

# DR-06T / DR-M06R

## Service Manual

### CONTENTS

#### SPECIFICATIONS

GENERAL.....	2
TRANSMITTER.....	2
RECEIVER.....	2

#### CIRCUIT DESCRIPTION

1) Receiver System.....	3,4
2) Transmitter System.....	4
3) PLL Synthesizer Circuit.....	4,5
4) CPU and Peripheral Circuit.....	5,6
5) Power Supply Circuit.....	6
6) M38268MCA085GP#U0 (XA1170B).....	7-9

#### SEMICONDUCTOR DATA

1) NJM7808FA (XA0102).....	10
2) TC4S66F (XA0115).....	10
3) BU4052BCF (XA0236).....	10
4) TC4W53FU (XA0348).....	11
5) TA31136FN (XA0404).....	11
6) LA4425A (XA0410).....	12
7) TC7S66FU (XA0524).....	12
8) BR24L32FJ (XA0604Z).....	12
9) L88MS05TLL (XA0675).....	13
10) S-816A50AMC (XA0925).....	13
11) MB15A01PFV1 (XA1010).....	14
12) LM2904PWR (XA1103).....	15
13) LM2902PWR (XA1106).....	15
14) S-80845CLNB (XA1120).....	15
15) TA78DS10F (XA1249) .....	15
16) Transistor, Diode and LED Outline Drawing...	16
17) RD70HVF1 (XE0047).....	17
18) RD06HHF1 (XE0054).....	18
19) LCD Connection (TTR3626UPFDHN).....	19

#### EXPLODED VIEW

1) LCD Assembly.....	20
2) Top and Front View.....	21
3) Bottom View DR-06T.....	22
4) Bottom View DR-M06R.....	23

#### PARTS LIST

CPU Unit.....	24-25
MAIN Unit.....	25-28

PA Unit .....	28
Mechanical Parts.....	28
Packing Parts.....	29
ACCESSORIES.....	29
ACCESSORIES (SCREW SET).....	29
TNC (EJ41U).....	30
TNC (EJ41U) Packing Parts.....	30

#### ADJUSTMENT

1) Adjustment Spot.....	31
2) VCO and RX Adjustment Specification..	32
3) TX Adjustment Specification.....	32
4) RX Test Specification.....	33
5) TX Test Specification.....	34

#### PC BOARD VIEW

1) CPU Unit Side A DR-06T (UP0602).....	35
2) CPU Unit Side B DR-06T (UP0602).....	35
3) CPU Unit Side A DR-M06R (UP0602)....	36
4) CPU Unit Side B DR-M06R (UP0602)...	36
5) MAIN / PA Unit Side A DR-06T (UP0602).....	37
6) MAIN / PA Unit Side B DR-06T (UP0602).....	37
7) MAIN / PA Unit Side A DR-M06R (UP0602).....	38
8) MAIN / PA Unit Side B DR-M06R (UP0602).....	38
9) TNC Unit Side A (UP0402) (option).....	39
10) TNC Unit Side B (UP0402) (option) ....	39

#### SCHEMATIC DIAGRAM

1) CPU Unit DR-06T.....	40
2) CPU Unit DR-M06R.....	41
3) MAIN Unit DR-06T.....	42
4) MAIN Unit DR-M06R.....	43
5) TNC Unit (option).....	44

#### BLOCK DIAGRAM

1) DR-06T.....	45
2) DR-M06R.....	46

**ALINCO, INC.**

# SPECIFICATIONS

## ■ General

	DR-06T	DR-M06R
Frequency coverage	50.000 ~ 53.995MHz ( RX, TX )	
Operating mode	FM 16K0F3E ( Wide mode ) FM 8K50F3E ( Narrow mode )	FM 16K0F3E ( Wide mode )
Frequency resolution	5 , 8.33 , 10 , 12.5 , 15 , 20 , 25 , 30 , 50 kHz	
Number of memory Channels	100	
Antenna impedance	50ohm unbalanced	
Power requirement	13.8V DC +/- 15% ( 11.7 ~ 15.8 V )	
Ground method	Negative ground	
Current drain	Receive 0.6 A ( max. ) Transmit Approx. 11.0 A max.	0.4 A ( Squelched )
Operating temperature	-10 °C ~ 60°C	
Frequency stability	+/- 7ppm	
Dimensions	142 ( w ) x 40 ( h ) x 174 ( d ) mm ( 142 x 40 x 188 mm for projection included )	
Weight	Approx. 1.0 Kg	

## ■ Transmitter

Output power	Hi	50 W
	Mid	20 W
	Low	Approx. 5W
Modulation system	Variable reactance frequency modulation	
Maximum deviation	Frequency	+ / - 5kHz ( Wide mode ) + / - 2.5kHz ( Narrow mode )
Spurious emission	- 50 dB	
Adjacent channel power	- 60 dB	
Noise and hum ratio	- 40 dB ( Wide mode ) - 34 dB ( Narrow mode )	- 40 dB ( Wide mode )
Microphone impedance	2kohm	

## ■ Receiver

Sensitivity	- 12 dBu for 12 dB SINAD	
Receiver circuit	Double conversion super-heterodyne	
Intermediate frequency	1st 10.7 MHz 2nd 450kHz	
Squelch sensitivity	- 16 dBu	
Adjacent channel selectivity	- 65 dB ( Wide mode ) - 50 dB ( Narrow mode )	- 65 dB ( Wide mode )
Inter-modulation rejection ratio	60 dB	
Spurious and image rejection ratio	70 dB	
Audio output power	2.0 W ( 8ohm , 10 % THD )	

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

# CIRCUIT DESCRIPTION

## 1) Receiver System

The receiver system is a double superheterodyne system with a 10.7 MHz first IF and a 450 kHz second IF.

### 1. Front End

The received signal at any frequency in the 50.000MHz to 53.995MHz range is passed through the low-pass filter (L115, L114, L113, C204, C203, C202, C216 and C215) and tuning circuit (L105 and D105), and amplified by the RF amplifier (Q107). The signal from Q107 is then passed through the tuning circuit (L104, L103, L102, and varicaps D104, D103 and D102) and converted into 10.7 MHz by the mixer (Q106). The tuning circuit, which consists of L105, L104, varicaps D105 and D104, L103, L102, varicaps D103 and D102 is controlled by the tracking voltage from the VCO. The local signal from the VCO is passed through the buffer (Q125), and supplied to the source of the mixer (Q106). The radio uses the lower side of the superheterodyne system.

### 2. IF Circuit

The mixer mixes the received signal with the local signal to obtain the sum of and difference between them. The crystal filter (XF101A, XF101B) selects 10.7 MHz frequency from the results and eliminates the signals of the unwanted frequencies. The first IF amplifier (Q105) then amplifies the signal of the selected frequency.

### 3. Demodulation Circuit

After the signal is amplified by the first IF amplifier (Q105), it is input to pin 16 of the demodulator IC (IC108). The second local signal of 11.15 MHz, which is oscillated by the internal oscillation circuit in IC108 and crystal (X601), is input through pin 1 of IC108. Then, these two signals are mixed by the internal mixer in IC108 and the result is converted into the second IF signal with a frequency of 450 kHz. The second IF signal is output from pin 3 of IC108 to the ceramic filter (FL101 or FL102), where the unwanted frequency band of that signal is eliminated, and the resulting signal is sent back to the IC108 through pins 5.

The second IF signal input via pin 5 is demodulated by the internal limiter amplifier and quadrature detection circuit in IC108, and output as an audio signal through pin 9.

### 4. Audio Circuit

The audio signal from pin 9 of IC108 is amplified by the audio amplifier (IC120:A), and switched by the signal switch IC (IC111) and then input to the de-emphasis circuit. and is compensated to the audio frequency characteristics in the de-emphasis circuit (R203, R207, R213, R209, C191, C218, C217) and amplified by the AF amplifier (IC120:B). The signal is then input to volume (VR1). The adjusted signal is sent to the audio power amplifier (IC117) through pin 1 to drive the speaker.

## **5. Squelch Circuit**

The detected output which is outputted from the pin 9 of IC108 is inputted to pin 8 of IC108 after it was been amplified by IC120:A and it is outputted from pin 14 after the noise component was been eliminated from the composed band pass filter in the built in amplifier of the IC. The adjusted voltage level at VR101 is delivered to the comparator of the CPU. The voltage is led to pin 2 of CPU and compared with the setting voltage. The squelch will open if the input voltage is lower than the setting voltage. During open squelch, pin 30 (SQC) of the CPU becomes "L" level, AF control signal is being controlled and sounds is outputted from the speaker.)

## **6. WIDE / NARROW Switching Circuit**

The 2nd IF 450 kHz signal which passes through filter FL101 (wide) and FL102 (narrow) during narrow, changes its width using the width control switching D115 and D116.

# **2) Transmitter System**

## **1. Modulator Circuit**

The audio signal is converted to an electrical signal by the microphone, and input it to the microphone amplifier (Q6). Amplified signal which passes through mic-mute control IC109 is adjusted to an appropriate mic-volume by means of mic-gain adjust VR106.

IC114:C and D consists of four operational amplifiers; one amplifier (pins 12, 13, and 14) is composed of pre-emphasis and IDC circuits and the other (pins 8, 9, and 10) is composed of a splatter filter. The maximum frequency deviation is obtained by VR107. and input to the signal switch (IC113) (9600 bps packet signal input switch) and input to the cathode of the varicap of the VCO, to change the electric capacity in the oscillation circuit. This produces the frequency modulation.

## **2. Power Amplifier Circuit**

The transmitted signal is oscillated by the VCO, amplified by the drive amplifier (Q145) and younger amplifier (Q115,Q701), and input to the final power amplifier (Q702). The signal is then amplified by the final power amplifier (Q702) and led to the antenna switch (D110) and low-pass filter (L113, L114, L115, C215, C216, C202, C203 and C204), where unwanted high harmonic waves are reduced as needed, and the resulting signal is supplied to the antenna.

## **3. APC Circuit**

Part of the transmission power from the low-pass filter is detected by D111, converted to DC. The detection voltage is passed through the APC circuit (IC114:B), then it controls the APC voltage supplied to the younger amplifier Q701 and the final power amplifier Q702 to fix the transmission power.

# **3) PLL Synthesizer Circuit**

## **1. PLL**

The dividing ratio is obtained by sending data from the CPU (IC1) to pin 10 and sending clock pulses to pin 9 of the PLL IC (IC116). The oscillated signal from the VCO is amplified by the buffer (Q134 and Q135) and input to pin 8 of IC116. Each programmable divider in IC116 divides the frequency of the input signal by N according to the frequency data, to generate a comparison frequency of 5 or 6.25 kHz.

## **2. Reference Frequency Circuit**

The reference frequency appropriate for the channel steps is obtained by dividing the 11.15 MHz reference oscillation (X601) by 4250 or 3400, according to the data from the CPU (IC1). When the resulting frequency is 5 kHz, channel steps of 5, 10, 15, 20, 25, 30, and 50 kHz are used. When it is 6.25 kHz, the 12.5 kHz channel step is used.

## **3. Phase Comparator Circuit**

The PLL (IC116) uses the reference frequency, 5 or 6.25kHz. The phase comparator in the IC116 compares the phase of the frequency from the VCO with that of the comparison frequency, 5 or 6.25kHz, which is obtained by the internal divider in IC116.

## **4. PLL Loop Filter Circuit**

If a phase difference is found in the phase comparison between the reference frequency and VCO output frequency, the charge pump output (pin 5) of IC116 generates a pulse signal, which is converted to DC voltage by the PLL loop filter and input to the varicap of the VCO unit for oscillation frequency control.

## **5. VCO Circuit**

A Colpitts oscillation circuit driven by Q131 directly oscillates the desired frequency. The frequency control voltage determined in the CPU (IC1) and PLL circuit is input to the varicaps (D123). This change the oscillation frequency, which is amplified by the VCO buffer (Q134) and output from the VCO area.

# **4) CPU and Peripheral Circuits**

## **1. LCD Display Circuit**

The CPU turns ON the LCD via segment and common terminals with 1/4 the duty and 1/3 the bias, at the frame frequency is 64Hz.

## **2. Dimmer Circuit**

The dimmer circuit makes the output of pin 13 of CPU (IC1) into "H" level at set mode, so that Q9 and Q3 will turn ON to make the lamp control resistor R84 short and make its illumination bright. But on the other hand, if the dimmer circuit makes pin 13 into "L" level, Q9 and Q3 will turn OFF, R84's illumination will become dimmer as its hang on voltage falls down in the working LED (D11, D2, D5, D3 and D6).

## **3. Reset and Backup**

When the power form the DC cable increases from Circuits 0 V to 2.5 or more, "H" level reset signal is output form the reset IC (IC4) to pin 33 of the CPU (IC1), causing the CPU to reset. The reset signal, however, waits at 100, and does not enter the CPU until the CPU clock (X1) has stabilized.

## **4. S (Signal) Meter Circuit**

The DC potential of pin 12 of IC108 is input to pin 1 of the CPU (IC1), converted from an analog to a digital signal, and displayed as the S-meter signal on the LCD.

## **5. DTMF Encoder**

The CPU (IC1) is equipped with an internal DTMF encoder. The DTMF signal is output from pin 10, through R35, R34 and R261 (for level adjustment), and then through the microphone amplifier (IC114:D), and is sent to the varicap of the VCO for modulation. At the same time, the monitoring tone passes through the AF circuit and is output form the speaker.

## **6. Tone Encoder**

The CPU (IC1) is equipped with an internal tone encoder. The tone signal (67.0 to 250.3 Hz) is output from pin 9 of the CPU to the varicap (D120) of the VCO for modulation.

## **7. DCS Encoder**

The CPU (IC1) is equipped with an internal DCS code encoder. The code (023 to 754) is output from pin 9 of the CPU to the PLL reference oscillator. When DCS is ON, DCS MUTE circuit (Q126-ON, Q133-ON, Q132-OFF) works. The modulation activates in D601 side only.

## **8. CTCSS, DCS Decoder**

The voice band of the AF output signal from pin 1 of IC120:A is cut by sharp active filter IC104:A and D (VCVS) and amplified, then led to pin 4 of CPU. The input signal is compared with the programmed tone frequency code in the CPU. The squelch will open when they match. During DCS, Q108 is ON, C419 is working and cut off frequency is lowered.

# **5) Power Supply Circuit**

When power supply is ON, there is a "L" signal being inputted to pin 39 (PSW) of CPU which enables the CPU to work. Then, "H" signal is outputted from the pin 41 (C5C) of CPU and drives ON the power supply switch control Q8 and Q7 which turns the 5VS ON. 5VS turns ON the PLL IC116, main power supply switch Q127 and Q122, AF POWER IC117 and the 8 V of AVR (IC115). During reception, pin 29 (R5) of CPU outputs "H" level, Q124 is ON, and the reception circuits supplied by 8 V. While during transmission, pin 28 (T5) of CPU outputs "L" level which is reverse by Q11 so that the output in Q128 will be "H" level, Q123 is ON, and the transmission circuit is supplied by 8 V. Or, in the case when the condition of PLL is UNLOCK, "L" level is outputted from pin 7 of IC116, UNLOCK switch Q11 is ON, Q129 is ON, transmission switch Q128 is OFF which makes the transmission to stop.

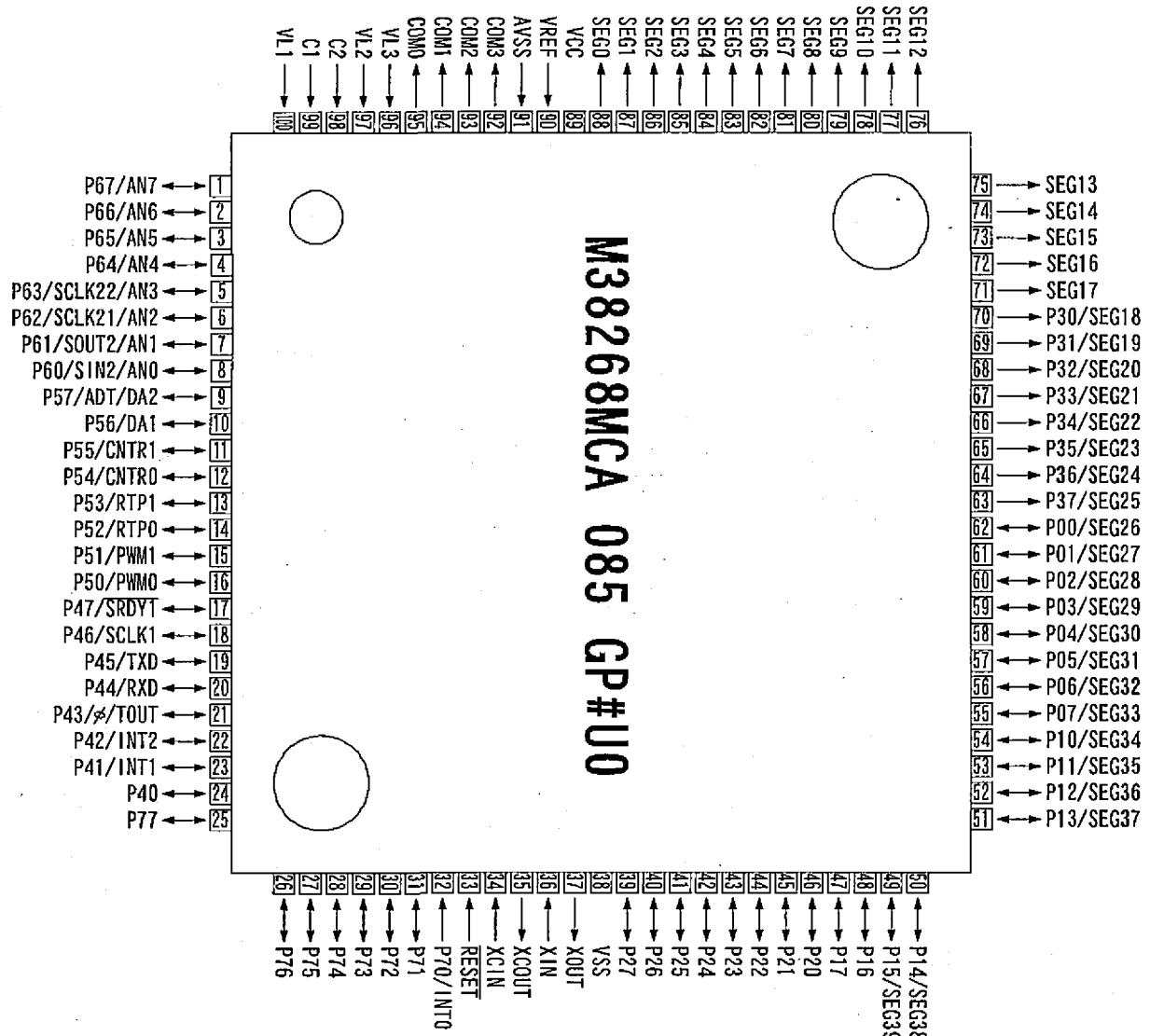
## **1. ACC External Power Supply Terminal**

When optional power supply cord EDC-37 etc. is connected to the external power supply terminal JK101, with ACC power supply ON, switch Q101 will turn ON, 5 V of AVR IC101 pin 2 (STB) becomes "L" which makes C5V to turn ON. With this, it can turn the power supply of the radio ON.

## 6) M38268MCA085GP#U0 (XA1170B)

CPU

Terminal Connection  
(TOP VIEW)



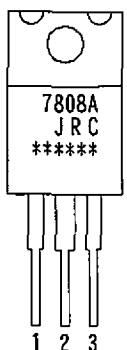
No.	Terminal	Signal	I/O	Description
1	P67/AN7	SMT	I	S-meter input
2	P66/AN6	SQL	I	Noise level input for squelch
3	P65/AN5	BAT	I	Battery voltage input
4	P64/AN4	TIN	I	CTCSS tone input / DCS code input
5	P63/SCLK22/AN3	BP1	I	Band plan 1
6	P62/SCLK21/AN2	BP2	I	Band plan 2
7	P61/SOUT2/AN1	DCSW	O	DCS signal mute
8	P60/SIN2/AN0	RE2	I	Rotary encoder input
9	P57/ADT/DA2	TOUT	O	CTCSS tone output / DCS tone output
10	P56/DA1	DOUT	O	DTMF output
11	P55/CNTR1	SCL	O	Serial clock for EEPROM
12	P54/CNTR0	TBST	O	Tone burst output
13	P53/RTP1	BP4	I/O	Band plan 4 / lamp dimmer HI / LOW switch
14	P52/RTP0	MUTE	I/O	Microphone mute / Security alarm SW
15	P51/PWM1	CLK	O	Serial clock output for PLL, scramble
16	P50/PWM0	DATA	I/O	Serial data output for PLL scramble / PLL unlock signal input
17	P47/SRDY1	TSTB	I/O	Trunking board detection / Strobe signal to trunking board
18	P46/SCLK1	STB	O	Strobe for PLL IC
19	P45/TXD	UTX	O	UART data transmission output
20	P44/RXD	RTX	I	UART data reception output
21	P43/■/TOUT	BEEP	I/O	Beep tone / Band plan 3
22	P42/INT2	SEC	I	Security voltage input
23	P41/INT1	RE1	I	Rotary encoder input
24	P40	DSQ	I	Digital squelch input
25	P77	PTT	I	PTT input
26	P76	SSTB	O	Strobe signal to scramble IC / Security mode
27	P75	W/N	O	Wide Narrow SW
28	P74	T5	O	TX power ON / OFF output
29	P73	R5	O	RX power ON / OFF output
30	P72	SQC	O	SQL ON / OFF
31	P71	C/S	O	Digital scramble ON / OFF
32	P70/INT0	BU	I	Backup signal detection input
33	RESET	RESET	I	Reset input
34	XCIN	Xcin	-	-
35	XCOUT	Xcout	-	-
36	XIN	Xin	-	Main clock input
37	XOUT	Xout	-	Main clock output
38	VSS	GND	-	CPU GND
39	P27	PSW	I	Power switch input
40	P26	SDA	O	Serial data for EEPROM
41	P25	C5C	O	C5V power ON / OFF output
42	P24	AIR	O	Air band SW / Tx middle power
43	P23	LOW	O	Tx low power
44	P22	EXP	O	Trunking / Packet data SW
45	P21	SW6	I	Key sw 6 (SQL)
46	P20	SW5	I	Key sw 5 (CALL)
47	P17	SW4	I	Key sw 4 (TSQ)
48	P16	SW3	I	Key sw 3 (MHz)
49	P15/SEG39	SW2	I	Key sw 2 (V/M)
50	P14/SEG38	SW1	I	Key sw 1 (FUNC)

No.	Terminal	Signal	I/O	Description
51	P13/SEG37	DOWN	I	Mic down input
52	P12/SEG36	DUD	I	Digital unit detect
53	P11/SEG35	SCR	I	Scramble IC ready signal / PTT Input for 9600bps
54	P10/SEG34	UP	I	Mic up input
55	P07/SEG33	S33	O	
56	P06/SEG32	S32	O	
57	P05/SEG31	S31	O	
58	P04/SEG30	S30	O	
59	P03/SEG29	S29	O	
60	P02/SEG28	S28	O	
61	P01/SEG27	S27	O	
62	P00/SEG26	S26	O	
63	P37/SEG25	S25	O	
64	P36/SEG24	S24	O	
65	P35/SEG23	S23	O	
66	P34/SEG22	S22	O	
67	P33/SEG21	S21	O	
68	P32/SEG20	S20	O	
69	P31/SEG19	S19	O	
70	P30/SEG18	S18	O	
71	SEG17	S17	O	LCD segment signal
72	SEG16	S16	O	
73	SEG15	S15	O	
74	SEG14	S14	O	
75	SEG13	S13	O	
76	SEG12	S12	O	
77	SEG11	S11	O	
78	SEG10	S10	O	
79	SEG9	S9	O	
80	SEG8	S8	O	
81	SEG7	S7	O	
82	SEG6	S6	O	
83	SEG5	S5	O	
84	SEG4	S4	O	
85	SEG3	S3	O	
86	SEG2	S2	O	
87	SEG1	S1	O	
88	SEG0	S0	O	
89	VCC	VDD	-	CPU power terminal
90	VREF	Vref	-	AD converter power supply
91	AVSS	Avss	-	AD converter GND
92	COM3	COM3	O	LCD COM3 output
93	COM2	COM2	O	LCD COM2 output
94	COM1	COM1	O	LCD COM1 output
95	COM0	COM0	O	LCD COM0 output
96	VL3	VL3	-	LCD power supply
97	VL2	VL2	-	LCD power supply
98	C2	I	-	-
99	C1	C1	-	-
100	VL1	VL1	I	LCD power supply

# SEMICONDUCTOR DATA

## 1) NJM7808FA (XA0102)

8V (1A) Voltage Regulator



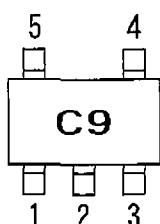
1. INPUT

2. COMMON

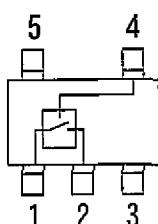
3. OUTPUT

## 2) TC4S66F (XA0115)

Bilateral Switch



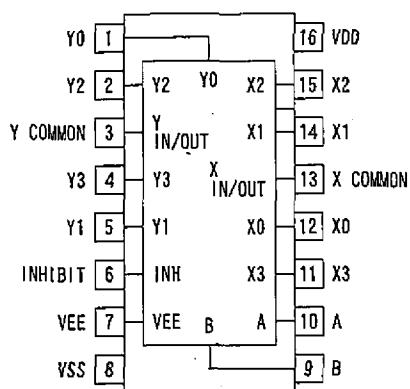
1. IN / OUT  
2. OUT / IN  
3. VSS  
4. CONT  
5. VDD



CONT	Function (IN-OUT)
L	Disconnect (Hi Z)
H	Connect (290ohm typ.)

## 3) BU4052BF (XA0236)

Analog Multiplexer / De-multiplexer

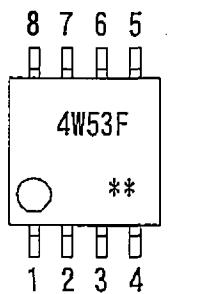


INHIBIT	A	B	COMMON	ON SWITCH
L	L	L	X Y	X0 Y0
L	H	L		X1 Y1
L	L	H		X2 Y2
L	H	H		X3 Y3
H	*	*		NONE

\* Don't care

## 4) TC4W53FU (XA0348)

Multiplexer / De-multiplexer



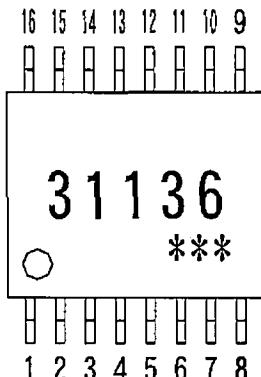
1. COMMON
2. INH
3. VEE
4. VSS
5. A
6. ch 1
7. ch 0
8. VDD

Controll input		ON channel
INH	A	
L	L	ch 0
L	H	ch 1
H	*	NONE

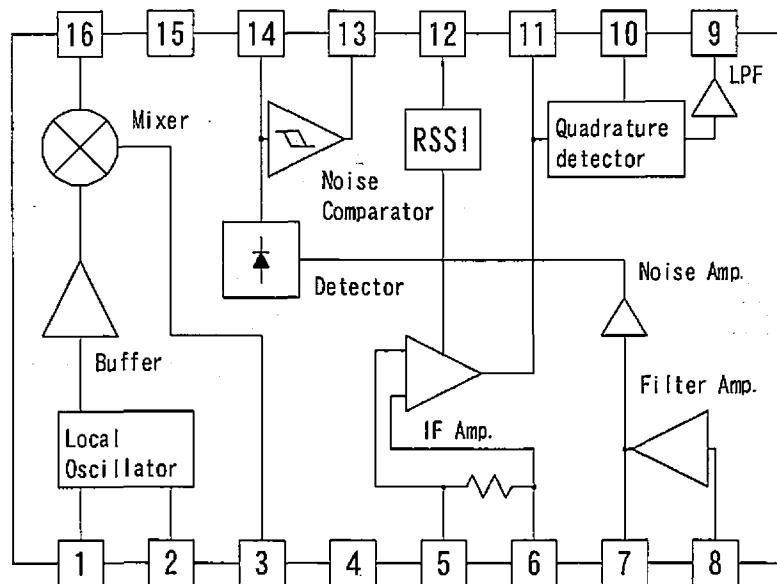
\* Don't care

## 5) TA31136FN (XA0404)

Narrow Band FM IF IC

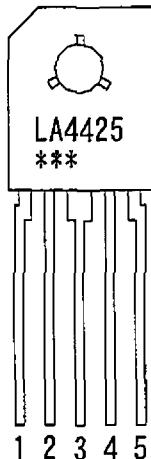


- |            |            |
|------------|------------|
| 1. OSC IN  | 9. AF OUT  |
| 2. OSC OUT | 10. QUAD   |
| 3. MIX OUT | 11. IF OUT |
| 4. Vcc     | 12. RSSI   |
| 5. IF IN   | 13. N-DET  |
| 6. DEC     | 14. N-REC  |
| 7. FIL OUT | 15. GND    |
| 8. FIL IN  | 16. MIX IN |



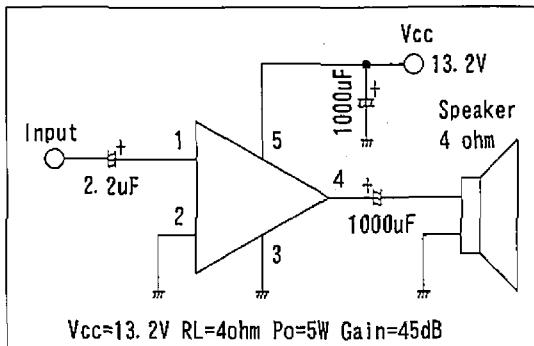
## 6) LA4425A (XA0410)

5W Audio Power Amplifier



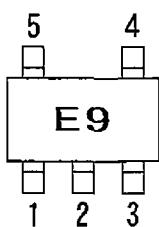
1. Input
2. Small signal GND
3. Large signal GND
4. Output
5. Vcc

Test Circuit

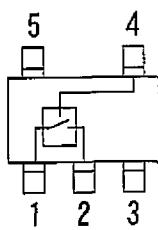


## 7) TC7S66FU (XA0524)

Bilateral Switch



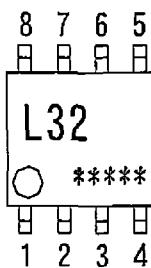
1. IN / OUT
2. OUT / IN
3. VSS
4. CONT
5. VDD



CONTROL	Switch Function
H	ON
L	OFF

## 8) BR24L32FJ (XA0604Z)

32K-Bit EEPROM

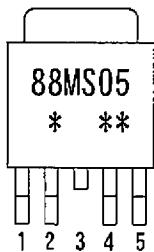


1. A0
2. A1
3. A2
4. Vss
5. SDA
6. SCL
7. WP
8. Vcc

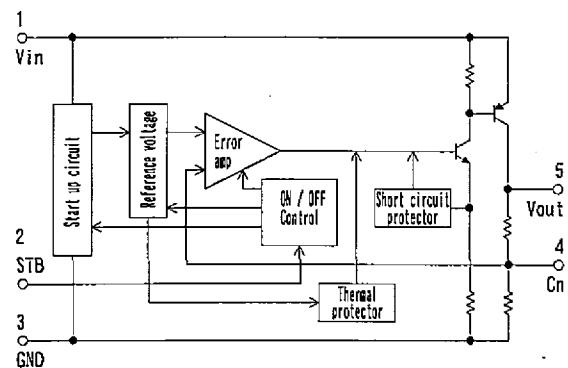
Name	Function
A0...A2	User Configurable Chip Select
Vss	Ground
SDA	Serial Address / Data / I/O
SCL	Serial Clock
WP	Write Protect Input
Vcc	+2.5 ~ 6.0V Power Supply

## 9) L88MS05TLL (XA0675)

5V (500mA) Voltage Regulator with On/Off Function

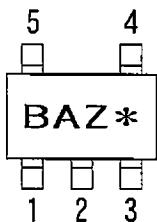


1. Vin
2. STB
3. GND
4. Cn
5. Vout

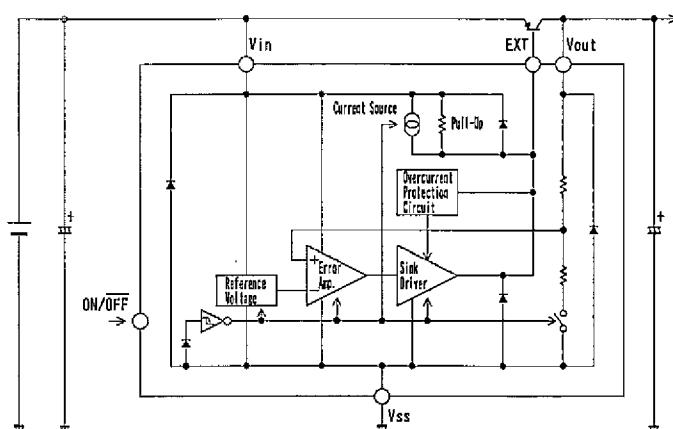


## 10) S-816A50AMC (XA0925)

External Transistor Type 5V Voltage Regulator with On/Off Function

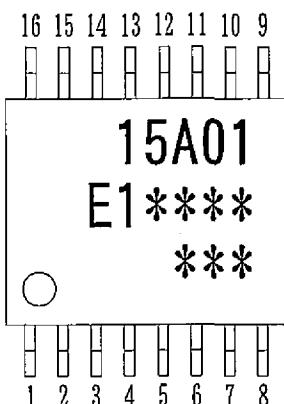


1. EXT
2. Vss
3. ON/OFF
4. Vin
5. Vout

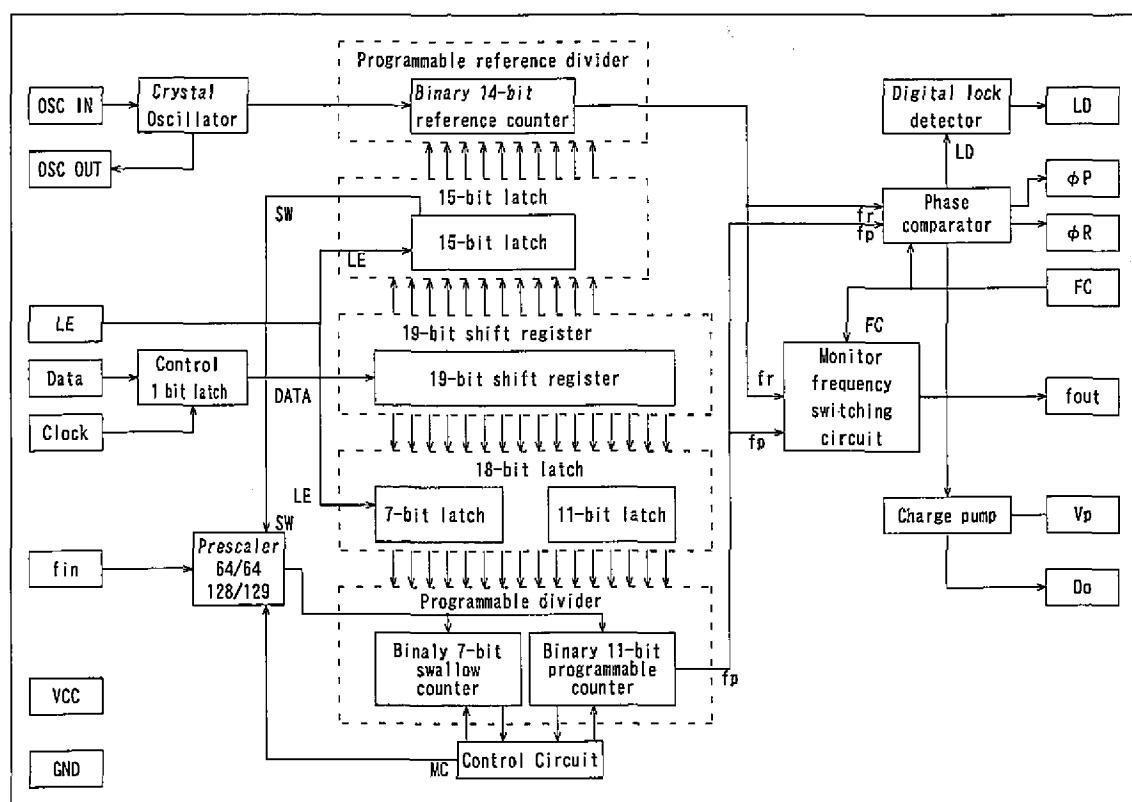


# 11) MB15A01PFV1 (XA1010)

## PLL Synthesizer



- |                    |                      |
|--------------------|----------------------|
| 1. OSC IN          | 9. Clock             |
| 2. OSC OUT         | 10. Data             |
| 3. V <sub>p</sub>  | 11. LE               |
| 4. V <sub>cc</sub> | 12. FC               |
| 5. D <sub>o</sub>  | 13. N. C.            |
| 6. GND             | 14. f <sub>out</sub> |
| 7. LD              | 15. φ <sub>P</sub>   |
| 8. f <sub>in</sub> | 16. φ <sub>R</sub>   |

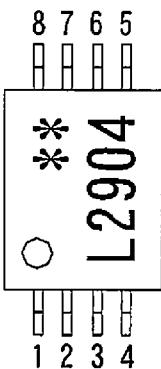


( V<sub>cc</sub> = 2.7 to 3.5V, Ta = -40°C to +85°C )

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Power supply voltage	V <sub>cc</sub>	-	2.7	3.0	3.5	V
Power supply current	I <sub>cc</sub>	2500MHz V <sub>cc</sub> =V <sub>p</sub> =3.75V		6.5		mA
LPF supply voltage	V <sub>p</sub>	-	V <sub>cc</sub>	-	6.0	V
Local oscillator input level	V <sub>f<sub>in</sub></sub>	-	-10		+6	dBm
Local oscillator input frequency	f <sub>in</sub>	-	10		1100	MHz
Xin input level	V <sub>x<sub>in</sub></sub>	-	0.5		-	V <sub>p-p</sub>
Xin input frequency	F <sub>x<sub>in</sub></sub>	-	-	12	23	MHz

## 12) LM2904PWR (XA1103)

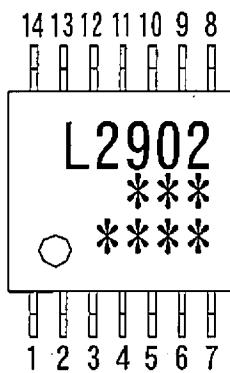
Dual Operational Amplifiers



1. Output A
2. Inverting Input A
3. Non-inverting Input A
4. GND
5. Non-inverting Input B
6. Inverting Input B
7. Output B
8. Vcc

## 13) LM2902PWR (XA1106)

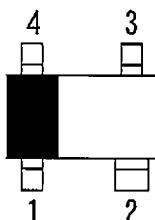
Quad Operational Amplifiers



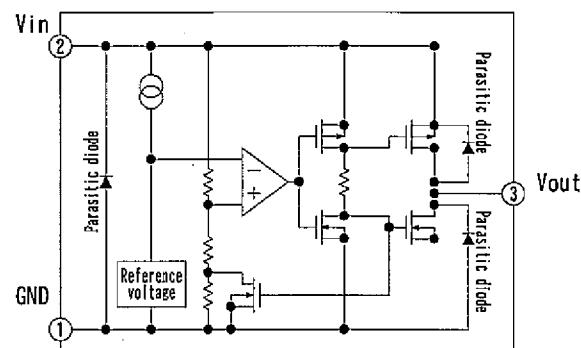
1. Output A
2. Inverting Input A
3. Non-inverting Input A
4. Vcc
5. Non-inverting Input B
6. Inverting Input B
7. Output B
8. Output C
9. Inverting Input C
10. Non-inverting Input C
11. GND
12. Non-inverting Input D
13. Inverting Input D
14. Output D

## 14) S-80845CLNB (XA1120)

4.5V Voltage Detector

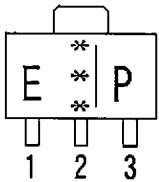


1. Vout
2. Vin
3. NC
4. GND

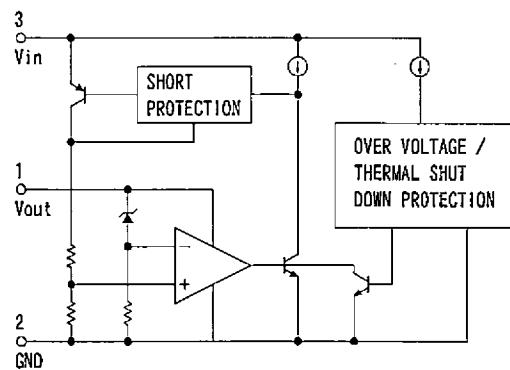


## 15) TA78DS10F (XA1249)

10V (30mA) Voltage Regulator



1. OUTPUT
2. COMMON
3. INPUT



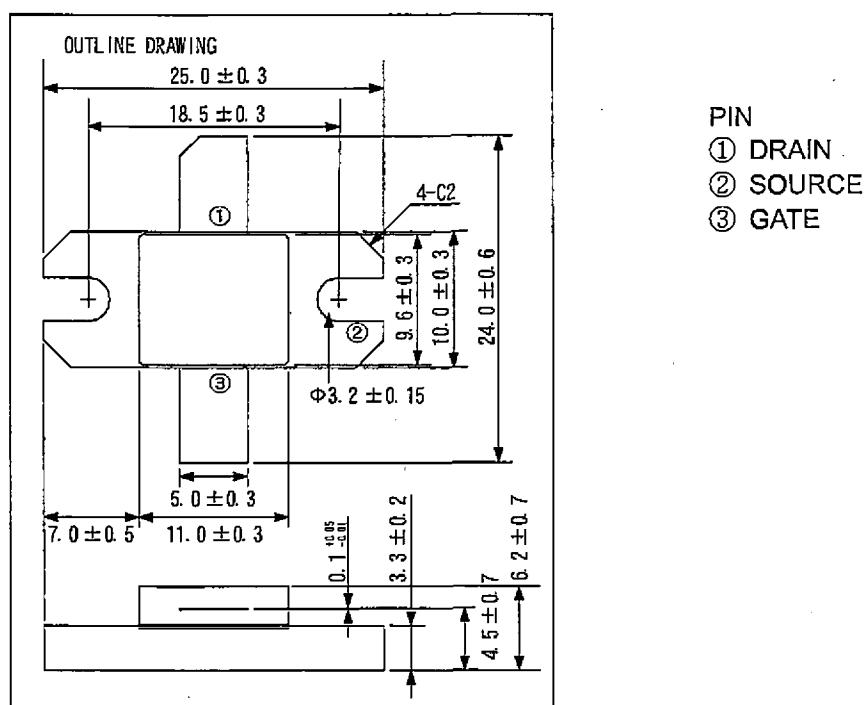
## 16) Transistor, Diode and LED Outline Drawing

Top View

M1407 XD0013	DA204U XD0130	1SV231 XD0260	1SV268 XD0301	DAN235E XD0320	RLS-73 XD0363	CRG01 XD0391
VDZ5.1B XD0402	S3V60 XD0414	1SS383 XD0426	JDV2S14 XD0427	1SS383 XD0461	1SS406 XD0462	2SK880GR XE0021
3SK293 XE0053	2SK2539 XE0066	FA1111C XL0069	FA1111C XL0077	2SC3356T1 XT0030	2SA1576A XT0094	2SA1036K XT0110
2SC4915 XT0178	2SB1386 XT0190	2SC5551 XT0194	2SC6026MFV XT0210	2SA2070 XT0223	2SC4738 XT0224	RN1104 XU0195
EMD6 XU0209	RN1107MFV XU0210	RN2107MFV XU0211	RN1711 XU0226	RN2109MFV XU0231		
Rb=4.7kohm Rbe=none	Rb=10kohm Rbe=47kohm	Rb=10kohm Rbe=47kohm	Rb=10kohm Rbe=none	Rb=47kohm Rbe=22kohm		

## 17) RD70HVF1 (XE0047)

Nch MOS FET



ABSOLUTE MAXIMUM RATING (  $T_c = 25^\circ\text{C}$ , unless otherwise noted )

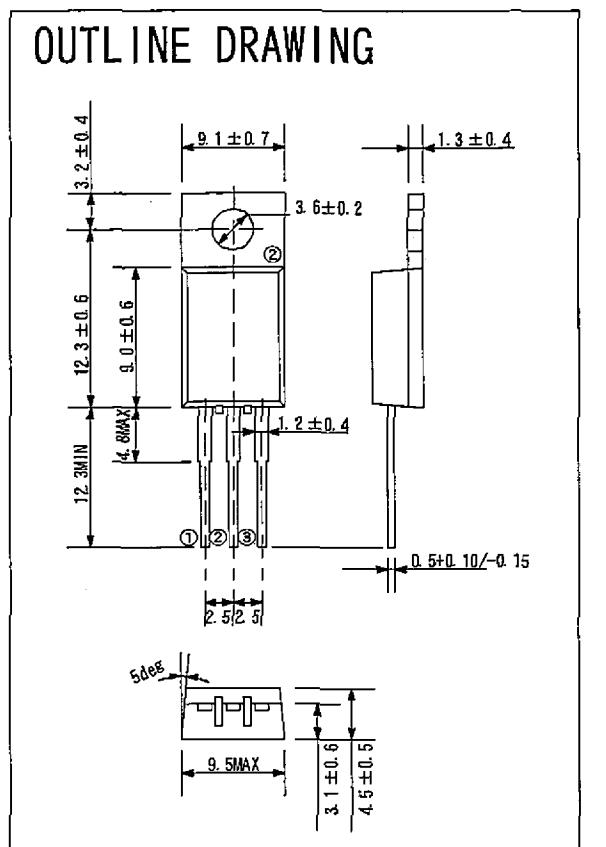
Symbol	Parameter	Test Conditions	Ratings	Unit
Pch	Channel dissipation	$T_c = 25^\circ\text{C}$	150	W
VDSS	Drain to source voltage	$V_{gs} = 0\text{V}$	30	V
VGSS	Gate to source voltage	$V_{ds} = 0\text{V}$	+/- 20	V
Tj	Channel temperature	-	175	$^\circ\text{C}$
Tstg	Storage temperature	-	-40 to +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (  $T_c = 25^\circ\text{C}$ , unless otherwise noted )

Symbol	Parameter	Conditions	Limits		Unit
			Min	Max	
$I_{DSS}$	Saturated drain current	$V_{ds} = 17\text{V}$ , $V_{gs} = 0\text{V}$	-	300	$\mu\text{A}$
$I_{GSS}$	Gate to source leak current	$V_{gs} = 10\text{V}$ , $V_{ds} = 0\text{V}$	-	5	$\mu\text{A}$
$V_{TH}$	Threshold voltage	$V_{ds} = 12\text{V}$ , $I_{ds} = 1\text{mA}$	1.3	2.3	V
Pout1	Output Power 1	$f = 175\text{MHz}$ , $\text{Pin} = 6\text{W}$ , $V_{ds} = 12.5\text{V}$	70	-	W
$\eta D1$	Drain Efficiency 1	$I_{ds}$ (idle) = 2.0A (Vgs Control)	55	-	%
Pout2	Output Power 2	$f = 520\text{MHz}$ , $\text{Pin} = 10\text{W}$ , $V_{ds} = 12.5\text{V}$	50	-	W
$\eta D2$	Drain Efficiency 2	$I_{ds}$ (idle) = 2.0A (Vgs Control)	50	-	%
VSWRT1	Load VSWR Tolerance	$f = 175\text{MHz}$ , $V_{ds} = 15.2\text{V}$ $I_{ds}$ (idle) = 2.0A (Vgs Control) $P_o = 70\text{W}$ (Pin Control) $\rho I \leq 20:1$ (ALL Phase)	No degradation		-
VSWRT2	Load VSWR Tolerance	$f = 520\text{MHz}$ , $V_{ds} = 15.2\text{V}$ $I_{ds}$ (idle) = 2.0A (Vgs Control) $P_o = 50\text{W}$ (Pin Control) $\rho I \leq 20:1$ (ALL Phase)	No degradation		-

## 18) RD06HHF1 (XE0054)

Nch MOS FET



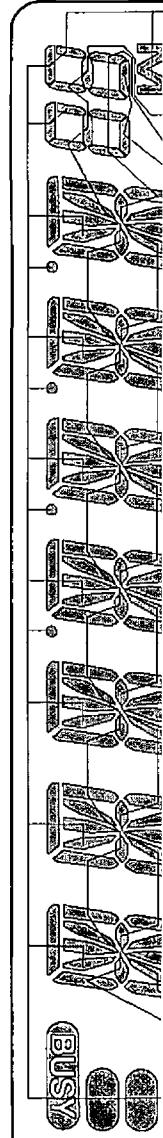
PIN  
 ① GATE  
 ② SOURCE  
 ③ DRAIN

ABSOLUTE MAXIMUM RATING (  $T_c = 25^\circ\text{C}$ , unless otherwise noted )

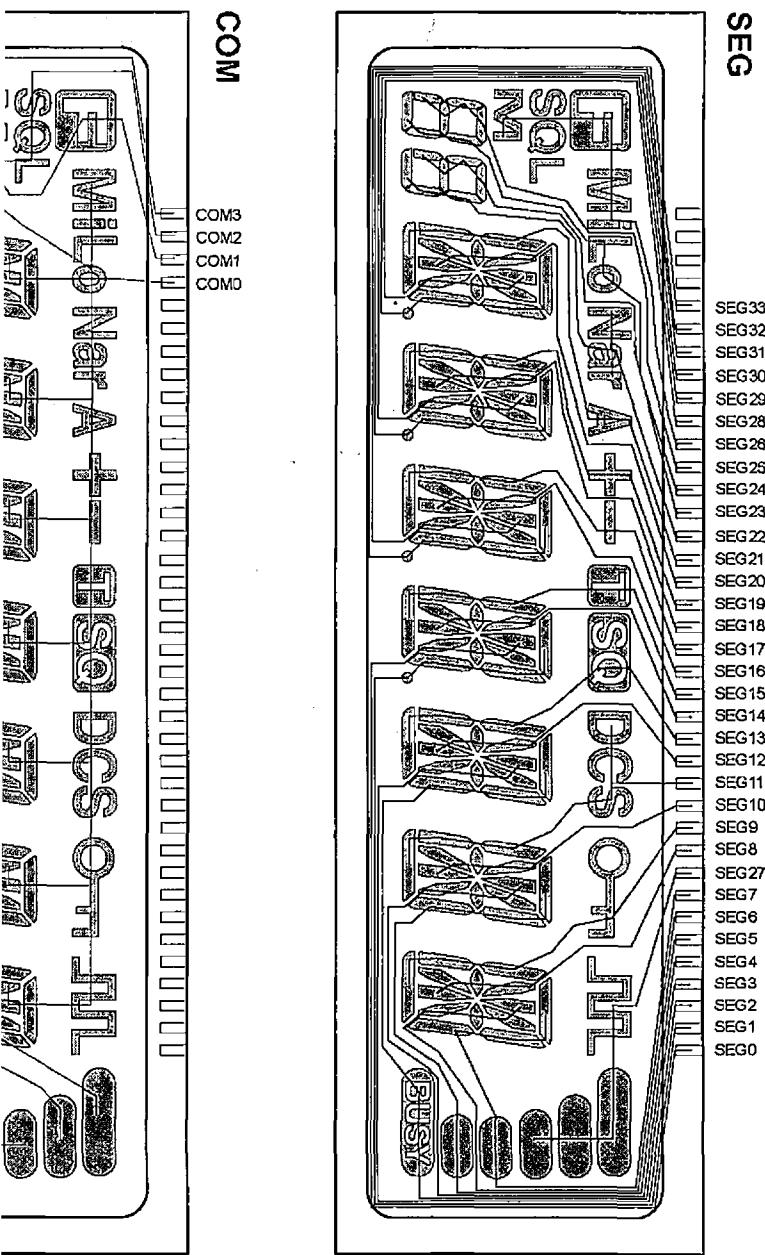
Symbol	Parameter	Test Conditions	Ratings	Unit
Pch	Channel dissipation	$T_c = 25^\circ\text{C}$	31.3	W
VDSS	Drain to source voltage	$V_{gs} = 0\text{V}$	50	V
VGSS	Gate to source voltage	$V_{ds} = 0\text{V}$	+/- 20	V
ID	Drain to source Current	-	3	A
Tj	Channel temperature	-	150	$^\circ\text{C}$
Tstg	Storage temperature	-	-40 to +150	$^\circ\text{C}$
Rth j-c	Thermal resistance	Junction to case	4.0	$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS (  $T_c = 25^\circ\text{C}$ , unless otherwise noted )

Symbol	Parameter	Conditions	Limits		Unit
			Min	Max	
Idss	Saturated drain current	$V_{ds} = 17\text{V}$ , $V_{gs} = 0\text{V}$	-	10	$\mu\text{A}$
Iess	Gate to source leak current	$V_{gs} = 10\text{V}$ , $V_{ds} = 0\text{V}$	-	1	$\mu\text{A}$
V <sub>TH</sub>	Threshold voltage	$V_{ds} = 12\text{V}$ , $I_{ds} = 1\text{mA}$	1.9	4.9	V
Pout	Output Power	$f = 30\text{MHz}$ , $P_{in} = 0.15\text{W}$ , $V_{dd} = 12.5\text{V}$	6	-	W
$\eta_D$	Drain Efficiency	$I_{dq} = 0.5\text{A}$ (Vgg Control)	55	-	%
VSWRT	Load VSWR Tolerance	$f = 30\text{MHz}$ , $V_{dd} = 12.5\text{V}$ $I_{dq} = 0.5\text{A}$ (Vgg Control) $P_o = 6\text{W}$ (Pin Control) $\rho_l \leq 20:1$ (ALL Phase)	No degradation	-	

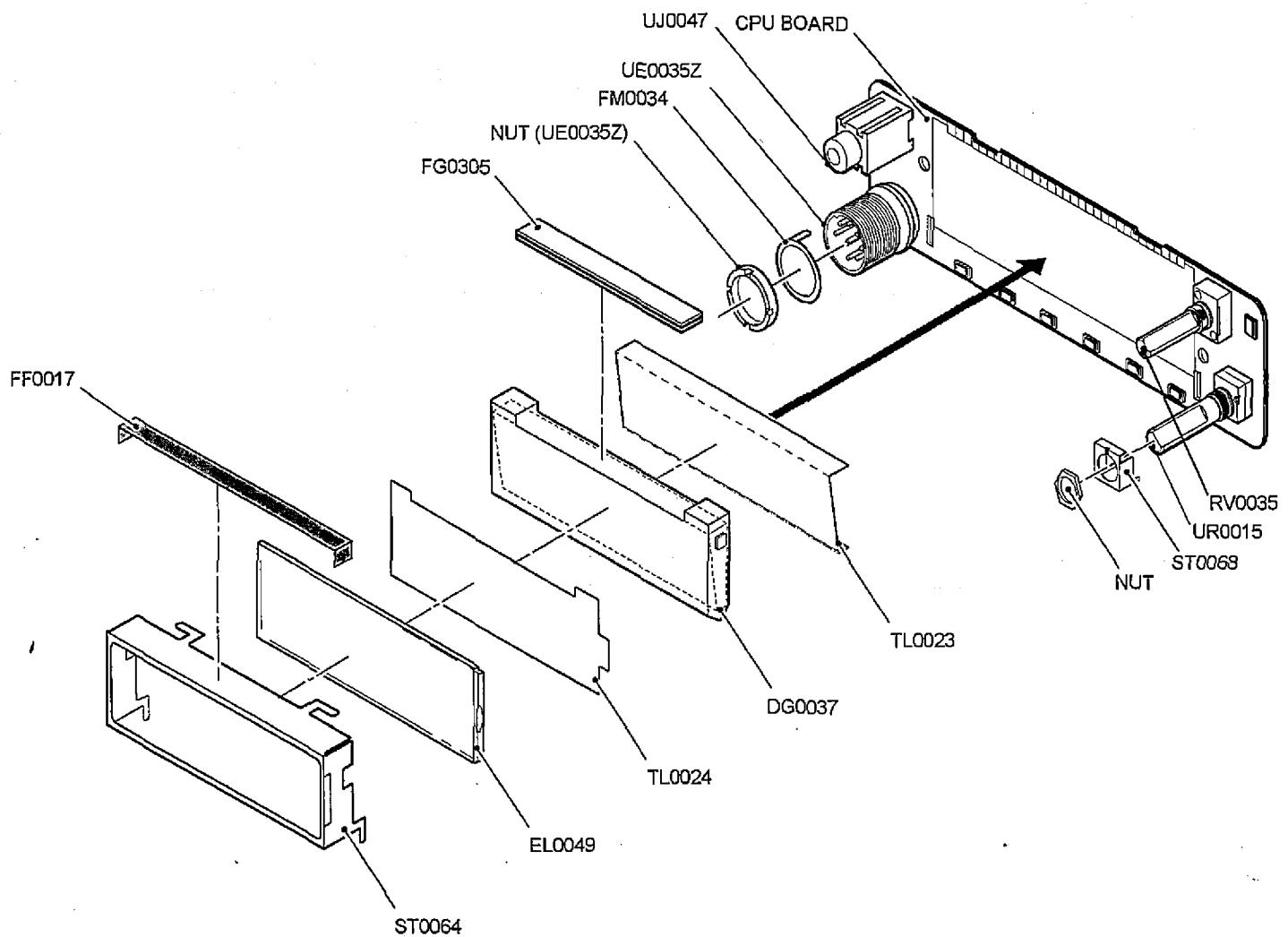


## 19) LCD Connection (TTR3626UPFDHM)

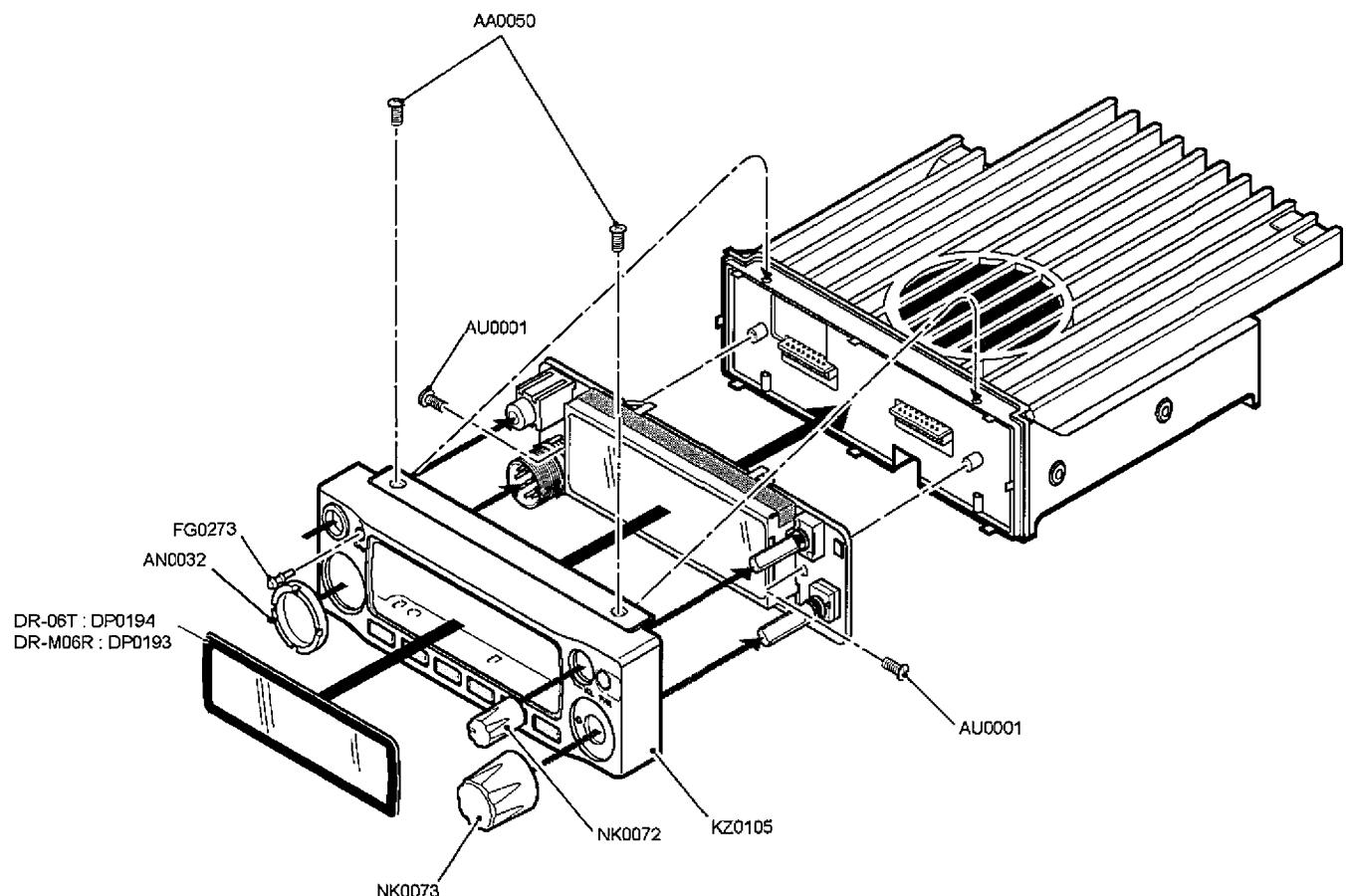


# EXPLODED VIEW

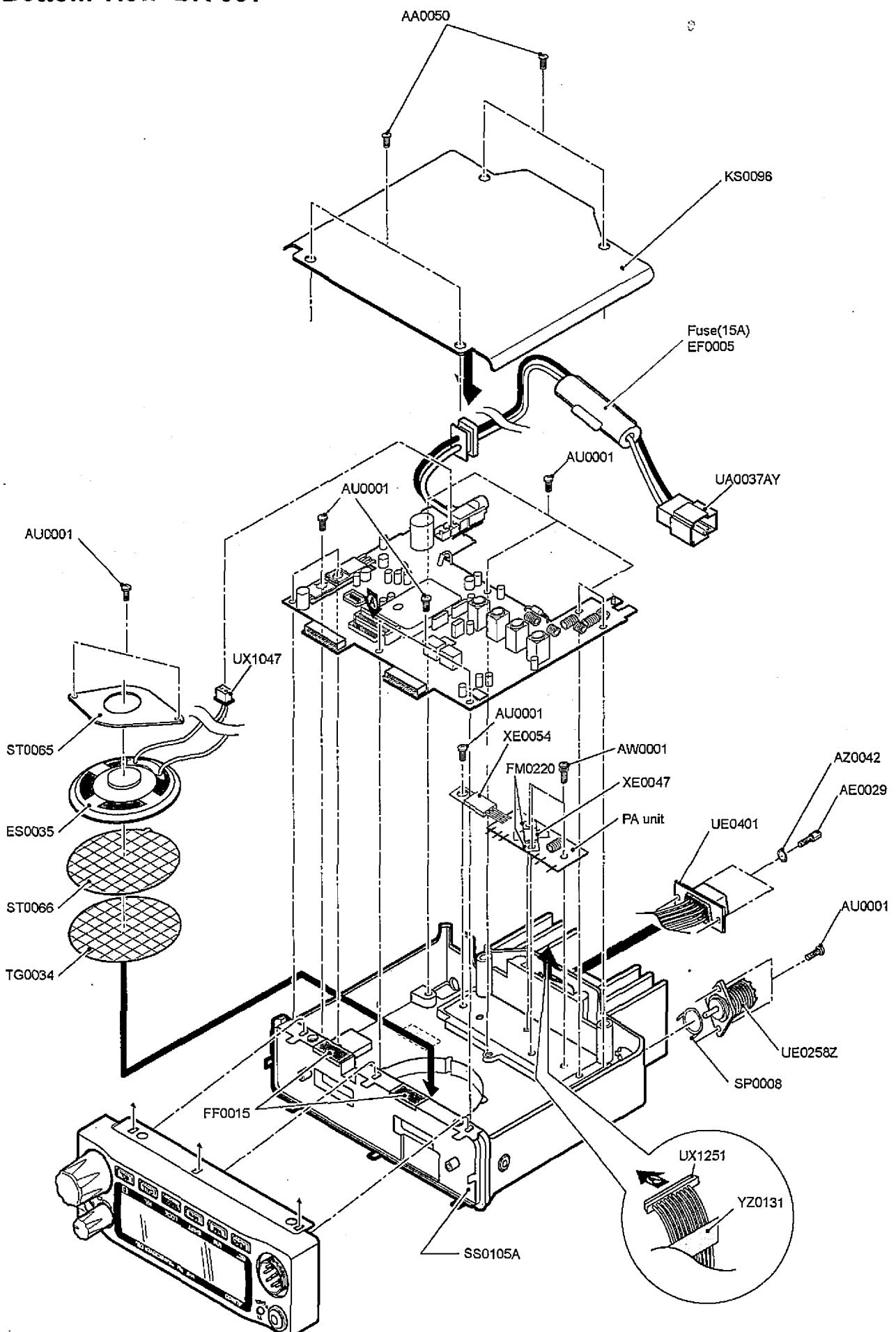
## 1) LCD Assembly



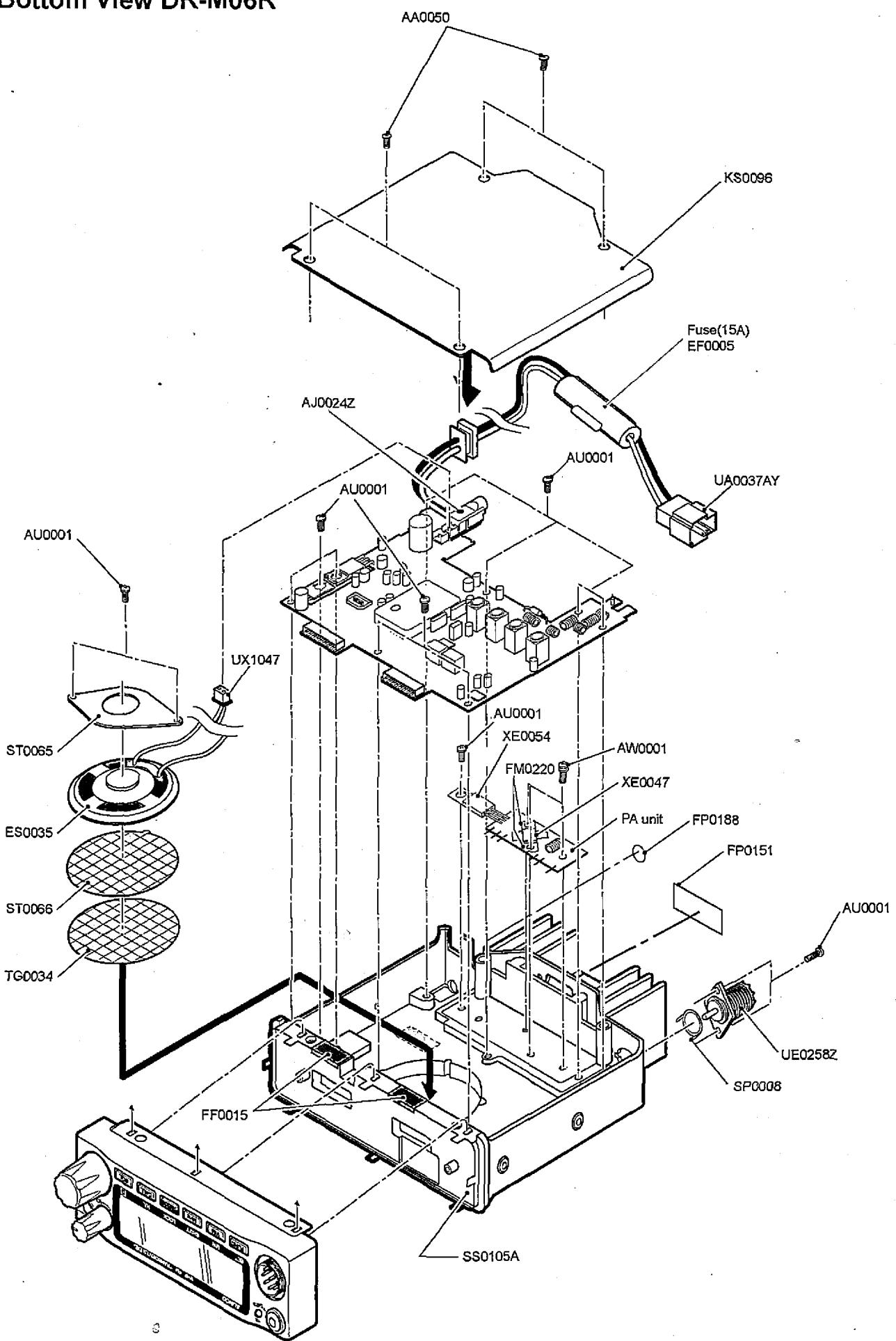
## 2) Top and Front View



### 3) Bottom View DR-06T



#### 4) Bottom View DR-M06R



# PARTS LIST

## CPU Unit

Ref No.	Part No.	Description	Parts Name	Qty.		Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R					DR-06T	DR-M06R
C1	CU3554	Chip C.	GRM155B11A104KA01D	1	1	R20	RK3546	Chip R.	RK73B1ETTP472J	1	1
C2	CU3554	Chip C.	GRM155B11A104KA01D	1	1	R21	RK3030	Chip R.	RK73B1JTTD221J	1	1
C3	CU3549	Chip C.	GRM155B11C153KA01D	1	1	R22	RK3536	Chip R.	RK73B1ETTP102J	1	1
C4	CU3549	Chip C.	GRM155B11C153KA01D	1	1	R25	RK3550	Chip R.	RK73B1ETTP103J	1	1
C5	CU3554	Chip C.	GRM155B11A104KA01D	1	1	R26	RK3550	Chip R.	RK73B1ETTP103J	1	1
C6	CU3523	Chip C.	GRM1552C1H101JD01D	1	1	R27	RK3550	Chip R.	RK73B1ETTP103J	1	1
C7	CU3523	Chip C.	GRM1552C1H101JD01D	1	1	R28	RK3538	Chip R.	RK73B1ETTP102J	1	1
C8	CU3543	Chip C.	GRM155B11H392KA01D	1	1	R29	RK3538	Chip R.	RK73B1ETTP102J	1	1
C9	CU3554	Chip C.	GRM155B11A104KA01D	1	1	R30	RK3538	Chip R.	RK73B1ETTP102J	1	1
C10	CU3543	Chip C.	GRM155B11H392KA01D	1	1	R31	RK3538	Chip R.	RK73B1ETTP102J	1	0
C11	CU3543	Chip C.	GRM155B11H392KA01D	1	1	R32	RK3544	Chip R.	RK73B1ETTP332J	1	1
C12	CU3553	Chip C.	GRM155B11A473KA01D	1	1	R33	RK3534	Chip R.	RK73B1ETTP471J	1	1
C13	CS0409	Chip tantalum	TMCSA1C105MTRF	1	1	R34	RK3547	Chip R.	RK73B1ETTP562J	1	1
C14	CU3514	Chip C.	GRM1552C1H180JZ01D	1	1	R35	RK3552	Chip R.	RK73B1ETTP153J	1	1
C15	CU3514	Chip C.	GRM1552C1H180JZ01D	1	1	R36	RK3562	Chip R.	RK73B1ETTP104J	1	1
C16	CU3535	Chip C.	GRM155B11H102KA01D	1	1	R37	RK3549	Chip R.	RK73B1ETTP822J	1	1
C17	CS0424	Chip tantalum	TMCMAC1C106MTRF	1	1	R38	RK3551	Chip R.	RK73B1ETTP123J	1	1
C18	CU3535	Chip C.	GRM155B11H102KA01D	1	1	R39	RK3558	Chip R.	RK73B1ETTP473J	1	1
C19	CU3554	Chip C.	GRM155B11A104KA01D	1	1	R40	RK3562	Chip R.	RK73B1ETTP104J	1	1
C20	CU3547	Chip C.	GRM155B11C103KA01D	1	1	R41	RK3526	Chip R.	RK73B1ETTP101J	1	1
C21	CU3547	Chip C.	GRM155B11C103KA01D	1	1	R42	RK3550	Chip R.	RK73B1ETTP103J	1	1
C22	CU3535	Chip C.	GRM155B11H102KA01D	1	1	R43	RK3550	Chip R.	RK73B1ETTP103J	1	1
C23	CU3547	Chip C.	GRM155B11C103KA01D	1	1	R44	RK3026	Chip R.	RK73B1JTTD101J	1	1
C24	CU3535	Chip C.	GRM155B11H102KA01D	1	1	R45	RK3550	Chip R.	RK73B1ETTP103J	1	1
C25	CU3535	Chip C.	GRM155B11H102KA01D	1	1	R47	RK3538	Chip R.	RK73B1ETTP102J	1	0
C26	CU3535	Chip C.	GRM155B11H102KA01D	1	1	R48	RK3538	Chip R.	RK73B1ETTP102J	1	1
C27	CU3535	Chip C.	GRM155B11H102KA01D	1	1	R49	RK3538	Chip R.	RK73B1ETTP102J	1	0
C28	CS0439	Chip tantalum	TMCMA1C106MF	1	0	R50	RK3570	Chip R.	RK73B1ETTP474J	1	1
C29	CS0409	Chip tantalum	TMCSA1C105MTRF	1	0	R51	RK3538	Chip R.	RK73B1ETTP102J	1	1
C30	CS0424	Chip tantalum	TMCMAC1C106MTRF	1	0	R52	RK3538	Chip R.	RK73B1ETTP102J	1	1
C31	CU3547	Chip C.	GRM155B11C103KA01D	1	0	R53	RK3562	Chip R.	RK73B1ETTP104J	1	1
C32	CU3547	Chip C.	GRM155B11C103KA01D	1	0	R54	RK3550	Chip R.	RK73B1ETTP103J	1	1
CN1	UE0291	Connector	17R-JE(LF)(SN)	1	1	R55	RK3574	Chip R.	RK73B1ETTP105J	1	1
CN2	UE0291	Connector	17R-JE(LF)(SN)	1	1	R56	RK3550	Chip R.	RK73B1ETTP103J	1	1
CN3	UE0035Z	Mic Connector	MIC FM214-8SMPY(Z)	1	1	R57	RK3566	Chip R.	RK73B1ETTP224J	1	1
D1	XL0069	Chip LED	FA1111C-TR	1	1	R58	RK3546	Chip R.	RK73B1ETTP472J	1	1
D2	XL0077	Chip LED	FA1111C-732-TR	1	1	R59	RK3526	Chip R.	RK73B1ETTP101J	1	1
D3	XL0077	Chip LED	FA1111C-732-TR	1	1	R60	RK3034	Chip R.	RK73B1JTTD471J	1	1
D4	XL0069	Chip LED	FA1111C-TR	1	1	R61	RK3574	Chip R.	RK73B1ETTP105J	1	1
D5	XL0077	Chip LED	FA1111C-732-TR	1	1	R62	RK3550	Chip R.	RK73B1ETTP103J	1	1
D6	XL0077	Chip LED	FA1111C-732-TR	1	1	R63	RK3526	Chip R.	RK73B1ETTP101J	1	1
D8	XD0426	Chip Diode	1SS387(TPL3,F)	1	1	R64	RK3549	Chip R.	RK73B1ETTP822J	1	1
D9	XD0462	Chip Diode	1SS406(TPH3,F)	1	1	R65	RK3526	Chip R.	RK73B1ETTP101J	1	1
D10	XD0391	Chip Diode	CRG01(TE85L,Q)	1	0	R66	RK3550	Chip R.	RK73B1ETTP103J	1	1
D11	XL0077	Chip LED	FA1111C-732-TR	1	1	R67	RK3526	Chip R.	RK73B1ETTP101J	1	1
D12	XD0402	Chip Diode	VDZT2R 5.1B	1	0	R68	RK3550	Chip R.	RK73B1ETTP103J	1	1
D13	XD0402	Chip Diode	VDZT2R 5.1B	1	0	R69	RK3546	Chip R.	RK73B1ETTP472J	1	1
D14	XD0462	Chip Diode	1SS406(TPH3,F)	1	0	R70	RK3562	Chip R.	RK73B1ETTP104J	1	1
D15	XD0402	Chip Diode	VDZT2R 5.1B	1	0	R71	RK3574	Chip R.	RK73B1ETTP105J	1	1
D16	XD0462	Chip Diode	1SS406(TPH3,F)	1	0	R72	RK3550	Chip R.	RK73B1ETTP103J	1	1
D17	XD0462	Chip Diode	1SS406(TPH3,F)	1	1	R73	RK3032	Chip R.	RK73B1JTTD331J	1	1
D19	XD0363	Chip Diode	RLS-73TE-11	1	0	R74	RK3526	Chip R.	RK73B1ETTP101J	1	1
IC1	XA11170B	IC	M38268MCA-085GP#U0	1	1	R75	RK3546	Chip R.	RK73B1ETTP472J	1	0
IC2	XA0604Z	IC	BR24L32FJ-WE2	1	1	R76	RK3532	Chip R.	RK73B1ETTP331J	1	1
IC3	XA0348	IC	TC4W53FU(TE12L,F)	0	1	R77	RK3028	Chip R.	RK73B1JTTD151J	1	1
IC4	XA1120	IC	S-80845CLNB-B65T2G	1	1	R78	RK3001	Chip R.	RK73Z1JTTD	0	1
IC5	XA0675	IC	L88BM5D5TL-TL-E	1	0	R79	RK3538	Chip R.	RK73B1ETTP102J	1	1
JK1	UJ0047	Jack	HJSJ2013-01-120	1	1	R80	RK3538	Chip R.	RK73B1ETTP102J	1	1
JP3	MACL04GG	Wire	#30AH1-040-H1	1	0	R82	RK3550	Chip R.	RK73B1ETTP103J	1	0
LCD1	EL0049	LCD	LCD DR135	1	1	R83	RK3538	Chip R.	RK73B1ETTP102J	1	0
Q1	XU0210	Chip	RN1107MFV(TPL3)	1	0	R84	RK3020	Chip R.	RK73B1ETTP330J	1	0
Q2	XU0210	Chip	RN1107MFV(TPL3)	1	1	R84	RK3001	Chip R.	RK73Z1JTTD	0	1
Q3	XU0110	Chip	2SA1036K T146Q	1	0	R85	RK3546	Chip R.	RK73B1ETTP472J	1	1
Q4	XU0210	Chip	RN1107MFV(TPL3)	1	1	R86	RK3550	Chip R.	RK73B1ETTP103J	1	1
Q5	XU0210	Chip	RN1107MFV(TPL3)	1	0	R87	RK3554	Chip R.	RK73B1ETTP223J	1	1
Q6	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	1	R88	RK3550	Chip R.	RK73B1ETTP103J	1	1
Q7	XT0223	Chip	2SA2070(TE12L,F)	1	1	R89	RK3558	Chip R.	RK73B1ETTP473J	1	1
Q8	XU0210	Chip	RN1107MFV(TPL3)	1	1	R90	RK3558	Chip R.	RK73B1ETTP473J	1	1
Q9	XU0195	Chip	RN1104(TE85L,F)	1	0	R91	RK3550	Chip R.	RK73B1ETTP103J	1	0
Q10	XU0210	Chip	RN1107MFV(TPL3)	1	1	R92	RK3032	Chip R.	RK73B1JTTD331J	1	0
Q11	XU0211	Chip	RN2107MFV(TPL3)	1	1	R95	RK3562	Chip R.	RK73B1ETTP104J	1	0
Q12	XU0211	Chip	RN2107MFV(TPL3)	1	1	R96	RK4014	Chip R.	ERJ12YJ100U	1	0
Q13	XU0211	Chip	RN2107MFV(TPL3)	1	0	R97	RK3550	Chip R.	RK73B1ETTP103J	1	0
R1	RK3554	Chip R.	RK73B1ETTP223J	1	1	R98	RK3501	Chip R.	RK73Z1ETTP	0	1
R4	RK3554	Chip R.	RK73B1ETTP223J	1	1	RE1	UR0015	Dial	RH90N74E20-A90770	1	1
R5	RK3550	Chip R.	RK73B1ETTP103J	1	1	RL1	UL0020	Relay	ATQ209	1	0
R6	RK3550	Chip R.	RK73B1ETTP103J	1	1	SW1	UU0042	Switch	SKQYAAE010	1	1
R7	RK3523	Chip R.	RK73B1ETTP560J	1	1	SW2	UU0042	Switch	SKQYAAE010	1	1
R8	RK3523	Chip R.	RK73B1ETTP560J	1	1	SW3	UU0042	Switch	SKQYAAE010	1	1
R9	RK3538	Chip R.	RK73B1ETTP102J	1	1	SW4	UU0042	Switch	SKQYAAE010	1	1
R10	RK3032	Chip R.	RK73B1JTTD331J	1	1	SW5	UU0042	Switch	SKQYAAE010	1	1
R11	RK3546	Chip R.	RK73B1ETTP472J	1	1	SW6	UU0042	Switch	SKQYAAE010	1	1
R14	RK3548	Chip R.	RK73B1ETTP682J	1	1	SW7	UU0042	Switch	SKQYAAE010	1	1
R15	RK3501	Chip R.	RK73Z1ETTP	1	1	VR1	RV0035	Variable R.	EVFU2FK4B14	1	1
R16	RK3D01	Chip R.	RK73Z1JTTD	1	0	W1	UX1270	Wire	WIRE DR235 W1	1	0
R19	RK3562	Chip R.	RK73B1ETTP104J	1	1	X1	XQ0131	Xtal	CSA310 3.686400MHZ	1	1

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
FF0017	DG0037	Cloth	LCD LIGHT DR135	1	1
	FG0035		BLIND CLOTH DR570	1	1
	FM0034		LCD RUB.CONNECT. 135	1	1
	FP0034		MIC GND PLATE	1	1
	FP0234		MIC SPACER A DR135	1	1
	ST0054		MIC SPACER B DR135	1	1
	ST0068		LCD HOLDER DR135	1	1
	TL0023		DIAL FITTING DR135	1	1
	TL0024		REFLECTION DR135	1	1
	YZ0042		DIFFUSION SHEET 135	1	1
			CEMENT G17 / 1G	1	1

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
C202	CU4023	Chip C.	GRM31M2C2R101JV01L	1	1
C203	CU4019	Chip C.	GRM31M2C2H470JV01L	1	1
C204	CU4007	Chip C.	GRM31M2C2H6R0DV01L	1	1
C205	CU3035	Chip C.	C1608JB1H102KT-NS	1	1
C206	CE0339	Electrolytic C.	16ME10SWB+TS-ALC	1	1
C207	CU3002	Chip C.	C1608CH1H010CT-NS	1	1
C208	CU3002	Chip C.	C1608CH1H010CT-NS	1	1
C210	CU3011	Chip C.	C1608CH1H100DT-NS	1	1
C211	CU3011	Chip C.	C1608CH1H100DT-NS	1	1
C212	CE0364	Electrolytic C.	16ME47SWB+TS	1	1
C213	CU3035	Chip C.	C1608JB1H102KT-NS	1	1
C214	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C215	CU7052	Chip C.	UC232H0820F-T	1	1
C216	CU4022	Chip C.	GRM31M2C2H820JV01L	1	1
C217	CU3651	Chip C.	GRM155B11C223KA01D	1	1
C218	CU3551	Chip C.	GRM155B11C223KA01D	1	1
C219	CU3035	Chip C.	C1608JB1H102KT-NS	1	1
C220	CU3035	Chip C.	C1608JB1H102KT-NS	1	1
C221	CU3547	Chip C.	GRM155B11C103KA01D	1	0
C223	CE0339	Electrolytic C.	16ME10SWB+TS-ALC	1	0
C224	CU3023	Chip C.	C1608CH1H101JT-NS	1	1
C225	CU3035	Chip C.	C1608JB1H102KT-NS	1	1
C226	CU3035	Chip C.	C1608JB1H102KT-NS	1	1
C227	CU3133	Chip C.	TMK107BJ105KA-T	1	1
C228	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C229	CU3553	Chip C.	GRM155B11A473KA01D	1	1
C230	CU3635	Chip C.	GRM155B11H102KA01D	1	1
C231	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C232	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C233	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C235	CU3519	Chip C.	GRM1552C1H470JZ01D	1	1
C236	CU3519	Chip C.	GRM1552C1H470JZ01D	1	1
C237	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C238	CU3554	Chip C.	GRM155B11A104KA01D	1	1
C239	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C241	CU3522	Chip C.	GRM1552C1H820JD01D	1	1
C242	CU3551	Chip C.	GRM155B11C223KA01D	1	1
C243	CE0339	Electrolytic C.	16ME10SWB+TS-ALC	1	1
C244	CE0339	Electrolytic C.	16ME10SWB+TS-ALC	1	1
C245	CU3133	Chip C.	TMK107BJ105KA-T	1	1
C246	CU3543	Chip C.	GRM155B11H392KA01D	1	1
C247	CU3554	Chip C.	GRM155B11A104KA01D	1	1
C248	CU3547	Chip C.	GRM155B11C103KA01D	1	1
C249	CU3538	Chip C.	GRM155B11H182KA01D	1	1
C250	CU3526	Chip C.	GRM1552C1E181JD01D	1	1
C253	CU3547	Chip C.	GRM155B11C103KA01D	1	1
C254	CU3122	Chip C.	C1608JF1H104ZT-NS	1	1
C255	CE0364	Electrolytic C.	16ME47SWB+TS	1	1
C256	CU3122	Chip C.	C1608JF1H104ZT-NS	1	1
C257	CE0339	Electrolytic C.	16ME10SWB+TS-ALC	1	1
C258	CU3133	Chip C.	TMK107BJ105KA-T	1	1
C259	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C260	CE0339	Electrolytic C.	16ME10SWB+TS-ALC	1	1
C261	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C262	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C263	CS0424	Chip tantalum	TMCMA1C108MTRF	1	1
C264	CU3531	Chip C.	GRM155B11H471KA01D	1	1
C268	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C289	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C270	CU3047	Chip C.	C1608JB1H103KT-NS	1	1
C272	CS0237	Chip tantalum	TMCMA1A475MTRF	1	1
C273	CS0237	Chip tantalum	TMCMA1A475MTRF	1	1
C274	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C275	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C276	CS0220	Chip tantalum	TMCMA1C225MTRF	1	1
C277	CE0343	Electrolytic C.	16ME1000HC+T	1	1
C278	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C279	CU3547	Chip C.	GRM155B11C103KA01D	1	1
C281	CU3543	Chip C.	GRM155B11H392KA01D	1	1
C282	CU3511	Chip C.	GRM1552C1H100JZ01D	1	1
C283	CU3547	Chip C.	GRM155B11C103KA01D	1	1
C284	CU3543	Chip C.	GRM155B11H392KA01D	1	1
C285	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C286	CU3027	Chip C.	C1608CH1H221JT-NS	1	1
C287	CS0235	Chip tantalum	TMCMA1V334MTRF	1	1
C289	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C290	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C291	CS0460	Chip tantalum	TMCMA1V105MTRF	1	0
C293	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C294	CU3035	Chip C.	C1608JB1H102KT-NS	1	1
C297	CU3535	Chip C.	GRM155B11H102KA01D	1	1
C298	CS0237	Chip tantalum	TMCMA1A475MTRF	1	0
C300	CU3519	Chip C.	GRM155B11H220JZ01D	1	1
C301	CU3523	Chip C.	GRM1552C1H101JD01D	1	1
C302	CU3523	Chip C.	GRM1552C1H101JD01D	1	1
C303	CU3523	Chip C.	GRM1552C1H103KA01D	1	1
C305	CU3547	Chip C.	GRM155B11H104KA01D	1	1
C306	CU3554	Chip C.	GRM155B11C103KA01D	1	1
C307	CU3547	Chip C.	GRM155B11C103KA01D	1	1
C308	CE0353	Electrolytic C.	16ME470HC	1	1
C309	CU3551	Chip C.	GRM155B11C223KA01D	1	1

Ref No.	Part No.	Description	Parts Name	Qty.		Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R					DR-06T	DR-M06R
C310	CU3523	Chip C.	GRM1552C1H101JD01D	1	1	D512	XD0462	Chip Diode	1SS408(TPH3,F)	1	0
C312	CU3023	Chip C.	C1608CH1H101JT-NS	1	1	D513	XD0462	Chip Diode	1SS406(TPH3,F)	1	0
C314	CS0237	Chip tantalum	TMCMA1A475MTRF	1	0	D601	XD0427	Chip Diode	JDV2S14E(TPH3,F)	1	1
C315	CS0237	Chip tantalum	TMCMA1A475MTRF	1	0	F101	EF0028	Chip Fuse	TF16SN1.25ITD	1	0
C316	CS0237	Chip tantalum	TMCMA1A475MTRF	1	0	FL101	XC0070	Ceramic Filter	ALFYM450E-K	1	1
C317	CS0237	Chip tantalum	TMCMA1A475MTRF	1	0	FL102	XC0052	Ceramic Filter	ALFYM450G-K	1	0
C318	CU3535	Chip C.	GRM155B11H102KA01D	1	1	IC101	XA0675	IC	L88MS05TL-TL-E	1	1
C319	CS0237	Chip tantalum	TMCMA1A475MTRF	1	0	IC102	XA1103	IC	LM2904PWR	1	0
C320	CS0237	Chip tantalum	TMCMA1A475MTRF	1	1	IC104	XA1106	IC	LM2902PWR	1	1
C321	CS0462	Chip tantalum	TMCMA1A475MTRF	1	1	IC108	XA0404	IC	TA31136FNG(EL)	1	1
C323	CU3014	Chip C.	C1608CH1H180JT-NS	1	1	IC109	XA0115	IC	TC4S66F(TE85R,F)	1	1
C324	CU3535	Chip C.	GRM155B11H102KA01D	1	1	IC111	XA0236	IC	IC BU4052BCP-E2	1	1
C325	CU3547	Chip C.	GRM155B11C103KA01D	1	1	IC112	XA1249	IC	TA78DS10F(TE12L,F)	1	1
C326	CU3535	Chip C.	GRM155B11H102KA01D	1	1	IC113	XA0348	IC	TC4W53F(TE12L,F)	1	1
C327	CS0235	Chip tantalum	TMCMA1V334MTRF	1	1	IC114	XA1106	IC	LM2902PWR	1	1
C328	CU3133	Chip C.	TMK107BJ105KA-T	1	1	IC115	XA0102	IC	NJN7808FA-#ZZZB	1	1
C329	CSU345	Chip C.	GRM155B11E682KA01D	1	0	IC116	XA1010	IC	MB15A01PFV1GBNDEFE1	1	1
C331	CU3535	Chip C.	GRM155B11H102KA01D	1	1	IC117	XA0410	IC	LA4425A-E	1	1
C333	CU3535	Chip C.	GRM155B11H102KA01D	1	1	IC118	XA0925	IC	S-816A50AMC-BAZ-T2G	1	0
C401	CU3549	Chip C.	GRM155B11C153KA01D	1	1	IC120	XA1103	IC	LM2904PWR	1	1
C402	CU3550	Chip C.	GRM155B11C183KA01D	1	1	IC511	XA0524	IC	TC7S66FU(TE85L,F)	1	0
C403	CU3552	Chip C.	GRM155B11A333KA01D	1	1	IC512	XA0524	IC	TC7S66FU(TE85L,F)	1	0
C404	CU3559	Chip C.	GRM155B30J105KE18D	1	1	JK101	UJ0061	Jack	LD-0208-1.3	1	0
C405	CU3541	Chip C.	GRM155B11H332KA01D	1	1	JK102	UJ024Z	Jack	LGY6501-0090FC	1	1
C406	CU3545	Chip C.	GRM155B11E682KA01D	1	1	L101	QC0048	Coil	NLV32T-100J-PFS	1	1
C407	CU3540	Chip C.	GRM155B11H272KA01D	1	1	L102	QA0166	Coil	50MHZ COIL	1	1
C408	CU3544	Chip C.	GRM155B11E562KA01D	1	1	L103	QA0166	Coil	50MHZ COIL	1	1
C409	CU3536	Chip C.	GRM155B11H122KA01D	1	1	L104	QA0166	Coil	50MHZ COIL	1	1
C410	CU3539	Chip C.	GRM155B11H222KA01D	1	1	L105	QA0166	Coil	50MHZ COIL	1	1
C412	CU3133	Chip C.	TMK107BJ105KA-T	1	1	L111	QKA75G	Coil	MRS.0 7.5T 0.6	1	1
C413	CU3541	Chip C.	GRM155B11H332KA01D	1	1	L113	QKA75G	Coil	MRS.0 7.5T 0.6	1	1
C414	CU3542	Chip C.	GRM155B11H392KA01D	1	1	L114	QKA75G	Coil	MRS.0 7.5T 0.6	1	1
C415	CU3545	Chip C.	GRM155B11E682KA01D	1	1	L115	QKA55G	Coil	MRS.0 5.5T 0.6	1	1
C417	CU3548	Chip C.	GRM155B11C123KA01D	1	1	L116	QC0125	Coil	NLV32T-R18J-PFS	1	1
C418	CU3547	Chip C.	GRM155B11C103KA01D	1	1	L118	QC0338	Coil	SPO406-3R3J-PF	1	1
C419	CU3548	Chip C.	GRM155B11C123KA01D	1	1	L119	QC0542	Coil	LQW2BHNRR22J03L	1	1
C420	CE0339	Electrolytic C.	16ME10SWB+TS-ALC	1	1	L120	QC0542	Coil	LQW2BHNRR22J03L	1	1
C421	CU3035	Chip C.	C1608JB1H102KT-NS	1	1	L121	QC0296	Coil	NLV25T-4R7J-PFS	1	1
C422	CS0220	Chip tantalum	TMCMA1C225MTRF	1	1	L123	QA0167	Coil	VCO COIL	1	1
C423	CU3122	Chip C.	C1608JF1H104ZT-NS	1	1	L125	QC0126	Coil	NLV32T-R22J-PFS	1	1
C425	CU3659	Chip C.	GRM155B30J105KE18D	1	0	L129	QC0542	Coil	LQW2BHNRR22J03L	1	1
C426	CU3133	Chip C.	TMK107BJ105KA-T	1	0	Q101	XU0210	Chip	RN1107MFV(TPL3)	1	0
C503	CU3523	Chip C.	GRM155C2C1H101JD01D	1	1	Q102	XU0210	Chip	RN1107MFV(TPL3)	1	0
C511	CU3551	Chip C.	GRM155B11C223KA01D	1	1	Q103	XT0194	Chip	2SC551-TD-E	1	1
C512	CU3535	Chip C.	GRM155B11H102KA01D	1	0	Q104	XT0210	Chip	RN1107MFV(TPL3)	1	0
C513	CU3547	Chip C.	GRM155B11C103KA01D	1	0	Q105	XT0178	Chip	2SC4915-O(TE85L,F)	1	1
C514	CU3547	Chip C.	GRM155B11C103KA01D	1	0	Q106	XE0053	Chip FET	3SK293(TE85L,F)	1	1
C515	CU3019	Chip C.	C1608CH1H470JT-NS	1	1	Q107	XE0053	Chip FET	3SK293(TE85L,F)	1	1
C517	CU3122	Chip C.	C1608JF1H104ZT-NS	1	1	Q108	XU0210	Chip	RN1107MFV(TPL3)	1	1
C518	CU3547	Chip C.	GRM155B11C103KA01D	1	1	Q109	XT0224	Chip	2SC4738F-GR(T5L,F)	1	1
C520	CU3502	Chip C.	GRM155C1H1R0CZ01D	1	1	Q110	XT0224	Chip	2SC4738F-GR(T5L,F)	1	1
C601	CU3516	Chip C.	GRM1552C1H270JZ01D	1	1	Q111	XT0094	Chip	2SA1576A T106R	1	1
C603	CU3504	Chip C.	GRM155C1H3R0CZ01D	1	1	Q112	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	1
C604	CS0237	Chip tantalum	TMCMA1A475MTRF	1	0	Q113	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	1
C605	CU3554	Chip C.	GRM155B11A10KA01D	1	0	Q115	XT0030	Chip	2SC3356T1	1	1
C606	CS0237	Chip tantalum	TMCMA1A475MTRF	1	0	Q116	XT0190	Chip	2SB1386 T100Q	1	1
C607	CU3512	Chip C.	GRM155C2C1H120JZ01D	1	1	Q117	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	1
C613	CU3517	Chip C.	GRM1552C1H330JZD21D	1	1	Q120	XU0210	Chip	RN1107MFV(TPL3)	1	0
CN101	UE0369	Connector	AXN49301616	1	1	Q121	XU0226	Chip	RN11711(TE85L,F)	1	1
CN102	UE0293	Connector	17PS-JE	1	1	Q122	XT0190	Chip	2SB1386 T100Q	1	1
CN103	UE0293	Connector	17PS-JE	1	1	Q123	XT0223	Chip	2SA2070(TE12L,F)	1	1
CN104	UA0037AY	Wire	R-B2.0X0.2M PLUG 15A	1	1	Q124	XU0209	Chip	EMD6T2R	1	1
CN105	UE0214	Connector	AXN420CS03P	1	0	Q125	XE0021	Chip FET	2SK880-GR(TE85L,F)	1	1
CN106	UE0043	Connector	P122A02M	1	1	Q126	XU0210	Chip	RN1107MFV(TPL3)	1	1
CN107	UE0393	Connector	P128A11M	1	0	Q127	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	1
CN110	UE0341	Connector	P128A02M	1	0	Q128	XU0210	Chip	RN1107MFV(TPL3)	1	1
CN112	UE0226	Connector	B2B-PH-K-S(FL)(SN)	1	1	Q129	XU0195	Chip	RN1104(TE85L,F)	1	1
D101	XD0426	Chip Diode	1SS387(TPL3,F)	1	1	Q130	XU0195	Chip	RN1104(TE85L,F)	1	0
D102	XD0260	Chip Diode	1SV231(TPH4,F)	1	1	Q131	XE0066	Chip FET	2SK2539-TB-E	1	1
D103	XD0280	Chip Diode	1SV231(TPH4,F)	1	1	Q132	XT0210	Chip	RN1107MFV(TPL3)	1	1
D104	XD0260	Chip Diode	1SV231(TPH4,F)	1	1	Q133	XU0210	Chip	RN1107MFV(TPL3)	1	1
D105	XD0260	Chip Diode	1SV231(TPH4,F)	1	1	Q134	XT0178	Chip	2SC4915-O(TE85L,F)	1	1
D106	XD0402	Chip Diode	VDZT2R 5.1B	1	1	Q135	XT0178	Chip	2SC4915-O(TE85L,F)	1	1
D107	XD0130	Chip Diode	DA204U T106	1	1	Q136	XT0195	Chip	RN1104(TE85L,F)	1	0
D108	XD0130	Chip Diode	DA204U T106	1	1	Q137	XT0210	Chip	RN1107MFV(TPL3)	1	0
D109	XD0301	Chip Diode	1SV268-TD-E	1	1	Q139	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	0
D110	XD0013	Diode	XB15A407A2GBN MI407	1	1	Q140	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	0
D111	XD0461	Chip Diode	1SS383(TE85L,F)	1	1	Q141	XU0231	Chip	RN2109MFV(TPL3)	1	0
D112	XD0461	Chip Diode	1SS383(TE85L,F)	1	1	Q142	XU0195	Chip	RN1104(TE85L,F)	1	0
D114	XD0320	Chip Diode	DAN235E-TL	1	1	Q144	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	1
D115	XD0320	Chip Diode	DAN235E-TL	1	0	Q145	XT0178	Chip	2SC4915-O(TE85L,F)	1	1
D116	XD0320	Chip Diode	DAN235E-TL	1	0	Q146	XT0190	Chip	2SB1386 T100Q	1	0
D118	XD0130	Chip Diode	DA204U T106	1	1	Q147	XU0209	Chip	EMD6T2R	1	0
D119	XD0426	Chip Diode	1SS387(TPL3,F)	1	1	Q149	XU0210	Chip	RN1107MFV(TPL3)	1	1
D121	XD0414	Diode	S3V60-5000	1	1	Q511	XT0210	Chip	2SC6026MFV-GR(TPL3)	1	1
D123	XD0260	Chip Diode	1SV231(TPH4,F)	1	1	R101	RK3050	Chip R.	RK73B1JTTD103J	1	0
D127	XD0402	Chip Diode	VDZT2R 5.1B	1	0	R102	RK3091	Chip R.	MCR03EZPFX3902	1	0
D128	XD0462	Chip Diode	1SS406(TPH3,F)	1	0	R103	RK3091	Chip R.	MCR03EZPFX3902	1	0
D129	XD0462	Chip Diode	1SS406(TPH3,F)	1	0	R104	RK3050	Chip R.	RK73B1JTTD103J	1	0
D130	XD0426	Chip Diode	1SS387(TPL3,F)	1	1	R105	RK3530	Chip R.	RK73B1ETTP221J	1	1
D511	XD0462	Chip Diode	1SS406(TPH3,F)	1	0	R106	RK3554	Chip R.	RK73B1ETTP223J	1	0

Ref No.	Part No.	Description	Parts Name	Qty.		Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R					DR-06T	DR-M06R
R107	RK3554	Chip R.	RK73B1ETTP223J	1	0	R222	RK3550	Chip R.	RK73B1ETTP103J	1	1
R108	RK3550	Chip R.	RK73B1ETTP103J	1	1	R223	RK3526	Chip R.	RK73B1ETTP101J	1	1
R109	RK3526	Chip R.	RK73B1ETTP101J	1	1	R224	RK3526	Chip R.	RK73B1ETTP101J	1	1
R110	RK3526	Chip R.	RK73B1ETTP101J	1	1	R225	RK3545	Chip R.	RK73B1ETTP392J	1	1
R111	RK3550	Chip R.	RK73B1ETTP103J	1	0	R226	RK3038	Chip R.	RK73B1JTTD102J	1	1
R112	RK3526	Chip R.	RK73B1ETTP101J	1	1	R227	RK3501	Chip R.	RK73Z1ETTP	1	1
R113	RK3526	Chip R.	RK73B1ETTP101J	1	1	R228	RK3538	Chip R.	RK73B1ETTP102J	1	1
R114	RK3540	Chip R.	RK73B1ETTP152J	1	1	R229	RK3549	Chip R.	RK73B1ETTP822J	1	1
R115	RK3549	Chip R.	RK73B1ETTP822J	1	0	R230	RK3546	Chip R.	RK73B1ETTP472J	1	1
R116	RK3534	Chip R.	RK73B1ETTP471J	1	1	R231	RK3550	Chip R.	RK73B1ETTP103J	1	1
R117	RK3562	Chip R.	RK73B1ETTP104J	1	1	R232	RK3526	Chip R.	RK73B1ETTP101J	1	1
R118	RK3528	Chip R.	RK73B1ETTP101J	1	1	R233	RK3538	Chip R.	RK73B1ETTP102J	1	1
R119	RK3556	Chip R.	RK73B1ETTP333J	1	1	R234	RK3556	Chip R.	RK73B1ETTP333J	1	1
R120	RK3552	Chip R.	RK73B1ETTP153J	1	1	R235	RK3582	Chip R.	RK73B1ETTP104J	1	1
R121	RK3552	Chip R.	RK73B1ETTP153J	1	1	R236	RK3551	Chip R.	RK73B1ETTP123J	1	1
R122	RK3552	Chip R.	RK73B1ETTP153J	1	1	R237	RK3526	Chip R.	RK73B1ETTP101J	1	1
R123	RK3538	Chip R.	RK73B1ETTP102J	1	1	R238	RK3562	Chip R.	RK73B1ETTP104J	1	1
R124	RK3538	Chip R.	RK73B1ETTP102J	1	1	R239	RK3550	Chip R.	RK73B1ETTP103J	1	1
R125	RK3538	Chip R.	RK73B1ETTP102J	1	1	R241	RK3550	Chip R.	RK73B1ETTP103J	1	1
R126	RK3551	Chip R.	RK73B1ETTP123J	1	0	R242	RK3522	Chip R.	RK73B1ETTP470J	1	1
R128	RK3562	Chip R.	RK73B1ETTP104J	1	1	R243	RK3550	Chip R.	RK73B1ETTP103J	1	1
R129	RK3550	Chip R.	RK73B1ETTP103J	1	1	R244	RK3568	Chip R.	RK73B1ETTP334J	1	1
R130	RK3562	Chip R.	RK73B1ETTP104J	1	1	R245	RK3538	Chip R.	RK73B1ETTP102J	1	1
R131	RK3562	Chip R.	RK73B1ETTP104J	1	1	R246	RK3546	Chip R.	RK73B1ETTP472J	1	1
R132	RK3550	Chip R.	RK73B1ETTP103J	1	1	R247	RK3538	Chip R.	RK73B1ETTP102J	1	1
R133	RK3501	Chip R.	RK73Z1ETTP	1	1	R248	RK3570	Chip R.	RK73B1ETTP474J	1	1
R134	RK3553	Chip R.	RK73B1ETTP183J	1	1	R249	RK3570	Chip R.	RK73B1ETTP474J	1	1
R136	RK3534	Chip R.	RK73B1ETTP471J	1	1	R250	RK3570	Chip R.	RK73B1ETTP474J	1	1
R143	RK3534	Chip R.	RK73B1ETTP471J	1	1	R251	RK3550	Chip R.	RK73B1ETTP103J	1	1
R144	RK3542	Chip R.	RK73B1ETTP222J	1	1	R252	RK3570	Chip R.	RK73B1ETTP474J	1	1
R145	RK3552	Chip R.	RK73B1ETTP153J	1	1	R253	RK3557	Chip R.	RK73B1ETTP393J	1	1
R146	RK3552	Chip R.	RK73B1ETTP153J	1	1	R254	RK3557	Chip R.	RK73B1ETTP393J	1	1
R147	RK3550	Chip R.	RK73B1ETTP103J	1	1	R255	RK3546	Chip R.	RK73B1ETTP472J	1	1
R148	RK3538	Chip R.	RK73B1ETTP102J	1	1	R256	RK3526	Chip R.	RK73B1ETTP101J	1	1
R149	RK3562	Chip R.	RK73B1ETTP104J	1	1	R257	RK3546	Chip R.	RK73B1ETTP472J	1	1
R151	RK3550	Chip R.	RK73B1ETTP103J	1	1	R258	RK3557	Chip R.	RK73B1ETTP393J	1	1
R152	RK3538	Chip R.	RK73B1ETTP102J	1	1	R259	RK3550	Chip R.	RK73B1ETTP103J	1	1
R153	RK3562	Chip R.	RK73B1ETTP104J	1	1	R260	RK3554	Chip R.	RK73B1ETTP223J	1	1
R155	RK3551	Chip R.	RK73B1ETTP123J	1	1	R261	RK3554	Chip R.	RK73B1ETTP223J	1	1
R156	RK3560	Chip R.	RK73B1ETTP683J	1	1	R262	RK3567	Chip R.	RK73B1ETTP274J	1	1
R157	RK3562	Chip R.	RK73B1ETTP104J	1	1	R264	RK3538	Chip R.	RK73B1ETTP102J	1	1
R158	RK3522	Chip R.	RK73B1ETTP470J	1	1	R265	RK3547	Chip R.	RK73B1ETTP562J	1	1
R160	RK3552	Chip R.	RK73B1ETTP153J	1	1	R266	RK3550	Chip R.	RK73B1ETTP103J	1	1
R161	RK3552	Chip R.	RK73B1ETTP153J	1	1	R267	RK3522	Chip R.	RK73B1ETTP470J	1	1
R162	RK3522	Chip R.	RK73B1ETTP470J	1	1	R269	RK3562	Chip R.	RK73B1ETTP104J	1	1
R163	RK3526	Chip R.	RK73B1ETTP101J	1	1	R270	RK3547	Chip R.	RK73B1ETTP562J	1	1
R164	RK3025	Chip R.	RK73B1JTTD820J	1	1	R271	RK4034	Chip R.	ERJ12YJ471U	1	1
R165	RK3574	Chip R.	RK73B1ETTP105J	1	1	R272	RK3542	Chip R.	RK73B1ETTP222J	1	1
R166	RK3562	Chip R.	RK73B1ETTP104J	1	1	R273	RK3562	Chip R.	RK73B1ETTP104J	1	1
R167	RK3564	Chip R.	RK73B1ETTP154J	1	1	R274	RK3550	Chip R.	RK73B1ETTP103J	1	1
R168	RK3554	Chip R.	RK73B1ETTP223J	1	1	R276	RK3526	Chip R.	RK73B1ETTP101J	1	1
R170	RK3546	Chip R.	RK73B1ETTP472J	1	1	R277	RK3542	Chip R.	RK73B1ETTP222J	1	1
R171	RK3552	Chip R.	RK73B1ETTP153J	1	1	R278	RK3531	Chip R.	RK73B1ETTP271J	1	1
R172	RK3552	Chip R.	RK73B1ETTP153J	1	1	R279	RK3046	Chip R.	RK73B1JTTD472J	1	1
R173	RK3526	Chip R.	RK73B1ETTP101J	1	1	R281	RK3041	Chip R.	RK73B1JTTD182J	1	1
R178	RK3544	Chip R.	RK73B1ETTP332J	1	1	R282	RK3550	Chip R.	RK73B1ETTP103J	1	1
R179	RK3534	Chip R.	RK73B1ETTP471J	1	1	R283	RK3038	Chip R.	RK73B1JTTD102J	1	1
R180	RK3534	Chip R.	RK73B1ETTP471J	1	1	R284	RK3526	Chip R.	RK73B1ETTP101J	1	1
R181	RK3534	Chip R.	RK73B1ETTP471J	1	1	R286	RK3534	Chip R.	RK73B1ETTP471J	1	1
R183	RK3568	Chip R.	RK73B1ETTP334J	1	1	R287	RK3546	Chip R.	RK73B1ETTP472J	1	1
R184	RK3526	Chip R.	RK73B1ETTP101J	1	1	R288	RK3550	Chip R.	RK73B1ETTP103J	1	1
R185	RK3570	Chip R.	RK73B1ETTP474J	1	1	R289	RK3539	Chip R.	RK73B1ETTP122J	1	1
R186	RK3562	Chip R.	RK73B1ETTP104J	1	1	R290	RK3554	Chip R.	RK73B1ETTP223J	1	1
R187	RK3558	Chip R.	RK73B1ETTP473J	1	1	R291	RK3558	Chip R.	RK73B1ETTP473J	1	0
R188	RK3552	Chip R.	RK73B1ETTP153J	1	1	R292	RK3526	Chip R.	RK73B1ETTP101J	1	1
R189	RK3538	Chip R.	RK73B1ETTP102J	1	1	R293	RK3526	Chip R.	RK73B1ETTP101J	1	1
R190	RK3538	Chip R.	RK73B1ETTP102J	1	1	R294	RK3539	Chip R.	RK73B1ETTP122J	1	1
R191	RK3538	Chip R.	RK73B1ETTP102J	1	1	R295	RK3538	Chip R.	RK73B1ETTP102J	1	0
R193	RK3538	Chip R.	RK73B1ETTP102J	1	1	R296	RK3568	Chip R.	RK73B1ETTP334J	1	1
R195	RK3570	Chip R.	RK73B1ETTP474J	1	1	R299	RK3549	Chip R.	RK73B1ETTP822J	1	1
R196	RK3538	Chip R.	RK73B1ETTP102J	1	1	R300	RK3534	Chip R.	RK73B1ETTP471J	1	1
R200	RK3570	Chip R.	RK73B1ETTP474J	1	1	R301	RK3546	Chip R.	RK73B1ETTP472J	1	1
R202	RK3522	Chip R.	RK73B1ETTP470J	1	1	R302	RK3526	Chip R.	RK73B1ETTP101J	1	1
R203	RK3556	Chip R.	RK73B1ETTP333J	1	1	R303	RK3556	Chip R.	RK73B1ETTP333J	1	0
R204	RK3562	Chip R.	RK73B1ETTP104J	1	1	R304	RK3562	Chip R.	RK73B1ETTP104J	1	0
R205	RK0069	Chip R.	ERJ12YGEY104V	1	1	R304	RK3558	Chip R.	RK73B1ETTP473J	0	1
R206	RK3501	Chip R.	RK73Z1ETTP	1	1	R307	RK3558	Chip R.	RK73B1ETTP473J	1	0
R207	RK3552	Chip R.	RK73B1ETTP153J	1	1	R307	RK3546	Chip R.	RK73B1ETTP472J	0	1
R208	RK3545	Chip R.	RK73B1ETTP392J	1	1	R309	RK3550	Chip R.	RK73B1ETTP103J	1	1
R209	RK3561	Chip R.	RK73B1ETTP823J	1	1	R310	RK3526	Chip R.	RK73B1ETTP101J	1	1
R210	RK3538	Chip R.	RK73B1ETTP102J	1	1	R311	RK3550	Chip R.	RK73B1ETTP103J	1	1
R211	RK4018	Chip R.	ERJ12YJ220U	1	1	R312	RK3550	Chip R.	RK73B1ETTP103J	1	1
R212	RK4026	Chip R.	ERJ12YJ101U	1	1	R313	RK3550	Chip R.	RK73B1ETTP103J	1	1
R213	RK3549	Chip R.	RK73B1ETTP822J	1	1	R315	RK3544	Chip R.	RK73B1ETTP332J	1	1
R214	RK3550	Chip R.	RK73B1ETTP103J	1	1	R316	RK3551	Chip R.	RK73B1ETTP123J	1	0
R215	RK3538	Chip R.	RK73B1ETTP102J	1	1	R320	RK3542	Chip R.	RK73B1ETTP222J	1	1
R216	RK3050	Chip R.	RK73B1JTTD103J	1	1	R322	RD0108	Jumper	J1/6ZC	1	1
R217	RK3050	Chip R.	RK73B1JTTD103J	1	1	R323	RK3554	Chip R.	RK73B1ETTP223J	1	0
R218	RK3554	Chip R.	RK73B1ETTP223J	1	0	R324	RK3014	Chip R.	RK73B1JTTD100J	1	0
R219	RK3542	Chip R.	RK73B1ETTP222J	1	0	R325	RK3566	Chip R.	RK73B1ETTP224J	1	1
R220	RK4034	Chip R.	ERJ12YJ471U	1	1	R326	RK3538	Chip R.	RK73B1ETTP102J	1	0

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
R327	RK3092	Chip R.	MCR03EZPPFX7502	1	0
R328	RD3013	Resistor	ERX1S1J00	1	1
R330	RK3562	Chip R.	RK73B1ETTP104J	1	0
R331	RK3542	Chip R.	RK73B1ETTP222J	1	0
R332	RK3554	Chip R.	RK73B1ETTP223J	1	0
R333	RK3562	Chip R.	RK73B1ETTP104J	1	0
R334	RK3542	Chip R.	RK73B1ETTP222J	1	0
R335	RK3550	Chip R.	RK73B1ETTP103J	1	0
R337	RK3570	Chip R.	RK73B1ETTP474J	1	1
R339	RK3550	Chip R.	RK73B1ETTP103J	1	1
R340	RK3550	Chip R.	RK73B1ETTP103J	1	1
R341	RK3561	Chip R.	RK73B1ETTP823J	1	1
R342	RK3545	Chip R.	RK73B1ETTP392J	1	1
R343	RK3548	Chip R.	RK73B1ETTP682J	1	0
R344	RK3528	Chip R.	RK73B1ETTP101J	1	1
R345	RK3501	Chip R.	RK73Z1ETTP	1	1
R346	RK3561	Chip R.	RK73B1ETTP823J	1	1
R347	RK3551	Chip R.	RK73B1ETTP123J	1	1
R348	RK3534	Chip R.	RK73B1ETTP471J	1	1
R349	RK3562	Chip R.	RK73B1ETTP104J	1	1
R350	RK3534	Chip R.	RK73B1ETTP471J	1	1
R351	RK3550	Chip R.	RK73B1ETTP103J	1	1
R352	RK3554	Chip R.	RK73B1ETTP223J	1	1
R353	RK3534	Chip R.	RK73B1ETTP471J	1	1
R355	RK3526	Chip R.	RK73B1ETTP101J	1	0
R356	RK3538	Chip R.	RK73B1ETTP102J	1	0
R357	RK3557	Chip R.	RK73B1ETTP393J	1	0
R358	RK3562	Chip R.	RK73B1ETTP104J	1	0
R359	RK3501	Chip R.	RK73Z1ETTP	1	0
R400	RK3543	Chip R.	RK73B1ETTP272J	1	1
R401	RK3553	Chip R.	RK73B1ETTP183J	1	1
R402	RK3551	Chip R.	RK73B1ETTP123J	1	1
R403	RK3542	Chip R.	RK73B1ETTP222J	1	1
R404	RK3562	Chip R.	RK73B1ETTP104J	1	1
R405	RK3563	Chip R.	RK73B1ETTP124J	1	1
R406	RK3559	Chip R.	RK73B1ETTP563J	1	1
R407	RK3562	Chip R.	RK73B1ETTP104J	1	1
R408	RK3558	Chip R.	RK73B1ETTP473J	1	1
R409	RK3560	Chip R.	RK73B1ETTP683J	1	1
R410	RK3557	Chip R.	RK73B1ETTP393J	1	1
R411	RK3562	Chip R.	RK73B1ETTP104J	1	1
R412	RK3550	Chip R.	RK73B1ETTP103J	1	1
R413	RK3550	Chip R.	RK73B1ETTP103J	1	1
R414	RK3566	Chip R.	RK73B1ETTP224J	1	1
R415	RK3558	Chip R.	RK73B1ETTP473J	1	1
R416	RK3550	Chip R.	RK73B1ETTP103J	1	1
R417	RK3568	Chip R.	RK73B1ETTP334J	1	1
R418	RK3560	Chip R.	RK73B1ETTP683J	1	1
R419	RK3550	Chip R.	RK73B1ETTP103J	1	1
R420	RK3574	Chip R.	RK73B1ETTP105J	1	1
R421	RK3566	Chip R.	RK73B1ETTP224J	1	1
R422	RK3562	Chip R.	RK73B1ETTP104J	1	1
R426	RK3551	Chip R.	RK73B1ETTP123J	1	0
R427	RK3550	Chip R.	RK73B1ETTP103J	1	0
R428	RK3574	Chip R.	RK73B1ETTP105J	1	1
R429	RK3501	Chip R.	RK73Z1ETTP	1	1
R430	RK3538	Chip R.	RK73B1ETTP102J	1	1
R506	RK3562	Chip R.	RK73B1ETTP104J	1	1
R507	RK3538	Chip R.	RK73B1ETTP102J	1	1
R508	RK3546	Chip R.	RK73B1ETTP472J	1	1
R511	RK3547	Chip R.	RK73B1ETTP562J	1	0
R512	RK3526	Chip R.	RK73B1ETTP101J	1	0
R513	RK3526	Chip R.	RK73B1ETTP101J	1	0
R514	RK3570	Chip R.	RK73B1ETTP474J	1	0
R515	RK3001	Chip R.	RK73Z1JTTD	1	1
R516	RK2010	Chip R.	MCR50JZHJ330	1	1
R517	RK3546	Chip R.	RK73B1ETTP472J	1	1
R518	RK3001	Chip R.	RK73Z1JTTD	0	1
R519	RK3501	Chip R.	RK73Z1ETTP	0	1
R520	RK3501	Chip R.	RK73Z1ETTP	0	1
R521	RK3501	Chip R.	RK73Z1ETTP	0	1
R522	RK3538	Chip R.	RK73B1ETTP102J	0	1
R523	RK3558	Chip R.	RK73B1ETTP473J	1	1
R525	RK3501	Chip R.	RK73Z1ETTP	1	1
R526	RK3558	Chip R.	RK73B1ETTP473J	1	0
R527	RK3501	Chip R.	RK73Z1ETTP	1	0
R601	RK3538	Chip R.	RK73B1ETTP102J	1	1
R609	RK3550	Chip R.	RK73B1ETTP103J	1	1
R611	RK3550	Chip R.	RK73B1ETTP103J	1	1
R613	RK3574	Chip R.	RK73B1ETTP105J	1	1
R615	RK3574	Chip R.	RK73B1ETTP105J	1	1
R637	RK3556	Chip R.	RK73B1ETTP333J	1	1
SH101	TS0172	Case	VCO CASE DR620	1	1
TC601	CT0046	Trimmer C.	TC03C100A-TP02	1	1
TH101	XSO031	Chip	NTCG164BH682JT-S	1	1
TH102	XSO050	Chip	NTCG164QH105JT-S	1	1
VR101	RH0211	Trimmer R.	PVA2A104A01R00	1	1
VR102	RH0210	Trimmer R.	PVA2A473A01R00	1	1
VR103	RH0211	Trimmer R.	PVA2A104A01R00	1	1
VR104	RH0211	Trimmer R.	PVA2A104A01R00	1	1
VR105	RH0208	Trimmer R.	PVA2A103A01R00	1	0

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
VR106	RH0210	Trimmer R.	PVA2A473A01R00	1	1
VR107	RH0210	Trimmer R.	PVA2A4473A01R00	1	1
VR108	RH0211	Trimmer R.	PVA2A104A01R00	1	1
VR109	RH0210	Trimmer R.	PVA2A473A01R00	1	1
X101	XK0003	Discriminator	CDBLB450KCAY07-B0	1	1
X601	XQ0188	Xtal	DSX321G 11.150MHZ	1	1
XF101	XF0004Z	Xtal Filter	10L152B 10.7MHz	1	1
FG0320	SP Cushion	SP CUSHION DR135	1	1	
FG0327	Cushion	CUSHION DR135	1	1	
SD0034	Spring	GND SPRING DR130	1	1	
TZ0056	Dumper	SILICON DUMPER 49U	2	2	
UP0602	P.C.BOARD	DRM06R INTEGRATED	1	1	

## PA Unit

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
C702	CU7052	Chip C.	UC232H0820F-T	1	1
C703	CU4045	Chip C.	GRM31A7U2J151JW31D	1	1
C704	CU3047	Chip C.	C1608JB1H103KT-NS	1	1
C705	CU4027	Chip C.	GRM31A7U2J331JW31D	1	1
C706	CU3122	Chip C.	C1608JB1H104ZT-NS	1	1
C707	CU3047	Chip C.	C1608JB1H103KT-NS	1	1
C708	CU3035	Chip C.	C1608JB1H102KT-NS	1	1
C709	CU3047	Chip C.	C1608JB1H103KT-NS	1	1
C710	CU4019	Chip C.	GRM31M2C2H470JV01L	1	1
C711	CU4022	Chip C.	GRM31M2C2H820JV01L	1	1
C712	CU3122	Chip C.	C1608JB1H104ZT-NS	1	1
C713	CU3122	Chip C.	C1608JB1H104ZT-NS	1	1
L701	QB0060	Coil	7E04NA-1RSN-RB	1	1
L703	QK0116	Coil	QK0116	1	1
L704	QKA25E	Coil	MR3.0 2.5T 0.8	1	1
Q701	XE0054	Chip FET	RD06HHF1-101	1	1
Q702	XE0047	Chip FET	RD70HVF1-101	1	1
R701	RK3038	Chip R.	RK73B1JTTD102J	1	1
TP701	YZ0144	Wire	1.0 X 1mm	7	7
TP702	YZ0144	Wire	1.0 X 1mm	7	7
TP703	YZ0144	Wire	1.0 X 1mm	7	7
TP704	YZ0144	Wire	1.0 X 1mm	7	7
TP705	YZ0144	Wire	1.0 X 1mm	7	7
TP706	YZ0144	Wire	1.0 X 1mm	7	7
FM0220	Spring	GROUND PLATE DR620	2	2	

## Mechanical Parts

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
UE0401	Dsub	K-D-09S-SE		1	0
UX1251	Wire	WIRE D SUB		1	0
ES0035	Speaker	57-8BC-35 ROHS		1	1
UX1047	Wire	WIRE DR130		1	1
AA0050	Screw	OH M2.6+6 FE/B.ZN		6	6
AE0029	Screw	RDG-LNA-W1(01)		2	0
AN0032	Nut	MIC NUT		1	1
AU0001	Screw	PH/S B26+8 FEN		16	16
AW0001	Screw	PH/D 6.3+8 FE/N		3	3
AZ0042	Washer	WASHER		2	0
DP0193	LCD Panel	LCD PANEL DRM06		0	1
DP0194	LCD Panel	LCD PANEL DR06		1	0
FF0015	Cloth	BLIND CLOTH DR110		3	3
FG0273	Rubber	ON AIR KEY RUBBER		1	1
FP0151	Panel	REAR PANEL DR135		0	1
FP0188	Panel	JACK PANEL DR135		0	1
KS0096	Bottom Case	BOTTOM CASE DR135		1	1
KZ0105	Front Case	FRONT ASSY. DR135		1	1
NK0072	Knob	VOL KNOB DR135		1	1
NK0073	Knob	DIAL KNOB DR135		1	1
SP0008	GND Terminal	GND TERM XM801		1	1
SS0105A	Chassis	CHASSIS		1	1
ST0065	SP Holder	SP HOLDER DR135		1	1
ST0066	SP Fitting	SP FITTING DR135		1	1
TG0034	SP Himeron	SP HIMERON DR135		1	1
UE0258Z	ANT	FM-M.D.R-4(2)		1	1
YZ0131	Tape	#9110 12X1mm		60	30
DS0446	Label	NITTO MODEL PLATE(S)		1	1
PR0288	Label	SCREW STKR DX70		2	2
PR0451	Label	FCC PART15(3)		1	0
PR0452	Label	FCC HOME USE		1	0
PR0610	Label	N-10X49SEAL(YELLOW)		1	1

## Packing Parts

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
	HK0675	Package	INDIVIDUAL BOX DR06	0	1
	HK0676	Package	INDIVIDUAL BOX DR06	1	0
	HM0218Z	Carton Box	MASTER CARTON DR135Z	0.2	0.2
	HP0035	Plastic Bag	E.BAG 5X200X250	1	1
	HU0099Z	P.MTL/Carton	FRONT INNER DR605	1	1
	HU0159Z	P.MTL/Carton	INNER DR135T	1	1
	HU0161Z	P.MTL/Carton	INNER 5 PCS	0.4	0.4
	PR0478	Label	SERIAL SEAL	0.2	0.2
	PR0513	Label	NITTO 13X13 LABEL(W)	5	5
	PR0514	Label	EPSON 10X49 LABEL(W)	2	2
	PR0515	Label	NITTO 25X40 LABEL(W)	1	0

## ACCESSORIES

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
	ADFM78	Bracket	BRACKET DR130	1	1
	ADUA38	Power Cable	R-B2.0X3M RECEPT.15A	1	1
	AJ0025	Screw	PH T3.5x10 FE/N 1	2	2
	EBC-7	Micro Hanger	MIC HANGER	1	1
	EHM53B	Microphone	MICROPHON EMS53B	0	1
	EHM57D	Microphone	MICROPHON EMS57D	1	0
	HP0009	Plastic Bag	PLA.BAG 5X125X250	1	1
	HP0016	Plastic Bag	PLA.BAG 5X75X90	1	1
	PH0015	Sheet	WARRANTY CEAT EXPORT	1	0
	PK0126	Diagram	SCHEMATIC DR06T	1	0
	PR0454Y	Label	SECURITY STICKER T	2	0
	PS0530B	Manual	INSTRUCTION DR135LH	1	1
	UX1259	Wire	WIRE SCR1 DR135T	1	0
	UX1260	Wire	WIRE SCR2 DR135T	1	0
	YZ0138	Tape	TAPE EBC7	1	1

## ACCESSORIES (SCREW SET)

Ref No.	Part No.	Description	Parts Name	Qty.	
				DR-06T	DR-M06R
	AA0013	Screw	BH M5x20 FE/ZN	4	4
	AE0012	Nut	HEX/H/D M4x8 FE/3BBC	4	4
	AJ0003	Screw	BH T5x20 FE/ZN 1	4	4
	AN0002	Nut	HEX N5x0.8 FE/ZN	4	4
	AZ0009	Washer	SW 5x9.2x1.3 FE/ZN	4	4
	AZ0010	Washer	SW 5x12x0.8 FE/ZN	4	4
	EF0005	Fuse	FGBO 15A	2	2
	FM0079Z	Spanner	SPANNER DR130	1	1
	HP0006	Plastic Bag	5X90X170	1	1
	YZ0121	Tape	TAPE 10MM	2	2

## TNC (EJ41U)

Ref No.	Part No.	Description	Parts Name	Qty.	Ref No.	Part No.	Description	Parts Name	Qty.
BAT1	ED0006	Battery	BR2032-1F2	1	R22	RK3054	Chip R.	MCR03EZPJ223	1
C1	CS0210	Chip tantalum	TMCMB0J156MTRF	1	R23	RK3050	Chip R.	MCR03EZPJ103	1
C2	CS0210	Chip tantalum	TMCMB0J156MTRF	1	R24	RK3071	Chip R.	MCR03EZPJ564	1
C3	CU3035	Chip C.	C1608JB1H102KT-NS	1	R25	RK3050	Chip R.	MCR03EZPJ103	1
C4	CU3111	Chip C.	C1608JB1E104KT-NS	1	R26	RK3050	Chip R.	MCR03EZPJ103	1
C5	CU9018	Chip C.	C3216JB1C105MT-N	1	R27	RK3050	Chip R.	MCR03EZPJ103	1
C6	CU3047	Chip C.	C1608JB1H103KT-NS	1	R28	RK3048	Chip R.	MCR03EZPJ682	1
C7	CU3047	Chip C.	C1608JB1H103KT-NS	1	R29	RK3050	Chip R.	MCR03EZPJ103	1
C8	CU3111	Chip C.	C1608JB1E104KT-NS	1	R30	RK3044	Chip R.	MCR03EZPJ332	1
C9	CU3051	Chip C.	C1608JB1H223KT-NS	1	R32	RK3042	Chip R.	MCR03EZPJ222	1
C10	CU3111	Chip C.	C1608JB1E104KT-NS	1	R33	RK3050	Chip R.	MCR03EZPJ103	1
C11	CU3111	Chip C.	C1608JB1E104KT-NS	1	R34	RK3051	Chip R.	MCR03EZPJ123	1
C12	CU9018	Chip C.	C3216JB1C105MT-N	1	R35	RK3051	Chip R.	MCR03EZPJ123	1
C13	CU3051	Chip C.	C1608JB1H223KT-NS	1	R36	RK3054	Chip R.	MCR03EZPJ223	1
C14	CU3031	Chip C.	C1608JB1H471KT-NS	1	R37	RK3051	Chip R.	MCR03EZPJ123	1
C15	CU3051	Chip C.	C1608JB1H223KT-NS	1	R38	RK3051	Chip R.	MCR03EZPJ123	1
C16	CU3051	Chip C.	C1608JB1H223KT-NS	1	R39	RK3050	Chip R.	MCR03EZPJ103	1
C17	CU3045	Chip C.	C1608JB1H682KT-NS	1	R40	RK3051	Chip R.	MCR03EZPJ123	1
C18	CU3045	Chip C.	C1608JB1H682KT-NS	1	R41	RK3054	Chip R.	MCR03EZPJ223	1
C19	CU3047	Chip C.	C1608JB1H103KT-NS	1	R42	RK3044	Chip R.	MCR03EZPJ332	1
C20	CU9018	Chip C.	C3216JB1C105MT-N	1	R44	RK3038	Chip R.	MCR03EZPJ102	1
C21	CU3111	Chip C.	C1608JB1E104KT-NS	1	R45	RK3030	Chip R.	MCR03EZPJ221	1
C22	CU3035	Chip C.	C1608JB1H102KT-NS	1	R46	RK3057	Chip R.	MCR03EZPJ393	1
C23	CU3111	Chip C.	C1608JB1E104KT-NS	1	R47	RK3050	Chip R.	MCR03EZPJ103	1
C24	CU3004	Chip C.	C1608CH1H030CT-NS	1	R48	RK3050	Chip R.	MCR03EZPJ103	1
C25	CU3047	Chip C.	C1608JB1H103KT-NS	1	R49	RK3046	Chip R.	MCR03EZPJ472	1
C26	CU3058	Chip C.	GRM1882C1H221JA01D	1	R50	RK3038	Chip R.	MCR03EZPJ102	1
C27	CU3023	Chip C.	C1608CH1H101JT-NS	1	R51	RK3061	Chip R.	MCR03EZPJ823	1
C28	CU3111	Chip C.	C1608JB1E104KT-NS	1	R52	RK3058	Chip R.	MCR03EZPJ473	1
C29	CU3111	Chip C.	C1608JB1E104KT-NS	1	R53	RK3054	Chip R.	MCR03EZPJ223	1
C30	CU3111	Chip C.	C1608JB1E104KT-NS	1	R54	RK3001	Chip R.	MCR03EZPJ000	1
C31	CU3062	Chip C.	C1608CH1H160JT-NS	1	R55	RK3062	Chip R.	MCR03EZPJ104	1
C32	CU3111	Chip C.	C1608JB1E104KT-NS	1	R56	RK3064	Chip R.	MCR03EZPJ154	1
C33	CS0049	Chip tantalum	TMCSA1C105MTRF	1	R57	RK3058	Chip R.	MCR03EZPJ473	1
C34	CS0394	Chip tantalum	TMCMB0J476MTRF	1	R58	RK3050	Chip R.	MCR03EZPJ103	1
C35	CU3111	Chip C.	C1608JB1E104KT-NS	1	R59	RK3001	Chip R.	MCR03EZPJ000	1
C36	CU3019	Chip C.	C1608CH1H470JT-NS	1	R60	RK3044	Chip R.	MCR03EZPJ332	1
C37	CU3043	Chip C.	C1608JB1H472KT-NS	1	R61	RK3001	Chip R.	MCR03EZPJ000	1
C38	CU3111	Chip C.	C1608JB1E104KT-NS	1	R62	RK3060	Chip R.	MCR03EZPJ683	1
C39	CU3047	Chip C.	C1608JB1H103KT-NS	1	R63	RK3029	Chip R.	MCR03EZPJ181	1
C40	CU3045	Chip C.	C1608JB1H682KT-NS	1	R64	RK3050	Chip R.	MCR03EZPJ103	1
C41	CU3031	Chip C.	C1608JB1H471KT-NS	1	R65	RK3050	Chip R.	MCR03EZPJ103	1
C42	CU9018	Chip C.	C3216JB1C105MT-N	1	R66	RK3059	Chip R.	MCR03EZPJ563	1
C43	CU3039	Chip C.	C1608JB1H222KT-NS	1	R67	RK3050	Chip R.	MCR03EZPJ103	1
C44	CU3051	Chip C.	C1608JB1H223KT-NS	1	R68	RK3054	Chip R.	MCR03EZPJ223	1
C45	CU3045	Chip C.	C1608JB1H682KT-NS	1	R69	RK3050	Chip R.	MCR03EZPJ103	1
C46	CU3039	Chip C.	C1608JB1H222KT-NS	1	R70	RK3050	Chip R.	MCR03EZPJ103	1
C48	CU3111	Chip C.	C1608JB1E104KT-NS	1	R71	RK3050	Chip R.	MCR03EZPJ103	1
CN1	UE0402	Connector	PI28B11M	1	R72	RK3050	Chip R.	MCR03EZPJ103	1
D1	XL0036	Chip LED	SML-310MTT86	1	R73	RK3001	Chip R.	MCR03EZPJ000	1
D3	XL0036	Chip LED	SML-310MTT86	1	R74	RK3058	Chip R.	MCR03EZPJ473	1
D4	XL0036	Chip LED	SML-310MTT86	1	R75	RK3062	Chip R.	MCR03EZPJ104	1
D5	XD0291	Chip Diode	MA2J72900L	1	R76	RK3064	Chip R.	MCR03EZPJ154	1
D6	XD0291	Chip Diode	MA2J72900L	1	R77	RK3030	Chip R.	MCR03EZPJ221	1
IC1	XAO678	IC	TGT0210Q	1	R78	RK3050	Chip R.	MCR03EZPJ103	1
IC2	XA0463	IC	TA755A93F(TE85L,F)	1	R79	RK3050	Chip R.	MCR03EZPJ103	1
IC3	XA0679	IC	TMT0111Q	1	R80	RK3058	Chip R.	MCR03EZPJ473	1
IC4	XA0224	IC	NJM2904M-TE1-#FMZB	1	R81	RK3058	Chip R.	MCR03EZPJ473	1
IC5	XA0326	IC	NJM2903M-TE1-#FMZB	1	R82	RK3044	Chip R.	MCR03EZPJ332	1
IC6	XA0680	IC	ADM232AARN-REEL	1	R83	RK3074	Chip R.	MCR03EZPJ105	1
L2	Q30044	Chip Coil	BK1608HM601-T	1	R84	RK3050	Chip R.	MCR03EZPJ103	1
Q1	XTD095	Chip	2SC4081 T106R	1	R85	RK3046	Chip R.	MCR03EZPJ472	1
Q2	XT0094	Chip	2SA1576A T106R	1	R87	RK3062	Chip R.	MCR03EZPJ104	1
Q3	XT0094	Chip	2SA1576A T106R	1	R88	RK3062	Chip R.	MCR03EZPJ104	1
Q4	XT0094	Chip	2SA1576A T106R	1	VR1	RH0142	Trimmer R.	MVR22HXBREN103	1
Q5	XE0029	Chip	2SK1580-T1-A	1	VR2	RH0142	Trimmer R.	MVR22HXBREN103	1
Q6	XT0095	Chip	2SC4081 T106R	1	W2	UX1253	Connector	WIRE TNC	1
Q7	XU0078	Chip	UNR521L00L	1	X1	XQ0124	Xtal	AT-49 7.9872MHZ	1
Q8	XT0095	Chip	2SC4081 T106R	1	UP0402	P.C.BOARD	EJ41U TNC		0.125
Q9	XT0094	Chip	2SA1576A T106R	1	FF0033	VELCRO	VELCRO A		
Q10	XT0095	Chip	2SC4081 T106R	1	FG0040	Cushion	SPEAKER CUSHION DR41		
Q11	XTD095	Chip	2SC4081 T106R	1	TZ0024	Insulator	LITHIUM BATT.DJ500		
R1	RK3062	Chip R.	MCR03EZPJ104	1	TZ0056	Dumper	SILICON DUMPER 49U		
R2	RK3062	Chip R.	MCR03EZPJ104	1	YZ0131	Tape	#9110 12X1MM		25
R3	RK3062	Chip R.	MCR03EZPJ104	1					
R4	RK3062	Chip R.	MCR03EZPJ104	1					
R5	RK3034	Chip R.	MCR03EZPJ471	1					
R6	RK3034	Chip R.	MCR03EZPJ471	1					
R7	RK3034	Chip R.	MCR03EZPJ471	1					
R8	RK3032	Chip R.	MCR03EZPJ331	1					
R9	RK3038	Chip R.	MCR03EZPJ102	1					
R10	RK3050	Chip R.	MCR03EZPJ103	1					
R11	RK3066	Chip R.	MCR03EZPJ224	1					
R12	RK3038	Chip R.	MCR03EZPJ102	1					
R13	RK3038	Chip R.	MCR03EZPJ102	1					
R14	RK3038	Chip R.	MCR03EZPJ102	1					
R15	RK3038	Chip R.	MCR03EZPJ102	1					
R16	RK3038	Chip R.	MCR03EZPJ102	1					
R17	RK3050	Chip R.	MCR03EZPJ103	1					
R18	RK3050	Chip R.	MCR03EZPJ103	1					
R19	RK3038	Chip R.	MCR03EZPJ102	1					
R20	RK3038	Chip R.	MCR03EZPJ102	1					
R21	RK3053	Chip R.	MCR03EZPJ183	1					

TNC (EJ41U) Packing Parts				
Ref No.	Part No.	Description	Parts Name	Qty.
	FD0001	Floppy-Disc	FLOPPY-DISC	1
	FF0034	VELCRO	VELCRO B	1
	FG0040	Cushion	SPEAKER CUSHION DR41	1
	HK0487	Package	ITEM CARTON EJ41U	1
	HP0029	Plastic bag	E.BAG 5X100X100	1
	HP0040	Plastic bag	8X130X200	1
	PF0061	SHEET	SHEET EJ41U	1
	PR0449	Label	EJ41U LABEL	1
	PS0354	Manual	INSTRUCTION EJ41U	1
	PS0355	Manual	INST-DISC EJ41U	1
	UZ0030	Plug	MP-013LC	1

# ADJUSTMENT

## 1) Adjustment Spot

Power Supply Voltage 13.8V

Output of SSG is all EMF indication.

If without instruction, WIDE mode.

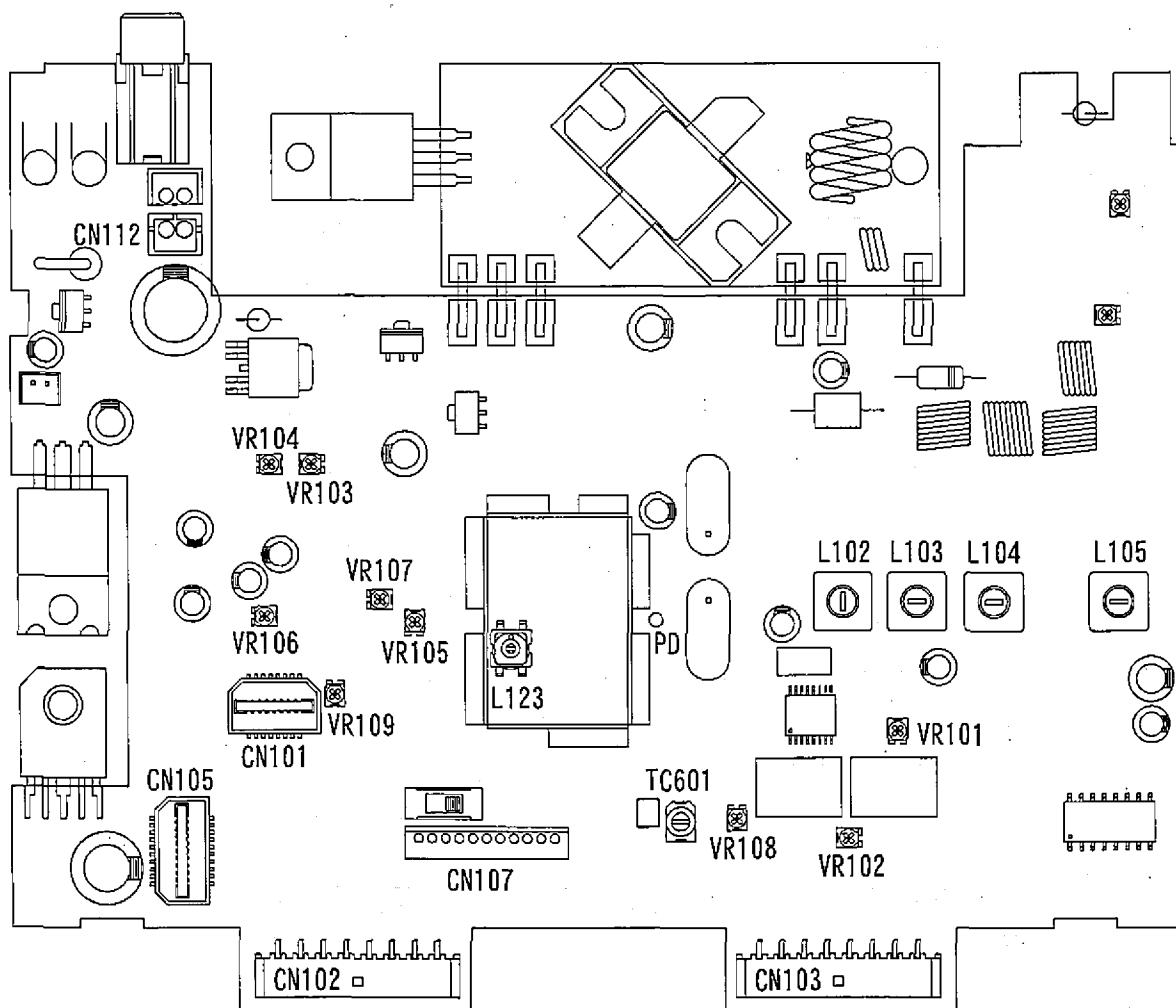
If without instruction, SSG output is MOD 1KHz WIDE DEV 3.5KHz/DEV,  
NARROW DEV 1.75KHz/DEV.

Standard modulation is also based above.

Speaker load is 8 ohm and output is 50 ~ 100 mV.

NARROW Mode : ONLY DR-06T

Rx expansion : MHz + PWR ON (ONLY DR-06T)



## 2) VCO and RX Adjustment Specification

ITEM	CONDITION	UNIT	ADJ. SPOT	ADJUSTING MTHOD
Adjustment Frequency	52.00MHz TX	MAIN	TC601	Adjust so that Tx Frequency becomes within 52.00MHz +/- 100Hz
VCO Adjustment	52.00MHz RX	MAIN	L123	Adjust so that PD voltage becomes 4.6 +/- 0.1V
Rx Signal Sensitivity Adjustment	52.05MHz 40.05MHz 50.05MHz 52.05MHz 54.05MHz 69.95MHz	MAIN	L105, L104 L103, L102	Repeatedly adjust so that the Rx sensitivity becomes in maximum/ Confirm: At 0dB SINAD more than 12dB At -9dB SINAD more than 12dB At -9dB SINAD more than 12dB At -9dB SINAD more than 12dB At 0dB SINAD more than 12dB
Squelch Adjustment	52.05MHz SSG OFF Indicate 01	MAIN	VR101	Adjust so that the squelch stops at perfectly close location
S Meter Adjustment	52.05MHz SSG 20dBu 1KHz 3.5KHz/DEV	MAIN	VR102	Adjust so that all the indicator appears

## 3) TX Adjustment Specification

ITEM	CONDITION	UNIT	ADJ. SPOT	ADJUSTING MTHOD
HI POWER Adjustment	52.00MHz HI POWER	MAIN	VR103	Adjust to 50.0 +/- 0.5W
MID POWER Adjustment	52.00MHz MID POWER	MAIN	VR104	Adjust to 20.0 +/- 0.5W
LOW POWER Confirmation	52.00MHz LOW POWER	MAIN		Confirm if it becomes 5.0 +/- 3.0W
Maximum Deviation Adjustment	52.00MHz MOD 1KHz 40mVemf	MAIN	VR107	4.5 +/- 0.1KHz/DEV
Maximum Deviation Adjustment	52.00MHz MOD 1KHz 40mVemf NARROW	MAIN	VR105	2.2 +/- 0.1KHz/DEV (ONLY DR-06T)
Mic Gain Adjustment	52.00MHz MOD 1KHz 4mVemf	MAIN	VR106	3.0 +/- 0.1KHz/DEV
CTCSS Modulation Level Confirmation	52.00MHz 88.5Hz	MAIN		800 +/- 200Hz/DEV 3KHz LPF ON
DCS Modulation Level Adjustment	52.00MHz 255 Code	MAIN	VR108	800 +/- 100Hz/DEV 3KHz LPF ON
1750Hz Modulation Level Adjustment	52.00MHz 1750Hz	MAIN	VR109	3.0 +/- 0.1KHz/DEV
DTMF Modulation Level Confirmation	52.00MHz DTMF 1 Press the V/M key during TX	MAIN		3.0 +/- 0.5KHz/DEV

#### 4) RX Test Specification

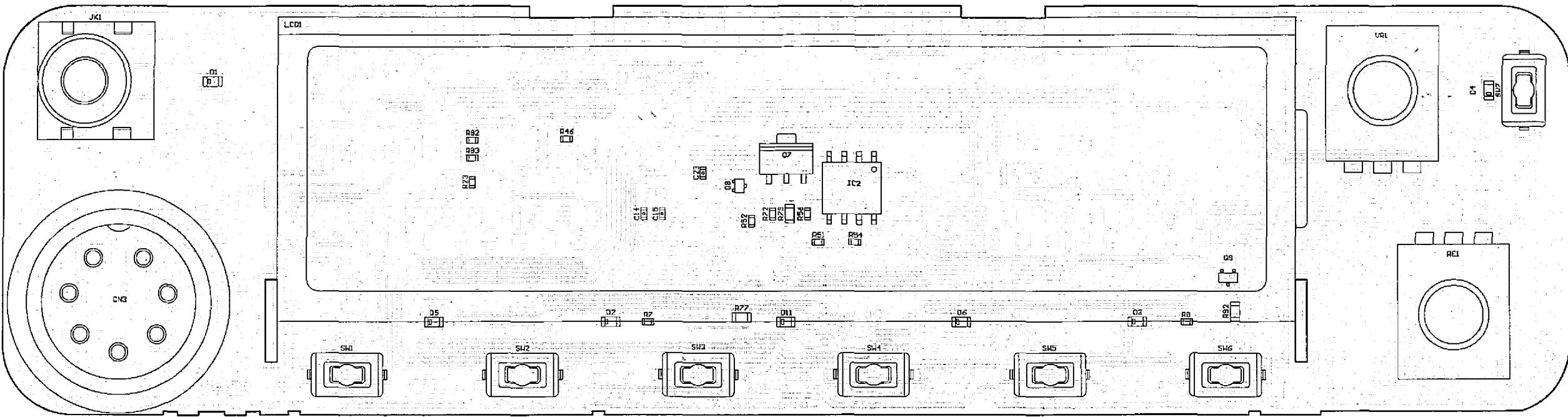
TEST ITEM	CONDITION	ADJ. STANDARD	TEST STANDARD	NOTE
RX Signal Sensitivity	40.05MHz	Less than 0dBu	Less than 0dBu	12dB SINAD
	50.05MHz	Less than -9dBu	Less than -8dBu	
	52.05MHz	Less than -9dBu	Less than -8dBu	
	54.05MHz	Less than -9dBu	Less than -8dBu	
	69.95MHz	Less than 0dBu	Less than 0dBu	
	52.05MHz NARROW	Less than -9dBu	Less than -8dBu	12dB SINAD (ONLY DR-06T)
	52.05MHz WIDE	Less than 4%	Less than 5%	SSG Output 30dBu
RX Distortion	52.05MHz NARROW			SSG Output 30dBu (ONLY DR-06T)
	52.05MHz WIDE	More than 40dB	More than 38dB	SSG Output 30dBu 0.3 ~ 3KHz BPF OFF
RX S/N	52.05MHz NARROW			SSG Output 30dBu 0.3 ~ 3KHz BPF OFF (ONLY DR-06T)
	52.05MHz WIDE	More than 34dB	More than 32dB	SSG Output 30dBu 0.3 ~ 3KHz BPF OFF
Squelch Sensitivity	52.05MHz Indication 02	Squelch Open	Squelch Open	SSG Output -10dBu
		Squelch Close	Squelch Close	SSG Output OFF
S Meter	52.05MHz 1KHz 3.5KHz/DEV	All appears at 20dBu	All appears at 25dBu	Decrease SSG level and decrease S Meter level
AF Output	52.05MHz	More than 2W	More than 2W	SSG Output 30dBu
CTCSS Sensitivity	29.05MHz WIDE	Open at 500Hz/DEV	Open at 500Hz/DEV	SSG Output 0dBu 88.5Hz
	52.05MHz NARROW	Open at 250Hz/DEV	Open at 250Hz/DEV	SSG Output 0dBu 88.5Hz (ONLY DR-06T)
DCS Sensitivity	52.05MHz WIDE	Opens when Test Equipment is in TX	Opens when Test Equipment is in TX	255 Code
	52.05MHz NARROW	Opens when Test Equipment is in TX	Opens when Test Equipment is in TX	255 Code (ONLY DR-06T)
Drain Current	52.05MHz	Less than 0.65A	Less than 0.65A	Max volume
Power off Current	52.05MHz	Less than 10mA	Less than 10mA	Power off
Howling	52.05MHz	Don't occur	Don't occur	SSG Output 60dBu Mod off, Max volume

## 5) TX Test Specification

TEST ITEM	CONDITION	ADJ. STANDARD	TEST STANDARD	NOTE
Tx Output HI POWER	50.00MHz	50 +/- 0.5W	51 +/- 4W	
	52.00MHz		50 +/- 3W	
	53.95MHz		50 +/- 3W	
Tx Output MID POWER	52.00MHz	20 +/- 0.5W	20 +/- 2W	
Tx Output LOW POWER	52.00MHz	5 +/- 3W	5 +/- 3W	
Drain Current	52.00MHz	Less than 10A	Less than 11A	
Frequency Deviation	52.00MHz	Within +/- 0.1KHz	Within +/- 0.5KHz	
Spurious	50.00MHz	More than 65dB	More than 60dB	MID and LOW standard power is also the same as of HI power level
	52.00MHz	More than 65dB	More than 60dB	
	53.95MHz	More than 65dB	More than 60dB	
Modulation Level	52.00MHz WIDE	3.0 +/- 0.1KHz/DEV 4.5 +/- 0.1KHz/DEV	3.0 +/- 0.2KHz/DEV 4.5 +/- 0.2KHz/DEV	MIC in 1KHz 4mVemf MIC in 1KHz 40mVemf
	52.00MHz NARROW	2.2 +/- 0.1KHz/DEV	2.2 +/- 0.2KHz/DEV	MIC in 1KHz 40mVemf (ONLY DR-06T)
CTCSS Modulation Level	52.00MHz	800 +/- 200Hz/DEV	800 +/- 300Hz/DEV	88.5Hz 3KHz LPF ON
DCS Modulation Level	52.00MHz WIDE	800 +/- 100Hz/DEV	800 +/- 200Hz/DEV	255 Code 3KHz LPF ON
	52.00MHz NARROW	500 +/- 200Hz/DEV	500 +/- 200Hz/DEV	255 Code 3KHz LPF ON (ONLY DR-06T)
1750Hz Modulation Level	52.00MHz	3.0 +/- 0.1KHz/DEV	3.0 +/- 0.5KHz/DEV	
DTMF Modulation Level	52.00MHz	3.0 +/- 0.5KHz/DEV	3.0 +/- 0.5KHz/DEV	Press the V/M key during TX
Modulation Distortion	52.00MHz	Less than 3%	Less than 4%	
TX S/N	52.00MHz WIDE	More than 40dB	More than 38dB	0.3 ~ 3KHz BPF ON
	52.00MHz NARROW	More than 34dB	More than 32dB	0.3 ~ 3KHz BPF ON (ONLY DR-06T)

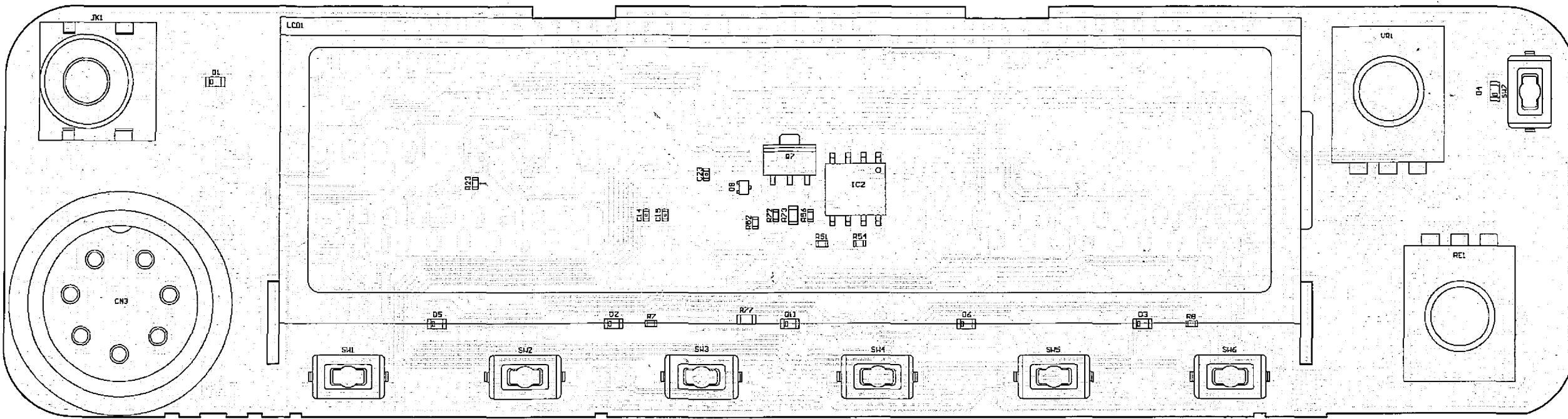
## PC BOARD VIEW

### 1) CPU Unit SIDE A DR-06T (UP0602)

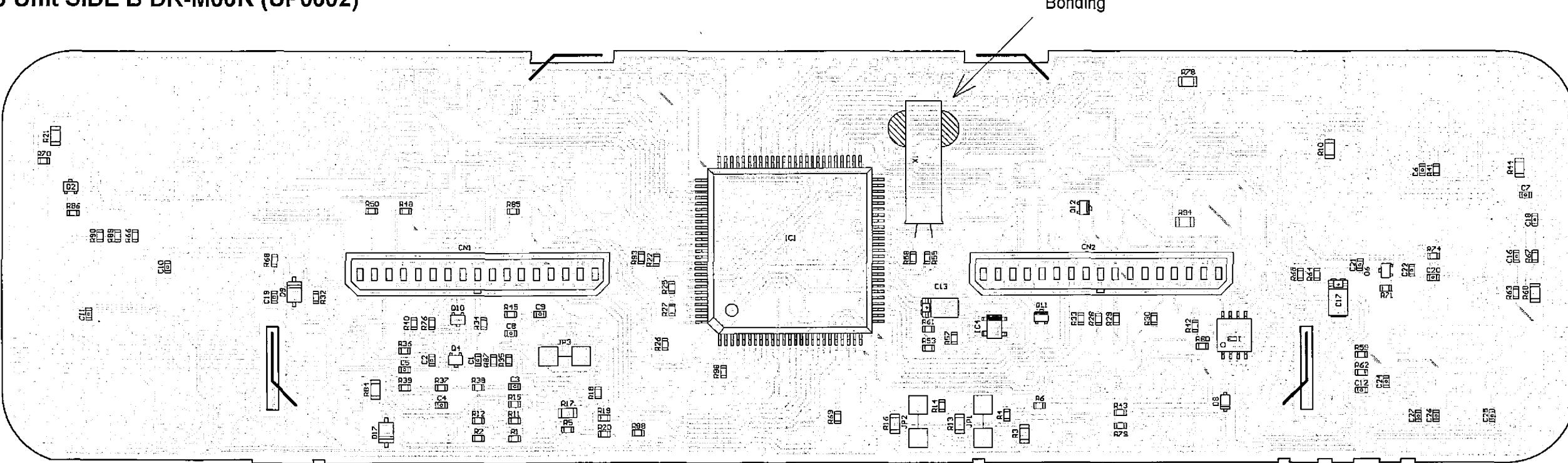


## PC BOARD VIEW

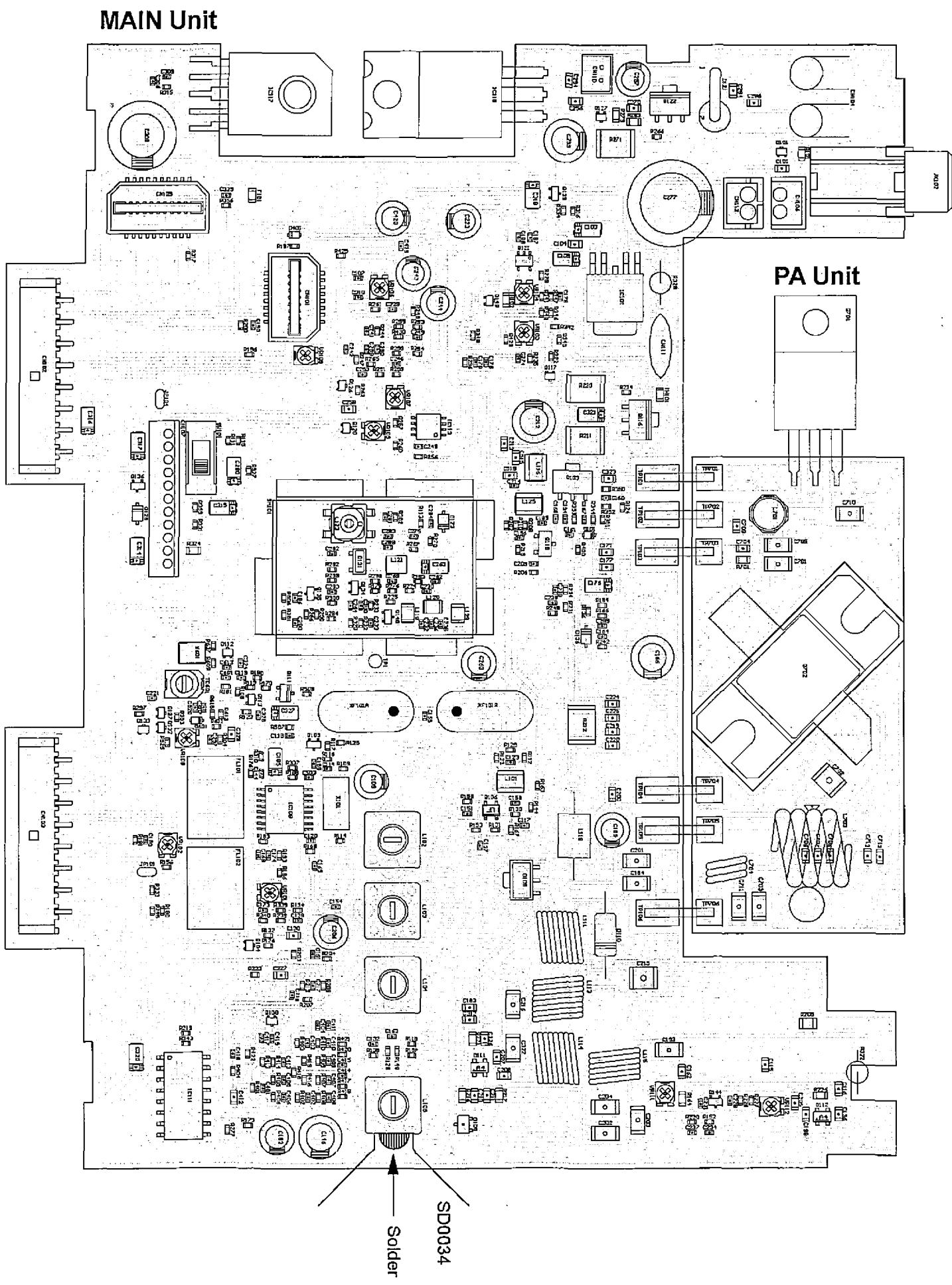
### 3) CPU Unit SIDE A DR-M06R (UP0602)



#### **4) CPU Unit SIDE B DR-M06R (UP0602)**

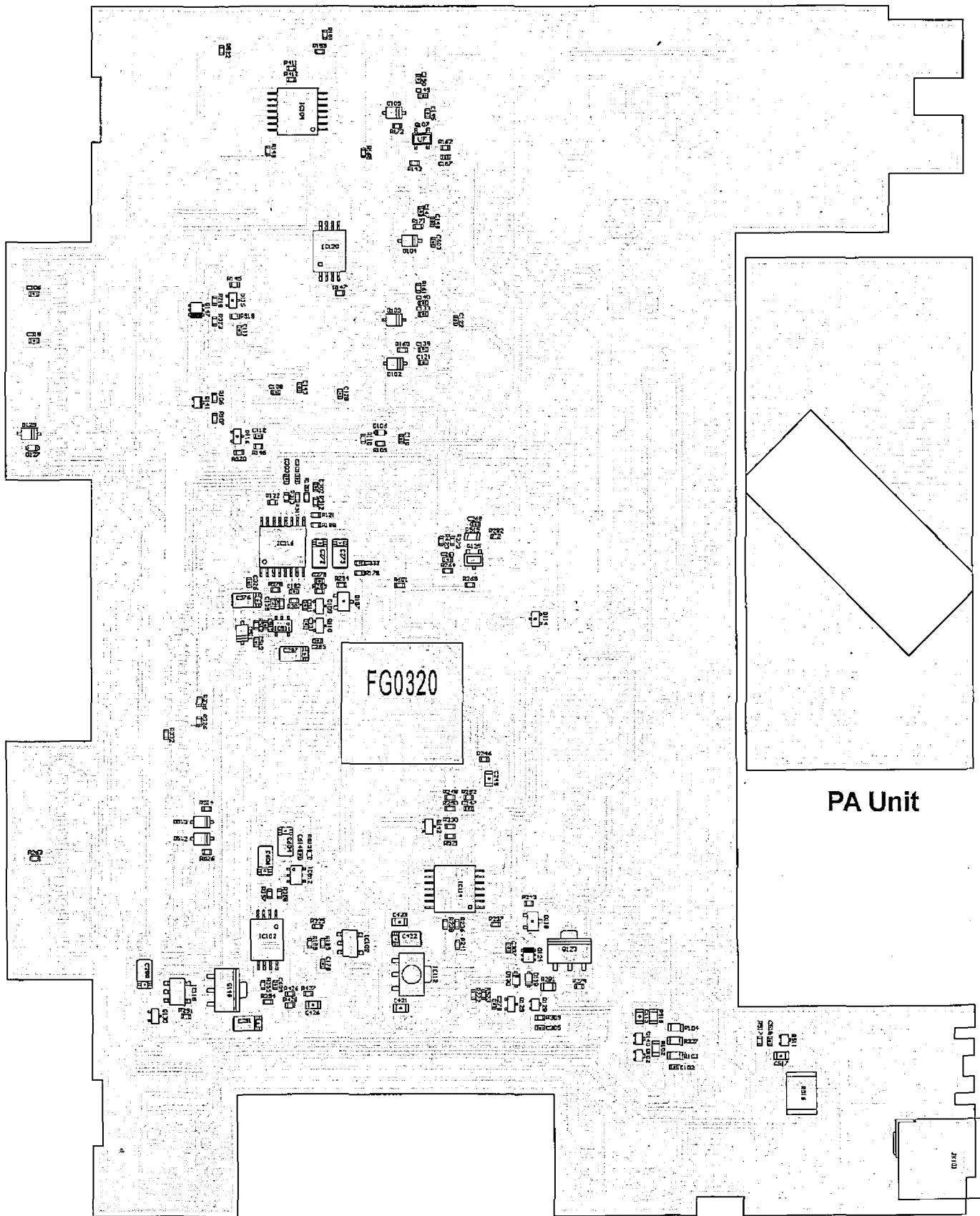


## 5) MAIN / PA Unit Side A DR-06T (UP0602)



## 6) MAIN / PA Unit Side B DR-06T (UP0602)

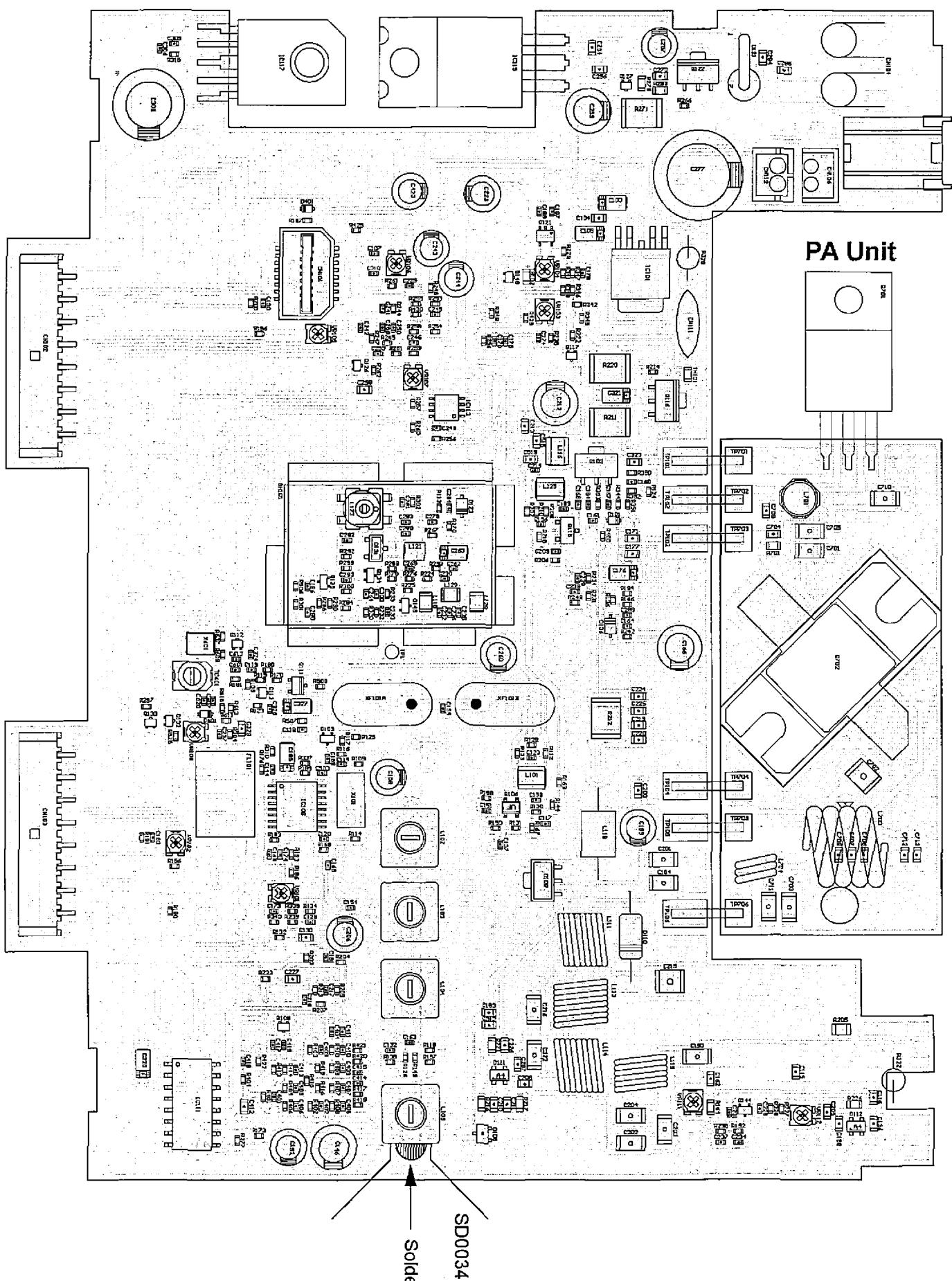
### MAIN Unit



### PA Unit

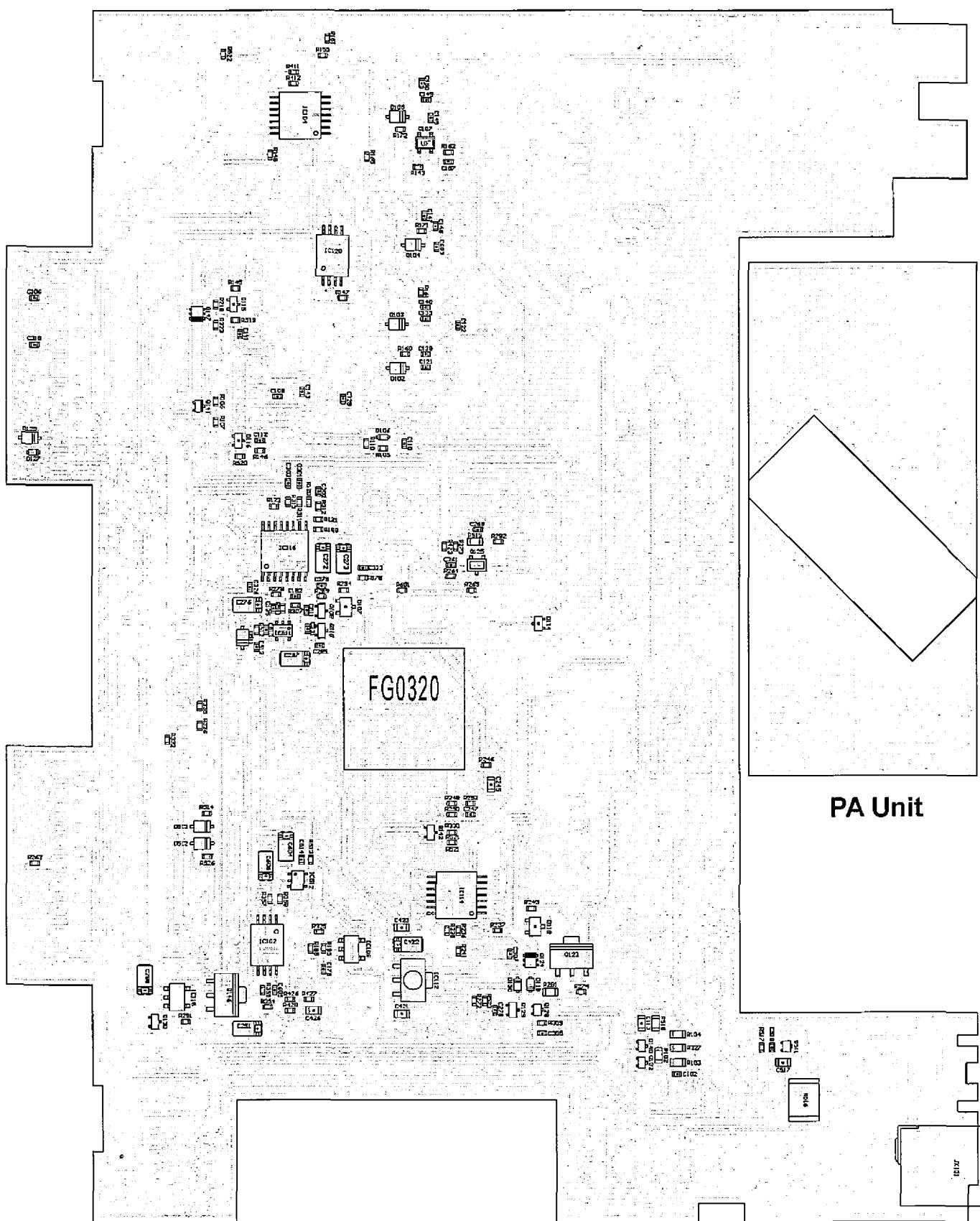
## 7) MAIN / PA Unit Side A DR-M06R (UP0602)

MAIN Unit



## 8) MAIN / PA Unit Side B DR-M06R (UP0602)

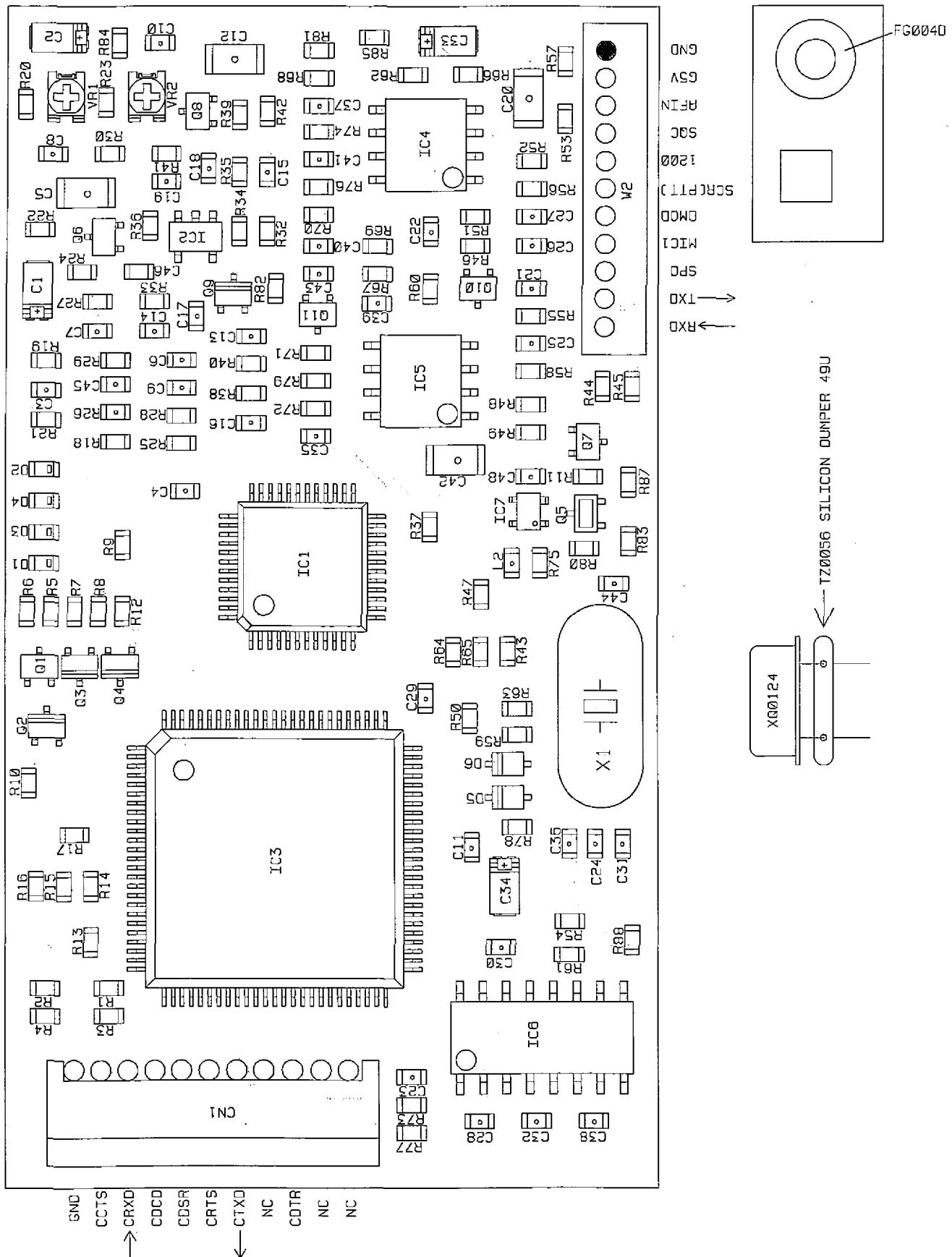
### MAIN Unit



### PA Unit

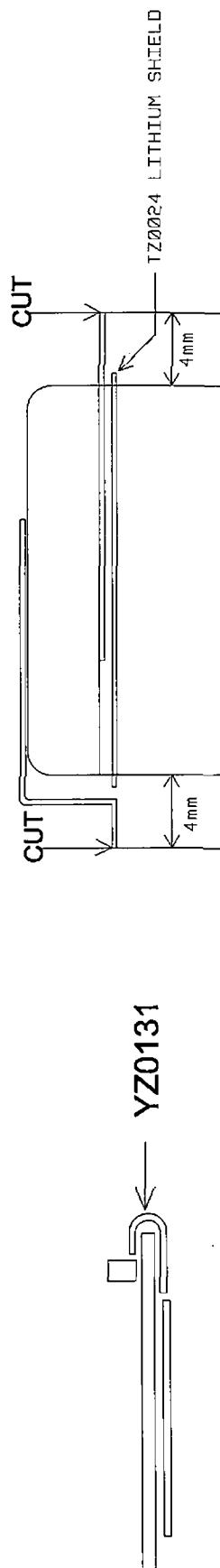
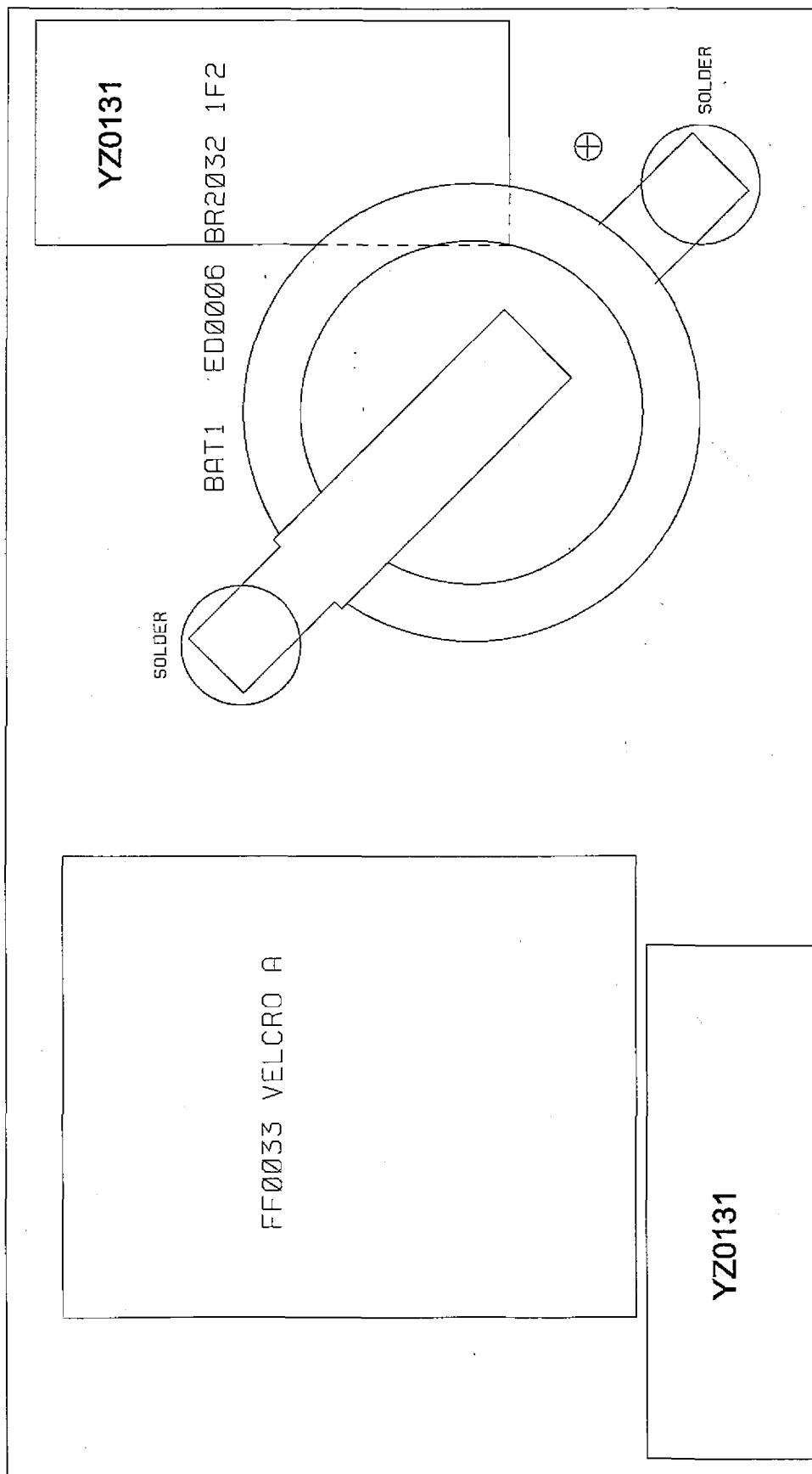
## **9) TNC Unit Side A (UP0402)**

## OPTION unit (EJ41U)



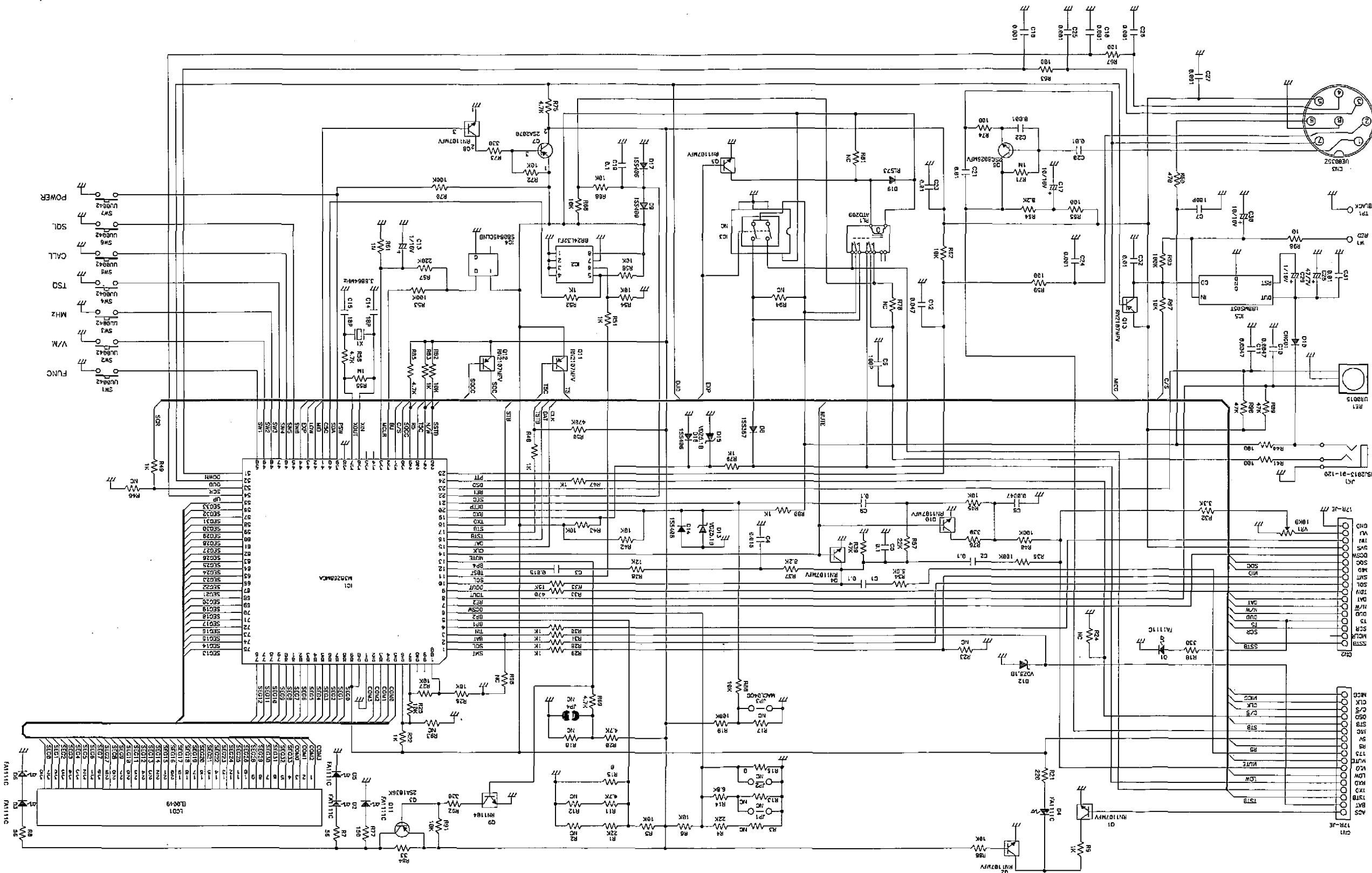
## 10) TNC Unit Side B (UP0402)

OPTION unit (EJ41U)



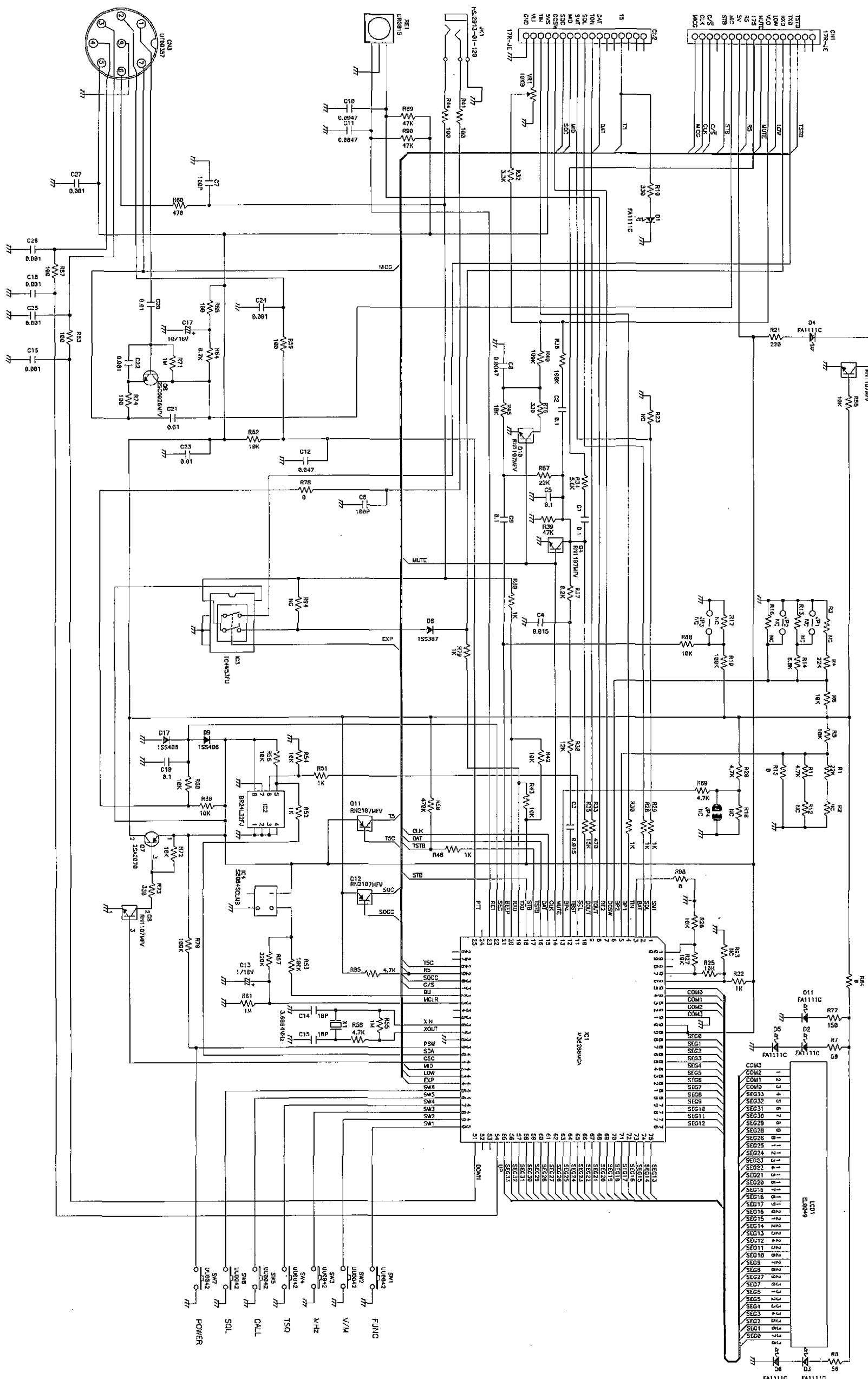
1) CPU Unit DR-06T

Schematic Diagram

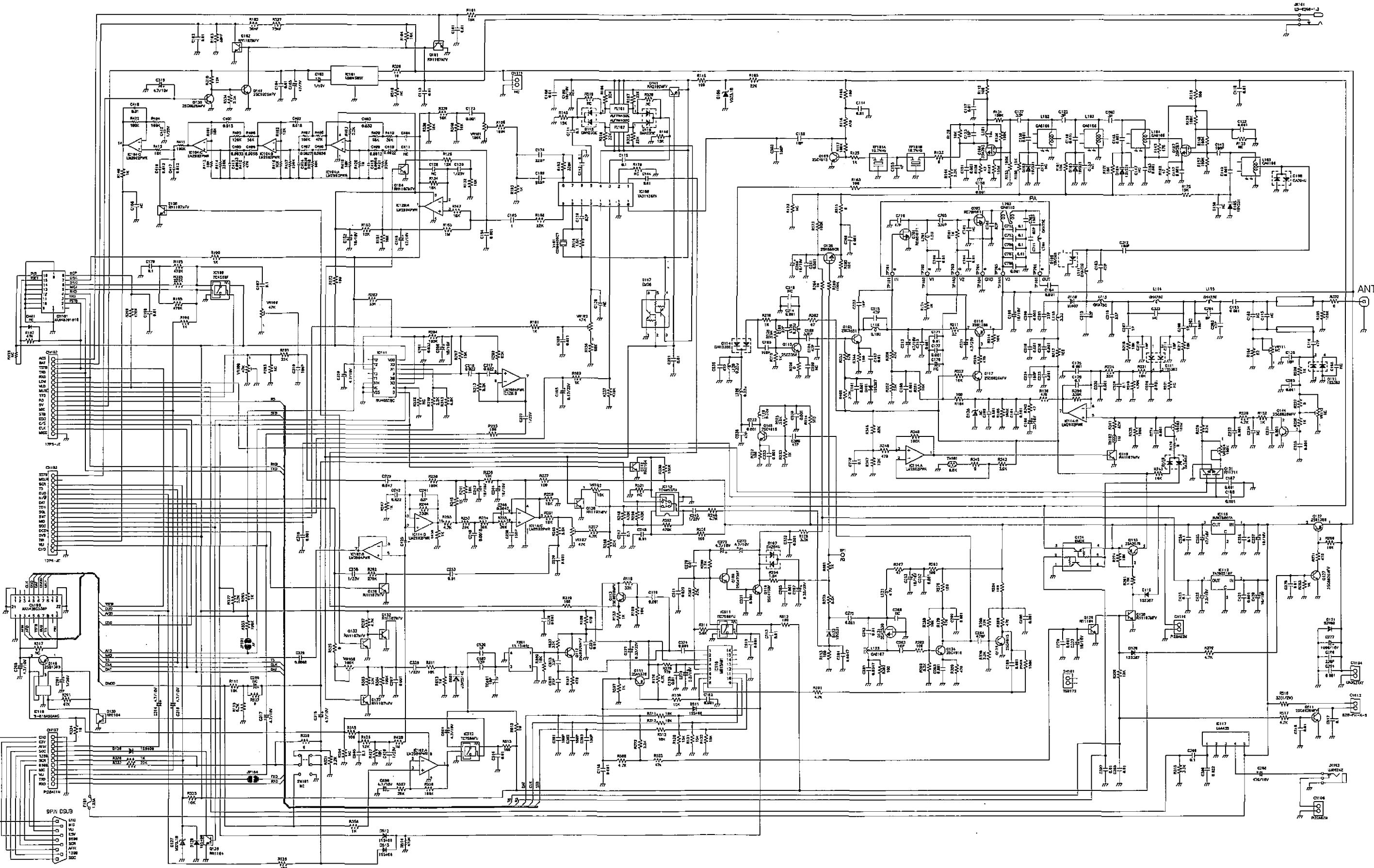


## SCHEMATIC DIAGRAM

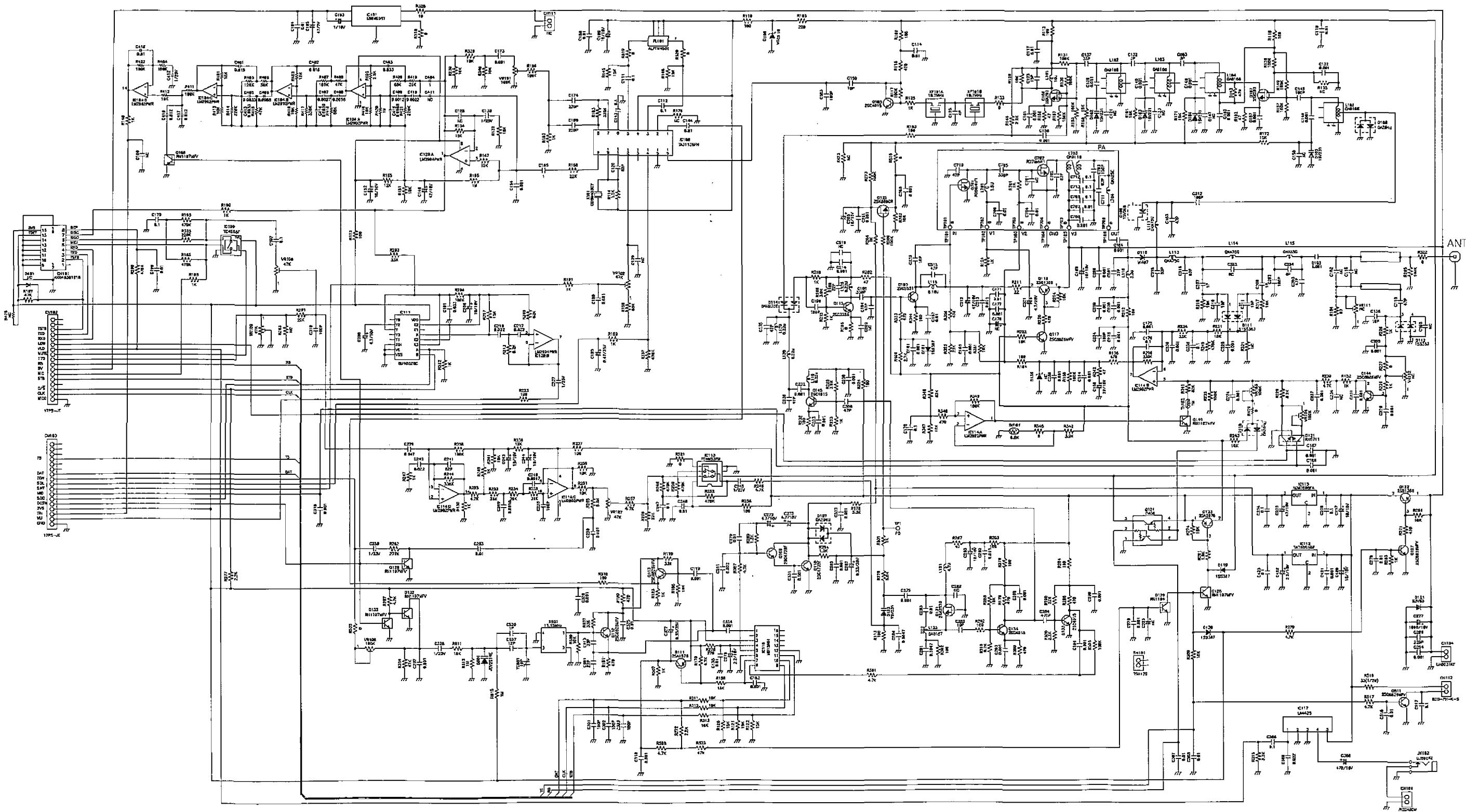
### 2) CPU Unit DR-M60R



### 3) MAIN Unit DR-06T

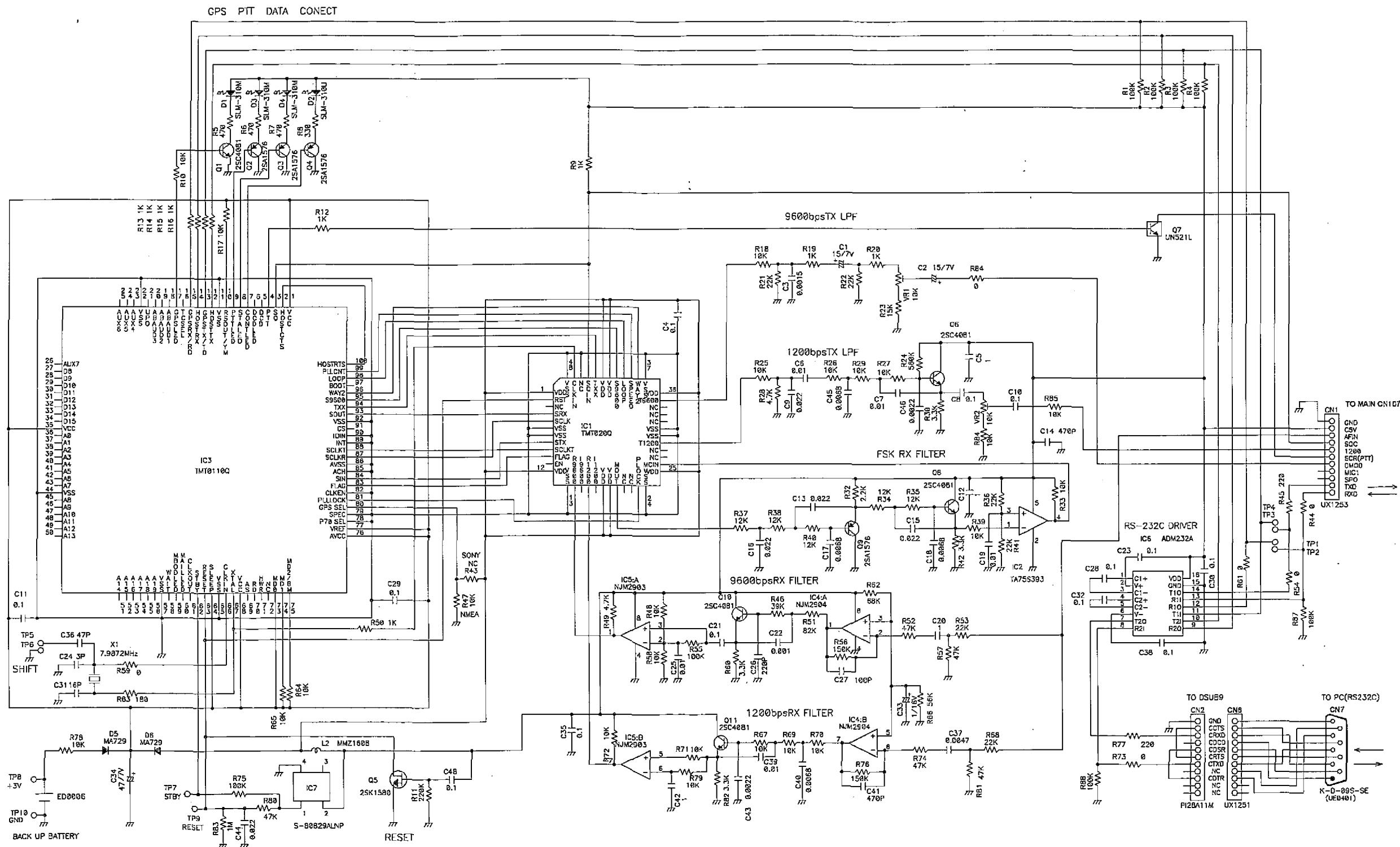


#### 4) MAIN Unit DR-M06R



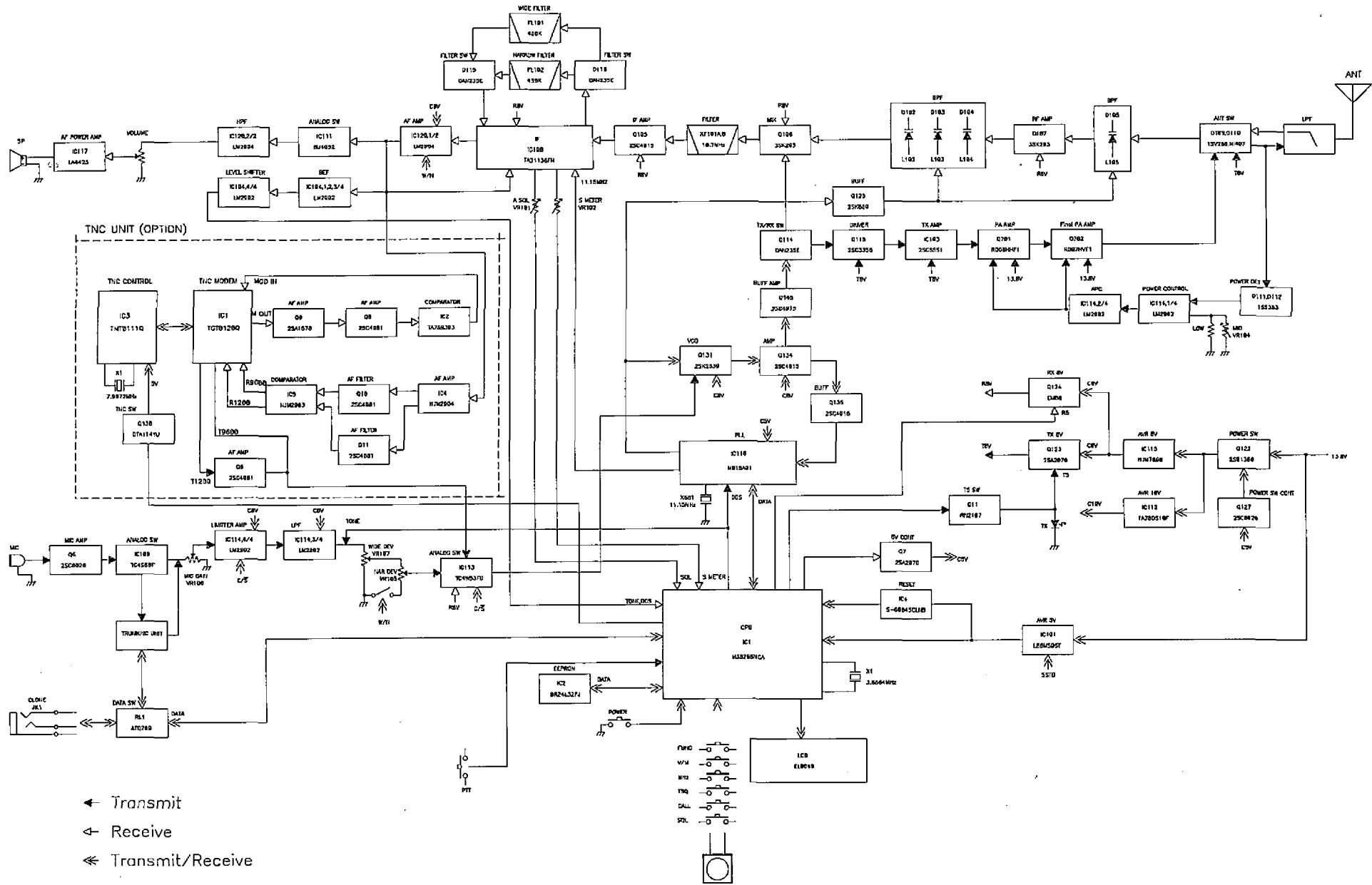
## 5) TNC Unit

### OPTION Unit (EJ41U)



## BLOCK DIAGRAM

1) DR-06T



 Transmit

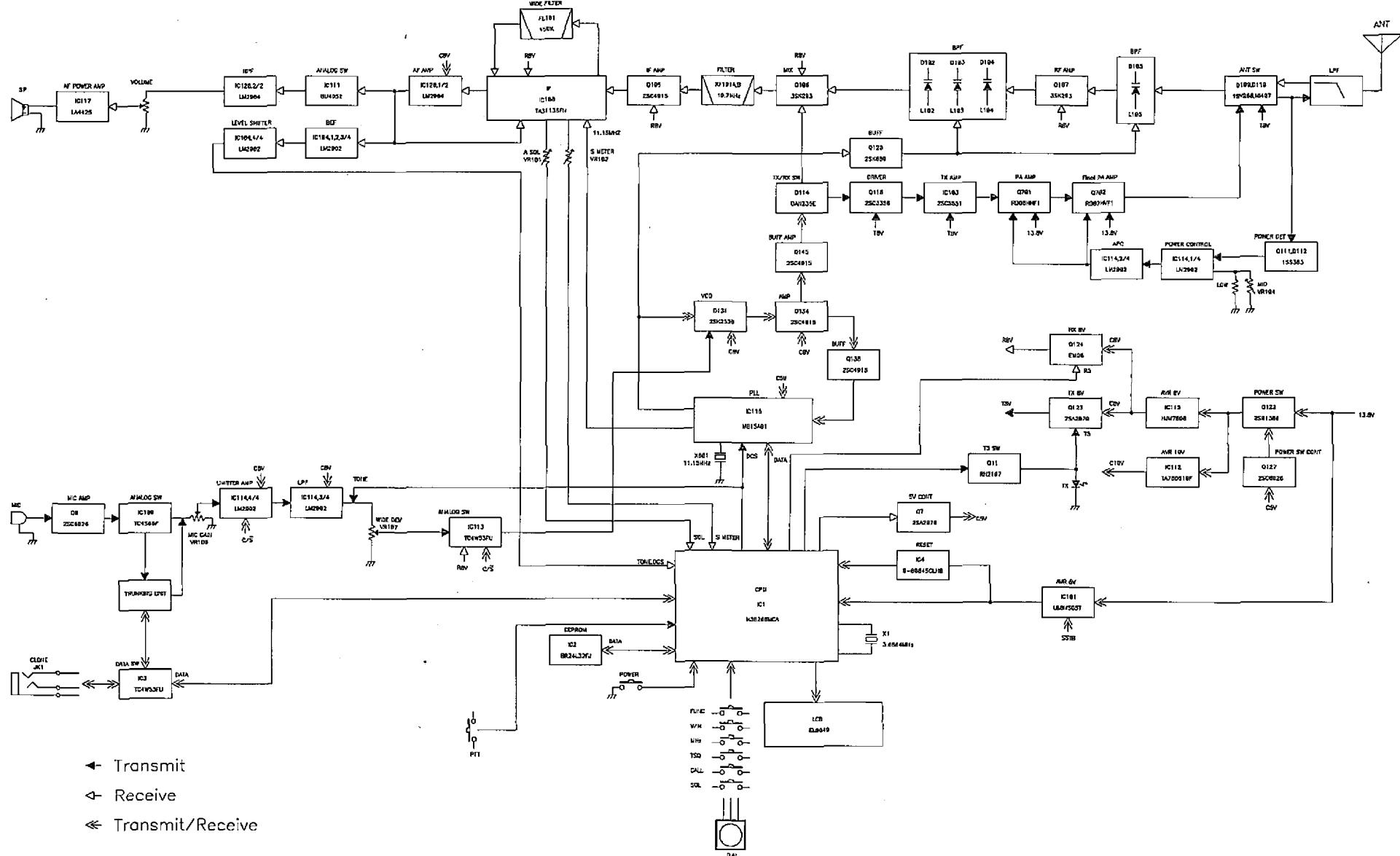
← Receive

← Transmit/Receive

# BLOCK DIAGRAM

46

## 2) DR-M06R



# **ALINCO, INC.**

**Head Office:** Shin-Dai Building 9th Floor  
2-6, 1-Chome, Dojimahama, Kita-ku, Osaka 530-0004, JAPAN  
Phone: +81-6-4797-2136 Fax: +81-6-4797-2157  
E-mail: [export@alinco.co.jp](mailto:export@alinco.co.jp)

Dealer/Distributor