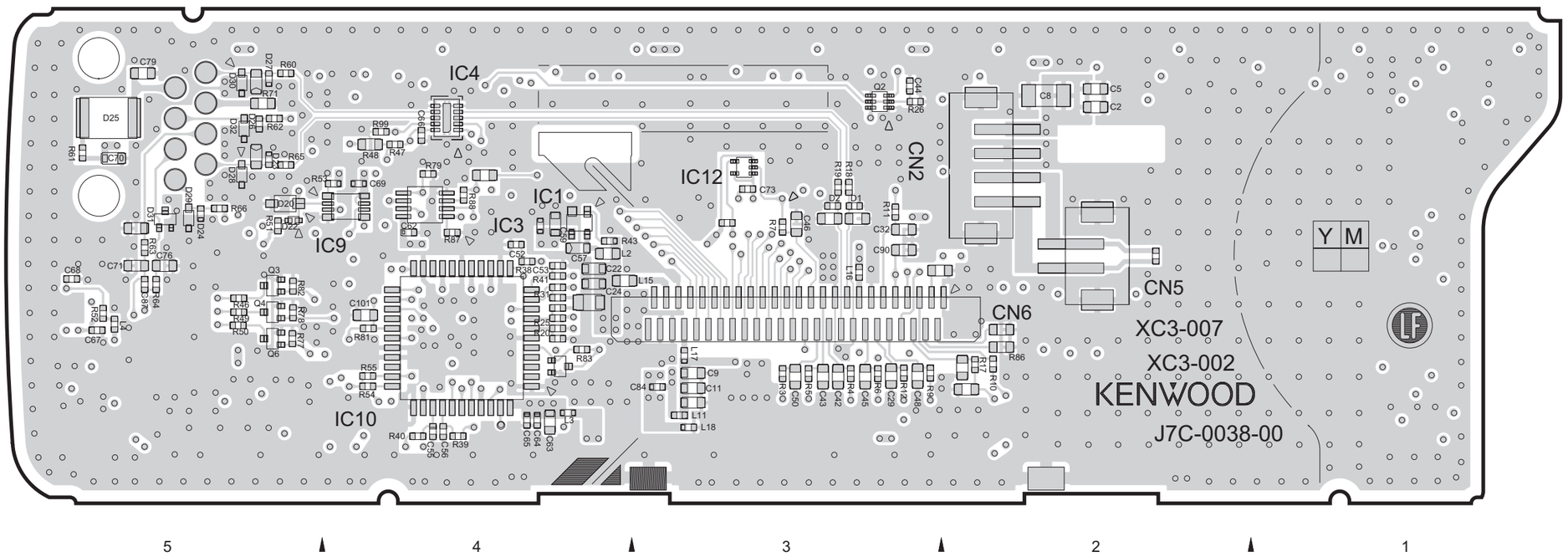
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
IC		R7	B- 3A	**CAPACITOR**		C21	A- 2B	C45	B- 3B		
IC1	B- 2A	R8	B- 3B	C1	B- 3B	C22	A- 2B	C46	B- 2A	CP1	B- 3B
IC2	B- 3B	R9	A- 1B	C2	B- 3B	C23	B- 1B	C47	B- 2A	CP2	B- 2B
IC3	B- 3A	R10	A- 1B	C3	B- 3A	C24	B- 1B	C48	B- 3B		
IC4	B- 3A	R11	B- 3A	C4	A- 1B	C25	B- 1B	C49	B- 2B	E1	A- 2B
IC5	A- 2B	R12	A- 1B	C5	B- 3A	C26	B- 1B	C50	B- 2B		
IC6	B- 3B	R13	A- 1B	C6	B- 3A	C27	B- 1B	C68	A- 2A	L1	B- 3B
IC7	B- 3B	R14	B- 3A	C7	B- 3A	C28	A- 2B			L2	B- 3A
		R15	B- 1B	C8	A- 1B	C29	B- 1B	**OTHER**		L3	B- 3A
TRANSISTOR		R16	B- 1B	C9	A- 1B	C30	A- 2B	X1	A- 1B	L4	A- 1B
Q1	A- 1B	R18	A- 2B	C10	A- 1B	C31	A- 2B	X2	A- 2B	L5	A- 1B
		R19	B- 1B	C11	A- 2B	C32	A- 2B			L6	B- 1A
DIODE		R21	A- 2B	C12	A- 1B	C33	A- 2B	CN1	B- 3B	L7	A- 2B
D17	B- 1B	R22	B- 3A	C13	A- 1B	C34	A- 2B	CN2	B- 2B	L8	A- 2B
D18	B- 1B	R23	B- 1B	C14	A- 1B	C35	A- 2B	CN3	B- 2B	L9	A- 1B
		R24	B- 1A	C15	A- 1B	C36	A- 2B	CN4	A- 2B	L11	A- 2B
RESISTOR		R25	B- 2A	C16	A- 2B	C37	A- 2B	CN5	B- 1A	L13	B- 3B
R1	B- 3A	R26	A- 1B	C17	A- 1B	C38	A- 1B	CN6	A- 1A	L14	B- 3B
R2	B- 2A	R27	B- 2A	C18	A- 1B	C39	A- 2B	CN7	B- 2A	L15	A- 2A
R3	B- 3A	R29	B- 2B	C19	A- 1B	C40	B- 1A	CN8	B- 1B		
R4	B- 3A			C20	A- 2B	C44	B- 3B	CN9	B- 2B		

■ SUB (DISPLAY) UNIT (XC3-0070-20 (NX-5700(K))

--- Component side view (J7C-0038-00) ---



--- Foil side view (J7C-0038-00) ---



● **ADDRESS TABLE OF BOARD PARTS**

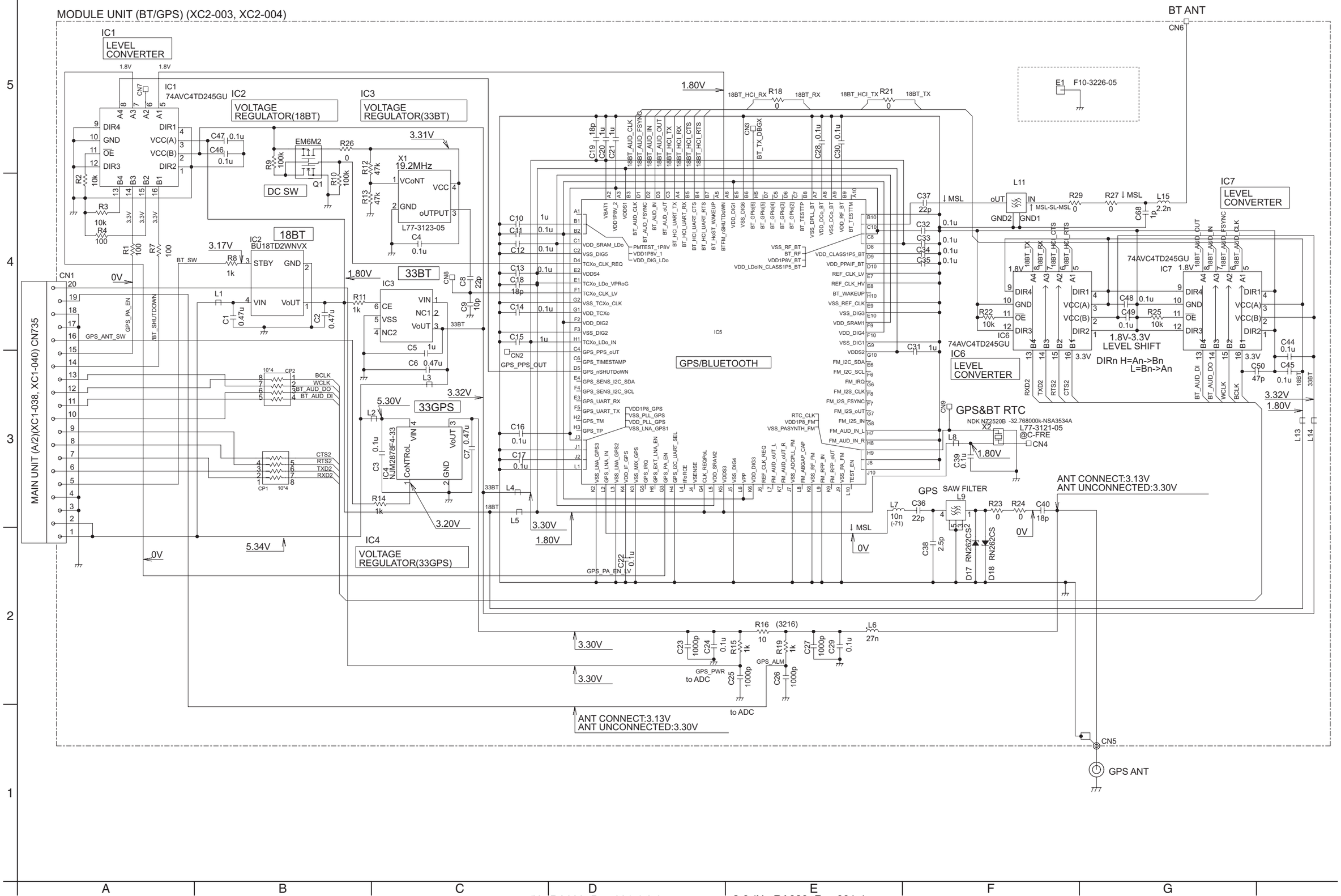
Each address may have an address error by one interval.

Side — A-1C — Y axis / X axis

REF.NO.	LOCATION
IC	
IC1	B- 4B
IC2	A- 3A
IC3	B- 4B
IC4	B- 4B
IC6	A- 5A
IC8	A- 3B
IC9	B- 4B
IC10	B- 4A
IC12	B- 3B
TRANSISTOR	
Q2	B- 3B
Q3	B- 5A
Q4	B- 5A
Q6	B- 5A
DIODE	
D1	B- 3B
D2	B- 3B
D4	A- 1B
D5	A- 3B
D6	A- 4B
D7	A- 5A
D9	A- 1A
D10	A- 2B
D11	A- 4B
D12	A- 5A
D14	A- 1A
D15	A- 1B
D16	A- 3B
D20	B- 5B
D21	A- 5A
D22	B- 5B
D23	B- 5B
D24	B- 5B
D25	B- 5B
D26	B- 5B
D27	B- 5B
D28	B- 5B
D29	B- 5B
D30	B- 5B
D31	B- 5B
D32	B- 5B
RESISTOR	
R3	B- 3A
R4	B- 3A
R5	B- 3A
R6	B- 3A
R7	B- 3B
R9	B- 3A
R10	B- 2A
R11	B- 3B
R12	B- 3A
R17	B- 2A
R18	B- 3B
R19	B- 3B
R20	B- 4A
R21	A- 1B
R22	A- 2B
R23	A- 4B
R24	A- 5A
R25	B- 4A
R26	B- 3B
R27	A- 1B
R28	A- 2B
R29	A- 3B
R30	A- 5B
R31	B- 4A
R32	A- 1A
R33	A- 1B
R34	A- 3B
R38	B- 4A
R39	B- 4A
R40	B- 4A
R41	B- 4A
R42	A- 3A
R43	B- 4B
R46	B- 5A
R47	B- 4B
R48	B- 4B
R49	B- 5A
R50	B- 5A
R51	B- 5B
R52	B- 5A
R53	B- 4B
R54	B- 4A
R55	B- 4A
R60	B- 5B
R61	B- 5B
R62	B- 5B
R63	B- 5B
R64	B- 5A
R65	B- 5B
R66	B- 5B
R69	A- 3B
R71	B- 5B
R77	B- 5A
R78	B- 5A
R79	B- 4B
R81	B- 4A
R82	B- 5A
R83	B- 4A
R86	B- 2A
R87	B- 4B
R88	B- 4B
R98	A- 3B
R99	B- 4B
CAPACITOR	
C2	B- 2B
C5	B- 2B
C8	B- 2B
C9	B- 3A
C11	B- 3A
C16	A- 3A
C18	A- 3A
C22	B- 4A
C24	B- 4A
C29	B- 3A
C32	B- 3B
C42	B- 3A
C43	B- 3A
C44	B- 3B
C45	B- 3A
C46	B- 3B
C48	B- 3A
C50	B- 3A
C52	B- 4B
C53	B- 4A
C54	A- 3A
C55	B- 4A
C56	B- 4A
C57	B- 4B
C58	A- 3A
C59	B- 4B
C62	B- 4B
C63	B- 4A
C64	B- 4A
C65	B- 4A
C66	B- 4B
C67	B- 5A
C68	B- 5A
C69	B- 4B
C70	B- 5B
C71	B- 5A
C73	B- 3B
C74	A- 3B
C75	A- 3B
C76	B- 5A
C79	B- 5B
C83	A- 3A
C84	B- 3A
C87	B- 5A
C90	B- 3B
C101	B- 4A
OTHER	
CN2	B- 2B
CN4	A- 3A
CN5	B- 2B
CN6	B- 3A
S1	A- 4B
S2	A- 4B
S3	A- 5B
S4	A- 5A
S5	A- 3B
S6	A- 1B
S7	A- 2B
S8	A- 2B
S9	A- 5A
S10	A- 1B
S11	A- 1B
S12	A- 1A
J1	A- 5B
L1	A- 3A
L2	B- 4B
L3	B- 4A
L4	B- 5A
L5	A- 3A
L11	B- 3A
L14	A- 3A
L15	B- 4A
L16	B- 3A
L17	B- 3A
L18	B- 3A

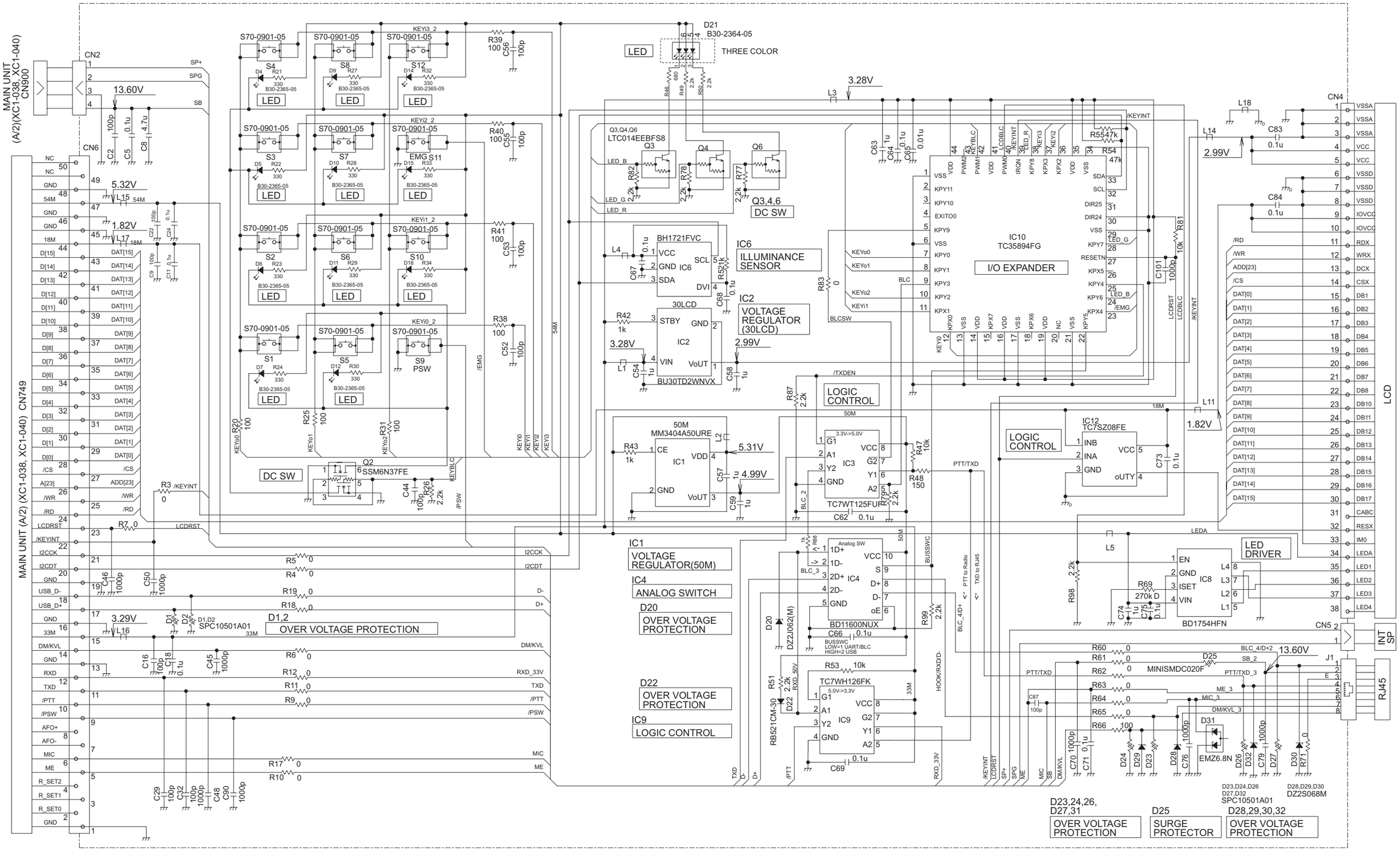
■ MODULE (BT/GPS) UNIT (XC2-0031-80 (NX-5700B(F)), XC2-0040-10 (NX-5700(K), NX-5700B(K)))

MODULE UNIT (BT/GPS) (XC2-003, XC2-004)

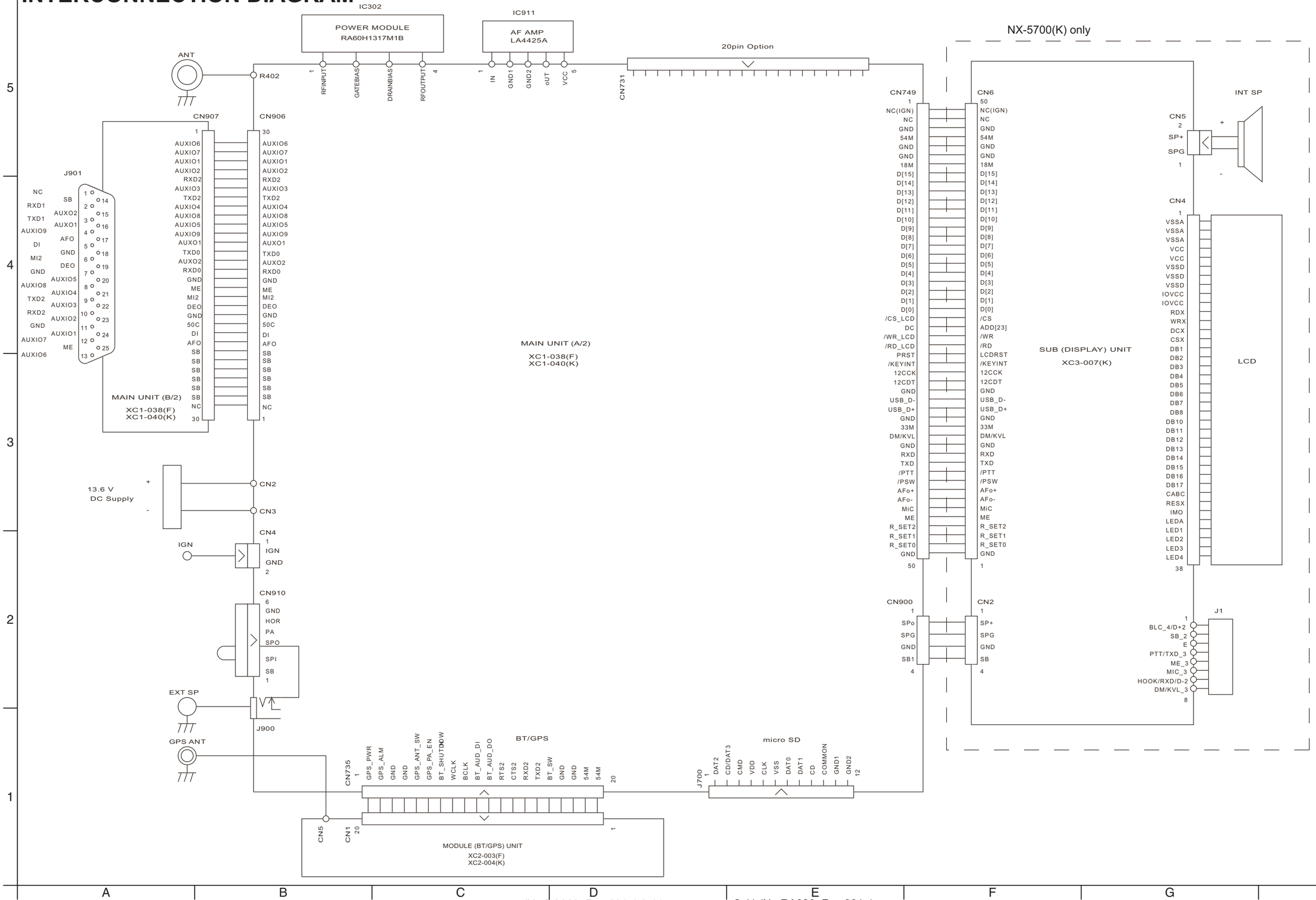


■ SUB (DISPLAY) UNIT (XC3-0070-20 (NX-5700(K))

SUB UNIT (DISPLAY) (XC3-007)

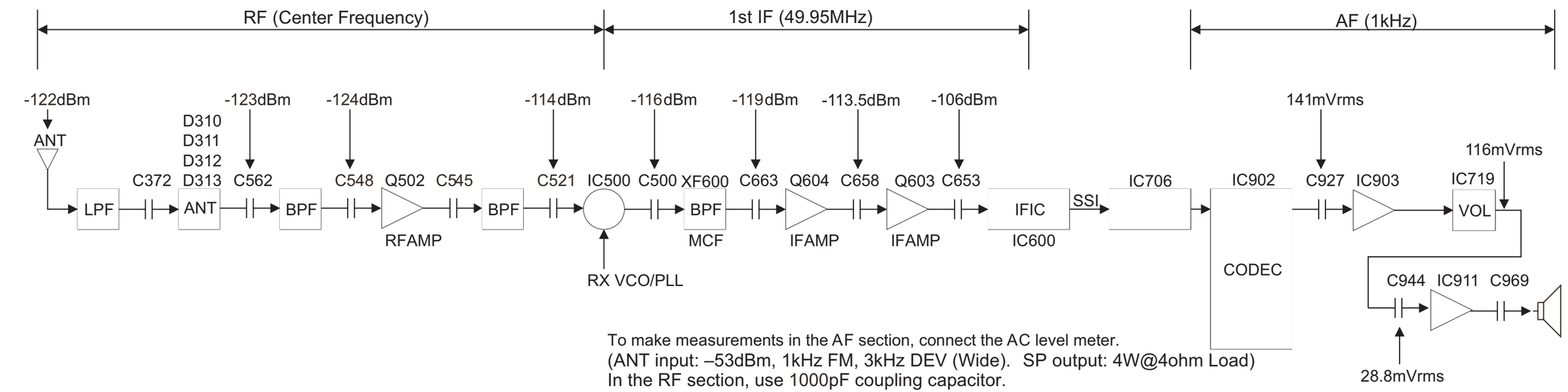


INTERCONNECTION DIAGRAM



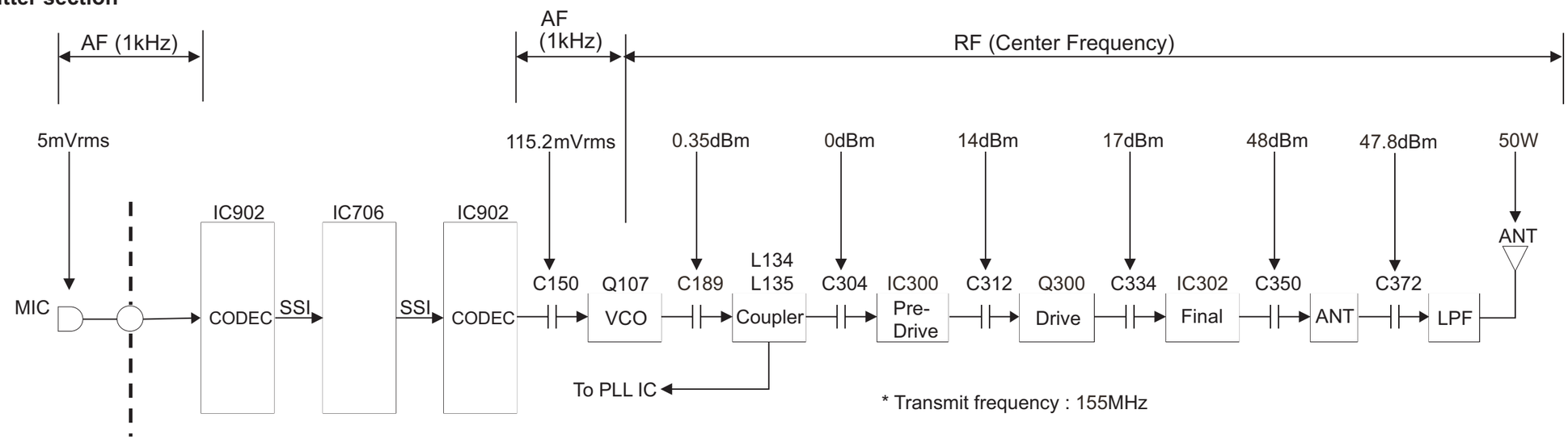
LEVEL DIAGRAM

Receiver section



To make measurements in the AF section, connect the AC level meter.
(ANT input: –53dBm, 1kHz FM, 3kHz DEV (Wide). SP output: 4W@4ohm Load)
In the RF section, use 1000pF coupling capacitor.
(The display shows the SSG input value required to obtain 12dB SINAD.)

Transmitter section



2-12 (No.RA020<Rev.001>)

PARTS LIST

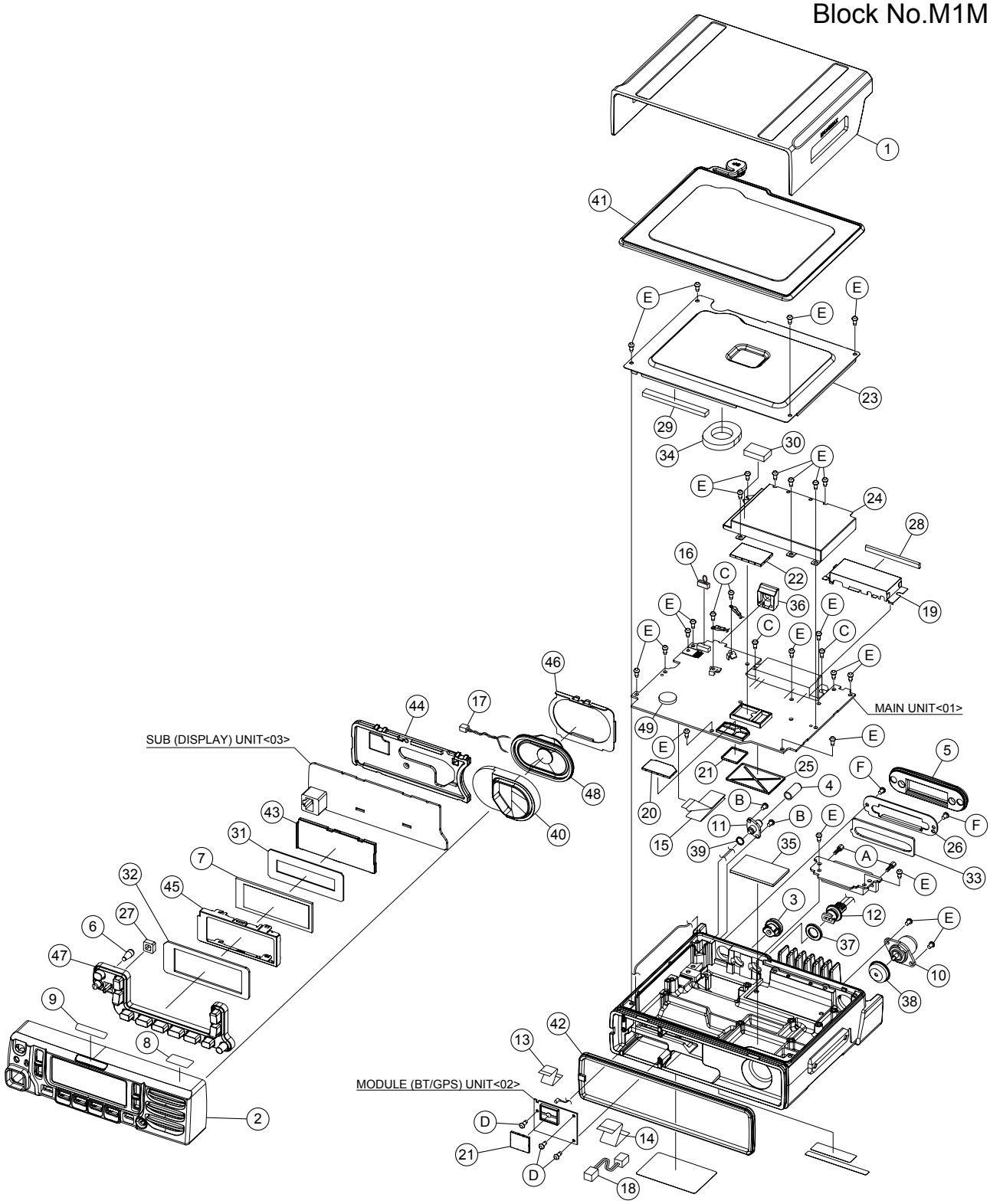
[NX-5700,NX-5700(B)]

* SAFETY PRECAUTION
  Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.
* BEWARE OF BOGUS PARTS
  Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine parts be used.
* (x_) in a description column shows the number of the used part.

- Contents -

Exploded view of general assembly and parts list

Block No.M1MM



General assembly

Block No. [M][1][M][M]

⚠ Symbol No.	Part No.	Part Name	Description	Local
1	A0C-0034-00	PLASTIC CABINET		
2	A6C-0003-10	PANEL ASSY		NX-5700(K)
3	B09-0681-03	CAP(KAP-2)		
4	B09-0754-05	CAP(SMA)		
5	B0K-0004-00	CAP(D-SUB)		
6	B1B-0017-00	ILLUMINATION GUIDE		NX-5700(K)
7	B38-0966-05	LCD ASSY		NX-5700(K)
8	B4B-0008-00	CAUTION STICKER		NX-5700(K)
9	B4D-0021-00	BADGE		NX-5700(K)
10	E04-0167-15	RF COAXIAL RECEPTACLE(M) (ANT)		
11	E0E-0003-00	RF COAXIAL RECEPTACLE-SMA (GPS)		
12	E30-7520-35	DC CORD		
13	E3F-0017-00	FLAT CABLE(20P)		
14	E3F-0019-00	FLAT CABLE(50P)		
15	E3F-0021-00	FLAT CABLE(30P)		
16	E37-1118-05	LEAD WIRE WITH CONNECTOR(SHORT CABLE)		
17	E37-1693-05	LEAD WIRE WITH CONNECTOR(SP 2P)		NX-5700(K)
18	E3H-0008-00	LEAD WIRE WITH CONNECTOR(4P)		
19	F10-3112-13	SHIELDING CASE(PM)		
20	F10-3223-05	SHIELDING COVER(BLS(IFIC))		
21	F10-3225-05	SHIELDING COVER(BLS(BT/GPS,DCDC54M))	(x2)	
22	F10-3243-15	SHIELDING COVER(BLS(PLL IC))		
23	F1A-0003-00	SHIELDING PLATE(TOP)		
24	F1B-0013-00	SHIELDING CASE(FINAL)		
25	F1B-0021-00	SHIELDING COVER(BLS(VCO))		
26	F1E-0001-00	SHIELDING PLATE(D-SUB)		
27	F1E-0002-00	SHADE(TX-BUSY)		NX-5700(K)
28	G13-2101-04	CONDUCTIVE CUSHION		
29	G13-1837-04	CUSHION		
30	G13-2153-04	CONDUCTIVE CUSHION		
31	G1D-0011-00	CUSHION(LCD-HOLDER)		NX-5700(K)
32	G1D-0012-10	CUSHION(LCD-F.GLASS)		NX-5700(K)
33	G1D-0018-00	CUSHION(D-SUB)		
34	G1D-0028-00	CUSHION(DC SCREW)		
35	G1D-0049-00	CUSHION(VCO)		
36	G53-1616-03	PACKING(PHONE JACK)		
37	G53-1643-04	PACKING(DC CORD)		
38	G53-1662-04	PACKING(ANT(M))		
39	G53-1768-04	PACKING(SMA)		
40	G5D-0015-00	PACKING(SP)		NX-5700(K)
41	G5D-0016-00	PACKING(TOP)		
42	G5D-0017-00	PACKING(FRONY)		
43	J1K-0018-00	HOLDER(LCD)		NX-5700(K)
44	J1K-0019-00	HOLDER(PCB PANEL)		NX-5700(K)
45	J2B-0021-00	MOUNTING HARDWARE(LCD)		NX-5700(K)
46	J2B-0023-00	MOUNTING HARDWARE(SP)		NX-5700(K)
47	K2K-0100-00	KEY TOP		NX-5700(K)
48	T07-0810-05	SPEAKER		NX-5700(K)
49	W09-0971-05	LITHIUM CELL(MAIN UNIT)		
A	N09-2292-05	HEXAGON HEAD SCREW(D-SUB)	(x2)	
B	N30-2606-48	PAN HEAD MACHINE SCREW(SMA)	(x2)	
C	N67-3008-48	PAN HEAD SEMS SCREW(DC PM)	(x4)	
D	N83-2005-48	PAN HEAD TAPTITE SCREW(BT/GPS)	(x3)	
E	N87-2608-48	BRAZIER HEAD TAPTITE SCREW	(x24)	
F	N89-2606-43	BINDING HEAD TAPTITE SCREW(D-SUB)	(x2)	
-	XC1-0400-11	SERVICE MAIN UNIT		NX-5700(K),NX-5700B(K)
-	XC1-0381-81	SERVICE MAIN UNIT		NX-5700B(F)

Electrical parts list

MAIN UNIT

XC1-0381-80(NX-5700B_F)

XC1-0400-10(NX-5700_K, NX-5700B_K)

***Note : This part cannot be replaced. Therefore, this part is not supplied as a service part.**

Block No. [0][1]

⚠ Symbol No.	Part No.	Part Name	Description	Local
IC1	----------	IC(MOS-IC)	*Note	
IC2	MSP430G2533P0	MICROPROCESSOR IC		
IC3	XC6215B122N-G	IC(MOS-IC)		
IC4	NJM2878F4-33	BIPOLAR IC		
IC5	XC6223D331P-G	IC(MOS-IC)		
IC6	----------	IC(MOS-IC)	*Note	
IC7	XC6223H331P-G	IC(ANALOGUE)		
IC8	TPS54240DGQ	IC(MOS-IC)		
IC9	XC8102AA07-G	IC(MOS-IC)		
IC10	----------	IC(MOS-IC)	*Note	
IC11	LXDC2HN18F163	IC(MOS-IC)		
IC12	NJM2878F4-33	BIPOLAR IC		
IC13	TPS61041DRVR	IC(ANALOGUE)		
IC14	XC6223H331P-G	IC(ANALOGUE)		
IC15	BA00DD0WHFP	IC(MOS-IC)		
IC16	XC6209B502P-G	IC(MOS-IC)		
IC17	----------	IC(MOS-IC)	*Note	
IC18	XC61CN5002N-G	IC(MOS-IC)		
IC100	SKY72310362LF	IC(MOS-IC)		
IC101	TC7SH17FUF	IC(MOS-IC)		
IC102	BA2904FVM	IC(MOS-IC)		
IC300	----------	IC(MOS-IC)	*Note	
IC301	NJM12904RB1	BIPOLAR IC		
IC302	RA60H1317M1B	IC(MOS-IC)		
IC303	NJM12904RB1	BIPOLAR IC		
IC304	AD8315ARM	IC(MOS-IC)		
IC500	AK1224	IC(MOS-IC)		
IC501	BA2904FVM	IC(MOS-IC)		
IC600	AD9864BCPZRL	IC(MOS-IC)		
IC701	----------	ROM IC	*Note	
IC702	----------	SRAM IC	*Note	
IC703	CDC3S04YFF	IC(MOS-IC)		
IC704	TC7SZ08FE	IC(MOS-IC)		
IC705	TC7WH126FU-F	IC(MOS-IC)		
IC706	----------	MICROPROCESSOR IC	*Note	
IC707	BD11600NUX	IC(MOS-IC)		
IC708	BD11600NUX	IC(MOS-IC)		
IC709	TC7SET125FUF	IC(MOS-IC)		
IC710	TC7SZ08FE	IC(MOS-IC)		
IC711	----------	MICROPROCESSOR IC	*Note	
IC712	ADS7961SRHB	IC(MOS-IC)		
IC714	BD11600NUX	IC(MOS-IC)		
IC715	DAC124S085CIS	IC(MOS-IC)		
IC719	R2A20178NP	MICROCONTROLLER IC		
IC720	XC61CN5002N-G	IC(MOS-IC)		
IC900	TC7SET08FUF	IC(MOS-IC)		
IC901	BU7242NUX	IC(MOS-IC)		
IC902	TLV32AIC3104I	IC(MOS-IC)		
IC903	BU7242NUX	IC(MOS-IC)		
IC904	TC7SET125FUF	IC(MOS-IC)		
IC905	TC7WT125FUF	IC(MOS-IC)		
IC906	TC7WBD125AFK	IC(MOS-IC)		
IC907	BD11600NUX	IC(MOS-IC)		
IC908	TC7WH14FK-F	IC(MOS-IC)		
IC909	ADM3202ARUZ	IC(MOS-IC)		
IC910	PCA9555AHF	IC(MOS-IC)		
IC911	LA4425A-E	IC(MOS-IC)		
IC912	TC7SET08FUF	IC(MOS-IC)		
Q1	KTA2012EP	TRANSISTOR		
Q3	SSM3K15AMFV	FET		
Q4	LTC014EEBFS8	DIGI TRANSISTOR		
Q5	MTM981400BF	FET		
Q6	LTC014EEBFS8	DIGI TRANSISTOR		
Q7	LTC014TEBFS8	DIGI TRANSISTOR		
Q8	LSCR523EBFS8	TRANSISTOR		
Q9	LSAR523UBFS8	TRANSISTOR		
Q10	MTM981400BF	FET		
Q11	LTC014EEBFS8	DIGI TRANSISTOR		
Q12	EM6M2	FET		
Q14	EM6M2	FET		
Q15	LTC014EEBFS8	DIGI TRANSISTOR		
Q16	SSM3J334R	FET		
Q17	LTC014EEBFS8	DIGI TRANSISTOR		
Q18	SSM3J334R	FET		
Q81	SSM3J15FS	FET		
Q100	LTA014YEBFS8	TRANSISTOR		
Q101	SSM3K15AMFV	FET		
Q102	EMD9	TRANSISTOR		
Q103	EM6M2	FET		
Q104	DSC9A01/T/	TRANSISTOR		
Q105	MCH3914-H/7/	FET		
Q106	2SC5108F/Y/	TRANSISTOR		
Q107	MCH3914-H/7/	FET		
Q108	EM6M2	FET		
Q109	SSM3J15FS	FET		
Q110	2SC5108F/Y/	TRANSISTOR		
Q111	2SC5108F/Y/	TRANSISTOR		
Q112	EM6M2	FET		
Q300	RD01MUS2-T113	FET		
Q301	LSCR523EBFS8	TRANSISTOR		
Q302	LSCR523EBFS8	TRANSISTOR		
Q303	LSCR523EBFS8	TRANSISTOR		
Q304	EM6M2	FET		
Q305	SSM3K15AMFV	FET		
Q500	2SC5108F/Y/	TRANSISTOR		
Q502	MT3S111	TRANSISTOR		
Q600	MCH3914-H/8/	FET		
Q601	LTC023JEBFS8	DIGI TRANSISTOR		
Q602	LSCR523EBFS8	TRANSISTOR		
Q603	2SC5066F/O/	TRANSISTOR		
Q604	BF5020W	FET		
Q700	2SC4617/S/	TRANSISTOR		
Q701	SSM3K15AMFV	FET		
Q703	SSM3K15AMFV	FET		
Q704	SSM3K15AMFV	FET		
Q705	LTC014TEBFS8	DIGI TRANSISTOR		
Q900	SSM3K335R	FET		
Q901	SSM3J332R	FET		
Q902	DSC9A01/T/	TRANSISTOR		
Q905	SSM3K335R	FET		
Q906	SSM3J332R	FET		
Q907	SSM3K335R	FET		
Q908	SSM3K335R	FET		
D1	DZ2J180(M)	ZENER DIODE		
D2	RB520SM-30	DIODE		
D3	EDZV8.2B	ZENER DIODE		
D4	RB521CM-30	DIODE		
D5	22ZR-10D	SURGE ABSORBER		
D6	RB520SM-30	DIODE		
D7	RB521CM-30	DIODE		
D8	RB521CM-30	DIODE		
D9	RB521CM-30	DIODE		
D10	DSA3A1	DIODE		
D11	DZ2S056(M)	ZENER DIODE		
D12	RB521CM-30	DIODE		
D13	1SS400SM	DIODE		
D14	RB060M-40	DIODE		
D15	DB2J40700	DIODE		
D16	RB521CM-30	DIODE		
D17	RB521CM-30	DIODE		
D100	EDZV8.2B	ZENER DIODE		
D101	RN262CS	DIODE		
D102	RN262CS	DIODE		
D103	SMV1270-079LF	VARIABLE CAPACITANCE DIODE		
D104	SMV1212-079LF	VARIABLE CAPACITANCE DIODE		
D106	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D107	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D108	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D109	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		

⚠ Symbol No.	Part No.	Part Name	Description	Local
D110	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D111	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D113	1SS400SM	DIODE		
D114	RN262CS	DIODE		
D115	RN262CS	DIODE		
D117	SMV1130-079LF	VARIABLE CAPACITANCE DIODE		
D300	RN262CS	DIODE		
D301	RB520SM-30	DIODE		
D302	DZ2S056(M)	ZENER DIODE		
D307	DZ2S056(M)	ZENER DIODE		
D309	RB706F-40	DIODE		
D310	L8104	DIODE		
D311	L8104	DIODE		
D312	JDP2S12CR	DIODE		
D313	JDP2S12CR	DIODE		
D314	RN142S	DIODE		
D315	RN142S	DIODE		
D500	RN262CS	DIODE		
D501	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D502	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D503	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D504	SMV1801-079LF	VARIABLE CAPACITANCE DIODE		
D505	BBY56-02V	VARIABLE CAPACITANCE DIODE		
D506	BBY56-02V	VARIABLE CAPACITANCE DIODE		
D507	BBY56-02V	VARIABLE CAPACITANCE DIODE		
D508	RN142S	DIODE		
D509	RN142S	DIODE		
D510	BBY56-02V	VARIABLE CAPACITANCE DIODE		
D600	SMV1705-079LF	VARIABLE CAPACITANCE DIODE		
D601	SMV1705-079LF	VARIABLE CAPACITANCE DIODE		
D602	DA3S101F	MULTIPLE DIODE		
D700	RB521CM-30	DIODE		
D701	RB521CM-30	DIODE		
D702	SPC10501A01	VARISTOR		
D703	SPC10501A01	VARISTOR		
D704	SPC10501A01	VARISTOR		
D705	SPC10501A01	VARISTOR		
D706	SPC10501A01	VARISTOR		
D708	EDZV8.2B	ZENER DIODE		
D710	RB521CM-30	DIODE		
D711	RB521CM-30	DIODE		
D801	RB521CM-30	DIODE		
D900	DA3S101F	MULTIPLE DIODE		
D903	DZ2S056(M)	ZENER DIODE		
D904	DA204U	MULTIPLE DIODE		
D905	1SS400SM	DIODE		
D906	DZ2S056(M)	ZENER DIODE		
D907	RB521CM-30	DIODE		
D908	DA204U	MULTIPLE DIODE		
D909	DA3S101F	MULTIPLE DIODE		
D910	DA204U	MULTIPLE DIODE		
D911	DA204U	MULTIPLE DIODE		
D912	DA204U	MULTIPLE DIODE		
D913	DA204U	MULTIPLE DIODE		
D914	DA204U	MULTIPLE DIODE		
D915	DA204U	MULTIPLE DIODE		
D916	DA2J101	DIODE		
D917	DZ2J180(M)	ZENER DIODE		
D918	DA204U	MULTIPLE DIODE		
D919	DA204U	MULTIPLE DIODE		
D920	DA204U	MULTIPLE DIODE		
D921	DA2J101	DIODE		
D922	DZ2J180(M)	ZENER DIODE		
D923	DA204U	MULTIPLE DIODE		
D924	RB520SM-30	DIODE		
C1	CK73HB1C105K	C CAPACITOR	1.0UF K	
C2	CD04CK1E102M	E CAPACITOR	1000UF M	
C3	CK73HBB1H222K	C CAPACITOR	2200PF K	
C4	CK73HBB1H102K	C CAPACITOR	1000PF K	
C5	CK73HBB1H102K	C CAPACITOR	1000PF K	
C8	CK73HBB1H102K	C CAPACITOR	1000PF K	
C9	CK73HBB1H102K	C CAPACITOR	1000PF K	
C10	CK73FB1C106K	C CAPACITOR	10UF K	
C11	CK73HB1E104K	C CAPACITOR	0.10UF K	
C12	C93-1959-05	C CAPACITOR	0.10UF B	
C13	CK73HB1A474K	C CAPACITOR	0.47UF K	
C16	CK73HB1H103K	C CAPACITOR	0.010UF K	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C18	CC73HCH1H471J	C CAPACITOR	470PF J	
C21	CK73HB1C105K	C CAPACITOR	1.0UF K	
C24	CK73HBB1H102K	C CAPACITOR	1000PF K	
C25	CK73HBB1H102K	C CAPACITOR	1000PF K	
C30	CK73HB1C105K	C CAPACITOR	1.0UF K	
C31	CK73EB1H475KM	C CAPACITOR	4.7UF K	
C32	CK73GB1E105K	C CAPACITOR	1.0UF K	
C33	CK73EB1H475KM	C CAPACITOR	4.7UF K	
C34	CK73HB1E104K	C CAPACITOR	0.10UF K	
C35	CK73HBB1H102K	C CAPACITOR	1000PF K	
C36	CK73GB1E105K	C CAPACITOR	1.0UF K	
C37	CK73FB1C106K	C CAPACITOR	10UF K	
C38	CC73HCH1H471J	C CAPACITOR	470PF J	
C39	CK73GB0J106K	C CAPACITOR	10UF K	
C40	CK73HB1H103K	C CAPACITOR	0.010UF K	
C41	CK73GB1E105K	C CAPACITOR	1.0UF K	
C43	CK73GXR1C225K	C CAPACITOR	2.2UF K	
C44	CC73HCH1H471J	C CAPACITOR	470PF J	
C45	CK73HB1C105K	C CAPACITOR	1.0UF K	
C46	CK73GXR1C225K	C CAPACITOR	2.2UF K	
C47	CK73HB1E104K	C CAPACITOR	0.10UF K	
C48	CK73GXR1C225K	C CAPACITOR	2.2UF K	
C49	CK73HB1C105K	C CAPACITOR	1.0UF K	
C50	CK73HBB1H102K	C CAPACITOR	1000PF K	
C51	CK73HBB1H332K	C CAPACITOR	3300PF K	
C52	CK73HB1E104K	C CAPACITOR	0.10UF K	
C53	CK73GB1E105K	C CAPACITOR	1.0UF K	
C54	CK73GB1E105K	C CAPACITOR	1.0UF K	
C55	CC73HCH1H471J	C CAPACITOR	470PF J	
C56	CK73HB1H392K	C CAPACITOR	3900PF K	
C57	CK73FXR1E475K	C CAPACITOR	4.7UF K	
C58	CC73HCH1H220G	C CAPACITOR	22PF G	
C59	CK73FB1C106K	C CAPACITOR	10UF K	
C60	CK73FB1C106K	C CAPACITOR	10UF K	
C61	CC73HCH1H471J	C CAPACITOR	470PF J	
C62	CK73GXR1C225K	C CAPACITOR	2.2UF K	
C63	CK73HBB1H102K	C CAPACITOR	1000PF K	
C64	CK73GB0J106K	C CAPACITOR	10UF K	
C65	CK73FB1C106K	C CAPACITOR	10UF K	
C66	CK73HB1C105K	C CAPACITOR	1.0UF K	
C67	CK73FB1C106K	C CAPACITOR	10UF K	
C68	CK73FXR1E475K	C CAPACITOR	4.7UF K	
C69	CK73GXR1C225K	C CAPACITOR	4.7UF K	
C70	CC73HCH1H391J	C CAPACITOR	390PF J	
C71	CC73HCH1H391J	C CAPACITOR	390PF J	
C72	CK73EB1H475KM	C CAPACITOR	4.7UF K	
C73	CK73GB1E105K	C CAPACITOR	1.0UF K	
C74	CK73GXR1C225K	C CAPACITOR	2.2UF K	
C75	CK73HB1C105K	C CAPACITOR	1.0UF K	
C76	CC73HCH1H471J	C CAPACITOR	470PF J	
C77	CK73FXR1E475K	C CAPACITOR	4.7UF K	
C78	CK730DT1C476K	C CAPACITOR	4.7UF K	
C80	CK73GXR1H104K	C CAPACITOR	0.1UF K	
C81	CC73HCH1H470G	C CAPACITOR	47PF G	
C82	CK73GXR1C225K	C CAPACITOR	2.2UF K	
C83	CK73HB1C105K	C CAPACITOR	1.0UF K	
C84	CK73GXR1C225K	C CAPACITOR	2.2UF K	
C85	C92-0968-05	E CAPACITOR	470UF 25WV	
C100	CK73HB1H103K	C CAPACITOR	0.010UF K	
C101	CC73HCH1H471J	C CAPACITOR	470PF J	
C102	CC73HCH1H100B	C CAPACITOR	10PF B	
C103	CK73HB1H103K	C CAPACITOR	0.010UF K	
C104	CK73HB1H103K	C CAPACITOR	0.010UF K	
C106	CC73HCH1H101J	C CAPACITOR	100PF J	
C107	CC73HCH1H101J	C CAPACITOR	100PF J	
C108	CC73HCH1H101J	C CAPACITOR	100PF J	
C109	CC73HCH1H101J	C CAPACITOR	100PF J	
C110	CC73HCH1H101J	C CAPACITOR	100PF J	
C111	CC73HCH1H101J	C CAPACITOR	100PF J	
C112	CK73HB1E104K	C CAPACITOR	0.10UF K	
C113	CK73HB1E104K	C CAPACITOR	0.10UF K	
C114	CC73HCH1H101J	C CAPACITOR	100PF J	
C115	CK73HB1E104K	C CAPACITOR	0.10UF K	
C116	CC73HCH1H101J	C CAPACITOR	100PF J	
C118	CK73HB1H103K	C CAPACITOR	0.010UF K	
C120	CC73HCH1H101J	C CAPACITOR	100PF J	
C121	CC73HCH1H330G	C CAPACITOR	33PF G	
C124	CC73HCH1H101J	C CAPACITOR	100PF J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C125	CK73GB1H105K	C CAPACITOR	1.0UF K	
C126	CC73HCH1H101J	C CAPACITOR	100PF J	
C127	CK73FB1E224K	C CAPACITOR	0.22UF K	
C128	CS77ABE1D100M	TA E CAPACITOR	10UF M	
C129	CK73HBB1H102K	C CAPACITOR	1000PF K	
C131	CC730AD1H104J	C CAPACITOR	100PF J	
C132	CC73HCH1H471J	C CAPACITOR	470PF J	
C133	CC73HCH1H471J	C CAPACITOR	470PF J	
C134	CC73HCH1H471J	C CAPACITOR	470PF J	
C135	CC73HCH1H471J	C CAPACITOR	470PF J	
C136	CK73HB1E473K	C CAPACITOR	0.047UF K	
C137	CC73HCH1H101J	C CAPACITOR	100PF J	
C138	CC73HCH1H390G	C CAPACITOR	39PF G	
C139	CC73HCH1H220G	C CAPACITOR	22PF G	
C141	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C142	CC73GCH1H151J	C CAPACITOR	150PF J	
C143	CC73GCH1H331J	C CAPACITOR	330PF J	
C144	CC73HCH1H030B	C CAPACITOR	3.0PF B	
C145	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C146	CK73HBB1H102K	C CAPACITOR	1000PF K	
C147	CK73HBB1H102K	C CAPACITOR	1000PF K	
C148	CC73HCH1H220G	C CAPACITOR	22PF G	
C149	CC73HCH1H390G	C CAPACITOR	39PF G	
C150	CK73HB1C105K	C CAPACITOR	1.0UF K	
C151	CC73HCH1H471J	C CAPACITOR	470PF J	
C152	CC73HCH1H030B	C CAPACITOR	3.0PF B	
C153	CC73HCH1H060B	C CAPACITOR	6.0PF B	
C154	CC73HCH1H330G	C CAPACITOR	33PF G	
C155	CC73HCH1H390G	C CAPACITOR	39PF G	
C156	CC73HCH1H471J	C CAPACITOR	470PF J	
C157	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C159	CC73HCH1H471J	C CAPACITOR	470PF J	
C161	CK73FB1C106K	C CAPACITOR	10UF K	
C162	CC73HCH1HR75B	C CAPACITOR	0.75PF B	
C164	CK73HBB1H102K	C CAPACITOR	1000PF K	
C165	CC73HCH1H100B	C CAPACITOR	10PF B	
C166	CC73HCH1H471J	C CAPACITOR	470PF J	
C167	CC73HCH1H150G	C CAPACITOR	15PF G	
C168	CK73GB1E105K	C CAPACITOR	1.0UF K	
C169	CK73HB1H103K	C CAPACITOR	0.010UF K	
C170	CK73HB1H103K	C CAPACITOR	0.010UF K	
C171	CC73HCH1H070B	C CAPACITOR	7.0PF B	
C172	CC73HCH1H090B	C CAPACITOR	9.0PF B	
C173	CK73HBB1H102K	C CAPACITOR	1000PF K	
C174	CK73HBB1H102K	C CAPACITOR	1000PF K	
C175	CK73HBB1H102K	C CAPACITOR	1000PF K	
C176	CC73HCH1H471J	C CAPACITOR	470PF J	
C177	CC73HCH1H0R5B	C CAPACITOR	0.5PF B	
C178	CC73HCH1H0R5B	C CAPACITOR	0.5PF B	
C179	CC73HCH1H100B	C CAPACITOR	10PF B	
C180	CK73HB1C105K	C CAPACITOR	1.0UF K	
C181	CC73HCH1H471J	C CAPACITOR	470PF J	
C182	CK73HBB1H102K	C CAPACITOR	1000PF K	
C183	CK73HB1C105K	C CAPACITOR	1.0UF K	
C187	CK73HBB1H102K	C CAPACITOR	1000PF K	
C189	CC73HCH1H220G	C CAPACITOR	22PF G	
C190	CC73HCH1H220G	C CAPACITOR	22PF G	
C191	CC73HCH1H151J	C CAPACITOR	150PF J	
C192	CC73HCH1H120G	C CAPACITOR	12PF G	
C193	CC73HCH1H120G	C CAPACITOR	12PF G	
C194	CK73HBB1H102K	C CAPACITOR	1000PF K	
C195	CK73HBB1H102K	C CAPACITOR	1000PF K	
C196	CK73HBB1H102K	C CAPACITOR	1000PF K	
C197	CC73HCH1H330G	C CAPACITOR	33PF G	
C200	CK73HBB1H102K	C CAPACITOR	1000PF K	
C201	CK73HB1C105K	C CAPACITOR	1.0UF K	
C202	CC73HCH1H471J	C CAPACITOR	470PF J	
C204	CK73GB1H122K	C CAPACITOR	1200PF K	
C300	CK73HBB1H102K	C CAPACITOR	1000PF K	
C301	CK73HBB1H102K	C CAPACITOR	1000PF K	
C302	CC73GCH1H020B	C CAPACITOR	2.0PF B	
C304	CC73HCH1H680J	C CAPACITOR	68PF J	
C306	CK73HBB1H102K	C CAPACITOR	1000PF K	
C307	CK73HBB1H102K	C CAPACITOR	1000PF K	
C308	CK73HB1E473K	C CAPACITOR	0.047UF K	
C309	CK73HBB1H152K	C CAPACITOR	1500PF K	
C310	CC73HCH1H101J	C CAPACITOR	100PF J	
C311	CC73HCH1H470G	C CAPACITOR	47PF G	
C312	CK73HBB1H102K	C CAPACITOR	1000PF K	
C313	CC73HCH1H220G	C CAPACITOR	22PF G	
C315	CC73HCH1H390G	C CAPACITOR	39PF G	
C317	CC73HCH1H220G	C CAPACITOR	22PF G	
C318	CC73HCH1H090B	C CAPACITOR	9.0PF B	
C319	CK73HBB1H102K	C CAPACITOR	1000PF K	
C320	CC73HCH1H101J	C CAPACITOR	100PF J	
C321	CK73HBB1H102K	C CAPACITOR	1000PF K	
C322	CK73GBB1H102K	C CAPACITOR	0.010UF K	
C325	CC73GCH1H330J	C CAPACITOR	33PF J	
C327	CK73HB1H103K	C CAPACITOR	0.010UF K	
C328	CK73GB1H183K	C CAPACITOR	0.018UF K	
C329	CK73HBB1H472K	C CAPACITOR	4700PF K	
C330	CK73HBB1H102K	C CAPACITOR	1000PF K	
C331	CK73GBB1H102K	C CAPACITOR	1000PF K	
C332	CK73HBB1H472K	C CAPACITOR	4700PF K	
C333	CK73HBB1H332K	C CAPACITOR	3300PF K	
C334	CK73GBB1H102K	C CAPACITOR	1000PF K	
C335	CK73GBB1H102K	C CAPACITOR	1000PF K	
C336	CC73HCH1H220G	C CAPACITOR	22PF G	
C338	CC73HCH1H470G	C CAPACITOR	47PF G	
C341	CC73HCH1H101J	C CAPACITOR	100PF J	
C343	CK73HBB1H332K	C CAPACITOR	3300PF K	
C345	CK73HBB1H102K	C CAPACITOR	1000PF K	
C346	CK73HB1H103K	C CAPACITOR	0.010UF K	
C348	CK73HB1E473K	C CAPACITOR	0.047UF K	
C349	CE32BY1E470M	E CAPACITOR	47UF 25WV	
C350	C93-0603-05	C CAPACITOR	1000PF K	
C351	CK73HB1E333K	C CAPACITOR	0.033UF K	
C353	CC73GCH1H560J	C CAPACITOR	56PF J	
C359	CK73HBB1H102K	C CAPACITOR	1000PF K	
C360	CK73GBB1H102K	C CAPACITOR	1000PF K	
C361	CK73GBB1H102K	C CAPACITOR	1000PF K	
C362	C93-0603-05	C CAPACITOR	1000PF K	
C363	CK73GBB1H102K	C CAPACITOR	1000PF K	
C364	CC73HCH1H220J	C CAPACITOR	22PF J	
C365	CC73HCH1H391J	C CAPACITOR	390PF J	
C366	C93-1855-05	C CAPACITOR	7.0PF B	
C367	CK73GBB1H102K	C CAPACITOR	1000PF K	
C368	CK73HBB1H102K	C CAPACITOR	1000PF K	
C369	C93-1862-05	C CAPACITOR	12PF B	
C370	CK73HB1E104K	C CAPACITOR	0.10UF K	
C371	CC73GCH1H120G	C CAPACITOR	12PF G	
C372	C93-0603-05	C CAPACITOR	1000PF K	
C373	C93-1861-05	C CAPACITOR	10PF B	
C374	CK73HBB1H472K	C CAPACITOR	4700PF K	
C375	C93-2055-05	C CAPACITOR	22PF G	
C376	C93-1862-05	C CAPACITOR	12PF B	
C377	C93-2055-05	C CAPACITOR	22PF G	
C378	CK73HBB1H102K	C CAPACITOR	1000PF K	
C379	C93-2055-05	C CAPACITOR	22PF G	
C380	C93-2055-05	C CAPACITOR	22PF G	
C381	C93-1855-05	C CAPACITOR	7.0PF B	
C382	C93-1862-05	C CAPACITOR	12PF B	
C383	C93-1863-05	C CAPACITOR	15PF B	
C385	CK73HBB1H222K	C CAPACITOR	2200PF K	
C500	CK73HB1H103K	C CAPACITOR	0.010UF K	
C501	CK73HBB1H102K	C CAPACITOR	1000PF K	
C502	CK73HB1H103K	C CAPACITOR	0.010UF K	
C503	CK73HBB1H102K	C CAPACITOR	1000PF K	
C504	CK73HB1H103K	C CAPACITOR	0.010UF K	
C506	CK73HBB1H102K	C CAPACITOR	1000PF K	
C507	CC73HCH1H471J	C CAPACITOR	470PF J	
C508	CC73HCH1H030B	C CAPACITOR	3.0PF B	
C509	CK73HBB1H102K	C CAPACITOR	1000PF K	
C510	CK73HBB1H102K	C CAPACITOR	1000PF K	
C511	CK73HB1H103K	C CAPACITOR	0.010UF K	
C512	CC73HCH1H100B	C CAPACITOR	10PF B	
C513	CC73HCH1H180G	C CAPACITOR	18PF G	
C516	CC73HCH1H270G	C CAPACITOR	27PF G	
C518	CC73HCH1H180G	C CAPACITOR	18PF G	
C519	CK73HBB1H102K	C CAPACITOR	1000PF K	
C520	CK73HB1H103K	C CAPACITOR	0.010UF K	
C521	CC73HCH1H330G	C CAPACITOR	33PF G	
C522	CK73HBB1H102K	C CAPACITOR	1000PF K	
C523	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C524	CK73HBB1H102K	C CAPACITOR	1000PF K	
C525	CK73HBB1H102K	C CAPACITOR	1000PF K	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C526	CC73GCH1H120G	C CAPACITOR	12PF G	
C528	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C529	CK73HBB1H102K	C CAPACITOR	1000PF K	
C530	CK73HBB1H102K	C CAPACITOR	1000PF K	
C532	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C534	CK73HBB1H102K	C CAPACITOR	1000PF K	
C535	CK73HBB1H102K	C CAPACITOR	1000PF K	
C536	CC73GCH1H150G	C CAPACITOR	15PF G	
C537	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C538	CK73HBB1H102K	C CAPACITOR	1000PF K	
C539	CK73HBB1H102K	C CAPACITOR	1000PF K	
C541	CK73GXR1H104K	C CAPACITOR	0.1UF K	
C542	CK73HBB1H102K	C CAPACITOR	1000PF K	
C544	CK73HBB1H102K	C CAPACITOR	1000PF K	
C545	CC73HCH1H100B	C CAPACITOR	10PF B	
C546	CK73HBB1H102K	C CAPACITOR	1000PF K	
C548	CC73HCH1H330G	C CAPACITOR	33PF G	
C550	CK73HBB1H102K	C CAPACITOR	1000PF K	
C551	CC73HCH1H080B	C CAPACITOR	8.0PF B	
C552	CK73HB1E104K	C CAPACITOR	0.10UF K	
C553	C93-0955-05	C CAPACITOR	68PF G	
C554	CK73HBB1H102K	C CAPACITOR	1000PF K	
C555	CC73HCH1H080B	C CAPACITOR	8.0PF B	
C557	CC73GCH1H150G	C CAPACITOR	15PF G	
C559	CK73HBB1H102K	C CAPACITOR	1000PF K	
C560	CK73HBB1H102K	C CAPACITOR	1000PF K	
C561	C93-0957-05	C CAPACITOR	82PF B	
C562	CK73HBB1H102K	C CAPACITOR	1000PF K	
C600	CC73JCH1H101J	C CAPACITOR	100PF J	
C601	CC73JCH1H101J	C CAPACITOR	100PF J	
C602	CC73JCH1H101J	C CAPACITOR	100PF J	
C603	CC73JCH1H101J	C CAPACITOR	100PF J	
C604	CC73JCH1H101J	C CAPACITOR	100PF J	
C605	CC73JCH1H101J	C CAPACITOR	100PF J	
C606	CC73JCH1H101J	C CAPACITOR	100PF J	
C607	CC73HCH1H120G	C CAPACITOR	12PF G	
C608	CK73HB1E104K	C CAPACITOR	0.10UF K	
C609	CK73HB1E562K	C CAPACITOR	5600PF K	
C610	C93-1959-05	C CAPACITOR	0.10UF B	
C611	CC73HCH1H100B	C CAPACITOR	10PF B	
C612	CK73HB1A224K	C CAPACITOR	0.22UF K	
C613	C93-1959-05	C CAPACITOR	0.10UF B	
C614	CK73HB1H123K	C CAPACITOR	0.012UF K	
C615	CK73HB1E104K	C CAPACITOR	0.10UF K	
C616	CC73HCH1H390G	C CAPACITOR	39PF G	
C617	CC73HCH1H390G	C CAPACITOR	39PF G	
C618	CK73HB1H103K	C CAPACITOR	0.010UF K	
C619	C93-1959-05	C CAPACITOR	0.10UF B	
C620	CK73HB1C105K	C CAPACITOR	1.0UF K	
C621	CK73HB1H103K	C CAPACITOR	0.010UF K	
C622	CK73HBB1H102K	C CAPACITOR	1000PF K	
C623	CC73HCH1H390G	C CAPACITOR	39PF G	
C624	CC73HCH1H390G	C CAPACITOR	39PF G	
C625	C93-1959-05	C CAPACITOR	0.10UF B	
C626	CK73HB1E104K	C CAPACITOR	0.10UF K	
C627	C93-1953-05	C CAPACITOR	0.10UF B	
C628	C93-1959-05	C CAPACITOR	0.10UF B	
C629	C93-1953-05	C CAPACITOR	0.10UF B	
C630	C93-1959-05	C CAPACITOR	0.10UF B	
C631	C93-1959-05	C CAPACITOR	0.10UF B	
C632	C93-1953-05	C CAPACITOR	0.10UF B	
C633	C93-1959-05	C CAPACITOR	0.10UF B	
C634	CK73FB1C106K	C CAPACITOR	10UF K	
C635	C93-1959-05	C CAPACITOR	0.10UF B	
C636	CK73HB1C105K	C CAPACITOR	1.0UF K	
C637	CK73HB1H103K	C CAPACITOR	0.010UF K	
C638	CK73HBB1H682K	C CAPACITOR	6800PF K	
C639	CC73HCH1H101J	C CAPACITOR	100PF J	
C640	C93-1969-05	C CAPACITOR	1000PF G	
C641	CC73HCH1H101J	C CAPACITOR	100PF J	
C642	CC73HCH1H100B	C CAPACITOR	10PF B	
C643	CC73JCH1H101J	C CAPACITOR	100PF J	
C644	C93-1953-05	C CAPACITOR	0.10UF B	
C645	CC73HCH1H330G	C CAPACITOR	33PF G	
C646	CC73HCH1H151J	C CAPACITOR	150PF J	
C647	C93-1959-05	C CAPACITOR	0.10UF B	
C648	CC73JCH1H101J	C CAPACITOR	100PF J	
C649	CC73HCH1H100B	C CAPACITOR	10PF B	
C650	CC73HCH1H101J	C CAPACITOR	100PF J	
C651	C93-1959-05	C CAPACITOR	0.10UF B	
C652	C93-1959-05	C CAPACITOR	0.10UF B	
C653	CC73HCH1H560J	C CAPACITOR	56PF J	
C654	CK73HBB1H102K	C CAPACITOR	1000PF K	
C655	CK73HB1H103K	C CAPACITOR	0.010UF K	
C656	CC73HCH1H100B	C CAPACITOR	10PF B	
C657	CC73HCH1H060B	C CAPACITOR	6.0PF B	
C658	CK73HB1H103K	C CAPACITOR	0.010UF K	
C659	CK73HB1H103K	C CAPACITOR	0.010UF K	
C660	CC73HCH1H120G	C CAPACITOR	12PF G	
C661	CK73HBB1H102K	C CAPACITOR	1000PF K	
C662	CK73HBB1H102K	C CAPACITOR	1000PF K	
C663	CK73HB1H103K	C CAPACITOR	0.010UF K	
C665	CC73HCH1H080B	C CAPACITOR	8.0PF B	
C666	CC73HCH1H220G	C CAPACITOR	22PF G	
C667	CC73HCH1H060B	C CAPACITOR	6.0PF B	
C668	CC73HCH1H180G	C CAPACITOR	18PF G	
C669	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C670	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C671	CC73HCH1H180G	C CAPACITOR	18PF G	
C681	CC73HCH1H471J	C CAPACITOR	470PF J	
C700	CK73HB1C105K	C CAPACITOR	1.0UF K	
C701	C93-1959-05	C CAPACITOR	0.10UF B	
C702	C93-1959-05	C CAPACITOR	0.10UF B	
C703	CK73FXR0J226M	C CAPACITOR	22UF M	
C704	CK73HB1H103K	C CAPACITOR	0.010UF K	
C705	C93-1959-05	C CAPACITOR	0.10UF B	
C706	C93-1959-05	C CAPACITOR	0.10UF B	
C707	CK73FXR0J226M	C CAPACITOR	22UF M	
C708	CK73GB0J106K	C CAPACITOR	10UF K	
C709	C93-1959-05	C CAPACITOR	0.10UF B	
C711	C93-1959-05	C CAPACITOR	0.10UF B	
C712	C93-1959-05	C CAPACITOR	0.10UF B	
C713	C93-1959-05	C CAPACITOR	0.10UF B	
C714	C93-1959-05	C CAPACITOR	0.10UF B	
C715	C93-1959-05	C CAPACITOR	0.10UF B	
C716	C93-1959-05	C CAPACITOR	0.10UF B	
C717	C93-1959-05	C CAPACITOR	0.10UF B	
C718	C93-1959-05	C CAPACITOR	0.10UF B	
C719	CC73JCH1H101J	C CAPACITOR	100PF J	
C720	CK73HB1E104K	C CAPACITOR	0.10UF K	
C721	C93-1959-05	C CAPACITOR	0.10UF B	
C722	CC73JCH1H101J	C CAPACITOR	100PF J	
C723	C93-1959-05	C CAPACITOR	0.10UF B	
C724	C93-1959-05	C CAPACITOR	0.10UF B	
C725	CC73JCH1H101J	C CAPACITOR	100PF J	
C726	C93-1953-05	C CAPACITOR	0.10UF B	
C728	CK73GB0J106K	C CAPACITOR	10UF K	
C729	CK73HB1H103K	C CAPACITOR	0.010UF K	
C730	CK73GB0J106K	C CAPACITOR	10UF K	
C731	C93-1959-05	C CAPACITOR	0.10UF B	
C732	C93-1959-05	C CAPACITOR	0.10UF B	
C733	C93-1959-05	C CAPACITOR	0.10UF B	
C734	C93-1959-05	C CAPACITOR	0.10UF B	
C735	CC73JCH1H101J	C CAPACITOR	100PF J	
C736	C93-1959-05	C CAPACITOR	0.10UF B	
C737	CC73JCH1H101J	C CAPACITOR	100PF J	
C738	CC73JCH1H101J	C CAPACITOR	100PF J	
C739	CK73GB0J106K	C CAPACITOR	10UF K	
C740	CK73HB1H103K	C CAPACITOR	0.010UF K	
C741	C93-1959-05	C CAPACITOR	0.10UF B	
C742	CK73GB0J106K	C CAPACITOR	10UF K	
C743	C93-1953-05	C CAPACITOR	0.10UF B	
C745	C93-1959-05	C CAPACITOR	0.10UF B	
C746	CK73GB0J106K	C CAPACITOR	10UF K	
C747	CK73GB0J106K	C CAPACITOR	10UF K	
C748	CC73HCH1H100B	C CAPACITOR	10PF B	
C749	C93-1959-05	C CAPACITOR	0.10UF B	
C750	CK73GB0J106K	C CAPACITOR	10UF K	
C751	C93-1959-05	C CAPACITOR	0.10UF B	
C752	C93-1959-05	C CAPACITOR	0.10UF B	
C754	C93-1959-05	C CAPACITOR	0.10UF B	
C755	C93-1959-05	C CAPACITOR	0.10UF B	
C756	C93-1959-05	C CAPACITOR	0.10UF B	
C757	CK73HB1H103K	C CAPACITOR	0.010UF K	
C758	C93-1959-05	C CAPACITOR	0.10UF B	
C759	CC73JCH1H101J	C CAPACITOR	100PF J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C760	C93-1959-05	C CAPACITOR	0.10UF B	
C762	C93-1959-05	C CAPACITOR	0.10UF B	
C764	C93-1959-05	C CAPACITOR	0.10UF B	
C766	C93-1959-05	C CAPACITOR	0.10UF B	
C768	C93-1953-05	C CAPACITOR	0.10UF B	
C769	CK73HB1C105K	C CAPACITOR	1.0UF K	
C770	CK73HB1C105K	C CAPACITOR	1.0UF K	
C771	C93-1959-05	C CAPACITOR	0.10UF B	
C772	C93-1959-05	C CAPACITOR	0.10UF B	
C773	C93-1959-05	C CAPACITOR	0.10UF B	
C774	C93-1959-05	C CAPACITOR	0.10UF B	
C775	C93-1959-05	C CAPACITOR	0.10UF B	
C776	C93-1959-05	C CAPACITOR	0.10UF B	
C777	C93-1959-05	C CAPACITOR	0.10UF B	
C778	C93-1959-05	C CAPACITOR	0.10UF B	
C779	CK73HB1C105K	C CAPACITOR	1.0UF K	
C780	C93-1959-05	C CAPACITOR	0.10UF B	
C781	CC73HCH1H150G	C CAPACITOR	15PF G	
C782	CC73HCH1H150G	C CAPACITOR	15PF G	
C783	CK73HB1E104K	C CAPACITOR	0.10UF K	
C784	CK73HB1A224K	C CAPACITOR	0.22UF K	
C785	CK73GB0J106K	C CAPACITOR	10UF K	
C786	CK73GB0J106K	C CAPACITOR	10UF K	
C787	CK73HB1E104K	C CAPACITOR	0.10UF K	
C791	C93-1959-05	C CAPACITOR	0.10UF B	
C792	C93-1959-05	C CAPACITOR	0.10UF B	
C793	CK73HBB1H102K	C CAPACITOR	1000PF K	
C794	CK73HBB1H102K	C CAPACITOR	1000PF K	
C795	CK73HB1H103K	C CAPACITOR	0.010UF K	
C796	CK73HB1H103K	C CAPACITOR	0.010UF K	
C797	CK73HB1H103K	C CAPACITOR	0.010UF K	
C798	CK73GB1E105K	C CAPACITOR	1.0UF K	
C799	CK73HB1E104K	C CAPACITOR	0.10UF K	
C800	CK73HB1H103K	C CAPACITOR	0.010UF K	
C801	CC73HCH1H101J	C CAPACITOR	100PF J	
C802	CK73HB1C105K	C CAPACITOR	1.0UF K	
C803	C93-1959-05	C CAPACITOR	0.10UF B	
C804	C93-1959-05	C CAPACITOR	0.10UF B	
C805	CC73HCH1H101J	C CAPACITOR	100PF J	
C806	C93-1959-05	C CAPACITOR	0.10UF B	
C807	CK73HB1H103K	C CAPACITOR	0.010UF K	
C808	CC73HCH1H101J	C CAPACITOR	100PF J	
C809	CC73HCH1H101J	C CAPACITOR	100PF J	
C810	CC73HCH1H101J	C CAPACITOR	100PF J	
C811	C93-1959-05	C CAPACITOR	0.10UF B	
C812	CC73HCH1H101J	C CAPACITOR	100PF J	
C813	CC73HCH1H101J	C CAPACITOR	100PF J	
C814	CC73HCH1H101J	C CAPACITOR	100PF J	
C815	CC73HCH1H101J	C CAPACITOR	100PF J	
C816	CC73HCH1H101J	C CAPACITOR	100PF J	
C817	CK73HBB1H102K	C CAPACITOR	1000PF K	
C818	CC73HCH1H101J	C CAPACITOR	100PF J	
C819	CK73HB1H103K	C CAPACITOR	0.010UF K	
C820	CK73HB1E104K	C CAPACITOR	0.10UF K	
C821	CC73HCH1H101J	C CAPACITOR	100PF J	
C822	CC73HCH1H101J	C CAPACITOR	100PF J	
C824	CK73HBB1H102K	C CAPACITOR	1000PF K	
C829	CK73HB1C105K	C CAPACITOR	1.0UF K	
C830	C93-1959-05	C CAPACITOR	0.10UF B	
C831	C93-1959-05	C CAPACITOR	0.10UF B	
C834	CK73HB1C105K	C CAPACITOR	1.0UF K	
C835	CC73HCH1H101J	C CAPACITOR	100PF J	
C839	CK73HB1E104K	C CAPACITOR	0.10UF K	
C841	CK73HB1E104K	C CAPACITOR	0.10UF K	
C852	CK73HB1E104K	C CAPACITOR	0.10UF K	
C853	CK73HB1H103K	C CAPACITOR	0.010UF K	
C854	CK73HBB1H102K	C CAPACITOR	1000PF K	
C856	CC73HCH1H470G	C CAPACITOR	47PF G	
C857	CC73HCH1H470G	C CAPACITOR	47PF G	
C898	CK73GB1E105K	C CAPACITOR	1.0UF K	
C899	CK73GB0J106K	C CAPACITOR	10UF K	
C900	CK73HB1H103K	C CAPACITOR	0.010UF K	
C901	CK73HB1E104K	C CAPACITOR	0.10UF K	
C902	CK73HB1E104K	C CAPACITOR	0.10UF K	
C903	CK73HBB1H102K	C CAPACITOR	1000PF K	
C904	CK73HB1C105K	C CAPACITOR	1.0UF K	
C905	CK73HB1E104K	C CAPACITOR	0.10UF K	
C906	CK73HB1C105K	C CAPACITOR	1.0UF K	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C908	C93-1959-05	C CAPACITOR	0.10UF B	
C909	CK73HB1C105K	C CAPACITOR	1.0UF K	
C910	C93-1959-05	C CAPACITOR	0.10UF B	
C911	C93-1959-05	C CAPACITOR	0.10UF B	
C912	C93-1959-05	C CAPACITOR	0.10UF B	
C913	C93-1959-05	C CAPACITOR	0.10UF B	
C914	C93-1959-05	C CAPACITOR	0.10UF B	
C915	CK73HB1E104K	C CAPACITOR	0.10UF K	
C916	CK73GB0J106K	C CAPACITOR	10UF K	
C917	CK73HB1C105K	C CAPACITOR	1.0UF K	
C918	C93-1959-05	C CAPACITOR	0.10UF B	
C919	CK73HB1C105K	C CAPACITOR	1.0UF K	
C920	C93-1959-05	C CAPACITOR	0.10UF B	
C921	CC73HCH1H101J	C CAPACITOR	100PF J	
C922	CK73HBB1H472K	C CAPACITOR	4700PF K	
C924	CK73HB1C105K	C CAPACITOR	1.0UF K	
C925	CK73HB1C105K	C CAPACITOR	1.0UF K	
C926	CK73HB1C105K	C CAPACITOR	1.0UF K	
C927	CK73HB1C105K	C CAPACITOR	1.0UF K	
C928	CK73GB0J106K	C CAPACITOR	10UF K	
C929	CK73HB1E104K	C CAPACITOR	0.10UF K	
C930	CC73HCH1H680J	C CAPACITOR	68PF J	
C931	CK73HB1A474K	C CAPACITOR	0.47UF K	
C932	CK73GB0J106K	C CAPACITOR	10UF K	
C933	CK73HB1H103K	C CAPACITOR	0.010UF K	
C934	CK73HB1H103K	C CAPACITOR	0.010UF K	
C935	CC73HCH1H101J	C CAPACITOR	100PF J	
C936	CK73GB0J106K	C CAPACITOR	10UF K	
C937	CK73GB1E105K	C CAPACITOR	1.0UF K	
C938	CK73HB1H103K	C CAPACITOR	0.010UF K	
C940	CK73HBB1H102K	C CAPACITOR	1000PF K	
C941	CC73HCH1H101J	C CAPACITOR	100PF J	
C942	CK73HB1H103K	C CAPACITOR	0.010UF K	
C943	CK73HB1E104K	C CAPACITOR	0.10UF K	
C944	CK73GB1E105K	C CAPACITOR	1.0UF K	
C945	CK73HB1H103K	C CAPACITOR	0.010UF K	
C946	CK73HB1H103K	C CAPACITOR	0.010UF K	
C947	CK73HBB1H102K	C CAPACITOR	1000PF K	
C948	CK73GB1E105K	C CAPACITOR	1.0UF K	
C949	CK73GB1E105K	C CAPACITOR	1.0UF K	
C950	CK73GB1E105K	C CAPACITOR	1.0UF K	
C951	CK73GB1E105K	C CAPACITOR	1.0UF K	
C952	CK73HBB1H102K	C CAPACITOR	1000PF K	
C953	CC73HCH1H101J	C CAPACITOR	100PF J	
C954	CC73HCH1H101J	C CAPACITOR	100PF J	
C955	CC73HCH1H101J	C CAPACITOR	100PF J	
C956	CC73HCH1H101J	C CAPACITOR	100PF J	
C957	CC73HCH1H101J	C CAPACITOR	100PF J	
C958	CC73HCH1H101J	C CAPACITOR	100PF J	
C959	CC73HCH1H101J	C CAPACITOR	100PF J	
C960	CC73HCH1H101J	C CAPACITOR	100PF J	
C961	CC73HCH1H101J	C CAPACITOR	100PF J	
C962	CC73HCH1H101J	C CAPACITOR	100PF J	
C963	CC73HCH1H101J	C CAPACITOR	100PF J	
C964	CK73HB1E473K	C CAPACITOR	0.047UF K	
C965	CC73HCH1H101J	C CAPACITOR	100PF J	
C966	CC73HCH1H101J	C CAPACITOR	100PF J	
C967	CK73HBB1H102K	C CAPACITOR	1000PF K	
C968	CC73HCH1H101J	C CAPACITOR	100PF J	
C969	C92-0906-05	E CAPACITOR	330UF 16WV	
C970	CK73HB1H103K	C CAPACITOR	0.010UF K	
C971	CE32BY1E470M	E CAPACITOR	47UF 25WV	
C972	CK73HB1E104K	C CAPACITOR	0.10UF K	
C973	CK73HB1E104K	C CAPACITOR	0.10UF K	
C975	CC73HCH1H101J	C CAPACITOR	100PF J	
C976	CC73HCH1H101J	C CAPACITOR	100PF J	
C977	CK73HBB1H102K	C CAPACITOR	1000PF K	
C978	CC73HCH1H471J	C CAPACITOR	470PF J	
C979	CC73HCH1H101J	C CAPACITOR	100PF J	
C980	CC73HCH1H101J	C CAPACITOR	100PF J	
C981	CK73HBB1H102K	C CAPACITOR	1000PF K	
C982	CC73HCH1H101J	C CAPACITOR	100PF J	
C983	CC73HCH1H101J	C CAPACITOR	100PF J	
C984	CC73HCH1H101J	C CAPACITOR	100PF J	
C985	CC73HCH1H101J	C CAPACITOR	100PF J	
C986	CC73HCH1H101J	C CAPACITOR	100PF J	
C987	CC73HCH1H101J	C CAPACITOR	100PF J	
C988	CC73HCH1H101J	C CAPACITOR	100PF J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C989	CC73HCH1H101J	C CAPACITOR	100PF J	
C990	CC73HCH1H101J	C CAPACITOR	100PF J	
C991	CC73HCH1H101J	C CAPACITOR	100PF J	
C992	CC73HCH1H101J	C CAPACITOR	100PF J	
C993	CC73HCH1H101J	C CAPACITOR	100PF J	
C994	CC73HCH1H101J	C CAPACITOR	100PF J	
C995	CC73HCH1H101J	C CAPACITOR	100PF J	
C996	CC73HCH1H101J	C CAPACITOR	100PF J	
C997	CK73HBB1H102K	C CAPACITOR	1000PF K	
C998	CK73HBB1H102K	C CAPACITOR	1000PF K	
C999	CK73HB1C105K	C CAPACITOR	1.0UF K	
R2	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R3	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R8	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R10	RK73HH1J104D	MG RESISTOR	100K D 1/16W	
R11	RK73HH1J104D	MG RESISTOR	100K D 1/16W	
R12	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R13	RK73HH1J104D	MG RESISTOR	100K D 1/16W	
R14	RK73HH1J223D	MG RESISTOR	22K D 1/16W	
R15	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R16	RK73JB1H102J	MG RESISTOR	1.0K J 1/20W	
R17	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R18	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R19	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R20	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R21	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R22	RK73JB1H103J	MG RESISTOR	10K J 1/20W	
R23	RK73JB1H102J	MG RESISTOR	1.0K J 1/20W	
R24	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R25	RK73JB1H472J	MG RESISTOR	4.7K J 1/20W	
R26	RK73JB1H102J	MG RESISTOR	1.0K J 1/20W	
R27	RK73JB1H103J	MG RESISTOR	10K J 1/20W	
R29	RK73JB1H473J	MG RESISTOR	47K J 1/20W	
R30	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R31	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R32	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R33	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R34	RK73HH1J333D	MG RESISTOR	33K D 1/16W	
R35	RK73HH1J103D	MG RESISTOR	10K D 1/16W	
R36	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R37	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R38	RK73HB1J224J	MG RESISTOR	220K J 1/16W	
R39	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R40	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R41	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R42	RK73JB1H473J	MG RESISTOR	47K J 1/20W	
R43	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R44	RK73JB1H102J	MG RESISTOR	1.0K J 1/20W	
R45	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R46	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R47	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R48	RK73HH1J103D	MG RESISTOR	10K D 1/16W	
R49	RK73HH1J473D	MG RESISTOR	47K D 1/16W	
R50	RK73HH1J103D	MG RESISTOR	10K D 1/16W	
R51	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R52	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R53	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R54	R92-3769-05	METAL-R	10 J 1/4W	
R55	R92-3769-05	METAL-R	10 J 1/4W	
R56	RK73HB1J334J	MG RESISTOR	330K J 1/16W	
R57	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R58	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R59	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R60	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R61	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R62	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R63	RK73HH1J273D	MG RESISTOR	27K D 1/16W	
R64	RK73HH1J152D	MG RESISTOR	1.5K D 1/16W	
R65	RK73HH1J472D	MG RESISTOR	4.7K D 1/16W	
R66	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R67	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R68	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R69	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R70	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R71	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R72	RK73JB1H473J	MG RESISTOR	47K J 1/20W	
R73	RK73HB1J471J	MG RESISTOR	470 J 1/16W	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R75	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R76	RK73FB2B332J	MG RESISTOR	3.3K J 1/8W	
R77	RK73FB2B332J	MG RESISTOR	3.3K J 1/8W	
R78	RK73FB2B332J	MG RESISTOR	3.3K J 1/8W	
R84	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R96	RK73FB2B2R7J	MG RESISTOR	2.7 J 1/8W	
R97	RK73FB2B3R3J	MG RESISTOR	3.3 J 1/8W	
R100	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R101	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R102	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R103	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R104	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R105	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R106	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R107	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R108	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R109	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R110	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R111	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R112	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R113	RK73HB1J683J	MG RESISTOR	68K J 1/16W	
R115	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R116	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R117	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R118	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R119	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R121	RK73HH1J151D	MG RESISTOR	150 D 1/16W	
R122	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R123	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R124	RK73HH1J391D	MG RESISTOR	390 D 1/16W	
R125	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R126	RK73HB1J106J	MG RESISTOR	10M J 1/16W	
R127	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R128	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R129	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R130	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R131	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R132	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R133	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R135	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R136	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R137	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R138	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R139	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R141	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R142	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R143	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R144	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R145	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R146	RK73HB1J560J	MG RESISTOR	56 J 1/16W	
R147	RK73HB1J561J	MG RESISTOR	560 J 1/16W	
R148	RK73HB1J563J	MG RESISTOR	56K J 1/16W	
R150	RK73HH1J331D	MG RESISTOR	330 D 1/16W	
R151	RK73HH1J271D	MG RESISTOR	270 D 1/16W	
R152	RN73HH1J220D	MG RESISTOR	22 D 1/16W	
R153	RN73HH1J220D	MG RESISTOR	22 D 1/16W	
R154	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R155	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R156	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R157	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R158	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R159	RK73HB1J180J	MG RESISTOR	18 J 1/16W	
R161	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R162	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R163	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
R164	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R165	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R166	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R167	RK73HB1J180J	MG RESISTOR	18 J 1/16W	
R168	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R169	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R170	RK73HB1J822J	MG RESISTOR	8.2K J 1/16W	
R171	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R172	RK73HH1J151D	MG RESISTOR	150 D 1/16W	
R173	RK73HB1J680J	MG RESISTOR	68 J 1/16W	
R174	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R175	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R176	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R177	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R178	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R179	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R180	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R300	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R303	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R305	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
R306	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R307	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R308	RK73HB1J121J	MG RESISTOR	120 J 1/16W	
R309	RK73HB1J822J	MG RESISTOR	8.2K J 1/16W	
R310	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R311	RK73HB1J390J	MG RESISTOR	39 J 1/16W	
R312	RK73HB1J390J	MG RESISTOR	39 J 1/16W	
R313	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R314	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R315	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R316	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R317	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R318	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R319	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R321	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R322	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R323	RK73GB2A820J	MG RESISTOR	82 J 1/10W	
R324	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R325	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R327	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R328	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R329	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R330	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R332	RK73GB2A390J	MG RESISTOR	39 J 1/10W	
R333	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R334	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R335	RK73HB1J822J	MG RESISTOR	8.2K J 1/16W	
R336	RK73HB1J221J	MG RESISTOR	220 J 1/16W	
R337	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R338	RK73GB2A390J	MG RESISTOR	39 J 1/10W	
R339	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R340	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R341	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R342	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R343	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R345	RK73GB2A562J	MG RESISTOR	5.6K J 1/10W	
R346	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R347	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R348	RK73HB1J153J	MG RESISTOR	15K J 1/16W	
R350	RK73GB2A392J	MG RESISTOR	3.9K J 1/10W	
R355	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R356	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W	
R357	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R358	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R359	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R360	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R363	RK73GB2A181J	MG RESISTOR	180 J 1/10W	
R364	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R365	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R366	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R367	RK73GB2A221J	MG RESISTOR	220 J 1/10W	
R368	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R371	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R374	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R375	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R377	RK73FB2B101J	MG RESISTOR	100 J 1/8W	
R378	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R379	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R380	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R381	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R384	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R385	RK73HB1J560J	MG RESISTOR	56 J 1/16W	
R386	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R387	RK73FB2B221J	MG RESISTOR	220 J 1/8W	
R388	RK73FB2B121J	MG RESISTOR	120 J 1/8W	
R389	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R391	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R394	RK73HB1J183J	MG RESISTOR	18K J 1/16W	
R395	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R396	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R397	RK73PB2H470J	MG RESISTOR	47 J 1/2W	
R398	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R399	RK73PB2H470J	MG RESISTOR	47 J 1/2W	
R400	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R402	R92-1061-05	JUMPER REST	0 OHM	
R403	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R500	RK73HB1J221J	MG RESISTOR	220 J 1/16W	
R501	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
R502	RK73HB1J221J	MG RESISTOR	220 J 1/16W	
R503	RK73HB1J562J	MG RESISTOR	5.6K J 1/16W	
R504	RK73HB1J392J	MG RESISTOR	3.9K J 1/16W	
R505	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R506	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R507	RK73HB1J221J	MG RESISTOR	220 J 1/16W	
R508	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R509	RK73HB1J272J	MG RESISTOR	2.7K J 1/16W	
R510	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R511	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R512	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R514	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R515	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R516	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R517	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R519	RK73HB1J180J	MG RESISTOR	18 J 1/16W	
R520	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R521	RK73HB1J180J	MG RESISTOR	18 J 1/16W	
R522	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R523	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R525	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R526	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R527	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R528	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R529	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R530	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R531	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R532	RK73HB1J394J	MG RESISTOR	390K J 1/16W	
R533	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R536	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R538	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R539	RK73HB1J274J	MG RESISTOR	270K J 1/16W	
R540	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R542	RK73HB1J390J	MG RESISTOR	39 J 1/16W	
R543	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R545	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R546	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R548	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R550	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R551	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R552	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R553	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R554	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R556	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R600	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R601	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R602	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R603	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R604	RK73HB1J681J	MG RESISTOR	680 J 1/16W	
R605	RK73JB1H103J	MG RESISTOR	10K J 1/20W	
R606	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R607	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
R608	RK73HH1J391D	MG RESISTOR	390 D 1/16W	
R609	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W	
R610	RK73HB1J562J	MG RESISTOR	5.6K J 1/16W	
R611	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R612	RK73JB1H472J	MG RESISTOR	4.7K J 1/20W	
R613	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R614	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R615	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R616	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R617	RK73HB1J274J	MG RESISTOR	270K J 1/16W	
R618	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R619	RK73HB1J180J	MG RESISTOR	18 J 1/16W	
R620	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R621	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R622	RK73HB1J681J	MG RESISTOR	680 J 1/16W	
R623	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R624	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R625	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R626	RK73HB1J333J	MG RESISTOR	33K J 1/16W	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R628	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R630	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R631	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R632	RK73GB2A220J	MG RESISTOR	22 J 1/10W	
R700	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R701	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R702	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R707	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R708	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
R709	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R719	RK73HB1J153J	MG RESISTOR	15K J 1/16W	
R720	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R721	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R722	RK73HB1J681J	MG RESISTOR	680 J 1/16W	
R727	RK73HB1J821J	MG RESISTOR	820 J 1/16W	
R728	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R729	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R731	RK73JB1H473J	MG RESISTOR	47K J 1/20W	
R732	RK73JB1H472J	MG RESISTOR	4.7K J 1/20W	
R733	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R734	RK73JB1H103J	MG RESISTOR	10K J 1/20W	
R735	RK73JB1H103J	MG RESISTOR	10K J 1/20W	
R736	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R738	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R740	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R742	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R744	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R746	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R747	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R748	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R749	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R750	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R751	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R752	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R753	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R754	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R755	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R756	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R757	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R758	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R759	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R760	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R761	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R762	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R763	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R764	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R765	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R766	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R767	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R768	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R770	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R772	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R773	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R774	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R775	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R777	RK73JB1H102J	MG RESISTOR	1.0K J 1/20W	
R778	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R779	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R781	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R782	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R783	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R785	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R787	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R788	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R789	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R790	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R791	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R792	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R794	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R795	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R797	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R798	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R799	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R800	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R801	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R802	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R803	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R804	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R805	RK73GH2A49R9D	MG RESISTOR	49.9 D 1/10W	
R806	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R807	RK73JB1H102J	MG RESISTOR	1.0K J 1/20W	
R808	RK73JB1H102J	MG RESISTOR	1.0K J 1/20W	
R809	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R810	RK73JB1H102J	MG RESISTOR	1.0K J 1/20W	
R813	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R814	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R815	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R816	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R817	RK73JB1H220J	MG RESISTOR	22 J 1/20W	
R818	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R819	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R828	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R830	RK73JB1H103J	MG RESISTOR	10K J 1/20W	
R831	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R833	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R835	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R837	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R838	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R841	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R843	RK73HH1J104D	MG RESISTOR	100K D 1/16W	
R844	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R845	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R854	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R857	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R858	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R859	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R862	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R863	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R864	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R865	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R866	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R867	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R868	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R869	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R874	RK73JB1H104J	MG RESISTOR	100K J 1/20W	
R876	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R877	RK73FB2B332J	MG RESISTOR	3.3K J 1/8W	
R878	RK73FB2B332J	MG RESISTOR	3.3K J 1/8W	
R879	RK73FB2B332J	MG RESISTOR	3.3K J 1/8W	
R880	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R881	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R882	RK73JB1H473J	MG RESISTOR	47K J 1/20W	
R883	RK73JB1H473J	MG RESISTOR	47K J 1/20W	
R884	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R885	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R900	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R901	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R902	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R903	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R904	RK73HH1J223D	MG RESISTOR	22K D 1/16W	
R905	RK73HH1J223D	MG RESISTOR	22K D 1/16W	
R906	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R907	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R908	RK73HH1J223D	MG RESISTOR	22K D 1/16W	
R909	RK73HH1J223D	MG RESISTOR	22K D 1/16W	
R911	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R912	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R913	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R914	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R915	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R916	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R917	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R918	RK73HB1J683J	MG RESISTOR	68K J 1/16W	
R919	RK73HH1J473D	MG RESISTOR	47K D 1/16W	
R920	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R921	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R922	RK73HB1J681J	MG RESISTOR	680 J 1/16W	
R923	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R924	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R925	RK73HB1J273J	MG RESISTOR	27K J 1/16W	
R926	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R927	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R928	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R930	RK73HH1J103D	MG RESISTOR	10K D 1/16W	
R932	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R933	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R935	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R936	RK73GB2A101J	MG RESISTOR	100 J 1/10W	
R937	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R938	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R939	RK73HB1J392J	MG RESISTOR	3.9K J 1/16W	
R940	RK73HB1J392J	MG RESISTOR	3.9K J 1/16W	
R941	RK73GB2A101J	MG RESISTOR	100 J 1/10W	
R943	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R944	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R945	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R947	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R948	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R949	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R950	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R951	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R953	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R954	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R955	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R956	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R957	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R958	RK73GB2A102J	MG RESISTOR	1.0K J 1/10W	
R960	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R961	RK73GB2A102J	MG RESISTOR	1.0K J 1/10W	
R962	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R963	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R964	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R965	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R966	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R967	RK73GB2A221J	MG RESISTOR	220 J 1/10W	
R968	RK73GB2A221J	MG RESISTOR	220 J 1/10W	
R969	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R970	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R971	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R972	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R973	RK73HB1J471J	MG RESISTOR	470 J 1/16W	
R974	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R975	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R976	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R977	RK73GB2A102J	MG RESISTOR	1.0K J 1/10W	
R978	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R979	RK73HB1J681J	MG RESISTOR	680 J 1/16W	
R980	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R981	RK73GB2A221J	MG RESISTOR	220 J 1/10W	
R982	RK73GB2A221J	MG RESISTOR	220 J 1/10W	
R983	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R984	RK73HB1J682J	MG RESISTOR	6.8K J 1/16W	
R985	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R991	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R992	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R993	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R994	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R996	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R997	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R998	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
L1	LB73Z0AF-001	CHIP FERRITE BEADS		
L2	LB73Z0AF-001	CHIP FERRITE BEADS		
L3	LB73Z0AF-001	CHIP FERRITE BEADS		
L4	LB73H0AV-002	CHIP FERRITE BEADS		
L5	LB73G0AK-001	CHIP FERRITE BEADS		
L6	LB73G0AM-004	CHIP FERRITE BEADS		
L7	LB73G0AK-001	CHIP FERRITE BEADS		
L9	LB73G0AK-001	CHIP FERRITE BEADS		
L10	LB73G0AK-001	CHIP FERRITE BEADS		
L11	L41-4792-69	SMALL FIXED INDUCTOR(4.7UH)		
L12	LB73G0AM-004	CHIP FERRITE BEADS		
L13	LR79Z0AA150M	CHIP INDUCTOR (15UH)		
L14	LB73G0AK-001	CHIP FERRITE BEADS		
L15	LB73G0AK-001	CHIP FERRITE BEADS		
L16	LB73H0AY-004	CHIP FERRITE BEADS		
L80	LB73H0AV-003	CHIP FERRITE BEADS		
L100	LB73H0AV-003	CHIP FERRITE BEADS		
L101	LB73H0AV-003	CHIP FERRITE BEADS		
L102	LB73H0AV-003	CHIP FERRITE BEADS		
L103	LB73H0AV-003	CHIP FERRITE BEADS		
L104	LK73G0AQ100K	M.CHIP INDUCTOR(10UH)		
L105	LK73G0AQ100K	M.CHIP INDUCTOR(10UH)		
L106	L40-5667-92	SMALL FIXED INDUCTOR(5.6NH)		
L107	L40-5667-92	SMALL FIXED INDUCTOR(5.6NH)		
L108	LB73H0AV-003	CHIP FERRITE BEADS		
L109	LB73H0AV-003	CHIP FERRITE BEADS		
L112	LK73G0AF82NJ	M.CHIP INDUCTOR(82NH)		
L113	LK73G0AF68NJ	M.CHIP INDUCTOR(68NH)		
L114	LK73G0AFR22J	M.CHIP INDUCTOR(220NH)		
L115	LK73G0AQ3R3K	M.CHIP INDUCTOR(3.3UH)		
L116	LK73G0AFR22J	M.CHIP INDUCTOR(220NH)		
L117	LK73G0AQ3R3K	M.CHIP INDUCTOR(3.3UH)		
L118	L40-5667-92	SMALL FIXED INDUCTOR(5.6NH)		
L119	L40-5667-92	SMALL FIXED INDUCTOR(5.6NH)		
L120	LK73G0AFR18J	M.CHIP INDUCTOR(180NH)		
L121	LK73G0AFR12J	M.CHIP INDUCTOR(120NH)		
L122	LB73H0AY-004	CHIP FERRITE BEADS		
L123	LR79Z0CM28NG	CHIP INDUCTOR(28NH)		
L124	L34-4611-15	AIR-CORE COIL		
L125	LK73G0AF39NJ	M.CHIP INDUCTOR(39NH)		
L128	LK73G0AQ3R3K	M.CHIP INDUCTOR(3.3UH)		
L129	LK73G0AQ3R3K	M.CHIP INDUCTOR(3.3UH)		
L130	LB73H0AY-004	CHIP FERRITE BEADS		
L131	LB73H0AY-004	CHIP FERRITE BEADS		
L132	LK73H0AM82NJ	M.CHIP INDUCTOR(82NH)		
L134	LK73G0AF56NJ	M.CHIP INDUCTOR(56NH)		
L135	LK73G0AF56NJ	M.CHIP INDUCTOR(56NH)		
L136	LB73H0AV-003	CHIP FERRITE BEADS		
L137	LK73G0AF82NJ	M.CHIP INDUCTOR(82NH)		
L139	LB73H0AY-004	CHIP FERRITE BEADS		
L300	LK73H0AM56NJ	M.CHIP INDUCTOR(56NH)		
L301	LK73G0AFR27J	M.CHIP INDUCTOR(270NH)		
L302	LK73H0AM56NJ	M.CHIP INDUCTOR(56NH)		
L303	LK73H0AM56NJ	M.CHIP INDUCTOR(56NH)		
L304	LK73H0AM68NJ	M.CHIP INDUCTOR(68NH)		
L305	LK73G0AF82NJ	M.CHIP INDUCTOR(82NH)		
L306	LB73F0AW-002	CHIP FERRITE BEADS		
L308	LB73H0AV-003	CHIP FERRITE BEADS		
L309	LB73G0BA-004	CHIP FERRITE BEADS		
L310	LB73Z0AF-001	CHIP FERRITE BEADS		
L311	LB73Z0AF-001	CHIP FERRITE BEADS		
L312	LB73Z0AF-001	CHIP FERRITE BEADS		
L313	LK73G0AF27NJ	M.CHIP INDUCTOR(27NH)		
L315	LR77Z0AA33NJ	CHIP INDUCTOR(33NH)		
L316	L34-4896-05	AIR-CORE COIL		
L317	L41-3988-55	SMALL FIXED INDUCTOR(390NH)		
L318	LB73G0BD-005	CHIP FERRITE BEADS		
L319	L34-4670-05	AIR-CORE COIL		
L320	L34-4903-05	AIR-CORE COIL		
L321	LB73H0AV-003	CHIP FERRITE BEADS		
L322	L34-4903-05	AIR-CORE COIL		
L323	L34-4903-05	AIR-CORE COIL		
L324	L34-4667-05	AIR-CORE COIL		
L500	L39-1498-05	TOROIDAL COIL		
L501	LB73G0BD-005	CHIP FERRITE BEADS		
L502	L41-1095-14	SMALL FIXED INDUCTOR(1.0UH)		
L503	L41-1095-14	SMALL FIXED INDUCTOR(1.0UH)		
L504	LK73G0AF82NJ	M.CHIP INDUCTOR(82NH)		
L505	LK73G0AF47NJ	M.CHIP INDUCTOR(47NH)		
L506	LK73G0AF39NJ	M.CHIP INDUCTOR(39NH)		
L507	LK73H0AMR12J	M.CHIP INDUCTOR(120NH)		
L508	LR79Z0DD27N4J	CHIP INDUCTOR		
L509	LR79Z0DD27N4J	CHIP INDUCTOR		
L510	LK73G0AFR10J	M.CHIP INDUCTOR(100NH)		
L511	LR79Z0DD27N4J	CHIP INDUCTOR		
L512	LB73G0BD-005	CHIP FERRITE BEADS		
L513	L41-1085-14	SMALL FIXED INDUCTOR(100NH)		
L514	LR79Z0DD27N4J	CHIP INDUCTOR		
L515	LK73G0AF10NJ	M.CHIP INDUCTOR(10NH)		
L516	LR79Z0DD32N5J	CHIP INDUCTOR		
L517	LR79Z0DD32N5J	CHIP INDUCTOR		
L600	LK73G0AQ100K	M.CHIP INDUCTOR(10UH)		
L601	LB73H0AV-003	CHIP FERRITE BEADS		
L602	LB73H0AV-003	CHIP FERRITE BEADS		
L603	L41-2788-55	SMALL FIXED INDUCTOR(270NH)		
L604	LB73H0AV-003	CHIP FERRITE BEADS		
L605	LK73G0AFR27J	M.CHIP INDUCTOR(270NH)		
L606	L41-4798-14	SMALL FIXED INDUCTOR(4.7UF)		
L607	L41-1885-53	SMALL FIXED INDUCTOR(0.18UH)		
L608	LB73H0AV-003	CHIP FERRITE BEADS		
L609	LB73H0AV-003	CHIP FERRITE BEADS		

⚠ Symbol No.	Part No.	Part Name	Description	Local
L610	L41-2285-53	SMALL FIXED INDUCTOR(0.22UH)		
L611	LK73G0AQ100K	M.CHIP INDUCTOR(10UH)		
L612	LK73G0AQ100K	M.CHIP INDUCTOR(10UH)		
L613	LB73H0AV-003	CHIP FERRITE BEADS		
L614	LB73H0AV-003	CHIP FERRITE BEADS		
L615	LK73G0AQR33K	M.CHIP INDUCTOR(330NH)		
L616	LB73H0AV-002	CHIP FERRITE BEADS		
L617	LK73G0AQR82K	M.CHIP INDUCTOR(820NH)		
L618	LK73G0AQ2R2K	M.CHIP INDUCTOR(2.2UH)		
L619	L40-6881-86	SMALL FIXED INDUCTOR(0.68UH)		
L620	LB73H0AV-002	CHIP FERRITE BEADS		
L621	L41-1098-14	SMALL FIXED INDUCTOR(1UH)		
L623	LK73G0AQR47K	M.CHIP INDUCTOR(470NH)		
L626	LK73G0AQ100K	M.CHIP INDUCTOR(10UH)		
L700	LB73G0AK-001	CHIP FERRITE BEADS		
L701	LB73H0AV-003	CHIP FERRITE BEADS		
L702	LB73G0AK-001	CHIP FERRITE BEADS		
L706	LB73H0AV-002	CHIP FERRITE BEADS		
L711	LR77Z0AE4R7J	CHIP INDUCTOR(4.7UH)		
L713	LB73H0AV-002	CHIP FERRITE BEADS		
L714	LB73G0AM-004	CHIP FERRITE BEADS		
L715	L92-1101-05	CHIP FERRITE		
L716	L92-1101-05	CHIP FERRITE		
L717	L92-1101-05	CHIP FERRITE		
L718	L92-1101-05	CHIP FERRITE		
L719	LB73H0AV-002	CHIP FERRITE BEADS		
L720	LB73G0AK-001	CHIP FERRITE BEADS		
L721	LB73G0AK-001	CHIP FERRITE BEADS		
L722	LB73G0AK-001	CHIP FERRITE BEADS		
L723	LB73H0AV-002	CHIP FERRITE BEADS		
L724	LB73G0AK-001	CHIP FERRITE BEADS		
L725	LB73H0AV-002	CHIP FERRITE BEADS		
L726	L79-1984-05	FILTER		
L728	L79-1984-05	FILTER		
L729	L79-1984-05	FILTER		
L730	L79-1984-05	FILTER		
L731	L79-1984-05	FILTER		
L732	L92-1101-05	CHIP FERRITE		
L901	LB73H0AV-003	CHIP FERRITE BEADS		
L902	LB73H0AV-003	CHIP FERRITE BEADS		
L906	LB73G0BA-004	CHIP FERRITE BEADS		
L907	LB73G0BA-004	CHIP FERRITE BEADS		
A1	W02-3785-05	DC-DC CONVERTER		
CN2	E23-1260-14	TERMINAL		
CN3	E23-1260-14	TERMINAL		
CN4	E41-1682-05	PIN ASSY		
CN12	J19-5386-05	HOLDER		
CN17	E23-1278-05	TERMINAL		
CN18	E23-1278-05	TERMINAL		
CN102	E23-1278-05	TERMINAL		
CN106	E23-1278-05	TERMINAL		
CN110	E23-1278-05	TERMINAL		
CN300	E23-1278-05	TERMINAL		
CN330	E23-1278-05	TERMINAL		
CN331	E23-1278-05	TERMINAL		
CN332	E23-1278-05	TERMINAL		
CN333	E23-1278-05	TERMINAL		
CN334	E23-1278-05	TERMINAL		
CN335	E23-1278-05	TERMINAL		
CN362	E23-1278-05	TERMINAL		
CN363	E23-1278-05	TERMINAL		
CN364	E23-1278-05	TERMINAL		
CN365	E23-1278-05	TERMINAL		
CN366	E23-1278-05	TERMINAL		
CN367	E23-1278-05	TERMINAL		
CN368	E23-1278-05	TERMINAL		
CN369	E23-1278-05	TERMINAL		
CN371	E23-1278-05	TERMINAL		
CN374	E23-1278-05	TERMINAL		
CN376	E23-1278-05	TERMINAL		
CN377	E23-1278-05	TERMINAL		
CN382	E23-1278-05	TERMINAL		
CN383	E23-1278-05	TERMINAL		
CN510	E23-1278-05	TERMINAL		
CN515	E23-1278-05	TERMINAL		
CN516	E23-1278-05	TERMINAL		
CN517	E23-1278-05	TERMINAL		

⚠ Symbol No.	Part No.	Part Name	Description	Local
CN521	E23-1278-05	TERMINAL		
CN523	E23-1278-05	TERMINAL		
CN524	E23-1278-05	TERMINAL		
CN526	E23-1278-05	TERMINAL		
CN528	E23-1278-05	TERMINAL		
CN529	E23-1278-05	TERMINAL		
CN731	E40-6720-05	SOCKET FOR PIN ASSY		
CN735	E40-6862-05	FLAT CABLE CONNECTOR		
CN749	EC720AA-0550A	FLAT CABLE CONNECTOR SMD		
CN760	E23-1278-05	TERMINAL		
CN763	E23-1278-05	TERMINAL		
CN766	E23-1278-05	TERMINAL		
CN769	E23-1278-05	TERMINAL		
CN770	E23-1278-05	TERMINAL		
CN771	E23-1278-05	TERMINAL		
CN772	E23-1278-05	TERMINAL		
CN782	E23-1278-05	TERMINAL		
CN783	E23-1278-05	TERMINAL		
CN900	E41-2723-05	PIN ASSY		
CN906	E40-6560-05	FLAT CABLE CONNECTOR		
CN907	E40-6560-05	FLAT CABLE CONNECTOR		
CN910	E40-6582-05	PIN ASSY		
CP100	RK74HB1J100J	NET RESISTOR	10 J 1/16W	
CP600	RK74HB1J100J	NET RESISTOR	10 J 1/16W	
CP701	RK74HB1J103J	NET RESISTOR	10K J 1/16W	
CP702	RK74HB1J102J	NET RESISTOR	1.0K J 1/16W	
CP703	RK74HB1J100J	NET RESISTOR	10 J 1/16W	
CP704	RK74HB1J100J	NET RESISTOR	10 J 1/16W	
CP705	RK74HB1J100J	NET RESISTOR	10 J 1/16W	
CP706	RK74HB1J101J	NET RESISTOR	100 J 1/16W	
CP707	RK74HB1J101J	NET RESISTOR	100 J 1/16W	
CP708	RK74HB1J101J	NET RESISTOR	100 J 1/16W	
CP709	RK74HB1J101J	NET RESISTOR	100 J 1/16W	
CP710	RK74HB1J101J	NET RESISTOR	100 J 1/16W	
CP711	RK74HB1J101J	NET RESISTOR	100 J 1/16W	
CP716	RK74HB1J101J	NET RESISTOR	100 J 1/16W	
CP717	RK74HB1J470J	NET RESISTOR	47 J 1/16W	
CP718	RK74HB1J470J	NET RESISTOR	47 J 1/16W	
CP719	RK74HB1J470J	NET RESISTOR	47 J 1/16W	
CP720	RK74HB1J470J	NET RESISTOR	47 J 1/16W	
CP721	RK74HB1J470J	NET RESISTOR	47 J 1/16W	
CP900	RK74HB1J100J	NET RESISTOR	10 J 1/16W	
CP901	RK74HA1J100J	NET RESISTOR	10 J 1/16W	
E2	F10-3226-05	SHIELDING CASE		
E100	F10-3244-15	SHIELDING CASE		
E101	F1B-0017-10	SHIELDING CASE		
E600	F10-3224-15	SHIELDING CASE		
F1	F53-0286-05	FUSE		
F2	FZA10BS-5R0	FUSE		
F3	FZA10BS-5R0	FUSE		
F900	F53-0286-05	FUSE		
J700	E68-0426-05	JACK(OTHERS)		
J900	E1B-0001-00	3.5D PHONE JACK		
J901	E58-0521-05	SUB SOCKET(D)		
TH300	ERTJ0V104H	NEGATIVE TEMP THERMISTOR		
TH301	ERTJ0V104H	NEGATIVE TEMP THERMISTOR		
TH302	ERTJ0V104H	NEGATIVE TEMP THERMISTOR		
TH700	ERTJ0V104H	NEGATIVE TEMP THERMISTOR		
X700	L77-3123-05	TCXO(19.2MHZ)		
X701	L77-1802-05	CRYSTAL RESONATOR(32768HZ)		
XF600	L7B-0003-00	MCF		

MODULE (BT/GPS) UNIT

XC2-0031-80(NX-5700B_F)

XC2-0040-10(NX-5700_K, NX-5700B_K)

***Note : This part cannot be replaced. Therefore, this part is not supplied as a service part.**

Block No. [0][2]

⚠ Symbol No.	Part No.	Part Name	Description	Local
IC1	74AVC4TD245GU	IC(MOS-IC)		
IC2	BU18TD2WNVX	IC(MOS-IC)		
IC3	----------	IC(ANALOGUE)	*Note	
IC4	NJM2878F4-33	BIPOLAR IC		
IC5	----------	IC(MOS-IC)	*Note	
IC6	74AVC4TD245GU	IC(MOS-IC)		
IC7	74AVC4TD245GU	IC(MOS-IC)		
Q1	EM6M2	FET		
D17	RN262CS	DIODE		
D18	RN262CS	DIODE		
C1	CK73HB1A474K	C CAPACITOR	0.47UF K	
C2	CK73HB1A474K	C CAPACITOR	0.47UF K	
C3	CK73HB1E104K	C CAPACITOR	0.10UF K	
C4	CK73HB1E104K	C CAPACITOR	0.10UF K	
C5	CK73HB1A105K	C CAPACITOR	1.0UF K	
C6	CK73HB1A474K	C CAPACITOR	0.47UF K	
C7	CK73HB1A474K	C CAPACITOR	0.47UF K	
C8	CC73HCH1H220J	C CAPACITOR	22PF J	
C9	CC73HCH1H100B	C CAPACITOR	10PF B	
C10	CK73HB1A105K	C CAPACITOR	1.0UF K	
C11	CK73HB1E104K	C CAPACITOR	0.10UF K	
C12	CK73HB1E104K	C CAPACITOR	0.10UF K	
C13	CK73HB1E104K	C CAPACITOR	0.10UF K	
C14	CK73HB1E104K	C CAPACITOR	0.10UF K	
C15	CK73HB1A105K	C CAPACITOR	1.0UF K	
C16	CK73HB1E104K	C CAPACITOR	0.10UF K	
C17	CK73HB1E104K	C CAPACITOR	0.10UF K	
C18	CC73HCH1H180J	C CAPACITOR	18PF J	
C19	CC73HCH1H180J	C CAPACITOR	18PF J	
C20	CK73HB1A105K	C CAPACITOR	1.0UF K	
C21	CK73HB1A105K	C CAPACITOR	1.0UF K	
C22	CK73HB1E104K	C CAPACITOR	0.10UF K	
C23	CK73HBB1H102K	C CAPACITOR	1000PF K	
C24	CK73HB1E104K	C CAPACITOR	0.10UF K	
C25	CK73HBB1H102K	C CAPACITOR	1000PF K	
C26	CK73HBB1H102K	C CAPACITOR	1000PF K	
C27	CK73HBB1H102K	C CAPACITOR	1000PF K	
C28	CK73HB1E104K	C CAPACITOR	0.10UF K	
C29	CK73HB1E104K	C CAPACITOR	0.10UF K	
C30	CK73HB1E104K	C CAPACITOR	0.10UF K	
C31	CK73HB1A105K	C CAPACITOR	1.0UF K	
C32	CK73HB1E104K	C CAPACITOR	0.10UF K	
C33	CK73HB1E104K	C CAPACITOR	0.10UF K	
C34	CK73HB1E104K	C CAPACITOR	0.10UF K	
C35	CK73HB1E104K	C CAPACITOR	0.10UF K	
C36	CC73HCH1H220J	C CAPACITOR	22PF J	
C37	CC73HCH1H220J	C CAPACITOR	22PF J	
C38	CC73HCH1H2R5B	C CAPACITOR	2.5PF B	
C39	CK73HB1E104K	C CAPACITOR	0.10UF K	
C40	CC73HCH1H180J	C CAPACITOR	18PF J	
C44	CK73HB1E104K	C CAPACITOR	0.10UF K	
C45	CK73HB1E104K	C CAPACITOR	0.10UF K	
C46	CK73HB1E104K	C CAPACITOR	0.10UF K	
C47	CK73HB1E104K	C CAPACITOR	0.10UF K	
C48	CK73HB1E104K	C CAPACITOR	0.10UF K	
C49	CK73HB1E104K	C CAPACITOR	0.10UF K	
C50	CC73HCH1H470J	C CAPACITOR	47PF J	
C68	CC73HCH1H010B	C CAPACITOR	1.0PF B	
R1	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R2	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R3	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R4	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R7	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R8	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R9	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R10	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R11	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R12	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R13	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R14	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R15	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R16	RK73EB2E100J	MG RESISTOR	10 J 1/4W	
R18	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R19	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R21	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R22	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R23	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R24	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R25	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R26	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R27	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R29	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
L1	LB73H0AV-002	CHIP FERRITE BEADS		
L2	LB73G0AK-001	CHIP FERRITE BEADS		
L3	LB73G0BJ-002	CHIP FERRITE BEADS		
L4	L92-0487-05	CHIP FERRITE		
L5	L92-0487-05	CHIP FERRITE		
L6	LK73H0AG27NJ	M.CHIP INDUCTOR(27NH)		
L7	LK73H0AM10NJ	M.CHIP INDUCTOR(10NH)		
L8	L92-0487-05	CHIP FERRITE		
L9	L79-1985-05	FILTER		
L11	L79-1987-05	FILTER		
L13	L92-0487-05	CHIP FERRITE		
L14	L92-0487-05	CHIP FERRITE		
L15	L40-2263-71	SMALL FIXED INDUCTOR(2.2NH)		
CN1	E40-6879-05	FLAT CABLE CONNECTOR		
CN5	E0E-0012-00	RF COAXIAL CABLE RECEPTACLE		
CP1	RK74HB1J100J	NET RESISTOR	10 J 1/16W	
CP2	RK74HB1J100J	NET RESISTOR	10 J 1/16W	
E1	F10-3226-05	SHIELDING CASE		
X1	L77-3123-05	TCXO(19.2M)		
X2	L77-3121-05	CRYSTAL RESONATOR(32.768K)		

SUB UNIT

XC3-0070-20(NX-5700_K)

Block No. [0][3]

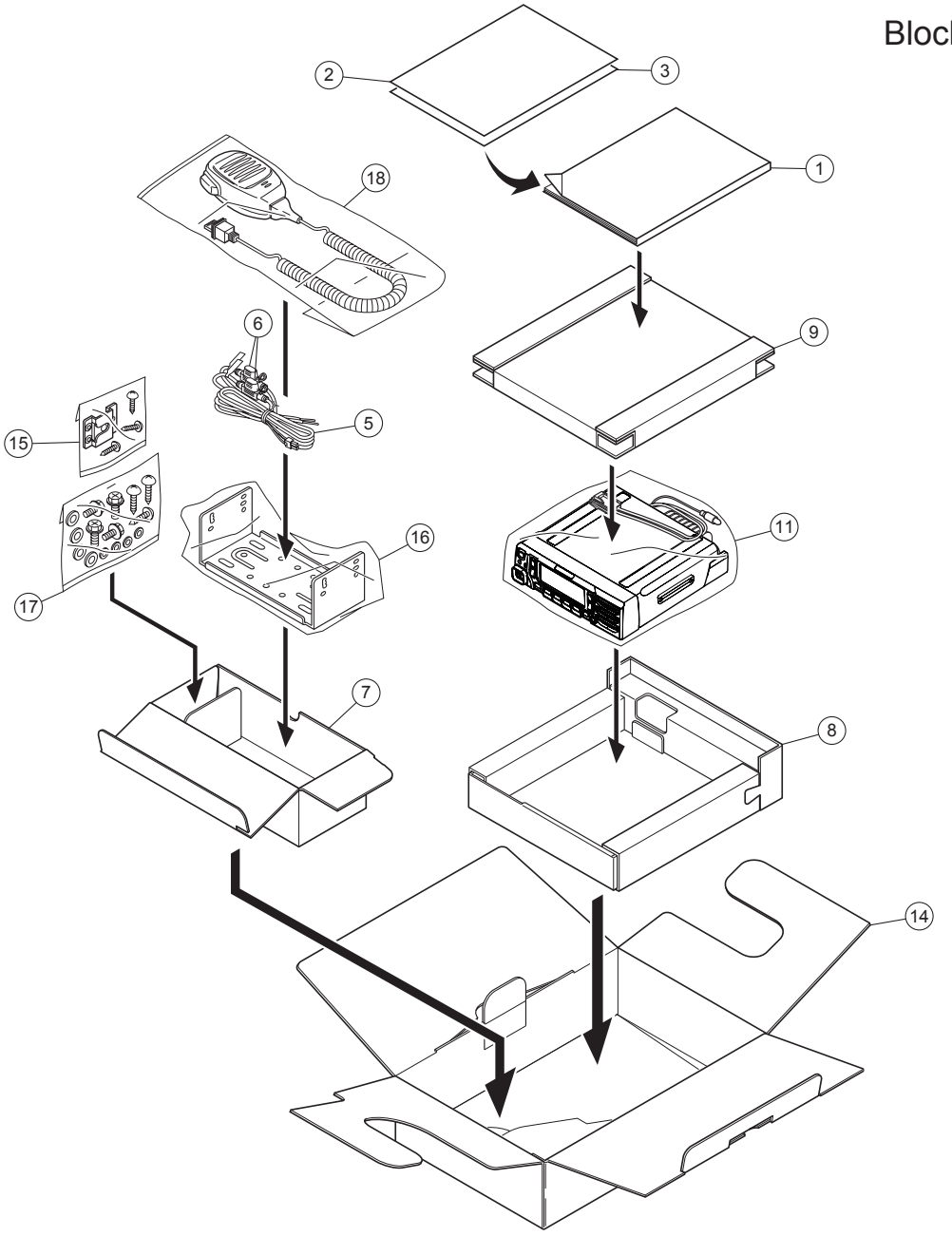
⚠ Symbol No.	Part No.	Part Name	Description	Local
IC1	MM3404A50URE	IC(MOS-IC)		
IC2	BU30TD2WNVX	IC(MOS-IC)		
IC3	TC7WT125FUF	IC(MOS-IC)		
IC4	BD11600NUX	IC(MOS-IC)		
IC6	BH1721FVC	IC(MOS-IC)		
IC8	BD1754HFN	IC(MOS-IC)		
IC9	TC7WH126FK	IC(MOS-IC)		
IC10	TC35894FG	IC(MOS-IC)		
IC12	TC7SZ08FE	IC(MOS-IC)		
Q2	SSM6N37FE	FET		
Q3	LTC014EEBFS8	DIGI TRANSISTOR		
Q4	LTC014EEBFS8	DIGI TRANSISTOR		
Q6	LTC014EEBFS8	DIGI TRANSISTOR		
D1	SPC10501A01	VARISTOR		
D2	SPC10501A01	VARISTOR		
D4	B30-2365-05	LED(WHITE/R/8)		
D5	B30-2365-05	LED(WHITE/R/8)		
D6	B30-2365-05	LED(WHITE/R/8)		
D7	B30-2365-05	LED(WHITE/R/8)		
D9	B30-2365-05	LED(WHITE/R/8)		
D10	B30-2365-05	LED(WHITE/R/8)		
D11	B30-2365-05	LED(WHITE/R/8)		
D12	B30-2365-05	LED(WHITE/R/8)		
D14	B30-2365-05	LED(WHITE/R/8)		

⚠ Symbol No.	Part No.	Part Name	Description	Local
D15	B30-2365-05	LED(WHITE/R/8)		
D16	B30-2365-05	LED(WHITE/R/8)		
D20	DZ2J062(M)	ZENER DIODE		
D21	B30-2364-05	LED(RGB)		
D22	RB521CM-30	DIODE		
D23	SPC10501A01	VARISTOR		
D24	SPC10501A01	VARISTOR		
D25	MINISMDC020F	VARISTOR		
D26	SPC10501A01	VARISTOR		
D27	SPC10501A01	VARISTOR		
D28	DZ2S068M	ZENER DIODE		
D29	DZ2S068M	ZENER DIODE		
D30	DZ2S068M	ZENER DIODE		
D31	EMZ6.8N	ZENER DIODE		
D32	DZ2S068M	ZENER DIODE		
C2	CC73GCH1H101J	C CAPACITOR	100PF J	
C5	CK73GXR1H104K	C CAPACITOR	0.1UF K	
C8	C93-1810-05	C CAPACITOR	4.7UF K	
C9	CC73GCH1H101J	C CAPACITOR	100PF J	
C11	CK73GXR1H104K	C CAPACITOR	0.1UF K	
C16	CC73GCH1H101J	C CAPACITOR	100PF J	
C18	CK73GXR1H104K	C CAPACITOR	0.1UF K	
C22	CC73GCH1H101J	C CAPACITOR	100PF J	
C24	CK73GXR1H104K	C CAPACITOR	0.1UF K	
C29	CC73GCH1H101J	C CAPACITOR	100PF J	
C32	CC73GCH1H101J	C CAPACITOR	100PF J	
C42	CC73GCH1H470J	C CAPACITOR	47PF J	
C43	CC73GCH1H470J	C CAPACITOR	47PF J	
C44	CC73HCH1H101J	C CAPACITOR	100PF J	
C45	CK73GBB1H102K	C CAPACITOR	1000PF K	
C46	CK73GBB1H102K	C CAPACITOR	1000PF K	
C48	CK73GBB1H102K	C CAPACITOR	1000PF K	
C50	CK73GBB1H102K	C CAPACITOR	1000PF K	
C52	CC73HCH1H101J	C CAPACITOR	100PF J	
C53	CC73HCH1H101J	C CAPACITOR	100PF J	
C54	CK73GB1E105K	C CAPACITOR	1.0UF K	
C55	CC73HCH1H101J	C CAPACITOR	100PF J	
C56	CC73HCH1H101J	C CAPACITOR	100PF J	
C57	CK73GB1E105K	C CAPACITOR	1.0UF K	
C58	CK73GB1E105K	C CAPACITOR	1.0UF K	
C59	CK73GB1E105K	C CAPACITOR	1.0UF K	
C62	CK73HB1E104K	C CAPACITOR	0.10UF K	
C63	CK73GB1E105K	C CAPACITOR	1.0UF K	
C64	CK73HB1E104K	C CAPACITOR	0.10UF K	
C65	CK73HBB1E103K	C CAPACITOR	0.10UF K	
C66	CK73HB1E104K	C CAPACITOR	0.10UF K	
C67	CK73HB1E104K	C CAPACITOR	0.10UF K	
C68	CK73HB1E104K	C CAPACITOR	0.10UF K	
C69	CK73HB1E104K	C CAPACITOR	0.10UF K	
C70	CK73GBB1H102K	C CAPACITOR	1000PF K	
C71	CK73GXR1H104K	C CAPACITOR	0.1UF K	
C73	CK73HB1E104K	C CAPACITOR	0.10UF K	
C74	CK73GB1E105K	C CAPACITOR	1.0UF K	
C75	CK73HB1E104K	C CAPACITOR	0.10UF K	
C76	CK73GBB1H102K	C CAPACITOR	1000PF K	
C79	CK73GBB1H102K	C CAPACITOR	1000PF K	
C83	CK73HB1E104K	C CAPACITOR	0.10UF K	
C84	CK73HB1E104K	C CAPACITOR	0.10UF K	
C87	CC73HCH1H101J	C CAPACITOR	100PF J	
C90	CK73GBB1H102K	C CAPACITOR	1000PF K	
C101	CK73GBB1H102K	C CAPACITOR	1000PF K	
R3	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R4	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R5	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R6	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R7	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R9	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R10	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R11	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R12	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R17	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R18	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R19	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R20	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R21	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R22	RK73HB1J331J	MG RESISTOR	330 J 1/16W	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R23	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R24	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R25	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R26	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R27	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R28	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R29	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R30	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R31	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R32	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R33	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R34	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R38	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R39	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R40	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R41	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R42	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R43	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R46	RK73HB1J681J	MG RESISTOR	680 J 1/16W	
R47	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R48	RK73GB2A151J	MG RESISTOR	150 J 1/10W	
R49	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R50	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R51	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R52	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R53	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R54	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R55	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R60	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R61	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R62	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R63	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R64	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R65	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R66	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R69	RK73HH1J274D	MG RESISTOR	270K D 1/16W	
R71	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R77	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R78	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R79	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R81	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R82	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R83	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R86	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R87	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R88	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R98	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R99	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
L1	LB73G0AM-004	CHIP FERRITE BEADS		
L2	LB73G0AM-004	CHIP FERRITE BEADS		
L3	LB73H0AV-003	CHIP FERRITE BEADS		
L4	LB73H0AV-003	CHIP FERRITE BEADS		
L5	LB73G0AM-004	CHIP FERRITE BEADS		
L11	LB73H0AV-003	CHIP FERRITE BEADS		
L14	LB73H0AV-003	CHIP FERRITE BEADS		
L15	LB73G0AM-004	CHIP FERRITE BEADS		
L16	LB73H0AV-003	CHIP FERRITE BEADS		
L17	LB73H0AV-003	CHIP FERRITE BEADS		
L18	LB73H0AV-003	CHIP FERRITE BEADS		
CN2	E41-2673-05	PIN ASSY		
CN4	E40-6965-05	FLAT CABLE CONNECTOR		
CN5	E41-2671-05	PIN ASSY		
CN6	E40-6913-05	FLAT CABLE CONNECTOR		
J1	E58-0535-05	MODULAR JACK		
S1	S70-0901-05	TACT SWITCH		
S2	S70-0901-05	TACT SWITCH		
S3	S70-0901-05	TACT SWITCH		
S4	S70-0901-05	TACT SWITCH		
S5	S70-0901-05	TACT SWITCH		
S6	S70-0901-05	TACT SWITCH		
S7	S70-0901-05	TACT SWITCH		
S8	S70-0901-05	TACT SWITCH		
S9	S70-0901-05	TACT SWITCH		
S10	S70-0901-05	TACT SWITCH		
S11	S70-0901-05	TACT SWITCH		
S12	S70-0901-05	TACT SWITCH		

Packing materials and accessories parts list (NX-5700_K)

Block No.M2MM



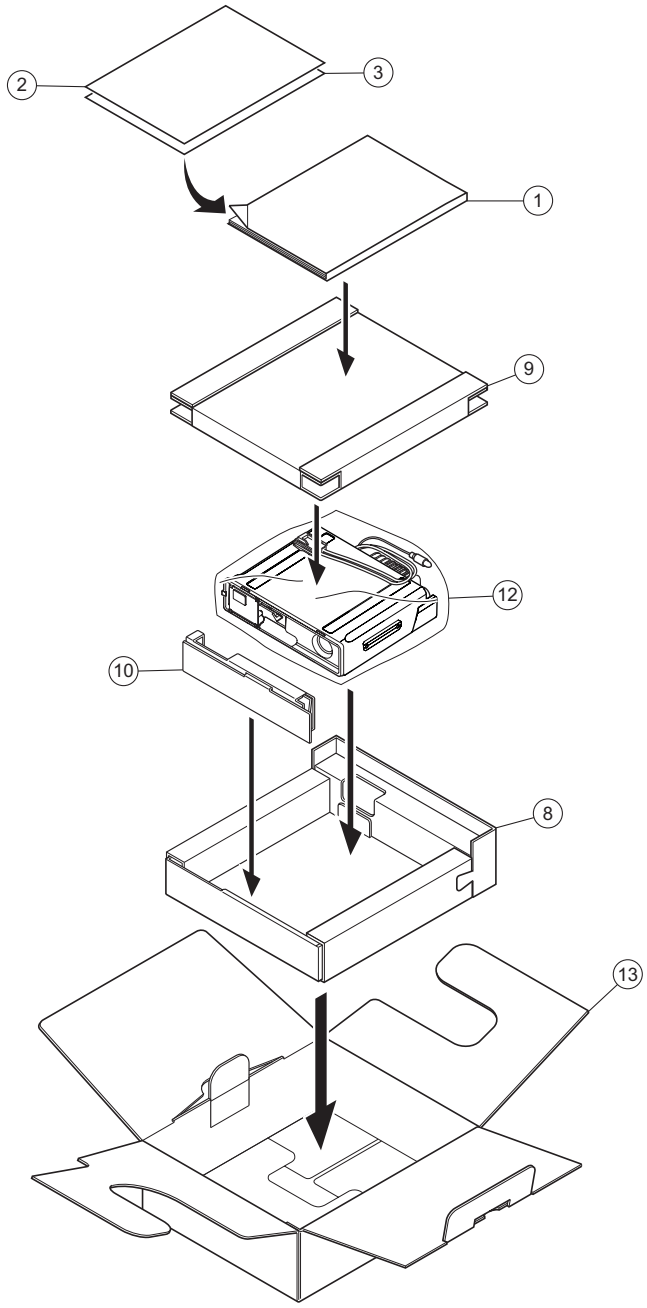
Packing and accessories

Block No. [M][2][M][M]

⚠ Symbol No.	Part No.	Part Name	Description	Local
1	B5A-0056-00	INSTRUCTION MANUAL		
2	----------	PAMPHLET		
3	----------	PAMPHLET		
5	E30-7523-55	DC CORD ASSY		
6	F52-0024-05	FUSE(BLADE TYPE)(15A)	(x2)	
7	H0C-0008-00	INNER CARTON CASE		
8	H1C-0029-00	PACKING FIXTURE(LOWER)		
9	H1C-0030-00	PACKING FIXTURE(UPPER)		
11	----------	PROTECTION BAG		
14	H5A-0235-00	ITEM CARTON CASE		
15	J19-1584-15	HOLDER(MIC)		
16	----------	BRACKET		
17	N99-2039-05	SCREW SET		
18	T91-0639-65	MICROPHONE		

Packing materials and accessories parts list (NX-5700B_F, NX-5700B_K)

Block No.M3MM



Packing and accessories

Block No. [M][3][M][M]

⚠ Symbol No.	Part No.	Part Name	Description	Local
1	B5A-0056-00	INSTRUCTION MANUAL		
2	----------	PAMPHLET		
3	----------	PAMPHLET		
8	H1C-0012-10	PACKING FIXTURE(LOWER)		NX-5700B(F)
8	H1C-0029-00	PACKING FIXTURE(LOWER)		NX-5700B(K)
9	H1C-0013-10	PACKING FIXTURE(UPPER)		NX-5700B(F)
9	H1C-0030-00	PACKING FIXTURE(UPPER)		NX-5700B(K)
10	H1C-0027-00	PACKING FIXTURE(SPACER)		NX-5700B(F)
10	H1C-0031-00	PACKING FIXTURE(SPACER)		NX-5700B(K)
12	----------	ANTI-STATIC BAG		
13	H5A-0014-00	ITEM CARTON CASE		NX-5700B(F)
13	H5A-0234-00	ITEM CARTON CASE		NX-5700B(K)

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