

DR-735 T / E / TA

Service Manual

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ALINCO, INC.

SPECIFICATIONS

General		DR-735 T / E
Operating mode		16K0F3E (Normal mode) 8K50F3E (Narrow mode)
Number of memory channels		1000ch(Common)+200ch(Individual)+100ch(Dual)
Antenna impedance		50Ω unbalanced
Frequency stability		±2.5ppm
Power requirement		13.8V DC±15% (11.7 to 15.8V)
Ground method	Receive	Negative ground
	Transmit	0.6A(Max.) 0.4A(Squelched)
Current drain		12.0A
Operating temperature		-10°C to 60°C (+14°F to +140°F)
Dimensions		140 (w) x Front:60 Body:40 (h) x 188 (d) mm (5.51"(w) x Front:2.36" Body:1.57"(h) x 7.40"(d))
Weight		Approx. 1.3kg (2.87pounds)

Transmitter

Power output	High:50W Mid:20W Low:5W
Modulation system	Variable reactance frequency modulation
Maximum frequency deviation	±5kHz (Wide mode) ±2.5kHz (Narrow mode)
Spurious emissions	-60 dB
Adjacent channel power	-60 dB
Noise and hum ratio	-40dB (Wide mode) -34dB (Narrow mode)

Receiver

Sensitivity	-16dBu for 12dB SINAD	
Receiver circuitry	Double conversion super heterodyne	
Intermediate frequency	Left side	1st 21.7MHz 2nd 450kHz
	Right side	1st 30.85MHz 2nd 455kHz
Squelch sensitivity	-18dBu	
Selectivity (-6dB/-60dB)	12kHz/24kHz	
Inter modulation rejection ratio	60dB	
Spurious and image rejection ratio	70dB	
Audio output power	>2.0W (8Ω, 10% THD)	

	DR-735T	DR-735E
Microphone impedance	2kΩ	2kΩ
Transmit Frequency coverage	144.000 - 147.995MHz	144.000 - 145.995MHz
	430.000 - 449.995MHz	430.000 - 439.995MHz
	108.000 - 135.995MHz	108.000 - 135.995MHz
Receiver Frequency coverage	136.000 - 173.995MHz	136.000 - 173.995MHz
	400.000 - 479.995MHz	400.000 - 479.995MHz

CIRCUIT DESCRIPTION

1) MAIN VHF Reception

After the received VHF signal passes through the low-pass filter, the signal is amplified by Q112 (3SK293). After the amplified signal passes through the band-pass filter that is adjusted using the varicap diodes D119 and D120 (BBY65), the signal is amplified more by Q113 (3SK293). Then, after the amplified signal passes one more time through the band-pass filter that is adjusted using the varicap diodes D121 and D122 (BBY65), the signal passes through the band switching diode D116 (DAN235E).

The transmitted signal passes through the mixer IC107 (NJM2288) and becomes 21.7 MHz. The local transmission frequency is supplied from IC103 (BK4811B) on the mixer. The 21.7 MHz signal passes through the filters XF101 and XF103 (21.7MHz), and after the signal is amplified by Q111 (2SC4915), it is input into the IC108 (NJM2591V) on the IF detection IC equipped with a mixer function. The input signal is output from the mixer at 450 kHz. 21.25 MHz is supplied from X103 (21.25 MHz) on the mixer. After the signal that is output from IC108 passes through the ceramic filter FL101 (CFWM450E) or FL102 (CFWM450G), the signal inputs into IC108 again. When in wide mode, the signal passes through FL101, when in narrow mode, the signal passes through FL102. The input signal is detected on the discriminator X102 (CDBM450C7) and output as an AF signal.

The detected audio then signal is amplified by IC124 (NJM2902V-D) passes through the de-emphasis network, a high-pass filter consisting of IC124 (NJM2902V-A) and associated circuitry, and a low-pass filter consisting and associated circuitry. The filtered audio signal is switched by IC138 (BU4052BC), and then passes through the audio volume control IC IC127 (NJU72341), which adjusts the audio sensitivity to compensate for audio level variations.

The audio signal is amplified by IC125 (BA5406), and then applied to the internal loudspeaker.

2) SUB VHF Reception

After the received VHF signal passes through the low-pass filter, the signal is amplified by Q126 (3SK293). After the amplified signal passes through the band-pass filter that is adjusted using the varicap diodes D129 and D130 (BBY65), the signal is amplified more by Q127 (3SK293). Then, after the amplified signal passes one more time through the band-pass filter that is adjusted using the varicap diodes D131 and D132 (BBY65), the signal passes through the band switching diode D128 (DAN235E).

The transmitted signal passes through the mixer IC115 (NJM2288) and becomes 30.85 MHz. The local transmission frequency is supplied from IC109 (BK4811B) on the mixer. The 30.85 MHz signal passes through the filters XF102A and XF102B (30.85 MHz), and after the signal is amplified by Q123 (2SC4915), it is input into the IC117 (NJM2591V) on the IF detection IC equipped with a mixer function. The input signal is output from the mixer at 455 kHz. 30.395 MHz is supplied from X105 (30.395 MHz) on the mixer.

After the signal that is output from IC117 passes through the ceramic filter FL103 (CFWM455E) or FL104 (CFWM455G), the signal inputs into IC117 again. When in wide mode, the signal passes through FL103, when in narrow mode, the signal passes through FL104. The input signal is detected on the discriminator X104 (CDBM455C7) and output as an AF signal.

The detected audio then signal is amplified by IC124 (NJM2902V-B) passes through the de-emphasis network, a high-pass filter consisting of IC124 (NJM2902V-C) and associated circuitry, and a low-pass filter consisting and associated circuitry. The filtered audio signal is switched by IC138 (BU4052BC), and then passes through the audio volume control IC IC127 (NJU72341), which adjusts the audio sensitivity to compensate for audio level variations.

The audio signal is amplified by IC125 (BA5406), and then applied to the internal loudspeaker.

3) MAIN UHF Reception

After the received UHF signal passes through the notch filter, high-pass filter and low-pass filter, the signal is amplified by Q133 (3SK293).

After the amplified signal passes through the band-pass filter that is adjusted using the varicap diodes D137 and D138 (BBY65), the signal is amplified more by Q134 (3SK293). Then, after the amplified signal passes one more time through the band-pass filter that is adjusted using the varicap diodes D139 and D140 (BBY65), the signal passes through the band switching diode D128 (DAN235E).

The transmitted signal passes through the mixer IC115 (NJM2288) and becomes 30.85 MHz. The local transmission frequency is supplied from IC109 (BK4811B) on the mixer. The 30.85 MHz signal passes through the filters XF102A and XF102B (30.85 MHz), and after the signal is amplified by Q123 (2SC4915), it is input into the IC117 (NJM2591V) on the IF detection IC equipped with a mixer function. The input signal is output from the mixer at 455 kHz. 30.395 MHz is supplied from X105 (30.395 MHz) on the mixer.

After the signal that is output from IC117 passes through the ceramic filter FL103 (CFWM455E) or FL104 (CFWM455G), the signal inputs into IC117 again. When in wide mode, the signal passes through FL103, when in narrow mode, the signal passes through FL104. The input signal is detected on the discriminator X104 (CDBM455C7) and output as an AF signal.

The detected audio then signal is amplified by IC124 (NJM2902V-B) passes through the de-emphasis network, a high-pass filter consisting of IC124 (NJM2902V-C) and associated circuitry, and a low-pass filter consisting and associated circuitry. The filtered audio signal is switched by IC138 (BU4052BC), and then passes through the audio volume control IC IC127 (NJU72341), which adjusts the audio sensitivity to compensate for audio level variations.

The audio signal is amplified by IC125 (BA5406), and then applied to the internal loudspeaker.

4) SUB UHF Reception

After the received UHF signal passes through the notch filter, high-pass filter and low-pass filter, the signal is amplified by Q142 (3SK293).

After the amplified signal passes through the band-pass filter that is adjusted using the varicap diodes D156 and D157 (BBY65), the signal is amplified more by Q143 (3SK293). Then, after the amplified signal passes one more time through the band-pass filter that is adjusted using the varicap diodes D158 and D159 (BBY65), the signal passes through the band switching diode D118 (DAN235E).

The transmitted signal passes through the mixer IC107 (NJM2288) and becomes 21.7 MHz. The local transmission frequency is supplied from IC103 (BK4811B) on the mixer. The 21.7 MHz signal passes through the filters XF101 and XF103 (21.7MHz), and after the signal is amplified by Q111 (2SC4915), it is input into the IC108 (NJM2591V) on the IF detection IC equipped with a mixer function. The input signal is output from the mixer at 450 kHz. 21.25 MHz is supplied from X103 (21.25 MHz) on the mixer.

After the signal that is output from IC108 passes through the ceramic filter FL101 (CFWM450E) or FL102 (CFWM450G), the signal inputs into IC108 again. When in wide mode, the signal passes through FL101, when in narrow mode, the signal passes through FL102. The input signal is detected on the discriminator X102 (CDBM450C7) and output as an AF signal.

The detected audio then signal is amplified by IC124 (NJM2902V-D) passes through the de-emphasis network, a high-pass filter consisting of IC124 (NJM2902V-A) and associated circuitry, and a low-pass filter consisting and associated circuitry. The filtered audio signal is switched by IC138 (BU4052BC), and then passes through the audio volume control IC IC127 (NJU72341), which adjusts the audio sensitivity to compensate for audio level variations.

The audio signal is amplified by IC125 (BA5406), and then applied to the internal loudspeaker.

5) V/V (VHF-VHF) Dual Reception

When the VHF signal is received while in V-V mode and after the signal passes through the low-pass filter, it is amplified by Q112 and Q126. Q112 is the VHF on the main band side, and Q126 is the VHF on the sub-band side. Hereafter, the signal is processed as described in sections 1) and 2).

6) U/U (UHF-UHF) Dual Reception

When the UHF signal is received while in U-U mode and after the signal passes through the notch filter, high-pass filter and low-pass filter, it is amplified by Q133 and Q142. Q133 is the UHF on the main band side, and Q142 is the UHF on the sub-band side. Hereafter, the signal is processed as described in sections 3) and 4).

7) MAIN VHF Squelch Control

When no VHF carrier is being received, noise at the output of the detector stage in IC108 (NJM2591) is amplified and band-pass filtered by the noise amp section of IC108, then passes through the noise adjust CPU. The resulting DC voltage is applied to pin 85 of main CPU IC129 (R5F104PJA), which compares the squelch threshold level to that which set by the SQL knob.

8) SUB VHF Squelch Control

When no VHF carrier is being received, noise at the output of the detector stage in IC117 (NJM2591) is amplified and band-pass filtered by the noise amp section of IC117, then passes through the noise adjust CPU. The resulting DC voltage is applied to pin 82 of main CPU IC129 (R5F104PJA), which compares the squelch threshold level to that which set by the SQL knob.

9) MAIN UHF Squelch Control

When no UHF carrier is being received, noise at the output of the detector stage in IC117 (NJM2591) is amplified and band-pass filtered by the noise amp section of IC117, then passes through the noise adjust CPU. The resulting DC voltage is applied to pin 82 of main CPU IC129 (R5F104PJA), which compares the squelch threshold level to that which set by the SQL knob.

10) SUB UHF Squelch Control

When no UHF carrier is being received, noise at the output of the detector stage in IC108 (NJM2591) is amplified and band-pass filtered by the noise amp section of IC108, then passes through the noise adjust CPU. The resulting DC voltage is applied to pin 85 of main CPU IC129 (R5F104PJA), which compares the squelch threshold level to that which set by the SQL knob.

11) Transmit Signal Path

There are 2 microphone signal paths.

One path is input from the microphone connector CN701 on the front unit. After it is amplified by IC701 (NJM2904V), it connects from CN702 to CN102 on the main unit.

The other path is input from the microphone connector CN103 on the main unit and it is amplified by IC113 (NJM2902V).

After these two signals pass through the electronic volume IC111 (NJU72341) on the main unit, they are amplified by IC113 (NJM2902V).

12) VHF Transmit Signal Path

After the signal format is selected as a voice or packet type at the multiplexer IC114 (TC4W53FU) when sent in VHF, then the signal path is selected so that it inputs into IC103 (BK4811B) for the RF single-chip IC on the multiplexer IC112 (TC4W53FU). The input signal is modulated at the IC103 (BK4811B) and then output.

The output signal is amplified by the buffer amplifier Q173 (2SC4915). Next, it is amplified by the pre-driver amplifier Q101 (2SC5551), and then it is amplified up to 50 W by the power module IC101 (RA60H1317M1) before being output. The amplification control is controlled by the APC circuit.

After the 50 W RF signal passes through the low-pass filter, it is output from the antenna.

13) UHF Transmit Signal Path

After the signal format is selected as a voice or packet type at the multiplexer IC114 (TC4W53FU) when sent in UHF, then the signal path is selected so that it inputs into IC109 (BK4811B) for the RF single-chip IC on the multiplexer IC112 (TC4W53FU). The input signal is modulated at the IC109 (BK4811B) and then output.

The output signal is amplified by the buffer amplifier Q107 (2SC5226). Next, it is amplified by the pre-driver amplifier Q106 (2SC5551), and then it is amplified up to 50 W by the power module IC102 (RA60H4047M1) before being output. The amplification control is controlled by the APC circuit.

After the 50 W RF signal passes through the low-pass filter, high-pass filter and notch filter, then it is output from the antenna.

14) VHF TX APC Circuit

The transmit power is amplified when the APC voltage from pin 88 on IC129 (R5F104PJA) reaches the operational amplifier IC104 (TA75S01F). Next, that signal inputs into the power control terminal for the power module IC101 (RA60H1317M1) and then is set. Part of the signal that is output is returned to the operational amplifier IC104 (TA75S01F). In addition, if an antenna is not connected, a reflected wave is detected and Q110 (2SC6026) is activated. This lowers the APC voltage and the transmit power is lowered in order to protect the circuit from getting damaged.

15) UHF TX APC Circuit

The transmit power is amplified when the APC voltage from pin 88 on IC129 (R5F104PJA) reaches the operational amplifier IC105 (TA75S01F). Next, that signal inputs into the power control terminal for the power module IC102 (RA60H4047M1) and then is set. Part of the signal that is output is returned to the operational amplifier IC105 (TA75S01F). In addition, if an antenna is not connected, a reflected wave is detected and Q110 (2SC6026) is activated. This lowers the APC voltage and the transmit power is lowered in order to protect the circuit from getting damaged.

16) VHF PTT circuit

When the PTT key is pressed, the signal is input to pin 44 for CPU IC703 (R5F104FFA) on the front unit. The PTT status is sent for the CPU IC129 (R5F104PJA) on the main unit. Next, pin 76 for the CPU IC129 (R5F104PJA) on the main unit turns to "High" and Q159 (RN1107) and Q156 (2SB1132T) are activated. A current runs through pin diode D103 (L8103R) and the antenna switch D106 (L5208F), and then the VHF transmission becomes ready.

17) UHF PTT circuit

When the PTT key is pressed, the signal is input to pin 44 for CPU IC703 (R5F104FFA) on the front unit. The PTT status is sent for the CPU IC129 (R5F104PJA) on the main unit. Next, pin 72 for the CPU IC129 (R5F104PJA) on the main unit turns to "High" and Q171 (RN1107) and Q169 (2SB1132T) are activated. A current runs through pin diode D103 (L8103R) and the antenna switch D106 (L5208F), and then the UHF transmission becomes ready.

18) VHF 1 chip IC

The RF signal for the VHF is generated by IC103 (BK4811B). After X101 (21.25MHz) or X107(22.55MHz) for TCXO supplies the generated signal to pin 22 on the IC103 (BK4811B) for the single-chip IC, then the RF signal is output from pin 3.

The TCXO that is used changes depending on the transmit frequency. The timing for the TCXO change occurs when IC103 (BK4811B) is activated on the TCXO that is used for the last transmission.

TX frequency[MHz]	TCXO[MHz]
144.000 ~ 144.395	21.25
144.400 ~ 144.595	22.55
144.600 ~ 147.995	21.25

19) UHF 1 chip IC

The RF signal for the UHF is generated by IC109 (BK4811B). After X101 (21.25 MHz) or X107 (22.55 MHz) for TCXO supplies the generated signal to pin 22 on the IC109 (BK4811B) for the single-chip IC, then the RF signal is output from pin 3.

The TCXO that is used changes depending on the transmit frequency. The timing for the TCXO change occurs when IC109 (BK4811B) is activated on the TCXO that is used for the last transmission.

TX frequency[MHz]	TCXO[MHz]
430.000 ~ 430.995	22.55
431.000 ~ 431.995	21.25
431.900 ~ 433.795	22.55
433.800 ~ 434.195	21.25
434.200 ~ 436.495	22.55
436.500 ~ 437.595	21.25
437.600 ~ 439.395	22.55
439.400 ~ 440.695	21.25
440.700 ~ 442.395	22.55
442.400 ~ 444.395	21.25
444.400 ~ 447.995	22.55
448.000 ~ 448.495	21.25
448.500 ~ 448.995	22.55
449.000 ~ 449.995	21.25

20) Power-on Circuit

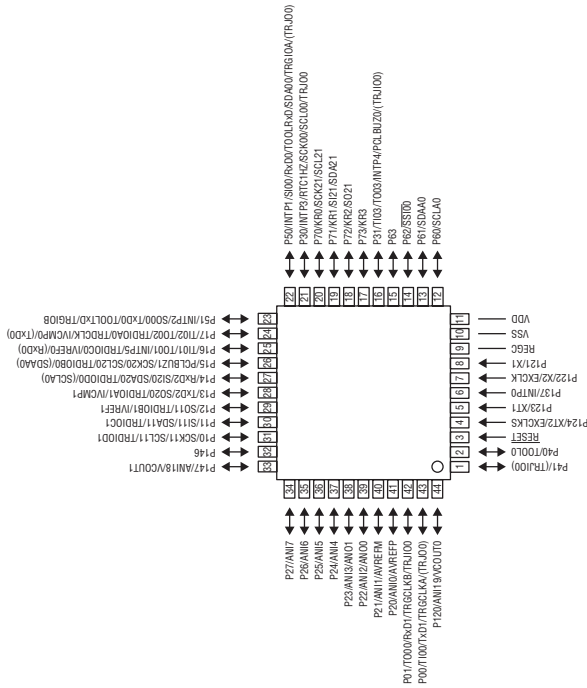
When the POWER switch is turned on, pin 16 of main CPU IC129 goes "low".

When pin 16 of IC129 goes "low", pin 1 of IC129 goes "high" to activate the power switches Q151 (2SB1386) and Q163 (2SC6026), which supply the DC power to the radio.

CPU I/O DATA

1) R5F104FF (XA1724) FRONT CPU

Terminal Connection
(TOP VIEW)



FRONT CPU (XA1724)

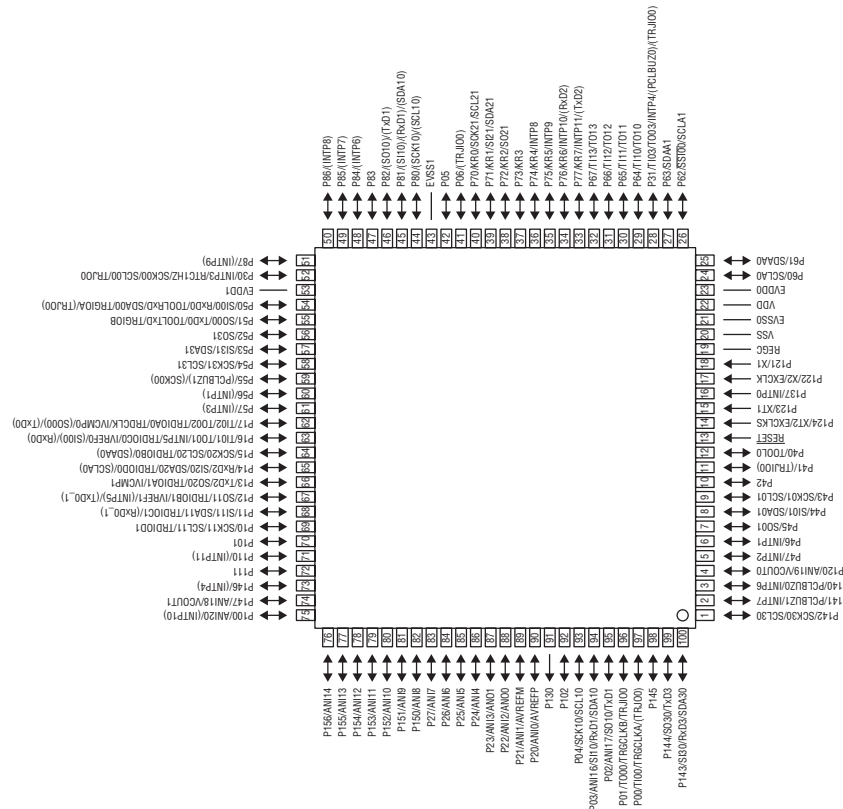
No.	Terminal	Signal	I/O	Description
1	P41	TOOL	0	
2	TOOL0	TOOL	I	TOOL
3	RESET	RESET	I	RESET
4	P124	UP	I	UP key
5	P123	DOWN	I	DOWN key
6	P137	R V/M	I	Right V/M key
7	P122	H/L	I	H/L key
8	P121	★	I	★ key
9	REG3	-	-	
10	VSS	GND	-	
11	VDD	5V	-	
12	P60	MW	I	MW key
13	P61	L V/M	I	Left V/M key
14	P62	FUNC	I	FUNC key
15	P63	RETV	I	Right dial
16	T003	MPC	0	Multiplexer C pin
17	P73	L RX LED	0	Left RX Lamp control
18	P72	L TX LED	0	Left TX Lamp control
19	P71	R TX LED	0	Right TX Lamp control
20	P70	RETV	I	Left dial
21	INTP3	REZV	I	Left dial
22	RXD0	RXD	I	Main CPU data line (RX)
23	TXD0	TXD	0	Main CPU data line (TX)
24	T002	MPB	0	Multiplexer B pin
25	INTP5	REZU	I	Right dial
26	P15	SCI	0	LCD Driver clock signal
27	RXD2	REMOTE	I	Remote control data
28	P13	SDA	0	LCD Driver data signal
29	P12	BLUE	0	BLUE LED control
30	P11	GREEN	0	GREEN LED control
31	P10	RED	0	RED LED control
32	P146	MPTNH	0	Multiplexer 1NH pin
33	P147	L DIAL SW	I	Left DIAL SW
34	P27	R DIAL SW	I	Right DIAL SW
35	P26	L VOL SW	I	Left VOL SW
36	AN15	VOL L	I	Left VOL Voltage
37	AN14	SQL L	I	Left SQL Voltage
38	P23	R RX LED	0	Right RX Lamp control
39	AN00	KEY DIMMER	0	Key Backlight control
40	AN11	VOL R	I	Right VOL Voltage
41	AN10	SQL R	I	Right SQL Voltage
42	T000	MPA	0	Multiplexer A pin
43	P00	R VOL SW	I	Right VOL SW
44	AN19	PTT	I	MAIN/SUB PTT key

2) R5F104PJ (XA1697)
MAIN CPU

Terminal Connection
(TOP VIEW)

MAIN CPU (XA1697)

No.	Terminal	Signal	I/O	Description
1	P142	5VS	0	Power control
2	P141	VAM	0	21.7MHz AM, FM switching
3	P140	C5V	0	5V control
4	ANI19	BP1	I	Bandplan input
5	P47	BP2	I	Expand mode
6	P46	BP3	I	CH mode
7	P45	BP4	I	XBR mode
8	P44	XSW	0	TCXO Switching
9	P43	BEP1	0	Beep volume soft
10	P42	BEP2	0	Beep volume quiet
11	P41	BEMT	0	Beep volume mute
12	TOOL0	TOOL	-	
13	RESET	RESET	-	
14	P124	UP	I	MIC UP key input
15	P123	DOWN	I	MIC DOWN key input
16	INTP0	PSW	I	Power key input
17	X2	-	-	
18	X1	-	-	
19	REGC	-	-	
20	VSS	GND	-	
21	EVSS0	GND	-	
22	VDD	5V	-	
23	EVD00	5V	-	
24	SCLA0	ECLK	0	EEPROM clock
25	SDAA0	EDAT	0	EEPROM data
26	SCLA1	VRCK	0	Electronic Volume IC clock
27	SDAA1	VRDT	0	Electronic Volume IC data
28	P31	VFIL	0	21.7MHz RX filter switching
29	P64	R5U	0	UHF RX power
30	P65	R5V	0	VHF RX power
31	P66	R8UM	0	UHF MAIN RX power
32	P67	R8VM	0	VHF MAIN RX power
33	P77	R8US	0	UHF SUB RX power
34	P76	R8VS	0	VHF SUB RX power
35	P75	VUDG	0	Digital RX switching
36	P74	PTTP	I	TNC PTT input
37	P73	DCLK	0	Digital IC clock signal
38	P72	DDAT	0	Digital IC data signal
39	SDA21	MGDT	0	MIC gain adjust IC data
40	SCL21	MGCK	0	MIC gain adjust IC clock
41	P06	MOMT	0	Modulation mute
42	P05	AFMT	0	AF mute
43	EVSS1	GND	-	
44	P80	MODS	0	Modulation switching
45	P81	DMOD	0	D/A modulation switching
46	P82	XBR	0	XBR
47	P83	D13	0	Digital IC power
48	P84	VDAR	0	D/A RX switching
49	P85	UDAR	0	D/A RX switching
50	P86	DGIC	I	Digital IC detection

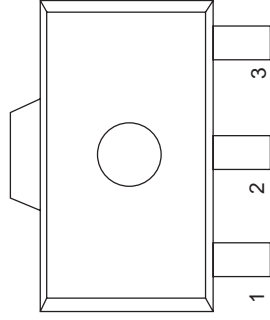


MAIN CPU (XA1442)

No.	Terminal	Signal	I/O	Description
51	P87	DUD	I	Digital Unit detection
52	P30	PIN	0	Digital phase control
53	EVDD1	5V	-	
54	RXD0	RXD	I	FRONT CPU data RX
55	TXD0	TXD	0	FRONT CPU data TX
56	P52	USCN	0	UHF 1stLo enable
57	P53	UDAT	IO	UHF 1stLo data
58	P54	UCLK	0	UHF 1stLo clock
59	P55	UFIL	0	30.85MHz RX filter switching
60	P56	UINT	I	UHF 1stLo interrupt
61	P57	VINT	I	VHF 1stLo interrupt
62	P17	UAFM	0	UHF AF mute
63	P16	VSCN	0	VHF 1stLo enable
64	P15	VCLK	0	VHF 1stLo clock
65	P14	VDAT	IO	VHF 1stLo data
66	P13	DCSU	0	UHF DCS switch
67	P12	SOL	0	TNC squelch output
68	P11	DI	0	D/A Converter IC data
69	P10	CLK	0	D/A Converter IC clock
70	P101	UMS	0	UHF MAIN RX shift
71	P110	USS	0	UHF SUB RX shift
72	P111	T8U	0	UHF TX power
73	P146	UAM	0	30.85MHz AM, FM switching
74	P147	LD	0	D/A Converter IC enable
75	P100	MTIM	0	AF amplifier mute timer
76	P156	T8V	0	VHF TX power
77	P155	VAFM	0	VHF AF mute
78	P154	DCSV	0	VHF DCS switch
79	AN111	PTT	I	PTT key
80	AN110	TINU	I	UHF CTCSS/DCS detection
81	AN19	SMTU	I	UHF S-meter voltage
82	AN18	SQU	I	UHF squelch voltage
83	AN17	TINV	I	VHF CTCSS/DCS detection
84	AN16	SMTV	I	VHF S-meter voltage
85	AN15	SQV	I	VHF squelch voltage
86	AN14	TEMP	I	Temperature voltage
87	AN01	TCXO	0	TCXO frequency adjustment
88	AN00	APC	0	TX APC voltage
89	AVREFM	GND	-	
90	AVREFP	5V	-	
91	P130	T5	0	Digital TX signal
92	P102	DSQ	I	Digital squelch
93	P04	FAN	0	Fan motor switch
94	RXD1	RXDC	I	Clone data RX
95	TXD1	TXDC	0	Clone data TX
96	T000	BEEP	0	Beep
97	P00	MGMT	0	MIC mute
98	P145	JEMP	0	JMARK-ROM write protect
99	P144	DSTB	0	Digital IC control
100	RXD3	REMOTE	I	REMOTE RX

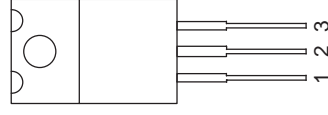
SEMICONDUCTOR DATA

1) NJM78L05UA (XA0098) 5V Voltage Regulator



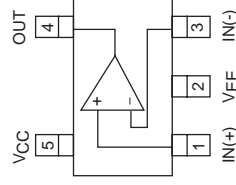
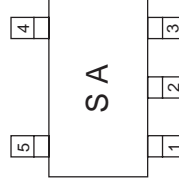
- 1. OUTPUT
- 2. COMMON
- 3. INPUT

2) NJM7808FA (XA0102) 8V Voltage Regulator

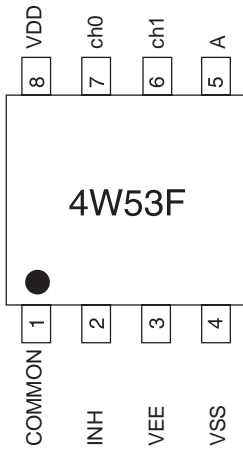


- 1. IN
- 2. GND
- 3. OUT

3) TA75S01F (XA0332) Single Operational Amplifiers



4) TC4W53FU (XA0348)
Multiplexer/Demultiplexer

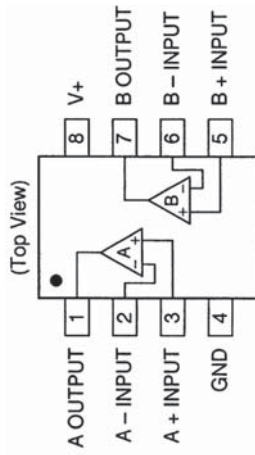
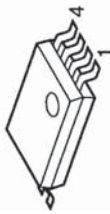


Function Table

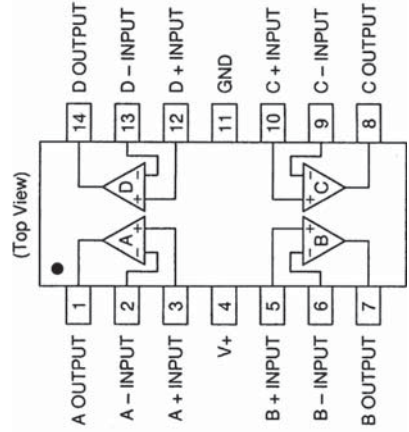
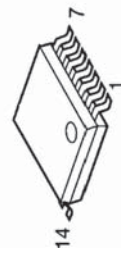
Control input		ON channel	
INH	A	L	ch0
L	L	H	ch1
H	*	NONE	

* Don't Care

5) NJM2904V (XA0573)
SINGLE-SUPPLY DUAL OPERATIONAL AMPLIFIER

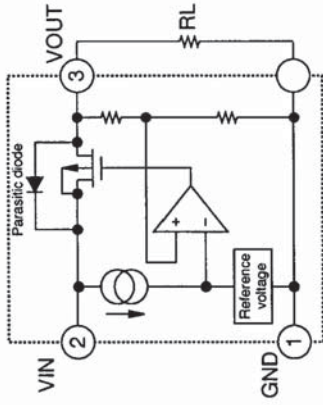
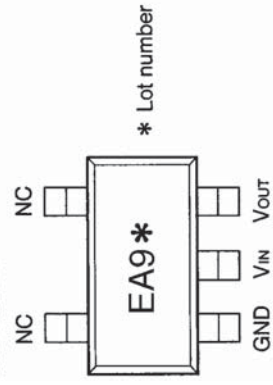


6) NJM2902V (XA0596)
Quad Single Supply Operational Amplifier

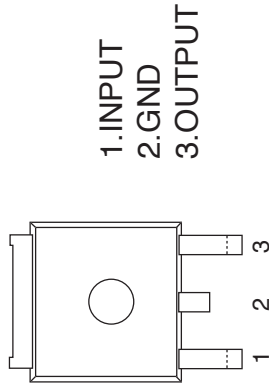


7) S-80845ALMP (XA0620)
Quad 2-input NOR GATE

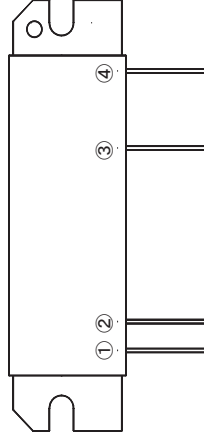
Vin=18V
Iout=100mA



8) NJM78M05DL1A (XA0947)
Voltage Regulator



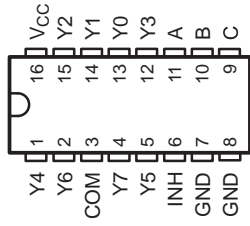
9) RA60H1317M1 (XA1108)
Silicon RF Power Modules



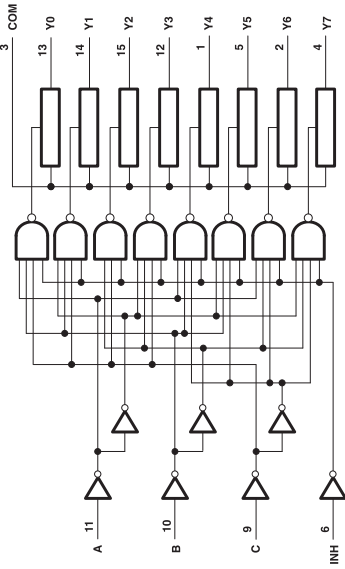
- ① INPUT TERMINAL (P_m)
- ② GATE BIAS DC SUPPLY TERMINAL (V_{ge})
- ③ DRAIN BIAS DC SUPPLY TERMINAL (V_{dd})
- ④ OUTPUT TERMINAL (P_{out})
- ⑤ F_{in} (GND)

10) SN74LV4051A (XA11194)

8-Channel Analog Multiplexers and Demultiplexers

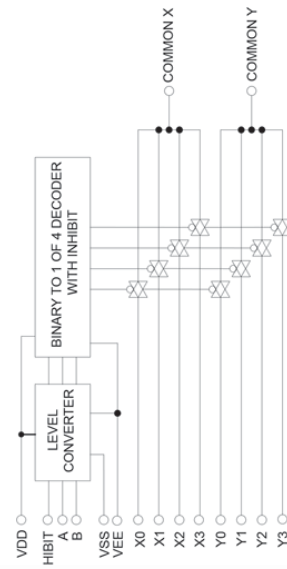
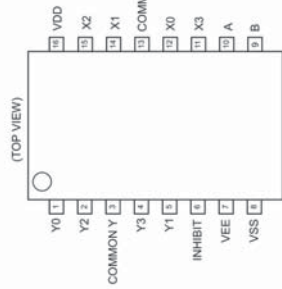


Logic Diagram (Positive Logic)



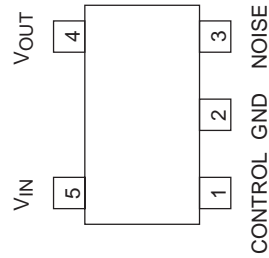
11) BU4052BCFV (XA1229)

Dual 4ch Analog Multiplexer/Demultiplexer



12) TAR5S33U (XA1277)

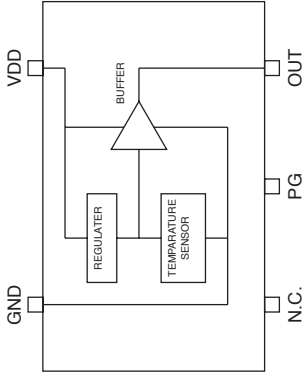
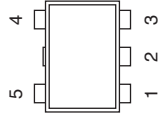
Point Regulators



Control Level	Operation
HIGH	ON
LOW	OFF

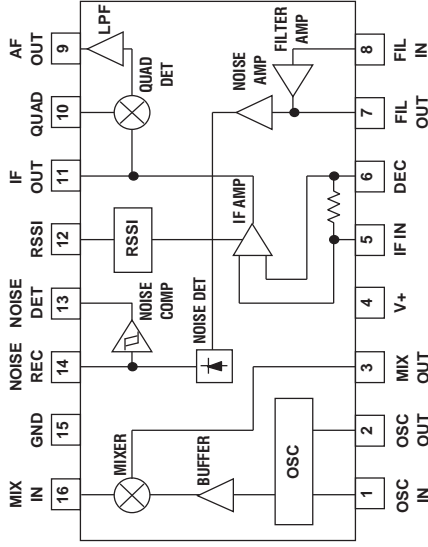
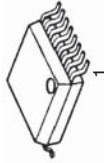
13) BD1020HFV (XA1335)

Temperature Sensor IC



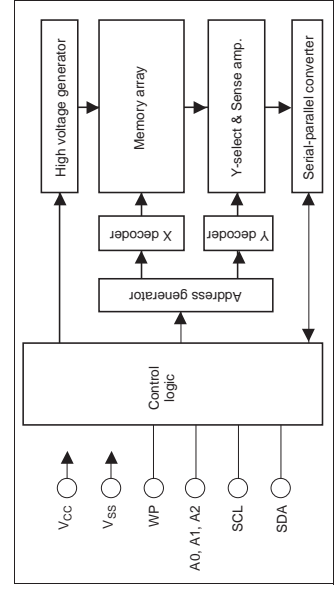
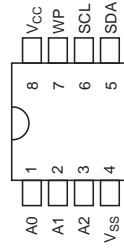
14) NJM2591V (XA1391)

FM IF DEMODULATOR IC



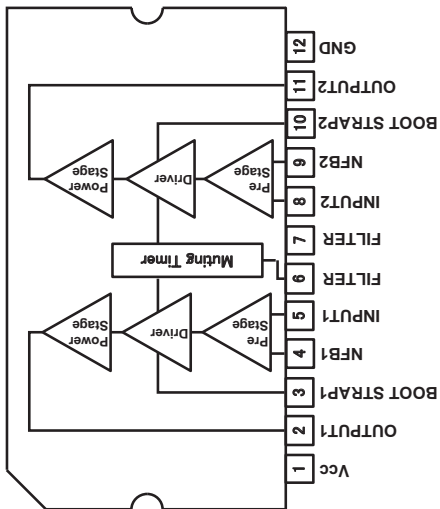
15) R1EX24008A (XA1417)

Two-wire serial interface 8k EEPROM



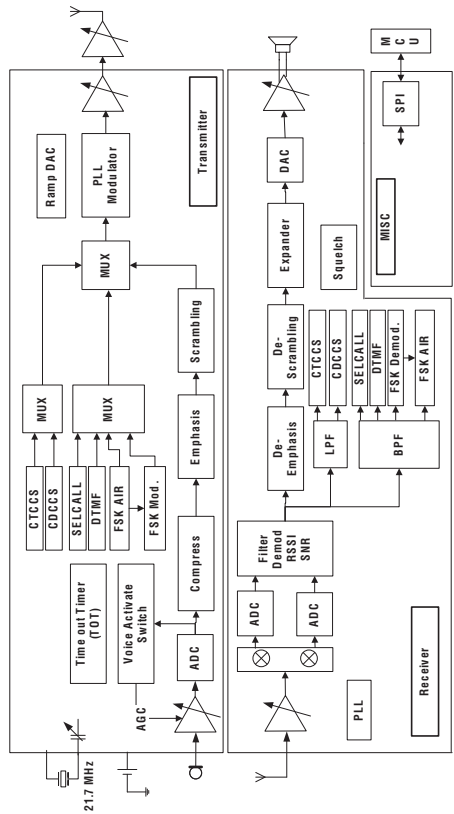
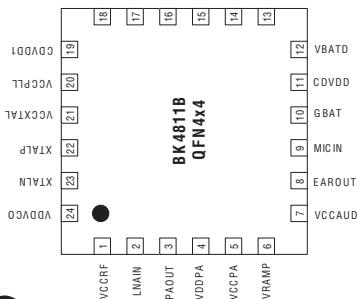
16) BA5406 (XA1519)

Stereo Speaker Amplifiers



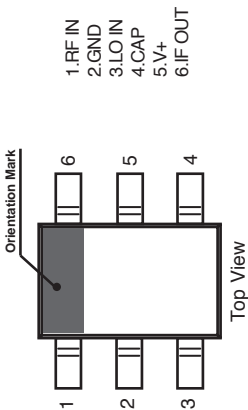
17) BK4811B (XA1625)

Dual Operational Amplifiers



18) NJM2288 (XA1694)

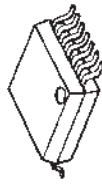
300/400MHz BAND DOWN MIXER WITH AMPLIFIER



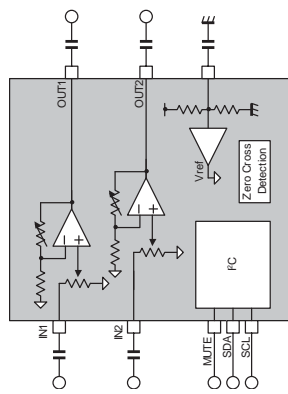
- 1. RF IN
- 2. GND
- 3. LO IN
- 4. CAP
- 5. V+
- 6. IF OUT

19) NJU72341 (XA1695)

2 Channels Electronic Volume

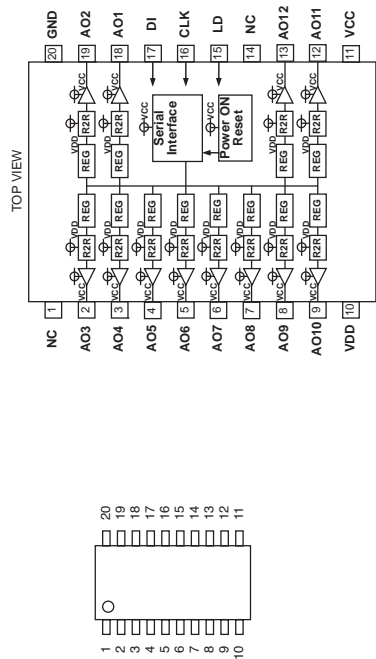


No.	Symbol	Function
1	NC	-
2	NC	-
3	IN1	Input Terminal 1
4	IN2	Input Terminal 2
5	MUTE	Mute Terminal
6	SDA	I ² C Data Input Terminal /Acknowledge Output
7	SCL	I ² C Clock Terminal
8	V+	Power Supply Terminal
9	VREF	Reference Voltage Terminal
10	GND	Ground Terminal
11	OUT2	Output Terminal 2
12	OUT1	Output Terminal 1
13	NC	-
14	NC	-



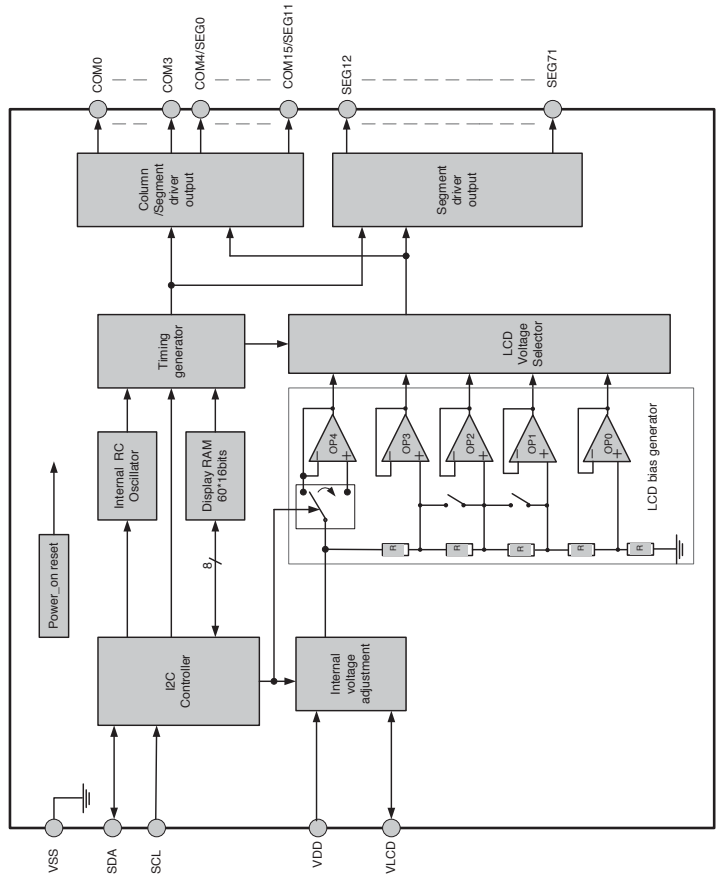
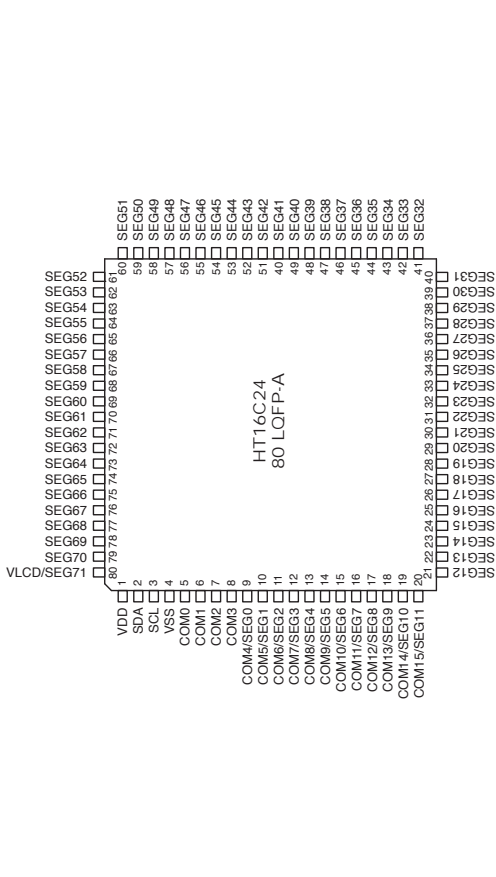
20) BH2221FV (XA1696)

D/A Converters



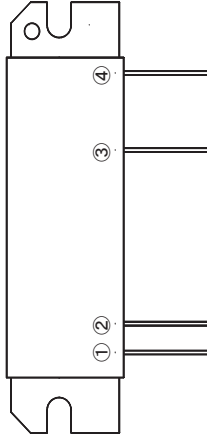
21) HT16C24 (XA1705)

LCD Driver Controller



22) RA60H4047M1 (XA1706)

Silicon RF Power Modules

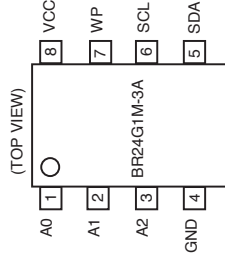


- ① INPUT TERMINAL (P_{in})
- ② GATE BIAS DC SUPPLY TERMINAL (V_{GG})
- ③ DRAIN BIAS DC SUPPLY TERMINAL (V_{DD})
- ④ OUTPUT TERMINAL (P_{out})
- ⑤ Fin (GND)

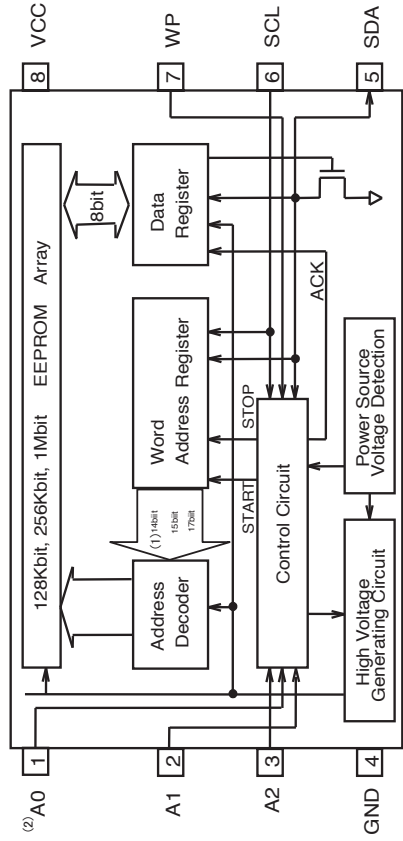
23) BR24G1MF (XA1715)

Serial EEPROM Series Standard EEPROM

Terminal Name	Input/ Output	Descriptions
A0	Input	BR24G128/256-3A BR24G1M-3A
A1	Input	Slave address setting ⁽²⁾ Don't use ⁽¹⁾
A2	Input	Slave address setting ⁽²⁾
GND	-	Slave address setting ⁽²⁾
SDA	Input/ Output	Reference voltage of all input / output, 0V
SCL	Input	Serial data input serial data output
WP	Input	Serial clock input
VCC	-	Write protect terminal
		Connect the power source.



(1) Pins not used as device address may be set to any of 'H', 'L', and 'HiZ'.
 (2) A0, A1 and A2 are not allowed to use as open.



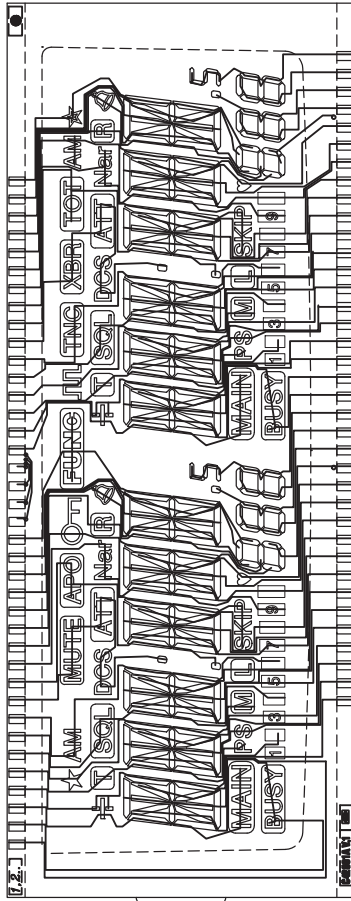
- (1) 14bit: BR24G128-3A
- 15bit: BR24G256-3A
- 17bit: BR24G1M-3A
- (2) A0- Don't use : BR24G1M-3A

24) Transistor, Diode and LED outline Drawings

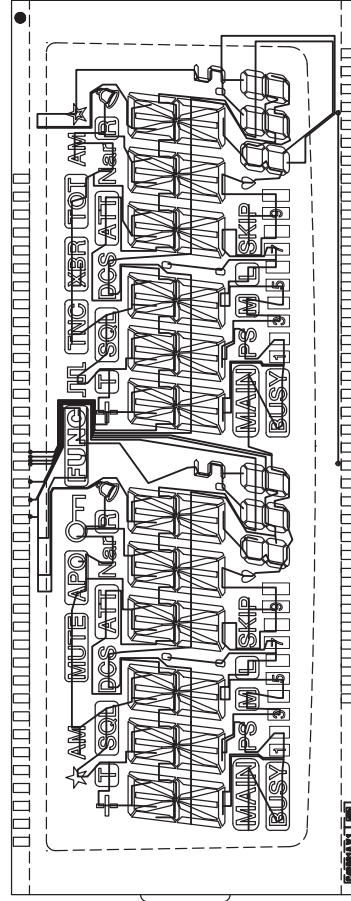
Top View

1SV172 XD0123	DAN235E-TL XD0320	UDZ51E-17 5.6B XD0395	VDZ12R5.1B XD0402	S3V60 XD0414	1SS387 XD0426	1SS402 XD0474
1SS405 XD0482	L8103R XD0535	L5208F XD0540	L5204F XD0544	BBY65 XD0552	KDZ18B XD0564	CR12CS-18B XD0585
3SK293 XE0053	SSM3K15AMFY XE0124					
SML-512DW1786 XL0146	SML-522MUW1786 XL0174	SMLV6RGB1W1 XL0178				
2SB1132 XE1132	2SA1036K XT0110	2SC9226 XT0146	2SC4915-0 XT0178	2SB1386 XT0190	2SC5551 XT0194	2SC6026MFV XT0210
2SD2142KT146 XT0271						
RN1107 XU0210	RN2107 XU0211	RN2109 XU0211	EMD9 XU0236			
Rb=10kohm Rbe=47kohm	Rb=10kohm Rbe=47kohm	Rb=7kohm Rbe=22kohm	D9 E1 B1 C2			

25) LCD Connection (EL0071)



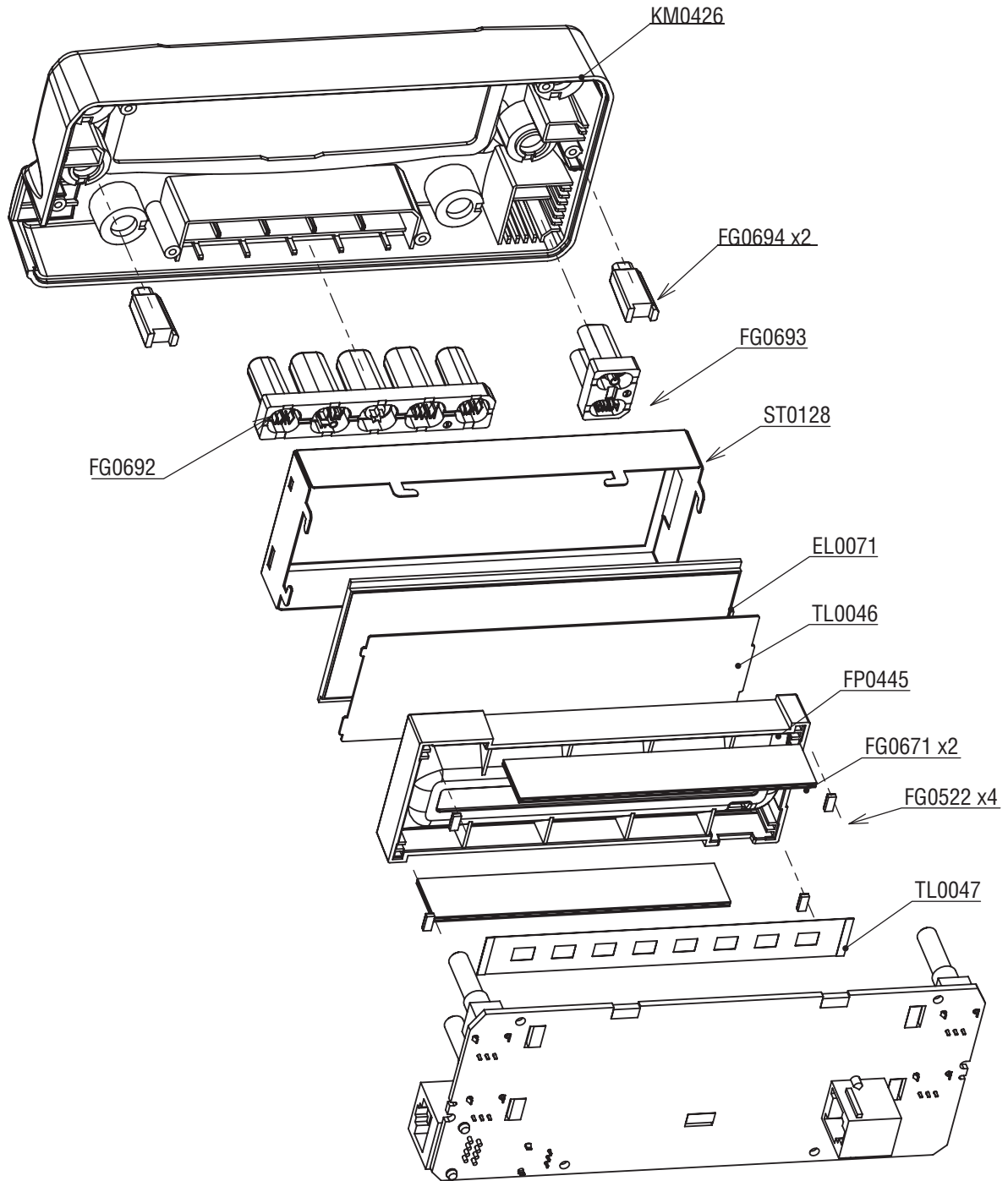
SEG



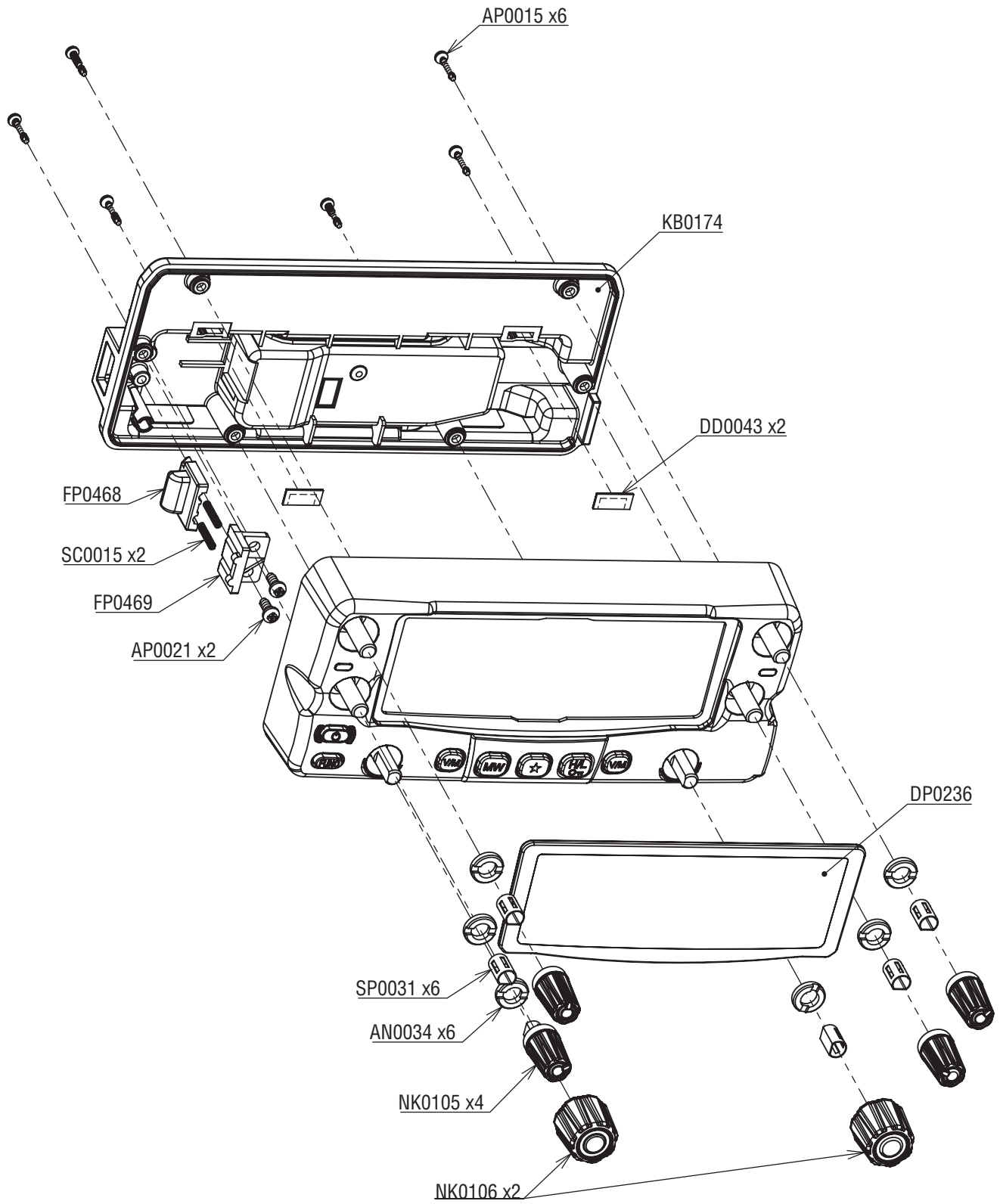
COM

EXPLODED VIEW

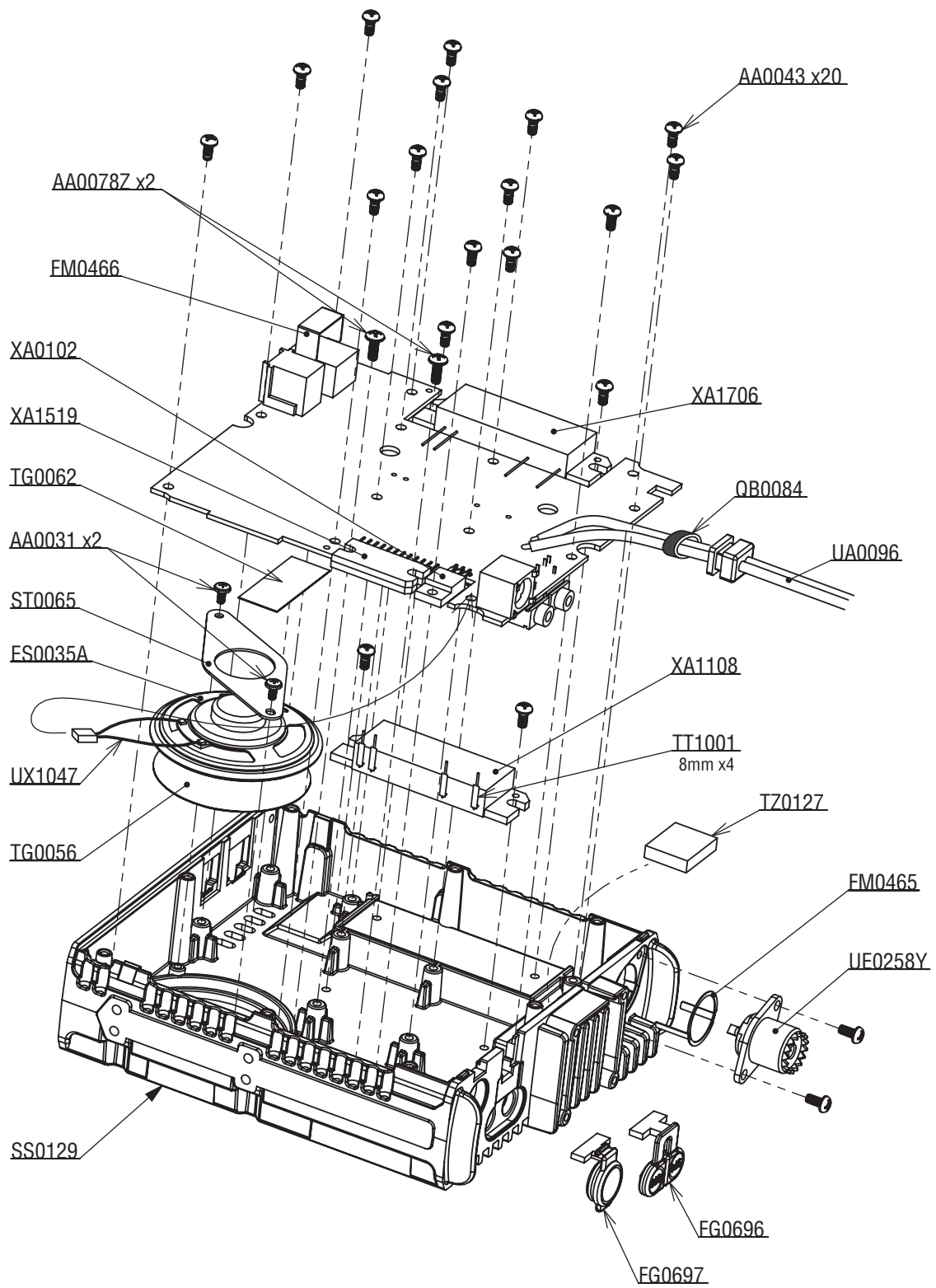
1) Front View a.LCD View



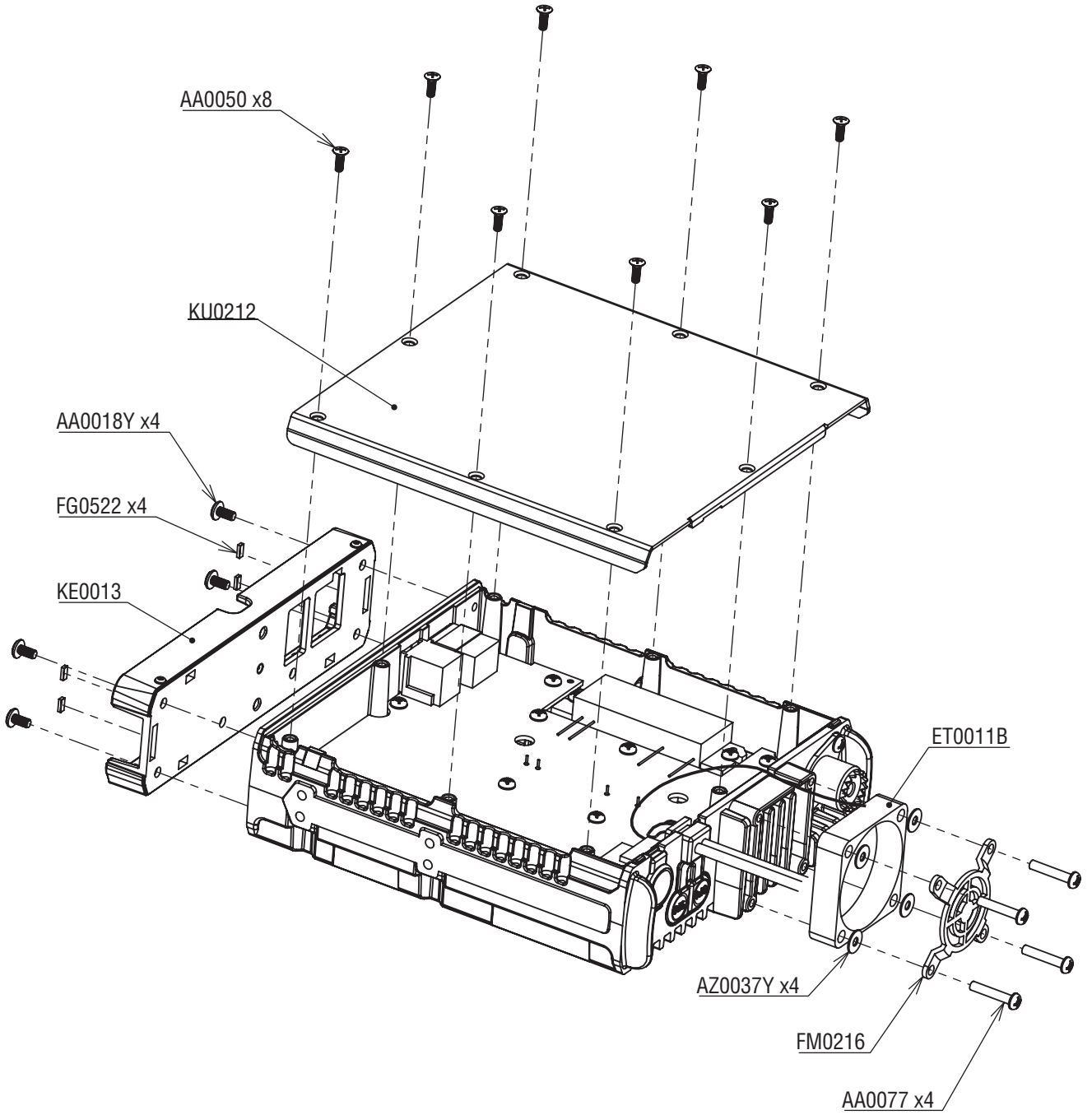
b.FRONT and Rear View



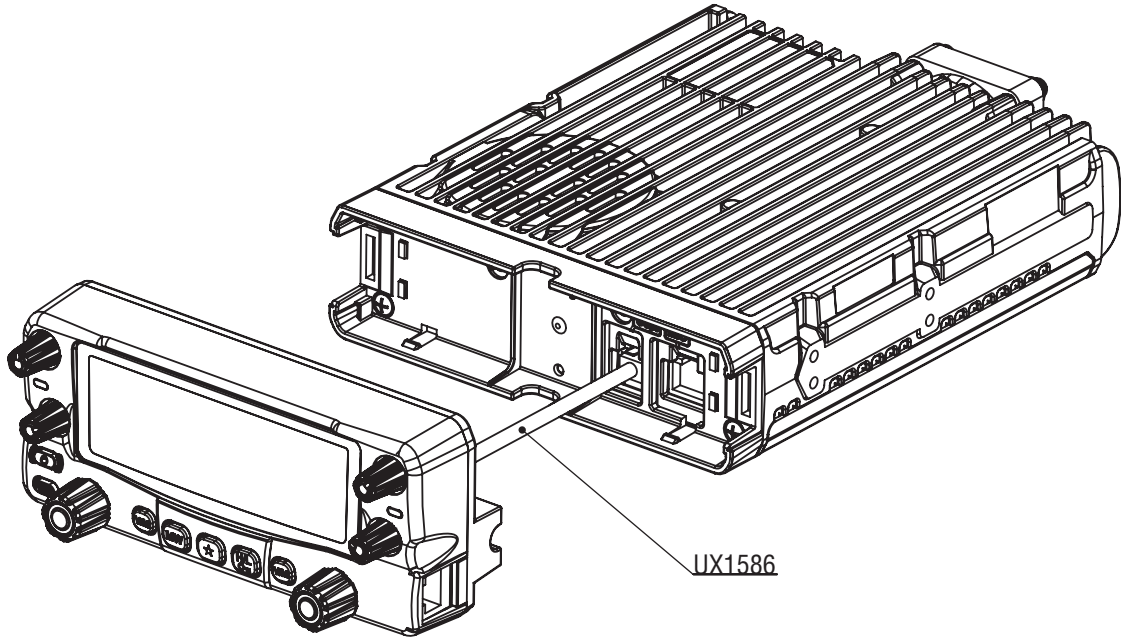
2) MAIN SIDE a.Top View



b. Bottom View



c.Front View



PARTS LIST

FRONT UNIT

Ref. No.	Parts No.	Description	Parts Name	Version
C701	CU3547	Chip C	GRM155B11C103KA01D	
C702	CU3547	Chip C	GRM155B11C103KA01D	
C703	CU3535	Chip C	GRM36B102K50PT	
C704	CU3535	Chip C	GRM36B102K50PT	
C705	CU3535	Chip C	GRM36B102K50PT	
C706	CU0141	Chip C	GRM21BB31E106KA73L	
C707	CU3723	Chip C	1005 CH 50V 100PF J	
C708	CU3601	Chip C	C1005JB1C105K	
C709	CU3535	Chip C	GRM36B102K50PT	
C710	CU3547	Chip C	GRM155B11C103KA01D	
C711	CU0141	Chip C	GRM21BB31E106KA73L	
C712	CU3601	Chip C	C1005JB1C105K	
C713	CU3535	Chip C	GRM36B102K50PT	
C714	CU3535	Chip C	GRM36B102K50PT	
C715	CU3547	Chip C	GRM155B11C103KA01D	
C716	CU3723	Chip C	1005 CH 50V 100PF J	
C717	CU3535	Chip C	GRM36B102K50PT	
C718	CU3535	Chip C	GRM36B102K50PT	
C719	CU3535	Chip C	GRM36B102K50PT	
C720	CU3723	Chip C	1005 CH 50V 100PF J	
C721	CU3551	Chip C	GRM155B11C223KA01D	
C722	CU3535	Chip C	GRM36B102K50PT	
C723	CU0141	Chip C	GRM21BB31E106KA73L	
C724	CU0141	Chip C	GRM21BB31E106KA73L	
C725	CU3535	Chip C	GRM36B102K50PT	
C726	CU3601	Chip C	C1005JB1C105K	
C727	CU3551	Chip C	GRM155B11C223KA01D	
C728	CU3547	Chip C	GRM155B11C103KA01D	
C729	CU3547	Chip C	GRM155B11C103KA01D	
C730	CU3535	Chip C	GRM36B102K50PT	
C731	CU3535	Chip C	GRM36B102K50PT	
C732	CU3547	Chip C	GRM155B11C103KA01D	
C733	CU3547	Chip C	GRM155B11C103KA01D	
C734	CU3554	Chip C	GRM155B11A104KA01D	
C735	CU3535	Chip C	GRM36B102K50PT	
C736	CU3535	Chip C	GRM36B102K50PT	
C737	NC			
C738	NC			
C739	NC			
C740	CE0375	Electrolytic C	16V 220UF	
C741	CE0375	Electrolytic C	16V 220UF	
CN701	UJ0099	Connector	N3511-006-01	
CN702	UJ0052Z	Connector	VR501-00011	
CN703	NC			
D701	XD0482	Diode	1SS405(TPH3.F)	
D702	XD0482	Diode	1SS405(TPH3.F)	
D703	XL0174	LED	SML-522MUWT86	
D704	XL0174	LED	SML-522MUWT86	
D705	XD0482	Diode	1SS405(TPH3.F)	
D706	XL0178	LED	SMLVN6RGB1W1	
D707	XL0178	LED	SMLVN6RGB1W1	
D708	XL0178	LED	SMLVN6RGB1W1	
D709	XL0178	LED	SMLVN6RGB1W1	
D710	XL0178	LED	SMLVN6RGB1W1	
D711	XL0178	LED	SMLVN6RGB1W1	
D712	XL0146	LED	SML-512DWT86 (S.T)	
D713	NC			
D714	XL0146	LED	SML-512DWT86 (S.T)	
D715	XL0146	LED	SML-512DWT86 (S.T)	
D716	XL0146	LED	SML-512DWT86 (S.T)	
D717	XL0146	LED	SML-512DWT86 (S.T)	
D718	XL0178	LED	SMLVN6RGB1W1	
D719	XL0178	LED	SMLVN6RGB1W1	
D720	NC			
D721	NC			
D722	XD0402	Diode	VDZT2R 5.1B	
D723	XD0402	Diode	VDZT2R 5.1B	
D724	XD0402	Diode	VDZT2R 5.1B	
D725	XD0426	Diode	1SS387(TPL3.F)	
D726	XD0426	Diode	1SS387(TPL3.F)	
D727	XD0426	Diode	1SS387(TPL3.F)	
D728	XD0426	Diode	1SS387(TPL3.F)	
D729	XD0426	Diode	1SS387(TPL3.F)	
D730	XD0426	Diode	1SS387(TPL3.F)	
D731	XD0426	Diode	1SS387(TPL3.F)	
D732	XD0426	Diode	1SS387(TPL3.F)	
D733	XD0426	Diode	1SS387(TPL3.F)	

Ref. No.	Parts No.	Description	Parts Name	Version
D734	XD0426	Diode	1SS387(TPL3.F)	
D735	XD0426	Diode	1SS387(TPL3.F)	
D736	XD0426	Diode	1SS387(TPL3.F)	
D737	XD0426	Diode	1SS387(TPL3.F)	
D738	XD0426	Diode	1SS387(TPL3.F)	
D739	XD0426	Diode	1SS387(TPL3.F)	
D740	XD0426	Diode	1SS387(TPL3.F)	
D741	XD0426	Diode	1SS387(TPL3.F)	
D742	XD0426	Diode	1SS387(TPL3.F)	
D743	XD0426	Diode	1SS387(TPL3.F)	
D744	XD0426	Diode	1SS387(TPL3.F)	
D745	XD0426	Diode	1SS387(TPL3.F)	
D746	XD0426	Diode	1SS387(TPL3.F)	
D747	XD0426	Diode	1SS387(TPL3.F)	
D748	XD0426	Diode	1SS387(TPL3.F)	
D749	XD0482	Diode	1SS405(TPH3.F)	
D750	XD0482	Diode	1SS405(TPH3.F)	
IC701	XA0573	Amplifier	NJM2904V-TE1	
IC702	XA1705	LCD Driver	HT16C24/80LQFP	
IC703	XA1724	CPU	R5F104FFAFP	
IC704	XA0947	Regulator	NJM78M05DL1A-TE1	
IC705	XA1194	Multiplexer	SN74LV4051APWR	
L701	QC1088	Chip Inductor	LQH2HPN101MG0	
LCD701	EL0071	LCD	LCD DR735	
Q701	XU0236	Digital transistor	EMD9T2R	
Q702	XU0236	Digital transistor	EMD9T2R	
Q703	XU0236	Digital transistor	EMD9T2R	
Q704	XU0236	Digital transistor	EMD9T2R	
Q705	XT0271	Amplifier	2SD2142KT146	
Q706	XT0271	Amplifier	2SD2142KT146	
Q707	XT0271	Amplifier	2SD2142KT146	
Q708	XT0271	Amplifier	2SD2142KT146	
Q709	XT0210	Transistor	11TAA2SC6026MGR	
Q710	XT0210	Transistor	11TAA2SC6026MGR	
Q711	XT0210	Transistor	11TAA2SC6026MGR	
Q712	XT0210	Transistor	11TAA2SC6026MGR	
Q713	XT0210	Transistor	11TAA2SC6026MGR	
Q714	XT0210	Transistor	11TAA2SC6026MGR	
Q715	XT0210	Transistor	11TAA2SC6026MGR	
Q716	XT0210	Transistor	11TAA2SC6026MGR	
Q717	XT0110	Transistor	2SA1036K	
Q718	XT0110	Transistor	2SA1036K	
Q719	XT0110	Transistor	2SA1036K	
Q720	XT0110	Transistor	2SA1036K	
Q721	XT0110	Transistor	2SA1036K	
Q722	XT0110	Transistor	2SA1036K	
Q723	XT0110	Transistor	2SA1036K	
Q724	XT0110	Transistor	2SA1036K	
R701	RK3526	Chip R	1005 1/16W 100 OHM J	
R702	RK3566	Chip R	1005 1/16W 220K OHMJ	
R703	RK3549	Chip R	1005 1/16W 8.2K OHMJ	
R704	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R705	RK3560	Chip R	1005 1/16W 68K OHM J	
R706	RK3543	Chip R	1005 1/16W 2.7K OHMJ	
R707	RK3552	Chip R	1005 1/16W 15K OHM J	
R708	RK3550	Chip R	1005 1/16W 10K OHM J	
R709	RK3550	Chip R	1005 1/16W 10K OHM J	
R710	RK3550	Chip R	1005 1/16W 10K OHM J	
R711	RK3526	Chip R	1005 1/16W 100 OHM J	
R712	RK3522	Chip R	1005 1/16W 47 OHM J	
R713	RK3550	Chip R	1005 1/16W 10K OHM J	
R714	RK3526	Chip R	1005 1/16W 100 OHM J	
R715	RK3550	Chip R	1005 1/16W 10K OHM J	
R716	RK3550	Chip R	1005 1/16W 10K OHM J	
R717	RK3550	Chip R	1005 1/16W 10K OHM J	
R718	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R719	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R720	RK3550	Chip R	1005 1/16W 10K OHM J	
R721	RK3550	Chip R	1005 1/16W 10K OHM J	
R722	RK3550	Chip R	1005 1/16W 10K OHM J	
R723	RK3550	Chip R	1005 1/16W 10K OHM J	
R724	RK3550	Chip R	1005 1/16W 10K OHM J	
R725	RK3550	Chip R	1005 1/16W 10K OHM J	
R726	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R727	RK3533	Chip R	1005 1/16W 390 OHM J	
R728	RK3533	Chip R	1005 1/16W 390 OHM J	
R729	RK3533	Chip R	1005 1/16W 390 OHM J	

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Ref. No.	Parts No.	Description	Parts Name	Version
R730	RK3533	Chip R	1005 1/16W 390 OHM J	
R731	RK3570	Chip R	1005 1/16W 470K OHMJ	
R732	RK3021	Chip R	1608 1/10W 39 OHM J	
R733	RK3026	Chip R	1608 1/10W 100 OHM J	
R734	RK3026	Chip R	1608 1/10W 100 OHM J	
R735	RK3021	Chip R	1608 1/10W 39 OHM J	
R736	RK3026	Chip R	1608 1/10W 100 OHM J	
R737	RK3026	Chip R	1608 1/10W 100 OHM J	
R738	RK3021	Chip R	1608 1/10W 39 OHM J	
R739	RK3026	Chip R	1608 1/10W 100 OHM J	
R740	RK3033	Chip R	1608 1/10W 390 OHM J	
R741	RK3033	Chip R	1608 1/10W 390 OHM J	
R742	RK3033	Chip R	1608 1/10W 390 OHM J	
R743	RK3033	Chip R	1608 1/10W 390 OHM J	
R744	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R745	RK3550	Chip R	1005 1/16W 10K OHM J	
R746	RK3033	Chip R	1608 1/10W 390 OHM J	
R747	RK3026	Chip R	1608 1/10W 100 OHM J	
R748	RK3021	Chip R	1608 1/10W 39 OHM J	
R749	RK3026	Chip R	1608 1/10W 100 OHM J	
R750	RK3026	Chip R	1608 1/10W 100 OHM J	
R751	RK3021	Chip R	1608 1/10W 39 OHM J	
R752	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R753	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R754	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R755	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R756	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R757	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R758	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R759	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R760	RK3550	Chip R	1005 1/16W 10K OHM J	
R761	RK3550	Chip R	1005 1/16W 10K OHM J	
R762	RK3550	Chip R	1005 1/16W 10K OHM J	
R763	RK3550	Chip R	1005 1/16W 10K OHM J	
R764	RK3550	Chip R	1005 1/16W 10K OHM J	
R765	RK3550	Chip R	1005 1/16W 10K OHM J	
R766	RK3550	Chip R	1005 1/16W 10K OHM J	
R767	RK3550	Chip R	1005 1/16W 10K OHM J	
R768	RK3550	Chip R	1005 1/16W 10K OHM J	
R769	RK3550	Chip R	1005 1/16W 10K OHM J	
R770	RK3026	Chip R	1608 1/10W 100 OHM J	
R771	RK3026	Chip R	1608 1/10W 100 OHM J	
R772	RK3021	Chip R	1608 1/10W 39 OHM J	
R773	RK3026	Chip R	1608 1/10W 100 OHM J	
R774	RK3026	Chip R	1608 1/10W 100 OHM J	
R775	RK3550	Chip R	1005 1/16W 10K OHM J	
R776	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R777	RK3550	Chip R	1005 1/16W 10K OHM J	
R778	RK3550	Chip R	1005 1/16W 10K OHM J	
R779	RK3550	Chip R	1005 1/16W 10K OHM J	
R780	RK3550	Chip R	1005 1/16W 10K OHM J	
R781	RK3550	Chip R	1005 1/16W 10K OHM J	
R782	RK3550	Chip R	1005 1/16W 10K OHM J	
R783	RK3550	Chip R	1005 1/16W 10K OHM J	
R784	RK3550	Chip R	1005 1/16W 10K OHM J	
R785	RK3021	Chip R	1608 1/10W 39 OHM J	
R786	RK3026	Chip R	1608 1/10W 100 OHM J	
R787	RK3026	Chip R	1608 1/10W 100 OHM J	
R788	RK3021	Chip R	1608 1/10W 39 OHM J	
R789	RK3026	Chip R	1608 1/10W 100 OHM J	
R790	RK3026	Chip R	1608 1/10W 100 OHM J	
R791	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R792	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R793	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R794	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R795	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R796	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R797	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R798	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R799	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R800	RK3550	Chip R	1005 1/16W 10K OHM J	
R801	RK3550	Chip R	1005 1/16W 10K OHM J	
R802	RK3550	Chip R	1005 1/16W 10K OHM J	
R803	RK3550	Chip R	1005 1/16W 10K OHM J	
R804	RK3550	Chip R	1005 1/16W 10K OHM J	
R805	RK3550	Chip R	1005 1/16W 10K OHM J	
R806	RK3550	Chip R	1005 1/16W 10K OHM J	

Ref. No.	Parts No.	Description	Parts Name	Version
R807	RK3550	Chip R	1005 1/16W 10K OHM J	
R808	RK3550	Chip R	1005 1/16W 10K OHM J	
R809	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
RE701	UR0033	Encoder	RH70N00AE2020F	
RE702	UR0033	Encoder	RH70N00AE2020F	
SW701	UU0047	TACT Switch	SKRPABE010	
SW702	UU0047	TACT Switch	SKRPABE010	
SW703	UU0047	TACT Switch	SKRPABE010	
SW704	UU0047	TACT Switch	SKRPABE010	
SW705	UU0047	TACT Switch	SKRPABE010	
SW706	UU0047	TACT Switch	SKRPABE010	
SW707	UU0047	TACT Switch	SKRPABE010	
VR701	RV0059	Potentiometer	RH76N00A20FB103	
VR702	RV0059	Potentiometer	RH76N00A20FB103	
VR703	RV0060	Potentiometer	RH76N7419FB103	
VR704	RV0060	Potentiometer	RH76N7419FB103	
	ST0128		LCD HOLDER DR735	
	TL0046		DIFFUSSION SHEET 735	
	TL0047		REFLECTION SHEET 735	
	FP0445		LED REFLECTOR DR735	
	FG0671		LCD RUBBER CONNECTOR	
	FG0522		CUSHION DJG7	

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Ref. No.	Parts No.	Description	Parts Name	Version
C101	CU3013	Chip C	1608 CH 50V 15PF J	
C102	NC			
C103	CU3601	Chip C	C1005JB1C105K	
C104	CU3011	Chip C	1608 CH 50V 10PF C	
C105	CU3003	Chip C	1608 CH 50V 2PF C	
C106	CU3535	Chip C	GRM36B102K50PT	
C107	CU4033	Chip C	GRM42-6X7R102K500PT	
C108	CU3015Z	Chip C	1608 CH 50V 22PF J	
C109	NC			
C110	CU3547	Chip C	GRM155B11C103KA01D	
C111	CU3706	Chip C	1005 CH 50V 5PF C	
C112	NC			
C113	NC			
C114	CU3064	Chip C	1608 CH 50V 1.5PF	
C115	CU3064	Chip C	1608 CH 50V 1.5PF	
C116	NC			
C117	NC			
C118	CU4716	Chip C	3216 COG 630V 27PF	
C119	CU4716	Chip C	3216 COG 630V 27PF	
C120	NC			
C121	CU4006	Chip C	GRM42-6CJ050C500PT	
C122	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C123	CU0141	Chip C	GRM21BB31E106KA73L	
C124	CU3535	Chip C	GRM36B102K50PT	
C125	CU3554	Chip C	GRM155B11A104KA01D	
C126	CU0118	Chip C	GRM21BB31C475KA87L	
C127	CU0141	Chip C	GRM21BB31E106KA73L	
C128	CU3015Z	Chip C	1608 CH 50V 22PF J	
C129	CU4715	Chip C	3216 COG 630V 22PF	
C130	CU4715	Chip C	3216 COG 630V 22PF	
C131	NC			
C132	CU3535	Chip C	GRM36B102K50PT	
C133	CU4713	Chip C	3216 COG 630V 15PF	
C134	CU4007	Chip C	GRM42-6CH060D500PT	
C135	CU4006	Chip C	GRM42-6CJ050C500PT	
C136	CU3011	Chip C	1608 CH 50V 10PF C	
C137	NC			
C138	CU3138	Chip C	GRM188B31C225KE14D	
C139	CU3535	Chip C	GRM36B102K50PT	
C140	CU4063	Chip C	GRM32EB31C476KE15L	
C141	CU3001	Chip C	1608 CH 50V .5PF C	
C142	CU3001	Chip C	1608 CH 50V .5PF C	
C143	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C144	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C145	NC			
C146	CU4003	Chip C	GRM42-6CK020C500PT	
C147	NC			
C148	CU4003	Chip C	GRM42-6CK020C500PT	
C149	CU4711	Chip C	3216 COG 630V 10PF	
C150	CU4008	Chip C	GRM42-6CH070D500PT	
C151	NC			
C152	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C153	CU0141	Chip C	GRM21BB31E106KA73L	
C154	CU3011	Chip C	1608 CH 50V 10PF C	
C155	CU3011	Chip C	1608 CH 50V 10PF C	
C156	CU3011	Chip C	1608 CH 50V 10PF C	
C157	CU7050	Chip C	3225 F 500V 56PF	
C158	CU3535	Chip C	GRM36B102K50PT	
C159	CU3009	Chip C	1608 CH 50V 8PF C	
C160	CU3009	Chip C	1608 CH 50V 8PF C	
C161	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C162	CU3023Z	Chip C	1608 CH 50V 100PF J	
C163	CU3138	Chip C	GRM188B31C225KE14D	
C164	CU3535	Chip C	GRM36B102K50PT	
C165	CU4063	Chip C	GRM32EB31C476KE15L	
C166	CU3706	Chip C	1005 CH 50V 5PF C	
C167	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C168	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C169	CU3535	Chip C	GRM36B102K50PT	
C170	CU3715	Chip C	1005 CH 50V 22PF J	
C171	CU3535	Chip C	GRM36B102K50PT	
C172	CU3535	Chip C	GRM36B102K50PT	
C173	CU3535	Chip C	GRM36B102K50PT	
C174	CU3554	Chip C	GRM155B11A104KA01D	
C175	CU3535	Chip C	GRM36B102K50PT	
C176	CU3554	Chip C	GRM155B11A104KA01D	
C177	NC			

Ref. No.	Parts No.	Description	Parts Name	Version
C178	CU3535	Chip C	GRM36B102K50PT	
C179	CU3535	Chip C	GRM36B102K50PT	
C180	CU3535	Chip C	GRM36B102K50PT	
C181	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C182	CU3023Z	Chip C	1608 CH 50V 100PF J	
C183	CU3535	Chip C	GRM36B102K50PT	
C184	CU3535	Chip C	GRM36B102K50PT	
C185	CU3535	Chip C	GRM36B102K50PT	
C186	CU3554	Chip C	GRM155B11A104KA01D	
C187	CU3535	Chip C	GRM36B102K50PT	
C188	CU3535	Chip C	GRM36B102K50PT	
C189	CU3554	Chip C	GRM155B11A104KA01D	
C190	CU3535	Chip C	GRM36B102K50PT	
C191	CU3554	Chip C	GRM155B11A104KA01D	
C192	CU4061	Chip C	GRM31CB31C226KE15L	
C193	CU3554	Chip C	GRM155B11A104KA01D	
C194	NC			
C195	NC			
C196	CU3601	Chip C	C1005JB1C105K	
C197	CU3535	Chip C	GRM36B102K50PT	
C198	CU3535	Chip C	GRM36B102K50PT	
C199	NC			
C200	CU3535	Chip C	GRM36B102K50PT	
C201	CU3535	Chip C	GRM36B102K50PT	
C202	CU3535	Chip C	GRM36B102K50PT	
C203	CU3535	Chip C	GRM36B102K50PT	
C204	CU4061	Chip C	GRM31CB31C226KE15L	
C205	CU3601	Chip C	C1005JB1C105K	
C206	CU3535	Chip C	GRM36B102K50PT	
C207	CU0141	Chip C	GRM21BB31E106KA73L	
C208	CU3535	Chip C	GRM36B102K50PT	
C209	CU3554	Chip C	GRM155B11A104KA01D	
C210	CU3006	Chip C	1608 CH 50V 5PF C	
C211	CU3547	Chip C	GRM155B11C103KA01D	
C212	CU0141	Chip C	GRM21BB31E106KA73L	
C213	CU3547	Chip C	GRM155B11C103KA01D	
C214	CU0141	Chip C	GRM21BB31E106KA73L	
C215	CU3554	Chip C	GRM155B11A104KA01D	
C216	CU3535	Chip C	GRM36B102K50PT	
C217	CU3554	Chip C	GRM155B11A104KA01D	
C218	CU3535	Chip C	GRM36B102K50PT	
C219	CU3535	Chip C	GRM36B102K50PT	
C220	CU3535	Chip C	GRM36B102K50PT	
C221	CU3535	Chip C	GRM36B102K50PT	
C222	CU3554	Chip C	GRM155B11A104KA01D	
C223	CU0118	Chip C	GRM21BB31C475KA87L	
C224	CU0141	Chip C	GRM21BB31E106KA73L	
C225	CU3547	Chip C	GRM155B11C103KA01D	
C226	CU3707	Chip C	1005 CH 50V 6PF D	
C227	CU3554	Chip C	GRM155B11A104KA01D	
C228	CU3547	Chip C	GRM155B11C103KA01D	
C229	CU3535	Chip C	GRM36B102K50PT	
C230	CU3709	Chip C	1005 CH 50V 8PF D	
C231	CU3710	Chip C	1005 CH 50V 9PF D	
C232	CU3701	Chip C	1005 CH 50V 0.5PF C	
C233	CU3535	Chip C	GRM36B102K50PT	
C234	CU3535	Chip C	GRM36B102K50PT	
C235	CU3701	Chip C	1005 CH 50V 0.5PF C	
C236	CU3710	Chip C	1005 CH 50V 9PF D	
C237	CU3722	Chip C	1005 CH 50V 82PF J	
C238	CU3535	Chip C	GRM36B102K50PT	
C239	NC			
C240	NC			
C241	CU3704	Chip C	1005 CH 50V 3PF C	
C242	CU3527	Chip C	GRM155C1E221JD01D	
C243	CU3710	Chip C	1005 CH 50V 9PF D	
C244	CU3535	Chip C	GRM36B102K50PT	
C245	CU3535	Chip C	GRM36B102K50PT	
C246	CU3717	Chip C	1005 CH 50V 33PF J	
C247	CU3535	Chip C	GRM36B102K50PT	
C248	CU3717	Chip C	1005 CH 50V 33PF J	
C249	CU3535	Chip C	GRM36B102K50PT	
C250	CU3723	Chip C	1005 CH 50V 100PF J	
C251	CU3723	Chip C	1005 CH 50V 100PF J	
C252	CU3535	Chip C	GRM36B102K50PT	
C253	CU3535	Chip C	GRM36B102K50PT	
C254	CU3554	Chip C	GRM155B11A104KA01D	

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Ref. No.	Parts No.	Description	Parts Name	Version
C255	CU3535	Chip C	GRM36B102K50PT	
C256	CU3554	Chip C	GRM155B11A104KA01D	
C257	CU3723	Chip C	1005 CH 50V 100PF J	
C258	CU3723	Chip C	1005 CH 50V 100PF J	
C259	CU3535	Chip C	GRM36B102K50PT	
C260	CU3535	Chip C	GRM36B102K50PT	
C261	CU3535	Chip C	GRM36B102K50PT	
C262	CU3535	Chip C	GRM36B102K50PT	
C263	CU3535	Chip C	GRM36B102K50PT	
C264	CU3535	Chip C	GRM36B102K50PT	
C265	CU3535	Chip C	GRM36B102K50PT	
C266	CU3554	Chip C	GRM155B11A104KA01D	
C267	CU3527	Chip C	GRM1552C1E221JD01D	
C268	CU3554	Chip C	GRM155B11A104KA01D	
C269	CU3717	Chip C	1005 CH 50V 33PF J	
C270	CU3554	Chip C	GRM155B11A104KA01D	
C271	CU3601	Chip C	C1005JB1C105K	
C272	CU3554	Chip C	GRM155B11A104KA01D	
C273	CU3717	Chip C	1005 CH 50V 33PF J	
C274	CU3554	Chip C	GRM155B11A104KA01D	
C275	CU3554	Chip C	GRM155B11A104KA01D	
C276	NC			
C277	NC			
C278	CU3527	Chip C	GRM1552C1E221JD01D	
C279	CU3554	Chip C	GRM155B11A104KA01D	
C280	CU3547	Chip C	GRM155B11C103KA01D	
C281	CU3601	Chip C	C1005JB1C105K	
C282	CU3535	Chip C	GRM36B102K50PT	
C283	CU3535	Chip C	GRM36B102K50PT	
C284	CU3547	Chip C	GRM155B11C103KA01D	
C285	CU3601	Chip C	C1005JB1C105K	
C286	CU0141	Chip C	GRM21BB31E106KA73L	
C287	CU3535	Chip C	GRM36B102K50PT	
C288	CU3554	Chip C	GRM155B11A104KA01D	
C289	CU3554	Chip C	GRM155B11A104KA01D	
C290	CU3554	Chip C	GRM155B11A104KA01D	
C291	CU3554	Chip C	GRM155B11A104KA01D	
C292	CU3554	Chip C	GRM155B11A104KA01D	
C293	CU3601	Chip C	C1005JB1C105K	
C294	NC			
C295	CU0141	Chip C	GRM21BB31E106KA73L	
C296	CU0141	Chip C	GRM21BB31E106KA73L	
C297	CU3535	Chip C	GRM36B102K50PT	
C298	CU3547	Chip C	GRM155B11C103KA01D	
C299	CU0141	Chip C	GRM21BB31E106KA73L	
C300	CU0141	Chip C	GRM21BB31E106KA73L	
C301	CU3722	Chip C	1005 CH 50V 82PF J	
C302	CU3551	Chip C	GRM155B11C223KA01D	
C303	CU3601	Chip C	C1005JB1C105K	
C304	CU3554	Chip C	GRM155B11A104KA01D	
C305	NC			
C306	CU3543	Chip C	GRM155B11E472KA01D	
C307	CU3601	Chip C	C1005JB1C105K	
C308	CU3554	Chip C	GRM155B11A104KA01D	
C309	CU3553	Chip C	GRM36B473K10PT	
C310	CU3535	Chip C	GRM36B102K50PT	
C311	CU3547	Chip C	GRM155B11C103KA01D	
C312	CU3554	Chip C	GRM155B11A104KA01D	
C313	CU3526	Chip C	GRM1552C1E181JD01D	
C314	CU3538	Chip C	GRM36B182K50PT	
C315	CU3723	Chip C	1005 CH 50V 100PF J	
C316	CU3547	Chip C	GRM155B11C103KA01D	
C317	CU3535	Chip C	GRM36B102K50PT	
C318	CU3547	Chip C	GRM155B11C103KA01D	
C319	CU3711	Chip C	1005 CH 50V 10PF J	
C320	CU3535	Chip C	GRM36B102K50PT	
C321	CU3709	Chip C	1005 CH 50V 8PF D	
C322	CU3710	Chip C	1005 CH 50V 9PF D	
C323	CU3701	Chip C	1005 CH 50V 0.5PF C	
C324	CU3535	Chip C	GRM36B102K50PT	
C325	CU3535	Chip C	GRM36B102K50PT	
C326	CU3701	Chip C	1005 CH 50V 0.5PF C	
C327	CU3710	Chip C	1005 CH 50V 9PF D	
C328	CU3535	Chip C	GRM36B102K50PT	
C329	NC			
C330	NC			
C331	CU3704	Chip C	1005 CH 50V 3PF C	

Ref. No.	Parts No.	Description	Parts Name	Version
C332	CU3527	Chip C	GRM1552C1E221JD01D	
C333	CU3710	Chip C	1005 CH 50V 9PF D	
C334	CU3547	Chip C	GRM155B11C103KA01D	
C335	CU3535	Chip C	GRM36B102K50PT	
C336	CU3547	Chip C	GRM155B11C103KA01D	
C337	CU3717	Chip C	1005 CH 50V 33PF J	
C338	CU3717	Chip C	1005 CH 50V 33PF J	
C339	CU3535	Chip C	GRM36B102K50PT	
C340	CU3723	Chip C	1005 CH 50V 100PF J	
C341	CU3723	Chip C	1005 CH 50V 100PF J	
C342	CU3723	Chip C	1005 CH 50V 100PF J	
C343	CU3723	Chip C	1005 CH 50V 100PF J	
C344	CU3535	Chip C	GRM36B102K50PT	
C345	CU3535	Chip C	GRM36B102K50PT	
C346	CU3554	Chip C	GRM155B11A104KA01D	
C347	CU3535	Chip C	GRM36B102K50PT	
C348	CU3554	Chip C	GRM155B11A104KA01D	
C349	CU3535	Chip C	GRM36B102K50PT	
C350	CU3554	Chip C	GRM155B11A104KA01D	
C351	CU3535	Chip C	GRM36B102K50PT	
C352	CU3535	Chip C	GRM36B102K50PT	
C353	CU3535	Chip C	GRM36B102K50PT	
C354	CU3535	Chip C	GRM36B102K50PT	
C355	CU3535	Chip C	GRM36B102K50PT	
C356	CU3535	Chip C	GRM36B102K50PT	
C357	CU3006	Chip C	1608 CH 50V 5PF C	
C358	CU3554	Chip C	GRM155B11A104KA01D	
C359	CU3535	Chip C	GRM36B102K50PT	
C360	CU3722	Chip C	1005 CH 50V 82PF J	
C361	CU3601	Chip C	C1005JB1C105K	
C362	CU0141	Chip C	GRM21BB31E106KA73L	
C363	CU3535	Chip C	GRM36B102K50PT	
C364	CU3547	Chip C	GRM155B11C103KA01D	
C365	CU0141	Chip C	GRM21BB31E106KA73L	
C366	CU3547	Chip C	GRM155B11C103KA01D	
C367	CU3554	Chip C	GRM155B11A104KA01D	
C368	CU3535	Chip C	GRM36B102K50PT	
C369	CU3535	Chip C	GRM36B102K50PT	
C370	CU3601	Chip C	C1005JB1C105K	
C371	CU3535	Chip C	GRM36B102K50PT	
C372	CU0141	Chip C	GRM21BB31E106KA73L	
C373	CU3547	Chip C	GRM155B11C103KA01D	
C374	CU3527	Chip C	GRM1552C1E221JD01D	
C375	CU3535	Chip C	GRM36B102K50PT	
C376	CU3554	Chip C	GRM155B11A104KA01D	
C377	CU3711	Chip C	1005 CH 50V 10PF J	
C378	CU3554	Chip C	GRM155B11A104KA01D	
C379	CU3554	Chip C	GRM155B11A104KA01D	
C380	CU3535	Chip C	GRM36B102K50PT	
C381	CU3760	Chip C	1005 CH 50V 1.5PF C	
C382	CU3701	Chip C	1005 CH 50V 0.5PF C	
C383	CU3535	Chip C	GRM36B102K50PT	
C384	CU3709	Chip C	1005 CH 50V 8PF D	
C385	CU3701	Chip C	1005 CH 50V 0.5PF C	
C386	CU3760	Chip C	1005 CH 50V 1.5PF C	
C387	CU3712	Chip C	1005 CH 50V 12PF J	
C388	NC			
C389	CU3723	Chip C	1005 CH 50V 100PF J	
C390	NC			
C391	NC			
C392	NC			
C393	NC			
C394	CU3705	Chip C	1005 CH 50V 4PF C	
C395	NC			
C396	CU3706	Chip C	1005 CH 50V 5PF C	
C397	CU3527	Chip C	GRM1552C1E221JD01D	
C398	CU3547	Chip C	GRM155B11C103KA01D	
C399	CU3701	Chip C	1005 CH 50V 0.5PF C	
C400	CU3701	Chip C	1005 CH 50V 0.5PF C	
C401	CU3554	Chip C	GRM155B11A104KA01D	
C402	CU3547	Chip C	GRM155B11C103KA01D	
C403	CU3554	Chip C	GRM155B11A104KA01D	
C404	CU3723	Chip C	1005 CH 50V 100PF J	
C405	CU3723	Chip C	1005 CH 50V 100PF J	
C406	CU3713	Chip C	1005 CH 50V 15PF J	
C407	CU3708	Chip C	1005 CH 50V 7PF D	
C408	CU3713	Chip C	1005 CH 50V 15PF J	

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Ref. No.	Parts No.	Description	Parts Name	Version
C409	CU3708	Chip C	1005 CH 50V 7PF D	
C410	CU3535	Chip C	GRM36B102K50PT	
C411	CU3554	Chip C	GRM155B11A104KA01D	
C412	CU3535	Chip C	GRM36B102K50PT	
C413	CU3535	Chip C	GRM36B102K50PT	
C414	CU3547	Chip C	GRM155B11C103KA01D	
C415	CU3554	Chip C	GRM155B11A104KA01D	
C416	CU3551	Chip C	GRM155B11C223KA01D	
C417	CU3535	Chip C	GRM36B102K50PT	
C418	CU3535	Chip C	GRM36B102K50PT	
C419	NC			
C420	NC			
C421	CU3535	Chip C	GRM36B102K50PT	
C422	CU3554	Chip C	GRM155B11A104KA01D	
C423	CU3554	Chip C	GRM155B11A104KA01D	
C424	CU3535	Chip C	GRM36B102K50PT	
C425	CU3535	Chip C	GRM36B102K50PT	
C426	CU3535	Chip C	GRM36B102K50PT	
C427	CU3535	Chip C	GRM36B102K50PT	
C428	NC			
C429	CU3601	Chip C	C1005JB1C105K	
C430	CU3723	Chip C	1005 CH 50V 100PF J	
C431	CU3554	Chip C	GRM155B11A104KA01D	
C432	CU3554	Chip C	GRM155B11A104KA01D	
C433	CU0141	Chip C	GRM21BB31E106KA73L	
C434	CU3535	Chip C	GRM36B102K50PT	
C435	CU3554	Chip C	GRM155B11A104KA01D	
C436	CU3549	Chip C	1005 B 16V 0.015UF K	
C437	CU3535	Chip C	GRM36B102K50PT	
C438	CU3547	Chip C	GRM155B11C103KA01D	
C439	CU3723	Chip C	1005 CH 50V 100PF J	
C440	CU3547	Chip C	GRM155B11C103KA01D	
C441	NC			
C442	CU3543	Chip C	GRM155B11E472KA01D	
C443	CU3547	Chip C	GRM155B11C103KA01D	
C444	CU3723	Chip C	1005 CH 50V 100PF J	
C445	CU3723	Chip C	1005 CH 50V 100PF J	
C446	CU3723	Chip C	1005 CH 50V 100PF J	
C447	CU3543	Chip C	GRM155B11E472KA01D	
C448	CU3723	Chip C	1005 CH 50V 100PF J	
C449	CU3547	Chip C	GRM155B11C103KA01D	
C450	CU3535	Chip C	GRM36B102K50PT	
C451	CU3723	Chip C	1005 CH 50V 100PF J	
C452	CU3535	Chip C	GRM36B102K50PT	
C453	CU3535	Chip C	GRM36B102K50PT	
C454	CU3535	Chip C	GRM36B102K50PT	
C455	CU3701	Chip C	1005 CH 50V 0.5PF C	
C456	CU3701	Chip C	1005 CH 50V 0.5PF C	
C457	CU3535	Chip C	GRM36B102K50PT	
C458	CU3709	Chip C	1005 CH 50V 8PF D	
C459	CU3701	Chip C	1005 CH 50V 0.5PF C	
C460	CU3701	Chip C	1005 CH 50V 0.5PF C	
C461	CU0141	Chip C	GRM21BB31E106KA73L	
C462	NC			
C463	NC			
C464	NC			
C465	NC			
C466	NC			
C467	NC			
C468	CU3705	Chip C	1005 CH 50V 4PF C	
C469	NC			
C470	CU0141	Chip C	GRM21BB31E106KA73L	
C471	CU3706	Chip C	1005 CH 50V 5PF C	
C472	NC			
C473	NC			
C474	CU3713	Chip C	1005 CH 50V 15PF J	
C475	CU3708	Chip C	1005 CH 50V 7PF D	
C476	CU3713	Chip C	1005 CH 50V 15PF J	
C477	CU3708	Chip C	1005 CH 50V 7PF D	
C478	CU3601	Chip C	C1005JB1C105K	
C479	CU3535	Chip C	GRM36B102K50PT	
C480	CU3554	Chip C	GRM155B11A104KA01D	
C481	CU3535	Chip C	GRM36B102K50PT	
C482	CU3535	Chip C	GRM36B102K50PT	
C483	CU3552	Chip C	GRM36B333K10PT	
C484	CU3601	Chip C	C1005JB1C105K	
C485	CU3551	Chip C	GRM155B11C223KA01D	

Ref. No.	Parts No.	Description	Parts Name	Version
C486	CU3551	Chip C	GRM155B11C223KA01D	
C488	CU3535	Chip C	GRM36B102K50PT	
C489	NC			
C490	CU3535	Chip C	GRM36B102K50PT	
C491	NC			
C492	CU3535	Chip C	GRM36B102K50PT	
C493	CU3535	Chip C	GRM36B102K50PT	
C494	CU3535	Chip C	GRM36B102K50PT	
C495	CU3535	Chip C	GRM36B102K50PT	
C496	NC			
C497	CU3543	Chip C	GRM155B11E472KA01D	
C498	CU4065	Chip C	C3216JB1C336M160AB	
C499	CU4063	Chip C	GRM32EB31C476KE15L	
C500	CU4063	Chip C	GRM32EB31C476KE15L	
C501	CU4065	Chip C	C3216JB1C336M160AB	
C502	CU4063	Chip C	GRM32EB31C476KE15L	
C503	CE0482	Electrolytic C	16CE100FS	
C504	CU3535	Chip C	GRM36B102K50PT	
C505	CU3547	Chip C	GRM155B11C103KA01D	
C506	CU0141	Chip C	GRM21BB31E106KA73L	
C507	CU3601	Chip C	C1005JB1C105K	
C508	CU3601	Chip C	C1005JB1C105K	
C509	NC			
C510	CU0141	Chip C	GRM21BB31E106KA73L	
C511	NC			
C512	CU0141	Chip C	GRM21BB31E106KA73L	
C513	CU3140Z	Chip C	1608 B 25V 0.22UF K	
C514	CU3601	Chip C	C1005JB1C105K	
C515	CU3140Z	Chip C	1608 B 25V 0.22UF K	
C516	CU3601	Chip C	C1005JB1C105K	
C517	CU3601	Chip C	C1005JB1C105K	
C518	CU3552	Chip C	GRM36B333K10PT	
C519	CU3601	Chip C	C1005JB1C105K	
C520	CU3551	Chip C	GRM155B11C223KA01D	
C521	CU3551	Chip C	GRM155B11C223KA01D	
C522	CU3601	Chip C	C1005JB1C105K	
C523	CU3543	Chip C	GRM155B11E472KA01D	
C524	CU3551	Chip C	GRM155B11C223KA01D	
C525	CU3549	Chip C	1005 B 16V 0.015UF K	
C526	CU0141	Chip C	GRM21BB31E106KA73L	
C527	CU3035Z	Chip C	1608 W5R 50V 0.001UF	
C528	CU3027Z	Chip C	1608 CH 50V 220PF J	
C529	CE0343	Electrolytic C	16V 1000UF	
C530	CU3535	Chip C	GRM36B102K50PT	
C531	CU0141	Chip C	GRM21BB31E106KA73L	
C532	CU3535	Chip C	GRM36B102K50PT	
C533	CU4063	Chip C	GRM32EB31C476KE15L	
C534	NC			
C535	NC			
C536	CU3554	Chip C	GRM155B11A104KA01D	
C537	CU3601	Chip C	C1005JB1C105K	
C538	CU3541	Chip C	GRM36B332K50PT	
C539	CU3538	Chip C	GRM36B182K50PT	
C540	CU3544	Chip C	GRM36B562K25PT	
C541	CU3540	Chip C	GRM36B272K50PT	
C542	CU3551	Chip C	GRM155B11C223KA01D	
C543	CU3544	Chip C	GRM36B562K25PT	
C544	CU3542	Chip C	GRM36B392K50PT	
C545	CU3535	Chip C	GRM36B102K50PT	
C546	CU3547	Chip C	GRM155B11C103KA01D	
C547	CU3554	Chip C	GRM155B11A104KA01D	
C548	CU3554	Chip C	GRM155B11A104KA01D	
C549	CU3551	Chip C	GRM155B11C223KA01D	
C550	CU3549	Chip C	1005 B 16V 0.015UF K	
C551	CU3601	Chip C	C1005JB1C105K	
C552	CU3547	Chip C	GRM155B11C103KA01D	
C553	CU3551	Chip C	GRM155B11C223KA01D	
C554	CU3554	Chip C	GRM155B11A104KA01D	
C555	CU3601	Chip C	C1005JB1C105K	
C556	CU3541	Chip C	GRM36B332K50PT	
C557	CU3538	Chip C	GRM36B182K50PT	
C558	CU3544	Chip C	GRM36B562K25PT	
C559	CU3540	Chip C	GRM36B272K50PT	
C560	CU3551	Chip C	GRM155B11C223KA01D	
C561	CU3551	Chip C	GRM155B11C223KA01D	
C562	CU3544	Chip C	GRM36B562K25PT	
C563	CU3542	Chip C	GRM36B392K50PT	

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C564	CU0141	Chip C	GRM21BB31E106KA73L	
C565	CU3047Z	Chip C	1608W5R 50V 0.01UF	
C566	CU3547	Chip C	GRM155B11C103KA01D	
C567	CU0141	Chip C	GRM21BB31E106KA73L	
C568	CU3535	Chip C	GRM36B102K50PT	
C569	CU0141	Chip C	GRM21BB31E106KA73L	
C570	CU3709	Chip C	1005 CH 50V 8PF D	
C571	CU3709	Chip C	1005 CH 50V 8PF D	
C572	CU3535	Chip C	GRM36B102K50PT	
C573	CU0141	Chip C	GRM21BB31E106KA73L	
C574	CU3547	Chip C	GRM155B11C103KA01D	
C575	CU3547	Chip C	GRM155B11C103KA01D	
C576	CU3535	Chip C	GRM36B102K50PT	
C577	CU3547	Chip C	GRM155B11C103KA01D	
C578	CU3711	Chip C	1005 CH 50V 10PF J	
C579	CU3535	Chip C	GRM36B102K50PT	
C580	CU3547	Chip C	GRM155B11C103KA01D	
C581	CU3547	Chip C	GRM155B11C103KA01D	
C582	CU3551	Chip C	GRM155B11C223KA01D	
C583	CU3535	Chip C	GRM36B102K50PT	
C584	CE0414	Electrolytic C	UUR1C471MNR1GS	
C585	CE0414	Electrolytic C	UUR1C471MNR1GS	
C586	CU3547	Chip C	GRM155B11C103KA01D	
C587	NC			
C588	CU3601	Chip C	C1005JB1C105K	
C589	CU3601	Chip C	C1005JB1C105K	
C590	NC			
C591	NC			
C592	CU3601	Chip C	C1005JB1C105K	
C593	CU3601	Chip C	C1005JB1C105K	
C594	CU3547	Chip C	GRM155B11C103KA01D	
C595	CU3547	Chip C	GRM155B11C103KA01D	
C596	NC			
C597	CU3723	Chip C	1005 CH 50V 100PF J	
C598	CU3723	Chip C	1005 CH 50V 100PF J	
C599	CU3535	Chip C	GRM36B102K50PT	
C600	CU3535	Chip C	GRM36B102K50PT	
C601	CU3535	Chip C	GRM36B102K50PT	
C602	CU3601	Chip C	C1005JB1C105K	
C603	CU3554	Chip C	GRM155B11A104KA01D	
C604	CU3547	Chip C	GRM155B11C103KA01D	
C605	CU3554	Chip C	GRM155B11A104KA01D	
C606	CU3547	Chip C	GRM155B11C103KA01D	
C607	CU3547	Chip C	GRM155B11C103KA01D	
C608	CU3601	Chip C	C1005JB1C105K	
C609	CU3601	Chip C	C1005JB1C105K	
C610	CU3601	Chip C	C1005JB1C105K	
C611	CU3547	Chip C	GRM155B11C103KA01D	
C612	CU3547	Chip C	GRM155B11C103KA01D	
C613	CU3601	Chip C	C1005JB1C105K	
C614	CU3712	Chip C	1005 CH 50V 12PF J	
C615	CU3535	Chip C	GRM36B102K50PT	
CN101	UE0214	Connector	AXN420C530P	
CN102	UJ0051Z	Connector	VR501-00011H	
CN103	UJ0098	Connector	VR3188-000-A000S2	
CN104	UJ0097	Connector	SCN556S6GTNB000G	
CN105	UE0043	Connector	PI22A02M	
CN106	UA0096	Connector	R-B2.0X3M RECEPT.15A	
CN107	UE0226	Connector	B2B-PH-K-S(FL)(SN)	
CN108	NC			
D101	XD0544	Diode	L5204FR	
D102	XD0544	Diode	L5204FR	
D103	XD0535	Diode	L8103R	
D104	XD0535	Diode	L8103R	
D105	XD0474	Diode	1SS402(TE85L,F)	
D106	XD0540	Diode	L5208FR	
D107	XD0426	Diode	1SS387(TPL3,F)	
D108	XD0482	Diode	1SS405(TPH3,F)	
D109	XD0474	Diode	1SS402(TE85L,F)	
D110	XD0540	Diode	L5208FR	
D111	XD0395	Diode	UDZS TE-17 5.6B	
D112	XD0540	Diode	L5208FR	
D113	XD0426	Diode	1SS387(TPL3,F)	
D114	XD0395	Diode	UDZS TE-17 5.6B	
D115	XD0540	Diode	L5208FR	
D116	XD0540	Diode	L5208FR	
D117	XD0540	Diode	L5208FR	

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D118	XD0320	Diode	DAN235E-TL	
D119	XD0552	Diode	BBY65-02V H6327	
D120	XD0552	Diode	BBY65-02V H6327	
D121	XD0552	Diode	BBY65-02V H6327	
D122	XD0552	Diode	BBY65-02V H6327	
D123	XD0123	Diode	1SV172	
D124	XD0320	Diode	DAN235E-TL	
D125	XD0320	Diode	DAN235E-TL	
D126	XD0402	Diode	VDZT2R 5.1B	
D127	XD0123	Diode	1SV172	
D128	XD0320	Diode	DAN235E-TL	
D129	XD0552	Diode	BBY65-02V H6327	
D130	XD0552	Diode	BBY65-02V H6327	
D131	XD0552	Diode	BBY65-02V H6327	
D132	XD0552	Diode	BBY65-02V H6327	
D133	XD0482	Diode	1SS405(TPH3,F)	
D134	XD0402	Diode	VDZT2R 5.1B	
D135	XD0540	Diode	L5208FR	
D136	XD0540	Diode	L5208FR	
D137	XD0552	Diode	BBY65-02V H6327	
D138	XD0552	Diode	BBY65-02V H6327	
D139	XD0552	Diode	BBY65-02V H6327	
D140	XD0552	Diode	BBY65-02V H6327	
D141	XD0123	Diode	1SV172	
D142	NC			
D143	NC			
D144	NC			
D145	NC			
D146	XD0402	Diode	VDZT2R 5.1B	
D147	XD0482	Diode	1SS405(TPH3,F)	
D148	XD0320	Diode	DAN235E-TL	
D149	XD0320	Diode	DAN235E-TL	
D150	XD0402	Diode	VDZT2R 5.1B	
D151	XD0402	Diode	VDZT2R 5.1B	
D152	XD0402	Diode	VDZT2R 5.1B	
D153	XD0402	Diode	VDZT2R 5.1B	
D154	XD0402	Diode	VDZT2R 5.1B	
D155	XD0123	Diode	1SV172	
D156	XD0552	Diode	BBY65-02V H6327	
D157	XD0552	Diode	BBY65-02V H6327	
D158	XD0552	Diode	BBY65-02V H6327	
D159	XD0552	Diode	BBY65-02V H6327	
D160	NC			
D161	NC			
D162	NC			
D163	NC			
D164	XD0402	Diode	VDZT2R 5.1B	
D165	XD0482	Diode	1SS405(TPH3,F)	
D166	XD0482	Diode	1SS405(TPH3,F)	
D167	XD0414	Diode	S3V60-5000	
D168	XD0564	Diode	KDZ18B	
D169	XD0482	Diode	1SS405(TPH3,F)	
D170	XD0320	Diode	DAN235E-TL	
D171	XD0426	Diode	1SS387(TPL3,F)	
D172	XD0544	Diode	L5204FR	
FL101	XC0018	Filter	CFWLB450KE2A-B0	
FL102	XC0136	Filter	CFWLB450KGFA-B0	
FL103	XC0023	Filter	CFWLB455KEFA-B0	
FL104	XC0043	Filter	CFWLB455KGFA-B0	
FM101	FM0466	Plate	JACK PLATE DR735	
IC101	XA1108	Power Modules	RA60H1317M1A-201	
IC102	XA1706	Power Modules	RA60H4047M1-101	
IC103	XA1625	1 Chip IC	BK4811B	
IC104	XA0332	Amplifier	TA75S01F(TE85L)	
IC105	XA0332	Amplifier	TA75S01F(TE85L)	
IC106	XA1277	Regulator	TAR5S33U(TE85L,F)	
IC107	XA1694	Mixer	NJM2288	
IC108	XA1391	Demodulator IC	NJM2591V-TE1	
IC109	XA1625	1 Chip IC	BK4811B	
IC110	XA0348	Multiplexer	TC4W53FU(TE12L)	
IC111	XA1695	Electronic volum	NJU72341	
IC112	XA0348	Multiplexer	TC4W53FU(TE12L)	
IC113	XA0596	Amplifier	NJM2902V-TE1	
IC114	XA0348	Multiplexer	TC4W53FU(TE12L)	
IC115	XA1694	Mixer	NJM2288	
IC116	XA0947	Regulator	NJM78M05DL1A-TE1	
IC117	XA1391	Demodulator	NJM2591V-TE1	

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IC118	XA0348	Multiplexer	TC4W53FU(TE12L)	
IC119	XA0332	Amplifier	TA75S01F(TE85L)	
IC120	XA1696	D/A Converter	BH2221FV	
IC121	XA1335	TEMP Sensor	BD1020HFV-TR	
IC122	XA0573	Amplifier	NJM2904V-TE1	
IC123	XA0348	Multiplexer	TC4W53FU(TE12L)	
IC124	XA0596	Amplifier	NJM2902V-TE1	
IC125	XA1519	Amplifier	BA5406	
IC126	XA0348	Multiplexer	TC4W53FU(TE12L)	
IC127	XA1695	Electronic volum	NJU72341	
IC128	XA0348	Multiplexer	TC4W53FU(TE12L)	
IC129	XA1697	CPU	R5F104PJAFB#V0	
IC130	XA1417	EEPROM	R1EX24008ATAS0A#S0	
IC131	XA0102	Regulator	NJM7808FA	
IC132	XA0596	Amplifier	NJM2902V-TE1	
IC133	XA1715	EEPROM	BR24G1MF-3AGTE2	
IC134	XA0348	Multiplexer	TC4W53FU(TE12L)	
IC135	XA0620	Voltage detector	S-80845ALMP-EA9-T2	
IC136	XA0098	Regulator	IC NJM78L05UA	
IC137	XA0332	Amplifier	TA75S01F(TE85L)	
IC138	XA1229	Multiplexer	BU4052BCFV-E2	
JK101	UJ0096	Jack	HTJ-035-09ABP	
JK102	UJ0096	Jack	HTJ-035-09ABP	
JP101	MACLO4G	Lead wire	#30AH1-040-H1	735T.E
L101	QC0897	Chip Inductor	C2012CR15J	
L102	QKA45E	Coil	MR3.0 4.5T 0.8	
L103	QKA35D	Coil	MR3.0 3.5T 0.6	
L104	QKA45E	Coil	MR3.0 4.5T 0.8	
L105	QKA45E	Coil	MR3.0 4.5T 0.8	
L106	QKA45E	Coil	MR3.0 4.5T 0.8	
L107	QKA45E	Coil	MR3.0 4.5T 0.8	
L108	QKA25E	Coil	MR3.0 2.5T 0.8	
L109	QC0126	Chip Inductor	3225 .22 UH	
L110	QKA95D	Coil	MR3.0 9.5T 0.6	
L111	QKA15D	Coil	MR3.0 1.5T 0.6	
L112	QKA15E	Coil	MR3.0 1.5T 0.8	
L113	QKA15E	Coil	MR3.0 1.5T 0.8	
L114	QKA15E	Coil	MR3.0 1.5T 0.8	
L115	QC0891	Chip Inductor	C2012C47NJ	
L116	QKA15E	Coil	MR3.0 1.5T 0.8	
L117	QKA15E	Coil	MR3.0 1.5T 0.8	
L118	QKA95D	Coil	MR3.0 9.5T 0.6	
L119	QKA15D	Coil	MR3.0 1.5T 0.6	
L120	QC0268	Chip Inductor	2520 22 NH	
L121	QC0897	Chip Inductor	C2012CR15J	
L122	QC0891	Chip Inductor	C2012C47NJ	
L123	QC0886	Chip Inductor	C2012C18NJ	
L124	QC0893	Chip Inductor	C2012C68NJ	
L125	QC0832	Chip Inductor	C2012C-R22J	
L126	QC0076	Chip Inductor	3225 15 UH	
L127	QC0832	Chip Inductor	C2012C-R22J	
L128	QC0893	Chip Inductor	C2012C68NJ	
L129	QC0895	Chip Inductor	C2012CR10J	
L130	QC0890	Chip Inductor	C2012C39NJ	
L131	QC0894	Chip Inductor	C2012C82NJ	
L132	QC0890	Chip Inductor	C2012C39NJ	
L133	QC0886	Chip Inductor	C2012C18NJ	
L134	QC0893	Chip Inductor	C2012C68NJ	
L135	QC0832	Chip Inductor	C2012C-R22J	
L136	QC0076	Chip Inductor	3225 15 UH	
L137	QC0832	Chip Inductor	C2012C-R22J	
L138	QC0893	Chip Inductor	C2012C68NJ	
L139	QC0895	Chip Inductor	C2012CR10J	
L140	QC0890	Chip Inductor	C2012C39NJ	
L141	QC0894	Chip Inductor	C2012C82NJ	
L142	QC0890	Chip Inductor	C2012C39NJ	
L143	QC0887	Chip Inductor	C2012C22NJ	
L144	QC0883	Chip Inductor	C2012C8N2M	
L145	QC0889	Chip Inductor	C2012C33NJ	
L146	QS301204	Coil	E2-0.30-1.2-4TR	
L147	QS4011Z4	Coil	E2-0.4-1.1-4TL	
L148	QC0887	Chip Inductor	C2012C22NJ	
L149	QS301204	Coil	E2-0.30-1.2-4TR	
L150	QS301204	Coil	E2-0.30-1.2-4TR	
L152	QC0889	Chip Inductor	C2012C33NJ	
L153	NC			
L154	NC			

Ref. No.	Parts No.	Description	Parts Name	Version
L155	NC			
L156	NC			
L157	QC0086	Chip Inductor	3225 100 UH	
L158	QC0889	Chip Inductor	C2012C33NJ	
L159	QC0889	Chip Inductor	C2012C33NJ	
L160	QS301204	Coil	E2-0.30-1.2-4TR	
L161	QS4011Z4	Coil	E2-0.4-1.1-4TL	
L162	QC0887	Chip Inductor	C2012C22NJ	
L163	QS301204	Coil	E2-0.30-1.2-4TR	
L164	QS301204	Coil	E2-0.30-1.2-4TR	
L165	QC0889	Chip Inductor	C2012C33NJ	
L167	NC			
L168	NC			
L169	NC			
L170	NC			
L171	QC0832	Chip Inductor	C2012C-R22J	
L172	QC0887	Chip Inductor	C2012C22NJ	
L173	QC0887	Chip Inductor	C2012C22NJ	
Q101	XT0194	Transistor	2SC5551E/F-TB	
Q102	XT0110	Transistor	2SA1036K	
Q103	XT0110	Transistor	2SA1036K	
Q104	XT0210	Transistor	11TAA2SC6026MGR	
Q105	XT0210	Transistor	11TAA2SC6026MGR	
Q106	XT0194	Transistor	2SC5551E/F-TB	
Q107	XT0146	Transistor	2SC5226-4-TL	
Q108	XE0124	Transistor	SSM3K15AMFV.L3F(T	
Q109	XT0210	Transistor	11TAA2SC6026MGR	
Q110	XT0210	Transistor	11TAA2SC6026MGR	
Q111	XT0178	Transistor	2SC4915-O(TE85L)	
Q112	XE0053	FET	3SK293TE85L	
Q113	XE0053	FET	3SK293TE85L	
Q114	XT0210	Transistor	11TAA2SC6026MGR	
Q115	XT0210	Transistor	11TAA2SC6026MGR	
Q116	XE0124	Transistor	SSM3K15AMFV.L3F(T	
Q117	XT0210	Transistor	11TAA2SC6026MGR	
Q118	XU0210	Transistor	RN1107FV	
Q119	XU0231	Transistor	RN2109MFV	
Q120	XU0210	Transistor	RN1107FV	
Q121	XU0210	Transistor	RN1107FV	
Q122	XU0231	Transistor	RN2109MFV	
Q123	XT0178	Transistor	2SC4915-O(TE85L)	
Q124	XT0210	Transistor	11TAA2SC6026MGR	
Q125	XU0210	Transistor	RN1107FV	
Q126	XE0053	FET	3SK293TE85L	
Q127	XE0053	FET	3SK293TE85L	
Q128	XT0190	Transistor	2SB1386 T100Q	
Q129	XU0210	Transistor	RN1107FV	
Q130	XT0210	Transistor	11TAA2SC6026MGR	
Q131	XU0211	Transistor	RN2107FV	
Q132	XU0210	Transistor	RN1107FV	
Q133	XE0053	FET	3SK293TE85L	
Q134	XE0053	FET	3SK293TE85L	
Q135	XU0231	Transistor	RN2109MFV	
Q136	XU0210	Transistor	RN1107FV	
Q137	XU0210	Transistor	RN1107FV	
Q138	XU0210	Transistor	RN1107FV	
Q139	XU0231	Transistor	RN2109MFV	
Q140	XU0210	Transistor	RN1107FV	
Q141	XU0210	Transistor	RN1107FV	
Q142	XE0053	FET	3SK293TE85L	
Q143	XE0053	FET	3SK293TE85L	
Q144	XU0210	Transistor	RN1107FV	
Q145	XU0210	Transistor	RN1107FV	
Q146	XU0211	Transistor	RN2107FV	
Q147	XU0210	Transistor	RN1107FV	
Q148	XU0210	Transistor	RN1107FV	
Q149	XU0210	Transistor	RN1107FV	
Q150	XT0190	Transistor	2SB1386 T100Q	
Q151	XT0190	Transistor	2SB1386 T100Q	
Q152	XT0110	Transistor	2SA1036K	
Q153	XU0211	Transistor	RN2107FV	
Q154	XT0110	Transistor	2SA1036K	
Q155	XU0211	Transistor	RN2107FV	
Q156	XT0061	Transistor	2SB1132	
Q157	XU0210	Transistor	RN1107FV	
Q158	XU0210	Transistor	RN1107FV	
Q159	XU0210	Transistor	RN1107FV	

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Ref. No.	Parts No.	Description	Parts Name	Version
Q160	XU0210	Transistor	RN1107FV	
Q161	XU0210	Transistor	RN1107FV	
Q162	XU0210	Transistor	RN1107FV	
Q163	XT0210	Transistor	11TAA2SC6026MGR	
Q164	XU0211	Transistor	RN2107FV	
Q165	XU0211	Transistor	RN2107FV	
Q166	XU0210	Transistor	RN1107FV	
Q167	XU0210	Transistor	RN1107FV	
Q168	XT0210	Transistor	11TAA2SC6026MGR	
Q169	XT0061	Transistor	2SB1132	
Q170	XU0210	Transistor	RN1107FV	
Q171	XU0210	Transistor	RN1107FV	
Q172	XU0210	Transistor	RN1107FV	
Q173	XT0178	Transistor	2SC4915-O(TE85L)	
Q174	XU0236	Transistor	EMD9T2R	
Q175	XU0236	Transistor	EMD9T2R	
Q176	XU0211	Transistor	RN2107FV	
Q177	XU0210	Transistor	RN1107FV	
Q178	XU0211	Transistor	RN2107FV	
R101	NC			
R102	RK3526	Chip R	1005 1/16W 100 OHM J	
R103	RK3549	Chip R	1005 1/16W 8.2K OHMJ	
R104	RK3550	Chip R	1005 1/16W 10K OHM J	
R105	RD0108	Lead R	1/6W TYPE 0 OHM	
R106	RK0028	Chip R	2125 1/8W 470 OHM J	
R107	RK0069	Chip R	2125 1/8W 100KOHM J	
R108	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R109	RK2008	Chip R	4532 1/2W 22 OHM J	
R110	RK3534	Chip R	1005 1/16W 470 OHM J	
R111	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R112	RK0003	Chip R	2125 1/8W 15 OHM J	
R113	RK3550	Chip R	1005 1/16W 10K OHM J	
R114	RK0028	Chip R	2125 1/8W 470 OHM J	
R115	RK3025	Chip R	1608 1/10W 82 OHM J	
R116	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R117	RK3550	Chip R	1005 1/16W 10K OHM J	
R118	RK3550	Chip R	1005 1/16W 10K OHM J	
R119	RK3550	Chip R	1005 1/16W 10K OHM J	
R120	RK4026	Chip R	4532 1/2W 100 OHM J	
R121	RK3550	Chip R	1005 1/16W 10K OHM J	
R122	RK3550	Chip R	1005 1/16W 10K OHM J	
R123	RK2024	Chip R	4532 1/2W 470 OHM J	
R124	RK2008	Chip R	4532 1/2W 22 OHM J	
R125	RK3526	Chip R	1005 1/16W 100 OHM J	
R126	RK3543	Chip R	1005 1/16W 2.7K OHMJ	
R127	RK3550	Chip R	1005 1/16W 10K OHM J	
R128	RK3550	Chip R	1005 1/16W 10K OHM J	
R129	RK3550	Chip R	1005 1/16W 10K OHM J	
R130	RK3550	Chip R	1005 1/16W 10K OHM J	
R131	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R132	RK3550	Chip R	1005 1/16W 10K OHM J	
R133	RK3556	Chip R	1005 1/16W 33K OHM J	
R134	RK4026	Chip R	4532 1/2W 100 OHM J	
R135	RK3534	Chip R	1005 1/16W 470 OHM J	
R136	RK2024	Chip R	4532 1/2W 470 OHM J	
R137	NC			
R138	RK3550	Chip R	1005 1/16W 10K OHM J	
R139	RK3534	Chip R	1005 1/16W 470 OHM J	
R140	RK3514	Chip R	1005 1/16W 10 OHM J	
R141	RK0003	Chip R	2125 1/8W 15 OHM J	
R142	RK3536	Chip R	1005 1/16W 680 OHM J	
R143	RK3550	Chip R	1005 1/16W 10K OHM J	
R144	RK3556	Chip R	1005 1/16W 33K OHM J	
R145	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R146	RK3522	Chip R	1005 1/16W 47 OHM J	
R147	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R148	RK3550	Chip R	1005 1/16W 10K OHM J	
R149	RK3550	Chip R	1005 1/16W 10K OHM J	
R150	RK3540	Chip R	1005 1/16W 1.5K OHMJ	
R151	RK3568	Chip R	1005 1/16W 330K OHMJ	
R152	RK3562	Chip R	1005 1/16W 100K OHMJ	
R153	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R154	NC			
R155	RK3550	Chip R	1005 1/16W 10K OHM J	
R156	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R157	RK3526	Chip R	1005 1/16W 100 OHM J	
R158	RK3538	Chip R	1005 1/16W 1.0K OHMJ	

Ref. No.	Parts No.	Description	Parts Name	Version
R159	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R160	RK3568	Chip R	1005 1/16W 330K OHMJ	
R161	RK3526	Chip R	1005 1/16W 100 OHM J	
R162	RK3544	Chip R	1005 1/16W 3.3K OHMJ	
R163	RK3544	Chip R	1005 1/16W 3.3K OHMJ	
R164	RK3522	Chip R	1005 1/16W 47 OHM J	
R165	RK3562	Chip R	1005 1/16W 100K OHMJ	
R166	RK3536	Chip R	1005 1/16W 680 OHM J	
R167	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R168	RK3522	Chip R	1005 1/16W 47 OHM J	
R169	RK3526	Chip R	1005 1/16W 100 OHM J	
R170	RK3562	Chip R	1005 1/16W 100K OHMJ	
R171	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R172	RK3550	Chip R	1005 1/16W 10K OHM J	
R173	RK3501	Chip R	1005 1/16W 0 OHM J	
R174	RK3562	Chip R	1005 1/16W 100K OHMJ	
R175	NC			
R176	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R177	RK3540	Chip R	1005 1/16W 1.5K OHMJ	
R178	RK3539	Chip R	1005 1/16W 1.2K OHMJ	
R179	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R180	RK3550	Chip R	1005 1/16W 10K OHM J	
R181	NC			
R182	RK3526	Chip R	1005 1/16W 100 OHM J	
R183	NC			
R184	RK3537	Chip R	1005 1/16W 820 OHM J	
R185	RK3536	Chip R	1005 1/16W 680 OHM J	
R186	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R187	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R188	RK3534	Chip R	1005 1/16W 470 OHM J	
R189	NC			
R190	RK3562	Chip R	1005 1/16W 100K OHMJ	
R191	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R192	RK3554	Chip R	1005 1/16W 22K OHM J	
R193	RK3550	Chip R	1005 1/16W 10K OHM J	
R194	RK3550	Chip R	1005 1/16W 10K OHM J	
R195	RK3550	Chip R	1005 1/16W 10K OHM J	
R196	RK3532	Chip R	1005 1/16W 330 OHM J	
R197	RK3562	Chip R	1005 1/16W 100K OHMJ	
R198	RK3562	Chip R	1005 1/16W 100K OHMJ	
R199	RK3570	Chip R	1005 1/16W 470K OHMJ	
R200	RK3562	Chip R	1005 1/16W 100K OHMJ	
R201	RK3562	Chip R	1005 1/16W 100K OHMJ	
R202	RK3522	Chip R	1005 1/16W 47 OHM J	
R203	RK3554	Chip R	1005 1/16W 22K OHM J	
R204	RK3562	Chip R	1005 1/16W 100K OHMJ	
R205	RK3562	Chip R	1005 1/16W 100K OHMJ	
R206	RK3522	Chip R	1005 1/16W 47 OHM J	
R207	RK3522	Chip R	1005 1/16W 47 OHM J	
R208	RK3562	Chip R	1005 1/16W 100K OHMJ	
R209	RK3562	Chip R	1005 1/16W 100K OHMJ	
R210	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R211	RK3531	Chip R	1005 1/16W 270 OHM J	
R212	RK3529	Chip R	1005 1/16W 180 OHM J	
R214	RK3554	Chip R	1005 1/16W 22K OHM J	
R215	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R216	RK3562	Chip R	1005 1/16W 100K OHMJ	
R217	RK3530	Chip R	1005 1/16W 220 OHM J	
R218	RK3558	Chip R	1005 1/16W 47K OHM J	
R219	RK3558	Chip R	1005 1/16W 47K OHM J	
R220	RK3550	Chip R	1005 1/16W 10K OHM J	
R221	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R222	RK3550	Chip R	1005 1/16W 10K OHM J	
R223	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R224	RK3558	Chip R	1005 1/16W 47K OHM J	
R225	RK3516	Chip R	1005 1/16W 15 OHM J	
R226	RK3562	Chip R	1005 1/16W 100K OHMJ	
R227	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R228	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R229	RK3559	Chip R	1005 1/16W 56K OHM J	
R230	RK3568	Chip R	1005 1/16W 330K OHMJ	
R231	RK3530	Chip R	1005 1/16W 220 OHM J	
R232	RK3550	Chip R	1005 1/16W 10K OHM J	
R233	RK3544	Chip R	1005 1/16W 3.3K OHMJ	
R234	RK3544	Chip R	1005 1/16W 3.3K OHMJ	
R235	RK3522	Chip R	1005 1/16W 47 OHM J	
R236	RK3550	Chip R	1005 1/16W 10K OHM J	

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Ref. No.	Parts No.	Description	Parts Name	Version
R237	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R238	NC			
R239	RK3554	Chip R	1005 1/16W 22K OHM J	
R240	RK3554	Chip R	1005 1/16W 22K OHM J	
R241	NC			
R243	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R244	RK3562	Chip R	1005 1/16W 100K OHMJ	
R245	RK3550	Chip R	1005 1/16W 10K OHM J	
R246	RK3530	Chip R	1005 1/16W 220 OHM J	
R247	RK3522	Chip R	1005 1/16W 47 OHM J	
R248	RK3552	Chip R	1005 1/16W 15K OHM J	
R249	RK3552	Chip R	1005 1/16W 15K OHM J	
R250	RK3526	Chip R	1005 1/16W 100 OHM J	
R251	RK3551	Chip R	1005 1/16W 12K OHM J	
R252	RK3562	Chip R	1005 1/16W 100K OHMJ	
R253	RK3554	Chip R	1005 1/16W 22K OHM J	
R254	RK3554	Chip R	1005 1/16W 22K OHM J	
R255	RK3550	Chip R	1005 1/16W 10K OHM J	
R256	RK3562	Chip R	1005 1/16W 100K OHMJ	
R257	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R258	RK3550	Chip R	1005 1/16W 10K OHM J	
R259	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R260	NC			
R261	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R262	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R263	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R264	RK3568	Chip R	1005 1/16W 330K OHMJ	
R265	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R266	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R267	RK3550	Chip R	1005 1/16W 10K OHM J	
R268	RK3557	Chip R	1005 1/16W 39K OHM J	
R269	RK3557	Chip R	1005 1/16W 39K OHM J	
R270	RK3557	Chip R	1005 1/16W 39K OHM J	
R271	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R272	NC			
R273	RK3550	Chip R	1005 1/16W 10K OHM J	
R274	RK3554	Chip R	1005 1/16W 22K OHM J	
R275	RK3570	Chip R	1005 1/16W 470K OHMJ	
R276	RK3550	Chip R	1005 1/16W 10K OHM J	
R277	RK3562	Chip R	1005 1/16W 100K OHMJ	
R278	RK3550	Chip R	1005 1/16W 10K OHM J	
R279	RK3532	Chip R	1005 1/16W 330 OHM J	
R280	RK3534	Chip R	1005 1/16W 470 OHM J	
R281	RK3558	Chip R	1005 1/16W 47K OHM J	
R282	RK3550	Chip R	1005 1/16W 10K OHM J	
R283	RK3562	Chip R	1005 1/16W 100K OHMJ	
R284	NC			
R285	RK3526	Chip R	1005 1/16W 100 OHM J	
R286	NC			
R287	RK3537	Chip R	1005 1/16W 820 OHM J	
R288	RK3536	Chip R	1005 1/16W 680 OHM J	
R289	RK3550	Chip R	1005 1/16W 10K OHM J	
R290	RK3530	Chip R	1005 1/16W 220 OHM J	
R291	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R292	RK3554	Chip R	1005 1/16W 22K OHM J	
R293	RK3534	Chip R	1005 1/16W 470 OHM J	
R294	NC			
R295	RK3562	Chip R	1005 1/16W 100K OHMJ	
R296	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R297	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R298	RK3532	Chip R	1005 1/16W 330 OHM J	
R299	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R300	RK3562	Chip R	1005 1/16W 100K OHMJ	
R301	RK3562	Chip R	1005 1/16W 100K OHMJ	
R302	NC			
R303	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R304	RK3554	Chip R	1005 1/16W 22K OHM J	
R305	RK3562	Chip R	1005 1/16W 100K OHMJ	
R306	RK3562	Chip R	1005 1/16W 100K OHMJ	
R307	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R308	RK3522	Chip R	1005 1/16W 47 OHM J	
R309	RK3562	Chip R	1005 1/16W 100K OHMJ	
R310	RK3562	Chip R	1005 1/16W 100K OHMJ	
R311	RK3562	Chip R	1005 1/16W 100K OHMJ	
R312	RK3562	Chip R	1005 1/16W 100K OHMJ	
R313	RK3522	Chip R	1005 1/16W 47 OHM J	
R314	RK3540	Chip R	1005 1/16W 1.5K OHMJ	

Ref. No.	Parts No.	Description	Parts Name	Version
R315	RK3550	Chip R	1005 1/16W 10K OHM J	
R316	RK3522	Chip R	1005 1/16W 47 OHM J	
R317	RK3531	Chip R	1005 1/16W 270 OHM J	
R318	RK3529	Chip R	1005 1/16W 180 OHM J	
R319	RK3554	Chip R	1005 1/16W 22K OHM J	
R320	RK3558	Chip R	1005 1/16W 47K OHM J	
R321	RK3530	Chip R	1005 1/16W 220 OHM J	
R322	RK0028	Chip R	2125 1/8W 470 OHM J	
R323	RK3539	Chip R	1005 1/16W 1.2K OHMJ	
R324	NC			
R325	RK3558	Chip R	1005 1/16W 47K OHM J	
R326	RK3558	Chip R	1005 1/16W 47K OHM J	
R327	RK3516	Chip R	1005 1/16W 15 OHM J	
R328	RK3550	Chip R	1005 1/16W 10K OHM J	
R329	RK3550	Chip R	1005 1/16W 10K OHM J	
R330	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R331	RK3554	Chip R	1005 1/16W 22K OHM J	
R332	RK3547	Chip R	1005 1/16W 5.6K OHMJ	
R333	RK3558	Chip R	1005 1/16W 47K OHM J	
R334	RK3550	Chip R	1005 1/16W 10K OHM J	
R335	RK3522	Chip R	1005 1/16W 47 OHM J	
R336	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R337	RK3562	Chip R	1005 1/16W 100K OHMJ	
R338	RK3526	Chip R	1005 1/16W 100 OHM J	
R339	RK3560	Chip R	1005 1/16W 68K OHM J	
R340	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R341	NC			
R342	RK3501	Chip R	1005 1/16W 0 OHM J	
R343	NC			
R344	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R345	RK3568	Chip R	1005 1/16W 330K OHMJ	
R346	RK3550	Chip R	1005 1/16W 10K OHM J	
R347	RK3562	Chip R	1005 1/16W 100K OHMJ	
R348	RK3555	Chip R	1005 1/16W 27K OHM J	
R349	NC			
R350	NC			
R351	RK3558	Chip R	1005 1/16W 47K OHM J	
R352	RK3550	Chip R	1005 1/16W 10K OHM J	
R353	RK3550	Chip R	1005 1/16W 10K OHM J	
R354	RK3550	Chip R	1005 1/16W 10K OHM J	
R355	RK3562	Chip R	1005 1/16W 100K OHMJ	
R356	RK3562	Chip R	1005 1/16W 100K OHMJ	
R357	RK3550	Chip R	1005 1/16W 10K OHM J	
R358	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R359	RK3550	Chip R	1005 1/16W 10K OHM J	
R360	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R361	RK3562	Chip R	1005 1/16W 100K OHMJ	
R362	RK3562	Chip R	1005 1/16W 100K OHMJ	
R363	RK3562	Chip R	1005 1/16W 100K OHMJ	
R364	RK3562	Chip R	1005 1/16W 100K OHMJ	
R365	NC			
R366	RK3554	Chip R	1005 1/16W 22K OHM J	
R367	RK3554	Chip R	1005 1/16W 22K OHM J	
R368	NC			
R369	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R370	RK3562	Chip R	1005 1/16W 100K OHMJ	
R371	RK3562	Chip R	1005 1/16W 100K OHMJ	
R372	RK3528	Chip R	1005 1/16W 150 OHM J	
R373	RK3526	Chip R	1005 1/16W 100 OHM J	
R374	RK3562	Chip R	1005 1/16W 100K OHMJ	
R375	RK3529	Chip R	1005 1/16W 180 OHM J	
R376	RK3530	Chip R	1005 1/16W 220 OHM J	
R377	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R378	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R379	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R380	RK3558	Chip R	1005 1/16W 47K OHM J	
R381	RK3522	Chip R	1005 1/16W 47 OHM J	
R382	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R383	RK3522	Chip R	1005 1/16W 47 OHM J	
R384	RK3552	Chip R	1005 1/16W 15K OHM J	
R385	RK3552	Chip R	1005 1/16W 15K OHM J	
R386	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R387	RK3532	Chip R	1005 1/16W 330 OHM J	
R388	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R389	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R390	RK3516	Chip R	1005 1/16W 15 OHM J	
R391	RK3516	Chip R	1005 1/16W 15 OHM J	

MAIN UNIT

Ref. No.	Parts No.	Description	Parts Name	Version
R392	RK3516	Chip R	1005 1/16W 15 OHM J	
R393	RK3516	Chip R	1005 1/16W 15 OHM J	
R395	RK3534	Chip R	1005 1/16W 470 OHM J	
R396	RK3554	Chip R	1005 1/16W 22K OHM J	
R397	RK3554	Chip R	1005 1/16W 22K OHM J	
R398	RK3553	Chip R	1005 1/16W 18K OHM J	
R399	RK3534	Chip R	1005 1/16W 470 OHM J	
R400	NC			
R401	NC			
R402	NC			
R403	RK3534	Chip R	1005 1/16W 470 OHM J	
R404	NC			
R405	RK3553	Chip R	1005 1/16W 18K OHM J	
R406	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R407	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R408	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R409	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R410	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R411	RK3546	Chip R	1005 1/16W 4.7K OHM J	
R412	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R413	NC			
R414	RK3501	Chip R	1005 1/16W 0 OHM J	
R415	NC			
R416	RK3522	Chip R	1005 1/16W 47 OHM J	
R417	NC			
R418	NC			
R419	NC			
R420	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R421	RK3550	Chip R	1005 1/16W 10K OHM J	
R422	RK3562	Chip R	1005 1/16W 100K OHM J	
R423	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R424	RK3562	Chip R	1005 1/16W 100K OHM J	
R425	RK3549	Chip R	1005 1/16W 8.2K OHM J	
R426	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R427	RK3562	Chip R	1005 1/16W 100K OHM J	
R428	RK3552	Chip R	1005 1/16W 15K OHM J	
R429	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R430	RK3558	Chip R	1005 1/16W 47K OHM J	
R431	RK3562	Chip R	1005 1/16W 100K OHM J	
R432	RK3562	Chip R	1005 1/16W 100K OHM J	
R433	RK3562	Chip R	1005 1/16W 100K OHM J	
R434	RK3562	Chip R	1005 1/16W 100K OHM J	
R435	RK3546	Chip R	1005 1/16W 4.7K OHM J	
R436	RK3562	Chip R	1005 1/16W 100K OHM J	
R437	RK3562	Chip R	1005 1/16W 100K OHM J	
R438	RK3528	Chip R	1005 1/16W 150 OHM J	
R439	RK3526	Chip R	1005 1/16W 100 OHM J	
R440	RK3562	Chip R	1005 1/16W 100K OHM J	
R441	RK3550	Chip R	1005 1/16W 10K OHM J	
R442	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R443	RK3550	Chip R	1005 1/16W 10K OHM J	
R444	RK3529	Chip R	1005 1/16W 180 OHM J	
R445	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R446	RK3552	Chip R	1005 1/16W 15K OHM J	
R447	RK3558	Chip R	1005 1/16W 47K OHM J	
R448	RK3522	Chip R	1005 1/16W 47 OHM J	
R449	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R450	RK3574	Chip R	1005 1/16W 1.0M OHM J	
R451	RK3561	Chip R	1005 1/16W 82K OHM J	
R452	RK3552	Chip R	1005 1/16W 15K OHM J	
R453	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R454	RK3562	Chip R	1005 1/16W 100K OHM J	
R455	RK3516	Chip R	1005 1/16W 15 OHM J	
R456	RK3516	Chip R	1005 1/16W 15 OHM J	
R457	RK3516	Chip R	1005 1/16W 15 OHM J	
R458	RK3516	Chip R	1005 1/16W 15 OHM J	
R460	RK3527	Chip R	1005 1/16W 120 OHM J	
R461	RK3550	Chip R	1005 1/16W 10K OHM J	
R462	NC			
R463	NC			
R464	NC			
R465	RK3506	Chip R	1005 1/16W 2.2 OHM J	
R466	RK3527	Chip R	1005 1/16W 120 OHM J	
R467	RK3506	Chip R	1005 1/16W 2.2 OHM J	
R468	RK3551	Chip R	1005 1/16W 12K OHM J	
R469	RK3562	Chip R	1005 1/16W 100K OHM J	
R470	NC			

Ref. No.	Parts No.	Description	Parts Name	Version
R471	RK3574	Chip R	1005 1/16W 1.0M OHM J	
R472	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R473	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R474	RK3561	Chip R	1005 1/16W 82K OHM J	
R475	RK3550	Chip R	1005 1/16W 10K OHM J	
R476	RK3552	Chip R	1005 1/16W 15K OHM J	
R477	RK3541	Chip R	1005 1/16W 1.8K OHM J	
R478	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R479	RK3558	Chip R	1005 1/16W 47K OHM J	
R480	RK3546	Chip R	1005 1/16W 4.7K OHM J	
R481	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R482	RK3550	Chip R	1005 1/16W 10K OHM J	
R483	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R484	RK3550	Chip R	1005 1/16W 10K OHM J	
R485	RK3552	Chip R	1005 1/16W 15K OHM J	
R486	RK3549	Chip R	1005 1/16W 8.2K OHM J	
R487	RK3562	Chip R	1005 1/16W 100K OHM J	
R488	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R489	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R490	RK3522	Chip R	1005 1/16W 47 OHM J	
R491	RK3558	Chip R	1005 1/16W 47K OHM J	
R492	RK3558	Chip R	1005 1/16W 47K OHM J	
R493	RK3526	Chip R	1005 1/16W 100 OHM J	
R494	RK3562	Chip R	1005 1/16W 100K OHM J	
R495	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R496	RK3526	Chip R	1005 1/16W 100 OHM J	
R497	RK3550	Chip R	1005 1/16W 10K OHM J	
R498	RK3562	Chip R	1005 1/16W 100K OHM J	
R499	RK3550	Chip R	1005 1/16W 10K OHM J	
R500	RK3546	Chip R	1005 1/16W 4.7K OHM J	
R501	RK3546	Chip R	1005 1/16W 4.7K OHM J	
R502	RK3545	Chip R	1005 1/16W 3.9K OHM J	
R503	RK3552	Chip R	1005 1/16W 15K OHM J	
R504	RK3557	Chip R	1005 1/16W 39K OHM J	
R505	RK3561	Chip R	1005 1/16W 82K OHM J	
R506	RK3559	Chip R	1005 1/16W 56K OHM J	
R507	RK3563	Chip R	1005 1/16W 120K OHM J	
R508	RK0025	Chip R	2125 1/8W 330 OHM J	
R509	RK3026	Chip R	1608 1/10W 100 OHM J	
R510	RK3550	Chip R	1005 1/16W 10K OHM J	
R511	RK3541	Chip R	1005 1/16W 1.8K OHM J	
R512	RK3562	Chip R	1005 1/16W 100K OHM J	
R513	RK3566	Chip R	1005 1/16W 220K OHM J	
R514	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R515	RK3534	Chip R	1005 1/16W 470 OHM J	
R516	RK0028	Chip R	2125 1/8W 470 OHM J	
R517	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R518	RK3542	Chip R	1005 1/16W 2.2K OHM J	
R519	RK3562	Chip R	1005 1/16W 100K OHM J	
R520	RK3564	Chip R	1005 1/16W 150K OHM J	
R521	RK3572	Chip R	1005 1/16W 680K OHM J	
R522	RK3550	Chip R	1005 1/16W 10K OHM J	
R523	RK3559	Chip R	1005 1/16W 56K OHM J	
R524	RK3567	Chip R	1005 1/16W 270K OHM J	
R525	RK3550	Chip R	1005 1/16W 10K OHM J	
R526	RK3550	Chip R	1005 1/16W 10K OHM J	
R527	RK3550	Chip R	1005 1/16W 10K OHM J	
R528	RK3552	Chip R	1005 1/16W 15K OHM J	
R529	RK3546	Chip R	1005 1/16W 4.7K OHM J	
R530	RK3550	Chip R	1005 1/16W 10K OHM J	
R531	RK3550	Chip R	1005 1/16W 10K OHM J	
R532	RK3538	Chip R	1005 1/16W 1.0K OHM J	
R533	NC			
R534	RK3550	Chip R	1005 1/16W 10K OHM J	
R535	RK3566	Chip R	1005 1/16W 220K OHM J	
R536	RK3550	Chip R	1005 1/16W 10K OHM J	
R537	RK3573	Chip R	1005 1/16W 820K OHM J	
R538	RK3546	Chip R	1005 1/16W 4.7K OHM J	
R539	RK3558	Chip R	1005 1/16W 47K OHM J	
R540	RK3545	Chip R	1005 1/16W 3.9K OHM J	
R541	RK3552	Chip R	1005 1/16W 15K OHM J	
R542	RK3557	Chip R	1005 1/16W 39K OHM J	
R543	RK3561	Chip R	1005 1/16W 82K OHM J	
R544	RK3559	Chip R	1005 1/16W 56K OHM J	
R545	RK3563	Chip R	1005 1/16W 120K OHM J	
R546	RK3534	Chip R	1005 1/16W 470 OHM J	
R547	RK3550	Chip R	1005 1/16W 10K OHM J	

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Ref. No.	Parts No.	Description	Parts Name	Version
R548	RK3566	Chip R	1005 1/16W 220K OHMJ	
R549	RK3541	Chip R	1005 1/16W 1.8K OHMJ	
R550	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R551	RK3554	Chip R	1005 1/16W 22K OHM J	
R552	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R553	RK3564	Chip R	1005 1/16W 150K OHMJ	
R554	RK3572	Chip R	1005 1/16W 680K OHMJ	
R555	RK3550	Chip R	1005 1/16W 10K OHM J	
R556	RK3559	Chip R	1005 1/16W 56K OHM J	
R557	RK3567	Chip R	1005 1/16W 270K OHMJ	
R558	RK3550	Chip R	1005 1/16W 10K OHM J	
R559	NC			
R560	NC			
R561	RK3001	Chip R	1608 0 OHM	735E
R562	RK3001	Chip R	1608 0 OHM	735T.TA
R563	NC			
R564	NC			
R565	RK3562	Chip R	1005 1/16W 100K OHMJ	
R566	RK3550	Chip R	1005 1/16W 10K OHM J	
R567	RK3574	Chip R	1005 1/16W 1.0M OHMJ	
R568	RK2010	Chip R	4532 1/2W 33 OHM J	
R569	RK3550	Chip R	1005 1/16W 10K OHM J	
R570	RK3558	Chip R	1005 1/16W 47K OHM J	
R571	RK3550	Chip R	1005 1/16W 10K OHM J	
R572	RK3501	Chip R	1005 1/16W 0 OHM J	
R573	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R574	RK3526	Chip R	1005 1/16W 100 OHM J	
R575	RK3545	Chip R	1005 1/16W 3.9K OHMJ	
R576	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R577	RK3526	Chip R	1005 1/16W 100 OHM J	
R578	RK3528	Chip R	1005 1/16W 150 OHM J	
R579	RK3524	Chip R	1005 1/16W 68 OHM J	
R580	RK3524	Chip R	1005 1/16W 68 OHM J	
R581	RK3528	Chip R	1005 1/16W 150 OHM J	
R582	RK3524	Chip R	1005 1/16W 68 OHM J	
R583	RK3524	Chip R	1005 1/16W 68 OHM J	
R584	RK3574	Chip R	1005 1/16W 1.0M OHMJ	
R585	RK3543	Chip R	1005 1/16W 2.7K OHMJ	
R586	RK3540	Chip R	1005 1/16W 1.5K OHMJ	
R587	RK3550	Chip R	1005 1/16W 10K OHM J	
R588	RK3550	Chip R	1005 1/16W 10K OHM J	
R589	RK3550	Chip R	1005 1/16W 10K OHM J	
R590	RK3554	Chip R	1005 1/16W 22K OHM J	
R591	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R592	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R593	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R594	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R595	RK3526	Chip R	1005 1/16W 100 OHM J	
R596	NC			
R597	NC			
R598	RK3526	Chip R	1005 1/16W 100 OHM J	
R599	RK3542	Chip R	1005 1/16W 2.2K OHMJ	
R600	RK3546	Chip R	1005 1/16W 4.7K OHMJ	
R601	RK3538	Chip R	1005 1/16W 1.0K OHMJ	
R602	RK3562	Chip R	1005 1/16W 100K OHMJ	
R603	RK3562	Chip R	1005 1/16W 100K OHMJ	
R604	RK3501	Chip R	1005 1/16W 0 OHM J	
R605	NC			
R606	NC			
R607	NC			
R608	RK3537	Chip R	1005 1/16W 820 OHM J	
SD101	SD0229	Spring	OG-503040	
SR101	XD0565	Thyristor	CR12CS-16B	
X101	XQ0278	TCXO	NT2520SB-21.25MHZ	
X102	XK0003	Discriminator	CDBLB450KCA Y07-B0	
X103	XQ0281	Crystal oscillator	NX3225SA 21.250MHZ	
X104	XK0002	Discriminator	CDBLB455KCA Y07-B0	
X105	XQ0240	Crystal oscillator	TSS-6035B 30.395MHZ	
X106	XQ0275	Crystal oscillator	NS3225GA19.2MHZ STD	
X107	XQ0282	TCXO	NT2520SB 22.55MHZ	
X108	NC			
XF101	XF0041	Filter	UM5 21.7M 21R15A5	
XF102	XF0078	Filter	30M15B5F 30.85MHZ	
XF103	XF0041	Filter	UM5 21.7M 21R15A5	
	YZ0131		FilamentT #9110 12X1mm	
	QB0084		ESD-R-12E	
	TT1001		0.7X1000M(YELLOW)	

Ref. No.	Parts No.	Description	Parts Name	Version
	UP0839B		DR735 INTEGRATED	
	TZ0049		Insulator S-UM1T02/C	

SPEAKER UNIT

Ref. No.	Parts No.	Description	Parts Name	Version
	UX1047	Wire	WIRE DR130	
	ES0035A	Speaker	57-8BC-35 2.0T	

MECHANICAL UNIT

Ref. No.	Parts No.	Description	Parts Name	Version
	NK0105	Knob	KNOB S DR735	
	DP0236	Panel	LCD PANEL DR735	
	FP0468	Lever	LOCK LEVER DR735	
	KB0174	Case	REAR CASE DR735	
	KE0013	Cover	COVER DR735	
	KM0426	Case	FRONT CASE DR735	
	UE0258Y	Connector	FM-M.D.R-4(Y)	
	FG0693	Rubber	KEY2 DR735	
	TG0056	Net	SP NET EDC703	
	ST0065	Holder	SP HOLDER DR135	
	SS0129	Chassis	CHASSIS DR735	
	SP0031	Spring	D SPRING 1900 DR735	
	NK0106	Knob	KNOB L DR735	
	UX1586	Cable	CABLE DR735	
	KU0212	Cover	UPPER COVER DR735	
	FP0469	Holder	LOCK HOLDER DR735	
	FG0694	Rubber	LED RUBBER DR735	
	SC0015	Spring	SPRING P45	
	AA0043	Screw	PH M3+6 FE/N	
	AA0050	Screw	OH M2.6+6 FE/B.ZN	
	AA0077	Screw	BH M3+16 FE/B.ZN	
	AN0034	Nut	M6 NUT BR/B.N	
	AZ0037Y	Washer	SPCW 3X8X0.5 3BBC	
	FM0216	Cover	FAN COVER DR620	
	AA0018Y	Screw	XSB3+6FZ 3BBC	
	ET0011B	FUN	FD124010HB(1N7)S0240	
	DD0043	Sheet	BLIND SHEET DR735	
	TG0062	Net	NET DR735	
	FG0696	Rubber	RUBBER CAP JACK 735	
	FG0697	Rubber	RUBBER CAP D DR735	
	FG0692	Rubber	KEY5 DR735	
	AA0078Z	Screw	BH M3+8 FE/N	
	AA0031	Screw	BH M2.6+5 FE/B.	
	AP0021	Screw	PH P2.6+6 FE/3B.ZN	
	AP0015	Screw	PH P2+10 FE/B.ZN	
	FM0465	Washer	ANT GND DR735	
	TZ0127	Cushion	TMS-22-20 20X20	
	FG0522	Cushion	CUSHION DJG7	

PACKING UNIT

Ref. No.	Parts No.	Description	Parts Name	Version
	AA0013	Screw	BH M5+20 FE/ZN	
	AE0012	Screw	HEXH/D M4+8 FE/3BBC	
	AJ0003	Screw	BH T5+20 FE/ZN 1	
	AN0002	Nut	HEX N5X0.8 FE/ZN	
	AZ0009	Washer	SW 5X9.2X1.3 FE/ZN	
	AZ0010	Washer	SW 5X12X0.8 FE/ZN	
	DS0493	Label	PLATE DR735	
	EF0005	Fuse	FUSE FGBO 15A	
	FM0078Z	Bracket	BRACKET DR130	
	FM0079Z	Spanner	SPANNER DR130	
	HK0797	Box	IND.BOX DR735	
	HP0006Z	Bag	POLY-BAG5X90X170	
	HP0009	Bag	PLA.BAG 5X125X250	
	HP0011	Bag	5X205X310	
	HU0329	Inner box	INNER A DR735	
	HU0330	Inner box	INNER B DR735	
	PH0015C	Sheet	WARRANTY SHEET	735T
	PK0134	Sheet	DIAGRAM DR735	
	PR0452	Label	FCC HOME USE	735T
	PR0478	Seal	SERIAL SEAL	
	PR0514	Label	EPSON 10X49 LABEL(W)	
	PR0853	Label	12X56 LABEL(S)	735T
	PS0867	Manual	MANUAL DR735T	
	UA0038AY	Cable	POWER CABLE	
	YZ0121	Tape	TAPE 10mm	
	EHM78	MIC		735E
	EHM79	MIC		735T

Adjustments

1) Required Test Equipment

The following items are required to adjust radio parameters

1. DC Regulated power supply	Supply voltage: Current:	13.8V or more 15A or more
2. Digital multimeter	Voltage range: Current: Input resistance:	FS = Approx. 20V 10A or more High impedance
3. Oscilloscope	Measurable frequency:	Audio frequency
4. Audio dummy load	Impedance: Dissipation: Jack:	8Ω 3W or more 3.5mmφ
5. SSG	Output frequency: Impedance: Modulation:	100MHz or more 50Ω, unbalanced FM/AM
6. Spectrum Analyzer	Measurable frequency: Impedance:	100MHz or more 50Ω, unbalanced
7. Power meter	Measurable frequency: Impedance: Measuring range:	1.6MHz to 30MHz 50Ω, unbalanced 0.1W-150W
8. Audio voltmeter	Measurable frequency: Sensitivity:	Up to 100kHz 1mV to 10V
9. Audio generator	Output frequency: Output impedance:	100Hz to 10kHz 600Ω, unbalanced
10. Distortion meter/SINAD meter	Measurable frequency: Input level: Distortion:	1kHz Up to 40dB 1%-100%
11. Frequency counter	Measurable frequency: Measurable stability:	1.6MHz to 30MHz Approx. ±0.1ppm
12. Linear detector	Measurable frequency: Characteristics: CN:	1.6MHz to 30MHz Flat 60dB or more
13. DC Ammeter	Current:	30A or more

Note:

- (1). SSG initial setting
Modulation Frequency: 1kHz
Modulation Level: 3.5kHz
- (3). Reference sensitivity (FM): 12dB SINAD
- (4). Specified audio output level: 2W at 8Ω
- (5). Standard audio output level: 50mW at 8Ω
- (6). Use an RF cable (5D2V:1M) for test equipment.
- (7). Attach a fuse to the RF test equipment.
- (8). All SSG outputs are indicated by EMF
- (9). Supply voltage for the transceiver: 13.8VDC

1) Adjustment Spot

Power Supply Voltage 13.8 V

Output of SS6 is all EMF indication

If without instruction, SS6 output is MOD 1KHz 3.5KHz/DEV.

Standard Modulation is also based above.

Speaker load is 8Ω and Output is 50~100 mV.

Display the left VHF, the right to UHF.

It will be in adjustment mode by the following operation.

Condition : Key Lock (H/L key long press)

MMx2 → ★ → H/Lx3

Operate within 5 seconds after key lock.

The switching of the UHF and VHF you use the left VOL key.

It is possible to change the frequency by pushing left dial key.

Adjustment mode is canceled when a power switch is turned on with H/L key.

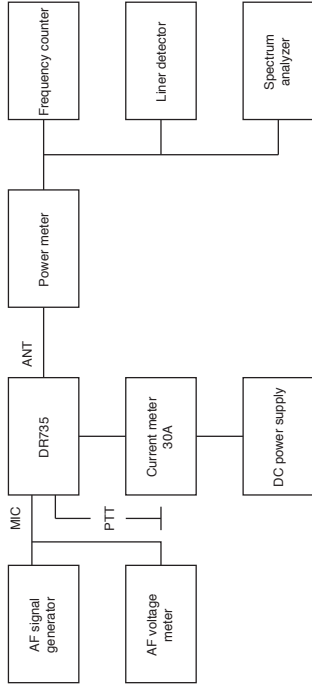
How to enter the advanced set mode

Key Lock (H/L key long press)

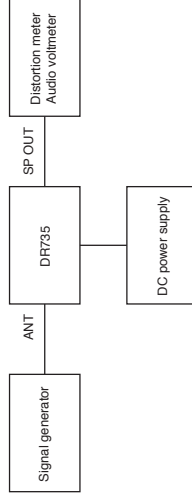
H/Lx5

2) Connection Diagram

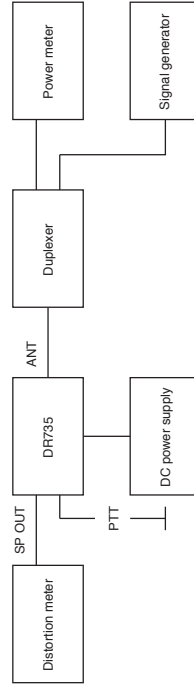
TX adjustment and test



RX adjustment and test



RX full duplex test



3) UHF TX Adjustment Specification

ITEM	CH No	CONDITION	ADJUSTING METHOD
Adjustment Frequency (22.55MHz)	U00 U-2255	435.00MHz TX R DIAL	435.00MHz±100Hz
Adjustment Frequency (21.25MHz)	U01 U-2125	435.00MHz TX R DIAL	435.00MHz±100Hz
HI POWER Adjustment	U02 U-HIGH	435.00MHz R DIAL	50.0±2.0W
MID POWER Adjustment	U03 U-MID	435.00MHz R DIAL	20.0±2.0W
LOW POWER Adjustment	U04 U-LOW	435.00MHz R DIAL	5.0±1.0W
MAX Deviation Adjustment (WIDE)	U05 U-DEV	435.00MHz 1KHz40mVemf R DIAL	4.5±0.2KHz/DEV 20KHz LPF ON
MIC Gain Adjustment (WIDE)	U06 U-MGN	435.00MHz 1KHz4mVemf R DIAL	3.0±0.2KHz/DEV 20KHz LPF ON

4) UHF RX-R Adjustment Specification

ITEM	CH No	CONDITION	ADJUSTING METHOD
Right-side Rx Signal Sensitivity Adjustment	U07 U-R400	440.05MHz SSG -6dBu FUNC key	
Right-side Rx Signal Sensitivity Adjustment	U08 U-R440	440.05MHz SSG -6dBu FUNC key	
Right-side Rx Signal Sensitivity Adjustment	U09 U-R480	480.05MHz SSG -3dBu FUNC key	
Right-side S Meter (1) Adjustment	U10 U-RSM1	440.05MHz SSG -3dBu FUNC key	It is confirmed by the FUNC key.
Right-side S Meter (FULL) Adjustment	U11 U-RSMF	440.05MHz SSG 15dBu FUNC key	It is confirmed by the FUNC key.
Right-side Squelch Adjustment	U12 U-RSQ	440.05MHz SSG -14dBu FUNC key	It is confirmed by the FUNC key.
Right-side Narrow Squelch Adjustment	U13 U-RNSQ	440.05MHz SSG -14dBu FUNC key	It is confirmed by the FUNC key.
Right-side Tight squelch Adjustment	U14 U-RTSQ	440.05MHz SSG 1dBu FUNC key	It is confirmed by the FUNC key.
Right-side ATT (start) Adjustment	U15 U-RATO	440.05MHz SSG -5dBu R DIAL	12dB SINAD
Right-side ATT (MAX) Adjustment	U16 U-RATT	440.05MHz SSG 3dBu R DIAL	12dB SINAD

5) VHF RX-R Adjustment Specification

ITEM	CH No	CONDITION	ADJUSTING METHOD
Right-side Rx Signal Sensitivity Adjustment	U17 V-R108	108.05MHz SSG 0dBu FUNC key	
Right-side Rx Signal Sensitivity Adjustment	U18 V-R136	136.05MHz SSG -6dBu FUNC key	
Right-side Rx Signal Sensitivity Adjustment	U19 V-R146	146.05MHz SSG -6dBu FUNC key	
Right-side Rx Signal Sensitivity Adjustment	U20 V-R174	174.05MHz SSG -6dBu FUNC key	
Right-side S Meter (1) Adjustment	U21 V-RSM1	146.05MHz SSG -3dBu FUNC key	It is confirmed by the FUNC key.
Right-side S Meter (FULL) Adjustment	U22 V-RSMF	146.05MHz SSG 15dBu FUNC key	It is confirmed by the FUNC key.
Right-side Squelch Adjustment	U23 V-RSQ	146.05MHz SSG -14dBu FUNC key	It is confirmed by the FUNC key.
Right-side Narrow Squelch Adjustment	U24 V-RNSQ	146.05MHz SSG -14dBu FUNC key	It is confirmed by the FUNC key.
Right-side Tight squelch Adjustment	U25 V-RTSQ	146.05MHz SSG 1dBu FUNC key	It is confirmed by the FUNC key.
Right-side ATT (start) Adjustment	U26 V-RAT0	146.05MHz SSG -5dBu R DIAL	12dB SINAD
Right-side ATT (MAX) Adjustment	U27 V-RATT	146.05MHz SSG 3dBu R DIAL	12dB SINAD

6) VHF TX Adjustment Specification

ITEM	CH No	CONDITION	ADJUSTING METHOD
HI POWER Adjustment	V02 V-HIGH	145.00MHz R DIAL	50.0±2.0W
MID POWER Adjustment	V03 V-MID	145.00MHz R DIAL	20.0±2.0W
LOW POWER Adjustment	V04 V-LOW	145.00MHz R DIAL	5.0±1.0W
MAX Deviation Adjustment (WIDE)	V05 V-DEV	145.00MHz 1KHz40mVemf R DIAL	4.5±0.2KHz/DEV 20KHz LPF ON
MIC Gain Adjustment (WIDE)	V06 V-MGN	145.00MHz 1KHz4mVemf R DIAL	3.0±0.2KHz/DEV 20KHz LPF ON

7) VHF RX-L Adjustment Specification

ITEM	CH No	CONDITION	ADJUSTING METHOD
Left-side Rx Signal Sensitivity Adjustment	V07 V-L108	108.05MHz SSG 0dBu FUNC key	
Left-side Rx Signal Sensitivity Adjustment	V08 V-L136	136.05MHz SSG -6dBu FUNC key	
Left-side Rx Signal Sensitivity Adjustment	V09 V-L146	146.05MHz SSG -6dBu FUNC key	
Left-side Rx Signal Sensitivity Adjustment	V10 V-L174	174.05MHz SSG -6dBu FUNC key	
Left-side S Meter (1) Adjustment	V11 V-LSM1	146.05MHz SSG -3dBu FUNC key	It is confirmed by the FUNC key.
Left-side S Meter (FULL) Adjustment	V12 V-LSMF	146.05MHz SSG 15dBu FUNC key	It is confirmed by the FUNC key.
Left-side Squelch Adjustment	V13 V-LSQ	146.05MHz SSG -14dBu FUNC key	It is confirmed by the FUNC key.
Left-side Narrow Squelch Adjustment	V14 V-LNSQ	146.05MHz SSG -14dBu FUNC key	It is confirmed by the FUNC key.
Left-side Tight squelch Adjustment	V15 V-LTSQ	146.05MHz SSG 1dBu FUNC key	It is confirmed by the FUNC key.
Left-side ATT (Strat) Adjustment	V16 V-LAT0	146.05MHz SSG -5dBu R DIAL	12dB SINAD
Left-side ATT (MAX) Adjustment	V17 V-LATT	146.05MHz SSG 3dBu R DIAL	12dB SINAD

8) UHF RX-L Adjustment Specification

ITEM	CH No	CONDITION	ADJUSTING METHOD
Left-side Rx Signal Sensitivity Adjustment	V18 U-L400	400.05MHz SSG -6dBu FUNC key	
Left-side Rx Signal Sensitivity Adjustment	V19 U-L440	440.05MHz SSG -6dBu FUNC key	
Left-side Rx Signal Sensitivity Adjustment	V20 U-L480	480.05MHz SSG 0dBu FUNC key	
Left-side S Meter (1) Adjustment	V21 U-LSM1	440.05MHz SSG -3dBu FUNC key	It is confirmed by the FUNC key.
Left-side S Meter (FULL) Adjustment	V22 U-LSMF	440.05MHz SSG 15dBu FUNC key	It is confirmed by the FUNC key.
Left-side Squelch Adjustment	V23 U-LSQ	440.05MHz SSG -14dBu FUNC key	It is confirmed by the FUNC key.
Left-side Narrow Squelch Adjustment	V24 U-LNSQ	440.05MHz SSG -14dBu FUNC key	It is confirmed by the FUNC key.
Left-side Tight squelch Adjustment	V25 U-LTSQ	440.05MHz SSG 1dBu FUNC key	It is confirmed by the FUNC key.
Left-side ATT (Start) Adjustment	V26 U-LAT0	440.05MHz SSG -5dBu R DIAL	12dB SINAD
Left-side ATT (MAX) Adjustment	V27 U-LATT	440.05MHz SSG 3dBu R DIAL	12dB SINAD

9) UHF TX Test Specification

TEST ITEM	CONDITION	TEST Specification	NOTE
HI POWER	400.00MHz	transmit	←TA ONLY
	430.00MHz	50±5W	
	435.00MHz	50±4W	
	440.00MHz	50±5W	
	450.00MHz	50±5W	
	479.99MHz	transmit	
	435.00MHz	20±3W	
MID POWER	435.00MHz	5±2W	
LOW POWER	435.00MHz	Less than 13A	
Drain Current	435.00MHz	Within±0.3KHz	22.55MHz
Frequency Deviation	435.00MHz	Within±0.3KHz	21.25MHz
	437.00MHz	4.5±0.3KHz/DEV	20KHz LPF ON
Modulation Level	435.00MHz	3.0±0.5KHz/DEV	20KHz LPF ON
	MIC 40mVemf		
	435.00MHz	2.2±0.3KHz/DEV	20KHz LPF ON
	MIC 4mVemf		
DTMF Modulation Level	435.00MHz	3.0±0.5KHz/DEV	Set mode 02
	NARROW 40mV		
1750Hz Modulation Level	435.00MHz	3.0±0.5KHz/DEV	20KHz LPF ON
CTCSS Modulation Level	435.00MHz	H/D: Alarm sound	DOWN key with TX
	435.00MHz	800±400Hz/DEV	88.5Hz
DCS Modulation Level	435.00MHz	800±300Hz/DEV	3KHz LPF ON
	435.00MHz	Less than 5%	Code 023
Modulation Distortion	MIC 4mVemf	More than 38dB	0.3~3KHz BPF ON
	435.00MHz		
TX S/N	MIC 4mVemf	No abnormal OSC...TA ONLY	M and L standard power is also the same as of H power level
	435.00MHz	More than 60dB	
Spurious	430.00MHz	More than 60dB	
	440.00MHz	More than 60dB	
Adjacent channel spurious	450.00MHz	More than 60dB...T ONLY	
	479.99MHz	No abnormal OSC...TA ONLY	
Adjacent channel spurious	434.90MHz	More than 55dB	In the case of NG: After one minute TX measurement
	437.16MHz	Span 1MHz	
	H, M, L Power		

10) VHF TX Test Specification

TEST ITEM	CONDITION	TEST Specification	NOTE
HI POWER	136.00MHz	transmit	←TA ONLY
	144.00MHz	50±5W	
	145.00MHz	50±4W	
	146.00MHz	50±5W	
	148.00MHz	50±5W	
	173.99MHz	transmit	
	145.00MHz	20±3W	
MID POWER	145.00MHz	5±2W	
LOW POWER	145.00MHz	Less than 12A	
Drain Current	145.00MHz	4.5±0.3KHz/DEV	20KHz LPF ON
Modulation Level	MIC 40mVemf		
	145.00MHz	3.0±0.5KHz/DEV	20KHz LPF ON
DTMF Modulation Level	MIC 4mVemf		
	145.00MHz	2.2±0.3KHz/DEV	20KHz LPF ON
1750Hz Modulation Level	145.00MHz	3.0±0.5KHz/DEV	Set mode 02
	145.00MHz	H/D: Alarm sound	20KHz LPF ON
CTCSS Modulation Level	145.00MHz	800±400Hz/DEV	DOWN key with TX
	145.00MHz	800±300Hz/DEV	88.5Hz
DCS Modulation Level	145.00MHz	800±300Hz/DEV	3KHz LPF ON
	145.00MHz	Less than 5%	Code 023
Modulation Distortion	MIC 4mVemf	More than 38dB	0.3~3KHz BPF ON
	145.00MHz		
TX S/N	MIC 4mVemf	No abnormal OSC...TA ONLY	M and L standard power is also the same as of H power level
	145.00MHz	More than 60dB	
Spurious	144.00MHz	More than 60dB	
	146.00MHz	More than 60dB	
Adjacent channel spurious	148.00MHz	More than 60dB...T ONLY	
	173.99MHz	No abnormal OSC...TA ONLY	
Adjacent channel spurious	144.40MHz	More than 55dB	In the case of NG: After one minute TX measurement
	H, M, L Power	Span 1MHz	

11) LEFT RX Test Specification

TEST ITEM	CONDITION	TEST Specification	NOTE
RX Sensitivity	136. 05MHz	Less than -5dBu	12dB SINAD
	146. 05MHz	Less than -7dBu	
	173. 95MHz	Less than -5dBu	
	108. 05MHz	Less than 15dBu	AM 10dB S/N
	146. 05MHz	Less than -6dBu	NARROW 1. 75KHz/DEV
	400. 05MHz	Less than -5dBu	12dB SINAD
Squelch Sensitivity	146. 05MHz	Squelch Open	SSG Output -10dBu
	SQL-VR	Squelch Close	SSG Output OFF
	146. 05MHz	Squelch Open	SSG Output 5dBu
Tight squelch Sensitivity	SQL-VR MAX	Squelch Close	SSG Output -3dBu
	146. 05MHz	All appears at 18dBu	Decrease SSG level and decrease S Meter level
S Meter	Squelch Open	Disappear at -6dBu	SSG Output -9dBu
	440. 05MHz	Squelch Open	SSG Output OFF
Tight squelch Sensitivity	SQL-VR	Squelch Close	SSG Output 5dBu
	8~10 o' clock	Squelch Open	SSG Output -3dBu
S Meter	440. 05MHz	All appears at 18dBu	Decrease SSG level and decrease S Meter level
	SQL-VR MAX	Disappear at -6dBu	SSG Output 5dBu
RX Distortion	440. 05MHz	Less than 5%	NARROW 1. 75KHz/DEV
	146. 05MHz	More than 5%	SSG 60dBu
RX S/N	146. 05MHz	More than 40dB	SSG 60dBu
	440. 05MHz	More than 40dB	NARROW 1. 75KHz/DEV
Attenuator	146. 05MHz	ATT-ON:0~8dB	12dB SINAD
	440. 05MHz	ATT-SQ	Turning the squelch volume from 12 o'clock direction to the right gradually S-meter decreases.
	Set mode 16	SSG 15dBu	SSG Output 60dBu MAX VR
AF Output	146. 05MHz	More than 2W(4V)	SSG Output 60dBu MAX VR
CTCSS Sensitivity	146. 05MHz	Open at 500Hz/DEV	SSG Output 0dBu 88. 5Hz
	FUNC+★	Open at 250Hz/DEV	NARROW
DCS Sensitivity	146. 05MHz	Opens when Test Equipment is in TX	023 code
	FUNC+★	Less than -5dBu	12dB SINAD
Full Duplex Sensitivity	RX 146. 05MHz		
	TX 435. 00MHz		
HI Power	HI Power		

12) RIGHT RX Test Specification

TEST ITEM	CONDITION	TEST Specification	NOTE
RX Sensitivity	400. 05MHz	Less than -2dBu	12dB SINAD
	440. 05MHz	Less than -7dBu	
	479. 95MHz	Less than -2dBu	
	108. 05MHz	Less than 15dBu	AM 10dB S/N
	440. 05MHz	Less than -6dBu	NARROW 1. 75KHz/DEV
	136. 05MHz	Less than -5dBu	12dB SINAD
Squelch Sensitivity	146. 05MHz	Less than -7dBu	
	173. 95MHz	Less than -5dBu	
	440. 05MHz	Squelch Open	SSG Output -10dBu
Tight squelch Sensitivity	SQL-VR Course of 8~10 o' clock	Squelch Close	SSG Output OFF
	440. 05MHz	Squelch Open	SSG Output 5dBu
S Meter	SQL-VR MAX	Squelch Close	SSG Output -3dBu
	440. 05MHz	All appears at 18dBu	Decrease SSG level and decrease S Meter level
Squelch Sensitivity	Squelch Open	Disappear at -6dBu	SSG Output 5dBu
	146. 05MHz	Squelch Open	SSG Output -10dBu
Tight squelch Sensitivity	SQL-VR	Squelch Close	SSG Output OFF
	8~10 o' clock	Squelch Open	SSG Output 5dBu
S Meter	146. 05MHz	All appears at 18dBu	Decrease SSG level and decrease S Meter level
	SQL-VR MAX	Disappear at -6dBu	SSG Output 5dBu
RX Distortion	440. 05MHz	Less than 5%	SSG 60dBu
	146. 05MHz	More than 5%	NARROW 1. 75KHz/DEV
RX S/N	440. 05MHz	More than 40dB	SSG 60dBu
	440. 05MHz	More than 40dB	NARROW 1. 75KHz/DEV
Attenuator	440. 05MHz	ATT-ON:0~8dB	12dB SINAD
	146. 05MHz	ATT-SQ	Turning the squelch volume from 12 o'clock direction to the right gradually S-meter decreases.
	Set mode 16	SSG 15dBu	SSG Output 60dBu MAX VR
AF Output	440. 05MHz	More than 1. 8W(3. 8V)	SSG Output 60dBu MAX VR
CTCSS Sensitivity	440. 05MHz	Open at 500Hz/DEV	SSG Output 0dBu 88. 5Hz
	FUNC+★	Open at 250Hz/DEV	NARROW
DCS Sensitivity	440. 05MHz	Opens when Test Equipment is in TX	023 code
	FUNC+★	Less than -4dBu	12dB SINAD
Full Duplex Sensitivity	RX 440. 05MHz		
	TX 145. 00MHz		
HI Power	HI Power		

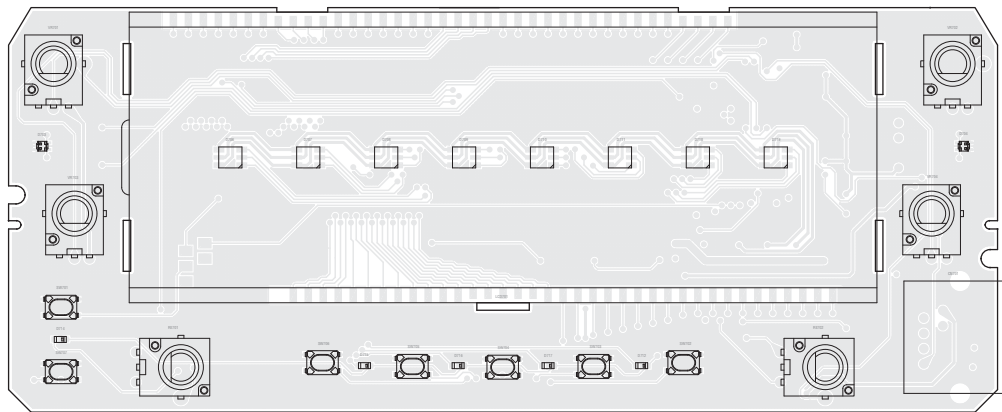
13) X BAND Test Specification

TEST ITEM	CONDITION	TEST Specification	NOTE
X BAND Repeater	145.00MHz	3.0±1.0 KHz/DEV	RX 437.00MHz DEV 1KHz 3.5KHz/DEV SSG Output 60dBu

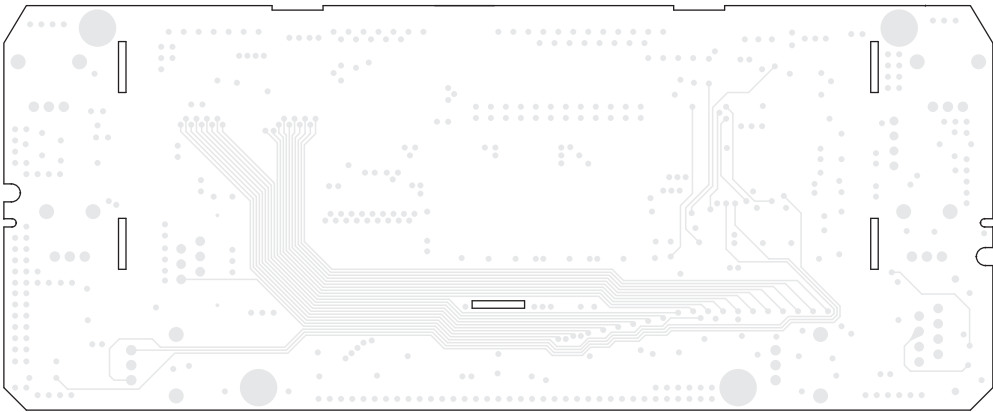
X BAND Repeater mode turns on a power supply, removing R561 and pushing MW key.
It is release in the same operation.

PC BOARD VIEW

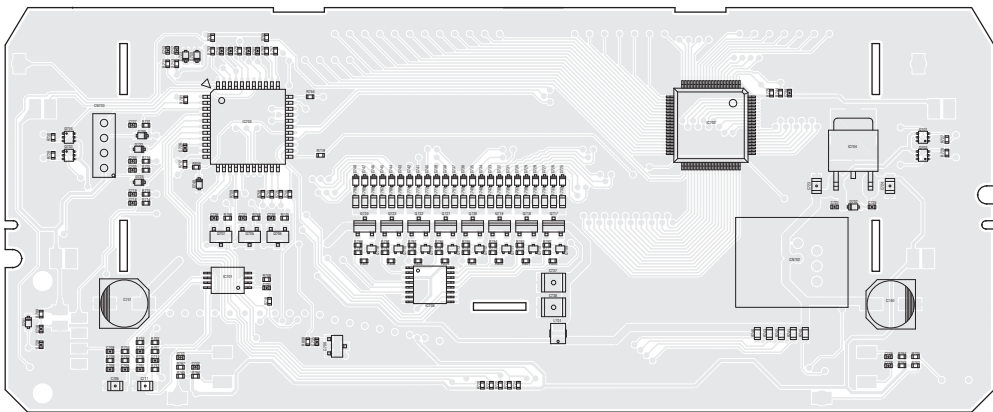
FRONT TOP SIDE



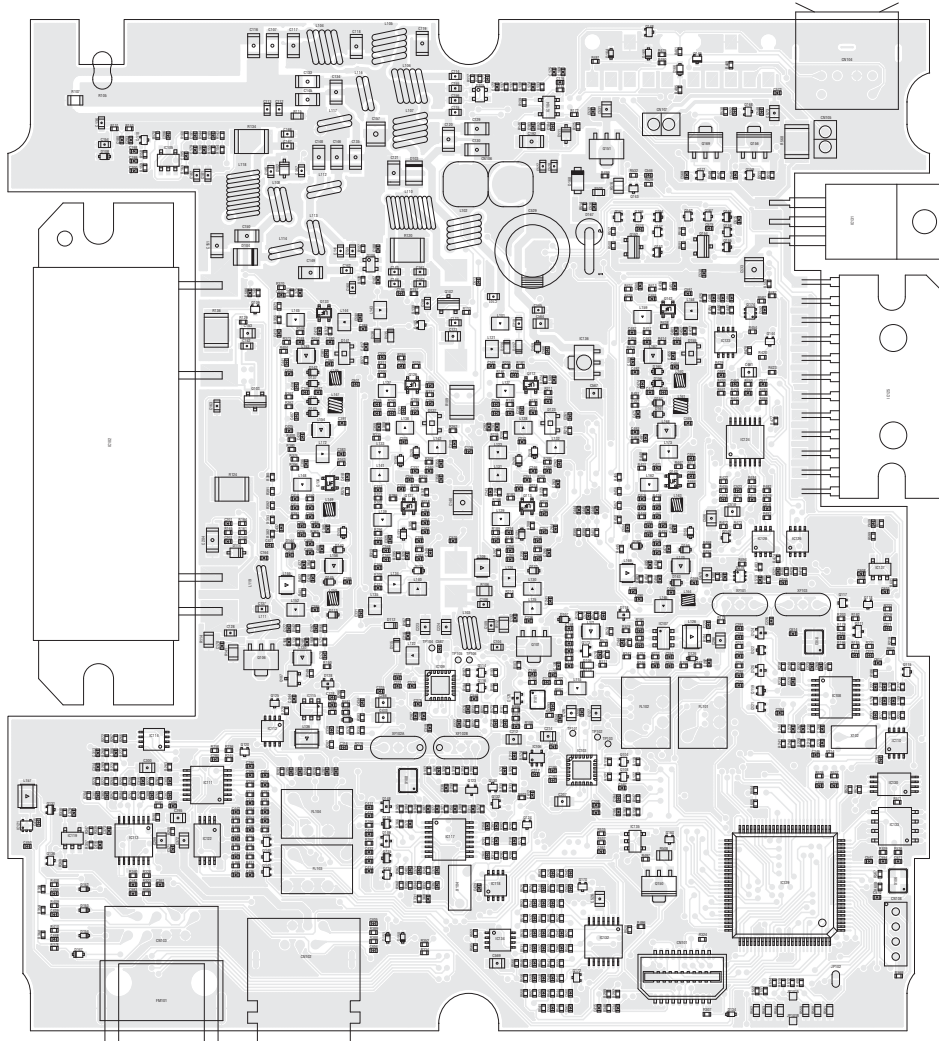
FRONT MIDDLE SIDE



FRONT BOTTOM SIDE



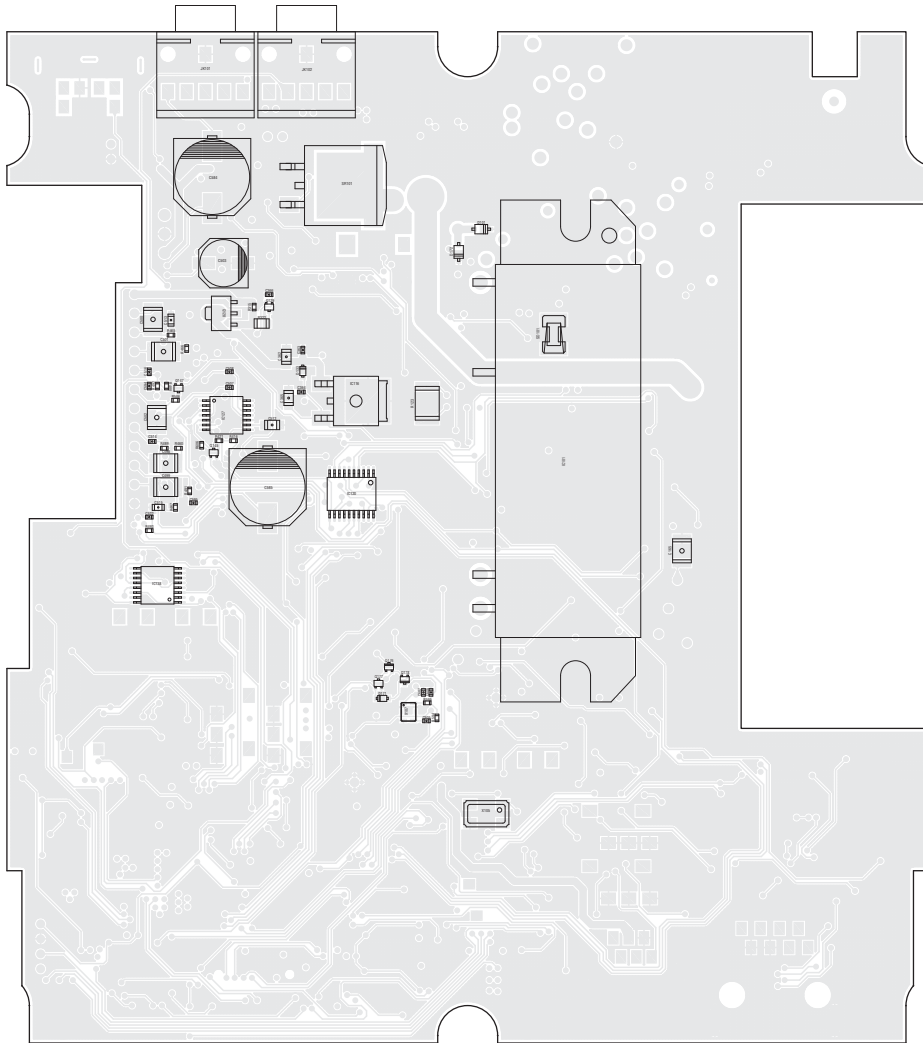
MAIN TOP SIDE

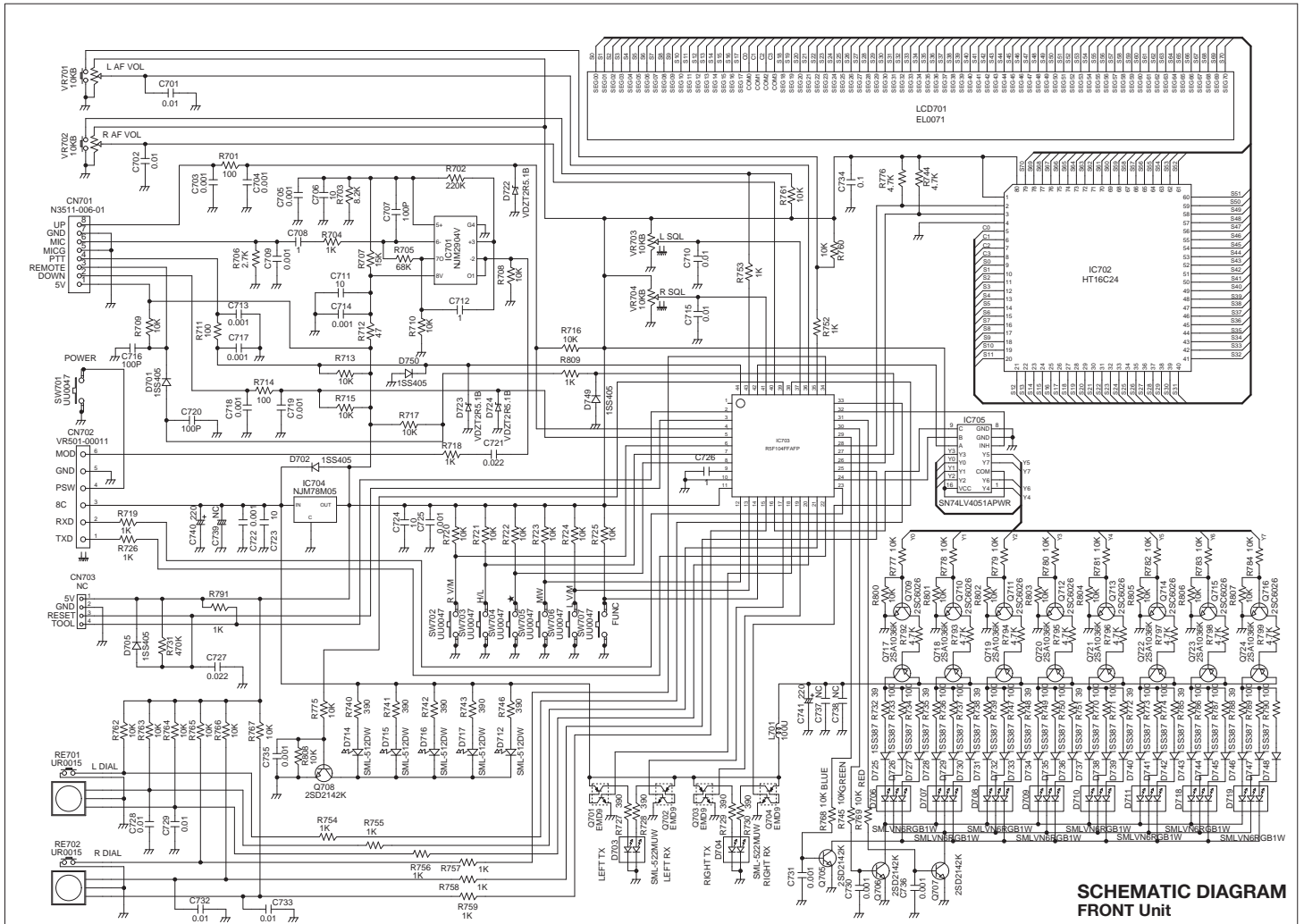


MAIN MIDDLE SIDE

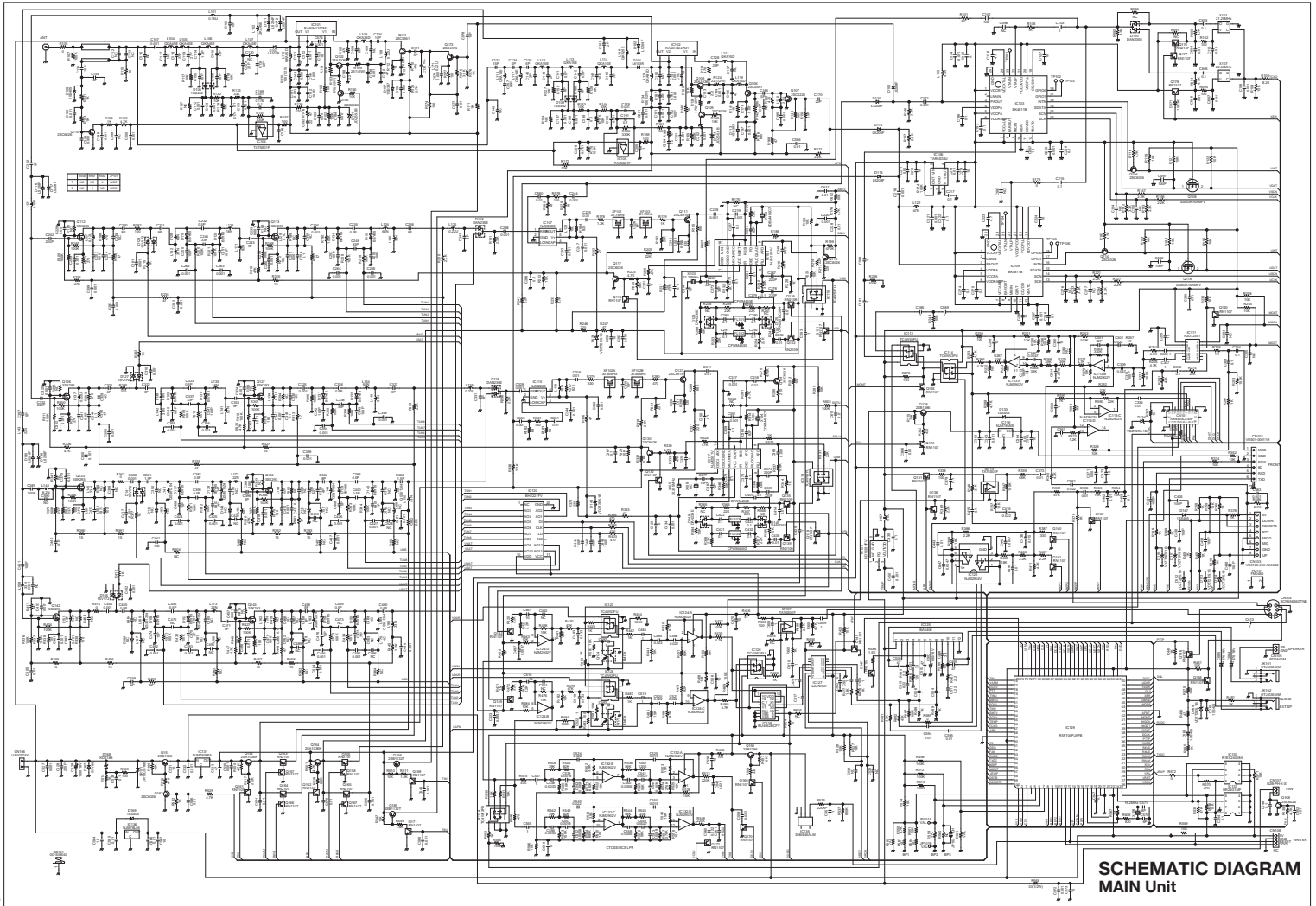


MAIN BOTTOM SIDE

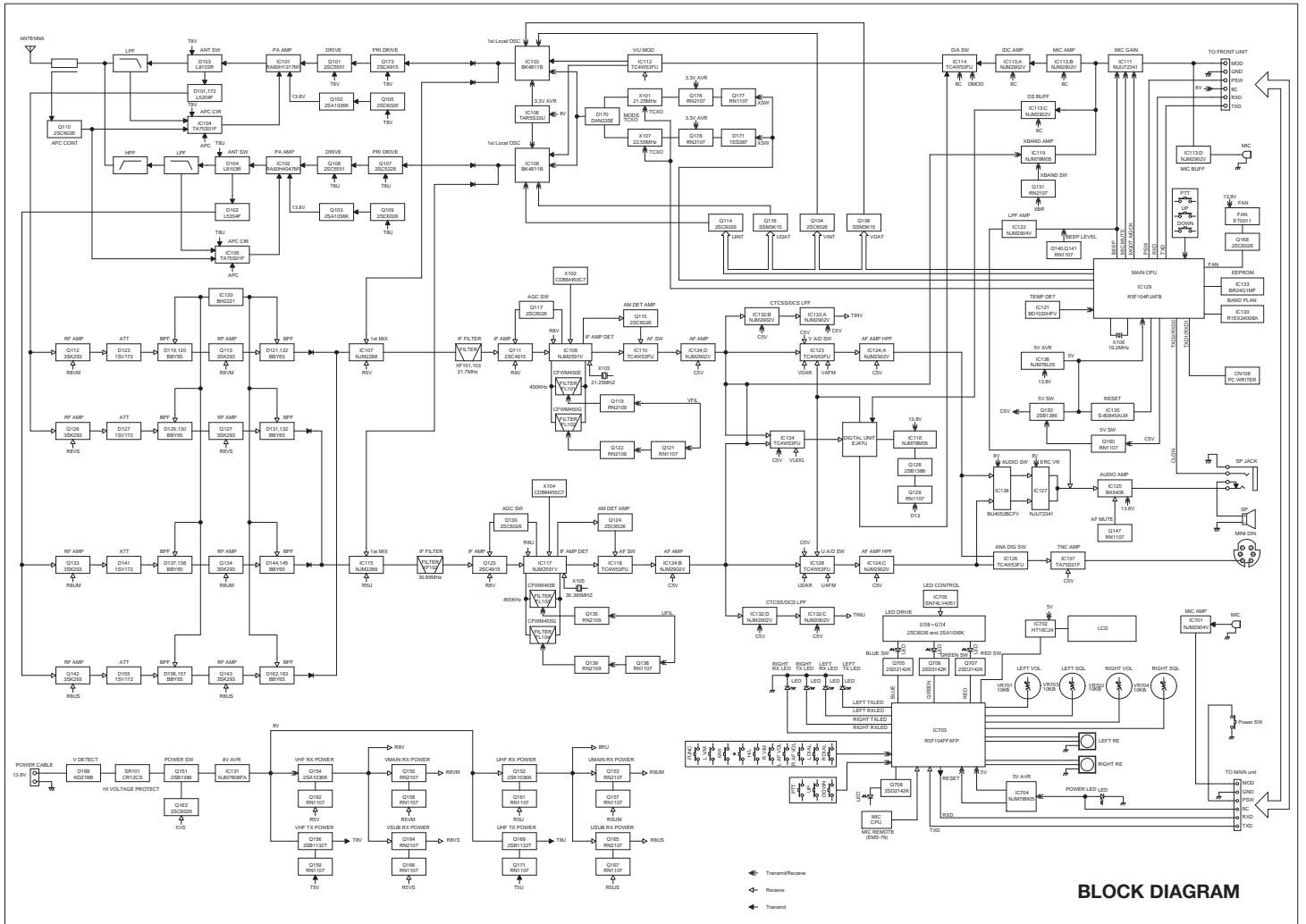




**SCHEMATIC DIAGRAM
FRONT Unit**



**SCHEMATIC DIAGRAM
MAIN Unit**



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