HYT

SERVICE MANUAL

MOBILE RADIO

TM-610

5-Tone Model

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L01444
Z05150
8130M61000300
2008-12-17

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General

Manual Scope

This manual is intended for use by experienced technicians familiar with similar types of communication equipment. It contains all service information required for the equipment and is current as of the publication date.

Safety and General Information

⑤ **Safety Standards**

③ This equipment should be serviced by qualified technicians only.

③ Do not modify the radio for any reason.

③ Use only HYT supplied or approved antenna.

③ Install the mobile antenna at least 82cm (32 inches) away from your body, in accordance with the requirements of the antenna manufacturer/supplier.

③ Transmit only when people inside and outside the vehicle are at least 82cm (32 inches) away from a properly installed, externally mounted antenna.

③ Turn off your radio prior to entering any area with a potentially explosive atmosphere.

③ To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any facility where posted notices instruct you to do so.

③ To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted: “Turn off two-way radio.” Obey all signs and instructions.

③ For vehicles with an air bag, do not place a radio in the area over an air bag or in the air bag deployment area.

③ Do not expose the radio to direct sunlight over a long time, nor place it close to heating source.

③ Do not place the radio in excessively dusty, humid areas, or on unstable surfaces.

⑤ **Operation Safety Guidelines**

③ For vehicles equipped with electronic anti-skid braking systems, electronic ignition systems or electronic fuel injection systems, interferences may occur during the radio transmission. If the foregoing electronic equipments are installed on your vehicle, please contact your dealer for further assistance to make sure that the radio transmission will not interfere with these equipments.

③ For radio installation in vehicles fueled by LP gas with LP gas container within interior of the vehicles, the following precautions are recommended for personal safety.

① Any space containing radio equipment shall be isolated by a seal from the space in which the LP gas container and its fittings are located.

② Remote (outside) fitting connections shall be used.

③ Good ventilation is required for the container space.

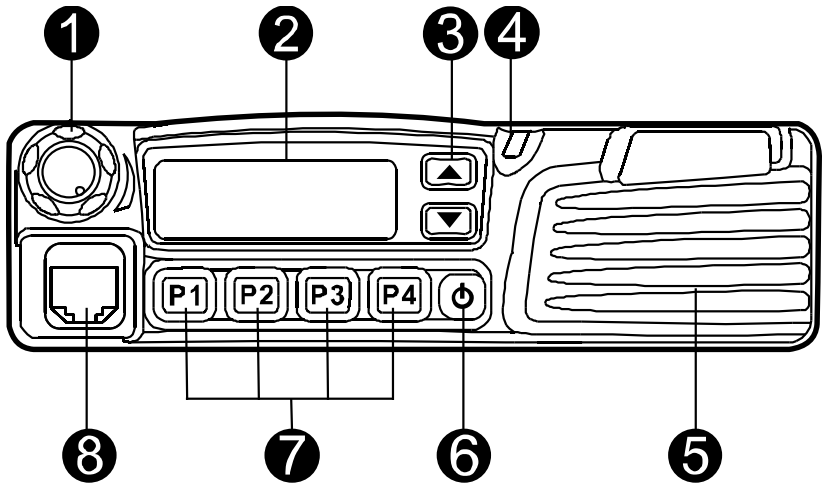
⑤ **Installation Safety Guidelines**

③ Do not mount the mobile radio overhead or on a sidewall unless you take special precautions.

③ If the mobile radio is not properly installed, road shock could bump the radio loose, and the falling radio could, in some circumstances, cause serious injury to the driver or a passenger. In case of vehicle accidents, even when properly installed, the radio could break loose and become a dangerous projectile.

Radio Overview

Front Panel View



① **Volume Control Knob**

Rotate the knob clockwise to increase the volume and counter-clockwise to decrease the volume.

② **LCD**

Please refer to section LCD Display.

③ **Programmable Function Keys ▲ / ▼**

Your local dealer can program these keys with various auxiliary functions.

Please refer to section Programmable Function Keys.

④ **LED Indicator**

⑤ **Speaker**

⑥ **Power Switch**

⑦ **Programmable Function Keys P1 / P2 / P3 / P4**

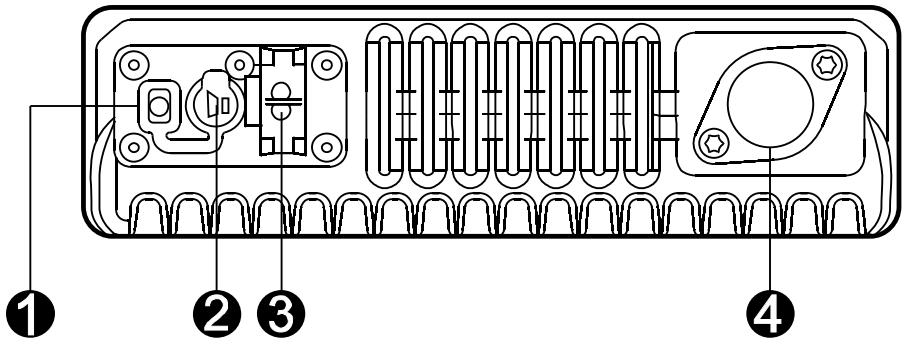
Your local dealer can programmed these keys with various auxiliary functions.

Please refer to section Programmable Function Keys.

⑧ **Microphone Jack**

Plug the microphone into the jack.

Rear Panel View



① **15 Pin Connector** (for external expansion)

② **External Speaker Jack**

Used to connect an external speaker with a 3.5 mm plug. Refer to Test Cable for Speaker Output in Tuning Description for details.

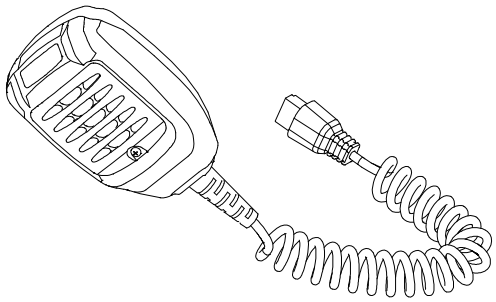
③ **Power Inlet**

Use HYT-authorized DC power cord to inlet 13.6 V DC power.

④ **Antenna Connector**

Used to connect an external antenna.

Microphone



LED Indicator

Indicator	Description
Light red	Transmitting
Light green	Receiving
Flash orange	Receiving 5-Tone call
Light orange	Transmitting call

LCD Display

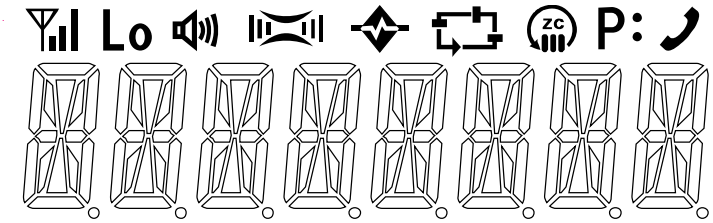


Figure 1 LCD Panel

Indicator	Description
	1. Display zone / channel number. 2. Display channel label 3. Display DTMF digit 4. Display channel Frequency 5. Display menu, setting items, etc.
Lo	Display when the transmitting power is low.
	The icon  appears if any of the following conditions occurs: 1. Monitor status activated by pressing the Monitor key, and the channel is initialized to Monitor Squelch. 2. Monitor status activated by a call or decoding, i.e., auto reset mode. 3. Monitor status activated by Force Monitor. 4. Carrier squelch mode under Rx Squelch. 5. Monitor status with authorization request. The icon  appears when speaker is unmated.
	Appears when scan mode is active.
	Appears during the auto reset time.
	Appears when DTMF Keypad mode is enabled.
	Appears when scrambler function is enabled.
	Appears when compander function is enabled.
	Appears when the selected channel is busy.
	Appears when scan pauses on a priority channel. **P•** standards for Priority Channel 1, **P.** standards for Priority Channel 2, and **P:** standards for Priority Channels 1& 2.

Programmable Function Keys

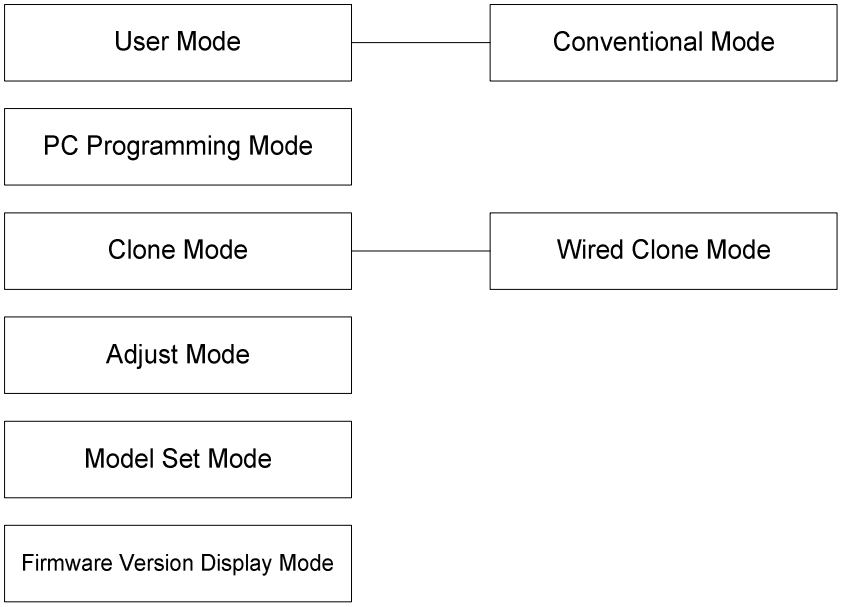
[P1]-[P4], [▲]/ [▼] can be programmed with the following auxiliary functions:

1. None
2. CH Up
3. CH Down
4. Zone Up
5. Zone Down
6. Monitor/ Cancel Call
7. Cancel Call
8. Display Channel Alias
9. Display Freqency
10. Display Mode Switch
11. User Selectable Tone
12. Adjust Power Level
13. Scan
14. Nuisance Temporary Delete
15. Reverse
16. Talk Around
17. Adjust Squelch Level
18. Home Channel
19. Public Adress
20. Scrambler
21. Compander
22. AUX A
23. AUX B
24. Emergency
25. Call Forward
26. Wisper
27. Lone-Worker
28. Contact List
29. Status List
30. Channel Shortcut Button
31. Missed Calls
32. Received Calls
33. Keypad Mode
34. Menu
35. Call 1
36. Call 2
37. Call 3
38. Call 4
39. Call 5

Software Specifications

Radio Modes

1. Frame of Radio Modes



2. Keypad Entry for Mode Startup

MODE	Main Menu	Display/Sub Menu	Operation	Remarks
USER MODE	Conventional Mode	----------	Turn on the radio to enter Conventional Mode	
ADJUST MODE		----------	Press and hold [P1] to turn the radio on.	
Model Set Mode		----------	Press and hold [P2] to turn the radio on.	
Firmware Version Display Mode		----------	While holding down [P4] key, turn on the radio	
Wired Clone Mode		----------	While holding down [P3] key, turn on the radio	
PC Programming Mode		----------	Receive commands from PC	

Note: When power-on password is enabled, you must input the correct password before you can enter User Mode. You can input password through the keypad and press [#] to clear.

3. Error Information and Measures in User Mode

The radio self-checks when power on. If no error is detected, the radio enters conventional mode. While the radio will sound alert once any error is checked.

Error information and measures:

No.	Error Information	LCD Display	Measures
1	Stun status	Stun	Re-program.
2	Data and Firmware Version mismatch	No Data	Re-program with programming software of right version.

4. Firmware Version Display Mode

Turn the radio on while holding down [P4] to enter Firmware Version Display Mode, the firmware version will be displayed on the LCD.

Release [P4] to enter User Mode.

5. PC Programming Mode

Connect the radio with a PC by programming cable. If data is written to the radio from PC, it can be programmed into the EEPROM. Data programming is accessible by programming software.

When data is written to the radio from PC, “PROGRAM” appears on the LCD. LED glows green when data is written to the radio and red when data is read from the radio. Radio will restart automatically when programming is completed.

6. Wired Clone Mode

Data can be transmitted from radio to radio by wired cloning.

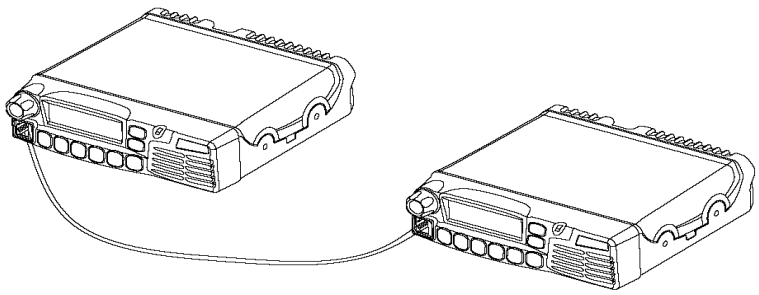
(1) Turn on the source radio while holding down [P3] simultaneously, the radio enters Clone Mode with “CLONE” on the LCD, or enters User Mode if Clone Mode is disabled by your dealer.

(2) Press [P3] to toggle between Dealer Clone and Factory Clone Mode. “DEACLONE” or “FACCLONE” appears on the display when the corresponding mode is selected. The radio restores the original display after 5 seconds. Unlike Factory Clone Mode, adjustment settings and embedded messages are not covered in Dealer Clone Mode. Dealer Clone Mode is the default mode.

(3) Connect the two radios by cloning cable, then turn on the target radio.

(4) Press [P4] to start cloning, the LED of source radio glows red and that of target radio glows green during cloning. “PROGRAM” is also displayed on the target radio. “END” appears on the source radio when cloning is completed and the target radio enters user mode.

(5) Press [P4] to return to Clone Mode. “CLONE” appears on the source radio. Repeat the above steps to continue wired cloning.



Note: Cloning is available only when both radios are in the same mode.

7. Panel Tuning Mode

The radio is tuned in this mode. Operations are as follows:

(1) Press [P1] to turn on the radio and enter tuning mode.

(2) Select the item with [Up]/[Down] keys. Press [P4] to enter the selected sub-item.

(3) Press [P4] to enter the sub-item and tune the data with [Up]/[Down] keys. Then press [P4] to save the data and enter the next sub-item. Press [P1] to go back to the previous item without saving the data.

8. Model Set Mode

(1) Press [P2] to turn the radio on. The radio enters Model Set Mode. The frequency band appears on the LCD.

(2) Press [Up]/[Down] to choose right frequency band.

(3) Press [P4] to confirm. LED glows orange and " WAIT" appears on the LCD; then the radio enters User Mode after reset.

Notes:

1. Once [P4] key is pressed to set the new model, the previously stored channel data (frequency, CTCSS/CDCSS, channel function settings) will be cleared, and part of functions also change. Therefore, do not make this operation unless it's necessary.

2. Initialization Data Table and frequency range (FL: lowest frequency- FH: highest frequency -FC: center frequency) of different models are shown in the following table.

Model	RX/TX	1 (C)	2 (L)	3 (H)	4	5	6	7	8
0	RX(MHz)	155.15	136.15	173.85	145.55	164.5	155	155.2	155.4
(V)	TX(MHz)	155	136	174	145.5	164.5	155	155.2	155.4
1	RX(MHz)	435.15	400.15	469.85	417.55	452.5	435	435.2	435.4
(U1)	TX(MHz)	435	400	470	417.5	452.5	435	435.2	435.4
2	RX(MHz)	475.15	450.15	499.85	462.55	487.5	475	475.2	475.4
(U2)	TX(MHz)	475	450	500	462.5	487.5	475	475.2	475.4
3	RX(MHz)	495.15	470.15	519.85	482.55	507.5	495	495.2	495.4
(U3)	TX(MHz)	495	470	520	482.5	507.5	495	495.2	495.4
4	RX(MHz)	375.15	350.15	399.85	362.55	387.5	375	375.2	375.4
(U4)	TX(MHz)	375	350	400	362.5	387.5	375	375.2	375.4
5	RX(MHz)	455.15	440.15	469.85	447.55	462.55	455	455.2	455.4
(U5)	TX(MHz)	455	440	470	447.5	462.5	455	455.2	455.4
6	RX(MHz)	503.15	480.15	525.85	491.55	514.55	503	503.2	503.4
(U6)	TX(MHz)	503	480	526	491.5	514.5	503	503.2	503.4
7	RX(MHz)	340.15	330.15	349.85	335.05	345.05	340	340.2	340.4
(U7)	TX(MHz)	340	330	350	335	345	340	340.2	340.4

TM600V: 136-174MHz

TM600U1: 400-470MHz

TM600U2: 450-500MHz

TM600U3: 470-520MHz

TM600U4: 350-400MHz

TM600U5: 440-470MHz

TM600U6 (for Taiwan only): 480-526MHz

TM600U7: 330-350MHz

CH		1	2	3	4	5	6	7	8
CTCSS	Rx	None	None	None	CTS67.0HZ	D023	CTS67.0HZ	DI423	None
CDCSS	Tx	None	None	None	CTS67.0HZ	D023	CTS67.0HZ	DI423	None
PWR	Tx	L	L	L	L	L	L	L	L
CH		CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8
NAME		Wide	Wide	Wide	Wide	Wide	Wide	Wide	Wide

Circuit Description

1. Frequency Configuration

The receiver utilizes double conversion superheterodyne. The first IF is 49.95MHz and the second is 450KHz. The first local oscillator signal is supplied by the PLL circuit; and the second (50.4MHz) is generated from the frequency tripling of TCXO (16.8MHz). The PLL circuit generates the frequencies required for transmission. (See figure 1).

Frequency Range VHF: 136MHz - 174MHz

UHF: 400MHz - 470MHz 450MHz - 500MHz

470MHz - 520MHz 350MHz - 400MHz

440MHz - 470MHz 480MHz - 526MHz

330MHz - 350MHz

2. Receiver Circuit

The receiver circuit is shown as figure 1.

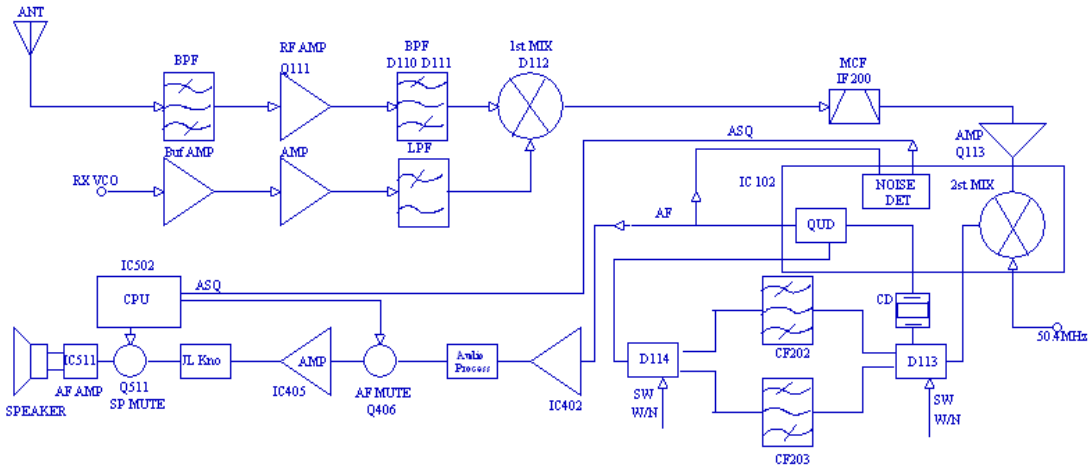


Figure 1 Receiver Circuit

2.1 High Frequency Bandpass Amplifier Circuit

It consists of BPF, RF amplifier (Q111) and BPF (D110 and D111). The range of bandpass frequency is the frequency range of the radio itself. The signal is filtered by the BPF to eliminate unwanted signals before going to the first mixer.

2.2 First Mixer

The signal from BPF is mixed with the first local oscillator signal from PLL circuit at the first mixer (D112) to become a 49.95MHz first IF signal. The first IF signal is then fed through the crystal filter (IF200) to further remove spurious signals.

2.3 IF Amplifier

The first IF signal is amplified by Q113 and then enters IC102 (TA31136FN), where the signal is mixed again with the

second local oscillator signal (50.4MHz) to become a 450KHz second IF signal. The second IF signal is then fed through a ceramic filter (N: CF202; W: CF203) to eliminate unwanted signals. The resulting signal then is detected by IC102 and output from Pin 9 as audio signals.

2.4 Audio Amplifier

The audio signal obtained from IC102 is amplified and filtered by IC402 before being amplified by IC401 (the received signalling is separated and input into CPU for decoding). The processed signalling passes through Q406 (AF MUTE) and is amplified by IC405. The amplified signal is fed to K301 controlling the volume and Q511 controlling SP MUTE on the front panel before entering audio amplifier (IC511). The output audio signal drives the speaker.

2.5 Squelch Open

Part of the audio signals output from IC102 passes through IC102 Pin8 and is amplified by IC102 again, then is filtered and rectified to produce an SQL level. The SQL level is compared with the existing reference level in CPU (IC502) to generate a level to control AF MUTE and SP MUTE, which determines whether to output sounds from the speaker by controlling Q406 and Q511.

3. Transmitter Circuit

The transmitter circuit is composed of the MIC circuit, modulation circuit, RF driver, final-stage power amplification circuit and APC circuit.

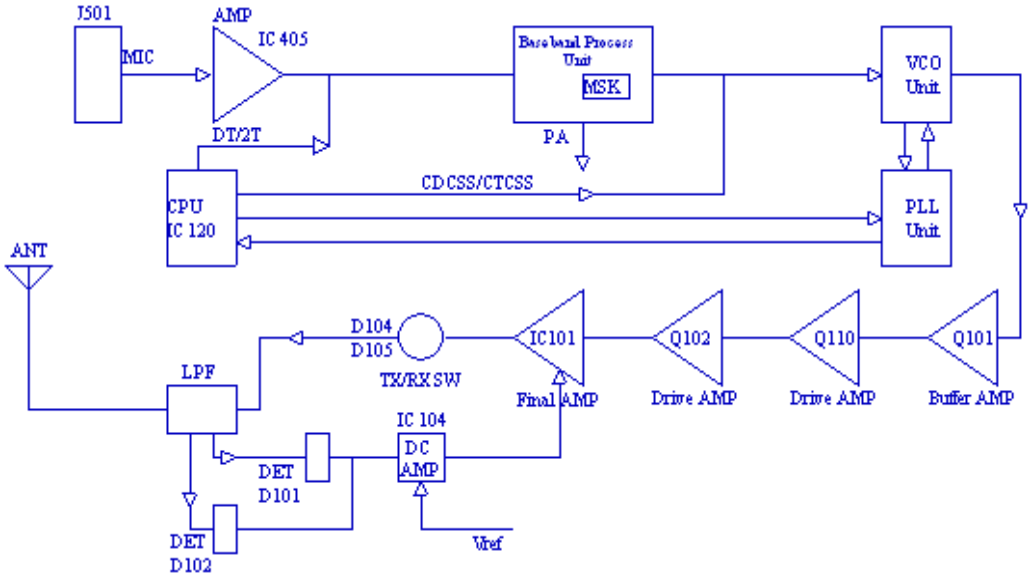


Figure 2 Transmitter Circuit

3.1 MIC and Modulation Circuit

The audio signal from MIC is amplified by IC405 before being pre-emphasized and encoded by IC401. The output audio signal is added into signalling and then is fed through VCO for modulation.

3.2 RF Driver and Final-Stage Power Amplification Circuit

The Tx-RF signal output from Q703 in the VCO circuit is amplified by Q101, drivers Q110 and Q109. The amplified signal is then fed to IC101 (final-stage amplifier) and passes through LPF before reaching the antenna.

3.3 APC

The APC circuit stabilizes the output power at a predetermined level. D101 and D102 transform the signal from the detector to DC voltage, which is then compared with the reference voltage from CPU in IC104 to output a DC voltage. The DC voltage controls the output power by controlling the grid of IC101.

4. PLL Circuit

The frequencies of receiving the first local oscillator signal and transmitting signal are generated by the PLL circuit. The PLL circuit consists of Tx frequency oscillator (Q701), Rx frequency oscillator (Q702), buffer amplifier (Q703), RF amplifier (Q102), PLL IC (IC801), LPF and Tx/Rx VCO control switch (Q704, Q706).

In transmit mode, IC120 transmits the frequency data to PLL IC. Q704 is turned on to activate Tx VCO. The output signal is amplified by Q703 and Q102, and then divided by PLL IC into 2.5KHz, 5KHz or 6.25KHz signals. The divided signal is compared with the 2.5KHz, 5KHz or 6.25KHz reference signal from a 16.8MHz crystal oscillator (2.5 PPM frequency stability) in the phase comparator. The frequency control voltage output from the phase comparator is sent to Tx VCO after passing through LPF (Q802, Q803). In the meantime, the modulation signal (Tx) is passed to Tx VCO for frequency modulation.

The working principle in receive mode is similar to that in transmit mode.

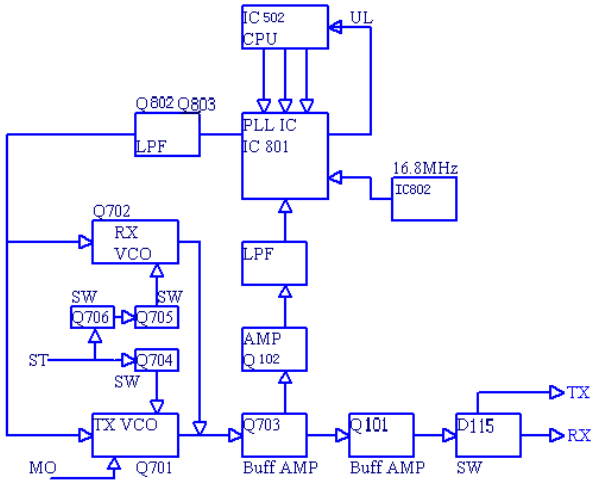


Figure 3

5. Control Circuit

The control circuit is composed of CPU, reset IC and power supply control circuit.

5.1 CPU

IC502 (CPU) operates at 9.8304MHz. CPU controls the data transmission among E2PROM (IC501), Rx circuit, Tx circuit, control circuit, display circuit and peripheral circuits.

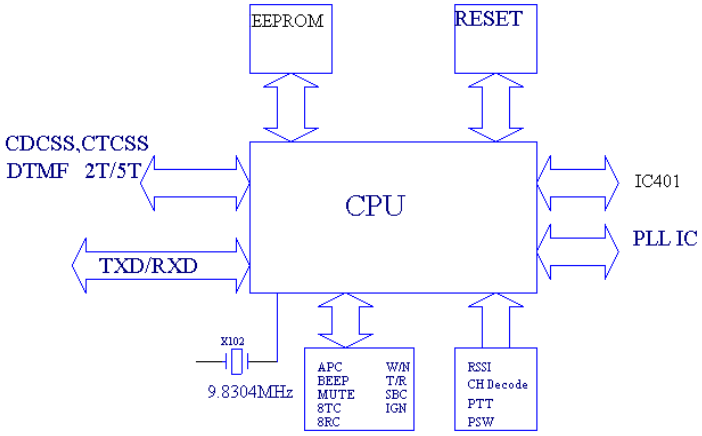


Figure 4 Control Circuit

5.2 Power Supply

+B supplies power for the radio. D135 and D137 are over-voltage protection diodes. Power-on/off can be controlled via the software.

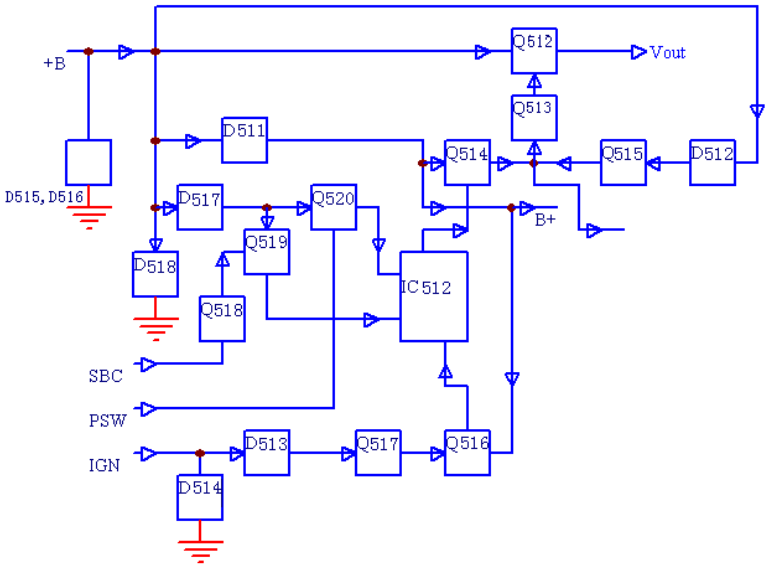


Figure 5 Power Supply Circuit

Vout provides power for IC601, IC602 and IC803, which produces 8V, 5V, 3.3V voltage for the circuit.

6. Display Circuit

The display circuit is comprised of CPU (IC502), LCD, LED and other components. The radio can be manually operated through P1 / P2 / P3 / P4 and ▲ / ▼ keys. Relevant channel information is displayed on the 15-segment LCD in alphanumeric form.

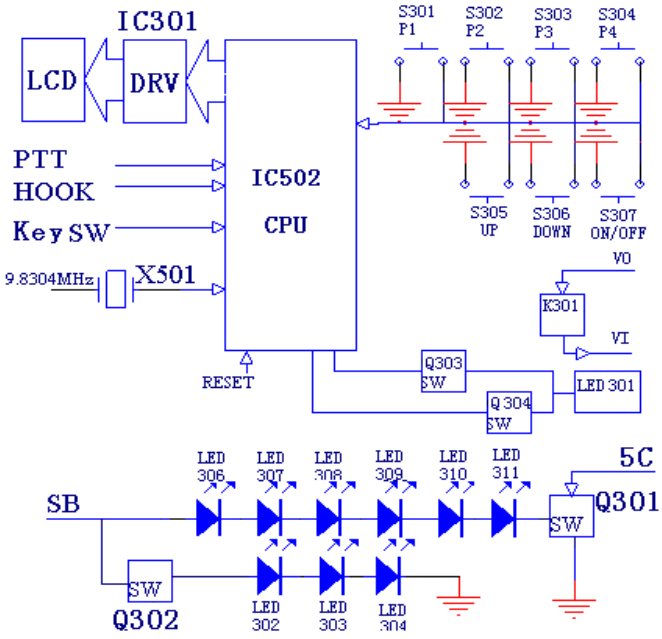


Figure 6 Display Circuit

Semiconductor Data

1. Positive Voltage Regulator: TA7805F (POWER unit IC602) and TA7808S (POWER unit 601).
2. EEPROM: AT24C256N10SI2.7 (CPU unit IC501)

2.1 Pin Function

Pin No.	Name	I/O	Function
1～3	A0～A2	I	Address input
4	GND		GND
5	SDA	I/O	Serial data
6	SCL		Serial clock input
7	TEST		Test
8	VCC		+5V.

3. Audio Processor: AK2346 (AFPwr Unit IC404)

3.1 Pin Function

Pin No.	Name	I/O	Function
1	AGNDIN	I	Analog ground input
2	AGND	O	Analog ground output
3	TxIN	I	Tx audio signal input
4	TxINO	O	TxA1 feedback output
5	LIMLV	I	Limit level tuning
6	EXTLIMIN	I	External signal input pin for pre-limiter circuit.
7	MOD	O	Modulated Tx signal output
8	VSS		GND.
9	TCLK	O	Clock output pin for MSK transmission data.
10	TDATA	I	MSK transmission data input Delay data is latched with the TCLK rising edge.
11	DI/O	I/O	Serial data input and output Memory setting data during inputting; MSK receiving signal during outputting
12	RDF/FC	O	MSK signal output of receiving flag and frame detection signal
13	SCLK	I	I/O clock input of serial data
14	DIR	I	Serial data I/O control
15	XOUT	I	Crystal oscillator input
16	XIN	I/O	Crystal oscillator input and output
17	VDD		Positive power supply
18	EXPOUT	O	Output signal after audio processing
19	RxAFIN	I	Rx audio signal input
20	RxAF	O	Rx audio signal output
21	RxLPFO	O	Rx LPF output
22	RxINO	O	RxA1 feedback output
23	RxIN	I	Demodulated Rx signal input
24	TEST	I	Test register control input

4. Audio Power Amplifier: TDA7297D (AFPwr unit IC511)

Pin Function

Pin No.	Name	I/O	Function
1	PW GND		Power ground 1
2	OUT1+	O	Output 1+
3	N.C		
4	N.C		
5	OUT1-	O	Output 1－
6	VCC	I	Supply voltage
7	IN1	I	Input 1
8	MUT	I	Operation switch
9	STAND-BY	I	Operation switch
10	PW GND		Power ground 2
11	PW GND		Power ground 3
12	N.C		
13	SGND		Signal ground
14	IN2	I	Input 2
15	VCC	I	Supply voltage
16	OUT2-	O	Output 2-
17	N.C		
18	N.C		
19	OUT2+	O	Output 2+
20	PW GND		Power ground

5. LCD Driver: PCF8576DH (Display unit IC501)

Pin No.	Name	I/O	Function
1	N.C.		
2～7	S34～S39	O	Output LCD.
8～9	N.C.		
10	SDA	I/O	Input/output I^2C bus serial data
11	SCL	O	Output I^2C bus clock
12	SYNC	I	N.C.
13	CLK	I/O	N.C.
14	V_{DD}		Power supply
15	OSC	I	Internal quartz crystal oscillator enable input
16～18	A0~A2	I	Address line
19	SA0	I	I^2C bus sub-address bit 0
20	Vss		GND
21	V_{LCD}		N.C
22～24	N.C.		
25～28	BP0~BP3	O	LCD base panel output
29～32	S0~S4	O	Output LCD
33	N.C.		.
34～47	S5~S18	O	Output LCD
48	N.C.		
49、50	S19、S20	O	Output LCD
51～64	S21~S34	O	Output LCD

6. Amplifier: TA75W558FU (AFPr unit IC404), TC75W51FU (AFPr unit IC402, AFPr unit IC405, AFPr unit IC403), TA75S01F (RF unit IC1037), TA75W01FU (RF unit IC404).
7. IF Detector: TA31136FN (RF unit IC102).
8. Dual D-type trigger: TC4013BF (AFPwr unit IC512).
9. RF PLL Frequency Synthesizer: MB15A02 (PLL unit IC801).
10. CPU: SCM M3062LFGPGP (CPU unit IC502)

10.1 Pin Function

PIN No.	Port Name	Pin Name	I/O	Function
1	P94/DA1	APC	O	Modulated sensitivity output
2	P93/DA0	DTMF	O	DTMF/2-Tone/5-Tone/BEEP output
3	P92/ TB2in	2TN/5TN	I	2-Tone/5-Tone decode pulse input
4	P91	AFDIO	I/O	AK2346 DATA I/O(SDAT)
5	P90	AFSCLK	O	AK2346 serial clock (SCLK)
6	BYTE	BYTE	I	+5V(5C)
7	CNVSS	CNVSS	I	GND (ground via 0 resistance)
8	P87	PA	O	MIC PA switch control,PA: H
9	P86	HMBL	O	Microphone backlight control
10	RESET	RESET	I	Reset
11	XOUT	XOUT	O	Clock output
12	VSS	VSS	I	GND
13	XIN	XIN	I	Clock input
14	VCC	VCC	I	+5V
15	P85/NMI	NMI	I	NMI (usually not used)
16	P84/INT2	AFRDF	I	Baseband chip MSK receive detect (RDF/FD)
17	P83/INT1	DTMFSTD	I	Not used (left open)
18	P82/INT0	AUX1	I/O	Optional circuit board port 1(input)(renamed AUX1)
19	P81/TA4in	SBC		SB Power switch control,H: off,L: on
20	P80/TA4out	CTC_OUT	O	CDCSS Balance
21	P77/TA3in	SPMUTE	O	SP Mute,Mute: H
22	P76/TA3out	CTC_PLL	O	CTCSS/CDCSS modulation output
23	P75/TA2in	EMICC	O	External Mic control,External Mic: H (now NC)
24	P74/TA2out	AFTDATA	O	Baseband chip MSK serial data (TDATA)
25	P73/TA1in	AFTCLK	I	Baseband chip MSK serial clock (TCLK)
26	P72/TA1out	AFDIR	O	Baseband chip I/O control pin (DIR)
27	P71/RxD2	RxD2	I	Not used
28	P70/TxD2	TxD2	I	Not used
29	P67/TxD1	TxD1	O	Serial data output,PTT ON: L
30	P66/RxD1	RxD1	I	Microphone HOOK input/serial data input,ON: L
31	P65	AUX4	I/O	AUX4——optional circuit board port 5 (output)
32	P64	AUX5	I/O	AUX5——optional circuit board port 6 (output)
33	P63	TxD2	O	Acc comm0 (serial data output)
34	P62	RxD2	I	Acc comm0 (serial data input)
35	P61	MICDAT	I/O	Microphone key code data input/output

36	P60	AUX2	I/O	AUX2——optional circuit board port 2 (input)
37	P57	RDY	I	Pull Up
38	P56	NC		Not used (left open)
39	P55	HOLD		Not used (left open)(for recording)
40	P54	NC		Not used (left open)
41	P53	NC		Not used (left open)
42	P52	RD	O	External expansion, read(Not used)
43	P51	NC		Not used (left open)
44	P50	WR	O	External expansion, write(Not used)
45	P47	HNC	O	Horn alert control,ON: H,(Not used)
46	P46	SHIFT	O	Clock beat frequency,ON: H
47	P45	W/N	O	W/N switch,W: L,(change W to H)
48	P44	CS0	O	NC (left open)
49	P43	MicMute	O	Mic mute,Mute: L,(change to H active)
50	P42	KEYBL	O	Keypad backlight control,ON: H, (NC)
51	P41	UP/LED4	O	UP/LED4
52	P40	LED6	O	LED6
53	P37	LCDCI/LED3	I/O	LCD Driver CI PIN /LED3
54	P36	DOWN/LED5	O	DOWN/LED5
55	P35	LCDCL/LED2	O	LCD,Driver CL,PIN/LED2
56	P34	LCDBL/LED0	O	LCD,Driver BL,PIN/LED0
57	P33	LED7	O	LED7
58	P32	LCDCE/LED1	O	LCD Driver CE PIN/LED1
59	P31	RLED	O	Red indicator
60	VCC	VCC	I	+5V
61	P30	GLED	O	Green indicator
62	VSS	VSS	I	GND
.63~66	A7~A4	A7~A4	I	Not used (left open)
67	P23	PLLDAT	O	PLL data output
68	P22	PLLCLK	O	PLL clock output
69	P21	SLED	O	Scan status indicator
70	P20	PLED	O	High/low power indicator
71	P17	8RC	O	8R power control,Rx: H
72	P16	8TC	O	8T power control,Tx: H
73	P15	Rx	O	Tx/Rx VCO switch,Rx: L
74	P14	EEPDAT	I/O	EEPROM data input/output
75	P13	EEPCLK	O	EEPROM clock output
76	P12	PLLUL	I	PLL unlock detect,Unlock: L
77	P11	PLLSTB	O	PLL strobe output,Lock: L
78	P10	AFMUTE	O	Receive AF MUTE,Mute: H
79	P07	/IGN	I	Ignition sense input,H: off;L: on
80	P06	PWR	I	PWR key input,ON: L

81	P05	TYPE	I	TM-610/TM-610 Selection input,H: TM-610; L: TM-610
82	P04	NC	I	Left open
83	P03	P4	I	P4 input,ON: L (external pull-up resistor)
84	P02	P3	I	P3 input,ON: L (external pull-up resistor)
85	P01	P2	I	P2 input,ON: L (external pull-up resistor)
86	P00	P1	I	P1 input,ON: L (external pull-up resistor)
87	AN7			Not used (left open)
88	AN6	Volume	I	Volume Tuning input
89	AN5			DTMF soft decode preserve
90	AN4			DTMF soft decode preserve
91	AN3	Temperature	I	Temperature data input
92	AN2	RSSI	I	RSSI input
93	AN1	SQL	I	SQL analog input
94	AVss	AVss		GND
95	AN0	TI	I	CTCSS/CDCSS signal input
96	VREF	VREF	I	Reference voltage input
97	AVCC	AVCC	I	+5V
98	P97/Sin4	AUX3	I/O	Optional circuit board port 3 (INPUT)
99	P96/Sout4	AUX6	I/O	Optional circuit board port 6 (OUTPUT)
100	P95/Clk4	APCO	I/O	Audio amplifer control port

Component Description

1. Tx-Rx Unit

Ref. No.	Part Name	Type	Description
IC101	IC	Power module	Power module
IC501	IC	AT2408N12.5S	EROM
IC401	IC	AK2346	Audio processor
IC404	IC	TA75W558FU	Dual operational amplifier
IC403	IC	TC75W51FU	Dual operational amplifier
IC803	IC	XC62FP3302P	Positive voltage regulator
IC602	IC	TA7805F	Positive voltage regulator
IC103	IC	TA75S01F	Single operational amplifier
IC104	IC	TA75W01FU	Dual operational amplifier
IC102	IC	TA31136FN	IF detector
IC502	IC	M30624FCPGP#U5C	CPU
IC121	IC	BU4066BCFV	Quad analog switch
IC122	IC	LC73872M	DTMF Rx circuit
IC125	IC	M62364FP	D/A converter with buffer amplifiers
IC126	IC	TDA8561Q	Power amplification
IC127	IC	TC4013BF	Dual D-type trigger
IC301	IC	PCF8576DH	LCD driver

TM-610 Parts List 1

Tx-Rx Unit (UHF)

No.	Material No.	Description	Qty.	Ref. No.	Print No.	Remarks
1	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	C404	B5E	
2	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R106	T2B	
3	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R110	T3B	
4	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R419	B5E	
5	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R448	B5F	
6	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R451	B5F	
7	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R455	T5F	
8	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R457	B5C	
9	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R480	T4B	
10	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R483	B4B	
11	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R485	T4F	
12	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R501	T4C	
13	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R509	T5F	
14	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R510	T4C	
15	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R513	T4C	
16	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R518	T5E	
17	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R520	T5E	
18	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R521	T5E	
19	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R522	T5E	
20	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R591	T5F	
21	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R600	T5F	
22	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R605	B2F	
23	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R608	T5F	
24	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R611	T4C	
25	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R620	T5F	
26	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R625	T5F	
27	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R627	T4C	
28	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R154	T4A	U1:400-470MHz
29	3001053030010	Chip resistor 0402 30KΩ J 1/1	1			U2:450-500MHz
30	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R153	T4A	U1:400-470MHz
31	3001053320000	Chip resistor 0402 3.3KΩ J 1/	1			U2:450-500MHz
32	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R146	T2D	
33	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R197	T3A	
34	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R145	B3A	
35	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R200	T4A	
36	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R439	B5E	
37	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R453	B4F	
38	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R476	B5B	
39	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R503	T4C	
40	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R504	T4C	

41	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R505	T3D	
42	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R506	T3D	
43	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R609	T4D	
44	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R610	T4D	
45	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R612	T4D	
46	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R632	T4D	
47	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R802	T3D	
48	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R823	T3D	
49	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R824	T3D	
50	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R825	T3D	
51	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R826	T3D	
52	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R112	T2B	
53	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R198	T3A	
54	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R402	B4E	
55	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R403	B4E	
56	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R904	B5C	
57	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R423	B4E	
58	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R424	B4E	
59	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R428	B4D	
60	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R449	B5F	
61	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R450	B5F	
62	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R464	B4C	
63	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R470	B5B	
64	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R472	B5B	
65	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R477	B5B	
66	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R804	T2D	
67	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R902	B5C	
68	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R418	B5E	U1:400-470MHz
69	3001051830000	Chip resistor 0402 18KΩ J 1/1	1			U2:450-500MHz
70	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R104	T2B	
71	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R107	T3B	
72	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R115	T3B	
73	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R116	T3B	
74	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R148	T2D	
75	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R149	T3A	
76	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R180	T2D	
77	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R427	B4D	
78	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R467	B5B	
79	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R468	B5B	
80	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R514	T4E	
81	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R565	T5G	
82	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R566	T5G	
83	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R801	T3D	
84	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R806	T3C	
85	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R820	T3F	

86	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R118	B3A	
87	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R119	B3B	
88	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R120	B2B	
89	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R130	B3A	
90	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R131	B3B	
91	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R473	B5B	
92	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R901	B5C	
93	3001051230000	Chip resistor 0402 12KΩ J 1/1	1	R152	T4B	
94	3001051230000	Chip resistor 0402 12KΩ J 1/1	1	R471	B5C	
95	3001051520000	Chip resistor 0402 1.5KΩ J 1/	1	R151	T4B	
96	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R111	T2B	
97	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R404	B4E	
98	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R408	B5E	
99	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R410	B5E	
100	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R465	B5C	
101	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R830	T3D	
102	3001051540020	Chip resistor 0402 150KΩ J 1/	1	R475	B5B	
103	3001051540020	Chip resistor 0402 150KΩ J 1/	1	R478	B5B	
104	3001051820000	Chip resistor 0402 1.8KΩ J 1/	1	R150	T4B	
105	3001051830000	Chip resistor 0402 18KΩ J 1/1	1	R432	B4D	
106	3001051830000	Chip resistor 0402 18KΩ J 1/1	1	R434	B5B	
107	3001051830000	Chip resistor 0402 18KΩ J 1/1	1	R435	B4C	
108	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R807	T2D	
109	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R459	B5C	
110	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R460	B5C	
111	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R461	B4C	
112	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R446	B5F	U1:400-470MHz
113	3001051540020	Chip resistor 0402 150KΩ J 1/	1			U2:450-500MHz
114	3001052200000	Chip resistor 0402 22Ω J 1/16	1	R803	T3D	
115	3001052200000	Chip resistor 0402 22Ω J 1/16	1	R808	T2D	
116	3001052210000	Chip resistor 0402 220Ω J 1/1	1	R117	T3B	
117	3001052220000	Chip resistor 0402 2.2KΩ J 1/	1	R805	T3D	
118	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R101	T2A	
119	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R102	T3A	
120	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R158	T4B	
121	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R159	T4A	
122	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R161	T4A	
123	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R162	T4B	
124	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R409	B5E	
125	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R441	B5E	
126	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R442	T5E	
127	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R445	B5F	
128	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R452	B5F	
129	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R458	B5C	
130	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R466	B5C	

131	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R829	T3D	
132	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R440	B5E	U1:400-470MHz
133	3001051830000	Chip resistor 0402 18KΩ J 1/1	1			U2:450-500MHz
134	3001052240000	Chip resistor 0402 220KΩ J 1/	1	R105	T2A	
135	3001052240000	Chip resistor 0402 220KΩ J 1/	1	R828	T3C	
136	3001052240000	Chip resistor 0402 220KΩ J 1/	1	R832	T5C	
137	3001052720000	Chip resistor 0402 2.7KΩ J 1/	1	R407	B5E	
138	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R421	B4D	
139	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R433	B4B	
140	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R436	B5B	
141	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R438	B4B	
142	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R516	T4E	
143	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R563	T3G	
144	3001053340000	Chip resistor 0402 330KΩ J 1/	1	R108	T3B	
145	3001053340000	Chip resistor 0402 330KΩ J 1/	1	R422	B4D	
146	3001053940000	Chip resistor 0402 390KΩ J 1/	1	R431	B5D	
147	3001053940000	Chip resistor 0402 390KΩ J 1/	1	R463	B4C	
148	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R160	T4A	
149	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R163	T4A	
150	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R401	B4E	
151	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R447	B5F	
152	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R469	B5B	
153	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R502	T4C	
154	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R507	T3D	
155	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R508	B4D	
156	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R511	T4C	
157	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R543	B4F	
158	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R571	B4F	
159	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R573	B4F	
160	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R822	T3E	
161	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R103	T3A	
162	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R144	B3A	
163	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R199	T3A	
164	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R202	T3A	
165	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R405	B4E	
166	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R454	B4E	
167	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R517	T4E	
168	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R519	T5E	
169	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R523	T5D	
170	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R524	T5D	
171	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R544	B4F	
172	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R545	B5F	
173	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R550	B4F	
174	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R562	T3G	
175	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R567	T5G	

176	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R572	B4F	
177	3001055130010	Chip resistor 0402 51KΩ J 1/1	1	R420	B4D	
178	3001055630000	Chip resistor 0402 56KΩ J 1/1	1	R429	B5D	
179	3001055630000	Chip resistor 0402 56KΩ J 1/1	1	R430	B5D	
180	3001056820000	Chip resistor 0402 6.8KΩ J 1/	1	R417	B5E	
181	3001056830000	Chip resistor 0402 68KΩ J 1/1	1	R482	B4B	
182	3001056830000	Chip resistor 0402 68KΩ J 1/1	1	R444	B5E	
183	3001056830000	Chip resistor 0402 68KΩ J 1/1	1	R456	B4B	
184	3001056830000	Chip resistor 0402 68KΩ J 1/1	1	R413	B5E	U1:400-470MHz
185	3001051040010	Chip resistor 0402 100KΩ J 1/	1			U2:450-500MHz
186	3001058220000	Chip resistor 0402 8.2KΩ J 1/	1	R474	B5B	
187	3001058220000	Chip resistor 0402 8.2KΩ J 1/	1	R416	B5E	U1:400-470MHz
188	3001051830000	Chip resistor 0402 18KΩ J 1/1	1			U2:450-500MHz
189	3001058230000	Chip resistor 0402 82KΩ J 1/1	1	R411	B5E	
190	3001058230000	Chip resistor 0402 82KΩ J 1/1	1	R462	B4C	
191	3001059130000	Chip resistor 0402 91KΩ F 1/1	1	R443	T4A	
192	3001062700000	Chip resistor 0603 27Ω J 1/10	1	R125	B2A	U1:400-470MHz
193	3001060000000	Chip resistor 0603 0Ω J 1/10W	1			U2:450-500MHz
194	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R126	B3A	
195	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R140	B3B	
196	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R425	T5E	
197	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R553	T4F	
198	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R564	T5G	
199	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R569	T4G	
200	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R570	T3F	
201	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R575	B5F	
202	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R809	T3E	
203	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R812	T2E	
204	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R815	T2E	
205	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R821	T3F	
206	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R157	T3A	
207	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R546	B1F	
208	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R547	B4G	
209	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R548	B5G	
210	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R549	B5G	
211	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R557	T4F	
212	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R560	T4F	
213	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R568	T3F	
214	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R817	T3E	U1:400-470MHz
215	3001061020010	Chip resistor 0603 1KΩ J 1/10	1			U2:450-500MHz
216	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R816	T3E	U1:400-470MHz
217	3001061020010	Chip resistor 0603 1KΩ J 1/10	1			U2:450-500MHz
218	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R186	B2D	
219	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R426	B4D	
220	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R554	T4F	

221	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R558	T4F	
222	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R810	T3E	
223	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R814	T2E	
224	3001061040010	Chip resistor 0603 100KΩ J 1/	1	R122	B2A	
225	3001061040010	Chip resistor 0603 100KΩ J 1/	1	R133	B3B	
226	3001061040010	Chip resistor 0603 100KΩ J 1/	1	R134	B4B	
227	3001061040010	Chip resistor 0603 100KΩ J 1/	1	R135	B4B	
228	3001061040010	Chip resistor 0603 100KΩ J 1/	1	R136	B3B	
229	3001061040010	Chip resistor 0603 100KΩ J 1/	1	R559	T4F	
230	3001061050010	Chip resistor 0603 1MΩ J 1/10	1	R147	T3C	
231	3001061220000	Chip resistor 0603 1.2KΩ J 1/	1	L802	T3D	
232	3001061220000	Chip resistor 0603 1.2KΩ J 1/	1	R188	T2D	
233	3001061220000	Chip resistor 0603 1.2KΩ J 1/	1	R818	T3E	
234	3001061520000	Chip resistor 0603 1.5KΩ J 1/	1	R109	T2D	
235	3001061520000	Chip resistor 0603 1.5KΩ J 1/	1	R819	T3E	
236	3001061800000	Chip resistor 0603 18Ω J 1/10	1	R187	T2D	
237	3001061810000	Chip resistor 0603 180Ω J 1/1	1	R143	B4B	
238	3001061840000	Chip resistor 0603 180KΩ J 1/	1	R121	B2A	
239	3001061840000	Chip resistor 0603 180KΩ J 1/	1	R123	B3B	
240	3001062200000	Chip resistor 0603 22Ω J 1/10	1	R127	B4B	
241	3001062200000	Chip resistor 0603 22Ω J 1/10	1	R189	T2D	
242	3001062220000	Chip resistor 0603 2.2KΩ J 1/	1	R185	T2D	
243	3001062220000	Chip resistor 0603 2.2KΩ J 1/	1	R604	B2F	
244	3001062230000	Chip resistor 0603 22KΩ J 1/1	1	R811	T3E	
245	3001062230000	Chip resistor 0603 22KΩ J 1/1	1	R813	T2E	
246	3001061500000	Chip resistor 0603 15Ω J 1/10	1	R129	B2A	U1:400-470MHz
247	3001062700000	Chip resistor 0603 27Ω J 1/10	1			U2:450-500MHz
248	3001062710000	Chip resistor 0603 270Ω J 1/1	1	R137	B3B	
249	3001062720000	Chip resistor 0603 2.7KΩ J 1/	1	R190	T2E	
250	3001062720000	Chip resistor 0603 2.7KΩ J 1/	1	R204	B2A	
251	3001063300000	Chip resistor 0603 33Ω J 1/10	1	R139	B4B	
252	3001063330010	Chip resistor 0603 33KΩ J 1/1	1	R555	T4F	
253	3001064710000	Chip resistor 0603 470Ω J 1/1	1	R142	B3A	U1:400-470MHz
254	3001062210000	Chip resistor 0603 220Ω J 1/1	1			U2:450-500MHz
255	3001064710000	Chip resistor 0603 470Ω J 1/1	1	R141	B4A	U1:400-470MHz
256	3001062210000	Chip resistor 0603 220Ω J 1/1	1			U2:450-500MHz
257	3001064710000	Chip resistor 0603 470Ω J 1/1	1	R192	T2E	
258	3001064710000	Chip resistor 0603 470Ω J 1/1	1	R556	T4F	
259	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R138	B4B	
260	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R602	B4G	
261	3001064730000	Chip resistor 0603 47KΩ J 1/1	1	R551	T3F	
262	3001064730000	Chip resistor 0603 47KΩ J 1/1	1	R561	T3G	
263	3001064730000	Chip resistor 0603 47KΩ J 1/1	1	R601	B4G	
264	3001064730000	Chip resistor 0603 47KΩ J 1/1	1	R603	B2F	
265	3001071800000	Chip resistor 0805 18Ω J 1/8W	1	R191	T2E	

266	3001075690000	Chip resistor 0805 5.6Ω J 1/8	1	R195	T1E	
267	3001078210000	Chip resistor 0805 820Ω J 1/8	1	R194	T1E	
268	3001078210000	Chip resistor 0805 820Ω J 1/8	1	R196	T1E	
269	3001161210000	Chip resistor 2010 120Ω J 1/2	1	R201	T2C	
270	3001162200000	Chip resistor 2010 22Ω J 1/2W	1	R193	T2E	
271	3001164720000	Chip resistor 2010 4.7KΩ J 1/	1	R552	T3F	
272	3002996830000	Trimmer resistor(2*2) 68KΩ(+25%)	1	VR801	T2D	
273	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP501	T5C	
274	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP502	T4C	
275	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP504	T4C	
276	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP505	T4C	
277	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP506	T3C	
278	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP508	T4D	
279	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP509	T4E	
280	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP510	T4E	
281	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP512	T4E	
282	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP513	T4D	
283	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP514	T5D	
284	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP515	T5D	
285	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP516	T5C	
286	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP517	T5C	
287	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP518	T5C	
288	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP519	T5D	
289	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP520	T5C	
290	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP521	T4C	
291	3101051000020	Chip capacitor 0402 10PF J 50V	1	C827	T3C	
292	3101051000020	Chip capacitor 0402 10PF J 50V	1	C826	T2D	
293	3101052000020	Chip capacitor 0402 20PF J 50V	1	C173	T4A	U1:400-470MHz
294	3101051000020	Chip capacitor 0402 10PF J 50V	1			U2:450-500MHz
295	3101051020010	Chip capacitor 0402 1000PF K 5	1	C180	T4B	
296	3101051020010	Chip capacitor 0402 1000PF K 5	1	C225	T3B	
297	3101051020010	Chip capacitor 0402 1000PF K 5	1	C238	T3B	
298	3101051020010	Chip capacitor 0402 1000PF K 5	1	C441	B5E	
299	3101051020010	Chip capacitor 0402 1000PF K 5	1	C445	B5B	
300	3101051020010	Chip capacitor 0402 1000PF K 5	1	C458	B5B	
301	3101051020010	Chip capacitor 0402 1000PF K 5	1	C462	B5C	
302	3101051020010	Chip capacitor 0402 1000PF K 5	1	C538	T4D	
303	3101051020010	Chip capacitor 0402 1000PF K 5	1	C805	T3D	
304	3101051020010	Chip capacitor 0402 1000PF K 5	1	C806	T3D	
305	3101051020010	Chip capacitor 0402 1000PF K 5	1	C807	T3D	
306	3101051020010	Chip capacitor 0402 1000PF K 5	1	C808	T3C	
307	3101051020010	Chip capacitor 0402 1000PF K 5	1	C809	T3C	
308	3101051020010	Chip capacitor 0402 1000PF K 5	1	C810	T3C	
309	3101051020010	Chip capacitor 0402 1000PF K 5	1	C830	T3E	
310	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C160	T2D	

311	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C163	T4A	
312	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C239	T2B	
313	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C240	T3B	
314	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C243	B4C	
315	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C401	B4E	
316	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C456	B5C	
317	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C465	B5B	
318	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C506	T5E	
319	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C512	B4F	
320	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C604	B4G	
321	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C903	B5C	
322	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C905	B5C	
323	3101054730000	Chip capacitor 0402 0.047UF K	1	C224	T3B	U1:400-470MHz
324	3101051030020	Chip capacitor 0402 0.01UF K 2	1			U2:450-500MHz
325	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C154	B4B	
326	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C165	T4A	
327	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C167	T4A	
328	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C168	T4A	
329	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C169	T4B	
330	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C174	T4A	
331	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C175	T3A	
332	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C176	T4A	
333	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C179	T4B	
334	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C403	B4E	
335	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C405	B5E	
336	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C406	B5E	
337	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C407	B5E	
338	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C430	B5D	
339	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C440	B5E	
340	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C453	B4C	
341	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C463	B5B	
342	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C466	B4D	
343	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C504	T4E	
344	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C505	T5D	
345	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C511	B4F	
346	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C525	T4G	
347	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C537	B4F	
348	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C539	T4C	
349	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C801	T3D	
350	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C803	T3D	
351	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C829	T3E	
352	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C911	B5C	
353	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C438	B5E	
354	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C444	B5E	
355	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C449	B4B	

356	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C450	B4B	
357	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C467	B4B	
358	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C468	T4F	
359	3101051230000	Chip capacitor 0402 0.012UF K	1	C454	B5C	
360	3101051500020	Chip capacitor 0402 15PF J 50V	1	C501	T4C	
361	3101051510000	Chip capacitor 0402 150PF(±5%)	1	C425	B5D	
362	3101051830000	Chip capacitor 0402 0.018UF K	1	C409	B5D	
363	3101051830000	Chip capacitor 0402 0.018UF K	1	C823	T3D	
364	3101052200010	Chip capacitor 0402 22PF J 50V	1	C427	B5D	
365	3101052200010	Chip capacitor 0402 22PF J 50V	1	C428	B5D	
366	3101052210010	Chip capacitor 0402 220PF K 50	1	C170	T4A	
367	3101052210010	Chip capacitor 0402 220PF K 50	1	C171	T4A	
368	3101052220010	Chip capacitor 0402 2200pF K 5	1	C455	B5C	
369	3101052700000	Chip capacitor 0402 27PF J 50V	1	C502	T4C	
370	3101052700000	Chip capacitor 0402 27PF J 50V	1	C503	T4C	
371	3101052720000	Chip capacitor 0402 2700PF K 5	1	C460	B5C	
372	3101052730000	Chip capacitor 0402 0.027UF K	1	C426	B5D	
373	3101052730000	Chip capacitor 0402 0.027UF K	1	C436	B5F	U1:400-470MHz
374	3101052730000	Chip capacitor 0402 0.027UF K	1			U2:450-500MHz
375	3101053300000	Chip capacitor 0402 33PF J 50V	1	C153	B3A	
376	3101053300000	Chip capacitor 0402 33PF J 50V	1	C415	B4E	
377	3101053300000	Chip capacitor 0402 33PF J 50V	1	C423	B4D	
378	3101053300000	Chip capacitor 0402 33PF J 50V	1	C908	B5C	
379	3101053310030	Capacitor 0402 330PF COG J	1	C439	B5E	
380	3101054700010	Chip capacitor 0402 47PF J 50V	1	C433	B5F	
381	3101054700010	Chip capacitor 0402 47PF J 50V	1	C435	B5F	
382	3101054700010	Chip capacitor 0402 47PF J 50V	1	C447	B5C	
383	3101054710010	Chip capacitor 0402 470PF K 50	1	C115	T3A	
384	3101054710010	Chip capacitor 0402 470PF K 50	1	C123	B3B	
385	3101054710010	Chip capacitor 0402 470PF K 50	1	C125	B2B	
386	3101054710010	Chip capacitor 0402 470PF K 50	1	C126	B3A	
387	3101054710010	Chip capacitor 0402 470PF K 50	1	C140	B3B	
388	3101054710010	Chip capacitor 0402 470PF K 50	1	C172	T4A	
389	3101054710010	Chip capacitor 0402 470PF K 50	1	C209	T2D	
390	3101054710010	Chip capacitor 0402 470PF K 50	1	C211	T2E	
391	3101054710010	Chip capacitor 0402 470PF K 50	1	C214	T2E	
392	3101054710010	Chip capacitor 0402 470PF K 50	1	C248	B3B	
393	3101054710010	Chip capacitor 0402 470PF K 50	1	C249	B3A	
394	3101054710010	Chip capacitor 0402 470PF K 50	1	C432	B5F	
395	3101054710010	Chip capacitor 0402 470PF K 50	1	C442	B4E	
396	3101054710010	Chip capacitor 0402 470PF K 50	1	C443	B4E	
397	3101054710010	Chip capacitor 0402 470PF K 50	1	C802	T3D	
398	3101054710010	Chip capacitor 0402 470PF K 50	1	C817	T3E	
399	3101054710010	Chip capacitor 0402 470PF K 50	1	C818	T3E	
400	3101054710010	Chip capacitor 0402 470PF K 50	1	C820	T3D	

401	3101054710010	Chip capacitor 0402 470PF K 50	1	C821	T3D	
402	3101054710010	Chip capacitor 0402 470PF K 50	1	C822	T3D	
403	3101054720000	Chip capacitor 0402 4700PF K 5	1	C402	B4E	
404	3101054740000	Chip capacitor 0402 0.47UF Z 6	1	C420	B4E	
405	3101054740000	Chip capacitor 0402 0.47UF Z 6	1	C422	T4B	
406	3101054740000	Chip capacitor 0402 0.47UF Z 6	1	C909	B5C	
407	3101055610000	Chip capacitor 0402 560PF K 50	1	C421	B4D	
408	3101055610000	Chip capacitor 0402 560PF K 50	1	C910	B5D	
409	3101056830000	Chip capacitor 0402 0.068UF K	1	C452	B5C	
410	3101056840010	Chip capacitor 0402 0.68UF Z 1	1	C419	B4E	
411	3101058200000	Chip capacitor 0402 82PF J 50V	1	C178	T4A	
412	3101060200010	Chip capacitor 0603 2PF B 50V	1	C112	T2A	
413	3101060200010	Chip capacitor 0603 2PF B 50V	1	C198	B3B	
414	3101060200010	Chip capacitor 0603 2PF B 50V	1	C219	T1E	
415	3101060200010	Chip capacitor 0603 2PF B 50V	1	C121	B2B	U1:400-470MHz
416	3101060200010	Chip capacitor 0603 2PF B 50V	1			U2:450-500MHz
417	3101060300010	Chip capacitor 0603 3PF B 50V	1	C813	T2E	
418	3101060390000	Chip capacitor 0603 0.3PF B 50	1	C109	T2A	U1:400-470MHz
419	3101060390000	Chip capacitor 0603 0.3PF B 50	1			U2:450-500MHz
420	3101060390000	Chip capacitor 0603 0.3PF B 50	1	C110	T2A	
421	3101060400010	Chip capacitor 0603 4PF B 50V	1	C146	B4B	U1:400-470MHz
422	3101060400010	Chip capacitor 0603 4PF B 50V	1			U2:450-500MHz
423	3101060400010	Chip capacitor 0603 4PF B 50V	1	C151	B3A	
424	3101061200000	Chip capacitor 0603 12PF J 50V	1	C212	T2E	U1:400-470MHz
425	3101060900010	Chip capacitor 0603 9PF B 50V	1			U2:450-500MHz
426	3101061200000	Chip capacitor 0603 12PF J 50V	1	C133	B2A	U1:400-470MHz
427	3101065690000	Chip capacitor 0603 5.6PF C 50	1			U2:450-500MHz
428	3101060500010	Chip capacitor 0603 5PF B 50V	1	C199	B3B	
429	3101060500010	Chip capacitor 0603 5PF B 50V	1	C128	B2B	U1:400-470MHz
430	3101060500010	Chip capacitor 0603 5PF B 50V	1			U2:450-500MHz
431	3101060590010	Chip capacitor 0603 0.5PF B 50	1	C111	T2A	U1:400-470MHz
432	3101060590010	Chip capacitor 0603 0.5PF B 50	1			U2:450-500MHz
433	3101060600010	Chip capacitor 0603 6PF B 50V	1	C218	T2E	
434	3101061000000	Chip capacitor 0603 10PF J 50V	1	C194	B3B	
435	3101061000000	Chip capacitor 0603 10PF J 50V	1	C197	B3B	
436	3101061020000	Chip capacitor 0603 1000PF K 5	1	C158	T2C	
437	3101061020000	Chip capacitor 0603 1000PF K 5	1	C220	T1E	
438	3101061020000	Chip capacitor 0603 1000PF K 5	1	C236	B2A	
439	3101061020000	Chip capacitor 0603 1000PF K 5	1	C526	T1F	
440	3101061020000	Chip capacitor 0603 1000PF K 5	1	C529	T3F	
441	3101061020000	Chip capacitor 0603 1000PF K 5	1	C532	T3F	
442	3101061020000	Chip capacitor 0603 1000PF K 5	1	C605	B3G	
443	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C143	B3B	
444	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C148	B4B	
445	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C152	B3A	

446	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C227	T2D	
447	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C228	T2C	
448	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C242	T4A	
449	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C606	B1F	
450	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C135	B2A	
451	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C145	B3B	
452	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C222	T1E	
453	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C235	T1C	
454	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C507	T5D	
455	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C518	B5G	
456	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C519	B5G	
457	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C520	B4G	
458	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C521	B1F	
459	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C528	T3G	
460	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C534	T3F	
461	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C536	B4G	
462	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C602	B3F	
463	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C408	B5D	
464	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C412	B5E	
465	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C434	B5F	
466	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C437	T5F	
467	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C513	B4F	
468	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C514	B5F	
469	3101061500010	Chip capacitor 0603 15PF J 50V	1	C150	B3B	
470	3101062220010	Chip capacitor 0603 2200PF K 5	1	C416	B4D	
471	3101062240000	Chip capacitor 0603 0.22UF K 1	1	C237	T2B	
472	3101062240000	Chip capacitor 0603 0.22UF K 1	1	C414	B5D	
473	3101062240000	Chip capacitor 0603 0.22UF K 1	1	C522	T4F	
474	3101062710000	Chip capacitor 0603 270PF J 50	1	C159	T3C	
475	3101063000010	Chip capacitor 0603 30PF J 50V	1	C155	T4A	
476	3101064710000	Chip capacitor 0603 470PF K 50	1	C113	B2A	
477	3101064710000	Chip capacitor 0603 470PF K 50	1	C114	T2A	
478	3101064710000	Chip capacitor 0603 470PF K 50	1	C130	B3B	
479	3101064710000	Chip capacitor 0603 470PF K 50	1	C131	B3B	
480	3101064710000	Chip capacitor 0603 470PF K 50	1	C132	B2A	
481	3101064710000	Chip capacitor 0603 470PF K 50	1	C136	B2A	
482	3101064710000	Chip capacitor 0603 470PF K 50	1	C141	B3B	
483	3101064710000	Chip capacitor 0603 470PF K 50	1	C144	B3B	
484	3101064710000	Chip capacitor 0603 470PF K 50	1	C147	B4B	
485	3101064710000	Chip capacitor 0603 470PF K 50	1	C192	B3B	
486	3101064710000	Chip capacitor 0603 470PF K 50	1	C208	T2D	
487	3101064710000	Chip capacitor 0603 470PF K 50	1	C210	T2D	
488	3101064710000	Chip capacitor 0603 470PF K 50	1	C215	T2E	
489	3101064710000	Chip capacitor 0603 470PF K 50	1	C216	T2F	
490	3101064710000	Chip capacitor 0603 470PF K 50	1	C217	T2F	

491	3101064710000	Chip capacitor 0603 470PF K 50	1	C223	T1E	
492	3101064710000	Chip capacitor 0603 470PF K 50	1	C226	T2C	
493	3101064710000	Chip capacitor 0603 470PF K 50	1	C232	T1C	
494	3101064710000	Chip capacitor 0603 470PF K 50	1	C244	B2A	
495	3101064710000	Chip capacitor 0603 470PF K 50	1	C530	T3F	
496	3101064710000	Chip capacitor 0603 470PF K 50	1	C531	T2F	
497	3101064710000	Chip capacitor 0603 470PF K 50	1	C812	T3E	
498	3101066800000	Chip capacitor 0603 68PF J 50V	1	C156	T3C	
499	3101066800000	Chip capacitor 0603 68PF J 50V	1	C157	T3C	
500	3101074730000	Chip capacitor 0805 0.047UF K	1	C814	T2E	
501	3102992000000	Trimmer capacitor 3.2*2.5*1.25mm	1	TC101	B2B	
502	3102992000000	Trimmer capacitor 3.2*2.5*1.25mm	1	TC102	B3A	
503	3103994760080	Electrolytic capacitor 2512 47UF±20% 2	1	C234	T1D	
504	3103994760080	Electrolytic capacitor 2512 47UF±20% 2	1	C533	T1F	
505	3104071050010	Tantalum capacitor 0805 1UF M 16V	1	C241	T3B	
				C906	B5D	
				C907	B5C	
506	3104071050010	Tantalum capacitor 0805 1UF M 16V	1	C417	B4D	
507	3104071050010	Tantalum capacitor 0805 1UF M 16V	1	C418	B4E	
508	3104071050010	Tantalum capacitor 0805 1UF M 16V	1	C517	B4F	
509	3104071050010	Tantalum capacitor 0805 1UF M 16V	1	C608	B2F	
510	3104071060010	Tantalum capacitor 0805 10UF M 6.3V	1	C164	T4A	
511	3104071560020	Tantalum capacitor 0805 15UF M 6.3V	1	C429	B5D	
512	3104072250010	Tantalum capacitor 0805 2.2UF M 10V	1	C250	T2B	
513	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C247	B4B	
514	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C411	B5E	
515	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C424	B4D	
516	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C448	B4C	
517	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C457	B5C	
518	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C464	B5B	
519	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C603	B4G	
520	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C804	T3D	
521	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C811	T3C	
522	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C825	T3C	
523	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C828	T3E	
524	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C831	T5C	
525	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C904	B4C	
526	3104081040000	Tantalum capacitor 1206 0.1UF M 35V	1	C221	T1D	
527	3104081040000	Tantalum capacitor 1206 0.1UF M 35V	1	C816	T3F	
528	3104081060070	Tantalum capacitor 1206 10UF M 16V	1	C523	T3G	
529	3104081060070	Tantalum capacitor 1206 10UF M 16V	1	C535	B4G	
530	3104081060070	Tantalum capacitor 1206 10UF M 16V	1	C819	T3E	
531	3104081060070	Tantalum capacitor 1206 10UF M 16V	1	C607	B1F	U1:400-470MHz
532	3104081060070	Tantalum capacitor 1206 10UF M 16V	1			U2:450-500MHz
533	3104083350040	Tantalum capacitor 1206 3.3UF M 16V	1	C815	T3E	

534	3104084750030	Tantalum capacitor 1206 4.7UF K 16V	1	C524	T4G	
535	3104084750030	Tantalum capacitor 1206 4.7UF K 16V	1	C601	B3F	
536	3104086850000	Tantalum capacitor 1206 6.8UF±20% 1	1	C181	T4B	
537	3210306180000	Multi-layer chip inductor 0603 18nH	1	L123	B3C	
538	3210306180000	Multi-layer chip inductor 0603 18nH	1	L138	B3B	
539	3210306220000	Multi-layer chip inductor 0603 22nH	1	L109	B3A	
540	3210306220000	Multi-layer chip inductor 0603 22nH	1	L124	B3B	
541	3210306390000	Multi-layer chip inductor 0603 39nH	1	L139	B3A	
542	3213212100000	Multi-layer chip inductor 1008 10nH	1	L127	T2E	
543	3213212100000	Multi-layer chip inductor 1008 10nH	1	L128	T1F	
544	3213212103000	Multi-layer chip inductor 1008 10uH	1	L134	B4C	
545	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L129	T1E	
546	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L135	B3B	
547	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L137	B4B	
548	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L501	T4E	
549	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L502	T4C	
550	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L503	T4E	
551	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L504	T4E	
552	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L505	T4E	
553	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L801	T3D	
554	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L803	T2D	
555	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L804	T3E	
556	3231132830000	Air-core inductor 1.3*2.8*3TR	1	L102	B1A	
557	3231132830000	Air-core inductor 1.3*2.8*3TR	1	L103	B1A	
558	3231132830000	Air-core inductor 1.3*2.8*3TR	1	L105	T1C	
559	3231803011000	Air-core inductor 0.8*3.0*11TR	1	L101	B1B	
560	3231803060000	Air-core inductor 0.8*3.0*6TR	1	L133	T1C	
561	3301060400000	Rectifier diode DSM3MA1TRF-E	1	D515	T1G	
562	3302030500000	Zener diode UDZSTE(1710B)	1	D514	T5F	
563	3302030500010	Zener diode UDZSTE(1715B)	1	D518	T3F	
564	3302030500030	Zener diode UDZSTE(175.1B)	1	D112	B4B	
565	3302030500030	Zener diode UDZSTE(175.1B)	1	D118	B1D	
566	3302180100000	Zener diode HZU5ALL-E	1	D802	T3D	
567	3303010500040	Switching diode 1SS355(TE17)	1	D103	T3A	
568	3303010500040	Switching diode 1SS355(TE17)	1	D116	T2D	
569	3303010500040	Switching diode 1SS355(TE17)	1	D511	T4F	
570	3303010500040	Switching diode 1SS355(TE17)	1	D513	T4F	
571	3303010500040	Switching diode 1SS355(TE17)	1	D517	T3F	
572	3303020100020	Switching diode MA2S11100L	1	D501	T4E	
573	3303020100020	Switching diode MA2S11100L	1	D801	T3D	
574	3303020100020	Switching diode MA2S11100L	1	D803	T3E	
575	3303020100060	Switching diode MA3J74200L	1	D101	T2A	
576	3303020100060	Switching diode MA3J74200L	1	D102	T2A	
577	3303020100060	Switching diode MA3J74200L	1	D117	T2E	
578	3303020100060	Switching diode MA3J74200L	1	D401	B4C	

579	3303030100010	Switching diode DAN222(TL)	1	D113	T4A	
580	3303030100010	Switching diode DAN222(TL)	1	D114	T4B	
581	3303210100000	Switching diode MA4P1250 3*2mm	1	D104	T1C	
582	3303210100000	Switching diode MA4P1250 3*2mm	1	D105	T2C	
583	3399990000240	Zener diode UDZSTE(174.7B)	1	D119	T3A	
584	3401001000490	Transistor 2SA1832-GR	1	Q802	T3E	
585	3401002000140	Transistor 2SC4215-Y	1	Q113	B4A	
586	3401002000290	Transistor 2SC4116-GR	1	Q404	B5F	
587	3401002000990	Transistor 2SC5108-Y.	1	Q107	T3C	
588	3403002000000	Transistor 2SB1132FD5T100R	1	Q601	B4G	
589	3403002000000	Transistor 2SB1132FD5T100R	1	Q603	B1F	
590	3403003000000	Transistor 2SC2412K	1	Q114	T3A	
591	3403003000060	Transistor 2SC4617TLS	1	Q401	B5E	
592	3403007000000	Transistor DTA114EE(TL)	1	Q105	T4B	
593	3403007000000	Transistor DTA114EE(TL)	1	Q106	T3A	
594	3403007000000	Transistor DTA114EE(TL)	1	Q514	T4F	
595	3403007000000	Transistor DTA114EE(TL)	1	Q516	T4F	
596	3403007000000	Transistor DTA114EE(TL)	1	Q519	T4G	
597	3403007000000	Transistor DTA114EE(TL)	1	Q520	T4G	
598	3408002000010	Transistor 2SC3357-T1-A-RF	1	Q109	T2E	
599	3408002000010	Transistor 2SC3357-T1-A-RF	1	Q110	T2D	
600	3501030000000	FET 2SJ506STR-E	1	Q512	T3F	
601	3411002000020	Transistor 2SC5343EG	1	Q801	T3E	
602	3501020000030	FET 3SK318YB-TL-E-Q	1	Q111	B3A	
603	3501020000030	FET 3SK318YB-TL-E-Q	1	Q112	B3B	
604	3503020000030	FET 2SK1824-T1-A	1	Q403	B5E	
605	3503020000030	FET 2SK1824-T1-A	1	Q405	B4E	
606	3503020000030	FET 2SK1824-T1-A	1	Q406	B4E	
607	3503020000030	FET 2SK1824-T1-A	1	Q502	T4E	
608	3503020000030	FET 2SK1824-T1-A	1	Q511	B4F	
609	3503020000030	FET 2SK1824-T1-A	1	Q521	B5F	
610	3602017006350	Audio amplifier TDA7297D	1	IC511	B4G	
611	3603002005440	IF processor TA31136FNG	1	IC102	B4A	
612	3605002054790	Operational amplifier TA75W558FU	1	IC404	B4C	
613	3605002057090	Operational amplifier TA75S01F	1	IC103	T3B	
614	3605002057290	Operational amplifier TC75W51FU	1	IC402	B4B	
615	3605002057290	Operational amplifier TC75W51FU	1	IC403	B5B	
616	3605002057290	Operational amplifier TC75W51FU	1	IC405	B5E	
617	3607002000180	FLIP-FLOP TC4013BF	1	IC512	T4G	
618	3608002020890	Power management IC TA7805F	1	IC602	B4F	
619	3608015005600	Power management IC XC62FP3502PR	1	IC803	T2D	
620	3609007001590	IC MB15A02PFV1-E1	1	IC801	T3D	
621	3612022000000	Memory CAT24C256WI 256K	1	IC501	T5E	
622	3613034001060	Baseband processor AK2346-E2	1	IC401	B4D	
				IC406	B5C	

623	3701098340010	Crystal 9.8304MHz DSX530G	1	X501	T4C	
624	3701368630000	Crystal oscillator 3.6864MHz	1	X402	B5D	
625	3802499540070	Crystal filter 49.95MHz ±7.5k	1	XF200	B3A	
626	3213212331000	Multi-layer chip inductor 1008 330nH	1	L116	T2C	
627	3213212331000	Multi-layer chip inductor 1008 330nH	1	L117	T3C	
628	3213212331000	Multi-layer chip inductor 1008 330nH	1	L118	T2C	
629	3403008000010	Transistor DTC114EE(TL)	1	Q402	B5E	
630	3403008000010	Transistor DTC114EE(TL)	1	Q501	T3C	
631	3403008000010	Transistor DTC114EE(TL)	1	Q503	T5E	
632	3403008000010	Transistor DTC114EE(TL)	1	Q513	T4F	
633	3403008000010	Transistor DTC114EE(TL)	1	Q515	T4F	
634	3403008000010	Transistor DTC114EE(TL)	1	Q517	T4F	
635	3403008000010	Transistor DTC114EE(TL)	1	Q518	T4G	
636	3403008000010	Transistor DTC114EE(TL)	1	Q602	B4G	
637	3403008000010	Transistor DTC114EE(TL)	1	Q604	B2F	
638	3701016850020	TCXO 16.8MHz	1	IC802	T3C	
639	3210306561010	Multi-layer chip inductor 0603 560nH	1	L114	B4B	
640	3210306331010	Multi-layer chip inductor 0603 330nH	1	L113	B4B	U1:400-470MHz
641	3210306331010	Multi-layer chip inductor 0603 330nH	1			U2:450-500MHz
642	3003061040000	Thermistor 0603 100kΩ J	1	TH101	B2A	
643	3221513600000	Chip ferrite bead 1806 60Ω±25%	1	L131	T1D	
644	3221513600000	Chip ferrite bead 1806 60Ω±25%	1	L132	T1D	
645	3304060300010	Varactor HVC376BTRF-E	1	D107	B3A	
646	3304060300010	Varactor HVC376BTRF-E	1	D108	B3B	
647	3304060300010	Varactor HVC376BTRF-E	1	D109	B2B	
648	3304060300010	Varactor HVC376BTRF-E	1	D110	B3A	
649	3001061210000	Chip resistor 0603 120Ω J 1/1	1	R181	T2E	
650	3001054740000	Chip resistor 0402 470KΩ J 1/	1	R156	T4A	U1:400-470MHz
651	3001055640000	Chip resistor 0402 560KΩ J 1/	1			U2:450-500MHz
652	3001055640000	Chip resistor 0402 560KΩ J 1/	1	R406	B5E	U1:400-470MHz
653	3001053340000	Chip resistor 0402 330KΩ J 1/	1			U2:450-500MHz
654	3101061800000	Chip capacitor 0603 18PF J 50V	1	C122	B3A	U1:400-470MHz
655	3101060800010	Chip capacitor 0603 8PF B 50V	1			U2:450-500MHz
656	3101061800000	Chip capacitor 0603 18PF J 50V	1	C245	B3B	U1:400-470MHz
657	3101060800010	Chip capacitor 0603 8PF B 50V	1			U2:450-500MHz
658	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R155	T4A	U1:400-470MHz
659	3001053920010	Chip resistor 0402 3.9KΩ J 1/	1			U2:450-500MHz
660	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R903	B5C	
661	5205015000000	15PIN Socket 1251	1	J503	T5F	
662	5207032000000	FFC/FPC Connector 52559-327	1	J501	T5D	
663	3101051530010	Chip capacitor 0402 0.015UF K	1	C410	B5E	
664	3101051530010	Chip capacitor 0402 0.015UF K	1	C824	T3D	
665	3401002000150	Transistor 2SC4738F-GR	1	Q803	T3E	
666	3605002054590	Operational amplifier TA75W01FU	1	IC104	T3B	
667	3220107689000	Filter inductor 0805 6.8nH ±0.5	1	L136	B3A	U1:400-470MHz

668	3220107829000	Filter inductor 0805 8.2nH ±0.5	1			U2:450-500MHz
669	3220107689000	Filter inductor 0805 6.8nH ±0.5	1	L110	B3A	U1:400-470MHz
670	3220107829000	Filter inductor 0805 8.2nH ±0.5	1			U2:450-500MHz
671	3220107689000	Filter inductor 0805 6.8nH ±0.5	1	L108	B2B	U1:400-470MHz
672	3220107829000	Filter inductor 0805 8.2nH ±0.5	1			U2:450-500MHz
673	3220107689000	Filter inductor 0805 6.8nH ±0.5	1	L107	B3B	U1:400-470MHz
674	3220107829000	Filter inductor 0805 8.2nH ±0.5	1			U2:450-500MHz
675	3101062700010	Chip capacitor 0603 27PF J 50V	1	C124	B3B	U1:400-470MHz
676	3101065690000	Chip capacitor 0603 5.6PF C 50	1			U2:450-500MHz
677	3101062700010	Chip capacitor 0603 27PF J 50V	1	C129	B2B	U1:400-470MHz
678	3101065690000	Chip capacitor 0603 5.6PF C 50	1			U2:450-500MHz
679	3101062700010	Chip capacitor 0603 27PF J 50V	1	C134	B3A	U1:400-470MHz
680	3101065690000	Chip capacitor 0603 5.6PF C 50	1			U2:450-500MHz
681	3101062700010	Chip capacitor 0603 27PF J 50V	1	C246	B3A	U1:400-470MHz
682	3101065690000	Chip capacitor 0603 5.6PF C 50	1			U2:450-500MHz
683	3001056820010	Chip resistor 0402 6.8KΩ F 1/	1	R414	B5E	U1:400-470MHz
684	3001053030010	Chip resistor 0402 30KΩ J 1/1	1			U2:450-500MHz
685	3101080200010	Chip capacitor 1206 2pF C 500V	1	C101	B1B	
686	3101080200010	Chip capacitor 1206 2pF C 500V	1	C116	T2C	
687	3101080200010	Chip capacitor 1206 2pF C 500V	1	C230	B1B	
	NC	NC	1	C106	B2A	U1:400-470MHz
	NC	NC	1			U2:450-500MHz
688	3101080200010	Chip capacitor 1206 2pF C 500V	1	C105	B5B	U1:400-470MHz
689	3101080200010	Chip capacitor 1206 2pF C 500V	1			U2:450-500MHz
690	3101080100010	Chip capacitor 1206 1pF C 500V	1	C104	B1A	U1:400-470MHz
691	3101080100010	Chip capacitor 1206 1pF C 500V	1			U2:450-500MHz
692	3101080100010	Chip capacitor 1206 1pF C 500V	1	C102	B1A	U1:400-470MHz
693	3101080100010	Chip capacitor 1206 1pF C 500V	1			U2:450-500MHz
694	3101080100010	Chip capacitor 1206 1pF C 500V	1	C117	T2C	
	NC	NC	1	C100	B1B	U1:400-470MHz
	NC	NC	1			U2:450-500MHz
695	3101084710010	Chip capacitor 1206 470pF K 63	1	C108	T2B	
696	3101084710010	Chip capacitor 1206 470pF K 63	1	C229	T2C	
697	3101084710010	Chip capacitor 1206 470pF K 63	1	L130	T1C	
698	3101080400010	Chip capacitor 1206 4pF C 500V	1	C103	B1A	U1:400-470MHz
699	3101080400010	Chip capacitor 1206 4pF C 500V	1			U2:450-500MHz
700	3101061590010	Chip capacitor 0603 1.5PF B 50	1	C127	B3B	U1:400-470MHz
701	3199060758000	Chip capacitor 0603 0.75PF B 5	1			U2:450-500MHz
702	3101061590010	Chip capacitor 0603 1.5PF B 50	1	C137	B3A	U1:400-470MHz
703	3199060758000	Chip capacitor 0603 0.75PF B 5	1			U2:450-500MHz
704	3001052230000	Chip resistor 0402 22KΩ F 1/1	1	VR101	T3A	
705	3001051510000	Chip resistor 0402 150Ω J 1/1	1	R412	B5E	U1:400-470MHz
706	3001052210000	Chip resistor 0402 220Ω J 1/1	1			U2:450-500MHz
707	3210107150000	Bobbin inductor 0805 15nH	1	L106	B2B	U1:400-470MHz
708	3220107829000	Filter inductor 0805 8.2nH ±0.5	1			U2:450-500MHz

709	3101061100010	Chip capacitor 0603 11PF J 50V	1	C118	B2B	
710	3101050300010	Chip capacitor 0402 3PF B 50V	1	C182	B2B	U1:400-470MHz
711	3101050700010	Chip capacitor 0402 7PF B 50V	1			U2:450-500MHz
712	410M600100870	TM-600U PCB FR4 1.6T	1			
713	3101051810010	Chip capacitor 0402 180p J 50V	2	C451	B4C	
				C461	B5B	
714	3001051240000	Chip resistor 0402 120KΩ J 1/	1	R437	B5C	
715	3610045000200	SCM M3062LFGPGP	1	IC502	T4D	
716	3302030500020	Zener diode UDZSTE(1718B)1	1	D512	T4G	
717	4002000000300	Chip fuse 0603-FF 0.5A-32V	1	FP101	T5P	
718	4002000000300	Chip fuse 0603-FF 0.5A-32V	1	FP102	T5P	
	NC	NC	1	C195	B3C	U1:400-470MHz
	NC	NC	1			U2:450-500MHz
719	3101060590010	Chip capacitor 0603 0.5PF B 50	1	C196	B3C	U1:400-470MHz
	NC	NC	1			U2:450-500MHz

Tx-Rx Unit (VHF)

No.	Material No.	Description	Qty.	Ref. No.	Print No.
1	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	C404	B5E
2	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R106	T2B
3	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R419	B5E
4	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R448	B5F
5	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R451	B5F
6	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R455	B5E
7	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R457	B5C
8	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R481	T4B
9	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R483	B4B
10	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R484	B4B
11	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R485	T4F
12	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R510	T4C
13	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R513	T4C
14	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R518	T5E
15	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R520	T5E
16	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R521	T5E
17	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R522	T5E
18	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R577	T4E
19	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R580	T4E
20	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R584	T4E
21	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R590	T5F
22	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R591	T5F
23	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R595	T4E
24	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R598	T4E
25	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R599	T4E
26	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R600	T5F
27	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R605	B2F
28	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R608	T5F
29	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R611	T4C
30	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R615	T4E
31	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R616	T4E
32	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R618	T4E
33	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R620	T5F
34	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R625	T5F
35	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R626	T4E
36	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R627	T4C
37	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R629	T5D
38	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R823	T3D
39	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R824	T3D
40	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R825	T3D
41	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R146	T2D
42	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R168	B3D
43	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R173	B3D
44	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R174	B3D

45	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R197	T3A
46	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R501	T4C
47	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R145	B3A
48	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R200	T4A
49	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R439	B4E
50	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R453	B4F
51	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R476	B5B
52	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R503	T4C
53	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R504	T4C
54	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R505	T3D
55	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R506	T3D
56	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R582	T4E
57	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R586	T4E
58	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R588	T4E
59	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R609	T4E
60	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R610	T4E
61	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R612	T3D
62	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R632	T5D
63	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R802	T3D
64	3001051020010	Chip resistor 0402 1KΩ J 1/16	1	R826	T3D
65	3001051030000	Chip resistor 0402 10KΩ J 1/1	2	R107	T2B
				R903	B5C
66	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R110	T3B
67	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R170	B3D
68	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R176	B3D
69	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R198	T3A
70	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R402	B4E
71	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R403	B4E
72	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R423	B4E
73	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R424	B4E
74	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R428	B4C
75	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R449	B5F
76	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R450	B5F
77	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R464	B4C
78	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R470	B5B
79	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R472	B5B
80	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R477	B5B
81	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R509	T3D
82	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R515	T4E
83	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R596	T5E
84	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R613	T4E
85	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R804	T2D
86	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R902	B5C
87	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R904	B5C
88	3001051040000	Chip resistor 0402 100KΩ F 1/	1	R413	B5E

89	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R104	T2B
90	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R105	T2A
91	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R115	T2B
92	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R116	T2B
93	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R148	B2D
94	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R149	T3A
95	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R180	T2D
96	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R427	B4D
97	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R467	B5B
98	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R468	B5B
99	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R514	T4E
100	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R565	T4G
101	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R566	T4G
102	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R631	T5E
103	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R801	T3D
104	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R806	T3C
105	3001051040010	Chip resistor 0402 100KΩ J 1/	1	R820	T3F
106	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R118	B3B
107	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R119	B3B
108	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R120	B3B
109	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R130	B2A
110	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R131	B3B
111	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R431	B5D
112	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R473	B5B
113	3001051050020	Chip resistor 0402 1MΩ J 1/16	1	R901	B5A
114	3001051230000	Chip resistor 0402 12KΩ J 1/1	1	R152	T4B
115	3001051230000	Chip resistor 0402 12KΩ J 1/1	1	R471	B5C
116	3001051240000	Chip resistor 0402 120KΩ J 1/	1	R827	T3C
117	3001051520000	Chip resistor 0402 1.5KΩ J 1/	1	R151	T4B
118	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R404	B4E
119	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R408	B5E
120	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R410	B5E
121	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R465	B5C
122	3001051530000	Chip resistor 0402 15KΩ J 1/1	1	R830	T3D
123	3001051540020	Chip resistor 0402 150KΩ J 1/	1	R446	B5F
124	3001051540020	Chip resistor 0402 150KΩ J 1/	1	R475	B5B
125	3001051540020	Chip resistor 0402 150KΩ J 1/	1	R478	B5B
126	3001051810010	Chip resistor 0402 180Ω J 1/1	1	R182	B2D
127	3001051810010	Chip resistor 0402 180Ω J 1/1	1	R184	B2D
128	3001051820000	Chip resistor 0402 1.8KΩ J 1/	1	R150	T4B
129	3001051830000	Chip resistor 0402 18KΩ J 1/1	1	R434	B5B
130	3001051830000	Chip resistor 0402 18KΩ J 1/1	1	R435	B4C
131	3001051830010	Chip resistor 0402 18KΩ F 1/1	1	R175	B3D
132	3001051830010	Chip resistor 0402 18KΩ F 1/1	1	R416	B5E
133	3001051830010	Chip resistor 0402 18KΩ F 1/1	1	R418	B5E

134	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R459	B5C
135	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R460	B5C
136	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R461	B4C
137	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R807	T2D
138	3001051840000	Chip resistor 0402 180KΩ J 1/	1	R832	T5C
139	3001052030000	Chip resistor 0402 20KΩ J 1/1	1	R440	B5E
140	3001052200000	Chip resistor 0402 22Ω J 1/16	1	R803	T3D
141	3001052200000	Chip resistor 0402 22Ω J 1/16	1	R808	T2D
142	3001052210000	Chip resistor 0402 220Ω J 1/1	1	R117	T3B
143	3001052210000	Chip resistor 0402 220Ω J 1/1	1	R172	B3D
144	3001052210000	Chip resistor 0402 220Ω J 1/1	1	R412	B5E
145	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R158	T4B
146	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R159	T4A
147	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R161	T4A
148	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R162	T4B
149	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R409	B5E
150	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R441	B5E
151	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R442	B5E
152	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R445	B5F
153	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R452	B5F
154	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R458	B5C
155	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R466	B5C
156	3001052230010	Chip resistor 0402 22KΩ J 1/1	1	R829	T3D
157	3001052240000	Chip resistor 0402 220KΩ J 1/	1	R437	B5C
158	3001052720000	Chip resistor 0402 2.7KΩ J 1/	1	R407	B5E
159	3001052730000	Chip resistor 0402 27KΩ J 1/1	1	R421	B4D
160	3001053030010	Chip resistor 0402 30KΩ J 1/1	1	R154	T4A
161	3001053030010	Chip resistor 0402 30KΩ J 1/1	1	R414	B5E
162	3001053300010	Chip resistor 0402 33Ω J 1/16	1	R167	B3D
163	3001053300010	Chip resistor 0402 33Ω J 1/16	1	R183	B2D
164	3001053310010	Chip resistor 0402 330Ω J 1/1	1	R177	B3D
165	3001053310010	Chip resistor 0402 330Ω J 1/1	1	R178	B3D
166	3001053320000	Chip resistor 0402 3.3KΩ J 1/	1	R111	T2B
167	3001053320000	Chip resistor 0402 3.3KΩ J 1/	1	R153	T3A
168	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R432	B4D
169	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R433	B4B
170	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R436	B5B
171	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R438	B4B
172	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R482	B4B
173	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R516	T4D
174	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R563	T3G
175	3001053340000	Chip resistor 0402 330KΩ J 1/	1	R108	T3B
176	3001053340000	Chip resistor 0402 330KΩ J 1/	1	R406	B5E
177	3001053340000	Chip resistor 0402 330KΩ J 1/	1	R422	B4D
178	3001053920010	Chip resistor 0402 3.9KΩ J 1/	1	R155	T4A

179	3001053940000	Chip resistor 0402 390KΩ J 1/	1	R463	B4C
180	3001054700000	Chip resistor 0402 47Ω J 1/16	1	R169	B3D
181	3001054700000	Chip resistor 0402 47Ω J 1/16	1	R623	T5D
182	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R160	T4A
183	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R163	T4A
184	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R171	B3D
185	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R401	B4E
186	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R447	B5F
187	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R469	B5B
188	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R502	T4C
189	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R507	T3D
190	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R508	T3D
191	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R511	T4C
192	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R543	B4F
193	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R571	B4F
194	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R573	B4F
195	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R822	T3E
196	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R101	T2A
197	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R102	T2A
198	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R103	T3A
199	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R144	B3A
200	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R179	B3D
201	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R199	T3A
202	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R202	T3A
203	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R405	B4E
204	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R454	B4E
205	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R517	T4E
206	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R519	T4E
207	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R523	T5D
208	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R524	T5D
209	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R544	B4F
210	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R545	B5F
211	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R550	B4F
212	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R562	T3G
213	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R567	T5G
214	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R572	B4F
215	3001055130010	Chip resistor 0402 51KΩ J 1/1	1	R420	B4D
216	3001055600000	Chip resistor 0402 56Ω J 1/16	1	R203	B4D
217	3001055600000	Chip resistor 0402 56Ω J 1/16	1	R828	T3C
218	3001055630000	Chip resistor 0402 56KΩ J 1/1	1	R429	B4D
219	3001055630000	Chip resistor 0402 56KΩ J 1/1	1	R430	B5D
220	3001055640000	Chip resistor 0402 560KΩ J 1/	1	R156	T4A
221	3001056820000	Chip resistor 0402 6.8KΩ J 1/	1	R112	T2B
222	3001056820000	Chip resistor 0402 6.8KΩ J 1/	1	R417	B5E
223	3001055620000	Chip resistor 0402 5.6KΩ J 1/	1	R805	T2D

224	3001056830000	Chip resistor 0402 68KΩ J 1/1	1	R444	B5E
225	3001056830000	Chip resistor 0402 68KΩ J 1/1	1	R456	B4B
226	3001058220000	Chip resistor 0402 8.2KΩ J 1/	1	R474	B5B
227	3001058230000	Chip resistor 0402 82KΩ J 1/1	1	R411	B5E
228	3001058230000	Chip resistor 0402 82KΩ J 1/1	1	R462	B4C
229	3001059130000	Chip resistor 0402 91KΩ F 1/1	1	R443	B5E
230	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R126	B3A
231	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R127	B3A
232	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R132	B3B
233	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R140	B3B
234	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R425	T5E
235	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R553	T4F
236	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R564	T4G
237	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R569	T4F
238	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R570	T3F
239	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R575	B5F
240	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R714	B3D
241	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R812	T2E
242	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R815	T2E
243	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R821	T3F
244	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R546	B5G
245	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R547	B4G
246	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R548	B5G
247	3001061000000	Chip resistor 0603 10Ω J 1/10	1	R549	B5G
248	3001061010000	Chip resistor 0603 100Ω J 1/1	1	R181	T2E
249	3001061010000	Chip resistor 0603 100Ω J 1/1	1	R703	B3D
250	3001061010000	Chip resistor 0603 100Ω J 1/1	1	R706	B3D
251	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R128	B3A
252	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R557	T4F
253	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R560	T4F
254	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R568	T3F
255	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R704	B3E
256	3001061020010	Chip resistor 0603 1KΩ J 1/10	1	R705	B3E
257	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R186	T2E
258	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R426	B4D
259	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R554	T4F
260	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R558	T4F
261	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R701	B3E
262	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R709	B3D
263	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R814	T2E
264	3001061040000	Chip resistor 0603 100KΩ D 1/	1	R122	B2A
265	3001061040000	Chip resistor 0603 100KΩ D 1/	1	R559	T4F
266	3001061040000	Chip resistor 0603 100KΩ D 1/	1	R716	B3E
267	3001061240010	Chip resistor 0603 120KΩ J 1/	1	R135	B3B
268	3001061240010	Chip resistor 0603 120KΩ J 1/	1	R136	B3B

269	3001061520000	Chip resistor 0603 1.5KΩ J 1/	1	R817	T2E
270	3001061520000	Chip resistor 0603 1.5KΩ J 1/	1	R819	T3E
271	3001061810000	Chip resistor 0603 180Ω J 1/1	1	R137	B3B
272	3001061810000	Chip resistor 0603 180Ω J 1/1	1	R143	B4B
273	3001061830010	Chip resistor 0603 18KΩ J 1/1	1	R813	T2E
274	3001061840000	Chip resistor 0603 180KΩ J 1/	1	R121	B3A
275	3001061840000	Chip resistor 0603 180KΩ J 1/	1	R123	B3A
276	3001062200000	Chip resistor 0603 22Ω J 1/10	1	R189	T2D
277	3001062210000	Chip resistor 0603 220Ω J 1/1	1	R707	B3D
278	3001062220000	Chip resistor 0603 2.2KΩ J 1/	1	R185	T2E
279	3001062220000	Chip resistor 0603 2.2KΩ J 1/	1	R188	T2D
280	3001062220000	Chip resistor 0603 2.2KΩ J 1/	1	R604	B2F
281	3001062230000	Chip resistor 0603 22KΩ J 1/1	1	R717	B3E
282	3001062230000	Chip resistor 0603 22KΩ J 1/1	1	R811	T3E
283	3001062240010	Chip resistor 0603 220KΩ J 1/	1	R147	T3C
284	3001062240010	Chip resistor 0603 220KΩ J 1/	1	R713	B3D
285	3001062720000	Chip resistor 0603 2.7KΩ J 1/	1	R816	T2E
286	3001062720000	Chip resistor 0603 2.7KΩ J 1/	1	R818	T3E
287	3001063300000	Chip resistor 0603 33Ω J 1/10	1	R139	B4B
288	3001063300000	Chip resistor 0603 33Ω J 1/10	1	R712	B2D
289	3001063310010	Chip resistor 0603 330Ω J 1/1	1	R141	B4A
290	3001063310010	Chip resistor 0603 330Ω J 1/1	1	R142	B3A
291	3001063310010	Chip resistor 0603 330Ω J 1/1	1	R715	B2D
292	3001063910000	Chip resistor 0603 390Ω J 1/1	1	R702	B3D
293	3001063930010	Chip resistor 0603 39KΩ J 1/1	1	R555	T4F
294	3001064700000	Chip resistor 0603 47Ω J 1/10	1	R129	B3A
295	3001064700000	Chip resistor 0603 47Ω J 1/10	1	R187	T1E
296	3001064710000	Chip resistor 0603 470Ω J 1/1	1	R192	T1E
297	3001064710000	Chip resistor 0603 470Ω J 1/1	1	R556	T4F
298	3001064710000	Chip resistor 0603 470Ω J 1/1	1	R809	T3E
299	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R109	T1D
300	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R138	B4B
301	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R602	B4G
302	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R708	B4D
303	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R710	B3D
304	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R711	B3D
305	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R720	B4D
306	3001064730000	Chip resistor 0603 47KΩ J 1/1	1	R551	T3F
307	3001064730000	Chip resistor 0603 47KΩ J 1/1	1	R561	T3G
308	3001064730000	Chip resistor 0603 47KΩ J 1/1	1	R601	B4G
309	3001064730000	Chip resistor 0603 47KΩ J 1/1	1	R603	B2F
310	3001065620010	Chip resistor 0603 5.6KΩ J 1/	1	R810	T3E
311	3001068230010	Chip resistor 0603 82KΩ J 1/1	1	R719	T3E
312	3001071800000	Chip resistor 0805 18Ω J 1/8W	1	R191	T2E
313	3001072200000	Chip resistor 0805 22Ω J 1/8W	1	R195	T1E

314	3001072710000	Chip resistor 0805 270Ω J 1/8	1	R194	T1E
315	3001072710000	Chip resistor 0805 270Ω J 1/8	1	R196	T1E
316	3001161210000	Chip resistor 2010 120Ω J 1/2	1	R201	T2D
317	3001162200000	Chip resistor 2010 22Ω J 1/2W	1	R193	T2F
318	3001164720000	Chip resistor 2010 4.7KΩ J 1/	1	R552	T3F
319	3002996830000	Trimmer resistor (2*2) 68KΩ(+25%)	1	VR101	T3A
320	3002996830000	Trimmer resistor (2*2) 68KΩ(+25%)	1	VR801	T2D
321	3003061040000	Thermistor 0603 100kΩ J	1	TH101	B2A
322	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP501	T4C
323	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP502	T4C
324	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP504	T4C
325	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP505	T4C
326	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP506	T3D
327	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP508	T3D
328	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP509	T4D
329	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP510	T4D
330	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP512	T4D
331	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP513	T4D
332	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP514	T4D
333	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP515	T5D
334	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP516	T5C
335	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP517	T5C
336	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP518	T5C
337	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP519	T5D
338	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP520	T5C
339	3005051020000	Resistor array 0402 1K*2 J 1/16	1	CP521	T4C
340	3101050300000	Chip capacitor 0402 3PF B 50V	1	C187	B3D
341	3101050300000	Chip capacitor 0402 3PF B 50V	1	C188	B3D
342	3101050300000	Chip capacitor 0402 3PF B 50V	1	C826	T2D
343	3101051000020	Chip capacitor 0402 10PF J 50V	1	C173	T4A
344	3101051020010	Chip capacitor 0402 1000PF K 5	1	C115	T3A
345	3101051020010	Chip capacitor 0402 1000PF K 5	1	C122	B3C
346	3101051020010	Chip capacitor 0402 1000PF K 5	1	C123	B3B
347	3101051020010	Chip capacitor 0402 1000PF K 5	1	C125	B3B
348	3101051020010	Chip capacitor 0402 1000PF K 5	1	C126	B2A
349	3101051020010	Chip capacitor 0402 1000PF K 5	1	C140	B3B
350	3101051020010	Chip capacitor 0402 1000PF K 5	1	C180	T4B
351	3101051020010	Chip capacitor 0402 1000PF K 5	1	C182	B3D
352	3101051020010	Chip capacitor 0402 1000PF K 5	1	C183	B3D
353	3101051020010	Chip capacitor 0402 1000PF K 5	1	C184	B3D
354	3101051020010	Chip capacitor 0402 1000PF K 5	1	C191	B3D
355	3101051020010	Chip capacitor 0402 1000PF K 5	1	C200	B3D
356	3101051020010	Chip capacitor 0402 1000PF K 5	1	C201	B3D
357	3101051020010	Chip capacitor 0402 1000PF K 5	1	C203	B3D
358	3101051020010	Chip capacitor 0402 1000PF K 5	1	C209	T2E

359	3101051020010	Chip capacitor 0402 1000PF K 5	1	C211	T2D
360	3101051020010	Chip capacitor 0402 1000PF K 5	1	C214	T2E
361	3101051020010	Chip capacitor 0402 1000PF K 5	1	C225	T3B
362	3101051020010	Chip capacitor 0402 1000PF K 5	1	C238	T3B
363	3101051020010	Chip capacitor 0402 1000PF K 5	1	C441	B5E
364	3101051020010	Chip capacitor 0402 1000PF K 5	1	C445	B5B
365	3101051020010	Chip capacitor 0402 1000PF K 5	1	C458	B5B
366	3101051020010	Chip capacitor 0402 1000PF K 5	1	C462	B5C
367	3101051020010	Chip capacitor 0402 1000PF K 5	1	C539	T4C
368	3101051020010	Chip capacitor 0402 1000PF K 5	1	C802	T3D
369	3101051020010	Chip capacitor 0402 1000PF K 5	1	C805	T3D
370	3101051020010	Chip capacitor 0402 1000PF K 5	1	C806	T2D
371	3101051020010	Chip capacitor 0402 1000PF K 5	1	C807	T2D
372	3101051020010	Chip capacitor 0402 1000PF K 5	1	C808	T2C
373	3101051020010	Chip capacitor 0402 1000PF K 5	1	C809	T3C
374	3101051020010	Chip capacitor 0402 1000PF K 5	1	C810	T3C
375	3101051020010	Chip capacitor 0402 1000PF K 5	1	C817	T3E
376	3101051020010	Chip capacitor 0402 1000PF K 5	1	C818	T3E
377	3101051020010	Chip capacitor 0402 1000PF K 5	1	C820	T3D
378	3101051020010	Chip capacitor 0402 1000PF K 5	1	C821	T3D
379	3101051020010	Chip capacitor 0402 1000PF K 5	1	C822	T3D
380	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C152	B3A
381	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C160	T2D
382	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C163	T4A
383	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C239	T2B
384	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C240	T3B
385	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C243	B4C
386	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C401	B4E
387	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C456	B5C
388	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C465	B5B
389	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C506	T5E
390	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C512	B4F
391	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C546	T5F
392	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C604	B3G
393	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C903	B5C
394	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C905	B5C
395	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C154	B4B
396	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C165	T4A
397	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C167	T4A
398	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C168	T4A
399	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C169	T4B
400	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C174	T4A
401	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C175	T3A
402	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C176	T4A
403	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C179	T4B

404	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C202	B3C
405	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C403	B4E
406	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C405	B5E
407	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C406	B5E
408	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C407	B5E
409	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C430	B5D
410	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C440	B5E
411	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C463	B5B
412	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C466	B4D
413	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C504	T4E
414	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C505	T5D
415	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C511	B4F
416	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C525	T4G
417	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C537	B4F
418	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C801	T3C
419	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C803	T3D
420	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C911	B5C
421	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C438	B5E
422	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C444	B5E
423	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C449	B4B
424	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C450	B4B
425	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C467	B4B
426	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C468	T4F
427	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C540	T4E
428	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C541	T4E
429	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C542	T4E
430	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C543	T4E
431	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C544	T4E
432	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C545	T4E
433	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C548	T5E
434	3101051050000	Chip capacitor 0402 1UF K 6.3V	1	C549	T5E
435	3101051230000	Chip capacitor 0402 0.012UF K	1	C436	B5F
436	3101051230000	Chip capacitor 0402 0.012UF K	1	C454	B5C
437	3101051500020	Chip capacitor 0402 15PF J 50V	1	C185	B3D
438	3101051500020	Chip capacitor 0402 15PF J 50V	1	C186	B4D
439	3101051500020	Chip capacitor 0402 15PF J 50V	1	C190	B4D
440	3101051500020	Chip capacitor 0402 15PF J 50V	1	C501	T3C
441	3101051510000	Chip capacitor 0402 150PF(±5%)	1	C425	B5D
442	3101051520000	Chip capacitor 0402 1500PF K 5	1	C413	B5E
443	3101051530010	Chip capacitor 0402 0.015UF K	1	C410	B5E
444	3101051530010	Chip capacitor 0402 0.015UF K	1	C824	T3D
445	3101051810010	Chip capacitor 0402 180p J 50V	2	C451	B5C
				C461	B5B
446	3101051820000	Chip capacitor 0402 1800PF K 5	1	C515	B4F
447	3101051820000	Chip capacitor 0402 1800PF K 5	1	C516	B4F

448	3101051830000	Chip capacitor 0402 0.018UF K	1	C409	B5D
449	3101051830000	Chip capacitor 0402 0.018UF K	1	C823	T3D
450	3101052200010	Chip capacitor 0402 22PF J 50V	1	C427	B5D
451	3101052200010	Chip capacitor 0402 22PF J 50V	1	C428	B5D
452	3101052210010	Chip capacitor 0402 220PF K 50	1	C170	T4A
453	3101052210010	Chip capacitor 0402 220PF K 50	1	C171	T4A
454	3101052220010	Chip capacitor 0402 2200pF K 5	1	C455	B5C
455	3101052700000	Chip capacitor 0402 27PF J 50V	1	C189	B4D
456	3101052700000	Chip capacitor 0402 27PF J 50V	1	C502	T4C
457	3101052700000	Chip capacitor 0402 27PF J 50V	1	C503	T4C
458	3101052720000	Chip capacitor 0402 2700PF K 5	1	C460	B5C
459	3101052730000	Chip capacitor 0402 0.027UF K	1	C426	B4D
460	3101053300000	Chip capacitor 0402 33PF J 50V	1	C153	B3A
461	3101053300000	Chip capacitor 0402 33PF J 50V	1	C415	B4E
462	3101053300000	Chip capacitor 0402 33PF J 50V	1	C423	B4D
463	3101053300000	Chip capacitor 0402 33PF J 50V	1	C908	B5C
464	3101053310030	Capacitor 0402 330PF COG J	1	C439	B5E
465	3101054700010	Chip capacitor 0402 47PF J 50V	1	C433	B5F
466	3101054700010	Chip capacitor 0402 47PF J 50V	1	C435	B5F
467	3101054700010	Chip capacitor 0402 47PF J 50V	1	C447	B5B
468	3101054710010	Chip capacitor 0402 470PF K 50	1	C172	T4A
469	3101054710010	Chip capacitor 0402 470PF K 50	1	C432	B5F
470	3101054710010	Chip capacitor 0402 470PF K 50	1	C442	B4E
471	3101054710010	Chip capacitor 0402 470PF K 50	1	C443	B4E
472	3101054720000	Chip capacitor 0402 4700PF K 5	1	C402	B4E
473	3101054730030	Chip capacitor 0402 0.047UF Z	1	C224	T3B
474	3101054740020	Chip capacitor 0402 0.47uF K 1	1	C420	B4E
475	3101054740020	Chip capacitor 0402 0.47uF K 1	1	C422	T4B
476	3101054740020	Chip capacitor 0402 0.47uF K 1	1	C909	B5C
477	3101055610000	Chip capacitor 0402 560PF K 50	1	C421	B4D
478	3101055610000	Chip capacitor 0402 560PF K 50	1	C910	B5D
479	3101056830040	Chip capacitor 0402 0.068uF K	1	C452	B5C
480	3101056830040	Chip capacitor 0402 0.068uF K	1	C453	B4C
481	3101056840010	Chip capacitor 0402 0.68UF Z 1	1	C419	B4E
482	3101058200000	Chip capacitor 0402 82PF J 50V	1	C178	T3A
483	3101060100010	Chip capacitor 0603 1PF B 50V	1	C133	B2A
484	3101060100010	Chip capacitor 0603 1PF B 50V	1	C709	B3D
485	3101060100010	Chip capacitor 0603 1PF B 50V	1	C717	B3E
486	3101060200010	Chip capacitor 0603 2PF B 50V	1	C121	B2B
487	3101060200010	Chip capacitor 0603 2PF B 50V	1	C198	B3B
488	3101060300010	Chip capacitor 0603 3PF B 50V	1	C128	B2B
489	3101060390000	Chip capacitor 0603 0.3PF B 50	1	C109	T2A
490	3101060390000	Chip capacitor 0603 0.3PF B 50	1	C110	T2A
491	3101060500010	Chip capacitor 0603 5PF B 50V	1	C813	T2E
492	3101060590010	Chip capacitor 0603 0.5PF B 50	1	C111	T2A

493	3101060590010	Chip capacitor 0603 0.5PF B 50	1	C112	T2A
494	3101060600010	Chip capacitor 0603 6PF B 50V	1	C213	T1E
495	3101060900010	Chip capacitor 0603 9PF B 50V	1	C118	B2B
496	3101060900010	Chip capacitor 0603 9PF B 50V	1	C706	B3E
497	3101060900010	Chip capacitor 0603 9PF B 50V	1	C707	B3E
498	3101061000000	Chip capacitor 0603 10PF J 50V	1	C146	B3B
499	3101061020000	Chip capacitor 0603 1000PF K 5	1	C113	T2A
500	3101061020000	Chip capacitor 0603 1000PF K 5	1	C114	T2A
501	3101061020000	Chip capacitor 0603 1000PF K 5	1	C130	B2A
502	3101061020000	Chip capacitor 0603 1000PF K 5	1	C131	B3A
503	3101061020000	Chip capacitor 0603 1000PF K 5	1	C132	B2A
504	3101061020000	Chip capacitor 0603 1000PF K 5	1	C136	B3A
505	3101061020000	Chip capacitor 0603 1000PF K 5	1	C141	B3B
506	3101061020000	Chip capacitor 0603 1000PF K 5	1	C144	B3B
507	3101061020000	Chip capacitor 0603 1000PF K 5	1	C147	B4B
508	3101061020000	Chip capacitor 0603 1000PF K 5	1	C158	T2C
509	3101061020000	Chip capacitor 0603 1000PF K 5	1	C194	B3B
510	3101061020000	Chip capacitor 0603 1000PF K 5	1	C196	B3C
511	3101061020000	Chip capacitor 0603 1000PF K 5	1	C199	B3B
512	3101061020000	Chip capacitor 0603 1000PF K 5	1	C205	B2D
513	3101061020000	Chip capacitor 0603 1000PF K 5	1	C207	B2D
514	3101061020000	Chip capacitor 0603 1000PF K 5	1	C208	T2E
515	3101061020000	Chip capacitor 0603 1000PF K 5	1	C210	T1E
516	3101061020000	Chip capacitor 0603 1000PF K 5	1	C215	T2E
517	3101061020000	Chip capacitor 0603 1000PF K 5	1	C216	T2E
518	3101061020000	Chip capacitor 0603 1000PF K 5	1	C217	T2E
519	3101061020000	Chip capacitor 0603 1000PF K 5	1	C220	T1E
520	3101061020000	Chip capacitor 0603 1000PF K 5	1	C223	T1E
521	3101061020000	Chip capacitor 0603 1000PF K 5	1	C226	T2D
522	3101061020000	Chip capacitor 0603 1000PF K 5	1	C232	T1C
523	3101061020000	Chip capacitor 0603 1000PF K 5	1	C236	B2A
524	3101061020000	Chip capacitor 0603 1000PF K 5	1	C244	B3B
525	3101061020000	Chip capacitor 0603 1000PF K 5	1	C245	B3A
526	3101061020000	Chip capacitor 0603 1000PF K 5	1	C526	T1F
527	3101061020000	Chip capacitor 0603 1000PF K 5	1	C529	T3F
528	3101061020000	Chip capacitor 0603 1000PF K 5	1	C532	T3F
529	3101061020000	Chip capacitor 0603 1000PF K 5	1	C605	B3G
530	3101061020000	Chip capacitor 0603 1000PF K 5	1	C701	B3E
531	3101061020000	Chip capacitor 0603 1000PF K 5	1	C708	B3D
532	3101061020000	Chip capacitor 0603 1000PF K 5	1	C710	B3E
533	3101061020000	Chip capacitor 0603 1000PF K 5	1	C716	B3E
534	3101061020000	Chip capacitor 0603 1000PF K 5	1	C718	B4E
535	3101061020000	Chip capacitor 0603 1000PF K 5	1	C719	B4D
536	3101061020000	Chip capacitor 0603 1000PF K 5	1	C720	B2D
537	3101061020000	Chip capacitor 0603 1000PF K 5	1	C721	B2D

538	3101061020000	Chip capacitor 0603 1000PF K 5	1	C723	B3D
539	3101061020000	Chip capacitor 0603 1000PF K 5	1	C726	B3E
540	3101061020000	Chip capacitor 0603 1000PF K 5	1	C812	T3E
541	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C143	B3B
542	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C227	T2D
543	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C228	T2D
544	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C242	T4A
545	3101061030010	Chip capacitor 0603 0.01UF K 2	1	C606	B1F
546	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C135	B3A
547	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C145	B3B
548	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C222	T1E
549	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C235	T1C
550	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C507	T5D
551	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C518	B5G
552	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C519	B5G
553	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C520	B4G
554	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C521	B5G
555	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C528	T3G
556	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C534	T3F
557	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C536	B4F
558	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C602	B3F
559	3101061040010	Chip capacitor 0603 0.1UF K 16	1	C711	B3E
560	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C408	B5D
561	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C414	B4D
562	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C434	B5F
563	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C437	T5F
564	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C513	B4F
565	3101061050000	Chip capacitor 0603 1UF Z 25V	1	C514	B4F
566	3101061050020	Chip capacitor 0603 1UF K 25V	1	C412	B5E
567	3101061300000	Chip capacitor 0603 13PF J 50V	1	C150	B3B
568	3101061500010	Chip capacitor 0603 15PF J 50V	1	C204	B3D
569	3101061500010	Chip capacitor 0603 15PF J 50V	1	C219	T1E
570	3101061500010	Chip capacitor 0603 15PF J 50V	1	C703	B2E
571	3101061500010	Chip capacitor 0603 15PF J 50V	1	C713	B4E
572	3101061500010	Chip capacitor 0603 15PF J 50V	1	C714	B3E
573	3101061500010	Chip capacitor 0603 15PF J 50V	1	C715	B3E
574	3101061500010	Chip capacitor 0603 15PF J 50V	1	C722	B3D
575	3101061590010	Chip capacitor 0603 1.5PF B 50	1	C127	B2B
576	3101061590010	Chip capacitor 0603 1.5PF B 50	1	C137	B3B
577	3101061590010	Chip capacitor 0603 1.5PF B 50	1	C139	B3B
578	3101061800000	Chip capacitor 0603 18PF J 50V	1	C193	B3B
579	3101061800000	Chip capacitor 0603 18PF J 50V	1	C197	B3B
580	3101062210000	Chip capacitor 0603 220PF J 50	1	C702	B3E
581	3101062210000	Chip capacitor 0603 220PF J 50	1	C704	B3E
582	3101062220010	Chip capacitor 0603 2200PF K 5	1	C416	B4D

583	3101062240000	Chip capacitor 0603 0.22UF K 1	1	C237	T2B
584	3101062240000	Chip capacitor 0603 0.22UF K 1	1	C522	T4F
585	3101062490000	Chip capacitor 0603 2.4PF B 50	1	C149	B3A
586	3101062700010	Chip capacitor 0603 27PF J 50V	1	C120	B2B
587	3101062700010	Chip capacitor 0603 27PF J 50V	1	C124	B2B
588	3101062700010	Chip capacitor 0603 27PF J 50V	1	C206	B2D
589	3101062700010	Chip capacitor 0603 27PF J 50V	1	C218	T1E
590	3101062710000	Chip capacitor 0603 270PF J 50	1	C159	T3C
591	3101063000010	Chip capacitor 0603 30PF J 50V	1	C155	T4A
592	3101063300000	Chip capacitor 0603 33PF J 50V	1	C134	B2A
593	3101063900000	Chip capacitor 0603 39PF J 50V	1	C129	B2B
594	3101063900000	Chip capacitor 0603 39PF J 50V	1	C138	B3B
595	3101063900000	Chip capacitor 0603 39PF J 50V	1	C212	T2E
596	3101064700000	Chip capacitor 0603 47PF J 50V	1	C712	B3E
597	3101064700000	Chip capacitor 0603 47PF J 50V	1	C725	T3E
598	3101064710000	Chip capacitor 0603 470PF K 50	1	C530	T3F
599	3101064710000	Chip capacitor 0603 470PF K 50	1	C531	T2F
600	3101066800000	Chip capacitor 0603 68PF J 50V	1	C156	T2C
601	3101066800000	Chip capacitor 0603 68PF J 50V	1	C157	T3C
602	3101080200010	Chip capacitor 1206 2pF C 500V	1	C102	B1A
603	3101080400010	Chip capacitor 1206 4pF C 500V	1	C104	B2A
604	3101080800010	Chip capacitor 1206 8pF D 500V	1	C107	B2B
605	3101081020010	Chip capacitor 1206 1000pF K 6	1	C108	T2B
606	3101081020010	Chip capacitor 1206 1000pF K 6	1	C229	T2C
607	3101081500010	Chip capacitor 1206 15pF J 500	1	C117	T2C
608	3101081800010	Chip capacitor 1206 18pF J 500	1	C101	B1B
609	3101081800010	Chip capacitor 1206 18pF J 500	1	C103	B1A
610	3101081800010	Chip capacitor 1206 18pF J 500	1	C231	T1C
611	3101082200010	Chip capacitor 1206 22pF J 500	1	C105	B1B
612	3101082200010	Chip capacitor 1206 22pF J 500	1	C116	T2C
613	3101082700010	Chip capacitor 1206 27pF J 500	1	C230	T1B
614	3102992000000	Trimmer capacitor 3.2*2.5*1.25mm	1	TC101	B2B
615	3102992000000	Trimmer capacitor 3.2*2.5*1.25mm	1	TC701	B2E
616	3102992000000	Trimmer capacitor 3.2*2.5*1.25mm	1	TC702	B4E
617	3103994760080	Electrolytic capacitor 2512 47UF±20% 2	1	C234	T1D
618	3103994760080	Electrolytic capacitor 2512 47UF±20% 2	1	C533	T1F
619	3104071040010	Tantalum capacitor 0805 0.1UF M 20V	1	C814	T2E
620	3104071050010	Tantalum capacitor 0805 1UF M 16V T	1	C241	T3B
				C906	B5D
				C907	B5C
621	3104071050010	Tantalum capacitor 0805 1UF M 16V T	1	C417	B4D
622	3104071050010	Tantalum capacitor 0805 1UF M 16V T	1	C418	B4D
623	3104071050010	Tantalum capacitor 0805 1UF M 16V T	1	C517	B4F
624	3104071050010	Tantalum capacitor 0805 1UF M 16V T	1	C608	B2F
625	3104071060010	Tantalum capacitor 0805 10UF M 6.3V	1	C164	T4A

626	3104071560020	Tantalum capacitor 0805 15UF M 6.3V	1	C429	B5D
627	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	2	C142	B4B
				C904	B4C
628	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C246	T3B
629	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C411	B5E
630	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C424	B4D
631	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C448	B4C
632	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C457	B5C
633	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C464	B5B
634	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C547	T5F
635	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C603	B4G
636	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C804	T3D
637	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C811	T3C
638	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C825	T3C
639	3104074750030	Tantalum capacitor 0805 4.7UF M 10V	1	C830	T5C
640	3104081040000	Tantalum capacitor 1206 0.1UF M 35V	1	C816	T3E
641	3104081060070	Tantalum capacitor 1206 10UF M 16V	1	C523	T3G
642	3104081060070	Tantalum capacitor 1206 10UF M 16V	1	C535	B4G
643	3104081060070	Tantalum capacitor 1206 10UF M 16V	1	C724	B3E
644	3104081060070	Tantalum capacitor 1206 10UF M 16V	1	C819	T3E
645	3104083350040	Tantalum capacitor 1206 3.3UF M 16V	1	C607	B1F
646	3104083350040	Tantalum capacitor 1206 3.3UF M 16V	1	C815	T3E
647	3104084750030	Tantalum capacitor 1206 4.7UF K 16V	1	C524	T4G
648	3104084750030	Tantalum capacitor 1206 4.7UF K 16V	1	C601	B3F
649	3104084750030	Tantalum capacitor 1206 4.7UF K 16V	1	C828	T3E
650	3104086850000	Tantalum capacitor 1206 6.8UF±20% 1	1	C181	T4B
651	3199060758000	Chip capacitor 0603 0.75PF B 5	1	C705	B3E
652	3210107560000	Multi-layer chip inductor 0805 56nH	1	L106	B2C
653	3210107560000	Multi-layer chip inductor 0805 56nH	1	L107	B2B
654	3210107560000	Multi-layer chip inductor 0805 56nH	1	L108	B2A
655	3210107560000	Multi-layer chip inductor 0805 56nH	1	L109	B3A
656	3210107560000	Multi-layer chip inductor 0805 56nH	1	L111	B3B
657	3210306101000	Multi-layer chip inductor 0603 100nH	1	L119	B3D
658	3210306181000	Multi-layer chip inductor 0603 180nH	1	L112	B3B
659	3210306390000	Multi-layer chip inductor 0603 39nH	1	L120	B3D
660	3210306390000	Multi-layer chip inductor 0603 39nH	1	L121	B3D
661	3210306390000	Multi-layer chip inductor 0603 39nH	1	L124	B3B
662	3210306560000	Multi-layer chip inductor 0603 56nH	1	L125	B2D
663	3210306560000	Multi-layer chip inductor 0603 56nH	1	L126	B2D
664	3210306561010	Multi-layer chip inductor 0603 560nH	1	L113	B3B
665	3210306561010	Multi-layer chip inductor 0603 560nH	1	L114	B4B
666	3210306820000	Multi-layer chip inductor 0603 82nH	1	L110	B3A
667	3210306820000	Multi-layer chip inductor 0603 82nH	1	L122	B3D
668	3213212103000	Multi-layer chip inductor 1008 10uH	1	L134	B4B
669	3213212272000	Multi-layer chip inductor 1008 2.7uH	1	L705	B3E

670	3213212272000	Multi-layer chip inductor 1008 2.7uH	1	L706	B4E
671	3213212272000	Multi-layer chip inductor 1008 2.7uH	1	L708	B3E
672	3213212272000	Multi-layer chip inductor 1008 2.7uH	1	L709	B3D
673	3213212330000	Multi-layer chip inductor 1008 33nH 5	1	L127	T2D
674	3213212331000	Multi-layer chip inductor 1008 330nH	1	L116	T2C
675	3213212331000	Multi-layer chip inductor 1008 330nH	1	L117	T3C
676	3213212331000	Multi-layer chip inductor 1008 330nH	1	L118	T2C
677	3213212332000	Multi-layer chip inductor 1008 3.3uH	1	L701	B3E
678	3213212332000	Multi-layer chip inductor 1008 3.3uH	1	L702	B3E
679	3213212332000	Multi-layer chip inductor 1008 3.3uH	1	L704	B3D
680	3213212561000	Multi-layer chip inductor 1008 0.56uH	1	L802	T3D
681	3213212680000	Multi-layer chip inductor 1008 68nH	1	L128	T1E
682	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L129	T1E
683	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L135	B4B
684	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L136	B3A
685	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L501	T4E
686	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L502	T4C
687	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L503	T4D
688	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L504	T4D
689	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L505	T4D
690	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L801	T3D
691	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L803	T2D
692	3221506601000	Chip ferrite bead 0603 600Ω±25	1	R157	T3A
693	3221506601000	Chip ferrite bead 0603 600Ω±25	1	R831	T3E
694	3221513600000	Chip ferrite bead 1806 60Ω±25%	1	L131	T1D
695	3221513600000	Chip ferrite bead 1806 60Ω±25%	1	L132	T1D
696	3231803011000	Air-core inductor 0.8*3.0*11TR	1	L101	B1B
697	3231803050000	Air-core inductor 0.8*3.0*5TR	1	L102	B1A
698	3231803050000	Air-core inductor 0.8*3.0*5TR	1	L103	B1A
699	3231803050000	Air-core inductor 0.8*3.0*5TR	1	L104	B2B
700	3231803050000	Air-core inductor 0.8*3.0*5TR	1	L105	T2C
701	3231803050000	Air-core inductor 0.8*3.0*5TR	1	L130	T1C
702	3231803060000	Air-core inductor 0.8*3.0*6TR	1	L133	T2D
703	3234599350000	Chip air-core inductor C6328 35nH	1	L703	B2E
704	3234599350000	Chip air-core inductor C6328 35nH	1	L707	B3E
705	3301060400000	Rectifier diode DSM3MA1TRF-E	1	D515	T1G
706	3302030500000	Zener diode UDZSTE(1710B)1	1	D514	T4F
707	3302030500010	Zener diode UDZSTE(1715B)1	1	D518	T3F
708	3302030500020	Zener diode UDZSTE(1718B)1	1	D512	T4G
709	3302030500030	Zener diode UDZSTE(175.1B)	1	D112	B4B
710	3302030500030	Zener diode UDZSTE(175.1B)	1	D118	T1E
711	3302180100000	Zener diode HZU5ALL-E	1	D802	T3D
712	3303010500040	Switching diode 1SS355(TE17)	1	D103	T3A
713	3303010500040	Switching diode 1SS355(TE17)	1	D116	T2D
714	3303010500040	Switching diode 1SS355(TE17)	1	D511	T4F

715	3303010500040	Switching diode 1SS355(TE17)	1	D513	T4F
716	3303010500040	Switching diode 1SS355(TE17)	1	D517	T3F
717	3303020100020	Switching diode MA2S11100L	1	D501	T4E
718	3303020100020	Switching diode MA2S11100L	1	D801	T3D
719	3303020100020	Switching diode MA2S11100L	1	D803	T3E
720	3303020100060	Switching diode MA3J74200L	1	D101	T2A
721	3303020100060	Switching diode MA3J74200L	1	D102	T2A
722	3303020100060	Switching diode MA3J74200L	1	D117	T2E
723	3303020100060	Switching diode MA3J74200L	1	D401	B4C
724	3303030100010	Switching diode DAN222(TL)	1	D113	T4A
725	3303030100010	Switching diode DAN222(TL)	1	D114	T4B
726	3303030100020	Switching diode DAN235E	1	D115	B2D
727	3303210100000	Switching diode MA4P1250 3*2mm	1	D104	T1B
728	3303210100000	Switching diode MA4P1250 3*2mm	1	D105	T2C
729	3304010100160	Varactor 1SV278(TH2,F,T	1	D705	B3E
730	3304010100890	Varactor 1SV279(TPH3.F)	1	D107	B3B
731	3304010100890	Varactor 1SV279(TPH3.F)	1	D108	B3B
732	3304010100890	Varactor 1SV279(TPH3.F)	1	D109	B3B
733	3304010100890	Varactor 1SV279(TPH3.F)	1	D110	B2A
734	3304010100890	Varactor 1SV279(TPH3.F)	1	D111	B3B
735	3304010100990	Varactor 1SV282(TH3.F.T	1	D701	B3F
736	3304010100990	Varactor 1SV282(TH3.F.T	1	D703	B3E
737	3304010100990	Varactor 1SV282(TH3.F.T	1	D706	B3F
738	3304010100990	Varactor 1SV282(TH3.F.T	1	D707	B3F
739	3304010100990	Varactor 1SV282(TH3.F.T	1	D708	B3E
740	3304010100990	Varactor 1SV282(TH3.F.T	1	D709	B3E
741	3399990000240	Zener diode UDZSTE(174.7B)	1	D119	T3A
742	3401001000490	Transistor 2SA1832-GR	1	Q802	T3E
743	3401002000140	Transistor 2SC4215-Y	1	Q113	B4A
744	3401002000150	Transistor 2SC4738F-GR	1	Q803	T2E
745	3401002000290	Transistor 2SC4116-GR	1	Q404	B5F
746	3401002000290	Transistor 2SC4116-GR	1	Q704	B3D
747	3401002000290	Transistor 2SC4116-GR	1	Q705	B4D
748	3401002000290	Transistor 2SC4116-GR	1	Q801	T3E
749	3401002000990	Transistor 2SC5108-Y	1	Q101	B3D
750	3401002000990	Transistor 2SC5108-Y	1	Q102	B3D
751	3401002000990	Transistor 2SC5108-Y	1	Q107	T3C
752	3401002000990	Transistor 2SC5108-Y	1	Q703	B3D
753	3403002000000	Transistor 2SB1132FD5T100R	1	Q601	B3G
754	3403002000000	Transistor 2SB1132FD5T100R	1	Q603	B2F
755	3403003000000	Transistor 2SC2412K	1	Q114	T3A
756	3403003000060	Transistor 2SC4617TLS	1	Q401	B5E
757	3403007000000	Transistor DTA114EE(TL)	1	Q105	T4B
758	3403007000000	Transistor DTA114EE(TL)	1	Q106	T3A
759	3403007000000	Transistor DTA114EE(TL)	1	Q504	T4E

760	3403007000000	Transistor DTA114EE(TL)	1	Q505	T5D
761	3403007000000	Transistor DTA114EE(TL)	1	Q514	T4F
762	3403007000000	Transistor DTA114EE(TL)	1	Q516	T4F
763	3403007000000	Transistor DTA114EE(TL)	1	Q519	T3G
764	3403007000000	Transistor DTA114EE(TL)	1	Q520	T3G
765	3403008000010	Transistor DTC114EE(TL)	1	Q402	B4E
766	3403008000010	Transistor DTC114EE(TL)	1	Q501	T3C
767	3403008000010	Transistor DTC114EE(TL)	1	Q503	T5E
768	3403008000010	Transistor DTC114EE(TL)	1	Q513	T4F
769	3403008000010	Transistor DTC114EE(TL)	1	Q515	T4F
770	3403008000010	Transistor DTC114EE(TL)	1	Q517	T4F
771	3403008000010	Transistor DTC114EE(TL)	1	Q518	T3G
772	3403008000010	Transistor DTC114EE(TL)	1	Q602	B4G
773	3403008000010	Transistor DTC114EE(TL)	1	Q604	B2F
774	3403008000010	Transistor DTC114EE(TL)	1	Q706	B3D
775	3408002000010	Transistor 2SC3357-T1-A-RF	1	Q109	T1E
776	3408002000010	Transistor 2SC3357-T1-A-RF	1	Q110	T2E
777	3499000000140	Transistor 2SK508-K52-T1B-A	1	Q701	B3E
778	3499000000140	Transistor 2SK508-K52-T1B-A	1	Q702	B3E
779	3501020000030	FET 3SK318YB-TL-E-Q	1	Q111	B2A
780	3501020000030	FET 3SK318YB-TL-E-Q	1	Q112	B3B
781	3501030000000	FET 2SJ506STR-E	1	Q512	T3F
782	3503020000030	FET 2SK1824-T1-A	1	Q403	B5E
783	3503020000030	FET 2SK1824-T1-A	1	Q405	B4E
784	3503020000030	FET 2SK1824-T1-A	1	Q406	B4E
785	3503020000030	FET 2SK1824-T1-A	1	Q502	T4E
786	3503020000030	FET 2SK1824-T1-A	1	Q511	B4F
787	3503020000030	FET 2SK1824-T1-A	1	Q521	B4F
788	3602017006350	Audio amplifier TDA7297D	1	IC511	B4G
789	3603002005440	IF processor TA31136FNG	1	IC102	T3A
790	3605002054590	Operational amplifier TA75W01FU	1	IC104	T3B
791	3605002054790	Operational amplifier TA75W558FU	1	IC404	B4C
792	3605002057090	Operational amplifier TA75S01F	1	IC103	T3B
793	3605002057290	Operational amplifier TC75W51FU	1	IC402	B4B
794	3605002057290	Operational amplifier TC75W51FU	1	IC403	B5B
795	3605002057290	Operational amplifier TC75W51FU	1	IC405	B5E
796	3607002000180	FLIP-FLOP TC4013BF	1	IC512	T4G
797	3608002020890	Power management IC TA7805F	1	IC602	B3F
798	3608015005600	Power management IC XC62FP3502PR	1	IC803	T2D
799	3609007001590	IC MB15A02PFV1-E1	1	IC801	T3D
800	3612022000000	Memory CAT24C256WI 256K	1	IC501	T5E
801	3613034001060	Baseband processor AK2346-E2	2	IC401	B4D
				IC406	B5C
802	3701016850020	TCXO 16.8MHz	1	IC802	T3C
803	3701098340010	Crystal 9.8304MHz DSX530G	1	X501	T4C

804	3701368630000	Crystal oscillator 3.6864MHz	1	X402	B5D
805	3802499540070	Crystal filter 49.95MHz ±7.5k	1	XF200	B3A
806	5205015000000	TM-600 15PIN Socket 1251	1	J503	T5D
807	5207032000000	FFC/FPC Connector 52559-327	1	J501	T5D
808	3610045000200	SCM M3062LFGPGP	1	IC502	T4D
809	3001072020000	Chip resistor 0805 2KΩ J 1/8W	1	R190	T2E
810	3104081050000	Tantalum capacitor 1206 1UF M 16V T	1	C221	T1D
811	3101071030010	Chip capacitor 0805 0.01UF K 2	1	C148	B4B
812	410M600100750	TM-600V(RU) PCB FR4	1		
813	3001066830000	Chip resistor 0603 68KΩ J 1/1	1	R133	B3B
814	3001066830000	Chip resistor 0603 68KΩ J 1/1	1	R134	B3B
815	4002000000300	Chip fuse 0603-FF 0.5A-32V	1	FP101	T5D
816	4002000000300	Chip fuse 0603-FF 0.5A-32V	1	FP102	T5D

VCO Unit (UHF)

No.	Material No.	Description	Qty.	Ref. No.	Print No.	Remarks
1	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R174	T2C	
2	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R170	T2C	
3	3001051030000	Chip resistor 0402 10KΩ J 1/1	1	R176	T1C	
4	3001051510000	Chip resistor 0402 150Ω J 1/1	1	R173	T2C	
5	3001051800000	Chip resistor 0402 18Ω J 1/16	1	R168	T1C	
6	3001051800000	Chip resistor 0402 18Ω J 1/16	1	R183	T1C	
7	3001052210000	Chip resistor 0402 220Ω J 1/1	1	R172	T2C	
8	3001052210000	Chip resistor 0402 220Ω J 1/1	1	R178	T1C	
9	3001053300010	Chip resistor 0402 33Ω J 1/16	1	R167	T2C	
10	3001053310010	Chip resistor 0402 330Ω J 1/1	1	R177	T1C	
11	3001054700000	Chip resistor 0402 47Ω J 1/16	1	R169	T1C	
12	3001054720000	Chip resistor 0402 4.7KΩ J 1/	1	R171	T2C	
13	3001054730000	Chip resistor 0402 47KΩ J 1/1	1	R179	T1C	
14	3001055600000	Chip resistor 0402 56Ω J 1/16	1	R203	T2C	
15	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R706	T2B	
16	3001061030010	Chip resistor 0603 10KΩ J 1/1	1	R709	T2C	
17	3001061040010	Chip resistor 0603 100KΩ J 1/	1	R716	T2A	
18	3001061040010	Chip resistor 0603 100KΩ J 1/	1	R718	T2A	
19	3001062210000	Chip resistor 0603 220Ω J 1/1	1	R705	T2A	
20	3001062210000	Chip resistor 0603 220Ω J 1/1	1	R715	T2B	
21	3001062230000	Chip resistor 0603 22KΩ J 1/1	1	R717	T1A	
22	3001062240010	Chip resistor 0603 220KΩ J 1/	1	R713	T2B	
23	3001062710000	Chip resistor 0603 270Ω J 1/1	1	R707	T2B	
24	3001063300000	Chip resistor 0603 33Ω J 1/10	1	R704	T1B	
25	3001063300000	Chip resistor 0603 33Ω J 1/10	1	R712	T1B	
26	3001063310000	Chip resistor 0603 330Ω F 1/1	1	R702	T2B	
27	3001064700000	Chip resistor 0603 47Ω J 1/10	1	R703	T2B	
28	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R708	T2C	
29	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R710	T2B	

30	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R711	T2B	
31	3001064720000	Chip resistor 0603 4.7KΩ J 1/	1	R720	T2B	
32	3101050200010	Chip capacitor 0402 2PF B 50V	1	C187	T2C	
33	3101050200010	Chip capacitor 0402 2PF B 50V	1	C188	T2C	
34	3101050600010	Chip capacitor 0402 6PF B 50V	1	C186	T2C	
35	3101050600010	Chip capacitor 0402 6PF B 50V	1	C190	T2C	
36	3101050800000	Chip capacitor 0402 8PF B 50V	1	C185	T2C	
37	3101051000020	Chip capacitor 0402 10PF J 50V	1	C189	T2C	
38	3101051020010	Chip capacitor 0402 1000PF K 5	1	C201	T1C	
39	3101051020010	Chip capacitor 0402 1000PF K 5	1	C203	T1C	
40	3101051040010	Chip capacitor 0402 0.1UF Z 25	1	C202	T2C	
41	3101054710010	Chip capacitor 0402 470PF K 50	1	C182	T2C	
42	3101054710010	Chip capacitor 0402 470PF K 50	1	C183	T1C	
43	3101054710010	Chip capacitor 0402 470PF K 50	1	C184	T2B	
44	3101054710010	Chip capacitor 0402 470PF K 50	1	C191	T2C	
45	3101054710010	Chip capacitor 0402 470PF K 50	1	C200	T1C	
46	3101060390000	Chip capacitor 0603 0.3PF B 50	1	C705	T1A	U1:400-470MHz
	3101060390000	Chip capacitor 0603 0.3PF B 50	1			U2:450-500MHz
47	3101060590010	Chip capacitor 0603 0.5PF B 50	1	C709	T2B	
48	3101060590010	Chip capacitor 0603 0.5PF B 50	1	C717	T2B	
49	3101060600010	Chip capacitor 0603 6PF B 50V	1	C713	T2B	U1:400-470MHz
	3101062490000	Chip capacitor 0603 2.4PF B 50V	1			U2:450-500MHz
50	3101062490000	Chip capacitor 0603 2.4PF B 50V	1	C722	T2B	
51	3101061000000	Chip capacitor 0603 10PF J 50V	1	C206	T1C	
52	3101061000000	Chip capacitor 0603 10PF J 50V	1	C703	T1A	
53	3101061000000	Chip capacitor 0603 10PF J 50V	1	C712	T2A	U1:400-470MHz
	3101061000000	Chip capacitor 0603 10PF J 50V	1			U2:450-500MHz
54	3101061500010	Chip capacitor 0603 15PF J 50V	1	C204	T1C	
55	3101064710000	Chip capacitor 0603 470PF K 50	1	C205	T1C	
56	3101064710000	Chip capacitor 0603 470PF K 50	1	C207	T2B	
57	3101064710000	Chip capacitor 0603 470PF K 50	1	C708	T2B	
58	3101064710000	Chip capacitor 0603 470PF K 50	1	C710	T2A	
59	3101064710000	Chip capacitor 0603 470PF K 50	1	C716	T2A	
60	3101064710000	Chip capacitor 0603 470PF K 50	1	C718	T2B	
61	3101064710000	Chip capacitor 0603 470PF K 50	1	C719	T2C	
62	3101064710000	Chip capacitor 0603 470PF K 50	1	C720	T2B	
63	3101064710000	Chip capacitor 0603 470PF K 50	1	C721	T2B	
64	3101064710000	Chip capacitor 0603 470PF K 50	1	C723	T1C	
65	3101064710000	Chip capacitor 0603 470PF K 50	1	C726	T2B	
66	3101064710000	Chip capacitor 0603 470PF K 50	1	C755	T2A	
67	3101066800000	Chip capacitor 0603 68PF J 50V	1	C711	T2A	U1:400-470MHz
	3101061810010	Chip capacitor 0603 180PF J 50V	1			U2:450-500MHz
68	3102992000000	Trimmer capacitor 3.2*2.5*1.25mm	1	TC701	T1A	
69	3102992000000	Trimmer capacitor 3.2*2.5*1.25mm	1	TC702	T2A	
70	3104081060080	Tantalum capacitor 1206 10UF M 10V	1	C724	T2A	

71	3210306150000	Multi-layer chip inductor 0603 15nH	1	L119	T2C	
72	3210306150000	Multi-layer chip inductor 0603 15nH	1	L120	T2C	
73	3210306150000	Multi-layer chip inductor 0603 15nH	1	L121	T2C	
74	3210306150000	Multi-layer chip inductor 0603 15nH	1	L125	T1C	
75	3210306180000	Multi-layer chip inductor 0603 18nH	1	L710	T2B	
76	3210306820000	Multi-layer chip inductor 0603 82nH	1	L122	T1C	
77	3234599180000	Chip air-core coil C3328 18nH	1	L703	T1A	
78	3234599180000	Chip air-core coil C3328 18nH	1	L707	T2A	
79	3303030100020	Switching diode DAN235E	1	D115	T1C	
80	3304010100160	Varactor 1SV278(TH2,F,T	1	D705	T1A	
81	3304010100990	Varactor 1SV282(TH3.F.T	1	D702	T1A	
82	3304010100990	Varactor 1SV282(TH3.F.T	1	D704	T1A	
83	3304010100990	Varactor 1SV282(TH3.F.T	1	D706	T2A	
84	3304010100990	Varactor 1SV282(TH3.F.T	1	D709	T2A	
85	3401002000290	Transistor 2SC4116-GR	1	Q704	T2B	
86	3401002000290	Transistor 2SC4116-GR	1	Q705	T2B	
87	3401002000990	Transistor 2SC5108-Y	1	Q101	T1C	
88	3401002000990	Transistor 2SC5108-Y	1	Q102	T2C	
89	3401002000990	Transistor 2SC5108-Y	1	Q703	T2B	
90	3403008000010	Transistor DTC114EE(TL)	1	Q706	T2B	
91	3499000000140	Transistor 2SK508-K52-T1B-A	1	Q701	T2B	
92	3499000000140	Transistor 2SK508-K52-T1B-A	1	Q702	T2B	
93	3213212102000	Multi-layer chip inductor 1008 1uH	1	L701	T1A	
94	3213212102000	Multi-layer chip inductor 1008 1uH	1	L702	T1A	
95	3213212102000	Multi-layer chip inductor 1008 1uH	1	L704	T2B	
96	3213212102000	Multi-layer chip inductor 1008 1uH	1	L705	T2A	
97	3213212102000	Multi-layer chip inductor 1008 1uH	1	L706	T2A	
98	3213212102000	Multi-layer chip inductor 1008 1uH	1	L708	T2B	
99	3213212102000	Multi-layer chip inductor 1008 1uH	1	L709	T2B	
100	3213212102000	Multi-layer chip inductor 1008 1uH	1	L711	T2B	
101	3101061210000	Chip capacitor 0603 120PF J 50	1	C702	T1A	
102	3001052710000	Chip resistor 0402 270Ω F 1/1	1	R182	T1C	
103	3001052710000	Chip resistor 0402 270Ω F 1/1	1	R184	T1C	
104	3101060300010	Chip capacitor 0603 3PF B 50V	1	C704	T2B	U1:400-470MHz
	3101060500010	Chip capacitor 0603 5PF B 50V	1			U2:450-500MHz
105	3101060300010	Chip capacitor 0603 3PF B 50V	1	C706	T2B	U1:400-470MHz
	3101060100010	Chip capacitor 0603 1PF B 50V	1			U2:450-500MHz
106	3101060300010	Chip capacitor 0603 3PF B 50V	1	C707	T2B	U1:400-470MHz
	3101061590010	Chip capacitor 0603 1.5PF B 50V	1			U2:450-500MHz
107	3101065690000	Chip capacitor 0603 5.6PF C 50	1	C715	T2B	U1:400-470MHz
	3101060500010	Chip capacitor 0603 5PF C 50	1			U2:450-500MHz
108	3101060500010	Chip capacitor 0603 5PF B 50V	1	C714	T2B	U1:400-470MHz
	3101060500010	Chip capacitor 0603 5PF B 50V	1			U2:450-500MHz
109	3001053330010	Chip resistor 0402 33KΩ J 1/1	1	R175	T1C	
110	410M600100920	TM-600U VCO board FR4 1.6	1			

Display Unit

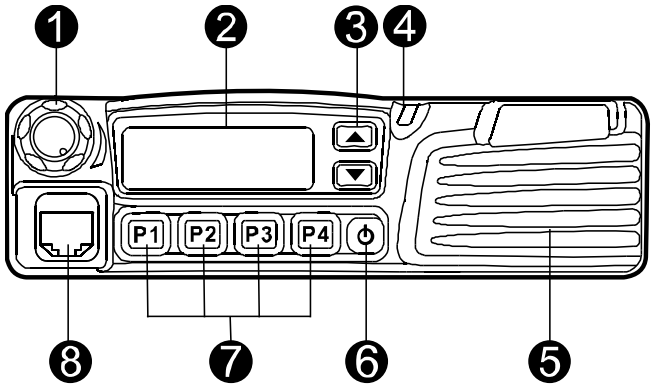
No.	Material No.	Description	Qty.	Ref. No.
1	3001060000000	Chip resistor 0603 0Ω J 1/10W	1	R344
2	3001061010000	Chip resistor 0603 100Ω J 1/1	1	R341
3	3001061030000	Chip resistor 0603 10KΩ D 1/1	1	R304
4	3001061040000	Chip resistor 0603 100KΩ D 1/	1	R319
5	3001061210000	Chip resistor 0603 120Ω J 1/1	1	R311
6	3001061830000	Chip resistor 0603 18KΩ D 1/1	1	R308
7	3001061830000	Chip resistor 0603 18KΩ D 1/1	1	R313
8	3001062700000	Chip resistor 0603 27Ω J 1/10	1	R306
9	3001063310010	Chip resistor 0603 330Ω J 1/1	1	R301
10	3001063920000	Chip resistor 0603 3.9KΩ J 1/	1	R307
11	3101064710000	Chip capacitor 0603 470PF K 50	1	C301
12	3101064710000	Chip capacitor 0603 470PF K 50	1	C302
13	3307110000000	LED KP-1608SECK (RoHS)	1	LED302
14	3307110000000	LED KP-1608SECK (RoHS)	1	LED303
15	3307110000000	LED KP-1608SECK (RoHS)	1	LED304
16	3307110000000	LED KP-1608SECK (RoHS)	1	LED306
17	3307110000000	LED KP-1608SECK (RoHS)	1	LED307
18	3307110000000	LED KP-1608SECK (RoHS)	1	LED308
19	3307110000000	LED KP-1608SECK (RoHS)	1	LED309
20	3307110000000	LED KP-1608SECK (RoHS)	1	LED310
21	3307110000000	LED KP-1608SECK (RoHS)	1	LED311
22	3399010600000	Diode HSB123TR-E	1	D303
23	3399010600000	Diode HSB123TR-E	1	Q305
24	3399010600000	Diode HSB123TR-E	1	Q306
25	3403002000000	Transistor 2SB1132FD5T100R	1	Q302
26	3403008000010	Transistor DTC114EE(TL)	1	Q301
27	3403008000010	Transistor DTC114EE(TL)	1	Q303
28	3403008000010	Transistor DTC114EE(TL)	1	Q304
29	3609023000020	LCD Drive PCF8576DH/	1	IC301
30	5207032000000	FFC/FPC Connector 52559-327	1	J302
31	3213306221010	Multi-layer chip inductor 0603 0.22uH	1	L301
32	3213306221010	Multi-layer chip inductor 0603 0.22uH	1	L302
33	3001050000000	Chip resistor 0402 0Ω J 1/16W	1	R320
34	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R321
35	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R340
36	3001051010000	Chip resistor 0402 100Ω J 1/1	1	R342
37	3001051520000	Chip resistor 0402 1.5KΩ J 1/	1	R315
38	3001051520000	Chip resistor 0402 1.5KΩ J 1/	1	R316
39	3221506601000	Chip ferrite bead 0603 600Ω±25	1	L303
40	3001051210000	Chip resistor 0402 120Ω J 1/1	1	R310
41	3307110200000	LED KPB-3025SUR	1	LED
42	410M6101000H0	TM-610 Front panel PCB FR4 1.2T/2L/4P H	1	
43	3101051030020	Chip capacitor 0402 0.01UF K 2	1	C304

44	4002000000180	Chip fuse 0603-FF 0.25A-32V 0467.250NR	1	FP101
45	4002000000180	Chip fuse 0603-FF 0.25A-32V 0467.250NR	1	FP102

Tuning Description

1. Key Functions

1.1 Front Panel View



① **Volume Control Knob**

Rotate the knob clockwise to increase the volume and counterclockwise to decrease the volume.

② **LCD**

Please refer to section LCD Display.

③ **Programmable Function Keys ▲ / ▼**

Your local dealer can program these keys with various auxiliary functions.

Please refer to section Programmable Function Keys.

④ **LED Indicator**

⑤ **Speaker**

⑥ **Power Switch**

⑦ **Programmable Function Keys P1 / P2 / P3 / P4**

Your local dealer can programmed these keys with various auxiliary functions.

Please refer to section Programmable Function Keys.

⑧ **Microphone Jack**

Plug the microphone into the jack.

2. Panel Tuning Mode

2.1 Basic Operations in Panel Tuning Mode

The transceiver is tuned in this mode.Operations are as following:

1) Press [P1] to power on the radio and enter tuning mode.

2) Select the item with [Up]/[Down] key. Press [P4] to enter the selected sub-item.

3) Press [P4] to enter the sub-item and tune the data with [Up]/[Down] key. Then press [P4] to save the data and enter the next sub-item. Press [P1] to go back to the previous item without saving the data.

2.2 Enter Panel Tuning Mode

Press [P1] key to turn on the radio and enter tuning mode. Items of the tuning mode are shown as follows:

No	Dealer Mode
1	Tx high power
2	Tx low power
3	Max. Frequency Deviation
4	CDCSS balance
5	CTCSS Frequency Deviation
6	CDCSS Frequency Deviation
7	DTMF Frequency Deviation
8	MSK Frequency Deviation
9	Single Tone Frequency Deviation
10	Rx Sensitivity
11	Squelch on level
12	Squelch off level
13	RSSI high power
14	RSSI low power

Note: The tuning items display as the description in Section "2.3".

2.3. Tuning Items and Display

Setting Items and Display

Setting Items	Main LCD	Wideband/ Narrowband	Frequency	Sub-LCD	Description
TX Power	TXHIGH	High power Wideband	Certer	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
	TX LOW	Low power Wideband	Center	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
Max Deviation	MAX.DEV	Wideband	Center	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
		Medium band	Center	M_C ***	No signalling
		Narrow band	Center	N_C ***	No signalling
			Low	N_L ***	No signalling
			High	N_H ***	No signalling
CDCSS Balance	CDCSS.BAL	Wideband	Center	_C ***	CDCSS:023N
			Low	_L ***	CDCSS:023N
			High	_H ***	CDCSS:023N
		Medium band	Center	M_C ***	CDCSS:023N
		Narrow band	Center	N_C ***	CDCSS:023N
			Low	N_L ***	CDCSS:023N
			High	N_H ***	CDCSS:023N

CTCSS.Deviation	CTC.DEV_L	Wideband	Ceter	_C ***	CTCSS: 67.0Hz
			Low	_L ***	CTCSS: 67.0Hz
			High	_H ***	CTCSS: 67.0Hz
		Medium band	Ceter	M_C ***	CTCSS: 67.0Hz
		Narrow band	Ceter	N_C ***	CTCSS: 67.0Hz
			Low	N_L ***	CTCSS: 67.0Hz
			High	N_H ***	CTCSS: 67.0Hz
	CTC.DEV_M	Wideband	Ceter	_C ***	CTCSS:151.4Hz
			Low	_L ***	CTCSS:151.4Hz
			High	_H ***	CTCSS:151.4Hz
		Medium band	Ceter	M_C ***	CTCSS:151.4Hz
		Narrow band	Ceter	N_C ***	CTCSS:151.4Hz
			Low	N_L ***	CTCSS:151.4Hz
			High	N_H ***	CTCSS:151.4Hz
	CTC.DEV_H	Wideband	Ceter	_C ***	CTCSS:254.1Hz
			Low	_L ***	CTCSS:254.1Hz
			High	_H ***	CTCSS:254.1Hz
		Medium band	Ceter	M_C ***	CTCSS:254.1Hz
		Narrow band	Ceter	N_C ***	CTCSS:254.1Hz
			Low	N_L ***	CTCSS:254.1Hz
			High	N_H ***	CTCSS:254.1Hz
CDCSS.Deviation	CDCSS.DEV	Wideband	Ceter	_C ***	CDCSS: 023N
			Low	_L ***	CDCSS: 023N
			High	_H ***	CDCSS: 023N
		Medium band	Ceter	M_C ***	CDCSS: 023N
		Narrow band	Ceter	N_C ***	CDCSS: 023N
			Low	N_L ***	CDCSS: 023N
			High	N_H ***	CDCSS: 023N
DTMF Deviation	DTMF.DEV	Wideband	Ceter	_C ***	DTMF: 9
			Low	_L ***	DTMF: 9
			High	_H ***	DTMF: 9
		Medium band	Ceter	M_C ***	DTMF: 9
		Narrow band	Ceter	N_C ***	DTMF: 9
			Low	N_L ***	DTMF: 9
			High	N_H***	DTMF: 9
MSK Deviation	MSK.DEV	Wideband	Ceter	_C ***	0XAAA…
			Low	_L ***	0XAAA…
			High	_H ***	0XAAA…
		Medium band	Ceter	M_C ***	0XAAA…
		Narrow band	Ceter	N_C ***	0XAAA…
			Low	N_L***	0XAAA…
			High	N_H***	0XAAA…

Single Tone Deviation	TONE DEV	Wideband	Center	_C ***	1KHz
			Low	_L ***	1KHz
			High	_H ***	1KHz
		Medium	Center	M_C ***	1KHz
		Narrowband	Center	N_C ***	1KHz
			Low	N_L***	1KHz
			High	N_H ***	1KHz
Rx Sensitivity	SENSITVI	-	Low	_L ***	No signalling, SQL off
		-	Low-center	_LC ***	No signalling, SQL off
		-	Center	_C ***	No signalling, SQL off
		-	Center-high	_HC ***	No signalling, SQL off
		-	High	_H ***	No signalling, SQL off
SQL Open	OPENSQL9	SQL 9 Wideband	Center	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
		SQL 9 Medium	Center	M_C ***	No signalling
		SQL 9 Narrowband	Center	N_C ***	No signalling
			Low	N_L ***	No signalling
			High	N_H ***	No signalling
	OPENSQL3	SQL 3 Wideband	Center	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
		SQL 3 Medium	Center	M_C ***	No signalling
		SQL 3 Narrowband	Center	N_C ***	No signalling
			Low	N_L ***	No signalling
			High	N_H ***	No signalling
SQL Close	CLOS.SQL9	SQL 9 Wideband	Center	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
		SQL 9 Medium	Center	M_C ***	No signalling
		SQL 9 Narrowband	Center	N_C ***	No signalling
			Low	N_L ***	No signalling
			High	N_H ***	No signalling
	CLOS.SQL3	SQL 3 Wideband	Center	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
		SQL 3 Narrowband	Center	N_C ***	No signalling

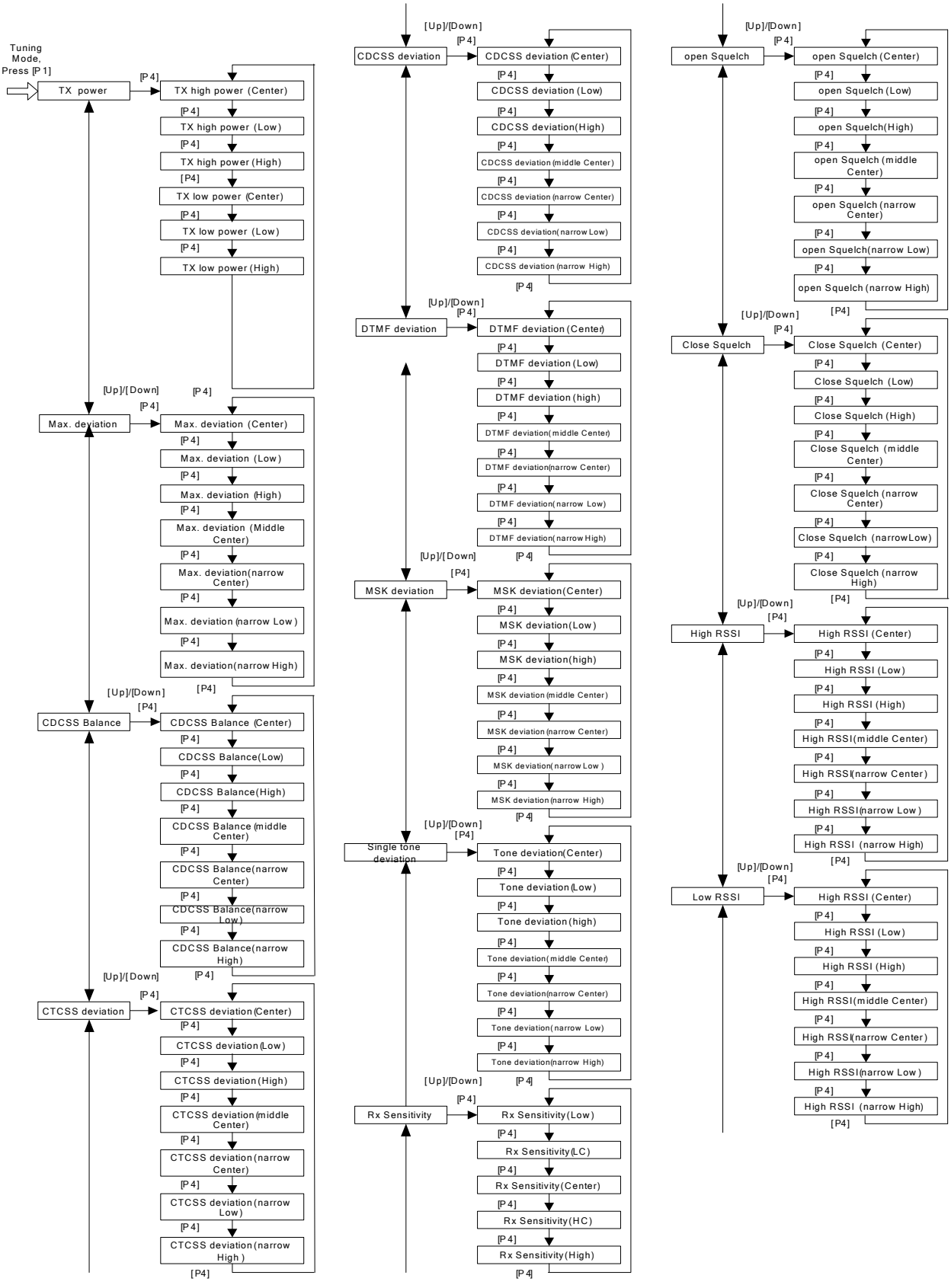
		SQL 3 Narrowband	Center	N_C ***	No signalling
			Low	N_L ***	No signalling
			High	N_H ***	No signalling
RSSI High Power	RSSIHIGH	Wide band	Center	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
		Medium	Center	M_C ***	No signalling
		Narrow band	Center	N_C ***	No signalling
			Low	N_L ***	No signalling
			High	N_H ***	No signalling
RSSI Low Power	RSSI LOW	Wide band	Center	_C ***	No signalling
			Low	_L ***	No signalling
			High	_H ***	No signalling
		Medium	Center	M_C ***	No signalling
		Narrow band	Center	N_C ***	No signalling
			Low	N_L ***	No signalling
			High	N_H ***	No signalling

2.4.Flow Chart

1) Press [P1] to power on. The radio enters tuning mode.

2) Use [Up]/[Down] key to select the setting item. Press [P4] to enter the selected sub-item.

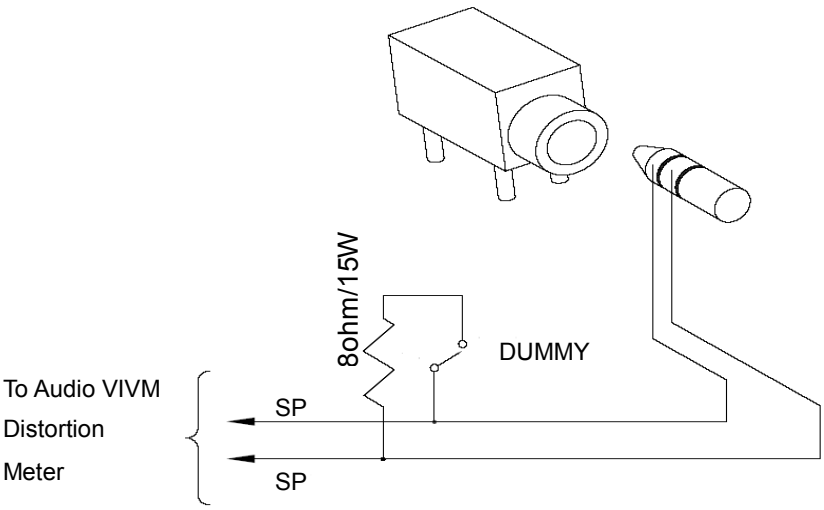
3) Press [P4] to enter the sub-item. Use [Up]/[Down] key to adjust the value and press [P4] to save data and enter the next sub-item. Or press [P1] to go back to the previous item without saving the data.


Tuning Mode, Press [P1]
TX power
[P4]
TX high power (Center)
TX high power (Low)
TX high power (High)
TX low power (Center)
TX low power (Low)
TX low power (High)
[Up]/[Down]
Max. deviation
Max. deviation (Center)
Max. deviation (Low)
Max. deviation (High)
Max. deviation (Middle Center)
Max. deviation(narrow Center)
Max. deviation (narrow Low)
Max. deviation(narrow High)
CDCSS Balance
CDCSS Balance (Center)
CDCSS Balance(Low)
CDCSS Balance(High)
CDCSS Balance (middle Center)
CDCSS Balance(narrow Center)
CDCSS Balance(narrow Low)
CDCSS Balance(narrow High)
CTCSS deviation
CTCSS deviation (Center)
CTCSS deviation (Low)
CTCSS deviation (High)
CTCSS deviation (middle Center)
CTCSS deviation (narrow Center)
CTCSS deviation (narrow Low)
CTCSS deviation (narrow High)
CDCSS deviation
CDCSS deviation (Center)
CDCSS deviation (Low)
CDCSS deviation(High)
CDCSS deviation (middle Center)
CDCSS deviation (narrow Center)
CDCSS deviation(narrow Low)
CDCSS deviation (narrow High)
DTMF deviation
DTMF deviation (Center)
DTMF deviation (Low)
DTMF deviation (high)
DTMF deviation(middle Center)
DTMF deviation(narrow Center)
DTMF deviation(narrow Low)
DTMF deviation(narrow High)
MSK deviation
MSK deviation (Center)
MSK deviation (Low)
MSK deviation (high)
MSK deviation (middle Center)
MSK deviation (narrow Center)
MSK deviation(narrow Low)
MSK deviation (narrow High)
Single tone deviation
Tone deviation (Center)
Tone deviation (Low)
Tone deviation (high)
Tone deviation(middle Center)
Tone deviation(narrow Center)
Tone deviation(narrow Low)
Tone deviation(narrow High)
Rx Sensitivity
Rx Sensitivity (Low)
Rx Sensitivity (LC)
Rx Sensitivity (Center)
Rx Sensitivity (HC)
Rx Sensitivity (High)
open Squelch
open Squelch (Center)
open Squelch (Low)
open Squelch(High)
open Squelch (middle Center)
open Squelch (narrow Center)
open Squelch(narrow Low)
open Squelch (narrow High)
Close Squelch
Close Squelch (Center)
Close Squelch (Low)
Close Squelch (High)
Close Squelch (middle Center)
Close Squelch (narrow Center)
Close Squelch (narrowLow)
Close Squelch (narrow High)
High RSSI
High RSSI (Center)
High RSSI (Low)
High RSSI (High)
High RSSI(middle Center)
High RSSI(narrow Center)
High RSSI(narrow Low)
High RSSI (narrow High)
Low RSSI
High RSSI (Center)
High RSSI (Low)
High RSSI (High)
High RSSI(middle Center)
High RSSI(narrow Center)
High RSSI(narrow Low)
High RSSI (narrow High)

3. Test Instrument for Alignment

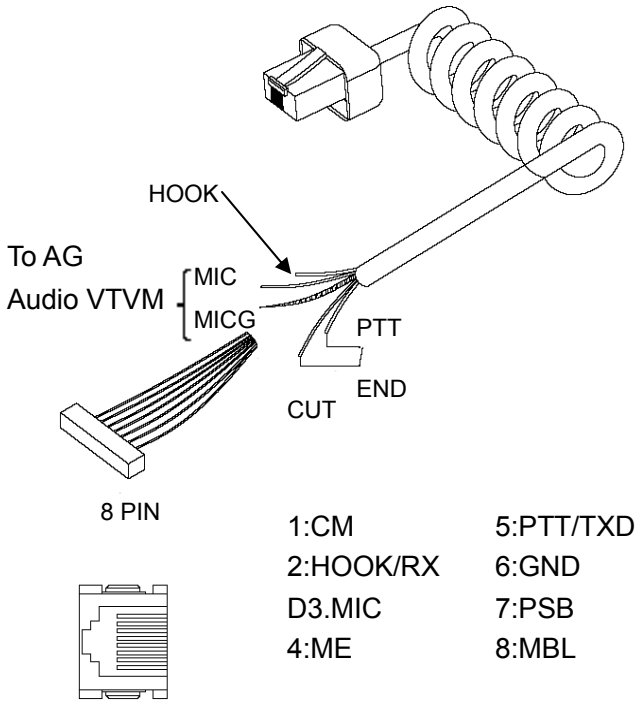
Instrument	Method	Major Specifications
Standard Signal Generator (SSG)	Frequency Modulation Output power	VHF: 136-174 MHz; UHF: 400-470 MHz 450-500 MHz 470-520 MHz 350-400 MHz 440-470 MHz Frequency modulation and external modulation 0.1uV to 1mV above
Power Meter	Input Impedance Operation Frequency Measurement Capability	50Ω VHF: 136-174 MHz; UHF: 400-470 MHz 450-500 MHz 470-520 MHz 350-400 MHz 440-470 MHz About 25W (high power)/5W (low power)
Tuning Meter	Frequency Range	VHF: 136-174 MHz; UHF: 400-470 MHz 450-500 MHz 470-520 MHz 350-400 MHz 440-470 MHz
Digital Voltmeter (DVM)	Measuring Range Accuracy	1 to 20V DC High input impedance for minimum circuit loading
Oscilloscope		DC to 30MHz AC
High Sensitivity Frequency Counter	Frequency Range Frequency Stability	10Hz to 600MHz 0.2ppm or below
Ammeter		13A or above
AF Voltmeter (AF VTVM)	Frequency Range Voltage Range	50Hz to 10kHz 3mV to 3V
Audio Signal Generator (AG)	Frequency Range Output Power	50Hz to 5kHz 0 to 1V
Distortion Meter	Measurement Capability Input Level	1kHz above 3% or less 50mV to 10Vrms
Voltmeter	Frequency Range Input Impedance	10 to 1.5V DC or less 50kΩ/V or above
4Ω Dummy Load		About 4Ω, 20W
Regulated Power		13.6V, about 20A (from 9 to 20V) Applicable if an antenna required

3.1 Test Cable for Speaker Output



3.2 Test Cable for Microphone Input

The following test cable is recommended.



4. Cautions Taken When Removing or Attaching the Shielding

a) When handling with the shielding, do not damage the components on the Tx-Rx unit.

b) When installing the shielding, insert the cover from the rear side.

c) When removing the shielding, squeeze the hole marked with an arrow as shown in the diagram and pull it straight

This mobile radio can only be tuned via the programming software or manually. Manual Tuning is described as follows. (Refer to Tuning Mode in section Radio Modes.)

Instrument:

Radio Communication Test Set	1 set
Spectrum Analyzer	1 set
20A/30V Power Supply	1 set
Digital Voltmeter	1 set
Power Meter	1 set
Signal Cable (with dummy load)	1 piece

Tuning Method and Procedures:

1. Download

③ Connect the radio with PC through programming cable and turn the radio on.

③ Click Download on the software interface.

③ Select the desired program and click Start.

③ Click End when downloading is completed.

③ Turn the radio off and remove the programming cable.

2. Initialization

It is necessary to set the frequency and initialize the radio before tuning because there is no wanted information in EEPROM when the radio is manufactured.

③ Turn on the radio while holding down P2, and then release them to enter frequency initiliazation. Observe the display and select an item through the Up/Down arrow keys. The display may show the following items:

"0" (TM-610V)

"1" (TM-610U1)

"2" (TM-610U2)

"3" (TM-610U3)

"4" (TM-610U4)

"5" (TM-610U5)

"6" (TM-610U6, for Taiwan only)

"7" (TM-610U7)

Then press the [P4] again to save data. See the Model table below.

③ LED on the front panel stops flashing, indicating that the initialization is completed.

3. Tuning

Some items can be tuned in the conventional mode and the others can be tuned manually.

③ Turn on the radio to enter the conventional mode.

③ Turn off the radio. And then turn the radio back on while holding down P1. The radio enters manual tuning mode. The channel number is displayed on LCD.

③ Frequency Table (The following table shows all the available frequency points.)

Model	RX/TX	1 (C)	2 (L)	3 (H)	4	5	6	7	8
0	RX(MHz)	155.15	136.15	173.85	145.55	164.5	155	155.2	155.4
(V)	TX(MHz)	155	136	174	145.5	164.5	155	155.2	155.4
1	RX(MHz)	435.15	400.15	469.85	417.55	452.5	435	435.2	435.4
(U1)	TX(MHz)	435	400	470	417.5	452.5	435	435.2	435.4
2	RX(MHz)	475.15	450.15	499.85	462.55	487.5	475	475.2	475.4
(U2)	TX(MHz)	475	450	500	462.5	487.5	475	475.2	475.4
3	RX(MHz)	495.15	470.15	519.85	482.55	507.5	495	495.2	495.4
(U3)	TX(MHz)	495	470	520	482.5	507.5	495	495.2	495.4
4	RX(MHz)	375.15	350.15	399.85	362.55	387.5	375	375.2	375.4
(U4)	TX(MHz)	375	350	400	362.5	387.5	375	375.2	375.4
5	RX(MHz)	455.15	440.15	469.85	447.55	462.55	455	455.2	455.4
(U5)	TX(MHz)	455	440	470	447.5	462.5	455	455.2	455.4
6	RX(MHz)	503.15	480.15	525.85	491.55	514.55	503	503.2	503.4
(U6)	TX(MHz)	503	480	526	491.5	514.5	503	503.2	503.4
7	RX(MHz)	340.15	330.15	349.85	335.05	345.05	340	340.2	340.4
(U7)	TX(MHz)	340	330	350	335	345	340	340.2	340.4

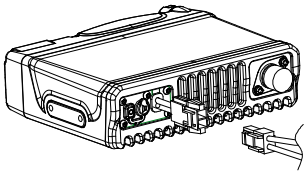
TM-610V: 136-174MHz TM-610U1: 400-470MHz

TM-610U2: 450-500MHz TM-610U3: 470-520MHz

TM-610U4: 350-400MHz TM-610U5: 440-470MHz

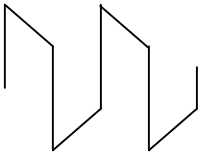
TM-610U6: 480-526MHz TM-610U7: 330-350MHz

VCO

Item	Condition	Measurement		Tuning		Specification Remarks
		Test Instrument	Terminal	Part	Method	
1. Power Supply	1.Power supply: DC 13.6V	 **Note:** 1. The radio can only be installed in negative grounding electrical system. Reverse polarity will cause the cable fuse to get blown. Check the vehicle ground polarity before installation to avoid wasted time and effort. 2. If the DC power is controlled by the vehicle ignition switch, then the power on procedure is controlled by the input control pulse signal of the car ignitor.				
2.VCO Lock Voltage (Tx)	1.CH: TX HI	Digital Voltmeter	CV	TC701	6.1V±0.1V	TM-610U1
					5.0V±0.1V	TM-610U2
					5.1V±0.1V	TM-610U3
						TM-610U4
						TM-610U6
					4.0V±0.1V	TM-610U5
						TM-610U7
					6.0V±0.1V	TM-610V
	2.CH: TX LO				Check	＞1.0V
3.VCO Lock Voltage (Rx)	1.CH: RX HI	Digital Voltmeter	CV	TC702	6.0V±0.1V	TM-610U1
						TM-610V
						TM-610U3
						TM-610U4
						TM-610U6
					4.0V±0.1V	TM-610U5
						TM-610U7
					6.5V±0.1V	TM-610U2
	2.CH: RX LO				Check	＞1.0V

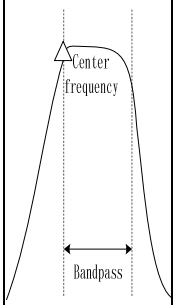
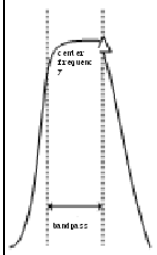
Transmitter

Item	Condition	Measurement		Tuning		Specification/Remarks
		Test Instrument	Terminal	Part	Method	
4.TX Frequency	Not enter tuning item, but switch to CH2	Radio Communication Test Se	ANT	VR801	Tune channel frequency	Error<50Hz
5. TX Power	Each CH corresponds to a specific TX freq; enter items “TXHIGH”, ‘TX LOW” in turn, and press [P4] to enter “_C”, “_L”, “_H” and	Radio Communication Test Set Ammeter	ANT	Press [P4] to save settings and move to the next item. Note: tuning VR101 is necessary for	High Power: PO=25±2W I≤7.0A	Check High Power
					High Power:	Check Low Power

	tune High/Low power.			VHF high power, and unnecessary for UHF.	PO=5±0.5W I≤4.0A	
6. Max. Deviation	1. Each CH corresponds to a specific TX freq; enter item “MAX DEV”, to tune “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L” “N_H”.	Radio Communication Test Set Filter: 0.05-15KHz AF: 1KHz 75mV	ANT MIC Jack	Adjust value through UP/DOWN keys, then press [P4] to save settings and move to the next item.	Check the deviation of Hi/Center/Low CH.: 3.9±0.1KHz(W)	For wide band, adjust to: “_C”, “_L”, “_H”
					Check the deviation of Center freq.: 3.1±0.1KHz(M)	For medium band, adjust to: “M_C”
					Check the deviation of Hi/Center/Low CH.: 1.8±0.1KHz (N)	For narrow band, adjust to: “N_C” “N_L”, “N_H”
7. Modulation Sensitivity	1. Each CH corresponds to a specific TX freq.	Radio Communication Test Set Filter: 0.05-15KHz AF: 1KHz 7.5mV	ANT MIC Jack		Check the deviation: 2.7KHz-3.3KHz (W) 2.2KHz-2.7KHz (M) 1.3KHz-1.7KHz (N)	Check
8. Modulation Distortion					≤5%	
9. CDCSS Balance	Each CH corresponds to a specific TX freq; enter the item “CDCSS.BAL" and press P4 to enter “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L”, “N_H”.	Radio Communication Test Set Filter: <20HZ-300Hz AF: OFF	ANT	Adjust value through UP/DOWN keys, then press [P4] to save settings and move to the next item.		“_C, “_L”, and “_H” correspond to wide band of Hi/Center/Low freq.; “M_C.” corresponds to medium band 20KHz of center freq.; “N_C.”, “N_L”, and “N_H” correspond to narrow band 12.5KHz of Hi/Center/Low freq.)
10. CTCSS Deviation	Each CH corresponds to a specific TX freq; enter items “CTCL_DEV”, “CTCC_DEV”, “ CTCH_DEV” to tune 67Hz/151.4Hz/254.1Hz CTCSS, and press P4 to enter “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L”, “N_H”.	Radio Communication Test Set Filter: <20HZ-300Hz AF: OFF	ANT	Adjust value through UP/DOWN keys, then press [P4] to save settings and move to the next item.	Adjust deviation to: 0.75KHz±0.10KHz (W) 0.60KHz±0.10KHz (M) 0.37KHz±0.05KHz (N)	“_C, “_L”, and “_H” correspond to wide band; “M_C.” corresponds to medium band; “N_C.”, “N_L”, and “N_H” correspond to narrow band of Hi/Center/Low freq.
11. CDCSS	Each CH corresponds to a specific TX freq;	Radio Communication Test Set	ANT	Adjust value through	Adjust deviation to: 0.75KHz±0.10KHz	“_C, “_L”, and “_H” correspond to wide

Deviation	enter the item “CDCSS_DEV" and press P4 to enter “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L”, “N_H”.	Filter: <20HZ-300Hz AF: OFF		UP/DOWN keys, then press [P4] to save settings and move to the next item.	(W) 0.60KHz±0.10KHz (M) 0.37KHz±0.05KHz (N)	band; “M_C.” corresponds to medium band; “N_C.”, “N_L”, and “N_H” correspond to narrow band of Hi/Center/Low freq.
12. DTMF Deviation	Each CH corresponds to a specific TX freq; enter the item “DTMF .DEV" and press P4 to enter “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L”, “N_H”.	Radio Communication Test Set Filter: 300Hz--3KHz AF: OFF	ANT	Adjust value through UP/DOWN keys, then press [P4] to save settings and move to the next item.	3.0KHz±0.1KHz (W) 2.4KHz±0.1KHz (M) 1.5KHz±0.1KHz (N)	“_C, “_L”, and “_H” correspond to wide band; “M_C.” corresponds to medium band; “N_C.”, “N_L”, and “N_H” correspond to narrow band of Hi/Center/Low freq.
13. MSK	Each CH corresponds to a specific TX freq; enter the item “MSK.DEV" and press P4 to enter “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L”, “N_H”.	Radio Communication Test Set Filter: 300Hz--3KHz AF: OFF	ANT	Adjust value through UP/DOWN keys, then press [P4] to save settings and move to the next item.	3.0KHz±0.1KHz (W) 2.4KHz±0.1KHz (M) 1.5KHz±0.1KHz (N)	“_C, “_L”, and “_H” correspond to wide band; “M_C.” corresponds to medium band; “N_C.”, “N_L”, and “N_H” correspond to narrow band of Hi/Center/Low freq.
14. Single tone (2-tone / 5-tone)	Each CH corresponds to a specific TX freq; enter the item “TONE DEV" and press P4 to enter “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L”, “N_H”.	Radio Communication Test Set Filter: 300Hz-3KHz AF: OFF	ANT	Adjust value through UP/DOWN keys, then press [P4] to save settings and move to the next item.	Adjust deviation to: 3.0KHz±0.10KHz (W) 2.4KHz±0.10KHz (M) 1.5KHz±0.1KHz (N)	“_C, “_L”, and “_H” correspond to wide band; “M_C.” corresponds to medium band; “N_C.”, “N_L”, and “N_H” correspond to narrow band of Hi/Center/Low freq.
15. FM Noise	1. Each CH corresponds to a specific TX freq.	Radio Communication Test Set Filter: 0.3-3KHz AF：1KHz 7.5mV, DEV: 3KHz	ANT	Check	S/N≥**45** (W) S/N≥**40** (N)	

Receiver

Item	Condition	Measurement		Tuning		Specification/ Remarks
		Test Instrument	Terminal	Part	Method	
16.RF bandpass filter	Enter item “SENSITVI”; Each CH corresponds to a specific TX freq. Press P4 to enter items “_L”, ”LC”, “_C”, “_CH”, “_H”.	Scanner	ANT . TP1	Manually tune TC101 and TC102 through Up/Down keys, and then press [P4] to save settings and go to the next item. VHF requires TC101 only.	Set the gain value to the maximum; the corresponding freq. are on the rightmost (TM-610V) and leftmost (TM-610U) of the bandpass waveform. Press [P4] to save.	UHF waveform:  VHF waveform: 
17. Max. volume	Frequency: RX Center; tune to CH1(C); corresponds to a specific freq.	Radio Communication Test Set SSG Output: -47dBm MOD: 1KHz DEV: ±3KHz(W) ±1.5KHz(N) Filter: 0.3-3.0KHz	ANT SP Jack	K301		Check Max. volume: 4.3V-5.4V
18. Sensitivity	1. Frequency: RX Center; tune to CH1(C) manually.	Radio Communication Test Set SSG Output: -118dBm MOD: 1KHz DEV: ±3KHz(W) ±2.4KHz(M) ±1.5KHz(N) Filter: 0.3-3.0KHz	ANT SP Jack	Wide/Narrow switch (Turn on the radio while holding down [P1] to enter channel set mode.)		SINAD: 12dB or more
	2. Frequency: RX LO; tune to 2(L) manually.					
	Frequency: RX HI; tune to 3(H) manually.					

19. SQL Open	Enter in turn the items “OPEN SQL9” (Level 9 on), “OPEN SQL3” (Level 3 on); then press [P4] to enter items “_C.”, “_L”, “_H”, “M_C”, “N_C”, “N_L”, “N_H”.	Radio Communication Test Set SSG Output: -114dBm (Level 9) / SSG Output: -120dBm (Level 3)	ANT SP Jack	Adjust software settings	No need to tune software setting at squelch Level 3&9; Just press [P4] twice to save.	Press [P4] twice to read/write squelch level from/into CPU.
20. SQL Close	Enter in turn the items “OPEN SQL9” (Level 9 on), “OPEN SQL3” (Level 3 on); then press [P4] to enter items “_C.”, “_L”, “_H”, “M_C”, “N_C”, “N_L”, “N_H”.	Radio Communication Test Set SSG Output: -116dBm (Level 9) / SSG Output: -122dBm (Level 3)			No need to tune software setting at squelch Level 3&9; Just press [P4] twice to save.	Press [P4] twice to read/write squelch level from/into CPU.
21. Distortion	1. CH: RX Center	Radio Communication Test Set SSG Output: -47dBm	ANT SP Jack	Filter: 0.3-3.0KHz	Check	DIS≤5%
22.S/N						S/N≥**45** (W) S/N≥**40** (N)

Note: The radio must be covered with aluminum chassis during tuning of sensitivity, transmit power, signalling waveform, frequency deviation, carrier frequency error, Rx squelch. Connect an RF power meter to the antenna connector during transmission. Connect a SINAD meter with 16ohm load to the external SP Jack.

Terminal Function

1. Display Unit

Pin No.	Name	Description
J301 (To MIC Jack)		
1	CM	Serial data input for the keypad microphone.
2	HOOK/RxD	Hook signal input/ Serial data input.
3	MIC	MIC signal input.
4	ME	MIC ground
5	PTT/TxD	PTT signal input/Serial data output.
6	GND	GND
7	SB	Power output after power switch (13.6V±15%).
8	MBL	MIC backlight control signal output. “H”: On, “L”: Off.
J302 (To Tx/Rx Unit)		
1	VCC	+5V.
2	BS	SB (Power outputs after power switch (13.6V±15%))
3	VCC	+5V.
4	BS	SB (Power outputs after power switch (13.6V±15%))
5	NC	NC

6	MICDAT	Serial data output for keypad MIC.
7	NC	NC
8	ME	MIC ground
9	MIC	MIC signal output.
10	GND	Ground
11	VO	Audio input after tuning by k301
12	PSW	Power switch control signal output
13	RxD2	Serial data output
14	TxD2	Serial data input
15	VI	Audio output after tuning by k301
16	TYPE	Model select(H:TM-610; L:TM-610)
17	P4	SW position signal output 4
18	P3	SW position signal output 3
19	P2	SW position signal output 2
20	P1	SW position signal output 1
21	SLED	Scan indicator
22	PLED	Low power indicator
23	RLED	Transmit indicator control
24	GLED	Receive indicator control
25	LED1	Channel display control
26	LED7	Channel display control
27	LED0	Channel display control
28	LED2	Channel display control
29	LED5	Channel display control
30	LED3	Channel display control
31	LED6	Channel display control
32	LED4	Channel display control

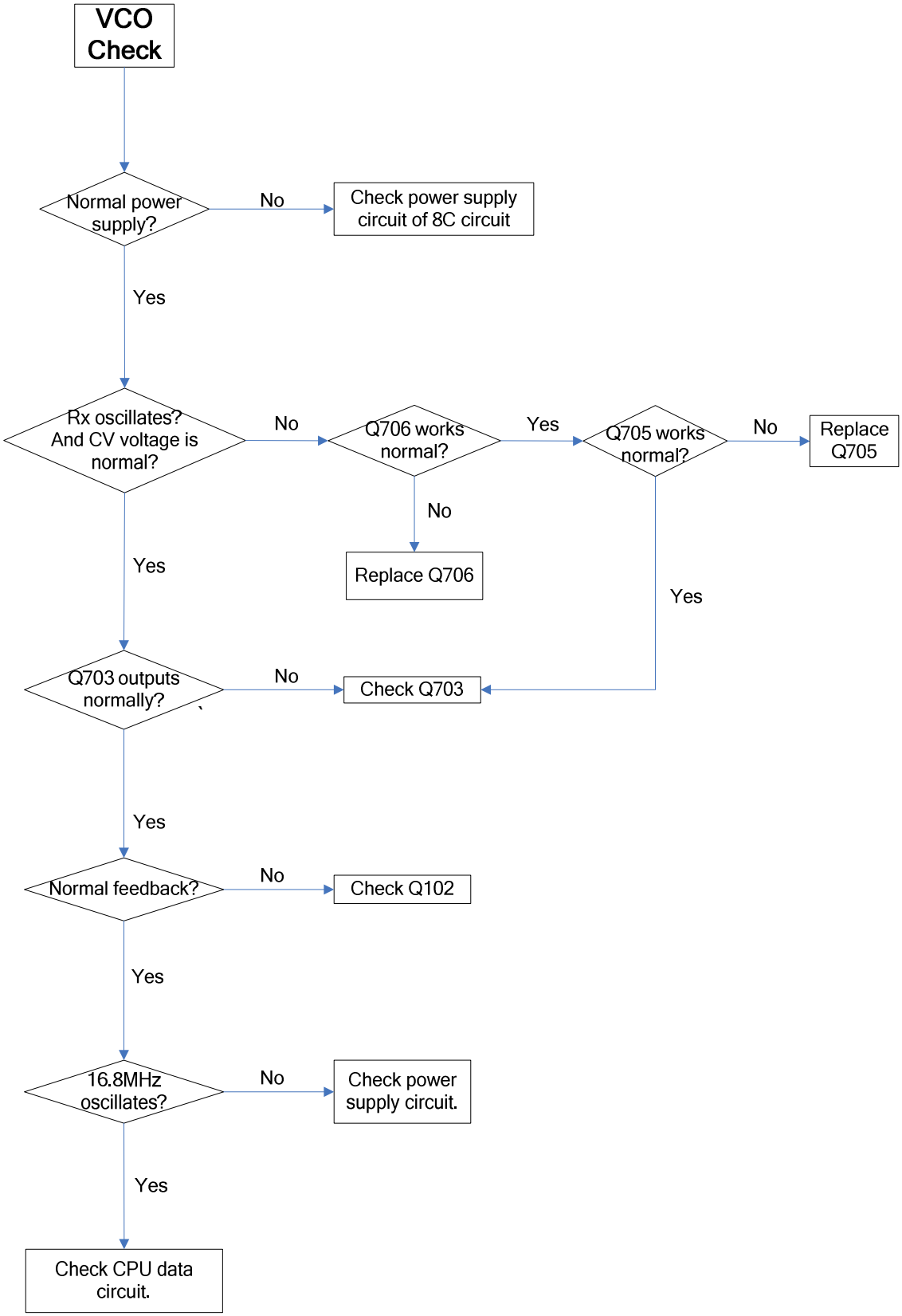
2. Tx-Rx Unit

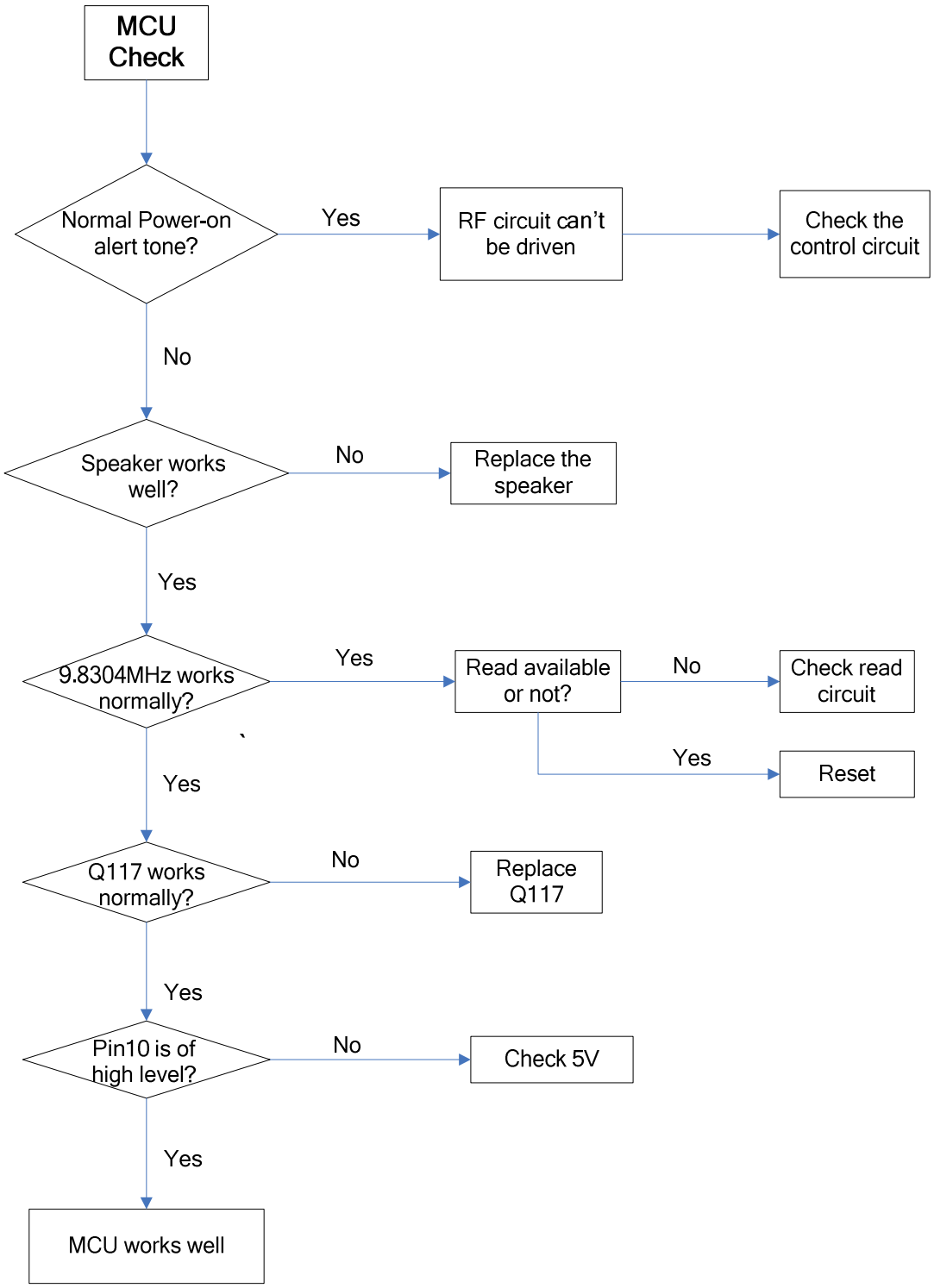
Pin No.	Name	Description
J501 (To Display Unit)		
1	VCC	+5V.
2	BS	SB (Power outputs after power switch (13.6V±15%))
3	VCC	+5V.
4	BS	SB (Power outputs after power switch (13.6V±15%))
5	NC	NC
6	MICDAT	Serial data input for keypad MIC.
7	NC	NC
8	ME	MIC ground
9	MIC	MIC signal input.
10	GND	GND
11	VO	Audio output after tuning by k301
12	PSW	Power switch control signal output

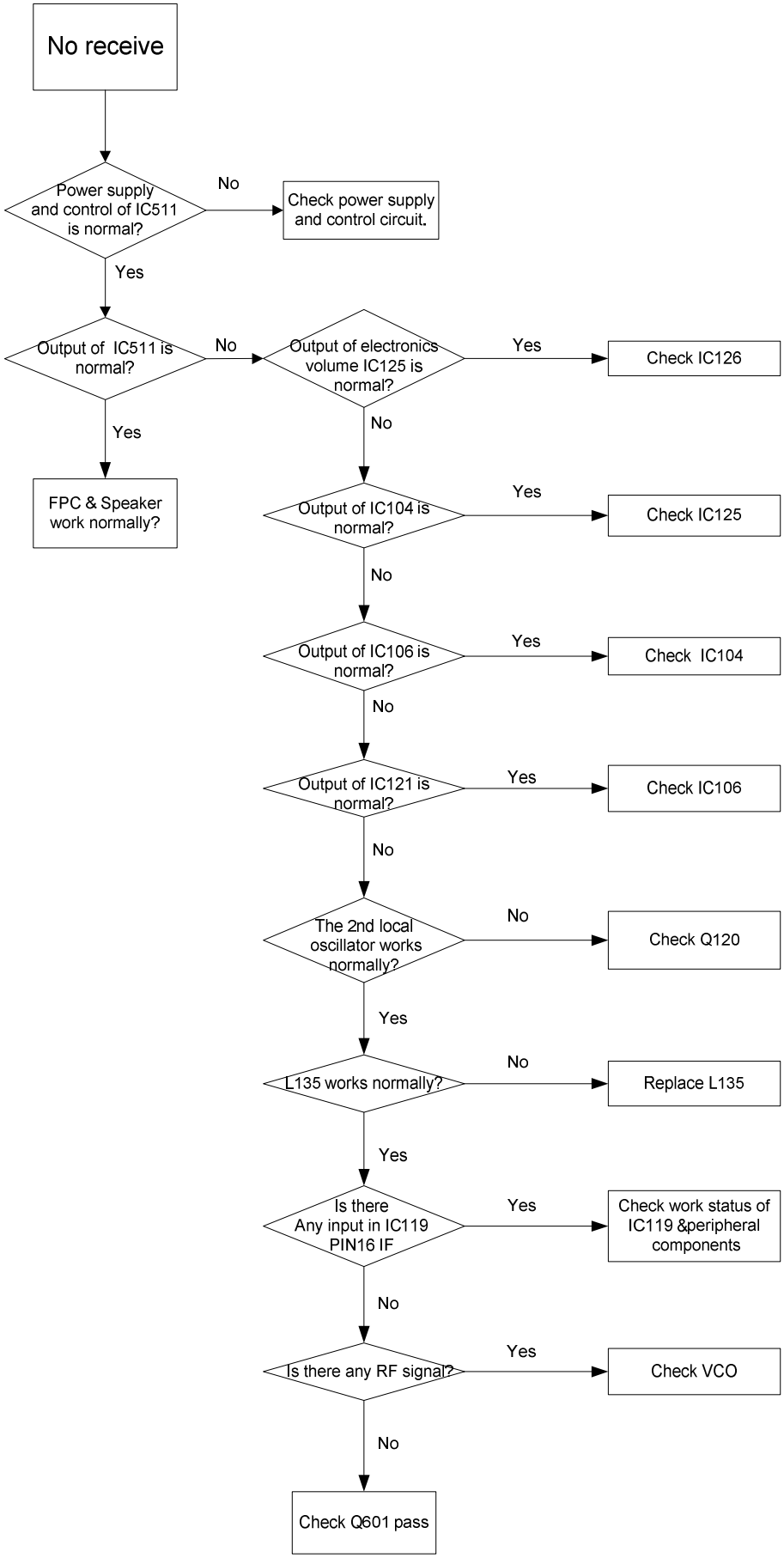
13	RxD2	Serial data output
14	TxD2	Serial data input
15	VI	Audio input after tuning by k301
16	TYPE	Model select (H:TM-610; L:TM-610)
17	P4	SW position signal output 4
18	P3	SW position signal output 3
19	P2	SW position signal output 2
20	P1	SW position signal output 1
21	SLED	Scan indicator
22	PLED	Low power indicator
23	RLED	Transmit indicator control
24	GLED	Receive indicator control
25	LED1	Channel display control
26	LED7	Channel display control
27	LED0	Channel display control
28	LED2	Channel display control
29	LED5	Channel display control
30	LED3	Channel display control
31	LED6	Channel display control
32	LED4	Channel display control
J504 (to Speaker)		
1	SP1	BTL input for external speaker output.
2	SP2	BTL input for external speaker output.
J503 of Previous Version (to Repeater)		
1	TxD1	Serial data input
2	RxD1	Serial data output
3	MIC2	External MIC signal output.
4	ME	MIC ground
5	AF-OUT	Filtered audio output.
6	TI	Filtered CTCSS/CDCSS output.
7	PA1	MIC signal output
8	PA2	MIC signal output
9	E	GND
10	IGN	Ignition sensor input
11	SB	Power input after power switch (13.6V±15%)
12	AUX1	Programmable auxiliary port
13	AUX2	Programmable auxiliary port
14	AUX4	Programmable auxiliary port
15	AUX5	Programmable auxiliary port
J503 of New Version (to Repeater)		
1	TxD2	Serial port transmitting and reading
2	RxD2	Serial port writing
3	MIC2	External MIC input

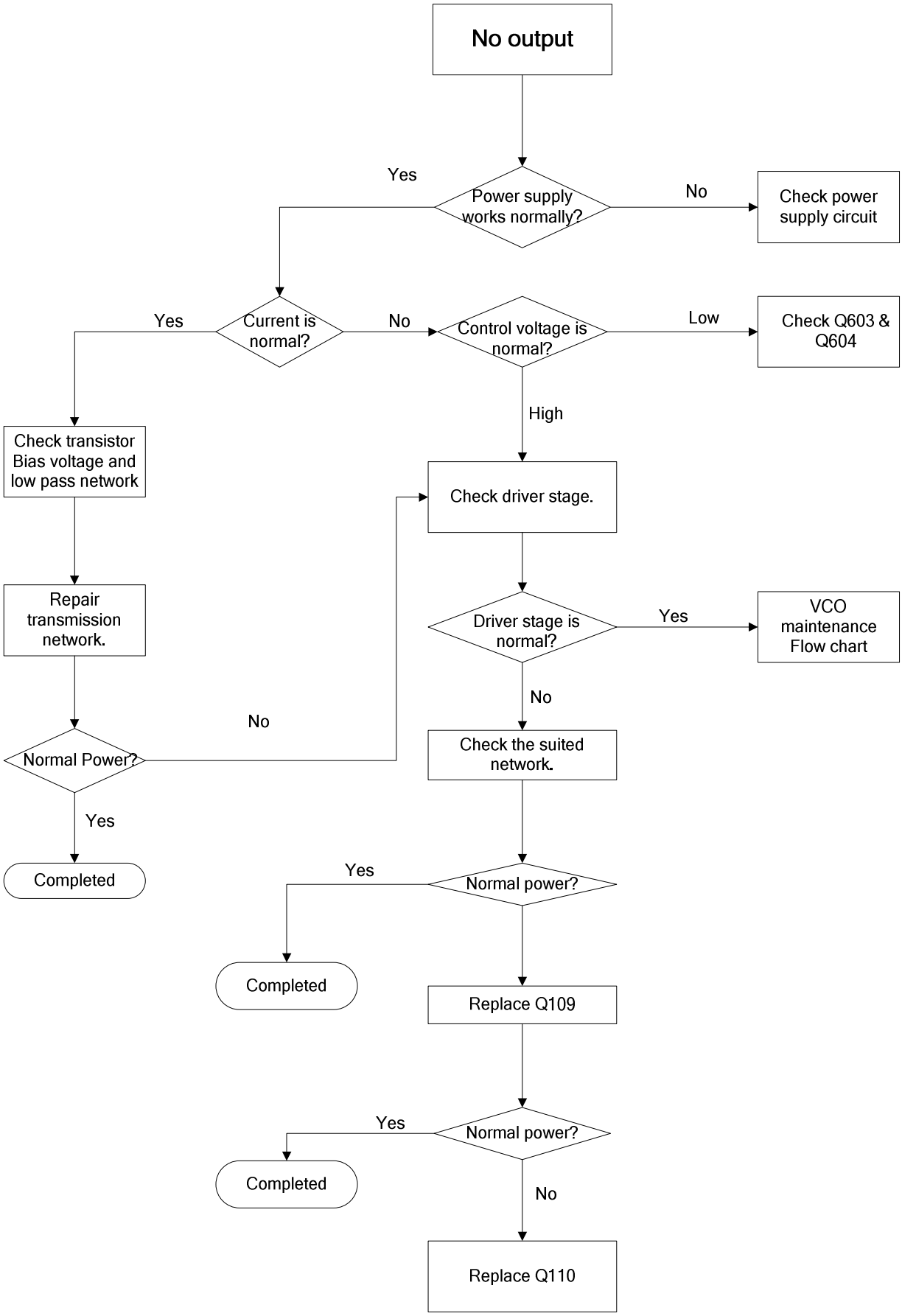
4	ME	External MIC ground
5	AF_O	Receive audio output (300-3KHz, de-emphasized) (default)
	DI	Modulation input of digital signal (selectable)
6	PA1	Signal output of SPEAKER1 (default)
	RSSI	Field detect of received signal (selectable)
7	PA2	Signal output of SPEAKER2 (default)
	PCO	RF power control (selectable)
8	AUX1	Expansion functions (AUX1 to AUX 4): 1. External PTT; 2. Data Transmission PTT; 3. Speaker Mute; 4. External Monitor; 5. ▲ key; 6. ▼ key 7. External Hook; 8. Emergency Call; 9. MIC Mute; 10. Receive Carrier; 11. Receive Tone; 12. Digital Modulation Input
9	AUX2	
10	AUX3	
11	AUX4	
12	DET	Receive audio output AK2346 (default)
	TI	Filtered CTCSS/CDCSS output (selectable)
13	E	GND
14	SB	13.6V power supply (default)
	5C	5V power supply with the maximum current of 1A (selectable)
15	IGN	Ignition sensor input

Troubleshooting Flow Chart




MCU Check
Normal Power-on alert tone?
Yes
RF circuit can't be driven
Check the control circuit
No
Speaker works well?
No
Replace the speaker
Yes
9.8304MHz works normally?
Yes
Read available or not?
No
Check read circuit
Yes
Reset
Yes
Q117 works normally?
No
Replace Q117
Yes
Pin10 is of high level?
No
Check 5V
Yes
MCU works well

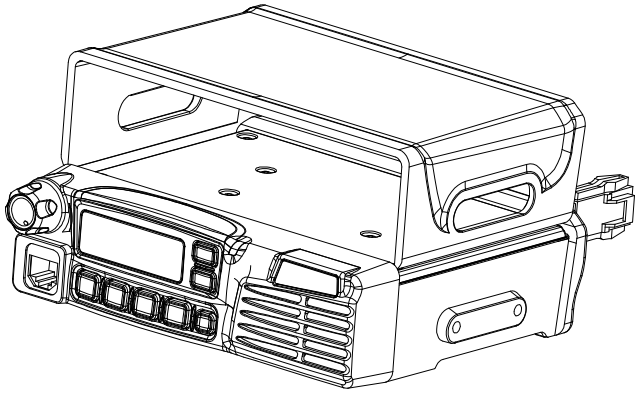

No receive
Power supply and control of IC511 is normal?
No
Check power supply and control circuit.
Yes
Output of IC511 is normal?
No
Output of electronics volume IC125 is normal?
Yes
Check IC126
Yes
No
FPC & Speaker work normally?
Output of IC104 is normal?
Yes
Check IC125
No
Output of IC106 is normal?
Yes
Check IC104
No
Output of IC121 is normal?
Yes
Check IC106
No
The 2nd local oscillator works normally?
No
Check Q120
Yes
L135 works normally?
No
Replace L135
Yes
Is there Any input in IC119 PIN16 IF
Yes
Check work status of IC119 &peripheral components
No
Is there any RF signal?
Yes
Check VCO
No
Check Q601 pass


No output
Power supply works normally?
Yes
No
Check power supply circuit
Current is normal?
Yes
No
Control voltage is normal?
Low
Check Q603 & Q604
High
Check transistor Bias voltage and low pass network
Check driver stage.
Repair transmission network.
Driver stage is normal?
Yes
VCO maintenance Flow chart
No
Normal Power?
No
Check the suited network.
Yes
Completed
Normal power?
Yes
Completed
Replace Q109
Normal power?
Yes
Completed
No
Replace Q110

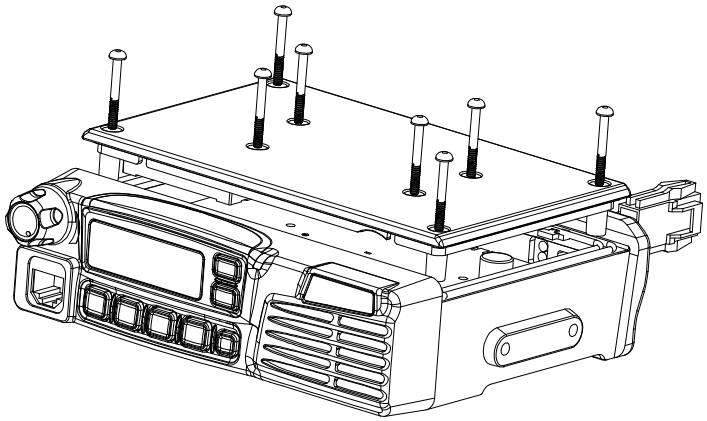
Disassembly and Assembly for Repair

Disassembly

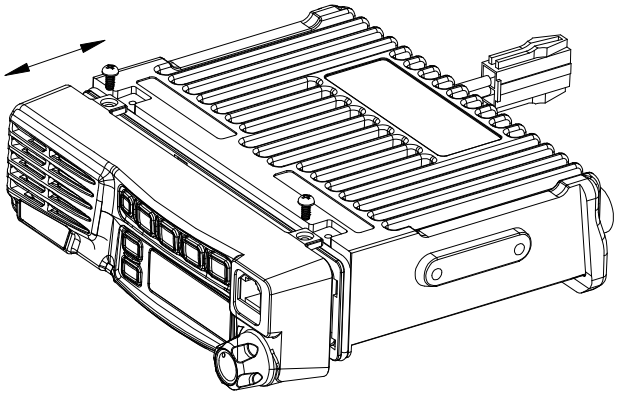
1. Turn off the radio. Disconnect the power cord and screw out the antenna connector.
2. Remove the top cover.



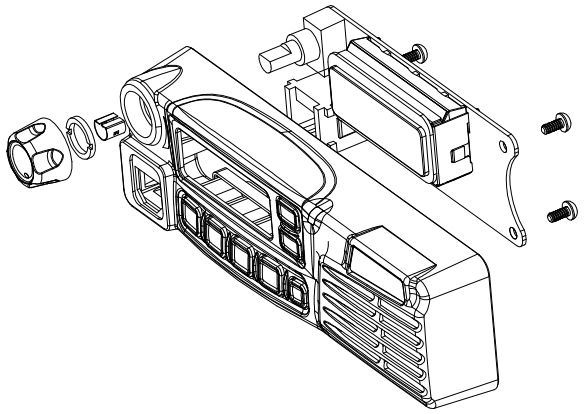
3. Loosen the 8 screws locking the shielding and pedestal of the aluminum chassis. Then remove the shielding, disconnect FFC and speaker cable which bind front panel PCB and main unit PCB.



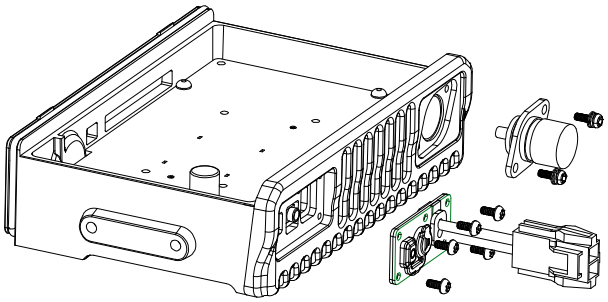
4. Loosen the two screws shown in the following figure, and detach the front panel from the main unit.



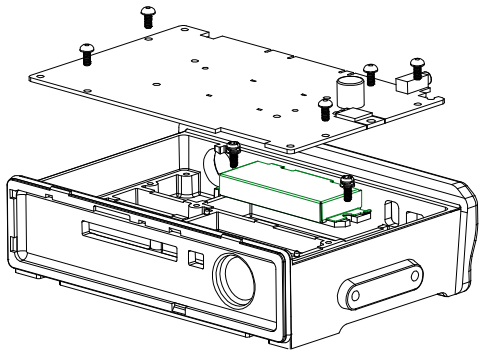
5. Pull out the volume control knob. Screw out the copper nut from the potentiometer tuning volume. Then loosen the four screws fixing the front case and remove the front panel.



6. Use an electric iron and screwdriver to separate the antenna connector, power cord, external board and waterproof ring on this board.

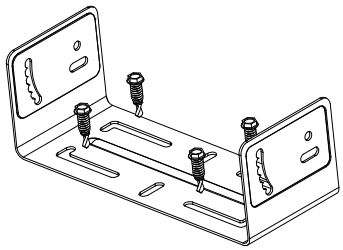


7. Loosen the screws fixing the main unit PCB and PA module.

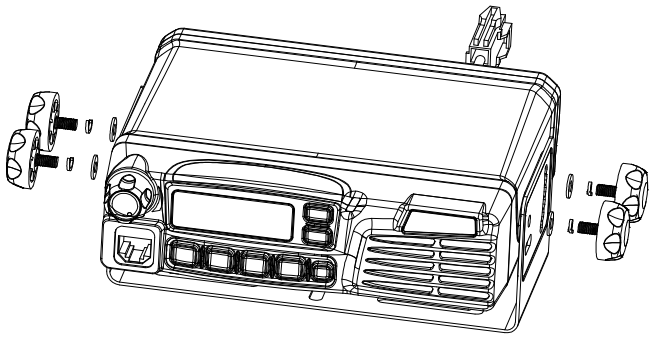


Assembly

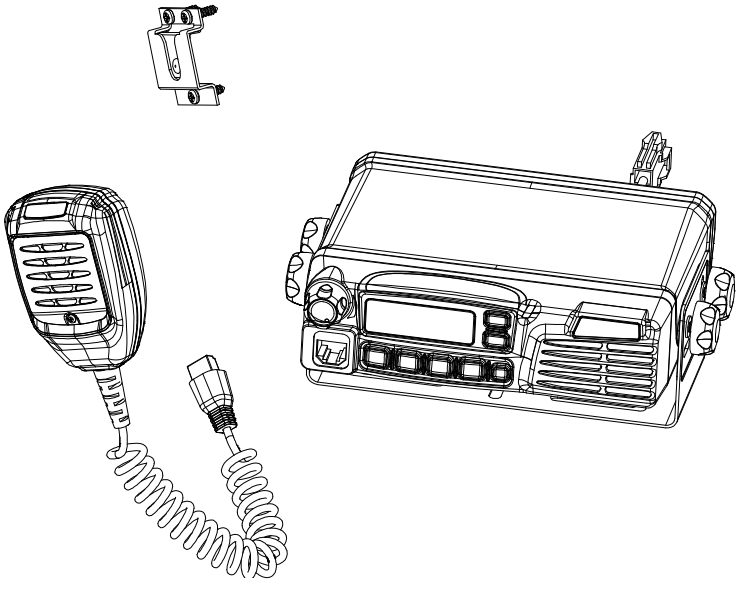
1. Fix the bracket (main unit) using four self-tapping screws.



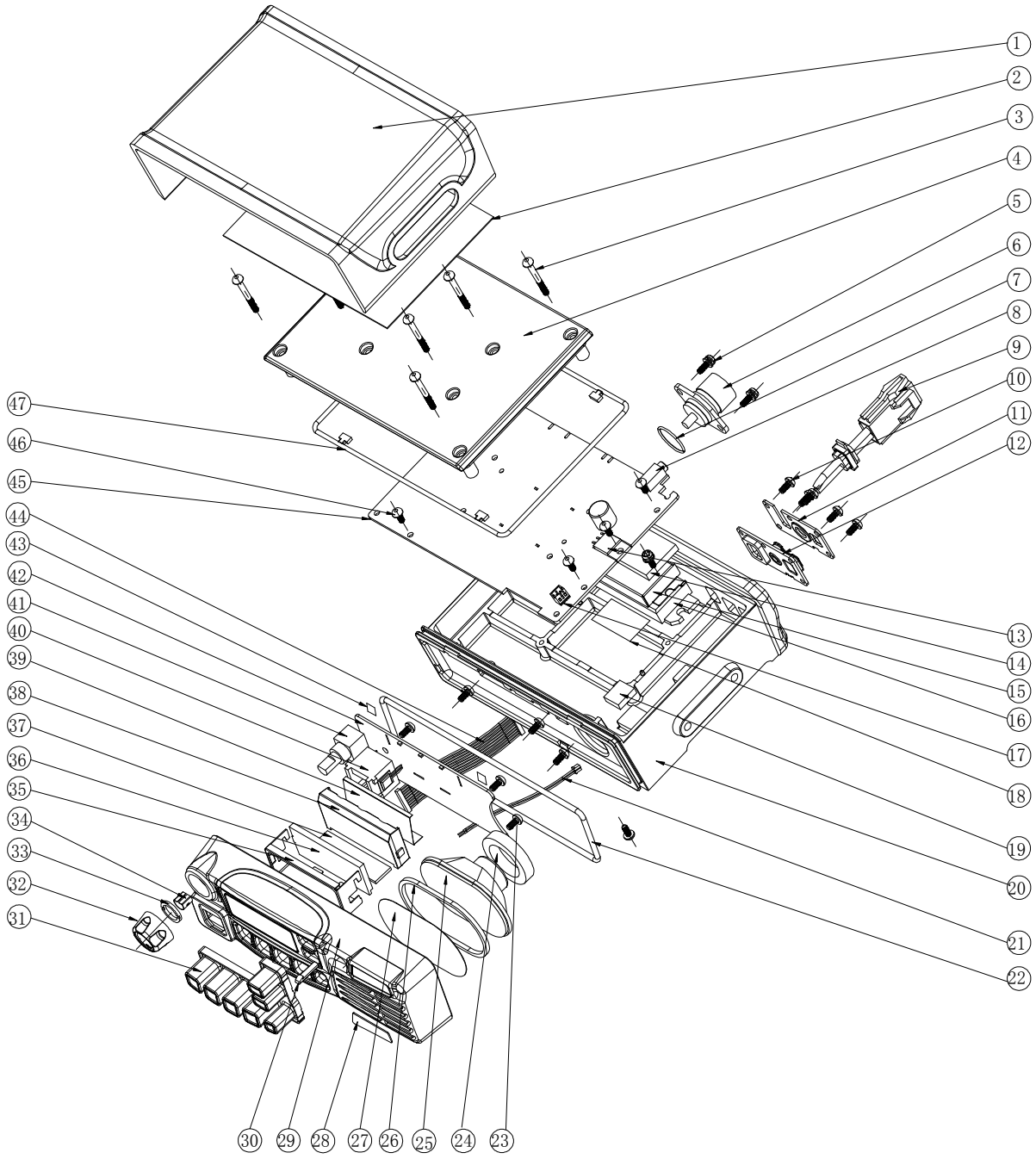
2. Tighten the four tuning screws (each with one shrapnel and one shim).



3. Plug the connector (microphone) into the jack (microphone). If the microphone is not in use, hang it on the bracket .



Exploded View



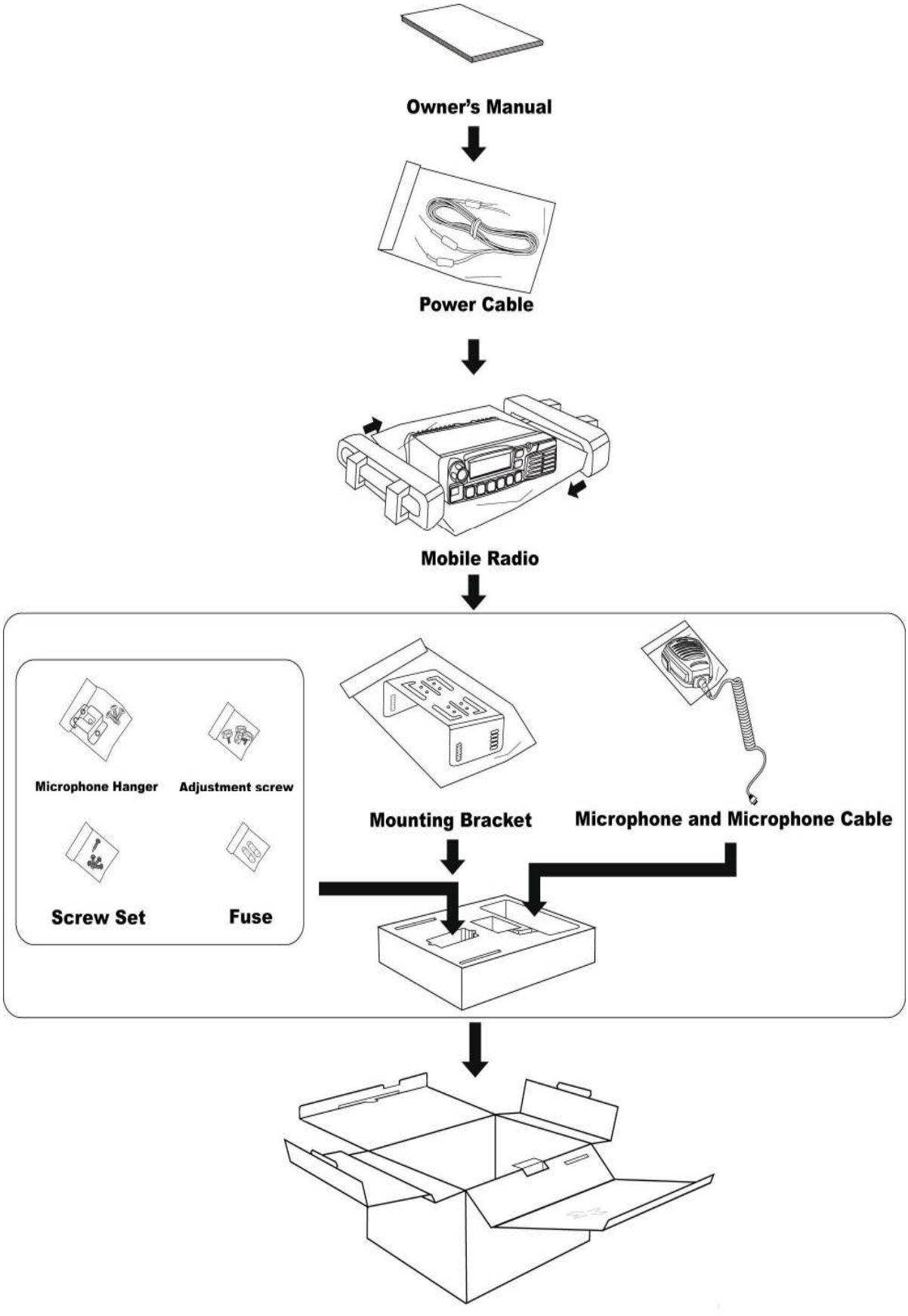
TM-610 Parts List 2

No.	Material No.	Description	Qty.
1	6000234100000	Top cover	1
2	7500171000000	Vibration-absorbing sponge	1
3	7102623020000	Self-tapping screw ST2.6*23mm	8
4	6300037000000	Shielding (radio unit)	1
5	7102508000100	Machine screw M2.5*8.0mm	4
6		Antenna connector	1
7	6100145000000	Waterproof ring (antenna connector)	1
8	5205000000280	Speaker jack HSJ1456-010320	1
9	4200215000100	Power cord module	1
10	7102606021000	Self-tapping screw ST2.6*6.0mm	7
11	6201186001010	External board	1
12	6100144000000	Waterproof ring (external board)	1
13	3608002002090	Power management IC TA7808	1
14	7600028000000	Conductive fabric (PA module shielding)	1.5
15	6201190000010	PA module shielding	1
16		RF PA module	1
17	5202002100270	Pin socket	1
18	7600022000000	Copper foil	1
19	7500159000100	Heat sinking silica rubber	1
20	6300026000010	Aluminum chassis base	1
21	4210150000100	Speaker cable (with connector)	1
22	6100142000000	Waterproof ring (front panel)	1
23	7102310020020	Self-tapping screw ST2.3*10.0mm	3
24	7500157000000	Sponge pad (speaker)	1
25	5001020000000	Speaker	1
26	6100199000000	Speaker front cushion	1
27	7400189000000	Grill cloth	1
28	860M800500100	HYT-LOGO label	1
29	6000505000010	Front panel module	1
30	6000231000000	Light guide	1
31	6100263000000	Numeric key	1
32	6000235100000	Selector knob	1
33	7212001500000	Nut M9*2.0mm	1
34	6201066000000	Inner liner knob	1
35	6201374000000	LCD bracket 0.40mm	1
36	5110000000320	LCD	1
37	7600026000000	Conductive rubber connector	1
38	6000473000000	Light-guide panel	1
39	7400144000000	Light reflector	1
40	5205000000260	Microphone jack	1

41	4310020000000	Rotary switch	1
42		PCB (front panel)	1
43	7400201000000	Baffle	2
44	4210100000400	32pin signal cable	1
45		PCB (radio unit)	1
46	7102606020000	Self-tapping screw ST2.6*6.0mm	5
47	6100143000000	Waterproof ring (radio unit)	1

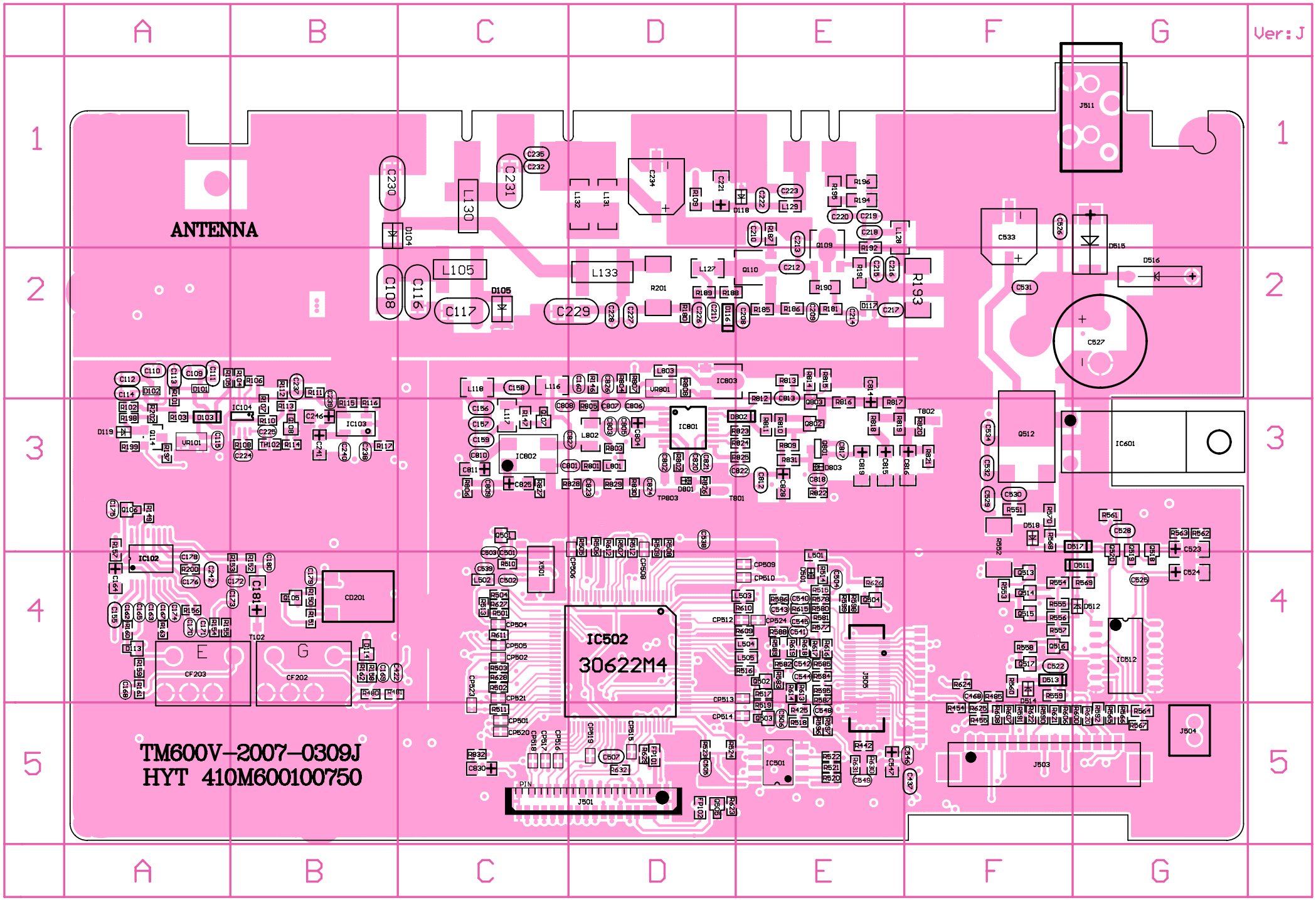
Remarks: Parts that are not marked with material number can vary according to changes of their corresponding power and frequencies.

Packing

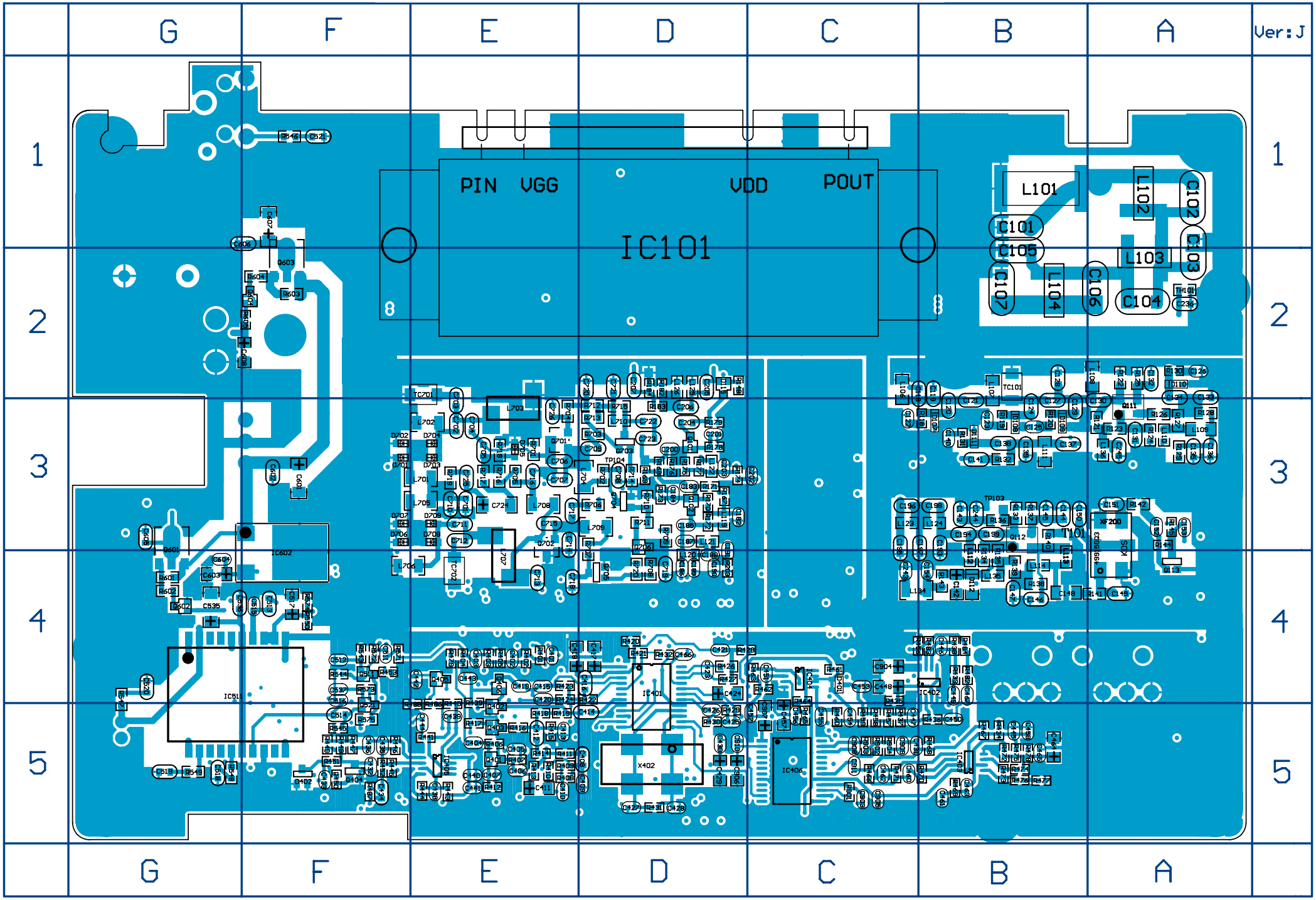

Owner's Manual
Power Cable
Mobile Radio
Microphone Hanger
Adjustment screw
Screw Set
Fuse
Mounting Bracket
Microphone and Microphone Cable

TM-610 VHF PCB View (Main Board Unit)

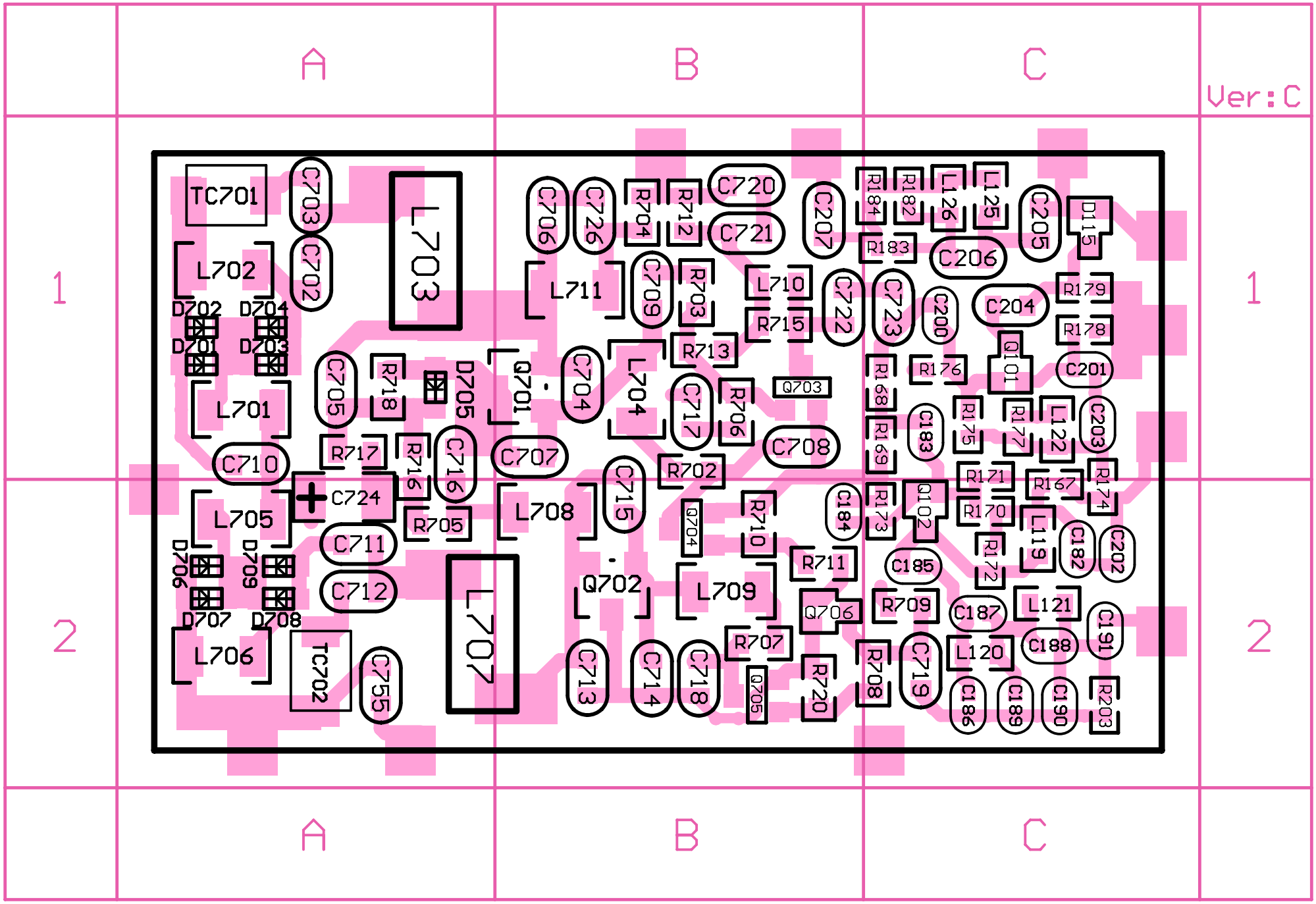
Top Layer



TM-610 VHF PCB View (Main Board Unit)
Bottom Layer

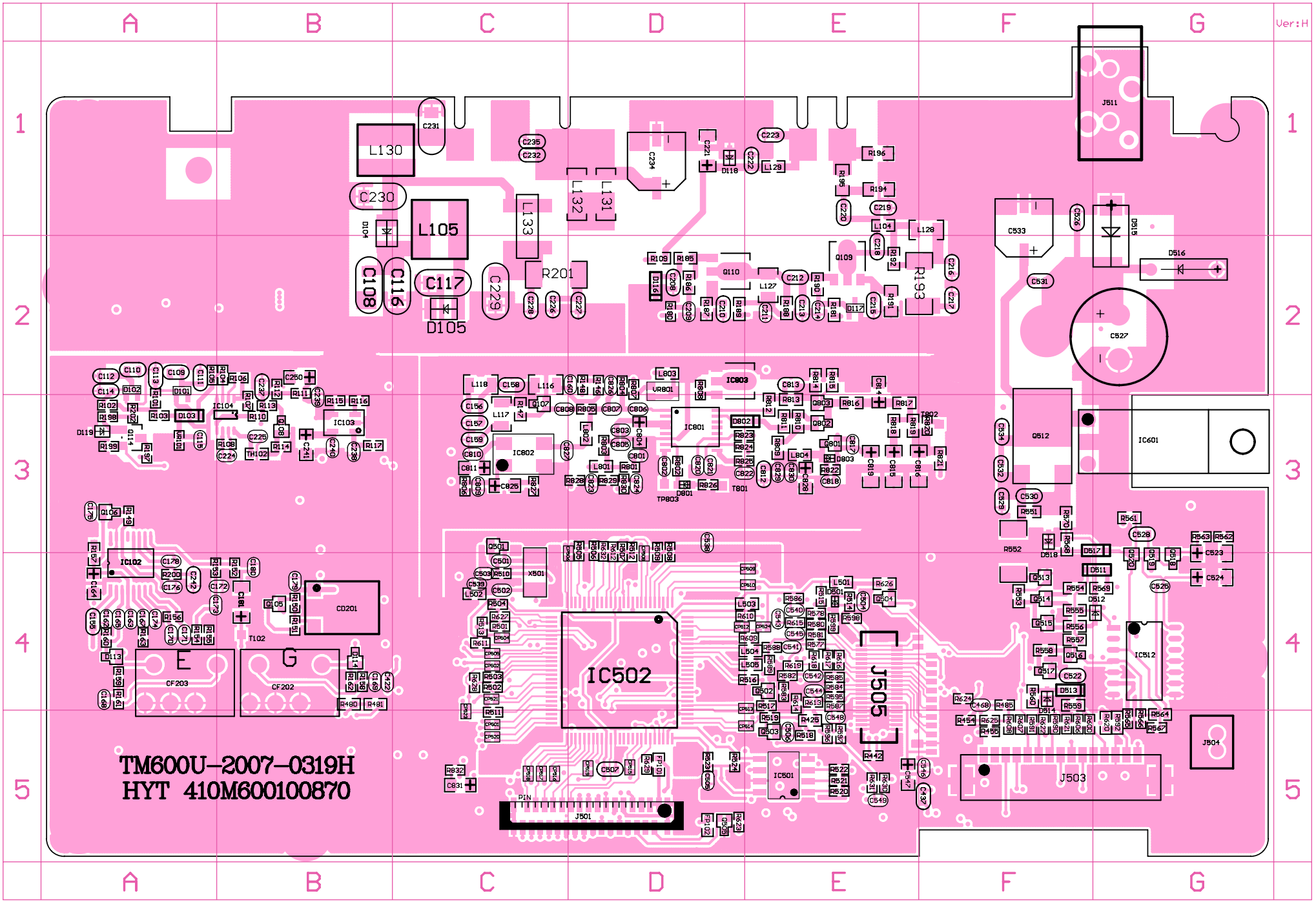


TM-610 UHF PCB View (VCO Unit)



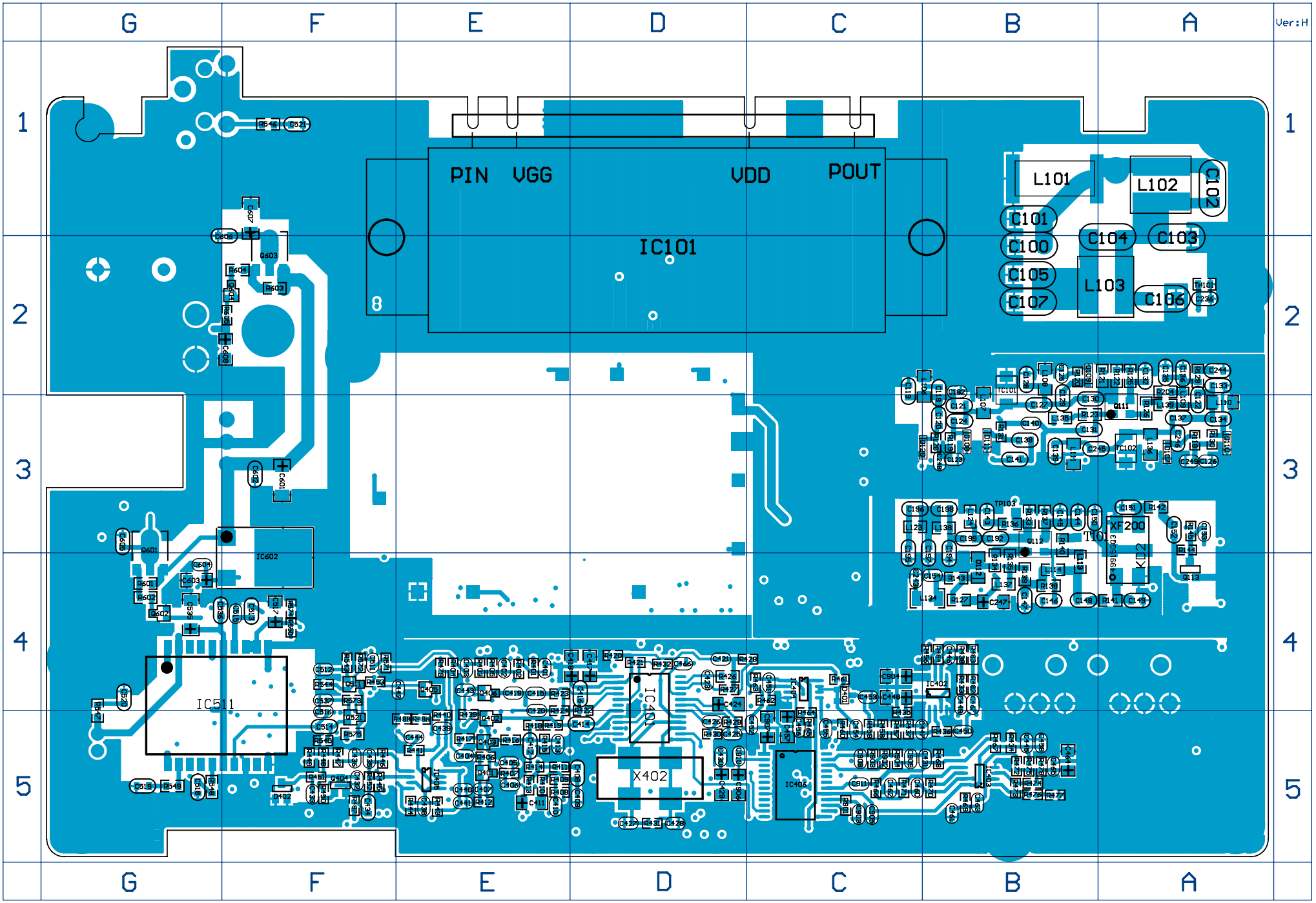
TM-610 UHF PCB View (Main Board Unit)

Top Layer



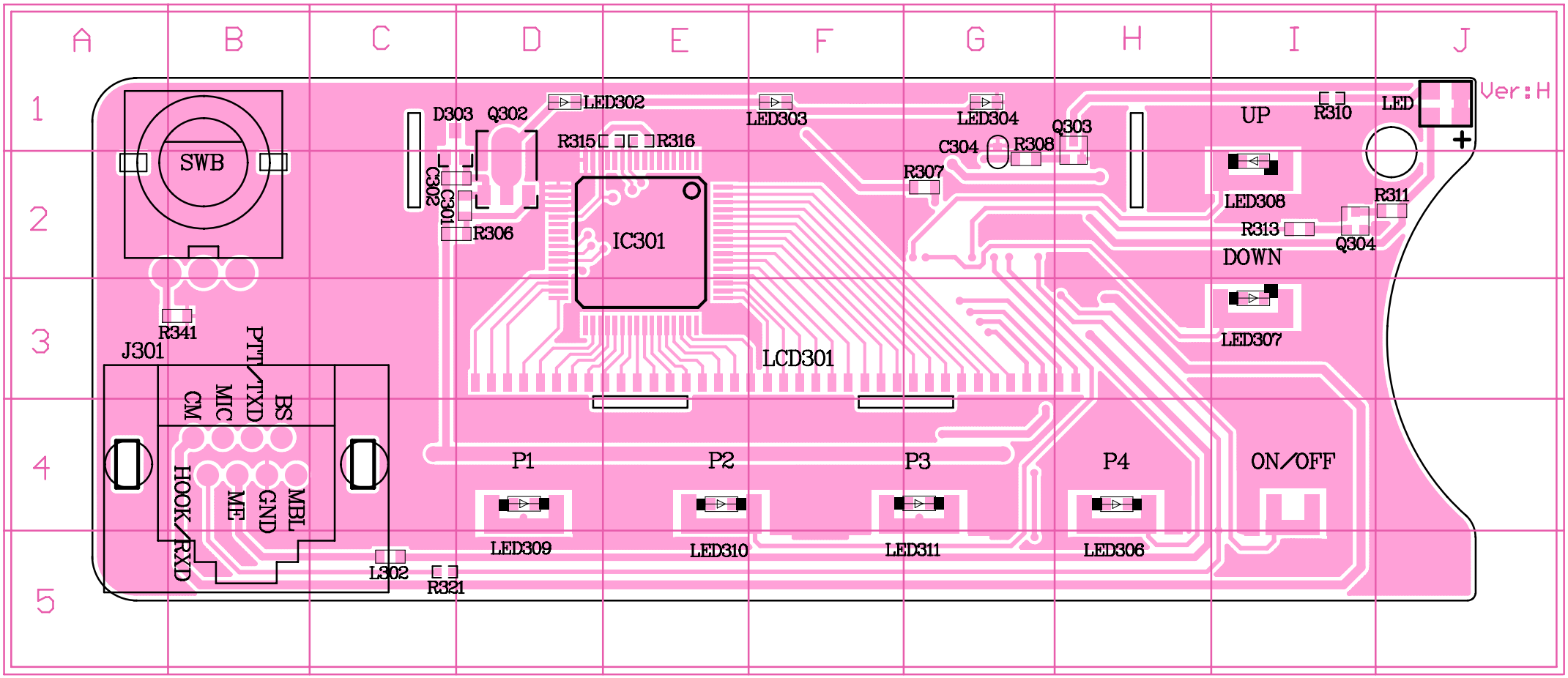
TM-610 UHF PCB View (Main Board Unit)

Bottom Layer

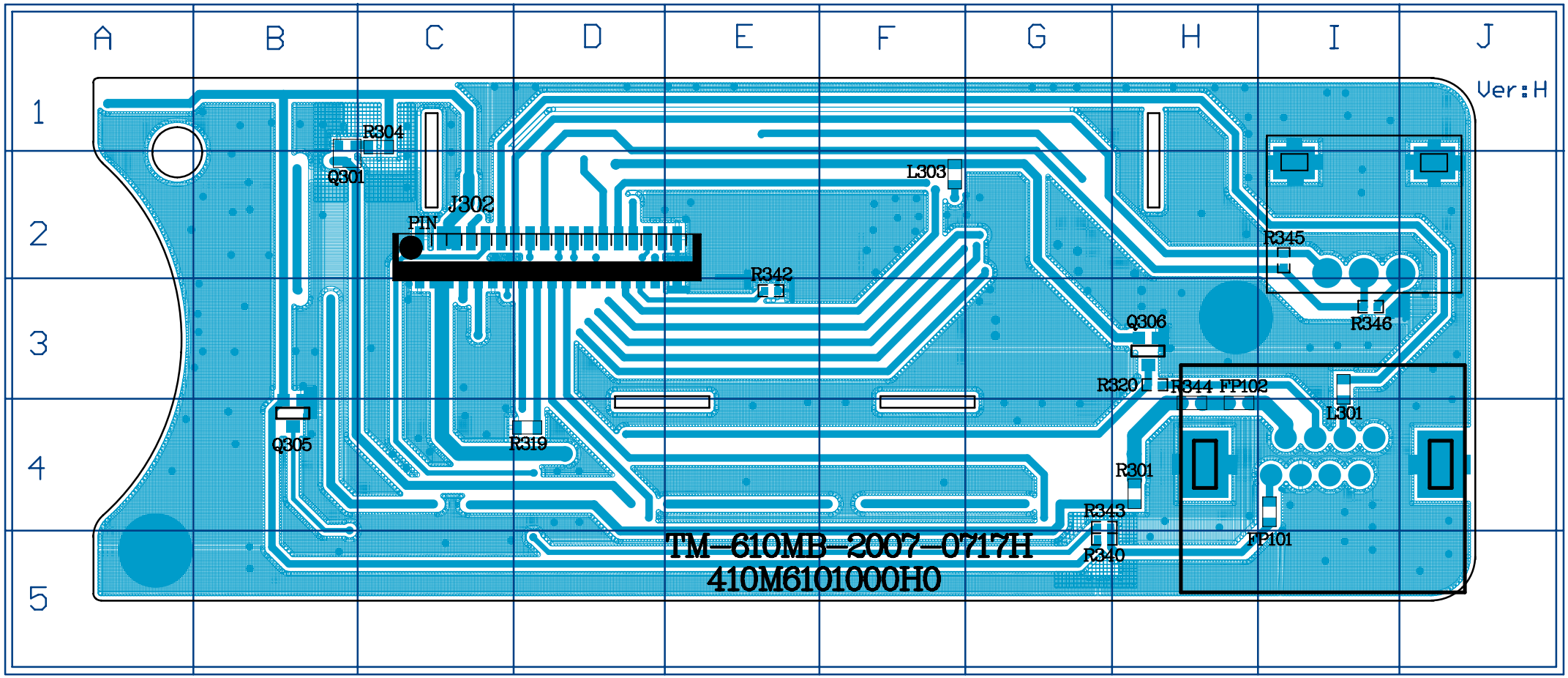


TM-610 PCB View (Display Unit)

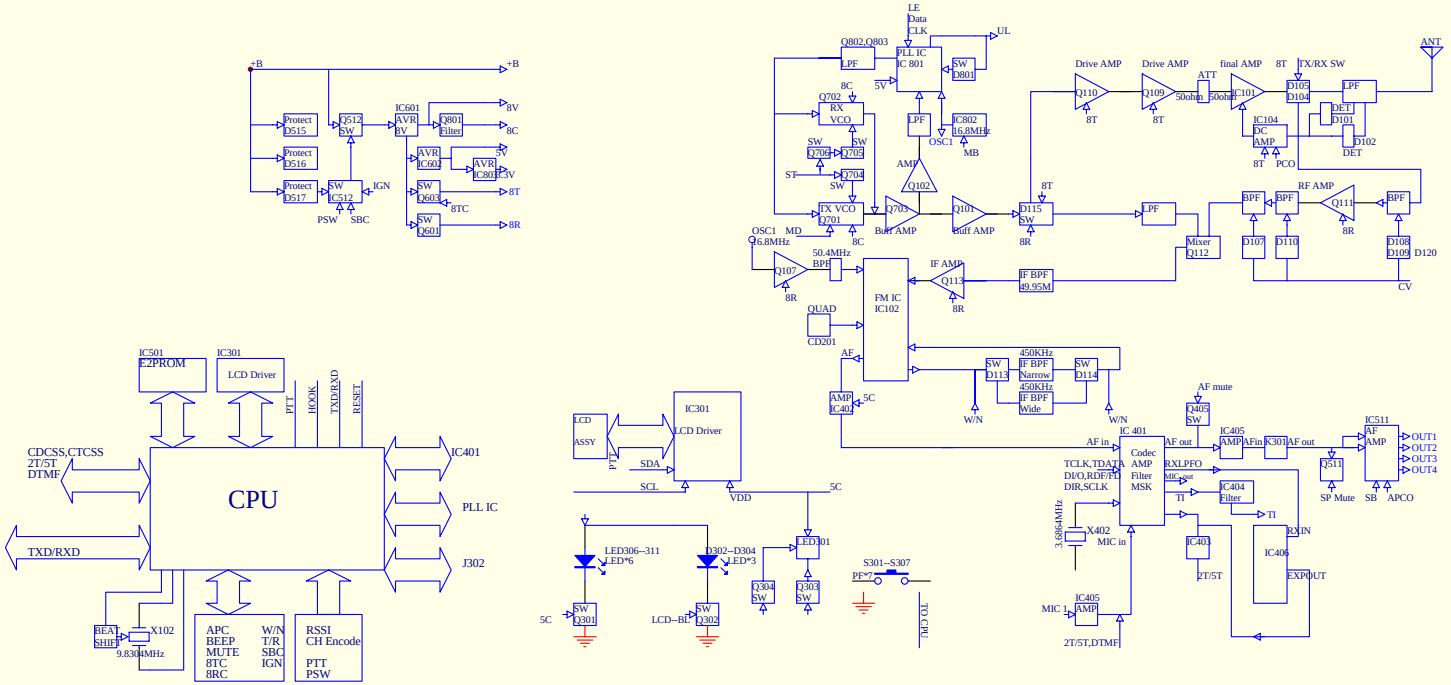
Top Layer



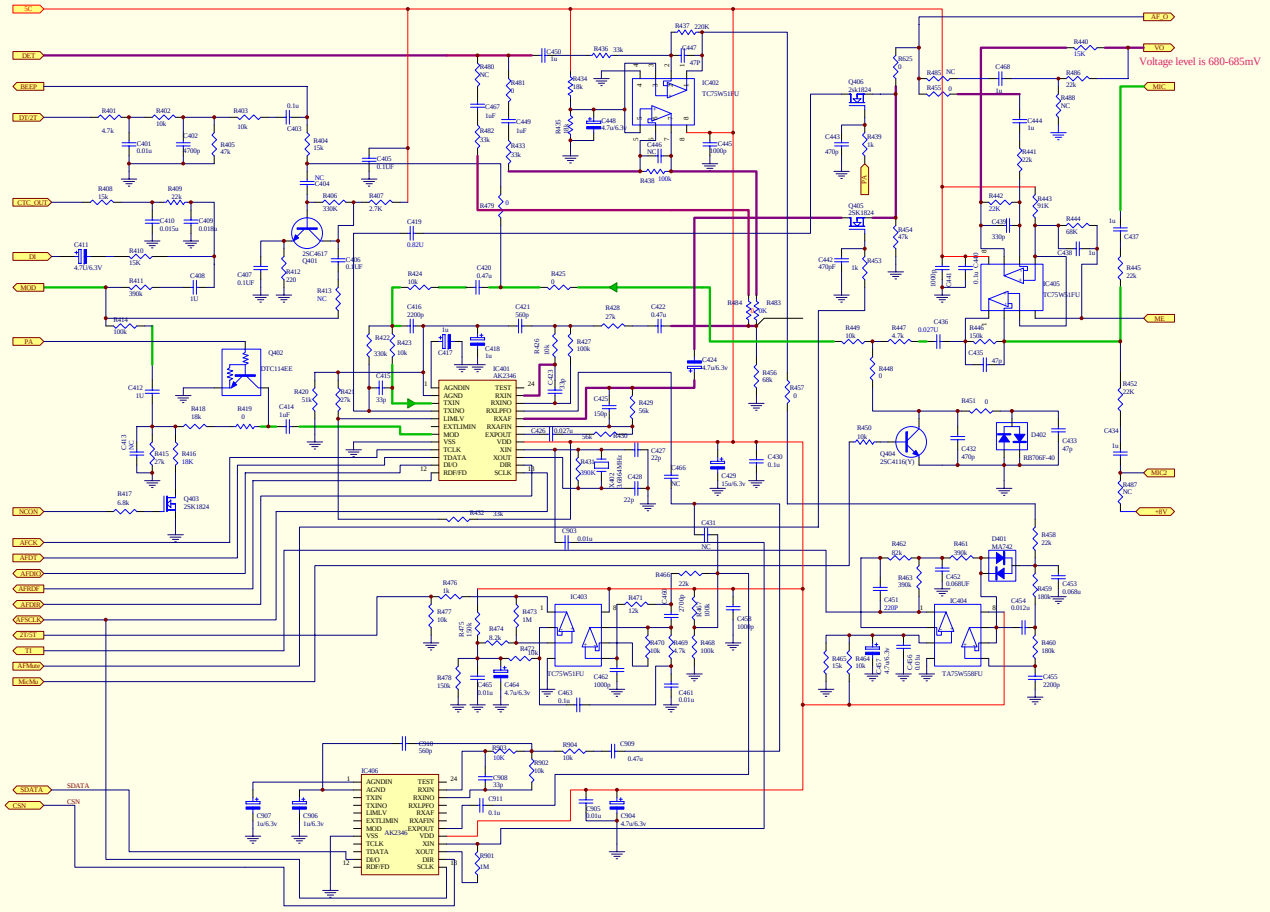
TM-610 PCB View (Display Unit)
Bottom Layer



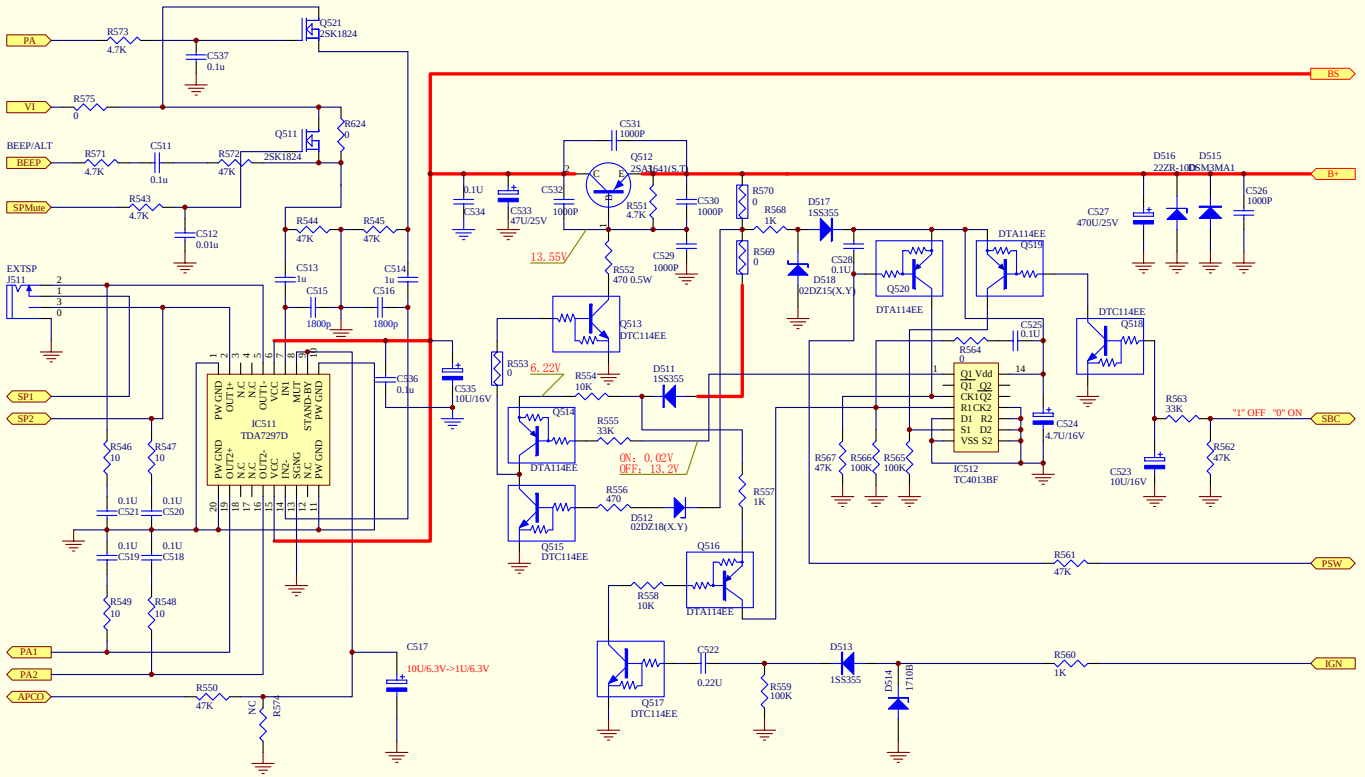
TM-610 UHF/VHF Block Diagram



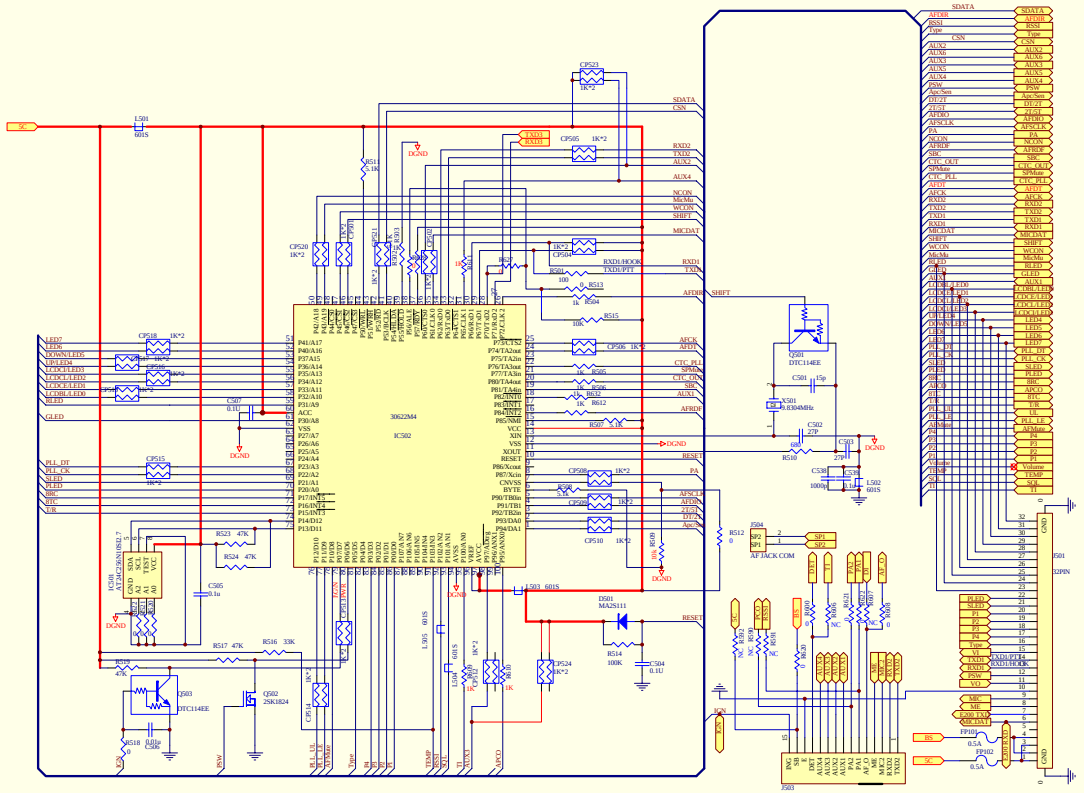
TM-610 VHF Schematic Diagram (AFPr Unit)



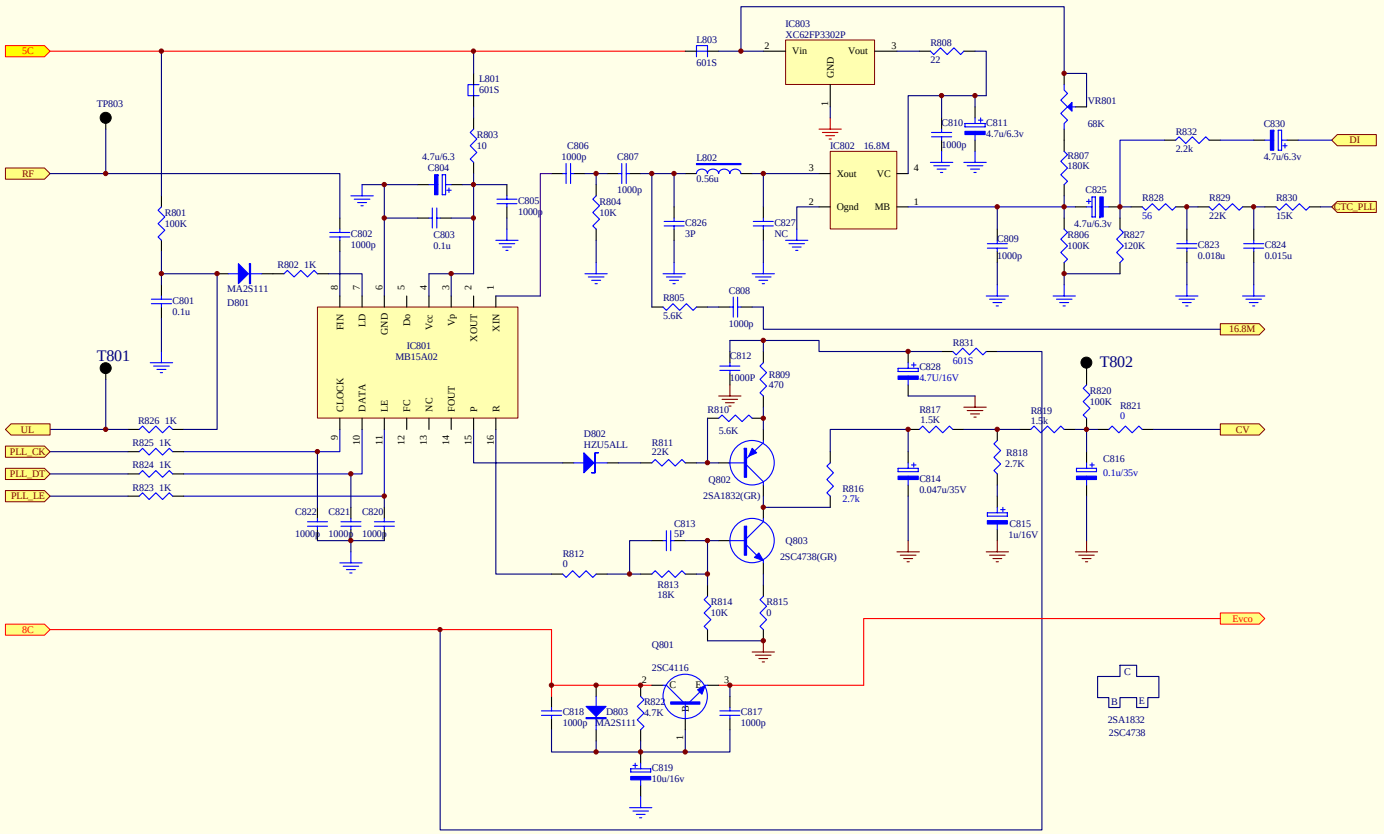
TM-610 VHF Schematic Diagram (AFPwr Unit)



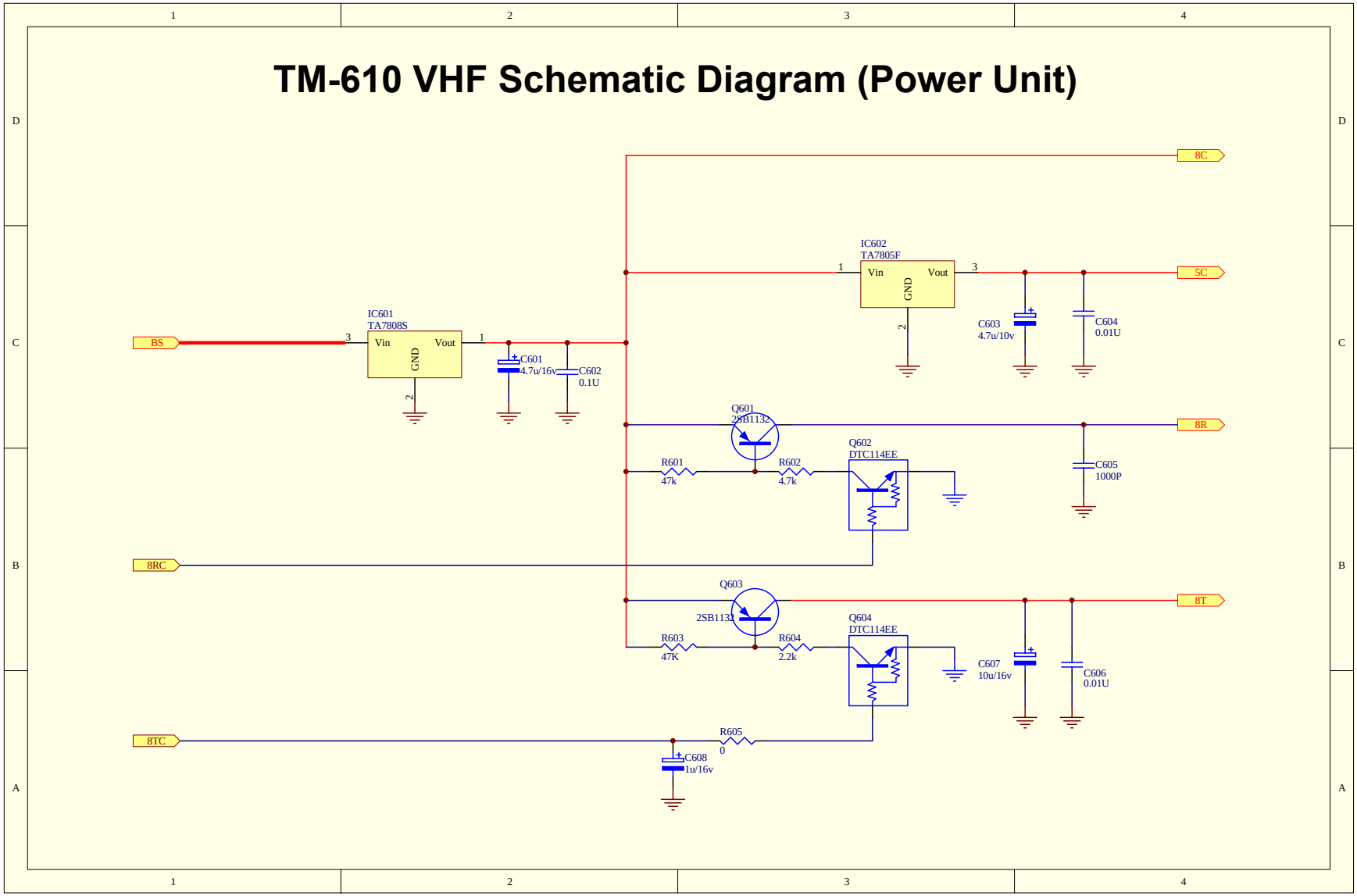
TM-610 VHF Schematic Diagram (CPU Unit)



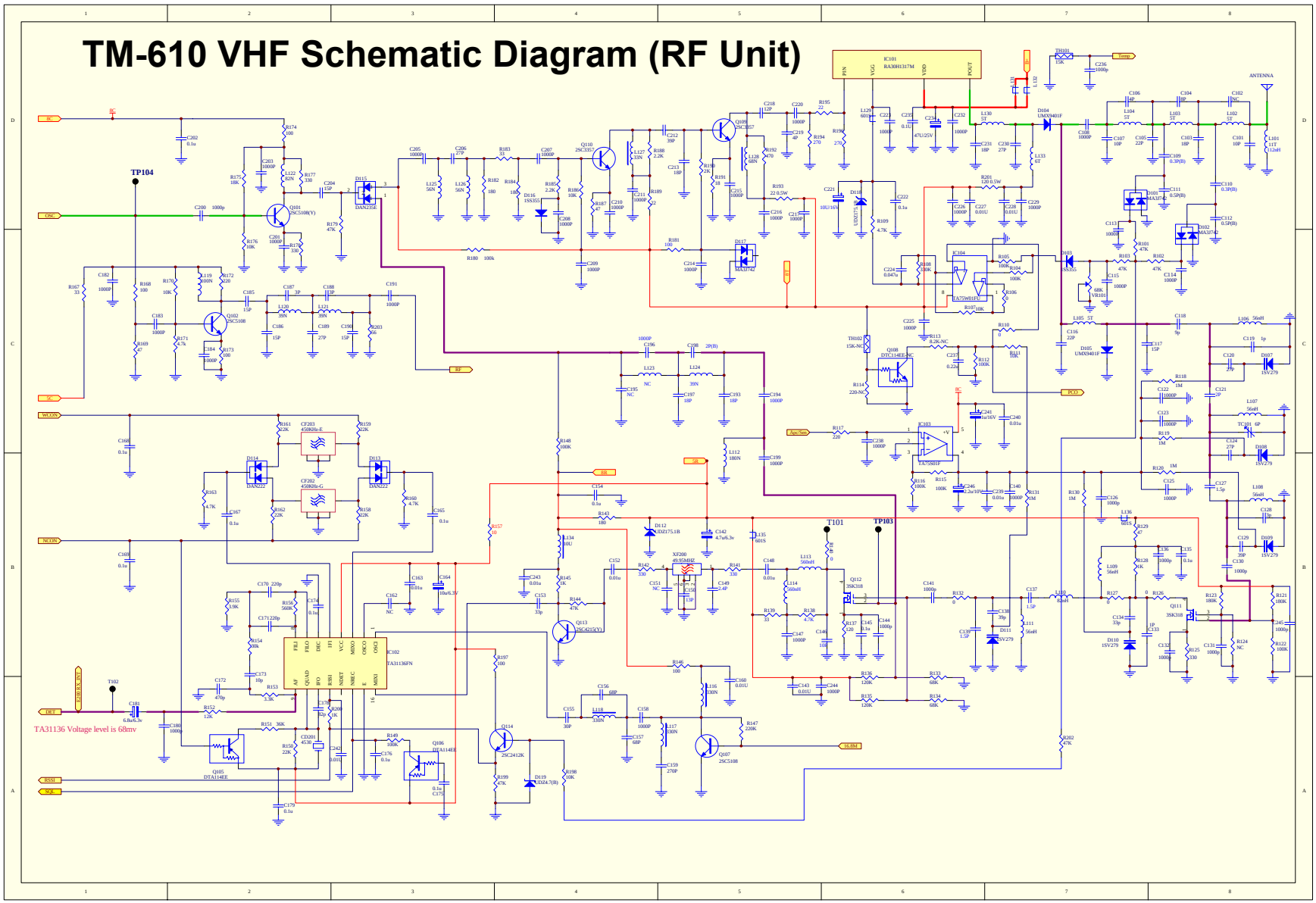
TM-610 VHF Schematic Diagram (PLL Unit)



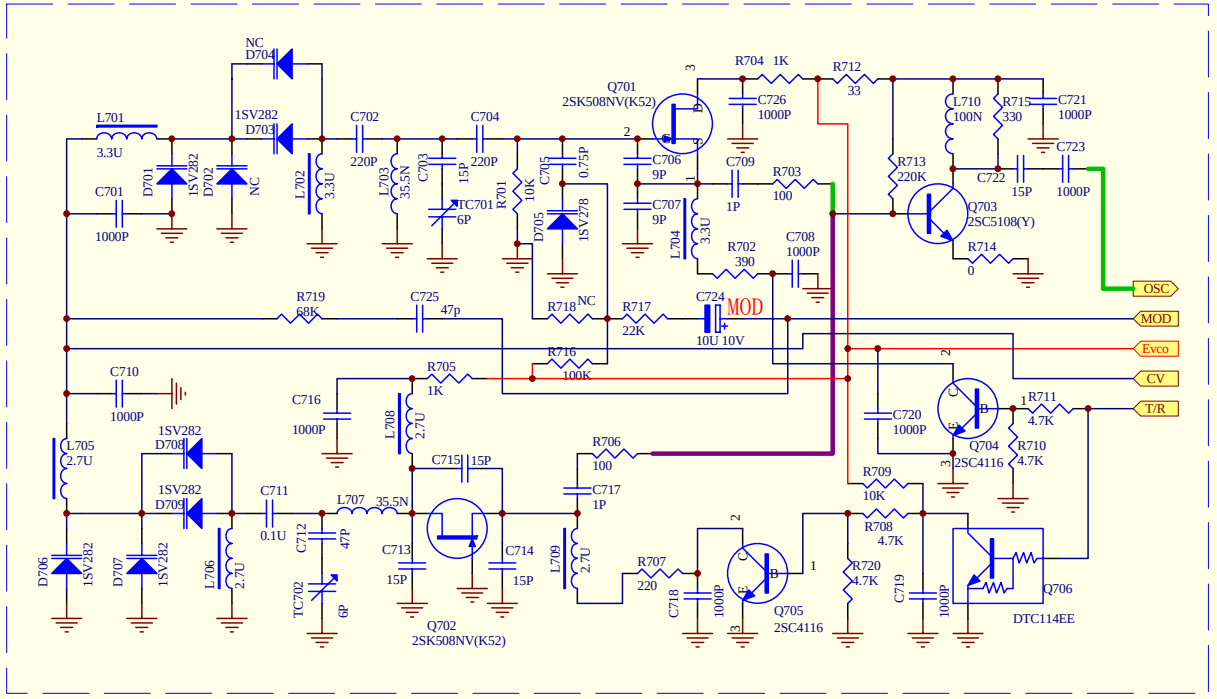
TM-610 VHF Schematic Diagram (Power Unit)



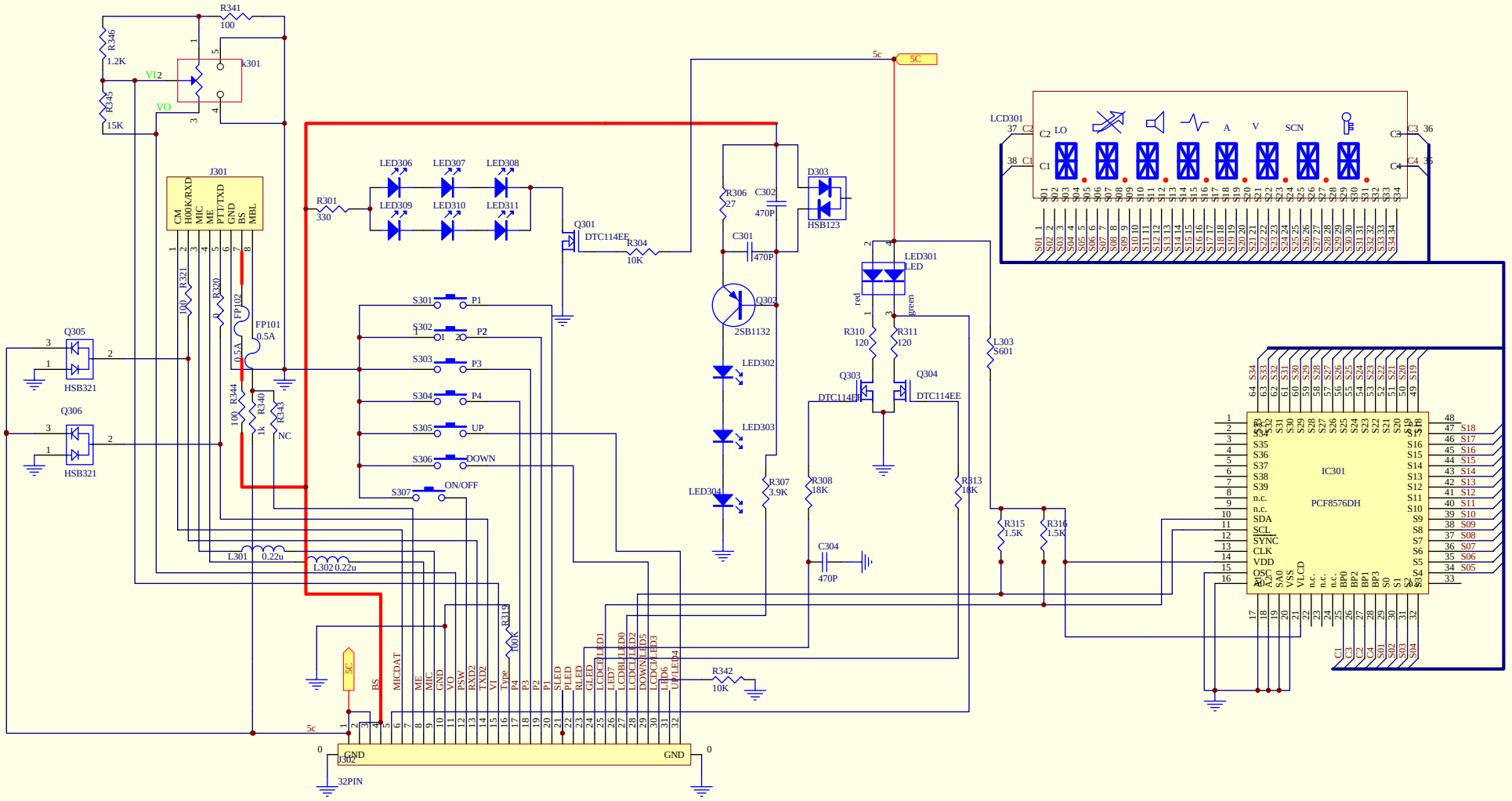
TM-610 VHF Schematic Diagram (RF Unit)



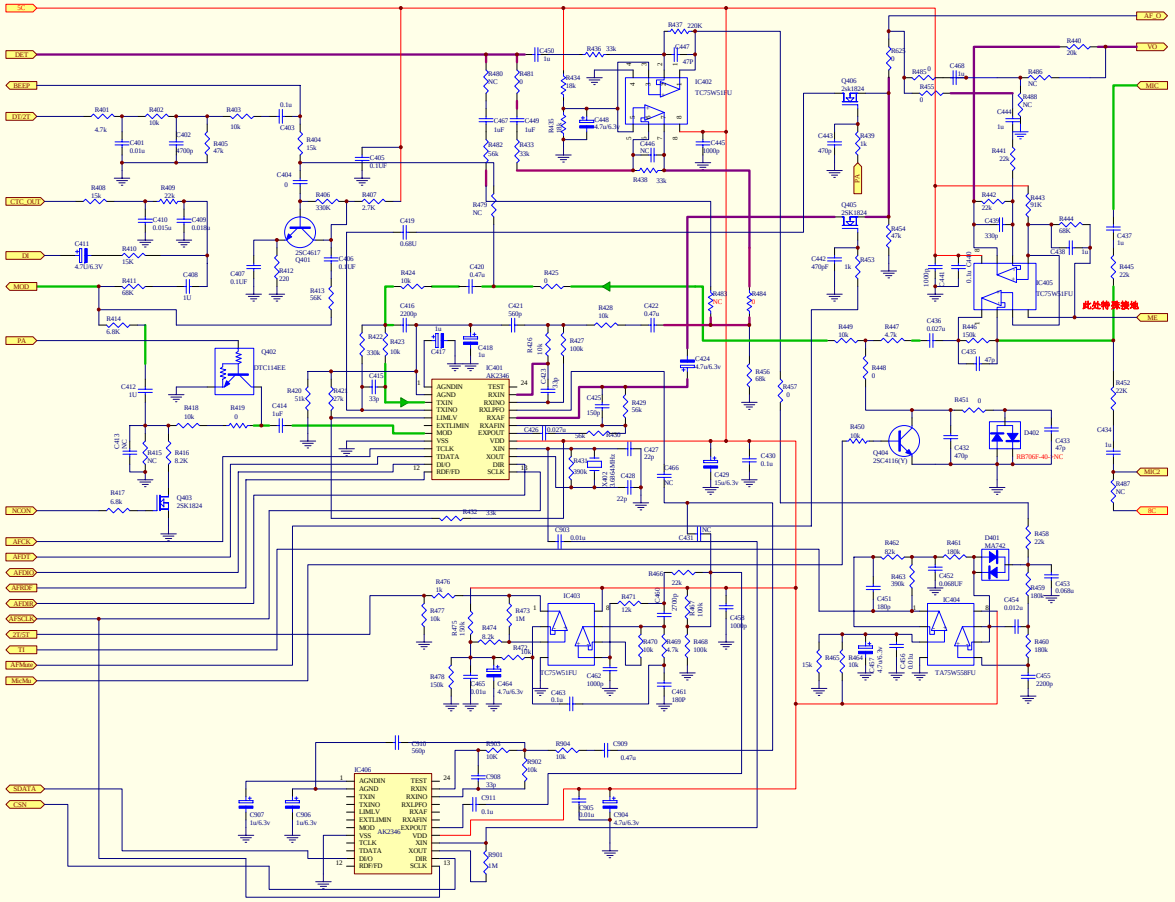
TM-610 VHF Schematic Diagram (VCO Unit)



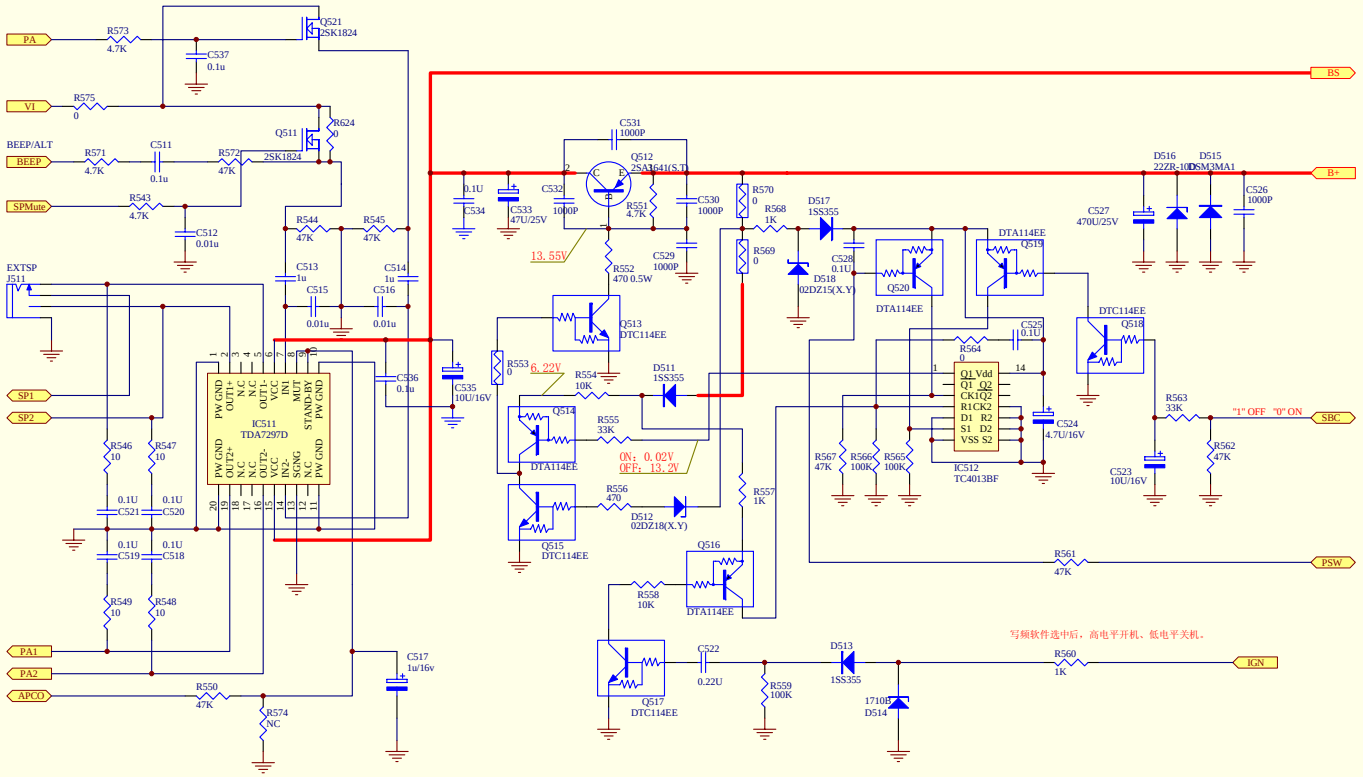
TM-610 UHF/VHF Schematic Diagram (Display Unit)



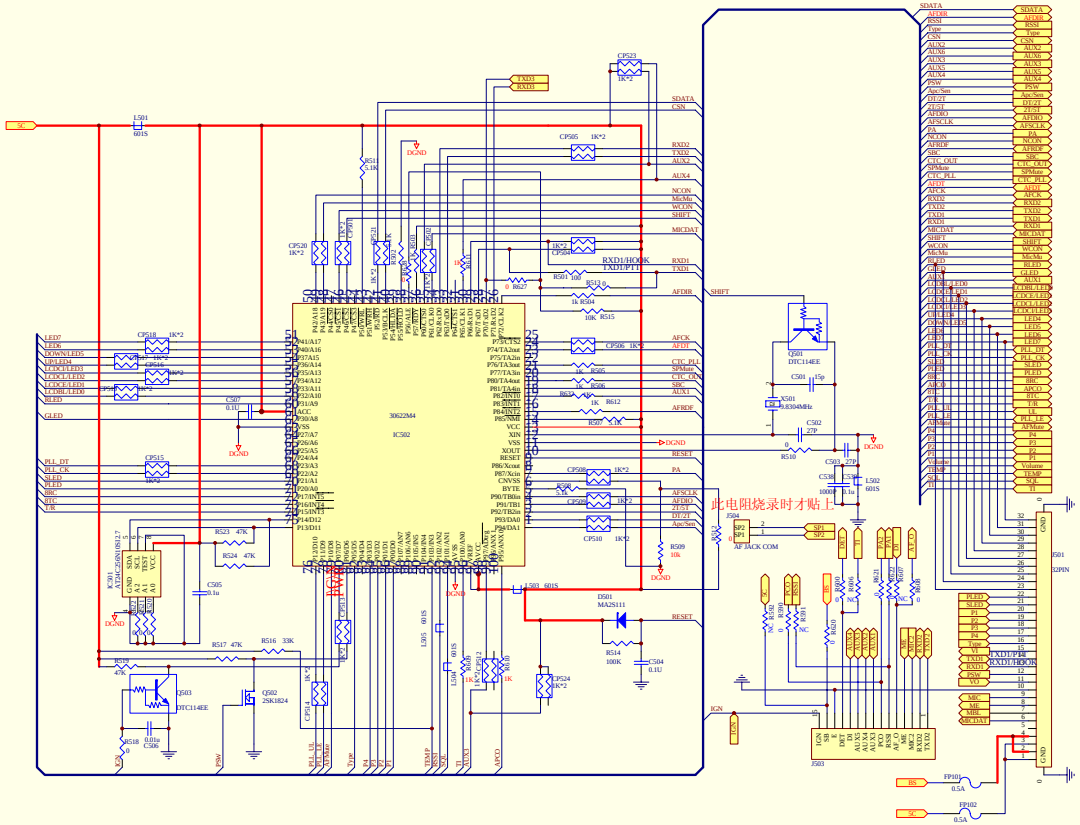
TM-610 UHF Schematic Diagram (AFPr Unit)



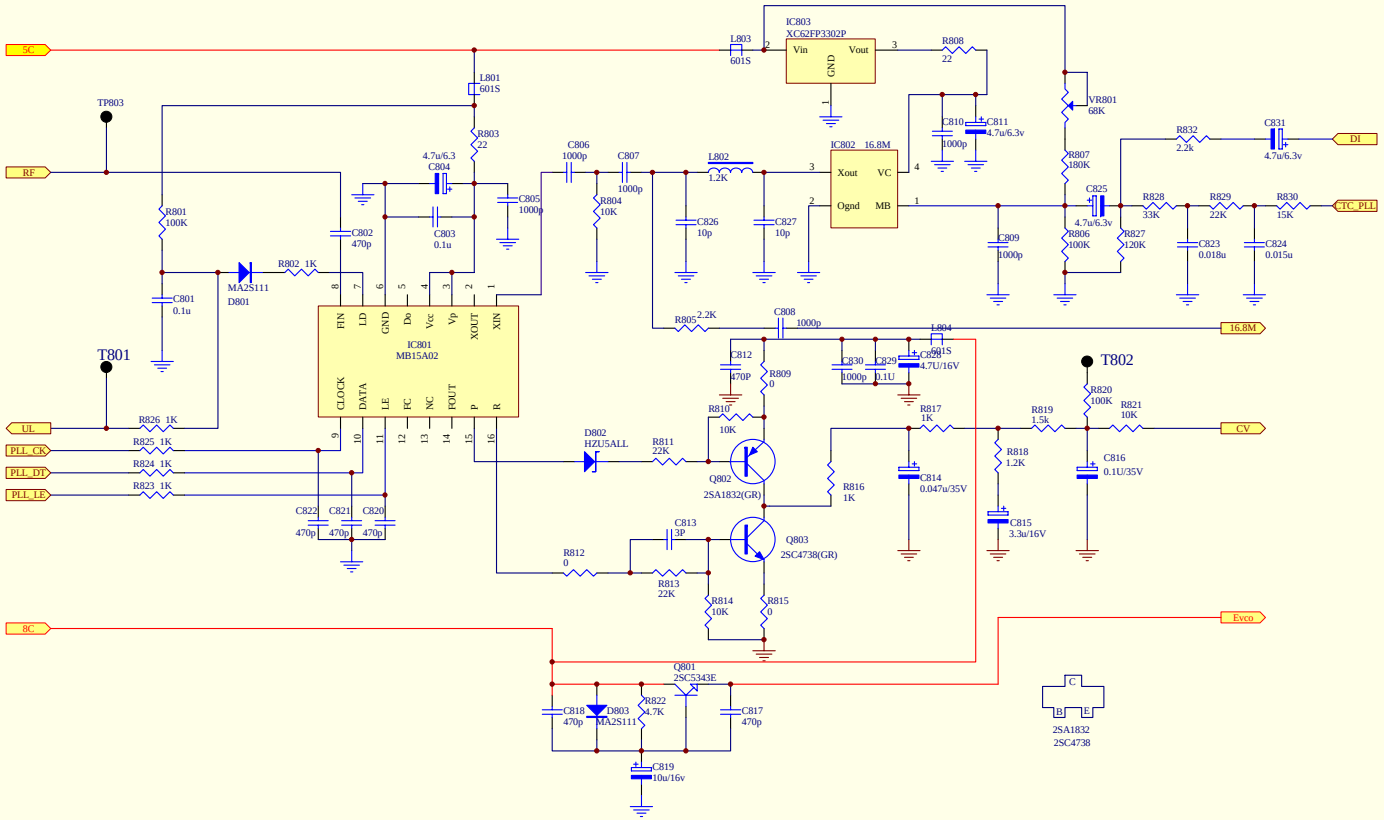
TM-610 UHF Schematic Diagram (AFPwr Unit)



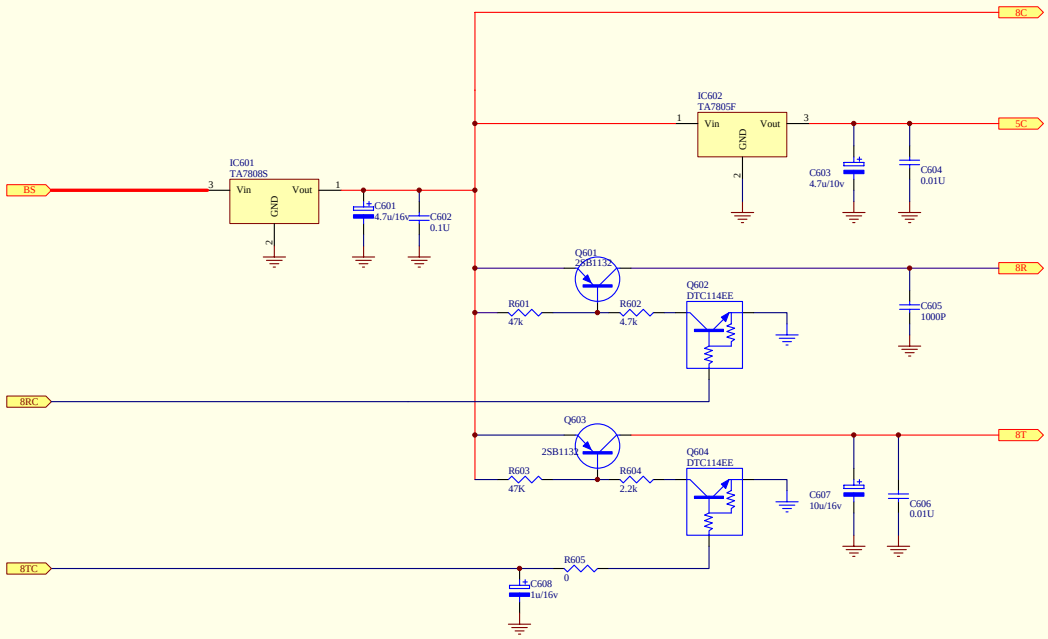
TM-610 UHF Schematic Diagram (CPU Unit)



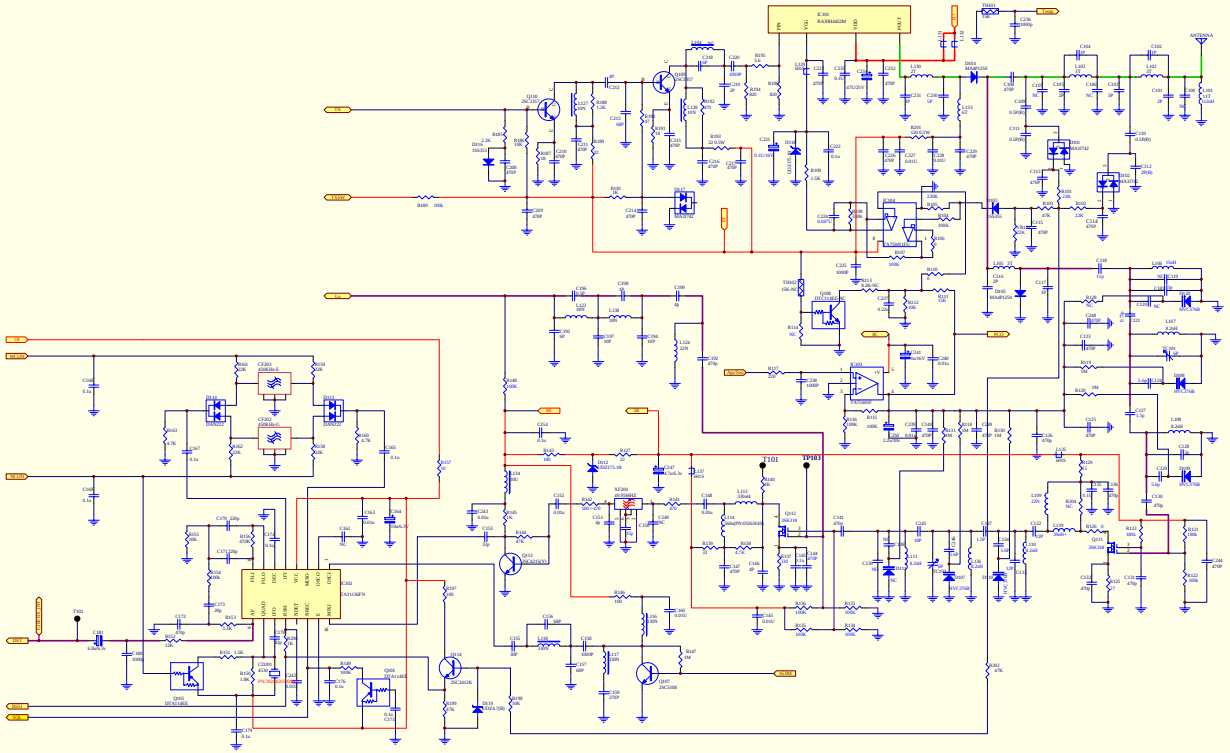
TM-610 UHF Schematic Diagram (PLL Unit)



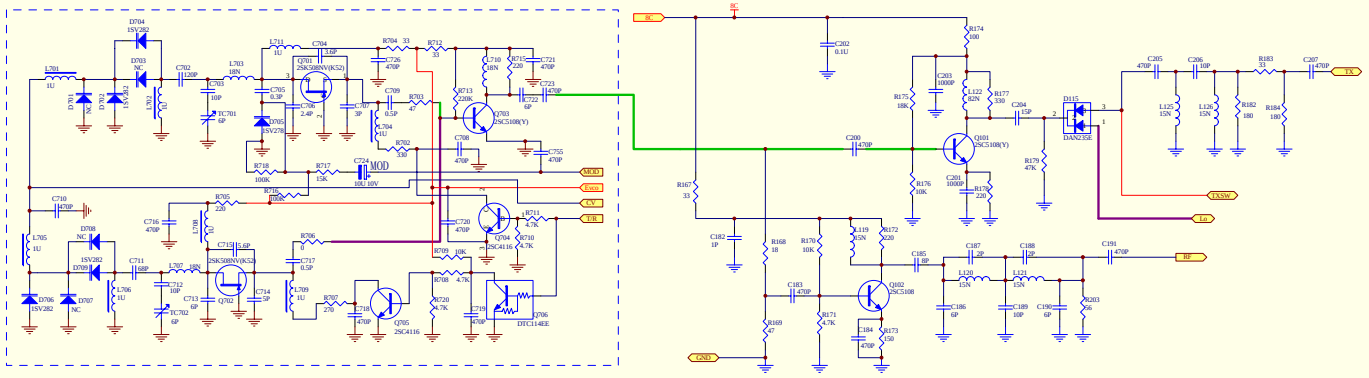
TM-610 UHF Schematic Diagram (Power Unit)



TM-610 UHF Schematic Diagram (RF Unit)



TM-610 UHF Schematic Diagram (VCO Unit)



Specifications

General		
Frequency Range		VHF: 136-174MHz UHF: 400-470MHz 450-500MHz 470-520MHz 350-400MHz 440-470MHz
Channel Capacity		128
Channel Spacing		25KHz/20KHz/12.5KHz
Operating Voltage		13.6V±15%
Current Drain	Standby	0.2A
	Receive	≤2A
	Transmit	≤8A(High Power); ≤5A(Low Power)
Operating Temperature		-30℃~+60℃
Dimensions (H×W×D)		125×152×43mm
Weight		1.0kg
Receiver		
Reference Sensitivity		0.28μV/0.33μv/0.35μV
Selectivity		75dB/70dB/65dB
Intermodulation Rejection		70dB/70dB/70dB
Spurious Response Rejection		70dB
Rated Audio Power Output (Internal)		Rated: 3W (@16Ω 3% distortion) Maximum: 6W (@16Ω 5% distortion)
Rated Audio Power Output (External)		Rated: 10W (@8Ω 3% distortion) Maximum: 12W (@8Ω 5% distortion)
Frequency Stability		±2.5ppm
FM Noise		≥45dB(25KHz/20KHz)/40dB(12.5KHz)
Transmitter		
RF Power Output		25W(H)/5W(L)
Spurious and Harmonics		-36dBm (frequency below 1GHz); -30dBm (frequency above 1GHz)
Modulation Limiting		5KHz/4KHz/2.5KHz
FM Noise		≥45dB(25KHz/20KHz)/40dB(12.5KHz)
Audio Distortion		<3%
Frequency Stability		±2.5ppm

All Specifications are tested according to TIA/EIA-603, and subject to change without notice due to continuous development.

HYT endeavors to achieve the accuracy and completeness of this manual, but no warranty of accuracy or reliability is given. All the specifications and design are subject to change without prior notice due to continuous technology development. Changes which may occur after publication are highlighted by Revision History contained in Service Manual.

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