

DR-M03SX

Service Manual

DR-M06TH

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* 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
Transmitter		
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	
Receiver		
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.

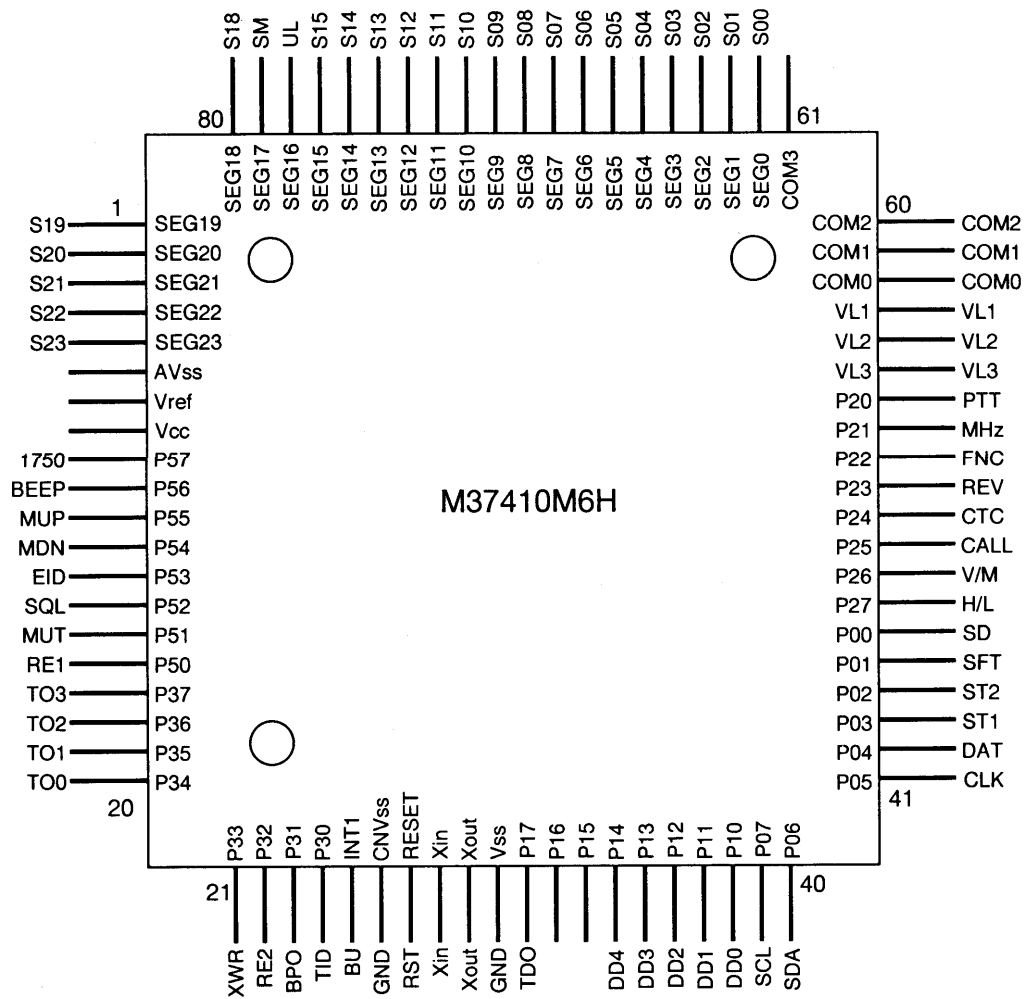
The loop filter consisting of Q302 and Q303 is the active type.

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	REI	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

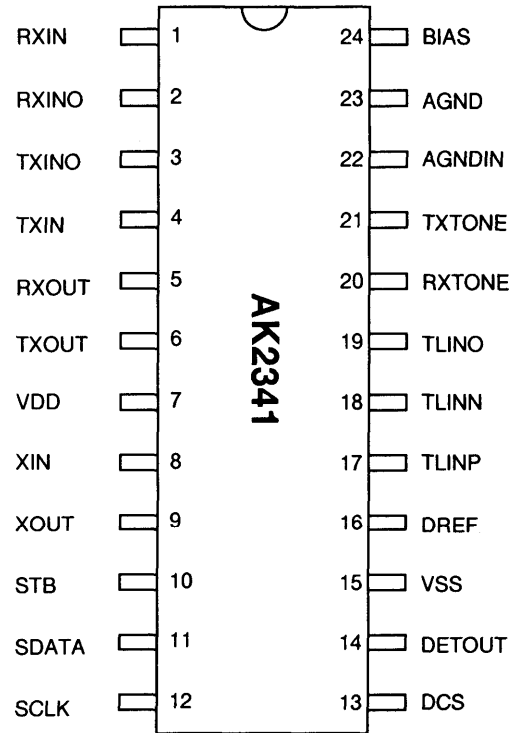
5) Terminal Connection of Microprocessor



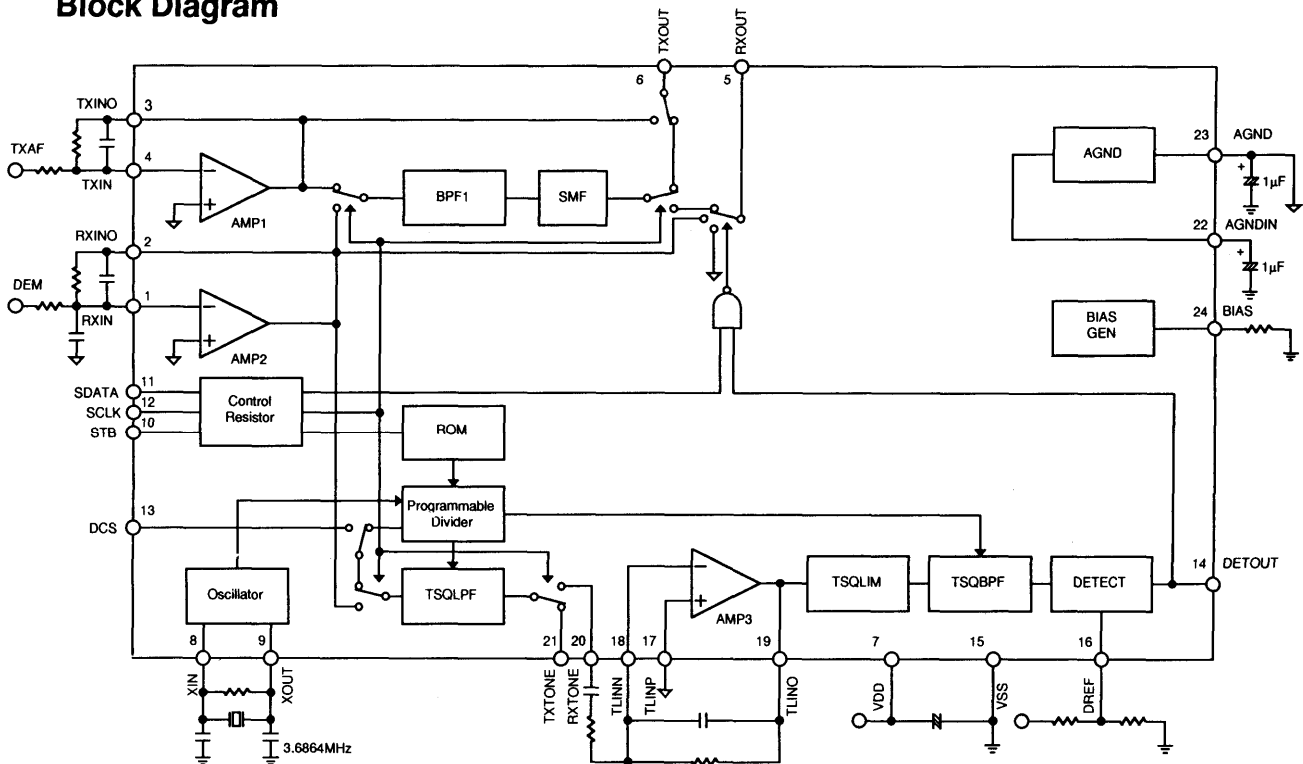
SEMICONDUCTOR DATA

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

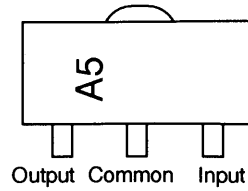
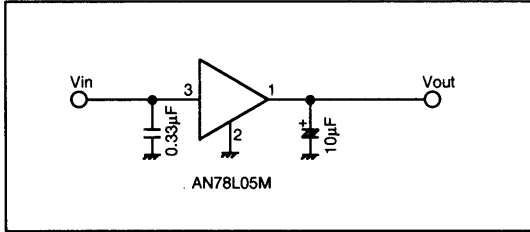


Block Diagram



2) AN78L05M (XA0238)
5V Voltage Regulator

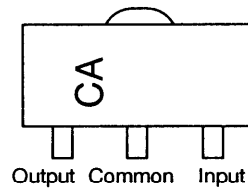
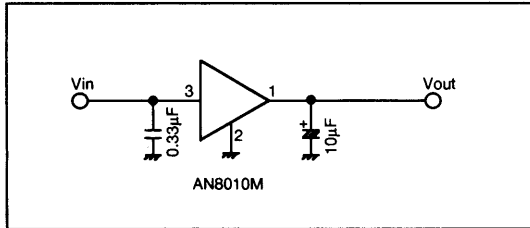
Test Circuit



AN78L05M

3) AN8010M (XA0119)
Voltage Regulator

Test Circuit

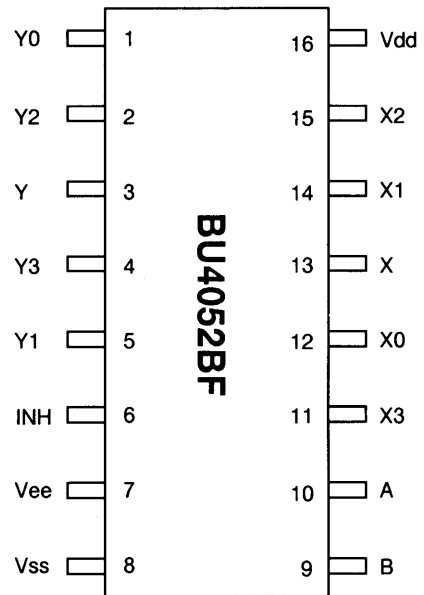


AN8010M

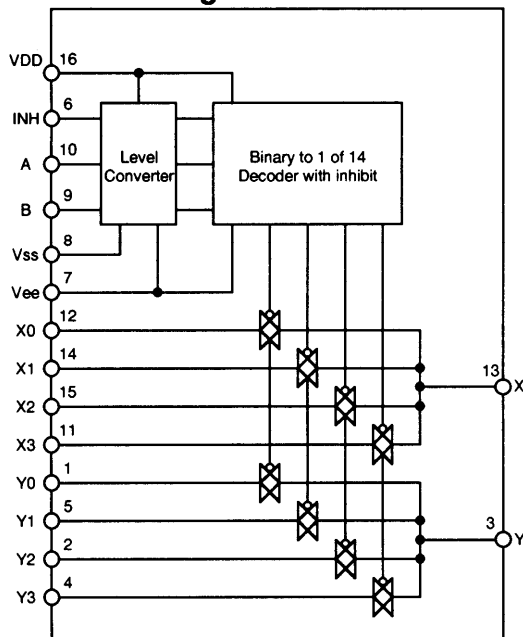
4) BU4052BF (XA0236)
Analog Multiplexers/Demultiplexers

Function Table

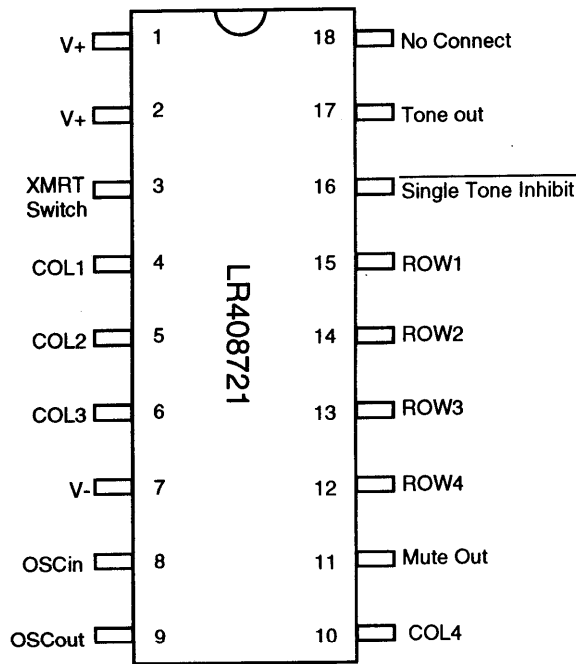
INHIBIT	A	B	ON Switch
Low	Low	Low	X0 Y0
Low	High	Low	X1 Y1
Low	Low	High	X2 Y2
Low	High	High	X3 Y3
High	Don't Care	Don't Care	None



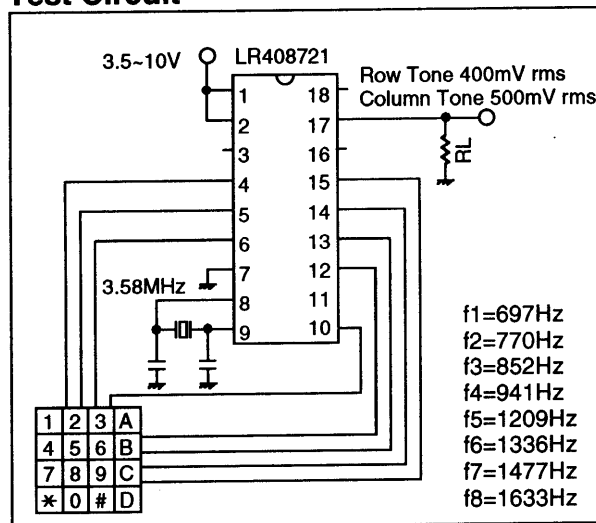
Block Diagram



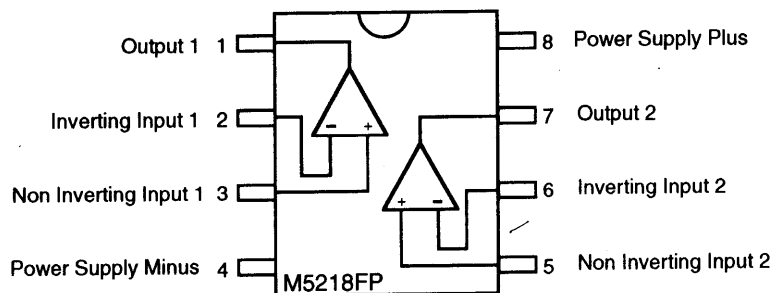
5) LR408721 (XA0042)
Tone Dialer



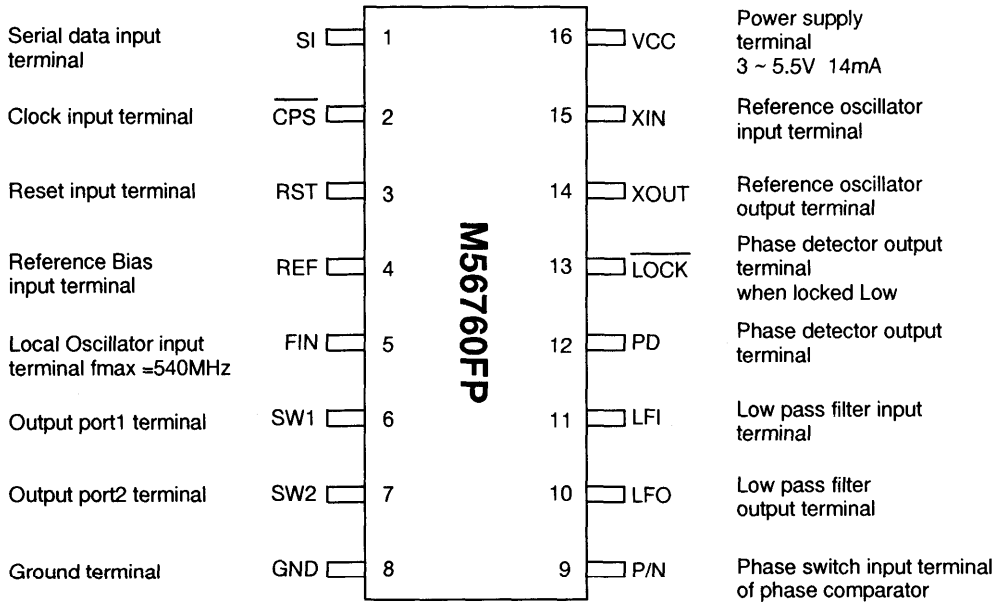
Test Circuit



6) M5218FP (XA0068)
Dual Low Noise
Operational Amplifiers

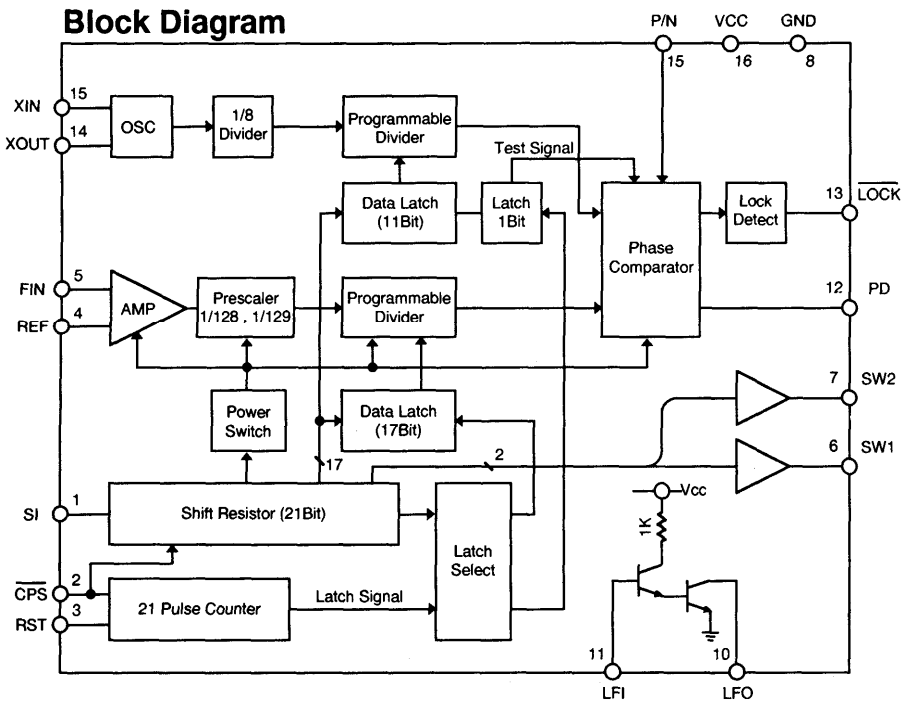


7) M56760FP (XA0235) 540MHz Frequency Synthesizer



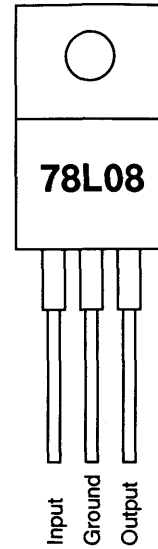
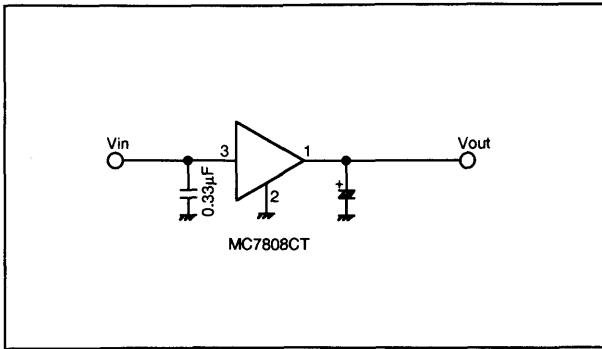
Function Table

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



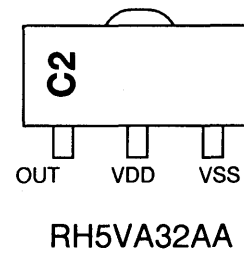
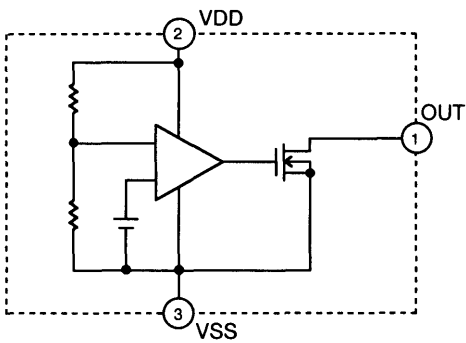
8) MC7808CT (XA0082)
8V Voltage Regulator

Test Circuit



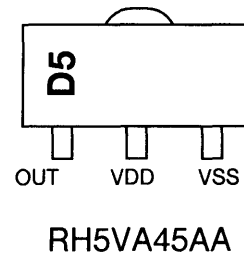
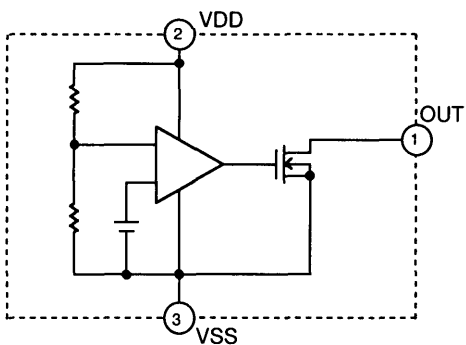
9) RH5VA32AA-T1 (XA0198)
C-MOS Voltage Detector

Equivalent Circuit

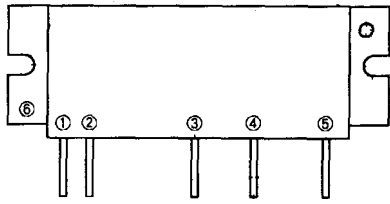


10) RH5VA45AA-T1 (XA0208)
C-MOS Voltage Detector

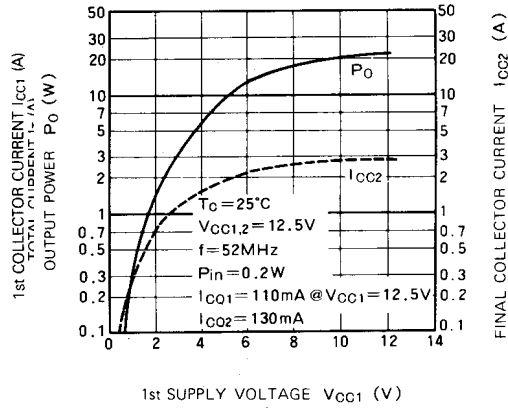
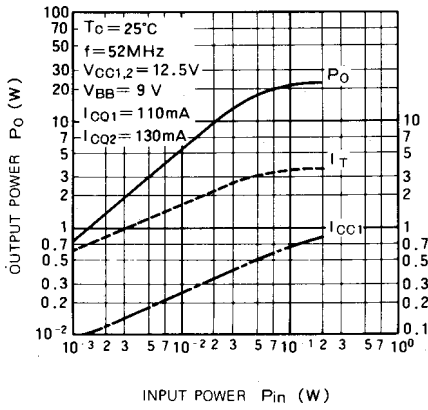
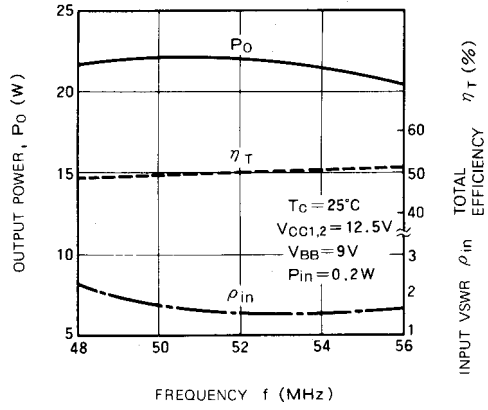
Equivalent Circuit



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

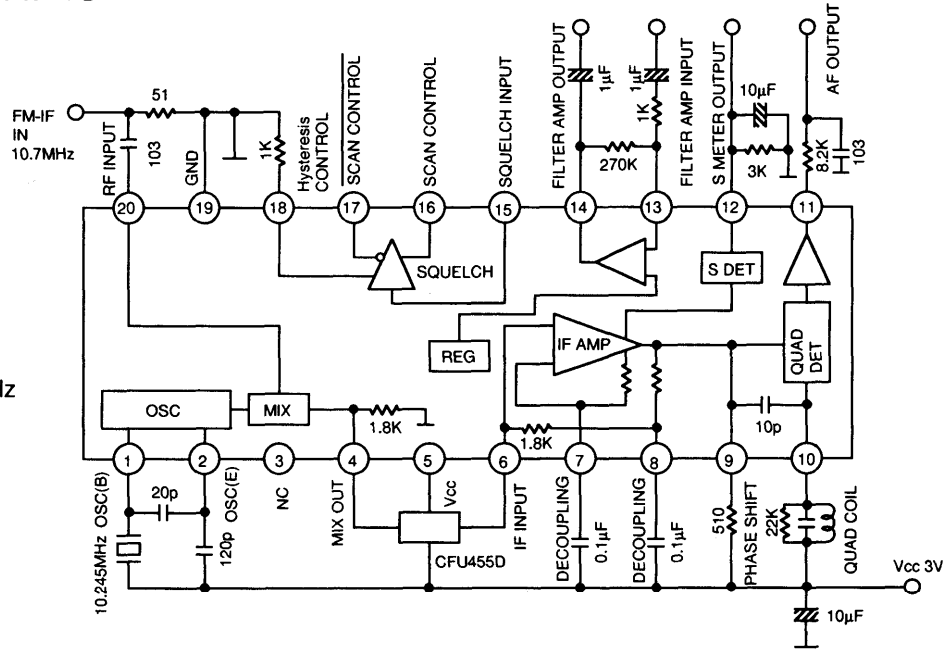


- ① P_{in} : RF INPUT
- ② V_{CC1} : 1st. DC SUPPLY
- ③ V_{BB} : BASE BIAS SUPPLY
- ④ V_{CC2} : 2nd. DC SUPPLY
- ⑤ P_o : RF OUTPUT
- ⑥ GND : FIN

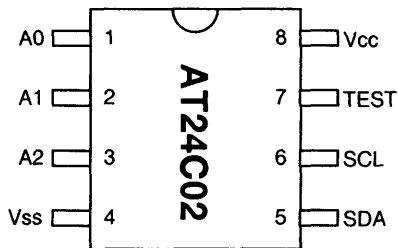


12) TK10487MTR (XA0144) Narrow Band FM IF IC

$V_{cc}=3V$
 $F=10.7MHz$
 $I_{cc} \quad 5mA$
 $Limit \quad 2\mu V \quad -3dB$
 $V_o \quad 180mV \quad Dev=3kHz$
 $THD \quad 1.0\%$



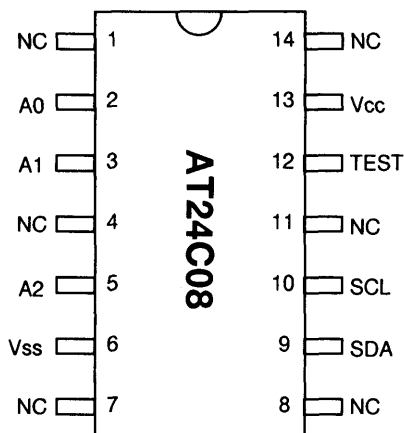
13) AT24C02N-10SI-2.7 (XA0364) EEPROM 256 x 8Bit



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

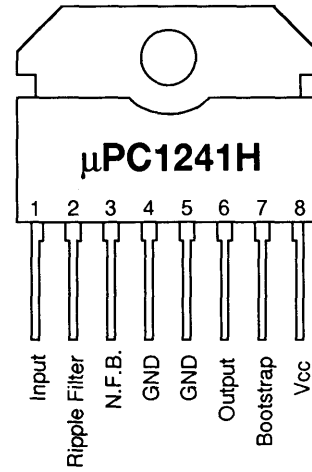
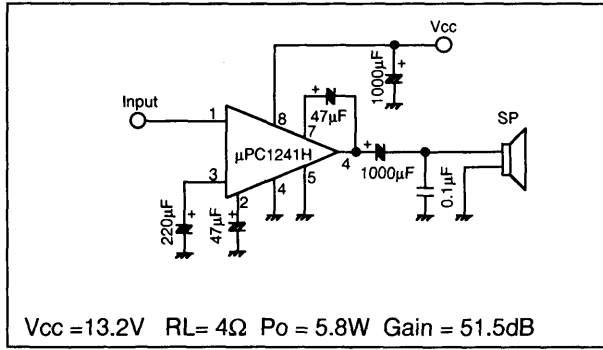


Pin Names

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

15) μ PC1241H (XA0079) Audio Power Amplifiers

Test Circuit

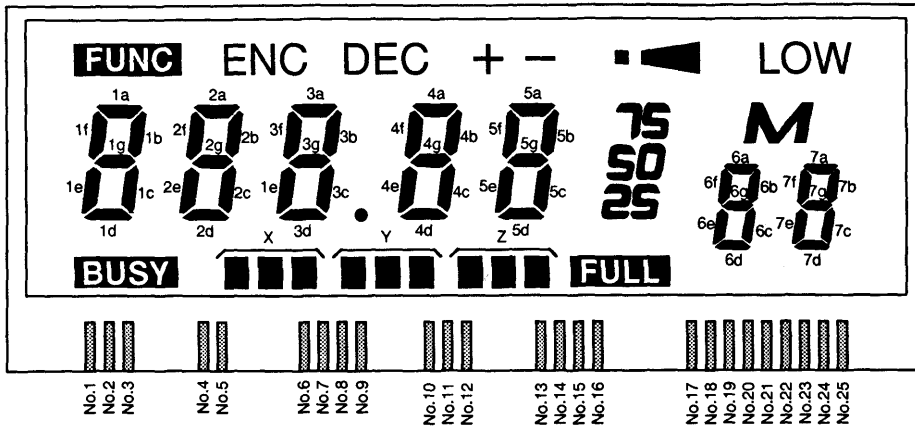


16) Transistor, Diode and LED Outline Drawings

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
A(R) K A(G)	B E	B C E	B C E	B C E	B E	B C E	B C E
2SC3356 XT0030	2SC4081LN XT0111	2SC4081 XT0095	2SC4099 XT0096	2SC4403 XT0114	UMC2 XU0060	UMC5 XU0152	
B E	B E	B E	B E	B E			
DTA114YU XU0112	DTC114EU XU0131	DTC114YU XU0029	DTC124EU XU0140	DTC143TU XU0145	C1/B2 C2 C2	C1/B2 C2 C5	
B E	B E	B E	B E	B E	E1 B1 E2	E1 B1 E2	
DTC144EU XU0148							
B E							

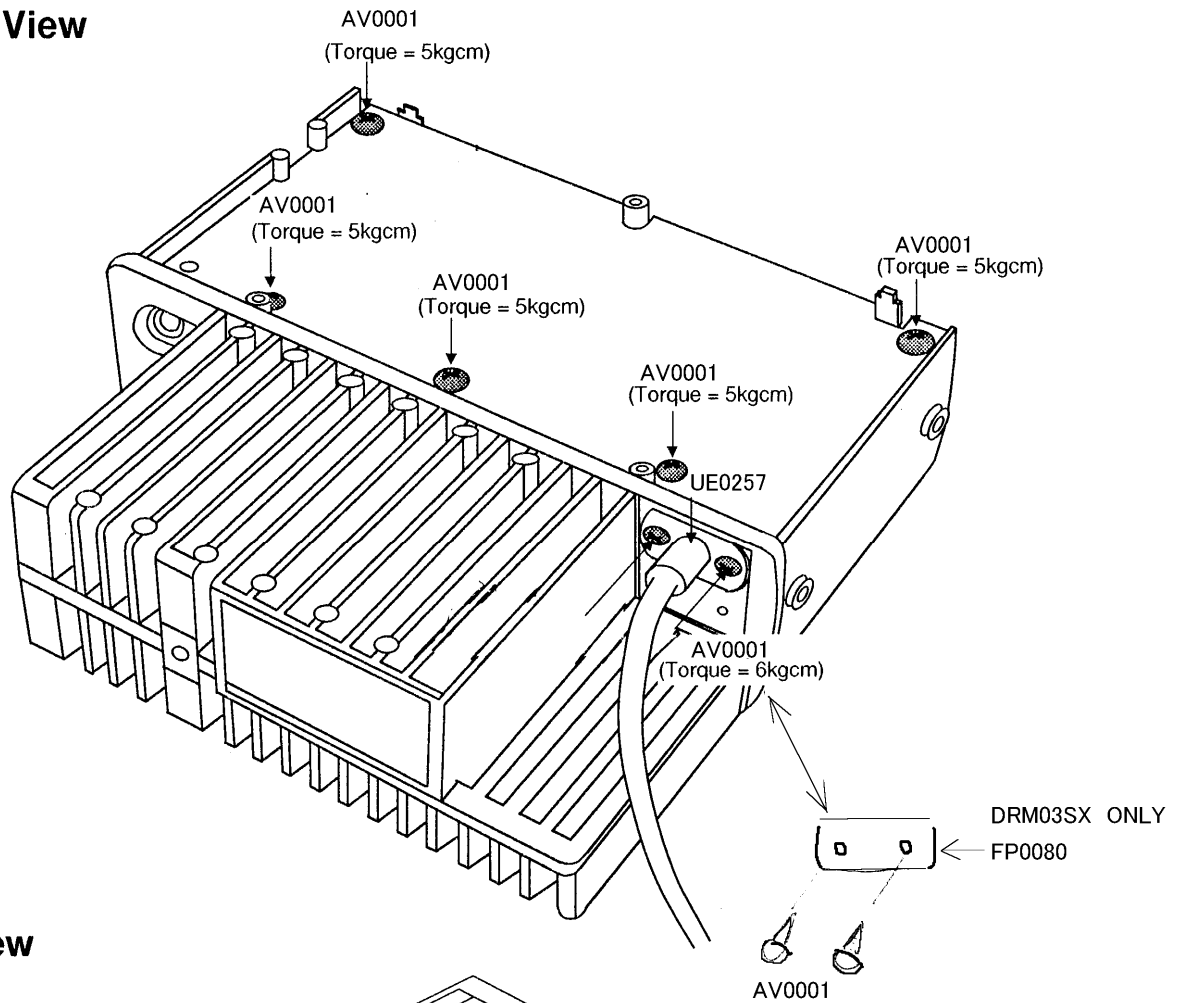
17) LCD Connection (EL0024)



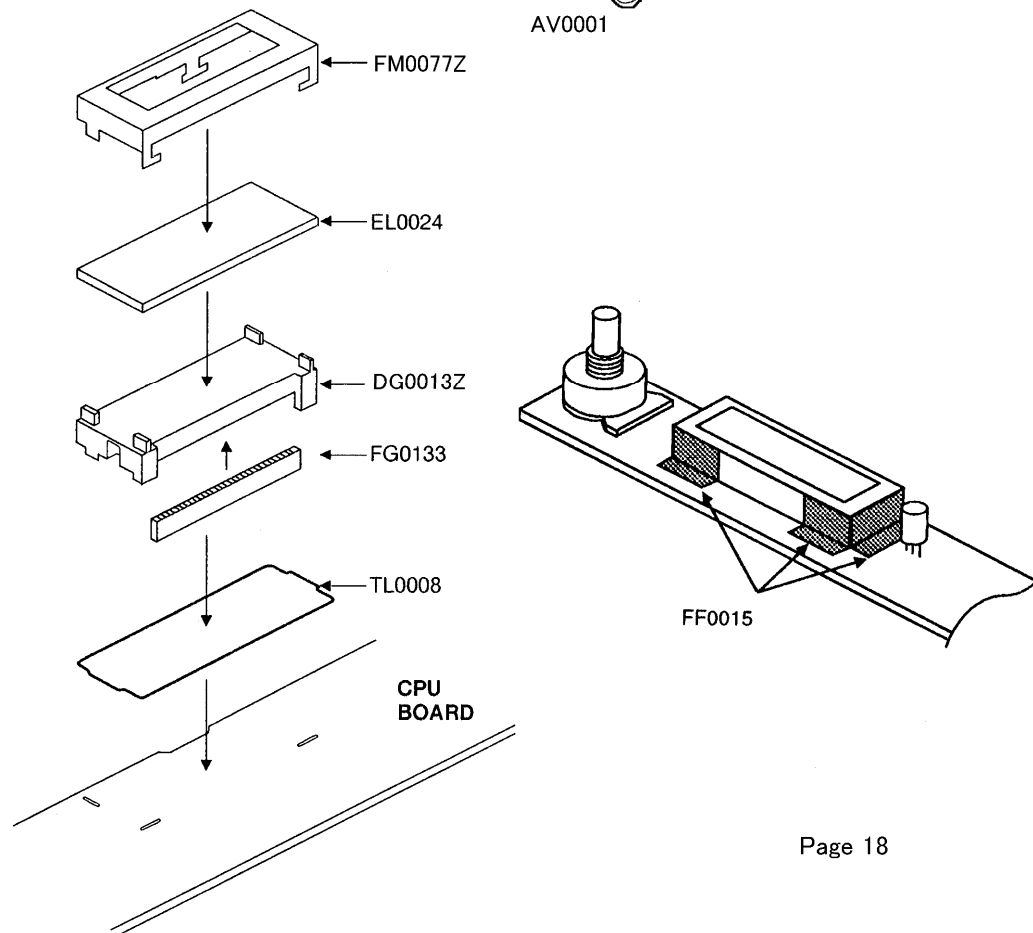
Pin No.	COMMON1	COMMON2	COMMON3
1	FUNC	1e	1f
2	1d	1g	1a
3	BUSY	1c	1b
4	ENC	2e	2f
5	2d	2g	2a
6	X	2c	2b
7	DEC	3e	3f
8	3d	3g	3a
9	●	3c	3b
10	Y	4e	4f
11	4d	4g	4a
12	+	4c	4b
13	Z	5e	5f
14	5d	5g	5a
15	-	5c	5b
16	FULL	25	50
17	75	6e	6f
18	6d	6g	6a
19	■	6c	6b
20	M	7e	7f
21	7d	7g	7a
22	LOW	7c	7b
23		COM.1	
24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

EXPLODED VIEW

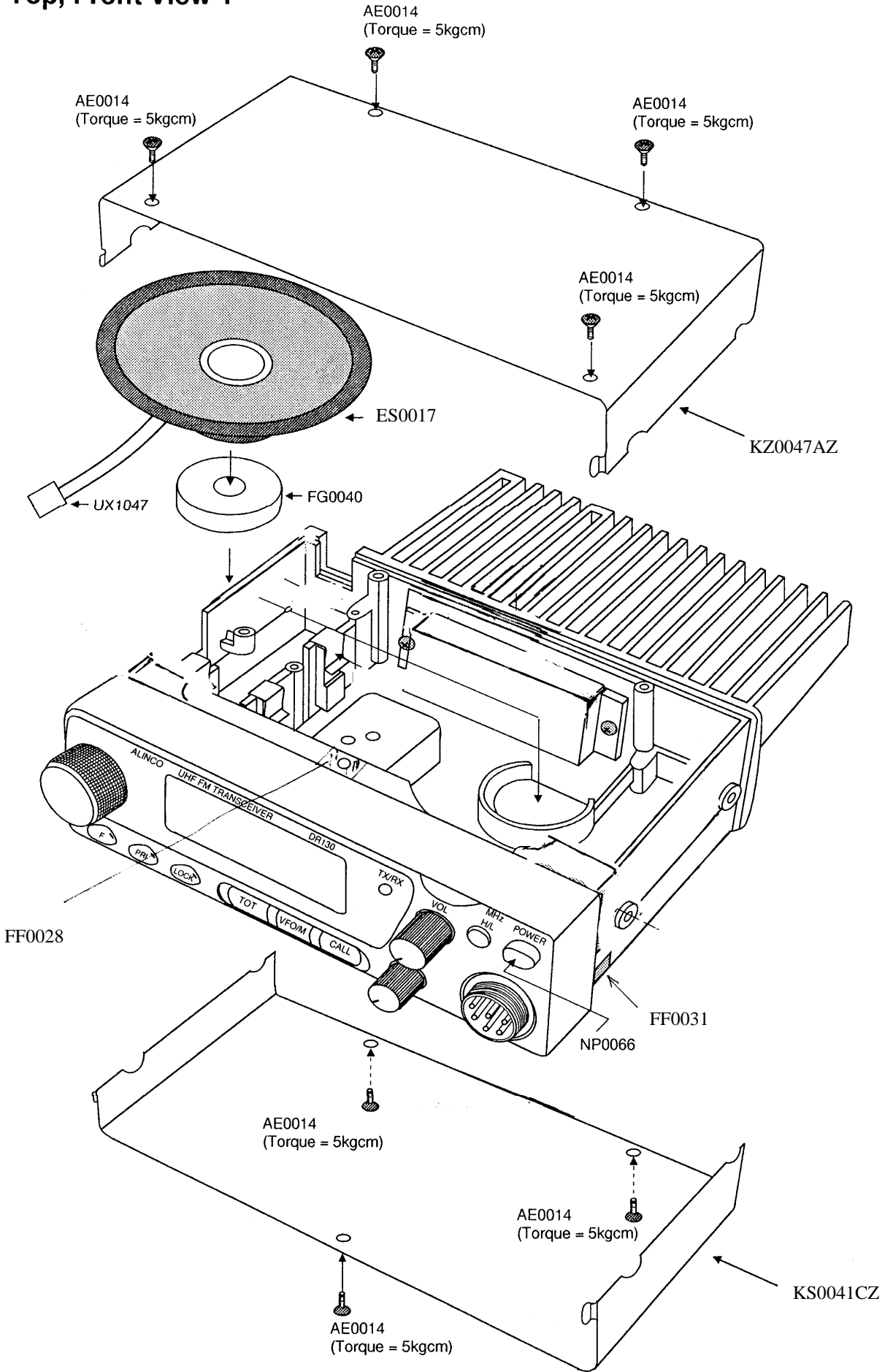
1) Bottom View



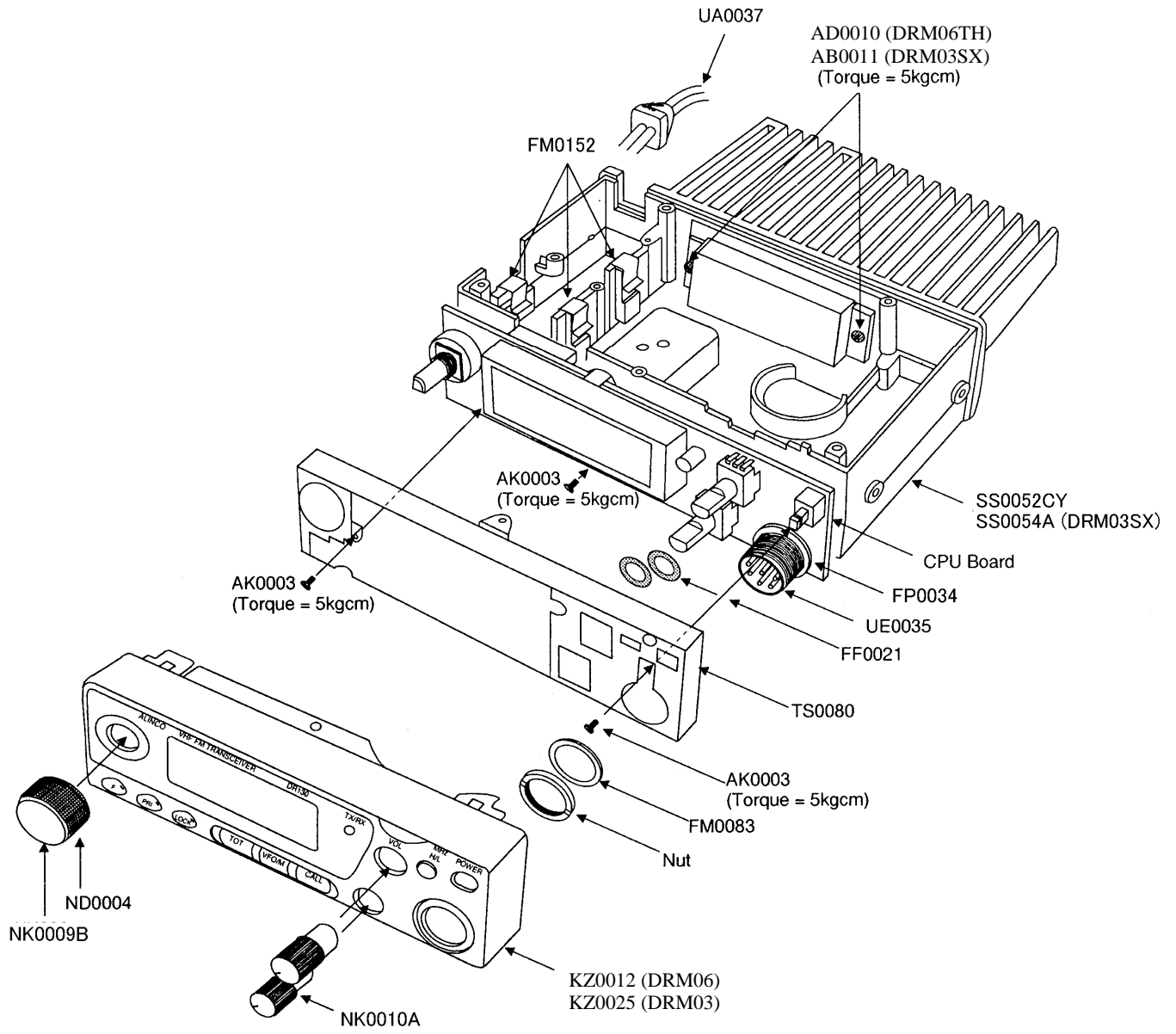
2) LCD View

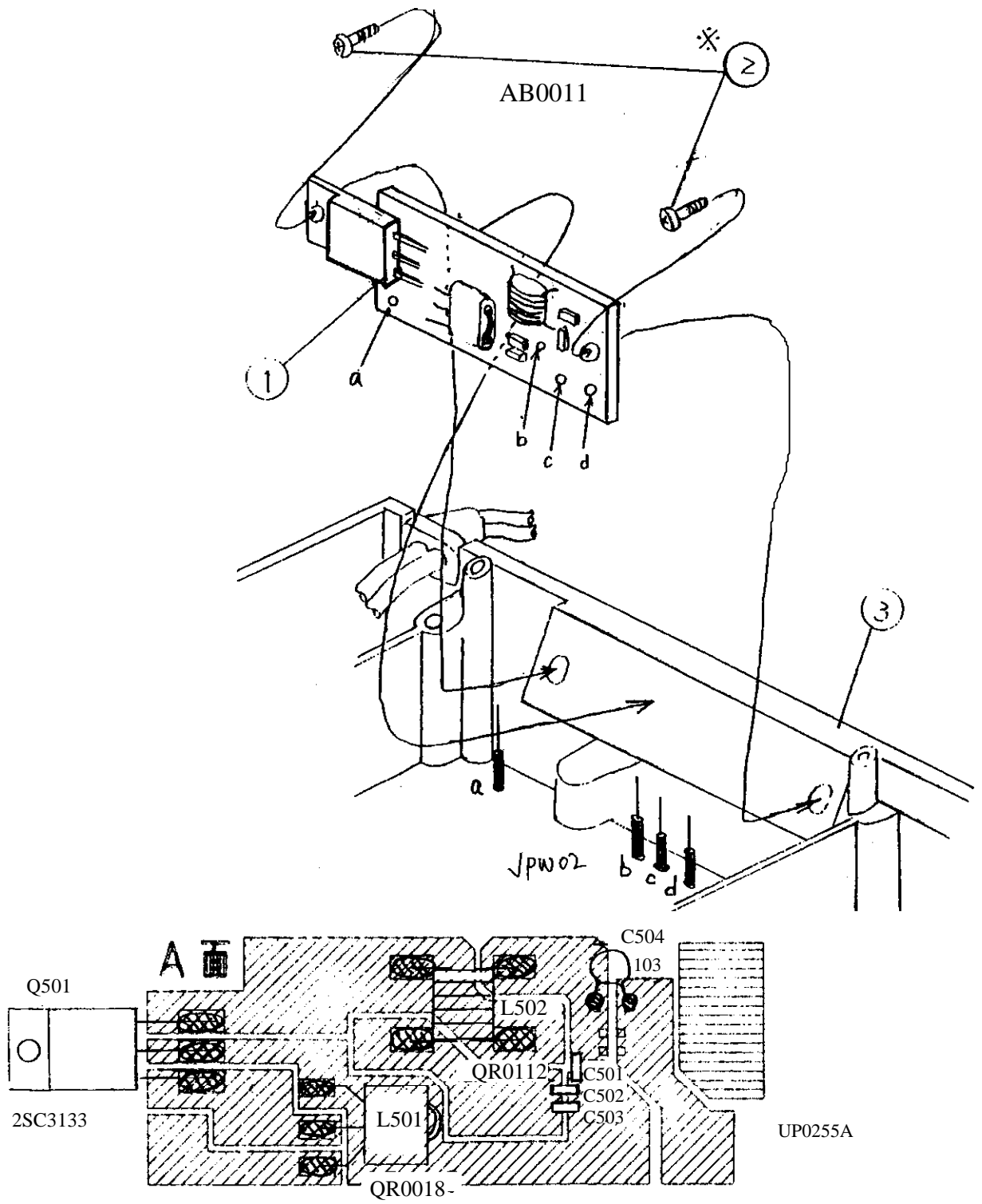


3) Top, Front View 1



4) Top, Front View 2





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.

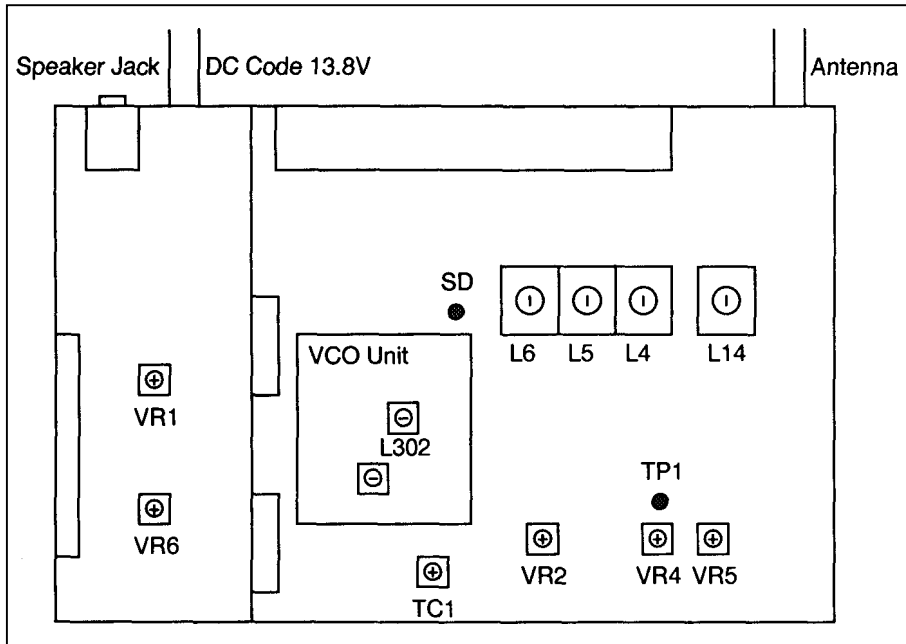
RX speaker output level is 50 to 100mW

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

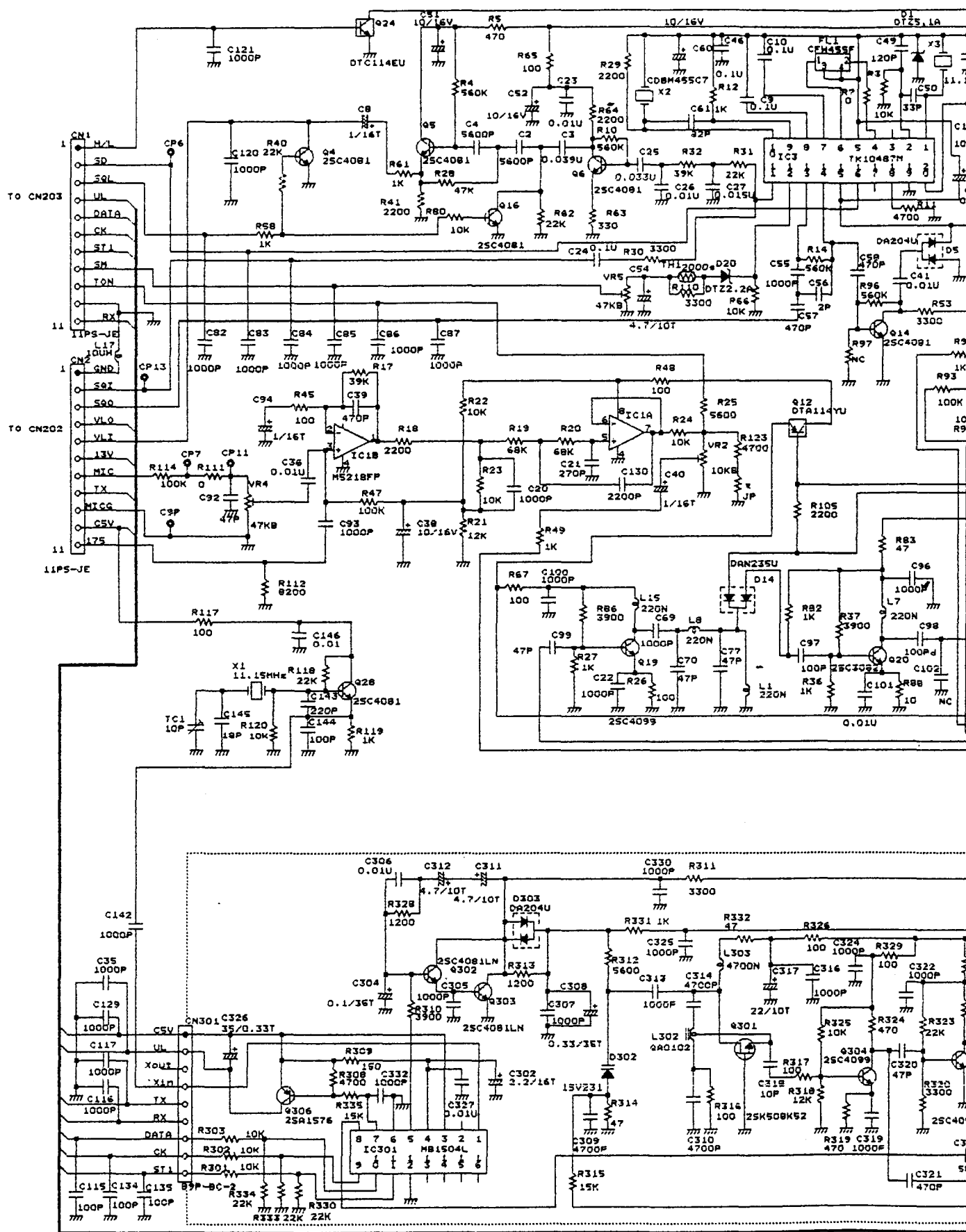
Item	Condition		Measurement			Adjustment			Specification	
			Test equipment	Unit	Terminal	Unit	Parts	Method		
Frequency	Frequency: 52.00MHz	TX LOW	Freq.Counter Power Meter	Back	ANT	MAIN	TC3	52.000 MHz	+/- 100Hz	
PLL VCO	Frequency: 52.00MHz	TX	Digital	Main	PD	PLL	L302	5.2V	5.1-5.3V	
RX Sensitivity	Frequency: 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

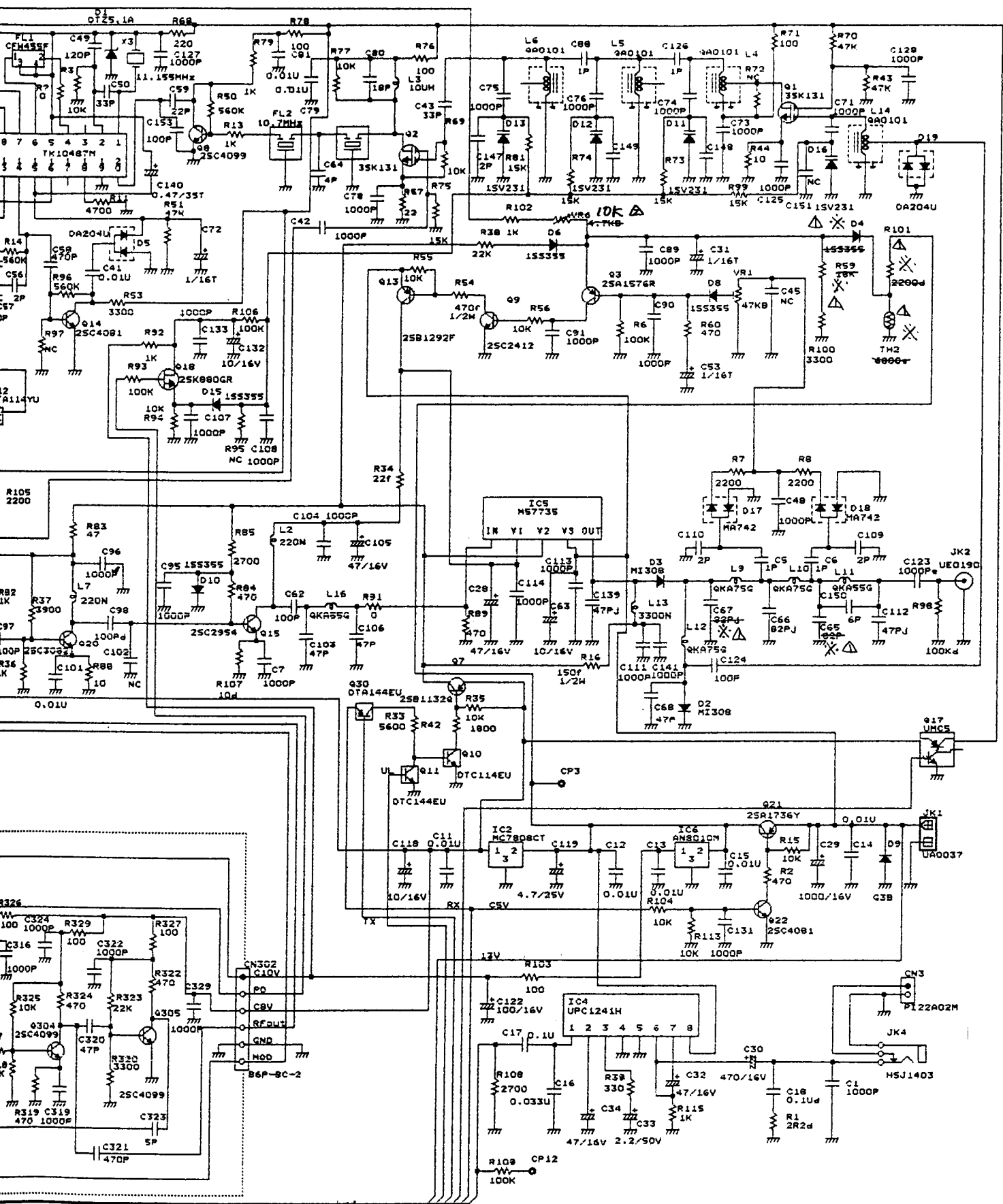
3) Adjustment Points



4) Adjustment Quick Reference

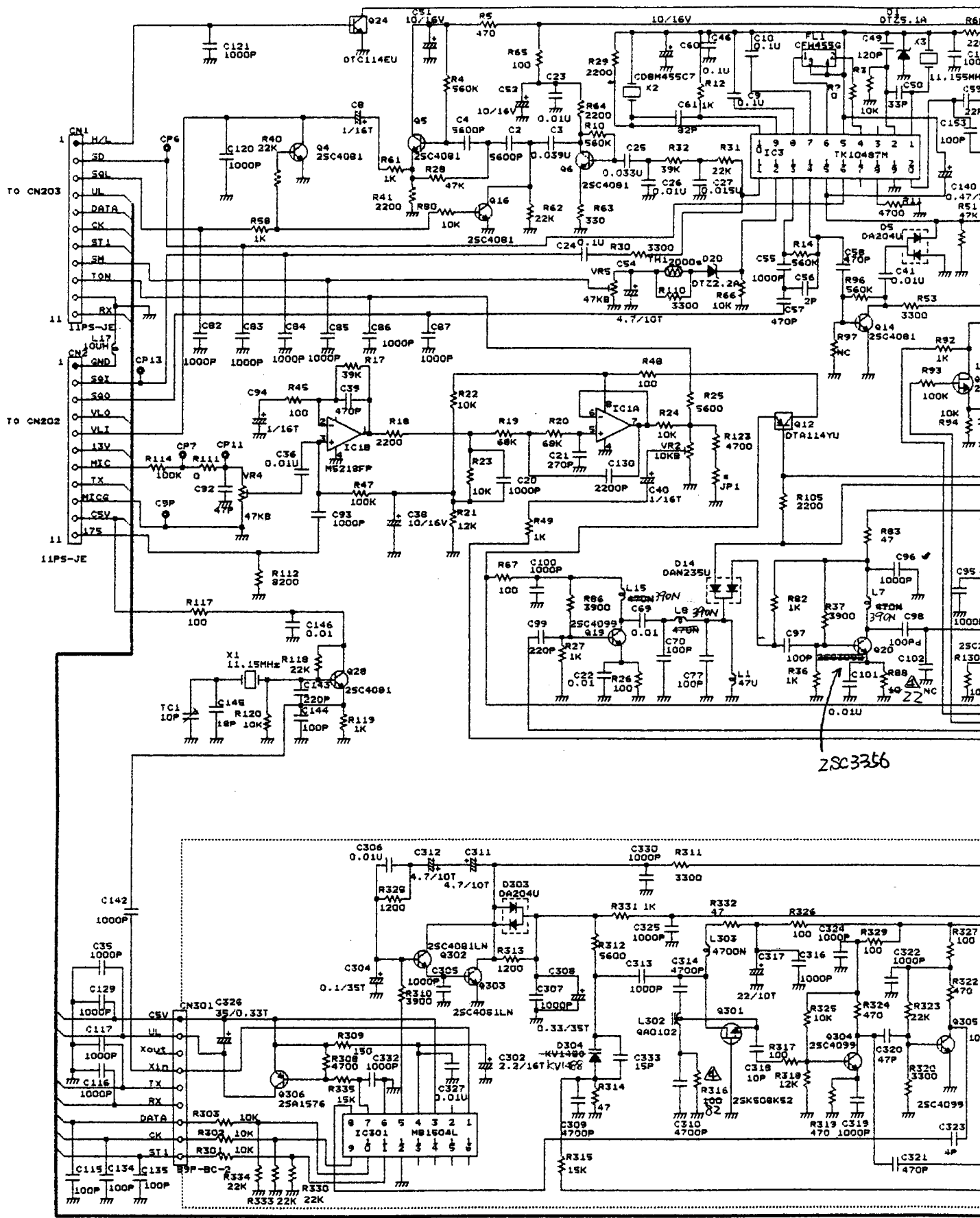
Parts	Item	Specifications
L4	RX Sensitivity	-10dBpV (12dB SINAD)
L5	RX Sensitivity	-10dBpV (12dB SINAD)
L6	RX Sensitivity	-10dBpV (12dB SINAD)
L14	RX Sensitivity	-10dBpV (12dB SINAD)
L302	VCO Frequency	1.8V~2.2V 52.00MHz +/-
TC1	Reference Frequency	100Hz(DRM06) 20W +/- 0.5W (DRM06)
VR1	TX High Power	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



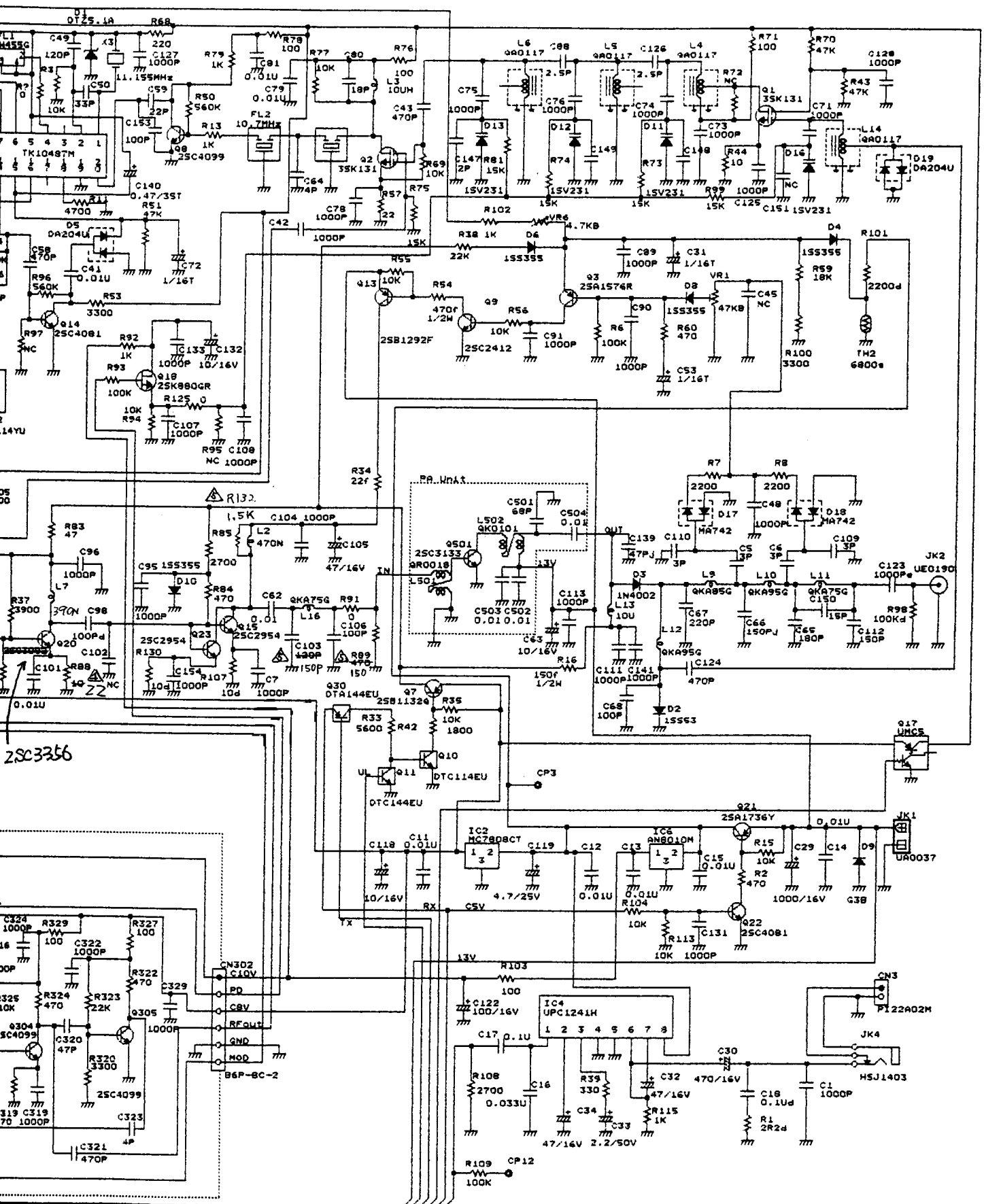


※	C65	C67	R59	TH2	R101	D4
M06 T.E.TE SX	82p	82p	18K	6800	2.2K	1SS355
M06DX	100p	39p	22K	NC	NC	NC

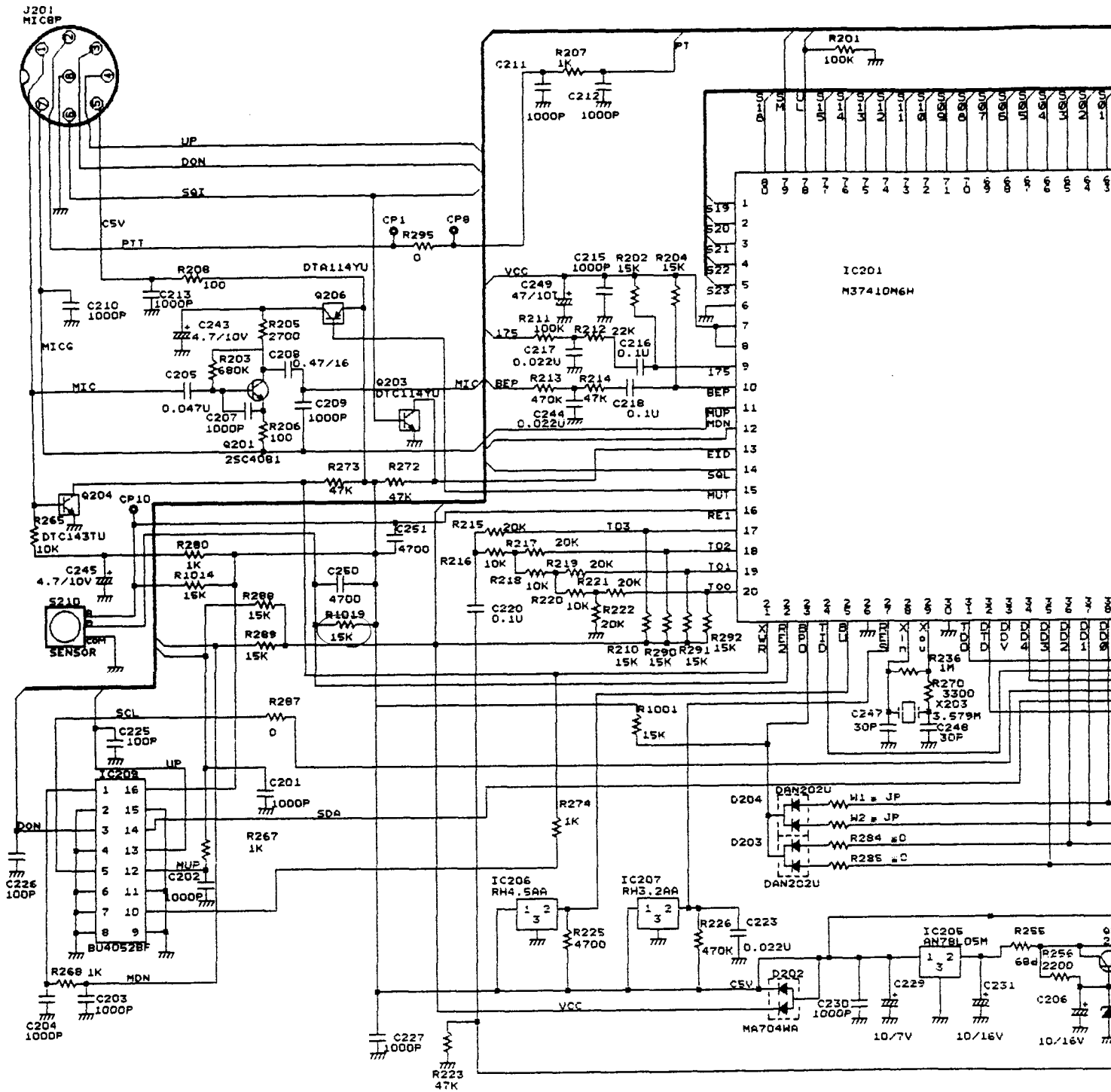
DRM06
MAIN Unit



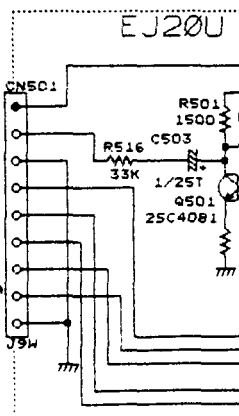
25C3356

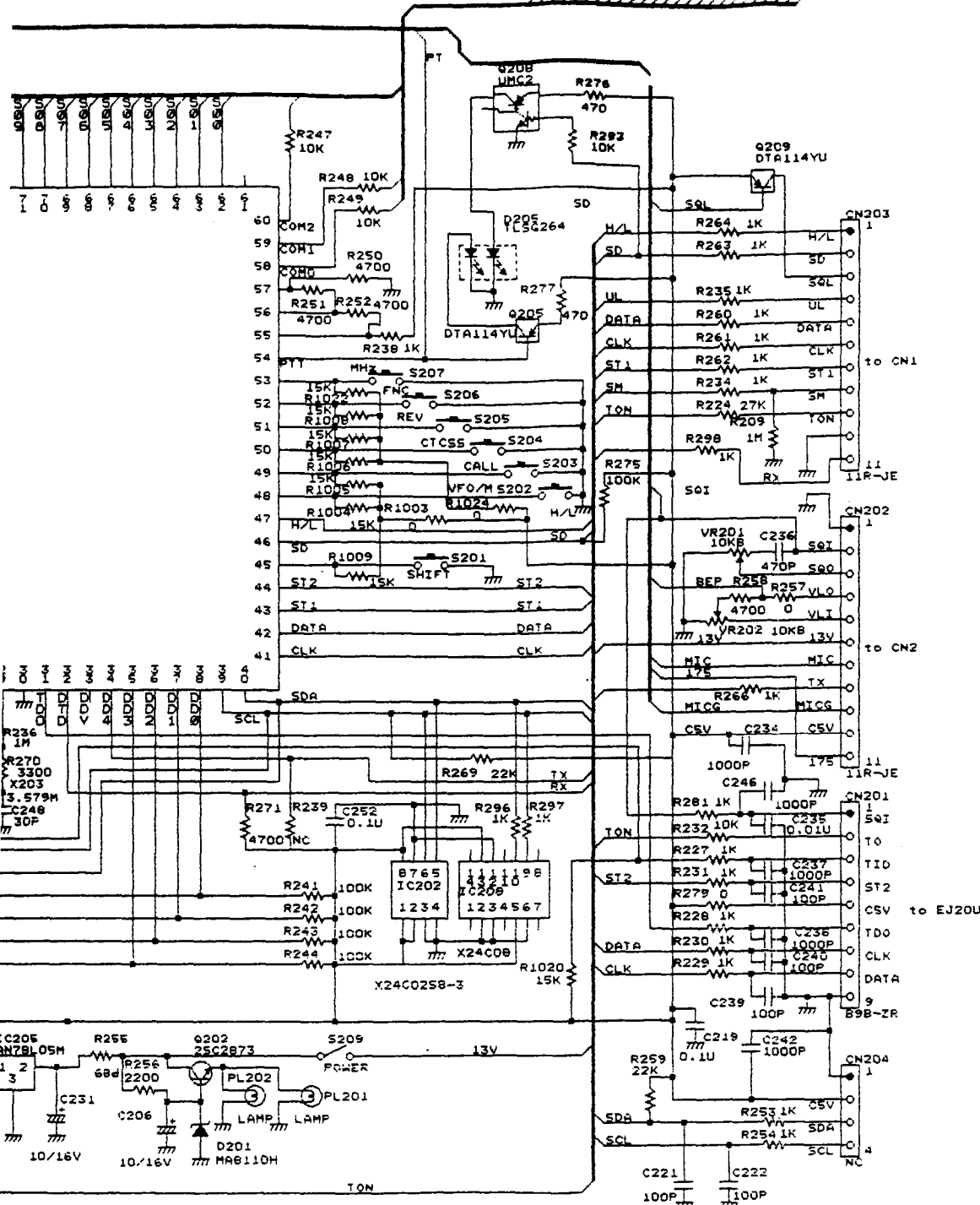
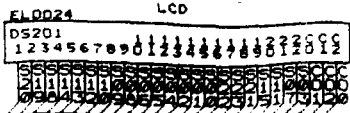


DRM03
MAIN Unit

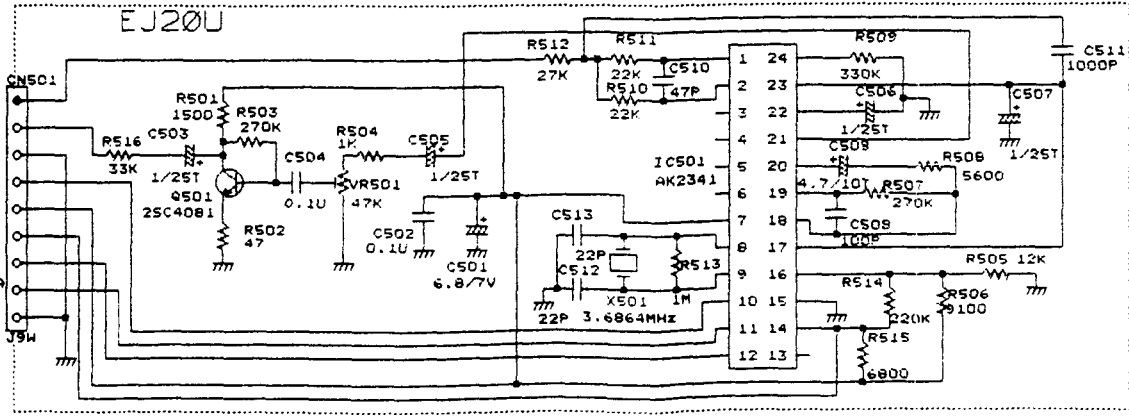


DRM06 /DR03
CPU unit



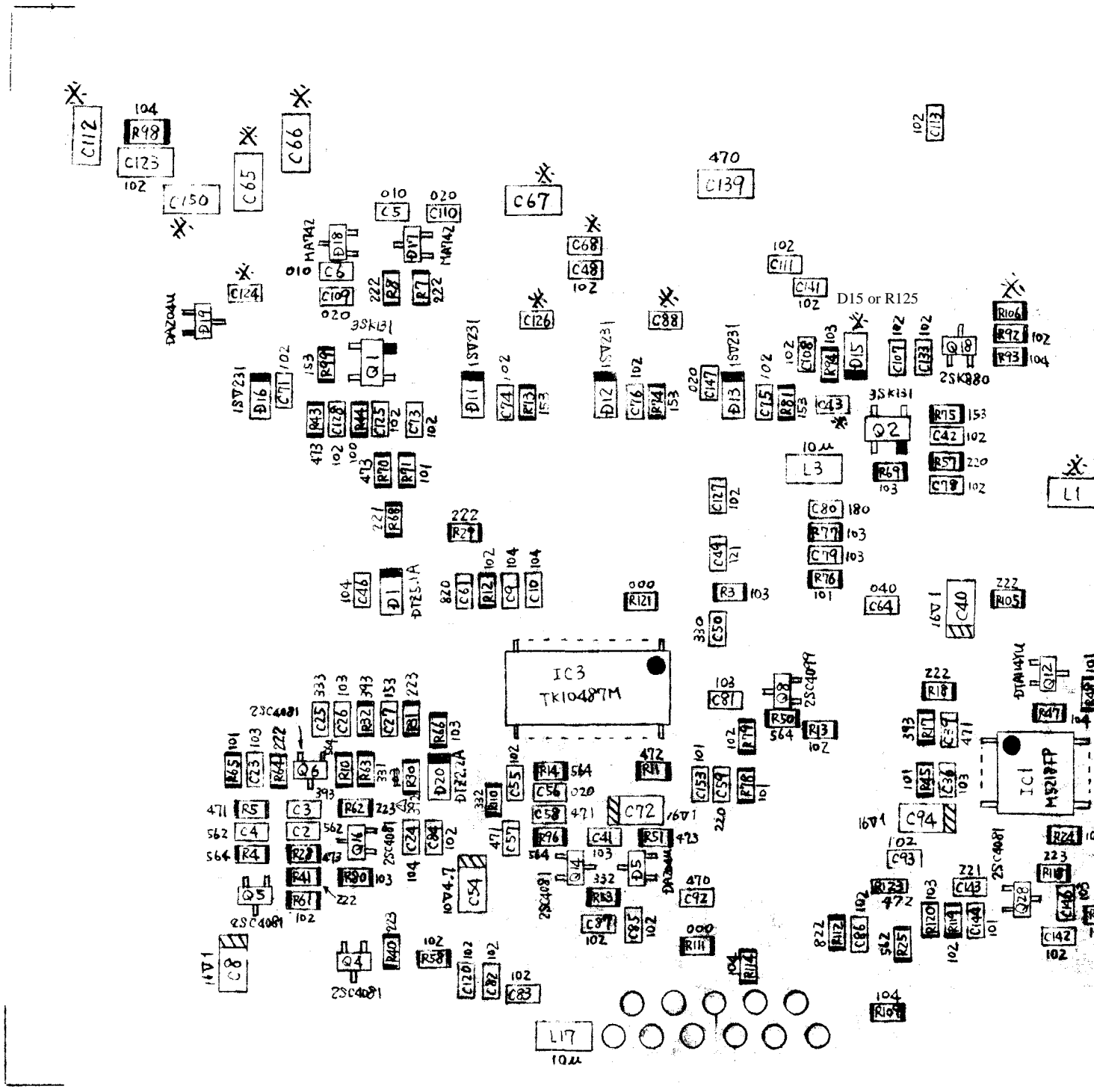


X	W1	W2	R284	R28
M06	—	—	—	—
M03	0.2	—	—	—

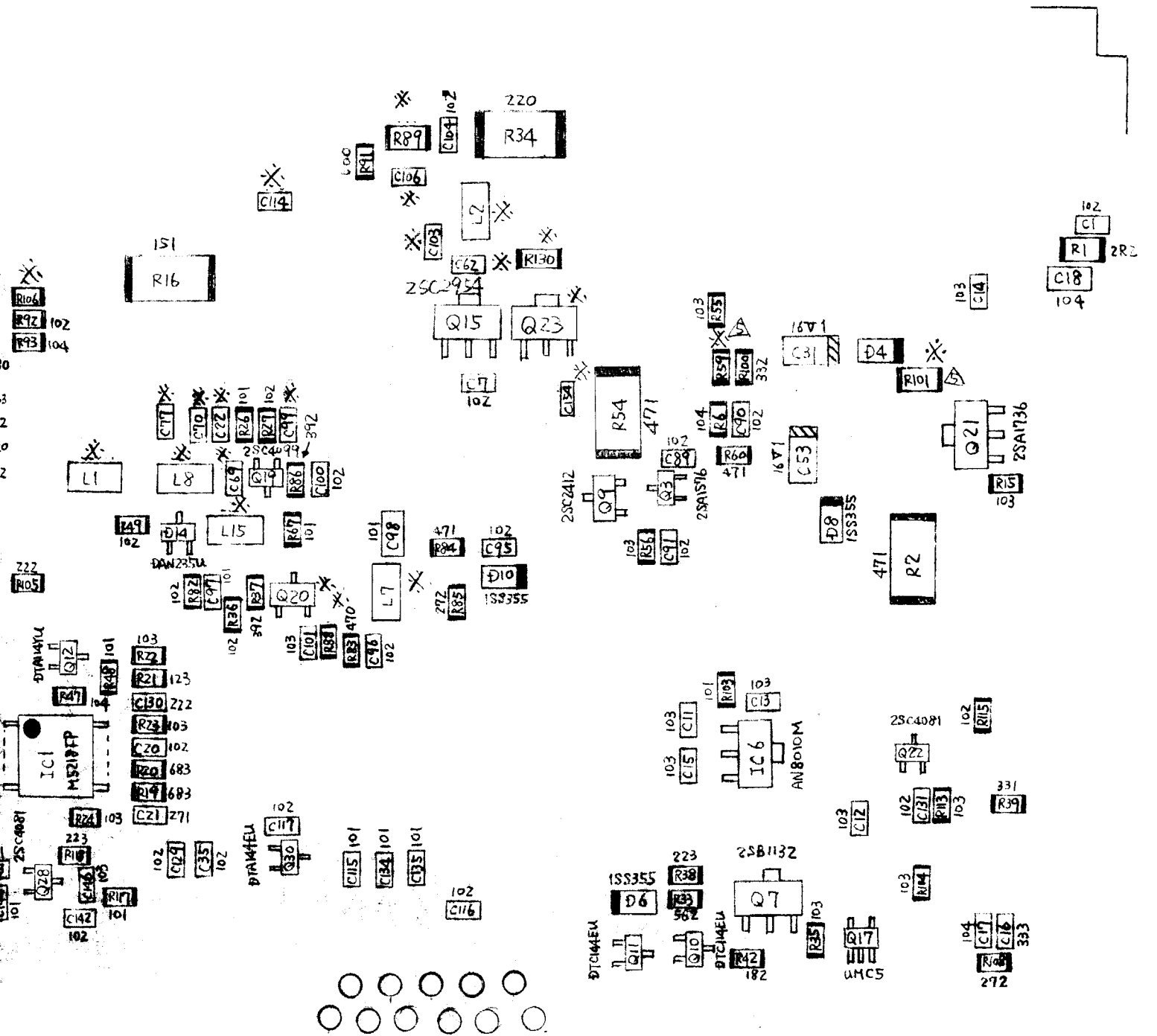


PC BOARD VIEW

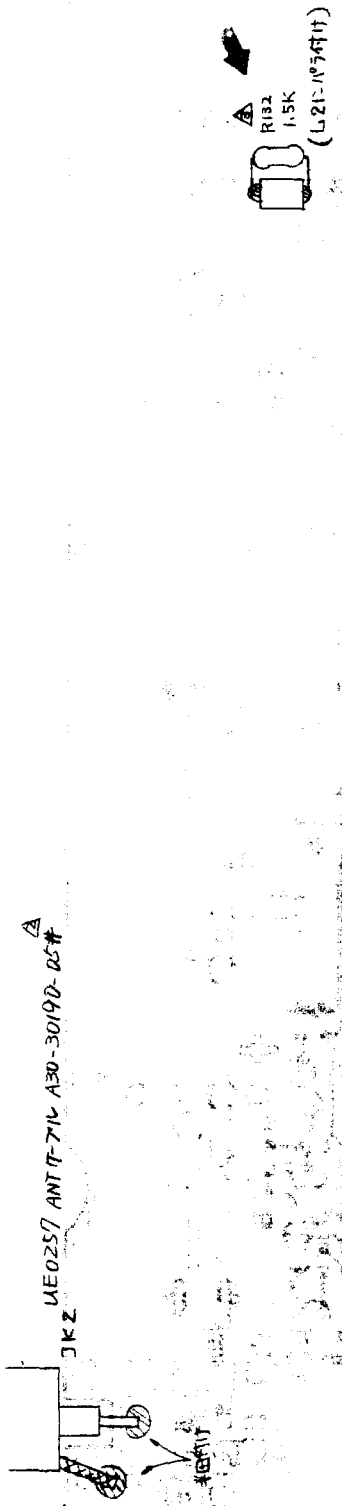
1-1 Main Unit Side A

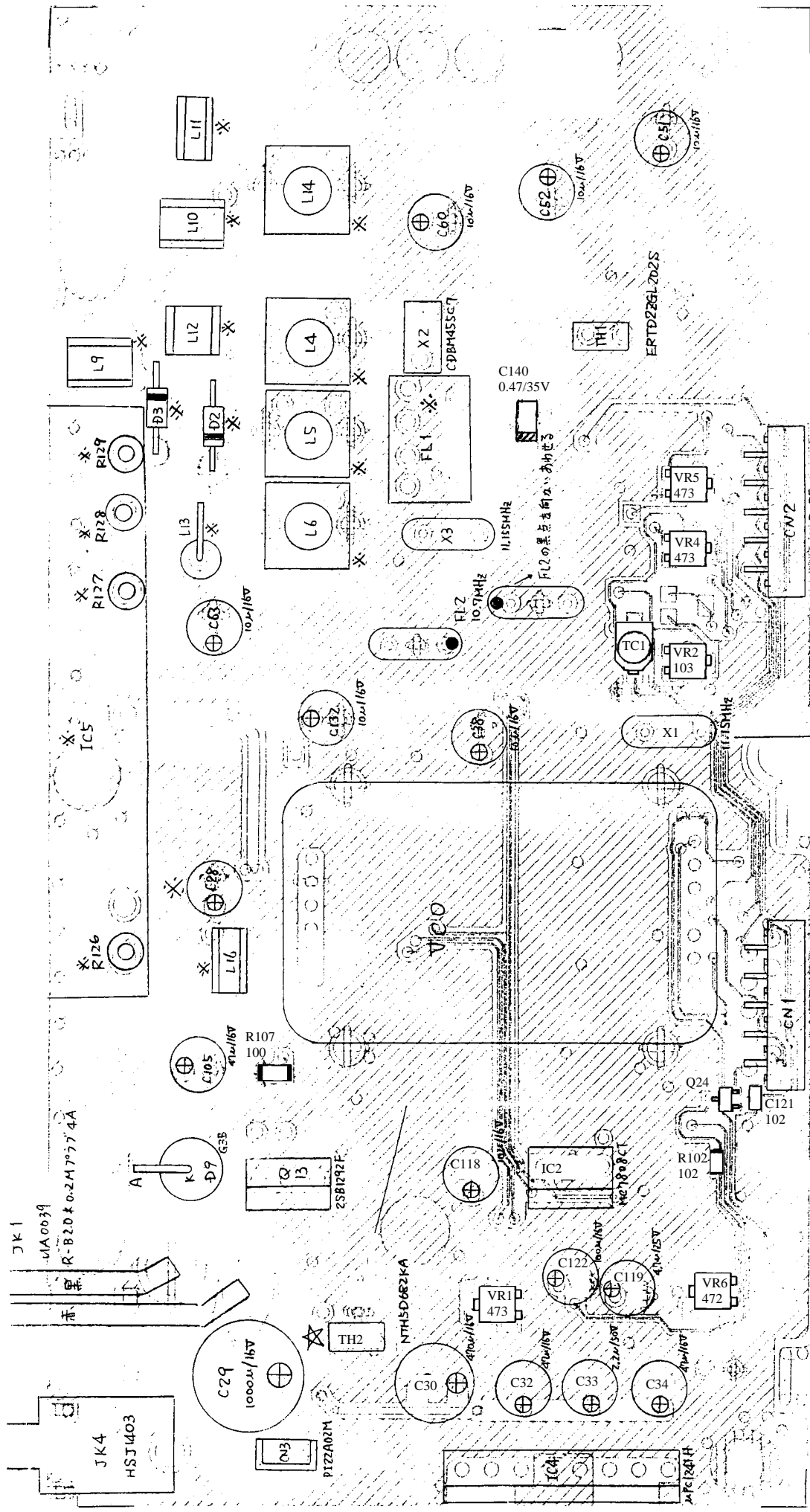


	C22	C43	C62	C65	C66	C67	C68	C69	C70	C77	C88	C99	C103	C106	C112	C124	C126	C150
M03 SX	103	471	103	181	151	221	101	103	101	101	2R5	221	151	101	151	471	2R5	150
M06 TH	102	330	101	101	820	390	470	102	470	470	010	470	470	470	470	101	010	060



	C150	L1	L7,8,15	D15	R125	C114	R106	L2	Q23	C154	R130	Q20	R59	R101	D4	R88	R89
M06 T	060	220n	220n	1SS355	-	102	104	220n	-	-	-	2sc3082	183	222	1SS355	10	471
M03 SX	150	47u	390n	-	000	-	-	1u	2SC2954	102	100	2sc3356	183	222	1SS355	22	151
M06 TH	060	220n	220n	1SS355	-	102	104	220n	-	-	-	2sc3082	223	-	-	10	471





注) R126~129はMAIN基板の
根元まで差し込み垂直に挿入
する半田付けする。
↑ MAIN
基板

(注) X1, X3, FL2はT20056のコンデンサに4μFを
はかせるから取付ける。
X1のハンダゴケ温度を330℃±30℃にする。

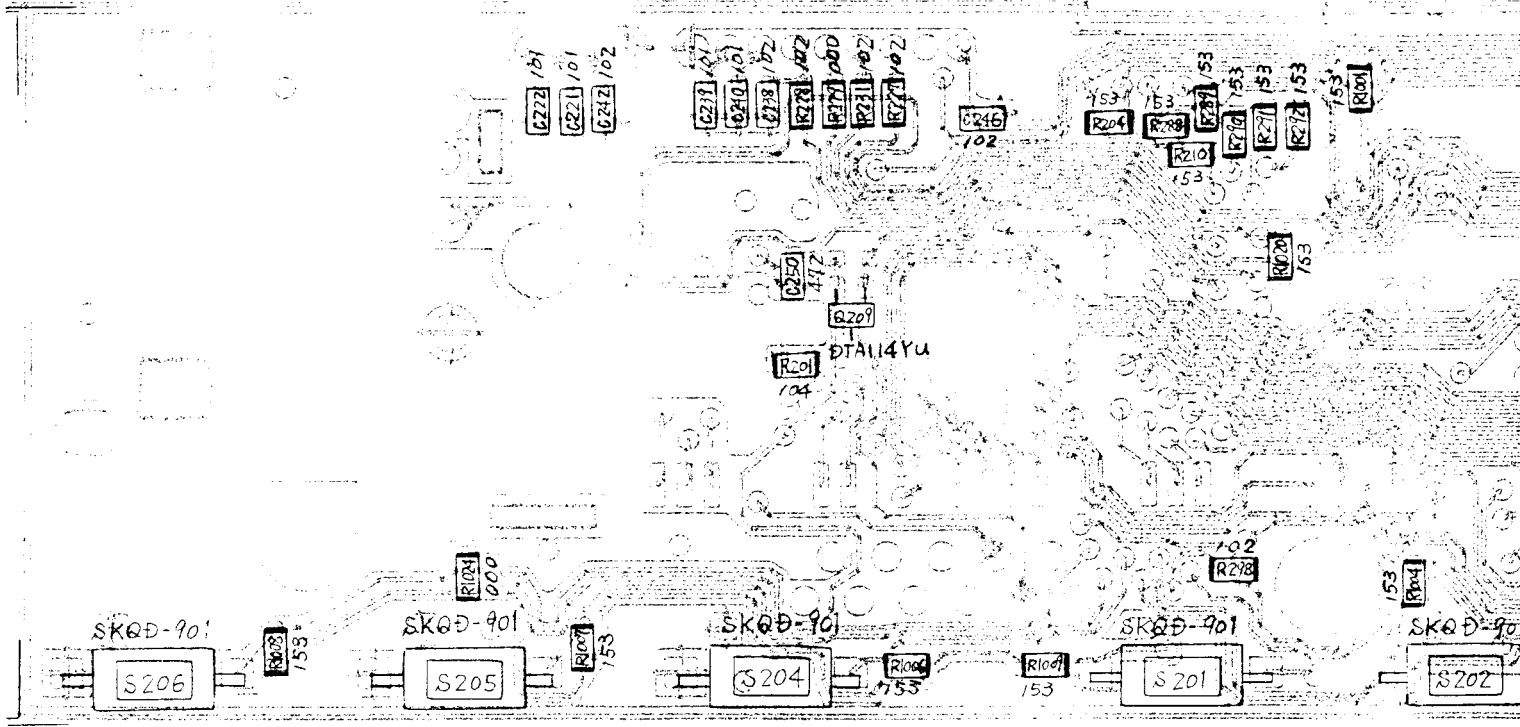
TH2	
1166SKATE	20056
1103SK	
1106DK	

X	FL1	
M06	CFW455F	
M03	CFW455G	

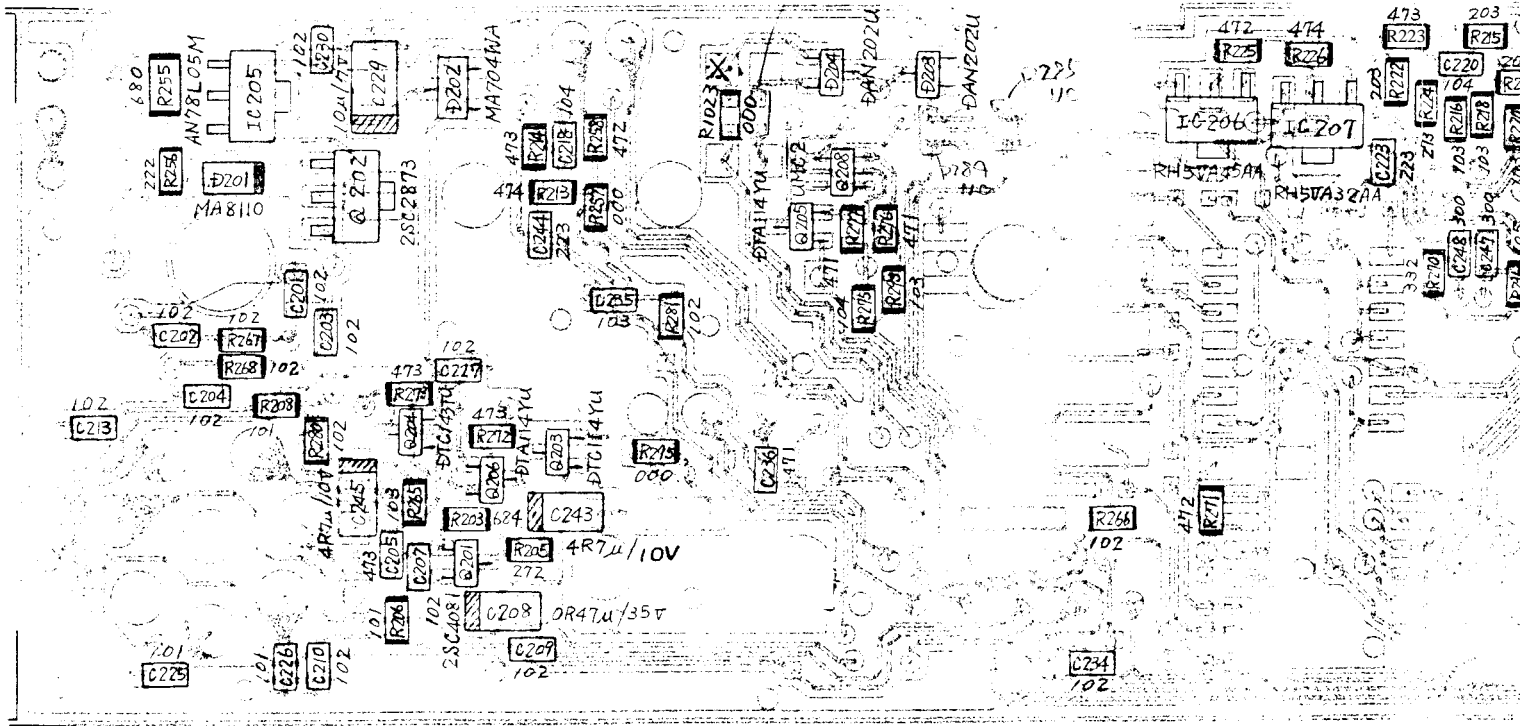
X	L4.5.6.14	L16	L19	L10	L11	L12	L13
M06	QA0101	QK455G	QK475G	QK455G	QK475G	QK475G	3300N
M03	QA0117	QK475G	QK455G	QK495G	QK475G	QK495G	10μ

X	D2	D3	IC5	R126	R127	R128	R129	C28
M06	M1308	M1309	M17735					47μ/16V
M03	ISS23	IN4002		JPW02	JPW02	JPW02	JPW02	

3) CPU Unit Side A

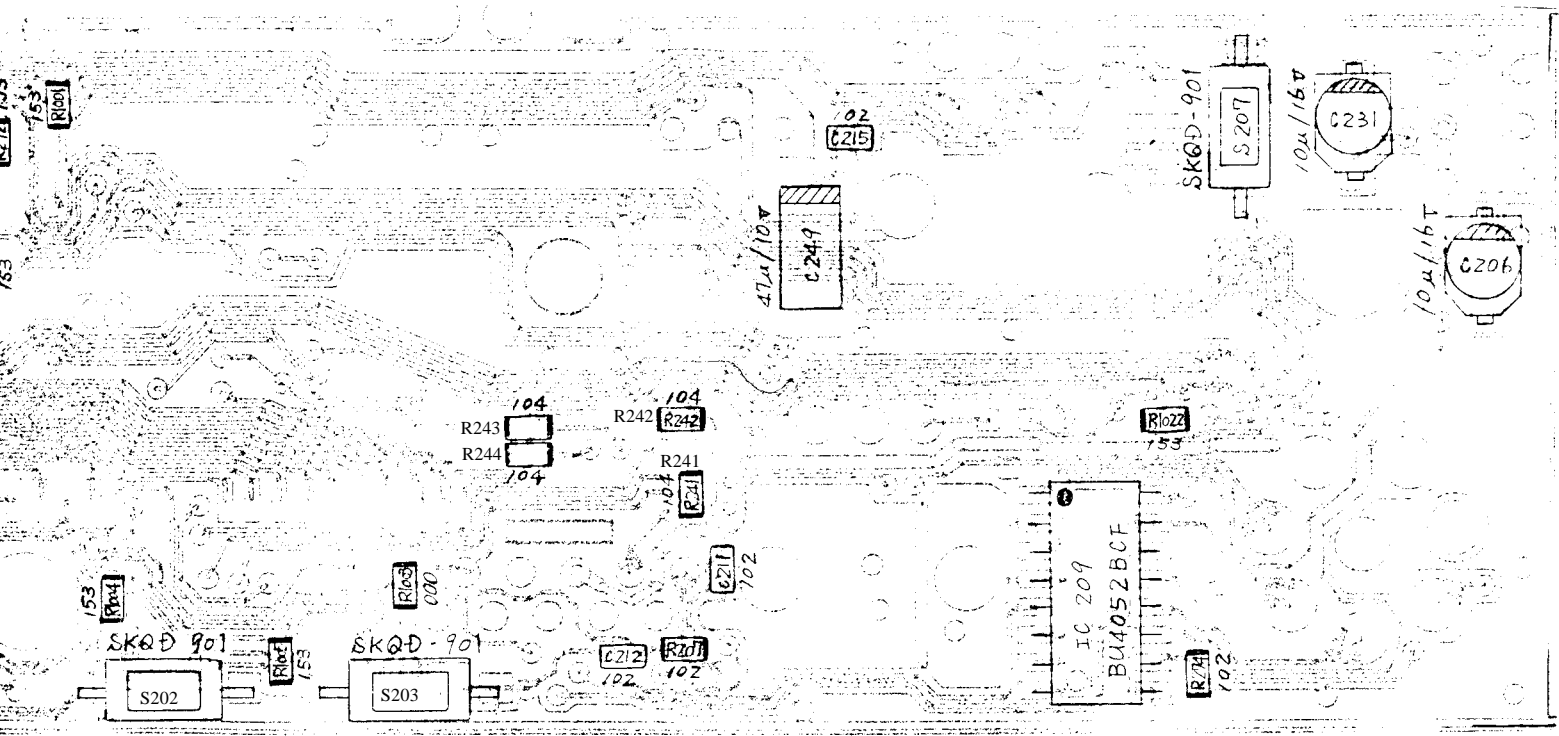


4) CPU Unit Side B

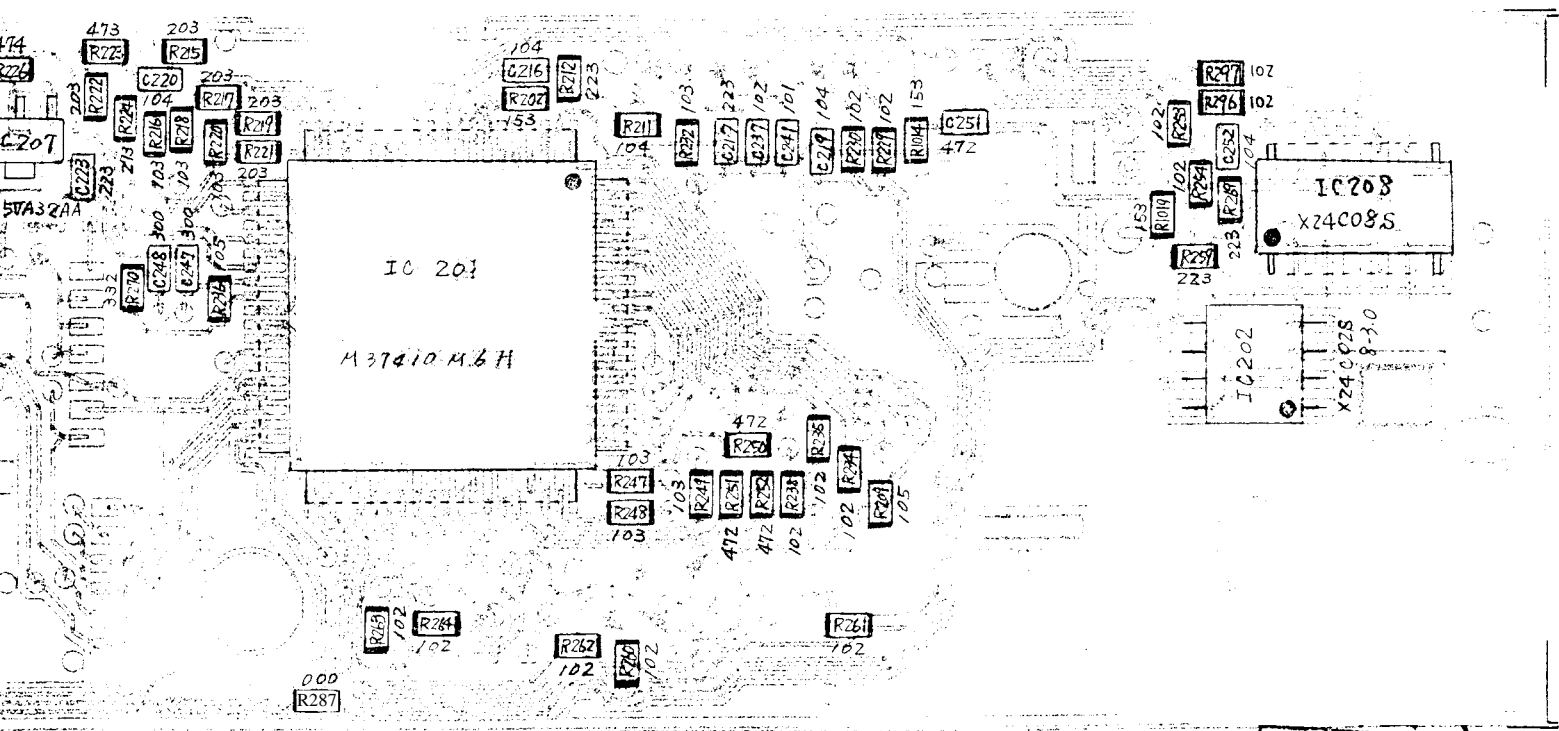


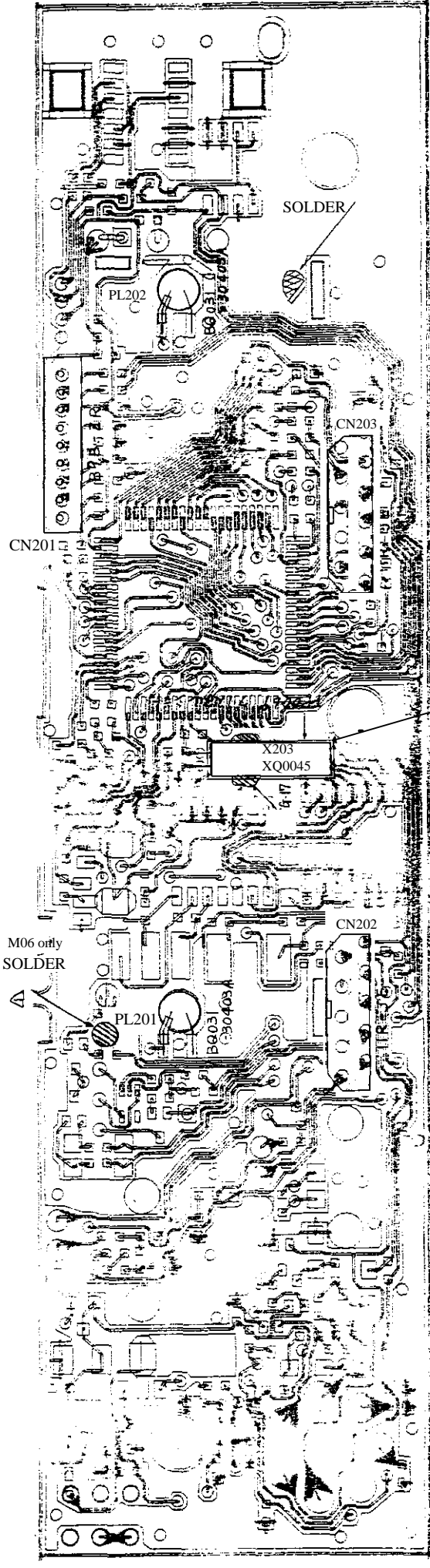
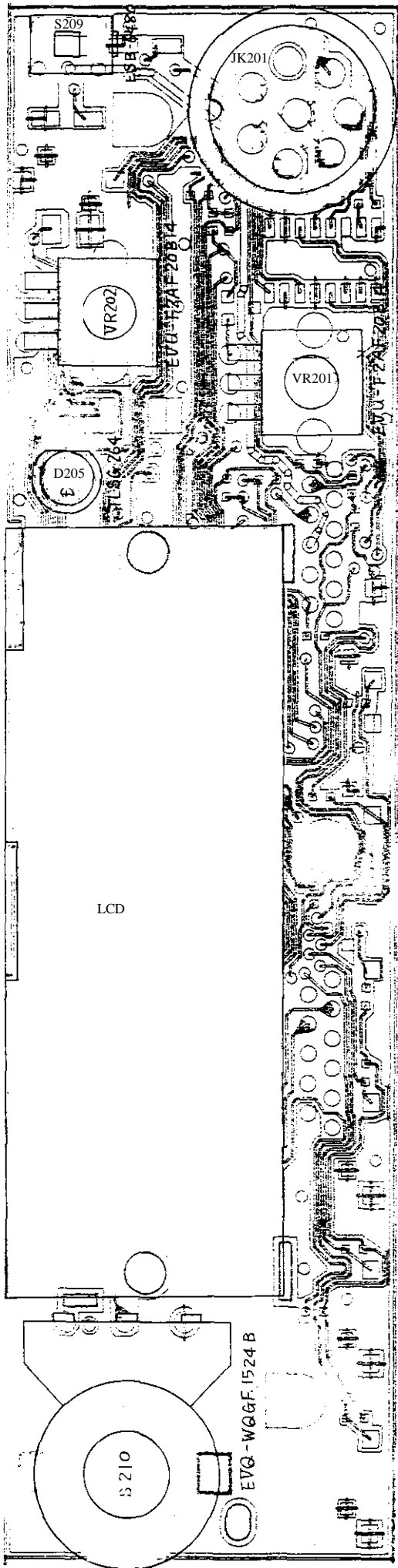
X	R1023
M06	-
M03	0.2

3-1) CPU Unit Side A

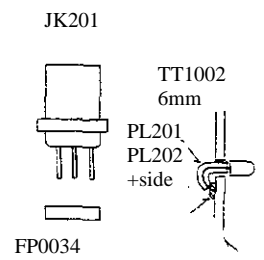


4-2) CPU Unit Side B

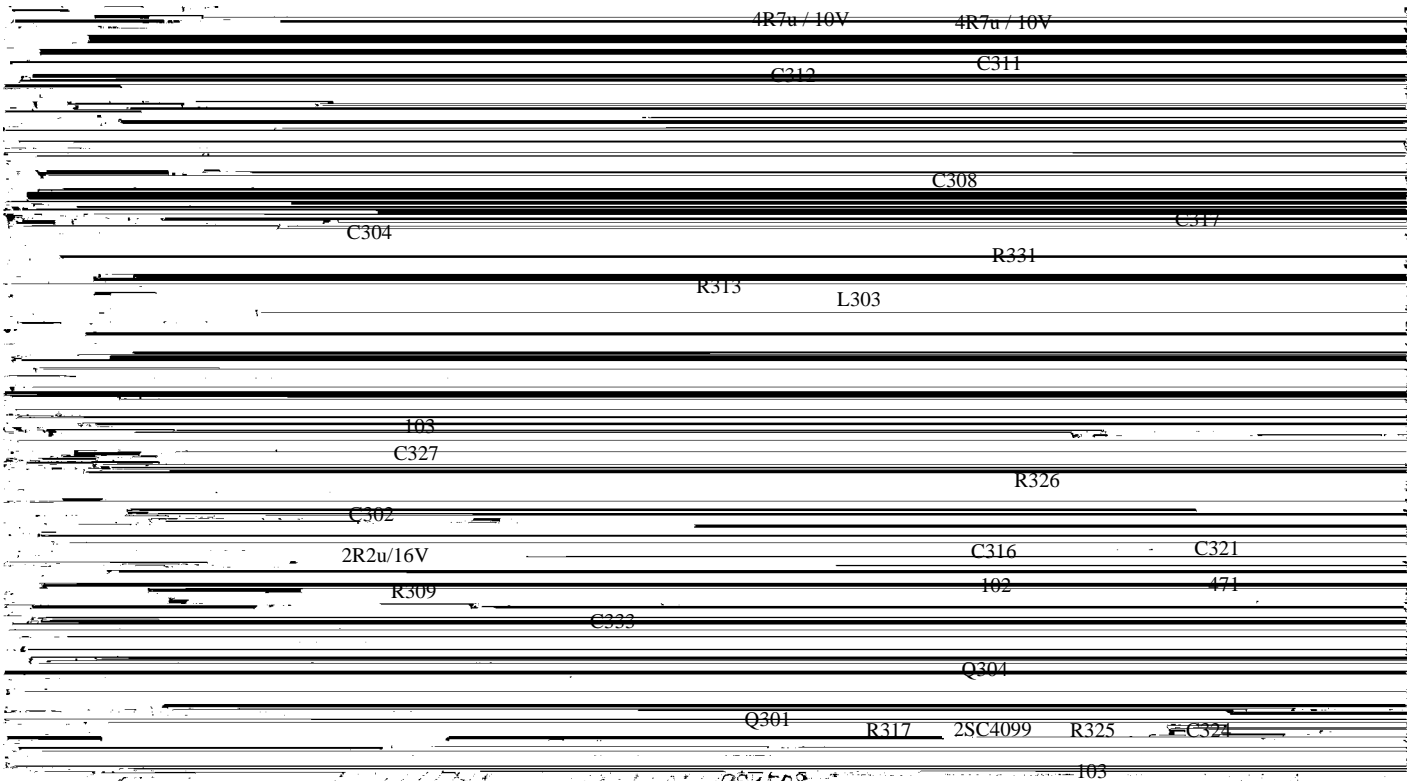




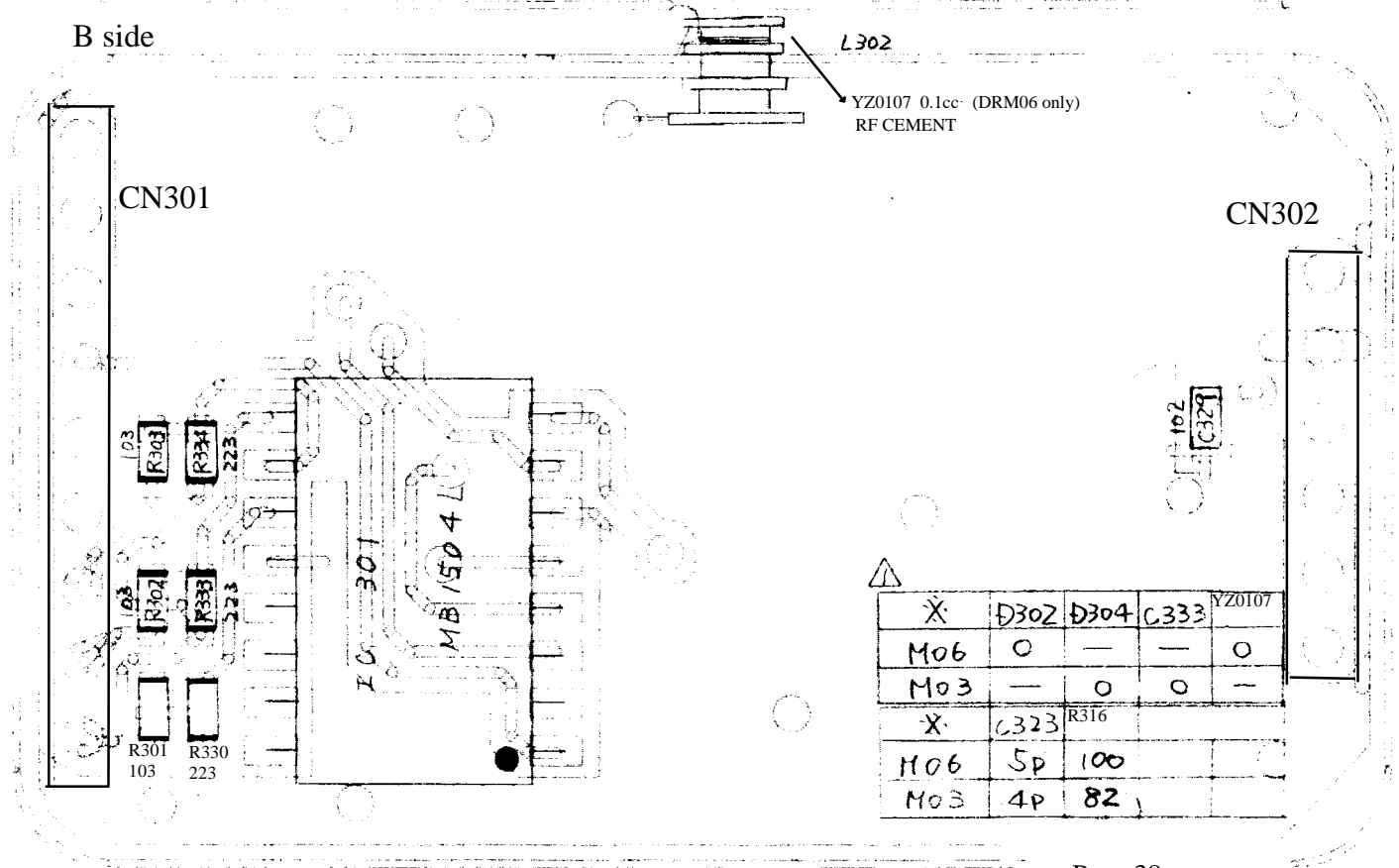
FP0069



A side



B side



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