

DJ-X2E/DJ-X2T

Service Manual

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SPECIFICATIONS

1) GENERAL

Receiving coverage	E : 0.522 ~ 999.995MHz T : 0.530 ~ 823.995MHz 850.000 ~ 868.995MHz 895.000 ~ 999.995MHz
Wave type	FM, WFM, AM
Ant. impedance	50Ω
Ant. terminal	SMA
Supply voltage	DC 3.8V (Internal lithium-ion battery) DC 4.5V (when using EDH-27)
Ground	Negative ground
Current consumption	Reception : approx. 80 mA Battery save (1 : 4) : approx.25mA
Temperature range	-10 ~ +60°C (14 ~ 140°F)
Frequency stability	±5 ppm (-10 ~ +60°C) (+14 ~ +140°F)
Dimension	58 (W) × 90 (H) × 15 (D) mm (without projections) (2.28(W) × 3.54(H) × 0.59(D) in.)
Weight	Approx. 85g (Lithium-ion battery inclusive) (Approx. 3oz.)

2) RECEIVER

System	Triple-conversion superheterodyne
First I.F.	248.45MHz
Second I.F.	38.85MHz
Third I.F.	450kHz
Sensitivity	AM/FM -6dB/12kHz or over, -60dB/30kHz or less WFM -6dB/150kHz or over
Selectivity	FM/WFM 12dB SINAD, AM 10dB S/N
typ.	FM : 30 ~ 108 0.63uV (-4dBu) 136 ~ 222 0.40uV (-8dBu) 222 ~ 470 0.50uV (-6dBu) 470 ~ 770 0.56uV (-5dBu) 770 ~ 1000 0.71uV (-3dBu) WFM : 76 ~ 108 3.20uV (10dBu) 175 ~ 222 2.20uV (7dBu) 470 ~ 770 3.20uV (10dBu) AM : 0.5 ~ 1.62 7.10uV (17dBu) 1.62 ~ 30 1.40uV (3dBu) 108 ~ 136 2.00uV (6dBu) 222 ~ 330 1.80uV (5dBu)

CIRCUIT DESCRIPTION

1) Receiver

1. Receiver system : Triple Superheterodyne Conversion

1st IF. : 248.45MHz
2nd IF. : 38.85MHz
3rd IF. : 450KHz

2. Front End

0.5 ~ 29.995MHz

The signal from the antenna is switched by the band switch (D109), passed through the low-pass filter and amplified by RF amplifier Q109. Then the signal is fed to the 1st mixer IC103 via the band switch D115.

30 ~ 136.995MHz

The signal from the antenna is switched by the band switch (D128), passed through the low-pass filter and amplified by RF amplifier Q111. Then the signal is fed to the 1st mixer IC103 via the band switch D112.

137 ~ 222.995MHz

The signal from the antenna is switched by the band switch (D116), passed through the low-pass filter and amplified by RF amplifier Q116. Then the signal is fed to the 1st mixer IC103 via the band switches D107 and D129.

223 ~ 367.995MHz

The signal from the antenna is switched by the band switch (D132), passed through the low-pass filter and amplified by RF amplifier Q118. Then the signal is fed to the 1st mixer IC103 via the band switches D107 and D129.

368 ~ 469.995MHz

The signal from the antenna is switched by the band switch (D122), passed through the low-pass filter and amplified by RF amplifiers Q123 and Q138. Then the signal is fed to the 1st mixer IC103 via the band switch D134.

470 ~ 999.995MHz

The signal from the antenna is switched by the band switch (D133), passed through the low-pass filter and amplified by RF amplifier Q126. Then the signal is fed to the 1st mixer IC103 via the band switch D120.

3. Mixer

The 1st Mixer

The input signal and 1st local signal generate sum and difference frequencies in the mixer IC103. SAW filter FL101 selects the signal of 248.45MHz and eliminates the adjacent channel signals.

The 2nd Mixer

The input signal and the 2nd local signal generate sum and difference frequencies in the mixer IC104. Then the signals are divided into the receiving sides of FM/AM and WFM at D113 and D114.

FM/AM

In the receiving side of FM/AM the signal of 38.85MHz is selected by crystal filter XF101. Then the signal is amplified at the 1st IF amplifier Q112 after eliminating the adjacent channel signal.

WFM

In the receiving side of WFM the signal of 38.85MHz is selected by band-pass filter. Then the signal is amplified at the 1st IF amplifier Q112 after eliminating the adjacent channel signal.

4. IF

FM/AM

The amplified signal at the 1st IF amplifier Q112 is led to the demodulator pin 24 of IC105. The signal of 12.8MHz from the reference buffer output of IC101 is multiplied by 3 in Q133. Then the signal is mixed with the signal of pin 1 of IC105 in the mixer circuit inside of IC105 and converted into the 2nd IF signal of 450kHz. The converted 2nd IF signal is output from pin 3 of IC105.

FM

The output signal from pin 3 of IC105 is led to pin 7 of IC105 after eliminating the adjacent channel signal at the ceramic filter FL103. The input 2nd IF signal to pin 7 of IC105 is demodulated at the limiter amplifier and quadrature detector circuits inside of IC105, then output from pin 12 of IC105 as an AF signal.

AM

The output signal from pin 3 of IC105 is led to the pin 5 of IC105 after eliminating the adjacent channel signal at the ceramic filter FL103. The 2nd IF signal input to pin 5 of IC105 is AM-demodulated inside of IC and output from pin 13 of IC105 as an AF signal. The 1st IF amplifier Q112 is controlled by reverse AGC at AGC amplifier Q117 to get better audio output even though the input is changed, and the gain is controlled.

WFM

The output signal from pin 3 of IC105 is led to pin 7 of IC105. The input 2nd IF signal to pin 7 of IC105 is demodulated at the limiter amplifier and quadrature detector circuits inside of IC, then output from pin 12 of IC105 as an AF signal.

5. Squelch

The AF signal got from pin 12 of IC105 is fed to pin 19 of IC105. The input signal is output from pin 21 of IC105 passing through the noise filter amplifier and rectifier circuits inside of IC. The rectified signal is added to the A/D port of the microcomputer IC1. Judging the signal, the microcomputer controls ON/OFF of the audio output.

6. Audio

FM/AM/WFM

The selection of receiving audio output signal between FM/WFM and AM is performed at IC106. The volume of output audio signal is adjusted at the electronic volume IC108 via the AF amplifier Q120. After converting the impedance of the signal whose volume is adjusted at Q124, the signal is input to pin 2 of audio power amplifier IC110 and output from pin 6 to drive a speaker, etc.

7. VCO

The 1st Local

The VCO for the 1st local consists of the Colpitts oscillator. D106, D108 and L105 determine the frequency, and they are oscillated at the transistor Q103. The oscillated signal is added to pin 2 of PLL-IC101 through the butter amplifiers Q105 and Q134.

The 2nd Local

The VCO for the 2nd local consists of the Colpitts oscillator. D110, D111 and L113 determine the frequency, and they are oscillated at the transistor Q110. The oscillated signal is added to pin 19 of PLL-IC101 through the butter amplifier Q135.

8. PLL

PLL-IC101 is used to control the oscillation frequency of VCO. The micro-computer IC1 sends the signal with serial data to control IC101. The 12.8 MHz reference frequency of IC101 oscillates the crystal oscillator X101 at the inside circuit.

The 1st Local

Using the control signal from IC1, IC101 compares the divided value of the added signal to pin 2 of IC101 with the divided value of 12.8 MHz reference frequency inside IC101. When the phase difference is occurred, IC101 outputs the pulse signal from pin 8 and converts into DC voltage at the active filter Q107 and Q108. Then it is fed to the cathode of the VCO vari-cap diodes of D106 and D108 to reduce the phase difference. This brings the stable oscillation at the desired frequency.

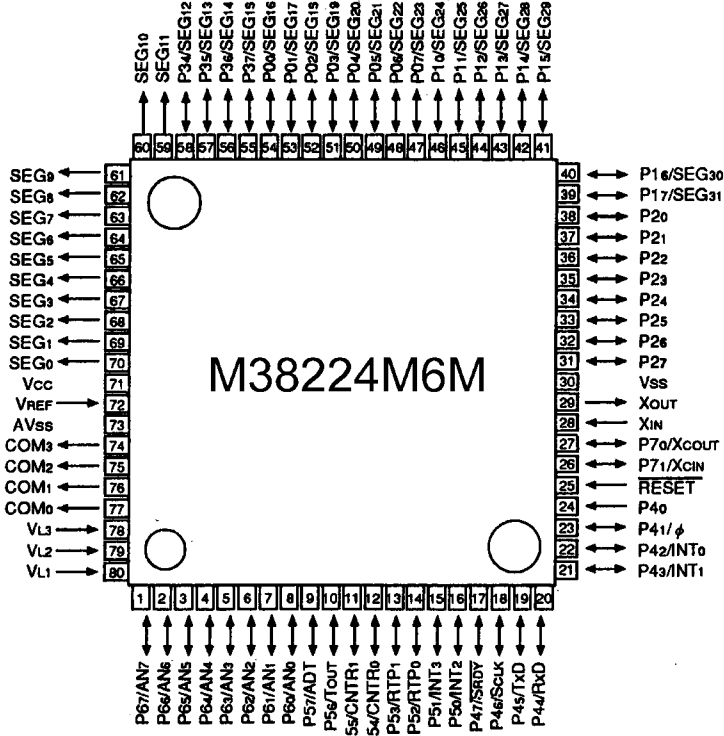
The 2nd Local

Using the control signal from IC1, IC101 compares the divided value of the added signal to pin 19 of IC101 with the divided value of 12.8 MHz reference frequency inside IC101. When the phase difference is occurred, IC101 outputs the pulse signal from the charge pump output pin 13 and converts into DC voltage at the inside circuit for the active filter. Then it is fed to the cathode of the VCO vari-cap diodes of D110 and D111 to reduce the phase difference. This brings the stable oscillation at the desired frequency.

2) M38224M6M (E:XA0728, T:XA0729)

CPU

Terminal Connection
(TOP VIEW)



3) Terminal function of CPU

No.	Terminal	Signal	I/O	Description
1	AN7	BP		NC
2	AN6	BATT	I	Battery input
3	P65	PCNT	O	
4	AN4	SMT	I	S-meter input
5	AN3	SQL	I	Squelch input
6	P62	AFPC	O	AF power supply
7	P61	BND3	O	Band3 SW
8	P60	BND2	O	Band2 SW
9	P57	RC	O	RX SW
10	P56	BND4	O	Band4 SW
11	P55	BND5	O	Band5 SW
12	P54	BND1	O	Band1 SW
13	P53	DATA/UL	I/O	Data/Unlock
14	P52	STB2	O	DAC strobe
15	P51	CLK	O	Clock
16	P50	STB1	O	PLL strobe
17	P47	ATT	O	ATT SW
18	P46	P2C	O	PLL 2ch SW
19	TXD	CTX	O	Clone TX
20	RXD	CRX	I	Clone RX
21	P43	BEEP	O	Beep output
22	INT0	BU	I	Backup interrupt
23	P41	UP	I	Key input
24	P40	DOWN	I	Key input
25	RESET	RESET	I	Reset interrupt
26	P71	SDA	I/O	EEPROM data
27	P70	SCK	O	EEPROM clock
28	XIN	XIN	I	Clock input
29	XOUT	XOUT	O	Clock output
30	VSS	GND		
31	P27	KEY8	I	Key input
32	P26	KEY7	I	Key input
33	P25	KEY6	I	Key input
34	P24	KEY5	I	Key input
35	P23	KEY4	I	Key input
36	P22	KEY3	I	Key input
37	P21	KEY2	I	Key input
38	P20	KEY1	I	Key input
39	P17	BND6	O	Band6 SW
40	P16	PLLC	O	PLL power supply

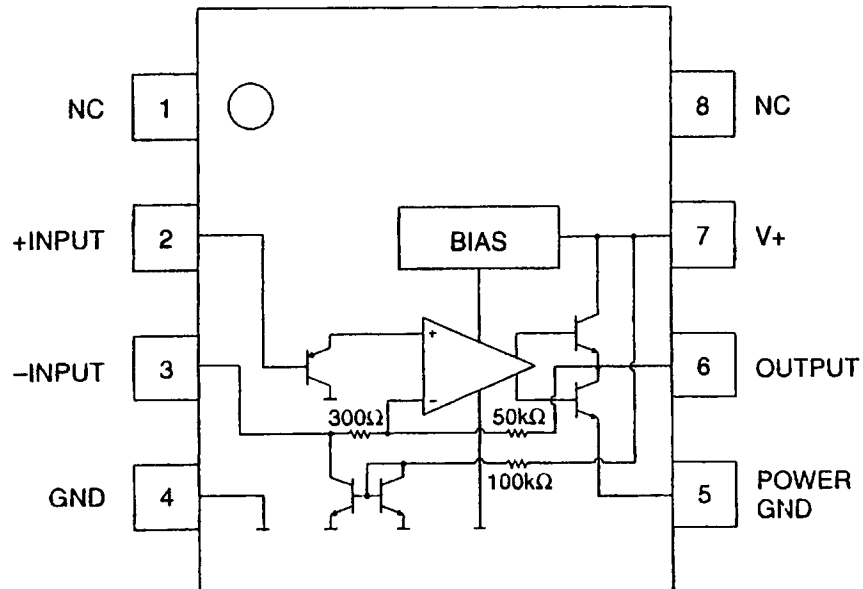
No.	Terminal	Signal	I/O	Description
41	P15	P1C	O	PLL 1ch SW
42	P14	DBC	O	Doubler SW
43	P13	ASW	O	Whip antenna SW
44	SEG26	SEG26	O	
45	SEG25	SEG25	O	
46	SEG24	SEG24	O	
47	SEG23	SEG23	O	
48	SEG22	SEG22	O	
49	P05	SCT	O	Secret SW
50	SEG20	SEG20	O	
51	SEG19	SEG19	O	
52	P02	EAR	O	Earphone antenna SW
53	SEG17	SEG17	O	
54	SEG16	SEG16	O	
55	SEG15	SEG15	O	
56	SEG14	SEG14	O	
57	SEG13	SEG13	O	
58	SEG12	SEG12	O	
59	SEG11	SEG11	O	
60	SEG10	SEG10	O	
61	SEG9	SEG9	O	
62	SEG8	SEG8	O	
63	SEG7	SEG7	O	
64	SEG6	SEG6	O	
65	SEG5	SEG5	O	
66	SEG4	SEG4	O	
67	SEG3	SEG3	O	
68	SEG2	SEG2	O	
69	SEG1	SEG1	O	
70	SEG0	SEG0	O	
71	VCC	VDD		
72	VREF	VDD		
73	AVSS	GND		
74	COM3	COM3	O	
75	COM2	COM2	O	
76	COM1	COM1	O	
77	COM0	COM0	O	
78	VL3	VL3	I	
79	VL2	VL2	I	
80	VL1	VL1	I	

SEMICONDUCTOR DATA

1) NJM2070M (XA0210)

Low Voltage Power Amplifier

Block Diagram



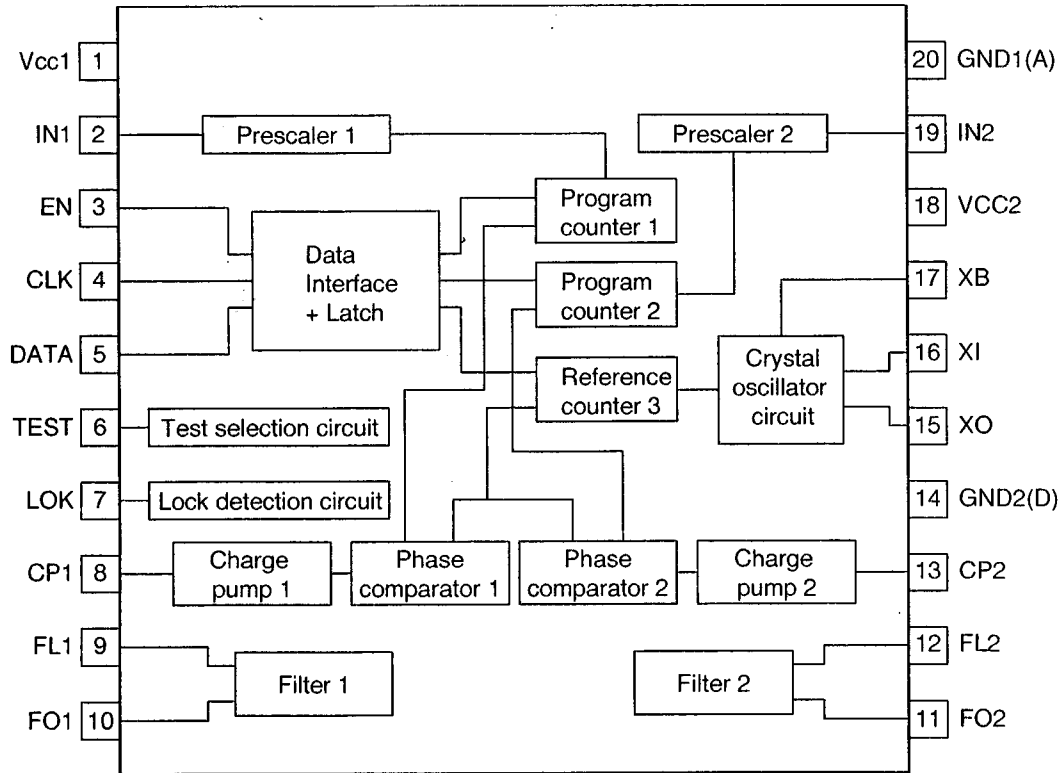
2) μ PD3140GS-E1 (XA0312)

80 ~ 550MHz Dual PLL Synthesizer

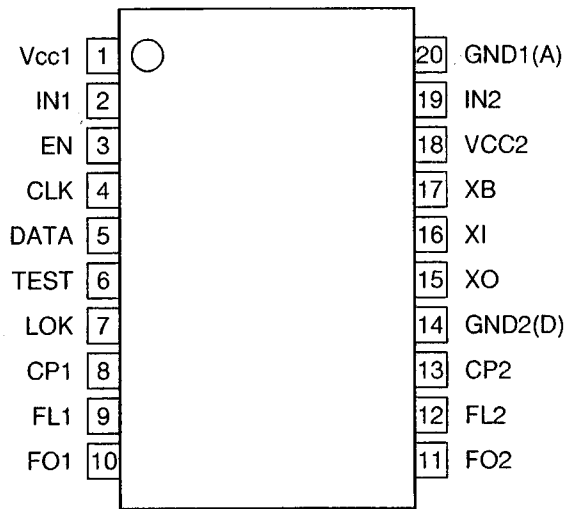
Specifications

Operating frequency:	200 ~ 400MHz ($V_{in}=-12 \sim -0\text{dBm}$, pin 2 and 19 input) 80 ~ 550MHz ($V_{in}=-8 \sim -0\text{dBm}$, pin 2 and 19 input)
Consumption current:	2.7 ~ 4.1mA ($V_{cc}=1.8\text{V}$ while 1 channel is used) 4.3 ~ 6.6mA ($V_{cc}=1.8\text{V}$ while both channels are used) 0 ~ 10 μ A ($V_{cc}=1.8\text{V}$ in power save mode) 3.5 ~ 5.3mA ($V_{cc}=5\text{V}$ while 1 channel is used) 5.6 ~ 8.6mA ($V_{cc}=5\text{V}$ while both channels are used)
Operating voltage:	1.8 ~ 5.5V

Block Diagram

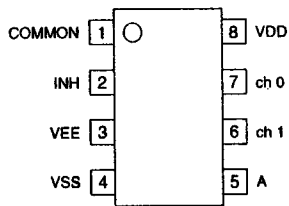


Terminal Connection

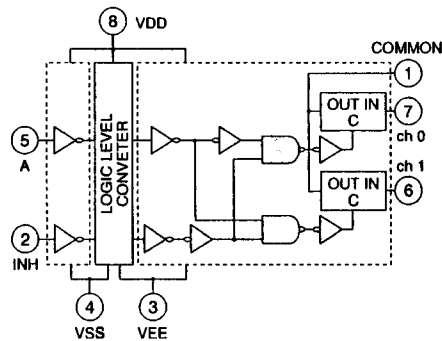


3) TC4W53FU (XA0348)

Pin Assignment

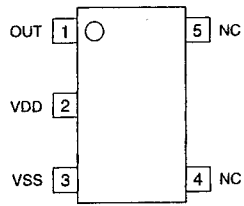


Block Diagram

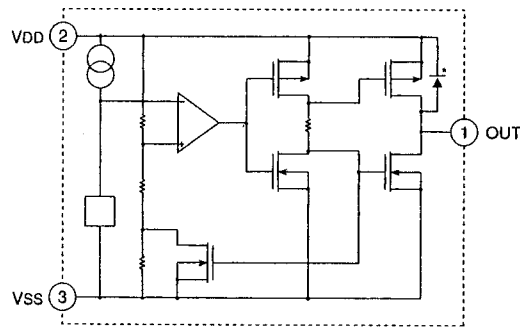


4) S-80730SL-AT (XA0356)

Pin Assignment

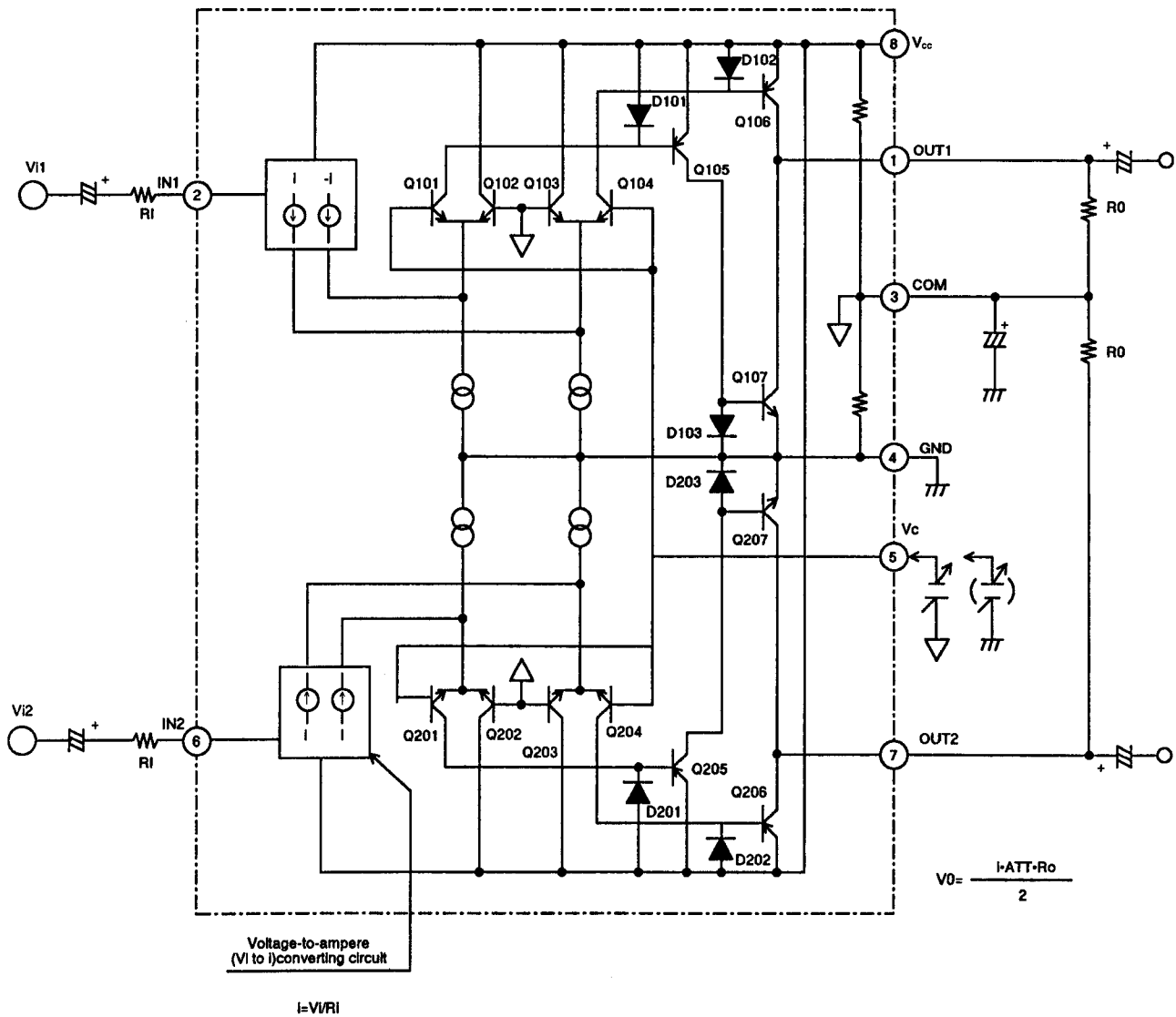


Block Diagram



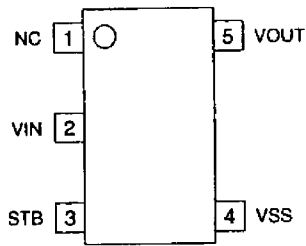
5) M5222FP-600C (XA0385)

Electronic Volume

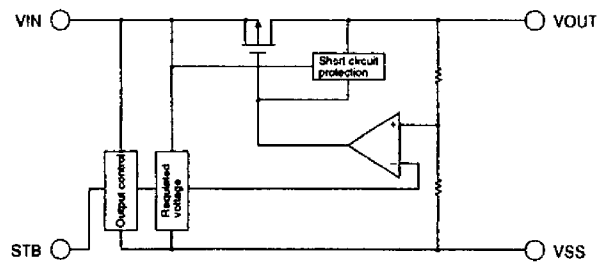


6) XC62SPR332MR (XA0519)

Pin Assignment

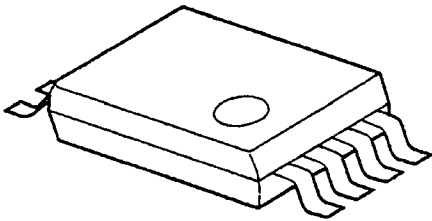


Block Diagram

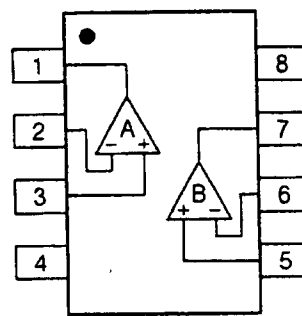


7) NJM2904V (XA0573)

Dual Single Supply Operational Amplifier



(Top View)

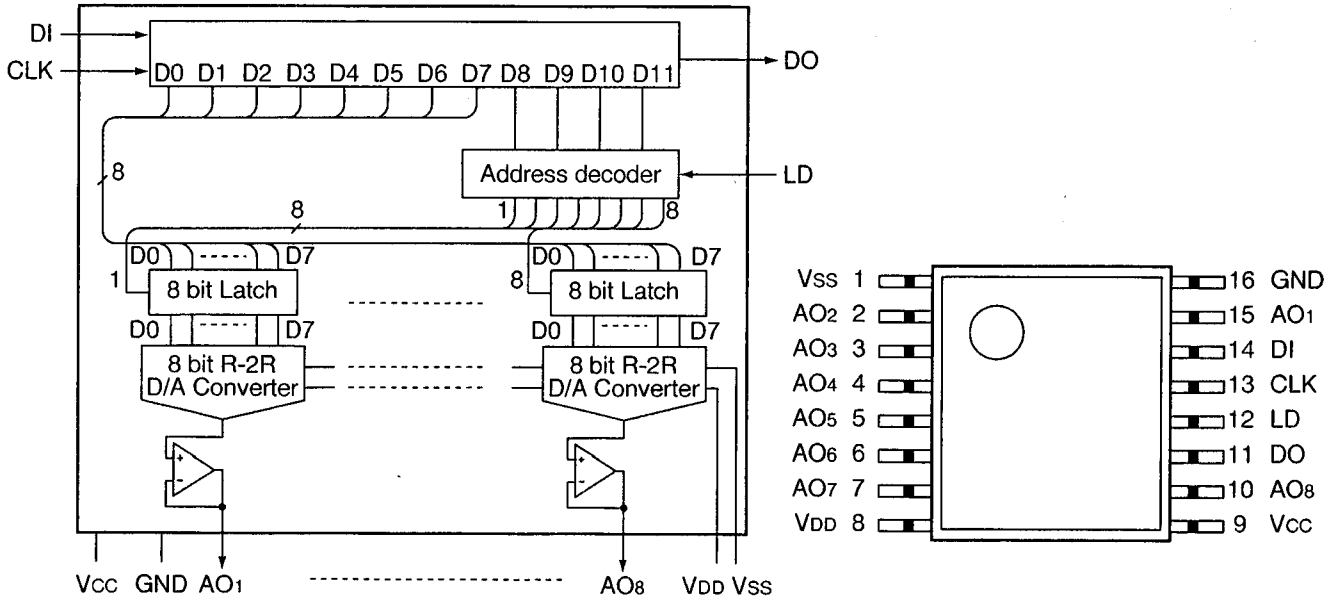


- 1: A OUTPUT
- 2: A - INPUT
- 3: A + INPUT
- 4: GND
- 5: B + INPUT
- 6: B - INPUT
- 7: B OUTPUT
- 8: V+

8) MB88347LPFV-G-BND-EF (XA0599)

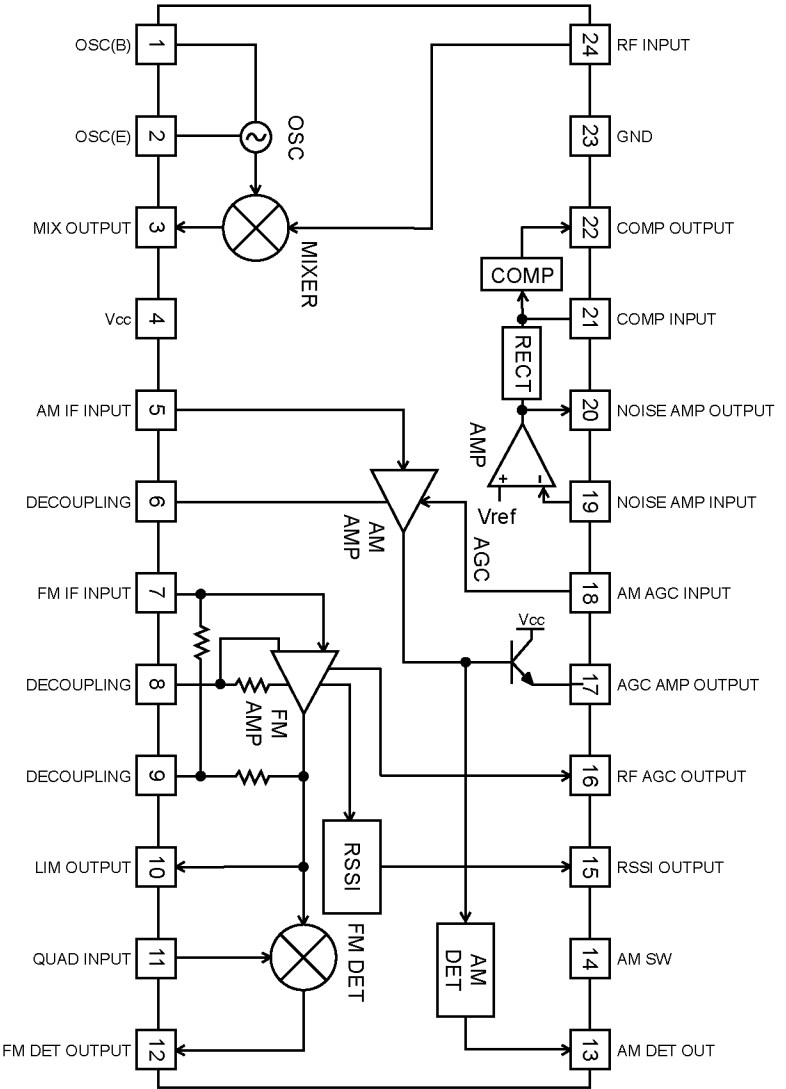
D/A converter for digital tuning

Block Diagram



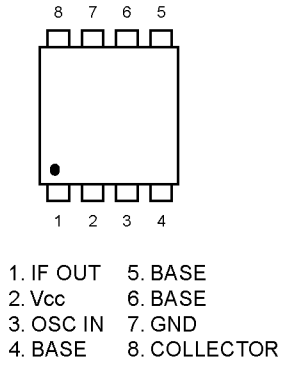
Pin No.	Name	I/O	Descriptions
14	DI	I	Serial data input terminal. Input 12 bit serial data. (Do not leave it open.)
11	DO	O	The MSB bit data of 12 bit shift register is output at the falling edge of CLK.
13	CLK	I	Shift clock input terminal. The input signal of DI terminal is input to 12 bit shift register at the rising edge of clock shift. (Do not leave it open.)
12	LD	I	When LD terminal is "High", the value of shift register is loaded in decoder and D/A output register. (Do not leave it open. Fix to "Low" when no data is transited.)
15 2 3 4 5 6 7 10	AO1 AO2 AO3 AO4 AO5 AO6 AO7 AO8	O	8 bit D/A converter output terminal with operational amplifier.
9	Vcc	-	MCU interface, power supply terminal of operational amplifier.
16	GND	-	MCU interface, ground terminal of operational amplifier.
8	VDD	-	Reference power supply (High) input terminal of D/A converter.
1	VSS	-	Reference power supply (Low) input terminal of D/A converter.

Pin Assignment / BLOCK Diagram (Top View)

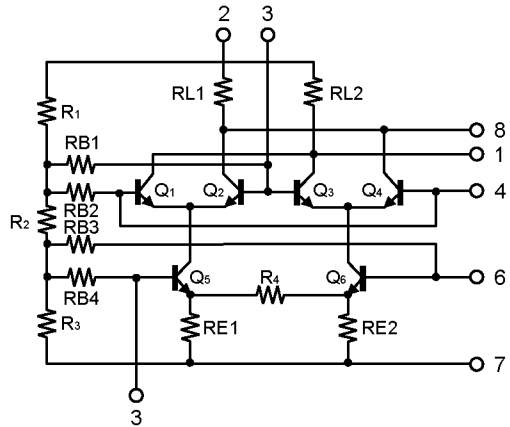


11) TA4101F TE12L (XA0667)

Pin Assignment

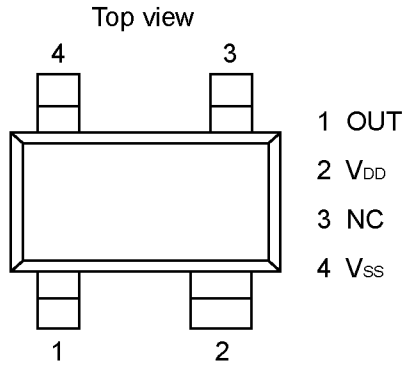


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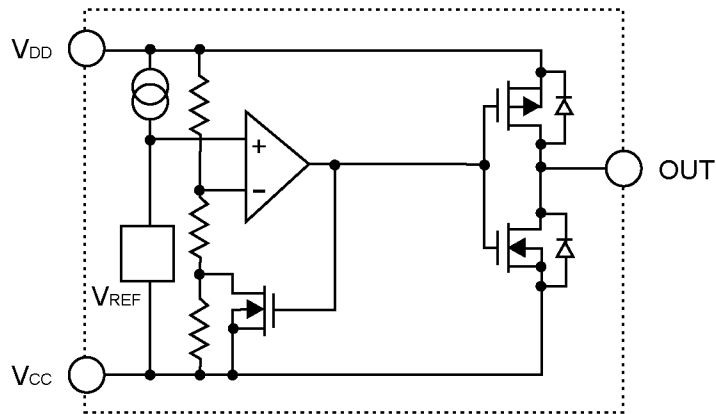


12) S-80829ALNP-EAS-T2 (XA0668)

Pin Assignment

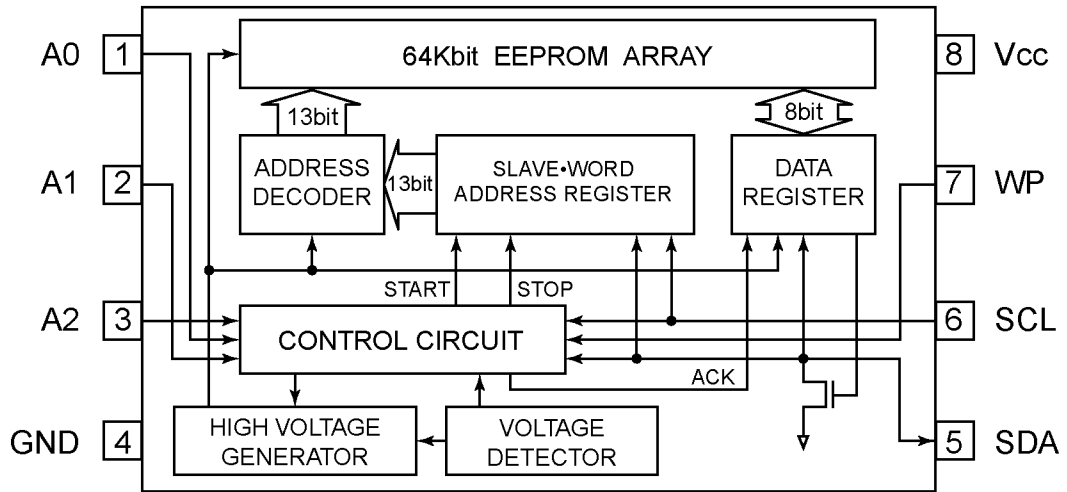


Block Diagram

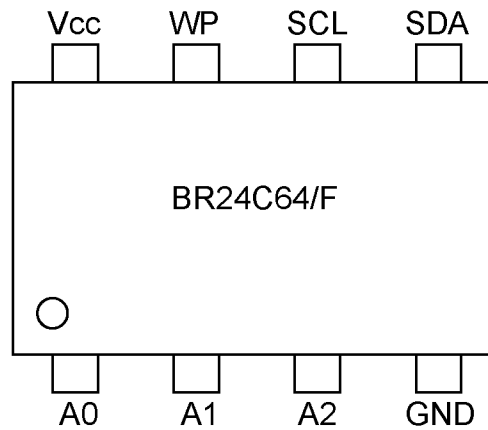


13) BR24C64F-E2 (XA0669)

Block Diagram

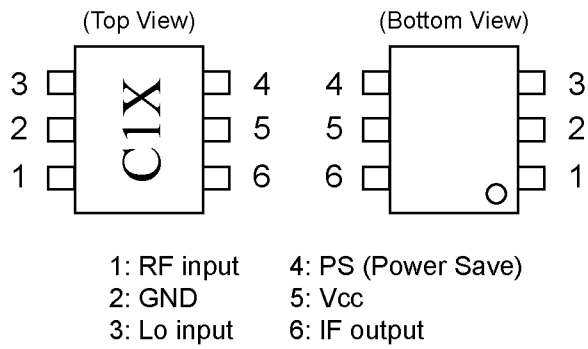


Pin Assignment

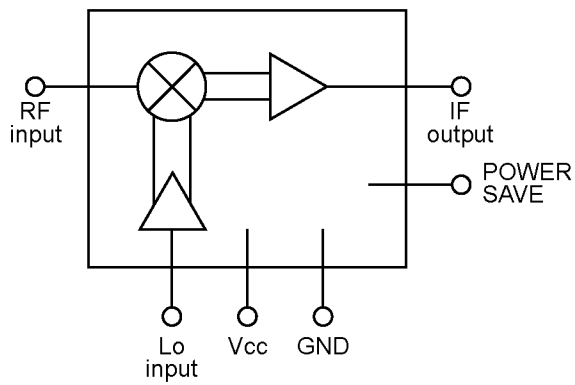


14) uPC2757T-E3 (XA0743)

Terminal Connection



Block Diagram

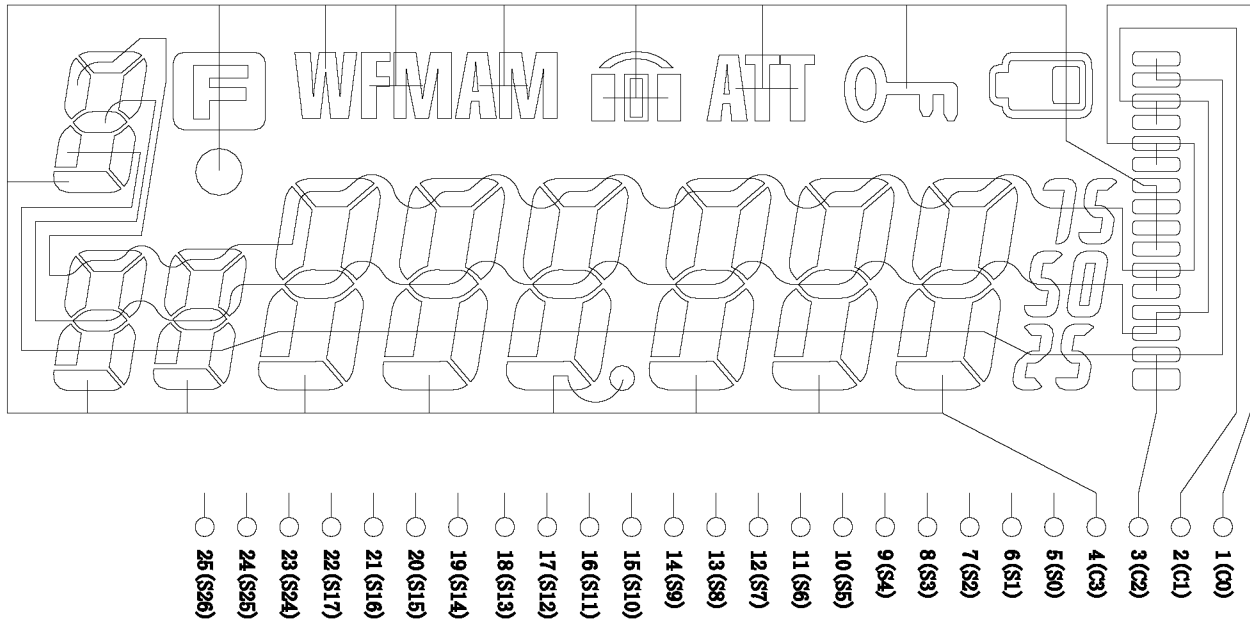


15) Transistor, Diode and LED Outline Drawings

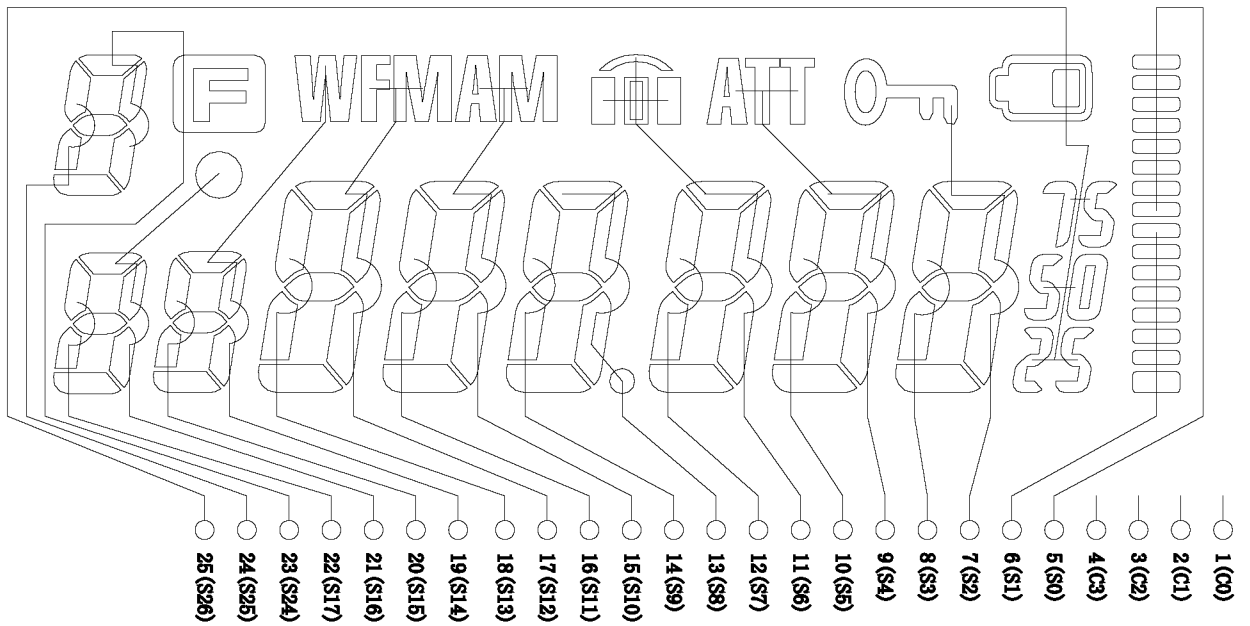
1SV308(TPH3) XD0339	DAN235E-TL XD0320	MA2S357-TX XD0337	ISS390 TE61 XD0342	MA2S30400L XD0312	MA2S728-TX XD0315	ISS362 TE85L XD0338
SML-310MTT86 XD0036	2SC4738BL(TE85R) XT0181	2SC5066FT-Y(TE85L) XT0180	2SD2216R-TX XT0135	2SJ144Y(TE85R)) XE0019	2SC5096FT-O(TE85L) XT0182	2SC4618TL XT0172
2SK881Y(TE85R) XE0036	UMC5N TR XU0152	UN911H TX XU0092	DTC143TE TL XU0196	XP1111-TX XU0171		

16) LCD connection

LCD Common

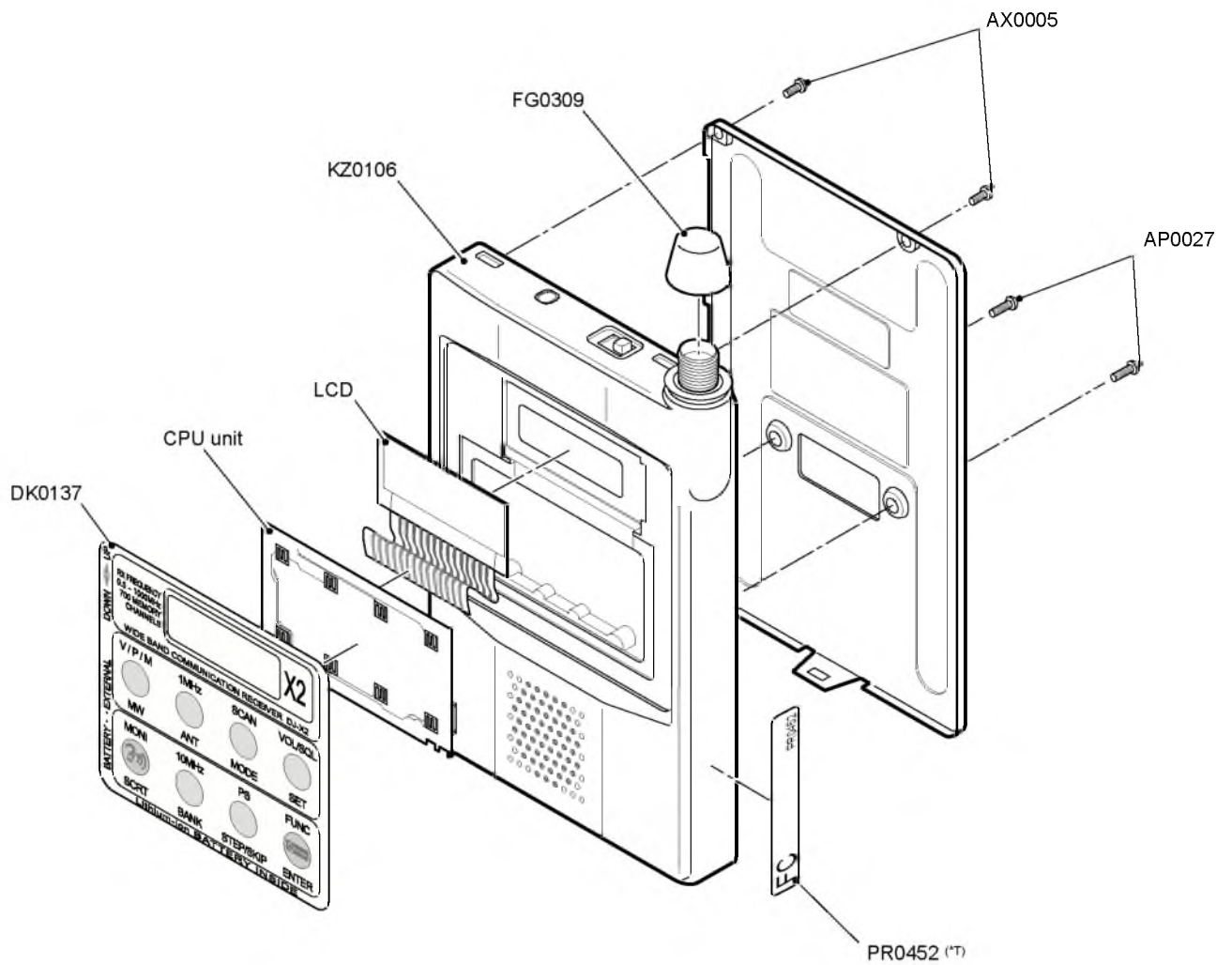


LCD Segment

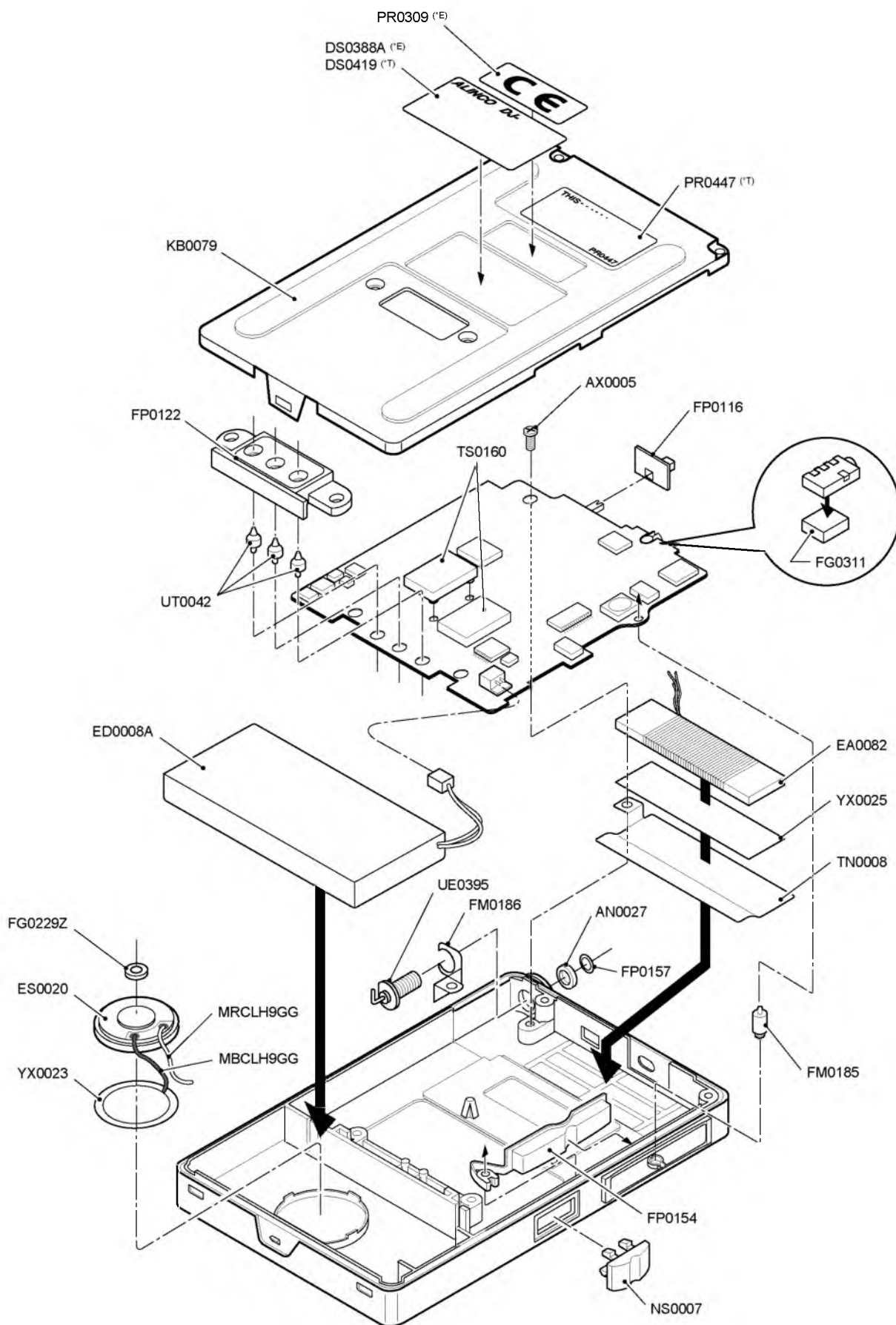


EXPLODED VIEW

1) FrontView



2) Rear View



PARTS LIST

Ref. No.	Parts No.	Description	Parts Name	X2	Ref. No.	Parts No.	Description	Parts Name	X2
CPU Unit									
	YX0004		TAPE		C118	CU3547	Chip C.	GRM36B103K16PT	
C1	CU3535	Chip C.	GRM36B102K50PT		C119	CS0396	Chip Tantal	TMCP1D104MTR	
C2	CU3111	Chip C.	C1608JB1C104KT-N		C120	CU3501	Chip C.	GRM36CK0R5C50PT	
C3	CU3111	Chip C.	C1608JB1C104KT-N		C121	CU3547	Chip C.	GRM36B103K16PT	
C300	CS0403	Chip Tantal	TMCP1D224MTR		C122	CS0408	Chip Tantal	6MCM156MATER	
C4	CU3547	Chip C.	GRM36B103K16PT		C123	CU3523	Chip C.	GRM36CH101J50PT	
C5	CU3517	Chip C.	GRM36CH330J50PT		C124	CU3535	Chip C.	GRM36B102K50PT	
C6	CU3517	Chip C.	GRM36CH330J50PT		C125	CS0397	Chip Tantal	TMCP1C105MTR	
C7	CS0398	Chip Tantal	TMCP0J225MTR		C126	CU3535	Chip C.	GRM36B102K50PT	
C8	CU3111	Chip C.	C1608JB1C104KT-N		C127	CS0396	Chip Tantal	TMCP1D104MTR	
C9	CS0398	Chip Tantal	TMCP0J225MTR		C128	CS0397	Chip Tantal	TMCP1C105MTR	
CN1	UE0403	Connector	AXK5S3024		C129	CU3535	Chip C.	GRM36B102K50PT	
D1	XD0315	Diode	MA2S728-TX		C130	CU3111	ChipC.	C1608JB1C104KT-N	
IC1	XA0729	IC	M38224M6M-142HP	E	C131	CU3111	ChipC.	C1608JB1C104KT-N	
IC1	XA0728	IC	M38224M6M-141HP	T	C132	CU3547	Chip C.	GRM36B103K16PT	
IC2	XA0356	IC	S-80730SL-AT-T1		C133	CU3547	Chip C.	GRM36B103K16PT	
IC3	XA0669	IC	BR24C64F-E2		C134	CU3111	ChipC.	C1608JB1C104KT-N	
L1	QC0507	Coil	LK16081R0K-T		C135	CS0397	ChipTantal	TMCP1C105MTR	
Q1	XU0152	Transistor	UMC5NTR		C136	CU3111	ChipC.	C1608JB1C104KT-N	
R1	RK3542	Cihp R.	ERJ2GEJ222X		C137	CU3111	ChipC.	C1608JB1C104KT-N	
R13	RK3550	Cihp R.	ERJ2GEJ103X		C138	CU3531	Chip C.	GRM36B471K50PT	
R14	RK3538	Cihp R.	ERJ2GEJ102X		C139	CU3547	Chip C.	GRM36B103K16PT	
R15	RK3559	Cihp R.	ERJ2GEJ563X		C140	CU3503	Chip C.	GRM36CK020C50PT	
R16	RK3526	Cihp R.	ERJ2GEJ101X		C141	CU3503	Chip C.	GRM36CK020C50PT	
R17	RK3562	Cihp R.	ERJ2GEJ104X		C142	CU3503	Chip C.	GRM36CK020C50PT	
R18	RK3538	Cihp R.	ERJ2GEJ102X		C143	CU3535	Chip C.	GRM36B102K50PT	
R19	RA0009	Cihp R.	EXBV8V102JV		C144	CU3535	Chip C.	GRM36B102K50PT	
R20	RK3562	Cihp R.	ERJ2GEJ104X		C145	CU3111	Chip C.	C1608JB1C104KT-N	
R21	RK3562	Cihp R.	ERJ2GEJ104X		C146	CU3505	Chip C.	GRM36CH040C50PT	
R22	RA0009	Cihp R.	EXBV8V102JV		C147	CU3523	Chip C.	GRM36CH101J50PT	
R23	RK3562	Cihp R.	ERJ2GEJ104X		C148	CU3527	Chip C.	GRM36CH221J25PT	
R24	RK3562	Cihp R.	ERJ2GEJ104X		C149	CU3527	Chip C.	GRM36CH221J25PT	
R25	RK3562	Cihp R.	ERJ2GEJ104X		C150	CU3523	Chip C.	GRM36CH101J50PT	
R26	RA0008	Cihp R.	EXBV4V102JV		C151	CU3535	Chip C.	GRM36B102K50PT	
R3	RK3558	Cihp R.	ERJ2GEJ473X		C152	CU3501	Chip C.	GRM36CK0R5C50PT	
R4	RK3558	Cihp R.	ERJ2GEJ473X		C153	CU3111	Chip C.	C1608JB1C104KT-N	
R6	RK3558	Cihp R.	ERJ2GEJ473X		C154	CU3111	Chip C.	C1608JB1C104KT-N	
R7	RK3558	Cihp R.	ERJ2GEJ473X		C155	CU3535	Chip C.	GRM36B102K50PT	
R8	RK3558	Cihp R.	ERJ2GEJ473X		C156	CU3509	Chip C.	GRM36CH080D50PT	
X1	XQ0132	Crystal	CSA309/4.1943MHz		C157	CS0411	Chip Tantal	4MCM226MATER	
MAIN Unit									
	UT0042		JYUDENTANSI XH662	3	C158	CU3527	ChipC.	GRM36CH221J25PT	
	TS0160		VCO CASE	2	C159	CS0397	Chip Tantal	TMCP1C105MTR	
C101	CU3111	Chip C.	C1608JB1C104KT-N		C160	CU3527	Chip C.	GRM36CH221J25PT	
C102	CU3111	Chip C.	C1608JB1C104KT-N		C161	CU3502	Chip C.	GRM36CK010C50PT	
C103	CU3111	Chip C.	C1608JB1C104KT-N		C162	CU3535	Chip C.	GRM36B102K50PT	
C104	CU3515	Chip C.	GRM36CH220J50PT		C163	CU3503	Chip C.	GRM36CK020C50PT	
C105	CU3535	Chip C.	GRM36B102K50PT		C164	CU3514	Chip C.	GRM36CH180J50PT	
C106	CU3111	Chip C.	C1608JB1C104KT-N		C165	CU3011	Chip C.	C1608CH1H100DT-AS	
C107	CU3506	Chip C.	GRM36CH050C50PT		C166	CU3535	Chip C.	GRM36B102K50PT	
C108	CU3535	Chip C.	GRM36B102K50PT		C167	CU3547	Chip C.	GRM36B103K16PT	
C109	CS0411	Chip Tantal	4MCM226MATER		C168	CU3111	Chip C.	C1608JB1C104KT-N	
C110	CU3535	Chip C.	GRM36B102K50PT		C169	CU3547	Chip C.	GRM36B103K16PT	
C111	CU3512	Chip C.	GRM36CH120J50PT		C170	CU3547	Chip C.	GRM36B103K16PT	
C112	CU3503	Chip C.	GRM36CK020C50PT		C171	CU3547	Chip C.	GRM36B103K16PT	
C113	CU3111	Chip C.	C1608JB1C104KT-N		C172	CU3547	Chip C.	GRM36B103K16PT	
C114	CU3547	Chip C.	GRM36B103K16PT		C173	CU3547	Chip C.	GRM36B103K16PT	
C115	CU3511	Chip C.	GRM36CH100D50PT		C174	CU3021	Chip C.	C1608CH1H680JT-AS	
C116	CU3523	Chip C.	GRM36CH101J50PT		C175	CU3021	Chip C.	C1608CH1H680JT-AS	
C117	CU3511	Chip C.	GRM36CH100D50PT		C176	CU3516	Chip C.	GRM36CH270J50PT	
					C177	CU3547	Chip C.	GRM36B103K16PT	
					C178	CU3509	Chip C.	GRM36CH080D50PT	

Ref. No.	Parts No.	Description	Parts Name	X2	Ref. No.	Parts No.	Description	Parts Name	X2
C179	CU3502	Chip C.	GRM36CK010C50PT		C241	CU3111	Chip C.	C1608JB1C104KT-N	
C180	CU3517	Chip C.	GRM36CH330J50PT		C242	CS0396	Chip Tantal	TMCP1D104MTR	
C181	CU3020	Chip C.	C1608CH1H560JT-AS		C243	CU3531	Chip C.	GRM36B471K50PT	
C182	CU3517	Chip C.	GRM36CH330J50PT		C244	CS0398	Chip Tantal	TMCP0J225MTR	
C183	CU3547	Chip C.	GRM36B103K16PT		C245	CU3511	Chip C.	GRM36CH100D50PT	
C184	CU3551	Chip C.	GRM36B223K16PT		C246	CU3535	Chip C.	GRM36B102K50PT	
C185	CU3535	Chip C.	GRM36B102K50PT		C247	CU3503	Chip C.	GRM36CK020C50PT	
C186	CU3535	Chip C.	GRM36T		C248	CU3503	Chip C.	GRM36CK020C50PT	
C187	CU3535	Chip C.	GRM36B102K50PT		C249	CU3535	Chip C.	GRM36B102K50PT	
C188	CU3523	Chip C.	GRM36CH101J50PT		C250	CU3008	Chip C.	C1608CH1H070CT-A	
C189	CU3523	Chip C.	GRM36CH101J50PT		C251	CS0397	Chip Tantal	TMCP1C105MTR	
C190	CU3111	Chip C.	C1608JB1C104KT-N		C252	CU3111	Chip C.	C1608JB1C104KT-N	
C191	CU3547	Chip C.	GRM36B103K16PT		C253	CU3514	Chip C.	GRM36CH180J50PT	
C192	CU3535	Chip C.	GRM36B102K50PT		C254	CU3517	Chip C.	GRM36CH330J50PT	
C193	CS0404	Chip Tantal	6MCM106MATER		C255	CU3515	Chip C.	GRM36CH220J50PT	
C194	CU3013	Chip C.	C1608CH1H150JT-AS		C256	CU3551	Chip C.	GRM36B223K16PT	
C196	CU3535	Chip C.	GRM36B102K50PT		C257	CS0414	Chip Tantal	6MCM476MBTER	
C197	CU3551	Chip C.	GRM36B223K16PT		C258	CU3111	Chip C.	C1608JB1C104KT-N	
C198	CU3551	Chip C.	GRM36B223K16PT		C259	CU3111	Chip C.	C1608JB1C104KT-N	
C199	CU3535	Chip C.	GRM36B102K50PT		C260	CU3535	Chip C.	GRM36B102K50PT	
C200	CU3535	Chip C.	GRM36B102K50PT		C261	CU3547	Chip C.	GRM36B103K16PT	
C201	CU3535	Chip C.	GRM36B102K50PT		C262	CU3111	Chip C.	C1608JB1C104KT-N	
C202	CU3509	Chip C.	GRM36CH080D50PT		C264	CS0411	Chip Tantal	4MCM226MATER	
C203	CU3509	Chip C.	GRM36CH080D50PT		C265	CU3111	Chip C.	C1608JB1C104KT-N	
C204	CU3518	Chip C.	GRM36CH390J50PT		C266	CU3518	Chip C.	GRM36CH390J50PT	
C205	CU3512	Chip C.	GRM36CH120J50PT		C267	CU3547	Chip C.	GRM36B103K16PT	
C206	CU3033	Chip C.	C1608JB1H681KT-AS		C268	CU3535	Chip C.	GRM36B102K50PT	
C207	CU3516	Chip C.	GRM36CH270J50PT		C269	CS0412	Chip Tantal.	16MCM156MBTER	
C208	CU3020	Chip C.	C1608CH1H560JT-AS		C270	CU3535	Chip C.	GRM36B102K50PT	
C209	CU3516	Chip C.	GRM36CH270J50PT		C271	CS0414	Chip Tantal	6MCM476MBTER	
C210	CU3547	Chip C.	GRM36B103K16PT		C272	CU3531	Chip C.	GRM36B471K50PT	
C211	CU3535	Chip C.	GRM36B102K50PT		C273	CU3531	Chip C.	GRM36B471K50PT	
C212	CU3111	Chip C.	C1608JB1C104KT-N		C274	CU3535	Chip C.	GRM36B102K50PT	
C213	CU3111	Chip C.	C1608JB1C104KT-N		C275	CU3531	Chip C.	GRM36B471K50PT	
C214	CU3111	Chip C.	C1608JB1C104KT-N		C276	CS0414	Chip Tantal	6MCM476MBTER	
C215	CU3511	Chip C.	GRM36CH100D50PT		C277	CS0413	Chip Tantal	6MCM107MCTER	
C216	CU3535	Chip C.	GRM36B102K50PT		C278	CU3535	Chip C.	GRM36B102K50PT	
C217	CU3547	Chip C.	GRM36B103K16PT		C279	CU3531	Chip C.	GRM36B471K50PT	
C218	CU3535	Chip C.	GRM36B102K50PT		C280	CU3511	Chip C.	GRM36CH100D50PT	
C219	CS0411	Chip Tantal	4MCM226MATER		C281	CU3505	Chip C.	GRM36CH040C50PT	
C220	CU3535	Chip C.	GRM36B102K50PT		C282	CU3505	Chip C.	GRM36CH040C50PT	
C221	CU3111	Chip C.	C1608JB1C104KT-N		C283	CU3007	Chip C.	C1608CH1H060CT-A	
C222	CU3019	Chip C.	C1608CH1H470JT-AS		C284	CU3547	Chip C.	GRM36B103K16PT	
C223	CU3535	Chip C.	GRM36B102K50PT		C285	CU3535	Chip C.	GRM36B102K50PT	
C224	CU3506	Chip C.	GRM36CH050C50PT		C286	CU3547	Chip C.	GRM36B103K16PT	
C225	CU3506	Chip C.	GRM36CH050C50PT		C287	CU3547	Chip C.	GRM36B103K16PT	
C226	CU3535	Chip C.	GRM36B102K50PT		C288	CU3111	Chip C.	C1608JB1C104KT-N	
C227	CS0408	Chip Tantal	6MCM156MATER		C289	CS0413	Chip Tantal	6MCM107MCTER	
C228	CU3547	Chip C.	GRM36B103K16PT		C290	CU3535	Chip C.	GRM36B102K50PT	
C229	CU3547	Chip C.	GRM36B103K16PT		C291	CU3111	Chip C.	C1608JB1C104KT-N	
C230	CU3547	Chip C.	GRM36B103K16PT		C292	CU3547	Chip C.	GRM36B103K16PT	
C231	CU3547	Chip C.	GRM36B103K16PT		C293	CU3547	Chip C.	GRM36B103K16PT	
C232	CU3111	Chip C.	C1608JB1C104KT-N		C294	CU3512	Chip C.	GRM36CH120J50PT	
C233	CS0408	Chip Tantal	6MCM156MATER		C295	CU3515	Chip C.	GRM36CH220J50PT	
C234	CU3514	Chip C.	GRM36CH180J50PT		C296	CU3021	Chip C.	C1608CH1H680JT-AS	
C235	CU3517	Chip C.	GRM36CH330J50PT		C297	CU3111	Chip C.	C1608JB1C104KT-N	
C236	CU3514	Chip C.	GRM36CH180J50PT		C298	CU3535	Chip C.	GRM36B102K50PT	
C237	CU3111	Chip C.	C1608JB1C104KT-N		C299	CU3531	Chip C.	GRM36B471K50PT	
C238	CU3531	Chip C.	GRM36B471K50PT		C301	CU3515	Chip C.	GRM36CH220J50PT	
C239	CS0408	Chip Tantal	6MCM156MATER		C302	CU3535	Chip C.	GRM36B102K50PT	
C240	CU3531	Chip C.	GRM36B471K50PT		C303	CU3518	Chip C.	GRM36CH390J50PT	

Ref. No.	Parts No.	Description	Parts Name	X2	Ref. No.	Parts No.	Description	Parts Name	X2
C304	CU3535	Chip C.	GRM36B102K50PT		L101	QC0560	Coil	LL1608-FH8N2J	
C305	CU3505	Chip C.	GRM36CH040C50PT		L102	QC0564	Coil	LL1608-FH18NJ	
C306	CU3506	Chip C.	GRM36CH050C50PT		L103	QH0007	Coil	5CDM 658AN	
C307	CU3111	Chip C.	C1608JB1C104KT-N		L105	QC0586	Coil	LQW1608A15NJ00	
C308	CU3535	Chip C.	GRM36B102K50PT		L106	QC0510	Coil	LK1608330M-T	
C309	CU3523	Chip C.	GRM36CH101J50PT		L107	QC0600	Coil	LQW1608AR22J00	
C310	CU3535	Chip C.	GRM36B102K50PT		L108	QC0600	Coil	LQW1608AR22J00	
CN101	UE0396	Connector	AXK6S30645P		L109	QC0600	Coil	LQW1608AR22J00	
CN102	UE0320	Connector	PI28B02M		L110	QC0569	Coil	LL1608-FH47NJ	
D101	XD0339	Diode	1SV308		L111	QC0506	Coil	LK1608R56K-T	
D102	XD0339	Diode	1SV308		L112	QC0570	Coil	LL1608-FH56NJ	
D103	XD0320	Diode	DAN235E-TL		L113	QC0590	Coil	LQW1608A33NJ00	
D104	XD0338	Diode	1SS362		L114	QC0633	Coil	MLF1608AR18K-T	
D105	XD0320	Diode	DAN235E-TL		L115	QC0596	Coil	LQW1608AR10J00	
D106	XD0337	Diode	MA2S357		L116	QC0596	Coil	LQW1608AR10J00	
D107	XD0320	Diode	DAN235E-TL		L117	QC0571	Coil	LL1608-FH68NJ	
D108	XD0337	Diode	MA2S357		L118	QC0600	Coil	LQW1608AR22J00	
D109	XD0339	Diode	1SV308		L119	QC0597	Coil	LQW1608AR12J00	
D110	XD0312	Diode	MA2S30400L		L120	QC0600	Coil	LQW1608AR22J00	
D111	XD0312	Diode	MA2S30400L		L121	QC0568	Coil	LL1608-FH39NJ	
D112	XD0342	Diode	1SS390		L122	QC0596	Coil	LQW1608AR10J00	
D113	XD0320	Diode	DAN235E-TL		123	QC0596	Coil	LQW1608AR10J00	
D114	XD0320	Diode	DAN235E-TL		L124	QC0507	Coil	LK16081R0K-T	
D115	XD0339	Diode	1SV308		L125	QC0566	Coil	LL1608-FH27NJ	
D116	XD0339	Diode	1SV308		L126	QC0589	Coil	LQW1608A27NJ00	
D117	XD0320	Diode	DAN235E-TL		L127	QC0586	Coil	LQW1608A15NJ00	
D118	XD0320	Diode	DAN235E-TL		L128	QC0589	Coil	LQW1608A27NJ00	
D119	XL0036	LED	SML-310MTT86		L129	QC0564	Coil	LL1608-FH18NJ	
D120	XD0339	Diode	1SV308		L130	QC0593	Coil	LQW1608A56NJ00	
D121	XD0320	Diode	DAN235E-TL		L131	QC0593	Coil	LQW1608A56NJ00	
D122	XD0339	Diode	1SV308		L132	QC0586	Coil	LQW1608A15NJ00	
D123	XD0320	Diode	DAN235E-TL		L133	QC0583	Coil	LQW1608A8N2D00	
D124	XD0339	Diode	1SV308		L134	QC0586	Coil	LQW1608A15NJ00	
D125	XD0339	Diode	1SV308		L135	QC0562	Coil	LL1608-FH12NJ	
D126	XD0339	Diode	1SV308		L136	QC0593	Coil	LQW1608A56NJ00	
D127	XD0339	Diode	1SV308		L137	QC0593	Coil	LQW1608A56NJ00	
D128	XD0342	Diode	1SS390		L138	QC0497	Coil	LQH4N102K04	
D129	XD0339	Diode	1SV308		L139	QC0497	Coil	LQH4N102K04	
D130	XD0339	Diode	1SV308		L140	QC0581	Coil	LQW1608A5N6D00	
D132	XD0339	Diode	1SV308		L141	QC0579	Coil	LQW1608A3N9D00	
D133	XD0339	Diode	1SV308		L142	QC0581	Coil	LQW1608A5N6D00	
D134	XD0339	Diode	1SV308		L143	QC0587	Coil	LQW1608A18NJ00	
D135	XD0342	Diode	1SS390		L144	QC0585	Coil	LQW1608A12NJ00	
D136	XD0342	Diode	1SS390		L145	QC0585	Coil	LQW1608A12NJ00	
D137	XD0338	Diode	1SS362		L146	QC0555	Coil	LL1608-FH3N3S	
FL101	XC0071	Filter	WF477A		L147	QC0573	Coil	LL1608-FHR10J	
FL103	XC0075	Filter	CFUCG450E		L148	QC0562	Coil	LL1608-FH12NJ	
IC101	XA0312	IC	UPD3140GS-E1		L149	QC0507	Coil	LK16081R0K-T	
IC102	XA0599	IC	MB88347LFPV-G-BND-EF		L150	QC0507	Coil	LK16081R0K-T	
IC103	XA0743	IC	uPC2757T		L151	QC0507	Coil	LK16081R0K-T	
IC104	XA0743	IC	uPC2757T		L152	QC0507	Coil	LK16081R0K-T	
IC105	XA0666	IC	TK10931V		L153	QC0506	Coil	LK1608R56K-T	
IC106	XA0348	IC	TC4W53FU(TE12)		L154	QC0560	Coil	LL1608-FH8N2J	
IC107	XA0667	IC	TA4101F		L155	QC0564	Coil	LL1608-FH18NJ	
IC108	XA0385	IC	M5222FP-600C		L156	QC0555	Coil	LL1608-FH3N3S	
IC109	XA0665	IC	TK11816MTL		L157	QC0560	Coil	LL1608-FH8N2J	
IC110	XA0210	IC	NJM2070M T1		LCD1	EL0048	LCD	LCD XH757	
IC111	XA0573	IC	NJM2904V-TE1		Q101	XT0180	Transistor	2SC5066FT-Y	
IC112	XA0519	IC	XC62SPR332MR		Q102	XU0196	Transistor	DTC143TE	
IC113	XA0668	IC	S-80829ALNP		Q103	XT0180	Transistor	2SC5066FT-Y	
JK101	UJ0044Z	Jack	HSJ1621-019011		Q104	XU0092	Transistor	UN911H-TX	

Ref. No.	Parts No.	Description	Parts Name	X2	Ref. No.	Parts No.	Description	Parts Name	X2
Q105	XT0180	Transistor	2SC5066FT-Y		R125	RK3542	CihpR.	ERJ2GEJ222X	
Q106	XU0196	Transistor	DTC143TE		R126	RK3542	CihpR.	ERJ2GEJ222X	
Q107	XT0181	Transistor	2SC4738-BL		R127	RK3526	CihpR.	ERJ2GEJ101X	
Q108	XT0181	Transistor	2SC4738-BL		R128	RK3550	CihpR.	ERJ2GEJ103X	
Q109	XT0180	Transistor	2SC5066FT-Y		R129	RK3542	CihpR.	ERJ2GEJ222X	
Q110	XT0180	Transistor	2SC5066FT-Y		R130	RK3550	CihpR.	ERJ2GEJ103X	
Q111	XT0172	Transistor	2SC4618TLP		R131	RK3540	CihpR.	ERJ2GEJ152X	
Q112	XT0181	Transistor	2SC4738-BL		R132	RK3530	CihpR.	ERJ2GEJ221X	
Q113	XU0171	Transistor	XP1111-TX		R133	RK3550	CihpR.	ERJ2GEJ103X	
Q114	XU0171	Transistor	XP1111-TX		R134	RK3542	CihpR.	ERJ2GEJ222X	
Q115	XU0171	Transistor	XP1111-TX		R135	RK3522	CihpR.	ERJ2GEJ470X	
Q116	XT0180	Transistor	2SC5066FT-Y		R136	RK3542	CihpR.	ERJ2GEJ222X	
Q117	XT0135	Transistor	2SD2216R-TX		R137	RK3538	CihpR.	ERJ2GEJ102X	
Q118	XT0180	Transistor	2SC5066FT-Y		R138	RK3546	CihpR.	ERJ2GEJ472X	
Q119	XU0092	Transistor	UN911H-TX		R139	RK3522	CihpR.	ERJ2GEJ470X	
Q120	XT0135	Transistor	2SD2216R-TX		R140	RK3522	CihpR.	ERJ2GEJ470X	
Q121	XU0092	Transistor	UN911H-TX		R141	RK3542	CihpR.	ERJ2GEJ222X	
Q122	XU0196	Transistor	DTC143TE		R142	RK3526	CihpR.	ERJ2GEJ101X	
Q123	XT0182	Transistor	2SC5096FT-O		R143	RK3562	CihpR.	ERJ2GEJ104X	
Q124	XT0135	Transistor	2SD2216R-TX		R144	RK3562	CihpR.	ERJ2GEJ104X	
Q125	XU0152	Transistor	UMC5NTR		R145	RK3570	CihpR.	ERJ2GEJ474X	
Q126	XT0182	Transistor	2SC5096FT-O		R146	RK3550	CihpR.	ERJ2GEJ103X	
Q127	XU0171	Transistor	XP1111-TX		R147	RK3530	CihpR.	ERJ2GEJ221X	
Q128	XU0171	Transistor	XP1111-TX		R148	RK3522	CihpR.	ERJ2GEJ470X	
Q129	XU0171	Transistor	XP1111-TX		R149	RK3550	CihpR.	ERJ2GEJ103X	
Q130	XU0171	Transistor	XP1111-TX		R150	RK3542	CihpR.	ERJ2GEJ222X	
Q131	XU0171	Transistor	XP1111-TX		R151	RK3032	CihpR.	MCR03EZHJ331	
Q132	XT0135	Transistor	2SD2216R-TX		R152	RK3522	CihpR.	ERJ2GEJ470X	
Q133	XT0180	Transistor	2SC5066FT-Y		R153	RK3550	CihpR.	ERJ2GEJ103X	
Q134	XT0180	Transistor	2SC5066FT-Y		R154	RK3522	CihpR.	ERJ2GEJ470X	
Q135	XT0180	Transistor	2SC5066FT-Y		R155	RK3542	CihpR.	ERJ2GEJ222X	
Q136	XU0196	Transistor	DTC143TE		R156	RK3542	CihpR.	ERJ2GEJ222X	
Q137	XU0152	Transistor	UMC5NTR		R157	RK3546	CihpR.	ERJ2GEJ472X	
Q138	XT0180	Transistor	2SC5066FT-Y		R158	RK3559	CihpR.	ERJ2GEJ563X	
Q139	XT0135	Transistor	2SD2216R-TX		R159	RK3554	CihpR.	ERJ2GEJ223X	
Q140	XE0036	FET	2SK881-Y(TE85R)		R160	RK3550	CihpR.	ERJ2GEJ103X	
Q141	XE0019	FET	2SJ144Y TE85R		R161	RK3550	Cihp R.	ERJ2GEJ103X	
R101	RK3542	Cihp R.	ERJ2GEJ222X		R162	RK3522	Cihp R.	ERJ2GEJ470X	
R102	RK3522	Cihp R.	ERJ2GEJ470X		R163	RK3566	Cihp R.	ERJ2GEJ224X	
R103	RK3542	Cihp R.	ERJ2GEJ222X		R164	RK3554	Cihp R.	ERJ2GEJ223X	
R104	RK3542	Cihp R.	ERJ2GEJ222X		R165	RK3558	Cihp R.	ERJ2GEJ473X	
R105	RK3562	Cihp R.	ERJ2GEJ104X		R166	RK3542	Cihp R.	ERJ2GEJ222X	
R106	RK3021	Cihp R.	MCR03EZHJ390		R167	RK3542	Cihp R.	ERJ2GEJ222X	
R107	RK3021	Cihp R.	MCR03EZHJ390		R168	RK3538	Cihp R.	ERJ2GEJ102X	
R108	RK3546	Cihp R.	ERJ2GEJ472X		R169	RK3538	Cihp R.	ERJ2GEJ102X	
R109	RK3522	Cihp R.	ERJ2GEJ470X		R170	RK3542	Cihp R.	ERJ2GEJ222X	
R110	RK3542	Cihp R.	ERJ2GEJ222X		R171	RK3556	Cihp R.	ERJ2GEJ333X	
R111	RK3562	Cihp R.	ERJ2GEJ104X		R172	RK3550	Cihp R.	ERJ2GEJ103X	
R112	RK3522	Cihp R.	ERJ2GEJ470X		R173	RK3071	Cihp R.	MCR03EZHJ564	
R113	RK3542	Cihp R.	ERJ2GEJ222X		R174	RK3555	Cihp R.	ERJ2GEJ273X	
R114	RK3530	Cihp R.	ERJ2GEJ221X		R175	RK3566	Cihp R.	ERJ2GEJ224X	
R115	RK3014	Cihp R.	MCR03EZHJ100		R176	RK3550	Cihp R.	ERJ2GEJ103X	
R116	RK3522	Cihp R.	ERJ2GEJ470X		R177	RK3550	Cihp R.	ERJ2GEJ103X	
R117	RK3550	Cihp R.	ERJ2GEJ103X		R178	RK3550	Cihp R.	ERJ2GEJ103X	
R118	RK3542	Cihp R.	ERJ2GEJ222X		R179	RK3546	Cihp R.	ERJ2GEJ472X	
R119	RK3542	Cihp R.	ERJ2GEJ222X		R180	RK3542	Cihp R.	ERJ2GEJ222X	
R120	RK3542	Cihp R.	ERJ2GEJ222X		R181	RK3526	Cihp R.	ERJ2GEJ101X	
R121	RK3562	Cihp R.	ERJ2GEJ104X		R182	RK3522	Cihp R.	ERJ2GEJ470X	
R122	RK3048	Cihp R.	MCR03EZHJ682		R183	RK3542	Cihp R.	ERJ2GEJ222X	
R123	RK3556	Cihp R.	ERJ2GEJ333X		R184	RK3542	Cihp R.	ERJ2GEJ222X	
R124	RK3542	Cihp R.	ERJ2GEJ222X		R185	RK3559	Cihp R.	ERJ2GEJ563X	

Ref. No.	Parts No.	Description	Parts Name	X2
R186	RK3550	Cihp R.	ERJ2GEJ103X	
R187	RK3053	Cihp R.	MCR03EZJH183	
R188	RK3538	Cihp R.	ERJ2GEJ102X	
R189	RK3554	Cihp R.	ERJ2GEJ223X	
R190	RK3554	Cihp R.	ERJ2GEJ223X	
R191	RK3528	Cihp R.	ERJ2GEJ151X	
R192	RK3554	Cihp R.	ERJ2GEJ223X	
R193	RK3542	Cihp R.	ERJ2GEJ222X	
R194	RK3570	Cihp R.	ERJ2GEJ474X	
R195	RK3554	Cihp R.	ERJ2GEJ223X	
R196	RK3542	Cihp R.	ERJ2GEJ222X	
R197	RK3550	Cihp R.	ERJ2GEJ103X	
R198	RK3546	Cihp R.	ERJ2GEJ472X	
R199	RK3550	Cihp R.	ERJ2GEJ103X	
R200	RK3522	Cihp R.	ERJ2GEJ470X	
R201	RK3558	Cihp R.	ERJ2GEJ473X	
R202	RK3562	Cihp R.	ERJ2GEJ104X	
R203	RK3542	Cihp R.	ERJ2GEJ222X	
R204	RK3559	Cihp R.	ERJ2GEJ563X	
R205	RK3559	Cihp R.	ERJ2GEJ563X	
R206	RK3559	Cihp R.	ERJ2GEJ563X	
R207	RK3574	Cihp R.	ERJ2GEJ105X	
R208	RK3034	Cihp R.	MCR03EZJH471	
R209	RK3550	Cihp R.	ERJ2GEJ103X	
R210	RK3052	Cihp R.	MCR03EZJH153	
R211	RK3014	Cihp R.	MCR03EZJH100	
R212	RK3538	Cihp R.	ERJ2GEJ102X	
R213	RK3556	Cihp R.	ERJ2GEJ333X	
R214	RK3570	Cihp R.	ERJ2GEJ474X	
R215	RK3558	Cihp R.	ERJ2GEJ473X	
R216	RK3554	Cihp R.	ERJ2GEJ223X	
R217	RK3550	Cihp R.	ERJ2GEJ103X	
R218	RK3550	Cihp R.	ERJ2GEJ103X	
R219	RK3060	Cihp R.	MCR03EZJH683	
R221	RK3550	Cihp R.	ERJ2GEJ103X	
R222	RK3542	Cihp R.	ERJ2GEJ222X	
R223	RK3052	Cihp R.	MCR03EZJH153	
R224	RK3542	Cihp R.	ERJ2GEJ222X	
R225	RK3522	Cihp R.	ERJ2GEJ470X	
R226	RK3542	Cihp R.	ERJ2GEJ222X	
R227	RK3574	Cihp R.	ERJ2GEJ105X	
R228	RK3018	Cihp R.	MCR03EZJH220	
R229	RK3556	Cihp R.	ERJ2GEJ333X	
R230	RK3550	Cihp R.	ERJ2GEJ103X	
R231	RK3566	Cihp R.	ERJ2GEJ224X	
R232	RK3568	Cihp R.	ERJ2GEJ334X	
R233	RK3562	Cihp R.	ERJ2GEJ104X	
R234	RK3556	Cihp R.	ERJ2GEJ333X	
R235	RK3568	Cihp R.	ERJ2GEJ334X	
R236	RK3546	Cihp R.	ERJ2GEJ472X	
R237	RK3546	Cihp R.	ERJ2GEJ472X	
R238	RK3522	Cihp R.	ERJ2GEJ470X	
R239	RK3568	Cihp R.	ERJ2GEJ334X	
R240	RK3550	Cihp R.	ERJ2GEJ103X	
R241	RK3562	Cihp R.	ERJ2GEJ104X	
R242	RK3550	Cihp R.	ERJ2GEJ103X	
R243	RK3542	Cihp R.	ERJ2GEJ222X	
R244	RK3550	Cihp R.	ERJ2GEJ103X	
R245	RK3538	Cihp R.	ERJ2GEJ102X	
R246	RK3562	Cihp R.	ERJ2GEJ104X	
R247	RK3526	Cihp R.	ERJ2GEJ101X	
R248	RK3554	Cihp R.	ERJ2GEJ223X	
R249	RK3542	Cihp R.	ERJ2GEJ222X	
R250	RK3546	Cihp R.	ERJ2GEJ472X	
R251	RK3542	Cihp R.	ERJ2GEJ222X	
R252	RK3558	Cihp R.	ERJ2GEJ473X	

Ref. No.	Parts No.	Description	Parts Name	X2
R253	RK3522	Cihp R.	ERJ2GEJ470X	
R254	RK3550	Cihp R.	ERJ2GEJ103X	
R255	RK3574	Cihp R.	ERJ2GEJ105X	
R256	RK3562	Cihp R.	ERJ2GEJ104X	
R257	RK3530	Cihp R.	ERJ2GEJ221X	
R258	RK3562	Cihp R.	ERJ2GEJ104X	
R259	RK3530	Cihp R.	ERJ2GEJ221X	
SW101	UU0019	Switch	SKQLLC	
SW102	UU0019	Switch	SKQLLC	
SW103	US0021	Switch	SSSS812-B-2A	
SW104	US0022	Switch	HSW1060-01-010	
TC101	CT0037	Trimmer	CTZ2S-10A-W2	
X101	XQ0123	Crystal	12.8MHz	
XF101	XF0047	Filter	38.85MHz	
	UP0405	PCB	DJX2 INTEGRATED	0.5

Mechanical Parts

Parts No.	Description	Parts Name	Ver
KB0079		Rear Case	
DK0137		Panel	
FP0116		Power switch	
FP0122		Terminal base	
ED0008A		Li-ion Battery	
ES0020		Speaker	
MRCKH9GG		Wire #28RH1-095-H1	
MBCKH9GG		Wire #28BH1-095-H1	
YX0023		SP tape P88	
FG0229Z		Mic Cushion	
AX0005		OP 1.7*5.5 Ni3	3
AP0027		P 2*8 Ni	2
FG0311		BA Cushion	
YX0025		BA tape	
EA0082		Bar Antenna	
KZ0106		Front Case Assy	
FP0154		PTT knob	
NS0007		Slide knob	
FM0185		Strut	
FM0186		Antenna earth	
UE0395		Antenna connector	
FP0157		AT connector sheet	
TN0008		Antenna shield	
AN0027		Antenna nut	

Packing Parts

Parts No.	Description	Parts Name	Ver
EDH27		Drycall Case EDH-27	
EDC76		Wall charger EDC-76Z	T
EDC77		Wall charger EDC-77Z	E
EA81		Antenna	
FG0309		Antenna Cap	
EME18		Earphone (EZ0005)	
PR0435		Quick Manual label	
PS0340		Instruction Manual	
PH0009A		Warranty	T
DS0419		Spec.sheet DJ-X2T	T
DS0388A		Spec.sheet DJ-X2E	E
PR0447		FCC Warning label	T
PR0309		CE label	E
HK0495		Item Carton DJ-X2	
HU0154		Fixture	
HM0192		Carton 10pcs	
HU0155		Fixture 10pcs	
HP0006		Protection Bag 5*90*170	
HP0016		Protection Bag 5*75*90	
PR0452		FCC homeuse label	
PT0004A		Serial No.for Carton	
PR0453		T label for Carton	T

ADJUSTMENT

1) Entering and releasing the adjustment mode

DJ-X2 adjusts various items in the adjustment mode.

1. Press FUNC key more than 1 sec. (The key is locked.)
2. Press PS, 10MHz, MONI, V/P/M, 1MHz, SCAN, VOL/SQL and MONI with the keyboard.
3. "FrEq" is indicated and the unit enters the adjustment mode.
4. Press FUNC key to settle the adjustment when finished, then go back to the normal mode.

2) Adjustment

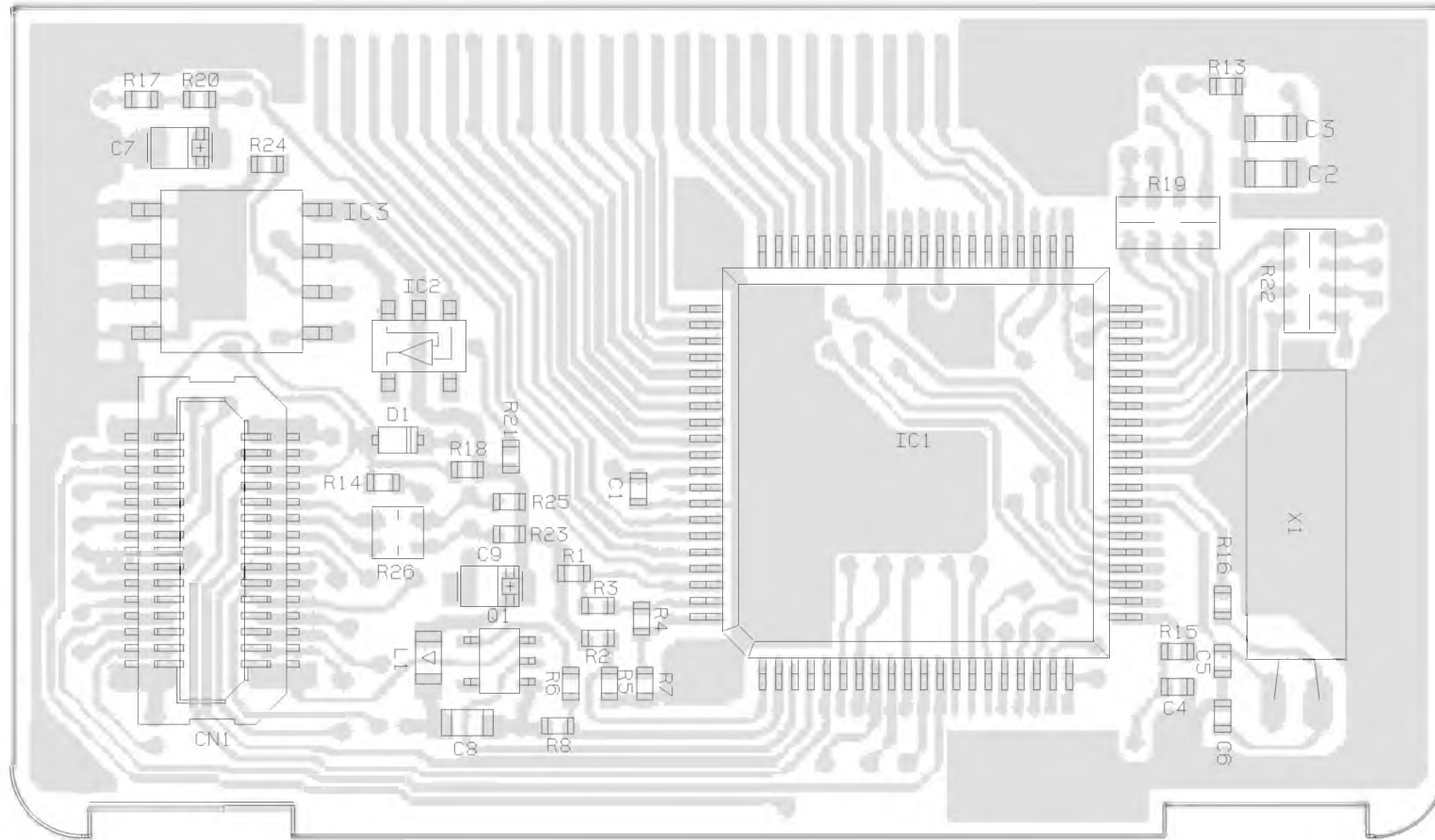
No.	Display	Items	Points
1	FrEq	Reference frequency	TC101
2	FrEq	AF output	L103
3	1 n 1	BP1 squelch level 1 setting	V/P/M key
4	1 n F	BP1 squelch level 5 setting	V/P/M key
5	2 n 1	BP2 squelch level 1 setting	V/P/M key
6	2 n F	BP2 squelch level 5 setting	V/P/M key
7	3 n 1	BP3 squelch level 1 setting	V/P/M key
8	3 n F	BP3 squelch level 5 setting	V/P/M key
9	4 n 1	BP4 squelch level 1 setting	V/P/M key
10	4 n F	BP4 squelch level 5 setting	V/P/M key
11	5 n 1	BP5 squelch level 1 setting	V/P/M key
12	5 n F	BP5 squelch level 5 setting	V/P/M key
13	6 n 1	BP6 squelch level 1 setting	V/P/M key
14	6 n F	BP6 squelch level 5 setting	V/P/M key
15	3 S 1	BP3 S-meter level 1 setting	V/P/M key
16	3 S F	BP3 S-meter level 5 setting	V/P/M key
17	n 1	WFM squelch level 1 setting	V/P/M key
18	n F	WFM squelch level 5 setting	V/P/M key
19	S 1	WFM S-meter level 1 setting	V/P/M key
20	S F	WFM S-meter level 5 setting	V/P/M key

The display can be changed using UP/DOWN key.

NO	Item	Condition	Adjustment			Spec		
			Disp	Part	Method			
1	Reference frequency	f=142.60	FrEq	TC101	f=391.05	391.05MHz ±100Hz		
2	AF output	f=142.60 Output:30dBμ Mod:1kHz Dev:3.5kHz	FrEq	L103	AF level max			
3	Squelch	f=14.1MHz Output:-11dBμ Mod:1kHz Dev:3.5kHz	1 n 1	V/P/M key	Press FUNC key to finish. A beep sounds			
4		f=14.1MHz Output:-5dBμ Mod:1kHz Dev:3.5kHz	1 n F					
5		f=109.15MHz Output:-8dBμ Mod:1kHz Dev:3.5kHz	2 n 1					
6		f=109.15MHz Output:-2dBμ Mod:1kHz Dev:3.5kHz	2 n F					
7		f=145.13MHz Output:-11dBμ Mod:1kHz Dev:3.5kHz	3 n 1					
8		f=145.13MHz Output:-5dBμ Mod:1kHz Dev:3.5kHz	3 n F					
9		f=290.15MHz Output:-10dBμ Mod:1kHz Dev:3.5kHz	4 n 1					
10		f=290.15MHz Output:-5dBμ Mod:1kHz Dev:3.5kHz	4 n F					
11		f=435.13MHz Output:-9dBμ Mod:1kHz Dev:3.5kHz	5 n 1					
12		f=435.13MHz Output:-3dBμ Mod:1kHz Dev:3.5kHz	5 n F					
13		f=797.10MHz Output:-6dBμ Mod:1kHz Dev:3.5kHz	6 n 1					
14		f=797.10MHz Output:0dBμ Mod:1kHz Dev:3.5kHz	6 n F					
15		S meter	f=145.13MHz Output:-5dBμ Mod:1kHz Dev:3.5kHz			3 S 1		
16			f=145.13MHz Output:15dBμ Mod:1kHz Dev:3.5kHz			3 S 5		
17	Squelch (WFM)	f=90.50MHz Output:7dBμ Mod:1kHz Dev:22.5kHz	n 1					
18		f=90.50MHz Output:16dBμ Mod:1kHz Dev:22.5kHz	n 5					
19	S meter (WFM)	f=90.50MHz Output:12dBμ Mod:1kHz Dev:22.5kHz	S 1					
20		f=90.50MHz Output:19dBμ Mod:1kHz Dev:22.5kHz	S F					

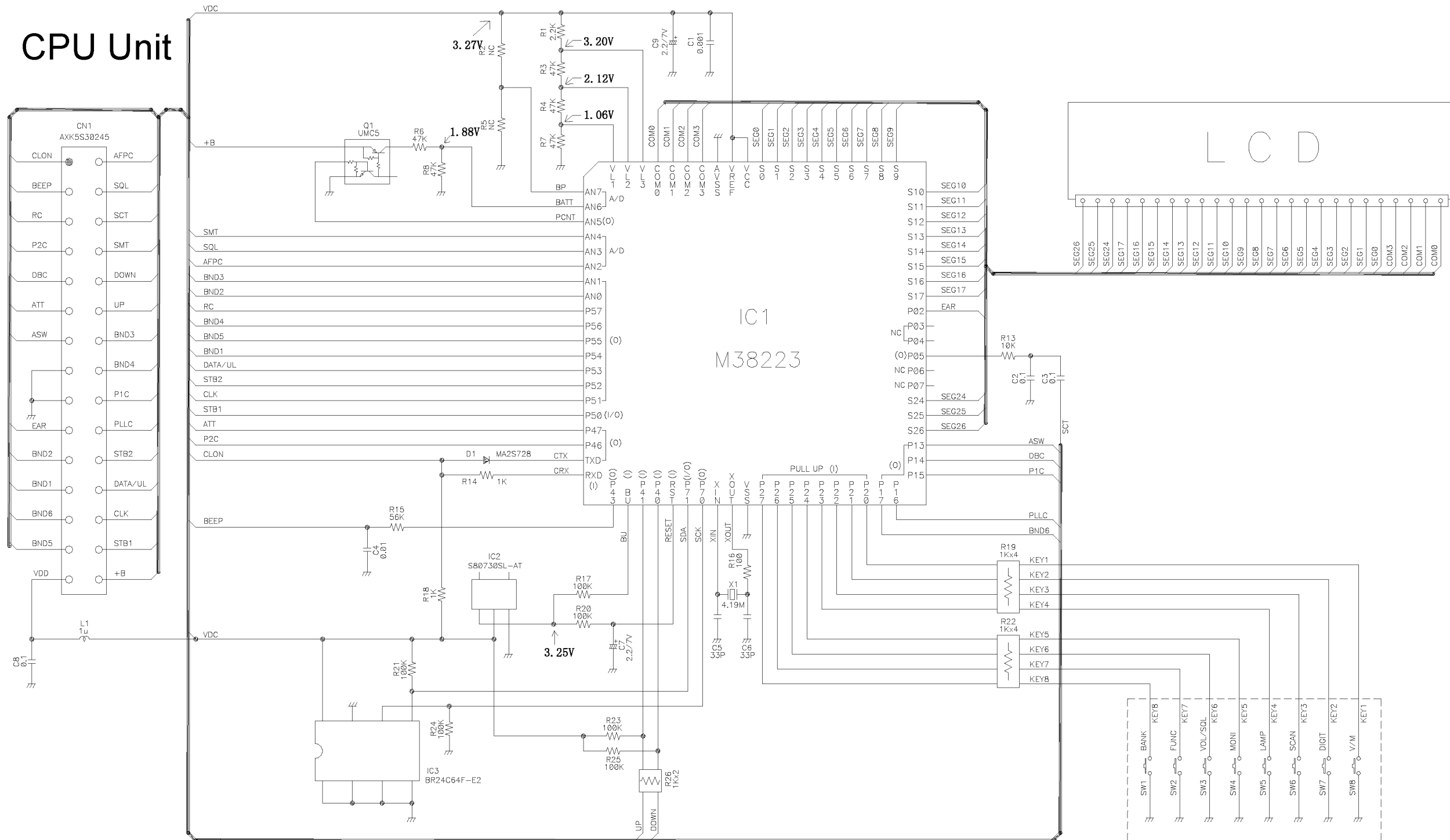
PC BOARD VIEW

1) CPU Unit Side A



SCHMATIC DIAGRAM

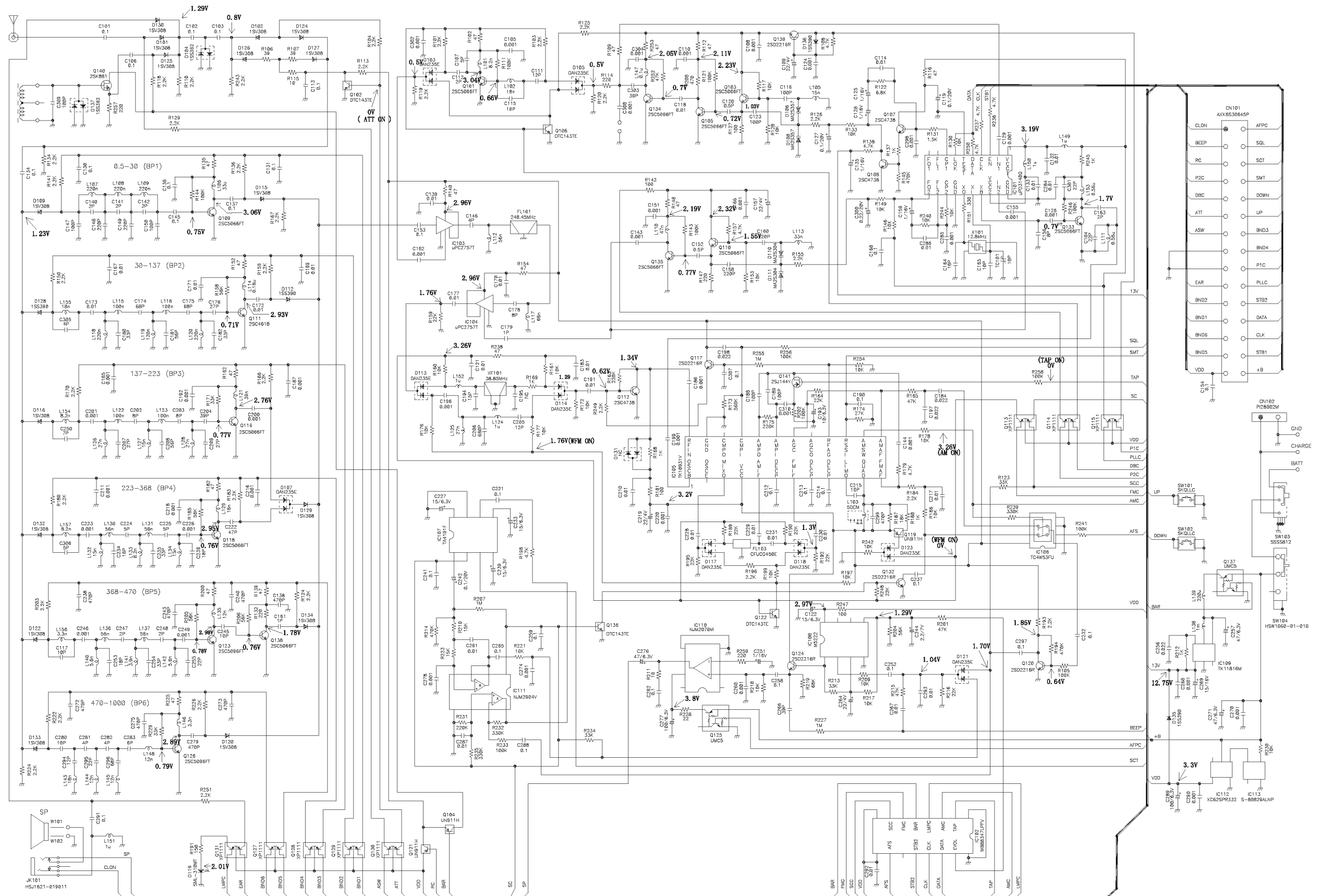
1) CPU Unit



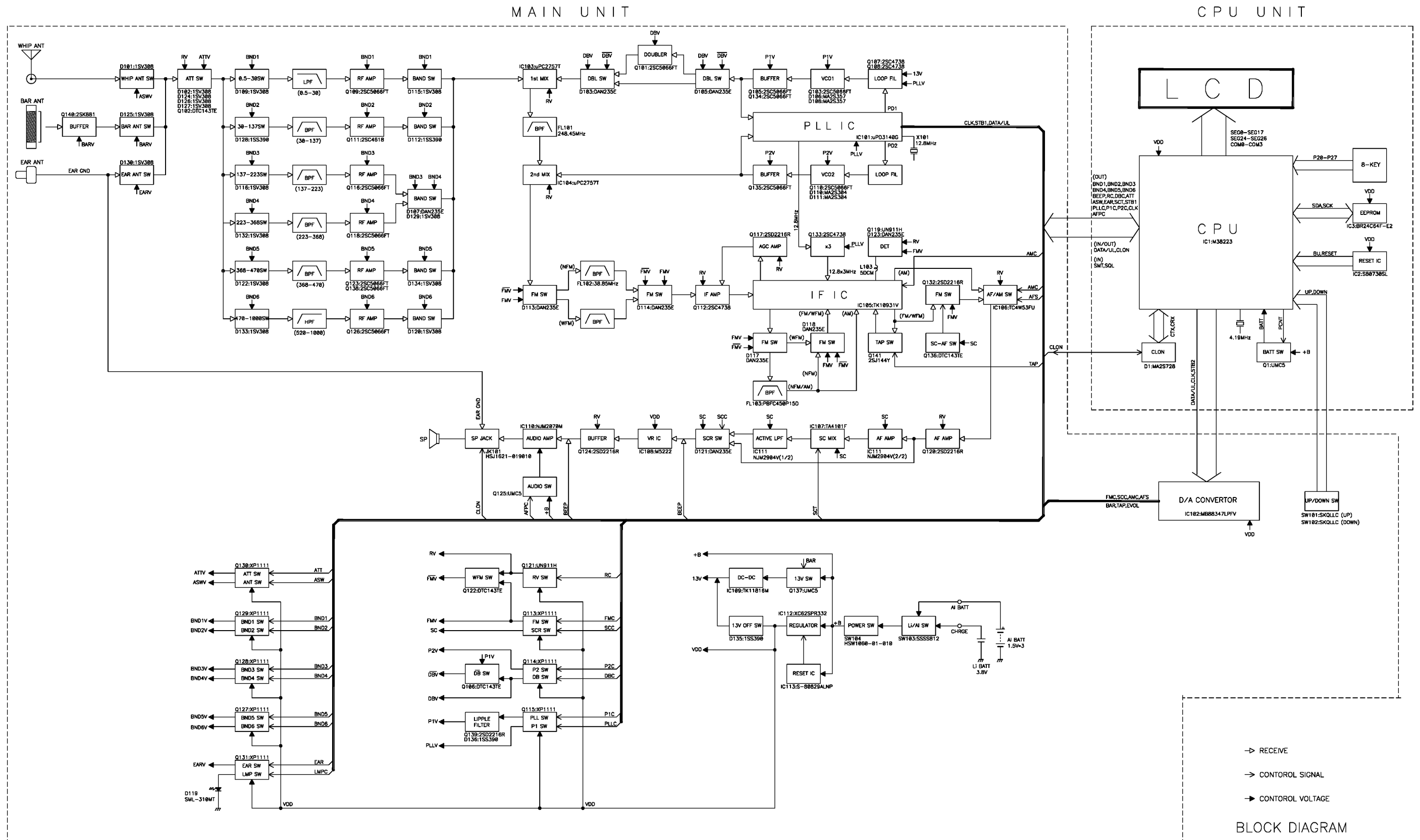
	IC1
X2, X2E	M38224M6M-141HP
X2T	M38224M6M-142HP

2) MAIN Unit

MAIN Unit



BLOCK DIAGRAM



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