

DJ-X10

Service Manual

CONTENTS

●SPECIFICATIONS	2
●CIRCUIT DESCRIPTION	3
●SEMICONDUCTOR DATA	7
●EXPLODED VIEW	14
●PARTS LIST	17
●ADJUSTMENT	21
●PC BOARD VIEW	24
●BLOCK DIAGRAM	31
●CIRCUIT DIAGRAM	33



ALINCO, INC.

SPECIFICATIONS

Frequency range	0.1 ~ 1999.999950 MHz		
Radio systems received	WFM, NFM, AM, USB, LSB, CW		
Frequency steps	50 Hz, 100 Hz, 1 kHz, 2 kHz, 5 kHz, 6.25 kHz, 9 kHz, 10 kHz, 12.5 kHz, 15 kHz, 20 kHz, 25 kHz, 30 kHz, 50 kHz, 100 kHz, 125 kHz, 150 kHz, 200 kHz, 250 kHz, 500 kHz		
Sensitivity (Typ.)	AM	0.1~0.5 MHz 0.5~5 MHz 5~30 MHz 30 MHz ~ 1000 MHz (1 kHz 30 %mod 10 dB S/N)	10 µV(20 dBµ) 1.5 µV(3.5 dBµ) 1 µV(0 dBµ) 1 µV(0 dBµ)
	SSB	0.5~5 MHz 5~30 MHz 30 MHz ~ 1000 MHz (10 dB S/N)	0.5 µV(-6 dBµ) 0.25 µV(-12 dBµ) 0.5 µV(-6 dBµ)
	NFM	5~30 MHz 30~1000 MHz 1000~1300 MHz 1300~1999 MHz (1 kHz 3.5 kHz 12 dB SINAD)	0.35 µV(-9 dBµ) 0.25 µV(-12 dBµ) 1.5 µV(3.5 dBµ) 10 µV(20 dBµ)
	WFM	30~1000 MHz (12 dB SINAD)	1.5 µV(3.5 dBµ)
Memory channels	1200		
Search pass mode channels	1000		
Priority channel	1		
Memory banks	30		
Channels per bank	40		
Search bands	20		
Scan speed	Approx. 25 CH/sec		
Antenna connector	BNC, 50Ω		
Power supply	4.8V DC (Ni-Cd)/6V DC (AA dry cell)		
External power supply	8 ~ 15V DC		
Rated AF output	Min. 100 mW, 10% THD		
Power consumption	At rated output Squelched BS ON		
	Approx. 200 mA Approx. 140 mA Approx. 30 mA		
Weight	Approx. 320 g		
Dimensions	57 x 150 x 27.5 mm (without projections)		
Operating temperature range	-10 ~ +50°C		
Frequency stability	±10 ppm		

CIRCUIT DESCRIPTION

1) Frequency

- Signals in the 0.1 ~ 449.99 MHz and 1500 ~ 2000 MHz bands are converted into the 736.25 MHz first IF signal by the first local oscillator signal.
- Signals in the 450 ~ 1499.99 MHz band are converted into the 275.45 MHz first IF signal by this same first local oscillator signal.
- The first IF signal is converted into the 45.05 MHz second IF signal from the two second local oscillator signals (671.2 and 230.4 MHz) by the second mixer circuit.
- Depending on the mode, the second IF signal is input to one of the two IF amplifier ICs. In one mode, the second IF signal is mixed with a 34.35 MHz third local oscillator signal and converted into a third IF signal of 10.7 MHz, while in the other, it is mixed with a 44.595 MHz third local oscillator signal and converted into the third IF signal of 455 kHz.

2) Receiver Block

Front-End Circuit

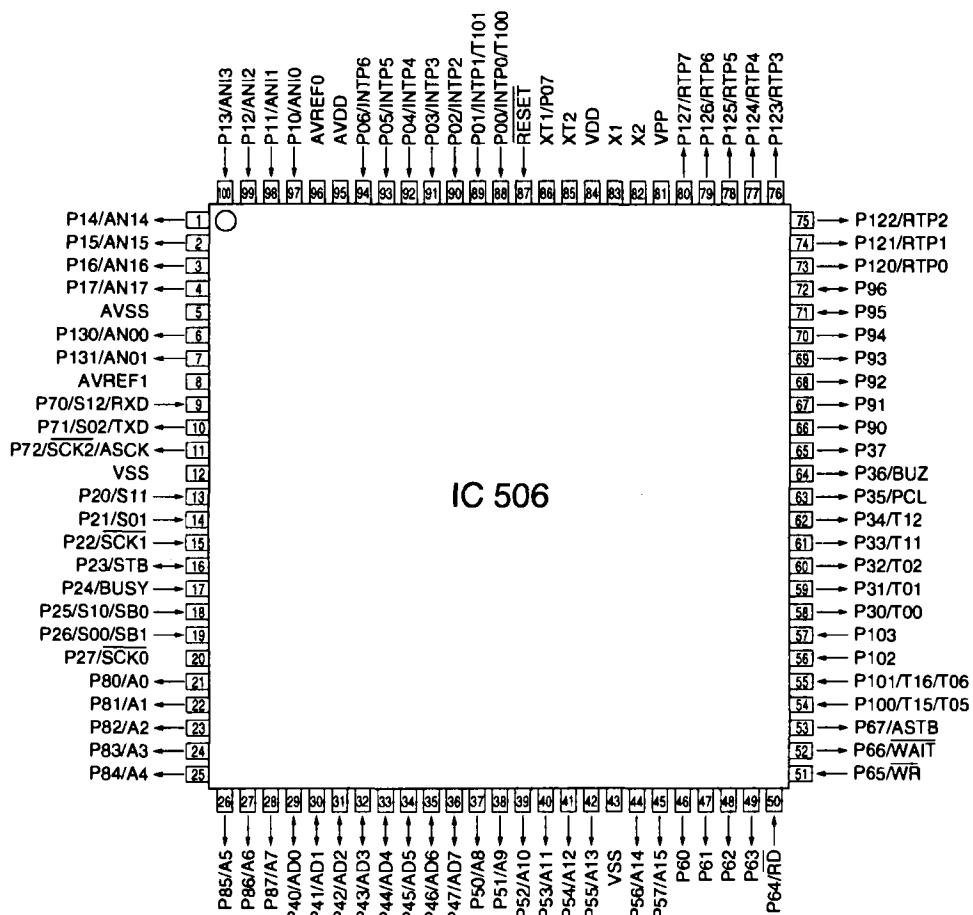
- The received signal from the antenna goes through the antenna circuits (D128, D124 and D125) and is screened by seven band pass filters consisting of several antenna switches (D131, D111, D127, D112, D126, D114, D130, D115, D134, D119, D135, D121, D136, D122 and D133) to remove unwanted signals.
- The RF signal is amplified by each of the RF amplifiers Q123 (0.1 ~ 222 MHz), Q125 (222 ~ 797 MHz), Q126 (797 ~ 2000 MHz) and Q118. It is then converted into the first IF signal by the first mixer circuit (T101, T100, D109 and D116).
- The adjacent signals in first IF signal, the 275.45 MHz IF signal and the 736.25 MHz IF signal are filtered out respectively by the band switch (D110 and D102), the IF filter (L113, L110, L107 and L101) and the IF filter (FL102 and FL101). Then, the signals are input into the second mixer circuit (Q102).
- In the second mixer circuit, the 12.8 MHz reference signal is mixed with either a 230.4 MHz second local oscillator signal (amplified 18 times) or a 691.2 MHz second local oscillator signal (amplified 54 times) selected by a switch (D101), and is converted into a 45.05 MHz second IF signal.
- In the WFM mode, the second IF signal goes through an IF filter (L301) and is input into pin No. 16 of an IF IC (IC305). A 10.7 MHz third IF signal converted by the IC's internal mixer is output from pin No. 14, filtered of adjacent signals by a ceramic filter (FL302) and input into pin No. 12. Next, it is demodulated by IC's internal limiter amplifier and quadrature detection circuit, and output from pin No. 8 as an AF signal.

- In the NFM, AM, SSB and CW modes, the second IF signal goes through an IF filter (XF300 and XF301) and is input to pin No. 16 of an IF IC (IC304). A 455 kHz third IF signal converted by the IC's internal mixer is output from pin No. 3 and is filtered of adjacent signals by a ceramic filter (FL301). Thereafter, a switch (D306 and D309) selects the mode. In the NFM mode, the signal is input to pin No. 5, demodulated by IC's internal limiter amplifier and quadrature detection circuit, and output from pin No. 9 as an AF signal. In the AM mode, the signal is amplified by an AGC amplifier (Q313) and input to pin No. 7 of an IF IC (IC305). It is amplified inside the circuit, demodulated by the detection circuit and output from pin No. 8 as an AF signal. In the SSB mode, the signal goes through a ceramic filter (FL303) and is amplified by an AGC amplifier (Q313) and an IF amplifier (Q316). It is then mixed with a carrier signal, which is generated by the BFO circuit (X302 and Q318) and fed through a buffer (Q317), demodulated by a balanced modulation circuit consisting of diodes (Q315, D314 and D313), and output as an AF signal.
- The AF signal for each of the modes is selected with a switch (IC308) and amplified by an AF signal amplifier (IC309). It is controlled by an AF mute circuit (Q319) and adjusted for volume by an electronic volume (IC306). It is then amplified by an audio amplifier (IC307) and input to the speaker.

3) PLL Synthesizer Circuit

- The signal from a 12.8 MHz crystal (X100) oscillator circuit (Q100) is input to a PLL IC (IC101) to obtain a 10 MHz reference oscillation signal frequency. The comparison frequency is output from a VCO circuit (Q114, L108, D104, D105, D107 and D108), amplified by an amplifier (Q115, Q113 and Q116) and divided by a divider inside the PLL IC. It is then compared against the reference frequency to make the PLL synthesizer.
- The VCO output signal (675 ~ 1225 MHz) is amplified by a buffer amplifier (Q115, Q113 and Q120) and input into the first mixer as the first local oscillator signal.
- Frequencies of 9 kHz steps or less are varied by the VCXO circuit (X300, D304 and D305) of the D/A converter (IC303).

4) CPU Terminal Functions: μ PD78076 (E:XA0536) (T:XA0550)



No.	Name	Pin Name	I/O	Description	H	L	Hi Z	Pull UP
1	P14/AN14	C0	O	16KEY MATRIX				
2	P15/AN15	CB1	O	16KEY MATRIX				
3	P16/AN16	CB2	O	16KEY MATRIX				
4	P17/AN17	CB3	O	16KEY MATRIX				
5	AVSS	GND		GND				
6	P130/AN00	BARTU	O	NOT USED				
7	P131/AN01	VCXOIN	O	VCXO CONTROL				
8	AVREF1	VCC		VCC				
9	P70/S12/RXD	RXD	I	CLONE RX INPUT				
10	P71/S02/TXD	TXD	O	CLONE TX OUTPUT				
11	P72/SCK2/ASCK	PCNTS	O	DC DC POWER CONTROL	ON	OFF		
12	VSS	GND		GND				
13	P20/S11	RB0	I	16KEY MATRIX	OFF	ON		
14	P21/S01	RB1	I	16KEY MATRIX	OFF	ON		
15	P22/SCK1	RB2	I	16KEY MATRIX	OFF	ON		
16	P23/STB	RB3	I	16KEY MATRIX	OFF	ON		
17	P24/BUSY	RB4	I	16KEY MATRIX	OFF	ON		
18	P25/S10/SB0	RB5	I	16KEY MATRIX	OFF	ON		
19	P26/S00/SB1	SRCHK	I	SRCH KEY	OFF	ON		
20	P27//SCK0	NOVOEDET		NOT USED				
21	P80/A0	A0	O	EEPROM ADDRESS				
22	P81/A1	A1	O	EEPROM ADDRESS				
23	P82/A2	A2	O	EEPROM ADDRESS				
24	P83/A3	A3	O	EEPROM ADDRESS				
25	P84/A4	A4	O	EEPROM ADDRESS				
26	P85/A5	A5	O	EEPROM ADDRESS				
27	P86/A6	A6	O	EEPROM ADDRESS				
28	P87/A7	A7	O	EEPROM ADDRESS				
29	P40/AD0	DD0	I/O	EEPROM DATA				
30	P41/AD1	DD1	I/O	EEPROM DATA				
31	P42/AD2	DD2	I/O	EEPROM DATA				

No.	Name	Pin Name	I/O	Description	H	L	Hi Z	Pull UP
32	P43/AD3	DD3	I/O	EEPROM DATA				
33	P44/AD4	DD4	I/O	EEPROM DATA				
34	P45/AD5	DD5	I/O	EEPROM DATA				
35	P46/AD6	DD6	I/O	EEPROM DATA				
36	P47/AD7	DD7	I/O	EEPROM DATA				
37	P50/A8	A8	O	EEPROM ADRESS				
38	P51/A9	A9	O	EEPROM ADRESS				
39	P52/A10	A10	O	EEPROM ADRESS				
40	P53/A11	A11	O	EEPROM ADRESS				
41	P54/A12	A12	O	EEPROM ADRESS				
42	P55/A13	A13	O	EEPROM ADRESS				
43	VSS	GND		GND				
44	P56/A14	A14	O	EEPROM ADRESS				
45	P57/A15	/RES	O	EEPROM LCD RESET				
46	P60	STB4	O	STB FOR IC500				
47	P61	SHIFT	O	NOT USED				
48	P62	OECNT	O	OUT CONTROL IC500				
49	P63	/CE	O	CHIP ENABLE EEPROM				
50	P64//RD	RD	I	OUT ENABLE EEPROM				
51	P65//WR	/WE	I	WRITE ENABLE EEPROM				
52	P66/WAIT	OPTSTB	O	STB FOR OPTION				
53	P67/ASTB	OPTCT	O	CONTROL FOR OPTION	ON	OFF		
54	P100/T15/T05	RDY	I	EEPROM STATUS				
55	P101/T16/T06	OPTDET	I	OPTION DETECT	ON	OFF		
56	P102	WIDES	I	ENABLE BAND				
57	P103	LOCK	I	PLL LOCK		UNLOCK		
58	P30/T00	BEEP	O	BEEP				
59	P31/T01	AFS	O	AMP CONTROL	ON	OFF		
60	P32/T02	MUTE	O	MUTE	ON	OFF		
61	P33/T11	STB3	O	STB FOR IC300				
62	P34/T12	STB2	O	STB FOR IC306				
63	P35/PCL	STB1	O	STB FOR IC103				
64	P36/BUZ	LE	O	STB FOR IC101				
65	P37	BUSLS	O	BUSY LED CONTROL	ON	OFF		
66	P90	DB4	O	DATA LCD				
67	P91	DB5	O	DATA LCD				
68	P92	DB6	O	DATA LCD				
69	P93	DB7	O	DATA LCD				
70	P94	E/SCLK	O	E/SCLK LCD				
71	P95	RW/SID	I/O	RW/SID LCD				
72	P96	RS/CS	I/O	RS/CS LCD				
73	P120/RTP0	DATA	O	DATA FOR 4094				
74	P121/RTP1	CLK	O	CLK FOR 4094				
75	P122/RTP2	BATSV	O	BATT SAV CONTROL	ON	OFF		
76	P123/RTP3	RFL	O	FILTER CONTROL	OFF	ON		
77	P124/RTP4	RFM	O	FILTER CONTROL	OFF	ON		
78	P125/RTP5	RFH	O	FILTER CONTROL	OFF	ON		
79	P126/RTP6	BARS	O	NOT USED				
80	P127/RTP7	IFS	O	IF SWITCH	OFF	ON		
81	VPP	GND						
82	X2			XTAL MAIN				
83	X1			XTAL MAIN				
84	VDD	VDD						
85	XT2			XTAL SUB				
86	XT1/P07			XTAL SUB				
87	/RESET	/RST	I	RESET CPU				
88	P00/INTP0/T100	LAMPK	I	LAMP KEY	OFF	ON		0
89	P01/INTP1/T101	BRDET	I	BAT DETECT				0
90	P02/INTP2	POWK	I	POWER KEY	OFF	ON		0
91	P03/INTP3	MONK	I	MONITOR KEY	OFF	ON		0
92	P04/INTP4	FUNK	I	FUNCTION KEY	OFF	ON		0
93	P05/INTP5	A	I	ROTARY ENCODER				0
94	P06/INTP6	B	I	ROTARY ENCODER				0
95	AVDD	VDD		VDD				
96	AVREF0	VCC		VCC				
97	P10/ANIO	SQD	I	SQ				
98	P11/ANI1	SM	I	S-METER				
99	P12/ANI2	JRDET	I	NOT USED				
100	P13/ANI3	BATTDET	I	LOW BAT DETECT				

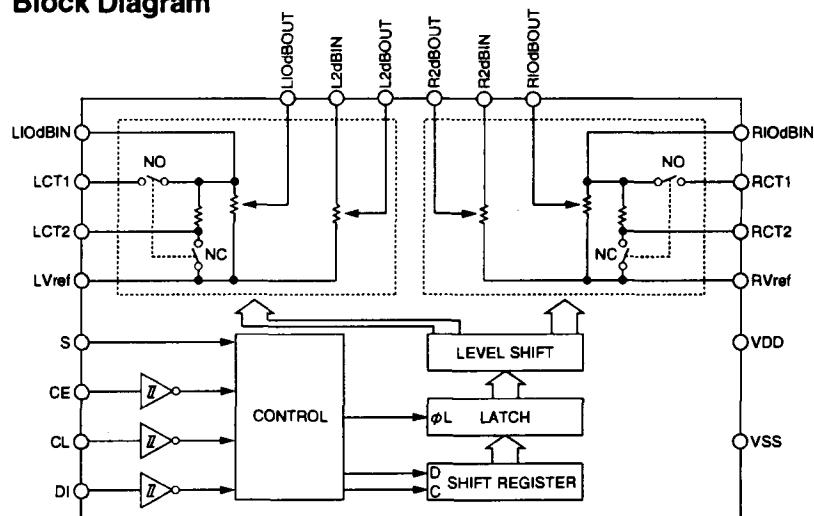
SEMICONDUCTOR DATA

1) LC75366M (XA0345)

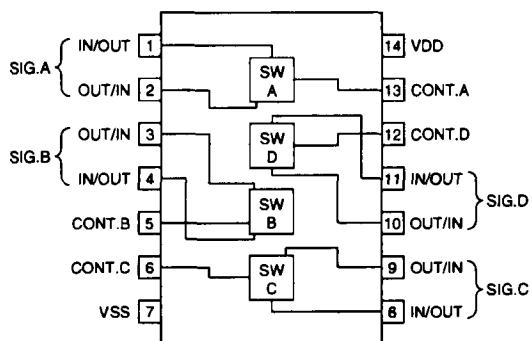
Pin Assignment

LIOdBIN	1	RIOdBIN	20
LCT1	2	RCT1	19
LCT2	3	RCT2	18
LIOdBOUT	4	RIOdBOUT	17
L2dBIN	5	R2dBIN	16
L2dBOUT	6	R2dBOUT	15
LVref	7	RVref	14
VDO	8	VSS	13
CL	9	S	12
DI	10	CE	11

Block Diagram



2) NJU4066BM (XA0095)

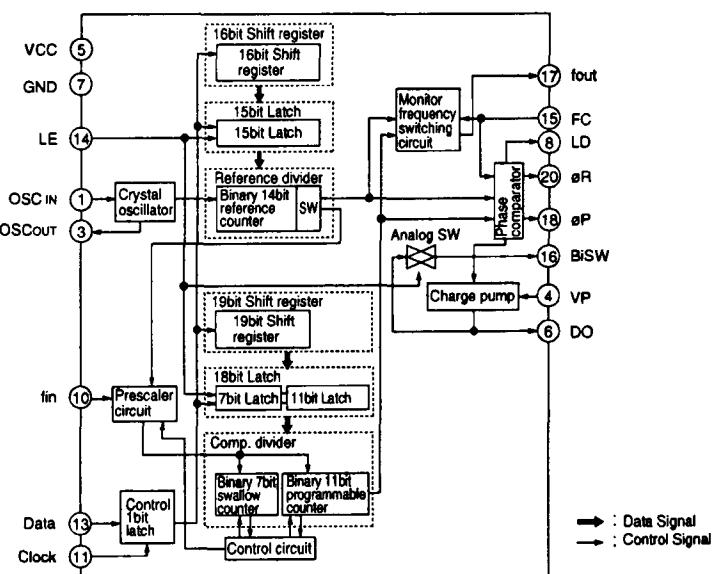


3) MB1511 (XA0173)

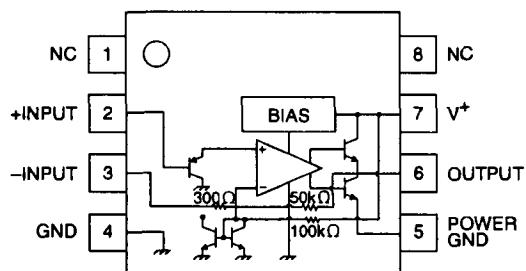
Pin Assignment

OSCIN	1	ϕ_R	20
NC	2	NC	19
OSCOUT	3	ϕ_P	18
VP	4	fout	17
VCC	5	BISW	16
DO	6	FC	15
GND	7	LE	14
LD	8	Data	13
NC	9	NC	12
fin	10	Clock	11

Block Diagram

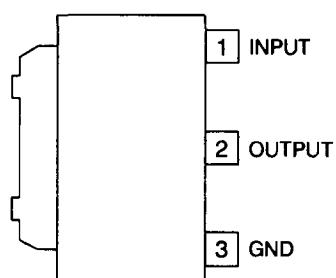


4) NJM2070MT (XA0210)

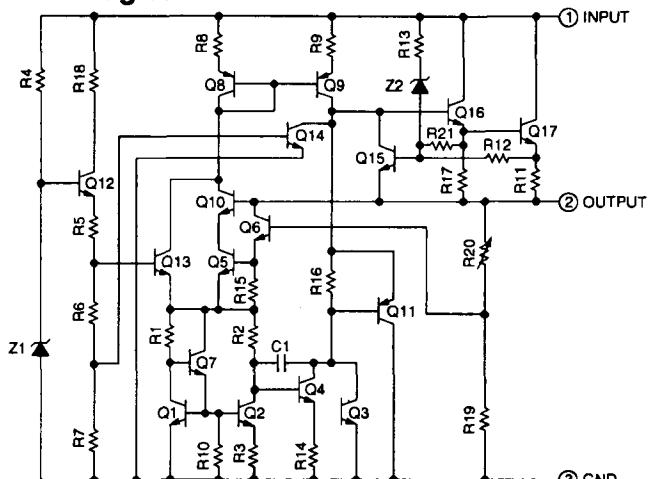


5) TA7806F (XA0267)

Pin Assignment

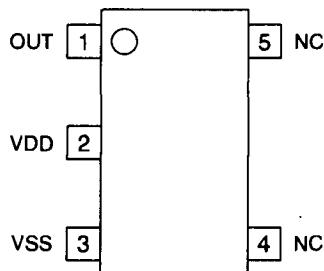


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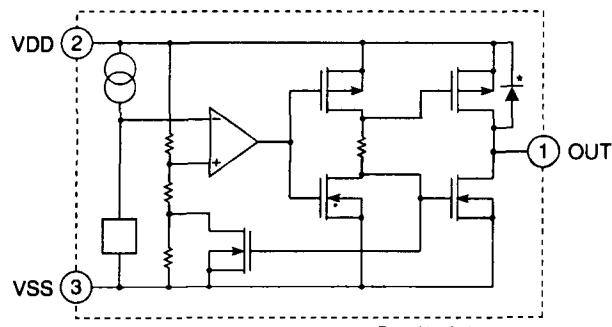


6) S-80733SLAXT2 (XA0357)

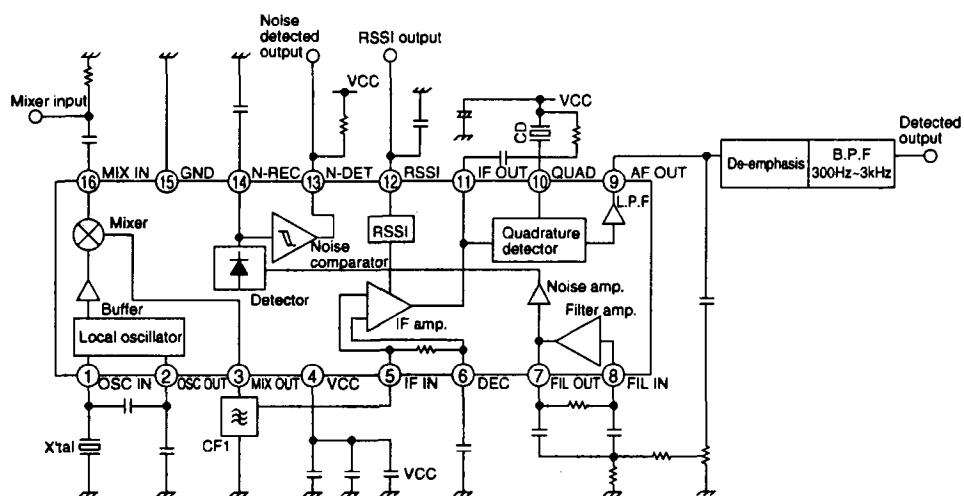
Pin Assignment



Block Diagram



7) TA31136FN (XA0404)

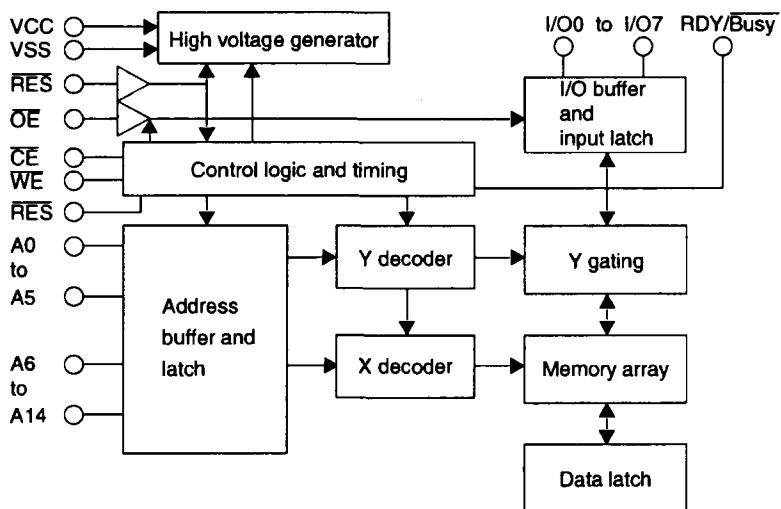


8) HN58V257A (XA0462)

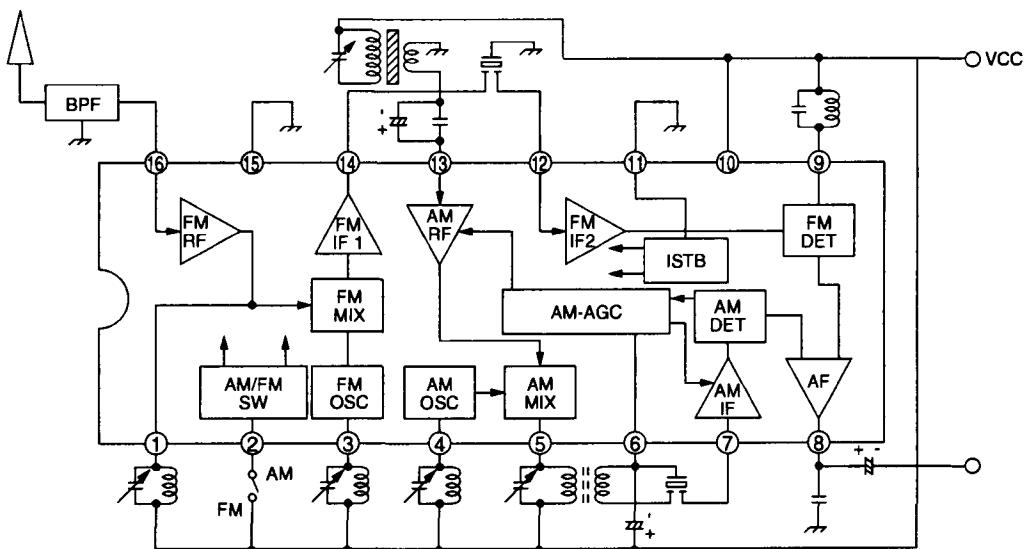
Pin Assignment

\overline{OE}	1	32	A10
A11	2	31	\overline{CE}
A9	3	30	NC
A8	4	29	I/O7
A13	5	28	I/O6
WE	6	27	I/O5
RES	7	26	I/O4
VCC	8	25	I/O3
RDY/Busy	9	24	VSS
A14	10	23	I/O2
A12	11	22	I/O1
A7	12	21	I/O0
A6	13	20	NC
A5	14	19	A0
A4	15	28	A1
A3	16	17	A2

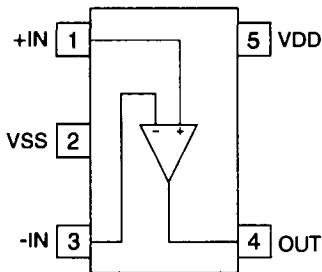
Block Diagram



9) TA7792F (XA0464)

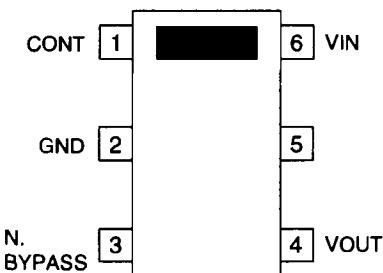


10) TC75S51F (XA0465)

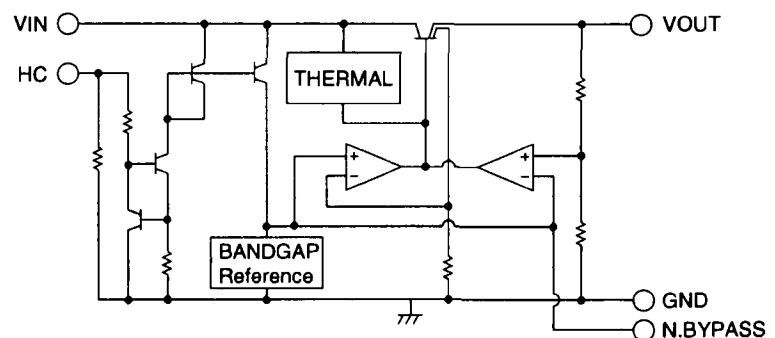


11) TK11235AM (XA0467)

Pin Assignment

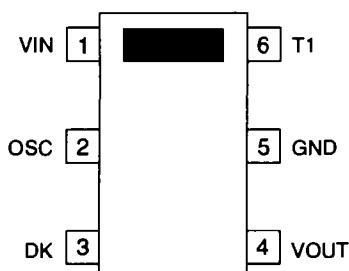


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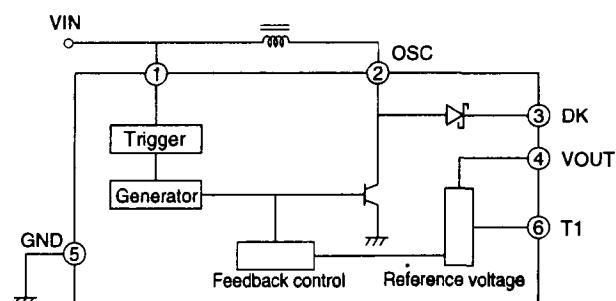


12) TK11819M (XA0468)

Pin Assignment

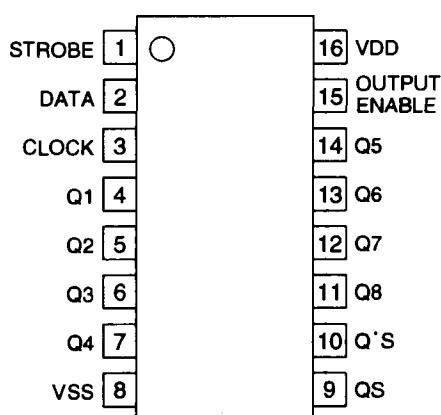


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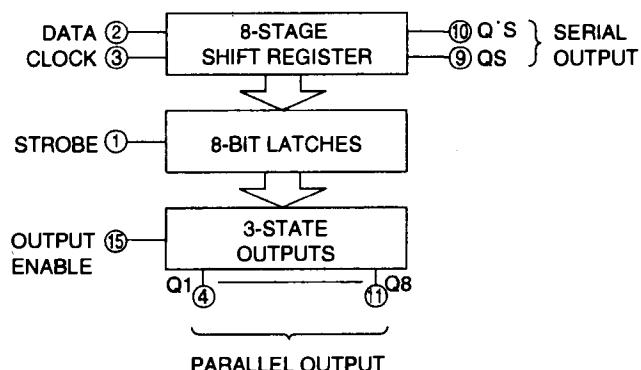


13) BU4094BCFV (XA0506)

Pin Assignment

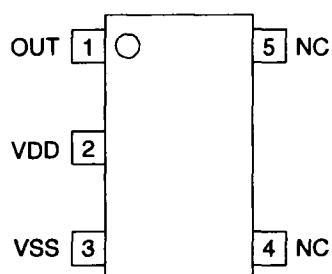


Block Diagram

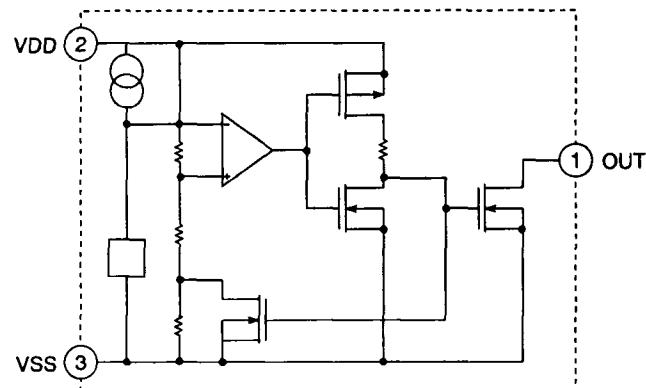


14) S-80725SN-2 (XA0528)

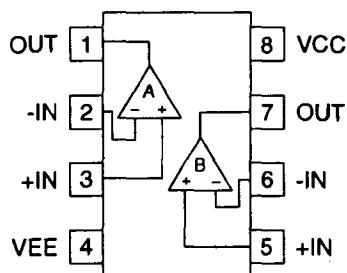
Pin Assignment



Block Diagram

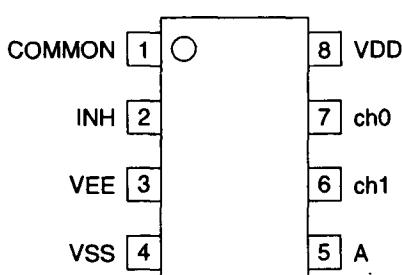


15) TA75W01FU-2 (XA0349)

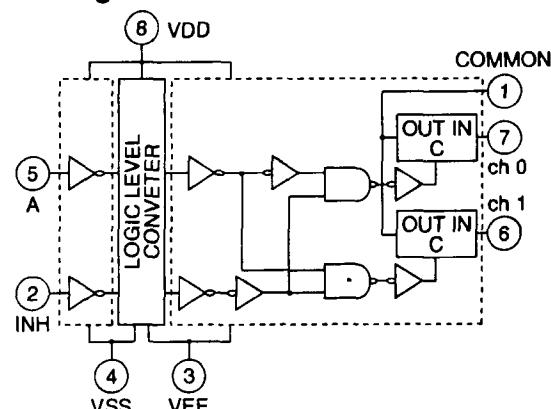


16) TC4W53FU (XA0348)

Pin Assignment

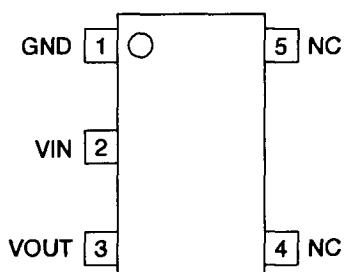


Block Diagram

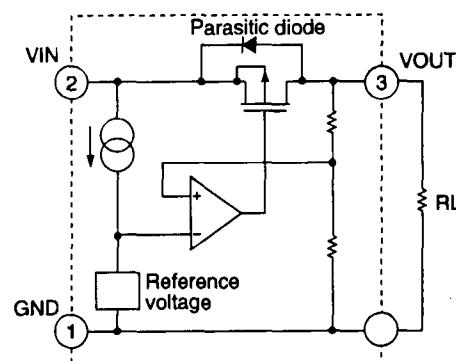


17) S-812XXSG (XA0358)

Pin Assignment



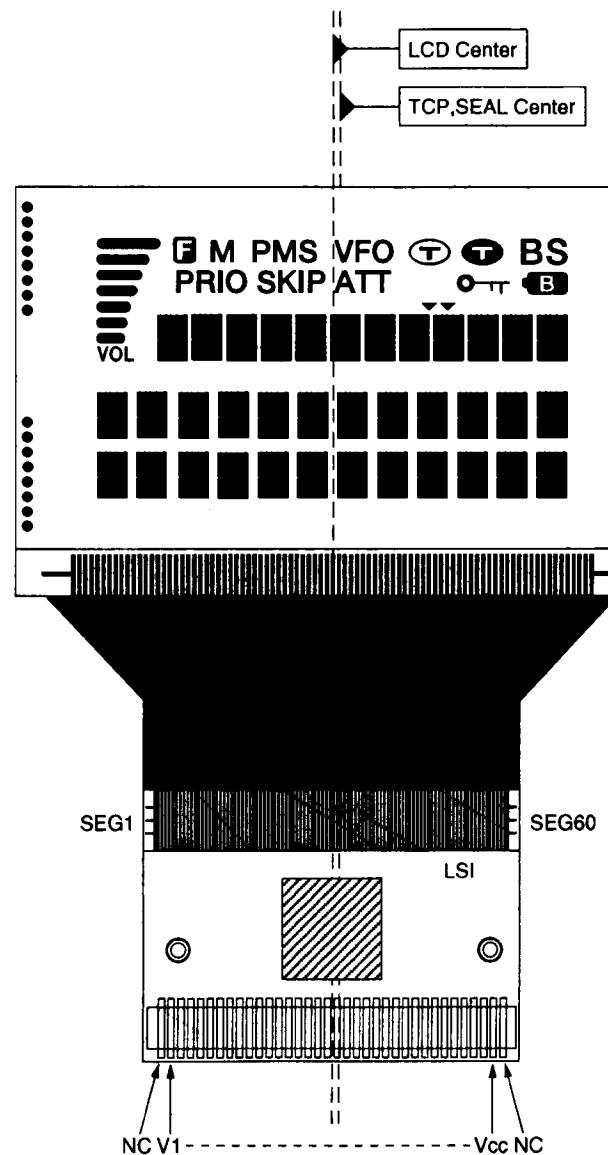
Block Diagram



18) Transistor, Diode, and LED Outline Drawings

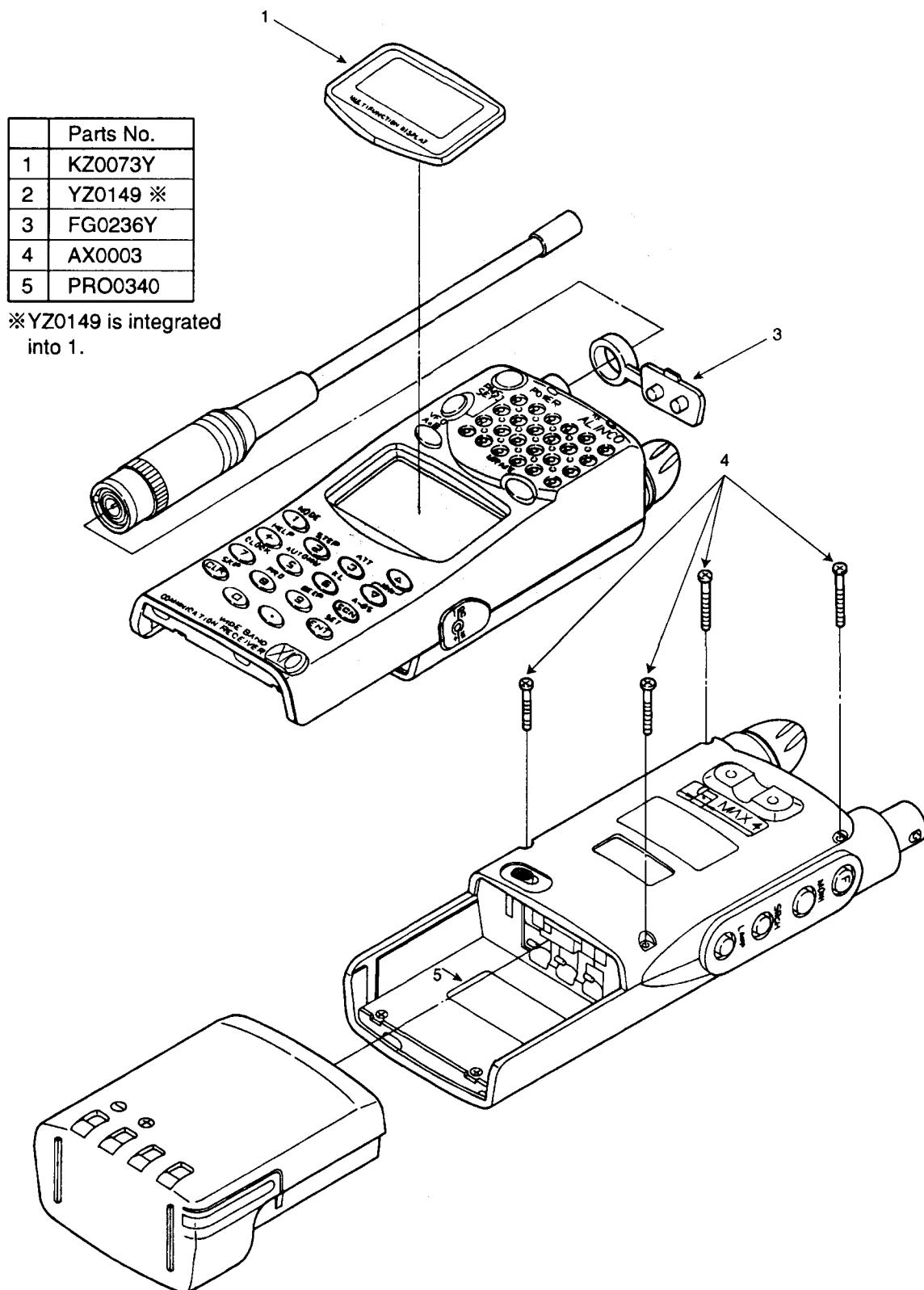
DA204U XD0130	DAN202U XD0230	MA742TX XD0250	MA741WK XD0252	1SS295 XD0306	1SS312 XD0307
1SV231 XD0260	1SS356 XD0272	MA111 XD0290	MA729 XD0291	U2FWJ44N XD0294	HVU350 XD0313
DTB123YK XU0155	XP1501TX XU0172	UN9112 XU0182	UN5212 XU0184	DTA143ZE XU0185	DTC143ZE XU0186
2SC4649 XT0108	2SC4181 XT0149	2SC4738 XT0150	2SC5006 XT0151	2SC5007 XT0152	2SC5008 XT0153
BRPG1201W XL0028	SML-310MT XL0036	PG1101F XL0045	2SK425 XE0033	UMC5N XU0152	
2SA1213-Y XT0088					

19) LCD Diagram



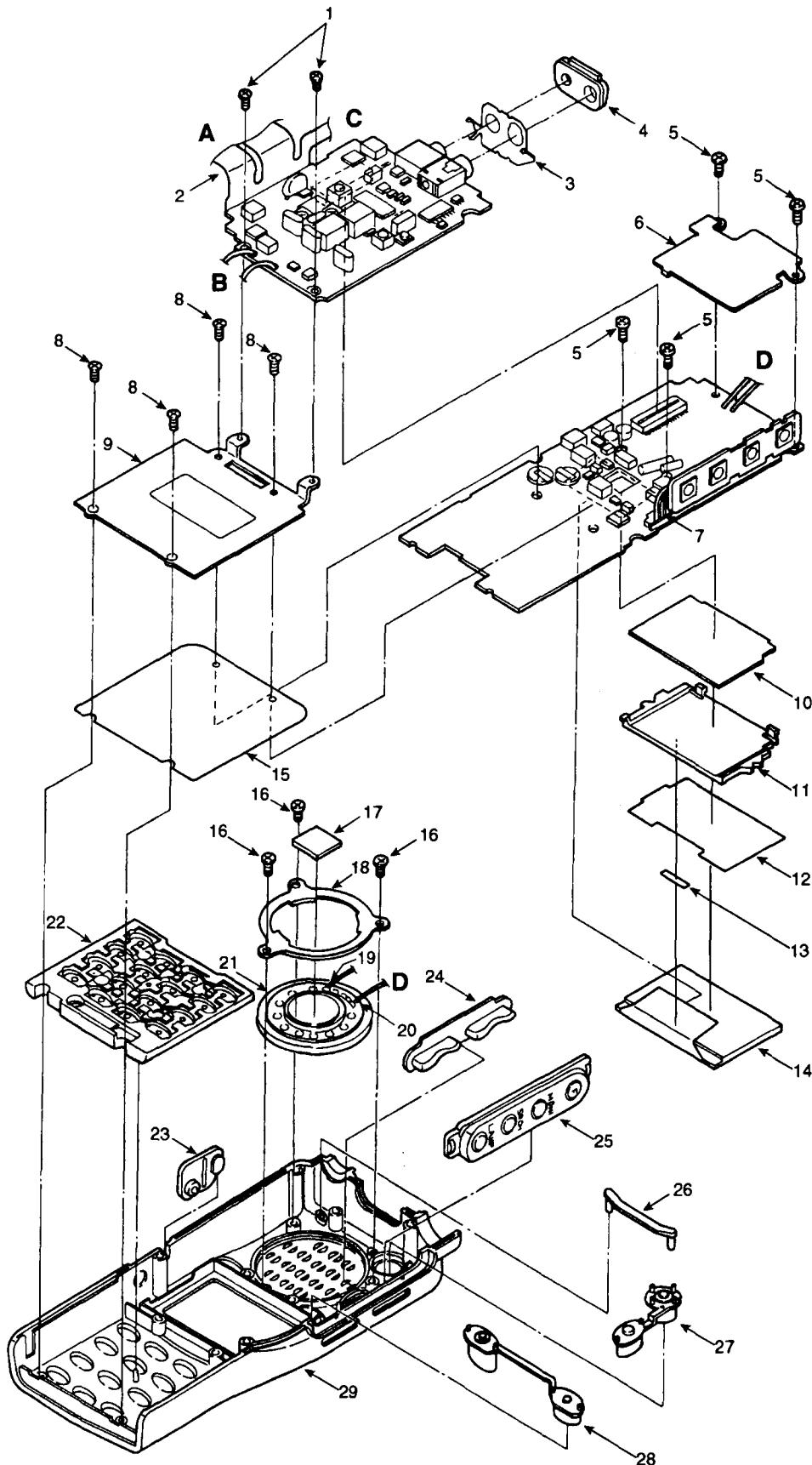
EXPLODED VIEW

1) Front/Rear View



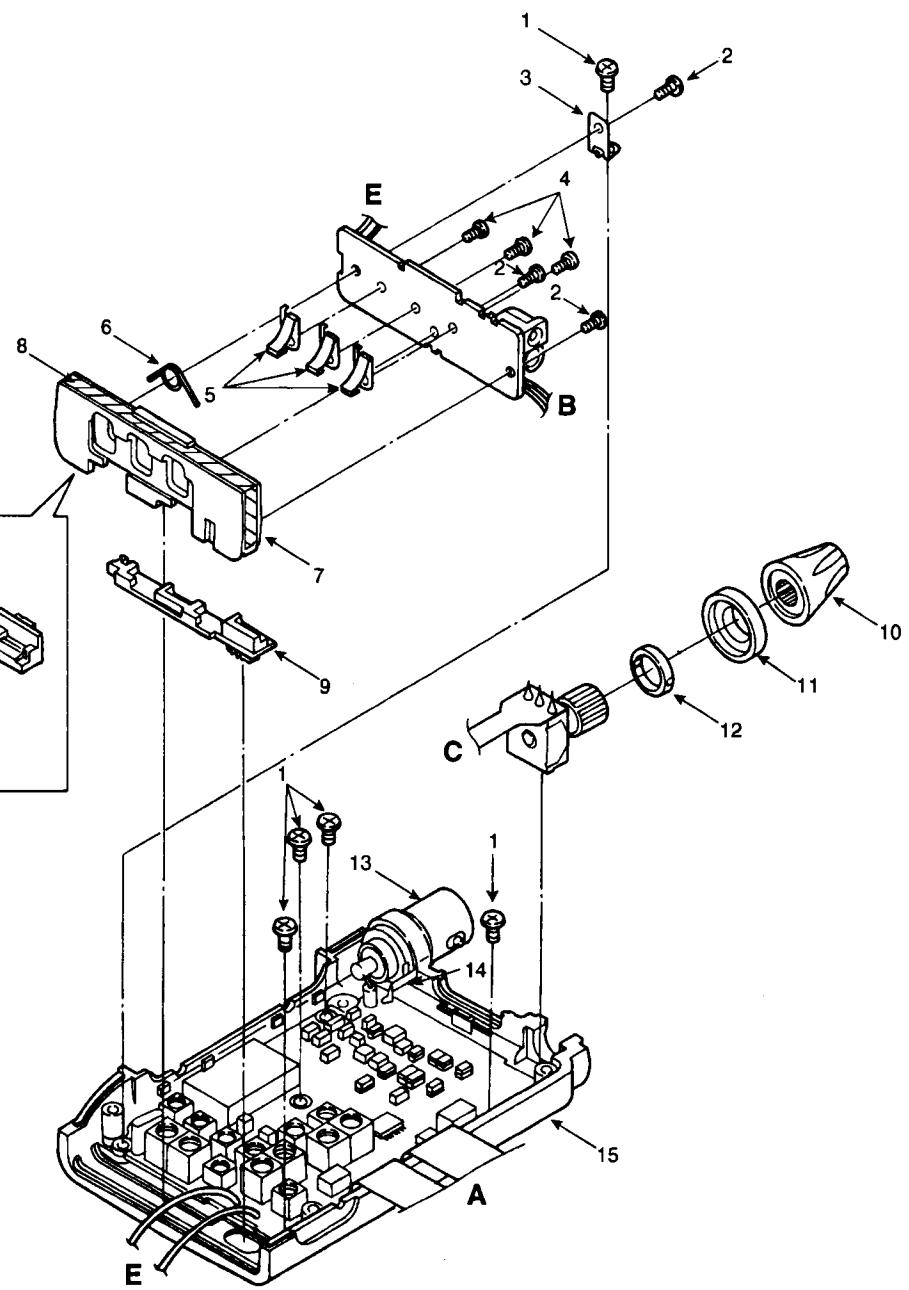
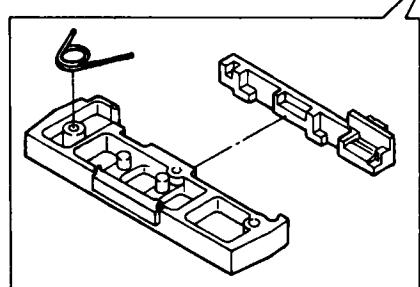
2) IF Unit/CPU Unit

	Parts No.
1	AF0020
2	uP0282
3	FM0100
4	FG0178Y
5	AP0004
6	TN006Z
7	uP0281
8	AX0002
9	FM0098
10	TL0017
11	DG0027
12	TL0020
13	TX0004
14	EL0037
15	TZ0064
16	AX0001
17	FG0218
18	ST0052
19	MKCL00AA
20	MNCLH2AA
21	ES0011
22	FG0255
23	FG0180Y
24	FG0176Y
25	FG0235
26	FG0242
27	FG0243Y
28	FG0177Y
29	KZ0051Y



3) Charge/RF Unit

	Parts No.
1	AK0001
2	AX0001
3	TS0141
4	AF0020
5	SD0045
6	SC0008A
7	FP0093A
8	TS0110 (T/E version only)
9	FP0094
10	NK0042Y
11	FG0181Y
12	AN0012Y
13	UE0193AZ
14	FM0112
15	KB0064Y



PARTS LIST

Part No.	Part Name	Ref. No.	Parts No.	Parts Name	Ref. No.	Parts No.	Parts Name	Ref. No.	Parts No.	Parts Name
Part No.	Part Name	Ref. No.	Parts No.	Parts Name	Ref. No.	Parts No.	Parts Name	Ref. No.	Parts No.	Parts Name
C8011	CHARGE UNIT	CU3031	C160A/B/H47KTA	TACM4511V15MTR	C500	C13847	C160B/B/H10KTA	C501	C500	TACM4511V47MTR
C8012		CS0234	C0012JB	E10MM	C501	C502	C500	C502	C502	ECEC01E104A
C8013		CU0104	C0012JB	E10MM	C503	C503	C503	C503	C503	ECEC01E104A
C8014		CS0234	C0012JB	E10MM	C504	C504	C504	C504	C504	ECEC01E104A
C8015		CU0104	C0012JB	E10MM	C505	C505	C505	C505	C505	ECEC01E104A
C8016		CS0234	C0012JB	E10MM	C506	C506	C506	C506	C506	ECEC01E104A
C8017		CU0104	C0012JB	E10MM	C507	C507	C507	C507	C507	ECEC01E104A
C8018		CS0234	C0012JB	E10MM	C508	C508	C508	C508	C508	ECEC01E104A
C8019		CU0104	C0012JB	E10MM	C509	C509	C509	C509	C509	ECEC01E104A
C8020		CS0234	C0012JB	E10MM	C510	C510	C510	C510	C510	ECEC01E104A
D8014	U2F0444ANT(2R)	XU0294	DA204U106	U2F0444ANT(2R)	C511	C5011	C5011	C511	C511	TMCMA1025MTR
D8015	XU0130	XU0294	U2F0444ANT(2R)	U2F0444ANT(2R)	C512	C50385	C50385	C512	C512	TMCMA10196MTR
D8016	XU0294	XU0294	U2F0444ANT(2R)	U2F0444ANT(2R)	C513	C50213	C50213	C513	C513	TMCMA1025MTR
D8017	XU0297	XU0297	U2F0444ANT(2R)	U2F0444ANT(2R)	C514	C50688	C50688	C514	C514	TMCSC10475MTR
J8011	UJ0015	UJ0015	HEC2811002D	HEC2811002D	C515	C5015	C5015	C515	C515	TMCMA10226MTR
J8012	XD0284	XD0284	TE12R	TE12R	C516	C50217	C50217	C516	C516	TACM4511V125MTR
J8013	XD0284	XD0284	TE12R	TE12R	C517	C50211	C50211	C517	C517	TACM4511V226MTR
R8014	ERL004	ERL004	ERL65F110AV	ERL65F110AV	C518	C50385	C50385	C518	C518	TMCMA10196MTR
R8015	RK838	RK838	ERL95S110ZV	ERL95S110ZV	C519	C5047	C5047	C519	C519	TMCSC10475MTR
R8016	RK846	RK846	ERL95S104ZV	ERL95S104ZV	C520	C50213	C50213	C520	C520	TACM4511V125MTR
R8017	RK4014	RK4014	ERL112Y100H	ERL112Y100H	C521	C50211	C50211	C521	C521	TACM4511V125MTR
R8018	IC801	IC801	ERL65F110AV	ERL65F110AV	C522	C5023	C5023	C522	C522	TACM4511V125MTR
R8019	IC801	IC801	ERL95S110ZV	ERL95S110ZV	C523	C5024	C5024	C523	C523	TACM4511V125MTR
R8020	IC801	IC801	ERL95S104ZV	ERL95S104ZV	C524	C5015	C5015	C524	C524	TACM4511V125MTR
R8021	IC801	IC801	ERL112Y100H	ERL112Y100H	C525	C5025	C5025	C525	C525	TACM4511V125MTR
R8022	IC801	IC801	ERL65F110AV	ERL65F110AV	C526	C50688	C50688	C526	C526	TACM4511V125MTR
R8023	IC801	IC801	ERL95S110ZV	ERL95S110ZV	C527	C5047	C5047	C527	C527	TACM4511V125MTR
R8024	IC801	IC801	ERL95S104ZV	ERL95S104ZV	C528	C5028	C5028	C528	C528	TACM4511V125MTR
S8011	C5017	C5017	C5017	C5017	C529	C50217	C50217	C529	C529	TACM4511V125MTR
S8012	C5017	C5017	C5017	C5017	C530	C50147	C50147	C530	C530	TACM4511V125MTR
S8013	C5017	C5017	C5017	C5017	C531	C50213	C50213	C531	C531	TACM4511V125MTR
S8014	C5017	C5017	C5017	C5017	C532	C503047	C503047	C532	C532	TACM4511V125MTR
S8015	C5017	C5017	C5017	C5017	C533	C5023	C5023	C533	C533	TACM4511V125MTR
S8016	C5017	C5017	C5017	C5017	C534	C503047	C503047	C534	C534	TACM4511V125MTR
S8017	C5017	C5017	C5017	C5017	C535	C503047	C503047	C535	C535	TACM4511V125MTR
S8018	C5017	C5017	C5017	C5017	C536	C5023	C5023	C536	C536	TACM4511V125MTR
S8019	C5017	C5017	C5017	C5017	C537	C503047	C503047	C537	C537	TACM4511V125MTR
S8020	C5017	C5017	C5017	C5017	C538	C5023	C5023	C538	C538	TACM4511V125MTR
S8021	C5017	C5017	C5017	C5017	C539	C503047	C503047	C539	C539	TACM4511V125MTR
S8022	C5017	C5017	C5017	C5017	C540	C5023	C5023	C540	C540	TACM4511V125MTR
S8023	C5017	C5017	C5017	C5017	C541	C5023	C5023	C541	C541	TACM4511V125MTR
S8024	C5017	C5017	C5017	C5017	C542	C5023	C5023	C542	C542	TACM4511V125MTR
S8025	C5017	C5017	C5017	C5017	C543	C5023	C5023	C543	C543	TACM4511V125MTR
S8026	C5017	C5017	C5017	C5017	C544	C5023	C5023	C544	C544	TACM4511V125MTR
S8027	C5017	C5017	C5017	C5017	C545	C5023	C5023	C545	C545	TACM4511V125MTR
S8028	C5017	C5017	C5017	C5017	C546	C5023	C5023	C546	C546	TACM4511V125MTR
S8029	C5017	C5017	C5017	C5017	C547	C5023	C5023	C547	C547	TACM4511V125MTR
S8030	C5017	C5017	C5017	C5017	C548	C5023	C5023	C548	C548	TACM4511V125MTR
S8031	C5017	C5017	C5017	C5017	C549	C5023	C5023	C549	C549	TACM4511V125MTR
S8032	C5017	C5017	C5017	C5017	C550	C5023	C5023	C550	C550	TACM4511V125MTR
S8033	C5017	C5017	C5017	C5017	C551	C5023	C5023	C551	C551	TACM4511V125MTR
S8034	C5017	C5017	C5017	C5017	C552	C5023	C5023	C552	C552	TACM4511V125MTR
S8035	C5017	C5017	C5017	C5017	C553	C5023	C5023	C553	C553	TACM4511V125MTR
S8036	C5017	C5017	C5017	C5017	C554	C5023	C5023	C554	C554	TACM4511V125MTR
S8037	C5017	C5017	C5017	C5017	C555	C5023	C5023	C555	C555	TACM4511V125MTR
S8038	C5017	C5017	C5017	C5017	C556	C5023	C5023	C556	C556	TACM4511V125MTR
S8039	C5017	C5017	C5017	C5017	C557	C5023	C5023	C557	C557	TACM4511V125MTR
S8040	C5017	C5017	C5017	C5017	C558	C5023	C5023	C558	C558	TACM4511V125MTR
S8041	C5017	C5017	C5017	C5017	C559	C5023	C5023	C559	C559	TACM4511V125MTR
S8042	C5017	C5017	C5017	C5017	C560	C5023	C5023	C560	C560	TACM4511V125MTR
S8043	C5017	C5017	C5017	C5017	C561	C5023	C5023	C561	C561	TACM4511V125MTR
S8044	C5017	C5017	C5017	C5017	C562	C5023	C5023	C562	C562	TACM4511V125MTR
S8045	C5017	C5017	C5017	C5017	C563	C5023	C5023	C563	C563	TACM4511V125MTR
S8046	C5017	C5017	C5017	C5017	C564	C5023	C5023	C564	C564	TACM4511V125MTR
S8047	C5017	C5017	C5017	C5017	C565	C5023	C5023	C565	C565	TACM4511V125MTR
S8048	C5017	C5017	C5017	C5017	C566	C5023	C5023	C566	C566	TACM4511V125MTR
S8049	C5017	C5017	C5017	C5017	C567	C5023	C5023	C567	C567	TACM4511V125MTR
S8050	C5017	C5017	C5017	C5017	C568	C5023	C5023	C568	C568	TACM4511V125MTR
S8051	C5017	C5017	C5017	C5017	C569	C5023	C5023	C569	C569	TACM4511V125MTR
S8052	C5017	C5017	C5017	C5017	C570	C5023	C5023	C570	C570	TACM4511V125MTR
S8053	C5017	C5017	C5017	C5017	C571	C5023	C5023	C571	C571	TACM4511V125MTR
S8054	C5017	C5017	C5017	C5017	C572	C5023	C5023	C572	C572	TACM4511V125MTR
S8055	C5017	C5017	C5017	C5017	C573	C5023	C5023	C573	C573	TACM4511V125MTR
S8056	C5017	C5017	C5017	C5017	C574	C5023	C5023	C574	C574	TACM4511V125MTR
S8057	C5017	C5017	C5017	C5017	C575	C5023	C5023	C575	C575	TACM4511V125MTR
S8058	C5017	C5017	C5017	C5017	C576	C5023	C5023	C576	C576	TACM4511V125MTR
S8059	C5017	C5017	C5017	C5017	C577	C5023	C5023	C577	C577	TACM4511V125MTR
S8060	C5017	C5017	C5017	C5017	C578	C5023	C5023	C578	C578	TACM4511V125MTR
S8061	C5017	C5017	C5017	C5017	C579	C5023	C5023	C579	C579	TACM4511V125MTR
S8062	C5017	C5017	C5017	C5017	C580	C5023	C5023	C580	C580	TACM4511V125MTR
S8063	C5017	C5017	C5017	C5017	C581	C5023	C5023	C581	C581	TACM4511V125MTR
S8064	C5017	C5017	C5017	C5017	C582	C5023	C5023	C582	C582	TACM4511V125MTR
S8065	C5017	C5017	C5017	C5017	C583	C5023	C5023	C583	C583	TACM4511V125MTR
S8066	C5017	C5017	C5017	C5017	C584	C5023	C5023	C584	C584	TACM4511V125MTR
S8067	C5017	C5017	C5017	C5017	C585	C5023	C5023	C585	C585	TACM4511V125MTR
S8068	C5017	C5017	C5017	C5017	C586	C5023	C5023	C586	C586	TACM4511V125MTR
S8069	C5017	C5017	C5017	C5017	C587	C5023	C5023	C587	C587	TACM4511V125MTR
S8070	C5017	C5017	C5017	C5017	C588	C5023	C5023	C588	C588	TACM4511V125MTR
S8071	C5017	C5017	C5017	C5017	C589	C5023	C5023	C589	C589	TACM4511V125MTR
S8072	C5017	C5017	C5017	C5017	C590	C5023	C5023	C590	C590	TACM4511V125MTR
S8073	C5017	C5017	C5017	C5017	C591	C5023	C5023	C591	C591	TACM4511V125MTR
S8074	C5017	C5017	C5017	C5017	C592	C5023	C5023	C592	C592	TACM4511V125MTR
S8075	C5017	C5017	C5017	C5017	C593	C5023	C5023	C593	C593	TACM4511V125MTR
S8076	C5017	C5017	C5017	C5017	C594	C5023	C5023	C594	C594	TACM4511V125MTR
S8077	C5017	C5017	C5017	C5017	C595	C5023	C5023	C595	C595	TACM4511V125MTR
S8078	C5017	C5017	C5017	C5017	C596	C5023	C5023	C596	C596	TACM4511V125MTR
S8079	C5017	C5017	C5017	C5017	C597	C5023	C5023	C597	C597	TACM4511V125MTR
S8080	C5017	C5017	C5017	C5017	C598	C5023	C5023	C598	C598	TACM4511V125MTR
S8081	C5017	C5017	C5017	C5017	C599	C5023	C5023	C599	C599	TACM4511V125MTR
S8082	C5017	C5017	C5017	C5017	C600	C5023	C5023	C600	C600	TACM4511V125MTR
S8083	C5017	C5017	C5017	C5017	C601	C5023	C5023	C601	C601	TACM4511V125MTR
S8084	C5017	C5017	C5017	C5017	C602	C5023	C5023	C602	C602	TACM4511V125MTR
S8085	C5017	C5017	C5017	C5017	C603	C5023	C5023	C603	C603	TACM4511V125MTR
S8086	C5017	C5017	C5017	C5017	C604	C5023	C5023	C604	C604	TACM4511V125MTR

Ref. No.	Parts No.	Parts Name	Ver.
D501	XU0036	SML-310MATTB6	
D502	XU0036	SML-310MATTB6	
D503	XU0036	SML-310MATTB6	
D504	XU0045	PC1101F-TR	
D505	XU0045	PC1101F-TR	
D506	XU0045	PC1101F-TR	
D507	XU0291	MA729-TX	
D508	XU0046	PC1101F-TR	
D509	XU0291	MA729-TX	
D511	XU0046	BRP1201W TR	
I500	XU0506	BL404BCFP-E2	
I501	XU0506	S4102SG-E12	
I502	XU0507	S40723SL-AX-T2	
I503	XU0467	TK11235AMTL	
I504	XU0468	TK11194MTL	
I505	XU0465	TCT5SHT1(TB5L)	
I506	XU0536	UPD7076G	
I506	XU0550	UD7076G	
I508	XU0468	H155V25TA12	
I510	XU0282	S40723SN2	
L500	QC0502	6571KA-102N	
L501	QC0502	6571KA-102N	
L500	XU0176	LCM-XH65	
L500	XU0176	D1B123YK1146	
O501	XU0184	UN512-(X)	
O502	XU0203	2SK405-T(B) X13 X4	
O503	XU0152	UNCGNTFR	
O504	XU0184	UN512-(X)	
R500	XU0313	ERJ3GSY1391V	
R501	R52	ERJ3GSY1391V	
R502	R52	ERJ3GSY1391V	
R503	XU0358	ERJ3GSY1391V	
R504	XU0358	ERJ3GSY1391V	
R505	XU0359	ERJ3GSY1391V	
R506	XU0359	ERJ3GSY1391V	
R507	XU0358	ERJ3GSY1391V	
R508	XU0358	ERJ3GSY1391V	
R509	XU0358	ERJ3GSY1391V	
R510	XU0358	ERJ3GSY1391V	
R511	XU0358	ERJ3GSY1391V	
R512	XU0358	ERJ3GSY1181V	
R513	XU0358	ERJ3GSY1181V	
R514	XU0358	ERJ3GSY1182V	
R515	XU0358	ERJ3GSY1182V	
R516	XU0362	ERJ3GSY1182V	
R517	XU0361	ERJ3GSY1182V	
R518	XU0351	ERJ3GSY1182V	
R519	XU0351	ERJ3GSY1182V	
R520	XU0361	ERJ3GSY1182V	
R521	XU0361	ERJ3GSY1182V	
R522	XU0367	ERJ3GSY1182V	
R523	XU0347	ERJ3GSY1182V	
R524	XU0347	ERJ3GSY1182V	
R525	XU0329	ERJ3GSY1181V	
R527	XU0354	ERJ3GSY1223V	
R528	XU0350	ERJ3GSY1181V	
R529	XU0304	ERJ3GSY1223V	
R530	XU0360	ERJ3GSY1181V	
R531	XU0359	ERJ3GSY1182V	
R532	XU0301	ERJ3GSY1020V	
R534	XU0302	ERJ3GSY1020V	
R535	XU0329	ERJ3GSY1181V	
R536	XU0329	ERJ3GSY1181V	
R537	XU0360	ERJ3GSY1181V	
R538	XU0369	ERJ3GSY1182V	
R540	XU0304	ERJ3GSY1472V	
R541	XU0301	ERJ3GSY1020V	
R542	XU0362	ERJ3GSY1182V	
R543	XU0364	ERJ3GSY1223V	

Ref. No.	Parts No.	Parts Name	Ver.
RK344	RK300	ERJUG SY108AV	
RK345	RK3001	ERJUG SY109AV	
RK347	RK3038	ERJUG SY1102V	
RK348	RK3042	ERJUG SY110IV	
RK349	RK3042	ERJUG SY122IV	
RK350	RK3042	ERJUG SY122AV	
RK351	RK3034	ERJUG SY1223V	
RK352	RK3038	ERJUG SY1102V	
RK353	RK3056	ERJUG SY1333V	
RK354	RK3056	ERJUG SY1333V	
RK355	RK3047	ERJUG SY1362V	
RK356	RK3059	ERJUG SY1462V	
RK357	RK3038	ERJUG SY1102V	
RK358	RK3026	ERJUG SY1101V	
RK369	RK3031	ERJUG SY1327IV	
RK373	RK3001	ERJUG SY1080AV	
RK374	RK3050	ERJUG SY1103V	
RK375	RK3050	ERJUG SY1103V	
RK380	RK0009	EXBV8V102LJ	
RK451	RK0009	EXBV8V102LJ	
RK452	RAD010	EXBV8V472LJ	
RK453	RAD010	EXBV8V472LJ	
RK454	RAD010	EXBV8V472LJ	
RK455	RAD010	EXBV8V472LJ	
RK456	RAD010	EXBV8V472LJ	
SW500	UL0019	SKOLL C	
SW502	UL0019	SKOLL C	
SW503	UL0018	SOP-112HST	
SW504	UL0019	SKOLL C	
SW510	UL0019	SKOLL C	
SW511	UL0018	SOP-112HST	
SW512	UL0018	SOP-112HST	
TH1500	X50038	TBS51473M175HQ	
VS500	PH0138	MVR22H/BRN22Z	
X500	X0042	D129 32.768kHz	
X501	X0077	38C 3.68640MHz	

Ref. No.	Parts No.	Parts Name	Vgr.	Ref. No.	Parts No.	Parts Name
		IF Unit		C368	CU3059	C1608JF1E04ZTA
C300	CU0104	Silicon dumper		C389	CU3059	C1608JF1E04ZTA
C301	CS0213	TMCMA1A225MTR		C390	CU3059	C1608JF1E04ZTA
C302	CS0213	TMCMA1A225MTR		C381	CU3059	C1608JF1E04ZTA
C303	CU3047	C1608JB1H103KTA		C392	CU3023	C1608CH1H101JTA
C304	CS0068	TMCSC1E475MTR		C393	CU3059	C1608JF1E04ZTA
C305	CU3035	C1608JB1H102KTA		C394	CU3059	C1608JF1E04ZTA
C306	CS0213	TMCMA1A225MTR		C395	CU3059	C1608JF1E04ZTA
C307	CU3114	EMK107B1J052A-T		C396	CU3035	C1608JB1H102KTA
C308	CU3059	C1608JF1E04ZTA		C397	CU3047	C1608JB1H103KTA
C309	CU3059	C1608JF1E04ZTA		C398	CU3114	EMK107B1J052A-T
C310	CU0104	C2012JB1E104M		C399	CU3023	C1608CH1H101JTA
C311	CU3059	C1608JF1E04ZTA		C400	CS0213	TMCMA1A225MTR
C313	CU3059	C1608JF1E04ZTA		C401	CS0213	TMCMA1A225MTR
C315	CS0216	TMCMB1A106MTR		C402	CU3047	C1608JB1H103KTA
C316	CU3047	C1608JB1H103KTA		C403	CU3043	C1608JB1H102KTA
C317	CU0104	C2012JB1E104M		C404	CU3035	C1608JB1H103KTA
C318	CS0369	TMCMDQ107MTR		C405	CU3047	C1608JB1H103KTA
C319	CU3047	C1608JB1H103KTA		C406	CS0213	TMCMA1A225MTR
C320	CU3047	C1608JB1H103KTA		C409	CS0213	TMCMA1A225MTR
C321	CU3005	C1608CH1H040CTA		C410	CU3114	EMK107B1J052A-T
C322	CS0213	TMCMA1A225MTR		C411	CU3047	C1608JB1H103KTA
C325	CU3105	C1608JB1H180T-A		C413	CS0216	TMCMB1A106MTR
C326	CU3047	C1608JB1H103KTA		C414	CU3059	C1608JF1E04ZTA
C327	CU3047	C1608JB1H103KTA		C415	CU3047	C1608JB1H103KTA
C328	CU3047	C1608JB1H103KTA		C416	CS0213	TMCMA1A225MTR
C329	CU3047	C1608JB1H103KTA		C417	CS0213	TMCMA1A225MTR
C330	CU3059	C1608JF1E04ZTA		C418	CU3114	EMK107B1J052A-T
C333	CU3059	C1608JF1E04ZTA		C419	CS0213	TMCMA1A225MTR
C334	CU3047	C1608JB1H103KTA		C420	CU3047	C1608JB1H103KTA
C335	CU3047	C1608JB1H103KTA		C421	CU3023	C1608CH1H101JTA
C336	CU3113	C1608CH1H910JTA		C422	CS0213	TMCMA1A225MTR
C337	CU3023	C1608CH1H101JTA		C425	CU3047	C1608JB1H103KTA
C338	CU3017	C1608CH1H330JTA		C426	CU0103	C2012JB1C105ZT-N
C339	CU3016	C1608CH1H270JTA		C427	CU3011	C1608CH1H100CTA
C340	CU3015	C1608CH1H220JTA		C428	CU3047	C1608JB1H103KTA
C341	CU3047	C1608JB1H103KTA		C429	CS0213	TMCMA1A225MTR
C342	CU3016	C1608CH1H270JTA		C430	CS0369	TMCMDQ107MTR
C343	CU3047	C1608JB1H103KTA		C431	CU3111	C1608JB1C104M
C344	CU103	C2012JF1C105ZT-N		C433	CU3059	C1608JF1E04ZTA
C345	CU3101	C1608JB1C473KTA		C436	CU3114	EMK107B1J052A-T
C346	CU3047	C1608JB1H103KTA		C437	CU3047	C1608JB1H103KTA
C347	CU3059	C1608JF1E04ZTA		CN301	UE0240	AIX440C530P
C348	CU3006	C1608CH1H050CTA		CN302	UE0308	IL-WX-10SB-VF
C349	CU3107	C1608JU1H202UT-A		D300	XD0290	MA111-TX
C350	CU3027	C1608CH1H221JTA		D301	XD0307	1SS312(TE85L)
C351	CU3027	C1608CH1H221JTA		D302	XD0250	MA742 TX
C352	CU3111	C1608JB1C104M		D303	XD0252	MA741WK TX
C353	CU3035	C1608JB1H102KTA		D304	XD0313	HVU350TRF
C354	CU3035	C1608JB1H102KTA		D305	XD0313	HVU350TRF
C355	CU3047	C1608JB1H103KTA		D306	XD0230	DAN202U T106
C356	CU3116	C1608CH1H471KT-A		D307	XD0272	1SS356 TW11
C358	CU3016	C1608CH1H270JTA		D308	XD0250	MA742 TX
C359	CU3047	C1608JB1H103KTA		D309	XD0230	DAN202U T106
C360	CU3059	C1608JF1E04ZTA		D310	XD0250	MA742 TX
C361	CU3035	C1608JB1H102KTA		D311	XD0250	MA742 TX
C362	CS0213	TMCMA1A225MTR		D313	XD0250	MA742 TX
C363	CU3012	C1608CH1H120JTA		D314	XD0250	MA742 TX
C364	CU3115	C1608RH1H101JT-A		FL301	XC0024	CFW1455F
C365	CU3047	C1608JB1H103KTA		FL302	XC0037	SFE10.7MJA
C366	CU3059	C1608JF1E04ZTA		FL303	XC0025	CFW1455I
C367	CU3047	C1608JB1H103KTA		IC300	XA0506	BU4094BCF-V2
C368	CU3047	C1608JB1H103KTA		IC301	XA0467	TK11235AMTL
C369	CU3027	C1608CH1H221JTA		IC303	XA0465	TC7551F1(TE85L)
C370	CU3035	C1608JB1H102KTA		IC304	XA0404	TA31136FN(EL)
C371	CU3031	C1608JB1H471KT-A		IC305	XA0464	TA7792F(TP1)
C372	CU3047	C1608JB1H103KTA		IC306	XA0345	LC75366M-TLM
C373	CU3059	C1608JF1E04ZTA		IC307	XA0210	NJM2070M T1
C374	CS0282	TMCMB1A226MTR		IC308	XA0095	NJU4066BM T1
C375	CS0213	TMCMA1A225MTR		IC309	XA0465	TC7551F1(TE85L)
C376	CU3059	C1608JF1E04ZTA		IC310	XA0349	TA75W01FU(TE12L)
C377	CU3059	C1608JF1E04ZTA		IC311	XA0348	TC4W53FU(TE12)
C378	CU3059	C1608JF1E04ZTA		IC312	XA0348	TC4W53FU(TE12)
C379	CU3059	C1608JF1E04ZTA		JK300	UU0222	HSJ1102-01-540
C380	CS0063	TMCSA1V104MTR		JK301	UU0019	HSJ1493-01-010
C381	CU3059	C1608JF1E04ZTA		L301	QC0522	LOH1N1R5X04
C382	CU3059	C1608JF1E04ZTA		L303	QC0506	LK1608R56K-T
C383	CS0063	TMCSA1V104MTR		L304	QC0005	KE-07725
C384	CU3021	C1608CH1H680JTA		L305	QC0006	KE-07727
C385	CU3043	C1608JB1H472KTA		L306	QC0507	LK16081R0K-T
C386	CU3051	C1608JB1E223KTA		L307	QH0002	KE-07731
C387	CU3059	C1608JF1E04ZTA		L309	QH0004	KE-07724-1

Ref. No.	Parts No.	Parts Name	Ver.	Ref. No.	Parts No.	Parts Name	Ver.
Q300	XU0172	XP1501-TX		R367	RK3001	ERJ3GSY0R00V	
Q301	XU0186	DTC1432EA TL		R368	RK3022	ERJ3GSYJ470V	
Q302	XE0033	2SK425-1B X13 X14		R369	RK3034	ERJ3GSYJ471V	
Q303	XU0186	DTC1432EA TL		R370	RK3026	ERJ3GSYJ01V	
Q304	XT0150	2SC4738(TE85L)		R371	RK3054	ERJ3GSYJ223V	
Q305	XT0088	2SA1213Y TE12R		R372	RK3026	ERJ3GSYJ101V	
Q306	XU0185	DTA1432EA TL		R373	RK3001	ERJ3GSY0R00V	
Q307	XU0185	DTA1432EA TL		R374	RK3049	ERJ3GSYJ822V	
Q308	XU0185	DTA1432EA TL		R375	RK3054	ERJ3GSYJ223V	
Q309	XT0108	2SC4649-TLN		R376	RK3031	ERJ3GSYJ271V	
Q310	XT0108	2SC4649-TLN		R377	RK3038	ERJ3GSYJ102V	
Q311	XT0108	2SC4649-TLN		R378	RK3062	ERJ3GSYJ104V	
Q312	XT0108	2SC4649-TLN		R379	RK3040	ERJ3GSYJ152V	
Q313	XT0108	2SC4649-TLN		R380	RK3001	ERJ3GSY0R00V	
Q314	XT0150	2SC4738(TE85L)		R381	RK3022	ERJ3GSYJ470V	
Q315	XT0150	2SC4738(TE85L)		R382	RK3054	ERJ3GSYJ223V	
Q316	XT0150	2SC4738(TE85L)		R383	RK3001	ERJ3GSY0R00V	
Q317	XT0108	2SC4649-TLN		R384	RK3038	ERJ3GSYJ102V	
Q318	XT0108	2SC4649-TLN		R385	RK3038	ERJ3GSYJ102V	
Q319	XT0150	2SC4738(TE85L)		R386	RK3038	ERJ3GSYJ102V	
Q320	XU0184	UN5212-(TX)		R388	RK3034	ERJ3GSYJ471V	
R300	RK0114	ERJ3GSYJ1R0V		R389	RK3026	ERJ3GSYJ101V	
R301	RK3053	ERJ3GSYJ183V		R390	RK3059	ERJ3GSYJ563V	
R302	RK3043	ERJ3GSYJ272V		R391	RK3030	ERJ3GSYJ221V	
R304	RK3052	ERJ3GSYJ153V		R392	RK3034	ERJ3GSYJ471V	
R305	RK3056	ERJ3GSYJ339V		R393	RK3034	ERJ3GSYJ471V	
R306	RK3058	ERJ3GSYJ473V		R394	RK3026	ERJ3GSYJ101V	
R307	RK3026	ERJ3GSYJ101V		R395	RK3059	ERJ3GSYJ563V	
R308	RK3062	ERJ3GSYJ104V		R396	RK3059	ERJ3GSYJ563V	
R309	RK3048	ERJ3GSYJ682V		R397	RK3026	ERJ3GSYJ101V	
R310	RK3046	ERJ3GSYJ472V		R399	RK3034	ERJ3GSYJ471V	
R311	RK3047	ERJ3GSYJ562V		R400	RK3034	ERJ3GSYJ471V	
R312	RK3062	ERJ3GSYJ104V		R401	RK3061	ERJ2GSYJ823V	
R316	RK3058	ERJ3GSYJ473V		R402	RK3054	ERJ3GSYJ223V	
R317	RK3047	ERJ3GSYJ562V		R403	RK3054	ERJ3GSYJ223V	
R318	RK3038	ERJ3GSYJ102V		R405	RK3038	ERJ3GSYJ102V	
R319	RK3039	ERJ3GSYJ122V		R406	RK3074	ERJ3GSYJ105V	
R320	RK3038	ERJ3GSYJ102V		R407	RK3038	ERJ3GSYJ102V	
R321	RK3038	ERJ3GSYJ102V		R408	RK3050	ERJ3GSYJ103V	
R322	RK3029	ERJ3GSYJ122V		R409	RK3051	ERJ2GSYJ123V	
R323	RK3053	ERJ3GSYJ183V		R410	RK3001	ERJ3GSY0R00V	
R324	RK3050	ERJ3GSYJ103V		R411	RK3001	ERJ3GSY0R00V	
R325	RK3026	ERJ3GSYJ101V		R412	RK3030	ERJ3GSYJ221V	
R326	RK3052	ERJ3GSYJ153V		R413	RK3082	ERJ3GSYJ475V	
R327	RK3067	ERJ3GSYJ274V		R414	RK3050	ERJ3GSYJ103V	
R328	RK3038	ERJ3GSYJ102V		R417	RK3030	ERJ3GSYJ221V	
R330	RK3070	ERJ3GSYJ474V		R418	RK3024	ERJ3GSYJ471V	
R331	RK3035	ERJ3GSYJ561V		R419	RK3050	ERJ3GSYJ103V	
R332	RK3048	ERJ3GSYJ682V		R420	RK3050	ERJ3GSYJ103V	
R333	RK3040	ERJ3GSYJ152V		R421	RK3074	ERJ3GSYJ105V	
R334	RK3026	ERJ3GSYJ101V		R423	RK3074	ERJ3GSYJ105V	
R335	RK3040	ERJ3GSYJ152V		R424	RK3034	ERJ3GSYJ471V	
R336	RK3001	ERJ3GSY0R00V		R425	RK3046	ERJ3GSYJ472V	
R337	RK3051	ERJ3GSYJ123V		R426	RK3030	ERJ3GSYJ221V	
R338	RK3058	ERJ3GSYJ473V		R427	RK3059	ERJ3GSYJ563V	
R339	RK3058	ERJ3GSYJ473V		R428	RK3050	ERJ3GSYJ103V	
R340	RK3039	ERJ3GSYJ122V		R432	RK3062	ERJ3GSYJ104V	
R341	RK3031	ERJ3GSYJ271V		R434	RK3062	ERJ3GSYJ104V	
R342	RK3026	ERJ3GSYJ101V		R435	RK3058	ERJ3GSYJ473V	
R343	RK3048	ERJ3GSYJ682V		R436	RK3050	ERJ3GSYJ103V	
R344	RK3051	ERJ3GSYJ123V		R437	RK3050	ERJ3GSYJ103V	
R345	RK3054	ERJ3GSYJ223V		R438	RK3014	ERJ3GSYJ100V	
R346	RK3054	ERJ3GSYJ223V		R439	RK3001	ERJ3GSY0R00V	
R347	RK3054	ERJ3GSYJ223V		R442	RK3054	ERJ3GSYJ223V	
R348	RK3014	ERJ3GSYJ100V		R443	RK3054	ERJ3GSYJ223V	
R349	RK3001	ERJ3GSY0R00V		R444	RK3001	ERJ3GSY0R00V	
R350	RK3064	ERJ3GSYJ154V		R445	RK3001	ERJ3GSY0R00V	
R351	RK3050	ERJ3GSYJ103V		R446	RK3001	ERJ3GSY0R00V	
R352	RK3042	ERJ3GSYJ222V		R447	RK3001	ERJ3GSY0R00V	
R353	RK3044	ERJ3GSYJ332V		R448	RK3030	ERJ3GSYJ221V	
R354	RK3054	ERJ3GSYJ223V		R449	RK3038	ERJ3GSYJ102V	
R355	RK3052	ERJ3GSYJ153V		R499	RK3050	ERJ3GSYJ103V	
R356	RK3048	ERJ3GSYJ682V		TC300	CTZ3S-30CWV-P		
R357	RK3026	ERJ3GSYJ101V		VR300	RH0142	MVR22HXBRN103	
R358	RK3050	ERJ3GSYJ103V		VR301	RH0146	MVR22HXBRN473	
R359	RK3031	ERJ3GSYJ271V		VR302	RH0146	MVR22HXBRN473	
R360	RK3059	ERJ3GSYJ563V		VR303	RH0144	MVR22HXBRN223	
R361	RK3048	ERJ3GSYJ682V		VR304	RH0142	MVR22HXBRN103	
R362	RK3032	ERJ3GSYJ331V		X300	XQD095	UM-5.44.595MHz	
R363	RK3034	ERJ3GSYJ471V		X301	XQ0094	UM-5.34.35MHz	
R364	RK3022	ERJ3GSYJ470V		X302	XC0027	CSK45J	
R365	RK3059	ERJ3GSYJ563V		XF300	XF0029	45M30B5F(45.055MHz)	
R366	RK3022	ERJ3GSYJ470V		XF301	XF0029	45M30B5F(45.055MHz)	

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Ref. No.	Parts No.	Parts Name	Description	Ver.	Ref. No.	Parts No.	Pt. Unit	Parts Name	Ver.	Ref. No.	Parts No.	Pt. Unit	Parts Name	Ver.
		Mechanical Parts												
AFO20	02-3FAN1	BODY	Body		SW505	UJ0018	SOP-122HST			C167	CU3002	Parts Name	C1688C1H110CTA	
AX003	OP21-16F-BEC3	BODY	Body		SW507	UJ0018	SOP-112HST			C168	CU3003	C1688B1H103KTA	C1688C1H11680TA	
FG017AY	Jack cap	BODY	Body		SW508	UJ0018	SOP-112HST			C169	CU3035	C1688B1H102KTA	C1688C1H11680TA	
FG018AY	DC cap	BODY	Body		SW509	UJ0018	SOP-112HST			C170	CU103	C2012IFC105ZT-N	C1688B1H103KTA	
FG023AY	Dial cap	BODY	Body		T20049	TS0146	RF Unit			C171	CU3055	C1688B1H102KTA	C1688B1H102KTA	
FMO100	Jack metal fixture	BODY	Body		CU3021	C1688C1H110CTA	Silicon dumper			C172	CU3047	C1688B1H103KTA	C1688B1H102KTA	
KFD073Y	LCD panel	BODY	Body		C1688C1H1150CTA	VCO case				C243	CU3024	C1688B1C104M	C1688B1C104M	
NK0042Y	Dial knob	BODY	Body		C1688C1H110CTA	C1688C1H1010JTA				C244	CU3021	C1688B1H103KTA	C1688B1H103KTA	
PR0340	Caution label	BODY	Body		C1688C1H1150CTA	C1688C1H1010JTA				C245	CU3047	C1688B1H103KTA	C1688B1H103KTA	
FG203	Battery rubber	Battery case	Battery case		C1688C1H1010JTA	C1688C1H1050CTA				C246	CU3047	C1688B1H103KTA	C1688B1H103KTA	
KD0031	Battery case	Battery case	Battery case		C1688C1H1010JTA	C1688C1H1050CTA				C247	CU3047	C1688B1H103KTA	C1688B1H103KTA	
KF0030	Battery lid	Battery case	Battery case		C1688C1H1010JTA	C1688C1H1050CTA				C248	CU3035	C1688B1H102KTA	C1688B1H102KTA	
PR032	Caution label	Battery case	Battery case		C1688C1H1010JTA	C1688C1H1050CTA				C249	CU3035	C1688B1H103KTA	C1688B1H103KTA	
SD0046	Battery spring A	Battery case	Battery case		C1688C1H1010JTA	C1688C1H1050CTA				C250	CU3111	C1688B1C104M	C1688B1C104M	
SD0047	Battery spring B	Battery case	Battery case		C1688C1H1010JTA	C1688C1H1050CTA				C251	CU3111	C1688B1C104M	C1688B1C104M	
SD0048	Battery spring C	Battery case	Battery case		C1688C1H1010JTA	C1688C1H1050CTA				C252	CU3016	C1688B1H102KTA	C1688B1H102KTA	
SD0049	Battery spring D	Battery case	Battery case		C1688C1H1010JTA	C1688C1H1050CTA				C253	CU3035	C1688B1H102KTA	C1688B1H102KTA	
AF0020	OP21-3FAN1	Charge unit	Charge unit		C1688C1H1010JTA	C1688C1H1050CTA				C254	CU3047	C1688B1H102KTA	C1688B1H102KTA	
AX0021	OP24-4F8C1	Charge unit	Charge unit		C1688C1H1010JTA	C1688C1H1050CTA				C255	CU3111	C1688B1C104M	C1688B1C104M	
FP0093A	Terminal Frame	Release knob	Release knob		C1688C1H1010JTA	C1688C1H1050CTA				C256	CU3035	C1688B1H102KTA	C1688B1H102KTA	
SC0094Y	Release spring	Release spring	Release spring		C1688C1H1010JTA	C1688C1H1050CTA				C257	CU3035	C1688B1H102KTA	C1688B1H102KTA	
SD0045	Battery terminal	Earth metal fixture	Earth metal fixture		C1688C1H1010JTA	C1688C1H1050CTA				C258	CU3035	C1688B1H102KTA	C1688B1H102KTA	
TS0141	Charge earth fixture	Charge earth fixture	Charge earth fixture		C1688C1H1010JTA	C1688C1H1050CTA				C259	CU3047	C1688B1H102KTA	C1688B1H102KTA	
TS0110	Specification Sheet E	Specification Sheet E	Specification Sheet E		C1688C1H1010JTA	C1688C1H1050CTA				C260	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FC PART15 seal	FC seal	FC seal	FC seal		C1688C1H1010JTA	C1688C1H1050CTA				C261	CU3035	C1688B1H102KTA	C1688B1H102KTA	
EAO059Z	Antenna	Antenna	Antenna		C1688C1H1010JTA	C1688C1H1050CTA				C262	CU3035	C1688B1H102KTA	C1688B1H102KTA	
EG0026	EBP07N	Finished	Finished		C1688C1H1010JTA	C1688C1H1050CTA				C263	CU3035	C1688B1H102KTA	C1688B1H102KTA	
EW0011	EDC63	Finished	Finished		C1688C1H1010JTA	C1688C1H1050CTA				C264	CU3111	C1688B1C104M	C1688B1C104M	
EW0012	EDC64	Finished	Finished		C1688C1H1010JTA	C1688C1H1050CTA				C265	CU3035	C1688B1H102KTA	C1688B1H102KTA	
EW0013	EDC62	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C266	CU3035	C1688B1H102KTA	C1688B1H102KTA	
AP0004	P24-F8Cr	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C267	CU3035	C1688B1H102KTA	C1688B1H102KTA	
AX0001	P24-F8Cr1	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C268	CU3035	C1688B1H102KTA	C1688B1H102KTA	
ES0002	SL-36V0824	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C269	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FG0176Y	VOL key rubber	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C270	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FG0177Y	VNL key rubber	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C271	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FG0218	Cushion	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C272	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FG0235	P17 rubber	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C273	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FG0242	Power key rubber	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C274	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FG0243Y	Power key rubber	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C275	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FM0025	SP metal fixture	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C276	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FM0058	Front panel	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C277	CU3035	C1688B1H102KTA	C1688B1H102KTA	
KZ0050	Front case	Front Unit	Front Unit		C1688C1H1010JTA	C1688C1H1050CTA				C278	CU3035	C1688B1H102KTA	C1688B1H102KTA	
PS0275	Instruction manual	Packing	Packing		C1688C1H1010JTA	C1688C1H1050CTA				C279	CU3035	C1688B1H102KTA	C1688B1H102KTA	
#G0535	Bal clip B Unit	Packing	Packing		C1688C1H1010JTA	C1688C1H1050CTA				C280	CU3035	C1688B1H102KTA	C1688B1H102KTA	
HIC0418	Carton	Packing	Packing		C1688C1H1010JTA	C1688C1H1050CTA				C281	CU3035	C1688B1H102KTA	C1688B1H102KTA	
HMD018	Carton 5 sets	Packing	Packing		C1688C1H1010JTA	C1688C1H1050CTA				C282	CU3035	C1688B1H102KTA	C1688B1H102KTA	
TM00062	Protection bag Sx 16x20x20	Packing	Packing		C1688C1H1010JTA	C1688C1H1050CTA				C283	CU3035	C1688B1H102KTA	C1688B1H102KTA	
TZ0064	Panel sheet	Packing	Packing		C1688C1H1010JTA	C1688C1H1050CTA				C284	CU3035	C1688B1H102KTA	C1688B1H102KTA	
HU0077	Picture 5 sets	Schematic diagram	Schematic diagram		C1688C1H1010JTA	C1688C1H1050CTA				C285	CU3035	C1688B1H102KTA	C1688B1H102KTA	
AK0052	Protection N-Cd	Packing	Packing		C1688C1H1010JTA	C1688C1H1050CTA				C286	CU3035	C1688B1H102KTA	C1688B1H102KTA	
PT0004A	Lo number seal for box	Packing	Packing		C1688C1H1010JTA	C1688C1H1050CTA				C287	CU3035	C1688B1H102KTA	C1688B1H102KTA	
AK0001	0824-4F8C3	Rear unit	Rear unit		C1688C1H1010JTA	C1688C1H1050CTA				C288	CU3035	C1688B1H102KTA	C1688B1H102KTA	
AN0012Y	HP0031	Rear unit	Rear unit		C1688C1H1010JTA	C1688C1H1050CTA				C289	CU3035	C1688B1H102KTA	C1688B1H102KTA	
FM0112Y	BNC earth	Rear unit	Rear unit		C1688C1H1010JTA	C1688C1H1050CTA				C290	CU3035	C1688B1H102KTA	C1688B1H102KTA	
KB0084Y	UE0193AZ	BNC antenna connector	BNC antenna connector		C1688C1H1010JTA	C1688C1H1050CTA								

Ref. No.	Part No.	Part Name	Ver.	Ref. No.	Part No.	Part Name	Ver.
1.105	CH0003	KF-07723		Q128	UN8112-(T)	UN8112-(T)	
L106	CH0003	KE-07723		Q129	XU0182	UN8112-(T)	R199
L107	CH0003	KE-07723		Q130	XU0182	UN8112-(T)	R170
L135	OC0416	LL1608-F19K		Q131	XU0182	UN8112-(T)	R172
L110	CH0003	KE-07723		Q132	XU0182	UN8112-(T)	R173
L111	OC0420	LL1608-F19K		Q133	XU0182	UN8112-(T)	R174
L112	OC0420	LL1608-F19K		Q134	XU0182	UMCSNTR	R175
L113	CH0003	KE-07723		Q135	XU0182	UN8112-(T)	R176
L114	OC0420	LL1608-F19K		R100	FRK3028	ERJ36SY121V	R177
L115	OC0420	LL1608-F19K		R101	FRK3001	ERJ36SY120V	R178
L116	CH0003	LL1608-F19K		R112	FRK3059	ERJ36SY120V	R179
L117	OC0400	LON1A23N4		R104	FRK3060	ERJ36SY120V	R180
L118	OC0398	LON1A15N4		R105	FRK3018	ERJ36SY120V	R181
L119	OC0424	L1608-F23K		R106	FRK3018	ERJ36SY120V	R182
L120	OC03512	LONHIN53N4		R107	FRK3018	ERJ36SY120V	R183
L121	OC03512	LONHIN53N4		R108	FRK3029	ERJ36SY120V	R184
L122	OC03512	LON1AB2N4		R109	FRK3059	ERJ36SY120V	R185
L123	OC0406	LON1AB2N4		R110	FRK3059	ERJ36SY120V	R186
L124	OC0406	LON1AB2N4		R111	FRK3059	ERJ36SY120V	R187
L125	OC0358	LON1A15N4		R112	FRK3059	ERJ36SY120V	R188
L126	OC03507	LK16081TRK-T		R113	FRK3051	ERJ36SY120V	R189
L127	OC0259	LON2AR120N4		R114	FRK3031	ERJ36SY120V	R190
L128	OC0257	LON2AB2N4		R115	FRK3039	ERJ36SY120V	R191
L129	OC0257	LON1AB2N4		R116	FRK3028	ERJ36SY120V	R192
L130	OC0397	LON1AB2N4		R117	FRK3018	ERJ36SY120V	R193
L131	OC02607	LK16081TRK-T		R118	FRK3059	ERJ36SY120V	R194
L132	OC0401	LON1A27N4M		R119	FRK3059	ERJ36SY120V	R195
L133	OC0397	LON1AB2N4		R120	FRK3051	ERJ36SY120V	R196
L134	OC0398	LON1AB2N4		R121	FRK3018	ERJ36SY120V	R197
L135	OC0504	LK160822K-T		R122	FRK3018	ERJ36SY120V	R198
L136	OC0399	LON1AT7N4		R123	FRK3018	ERJ36SY120V	R199
L137	OKA15A	MRI1.5.15T.04		R124	FRK3047	ERJ36SY120V	R200
L138	OKA15A	LQP31A44N7204		R125	FRK3059	ERJ36SY120V	R201
L139	OKA15A	MRI1.5.15T.04		R126	FRK3038	ERJ36SY120V	R202
L140	OKA15A	LK160821OK-T		R127	FRK3032	ERJ36SY120V	R203
L141	OKA15A	MRI1.5.15T.04		R128	FRK3039	ERJ36SY120V	R204
L142	OKA15A	MRI1.5.15T.04		R129	FRK3018	ERJ36SY120V	R205
L143	OK0513	LONHIN53N4		R130	FRK3018	ERJ36SY120V	R206
L144	OC02609	LK160823K-T		R131	FRK3016	ERJ36SY120V	R207
L145	OC02611	LON1NR22K		R132	FRK3059	ERJ36SY120V	R208
L146	OC0200	LON1A23N4M		R133	FRK3059	ERJ36SY120V	R209
L147	OC0259	LON2AR120N4		R134	FRK3018	ERJ36SY120V	R210
L148	OC0257	LON2AB2N4		R135	FRK3047	ERJ36SY120V	R211
L149	OC0258	LON1AT7N4		R136	FRK3026	ERJ36SY120V	R212
L150	OC0401	LON1A27N4M		R137	FRK3039	ERJ36SY120V	R213
L151	OC0398	LON1AB2N4		R138	FRK3047	ERJ36SY120V	R214
L152	OC0399	LON1AT7N4		R139	FRK3047	ERJ36SY120V	R215
L153	OKA15A	MRI1.5.15T.04		R140	FRK3047	ERJ36SY120V	R216
L154	OKA15A	MRI1.5.15T.04		R141	FRK3054	ERJ36SY120V	R217
L155	OKA15A	MRI1.5.15T.04		R142	FRK3026	ERJ36SY120V	R218
L156	OC0257	LON1AB2N4		R143	FRK3047	ERJ36SY120V	R219
L157	OC0257	LON1AT7N4		R144	FRK3047	ERJ36SY120V	R220
L158	OKA15A	MRI1.5.15T.04		R145	FRK3028	ERJ36SY120V	R221
L159	OKA15A	MRI1.5.15T.04		R146	FRK3054	ERJ36SY120V	R222
L160	XT0106	25C4849-TN		R147	FRK3050	ERJ36SY120V	R223
L161	XT0152	25C5007-11-FB		R148	FRK3051	ERJ36SY120V	R224
L162	XT0151	25C5006-11-FB		R149	FRK3047	ERJ36SY120V	R225
L163	XT0106	25C4849-TN		R150	FRK3047	ERJ36SY120V	R226
L164	XT0151	25C5006-11-FB		R151	FRK3038	ERJ36SY120V	R227
L165	XT0151	25C5008-11-FB		R152	FRK3054	ERJ36SY120V	R228
L166	XT0152	25C5008-11-FB		R153	FRK3044	ERJ36SY120V	R229
L167	XT0106	25C5007-11-FB		R154	FRK3023	ERJ36SY120V	R230
L168	XT0152	25C5007-11-FB		R155	FRK3031	ERJ36SY120V	R231
L169	XT0149	25C4849-TN		R156	FRK3017	ERJ36SY120V	R232
L170	XT0149	25C4849-TN		R157	FRK3017	ERJ36SY120V	R233
L171	XT0152	25C5007-11-FB		R158	FRK3017	ERJ36SY120V	R234
L172	XT0151	25C5006-11-FB		R159	FRK3026	ERJ36SY120V	R235
L173	XT0152	25C5007-11-FB		R160	FRK3051	ERJ36SY120V	R236
L174	XT0149	25C4849-TN		R161	FRK3050	ERJ36SY120V	R237
L175	XT0152	25C5007-11-FB		R162	FRK3056	ERJ36SY120V	R238
L176	XT0149	25C4849-TN		R163	FRK3051	ERJ36SY120V	R239
L177	XT0152	25C5006-11-FB		R164	FRK3051	ERJ36SY120V	R240
L178	XT0152	25C5007-11-FB		R165	FRK3027	ERJ36SY120V	T101
L179	XT0149	25C4849-TN		R166	FRK3062	ERJ36SY120V	T102
L180	XT0149	25C4849-TN		R167	FRK3026	ERJ36SY120V	X100

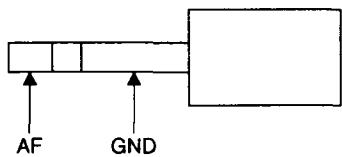
ADJUSTMENT

1) Required measuring instruments and tools

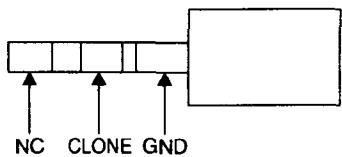
1. Digital voltmeter
2. Regulated power supply of 10 V, 1 A or more
3. Oscilloscope
4. Frequency counter
5. External speaker
6. 0.1 MHz ~ 2 GHz SG
7. Audio analyzer
Level meter, distortion factor meter, linear detector
8. Spectrum analyzer

1 m coaxial cable with BNC connector

Speaker cable with 3.5Ø plug



Cloning cable with 2.5Ø stereo plug on both ends



Power supply cable for external power supply terminal (For DJG5)

2) Adjustment

All SSG outputs are indicated in EMF.

The SP is 8Ω . Output is 50 mW.

Level meter filter must be HPF (30 ~ 50 Hz) and LPF (10 ~ 15 kHz).

■ Power supply 10 V

After connecting and turning ON the power supply:

Turn the BS OFF.

Transfer adjustment data by cloning.

■ Frequency adjustment

Encircled numbers correspond to memory Nos. in the memory A0 bank.

1. PLL reference frequency

- While receiving on $f=198.70$ (NFM ①), using the frequency counter, measure TP104 in the RF Unit and adjust TC100 to obtain $934.95\text{MHz} \pm 1\text{kHz}$.

2. VCXO frequency

- While receiving on $f=198.70$ (step=100Hz, NFM ①), using the frequency counter, measure TP304 in the IF Unit, and adjust VR303 and VR300 to obtain $44.595\text{MHz} \pm 200\text{Hz}$.
- When receiving on $f=198.701\text{MHz}$ ②, adjust to $44.6049\text{MHz} \pm 200\text{Hz}$.
- Switch ① 198.700 MHz and ② 198.7001 MHz and set amplitude to 9.9 kHz from VR303. Adjust to 44.5950 MHz when at 198.700 MHz from VR300.

3. SSB BFO frequency

- While receiving on $f=198.70$ (USB ③), using the frequency counter, measure TP308 in the IF Unit and adjust TC300 to obtain $456.0\text{kHz} +200\text{Hz} / -600\text{Hz}$.

4. PLL lock check

- Check that voltage is $8 \sim 15\text{V}$ using the digital voltmeter on $f=300.0$ (NFM ④) and measuring TP103 in the RF Unit.
- Check that voltage is in $3 \sim 25\text{V}$ using the digital voltmeter on $f=449.940$ (NFM ⑤) and measuring TP103 in the RF Unit.

5. Local level adjustment

- Connect the spectrum analyzer to antenna connector.

Set to maximum value while receiving on $f=198.70$ ⑥ and adjusting L103, L105, L106, and FL100 in the RF Unit.

6. NFM distortion

- Apply SG=60dBu 1kHz. Measure SP terminal. Adjust L307 in the IF Unit.

While receiving on $f=198.70$, using the distortion factor meter and oscilloscope, set distortion factor to minimum before making other adjustments, and set max. AF output to 6%.

- When receiving on 3.5kHz DEV(NFM ⑦), always turn adjustment core of L307 counter-clockwise. Be careful not to crack the core when turning clockwise.

7. NFM sensitivity

- Apply SG=6dBu 1kHz and 3.5kHz DEV (NFM ⑥). Measure SP terminal. Adjust FI102, FL101, and L102 in the RF Unit.

While receiving on f=198.70, using the distortion factor meter oscilloscope, repeat adjustment until obtaining optimum SINAD.

- Apply SG=0dBu 1kHz and 3.5kHz DEV(NFM ⑦). Measure SP terminal. Adjust L113, L110, L107, and L101 in the RF Unit.

While receiving on f=510.03, using the distortion factor meter oscilloscope, repeat adjustment until obtaining optimum SINAD.

8. WFM distortion

- Apply SG=60dBu 1kHz and 22.5kHz DEV(WFM ⑧). Measure SP terminal. Adjust L305 in the IF Unit.

While receiving on f=198.7, using the distortion factor meter oscilloscope, set distortion factor to minimum and max. AF output to 6%.

9. WFM sensitivity

- Apply SG=10dBu 1kHz and 22.5kHz DEV(WFM ⑧). Measure SP terminal. Adjust L304 and L309 in the IF Unit.

While receiving on f=198.70, using the distortion factor meter oscilloscope, repeat adjustment until obtaining optimum SINAD.

10. SQ level adjustment

- Apply SG=-3dBu. Measure SP BUSY terminal. Adjust VR302 in the IF Unit.

While receiving on f=198.70(NFM ⑨), adjust on LCD SQ level 1, turn VR304 clockwise to close squelch. Then, turn counter-clockwise to open and fix. However, close with SQ.

11. NFM S meter adjustment

- Apply SG=25dBu, unmodulated(NFM ⑨). Measure LCD terminal. Adjust VR302 in the IF Unit.

While receiving on f=198.70, turn SG OFF when S meter is full scale. Check S meter does not light up.

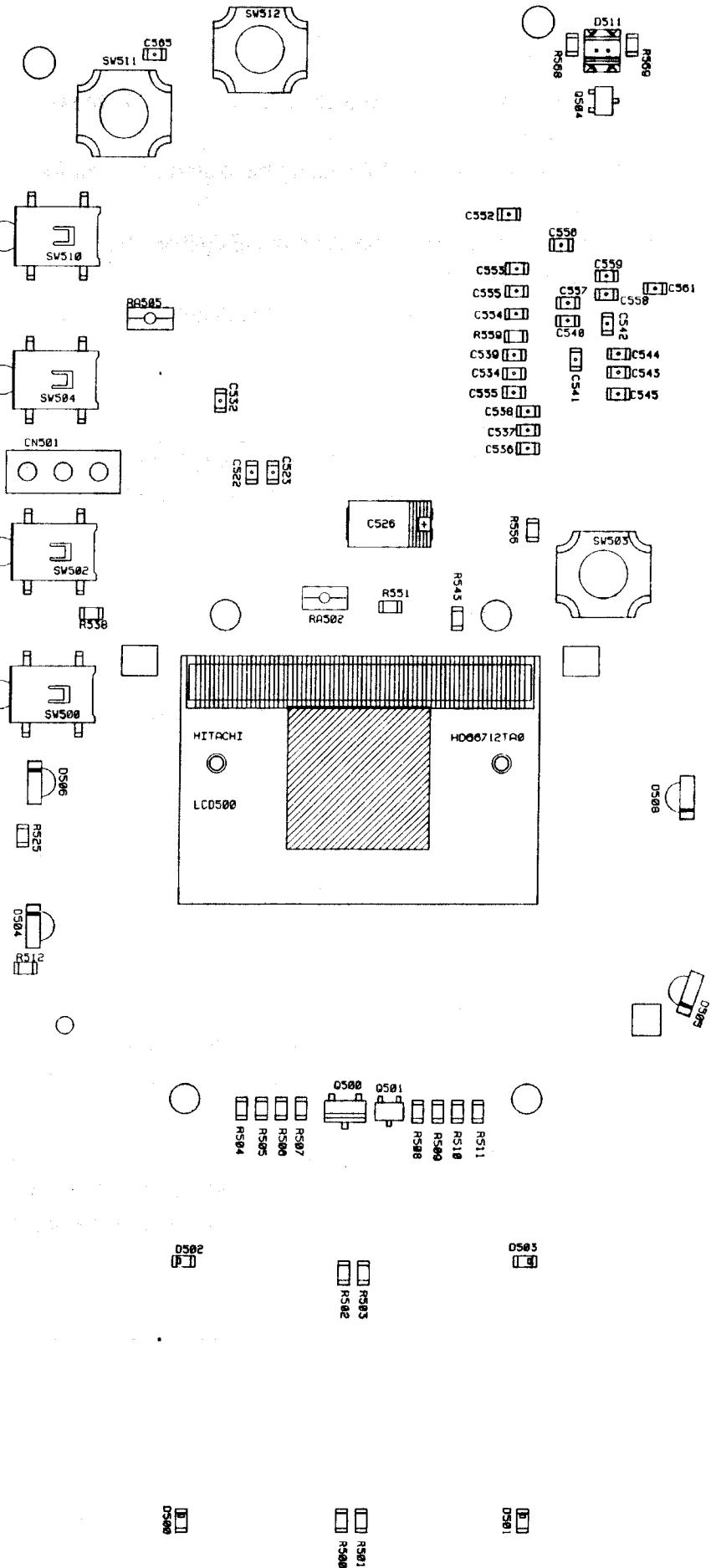
12. WFM S meter adjustment

- Apply SG=32dBu, unmodulated ⑩, WFM. Measure LCD terminal. Adjust VR301 in the IF Unit.

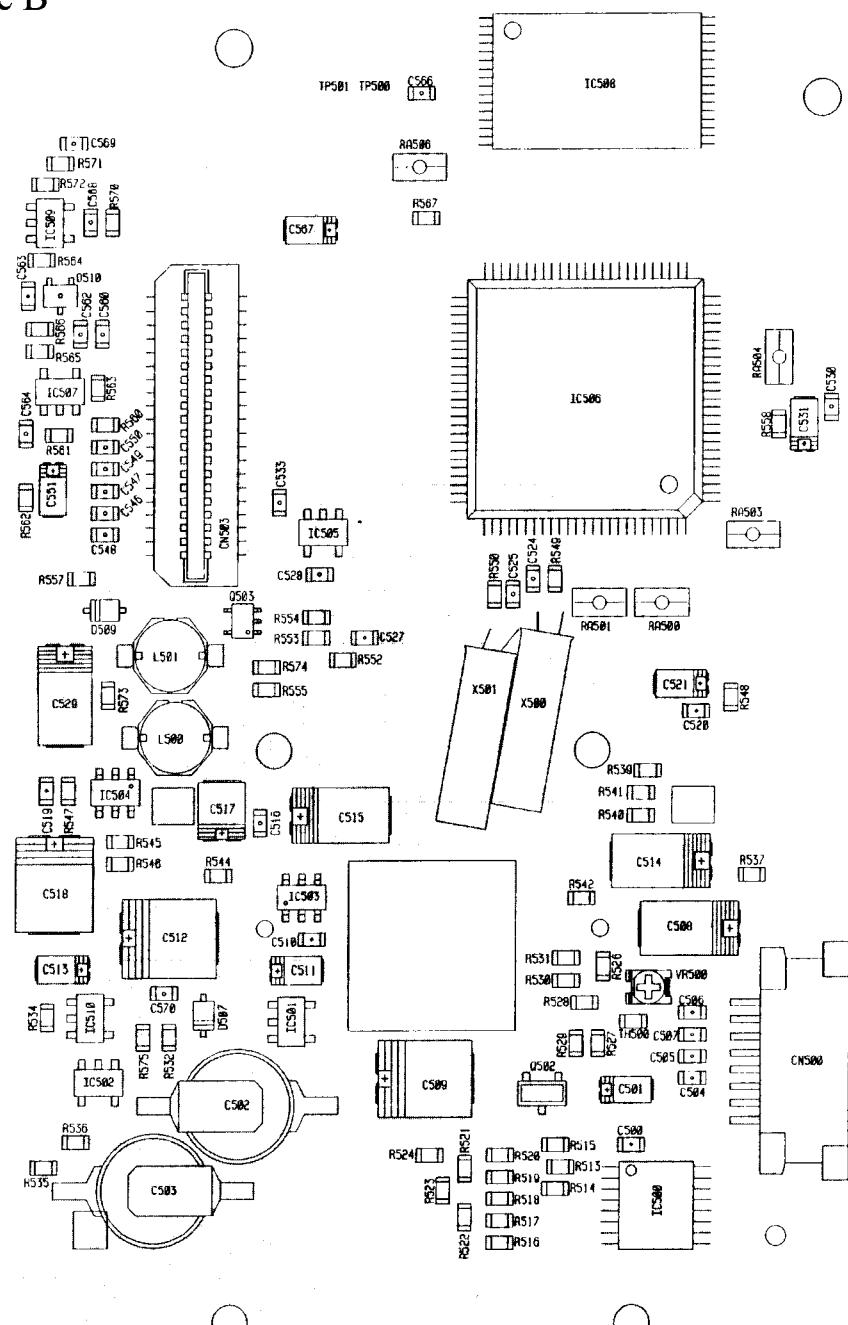
While receiving on f=198.70, turn SG OFF when S meter is full scale. Check S meter does not light up.

PC BOARD VIEW

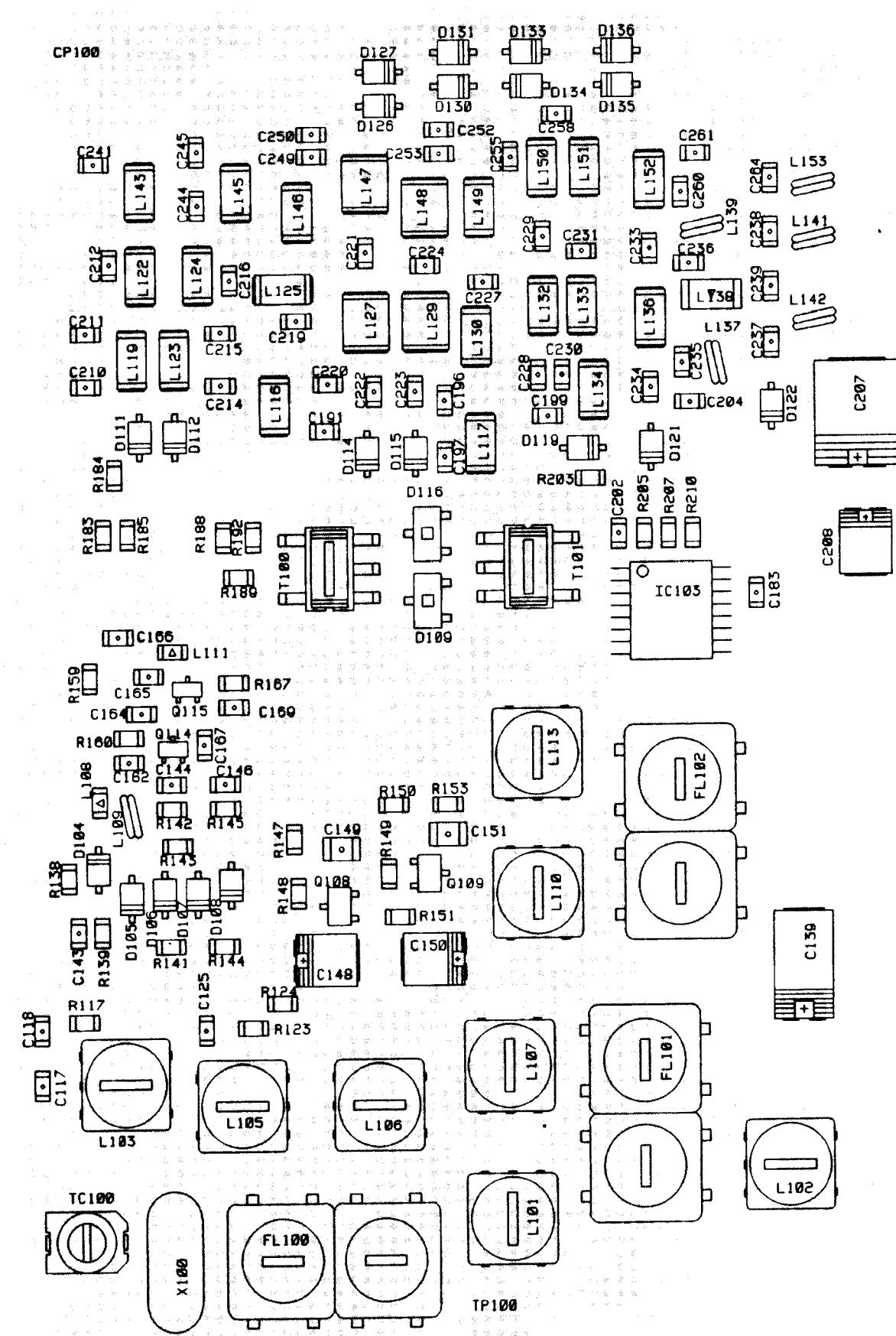
CPU Unit Side A



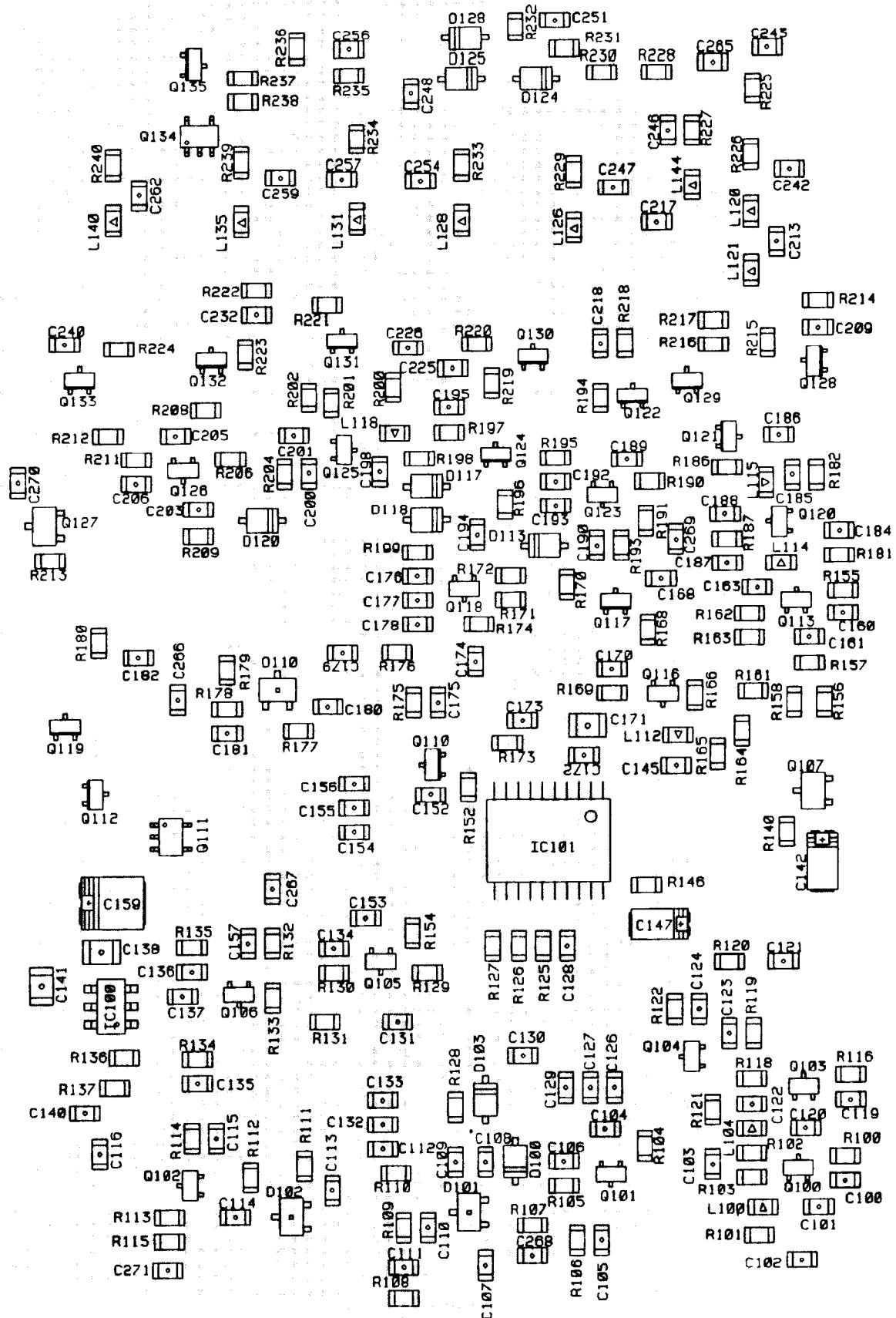
CPU Unit Side B

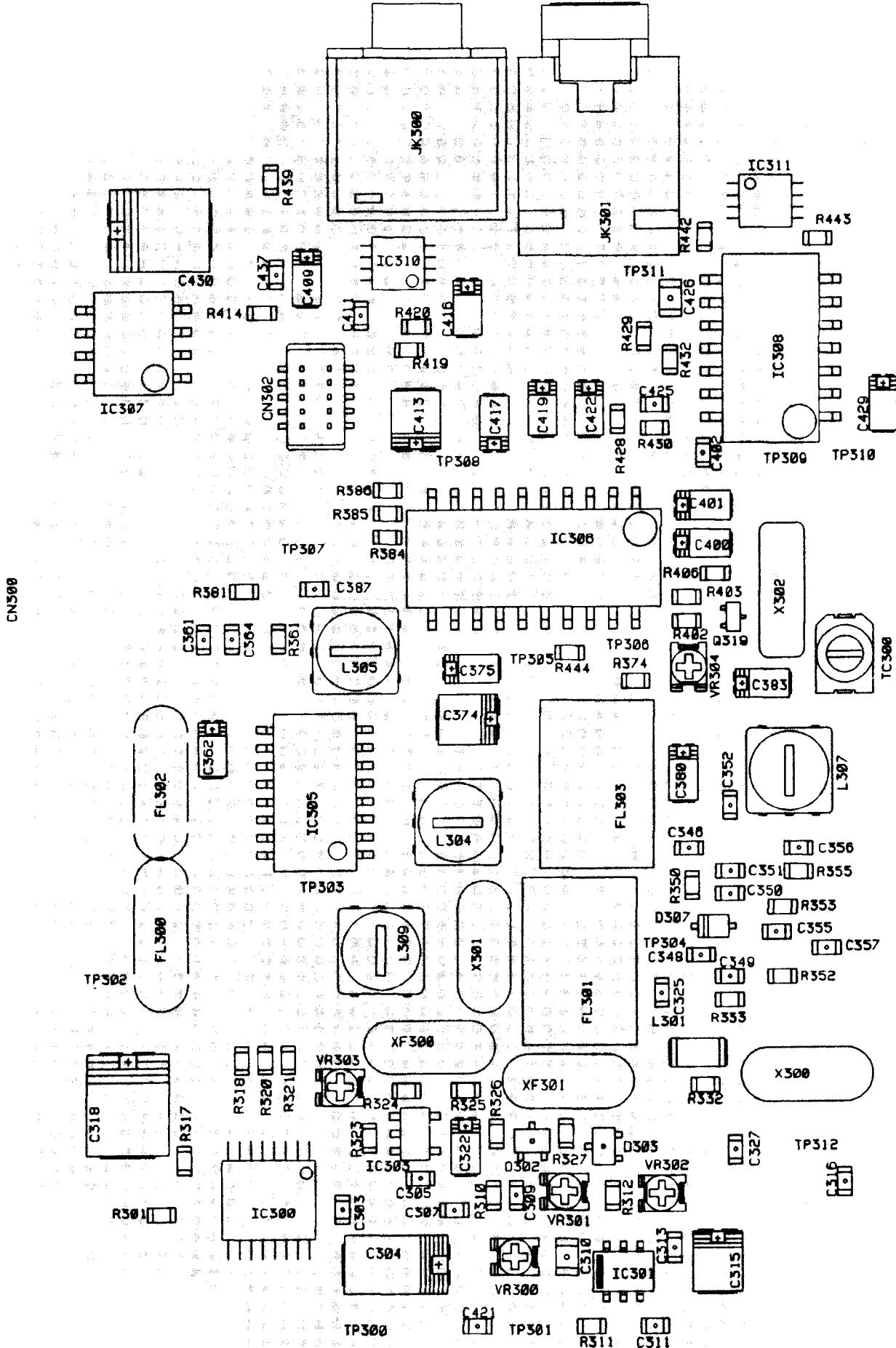


RF Unit Side A

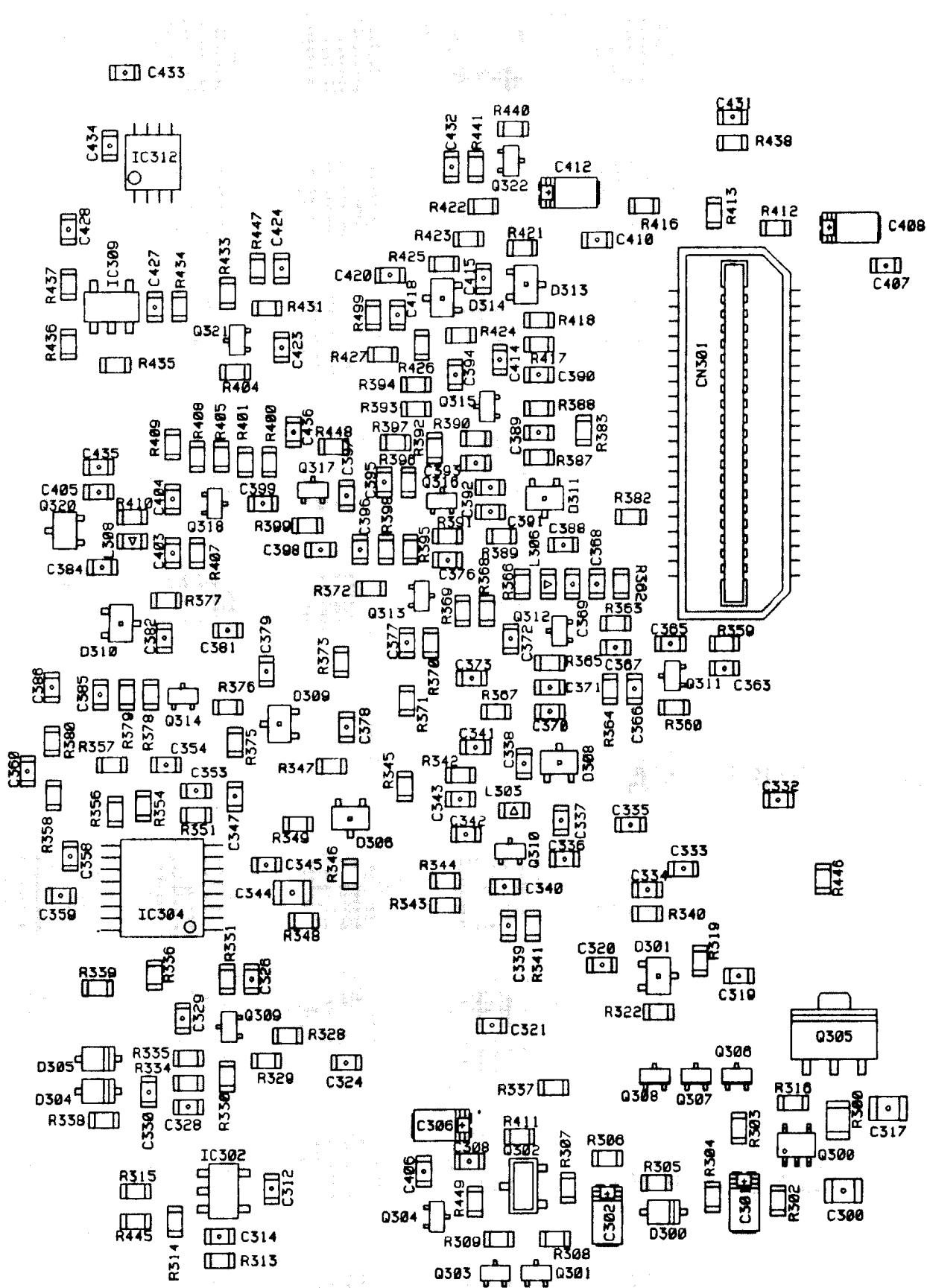


RF Unit Side B

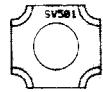
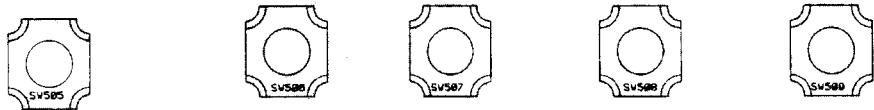




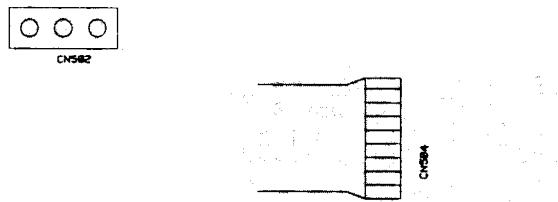
IF Unit Side B



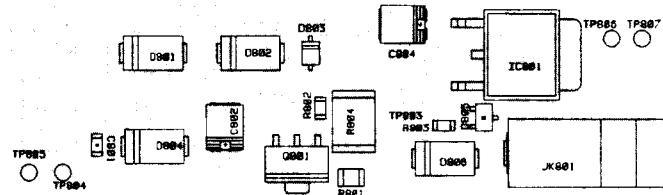
PTT SW Unit Side A



PTT SW Unit Side B



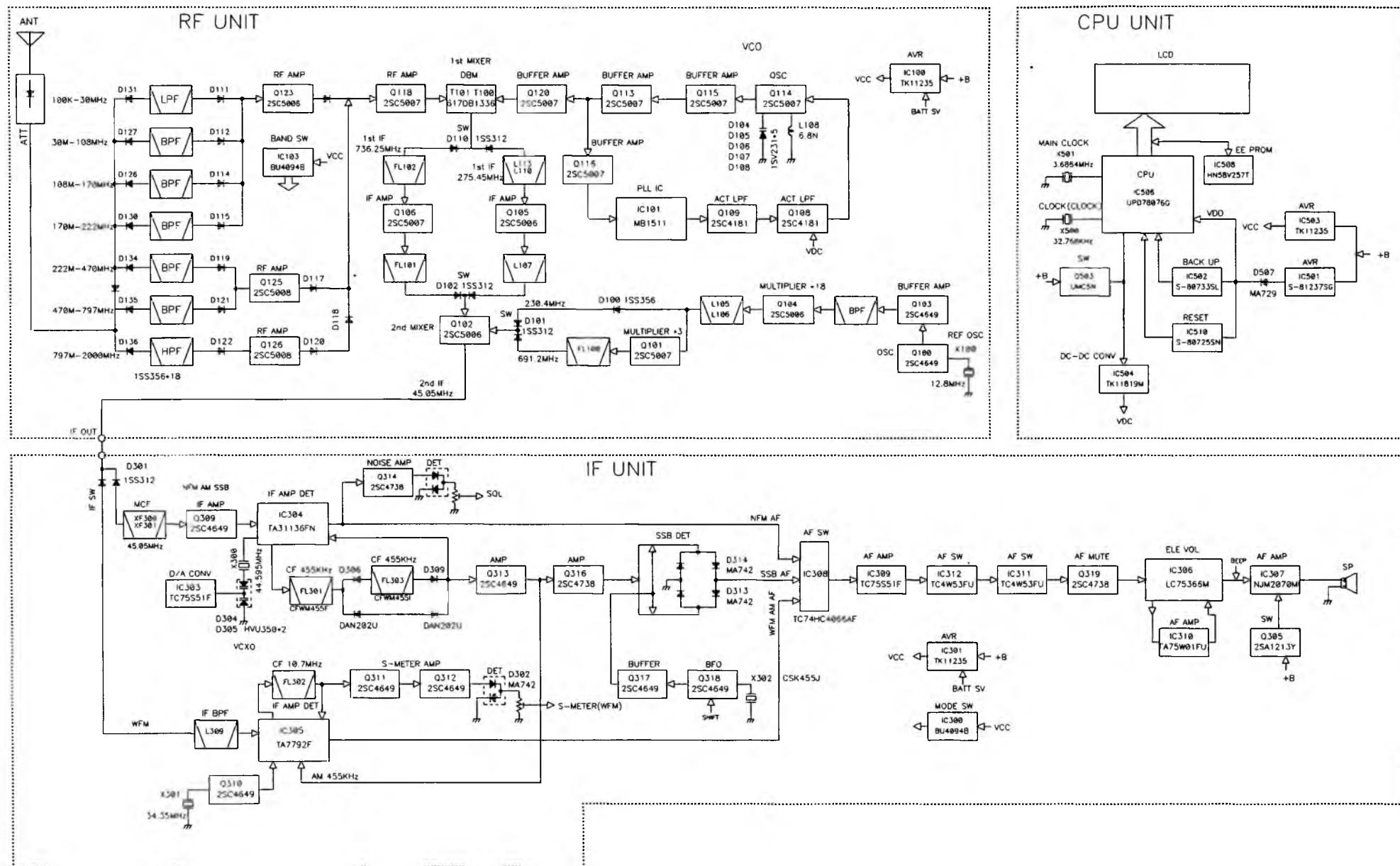
CHARGE Unit Side A



CHARGE Unit Side B

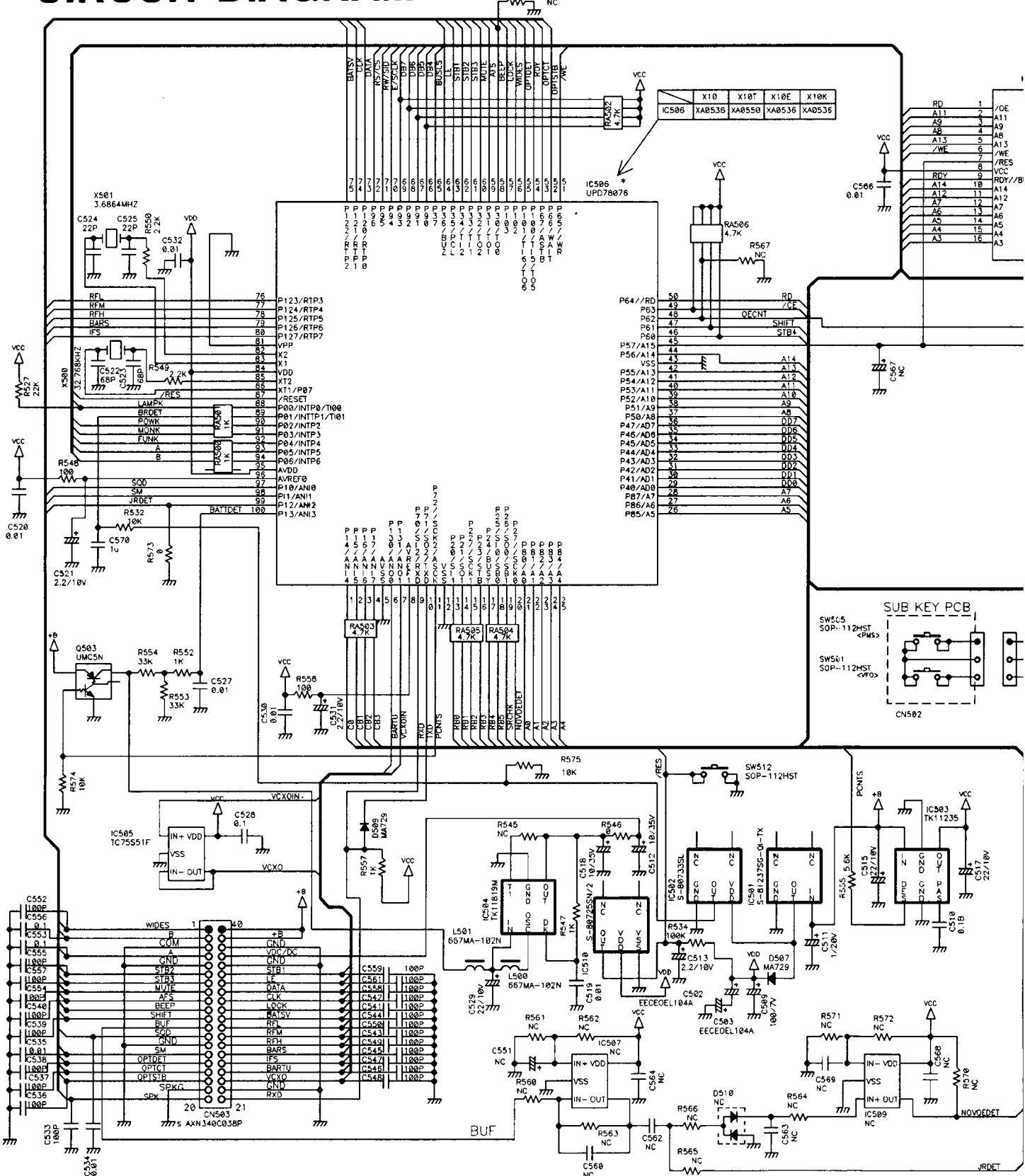


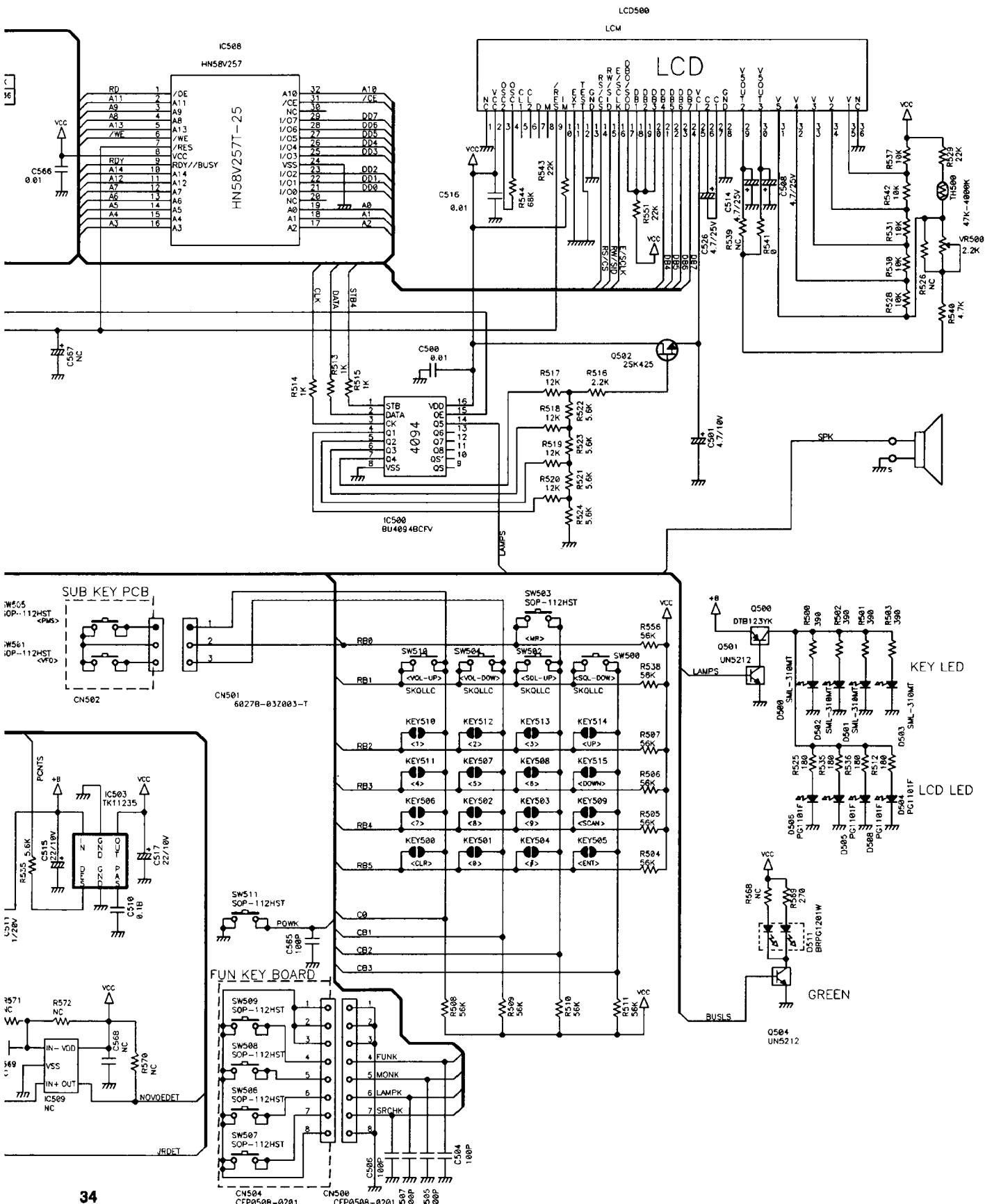
BLOCK DIAGRAM



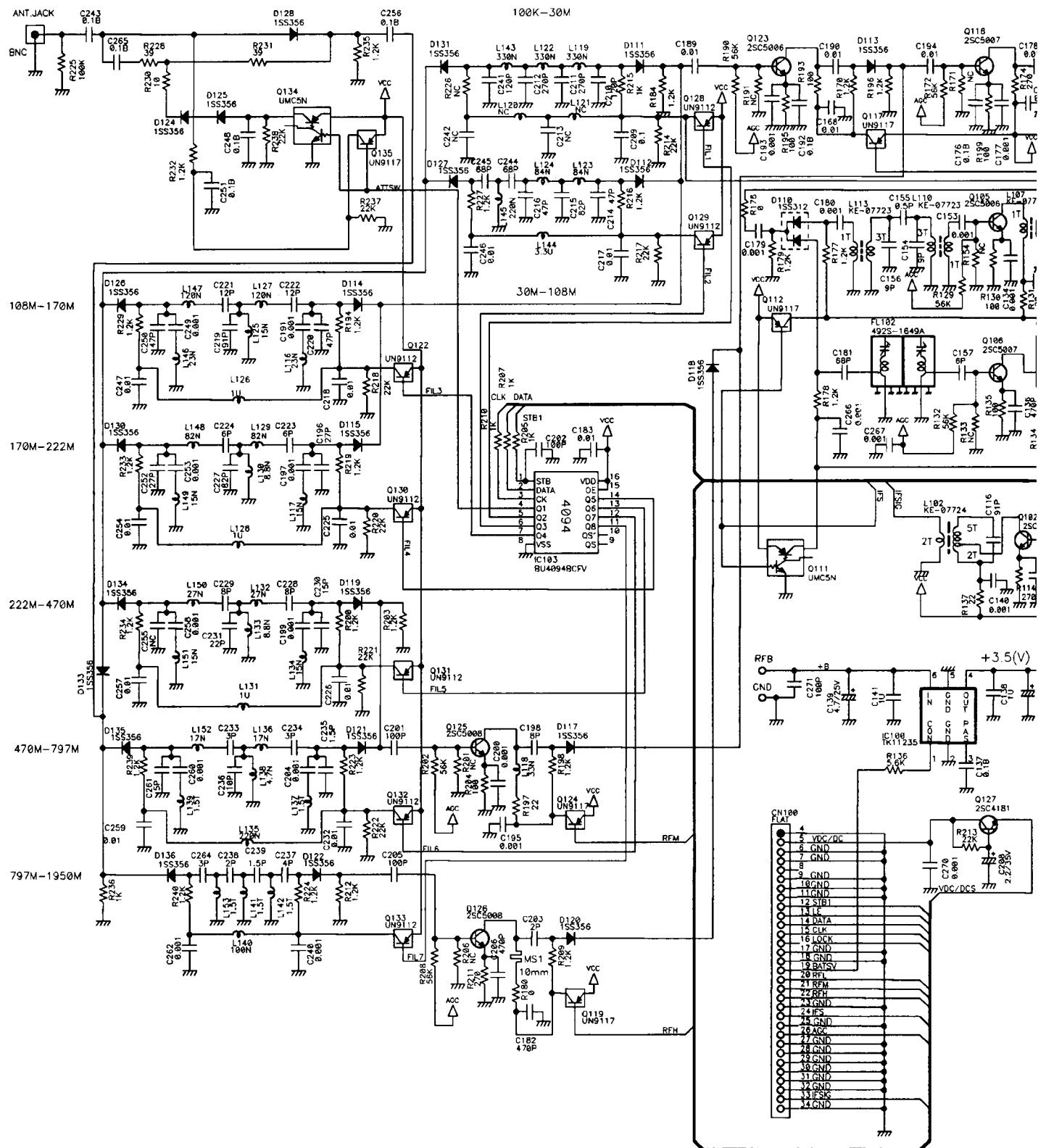
CIRCUIT DIAGRAM

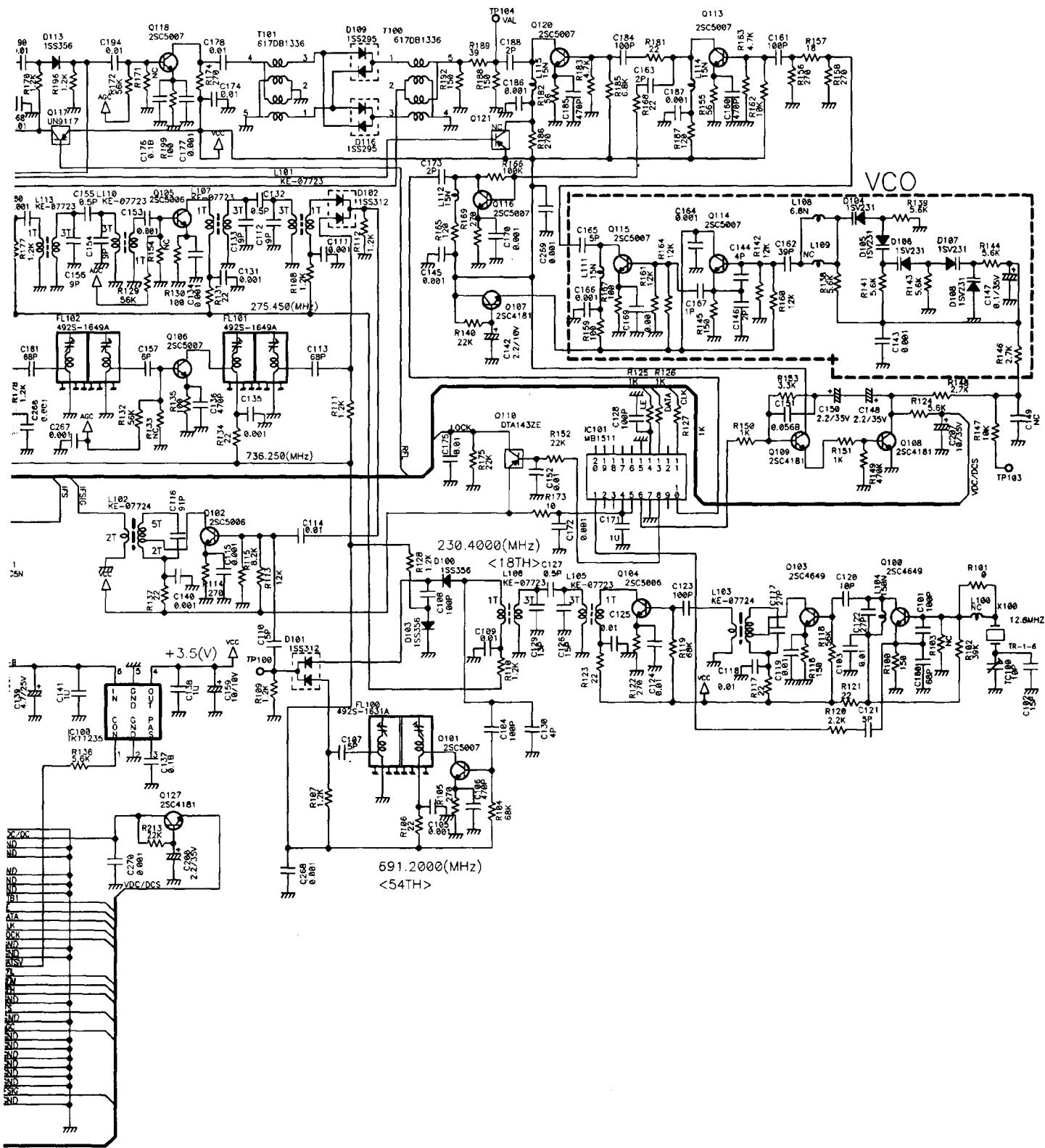
CPU Unit



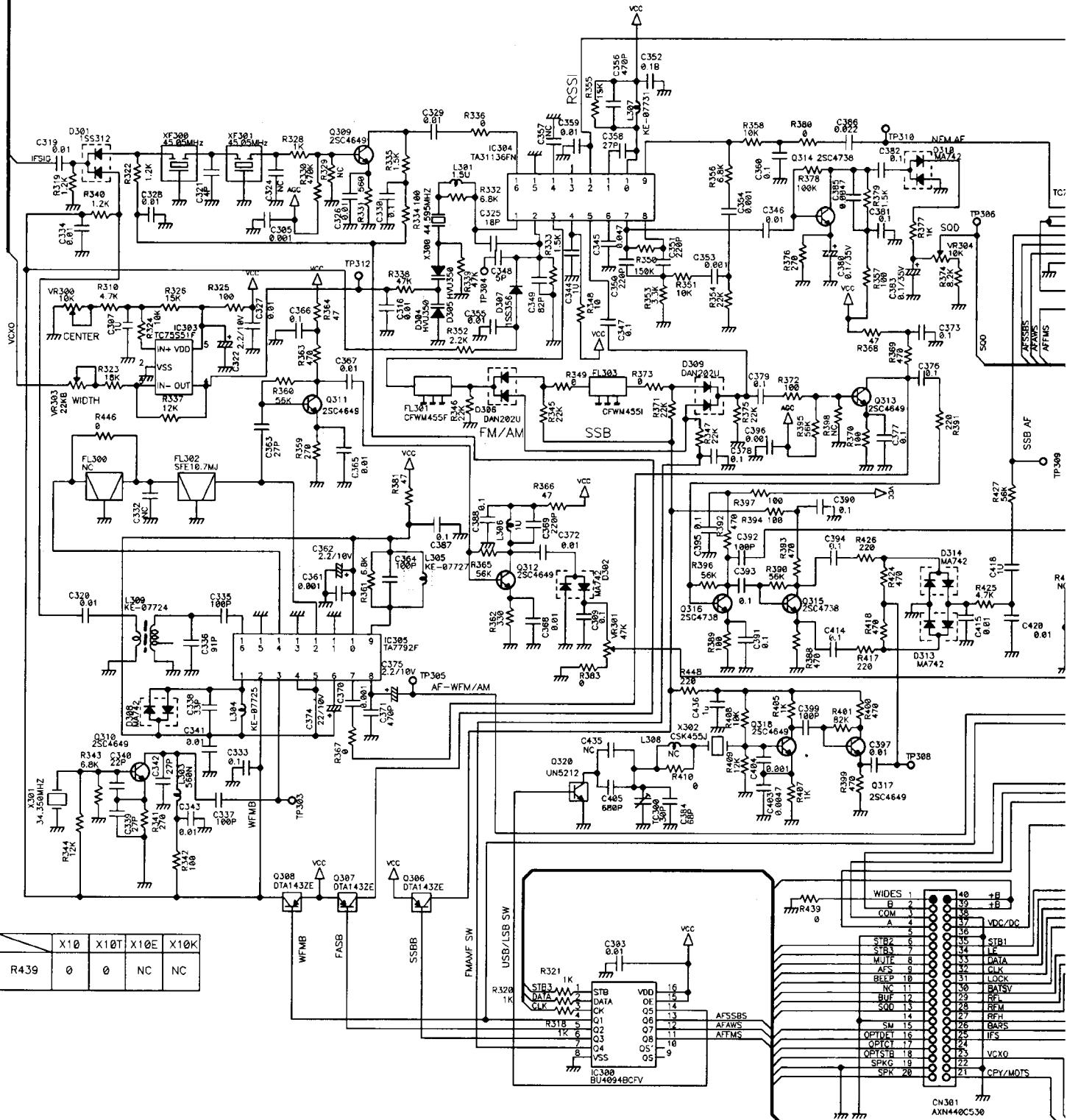


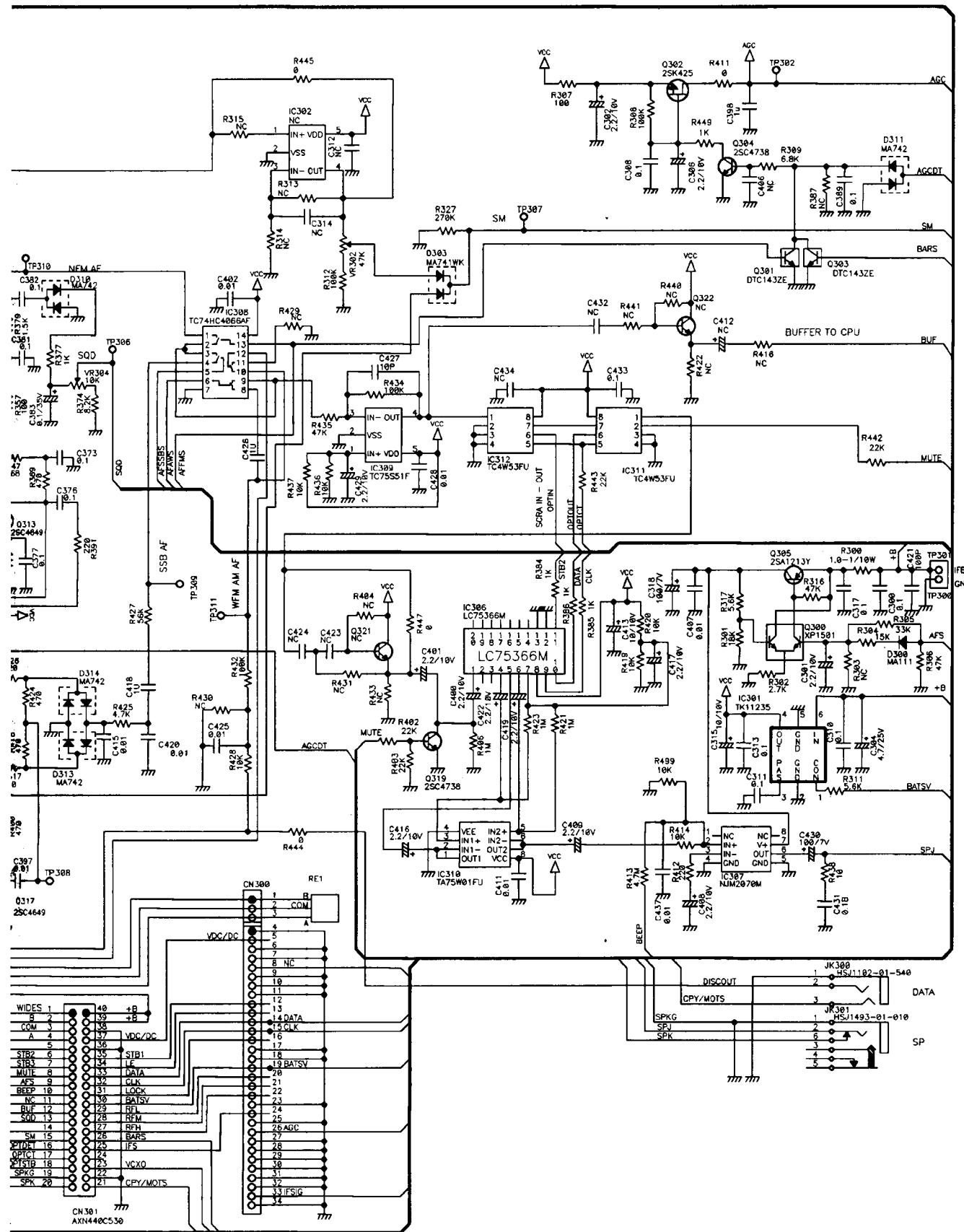
RF Unit

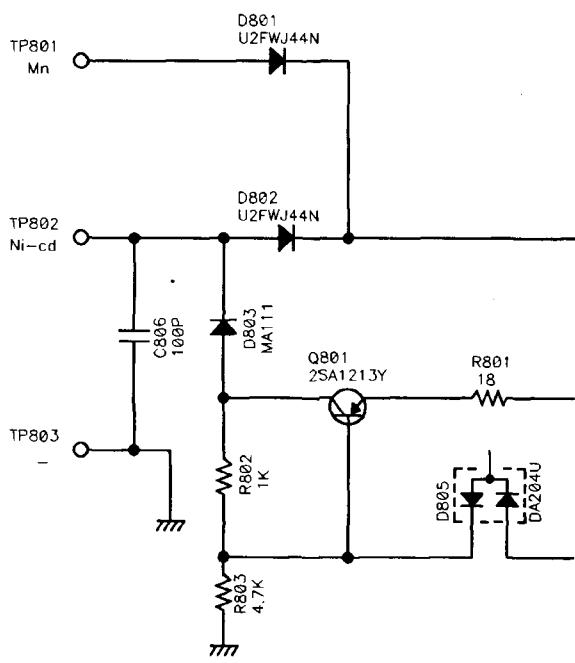




IF Unit







CHARGE Unit

JK801
HEC2781-010020

