

DJ – G7/ T / E

Service Manual

CONTENTS

SPECIFICATIONS

General.....	2
Transmitter	2
Receiver	3

CIRCUIT DESCRIPTION

1) Reception	4-7
2) Transmission	7
3) CPU Peripheral	7
4) CPU.....	8-11

SEMICONDUCTOR DATA

1) BU2152FS (XA0210)	12
2) NJM2070M (XA1352).....	13
3) TA31136FN (XA0404).....	13
4) TK10931V (XA0666).....	13
5) M62364FP (XA1293)	14
6) TC3W53FU (XA0341)	14
7) MB15F07SL (XA1033).....	15
8) uPC2771TB (XA0953)	15
9) uPC2757TB (XA0976)	15
10) AT24C1024B (XA1351)	15
11) BU4830FVE (XA1009)	16
12) S-812C32AMC (XA1353).....	16
13) LM2681 (XA1354).....	16
14) NJM2125F (XA0622)	17
15) TC75S51FU (XA1014).....	17
16) LM12904PWR (XA1155).....	17
17) NJM2746RB1 (XA1356).....	17
18) BA2902FV (XA1371).....	18
19) MM1332EF (XA1139)	18
20) Transistor, Diode and LED Outline Drawings.....	19
21) LCD Connection (EL0063)	20

EXPLODED VIEW

1) Front View	21,22
2) Rear View.....	23,24
3) Bottom View	25

PARTS LIST

CPU Unit	26-29
MAIN Unit	30-37
VCO Unit	38
Mechanical Parts.....	39
LED Unit	39
JACK Unit.....	39
RE1 Unit	39
RE2 Unit	39

ADJUSTMENT

Adjustment Mode	40-46
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PC BOARD VIEW

CPU Unit Side A	47
CPU Unit Side B.....	48
MAIN Unit Side A	49
MAIN Unit Side B	50
VCO Unit	51
JACK Unit.....	52
LED Unit	52
RE Unit	53

SCHEMATIC DIAGRAM..... 54-56

BLOCK DIAGRAM..... 57

SPECIFICATIONS

General

Type		DJ-G7E	DJ-G7T	
TX Frequency Range	Main Band	144MHz Band	144.000~145.995MHz	144.000~147.995MHz
		430MHz Band	430.000~439.995MHz	430.000~449.995MHz
		1200MHz Band	1240.000~1299.995MHz	1240.000~1299.995MHz
RX Frequency Range	Main Band	144MHz Band	144.000~145.995MHz	144.000~147.995MHz
		430MHz Band	430.000~439.995MHz	430.000~449.995MHz
		1200MHz Band	1240.000~1299.995MHz	1240.000~1299.995MHz
	Sub Band	AM Radio	0.522~1.620MHz	0.530~1.710MHz
		FM Radio	87.6~107.9MHz	
		TV	53.75~67.75MHz 180.75~229.75MHz 476.75~860.75MHz	
		144MHz Band	144.000~145.995MHz	
		430MHz Band	430.000~439.995MHz	
		1200MHz Band	1240.000~1299.995MHz	
				1.715~823.9875MHz 850.000~868.990MHz 895.000~1299.995MHz
Modulation type		F1D, F2D, F3E		
Antenna impedance		50Ω unbalanced SMA port		
Operating Temperature		-10°C~60°C (+14°F~+140°F)		
Operating battery voltage		External terminal DC4.5~16V		
Current (DC13.8V)	Transmit	144MHz Band	1.7A Approx	
		430MHz Band	2.0A Approx	
		1200MHz Band	0.8A Approx	
	Receive	Dual Band	200mA Approx	
		Mono Band	150mA Approx	
Frequency Stability		±2.5ppm		
Dimensions (Projection excusive)		61(W)x106(H)x38(D)		
Weight		Approx 296g(EBP-73 and EA163 inclusive)		

Transmitter

Type		DJ-G7E	DJ-G7T
Power Output (DC13.8V)	144MHz Band	5/2/1/0.3W Approx	
	430MHz Band	5/2/1/0.3W Approx	
	1200MHz Band	1/0.3W Approx	
Modulation		Variable Reactance	
Maximum Deviation		±5kHz	
Spurious emission		-60dB or less	
Microphone Impedance		Approx 2ohm	

Receiver

Type			DJ-G7E	DJ-G7T
System			Double-conversion super heterodyne (NFM, AM) Single-conversion super heterodyne (WFM)	
Intermediate Frequency	Main Band	1st	IF 51.65MHz	
		2nd	IF 450kHz	
	Sub Band	1st	IF 50.75MHz (FM/AM)	
		2nd	IF 10.7MHz (WFM)	
Sensitivity	Main Band (12dB SINAD)	144~146MHz(FM)	-15dBu or less	
		430~440MHz(FM)	-15dBu or less	
		1240~1300MHz(FM)	-13dBu or less	
	Sub Band AM (10dB S/N)	Lower than 50MHz (AM)	-1dBu or less	
		50MHz and above (AM)	-6dbu or less	
	FM (12dB SINAD)	30~470MHz (FM)	-15dBu or less	
		470MHz and above (FM)	-3dBu or less	
		76~470MHz 470MHz and above	-6dBu or less -3dBu or less	
Selectivity		AM/FM	-6dB 12kHz or more / -60dB 35kHz or less	
		WFM	-6dB 130kHz or more / -60dB 300kHz or less	
Audio Output Power			400mW or over (10% Distortion factor 8 ohm)	
Spurious Response			60dB or over	

! NOTE: All specifications are subject to change without notice or obligation.

CIRCUIT DESCRIPTION

1) Reception

1. RX Method	AM/FM:	Double Super Heterodyne Method
	WFM	Single Super Heterodyne Method
	1st IF: FM	AM/FM Main band 51.65 MHz
		Sub band 50.75MHz
		10.7MHz
2nd IF AM/FM:	AM/FM 450 kHz	

2. Front End

2-1) 136 ~ 173.995MHz (MAIN) The receiving signal is passed through the band-pass filter (C405, C406, C407, C416, C530, L260), and amplified in RF amplifier (Q234). The amplified signal is led to band pass filter (C396, C397, C404, C411, C412, L255, L256), then input to the mixer IC204.

2-2) 400 ~ 473.995MHz (MAIN) The receiving signal is passed through the band-pass filter (C444, C446, C453, C437, L272, L273), and amplified in 1st RF amplifier (Q240). The amplified signal is led to band pass filter (C438, C439, C442, C448, C449, L269, L270) and amplified in RF second amplifier (Q241). The amplified signal is led to band pass filter (C440, C441, L271), and then input to the mixer IC204.

2-3) 1240 ~ 1300MHz (MAIN) The receiving signal is passed through the band-pass filter (C497, C498, C499, L254, L282, L283, L284), and amplified in 1st RF amplifier (Q250). The amplified signal is led to band pass filter (C486, C487, C488, C501, C504, L280, L281, L291, L293) and amplified in 2nd RF amplifier (Q258). The amplified signal is led to band pass filter (C524, C525, C526, L292), and then input to the mixer IC204.

2-4) 0.522 ~ 49.995MHz (SUB) The receiving signal is passed through the low-pass filter (C333, C334, C349, C350, L242, L243, L244), and amplified in RF amplifier (Q217). The amplified signal is led to input to the mixer IC206.

2-5) 50 ~ 135.995MHz (SUB) The receiving signal is passed through the band-pass filter (C378, C379, C380, C385, C518, L249, L252), and amplified in RF amplifier (Q224). The amplified signal is led to band pass filter (C374, C375, C376, C381, C382, C387, C388, C389, L247, L248), then input to the mixer IC206.

2-6) 136 ~ 299.995MHz (SUB) The receiving signal is passed through the band-pass filter (C378, C405, C406, C407, C415, C416, L530, L246, L260), and amplified in RF amplifier (Q234). The amplified signal is led to band pass filter (C418, C419, C420, C421, C429, C430, C432, C433, C434, C435, C436, L264, L265), then input to the mixer IC206.

2-7) 300 ~ 679.995MHz (SUB) The receiving signal is passed through the band-pass filter (C444, C446, C453, C437, L268, L272, L273), and amplified in RF 1st amplifier (Q240). The amplified signal is led to band pass filter (C465, C466, C467, C471, L276, L277, L278) and amplified in 2nd RF amplifier (Q245). The amplified signal is led to band pass filter (C461, C462, L275), and then input to the mixer IC206.

**2-8) 680 ~ 1300MHz
(SUB)**

The receiving signal is passed through the band-pass filter (C497, C498, C499, L254, L282, L283, L284), and amplified in RF 1st amplifier (Q250).
The amplified signal is led to band pass filter (C508, C509, C510, L287, L288), and amplified in RF second amplifier (Q256).
The amplified signal is led to band pass filter (C511, C512, C513, L286, L290), and then input to the mixer IC206.

3.ATT

This circuit is used in case the receiving signal is disturbed by interfering signal, attenuating the receiving signal to reduce the interference. CPU (IC3) pin 30, 31 and 32 outputs a DC voltage to drive IC14, then ATTV on MAIN unit controlling D207, D236 and D242. The serial resistor with diodes adjusted the attenuation value.

4 Mixer

**4-1) Main Mixer
(FM/NFM)**

The input signal to the mixer IC204 and the 1st local signal are added or, then it is amplified at the 1st IF amplifier Q216 after the adjacent signal subtracted at mixer IC204, and the crystal filter XF201 selects the signal of 51.65MHz is eliminated.

**4-2) Sub Mixer
(AM/FM)**

The input signal to the mixer IC206 and the 1st local signal are added or, then it is amplified at the 1st IF amplifier Q225 after the adjacent signal subtracted at mixer IC206, and the crystal filter XF202 selects the signal of 50.75MHz is eliminated.

**4-2) Sub Mixer
(WFM)**

The input signal to the mixer IC206 and the 1st local signal are added or, then it is amplified at the 1st IF amplifier Q235 after the adjacent signal subtracted at mixer IC206, and the crystal filter FL202 selects the signal of 10.7MHz is eliminated.

5. IF

5-1) Main IF

The signal amplified at the 1st IF amplifier Q216 is supplied to pin 16 of IC205 for demodulation. Also the signal of 12.8MHz pass through Q213 and Q214 and 51.2MHz (12.8MHz X 4) led to pin 1 of IC205.
2 input signals on pin 16 and 1, are mixed in the mixer circuit inside IC205 and converted into the 2nd IF signal of 450kHz. The converted 2nd IF signal is output from pin 3 of IC205.
The output signal from pin 3 of IC205 is led to pin 5 of IC205 after eliminating the adjacent channel signal at the ceramic filter FL201. The input 2nd IF signal to pin 5 of IC205 is demodulated at the limiter amplifier and quartered detector circuits inside of IC205, then output from pin 9 of IC205 as an AF signal.

5-2) Sub IF

The signal amplified at the 1st IF amplifier Q225 is supplied to pin 24 of IC208 for demodulation. Also the signal of 12.8MHz pass through Q213 and Q214 and 51.2MHz (12.8MHz X 4) led to pin 1 of IC208.
2 input signals are mixed in the mixer circuit inside IC208 and converted into the 2nd IF signal of 450kHz. The converted 2nd IF signal is output from pin 3 of IC208.

**5-3) Sub IF
(AM)**

The output signal from pin 3 of IC208 is led to pin 5 of IC208 after eliminating the adjacent channel signal at the ceramic filter FL203. The input 2nd IF signal to pin 5 of IC208 is demodulated at the limiter amplifier and quartered detector circuits inside of IC208, then output from pin 13 of IC208 as AMAF signal.

5-4) Sub IF (FM)

The output signal from pin 3 of IC208 is led to pin 7 of IC208 after eliminating the adjacent channel signal at the ceramic filter FL204. The input 2nd IF signal to pin 5 of IC208 is demodulated at the limiter amplifier and quartered detector circuits inside of IC208, then output from pin 12 of IC208 as FMAF signal.

6-1) Main Squelch

The AF signal got from pin 9 of IC205 is fed to pin 8 of IC205. The input signal is output from pin 14 of IC205 passing through the noise filter amplifier and rectifier circuits inside of IC205. The rectified signal (MSQL) is added to the A/D (Pin108) port of the microcomputer IC3. Judging the signal, the microcomputer controls ON/OFF of the audio output (Pin68).

6-2) Sub Squelch

The AF signal got from pin 12 of IC208 is fed to pin 19 of IC208. The input signal is output from pin 21 of IC208 passing through the noise filter amplifier and rectifier circuits inside of IC208. The rectified signal is added to the A/D port of the microcomputer IC3. Judging the signal, the microcomputer controls ON/OFF of the audio output.

7. Audio

The all AF signals are attracted to the IC10 on the CPU unit. The volume of output audio signal is adjusted at the volume IC10 and the AF amplifier Q7. And then the signal is input to pin 2 of audio power amplifier IC5 to output pass through the audio SW Q12 from pin 6 to drive a speaker, etc.

8-1) Main VCO

The Main VCO on oscillating frequency buffer amplifier Q602, oscillated signal is supplied to pin 4 of PLL-IC202 passing through the buffer amplifier Q201.

The VCO in VHF band consists of the Colpitts oscillator. D601, D602, D603 and L601 determine the oscillating frequency, and the signal is oscillated at the transistor Q601.

The VCO in UHF band consists of the Colpitts oscillator. D604, D605, D606 and L602 determine the oscillating frequency, and the signal is oscillated at the transistor Q603.

The VCO in 1200MHz band consists of the Colpitts oscillator. D607, D608, D609 and L603 determine the oscillating frequency, and the signal is oscillated at the transistor Q604.

8-2) Sub VCO

The Sub VCO on oscillating frequency buffer amplifier Q702, oscillated signal is supplied to pin 13 of PLL-IC202.

The VCO in 50MHz band consists of the Colpitts oscillator. D701, D703, and L701, L702 determine the oscillating frequency, and the signal is oscillated at the transistor Q701, The frequency shifts to VCO when Q703 is turned ON.

The VCO in VHF band consists of the Colpitts oscillator. D704, D706 and L703, L704 determine the oscillating frequency, and the signal is oscillated at the transistor Q704, The frequency shifts to VCO when Q705 is turned ON.

The VCO in UHF band consists of the Colpitts oscillator. D707, D709 and L705 determine the oscillating frequency, and the signal is oscillated at the transistor Q706.

9. PLL

PLL-IC202 is used to control the oscillating frequency of the VCO.

IC202 is controlled by the serial control signal (DATA, CLK, STB1) sent from the microprocessor IC3. The 12.8MHz reference frequency of IC202, supplied from crystal oscillator X201.

IC202 compares the frequency gained by dividing the signal added to pin 16 of IC3 by the control signal from IC3 with the frequency gained by dividing the reference frequency 12.8MHz. When the phase difference is found as a result of phase comparison, the pulse signal is output from the charge pump output of pin 8 (Main band) and pin 9 (Sub band) of IC202, then the signal is converted into the DC voltage at the passive filter and added to the cathode side of the VCO vari-cap D601, D603, D604, D606, D607, D609, D701, D703, D704, D706, D707 and D709 to make the phases equal. In result the stabilized oscillation can be done at the desired frequency.

2) Transmission

1. Microphone Amplifier

The audio signal is converted to a mute switch (Q20) and microphone gain (Q24) Electric signal in either the internal or external microphone pass through and two operational amplifiers, then supplied to IC10.

The voice is converted into the electric signal through the microphone, and then supplied to IC10.

The input signal is amplified and pre-emphasized to be output.

The signal output from microphone amplifier is adjusted the maximum frequency deviation at IC10. The adjusted signal is added to the cathode of the VCO vari-cap D602 and D605 for deviation to change the capacity of the oscillation circuit resulting the FM deviation.

2. Power Amplifier

The VCO in VHF or UHF band oscillated signal of the VCO is supplied to the power amplifier Q202, passing through buffer amplifier Q602 on VCO unit and then pre-driver amplifier IC201, driver amplifier Q203. The power-amplified signal is supplied to the antenna through the duplexer after the harmonics are attenuated enough.

The VCO in 1200MHx band oscillated signal of the VCO is supplied to the power amplifier Q210, passing through buffer amplifier Q602 on VCO unit then pre-driver amplifier IC201, driver amplifier Q212. The power-amplified signal is supplied to the antenna through the duplexer after the harmonics are attenuated enough.

3) CPU Peripheral

1.Lamp

The CPU pin 117, 118 and 119 outputs a DC voltage to drive IC6, controls.

The brightness of the lamp can be adjusted by five stages lamp lights when operating

Lamp (D4, D5, D6, D7, D8, D9, D801, D802) lights when ten keys are operated. The lamp outputs by five stages and adjusts the DC current with CPU pin 117, 118 and 119 to IC6.

2.Tone/DCS/DTMF Encoder

The CPU pin 7 is equipped with an internal tone/DCS/DTMF encoder.

The tone signal (67.0 to 250.3Hz) is output.

The DCS code (023 to 754) is output.

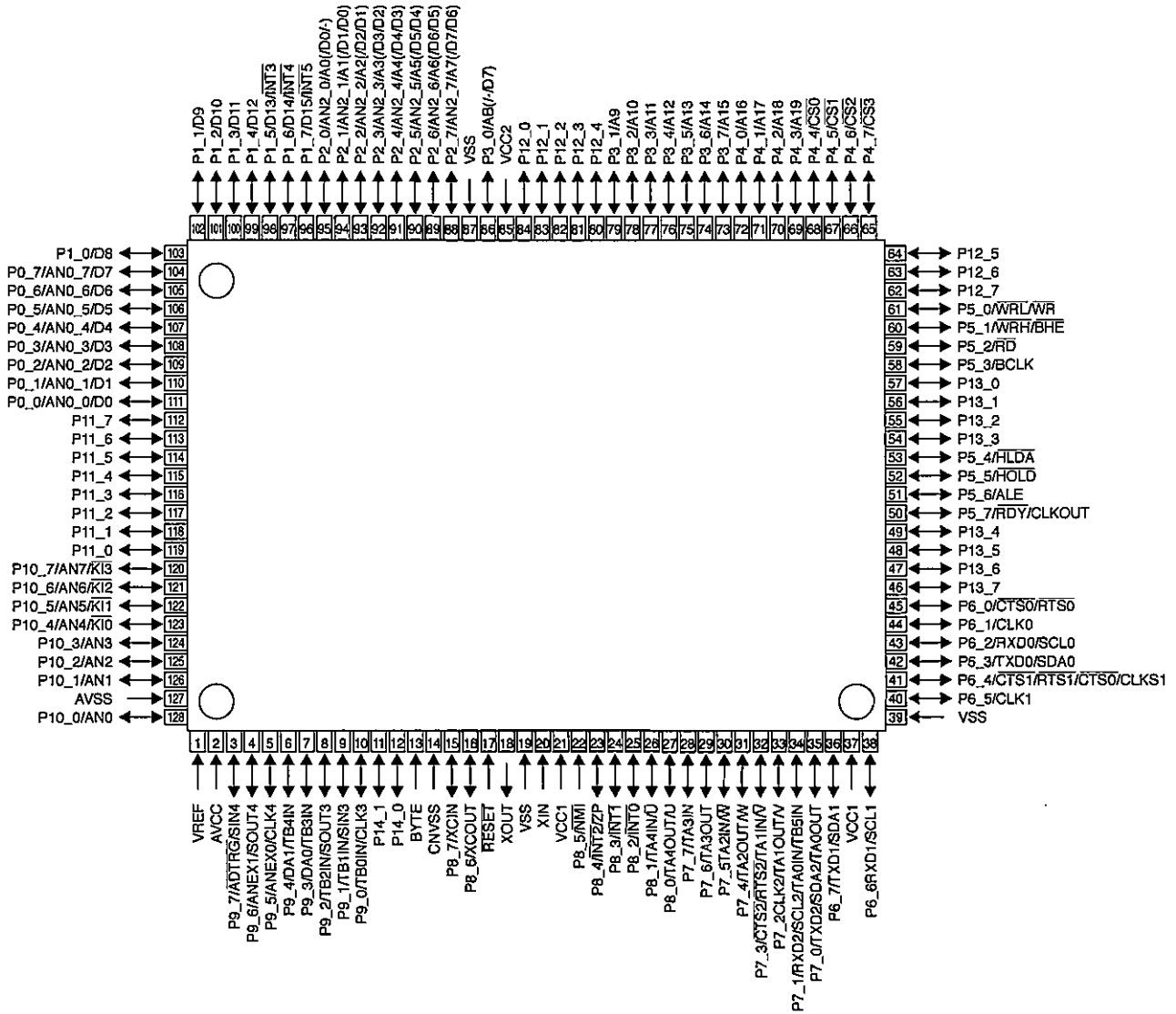
The DTMF code (1 to D) is output.

3. Tone/DCS Decoder

The AF signal from the IC205 or IC208 is filtered by an active filter (IC2) signal amplified and input to pin 121 of the CPU

4) CPU M30625FG (XA1387 / XA1388)

Terminal Connection
(TOP VIEW)



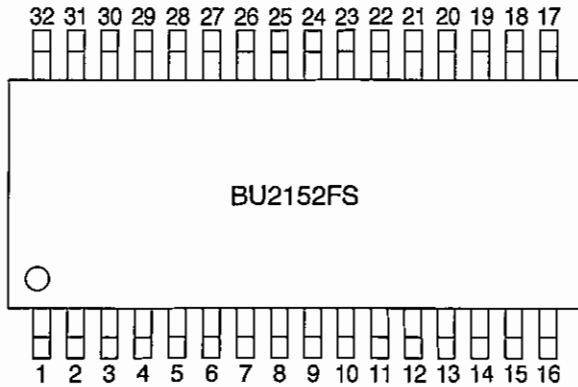
No.	Terminal	Signal	I/O	Description
1	VREF	VDD2	-	Power supply
2	AVCC	VDD2	-	Power supply
3	P9_7	DCSW	O	DCS mute SW
4	P9_6	MUTE	O	Mute
5	P9_5	TDC	O	Tone mute SW
6	P9_4	TRKV	O	Front End control
7	P9_3	TDD		Tone/DCS/DTMF output
8	P9_2	MSW	I	MONI SW
9	P9_1	XBR	O	Cross Band Repeater SW
10	P9_0	DTSW	O	Tone/DCS/DTMF SW
11	P14_1	SCLK	-	Signal clock for EEPROM
12	P14_0	SDATA	-	Signal data for EEPROM
13	BATE	GND	-	GND
14	CNVSS	GND	-	GND
15	P8_7	TFSK	O	FSK output
16	P8_6	X SW	O	Clock shift output
17	RESET	RST	I	Reset input
18	XOUT	XOUT	O	Main clock output
19	VSS	GND	-	GND
20	XIN	XIN	I	Main clock input
21	VCC1	VDD	-	Power supply
22	P8_5	VDS	-	Power supply
23	P8_4	RFSK	I	FSK input
24	P8_3	R1A	I	MAIN RE
25	P8_2	R2A	I	MAIN RE
26	P8_1	R1B	I	MAIN RE
27	P8_0	BEEP	O	BEEP output
28	P7_7	R2B	I	MAIN RE
29	P7_6	TBST	O	Tone-burst output
30	P7_5	ATT1	O	ATT control output
31	P7_4	ATT2	O	ATT control output
32	P7_3	ATT3	O	ATT control output
33	P7_2	PUSH	I	MAIN RE
34	RSD2/SCL2	RXD	I	Clone data input
35	TXD2/SDA2	TXD	O	Clone data output
36	P6_7	MRLC	O	MAIN red Indicator output
37	VCC1	VDD	-	Power supply
38	P6_6	MTLC	O	MAIN green Indicator output
39	VSS	GND	-	GND
40	P6_5	/CS1	O	LCD
41	P6_4	/RES	O	LCD
42	P6_3	A0	O	LCD
43	P6_2	WR	O	LCD
44	P6_1	/RD	O	LCD
45	P6_0	NC	-	-
46	P13_7	D0	O	LCD
47	P13_6	D1	O	LCD
48	P13_5	D2	O	LCD
49	P13_4	D3	O	LCD
50	P5_7	RDCSW	O	DCS/Tone filter shift

No.	Terminal	Signal	I/O	Description
51	P5_6	NC	-	-
52	P5_5	MTSW	O	DCS/Tone filter SW
53	P5_4	STSW	O	DCS/Tone filter SW
54	P13_3	D4	O	LCD
55	P13_2	D5	O	LCD
56	P13_1	D6	O	LCD
57	P13_0	D7	O	LCD
58	P5_3	TP	-	TP12
59	P5_2	BPC1	O	BEEP Volume
60	P5_1	BPC2	O	BEEP Volume
61	P5_0	TC1	O	Tone/DCS/DTMF Volume SW
62	P12_7	TC2	O	Tone/DCS/DTMF Volume SW
63	P12_6	SRLC	O	SUB red Indicator output
64	P12_5	STLC	O	SUB green Indicator output
65	P4_7	EXT	O	Clone data SW
66	P4_6	LOPOW	O	TX low power SW
67	P4_5	SPC	O	Audio SW
68	P4_4	AFPC	O	Audio power SW
69	P4_3	PT3	I	TX Hi/Low input
70	P4_2	STB1	O	PLL (IC202) data output
71	P4_1	SFT	O	Sub VCO shift
72	P4_0	PVC	O	PLL power
73	P3_7	T3C	O	T3V SW
74	P3_6	CHG	O	Battery charge SW
75	P3_5	C3C	O	C3V SW
76	P3_4	STB2	O	Parallel driver (IC207) data SW
77	P3_3	KI0	I	Key matrix input
78	P3_2	KI1	I	Key matrix input
79	P3_1	KI2	I	Key matrix input
80	P12_4	KI3	I	Key matrix input
81	P12_3	KO0	O	Key matrix output
82	P12_2	KO1	O	Key matrix output
83	P12_1	KO2	O	Key matrix output
84	P12_0	KO3	O	Key matrix output
85	VCC2	VDD2	-	Power supply
86	P3_0	FSKC	O	FSK SW
87	VSS	GND	-	GND
88	P2_7	VOXC	O	Microphone amplifier (IC12) power
89	P2_6	STB3	O	D/A IC (IC10) data input
90	P2_5	CLK	O	Data clock output
91	P2_4	DATA	O	DATA output
92	P2_3	TUC	O	UHF band TX SW
93	P2_2	TVC	O	VHF band TX SW
94	P2_1	PUSHH	I	SUB RE
95	P2_0	R2BB	I	SUB RE
96	P1_7	B2AA	I	SUB RE
97	P1_6	JDET	I	Ext power detection
98	P1_5	R1AA	I	SUB RE
99	P1_4	T12C	O	1200MHz band TX SW
100	P1_3	MVC	O	Main VCO VHF bund power

No.	Terminal	Signal	I/O	Description
101	P1_2	M12C	O	Main VCO 1200MHz band power
102	P1_1	MUC	O	Main VCO VHF band power
103	P1_0	BP1	I	Band pram detection
104	P0_7	SUC	O	SUB VCO 1200NHZ band power
105	P0_6	SVC	O	SUB VOC UHF band power
106	P0_5	R1BB	I	SUB RE
107	P0_4	DET	I	Battery voltage detection
108	P0_3	SSQL	I	SUB Squelch input
109	P0_2	MSQL	I	Main Squelch input
110	P0_1	MSMT	I	Main S-meter input
111	P0_0	SSMT	I	Sub S-meter input
112	P11_7	D/TC	O	DCS/Tone filter power
113	P11_6	JRC	O	BUG sound mode power
114	P11_5	S50C	O	SUB VCO VHF band power
115	P11_4	MG1C	O	Mike gain SW1
116	P11_3	MG2C	O	Mike gain SW2
117	P11_2	LED3	O	Lamp SW1
118	P11_1	LED2	O	Lamp SW2
119	P11_0	LED1	O	Lamp SW3
120	P10_7	JRIN	I	BUG sound mode input
121	P10_6	TIN	I	DCS/Tone input
122	P10_5	VXDET	I	VOX voltage detection
123	P10_4	POSW	I	Power SW
124	P10_3	APTT	O	Mike SW
125	P10_2	FSW	I	FUNC SW
126	P10_1	BDHK	I	Power voltage detection
127	AVSS	GND	-	GND
128	P10_0	PCNT	O	Power voltage detection SW

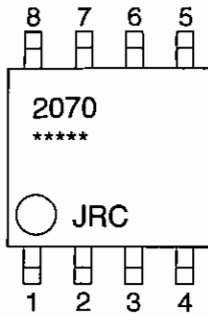
SEMICONDUCTOR DATA

1) BU2152FS (XA0210) 24bit serial parallel driver



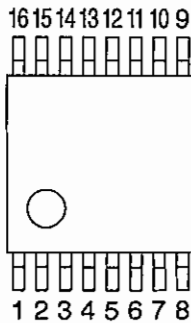
No.	Terminal	Signal	I/O	Description
1	VSS	GND	-	GND
2	CLK	CLK	I	Data clock input
3	VSS	GND	-	GND
4	DATA	DATA	I	Data input
5	P1	AFS	O	AF mode SW
6	P2	PS2	O	PLL SW of SUB-VCO
7	P3	AMC	O	AM SW
8	P4	BUG	O	BUG SW
9	P5	FMC	O	FM SW
10	P6	SVCC	O	Sub VCO buffer SW
11	P7	MVCC	O	Main VCO buffer SW
12	P8	SIFC	O	Analogue IC (IC209) power
13	P9	FC	O	FM mode IF power
14	P12	NFC	O	AM NFM mode IF power
15	P11	F/AC	O	Sub AM/FM mode first IF filter power
16	P12	WFMC	O	Sub WFM mode IF filter power
17	P13	RM12C	O	Main 1200MHz band front end power
18	P14	MIFC	O	Main IF power
19	P15	RSUC	O	Sub UHF band front end power
20	P20	RMUC	O	Main UHF band front end power
21	P17	RMVC	O	Main VHF bund front end power
22	P28	RSVC	O	Sub NHF bund front end power
23	P19	RLC	O	Sub AM Radio band front end power
24	P20	R50C	O	Sub low band front end power
25	P21	BARC	O	Bear antenna front end power
26	P22	RS12C	O	Sub 1200MHz band front end power
27	P23	PS1	O	PLL SW of MAIN-VCO
28	P24	DBL	O	Sub doubler power
29	SO	NC	-	NC
30	STB	STB2	I	Data SW
31	CLB	CLB	i	Cock input
32	VDD	C3V	-	Power supply

2) NJM2070M (XA1352) Audio Power Amplifier



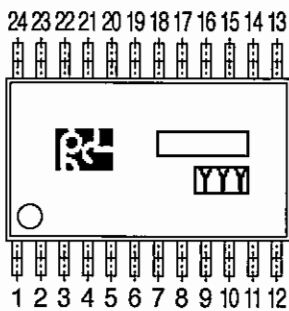
- 1. N C
- 2. + I N P U T
- 3. - I N P U T
- 4. G N D
- 5. G N D
- 6. O U T P U T
- 7. V +
- 8. N C

3) TA31136FN (XA0404) FM IF IC



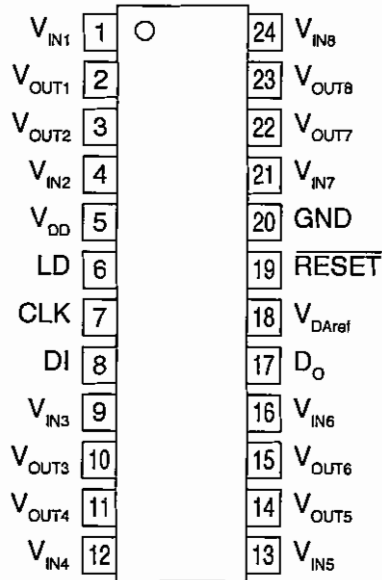
- 1. O S C I N
- 2. O S C O U T
- 3. M I X O U T
- 4. V_{CC}
- 5. I F I N
- 6. D E C
- 7. F I L O U T
- 8. F I L I N
- 9. A F O U T
- 10. Q U A D
- 11. I F O U T
- 12. R S S I
- 13. N-D E T
- 14. N-R E C
- 15. G N D
- 16. M I X I N

4) TK10931V (XA0666) AM/FM IF IC



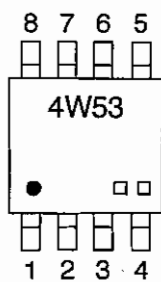
- 1. O S C (B)
- 2. O S C (E)
- 3. M I X O U T P U T
- 4. V_{CC}
- 5. A M I F I N P U T
- 6. A M I F D E C O U P L I N G
- 7. F M I F I N P U T
- 8. F M I F D E C O U P L I N G 1
- 9. F M I F D E C O U P L I N G 2
- 10. L I M O U T P U T
- 11. Q U A D I N P U T
- 12. F M D E T O U T P U T
- 13. A M D E T O U T P U T
- 14. A M S W
- 15. R S S I O U T P U T
- 16. R F A G C O U T P U T
- 17. A G C A M P O U T P U T
- 18. A M A G C I N P U T
- 19. N O I S E A M P I N P U T
- 20. N O I S E A M P O U T P U T
- 21. C O M P I N P U T
- 22. C O M P O U T P U T
- 23. G N D
- 24. R F I N P U T

5) M62364FP (XA1293) D/A IC



No.	Terminal	Signal
1	V _{IN1}	MAF
2	V _{OUT1}	V _{OUT1}
3	V _{OUT2}	V _{OUT2}
4	V _{IN2}	V _{IN2}
5	VDD	VDD
6	LD	STB3
7	CLK	CLK
8	DI	DATA
9	V _{IN3}	MIC IN
10	V _{OUT3}	MOD
11	V _{OUT4}	REF
12	V _{IN4}	V _{IN4}
13	V _{IN5}	V _{IN5}
14	V _{OUT5}	V _{OUT5}
15	V _{OUT6}	V _{OUT6}
16	V _{IN6}	V _{IN6}
17	D _O	D _O
18	V _{DAref}	V _{DAref}
19	RESET	RESET
20	GND	GND
21	V _{IN7}	V _{IN7}
22	V _{OUT7}	V _{OUT7}
23	V _{OUT8}	V _{OUT8}
24	V _{IN8}	SAF

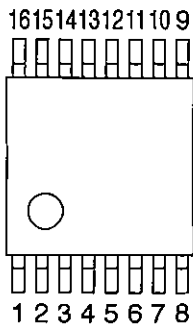
6) TC3W53FU (XA0341) 2-channel Analogue IC



1. COMMON
2. INH
3. V_{EE}
4. V_{SS}
5. A
6. ch1
7. ch0
8. V_{DD}

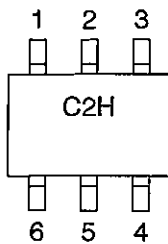
Control input		On channel
INH	A	
L	L	Ch 0
L	H	Ch 1
H	X	none

7) MB15F07SL (XA1033) PLL Frequency Synthesizer



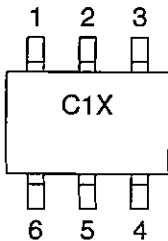
- | | |
|----------------------|-----------|
| 1. GND2 | 9. Do2 |
| 2. OSC_IN | 10. PS2 |
| 3. GND1 | 11. Xfin2 |
| 4. fin1 | 12. VCC2 |
| 5. V _{CC} 1 | 13. fin2 |
| 6. LD | 14. LE |
| 7. PS1 | 15. DATA |
| 8. Do1 | 16. Clock |

8) uPC2771TB (XA0953) MMIC Medium Output Power Amplifier



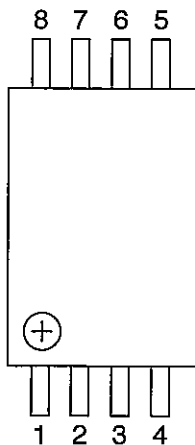
- | |
|--------------------|
| 1. I N PUT |
| 2. G N D |
| 3. G N D |
| 4. O U TPUT |
| 5. G N D |
| 6. V _{CC} |

9) uPC2757TB (XA0976) MMIC 1st Frequency Down-converter



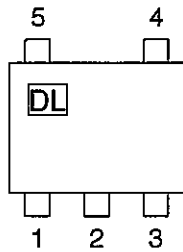
- | |
|--------------------|
| 1. R F INPUT |
| 2. G N D |
| 3. L O INPUT |
| 4. P S |
| 5. V _{CC} |
| 6. I F OUTPUT |

10) AT24C1024B (XA1351) EEPROM

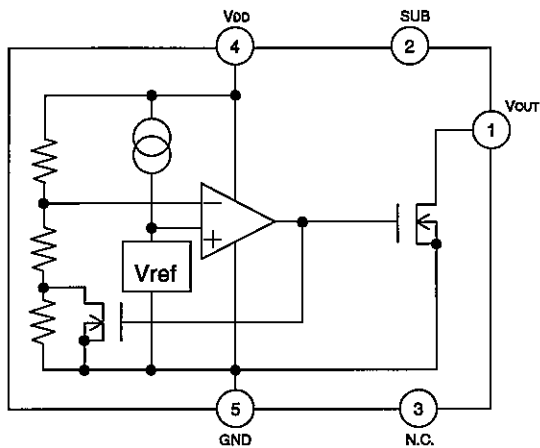


- | |
|--------------------|
| 1. A0 |
| 2. A1 |
| 3. A2 |
| 4. GND |
| 5. SDA |
| 6. SCL |
| 7. WP |
| 8. V _{CC} |

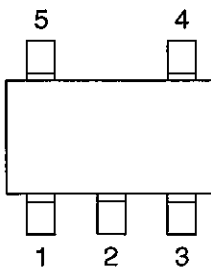
11) BU4830FVE (XA1009) RESET IC



- 1. V_{OUT}
- 2. SUB
- 3. N.C.
- 4. V_{DD}
- 5. GND

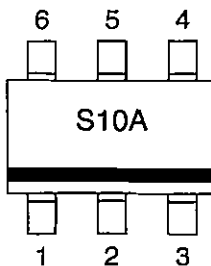


12) S-812C32AMC (XA1353) 3.2V Voltage Regulator



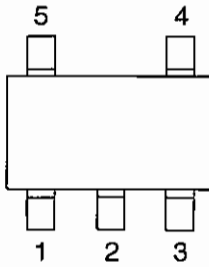
- 1. V_{IN}
- 2. V_{SS}
- 3. CE
- 4. NC
- 5. V_{OUT}

13) LM2681 (XA1354) Switched capacitor voltage converter



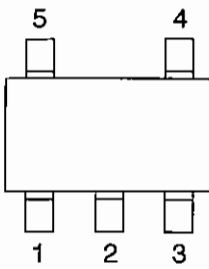
- 1. $V+$
- 2. GND
- 3. CAP-
- 4. GND
- 5. OUT
- 6. CAP+

14) NJM2125F (XA0622) Operational Amplifier



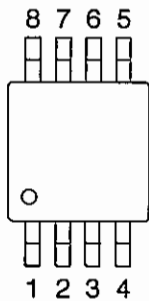
- 1. IN+
- 2. GND
- 3. IN-
- 4. OUT
- 5. VDD

15) TC75S51FU (XA1014) Operational Amplifier



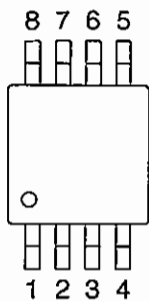
- 1. IN+
- 2. GND
- 3. IN-
- 4. OUT
- 5. VDD

16) LM12904PWR (XA1155) Dual Operational Amplifiers



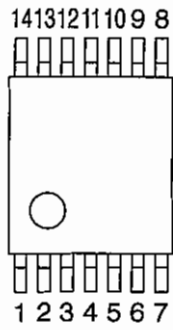
- 1. 1OUT
- 2. 1IN-
- 3. 1IN+
- 4. GND
- 5. 2IN+
- 6. 2IN-
- 7. 2OUT
- 8. V_{CC}

17) NJM2746RB1 (XA1356) Dual Operational Amplifiers



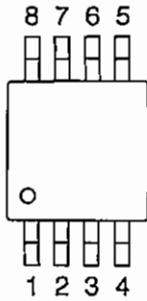
- 1. 1OUT
- 2. 1IN-
- 3. 1IN+
- 4. GND
- 5. 2IN+
- 6. 2IN-
- 7. 2OUT
- 8. V_{CC}

18) BA2902FV (XA1371) Four Operational Amplifiers



- | | |
|---------|----------|
| 1. 1OUT | 8. 3OUT |
| 2. 1IN- | 9. 3IN- |
| 3. 1IN+ | 10. 3IN+ |
| 4. V+ | 11. GND |
| 5. 2IN+ | 12. 4IN+ |
| 6. 2IN- | 13. 4IN- |
| 7. 2OUT | 14. 4OUT |

19) MM1332EF (XA1139) Battery charge



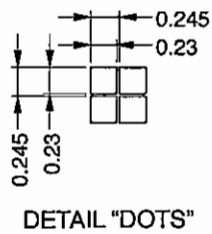
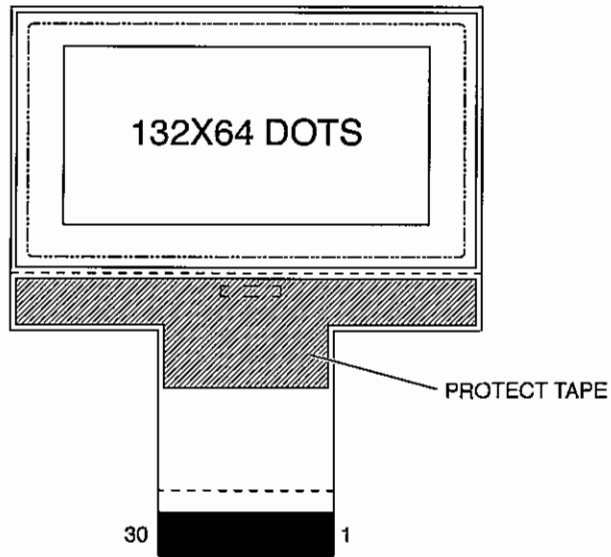
- | |
|--------------------|
| 1. SW1 |
| 2. SW2 |
| 3. LV |
| 4. GND |
| 5. CS |
| 6. CEL |
| 7. EXT |
| 8. V _{CC} |

20) Transistor, Diode and LED Outline Drawings

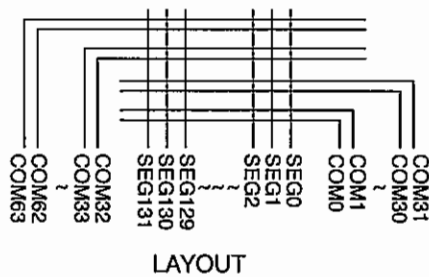
Top View

CFWC450E1-TC XC0054 	CFUCG450G-TC XC0074 	CFUCG450E-TC XC0075 	SFEFC10M7HA00-R0 XC0133 	1SV307 XD0326 	1SV308(TPH3) XD0339 	1SV279-TPH3 XD0364 	JDP2S02S(TPH3) XD0384 	JDP2S02S(TPH3) XD0384
VDZT2R3.9B XD0396 	DG1M3-5003 XD0401 	VDZT2R 5.1B XD0402 	1SV314(TPH3,F) XD0403 	1SV323(TPH3,H) XD0421 	S3JB-T XD0424 	JDV2S14 XD0427 	JDS2S03S XD0432 	RB715WTL XD0433
1SS361FV XD0435 	RB717F XD0453 	RB521CS-30T2R XD0484 	SSM3K15FV(TPL3,Z) XE0069 	2SK3476(TE12L) E0071 	RTL030P02TR XE0089 	RQA0004PXQDS XE0092 	RD01MUS2-T113 XE0094 	RTL035N03TR XE0095
2SJ668(TE16L1,NQ) XE0096 	NE5510279A XE0097 	2SK1875(TE85L,F) XE0098 	DSF753S 51.65MHz XF0082 	DSF753S 50.75MHz XF0083 	CDBC8450KCAY24-R0 XK0005 	CDSC810M7GF126-R0 XK0011 	CDBC8450KCAY77-R0 XK0012 	BRPY1211F XL0116
SML-D12M8WT86 XL0128 	NT3225SA12.8M XQ0194 	CSA-309 8.388608MHz XQ0220 	2SC4915-O(TE85L) XT0178 	2SC5066FT-Y(TE85L) XT0180 	2SC6026MFV-GR XT0210 	2SC5659T2L XT0213 	HN2C01FE-GR(T5L,F) XT0214 	US6T7 XT0237
US6X6 XT0238 	2SC5820WU-TL-E XT0239 	DTC144TMT2L XU0205 	DTA123JMT2L XU0206 	EMA8T2R XU0207 	EMD3T2R XU0208 	EMD6T2R XU0209 	RN1704JE(TE85L,F) XU0234 	LCD TAPE YX0050
		 Rb=47kohm Rbe=none	 Rb=2.2kohm Rbe=47kohm	 Rb=10kohm Rbe=47kohm	 Rb=10kohm Rbe=47kohm			

21) LCD Connection (EL0063)

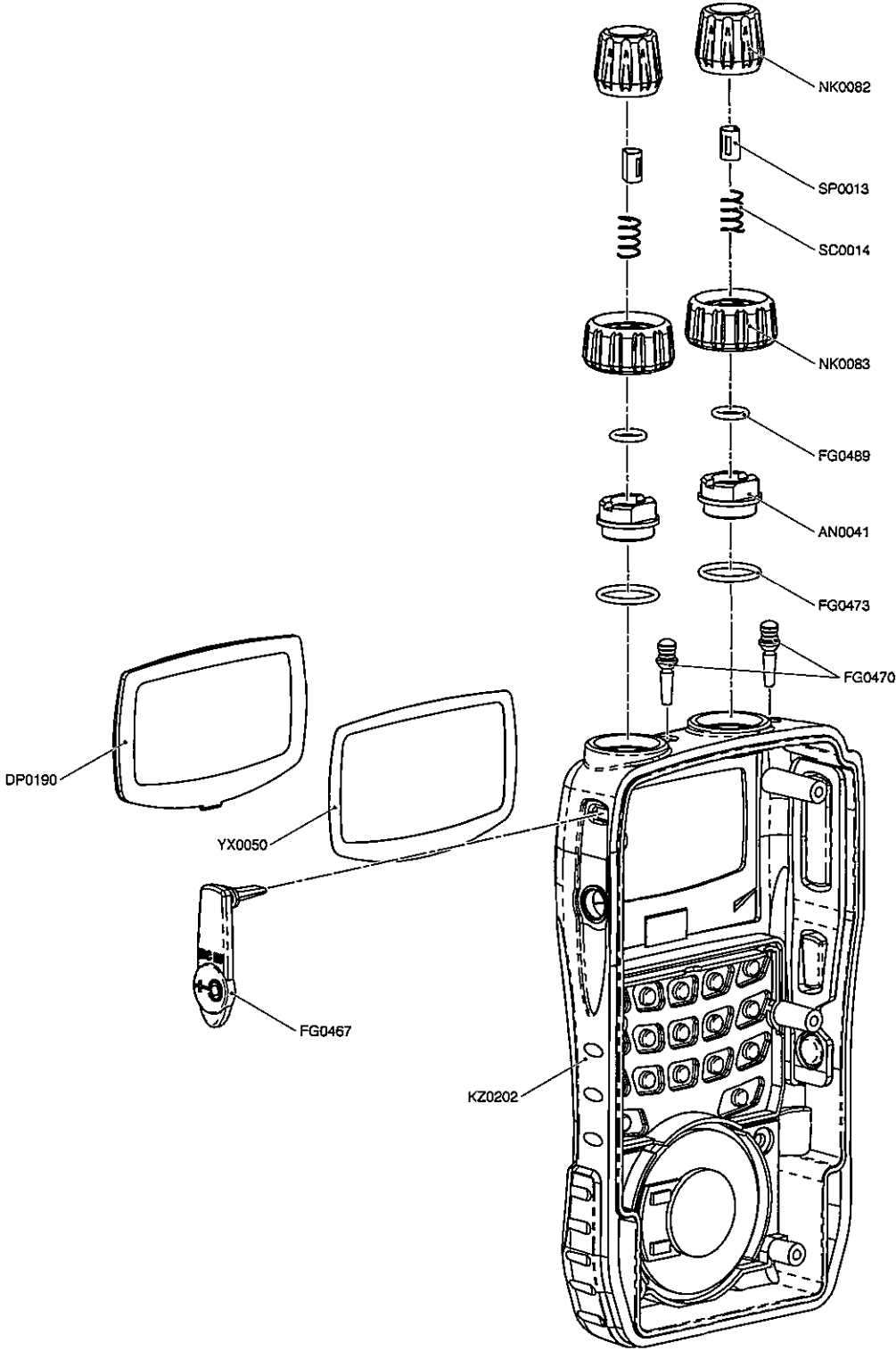


PIN	SYMBOL	PIN	SYMBOL
1	P/S	16	D7
2	C86	17	D6
3	V0	18	D5
4	V1	19	D4
5	V2	20	D3
6	V3	21	D2
7	V4	22	D1
8	CAP2N	23	D0
9	CAP2P	24	/RD
10	CAP1P	25	WR
11	CAP1N	26	A0
12	CAP3P	27	/RES
13	V _{OUT}	28	/CS1
14	V _{SS}	29	NC
15	V _{DD}	30	NC

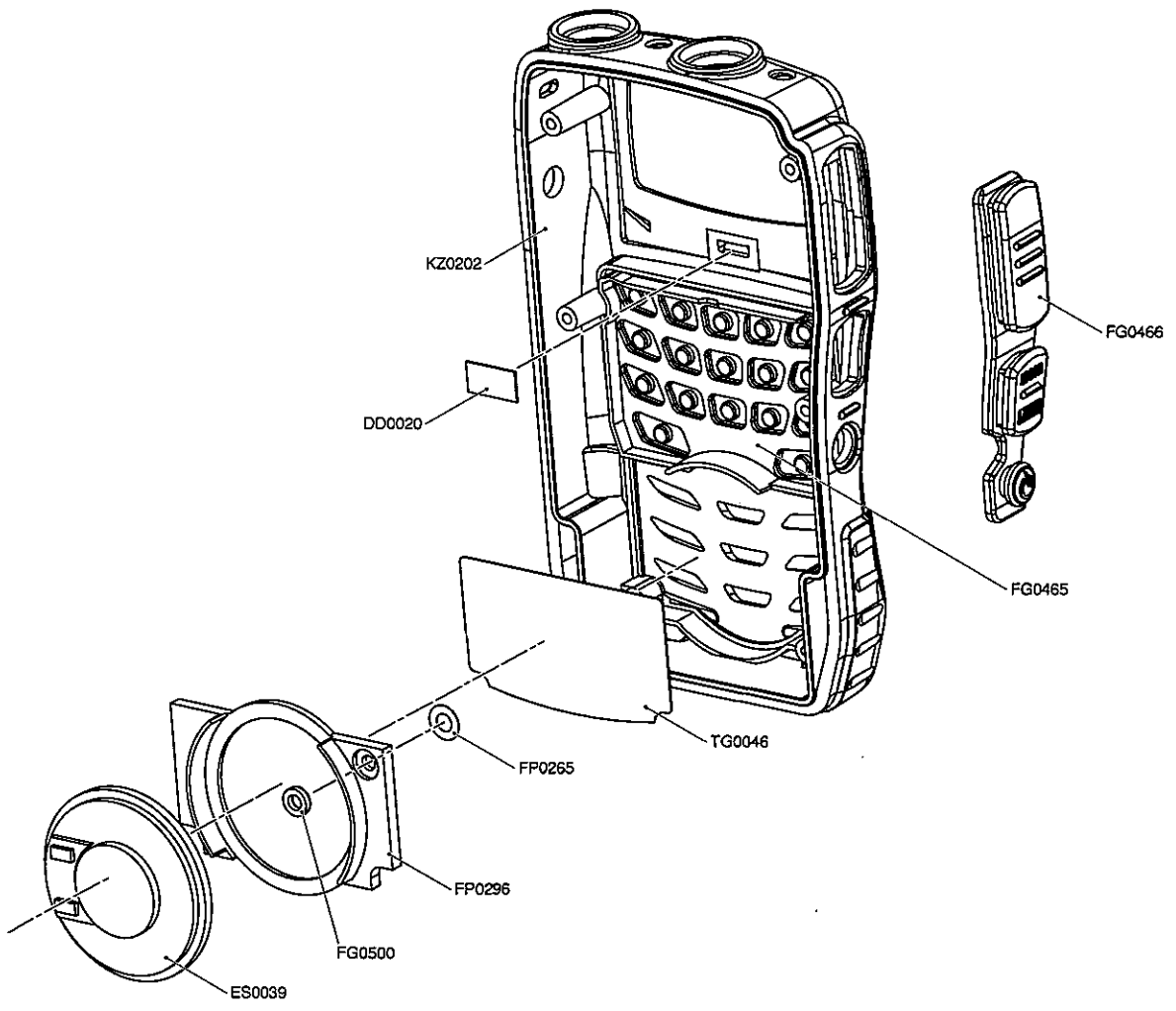


EXPLODED VIEW

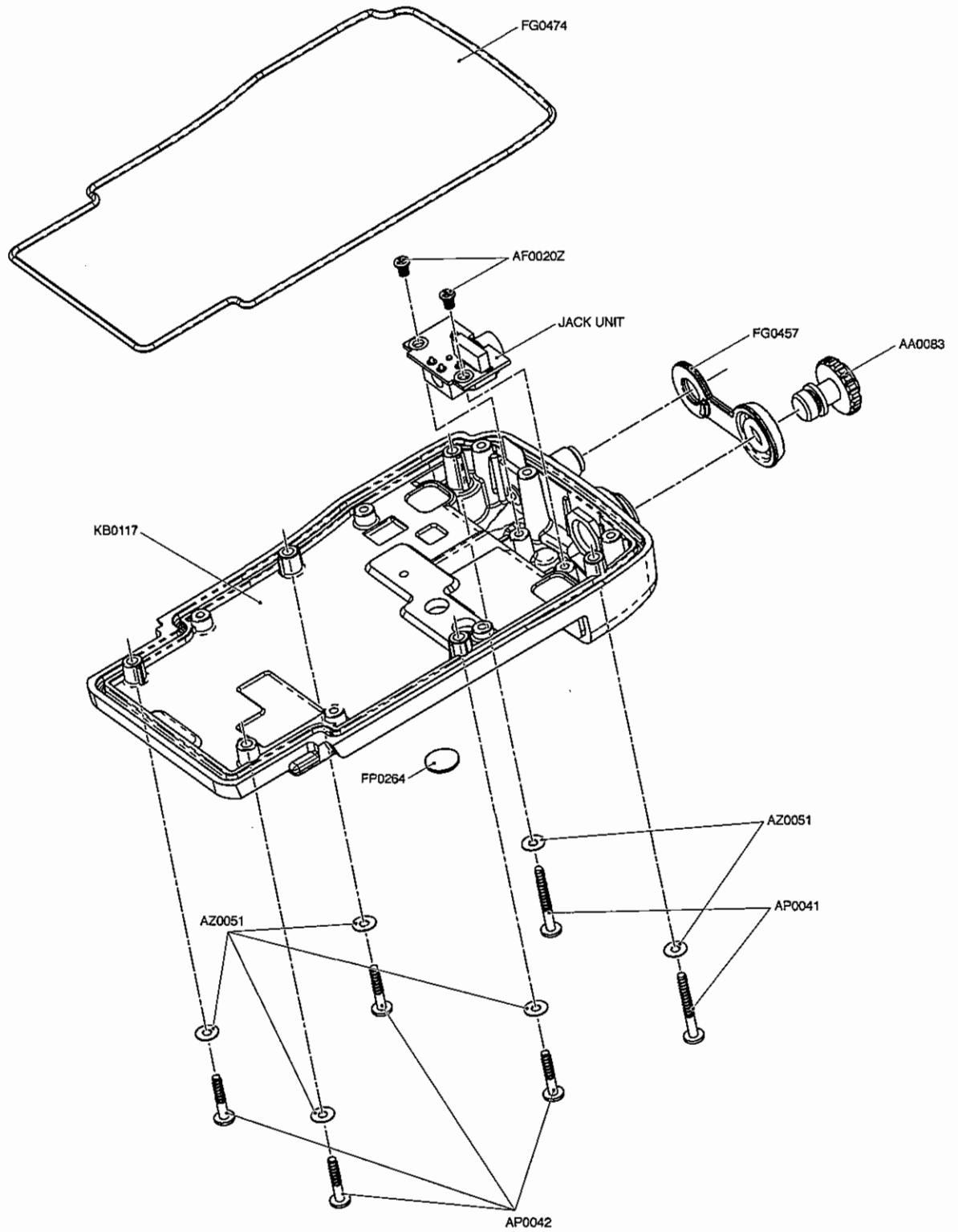
1) Front View (1)



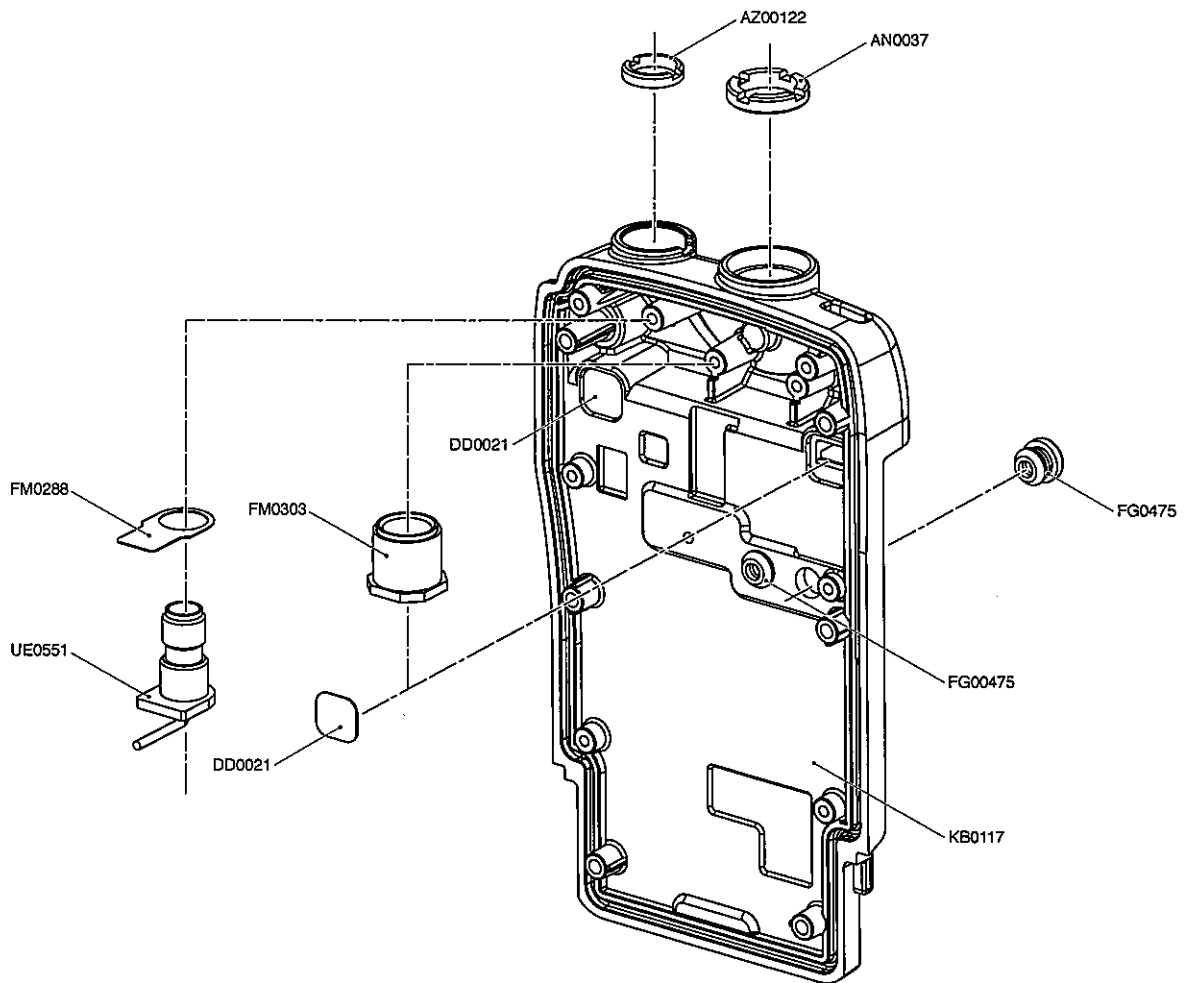
1) Front View (2)



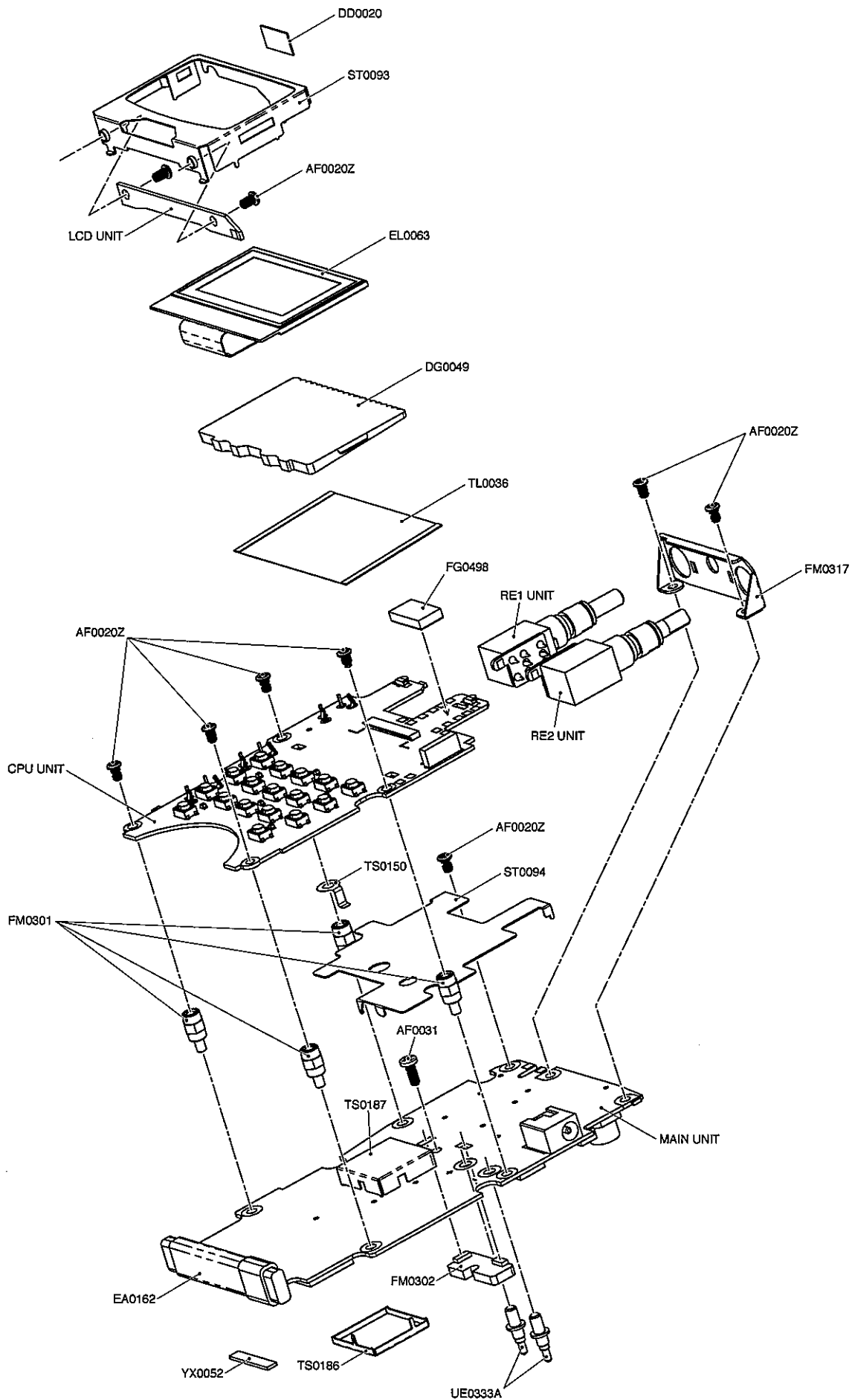
2) Rear View (1)



2) Rear View (2)



3) Bottom View



PARTS LIST

CPU Unit (1)

Ref.NO'	Parts No.	Parts Name	Ver
C1	CU3544	GRM36B562K25PT	
C2	CU3554	GRM36B104K10PT	
C3	CU3543	GRM36B472K25PT	
C4	CU3547	GRM36B103K16PT	
C5	CU3547	GRM36B103K16PT	
C6	CU3547	GRM36B103K16PT	
C7	CU3547	GRM36B103K16PT	
C8	CU3559	GRM155B30J105KE18D	
C9	CU3559	GRM155B30J105KE18D	
C10	CU3559	GRM155B30J105KE18D	
C11	CU3559	GRM155B30J105KE18D	
C12	CU3559	GRM155B30J105KE18D	
C13	CU3559	GRM155B30J105KE18D	
C14	CU3559	GRM155B30J105KE18D	
C15	CU3559	GRM155B30J105KE18D	
C16	CU3535	GRM36B102K50PT	
C17	CU3535	GRM36B102K50PT	
C18	CS0453	TMCP0J226MTRF	
C19	CU3535	GRM36B102K50PT	
C20	CU3547	GRM36B103K16PT	
C21	CU3547	GRM36B103K16PT	
C22	CU3547	GRM36B103K16PT	
C23	CU3547	GRM36B103K16PT	
C24	CU3554	GRM36B104K10PT	
C25	CU3539	GRM36B222K50PT	
C26	CU3547	GRM36B103K16PT	
C27	CU3547	GRM36B103K16PT	
C28	CS0431	10V 2.2UF	
C29	CU3553	GRM36B473K10PT	
C30	CU3547	GRM36B103K16PT	
C31	CU3551	GRM36B223K16PT	
C32	CU3551	GRM36B223K16PT	
C33	CU3528	GRM1552C1E271JD01D	
C34	CU3535	GRM36B102K50PT	
C35	CU3528	GRM1552C1E271JD01D	
C36	CU3535	GRM36B102K50PT	
C37	CS0453	TMCP0J226MTRF	
C38	CS0453	TMCP0J226MTRF	
C39	CU3554	GRM36B104K10PT	
C40	CU3551	GRM36B223K16PT	
C41	CU3551	GRM36B223K16PT	
C42	CU3547	GRM36B103K16PT	
C43	CU3535	GRM36B102K50PT	
C44	CU3554	GRM36B104K10PT	
C45	CS0431	10V 2.2UF	
C46	CU3547	GRM36B103K16PT	
C47	CU3547	GRM36B103K16PT	
C48	CU3554	GRM36B104K10PT	
C49	CS0455	TMCMB1A107MTRF	
C50	CU3554	GRM36B104K10PT	

Ref.NO'	Parts No.	Parts Name	Ver
C51	CU3554	GRM36B104K10PT	
C52	CU3554	GRM36B104K10PT	
C53	CU3559	GRM155B30J105KE18D	
C54	CU3547	GRM36B103K16PT	
C55	CU3559	GRM155B30J105KE18D	
C56	CU3554	GRM36B104K10PT	
C57	CU3531	GRM36B471K50PT	
C58	CS0455	TMCMB1A107MTRF	
C59	CU3559	GRM155B30J105KE18D	
C60	CS0397	16V 1UF	
C61	CU3514	GRM36CH180J50PT	
C62	CU3514	GRM36CH180J50PT	
C63	CU3553	GRM36B473K10PT	
C64	CU3547	GRM36B103K16PT	
C65	CU3559	GRM155B30J105KE18D	
C66	CU3535	GRM36B102K50PT	
C67	CU3535	GRM36B102K50PT	
C68	CS0466	TMCMA0J107MTRF	
C69	CU3559	GRM155B30J105KE18D	
C70	CU3523	GRM1552C1H101JZ01D	
C71	CU3559	GRM155B30J105KE18D	
C72	CU3531	GRM36B471K50PT	
C73	CU3559	GRM155B30J105KE18D	
C74	CU3554	GRM36B104K10PT	
C75	CS0453	TMCP0J226MTRF	
C76	CS0454	TNCA0J476MTRF	
C77	CS0453	TMCP0J226MTRF	
C78	CU3553	GRM36B473K10PT	
C79	CU3554	GRM36B104K10PT	
C80	CU3554	GRM36B104K10PT	
C81	CU3551	GRM36B223K16PT	
C82	CU3551	GRM36B223K16PT	
C83	CU3535	GRM36B102K50PT	
C84	CU3559	GRM155B30J105KE18D	
C85	CU3559	GRM155B30J105KE18D	
C86	CU3535	GRM36B102K50PT	
C87	CU3535	GRM36B102K50PT	
C88	CU3554	GRM36B104K10PT	
C89	CU3535	GRM36B102K50PT	
C90	CU3535	GRM36B102K50PT	
C91	CU3547	GRM36B103K16PT	
C92	CU3521	GRM1552C1H680JZ01D	
C93	CU3535	GRM36B102K50PT	
C94	CU3554	GRM36B104K10PT	
C95	CS0432	TMCMA1A226MTR	
C96	CS0432	TMCMA1A226MTR	
C97	CU3559	GRM155B30J105KE18D	
C98	CU3554	GRM36B104K10PT	
C99	CU3547	GRM36B103K16PT	
C100	CU3531	GRM36B471K50PT	

CPU Unit (2)

Ref.NO'	Parts No.	Parts Name	Ver
C101	CU3554	GRM36B104K10PT	
C102	CU3535	GRM36B102K50PT	
C103	CU3554	GRM36B104K10PT	
C105	CU3554	GRM36B104K10PT	
C106	CU3554	GRM36B104K10PT	
C107	CU3559	GRM155B30J105KE18D	
C108	CU3554	GRM36B104K10PT	
C109	CU3552	GRM36B333K10PT	
C110	CS0466	TMCMA0J107MTRF	
C111	CU3559	GRM155B30J105KE18D	
C112	CS0428	4V15UF	
C114	CU3554	GRM36B104K10PT	
C133	CU3554	GRM36B104K10PT	
C136	CS0466	TMCMA0J107MTRF	
C137	CU3559	GRM155B30J105KE18D	
C138	CU3559	GRM155B30J105KE18D	
CN2	UE0591	AXK6S40647YG	
CN3	UE0592	BM08B-SURS-TF	
CN4	UE0587	FH33-30S-0.5SH	
D2	XL0116	BRPY1211F	
D3	XL0116	BRPY1211F	
D4	XL0128	SML-D12M8WT86	
D5	XL0128	SML-D12M8WT86	
D6	XL0128	SML-D12M8WT86	
D7	XL0128	SML-D12M8WT86	
D8	XL0128	SML-D12M8WT86	
D9	XL0128	SML-D12M8WT86	
D10	XD0402	VDZT2R 5.1B	
D11	XD0484	RB521CS-30T2R	
D12	XD0484	RB521CS-30T2R	
D13	XD0402	VDZT2R 5.1B	
D14	XD0484	RB521CS-30T2R	
D15	XD0484	RB521CS-30T2R	
IC1	XA1355	NJM12904RB1-TE1	
IC2	XA1371	BA2902SFV	
IC3	XA1350	M30625FGPG	
IC3	XA1388	M30625FGPG	
IC3	XA1387	M30625FGPG	
IC4	XA0617	TC75S56FU(TE85)	
IC5	XA0210	IC NJM2070M	
IC6	XA0622	NJM2125F-TE1	
IC7	XA1353	S-812C32AMC-C2MT2G	
IC8	XA1351	AT24C1024-TH-B	
IC9	XA1009	BD4930FVE-TR	
IC10	XA1293	M62364FP#DF1G	
IC11	XA1354	LM2681M6/NOPB	
IC12	XA1355	NJM12904RB1-TE1	
IC13	XA1014	TC75S51FU TE85L	
IC14	XA0622	NJM2125F-TE1	
IC15	XA0348	TC4W53FU(TE12L)	

Ref.NO'	Parts No.	Parts Name	Ver
L1	QC0077	3225 18 UH	
MIC1	EY0028	KUS0223-010170	
Q1	XU0205	DTC144TMT2L	
Q2	XU0205	DTC144TMT2L	
Q3	XU0207	EMA8T2R	
Q4	XU0207	EMA8T2R	
Q5	XT0214	HN2C01FE-GR(T5L,F)	
Q6	XT0214	HN2C01FE-GR(T5L,F)	
Q7	XT0210	2SC6026MFV-GR	
Q8	XT0238	US6X6	
Q9	XT0237	US6T7	
Q10	XU0206	DTA123JMT2L	
Q11	XT0210	2SC6026MFV-GR	
Q12	XE0095	RTL035N03TR	
Q13	XU0206	DTA123JMT2L	
Q14	XU0205	DTC144TMT2L	
Q17	XE0069	SSM3K15FV(TPL3,Z)	
Q18	XU0206	DTA123JMT2L	
Q19	XU0208	EMD3T2R	
Q20	XE0069	SSM3K15FV(TPL3,Z)	
Q21	XU0209	EMD6T2R	
Q22	XU0205	DTC144TMT2L	
Q23	XU0205	DTC144TMT2L	
Q24	XU0234	RN1704JE(TE85L,F)	
Q25	XU0205	DTC144TMT2L	
Q26	XU0234	RN1704JE(TE85L,F)	
Q27	XU0234	RN1704JE(TE85L,F)	
Q29	XU0205	DTC144TMT2L	
Q30	XE0069	SSM3K15FV(TPL3,Z)	
Q31	XE0069	SSM3K15FV(TPL3,Z)	
R1	RK3571	1005 1/16W 560K OHMJ	
R2	RK3550	1005 1/16W 10K OHM J	
R3	RK3501	1005 1/16W 0 OHM J	
R4	RK3536	1005 1/16W 680 OHM J	
R5	RK3562	1005 1/16W 100K OHMJ	
R7	RK3558	1005 1/16W 47K OHM J	
R9	RK3558	1005 1/16W 47K OHM J	
R10	RK3562	1005 1/16W 100K OHMJ	
R11	RK3554	1005 1/16W 22K OHM J	
R12	RK3564	1005 1/16W 150K OHMJ	
R13	RK3550	1005 1/16W 10K OHM J	
R14	RK3550	1005 1/16W 10K OHM J	
R15	RK3552	1005 1/16W 15K OHM J	
R16	RK3558	1005 1/16W 47K OHM J	
R17	RK3560	1005 1/16W 68K OHM J	
R18	RK3569	1005 1/16W 390K OHMJ	
R19	RK3569	1005 1/16W 390K OHMJ	
R20	RK3559	1005 1/16W 56K OHM J	
R21	RK3569	1005 1/16W 390K OHMJ	
R22	RK3569	1005 1/16W 390K OHMJ	

CPU Unit (3)

Ref.NO'	Parts No.	Parts Name	Ver
R23	RK3550	1005 1/16W 10K OHM J	
R24	RK3550	1005 1/16W 10K OHM J	
R25	RK3558	1005 1/16W 47K OHM J	
R27	RK3558	1005 1/16W 47K OHM J	
R28	RK3556	1005 1/16W 33K OHM J	
R29	RK3538	1005 1/16W 1.0K OHMJ	
R30	RK3538	1005 1/16W 1.0K OHMJ	
R31	RK3528	1005 1/16W 150 OHM J	
R32	RK3538	1005 1/16W 1.0K OHMJ	
R33	RK3538	1005 1/16W 1.0K OHMJ	
R34	RK3528	1005 1/16W 150 OHM J	
R35	RK3501	1005 1/16W 0 OHM J	
R36	RK3526	1005 1/16W 100 OHM J	
R37	RK3578	1005 1/16W 2.2M OHMJ	
R38	RK3542	1005 1/16W 2.2K OHMJ	
R39	RK3550	1005 1/16W 10K OHM J	
R40	RK3556	1005 1/16W 33K OHM J	
R41	RK3555	1005 1/16W 27K OHM J	
R42	RK3550	1005 1/16W 10K OHM J	
R43	RK3550	1005 1/16W 10K OHM J	
R44	RK3558	1005 1/16W 47K OHM J	
R45	RK3562	1005 1/16W 100K OHMJ	
R46	RK3546	1005 1/16W 4.7K OHMJ	
R47	RK3550	1005 1/16W 10K OHM J	
R48	RK3521	1005 1/16W 39 OHM J	
R49	RK3521	1005 1/16W 39 OHM J	
R50	RK3521	1005 1/16W 39 OHM J	
R51	RK3521	1005 1/16W 39 OHM J	
R52	RK3521	1005 1/16W 39 OHM J	
R53	RK3521	1005 1/16W 39 OHM J	
R54	RK3538	1005 1/16W 1.0K OHMJ	
R55	RK3514	1005 1/16W 10 OHM J	
R56	RK3530	1005 1/16W 220 OHM J	
R58	RK3538	1005 1/16W 1.0K OHMJ	
R59	RK3550	1005 1/16W 10K OHM J	
R60	RK1018	3216 1/8 W 100 OHM J	
R61	RK3562	1005 1/16W 100K OHMJ	
R62	RK3548	1005 1/16W 6.8K OHMJ	
R63	RK3562	1005 1/16W 100K OHMJ	
R64	RK3550	1005 1/16W 10K OHM J	
R65	RK3550	1005 1/16W 10K OHM J	
R66	RK3546	1005 1/16W 4.7K OHMJ	
R67	RK3550	1005 1/16W 10K OHM J	
R68	RK3546	1005 1/16W 4.7K OHMJ	
R70	RK3538	1005 1/16W 1.0K OHMJ	
R71	RK3550	1005 1/16W 10K OHM J	
R72	RK3526	1005 1/16W 100 OHM J	
R73	RK3538	1005 1/16W 1.0K OHMJ	
R74	RK3550	1005 1/16W 10K OHM J	
R75	RK0005	2125 1/8W 22 OHM J	

Ref.NO'	Parts No.	Parts Name	Ver
R76	RK3574	1005 1/16W 1.0M OHMJ	
R78	RK3550	1005 1/16W 10K OHM J	
R79	RK3550	1005 1/16W 10K OHM J	
R80	RK3550	1005 1/16W 10K OHM J	
R81	RK3550	1005 1/16W 10K OHM J	
R82	RK3562	1005 1/16W 100K OHMJ	
R83	RK3562	1005 1/16W 100K OHMJ	
R84	RK3562	1005 1/16W 100K OHMJ	
R85	RK3562	1005 1/16W 100K OHMJ	
R86	RK3562	1005 1/16W 100K OHMJ	
R87	RK3550	1005 1/16W 10K OHM J	
R88	RK3564	1005 1/16W 150K OHMJ	
R89	RK3550	1005 1/16W 10K OHM J	
R90	RK3545	1005 1/16W 3.9K OHMJ	
R91	RK3554	1005 1/16W 22K OHM J	
R92	RK3526	1005 1/16W 100 OHM J	
R93	RK3562	1005 1/16W 100K OHMJ	
R94	RK3556	1005 1/16W 33K OHM J	
R95	RK3550	1005 1/16W 10K OHM J	
R96	RK3538	1005 1/16W 1.0K OHMJ	
R97	RK3550	1005 1/16W 10K OHM J	
R98	RK3566	1005 1/16W 220K OHMJ	
R99	RK3546	1005 1/16W 4.7K OHMJ	
R100	RK3554	1005 1/16W 22K OHM J	
R101	RK3550	1005 1/16W 10K OHM J	
R102	RK3542	1005 1/16W 2.2K OHMJ	
R103	RK3542	1005 1/16W 2.2K OHMJ	
R104	RK3546	1005 1/16W 4.7K OHMJ	
R105	RK3550	1005 1/16W 10K OHM J	
R106	RK3562	1005 1/16W 100K OHMJ	
R107	RK3554	1005 1/16W 22K OHM J	
R108	RK3554	1005 1/16W 22K OHM J	
R109	RK3538	1005 1/16W 1.0K OHMJ	
R110	RK3538	1005 1/16W 1.0K OHMJ	
R111	RK3538	1005 1/16W 1.0K OHMJ	
R112	RK3538	1005 1/16W 1.0K OHMJ	
R113	RK3569	1005 1/16W 390K OHMJ	
R114	RK3550	1005 1/16W 10K OHM J	
R115	RK3550	1005 1/16W 10K OHM J	
R116	RK3532	1005 1/16W 330 OHM J	
R117	RK3562	1005 1/16W 100K OHMJ	
R118	RK3526	1005 1/16W 100 OHM J	
R119	RK3562	1005 1/16W 100K OHMJ	
R120	RK3550	1005 1/16W 10K OHM J	
R121	RK3552	1005 1/16W 15K OHM J	
R123	RK3544	1005 1/16W 3.3K OHMJ	
R124	RK3562	1005 1/16W 100K OHMJ	
R125	RK3542	1005 1/16W 2.2K OHMJ	
R126	RK3546	1005 1/16W 4.7K OHMJ	
R127	RK3550	1005 1/16W 10K OHM J	

CPU Unit (4)

Ref.NO'	Parts No.	Parts Name	Ver
R129	RK3559	1005 1/16W 56K OHM J	
R130	RK3562	1005 1/16W 100K OHMJ	
R131	RK3550	1005 1/16W 10K OHM J	
R132	RK3558	1005 1/16W 47K OHM J	
R133	RK3550	1005 1/16W 10K OHM J	
R134	RK3550	1005 1/16W 10K OHM J	
R135	RK3550	1005 1/16W 10K OHM J	
R136	RK3550	1005 1/16W 10K OHM J	
R137	RK3546	1005 1/16W 4.7K OHMJ	
R138	RK3546	1005 1/16W 4.7K OHMJ	
R139	RK3556	1005 1/16W 33K OHM J	
R140	RK3550	1005 1/16W 10K OHM J	
R141	RK3550	1005 1/16W 10K OHM J	
R142	RK3550	1005 1/16W 10K OHM J	
R143	RK3550	1005 1/16W 10K OHM J	
R144	RK3562	1005 1/16W 100K OHMJ	
R145	RK3562	1005 1/16W 100K OHMJ	
R146	RK3554	1005 1/16W 22K OHM J	
R147	RK3559	1005 1/16W 56K OHM J	
R150	RK3501	1005 1/16W 0 OHM J	
R152	RK3550	1005 1/16W 10K OHM J	
R153	RK3542	1005 1/16W 2.2K OHMJ	
R154	RK3532	1005 1/16W 330 OHM J	
R155	RK3541	1005 1/16W 1.8K OHMJ	
R156	RK3578	1005 1/16W 2.2M OHMJ	
R157	RK3518	1005 1/16W 22 OHM J	
R158	RK3501	1005 1/16W 0 OHM J	
R159	RK3501	1005 1/16W 0 OHM J	
R160	RK3562	1005 1/16W 100K OHMJ	
R161	RK3562	1005 1/16W 100K OHMJ	
R162	RK3562	1005 1/16W 100K OHMJ	
R163	RK3562	1005 1/16W 100K OHMJ	
R164	RK3538	1005 1/16W 1.0K OHMJ	
R165	RK3550	1005 1/16W 10K OHM J	
R166	RK3562	1005 1/16W 100K OHMJ	
R167	RK3543	1005 1/16W 2.7K OHMJ	
R168	RK3543	1005 1/16W 2.7K OHMJ	
R169	RK3543	1005 1/16W 2.7K OHMJ	
R170	RK3543	1005 1/16W 2.7K OHMJ	
R171	RK3526	1005 1/16W 100 OHM J	
R172	RK3554	1005 1/16W 22K OHM J	
R173	RK3526	1005 1/16W 100 OHM J	
SW1	UU0043	EVQPJ705K	
SW2	UU0043	EVQPJ705K	
SW3	UU0047	SKRPABE010	
SW4	UU0047	SKRPABE010	
SW5	UU0047	SKRPABE010	
SW6	UU0047	SKRPABE010	
SW7	UU0047	SKRPABE010	
SW8	UU0047	SKRPABE010	

Ref.NO'	Parts No.	Parts Name	Ver
SW9	UU0043	EVQPJ705K	
SW10	UU0047	SKRPABE010	
SW11	UU0047	SKRPABE010	
SW12	UU0047	SKRPABE010	
SW13	UU0047	SKRPABE010	
SW14	UU0047	SKRPABE010	
SW15	UU0047	SKRPABE010	
SW16	UU0047	SKRPABE010	
SW17	UU0047	SKRPABE010	
SW18	UU0047	SKRPABE010	
SW19	UU0047	SKRPABE010	
SW20	UU0047	SKRPABE010	
X1	XQ0220	CSA-309 8.388608MHZ	
	MACL07AA	#30A02-070-02	
	ST0093	LCD HOLDER	
	MRCL07AA	#30R02-070-02	
	UP0649	DJG7 CPU INTEGRATED	
	MACL02AA	#30A02-20-02	
	EL0063	BTG-13264E-FBWD-N-G	
	DG0049	LCD LIGHT	

MAIN Unit (1)

Ref.NO'	Parts No.	Parts Name	Ver
C201	CU3531	GRM36B471K50PT	
C202	CU3535	GRM36B102K50PT	
C203	CS0453	TMCP0J226MTRF	
C204	CU3015	1608 CH 50V 22PF J	
C205	CU3535	GRM36B102K50PT	
C206	CU3515	GRM36CH220J50PT	
C207	CU3535	GRM36B102K50PT	
C208	CU3515	GRM36CH220J50PT	
C209	CU3035	1608 B 50V 0.001UF	
C210	CU3535	GRM36B102K50PT	
C211	CU3015	1608 CH 50V 22PF J	
C212	CU3016	1608 CH 50V 27PF J	
C213	CU3013	1608 CH 50V 15PF J	
C218	CU3506	GRM36CH050C50PT	
C219	CU3567	GRM1552C1H6R0BZ01D	
C220	CU3013	1608 CH 50V 15PF J	
C221	CU3535	GRM36B102K50PT	
C222	CU3535	GRM36B102K50PT	
C223	CU3514	GRM36CH180J50PT	
C224	CU3515	GRM36CH220J50PT	
C225	CU3512	GRM36CH120J50PT	
C226	CU3516	GRM36CH270J50PT	
C227	CU3519	GRM36CH470J50PT	
C229	CU3009	1608 CH 50V 8PF C	
C230	CU3515	GRM36CH220J50PT	
C232	CS0403	TMCP1D224MTR	
C233	CU3531	GRM36B471K50PT	
C234	CU3501	GRM36CK0R5C50PT	
C235	CU3517	GRM36CH330J50PT	
C236	CU3504	GRM36CJ030C50PT	
C237	CU3547	GRM36B103K16PT	
C238	CU3535	GRM36B102K50PT	
C239	CU3535	GRM36B102K50PT	
C240	CS0403	TMCP1D224MTR	
C241	CU3501	GRM36CK0R5C50PT	
C242	CS0431	10V 2.2UF	
C243	CS0431	10V 2.2UF	
C244	CU3503	GRM36CK020C50PT	
C245	CU3501	GRM36CK0R5C50PT	
C246	CU3547	GRM36B103K16PT	
C247	CU3503	GRM36CK020C50PT	
C248	CU3010	1608 CH 50V 9PF C	
C249	CS0403	TMCP1D224MTR	
C250	CU3535	GRM36B102K50PT	
C251	CU3509	GRM36CH080D50PT	
C252	CU3513	GRM36CH150J50PT	
C253	CU3531	GRM36B471K50PT	
C254	CU3031	1608 B 50V 470PF K	
C255	CU3008	1608 CH 50V 7PF C	
C256	CU3554	GRM36B104K10PT	

Ref.NO'	Parts No.	Parts Name	Ver
C257	CU3515	GRM36CH220J50PT	
C258	CU3511	GRM36CH100D50PT	
C259	CU3002	1608 CH 50V 1PF C	
C260	CU3576	GRM1553C1H2R5CZ01D	
C262	CU3014	1608 CH 50V 18PF J	
C263	CU3502	GRM36CK010C50PT	
C264	CU3511	GRM36CH100D50PT	
C265	CU3507	GRM36CH060D50PT	
C266	CU3531	GRM36B471K50PT	
C267	CS0464	TMCP1A106MTRF	
C268	CU3547	GRM36B103K16PT	
C269	CU3535	GRM36B102K50PT	
C270	CS0431	10V 2.2UF	
C271	CU3535	GRM36B102K50PT	
C272	CS0453	TMCP0J226MTRF	
C273	CU3535	GRM36B102K50PT	
C274	CU3547	GRM36B103K16PT	
C275	CU3535	GRM36B102K50PT	
C276	CU3531	GRM36B471K50PT	
C277	CS0431	10V 2.2UF	
C278	CS0431	10V 2.2UF	
C279	CU3547	GRM36B103K16PT	
C280	CS0403	TMCP1D224MTR	
C281	CU3547	GRM36B103K16PT	
C282	CU3554	GRM36B104K10PT	
C283	CS0403	TMCP1D224MTR	
C284	CU3501	GRM36CK0R5C50PT	
C285	CU3501	GRM36CK0R5C50PT	
C286	CU3535	GRM36B102K50PT	
C288	CU3502	GRM36CK010C50PT	
C289	CU3531	GRM36B471K50PT	
C290	CU3523	GRM1552C1H101JZ01D	
C291	CU3523	GRM1552C1H101JZ01D	
C292	CU3547	GRM36B103K16PT	
C293	CU3523	GRM1552C1H101JZ01D	
C294	CU3523	GRM1552C1H101JZ01D	
C295	CS0403	TMCP1D224MTR	
C296	CU3505	GRM36CH040C50PT	
C297	CU3576	GRM1553C1H2R5CZ01D	
C298	CU3523	GRM1552C1H101JZ01D	
C299	CU3523	GRM1552C1H101JZ01D	
C300	CU3023	1608 CH 50V 100PF J	
C301	CU3018	1608 CH 50V 39PF J	
C302	CU3559	GRM155B30J105KE18D	
C304	CU3005	1608 CH 50V 4PF C	
C305	CU3006	1608 CH 50V 5PF C	
C306	CU3501	GRM36CK0R5C50PT	
C307	CU3501	GRM36CK0R5C50PT	
C308	CU3501	GRM36CK0R5C50PT	
C309	CU3511	GRM36CH100D50PT	

MAIN Unit (2)

Ref.NO	Parts No.	Parts Name	Ver
C310	CU3506	GRM36CH050C50PT	
C311	CU3515	GRM36CH220J50PT	
C312	CU3504	GRM36CJ030C50PT	
C313	CU3012	1608 CH 50V 12PF J	
C314	CU3504	GRM36CJ030C50PT	
C315	CU3506	GRM36CH050C50PT	
C316	CU3517	GRM36CH330J50PT	
C317	CS0431	10V 2.2UF	
C318	CU3502	GRM36CK010C50PT	
C319	CU3502	GRM36CK010C50PT	
C320	CU3531	GRM36B471K50PT	
C321	CS0453	TMCP0J226MTRF	
C322	CU3559	GRM155B30J105KE18D	
C323	CU3504	GRM36CJ030C50PT	
C324	CU3505	GRM36CH040C50PT	
C325	CU3535	GRM36B102K50PT	
C326	CU3547	GRM36B103K16PT	
C327	CU3517	GRM36CH330J50PT	
C328	CU3517	GRM36CH330J50PT	
C329	CU3554	GRM36B104K10PT	
C330	CU3547	GRM36B103K16PT	
C331	CU3553	GRM36B473K10PT	
C332	CU3554	GRM36B104K10PT	
C333	CU3507	GRM36CH060D50PT	
C334	CU3507	GRM36CH060D50PT	
C336	CU3547	GRM36B103K16PT	
C337	CU3554	GRM36B104K10PT	
C338	CU3554	GRM36B104K10PT	
C339	CU3511	GRM36CH100D50PT	
C340	CU3547	GRM36B103K16PT	
C341	CU3535	GRM36B102K50PT	
C342	CU3547	GRM36B103K16PT	
C343	CU3547	GRM36B103K16PT	
C344	CU3554	GRM36B104K10PT	
C345	CU3554	GRM36B104K10PT	
C346	CU3522	GRM1552C1H820JD01D	
C347	CU3523	GRM1552C1H101JZ01D	
C349	CU3523	GRM1552C1H101JZ01D	
C350	CU3520	GRM1552C1H560JD01D	
C352	CU3554	GRM36B104K10PT	
C353	CU3554	GRM36B104K10PT	
C354	CU3503	GRM36CK020C50PT	
C355	CU3503	GRM36CK020C50PT	
C356	CU3547	GRM36B103K16PT	
C357	CU3547	GRM36B103K16PT	
C358	CU3513	GRM36CH150J50PT	
C359	CU3535	GRM36B102K50PT	
C360	CU3535	GRM36B102K50PT	
C361	CU3535	GRM36B102K50PT	
C362	CU3527	GRM1552C1E221JD01D	

Ref.NO	Parts No.	Parts Name	Ver
C363	CU3554	GRM36B104K10PT	
C364	CS0453	TMCP0J226MTRF	
C365	CU3527	GRM1552C1E221JD01D	
C366	CU3535	GRM36B102K50PT	
C367	CS0453	TMCP0J226MTRF	
C368	CU3535	GRM36B102K50PT	
C369	CS0453	TMCP0J226MTRF	
C370	CU3535	GRM36B102K50PT	
C371	CU3547	GRM36B103K16PT	
C372	CS0453	TMCP0J226MTRF	
C373	CS0453	TMCP0J226MTRF	
C374	CU3518	GRM36CH390J50PT	
C375	CU3517	GRM36CH330J50PT	
C376	CU3520	GRM1552C1H560JD01D	
C377	CU3535	GRM36B102K50PT	
C378	CU3554	GRM36B104K10PT	
C379	CU3520	GRM1552C1H560JD01D	
C380	CU3520	GRM1552C1H560JD01D	
C381	CU3513	GRM36CH150J50PT	
C382	CU3506	GRM36CH050C50PT	
C383	CU3504	GRM36CJ030C50PT	
C385	CU3516	GRM36CH270J50PT	
C386	CU3513	GRM36CH150J50PT	
C387	CU3512	GRM36CH120J50PT	
C388	CU3517	GRM36CH330J50PT	
C389	CU3514	GRM36CH180J50PT	
C390	CU3511	GRM36CH100D50PT	
C391	CU3547	GRM36B103K16PT	
C392	CU3547	GRM36B103K16PT	
C393	CU3531	GRM36B471K50PT	
C394	CU3547	GRM36B103K16PT	
C395	CU3547	GRM36B103K16PT	
C396	CU3507	GRM36CH060D50PT	
C397	CU3501	GRM36CK0R5C50PT	
C398	CU3547	GRM36B103K16PT	
C399	CU3535	GRM36B102K50PT	
C400	CU3547	GRM36B103K16PT	
C401	CU3503	GRM36CK020C50PT	
C402	CU3503	GRM36CK020C50PT	
C403	CU3513	GRM36CH150J50PT	
C404	CU3505	GRM36CH040C50PT	
C405	CU3515	GRM36CH220J50PT	
C406	CU3511	GRM36CH100D50PT	
C407	CU3515	GRM36CH220J50PT	
C408	CU3535	GRM36B102K50PT	
C409	CU3547	GRM36B103K16PT	
C410	CU3547	GRM36B103K16PT	
C411	CU3517	GRM36CH330J50PT	
C412	CU3517	GRM36CH330J50PT	
C413	CU3512	GRM36CH120J50PT	

MAIN Unit (3)

Ref.NO'	Parts No.	Parts Name	Ver
C414	CU3547	GRM36B103K16PT	
C416	CU3523	GRM1552C1H101JZ01D	
C417	CU3535	GRM36B102K50PT	
C418	CU3515	GRM36CH220J50PT	
C419	CU3519	GRM36CH470J50PT	
C420	CU3522	GRM1552C1H820JD01D	
C421	CU3535	GRM36B102K50PT	
C423	CU3511	GRM36CH100D50PT	
C424	CU3523	GRM1552C1H101JZ01D	
C425	CU3503	GRM36CK020C50PT	
C426	CU3504	GRM36CJ030C50PT	
C427	CU3504	GRM36CJ030C50PT	
C428	CU3547	GRM36B103K16PT	
C429	CU3507	GRM36CH060D50PT	
C430	CU3502	GRM36CK010C50PT	
C431	CS0431	10V 2.2UF	
C432	CU3514	GRM36CH180J50PT	
C433	CU3519	GRM36CH470J50PT	
C434	CU3507	GRM36CH060D50PT	
C435	CU3514	GRM36CH180J50PT	
C436	CU3511	GRM36CH100D50PT	
C437	CU3506	GRM36CH050C50PT	
C438	CU3503	GRM36CK020C50PT	
C439	CU3501	GRM36CK0R5C50PT	
C440	CU3506	GRM36CH050C50PT	
C441	CU3512	GRM36CH120J50PT	
C442	CU3505	GRM36CH040C50PT	
C443	CU3554	GRM36B104K10PT	
C444	CU3514	GRM36CH180J50PT	
C445	CU3547	GRM36B103K16PT	
C446	CU3507	GRM36CH060D50PT	
C448	CU3512	GRM36CH120J50PT	
C449	CU3512	GRM36CH120J50PT	
C450	CU3547	GRM36B103K16PT	
C451	CU3523	GRM1552C1H101JZ01D	
C452	CU3523	GRM1552C1H101JZ01D	
C453	CU3514	GRM36CH180J50PT	
C455	CU3533	GRM36B681K50PT	
C456	CU3551	GRM36B223K16PT	
C457	CU3559	GRM155B30J105KE18D	
C458	CS0428	4V15UF	
C459	CU3551	GRM36B223K16PT	
C460	CU3535	GRM36B102K50PT	
C461	CU3509	GRM36CH080D50PT	
C462	CU3505	GRM36CH040C50PT	
C463	CU3547	GRM36B103K16PT	
C464	CU3551	GRM36B223K16PT	
C465	CU3509	GRM36CH080D50PT	
C466	CU3507	GRM36CH060D50PT	
C467	CU3507	GRM36CH060D50PT	

Ref.NO'	Parts No.	Parts Name	Ver
C468	CU3547	GRM36B103K16PT	
C469	CU3547	GRM36B103K16PT	
C470	CU3535	GRM36B102K50PT	
C471	CU3515	GRM36CH220J50PT	
C472	CS0453	TMCP0J226MTRF	
C473	CU3559	GRM155B30J105KE18D	
C474	CU3547	GRM36B103K16PT	
C475	CU3535	GRM36B102K50PT	
C476	CU3553	GRM36B473K10PT	
C477	CU3547	GRM36B103K16PT	
C478	CU3547	GRM36B103K16PT	
C479	CU3554	GRM36B104K10PT	
C480	CU3547	GRM36B103K16PT	
C481	CU3554	GRM36B104K10PT	
C482	CU3554	GRM36B104K10PT	
C483	CU3547	GRM36B103K16PT	
C484	CU3523	GRM1552C1H101JZ01D	
C485	CU3535	GRM36B102K50PT	
C486	CU3507	GRM36CH060D50PT	
C487	CU3503	GRM36CK020C50PT	
C488	CU3507	GRM36CH060D50PT	
C489	CU3559	GRM155B30J105KE18D	
C490	CU3527	GRM1552C1E221JD01D	
C491	CE0374	16V 100UF	
C492	CU3535	GRM36B102K50PT	
C493	CU3547	GRM36B103K16PT	
C494	CU3535	GRM36B102K50PT	
C495	CS0453	TMCP0J226MTRF	
C496	CU3535	GRM36B102K50PT	
C497	CU3504	GRM36CJ030C50PT	
C498	CU3504	GRM36CJ030C50PT	
C499	CU3504	GRM36CJ030C50PT	
C501	CU3503	GRM36CK020C50PT	
C504	CU3503	GRM36CK020C50PT	
C505	CU3511	GRM36CH100D50PT	
C506	CU3554	GRM36B104K10PT	
C508	CU3511	GRM36CH100D50PT	
C509	CU3506	GRM36CH050C50PT	
C510	CU3511	GRM36CH100D50PT	
C511	CU3505	GRM36CH040C50PT	
C512	CU3504	GRM36CJ030C50PT	
C513	CU3511	GRM36CH100D50PT	
C517	CU3535	GRM36B102K50PT	
C518	CU3503	GRM36CK020C50PT	
C519	CU3505	GRM36CH040C50PT	
C520	CU3547	GRM36B103K16PT	
C521	CU3523	GRM1552C1H101JZ01D	
C522	CU3535	GRM36B102K50PT	
C523	CU3523	GRM1552C1H101JZ01D	
C524	CU3504	GRM36CJ030C50PT	

MAIN Unit (4)

Ref.NO'	Parts No.	Parts Name	Ver
C525	CU3504	GRM36CJ030C50PT	
C526	CU3513	GRM36CH150J50PT	
C527	CU3506	GRM36CH050C50PT	
C529	CS0453	TMCP0J226MTRF	
C530	CU3511	GRM36CH100D50PT	
C531	CU3502	GRM36CK010C50PT	
C701	CU3535	GRM36B102K50PT	
C702	CU3547	GRM36B103K16PT	
C703	CU3535	GRM36B102K50PT	
C704	CU3519	GRM36CH470J50PT	
C705	CU3501	GRM36CK0R5C50PT	
C706	CU3535	GRM36B102K50PT	
C707	CU3547	GRM36B103K16PT	
C708	CU3547	GRM36B103K16PT	
C709	CU3535	GRM36B102K50PT	
C710	CU3535	GRM36B102K50PT	
C711	CU3502	GRM36CK010C50PT	
C712	CU3535	GRM36B102K50PT	
C713	CU3547	GRM36B103K16PT	
C714	CU3547	GRM36B103K16PT	
C715	CU3531	GRM36B471K50PT	
C716	CU3509	GRM36CH080D50PT	
C717	CU3507	GRM36CH060D50PT	
C718	CU3503	GRM36CK020C50PT	
C720	CU3507	GRM36CH060D50PT	
CN201	UE0588	AXK5F10347YG	
CN203	UE0590	AXK5S40047YG	
D201	XD0326	1SV307	
D202	XD0326	1SV307	
D203	XD0484	RB521CS-30T2R	
D204	XD0484	RB521CS-30T2R	
D205	XD0484	RB521CS-30T2R	
D206	XD0326	1SV307	
D207	XD0432	JDS2S03S	
D208	XD0326	1SV307	
D209	XD0326	1SV307	
D210	XD0326	1SV307	
D211	XD0484	RB521CS-30T2R	
D212	XD0339	1SV308(TPH3)	
D214	XD0432	JDS2S03S	
D215	XD0432	JDS2S03S	
D216	XD0484	RB521CS-30T2R	
D217	XD0484	RB521CS-30T2R	
D218	XD0432	JDS2S03S	
D219	XD0432	JDS2S03S	
D220	XD0432	JDS2S03S	
D221	XD0339	1SV308(TPH3)	
D222	XD0432	JDS2S03S	
D223	XD0432	JDS2S03S	
D224	XD0435	1SS361FV	

Ref.NO'	Parts No.	Parts Name	Ver
D225	XD0421	1SV323(TPH3,H)	
D226	XD0421	1SV323(TPH3,H)	
D227	XD0326	1SV307	
D228	XD0384	JDP2S02S(TPH3)	
D229	XD0384	JDP2S02S(TPH3)	
D230	XD0384	JDP2S02S(TPH3)	
D231	XD0433	RB715WTL	
D232	XD0339	1SV308(TPH3)	
D233	XD0403	1SV314(TPH3,F)	
D234	XD0403	1SV314(TPH3,F)	
D235	XD0403	1SV314(TPH3,F)	
D236	XD0432	JDS2S03S	
D237	XD0433	RB715WTL	
D238	XD0432	JDS2S03S	
D239	XD0424	S3JB-T	
D240	XD0432	JDS2S03S	
D241	XD0401	DG1M3-5003	
D242	XD0432	JDS2S03S	
D243	XD0432	JDS2S03S	
D245	XD0339	1SV308(TPH3)	
D246	XD0435	1SS361FV	
D247	XD0396	VDZT2R 3.9B	
D248	XD0435	1SS361FV	
D249	XD0433	RB715WTL	
D250	XD0432	JDS2S03S	
D251	XD0484	RB521CS-30T2R	
D252	XD0453	RB717F	
D254	XD0435	1SS361FV	
D255	XD0432	JDS2S03S	
D256	XD0326	1SV307	
D257	XD0326	1SV307	
D258	XD0484	RB521CS-30T2R	
D260	XD0326	1SV307	
D261	XD0326	1SV307	
D701	XD0427	JDV2S14	
D702	XD0432	JDS2S03S	
D703	XD0427	JDV2S14	
D704	XD0364	1SV279-TPH3	
D705	XD0432	JDS2S03S	
D706	XD0364	1SV279-TPH3	
D707	XD0364	1SV279-TPH3	
D709	XD0364	1SV279-TPH3	
FL201	XC0075	CFUCG450E-TC	
FL202	XC0133	SFECF10M7HA00-R0	
FL203	XC0074	CFUCG450G-TC	
FL204	XC0054	CFWC450E1-TC	
IC201	XA0953	UPC2771TB	
IC202	XA1033	MB15F07SLPFV1-G-BND	
IC203	XA1356	NJM2746RB1-TE1	
IC204	XA0976	UPC2757TB-E3	

MAIN Unit (5)

Ref.NO'	Parts No.	Parts Name	Ver
IC205	XA0404	TA31136FNG(EL)	
IC206	XA0976	UPC2757TB-E3	
IC207	XA1352	BU2152FS	
IC208	XA0666	TK10931V	
IC209	XA0348	TC4W53FU(TE12L)	
IC210	XA1139	MM1332BF	
JK201	UJ0046	MJ82-1	
L201	QB0066	FBMH1608HM221	
L202	QS35168R	E2-0.35-1.6-8TR	
L203	QC0503	LK1608R10K-T	
L204	QC0732	LK10051R0K-B	
L205	QC0621	LL1608-FS33NJ	
L206	QS402003	E2-0.40-2.0-3TR	
L207	QS351406	E2-0.35-1.4-6TR	
L208	QS402006	0.40-2.0-6TL	
L209	QS35167R	E2-0.35-1.6-7TR	
L210	QS402006	0.40-2.0-6TL	
L211	QS402006	0.40-2.0-6TL	
L212	QS402003	E2-0.40-2.0-3TR	
L213	QC0812	1005 100NH	
L214	QC0508	LK16082R2K-T	
L215	QC0613	LL1608-FSL6N8J	
L216	QC0798	1005 6.8NH	
L217	QC0795	1005 3.9NH	
L218	QS401503	E2-0.40-1.5-3TR	
L219	QS402003	E2-0.40-2.0-3TR	
L220	QC0508	LK16082R2K-T	
L221	QS321003	E2-0.32-1.0-3TR	
L222	QS35167R	E2-0.35-1.6-7TR	
L223	QC0800	1005 10NH	
L224	QC0736	LK10052R2K-B	
L225	QB0065	FBMH1608HM151	
L226	QB0066	FBMH1608HM221	
L227	QS35168R	E2-0.35-1.6-8TR	
L228	QS400902	E2-0.40-0.9-2TR	
L229	QS300703	E2-0.30-0.7-3TR	
L230	QS400902	E2-0.40-0.9-2TR	
L231	QC0800	1005 10NH	
L232	QC0761	1608CB47NJ	
L233	QC0732	LK10051R0K-B	
L234	QC0933	MLG1608B1N2S-TS	
L235	QC0790	1005 1.5NH	
L236	QS300903	E2-0.30-0.9-3TR	
L237	QS301203	E2-0.30-1.2-3TR	
L238	QC0816	1005 220NH	
L239	QC0816	1005 220NH	
L240	QC0732	LK10051R0K-B	
L241	QC0808	1005 47NH	
L242	QC0816	1005 220NH	

Ref.NO'	Parts No.	Parts Name	Ver
L243	QC0816	1005 220NH	
L244	QC0816	1005 220NH	
L245	QC0812	1005 100NH	
L246	QS251907	E2-0.25-1.9-7TL	
L247	QC0807	1005 39NH	
L248	QC0809	1005 56NH	
L249	QC0810	1005 68NH	
L250	QC0813	1005 120NH	
L251	QC0813	1005 120NH	
L252	QC0814	1005 150NH	
L253	QC0732	LK10051R0K-B	
L254	QC0806	1005 33NH	
L255	QC0946	LQW15ANR10J00D	
L256	QC0946	LQW15ANR10J00D	
L257	QC0808	1005 47NH	
L260	QC0945	LQW15AN68NG00D	
L261	QC0804	MLG1005S22NJT	
L262	QC0806	1005 33NH	
L263	QC0736	LK10052R2K-B	
L264	QC0814	1005 150NH	
L265	QC0811	1005 82NH	
L267	QC0796	1005 4.7NH	
L268	QS402003	E2-0.40-2.0-3TR	
L269	QC0943	LQW15AN22NG00D	
L270	QC0943	LQW15AN22NG00D	
L271	QC0944	LQW15AN39NG00D	
L272	QC0803	MLG1005S18NJT	
L273	QC0803	MLG1005S18NJT	
L275	QC0803	MLG1005S18NJT	
L276	QC0806	1005 33NH	
L277	QC0801	MLG1005S12NJT	
L278	QC0801	MLG1005S12NJT	
L280	QC0791	1005 1.8NH	
L281	QC0791	1005 1.8NH	
L282	QS301203	E2-0.30-1.2-3TR	
L283	QC0798	1005 6.8NH	
L284	QC0798	1005 6.8NH	
L285	QC0806	1005 33NH	
L286	QC0796	1005 4.7NH	
L287	QC0800	1005 10NH	
L288	QC0800	1005 10NH	
L289	QC0806	1005 33NH	
L290	QC0794	1005 3.3NH	
L291	QC0791	1005 1.8NH	
L292	QC0796	1005 4.7NH	
L293	QC0791	1005 1.8NH	
L294	QC0806	1005 33NH	
L295	QC0806	1005 33NH	
L702	QC0942	C1608CB-R24G	

MAIN Unit (6)

Ref.NO'	Parts No.	Parts Name	Ver
L703	QC0779	C1608H-10NJ	
L704	QC0780	C1608H-12NJ	
L705	QC0776	C1608H-5N6J	
L706	QC0732	LK10051R0K-B	
Q201	XT0180	2SC5066FT-Y(TE85L)	
Q202	XE0071	2SK3476(TE12L)	
Q203	XE0094	RD01MUS2-T113	
Q204	XT0210	2SC6026MFV-GR	
Q205	XU0207	EMA8T2R	
Q206	XT0210	2SC6026MFV-GR	
Q207	XT0210	2SC6026MFV-GR	
Q209	XT0210	2SC6026MFV-GR	
Q210	XE0097	NE5510279A	
Q211	XU0205	DTC144TMT2L	
Q212	XE0092	RQA0004PXDQS	
Q213	XT0213	2SC5659T2L	
Q214	XT0178	2SC4915-O(TE85L)	
Q215	XE0098	2SK1875-BL(TE85L,F)	
Q216	XT0178	2SC4915-O(TE85L)	
Q217	XT0178	2SC4915-O(TE85L)	
Q218	XU0207	EMA8T2R	
Q219	XU0207	EMA8T2R	
Q220	XU0207	EMA8T2R	
Q221	XU0207	EMA8T2R	
Q222	XT0210	2SC6026MFV-GR	
Q223	XT0210	2SC6026MFV-GR	
Q224	XT0180	2SC5066FT-Y(TE85L)	
Q225	XT0178	2SC4915-O(TE85L)	
Q226	XU0207	EMA8T2R	
Q227	XU0207	EMA8T2R	
Q228	XU0207	EMA8T2R	
Q229	XU0207	EMA8T2R	
Q230	XU0207	EMA8T2R	
Q231	XU0207	EMA8T2R	
Q232	XU0207	EMA8T2R	
Q233	XU0207	EMA8T2R	
Q234	XT0180	2SC5066FT-Y(TE85L)	
Q235	XT0213	2SC5659T2L	
Q236	XT0180	2SC5066FT-Y(TE85L)	
Q237	XU0206	DTA123JMT2L	
Q238	XU0207	EMA8T2R	
Q239	XT0210	2SC6026MFV-GR	
Q240	XT0180	2SC5066FT-Y(TE85L)	
Q241	XT0180	2SC5066FT-Y(TE85L)	
Q242	XE0069	SSM3K15FV(TPL3,Z)	
Q243	XE0089	RTL030P02TR	
Q245	XT0180	2SC5066FT-Y(TE85L)	
Q246	XU0205	DTC144TMT2L	
Q247	XE0096	2SJ668(TE16L1,NQ)	
Q248	XT0237	US6T7	

Ref.NO'	Parts No.	Parts Name	Ver
Q249	XT0237	US6T7	
Q250	XT0239	2SC5820WU-TL-E	
Q251	XT0214	HN2C01FE-GR(T5L,F)	
Q252	XT0214	HN2C01FE-GR(T5L,F)	
Q253	XU0207	EMA8T2R	
Q254	XU0205	DTC144TMT2L	
Q256	XT0180	2SC5066FT-Y(TE85L)	
Q258	XT0180	2SC5066FT-Y(TE85L)	
L701	QC0763	C1608CB68NJ	
Q701	XT0180	2SC5066FT-Y(TE85L)	
Q702	XT0180	2SC5066FT-Y(TE85L)	
Q703	XU0205	DTC144TMT2L	
Q704	XT0180	2SC5066FT-Y(TE85L)	
Q705	XU0205	DTC144TMT2L	
Q706	XT0180	2SC5066FT-Y(TE85L)	
R201	RK3032	1608 1/10W 330 OHM J	
R202	RK3558	1005 1/16W 47K OHM J	
R203	RK3532	1005 1/16W 330 OHM J	
R204	RK3526	1005 1/16W 100 OHM J	
R205	RK3501	1005 1/16W 0 OHM J	
R206	RK3542	1005 1/16W 2.2K OHMJ	
R207	RK3538	1005 1/16W 1.0K OHMJ	
R208	RK3523	1005 1/16W 56 OHM J	
R209	RK3532	1005 1/16W 330 OHM J	
R210	RK3532	1005 1/16W 330 OHM J	
R211	RK3550	1005 1/16W 10K OHM J	
R212	RK3530	1005 1/16W 220 OHM J	
R213	RK3550	1005 1/16W 10K OHM J	
R214	RK3542	1005 1/16W 2.2K OHMJ	
R215	RK3550	1005 1/16W 10K OHM J	
R216	RK3562	1005 1/16W 100K OHMJ	
R217	RK3555	1005 1/16W 27K OHM J	
R218	RK3562	1005 1/16W 100K OHMJ	
R219	RK3534	1005 1/16W 470 OHM J	
R220	RK3538	1005 1/16W 1.0K OHMJ	
R221	RK3532	1005 1/16W 330 OHM J	
R222	RK3530	1005 1/16W 220 OHM J	
R223	RK3542	1005 1/16W 2.2K OHMJ	
R224	RK3550	1005 1/16W 10K OHM J	
R225	RK3542	1005 1/16W 2.2K OHMJ	
R226	RK3530	1005 1/16W 220 OHM J	
R227	RK3550	1005 1/16W 10K OHM J	
R228	RK3550	1005 1/16W 10K OHM J	
R230	RK3566	1005 1/16W 220K OzH MJ	
R231	RK3538	1005 1/16W 1.0K OHMJ	
R232	RK3526	1005 1/16W 100 OHM J	
R233	RK3550	1005 1/16W 10K OHM J	
R234	RK3552	1005 1/16W 15K OHM J	
R235	RK3526	1005 1/16W 100 OHM J	
R236	RK3544	1005 1/16W 3.3K OHMJ	

MAIN Unit (7)

Ref.NO'	Parts No.	Parts Name	Ver
R237	RK3552	1005 1/16W 15K OHM J	
R238	RK3550	1005 1/16W 10K OHM J	
R239	RK3550	1005 1/16W 10K OHM J	
R240	RK3523	1005 1/16W 56 OHM J	
R241	RK3542	1005 1/16W 2.2K OHMJ	
R242	RK3542	1005 1/16W 2.2K OHMJ	
R243	RK3538	1005 1/16W 1.0K OHMJ	
R244	RK3538	1005 1/16W 1.0K OHMJ	
R245	RK3545	1005 1/16W 3.9K OHMJ	
R246	RK3550	1005 1/16W 10K OHM J	
R248	RK3538	1005 1/16W 1.0K OHMJ	
R249	RK3532	1005 1/16W 330 OHM J	
R250	RK3554	1005 1/16W 22K OHM J	
R251	RK3550	1005 1/16W 10K OHM J	
R252	RK3530	1005 1/16W 220 OHM J	
R253	RK3542	1005 1/16W 2.2K OHMJ	
R254	RK3532	1005 1/16W 330 OHM J	
R255	RK3562	1005 1/16W 100K OHMJ	
R256	RK3562	1005 1/16W 100K OHMJ	
R257	RK3562	1005 1/16W 100K OHMJ	
R258	RK3526	1005 1/16W 100 OHM J	
R259	RK3514	1005 1/16W 10 OHM J	
R260	RK3501	1005 1/16W 0 OHM J	
R261	RK3534	1005 1/16W 470 OHM J	
R262	RK3550	1005 1/16W 10K OHM J	
R263	RK3574	1005 1/16W 1.0M OHMJ	
R264	RK3562	1005 1/16W 100K OHMJ	
R265	RK3523	1005 1/16W 56 OHM J	
R266	RK3562	1005 1/16W 100K OHMJ	
R267	RK3562	1005 1/16W 100K OHMJ	
R268	RK3538	1005 1/16W 1.0K OHMJ	
R269	RK3538	1005 1/16W 1.0K OHMJ	
R270	RK3562	1005 1/16W 100K OHMJ	
R271	RK3530	1005 1/16W 220 OHM J	
R272	RK3536	1005 1/16W 680 OHM J	
R273	RK3542	1005 1/16W 2.2K OHMJ	
R274	RK3566	1005 1/16W 220K OHMJ	
R275	RK3550	1005 1/16W 10K OHM J	
R276	RK3532	1005 1/16W 330 OHM J	
R277	RK3538	1005 1/16W 1.0K OHMJ	
R278	RK3542	1005 1/16W 2.2K OHMJ	
R279	RK3562	1005 1/16W 100K OHMJ	
R280	RK3526	1005 1/16W 100 OHM J	
R281	RK3538	1005 1/16W 1.0K OHMJ	
R282	RK3526	1005 1/16W 100 OHM J	
R283	RK3526	1005 1/16W 100 OHM J	
R284	RK3526	1005 1/16W 100 OHM J	
R285	RK3522	1005 1/16W 47 OHM J	
R286	RK3542	1005 1/16W 2.2K OHMJ	
R287	RK3562	1005 1/16W 100K OHMJ	

Ref.NO'	Parts No.	Parts Name	Ver
R288	RK3550	1005 1/16W 10K OHM J	
R289	RK3564	1005 1/16W 150K OHMJ	
R290	RK3544	1005 1/16W 3.3K OHMJ	
R291	RK3546	1005 1/16W 4.7K OHMJ	
R292	RK3546	1005 1/16W 4.7K OHMJ	
R293	RK3534	1005 1/16W 470 OHM J	
R294	RK3542	1005 1/16W 2.2K OHMJ	
R295	RK3542	1005 1/16W 2.2K OHMJ	
R296	RK3542	1005 1/16W 2.2K OHMJ	
R297	RK3560	1005 1/16W 68K OHM J	
R298	RK3526	1005 1/16W 100 OHM J	
R299	RK3542	1005 1/16W 2.2K OHMJ	
R300	RK3522	1005 1/16W 47 OHM J	
R301	RK3542	1005 1/16W 2.2K OHMJ	
R302	RK3542	1005 1/16W 2.2K OHMJ	
R303	RK3532	1005 1/16W 330 OHM J	
R304	RK3518	1005 1/16W 22 OHM J	
R305	RK3562	1005 1/16W 100K OHMJ	
R306	RK3542	1005 1/16W 2.2K OHMJ	
R307	RK3542	1005 1/16W 2.2K OHMJ	
R308	RK3526	1005 1/16W 100 OHM J	
R309	RK3501	1005 1/16W 0 OHM J	
R310	RK3574	1005 1/16W 1.0M OHMJ	
R311	RK3574	1005 1/16W 1.0M OHMJ	
R312	RK3542	1005 1/16W 2.2K OHMJ	
R313	RK3559	1005 1/16W 56K OHM J	
R314	RK3542	1005 1/16W 2.2K OHMJ	
R315	RK3542	1005 1/16W 2.2K OHMJ	
R316	RK3501	1005 1/16W 0 OHM J	
R317	RK3531	1005 1/16W 270 OHM J	
R318	RK3562	1005 1/16W 100K OHMJ	
R318	RK3562	1005 1/16W 100K OHMJ	
R319	RK3518	1005 1/16W 22 OHM J	
R320	RK3528	1005 1/16W 150 OHM J	
R321	RK3538	1005 1/16W 1.0K OHMJ	
R322	RK3522	1005 1/16W 47 OHM J	
R323	RK3542	1005 1/16W 2.2K OHMJ	
R324	RK3542	1005 1/16W 2.2K OHMJ	
R325	RK3526	1005 1/16W 100 OHM J	
R326	RK3554	1005 1/16W 22K OHM J	
R327	RK3550	1005 1/16W 10K OHM J	
R328	RK3518	1005 1/16W 22 OHM J	
R329	RK3568	1005 1/16W 330K OHMJ	
R330	RK3558	1005 1/16W 47K OHM J	
R331	RK3522	1005 1/16W 47 OHM J	
R332	RK3534	1005 1/16W 470 OHM J	
R333	RK3554	1005 1/16W 22K OHM J	
R334	RK3532	1005 1/16W 330 OHM J	
R335	RK3574	1005 1/16W 1.0M OHMJ	
R336	RK3542	1005 1/16W 2.2KOHMJ	

MAIN Unit (8)

Ref.NO'	Parts No.	Parts Name	Ver
R337	RK3550	1005 1/16W 10K OHM J	
R338	RK3550	1005 1/16W 10K OHM J	
R339	RK3550	1005 1/16W 10K OHM J	
R340	RK3574	1005 1/16W 1.0M OHMJ	
R341	RK3542	1005 1/16W 2.2K OHMJ	
R342	RK3538	1005 1/16W 1.0K OHMJ	
R343	RK3574	1005 1/16W 1.0M OHMJ	
R344	RK3574	1005 1/16W 1.0M OHMJ	
R345	RK3554	1005 1/16W 22K OHM J	
R346	RK3538	1005 1/16W 1.0K OHMJ	
R347	RK3550	1005 1/16W 10K OHM J	
R348	RK3562	1005 1/16W 100K OHMJ	
R349	RK3566	1005 1/16W 220K OHMJ	
R350	RK3554	1005 1/16W 22K OHM J	
R351	RK3556	1005 1/16W 33K OHM J	
R352	RK3568	1005 1/16W 330K OHMJ	
R353	RK3562	1005 1/16W 100K OHMJ	
R354	RK3558	1005 1/16W 47K OHM J	
R355	RK3566	1005 1/16W 220K OHMJ	
R356	RK3518	1005 1/16W 22 OHM J	
R357	RK3558	1005 1/16W 47K OHM J	
R358	RK3514	1005 1/16W 10 OHM J	
R359	RK3532	1005 1/16W 330 OHM J	
R360	RK3542	1005 1/16W 2.2K OHMJ	
R361	RK3546	1005 1/16W 4.7K OHMJ	
R362	RK3550	1005 1/16W 10K OHM J	
R363	RK3542	1005 1/16W 2.2K OHMJ	
R364	RK3543	1005 1/16W 2.7K OHMJ	
R365	RK3526	1005 1/16W 100 OHM J	
R366	RK3558	1005 1/16W 47K OHM J	
R367	RK3532	1005 1/16W 330 OHM J	
R368	RK3562	1005 1/16W 100K OHMJ	
R369	RK3558	1005 1/16W 47K OHM J	
R370	RK3538	1005 1/16W 1.0K OHMJ	
R371	RK3501	1005 1/16W 0 OHM J	
R372	RK0159	1608 1/10W 0.33OHM J	
R373	RK3558	1005 1/16W 47K OHM J	
R374	RK3514	1005 1/16W 10 OHM J	
R375	RK3538	1005 1/16W 1.0K OHMJ	
R376	RK3562	1005 1/16W 100K OHMJ	
R377	RK3542	1005 1/16W 2.2K OHMJ	
R378	RK3542	1005 1/16W 2.2K OHMJ	
R379	RK3550	1005 1/16W 10K OHM J	
R380	RK3554	1005 1/16W 22K OHM J	
R383	RK3554	1005 1/16W 22K OHM J	
R387	RK3538	1005 1/16W 1.0K OHM J	
R389	RK3526	1005 1/16W 100 OHM J	
R390	RK3526	1005 1/16W 100 OHM J	
R391	RK3554	1005 1/16W 22K OHM J	
R392	RK3554	1005 1/16W 22K OHM J	

Ref.NO'	Parts No.	Parts Name	Ver
R394	RK3542	1005 1/16W 2.2K OHMJ	
R395	RK3544	1005 1/16W 3.3K OHMJ	
R396	RK3542	1005 1/16W 2.2K OHMJ	
R398	RK3501	1005 1/16W 0 OHM J	
R399	RK3554	1005 1/16W 22K OHM J	
R401	RK3558	1005 1/16W 47K OHM J	
R402	RK3514	1005 1/16W 10 OHM J	
R403	RK3554	1005 1/16W 22K OHM J	
R404	RK3554	1005 1/16W 22K OHM J	
R406	RK3542	1005 1/16W 2.2K OHMJ	
R407	RK3550	1005 1/16W 10K OHM J	
R408	RK3514	1005 1/16W 10 OHM J	
R410	RK3558	1005 1/16W 47K OHM J	
R411	RK3506	1005 1/16W 2.2 OHM J	
R701	RK3514	1005 1/16W 10 OHM J	
R702	RK3547	1005 1/16W 5.6K OHMJ	
R703	RK3538	1005 1/16W 1.0K OHMJ	
R704	RK3550	1005 1/16W 10K OHM J	
R705	RK3534	1005 1/16W 470 OHM J	
R706	RK3550	1005 1/16W 10K OHM J	
R707	RK3542	1005 1/16W 2.2K OHMJ	
R708	RK3544	1005 1/16W 3.3K OHMJ	
R709	RK3534	1005 1/16W 470 OHM J	
R710	RK3534	1005 1/16W 470 OHM J	
R711	RK3550	1005 1/16W 10K OHM J	
R712	RK3542	1005 1/16W 2.2K OHMJ	
R713	RK3544	1005 1/16W 3.3K OHMJ	
R715	RK3550	1005 1/16W 10K OHM J	
R716	RK3534	1005 1/16W 470 OHM J	
R717	RK3542	1005 1/16W 2.2K OHMJ	
R718	RK3530	1005 1/16W 220 OHM J	
X201	XQ0194	NT3225SA12.8M	
X202	XK0005	CDBCB450KCAY24-R0	
X203	XK0011	CDSCB10M7GF126-R0	
X204	XK0012	CDBKB450KCAY77-R0	
XF201	XF0082	DSF753S 51.65MHZ	
XF202	XF0083	DSF753S 50.75MHZ	
	UP0650	DJG7 RF INTEGRATED	
	TZ0113	GP1 5X6 1.0	
	TZ0109	GP1-2.0-010020 10X20	
	TS0187	MAIN VCO CASE	
	EA0162	BAR ANT DJG7	
	TS0186	SUB VCO CASE	
	FM0302	HEAT SINK	

VCO Unit

Ref.NO'	Parts No.	Parts Name	Ver
C601	CU3531	GRM36B471K50PT	
C602	CU3515	GRM36CH220J50PT	
C603	CU3535	GRM36B102K50PT	
C604	CU3535	GRM36B102K50PT	
C606	CU3502	GRM36CK010C50PT	
C607	CU3502	GRM36CK010C50PT	
C609	CU3535	GRM36B102K50PT	
C610	CU3527	GRM1552C1E221JD01D	
C611	CU3531	GRM36B471K50PT	
C612	CU3509	GRM36CH080D50PT	
C613	CU3578	1005 CH 50V 7PF B	
C614	CU3501	GRM36CK0R5C50PT	
C615	CU3503	GRM36CK020C50PT	
C616	CU3509	GRM36CH080D50PT	
C617	CU3531	GRM36B471K50PT	
C618	CU3527	GRM1552C1E221JD01D	
C619	CU3527	GRM1552C1E221JD01D	
C620	CU3509	GRM36CH080D50PT	
C621	CU3562	GRM1553C1H3R0BZ01D	
C622	CU3501	GRM36CK0R5C50PT	
C623	CU3502	GRM36CK010C50PT	
C624	CU3503	GRM36CK020C50PT	
C625	CU3527	GRM1552C1E221JD01D	
C626	CU3526	GRM1552C1E181JD01D	
C627	CU3535	GRM36B102K50PT	
CN601	UE0589	AXK6F10347YG	
D601	XD0427	JDV2S14	
D602	XD0364	1SV279-TPH3	
D603	XD0427	JDV2S14	
D604	XD0364	1SV279-TPH3	
D605	XD0364	1SV279-TPH3	
D606	XD0364	1SV279-TPH3	
D607	XD0364	1SV279-TPH3	
D608	XD0364	1SV279-TPH3	
D609	XD0364	1SV279-TPH3	
L601	QC0765	1608 100NH	
L602	QC0779	C1608H-10NJ	
L603	QC0774	C1608H-2N7K	
Q601	XT0180	2SC5066FT-Y(TE85L)	
Q602	XT0180	2SC5066FT-Y(TE85L)	
Q603	XT0180	2SC5066FT-Y(TE85L)	
Q604	XT0180	2SC5066FT-Y(TE85L)	
R601	RK3530	1005 1/16W 220 OHM J	
R602	RK3545	1005 1/16W 3.9K OHMJ	
R603	RK3562	1005 1/16W 100K OHMJ	
R604	RK3554	1005 1/16W 22K OHM J	
R605	RK3550	1005 1/16W 10K OHM J	
R606	RK3542	1005 1/16W 2.2K OHMJ	
R607	RK3534	1005 1/16W 470 OHM J	
R608	RK3550	1005 1/16W 10K OHM J	

Ref.NO'	Parts No.	Parts Name	Ver
R609	RK3544	1005 1/16W 3.3K OHMJ	
R610	RK3562	1005 1/16W 100K OHMJ	
R611	RK3550	1005 1/16W 10K OHM J	
R612	RK3542	1005 1/16W 2.2K OHMJ	
R613	RK3533	1005 1/16W 390 OHM J	
R614	RK3550	1005 1/16W 10K OHM J	
R615	RK3544	1005 1/16W 3.3K OHMJ	
R617	RK3550	1005 1/16W 10K OHM J	
R618	RK3548	1005 1/16W 6.8K OHMJ	
R619	RK3542	1005 1/16W 2.2K OHMJ	
R620	RK3532	1005 1/16W 330 OHM J	
R622	RK3526	1005 1/16W 100 OHM J	

Mechanical Parts

Ref.NO'	Parts No.	Parts Name	Ver
	FM0303	JACK BASE	
	AN0041	M7 WATERPROOF	
	DD0020	BLIND SHEET A	
	FG0475	TERMINAL RUBBER	
	YX0050	LCD TAPE	
	FG0498	CUSHION	
	FG0500	MIC CUSHION	
	FM0288	ANT.GND	
	FM0301	6NUT L6.1 M2+3	
	UE0333A	SPRING CONNECTOR	
	AN0037	M10 P=0.75 NUT	
	TL0036	REFLECTIV SHEET	
	DP0190	LCD PANEL	
	TG0046	SP NET DJG7	
	ST0094	RF SHIELD	
	FM0317	VOL CHASSIS	
	FP0264	BLIND SEAL DJ170	
	FP0265	WATERPROOF TAPE	
	DD0021	BLIND SHEET B	
	SP0013	KNOB SPRING 7800	
	NK0083	SQL KNOB	
	FP0296	SP BASE	
	AZ0051	PW 18+48	
	NK0082	VOL KNOB	
	KZ0202	FRONT CASE ASSY G7	
	KB0117	REAR CASE G7	
	UE0551	SMA ANT CONNECTOR	
	FG0457	JACK CAP	
	FG0465	KEY BOAD	
	FG0466	PTT RUBBER	
	ES0039	32-8BB-10P	
	FG0467	DC CAP	
	FG0470	ON AIR RUBBER	
	FG0473	O RING 9.0+1.0	
	FG0489	O RING 4.5+1.0	
	AF0020Z	OPH M2+3 FE/N 1	
	AF0031	OPH 2+5 FE/N3	
	AP0041	BIND P 2+15-10 BC	
	AP0042	BIND P 2+10-6 BC	
	AN0012Z	RND M7X0.75 DR/BN	
	FG0474	WATERPROOF RUBBER	
	AA0083	M6 WATERPROOF	

LED Unit

Ref.NO'	Parts No.	Parts Name	Ver
D801	XL0128	SML-D12M8WT86	
D802	XL0128	SML-D12M8WT86	
R801	RK3518	1005 1/16W 22 OHM J	
R802	RK3518	1005 1/16W 22 OHM J	

JACK Unit

Ref.NO'	Parts No.	Parts Name	Ver
CN851	UE0592	BM08B-SURS-TF	
JK851	UJ0060	HSJ1594-010150	
	UX1408	08SUR-32S 60L	

RE1 Unit

Ref.NO'	Parts No.	Parts Name	Ver
RE901	UR0028	TP70D974AE20 21.3F	

RE2 Unit

Ref.NO'	Parts No.	Parts Name	Ver
RE951	UR0028	TP70D974AE20 21.3F	

ADJUSTMENT

Adjustment Mode

[Standard condition] **DC IN: 13.80V±0.02V**

Change to adjustment mode.

Press key **3 → 1 → 2 → 3 → 2 → 1** after key lock.

(Key lock: Press **[FUNC]** key for 2sec.)

Operation

RE1:Frequency/ Push:Squelch

RE2:Volume

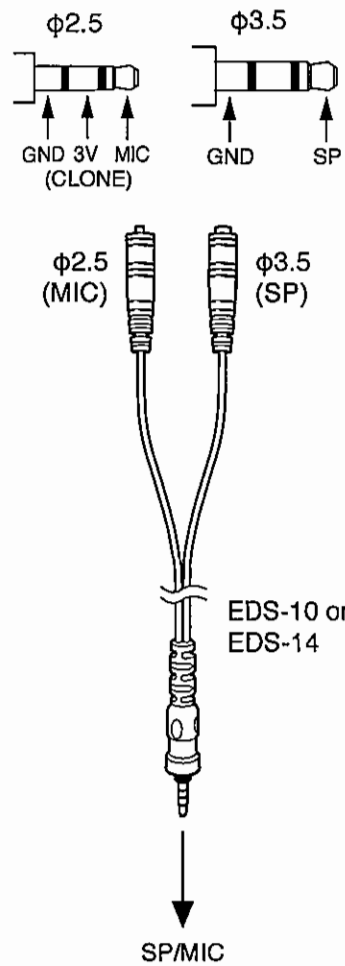
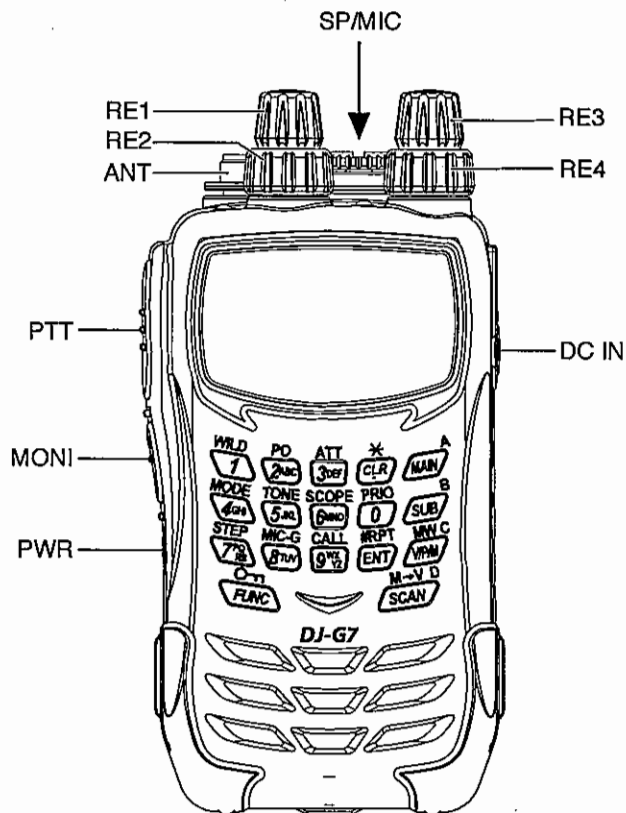
RE3:Adjust

RE4:Adjust(5 Step)

A:Forward

B:Return

D:Set



TX Adjustment Specification
Standard Measuring Condition
MOD Frequency: 1KHz

No.	Item	Freq.(MHz)	ADJ.	Adjustment SPEC.	Note	Operation
00	Ref. Frequency	1270.15	RE3	$\pm 200\text{Hz}$		Press <input type="checkbox"/> key
01	Hi-Power	145.15	RE3	$5.0 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
02	Mid-Power	145.15	RE3	$2.0 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
03	Low2 Power	145.15	RE3	$1.0 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
04	Low1 Power	145.15	RE3	$0.3 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
05	Hi-Power	430.15	RE3	$4.5 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
05-2	Hi-Power	439.98	RE3	$4.5 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
05-3	Hi-Power	T/E:449.98	RE3	$4.5 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
06	Mid-Power	T/E:439.98	RE3	$2.0 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
07	Low2 Power	T/E:439.98	RE3	$1.0 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
08	Low1 Power	T/E:439.98	RE3	$0.3 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
09	Hi-Power	T/E:1240.15	RE3	$1.0 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
09-2	Hi-Power	1270.15	RE3	$1.0 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
09-3	Hi-Power	1299.98	RE3	$1.0 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
10	Low-Power	1270.15	RE3	$0.3 \pm 0.1\text{W}$		Press <input type="checkbox"/> key
11	MIC Dev (FM)	145.15	RE3	$4.5 \pm 0.1\text{KHz}$	AG output level: 1KHz -30dBm BPF:OFF-20K	Press <input type="checkbox"/> key
12	MIC Dev (FM)	T/E:439.98	RE3	$4.5 \pm 0.1\text{KHz}$	AG output level: 1KHz -30dBm BPF:OFF-20K	Press <input type="checkbox"/> key
13	MIC Dev (FM)	1270.15	RE3	$4.5 \pm 0.1\text{KHz}$	AG output level: 1KHz -30dBm BPF:OFF-20K	Press <input type="checkbox"/> key

No.	Item	Freq.(MHz)	ADJ.	Adjustment SPEC.	Note	Operation
13-2	MIC Dev (FM)	T/E:1240.15	RE3	4.5± 0.1KHz	AG output level: 1KHz -30dBm BPF:OFF-20K	Press <input type="checkbox"/> key
13-3	MIC Dev (FM)	1299.98	RE3	4.5± 0.1KHz	AG output level: 1KHz -30dBm BPF:OFF-20K	Press <input type="checkbox"/> key
14	MIC Dev (NFM)	145.15	RE3	2.2± 0.1KHz	AG output level: 1KHz -30dBm BPF:OFF-20K	Press <input type="checkbox"/> key
15	MIC Dev (NFM)	T/E:439.98	RE3	2.2± 0.1KHz	AG output level: 1KHz -30dBm BPF:OFF-20K	Press <input type="checkbox"/> key
16	MIC Dev (NFM)	1270.15	RE3	2.2± 0.1KHz	AG output level: 1KHz -30dBm BPF:OFF-20K	Press <input type="checkbox"/> key
17	TONE Dev (88.5Hz)	145.15	RE3	0.8± 0.1KHz	BPF:OFF-3KHz	Press <input type="checkbox"/> key
18	TONE Dev (88.5Hz)	T/E:439.98	RE3	0.7~ 1.2KHz	BPF:OFF-3KHz	Press <input type="checkbox"/> key
19	TONE Dev (88.5Hz)	1270.15	RE3	1.0± 0.1KHz	BPF:OFF-3KHz	Press <input type="checkbox"/> key
20	DTMF Dev (Press <input type="checkbox"/> key)	145.15	RE3	3.0± 0.1KHz	BPF:OFF-20K	Press <input type="checkbox"/> key
21	DTMF Dev (Press <input type="checkbox"/> key)	T/E:439.98	RE3	3.0± 0.1KHz	BPF:OFF-20K	Press <input type="checkbox"/> key
22	DTMF Dev (Press <input type="checkbox"/> key)	1270.15	RE3	3.0± 0.1KHz	BPF:OFF-20K	Press <input type="checkbox"/> key
23	DCS Dev (023)	145.15	RE3	0.7± 0.1KHz	BPF:OFF-3KHz	Press <input type="checkbox"/> key
24	DCS Dev (023)	T/E:439.98	RE3	0.7± 0.1KHz	BPF:OFF-3KHz	Press <input type="checkbox"/> key
25	DCS Dev (023)	1270.15	-	Adjustment is no need.		Press <input type="checkbox"/> key

No.	Item	Freq.(MHz)	ADJ.	Adjustment SPEC.	Note	Operation
26	FSK Dev (Press PTT key)	145.15	RE3	3.5± 0.1KHz	BPF:OFF-20K	Press D key
27	FSK Dev (Press PTT key)	T/E:439.98	RE3	3.5± 0.1KHz	BPF:OFF-20K	Press D key
28	FSK Dev (Press PTT key)	1270.15	RE3	3.5± 0.1KHz	BPF:OFF-20K	Press D key
29	TBST Dev (Press MONI key)	145.15	RE3	3.0± 0.1KHz	BPF:OFF-20K	Press D key
30	TBST Dev (Press MONI key)	T/E:439.98	RE3	3.0± 0.1KHz	BPF:OFF-20K	Press D key
31	TBST Dev (Press MONI key)	1270.15	RE3	3.0± 0.1KHz	BPF:OFF-20K	Press D key
32	VOX	145.15		Voltage memory	Only press D key	Press D key










Standard Measuring Condition














MOD Frequency: 1kHz

Deviation: FM 3.5KHz / NFM 1.5KHz / WFM 50.5KHz

AF output power:50mW(8Ω)

No.	Item	Freq.(MHz)	ADJ.	Adjustment SPEC.	Note	Operation
33	Sensitivity (Lower edge)	136.05	RE3	Less than -5dBu	1KHz 3.5KHz/DEV Adjust RE3 to best position of sensitivity.	Press D key
34	Sensitivity (Center)	145.05	RE3	Less than -7dBu	1KHz 3.5KHz/DEV Adjust RE3 to best position of sensitivity.	Press D key
35	Sensitivity (Upper edge)	169.95	RE3	Less than -7dBu	1KHz 3.5KHz/DEV Adjust RE3 to best position of sensitivity.	Press D key
36	Sensitivity (Lower edge)	420.05	RE3	Less than -7dBu	1KHz 3.5KHz/DEV Adjust RE3 to best position of sensitivity.	Press D key
37	Sensitivity (Center)	T/E:445.05	RE3	Less than -7dBu	1KHz 3.5KHz/DEV Adjust RE3 to best position of sensitivity.	Press D key
38	Sensitivity (Upper edge)	469.95	RE3	Less than -7dBu	1KHz 3.5KHz/DEV Adjust RE3 to best position of sensitivity.	Press D key

No.	Item	Freq.(MHz)	ADJ.	Adjustment SPEC.	Note	Operation
39	Squelch (Min.)	145.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV -12dBu	Press  key
40	Squelch (Max.)	145.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
41	Squelch (Min.)	T/E:445.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV -12dBu	Press  key
42	Squelch (Max.)	T/E:445.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
43	Squelch (Min.)	1270.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV -10dBu	Press  key
44	Squelch (Max.)	1270.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
45	S-meter (1 level)	145.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
46	S-meter (Full level)	145.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 20dBu	Press  key
47	S-meter (1 level)	T/E:445.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
48	S-meter (Full level)	T/E:445.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 20dBu	Press  key
49	S-meter (1 level)	1270.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
50	S-meter (Full level)	1270.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 20dBu	Press  key
51 (SUB)	Squelch (Min.)	145.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV -12dBu	Press  key
52 (SUB)	Squelch (Max.)	145.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV -2dBu	Press  key
53 (SUB)	Squelch (Min.)	T/E:445.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV -10dBu	Press  key

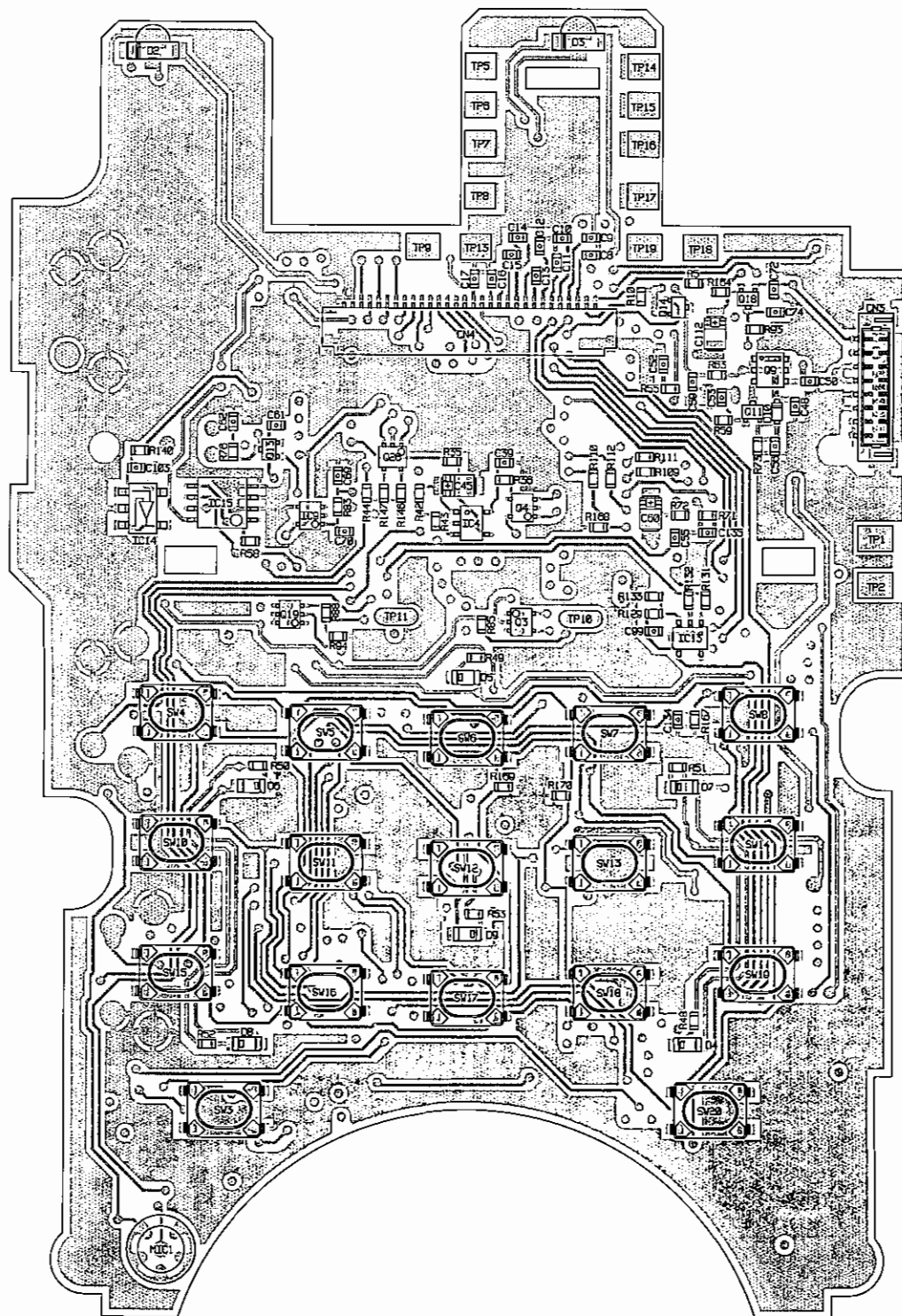
No.	Item	Freq.(MHz)	ADJ.	Adjustment SPEC.	Note	Operation
54 (SUB)	Squelch (Max.)	T/E:445.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
55 (SUB)	Squelch (Min.)	1270.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV -5dBu	Press  key
56 (SUB)	Squelch (Max.)	1270.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 3dBu	Press  key
57 (SUB)	S-meter (1 level)	145.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
58 (SUB)	S-meter (Full level)	145.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 20dBu	Press  key
59 (SUB)	S-meter (1 level)	T/E:445.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
60 (SUB)	S-meter (Full level)	T/E:445.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 20dBu	Press  key
61 (SUB)	S-meter (1 level)	1270.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 0dBu	Press  key
62 (SUB)	S-meter (Full level)	1270.05	-	Voltage memory	SSG output level: 1KHz 3.5KHz/DEV 20dBu	Press  key
63 (SUB)	Squelch (Min.)	76.05	-	Voltage memory	SSG output level: 1KHz 50.5KHz/DEV 7dBu	Press  key
64 (SUB)	Squelch (Max.)	76.05	-	Voltage memory	SSG output level: 1KHz 50.5KHz/DEV 15dBu	Press  key
65 (SUB)	S-meter (1 level)	76.05	-	Voltage memory	SSG output level: 1KHz 50.5KHz/DEV 10dBu	Press  key
66 (SUB)	S-meter (Full level)	76.05	-	Voltage memory	SSG output level: 1KHz 50.5KHz/DEV 30dBu	Press  key

No.	Item	Freq.(MHz)	ADJ.	Adjustment SPEC.	Note	Operation
67 (SUB)	Squelch (Min.)	108.05	-	Voltage memory	SSG output level: 1KHz 30% AM -4dBu	Press <input type="checkbox"/> key
68 (SUB)	Squelch (Max.)	108.05	-	Voltage memory	SSG output level: 1KHz 30% AM 7dBu	Press <input type="checkbox"/> key
69 (SUB)	S-meter (1 level)	108.05	-	Voltage memory	SSG output level: 1KHz 30% AM 1dBu	Press <input type="checkbox"/> key
70 (SUB)	S-meter (Full level)	108.05	-	Voltage memory	SSG output level: 1KHz 30% AM 11dBu	Press <input type="checkbox"/> key
71 (SUB)	Battery indicator (Full)	76.05	-	Voltage memory	DC IN 13.80V ± 0.02V	Press <input type="checkbox"/> key
72 (SUB)	Aging test	145.50 435.50 1270.50	Press <input type="checkbox"/> key		Antenna connector: 50ohm dummy load Finish automatically in 30 minutes. Manual stop: Press FUNC key	

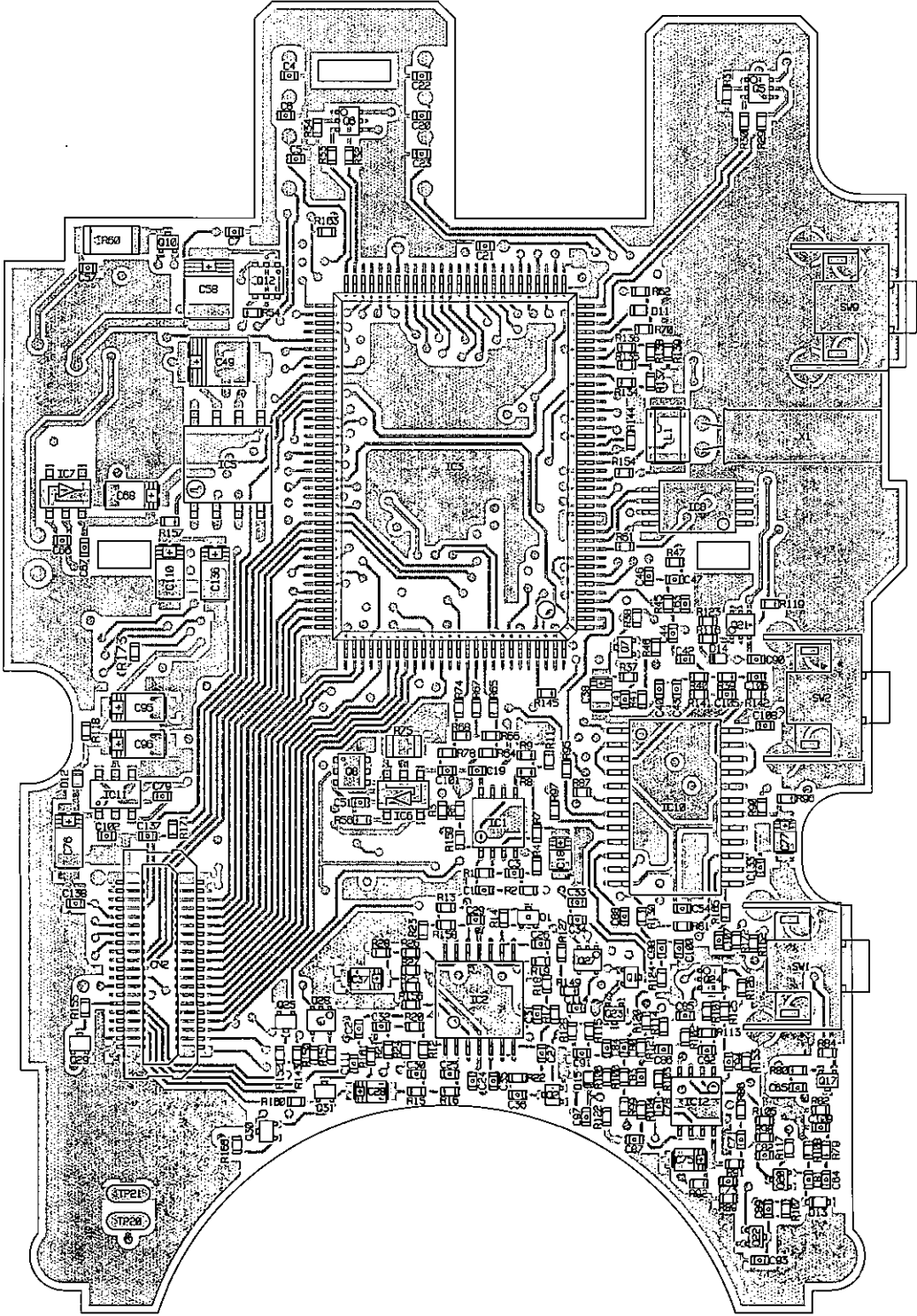
After adjust the all item, press the **FUNC** key.
Then take off from the adjustment mode.

PC BOARD VIEW

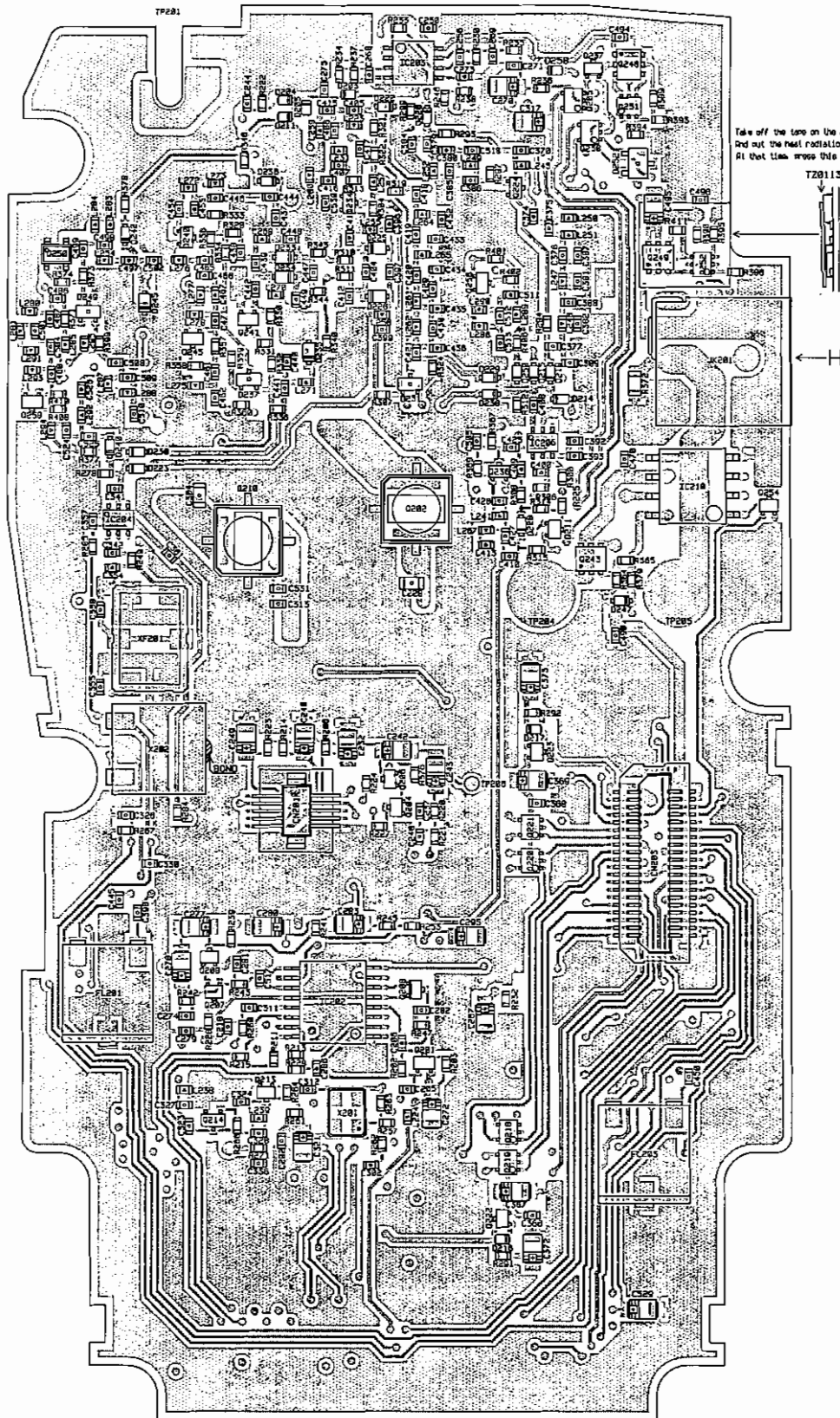
CPU Unit Side A



CPU Unit Side B



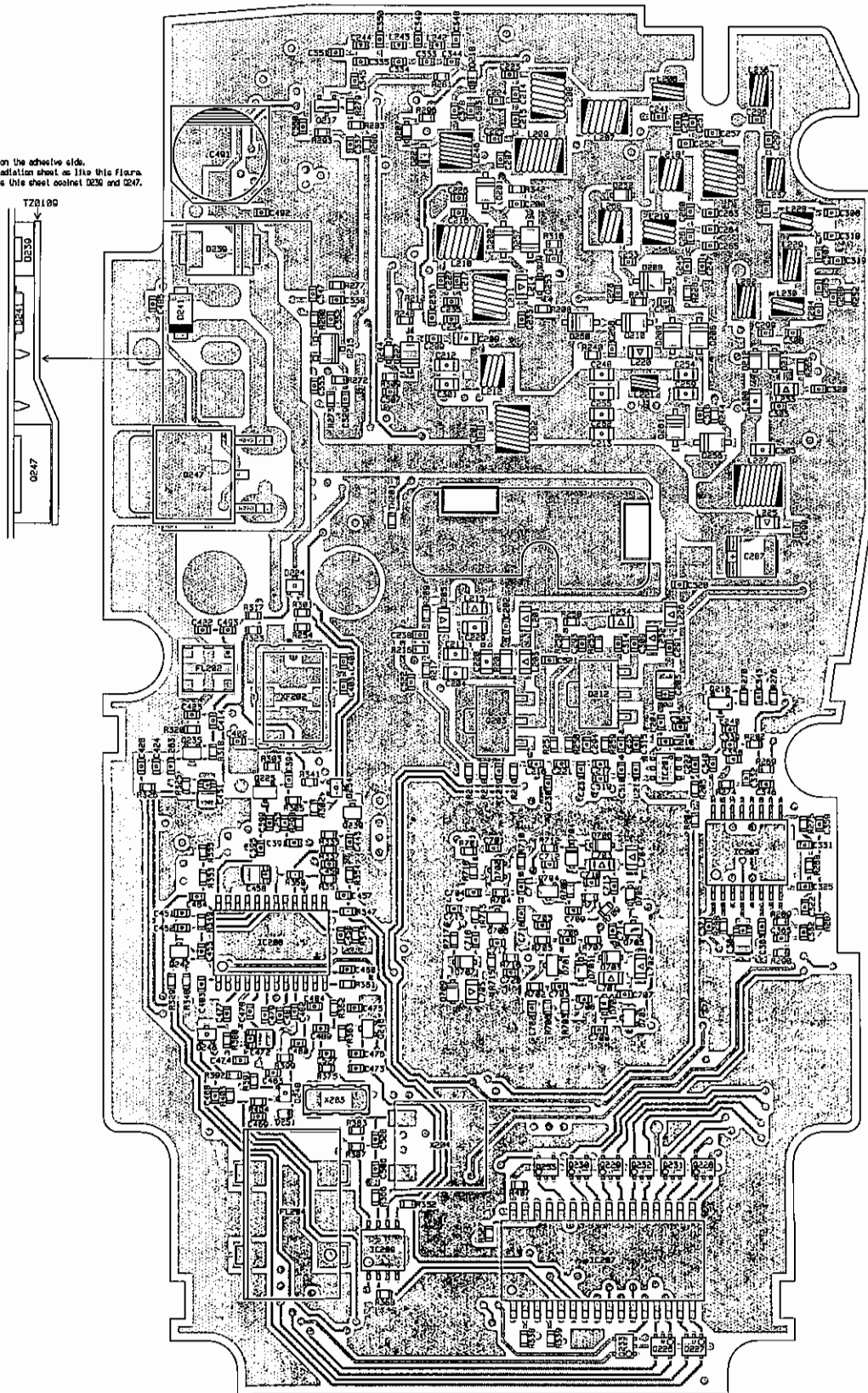
MAIN Unit Side A



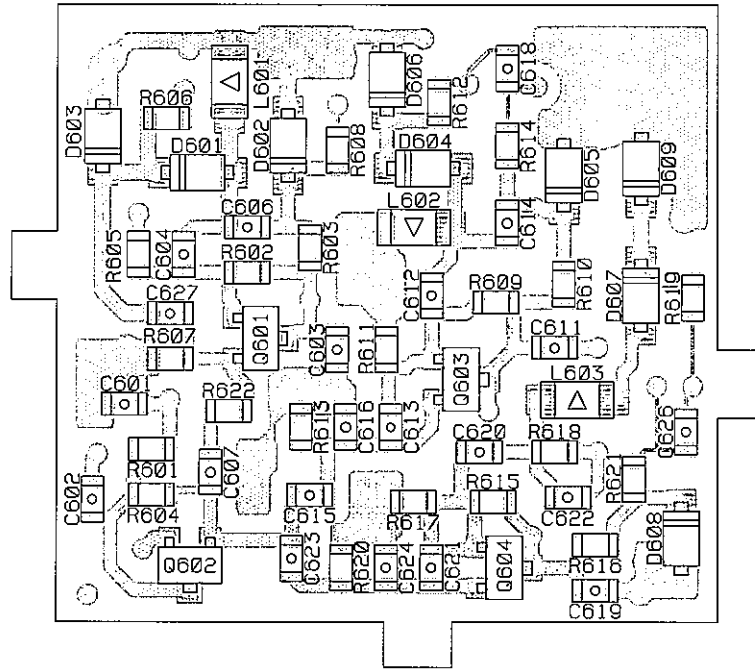
TP203
20241

MAIN Unit Side B

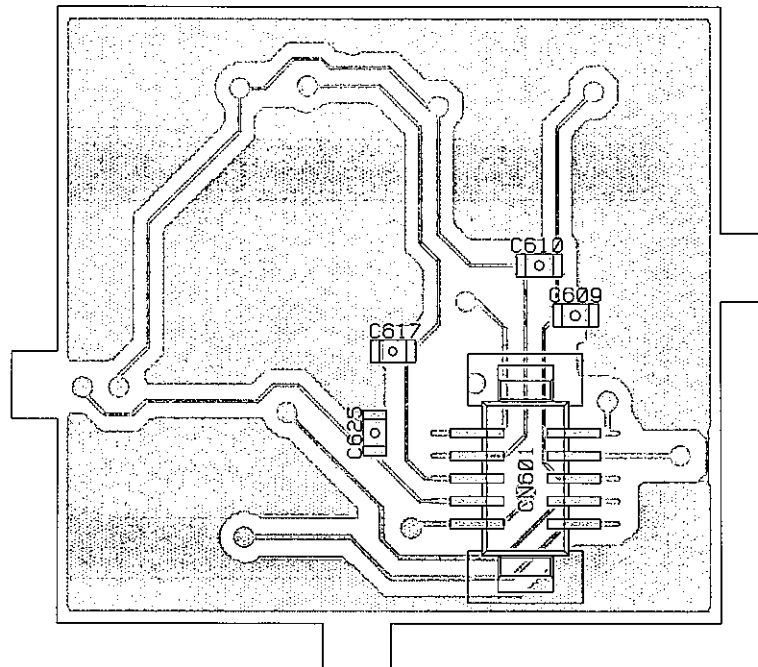
Take off the tape on the adhesive side.
And put the heat radiation sheet as like this figure.
At that time, cross this sheet coolant D230 and D247.



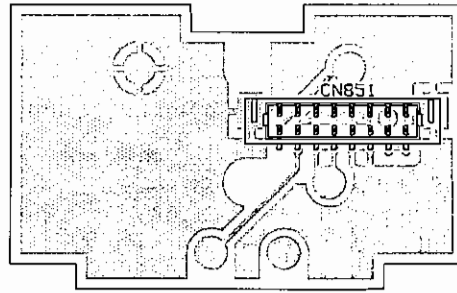
VCO Unit Side A



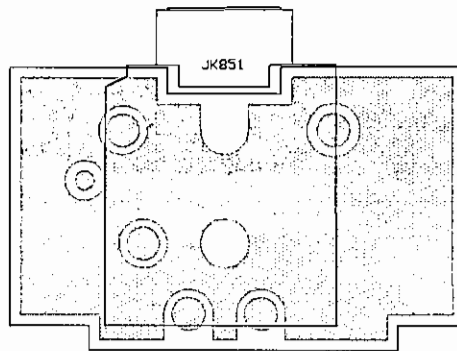
VCO Unit Side B



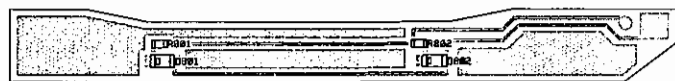
JACK Unit Side A



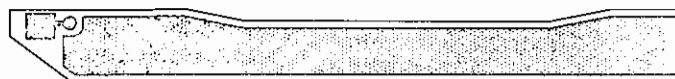
JACK Unit Side B



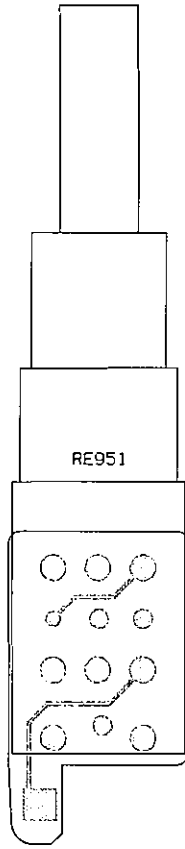
LED Unit Side A



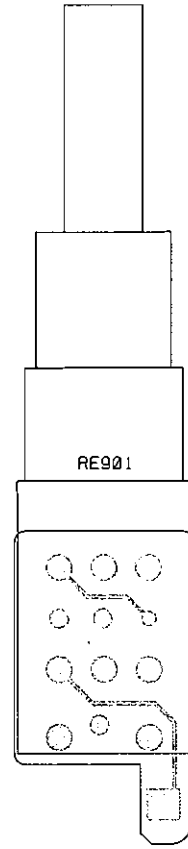
LED Unit Side B



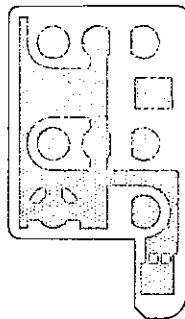
RE1 Side A



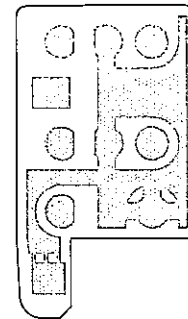
RE2 Side A



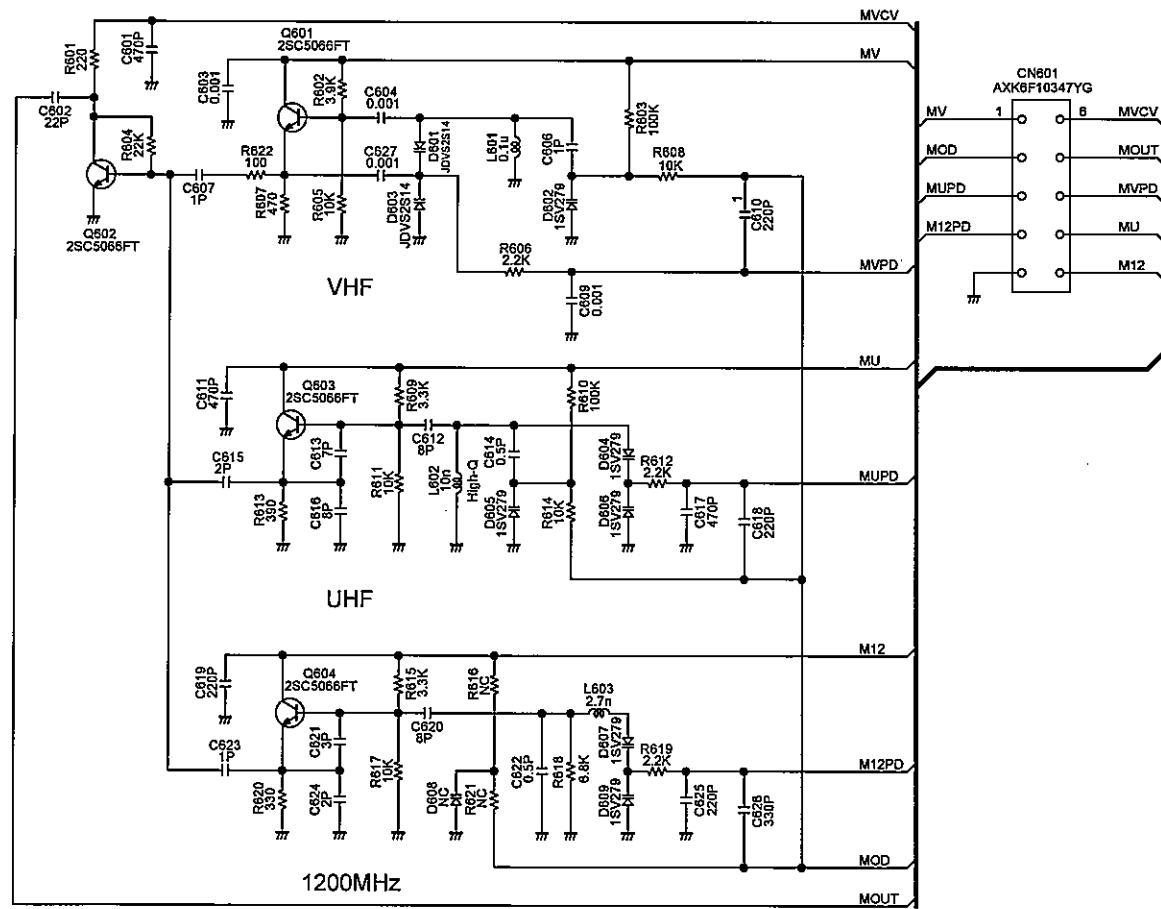
RE1 Side B



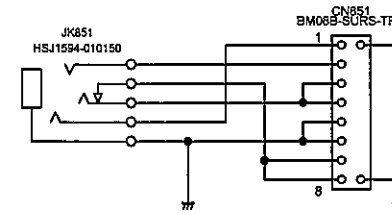
RE2 Side B



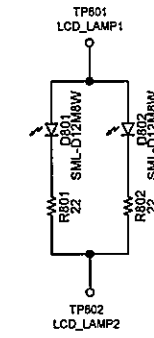
VCO Unit



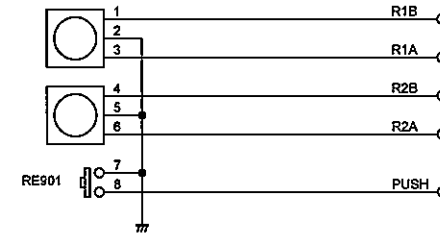
JACK Unit



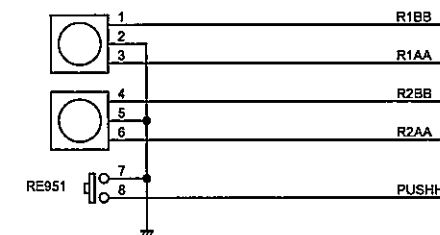
LED Unit



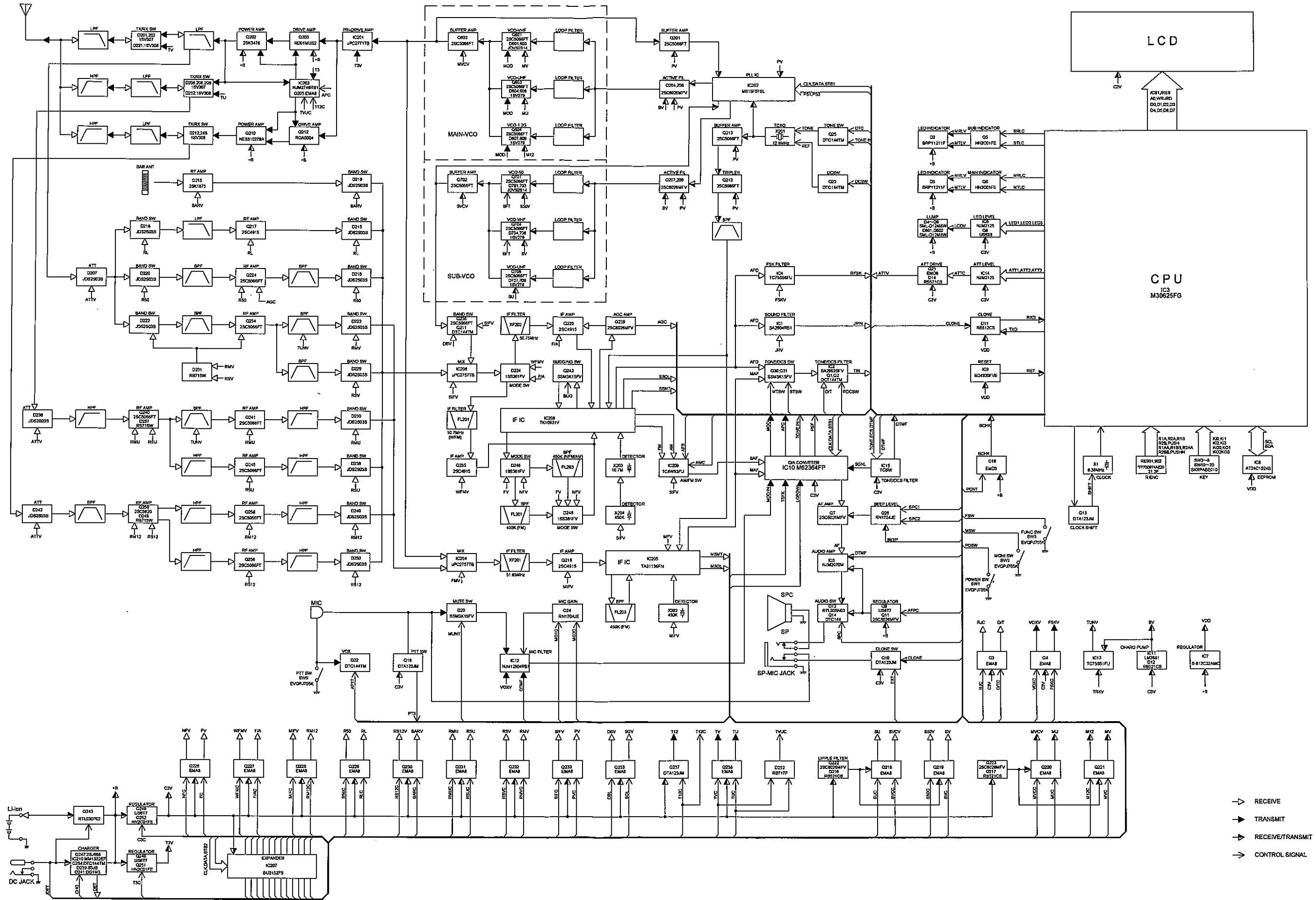
RE1 Unit



RE2 Unit

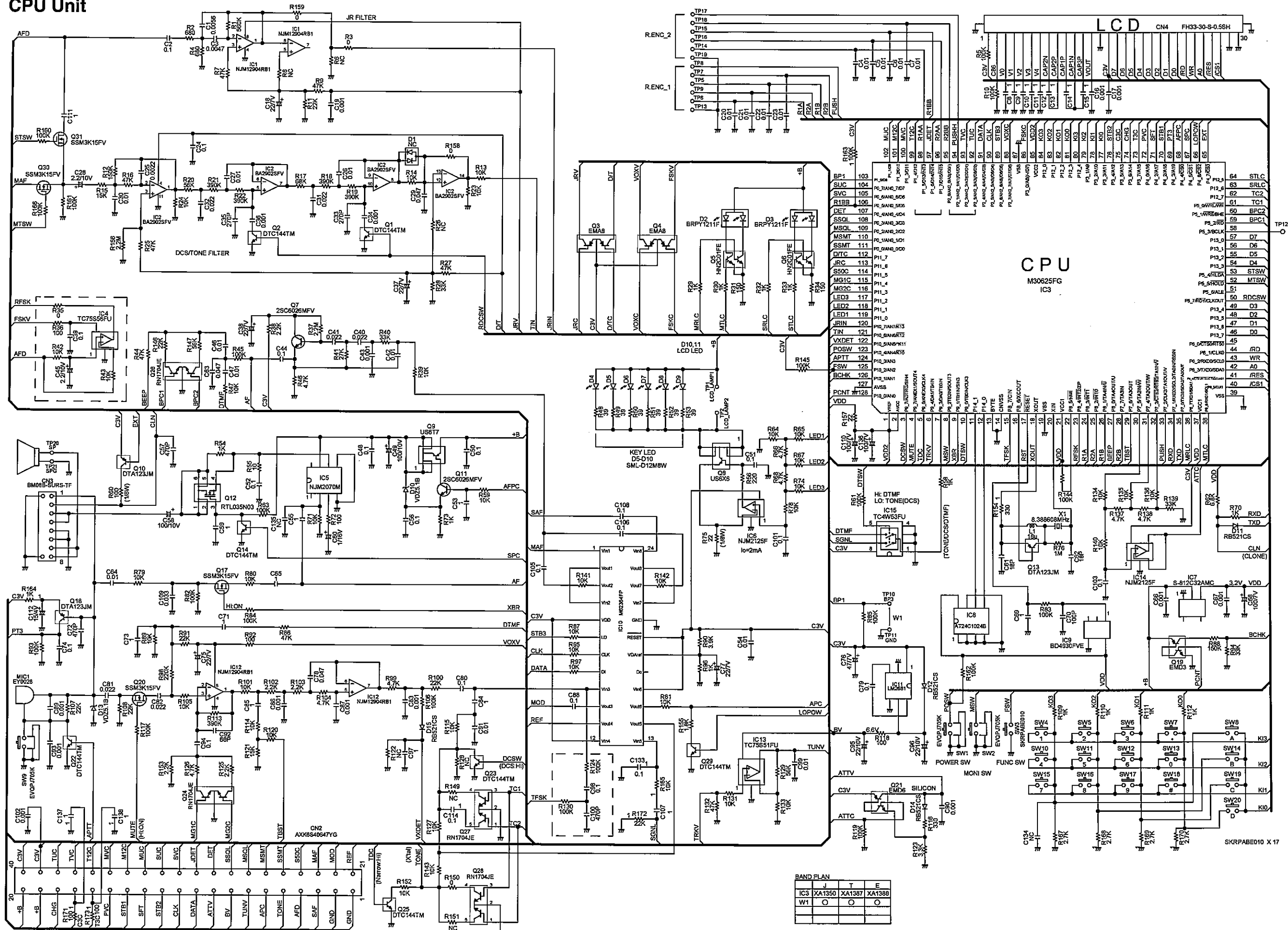


BLOCK DIAGRAM



- RECEIVE
- TRANSMIT
- RECEIVE/TRANSMIT
- CONTROL SIGNAL

SCHEMATIC DIAGRAM CPU Unit



BAND PLAN

IC3	J	T	E
XA1350	○	○	○
XA1387	○	○	○
XA1388	○	○	○

MAIN Unit

