

UHF FM REPEATER

# TKR-851

## SERVICE MANUAL

### SUPPLEMENT III

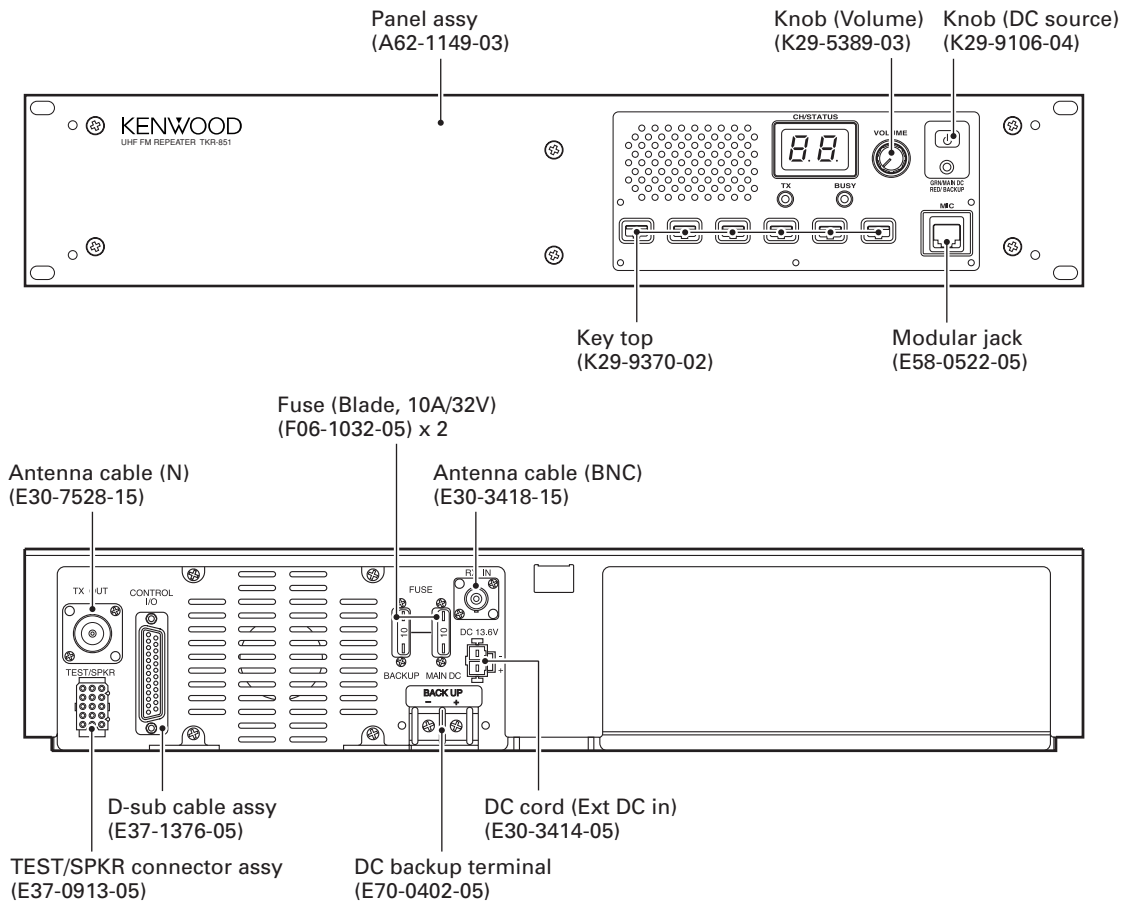
# KENWOOD

Kenwood Corporation

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This service manual is applied from the following serial numbers.

K: 809xxxxx~, E: 801xxxxx~, E3: 801xxxxx~



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### Service Manual List

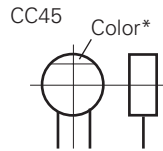
Title	Parts number	Remarks	Destination	Final unit	Display unit	TX-RX unit	RX PLL unit	TX PLL unit
TKR-851	B51-8684-00	First edition	K,E	X45-3742-71 J72-0911-09	X54-3330-21 J72-0756-12	X57-6962-70 J72-0924-09	X58-4800-10 J72-0751-02	X58-4810-10 J72-0752-12
TKR-851	B51-8701-00	Supplement	K,E	X45-3742-71 J72-0971-19	-	-	-	-
TKR-851	B51-8709-00	Supplement 2	K,K2,M2,E,E3	X45-374X-XX J72-0971-29	X54-3330-21 J72-0756-12	X57-696X-XX J72-0924-19	X58-480X-XX J72-0751-02	X58-481X-XX J72-0752-12
TKR-851	B51-8790-00	Supplement 3 This service manual	K,E,E3	X45-374X-XX J79-0101-09	X54-3580-20 J79-0035-09	X57-696X-XX J79-0102-19	X58-496X-XX J79-0040-09	X58-497X-XX J79-0041-09

## PARTS LIST

### CAPACITORS

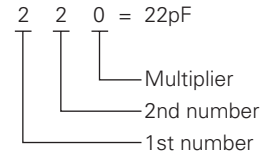
$\frac{C}{1} \frac{C}{2} \frac{45}{3} \frac{TH}{4} \frac{1H}{5} \frac{220}{6} \frac{J}{7}$

- 1 = Type ... ceramic, electrolytic, etc.
- 2 = Shape ... round, square, etc.
- 3 = Temp. coefficient
- 4 = Voltage rating
- 5 = Value
- 6 = Tolerance



#### • Capacitor value

- 010 = 1pF
- 100 = 10pF
- 101 = 100pF
- 102 = 1000pF = 0.001μF
- 103 = 0.01μF



#### • Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470±60ppm/°C

#### • Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40 -20	+80 -20	+100 -0	More than 10μF : -10~+50 Less than 4.7μF : -10~+75

#### (Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

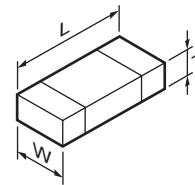
#### • Voltage rating

2nd word \ 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	-
3	1000	1250	1600	2000	2500	2150	4000	5000	6300	8000	-

#### • Chip capacitors

- (EX)  $\frac{C}{1} \frac{C}{2} \frac{73}{3} \frac{F}{4} \frac{SL}{5} \frac{1H}{6} \frac{000}{7} \frac{J}{8}$  → Refer to the table above.
- (Chip) (CH, RH, UJ, SL)
- 1 = Type
  - 2 = Shape
  - 3 = Dimension
  - 4 = Temp. coefficient
  - 5 = Voltage rating
  - 6 = Value
  - 7 = Tolerance
- (EX)  $\frac{C}{1} \frac{K}{2} \frac{73}{3} \frac{F}{4} \frac{F}{5} \frac{1H}{6} \frac{000}{7} \frac{Z}{8}$
- (Chip) (B, F)

#### • Dimension



#### Chip capacitor

Code	L	W	T
Empty	5.6±0.5	5.0±0.5	Less than 2.0
A	4.5±0.5	3.2±0.4	Less than 2.0
B	4.5±0.5	2.0±0.3	Less than 2.0
C	4.5±0.5	1.25±0.2	Less than 1.25
D	3.2±0.4	2.5±0.3	Less than 1.5
E	3.2±0.2	1.6±0.2	Less than 1.25
F	2.0±0.3	1.25±0.2	Less than 1.25
G	1.6±0.2	0.8±0.2	Less than 1.0
H	1.0±0.05	0.5±0.05	0.5±0.05

#### Chip resistor

Code	L	W	T
E	3.2±0.2	1.6±0.2	1.0
F	2.0±0.3	1.25±0.2	1.0
G	1.6±0.2	0.8±0.2	0.5±0.1
H	1.0±0.05	0.5±0.05	0.35±0.05

#### • Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

### RESISTORS

#### • Chip resistor (Carbon)

- (EX)  $\frac{R}{1} \frac{D}{2} \frac{73}{3} \frac{E}{4} \frac{B}{5} \frac{2B}{6} \frac{000}{7} \frac{J}{8}$
- (Chip) (B, F)

#### • Carbon resistor (Normal type)

- (EX)  $\frac{R}{1} \frac{D}{2} \frac{14}{3} \frac{B}{4} \frac{B}{5} \frac{2C}{6} \frac{000}{7} \frac{J}{8}$

- 1 = Type
- 2 = Shape
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Rating wattage
- 6 = Value
- 7 = Tolerance

# TKR-851

## PARTS LIST

\* New Parts.  $\Delta$  indicates safety critical components.

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

L : Scandinavia

K : USA

P : Canada

Y : PX (Far East, Hawaii)

T : England

E : Europe

Y : AAFES (Europe)

X : Australia

M : Other Areas

### TKR-851 (Y54-323X-XX)

#### FINAL UNIT (X45-374X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
<b>TKR-851</b>					
1	2B		A10-4037-21	CHASSIS	
5	3A		A62-0933-13	PANEL ASSY	
2	1B		A62-1146-04	PANEL	
3	1B		A62-1147-04	PANEL	
4	1D		A62-1148-03	PANEL	
6	3C		A62-1149-03	PANEL ASSY	
8	1F		B10-2635-04	FRONT GLASS ACCESSORY	
9	1F		B11-1259-04	FILTER ACCESSORY	
10	3B		B42-7158-04	STICKER (MODEL NAME)	
11	1F	*	B62-1774-10	INSTRUCTION MANUAL	E,E3
11	1F	*	B62-1775-10	INSTRUCTION MANUAL	K
12	2C,3D		B72-2202-04	MODEL NAME-PLATE	E
12	2C,3D		B72-2203-04	MODEL NAME-PLATE	E3
12	2C,3D		B72-2205-04	MODEL NAME-PLATE	K
14	2C		E30-3414-05	DC CORD (EXT DC IN)	
15	1C		E30-3418-15	ANTENNA CABLE (BNC)	
17	1E		E30-3427-25	DC CORD ACCESSORY	
16	2C	*	E30-7528-15	ANTENNA CABLE (N)	
18	1E		E31-3228-05	TEST/SPKR PLUG ACCESSORY	
19	1B		E37-0902-05	DC WIRE (RED)	
20	1B		E37-0903-05	DC WIRE (BLACK)	
22	3B		E37-0905-15	SPEAKER CABLE	
23	3A		E37-0906-05	LEAD WIRE WITH CONNECTOR (CONT-DISP)	
24	3A		E37-0908-05	LEAD WIRE WITH CONNECTOR (11P)	
25	2B		E37-0909-05	LEAD WIRE WITH CONNECTOR (8P)	
26	1B		E37-0911-05	LEAD WIRE WITH CONNECTOR (3P)	
27	2B		E37-0912-05	COAXIAL CABLE	
28	2C		E37-0913-05	TEST/SPKR CONNECTOR ASSY	
29	1B		E37-0934-05	DC WIRE (ORANGE)	
30	2C		E37-0964-05	DC BACKUP WIRE (BLACK)	
31	2C		E37-0965-05	DC BACKUP WIRE (RED)	
32	2B		E37-1340-05	FLAT CABLE (36P)	
21	2C		E37-1376-05	D-SUB CABLE ASSY	
33	2C		E70-0402-05	DC BACKUP TERMINAL	
35	1C,1E		F06-1032-05	FUSE (BLADE TYPE) (10A/32V)	
36	2C		F09-0445-05	CAP (D-SUB) ACCESSORY	
37	1C		F09-0471-15	FANMOTOR	
-			F10-2374-04	SHIELDING PLATE (TX/RX)	
-			F10-2379-04	SHIELDING CASE (TX/RX COMP SIDE)	
-			F10-2409-04	SHIELDING CASE (TX/RX FOIL SIDE)	
41	1C		F20-3322-04	INSULATING SHEET (BACKUP)	
43	1B,2B		G02-0576-14	FLAT SPRING	
42	2B		G02-0729-14	FLAT SPRING	
44	2B		G02-0829-14	FLAT SPRING	
45	3B		G02-0885-13	EARTH SPRING	
51	1B		G02-0894-04	EARTH SPRING (FINAL FET)	
39	2D		G02-1831-04	EARTH SPRING	
40	2D	*	G02-1832-04	EARTH SPRING	
46	2B,3B		G10-1263-04	FIBROUS SHEET (CHASSIS)	
47	3C,2D		G10-1264-04	FIBROUS SHEET (FINAL)	
56	3B		G10-1344-04	FIBROUS SHEET	
58	3B		G10-1345-04	FIBROUS SHEET	

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
77	2B		G11-2622-04	SHEET	E3
48	1F		G13-1801-04	CUSHION ACCESSORY	
49	1F		G13-1802-04	CUSHION ACCESSORY	
50	2B		G13-1886-04	CUSHION	
76	2C	*	G13-2054-04	CUSHION	
72	3A		G13-2171-04	CUSHION (SPEAKER)	
52	1E		H25-0029-04	PROTECTION BAG (60/110/0.07)	
53	1F		H25-0747-04	PROTECTION BAG (250X350)	
54	1E		H25-0762-04	PROTECTION BAG (120X300)	
55	1F		H25-2328-04	PROTECTION BAG (80/250/0.07)	
57	3F		H52-2013-02	ITEM CARTON CASE	
59	1E		J02-0475-05	FOOT ACCESSORY	
60	1E		J02-0492-04	FOOT ACCESSORY	
64	1B		J21-8467-04	MOUNTING HARDWARE (DRIVE FET)	
73	3A		J21-8556-04	MOUNTING HARDWARE (SPEAKER)	
74	3A		J21-8557-04	MOUNTING HARDWARE (SPEAKER)	
61	1F		J21-8559-04	MOUNTING HARDWARE ACCESSORY	
62	1E		J59-0302-05	GROMMET ACCESSORY	
-			J61-0307-05	BAND	
65	1E		K01-0418-15	HANDLE ACCESSORY	
66	3A		K29-5389-03	KNOB (VOLUME)	
68	3A		K29-9106-04	KNOB (DC SOURCE)	
67	3A		K29-9370-02	KEY TOP	
-	1E		L79-1419-05	LINE FILTER (DC CORD)	E,E3
71	2B	*	L79-1854-05	LINE FILTER (EXT DC IN)	E,E3
A	2C		N09-2292-05	HEXAGON HEAD SCREW	
B	1C,2C		N30-2606-48	PAN HEAD MACHINE SCREW	
C	2A,1E		N30-4006-48	PAN HEAD MACHINE SCREW	
D	2B,2C		N30-4014-48	PAN HEAD MACHINE SCREW	
E	1C	*	N30-4020-43	PAN HEAD MACHINE SCREW	
F	1C,2C		N32-3006-48	FLAT HEAD MACHINE SCREW	
G	3B,3C		N32-4008-43	FLAT HEAD MACHINE SCREW	
J	1E		N35-3006-43	BINDING HEAD MACHINE SCREW	
K	1C		N35-4006-43	BINDING HEAD MACHINE SCREW	
L	1B,3B		N67-3008-48	PAN HEAD SEMS SCREW	
M	1C		N80-2608-43	PAN HEAD TAPTITE SCREW	
N	2C		N87-2606-48	BRAZIER HEAD TAPTITE SCREW	
O	3A	*	N87-3005-43	BRAZIER HEAD TAPTITE SCREW	
P	2B,3B		N87-3006-48	BRAZIER HEAD TAPTITE SCREW	
R	2C	*	N90-3014-48	TP HEAD MACHINE SCREW	
70	3A		T07-0770-25	SPEAKER	
-			490-0174-05	ADHESIVE TAPE	
<b>FINAL UNIT (X45-374X-XX) 2-71: E,K 2-72: E3</b>					
C1			CC73GCH1H100D	CHIP C 10PF D	E3
C1			CK73GB1H471K	CHIP C 470PF K	E,K
C3		*	CD04AY1E101M	ELECTRO 100UF 25WV	
C6,7			CK73GB1H471K	CHIP C 470PF K	
C8			CC73GCH1H080D	CHIP C 8.0PF D	E,K

## PARTS LIST

FINAL UNIT (X45-374X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti- nation	Ref. No.	Address	New parts	Parts No.	Description	Desti- nation
C8			CC73GCH1H100D	CHIP C 10PF D	E3	C83			C93-0557-05	CHIP C 7.0PF D	E3
C10			CK73GB1H471K	CHIP C 470PF K		C85			C93-0561-05	CHIP C 12PF J	E3
C12-15			CK73GB1H471K	CHIP C 470PF K		C86			C93-0560-05	CHIP C 10PF D	E,K
C17			CC73GCH1H050C	CHIP C 5.0PF C	E,K	C89			C93-0555-05	CHIP C 5.0PF C	E,K
C17			CC73GCH1H070D	CHIP C 7.0PF D	E3	C89			C93-0556-05	CHIP C 6.0PF D	E3
C18,19			CK73GB1H471K	CHIP C 470PF K		C91-98			CK73GB1H471K	CHIP C 470PF K	
C20			CK73FB1H471K	CHIP C 470PF K		C99			CK73FB1E104K	CHIP C 0.10UF K	
C21			CC73FCH1H120J	CHIP C 12PF J	E,K	C100-102			CK73GB1H471K	CHIP C 470PF K	
C21			CC73FCH1H220J	CHIP C 22PF J	E3	C103			CS77AA1A100M	CHIP TNL 10UF 10WV	
C22			CC73FCH1H060D	CHIP C 6.0PF D	E,K	C104			CC73GCH1H101J	CHIP C 100PF J	
C22			CC73FCH1H120J	CHIP C 12PF J	E3	C105			CK73GB1H471K	CHIP C 470PF K	
C23			CK73FB1H471K	CHIP C 470PF K		C106			CK73FB1E104K	CHIP C 0.10UF K	
C24		*	C90-5640-05	ELECTRO 100UF 16WV		C107			CC73GCH1H101J	CHIP C 100PF J	
C26			CC73GCH1H101J	CHIP C 100PF J	E3	C108			CK73FB1E104K	CHIP C 0.10UF K	
C26			CC73GCH1H471J	CHIP C 470PF J	E,K	C109			CC73GCH1H101J	CHIP C 100PF J	
C27			CK73GB1H471K	CHIP C 470PF K		C112			CK73GB1H471K	CHIP C 470PF K	
C28			CK73FB1E104K	CHIP C 0.10UF K		C113			CK73FB1E104K	CHIP C 0.10UF K	
C29			CK73GB1H471K	CHIP C 470PF K		C114			CK73GB1H471K	CHIP C 470PF K	
C30			CK73FB1E224K	CHIP C 0.22UF K	E,K	C115			CK73FB1E104K	CHIP C 0.10UF K	
C30			CK73FB1E474K	CHIP C 0.47UF K	E3	C116			CK73GB1H471K	CHIP C 470PF K	
C31			C93-0599-05	CHIP C 470PF K		C117			CK73FB1E104K	CHIP C 0.10UF K	
C32			C93-0558-05	CHIP C 8.0PF D		C118			C93-0558-05	CHIP C 8.0PF D	E,K
C33,34			C93-0565-05	CHIP C 27PF J	E,K	C119			CK73GB1H471K	CHIP C 470PF K	
C33,34			C93-0567-05	CHIP C 39PF J	E3	C120			CK73FB1H223K	CHIP C 0.022UF K	
C35			C93-0599-05	CHIP C 470PF K		C121,122			CM73F2H150J	CHIP C 15PF J	E,K
C36			CK73FB1E104K	CHIP C 0.10UF K		C121,122			CM73F2H180J	CHIP C 18PF J	E3
C38			CK73GB1H471K	CHIP C 470PF K		C123,124			CM73F2H220J	CHIP C 22PF J	E,K
C39			C93-0561-05	CHIP C 12PF J		C123,124			CM73F2H270J	CHIP C 27PF J	E3
C40			C93-0564-05	CHIP C 22PF J	E,K	C155			C93-0599-05	CHIP C 470PF K	
C41			C93-0599-05	CHIP C 470PF K		C157			CK73GB1H471K	CHIP C 470PF K	
C42			CC73FCH1H220J	CHIP C 22PF J		C160			CM73F2H820J	CHIP C 82PF J	
C43			CM73F2H220J	CHIP C 22PF J	E,K	C161			CC73GCH1H220J	CHIP C 22PF J	
C43			CM73F2H240J	CHIP C 24PF J	E3	C165,166			CK73FB1H471K	CHIP C 470PF K	
C44			C93-0556-05	CHIP C 6.0PF D	E,K	C167,168			CC73GCH1H220J	CHIP C 22PF J	
C44			C93-0560-05	CHIP C 10PF D	E3	C169			CC73FCH1H560J	CHIP C 56PF J	
C46			C93-0599-05	CHIP C 470PF K		C170-172			CC73GCH1H220J	CHIP C 22PF J	
C48			CK73GB1H471K	CHIP C 470PF K		C173,174			CC73FCH1H220J	CHIP C 22PF J	
C49			CC73GCH1H101J	CHIP C 100PF J		C177			CC73FCH1H150J	CHIP C 15PF J	
C50			CK73FB1E104K	CHIP C 0.10UF K		C178			C93-0553-05	CHIP C 3.0PF C	E,K
C51			CD04AY1E470M	ELECTRO 47UF 25WV		C178			C93-0554-05	CHIP C 4.0PF C	E3
C52			CC73GCH1H101J	CHIP C 100PF J		C179			CC73FCH1H030C	CHIP C 3.0PF C	
C53			CK73FB1E104K	CHIP C 0.10UF K		C186-191			CC73GCH1H820J	CHIP C 82PF J	E3
C54		*	CD04AY1E101M	ELECTRO 100UF 25WV		CN1			E04-0154-05	PIN SOCKET	
C55			C93-0599-05	CHIP C 470PF K		CN3			E41-2738-05	PIN ASSY	
C56			CC73FCH1H220J	CHIP C 22PF J		CN4			E41-1682-05	PIN ASSY	
C59			CM73F2H150J	CHIP C 15PF J	E,K	CN5			E41-2672-05	PIN ASSY	
C59			CM73F2H330J	CHIP C 33PF J	E3	CN6-8			E23-0462-05	TERMINAL	
C60			C93-0563-05	CHIP C 18PF J	E3	F1			F53-0392-05	FUSE (3A/32V)	
C61			CM73F2H820J	CHIP C 82PF J		CN51,52			J13-0071-05	FUSE HOLDER	
C68			CK73GB1H471K	CHIP C 470PF K		L1			L40-1075-92	SMALL FIXED INDUCTOR (10NH)	E,K
C69			CC73GCH1H101J	CHIP C 100PF J		L1			L40-3963-92	SMALL FIXED INDUCTOR (3.9NH)	E3
C70			CK73FB1E104K	CHIP C 0.10UF K		L2			L41-1075-33	SMALL FIXED INDUCTOR (0.01UH)	
C71,72			CK73GB1H471K	CHIP C 470PF K		L3			L40-1875-92	SMALL FIXED INDUCTOR (18NH)	
C75			CK73GB1H471K	CHIP C 470PF K		L5		*	L41-6865-47	SMALL FIXED INDUCTOR (6.8NH)	
C77			CC73GCH1H101J	CHIP C 100PF J		L6,7			L34-4517-05	AIR-CORE COIL	
C78			CK73GB1H471K	CHIP C 470PF K		L9			L34-4517-05	AIR-CORE COIL	
C79			CK73FB1E104K	CHIP C 0.10UF K		L11			L34-4517-05	AIR-CORE COIL	
C80			C92-0777-05	ELECTRO 1000UF 25WV		L12			L34-4523-05	AIR-CORE COIL	
C81			CM73F2H820J	CHIP C 82PF J							
C83			C93-0556-05	CHIP C 6.0PF D	E,K						

## PARTS LIST

FINAL UNIT (X45-374X-XX)  
DISPLAY UNIT (X54-3580-20)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
L14			L41-1575-33	SMALL FIXED INDUCTOR (0.015UH)	E,K	R72			RK73GB2A184J	CHIP R 180K J 1/10W	
L14,15			L41-1075-33	SMALL FIXED INDUCTOR (0.01UH)	E3	R73			R92-1204-05	CHIP R 100 J 1/4W	
L15			L41-1075-33	SMALL FIXED INDUCTOR (0.01UH)	E,K	R77			RK73GB2A154J	CHIP R 150K J 1/10W	
L16			L40-1075-92	SMALL FIXED INDUCTOR (10NH)		VR1			R12-6429-05	TRIMMING POT. (100K)	
L17			L40-1875-92	SMALL FIXED INDUCTOR (18NH)							
L19			L34-4667-05	AIR-CORE COIL		K1			S76-0426-05	RELAY	
L20			L34-4758-05	AIR-CORE COIL		D2			02DZ6.2F-Y	ZENER DIODE	
R1			RK73GB2A103J	CHIP R 10K J 1/10W		D4,5			HSM88AS-E	DIODE	
R2			RK73GB2A222J	CHIP R 2.2K J 1/10W		D7			ZSA5A27	ZENER DIODE	
R3			RK73GB2A470J	CHIP R 47 J 1/10W		D8			RB051L-40	DIODE	
R4			RK73GB2A220J	CHIP R 22 J 1/10W		D9		*	MINISMD C05002F	VARISTOR	
R6			RK73GB2A470J	CHIP R 47 J 1/10W		D10			1SS355	DIODE	
R7			RK73GB2A682J	CHIP R 6.8K J 1/10W		D51,52			DSA3A1	DIODE	
R8			RK73FB2B100J	CHIP R 10 J 1/8W		D53			MA4PH633	DIODE	
R9			RK73FB2B220J	CHIP R 22 J 1/8W		D55,56			MA4PH633	DIODE	
R11			RK73GB2A104J	CHIP R 100K J 1/10W	E,K	IC1			SM6611ABH-G	ANALOGUE IC	
R11			RK73GB2A333J	CHIP R 33K J 1/10W	E3	IC2			NJM78L05UA-ZB	BI-POLAR IC	
R12			RK73GB2A153J	CHIP R 15K J 1/10W	E3	IC3			TA75W01FUF	MOS-IC	
R12			RK73GB2A183J	CHIP R 18K J 1/10W	E,K	Q1			2SC5110-F(0)	TRANSISTOR	
R13			RK73FB2B220J	CHIP R 22 J 1/8W	E3	Q2			2SC3356-A(R24)	TRANSISTOR	
R13			RK73FB2B470J	CHIP R 47 J 1/8W	E,K	Q3			2SK2596-E	FET	
R14		*	RK73RB2H271J	CHIP R 270 J 1/2W		Q4	1B		PD55008S-E	FET	
R15		*	RK73RB2H180J	CHIP R 18 J 1/2W		Q5	1B		RD60HUF1-101	FET	
R16		*	RK73RB2H271J	CHIP R 270 J 1/2W		Q8			2SC4116(Y)F	TRANSISTOR	
R17		*	RK73FB2B124J	CHIP R 120K J 1/8W		Q9			DTD123EK	DIGITAL TRANSISTOR	
R18			RK73EB2E101J	CHIP R 100 J 1/4W		TH1	1B		PTH9M04BE471TS	THERMISTOR	
R19			RK73FB2B104J	CHIP R 100K J 1/8W		<b>DISPLAY UNIT (X54-3580-20)</b>					
R20,21			RK73GB2A000J	CHIP R 0.0 J 1/10W		D503-505			B30-2151-05	LED (RED/GREEN)	
R22		*	RK73RB2H101J	CHIP R 100 J 1/2W		C501			CS77AA1A100M	CHIP TNTL 10UF 10WV	
R23		*	RK73FB2B124J	CHIP R 120K J 1/8W		C502,503			CS77AA1A1R5M	CHIP TNTL 1.5UF 10WV	
R24			RK73FB2B104J	CHIP R 100K J 1/8W		C504,505			CK73GB1C104K	CHIP C 0.10UF K	
R26			RK73GB2A101J	CHIP R 100 J 1/10W		C506			CC73GCH1H470J	CHIP C 47PF J	
R31			RK73GB2A224J	CHIP R 220K J 1/10W		C507,508			CK73GB1C104K	CHIP C 0.10UF K	
R34			RK73GB2A000J	CHIP R 0.0 J 1/10W		C509			CK73GB1H103K	CHIP C 0.010UF K	
R35			RK73GB2A104J	CHIP R 100K J 1/10W		C510			CS77AA1A100M	CHIP TNTL 10UF 10WV	
R36			RK73GB2A000J	CHIP R 0.0 J 1/10W		C511,512			CK73GB1E103K	CHIP C 0.010UF K	
R37			RK73FB2B000J	CHIP R 0.0 J 1/8W		C513-518			CC73GCH1H101J	CHIP C 100PF J	
R38			RK73GB2A473J	CHIP R 47K J 1/10W		C519,520			CK73GB1E103K	CHIP C 0.010UF K	
R40			R92-1204-05	CHIP R 100 J 1/4W		C521			CS77AA1A100M	CHIP TNTL 10UF 10WV	
R41,42			RK73GB2A000J	CHIP R 0.0 J 1/10W		C522			CK73GB1C104K	CHIP C 0.10UF K	
R44			RK73FB2B000J	CHIP R 0.0 J 1/8W		C523			CK73FB1E334K	CHIP C 0.33UF K	
R45			RK73GB2A223J	CHIP R 22K J 1/10W		C524			CS77AA1A100M	CHIP TNTL 10UF 10WV	
R46			RK73GB2A471J	CHIP R 470 J 1/10W	E,K	C525			CK73GB1C104K	CHIP C 0.10UF K	
R47			RK73GB2A222J	CHIP R 2.2K J 1/10W	E3	C526			CK73FB1E334K	CHIP C 0.33UF K	
R47			RK73GB2A332J	CHIP R 3.3K J 1/10W		C601			CC73GCH1H101J	CHIP C 100PF J	
R48			RK73GB2A471J	CHIP R 470 J 1/10W		C602			CK73GB1H102K	CHIP C 1000PF K	
R49		*	RK73RB2H000J	CHIP R 0.0 J 1/2W		C603			CC73GCH1H101J	CHIP C 100PF J	
R50			R92-1317-05	CHIP R 18 J 1W		C606			CC73GCH1H101J	CHIP C 100PF J	
R54			RK73GB2A102J	CHIP R 1.0K J 1/10W		C607			CK73GB1C104K	CHIP C 0.10UF K	
R55			RK73GB2A474J	CHIP R 470K J 1/10W		CN501			E41-2743-05	PIN ASSY	
R56			RK73GB2A473J	CHIP R 47K J 1/10W		CN502			E40-6102-05	PIN ASSY	
R57			RK73GB2A471J	CHIP R 470 J 1/10W		CN601			E41-2751-05	PIN ASSY	
R58			RK73GB2A474J	CHIP R 470K J 1/10W		J601			E58-0522-05	MODULAR JACK	
R59			RK73GB2A000J	CHIP R 0.0 J 1/10W		-			J31-0543-05	COLLAR	
R60			RK73GB2A103J	CHIP R 10K J 1/10W		CP501-504			RK75GB1J471J	CHIP-COM 470 J 1/16W	
R61			R92-3613-05	RESISTOR 5.6 5W							
R62			RK73GB2A103J	CHIP R 10K J 1/10W							
R70			RK73GB2A000J	CHIP R 0.0 J 1/10W							
R71		*	RK73RB2H121J	CHIP R 120 J 1/2W							

## PARTS LIST

DISPLAY UNIT (X54-3580-20)  
TX-RX UNIT (X57-696X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R502,503			RK73GB2A000J	CHIP R 0.0 J 1/10W		C28,29			CC73GCH1H020C	CHIP C 2.0PF C	E,K
R505			RK73GB2A683J	CHIP R 68K J 1/10W		C29			CC73GCH1H110J	CHIP C 11PF J	E3
R506			RK73GB2A103J	CHIP R 10K J 1/10W		C30			CC73GCH1H680J	CHIP C 68PF J	
R507			RK73GB2A682J	CHIP R 6.8K J 1/10W		C31			CC73GCH1H331J	CHIP C 330PF J	
R508			RK73GB2A102J	CHIP R 1.0K J 1/10W		C32			CK73GB1H103K	CHIP C 0.010UF K	
R509			RK73GB2A103J	CHIP R 10K J 1/10W		C33			CC73GCH1H330J	CHIP C 33PF J	
R510			RK73GB2A224J	CHIP R 220K J 1/10W		C34			CK73GB1H103K	CHIP C 0.010UF K	
R511,512			RK73GB2A103J	CHIP R 10K J 1/10W		C36,37			CK73GB1H103K	CHIP C 0.010UF K	
R513			RK73GB2A104J	CHIP R 100K J 1/10W		C38,39			CC73GCH1H680J	CHIP C 68PF J	
R514			RK73GB2A154J	CHIP R 150K J 1/10W		C40,41			CK73GB1H103K	CHIP C 0.010UF K	
R516			RK73PB2H102J	CHIP R 1.0K J 1/2W		C42,43			CC73GCH1H030C	CHIP C 3.0PF C	
R517			RK73PB2H821J	CHIP R 820 J 1/2W		C44,45			CC73GCH1H040C	CHIP C 4.0PF C	
R518,519			RK73PB2H102J	CHIP R 1.0K J 1/2W		C46,47			CC73GCH1H030C	CHIP C 3.0PF C	
R520-526			RK73PB2H821J	CHIP R 820 J 1/2W		C48			CK73GB1H103K	CHIP C 0.010UF K	
R529-540			RK73GB2A102J	CHIP R 1.0K J 1/10W		C49,50			CC73GCH1H680J	CHIP C 68PF J	
R541-544			RK73GB2A103J	CHIP R 10K J 1/10W		C51			CK73GB1H103K	CHIP C 0.010UF K	
R601			RK73GB2A681J	CHIP R 680 J 1/10W		C52			CK73GB1H103J	CHIP C 0.010UF J	
R604,605			RK73GB2A102J	CHIP R 1.0K J 1/10W		C53			CK73GB1H102K	CHIP C 1000PF K	
R606			RK73GB2A473J	CHIP R 47K J 1/10W		C54			CK73GB1H103J	CHIP C 0.010UF J	
VR501			R32-0689-05	SEMI FIXED VARIABLE RESISTOR		C55,56			CK73GB1H103K	CHIP C 0.010UF K	
VR601			R31-0630-05	VARIABLE RESISTOR		C57			CK73GB1H103J	CHIP C 0.010UF J	
S501-506			S70-0502-05	TACT SWITCH		C58			CC73GCH1H180J	CHIP C 18PF J	
S507			S68-0410-05	PUSH SWITCH		C59			CC73GCH1H150J	CHIP C 15PF J	
D501,502			HSM88AS-E	DIODE		C60			CK73GB1H103K	CHIP C 0.010UF K	
D506,507			LA-501DD	LED		C61			CC73GCH1H080D	CHIP C 8.0PF D	
D508-514			DA204U	DIODE		C62,63			CK73GB1H103K	CHIP C 0.010UF K	
D601,602			DA204U	DIODE		C64			CK73GB1C104K	CHIP C 0.10UF K	
D603			MINISMDC020F	VARIATOR		C65			CS77AA1C100M	CHIP TNL 10UF 16WV	
IC501			NJM4558E-ZB	ANALOGUE IC		C66,67			CC73GCH1H331J	CHIP C 330PF J	
IC502-505			BU4094BCFV	MOS-IC		C68-70			CK73GB1C104K	CHIP C 0.10UF K	
IC506,507			TA78L05FF	MOS-IC		C71			CK73GB1H103K	CHIP C 0.010UF K	
Q501			2SC4116(Y)F	TRANSISTOR		C72			CS77AA1C100M	CHIP TNL 10UF 16WV	
Q502			2SA1586(Y,GR)F	TRANSISTOR		C73			CK73GB1C104K	CHIP C 0.10UF K	
Q503,504			UPA672T-A	FET		C74			CK73GB1H102K	CHIP C 1000PF K	
Q506			DTA114EUA	DIGITAL TRANSISTOR		C75			CK73GB1C104K	CHIP C 0.10UF K	
Q507			UPA672T-A	FET		C76	*		CS77AC1A470M	CHIP TNL 47UF 10WV	
Q508-511			DTA114EUA	DIGITAL TRANSISTOR		C77			CK73GB1H102K	CHIP C 1000PF K	
Q512-514			UPA672T-A	FET		C78			CK73GB1C104K	CHIP C 0.10UF K	
Q516-519			UPA672T-A	FET		C79			CK73FB1C224K	CHIP C 0.22UF K	
Q521-524			UPA672T-A	FET		C80,81			CS77AA1A100M	CHIP TNL 10UF 10WV	
Q525			2SK1824-A	FET		C82-84			CK73GB1H103K	CHIP C 0.010UF K	
<b>TX-RX UNIT (X57-696X-XX) 0-11: K 2-70: E 2-71: E3</b>						C86			CK73GB1H102K	CHIP C 1000PF K	
C2			CC73GCH1H010C	CHIP C 1.0PF C	E3	C87			CS77AA1A100M	CHIP TNL 10UF 10WV	
C3			CC73GCH1H100D	CHIP C 10PF D	E3	C88			CK73GB1H102K	CHIP C 1000PF K	
C3			CC73GCH1H120J	CHIP C 12PF J	E,K	C89,90			CK73GB1H102K	CHIP C 1000PF K	
C4,5			CK73GB1H471K	CHIP C 470PF K		C91			CC73GCH1H040C	CHIP C 4.0PF C	E,K
C7			CC73GCH1H080D	CHIP C 8.0PF D	E3	C91			CC73GCH1H050C	CHIP C 5.0PF C	E3
C7			CC73GCH1H120J	CHIP C 12PF J	E,K	C92,93			CK73GB1H471K	CHIP C 470PF K	
C8			CC73GCH1H0R5C	CHIP C 0.5PF C	E,K	C94			CC73GCH1H030C	CHIP C 3.0PF C	E,K
C8			CC73GCH1H010C	CHIP C 1.0PF C	E3	C94,95			CC73GCH1H040C	CHIP C 4.0PF C	E3
C13			CK73GB1H471K	CHIP C 470PF K		C95			CC73GCH1H040C	CHIP C 4.0PF C	E,K
C14,15			CC73GCH1H060D	CHIP C 6.0PF D	E,K	C96-99			CK73GB1H471K	CHIP C 470PF K	
C14,15			CC73GCH1H070D	CHIP C 7.0PF D	E3	C100			CC73GCH1H060D	CHIP C 6.0PF D	E3
C24			C92-0864-05	CHIP TNL 10UF 10WV		C100,101			CC73GCH1H050C	CHIP C 5.0PF C	E,K
C25			CS77AA1A100M	CHIP TNL 10UF 10WV		C101			CC73GCH1H050C	CHIP C 5.0PF C	E3
C28			CC73GCH1H080D	CHIP C 8.0PF D	E3	C102			CK73GB1H471K	CHIP C 470PF K	
						C104			CK73GB1H471K	CHIP C 470PF K	
						C105			CC73GCH1H070D	CHIP C 7.0PF D	
						C106			CK73GB1H471K	CHIP C 470PF K	
						C107			CC73GCH1H060D	CHIP C 6.0PF D	

## PARTS LIST

### TX-RX UNIT (X57-696X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
C109			CC73GCH1H120J	CHIP C 12PF J		C231		*	CS77AB21A220M	CHIP TNL 22UF 16WV	
C111			CC73GCH1H060D	CHIP C 6.0PF D		C232-234			CK73GB1H103J	CHIP C 0.010UF J	
C114-117			CC73GCH1H100D	CHIP C 10PF D		C235			CC73GCH1H101J	CHIP C 100PF J	E3
C118			CC73GCH1H030C	CHIP C 3.0PF C	E3	C246			CK73FB0J475K	CHIP C 4.7UF K	E3
C120,121			CK73GB1H471K	CHIP C 470PF K		C251			CC73GCH1H030C	CHIP C 3.0PF C	E3
C122,123			CK73GB1H103K	CHIP C 0.010UF K		C600			CK73GB1C104K	CHIP C 0.10UF K	
C124,125			C92-0859-05	ELECTRO 100UF 16WV		C602			CK73GB1C104K	CHIP C 0.10UF K	
C126,127			CS77AB21C220M	CHIP TNL 22UF 16WV		C605			CK73GB1C104K	CHIP C 0.10UF K	
C128,129			CK73GB1H103K	CHIP C 0.010UF K		C613,614			CK73GB1E103K	CHIP C 0.010UF K	
C130,131			CK73GB1H102K	CHIP C 1000PF K		C616			CK73GB1E103K	CHIP C 0.010UF K	
C132,133			CK73GB1H471K	CHIP C 470PF K		C623			CK73GB1C104K	CHIP C 0.10UF K	
C134,135			CK73GB1H103K	CHIP C 0.010UF K		C629			CC73GCH1H101J	CHIP C 100PF J	
C136-139			C90-4016-05	ELECTRO 47UF 16WV		C634,635			CC73GCH1H220J	CHIP C 22PF J	
C140,141			CK73GB1H103K	CHIP C 0.010UF K		C638			CK73GB1C104K	CHIP C 0.10UF K	
C142,143			CK73GB1H102K	CHIP C 1000PF K		C639			CK73GB1E103K	CHIP C 0.010UF K	
C144			CK73GB1H471K	CHIP C 470PF K		C640			CS77AA1A100M	CHIP TNL 10UF 10WV	
C145			CS77AA1A4R7M	CHIP TNL 4.7UF 10WV		C641			CK73GB1C104K	CHIP C 0.10UF K	
C146			CK73GB1H471K	CHIP C 470PF K		C642			CK73GB1E103K	CHIP C 0.010UF K	
C147			CS77AB21C220M	CHIP TNL 22UF 16WV		C643			CS77AA1A100M	CHIP TNL 10UF 10WV	
C148			CK73GB1H102K	CHIP C 1000PF K		C644			CK73GB1E103K	CHIP C 0.010UF K	
C149			CK73GB1H103K	CHIP C 0.010UF K		C645,646			CS77AA1A100M	CHIP TNL 10UF 10WV	
C150			CS77AB21C220M	CHIP TNL 22UF 16WV		C647			CC73GCH1H101J	CHIP C 100PF J	
C151		*	CS77CB21C3R3M	CHIP TNL 3.3UF 16WV		C648			CK73GB1E103K	CHIP C 0.010UF K	
C152			CK73GB1H103K	CHIP C 0.010UF K		C649			CC73GCH1H330J	CHIP C 33PF J	
C153			CK73GB1H471K	CHIP C 470PF K		C652			CC73GCH1H101J	CHIP C 100PF J	
C154			CS77AA1C100M	CHIP TNL 10UF 16WV		C657			CK73GB1E103K	CHIP C 0.010UF K	
C155			CK73GB1H103K	CHIP C 0.010UF K		C662			CS77AA1A100M	CHIP TNL 10UF 10WV	
C156			CK73GB1H102K	CHIP C 1000PF K		C663			CS77AA1E010M	CHIP TNL 1.0UF 25WV	
C157			CK73GB1H103K	CHIP C 0.010UF K		C670			CS77CA1ER47M	CHIP TNL 0.47UF 25WV	
C158		*	CS77CB21C3R3M	CHIP TNL 3.3UF 16WV		C679			CS77AA1A100M	CHIP TNL 10UF 10WV	
C159			CK73GB1H471K	CHIP C 470PF K		C681			CS77AD21C680M	CHIP TNL 68UF 10WV	
C160			CK73GB1H102K	CHIP C 1000PF K		C684			CC73GCH1H101J	CHIP C 100PF J	
C161-163			CK73GB1H103K	CHIP C 0.010UF K		C685			CK73GB1E103K	CHIP C 0.010UF K	
C164			CK73GB1H471K	CHIP C 470PF K		C690			CC73GCH1H101J	CHIP C 100PF J	
C166,167			CK73GB1H471K	CHIP C 470PF K		C691,692			CK73GB1E103K	CHIP C 0.010UF K	
C171			CK73GB1H471K	CHIP C 470PF K		C693,694			CS77AA1A100M	CHIP TNL 10UF 10WV	
C172			CK73GB1H102K	CHIP C 1000PF K		C695,696			CK73GB1H471K	CHIP C 470PF K	
C173			CK73GB1H103K	CHIP C 0.010UF K		C697,698			CS77AA1A100M	CHIP TNL 10UF 10WV	
C174		*	CS77CB21C3R3M	CHIP TNL 3.3UF 16WV		C700,701			CS77AA1A100M	CHIP TNL 10UF 10WV	
C175			CK73GB1H102K	CHIP C 1000PF K		C703,704			CK73GB1C104K	CHIP C 0.10UF K	
C176			CK73GB1H103K	CHIP C 0.010UF K		C705			CK73GB1E103K	CHIP C 0.010UF K	
C177			CK73GB1H471K	CHIP C 470PF K		C706			CS77AA1A100M	CHIP TNL 10UF 10WV	
C178			CS77AA1A4R7M	CHIP TNL 4.7UF 10WV		C707-709			CK73GB1E103K	CHIP C 0.010UF K	
C179			CK73GB1H103K	CHIP C 0.010UF K		C710			CS77AA1A100M	CHIP TNL 10UF 10WV	
C184,185			CK73GB1H102K	CHIP C 1000PF K		C711			CK73GB1H471K	CHIP C 470PF K	
C189,190			CK73GB1H102K	CHIP C 1000PF K		C712			CK73GB1E103K	CHIP C 0.010UF K	
C191-195			CK73GB1H103K	CHIP C 0.010UF K		C713,714			CS77AA1A100M	CHIP TNL 10UF 10WV	
C197			CK73FB1H333K	CHIP C 0.033UF K		C715			CK73GB1E103K	CHIP C 0.010UF K	
C198			CK73GB1C104K	CHIP C 0.10UF K		C716,717			CK73GB1H471K	CHIP C 470PF K	
C199			CK73GB1H103K	CHIP C 0.010UF K		C718,719			CK73GB1E103K	CHIP C 0.010UF K	
C204-208			CC73GCH1H101J	CHIP C 100PF J		C720		*	CS77AA21A010M	CHIP TNL A01UF 21	
C210			CC73GCH1H080D	CHIP C 8.0PF D	E,K	C721,722			CS77AA1A100M	CHIP TNL 10UF 10WV	
C210			CC73GCH1H100D	CHIP C 10PF D	E3	C723			CK73FB1C105K	CHIP C 1.0UF K	
C211			CC73GCH1H120J	CHIP C 12PF J	E,K	C724			CK73GB1H182K	CHIP C 1800PF K	
C212-214			CK73GB1H103K	CHIP C 0.010UF K		C725			CC73GCH1H470J	CHIP C 47PF J	
C216			CK73GB1H471K	CHIP C 470PF K		C726			CC73GCH1H181J	CHIP C 180PF J	
C217			CK73GB1H102K	CHIP C 1000PF K		C727,728			CK73GB1E103K	CHIP C 0.010UF K	
C218			CK73GB1E103K	CHIP C 0.010UF K		C729			CS77AA1A100M	CHIP TNL 10UF 10WV	
C223			CC73GCH1H101J	CHIP C 100PF J	E,K	C730,731			CK73GB1E103K	CHIP C 0.010UF K	
C224			CC73GCH1H030C	CHIP C 3.0PF C	E3	C732			CK73GB1H471K	CHIP C 470PF K	



## PARTS LIST

TX-RX UNIT (X57-696X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
C733			CS77AA1A100M	CHIP TNTL 10UF 10WV		C825			CK73GB1C104K	CHIP C 0.10UF K	
C734			CC73GCH1H270J	CHIP C 27PF J		C826			CS77AA1C100M	CHIP TNTL 10UF 16WV	
C735			CC73GCH1H150J	CHIP C 15PF J		C827			C92-0823-05	CHIP-TAN 100UF 10WV	
C736			CK73GB1H182K	CHIP C 1800PF K		C828			CS77AA1A2R2M	CHIP TNTL 2.2UF 10WV	
C737			CC73GCH1H270J	CHIP C 27PF J		C829			CK73GB1C104K	CHIP C 0.10UF K	
C738			CK73GB1E103K	CHIP C 0.010UF K		C830			CK73GB1E103K	CHIP C 0.010UF K	
C739			CC73GCH1H181J	CHIP C 180PF J		C831			CK73GB1H102K	CHIP C 1000PF K	
C740			CC73GCH1H101J	CHIP C 100PF J		C832,833			CK73GB1E103K	CHIP C 0.010UF K	
C741			CK73GB1E103K	CHIP C 0.010UF K		C834,835			CK73GB1C104K	CHIP C 0.10UF K	
C742			CK73GB1H471K	CHIP C 470PF K		C836-838			CK73GB1E103K	CHIP C 0.010UF K	
C743			CK73GB1E103K	CHIP C 0.010UF K		C839			CK73GB1H271K	CHIP C 270PF K	
C744-746			CS77AA1A100M	CHIP TNTL 10UF 10WV		C840			CK73GB1H472K	CHIP C 4700PF K	
C747,748			CK73GB1E103K	CHIP C 0.010UF K		C841			CK73FB1C105K	CHIP C 1.0UF K	
C749			CK73GB1H471K	CHIP C 470PF K		C842			CS77AA1E010M	CHIP TNTL 1.0UF 25WV	
C750,751			CK73GB1E103K	CHIP C 0.010UF K		C843,844			CK73GB1C104K	CHIP C 0.10UF K	
C752			CK73GB1H471K	CHIP C 470PF K		C851			CK73GB1C104K	CHIP C 0.10UF K	
C753,754			CS77AA1A100M	CHIP TNTL 10UF 10WV		C852			CK73GB1H102K	CHIP C 1000PF K	
C755			CK73GB1H471K	CHIP C 470PF K		CN1			E04-0154-05	PIN SOCKET	
C756,757			CS77AA1A100M	CHIP TNTL 10UF 10WV		CN2	*		E41-2735-05	PIN ASSY	
C758			CK73FB1C105K	CHIP C 1.0UF K		CN3			E04-0154-05	PIN SOCKET	
C759			CK73GB1H471K	CHIP C 470PF K		CN4	*		E41-2735-05	PIN ASSY	
C760			CK73GB1H102K	CHIP C 1000PF K		CN14			E40-6656-05	PIN ASSY	
C761			CK73GB1C104K	CHIP C 0.10UF K		CN15	*		E41-2672-05	PIN ASSY	
C762,763			CK73GB1H102K	CHIP C 1000PF K		CN16	*		E41-2738-05	PIN ASSY	
C764,765			CK73GB1E103K	CHIP C 0.010UF K		CN18,19			E04-0154-05	PIN SOCKET	
C766-768			CC73GCH1H101J	CHIP C 100PF J		CN600			E40-6102-05	PIN ASSY	
C769-771			CS77AAQJ100M	CHIP TNTL 10UF 6.3WV		CN601			E40-6654-05	PIN ASSY	
C772			C92-0823-05	CHIP TNTL 100UF 10WV		CN602			E40-6656-05	PIN ASSY	
C773			CS77AA1A2R2M	CHIP TNTL 2.2UF 10WV		CN603			E40-6655-05	PIN ASSY	
C774			CK73FB1C105K	CHIP C 1.0UF K		CN604			E40-6653-05	PIN ASSY	
C775-779			CS77AA1E010M	CHIP TNTL 1.0UF 25WV		CN605			E41-2671-05	PIN ASSY	
C780-782			CK73FB1C105K	CHIP C 1.0UF K		CN606			E40-5960-05	PIN ASSY	
C783			CK73GB1H471K	CHIP C 470PF K		F1			F53-0392-05	FUSE (3A/32V)	
C784			CK73FB1C105K	CHIP C 1.0UF K		CF1			L72-0366-05	CERAMIC FILTER	
C785,786			CK73GB1C104K	CHIP C 0.10UF K		CF2			L72-0376-05	CERAMIC FILTER	
C787			CK73FB1C105K	CHIP C 1.0UF K		L1			L34-4616-05	AIR-CORE COIL	
C788			CC73GCH1H101J	CHIP C 100PF J		L2			L79-1849-05	HELICAL BLOCK	E,K
C789			CD04AY1E331M	ELECTRO 330UF 25WV		L2	*		L79-1853-05	HELICAL BLOCK	E3
C790			CC73GCH1H101J	CHIP C 100PF J		L3			L41-1575-33	SMALL FIXED INDUCTOR (0.015UH)	E3
C791			CK73GB1H471K	CHIP C 470PF K		L3			L41-1875-33	SMALL FIXED INDUCTOR (0.018UH)	E,K
C792-794			CK73GB1H102K	CHIP C 1000PF K		L4,5			L79-1849-05	HELICAL BLOCK	E,K
C795			CC73GCH1H101J	CHIP C 100PF J		L4,5	*		L79-1853-05	HELICAL BLOCK	E3
C796,797			CK73GB1H102K	CHIP C 1000PF K		L6			L41-1875-33	SMALL FIXED INDUCTOR (0.018UH)	E,K
C798			CD04AY1E470M	ELECTRO 47UF 25WV		L6			L41-2275-33	SMALL FIXED INDUCTOR (0.022UH)	E3
C799			CK73GB1H102K	CHIP C 1000PF K		L10			L40-1581-37	SMALL FIXED INDUCTOR (0.150UH)	
C800			CD04AY1E470M	ELECTRO 47UF 25WV		L11			L41-1885-33	SMALL FIXED INDUCTOR (0.18UH)	
C801			CS77AA1C100M	CHIP TNTL 10UF 16WV		L12			L40-3381-37	SMALL FIXED INDUCTOR (0.330UH)	
C802-805			CK73GB1H102K	CHIP C 1000PF K		L13			L41-1005-33	SMALL FIXED INDUCTOR (10UH)	
C806			CD04AY1E470M	ELECTRO 47UF 25WV		L14			L34-4794-05	COIL	
C807-810			CK73GB1H102K	CHIP C 1000PF K		L15			L34-4793-05	COIL	
C811			CD04AY1E470M	ELECTRO 47UF 25WV		L16			L34-4794-05	COIL	
C812,813			CK73GB1H102K	CHIP C 1000PF K		L17,18			L34-4793-05	COIL	
C814			C92-0777-05	ELECTRO 1000UF 25WV		L19			L34-4794-05	COIL	
C815			CK73FB1E104K	CHIP C 0.10UF K		L20			L41-1095-33	SMALL FIXED INDUCTOR (1.0UH)	
C816			CK73GB1H102K	CHIP C 1000PF K		L21			L41-1005-33	SMALL FIXED INDUCTOR (10UH)	
C817			CD04AY1E470M	ELECTRO 47UF 25WV		L23			L41-1095-33	SMALL FIXED INDUCTOR (1.0UH)	
C818-820			CK73GB1H102K	CHIP C 1000PF K		L24			L34-4787-05	COIL	
C821,822			CC73GCH1H101J	CHIP C 100PF J		L25			L41-2775-33	SMALL FIXED INDUCTOR (0.027UH)	
C823		*	CS77AB20G470M	CHIP TNTL 47UF 4WV							
C824			CK73GB1H472K	CHIP C 4700PF K							

## PARTS LIST

### TX-RX UNIT (X57-696X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
L26			L41-1575-33	SMALL FIXED INDUCTOR (0.015UH)	E,K	R42-45			RK73GB2A223J	CHIP R 22K J 1/10W	
L26-28			L41-2275-33	SMALL FIXED INDUCTOR (0.022UH)	E3	R46			RK73GB2A222J	CHIP R 2.2K J 1/10W	
L27			L41-2275-33	SMALL FIXED INDUCTOR (0.022UH)	E,K	R47			RK73GB2A153J	CHIP R 15K J 1/10W	
L28			L41-1875-33	SMALL FIXED INDUCTOR (0.018UH)	E,K	R48			RK73GB2A473J	CHIP R 47K J 1/10W	
L29,30			L40-1875-92	SMALL FIXED INDUCTOR (18NH)	E,K	R49			RK73GB2A221J	CHIP R 220 J 1/10W	
L29,30			L40-2275-92	SMALL FIXED INDUCTOR (22NH)	E3	R50			RK73GB2A153J	CHIP R 15K J 1/10W	
L31,32			L41-1005-33	SMALL FIXED INDUCTOR (10UH)		R51			RK73GB2A000J	CHIP R 0.0 J 1/10W	
L33			L40-1575-92	SMALL FIXED INDUCTOR (15NH)	E,K	R52			RK73GB2A223J	CHIP R 22K J 1/10W	
L33			L40-2275-92	SMALL FIXED INDUCTOR (22NH)	E3	R53			RK73GB2A682J	CHIP R 6.8K J 1/10W	
L34			L41-1005-33	SMALL FIXED INDUCTOR (10UH)		R54			RK73GB2A102J	CHIP R 1.0K J 1/10W	
L35-39			L92-0140-05	CHIP FERRITE		R55			RK73GB2A223J	CHIP R 22K J 1/10W	
L40			L92-0158-05	CHIP FERRITE		R56			RK73GB2A682J	CHIP R 6.8K J 1/10W	
L42			L40-1875-92	SMALL FIXED INDUCTOR (18NH)	E3	R57			RK73GB2A332J	CHIP R 3.3K J 1/10W	
L42			L40-6865-92	SMALL FIXED INDUCTOR (6.8NH)	E,K	R58			RK73GB2A153J	CHIP R 15K J 1/10W	
L43			L92-0140-05	CHIP FERRITE		R60			RK73GB2A103J	CHIP R 10K J 1/10W	
L45			L40-1875-92	SMALL FIXED INDUCTOR (18NH)	E3	R61			RK73GB2A274J	CHIP R 270K J 1/10W	
L600-608			L92-0140-05	CHIP FERRITE		R62			RK73GB2A222J	CHIP R 2.2K J 1/10W	
L611-613			L92-0140-05	CHIP FERRITE		R63			RK73GB2A183J	CHIP R 18K J 1/10W	
X1			L77-1762-05	CRYSTAL RESONATOR (44.395MHZ)		R65			RK73GB2A472J	CHIP R 4.7K J 1/10W	
X2,3		*	L77-1849-15	VCXO (16.8MHZ)		R66			RK73GB2A334J	CHIP R 330K J 1/10W	
X600		*	L78-1417-05	RESONATOR (14.7456MHZ)		R67			RK73GB2A560J	CHIP R 56 J 1/10W	
X601			L77-1799-05	CRYSTAL RESONATOR (16.515MHZ)		R68,69			RK73GB2A332J	CHIP R 3.3K J 1/10W	
XF1			L71-0513-05	MCF (NARROW)		R70			RK73GB2A102J	CHIP R 1.0K J 1/10W	
XF2			L71-0512-05	MCF (WIDE)	K	R71			RK73GB2A823J	CHIP R 82K J 1/10W	
XF2			L71-0627-05	MCF (WIDE SE)	E,E3	R72			RK73GB2A334J	CHIP R 330K J 1/10W	
CP600,601			RK74GA1J102J	CHIP-COM 1.0K J 1/16W		R73			RK73GB2A474J	CHIP R 470K J 1/10W	
CP603			RK75GA1J101J	CHIP-COM 100 J 1/16W		R74,75			RK73GB2A220J	CHIP R 22 J 1/10W	
CP604,605			RK74GA1J102J	CHIP-COM 1.0K J 1/16W		R76			RK73GB2A104J	CHIP R 100K J 1/10W	
CP606			RK75GA1J472J	CHIP-COM 4.7K J 1/16W		R77,78			RK73GB2A473J	CHIP R 47K J 1/10W	
CP607,608			RK74GA1J102J	CHIP-COM 1.0K J 1/16W		R79			RK73GB2A104J	CHIP R 100K J 1/10W	
CP609			RK75GA1J101J	CHIP-COM 100 J 1/16W		R82			RK73GB2A474J	CHIP R 470K J 1/10W	
CP610,611		*	RK75GB1J100J	CHIP-COM 10 J 1/16W		R83			RK73GB2A000J	CHIP R 0.0 J 1/10W	
CP612-614			RK74GA1J102J	CHIP-COM 1.0K J 1/16W		R87,88			RK73GB2A102J	CHIP R 1.0K J 1/10W	
CP615-619		*	RK75GB1J100J	CHIP-COM 10 J 1/16W		R90			RK73GB2A000J	CHIP R 0.0 J 1/10W	
CP620			RK75GA1J101J	CHIP-COM 100 J 1/16W		R91			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R2			RK73GB2A122J	CHIP R 1.2K J 1/10W		R92			RK73GB2A182J	CHIP R 1.8K J 1/10W	
R3			RK73GB2A102J	CHIP R 1.0K J 1/10W		R93,94			RK73GB2A101J	CHIP R 100 J 1/10W	
R5			RK73GB2A101J	CHIP R 100 J 1/10W		R95			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R8			RK73GB2A151J	CHIP R 150 J 1/10W		R96			RK73GB2A182J	CHIP R 1.8K J 1/10W	
R9			RK73GB2A223J	CHIP R 22K J 1/10W		R97			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R10			RK73GB2A180J	CHIP R 18 J 1/10W		R98			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R11			RK73GB2A271J	CHIP R 270 J 1/10W		R99			RK73GB2A101J	CHIP R 100 J 1/10W	
R13			RK73GB2A271J	CHIP R 270 J 1/10W		R100			RK73GB2A680J	CHIP R 68 J 1/10W	
R14			RK73GB2A333J	CHIP R 33K J 1/10W		R101			RK73GB2A470J	CHIP R 47 J 1/10W	
R17			RK73GB2A824J	CHIP R 820K J 1/10W		R102			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R18			RK73GB2A684J	CHIP R 680K J 1/10W		R103			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R19			RK73GB2A474J	CHIP R 470K J 1/10W		R105			RK73GB2A270J	CHIP R 27 J 1/10W	
R20			RK73GB2A224J	CHIP R 220K J 1/10W		R106			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R30			RK73GB2A821J	CHIP R 820 J 1/10W		R107			RK73GB2A470J	CHIP R 47 J 1/10W	
R31			RK73GB2A5R6J	CHIP R 5.6 J 1/10W		R109			RK73GB2A101J	CHIP R 100 J 1/10W	
R32			RK73GB2A821J	CHIP R 820 J 1/10W		R113			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R33			RK73GB2A470J	CHIP R 47 J 1/10W		R113			RK73GB2A471J	CHIP R 470 J 1/10W	E3
R34			RK73GB2A102J	CHIP R 1.0K J 1/10W		R114			RK73GB2A000J	CHIP R 0.0 J 1/10W	E,K
R35			RK73GB2A182J	CHIP R 1.8K J 1/10W		R120,121			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R36			RK73GB2A102J	CHIP R 1.0K J 1/10W		R122,123			RK73GB2A100J	CHIP R 10 J 1/10W	
R37			RK73GB2A682J	CHIP R 6.8K J 1/10W		R124,125			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R38			RK73GB2A000J	CHIP R 0.0 J 1/10W		R126,127			RK73GB2A100J	CHIP R 10 J 1/10W	
R39			RK73GB2A560J	CHIP R 56 J 1/10W		R128			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R40			RK73GB2A270J	CHIP R 27 J 1/10W		R129,130			RK73GB2A473J	CHIP R 47K J 1/10W	
R41			RK73GB2A222J	CHIP R 2.2K J 1/10W		R131			RK73GB2A102J	CHIP R 1.0K J 1/10W	

## PARTS LIST

TX-RX UNIT (X57-696X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
R134			RK73GB2A821J	CHIP R 820 J 1/10W		R653,654			RK73FB2B000J	CHIP R 0.0 J 1/8W	
R135			RK73GB2A5R6J	CHIP R 5.6 J 1/10W		R655			RK73GB2A473J	CHIP R 47K J 1/10W	
R136			RK73GB2A821J	CHIP R 820 J 1/10W		R656			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R137,138			RK73GB2A102J	CHIP R 1.0K J 1/10W		R657-661			RK73GB2A473J	CHIP R 47K J 1/10W	
R139-142			RK73GB2A000J	CHIP R 0.0 J 1/10W		R662			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R143			RK73GB2A102J	CHIP R 1.0K J 1/10W		R663-667			RK73GB2A473J	CHIP R 47K J 1/10W	
R144			RK73GB2A472J	CHIP R 4.7K J 1/10W		R668			RK73GB2A183J	CHIP R 18K J 1/10W	
R145			RK73FB2B470J	CHIP R 47 J 1/8W		R669-671			RK73GB2A223J	CHIP R 22K J 1/10W	
R148			RK73GB2A472J	CHIP R 4.7K J 1/10W		R672			RK73GB2A104J	CHIP R 100K J 1/10W	
R150			RK73GB2A180J	CHIP R 18 J 1/10W		R673			RK73GB2A224J	CHIP R 220K J 1/10W	
R151-158			RK73GB2A102J	CHIP R 1.0K J 1/10W		R674			RK73GB2A823J	CHIP R 82K J 1/10W	
R160,161			RK73GB2A471J	CHIP R 470 J 1/10W		R675			RK73GB2A104J	CHIP R 100K J 1/10W	
R162-164			RK73GB2A271J	CHIP R 270 J 1/10W		R676			RK73GB2A823J	CHIP R 82K J 1/10W	
R165			RK73GB2A471J	CHIP R 470 J 1/10W		R678			RK73GB2A104J	CHIP R 100K J 1/10W	
R166			RK73GB2A223J	CHIP R 22K J 1/10W		R679,680			RK73GB2A223J	CHIP R 22K J 1/10W	
R168			RK73GB2A000J	CHIP R 0.0 J 1/10W	E,K	R681			RK73GB2A183J	CHIP R 18K J 1/10W	
R168			RK73GB2A271J	CHIP R 270 J 1/10W	E3	R682			RK73GB2A153J	CHIP R 15K J 1/10W	
R169			RK73GB2A392J	CHIP R 3.9K J 1/10W		R683			RK73GB2A124J	CHIP R 120K J 1/10W	
R171			RK73GB2A000J	CHIP R 0.0 J 1/10W		R684			RK73GB2A473J	CHIP R 47K J 1/10W	
R173,174			RK73GB2A000J	CHIP R 0.0 J 1/10W	E3	R685,686			RK73GB2A104J	CHIP R 100K J 1/10W	
R174,175			RK73GB2A000J	CHIP R 0.0 J 1/10W	E,K	R687			RK73GB2A223J	CHIP R 22K J 1/10W	
R175			RK73GB2A391J	CHIP R 390 J 1/10W	E3	R688-690			RK73GB2A473J	CHIP R 47K J 1/10W	
R176			RK73GB2A473J	CHIP R 47K J 1/10W		R691-693			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R178			RK73GB2A000J	CHIP R 0.0 J 1/10W	E3	R694,695			RK73GB2A101J	CHIP R 100 J 1/10W	
R178,179			RK73GB2A000J	CHIP R 0.0 J 1/10W	E,K	R696			RK73GB2A103J	CHIP R 10K J 1/10W	
R181			RK73GB2A182J	CHIP R 1.8K J 1/10W		R697			RK73GB2A101J	CHIP R 100 J 1/10W	
R182			RK73GB2A000J	CHIP R 0.0 J 1/10W		R698			RK73GB2A103J	CHIP R 10K J 1/10W	
R200,201			RK73GB2A000J	CHIP R 0.0 J 1/10W		R699			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R600			RK73GB2A473J	CHIP R 47K J 1/10W		R700			RK73GB2A101J	CHIP R 100 J 1/10W	
R601			RK73FB2B000J	CHIP R 0.0 J 1/8W		R701			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R602			RK73GB2A472J	CHIP R 4.7K J 1/10W		R702			RK73GB2A473J	CHIP R 47K J 1/10W	
R603			RK73GB2A102J	CHIP R 1.0K J 1/10W		R703			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R604			RK73GB2A333J	CHIP R 33K J 1/10W		R704,705			RK73GB2A473J	CHIP R 47K J 1/10W	
R605			RK73GB2A104J	CHIP R 100K J 1/10W		R707-709			RK73GB2A223J	CHIP R 22K J 1/10W	
R606			RK73GB2A473J	CHIP R 47K J 1/10W		R710			RK73GB2A473J	CHIP R 47K J 1/10W	
R607-613			RK73GB2A000J	CHIP R 0.0 J 1/10W		R712			RK73GB2A473J	CHIP R 47K J 1/10W	
R614			RK73GB2A473J	CHIP R 47K J 1/10W		R713			RK73GB2A273J	CHIP R 27K J 1/10W	
R615			RK73GB2A000J	CHIP R 0.0 J 1/10W		R714			RK73GB2A223J	CHIP R 22K J 1/10W	
R616			RK73GB2A473J	CHIP R 47K J 1/10W		R715			RK73GB2A103J	CHIP R 10K J 1/10W	
R618			RK73GB2A000J	CHIP R 0.0 J 1/10W		R717,718			RK73GB2A473J	CHIP R 47K J 1/10W	
R619			RK73GB2A473J	CHIP R 47K J 1/10W		R719			RK73GB2A154J	CHIP R 150K J 1/10W	
R620-622			RK73GB2A102J	CHIP R 1.0K J 1/10W		R720			RK73GB2A473J	CHIP R 47K J 1/10W	
R623,624			RK73GB2A000J	CHIP R 0.0 J 1/10W		R721			RK73GB2A223J	CHIP R 22K J 1/10W	
R625-627			RK73GB2A102J	CHIP R 1.0K J 1/10W		R722			RK73GB2A333J	CHIP R 330K J 1/10W	
R629			RK73GB2A000J	CHIP R 0.0 J 1/10W		R723,724			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R630,631			RK73GB2A473J	CHIP R 47K J 1/10W		R726			RK73GB2A473J	CHIP R 47K J 1/10W	
R633,634			RK73GB2A473J	CHIP R 47K J 1/10W		R727			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R635			RK73GB2A102J	CHIP R 1.0K J 1/10W		R728,729			RK73GB2A223J	CHIP R 22K J 1/10W	
R637			RK73GB2A000J	CHIP R 0.0 J 1/10W		R730			RK73GB2A101J	CHIP R 100 J 1/10W	
R638			RK73GB2A102J	CHIP R 1.0K J 1/10W		R731			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R639			RK73GB2A000J	CHIP R 0.0 J 1/10W		R732			RK73GB2A473J	CHIP R 47K J 1/10W	
R640			RK73GB2A102J	CHIP R 1.0K J 1/10W		R733			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R641			RK73GB2A000J	CHIP R 0.0 J 1/10W		R734			RK73GB2A473J	CHIP R 47K J 1/10W	
R642			RK73GB2A102J	CHIP R 1.0K J 1/10W		R735			RK73GB2A333J	CHIP R 33K J 1/10W	
R643			RK73GB2A473J	CHIP R 47K J 1/10W		R736,737			RK73GB2A473J	CHIP R 47K J 1/10W	
R644			RK73GB2A102J	CHIP R 1.0K J 1/10W		R738			RK73GB2A274J	CHIP R 270K J 1/10W	
R645,646			RK73GB2A473J	CHIP R 47K J 1/10W		R739			RK73GB2A103J	CHIP R 10K J 1/10W	
R647,648			RK73GB2A101J	CHIP R 100 J 1/10W		R740			RK73GB2A104J	CHIP R 100K J 1/10W	
R649-651			RK73GB2A102J	CHIP R 1.0K J 1/10W		R741			RK73GB2A154J	CHIP R 150K J 1/10W	
R652			RK73GB2A101J	CHIP R 100 J 1/10W		R742			RK73FB2B000J	CHIP R 0.0 J 1/8W	

## PARTS LIST

### TX-RX UNIT (X57-696X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R743			RK73GB2A473J	CHIP R 47K J 1/10W		R830			RK73GB2A563J	CHIP R 56K J 1/10W	
R744			RK73GB2A393J	CHIP R 39K J 1/10W		R831			RK73GB2A154J	CHIP R 150K J 1/10W	
R745			RK73GB2A473J	CHIP R 47K J 1/10W		R832			RK73GB2A822J	CHIP R 8.2K J 1/10W	
R747			RK73GB2A103J	CHIP R 10K J 1/10W		R833			RK73GB2A223J	CHIP R 22K J 1/10W	
R749-752			RK73GB2A000J	CHIP R 0.0 J 1/10W		R834			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R753,754			RK73GB2A473J	CHIP R 47K J 1/10W		R836			RK73GB2A473J	CHIP R 47K J 1/10W	
R758			RK73GB2A103J	CHIP R 10K J 1/10W		R837			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R760			RK73GB2A122J	CHIP R 1.2K J 1/10W		R839,840			RK73GB2A561J	CHIP R 560 J 1/10W	
R762			RK73GB2A472J	CHIP R 4.7K J 1/10W		R841,842			RK73FB2B000J	CHIP R 0.0 J 1/8W	
R763			RK73GB2A103J	CHIP R 10K J 1/10W		R843			RK73GB2A274J	CHIP R 270K J 1/10W	
R764,765			RK73GB2A102J	CHIP R 1.0K J 1/10W		R844			RK73GB2A334J	CHIP R 330K J 1/10W	
R766			RK73GB2A122J	CHIP R 1.2K J 1/10W		K1			S76-0401-05	RELAY	
R767			RK73GB2A473J	CHIP R 47K J 1/10W		D1-4			DAN235K	DIODE	
R768			RK73GB2A122J	CHIP R 1.2K J 1/10W		D5			MA3J742	DIODE	
R771			RK73GB2A122J	CHIP R 1.2K J 1/10W		D7			1SS355	DIODE	
R772			RK73GB2A473J	CHIP R 47K J 1/10W		D8			DAN235K	DIODE	
R773			RK73GB2A102J	CHIP R 1.0K J 1/10W		D11			02DZ5.1F-Y	ZENER DIODE	
R774			RK73GB2A105J	CHIP R 1.0M J 1/10W		D12			02DZ18F-X,Y	ZENER DIODE	
R775			RK73GB2A473J	CHIP R 47K J 1/10W		D13			MA3J742	DIODE	
R776			RK73GB2A102J	CHIP R 1.0K J 1/10W		D600			DA204U	DIODE	
R777			RK73GB2A473J	CHIP R 47K J 1/10W		R778			DA204U	DIODE	
R778			RK73GB2A102J	CHIP R 1.0K J 1/10W		R779			DA204U	DIODE	
R779			RK73GB2A473J	CHIP R 47K J 1/10W		R780			DA204U	DIODE	
R780			RK73GB2A102J	CHIP R 1.0K J 1/10W		R781			DA204U	DIODE	
R781			RK73GB2A471J	CHIP R 470 J 1/10W		D618-623			DA204U	DIODE	
R782			RK73GB2A473J	CHIP R 47K J 1/10W		D626			MINISMDE190F	VARISTOR	
R783			RK73GB2A102J	CHIP R 1.0K J 1/10W		D627,628			1SS355	DIODE	
R785			RK73GB2A102J	CHIP R 1.0K J 1/10W		D629			DA204U	DIODE	
R786			RK73GB2A473J	CHIP R 47K J 1/10W		IC1,2			NJM4558E-ZB	ANALOGUE IC	
R787			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC3			NJM78L05UA-ZB	BI-POLAR IC	
R789			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC4			NJM7808FA-ZB	BI-POLAR IC	
R790			RK73GB2A473J	CHIP R 47K J 1/10W		IC5			AN8009M	MOS-IC	
R791			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC6			M62354GPDFQJ	MOS-IC	
R793			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC7			BU4094BCF	MOS-IC	
R794			RK73GB2A473J	CHIP R 47K J 1/10W		IC9			TK14489V-G	BI-POLAR IC	
R795			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC10			TA7808FQ	ANALOGUE IC	
R798			RK73GB2A473J	CHIP R 47K J 1/10W		IC11			NJM78L05UA-ZB	BI-POLAR IC	
R799			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC600			AT24C08A10SU18	ROM IC	
R802			RK73FB2B2R2J	CHIP R 2.2 J 1/8W		IC601			R3111H421C-F	MOS-IC	
R803			RK73GB2A473J	CHIP R 47K J 1/10W		IC602			BU4094BCFV	MOS-IC	
R804			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC603	*		TC7LVX4245FSF	MOS-IC	
R805			RK73GB2A473J	CHIP R 47K J 1/10W		IC604	*		30622M6P177GPU	MICROPROCESSOR IC	
R806			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC605			BU4053BCF	MOS-IC	
R807			RK73GB2A473J	CHIP R 47K J 1/10W		IC606	*		TC7LVX4245FSF	MOS-IC	
R808			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC607			NJM4558E-ZB	ANALOGUE IC	
R809			RK73GB2A473J	CHIP R 47K J 1/10W		IC608			TA75S01F-F	MOS-IC	
R810			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC609			AT29C02090TU	ROM IC	
R811			RK73GB2A473J	CHIP R 47K J 1/10W		IC610			TA75S01F-F	MOS-IC	
R812			RK73GB2A223J	CHIP R 22K J 1/10W		IC611			NJM4558E-ZB	ANALOGUE IC	
R813,814			RK73GB2A473J	CHIP R 47K J 1/10W		IC612			TC7S04FU-F	MOS-IC	
R815			RK73GB2A104J	CHIP R 100K J 1/10W		IC613			TC74VHC4040FT	MOS-IC	
R817			RK73GB2A101J	CHIP R 100 J 1/10W		IC614			AK4550VTP	MOS-IC	
R818			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC615			M62364FP-F	MOS-IC	
R819-822			RK73GB2A103J	CHIP R 10K J 1/10W		IC616,617			NJM4558E-ZB	ANALOGUE IC	
R823			RK73GB2A474J	CHIP R 470K J 1/10W		IC618			320VC5402PGE	MICROPROCESSOR IC	
R824			RK73GB2A472J	CHIP R 4.7K J 1/10W		IC619			TC75W51FUF	MOS-IC	
R825,826			RK73GB2A824J	CHIP R 820K J 1/10W		IC620			ADM202EARNZ	MOS-IC	
R827			RK73GB2A822J	CHIP R 8.2K J 1/10W		IC621			TC7S00FU-F	MOS-IC	
R828			RK73GB2A273J	CHIP R 27K J 1/10W		IC622			TC7S66FUF	MOS-IC	
R829			RK73GB2A224J	CHIP R 220K J 1/10W		IC623			BU4094BCFV	MOS-IC	

## PARTS LIST

TX-RX UNIT (X57-696X-XX)  
RX VCO UNIT (X58-496X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	
IC624	3B	*	XC62FP1802PN	MOS-IC		C323			CK73FB1E224K	CHIP C 0.22UF K		
IC625,626		*	XC62FP3302PN	MOS-IC		C324			CS77CA1VR22M	CHIP TNTL 0.22UF 35WV		
IC627,628				TA78L05FF	MOS-IC		C325			CC73GCH1H040C	CHIP C 4.0PF C	
IC629				LA4422-E	BI-POLAR IC		C329			CK73GB1H471K	CHIP C 470PF K	
IC630				TA78L05FF	MOS-IC		C333			CK73GB1E104K	CHIP C 0.10UF K	
IC631,632				TA75W01FUF	MOS-IC		C350,351			CK73GB1H471K	CHIP C 470PF K	
Q1,2				2SC3357-A	TRANSISTOR		C354			CK73GB1H471K	CHIP C 470PF K	
Q3				2SC3356-A(R24)	TRANSISTOR		C355			CC73GCH1H050B	CHIP C 5.0PF B	E,K
Q4				DTC144EUA	DIGITAL TRANSISTOR		C355			CC73GCH1H060B	CHIP C 6.0PF B	E3
Q5				DTA144EUA	DIGITAL TRANSISTOR		C356			CC73GCH1H060B	CHIP C 6.0PF B	E,K
Q6			DTC144EUA	DIGITAL TRANSISTOR		C356			CC73GCH1H070B	CHIP C 7.0PF B	E3	
Q7			2SC4617(S)	TRANSISTOR		C357			CK73GB1H471K	CHIP C 470PF K		
Q8,9		*	2SC3356-A	TRANSISTOR		C358			CC73GCH1H1R5B	CHIP C 1.5PF B	E3	
Q10			2SC3357-A	TRANSISTOR		C358			CC73GCH1H2R5B	CHIP C 2.5PF B	E,K	
Q11			2SC3356-A(R24)	TRANSISTOR		C359			CC73GCH1H030B	CHIP C 3.0PF B	E,K	
Q12-15			2SC4116(GR)F	TRANSISTOR		C359			CC73GCH1H2R5B	CHIP C 2.5PF B	E3	
Q16			2SB1132(Q,R)	TRANSISTOR		C360,361			CK73FB1E104K	CHIP C 0.10UF K		
Q17			DTC114EUA	DIGITAL TRANSISTOR		C362			CC73GCH1H120G	CHIP C 12PF G		
Q18			2SB1386(R)	TRANSISTOR		C363			CC73GCH1H100C	CHIP C 10PF C	E,K	
Q19			DTC114EUA	DIGITAL TRANSISTOR		C363			CC73GCH1H150G	CHIP C 15PF G	E3	
Q23			DTC114EUA	DIGITAL TRANSISTOR		C364,365			CK73GB1H471K	CHIP C 470PF K		
Q24			DTD114EK	DIGITAL TRANSISTOR		C366-369			CC73GCH1H070B	CHIP C 7.0PF B		
Q25,26			DTC114EUA	DIGITAL TRANSISTOR		C370,371			CC73GCH1H100C	CHIP C 10PF C		
Q27			DTC144EUA	DIGITAL TRANSISTOR		C372,373			CK73GB1H471K	CHIP C 470PF K		
Q600			2SK1824-A	FET		C374,375			CC73GCH1H0R5B	CHIP C 0.5PF B		
Q601			DTC114EUA	DIGITAL TRANSISTOR		C376-378			CK73GB1H471K	CHIP C 470PF K		
Q602			2SK1824-A	FET		C379			CC73GCH1H040C	CHIP C 4.0PF C		
Q603			DTC114EUA	DIGITAL TRANSISTOR		C383			CK73GB1H471K	CHIP C 470PF K		
Q604			2SK1824-A	FET		C385			CK73GB1H471K	CHIP C 470PF K		
Q605			DTC114EUA	DIGITAL TRANSISTOR		C386			CC73GCH1H101J	CHIP C 100PF J		
Q606			DTC363EU	DIGITAL TRANSISTOR		C387,388			CK73GB1H103K	CHIP C 0.010UF K		
Q607,608			DTC144EUA	DIGITAL TRANSISTOR		C389			CK73GB1E104K	CHIP C 0.10UF K		
Q609			DTC114EUA	DIGITAL TRANSISTOR		C391,392			CK73GB1H471K	CHIP C 470PF K		
Q610			2S,506-E(S)	FET		C393,394			CC73GCH1H101J	CHIP C 100PF J		
Q611			DTC114EUA	DIGITAL TRANSISTOR		TC350,351			C05-0396-05	CERAMIC TRIMMER (8PF)		
Q612			DTC144EUA	DIGITAL TRANSISTOR		CN300			E40-5699-05	PIN ASSY		
Q613,614			DTD123TK	DIGITAL TRANSISTOR		CN350			E40-5755-05	PIN ASSY		
Q615			DTC144EUA	DIGITAL TRANSISTOR		CN351			E40-6098-05	PIN ASSY		
TH1			157-503-53006	THERMISTOR		-			F10-2377-04	SHIELDING CASE		
TH700,701			B57331V2103J	THERMISTOR		-			F10-3078-04	SHIELDING CASE		
A1			W02-1939-05	DBM		L301,302			L41-1878-14	SMALL FIXED INDUCTOR (18NH)		
<b>RX VCO UNIT (X58-496X-XX) 2-70: E,K 2-71: E3</b>						L303			L41-2278-14	SMALL FIXED INDUCTOR (22NH)	E,K	
C306			CK73GB1H103K	CHIP C 0.010UF K		L303			L41-2778-14	SMALL FIXED INDUCTOR (27NH)	E3	
C307			CK73GB1H471K	CHIP C 470PF K		L307			L92-0140-05	CHIP FERRITE		
C311			CS77CA1V0R1M	CHIP TNTL 0.1UF 35WV		L350-355			L41-1095-33	SMALL FIXED INDUCTOR (1.0UH)		
C312			CC73GCH1H070D	CHIP C 7.0PF D	E,K	L356,357			L34-4608-05	AIR-CORE COIL	E,K	
C312			CC73GCH1H080D	CHIP C 8.0PF D	E3	L356,357			L34-4609-05	AIR-CORE COIL	E3	
C314			CC73GCH1H120J	CHIP C 12PF J	E,K	L358-361			L41-1595-33	SMALL FIXED INDUCTOR (1.5UH)		
C314			CC73GCH1H180J	CHIP C 18PF J	E3	L362			L41-3375-33	SMALL FIXED INDUCTOR (0.033UH)		
C315			CK73FB1H473K	CHIP C 0.047UF K		R302-304			RK73GB2A101J	CHIP R 100 J 1/10W		
C317			CC73GCH1H070D	CHIP C 7.0PF D	E,K	R308			RK73GB2A560J	CHIP R 56 J 1/10W		
C317			CC73GCH1H080D	CHIP C 8.0PF D	E3	R309			RK73GB2A331J	CHIP R 330 J 1/10W		
C318			CS77AA1A4R7M	CHIP TNTL 4.7UF 10WV		R312			RK73GB2A331J	CHIP R 330 J 1/10W		
C319			CK73GB1H471K	CHIP C 470PF K		R313			RK73GB2A102J	CHIP R 1.0K J 1/10W		
C320			CS77AA1A4R7M	CHIP TNTL 4.7UF 10WV		R314			RK73GB2A474J	CHIP R 470K J 1/10W		
C321			CC73GCH1H040C	CHIP C 4.0PF C		R315			RK73GB2A151J	CHIP R 150 J 1/10W		
C322			CK73GB1H471K	CHIP C 470PF K		R316			RK73FB2B152J	CHIP R 1.5K J 1/8W		
						R317,318			RK73GB2A000J	CHIP R 0.0 J 1/10W		
						R319			RK73GB2A330J	CHIP R 33 J 1/10W		

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

# TKR-851

## PARTS LIST

RX VCO UNIT (X58-496X-XX)

TX VCO UNIT (X58-497X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
R320			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R321			RK73GB2A273J	CHIP R 27K J 1/10W	
R322			RK73GB2A103J	CHIP R 10K J 1/10W	
R350-353			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R354,355			RK73GB2A330J	CHIP R 33 J 1/10W	
R356			RK73GB2A221J	CHIP R 220 J 1/10W	
R357			RK73GB2A181J	CHIP R 180 J 1/10W	
R358,359			RK73GB2A470J	CHIP R 47 J 1/10W	
R360			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R361			RK73GB2A103J	CHIP R 10K J 1/10W	
R362			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R363			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R364			RK73GB2A103J	CHIP R 10K J 1/10W	
R365			RK73GB2A333J	CHIP R 33K J 1/10W	
R366			RK73GB2A103J	CHIP R 10K J 1/10W	
R367			RK73GB2A101J	CHIP R 100 J 1/10W	
R368			RK73GB2A330J	CHIP R 33 J 1/10W	
R380-382			RK73GB2A101J	CHIP R 100 J 1/10W	
R383			RK73GB2A470J	CHIP R 47 J 1/10W	
R384			RK73GB2A101J	CHIP R 100 J 1/10W	
R385			RK73GB2A470J	CHIP R 47 J 1/10W	
R386			RK73GB2A101J	CHIP R 100 J 1/10W	
R387			RK73FB2B000J	CHIP R 0.0 J 1/8W	
R388			RK73GB2A333J	CHIP R 33K J 1/10W	
R389			RK73GB2A473J	CHIP R 47K J 1/10W	
R390			RK73GB2A103J	CHIP R 10K J 1/10W	
R391-393			RK73GB2A473J	CHIP R 47K J 1/10W	
R394			RK73GB2A471J	CHIP R 470 J 1/10W	
D300			1SS355	DIODE	
D350-353			1SV282-F	VARIABLE CAPACITANCE DIODE	
IC301			LMX2352TMX/NP	ANALOGUE IC	
Q300,301			2SC4116(GR)F	TRANSISTOR	
Q302			2SC5108(Y)F	TRANSISTOR	
Q304			2SA1832(GR)F	TRANSISTOR	
Q305			DTC114EUA	DIGITAL TRANSISTOR	
Q306,307			2SK1824-A	FET	
Q350,351			2SK508N(V)(K52)	FET	
Q352,353			2SC4116(Y)F	TRANSISTOR	
Q354			DTC114EUA	DIGITAL TRANSISTOR	
Q355			2SC4226-A(R24)	TRANSISTOR	
<b>TX VCO UNIT (X58-497X-XX) 2-70: E,K 2-71: E3</b>					
C306			CK73GB1H103K	CHIP C 0.010UF K	
C307			CK73GB1H471K	CHIP C 470PF K	
C311			CS77CA1V0R1M	CHIP TNTL 0.1UF 35WV	
C312			CC73GCH1H060D	CHIP C 6.0PF D	E,K
C312			CC73GCH1H070D	CHIP C 7.0PF D	E3
C314			CC73GCH1H120J	CHIP C 12PF J	
C315			CK73FB1H473K	CHIP C 0.047UF K	
C317			CC73GCH1H060D	CHIP C 6.0PF D	E,K
C317			CC73GCH1H070D	CHIP C 7.0PF D	E3
C318			CS77AA1A4R7M	CHIP TNTL 4.7UF 10WV	
C319			CK73GB1H471K	CHIP C 470PF K	
C320			CS77AA1A4R7M	CHIP TNTL 4.7UF 10WV	
C321			CC73GCH1H040C	CHIP C 4.0PF C	
C322			CK73GB1H471K	CHIP C 470PF K	
C323			CK73FB1E224K	CHIP C 0.22UF K	
C324			CS77AA1VR33M	CHIP TNTL 0.33UF 35WV	E3
C324			CS77CA1VR22M	CHIP TNTL 0.22UF 35WV	E,K
C325			CC73GCH1H040C	CHIP C 4.0PF C	
C329			CK73GB1H471K	CHIP C 470PF K	
C333			CK73GB1E104K	CHIP C 0.10UF K	
C350,351			CK73GB1H471K	CHIP C 470PF K	E,K
C351			CK73GB1H471K	CHIP C 470PF K	E3
C352			CC73GCH1H101J	CHIP C 100PF J	
C353			CK73GB1H471K	CHIP C 470PF K	E3
C354			CK73GB1H471K	CHIP C 470PF K	E,K
C355			CC73GCH1H110J	CHIP C 11PF J	E3
C356			CC73GCH1H090B	CHIP C 9.0PF B	E,K
C357			CK73GB1H471K	CHIP C 470PF K	E3
C358			CC73GCH1H030B	CHIP C 3.0PF B	E3
C359			CC73GCH1H030B	CHIP C 3.0PF B	E,K
C360			CK73FB1E104K	CHIP C 0.10UF K	E,K
C361			CK73FB1E104K	CHIP C 0.10UF K	E3
C362			CC73GCH1H180J	CHIP C 18PF J	E,K
C363			CC73GCH1H220J	CHIP C 22PF J	E3
C364			CK73GB1H471K	CHIP C 470PF K	E,K
C365			CK73GB1H471K	CHIP C 470PF K	E3
C366			CC73GCH1H050B	CHIP C 5.0PF B	E,K
C367			CC73GCH1H060B	CHIP C 6.0PF B	E3
C368			CC73GCH1H080B	CHIP C 8.0PF B	E,K
C369			CC73GCH1H080B	CHIP C 8.0PF B	E3
C370			CC73GCH1H080B	CHIP C 8.0PF B	E,K
C371			CC73GCH1H080B	CHIP C 8.0PF B	E3
C374			CC73GCH1H0R5B	CHIP C 0.5PF B	E,K
C375			CC73GCH1H0R5B	CHIP C 0.5PF B	E3
C377,378			CK73GB1H471K	CHIP C 470PF K	
C379			CC73GCH1H040C	CHIP C 4.0PF C	
C380			CC73GCH1HR75B	CHIP C 0.75PF B	E,K
C381			CC73GCH1H0R5B	CHIP C 0.5PF B	E3
C382,383			CC73GCH1H471J	CHIP C 470PF J	
C385			CK73GB1H471K	CHIP C 470PF K	
C387,388			CK73GB1H103K	CHIP C 0.010UF K	
C389			CK73GB1E104K	CHIP C 0.10UF K	
C391,392			CK73GB1H471K	CHIP C 470PF K	
C393,394			CC73GCH1H101J	CHIP C 100PF J	
TC350			C05-0396-05	CERAMIC TRIMMER (8PF)	E,K
TC351			C05-0396-05	CERAMIC TRIMMER (8PF)	E3
CN300			E40-5699-05	PIN ASSY	
CN350			E40-5755-05	PIN ASSY	
CN351			E40-6098-05	PIN ASSY	
-			F10-2377-04	SHIELDING CASE	
-			F10-3078-04	SHIELDING CASE	
L301,302			L41-1578-14	SMALL FIXED INDUCTOR (15NH)	E,K
L301,302			L41-1878-14	SMALL FIXED INDUCTOR (18NH)	E3
L303			L41-2278-14	SMALL FIXED INDUCTOR (22NH)	E,K
L303			L41-2778-14	SMALL FIXED INDUCTOR (27NH)	E3
L307			L92-0140-05	CHIP FERRITE	
L350,351			L41-1095-33	SMALL FIXED INDUCTOR (1.0UH)	E3
L352-354			L41-1095-33	SMALL FIXED INDUCTOR (1.0UH)	E,K
L355			L41-1095-33	SMALL FIXED INDUCTOR (1.0UH)	E3
L356			L34-4645-05	AIR-CORE COIL	E,K
L357			L34-4607-05	AIR-CORE COIL	E3
L358			L41-1095-33	SMALL FIXED INDUCTOR (1.0UH)	E,K
L359			L41-1595-33	SMALL FIXED INDUCTOR (1.5UH)	E3

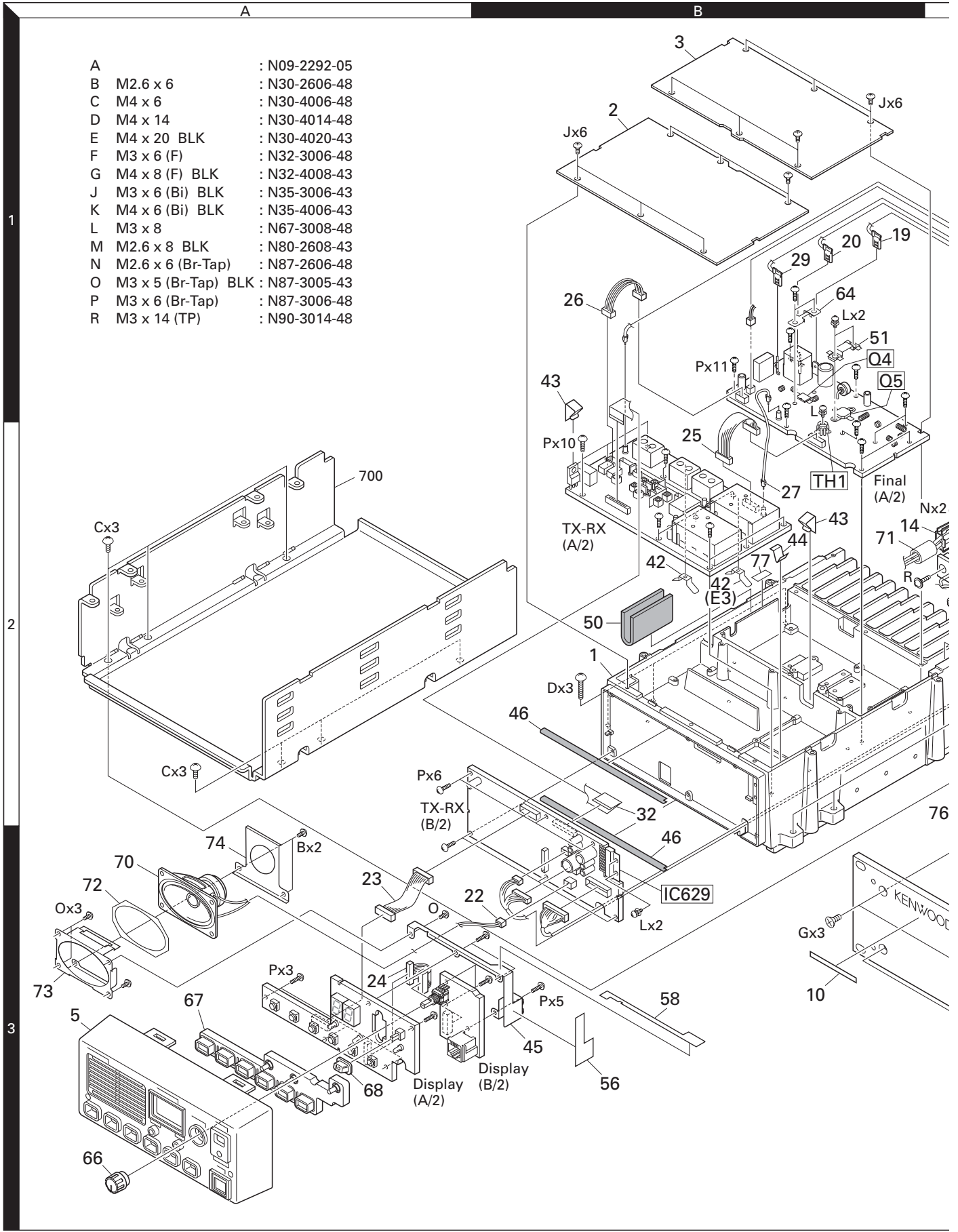
## PARTS LIST

TX VCO UNIT (X58-497X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
L360			L41-1095-33	SMALL FIXED INDUCTOR (1.0UH)	E,K	Q306,307			2SK1824-A	FET	
L361			L41-1595-33	SMALL FIXED INDUCTOR (1.5UH)	E3	Q350			2SK508NV(K52)	FET	E,K
L362			L41-3375-33	SMALL FIXED INDUCTOR (0.033UH)		Q351			2SK508NV(K52)	FET	E3
R302-304			RK73GB2A101J	CHIP R 100 J 1/10W		Q355			2SC4226-A(R24)	TRANSISTOR	
R308			RK73GB2A560J	CHIP R 56 J 1/10W							
R309			RK73GB2A331J	CHIP R 330 J 1/10W							
R312			RK73GB2A331J	CHIP R 330 J 1/10W							
R313			RK73GB2A102J	CHIP R 1.0K J 1/10W	E,K						
R313			RK73GB2A122J	CHIP R 1.2K J 1/10W	E3						
R314			RK73GB2A474J	CHIP R 470K J 1/10W							
R315			RK73GB2A151J	CHIP R 150 J 1/10W							
R316			RK73FB2B152J	CHIP R 1.5K J 1/8W							
R317,318			RK73GB2A000J	CHIP R 0.0 J 1/10W							
R319			RK73GB2A330J	CHIP R 33 J 1/10W							
R320			RK73GB2A222J	CHIP R 2.2K J 1/10W							
R321			RK73GB2A273J	CHIP R 27K J 1/10W							
R322			RK73GB2A103J	CHIP R 10K J 1/10W							
R350			RK73GB2A000J	CHIP R 0.0 J 1/10W	E3						
R351			RK73GB2A000J	CHIP R 0.0 J 1/10W	E,K						
R352			RK73GB2A000J	CHIP R 0.0 J 1/10W	E3						
R353			RK73GB2A000J	CHIP R 0.0 J 1/10W	E,K						
R354			RK73GB2A330J	CHIP R 33 J 1/10W	E,K						
R355			RK73GB2A330J	CHIP R 33 J 1/10W	E3						
R358			RK73GB2A470J	CHIP R 47 J 1/10W	E3						
R359			RK73GB2A470J	CHIP R 47 J 1/10W	E,K						
R365			RK73GB2A333J	CHIP R 33K J 1/10W							
R366			RK73GB2A103J	CHIP R 10K J 1/10W							
R367			RK73GB2A101J	CHIP R 100 J 1/10W	E3						
R367			RK73GB2A181J	CHIP R 180 J 1/10W	E,K						
R368			RK73GB2A330J	CHIP R 33 J 1/10W							
R372			RK73GB2A184J	CHIP R 180K J 1/10W	E,K						
R373			RK73GB2A104J	CHIP R 100K J 1/10W	E,K						
R374			RK73GB2A124J	CHIP R 120K J 1/10W	E3						
R375			RK73GB2A104J	CHIP R 100K J 1/10W	E3						
R376			RK73GB2A271J	CHIP R 270 J 1/10W	E,K						
R377			RK73GB2A181J	CHIP R 180 J 1/10W	E3						
R380-382			RK73GB2A101J	CHIP R 100 J 1/10W							
R383			RK73GB2A470J	CHIP R 47 J 1/10W							
R384			RK73GB2A101J	CHIP R 100 J 1/10W							
R385			RK73GB2A470J	CHIP R 47 J 1/10W							
R386			RK73GB2A101J	CHIP R 100 J 1/10W							
R387			RK73FB2B000J	CHIP R 0.0 J 1/8W							
R388			RK73GB2A333J	CHIP R 33K J 1/10W							
R389			RK73GB2A473J	CHIP R 47K J 1/10W							
R390			RK73GB2A103J	CHIP R 10K J 1/10W							
R391-393			RK73GB2A473J	CHIP R 47K J 1/10W							
R394			RK73GB2A471J	CHIP R 470 J 1/10W							
D300			1SS355	DIODE							
D350			1SV282-F	VARIABLE CAPACITANCE DIODE	E,K						
D351			1SV282-F	VARIABLE CAPACITANCE DIODE	E3						
D352			1SV282-F	VARIABLE CAPACITANCE DIODE	E,K						
D353			1SV282-F	VARIABLE CAPACITANCE DIODE	E3						
D354			1SV214-F	VARIABLE CAPACITANCE DIODE	E,K						
D355			1SV214-F	VARIABLE CAPACITANCE DIODE	E3						
IC301			LMX2352TMX/NP	ANALOGUE IC							
Q300,301			2SC4116(GR)F	TRANSISTOR							
Q302			2SC5108(Y)F	TRANSISTOR							
Q304			2SA1832(GR)F	TRANSISTOR							
Q305			DTC144EUA	DIGITAL TRANSISTOR							

# TKR-851

## EXPLODED VIEW

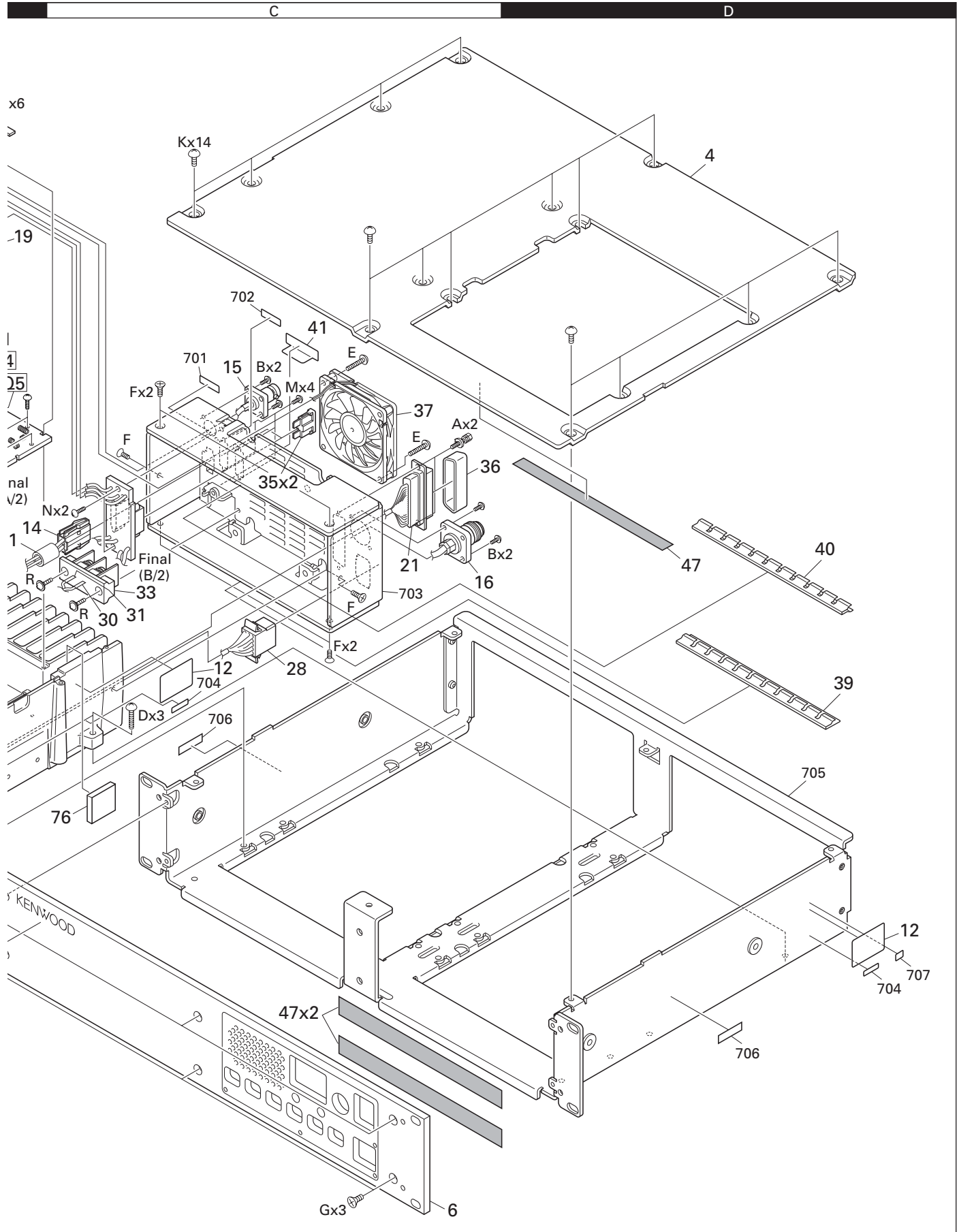


A	:	N09-2292-05
B	M2.6 x 6	: N30-2606-48
C	M4 x 6	: N30-4006-48
D	M4 x 14	: N30-4014-48
E	M4 x 20 BLK	: N30-4020-43
F	M3 x 6 (F)	: N32-3006-48
G	M4 x 8 (F) BLK	: N32-4008-43
J	M3 x 6 (Bi) BLK	: N35-3006-43
K	M4 x 6 (Bi) BLK	: N35-4006-43
L	M3 x 8	: N67-3008-48
M	M2.6 x 8 BLK	: N80-2608-43
N	M2.6 x 6 (Br-Tap)	: N87-2606-48
O	M3 x 5 (Br-Tap) BLK	: N87-3005-43
P	M3 x 6 (Br-Tap)	: N87-3006-48
R	M3 x 14 (TP)	: N90-3014-48

16 If a part reference number is listed in a box on the exploded view of the PCB, that part does not come with the PCB. These parts must be ordered separately.



## EXPLODED VIEW



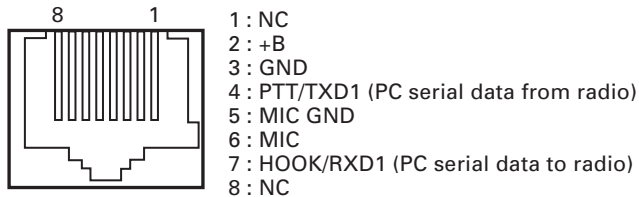
## ADJUSTMENT

### Test Equipment Required for Alignment

Test Equipment	Major Specifications	
1. Standard Signal Generator (SSG)	Frequency Range Modulation Output	400 to 512MHz Frequency modulation and external modulation 0.1μV to greater than 1mV
2. Power Meter	Input Impedance Operation Frequency Measurement Capability	50Ω 400 to 512MHz or more Vicinity of 30W
3. Deviation Meter	Frequency Range	400 to 512MHz
4. Digital Volt Meter (DVM)	Measuring Range Accuracy	1 to 20V DC High input impedance for minimum circuit loading
5. Oscilloscope		DC through 30MHz
6. High Sensitivity Frequency Counter	Frequency Range Frequency Stability	10Hz to 600MHz 0.2ppm or less
7. Ammeter		10A or more
8. AF Volt Meter (AF VTVM)	Frequency Range Voltage Range	50Hz to 10kHz 3mV to 3V
9. Audio Generator (AG)	Frequency Range Output	50Hz to 5kHz 0 to 1V
10. Distortion Meter	Capability Input Level	3% or less at 1kHz 50mV to 10Vrms
11. Voltmeter	Measuring Range Input Impedance	10 to 1.5V DC or less 50kΩ/V or greater
12. 4Ω Dummy Load		Approx. 4Ω, 5W

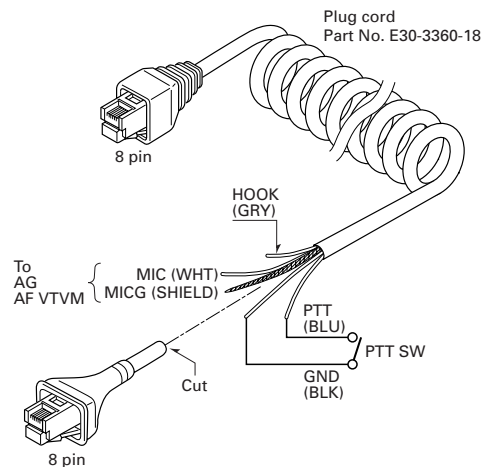
### The following parts are required for adjustment

- Test cable for local microphone



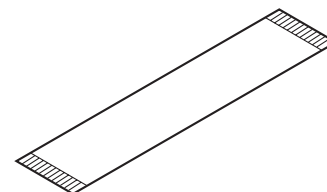
**MIC connector (Front panel view)**

- The following test cables are recommended.



**Test cable for microphone input**

To connect the TX-RX unit A/2 (CN14) to the TX-RX unit B/2 (CN602) while in servicing, you can use the 36-pin flat cable, E37-0979-05, which is available from the KENWOOD parts center.



**Flat cable (36-pin) about 256mm**

## ADJUSTMENT

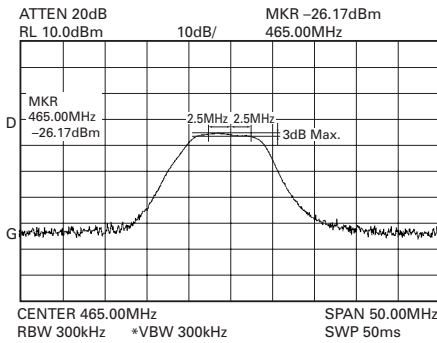


Fig. 1

BPF center frequency (Factory-default)  
K : 465MHz, E : 455MHz, E3 : 415MHz

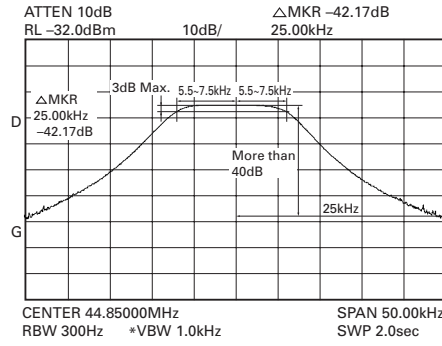


Fig. 2

MCF : Wide

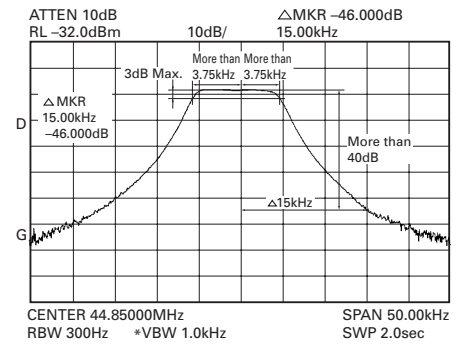


Fig. 3

MCF : Narrow

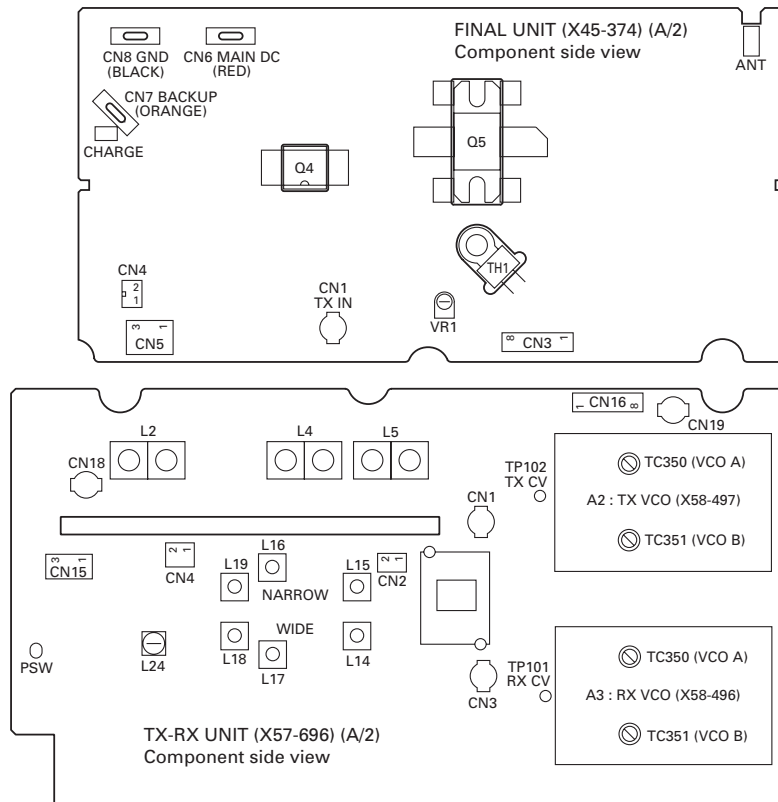
### Test Channel (Default)

No.	K		E		E3	
	RX	TX	RX	TX	RX	TX
1	450.10	450.00	440.10	440.00	400.10	400.00
2	465.10	465.00	455.10	455.00	415.10	415.00
3	479.90	480.00	469.90	470.00	429.90	430.00
4	455.10	455.00	445.10	445.00	405.10	405.00
5	460.10	460.00	450.10	450.00	410.10	410.00
6	470.10	470.00	460.10	460.00	420.10	420.00
7	475.10	475.00	465.10	465.00	425.10	425.00
8	462.60	462.50	452.60	452.50	412.60	412.50
9	467.60	467.50	457.60	457.50	417.60	417.50
10	440.10	440.00	459.90	460.00	419.90	420.00
11	459.90	460.00	479.90	480.00	439.90	440.00

### Test Signaling

No.	Decode tone	Encode tone
1	None	None
2	None	100Hz square wave
3	QT 67.0Hz	QT 67.0Hz
4	QT 151.4Hz	QT 151.4Hz
5	QT 210.7Hz	QT 210.7Hz
6	QT 250.3Hz	QT 250.3Hz
7	DQT 023N	DQT D023N
8	DQT 754I	DQT D754I
9	None	CW ID Encode [ID=VVV]
10	None	Single Tone [1000Hz]
11	DTMF 159D	DTMF 159D
12	None	DTMF Tone 9
13	None	Courtesy Tone
14	None	Battery Warning Tone
15	None	Battery Operation Tone
16	5-Tone [12345] (CCIR)	5-Tone [12345] (CCIR)

### Adjustment Points



# TKR-851

## ADJUSTMENT

### NOTE:

There are some important notices when replacing the PLL unit.

If you replaced either PLL unit from the old type to the new type.

1. You must also replace the other PLL unit to the new type. (The old PLL unit cannot be used together with the new PLL unit.)
2. Firmware version "C983" or later must be applied to the radio.

### Compatibility Chart

		Firmware version "C960" or earlier	Firmware version "C983" or later
Old type PLL unit (Not RoHS adaptation)	RX: X58-480X-XX	OK	OK
	TX: X58-481X-XX		
New type PLL unit (RoHS adaptation)	RX: X58-496X-XX	NG	OK
	TX: X58-497X-XX	PLL unlock condition	
If you used new PLL unit and old PLL unit together....		PLL unlock condition	

### Fine-Tuning the TKR-851

"ADJUSTMENT" items described in the Service Manual for the TKR-851 give the factory-default adjustment procedure covering all adjustment items.

However, it is not necessary to adjust all the items when adjusting the power, deviation, receiver sensitivity, etc at the frequency of the channel to be used by the TKR-851.

### Adjustment procedure at the frequency of the channel to be used

1. Program a channel frequency using the FPU (KPG-91D).
2. From the FPU menu, select in the order of "EDIT", "Test Frequency" and "CH paste" to rewrite the test frequency from the factory-default to the one to be used for the channel.

Erase all channel frequencies rewritten through this operation and press the ENTER key to retrieve the factory-default test frequency.

Refer to the explanation given under HELP for the FPU (KPG-91D) for details.

3. Check whether the frequency rewritten under the "Test mode" of the FPU (KPG-91D) is correct, then select the item to be adjusted from the FPU (KPG-91D) menu and adjust the set value for the item to an optimum value with the "TEST" tag.

### Note :

**After adjustment of the "Max. Deviation", be sure to check the "DQT balance".**

**Performs adjustment of "5-tone signaling" at E,E3 and M2 markets.**

**Performs the adjust of "Wide 4k" only the product of the E market code, does not do the product of the E3 market code.**

### Alignment

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Setting	1) Connect the unit to a suitable DC power supply.							
2. Write test frequency	1) Turn the DC source switch on after connecting a PC and FPU cable to the radio. 2) Write the test and shipping frequency to the radio. 3) End of test frequency writing.							→ "E1" appears on LED display → Green (BUSY) LED lights up
3. Setting	1) Connect the unit to a suitable DC power supply. 2) Turn the power switch on after connecting a PC and FPU cable to the radio. 3) Start up the program for the adjustment.							

## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks		
		Test-equipment	Unit	Terminal	Unit	Parts	Method			
4. RX PLL lock voltage	1) RX VCO A high CH : 11 <b>K</b> CH : 10 <b>E,E3</b>	DVM	TX-RX (A/2)	RX-CV	RX VCO (A3)	TC350	1.50V	±0.1V		
	2) RX VCO A low CH : 10 <b>K</b> CH : 1 <b>E,E3</b>						Check	8V or less		
	3) RX VCO B high CH : 3 <b>K</b> CH : 11 <b>E,E3</b>				RX VCO (A3)	TC351	1.50V	±0.1V		
	4) RX VCO B low CH : 5 <b>K</b> CH : 6 <b>E,E3</b>						Check	8V or less		
5. TX PLL lock voltage	1) TX VCO high CH : 3			TX-CV	TX VCO (A2)	TC350 <b>K,E</b> TC351 <b>E3</b>	1.50V	±0.1V		
	2) TX VCO low CH : 1						Check	8V or less		
6. RX frequency	1) Connect the frequency counter to CN3, then measure the frequency CH : 2	f. counter		CN3			PC adj. Test CH-44.85MHz	50Hz or less		
<b>Note</b> : RX frequency means the local frequency of the RX VCO. So its frequency is wanted frequency minus the IF frequency.										
7. Setting	1) Remove 8 pin cable and the coaxial cable from CN16, and CN19 on TX-RX side.									
8. TX frequency	1) Connect the frequency counter to CN19, then measure the frequency CH : 2	f. counter	TX-RX (A/2)	CN19			PC adj.	50Hz or less		
9. Setting	1) Insert 8 pin cable and the coaxial cable to CN16, and CN19 on TX-RX side.									
10. Maximum power limiting	1) Measure the RF power at TX ANT. High CH	Power meter	Rear	TX ANT	Final	VR1	Adjust the RF power to 26.5W.	±0.5W		
11. TX RF high power	1) Measure the RF power at TX ANT. Low CH 2) Center CH 3) High CH								PC adj. 25W (Factory-default)	±0.5W
12. TX RF low power	1) Measure the power level at TX ANT. Low CH 2) Center CH 3) High CH								PC adj. 1W (Factory-default)	±0.05W
13. BPF	1) Connect the TG to RX ANT, then connect CN1 to the spectrum analyzer input. Spectrum analyzer setting Span : 50MHz Scale : 10dB to 5dB div Tracking generator setting Output : -30dBm	Tracking generator	Rear	RX ANT	TX-RX (A/2)	L2 L4 L5	Center the frequency you are using, then adjust it to look like the wave Fig. 1. (Page 19)			
		Spectrum analyzer	TX-RX (A/2)	CN1						

## ADJUSTMENT

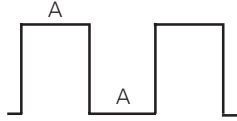
Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
14. MCF (Wide)	1) Connect the TG to CN2, then connect CN4 to the spectrum analyzer input. CH : 2 (Wide) Spectrum analyzer setting Span : 50kHz to 25kHz Scale : 10dB to 2dB div Center freq' : 44.850MHz Tracking generator setting Output : -30dBm	Tracking generator	TX-RX (A/2)	CN2	TX-RX (A/2)	L14 L17 L18	Adjust it to look like the wave Fig. 2. (Page 19)	
	(Narrow)	2) CH : 2 (Narrow)	Spectrum analyzer		CN4		L15 L16 L19	Adjust it to look like the wave Fig. 3. (Page 19)
15. Discriminator	1) Connect the SSG to RX ANT. CH : 2 (Wide) SSG output : -53dBm/501μV SSG MOD : 1kHz SSG DEV : 3kHz AF : 2V/4Ω	SSG  AF VM Distortion meter	Rear	RX ANT  TEST/SPKR jack SPO (pin 12)		L24	Adjust the distortion to minimum.	
16. Threshold squelch (Wide)	1) Connect SSG to RX ANT. CH : 2 (Wide) SSG output : 4dB below to 12dB SINAD level SSG MOD : 1kHz SSG DEV : 3kHz AF : 2V/4Ω	SSG  Audio analyzer VTVM Oscilloscope					PC adj. Adjust to point of closing squelch	
	2) SSG : OFF						Check	Squelch must be closed.
(Wide 4kHz)	3) CH : 2 (Wide 4kHz) SSG output : 4dB below to 12dB SINAD level SSG MOD : 1kHz SSG DEV : 2.4kHz AF : 2V/4Ω						PC adj. Adjust to point of closing squelch	
	4) SSG : OFF						Check	Squelch must be closed.
(Narrow)	5) CH : 2 (Narrow) SSG output : 4dB below to 12dB SINAD level SSG MOD : 1kHz SSG DEV : 1.5kHz AF : 2V/4Ω						PC adj. Adjust to point of closing squelch	
	6) SSG : OFF						Check	Squelch must be closed.
17. Tight squelch (Wide)	1) Connect SSG to RX ANT. CH : 2 (Wide) SSG output : 7dB over to 12dB SINAD level SSG MOD : 1kHz SSG DEV : 3kHz AF : 2V/4Ω						PC adj. Adjust to point of opening squelch	
	(Wide 4kHz)	2) CH : 2 (Wide 4kHz) SSG output : 7dB over to 12dB SINAD level SSG MOD : 1kHz SSG DEV : 2.4kHz AF : 2V/4Ω					PC adj. Adjust to point of opening squelch	

## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
(Narrow)	3) CH : 2 (Narrow) SSG output : 7dB over to 12dB SINAD level SSG MOD : 1kHz SSG DEV : 1.5kHz AF : 2V/4Ω	SSG Audio analyzer VTVM Oscilloscope	Rear	RX ANT TEST/SPKR jack SPO (pin 12)			PC adj. Adjust to point of opening squelch	
18. RD out level (Wide)	1) Connect SSG to RX ANT. CH : 2 (Wide) SSG output : -53dBm/501μV SSG MOD : 1kHz SSG DEV : 3.0kHz	SSG DVM	Rear	RX ANT  CONTROL I/O jack RD (pin 10) 4.7kΩ load			PC adj. 80mV	±5mV
(Wide 4kHz)	2) CH : 2 (Wide 4kHz) SSG output : -53dBm/501μV SSG MOD : 1kHz SSG DEV : 2.4kHz							
(Narrow)	3) CH : 2 (Narrow) SSG output : -53dBm/501μV SSG MOD : 1kHz SSG DEV : 1.5kHz							
19. RA out level (Wide)	1) Connect SSG to RX ANT. CH : 2 (Wide) SSG output : -53dBm/501μV SSG MOD : 1kHz SSG DEV : 3.0kHz			RX ANT  CONTROL I/O jack RA (pin 11) 4.7kΩ load			PC adj. 400mV	±20mV
(Wide 4kHz)	2) CH : 2 (Wide 4kHz) SSG output : -53dBm/501μV SSG MOD : 1kHz SSG DEV : 2.4kHz							
(Narrow)	3) CH : 2 (Narrow) SSG output : -53dBm/501μV SSG MOD : 1kHz SSG DEV : 1.5kHz							
20. Maximum deviation (Wide)	1) Connect AG to the MIC terminal. Low CH (TX VCO low) Center CH (VCO center) High CH (TX VCO high) Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF AG : 1kHz/50mV (Terminal load) Transmission	MOD ANA or Deviation meter Oscilloscope  AG AF VTVM	Rear	TX OUT			PC adj. 4.1kHz	±0.1kHz
(Wide 4kHz)	2) Low CH (TX VCO low) Center CH (VCO center) High CH (TX VCO high) Transmission		Front	MIC			PC adj. 3.4kHz	±0.1kHz
(Narrow)	3) Low CH (TX VCO low) Center CH (VCO center) High CH (TX VCO high) Transmission						PC adj. 2.05kHz	±0.1kHz

**Note :** After adjustment of the "Max. Deviation", be sure to check the "DQT balance".

## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks	
		Test-equipment	Unit	Terminal	Unit	Parts	Method		
21. DQT balance (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 3kHz De-emphasis : OFF Transmission	MOD ANA or Deviation meter Oscilloscope	Rear	TX OUT			PC adj. Make the de-modulated waves into square waves.	Oscilloscope DC range flat "A" part 	
	(Wide 4kHz)								2) CH : 2 Transmission
	(Narrow)								3) CH : 2 Transmission
22. QT deviation (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 3kHz De-emphasis : OFF Detector : p-p/2 Transmission			TX ANT			PC adj. 0.75kHz	±0.05kHz	
	(Wide 4kHz)	2) CH : 2 Transmission				PC adj. 0.60kHz	±0.05kHz		
	(Narrow)	3) CH : 2 Transmission				PC adj. 0.35kHz	±0.05kHz		
23. DQT deviation (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 3kHz De-emphasis : OFF Detector : Peak hold Transmission						PC adj. 0.75kHz	±0.05kHz	
	(Wide 4kHz)	2) CH : 2 Transmission					PC adj. 0.60kHz	±0.05kHz	
	(Narrow)	3) CH : 2 Transmission					PC adj. 0.35kHz	±0.05kHz	
24. CW ID deviation (Wide)	1) CH2 Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF Transmission						PC adj. 2kHz	±0.1kHz	
	(Wide 4kHz)	2) CH : 2 Transmission					PC adj. 1.6kHz	±0.1kHz	
	(Narrow)	3) CH : 2 Transmission					PC adj. 1kHz	±0.05kHz	
25. Test tone deviation (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF Transmission						PC adj. 3kHz	±0.1kHz	
	(Wide 4kHz)	2) CH : 2 Transmission					PC adj. 2.4kHz	±0.1kHz	
	(Narrow)	3) CH : 2 Transmission					PC adj. 1.5kHz	±0.05kHz	



## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
26. TA (TX audio input) deviation (Wide)	1) Insert AG output into the control I/O TA terminal (pin 9). CH : 2 Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF AG freq' : 1kHz (Sine wave) AG level : 280mV Transmission	MOD ANA or Deviation meter Oscilloscope	Rear	TX ANT			PC adj. 3.0kHz	±0.1kHz
(Wide 4kHz)	2) CH : 2 Transmission	AG AF VTVM		CONTROL I/O jack TA (pin 9)			PC adj. 2.4kHz	±0.1kHz
(Narrow)	3) CH : 2 Transmission						PC adj. 1.5kHz	±0.05kHz
27. TD deviation (Wide)	1) Insert AG output into the control I/O TD terminal (pin 8). CH : 2 Deviation meter filter HPF : OFF LPF : 3kHz De-emphasis : OFF AG freq' : 100Hz (Sine wave) AG level : 0.5Vp-p (177mVrms) Transmission	MOD ANA or Deviation meter Oscilloscope	Rear	TX ANT			PC adj. 0.75kHz	±0.1kHz
(Wide 4kHz)	2) CH : 2 Transmission	AG AF VTVM		CONTROL I/O jack TD (pin 8)			PC adj. 0.60kHz	±0.05kHz
(Narrow)	3) CH : 2 Transmission						PC adj. 0.35kHz	±0.05kHz
28. DTMF deviation (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF Transmission	MOD ANA or Deviation meter Oscilloscope	Rear	TX ANT			PC adj. 3.0kHz	±0.1kHz
(Wide 4kHz)	2) CH : 2 Transmission						PC adj. 2.4kHz	±0.1kHz
(Narrow)	3) CH : 2 Transmission						PC adj. 1.5kHz	±0.05kHz
29. Courtesy tone deviation (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF Transmission						PC adj. 1.0kHz	±0.05kHz
(Wide 4kHz)	2) CH : 2 Transmission						PC adj. 0.8kHz	±0.05kHz
(Narrow)	3) CH : 2 Transmission						PC adj. 0.5kHz	±0.05kHz

## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks	
		Test-equipment	Unit	Terminal	Unit	Parts	Method		
30. Battery warning tone deviation (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF Transmission	MOD ANA or Deviation meter Oscilloscope	Rear	TX ANT			PC adj. 3.0kHz	±0.1kHz	
	(Wide 4kHz)						2) CH : 2 Transmission	PC adj. 2.4kHz	±0.1kHz
	(Narrow)						3) CH : 2 Transmission	PC adj. 1.5kHz	±0.05kHz
31. Battery operation tone deviation (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF Transmission						PC adj. 1.0kHz	±0.05kHz	
	(Wide 4kHz)						2) CH : 2 Transmission	PC adj. 0.8kHz	±0.05kHz
	(Narrow)						3) CH : 2 Transmission	PC adj. 0.5kHz	±0.05kHz
32. 5-tone deviation (E type only) (Wide)	1) CH : 2 Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF Transmission						PC adj. 3.0kHz	±0.1kHz	
	(Wide 4kHz)						2) CH : 2 Transmission	PC adj. 2.4kHz	±0.1kHz
	(Narrow)						3) CH : 2 Transmission	PC adj. 1.5kHz	±0.05kHz
33. Repeat gain level (Wide)	1) CH : 2 SSG output : -53dBm SSG MOD : 1kHz SSG DEV : 1kHz Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF Transmission	SSG  MOD ANA or Deviation meter Oscilloscope	Rear	RX ANT  TX ANT			PC adj. 1kHz	±0.1kHz	
	(Wide 4kHz)			2) CH : 2 Transmission					
	(Narrow)			3) CH : 2 Transmission					

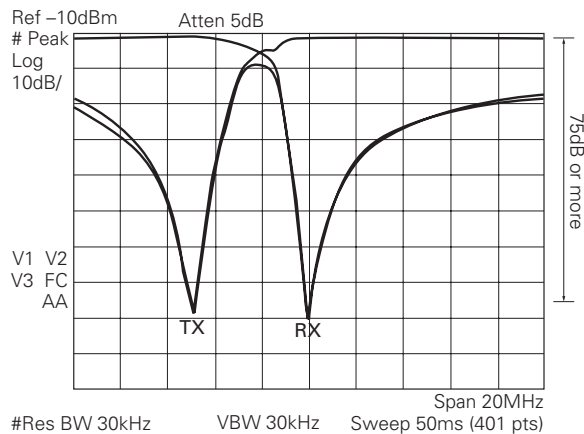
## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
When "RF Power Down Detect" is programmed in the AUXO function, threshold of transmission output is set with the following menu.								
34. Power down detect (High)	1) CH : 2 (High power)	Power meter	Rear	TX ANT			PC adj. 10.0W (Factory-default)	
	(Low)							

### Confirmation and Alignment of Set-up to Prevent Receiver Desensitization

#### 1. Confirmation of Duplexer alignment

The duplexer allows the Repeater to simultaneously transmit and receive. To accomplish this, in the programmed receive frequency, the transmit frequency must be notched or suppressed by 75dB or more. Additionally, on the programmed transmit frequency, the receive frequency must be notched or suppressed by 75dB or more. The following figures are examples of Duplexer alignment using a spectrum analyzer.

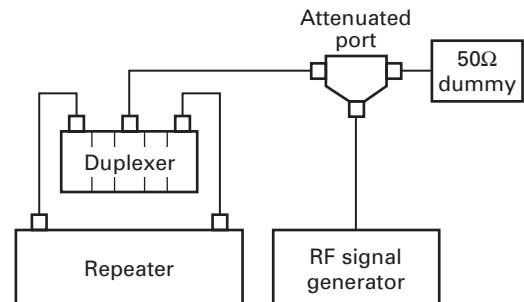


#### 2. Confirmation of Repeater Desensitization

The following figure is a Test set-up for Repeater Desensitization.

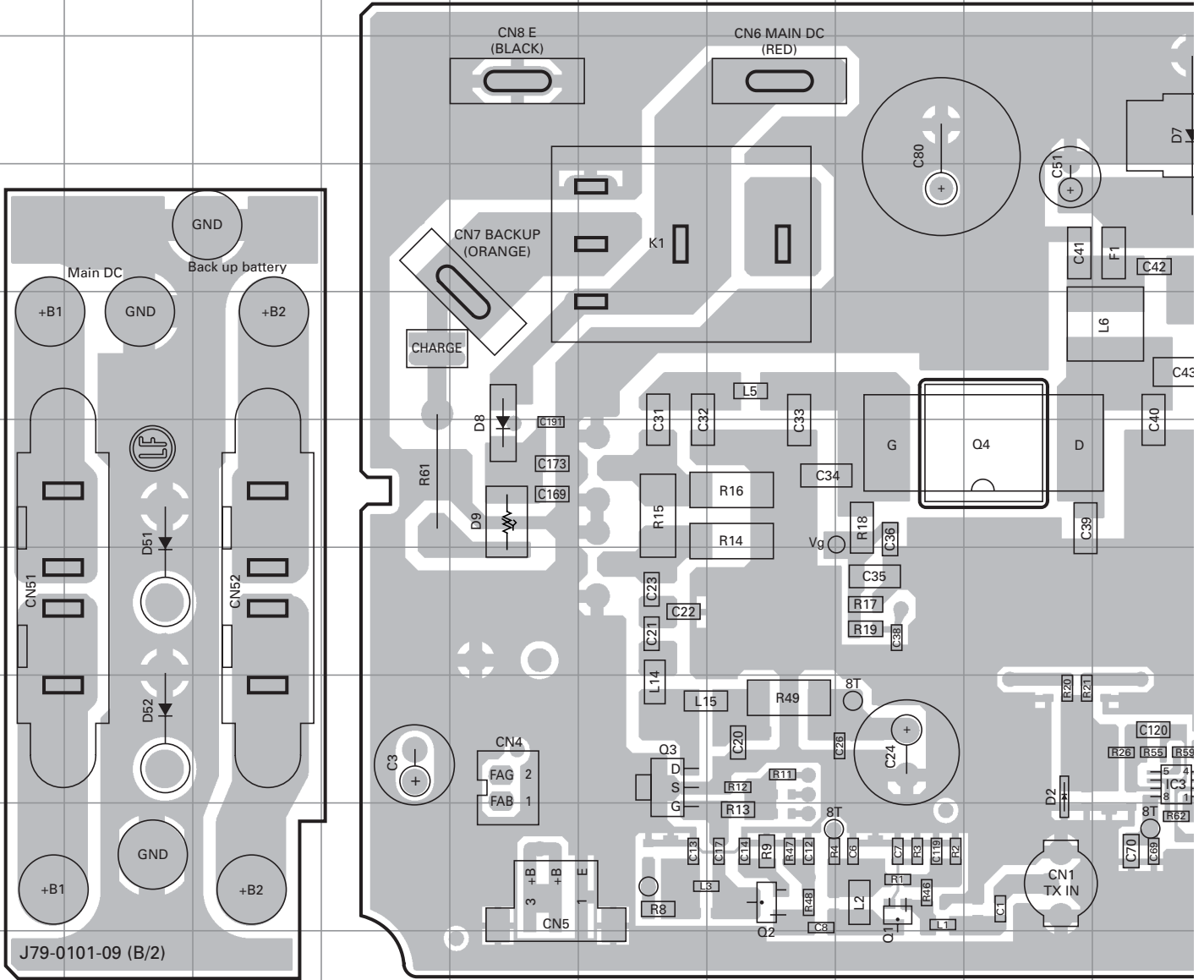
After this Test set-up is completed, confirm the Repeater Desensitization as mentioned below.

- 1) Disable the repeater mode.
- 2) Adjust the level of the RF generator until 12dB SINAD is reached.
- 3) Increase the output of the RF generator by 1dB. (This increases the SINAD.)
- 4) Enable the repeater mode.
- 5) Read the SINAD level. It should not drop below 12dB SINAD. If the SINAD is less than 12dB, check the tightness of the connectors and the tuning of duplexer.



# TKR-851 PC BOARD

FINAL UNIT (X45-374X-XX) 2-71 : K,E 2-72 : E3  
 Component side view (J79-1010-09)

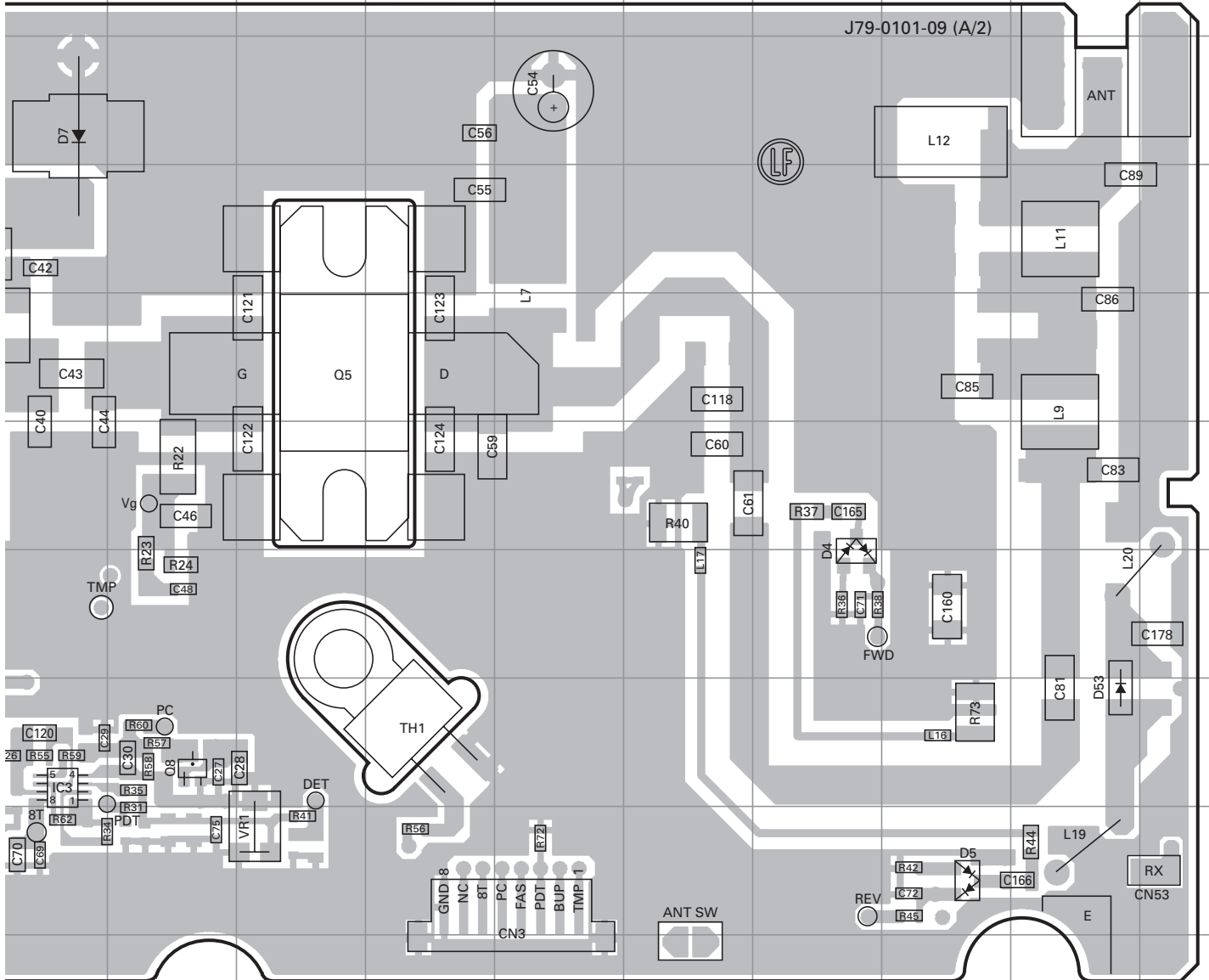


Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC3	8J	Q4	6I	D4	7P	D9	6E
Q1	9H	Q5	5L	D5	9Q	D51	7B
Q2	9G	Q8	8K	D7	3J	D52	8B
Q3	8F	D2	8I	D8	6E	D53	8R

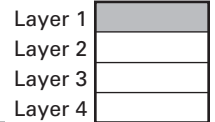
# PC BOARD TKR-851

FINAL UNIT (X45-374X-XX) 2-71 : K,E 2-72 : E3  
Component side view (J79-0101-09)

J79-0101-09 (A/2)



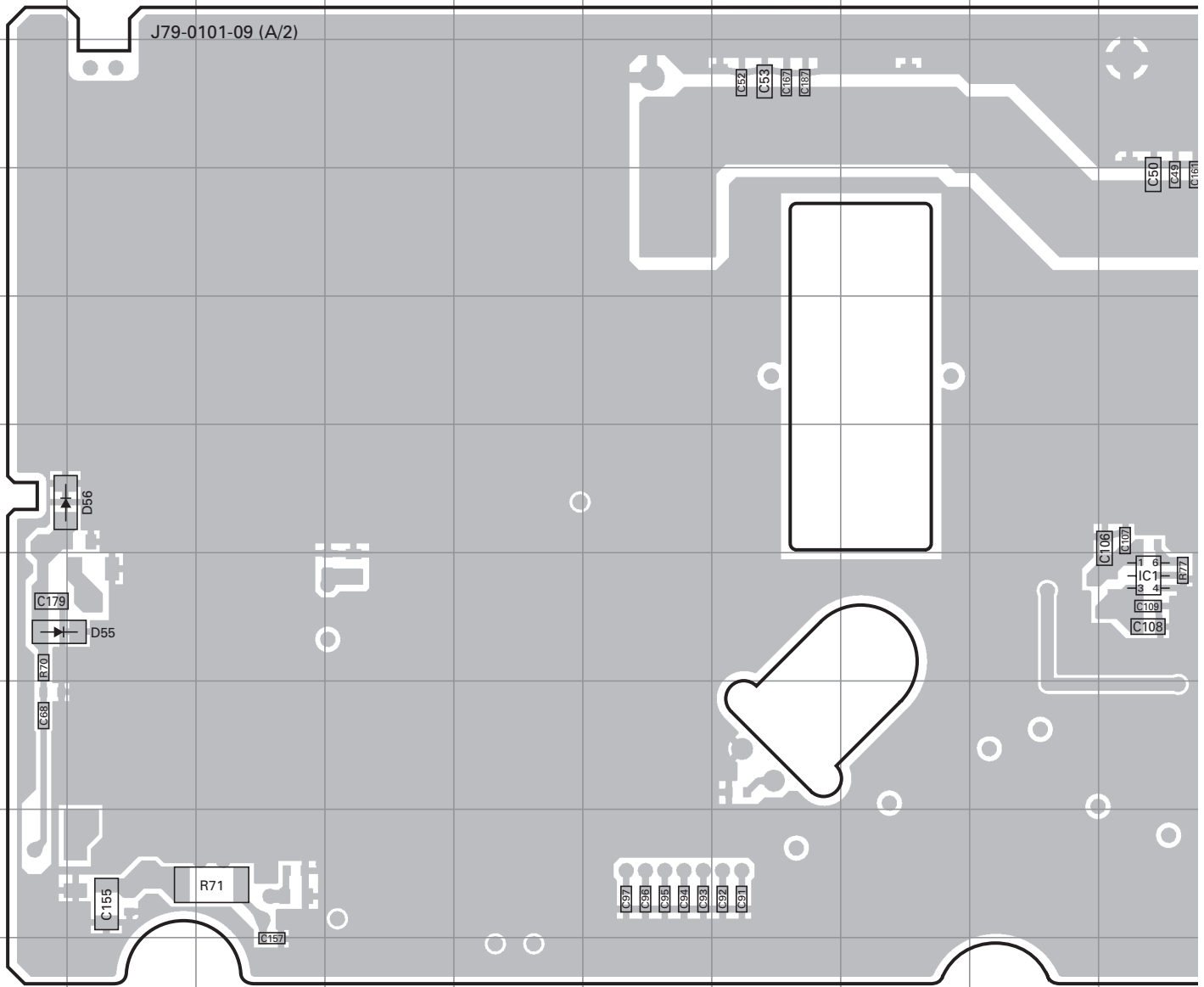
Component side



Foil side

# TKR-851 PC BOARD

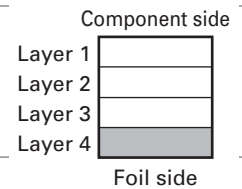
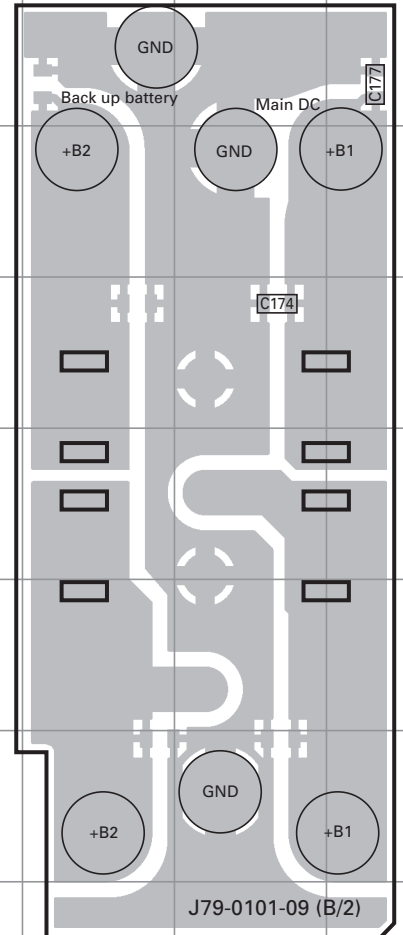
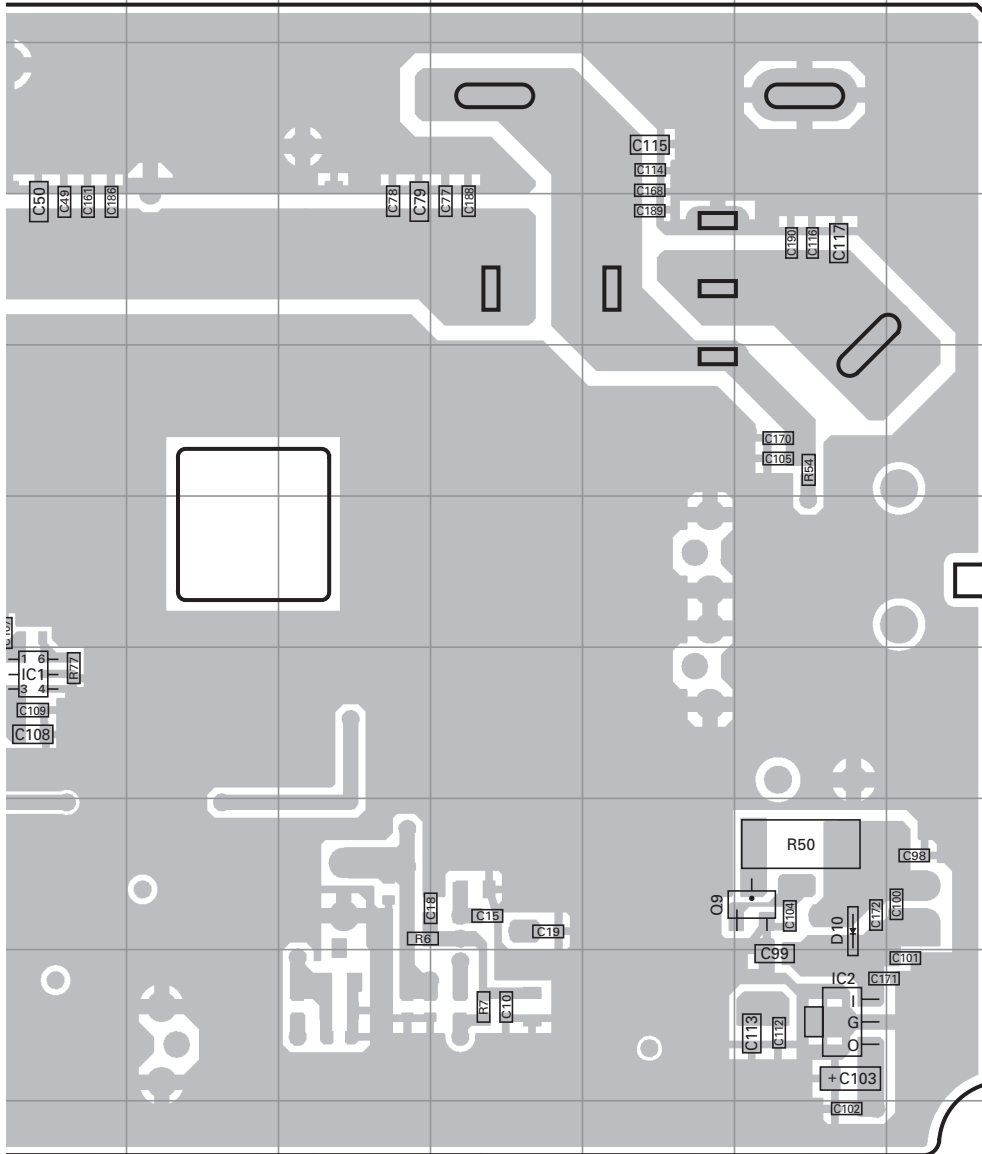
FINAL UNIT (X45-374X-XX) 2-71 : K,E 2-72 : E3  
 Foil side view (J79-0101-09)



Ref. No.	Address	Ref. No.	Address
IC1	7J	D10	8O
IC2	9O	D55	6A
Q9	8O	D56	7A

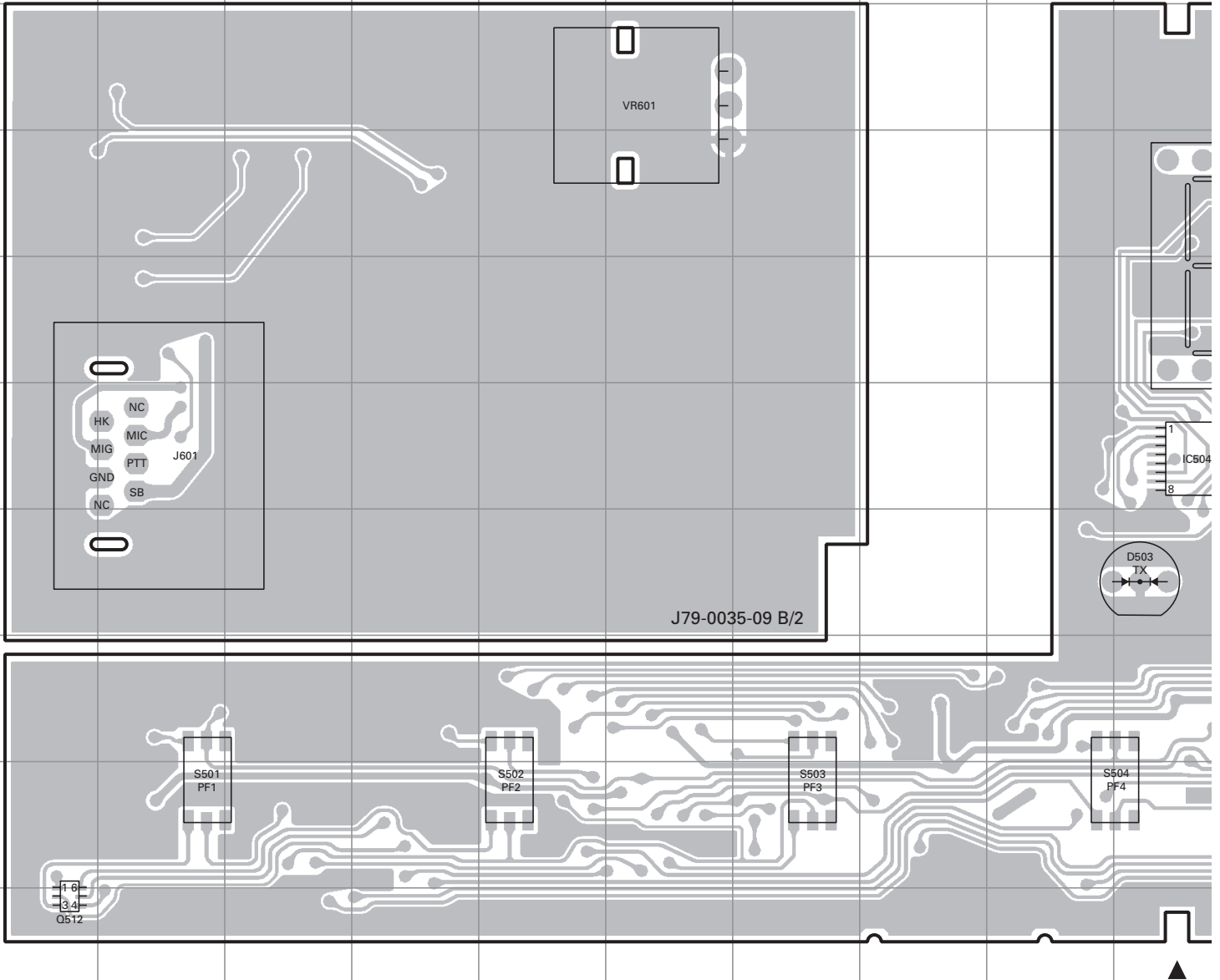
# PC BOARD TKR-851

FINAL UNIT (X45-374X-XX) 2-71 : K,E 2-72 : E3  
Foil side view (J79-0101-09)



# TKR-851 PC BOARD

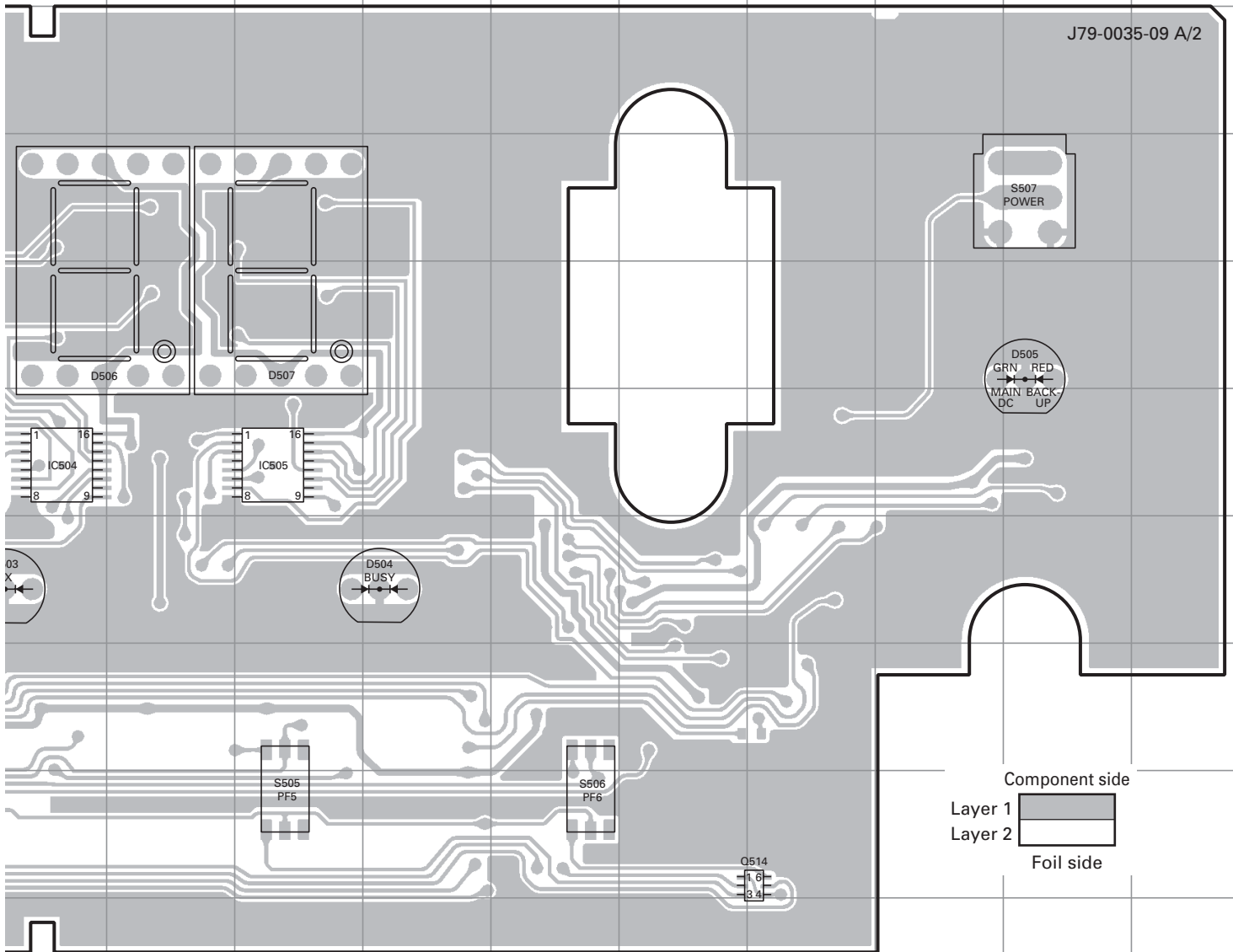
## DISPLAY UNIT (X54-3580-20) Component side view (J79-0035-09)





# PC BOARD TKR-851

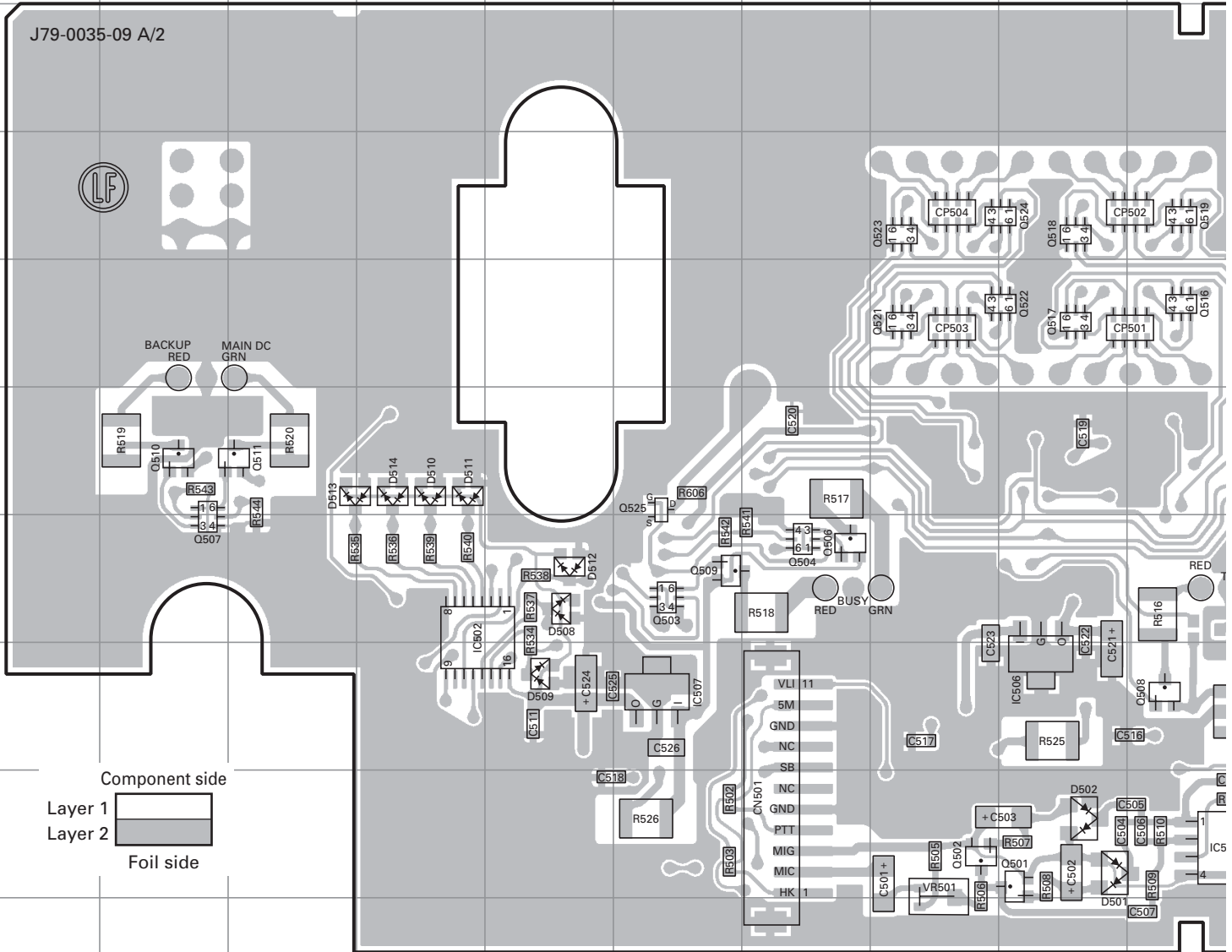
## DISPLAY UNIT (X54-3580-20) Component side view (J79-0035-09)



Ref. No.	Address
IC504	6J
IC505	6L
Q512	10A
Q514	9P
D503	7J
D504	7M
D505	5R
D506	5J
D507	5L

# TKR-851 PC BOARD

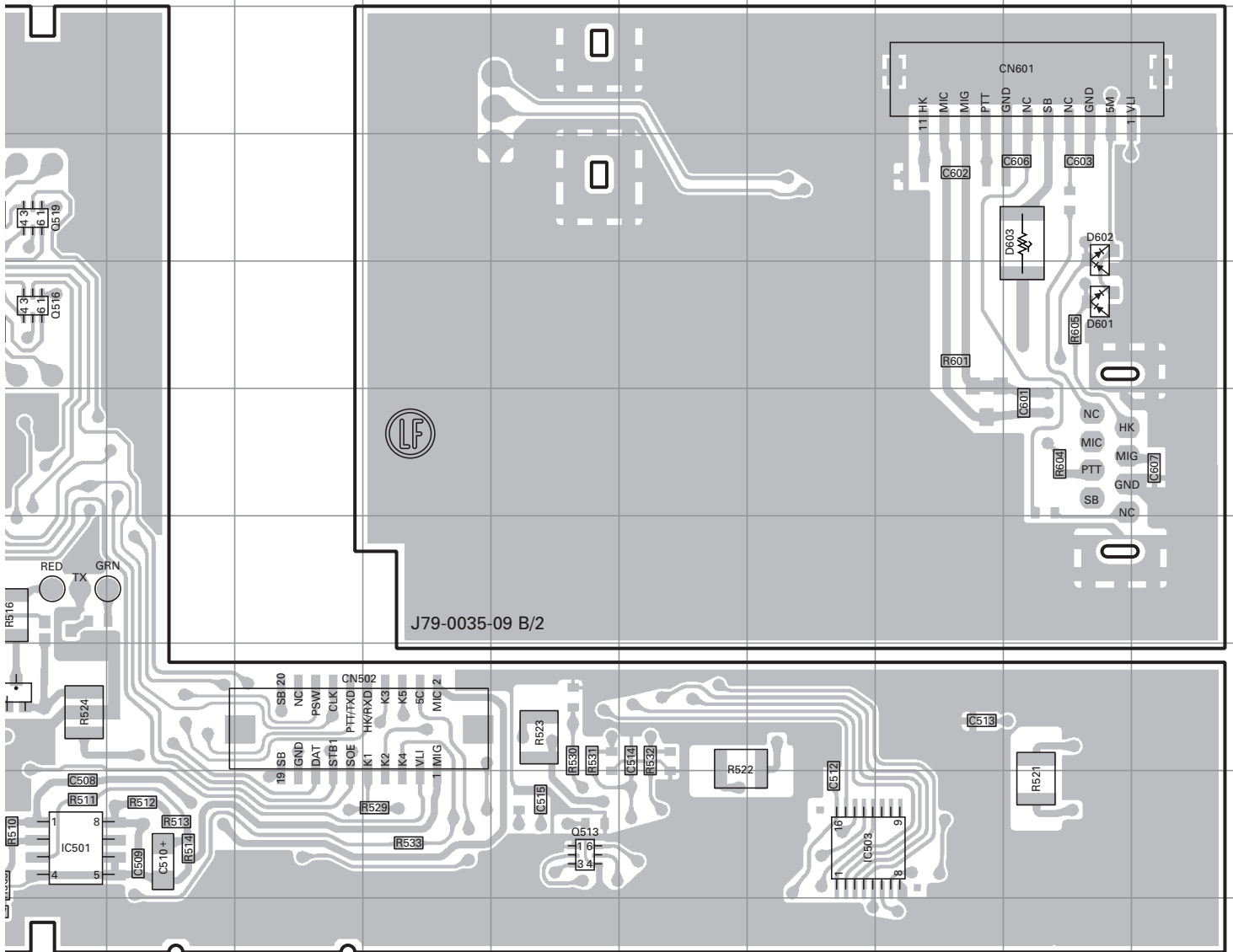
## DISPLAY UNIT (X54-3580-20) Foil side view (J79-0035-09)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC501	9J	Q507	7B	Q521	5H	D511	6D
IC502	7D	Q508	8J	Q522	5I	D512	7E
IC503	9P	Q509	7F	Q523	4H	D513	6C
IC506	8I	Q510	6B	Q524	4I	D514	6D
IC507	8F	Q511	6C	Q525	6F	D601	5R
Q501	9I	Q513	9N	D501	9I	D602	4R
Q502	9H	Q516	5J	D502	9I	D603	4R
Q503	7F	Q517	5I	D508	7E		
Q504	7G	Q518	4I	D509	8E		
Q506	7G	Q519	4J	D510	6D		

# PC BOARD TKR-851

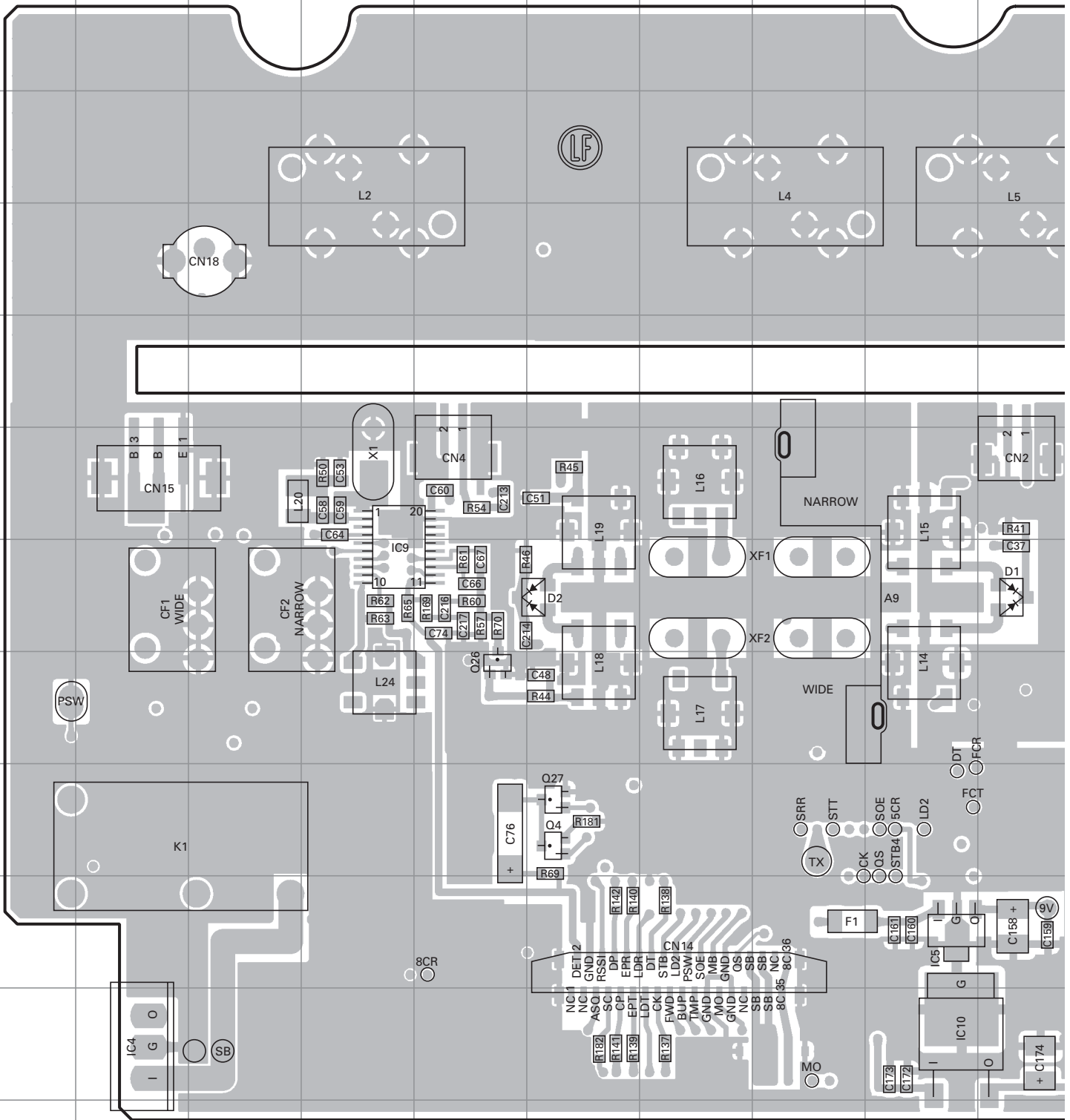
## DISPLAY UNIT (X54-3580-20) Foil side view (J79-0035-09)



# TKR-851 PC BOARD

TX-RX UNIT (X57-696X-XX) (A/2) 0-11 : K 2-70 : E 2-71 : E3

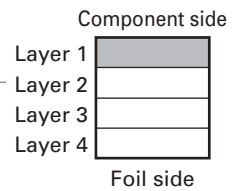
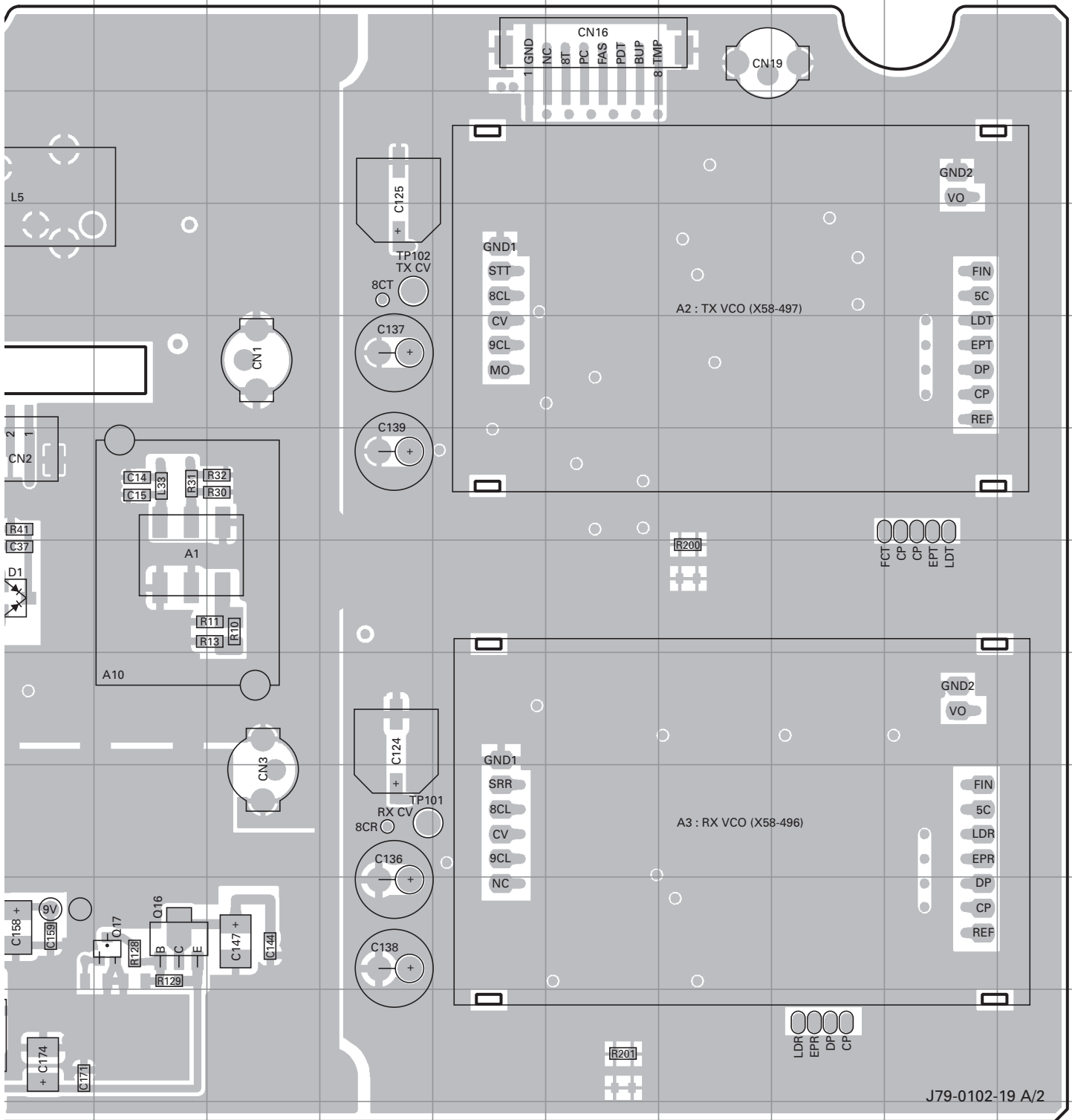
Component side view (J79-0102-19 A/2)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC4	11B	Q4	9F	Q27	9F
IC5	10I	Q16	10K	D1	7J
IC9	7D	Q17	10K	D2	7F
IC10	11I	Q26	8E		

# PC BOARD TKR-851

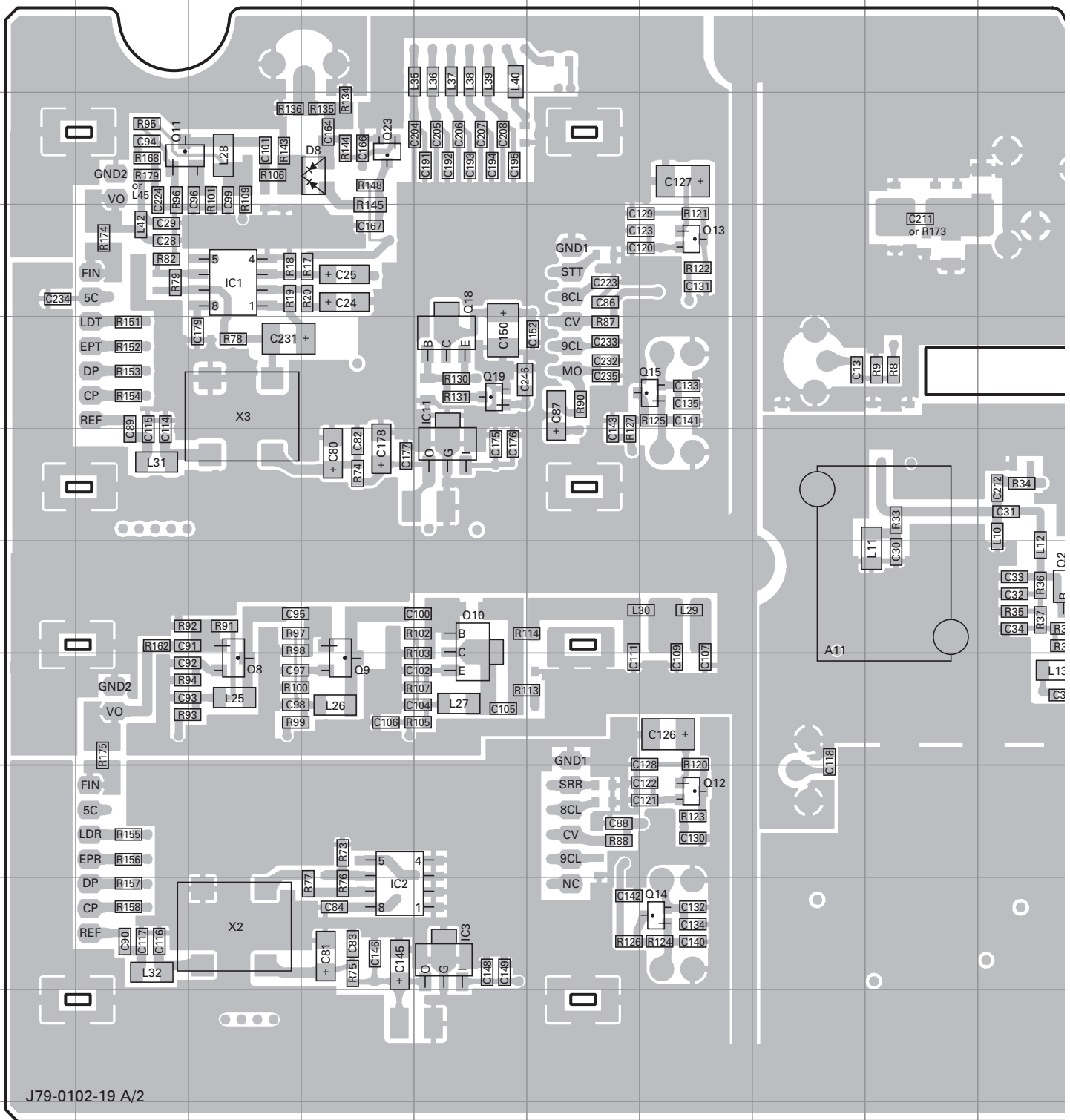
TX-RX UNIT (X57-696X-XX) (A/2) 0-11 : K 2-70 : E 2-71 : E3  
 Component side view (J79-0102-19 A/2)



# TKR-851 PC BOARD

TX-RX UNIT (X57-696X-XX) (A/2) 0-11 : K 2-70 : E 2-71 : E3

Foil side view (J79-0102-19 A/2)

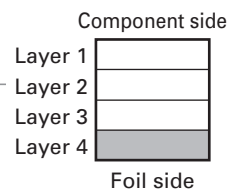
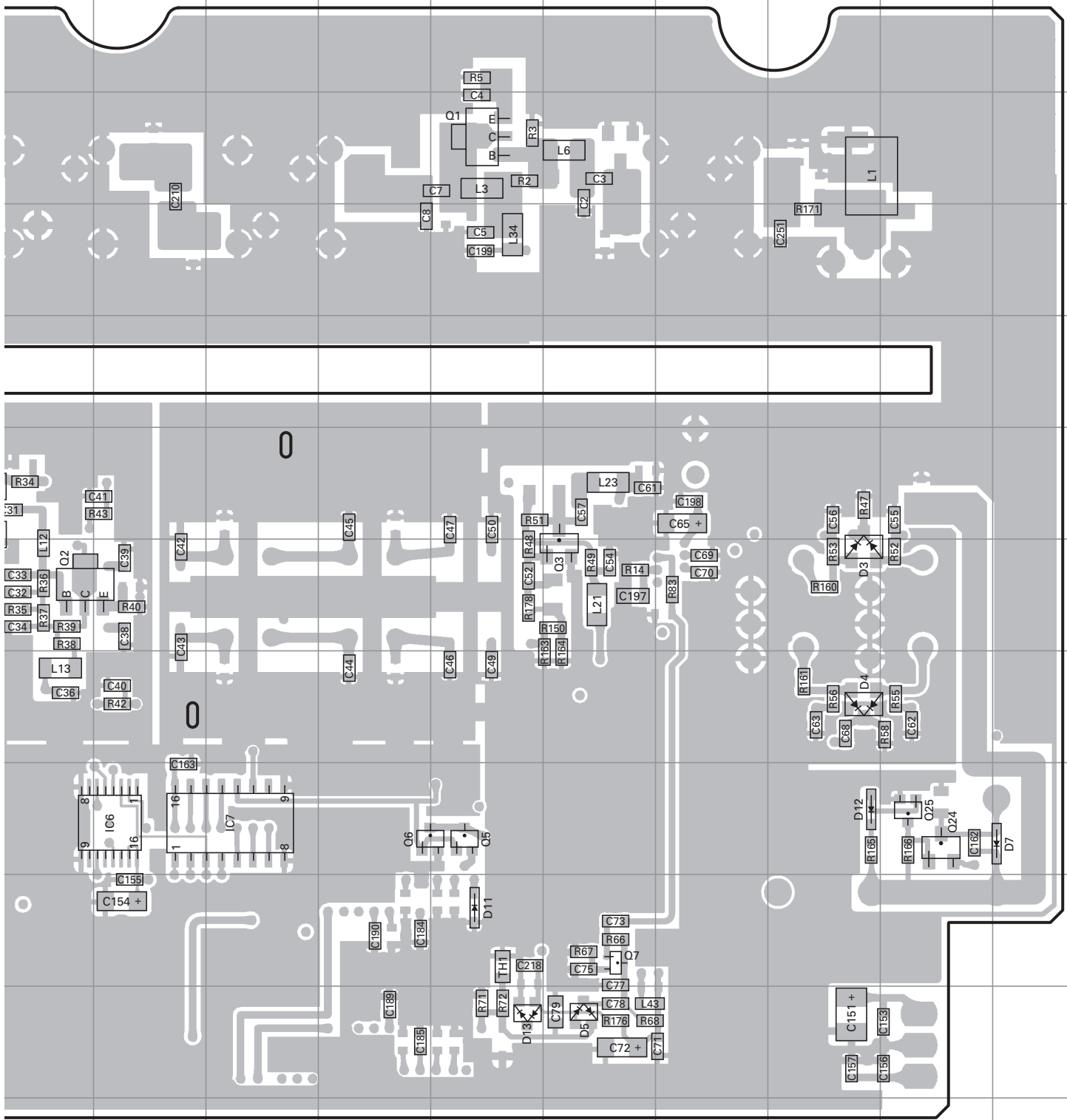


J79-0102-19 A/2

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	4C	Q1	3N	Q8	8C	Q14	10G	Q25	9R	D11	10N
IC2	10D	Q2	7J	Q9	8D	Q15	5G	D3	7Q	D12	9Q
IC3	10E	Q3	7O	Q10	7E	Q18	5E	D4	8Q	D13	11N
IC6	9K	Q5	9N	Q11	3B	Q19	5E	D5	11O		
IC7	9L	Q6	9M	Q12	9G	Q23	3D	D7	9S		
IC11	6E	Q7	10O	Q13	4G	Q24	9R	D8	3D		

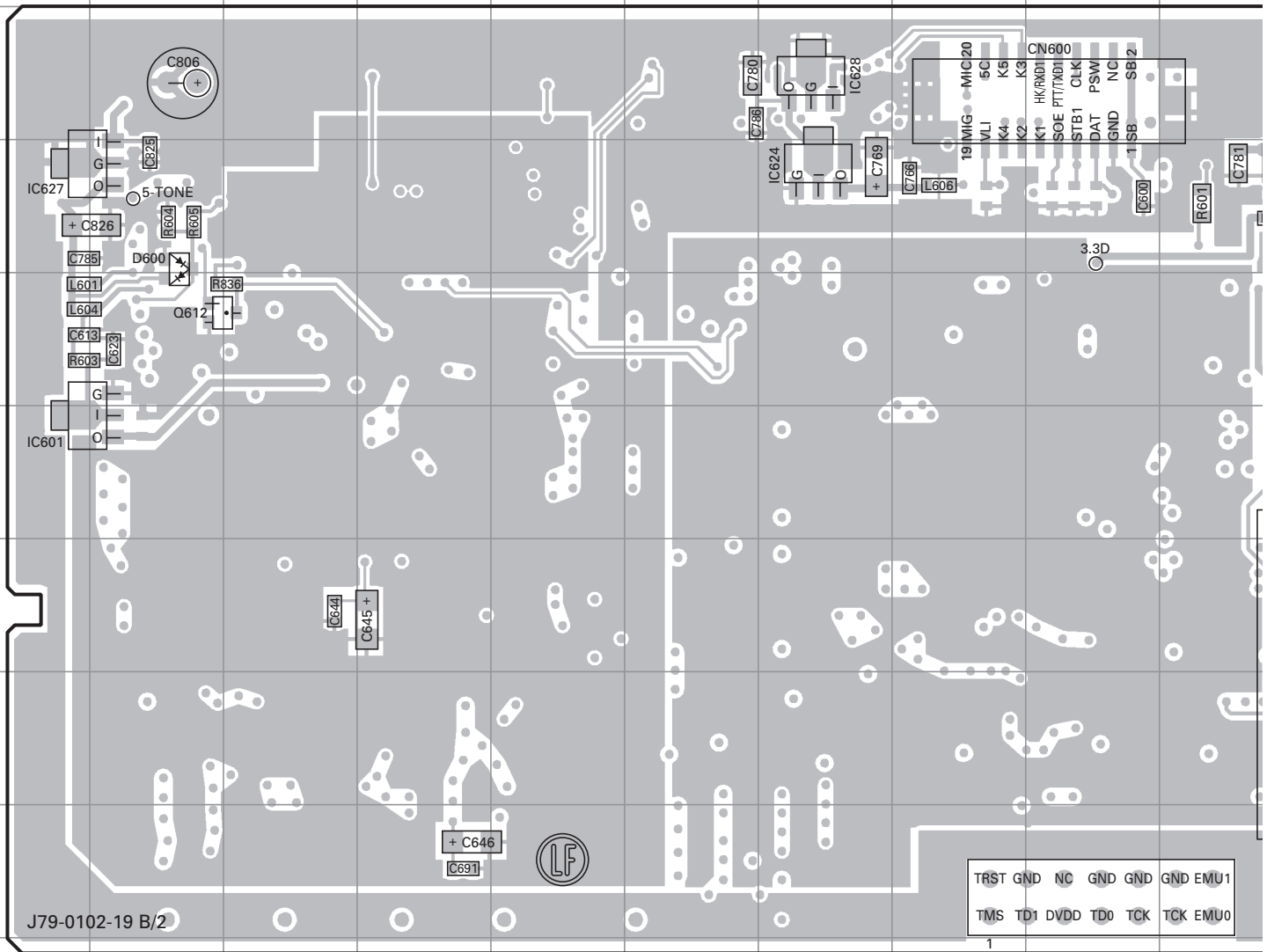
# PC BOARD TKR-851

TX-RX UNIT (X57-696X-XX) (A/2) 0-11 : K 2-70 : E 2-71 : E3  
 Foil side view (J79-0102-19 A/2)



# TKR-851 PC BOARD

**TX-RX UNIT (X57-696X-XX) (B/2) 0-11 : K 2-70 : E 2-71 : E3**  
**Component side view (J79-0102-19 B/2)**

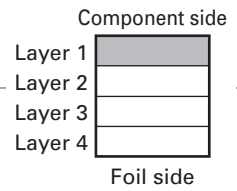
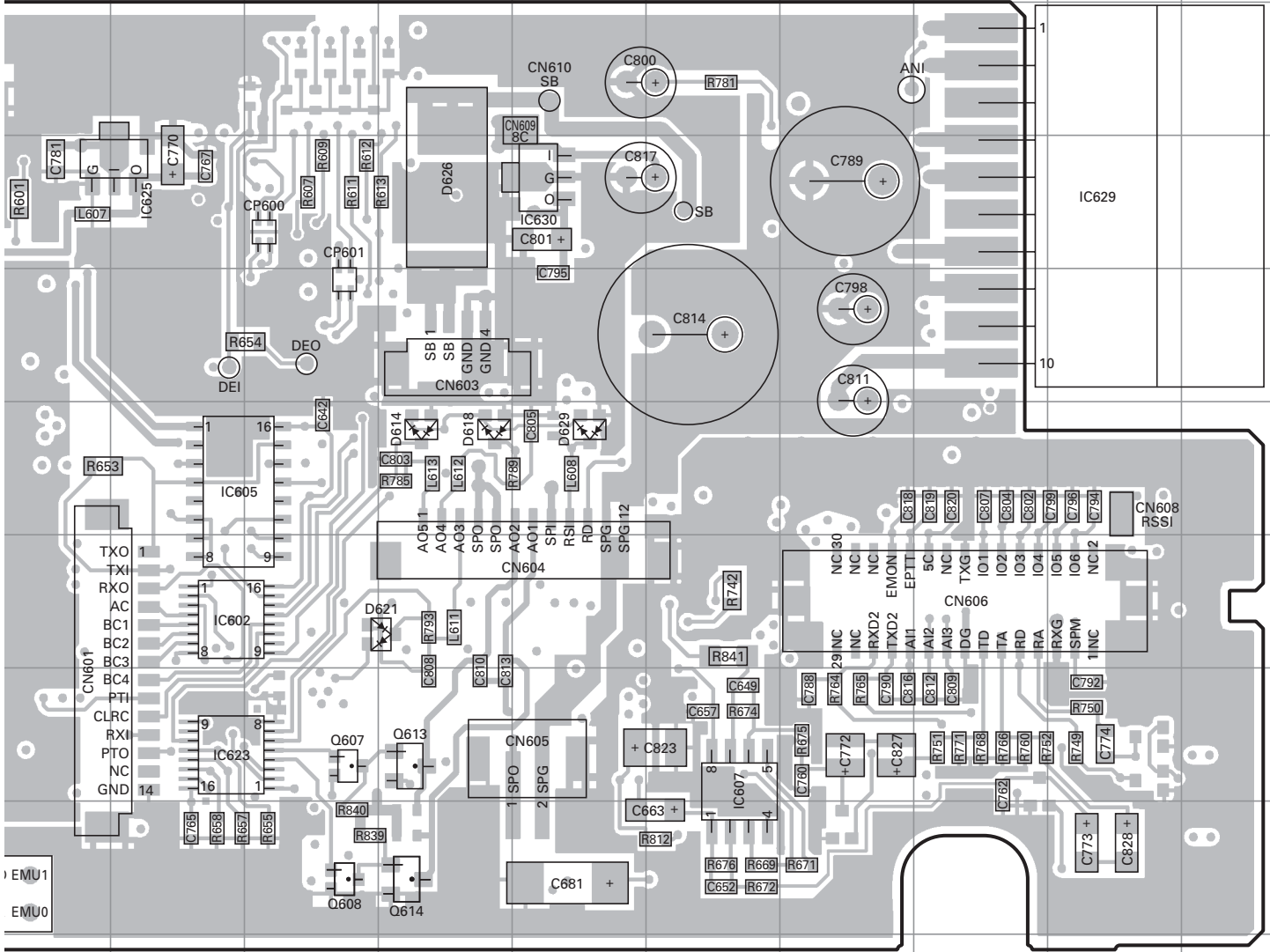


Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC601	6A	IC628	3G	D600	4B
IC602	7K	IC629	4R	D614	6M
IC605	6K	IC630	4N	D618	6M
IC607	8O	Q607	8L	D621	7M
IC623	8K	Q608	9L	D626	4M
IC624	4G	Q612	5B	D629	6N
IC625	4K	Q613	8M		
IC627	4A	Q614	9M		



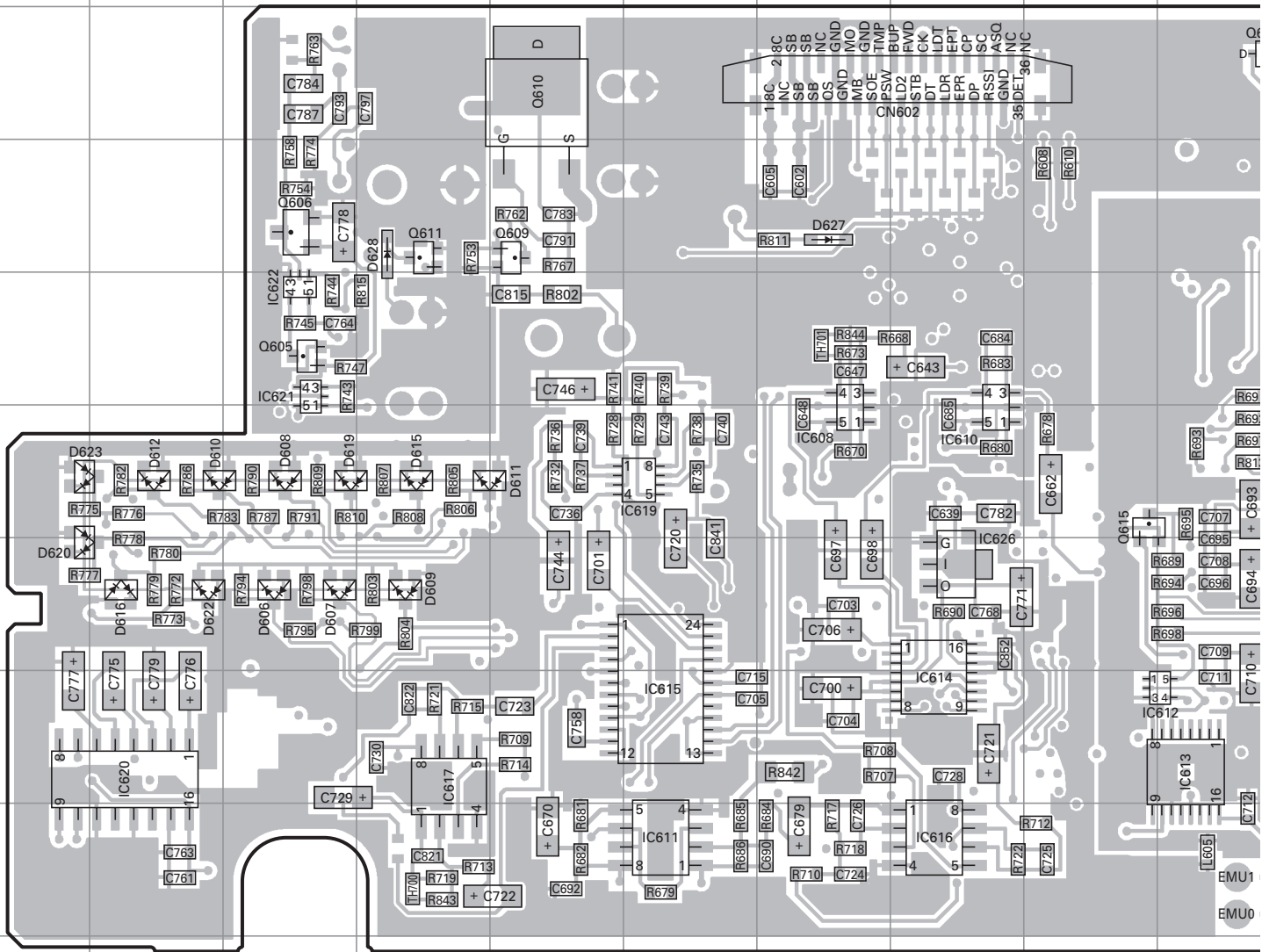
J K L M N O P Q R S  
**PC BOARD TKR-851**

**TX-RX UNIT (X57-696X-XX) (B/2) 0-11 : K 2-70 : E 2-71 : E3**  
**Component side view (J79-0102-19 B/2)**



# TKR-851 PC BOARD

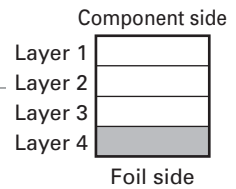
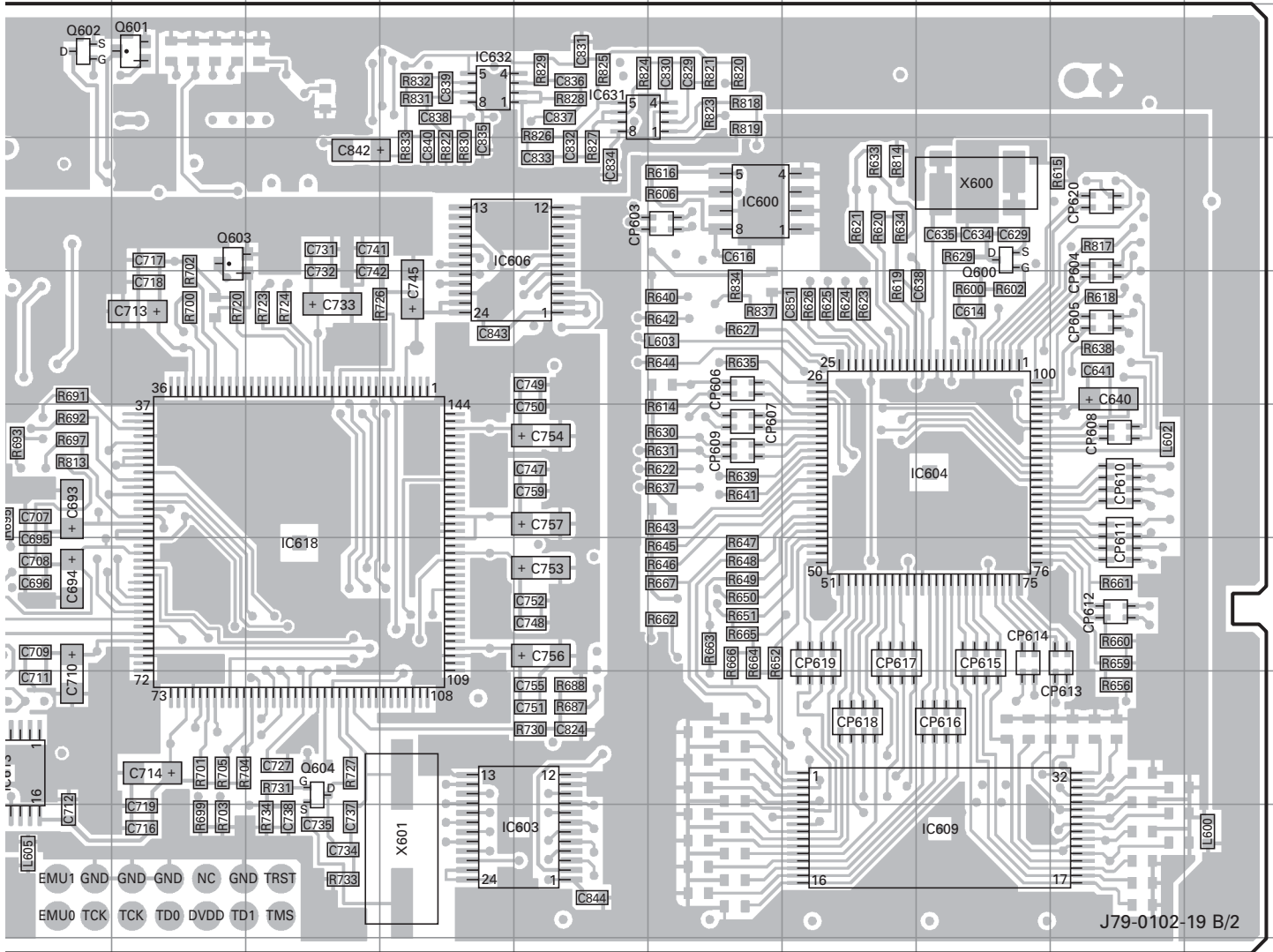
TX-RX UNIT (X57-696X-XX) (B/2) 0-11 : K 2-70 : E 2-71 : E3  
 Foil side view (J79-0102-19 B/2)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC600	4O	IC612	8J	IC620	8B	Q602	3J	Q615	6I	D615	6D
IC603	9N	IC613	8J	IC621	5C	Q603	4K	D606	7C	D616	7B
IC604	6Q	IC614	8H	IC622	5C	Q604	8L	D607	7C	D619	6C
IC606	4M	IC615	8F	IC626	7H	Q605	5C	D608	6C	D620	7A
IC608	6G	IC616	9H	IC631	3N	Q606	4C	D609	7D	D622	7B
IC609	9Q	IC617	8D	IC632	3M	Q609	4E	D610	6B	D623	6A
IC610	6H	IC618	7L	Q600	4Q	Q610	3E	D611	6E	D627	4G
IC611	9F	IC619	6F	Q601	3K	Q611	4D	D612	6B	D628	4D

# PC BOARD TKR-851

TX-RX UNIT (X57-696X-XX) (B/2) 0-11 : K 2-70 : E 2-71 : E3  
Foil side view (J79-0102-19 B/2)

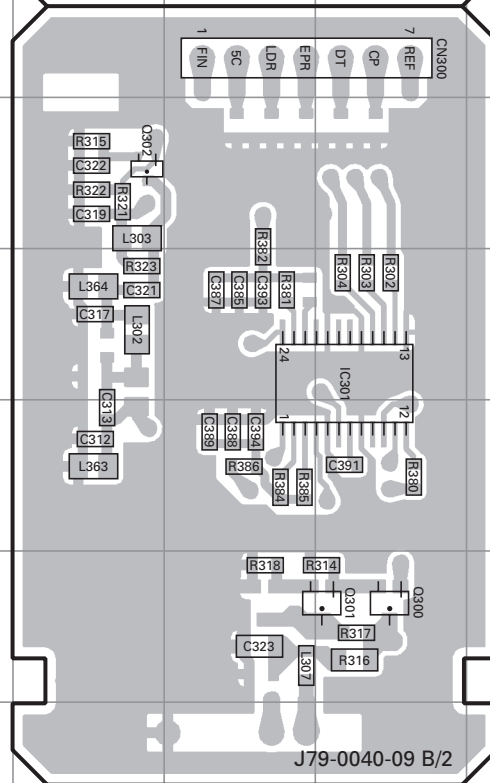
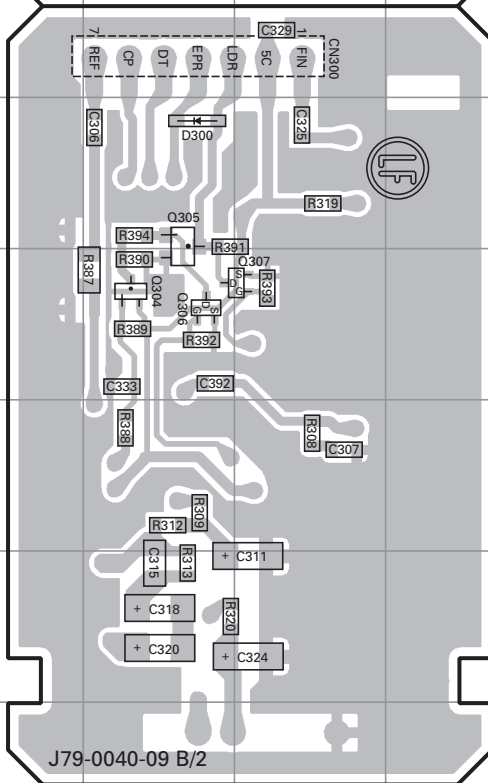
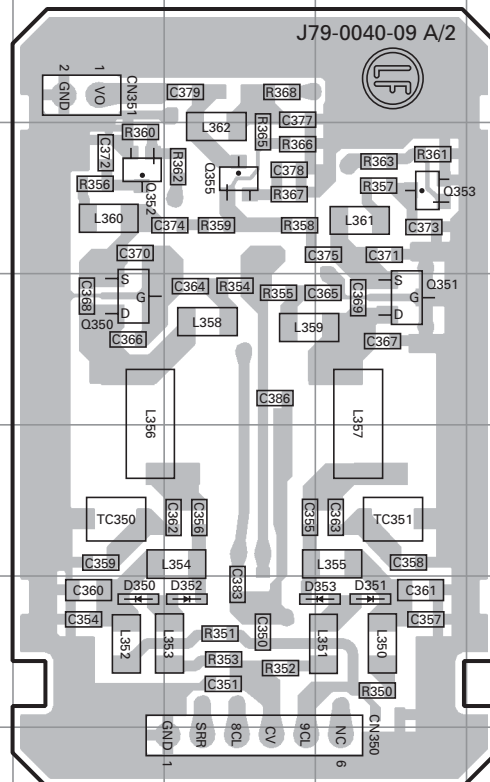
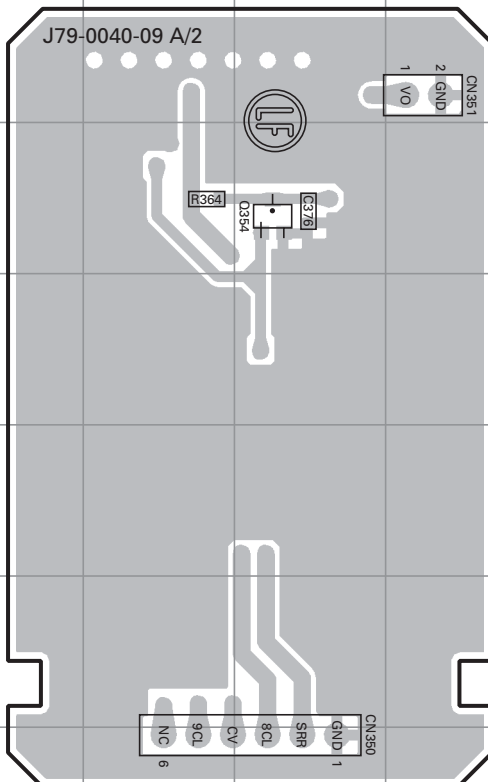


# TKR-851 PC BOARD



RX VCO UNIT (X58-496X-XX) 2-70 : K,E 2-71 : E3 (J79-0040-09)

Component side view



Foil side view



Ref. No.	Address
Q304	9B
Q305	8B
Q306	9B
Q307	9C
Q354	3C
D300	8B

Component side  
Layer 1   
Layer 2   
Foil side

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC301	9H	Q351	4H	D351	6H
Q300	11H	Q352	3F	D352	6G
Q301	11H	Q353	3H	D353	6H
Q302	8F	Q355	3G		
Q350	4F	D350	6F		

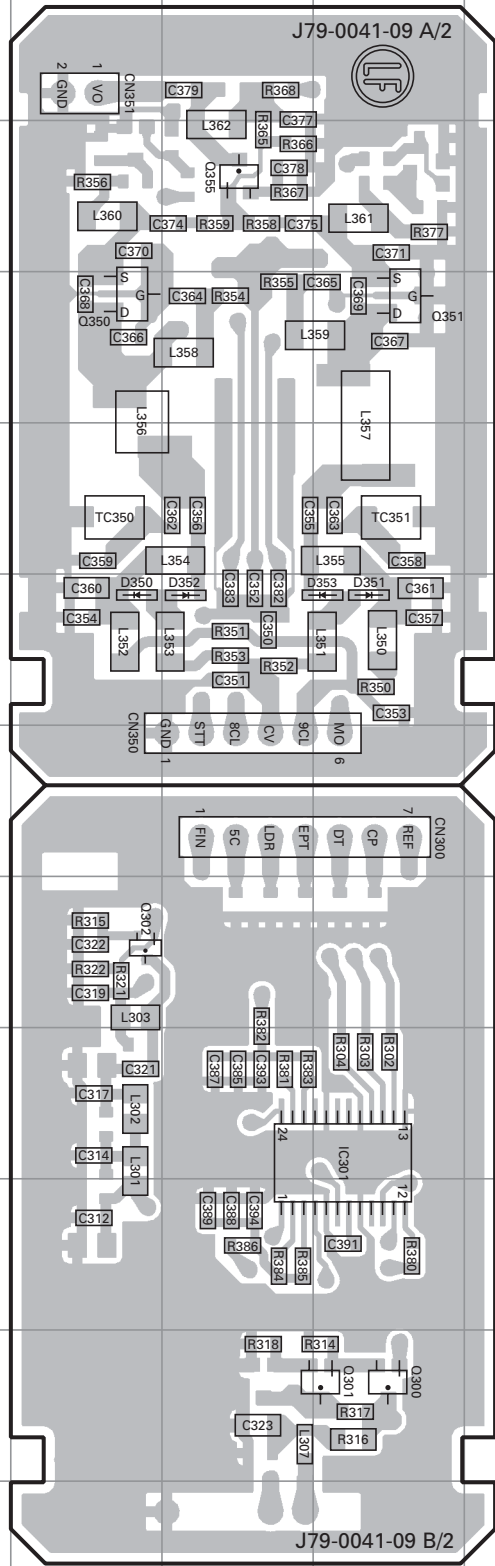
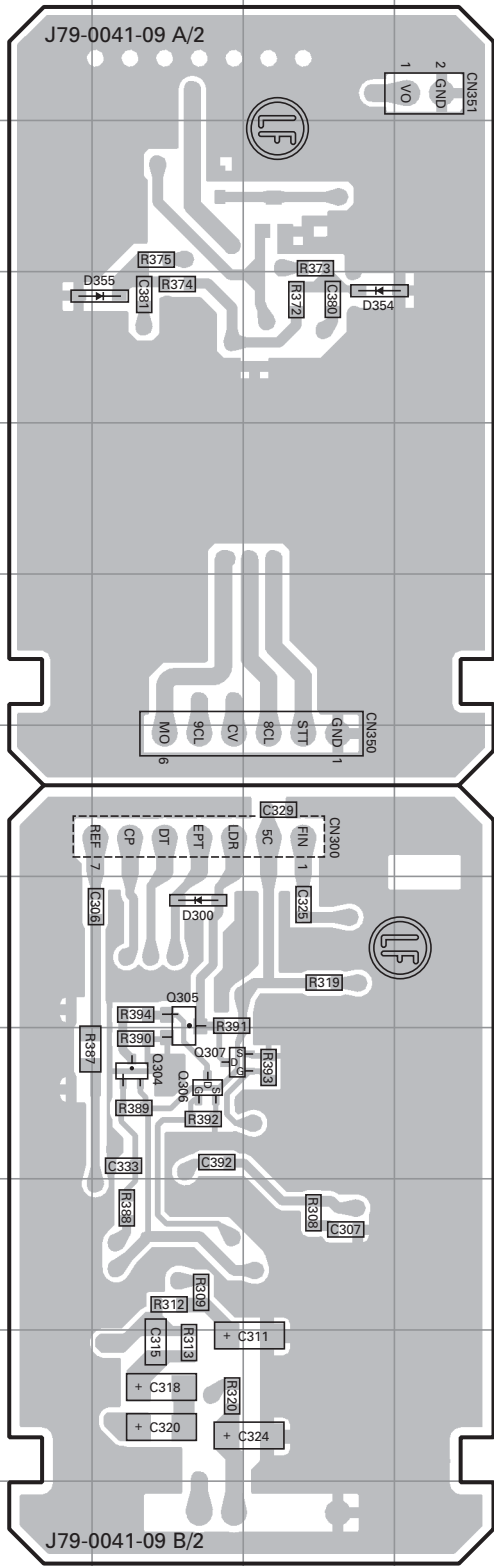
Component side  
Layer 1   
Layer 2   
Foil side

# PC BOARD TKR-851



TX VCO UNIT (X58-497X-XX) 2-70 : K,E 2-71 : E3 (J79-0041-09)

Component side view

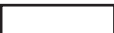

Foil side view



Ref. No.	Address	Ref. No.	Address
Q304	9B	D300	8B
Q305	8B	D354	4C
Q306	9B	D355	4B
Q307	9B		

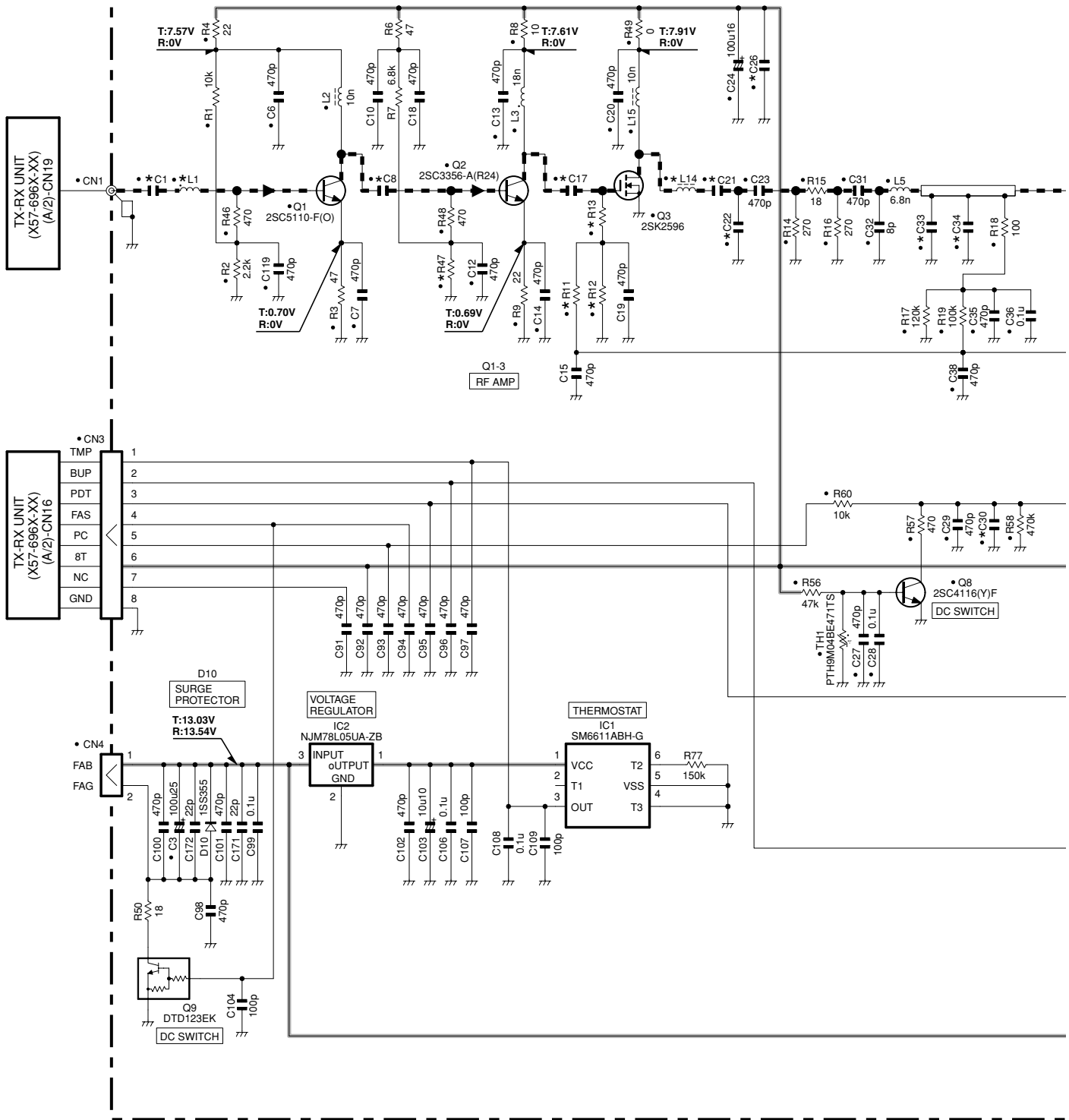
Component side  
 Layer 1   
 Layer 2   
 Foil side

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC301	9H	Q350	4F	D351	6H
Q301	11H	Q351	4H	D352	6G
Q302	8F	Q355	3G	D353	6H

Component side  
 Layer 1   
 Layer 2   
 Foil side

# TKR-851 SCHEMATIC DIAGRAM

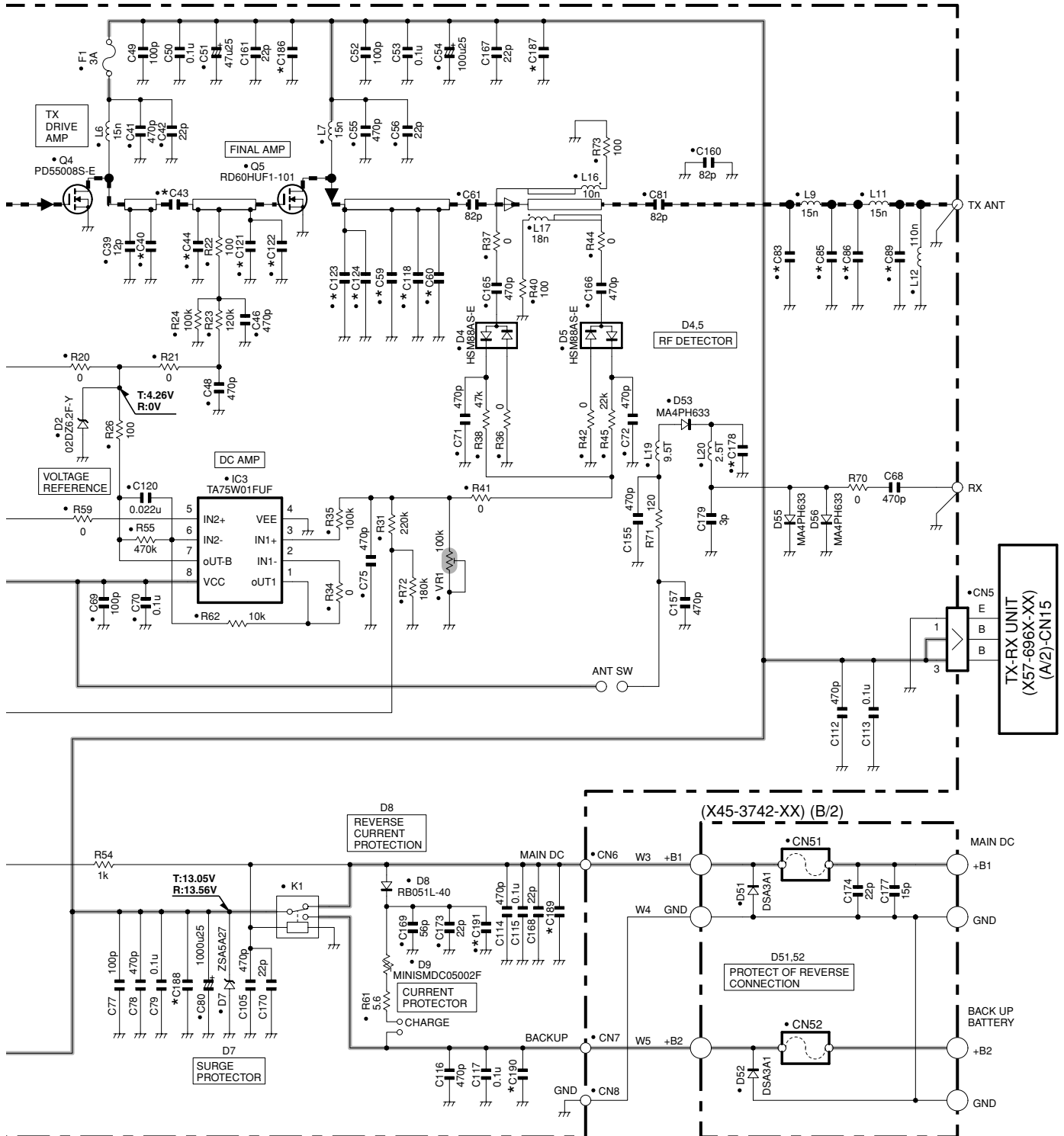
## FINAL UNIT (X45-3742-XX) (A/2)



	X45-3742-XX	L1	L14	R11	R12	R13	R47	C1	C8	C17	C21	C22	C26	C30	C33	C34
-71	K,E	10n	15n	100k	18k	47	2.2k	470p	8p	5p	12p	6p	470p	0.22u	27p	27p
-72	E3	3.9n	10n	33k	15k	22	3.3k	10p	10p	7p	22p	12p	100p	0.47u	39p	39p

# SCHEMATIC DIAGRAM TKR-851

## FINAL UNIT (X45-3742-XX) (A/2)

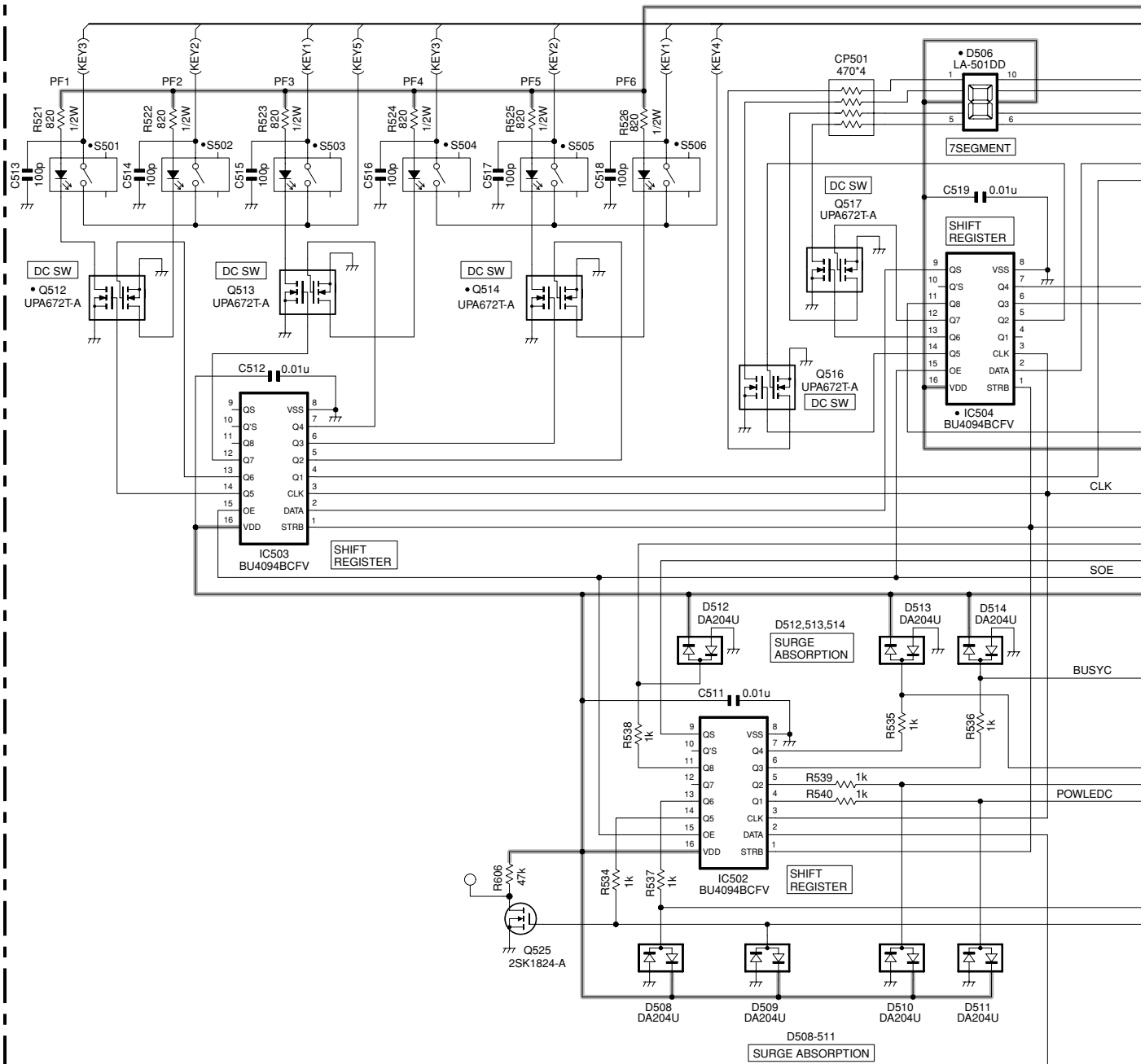


X45-3742-XX	C40	C43	C44	C59	C60	C83	C85	C86	C89	C118	C121	C122	C123	C124	C178	C186	C187	C188	C189	C190	C191
-71	K,E	22p	22p	6p	15p	NO	6p	NO	10p	5p	8p	15p	15p	22p	22p	3p	NO	NO	NO	NO	NO
-72	E3	NO	24p	10p	33p	18p	7p	12p	NO	6p	NO	18p	18p	27p	27p	4p	82p	82p	82p	82p	82p

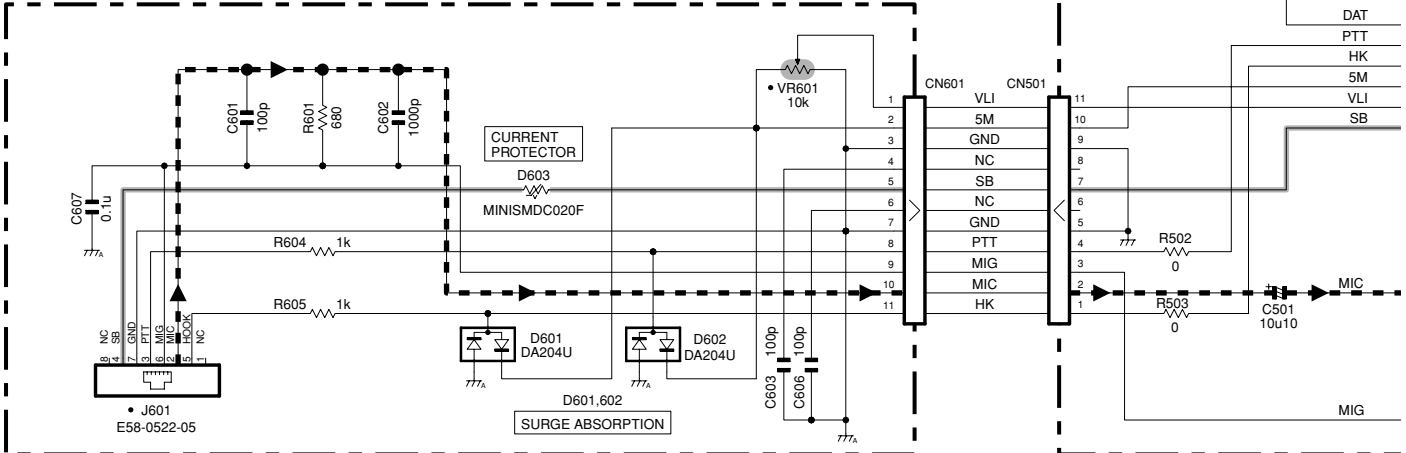
Note : The components marked with a dot (•) are parts of layer 1.

# TKR-851 SCHEMATIC DIAGRAM

## DISPLAY UNIT (X54-3580-20) (A/2)



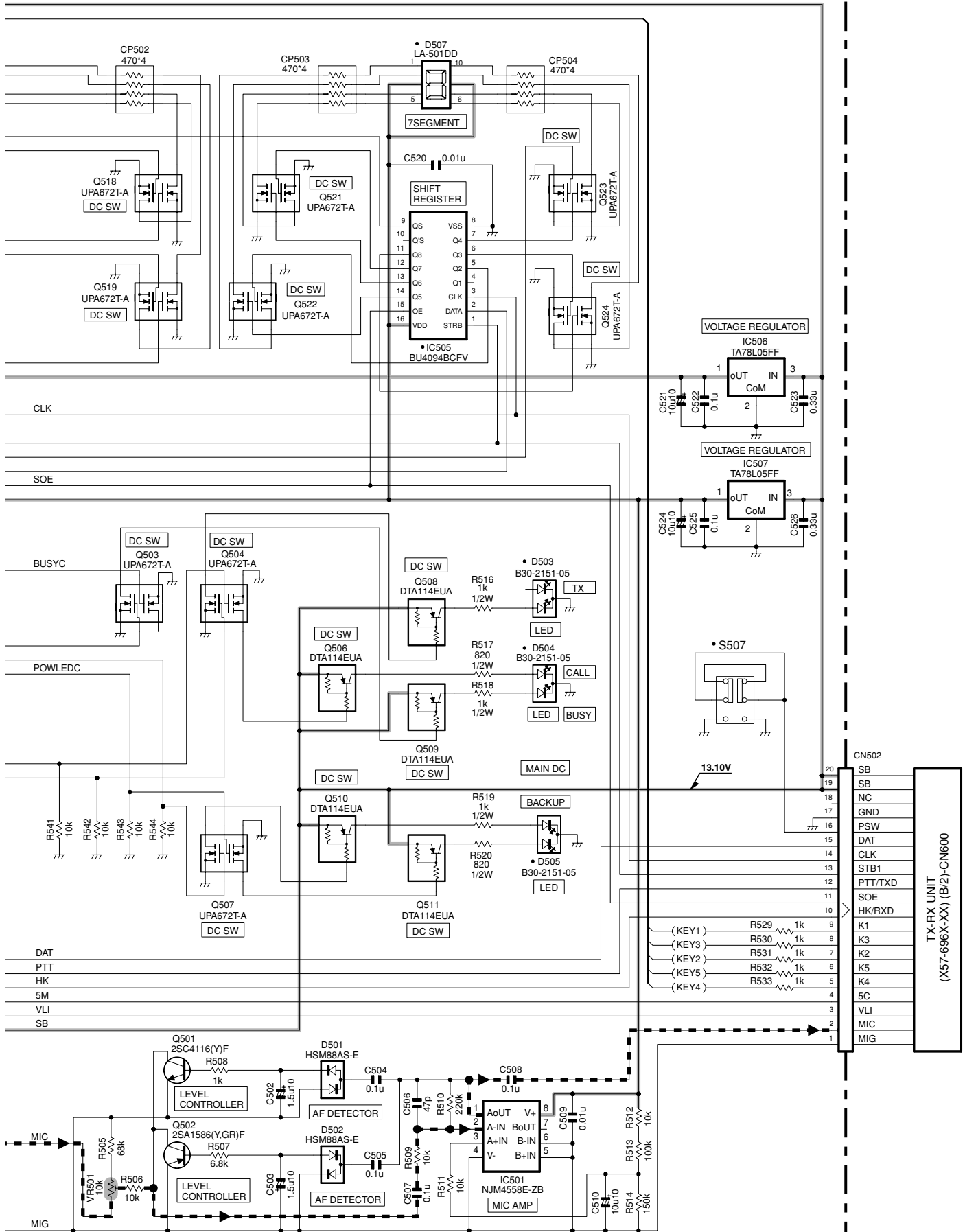
## DISPLAY UNIT (X54-3580-20) (B/2)





# SCHEMATIC DIAGRAM TKR-851

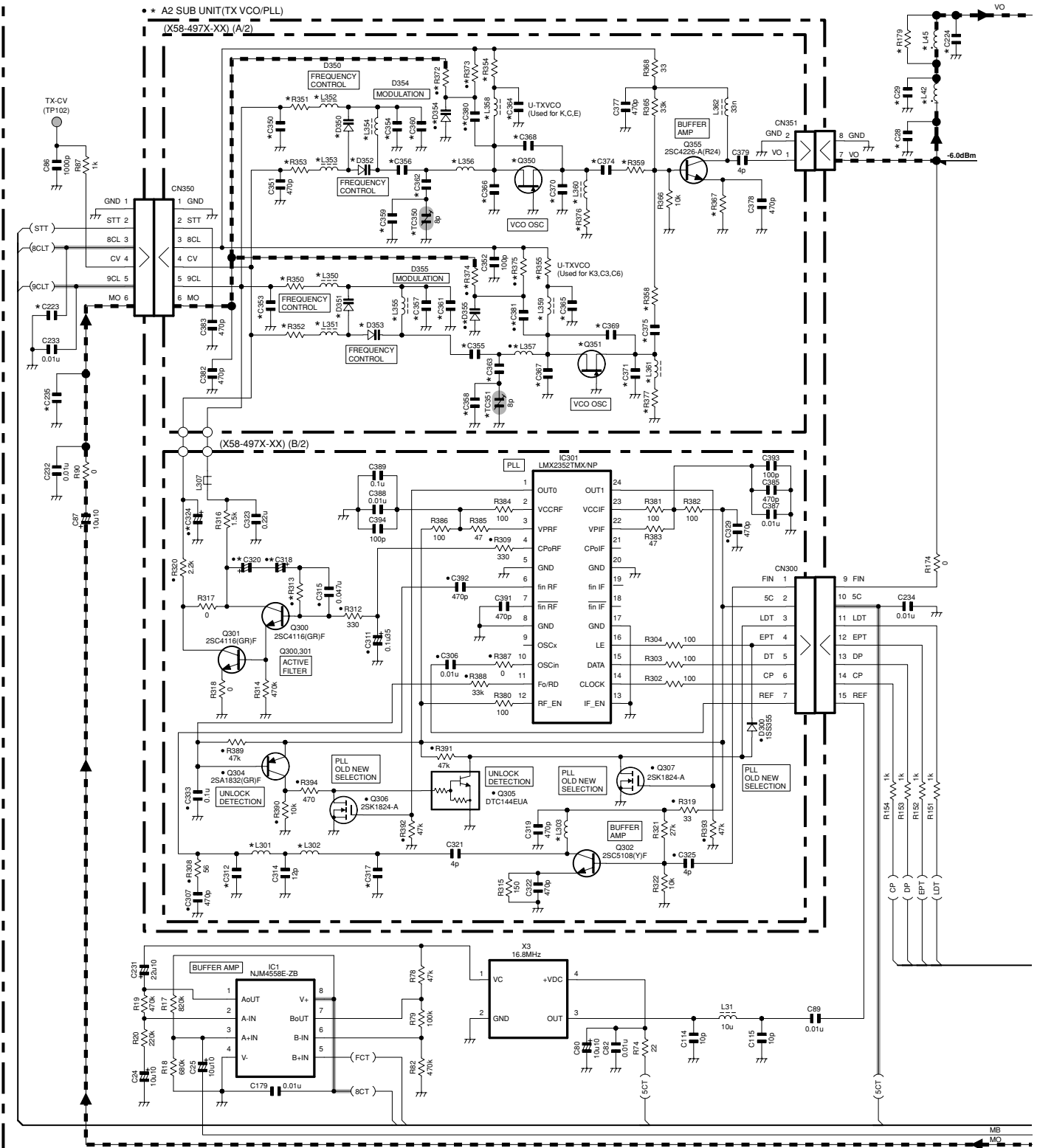
DISPLAY UNIT (X54-3580-20) (A/2)



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

# TKR-851 SCHEMATIC DIAGRAM

TX-RX UNIT (X57-696X-XX) (A/2)



A2 SUB UNIT (TX VCO/PLL)		C312	C317	C324	C350	C353	C354	C355	C356	C357	C358	C359	C360	C361	C362	C363	C364	C365	C366	C367	C368	C369	C370	C371	C374	C375	C380	C381	
X58-497X-XX	K,E	6p	0.22u	470p	NO	470p	NO	9p	NO	NO	NO	3p	0.1u	NO	18p	NO	470p	NO	5p	NO	NO	8p	NO	8p	NO	0.5p	NO	0.75p	NO
2-70	K,E	6p	0.22u	470p	NO	470p	NO	9p	NO	NO	NO	3p	0.1u	NO	18p	NO	470p	NO	5p	NO	NO	8p	NO	8p	NO	0.5p	NO	0.75p	NO
2-71	E3	7p	0.33u	NO	470p	NO	11p	NO	470p	3p	NO	NO	0.1u	NO	22p	NO	NO	470p	NO	6p	NO	NO	8p	NO	NO	0.5p	NO	0.5p	NO

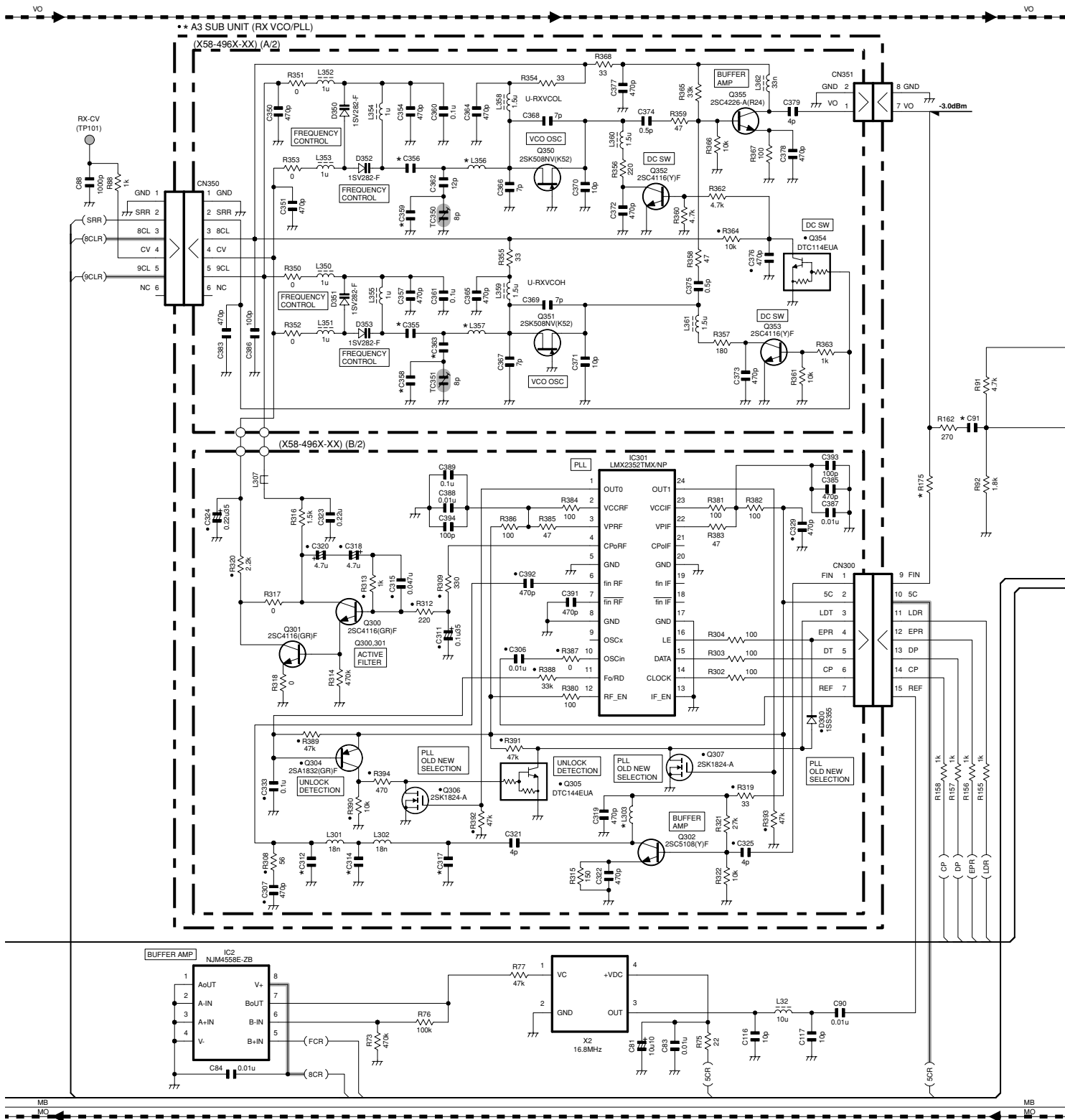
A2 SUB UNIT (TX VCO/PLL)		D350	D351	D352	D353	D354	D355	L301	L302	L303	L350	L351	L352	L353	L354	L355	L356	L357	L358	L359	L360	L361	Q350	Q351	
X58-497X-XX	K,E	1S282-F	NO	1S282-F	NO	1S214-F	NO	15n	15n	22n	NO	NO	1u	1u	1u	NO	L34-4645-05	NO	NO	1u	NO	1u	NO	2SK508NV(K52)	NO
2-70	K,E	1S282-F	NO	1S282-F	NO	1S214-F	NO	15n	15n	22n	NO	NO	1u	1u	1u	NO	L34-4645-05	NO	NO	1u	NO	1u	NO	2SK508NV(K52)	NO
2-71	E3	NO	1S282-F	NO	1S282-F	NO	1S214-F	18n	18n	27n	1u	1u	NO	NO	NO	1u	NO	L34-4607-05	NO	1.5u	NO	1.5u	NO	2SK508NV(K52)	NO

A2 SUB UNIT (TX VCO/PLL)		R313	R350	R351	R352	R353	R354	R355	R358	R359	R367	R372	R373	R374	R375	R376	R377	TC350	TC351
X58-497X-XX	K,E	1k	NO	0	NO	0	33	NO	NO	47	180	180k	100k	NO	NO	270	NO	C05-0396-05	NO
2-70	K,E	1k	NO	0	NO	0	33	NO	NO	47	180	180k	100k	NO	NO	270	NO	C05-0396-05	NO
2-71	E3	1.2k	0	NO	0	NO	33	47	NO	100	NO	NO	120k	100k	NO	180	NO	C05-0396-05	NO

TX-RX UNIT		X57-696X-XX	A2	C28	C29	C223	C224	C235	L42	L45	R179
2-70	E	X58-4972-70	2P	2P	100P	NO	NO	NO	6.8n	NO	0
0-11	K	X58-4972-70	2P	2P	100P	NO	NO	NO	6.8n	NO	0
2-71	E3	X58-4972-71	8P	11P	NO	3p	100p	18n	18n	NO	0

# SCHEMATIC DIAGRAM TKR-851

TX-RX UNIT (X57-696X-XX) (A/2)



A3 SUB UNIT (RX VCO/PLL)

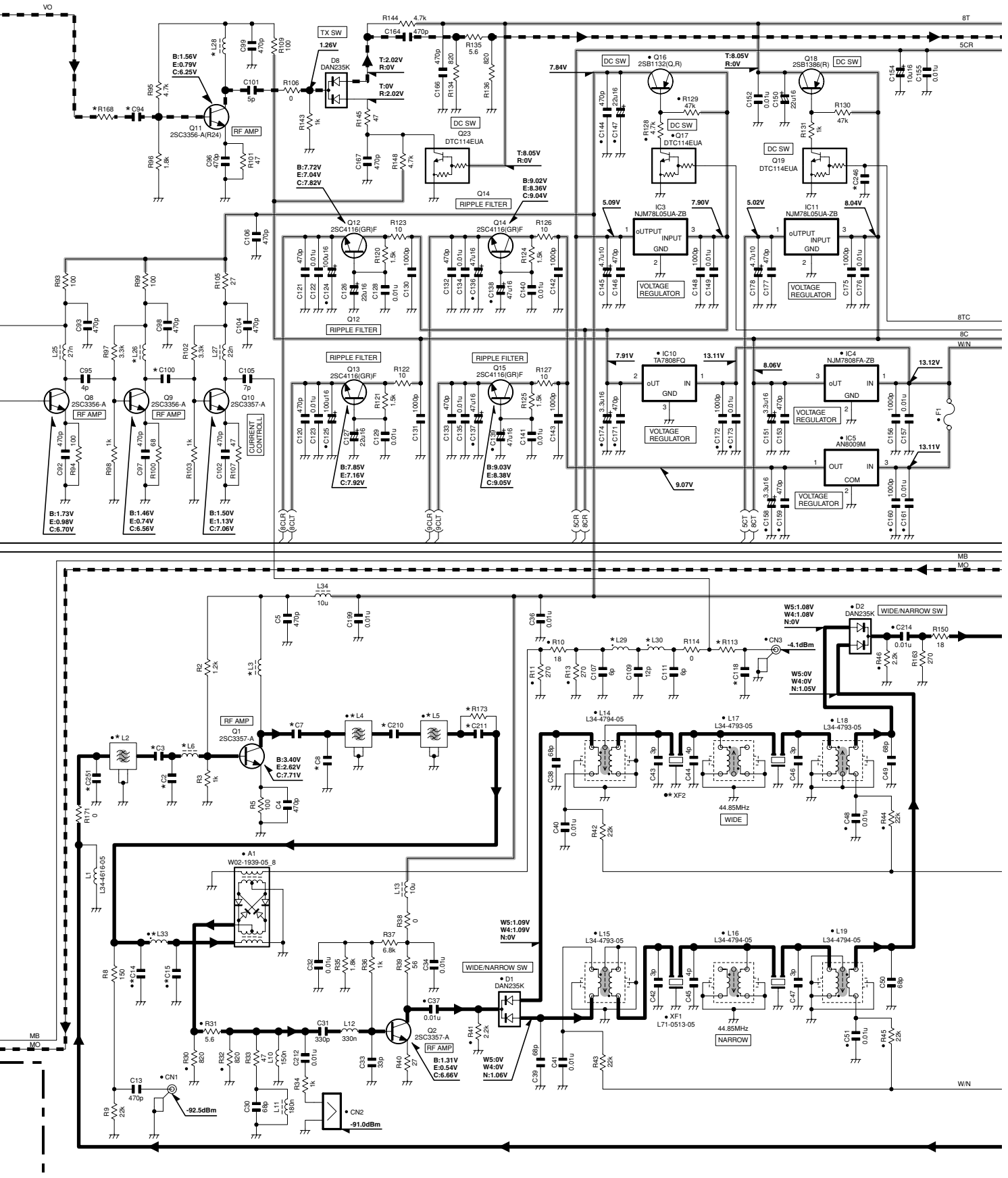
X58-496X-XX	C312	C314	C317	C355	C356	C358	C359	C363	L303	L356	L357
2-70	K,E	7p	12p	7p	5p	6p	2.5p	3p	10p	22n	L34-4608-05
2-71	E3	8p	18p	8p	6p	7p	1.5p	2.5p	15p	27n	L34-4609-05

TX-RX UNIT

X57-696X-XX	A3	C91	R175
2-70	E	X58-4962-70	4P
0-11	K	X58-4962-70	4P
2-71	E3	X58-4962-71	5P

# TKR-851 SCHEMATIC DIAGRAM

TX-RX UNIT (X57-696-XX) (A/2)

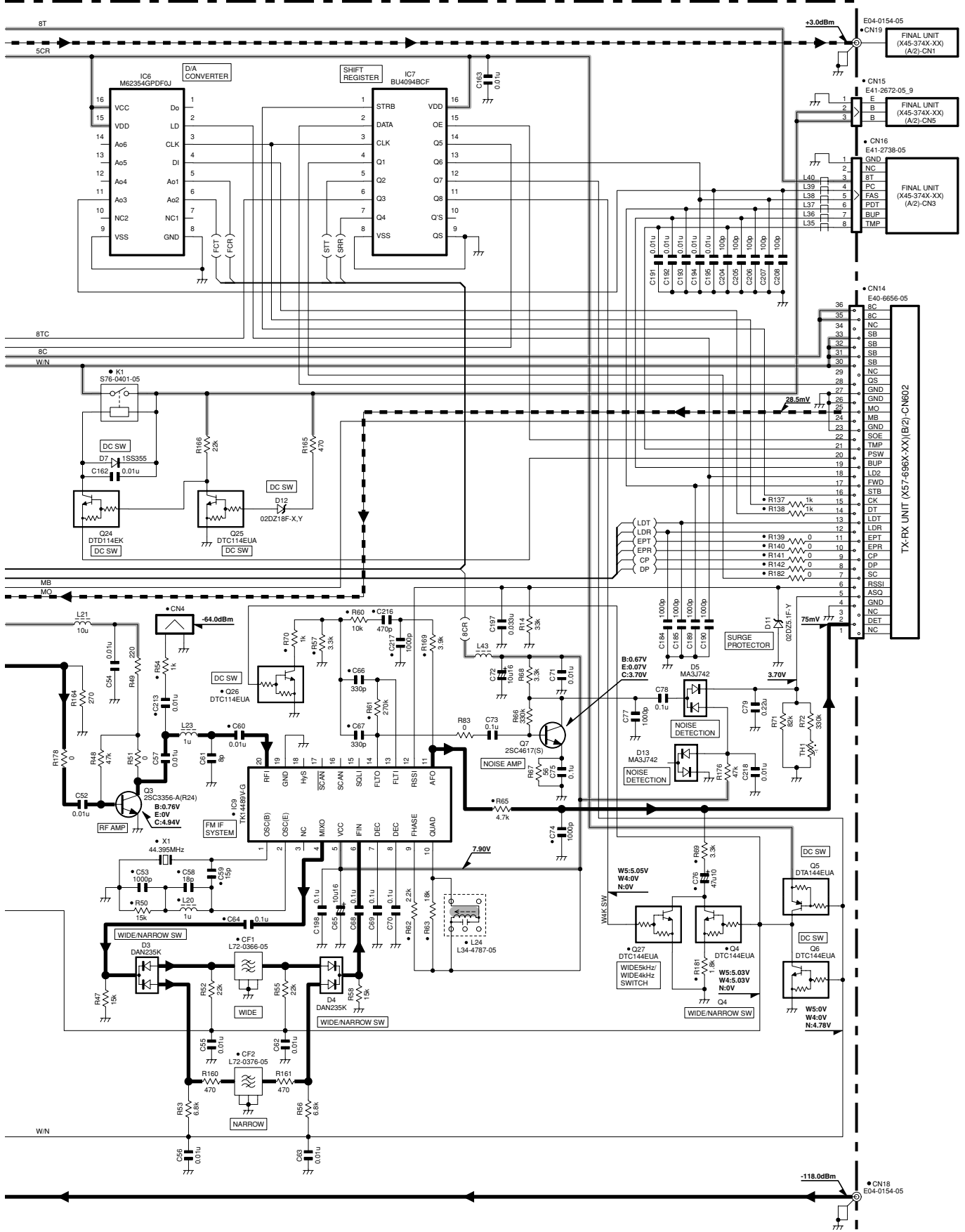


TX-RX UNIT

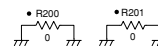
X57-696X-XX	C2	C3	C7	C8	C14	C15	C94	C100	C118	C210	C211	C246	C251	L2	L3	L4	L5	L6	L26	L28	L29	L30	L33	R113	R168	R173	XF2	
2-70	E	NO	12P	12P	0.5P	6P	6P	3P	5P	NO	8P	12P	NO	NO	L79-1849-05	18n	L79-1849-05	L79-1849-05	18n	15n	18n	18n	18n	15n	470	0	NO	L71-0627-05
0-11	K	NO	12P	12P	0.5P	6P	6P	3P	5P	NO	8P	12P	NO	NO	L79-1849-05	18n	L79-1849-05	L79-1849-05	18n	15n	18n	18n	18n	15n	470	0	NO	L71-0512-05
2-71	E3	1P	10P	8P	1P	7P	7P	4P	6P	3P	10P	NO	4.7u	3P	L79-1853-05	15n	L79-1853-05	L79-1853-05	22n	22n	22n	22n	22n	2.2k	270	0	NO	L71-0627-05

# SCHEMATIC DIAGRAM TKR-851

TX-RX UNIT (X57-696X-XX) (A/2)

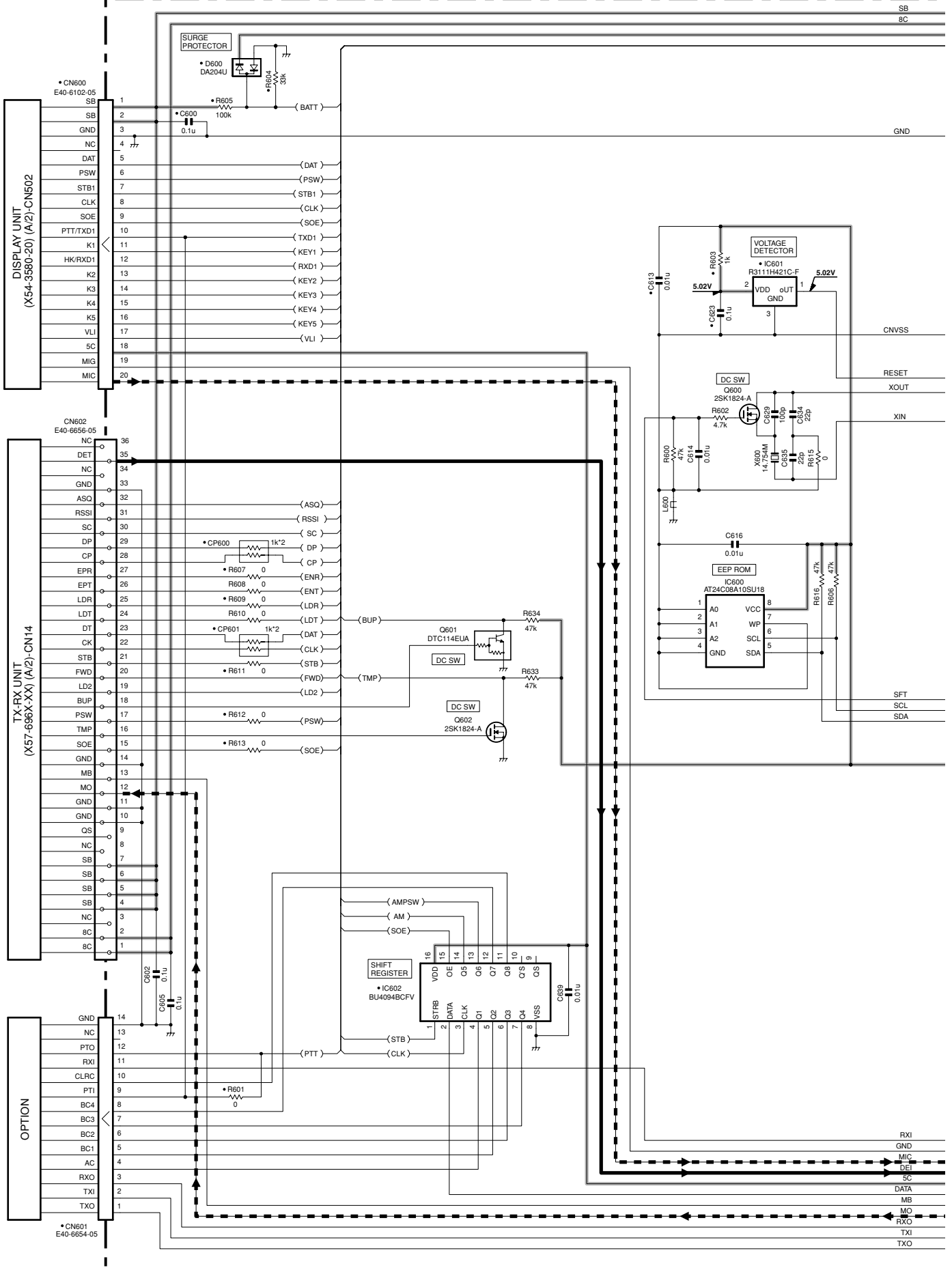


**Note :** The components marked with a dot (•) are parts of layer 1.



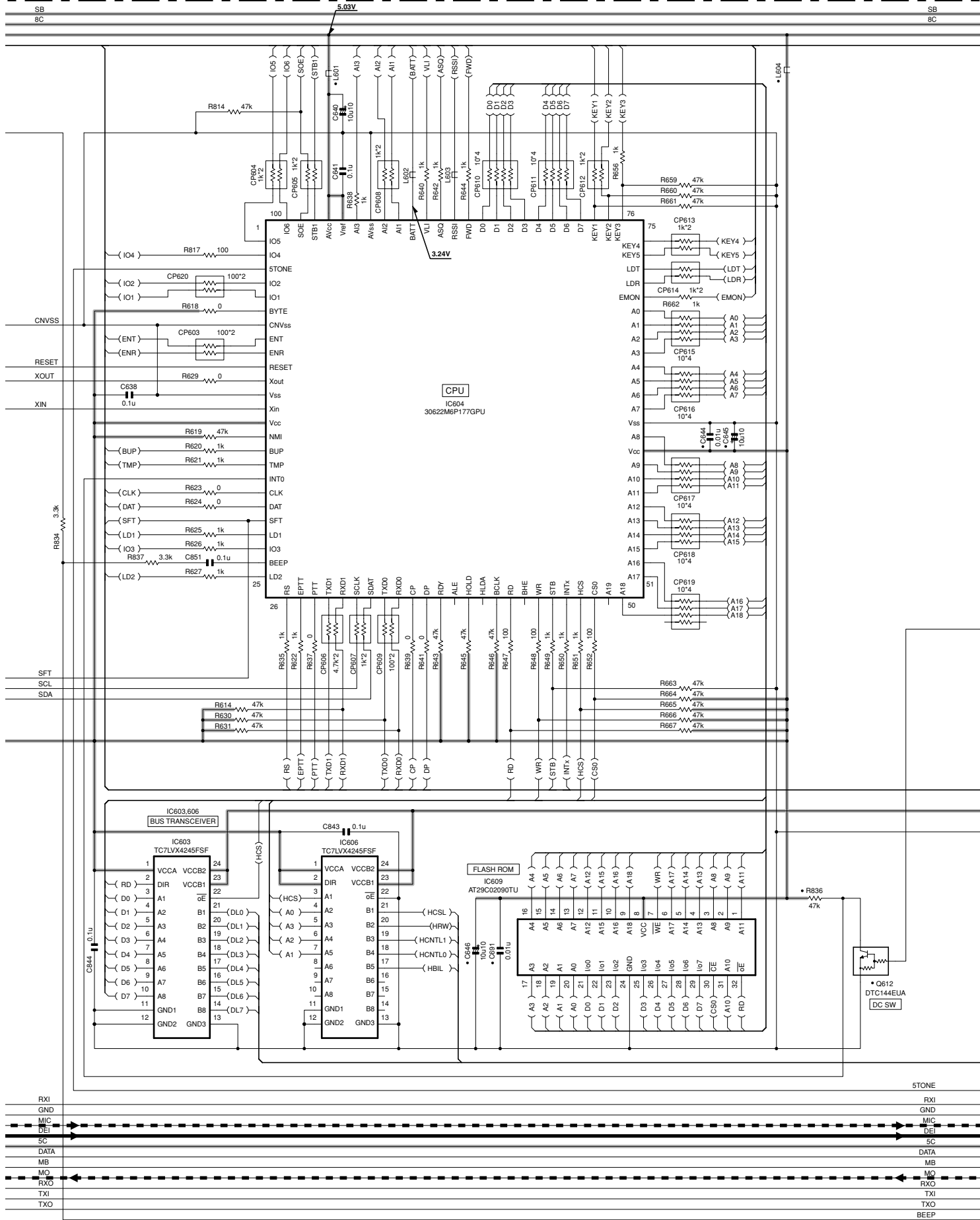
# TKR-851 SCHEMATIC DIAGRAM

TX-RX UNIT (X57-696X-XX) (B/2)



# SCHEMATIC DIAGRAM TKR-851

TX-RX UNIT (X57-696X-XX) (B/2)

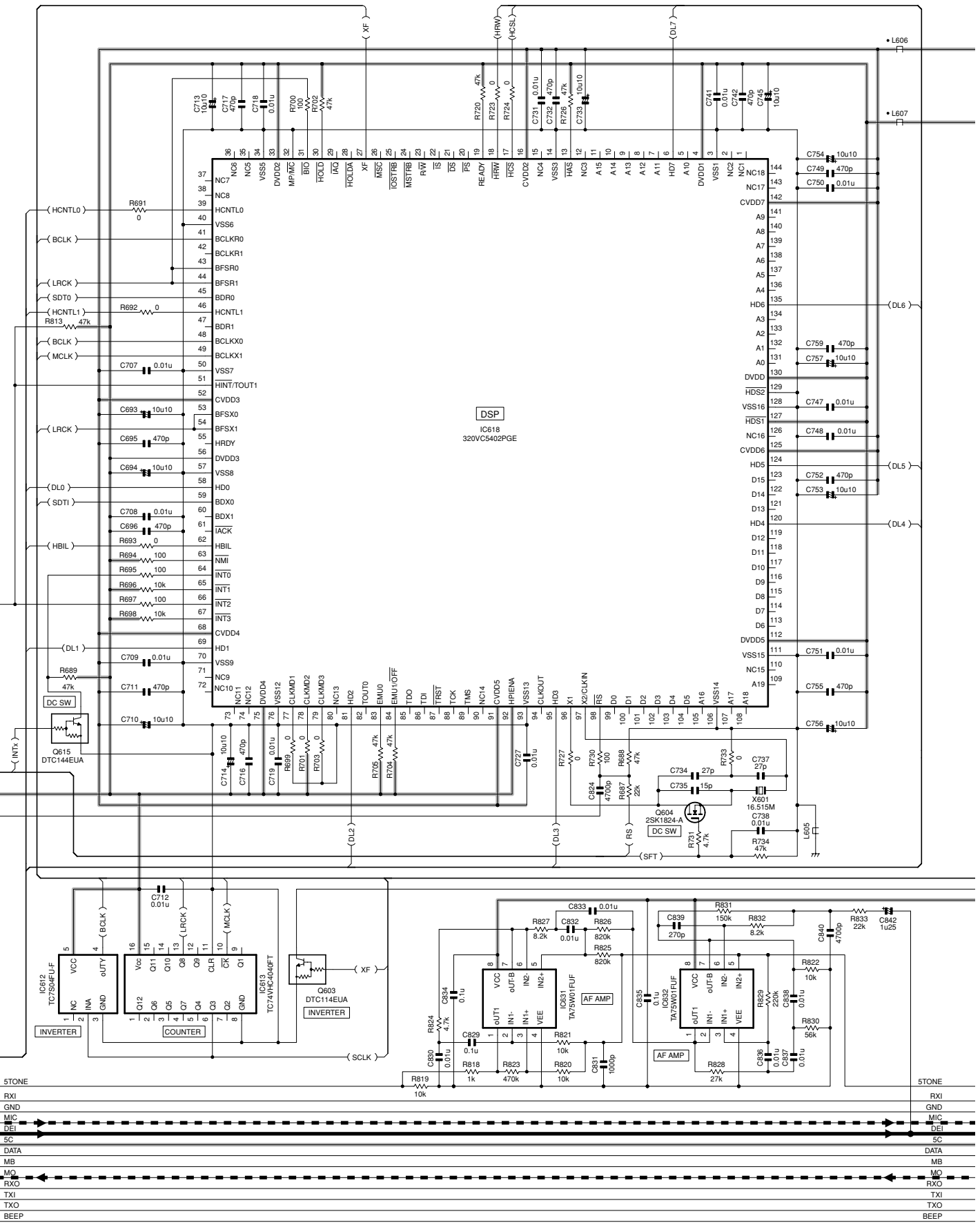


# TKR-851 SCHEMATIC DIAGRAM

TX-RX UNIT (X57-696X-XX) (B/2)

SB  
8C

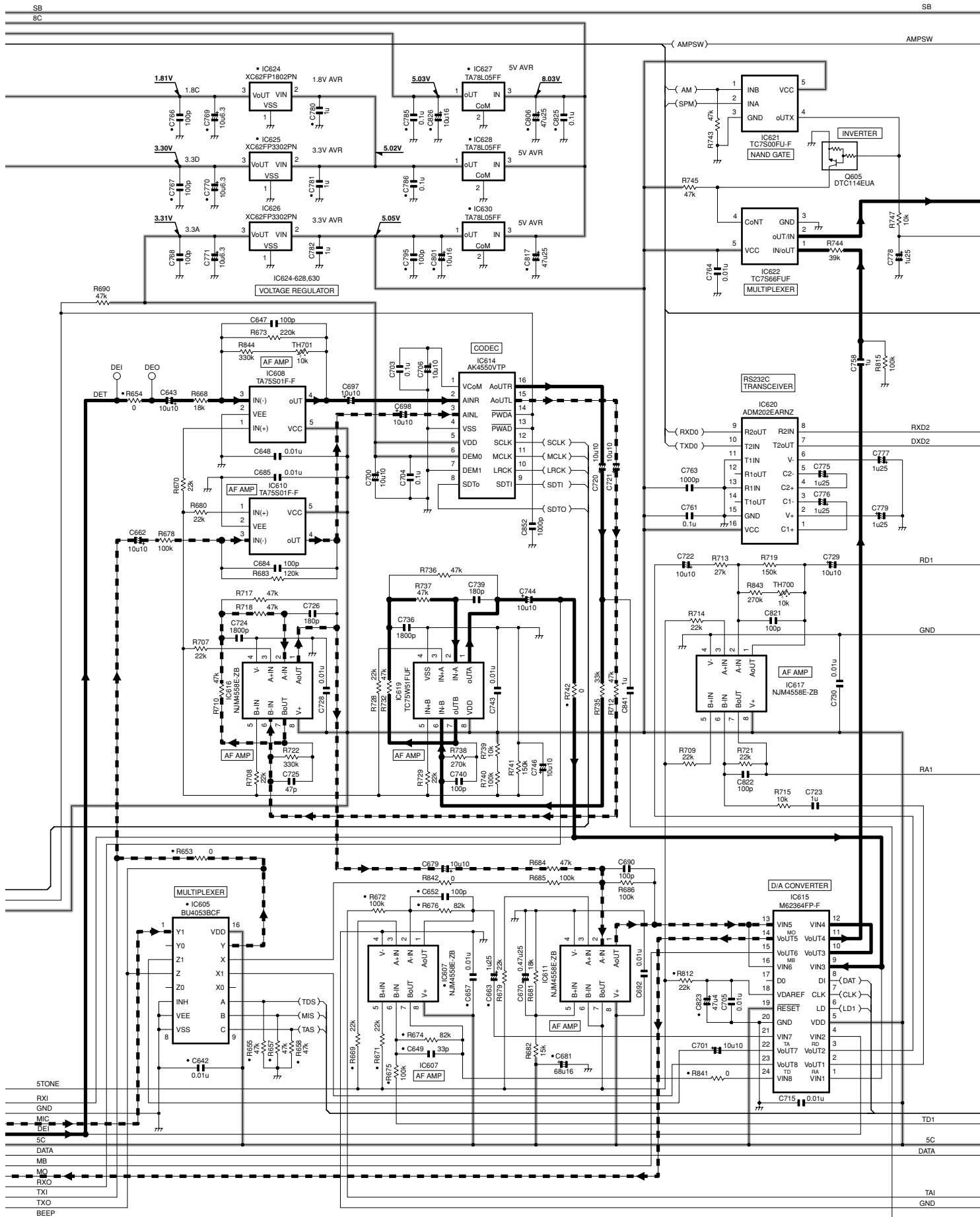
SB  
8C





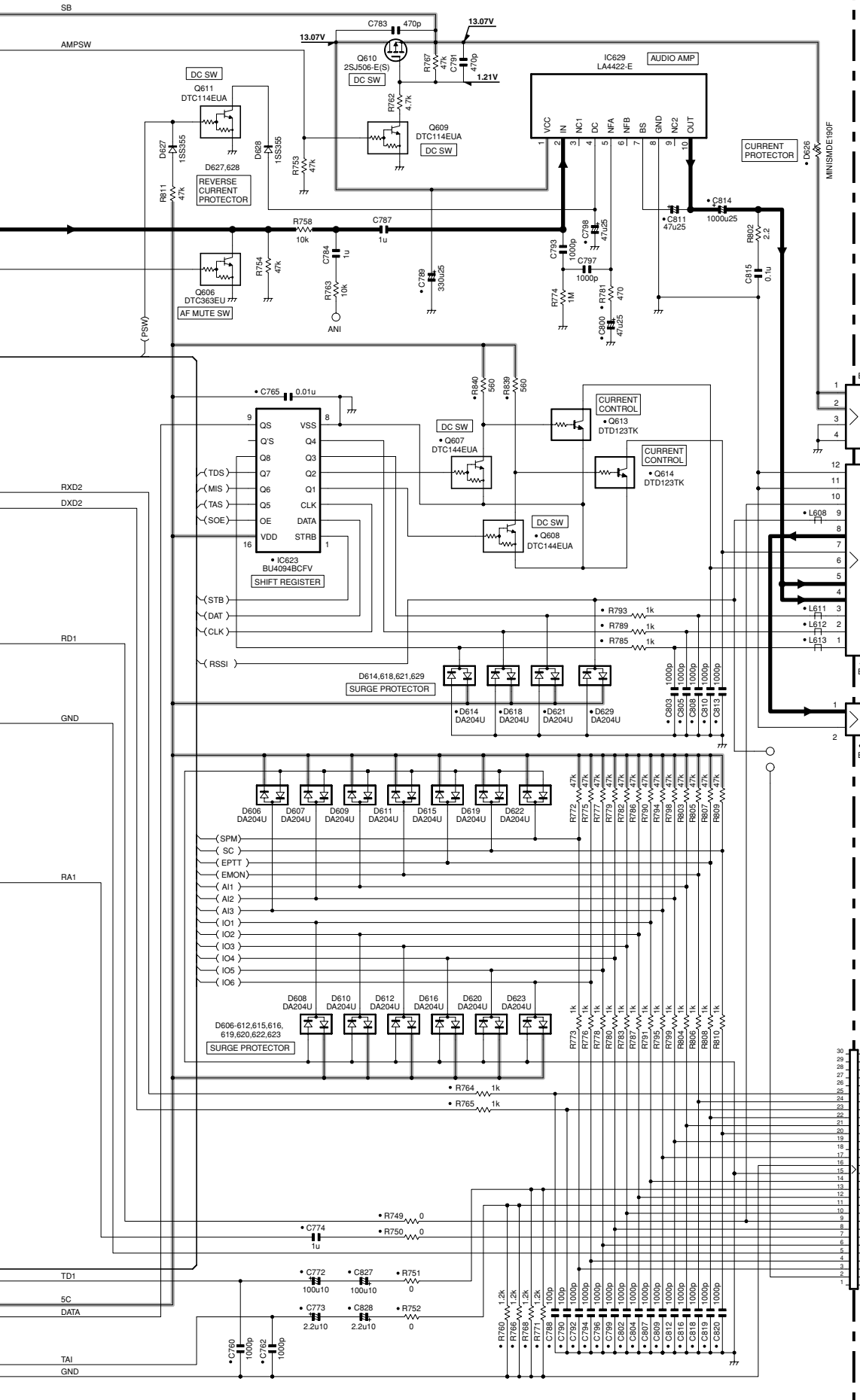
# SCHEMATIC DIAGRAM TKR-851

TX-RX UNIT (X57-696X-XX) (B/2)



# TKR-851 SCHEMATIC DIAGRAM

TX-RX UNIT (X57-696X-XX) (B/2)



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

1  
2  
3  
4  
5  
6  
7

MEMO

Dotted lines for writing.

# TKR-851

## Kenwood Corporation

2967-3, Ishikawa-machi, Hachioji-shi, Tokyo, 192-8525 Japan

### Kenwood U.S.A. Corporation

P.O. BOX 22745, 2201 East Dominguez Street, Long Beach,  
CA 90801-5745, U.S.A.

### Kenwood Electronics Canada Inc.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

### Kenwood Electronics Deutschland GmbH

Rembrücker Str. 15, 63150 Heusenstamm, Germany

### Kenwood Electronics Belgium N.V.

Leuvensesteenweg 248 J, 1800 Vilvoorde, Belgium

### Kenwood Electronics France S.A.

L'Etoile Paris Nord 2, 50 Allée des Impressionnistes,  
Bp 58416 Villepinte, 95944 Roissy Ch De Gaulle Cedex

### Kenwood Electronics UK Limited

KENWOOD House, Dwight Road, Watford, Herts.,  
WD18 9EB United Kingdom

### Kenwood Electronics Europe B.V.

Amsterdamseweg 37, 1422 AC Uithoorn, The Netherlands

### Kenwood Electronics Italia S.p.A.

Via G. Sirtori, 7/9 20129 Milano, Italy

### Kenwood Ibérica, S.A.

Bolivia, 239-08020 Barcelona, Spain

### Kenwood Electronics Australia Pty. Ltd.

(A.C.N. 001 499 074)

16 Giffnock Avenue, Centrecourt Estate, North Ryde, N.S.W. 2113 Australia

### Kenwood Electronics (Hong Kong) Ltd.

Unit 3712-3724, Level 37, Tower one Metroplaza, 223 Hing Fong Road,  
Kwai Fong, N.T., Hong Kong

### Kenwood Electronics Singapore Pte Ltd

1 Ang Mo Kio Street 63, Singapore 569110

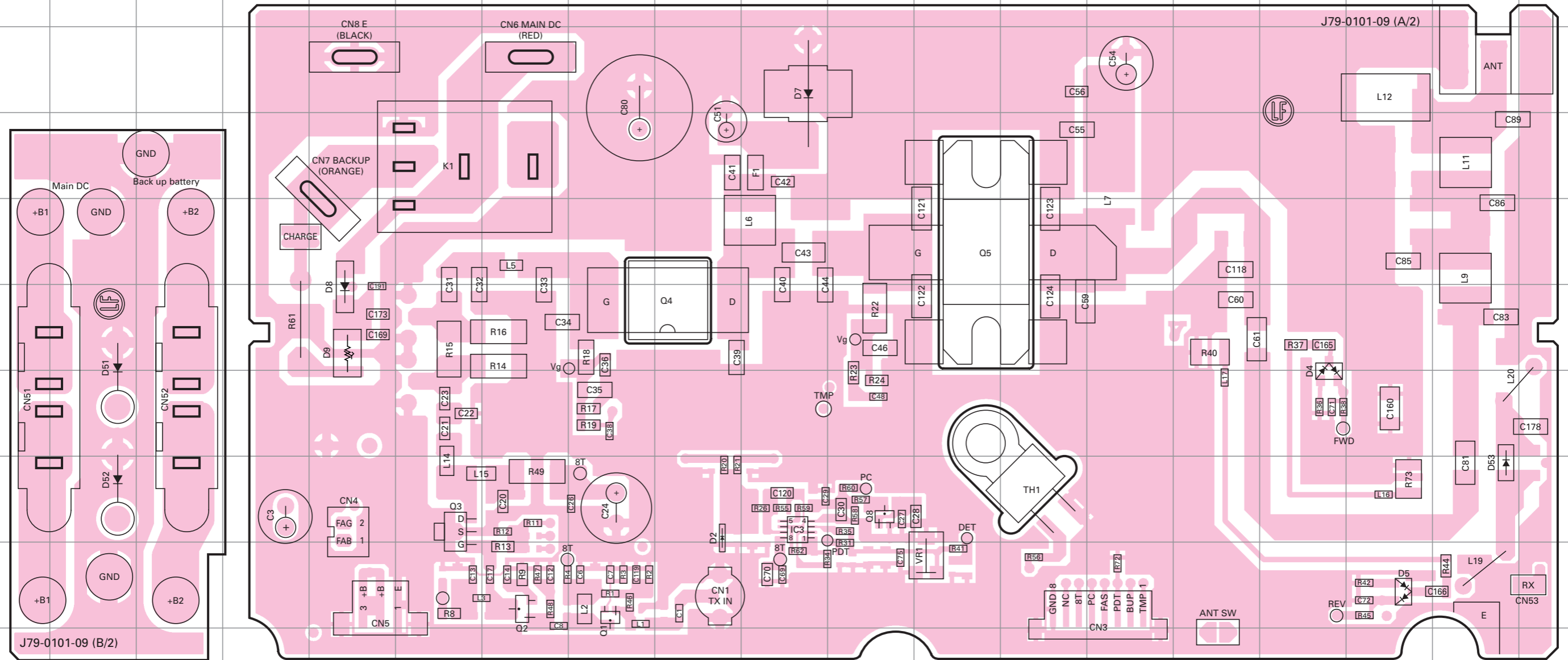


# TKR-851 PC BOARD

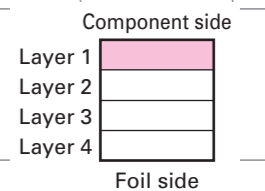
# PC BOARD TKR-851

FINAL UNIT (X45-374X-XX) 2-71 : K,E 2-72 : E3  
Component side view (J79-1010-09)

FINAL UNIT (X45-374X-XX) 2-71 : K,E 2-72 : E3  
Component side view (J79-0101-09)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC3	8J	Q4	6I	D4	7P	D9	6E
Q1	9H	Q5	5L	D5	9Q	D51	7B
Q2	9G	Q8	8K	D7	3J	D52	8B
Q3	8F	D2	8I	D8	6E	D53	8R

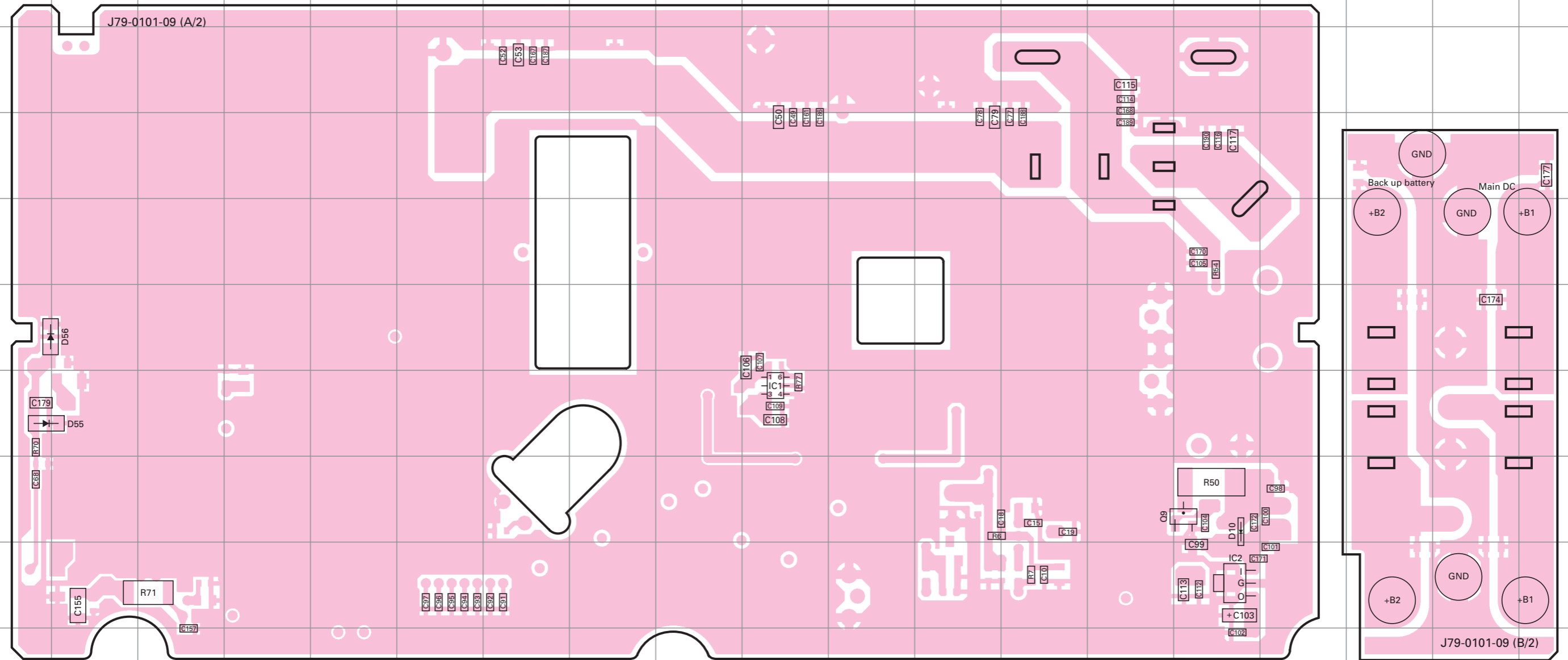


# TKR-851 PC BOARD

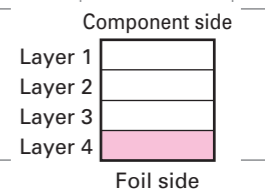
# PC BOARD TKR-851

FINAL UNIT (X45-374X-XX) 2-71 : K,E 2-72 : E3  
Foil side view (J79-0101-09)

FINAL UNIT (X45-374X-XX) 2-71 : K,E 2-72 : E3  
Foil side view (J79-0101-09)



Ref. No.	Address	Ref. No.	Address
IC1	7J	D10	8O
IC2	9O	D55	6A
Q9	8O	D56	7A

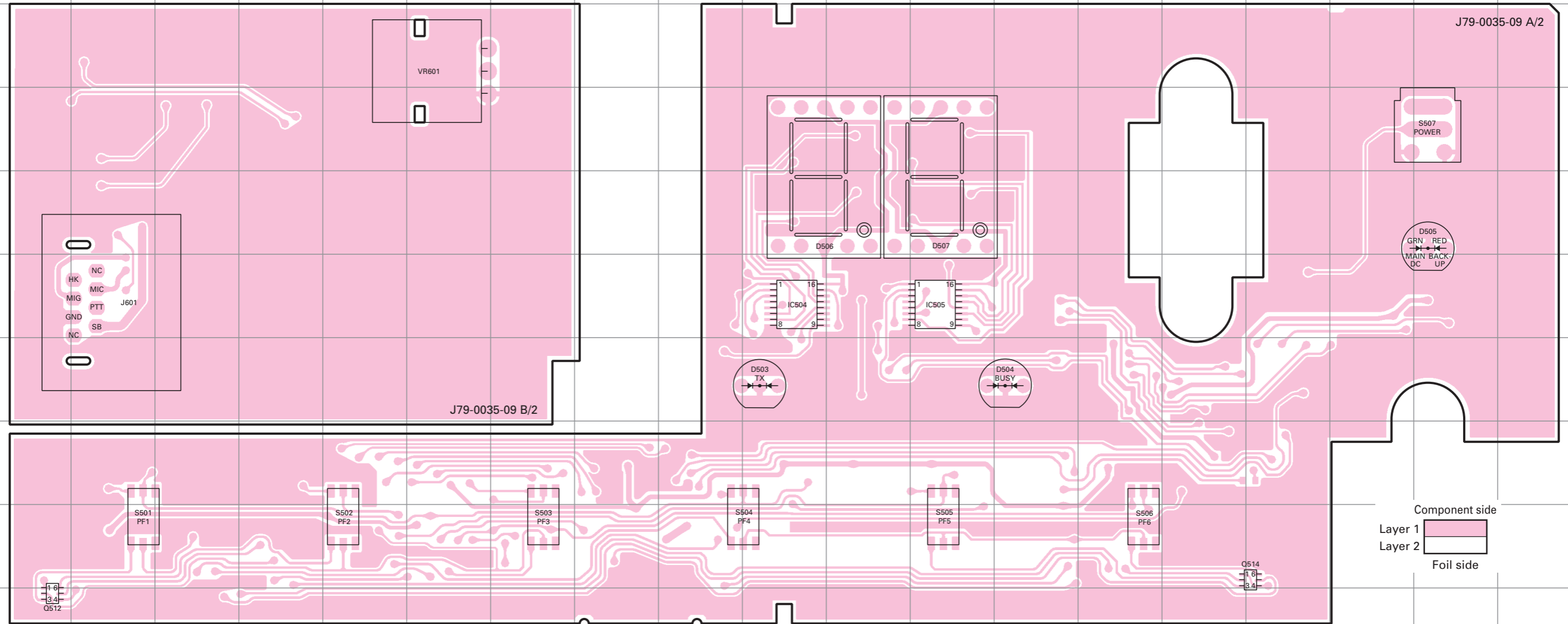


# TKR-851 PC BOARD

# PC BOARD TKR-851

DISPLAY UNIT (X54-3580-20) Component side view (J79-0035-09)

DISPLAY UNIT (X54-3580-20) Component side view (J79-0035-09)



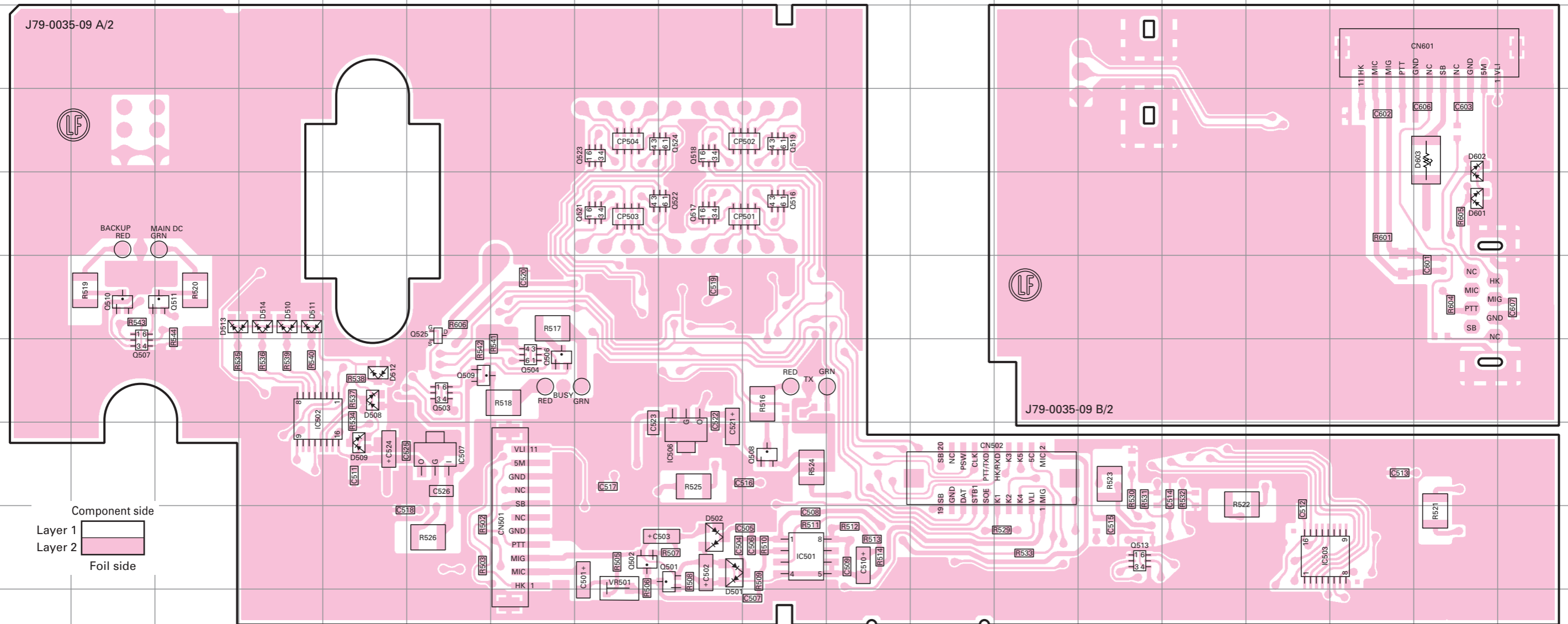
Ref. No.	Address
IC504	6J
IC505	6L
Q512	10A
Q514	9P
D503	7J
D504	7M
D505	5R
D506	5J
D507	5L

# TKR-851 PC BOARD

# PC BOARD TKR-851

DISPLAY UNIT (X54-3580-20) Foil side view (J79-0035-09)

DISPLAY UNIT (X54-3580-20) Foil side view (J79-0035-09)



Component side  
 Layer 1  
 Layer 2  
 Foil side

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC501	9J	Q507	7B	Q521	5H	D511	6D
IC502	7D	Q508	8J	Q522	5I	D512	7E
IC503	9P	Q509	7F	Q523	4H	D513	6C
IC506	8I	Q510	6B	Q524	4I	D514	6D
IC507	8F	Q511	6C	Q525	6F	D601	5R
Q501	9I	Q513	9N	D501	9I	D602	4R
Q502	9H	Q516	5J	D502	9I	D603	4R
Q503	7F	Q517	5I	D508	7E		
Q504	7G	Q518	4I	D509	8E		
Q506	7G	Q519	4J	D510	6D		

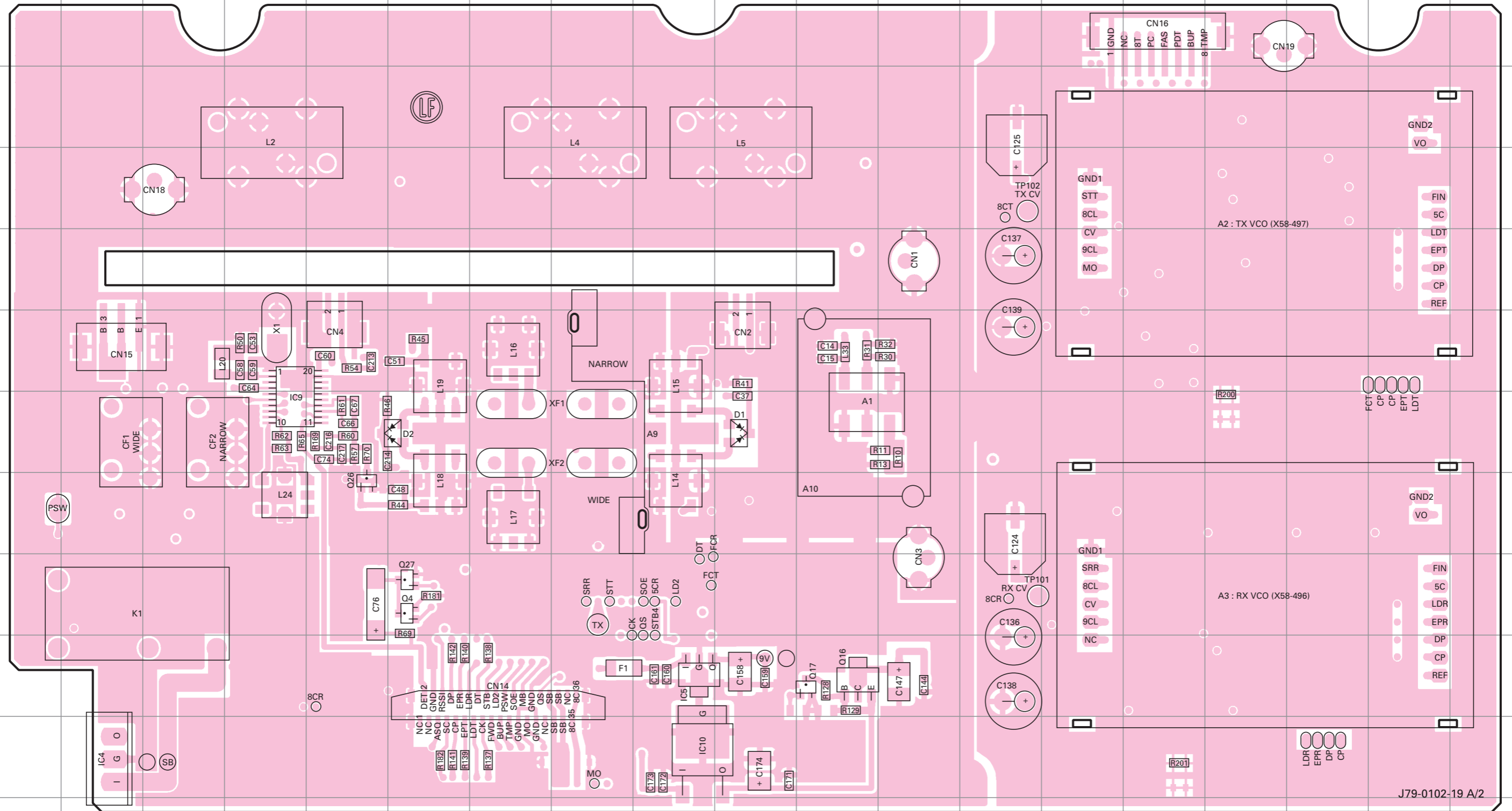


# TKR-851 PC BOARD

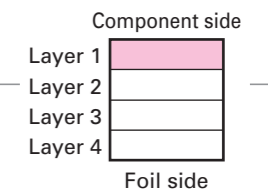
TX-RX UNIT (X57-696X-XX) (A/2) 0-11 : K 2-70 : E 2-71 : E3  
Component side view (J79-0102-19 A/2)

# PC BOARD TKR-851

TX-RX UNIT (X57-696X-XX) (A/2) 0-11 : K 2-70 : E 2-71 : E3  
Component side view (J79-0102-19 A/2)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC4	11B	Q4	9F	Q27	9F
IC5	10I	Q16	10K	D1	7J
IC9	7D	Q17	10K	D2	7F
IC10	11I	Q26	8E		



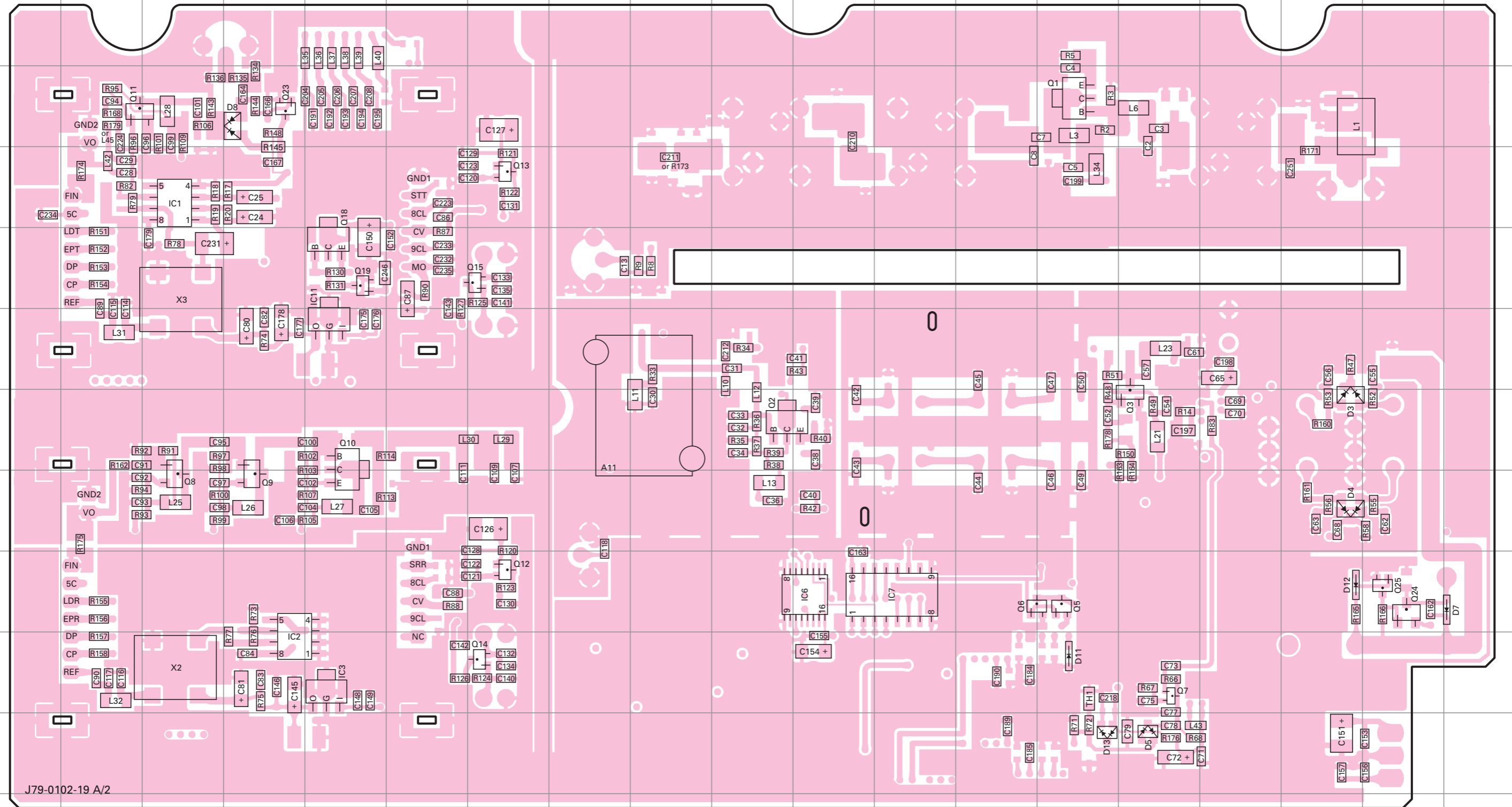
J79-0102-19 A/2

# TKR-851 PC BOARD

TX-RX UNIT (X57-696X-XX) (A/2) 0-11 : K 2-70 : E 2-71 : E3  
 Foil side view (J79-0102-19 A/2)

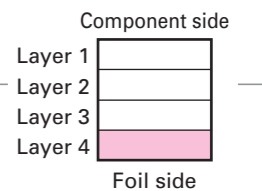
# PC BOARD TKR-851

TX-RX UNIT (X57-696X-XX) (A/2) 0-11 : K 2-70 : E 2-71 : E3  
 Foil side view (J79-0102-19 A/2)



J79-0102-19 A/2

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	4C	Q1	3N	Q8	8C	Q14	10G	Q25	9R	D11	10N
IC2	10D	Q2	7J	Q9	8D	Q15	5G	D3	7Q	D12	9Q
IC3	10E	Q3	7O	Q10	7E	Q18	5E	D4	8Q	D13	11N
IC6	9K	Q5	9N	Q11	3B	Q19	5E	D5	11O		
IC7	9L	Q6	9M	Q12	9G	Q23	3D	D7	9S		
IC11	6E	Q7	10O	Q13	4G	Q24	9R	D8	3D		

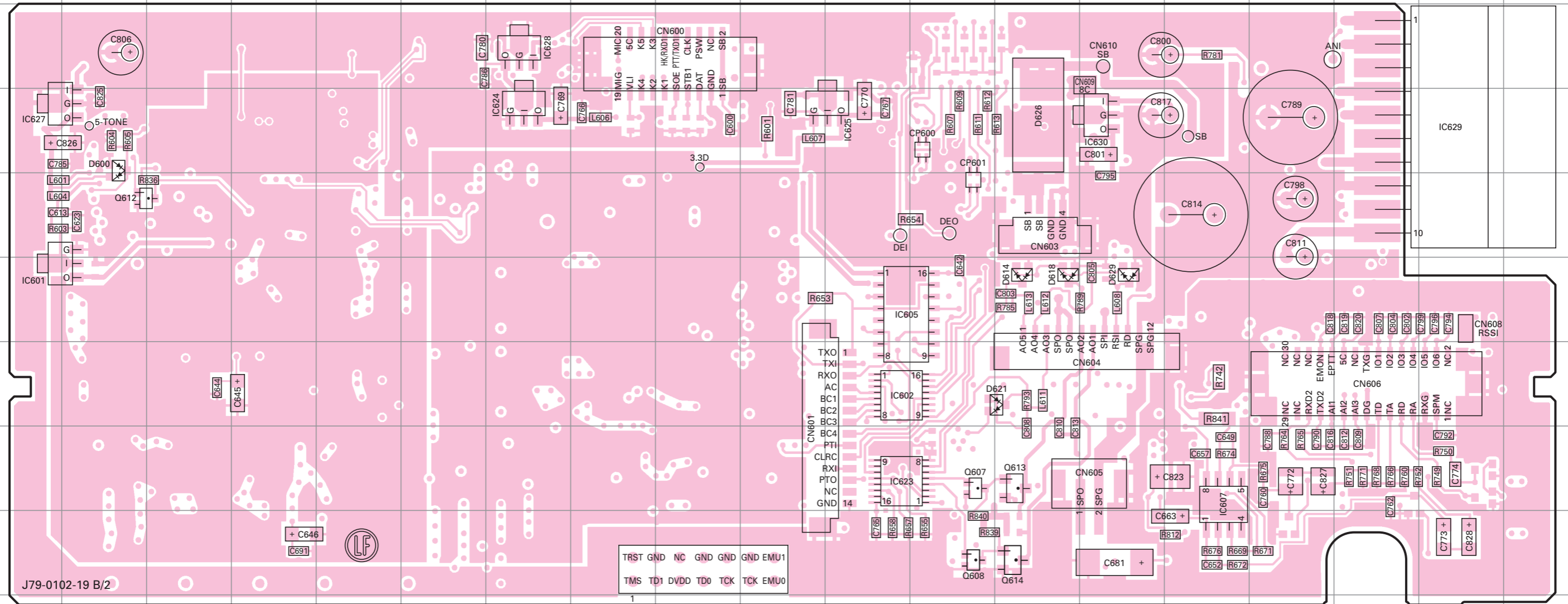


# TKR-851 PC BOARD

# PC BOARD TKR-851

TX-RX UNIT (X57-696X-XX) (B/2) 0-11 : K 2-70 : E 2-71 : E3  
Component side view (J79-0102-19 B/2)

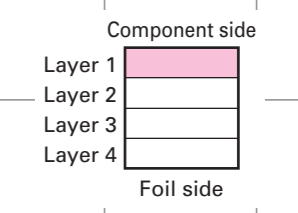
TX-RX UNIT (X57-696X-XX) (B/2) 0-11 : K 2-70 : E 2-71 : E3  
Component side view (J79-0102-19 B/2)



J79-0102-19 B/2

TRST	GND	NC	GND	GND	GND	EMU1
TMS	TD1	DVDD	TD0	TCK	TCK	EMU0

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC601	6A	IC628	3G	D600	4B
IC602	7K	IC629	4R	D614	6M
IC605	6K	IC630	4N	D618	6M
IC607	8O	Q607	8L	D621	7M
IC623	8K	Q608	9L	D626	4M
IC624	4G	Q612	5B	D629	6N
IC625	4K	Q613	8M		
IC627	4A	Q614	9M		

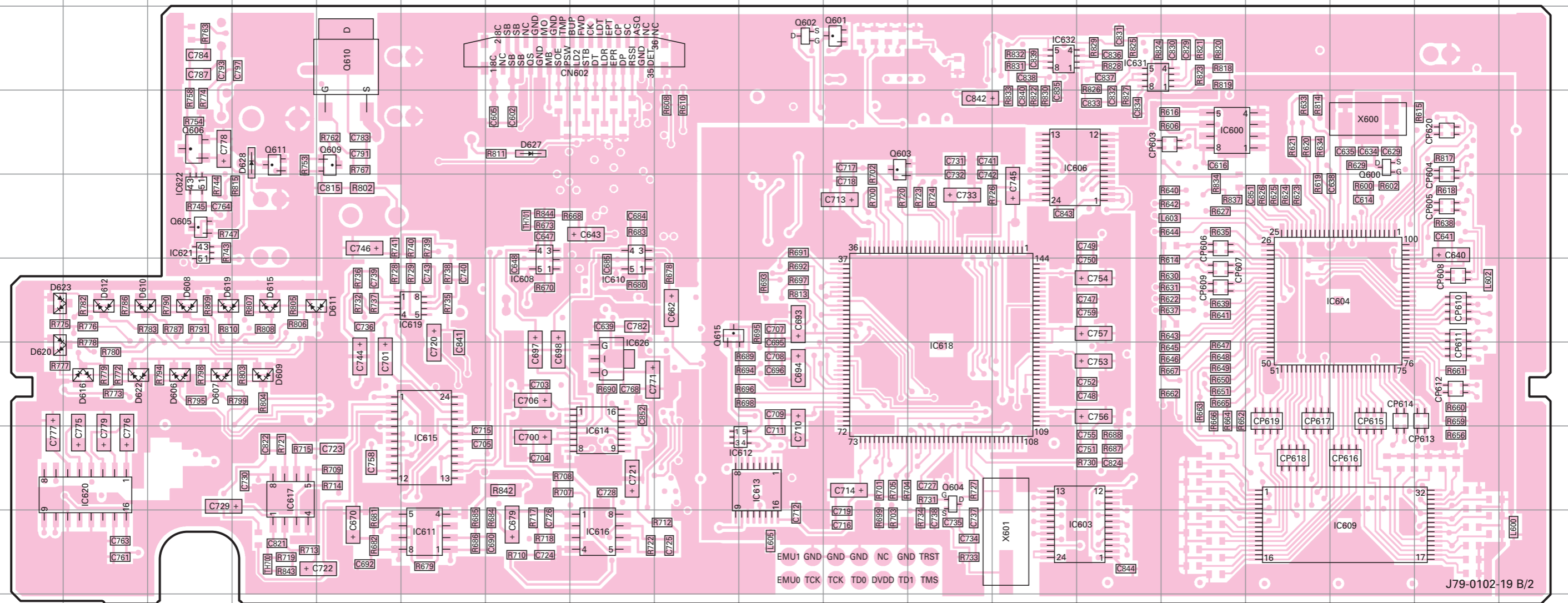


# TKR-851 PC BOARD

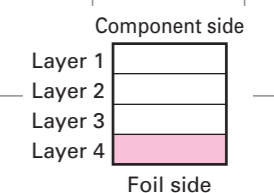
# PC BOARD TKR-851

TX-RX UNIT (X57-696X-XX) (B/2) 0-11 : K 2-70 : E 2-71 : E3  
Foil side view (J79-0102-19 B/2)

TX-RX UNIT (X57-696X-XX) (B/2) 0-11 : K 2-70 : E 2-71 : E3  
Foil side view (J79-0102-19 B/2)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC600	4O	IC612	8J	IC620	8B	Q602	3J	Q615	6I	D615	6D
IC603	9N	IC613	8J	IC621	5C	Q603	4K	D606	7C	D616	7B
IC604	6Q	IC614	8H	IC622	5C	Q604	8L	D607	7C	D619	6C
IC606	4M	IC615	8F	IC626	7H	Q605	5C	D608	6C	D620	7A
IC608	6G	IC616	9H	IC631	3N	Q606	4C	D609	7D	D622	7B
IC609	9Q	IC617	8D	IC632	3M	Q609	4E	D610	6B	D623	6A
IC610	6H	IC618	7L	Q600	4Q	Q610	3E	D611	6E	D627	4G
IC611	9F	IC619	6F	Q601	3K	Q611	4D	D612	6B	D628	4D

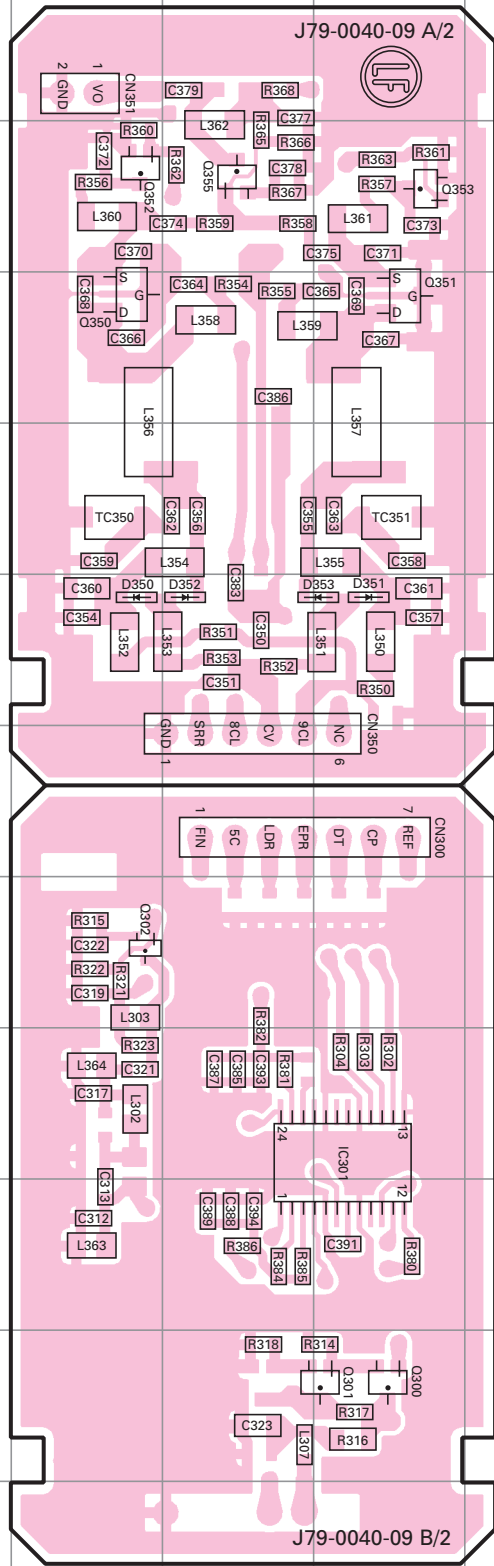
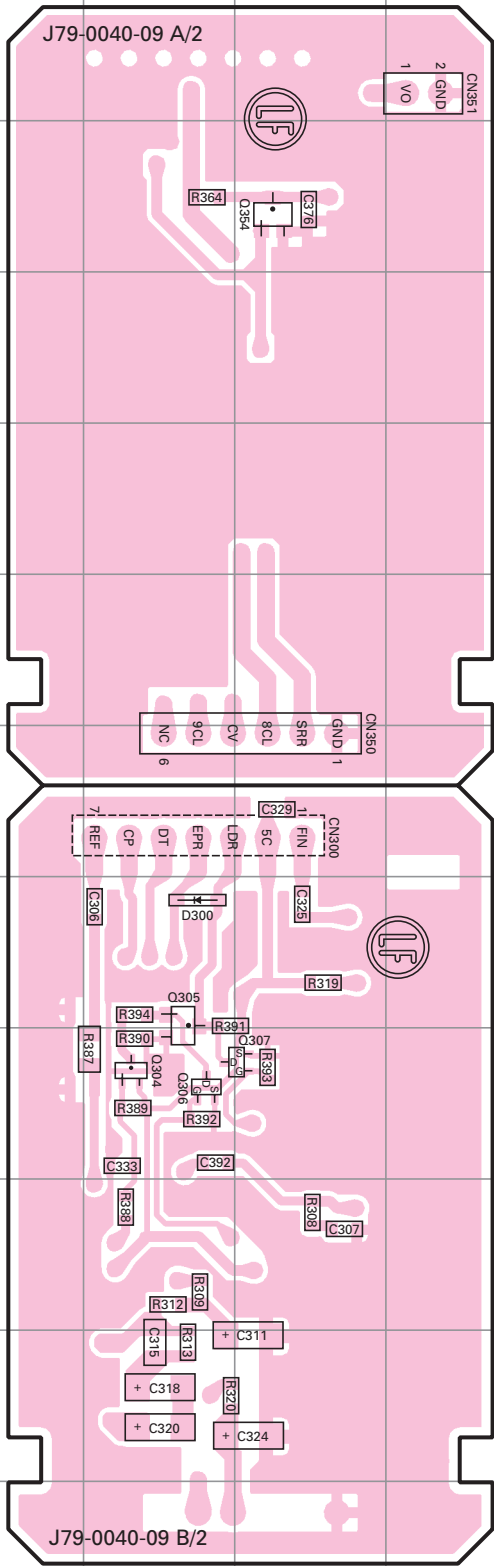


# TKR-851 PC BOARD

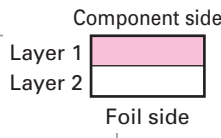
RX VCO UNIT (X58-496X-XX) 2-70 : K,E 2-71 : E3 (J79-0040-09)

Component side view

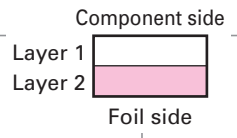
Foil side view



Ref. No.	Address
Q304	9B
Q305	8B
Q306	9B
Q307	9C
Q354	3C
D300	8B



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC301	9H	Q351	4H	D351	6H
Q300	11H	Q352	3F	D352	6G
Q301	11H	Q353	3H	D353	6H
Q302	8F	Q355	3G		
Q350	4F	D350	6F		

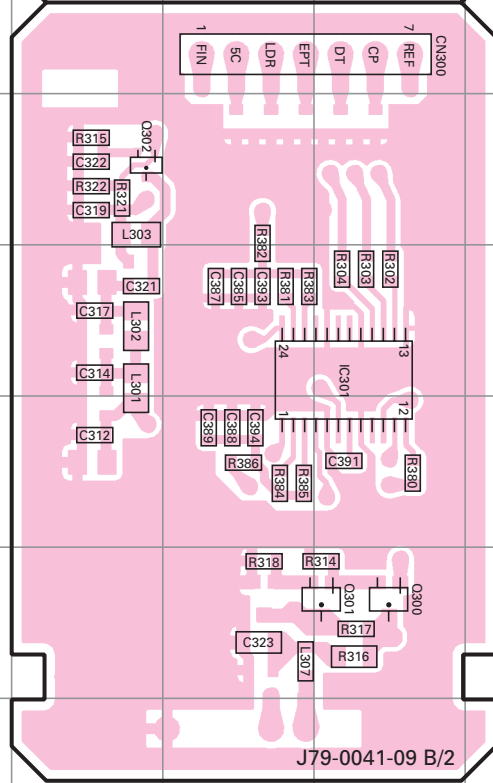
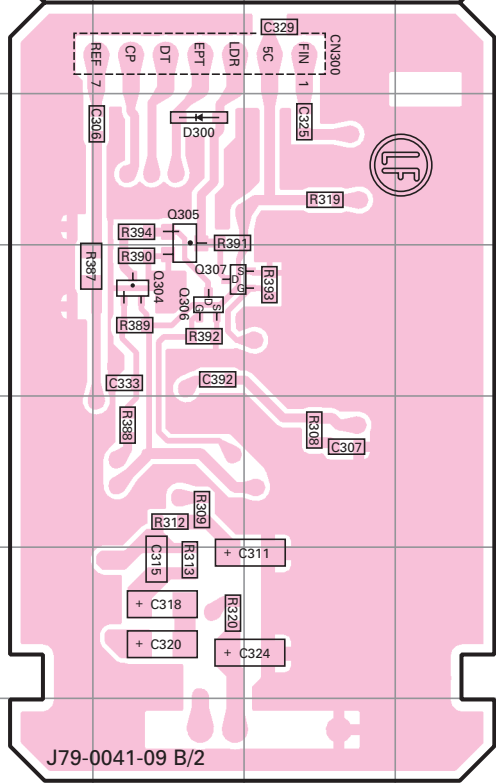
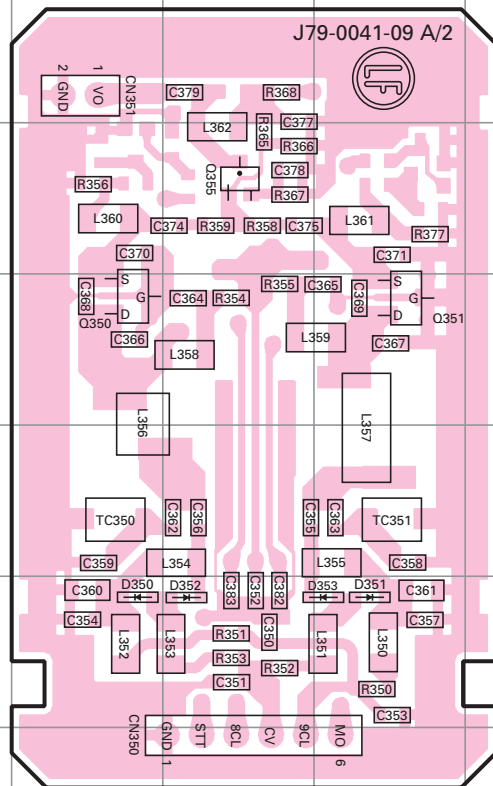
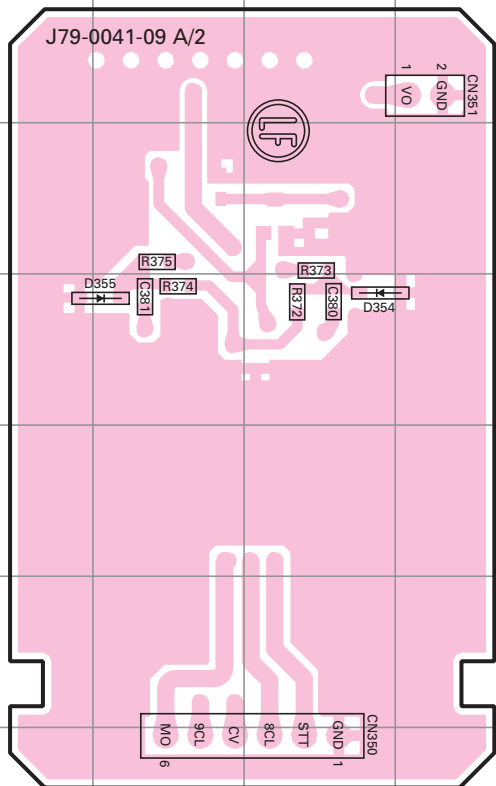


# PC BOARD TKR-851

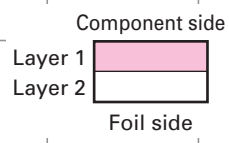
TX VCO UNIT (X58-497X-XX) 2-70 : K,E 2-71 : E3 (J79-0041-09)

Component side view

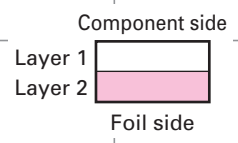
Foil side view



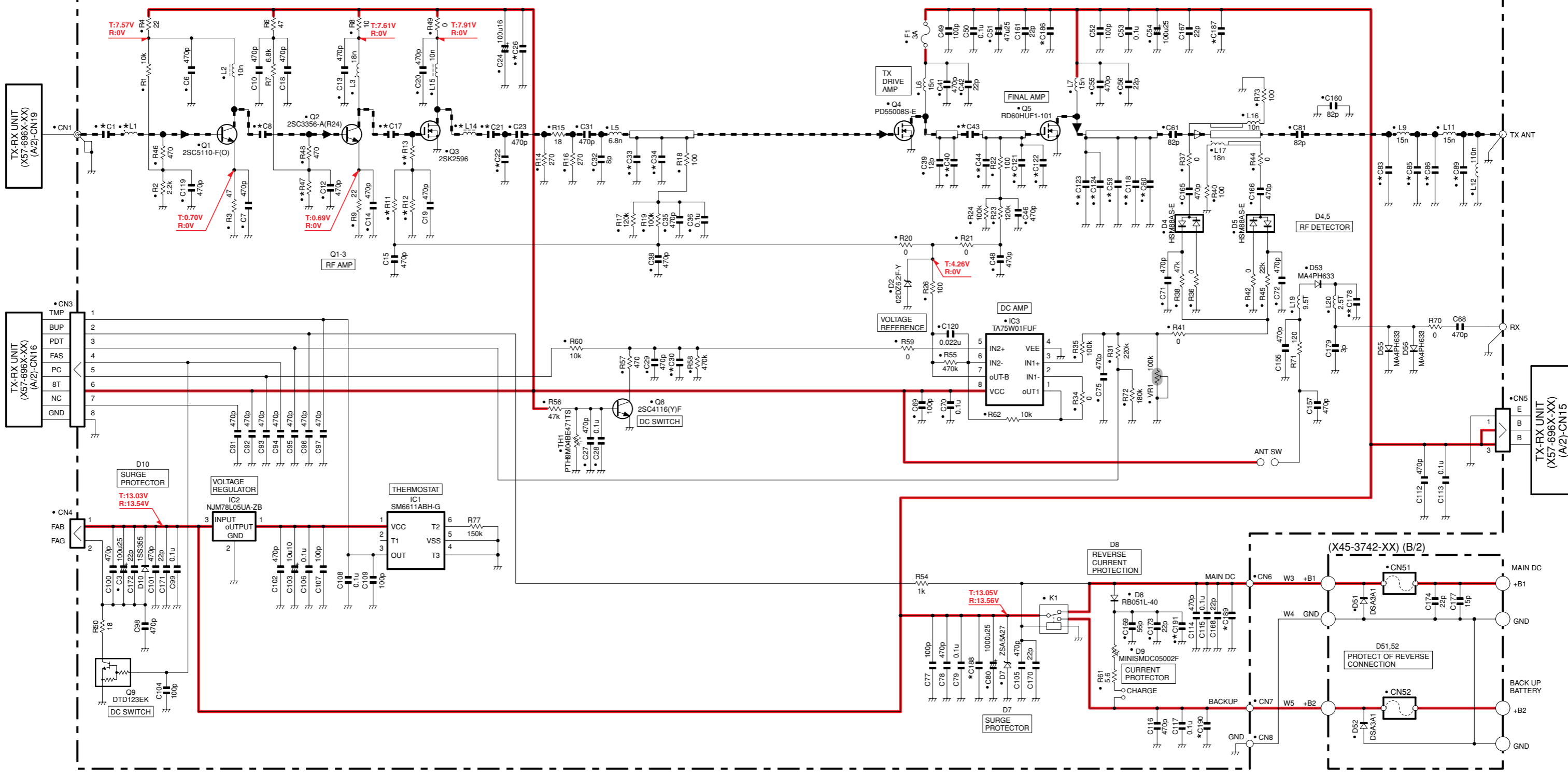
Ref. No.	Address	Ref. No.	Address
Q304	9B	D300	8B
Q305	8B	D354	4C
Q306	9B	D355	4B
Q307	9B		



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC301	9H	Q350	4F	D351	6H
Q300	11H	Q351	4H	D352	6G
Q301	11H	Q355	3G	D353	6H
Q302	8F	D350	6F		



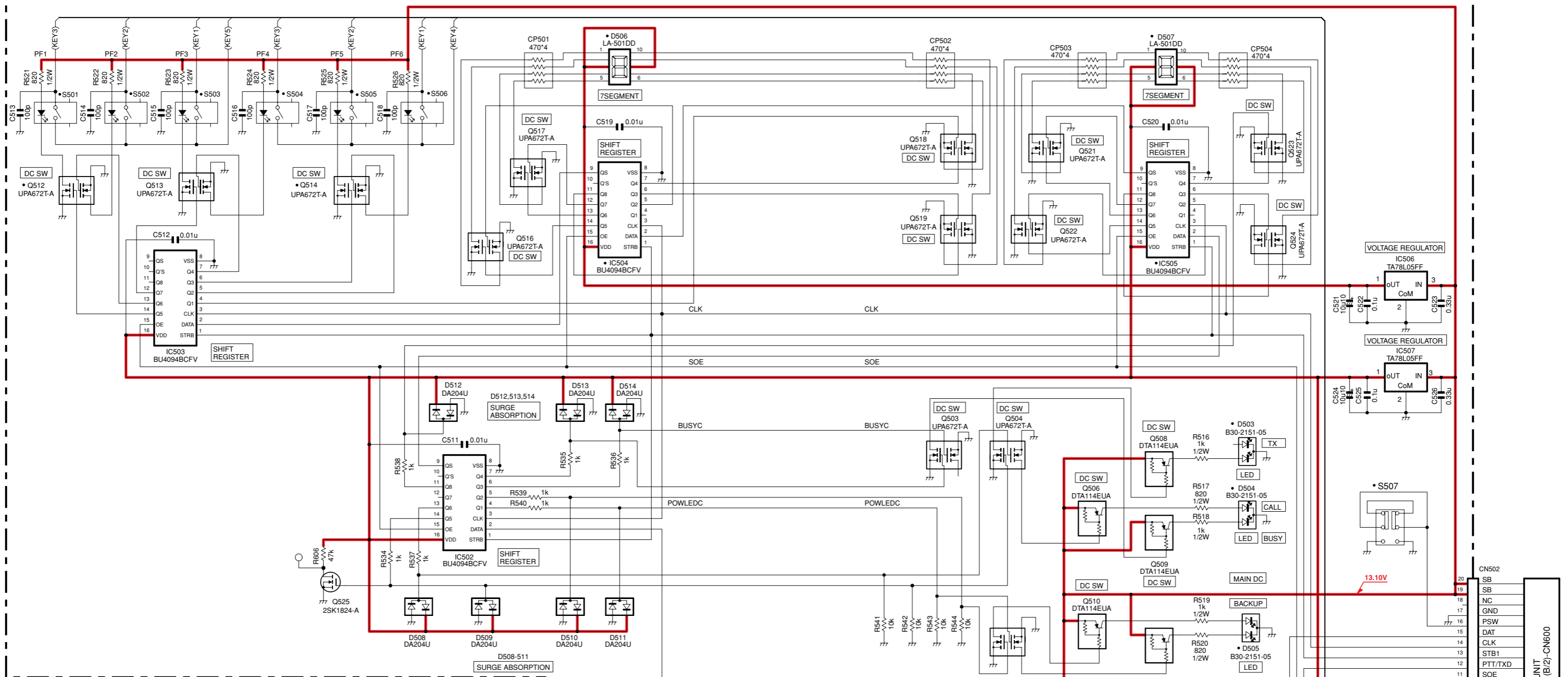
FINAL UNIT (X45-3742-XX) (A/2)



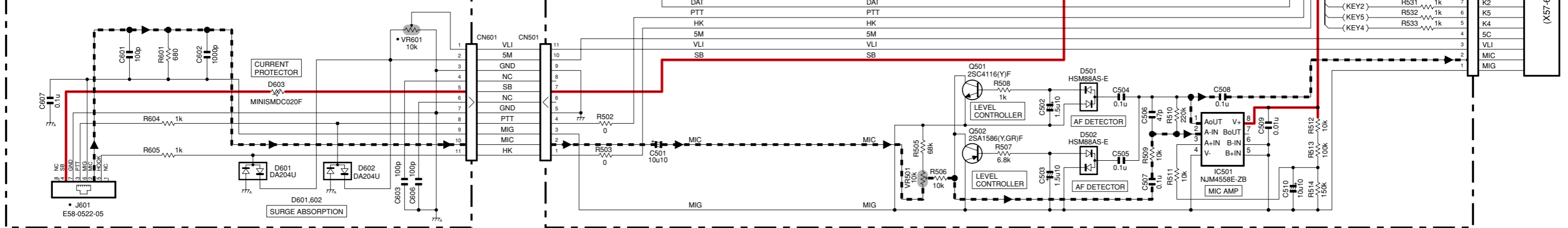
X45-3742-XX	L1	L14	R11	R12	R13	R47	C1	C8	C17	C21	C22	C26	C30	C33	C34
-71	K,E	10n	15n	100k	18k	47	2.2k	470p	8p	5p	12p	6p	470p	0.22u	27p
-72	E3	3.9n	10n	33k	15k	22	3.3k	10p	10p	7p	22p	12p	100p	0.47u	39p

X45-3742-XX	C40	C43	C44	C59	C60	C83	C85	C86	C89	C118	C121	C122	C123	C124	C178	C186	C187	C188	C189	C190	C191
-71	K,E	22p	22p	6p	15p	NO	6p	NO	10p	5p	8p	15p	15p	22p	22p	3p	NO	NO	NO	NO	NO
-72	E3	NO	24p	10p	33p	18p	7p	12p	NO	6p	NO	18p	18p	27p	27p	4p	82p	82p	82p	82p	82p

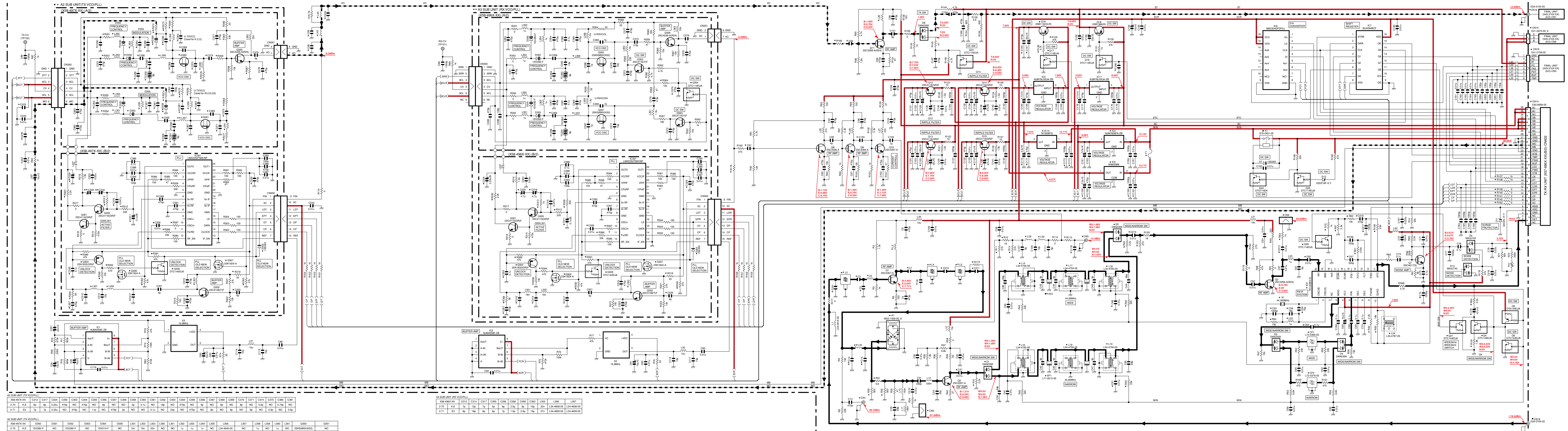
DISPLAY UNIT (X54-3580-20) (A/2)



DISPLAY UNIT (X54-3580-20) (B/2)







A2 SUB UNIT (TX VCO/PLL)

X58-497X-XX	C312	C317	C324	C333	C354	C355	C357	C358	C359	C360	C361	C362	C363	C364	C365	C366	C367	C368	C369	C370	C371	C374	C375	C380	C381
2-70	K	5p	5p	0.22u	470p	NO	470p	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-71	E3	7p	7p	0.33u	NO	470p	NO	11p	NO	470p	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

A2 SUB UNIT (TX VCO/PLL)

X58-497X-XX	D350	D351	D352	D353	D354	D355	L301	L302	L303	L305	L301	L302	L303	L304	L305	L306	L307	L308	L309	L300	L301	D350	D351
2-70	K	E	15V282-F	NO	15V214-F	NO	15u	15u	25u	NO	1u	1u	1u	NO	L34-4645-05	NO	NO	1u	NO	25k589N(VK52)	NO	NO	NO
2-71	E3	NO	15V282-F	NO	15V214-F	NO	15u	15u	27u	1u	1u	1u	NO	L34-4607-05	NO	1.5u	NO	1.5u	NO	25k589N(VK52)	NO	NO	NO

A2 SUB UNIT (TX VCO/PLL)

X58-497X-XX	R313	R350	R351	R352	R353	R355	R355	R359	R357	R373	R374	R375	R376	R377	TC350	TC351
2-70	K	E	1k	NO	0	NO	0	33	47	NO	100	180k	100k	NO	NO	0
2-71	E3	1.2k	NO	0	NO	0	NO	33	47	NO	100	180k	100k	NO	NO	0

A3 SUB UNIT (RX VCO/PLL)

X58-496X-XX	C314	C317	C355	C356	C358	C359	C363	L303	L306	L307			
2-70	K	E	7p	12p	7p	5p	5p	2.5u	3p	10u	22u	L34-4608-05	L34-4608-05
2-71	E3	NO	8p	18p	8p	6p	7p	1.5p	2.5p	15p	27u	L34-4609-05	L34-4609-05

A3 SUB UNIT (RX VCO/PLL)

X58-496X-XX	C314	C317	C355	C356	C358	C359	C363	L303	L306	L307			
2-70	K	E	7p	12p	7p	5p	5p	2.5u	3p	10u	22u	L34-4608-05	L34-4608-05
2-71	E3	NO	8p	18p	8p	6p	7p	1.5p	2.5p	15p	27u	L34-4609-05	L34-4609-05

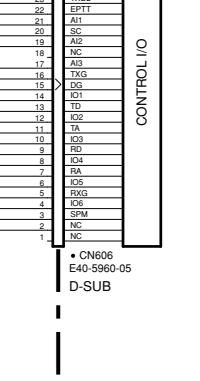
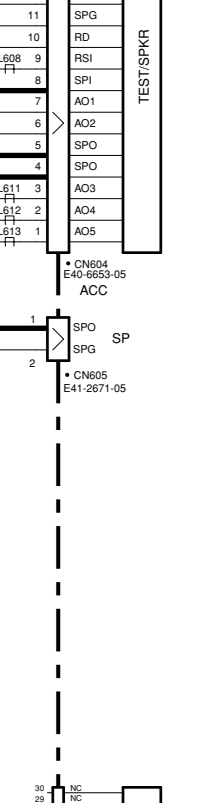
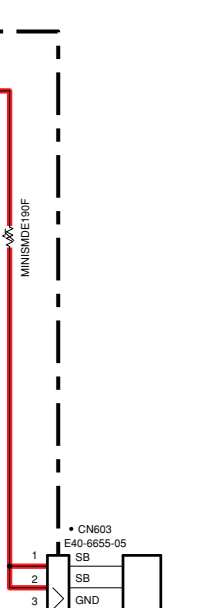
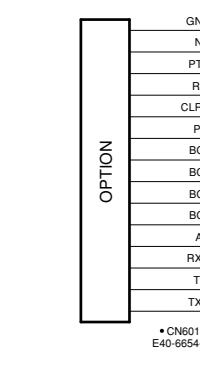
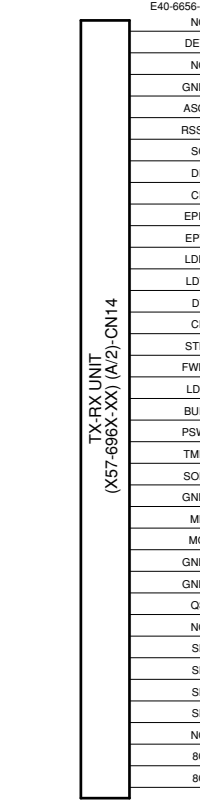
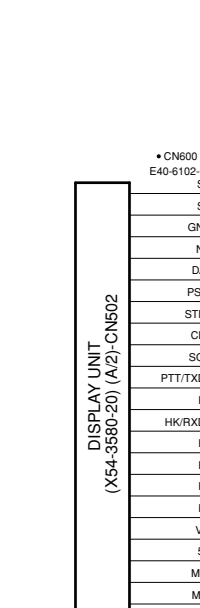
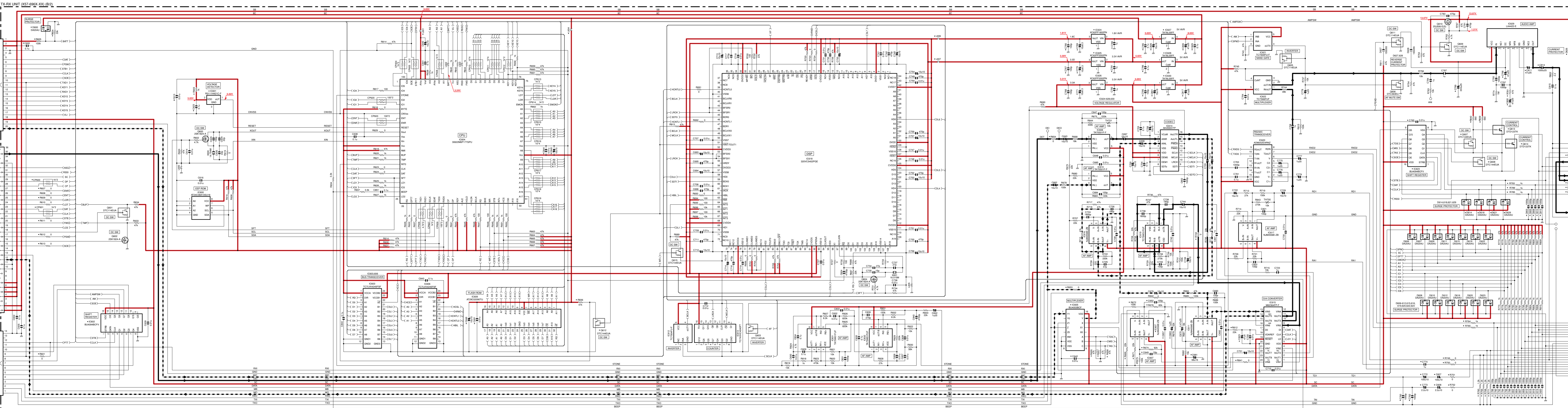
A3 SUB UNIT (RX VCO/PLL)

X57-696X-XX	A3	C31	R175		
2-70	K	E	X58-4962-70	4P	0
0-11	K	X58-4962-70	2P	100P	NO
2-71	E3	X58-4962-71	5P	300	NO

TX-RX UNIT

X57-696X-XX	C2	C3	C7	C8	C14	C15	C24	C100	C118	C211	C246	C251	L2	L3	L4	L5	L6	L26	L28	L29	L30	L33	R113	R168	R173	XF2
2-70	E	NO	12P	12P	0.5P	6P	6P	3P	NO	NO	NO	NO	L79-1849-05	18u	L79-1849-05	18u	15u	18u	18u	18u	15u	470	0	NO	L71-0627-05	
0-11	K	NO	12P	12P	0.5P	6P	6P	3P	NO	NO	NO	NO	L79-1849-05	18u	L79-1849-05	18u	15u	18u	18u	18u	15u	470	0	NO	L71-0612-05	
2-71	E3	1P	10P	1P	7P	7P	7P	6P	3P	10P	4.7u	3P	L79-1853-05	15u	L79-1853-05	15u	22u	22u	22u	22u	22u	2.2k	270	0	L71-0627-05	





- |   |                     |               |
|---|---------------------|---------------|
| A | :                   | N09-2292-05   |
| B | M2.6 x 6            | : N30-2606-48 |
| C | M4 x 6              | : N30-4006-48 |
| D | M4 x 14             | : N30-4014-48 |
| E | M4 x 20 BLK         | : N30-4020-43 |
| F | M3 x 6 (F)          | : N32-3006-48 |
| G | M4 x 8 (F) BLK      | : N32-4008-43 |
| J | M3 x 6 (Bi) BLK     | : N35-3006-43 |
| K | M4 x 6 (Bi) BLK     | : N35-4006-43 |
| L | M3 x 8              | : N67-3008-48 |
| M | M2.6 x 8 BLK        | : N80-2608-43 |
| N | M2.6 x 6 (Br-Tap)   | : N87-2606-48 |
| O | M3 x 5 (Br-Tap) BLK | : N87-3005-43 |
| P | M3 x 6 (Br-Tap)     | : N87-3006-48 |
| R | M3 x 14 (TP)        | : N90-3014-48 |

