



RadioShack®

ServiceManual

20-197

PRO-197

Digital Trunking Base/Mobile Scanner

Catalog Number: 20-197

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SPECIFICATIONS

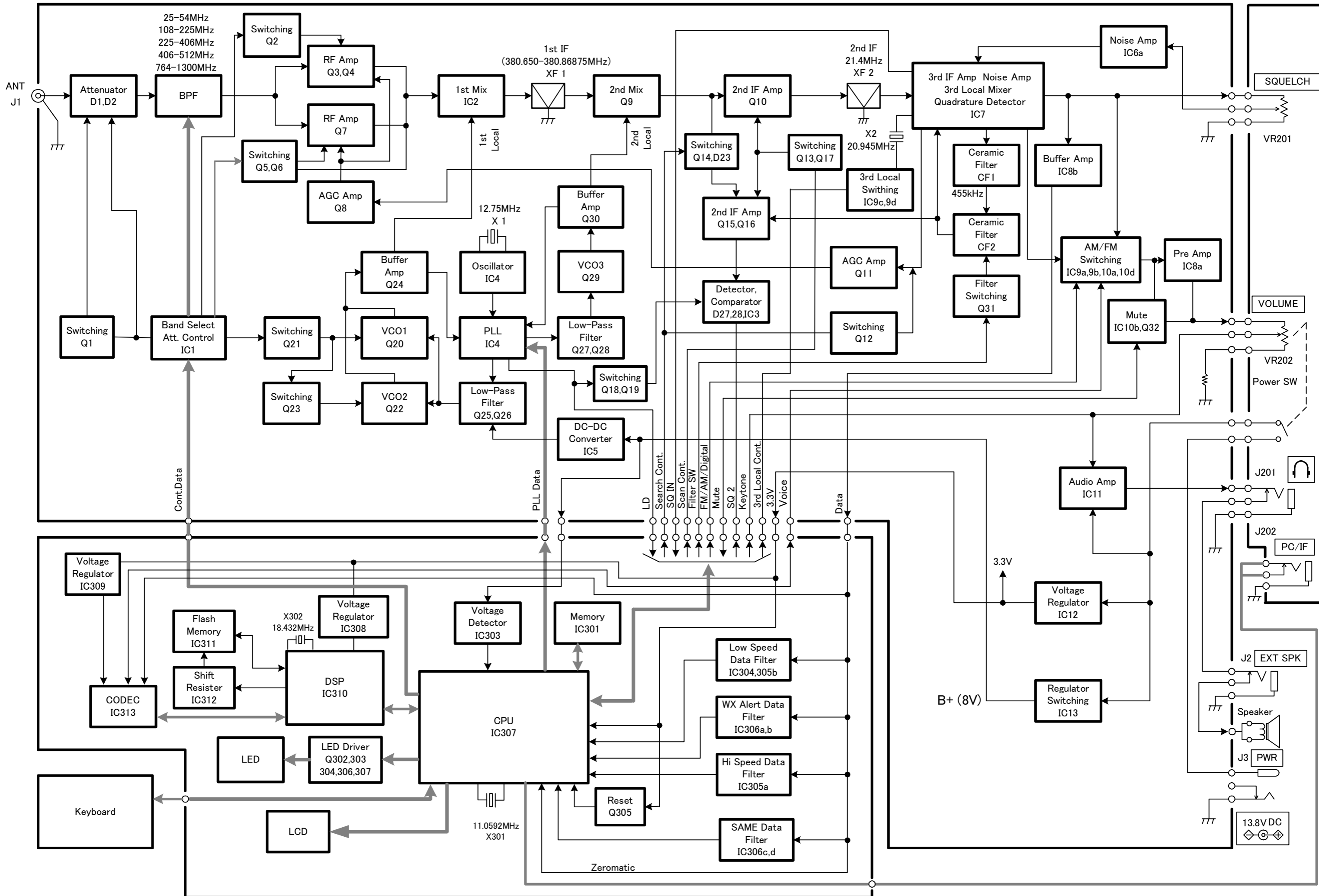
Frequency Coverage	25.000-26.960 MHz	10 kHz steps (AM)
	26.965-27.405 MHz	10 kHz steps (AM)
	27.410-29.505 MHz	5 kHz steps (AM)
	29.510-29.700 MHz	5 kHz steps (FM)
	29.710-49.830 MHz	10 kHz steps (FM)
	49.835-54.000 MHz	5 kHz steps (FM)
	108.000-136.99166 MHz	8.33 kHz steps (AM)
	137.000-137.995 MHz	5 kHz steps (FM)
	138.000-143.9875 MHz	12.5 kHz steps (FM)
	144.000-147.995 MHz	5 kHz steps (FM)
	148.000-150.7875 MHz	12.5 kHz steps (FM)
	150.800-150.845 MHz	5 kHz steps (FM)
	150.8525-154.4975 MHz	7.5 kHz steps (FM)
	154.515-154.640 MHz	5 kHz steps (FM)
	154.650-156.255 MHz	7.5 kHz steps (FM)
	156.275-157.450 MHz	25 kHz steps (FM)
	157.470-161.5725 MHz	7.5 kHz steps (FM)
	161.600-161.975 MHz	5 kHz steps (FM)
	162.000-174.000 MHz	12.5 kHz steps (FM)
	216.0025-219.9975 MHz	5 kHz steps (FM)
	220.000-224.995 MHz	5 kHz steps (FM)
	225.000-379.99375 MHz	6.25 kHz steps (AM)
	380.000-419.9875 MHz	12.5 kHz steps (FM)
	420.000-450.000 MHz	5 kHz steps (FM)
	450.00625-469.99375 MHz	6.25 kHz steps (FM)
	470.000-512.000 MHz	12.5 kHz steps (FM)
	764.000-805.996875 MHz	3.125 kHz steps (FM)
	806.000-823.9875 MHz	12.5 kHz steps (FM)
	849.000-868.9875 MHz	12.5 kHz steps (FM)
	894.000-939.9875 MHz	12.5 kHz steps (FM)
	940.000-960.000 MHz	6.25 kHz steps (FM)
	1240.000-1300.000 MHz	6.25 kHz steps (FM)

		Unit	Nominal Limit	
Signal to noise ratio (FM and AM)				
RF input: 100 μ V	25-54 MHz	dB	40	30
Dev. 3 kHz at 1 kHz	108-136.99166 MHz	dB	40	30
Mod.: 60% at 1 kHz	137-174 MHz	dB	40	30
	216.0025-299.99375 MHz	dB	40	30
	300-512 MHz	dB	35	25
	764-960 MHz	dB	35	25
	1240-1300 MHz	dB	35	25
Squelch sensitivity				
at threshold	(AM/FM)	μ V	0.5	2
at tight (FM)		dB	25	15
at tight (AM)		dB	20	10
Data decode sensitivity				
WX Alert 1050 Hz tone	3 kHz Dev. at 162.4 MHz	μ V	0.3	1

			Unit	Nominal Limit	
Signal Stalker II sensitivity at 450 MHz			dBm	-60	-50
Sensitivity					
FM: (S+N)/N=20 dB	25-54 MHz		μV	0.3	1
Dev.: 3 kHz at 1 kHz	108-136.99166 MHz		μV	0.3	1
	137-174 MHz		μV	0.5	2
	216.0025-224.995 MHz		μV	0.5	2
	225-299.99375 MHz		μV	0.5	2
	300-405.9875 MHz		μV	0.8	3
	406-512 MHz		μV	0.5	2
	764-960 MHz		μV	0.7	3
	1240-1300 MHz		μV	0.7	4
AM: (S+N)/N=20 dB	25-54 MHz		μV	1	3
Mod.: 60% at 1 kHz	108-136.99166 MHz		μV	1	3
	137-174 MHz		μV	1.5	5
	216.0025-224.995 MHz		μV	1.5	5
	225-299.99375 MHz		μV	2	6
	300-405.9875 MHz		μV	3	10
	406-512 MHz		μV	2	6
	764-960 MHz		μV	2	6
	1240-1300 MHz		μV	3	12
Selectivity	AM 25-27.995 MHz	-6 dB	kHz	±4	>±2.5
		-50 dB	kHz	±6	<±12
	Other frequency	-6 dB	kHz	±7	>±4.5
		-50 dB	kHz	±13	<±18
Spurious rejection (Except Primary image) at 154.1 MHz			dB	40	30
Acceptable radio frequency displacement (EIA RS-204D)			kHz	±6	±3
Residual noise	Volume control, set to its minimum, squelched		mV	2	5
Scanning rate	without trunking		channels/sec.	55	45-66
Search rate	at 162.25-167.25 MHz		steps/sec.	90	80-100
Scan delay time	Default setting		sec.	2	1-3
Audio output power	10% THD		W	1.5	1.0
Working memory	1,800 programmed object using flexible scannable object system				
Display	Liquid crystal display (16-character x 4-line, plus icon)				
Receiving system	Triple conversion PLL super-heterodyne, 1st IF: 380.8 MHz/2nd IF: 21.4 MHz/3rd IF: 455 kHz				
Power source	13.8V DC negative ground only				
Jacks	Antenna, earphone, PC/IF, external speaker, and power				
Dimensions (HWD)	2 1/4 x 7 1/4 x 5 5/16 inches (55 x 185 x 135 mm)				
Weight	approx. 42.3 oz. (1200 g) without antenna and batteries				

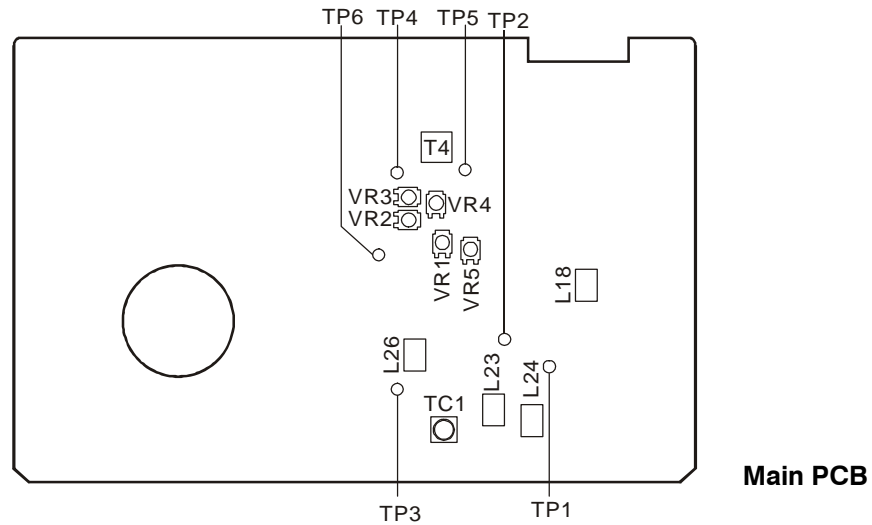
Note: Nominal specs represent the design specs. All units should be able to approximate these specifications. Some units will exceed while some may drop below these specs. Limit specs represent the absolute worst condition still considered acceptable. A unit should NEVER fail to meet limit specs.

BLOCK DIAGRAM



ALIGNMENT AND ADJUSTMENT

ALIGNMENT AND TEST POINT



ALIGNMENT PREPARATION

Test Equipment Required

- Oscilloscope
- DC SSVM
- FM signal generator
- Frequency counter (800 MHz)

Notes:

- Use non-metallic tuning tools.
- The test equipment and receiver should be warmed up for at least 10 minutes before proceeding with alignment.
- The signal level from the generator should be kept as low as possible to obtain a usable output.
- To tune the frequency, press **TUNE**, frequency number including decimal point, then press **ENT**.
If you make a mistake, press **CL** to delete a single digit or hold **CL** about 2 seconds to start over.

ALIGNMENT PROCEDURES

PLL2 VCO Alignment

Control Setting	Test Instrument Connection	Adjust	Result
OFF/VOLUME control: ON. SQUELCH control: Fully counterclockwise (CCW). Tune to 512 MHz.	Connect DC SSVM to TP3. See Figure 1.	L26	Adjust L26 to 2.0 volts on the DC SSVM. See Tables 1 and 2.

PLL1 VCO1 Alignment

Control Setting	Test Instrument Connection	Adjust	Result
OFF/VOLUME control: ON. SQUELCH control: CCW. Tune to 960 MHz and 764 MHz.	Connect DC SSVM to TP2. See Figure 2.	L23	1. Tune to 960 MHz and adjust L23 to 18.0 volts on the DC SSVM. 2. Tune to 764 MHz and be sure the DC SSVM reads 2.0-4.0 volts. (No adjustments are necessary for the coil.) See Table 1.

PLL1 VCO2 Alignment

Control Setting	Test Instrument Connection	Adjust	Result
OFF/VOLUME control: ON. SQUELCH control: CCW. Tune to 1300 MHz and 216.0025 MHz.	Connect DC SSVM to TP2. See Figure 2.	L24	1. Tune to 1300 MHz and adjust L24 to 20.0 volts on the DC SSVM. 2. Tune to 216.0025 MHz and be sure the DC SSVM reads 2.0-5.0 volts. (No adjustments are necessary for the coil.) See Table 1.

Frequency	Voltage
960.000 MHz	17.0-19.0 volts at TP2
764.000 MHz	2.0-4.0 volts at TP2
1300.000 MHz	19.0-21.0 volts at TP2
216.0025 MHz	2.0-5.0 volts at TP2
512.000 MHz	1.8-2.2 volts at TP3

Table 1

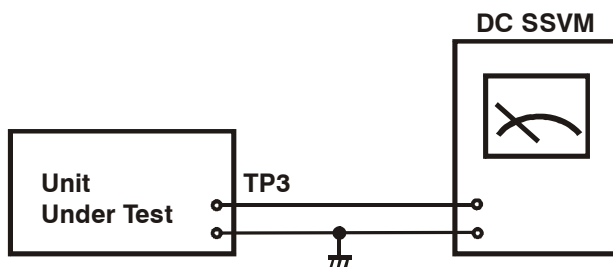


Figure 1

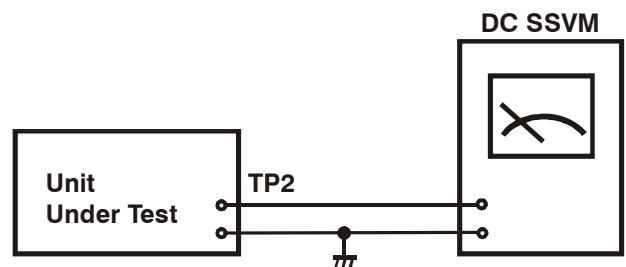


Figure 2

Adjustment of Coils L23, L24, and L26

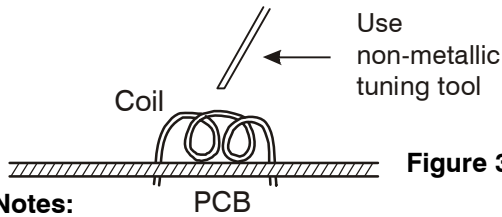


Figure 3

Notes:

- Be very careful when doing coil pitch adjustment because it greatly affects the frequency.
- Secure the coil with glue after alignment. Be sure the glue is dry and the coil is secured. Also, be sure that the environmental temperature is normal. Then, repeat VCO (PLL2 and PLL1) alignments on Page 6.

Each coil should be adjusted carefully by changing the pitch of the coil little by little using a non-metallic tuning tool as shown in Figure 3.

Increase the pitch of the coil when the measured voltage at TP2 or TP3 is higher than the voltage listed in Table 2 for the PLL2 VCO alignment, PLL1 VCO1 alignment, and PLL1 VCO2 alignment.

Decrease the pitch of the coil when the measured voltage at TP2 or TP3 is lower than the voltage listed in Table 2 for the PLL2 VCO alignment, PLL1 VCO1 alignment, and PLL1 VCO2 alignment.

Table 2

Reference Frequency Osc. Confirmation

Control Setting	Test Instrument Connection	Adjust	Confirmation
OFF/VOLUME control: ON. SQUELCH control: CCW. Tune to 174 MHz.	Connect the frequency counter to TP1. See Figure 4.	---	Confirm the frequency counter reads 554.775 MHz +/-1 kHz.

Note: Care should be taken not to make any contact between TP1 and the shield case.

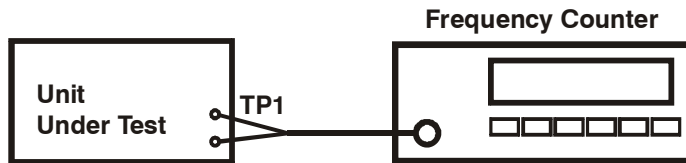


Figure 4

455 kHz FM Discriminator Coil Alignment

Control Setting	Test Instrument Connection	Adjust	Result
OFF/VOLUME control: ON. SQUELCH control: CCW. Tune to 174 MHz, 860 MHz, and 450 MHz.	Connect the signal generator to the ANT jack and the DC SSVM to TP4. See Figure 5.	T4	1. Tune to 174 MHz. Set the signal generator frequency to 174 MHz, 100 uV output (no mod.) and adjust T4 for 1.3 +/-0.05 volts on the DC SSVM.

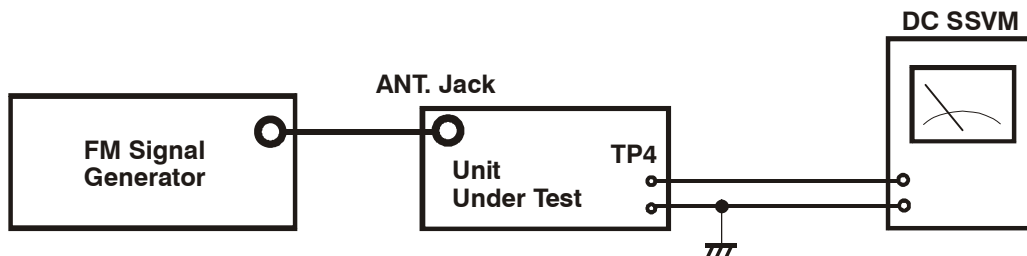


Figure 5

3rd Local Alignment

Control Setting	Test Instrument Connection	Adjust	Result
OFF/VOLUME control: ON. SQUELCH control: CCW. Tune to 154.650, 173.4125, and 216.0025 MHz.	Connect the signal generator to the ANT jack and frequency counter to TP5. See Figure 6.	VR2 VR3 VR4	1. Set the signal generator frequency to 154.650 MHz (No modulation). Tune to 154.650 MHz and adjust VR4 so the frequency is 455 kHz +/- 10 Hz. 2. Set the signal generator frequency to 173.4125 MHz (No modulation). Tune to 173.4125 MHz and adjust VR2 so the frequency is 455 kHz +/- 10 Hz. 3. Set the signal generator frequency to 216.0025 MHz (No modulation). STune to 216.0025 MHz and adjust VR3 so the frequency is 455 kHz +/- 10 Hz.

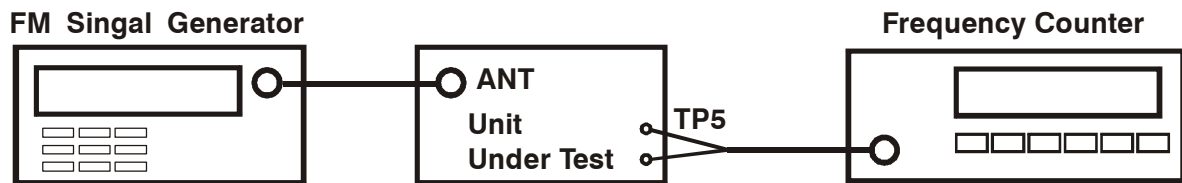


Figure 6

IF (380.8 MHz) Trap Adjustment

Control Setting	Test Instrument Connection	Adjust	Result
OFF/VOLUME control: ON. SQUELCH control: CCW. Tune to 406 MHz.	Connect the signal generator to the ANT jack and oscilloscope to headphone jack across 8-ohm dummy load. See Figure 7..	L18	1. Set the signal generator frequency to 380.750 MHz, FM: 3 kHz deviation at 1 kHz. 2. Adjust L18 to decrease the sensitivity. 3. Set the signal generator frequency to 406.000 MHz, FM: 3 kHz deviation at 1 kHz and check that the scanner receives the signal.

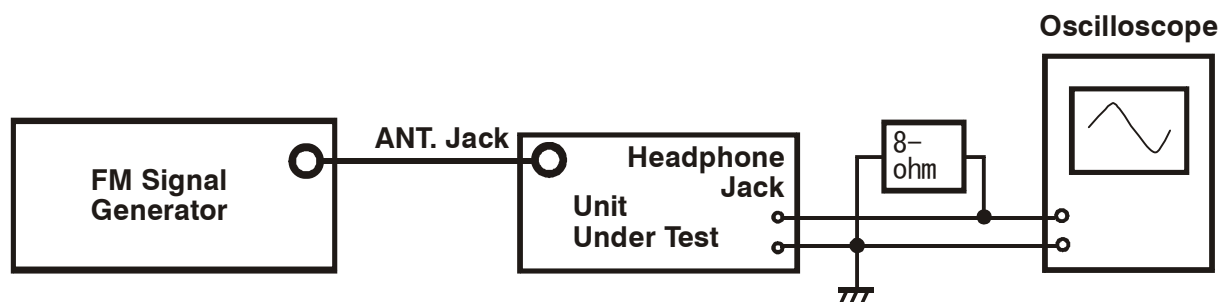


Figure 7

Signal Meter Alignment

Control Setting	Test Instrument Connection	Adjust	Result
OFF/VOLUME control: ON. SQUELCH control: CCW. Tune to 154.100 MHz.	Connect the signal generator to the ANT jack and the DC SSVM to TP6. See Figure 8.	VR5	Set the signal generator frequency to 154.100 MHz, -96 dBm output (no modulation) and adjust VR5 for 2.225 +/-0.25 volts on the DC SSVM.

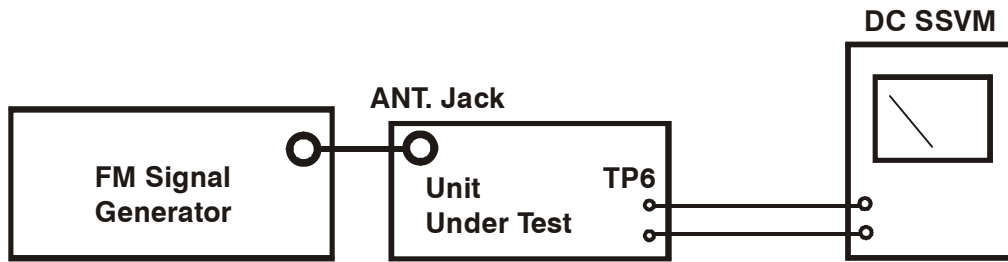
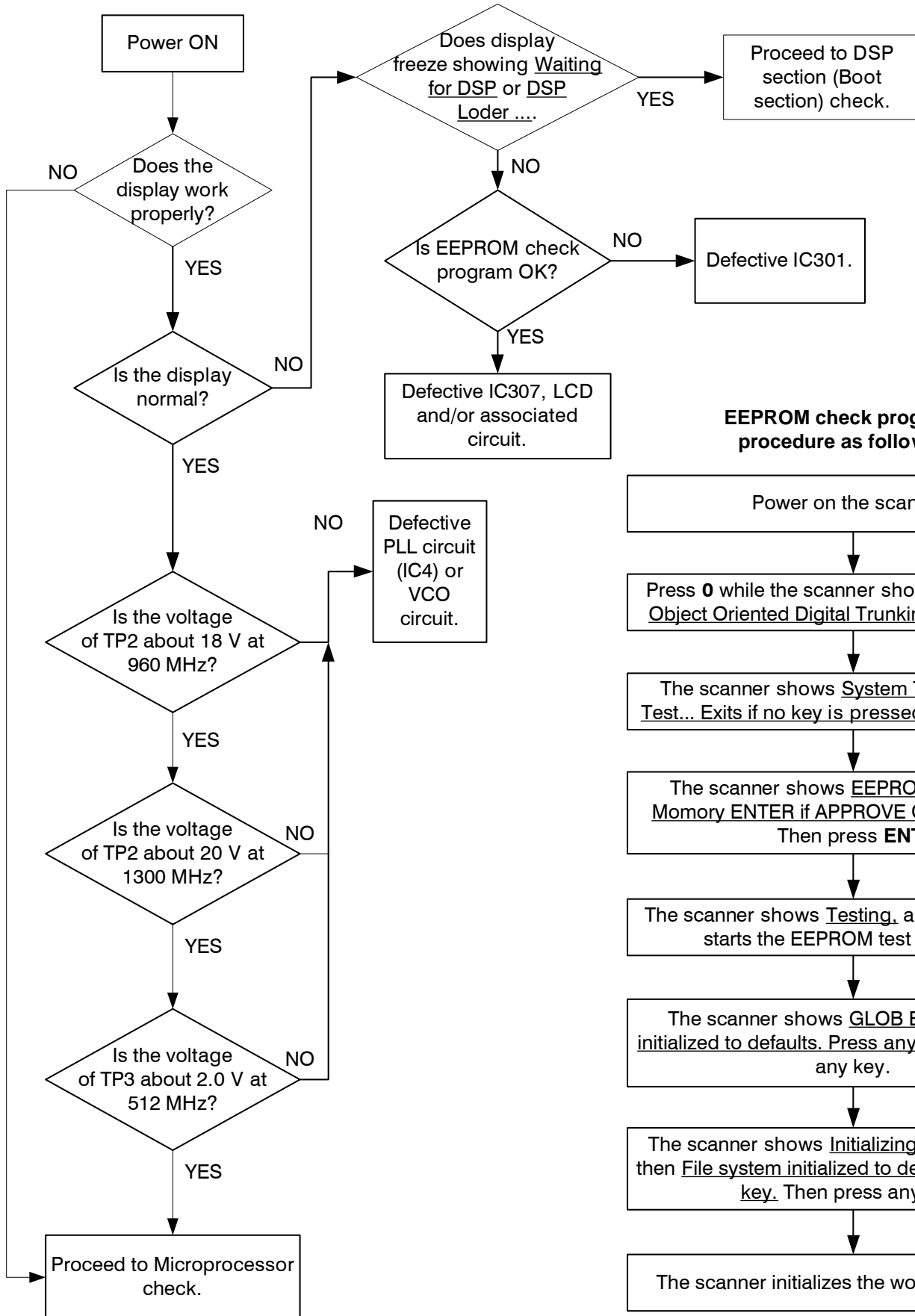


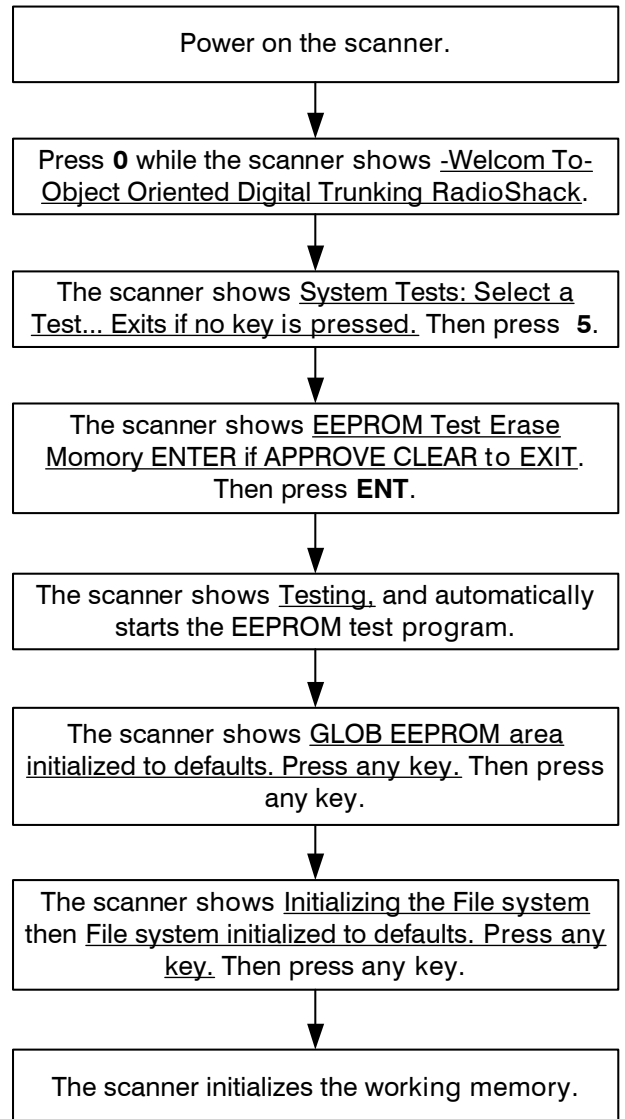
Figure 8

TROUBLESHOOTING

Reception Check

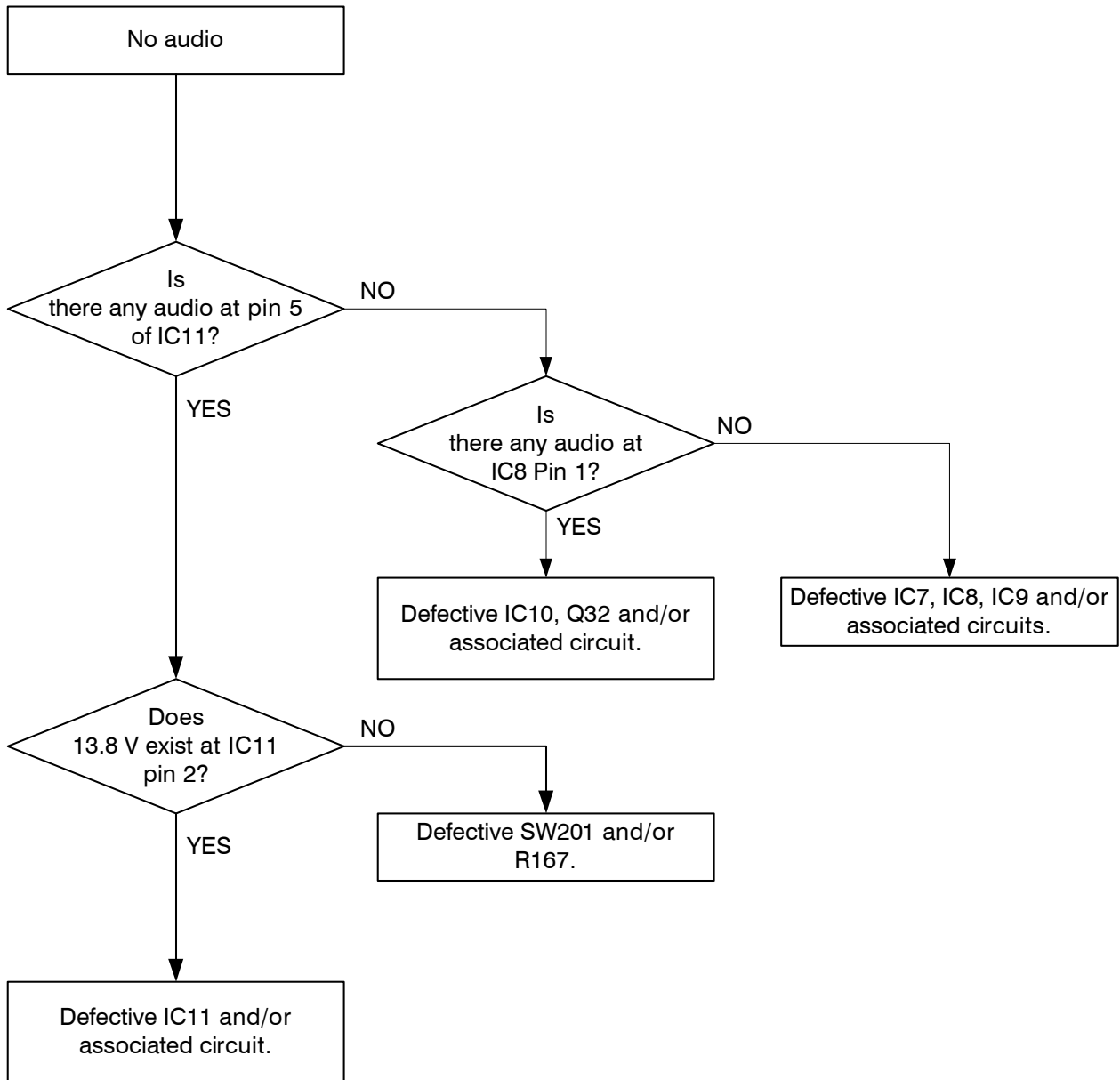


EEPROM check program procedure as follows:

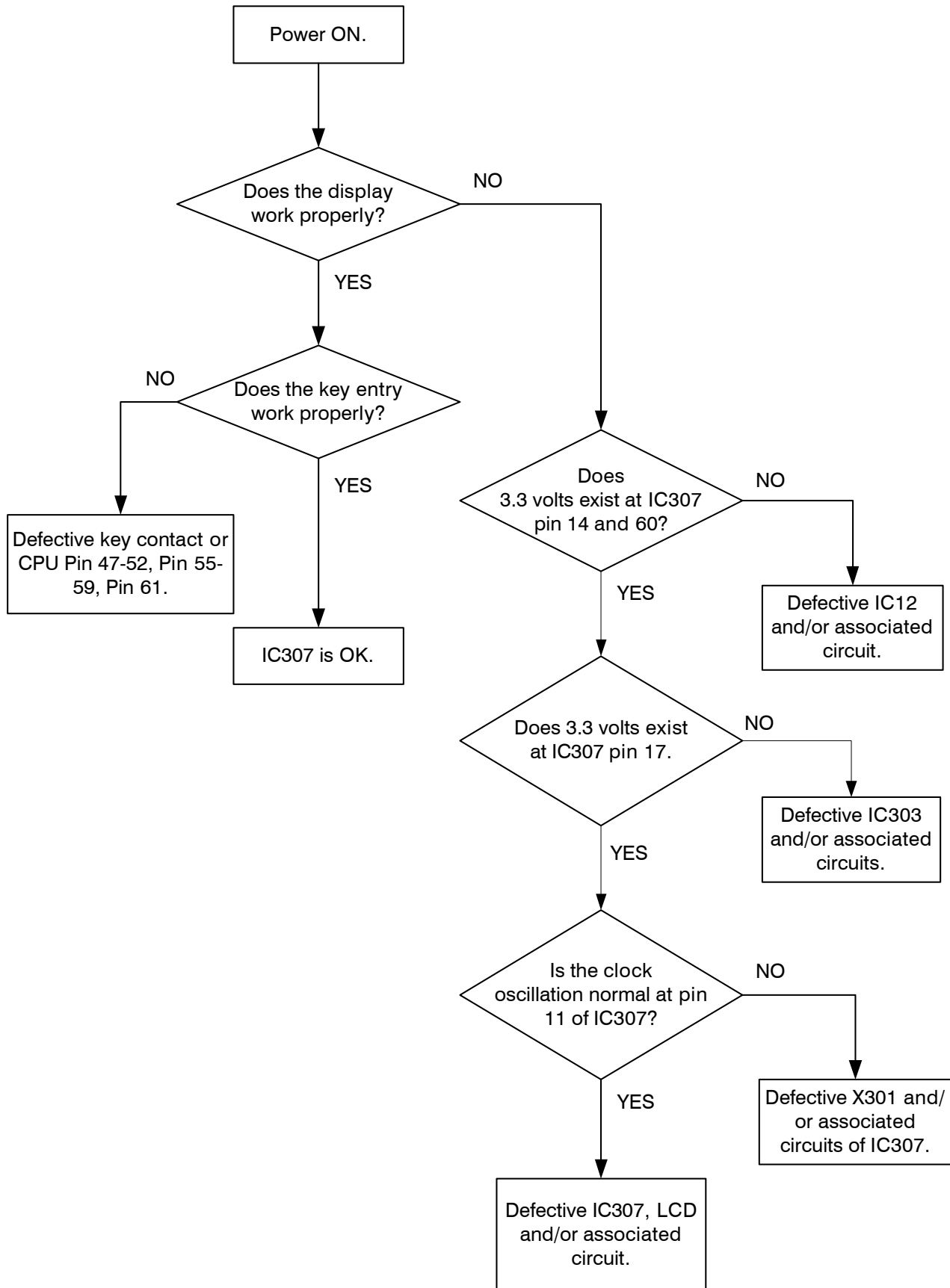


Note: This procedure clears all information you stored in the scanner's working memory.

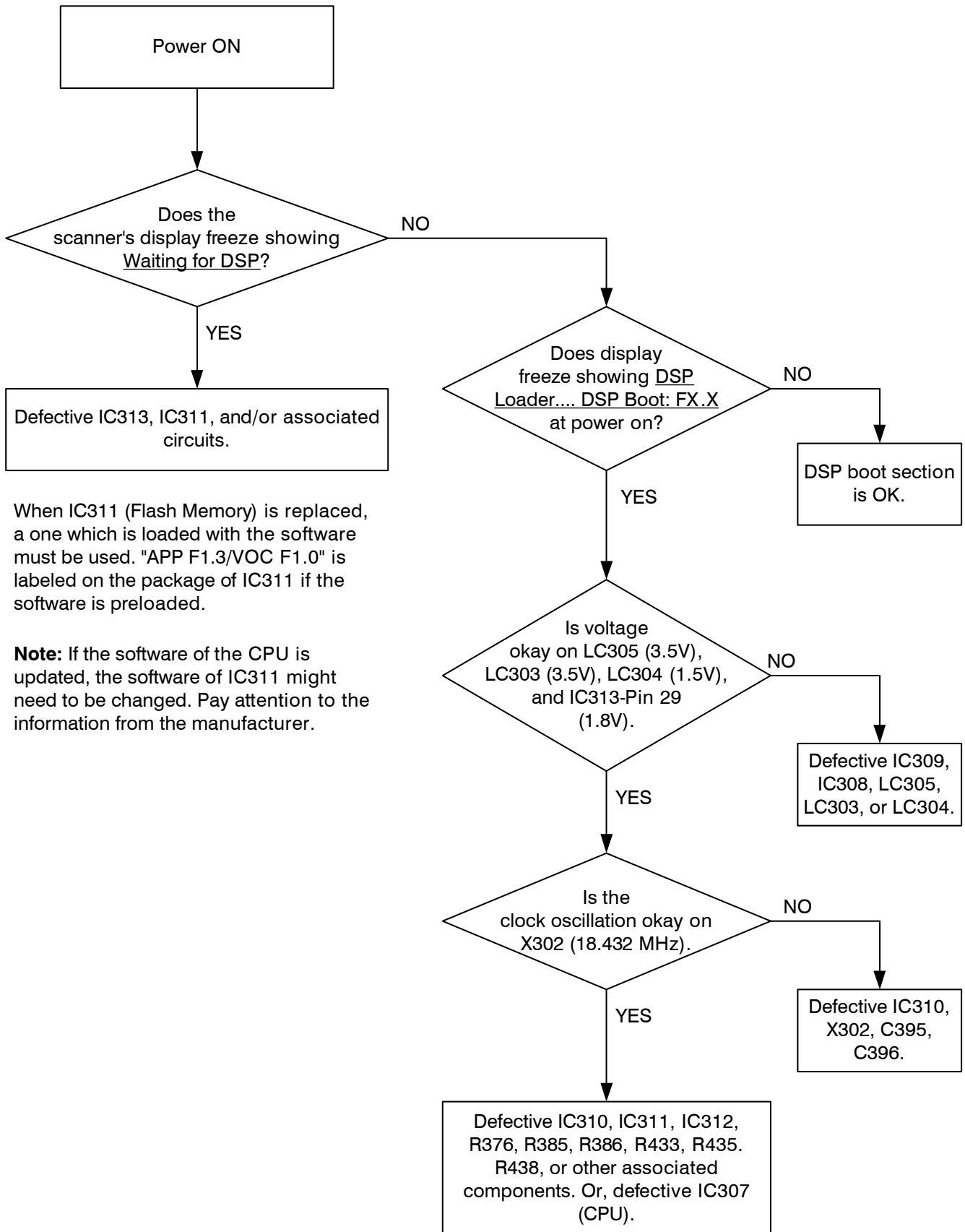
Audio Section



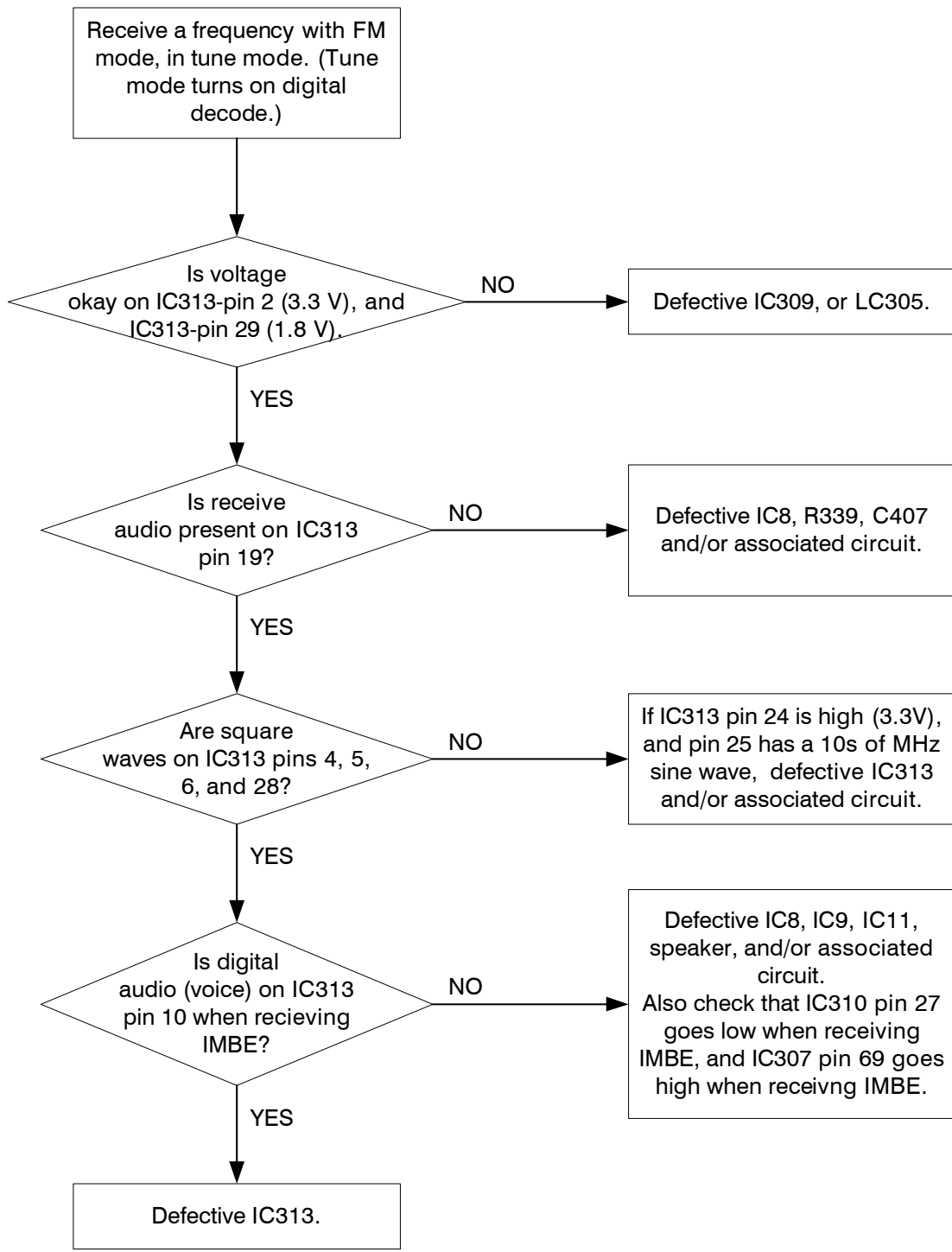
Microprocessor Check



DSP Section (Boot Section)

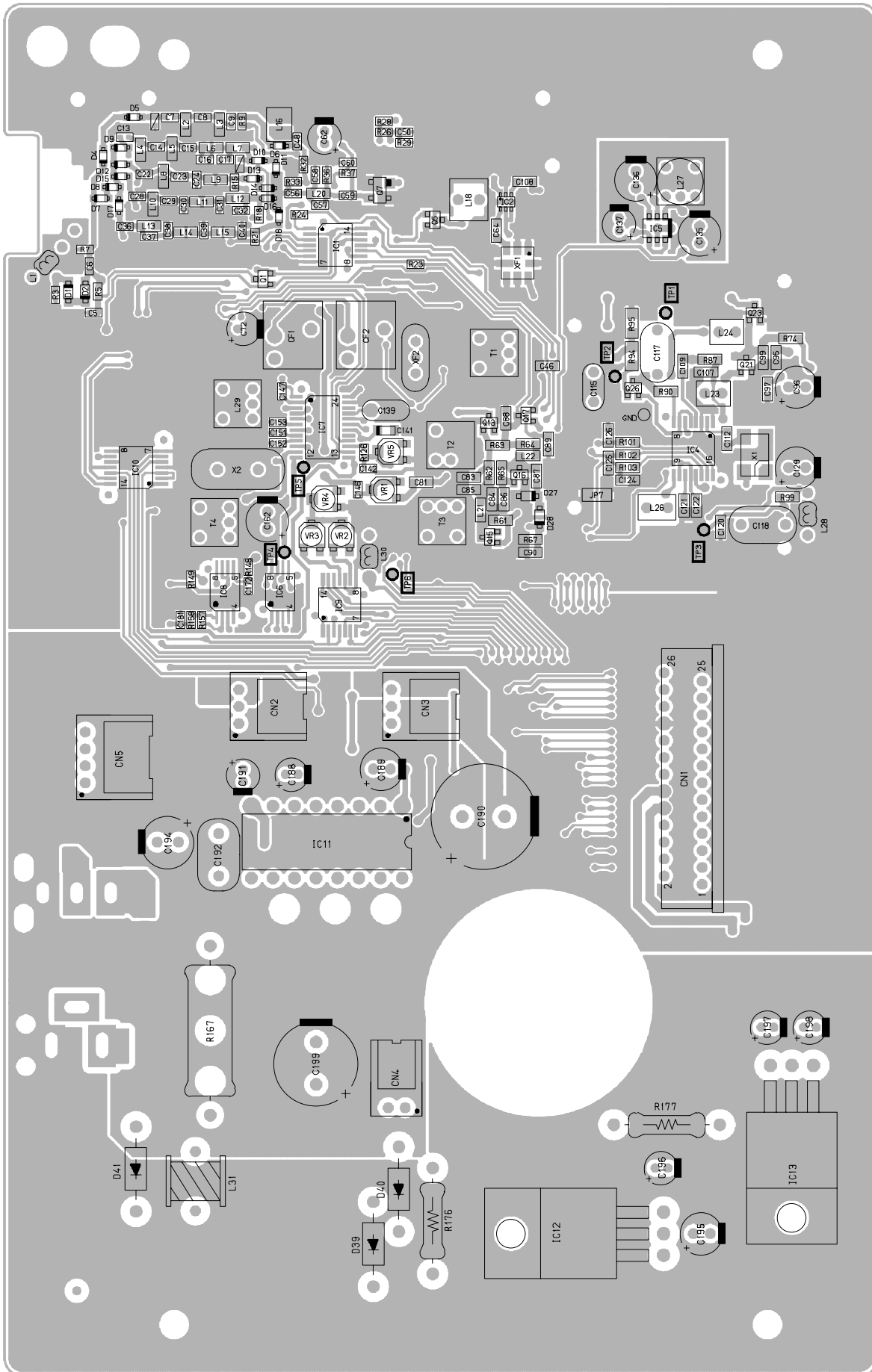


DSP Section (Digital Audio, etc.)

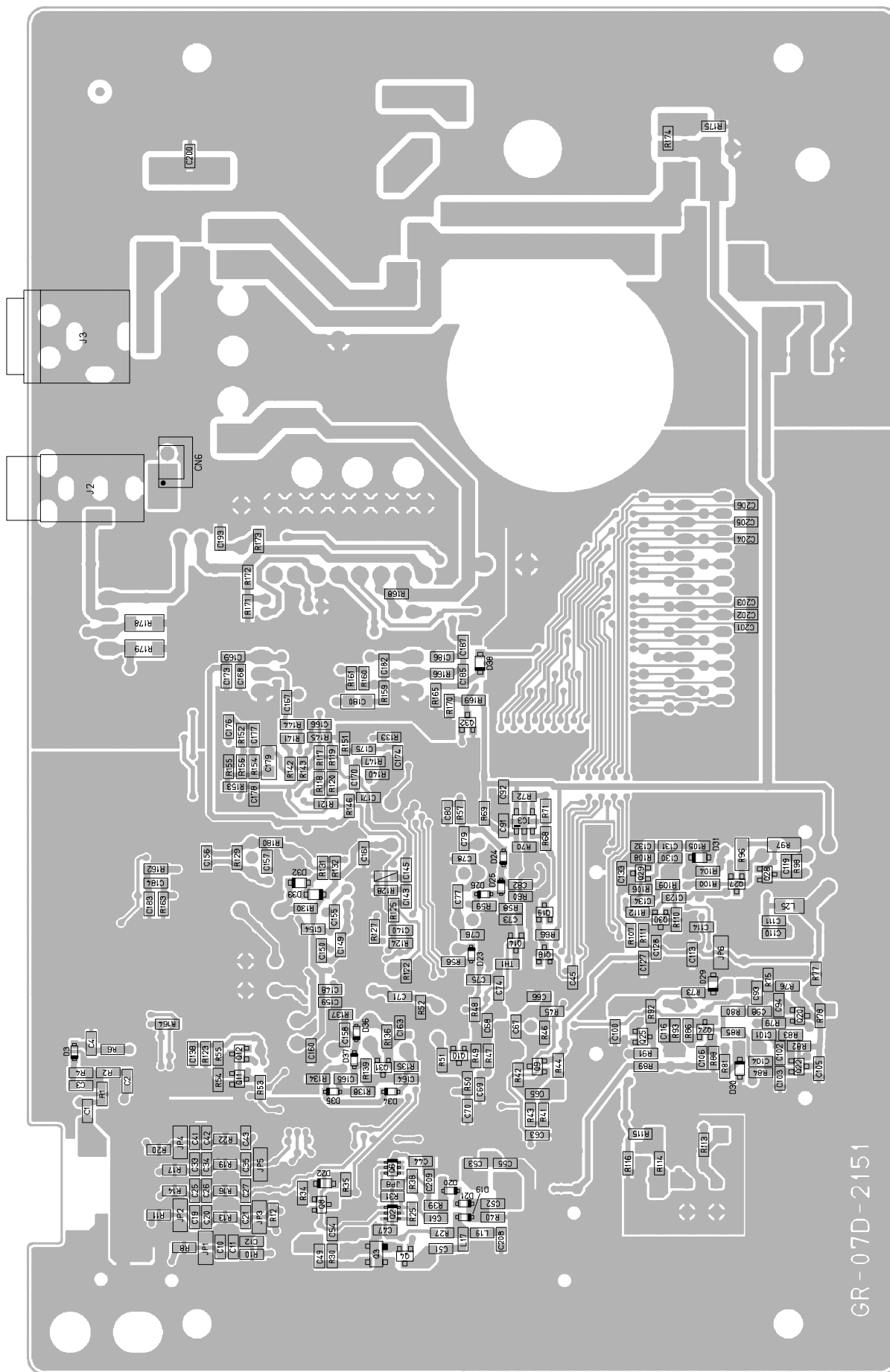


PRINTED CIRCUIT BOARD

Main PCB

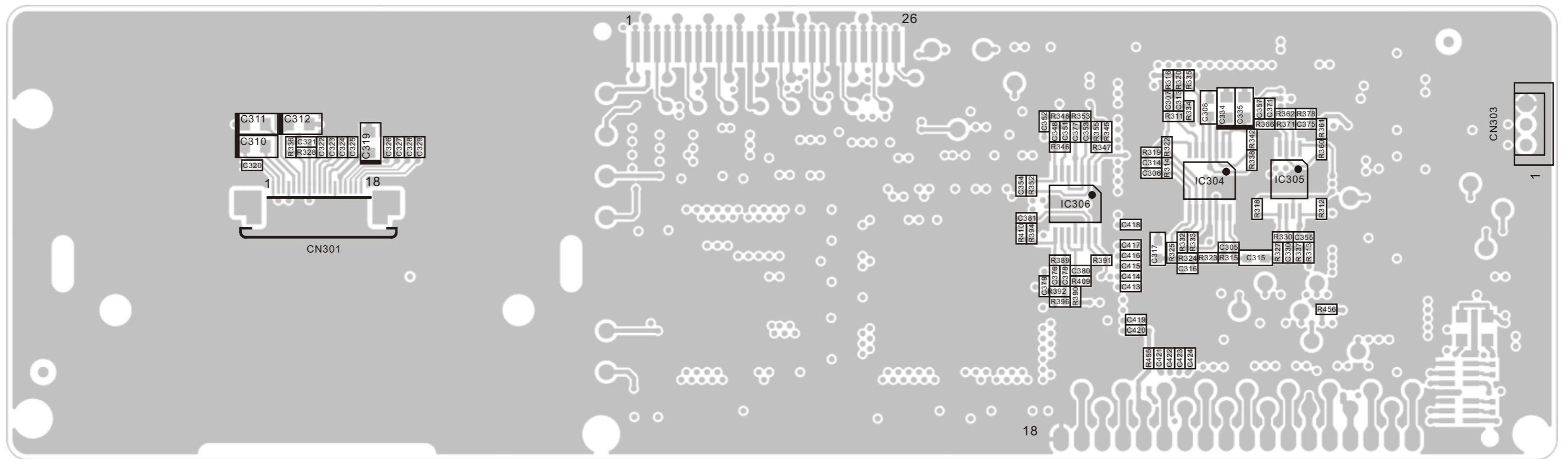


Top View



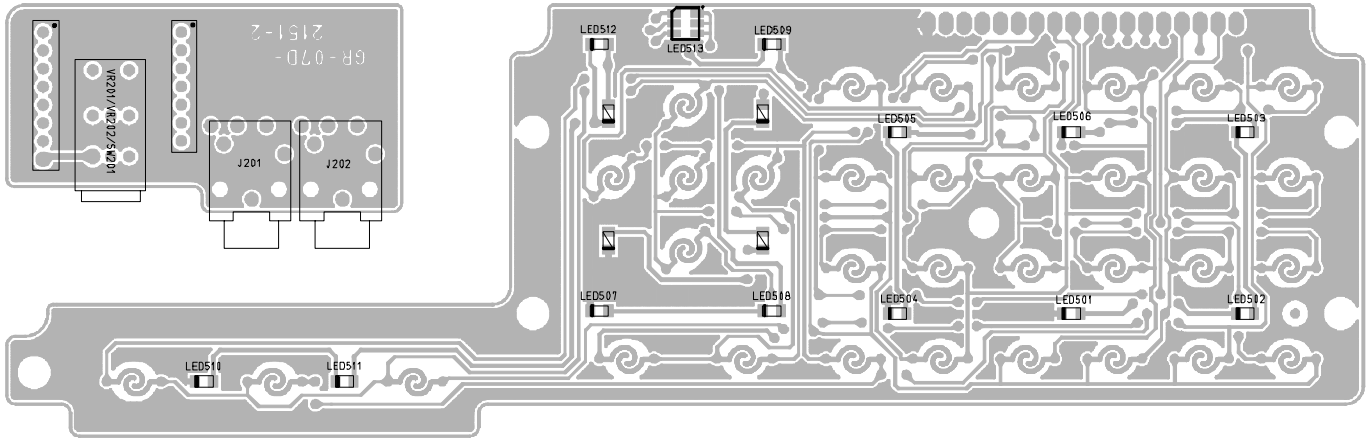
GR-07D-2151

Bottom View



Bottom View

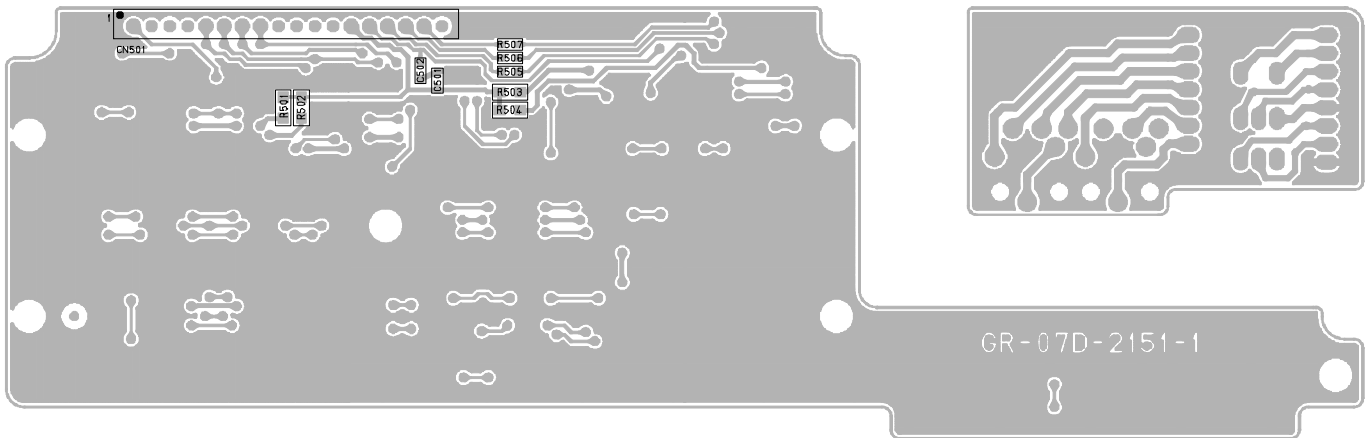
Top View



Key Board

Vol/Head Phone

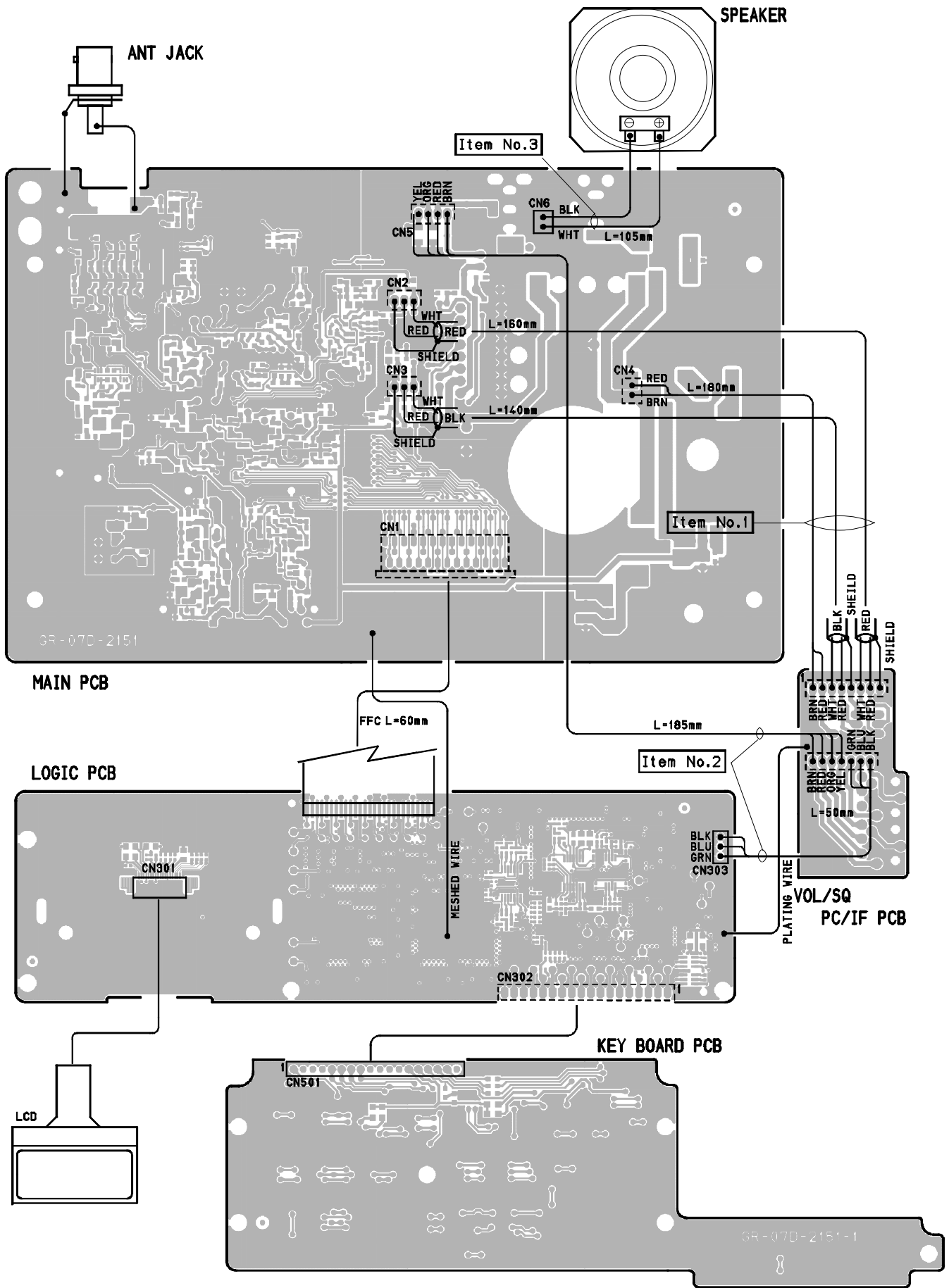
Bottom View



Key Board

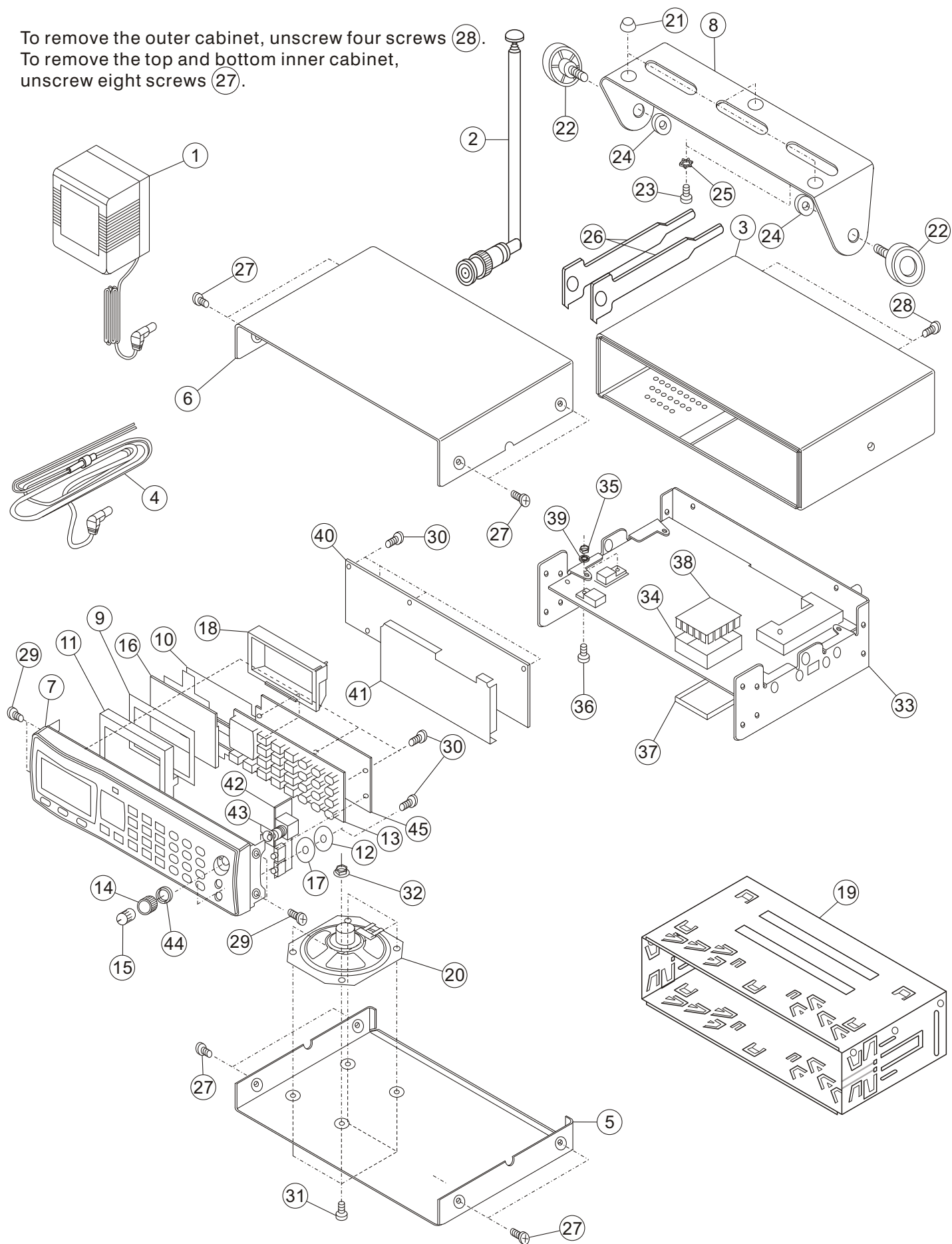
Vol/Head Phone

WIRING DIAGRAM



EXPLODED VIEW

To remove the outer cabinet, unscrew four screws (28).
To remove the top and bottom inner cabinet, unscrew eight screws (27).



MECHANICAL PARTS LIST

Ref. No.	Description	RS Part No.	Part No.
1	Adaptor, AC		GA-04D-1100B
2	Antenna, Telescopic		JF-52149(G96-001/C)
3	Assembly, Cabinet, Outer (Non-Repairable)		GA-05D-1540
	Cabinet, Outer		GR-07B-2310
	Himelon, Outer Cabinet		GR-07D-2400
			or GE-04D-2430
	Cushion, Speaker		GR-07D-2580
			or GE-06D-3210
4	Assembly, Cable, DC W/2A Fuse		GA-04D-1060
5	Assembly, Cabinet, Inner, Bottom (Non=Reparable)		GA-04D-2200
	Cushion, Shield, Logic		GR-06D-0910
			or GE-91D-9472
	Cabinet, Bottom, Inner		GR-07C-2270
			or GE-04C-0410
	Himelon, Cabinet		GR-07D-2280
			or GE-99D-3368
6	Assembly, Cabinet, Inner, Top (Non=Reparable)		GA-04D-2190
	Cushion, Shield, Logic		GR-06D-0910
			or GE-91D-9472
	Cabinet, Top, Inner		GR-07C-2260
			or GE-04C-0400
	Himelon, Cabinet		GR-07D-2280
			or GE-99D-3368
7	Assembly, Escutcheon, Front (Non-Repairable)		GA-08D-1740
	Escutcheon, Front		GR-08A-0290
	Light Pipe		GR-07D-2552
	Tape, Adhesive, Window, LCD		GR-07D-2200
	Window, LCD		GR-07D-2191
8	Bracket, Mount		GR-07C-2300
9	Cushion, LCD		GR-07D-2430
10	Film, Optical Spread		GR-07D-2220
11	Holder, LCD		GR-07D-2420
12	Hokder, Jack Phone		GR-07D-2320
			or GE-04D-0440
13	Key Top		GR-07B-2562
14	Knob, Squelch		GR-07D-2251
15	Knob, Volume		GR-07D-2241
16	LCD		GR-05D-0982
17	Plate, Insulation, Holder		GR-07D-2330
			or GE-04D-0451
18	Reflector, LCD		GR-07D-2210
19	Sleeve, DIN-E		GE-04A-1810
20	Speaker, 8-ohm 3W MAX		GR-05D-3380
			or 077CP13D1.5W-A1
			or 077CP13D1.5W-A2
	Wire Housing Assembly		Item No. 3
	Mounting Kit		GE-04D-1832
21	Foot Black		3M SJ-5012 Black
22	Screw, Mount BLK KR-B1 M5xL10, D30		BLACK KR-B1(M5xL10, D30)
			Non-Hex Chromate
23	Screw, Binding Head Tapping 5x10 Ni		Bind Tapping 5x10 (Ni)
24	Spacer, Mount		GE-99D-3375
25	Washer, Outer, Toothed 5m/m Ni		5M/M (Ni)
26	Tool, Removal		GE-04C-1820

Ref. No.	Description	RS Part No.	Part No.
	Hardware Kit		#0714(B)
27	Screw, Binding Head Machine, 2.6x5	Ni	BM 2.6x5 (Ni)
28	Screw, Binding Head Machine, 2.6x5	BLK	BM 2.6x5 BLK
29	Screw, Counter Sunk Head Machine 2.6x6	Ni	CM 2.6x6 (Ni)
30	Screw, Pan Head P Tight 2.6x6	Ni	P TIGHT 2.6x6 (Ni)
31	Screw, Pan Head Machine 3x6	Ni	PM 3x6 (Ni)
32	Nut, Flange 3 m/m	ZC	Flange 3M/M (Zc)
33	See Mechanical Parts List on Page XX.		
34-39	See Mechanical Parts List on Page XX.		
40	See Mechanical Parts List on Page XX.		
41	See Mechanical Parts List on Page XX.		
42-45	See Mechanical Parts List on Page XX.		

ELECTRICAL PARTS LIST

Ref. No.	Description	RS Part No.	Mfr's Part No.
33	Assembly PCB, Main Consists of the following:	GA-08D-0220	
Capacitors			
C1	Ceramic	0.001 μ F 50 V $\pm 10\%$	ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C2	Ceramic	0.001 μ F 50 V $\pm 10\%$	ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C3	Ceramic	3 pF 50 V ± 0.25 pF	ECJ1VC1H030C or CM105CJ3R0C50AT or GRM1885C1H3R0CZ01D
C4	Ceramic	0.001 μ F 50 V $\pm 10\%$	ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C5	Ceramic	0.001 μ F 50 V $\pm 10\%$	ECJ0EB1H102K or GRM155R71H102KA01D or CM05B102J50AH
C6	Ceramic	0.001 μ F 50 V $\pm 10\%$	ECJ0EB1H102K or GRM155R71H102KA01D or CM05B102J50AH
C7	Ceramic	5 pF 50 V ± 0.25 pF	ECJ0EC1H050C or CM05CH5R0C50AH or GRM1555C1H5R0CZ01D
C8	Ceramic	3 pF 50 V ± 0.25 pF	ECJ0EC1H030C or CM05CH3R0C50AH or GRM1555C1H3R0CZ01D
C9	Ceramic	8 pF 50 V ± 0.5 pF or $\pm 5\%$	ECJ0EC1H080D or CM05CH8R0J50AH or GRM1555C1H8R0JZ01D
C10	Ceramic	0.001 μ F 50 V $\pm 10\%$	ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C11	Ceramic	0.047 μ F 50 V $\pm 10\%$ or 25 V	ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C12	Ceramic	0.001 μ F 50 V $\pm 10\%$	ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C13	Ceramic	22 pF 50 V $\pm 5\%$	ECJ0EC1H220J or CM05CH220J50AH or GRM1555C1H220JZ01D
C14	Ceramic	6 pF 50 V ± 0.5 pF	ECJ0EC1H060D or CM05CH6R0D50AH or GRM1555C1H6R0DZ01D
C15	Ceramic	7 pF 50 V ± 0.5 pF	ECJ0EC1H070D or CM05CH7R0D50AH or GRM1555C1H7R0DZ01D
C16	Ceramic	2 pF 50 V ± 0.25 pF	ECJ0EC1H020C or CM05CH2R0C50AH or GRM1555C1H2R0CZ01D
C17	Ceramic	12 pF 50 V $\pm 5\%$	ECJ0EC1H120J or CM05CH120J50AH or GRM1555C1H120JZ01D
C18	Not used.		
C19	Ceramic	0.001 μ F 50 V $\pm 10\%$	ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C20	Ceramic	0.047 μ F	50 V or 25 V	$\pm 10\%$		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C21	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C22	Ceramic	5 pF	50 V	± 0.25 pF		ECJ0EC1H050C or CM05CH5R0C50AH or GRM1555C1H5R0CZ01D
C23	Ceramic	5 pF	50 V	± 0.25 pF		ECJ0EC1H050C or CM05CH5R0C50AH or GRM1555C1H5R0CZ01D
C24	Ceramic	5 pF	50 V	± 0.25 pF		ECJ0EC1H050C or CM05CH5R0C50AH or GRM1555C1H5R0CZ01D
C25	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C26	Ceramic	0.047 μ F	50 V or 25 V	$\pm 10\%$		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C27	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C28	Ceramic	33 pF	50 V	$\pm 5\%$		ECJ0EC1H330J or CM05CH330J50AH or GRM1555C1H330JZ01D
C29	Ceramic	22 pF	50 V	$\pm 5\%$		ECJ0EC1H220J or CM05CH220J50AH or GRM1555C1H220JZ01D
C30	Ceramic	10 pF	50 V	± 0.5 pF or $\pm 5\%$		ECJ0EC1H100D or CM05CH100J50AH or GRM1555C1H100JZ01D
C31	Ceramic	15 pF	50 V	$\pm 5\%$		ECJ0EC1H150J or CM05CH150J50AH GRM1555C1H150JZ01D
C32	Ceramic	10 pF	50 V	± 0.5 pF or $\pm 5\%$		ECJ0EC1H100D or CM05CH100J50AH or GRM1555C1H100JZ01D
C33	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C34	Ceramic	0.047 μ F	50 V or 25 V	$\pm 10\%$		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C35	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C36	Ceramic	180 pF	50 V	$\pm 5\%$		ECJ0EC1H181J or CM05CH181J50AH or GRM1555C1H181JA01D
C37	Ceramic	180 pF	50 V	$\pm 5\%$		ECJ0EC1H181J or CM05CH181J50AH or GRM1555C1H181JA01D
C38	Ceramic	68 pF	50 V	$\pm 5\%$		ECJ0EC1H680J or CM05CH680J50AH or GRM1555C1H680JZ01D
C39	Ceramic	120 pF	50 V	$\pm 5\%$		ECJ0EC1H121J or CM05CH121J50AH or GRM1555C1H121JA01D
C40	Ceramic	68 pF	50 V	$\pm 5\%$		ECJ0EC1H680J or CM05CH680J50AH or GRM1555C1H680JZ01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C41	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C42	Ceramic	0.047 μ F	50 V or 25 V	$\pm 10\%$		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C43	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C44	Ceramic	0.047 μ F	50 V or 25 V	$\pm 10\%$		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C45	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C46	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C47	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C48	Ceramic	2 pF	50 V	± 0.25 pF		ECJ0EC1H020C or CM05CH2R0C50AH or GRM1555C1H2R0CZ01D
C49	Ceramic	4 pF	50 V	± 0.25 pF		ECJ1VC1H040C or CM105CH4R0C50AT or GRM1885C1H4R0CZ01D
C50	Ceramic	22 pF	50 V	$\pm 5\%$		ECJ0EC1H220J or CM05CH220J50AH or GRM1555C1H220JZ01D
C51	Ceramic	5 pF	50 V	± 0.25 pF		ECJ1VC1H050C or CM105CH5R0C50AT or GRM1885C1H5R0CZ01D
C52	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C53	Ceramic	3 pF	50 V	± 0.25 pF		ECJ1VC1H030C or CM105CJ3R0C50AT or GRM1885C1H3R0CZ01D
C54	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C55	Ceramic	3 pF	50 V	± 0.25 pF		ECJ1VC1H030C or CM105CJ3R0C50AT or GRM1885C1H3R0CZ01D
C56	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ0EB1H102K or GRM155R71H102KA01D or CM05B102J50AH
C57	Ceramic	2 pF	50 V	or $\pm 5\%$ ± 0.25 pF		ECJ0EC1H020C or CM05CH2R0C50AH or GRM1555C1H2R0CZ01D
C58	Ceramic	5 pF	50 V	± 0.25 pF		ECJ0EC1H050C or CM05CH5R0C50AH or GRM1555C1H5R0CZ01D
C59	Ceramic	0.001 μ F	50 V	$\pm 10\%$		ECJ0EB1H102K or GRM155R71H102KA01D or CM05B102J50AH
C60	Ceramic	0.001 μ F	50 V	or $\pm 5\%$ $\pm 10\%$		ECJ0EB1H102K or GRM155R71H102KA01D or CM05B102J50AH
C61	Ceramic	100 pF	50 V	or $\pm 5\%$ $\pm 5\%$		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C62	Electrolytic	33 μ F	10 V	\pm 20%		USR1A330MDD or 1AUTCMS330M0 or 1AUTCMS330M
C63	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C64	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C65	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C66	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C67	Ceramic	33 pF	50 V	\pm 5%		ECJ1VC1H330J or CM105CH330J50AT or GRM1885C1H330JA01D
C68	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C69	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C70	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C71	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C72	Electrolytic	1 μ F	50 V	\pm 20%		USA1H010MDD or 1HUTCM010M0 or 1HUTCM010M
C73	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C74	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C75	Ceramic	68 pF	50 V	\pm 5%		ECJ1VC1H680J or CM105CH680J50AT or GRM1885C1H680JA01D
C76	Ceramic	39 pF	50 V	\pm 5%		ECJ1VC1H390J or CM105CH390J50AT or GRM1885C1H390JA01D
C77	Ceramic	1.5 pF	50 V	\pm 0.25pF		ECJ1VC1H1R5C or CM105CK1R5C50AT or GRM1885C1H1R5CZ01D
C78	Ceramic	39 pF	50 V	\pm 5%		ECJ1VC1H390J or CM105CH390J50AT or GRM1885C1H390JA01D
C79	Ceramic	68 pF	50 V	\pm 5%		ECJ1VC1H680J or CM105CH680J50AT or GRM1885C1H680JA01D
C80	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C81	Ceramic	0.01 μ F	50 V	\pm 10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C82	Ceramic	0.01 μ F	50 V	\pm 10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C83	Ceramic	0.047 μ F	50 V or 25 V	\pm 10%		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C84	Ceramic	56 pF	50 V	\pm 5%		ECJ1VC1H560J or CM105CH560J50AT or GRM1885C1H560JA01D
C85	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C86	Ceramic	0.01 μ F	50 V	\pm 10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C87	Ceramic	0.01 μ F	50 V	\pm 10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C88	Ceramic	0.047 μ F	50 V or 25 V	\pm 10%		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C89	Ceramic	0.047 μ F	50 V or 25 V	\pm 10%		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C90	Ceramic	0.47 μ F	10 V	\pm 10%		ECJ1VB1A474K or LMK107BJ474KA-T or GRM188R61A474KA61D or ECJ1VB0J474K
C91	Ceramic	0.047 μ F	o 6.3 V 50 V or 25 V	\pm 10%		ECJ1VB1H473K or CM105X7R473K25AT or GRM188R71E473KA01D
C92	Ceramic	0.01 μ F	50 V	\pm 10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C93	Ceramic	220 pF	50 V	\pm 5%		ECJ1VC1H221J or CM105CH221J50AT or GRM1885C1H221JA01D
C94	Ceramic	15 pF	50 V	\pm 5%		ECJ1VC1H150J or CM105CH150J50AT or GRM1885C1H150JA01D
C95	Ceramic	8 pF	50 V	\pm 0.5pF		ECJ1VC1H080D or CM105CH8R0D50AT or GRM1885C1H8R0DZ01D
C96	Electrolytic	220 μ F	6.3 V	\pm 20%		UVR0J221MDD or 0JUTES221M0 or 0JUTES221M
C97	Ceramic	0.001 μ F	50 V	\pm 5%		ECJ1VC1H102J or CM105CH102J50AT or GRM1885C1H102JA01D
C98	Ceramic	3 pF	50 V	\pm 0.25pF		ECJ1VC1H030C or CM105CJ3R0C50AT or GRM1885C1H3R0CZ01D
C99	Ceramic	0.001 μ F	50 V	\pm 5%		ECJ1VC1H102J or CM105CH102J50AT or GRM1885C1H102JA01D
C100	Ceramic	47 pF	50 V	\pm 5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C101	Ceramic	100 pF	50 V	\pm 5%		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D
C102	Ceramic	12 pF	50 V	\pm 5%		ECJ1VC1H120J or CM105CH120J50AT or GRM1885C1H120JA01D
C103	Ceramic	5 pF	50 V	\pm 0.25pF		ECJ1VC1H050C or CM105CH5R0C50AT or GRM1885C1H5R0CZ01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C104	Ceramic	2 pF	50 V	±0.25pF		ECJ1VC1H020C or CM105CK2R0C50AT or GRM1885C1H2R0CZ01D
C105	Ceramic	0.001 µF	50 V	±5%		ECJ1VC1H102J or CM105CH102J50AT or GRM1885C1H102JA01D
C106	Ceramic	100 pF	50 V	±5%		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D
C107	Ceramic	0.001 µF	50 V	±5%		ECJ1VC1H102J or CM105CH102J50AT or GRM1885C1H102JA01D
C108	Ceramic	100 pF	50 V	±5%		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D
C109	Ceramic	100 pF	50 V	±5%		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D
C110	Ceramic	100 pF	50 V	±5%		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D
C111	Ceramic	0.001 µF	50 V	±5%		ECJ1VC1H102J or CM105CH102J50AT or GRM1885C1H102JA01D
C112	Ceramic	100 pF	50 V	±5%		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D
C113	Ceramic	0.1 µF	25 V or 16 V	±10%		ECJ1VB1E104K or CM105X7R104K16AT or GRM188R71C104KA01D
C114	Ceramic	33 pF	50 V	±5%		ECJ1VC1H330J or CM105CH330J50AT or GRM1885C1H330JA01D
C115	Polyester	0.0033 µF	50 V	±10%		AMC50K332 or QYS1H332K
C116	Ceramic	0.0022 µF	50 V	±10%		ECJ1VB1H222K or CM105X7R222K50AT or GRM188R71H222KA01D
C117	Polypropylene	0.033 µF	100 V	±5%		APS100J333
C118	Polyester	0.047 µF	50 V	±10%		AMC50K473 or QYP1H473K
C119	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C120	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C121	Ceramic	0.001 µF	50 V	±5%		ECJ1VC1H102J or CM105CH102J50AT or GRM1885C1H102JA01D
C122	Ceramic	0.1 µF	25 V or 16 V	±10%		ECJ1VB1E104K or CM105X7R104K16AT or GRM188R71C104KA01D
C123	Ceramic	100 pF	50 V	±5%		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D
C124	Ceramic	47 pF	50 V	±5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C125	Ceramic	47 pF	50 V	±5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C126	Ceramic	47 pF	50 V	±5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C127	Ceramic	10 pF	50 V	±0.5pF or ±5%		ECJ1VC1H100D or CM105CH100J50AT or GRM1885C1H100JA01D
C128	Ceramic	10 pF	50 V	±0.5pF or ±5%		ECJ1VC1H100D or CM105CH100J50AT or GRM1885C1H100JA01D
C129	Electrolytic	220 µF	6.3 V	±20%		UVR0J221MDD or 0JUTES221M0 or 0JUTES221M
C130	Ceramic	22 pF	50 V	±5%		ECJ1VC1H220J or CM105CH220J50AT or GRM1885C1H220JA01D
C131	Ceramic	15 pF	50 V	±5%		ECJ1VC1H150J or CM105CH150J50AT or GRM1885C1H150JA01D
C132	Ceramic	7 pF	50 V	±0.5pF		ECJ1VC1H070D or CM105CH7R0D50AT or GRM1885C1H7R0DZ01D
C133	Ceramic	0.001 µF	50 V	±5%		ECJ1VC1H102J or CM105CH102J50AT or GRM1885C1H102JA01D
C134	Ceramic	5 pF	50 V	±0.25pF		ECJ1VC1H050C or CM105CH5R0C50AT or GRM1885C1H5R0CZ01D
C135	Electrolytic	47 µF	16 V	±20%		UVR1C470MDD or 1CUTES470M0 or 1CUTES470M
C136	Electrolytic	33 µF	35 V	±20%		UVR1V330MDD or 1VUTES330M0 or 1VUTES330M
C137	Electrolytic	4.7 µF	35 V	±20%		USA1V4R7MDD or 1VUTCM4R7M0 or 1VUTCM4R7M
C138	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C139	Polyester	0.022 µF	50 V	±5%		AMC50J223 or QYS1H223J
C140	Ceramic	12 pF	50 V	±5%		ECJ1VC1H120J or CM105CH120J50AT or GRM1885C1H120JA01D
C141	Tantalum	10 µF	10 V	±20%		TCP1A106M8R or TESVSP1A106M8R or TEESVP1A106M8R or F921A106MPA
C142	Ceramic	0.01 µF	16 V	±10%		ECJ0EB1C103K or GRM155R71C103KA01D or CM05B103J16AH
C143	Ceramic	220 pF	50 V	±5%		ECJ1VC1H221J or CM105CH221J50AT or GRM1885C1H221JA01D
C144	Not used.					
C145	Ceramic	220 pF	50 V	±5%		ECJ1VC1H221J or CM105CH221J50AT or GRM1885C1H221JA01D
C146	Ceramic	0.01 µF	16 V	±10%		ECJ0EB1C103K or GRM155R71C103KA01D or CM05B103J16AH
C147	Ceramic	56 pF	50 V	±5%		ECJ0EC1H560J or CM05CH560J50AH or GRM1555C1H560JZ01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C148	Ceramic	82 pF	50 V	±5%		ECJ1VC1H820J or CM105CH820J50AT or GRM1885C1H820JA01D
C149	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C150	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C151	Ceramic	0.1 µF	10 V	±10%		ECJ0EB1A104K or GRM155R71A104KA01D or CM05B104J10AH
C152	Ceramic	0.1 µF	10 V	±10% or ±5%		ECJ0EB1A104K or GRM155R71A104KA01D or CM05B104J10AH
C153	Ceramic	0.1 µF	10 V	±10% or ±5%		ECJ0EB1A104K or GRM155R71A104KA01D or CM05B104J10AH
C154	Ceramic	10 pF	50 V	±0.5pF or ±5%		ECJ1VC1H100D or CM105CH100J50AT or GRM1885C1H100JA01D
C155	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C156	Ceramic	180 pF	50 V	±5%		ECJ1VC1H181J or CM105CH181J50AT or GRM1885C1H181JA01D
C157	Ceramic	0.1 µF	25 V or 16 V	±10%		ECJ1VB1E104K or CM105X7R104K16AT or GRM188R71C104KA01D
C158	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C159	Ceramic	0.1 µF	25 V or 16 V	±10%		ECJ1VB1E104K or CM105X7R104K16AT or GRM188R71C104KA01D
C160	Ceramic	0.1 µF	25 V or 16 V	±10%		ECJ1VB1E104K or CM105X7R104K16AT or GRM188R71C104KA01D
C161	Ceramic	0.1 µF	25 V or 16 V	±10%		ECJ1VB1E104K or CM105X7R104K16AT or GRM188R71C104KA01D
C162	Electrolytic	47 µF	16 V	±20%		UVR1C470MDD or 1CUTES470M0 or 1CUTES470M
C163	Ceramic	0.001 µF	50 V	±10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C164	Ceramic	0.001 µF	50 V	±10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C165	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C166	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C167	Ceramic	220 pF	50 V	±5%		ECJ1VC1H221J or CM105CH221J50AT or GRM1885C1H221JA01D
C168	Ceramic	100 pF	50 V	±5%		ECJ1VC1H101J or CM105CH101J50AT or GRM1885C1H101JA01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C169	Ceramic	220 pF	50 V	±5%		ECJ1VC1H221J or CM105CH221J50AT or GRM1885C1H221JA01D
C170	Ceramic	0.0047 µF	50 V	±10%		ECJ1VB1H472K or CM105X7R472K50AT or GRM188R71H472KA01D
C171	Ceramic	0.022 µF	50 V or 25 V	±10%		ECJ1VB1H223K or CM105X7R223K25AT or GRM188R71E223KA01D
C172	Ceramic	33 pF	50 V	±5%		ECJ0EC1H330J or CM05CH330J50AH or GRM1555C1H330JZ01D
C173	Ceramic	0.0047 µF	50 V	±10%		ECJ1VB1H472K or CM105X7R472K50AT or GRM188R71H472KA01D
C174	Ceramic	820 pF	50 V	±5%		ECJ1VC1H821J or CM105CH821J50AT or GRM1885C1H821JA01D
C175	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C176	Ceramic	0.022 µF	50 V or 25 V	±10%		ECJ1VB1H223K or CM105X7R223K25AT or GRM188R71E223KA01D
C177	Ceramic	0.022 µF	50 V or 25 V	±10%		ECJ1VB1H223K or CM105X7R223K25AT or GRM188R71E223KA01D
C178	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C179	Ceramic	10 µF	6.3 V	±10%		JMK212X5R106KG-T or JMK212BJ106KG-T or GRM21BR61A106KE19L or CM21X5R106K06AT
C180	Ceramic	1 µF	10 V or 6.3 V	±10%		ECJ2FB1A105K or LMK212BJ105KG-T or GRM21BR71A105KA01L
C181	Ceramic	0.01 µF	16 V	±10%		ECJ0EB1C103K or GRM155R71C103KA01D or CM05B103J16AH
C182	Ceramic	0.01 µF	50 V	±10% or ±5%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C183	Ceramic	0.022 µF	50 V or 25 V	±10%		ECJ1VB1H223K or CM105X7R223K25AT or GRM188R71E223KA01D
C184	Ceramic	0.01 µF	50 V	±10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C185	Ceramic	0.001 µF	50 V	±10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D
C186	Ceramic	0.022 µF	50 V or 25 V	±10%		ECJ1VB1H223K or CM105X7R223K25AT or GRM188R71E223KA01D
C187	Ceramic	0.022 µF	50 V or 25 V	±10%		ECJ1VB1H223K or CM105X7R223K25AT or GRM188R71E223KA01D
C188	Electrolytic	10 µF	16 V	±20%		USA1C100MDD or 1CUTCM100M0 or 1CUTCM100M
C189	Electrolytic	47 µF	16 V	±20%		UVR1C470MDD or 1CUTES470M0 or 1CUTES470M

Ref. No.	Description				RS Part No.	Mfr's Part No.
C190	Electrolytic	1000 μ F	25 V	\pm 20%		URU1E102MHD or SRG25VB1000MK15
C191	Electrolytic	10 μ F	16 V	\pm 20%		USA1C100MDD or 1CUTCM100M0 or 1CUTCM100M
C192	Polyester	0.1 μ F	50 V	\pm 10%		AMZ104K50V or QYX1H104K
C193	Ceramic	0.22 μ F	10 V	\pm 10%		ECJ1VB1A224K or GRM188R71A224KA01D
C194	Electrolytic	220 μ F	16 V	\pm 20%		or 50 V or \pm 5% or 16 V or \pm 10% UVR1C221MED or 1CUTES221M0 or 1CUTES221M
C195	Electrolytic	220 μ F	6.3 V	\pm 20%		UVR0J221MDD or 0JUTES221M0 or 0JUTES221M
C196	Electrolytic	4.7 μ F	35 V	\pm 20%		USA1V4R7MDD or 1VUTCM4R7M0 or 1VUTCM4R7M
C197	Electrolytic	10 μ F	16 V	\pm 20%		USA1C100MDD or 1CUTCM100M0 or 1CUTCM100M
C198	Electrolytic	4.7 μ F	35 V	\pm 20%		USA1V4R7MDD or 1VUTCM4R7M0 or 1VUTCM4R7M
C199	Electrolytic	470 μ F	25 V	\pm 20%		UVR1E471MPD or 1EUTES471M0 or 1EUTES471M
C200	Ceramic	0.01 μ F	50 V	\pm 10%		ECJ1VB1H103K or CM105X7R103K50AT or GRM188R71H103KA01D
C201	Ceramic	47 pF	50 V	\pm 5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C202	Ceramic	47 pF	50 V	\pm 5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C203	Ceramic	47 pF	50 V	\pm 5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C204	Ceramic	47 pF	50 V	\pm 5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C205	Ceramic	47 pF	50 V	\pm 5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C206	Ceramic	47 pF	50 V	\pm 5%		ECJ1VC1H470J or CM105CH470J50AT or GRM1885C1H470JA01D
C207	Not used.					
C208	Ceramic	12 pF	50 V	\pm 5%		ECJ1VC1H120J or CM105CH120J50AT or GRM1885C1H120JA01D
C209	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM188R71H102KA01D

Ref. No.	Description	RS Part No.	Mfr's Part No.
D39	RL1N4002-F or S5566B(Q) or RL1N4002 or S5566B		RL1N4002-F or S5566B(Q) or RL1N4002 or S5566B
D40	RL1N4002-F or S5566B(Q) or RL1N4002 or S5566B		RL1N4002-F or S5566B(Q) or RL1N4002 or S5566B
D41	RL1N4002-F or S5566B(Q) or RL1N4002 or S5566B		RL1N4002-F or S5566B(Q) or RL1N4002 or S5566B
Integrated Circuits			
IC1	HD74AC164TELL-E Band Select/Attenuator Cont., MOS, SMT or TC74VHC164FT-EL,F or HD74AC164TELL or TC74VHC164FT-EL		HD74AC164TELL-E or TC74VHC164FT-EL,F or HD74AC164TELL or TC74VHC164FT-EL
IC2	uPC2757TB-E3-A 1st Mixer MOS SMT or μPC2757TB		uPC2757TB-E3-A or μPC2757TB
IC3	NJM2406F-TE1 (pbF) Detector Bipolar SMT		NJM2406F-TE1 (pbF)
IC4	MB15F07SLPFV1-BND-EF-6E1 PLL, MOS SMT or MB15F07SLPFV1-G-BND		MB15F07SLPFV1-BND-EF-6E1 or MB15F07SLPFV1-G-BND
IC5	TK11819MTL-G DC-DC Converter Bipolar SMT or TK11819M-TL		TK11819MTL-G or TK11819M-TL
IC6	NJM2904V-TE1 (pbF) Noise Amp. Bipolar SMT		NJM2904V-TE1 (pbF)
IC7	TK10931V-TL-G 3rd IF Amp/3rd Local mixer/Noise Amp or TK10931V-TL /Quadrature Detector, Bipolar SMT		TK10931V-TL-G or TK10931V-TL
IC8	NJM13404V-TE1 (pbF) Pre Amp./Buffer Amp., Bipolar SMT		NJM13404V-TE1 (pbF)
IC9	TC74HC4066AFT(EL),F Switching/Mute MOS SMT or TC74HC4066AFT(EL) or TC74HC4066AFS-TE1608		TC74HC4066AFT(EL),F or TC74HC4066AFT(EL) or TC74HC4066AFS-TE1608
IC10	TC74HC4066AFT(EL),F Switching/Mute MOS SMT or TC74HC4066AFT(EL) or TC74HC4066AFS-TE1608		TC74HC4066AFT(EL),F or TC74HC4066AFT(EL) or TC74HC4066AFS-TE1608
IC11	TDA1905 Audio Amp. Bipolar		TDA1905
IC12	LM317BT Voltage Regulator or LM317T or LM317T-E		LM317BT or LM317T or LM317T-E
IC13	KIA7808AP Voltage Regulator Bipolar or KIA7808API or KA7808		KIA7808AP or KIA7808API or KA7808
Jacks			
13 J1	Jack, Antenna		G-BNC-KD104 or GE-02D-8220 or GE-85D-5383
J2	Jack, External Speaker		S-G8036 #01
J3	Jack, Power		HEC3900-010110
Jumpers			
JP1	Jumper,		RK73Z2ATTD or CJ21-000T or MCR10EZHZJ000
JP2	Jumper,		RK73Z2ATTD or CJ21-000T or MCR10EZHZJ000

Ref. No.	Description	RS Part No.	Mfr's Part No.
JP3	Jumper,		RK73Z2ATTD or CJ21-000T or MCR10EZHZJ000
JP4	Jumper,		RK73Z2ATTD or CJ21-000T or MCR10EZHZJ000
JP5	Jumper,		RK73Z2ATTD or CJ21-000T or MCR10EZHZJ000
JP6	Jumper,		RK73Z2ATTD or CJ21-000T or MCR10EZHZJ000
JP7	Jumper,		RK73Z2ATTD or CJ21-000T or MCR10EZHZJ000
JP8	Jumper		RK73Z1JTDD or CR10-000-T or MCR03EZHZJ000
Coils			
L1	Choke	1 μ H	LAN02KR1R0J
L2	B.P.F. (764-1300 MHz)	4.7 nH	HK1608 4N7J-T or LL1608-LFS4N7J
L3	B.P.F. (764-1300 MHz)	3.9 nH	HK1608 3N9S-T or LL1608-LFS3N9S
L4	B.P.F. (406-512 MHz)	8.2 nH	HK1608 8N2J-T or LL1608-LFS8N2J
L5	B.P.F. (406-512 MHz)	8.2 nH	HK1608 8N2J-T or LL1608-LFS8N2J
L6	B.P.F. (406-512 MHz)	18 nH	HK1608 18NJ-T or LL1608-LFS18NJ
L7	B.P.F. (406-512 MHz)	18 nH	HK1608 18NJ-T or LL1608-LFS18NJ
L8	B.P.F. (225-406 MHz)	47 nH	HK1608 47NJ-T or LL1608-LFS47NJ
L9	B.P.F. (225-406 MHz)	47 nH	HK1608 47NJ-T or LL1608-LFS47NJ
L10	B.P.F. (108-225 MHz)	56 nH	HK1608 56NJ-T or LL1608-LFS56NJ
L11	B.P.F. (108-225 MHz)	82 nH	HK1608 82NJ-T or LL1608-LFS82NJ
L12	B.P.F. (108-225 MHz)	82 nH	HK1608 82NJ-T or LL1608-LFS82NJ
L13	B.P.F. (25-54 MHz)	0.22 μ H	LK1608 R22K-T or LL1608-LFS R22K
L14	B.P.F. (25-54 MHz)	0.22 μ H	LK1608 R22K-T or LL1608-LFS R22K
L15	B.P.F. (25-54 MHz)	0.22 μ H	LK1608 R22K-T or LL1608-LFS R22K
L16	Filter		2LNO-255(F)
L17	Choke	12 nH	HK1608 12NJ-T or LL1608-LFS12NJ
L18	Choke		4LNB-250(F)
L19	Choke	12 nH	HK1608 12NJ-T or LL1608-LFS12NJ
L20	Filter	15 nH	HK1608 15NJ-T or LL1608-LFS15NJ
L21	Filter	1 μ F	LK1608 1R0K-T
L22	Choke	22 μ F	LK1608 220M-T
L23	VCO		2LNO-254(F)
L24	VCO		2LNO-255(F)
L25	Choke	100 μ H	LB2012T101M

Ref. No.	Description	RS Part No.	Mfr's Part No.
L26	VCO		2LNO-256(F)
L27	Choke		GR-D835
L28	Choke	10 μ H	LAL02VD100K or AL02TB100K
L29	Choke		5SSO-393
L30	Choke	100 μ H	LAL02VD101K or AL02TB101K
L31	Choke		3B037 or 3B037T

Transistors

Q1	DTA114EUA-T106	Marked 14	DTA114EUA-T106
Q2	UMD2N-TR	Marked D2	UMD2N-TR
Q3	2SC4094(R38)-T2B-A or 2SC4094(R38)-T2B	Marked R38	2SC4094(R38)-T2B-A or 2SC4094(R38)-T2B
Q4	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B	Marked R25	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B
Q5	DTC114YUA-T106 or UN5214-TX	Marked 64 or Marked 8D	DTC114YUA-T106 or UN5214-TX
Q6	UMD2N-TR	Marked D2	UMD2N-TR
Q7	2SC4094(R38)-T2B-A or 2SC4094(R38)-T2B	Marked R38	2SC4094(R38)-T2B-A or 2SC4094(R38)-T2B
Q8	2SC4116-Y(TE85L,F) or 2SC4116(Y)-TE85L	Marked LY	2SC4116-Y(TE85L,F) or 2SC4116(Y)-TE85L
Q9	2SC4250(TE85L,F) or 2SC4250-TE85L	Marked HE	2SC4250(TE85L,F) or 2SC4250-TE85L
Q10	2SC4215-O(TE85L,F) or 2SC4215(O)-TE85LF or 2SC4215(O)-TE85L	Marked QO	2SC4215-O(TE85L,F) or 2SC4215(O)-TE85LF or 2SC4215(O)-TE85L
Q11	2SC4116-GR(TE85L,F) or 2SC4116(GR)-TE85L	Marked LG	2SC4116-GR(TE85L,F) or 2SC4116(GR)-TE85L
Q12	DTC114YUA-T106 or UN5214-TX	Marked 64 or Marked 8D	DTC114YUA-T106 or UN5214-TX
Q13	DTC114YUA-T106 or UN5214-TX	Marked 64 or Marked 8D	DTC114YUA-T106 or UN5214-TX
Q14	DTC114YUA-T106 or UN5214-TX	Marked 64 or Marked 8D	DTC114YUA-T106 or UN5214-TX
Q15	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B	Marked R25	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B
Q16	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B	Marked R25	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B
Q17	DTA114EUA-T106	Marked 14	DTA114EUA-T106
Q18	DTC114YUA-T106 or UN5214-TX	Marked 64 or Marked 8D	DTC114YUA-T106 or UN5214-TX
Q19	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B	Marked R25	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B
Q20	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B	Marked R25	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B
Q21	DTC114YUA-T106 or UN5214-TX	Marked 64 or Marked 8D	DTC114YUA-T106 or UN5214-TX
Q22	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B	Marked R25	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B
Q23	DTC114YUA-T106 or UN5214-TX	Marked 64 or Marked 8D	DTC114YUA-T106 or UN5214-TX
Q24	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B	Marked R25	2SC4226(R25)T2B-A or 2SC4226(R25)-T2B
Q25	2SC4116-GR(TE85L,F) or 2SC4116(GR)-TE85L	Marked LG	2SC4116-GR(TE85L,F) or 2SC4116(GR)-TE85L
Q26	2SK880(Y)-TE85L or 2SK880(Y)-(TE85L,F)	Marked XY	2SK880(Y)-TE85L or 2SK880(Y)-(TE85L,F)

Ref. No.	Description	RS Part No.	Mfr's Part No.
Q27	2SK880(Y)-TE85L or 2SK880(Y)-(TE85L,F)	Marked XY	2SK880(Y)-TE85L or 2SK880(Y)-(TE85L,F)
Q28	2SC4116-GR(TE85L,F) or 2SC4116(GR)-TE85L	Marked LG	2SC4116-GR(TE85L,F) or 2SC4116(GR)-TE85L
Q29	MT3S16U-(TE85L,F) or MT3S16U-TE85L or KTC4082 or 2SC4251-TE85L or 2SC4251 (TE85L,F)	Marked T4	MT3S16U-(TE85L,F) or MT3S16U-TE85L or KTC4082 or 2SC4251-TE85L or 2SC4251 (TE85L,F)
Q30	2SC4251(TE85L,F) or 2SC4251-TE85L or KTC4082	Marked HF	2SC4251(TE85L,F) or 2SC4251-TE85L or KTC4082
Q31	DTA114EUA-T106	Marked 14	DTA114EUA-T106
Q32	DTC114YUA-T106 or UN5214-TX	Marked 64 or Marked 8D	DTC114YUA-T106 or UN5214-TX

Resistors

R1	Chip, Metal Glaze	100 ohm	±5%	1/10 W	RK73B1JTDD101J or CR10-101J-T or MCR03EZHJ101
R2	Chip, Metal Glaze	100 ohm	±5%	1/10 W	RK73B1JTDD101J or CR10-101J-T or MCR03EZHJ101
R3	Chip, Metal Glaze	4.7 kohm	±5%	1/16 W	RK73B1ETTP472J or CR05-472J-H or ERJ2GEJ472X
R4	Chip, Metal Glaze	27 ohm	±5%	1/10 W	RK73B1JTDD270J or CR10-270J-T or MCR03EZHJ270
R5	Chip, Metal Glaze	4.7 kohm	±5%	1/16 W	RK73B1ETTP472J or CR05-472J-H or ERJ2GEJ472X
R6	Chip, Metal Glaze	4.7 kohm	±5%	1/10 W	RK73B1JTDD472J or CR10-472J-T or MCR03EZHJ472
R7	Chip, Metal Glaze	4.7 kohm	±5%	1/16 W	RK73B1ETTP472J or CR05-472J-H or ERJ2GEJ472X
R8	Chip, Metal Glaze	2.2 kohm	±5%	1/10 W	RK73B1JTDD222J or CR10-222J-T or MCR03EZHJ222
R9	Chip, Metal Glaze	2.2 kohm	±5%	1/16 W	RK73B1ETTP222J or CR05-222J-H or ERJ2GEJ222X
R10	Chip, Metal Glaze	220 ohm	±5%	1/10 W	RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R11	Chip, Metal Glaze	2.2 kohm	±5%	1/10 W	RK73B1JTDD222J or CR10-222J-T or MCR03EZHJ222
R12	Chip, Metal Glaze	2.2 kohm	±5%	1/10 W	RK73B1JTDD222J or CR10-222J-T or MCR03EZHJ222
R13	Chip, Metal Glaze	220 ohm	±5%	1/10 W	RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R14	Chip, Metal Glaze	2.2 kohm	±5%	1/10 W	RK73B1JTDD222J or CR10-222J-T or MCR03EZHJ222
R15	Chip, Metal Glaze	2.2 kohm	±5%	1/16 W	RK73B1ETTP222J or CR05-222J-H or ERJ2GEJ222X

Ref. No.	Description	RS Part No.	Mfr's Part No.
R16	Chip, Metal Glaze 220 ohm ±5% 1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R17	Chip, Metal Glaze 2.2 kohm ±5% 1/10 W		RK73B1JTDD222J or CR10-222J-T or MCR03EZHJ222
R18	Chip, Metal Glaze 2.2 kohm ±5% 1/16 W		RK73B1ETTP222J or CR05-222J-H or ERJ2GEJ222X
R19	Chip, Metal Glaze 220 ohm ±5% 1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R20	Chip, Metal Glaze 2.2 kohm ±5% 1/10 W		RK73B1JTDD222J or CR10-222J-T or MCR03EZHJ222
R21	Chip, Metal Glaze 2.2 kohm ±5% 1/16 W		RK73B1ETTP222J or CR05-222J-H or ERJ2GEJ222X
R22	Chip, Metal Glaze 220 ohm ±5% 1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R23	Chip, Metal Glaze 2.2 kohm ±5% 1/16 W		RK73B1ETTP222J or CR05-222J-H or ERJ2GEJ222X
R24	Chip, Metal Glaze 2.2 kohm ±5% 1/16 W		RK73B1ETTP222J or CR05-222J-H or ERJ2GEJ222X
R25	Chip, Metal Glaze 22 kohm ±5% 1/10 W		RK73B1JTDD223J or CR10-223J-T or MCR03EZHJ223
R26	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R27	Chip, Metal Glaze 4.7 kohm ±5% 1/10 W		RK73B1JTDD472J or CR10-472J-T or MCR03EZHJ472
R28	Chip, Metal Glaze 100 ohm ±5% 1/16 W		RK73B1ETTP101J or CR05-101J-H or ERJ2GEJ101X
R29	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R30	Chip, Metal Glaze 15 kohm ±5% 1/10 W		RK73B1JTDD153J or CR10-153J-T or MCR03EZHJ153
R31	Chip, Metal Glaze 22 kohm ±5% 1/10 W		RK73B1JTDD223J or CR10-223J-T or MCR03EZHJ223
R32	Chip, Metal Glaze 4.7 kohm ±5% 1/16 W		RK73B1ETTP472J or CR05-472J-H or ERJ2GEJ472X
R33	Chip, Metal Glaze 4.7 kohm ±5% 1/16 W		RK73B1ETTP472J or CR05-472J-H or ERJ2GEJ472X
R34	Chip, Metal Glaze 100 kohm ±5% 1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R35	Chip, Metal Glaze 4.7 kohm ±5% 1/10 W		RK73B1JTDD472J or CR10-472J-T or MCR03EZHJ472
R36	Chip, Metal Glaze 100 ohm ±5% 1/16 W		RK73B1ETTP101J or CR05-101J-H or ERJ2GEJ101X

Ref. No.	Description	RS Part No.	Mfr's Part No.
R37	Chip, Metal Glaze 33 kohm ±5% 1/16 W		RK73B1ETTP333J or CR05-333J-H or ERJ2GEJ333X
R38	Chip, Metal Glaze 220 ohm ±5% 1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R39	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R40	Chip, Metal Glaze 470 ohm ±5% 1/10 W		RK73B1JTDD471J or CR10-471J-T or MCR03EZHJ471
R41	Chip, Metal Glaze 220 ohm ±5% 1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R42	Chip, Metal Glaze 180 kohm ±5% 1/10 W		RK73B1JTDD184J or CR10-184J-T or MCR03EZHJ184
R43	Chip, Metal Glaze 68 kohm ±5% 1/10 W		RK73B1JTDD683J or CR10-683J-T or MCR03EZHJ683
R44	Chip, Metal Glaze 220 ohm ±5% 1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R45	Chip, Metal Glaze 220 ohm ±5% 1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R46	Chip, Metal Glaze 22 kohm ±5% 1/10 W		RK73B1JTDD223J or CR10-223J-T or MCR03EZHJ223
R47	Chip, Metal Glaze 56 kohm ±5% 1/10 W		RK73B1JTDD563J or CR10-563J-T or MCR03EZHJ563
R48	Chip, Metal Glaze 47 kohm ±5% 1/10 W		RK73B1JTDD473J or CR10-473J-T or MCR03EZHJ473
R49	Chip, Metal Glaze 560 kohm ±5% 1/10 W		RK73B1JTDD564J or CR10-564J-T or MCR03EZHJ564
R50	Chip, Metal Glaze 1 kohm ±5% 1/10 W		RK73B1JTDD102J or CR10-102J-T or MCR03EZHJ102
R51	Chip, Metal Glaze 1 kohm ±5% 1/10 W		RK73B1JTDD102J or CR10-102J-T or MCR03EZHJ102
R52	Chip, Metal Glaze 1.8 kohm ±5% 1/10 W		RK73B1JTDD182J or CR10-182J-T or MCR03EZHJ182
R53	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R54	Chip, Metal Glaze 100 kohm ±5% 1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R55	Chip, Metal Glaze 12 kohm ±5% 1/10 W		RK73B1JTDD123J or CR10-123J-T or MCR03EZHJ123
R56	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R57	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103

Ref. No.	Description				RS Part No.	Mfr's Part No.
R58	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R59	Chip, Metal Glaze	100 kohm	±5%	1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R60	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R61	Chip, Metal Glaze	68 kohm	±5%	1/10 W		RK73B1JTDD683J or CR10-683J-T or MCR03EZHJ683
R62	Chip, Metal Glaze	100 ohm	±5%	1/10 W		RK73B1JTDD101J or CR10-101J-T or MCR03EZHJ101
R63	Chip, Metal Glaze	100 ohm	±5%	1/10 W		RK73B1JTDD101J or CR10-101J-T or MCR03EZHJ101
R64	Chip, Metal Glaze	100 ohm	±5%	1/10 W		RK73B1JTDD101J or CR10-101J-T or MCR03EZHJ101
R65	Chip, Metal Glaze	68 kohm	±5%	1/10 W		RK73B1JTDD683J or CR10-683J-T or MCR03EZHJ683
R66	Chip, Metal Glaze	22 kohm	±5%	1/10 W		RK73B1JTDD223J or CR10-223J-T or MCR03EZHJ223
R67	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R68	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R69	Chip, Metal Glaze	100 kohm	±5%	1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R70	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R71	Chip, Metal Glaze	1 Mohm	±5%	1/10 W		RK73B1JTDD105J or CR10-105J-T or MCR03EZHJ105
R72	Chip, Metal Glaze	3.3 kohm	±5%	1/10 W		RK73B1JTDD332J or CR10-332J-T or MCR03EZHJ332
R73	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R74	Chip, Metal Glaze	4.7 kohm	±5%	1/10 W		RK73B1JTDD472J or CR10-472J-T or MCR03EZHJ472
R75	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R76	Chip, Metal Glaze	6.8 kohm	±5%	1/10 W		RK73B1JTDD682J or CR10-682J-T or MCR03EZHJ682
R77	Chip, Metal Glaze	220 ohm	±5%	1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R78	Chip, Metal Glaze	47 ohm	±5%	1/10 W		RK73B1JTDD470J or CR10-470J-T or MCR03EZHJ470

Ref. No.	Description	RS Part No.	Mfr's Part No.
R79	Chip, Metal Glaze 330 ohm ±5% 1/10 W		RK73B1JTDD331J or CR10-331J-T or MCR03EZHJ331
R80	Chip, Metal Glaze 47 ohm ±5% 1/10 W		RK73B1JTDD470J or CR10-470J-T or MCR03EZHJ470
R81	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R82	Chip, Metal Glaze 6.8 kohm ±5% 1/10 W		RK73B1JTDD682J or CR10-682J-T or MCR03EZHJ682
R83	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R84	Chip, Metal Glaze 150 ohm ±5% 1/10 W		RK73B1JTDD151J or CR10-151J-T or MCR03EZHJ151
R85	Chip, Metal Glaze 100 ohm ±5% 1/10 W		RK73B1JTDD101J or CR10-101J-T or MCR03EZHJ101
R86	Chip, Metal Glaze 47 kohm ±5% 1/10 W		RK73B1JTDD473J or CR10-473J-T or MCR03EZHJ473
R87	Chip, Metal Glaze 470 ohm ±5% 1/10 W		RK73B1JTDD471J or CR10-471J-T or MCR03EZHJ471
R88	Chip, Metal Glaze 220 ohm ±5% 1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHJ221
R89	Chip, Metal Glaze 47 ohm ±5% 1/10 W		RK73B1JTDD470J or CR10-470J-T or MCR03EZHJ470
R90	Chip, Metal Glaze 4.7 kohm ±5% 1/10 W		RK73B1JTDD472J or CR10-472J-T or MCR03EZHJ472
R91	Chip, Metal Glaze 22 kohm ±5% 1/10 W		RK73B1JTDD223J or CR10-223J-T or MCR03EZHJ223
R92	Chip, Metal Glaze 3.3 kohm ±5% 1/10 W		RK73B1JTDD332J or CR10-332J-T or MCR03EZHJ332
R93	Chip, Metal Glaze 6.8 kohm ±5% 1/10 W		RK73B1JTDD682J or CR10-682J-T or MCR03EZHJ682
R94	Chip, Metal Glaze 1.5 kohm ±5% 1/8 W		RK73B2ATTD152J or CR21-152J-T or ERJ6GEYJ152V
R95	Chip, Metal Glaze 1 kohm ±5% 1/8 W		RK73B2ATTD102J or CR21-102J-T or ERJ6GEYJ102V
R96	Chip, Metal Glaze 3.3 kohm ±5% 1/8 W		RK73B2ATTD332J or CR21-332J-T or ERJ6GEYJ332
R97	Chip, Metal Glaze 3.3 kohm ±5% 1/8 W		RK73B2ATTD332J or CR21-332J-T or ERJ6GEYJ332
R98	Chip, Metal Glaze 39 kohm ±5% 1/10 W		RK73B1JTDD393J or CR10-393J-T or MCR03EZHJ393
R99	Chip, Metal Glaze 3.3 kohm ±5% 1/10 W		RK73B1JTDD332J or CR10-332J-T or MCR03EZHJ332

Ref. No.	Description				RS Part No.	Mfr's Part No.
R100	Chip, Metal Glaze	1.5 kohm	±5%	1/10 W		RK73B1JTDD152J or CR10-152J-T or MCR03EZHZ152
R101	Chip, Metal Glaze	470 ohm	±5%	1/10 W		RK73B1JTDD471J or CR10-471J-T or MCR03EZHZ471
R102	Chip, Metal Glaze	470 ohm	±5%	1/10 W		RK73B1JTDD471J or CR10-471J-T or MCR03EZHZ471
R103	Chip, Metal Glaze	470 ohm	±5%	1/10 W		RK73B1JTDD471J or CR10-471J-T or MCR03EZHZ471
R104	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHZ103
R105	Chip, Metal Film	15 kohm	±0.5%	1/16 W		ERA-3YED153V
R106	Chip, Metal Film	6.8 kohm	±0.5%	1/16 W		ERA-3YED682V
R107	Chip, Metal Film	100 ohm	±0.5%	1/16 W		ERA-3YED101V
R108	Chip, Metal Film	470 ohm	±0.5%	1/16 W		ERA-3YED471V
R109	Chip, Metal Glaze	220 ohm	±5%	1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHZ221
R110	Chip, Metal Glaze	150 kohm	±5%	1/10 W		RK73B1JTDD154J or CR10-154J-T or MCR03EZHZ154
R111	Chip, Metal Glaze	100 ohm	±5%	1/10 W		RK73B1JTDD101J or CR10-101J-T or MCR03EZHZ101
R112	Chip, Metal Glaze	220 ohm	±5%	1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHZ221
R113	Chip, Metal Glaze	47 ohm	±5%	1/10 W		RK73B1JTDD470J or CR10-470J-T or MCR03EZHZ470
R114	Chip, Metal Glaze	1 kohm	±5%	1/10 W		RK73B1JTDD102J or CR10-102J-T or MCR03EZHZ102
R115	Chip, Metal Glaze	3.3 kohm	±5%	1/10 W		RK73B1JTDD332J or CR10-332J-T or MCR03EZHZ332
R116	Chip, Metal Glaze	470 kohm	±5%	1/10 W		RK73B1JTDD474J or CR10-474J-T or MCR03EZHZ474
R117	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHZ103
R118	Chip, Metal Glaze	27 kohm	±5%	1/10 W		RK73B1JTDD273J or CR10-273J-T or MCR03EZHZ273
R119	Chip, Metal Glaze	27 kohm	±5%	1/10 W		RK73B1JTDD273J or CR10-273J-T or MCR03EZHZ273
R120	Chip, Metal Glaze	82 kohm	±5%	1/10 W		RK73B1JTDD823J or CR10-823J-T or MCR03EZHZ823
R121	Chip, Metal Glaze	33 kohm	±5%	1/10 W		RK73B1JTDD333J or CR10-333J-T or MCR03EZHZ333
R122	Chip, Metal Glaze	82 kohm	±5%	1/10 W		RK73B1JTDD823J or CR10-823J-T or MCR03EZHZ823
R123	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHZ103

Ref. No.	Description	RS Part No.	Mfr's Part No.
R124	Chip, Metal Glaze 1.5 Mohm ±5% 1/10 W		RK73B1JTDD155J or CR10-155J-T or MCR03EZHJ155
R125	Chip, Metal Glaze 1 kohm ±5% 1/10 W		RK73B1JTDD102J or CR10-102J-T or MCR03EZHJ102
R126	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1ETTP102J or CR05-102J-H or ERJ2GEJ102X
R127	Chip, Metal Glaze 22 kohm ±5% 1/10 W		RK73B1JTDD223J or CR10-223J-T or MCR03EZHJ223
R128	Chip, Metal Glaze 6.8 kohm ±5% 1/10 W		RK73B1JTDD682J or CR10-682J-T or MCR03EZHJ682
R129	Chip, Metal Glaze 220 kohm ±5% 1/10 W		RK73B1JTDD224J or CR10-224J-T or MCR03EZHJ224
R130	Chip, Metal Glaze 100 kohm ±5% 1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R131	Chip, Metal Glaze 100 kohm ±5% 1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R132	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R133	Chip, Metal Glaze 47 kohm ±5% 1/10 W		RK73B1JTDD473J or CR10-473J-T or MCR03EZHJ473
R134	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R135	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R136	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R137	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R138	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R139	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R140	Chip, Metal Glaze 47 kohm ±5% 1/10 W		RK73B1JTDD473J or CR10-473J-T or MCR03EZHJ473
R141	Chip, Metal Glaze 470 kohm ±5% 1/10 W		RK73B1JTDD474J or CR10-474J-T or MCR03EZHJ474
R142	Chip, Metal Glaze 33 kohm ±5% 1/10 W		RK73B1JTDD333J or CR10-333J-T or MCR03EZHJ333
R143	Chip, Metal Glaze 100 kohm ±5% 1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R144	Chip, Metal Glaze 4.7 kohm ±5% 1/10 W		RK73B1JTDD472J or CR10-472J-T or MCR03EZHJ472

Ref. No.	Description	RS Part No.	Mfr's Part No.
R145	Chip, Metal Glaze 47 kohm ±5% 1/10 W		RK73B1JTDD473J or CR10-473J-T or MCR03EZHJ473
R146	Chip, Metal Glaze 68 kohm ±5% 1/10 W		RK73B1JTDD683J or CR10-683J-T or MCR03EZHJ683
R147	Chip, Metal Glaze 100 kohm ±5% 1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R148	Chip, Metal Glaze 100 kohm ±5% 1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R149	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R150	Not used.		
R151	Chip, Metal Glaze 100 kohm ±5% 1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R152	Chip, Metal Glaze 15 kohm ±5% 1/10 W		RK73B1JTDD153J or CR10-153J-T or MCR03EZHJ153
R153	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R154	Chip, Metal Glaze 12 kohm ±5% 1/10 W		RK73B1JTDD123J or CR10-123J-T or MCR03EZHJ123
R155	Chip, Metal Glaze 8.2 kohm ±5% 1/10 W		RK73B1JTDD822J or CR10-822J-T or MCR03EZHJ822
R156	Chip, Metal Glaze 100 ohm ±5% 1/10 W		RK73B1JTDD101J or CR10-101J-T or MCR03EZHJ101
R157	Chip, Metal Glaze 6.8 kohm ±5% 1/16 W		RK73B1ETTP682J or CR05-682J-H or ERJ2GEJ682X
R158	Chip, Metal Glaze 12 kohm ±5% 1/16 W		RK73B1ETTP123J or CR05-123J-H or ERJ2GEJ123X
R159	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R160	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R161	Chip, Metal Glaze 56 kohm ±5% 1/10 W		RK73B1JTDD563J or CR10-563J-T or MCR03EZHJ563
R162	Chip, Metal Glaze 39 kohm ±5% 1/10 W		RK73B1JTDD393J or CR10-393J-T or MCR03EZHJ393
R163	Chip, Metal Glaze 100 kohm ±5% 1/10 W		RK73B1JTDD104J or CR10-104J-T or MCR03EZHJ104
R164	Chip, Metal Glaze 10 kohm ±5% 1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHJ103
R165	Chip, Metal Glaze 2.2 kohm ±5% 1/10 W		RK73B1JTDD222J or CR10-222J-T or MCR03EZHJ222
R166	Chip, Metal Glaze 4.7 kohm ±5% 1/10 W		RK73B1JTDD472J or CR10-472J-T or MCR03EZHJ472

Ref. No.	Description				RS Part No.	Mfr's Part No.
R167	Metal Oxide	10 ohm	±5%	2 W		MOS2CL20A100J
R168	Chip, Metal Glaze	100 ohm	±5%	1/10 W		RK73B1JTDD101J or CR10-101J-T or MCR03EZHZJ101
R169	Chip, Metal Glaze	4.7 kohm	±5%	1/10 W		RK73B1JTDD472J or CR10-472J-T or MCR03EZHZJ472
R170	Chip, Metal Glaze	47 kohm	±5%	1/10 W		RK73B1JTDD473J or CR10-473J-T or MCR03EZHZJ473
R171	Chip, Metal Glaze	39 ohm	±5%	1/10 W		RK73B1JTDD390J or CR10-390J-T or MCR03EZHZJ390
R172	Chip, Metal Glaze	10 kohm	±5%	1/10 W		RK73B1JTDD103J or CR10-103J-T or MCR03EZHZJ103
R173	Chip, Metal Glaze	2.2 ohm	±5%	1/10 W		RK73B1JTDD2R2J or CR10-2R2J-T or MCR03EZHZJ2R2
R174	Chip, Metal Glaze	240 ohm	±1%	1/10 W		RK73H1JTDD2400F or MCR03EZPFJ2400
R175	Chip, Metal Glaze	390 ohm	±1%	1/10 W		RK73H1JTDD3900F or MCR03EZPFJ3900
R176	Metal Oxide	22 ohm	±5%	1 W		MOS1CL12.5A220J
R177	Metal Oxide	10 ohm	±5%	1 W		MOS1CL12.5A100J
R178	Chip, Metal Glaze	180 ohm	±5%	1/4 W		RK73B2BTDD181J or CR32-181J-T or ERJ8GEYJ181V
R179	Chip, Metal Glaze	820 ohm	±5%	1/4 W		RK73B2BTDD821J or CR32-821J-T or ERJ8GEYJ821V
R180	Chip, Metal Glaze	220 ohm	±1%	1/10 W		RK73B1JTDD221J or CR10-221J-T or MCR03EZHZJ221
Transformers						
T1	IF					5SSI-380
T2	IF					5SSI-380
T3	IF					5SSI-380
T4	Detector,		455 kHz			GRJ-F863
Thermistor						
TH1	100 ohm					TBPS1R101K315H5Q or ERTJ1VA101J
Semi-Fixed Resistor						
VR1	47 kohm					RH03ADCS4X or PVZ3A473C01R00 or EVM3ESX50BQ4
VR2	47 kohm					RH03ADCS4X or PVZ3A473C01R00 or EVM3ESX50BQ4
VR3	22 kohm					RH03ADCJ4X or PVZ3A223C01R00 or EVM3ESX50BEQ4

Ref. No.	Description	RS Part No.	Mfr's Part No.
VR4	47 kohm		RH03ADCS4X or PVZ3A473C01R00 or EVM3ESX50BQ4
VR5	47 kohm		RH03ADCS4X or PVZ3A473C01R00 or EVM3ESX50BQ4
Crystals			
X1	12.75 MHz	TCXO	GR-07D-0661
X2	20.945 MHz		GR-00D-3786
Crystal Filters			
XF1	Filter, SAW	380.8 MHz	SAFC380MA1F0T-TC05 or SAFCG380MAA0T00R05
XF2	21.4 MHz		MF21R TR-1-6(3)20-18926 or GE-99D-3293
Miscellaneous			
	Chassis, Insulator for IC12 Label, Model Lug, Earth, BNC		GR-07B-2290 GE-00D-3857 GR-08D-0401 GR-07D-2390 or GE-04D-1070 PT 2.6x6 C
	Screw, Pan Head Tapping 2.6x6 Chromate Shield, Bottom, RF		GE-04D-2840 or GR-07D-2360
	Shield, Top, RF		GR-07D-2350 or GE-04D-2830
GND	Pin, Test		GE-87D-7290(F) or GE-87D-7290
34	Case, Shield		GE-98D-3049 or GR-05D-3450
35	Nut, 3m/m		3M/M
36	Screw, Pan Head Machine, 3x10 (Ni)		PM 3x10(Ni)
37	Shield, Bottom, VCO with Shield Bottom Insulation (GE-94D-1802 or GR-07D-1770)		GE-04D-1752 or GR-07D-2380
38	Shield, Top		GR-05D-3460 or GE-98D-3050
39	Wacher, Inner Toothed, Ni		3M/M(Ni)

Ref. No.	Description				RS Part No.	Mfr's Part No.
40	Assembly PCB, Logic Consists of the following:					GA-08D-0230
Capacitors						
C301	Ceramic	0.001 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H102K or CM05B102J50AH or GRM155R71H102KA01D
C302	Ceramic	0.001 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H102K or CM05B102J50AH or GRM155R71H102KA01D
C303	Ceramic	0.001 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H102K or CM05B102J50AH or GRM155R71H102KA01D
C304	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C305	Ceramic	470 pF	50 V	$\pm 10\%$		ECJ0EB1H471K or GRM155R71H471KA01D or CM05B471J50AH
C306	Ceramic	0.018 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C183K or CM05B183J16AH or GRM155R71C183KA01D
C307	Ceramic	0.018 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C183K or CM05B183J16AH or GRM155R71C183KA01D
C308	Ceramic	0.22 μ F	10 V or 50 V or 10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ1VB1A224K or CM105X7R224J50AT or GRM188R71A224KA01D
C309	Ceramic	2.2 μ F	10 V	$\pm 10\%$		ECJ2FB1A225K or LMK212BJ225KG-T or GRM21BR71A225KA01L
C310	Tantalum	2.2 μ F	10 V	$\pm 20\%$		TCP1A225M8R or TESVSP1A225M8R or TEESVP1A225M8R or F921A225MPA
C311	Tantalum	2.2 μ F	10 V	$\pm 20\%$		TCP1A225M8R or TESVSP1A225M8R or TEESVP1A225M8R or F921A225MPA
C312	Tantalum	2.2 μ F	10 V	$\pm 20\%$		TCP1A225M8R or TESVSP1A225M8R or TEESVP1A225M8R or F921A225MPA
C313	Ceramic	0.018 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C183K or CM05B183J16AH or GRM155R71C183KA01D
C314	Ceramic	0.018 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C183K or CM05B183J16AH or GRM155R71C183KA01D
C315	Ceramic	0.33 μ F	10 V or 6.3 V or 10 V	$\pm 10\%$		ECJ1VB1A334K or ECJ1VB0J334K or LMK107BJ334KA-T or GRM188R71A334KA61D
C316	Ceramic	0.039 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C393K or CM05B393J16AH or GRM155R71C393KA01D or CM05X5R393K10AH
C317	Ceramic	0.15 μ F	10 V or 50 V or 10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ1VB1A154K or CM105X7R154J50AT or GRM188R71A154KA01D
C318	Ceramic	0.001 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H102K or CM05B102J50AH or GRM155R71H102KA01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C319	Tantalum	1 μ F	10 V	$\pm 20\%$		TCP1A105M8R or TESVSP1A105M8R or TEESVP1A105M8R or F921A105MPA
C320	Ceramic	0.001 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H102K or CM05B102J50AH or GRM155R71H102KA01D
C321	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C322	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C323	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C324	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C325	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C326	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C327	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C328	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C329	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C330	Ceramic	0.01 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C103K or CM05B103J16AH or GRM155R71C103KA01D
C331	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C332	Ceramic	0.001 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H102K or CM05B102J50AH or GRM155R71H102KA01D
C333	Ceramic	0.068 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1A683K or CM05B683J10AH or GRM155R71A683KA01D or GRM155R71C683KA88D
C334	Tantalum	1 μ F	10 V or 16 V	$\pm 20\%$		TCP1A105M8R or TESVSP1A105M8R or TEESVP1A105M8R or F921A105MPA
C335	Tantalum	1 μ F	10 V	$\pm 20\%$		TCP1A105M8R or TESVSP1A105M8R or TEESVP1A105M8R or F921A105MPA

Ref. No.	Description				RS Part No.	Mfr's Part No.
C336	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C337	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C338	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C339	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C340	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C341	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C342	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C343	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C344	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C345	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C346	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C347	Ceramic	47 pF	50 V	±5%		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C348	Ceramic	0.01 µF	16 V	±10% or ±5% or ±10%		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C349	Ceramic	0.1 µF	10 V	±10% or ±5% or ±10% or ±5%		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C350	Ceramic	0.1 µF	10 V	±10% or ±5% or ±10% or ±5%		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C351	Ceramic	0.01 µF	16 V	±10% or ±5% or ±10%		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C352	Ceramic	0.01 µF	16 V	±10% or ±5% or ±10%		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C353	Ceramic	0.01 µF	16 V	±10% or ±5% or ±10%		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C354	Ceramic	0.01 µF	16 V	±10% or ±5% or ±10%		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C355	Ceramic	0.01 µF	16 V	±10% or ±5% or ±10%		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C356	Tantalum	1 μ F	10 V	$\pm 20\%$		TCP1A105M8R or TESVSP1A105M8R or TEESVP1A105M8R or F921A105MPA
C357	Ceramic	0.047 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1A473K or CM05B473J10AH or GRM155R71A473KA01D
C358	Ceramic	0.22 μ F	10 V or 50 V or 10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ1VB1A224K or CM105X7R224J50AT or GRM188R71A224KA01D
C359	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C360	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C361	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C362	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C363	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C364	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C365	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C366	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C367	Not used.					
C368	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C369	Not used.					
C370	Not used.					
C371	Ceramic	0.0022 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ10EB1H222K or CM05B222J50AH or GRM155R71H222KA01D
C372	Ceramic	0.22 μ F	10 V or 50 V or 10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ1VB1A224K or CM105X7R224J50AT or GRM188R71A224KA01D
C373	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C374	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C375	Ceramic	0.0033 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H332K or CM05B332J50AH or GRM155R71H332KA01D
C376	Ceramic	0.01 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C377	Ceramic	0.001 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H102K or CM05B102J50AH or GRM155R71H102KA01D

Ref. No.	Description				RS Part No.	Mfr's Part No.
C378	Ceramic	0.01 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C103K or CM05B332J50AH or GRM155R71C103KA01D
C379	Ceramic	0.01 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C380	Ceramic	0.01 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C381	Ceramic	0.01 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C382	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C383	Ceramic	0.001 μ F	50 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1H102K or CM05B102J50AH or GRM155R71H102KA01D
C384	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C385	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C386	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C387	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C388	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C389	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C390	Ceramic	2.2 μ F	10 V	$\pm 10\%$		ECJ2FB1A225K or LMK212BJ225KG-T or GRM21BR71A225KA01L
C391	Ceramic	0.01 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C392	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C393	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH

Ref. No.	Description				RS Part No.	Mfr's Part No.
C394	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C395	Ceramic	33 pF	50 V	$\pm 5\%$		ECJ0EC1H330J or CM05CH330J50AH or GRM1555C1H330JZ01D
C396	Ceramic	33 pF	50 V	$\pm 5\%$		ECJ0EC1H330J or CM05CH330J50AH or GRM1555C1H330JZ01D
C397	Ceramic	0.01 μ F	16 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$		ECJ0EB1C103K or CM05B103J50AH or GRM155R71C103KA01D
C398	Ceramic	2.2 μ F	10 V	$\pm 10\%$		ECJ2FB1A225K or LMK212BJ225KG-T or GRM21BR71A225KA01L
C399	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C400	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C401	Tantalum	4.7 μ F	6.3 V	$\pm 20\%$		TCPOJ475M or TESVSP0J475M8R or TEESVP0J475M8R or F920J475MPA
C402	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C403	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C404	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C405	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C406	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C407	Ceramic	2.2 μ F	10 V	$\pm 10\%$		ECJ2FB1A225K or LMK212BJ225KG-T or GRM21BR71A225KA01L
C408	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH

Ref. No.	Description				RS Part No.	Mfr's Part No.
C409	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C410	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C411	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C412	Ceramic	0.1 μ F	10 V	$\pm 10\%$ or $\pm 5\%$ or $\pm 10\%$ or $\pm 5\%$		ECJ0EB1A104K or CM05B104J10AH or GRM155R71A104KA01D or CM05X5R104J10AH or CM05X7R104J10AH
C413	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C414	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C415	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C416	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C417	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C418	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C419	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C420	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C421	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C422	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C423	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D
C424	Ceramic	47 pF	50 V	$\pm 5\%$		ECJ0EC1H470J or CM05CH470J50AH or GRM1555C1H470JZ01D

Ref. No.	Description	RS Part No.	Mfr's Part No.
Connectors			
CN301	18-pin, Female		52745-1890 or 52745-1896
CN302	18-pin, Female		2209S-18SG
CN303	3-pin, Male		PI22A03M
Diodes			
D301	HSC277-TR-F-E		HSC277-TR-F-E
D302	HSC277-TR-F-E		HSC277-TR-F-E
D303	1SS357-TPH3 Marked S3 or 1SS357(TPH3,F)		1SS357-TPH3 or 1SS357(TPH3,F)
D304	1SS357-TPH3 Marked S3 or 1SS357(TPH3,F)		1SS357-TPH3 or 1SS357(TPH3,F)
D305	1SS357-TPH3 Marked S3 or 1SS357(TPH3,F)		1SS357-TPH3 or 1SS357(TPH3,F)
D306	1SS357-TPH3 Marked S3 or 1SS357(TPH3,F)		1SS357-TPH3 or 1SS357(TPH3,F)
D307	1SS357-TPH3 Marked S3 or 1SS357(TPH3,F)		1SS357-TPH3 or 1SS357(TPH3,F)
Integrated Circuits			
IC301	M24512WMW6T Memory MOS SMT or M24512WMW6TG		M24512WMW6T or M24512WMW6TG
IC302	Not used.		
IC303	S-80845CNNB-B86-T2 Voltage Detector MOS SMT or S-80845ANNP-EDQ-T2 or S-80845CNNB-B86-T2G or S-80845ANNP-EDQ-T2G		S-80845CNNB-B86-T2 or S-80845ANNP-EDQ-T2 or S-80845CNNB-B86-T2G or S-80845ANNP-EDQ-T2G
IC304	NJM13403V-TE1 Data Filter Bipolar SMT or NJM13403V-TE1-(pbF)		NJM13403V-TE1 or NJM13403V-TE1-(pbF)
IC305	NJM2903V-TE1 Data Filter Bipolar SMT or NJM2903V-TE1-(pbF)		NJM2903V-TE1 or NJM2903V-TE1-(pbF)
IC306	NJM13403V-TE1 Data Filter Bipolar SMT or NJM13403V-TE1-(pbF)		NJM13403V-TE1 or NJM13403V-TE1-(pbF)
IC307	GRE-0801 with CPU label Microprocessor MOS SMT		GRE-0801 with CPU label
IC308	NJM2871BF15-TE1 Voltage Regulator Bipolar SMT or NJM2871BF15-TE1-(pbF)		NJM2871BF15-TE1 or NJM2871BF15-TE1-(pbF)
IC309	NJM2871BF18-TE1 Voltage Regulator Bipolar SMT or NJM2871BF18-TE1-(pbF)		NJM2871BF18-TE1 or NJM2871BF18-TE1-(pbF)
IC310	TMS320VC5409APGE12 DSP MOS SMT		TMS320VC5409APGE12
IC311	TC58FVT160ATG70(YP), Flash Memory W/Flash Memory Labe, MOS, SMT or TC58FVT160ATF-70		TC58FVT160ATG70(YP) or TC58FVT160ATF-70
IC312	HD74LV595ATELL-E Shift Register MOS SMT		HD74LV595ATELL-E
IC313	TLV320AIC13CDBT Codec MOS SMT		TLV320AIC13CDBT
EMI Filters			
LC301	0.022 μ F		NFM21CC223R1H3D
LC302	0.022 μ F		NFM21CC223R1H3D
LC303	0.022 μ F		NFM21CC223R1H3D
LC304	0.022 μ F		NFM21CC223R1H3D
LC305	0.022 μ F		NFM21CC223R1H3D

Ref. No.	Description				RS Part No.	Mfr's Part No.
LEDs						
LED301	Orange	AlGaInP				FY1112H-1-TR(D OR E)
LED302	Orange	AlGaInP				FY1112H-1-TR(D OR E)
LED303	Orange	AlGaInP				FY1112H-1-TR(D OR E)
Transistors						
Q301	DTC114YUA-T106	Marked 64				DTC114YUA-T106
Q302	IMD10A-T108	Marked D10				IMD10A-T108
Q303	IMD10A-T108	Marked D10				IMD10A-T108
Q304	2SC4116GR-TE85L,F	Marked LG				2SC4116GR-TE85L,F
Q305	2SC4116GR-TE85L,F	Marked LG				2SC4116GR-TE85L,F
Q306	2SC4116GR-TE85L,F	Marked LG				2SC4116GR-TE85L,F
Q307	2SC4116GR-TE85L,F	Marked LG				2SC4116GR-TE85L,F
Resistors						
R301	Chip, Metal Glaze	4.7 kohm	±5%	1/16 W		RK73B1ETTP472J or CR05-472J-H or ERJ2GEJ472X
R302	Chip, Metal Glaze	68 ohm	±5%	1/8 W		RK73B2ATTD680J or CR21-680J-T or ERJ6GEYJ680V
R303	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R304	Chip, Metal Glaze	3.3 kohm	±5%	1/16 W		RK73B1ETTP332J or CR05-332J-H or ERJ2GEJ332X
R305	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R306	Chip, Metal Glaze	33 kohm	±5%	1/16 W		RK73B1ETTP333J or CR05-333J-H or ERJ2GEJ333X
R307	Chip, Metal Glaze	100 kohm	±5%	1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R308	Not used.					
R309	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R310	Chip, Metal Glaze	1 kohm	±5%	1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R311	Chip, Metal Glaze	82 kohm	±5%	1/16 W		RK73B1ETTP823J or CR05-823J-H or ERJ2GEJ823X
R312	Chip, Metal Glaze	33 kohm	±5%	1/16 W		RK73B1ETTP333J or CR05-333J-H or ERJ2GEJ333X
R313	Chip, Metal Glaze	120 kohm	±5%	1/16 W		RK73B1ETTP124J or CR05-124J-H or ERJ2GEJ124X
R314	Chip, Metal Glaze	200 kohm	±5%	1/16 W		RK73B1ETTP204J or CR05-204J-H or ERJ2GEJ204X
R315	Chip, Metal Glaze	1 Mohm	±5%	1/16 W		RK73B1ETTP105J or CR05-105J-H or ERJ2GEJ105X

Ref. No.	Description	RS Part No.	Mfr's Part No.
R316	Chip, Metal Glaze 20 kohm ±5% 1/16 W		RK73B1ETTP203J or CR05-203J-H or ERJ2GEJ203X
R317	Chip, Metal Glaze 4.7 kohm ±5% 1/16 W		RK73B1ETTP472J or CR05-472J-H or ERJ2GEJ472X
R318	Chip, Metal Glaze 1 Mohm ±5% 1/16 W		RK73B1ETTP105J or CR05-105J-H or ERJ2GEJ105X
R319	Chip, Metal Glaze 8.2 kohm ±5% 1/16 W		RK73B1ETTP822J or CR05-822J-H or ERJ2GEJ822X
R320	Chip, Metal Glaze 91 kohm ±5% 1/16 W		RK73B1ETTP913J or CR05-913J-H or ERJ2GEJ913X
R321	Chip, Metal Glaze 82 kohm ±5% 1/16 W		RK73B1ETTP823J or CR05-823J-H or ERJ2GEJ823X
R322	Chip, Metal Glaze 1.5 kohm ±5% 1/16 W		RK73B1ETTP152J or CR05-152J-H or ERJ2GEJ152X
R323	Chip, Metal Glaze 100 kohm ±5% 1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R324	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R325	Chip, Metal Glaze 2.2 kohm ±5% 1/16 W		RK73B1ETTP222J or CR05-222J-H or ERJ2GEJ222X
R326	Chip, Metal Glaze 47 kohm ±5% 1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R327	Chip, Metal Glaze 100 kohm ±5% 1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R328	Chip, Metal Glaze 2.2 Mohm ±1% 1/16 W		RK73H1ETTP2204F or MCR01MZPF2204
R329	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R330	Chip, Metal Glaze 33 kohm ±5% 1/16 W		RK73B1ETTP333J or CR05-333J-H or ERJ2GEJ333X
R331	Chip, Metal Glaze 75 kohm ±5% 1/16 W		RK73B1ETTP753J or CR05-753J-H or ERJ2GEJ753X
R332	Chip, Metal Glaze 160 kohm ±5% 1/16 W		RK73B1ETTP164J or CR05-164J-H or ERJ2GEJ164X
R333	Chip, Metal Glaze 8.2 kohm ±5% 1/16 W		RK73B1ETTP822J or CR05-822J-H or ERJ2GEJ822X
R334	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R335	Chip, Metal Glaze 20 kohm ±5% 1/16 W		RK73B1ETTP203J or CR05-203J-H or ERJ2GEJ203X
R336	Chip, Metal Glaze 1.1 Mohm ±1% 1/16 W		RK73H1ETTP1104F or MCR01MZPF1104
R337	Chip, Metal Glaze 100 kohm ±5% 1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X

Ref. No.	Description	RS Part No.	Mfr's Part No.
R338	Chip, Metal Glaze 22 kohm ±5% 1/16 W		RK73B1ETTP223J or CR05-223J-H or ERJ2GEJ223X
R339	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R340	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R341	Not used.		
R342	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R343	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R344	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R345	Chip, Metal Glaze 100 kohm ±5% 1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R346	Chip, Metal Glaze 150 kohm ±5% 1/16 W		RK73B1ETTP154J or CR05-154J-H or ERJ2GEJ154X
R347	Chip, Metal Glaze 1 Mohm ±5% 1/16 W		RK73B1ETTP105J or CR05-105J-H or ERJ2GEJ105X
R348	Chip, Metal Glaze 68 kohm ±5% 1/16 W		RK73B1ETTP683J or CR05-683J-H or ERJ2GEJ683X
R349	Chip, Metal Glaze 150 ohm ±5% 1/8 W		RK73B2ATTD151J or CR21-151J-T or ERJ6GEYJ151
R350	Chip, Metal Glaze 10 ohm ±5% 1/8 W		RK73B2ATTD100J or CR21-100J-T or ERJ6GEYJ100V
R351	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R352	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R353	Chip, Metal Glaze 1.5 kohm ±5% 1/16 W		RK73B1ETTP152J or CR05-152J-H or ERJ2GEJ152X
R354	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R355	Chip, Metal Glaze 100 kohm ±5% 1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R356	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R357	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R358	Chip, Metal Glaze 22 kohm ±5% 1/16 W		RK73B1ETTP223J or CR05-223J-H or ERJ2GEJ223X
R359	Chip, Metal Glaze 2.4 kohm ±5% 1/16 W		RK73B1ETTP242J or CR05-242J-H or ERJ2GEJ242X

Ref. No.	Description				RS Part No.	Mfr's Part No.
R360	Chip, Metal Glaze	1 Mohm	±5%	1/16 W		RK73B1ETTP105J or CR05-105J-H or ERJ2GEJ105X
R361	Chip, Metal Glaze	33 kohm	±5%	1/16 W		RK73B1ETTP333J or CR05-333J-H or ERJ2GEJ333X
R362	Chip, Metal Glaze	100 kohm	±5%	1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R363	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R364	Chip, Metal Glaze	2.4 kohm	±5%	1/16 W		RK73B1ETTP242J or CR05-242J-H or ERJ2GEJ242X
R365	Chip, Metal Glaze	1.2 kohm	±5%	1/16 W		RK73B1ETTP122J or CR05-122J-H or ERJ2GEJ122X
R366	Chip, Metal Glaze	22 kohm	±5%	1/16 W		RK73B1ETTP223J or CR05-223J-H or ERJ2GEJ223X
R367	Chip, Metal Glaze	2 kohm	±5%	1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R368	Chip, Metal Glaze	2.4 kohm	±5%	1/16 W		RK73B1ETTP242J or CR05-242J-H or ERJ2GEJ242X
R369	Chip, Metal Glaze	10 kohm	±5%	1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R370	Chip, Metal Glaze	1 kohm	±5%	1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R371	Chip, Metal Glaze	22 kohm	±5%	1/16 W		RK73B1ETTP223J or CR05-223J-H or ERJ2GEJ223X
R372	Chip, Metal Glaze	1.2 kohm	±5%	1/16 W		RK73B1ETTP122J or CR05-122J-H or ERJ2GEJ122X
R373	Chip, Metal Glaze	1 kohm	±5%	1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R374	Chip, Metal Glaze	100 kohm	±5%	1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R375	Chip, Metal Glaze	10 kohm	±5%	1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R376	Chip, Metal Glaze	2.4 kohm	±5%	1/16 W		RK73B1ETTP242J or CR05-242J-H or ERJ2GEJ242X
R377	Chip, Metal Glaze	10 kohm	±5%	1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R378	Chip, Metal Glaze	100 kohm	±5%	1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R379	Chip, Metal Glaze	1 kohm	±5%	1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R380	Chip, Metal Glaze	1.2 kohm	±5%	1/16 W		RK73B1ETTP122J or CR05-122J-H or ERJ2GEJ122X

Ref. No.	Description	RS Part No.	Mfr's Part No.
R381	Chip, Metal Glaze 82 kohm ±5% 1/16 W		RK73B1ETTP823J or CR05-823J-H or ERJ2GEJ823X
R382	Chip, Metal Glaze 2.4 kohm ±5% 1/16 W		RK73B1ETTP242J or CR05-242J-H or ERJ2GEJ242X
R383	Chip, Metal Glaze 2.4 kohm ±5% 1/16 W		RK73B1ETTP242J or CR05-242J-H or ERJ2GEJ242X
R384	Chip, Metal Glaze 390 kohm ±5% 1/16 W		RK73B1ETTP394J or CR05-394J-H or ERJ2GEJ394X
R385	Chip, Metal Glaze 2 kohm ±5% 1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R386	Chip, Metal Glaze 390 kohm ±5% 1/16 W		RK73B1ETTP394J or CR05-394J-H or ERJ2GEJ394X
R387	Chip, Metal Glaze 2 kohm ±5% 1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R388	Chip, Metal Glaze 100 ohm ±5% 1/16 W		RK73B1ETTP101J or CR05-101J-H or ERJ2GEJ101X
R389	Chip, Metal Glaze 47 kohm ±5% 1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R390	Chip, Metal Glaze 100 kohm ±5% 1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R391	Chip, Metal Glaze 1 Mohm ±5% 1/16 W		RK73B1ETTP105J or CR05-105J-H or ERJ2GEJ105X
R392	Chip, Metal Glaze 24 kohm ±5% 1/16 W		RK73B1ETTP243J or CR05-243J-H or ERJ2GEJ243X
R393	Chip, Metal Glaze 47 kohm ±5% 1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R394	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R395	Chip, Metal Glaze 33 kohm ±5% 1/16 W		RK73B1ETTP333J or CR05-333J-H or ERJ2GEJ333X
R396	Chip, Metal Glaze 1.8 kohm ±5% 1/16 W		RK73B1ETTP182J or CR05-182J-H or ERJ2GEJ182X
R397	Chip, Metal Glaze 620 ohm ±5% 1/16 W		RK73B1ETTP621J or CR05-621J-H or ERJ2GEJ621X
R398	Chip, Metal Glaze 620 ohm ±5% 1/16 W		RK73B1ETTP621J or CR05-621J-H or ERJ2GEJ621X
R399	Chip, Metal Glaze 2 kohm ±5% 1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R400	Chip, Metal Glaze 2 kohm ±5% 1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R401	Chip, Metal Glaze 47 kohm ±5% 1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X

Ref. No.	Description				RS Part No.	Mfr's Part No.
R402	Chip, Metal Glaze	2 kohm	±5%	1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R403	Chip, Metal Glaze	2 kohm	±5%	1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R404	Chip, Metal Glaze	2 kohm	±5%	1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R405	Chip, Metal Glaze	2 kohm	±5%	1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R406	Chip, Metal Glaze	2 kohm	±5%	1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R407	Chip, Metal Glaze	1 kohm	±5%	1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R408	Chip, Metal Glaze	1 kohm	±5%	1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R409	Chip, Metal Glaze	100 kohm	±5%	1/16 W		RK73B1ETTP104J or CR05-104J-H or ERJ2GEJ104X
R410	Chip, Metal Glaze	4.7 kohm	±5%	1/16 W		RK73B1ETTP472J or CR05-472J-H or ERJ2GEJ472X
R411	Chip, Metal Glaze	620 ohm	±5%	1/16 W		RK73B1ETTP621J or CR05-621J-H or ERJ2GEJ621X
R412	Chip, Metal Glaze	33 kohm	±5%	1/16 W		RK73B1ETTP333J or CR05-333J-H or ERJ2GEJ333X
R413	Chip, Metal Glaze	620 ohm	±5%	1/16 W		RK73B1ETTP621J or CR05-621J-H or ERJ2GEJ621X
R414	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R415	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R416	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R417	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R418	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R419	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R420	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R421	Chip, Metal Glaze	470 kohm	±5%	1/16 W		RK73B1ETTP474J or CR05-474J-H or ERJ2GEJ474X
R422	Chip, Metal Glaze	39 kohm	±5%	1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X

Ref. No.	Description	RS Part No.	Mfr's Part No.
R423	Chip, Metal Glaze 470 kohm ±5% 1/16 W		RK73B1ETTP474J or CR05-474J-H or ERJ2GEJ474X
R424	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R425	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R426	Chip, Metal Glaze 39 kohm ±5% 1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R427	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R428	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R429	Chip, Metal Glaze 39 kohm ±5% 1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R430	Chip, Metal Glaze 39 kohm ±5% 1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R431	Chip, Metal Glaze 2 kohm ±5% 1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R432	Chip, Metal Glaze 39 kohm ±5% 1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R433	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R434	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R435	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R436	Chip, Metal Glaze 2 kohm ±5% 1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X
R437	Chip, Metal Glaze 39 kohm ±5% 1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R438	Chip, Metal Glaze 1 kohm ±5% 1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R439	Chip, Metal Glaze 39 kohm ±5% 1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R440	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R441	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R442	Chip, Metal Glaze 10 kohm ±5% 1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R443	Chip, Metal Glaze 2 kohm ±5% 1/16 W		RK73B1ETTP202J or CR05-202J-H or ERJ2GEJ202X

Ref. No.	Description				RS Part No.	Mfr's Part No.
R444	Chip, Metal Glaze	39 kohm	±5%	1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R445	Chip, Metal Glaze	39 kohm	±5%	1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R446	Chip, Metal Glaze	39 kohm	±5%	1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R447	Chip, Metal Glaze	39 kohm	±5%	1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R448	Chip, Metal Glaze	39 kohm	±5%	1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R449	Chip, Metal Glaze	10 kohm	±5%	1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R450	Chip, Metal Glaze	10 kohm	±5%	1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R451	Chip, Metal Glaze	39 kohm	±5%	1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R452	Chip, Metal Glaze	1 kohm	±5%	1/16 W		RK73B1RTTP102J or CR05-102J-H or ERJ2GEJ102X
R453	Chip, Metal Glaze	39 kohm	±5%	1/16 W		RK73B1ETTP393J or CR05-393J-H or ERJ2GEJ393X
R454	Chip, Metal Glaze	10 kohm	±5%	1/16 W		RK73B1ETTP103J or CR05-103J-H or ERJ2GEJ103X
R455	Jumper					RK73Z1ETTD or CJ05-000T
R456	Chip, Metal Glaze	22 kohm	±5%	1/16 W		RK73B1ETTP223J or CR05-223J-H or ERJ2GEJ223X
R457	Not used.					
R458	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R459	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R460	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
R461	Chip, Metal Glaze	47 kohm	±5%	1/16 W		RK73B1ETTP473J or CR05-473J-H or ERJ2GEJ473X
Resistor Arrays						
RA301	1 kohm x 4		±5%	1/16 W		CN1J4TTD102J
RA302	1 kohm x 4		±5%	1/16 W		CN1J4TTD102J
RA303	1 kohm x 4		±5%	1/16 W		CN1J4TTD102J
RA304	1 kohm x 4		±5%	1/16 W		CN1J4TTD102J
RA305	1 kohm x 4		±5%	1/16 W		CN1J4TTD102J
RA306	1 kohm x 4		±5%	1/16 W		CN1J4TTD102J

Ref. No.	Description	RS Part No.	Mfr's Part No.
RA307 RA308	1 kohm x 4 ±5% 1/16 W 1 kohm x 4 ±5% 1/16 W		CN1J4TTD102J CN1J4TTD102J
Crystal			
X301 X302	11.0592 MHz 18.432 MHz		GE-06D-3120 GE-06D-3130
Miscellaneous			
41	Cable, Flat Shield, Logic Himelon, Protect Plate, Earth, LED		FFC LIST ITEM NO.1 GR-07D-2860 GR-07D-3310 GR-07D-3320

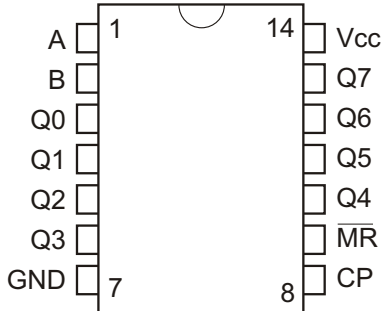
Ref. No.	Description	RS Part No.	Mfr's Part No.
42	Assembly PBC, VOL/SQ/Headphone/PCIF Consists of the following:		GA-07D-2880
Jacks			
J201 J202	Jack, Headphone Jack, PC/IF		HSJ1493-0100109 or HSJ1493-01-010 HSJ1493-0100109 or HSJ1493-01-010
Potentiometer			
SW201/ VOL201/202	Potentiometer, Volume 50 kohm(A)/Squelch 10 kohm(B), W/Switch		RG82BS-2A1-B103-0EC2 or GE-03D-0200 or GR-08D-1220
Miscellaneous			
43 44	Assembly, Wire W/Housing Assembly, Wire W/Housing Lug, Earth, Vol/Sq Nut, 7 m/m		WIRE LIST ITEM NO.1 WIRE LIST ITEM NO.2 GR-07D-2590 or GE-03D-0301 GR-05D-3520 or GE-89D-8343-1

Ref. No.	Description				RS Part No.	Mfr's Part No.
45	Assembly PCB, Keyboard Consists of the following:					GA-07D-2870
Capacitor						
C501	Ceramic	0.001 μ F	50 V	\pm 10%		ECJ1VB1H102K or CM105X7R102K50AT or GRM1885C1H102KA01D
C502	Ceramic	0.1 μ F	25 V or 16 V	\pm 10%		ECJ1VB1E104K or CM105X7R104K16AT or GRM188R71C104KA01D
Connector						
CN501	Connector,	18-pin Male				2210DI-18G-1260A
LEDs						
LED501	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED502	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED503	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED504	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED505	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED506	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED507	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED508	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED509	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED510	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED511	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED512	FY1112H-1-TR(D or E)	Orange	AlGalnP			FY1112H-1-TR(D or E)
LED513	URGB1308B-TF	Tri-Color	InGaN/AlGalnP			URGB1308B-TF
Resistors						
R501	Chip, Metal Glaze	330 ohm	\pm 5%	1/8 W		RK73K2ATD331J or CR21-331J-T or ERJ6GEYJ331V or MCR10EZPJ331
R502	Chip, Metal Glaze	330 ohm	\pm 5%	1/8 W		RK73K2ATD331J or CR21-331J-T or ERJ6GEYJ331V or MCR10EZPJ331
R503	Chip, Metal Glaze	330 ohm	\pm 5%	1/8 W		RK73K2ATD331J or CR21-331J-T or ERJ6GEYJ331V or MCR10EZPJ331
R504	Chip, Metal Glaze	330 ohm	\pm 5%	1/8 W		RK73K2ATD331J or CR21-331J-T or ERJ6GEYJ331V or MCR10EZPJ331
R505	Chip, Metal Glaze	330 ohm	\pm 5%	1/8 W		RK73K2ATD331J or CR21-331J-T or ERJ6GEYJ331V or MCR10EZPJ331
R506	Chip, Metal Glaze	680 ohm	\pm 5%	1/8 W		RK73K2ATD681J or CR21-681J-T or ERJ6GEYJ681V or MCR10EZPJ681
R507	Chip, Metal Glaze	1 kohm	\pm 5%	1/8 W		RK73K2ATD102J or CR21-102J-T or ERJ6GEYJ102V or MCR10EZPJ102

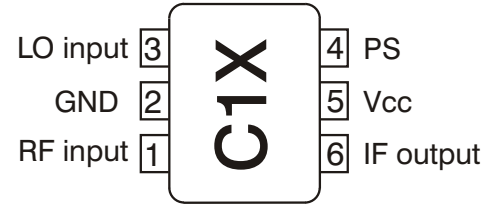
SEMICONDUCTOR LEAD IDENTIFICATION

Integrated Circuit

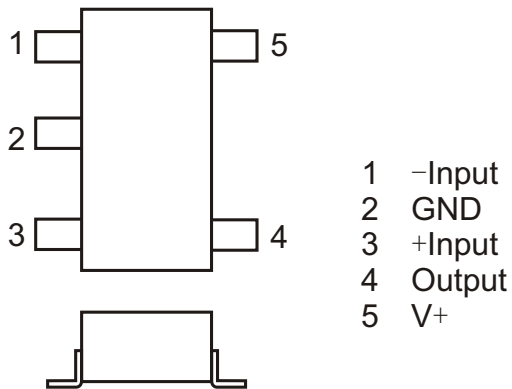
IC1 HD74AC164TELL
or TC74VHC164FT



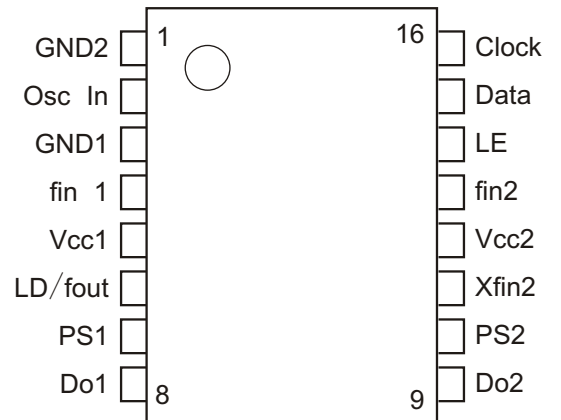
IC2 uPC2757TB



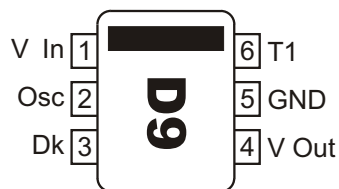
IC3 NJM2406F



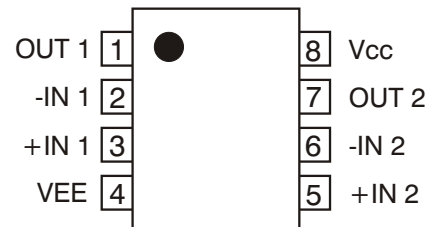
IC4 MB15F07SLPFV1-BND



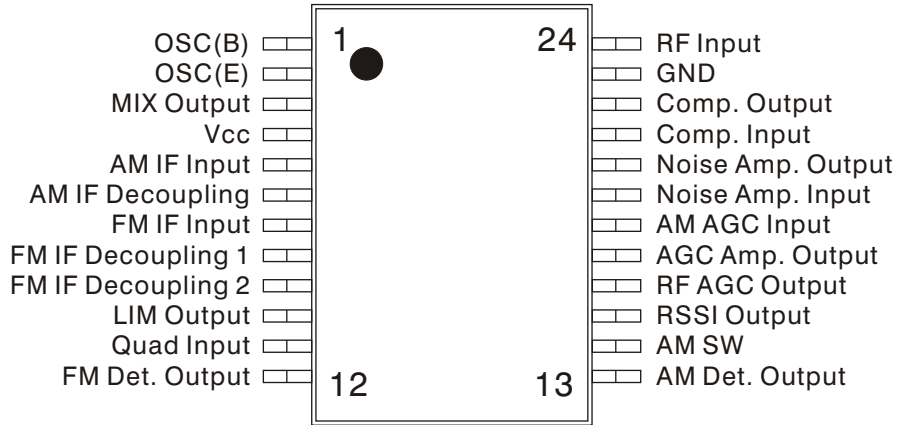
IC5 TK11819MTL



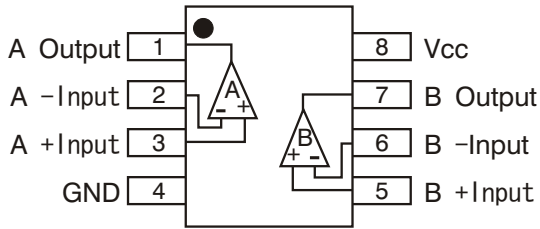
IC6 NJM2904V



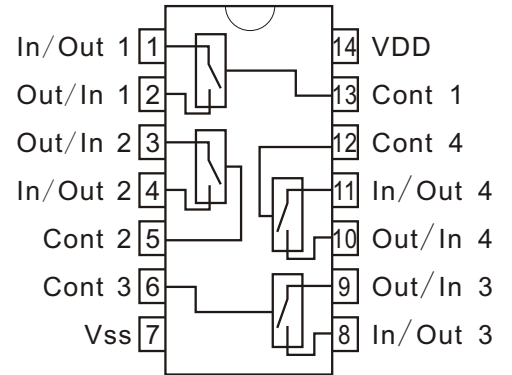
IC7 TK10931



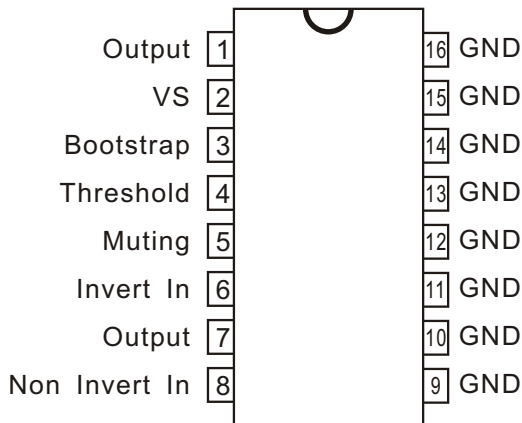
IC8 NJM13404V



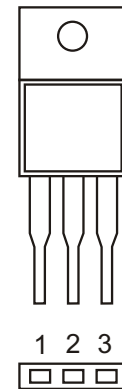
IC9, 10 TC74HC4066AFT
or TC74HC4066AFS



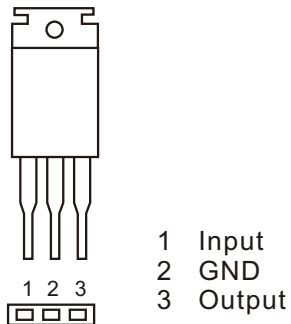
IC11 TDA1905



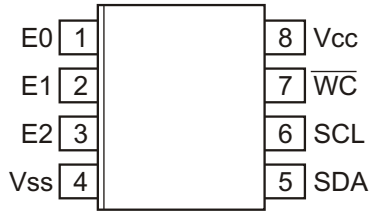
IC12 LM317BT
or LM317T



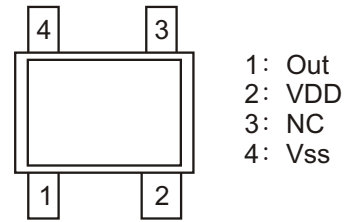
IC13 KIA7808
or KIA7808AP



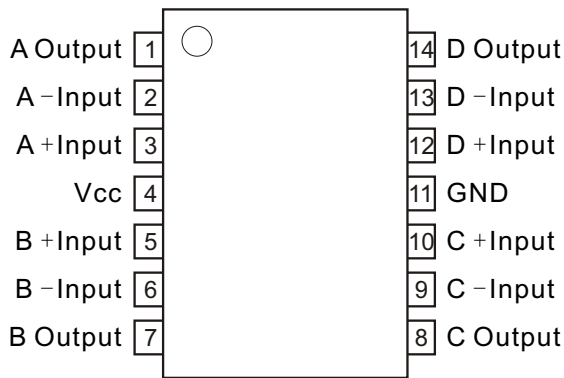
IC301 M24512WMW6T



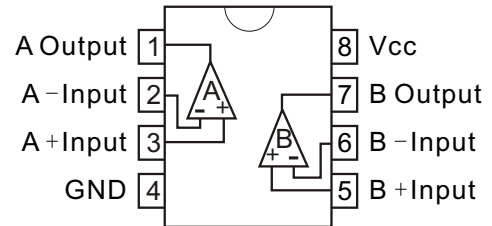
IC303 S-80820CNNB/ANNP



IC304, 306 NJM13403V



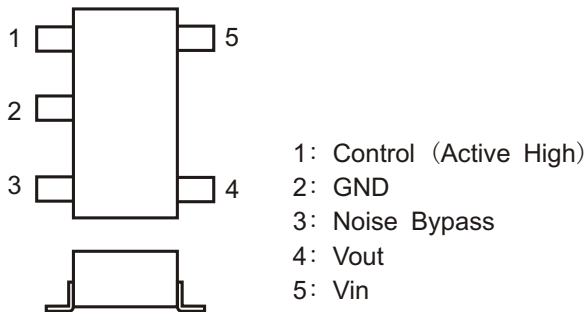
IC305 NJM2903V



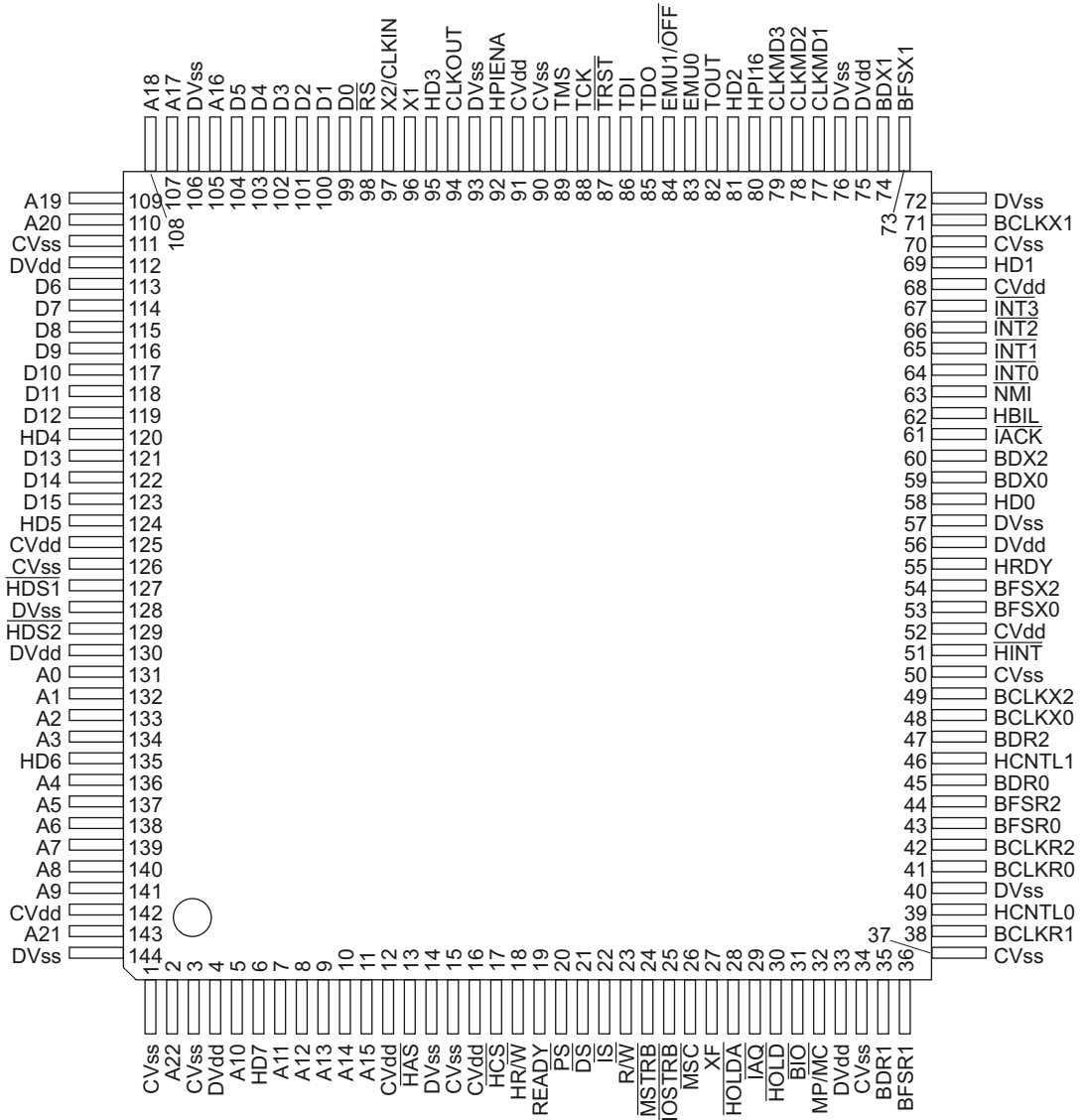
IC307 See "Microprocessor (IC307) Port Format" on Page 71.

IC308 NJM2871BF15

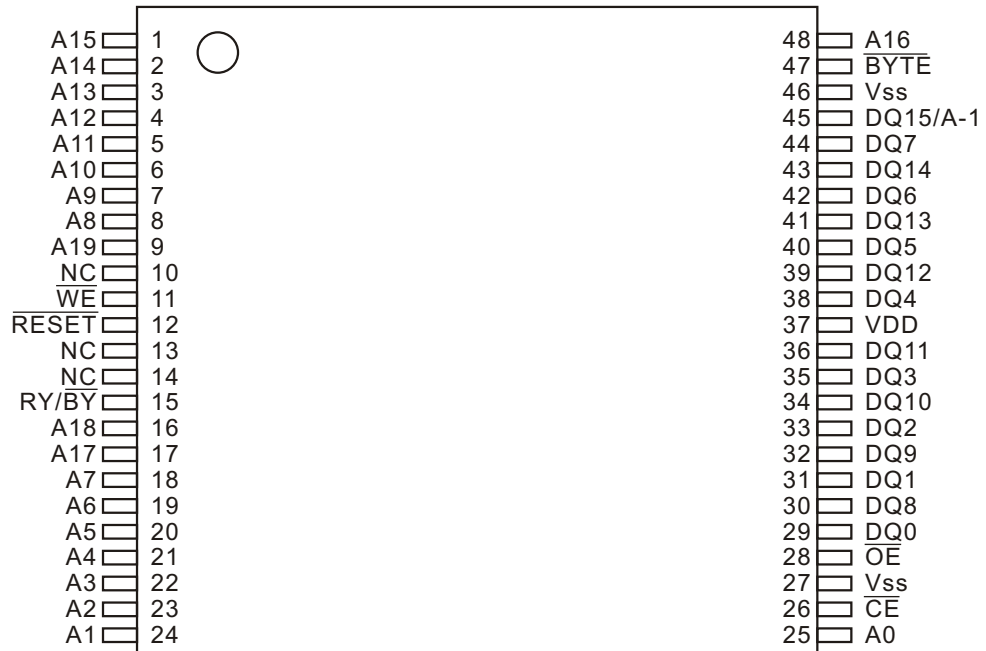
IC309 NJM2871BF18



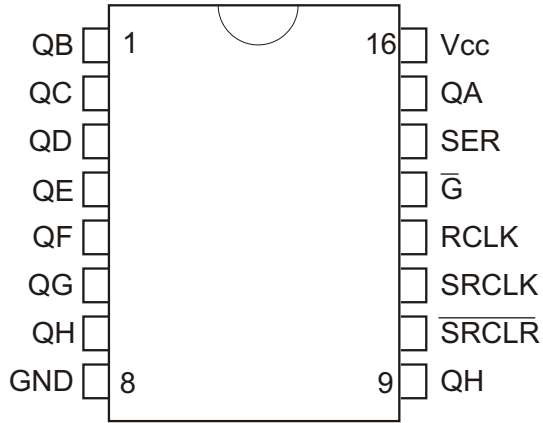
IC310 TMS320VC



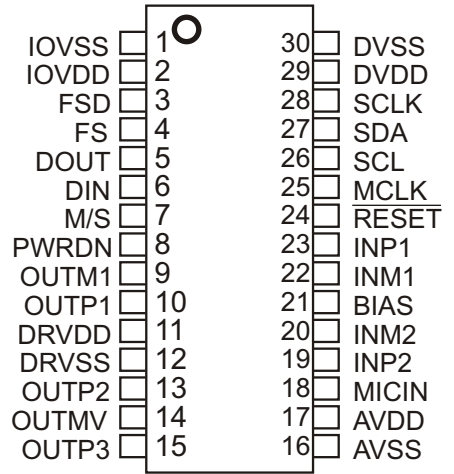
IC311 TC58FVT160A



IC312 HD74LV595A

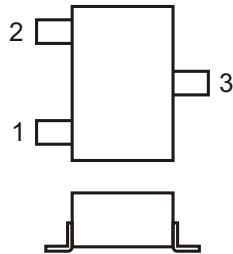


IC313 TLV320AIC13



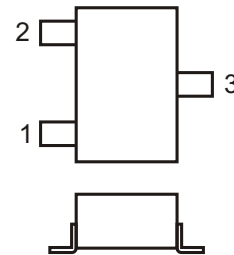
Transistors

- 2SC4094 (R38) Marked R38
- 2SC4116 (Y) Marked LY
- 2SC4116 (GR) Marked LG
- 2SC4117 (GR) Marked DG
- 2SC4215 (O) Marked QO
- 2SC4226 (R25) Marked R25
- 2SC4250 Marked HE
- 2SC4251 Marked HF
- DTA114EUA Marked 14
- DTC114YUA Marked 64
- KTC4082
- MT3S16U Marked T4
- UN5214-TX Marked 8D



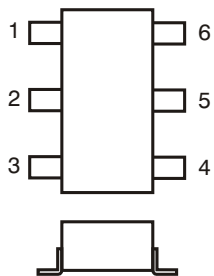
- 1: Emitter
- 2: Base
- 3: Collector

2SK880 (Y) Marked XY



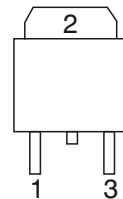
- 1: Drain
- 2: Source
- 3: Gate

UMD2N-TR Marked D2



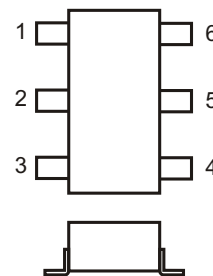
- 1 Tr1 Emitter
- 2 Tr1 Base
- 3 Tr2 Collector
- 4 Tr2 Emitter
- 5 Tr2 Base
- 6 Tr1 Collector

2SD2118-TL



- 1: Base
- 2: Emitter
- 3: Collector

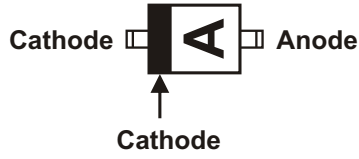
IMD10A Marked D10



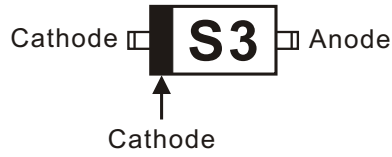
- 1 Tr1 Collector
- 2 Tr2 Base
- 3 Tr2 Emitter
- 4 Tr2 Collector
- 5 Tr1 Base
- 6 Tr1 Emitter

Diodes

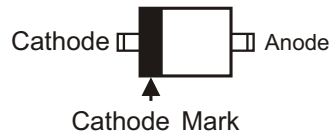
1SS355 Marked A



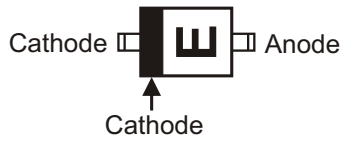
1SS357 Marked S3



HSC277



HVU17 Marked E



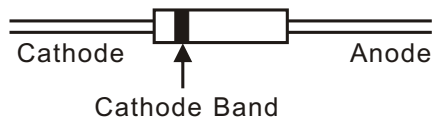
HVU131 Marked P1



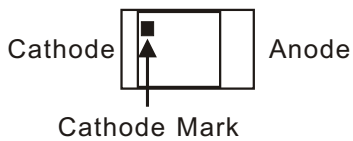
HVU300A Marked O



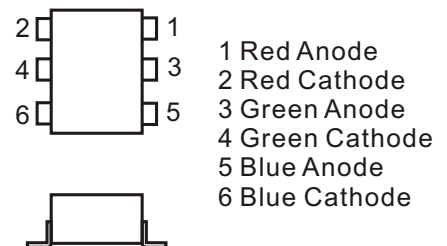
RL1N4002
or S5566B



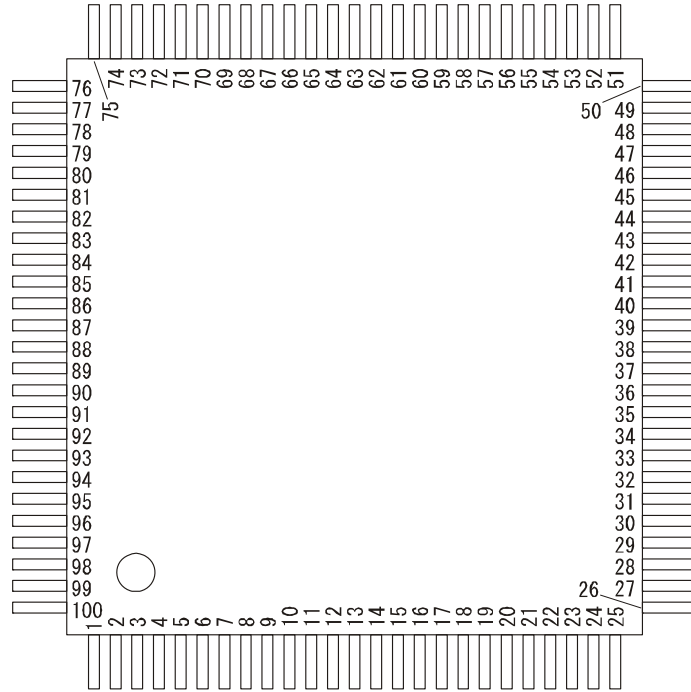
FY1112H (D or E)



URGB1308B

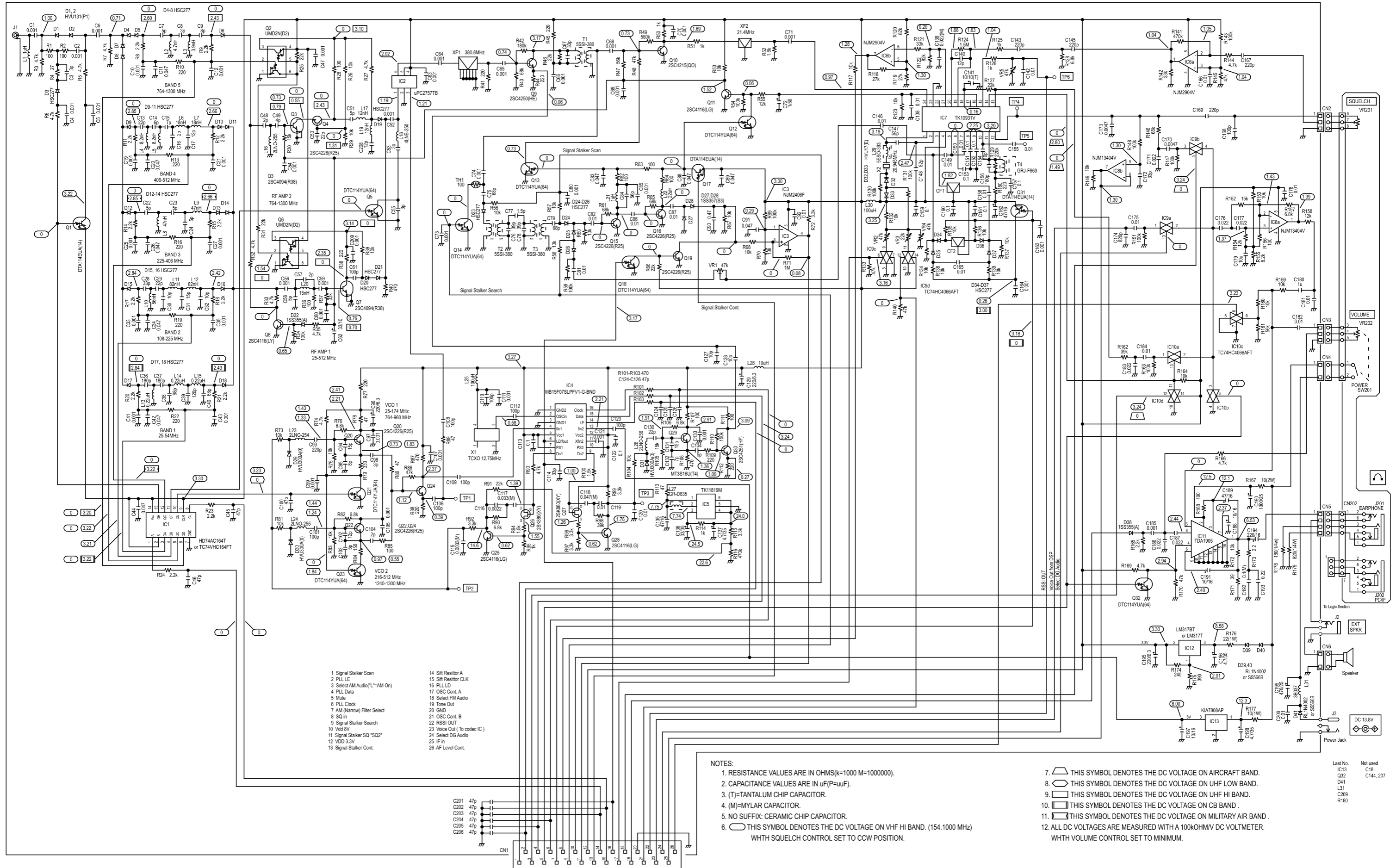


MICROPROCESSOR (IC307) PORT FORMAT

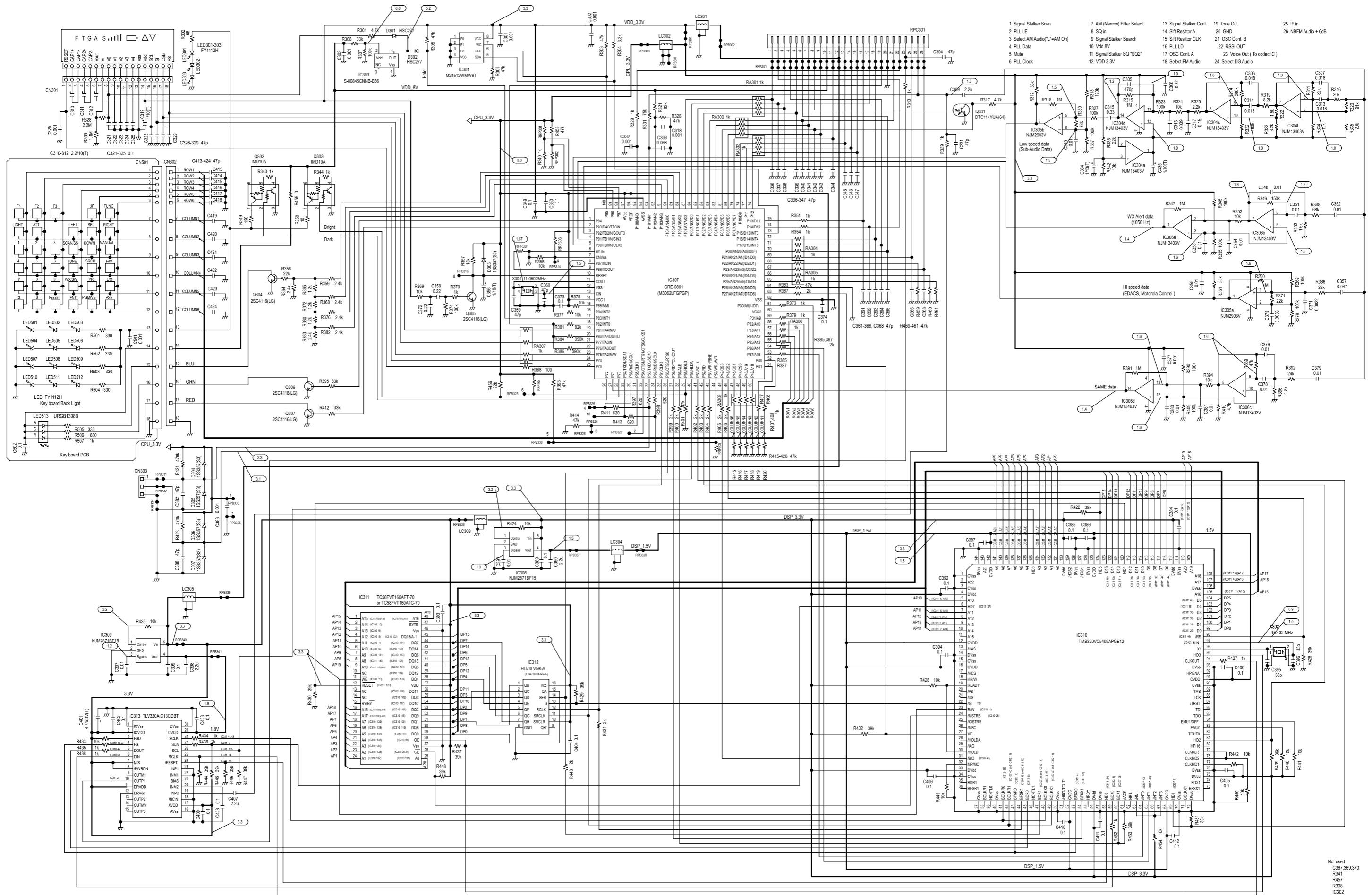


Pin Number	Function	Pin Number	Function	Pin Number	Function
1	Tri-Color LED D/A output	35	DSP Comms and Pin 12 74LV595A out	68	Power Save output
2	Tri-Color LED D/A output	36	DSP Comms and Pin 14 74LV595A out	69	Select DG Audio output
3	High Speed Data input	37	DSP Comms output	70	PLL Clock output
4	WX Alert input	38	DSP Comms input	71	PLL Data output
5	Low Speed Data input	39	Boot input	72	Select FM Audio output
6	BYTE input (GND)	40	DSP Comms and Pin 11 74LV595A out	73	EEPROM SDA output
7	CNVSS input (Pull down)	41	DSP-LD Ready input	74	PLL LE output
8	NC	42	DSP-LD 9600-Det input	75	PLL LD input
9	Voltage Regulator Control	43	DSP-LD ES-Det input/output	76	Shift Register CLK output
10	Reset input	44	NC (Pull down)	77	Shift Register A output
11	X-Out	45	DSP LD output	78	Signal Sweeper Control output
12	VSS	46	DSP Reset output	79	Signal Sweeper SQ2 input
13	X-in	47	Keyboard input	80	Signal Sweeper Search Control output
14	VCC1	48	Keyboard input	81	SQ1 input
15	NC (Pull up)	49	Keyboard input	82	AM Narrow Filter Select output
16	NC (Pull down)	50	Keyboard input	83	3rd OSC Control B output
17	Hold input	51	Keyboard input	84	Mute output
18	Alert Tone output	52	Keyboard input	85	Select AM Audio output
19	LCD RS output	53	DSP Sleep output	86	3rd OSC Control A output
20	Beep Tone output	54	DSP Wake output	87	Signal Sweeper Scan Control output
21	LCD CSB output	55	Keyboard output	88	Tri-Color LED output
22	Beep Tone output	56	Keyboard output	89	Tri-Color LED output
23	LCD SI output	57	Keyboard output	90	Tri-Color LED output
24	LCD SCL output	58	Keyboard output	91	Tri-Color LED output
25	LCD Reset output	59	Keyboard output	92	Low Battery Voltage A/D input
26	LCD Back Light output	60	VCC2	93	Zeromatic Voltage A/D input
27	WX Same Data input	61	Keyboard output	94	AVSS
28	Key Back Light output	62	VSS	95	RSSI A/D input
29	PC/IF output	63	DSP-LD RX-DG input	96	V REF
30	PC/IF input	64	External On input	97	AVCC
31	NC (Pull down)	65	Battery Charge output	98	Pocket/Mobile Select input
32	NC	66	Hiss Reduction output	99	NC (Pull up)
33	PC/IF output	67	NBFM Audio + 6 dB output	100	EEPROM SCL output
34	PC/IF input				

SCHEMATIC DIAGRAM for 20-197 (Main Section)



SCHEMATIC DIAGRAM for 20-197 (Logic Section)



- 1 Signal Stalker Scan
- 2 PLL LE
- 3 Select AM Audio("L"=AM On)
- 4 PLL Data
- 5 Mute
- 6 PLL Clock
- 7 AM (Narrow) Filter Select
- 8 SQ In
- 9 Signal Stalker Search
- 10 Vdd 8V
- 11 Signal Stalker SQ "SQ2"
- 12 VDD 3.3V
- 13 Signal Stalker Cont.
- 14 Shift Resistor A
- 15 Shift Resistor CLK
- 16 PLL LD
- 17 OSC Cont. A
- 18 Select FM Audio
- 19 Tone Out
- 20 GND
- 21 OSC Cont. B
- 22 RSSI OUT
- 23 Voice Out (To codec IC)
- 24 Select DG Audio
- 25 IF In
- 26 NBFM Audio + 6dB

- NOTES:
1. RESISTANCE VALUES ARE IN OHMS(K=1000 M=1000000).
 2. CAPACITANCE VALUES ARE IN uF(P=uF).
 3. (T)=TANTALUM CHIP CAPACITOR.
 4. (M)=MYLAR CAPACITOR.
 5. NO SUFFIX: CERAMIC CHIP CAPACITOR.
 6. THIS SYMBOL DENOTES THE DC VOLTAGE ON VHF HI BAND. (154.1000 MHz) WITH SQUELCH CONTROL SET TO CCW POSITION.
 7. ALL DC VOLTAGES ARE MEASURED WITH A 100KOHM/V DC VOLTMETER. WITH VOLUME CONTROL SET TO MINIMUM.

RadioShack Corporation
Fort Worth, Texas 76102