

1 GENERAL SPEC

**MODEL NO : MJ-600PLUS
FEATURE**



* FUNCTION

1. FUNCTION(FC) SELECTION SW
2. AM/FM SELECTION SW
3. TL(TONE LOW) // ROGER BEEP SW
4. SUB CHANNEL(SCH) // BEEP SW
5. SUB WEARCH(SW) // SCAN SEARCH SW
6. AUTO SQUELCH(ASQ) // MEMORY 1 SW
7. FREQUENCY(FRQ) // MEMORY 2 SW
8. EMG(CH9) // MEMORY 3 SW

* CONTROLS

1. AF VOLUME CONTROL W/ ON/OFF SW
2. SQUELCH CONTROL (NOISE DET)
3. CHANNEL UP/DOWN CONTROL

* LCD DISPLAY(VFD DISPLAY)

1. CHANNEL / FREQUENCY 5 SEGMENT DISPLAY
2. RB / BP / TL
2. SW/ SC /
3. MEMORY CHANNEL 1-3 1SEGMENT DISPLAY
4. FM / AM /
5. 6 BAR SRF LEVEL METER
6. 6 BAR MIC LEVEL METER

* 3.5 PIE EXT SPEAKER JACK

* M-TYPE ANT CONNECTOR

* BILT-IN NOISE BLANK and AUTOMATIC NOISE LIMIT

* LED BACK LIGHTING<BLUE COLOR>

* NOISE SQUELCH.

* 8 PIN MIC JACK

1. MIC UP / DOWN SWITCH
2. DY - MICROPHONE
3. ASQ SWITCH
4. EXT 13.8V B+ TERMINAL

* DIMENSION : D-140mm . W-125mm . H-41mm.

* WEIGHT :780 g.(gift total : 1250g)

ELECTRICAL

* GENERAL

- @ TRANSMITTER..... CRSTAL CONTROLLED PLL SYNTHESIZER
- @ RECEIVER..... DOUBLE CONVERSION, SUPERHETERODYNE SYSTEM
- @ VOLTAGE OPERATION..... DC 13.8 V
- @ TEMPERATURE..... -10 °C ~ +50 °C
- @ CHANNEL STEP 10 Khz

* TRANSMITTER

- @ OUTPUT POWER.....
 - * FM/AM : 4WATTS
 - * FM 10W , AM 8W
- @ FREQUENCY RANGE.....
 - * 40CH 26.965 ~ 27.405 MHz
 - *240CH 25.615 ~ 28.305 MHz
- @ FREQUENCY TOLERANCE..... +-600 Hz
- @ MODULATION SENS..... 3mV(1.25KHz INPUT)
- @ MODULATION CAPABLITY..... AM : 90 %
FM : 2 KHz

*RECEIVER

- @ FREQUENCY RANGE.....
 - * 40CH 26.965 ~ 27.405 MHz
 - *240CH 25.615 ~ 28.305 MHz
- @ SENSITIVITY..... AM : 0.5 uV(S/N 10dB)
FM : 0.3 uV (SINAD12dB)
- @ SQUELCH..... 0.5 uV
- @ AUTO SQUELCH..... 0.3 uV
- @ S/N RATIO..... 45 dB
- @ DISTORTION..... 3 %
- @ MAX POWER..... 4 WATTS
- @ S/METER(S-9)..... 100 uV

* TEST CONDITION

- @ POWER SOURCE..... DC 13.8 VOLTS
- @ ANT LOAD IMPEDANCE..... 50 ohm NON-INDUCTIVE
- @ AUDIO LOAD IMPEDANCE..... 8 ohm

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|MJ-600PLUS FRONT UNIT PARTS LIST

Apr 11 10:40:15 2006

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|Item|Qty |Reference|Part Name |Manufacturer |Description |

|---+---+-----+-----+-----+-----|

1	1	C402	C-SMD,0.001			
2	1	C413	C-SMD,0.0047B			
3	3	C410-411	C-SMD,0.022			
		C414				
4	1	C409	C-SMD,0.022B			
5	5	C401	C-SMD,0.1			
		C405-408				
6	2	C403-404	C-SMD,20PCH			
7	1	D408	D-A,KDR357			
8	12	D401-407	D-A,S160			
		D410				
		D414-417				
9	1	D409	DZ-R,5.1VB			
10	1	IC401	IC80TFP,			
			S3C8245&8249			
11	1	IC402	ICP08,S21AC			
12	1	LCD401	LCD25PA			
13	4	LD401-404	LED-S,BLUE			
14	1	LD405	LED-S,			
			RED/GREEN			
15	1	D14	LED-S,RX-GREEN			
16	1	DY1	MIC-D6,			
			150/30PIE			
17	2	MIC2	MIC-E,DIN			
		MIC401	SOCKET			
18	1	R413	R-SMD,1 KJ			
19	1	MR1	R-SMD,1 KJ/AX			
20	9	R406-407	R-SMD,100KJ			
		R409				
		R415-417				
		R419-421				
21	3	R403-404	R-SMD,10KJ			

		R410			
22	1	R402	R-SMD,15KJ		
23	1	R1	R-SMD,22 KJ		
24	2	R405 R408	R-SMD,220KJ		
25	1	R2	R-SMD,22KJ		
26	1	R428	R-SMD,4.7K		
27	1	R414	R-SMD,4.7KJ		
28	1	R418	R-SMD,		
			470(2012)X4		
29	5	R422-426	R-SMD,47KJ		
30	1	R401	R-SMD,6.8KAX		
31	2	R411-412	R-SMD,680J		
32	1	SW1000	SW-2,POWER		
33	1	MSW1	SW-6A,PTT-SW		
34	1	MSW3	SW-DIP,M-DOWN		
35	1	MSW4	SW-DIP,M-SCH		
36	1	MSW2	SW-DIP,M-UP		
37	1	SW401	SW-ENCD,		
			CH-UP/DOWN		
38	1	SW402	TACT,		
			AM/FM/TL(LCR)		
39	1	SW403	TACT,ASQ/M1		
40	1	SW412	TACT,CH19		
41	1	SW409	TACT,CH9/M3		
42	1	SW410	TACT,FC		
43	1	SW7	TACT,FRQ/M2		
44	1	SW413	TACT,LCR		
45	1	SW404	TACT,LCR/BEP		
46	1	SW406	TACT,SCH/BP		
47	1	SW407	TACT,SW/SC		
48	1	SW405	TACT,T-SQ/RB		
49	1	SW411	TACT,TL/RB		
86	1	Q401	TR,A102S		
87	2	Q1-2	TR,A110		
88	1	Q403	TR,C102S		
89	1	Q402	TR,C110S		
90	1	SQ401	VR-10X10,10KB		

91	1	VR401	VR-10X10,50KA		
92	1	X401	XTL-11X4.5,		
			8.0MCL20P		

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|MJ-600PLUS-MAIN EU part list.sch May 26 12:38:28 2006 |

Item	Qty	Reference	Part Name	Manufacturer	Description	
1	1	J2	ANT,ANT			
2	2	C60 C105	C-SMD,0.001B			
3	7	C1 C56	C-SMD,0.001B			
		C74 C86				
		C109 C113				
		C118				
4	1	C20	C-SMD,0.0022B			
5	2	C64 C107	C-SMD,0.0047B			
6	10	C8 C14	C-SMD,0.01B			
		C16 C33				
		C36 C38				
		C62 C70				
		C81 C85				
7	1	C34	C-SMD,0.015B			
8	18	C2 C13	C-SMD,0.01B			
		C30 C35				
		C58 C65				
		C69 C75				
		C77-78				
		C84				
		C103-104				
		C108 C112				
		C114 C116				
		C144				
9	11	C7 C24	C-SMD,0.022B			
		C29 C32				
		C46 C57				
		C59				
		C71-72				
		C80 C111				
10	2	C90 C142	C-SMD,			
			0.022B(2012)			

11	1	C61	C-SMD,0.022B			
12	1	C68	C-SMD,0.068B			
13	3	C19	C-SMD,0.1			
		C21-22				
14	8	C3 C23	C-SMD,0.1B			
		C27 C31				
		C54 C63				
		C110 C117				
15	5	C136-139	C-SMD,0.33B			
		C146				
16	1	C28	C-SMD,100PCH			
17	1	C93	C-SMD,			
			100PCH(3216)			
18	1	C41	C-SMD,10PCH			
19	1	C102	C-SMD,12PCH			
20	2	C44 C73	C-SMD,150PCH			
21	1	C97	C-SMD,			
			150PCHD/50V		ANT CON	
22	1	C76	C-SMD,180PCH			
23	1	C96	C-SMD,			
			180PCH(3216)			
24	1	C145	C-SMD,18PCH			
25	4	C4 C6	C-SMD,1uFB			
		C121 C147				
26	1	C120	C-SMD,			
			2.2uFB(2012)			
27	4	C39 C53	C-SMD,220PCH			
		C55 C106				
28	1	C43	C-SMD,270PCH			
29	3	C95	C-SMD,			
		C130-131	270PCH(3216)			
30	2	C11 C17	C-SMD,27PCH			
31	1	C98	C-SMD,			
			27PCH(3216)			
32	1	C42	C-SMD,30PCH			
33	3	C26 C79	C-SMD,330PCH			
		C83				

34	3	C25 C40	C-SMD,33PCH			
		C51				
35	1	C94	C-SMD,			
			390PCH(3216)			
36	1	C119	C-SMD,3PCH			
37	3	C122	C-SMD,			
		C134-135	4.7uFB(2012)			
38	1	C140	C-SMD,			
			4.7uFB(3216)			
39	1	C50	C-SMD,470PCH			
40	1	C88	C-SMD,			
			470PCH(2012)			
41	1	C89	C-SMD,			
			470PCH(3216)			
42	3	C47-49	C-SMD,47PCH			
43	1	C5	C-SMD,			
			47PCH(2012)			
44	2	C18 C45	C-SMD,5PCH			
45	1	C67	C-SMD,680PCH			
46	1	C87	C-SMD,68PCH			
47	2	C91 C115	C-SMD,			
			68PCH(2012)			
48	1	C15	C-SMD,7PCH			
49	1	C82	C-SMD,8PCH			
50	1	C12	C-SMD,820PCH			
51	2	MCF1-2	CF-A,10.7MHZ			
52	1	CF2	CF-A,455HTW			
53	1	TK1	COIL,L6			
54	1	CORD	GND,13.8V		POWER CORD W/ FUSE5A	
55	1	CN1	CON-2B,IN-SP		SP TWIN 160mm assy	
56	1	CT1	CV-SMD,20P			
57	1	D20	D-A,1N4002			
58	2	D23-24	D-A,1N5401			
59	1	D11	CHIP KDR357			
60	2	D2 D17	CHIP KDR357			
61	4	D9 D13	CHIP KDS160			
		D15 D25				

62	4	D1 D3 D6	SOT23,KDS226			
		D10				
63	2	D5 D18	SOT23,KDS181			
64	1	D4	SOT23,KDS184			
65	2	D8 D14	SOT23,KDV251Y			
66	1	D27	SOT23,ZD3.0VB			
67	2	D12 D22	SOT23,ZD5.6VB			
68	1	D7	SOT23,ZD9.1VB			
69	1	CE35	TANTAL,1/16			
70	1	CE8	TANTAL,10/16			
71	1	CE26	TANTAL,10/16			
72	2	CE10 CE27	E-A,100/16			
73	1	CE11	E-A,1000/16			
74	4	CE16-17	CHIP 22/16			
		CE19 CE28				
75	1	CE1	TANTAL3.3/16A			
76	3	CE7 CE14	CHIP 33/16			
		CE18				
77	1	CE9	EL 330/16			
78	3	CE13 CE20	CHIP 47/16			
		CE30				
79	1	CE32	EL,470/16			
80	1	Q45	FET,K211GR			
81	1	IC6	78LO5 REG			
82	2	IC5	IC5,KIA4558F			
83	1	IC4	IC10,KIA7217			
84	1	IC2	IC14,MC4066			
85	1	IC3	IC24 LC7152M			
86	1	IC1	ICP16,MC3361			
87	1	T3	IFT,047			
88	1	T4	IFT,048			
89	1	T6	IFT,81450A			
90	1	T7	IFT,81460N			
91	1	T1	IFT6,81410A			
92	1	T2	IFT6,81420			
93	2	T9-10	IFT6,81480			
94	1	T11	IFT6,LX18			

95	1	T5	IFT-5,036			
96	1	J1	J-SP,3.5JACK			
97	1	L4	PACKING COIL			
98	1	L11	CHIP			
			220nH(2012)			
99	1	L3	CHIP			
			6.8uH(2012)			
100	1	L1	L-D,6T			
101	1	L9	L-D,7-1/2T			
102	4	L6-8 L10	L-D,8-1/2T			
103	2	R121 R141	R-SMD,0			
104	1	R58	R-SMD,1.5KJ			
105	1	R28	R-SMD,1.5MJ			
106	1	R126	R-SMD,1.8KJ			
107	1	R70	R-SMD,10(2102)			
108	6	R19 R63	R-SMD,100J			
		R84				
		R100-101				
		R133				
109	9	R15 R45	R-SMD,100KJ			
		R49 R88				
		R114 R128				
		R138				
		R151-152				
110	1	R44	R-SMD,10KJ			
111	19	R7 R13	R-SMD,10KJ			
		R23 R48				
		R51 R59				
		R67 R75				
		R77-79				
		R92 R98				
		R119 R129				
		R139 R147				
		R154 R163				
112	1	R107	RES 1/2W			
			120J			
113	1	R117	RES,150J/1W			

114	1	R42	R-SMD,150KJ			
115	3	R27 R66	R-SMD,15KJ			
		R94				
116	1	R85	R-SMD,180KJ			
117	9	R18 R30	R-SMD,1KJ			
		R54 R93				
		R95 R125				
		R127				
		R134-135				
118	2	R5 R150	R-SMD,1MJ			
119	1	R52	R-SMD,10KJ			
120	1	R10	R-SMD,1KJ			
121	9	R2 R4 R16	R-SMD,2.2KJ			
		R36 R46				
		R65 R71				
		R91 R137				
122	5	R1 R20-21	R-SMD,2.7KJ			
		R96 R123				
123	2	R22 R33	R-SMD,220J			
124	3	R53 R57	R-SMD,220KJ			
		R99				
125	1	R72	R-SMD,22J			
126	1	R31	R-SMD,22KJ			
127	7	R11 R25	R-SMD,22KJ			
		R68				
		R73-74				
		R130 R142				
128	1	R120	R-SMD,270J			
129	2	R89 R132	R-SMD,27KJ			
130	2	R82-83	R-SMD,3.3KJ			
131	4	R32 R97	R-SMD,330J			
		R140 R145				
132	1	R86	R-SMD,33KJ			
133	3	R37 R41	R-SMD,33KJ			
		R90				
134	1	R29	R-SMD,33KJ			
135	2	R118 R124	R-SMD,390J			

136	1	R69	RES,4.7/2W			
137	2	R102-103	R-SMD,4.7KJ			
138	1	R144	R-SMD,			
			4.7KJ(2012)			
139	5	R14 R115	R-SMD,4.7KJ			
		R131 R136				
		R156				
140	2	R26 R116	R-SMD,470J			
141	1	R146	R-SMD,470KJ			
142	3	R35	R-SMD,47J			
		R105-106				
143	8	R3 R6	R-SMD,47KJ			
		R38-39				
		R43 R55				
		R80-81				
144	1	R104	R-SMD,5.6KJ			
145	4	R87	R-SMD,5.6KJ			
		R148-149				
		R153				
146	1	R56	R-SMD,56J			
147	2	R24 R34	R-SMD,56KJ			
148	1	R61	R-SMD,6.8KJ			
149	1	R109	R-SMD68J(2012)			
150	1	R122	R-SMD,680J			
151	2	R64 R108	R-SMD,68J			
152	1	R40	R-SMD,68KJ			
153	1	R112	R-SMD,820J			
154	1	R17	R-SMD,82KJ			
155	2	Q21 Q25	SOT23,KRA101S			
156	2	Q35 Q38	T-92L,KTA1241Y			
157	2	Q29 Q43	SOT23,KTA1504Y			
158	1	Q34	T-220AB,B988Y			
159	10	Q6 Q12-14	SOT23,KRC102S			
		Q22 Q24				
		Q27 Q37				
		Q40-41				
160	1	Q26	SOT23,KRC110S			

161	1	Q33	T-220,			
			2SC2078E			
162	1	Q32	T-???,2SC2314F			
163	1	Q31	T-92,			
			C3199GR			
164	11	Q1 Q3	SOT23,KTC3875Y			
		Q10-11				
		Q15 Q20				
		Q23 Q28				
		Q36 Q39				
		Q44				
165	9	Q2 Q8-9	SOT23,KTC3880Y			
		Q16-17				
		Q19 Q30				
		Q42 Q47				
168	1	OPT1	TRANS,28MM			
169	1	CH1	TRANS,19MM			
170	1	VR4	VR-CHIP,1KB			
171	1	VR6	VR-CHIP,470B			
172	1	VR1	VR-CHIP,100KB			
173	1	VR3	VR-CHIP,5KB			
174	1	X1	XTL-49/U,8PPM			
			10.245MHZ			

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MJ-600PLUS THEORY OF CIRCUITS , ALIGNMENT PROCEDURES

1. CIRCUIT DESCRIPTION

1-1. PLL PARTY

Main CPU IC does Kondeurol to serial data to PLL IC doing function and Display indication function at the same time.

Also, EEP ROM IC stores data in addition that increase and do memory

VCO AND REFERENCE FREQUENCY OSCILRATE AND THE PHASE DETECTER HAVE DESIGNATED PLL CIRCUIT, WHICH PHASE BOTH FREQUENCIES.

THE OUTPUT OF PHASE DETECTOR CONTROLLED VCO AND MAKE STABLIZED OF VCO OSCILATE FRQUENCY.
THE PLL WILL WORKING STABLY WHEN THE PHASE OF VCO AND REFERENCE FREQUENCY SHOULD BE EQUAL.

PLL BLOCK DIAGRAM

→ REFERENCE FREQUENCY -→
→ PHASE COMPARATOR → L.P.F → TO VCO OSC.
→ VCO. OSCILLATOR -→ (LOW PASS FILTER)

1-2. RECEIVER PARTY

1-2-1. HIGH FREQUENCY AMPLIFICATION PARTY.

Q2 IS HIGH FREQUENCY AMPLIFICATION TRANSISTOR AND APPLIED COMMON EMITTER METHOD.

THIS CIRCUIT HAS BEEN FEATURED AS HIGH SENSITIVITY AND LOW NOISE.

D6 IS WORKING AS WHEN INCOMING STRONG SIGNAL ON RECEIVER.

1-2-2. FIRST MIXER PARTY

Q8,Q9 IS MIXER PARTY. AND IT HAS OUTPUT 10.700MHz(MID RANGE) BY MIXE HIGH FREQUENCY AMPLIFICATED SIGANL AND 1ST LOCAL OSCILLATED FREQUENCY.

FOR EXAMPLE, IF THIS EQUIPMENT IS 19CH, THE FREQUENCY IS 27.185MHz AND 1ST LOCAL FREQUENCY IS 16.485MHz.

SO, F_o - 1ST LOCAL FREQUENCY (V.C.O FREQ.) ARE 10.700MHz.

1-2-3. FILTER APRTY

WHEN THE 10.700MHz WHICH MADE FROM THE FIRST MIXER PARTY PASSED MCF1,2 FILTER GETS REAL 10.700MHz SIGNAL WHICH HAS BAND WIDTH ± 7.5 kHz.

1-2-4. 2ND MIXER PARTY

WHEN THE 10.700MHz AND 2ND LOCAL FREQUENCY (10.245MHz) ARE MIXED BY IC 1, THE MIDDLE FREQUENCY 455kHz HAS OUTPUTED AND PASSING CF2 FILTER.

1-2-5. FM DETECTOR PARTY.

THE FM SIGNAL DETECTING BY IC 1 AND TURN TO VOICE
SIGNAL ON IC2(SW IC).

1-2-6. AM FREQUENCY DETECTOR PARTY

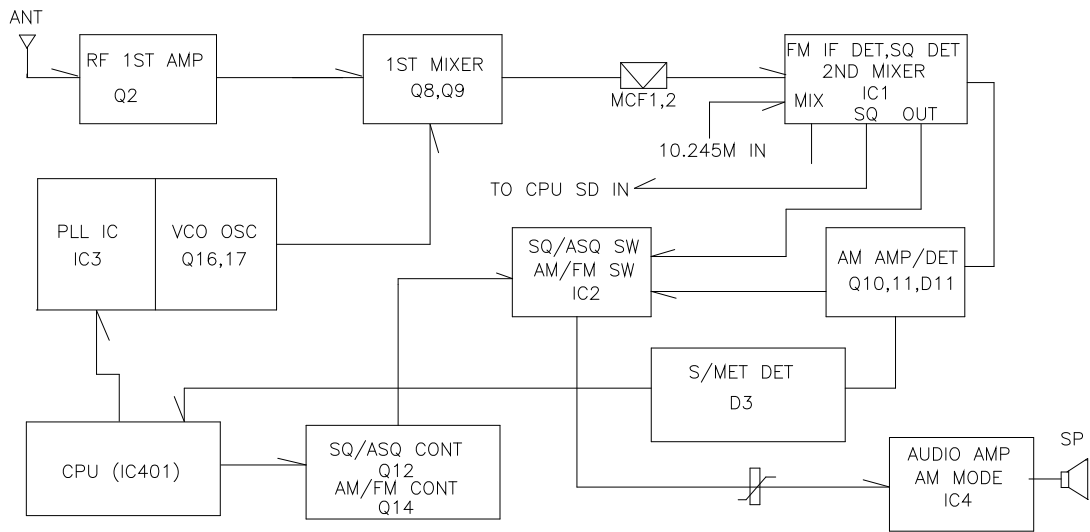
The AM detecting waves amplifies 455 KHzs sign that appear in FM DET IC
in Q10, Q11, Boiseu signal that is detected by D11 is sent to IC2(SW IC).

1-2-7. AUDIO AMPLIFIER PARTY

MODIFIED VOICE SIGNAL WILL BE HEARED TROUGH SPEAKER
BY PASSING VOLUME AND AUDIO POWER AMP (IC 4).

RECEIVER BLOCK DIAGRAM

RX BLOCK DIAGRAM



1-3. TRANSMITTER PARTY.

1-3-1. V.C.O PARTY (VOLTAGE CONTROL OSCILLATOR)

ACCORDING TO VCO VOLTAGE MODIFIED OF EACH CHANNEL,
 $FVCO \times 2$ FREQUENCY *(IN CASE IF 19CH, 27.185MHz) IS MADE
 BY VCO FREQUENCY & DIVIDE RATIO (N) ARE MODIFYING.

AT THIS TIME, THE VCO FREQ (13.5925MHz AT 19CH) IS FLOW IN Q30.
 AND ON Q30, DOUBLER THE FVCO X 2 MHz IS TURN TO 27.185MHz
 FLOW IN Q31 BSAE.

THE Q31 ARE PRE-AMPLIFIER. AND IT AMPLIFICATE WEAK CARR-
 IER OF 27.185MHz. THE 27.185MHz FLOW IN TO Q32 AND IT AMPLIFICATE
 ON THE Q33 (TX POWER AMP) AND RADIATE BY ANTENNA THROUGH L.P.F.

1-3-2. L.P.F (LOW PASS FILTER)

TK1, L6, L7, L8,L9,L10 & C94,C95,C139,C131,C96,C97 ARE L.P.F CIRCUIT.
AND THIS CIRCUIT DEPRESS THE NEEDLESS HARMONICS TO
UNDER 90dB EXCEPT THE 27MHz.

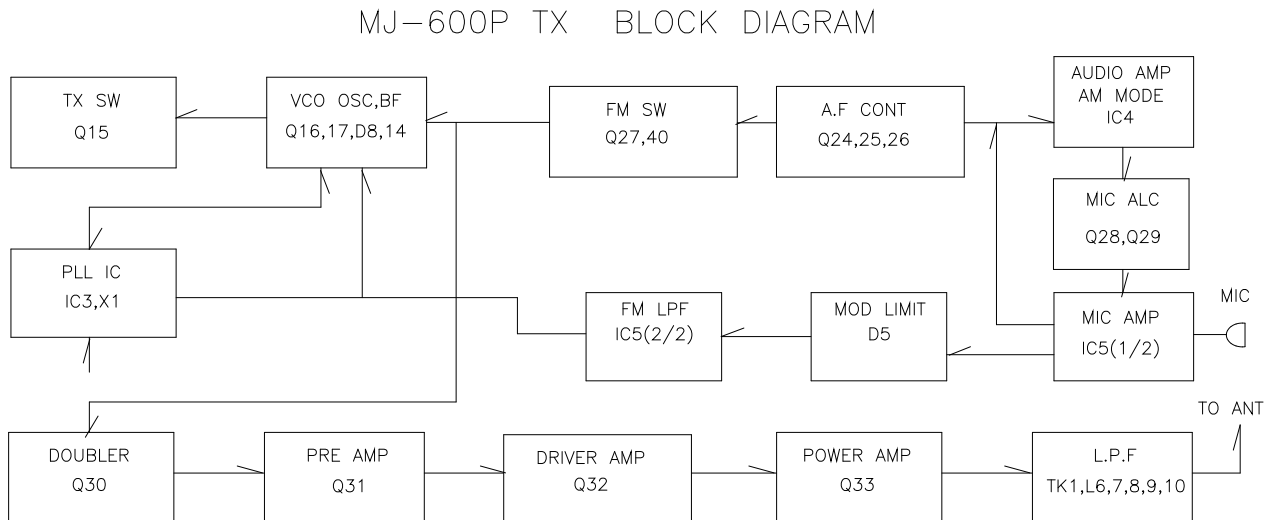
1-3-4. AM MODULATION

- A) THE AMPLIFICATED SIGNAL ON IC5(1/2) FLOW IN TO IC4. AND
THIS SIGNAL MODULATED ON IC4, OPT1 THROUGH D24.
- B) AMC CONTROLLED BY Q28 AFTER DETECT ON Q29,D15.

1-3-5. FM MODULATION

THE AMPLIFICATED SIGNAL ON IC5(1/2) FLOW IN TO LIMIT DIODE D6
AND LPF IC5(2/2) FLOW IN TO MODULATED UNDER CONTROL OF
FVCO WHICH MODIFIDE VARIABLE CAPACITOR D14 THROUGH FILTER.

TX BLOCK DIAGRAM



2. HOW TO ADJUST

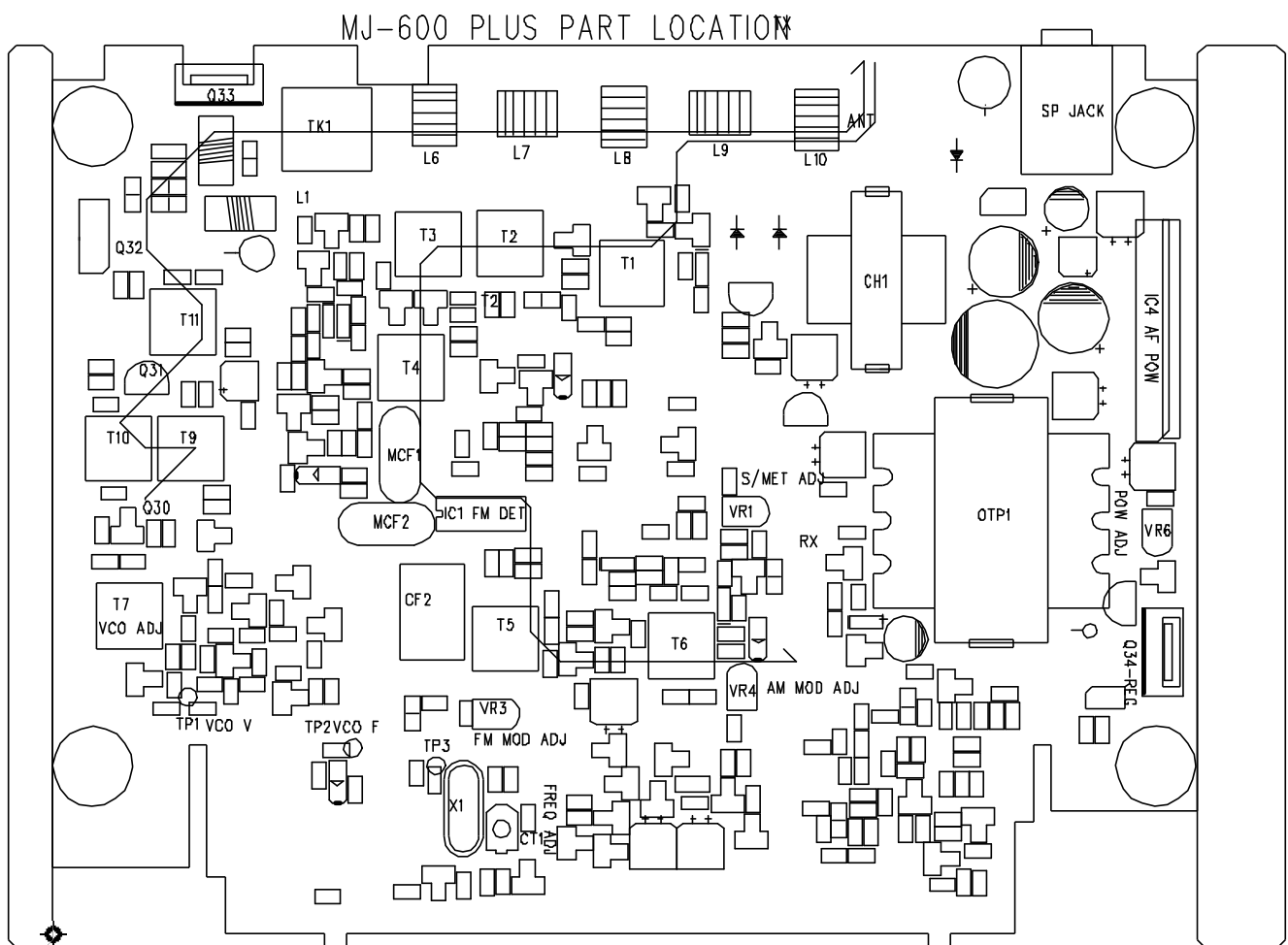
2-1. PREPARATION

2-1-1. HOW TO DISASSEMBLE

TAKE OFF 8 PCS OF SCREWS ON SDIE PART OF BOTTOM COVER.

2-2. ADJUST & TEST POINT

PARTS LOCATION DIAGRAM



2-3. PASHE LOCKED LOOP & VCO PARTY

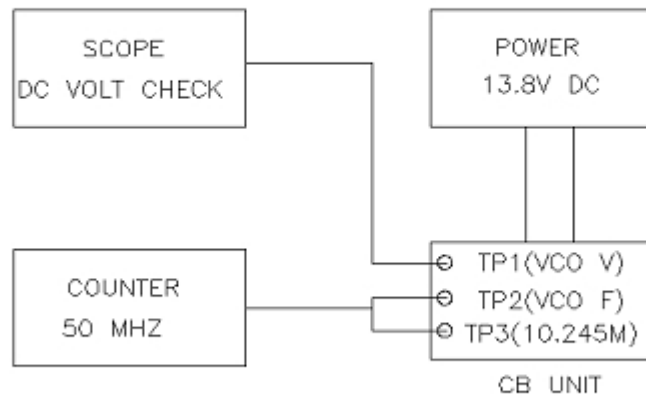
A) TEST EQUIPMENTS

- 1) FREQUENCY COUNTER
- 2) D.C POWER SUPPLY (13.8 VOLT. 3 Amp)
- 3) DC VOLTMETER
- 4) OSCILLOSCOPE

B) ADJUST ORDER

ORDER	PREPARATION	CONNECTION	POINT	ADJUST
1	10.245MHz ADJUST 1) PTT S/W : RX 2) VR/SQ : TX 3) CH : FM 1CH	CONNECT ON TP3 WITH PROBE AND CHECK THE FREQ COUNTER	CT1	10.245MHz +/- 100Hz
2	RX VCO ADJUST 1) PTT S/W : RX 2) VR/SQ : MORMAL 3) CH : FM 1CH	CONNECT ON DC VOLTMETER TO TP1	T7	2.5V
3	TX VCO CHECK 1) PTT S/W : TX 2) VR/SQ : NORMAL 3) CH : FM 1CH	SAME AS ABOVE	T7	2.5~3.0V
4	F VCO CHECK 1) PTT S/W : RX 2) VR/SQ : NORMAL 3) CH : FM 1CH	CONNECT ON PROBE TO TP2. FREQ.COUNTER		16.2625MHz

VCO TEST DIAGRAM



2-4. TRANSMITTER PARTY

A) TEST INSTRUMENTS

- 1) RF POWER METER
- 2) 50 ohm LOAD
- 3) RF ATTENUATOR
- 4) OSCILLOSCOPE
- 5) AUDIO GENERATOR
- 6) DC POWER METER (13.8V 3A)
- 7) SPECTRUM ANALYZER
- 8) FREQUENCY COUNTER
- 9) COUPER
- 10) DUMMY LOAD
- 11) MODULATION METER

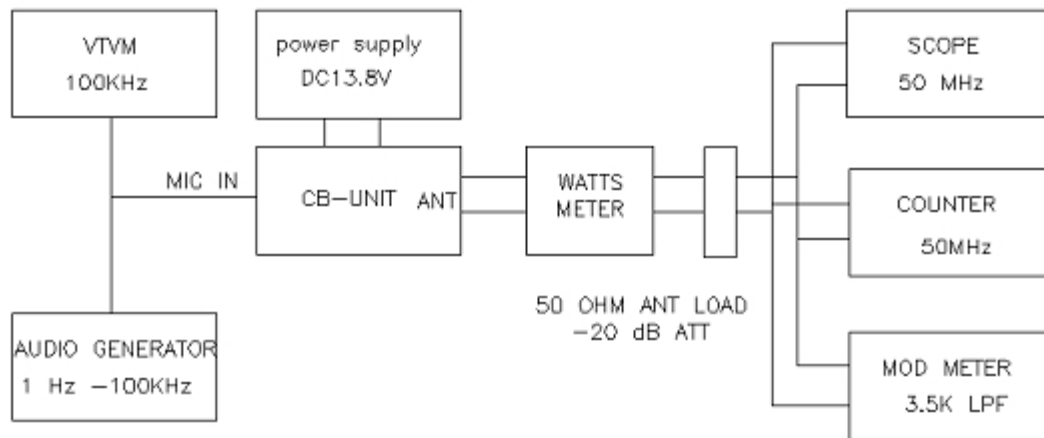
B) CONTROL ORDER

No	PREPARATION	CONNECTION	POINT	ADJUST
1	RF DRIVER & CURRENT ADJUST 1) PTT S/W : TX 2) VR/SQ : NORMAL 3) BAND: AM/FM 4) CH : 19CH	ADASHIVE 50ohm DUMMY LOAD ON RF POWER METER AND CONNECT ON ANTENNA JACK ON EQUIPMENT. TX TEST2	*T9,T10,,T11, L1, TK1 (AM:NO MOD)	*CONTROL UPTO MAXIM -UM RF DRIVER LEVEL MAXIMUM OUTPUT
2	ADJUST RF POWER 1)PTT S/W : TX MODE 2)VR/SQ : NORMAL 3)BAND:FM/AM 4)CH : 19CH	SAME AS ABOVE	*FM/AM:VR6	*ADJUST 4WATTS
3	2ND HRAMONIC CONFIR- MATION 1) PTT S/W:TX MODE 2) VOLUME: NORMAL 3) SQUELCH : NORMAL 4) CH: FM/AM 19CH	CONNET THE RF ATTENUATOR(-60dB) TO ANT JACK OF EQUIP AND CONNECT TO SPECTRUM. TX TEST2		CONFIRMATION DISPLAYED BASIC FRE -QUENCY AND 2ND,3RD FREQ.UNDER NONMOD -ULATE CONDITION

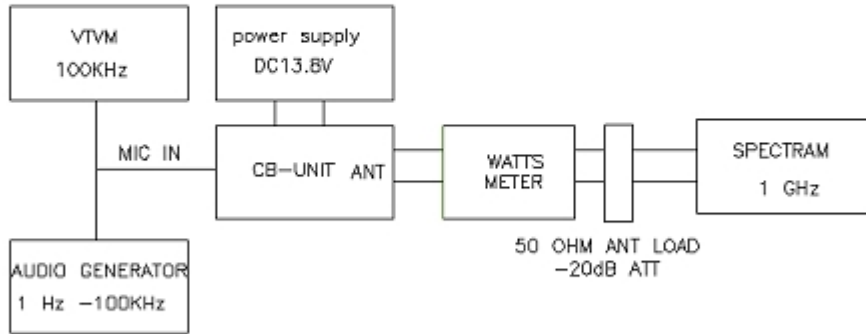
No	PREPARATION	CONNECTION	POINT	ADJUST
4	TX FREQUENCY CONFIR- MATION 1) PTT S/W: TX MODE	CONNECT FRQUENCY COUNTER TO ON OUTPUT OF DUMMY LOAD.	CT1	ADJUST FREQUENCY AS 27.185MHZ +/-200HZ WHICH DISPLAY ON

	2) VOLUME: NORMAL 3) SQUELCH: NORMAL 4) CH: FM/AM 19CH	TX TEST1		FREQ. COUNTER
5	AM MODULATION CONFIRMATION 1) PTT S/W : TX MODE 2) VOLUME : NORMAL 3) SQUELCH : NORMAL 4) CH : 19CH 5) BAND S/W : AM	CONNECT THE OUTPUT TO OSCILSCOPE. INSERT TO 1KHZ SIGNAL OF AUDIO GENERATOR TO BOTH TERMINAL OF MIC OF SET.TX TEST1	VR4	ADJUST 85~ 90% MODULATE ON OSCILOSCOPE IN MODULATION SITUATION.
6	FM MODULATION CONFIRMATION 1) PTT S/W : TX MODE 2) VOLUME : NORMAL 3) SQUELCH : NORMAL 4) CH : 19CH 5) BAND S/W : FM	CONNECT THE RF OUT POWER METER TO DEV METER. INSERT THE 1.25KHZ 20mV SIGNAL OF AUDIO GENERATOR TO BOTH TERMINAL OF MIC OF SET. TX TEST1	VR3	ADJUST 2.0KHZ ON DEV.METER UNDER CONDITON OF MODULATION.

TX TEST DIAGRAM 1



TX TEST DIAGRAM 2



2-5 RECEIVER PARTY

A) TEST EQUIPMENTS

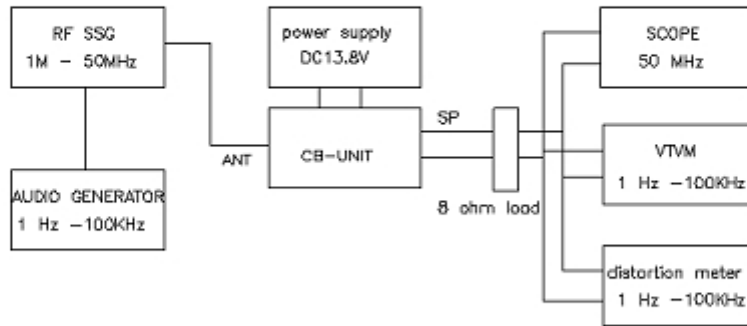
- 1) S.S.G
- 2) V.T.V.M
- 3) DISTORTION METER
- 4) DC POWER SUPPLY
- 5) 8 ohm DUMMY LOAD

B) ADJUST ORDER

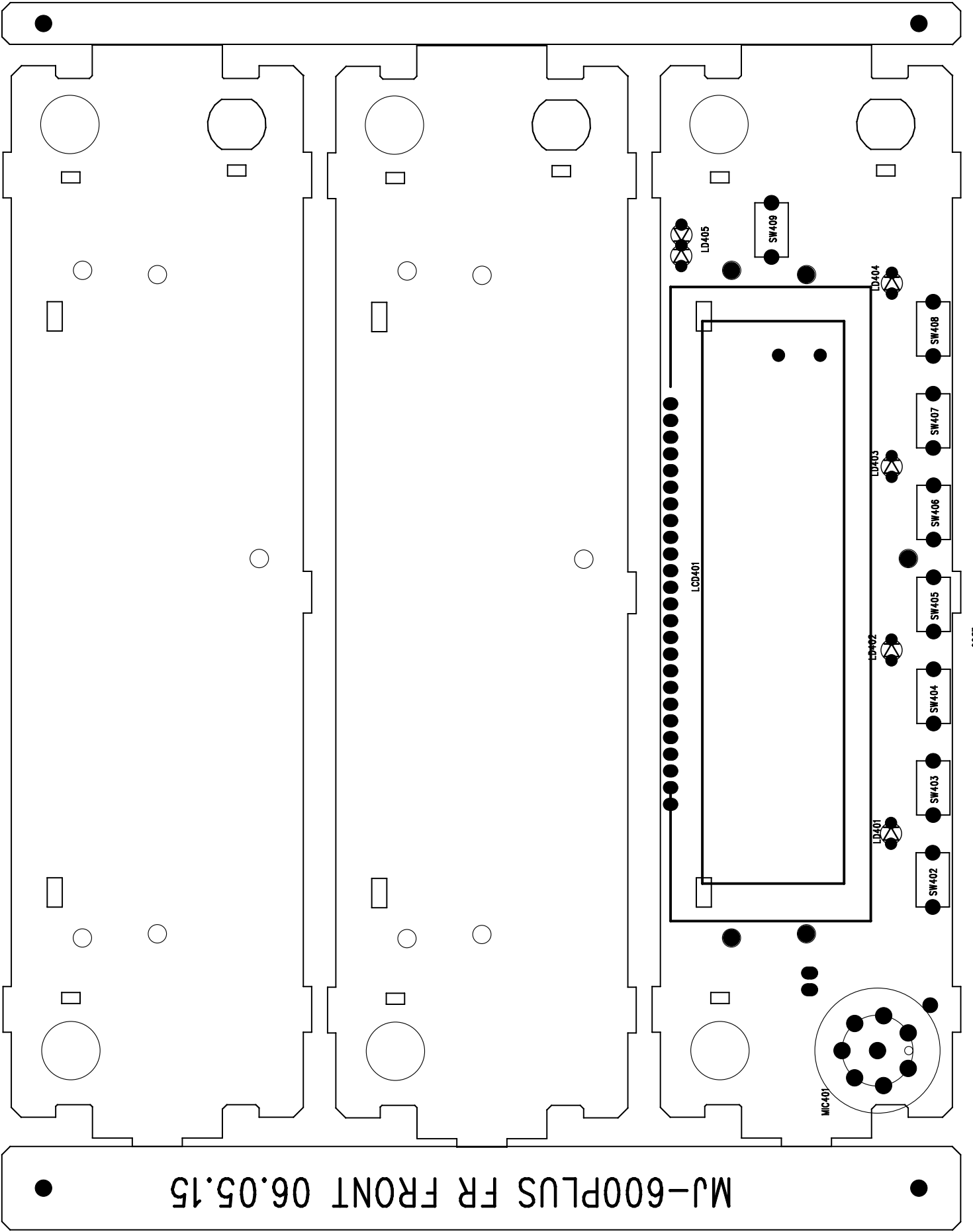
NO	PREPARATION	CONNECTION	POINT	ADJUST
1	RF DRIVER/ 1F PARTY 1) PTT S/W : RX MODE 2) VOLUME : MINIMUM	CONNECT SSG TO ANT JACK AND CONNECT VTVM & DISTORTION	T1,T2,T3,T4, T6.	ADJUST VTVM TO MAXIMUM

	3) SQUELCH : MINIMUM 4) CH : 19CH 5) S.S.G : 27.185MHZ 1KHZ. ATT 30% MODE 6) BAND S/W : AM	METER TO 8ohm. RX TEST		
2	FM/DET PARTY 1) PTT S/W : RX MODE 2) VOLUME : STANDARD 3) SQUELCH : MINIMUM 4) CHANNEL : 19 CH 5) S.S.G : 27.185MHZ 1 KHZ, 1mV, 1.25 KHZ, DEV 6) BAND SW : FM	SAME AS ABOVE RX TEST	T5	SAME AS ABOVE
3	SQ ACTIVITY SITUATION 1) PTT S/W : RX MODE 2) VOLUME : STANDARD 3) SQUELCH : MAXIMUM 4) CH : 19 CH 5) S.S.G : 27.185MHZ ATT 0.5~1uV 1 KHZ 30% MOD 6) BAND S/W : AM	INSERT THE SSG TO ANT JACK AND CONNECT VTVM & DISTORTION METER TO 8 ohm LOAD. RX TEST	-	SQ VR MAXIMUM CHECK 1KHZ WILL APPEAR.
4	RX SIGNAL METER ADJUST 1) PTT S/W :RX MODE 2) VOLUME :STANDARD (2V) 3) SQUELCH : MINIMUM 4) CH : 19CH 5) S.S.G : 27.185MHZ 1 KHZ,1000uV30% MOD 6) BAND S/W : AM	CONNECT THE ANT JACK TO SSG AND CONNECT VTVM & DISTORTION METER TO 8 ohm LOAD. RX TEST	VR1	ADJUST UNTILL LIGHT ON LCD FULL

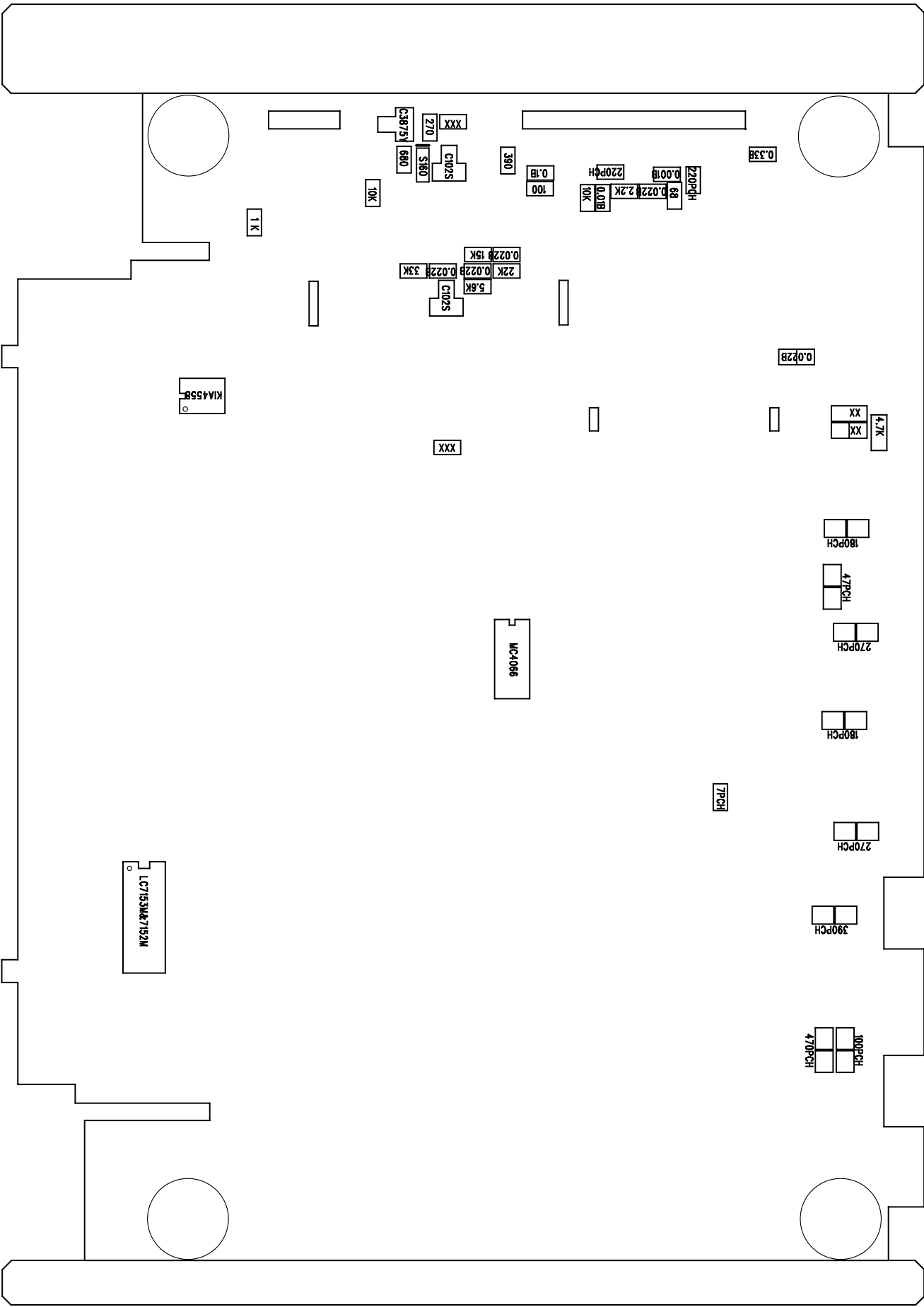
RX TEST DIAGRAM

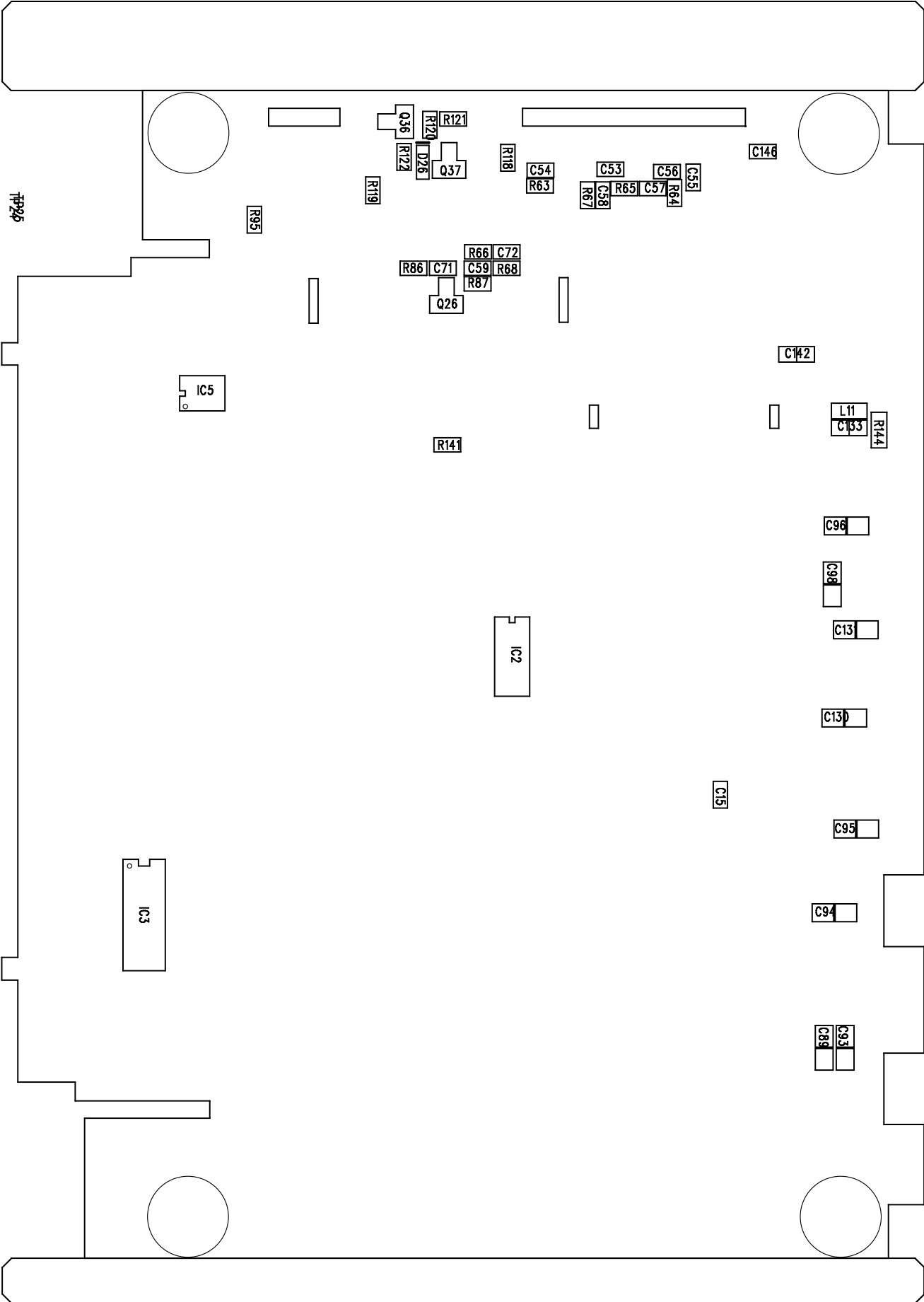


MJ-600PLUS FR FRONT 06.05.15

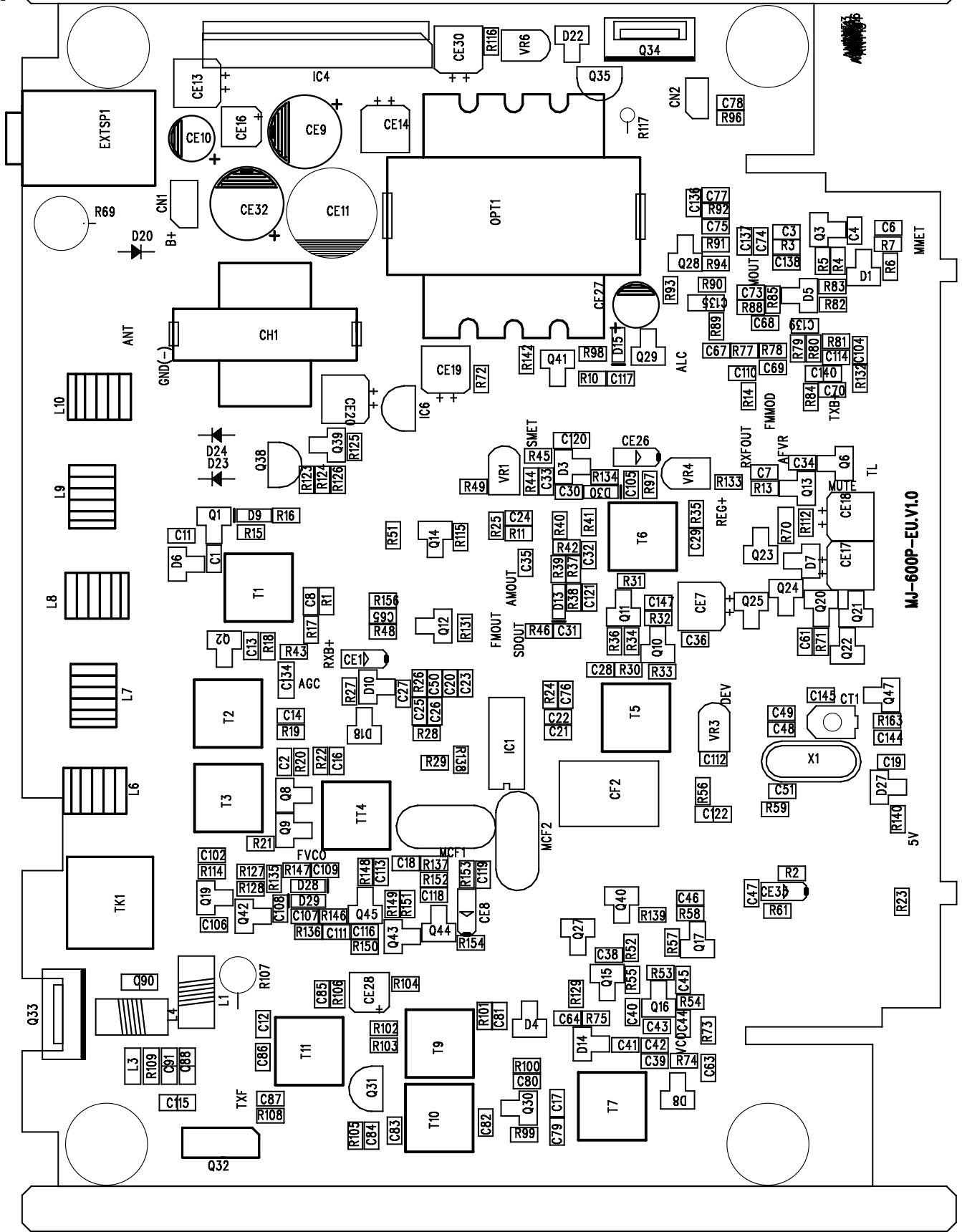


LD00





MJ-600PLUS MAIN- EU 06.05.25.

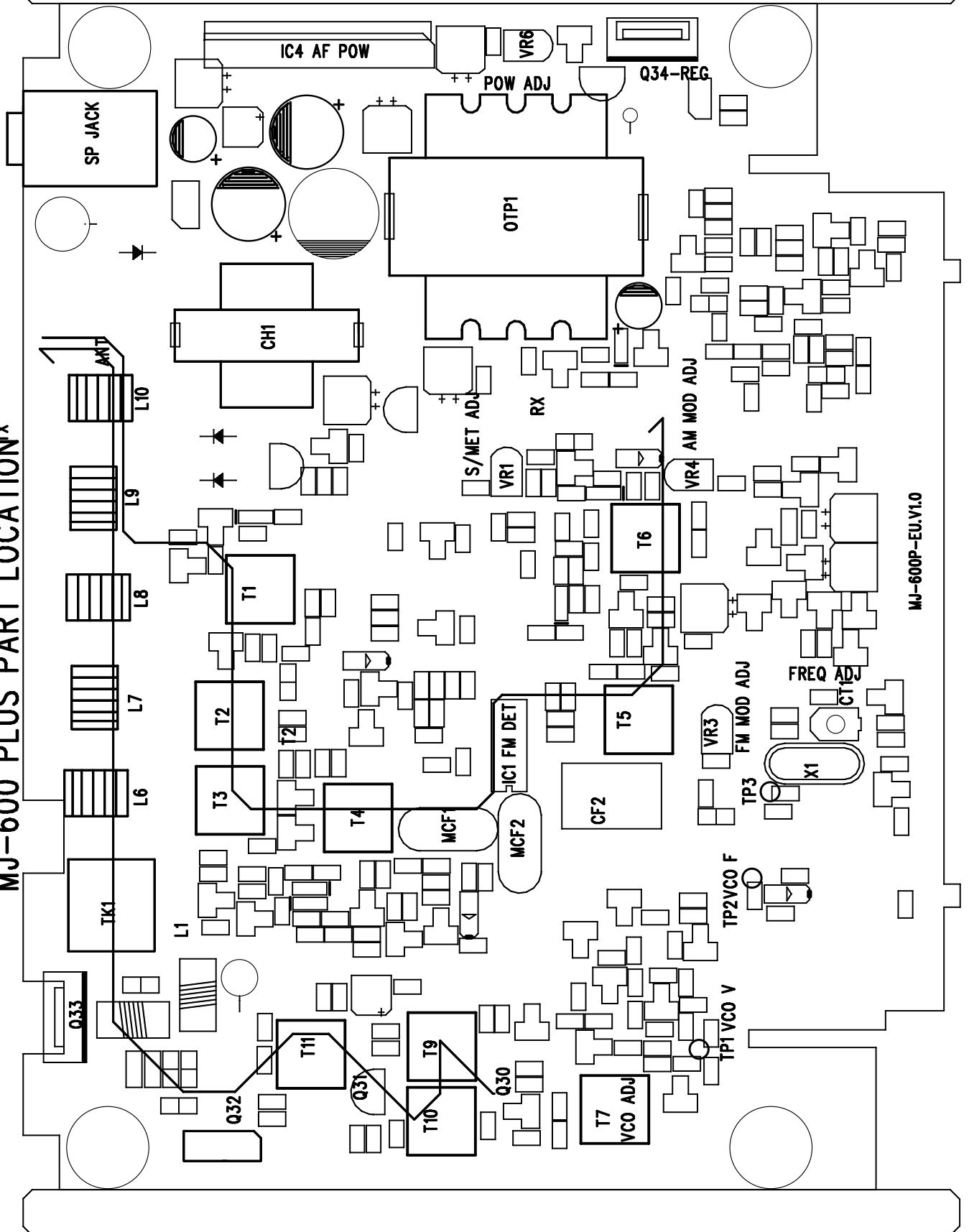


MJ-600P-EU.V1.0

5V

MJ-600PLUS MAIN- EU 06.05.25.

MJ-600 PLUS PART LOCATION^{rx}



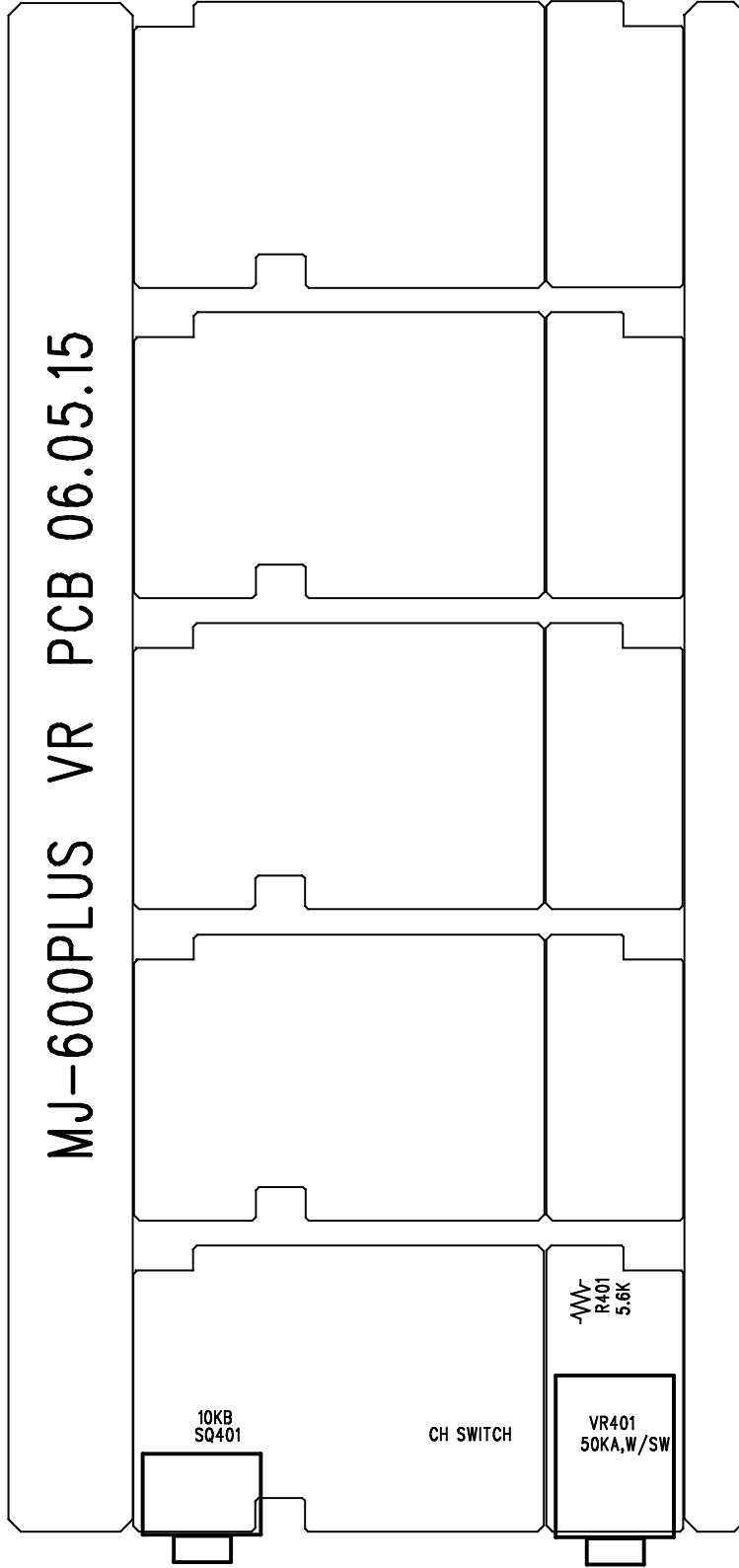
MJ-600PLUS VR PCB 06.05.15

10KB
SQ401

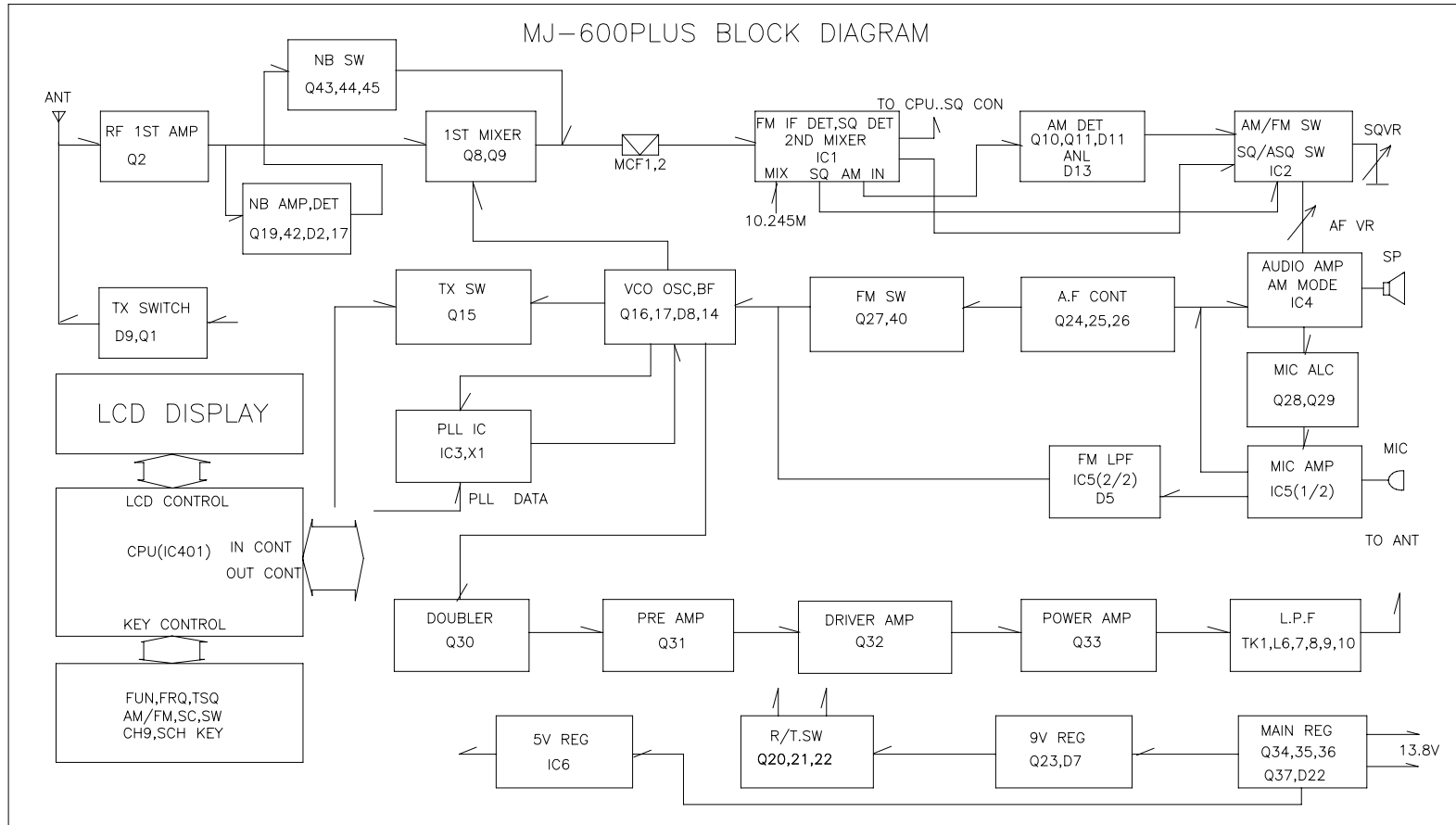
CH SWITCH

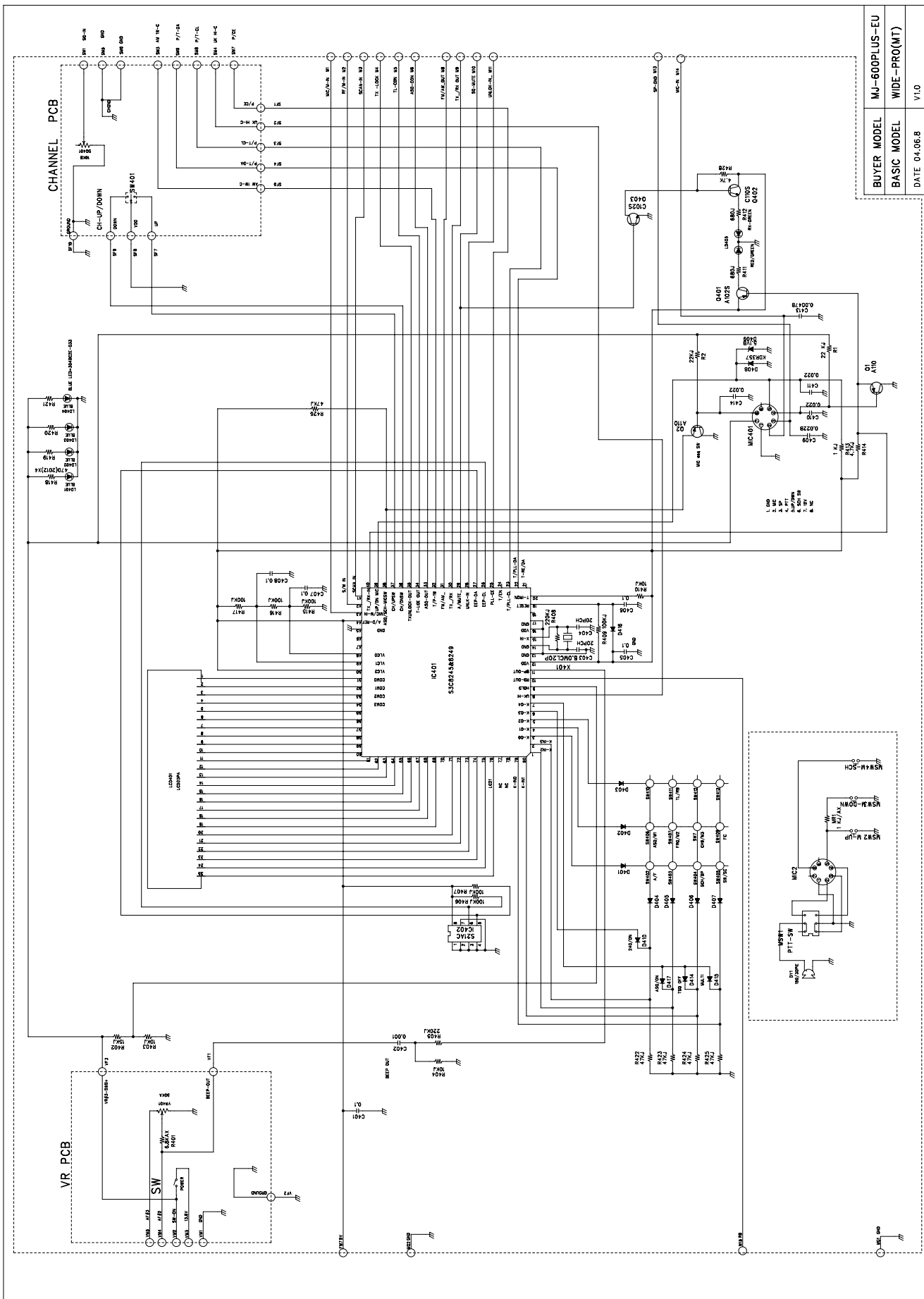
~
R401
5.6K

VR401
50KA,W/SW

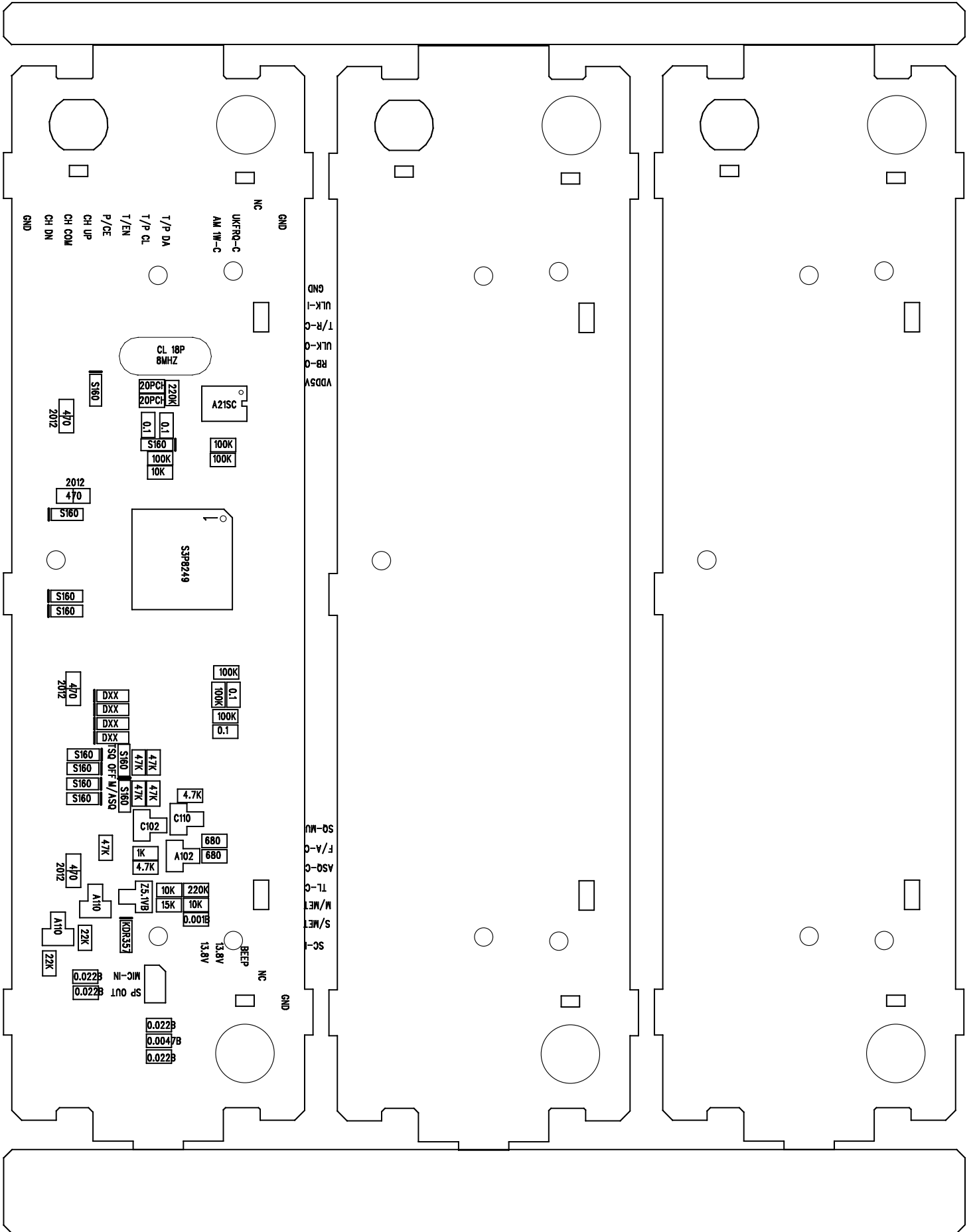


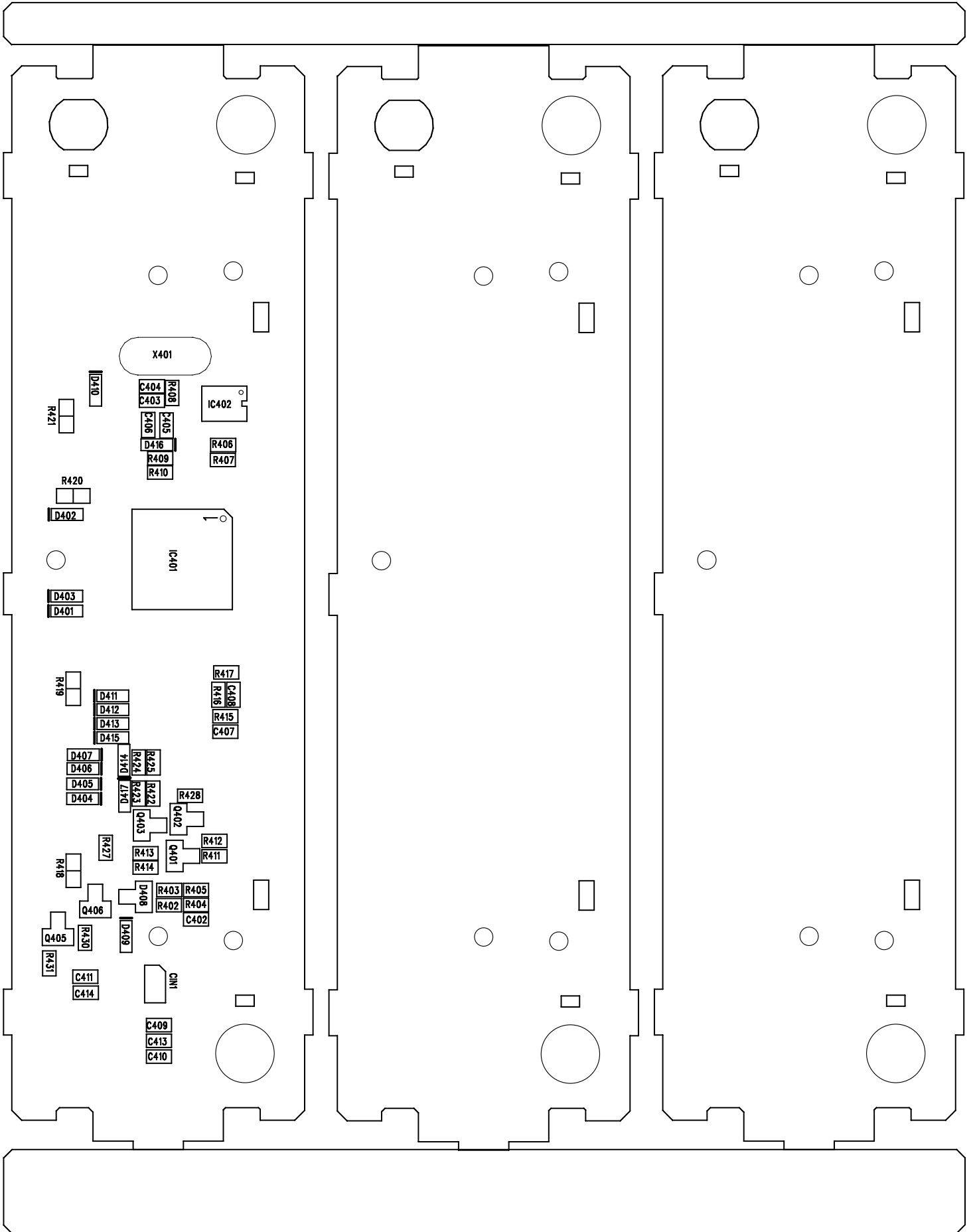
MJ-600PLUS BLOCK DIAGRAM





BUYER MODEL	MJ-600PLUS-EU
BASIC MODEL	WIDE-PRO(MT)
DATE	04.06.8
	V1.0





MJ-600PLUS FR FRONT 06.05.15

