

# DR-M03SX

# Service Manual

# DR-M06TH

## CONTENTS

### SPECIFICATIONS

1) General	2
2) Transmitter	2
3) Receiver	2

### CIRCUIT DESCRIPTION

1) Receiver System	3
2) Transmitter System	4
3) PLL Circuit	4
4) Terminal Function of Microprocessor	5 ~ 7
5) Terminal Connection of Microprocessor	8

### SEMICONDUCTOR DATA

1) AK2341	9
2) AN78L05M	10
3) AN8010M	10
4) BU4052BF	10
5) LR408721	11
6) M5218FP	11
7) M56760FP	12
8) MC7808CT	13
9) RH5VA32AA-T1	13
10) RH5VA45AA-T1	13
11)M57735	14
12) TK10487MTR	15
13) AT24C02N-10SI-2.7	15
14) AT24C08-10SI-2.7	15
15) uPC1241H	16
16) Transistor, Diode and LED Outline Drawings	16
17) LCD Connection	17

### EXPLODED VIEW

1) Bottom View	18
2) LCD View	18
3) Top, Front View 1	19
4) Top, Front View 2	20
5)DRM03 PA UNIT	21

### VERSION TABLE

21

### PARTS LAST

CPU Unit	22
MAIN Unit	22~24
VCO Unit	24
SP Unit	25
Mechanical Parts	25
Packing..	25
DRM03 PA Unit	25

### ADJUSTMENT

1) Required Test Equipment.	27
2) Adjustment for DR-M06/03	28~29
3) Adjustment Points	30
4) Adjustment Quick Reference	30

### CIRCUIT DIAGRAM

3) Main Unit	32
4) Main Unit	33
5) CPU Unit	34

### PC BOARD VIEW

1) Main Unit Side A	35
2) Main Unit Side B	36
3) CPU Unit Side A.	37
4) CPU Unit Side B	37
5) VCO Unit Side A	38
6) VCO Unit Side B	38

## ALINCO INCORPORATED

TWIN 21 M.I.D. TOWER BUILDING 23F, 1-61, 2-CHOME,  
SHIROMI CHUO-KU , OSAKA, 540-8580 JAPAN

Tel (81)6-6946-8150 fax (81)6-6946-8175

e-mail: export@alinco.co.jp

## \* SPECIFICATIONS

### GENERAL

Frequency	DRM03SX	28.00 - 29.700MHz
	DRM06TH	50.00 - 54.00MHz
Step	5 , 10 , 12.5 , 15 , 20 , 25 KHz selectable	
Channel	100	
Modulation	F3E (FM)	
Antenna impedance	50 ohm unbalanced	
Power supply	13.8V DC +/- 10%	
Current	Tx high.approxl 3.0A (DRM03SX) Rx squelched.less than 600mA	
Dimensions	DRM03SX	140(W) x 40(H) x 115(D)
	DRM06TH	140(W) x 40(H) x 155(D)
Weight	DRM03SX	approx 681gs
	DRM06TH	approx 800gs
<b>Transmitter</b>		
Power output	DRM03SX	High : 10W Low: 1W
	DRM06TH	High : 20W Low: 2W
Modulation	variable reactance frequency modulation	
Max deviation	+/- 5.0kHz	
Spurious	-60dB or under below carrier	
Microphone	Electret Condenser Microphone	
Operatin Mode	Simplex/Semi-Duplex	
Offset	0 to +/-15.995MHz freely programmable	
<b>Receiver</b>		
Receiver sys	Double-conversion superheterodyne	
I.F.	10.7MHz and 455kHz	
Sensitivity	DRM03SX	0.16uV (-16dBu) 12dB SINAD
	DRM06DX	0.25uV (-12dBu) 12dB SINAD
Selectivity	+/- 6kHz or under at -6dB +/- 15kHz or under at -60dB	
AF Output	2.5W with 8ohm at 10% distortion 8ohm	

## CIRCUIT DESCRIPTION

### 1) Receiver System

1. Front End

The signal from the antenna is passed through a low-pass filter and input to the voltage step up circuit consisting of L14. The signal from L14 is led to the gate of Q1. D19 is the diode limiter circuit against the excessive input power of more than 20dBm. Q1 is the FET which has two gates. The voltage of the gate 2 is set higher to get the high gain and sensitivity. The signal from Q1 is led to the triple band pass filter (L4, L5, L6), and gets the high image rejection ratio.
2. Mixer Circuit

The signal from the triple band pass filter is converted into the first IF signal of 17.2MHz. The receiving signal is led to the gate 1 of Q2, and the first local oscillator signal is led to the gate 2 of Q2. To get the high conversion gain, the local oscillator signal voltage is set to about 1V. To reduce the high adjacent channel interference, the band width of the FL2 is set to 20kHz. The signal from FL2 is amplified by Q8, and input to FM IF system IC3 of TK10487.
3. IF Circuit

The TK10487 has the second local oscillator circuit, mixer circuit, detector circuit, squelch circuit, and so on. Pin1 and 2 are the terminals of the crystal oscillator circuit. Pin2 (emitter) is connected to the ground via the resistor R3 to prevent the oscillator from decreasing the power at the low temperature. Pin4 of IC3 is connected to FL1 directly because the matching resistor for ceramic filter is built-in. The quadrature circuit (pin10 of IC3) is connected to the ceramic resonator X2 for the temperature stability and good quality. The signal from pin11 of IC3 is connected to the LPF. The detected AF signal, which has flat frequency characteristics, is led to the control unit and used as both squelch signal and tone squelch signal. De-emphasis circuit consists of R31, R32, C26 and C27. The LPF amplifier consisting of Q5 and Q6 is located far away from the VR in the control unit, so it outputs the high voltage signal to prevent S/N from the deterioration. The squelch switch circuit consists of Q4 and Q16, and switches on/off at the point where there is no voltage to prevent from the switching noise. The S meter signal from pin12 of IC3 is led to the CPU in the control unit after adjusting the level at D20 and VR5. The S meter signal is thermal compensated by TH1 and stabilized. The noise amplifier consists of pin13 and 14, the built-in OP amplifier in IC3. The output signal of noise amplifier is amplified by Q14, rectified by D5, and then led to the pin15 (hysteresis comparator input) of IC3.
4. AF Circuit

IC4 is about 5W audio power amplifier IC. When the capacity of pin1 in C16 is increased more, the output incidental noise becomes smaller. The high-pitched tone becomes smaller at the same time, This radio's capacity of C16 is determined considering the high-pitched tone.

## 2) Transmitter System

### 1. Modulation Circuit

The microphone amplifier IC1 (IDC, LPF) consists of two operational amplifiers. The signal from the microphone is led to pre-emphasis circuit consisting of C36 and R47 and then to the limiter circuit. The limiter circuit uses the saturation of the OP amplifier. The amplified signal is input to the low-pass filter IC1A. The output signal from the microphone amplifier is passed through variable resistors VR2 for modulation adjustment and input to the VCO unit. Sub tone deviation is determined by R24, R25 and VR2. The radio does not have the adjustment variable resistor for sub tone deviation.

### 2. TX Amp. Circuit

The signal from VCO is amplified by TX, RX wide band LO amplifier Q19. The signal from Q19 is passed through the transmission/reception selector, and amplified by Q20 and Q15. The PA unit is driven at 200mW driving power.

### 3. PA Circuit

IC5 is 20W(M06DX) powered amplifier module. The output power is controlled by the voltage of V1. The RF signal amplified 20W in PA is passed through D3 and three-stage transmission/reception low-pass filter, and input to the antenna connector.

### 4. ALC Circuit

(M06DX)

The power detection circuit consisting of D17 and D18 rectifies the output signal voltage. The detected DC voltage is led to the VR1 (power adjust trimmer), and amplified by Q3, Q9 and Q13. Output power is controlled by voltage of V1 in IC5 and collector voltage of Q15. When the temperature goes up unusually, the power down circuit consisting of R101 and TH2 works to prevent the device from the destruction.

## 3)PLL Circuit (M06DX)

The VCO unit is designed for the PLL circuit, putting the VCO on one side, and PLL circuit on the other side.

Q301 in the VCO is grounded using the gate oscillator, and its frequency covers 50MHz to 54MHz without transmission/reception shift circuit.

IC301 is pulse swallow system based PLL IC with the built-in prescaler, which synthesizes 150MHz-band signal.

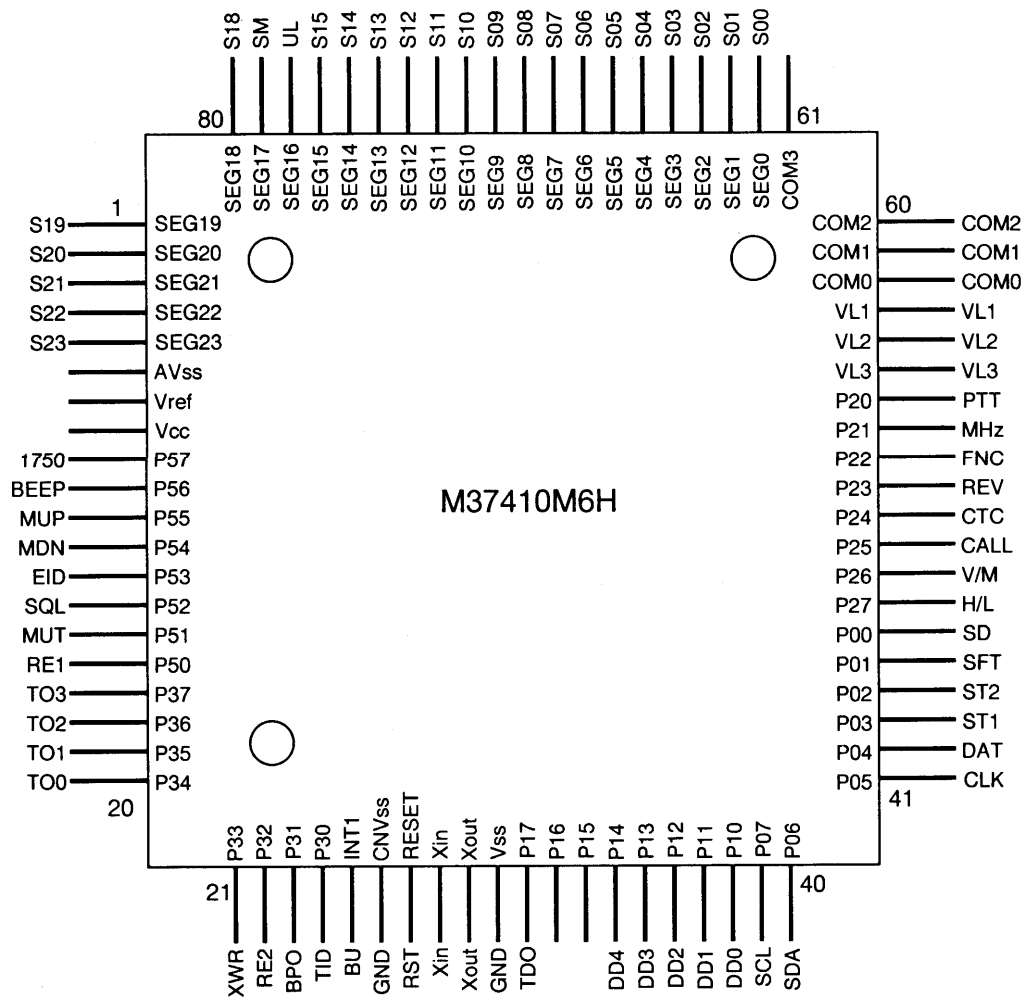
The loop filter consisting of Q302 and Q303 is the active type.

#### 4) Terminal Function of Microprocessor

Port No.	I/O	Logic	PinName	Description
1	O		SEG19	LCDSegment19 Output
2	O		SEG20	LCDSegment20 Output
3	O		SEG21	LCDSegment21 Output
4	O		SEG22	LCDSegment22 Output
5	O		SEG23	LCDSegment23 Output
6	I		GND	AnalogGround 0V
7	I		Vref	Reference Voltage Input 5V
8	I		Vcc	CPU Power Supply Input 5V
9	O		1750_	ToneBurstOutput
10	O	Clock	BEEP	BeepToneOutput
11	I	Active Low	MUP	Channel Up Input (Microphone Control)
12	I	Active Low	MDN	Channel Down Input (Microphone Control)
13	I	NoUse	EID	
14	O	Active Low	SQL	Squelch Control (L: Audio is off.)
15	O	ActiveHigh	MUT	Microphone Mute (H: Mic Amp is off.)
16	I	Active Low	RE1	RotaryEncoder Input
17	O	Clock	TO3	ToneOutput
18	O	Clock	TO2	ToneOutput
19	O	Clock	TO1	ToneOutput
20	O	Clock	TO0	ToneOutput
21	I	ActiveHigh	XWR	EEPROM Write Status External Input
22	I	Active Low	RE2	RotaryEncoder Input
23	O	Active Low	BPO	Band Plan Detection Input (Common)
24	I	Active Low	TID	Tone Unit Detection Input
25	I	Active Low	BU	Back Up Signal Detection input
26	I		GND	Ground
27	I	Active Low	RST	ResetInput
28	I		Xin	Crystal Oscillator Terminal (3.58MHz)
29	O		Xout	Crystal Oscillator Terminal (3.58MHz)
30	I		GND	Ground
31	I	Active Low	TDO	CTCSS Tone Detection Output
32	O	Active High	DTD	For Trunking
33	O	NoUse		
34	I	Active Low	DD4	Band Plan 4 (V/U Selection)
35	I	Active Low	DD3	Band Plan 3 (445/435 Selection)
36	I	Active Low	DD2	Band Plan 2 (5k/12.5k Selection)
37	I	Active Low	DD1	Band Plan 1
38	I	Active Low	DD0	Band Plan 0
39	O	Clock	SCL	Clock Output for EEPROM

Port No.	I/O	Logic	PinName	Description
40	I/O	Clock	SDA	Data Output for EEPROM
41	O	Clock	CLK	Clock Output
42	O	Clock	DAT	DataOutput
43	O	Clock	ST1	Strobe Output for PLL IC
44	O	Clock	ST2	Strobe Output for CTCSS IC
45	I	Active Low	SFT	Shift Key Input
46	I	Active High	SD	Signal Detection Input
47	O	Active High	H/L	Transmission Power (H: Low Power)
48	I	Active Low	V/M	VFO/Memory Key Input
49	I	Active Low	CAL	Call Key Input
50	I	Active Low	CTC	CTCSS Mode Set Input
51	I	Active Low	REV	Reverse Key Input
52	I	Active Low	FNC	Function Key Input
53	I	Active Low	MHz	MHzKeyInput
54	I	Active Low	PTT	PTTKeyInput
55	I		LV3	Power Supply Input for LCD
56	I		LV2	Power Supply Input for LCD
57	I		LV1	Power Supply Input for LCD
58	I		COM0	LCD Common 0 Output
59	I		COM1	LCD Common 1 Output
60	I		COM2	LCD Common 2 Output
61	I	No Use		
62	O		SEG00	LCD Segment 00 Output
63	O		SEG01	LCD Segment 01 Output
64	O		SEG02	LCD Segment 02 Output
65	O		SEG03	LCD Segment 03 Output
66	O		SEG04	LCD Segment 04 Output
67	O		SEG05	LCD Segment 05 Output
68	O		SEG06	LCD Segment 06 Output
69	O		SEG07	LCD Segment 07 Output
70	O		SEG08	LCD Segment 08 Output
71	O		SEG09	LCD Segment 09 Output
72	O		SEG10	LCD Segment 10 Output
73	O		SEG11	LCD Segment 11 Output
74	O		SEG12	LCD Segment 12 Output
75	O		SEG13	LCD Segment 13 Output
76	O		SEG14	LCD Segment 14 Output
77	O		SEG15	LCD Segment 15 Output
78	I	ActiveHigh	UL	UnlockInput
79	I	Analog	SM	SignalMeterInput
80	O		SEG18	LCD Segment 18 Output

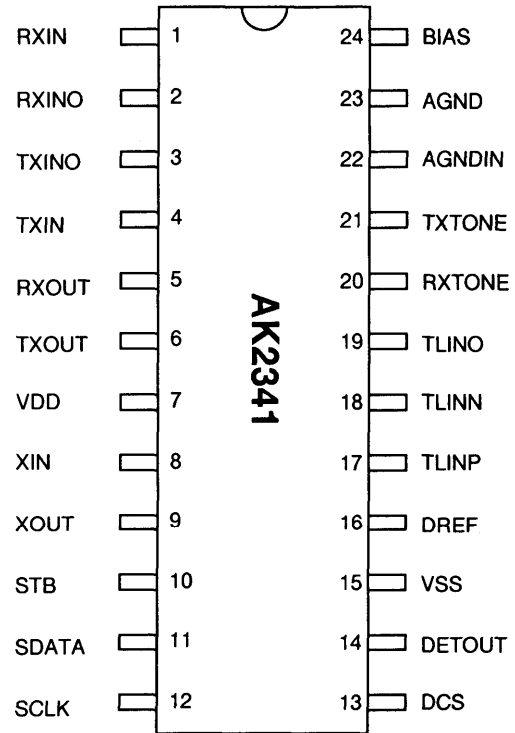
## 5) Terminal Connection of Microprocessor



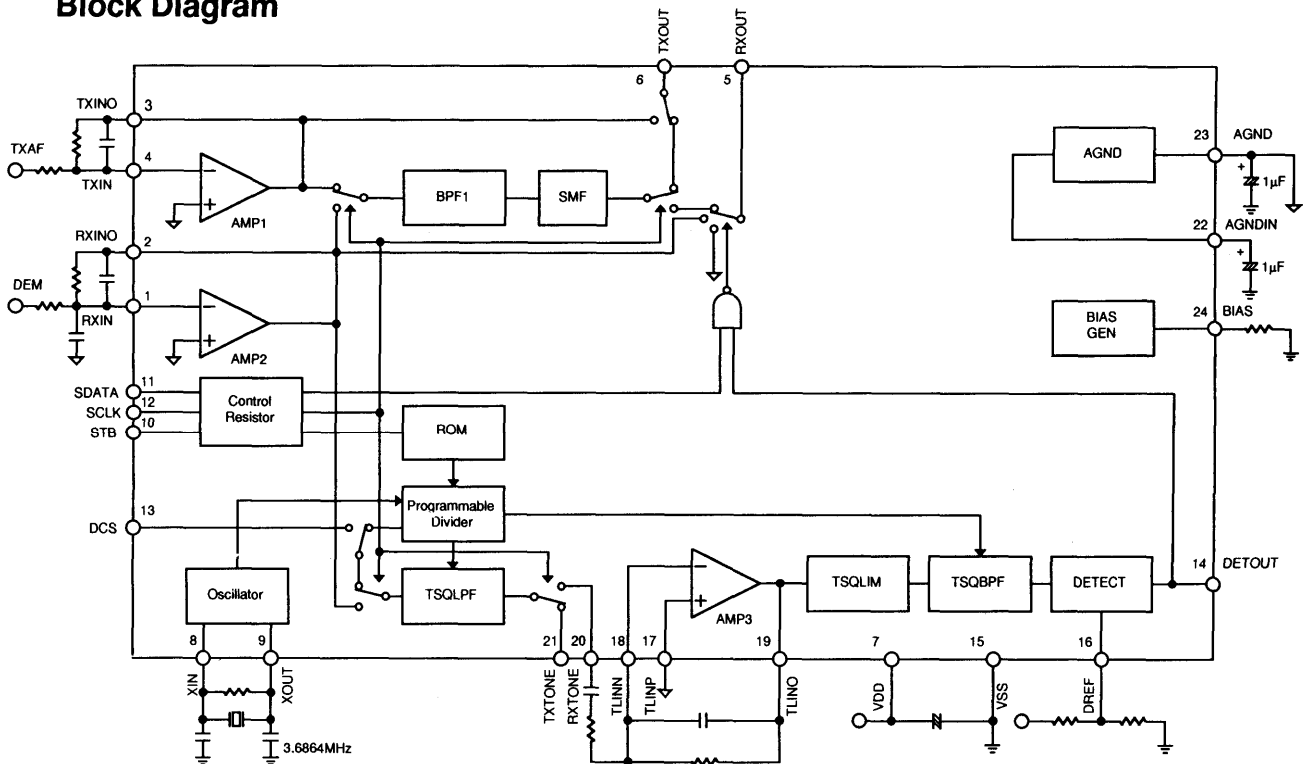
# SEMICONDUCTOR DATA

## 1) AK2341 (XA0239) CTCSS Encoder/Decoder

Pin No.	Pin Name	I/O	Function
1	RXIN	I	RX Signal Input
2	RXINO	O	AMP2 Output
3	TXINO	O	AMP1 Output
4	TXIN	I	TX Audio Input
5	RXOUT	O	RX Audio Output
6	TXOUT	O	TX Audio Output
7	VDD	-	Power Supply (1.8 ~ 5.5V)
8	XIN	I	Crystal Terminal (3.6864MHz)
9	XOUT	O	Crystal Terminal (3.6864MHz)
10	STB	I	Strobe for Serial Data
11	SDATA	I	Serial Data
12	SCLK	I	Serial Clock
13	DCS	I	DCS Input
14	DETOUT	O	Tone Detection Output (Detect: Low)
15	VSS	-	Ground
16	DREF	I	Tone Detection Level Adjust Input
17	TLINP	I	RX Tone Signal Reference Input
18	TLINN	I	RX Tone Signal Input
19	TLINO	O	AMP3 Output
20	RXTONE	O	RX Tone Signal Output
21	TXTONE	O	TX Tone Signal Output
22	AGNDIN	I	Analog Ground Input
23	AGND	O	Analog Ground Output
24	BIAS	I	Bias Input



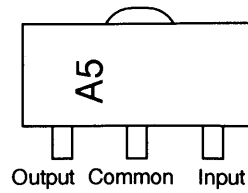
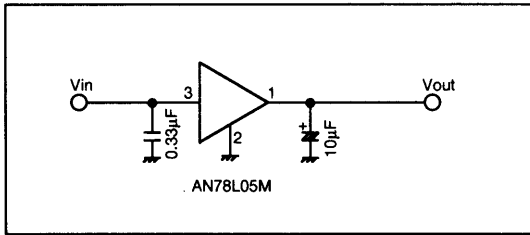
### Block Diagram





**2) AN78L05M (XA0238)**  
5V Voltage Regulator

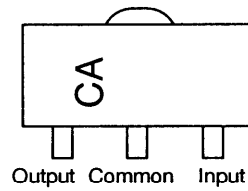
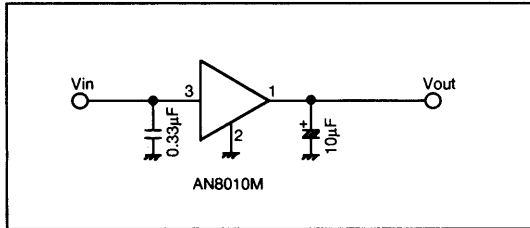
**Test Circuit**



AN78L05M

**3) AN8010M (XA0119)**  
Voltage Regulator

**Test Circuit**

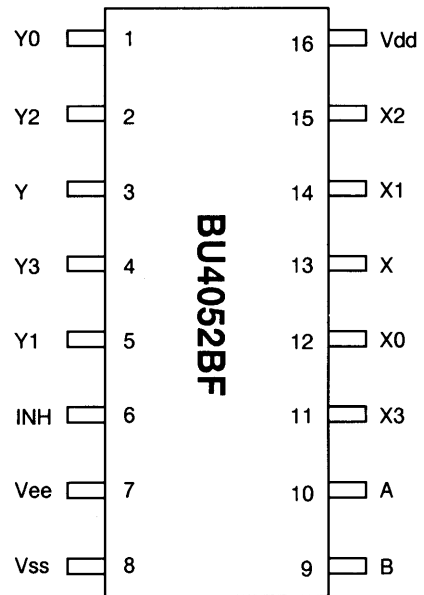


AN8010M

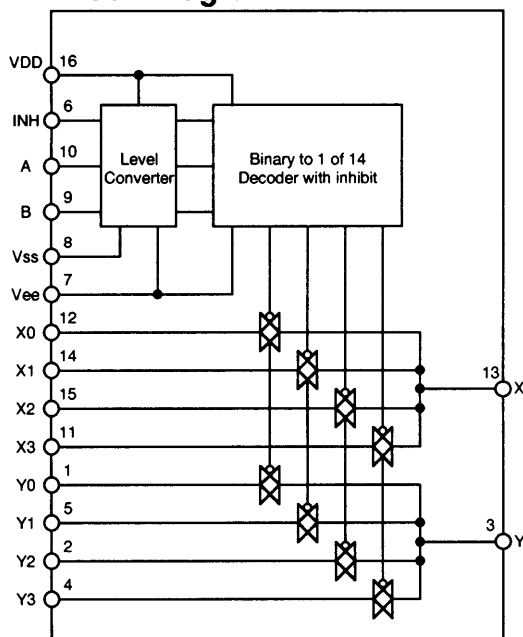
**4) BU4052BF (XA0236)**  
Analog Multiplexers/Demultiplexers

**Function Table**

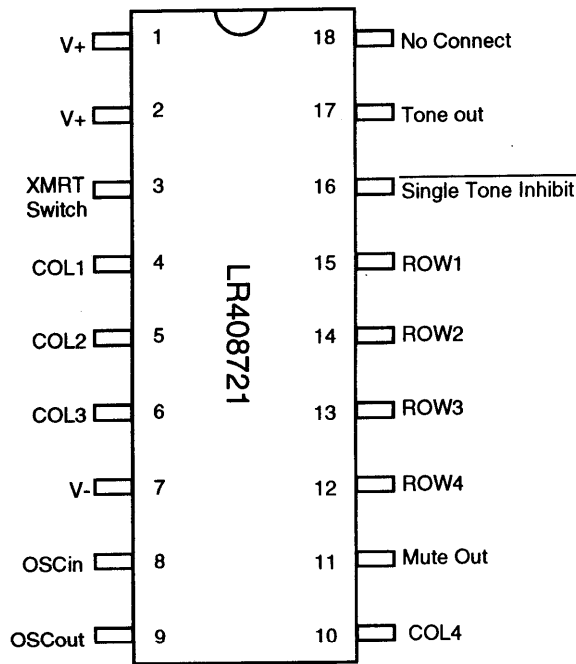
INHIBIT	A	B	ON Switch
Low	Low	Low	X0 Y0
Low	High	Low	X1 Y1
Low	Low	High	X2 Y2
Low	High	High	X3 Y3
High	Don't Care	Don't Care	None



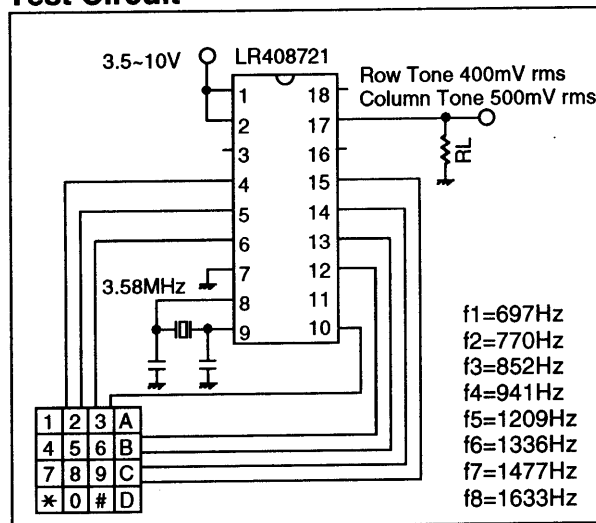
**Block Diagram**



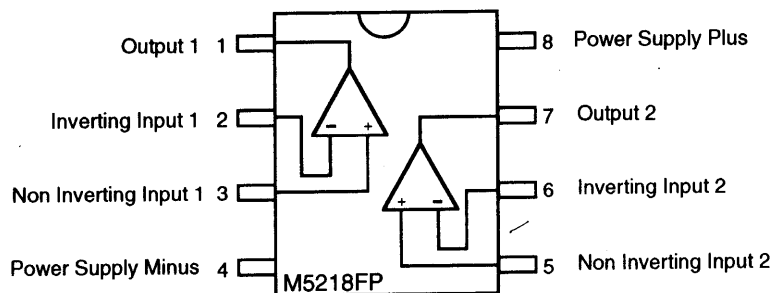
**5) LR408721 (XA0042)**  
Tone Dialer



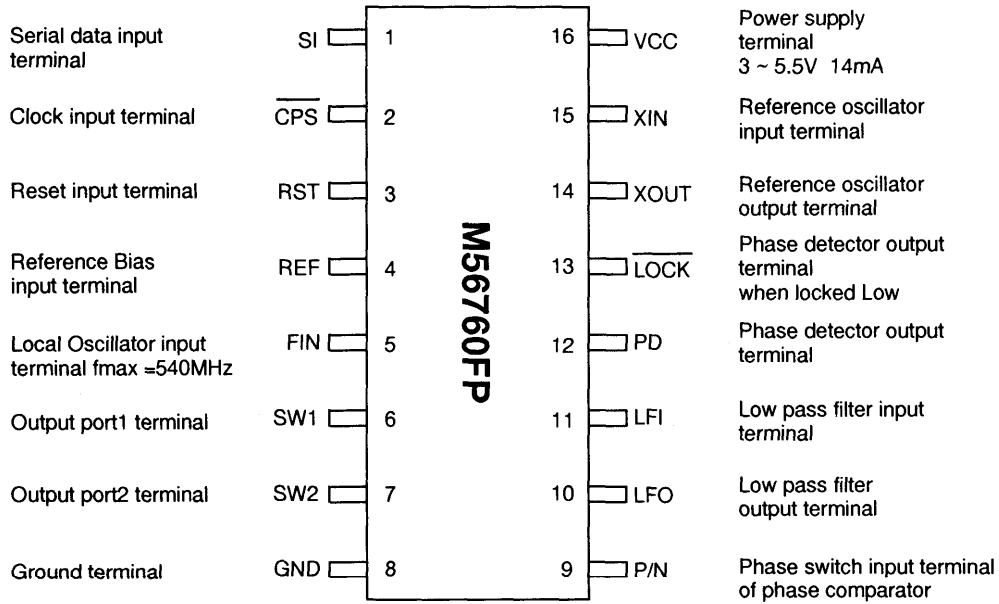
**Test Circuit**



**6) M5218FP (XA0068)**  
Dual Low Noise  
Operational Amplifiers

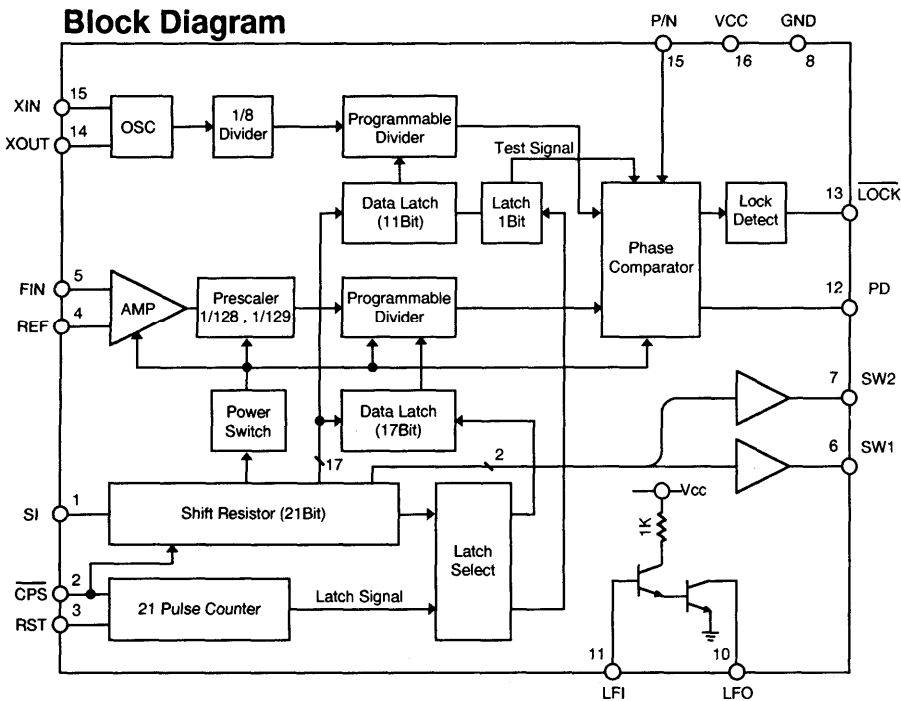


# 7) M56760FP (XA0235) 540MHz Frequency Synthesizer



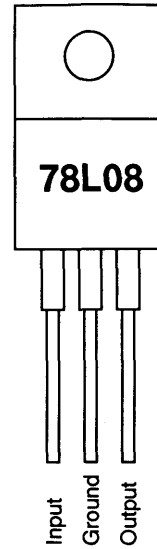
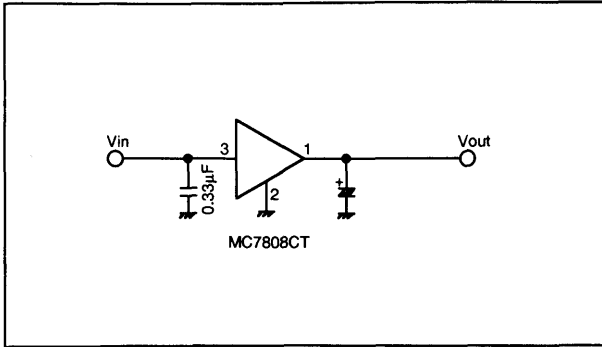
## Function Table

P/N input	Phase	PD output
High or Low	Locked	Hi-Z
High	Lead	High
High	Lag	Low
Low	Lead	Low
Low	Lag	High



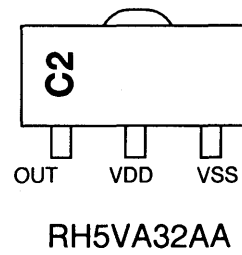
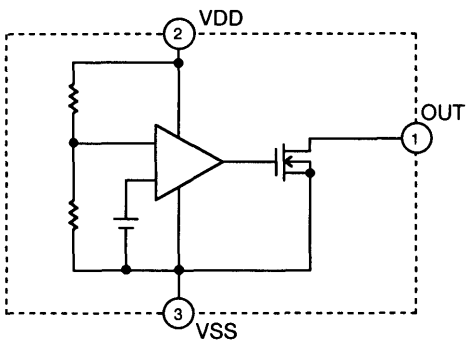
**8) MC7808CT (XA0082)**  
8V Voltage Regulator

**Test Circuit**



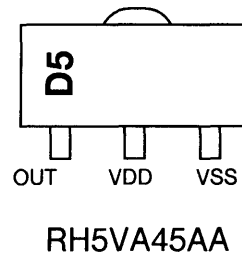
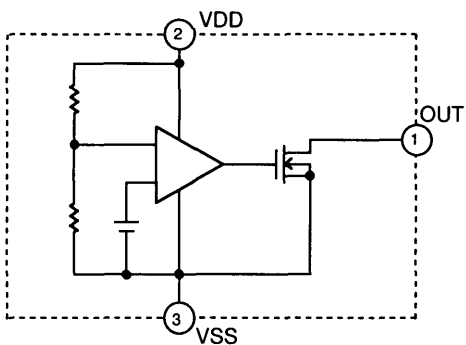
**9) RH5VA32AA-T1 (XA0198)**  
C-MOS Voltage Detector

**Equivalent Circuit**

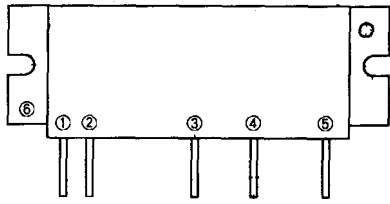


**10) RH5VA45AA-T1 (XA0208)**  
C-MOS Voltage Detector

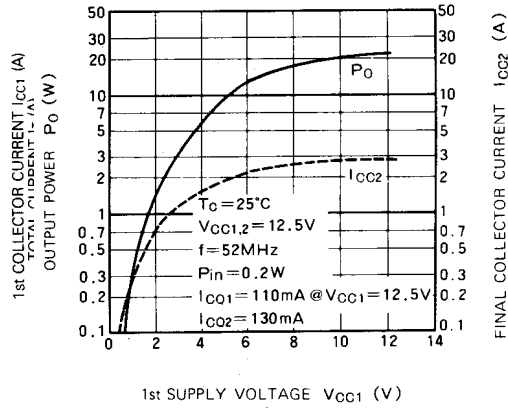
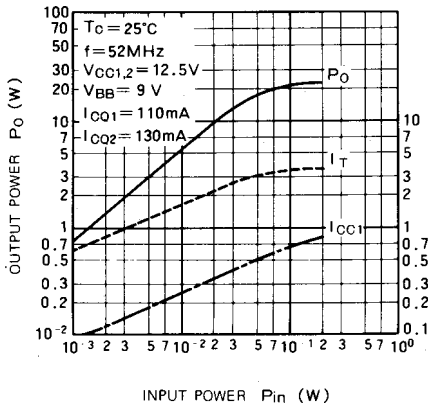
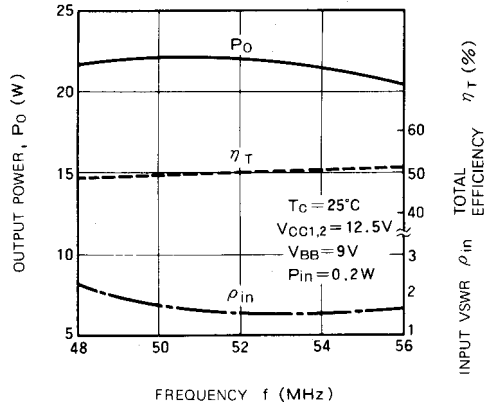
**Equivalent Circuit**



11) M57735 (XA0271)  
50~54MHz  
RF Power Module

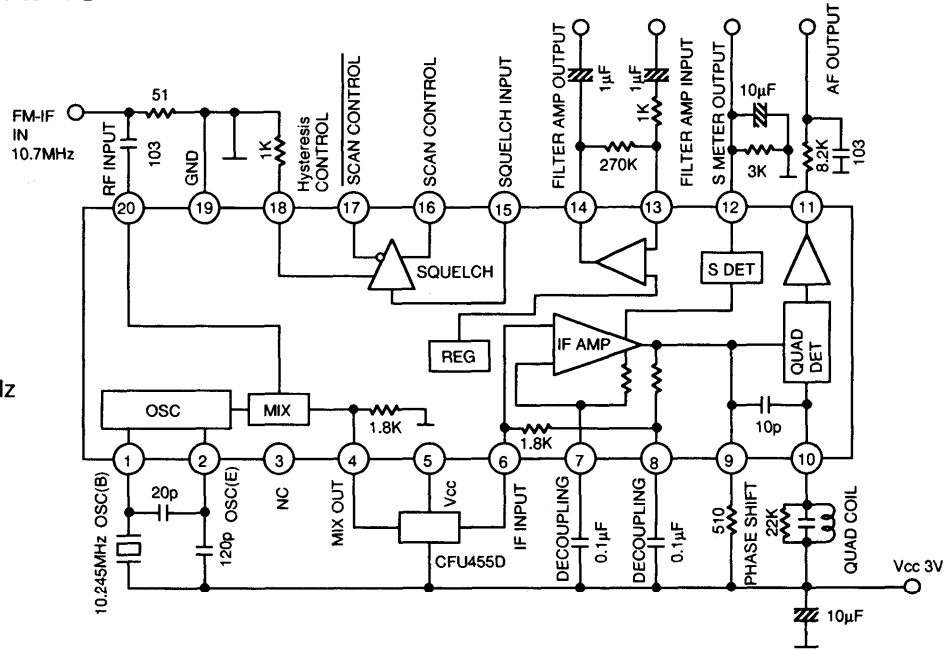


- ①  $P_{in}$  : RF INPUT
- ②  $V_{CC1}$  : 1st. DC SUPPLY
- ③  $V_{BB}$  : BASE BIAS SUPPLY
- ④  $V_{CC2}$  : 2nd. DC SUPPLY
- ⑤  $P_o$  : RF OUTPUT
- ⑥ GND : FIN

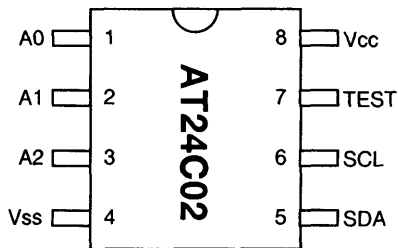


## 12) TK10487MTR (XA0144) Narrow Band FM IF IC

Vcc=3V  
 F=10.7MHz  
 Icc 5mA  
 Limit 2μV -3dB  
 Vo 180mV Dev=3kHz  
 THD 1.0%



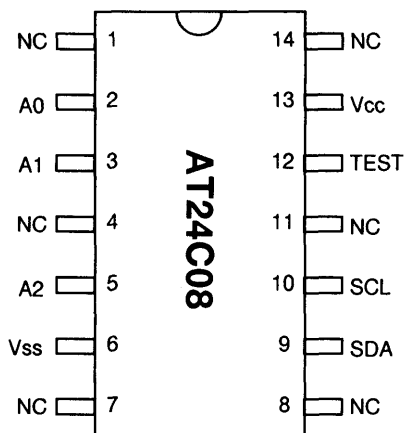
## 13) AT24C02N-10SI-2.7 (XA0364) EEPROM 256 x 8Bit



### Pin Names

A0 ~ A2	Address inputs
SDA	Serial Data
SCL	Serial Clock
TEST	Write Control
Vss	Ground
Vcc	+5V

## 14) AT24C08-10SI-2.7 (XA0367) EEPROM 1024 x 8Bit

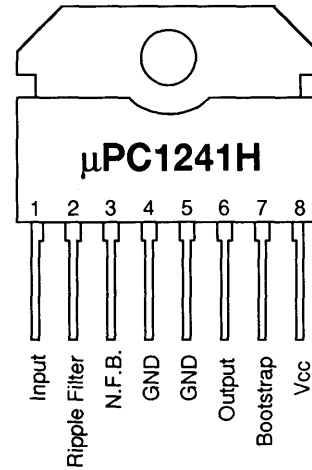
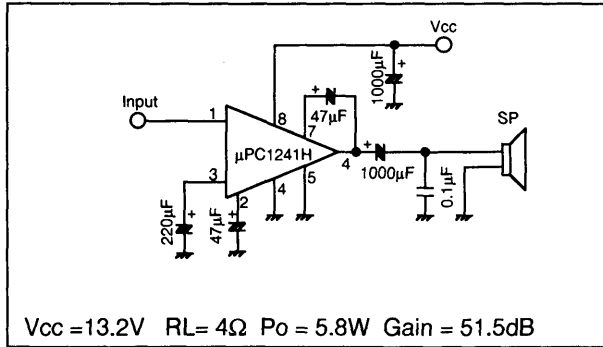


### Pin Names

A0 ~ A2	Address inputs
SDA	Serial Data
SCL	Serial Clock
TEST	Hold at Vss
Vss	Ground
Vcc	+5V

# 15) $\mu$ PC1241H (XA0079) Audio Power Amplifiers

## Test Circuit

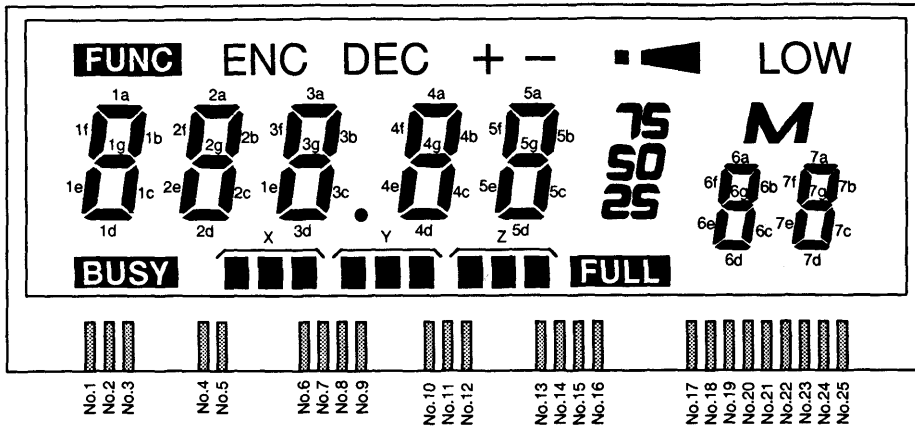


# 16) Transistor, Diode and LED Outline Drawings

Top View

1SS355 XD0254	1SV215 XD0132	DA204U XD0130	DAN202U XD0230	DAN235U XD0246	DTZ2.2A XD0145	DTZ5.1A XD0136	G3B XD0107
MA704WA XD0127	MA742 XD0250	MA8110H XD0255	MI308 XD0014	MI407 XD0013	2SK508 XE0010	2SK880 XE0021	3SK131 XE0012
TLSG264 XL0029	2SA1576 XT0094	2SA1736 XT0099	2SB1132 XT0061	2SB1292 XT0112	2SC2412K XT0037	2SC2873 XT0099	2SC2954 XT0084
2SC3356 XT0030	2SC4081LN XT0111	2SC4081 XT0095	2SC4099 XT0096	2SC4403 XT0114	UMC2 XU0060	UMC5 XU0152	
DTA114YU XU0112	DTC114EU XU0131	DTC114YU XU0029	DTC124EU XU0140	DTC143TU XU0145	C2 E1 B1 E2	C5 E1 B1 E2	
DTC144EU XU0148							

# 17) LCD Connection (EL0024)

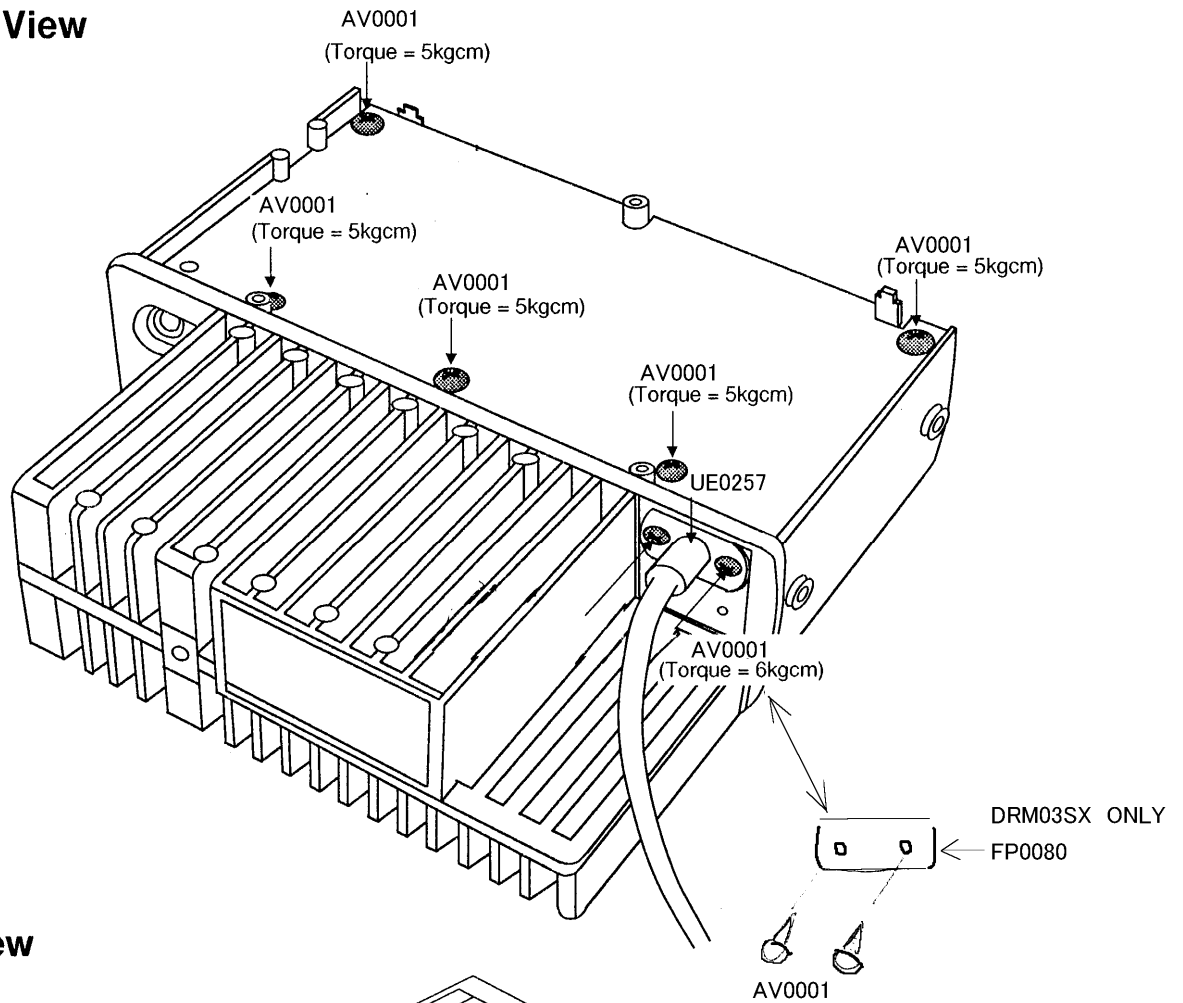


Pin No.	COMMON1	COMMON2	COMMON3
1	<b>FUNC</b>	1e	1f
2	1d	1g	1a
3	<b>BUSY</b>	1c	1b
4	ENC	2e	2f
5	2d	2g	2a
6	X	2c	2b
7	DEC	3e	3f
8	3d	3g	3a
9	●	3c	3b
10	Y	4e	4f
11	4d	4g	4a
12	+	4c	4b
13	Z	5e	5f
14	5d	5g	5a
15	-	5c	5b
16	<b>FULL</b>	25	50
17	75	6e	6f
18	6d	6g	6a
19	■	6c	6b
20	<b>M</b>	7e	7f
21	7d	7g	7a
22	LOW	7c	7b
23		COM.1	
24			COM.2
25	COM.0		

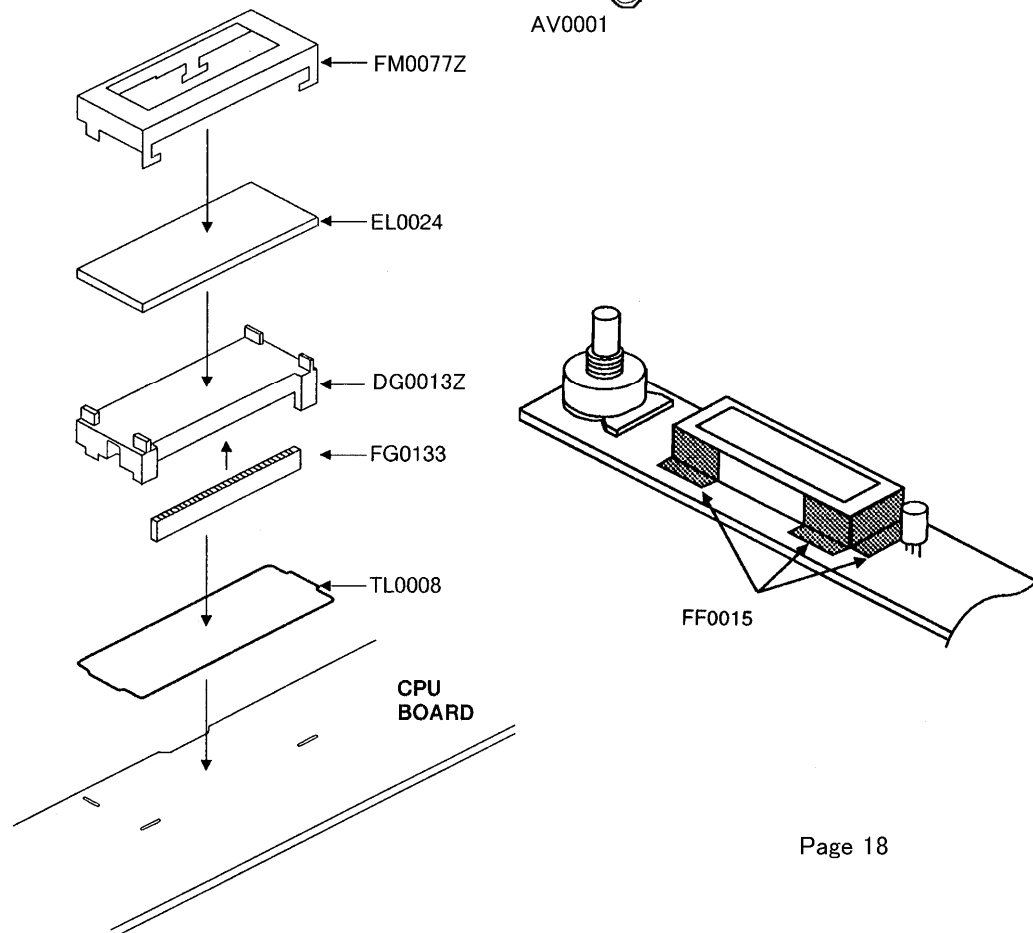


# EXPLODED VIEW

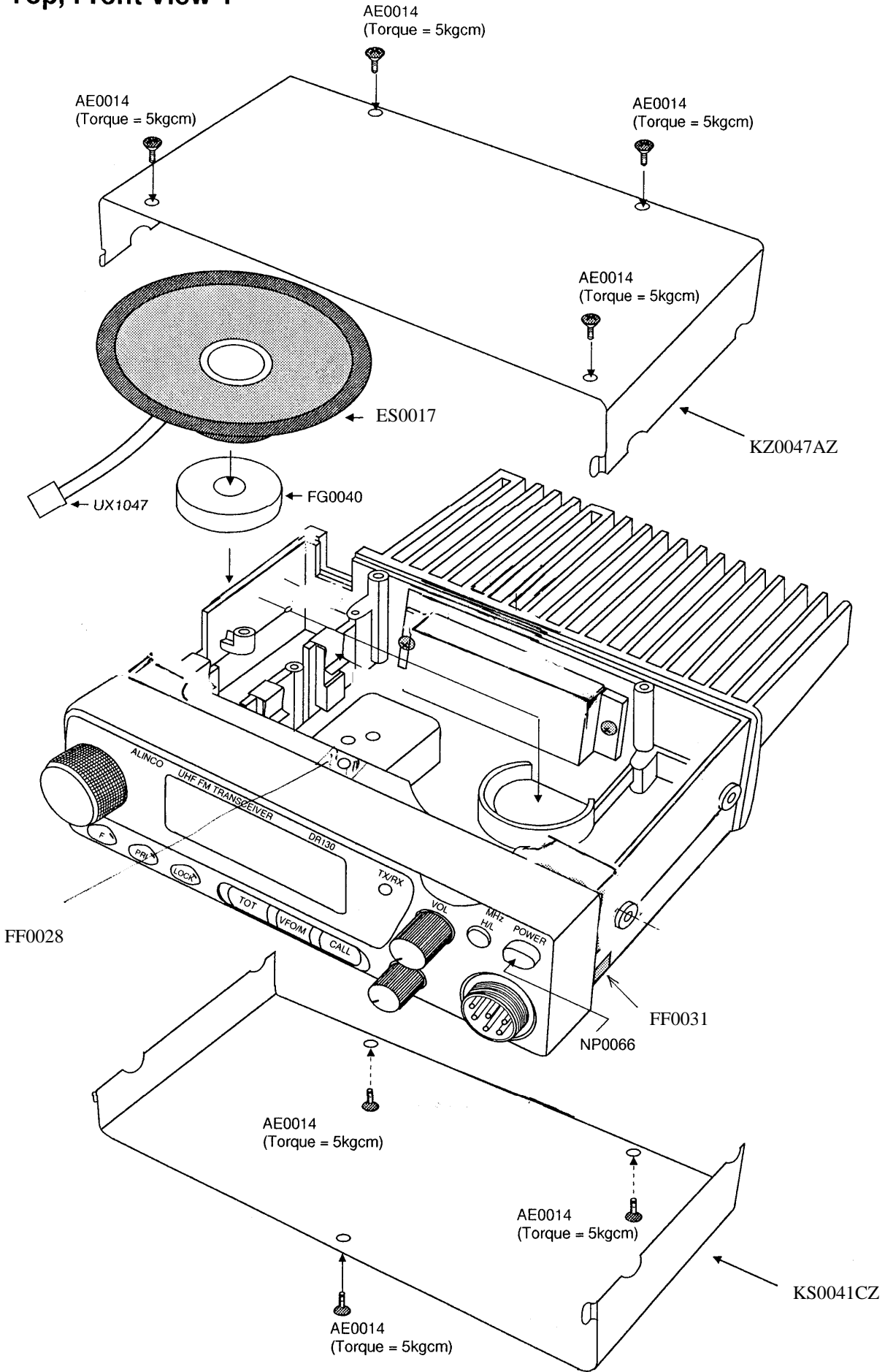
## 1) Bottom View



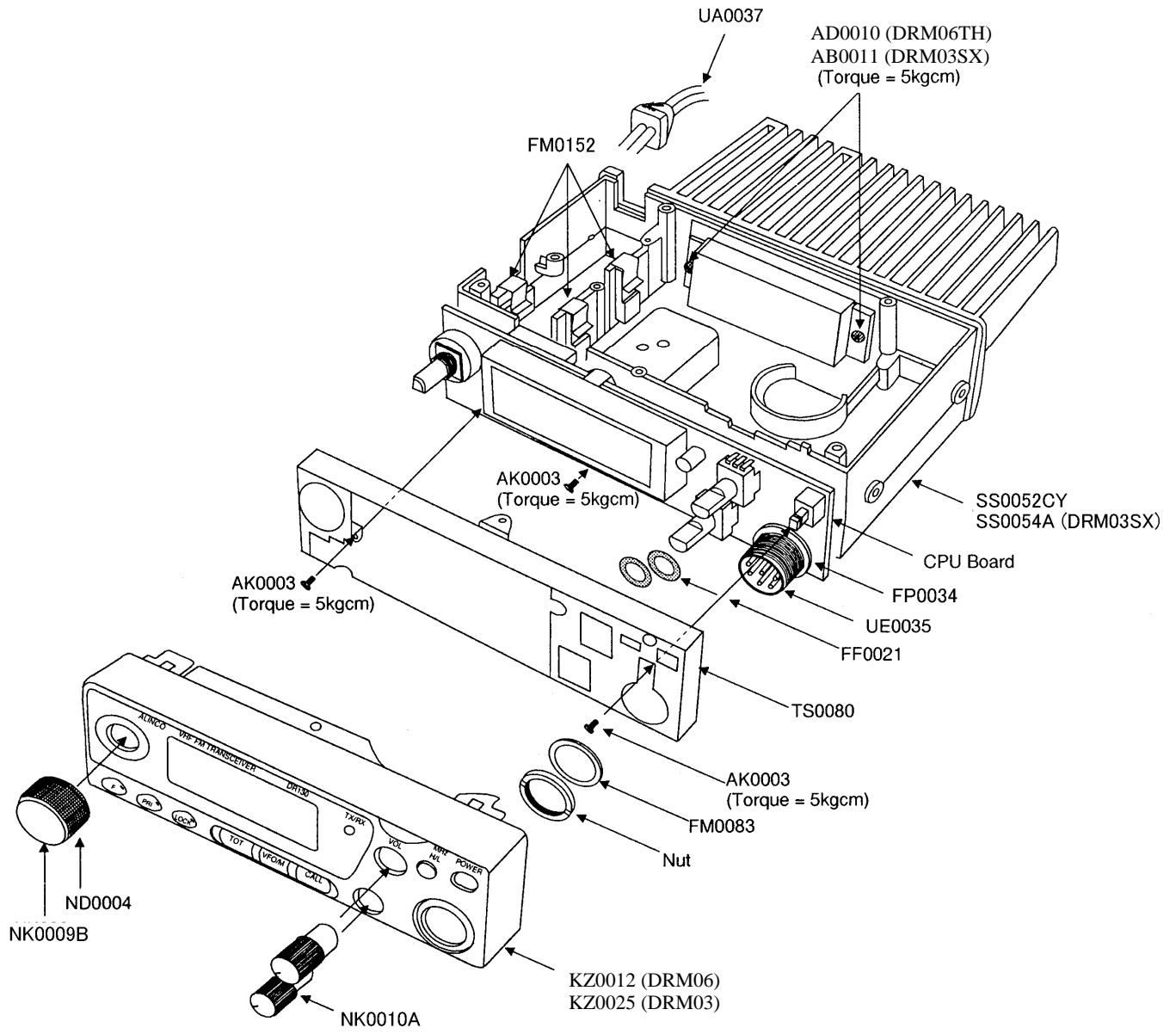
## 2) LCD View

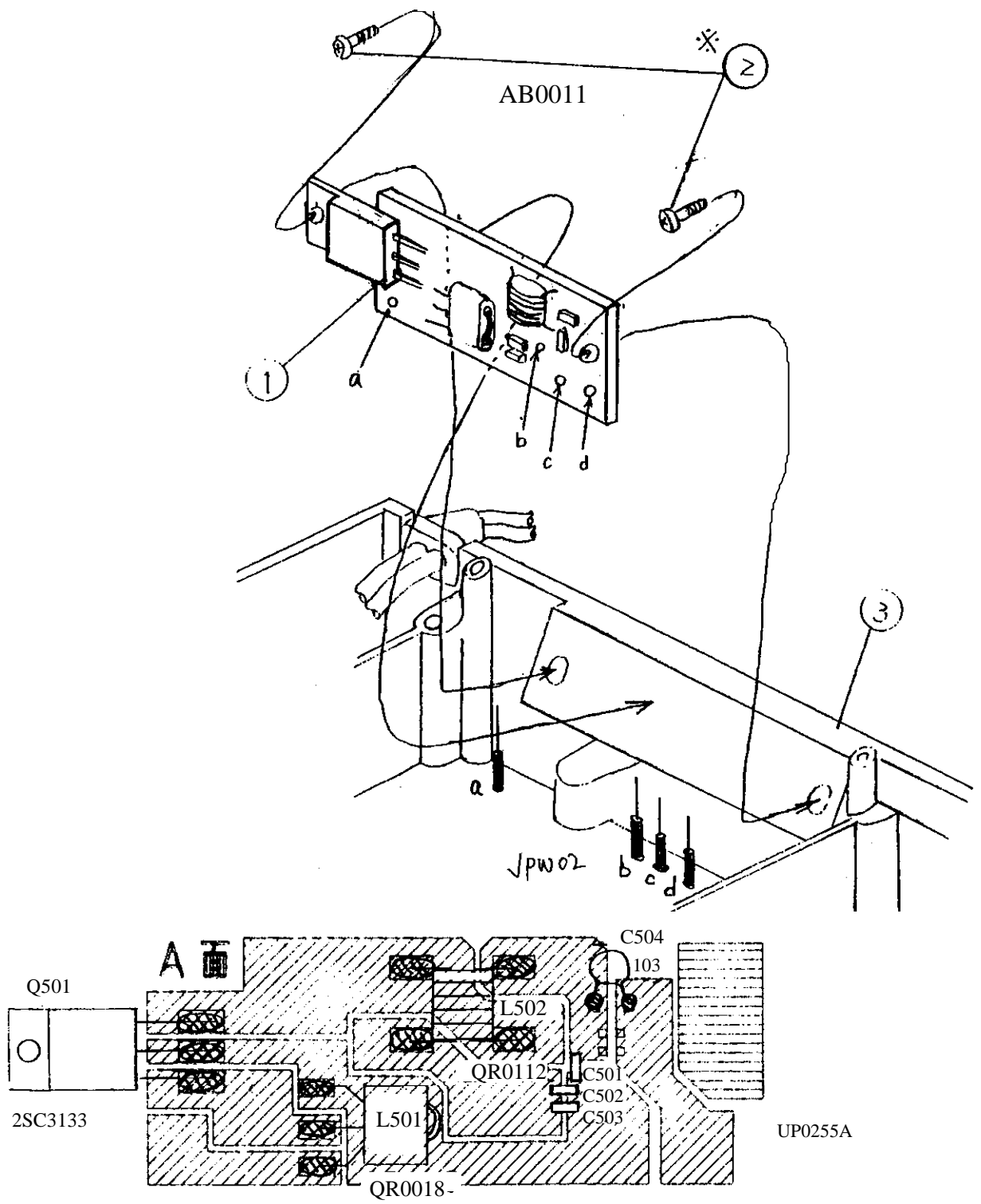


### 3) Top, Front View 1



# 4) Top, Front View 2





PARTS LIST

UNIT	REF	PART CODE	DESCRIPTION	06	03	03	UNIT	REF	PARTS CODE	DESCRIPTION	06	03	03	UNIT	REF	PARTS CODE	DESCRIPTION	06	03	03
CPU	C201	CU3035	C1608JB1H102KTA	1	1	1	CPU	PL202	EP0003	Lamp(BQ031-30403A)	1	1	1	CPU	R271	RK3046	ERJ3GSYJ472V	1	1	1
CPU	C202	CU3035	C1608JB1H102KTA	1	1	1	CPU	Q201	XT0095	2SC4081T106R	1	1	1	CPU	R272	RK3058	ERJ3GSYJ473V	1	1	1
CPU	C203	CU3035	C1608JB1H102KTA	1	1	1	CPU	Q202	XT0113	2SC2873YTE12L	1	1	1	CPU	R273	RK3058	ERJ3GSYJ473V	1	1	1
CPU	C204	CU3035	C1608JB1H102KTA	1	1	1	CPU	Q203	XU0029	DTC114YUT106	1	1	1	CPU	R274	RK3038	ERJ3GSYJ102V	1	1	1
CPU	C205	CU3101	C1608JB1C473KTA	1	1	1	CPU	Q204	XU0145	DTC143TUT106	1	1	1	CPU	R275	RK3062	ERJ3GSYJ104V	1	1	1
CPU	C206	CE0312	ECEVIC1A100R	1	1	1	CPU	Q205	XU0112	DTA114YUT106	1	1	1	CPU	R276	RK3034	ERJ3GSYJ471V	1	1	1
CPU	C207	CU3035	C1608JB1H102KTA	1	1	1	CPU	Q206	XU0112	DTA114YUT106	1	1	1	CPU	R277	RK3034	ERJ3GSYJ471V	1	1	1
CPU	C208	CS0232	TMCMA1V474MTR	1	1	1	CPU	Q207	-	-	0	0	0	CPU	R278	-	-	0	0	0
CPU	C209	CU3035	C1608JB1H102KTA	1	1	1	CPU	Q208	XU0060	UMC2TR	1	1	1	CPU	R279	RK3001	ERJ3GSY0R00V	1	1	1
CPU	C210	CU3035	C1608JB1H102KTA	1	1	1	CPU	Q209	XU0112	DTA114YUT106	1	1	1	CPU	R280	RK3038	ERJ3GSYJ102V	1	1	1
CPU	C211	CU3035	C1608JB1H102KTA	1	1	1	CPU	R201	RK3062	ERJ3GSYJ104V	1	1	1	CPU	R281	RK3038	ERJ3GSYJ102V	1	1	1
CPU	C212	CU3035	C1608JB1H102KTA	1	1	1	CPU	R202	RK3052	ERJ3GSYJ153V	1	1	1	CPU	R282	-	-	0	0	0
CPU	C213	CU3035	C1608JB1H102KTA	1	1	1	CPU	R203	RK3072	ERJ3GSYJ684V	1	1	1	CPU	R283	-	-	0	0	0
CPU	C214	-	-	0	0	0	CPU	R204	RK3052	ERJ3GSYJ153V	1	1	1	CPU	R284	-	-	0	0	0
CPU	C215	CU3035	C1608JB1H102KTA	1	1	1	CPU	R205	RK3043	ERJ3GSYJ272V	1	1	1	CPU	R285	-	-	0	0	0
CPU	C216	CU3059	C1608F1E104ZTA	1	1	1	CPU	R206	RK3026	ERJ3GSYJ101V	1	1	1	CPU	R286	-	-	0	0	0
CPU	C217	CU3051	C1608JB1E223KTA	1	1	1	CPU	R207	RK3038	ERJ3GSYJ102V	1	1	1	CPU	R287	RK3001	ERJ3GSY0R00V	1	1	1
CPU	C218	CU3059	C1608F1E104ZTA	1	1	1	CPU	R208	RK3026	ERJ3GSYJ101V	1	1	1	CPU	R288	RK3052	ERJ3GSYJ153V	1	1	1
CPU	C219	CU3059	C1608F1E104ZTA	1	1	1	CPU	R209	RK3074	ERJ3GSYJ105V	1	1	1	CPU	R289	RK3052	ERJ3GSYJ153V	1	1	1
CPU	C220	CU3059	C1608F1E104ZTA	1	1	1	CPU	R210	RK3052	ERJ3GSYJ153V	1	1	1	CPU	R290	RK3052	ERJ3GSYJ153V	1	1	1
CPU	C221	CU3023	C1608CH1H101JTA	1	1	1	CPU	R211	RK3062	ERJ3GSYJ104V	1	1	1	CPU	R291	RK3052	ERJ3GSYJ153V	1	1	1
CPU	C222	CU3023	C1608CH1H101JTA	1	1	1	CPU	R212	RK3054	ERJ3GSYJ223V	1	1	1	CPU	R292	RK3052	ERJ3GSYJ153V	1	1	1
CPU	C223	CU3051	C1608JB1E223KTA	1	1	1	CPU	R213	RK3070	ERJ3GSYJ474V	1	1	1	CPU	R293	RK3050	ERJ3GSYJ103V	1	1	1
CPU	C224	-	-	0	0	0	CPU	R214	RK3058	ERJ3GSYJ473V	1	1	1	CPU	R294	-	-	0	0	0
CPU	C225	CU3023	C1608CH1H101JTA	1	1	1	CPU	R215	RK3102	ERJ3GSYJ203V	1	1	1	CPU	R295	RK3001	ERJ3GSY0R00V	1	1	1
CPU	C226	CU3023	C1608CH1H101JTA	1	1	1	CPU	R216	RK3050	ERJ3GSYJ103V	1	1	1	CPU	R296	RK3038	ERJ3GSYJ102V	1	1	1
CPU	C227	CU3035	C1608JB1H102KTA	1	1	1	CPU	R217	RK3102	ERJ3GSYJ203V	1	1	1	CPU	R297	RK3038	ERJ3GSYJ102V	1	1	1
CPU	C228	-	-	0	0	0	CPU	R218	RK3050	ERJ3GSYJ103V	1	1	1	CPU	R298	RK3038	ERJ3GSYJ102V	1	1	1
CPU	C229	CS0209	TMCMB0J106MTR	1	1	1	CPU	R219	RK3102	ERJ3GSYJ203V	1	1	1	CPU	R1023	RK3001	ERJ3GSY0R00V	0	0	1
CPU	C230	CU3035	C1608JB1H102KTA	1	1	1	CPU	R220	RK3050	ERJ3GSYJ103V	1	1	1	CPU	S201	UU0015	SKQD-901	1	1	1
CPU	C231	CE0312	ECEVIC1A100R	1	1	1	CPU	R221	RK3102	ERJ3GSYJ203V	1	1	1	CPU	S202	UU0015	SKQD-901	1	1	1
CPU	C232	-	-	0	0	0	CPU	R222	RK3102	ERJ3GSYJ203V	1	1	1	CPU	S203	UU0015	SKQD-901	1	1	1
CPU	C233	-	-	0	0	0	CPU	R223	RK3058	ERJ3GSYJ473V	1	1	1	CPU	S204	UU0015	SKQD-901	1	1	1
CPU	C234	CU3035	C1608JB1H102KTA	1	1	1	CPU	R224	RK3055	ERJ3GSYJ273V	1	1	1	CPU	S205	UU0015	SKQD-901	1	1	1
CPU	C235	CU3047	C1608JB1H103KTA	1	1	1	CPU	R225	RK3046	ERJ3GSYJ472V	1	1	1	CPU	S206	UU0015	SKQD-901	1	1	1
CPU	C236	CU3031	C1608JB1H471KTA	1	1	1	CPU	R226	RK3070	ERJ3GSYJ474V	1	1	1	CPU	S207	UU0015	SKQD-901	1	1	1
CPU	C237	CU3035	C1608JB1H102KTA	1	1	1	CPU	R227	RK3038	ERJ3GSYJ102V	1	1	1	CPU	S209	UU0011	ESB-64801	1	1	1
CPU	C238	CU3035	C1608JB1H102KTA	1	1	1	CPU	R228	RK3038	ERJ3GSYJ102V	1	1	1	CPU	S210	UR0002	EVQ-WQGF1524B	1	1	1
CPU	C239	CU3023	C1608CH1H101JTA	1	1	1	CPU	R229	RK3038	ERJ3GSYJ102V	1	1	1	CPU	VR201	RV0009	EVU-F2AF20B14	1	1	1
CPU	C240	CU3023	C1608CH1H101JTA	1	1	1	CPU	R230	RK3038	ERJ3GSYJ102V	1	1	1	CPU	VR202	RV0009	EVU-F2AF20B14	1	1	1
CPU	C241	CU3023	C1608CH1H101JTA	1	1	1	CPU	R231	RK3038	ERJ3GSYJ102V	1	1	1	CPU	W1	-	-	0	0	0
CPU	C242	CU3035	C1608JB1H102KTA	1	1	1	CPU	R232	RK3050	ERJ3GSYJ103V	1	1	1	CPU	W2	-	-	0	0	0
CPU	C243	CS0237	TMCMA1A475MTR	1	1	1	CPU	R233	-	-	0	0	0	CPU	X203	XQ0045	DSMAT3.58MHZ 18P	1	1	1
CPU	C244	CU3051	C1608JB1E223KTA	1	1	1	CPU	R234	RK3038	ERJ3GSYJ102V	1	1	1	CPU	Y201	TT1002	Tube(1.0X1MM)	3	3	3
CPU	C245	CS0237	TMCMA1A475MTR	1	1	1	CPU	R235	RK3038	ERJ3GSYJ102V	1	1	1	CPU	Y203	TT1002	Tube(1.0X1MM)	3	3	3
CPU	C246	CU3035	C1608JB1H102KTA	1	1	1	CPU	R236	RK3074	ERJ3GSYJ105V	1	1	1	CPU	Y202	YZ0042	Cement(G17 1g)	1	1	1
CPU	C247	CU3085	C1608CH1H300JTA	1	1	1	CPU	R237	-	-	0	0	0	MAIN	C1	CU3035	C1608JB1H102KTA	1	1	1
CPU	C248	CU3085	C1608CH1H300JTA	1	1	1	CPU	R238	RK3038	ERJ3GSYJ102V	1	1	1	MAIN	C2	CU3044	C1608JB1H562KTA	1	1	1
CPU	C249	CS0218	TMCMD1A476MTR	1	1	1	CPU	R239	-	-	0	0	0	MAIN	C3	CU3100	C1608JB1C393KTA	1	1	1
CPU	C250	CU3043	C1608JB1H472KTA	1	1	1	CPU	R240	-	-	0	0	0	MAIN	C4	CU3044	C1608JB1H562KTA	1	1	1
CPU	C251	CU3043	C1608JB1H472KTA	1	1	1	CPU	R241	RK3062	ERJ3GSYJ104V	1	1	1	MAIN	C5	CU3002	C1608CH1H010CTA	1	1	1
CPU	C252	CU3059	C1608F1E104ZTA	1	1	1	CPU	R242	RK3062	ERJ3GSYJ104V	1	1	1	MAIN	C6	CU3002	C1608CH1H010CTA	1	1	1
CPU	CN201	UE0170	B9B-ZR	1	1	1	CPU	R243	RK3062	ERJ3GSYJ104V	1	1	1	MAIN	C7	CU3035	C1608JB1H102KTA	1	1	1
CPU	CN202	UE0192	11R-JE	1	1	1	CPU	R244	RK3062	ERJ3GSYJ104V	1	1	1	MAIN	C8	CS0049	TMCSA1C105MTR	1	1	1
CPU	CN203	UE0192	11R-JE	1	1	1	CPU	R245	-	-	0	0	0	MAIN	C9	CU3059	C1608F1E104ZTA	1	1	1
CPU	CN204	-	-	0	0	0	CPU	R246	-	-	0	0	0	MAIN	C10	CU3059	C1608F1E104ZTA	1	1	1
CPU	D201	XD0255	MA8110H-TX	1	1	1	CPU	R247	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	C11	CU3047	C1608JB1H103KTA	1	1	1
CPU	D202	XD0127	MA704WA-TX	1	1	1	CPU	R248	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	C12	CU3047	C1608JB1H103KTA	1	1	1
CPU	D203	XD0230	DAN202UT106	1	1	1	CPU	R249	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	C13	CU3047	C1608JB1H103KTA	1	1	1
CPU	D204	XD0230	DAN202UT106	1	1	1	CPU	R250	RK3046	ERJ3GSYJ472V	1	1	1	MAIN	C14	CU3047	C1608JB1H103KTA	1	1	1
CPU	D205	XL0029	TL5G264	1	1	1	CPU	R251	RK3046	ERJ3GSYJ472V	1	1	1	MAIN	C15	CU3047	C1608JB1H103KTA	1	1	1
CPU	DS201	EL0024	LCD(HLC8290 013300)	1	1	1	CPU	R252	RK3046	ERJ3GSYJ472V	1	1	1	MAIN	C16	CU3102	C1608JB1C333KTA	1	1	1
CPU	IC201	XA0272A	IC(M37410M6H276F)	1	1	1	CPU	R253												

## PARTS LIST

UNIT	REF	PART CODE	DESCRIPTION	06T	06 TH	03 SX	UNIT	REF	PARTS CODE	DESCRIPTION	06T	06 TH	03 SX	UNIT	REF	PARTS CODE	DESCRIPTION	06T	06 TH	03 SX
MAIN	C34	CE0340	16MV 47HC+TS	1	1	1	MAIN	C101	CU3047	C1608JB1H103KTA	1	1	1	MAIN	D15	XD0254	1SS355 TE17	1	1	0
MAIN	C35	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C102	-	-	0	0	0	MAIN	D16	XD0260	1SV231TPH4	1	1	1
MAIN	C36	CU3047	C1608JB1H103KTA	1	1	1	MAIN	C103	CU3019	C1608CH1H470JTA	1	1	0	MAIN	D17	XD0250	MA742-TX	1	1	1
MAIN	C37	-	-	0	0	0	MAIN	C103	CU3023	C1608CH1H101JTA	0	0	1	MAIN	D18	XD0250	MA742-TX	1	1	1
MAIN	C38	CE0339	-	1	1	1	MAIN	C104	CU3035	C1608JB1H102KTA	1	1	0	MAIN	D19	XD0130	DA204UT106	1	1	1
MAIN	C39	CU3031	C1608JB1H471KTA	1	1	1	MAIN	C104	-	-	0	0	1	MAIN	D20	XD0145	M57735	1	1	1
MAIN	C40	CS0049	TMCSA1C105MTR	1	1	1	MAIN	C105	CE0340	16MV 47HC+TS	1	1	1	MAIN	FL1	XC0001	CFW455F	1	1	0
MAIN	C41	CU3047	C1608JB1H103KTA	1	1	1	MAIN	C106	CU3019	C1608CH1H470JTA	1	1	0	MAIN	FL1	XC0017	CFW455G	0	0	1
MAIN	C42	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C106	CU3023	C1608CH1H101JTA	0	0	1	MAIN	FL2	XF0004	XF 49U-10.7M15B	1	1	1
MAIN	C43	CU3017	C1608CH1H330JTA	1	1	0	MAIN	C107	CU3035	C1608JB1H102KTA	1	1	1	MAIN	IC1	XA0068	M5218FP-T01-1	1	1	1
MAIN	C43	CU3031	C1608JB1H471KTA	0	0	1	MAIN	C108	CU3035	C1608JB1H102KTA	1	1	1	MAIN	IC2	XA0082	MC7808CT	1	1	1
MAIN	C44	-	-	0	0	0	MAIN	C109	CU3003	C1608CH1H020CTA	1	1	1	MAIN	IC3	XA0144	TK10487M	1	1	1
MAIN	C45	-	-	0	0	0	MAIN	C110	CU3003	C1608CH1H020CTA	1	1	1	MAIN	IC4	XA0079	UPC1241H	1	1	1
MAIN	C46	CU3059	C1608JF1E104ZTA	1	1	1	MAIN	C111	CU3035	C1608JB1H102KTA	1	1	1	MAIN	IC5	XA0271	M57735	1	1	1
MAIN	C47	-	-	0	0	0	MAIN	C112	CU4019	GRM42-6CH470J500PT	1	1	1	MAIN	IC6	XA0119	AN8010M-E1	1	1	1
MAIN	C48	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C112	CU9029	CM316CH151J100AT			1	MAIN	JK1	UA0039	Power Cable( PLUG 4A)	1	0	1
MAIN	C49	CU3024	C1608CH1H121KTA	1	1	1	MAIN	C113	CU3035	C1608JB1H102KTA	1	1	1	MAIN	JK1	UA0037Y	Power Cable(PLUG15A)	0	1	0
MAIN	C50	CU3017	C1608CH1H330JTA	1	1	1	MAIN	C114	CU3035	C1608JB1H102KTA	1	1	1	MAIN	JK2	XE0257	ANT.Cable with Connect	1	1	1
MAIN	C51	CE0339	16MV 10SW+TS	1	1	1	MAIN	C115	CU3023	C1608CH1H101JTA	1	1	1	MAIN	JK4	UJ0024	HSJ1403-01-010	1	1	1
MAIN	C52	CE0339	16MV 10SW+TS	1	1	1	MAIN	C116	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L1	QC0126	NL322522T-R22J3	1	1	0
MAIN	C53	CS0049	TMCSA1C105MTR	1	1	1	MAIN	C117	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L2	QC0126	NL322522T-R22J3	1	1	0
MAIN	C54	CS0237	TMCMA1A475MTR	1	1	1	MAIN	C118	CE0339	16MV 10SW+TS	1	1	1	MAIN	L3	QC0048	NL322522T-100J	1	1	1
MAIN	C55	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C119	CE0338	25MV 4R7SW+TS	1	1	1	MAIN	L4	QA0101	QA0101	1	1	0
MAIN	C56	CU3003	C1608CH1H020CTA	1	1	1	MAIN	C120	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L5	QA0101	QA0101	1	1	0
MAIN	C57	CU3031	C1608JB1H471KTA	1	1	1	MAIN	C121	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L6	QA0101	QA0101	1	1	0
MAIN	C58	CU3031	C1608JB1H471KTA	1	1	1	MAIN	C122	CE0341	16MV 100HC+TS	1	1	1	MAIN	L7	QC0126	NL322522T-R22J3	1	1	0
MAIN	C59	CU3015	C1608CH1H220JTA	1	1	1	MAIN	C123	CU4033	GRM42-6X7R102KJ500	1	1	1	MAIN	L8	QC0126	NL322522T-R22J3	1	1	0
MAIN	C60	CE0339	16MV 10SW+TS	1	1	1	MAIN	C124	CU3023	C1608CH1H101JTA	1	1	0	MAIN	L9	QKA75G	COIL MR5.0 7.5T 0.6	1	1	0
MAIN	C61	CU3022	C1608CH1H820JTA	1	1	1	MAIN	C124	CU3031	C1608JB1H471KTA	0	0	1	MAIN	L10	QKA75G	COIL MR5.0 7.5T 0.6	1	1	0
MAIN	C62	CU3023	C1608CH1H101JTA	1	1	0	MAIN	C125	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L11	QKA55G	COIL MR5.0 5.5T 0.6	1	1	0
MAIN	C62	CU3047	C1608JB1H103KTA	0	0	1	MAIN	C126	CU3002	C1608CH1H010CTA	1	1	0	MAIN	L12	QKA75G	COIL MR5.0 7.5T 0.6	1	1	0
MAIN	C63	CE0339	16MV 10SW+TS	1	1	1	MAIN	C126	CU3099	C1608CH1H2R5CTA	0	0	1	MAIN	L13	QC0338	SP0406-3R3-6	1	1	1
MAIN	C64	CU3005	C1608CH1H040CTA	1	1	1	MAIN	C127	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L14	QA0101	QA0101	1	1	0
MAIN	C65	CU4022	GRM42-6CH820J500PT	1	0	0	MAIN	C128	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L15	QC0126	NL322522T-R22J3	1	1	0
MAIN	C65	CU4023	GRM42-6CH101J500PT	0	1	0	MAIN	C129	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L16	QKA55G	COIL MR5.0 5.5T 0.6	1	1	0
MAIN	C65	CU9030	CM316CH181J100AT	0	0	1	MAIN	C130	CU3039	C1608JB1H222KTA	1	1	1	MAIN	L17	QC0048	NL322522T-100K	1	1	1
MAIN	C66	CU4022	GRM42-6CH820J500PT	1	1	0	MAIN	C131	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L1	QC0082	Coil(3225 47 UH)	0	0	1
MAIN	C66	CU9029	CM316CH151J100AT	0	0	1	MAIN	C132	CE0339	16MV 10SW+TS	1	1	1	MAIN	L2	QC0039	Coil(3225 1.0 UH)	0	0	1
MAIN	C67	CU4022	GRM42-6CH820J500PT	1	0	0	MAIN	C133	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L4	QA0117	Coil(BOBBIN QA0117)	0	0	1
MAIN	C67	CU4018	GRM42-6CH390J500PT	0	1	0	MAIN	C134	CU3023	C1608CH1H101JTA	1	1	1	MAIN	L5	QA0117	Coil(BOBBIN QA0117)	0	0	1
MAIN	C67	CU9031	CM316CH221J100AT	0	0	1	MAIN	C135	CU3023	C1608CH1H101JTA	1	1	1	MAIN	L6	QA0117	Coil(BOBBIN QA0117)	0	0	1
MAIN	C68	CU3019	C1608CH1H470JTA	1	1	0	MAIN	C136	-	-	0	0	0	MAIN	L7	QC0129	Coil(3225 .39 UH)	0	0	1
MAIN	C68	CU3023	C1608CH1H101JTA	0	0	1	MAIN	C137	-	-	0	0	0	MAIN	L8	QC0129	Coil(3225 .39 UH)	0	0	1
MAIN	C69	CU3035	C1608JB1H102KTA	1	1	0	MAIN	C138	-	-	0	0	0	MAIN	L9	QKA85G	Coil(MR5.0 8.5T 0.6)	0	0	1
MAIN	C69	CU3047	C1608JB1H103KTA	0	0	1	MAIN	C139	CU4019	GRM42-6CH470J500PT	1	1	1	MAIN	L10	QKA95G	Coil(MR5.0 9.5T 0.6)	0	0	1
MAIN	C70	CU3019	C1608CH1H470JTA	1	1	0	MAIN	C140	CS0232	TMCMA1V474MTR	1	1	1	MAIN	L11	QKA75G	Coil(MR5.0 7.5T 0.6)	0	0	1
MAIN	C70	CU3023	C1608CH1H101JTA	0	0	1	MAIN	C141	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L12	QKA95G	Coil(MR5.0 9.5T 0.6)	0	0	1
MAIN	C71	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C142	CU3035	C1608JB1H102KTA	1	1	1	MAIN	L14	QA0117	Coil(BOBBIN QA0117)	0	0	1
MAIN	C72	CS0049	TMCSA1C105MTR	1	1	1	MAIN	C143	CU3027	C1608CH1H221KTA	1	1	1	MAIN	L15	QC0129	Coil(3225 .39 UH)	0	0	1
MAIN	C73	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C144	CU3023	C1608CH1H101JTA	1	1	1	MAIN	L16	QKA75G	Coil(MR5.0 7.5T 0.6)	0	0	1
MAIN	C74	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C145	CU3014	C1608CH1H180JTA	1	1	1	MAIN	Q1	XE0012	3SK131V11.12T1	1	1	1
MAIN	C75	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C146	CU3047	C1608JB1H103KTA	1	1	1	MAIN	Q2	XE0012	3SK131V11.12T1	1	1	1
MAIN	C76	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C147	CU3003	C1608CH1H020CTA	1	1	1	MAIN	Q3	XT0094	2SA1576T106R	1	1	1
MAIN	C77	CU3019	C1608CH1H470JTA	1	1	0	MAIN	C148	-	-	0	0	0	MAIN	Q4	XT0095	2SC4081T106R	1	1	1
MAIN	C77	CU3023	C1608CH1H101JTA	0	0	1	MAIN	C149	-	-	0	0	0	MAIN	Q5	XT0095	2SC4081T106R	1	1	1
MAIN	C78	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C150	CU4007	GRM42-6CH060J500PT	1	1	0	MAIN	Q6	XT0095	2SC4081T106R	1	1	1
MAIN	C79	CU3047	C1608JB1H103KTA	1	1	1	MAIN	C150	CU4013	GRM42-6CH150J500PT	0	0	1	MAIN	Q7	XT0061	2SB1132T100Q	1	1	1
MAIN	C80	CU3014	C1608CH1H180JTA	1	1	1	MAIN	C151	-	-	0	0	0	MAIN	Q8	XT0096	2SC4099T106N	1	1	1
MAIN	C81	CU3047	C1608JB1H103KTA	1	1	1	MAIN	C152	-	-	0	0	0	MAIN	Q9	XT0037	2SC2412KT146R	1	1	1
MAIN	C82	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C153	CU3023	C1608CH1H101JTA	1	1	1	MAIN	Q10	XU0131	DTC114EUT106	1	1	1
MAIN	C83	CU3035	C1608JB1H102KTA	1	1	1	MAIN	C154	CU3035	C1608JB1H102KTA	0	0	1	MAIN	Q11	XU0148	DTC144EUT106	1	1	1
MAIN	C84	CU3035	C1608JB1H102KTA	1	1	1	MAIN	CN1	UE0191	11PS-JE	1	1	1	MAIN	Q12	XU0112	DTA1114YUT106	1	1	1
MAIN	C85	CU3035	C1608JB1H102KTA	1	1	1	MAIN	CN2	UE0191	11PS-JE	1	1	1	MAIN	Q13	XT0112	2SB1292F	1	1	1
MAIN	C86	CU3035	C1608JB1H102KTA	1	1	1	MAIN	CN3	UE0043	PI22A02M	1	1	1	MAIN	Q14	XT0095	2SC4081T106R	1	1	1
MAIN	C87	CU3035	C1608JB1H102KTA	1	1	1	MAIN	D1	XD0136	DTZ5.1ATT11	1	1	1	MAIN	Q15	XT0084	2SC2954T1	1	1	1
MAIN	C88	CU3002	C1608CH1H010CTA	1	1	0	MAIN	D2	XD0014	MI308	1	1	0	MAIN	Q16	XT0095	2SC4081T106R	1	1	1
MAIN	C88	CU3099	C1608CH1H2R5CTA	0	0	1	MAIN	D2	XD0285	1SS53	0	0	1	MAIN	Q17	XU0152	UMC5TR	1	1	1
MAIN	C89	CU3035	C1608JB1H102KTA	1	1	1	MAIN	D3	XD0014	MI308	1	1	0	MAIN	Q18	XE0021	2SK880GRTE85L	1	1	1
MAIN	C90	CU3035	C1608JB1H102KTA	1	1	1	MAIN	D3	XD0287	1N4002	0	0	1	MAIN	Q19	XT0096	2SC4099T106N	1	1	1
MAIN	C91	CU3035	C1608JB1H102KTA	1	1	1	MAIN	D4	XD0254	1SS355 TE17	0	1	1	MAIN	Q20					

## PARTS LIST

UNIT	REF	PART CODE	DESCRIPTION	06T	06	03	UNIT	REF	PARTS CODE	DESCRIPTION	06T	06	03	UNIT	REF	PARTSC ODE	DESCRIPTION	06T	06	03
MAIN	R3	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	R82	RK3038	ERJ3GSYJ102V	1	1	1	VCO	C313	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R4	RK3071	ERJ3GSYJ564V	1	1	1	MAIN	R83	RK3022	ERJ3GSYJ470V	1	1	1	VCO	C314	CU3043	C1608JB1H472KTA	1	1	1
MAIN	R5	RK3034	ERJ3GSYJ471V	1	1	1	MAIN	R84	RK3034	ERJ3GSYJ471V	1	1	1	VCO	C315	-	-	0	0	0
MAIN	R6	RK3062	ERJ3GSYJ104V	1	1	1	MAIN	R85	RK3043	ERJ3GSYJ272V	1	1	1	VCO	C316	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R7	RK3042	ERJ3GSYJ222V	1	1	1	MAIN	R86	RK3045	ERJ3GSYJ392V	1	1	1	VCO	C317	CS0217	TMCMCA1A226MTR	1	1	1
MAIN	R8	RK3042	ERJ3GSYJ222V	1	1	1	MAIN	R87	-	-	0	0	0	VCO	C318	CU3011	C1608CH1H100DTA	1	1	1
MAIN	R9	-	-	0	0	0	MAIN	R88	RK3014	ERJ3GSYJ100V	1	1	0	VCO	C319	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R10	RK3071	ERJ3GSYJ564V	1	1	1	MAIN	R88	RK3018	ERJ3GSYJ220V	0	0	1	VCO	C320	CU3019	C1608CH1H470JTA	1	1	1
MAIN	R11	RK3046	ERJ3GSYJ472V	1	1	1	MAIN	R89	RK0028	ERJ6GEYJ471V	1	1	1	VCO	C321	CU3031	C1608JB1H471KTA	1	1	1
MAIN	R12	RK3038	ERJ3GSYJ102V	1	1	1	MAIN	R90	-	-	0	0	0	VCO	C322	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R13	RK3038	ERJ3GSYJ102V	1	1	1	MAIN	R91	RK3001	ERJ3GSY0R00V	1	1	1	VCO	C323	CU3006	C1608CH1H050OCTA	1	1	0
MAIN	R14	RK3071	ERJ3GSYJ564V	1	1	1	MAIN	R92	RK3038	ERJ3GSYJ102V	1	1	1	VCO	C323	CU3005	C1608CH1H040OCTA	0	0	1
MAIN	R15	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	R93	RK3062	ERJ3GSYJ104V	1	1	1	VCO	C324	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R16	RK4028	ERJ-12YJ151V	1	1	1	MAIN	R94	RK3050	ERJ3GSYJ103V	1	1	1	VCO	C325	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R17	RK3057	ERJ3GSYJ393V	1	1	1	MAIN	R95	-	-	0	0	0	VCO	C326	CS0235	TMCSA1V334MTR	1	1	1
MAIN	R18	RK3042	ERJ3GSYJ222V	1	1	1	MAIN	R96	RK3071	ERJ3GSYJ564V	1	1	1	VCO	C327	CU3047	C1608JB1H103KTA	1	1	1
MAIN	R19	RK3060	ERJ3GSYJ683V	1	1	1	MAIN	R97	-	-	0	0	0	VCO	C328	-	-	0	0	0
MAIN	R20	RK3060	ERJ3GSYJ683V	1	1	1	MAIN	R98	RK0069	ERJ6GEYJ104V	1	1	1	VCO	C329	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R21	RK3051	ERJ3GSYJ123V	1	1	1	MAIN	R99	RK3052	ERJ3GSYJ153V	1	1	1	VCO	C330	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R22	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	R100	RK3044	ERJ3GSYJ332V	1	1	1	VCO	C331	-	-	0	0	0
MAIN	R23	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	R101	RK0039	ERJ6GEYJ222V	1	0	1	VCO	C332	CU3035	C1608JB1H102KTA	1	1	1
MAIN	R24	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	R102	RK3038	ERJ3GSYJ102V	1	1	1	VCO	C333	CU3013	-	0	0	1
MAIN	R25	RK3047	ERJ3GSYJ562V	1	1	1	MAIN	R103	RK3026	ERJ3GSYJ101V	1	1	1	VCO	CN301	UE0188	B9P-BC-2	1	1	1
MAIN	R26	RK3026	ERJ3GSYJ101V	1	1	1	MAIN	R104	RK3050	ERJ3GSYJ103V	1	1	1	VCO	CN302	UE0185	B6P-BC-2	1	1	1
MAIN	R27	RK3038	ERJ3GSYJ102V	1	1	1	MAIN	R105	RK3042	ERJ3GSYJ222V	1	1	1	VCO	D301	-	-	0	0	0
MAIN	R28	RK3058	ERJ3GSYJ473V	1	1	1	MAIN	R106	RK3062	ERJ3GSYJ104V	1	1	0	VCO	D302	XD0260	1SV231TPH4	1	1	0
MAIN	R29	RK3042	ERJ3GSYJ222V	1	1	1	MAIN	R107	RK0001	ERJ6GEYJ100V	1	1	1	VCO	D303	XD0130	DA204UT106	1	1	1
MAIN	R30	RK3045	ERJ3GSYJ392V	1	1	1	MAIN	R108	RK3043	ERJ3GSYJ272V	1	1	1	VCO	D304	XD0284	KV1488	0	0	1
MAIN	R31	RK3054	ERJ3GSYJ223V	1	1	1	MAIN	R109	RK3062	ERJ3GSYJ104V	1	1	1	VCO	IC301	XA0145	MB1504LPGFBNDF	1	1	1
MAIN	R32	RK3057	ERJ3GSYJ393V	1	1	1	MAIN	R110	RK3044	ERJ3GSYJ332V	1	1	1	VCO	L302	QA0102	QA0102	1	1	1
MAIN	R33	RK3047	ERJ3GSYJ562V	1	1	1	MAIN	R111	RK3001	ERJ3GSY0R00V	1	1	1	VCO	L303	QC0047	NL322522T-4R7J	1	1	1
MAIN	R34	RK4018	ERJ-12YJ220V	1	1	1	MAIN	R112	RK3049	ERJ3GSYJ822V	1	1	1	VCO	L304	-	-	0	0	0
MAIN	R35	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	R113	RK3050	ERJ3GSYJ103V	1	1	1	VCO	L305	-	-	0	0	0
MAIN	R36	RK3038	ERJ3GSYJ102V	1	1	1	MAIN	R114	RK3062	ERJ3GSYJ104V	1	1	1	VCO	M301	TS0081	Shield(VCO CASE)	1	1	1
MAIN	R37	RK3045	ERJ3GSYJ392V	1	1	1	MAIN	R115	RK3038	ERJ3GSYJ102V	1	1	1	VCO	-	Y20107	Others(VA-30 1cc)	0.1	0.1	0
MAIN	R38	RK3054	ERJ3GSYJ223V	1	1	1	MAIN	R116	-	-	0	0	0	VCO	Q301	XE0010	2SK508K52-T2B	1	1	1
MAIN	R39	RK3032	ERJ3GSYJ331V	1	1	1	MAIN	R117	RK3026	ERJ3GSYJ101V	1	1	1	VCO	Q302	XT0111	2SC4081LNT106S	1	1	1
MAIN	R40	RK3054	ERJ3GSYJ223V	1	1	1	MAIN	R118	RK3054	ERJ3GSYJ223V	1	1	1	VCO	Q303	XT0111	2SC4081LNT106S	1	1	1
MAIN	R41	RK3042	ERJ3GSYJ222V	1	1	1	MAIN	R119	RK3038	ERJ3GSYJ102V	1	1	1	VCO	Q304	XT0096	2SC4099T106N	1	1	1
MAIN	R42	RK3041	ERJ3GSYJ182V	1	1	1	MAIN	R120	RK3050	ERJ3GSYJ103V	1	1	1	VCO	Q305	XT0096	2SC4099T106N	1	1	1
MAIN	R43	RK3058	ERJ3GSYJ473V	1	1	1	MAIN	R121	RK3001	ERJ3GSY0R00V	1	1	1	VCO	Q306	XT0094	2SA1576T106R	1	1	1
MAIN	R44	RK3014	ERJ3GSYJ100V	1	1	1	MAIN	R123	RK3046	ERJ3GSYJ472V	1	1	1	VCO	Q307	-	-	0	0	0
MAIN	R45	RK3026	ERJ3GSYJ101V	1	1	1	MAIN	R125	RK0107	ERJ6GEY0R00V	0	0	1	VCO	Q308	-	-	0	0	0
MAIN	R46	-	-	0	0	0	MAIN	R130	RK0001	ERJ6GEYJ100V	0	0	1	VCO	R301	RK3050	ERJ3GSYJ103V	1	1	1
MAIN	R47	RK3062	ERJ3GSYJ104V	1	1	1	MAIN	TC1	CT0012	CTZ-10AW	1	1	1	VCO	R302	RK3050	ERJ3GSYJ103V	1	1	1
MAIN	R48	RK3026	ERJ3GSYJ101V	1	1	1	MAIN	TH1	XS0040	Thermistor(ERTD2ZGL2)	1	1	1	VCO	R303	RK3050	ERJ3GSYJ103V	1	1	1
MAIN	R49	RK3038	ERJ3GSYJ102V	1	1	1	MAIN	TH2	XS0013Z	Thermistor(NTH5D682K)	1	0	1	VCO	R304	-	-	0	0	0
MAIN	R50	RK3071	ERJ3GSYJ564V	1	1	1	MAIN	VR1	RH0106	EVMI1YSX50BQ4	1	1	1	VCO	R305	-	-	0	0	0
MAIN	R51	RK3058	ERJ3GSYJ473V	1	1	1	MAIN	VR2	RH0103	EVMI1YSX50B14	1	1	1	VCO	R306	-	-	0	0	0
MAIN	R52	-	-	0	0	0	MAIN	VR4	RH0106	EVMI1YSX50BQ4	1	1	1	VCO	R307	-	-	0	0	0
MAIN	R53	RK3044	ERJ3GSYJ332V	1	1	1	MAIN	VR5	RH0106	EVMI1YSX50BQ4	1	1	1	VCO	R308	RK3046	ERJ3GSYJ472V	1	1	1
MAIN	R54	RK4034	ERJ-12YJ471V	1	1	1	MAIN	VR6	RH0061	MVR32HXBRN472	0	0	1	VCO	R309	RK3028	ERJ3GSYJ151V	1	1	1
MAIN	R55	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	VR6	RH0103	EVMI1YSX50B14	1	1	0	VCO	R310	RK3045	ERJ3GSYJ392V	1	1	1
MAIN	R56	RK3050	ERJ3GSYJ103V	1	1	1	MAIN	X1	XQ0063	X 49U-11.15M	1	1	1	VCO	R311	RK3044	ERJ3GSYJ332V	1	1	1
MAIN	R57	RK3018	ERJ3GSYJ220V	1	1	1	MAIN	X2	XK0002	CDBM455C7	1	1	1	VCO	R312	RK3047	ERJ3GSYJ562V	1	1	1
MAIN	R58	RK3038	ERJ3GSYJ102V	1	1	1	MAIN	X3	XQ0064	X 49U-11.155M	1	1	1	VCO	R313	RK3039	ERJ3GSYJ122V	1	1	1
MAIN	R59	RK3053	ERJ3GSYJ183V	1	0	1	MAIN	Y1	TZ0056	Silicon Dumper(49U)	4	4	4	VCO	R314	RK3022	ERJ3GSYJ470V	1	1	1
MAIN	R59	RK3054	ERJ3GSYJ223V	0	1	0	PA	C501	CU3021	C1608CH1H680JTA	0	0	1	VCO	R315	RK3052	ERJ3GSYJ153V	1	1	1
MAIN	R60	RK3034	ERJ3GSYJ471V	1	1	1	PA	C502	CU3047	C1608JB1H103KTA	0	0	1	VCO	R316	RK3026	ERJ3GSYJ101V	1	1	0
MAIN	R61	RK3038	ERJ3GSYJ102V	1	1	1	PA	C503	CU3047	C1608JB1H103KTA	0	0	1	VCO	R316	RK3025	ERJ3GSYJ820V	0	0	1
MAIN	R62	RK3054	ERJ3GSYJ223V	1	1	1	PA	Q501	XT0134	Transistor(2SC133)	0	0	1	VCO	R317	RK3026	ERJ3GSYJ101V	1	1	1
MAIN	R63	RK3032	ERJ3GSYJ331V	1	1	1	PA	L501	QR0018	Coil(DRM03)	0	0	1	VCO	R318	RK3051	ERJ3GSYJ123V	1	1	1
MAIN	R64	RK3042	ERJ3GSYJ222V	1	1	1	PA	L502	QK0112	Coil(QK0112)	0	0	1	VCO	R319	RK3034	ERJ3GSYJ471V	1	1	1
MAIN	R65	RK3026	ERJ3GSYJ101V	1	1	1	PA	C504	CK0002	Capacitor(50V 0.01UF)	0	0	1	VCO	R320	RK3044	ERJ3GSYJ332V	1	1	1
MAIN	R66	RK3050	ERJ3GSYJ103V	1	1	1	PA	R126	RD1013	Resistor(1/4 W TYPE 0	0	0	1	VCO	R321	-	-	0	0	0
MAIN	R67	RK3026	ERJ3GSYJ101V	1	1	1	PA	R127	RD1013	Resistor(1/4 W TYPE 0	0	0	1	VCO	R322	RK3034	ERJ3GSYJ471V	1	1	1
MAIN	R68	RK3030	ERJ3GSYJ221V	1	1	1	PA	R128	RD1013	Resistor(1/4 W TYPE 0	0	0	1	VCO	R323	RK3054	ERJ3GSYJ223V	1	1	1
MAIN	R69	RK3050	ERJ3GSYJ103V	1	1	1	PA	R129	RD1013	Resistor(1/4 W TYPE 0	0	0	1	VCO	R324	RK3034	ERJ3GSYJ471V	1	1	1
MAIN	R70	RK3058	ERJ3GSYJ473V	1	1	1	VCO	C301	-	-	0	0	0	VCO	R325	RK3050	ERJ3GSYJ103V	1	1	1
MAIN	R71	RK3026	ERJ3GSYJ101V	1	1	1	VCO	C302	CS0220	TMCSA1C225MTR	1	1	1	VCO	R326	RK3026	ERJ3GSYJ101V	1	1	1
MAIN	R72	-	-	0	0	0	VCO	C303	-	-	0	0	0	VCO	R327	RK3026	ERJ3GSYJ101V	1	1	1
MAIN	R73	RK3052	ERJ3GSYJ153V	1	1	1	VCO	C304	CS0063	TMCS										

## PARTS LIST

UNIT	REF	PART SCODE	DESCRIPTION	06T	06 TH	03 SX	UNIT	REF	PARTS CODE	DESCRIPTION	06T	06 TH	03 SX	UNIT	REF	PARTSC ODE	DESCRIPTION	06T	06 TH	03 SX
Mechanical		ES0017	Speaker(057M9017)	1	1	1	SCREW SET	AA0013	BH M5+20 FE/ZN	4	4	4	PA	C501	CU3021	C1608CH1H180JTA				1
Mechanical		FF0015	Cloth(BLIND DR110)	3	3	3	SCREW SET	AE0012	HEXH/D M4+8 FE/B.ZN	4	4	4	PA	C502	CU3047	C1608JB1H103KTA				1
Mechanical		FF0021	Cloth(BLIND VOL DR1	2	2	2	SCREW SET	AJ0003	BH T5+20 FE/ZN 1	4	4	4	PA	C503	CU3047	C1608JB1H103KTA				1
Mechanical		FF0028	Cloth(10X22)	1	1	1	SCREW SET	AN0002	HEX N5X0.8 FE/ZN	4	4	4	PA	C504	CK0002	CK45-F1H103ZYA				1
Mechanical		FF0029	Cloth(4.0X22)	1	1	1	SCREW SET	AZ0009	SW 5X9.2X1.3 FE/ZN	4	4	4	PA	R126	RD1013	JPW02 R01				1
Mechanical		FF0030	Cloth(5.0X20)	2	2	2	SCREW SET	AZ0010	SW 5X12X0.8 FE/ZN	4	4	4	PA	R127	RD1013	JPW02 R01				1
Mechanical		FF0031	Cloth(7.0X30)	2	2	2	SCREW SET	EF0005	Fuse(FGBO 15A)	2	2	0	PA	R128	RD1013	JPW02 R01				1
Mechanical		FG0040	Speaker Cushion	1	1	1	SCREW SET	FM0079Z	Spanner(DR130)	1	1	1	PA	R129	RD1013	JPW02 R01				1
Mechanical		FG0148	Button Cushion(DR130)	1	1	1	SCREW SET	HP0006	Protect.Bag(5X90X170)	1	1	1	PA	L501	QR0018	COIL				1
Mechanical		FM0152	METAL(IC FIX DR130	3	3	3							PA	L502	QR0112	COIL				1
Mechanical		FM0083	Washer(DR130)	1	1	1							PA	Q501	XT0134	2SC3133				1
Mechanical		FP0080	Hidden Board(DR150)	1	0	1														
Mechanical		KS0041CZ	Bottom Case(DR130)	1	1	1														
Mechanical		KZ0047AZ	Top Case(DR130T)	1	1	1														
Mechanical		KZ0012	Front Panel(DRM06)	1	1	1														
Mechanical		ND0004	Cover(DIAL DR110)	1	1	1														
Mechanical		NK0009B	Knob(DIAL DRM06)	1	1	1														
Mechanical		NK0010A	Knob(VOL KNOB)	2	2	2														
Mechanical		NP0066Z	Push Knob(POWER R13	1	1	1														
Mechanical		NP0067A	Key(H/L DR130)	1	1	1														
Mechanical		SD0034	SPRing(GND DR130)	1	1	1														
Mechanical		SS0052CY	Chassis(DR130)	0	1	0														
Mechanical		SS0054A	Chassis(DRM06)	1	0	1														
Mechanical		TS0080Z	Shield(FRONT DR130)	1	1	1														
Mechanical		UP0255A	P.C.Board(DRM03 INT	1	1	1														
Mechanical		UX1047	Wire(DR130)	1	1	1														
Mechanical		YZ0042	Cement(G17 1PC.)	1	1	1														
Mechanical		YZ0128	Tape(LCD DR130)	1	1	0														
Mechanical		AD0010	Screw(PH/D M3+8 FE/	2	2	2														
Mechanical		AK0003	Screw(OPH B2.6+6 FE/N	3	3	3														
Mechanical		AE0014	Screw(OH B2.6+8B FE/	7	7	7														
Mechanical		AV0001	Screw(BH B2.6+6 FE/N)	10	8	10														
Mechanical		AB0011	Screw(PH/S M3+8 FE/	0	0	1														
Packing		ADFM78	BRACKET DR130	1	1	1														
Packing		ADUA38	Power Cable(R-B2.0X3n	1	1	1														
Packing		DK0115	PROTECT.FILM DR130	1	1	1														
Packing		DS0351	Serial No.Plate(Standard	0	1	0														
Packing		DS0354B	Serial No.Plate(for DRM	1	0	0														
Packing		DS0388A	Serial No.Plate(NEW)	0	0	1														
Packing		EMS11	Mic.	1	1	0														
Packing		EMS5A	Mic.	0	0	1														
Packing		HH0042	STYRO.OUTER DR130	0.4	0.4	0														
Packing		HH0044A	INNER BOX DRM06	0	0	1														
Packing		HH0046	STYROFOAM DRM06	0	0	1														
Packing		HK0362A	PACKAGE DRM06T	1	1	0														
Packing		HK0368	PACKAGE DRM03SX	0	0	1														
Packing		HM0119A	5PCS DR130	0.2	0.2	0														
Packing		HM0124A	PACKAGE DRM10	0	0	0.5														
Packing		HP0002	5X205X305	0	0	1														
Packing		HP0026	5X200X400	0	0	1														
Packing		HP0035	5X200X250	1	1	0														
Packing		HP0036	5X90X900	1	1	0														
Packing		HU0047	P.MTL(A)DR130	1	1	0														
Packing		HU0048	P.MTL(B)DR130	1	1	0														
Packing		HU0055	P.MTL/C.BD.DRM10	0	0	1														
Packing		HU0064	P.MTL/CARTON DRM	1	0	0														
Packing		PF0034A	CAUTION	0	0	1														
Packing		PF0048	ADDITIONAL INST.06	0	1	0														
Packing		PH0009A	WARRANTY CERT EX	1	0	0														
Packing		PH0010A	Warranty Certificate DO	0	0	1														
Packing		PK0071	DIAGRAM DRM06TH	0	1	0														
Packing		PR0154	Label(H)	0	1	0														
Packing		PR0237	FCC PART15	1	0	0														
Packing		PS0201B	INSTRUCTION DRM06	1	1	1														
Packing		PT0004A	SERIAL NO.FOR CART	0	0	2														



## ADJUSTMENT

### 1) Required Test Equipment

#### 1. Digital Multimeter

Voltage range: FS= 18V or so  
Input resistance: 1M ohm or more

#### 2. Regulated Power Supply

Supply voltage: 13.80V  
Current : 15A or more

#### 3. Oscilloscope

Measurable frequency: DC to 30MHz

#### 4. Spectrum Analyzer

Measuring range: Up to 2GHz or more

#### 5. Tracking Generator

Output frequency: Up to 2GHz or more

#### 6. Audio Dummy Load

Impedance: 8 ohm  
Dissipation: 5W or more

#### 7. SSG

Output frequency: 1GHz or more  
Output level: -20dB/0.1uV to 120dB/1V  
Modulation: FM

#### 8. Frequency Counter

Measurable frequency: Up to 500MHz  
Measurements stability: 0.2ppm or so

#### 9. Power Meter

Measurable frequency: Up to 500MHz  
Impedance: 50 ohm, unbalanced  
Measuring range: Full scale of 60W or so

#### 10. Audio Voltmeter

Measurable frequency: 50Hz to 10kHz  
Sensitivity: 1mV ~ 10V

#### 11. Distortion Meter

Measurable frequency: 1kHz  
Input level: Up to 40dB  
Distortion level: 1% - 100%

#### 12. Audio Generator

Output frequency: 88.5Hz and 1kHz  
Output impedance: 600 ohm, unbalanced

#### 13. Linear Detector

Measurable frequency: Up to 500MHz  
Characteristics: Flat  
CN: 60dB or more

2) Adjustment for **DRM03SX**

SSG Mod:1KHz +/-3.5KHz/DEV

SP terminal is connected to 8ohm dummy load.

RX speaker output level is 50 to 100mW

1. Power supply voltage is 13.8V. Power switch is off.
  2. Turn the squelch and volume knobs counterclockwise.
  3. Press and hold the "F"key,then turn on the power switch.
- The display shows that the frequency is 29.00MHz

PLL Adjustment

Item	Condition		Measurement			Adjustment			Specification	
			Test equipment	Unit	Terminal	Unit	Parts	Method		
Frequency	Frequency: 29.00MHz	TX LOW	Freq.Counter Power Meter	Back	ANT	MAIN	TC3	29.00 MHz	+/- 100Hz	
PLL VCO	Frequency: 52.00MHz	TX	Digital	Main	PD	PLL	L302	8.2V	8.1-8.3V	
RX Sensitivity	Frequency: 29.03MHz SSG out: -7dBu	RX	Distortion Meter SSG	Main		Main	L4-L6 L14	SINAD MAX	Turn the coil L14, L4,L5,L6,L4,L5 to the MAX in order  SINAD is above 12dB	
	Frequency: 29.03MHz SSG out: -7dBu	RX								
	Frequency: 26.03MHz SSG out: 0dBu									
	Frequency: 40.00MHz SSG out: 30dBu	RX								
S Meter	Frequency: 29.03MHz SSG out: 15dBu Mod: 1KHz	RX	LCD S Meter	Front Panel		Main	VR5	Full flashing	S Meter does not light.	
	Frequency: 29.03MHz SSG out: OFF Mod: 1KHz	RX						Check		
SQL Level	Frequency: 29.03MHz SSG out: -10dBu  SQL VR: Threshold	RX	LCD Busy	Front Panel		Main		Make sure that SQL is open	Busy ON	
High Power	Frequency: 29.00MHz	TX High	Power Meter	Back	ANT	Main	VR1	10.5W	+/- 0.5W(T)	
Low Power	Frequency: 29.00MHz Power: Low *1	TX Low					VR6	1.0w	+/- 0.1W(T)	Narrow Version
MAX DEV	Frequency: 29.00MHz AG: 1KHz -30dBm	TX Low	Linear Detector Power Meter Oscilloscope	Back	ANT	Main	VR2	4.7kHz /Dev	4.7 +/-0.1 kHz/Dev	2.4 +/-0.2 kHz/Dev
MIC Gain	Frequency: 29.00MHz AG: 1KHz -47dBm	TX Low					VR4	4.0kHz /Dev	4.0 +/-0.1 kHz/Dev	2.0 +/-0.2 kHz/Dev
CTCSS Tone DEV	Frequency: 29.00MHz AG: OFF Tone SW(88.5Hz): ON	TX Low					Check	0.60-0.85 kHz/Dev	0.35-1.2 kHz/Dev	

2) Adjustment for **DRM06TH/T**

SSG Mod:1KHz +/-3.5KHz/DEV

SP terminal is connected to 8ohm dummy load.

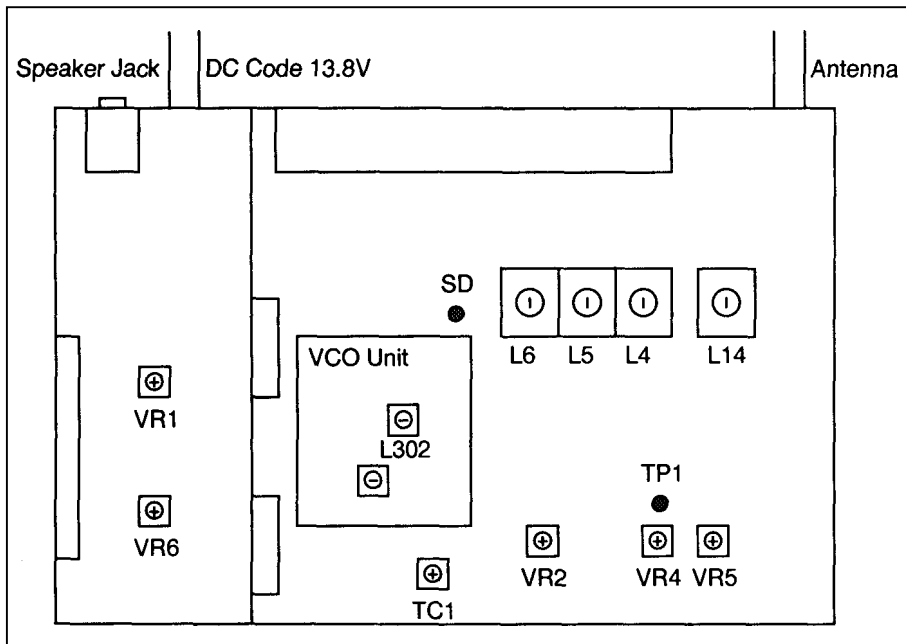
RX speaker output level is 50 to 100mW

1. Power supply voltage is 13.8V. Power switch is off.
2. Turn the squelch and volume knobs counterclockwise.
3. Press and hold the "F"key,then turn on the power switch.  
The display shows that the frequency is 51.00MHz

PLL Adjustment

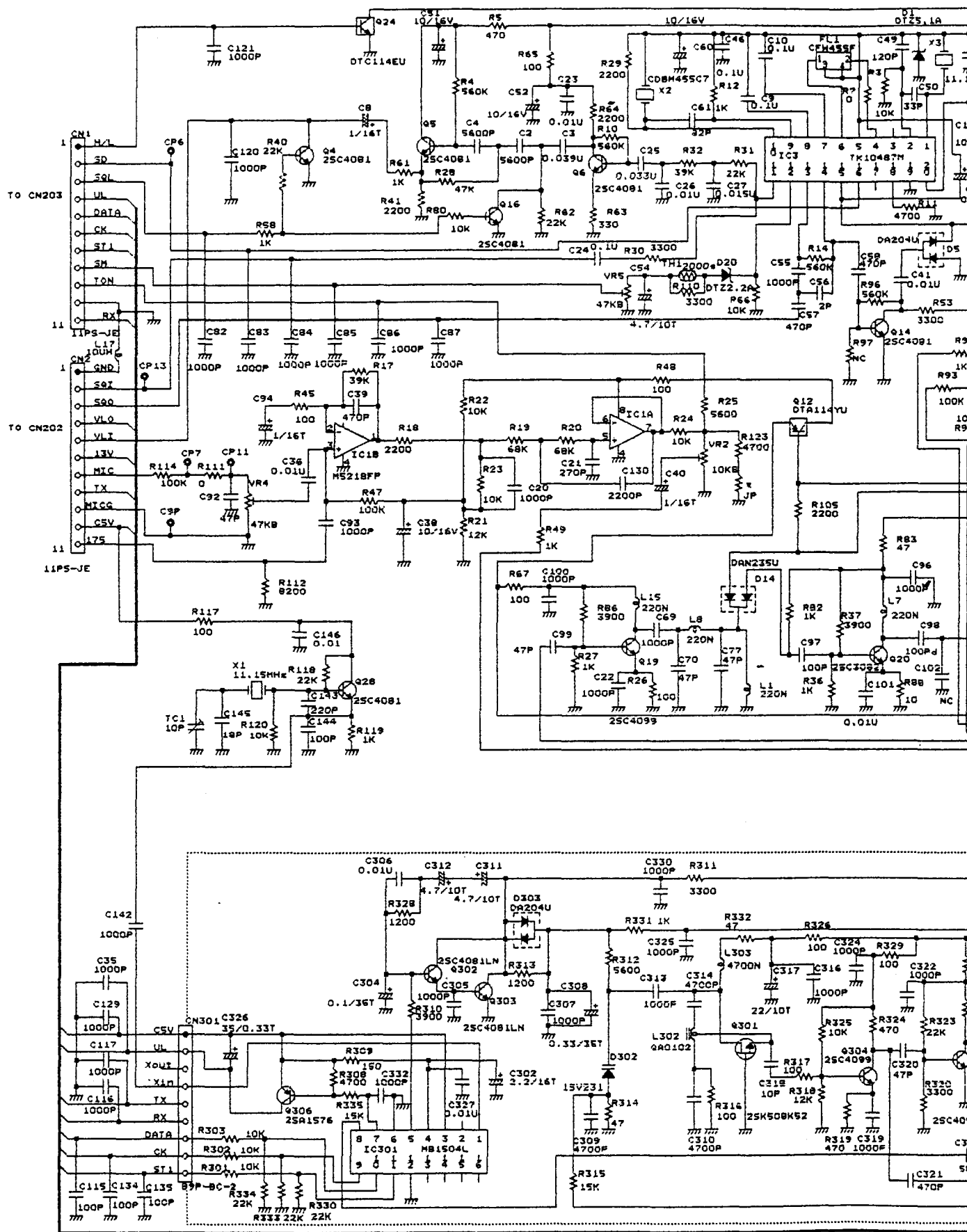
Item	Condition		Measurement			Adjustment			Specification	
			Test equipment	Unit	Terminal	Unit	Parts	Method		
Frequency	Frequency: 52.00MHz	TX LOW	Freq.Counter Power Meter	Back	ANT	MAIN	TC3	52.000 MHz	+/- 100Hz	
PLL VCO	Frequency: 52.00MHz	TX	Digital	Main	PD	PLL	L302	5.2V	5.1-5.3V	
RX Sensitivity	Frequency: 51.03MHz SSG out: -10dBu	RX	Distortion Meter SSG	Main		Main	L4-L6 L14	SINAD MAX	Turn the coil L14, L4,L5,L6,L4,L5 to the MAX in order	
	Frequency: 51.03MHz SSG out:-10dBu	RX							SINAD is above 12dB	
	Frequency: 45.03MHz Frequency: 59.03MHz SSG out: 0dBu	RX								
S Meter	Frequency: 51.03MHz SSG out: 15dBu Mod: 1KHz	RX	LCD S Meter	Front Panel		Main	VR5	Full flashing		
	Frequency: 51.03MHz SSG out:OFF Mod: 1KHz	RX						Check	S Meter does not light.	
SQL Level	Frequency: 51.03MHz SSG out:-10dBu  SQL VR:Threshold	RX	LCD Busy	Front Panel		Main		Make sure that SQL is open	Busy ON	
High Power	Frequency: 52.00MHz	TX  High	Power Meter	Back	ANT	Main	VR1	20W 10.5W	+/- 0.5W(TH) +/- 0.5W(T)	
Low Power	Frequency: 52.00MHz Power:Low *1	TX Low					VR6	2.0w 1.0w	+/- 0.2W (TH) +/- 0.1W(T)	Narrow Version
MAX DEV	Frequency: 52.00MHz AG:1KHz -30dBm	TX Low				Main	VR2	4.7kHz /Dev	4.7 +/-0.1 kHz/Dev	2.4 +/-0.2 kHz/Dev
MIC Gain	Frequency: 52.00MHz AG:1KHz -47dBm	TX Low					Back	ANT	VR4	4.0kHz /Dev
CTCSS Ton DEV	Frequency: 52.00MHz AG: OFF ToneSW(88.5Hz):ON	TX Low	Linear Detector Power Meter Oscilloscope				Check	0.60-0.85 kHz/Dev	0.35-1.2 kHz/Dev	

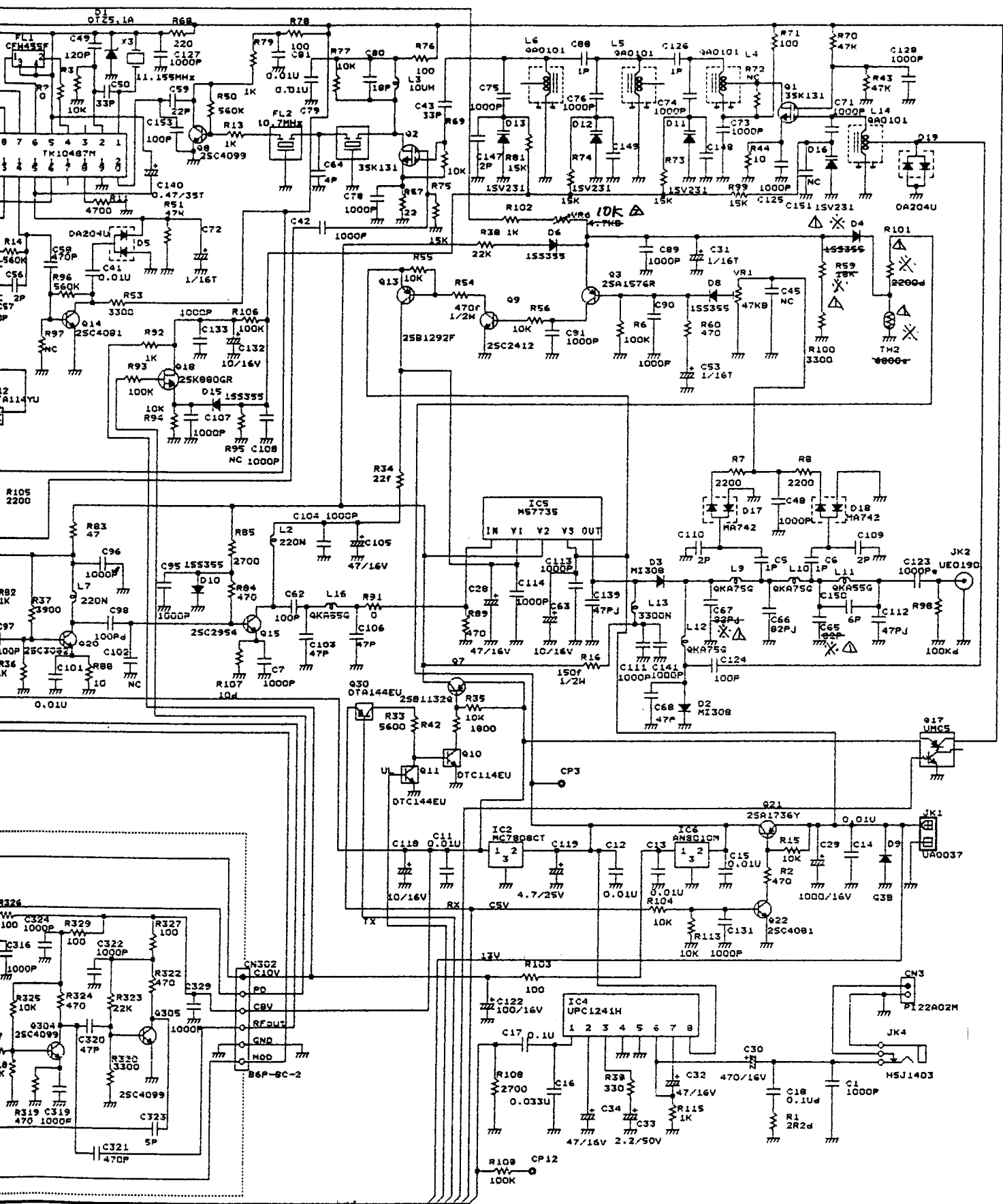
### 3) Adjustment Points



### 4) Adjustment Quick Reference

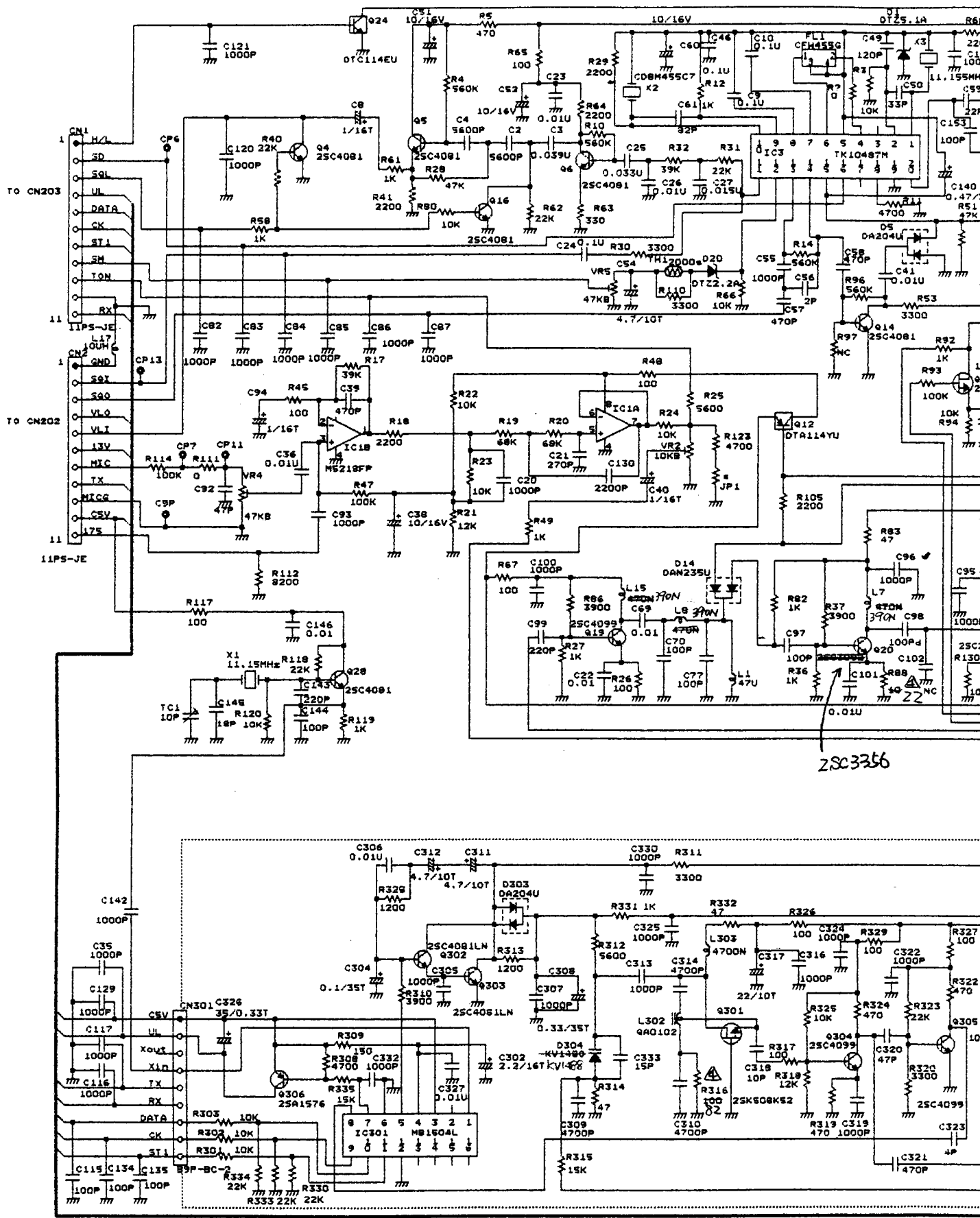
Parts	Item	Specifications
L4	RX Sensitivity	-10dBpV (12dB SINAD)
L5	RX Sensitivity	-10dBpV (12dB SINAD)
L6	RX Sensitivity	-10dBpV (12dB SINAD)
L14	RX Sensitivity	-10dBpV (12dB SINAD)
L302	VCO Frequency	1.8V~2.2V 52.00MHz +/-
TC1	Reference Frequency	100Hz(DRM06) 20W +/- 0.5W (DRM06)
VR1	TX High Power	10.5W +/- 0.5W (DRM03)
VR2	Deviation	4.7kHz +/-0.2kHz
VR4	Mic Gain	4.0kHz +/-0.2kHz
VR5	S Meter	15dBu "Full"
VR6	TX LowPower	5W+/-0.5W



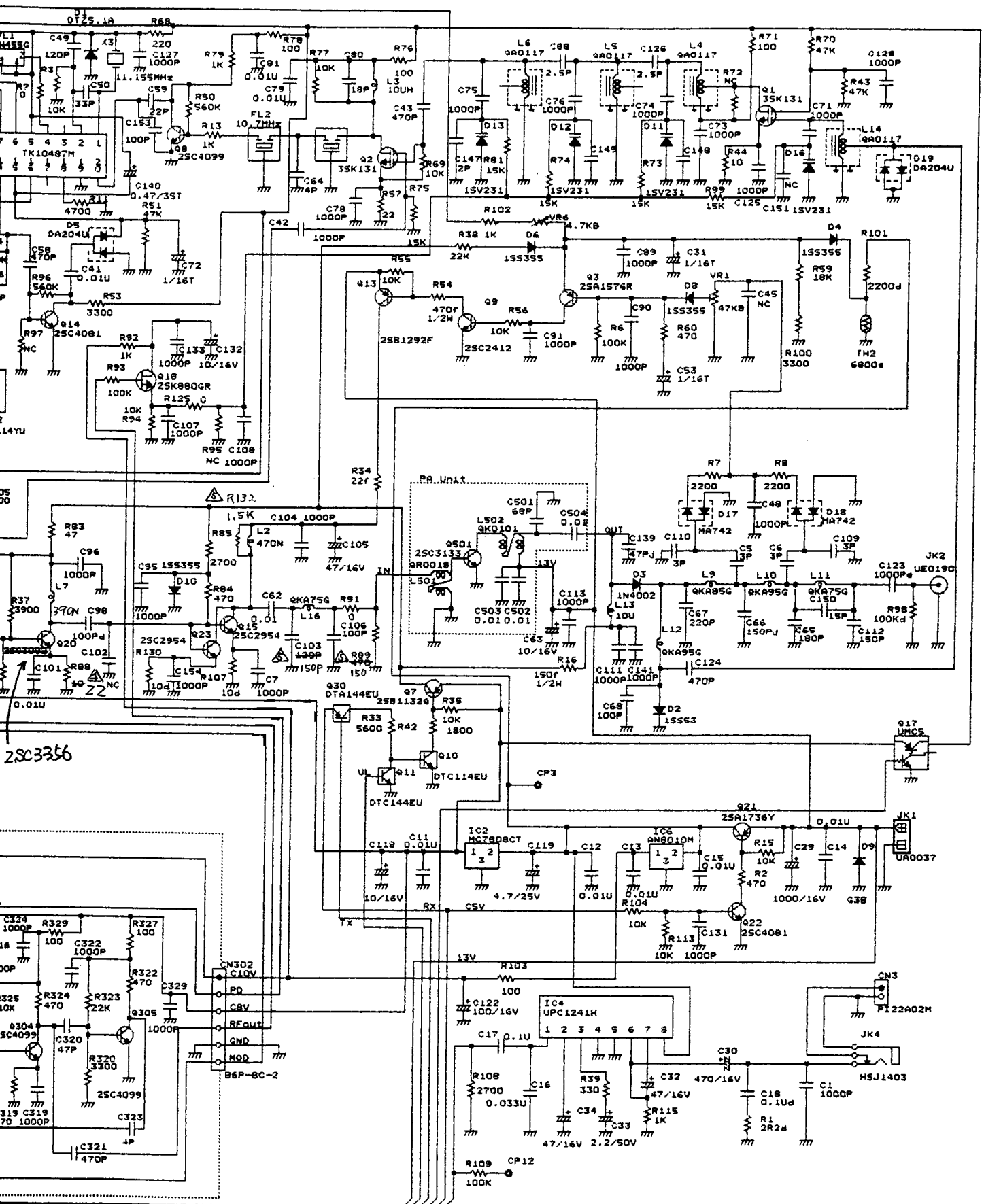


※	C65	C67	R59	TH2	R101	D4
M06 T.E.TE SX	82p	82p	18K	6800	2.2K	1SS 355
M06DX	100p	39p	22K	NC	NC	NC

DRM06  
MAIN Unit

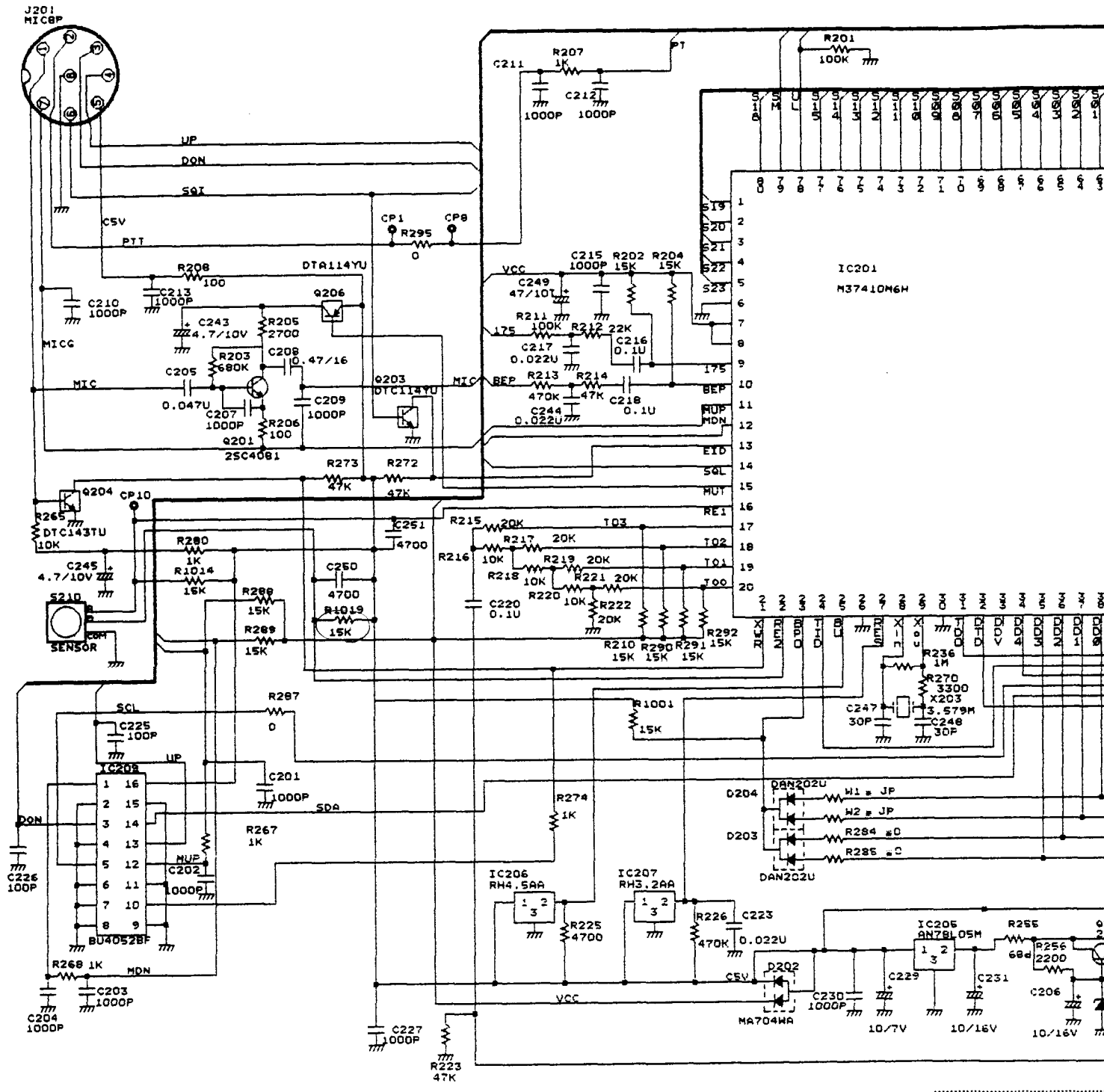


25C3356

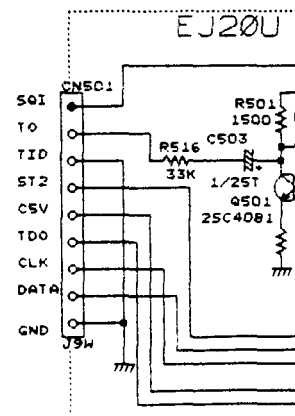


DRM03  
MAIN Unit





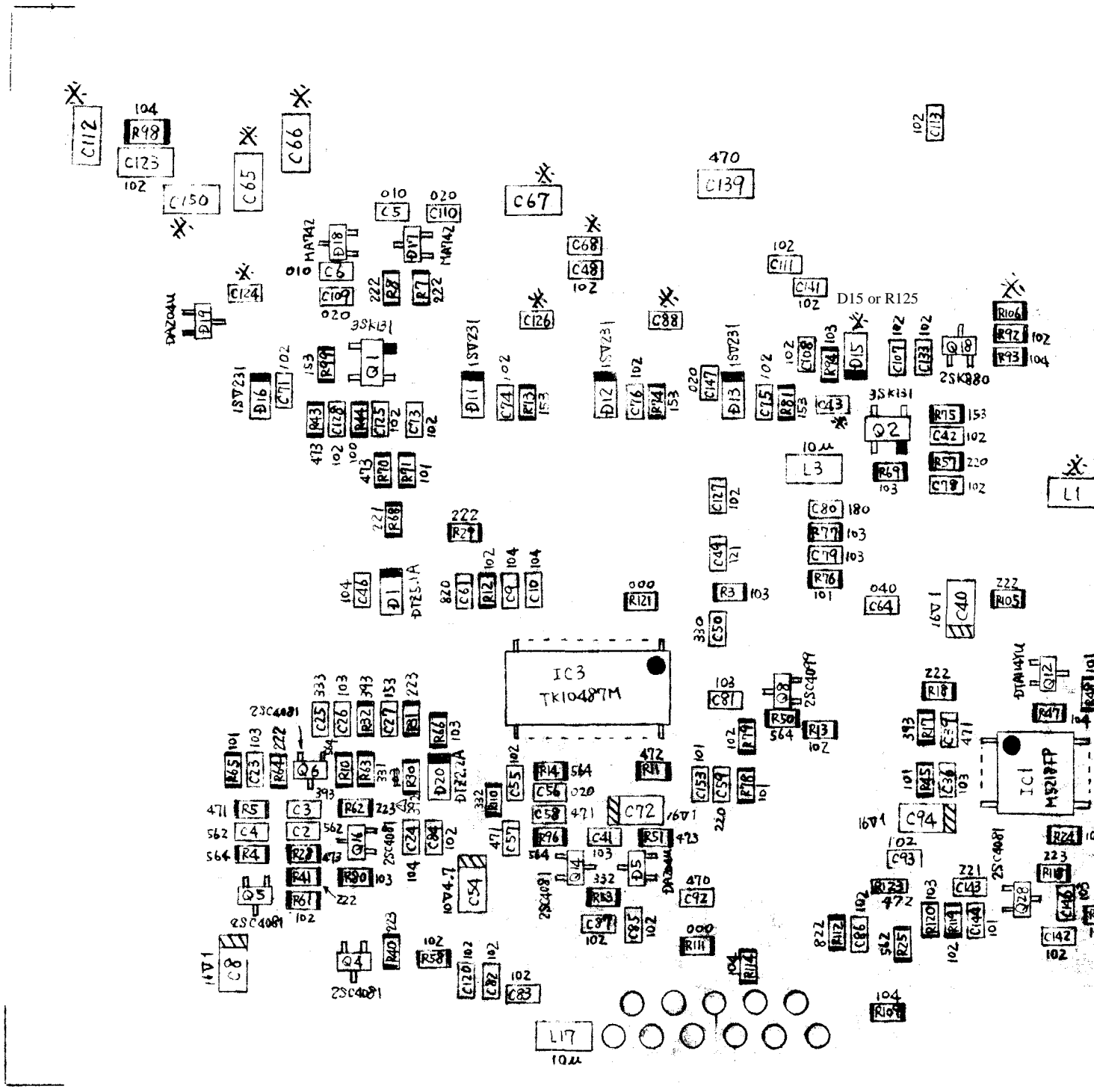
DRM06 /DR03  
CPU unit





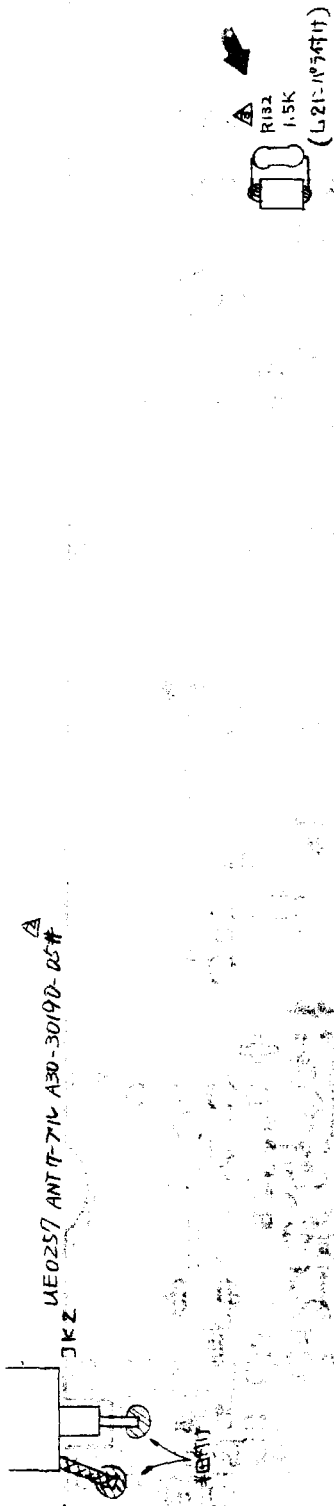
PC BOARD VIEW

1-1 Main Unit Side A



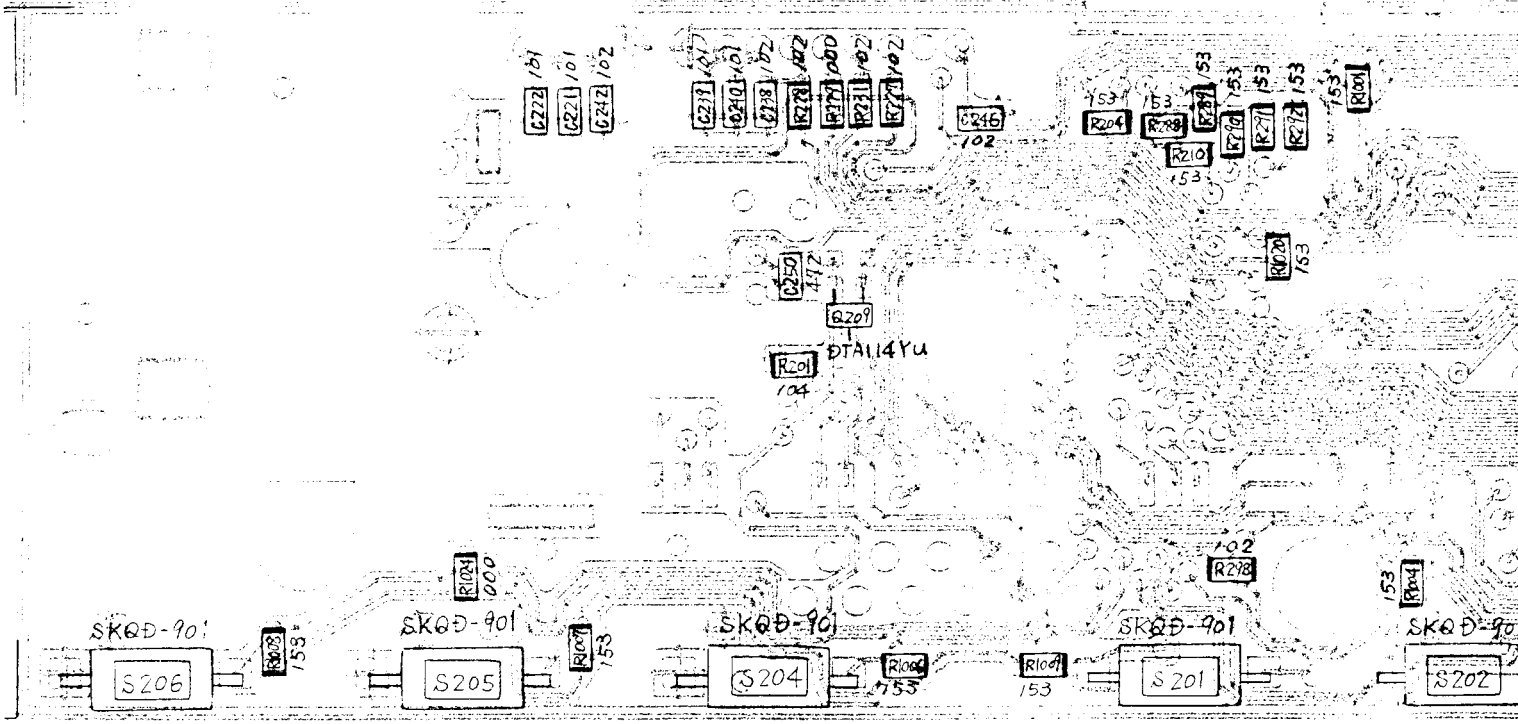
	C22	C43	C62	C65	C66	C67	C68	C69	C70	C77	C88	C99	C103	C106	C112	C124	C126	C150
M03 SX	103	471	103	181	151	221	101	103	101	101	2R5	221	151	101	151	471	2R5	150
M06 TH	102	330	101	101	820	390	470	102	470	470	010	470	470	470	470	101	010	060



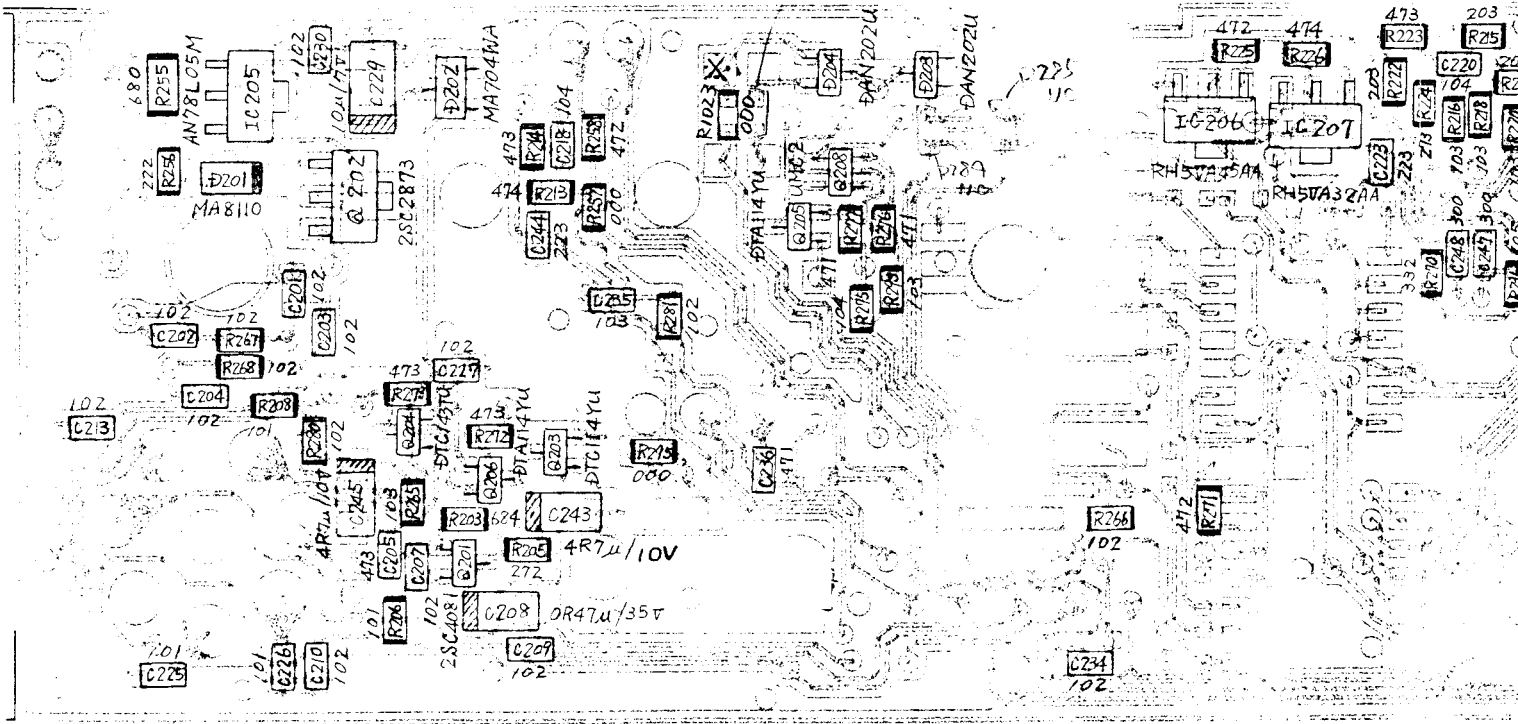




3) CPU Unit Side A



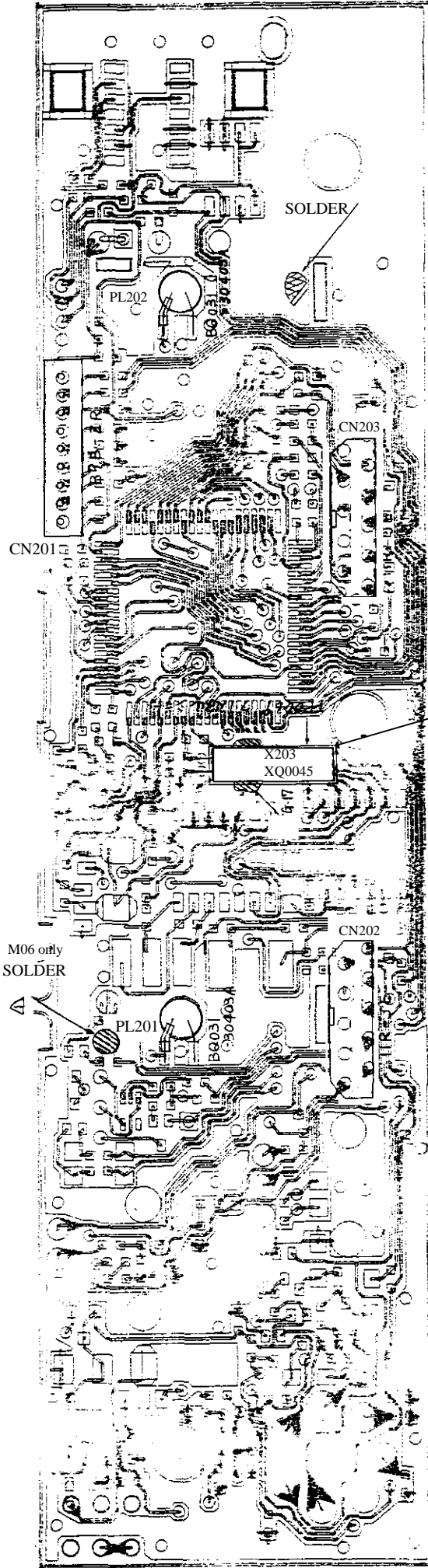
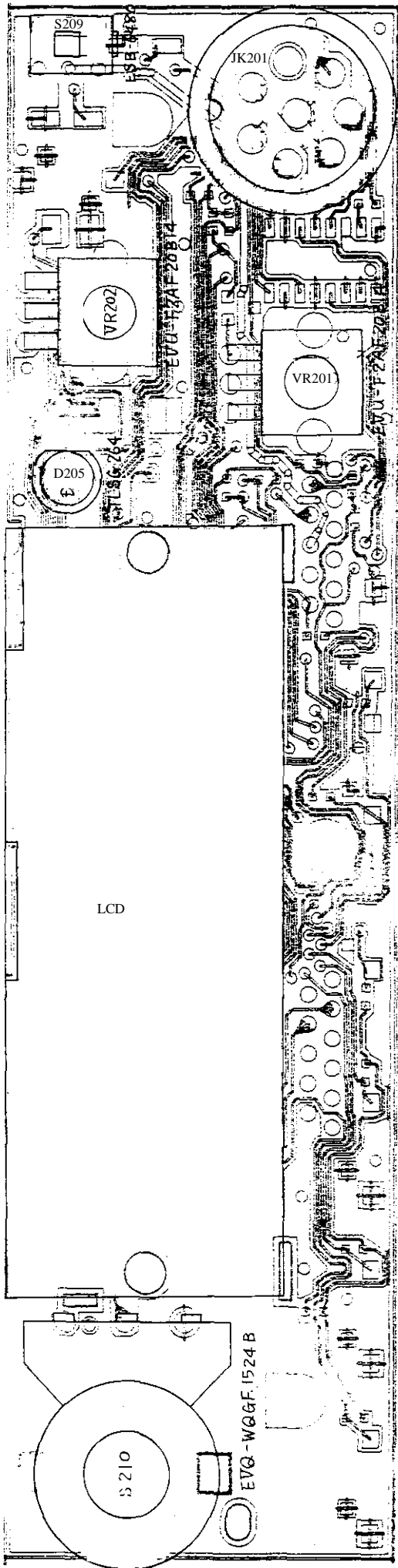
4) CPU Unit Side B



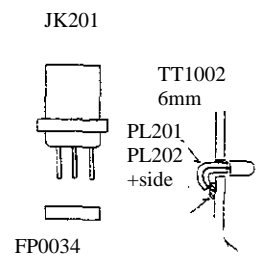
X	R1023
M06	—
M03	0.2



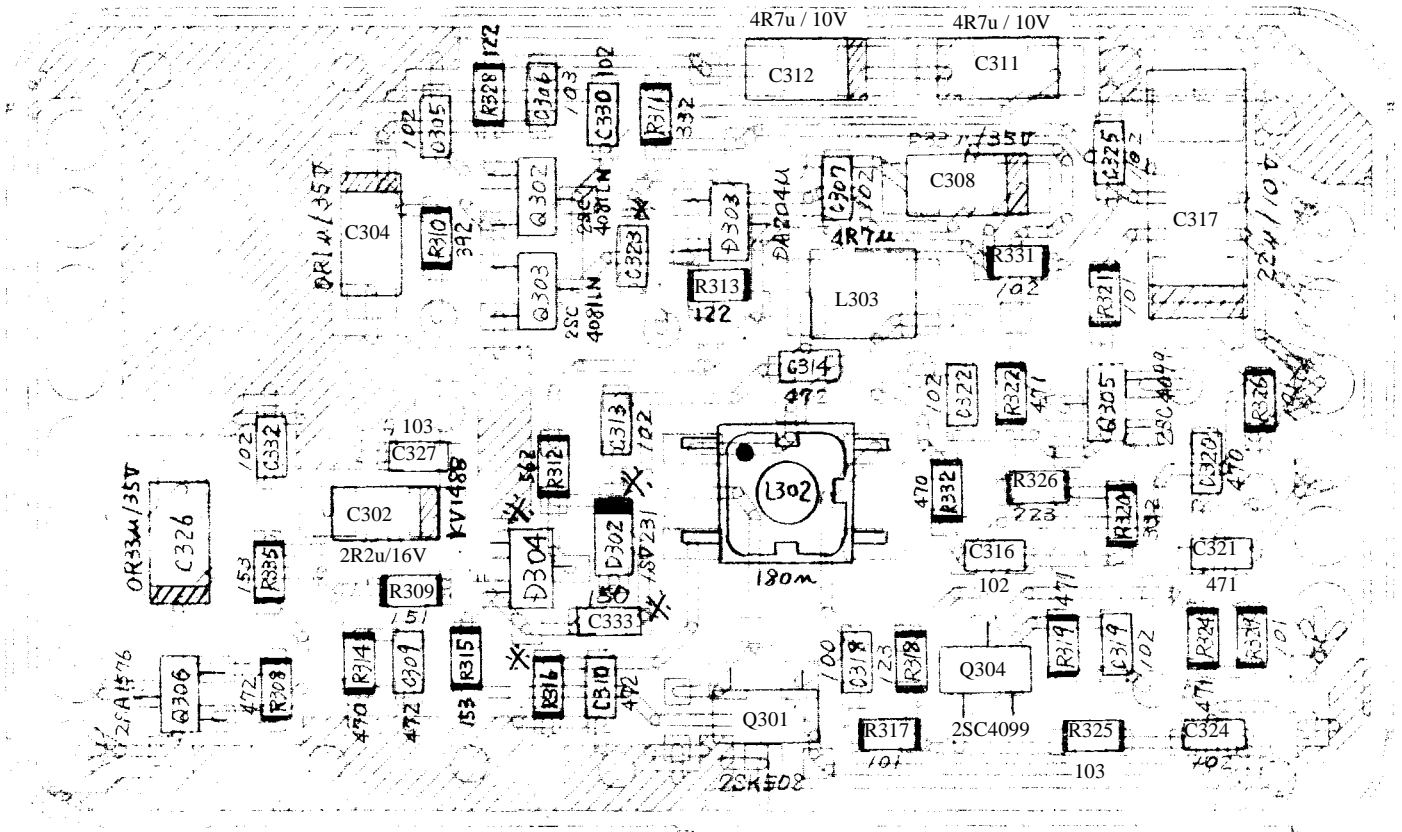




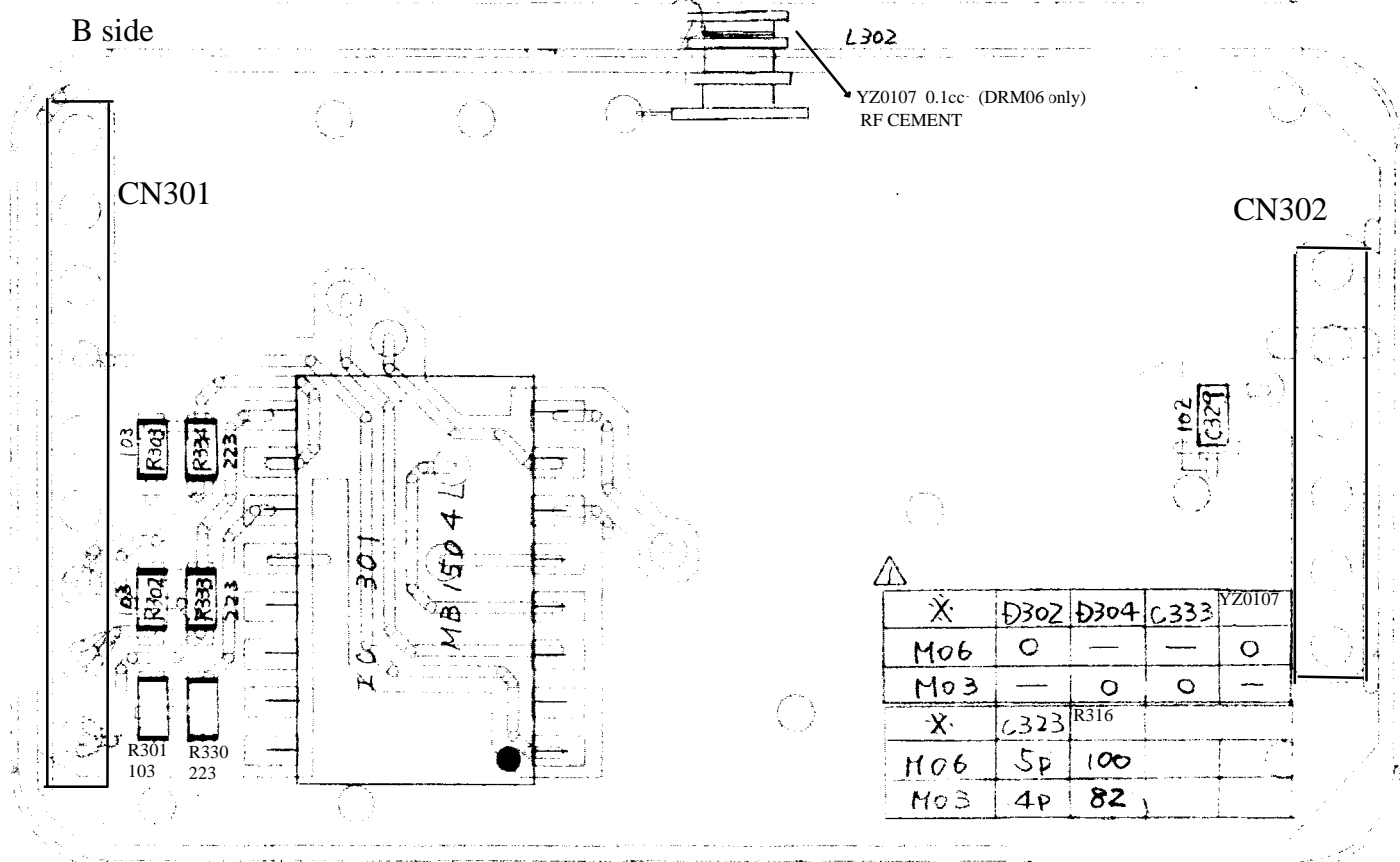
FP0069



A side



B side



X	D302	D304	C333	YZ0107
M06	0	—	—	0
M03	—	0	0	—
X	C323	R316		
M06	5p	100		
M03	4p	82		