

TK-480/481

SERVICE MANUAL

SUPPLEMENT II K3, K4, M4 versions

KENWOOD

JVC KENWOOD Corporation

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This service manual has been revised due to the modification of the LCD ASSY and issues it as a supplemental manual.

This service manual applies to products with B2200001 (TK-480), B2200001 (TK-481) or subsequent serial numbers. Refer to the TK-480/481 series service manual for any information which has not been covered in this manual.

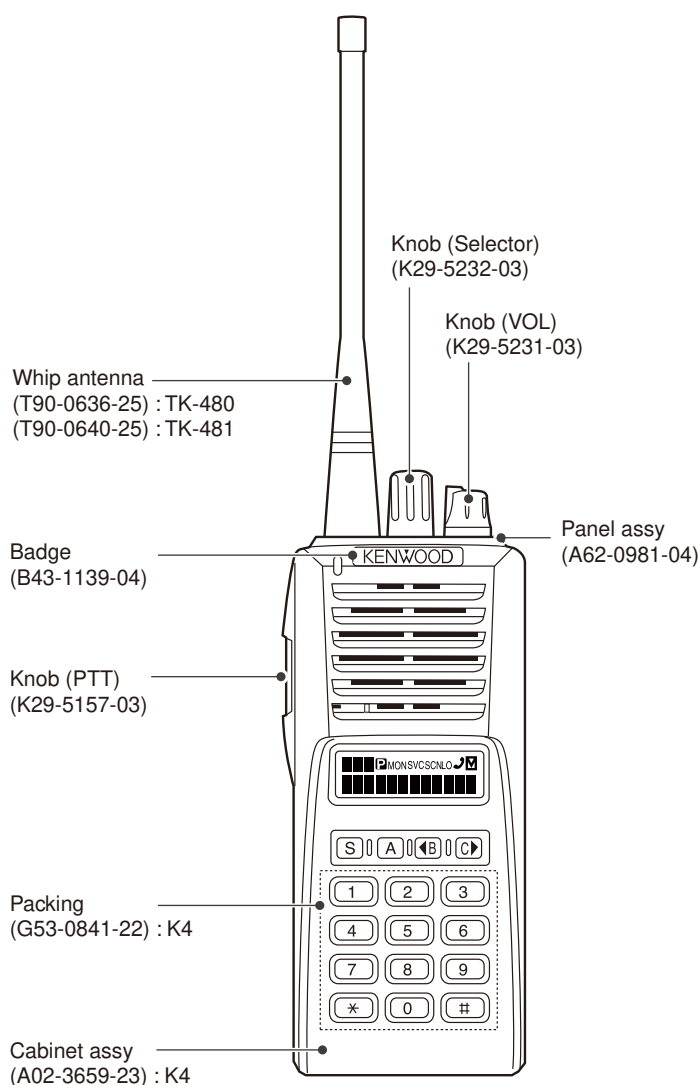


Illustration is TK-480/481 K4 type.

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CAUTION

When using an external power connector, please use with maximum final module protection of 9V.

TK-480/481

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GENERAL

SERVICE MANUAL LIST

Title	Part number	Remarks	Unit number	PCB number
TK-480/481	B51-8408-00	Hardware Ver. 1.0 ~ S/No. 212xxxxx	X57-5370-10: J	J72-0516-12
			X57-5630-10: S	J72-0516-22
TK-480/481 Revised	B51-8408-10		X57-5370-10: J	J72-0516-32
			X57-5630-10: S	J72-0516-32
TK-480/481 Revised II	B51-8408-20	Hardware Ver. 2.0 ~ S/No. 313xxxxx	X57-5630-10: S	J72-0812-02 J72-1006-09
TK-480 M2 Version	B51-8665-00 (PDF ONLY)	For TK-480 M2 Hardware Ver. 2.0	X57-5630-10: S	J72-0812-02 J72-1006-09
TK-480/481 Supplement K3, K4, M4 Versions	B51-8977-00 (PDF ONLY)	The modification of the PLL IC	X57-5630-10: S	J79-0201-09
TK-480/481 Supplement II K3, K4, M4 Versions	B53-7022-00 This service manual (PDF ONLY)	The modification of the LCD ASSY	X57-5630-10: S	J79-0201-19

Note: X57-5370-XX: Produced in Japan
X57-5630-XX: Produced in Singapore

DISASSEMBLY FOR REPAIR

Compatibility information

The LCD ASSY (B38-0892-15) has been discontinued by the supplier. A new LCD ASSY (B38-0951-05) has been applied to the X57-5630-XX and X54-3210-XX production.

TK-480 K3, K4, M4/ TK-481 K3, K4 TX-RX UNIT(X57-5630-XX), DISPLAY UNIT(X54-3210-XX)			
		OLD	NEW
		TX-RX UNIT: X57-5630-10/-11/-21 DISPLAY UNIT: X54-3210-10/-11 *1 (TK-480: S/No.B21xxxxx and earlier, TK-481: S/No.B21xxxxx and earlier)	TX-RX UNIT: X57-5630-12/-13/-22 DISPLAY UNIT: X54-3210-10/-11 *1 (TK-480: S/No.B2200001~, TK-481: S/No.B2200001~)
LCD ASSY		B38-0892-15	B38-0951-05
Microprocessor		30622MEP589GU	30622MEP599GU
Firmware	Version	Ver. 2.xx	Ver. 3.xx
	Checksum (K3, K4 type)	0AF3 (When the firmware version is Ver. 2.09.)	47C6 (When the firmware version is Ver. 3.09.)
	Checksum (M4 type)	D179 (When the firmware version is Ver. 2.28.)	DED7 (When the firmware version is Ver. 3.28.)
PC board	TX-RX (X57-5630-XX)	J79-0201-09	J79-0201-09 J79-0201-19
	DISPLAY (X54-3210-XX)	J72-0517-22	J72-0517-22

Compatibility Chart		LCD ASSY	
		OLD	NEW
		B38-0892-15	B38-0951-05
Unit	OLD *2 TX-RX: X57-5630-10/-11/-21 DISPLAY: X54-3210-10/-11 *1	Available	NOT available (The character does not appear.)
	NEW TX-RX: X57-5630-12/-13/-22 DISPLAY: X54-3210-10/-11 *1	NOT available (The character does not appear.)	Available

*1: The circuit fixed number of the LCD VCI section differs between the old Display unit (X54-3210-10/-11) and the new Display unit (X54-3210-10/-11).

*2: The following units were added as an object for service of old Display units.

OLD Display Unit	Display Unit for Service
X54-3210-10	X54-3210-14
X54-3210-11	X54-3210-15

PARTS LIST

CAPACITORS

$\frac{C}{1} \frac{C}{2} \frac{4}{3} \frac{5}{4} \frac{T}{5} \frac{H}{6} \frac{1}{J}$

1 = Type ... ceramic, electrolytic, etc.

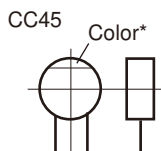
2 = Shape ... round, square, etc.

3 = Temp. coefficient

4 = Voltage rating

5 = Value

6 = Tolerance



• Capacitor value

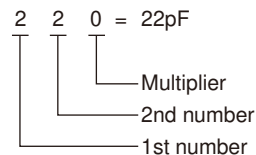
010 = 1pF

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

1st word \ 2nd 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	3150	4000	5000	6300	8000	-

• Chip capacitors

(EX) $\frac{C}{1} \frac{C}{2} \frac{7}{3} \frac{3}{4} \frac{F}{5} \frac{S}{6} \frac{L}{7} \frac{1}{J}$
 (Chip) (CH, RH, UJ, SL)

(EX) $\frac{C}{1} \frac{K}{2} \frac{7}{3} \frac{3}{4} \frac{F}{5} \frac{F}{6} \frac{1}{7} \frac{H}{J}$
 (Chip) (B, F)

Refer to the table above.

1 = Type

2 = Shape

3 = Dimension

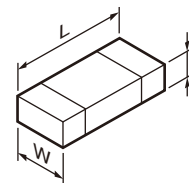
4 = Temp. coefficient

5 = Voltage rating

6 = Value

7 = Tolerance

• 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) $\frac{R}{1} \frac{D}{2} \frac{7}{3} \frac{3}{4} \frac{E}{5} \frac{B}{6} \frac{2}{J} \frac{B}{7}$
 (Chip) (B, F)

• Carbon resistor (Normal type)

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

1 = Type

2 = Shape

3 = Dimension

4 = Temp. coefficient

5 = Rating wattage

6 = Value

7 = Tolerance

PARTS LIST

* New Parts. △ 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

Y : PX (Far East, Hawaii)

C : China

K : USA

T : England

X : Australia

P : Canada

E : Europe

M : Other Areas

TK-480/481

DISPLAY UNIT (X54-3210-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
TK-480/481					
1	1A		A02-3658-23	PLASTIC CABINET ASSY(4KEY)	K5,K7
1	1A		A02-3659-23	PLASTIC CABINET ASSY(16KEY)	K6,M4,K8
2	2B		A62-0981-04	PANEL ASSY	
4	2C		B09-0363-03	CAP(SP/MIC) ACCESSORY	
5	2A	*	B38-0951-05	LCD ASSY	
6	1B		B43-1139-04	BADGE(KENWOOD)	
9	2C	*	B62-1483-10	INSTRUCTION MANUAL	K5,K6,K7
9	2C	*	B62-1483-10	INSTRUCTION MANUAL	K8
9	2C	*	B62-1771-20	INSTRUCTION MANUAL	M4
9	2C	*	B62-1877-10	INSTRUCTION MANUAL	K5,K6,K7
9	2C	*	B62-1877-10	INSTRUCTION MANUAL	K8
10	3A	*	B72-1968-14	MODEL NAME-PLATE	K5,K6
10	3A	*	B72-2244-14	MODEL NAME-PLATE	M4
10	3A	*	B72-2668-04	MODEL NAME-PLATE	K7
10	3A	*	B72-2669-04	MODEL NAME-PLATE	K8
12	3B		E04-0406-05	RF COAXIAL RECEPTACLE(SMA)	
15	2B		E23-1049-04	TERMINAL(ANT)	
51	3A		E23-1166-04	RELAY TERMINAL	
17	3A		E37-0673-05	LEAD WIRE WITH CONNECTOR(PTT)	
18	1A		E37-0674-15	LEAD WIRE WITH CONNECTOR(SP)	
16	2A		E37-1537-05	FLAT CABLE(CONT-TX-RX)	
19	3B		E58-0440-15	RECTANGULAR RECEPTACLE(SP/MIC)	
52	3A		E72-0412-13	TERMINAL BLOCK	
54	2A		F10-2248-13	SHIELDING CASE(VCO)	
56	2A		F10-2255-04	SHIELDING PLATE(P-MODULE)	
57	2A		F10-2310-13	SHIELDING PLATE(LCD)	
55	2A	*	F10-3100-03	SHIELDING PLATE(BAND PASS)	
-		*	F12-0494-04	SHIELDING SHEET(CHASSIS)	K7,K8
-			F20-1192-04	INSULATING SHEET(SHIELD CASE)	
-			F20-3303-04	INSULATING SHEET(MIC/GND)	
21	1A		G01-0881-04	COIL SPRING	
22	1B		G09-0418-05	KNOB SPRING(VOL,SELECTOR)	
23	1B		G10-0799-04	FIBROUS SHEET(SP)	
24	3A		G11-0800-04	SHEET(PTT)	
61	3A		G11-2544-04	SHEET(CHASSIS)	
-			G11-4402-04	SHEET(CASE BOTTOM)	
62	2A		G13-1731-04	CUSHION(LCD)	
63	3A,3B		G13-1762-04	CUSHION(VOL/CHASSIS)	
64	3A		G13-1834-04	CUSHION(TERMINAL)	
26	3B		G53-0811-03	PACKING(TOP)	
25	1A		G53-0840-22	PACKING(4KEY)	K5,K7
25	1A		G53-0841-22	PACKING(16KEY)	K6,M4,K8
65	3A		G53-1510-04	PACKING(BATT+)	
66	3A		G53-1520-24	PACKING(TERMINAL)	
67	3B		G53-1619-04	PACKING(SMA)	
-			H13-1072-04	CARTON BOARD(PACKING FIXTURE)	
29	3D	*	H52-1096-22	ITEM CARTON CASE	K5,M4,K6
29	3D		H52-1097-12	ITEM CARTON CASE	K7,K8
28	2D		H12-3014-02	PACKING FIXTURE	
31	1A		J19-1572-04	HOLDER	
68	2A		J21-8321-03	MOUNTING HARDWARE(P-MODULE)	
32	2C		J29-0734-05	BELT HOOK ASSY	

Ref. No.	Address	New parts	Parts No.	Description	Destination
34	3B		J82-0066-15	FPC(SOCKET)	
33	3B		J87-0017-05	FPC(VOL,SELECTOR)	
38	1B		K29-5157-03	KNOB(PTT)	
39	1B		K29-5158-03	KEY TOP(PTT)	
36	1B		K29-5231-03	KNOB(VOL)	
37	1B		K29-5232-03	KNOB(SELECTOR)	
40	1A		K29-9251-03	LEVER KNOB	
A	2B		N14-0834-04	CIRCULAR NUT(VOL,SELECTOR)	
B	3B	*	N30-2605-48	PAN HEAD MACHINE SCREW(ANT)	
C	3A		N30-2610-48	PAN HEAD MACHINE SCREW(CASE)	
D	2A		N67-2606-48	PAN HEAD SEMS SCREW(P-MODULE)	
E	2A,1B		N83-2005-48	PAN HEAD TAPTITE SCREW(UNIT)	
F	3A	*	N09-6616-05	TAPTITE SCREW(TERMINAL)	
42	2C		N99-2004-15	SCREW SET ACCESSORY	
44	3B		R31-0617-05	VARIABLE RESISTOR	
S300	-		S70-0414-05	TACT SWITCH	
46	1A		T07-0714-15	SPEAKER	
47	2C		T90-0636-25	WHIP ANTENNA(800MHZ)	ACCESSORY K5,M4,K6
47	2C		T90-0640-25	WHIP ANTENNA(900MHZ)	ACCESSORY K7,K8
MIC300	1A		T91-0579-05	MIC ELEMENT	
49	2B		W02-1814-05	ENCODER	

DISPLAY UNIT (X54-3210-XX) -10: K3 -11: K4, M4					
D301			B30-2019-05	LED(RED/GREEN)	BUSY/TX
D305-310			B30-2171-05	LED(ORANGE)	BACKLIGHT
D305,306			B30-2171-05	LED(ORANGE)	BACKLIGHT
C301			CC73GCH1H470J	CHIP C	47PF J
C302			CS77BA0J100M	CHIP TINTL	10UF 6.3WV
C304			CK73FB1C474K	CHIP C	0.47UF K
C305			CC73GCH1H101J	CHIP C	100PF J
C307			CK73GB1C104K	CHIP C	0.10UF K
C308			CC73GCH1H101J	CHIP C	100PF J
C309			CK73FB1C474K	CHIP C	0.47UF K
C310			CK73GB1C104K	CHIP C	0.10UF K
C311			CC73GCH1H470J	CHIP C	47PF J
C312			CK73GB1C104K	CHIP C	0.10UF K
C313			CS77BA1A100M	CHIP TINTL	10UF 10WV
C314		*	CS77MP0G3R3M	CHIP TINTL	3.3UF 4WV
C315			CC73GCH1H101J	CHIP C	100PF J
C316,317			CC73GCH1H470J	CHIP C	47PF J
C318			CC73GCH1H101J	CHIP C	100PF J
C321-333			CC73GCH1H470J	CHIP C	47PF J
C335-339			CC73GCH1H470J	CHIP C	47PF J
C340			CK73GB1E153K	CHIP C	0.015UF K
C341-344			CC73GCH1H470J	CHIP C	47PF J
CN300		*	E40-6948-05	FLAT CABLE CONNECTOR(24P)	
CN301		*	E40-5892-15	FLAT CABLE CONNECTOR(14P)	
CN302			E41-2539-05	PIN ASSY(SP)	
CN303			E41-3086-05	PIN ASSY(PTT)	
CN304			E40-6452-05	FLAT CABLE CONNECTOR(LCD)	

K5:TK-480(K3), K6:TK-480(K4),
 K7:TK-481(K3), K8:TK-481(K4),
 M4:TK-480(M4)

PARTS LIST

DISPLAY UNIT (X54-3210-XX)

TX-RX UNIT (X57-5630-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
L300,301 L302,303 L304,305 L306,307 L308,309			L92-0470-05 L92-0138-05 L92-0470-05 L92-0138-05 L92-0470-05	CHIP FERRITE CHIP FERRITE CHIP FERRITE CHIP FERRITE CHIP FERRITE	
CP300,301 CP302,303 CP303 R300 R301			RK74GA1J473J RK75GB1J102J RK75GB1J102J RK73GB2A103J RK73FB2B101J	CHIP-COM 47K J 1/16W CHIP-COM 1.0K J 1/16W CHIP-COM 1.0K J 1/16W CHIP R 10K J 1/10W CHIP R 100 J 1/8W	K6,M4,K8 K5,K7
R302 R303 R304 R305 R306			RK73GB2A470J RK73GB2A471J RK73GB2A182J RK73GB2A104J RK73GB2A000J	CHIP R 47 J 1/10W CHIP R 470 J 1/10W CHIP R 1.8K J 1/10W CHIP R 100K J 1/10W CHIP R 0 J 1/10W	
R307 R308 R309 R310 R311			RK73GB2A821J RK73GB2A153J RK73GB2A000J RK73GB2A331J RK73GB2A102J	CHIP R 820 J 1/10W CHIP R 15K J 1/10W CHIP R 0 J 1/10W CHIP R 330 J 1/10W CHIP R 1.0K J 1/10W	
R312 R313,314 R315 R316 R317			RK73GB2A104J RK73GB2A102J RK73GB2A104J RK73GB2A473J RK73GB2A472J	CHIP R 100K J 1/10W CHIP R 1.0K J 1/10W CHIP R 100K J 1/10W CHIP R 47K J 1/10W CHIP R 4.7K J 1/10W	
R318 R319 R319-321 R324 R324,325			RK73GB2A104J RK73GB2A820J RK73GB2A820J RK73GB2A102J RK73GB2A102J	CHIP R 100K J 1/10W CHIP R 82 J 1/10W CHIP R 82 J 1/10W CHIP R 1.0K J 1/10W CHIP R 1.0K J 1/10W	K5,K7 K6,M4,K8 K5,K7 K6,M4,K8
R326 R327 R328 R331 R332			RK73GB2A183J RK73GB2A104J RK73GB2A000J RK73GB2A103J RK73GB2A272J	CHIP R 18K J 1/10W CHIP R 100K J 1/10W CHIP R 0 J 1/10W CHIP R 10K J 1/10W CHIP R 2.7K J 1/10W	
R333 R336 R337 R338-341			RK73GB2A000J RK73GB2A000J RK73GB2A472J RK73GB2A101J	CHIP R 0 J 1/10W CHIP R 0 J 1/10W CHIP R 4.7K J 1/10W CHIP R 100 J 1/10W	
S301-303			S70-0457-05	TACT SWITCH	
D300 D302 D303 D304 D315			NNCD6.8G 1SS373F 015AZ2.4(X)F DA2S101 IMN10	ZENER DIODE DIODE ZENER DIODE DIODE DIODE	K6,M4,K8
D316,317 D317 D318 D319-321 IC300			DA2S101 DA2S101 IMN10 * KDZ6.8EV-P TDA7053AT	DIODE DIODE DIODE ZENER DIODE BI-POLAR IC	K6,M4,K8 K5,K7
IC301 Q300 Q301 Q302-304 Q306 Q307		*	TC74HC4017AFF 2SJ243-A UPA672T-A 2SC4617(S) 2SC4617(S) 2SB798AZ(DLDK)	MOS-IC FET FET TRANSISTOR TRANSISTOR TRANSISTOR	
Q308 Q309 Q310			UPA672T-A 2SC4617(S) 2SK1824-A	FET TRANSISTOR FET	

Ref. No.	Address	New parts	Parts No.	Description	Destination
TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481					
C1 ,2 C3 ,4 C5 C6 C7			CK73GB1E103K CC73GCH1H101J CK73GB1E103K CS77BA0J4R7M CC73GCH1H101J	CHIP C 0.010UF K CHIP C 100PF J CHIP C 0.010UF K CHIP TNTL 4.7UF 6.3WV CHIP C 100PF J	
C8 C9 C10 C11 C12 ,13			CK73GB1C683K CK73GB1C104K CS77BA0J4R7M CK73GB1C104K CS77BA0J4R7M	CHIP C 0.068UF K CHIP C 0.10UF K CHIP TNTL 4.7UF 6.3WV CHIP C 0.10UF K CHIP TNTL 4.7UF 6.3WV	
C14 C15 C16 ,17 C18 C19 -23		*	CS77BP0J010M CC73GCH1H100D CC73GCH1H101J CK73GB1C104K CC73GCH1H101J	CHIP TNTL 1.0UF 6.3WV CHIP C 10PF D CHIP C 100PF J CHIP C 0.10UF K CHIP C 100PF J	
C24 C25 C26 C27 C28 -30			CS77BA0J4R7M CK73FB1A105K CK73GB1E123K CK73GB1C104K CC73GCH1H101J	CHIP TNTL 4.7UF 6.3WV CHIP C 1.0UF K CHIP C 0.012UF K CHIP C 0.10UF K CHIP C 100PF J	
C31 C32 C33 C34 C35			CK73GB1C104K CK73GB1H472K CK73GB1H471K CS77BA0J100M CK73GB1C333K	CHIP C 0.10UF K CHIP C 4700PF K CHIP C 470PF K CHIP TNTL 10UF 6.3WV CHIP C 0.033UF K	
C36 C37 C38 C39 C40			CC73GCH1H820J CS77BA0J100M CC73GCH1H101J CC73GCH1H221J CC73GCH1H101J	CHIP C 82PF J CHIP TNTL 10UF 6.3WV CHIP C 100PF J CHIP C 220PF J CHIP C 100PF J	
C41 C42 C43 C44 C45		*	CK73FB1C334K CK73GB1E103K CS77MP1A4R7M CS77BA0J150M CC73GCH1H220J	CHIP C 0.33UF K CHIP C 0.010UF K CHIP TNTL 4.7UF 10WV CHIP TNTL 15UF 6.3WV CHIP C 22PF J	
C46 C47 C48 C49 ,50 C51			CC73GCH1H221J CK73GB1E223K CC73GCH1H220J CK73GB1H102K CK73GB1E223K	CHIP C 220PF J CHIP C 0.022UF K CHIP C 22PF J CHIP C 1000PF K CHIP C 0.022UF K	
C52 C54 C55 C56 C57			CK73GB1H102K CK73GB1H102K CC73GCH1H150J CK73GB1H222K CK73GB1C683K	CHIP C 1000PF K CHIP C 1000PF K CHIP C 15PF J CHIP C 2200PF K CHIP C 0.068UF K	K7,K8
C57 C58 C59 C60 C61			CK73GB1E153K CK73GB1C104K CC73GCH1H101J CC73GCH1H100D CC73GCH1H040C	CHIP C 0.015UF K CHIP C 0.10UF K CHIP C 100PF J CHIP C 10PF D CHIP C 4.0PF C	K5,M4,K6 K7,K8
C62 C63 C64 C65 C66			CK73GB1E103K CC73GCH1H101J CC73GCH1H271J CK73GB1H103K CK73GB1C104K	CHIP C 0.010UF K CHIP C 100PF J CHIP C 270PF J CHIP C 0.010UF K CHIP C 0.10UF K	
C67 C68 C69			CK73GB1H122J CC73GCH1H040C CC73GCH1H101J	CHIP C 1200PF J CHIP C 4.0PF C CHIP C 100PF J	K7,K8

PARTS LIST

TX-RX UNIT (X57-5630-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti- nation	Ref. No.	Address	New parts	Parts No.	Description	Desti- nation
C70 -72			CK73GB1E103K	CHIP C 0.010UF K		C136			CC73GCH1H030C	CHIP C 3.0PF C	
C74			CK73GB1C104K	CHIP C 0.10UF K		C137			CC73GCH1H101J	CHIP C 100PF J	
C75			CK73GB1C333K	CHIP C 0.033UF K		C138			CK73GB1E103K	CHIP C 0.010UF K	
C76			CK73GB1C104K	CHIP C 0.10UF K		C139			CC73GCH1H020C	CHIP C 2.0PF C	K7,K8
C77			CK73GB1H562J	CHIP C 5600PF J		C139			CC73GCH1H3R5B	CHIP C 3.5PF B	K5,M4,K6
C78			CK73GB1E103K	CHIP C 0.010UF K		C140			CK73FB1A105K	CHIP C 1.0UF K	
C79			CC73GCH1H121J	CHIP C 120PF J		C141			CK73GB1H472K	CHIP C 4700PF K	
C80			CK73GB1C683K	CHIP C 0.068UF K		C142,143			CC73GCH1H101J	CHIP C 100PF J	
C81			CC73GCH1H101J	CHIP C 100PF J		C144			CK73GB1C273K	CHIP C 0.027UF K	
C82 ,83			CK73GB1H562J	CHIP C 5600PF J		C145,146			CC73GCH1H101J	CHIP C 100PF J	
C84			CC73GCH1H150J	CHIP C 15PF J		C147,148			CK73HB1C103K	CHIP C 0.010UF K	
C85			CK73GB1H272J	CHIP C 2700PF J		C149			CC73GCH1H040C	CHIP C 4.0PF C	
C86			CK73GB1C333K	CHIP C 0.033UF K		C150,151			CC73GCH1H101J	CHIP C 100PF J	
C87			CC73GCH1H030C	CHIP C 3.0PF C		C152			CC73GCH1H020C	CHIP C 2.0PF C	
C89 ,90			CK73GB1H272J	CHIP C 2700PF J		C153			CC73GCH1H101J	CHIP C 100PF J	
C91			CK73GB1E103K	CHIP C 0.010UF K		C154			CK73GB1C104K	CHIP C 0.10UF K	
C92			CK73GB1C104K	CHIP C 0.10UF K		C155			CC73GCH1H101J	CHIP C 100PF J	
C93			CC73GCH1H151J	CHIP C 150PF J		C156			CS77BA0J4R7M	CHIP TNTL 4.7UF 6.3WV	
C94			CC73GCH1H101J	CHIP C 100PF J		C157			CC73GCH1H1R5C	CHIP C 1.5PF C	K5,M4,K6
C95		*	CS77AA1A3R3M	CHIP TNTL 3.3UF 10WV		C158			CC73GCH1H120J	CHIP C 12PF J	
C96			CK73GB1H122K	CHIP C 1200PF K	K5,M4,K6	C159			CK73FB1H563K	CHIP C 0.056UF K	
C96 ,97			CK73GB1H102K	CHIP C 1000PF K	K7,K8	C160,161			CC73GCH1H101J	CHIP C 100PF J	
C97			CK73GB1H102K	CHIP C 1000PF K	K5,M4,K6	C162			CC73GCH1H120J	CHIP C 12PF J	
C98			CC73GCH1H030C	CHIP C 3.0PF C		C163			CK73FB1C474K	CHIP C 0.47UF K	
C99			CC73GCH1H020B	CHIP C 2.0PF B	K5,M4,K6	C164,165			CC73GCH1H101J	CHIP C 100PF J	
C99			CC73GCH1H1R5B	CHIP C 1.5PF B	K7,K8	C166			CC73GCH1HR75C	CHIP C 0.75PF C	K7,K8
C100			CC73GCH1H391J	CHIP C 390PF J	K5,M4,K6	C166			CC73GCH1H010C	CHIP C 1.0PF C	K5,M4,K6
C100			CK73GB1H821K	CHIP C 820PF K	K7,K8	C167			CC73GCH1H101J	CHIP C 100PF J	
C101			CS77BA0J100M	CHIP TNTL 10UF 6.3WV		C168			CC73GCH1H0R5B	CHIP C 0.5PF B	K5,M4,K6
C102			CK73GB1C104K	CHIP C 0.10UF K		C168			CC73GCH1H2R5B	CHIP C 2.5PF B	K7,K8
C103,104			CC73GCH1H101J	CHIP C 100PF J		C169-172			CC73GCH1H101J	CHIP C 100PF J	
C105			CK73GB1C473K	CHIP C 0.047UF K		C173			CC73GCH1H010B	CHIP C 1.0PF B	K5,M4,K6
C106-108			CK73GB1C104K	CHIP C 0.10UF K		C173			CC73GCH1H1R5B	CHIP C 1.5PF B	K7,K8
C109			CS77BA0J4R7M	CHIP TNTL 4.7UF 6.3WV		C175			CC73GCH1H010B	CHIP C 1.0PF B	K5,M4,K6
C110			CC73GCH1H1R5B	CHIP C 1.5PF B		C175			CC73GCH1H2R5B	CHIP C 2.5PF B	K7,K8
C111,112			CK73GB1C104K	CHIP C 0.10UF K		C176			CC73GCH1HR75C	CHIP C 0.75PF C	K7,K8
C113			CK73GB1C473K	CHIP C 0.047UF K		C177			CK73GB1E103K	CHIP C 0.010UF K	
C114,115			CK73GB1H332K	CHIP C 3300PF K	K7,K8	C178			CC73GCH1H220J	CHIP C 22PF J	
C114,115			CK73GB1H472K	CHIP C 4700PF K	K5,M4,K6	C184			CC73GCH1H030C	CHIP C 3.0PF C	
C116			CK73HB1H102K	CHIP C 1000PF K		C185			CC73GCH1H101J	CHIP C 100PF J	
C117			CC73HCH1H470J	CHIP C 47PF J		C186			CC73GCH1H1R5C	CHIP C 1.5PF C	
C118			CK73GB1E103K	CHIP C 0.010UF K		C187			CC73GCH1H101J	CHIP C 100PF J	
C119			CC73GCH1HR75C	CHIP C 0.75PF C	K5,M4,K6	C188-191			CC73GCH1H470J	CHIP C 47PF J	
C119			CC73GCH1H010C	CHIP C 1.0PF C	K7,K8	C192			CC73GCH1H101J	CHIP C 100PF J	
C120			CC73GCH1H101J	CHIP C 100PF J		C193			CC73GCH1H020C	CHIP C 2.0PF C	K5,M4,K6
C121			CK73GB1E153K	CHIP C 0.015UF K		C193			CC73GCH1H1R5C	CHIP C 1.5PF C	K7,K8
C122			CC73GCH1H030C	CHIP C 3.0PF C	K7,K8	C194-199			CC73GCH1H101J	CHIP C 100PF J	
C122			CC73GCH1H1R5C	CHIP C 1.5PF C	K5,M4,K6	C200			CK73GB1E103K	CHIP C 0.010UF K	
C123			CS77BA0J4R7M	CHIP TNTL 4.7UF 6.3WV		C201			CC73GCH1H470J	CHIP C 47PF J	
C124			CK73GB1E103K	CHIP C 0.010UF K		C202			CK73GB1E103K	CHIP C 0.010UF K	
C125			CK73GB1H102K	CHIP C 1000PF K		C203			CC73GCH1H470J	CHIP C 47PF J	
C126			CK73GB1C104K	CHIP C 0.10UF K		C204			CS77AA1ER47M	CHIP TNTL 0.47UF 25WV	
C127-129			CC73GCH1H101J	CHIP C 100PF J		C205,206			CK73HB1C103K	CHIP C 0.010UF K	
C130			CC73GCH1H100D	CHIP C 10PF D		C207			CK73GB1C104K	CHIP C 0.10UF K	
C131			CC73GCH1H101J	CHIP C 100PF J		C208,209			CC73GCH1H101J	CHIP C 100PF J	
C132			CC73GCH1HR75C	CHIP C 0.75PF C	K7,K8	C211,212			CK73GB1C104K	CHIP C 0.10UF K	
C132			CC73GCH1H010C	CHIP C 1.0PF C	K5,M4,K6	C213			CK73HB1E103K	CHIP C 0.010UF K	
C133			CC73GCH1H101J	CHIP C 100PF J		C214			CK73HB1A104K	CHIP C 0.10UF K	
C134			CC73GCH1H010B	CHIP C 1.0PF B	K5,M4,K6	C215			CK73HB1H102K	CHIP C 1000PF K	
C135			CC73GCH1H101J	CHIP C 100PF J		C216			CK73HB1E103K	CHIP C 0.010UF K	

K5:TK-480(K3), K6:TK-480(K4),
 K7:TK-481(K3), K8:TK-481(K4),
 M4:TK-480(M4)

PARTS LIST

TX-RX UNIT (X57-5630-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
C217			CC73HCH1H560J	CHIP C 56PF J		L25			L92-0149-05	CHIP FERRITE	
C218			CK73HB1H102K	CHIP C 1000PF K		L26			L92-0138-05	CHIP FERRITE	
C219			CC73HCH1H101J	CHIP C 100PF J		L27			L40-6875-54	SMALL FIXED INDUCTOR(68NH)	
C221			CK73HB1H102K	CHIP C 1000PF K		L28			L34-4605-15	AIR-CORE COIL	
C222			CK73HB1E103K	CHIP C 0.010UF K		L29			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	K5,M4,K6
C224			CC73HCH1H101J	CHIP C 100PF J		L29			L40-1575-92	SMALL FIXED INDUCTOR(15NH)	K7,K8
C225			CK73HB1H102K	CHIP C 1000PF K		L30			L79-1468-05	FILTER MODULE	K5,M4,K6
C226			CK73HB1A104K	CHIP C 0.10UF K		L30			L79-1469-05	FILTER MODULE	K7,K8
C227			CC73HCH1H101J	CHIP C 100PF J		L31			L34-4604-15	AIR-CORE COIL	
C228			CK73HB1H102K	CHIP C 1000PF K		L32			L40-6875-54	SMALL FIXED INDUCTOR(68NH)	
C229			CK73HB1A104K	CHIP C 0.10UF K		L34			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	K7,K8
C230			CC73HCH1H101J	CHIP C 100PF J		L34			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	K5,M4,K6
C231			CK73HB1H102K	CHIP C 1000PF K		L35			L92-0138-05	CHIP FERRITE	
C232			CK73HB1A104K	CHIP C 0.10UF K		L53 -56			L92-0138-05	CHIP FERRITE	
C233,234			CK73GB1E103K	CHIP C 0.010UF K		X1			L77-1760-15	CRYSTAL RESONATOR(44.395MHZ)	
C242			CK73GB1E103K	CHIP C 0.010UF K	K5,M4,K6	X2			L77-3028-05	TCXO(16.8MHZ)	
C261,262			CK73HB1C103K	CHIP C 0.010UF K		X3			L77-1708-15	CRYSTAL RESONATOR(3.579545MHZ)	
C263			CS77BA1A100M	CHIP TNTL 10UF 10WV		X4		*	L77-3038-05	CRYSTAL RESONATOR(9.8304MHZ)	
CN1			E40-6452-05	FLAT CABLE CONNECTOR(10P)		XF1			L71-0501-05	MCF(44.85MHZ)	K5,M4,K6
CN2		*	E40-6468-05	PIN ASSY(4P)		XF1			L71-0502-05	MCF(44.85MHZ)	K7,K8
CN3		*	E40-6667-05	FLAT CABLE CONNECTOR(24P)		CP1			RK75GB1J472J	CHIP-COM 4.7K J 1/16W	
CN4 -9		*	E23-1002-15	TERMINAL		CP3			R90-0743-05	MULTIPLE RESISTOR	
CN10		*	E23-1293-05	TEST TERMINAL		CP5			R90-0743-05	MULTIPLE RESISTOR	
CN11,12		*	E23-1002-15	TERMINAL		CP6 -21			R90-0741-05	MULTIPLE RESISTOR	
F1			F53-0392-05	FUSE(3A)		CP22			R90-0743-05	MULTIPLE RESISTOR	
CD1			L79-1834-05	TUNING COIL		CP24			R90-0743-05	MULTIPLE RESISTOR	
CF1 ,2			L72-0939-05	CERAMIC FILTER(455KHZ)	K7,K8	R1 ,2			RK73GB2A104J	CHIP R 100K J 1/10W	
CF1 ,2			L72-1032-05	CERAMIC FILTER(455KHZ)	K5,M4,K6	R3			RK73GB2A473J	CHIP R 47K J 1/10W	
IC14			L78-1428-15	VCO	K5,M4,K6	R4			RK73GB2A563J	CHIP R 56K J 1/10W	
L1			L92-0149-05	CHIP FERRITE		R5			RK73GB2A104J	CHIP R 100K J 1/10W	
L3			L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)		R6			RK73GB2A103J	CHIP R 10K J 1/10W	
L4			L40-4791-86	SMALL FIXED INDUCTOR(4.7UH)		R7			RK73GB2A104J	CHIP R 100K J 1/10W	
L5			L92-0138-05	CHIP FERRITE		R8			RK73GB2A183J	CHIP R 18K J 1/10W	K5,M4,K6
L6 ,7			L40-3985-45	SMALL FIXED INDUCTOR(0.39UH)		R8			RK73GB2A273J	CHIP R 27K J 1/10W	K7,K8
L9 ,10			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	K7,K8	R9			RK73GB2A154J	CHIP R 150K J 1/10W	
L9 ,10			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	K5,M4,K6	R10			RK73GB2A334J	CHIP R 330K J 1/10W	
L11		*	L79-1921-15	DIELECTRIC FILTER(860MHZ)	K5,M4,K6	R11			RK73GB2A223J	CHIP R 22K J 1/10W	K7,K8
L11		*	L79-1923-15	DIELECTRIC FILTER(938MHZ)	K7,K8	R11			RK73GB2A473J	CHIP R 47K J 1/10W	K5,M4,K6
L12			L92-0138-05	CHIP FERRITE		R12			RK73GB2A104J	CHIP R 100K J 1/10W	
L13			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	K7,K8	R13			RK73GB2A683J	CHIP R 68K J 1/10W	
L13 ,14			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	K5,M4,K6	R14			RK73GB2A394J	CHIP R 390K J 1/10W	
L14			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	K7,K8	R15			RK73GB2A472J	CHIP R 4.7K J 1/10W	
L15			L40-2763-92	SMALL FIXED INDUCTOR(2.7NH)	K7,K8	R16			RK73GB2A104J	CHIP R 100K J 1/10W	
L15			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	K5,M4,K6	R17			RK73GB2A473J	CHIP R 47K J 1/10W	
L16			L92-0138-05	CHIP FERRITE		R18			RK73GB2A332J	CHIP R 3.3K J 1/10W	
L17			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	K5,M4,K6	R19			RK73GB2A152J	CHIP R 1.5K J 1/10W	
L17			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	K7,K8	R20			RK73GB2A683J	CHIP R 68K J 1/10W	
L18			L40-2275-92	SMALL FIXED INDUCTOR(22NH)	K5,M4,K6	R21			RK73GB2A154J	CHIP R 150K J 1/10W	
L18			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	K7,K8	R22			RK73GB2A182J	CHIP R 1.8K J 1/10W	
L19			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	K5,M4,K6	R23			RK73GB2A124J	CHIP R 120K J 1/10W	K7,K8
L19			L40-1275-92	SMALL FIXED INDUCTOR(12NH)	K7,K8	R23			RK73GB2A563J	CHIP R 56K J 1/10W	K5,M4,K6
L20		*	L79-1922-15	DIELECTRIC FILTER(860MHZ)	K5,M4,K6	R24			RK73GB2A274J	CHIP R 270K J 1/10W	
L20		*	L79-1924-15	DIELECTRIC FILTER(938MHZ)	K7,K8	R25			RK73GB2A473J	CHIP R 47K J 1/10W	
L21			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	K7,K8	R26			RK73GB2A332J	CHIP R 3.3K J 1/10W	
L21			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	K5,M4,K6	R27			RK73GB2A222J	CHIP R 2.2K J 1/10W	
L22 ,23			L92-0138-05	CHIP FERRITE		R28			RK73GB2A220J	CHIP R 22 J 1/10W	
L24			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	K7,K8	R29			RK73GB2A123J	CHIP R 12K J 1/10W	K7,K8
L24			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	K5,M4,K6	R29			RK73GB2A183J	CHIP R 18K J 1/10W	K5,M4,K6
						R31			CK73HB1J472J	CHIP R 4.7K J 1/16W	
						R32			RK73GB2A000J	CHIP R 0 J 1/10W	

PARTS LIST

TX-RX UNIT (X57-5630-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
R33			RK73GB2A123J	CHIP R 12K J 1/10W		R95			RK73GB2A150J	CHIP R 15 J 1/10W	
R34			RK73GB2A334J	CHIP R 330K J 1/10W		R96			RK73GB2A223J	CHIP R 22K J 1/10W	
R35			RK73GB2A101J	CHIP R 100 J 1/10W		R97			RK73GB2A104J	CHIP R 100K J 1/10W	
R36			RK73GB2A472J	CHIP R 4.7K J 1/10W		R98			RK73GB2A184J	CHIP R 180K J 1/10W	
R37			RK73GB2A104J	CHIP R 100K J 1/10W		R99			RK73GB2A121J	CHIP R 120 J 1/10W	K5,M4,K6
R38			RK73GB2A151J	CHIP R 150 J 1/10W		R100			RK73GB2A221J	CHIP R 220 J 1/10W	K7,K8
R39			RK73GB2A560J	CHIP R 56 J 1/10W		R100			RK73GB2A820J	CHIP R 82 J 1/10W	K5,M4,K6
R40			RK73GB2A681J	CHIP R 680 J 1/10W		R101			RK73GB2A223J	CHIP R 22K J 1/10W	
R41			RK73GB2A471J	CHIP R 470 J 1/10W		R102			RK73GB2A182J	CHIP R 1.8K J 1/10W	
R42,43			RK73HB1J101J	CHIP R 100 J 1/16W		R103			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R44			RK73FB2B000J	CHIP R 0 J 1/8W		R104			RK73HB1J000J	CHIP R 0 J 1/16W	
R45			RN73GH1J913D	CHIP R 91K D 1/16W		R105			RK73GB2A122J	CHIP R 1.2K J 1/10W	
R46			RN73GH1J683D	CHIP R 68K D 1/16W		R106			RK73GB2A473J	CHIP R 47K J 1/10W	
R47			RN73GH1J913D	CHIP R 91K D 1/16W		R107			RK73GB2A103J	CHIP R 10K J 1/10W	
R48			RN73GH1J333D	CHIP R 33K D 1/16W		R108			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R49			RK73GB2A684J	CHIP R 680K J 1/10W		R109			RK73GB2A470J	CHIP R 47 J 1/10W	
R50			RK73GB2A564J	CHIP R 560K J 1/10W		R110			RK73GB2A473J	CHIP R 47K J 1/10W	
R51			RK73GB2A331J	CHIP R 330 J 1/10W		R111			RK73GB2A223J	CHIP R 22K J 1/10W	
R53			RN73GH1J274D	CHIP R 270K D 1/16W		R112			RK73GB2A103J	CHIP R 10K J 1/10W	
R54			RK73GB2A334J	CHIP R 330K J 1/10W		R113			RK73GB2A101J	CHIP R 100 J 1/10W	K5,M4,K6
R55			RN73GH1J913D	CHIP R 91K D 1/16W		R113			RK73GB2A220J	CHIP R 22 J 1/10W	K7,K8
R56			RK73GB2A223J	CHIP R 22K J 1/10W		R114			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R57			RK73GB2A334J	CHIP R 330K J 1/10W		R115			RK73GB2A681J	CHIP R 680 J 1/10W	
R58			RN73GH1J682D	CHIP R 6.8K D 1/16W		R116			RK73HB1J000J	CHIP R 0 J 1/16W	
R59			RK73GB2A154J	CHIP R 150K J 1/10W		R117			RK73GB2A470J	CHIP R 47 J 1/10W	
R60			RK73GB2A101J	CHIP R 100 J 1/10W		R118			RK73GB2A000J	CHIP R 0 J 1/10W	
R61			RK73GB2A155J	CHIP R 1.5M J 1/10W		R120			RK73HB1J102J	CHIP R 1.0K J 1/16W	
R62			RK73GB2A101J	CHIP R 100 J 1/10W		R121			RK73GB2A473J	CHIP R 47K J 1/10W	
R63			RN73GH1J683D	CHIP R 68K D 1/16W		R122			RK73GB2A000J	CHIP R 0 J 1/10W	
R64			RK73GB2A474J	CHIP R 470K J 1/10W		R123			RK73HB1J102J	CHIP R 1.0K J 1/16W	
R65			RK73GB2A390J	CHIP R 39 J 1/10W	K5,M4,K6	R124,125			RK73HB1J473J	CHIP R 47K J 1/16W	
R65			RK73GB2A560J	CHIP R 56 J 1/10W	K7,K8	R126			RK73GB2A103J	CHIP R 10K J 1/10W	
R66			RN73GH1J682D	CHIP R 6.8K D 1/16W		R127-129			RK73EB2ER39K	CHIP R 0.39 K 1/4W	
R67			RK73GB2A101J	CHIP R 100 J 1/10W		R130-135			RN73GH1J154D	CHIP R 150K D 1/16W	
R71			RK73GB2A224J	CHIP R 220K J 1/10W		R136,137			RK73GB2A271J	CHIP R 270 J 1/10W	
R72			RK73GB2A151J	CHIP R 150 J 1/10W	K5,M4,K6	R138			RK73HB1J103J	CHIP R 10K J 1/16W	
R72			RK73GB2A331J	CHIP R 330 J 1/10W	K7,K8	R139			RK73HB1J000J	CHIP R 0 J 1/16W	
R73			RK73GB2A103J	CHIP R 10K J 1/10W		R140			RK73GB2A103J	CHIP R 10K J 1/10W	
R74			RK73GB2A223J	CHIP R 22K J 1/10W		R141,142			RK73GB2A104J	CHIP R 100K J 1/10W	
R75			RK73GB2A152J	CHIP R 1.5K J 1/10W		R143			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R76			RK73GB2A103J	CHIP R 10K J 1/10W		R144			RK73GB2A473J	CHIP R 47K J 1/10W	
R77			RK73GB2A153J	CHIP R 15K J 1/10W		R145			RK73GB2A000J	CHIP R 0 J 1/10W	
R78			RK73GB2A102J	CHIP R 1.0K J 1/10W		R146			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R79			RK73HB1J473J	CHIP R 47K J 1/16W		R147			RK73GB2A000J	CHIP R 0 J 1/10W	
R80			RK73GB2A394J	CHIP R 390K J 1/10W	K5,M4,K6	R148			RK73GB2A223J	CHIP R 22K J 1/10W	
R80			RK73GB2A684J	CHIP R 680K J 1/10W	K7,K8	R149			RK73HB1J473J	CHIP R 47K J 1/16W	
R81			RK73GB2A102J	CHIP R 1.0K J 1/10W		R150			RK73HB1J102J	CHIP R 1.0K J 1/16W	
R82			RK73GB2A333J	CHIP R 33K J 1/10W	K5,M4,K6	R151			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R82			RK73GB2A393J	CHIP R 39K J 1/10W	K7,K8	R152			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R83			RK73GB2A000J	CHIP R 0 J 1/10W		R153			RK73GB2A123J	CHIP R 12K J 1/10W	
R84			RK73GB2A473J	CHIP R 47K J 1/10W		R154			RK73GB2A221J	CHIP R 220 J 1/10W	
R85			RK73GB2A681J	CHIP R 680 J 1/10W		R155			RK73GB2A101J	CHIP R 100 J 1/10W	
R86			RK73GB2A154J	CHIP R 150K J 1/10W		R156			RK73GB2A103J	CHIP R 10K J 1/10W	
R87			RK73GB2A470J	CHIP R 47 J 1/10W		R157			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R88			RK73GB2A220J	CHIP R 22 J 1/10W		R158			RK73GB2A223J	CHIP R 22K J 1/10W	
R89			RK73GB2A103J	CHIP R 10K J 1/10W		R159			RK73HB1J101J	CHIP R 100 J 1/16W	
R90			RK73GB2A104J	CHIP R 100K J 1/10W		R160			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R91			RK73GB2A100J	CHIP R 10 J 1/10W		R161,162			RK73GB2A184J	CHIP R 180K J 1/10W	
R92,93			RK73GB2A150J	CHIP R 15 J 1/10W		R163			RK73GB2A104J	CHIP R 100K J 1/10W	
R94			RK73GB2A272J	CHIP R 2.7K J 1/10W		R164			RK73GB2A473J	CHIP R 47K J 1/10W	

K5:TK-480(K3), K6:TK-480(K4),
K7:TK-481(K3), K8:TK-481(K4),
M4:TK-480(M4)

TK-480/481

PARTS LIST

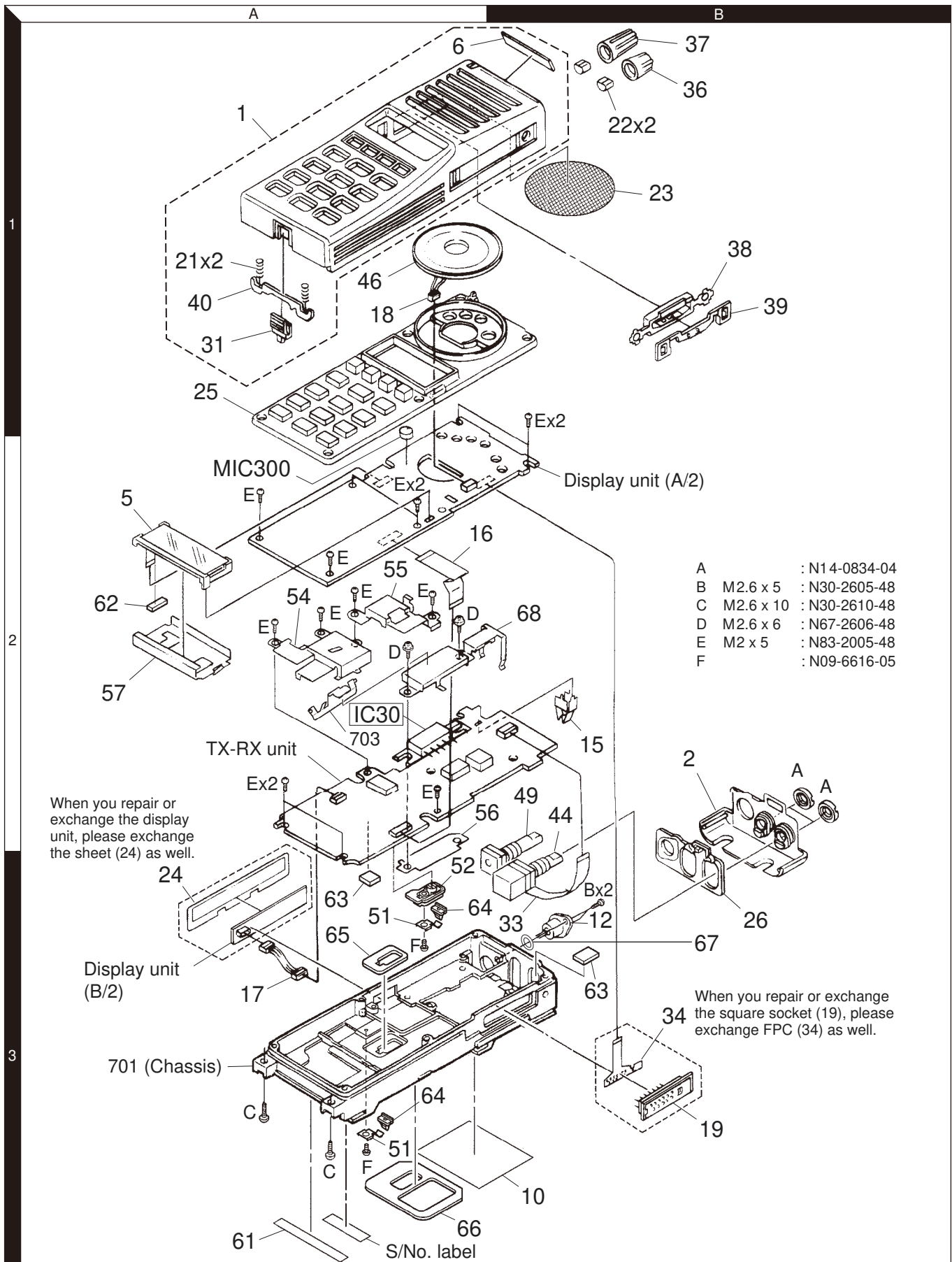
TX-RX UNIT (X57-5630-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R165			RK73GB2A000J	CHIP R 0 J 1/10W	K7,K8	IC21			NJM2904V-ZB	MOS-IC	
R165			RK73GB2A150J	CHIP R 15 J 1/10W	K5,M4,K6	IC23			TA75S01F-F	MOS-IC	
R166			RK73HB1J220J	CHIP R 22 J 1/16W		IC30	2A		RA03M8087M101	MOS-IC(POWER MODULE)	K5,M4,K6
R167			RK73GB2A123J	CHIP R 12K J 1/10W		IC30	2A		RA03M8894M101	MOS-IC(POWER MODULE)	K7,K8
R168			RK73GB2A333J	CHIP R 33K J 1/10W		Q1			2SJ243-A	FET	
R169			RK73GB2A223J	CHIP R 22K J 1/10W		Q3 ,4			2SC4617(S)	TRANSISTOR	
R170			RK73GB2A473J	CHIP R 47K J 1/10W		Q5			2SC4619	TRANSISTOR	K5,M4,K6
R171			RK73GB2A823J	CHIP R 82K J 1/10W		Q5			2SC5108(Y)F	TRANSISTOR	K7,K8
R172			RK73HB1J103J	CHIP R 10K J 1/16W		Q6			3SK318	FET	
R173			RK73HB1J100J	CHIP R 10 J 1/16W		Q7			2SK1824-A	FET	
R174,175			RK73HB1J221J	CHIP R 220 J 1/16W		Q8			2SC5108(Y)F	TRANSISTOR	
R176			RK73HB1J220J	CHIP R 22 J 1/16W		Q9			3SK274*J-FP	FET	
R177-179			RK73GB2A000J	CHIP R 0 J 1/10W	K5,M4,K6	Q10 ,11			2SC5108(Y)F	TRANSISTOR	
R177-180			RK73GB2A000J	CHIP R 0 J 1/10W	K7,K8	Q12			2SC4988-E	TRANSISTOR	
R190			RK73GB2A182J	CHIP R 1.8K J 1/10W	K5,M4,K6	Q13			2SK1824-A	FET	
R200-207			RK73HB1J102J	CHIP R 1.0K J 1/16W		Q14			LTC014EEBFS8	TRANSISTOR	
R211			RK73HB1J103J	CHIP R 10K J 1/16W		Q15			LTA044EEBFS8	TRANSISTOR	
R218			RK73HB1J473J	CHIP R 47K J 1/16W		Q16			LTC014EEBFS8	TRANSISTOR	
R248			RK73GB2A000J	CHIP R 0 J 1/10W		Q17			2SC5108(Y)F	TRANSISTOR	
R250			RK73GB2A000J	CHIP R 0 J 1/10W		Q18			2SK1824-A	FET	
R259			RK73GB2A000J	CHIP R 0 J 1/10W		Q19			2SC4617(S)	TRANSISTOR	
R276			RK73GB2A000J	CHIP R 0 J 1/10W		Q20			LTC044EEBFS8	TRANSISTOR	
R297,298			RK73HB1J473J	CHIP R 47K J 1/16W		Q21 -23			2SK1824-A	FET	
R299			RK73GB2A101J	CHIP R 100 J 1/10W		Q24		*	KTA2014E-P(GR	TRANSISTOR	
R300			RK73HB1J472J	CHIP R 4.7K J 1/16W		Q25			2SC4725	TRANSISTOR	K5,M4,K6
R408			RK73HB1J473J	CHIP R 47K J 1/16W		TH2			157-503-65001	THERMISTOR	
R417			RK73GB2A474J	CHIP R 470K J 1/10W							
R418			RK73GB2A104J	CHIP R 100K J 1/10W							
R419-422			RK73GB2A000J	CHIP R 0 J 1/10W							
R423			RK73GB2A473J	CHIP R 47K J 1/10W							
D1			GN1G	DIODE							
D2			DA2S101	DIODE							
D3			MA3J742	DIODE							
D4 ,5		*	DA2S00100	DIODE							
D6			UDZW4.7(B)	ZENER DIODE							
D7			HVU131-E	DIODE							
D8			DA2S101	DIODE							
D9 ,10		*	DA2S00100	DIODE							
D11			MA3J742	DIODE							
D12			KDS120E-P	DIODE							
D17 ,18			KDS123E-P	DIODE							
D19			DA2S101	DIODE							
IC1			TA75W01FUF	MOS-IC							
IC2		*	R3111N421C-FE	MOS-IC							
IC3			TC75W51FUF	MOS-IC							
IC4			M62364FP-F	MOS-IC							
IC5			XC6201P502P-G	MOS-IC							
IC6			NJU7201U50	MOS-IC							
IC7			TK11250CMCL-G	BI-POLAR IC							
IC8			TC75W51FUF	MOS-IC							
IC9			TA31136FNG	MOS-IC							
IC10			TA75W01FUF	MOS-IC							
IC11			LMX2352TMX/NP	ANALOGUE IC							
IC12			TC35453FG6	MOS-IC							
IC13			LC73872M	MOS-IC							
IC14			KCH32	HYBRID IC	K7,K8						
IC15		*	30622MEP599GU	MICROCONTROLLER IC							
IC16			AT24C08BN-SH	ROM IC							
IC17			AT29C02090TU	ROM IC							
IC18,19			BU4094BCFV	MOS-IC							

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

K5:TK-480(K3), K6:TK-480(K4),
K7:TK-481(K3), K8:TK-481(K4),
M4:TK-480(M4)

EXPLODED VIEW

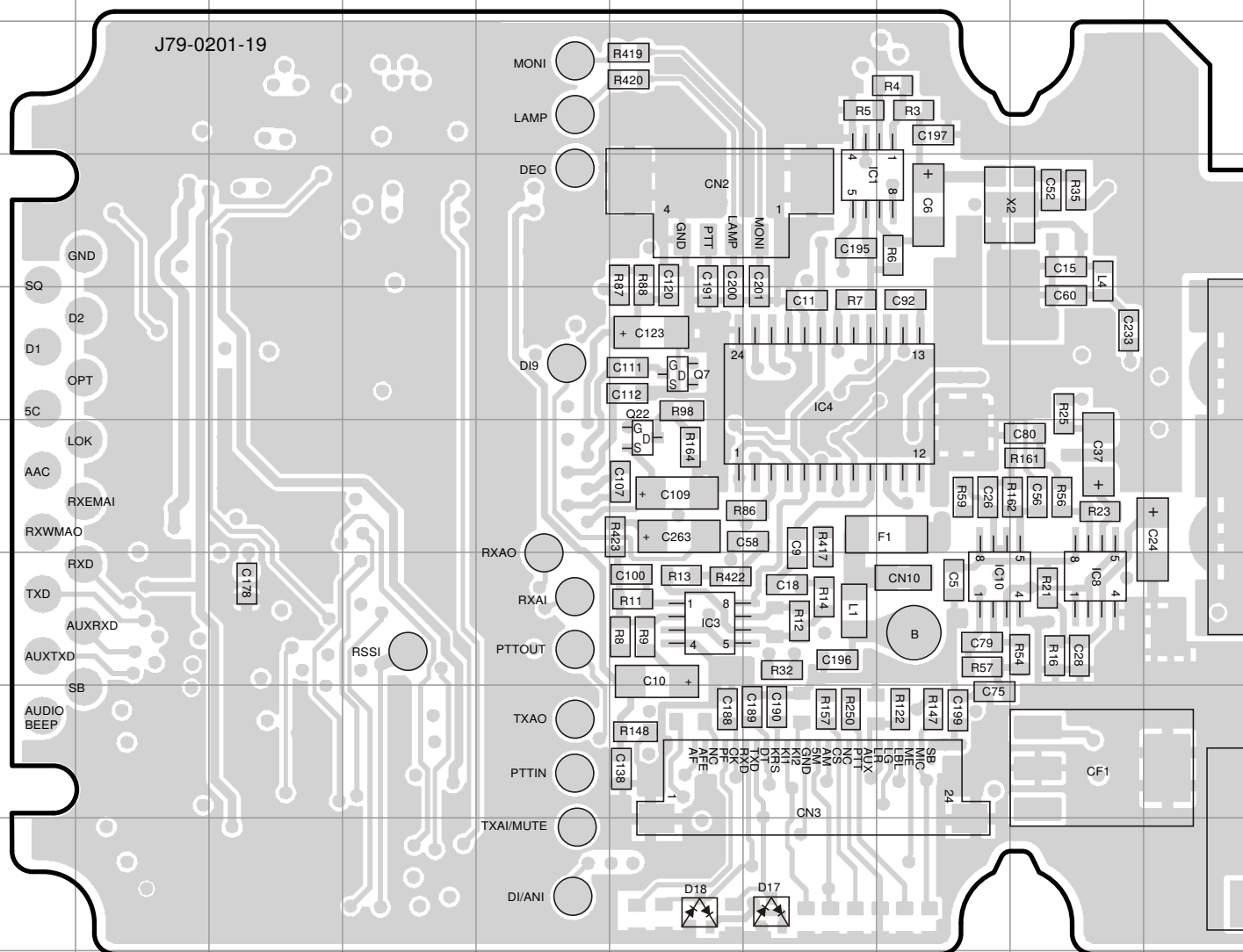


Parts with the exploded numbers larger than 700 are not supplied.

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

TK-480/481 PC BOARD

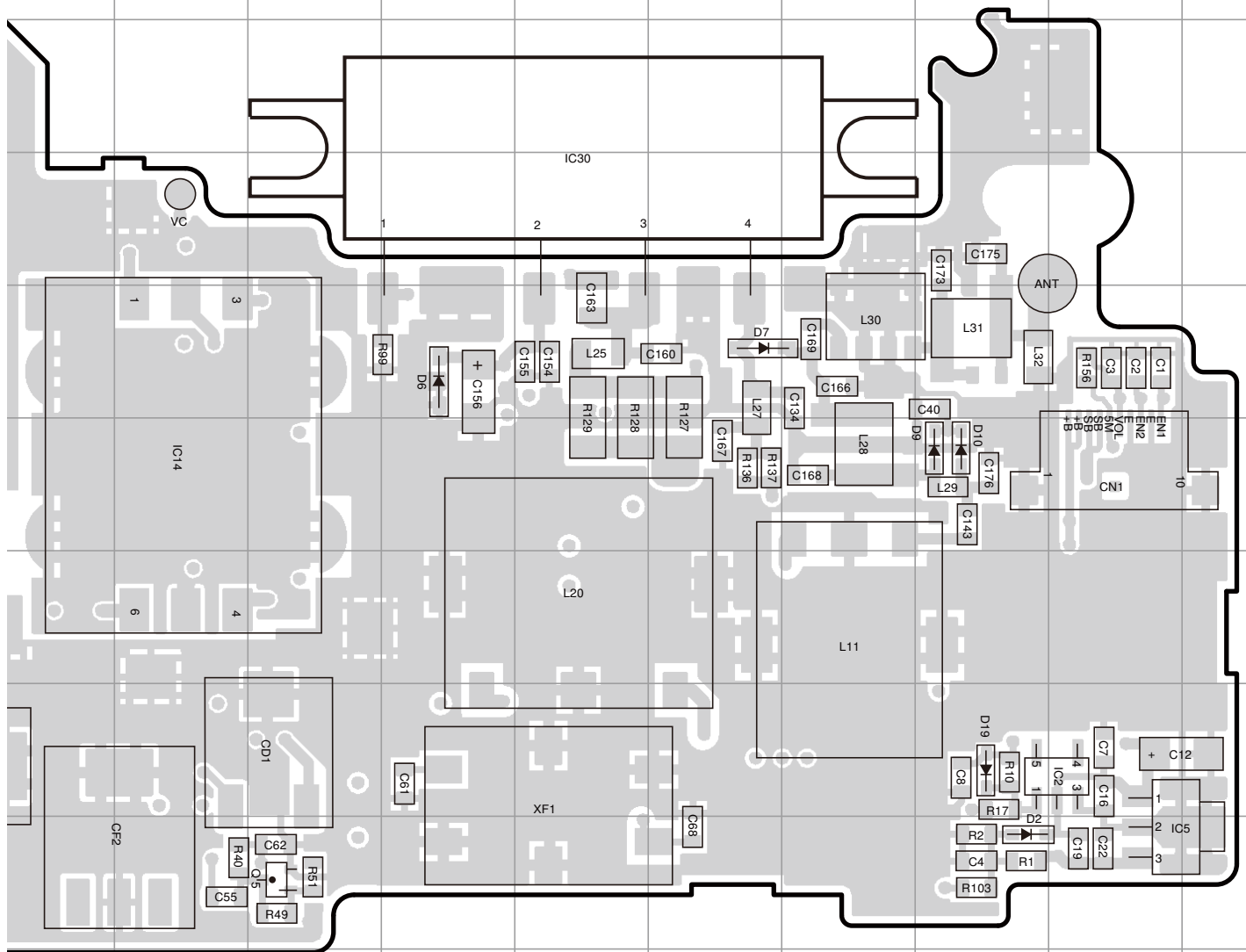
TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481
Component side view (J79-0201-19)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	4G	IC30	4N	D10	6Q
IC2	8R	Q5	9L	D17	9G
IC3	7F	Q7	5F	D18	9F
IC4	5G	Q22	6F	D19	8Q
IC5	9R	D2	9Q		
IC8	7I	D6	5M		
IC10	7H	D7	5O		
IC14	6K	D9	6Q		

PC BOARD TK-480/481

TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481
Component side view (J79-0201-19)

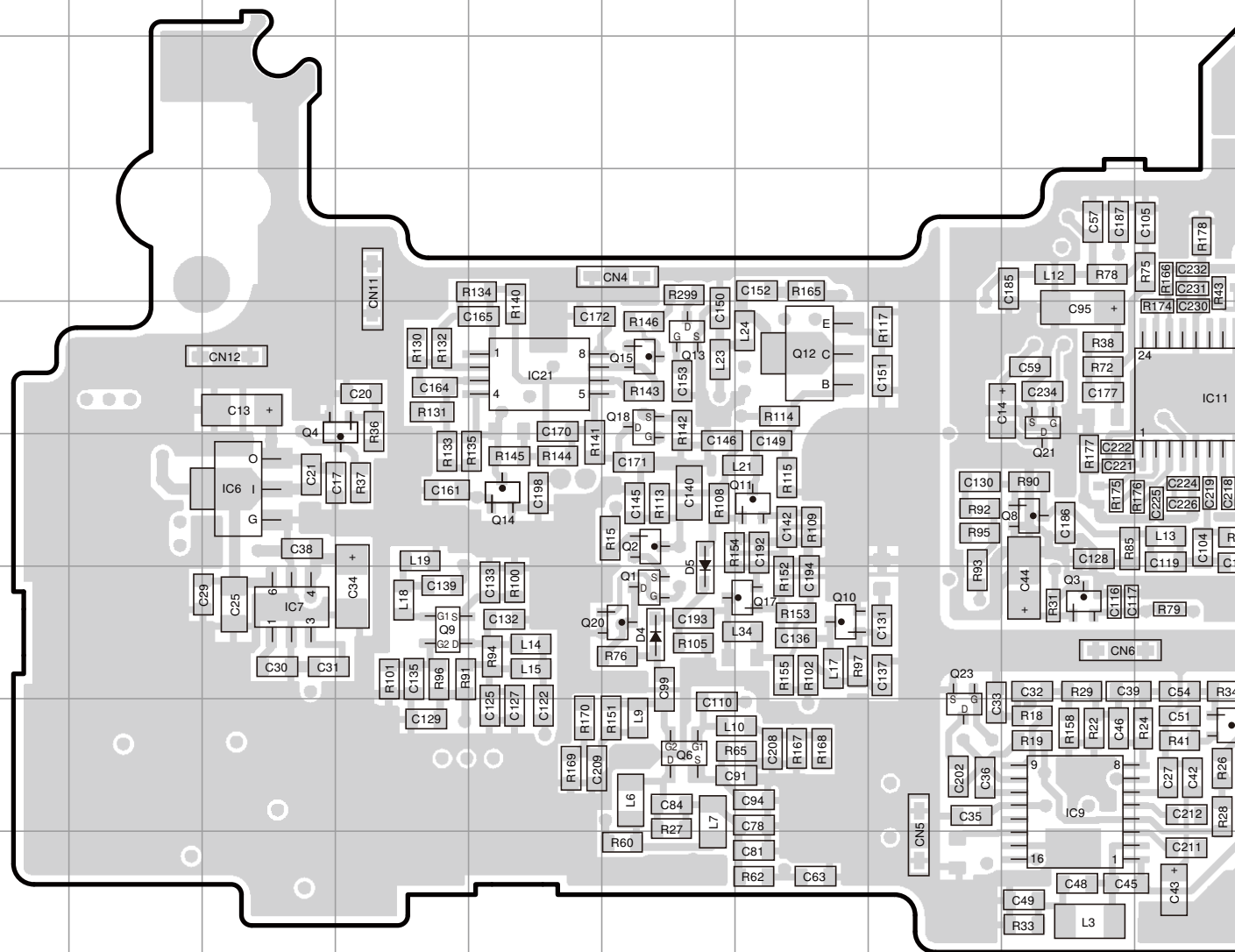


Component side

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

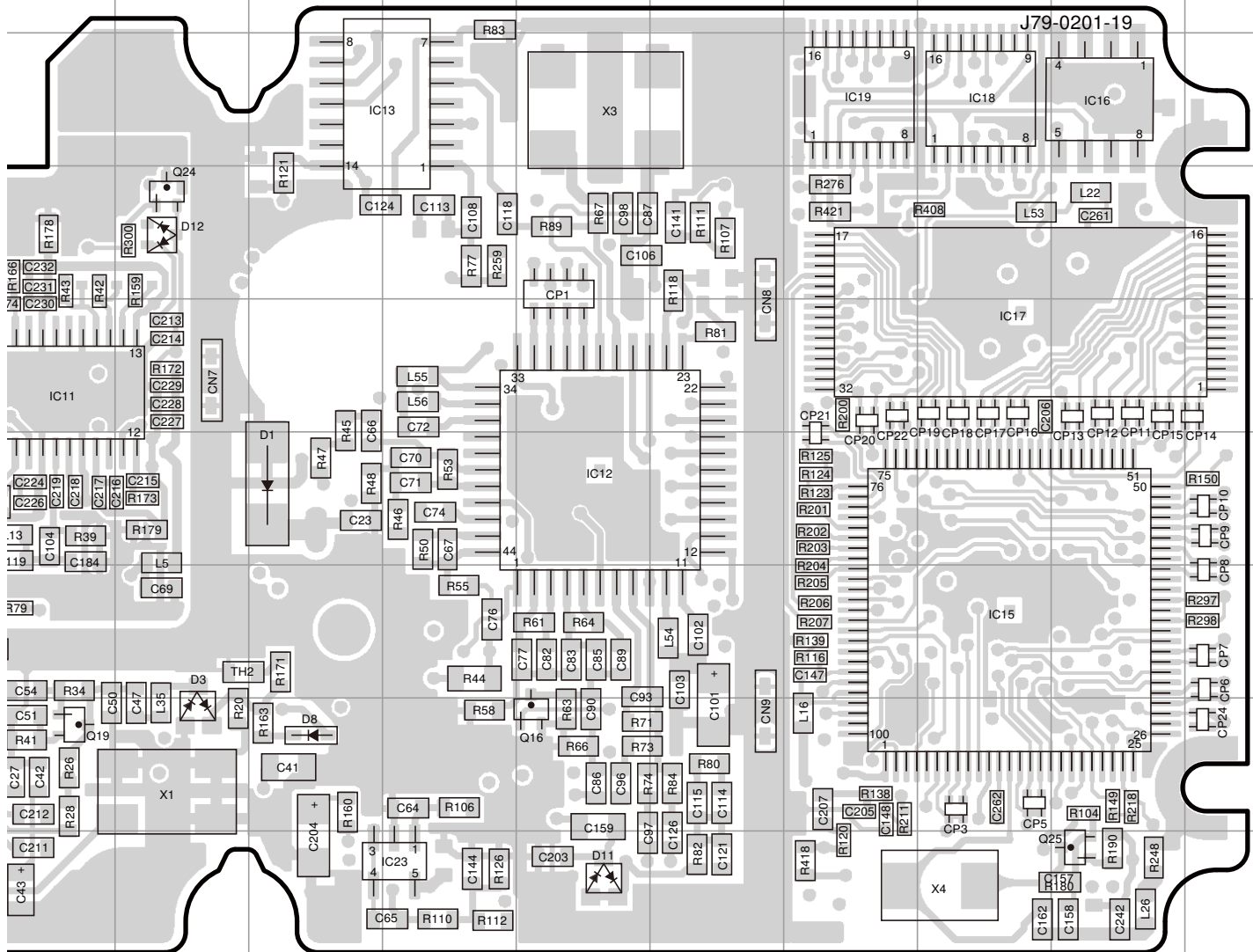
TK-480/481 PC BOARD

TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481
Foil side view (J79-0201-19)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC6	6C	Q2	6F	Q18	5F
IC7	7C	Q3	7I	Q19	8J
IC9	8I	Q4	5D	Q20	7F
IC11	5J	Q6	8F	Q21	5I
IC12	6N	Q8	6I	Q23	8H
IC13	3M	Q9	7D	Q24	4K
IC15	7Q	Q10	7G	Q25	9R
IC16	3R	Q11	6G	D1	6L
IC17	5Q	Q12	5G	D3	8K
IC18	3Q	Q13	5F	D4	7F
IC19	3P	Q14	6E	D5	6F
IC21	5E	Q15	5F	D8	8L
IC23	9M	Q16	8N	D11	9N
Q1	7F	Q17	7G	D12	4K

TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481
Foil side view (J79-0201-19)



Component side

Layer 1

Layer 2

Layer 3

Layer 4

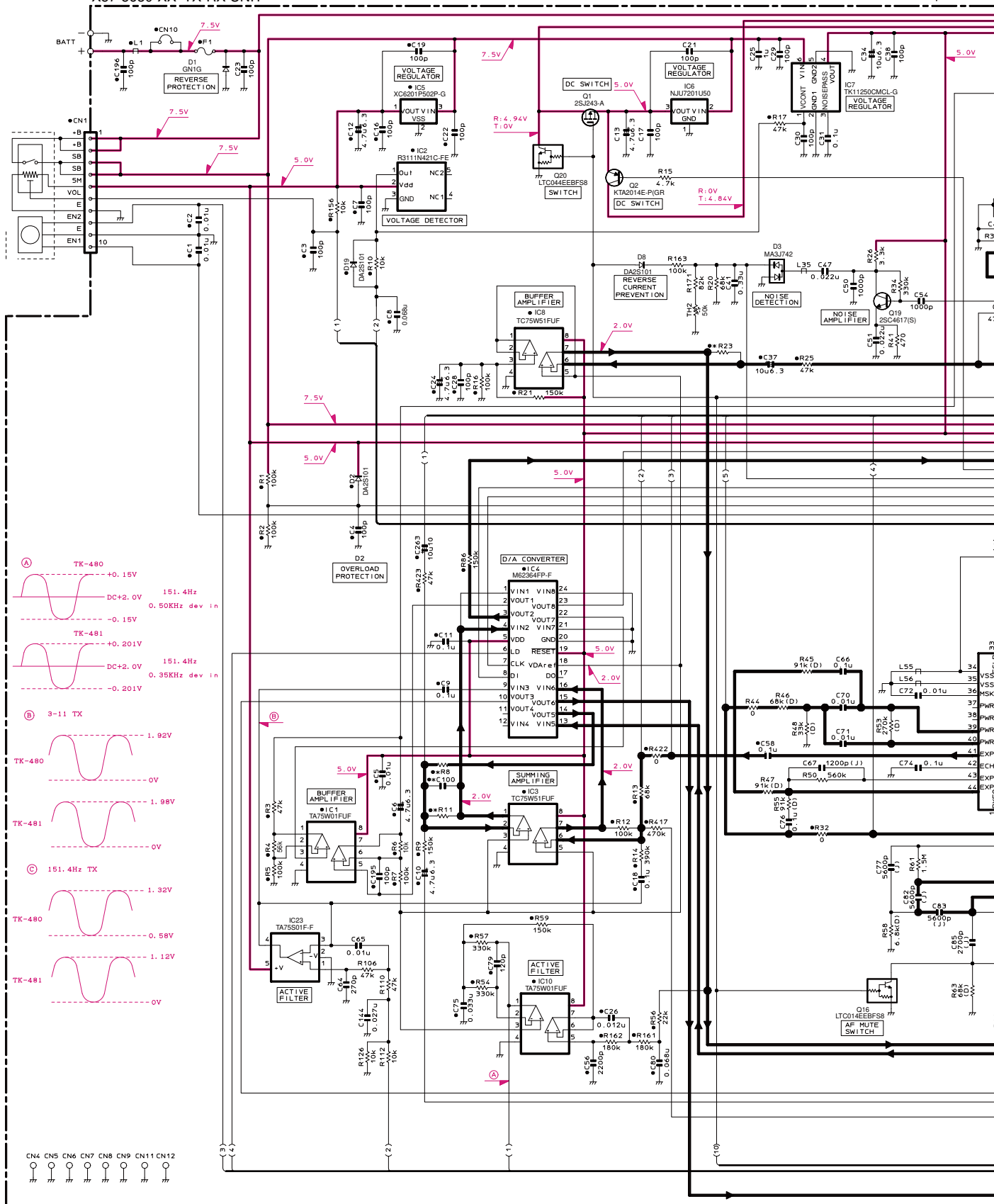
Layer 5

Layer 6

Foil side

TK-480/481 SCHEMATIC DIAGRAM

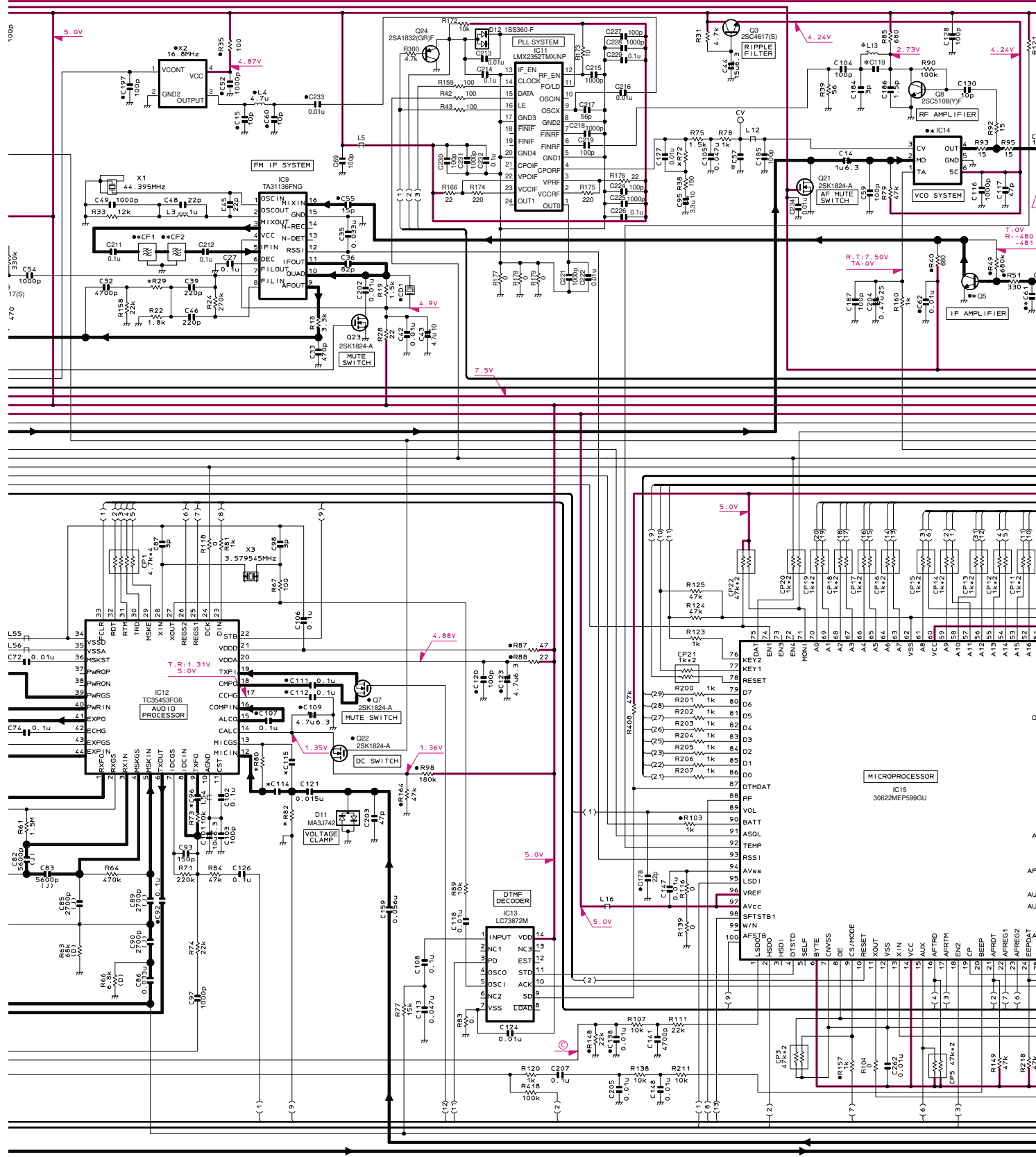
X57-5630-XX TX-RX UNIT



X57-5630-XX				C57	C61	C68	C96	C99	C100	C114	C115	C119	C122	C132	C134	C139	C157	C166	C168	C173	C175	C176	C193	C242	L9	L10	L11	L13	L15	L17	L18	L19	L20	L21	L24	L29	L3
-12	TK-480	K3	K4	0.015u	NO	NO	1200p	2p	390p	4700p	4700p	0.75p	1.5p	1p	1p(B)	3.5p	68p	1p	0.5p	1p	1p	NO	2p	0.01u	8.2n	8.2n	179-1921-15	10n	5.6n	10n	22n	10n	179-1922-15	6.8n	6.8n	10n	179-1941
-12	TK-480	K4	M4	0.015u	NO	NO	1200p	2p	390p	4700p	4700p	0.75p	1.5p	1p	1p(B)	3.5p	68p	1p	0.5p	1p	1p	NO	2p	0.01u	8.2n	8.2n	179-1921-15	10n	5.6n	10n	22n	10n	179-1922-15	6.8n	6.8n	10n	179-1941
-23	TK-481	K3	K4	0.068u	4p	4p	1000p	2p	1.5p	820p	3300p	3300p	1p	3p	0.75p	NO	NO	0.75p	2.5p	1.5p	2.5p	0.75p	1.5p	NO	8.2n	8.2n	179-1923-15	6.8n	2.7n	8.2n	6.8n	12n	179-1924-15	5.6n	6.8n	15n	179-1941

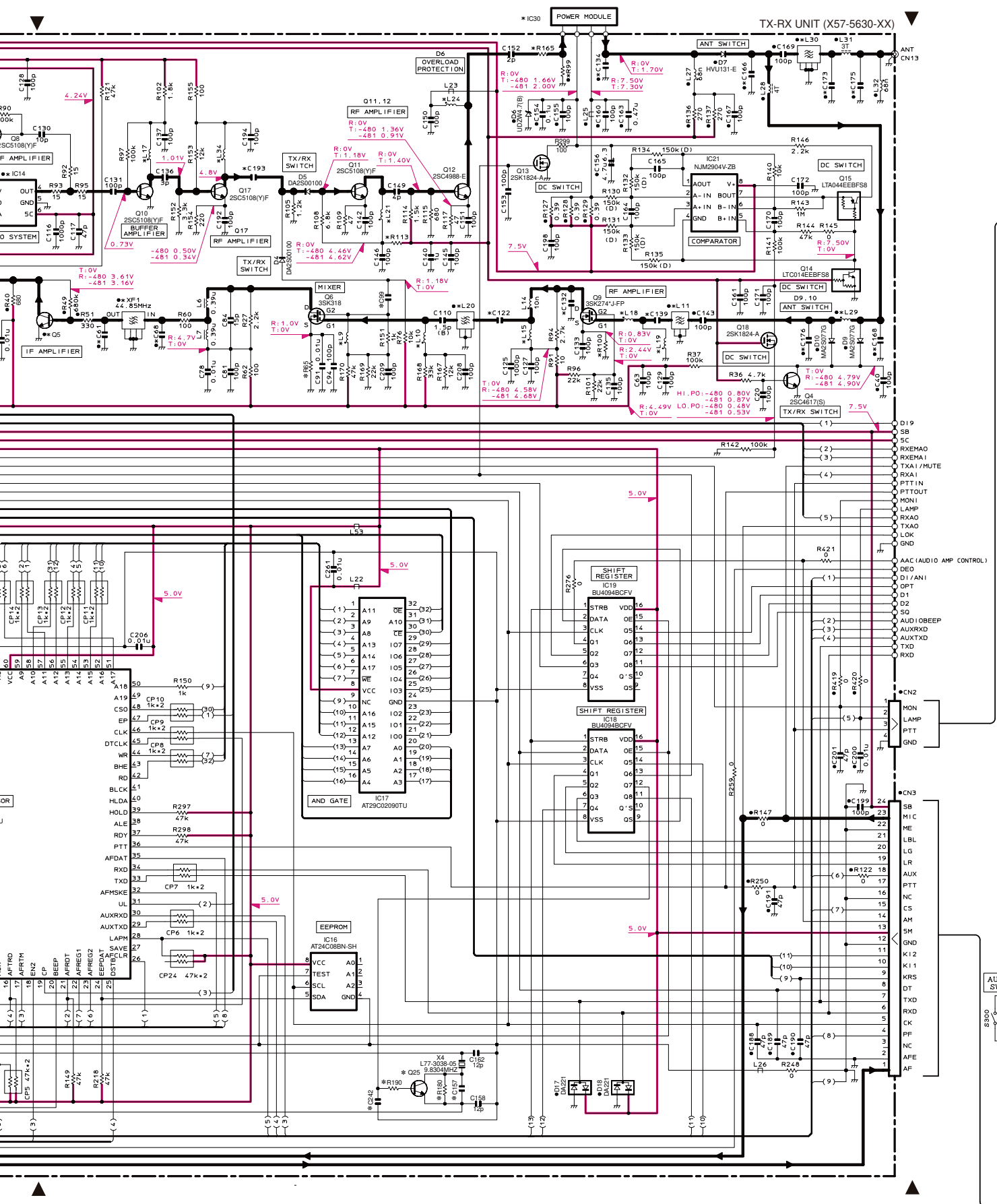
SCHEMATIC DIAGRAM

▼ TX-RX UNIT (X57-5630-XX)



	L21	L24	L29	L30	L34	R8	R11	R23	R29	R65	R72	R80	R82	R99	R100	R113	R165	R180	R190	CF1	CF2	IC14	IC30	Q5	Q25	XF1	
-15	6.8n	6.8n	10n	L78-1468-05	8.2n	18k	47k	56k	18k	39	150	390k	33k	120	82	100	15	0	1.8k	L72-1032-05	L72-1032-05	L78-1428-15	RA03M8087M101	25C4619	25C4725	L71-0501-05	
-15	6.8n	6.8n	10n	L78-1468-05	8.2n	18k	47k	56k	18k	39	150	390k	33k	120	82	100	15	0	1.8k	L72-1032-05	L72-1032-05	L78-1428-15	RA03M8087M101	25C4619	25C4725	L71-0501-05	
-15	5.6n	5.6n	15n	L78-1469-05	10n	27k	22k	120k	12k	56	330	680k	39k	N0	220	22	0	0	0	N0	L72-0939-05	L72-0939-05	KCH-1428	RA03M8894M101	25C5108(Y)F	N0	L71-0502-05

TK-480/481 SCHEMATIC DIAGRAM



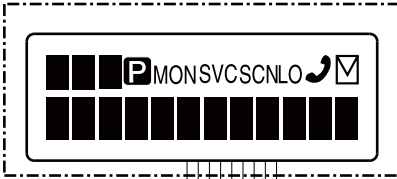
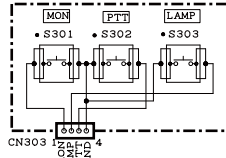
SCHEMATIC DIAGRAM

TK-480/481

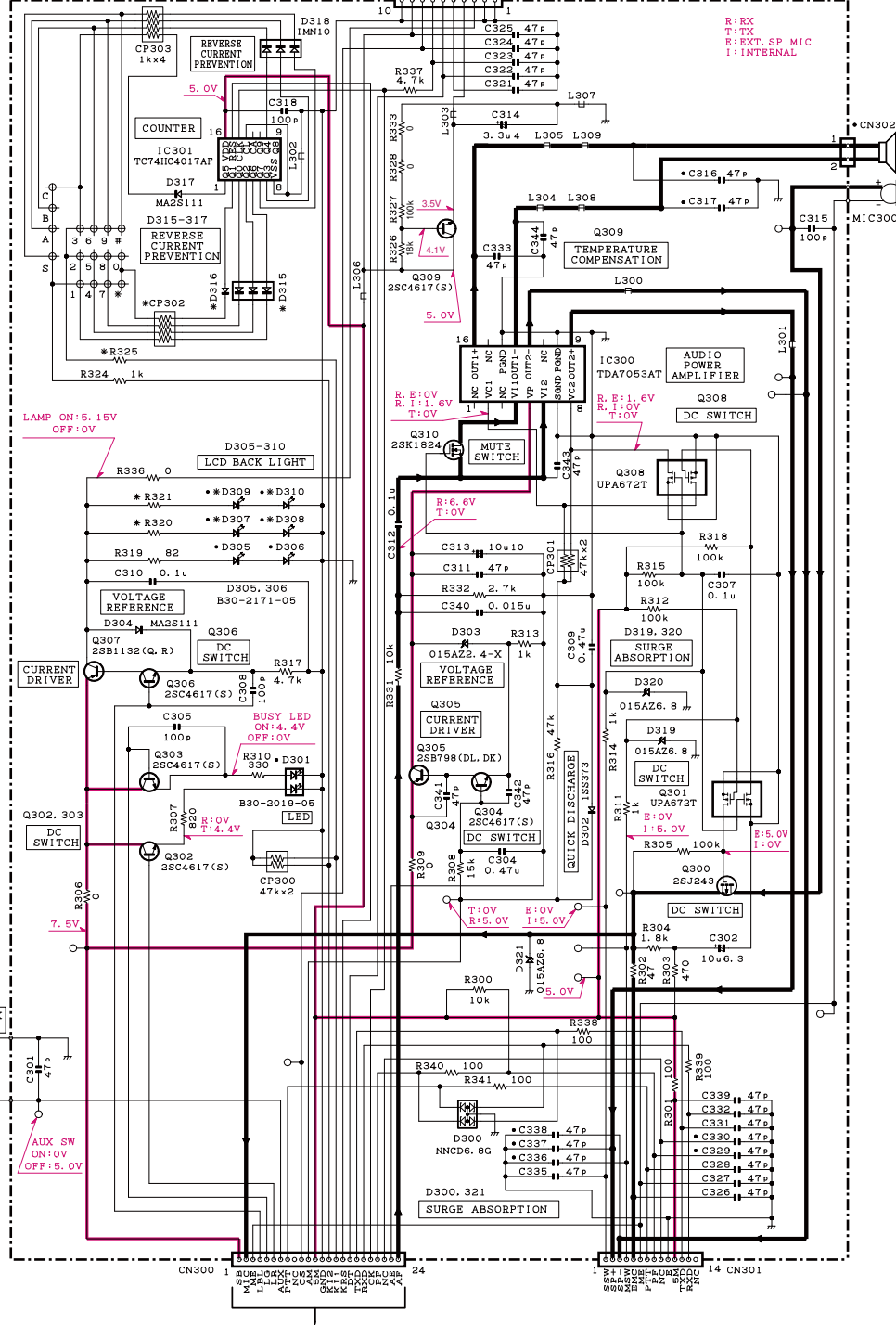
X54-3210-XX	16KEY	R320, R321	R325	D307-D310	D315	D316	CP302
-10 TK-480/481	K3	NO	NO	NO	NO	NO	NO
-11 TK-480/481	K4, M4/K4	YES	82	1k	B30-2171-05	1MN10	MA2S111
							R90-0724-05(1KX4)

X54-3210-XX B/2 SWITCH SECTION

LCD ASSY



X54-3210-XX A/2 DISPLAY UNIT



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

X57-563 4/4 X54-321 1/1

TK-480/481

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Leuvensesteenweg 248 J, 1800 Vilvoorde, Belgium

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L'Etoile Paris Nord 2, 50 Allée des Impressionnistes,
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Kenwood Electronics (Hong Kong) Ltd.

Suite 2504, 25/F, Tower 2, Nina Tower, No. 8 Yeung Uk Road,
Tsuen Wan, New Territories, Hong Kong

Kenwood Electronics Singapore Pte Ltd

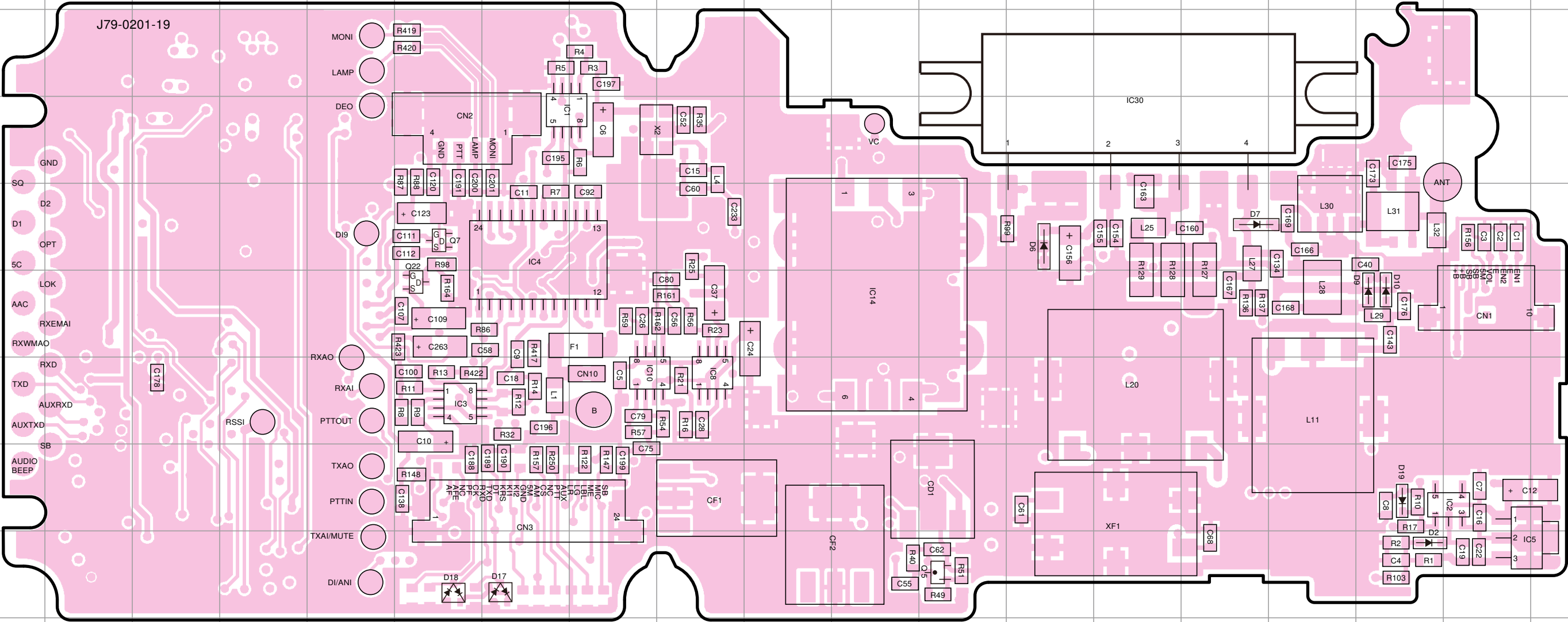
1 Ang Mo Kio Street 63, Singapore 569110

TK-480/481 PC BOARD

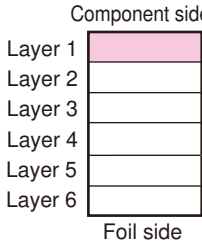
PC BOARD TK-480/481

TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481
Component side view (J79-0201-19)

TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481
Component side view (J79-0201-19)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	4G	IC30	4N	D10	6Q
IC2	8R	Q5	9L	D17	9G
IC3	7F	Q7	5F	D18	9F
IC4	5G	Q22	6F	D19	8Q
IC5	9R	D2	9Q		
IC8	7I	D6	5M		
IC10	7H	D7	5O		
IC14	6K	D9	6Q		

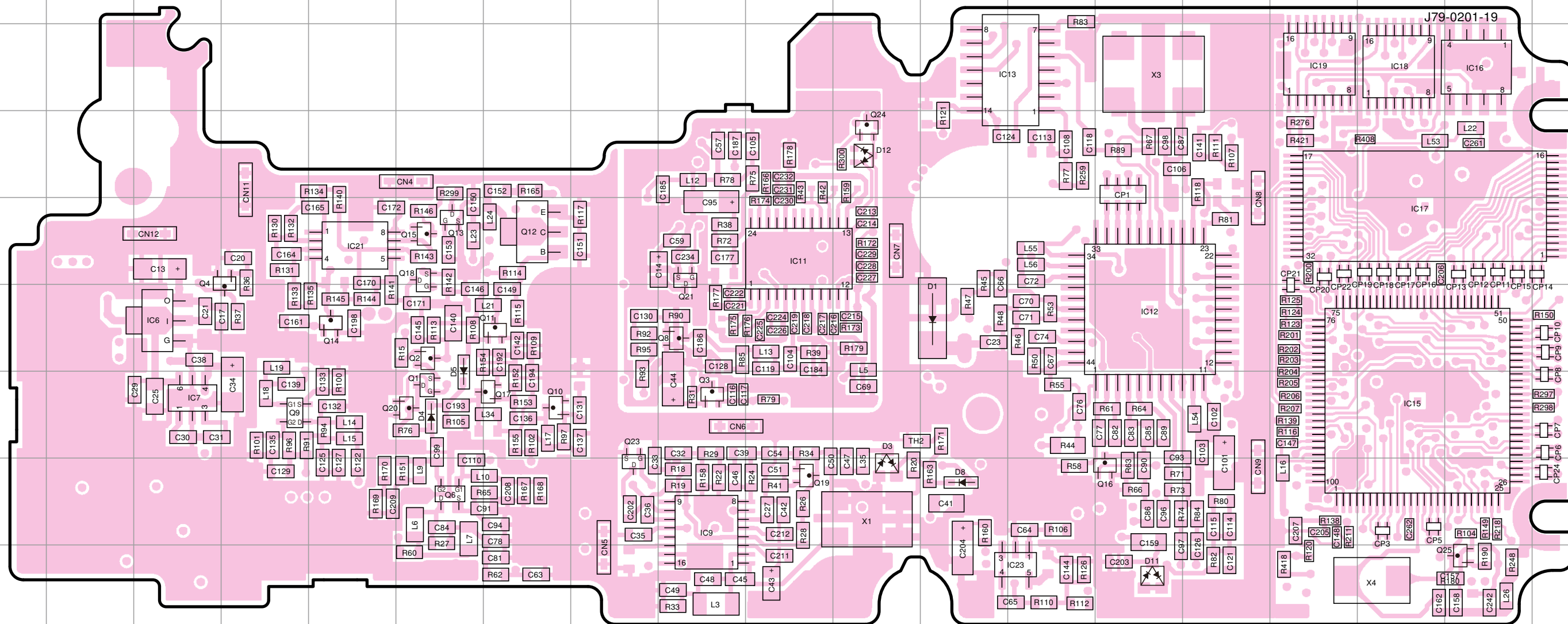


TK-480/481 PC BOARD

TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481
Foil side view (J79-0201-19)

PC BOARD TK-480/481

TX-RX UNIT (X57-5630-XX) -12, -22: TK-480 -13: TK-481
Foil side view (J79-0201-19)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC6	6C	Q2	6F	Q18	5F
IC7	7C	Q3	7I	Q19	8J
IC9	8I	Q4	5D	Q20	7F
IC11	5J	Q6	8F	Q21	5I
IC12	6N	Q8	6I	Q23	8H
IC13	3M	Q9	7D	Q24	4K
IC15	7Q	Q10	7G	Q25	9R
IC16	3R	Q11	6G	D1	6L
IC17	5Q	Q12	5G	D3	8K
IC18	3Q	Q13	5F	D4	7F
IC19	3P	Q14	6E	D5	6F
IC21	5E	Q15	5F	D8	8L
IC23	9M	Q16	8N	D11	9N
Q1	7F	Q17	7G	D12	4K

