

VHF FM TRANSCEIVER / 甚高频调频无线电收发机

TK-768/H/(N)

SERVICE MANUAL / 维修手册

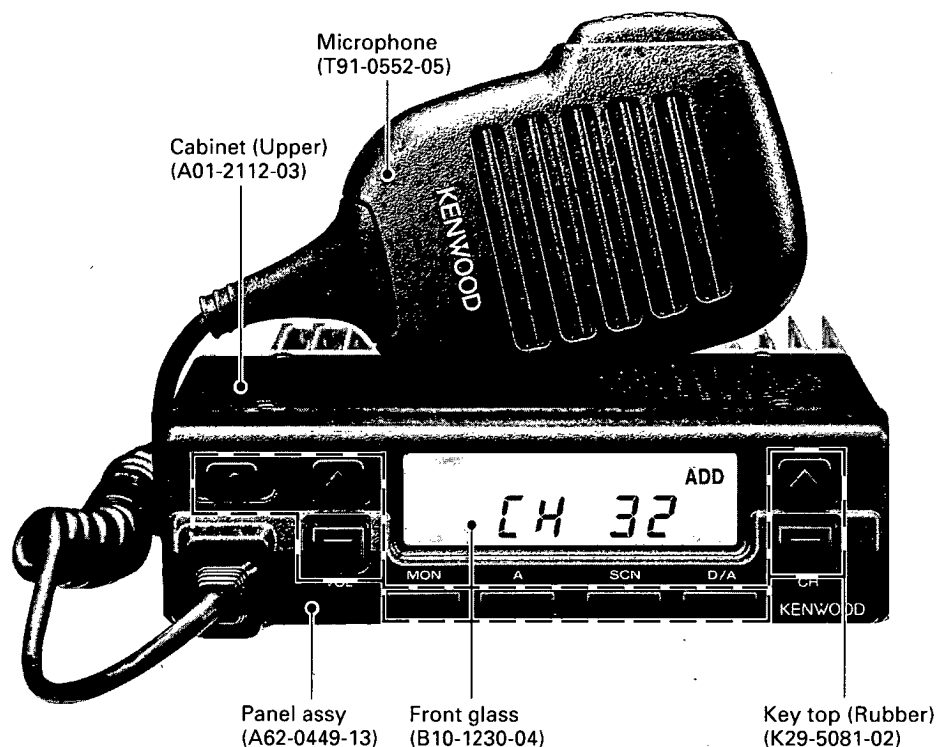
REVISED / 修订版

KENWOOD

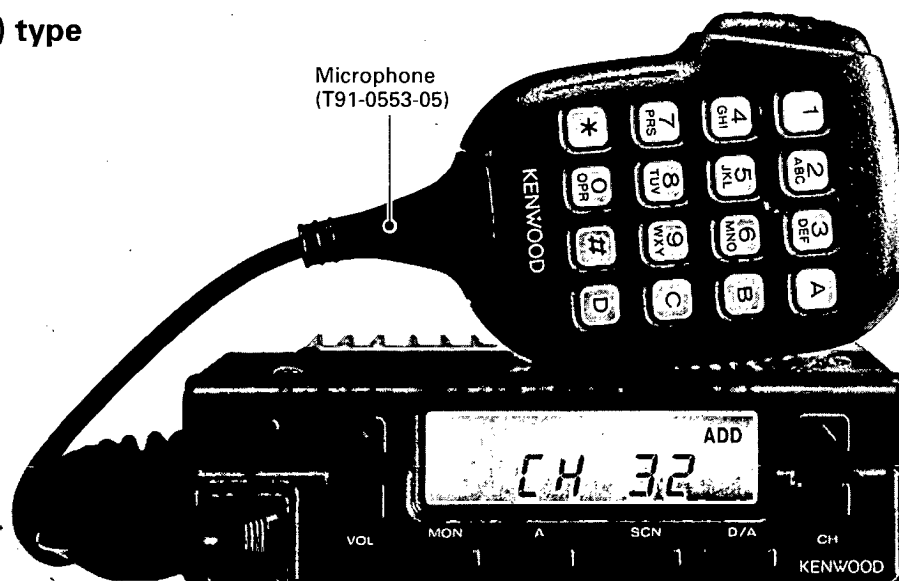
© 1997-5 PRINTED IN JAPAN
B51-8329-10 (N) 591

New narrow type (NM, NM2) was added to TK-768/H Service Manual (B51-8329-00).
In addition to this, We have revised some parts according to the modification of the main parts.
Please use this Service Manual and TK-768/H Service Manual together.

TK-768/H/(N)



TK-768/H (D) type



GENERAL	3
PARTS LIST	4
EXPLODED VIEW	12
PACKING	13
ADJUSTMENT	14
PC BOARD VIEWS / CIRCUIT DIAGRAMS	
VCO (X58-4360-XX)	24
TX-RX UNIT : TX-RX (X57-495X-XX) (A/2)	25
TX-RX UNIT : CONTROL (X57-495X-XX) (B/2)	35
BLOCK DIAGRAM	42
LEVEL DIAGRAM	44
SPECIFICATIONS	BACK COVER

零部件一览表	4
部件分解图	12
包装	13
调整	15
印刷电路板图/电路图	
VCO (X58-4360-XX)	24
TX-RX 单元 : TX-RX (X57-495X-XX) (A/2)	25
TX-RX 单元 : 控制 (X57-495X-XX) (B/2)	35
结构图	42
电平图	44
规格	45

GENERAL

INTRODUCTION

SCOPE OF THIS MANUAL

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

ORDERING REPLACEMENT PARTS

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

PERSONNEL SAFETY

The following precautions are recommended for personnel safety :

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

SERVICE

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

NOTE

WE CANNOT guarantee oscillator stability when using channel element manufactured by other than KENWOOD or its authorized agents.

DESTINATION LIST

Model and destination			Frequency range (MHz)	TX power (W)	Signaling			Microphone type (ACSY)
					QT	DQT	DTMF	
TK-768		M	148~174	25	○	—	○	Basic
TK-768	D	M	148~174	25	○	—	○	16 key
TK-768	N	M	148~174	25	○	—	○	Basic
TK-768H	D	M	148~174	45	○	—	○	16 key
TK-768		M2	136~156	25	○	—	○	Basic
TK-768	D	M2	136~156	25	○	—	○	16 key
TK-768	N	M2	136~156	25	○	—	○	Basic
TK-768H	D	M2	136~156	45	○	—	○	16 key

TK-768/H/(N)

PARTS LSIT / 零部件一览表

* New Parts. Δ indicates safety critical components.

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

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

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

L : Scandinavia

Y : PX (Far East, Hawaii)

Y : AAFES (Europe)

K : USA

T : England

X : Australia

P : Canada

E : Europe

M : Other Areas

TK-768/H/(N)

TX-RX UNIT (X57-495X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
TK-768/H/(N)					
1	1B		A01-2112-03	CABINET (UPPER)	
2	2B		A01-2113-03	CABINET (LOWER)	
3	2A		A62-0449-13	PANEL ASSY	
5	2E		B09-0235-05	CAP (JACK)	
6	2A		B10-1230-04	FRONT GLASS	
7	1B,1C		B42-2455-04	STICKER (M4x8 MAX)	
9	1C		B42-5650-04	S/N LABEL	
12	1D		B62-0598-00	INSTRUCTION MANUAL ACSY	
13	1C		B72-0790-04	MODEL NAME PLATE	M,DM
13	1C		B72-0791-04	MODEL NAME PLATE	M2,DM2
13	1C		B72-0792-04	MODEL NAME PLATE	HDM
13	1C		B72-0793-04	MODEL NAME PLATE	HDM2
13	1C	*	B72-1188-04	MODEL NAME PLATE	NM
13	1C	*	B72-1189-04	MODEL NAME PLATE	NM2
15	2E		E30-2076-15	DC CORD ACSY	
16	1C		E30-2145-15	ANTENNA CABLE	
17	1C		E30-2172-15	DC CORD (BODY)	
18	1C		E37-0461-05	LEAD WIRE WITH CONECTOR (SP)	
19	2B		E37-0587-05	FLAT CABLE	
20	2B		F10-2234-04	SHIELDING COVER (APC)	HDM,HDM2
21	1B		F10-2202-04	SHIELDING PLATE	
22	1E		F51-0016-05	FUSE (10A ; DC CORD) ACSY	M,M2,DM
22	1E		F51-0016-05	FUSE (10A ; DC CORD) ACSY	DM2,NM
22	1E		F51-0016-05	FUSE (10A ; DC CORD) ACSY	NM2
22	1E		F51-0017-05	FUSE (15A ; DC CORD) ACSY	HDM,HDM2
25	1B		G02-0791-04	FLAT SPRING (AVR,APC)	
27	2A		G10-0790-04	AUXILIARY PART (PANEL)	
28	1B,2C		G10-0781-14	AUXILIARY PART (CHASSIS)	
29	1C		G10-0786-04	AUXILIARY PART (SP)	
30	1B		G13-1468-04	FORMED PLATE (DC CORD)	
32	2B		G53-0796-04	PACKING (JACK)	
34	3D		H10-2789-02	POLYSTYRENE FOAMED FIXTURE	
35	1E		H11-0883-04	POLYSTYRENE FOAMED BOARD	
36	2D		H13-0975-14	CARTON BOARD	
37	2E		H25-0103-04	BAG (DC CORD)	
38	1D		H25-0720-04	BAG (BODY)	
39	3E		H52-0756-02	ITEM CARTON CASE	
41	1C		J19-1580-04	HOLDER (SP)	
42	2D		J19-1584-05	HOLDER ACSY	
43	2D		J29-0627-03	BRACKET ACSY	
45	2A		K29-5081-02	KEY TOP (RUBBER)	
47	2D		N99-0395-05	SCREW SET ACSY	
A	1C,2B		N33-2606-45	SCREW (CABINET)	
B	2B		N67-3008-46	SCREW (IC)	
C	1C,2B		N87-2608-46	SCREW (PCB,ANT)	
D	1B		N83-2606-46	SCREW (SHIELD)	
MIC	2E		T91-0552-05	MICROPHONE ACSY	M,M2
MIC	2E		T91-0552-05	MICROPHONE ACSY	NM,NM2
MIC	2E		T91-0553-05	MICROPHONE (DTMF) ACSY	DM,DM2
MIC	2E		T91-0553-05	MICROPHONE (DTMF) ACSY	HDM,HDM2

Ref. No.	Address	New parts	Parts No.	Description	Destination
SP	1C		T07-0331-05	SPEAKER	
IC501	2B		M67741H-32	IC (POWER MODULE)	M,DM,NM
IC501	2B		M67741L-32	IC (POWER MODULE)	M2,DM2
IC501	2B		M67741L-32	IC (POWER MODULE)	NM2
IC501	2B		M67781H-32	IC (POWER MODULE)	HDM
IC501	2B		M67781L-32	IC (POWER MODULE)	HDM2
TX-RX UNIT (X57-495X-XX)					
0-21 : M,DM 0-22 : M2,DM2 0-23 : HDM					
0-24 : HDM2 1-21 : NM 1-22 : NM2					
101	2A		B11-1148-04	REFLECTOR	
102	2B		B11-1149-04	FILTER	
103	2A		B38-0759-05	LCD	
C1-10			CK73GB1H102K	CHIP C 1000PF K	
C12			CK73GB1H102K	CHIP C 1000PF K	
C15,16			CK73GB1H102K	CHIP C 1000PF K	
C17			CE04EW1E471M	ELECTRO 470UF 25WV	
C19			CK73GB1H471K	CHIP C 470PF K	
C20			CK73GB1H102K	CHIP C 1000PF K	
C23			C92-0512-05	CHIP-TAN 1.0UF 16WV	
C24			C92-0036-05	CHIP-ELE 4.7UF 16WV	
C25			CK73GB1H471K	CHIP C 470PF K	
C26			CK73GB1H103K	CHIP C 0.010UF K	
C27			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C28			CK73GB1H471K	CHIP C 470PF K	
C30,31			CK73FB1E104K	CHIP C 0.10UF K	
C33			CK73GB1H103K	CHIP C 0.010UF K	
C35			CK73FB1E104K	CHIP C 0.10UF K	
C37			CK73GB1H103K	CHIP C 0.010UF K	
C38			CK73GB1H102K	CHIP C 1000PF K	
C39			CK73FB1E104K	CHIP C 0.10UF K	
C41			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C42			C92-0543-05	CHIP-TAN 3.3UF 10WV	
C43,44			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C46			CK73GB1H102K	CHIP C 1000PF K	
C47			CK73FF1C105Z	CHIP C 1.0UF Z	
C48			CK73FB1E104K	CHIP C 0.10UF K	
C50			CK73FB1E104K	CHIP C 0.10UF K	
C51			CK73GB1H102K	CHIP C 1000PF K	
C53			C92-0543-05	CHIP-TAN 3.3UF 10WV	
C54			CC73GCH1H150J	CHIP C 15PF J	
C55			CC73GCH1H220J	CHIP C 22PF J	
C57			CC73GCH1H180J	CHIP C 18PF J	
C58			CK73GB1H103K	CHIP C 0.010UF K	
C60			CC73GCH1H220J	CHIP C 22PF J	M,DM,HDM
C60			CC73GCH1H220J	CHIP C 22PF J	NM
C61			C92-0003-05	CHIP-TAN 0.47UF 25WV	
C63			CK73GB1H102K	CHIP C 1000PF K	
C65,66			CK73GB1H102K	CHIP C 1000PF K	
C67			C92-0546-05	CHIP-TAN 68UF 6.3WV	
C68,69			CK73GB1H103K	CHIP C 0.010UF K	
C70			CK73GB1H102K	CHIP C 1000PF K	
C71			C92-0044-05	CHIP-ELE 47UF 10WV	

TK-768 : M,M2,DM,DM2,NM,NM2

TK-768H : DM,DM2

PARTS LSIT / 零部件一览表

TX-RX UNIT (X57-495X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
C73			CK73GB1H471K	CHIP C 470PF K		C156			C93-0563-05	CHIP C 18PF J	HDM2,NM2
C74			C92-0044-05	CHIP-ELE 47UF 10WV		C156			C93-0564-05	CHIP C 22PF J	M,DM,HDM
C75			C92-0004-05	CHIP-TAN 1.0UF 16WV		C156			C93-0564-05	CHIP C 22PF J	NM
C77			CK73GB1H103K	CHIP C 0.010UF K		C157			C93-0564-05	CHIP C 22PF J	
C79			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C159			C93-0603-05	CHIP C 1000PF K	
C81			C92-0040-05	CHIP-ELE 47UF 16WV		C160			CC73GCH1H101J	CHIP C 100PF J	
C82			CK73GB1H103K	CHIP C 0.010UF K		C161			C93-0563-05	CHIP C 18PF J	
C83			CC73GCH1H180J	CHIP C 18PF J		C162			C93-0567-05	CHIP C 39PF J	
C84,85			CK73GB1H102K	CHIP C 1000PF K		C164			C93-0565-05	CHIP C 27PF J	
C86			CK73GB1H103K	CHIP C 0.010UF K		C167			CK73GB1H102K	CHIP C 1000PF K	
C87			CK73GB1H102K	CHIP C 1000PF K		C175			CK73GB1H471K	CHIP C 470PF K	
C88			CC73GCH1H060D	CHIP C 6.0PF D	M,M2,DM	C186			CK73FB1E104K	CHIP C 0.10UF K	
C88			CC73GCH1H060D	CHIP C 6.0PF D	DM2,HDM	C187,188			CK73GB1H102K	CHIP C 1000PF K	
C88			CC73GCH1H060D	CHIP C 6.0PF D	HDM2	C199,200			CC73GCH1H101J	CHIP C 100PF J	HDM,HDM2
C88			CC73GCH1H220J	CHIP C 22PF J	NM,NM2	C201,202			CK73FB1E104K	CHIP C 0.10UF K	
C90			CC73GCH1H180J	CHIP C 18PF J		C203,204			CC73GCH1H120J	CHIP C 12PF J	M,DM,HDM
C93			CK73FF1C105Z	CHIP C 1.0UF Z		C203,204			CC73GCH1H120J	CHIP C 12PF J	NM
C95			CK73GB1H103K	CHIP C 0.010UF K		C203,204			CC73GCH1H180J	CHIP C 18PF J	M2,DM2
C97			C92-0044-05	CHIP-ELE 47UF 10WV		C203,204			CC73GCH1H180J	CHIP C 18PF J	HDM2,NM2
C98			CK73GB1H102K	CHIP C 1000PF K		C205-206			CK73GB1H102K	CHIP C 1000PF K	
C99			C92-0044-05	CHIP-ELE 47UF 10WV		C212			CK73GB1H471K	CHIP C 470PF K	
C101			CK73GB1H102K	CHIP C 1000PF K		C213			CC73GCH1H101J	CHIP C 100PF J	
C102			CK73GB1H103K	CHIP C 0.010UF K		C214-217			CK73GB1H102K	CHIP C 1000PF K	
C104			CK73GB1H471K	CHIP C 470PF K		C218			CC73GCH1H270J	CHIP C 27PF J	M,M2,DM
C105			CK73GB1H103K	CHIP C 0.010UF K		C218			CC73GCH1H270J	CHIP C 27PF J	DM2,HDM
C108			C92-0040-05	CHIP-ELE 47UF 16WV		C218			CC73GCH1H270J	CHIP C 27PF J	NM,NM2
C110			CE04EW1A471M	ELECTRO 470UF 10WV		C218			CC73GCH1H390J	CHIP C 39PF J	HDM2
C111			CK73FB1E104K	CHIP C 0.10UF K		C219			CK73GB1H102K	CHIP C 1000PF K	
C113			CK73GB1H102K	CHIP C 1000PF K		C220			CK73GB1H472K	CHIP C 4700PF K	
C118			C92-0004-05	CHIP-TAN 1.0UF 16WV		C221			CC73FCH1H101J	CHIP C 100PF J	HDM2
C119-121			CK73GB1H102K	CHIP C 1000PF K		C221			CC73FCH1H220J	CHIP C 22PF J	M,M2,DM
C123			CK73GB1H102K	CHIP C 1000PF K		C221			CC73FCH1H220J	CHIP C 22PF J	DM2,HDM
C124			CK73GB1H471K	CHIP C 470PF K		C221			CC73FCH1H220J	CHIP C 22PF J	NM,NM2
C125			C92-0040-05	CHIP-ELE 47UF 16WV		C222,223			CK73GB1H102K	CHIP C 1000PF K	
C126			CK73GB1H102K	CHIP C 1000PF K		C224			CK73GB1H103K	CHIP C 0.010UF K	
C127			CK73FB1E473K	CHIP C 0.047UF K		C225			CC73GCH1H150J	CHIP C 15PF J	
C128,129			CK73GB1H102K	CHIP C 1000PF K		C226			CK73GB1H103K	CHIP C 0.010UF K	
C137			C92-0040-05	CHIP-ELE 47UF 16WV		C227			CK73GB1H102K	CHIP C 1000PF K	
C138,139			CK73GB1H102K	CHIP C 1000PF K		C228			CC73GCH1H150J	CHIP C 15PF J	M,DM,HDM
C141			CC73GCH1H101J	CHIP C 100PF	HDM,HDM2	C228			CC73GCH1H150J	CHIP C 15PF J	NM
C141			CK73GB1H471K	CHIP C 470PF K	M,M2	C228			CC73GCH1H180J	CHIP C 18PF J	M2,DM2
C141			CK73GB1H471K	CHIP C 470PF K	DM,DM2	C228			CC73GCH1H180J	CHIP C 18PF J	HDM2,NM2
C141			CK73GB1H471K	CHIP C 470PF K	NM,NM2	C229			CC73GCH1H150J	CHIP C 15PF J	
C142			CK73GB1H102K	CHIP C 1000PF K		C230			CC73GCH1HR75C	CHIP C 0.75PF C	M,DM,HDM
C143			CK73FB1E104K	CHIP C 0.10UF K		C230			CC73GCH1HR75C	CHIP C 0.75PF C	NM
C146			CK73GB1H102K	CHIP C 1000PF K		C230			CC73GCH1H020C	CHIP C 2.0PF C	M2,DM2
C147			CK73GB1H103K	CHIP C 0.010UF K		C230			CC73GCH1H020C	CHIP C 2.0PF C	HDM2,NM2
C148			CK73GB1H102K	CHIP C 1000PF K		C231			CC73GCH1H120J	CHIP C 12PF J	
C151			CK73GB1H102K	CHIP C 1000PF K		C232			CC73GCH1HR75C	CHIP C 0.75PF C	M,DM,HDM
C152			C93-0557-05	CHIP C 7.0PF D	M,DM,NM	C232			CC73GCH1HR75C	CHIP C 0.75PF C	NM
C152			C93-0561-05	CHIP C 12PF J	M2,DM2	C232			CC73GCH1H1R5C	CHIP C 1.5PF C	M2,DM2
C152			C93-0561-05	CHIP C 12PF J	NM2	C232			CC73GCH1H1R5C	CHIP C 1.5PF C	HDM2,NM2
C152			C93-0562-05	CHIP C 15PF J	HDM2	C233			CK73GB1H102K	CHIP C 1000PF K	
C153			CK73GB1H103K	CHIP C 0.010UF K		C234			CC73GCH1H100D	CHIP C 10PF D	M,DM,HDM
C154			C93-0603-05	CHIP C 1000PF K		C234			CC73GCH1H100D	CHIP C 10PF D	NM
C155			C93-0557-05	CHIP C 7.0PF D	HDM	C234			CC73GCH1H120J	CHIP C 12PF J	M2,DM2
C155			C93-0561-05	CHIP C 12PF J	M,DM,NM	C234			CC73GCH1H120J	CHIP C 12PF J	HDM2,NM2
C155			C93-0564-05	CHIP C 22PF J	M2,DM2	C235			CK73GB1H103K	CHIP C 0.010UF K	
C155			C93-0564-05	CHIP C 22PF J	HDM,NM2	C236,237			CK73GB1H102K	CHIP C 1000PF K	
C156			C93-0563-05	CHIP C 18PF J	M2,DM2	C239			CC73FCH1H030C	CHIP C 3.0PF C	

TK-768 : M,M2,DM,DM2,NM,NM2

TK-768H : DM,DM2

PARTS LSIT / 零部件一览表

TX-RX UNIT (X57-495X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
C240			CC73GCH1H100D	CHIP C 10PF D		C285			CK73GB1H102K	CHIP C 1000PF K	NM2
C241-243			CK73GB1H102K	CHIP C 1000PF K		C286			CC73GCH1H050B	CHIP C 5.0PF B	HDM
C244-246			CC73GCH1H101J	CHIP C 100PF J		C286			CC73GCH1H070B	CHIP C 7.0PF B	HDM2
C247			CK73GB1H102K	CHIP C 1000PF K		C401,402			CK73GB1H471K	CHIP C 470PF K	
C248			CK73FB1C474K	CHIP C 0.47UF K		C403			CK73GB1C104K	CHIP C 0.10UF K	
C249			CK73GB1H102K	CHIP C 1000PF K		C404,405			CK73GB1E123K	CHIP C 0.012UF K	
C250			C92-0543-05	CHIP-TAN 3.3UF 10WV		C406			C92-0003-05	CHIP-TAN 0.47UF 25WV	NM,NM2
C251			C92-0536-05	CHIP-TAN 10UF 10WV	M,DM,HDM	C406			C92-0004-05	CHIP-TAN 1.0UF 16WV	M,M2,DM
C251			C92-0536-05	CHIP-TAN 10UF 10WV	NM	C406			C92-0004-05	CHIP-TAN 1.0UF 16WV	DM2,HDM
C252			CK73GB1H102K	CHIP C 1000PF K	M2,DM2	C406			C92-0004-05	CHIP-TAN 1.0UF 16WV	HDM2
C252			CK73GB1H102K	CHIP C 1000PF K	HDM2,NM2	C407,408			CK73GB1C104K	CHIP C 0.10UF K	
C252			CK73GB1H103K	CHIP C 0.010UF K	M,DM,HDM	C409			CC73GCH1H101J	CHIP C 100PF J	
C252			CK73GB1H103K	CHIP C 0.010UF K	NM	C410,411			CK73GB1H471K	CHIP C 470PF K	
C253,254			CK73GB1H102K	CHIP C 1000PF K		C412			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C255			C92-0003-05	CHIP-TAN 0.47UF 25WV		C413			CK73GB1E223K	CHIP C 0.022UF K	
C256			CK73GB1H102K	CHIP C 1000PF K		C414			CC73GCH1H101J	CHIP C 100PF J	
C257			C92-0516-05	CHIP-TAN 4.7UF 16WV		C415			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C258			CK73GB1H102K	CHIP C 1000PF K		C416			CK73GB1H222K	CHIP C 2200PF K	
C259			C92-0001-05	CHIP C 0.1UF 35WV		C417			CK73GB1E223K	CHIP C 0.022UF K	
C260			CC73GCH1H050C	CHIP C 5.0PF C		C418			CK73GB1C273K	CHIP C 0.027UF K	
C261			CK73FB1E223K	CHIP C 0.022UF K		C419			CC73GCH1H470J	CHIP C 47PF J	
C262			CC73GCH1H020C	CHIP C 2.0PF C		C420			CK73GB1H471K	CHIP C 470PF K	
C263			C92-0628-05	CHIP-TAN 10UF 10WV	M,M2,DM	C421			CK73GB1H472K	CHIP C 4700PF K	
C263			C92-0628-05	CHIP-TAN 10UF 10WV	DM2,HDM	C422			CK73GB1H471K	CHIP C 470PF K	
C263			C92-0628-05	CHIP-TAN 10UF 10WV	HDM2	C423			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C264			CC73GCH1H180J	CHIP C 18PF J		C424			CK73GB1H471K	CHIP C 470PF K	
C265			CC73GCH1H180J	CHIP C 18PF J	M,DM,HDM	C425			CK73GB1H681K	CHIP C 680PF K	
C265			CK73GCH1H180J	CHIP C 18PF J	NM	C426			CK73GB1C104K	CHIP C 0.10UF K	
C265			CC73GCH1H220J	CHIP C 22PF J	M2,DM2	C427			CK73GB1H102K	CHIP C 1000PF K	
C265			CC73GCH1H220J	CHIP C 22PF J	HDM2,NM2	C428			CK73GB1H471K	CHIP C 470PF K	
C266			CK73GB1H102K	CHIP C 1000PF K		C430			CK73FF1C105Z	CHIP C 1.0UF Z	
C267			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C431			CK73GB1E223K	CHIP C 0.022UF K	
C268			CK73FF1C105Z	CHIP C 1.0UF Z		C432			CC73GCH1H100D	CHIP C 10PF D	
C269			CC73GCH1H180J	CHIP C 18PF J	M,DM,HDM	C433			CK73GB1H471K	CHIP C 470PF K	
C269			CC73GCH1H180J	CHIP C 18PF J	NM	C434,435			CK73GB1H682K	CHIP C 6800PF K	
C269			CC73GCH1H220J	CHIP C 22PF J	M2,DM2	C436			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C269			CC73GCH1H220J	CHIP C 22PF J	HDM2,NM2	C437			C92-0004-05	CHIP-TAN 1.0UF 16WV	
C270			CC73GCH1H0R5B	CHIP C 0.5PF B	HDM,HDM2	C438			CK73GB1H682K	CHIP C 6800PF K	
C271			CC73GCH1H0R5B	CHIP C 0.5PF B	M2,DM2	C439			CK73GB1E103K	CHIP C 0.010UF K	
C271			CC73GCH1H0R5B	CHIP C 0.5PF B	HDM,HDM2	C440			CC73GCH1H470J	CHIP C 47PF J	
C271			CC73GCH1H0R5B	CHIP C 0.5PF B	NM2	C441			CK73GB1E103K	CHIP C 0.010UF K	
C272,273			CK73GB1H102K	CHIP C 1000PF K	HDM,HDM2	C442			CK73GB1H471K	CHIP C 470PF K	
C273			CK73GB1H102K	CHIP C 1000PF K	M2,DM2	C443			CK73GB1H471K	CHIP C 470PF K	
C273			CK73GB1H102K	CHIP C 1000PF K	NM2	C444			CC73FCH1H751J	CHIP C 750PF J	
C274,275			CC73GCH1H101J	CHIP C 100PF J		C445			CK73GB1H122K	CHIP C 1200PF K	
C277			CK73GB1H102K	CHIP C 1000PF K		C446,447			CK73GB1H471K	CHIP C 470PF K	
C278			CC73GCH1H050C	CHIP C 5.0PF C	M2,DM2	C448			CC73GCH1H101J	CHIP C 100PF J	M,M2,DM
C278			CC73GCH1H050C	CHIP C 5.0PF C	HDM2,NM2	C448			CC73GCH1H101J	CHIP C 100PF J	DM2,HDM
C279			CC73GCH1H020C	CHIP C 2.0PF C	M2,DM2	C448			CC73GCH1H101J	CHIP C 100PF J	HDM2
C279			CC73GCH1H020C	CHIP C 2.0PF C	HDM2,NM2	C448			CC73GCH1H151J	CHIP C 150PF J	NM,NM2
C280			CC73FCH1H180J	CHIP C 18PF J	HDM2	C449			CK73GB1E103K	CHIP C 0.010UF K	
C281			CK73GB1H102K	CHIP C 1000PF J	HDM,HDM2	C450			CK73GB1H332K	CHIP C 3300PF K	NM,NM2
C282			C92-0536-05	CHIP-TAN 10UF 10WV	M2,DM2	C450			CK73GB1H682K	CHIP C 6800PF K	M,M2,DM
C282			C92-0536-05	CHIP-TAN 10UF 10WV	HDM2,NM2	C450			CK73GB1H682K	CHIP C 6800PF K	DM2,HDM
C283			CC73GCH1H040C	CHIP C 4.0PF C	M2,DM2	C450			CK73GB1H682K	CHIP C 6800PF K	HDM2
C283			CC73GCH1H040C	CHIP C 4.0PF C	NM2	C451			C92-0004-05	CHIP-TAN 1.0UF 16WV	
C283			CC73GCH1H050B	CHIP C 5.0PF B	HDM2	C452			C92-0536-05	CHIP-TAN 10UF 10WV	
C283			CC73GCH1H070B	CHIP C 7.0PF B	HDM	C453,454			CK73GB1C104K	CHIP C 0.10UF K	
C284,285			CK73GB1H102K	CHIP C 1000PF K	HDM,HDM2	C455			CK73GB1E103K	CHIP C 0.010UF K	
C285			CK73GB1H102K	CHIP C 1000PF K	M2,DM2	C457			CK73GB1H471K	CHIP C 470PF K	

PARTS LSIT / 零部件一览表

TX-RX UNIT (X57-495X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
C458			CK73GB1E103K	CHIP C 0.010UF K		L202			L40-8271-34	SMALL FIXED INDUCTOR (82NH)	M,M2,DM
C459			CK73GB1H102K	CHIP C 1000PF K		L202			L40-8271-34	SMALL FIXED INDUCTOR (82NH)	DM2,HDM
C460			CK73GB1E103K	CHIP C 0.010UF K		L202			L40-8271-34	SMALL FIXED INDUCTOR (82NH)	NM,NM2
C461			CK73GB1H102K	CHIP C 1000PF K		L202			L40-5671-34	SMALL FIXED INDUCTOR (56NH)	HDM2
C462			CK73GB1H472K	CHIP C 4700PF K		L203			L40-3981-37	SMALL FIXED INDUCTOR (0.39UH)	
C463			C92-0606-05	CHIP-TAN 4.7UF 10WV		L204			L40-3381-37	SMALL FIXED INDUCTOR (0.33UH)	
C464-466			CK73GB1E103K	CHIP C 0.010UF K		L205			L34-4472-05	COIL	
C467			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		L206,207			L34-4473-05	COIL	
C468			CK73GB1E223K	CHIP C 0.022UF K		L208			L34-4472-05	COIL	
C469			CK73GB1C104K	CHIP C 0.10UF K		L209			L40-6872-37	SMALL FIXED INDUCTOR (0.068UH)	
C470			CC73GCH1H101J	CHIP C 100PF J		L210			L40-3971-36	SMALL FIXED INDUCTOR (39NH)	
C471			CK73GB1E103K	CHIP C 0.010UF K		L211			L40-1081-37	SMALL FIXED INDUCTOR (0.1UH)	
C472-475			CC73GCH1H101J	CHIP C 100PF J		X1			L77-1676-05	VCXO (12.8MHZ)	
C480			CC73GCH1H030C	CHIP C 3.0PF C		X2			L77-1595-05	CRYSTAL RESONATOR (44.595MHZ)	
C481,482			CC73GCH1H100D	CHIP C 10PF D		X401			L77-1630-05	CRYSTAL RESONATOR (8.368MHZ)	
C486			CK73GB1C104K	CHIP C 0.10UF K		XF1			L71-0498-05	MCF (45.050MHZ)	M,M2,DM
C487			C92-0505-05	CHIP-TAN 10UF 16WV		XF1			L71-0498-05	MCF (45.050MHZ)	DM2,HDM
C488,489			CK73GB1H471K	CHIP C 470PF K		XF1			L71-0498-05	MCF (45.050MHZ)	HDM2
C491			CK73GB1C104K	CHIP C 0.10UF K		XF1			L71-0499-05	MCF (45.050MHZ)	NM,NM2
C492			CC73GCH1H680J	CHIP C 68PF J		R1			RK73GB1J102J	CHIP R 1.0K J 1/16W	
C494			CK73GB1H103K	CHIP C 0.010UF K		R2			R92-1252-05	CHIP R 0 OHM	
105	2B		E29-1139-04	INTER CONNECTOR (LCD)		R3			RK73GB1J103J	CHIP R 10K J 1/16W	
CN1			E40-5737-05	PIN CONNECTOR FOR INSIDE (8P)		R4			R92-1252-05	CHIP R 0 OHM	
CN2			E40-5738-05	PIN CONNECTOR FOR INSIDE (3P)		R5,6			R92-0670-05	CHIP R 0 OHM	
CN4			E40-3247-05	PIN CONNECTOR FOR INSIDE (3P)		R7,8			RK73GB1J102J	CHIP R 1.0K J 1/16W	
CN5			E40-3246-05	PIN CONNECTOR FOR INSIDE (2P)		R9,10			R92-1252-05	CHIP R 0 OHM	
CN6			E40-5567-05	FLAT CABLE CONNECTOR (26P)		R11			RK73GB1J224J	CHIP R 220K J 1/16W	
CN201			E40-3247-05	PIN CONNECTOR FOR INSIDE (3P)		R12			RK73GB1J102J	CHIP R 1.0K J 1/16W	
CN401			E40-5567-05	CONNECTOR (26P)		R13			R92-1252-05	CHIP R 0 OHM	
J1			E11-0442-05	PHONE JACK (3.5D)		R14			RK73FB2A102J	CHIP R 1.0K J 1/10W	
J401			E08-0673-15	MODULAR JACK		R15			R92-1252-05	CHIP R 0 OHM	
F1			F53-0108-05	FUSE (1.8A)		R16			RK73GB1J103J	CHIP R 10K J 1/16W	
107	2A		J21-4479-04	HARDWARE FIXTURE		R17			RK73GB1J104J	CHIP R 100K J 1/16W	
CD1			L79-1013-05	DISCLI (455KHZ)		R18			RK73GB1J123J	CHIP R 12K J 1/16W	
CF201			L72-0372-05	CERAMIC FILTER (455KHZ)	M,M2,DM	R19			RK73GB1J472J	CHIP R 4.7K J 1/16W	
CF201			L72-0372-05	CERAMIC FILTER (455KHZ)	DM2,HDM	R21			RK73GB1J153J	CHIP R 15K J 1/16W	
CF201			L72-0372-05	CERAMIC FILTER (455KHZ)	HDM2	R22			RK73GB1J473J	CHIP R 47K J 1/16W	
CF202			L72-0376-05	CERAMIC FILTER (455KHZ:NARROW)	NM,NM2	R23			R92-1215-05	CHIP R 470 J 1/2W	
L1			L40-1092-34	SMALL FIXED INDUCTOR (1UH)		R25			RK73GB1J104J	CHIP R 100K J 1/16W	M2,DM2
L2			L40-1005-34	SMALL FIXED INDUCTOR (10UH)	M,DM,HDM	R25			RK73GB1J124J	CHIP R 120K J 1/16W	
L2			L40-1005-34	SMALL FIXED INDUCTOR (10UH)	NM	R25			RK73GB1J124J	CHIP R 120K J 1/16W	
L2			L40-6875-34	SMALL FIXED INDUCTOR (68NH)	M2,DM2	R26			RK73GB1J102J	CHIP R 1.0K J 1/16W	
L2			L40-6875-34	SMALL FIXED INDUCTOR (68NH)	HDM2,NM2	R27			RK73GB1J184J	CHIP R 180K J 1/16W	
L3			L40-1081-37	SMALL FIXED INDUCTOR (0.1UH)		R28			RK73GB1J104J	CHIP R 100K J 1/16W	
L19			L34-4480-05	COIL (5T)		R30			RK73GB1J104J	CHIP R 100K J 1/16W	
L20			L34-4479-05	COIL (2.5T)	HDM	R34			RK73GB1J473J	CHIP R 47K J 1/16W	
L20			L34-4481-05	COIL (6T)	M,M2,DM	R36			RK73GB1J473J	CHIP R 47K J 1/16W	
L20			L34-4481-05	COIL (6T)	DM2,NM	R37			RK73GB1J103J	CHIP R 10K J 1/16W	
L20			L34-4481-05	COIL (6T)		R38			RK73GB1J182J	CHIP R 1.8K J 1/16W	
L20			L34-4481-05	COIL (6T)		R40			RK73GB1J152J	CHIP R 1.5K J 1/16W	
L20			L34-4496-05	COIL (5T)	NM2	R41			RK73GB1J224J	CHIP R 220K J 1/16W	
L21			L34-4478-05	COIL (9.5T)	HDM2	R42			RK73GB1J472J	CHIP R 4.7K J 1/16W	
L22,23			L34-4481-05	COIL (6T)		R44			RK73GB1J220J	CHIP R 22 J 1/16W	
L24			L34-4478-05	COIL (9.5T)		R46			RK73GB1J473J	CHIP R 47K J 1/16W	
L201			L40-3371-34	SMALL FIXED INDUCTOR (33NH)	HDM2	R49			RK73GB1J104J	CHIP R 100K J 1/16W	
L201			L40-6871-34	SMALL FIXED INDUCTOR (68NH)	M,M2,DM	R50			RK73GB1J472J	CHIP R 4.7K J 1/16W	
L201			L40-6871-34	SMALL FIXED INDUCTOR (68NH)	DM2,HDM	R51			RK73GB1J104J	CHIP R 100K J 1/16W	
L201			L40-6871-34	SMALL FIXED INDUCTOR (68NH)	NM,NM2	R52			RK73GB1J220J	CHIP R 22 J 1/16W	

TK-768 : M,M2,DM,DM2,NM,NM2

TK-768H : DM,DM2

PARTS LSIT / 零部件一览表

TX-RX UNIT (X57-495X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R53			RK73GB1J274J	CHIP R 270K J 1/16W		R142,143			RK73FB2A100J	CHIP R 10 J 1/10W	HDM,NM2
R55			RK73GB1J332J	CHIP R 3.3K J 1/16W		R142,143			RK73FB2A330J	CHIP R 33 J 1/10W	M,DM,NM
R56			R92-1252-05	CHIP R 0 OHM		R142,143			R92-0670-05	CHIP R 0 OHM	HDM2
R57			RK73GB1J104J	CHIP R 100K J 1/16W		R144			RK73GB1J333J	CHIP R 33K J 1/16W	
R59			RK73GB1J122J	CHIP R 1.2K J 1/16W		R147			RK73GB1J474J	CHIP R 470K J 1/16W	
R60,61			RK73GB1J102J	CHIP R 1.0K J 1/16W		R207-210			RK73GB1J103J	CHIP R 10K J 1/16W	
R64			RK73GB1J471J	CHIP R 470 J 1/16W		R211			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R66			RK73GB1J152J	CHIP R 1.5K J 1/16W		R212			RK73GB1J560J	CHIP R 56 J 1/16W	
R68			RK73GB1J471J	CHIP R 470 J 1/16W		R214,215			R92-1252-05	CHIP R 0 OHM	M,M2,DM
R71			RK73GB1J684J	CHIP R 680K J 1/16W		R214,215			R92-1252-05	CHIP R 0 OHM	DM2,HDM
R72			RK73GB1J223J	CHIP R 22K J 1/16W		R214,215			R92-1252-05	CHIP R 0 OHM	HDM2
R73			RK73GB1J101J	CHIP R 100 J 1/16W		R218,219			RK73GB1J104J	CHIP R 100K J 1/16W	
R74			RK73GB1J271J	CHIP R 270 J 1/16W	NM,NM2	R222			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R74			RK73GB1J681J	CHIP R 680 J 1/16W	M,M2,DM	R223			RK73FB2A103J	CHIP R 10K J 1/10W	
R74			RK73GB1J681J	CHIP R 680 J 1/16W	DM2,HDM	R224			RK73FB2A100J	CHIP R 10 J 1/10W	
R74			RK73GB1J681J	CHIP R 680 J 1/16W	HDM2	R225			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R76			RK73GB1J103J	CHIP R 10K J 1/16W		R226			RK73FB2A560J	CHIP R 56 J 1/10W	
R77			RK73GB1J101J	CHIP R 100 J 1/16W		R227			RK73FB2A470J	CHIP R 47 J 1/10W	
R78			RK73GB1J473J	CHIP R 47K J 1/16W		R228			RK73FB2A152J	CHIP R 1.5K J 1/10W	
R80			R92-0670-05	CHIP R 0 OHM		R229			RK73FB2A100J	CHIP R 10 J 1/10W	
R81			RK73GB1J102J	CHIP R 1.0K J 1/16W		R230			RK73GB1J271J	CHIP R 270 J 1/16W	NM,NM2
R83			RK73GB1J102J	CHIP R 1.0K J 1/16W		R230			RK73GB1J681J	CHIP R 680 J 1/16W	M,M2,DM
R85			RK73GB1J681J	CHIP R 680 J 1/16W		R230			RK73GB1J681J	CHIP R 680 J 1/16W	DM2,HDM
R86			RK73GB1J102J	CHIP R 1.0K J 1/16W		R230			RK73GB1J681J	CHIP R 680 J 1/16W	HDM2
R88			RK73FB2A2R2J	CHIP R 2.2 J 1/10W		R231,232			RK73GB1J101J	CHIP R 100 J 1/16W	
R92			RK73GB1J472J	CHIP R 4.7K J 1/16W		R234			RK73GB1J473J	CHIP R 47K J 1/16W	
R93			RK73FB2A102J	CHIP R 1.0K J 1/10W		R235			RK73GB1J333J	CHIP R 33K J 1/16W	
R94			R92-0685-05	CHIP R 22 J 1/2W	M,M2,DM	R236,237			RK73GB1J104J	CHIP R 100K J 1/16W	
R94			R92-0685-05	CHIP R 22 J 1/2W	DM2,HDM	R238			RK73GB1J101J	CHIP R 100 J 1/16W	
R94			R92-0685-05	CHIP R 22 J 1/2W	NM,NM2	R239			RK73GB1J104J	CHIP R 100K J 1/16W	
R94			R92-1211-05	CHIP R 5.6 J 1/2W	HDM2	R240			RK73GB1J103J	CHIP R 10K J 1/16W	
R99			RK73FB2A470J	CHIP R 47 J 1/10W		R241			RK73GB1J680J	CHIP R 68 J 1/16W	
R101			RK73FB2A470J	CHIP R 47 J 1/10W		R242			RK73GB1J184J	CHIP R 180K J 1/16W	M,DM,HDM
R102			RK73EB2B181J	CHIP R 180 J 1/8W		R242			RK73GB1J184J	CHIP R 180K J 1/16W	NM
R103			RK73EB2B151J	CHIP R 150 J 1/8W		R242			RK73GB1J683J	CHIP R 68K J 1/16W	M2,DM2
R104			RK73FB2A103J	CHIP R 10K J 1/10W		R242			RK73GB1J683J	CHIP R 68K J 1/16W	HDM2,NM2
R106			RK73FB2A154J	CHIP R 150K J 1/10W		R243			RK73GB1J103J	CHIP R 10K J 1/16W	
R107			RK73FB2A473J	CHIP R 47K J 1/10W		R244			R92-1252-05	CHIP R 0 OHM	M,DM,HDM
R108			R92-2554-05	FIXED R 0.047 3W	M,M2,DM	R244			R92-1252-05	CHIP R 0 OHM	NM
R108			R92-2554-05	FIXED R 0.047 3W	DM2,NM	R246			RK73GB1J104J	CHIP R 100K J 1/16W	
R108			R92-2554-05	FIXED R 0.047 3W	NM2	R247			R92-1281-05	FIXED R 4.7 1/4W	
R108			R92-2562-05	FIXED R 0.047 5W	HDM,HDM2	R248			R92-1252-05	CHIP R 0 OHM	
R112			RK73FB2A472J	CHIP R 4.7K J 1/10W	M,M2,DM	R250-252			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R112			RK73FB2A472J	CHIP R 4.7K J 1/10W	DM2,NM	R253			RK73GB1J124J	CHIP R 120K J 1/16W	
R112			RK73FB2A472J	CHIP R 4.7K J 1/10W	NM2	R254			RK73GB1J101J	CHIP R 100 J 1/16W	
R112			RK73FB2A473J	CHIP R 47K J 1/10W	HDM,HDM2	R255			R92-1252-05	CHIP R 0 OHM	
R113			RK73FB2A272J	CHIP R 2.7K J 1/10W		R256			RK73GB1J473J	CHIP R 47K J 1/16W	
R115,116			RK73FB2A472J	CHIP R 4.7K J 1/10W		R257			RK73GB1J101J	CHIP R 100 J 1/16W	
R117			R92-1268-05	RN 4.7K B 1/8W	HDM	R259			RK73GB1J152J	CHIP R 1.5K J 1/16W	
R118			R92-2538-05	RN 3.9K B 1/8W		R260			RK73GB1J101J	CHIP R 100 J 1/16W	
R119			R92-1261-05	CHIP R 150 J 1/2W		R261			RK73GB1J122J	CHIP R 1.2K J 1/16W	
R124			RK73GB1J271J	CHIP R 270 J 1/16W		R262			RK73GB1J101J	CHIP R 100 J 1/16W	
R125			RK73GB1J180J	CHIP R 18 J 1/16W		R263			RK73GB1J103J	CHIP R 10K J 1/16W	
R126			RK73GB1J271J	CHIP R 270 J 1/16W		R264			RK73GB1J223J	CHIP R 22K J 1/16W	
R137			RK73GB1J104J	CHIP R 100K J 1/16W		R265			RK73GB1J330J	CHIP R 33 J 1/16W	
R139			R92-1252-05	CHIP R 0 OHM		R266			RK73GB1J104J	CHIP R 100K J 1/16W	
R140,141			RK73FB2A391J	CHIP R 390 J 1/10W	M,DM,NM	R267			RK73GB1J124J	CHIP R 120K J 1/16W	
R140,141			RK73FB2A821J	CHIP R 820 J 1/10W	M2,DM2	R268			RK73GB1J184J	CHIP R 180K J 1/16W	
R140,141			RK73FB2A821J	CHIP R 820 J 1/10W	HDM,NM2	R269			RK73GB1J154J	CHIP R 150K J 1/16W	
R142,143			RK73FB2A100J	CHIP R 10 J 1/10W	M2,DM2	R270			RK73GB1J150J	CHIP R 15 J 1/16W	M2,DM2

PARTS LSIT / 零部件一览表

TX-RX UNIT (X57-495X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R270			RK73GB1J150J	CHIP R 15 J 1/16W	HDM2,NM2	R439			RK73GB1J562J	CHIP R 5.6K J 1/16W	
R270			R92-1252-05	CHIP R 0 OHM	M,DM,HDM	R440			R92-1252-05	CHIP R 0 OHM	
R270			R92-1252-05	CHIP R 0 OHM	NM	R441			RK73GB1J103J	CHIP R 10K J 1/16W	
R272			RK73GB1J101J	CHIP R 100 J 1/16W		R442			RK73GB1J561J	CHIP R 560 J 1/16W	
R273,274			R92-1252-05	CHIP R 0 OHM	NM,NM2	R443			RK73GB1J824J	CHIP R 820K J 1/16W	
R275			RK73GB1J392J	CHIP R 3.9K J 1/16W	M,M2,DM	R444			RK73GB1J224J	CHIP R 220K J 1/16W	
R275			RK73GB1J392J	CHIP R 3.9K J 1/16W	DM2,HDM	R445			RK73GB1J123J	CHIP R 12K J 1/16W	M,M2,DM
R275			RK73GB1J392J	CHIP R 3.9K J 1/16W	HDM2	R445			RK73GB1J123J	CHIP R 12K J 1/16W	DM2,HDM
R276			RK73GB1J683J	CHIP R 68K J 1/16W	M2,DM2	R445			RK73GB1J123J	CHIP R 12K J 1/16W	HDM2
R276			RK73GB1J683J	CHIP R 68K J 1/16W	HDM2,NM2	R445			RK73GB1J153J	CHIP R 15K J 1/16W	NM,NM2
R277			RK73GB1J121J	CHIP R 120 J 1/16W	HDM	R447			RK73GB1J273J	CHIP R 27K J 1/16W	
R277			RK73GB1J680J	CHIP R 68 J 1/16W	HDM2	R448			RK73GB1J822J	CHIP R 8.2K J 1/16W	
R278			RK73GB1J222J	CHIP R 2.2K J 1/16W	M2,DM2	R449			RK73GB1J563J	CHIP R 56K J 1/16W	
R278			RK73GB1J222J	CHIP R 2.2K J 1/16W	HDM2,NM2	R450			RK73GB1J334J	CHIP R 330K J 1/16W	
R401			RK73GB1J391J	CHIP R 390 J 1/16W		R451			RK73GB1J104J	CHIP R 100K J 1/16W	
R402			RK73GB1J102J	CHIP R 1.0K J 1/16W		R452			RK73GB1J224J	CHIP R 220K J 1/16W	
R403-405			R92-1252-05	CHIP R 0 OHM		R453,454			RK73GB1J824J	CHIP R 820K J 1/16W	
R406			RK73GB1J104J	CHIP R 100K J 1/16W		R455			RK73GB1J100J	CHIP R 10 J 1/16W	
R407			RK73GB1J222J	CHIP R 2.2K J 1/16W		R456			RK73GB1J682J	CHIP R 6.8K J 1/16W	
R408			RK73GB1J472J	CHIP R 4.7K J 1/16W		R457,458			RK73GB1J823J	CHIP R 82K J 1/16W	
R409-411			RK73GB1J103J	CHIP R 10K J 1/16W		R459			RK73GB1J392J	CHIP R 3.9K J 1/16W	
R412			RK73GB1J681J	CHIP R 680 J 1/16W		R460			RK73GB1J103J	CHIP R 10K J 1/16W	
R413			RK73GB1J103J	CHIP R 10K J 1/16W		R461			RK73GB1J104J	CHIP R 100K J 1/16W	
R414			RK73GB1J473J	CHIP R 47K J 1/16W		R462,463			RK73GB1J563J	CHIP R 56K J 1/16W	M,M2,DM
R415			RK73GB1J684J	CHIP R 680K J 1/16W		R462,463			RK73GB1J563J	CHIP R 56K J 1/16W	DM2,HDM
R416			RK73GB1J152J	CHIP R 1.5K J 1/16W		R462,463			RK73GB1J563J	CHIP R 56K J 1/16W	HDM2
R417			RK73GB1J472J	CHIP R 4.7K J 1/16W	NM,NM2	R462,463			RK73GB1J683J	CHIP R 68K J 1/16W	NM,NM2
R417			RK73GB1J562J	CHIP R 5.6K J 1/16W	M,M2,DM	R464			RK73GB1J183J	CHIP R 18K J 1/16W	
R417			RK73GB1J562J	CHIP R 5.6K J 1/16W	DM2,HDM	R465			RK73GB1J684J	CHIP R 680K J 1/16W	
R417			RK73GB1J562J	CHIP R 5.6K J 1/16W	HDM2	R466			RK73GB1J183J	CHIP R 18K J 1/16W	
R418			RK73GB1J124J	CHIP R 120K J 1/16W		R467			RK73GB1J103J	CHIP R 10K J 1/16W	
R419			RK73GB1J154J	CHIP R 150K J 1/16W		R468			RK73GB1J223J	CHIP R 22K J 1/16W	
R420			R92-1252-05	CHIP R 0 OHM		R469-471			RK73GB1J103J	CHIP R 10K J 1/16W	
R421			RK73GB1J153J	CHIP R 15K J 1/16W		R472			RK73GB1J223J	CHIP R 22K J 1/16W	
R422			RK73GB1J183J	CHIP R 18K J 1/16W		R473			R92-1252-05	CHIP R 0 OHM	
R423			RK73GB1J123J	CHIP R 12K J 1/16W		R474			R92-0670-05	CHIP R 0 OHM	
R424			R92-1252-05	CHIP R 0 OHM		R475			R92-1252-05	CHIP R 0 OHM	
R425			RK73GB1J153J	CHIP R 15K J 1/16W		R476-478			RK73GB1J473J	CHIP R 47K J 1/16W	
R426			RK73GB1J223J	CHIP R 22K J 1/16W		R479			RK73GB1J103J	CHIP R 10K J 1/16W	
R427			RK73GB1J274J	CHIP R 270K J 1/16W	NM,NM2	R480			R92-1252-05	CHIP R 0 OHM	
R427			RK73GB1J474J	CHIP R 470K J 1/16W	M,M2,DM	R481-488			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R427			RK73GB1J474J	CHIP R 470K J 1/16W	DM2,HDM	R489			R92-1252-05	CHIP R 0 OHM	
R427			RK73GB1J474J	CHIP R 470K J 1/16W	HDM2	R490			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R428			RK73GB1J103J	CHIP R 10K J 1/16W	NM	R491			RK73GB1J473J	CHIP R 47K J 1/16W	
R428			RK73GB1J153J	CHIP R 15K J 1/16W	M2,DM2	R493			RK73GB1J391J	CHIP R 390 J 1/16W	
R428			RK73GB1J153J	CHIP R 15K J 1/16W	HDM2	R494-497			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R428			RK73GB1J333J	CHIP R 33K J 1/16W	M,DM,HDM	R498,499			RK73GB1J473J	CHIP R 47K J 1/16W	
R428			RK73GB1J562J	CHIP R 5.6K J 1/16W	NM2	R500,501			R92-1252-05	CHIP R 0 OHM	
R429			RK73GB1J224J	CHIP R 220K J 1/16W		R502			RK73GB1J105J	CHIP R 1.0M J 1/16W	
R430			RK73GB1J184J	CHIP R 180K J 1/16W		R503			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R431			RK73GB1J183J	CHIP R 18K J 1/16W		R508			R92-1252-05	CHIP R 0 OHM	
R432			RK73GB1J223J	CHIP R 22K J 1/16W		R512			R92-0670-05	CHIP R 0 OHM	
R433,434			RK73GB1J184J	CHIP R 180K J 1/16W		R513,514			RK73GB1J473J	CHIP R 47K J 1/16W	
R435			RK73GB1J223J	CHIP R 22K J 1/16W		R515			RK73GB1J333J	CHIP R 33K J 1/16W	
R436			RK73GB1J183J	CHIP R 18K J 1/16W		R517			R92-1252-05	CHIP R 0 OHM	
R437			RK73GB1J223J	CHIP R 22K J 1/16W	M2,DM2	R518			RK73GB1J823J	CHIP R 82K J 1/16W	
R437			RK73GB1J223J	CHIP R 22K J 1/16W	HDM2,NM	R519			RK73GB1J684J	CHIP R 680K J 1/16W	
R437			RK73GB1J273J	CHIP R 27K J 1/16W	NM2	R520			RK73GB1J103J	CHIP R 10K J 1/16W	NM,NM2
R437			R92-1252-05	CHIP R 0 OHM	M,DM,HDM	R520			RK73GB1J153J	CHIP R 15K J 1/16W	M,M2,DM
R438			RK73GB1J392J	CHIP R 3.9K J 1/16W		R520			RK73GB1J153J	CHIP R 15K J 1/16W	DM2,HDM

TK-768 : M,M2,DM,DM2,NM,NM2

TK-768H : DM,DM2

PARTS LSIT / 零部件一览表

TX-RX UNIT (X57-495X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R520			RK73GB1J153J	CHIP R 15K J 1/16W	HDM2	IC7			MC3372SV	IC (LO POWER FMIC)	
R521			RK73GB1J473J	CHIP R 47K J 1/16W		IC8			NJM2904M	IC (OP AMP X2)	
R522			RK73GB1J223J	CHIP R 22K J 1/16W		IC10			BU4094BCF	IC (8-STAGE SHIFT/STORE REGISTE	
R523			RK73GB1J473J	CHIP R 47K J 1/16W		IC11			LA4422	IC (AF POWER AMP/ 5.8W)	
R524			RK73GB1J472J	CHIP R 4.7K J 1/16W		IC13			NJM2904M	IC (OP AMP X2)	
R525			RK73GB1J684J	CHIP R 680K J 1/16W		IC14			TA75S01F	IC (OP AMP)	
R526			RK73GB1J224J	CHIP R 220K J 1/16W		IC201			NJM78L05UA	IC (VOLTAGE REGULATOR/ +9V)	
R527,528			RK73GB1J473J	CHIP R 47K J 1/16W		IC202			MC145190F	IC (PLL IC)	
R529			RK73GB1J224J	CHIP R 220K J 1/16W		IC401-403			NJM4558E	IC (OP AMP X2)	
R530			RK73GB1J223J	CHIP R 22K J 1/16W	NM,NM2	IC404			TA75S01F	IC (OP AMP)	
R530			RK73GB1J393J	CHIP R 39K J 1/16W	M,M2,DM	IC405,406			NJM4558E	IC (OP AMP X2)	
R530			RK73GB1J393J	CHIP R 39K J 1/16W	DM2,HDM	IC407			NJM78L05UA	IC (VOLTAGE REGULATOR/ +5V)	
R530			RK73GB1J393J	CHIP R 39K J 1/16W	HDM2	IC408			RH5VL42C	IC (REGULATOR)	
R531,532			R92-1252-05	CHIP R 0 OHM		IC409	*		M38267M8L184GP	IC (MPU)	
VR401			R32-0657-05	SEMI FIXED VR 10K		IC410			LC73881M	IC (DTMF DECODER)	
VR402			R32-0659-05	SEMI FIXED VR 300K		IC411			AT2408N10SI2.5	IC (8kbit SERIAL EEPROM)	
D1			02CZ18(X,Y)	DIODE	HDM,HDM2	IC412- Q1			NJM4558E	IC (OP AMP X2)	
D2			DSA3A1-FK	DIODE		Q1			DTA114EU	DIGITAL TRANSISTOR	
D3			MA110	DIODE		Q2,3			DTC114EU	DIGITAL TRANSISTOR	
D3			1SS355	DIODE		Q4			2SA1641(S,T)	TRANSISTOR	
D4			02CZ15(X,Y)	DIODE		Q5			DTA114YK	DIGITAL TRANSISTOR	
D5			MA110	DIODE		Q6			2SB1132(Q,R)	TRANSISTOR	
D5			1SS355	DIODE		Q8			2SA1362(Y)	TRANSISTOR	
D6			ERZ-M100K220	SURGE ABSORBER		Q10,11			DTC114EU	DIGITAL TRANSISTOR	
D9-12			DA204K	DIODE		Q13			DTC114EK	DIGITAL TRANSISTOR	
D13			02CZ20(Y,Z)	DIODE		Q14			DTD114EK	DIGITAL TRANSISTOR	
D14			DSM3MA1	DIODE	M,M2,DM	Q15			2SC4116(GR)	TRANSISTOR	
D14			DSM3MA1	DIODE	DM2,NM	Q16			2SC2059K(P)	TRANSISTOR	
D14			DSM3MA1	DIODE	NM2	Q18			2SC4215(Y)	TRANSISTOR	
D17			DAN235K	DIODE		Q20			DTC363EK	DIGITAL TRANSISTOR	
D20			MA4PH633	DIODE		Q22			2SA1757(E,F)	TRANSISTOR	HDM,HDM2
D22			MA110	DIODE		Q22			2SB1565(E,F)	TRANSISTOR	M,M2,DM
D22			1SS355	DIODE		Q22			2SB1565(E,F)	TRANSISTOR	DM2,NM
D24			M1809	DIODE		Q22			2SB1565(E,F)	TRANSISTOR	NM2
D204			DAN235K	DIODE		Q23			2SC4116(GR)	TRANSISTOR	
D205			DAN202K	DIODE		Q24			DTC114EK	DIGITAL TRANSISTOR	
D206,207			DA204K	DIODE		Q25			DTA144EU	DIGITAL TRANSISTOR	
D208-210			1SV269	DIODE		Q26			DTC114EU	DIGITAL TRANSISTOR	
D211			1SV214	DIODE		Q205			2SC3357	TRANSISTOR	
D212			MA110	DIODE		Q206			2SC2954	TRANSISTOR	
D212			1SS355	DIODE		Q207			SGM2014M	TRANSISTOR	
D213			1SV214	DIODE		Q208			3SK241(R)	TRANSISTOR	
D214			HSM88AS	DIODE	M2,DM2	Q209			2SC2059K(P)	TRANSISTOR	
D214			HSM88AS	DIODE	HDM,HDM2	Q210			2SC4116(GR)	TRANSISTOR	M2,DM2
D214			HSM88AS	DIODE	NM2	Q210			2SC4116(GR)	TRANSISTOR	HDM,HDM2
D215			02CZ12(X,Y)	DIODE	M2,DM2	Q210			2SC4116(GR)	TRANSISTOR	NM2
D215			02CZ12(X,Y)	DIODE	HDM,HDM2	Q211			DTC144EK	DIGITAL TRANSISTOR	M2,DM2
D215			02CZ12(X,Y)	DIODE	NM2	Q211			DTC144EK	DIGITAL TRANSISTOR	HDM,HDM2
D216			HSM88AS	DIODE	HDM,HDM2	Q211			DTC144EK	DIGITAL TRANSISTOR	NM2
D217			02CZ12(X,Y)	DIODE	HDM,HDM2	Q212			DTD114EK	DIGITAL TRANSISTOR	
D401,402			DA204K	DIODE		Q213			2SC2712(Y)	TRANSISTOR	HDM,HDM2
D403			DAN202U	DIODE		Q401			2SC4081(R)	TRANSISTOR	
D404,405			DA204K	DIODE		Q403			DTC363EK	DIGITAL TRANSISTOR	
D406-411			B30-2140-05	LED		Q405			2SB1132(Q,R)	TRANSISTOR	
IC1			BU4013BF	IC (D TYPE FLIP FLOP X2)		Q406			DTA114TK	DIGITAL TRANSISTOR	
IC2			NJM4558M	IC (OP AMP X2)		Q409			DTC144EK	DIGITAL TRANSISTOR	
IC3			NJM78L05UA	IC (VOLTAGE REGULATOR/ +5V)		Q411			DTA144EK	DIGITAL TRANSISTOR	
IC4			TA7808S	IC (REGULATOR)GULATOR/ +8V)		Q419			DTA144EK	DIGITAL TRANSISTOR	
IC6			M62363FP	IC (8bit D/A CONVERTER)		Q420			DTC144EK	DIGITAL TRANSISTOR	
						TH3			157-104-55001	THERMISTOR	HDM,HDM2

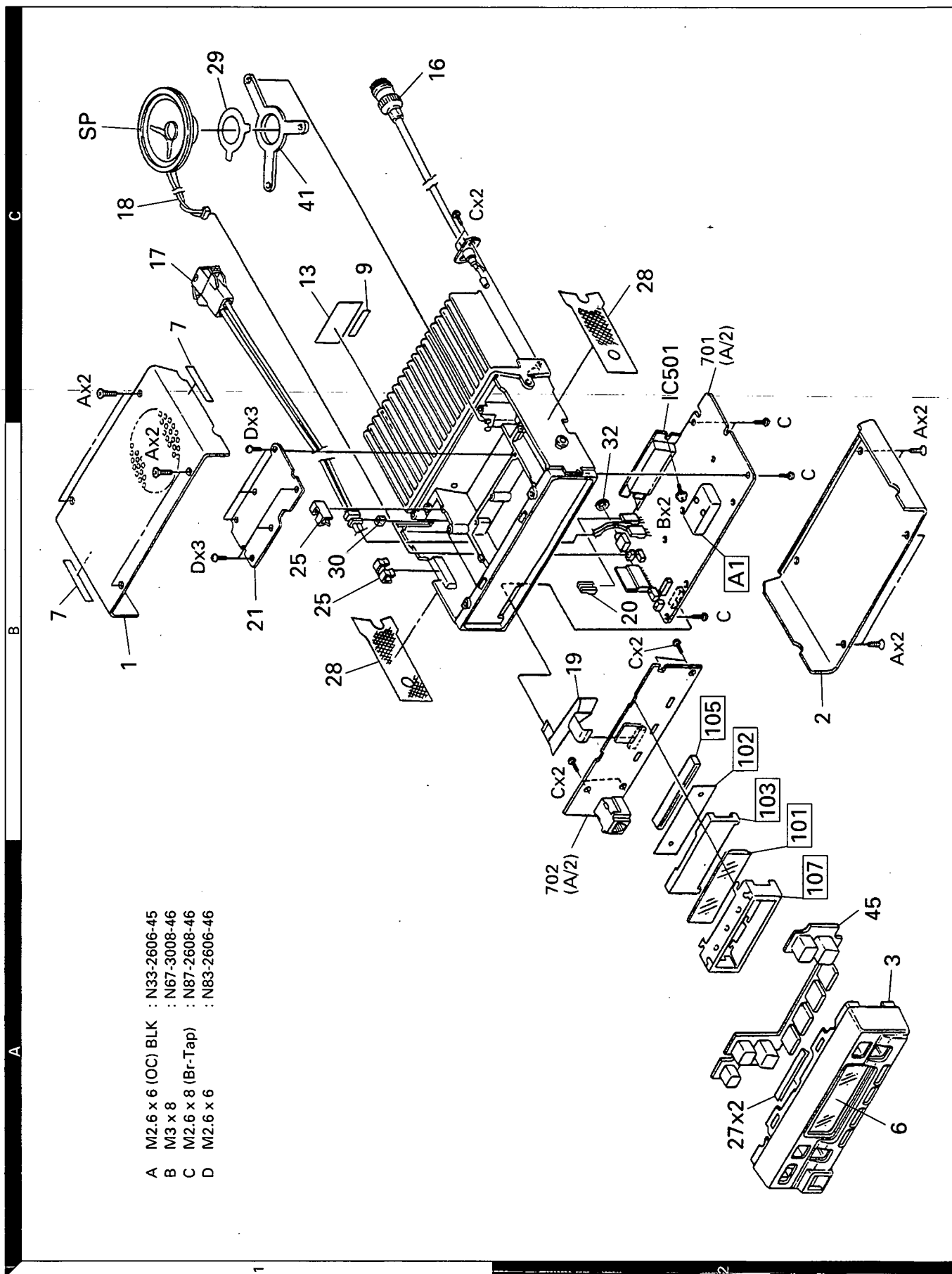
PARTS LSIT / 零部件一览表

TX-RX UNIT (X57-495X-XX)
VCO (X58-4360-XX)

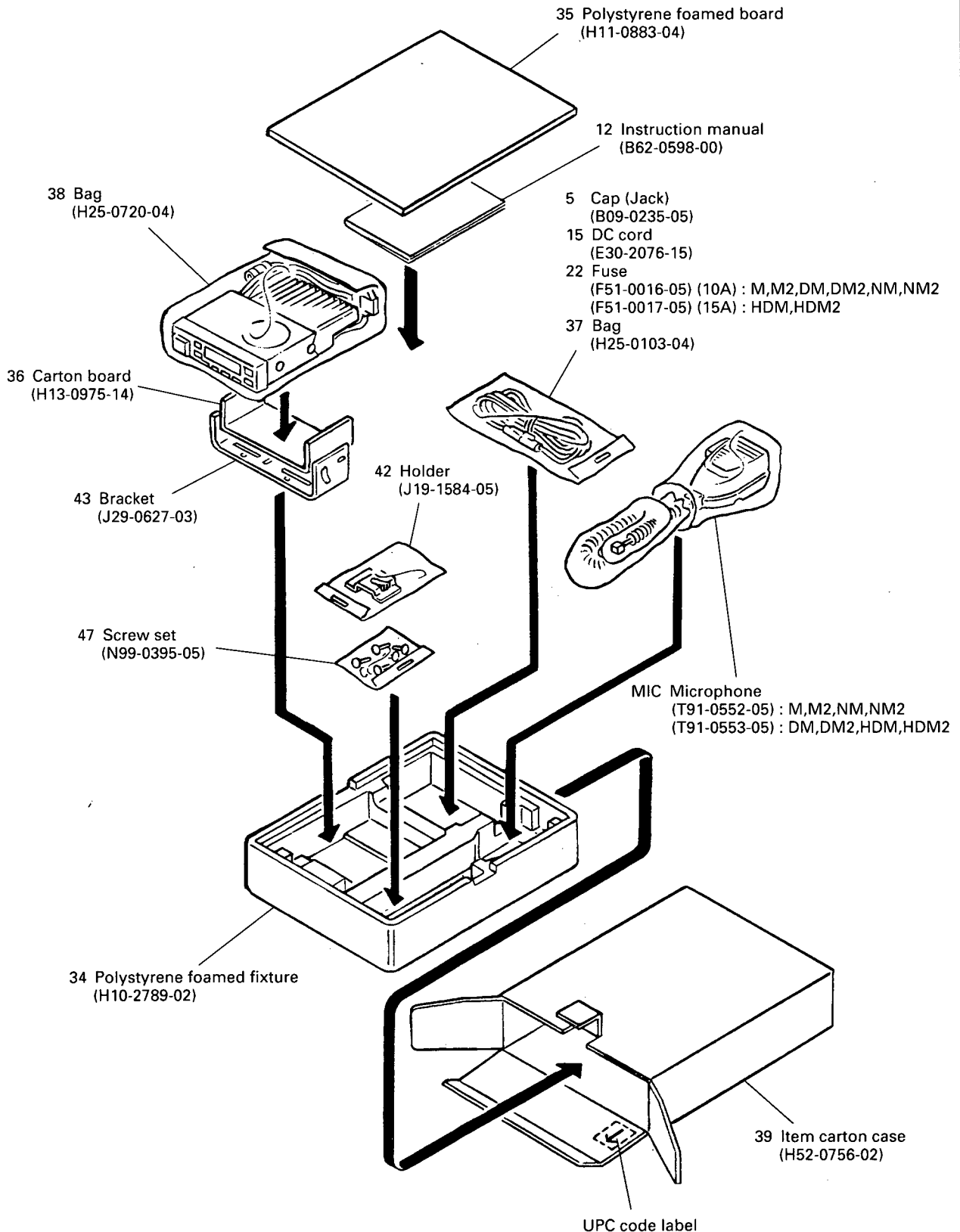
Ref. No.	Address	New parts	Parts No.	Description	Destination
TH402			157-104-65001	THERMISTOR	M2,DM2
TH402			157-104-65001	THERMISTOR	HDM2
TH402			157-104-65001	THERMISTOR	NM,NM2
A1			X58-4360-10	SUB UNIT (VCO)	M,DM,HDM
A1			X58-4360-10	SUB UNIT (VCO)	NM
A1			X58-4360-11	SUB UNIT (VCO)	M2,DM2
A1			X58-4360-11	SUB UNIT (VCO)	HDM2,NM2
VCO (X58-4360-XX)					
-10 : M,DM,HDM,NM -11 : M2,DM2,HDM2,NM2					
C1-3			CK73GB1H102K	CHIP C 1000PF K	
C4			CC73GCH1H820J	CHIP C 82PF J	
C5,6			CC73GCH1H060D	CHIP C 6.0PF D	M,DM,HDM
C5,6			CC73GCH1H060D	CHIP C 6.0PF D	NM
C5,6			CC73GCH1H070D	CHIP C 7.0PF D	M2,DM2
C5,6			CC73GCH1H070D	CHIP C 7.0PF D	HDM2,NM2
C7,8			CK73GB1H102K	CHIP C 1000PF K	
C9			CC73GCH1H060D	CHIP C 6.0PF D	M,DM,HDM
C9			CC73GCH1H060D	CHIP C 6.0PF D	NM
C9			CC73GCH1H070D	CHIP C 7.0PF D	M2,DM2
C9			CC73GCH1H070D	CHIP C 7.0PF D	HDM2,NM2
C10			CC73GCH1H040C	CHIP C 4.0PF C	M2,DM2
C10			CC73GCH1H040C	CHIP C 4.0PF C	HDM2,NM2
C10			CC73GCH1H080D	CHIP C 8.0PF D	M,DM,HDM
C10			CC73GCH1H080D	CHIP C 8.0PF D	NM
C11			CC73GCH1H060D	CHIP C 6.0PF D	M2,DM2
C11			CC73GCH1H060D	CHIP C 6.0PF D	HDM2,NM2
C11			CC73GCH1H120J	CHIP C 12PF J	M,DM,HDM
C11			CC73GCH1H120J	CHIP C 12PF J	NM
C12,13			CK73GB1H102K	CHIP C 1000PF K	
C14			CC73GCH1H010C	CHIP C 1.0PF C	M2,DM2
C14			CC73GCH1H010C	CHIP C 1.0PF C	HDM2,NM2
C14			CC73GCH1H020C	CHIP C 2.0PF C	M,DM,HDM
C14			CC73GCH1H020C	CHIP C 2.0PF C	NM
C15,16			CK73GB1H102K	CHIP C 1000PF K	
C17			CK73GB1H103K	CHIP C 0.010UF K	
C18			CC73GCH1H270J	CHIP C 27PF J	M2,DM2
C18			CC73GCH1H270J	CHIP C 27PF J	HDM2,NM2
C18			CC73GCH1H560J	CHIP C 56PF J	M,DM,HDM
C18			CC73GCH1H560J	CHIP C 56PF J	NM
C20			CC73GCH1H060D	CHIP C 6.0PF D	M,DM,HDM
C20			CC73GCH1H060D	CHIP C 6.0PF D	NM
C20			CC73GCH1H1R5C	CHIP C 1.5PF C	M2,DM2
C20			CC73GCH1H1R5C	CHIP C 1.5PF C	HDM2,NM2
C21			CK73GB1H103K	CHIP C 0.010UF K	
C22			CK73GB1H102K	CHIP C 1000PF K	
C23			CK73GB1H103K	CHIP C 0.010UF K	
C24			CC73GCH1H020C	CHIP C 2.0PF C	
C25			CC73GCH1H150J	CHIP C 15PF J	
C27			CK73GB1H102K	CHIP C 1000PF K	
CN1			E40-5815-05	PIN CONNECTOR FOR INSIDE (6P)	
-			F10-2204-04	SHIELDING CASE	
L1,2			L33-1268-15	CHOKE COIL (10UH)	
L3			L34-4432-05	COIL	M,DM,HDM
L3			L34-4432-05	COIL	NM
L3			L34-4449-05	COIL	M2,DM2
L3			L34-4449-05	COIL	HDM2,NM2

Ref. No.	Address	New parts	Parts No.	Description	Destination
L4-8			L33-1268-15	CHOKE COIL (10UH)	
L9			L34-4429-05	COIL	M,DM,HDM
L9			L34-4429-05	COIL	NM
L9			L34-4484-05	COIL	M2,DM2
L9			L34-4484-05	COIL	HDM2,NM2
L10			L40-1081-34	SMALL FIXED INDUCTOR (100NH)	M2,DM2
L10			L40-1081-34	SMALL FIXED INDUCTOR (100NH)	HDM2,NM2
L10			L40-6871-34	SMALL FIXED INDUCTOR (68NH)	M,DM,HDM
L10			L40-6871-34	SMALL FIXED INDUCTOR (68NH)	NM
R1			RK73GB1J101J	CHIP R 100 J 1/16W	
R2			RK73GB1J391J	CHIP R 390 J 1/16W	M,DM,HDM
R2			RK73GB1J391J	CHIP R 390 J 1/16W	NM
R2			RK73GB1J470J	CHIP R 47 J 1/16W	M2,DM2
R2			RK73GB1J470J	CHIP R 47 J 1/16W	HDM2,NM2
R3			RK73GB1J181J	CHIP R 180 J 1/16W	M2,DM2
R3			RK73GB1J181J	CHIP R 180 J 1/16W	HDM2,NM2
R3			RK73GB1J221J	CHIP R 220 J 1/16W	M,DM,HDM
R3			RK73GB1J221J	CHIP R 220 J 1/16W	NM
R4			RK73GB1J472J	CHIP R 47K J 1/16W	
R5			R92-1252-05	CHIP R 0 OHM	
R6			RK73GB1J101J	CHIP R 100 J 1/16W	
R7			RK73GB1J183J	CHIP R 18K J 1/16W	
R8			RK73GB1J181J	CHIP R 180 J 1/16W	
R9			RK73GB1J391J	CHIP R 390 J 1/16W	M,DM,HDM
R9			RK73GB1J391J	CHIP R 390 J 1/16W	NM
R9			RK73GB1J470J	CHIP R 47 J 1/16W	M2,DM2
R9			RK73GB1J470J	CHIP R 47 J 1/16W	HDM2,NM2
R10			RK73GB1J151J	CHIP R 150 J 1/16W	M,DM,HDM
R10			RK73GB1J151J	CHIP R 150 J 1/16W	NM
R10			RK73GB1J181J	CHIP R 180 J 1/16W	M2,DM2
R10			RK73GB1J181J	CHIP R 180 J 1/16W	HDM2,NM2
R11			RK73GB1J473J	CHIP R 47K J 1/16W	
R12			RK73GB1J103J	CHIP R 10K J 1/16W	
R13			RK73GB1J101J	CHIP R 100 J 1/16W	
R14			RK73GB1J390J	CHIP R 39 J 1/16W	
R15			R92-0670-05	CHIP R 0 OHM	
D1-4			1SV269	VARIABLE CAPACITANCE DIODE	
Q1			UMG1	TRANSISTOR	
Q2			2SK508NV(K52)	FET	
Q3			2SC4215(Y)	TRANSISTOR	
Q4			DTC114EU	DIGITAL TRANSISTOR	
Q5			2SK508NV(K52)	FET	

EXPLODED VIEW / 部件分解图



PACKING / 包装

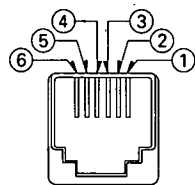


ADJUSTMENT

Test Equipment Required for Alignment

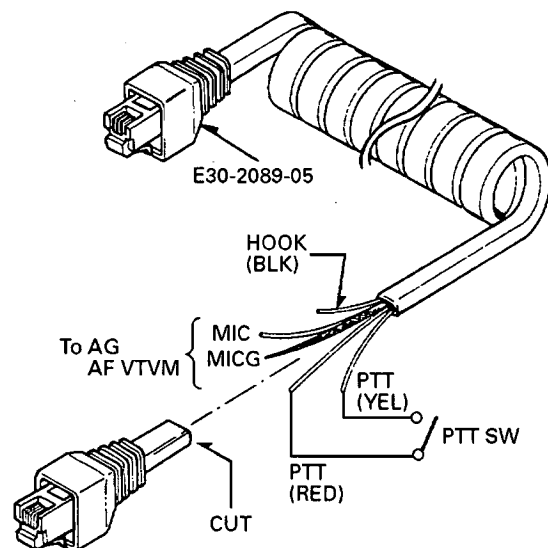
Test Equipment	Major Specifications	
1. Standard Signal Generator (SSG)	Frequency Range Modulation Output	100 to 200MHz Frequency modulation and external modulation -127dBm/0.1μV to greater than -7dBm/100mV
2. Power Meter	Input Impedance Operation Frequency Measurement Capability	50Ω 100 to 200MHz or more Vicinity of 60W
3. Deviation Meter	Frequency Range	100 to 200MHz
4. Digital Volt Meter (DVM)	Measuring Range Accuracy	1 to 15V DC High input impedance for minimum circuit loading
5. Oscilloscope		DC through 30MHz
6. High Sensitivity Frequency Counter	Frequency Range Frequency Stability	10Hz to 200MHz 0.2ppm or less
7. Ammeter		15A
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 or more 0 to 1V
10. Distortion Meter	Capability Input Level	3% or less at 1kHz 50mV to 10Vrms
11. Voltmeter	Measuring Range Input Impedance	1.5 to 30V DC or less 50kΩ/V or greater
12. 4Ω Dummy Load		Approx. 4Ω, 3W
13. Regulated Power Supply		13.6V, approx. 15A (adjustable from 9 to 17V) Useful if ammeter required

- The following test cable is recommended.



- ① SB
- ② PTTG
- ③ PTT
- ④ MICG
- ⑤ MIC
- ⑥ HOOK

MIC connector (Front view)



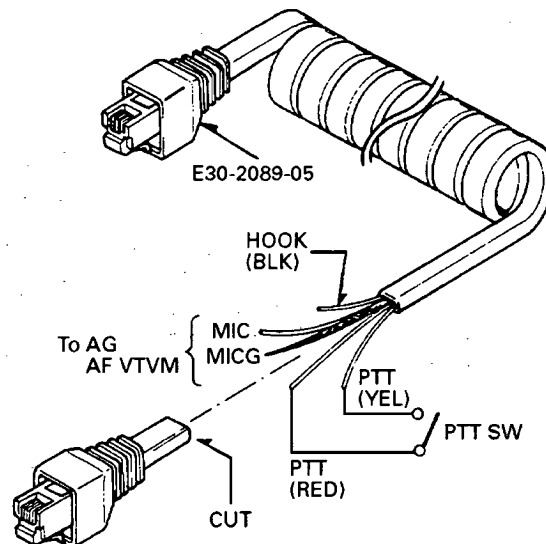
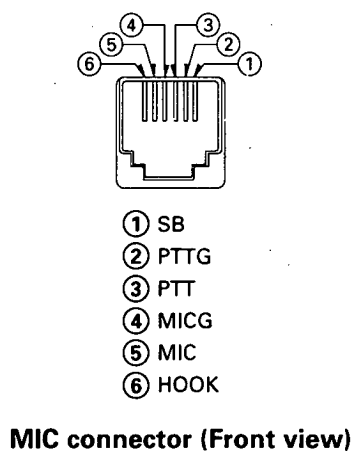
Test cable for microphone input

调整

调整所需的测试仪器

测试仪器	主要规格	
1. 标准信号发生器 (SSG)	频率范围 调制 输出	100 到 200 MHz 频率调制和外部调制 -127 dBm / 0.1 μ V 到 大于 -7 dBm / 100 mV
2. 功率表	输入阻抗 工作频率 测量能力	50 Ω 100 到 200 MHz 或更高 60 W 左右
3. 偏移测试表	频率范围	100 到 200 MHz
4. 数字电压表 (DVM)	测量范围 精度	1 到 15V 直流 用于最小电路负载的高输入阻抗
5. 示波器		直流到 30 MHz
6. 高灵敏度频率计数器	频率范围 频率稳定度	10 Hz 到 200 MHz 0.2 ppm 或更小
7. 电流表		15 A
8. AF 电压表 (AF VTVM)	频率范围 电压范围	50 Hz 到 10 kHz 3 mV 到 3V
9. 音频发生器 (AG)	频率范围 输出	50 Hz 到 5 kHz 或更高 0 到 1V
10. 失真测试表	能力 输入电平	在 1 kHz 时, 3% 或更小 50 mV 到 10 Vrms
11. 电压表	测量范围 输入阻抗	1.5 到 30 V 直流或更小 50 k Ω /V 或更大
12. 4 Ω 虚负载		约 4 Ω , 3 W
13. 稳压电源供应		13.6 V, 约 15 A (可在 9 到 17 V 之间进行调整) 如果有电流表是比较有用。

- The following test cable is recommended.

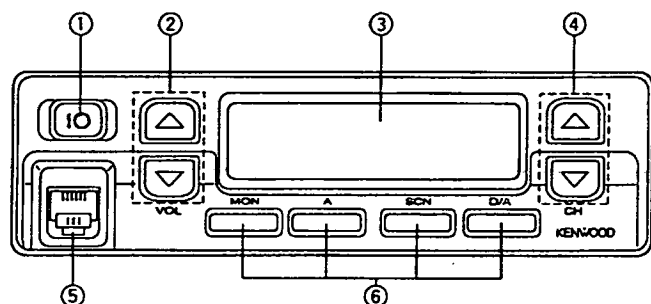


Test cable for microphone input

ADJUSTMENT/ 调整

Adjustment Location

• Front panel



① POWER switch

Press to turn the power ON or OFF.

② VOLUME [▲] / [▼] buttons

Press [▲] to increase the volume or [▼] to decrease the volume. To quickly step the volume up or down, hold down [▲] or [▼] respectively.

③ Display

See below for more details.

④ CHANNEL [▲] / [▼] buttons

Press [▲] to select the next higher channel or [▼] to select the next lower channel. You can choose from a maximum of 32 channels programmed by the dealer. To quickly step upward or downward through the channels, hold down [▲] or [▼] respectively.

⑤ Microphone connector

Insert the 6-pin modular connector plug of the microphone until the locking tab clicks.

⑥ Function buttons

The functions of these buttons are dependent on dealer programming.

① 电源开关 (POWER)

按此键可以接通或者关闭电源。

② 音量调节 [▲] / [▼] 键 (VOLUME)

按 [▲] 键, 增大音量; 按 [▼] 键, 减小音量。一直按住 [▲] 键 (或 [▼] 键), 可以快速增大 (或减小) 音量。

③ 显示屏

详细操作参阅下面的内容

④ 信道选择 [▲] / [▼] 键 (CHANNEL)

按 [▲] 键, 选择下一个号码高的信道; 按 [▼] 键, 选择下一个号码低的信道。可以在由经销商编程设定的信道 (最多 32 个信道) 中进行选择。一直按住 [▲] 键 (或 [▼] 键) 可以快速调节信道上升 (或下降)。

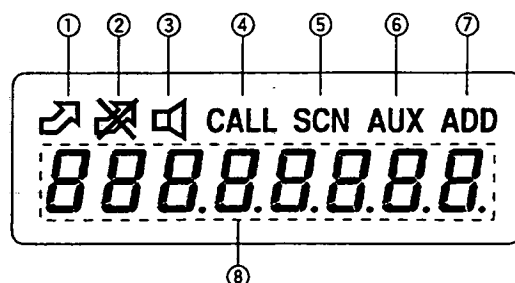
⑤ 话筒插口

插入话筒的 6 芯插头直到锁定片锁住。

⑥ 功能键

功能键的具体功能取决于经销商的编程设定。

• Display



①

Visible while transmitting.

②

Visible when signals are present on the currently selected channel.

③

Appears when the Monitor function is activated.

④ CALL

Blinks when the correct DTMF code for Code Squelch or Selective Call is received. Also appears when transmitting while using Code Squelch or Selective Call.

⑤ SCN

Appears when the Scan function is activated.

⑥ AUX

Appears when the auxiliary function programmed by the dealer is activated.

⑦ ADD

Appears when the currently selected channel is included in the scan list.

⑧ 88888888

Displays a channel numbers, ID codes, and other information.

①

当发射时出现。

②

当所选的信道上有信号时出现。

③

当启动了监听功能后出现。

④ CALL

在设置了编码静噪功能或信息传呼功能后, 当接收到了正确的 DTMF (双音多频) 代码时, 此标志闪烁; 当进行发射时, 此标志稳定显示。

⑤ SCN

当启动扫描功能后出现。

⑥ AUX

当经销商编程使用辅助功能时出现。

⑦ ADD

当所选的信道是扫描序列中的信道时出现。

⑧ 88888888

显示信道号码、自台身份号码和其他信息。

ADJUSTMENT / 调整

Tuning item

Item No.	Tuning description	Valid range	Remarks
1	Frequency	0~255	
2	RF power	0~255	Three-point adjustment
2L	RF power (Low)	0~255	Low
2C	RF power (Center)	0~255	Center
2H	RF power (High)	0~255	High
3	Square wave balance	0~255	
4	Max deviation	0~255	Three-point adjustment
4L	Max deviation (Low)	0~255	Low
4C	Max deviation (Center)	0~255	Center
4H	Max deviation (High)	0~255	High
5	QT deviation	0~255	
6	Sensitivity	0~255	Three-point adjustment
6L	Sensitivity (Low)	0~255	Low
6C	Sensitivity (Center)	0~255	Center
6H	Sensitivity (High)	0~255	High
7	Squelch	0~42	

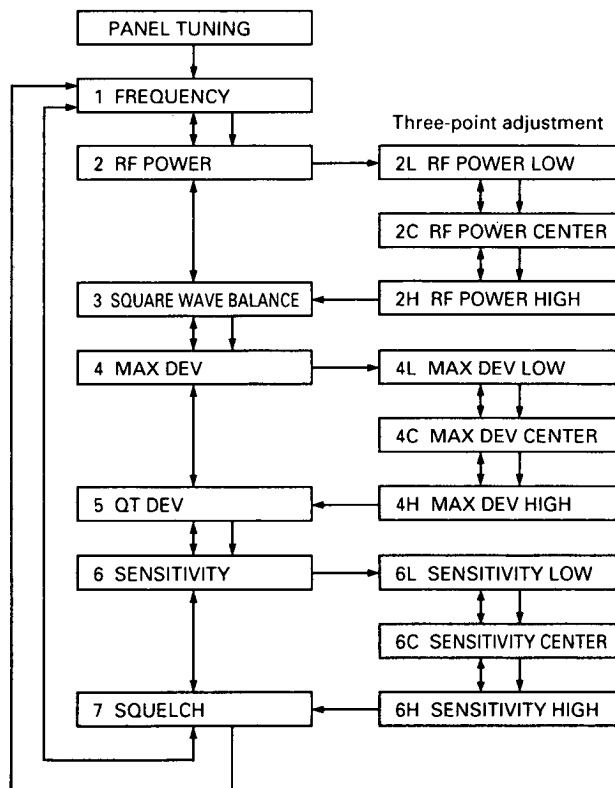
Table 1

调试项目

项目号码	调整说明	有效范围	备注
1	频率	0~255	
2	射频功率	0~255	3点调整
2L	射频功率(低)	0~255	低端点
2C	射频功率(中)	0~255	中心点
2H	射频功率(高)	0~255	高端点
3	方波平衡	0~255	
4	最大调制频偏	0~255	3点调整
4L	最大调制频偏(低)	0~255	低端点
4C	最大调制频偏(中)	0~255	中心点
4H	最大调制频偏(高)	0~255	高端点
5	亚音频调制频偏	0~255	
6	接收灵敏度	0~255	3点调整
6L	接收灵敏度(低)	0~255	低端点
6C	接收灵敏度(中)	0~255	中心点
6H	接收灵敏度(高)	0~255	高端点
7	静噪	0~42	

表 1

Panel tuning state transition

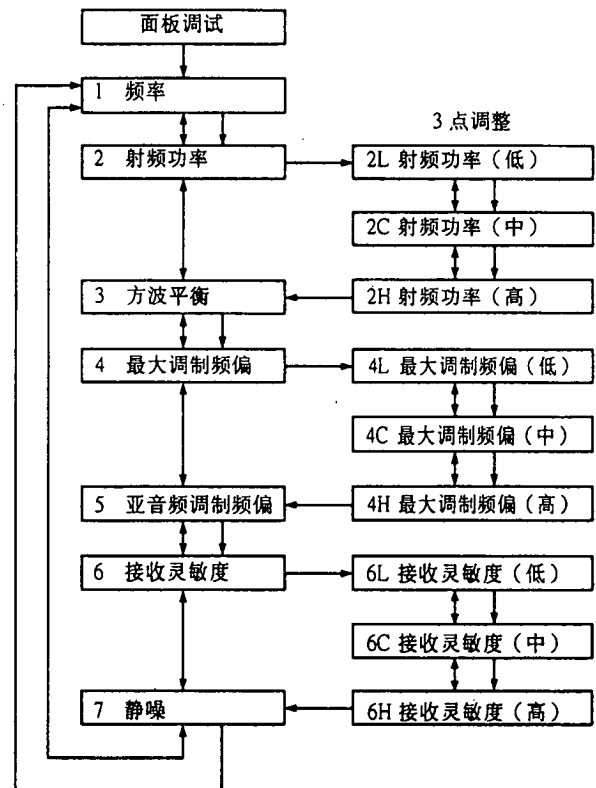


→ Data save, next item
CH DOWN key

↔ Next item, previous item
MON key, A key

Table 2

面板调试状态流程图



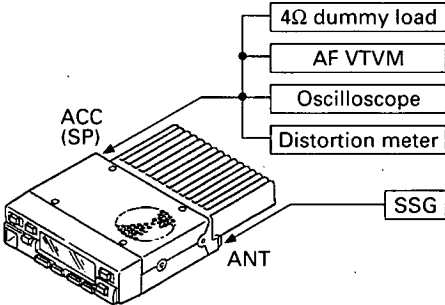
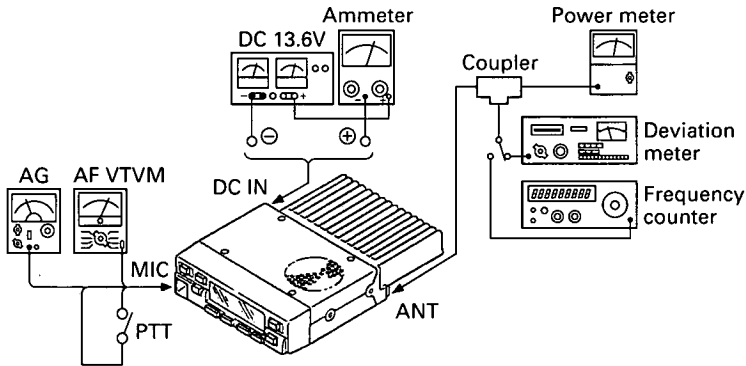
→ 数据被存储, 转到下一项
按 CH DOWN 键

↔ 转到下一项或退回前一项
按 MON 键或按 A 键

表 2

ADJUSTMENT

Common Section

Item	Condition	Measurement			Adjustment			Specifications/Remarks																																																																																																
		Test-equipment	Unit	Terminal	Unit	Parts	Method																																																																																																	
1. Memory CH frequency and Signaling table	• Frequency range (MHz) 148~174 : M, DM, NM, HDM 136~156 : M2, DM2, NM2, HDM2																																																																																																							
	• Memory CH frequency (MHz)	<table><tr><th>CH</th><th colspan="2">M,DM,NM,HDM</th><th colspan="2">M2,DM2,NM2,HDM2</th><th></th></tr><tr><th></th><th>TX</th><th>RX</th><th>TX</th><th>RX</th><th></th></tr><tr><td>1</td><td>161.000</td><td>161.100</td><td>146.000</td><td>146.100</td><td>Center</td></tr><tr><td>2</td><td>148.000</td><td>148.100</td><td>136.000</td><td>136.100</td><td>Low</td></tr><tr><td>3</td><td>174.000</td><td>173.900</td><td>156.000</td><td>155.900</td><td>High</td></tr><tr><td>4</td><td>155.100</td><td>155.100</td><td>137.100</td><td>137.100</td><td></td></tr><tr><td>5</td><td>160.100</td><td>160.100</td><td>142.100</td><td>142.100</td><td></td></tr><tr><td>6</td><td>165.100</td><td>165.100</td><td>147.100</td><td>147.100</td><td></td></tr><tr><td>7</td><td>150.100</td><td>150.030</td><td>150.000</td><td>150.030</td><td></td></tr><tr><td>8</td><td>156.000</td><td>156.030</td><td>153.000</td><td>153.030</td><td></td></tr></table>					CH	M,DM,NM,HDM		M2,DM2,NM2,HDM2				TX	RX	TX	RX		1	161.000	161.100	146.000	146.100	Center	2	148.000	148.100	136.000	136.100	Low	3	174.000	173.900	156.000	155.900	High	4	155.100	155.100	137.100	137.100		5	160.100	160.100	142.100	142.100		6	165.100	165.100	147.100	147.100		7	150.100	150.030	150.000	150.030		8	156.000	156.030	153.000	153.030		• Signaling table		<table><tr><th>Sig</th><th>Encode</th><th>Decode</th></tr><tr><td>1</td><td>–</td><td>–</td></tr><tr><td>2</td><td>64Hz square wave</td><td>–</td></tr><tr><td>3</td><td>QT (67.0Hz) tone</td><td>QT (67.0Hz)</td></tr><tr><td>4</td><td>QT (100.0Hz) tone</td><td>QT (100.0Hz)</td></tr><tr><td>5</td><td>QT (151.4Hz) tone</td><td>QT (151.4Hz)</td></tr><tr><td>6</td><td>QT (210.7Hz) tone</td><td>QT (210.7Hz)</td></tr><tr><td>7</td><td>QT (250.3Hz) tone</td><td>QT (250.3Hz)</td></tr><tr><td>8</td><td>DTMF (1633Hz)</td><td>–</td></tr><tr><td>9</td><td>DTMF (852Hz/1209Hz)</td><td>–</td></tr><tr><td>10</td><td>–</td><td>DTMF</td></tr></table>			Sig	Encode	Decode	1	–	–	2	64Hz square wave	–	3	QT (67.0Hz) tone	QT (67.0Hz)	4	QT (100.0Hz) tone	QT (100.0Hz)	5	QT (151.4Hz) tone	QT (151.4Hz)	6	QT (210.7Hz) tone	QT (210.7Hz)	7	QT (250.3Hz) tone	QT (250.3Hz)	8	DTMF (1633Hz)	–	9	DTMF (852Hz/1209Hz)	–	10	–	DTMF
	CH	M,DM,NM,HDM		M2,DM2,NM2,HDM2																																																																																																				
	TX	RX	TX	RX																																																																																																				
1	161.000	161.100	146.000	146.100	Center																																																																																																			
2	148.000	148.100	136.000	136.100	Low																																																																																																			
3	174.000	173.900	156.000	155.900	High																																																																																																			
4	155.100	155.100	137.100	137.100																																																																																																				
5	160.100	160.100	142.100	142.100																																																																																																				
6	165.100	165.100	147.100	147.100																																																																																																				
7	150.100	150.030	150.000	150.030																																																																																																				
8	156.000	156.030	153.000	153.030																																																																																																				
Sig	Encode	Decode																																																																																																						
1	–	–																																																																																																						
2	64Hz square wave	–																																																																																																						
3	QT (67.0Hz) tone	QT (67.0Hz)																																																																																																						
4	QT (100.0Hz) tone	QT (100.0Hz)																																																																																																						
5	QT (151.4Hz) tone	QT (151.4Hz)																																																																																																						
6	QT (210.7Hz) tone	QT (210.7Hz)																																																																																																						
7	QT (250.3Hz) tone	QT (250.3Hz)																																																																																																						
8	DTMF (1633Hz)	–																																																																																																						
9	DTMF (852Hz/1209Hz)	–																																																																																																						
10	–	DTMF																																																																																																						
2. Setting	• Receiver section The indicated SSG output level are for maximum output. Whenever there is no modulation designation, standard modulation (MOD : 1kHz, DEV : ±3kHz/ ±1.5kHz) is indicated.	• Transmitter section																																																																																																						
																																																																																																								
3. Panel test mode setting	The D/A switch is held on with turn on the set. The D/A switch holding about 1 second after turn on the set. But, if this mode is disabled by FPU then begin the USER MODE.																																																																																																							
4. Panel tuning mode setting	The SCAN switch is held on with turn on the set. The SCAN switch holding about 1 second after turn on the set. But, if this mode is disabled by FPU then begin the USER MODE.																																																																																																							
5. PLL lock voltage	1) Set : Panel test mode. CH : 2 – Sig : 1 Transmit and receive.	DVM	TX-RX (A/2)	TP1			Check the voltage.	More than 1.4V.																																																																																																
	2) CH : 3 – Sig : 1 Transmit and receive.	Dummy load	Rear panel	ANT				Less than 8.3V																																																																																																

调整

公共部分

项目	条件	测试			调节			规格/备注																																																																																										
		测试仪器	单元	端子	单元	零部件	方法																																																																																											
1. 存储器信道频率和信令表	• 频率范围 (MHz) 148~174 : M, DM, NM, HDM 136~156 : M2, DM2, NM2, HDM2																																																																																																	
	• 信道频率 (MHz)																																																																																																	
	• 信令表																																																																																																	
	<table><tr><th rowspan="2">CH</th><th colspan="2">M,DM,NM,HDM</th><th colspan="2">M2,DM2,NM2,HDM2</th><th rowspan="2"></th></tr><tr><th>TX</th><th>RX</th><th>TX</th><th>RX</th></tr><tr><td>1</td><td>161.000</td><td>161.100</td><td>146.000</td><td>146.100</td><td>中心</td></tr><tr><td>2</td><td>148.000</td><td>148.100</td><td>136.000</td><td>136.100</td><td>低</td></tr><tr><td>3</td><td>174.000</td><td>173.900</td><td>156.000</td><td>155.900</td><td>高</td></tr><tr><td>4</td><td>155.100</td><td>155.100</td><td>137.100</td><td>137.100</td><td></td></tr><tr><td>5</td><td>160.100</td><td>160.100</td><td>142.100</td><td>142.100</td><td></td></tr><tr><td>6</td><td>165.100</td><td>165.100</td><td>147.100</td><td>147.100</td><td></td></tr><tr><td>7</td><td>150.100</td><td>150.030</td><td>150.000</td><td>150.030</td><td></td></tr><tr><td>8</td><td>156.000</td><td>156.030</td><td>153.000</td><td>153.030</td><td></td></tr></table>	CH	M,DM,NM,HDM		M2,DM2,NM2,HDM2			TX	RX	TX	RX	1	161.000	161.100	146.000	146.100	中心	2	148.000	148.100	136.000	136.100	低	3	174.000	173.900	156.000	155.900	高	4	155.100	155.100	137.100	137.100		5	160.100	160.100	142.100	142.100		6	165.100	165.100	147.100	147.100		7	150.100	150.030	150.000	150.030		8	156.000	156.030	153.000	153.030							<table><tr><th>信令</th><th>编码</th><th>解码</th></tr><tr><td>1</td><td>-</td><td>-</td></tr><tr><td>2</td><td>64Hz 方波</td><td>-</td></tr><tr><td>3</td><td>QT (67.0Hz) 音调</td><td>QT (67.0Hz)</td></tr><tr><td>4</td><td>QT (100.0Hz) 音调</td><td>QT (100.0Hz)</td></tr><tr><td>5</td><td>QT (151.4Hz) 音调</td><td>QT (151.4Hz)</td></tr><tr><td>6</td><td>QT (210.7Hz) 音调</td><td>QT (210.7Hz)</td></tr><tr><td>7</td><td>QT (250.3Hz) 音调</td><td>QT (250.3Hz)</td></tr><tr><td>8</td><td>DTMF (1633Hz)</td><td>-</td></tr><tr><td>9</td><td>DTMF (852Hz/1209Hz)</td><td>-</td></tr><tr><td>10</td><td>-</td><td>DTMF</td></tr></table>	信令	编码	解码	1	-	-	2	64Hz 方波	-	3	QT (67.0Hz) 音调	QT (67.0Hz)	4	QT (100.0Hz) 音调	QT (100.0Hz)	5	QT (151.4Hz) 音调	QT (151.4Hz)	6	QT (210.7Hz) 音调	QT (210.7Hz)	7	QT (250.3Hz) 音调	QT (250.3Hz)	8	DTMF (1633Hz)	-	9	DTMF (852Hz/1209Hz)	-	10	-	DTMF
CH	M,DM,NM,HDM		M2,DM2,NM2,HDM2																																																																																															
	TX	RX	TX	RX																																																																																														
1	161.000	161.100	146.000	146.100	中心																																																																																													
2	148.000	148.100	136.000	136.100	低																																																																																													
3	174.000	173.900	156.000	155.900	高																																																																																													
4	155.100	155.100	137.100	137.100																																																																																														
5	160.100	160.100	142.100	142.100																																																																																														
6	165.100	165.100	147.100	147.100																																																																																														
7	150.100	150.030	150.000	150.030																																																																																														
8	156.000	156.030	153.000	153.030																																																																																														
信令	编码	解码																																																																																																
1	-	-																																																																																																
2	64Hz 方波	-																																																																																																
3	QT (67.0Hz) 音调	QT (67.0Hz)																																																																																																
4	QT (100.0Hz) 音调	QT (100.0Hz)																																																																																																
5	QT (151.4Hz) 音调	QT (151.4Hz)																																																																																																
6	QT (210.7Hz) 音调	QT (210.7Hz)																																																																																																
7	QT (250.3Hz) 音调	QT (250.3Hz)																																																																																																
8	DTMF (1633Hz)	-																																																																																																
9	DTMF (852Hz/1209Hz)	-																																																																																																
10	-	DTMF																																																																																																
2. 设定	• 接收机部分 表明的 SSG 输出电平为最大输出电平。 即使没有调制标识, 也会指明标准调制 (MOD : 1kHz, DEV : ±3kHz±1.5kHz) • 发送机部分																																																																																																	
3. 面板测试模式设定	在装置打开时 D/A 开关处于接通的状态。在打开装置后 D/A 开关接通1秒钟。 但如果用 FPU 使此模式不起作用时, 接著将起动 USER MODE (用户模式)。																																																																																																	
4. 面板调谐模式的设定	在装置打开时 SCAN 开关处于接通的状态。在打开装置后 SCAN 开关接通1秒钟。 但如果用 FPU 使此模式不起作用时, 接著将起动 USER MODE (用户模式)。																																																																																																	
5. PLL锁定电压	1) 设定 : 面板测试模式 CH: 2-信令 : 1 发送和接收	DVM	TX-RX (A/2)	TP1			检查电压。	大于 1.4 V																																																																																										
	2) CH: 3-信令 : 1 发送和接收	虚负载	后面板	ANT				小于 8.3 V																																																																																										

ADJUSTMENT

Receiver Section

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Sensitivity	1) Set : Panel tuning mode. Tuning item : 8L CH : 2 – Sig : 1 SSG frequency : frx(LOW) SSG output : -117dBm SSG MOD : 1kHz AF output : 0.45V/4Ω	SSG AF VTVM Distortion meter Oscilloscope AG	Rear panel	ANT EXT. SP	TX-RX (A/2)	L205~L208	Adjust for maximum SINAD.	Maximize the SINAD them. SINAD is more than 12dB.
	2) Tuning item : 8C CH : 1 – Sig : 1 SSG frequency : frx(CENTER)					SCN or D/A key		
	3) Tuning item : 8H CH : 3 – Sig : 1 SSG frequency : frx(HIGH)				Front panel	SCN or D/A key	Up/down for tuning data.	
2. Squelch	1) Set : Panel tuning mode. Tuning item : 7 CH : 1 – Sig : 1 SSG frequency : frx(CENTER) SSG output : Value when 3dB is subtracted from the sensitivity value of 12dB SINAD. SSG MOD : 1kHz							Squelch closed once. Then squelch must be opened.
	2) SSG output : OFF						Check	Squelch must be closed.

Transmitter Section

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Frequency	1) Set : Panel tuning mode. Tuning item : 1 CH : 1 – Sig : 1 PTT : ON	Powermeter f. counter	Rear panel	ANT	Front panel	SCN or D/A key	Up/down for tuning data.	frx(CENTER) ± 100Hz
2. Maximum power check	1) Set : Panel tuning mode. Tuning item : 2 CH : 1 – Sig : 1 PTT : ON	Powermeter Ammeter	Rear panel	ANT			Check	M,M2,DM,DM2,NM,NM2 More than 27.0W HDM,HDM2 More than 46.0W
3. Minimum power check	1) CH : 1 – Sig : 1 PTT : ON							M,M2,DM,DM2,NM,NM2 Less than 2.0W HDM,HDM2 Less than 10.0W
4. RF power	1) Set : Panel tuning mode. Tuning item : 2C CH : 1 – Sig : 1 PTT : ON				Front panel	SCN or D/A key	Up/down for tuning data.	M,M2,DM,DM2,NM,NM2 25.0W±2W, Less than 7.0A HDM,HDM2 45.0W±1W, Less than 11.0A
	2) Tuning item : 2L CH : 2 – Sig : 1 PTT : ON							M,M2,DM,DM2,NM,NM2 25.0W±2W HDM,HDM2 45.0W±1W
	3) Tuning item : 2H CH : 3 – Sig : 1 PTT : ON							
5. Maximum deviation	1) Set : Panel tuning mode. Tuning item : 4C CH : 1 – Sig : 1 AG : 1kHz/50mV Deviation meter filter LPF : 15kHz HPF : OFF De-emphasis : OFF PTT : ON	Powermeter Deviation meter Oscilloscope AF VTVM AG	Rear panel Front panel	ANT MIC	Front panel	SCN or D/A key	Up/down for tuning data.	According to the larger +, -. M,M2,DM,DM2,HDM,HDM2 ±4.05kHz ± 0.1kHz NM,NM2 ±2.0kHz ± 0.05kHz Oscilloscope waveform is not abnormal.

调整

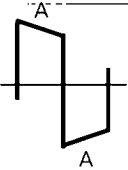
接收部分

项目	条件	测试			调节			规格/备注
		测试仪器	单元	端子	单元	零部件	方法	
1. 灵敏度	1) 设定：面板调谐模式。 调谐：6L CH：2—信令：1 SSG 频率：fRX (LOW) SSG 输出：-117 dBm SSG MOD：1 kHz AF 输出：0.45V/4Ω	SSG AF VTVM 失真测试表 示波器 AG	后面板	ANT EXT.SP	TX-RX (A/2)	L205~ L208 SCN 或 D/A 键	为获得最大的SINAD 进行调节	最大 SINAD。 SINAD 大于 12dB。
	2) 调谐项目：6C CH：1—信令：1 SSG 频率：fRX (CENTER)					SCN 或 D/A 键	上/下以调谐数据	
	3) 调谐项目：6H CH：3—信令：1 SSG 频率：fRX (HIGH)							
2. 静噪	1) 设定：面板调谐模式 调谐项目：7 CH：1—信令：1 SSG 频率：fRX (CENTER) SSG 输出：当从 12dB 的 SINAD 中抽取 3dB 时的值。 SSG MOD：1kHz							静噪一度关闭。
	2) SSG 输出：OFF						检查	静噪必须打开。

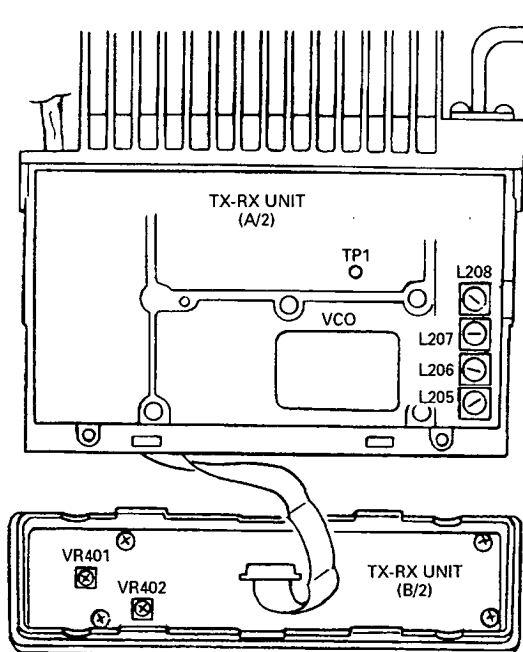
发送部分

项目	条件	测试			调节			规格/备注
		测试仪器	单元	端子	单元	零部件	方法	
1. 频率	1) 设定：面板调谐模式 调谐项目：1 CH：1—信令：1 PTT：ON	功率表 f. 计数器	后面板	ANT	前面板	SCN 或 D/A 键	上/下用于调谐数据	fTX (中心) ±100Hz
2. 最大功率 检查	1) 设定面：板调谐模式 调谐项目：2 CH：1—信令：1 PTT：ON	功率计 电流表	后面板	ANT			检查	M,M2,DM,DM2,NM,NM2 大于 27.0W HDM,HDM2 大于 46.0W
3. 最小功率 检查	1) CH：1—信令：1 PTT：ON							M,M2,DM,DM2,NM,NM2 小于 2.0W HDM,HDM2 小于 10.0W
4. RF 功率	1) 设定：面板调谐模式 调谐项目：2C CH：1—信令：1 PTT：ON				前面板	SCN 或 D/A 键	上/下用于调谐数据	M,M2,DM,DM2,NM,NM2 25.0W±2W, 小于 7.0A HDM,HDM2 45.0W±1W, 小于 11.0A
	2) 调谐项目：2L CH：2—信令：1 PTT：ON							M,M2,DM,DM2,NM,NM2 25.0W±2W HDM,HDM2 45.0W±1W
	3) 调谐项目：2H CH：3—信令：1 PTT：ON							
5. 最大偏差	1) 设定：面板调谐模式。 调谐项目：4C CH：1—信令：1 AG：1kHz/50mV 偏移测试表滤波器 LPF：15kHz HPF：OFF 去加重：OFF PTT：ON	功率表 偏移测试表 示波器 AF VTVM AG	后面板 前面板	ANT MIC	前面板	SCN 或 D/A 键	上/下用于调谐数据。	根据大的一个+,-。 M,M2,DM,DM2,HDM,HDM2 ±4.05kHz ± 0.1kHz NM,NM2 ±2.0kHz ± 0.05kHz 示波器波形异常。

ADJUSTMENT

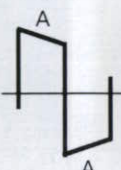
Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
	2) Tuning item : 4L CH : 2 – Sig : 1 PTT : ON	Powermeter Deviation meter	Rear panel	ANT	Front panel	SCN or D/A key	Up/down for tuning data.	
	3) Tuning item : 4H CH : 3 – Sig : 1 PTT : ON	Oscilloscope						
6. MIC sensitivity	1) Set : Panel test mode. CH : 1 – Sig : 1 AG : 1kHz/5mV Deviation meter filter LPF : 15kHz HPF : OFF De-emphasis : OFF PTT : ON	AF VTVM AG	Front panel	MIC			Check	M,M2,DM,DM2,HDM,HDM2 $\pm 2.2 \sim \pm 3.9\text{kHz}$ NM,NM2 $\pm 1.1 \sim \pm 1.9\text{kHz}$ Oscilloscope waveform is not abnormal. If you need to adjust, you can adjust by VR401 on the TX-RX unit (B/2).
7. Signaling balance	1) Set : Panel tuning mode. Tuning item : 3 CH : 5 – Sig : 2 Deviation meter filter LPF : 3kHz HPF : OFF De-emphasis : OFF PTT : ON				Front panel	SCN or D/A key	Up/down for tuning data. Make the de- modulation wave- form neat.	Flat the A parts. 
8. DTMF deviation check	1) Set : Panel test mode. CH : 1 – Sig : 9 Deviation meter filter LPF : 15kHz HPF : OFF De-emphasis : OFF PTT : ON						Check	M,M2,DM,DM2,HDM,HDM2 $\pm 2.4 \sim \pm 3.7\text{kHz}$ NM,NM2 $\pm 1.2 \sim \pm 1.85\text{kHz}$ If you need to adjust, you can adjust by VR402 on the TX-RX unit (B/2).
9. QT deviation	1) Set : Panel tuning mode. Tuning item : 5 CH : 5 – Sig : 5 Deviation meter filter LPF : 3kHz HPF : 50Hz De-emphasis : OFF PTT : ON				Front panel	SCN or D/A key	Up/down for tuning data.	M,M2,DM,DM2,HDM,HDM2 0.75kHz $\pm$ 50Hz NM,NM2 0.35kHz $\pm$ 25Hz

Adjustment Points

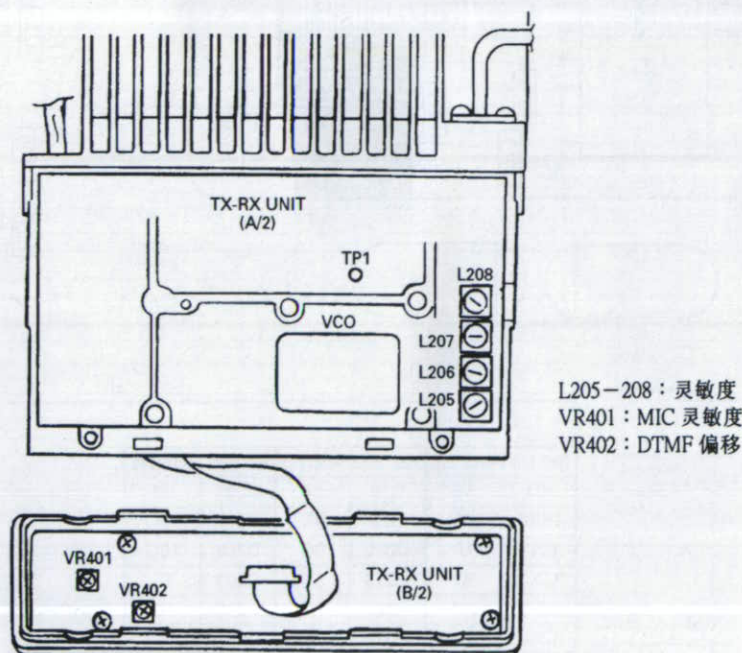


L205~208 : Sensitivity
VR401 : MIC sensitivity
VR402 : DTMF deviation

调整

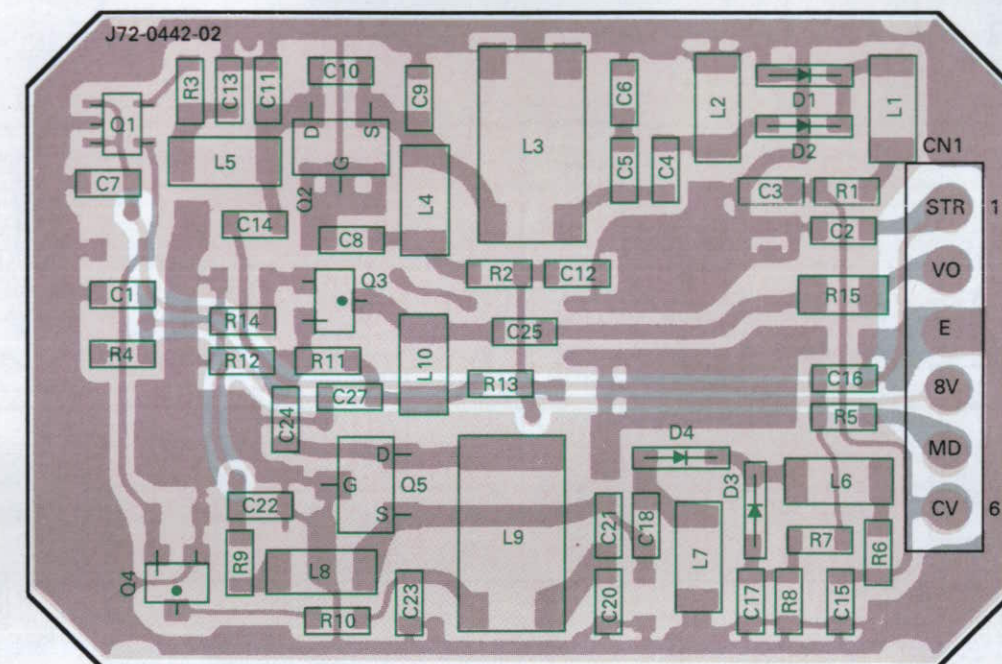
项目	条件	测试			调节			规格/备注
		测试仪器	单元	端子	单元	零部件	方法	
6. MIC 灵敏度	2) 调谐项目: 4L CH: 2-信令: 1 PTT: ON	功率表 偏移测试 表示波器	后面板	ANT	前面板	SCN 或 D/A 键	上/下用于调谐数据	M,M2,DM,DM2,HDM,HDM2 $\pm 2.2 \sim \pm 3.9\text{kHz}$ NM,NM2 $\pm 1.1 \sim \pm 1.9\text{kHz}$ 示波器波形异常。 如果你需要调节, 你可以用TX -RX单元 (B/2) 上的VR401进行调节。
	3) 调谐项目: 4H CH: 3-信令: 1 PTT: ON	AF VTVM AG	前面板	MIC			检查	
	1) 设定: 面板调谐模式。 CH: 1-信令: 1 AG: 1kHz/5mV 偏移测试表滤波器 LPF: 15kHz HPF: OFF 去加重: OFF PTT: ON							
7. 信令平衡	1) 设定: 面板调谐模式 调谐项目: 3 CH: 5-信令: 2 偏移测试表滤波器 LPF: 3kHz HPF: OFF 去加重: OFF PTT: ON				前面板	SCN 或 D/A 键	上/下用于调谐数据 根据大的一个+, -	将 A 部分平整化 
8. DTMF 偏移检查	1) 设定: 面板调谐模式。 CH: 1-信令: 9 偏移测试表滤波器 LPF: 15kHz HPF: OFF 去加重: OFF PTT: ON						检查	M,M2,DM,DM2,HDM,HDM2 $\pm 2.4 \sim \pm 3.7\text{kHz}$ NM,NM2 $\pm 1.2 \sim \pm 1.85\text{kHz}$ 如果你需要调节, 你可以用TX -RX单元 (B/2) 上的VR402进行调节。
9. QT 偏移	1) 设定: 面板调谐模式。 调谐项目: 5 CH: 5-信令: 5 偏移测试表滤波器 LPF: 3kHz HPF: 50Hz 去加重: OFF PTT: ON				前面板	SCN 或 D/A 键	上/下用于调谐数据	M,M2,DM,DM2,HDM,HDM2 0.75kHz $\pm$ 50Hz NM,NM2 0.35kHz $\pm$ 25Hz

调整要点



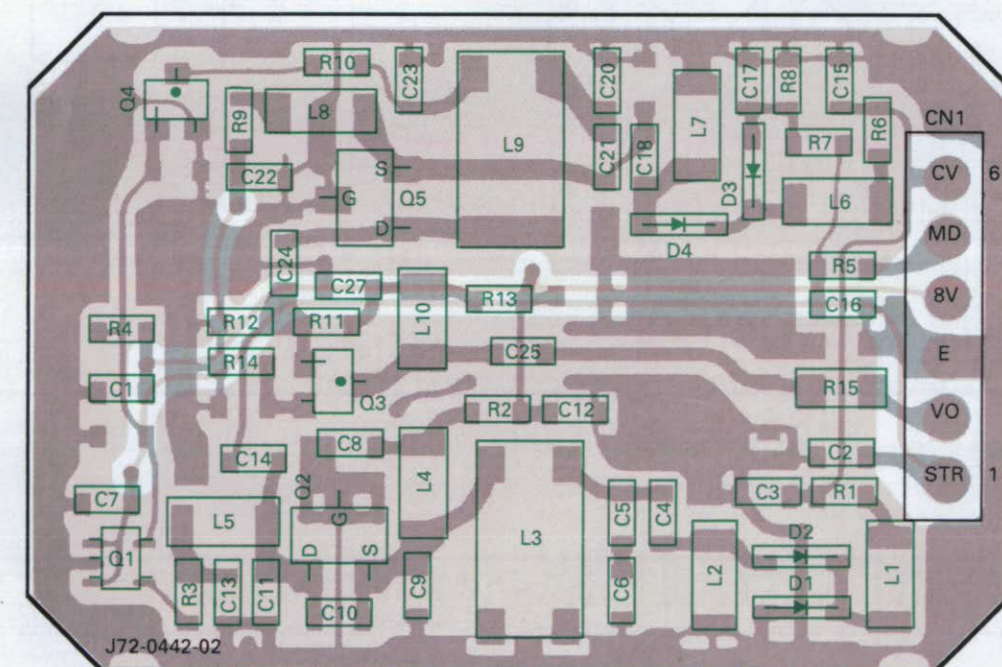
VCO (X58-4360-XX) Component side view

-10: M,DM,NM,HDM -22: M2,DM2,NM2,HDM2



VCO (X58-4360-XX) Foil side view

-10: M,DM,NM,HDM -22: M2,DM2,NM2,HDM2

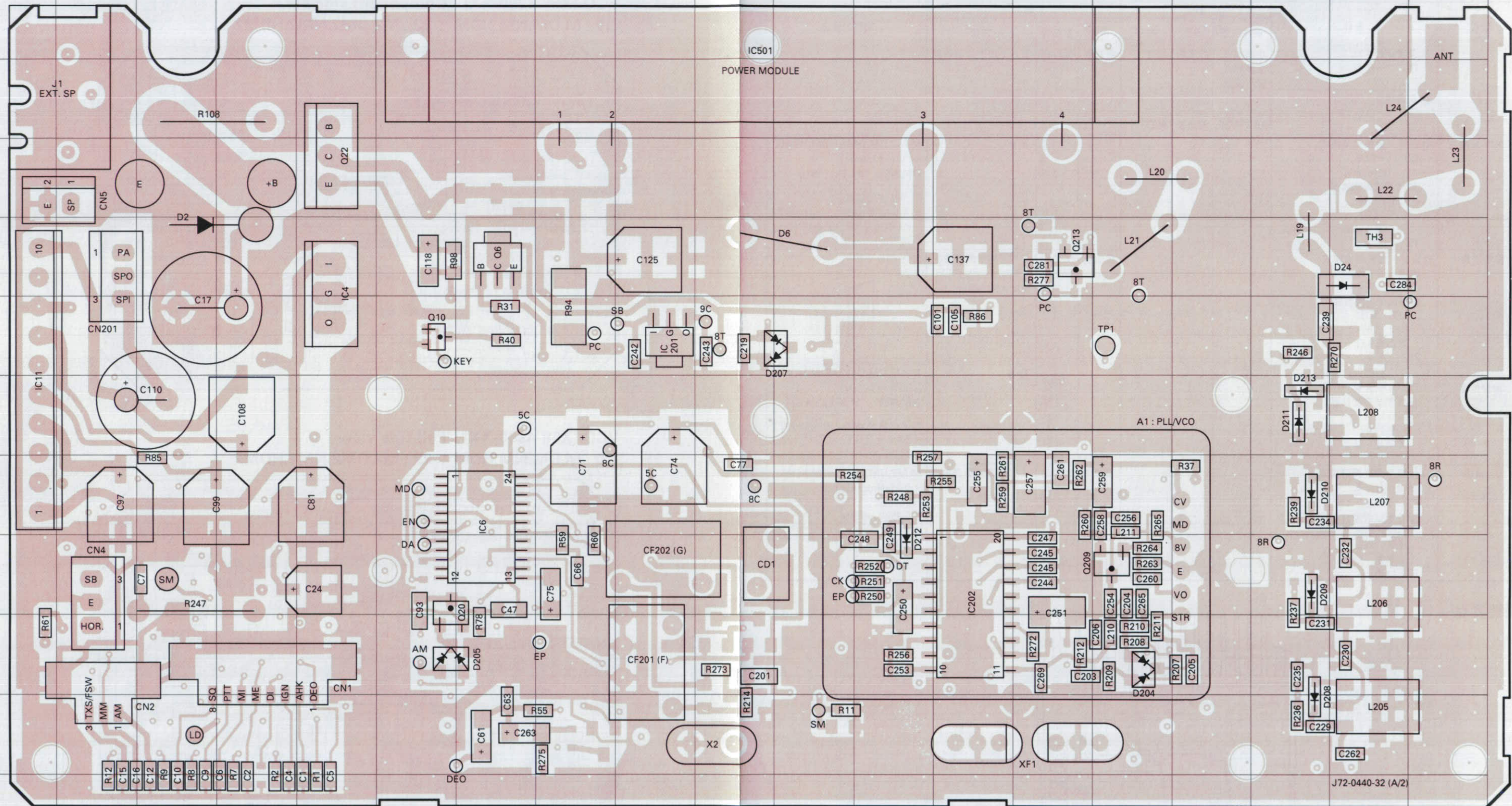


Component side
Foil side

TK-768/H/(N) PC BOARD VIEW / 印刷电路板图

TX-RX UNIT (X57-495X-XX) (A/2) Component side view

0-21 : M,DM 0-22 : M2,DM2 0-23 : HDM 0-24 : HDM2 1-21 : NM 1-22 : NM2



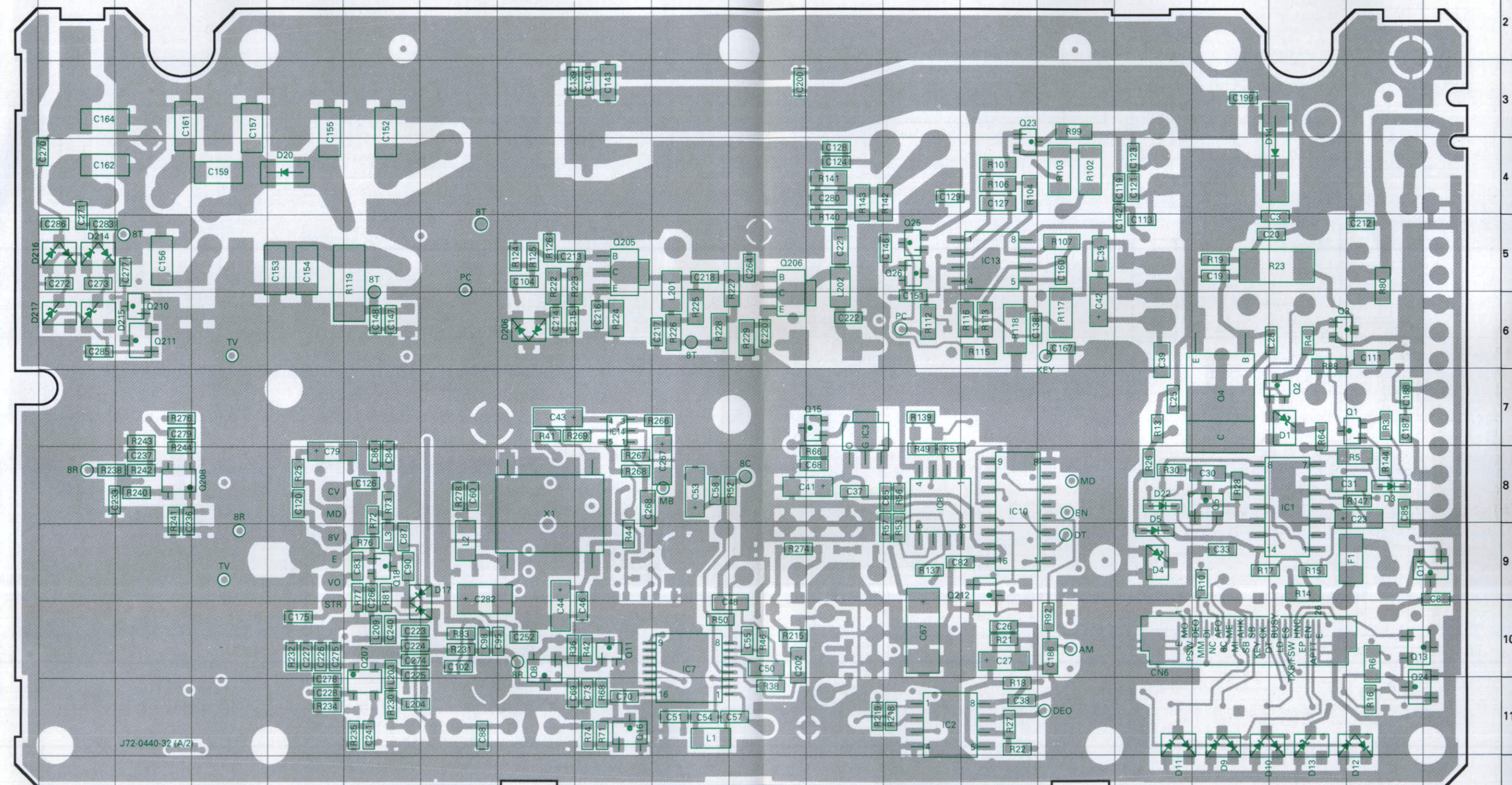
Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC4	5E	Q20	9F	D205	10F
IC6	8G	Q22	4E	D207	6K
IC11	7A	Q209	9O	D208	10Q
IC201	6I	Q213	5N	D209	9Q
IC202	9M	D2	5C	D210	8Q
IC501	2J	D6	5K	D211	7Q
Q6	5G	D24	5R	D212	9L
Q10	6F	D204	10O	D213	7Q

Component side
 Pattern 1
 Pattern 2
 Pattern 3
 Pattern 4
 Foil side

PC BOARD VIEW / 印刷电路板图 TK-768/H/(N)

TX-RX UNIT (X57-495X-XX) (A/2) Foil side view

0-21 : M,DM 0-22 : M2,DM2 0-23 : HDM 0-24 : HDM2 1-21 : NM 1-22 : NM2



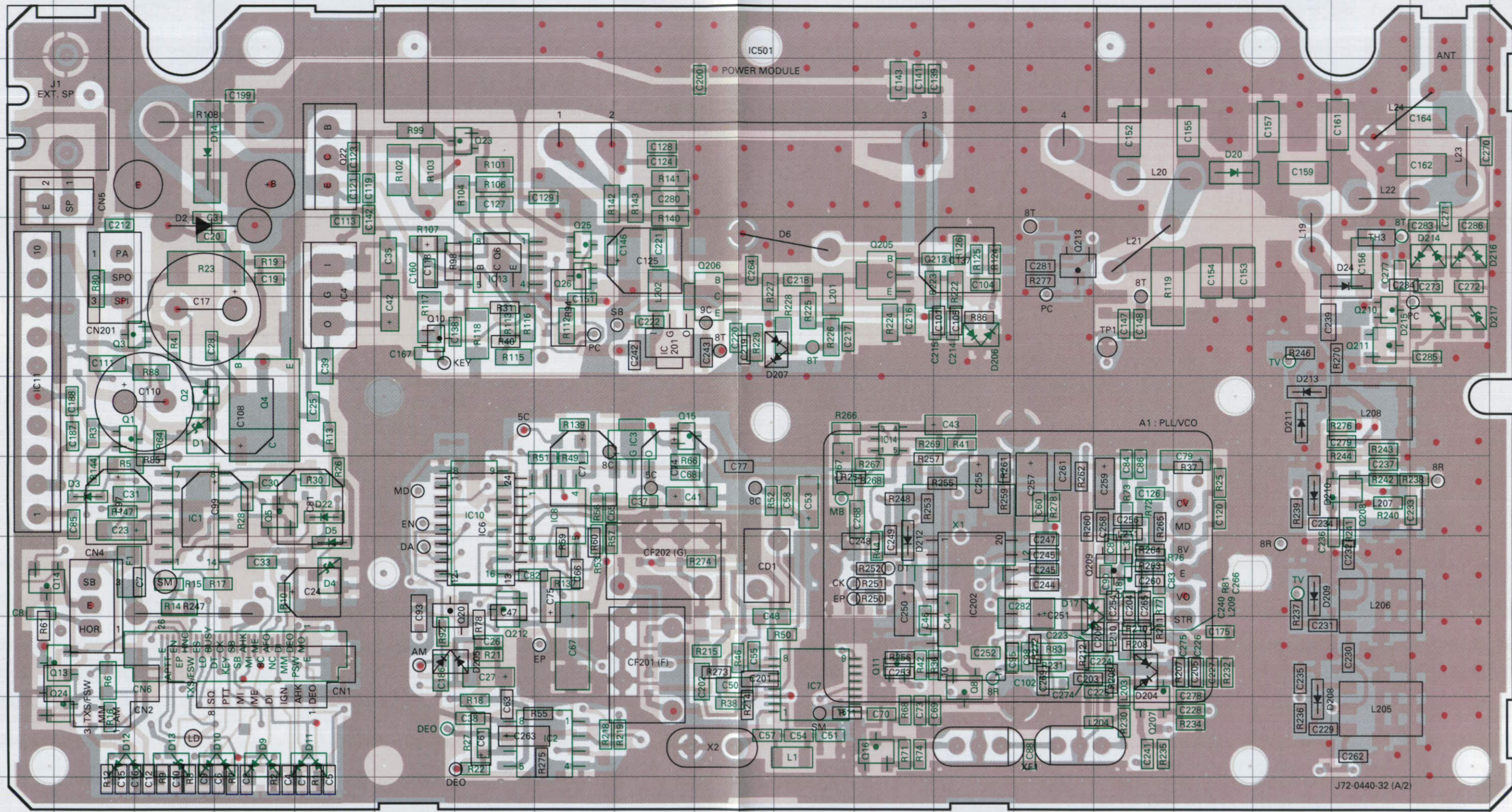
Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	8Q	IC14	7H	Q11	10H	Q24	11R	Q210	6B	D9	11P	D20	4D
IC2	11L	Q1	7R	Q13	10R	Q25	5L	Q211	6B	D10	11P	D22	8O
IC3	7K	Q2	7Q	Q14	9S	Q26	5L	Q212	9M	D11	11O	D206	6G
IC7	10I	Q3	6Q	Q15	7K	Q205	5H	D1	7Q	D12	11R	D214	5A
IC8	8L	Q4	7P	Q16	11H	Q206	5J	D3	8R	D13	11Q	D215	6A
IC10	8M	Q5	8P	Q18	9E	Q207	10E	D4	9O	D14	4Q	D216	5A
IC13	5M	Q8	10G	Q23	4M	Q208	8B	D5	9O	D17	9F	D217	6A

Diagram illustrating the structure of a four-layer laminate:

- Component side
- Pattern 1
- Pattern 2
- Pattern 3
- Pattern 4
- Foil side

TK-768/H/(N) PC BOARD VIEW / 印刷电路板图

TX-RX UNIT (X57-495X-XX) (A/2) Component side view + Foil side
0-21 : M,DM 0-22 : M2,DM2 0-23 : HDM 0-24 : HDM2 1-21 : NM 1-22 : NM2



	C60,C251, R244	C199,C200,C270,C272, C281,C284,C286,R277, Q213,D2,D216,D217,TH3	C263,R214, R215,R275, CF201	R273, R274, CF202	C271,C273,C283, C285,Q210,Q211, D214,D215	C278, C279, C282	C280	D14
0-21 (M,DM)	YES	NO	YES	NO	NO	NO	NO	YES
0-22 (M2,DM2)	NO	NO	YES	NO	YES	YES	NO	YES
0-23 (HDM)	YES	YES	YES	NO	YES	NO	NO	NO
0-24 (HDM2)	NO	YES	YES	NO	YES	YES	YES	NO
1-21 (NM)	YES	NO	NO	YES	NO	NO	NO	YES
1-22 (NM2)	NO	NO	NO	YES	YES	YES	NO	YES

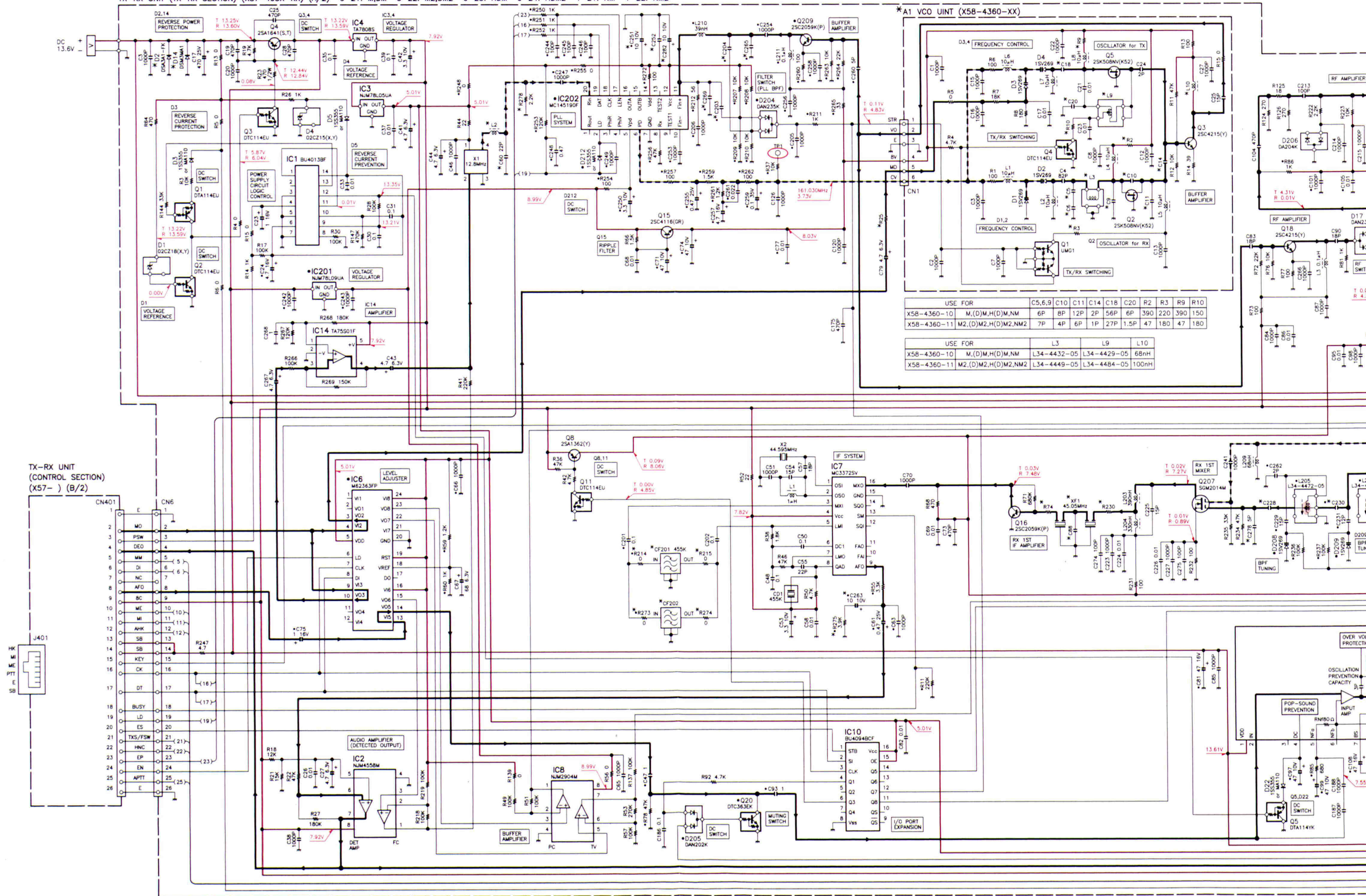
Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	8C	IC11	7A	Q3	6C	Q14	9A	Q25	5H	Q211	6R	D6	5K	D20	4P	D209	9Q	D217	6S
IC2	11H	IC13	5G	Q4	7D	Q15	7I	Q26	5H	Q212	9G	D9	11D	D22	8E	D210	8Q		
IC3	7I	IC14	7L	Q5	8D	Q16	11L	Q205	5L	Q213	5N	D10	11D	D24	5R	D211	7Q		
IC4	5E	IC201	6I	Q6	5G	Q18	9O	Q206	5J	D1	7C	D11	11E	D204	10O	D212	9L		
IC6	8G	IC202	9M	Q8	10M	Q20	9F	Q207	11O	D2	5C	D12	11B	D205	10F	D213	7Q		
IC7	10K	IC501	2J	Q10	6F	Q22	4E	Q208	8R	D3	8B	D13	11C	D206	6M	D214	5S		
IC8	8H	Q1	7B	Q11	10L	Q23	4G	Q209	9O	D4	9E	D14	4C	D207	6K	D215	6S		
IC10	8G	Q2	7C	Q13	10B	Q24	11B	Q210	6R	D5	9E	D17	9N	D208	10Q	D216	5S		

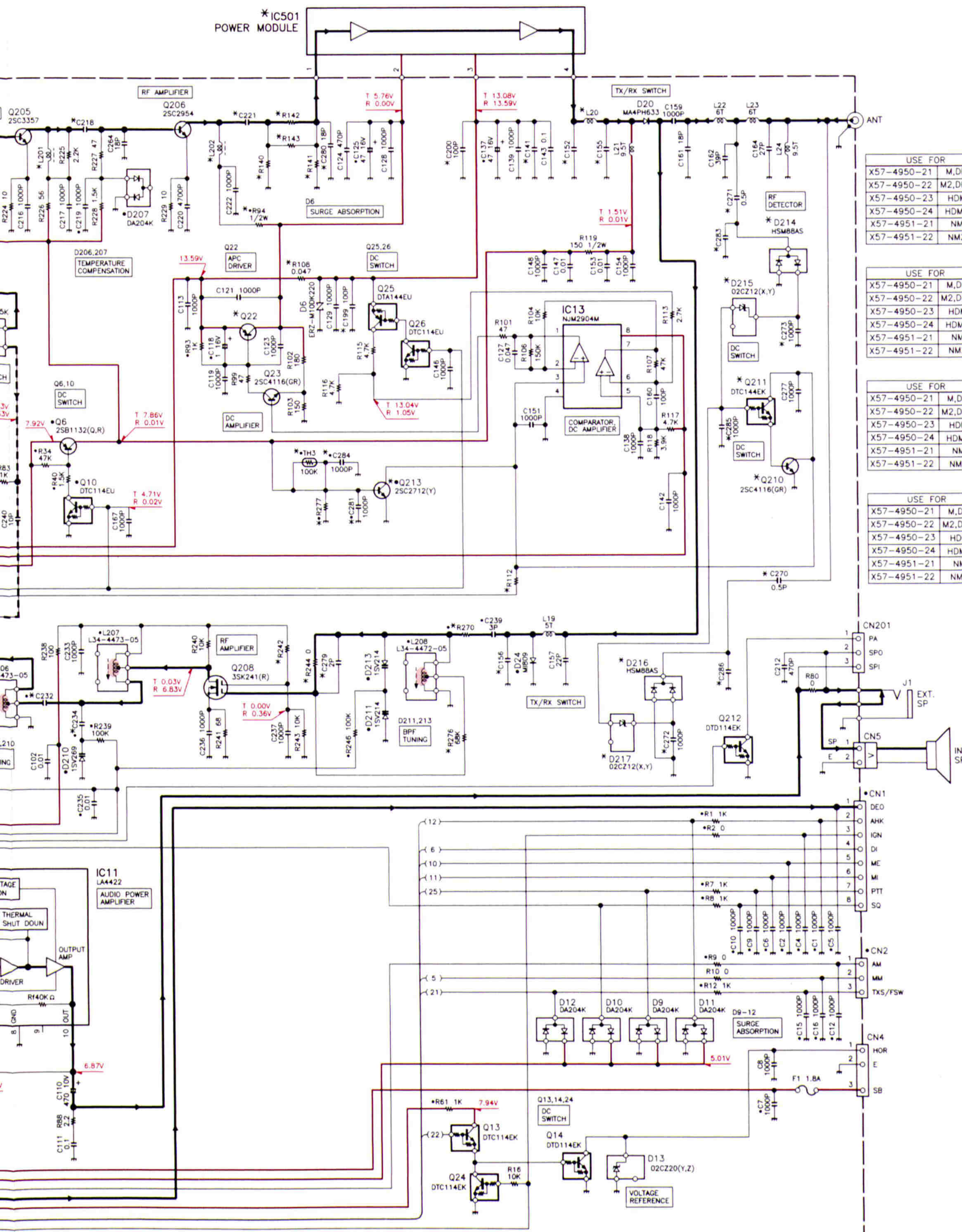
Component side

Pattern 1	
Pattern 2	
Pattern 3	
Pattern 4	

Foil side

- Connect 1 and 4





USE FOR		IC501
X57-4950-21	M,DM	M67741H-32
X57-4950-22	M2,DM2	M67741L-32
X57-4950-23	HDM	M67781H-32
X57-4950-24	HDM2	M67781L-32
X57-4951-21	NM	M67741H-32
X57-4951-22	NM2	M67741L-32

USE FOR		R205	R74	R94	R10B	R112	R140,141	R142,143	R214,215,275	R230	R242	R244	R270	R273,274	R276,278	R277	C60	C88	C141	C152
X57-4950-21	M,DM	120K	680	22	0.047 3W	4.7K	390	13	YES	680	180K	YES	0	NO	NO	YES	60	YES	6P	470P 7P
X57-4950-22	M2,DM2	100K	680	22	0.047 3W	4.7K	820	10	YES	680	68K	NO	15	NO	YES	NO	NO	6P	470P 12P	
X57-4950-23	HDM	120K	680	22	0.047 5W	4.7K	820	10	YES	680	180K	YES	0	NO	NO	120	YES	6P	100P 10P	
X57-4950-24	HDM2	100K	680	5.6	0.047 5W	4.7K	NO	0	YES	680	68K	NO	15	NO	YES	68	NO	6P	100P 15P	
X57-4951-21	NM	100K	270	22	0.047 3W	4.7K	390	33	NO	270	180K	YES	0	YES	NO	NO	YES	22P	470P 7P	
X57-4951-22	NM2	100K	270	22	0.047 3W	4.7K	820	10	NO	270	68K	NO	15	YES	YES	NO	NO	22P	470P 12P	

USE FOR	C155	C156	C199, 200	C203, 204	C218	C221	C228	C230	C232	C234	C251	C252	C263	C265, 269	C270, 272, 281, 284	C271, 273	C278, 279, 282	C280
X57-4950-21	M, DM	22P	22P	NO	12P	27P	22P	15P	0.75P	0.75P	10P	YES	0.01	YES	18P	NO	NO	NO
X57-4950-22	M2, DM2	22P	18P	NO	18P	27P	22P	18P	2P	1.5P	12P	NO	1000P	YES	22P	NO	YES	NO
X57-4950-23	HDM	7P	22P	YES	12P	27P	22P	15P	0.75P	0.75P	10P	YES	0.01	YES	18P	YES	YES	NO
X57-4950-24	HDM2	22P	18P	YES	18P	39P	100P	18P	2P	1.5P	12P	NO	1000P	YES	22P	YES	YES	YES
X57-4951-21	NM	12P	22P	NO	12P	27P	22P	15P	0.75P	0.75P	10P	YES	0.01	NO	18P	NO	NO	NO
X57-4951-22	NM2	22P	18P	NO	18P	27P	22P	18P	2P	1.5P	12P	NO	1000P	NO	22P	NO	YES	NO

USE FOR	C283	C285	C286	Q22	Q210,211	Q213	D2	D14	D214,215	D216,217	L2	L20	L201	A1	CF201	CF202	XF1	TH3	
X57-4950-21 M_DM	NO	NO	NO	25B1565(E,F)	NO	NO	NO	YES	NO	NO	10.4H	6T	68nH	82nH	X58-4360-10	YES	NO	L71-0498-05	NO
X57-4950-22 M2_DM2	4P	YES	NO	25B1565(E,F)	YES	NO	NO	YES	YES	NO	68nH	6T	68nH	82nH	X58-4360-11	YES	NO	L71-0498-05	NO
X57-4950-23 HDM	7P	YES	5P	25A1757(E,F)	YES	YES	YES	NO	YES	YES	10.4H	2.5T	68nH	82nH	X58-4360-10	YES	NO	L71-0498-05	YES
X57-4950-24 HDM2	5P	YES	7P	25A1757(E,F)	YES	YES	YES	NO	YES	YES	68nH	5T	33nH	56nH	X58-4360-11	YES	NO	L71-0498-05	YES
X57-4951-21 NM	NO	NO	NO	25B1565(E,F)	NO	NO	NO	YES	NO	NO	10.4H	6T	68nH	82nH	X58-4360-10	NO	YES	L71-0499-05	NO
X57-4951-22 NM2	4P	YES	NO	25B1565(E,F)	YES	NO	NO	YES	YES	NO	68nH	6T	68nH	82nH	X58-4360-11	NO	YES	L71-0499-05	NO

D1	:	02C218(X,Y)
D2	:	DSA3A1-FK
D3,5,22,212	:	1S5355 or MA110
D4	:	02C215(X,Y)
D6	:	ERZ-M10DK220
D9-12,206,207	:	DA204K
D13	:	02C220(Y,Z)
D14	:	DSM3MA1
D17,204	:	DAN235K
D20	:	MA4PH633
D24	:	M1809
D205	:	DAN202K
D208-210	:	1SV269
D211,213	:	1SV214
D214	:	HSM8BAS
D215,217	:	02C212(X,Y)
D216	:	HSM8BAS

IC1	:	BU4013BF
IC2	:	NJM4558M
IC3	:	NJM78L05UA
IC4	:	TA7808S
IC6	:	M62363FP
IC7	:	MC3372SV
IC8,13	:	NJM2904M
IC10	:	BU4094BCF
IC11	:	LA4422
IC14	:	TA75S01F
IC201	:	NJM78L09UA
IC202	:	MC145190F

Q1	:	DTA114EU
Q2,3,10,11,26	:	DTC114EU
Q4	:	2SA1641(S,T)
Q5	:	DTA114S,T
Q6	:	2SB1132(Q,R)
Q8	:	2SA1362(Y)
Q13,24	:	DDT114EK
Q14,212	:	DDT114EK
Q15,23,210	:	ZSC4116(GR)
Q16,209	:	ZSC2059K(P)
Q18	:	ZSC4215(Y)
Q20	:	DTC363EK
Q22	:	*
Q25	:	DTA144EU
Q205	:	ZSC3357
Q206	:	ZSC2954
Q207	:	SGM2014M
Q208	:	3SK241(R)
Q213	:	ZSC2712(Y)

1

2

4

6

7

8

9

10

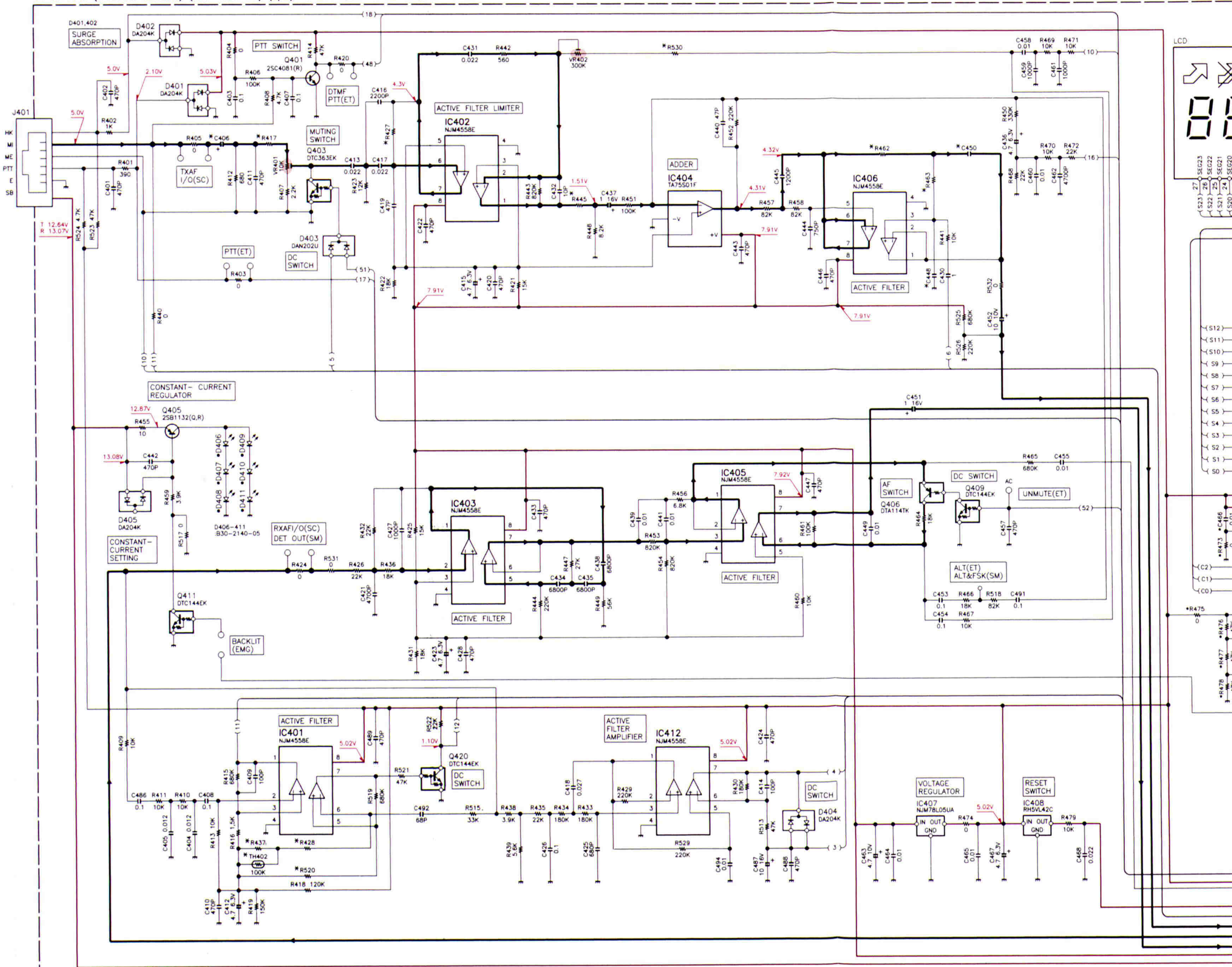
11

12

13

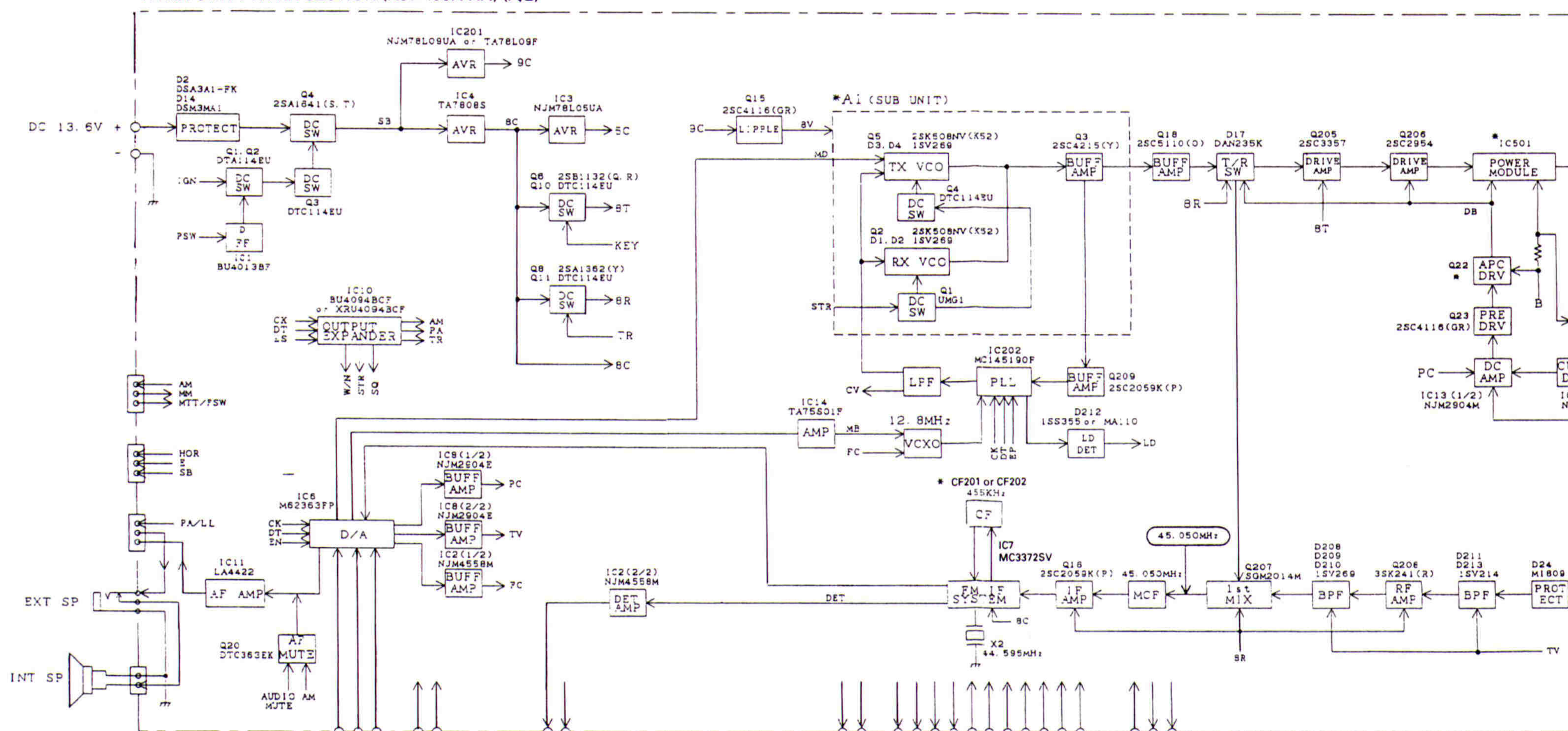


TX-RX UNIT (CONTROL SECTION) (X57-495X-XX) (B/2) 0-21: M,DM 0-22: M2,DM2 0-23: HDM 0-24: HDM2 1-21: NM 1-22: NM2

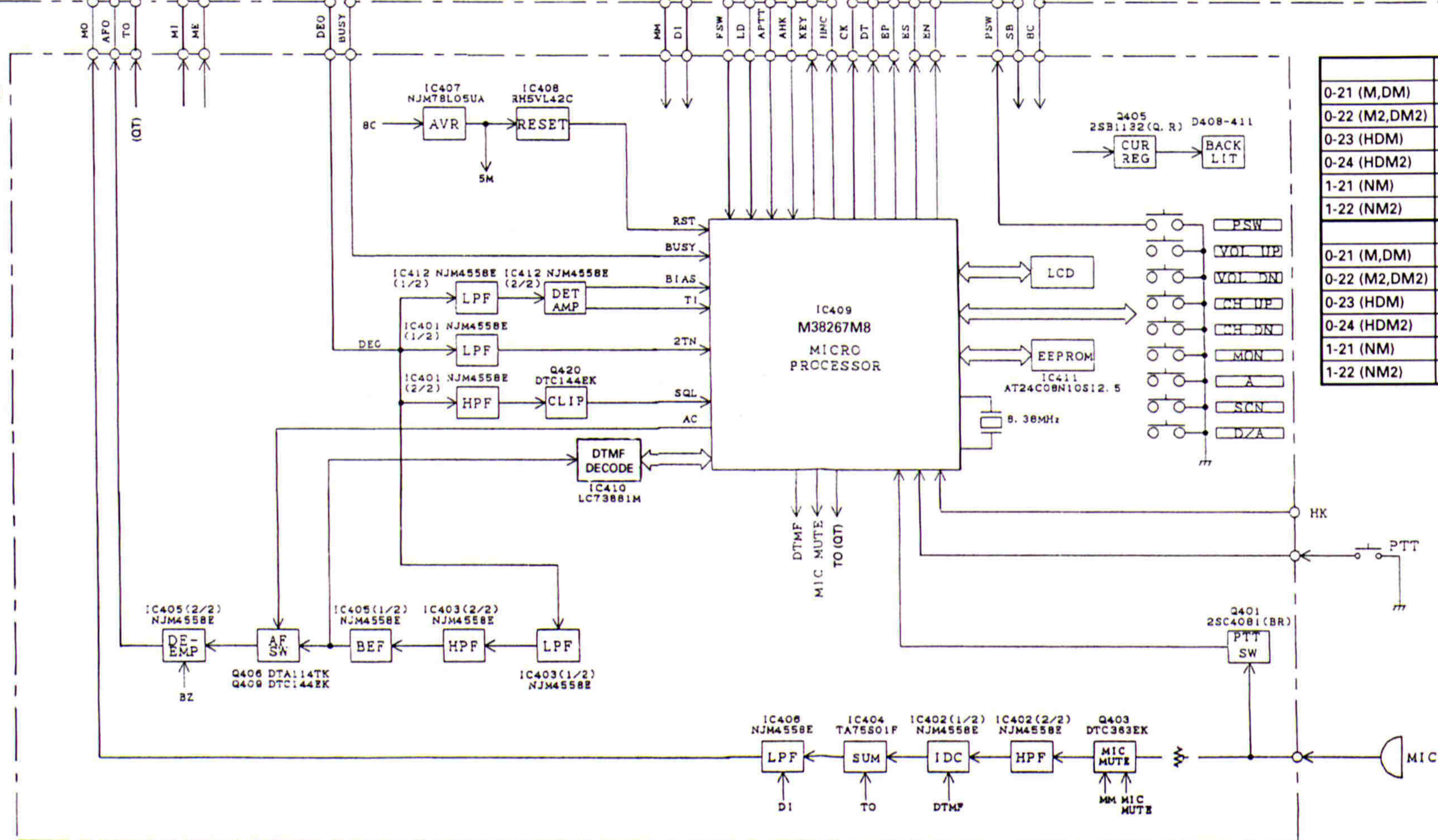


BLOCK DIAGRAM / 结构图

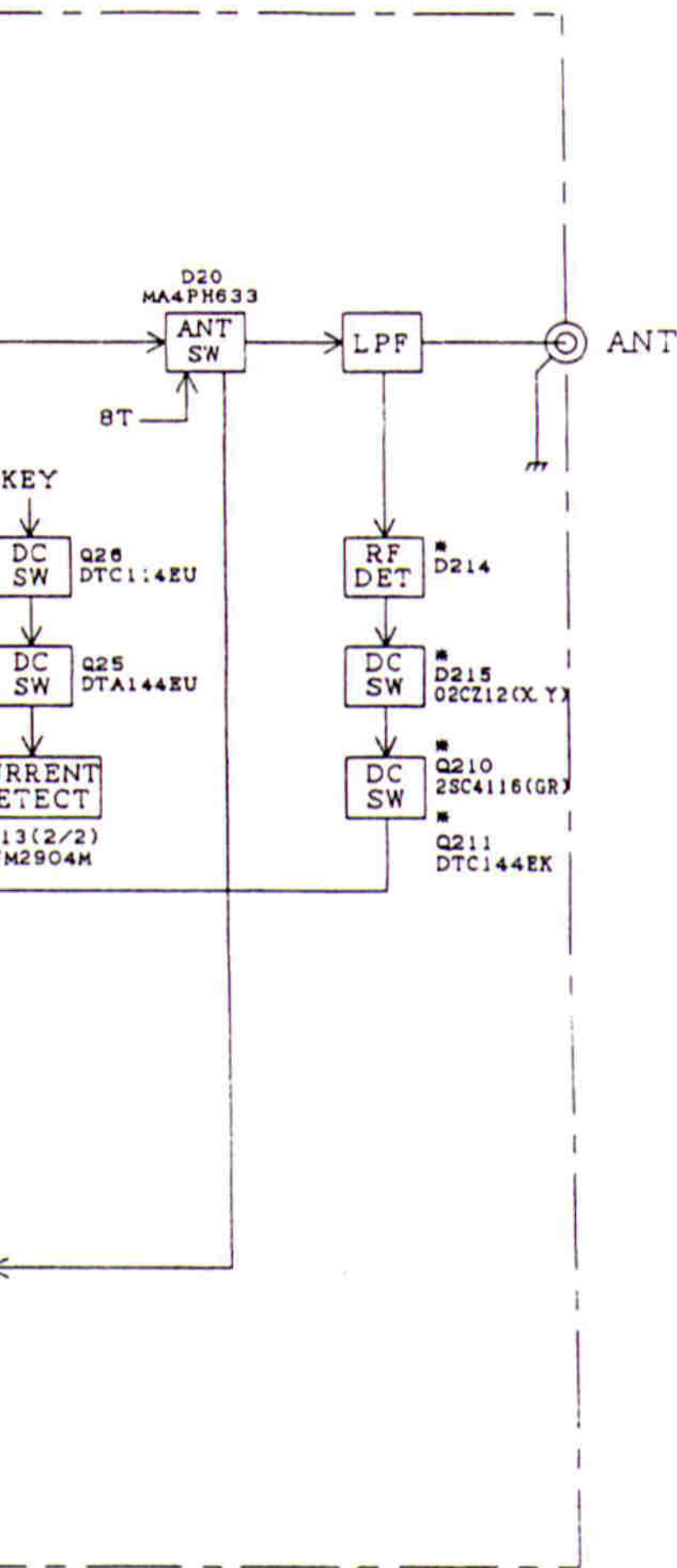
TX-RX UNIT : TX-RX SECTION (X57-495X-XX) (A/2)



TX-RX UNIT
: CONTROL SECTION
(X57-495X-XX) (B/2)

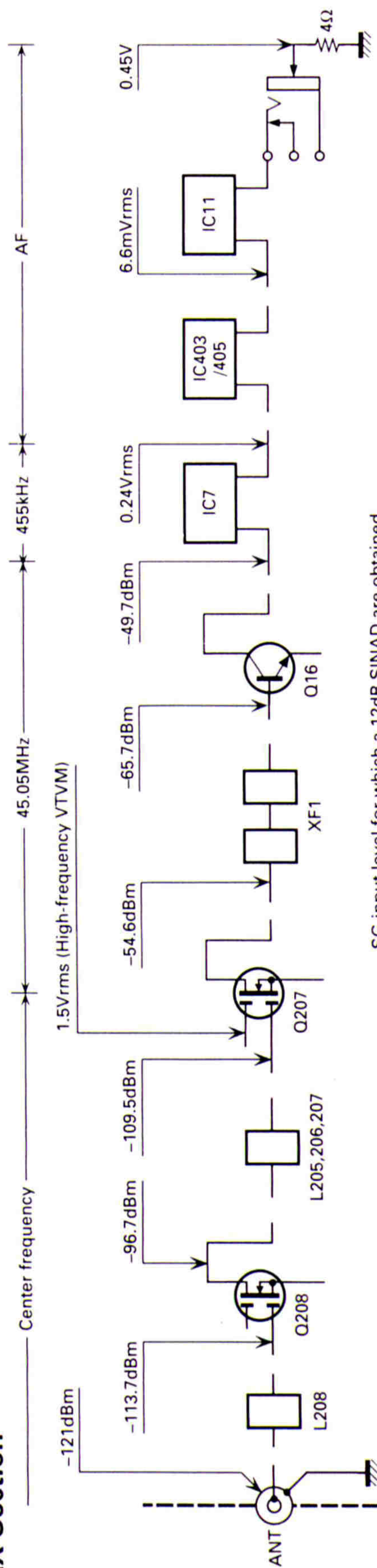


	D214
0-21 (M,DM)	–
0-22 (M2,DM2)	HSM88
0-23 (HDM)	HSM88
0-24 (HDM2)	HSM88
1-21 (NM)	–
1-22 (NM2)	HSM88
	Q214
0-21 (M,DM)	–
0-22 (M2,DM2)	DTC14
0-23 (HDM)	DTC14
0-24 (HDM2)	DTC14
1-21 (NM)	–
1-22 (NM2)	DTC14



	D215	Q22	Q210
	–	2SB1565(E,F)	–
AS	02CZ12(X,Y)	2SB1565(E,F)	2SC4116(GR)
AS	02CZ12(X,Y)	2SA1757(E,F)	2SC4116(GR)
AS	02CZ12(X,Y)	2SA1757(E,F)	2SC4116(GR)
	–	2SB1565(E,F)	–
AS	02CZ12(X,Y)	2SB1565(E,F)	2SC4116(GR)
	IC501	A1	CF
	M67741H-32	X58-4360-10	CF201
EK	M67741L-32	X58-4360-11	CF201
EK	M67781H-32	X58-4360-10	CF201
EK	M67781L-32	X58-4360-11	CF201
	M67741H-32	X58-4360-10	CF202
EK	M67741L-32	X58-4360-11	CF202

RX Section



SG input level for which a 12dB SINAD are obtained.

Measured by connecting the SG to each point via a 0.0015uF capacitor. (Squelch off)

用于获得 12dB SINAD 的 SG 输入电平。

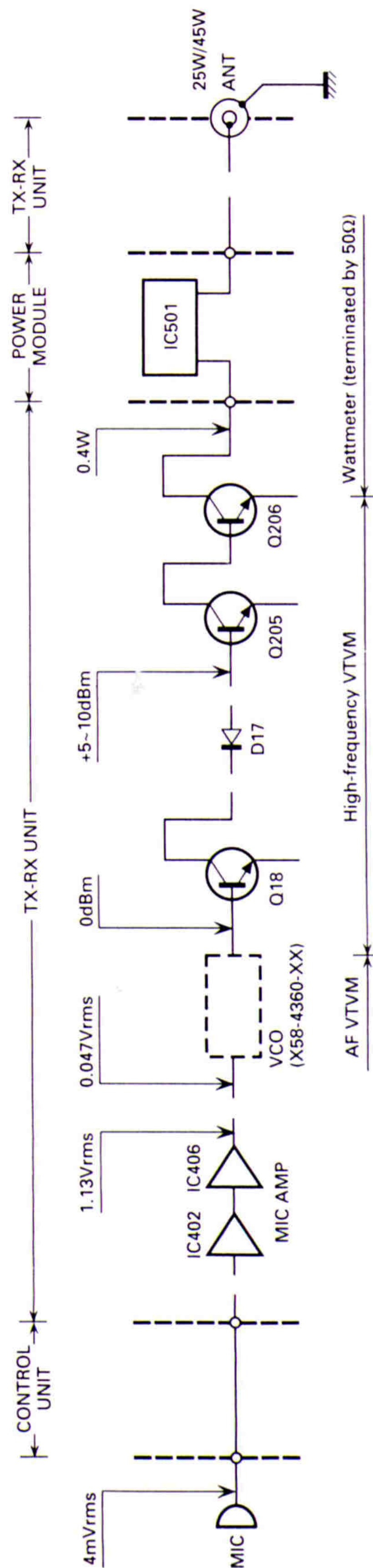
用于获得 12dB SINAD 的 SG 输入电平。(静噪关) AF VTVM 通过一个 0.0015 μ F 的电容连接 SG 来测量。

AF level obtained when the AF output level is adjusted for 0.45V/4Ω with the front panel AF VOL control. Measured with AF voltmeter connected to the external speaker jack, receiving a 40dB EMF SSG signal modulated at 1KHz, DEV 3KHz.

当用前面板 AF VOL 控制将 AF 输出电平调节为 0.45/45Ω 时获得的 AF 电平。

用AF电压表连接到外部扬声器插孔进行测量,接收一个以1kHz,DEV 3kHz调制的40dB EMF SSG信号。

TX Section



1. AG is set so that MIC input becomes 3kHz DEV at 1kHz MOD.

1. AG 设定成使 MIC 输入在 1kHz MOD 下变为 3kHz DEV。

2. 发送频率：中心频率

规格

一般规格

频率范围	DM, HDM : 148-174 MHz DM2, HDM2 : 136-156 MHz
信道数	32 半双工信道
信道间隔	25 kHz (PLL 信道间隔为 5 kHz/6.25 kHz)
输入电压	13.6 V 直流电负极接地
电流消耗	待机时 0.4 A 接收时 1.0 A TK-768: 发送时 8 A TK-768H: 发送时 12 A
占空因数	接收器 100% 发送器 20%
温度范围	摄氏零下 30 度到零上 60 度 (华氏零下 22 度到 140 度)
尺寸及重量	140 (5.51) W × 40 (1.58) H × 170 (6.73) D 毫米 (英寸) 1.0 公斤 (2.20 磅)

接收器 (由电子工业协会按 EIA/TIA-240D 标准测量)

RF 射频输入阻抗	50 欧姆
灵敏度 (EIA 12dB SINAD)	0.25μV
选择性	78 dB
相互调制	73 dB
假信号响应伪信号与镜像干扰抑制	80 dB
声音功率输出	低于 5% 失真 4 欧姆 4 瓦
频率稳定性	零下 30 度到零上 60 度 ±3ppm
信道频率分布	26 MHz/20 MHz

发送器 (由电子工业协会按 EIA-152C 标准测量)

RF 射频功率输出	TK-768: 25 W TK-768H: 45 W
伪信号和谐波	70dB
调制	F3E, 在1000Hz下对于100% 调制度的 ±5kHz
FM 噪声	50dB
麦克风阻抗	低阻抗
声频失真	在 1kHz 下为3%
频率稳定度	在 -30℃ 到 60℃ 为 ±3ppm
信道频率分布	26MHz/20MHz

美国军标 810C, D & E

标准	MIL 810C方法/ 程序	MIL 810D方法/ 程序	MIL 810E方法/ 程序
灰尘	510.1/ 程序1	510.2/ 程序1	510.3/ 程序1
振动	514.2/ 程序8.10	514.3/ 程序1	514.3/ 程序1
冲击	516.2/ 程序1,2,3,5	514.3/ 程序1,3,4,5,6	516.2/ 程序1,3,4,5,6

SPECIFICATIONS

General

Frequency range	M,DM,HDM,NM : 148 to 174MHz	M2,DM2,HDM2,NM2 : 136 to 156MHz
Number of channels	32 semi-duplex channels	
Channel spacing	25kHz/12.5kHz	
Input voltage	13.6V DC negative ground	
Current drain	0.4A on standby 1.0A on receive	
	TK-768/(N) : 8A on transmit TK-768H : 12A on transmit	
Duty cycle	Receiver 100% Transmitter 20%	
Temperature range	-30°C to +60°C (-22°F to +140°F)	
Dimensions & Weight	140 (5.51) W x 40 (1.58) H x 170 (6.73) D mm (inch)	1.0kg (2.20lbs)
Applicable environmental TIA/EIA standard	Shock, Vibration, Dust	

Receiver (Measurements made per EIA/TIA-204D)

RF input impedance	50Ω	
Sensitivity (EIA 12dB SINAD)	M,M2,DM,DM2,HDM,HDM2 : 0.25μV	NM,NM2 : TBA
Selectivity	M,M2,DM,DM2,HDM,HDM2 : 78dB	NM,NM2 : TBA
Intermodulation	M,M2,DM,DM2,HDM,HDM2 : 73dB	NM,NM2 : TBA
Spurious and Image rejection	80dB	
Audio output	4W at 4Ω, with less than 5% distortion	
Frequency stability	M,M2,DM,DM2,HDM,HDM2 : ±0.0005%	NM,NM2 : ±0.0003%
Channel frequency spread	26MHz/20MHz	

Transmitter (Measurements made per EIA standard EIA-152C)

RF power output	TK-768/(N) : 25W	TK-768H : 45W
Spurious and Harmonics	-70dB	
Modulation	F3E, ±5kHz/±2.5kHz for 100% at 1000Hz	
FM noise	-50dB (25kHz)	TBA (12.5kHz)
Microphone impedance	Low impedance	
Audio distortion	3% at 1kHz	
Frequency stability	M,M2,DM,DM2,HDM,HDM2 : ±0.0005%	NM,NM2 : ±0.0003%
Channel frequency spread	26MHz/20MHz	

Applicable MIL-STD

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures
Dust	510.1/Procedure 1	510.2/Procedure 1	510.3/Procedure 1
Vibration	514.2/Procedure 8,10	514.3/Procedure 1	514.4/Procedure 1
Shock	516.2/Procedure 1,2,3,5	516.3/Procedure 1,3,4,5,6	516.4/Procedure 1,3,4,5,6

KENWOOD CORPORATION

14-6, Dogenzaka 1-chome, Shibuya-ku, Tokyo 150, Japan

KENWOOD SERVICE CORPORATION

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

KENWOOD ELECTRONICS LATIN AMERICA S.A.

P.O. BOX 55-2791 Piso 6 Plaza Chase Cl. 47 y Aquilino de la Guardia Panama, Republic of Panama

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.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS FRANCE S.A.

13, Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS U.K. LIMITED

KENWOOD House, Dwight Road, Watford, Herts., WD1 8EB United Kingdom

KENWOOD ELECTRONICS NEDERLAND B.V.

Amsterdamseweg 35, 1422 AC Uithoorn, The Netherlands

KENWOOD ELECTRONICS ITALIA S.p.A.

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

KENWOOD IBERICA S.A.

Bolivia, 239-08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

(A.C.N. 001 499 074)

P.O. Box 504, 8 Figtree Drive, Australia Centre, Homebush, N.S.W. 2140, Australia

KENWOOD & LEE ELECTRONICS, LTD.

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