



RadioShack®

ServiceManual

20-432

PRO-2052

VHF/UHF/AIR/800MHz

1000-CHANNEL TRUNKTRACKER HOME SCANNER

Catalog Number: 20-432

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SAFETY PRECAUTIONS

Before returning any unit to the customer, a safety check of the entire instrument should be made. The service technician must be sure that no protective device built into the instrument by the manufacturer has become defective or inadvertently degraded during servicing.

1. WARNING:

Alterations of the design or circuitry of these models should not be made.

Any design changes or additions such as, but not limited to, circuit modifications, auxiliary speaker jacks, switches, grounding, active or passive circuitry, etc. may alter the safety characteristics of these models and potentially create a hazardous situation for the user.

Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by a Δ in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

SPECIFICATIONS

GENERAL

Band coverage:	16 bands
Frequency range:	29.000 to 29.695 MHz (5 kHz Step NFM) 29.700 to 49.995 MHz (5 kHz Step NFM) 50.000 to 54.000 MHz (5 kHz Step NFM) 108.000 to 136.975 MHz (12.5 kHz Step AM) 137.000 to 143.995 MHz (5 kHz Step NFM) 144.000 to 147.995 MHz (5 kHz Step NFM) 148.000 to 174.000 MHz (5 kHz Step NFM) 179.750 to 215.750 MHz (6 MHz Step WFM) 216.000 to 224.995 MHz (5 kHz Step NFM) 225.000 to 399.9875 MHz (12.5 kHz Step AM) 400.000 to 419.9875 MHz (12.5 kHz Step NFM) 420.000 to 449.9875 MHz (12.5 kHz Step NFM) 450.000 to 469.9875 MHz (12.5 kHz Step NFM) 470.000 to 512.000 MHz (12.5 kHz Step NFM) 806.000 to 956.000 MHz (12.5 kHz Step NFM) (Except Cellular Band) 1240.000 to 1300.000 MHz (12.5 kHz Step NFM)
Number of programmable channels:	1000 channels (50 CH × 20 banks) 50 channels for search skip memory 20 channels for service search skip memory
External Jacks:	ANT. jack: BNC type Earphone jack (EXT. SP): 3.5 mm dia. DC power jack: 5.5 mm dia. COM (RS-232C) jack: D-SUB 9-pin (Female)
Internal Speaker:	8-ohm, 2 W (2 1/4 inches dia.)
Power requirements:	12.0 V DC provided by AC adapter from DC Power jack
Operating temperature:	-10 °C ~ +50 °C
Storage temperature:	-20 °C ~ +60 °C
Dimensions (HWD):	70 × 205 × 195 mm
Weight:	750 g
Accessories:	Telescopic antenna, AC adapter

Heterodyne system:

1. 1st heterodyne
 - 29 to 54 MHz: Upper heterodyne 1st IF 380.6050-380.7000 MHz
 - 108 to 174 MHz: Upper heterodyne 1st IF 380.6050-380.7000 MHz
 - 179.75 to 215.75 MHz: Upper heterodyne 1st IF 380.6500 MHz
 - 216 to 224.995 MHz: Upper heterodyne 1st IF 380.6050-380.7000 MHz
 - 225 to 310.9875 MHz: Upper heterodyne 1st IF 380.6125-380.7000 MHz
 - 311 to 512 MHz: Upper heterodyne 1st IF 254.3125-254.4000 MHz
 - 806 to 956 MHz: Lower heterodyne 1st IF 380.7000-380.7875 MHz
 - 1240 to 1300 MHz: Lower heterodyne 1st IF 380.7000-380.7875 MHz
2. 2nd heterodyne
 - All bands: Upper heterodyne 2nd IF 10.850 MHz (NFM/AM)
10.700 MHz (WFM)
3. 3rd heterodyne
 - All bands: Lower heterodyne 3rd IF 450 kHz (NFM/AM)

Filter:

- Monolithic crystal filter: 10.850 MHz (NFM/AM)
- Ceramic filter: 10.700 MHz (WFM)
- Ceramic filter: 450 kHz (NFM/AM)

MEASUREMENT CONDITIONS

Power source: 12 V DC
 Antenna impedance: 50-ohm
 Test temperature: +25 °C ±5 °C
 Modulation frequency: 1 kHz
 Deviation: FM ±3 kHz dev./WFM ±15 kHz dev./AM 60% for aircraft band
 Mean signal input level: 100 μV
 Audio output load: 8-ohm resistive load
 Standard ref. audio output: 50 mW

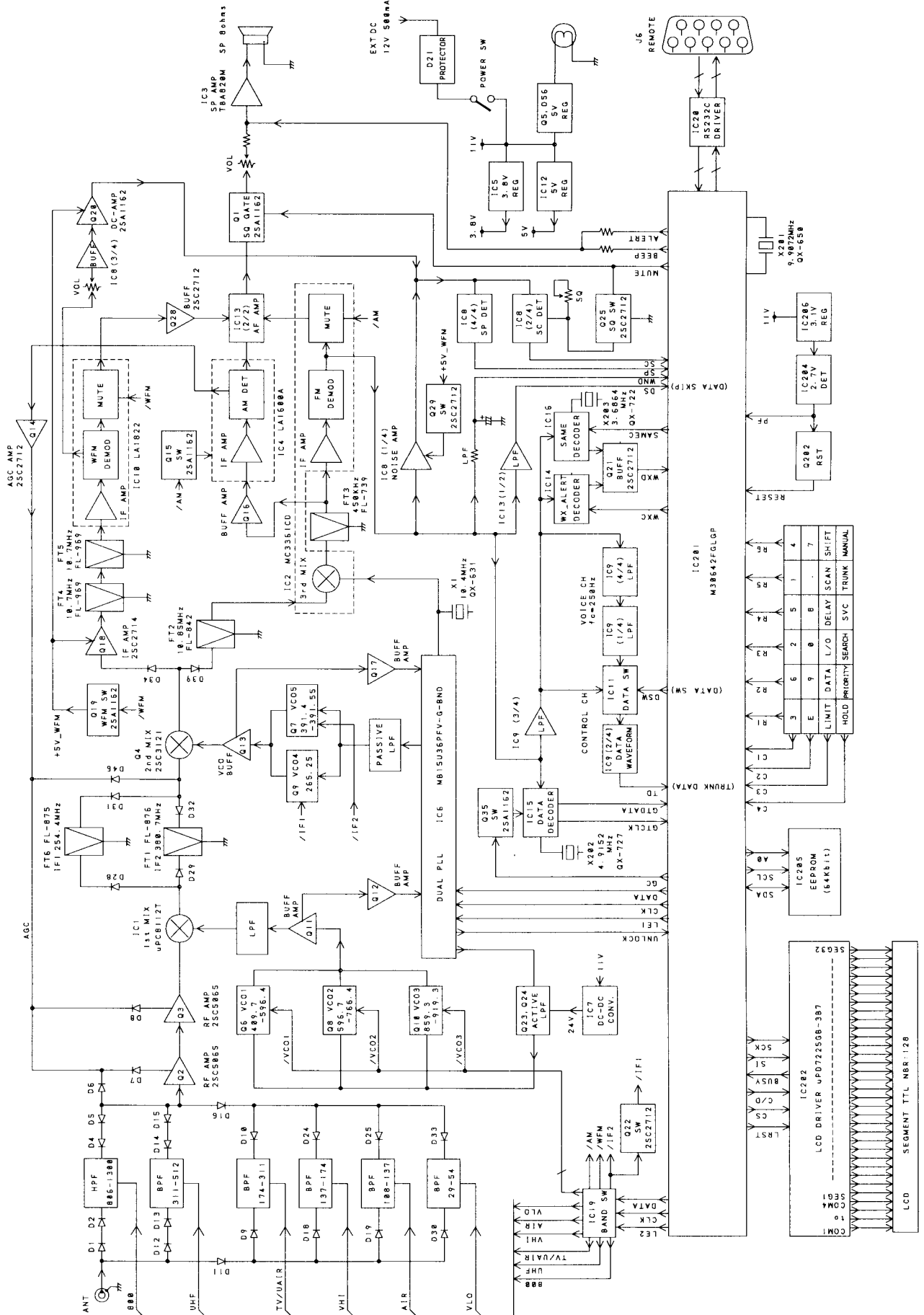
Item	Unit	Nominal	Limit
Sensitivity (S+N)/N=20 dB			
NFM	30.050 MHz	μV	0.5 \leq 2.0
	40.840 MHz	μV	0.5 \leq 2.0
	49.900 MHz	μV	0.5 \leq 2.0
	138.150 MHz	μV	0.5 \leq 3.0
	162.400 MHz	μV	0.5 \leq 3.0
	173.225 MHz	μV	0.5 \leq 3.0
	216.005 MHz	μV	0.5 \leq 3.0
	406.875 MHz	μV	0.4 \leq 3.0
	453.250 MHz	μV	0.4 \leq 3.0
	511.9125 MHz	μV	0.4 \leq 3.0
	806.000 MHz	μV	1.0 \leq 4.0
	857.200 MHz	μV	1.0 \leq 4.0
	954.9125 MHz	μV	1.0 \leq 4.0
	1299.9125 MHz	μV	2.0 \leq 8.0
WFM	197.750 MHz	μV	3.0 \leq 10.0
AM	118.800 MHz	μV	1.5 \leq 8.0
	127.175 MHz	μV	1.5 \leq 8.0
	135.500 MHz	μV	1.5 \leq 8.0
	230.050 MHz	μV	1.5 \leq 8.0
	325.050 MHz	μV	1.5 \leq 8.0
Maximum sensitivity (for 50mW)			
AM	at 118.800 MHz	μV	0.2 \leq 2.0
	at 127.175 MHz	μV	0.2 \leq 2.0
	at 135.500 MHz	μV	0.2 \leq 2.0
	at 230.050 MHz	μV	0.3 \leq 3.0
	at 325.050 MHz	μV	0.3 \leq 3.0
Threshold squelch (MANUAL)			
NFM	at 40.840 MHz	μV	0.3 \leq 0.8
	at 162.400 MHz	μV	0.3 \leq 1.2
	at 216.005 MHz	μV	0.5 \leq 2.0
	at 453.250 MHz	μV	0.3 \leq 1.8
	at 857.200 MHz	μV	0.8 \leq 3.0
	at 1299.9125 MHz	μV	1.5 \leq 10.0
WFM	at 197.750 MHz	μV	2.5 \leq 20.0
AM	at 127.175 MHz	μV	0.3 \leq 2.0
	at 230.050 MHz	μV	0.3 \leq 3.0
	at 325.050 MHz	μV	0.3 \leq 3.0

Item		Unit	Nominal	Limit
Tight squelch (MANUAL) (S+N)/N				
NFM	at 40.840 MHz	dB	25	$\cong 15$
	at 162.400 MHz	dB	25	$\cong 15$
	at 216.005 MHz	dB	25	$\cong 15$
	at 453.250 MHz	dB	25	$\cong 15$
	at 857.200 MHz	dB	25	$\cong 15$
	at 1299.9125 MHz	dB	25	$\cong 15$
WFM	at 197.750 MHz	dB	50	$\cong 30$
AM	at 127.175 MHz	dB	15	$\cong 8$
	at 230.050 MHz	dB	15	$\cong 8$
	at 325.050 MHz	dB	15	$\cong 8$
Hum and noise				
NFM	at 40.840 MHz	dB	39	$\cong 30$
	at 162.400 MHz	dB	39	$\cong 30$
	at 216.005 MHz	dB	39	$\cong 30$
	at 453.250 MHz	dB	39	$\cong 30$
	at 857.200 MHz	dB	39	$\cong 30$
	at 1299.9125 MHz	dB	35	$\cong 25$
WFM	at 197.750 MHz	dB	50	$\cong 35$
AM	at 127.175 MHz	dB	50	$\cong 30$
	at 230.050 MHz	dB	50	$\cong 30$
	at 325.050 MHz	dB	50	$\cong 30$
Audio frequency response -6 dB				
(at 162.400 MHz)	Low	Hz	300	200 ~ 450
	High	Hz	2300	1300 ~ 3000
(at 127.175 MHz)	Low	Hz	280	200 ~ 450
	High	Hz	2200	1300 ~ 3000
(at 197.750 MHz)	Low	Hz	300	200 ~ 450
	High	Hz	2300	1300 ~ 3000
Audio output power of internal speaker				
(at 162.400 MHz)	Maximum	mW	1100	$\cong 700$
	10% THD.	mW	1000	$\cong 600$
(at 197.750 MHz)	Maximum	mW	1100	$\cong 700$
	10% THD.	mW	1000	$\cong 600$
(at 127.175 MHz)	Maximum	mW	1100	$\cong 700$
	10% THD.	mW	1000	$\cong 600$
(at 162.400 MHz 32 Ω EAR.)	Maximum	V	0.80	$\cong 0.50$
Distortion at 50 mW output power				
at 162.400 MHz		%	1.5	$\cong 6$
at 127.175 MHz		%	2.0	$\cong 10$
at 197.750 MHz		%	0.5	$\cong 10$

Item	Unit	Nominal	Limit
Acceptable radio frequency displacement (EIA RS-204-D) at 162.400 MHz	kHz	±6	≅ ±3
1st IF rejection			
at 162.400 MHz (IF = 380.7 MHz)	dB	80	≅ 50
at 453.250 MHz (IF = 254.4 MHz)	dB	50	≅ 20
Residual noise (Vol.: min./SQ: Open)	mV	0.5	≅ 5
Scan rate (at test mode)	CH/sec.	50	≅ 25
Search rate	Step/sec.	70	≅ 50
Scan delay	Sec.	2	1 ~ 5
Data deviation sensitivity			
Control CH data at 851.0125 MHz	kHz	±0.5	≅ ±1.5
Voice CH data at 851.0125 MHz	kHz	±0.2	≅ ±1.0
Alert sensitivity (at 162.400 MHz) (at 1050 Hz)	kHz	±0.8	≅ ±2.0
EAS data sensitivity (at 162.4 MHz)	kHz	±0.3	≅ ±2.0
Current drain (at 162.4 MHz)			
(at full output)	mA DC	440	≅ 500
(at squelched)	mA DC	240	≅ 320

Note: Nominal specs represent the design specs. All units should be able to approximate these — some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; in no case should a unit fail to meet limit specs.

BLOCK DIAGRAM



ALIGNMENT AND ADJUSTMENT

PREPARATION FOR ALIGNMENT

To enter the following test frequencies into the channel memories:

Turn on the Power while pressing "2", "9" and "SCAN" keys. Then press "MANUAL" key.

TEST EQUIPMENT REQUIRED

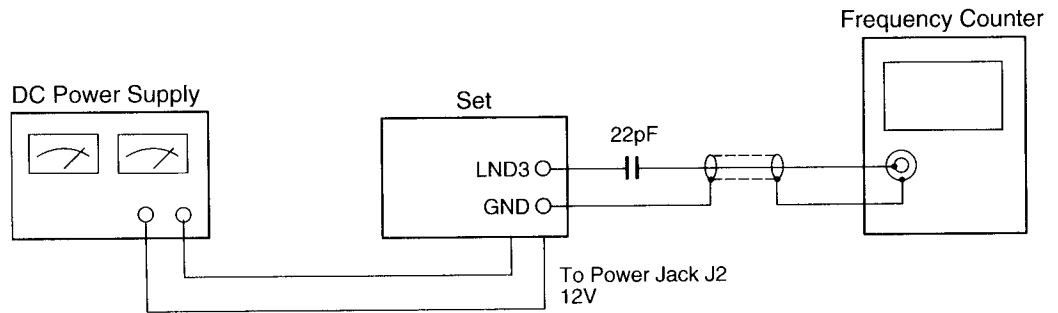
- DC power supply EXT. DC Power JACK: 12.0 V DC
- Digital voltmeter
- SSVM
- Oscilloscope
- Frequency counter
- Signal generator (SG)

Table 1. Test Frequency

Channel	Test Frequency	Channel	Test Frequency	Channel	Test Frequency
1	30.0500 MHz	12	127.1750 MHz	23	197.7500 MHz
2	40.8400 MHz	13	135.5000 MHz	24	215.7500 MHz
3	49.9000 MHz	14	29.0000 MHz	25	216.0050 MHz
4	138.1500 MHz	15	54.0000 MHz	26	310.9875 MHz
5	162.4000 MHz	16	806.0000 MHz	27	311.0125 MHz
6	173.2250 MHz	17	857.2000 MHz	28	399.9875 MHz
7	406.8750 MHz	18	911.5000 MHz	29	230.0500 MHz
8	453.2500 MHz	19	954.9125 MHz	30	325.0500 MHz
9	511.9125 MHz	20	1299.9125 MHz	31	1240.0000 MHz
10	108.5000 MHz	21	179.7500 MHz	51	29.0000 MHz
11	118.8000 MHz	22	195.5000 MHz	52	512.0000 MHz

ALIGNMENT OF REFERENCE OSC

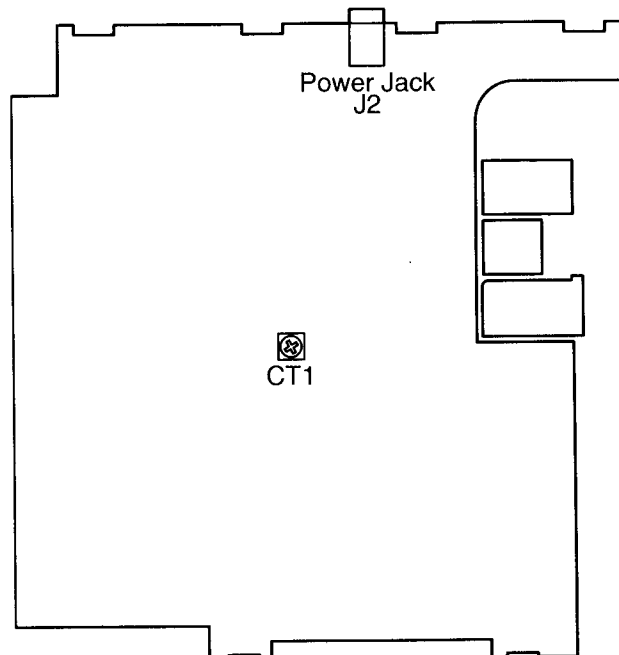
Test Equipment Required and Connections



Alignment Procedure

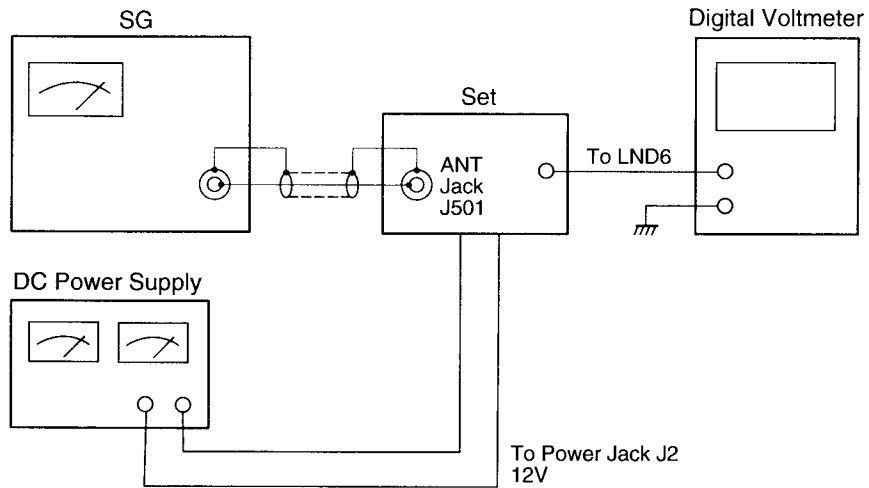
Step	Preset to	Adjustment	Result
1	CH14	CT1	Connect the frequency counter to LND3. (See Page 22 for the position.) Adjust CT1 to obtain 391.55 MHz \pm 100 Hz.

Alignment Point Locations (RF PCB)



ALIGNMENT OF NFM DISCRIMINATOR

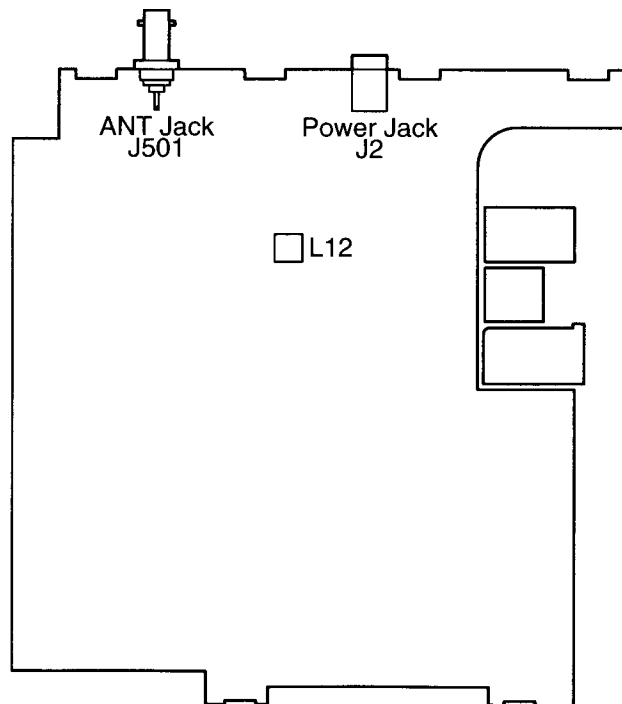
Test Equipment Required and Connections



Alignment Procedure

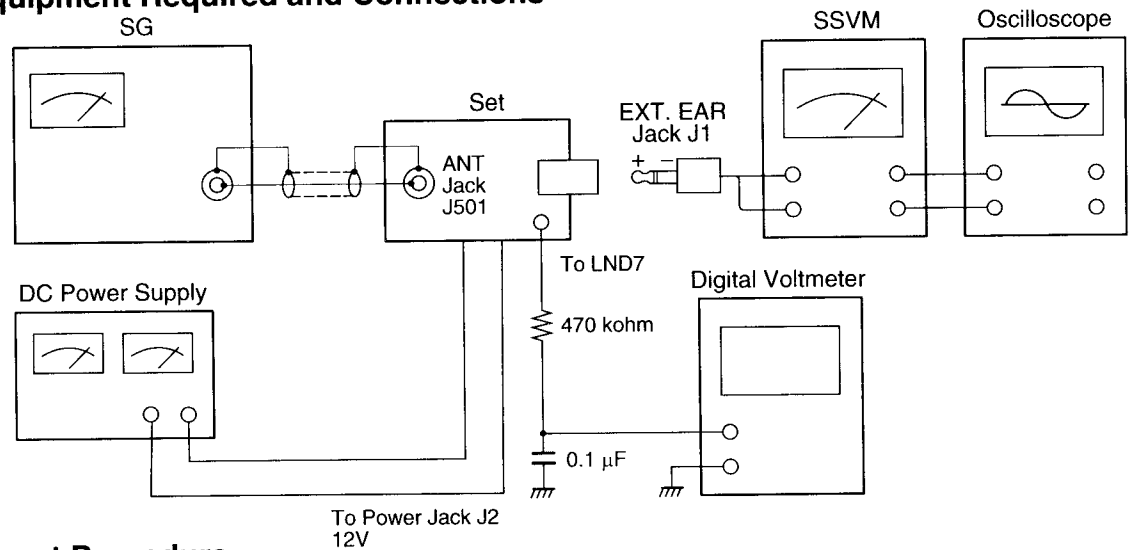
Step	Preset to	Adjustment	Result
1	CH2 SG: 40.84 MHz No modulation 100 μ V	L12	Connect the digital voltmeter to LND6. (See Page 20 for the position.) Adjust L12 to obtain 1.3 V \pm 0.05 V DC.

Alignment Point Locations (RF PCB)



ALIGNMENT OF SQUELCH

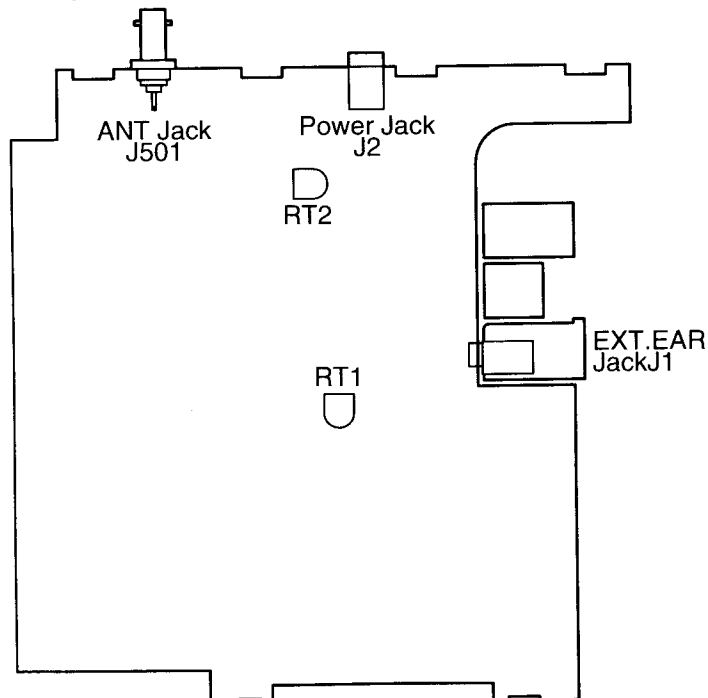
Test Equipment Required and Connections



Alignment Procedure

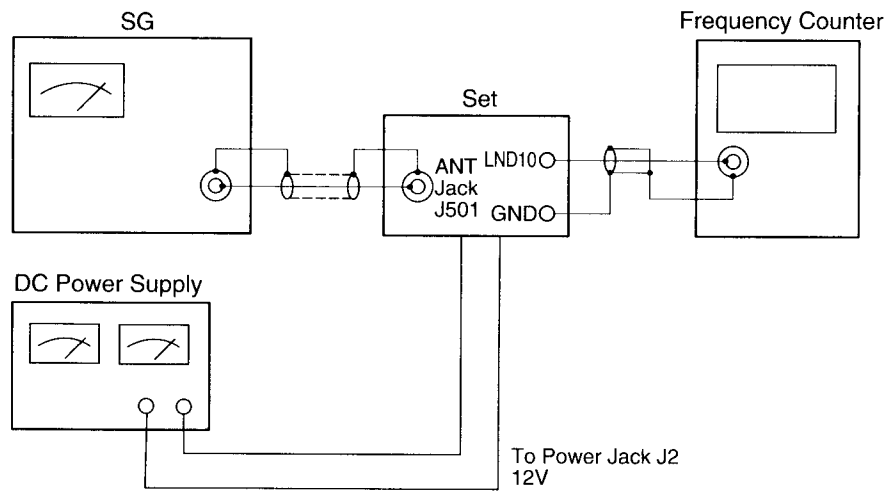
Step	Preset to	Adjustment	Result
1	CH2 SG: 40.840 MHz No modulation Squelch: CW	RT1	Set the SG level so that the voltage at LND7 is 0.85 ± 0.03 V DC. (See Page 20 for the position.) Adjust RT1 slowly until the squelch opens.
2	CH23 SG: 197.750 MHz 100 µV No modulation Squelch: CW	RT2	Adjust RT2 to obtain 0.70 ± 0.03 V DC at LND7.

Alignment Point Location (RF PCB)



ALIGNMENT OF WX ALERT

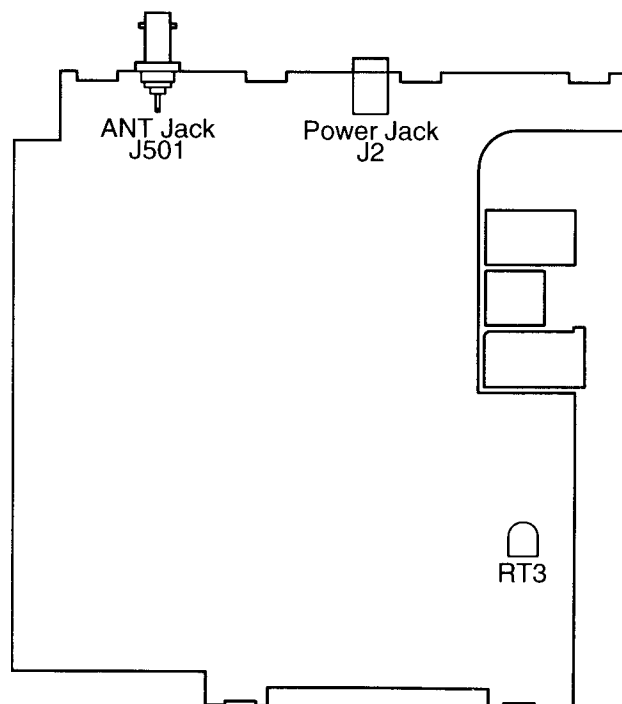
Test Equipment Required and Connections



Alignment Procedure

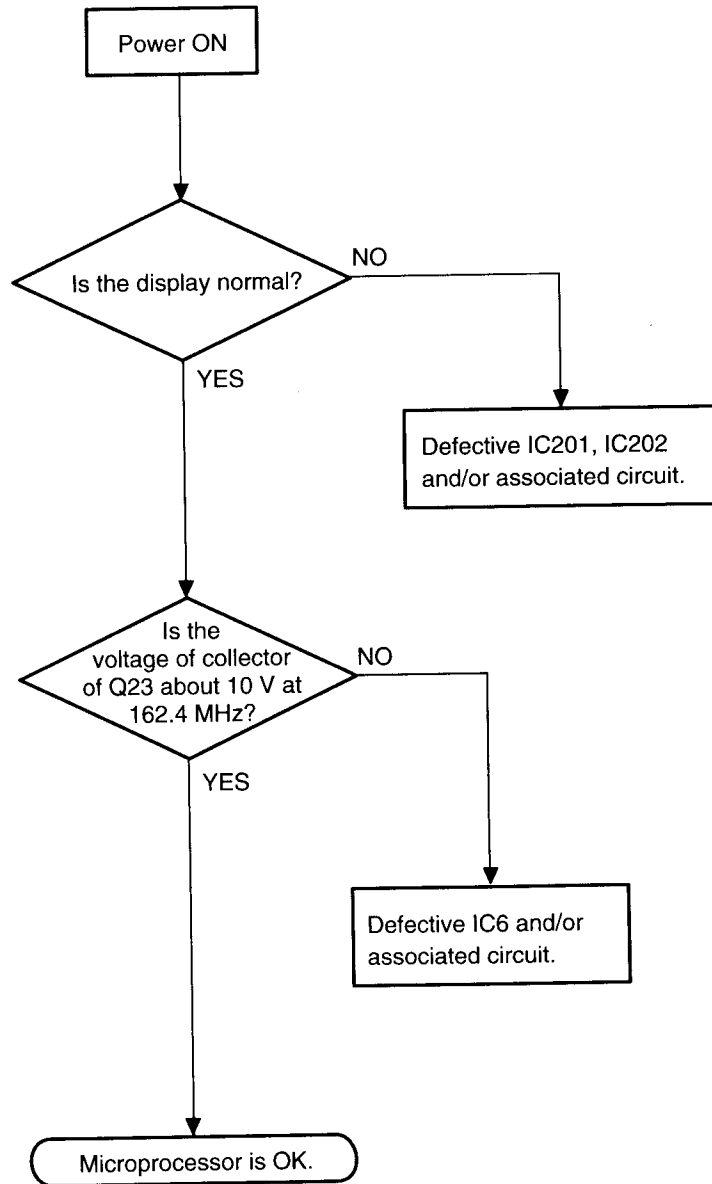
Step	Preset to	Adjustment	Result
1		-	Turn on the Power while pressing "2", "9" and "SVC" keys. Then press "MANUAL" key.
2	SG: 162.4 MHz 100 μ V No modulation	RT3	Connect the frequency counter to LND10. (See Page 20 for the position.) Adjust RT3 to obtain 2100 Hz \pm 10 Hz.

Alignment Point Location (RF PCB)

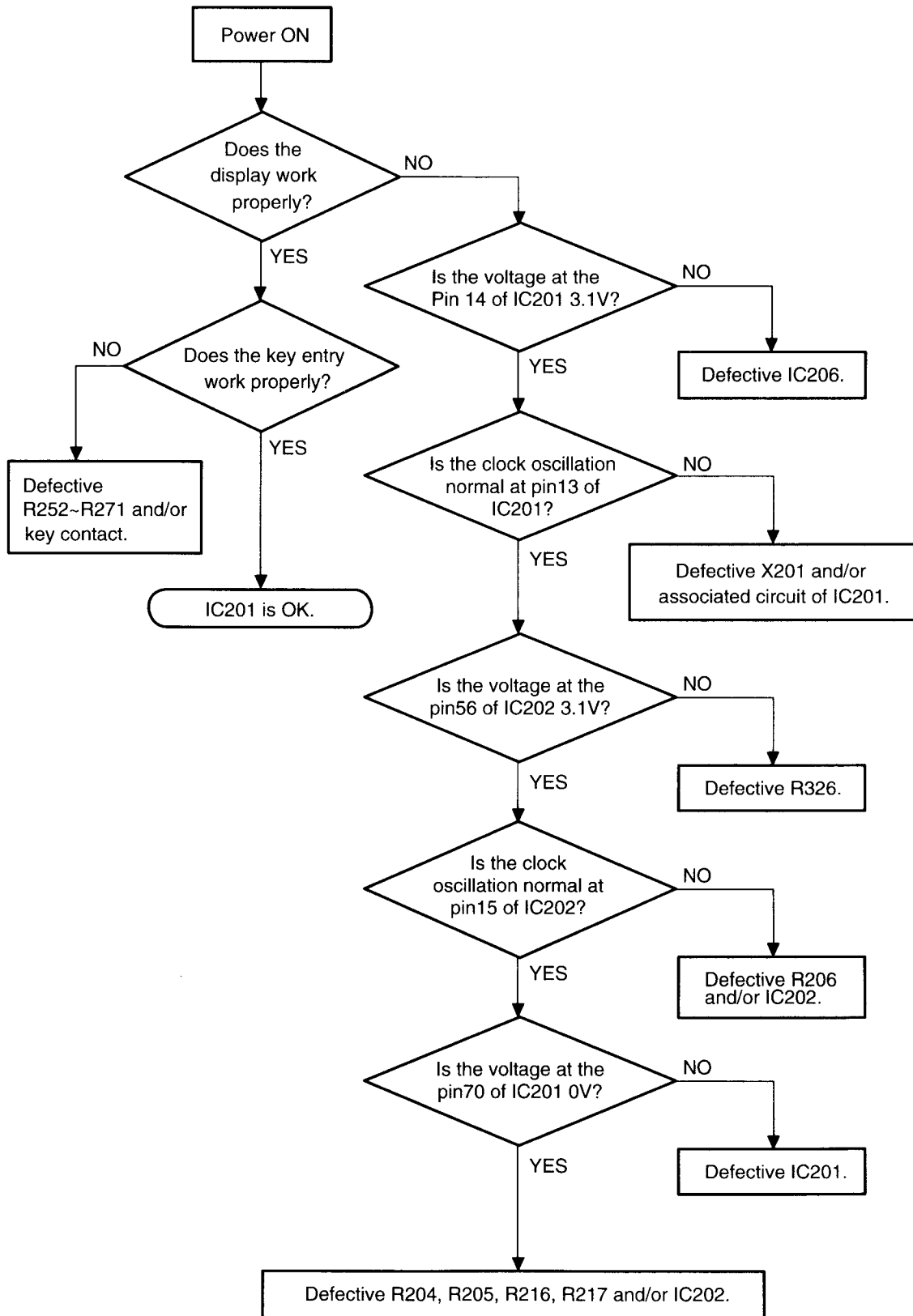


TROUBLESHOOTING

Reception Check

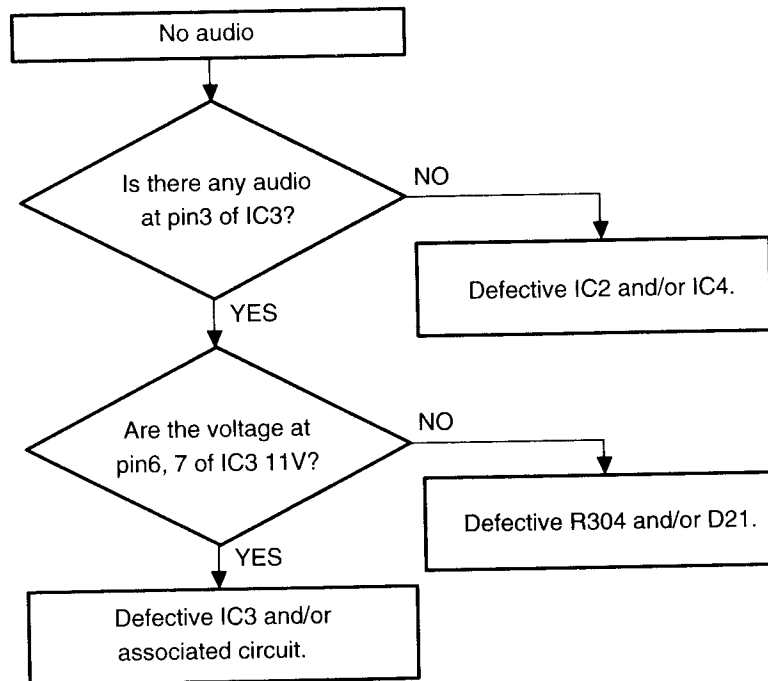


Microprocessor Check



Note: While checking the above items, the microprocessor might "lock up." If so, turn the power switch OFF and then ON and restart to check.

Audio Section



RF Section

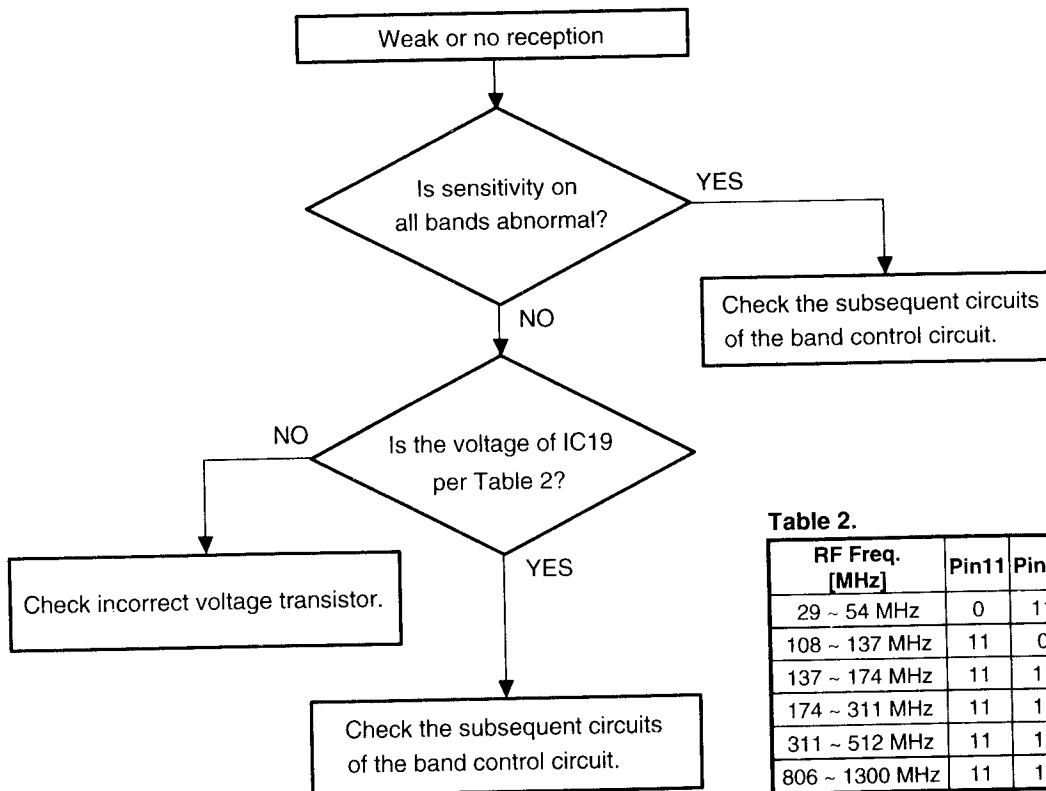


Table 2.

Unit: V

RF Freq. [MHz]	Pin11	Pin14	Pin15	Pin16	Pin17	Pin18
29 ~ 54 MHz	0	11	11	11	11	8
108 ~ 137 MHz	11	0	11	11	11	8
137 ~ 174 MHz	11	11	0	11	11	8
174 ~ 311 MHz	11	11	11	0	11	8
311 ~ 512 MHz	11	11	11	11	0	8
806 ~ 1300 MHz	11	11	11	11	11	0

Remote Section

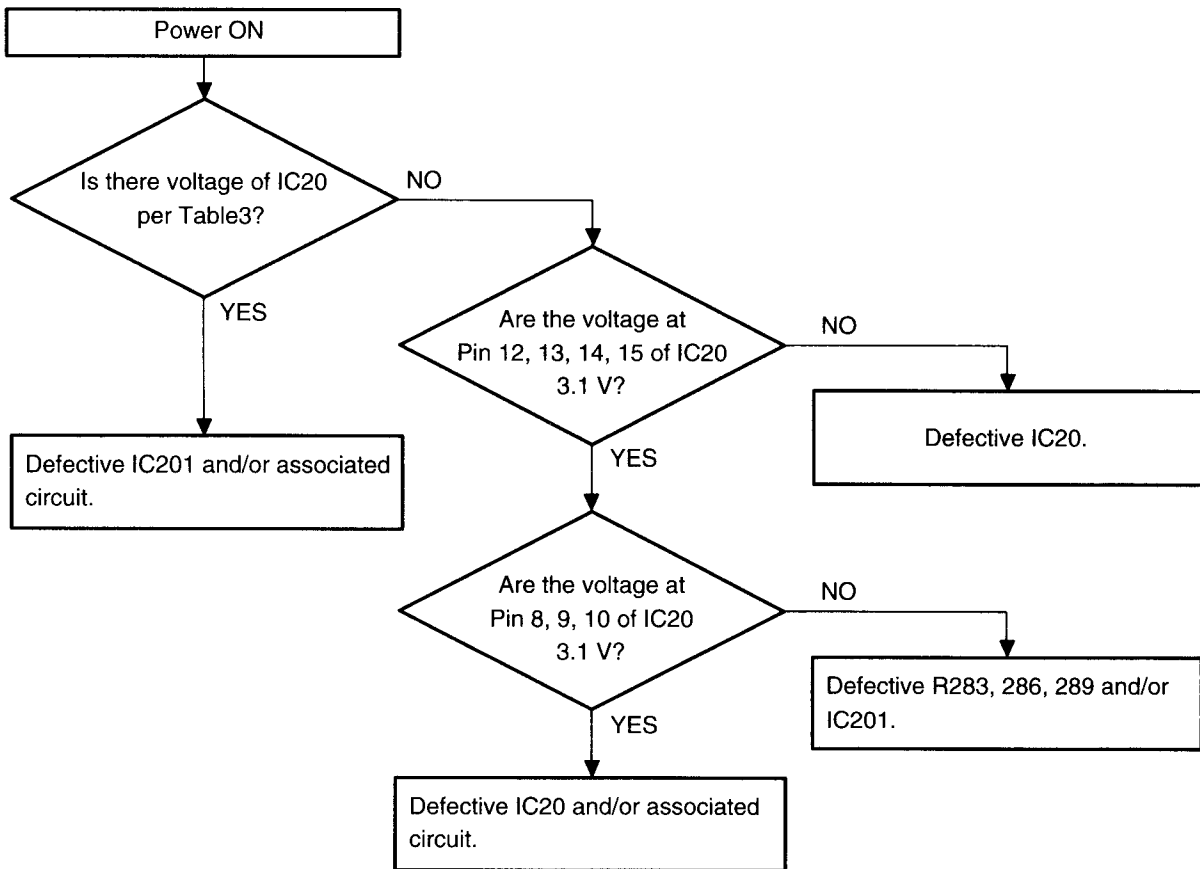


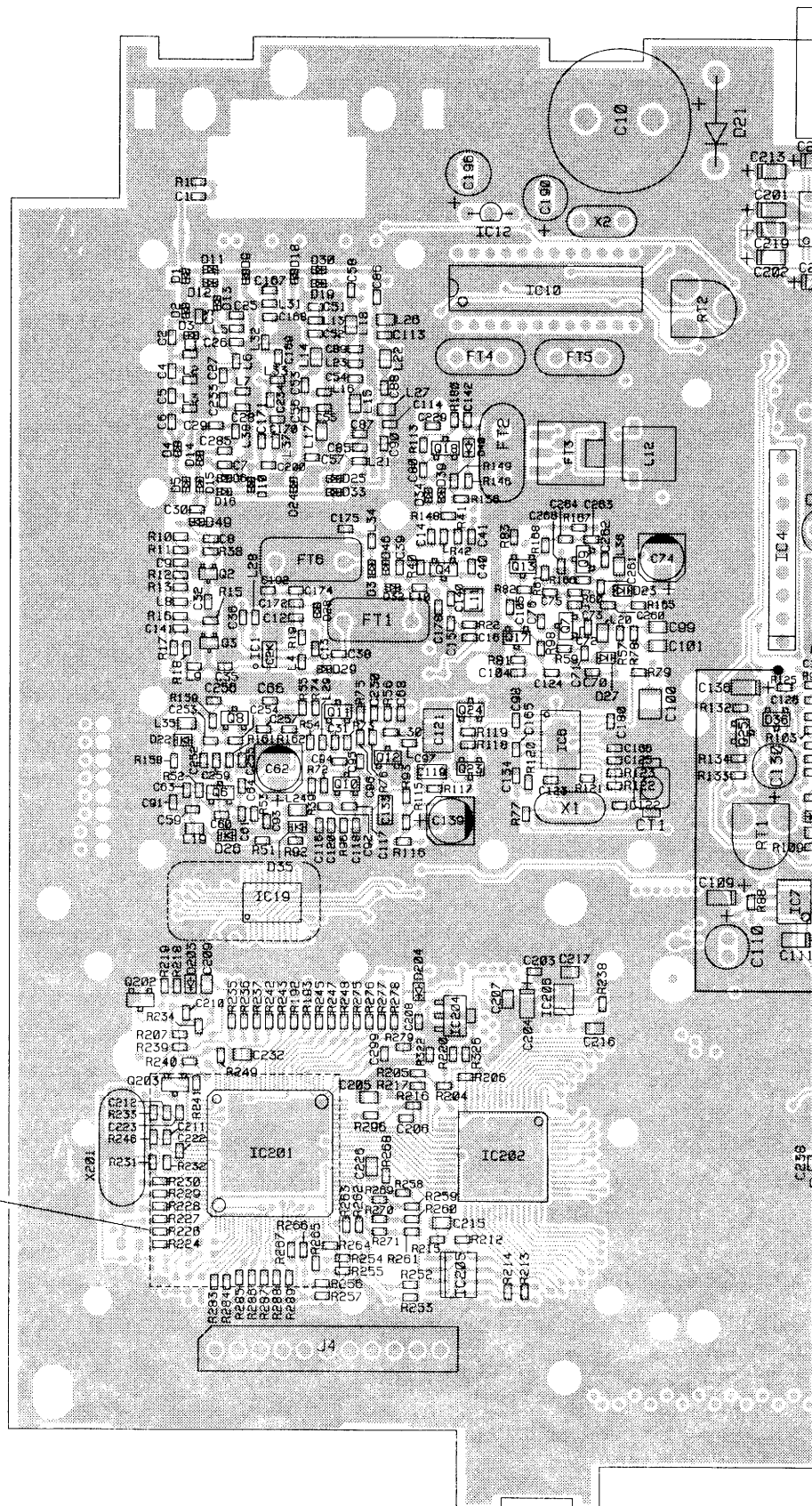
Table 3. Unit: V

Pin1	9.0
Pin8	3.1
Pin9	3.1
Pin10	3.1
Pin12	3.1
Pin13	3.1
Pin14	3.1
Pin15	3.1
Pin27	-9.0

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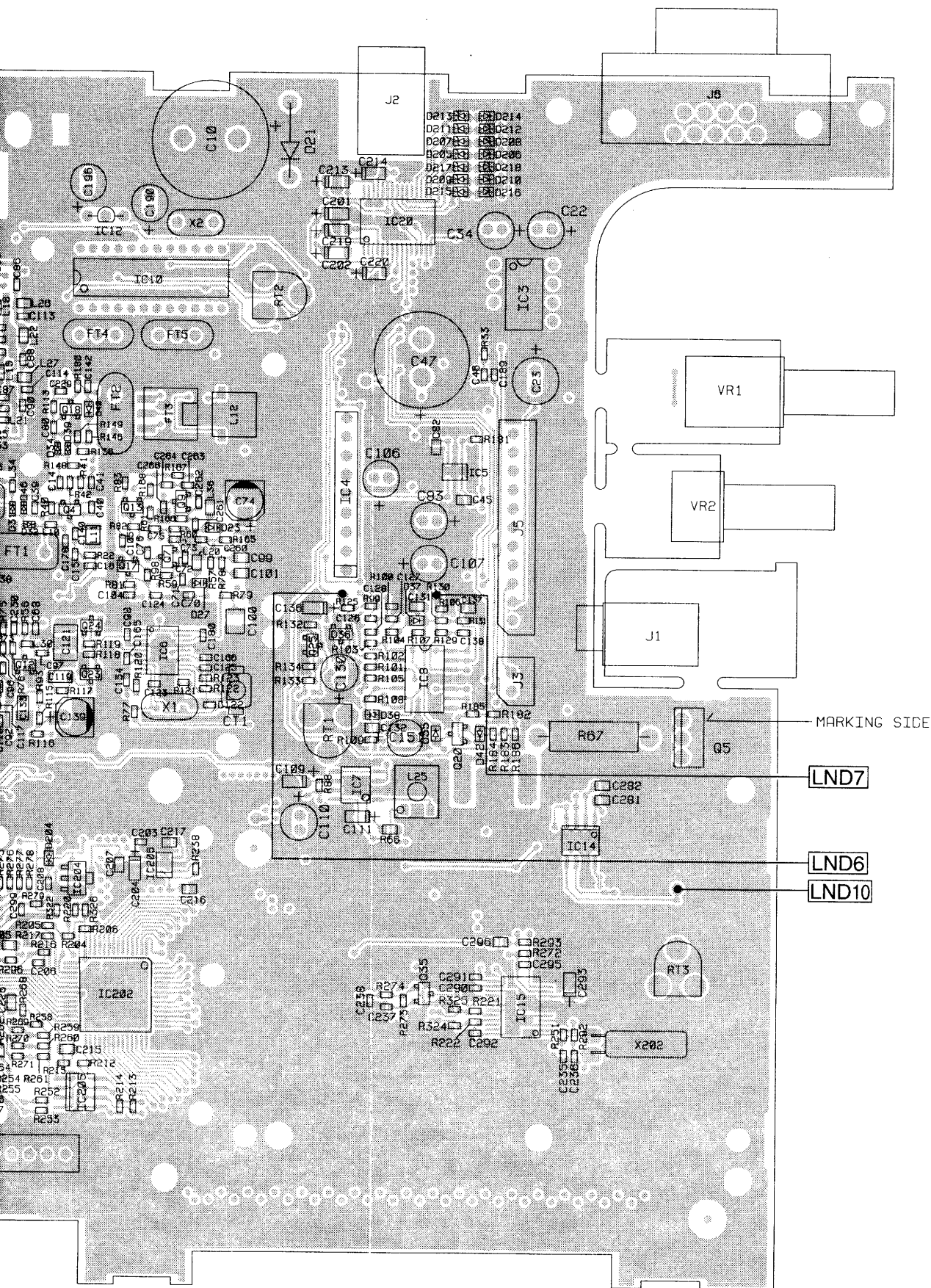
MAIN

EPOXY RESIN

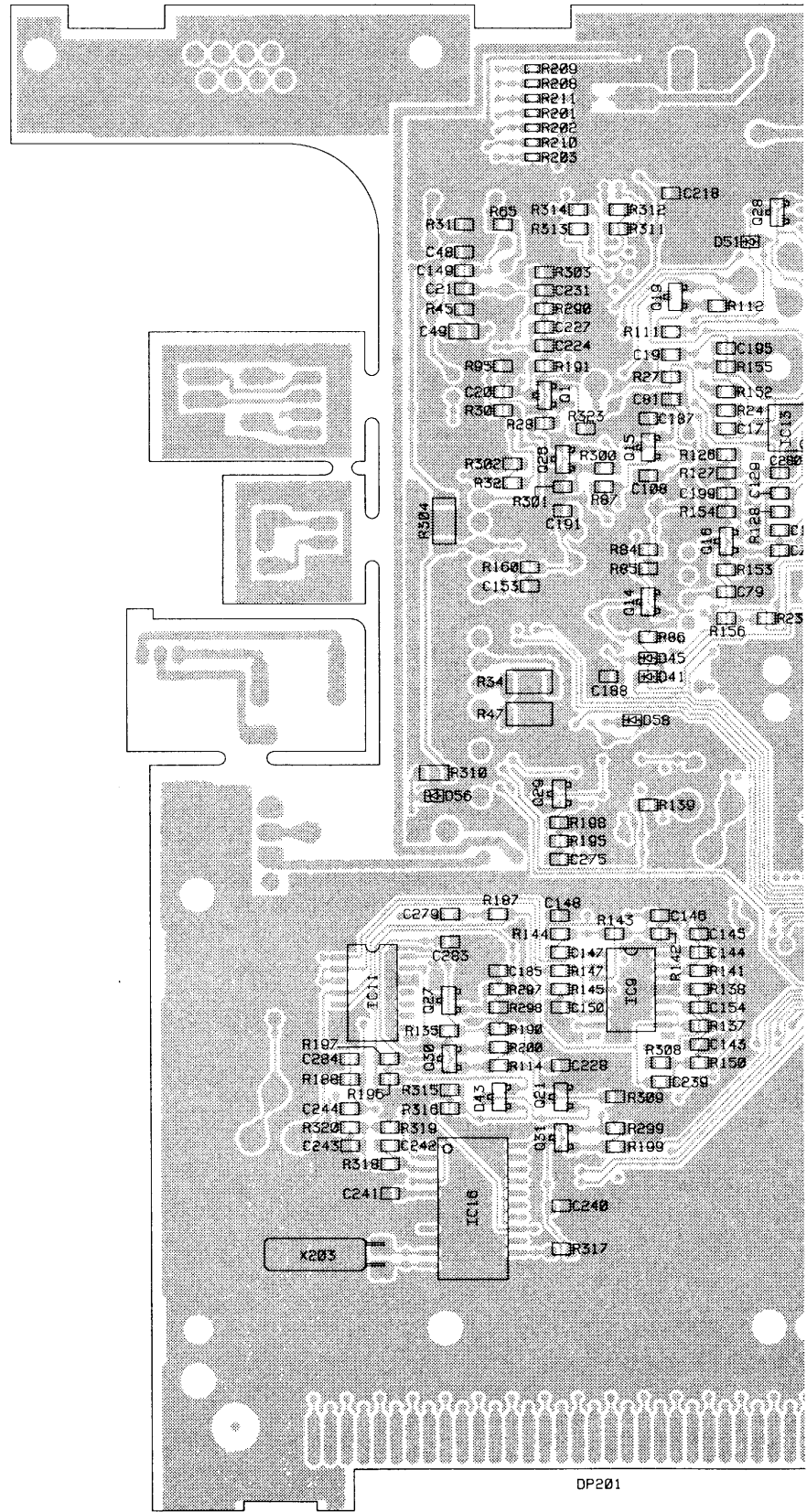


Top Vie

PRINTED CIRCUIT BOARDS

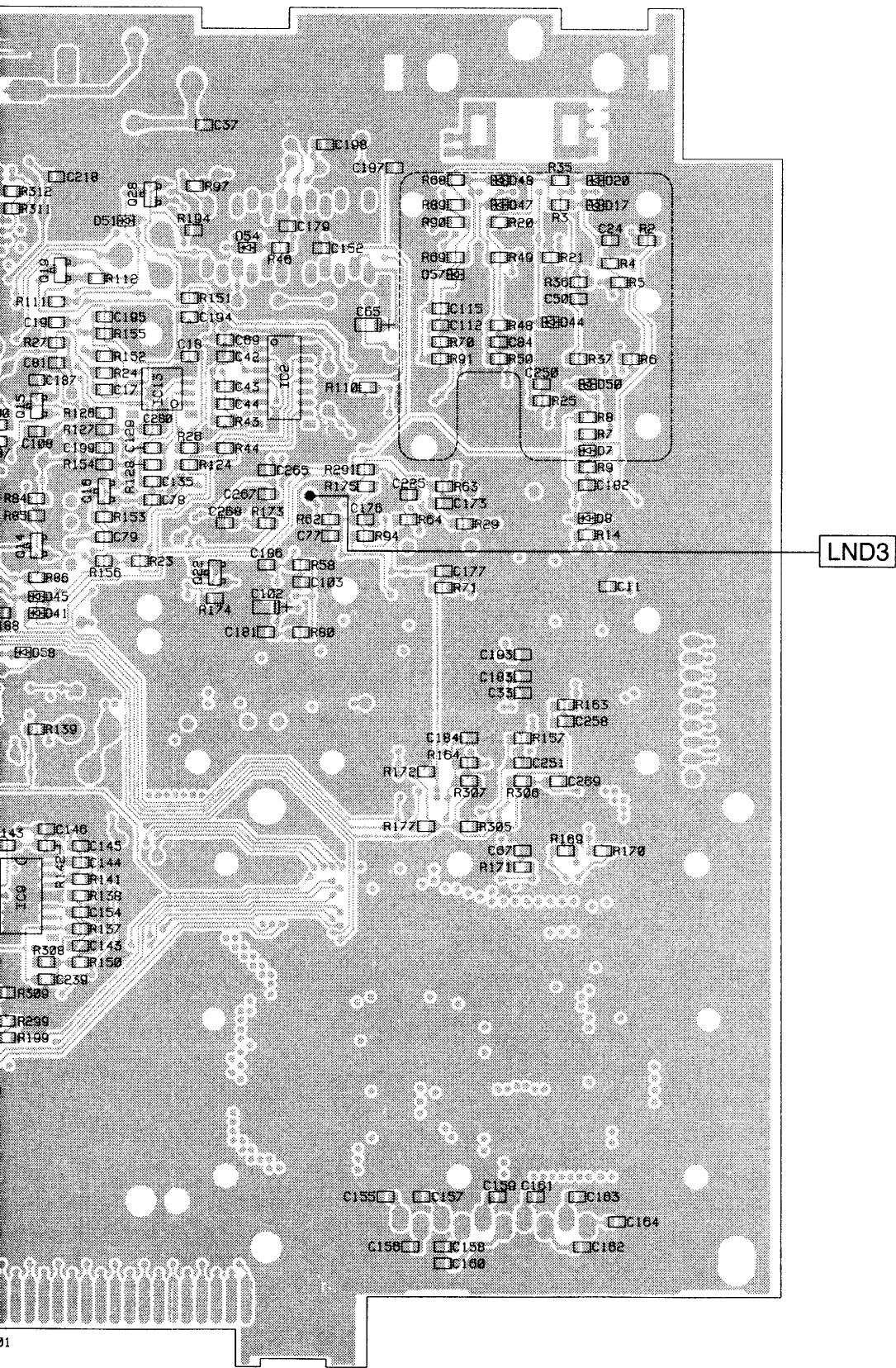


Top View



DP201

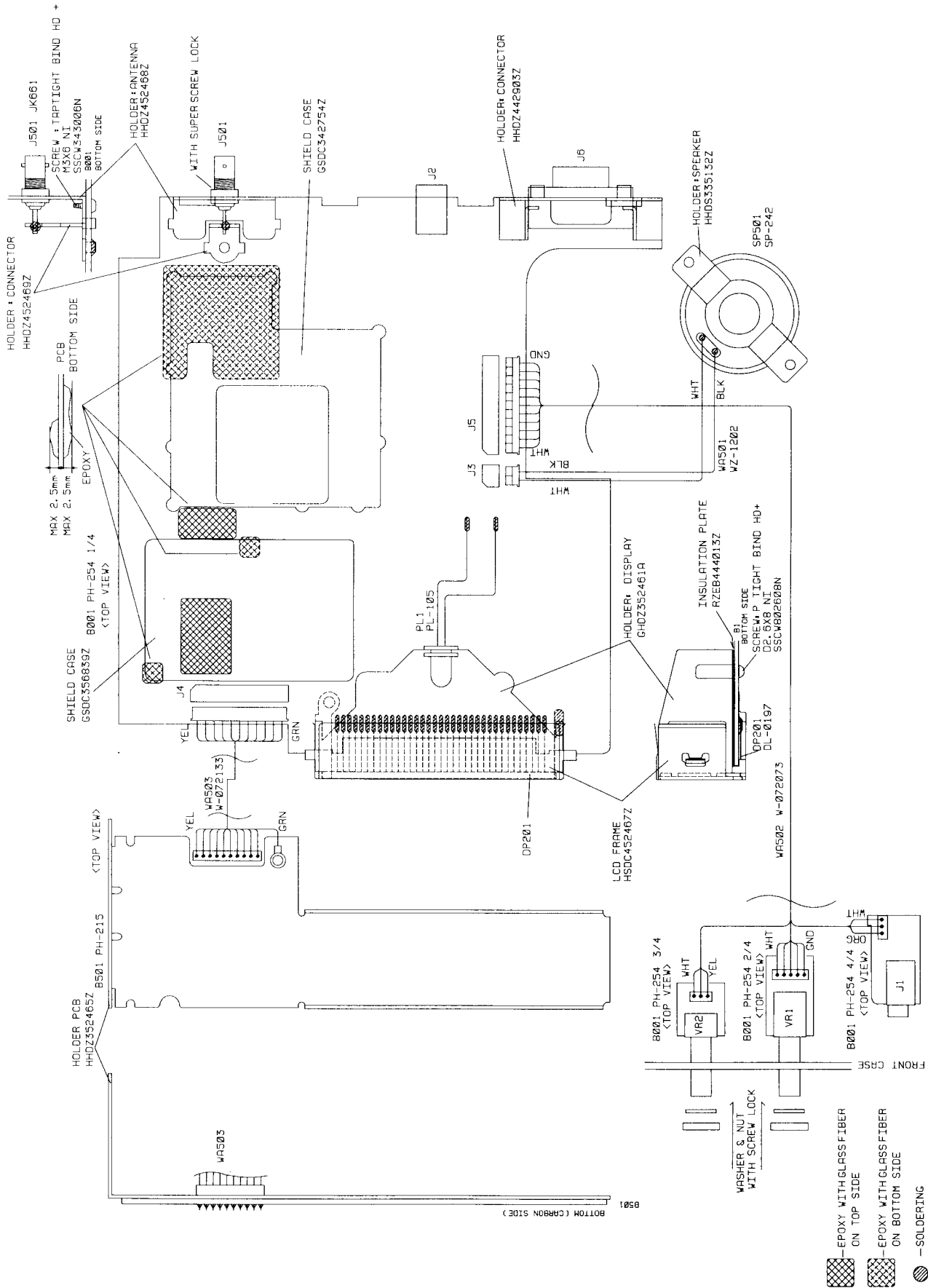
Bottom



LND3

Bottom View

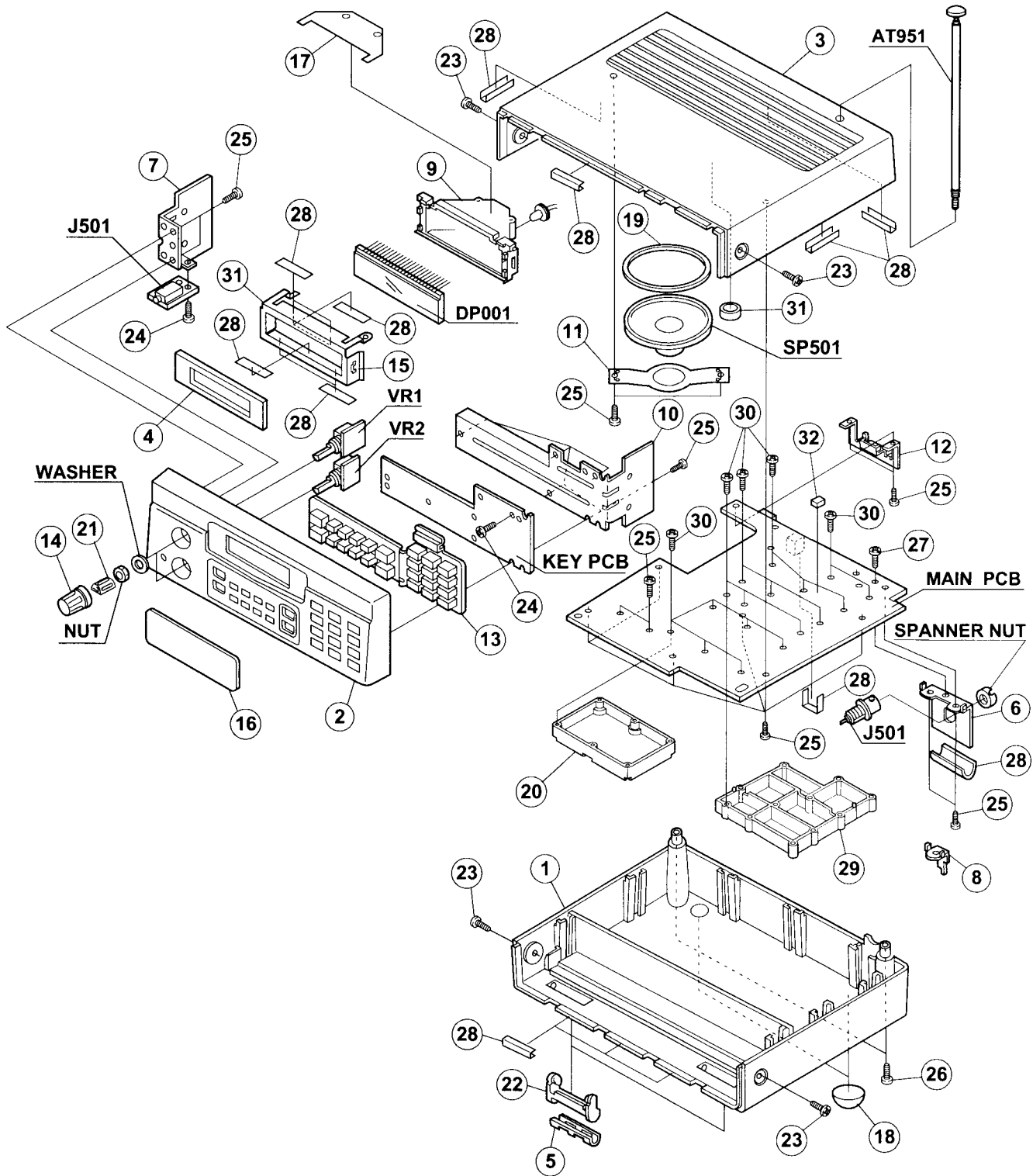
WIRING DIAGRAM



EXPLODED VIEW AND DISASSEMBLY INSTRUCTIONS

To remove the Bottom Cover, unscrew two screws (26) and two screws (23).

To remove the Top Cover, unscrew two screws (23).



MECHANICAL PARTS LIST

Ref. No.	Description	RS Part No.	Mfr' s Part No.
1	Case, Bottom	ABS	GCAS344669Z
2	Panel, Front	ABS	GCAS343103Z
3	Case, Top	ABS	GCAS243091Z
4	Cushion	Moltprene	RCUN453002A
5	Foot	EPDM	LFUT452464Z
6	Holder, Antenna	SECC	HHDZ452468Z
7	Holder, Case	SECC	HHDZ452466Z
8	Holder, Connector	SPCC	HHDZ452469Z
9	Holder, Display	ABS(HI-HEAT)	GHDZ352461A
10	Holder, PCB	SECC	HHDZ352465Z
11	Holder, Speaker	SUS304,0.4T Non Oil	HHDS335132Z
12	Holder, Connector	SPCC	HHDZ442903Z
13	Key Rubber	SI	LNBS443104Z
14	Knob	ABS	GNBZ352460Z
15	LCD Frame	C5191(PBP)	HSDC452467Z
16	Plate, Display	PC	KDPZ443105Z
17	Insulation Plate	PC	RZEB444013Z
18	Rubber Foot	Polyuretan Rubber	TSTD0340012
19	Spacer		LPAK422595A
20	Shield Case	ABS	GSDC356839Z
21	Spring Plate, Knob	D6.02XL9.53	TSTD0200003
22	Stand	ABS	GCAS452462Z
23	Screw, Bind HD +	M3X6 BZMC	SSCW193006D
24	Screw, Bind HD +	M3X6 NI	SSCW193006N
25	Screw, P Tight Bind HD +	D2.6X8 NI	SSCW802608N
26	Screw, P Tight Bind HD +	D3X20 NI	SSCW803020N
27	Screw, Taptight Bind HD +	M3X6 NI	SSCW343006N
28	Himelon		RBLD451794Z
29	Shield Case	ABS	GSDC342754Z
30	Screw, P Tight Bind HD +	D2X8 NI	SSCW802008N
31	Cushion		RCUN431991Z
32	Rubber Spacer	EPDM	LWSR445353Z
	Hardware Kit (Ref. No. 23 -27, 30)		HDWRKB307ZL

ELECTRICAL PARTS LIST

MAIN PCB ASSEMBLY

Ref. No.	Description	RS Part No.	Mfr's Part No.
B1	Assembly, MAIN PCB Consists of the following:		AB307ZLBA
Capacitors			
Notes: All ceramic capacitors are Multilayer (1608) Tape type, unless otherwise specified. The following codes indicate variations of capacitors against temperature: B=±10%, CH=0±60 ppm/°C, CJ=0±120 ppm/°C, CK=0±250 ppm/°C, UJ=-750 ppm/°C±120 ppm/°C, RH=-220 ppm/°C±60 ppm/°C			
C1	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C2	Ceramic	15 pF 50 V ±5 % CH	BCMM811504Z
C3	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C4	Ceramic	3 pF 50 V ±0.25 pF CJ	BCMT813091Z
C5	Ceramic	2 pF 50 V ±0.25 pF CK	BCMS812091Z
C6	Ceramic	3 pF 50 V ±0.25 pF CJ	BCMT813091Z
C7	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C8	Ceramic	0.01 μF 50 V ±10 % B	BCML811035Z
C9	Ceramic	0.01 μF 50 V ±10 % B	BCML811035Z
C10	Electrolytic	2200 μF 25 V ±20 % C-130	BCAP512226Z
	or	2200 μF 25 V ±20 % C-156	BCAZ512226Z
C11	Ceramic (2125)	0.001 μF 50 V ±10 % B	BCXT811025Z
C12	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C13	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C14	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C15	Ceramic	0.01 μF 50 V ±10 % B	BCML811035Z
C16	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C17	Ceramic (2125)	0.0012 μF 50 V ±10 % B	BCXT811225Z
C18	Ceramic (2125)	0.0082 μF 50 V ±10 % B	BCXT818225Z
C19	Ceramic (2125)	0.0015 μF 50 V ±10 % B	BCXT811525Z
C20	Ceramic (2125)	0.047 μF 50 V ±10 % B	BCXT814735Z
C21	Ceramic (2125)	0.0018 μF 50 V ±10 % B	BCXT811825Z
C22	Electrolytic	47 μF 25 V ±20 % C-130	BCAP514706Z
	or	47 μF 25 V ±20 % C-156	BCAZ514706Z
	or	47 μF 25 V ±20 % C-290	BCDS514706Z
C23	Electrolytic	100 μF 25 V ±20 % C-130	BCAP511016Z
	or	100 μF 25 V ±20 % C-156	BCAZ511016Z
	or	100 μF 25 V ±20 % C-290	BCDS511016Z
C24	Ceramic (2125)	0.001 μF 50 V ±10 % B	BCXT811025Z
C25	Ceramic	82 pF 50 V ±5 % CH	BCMM818204Z
C26	Ceramic	10 pF 50 V ±0.5 pF CH	BCMM811002Z
C27	Ceramic	3 pF 50 V ±0.25 pF CJ	BCMT813091Z
C28	Ceramic	27 pF 50 V ±5 % CH	BCMM812704Z
C29	Ceramic	4 pF 50 V ±0.25 pF CH	BCMM814091Z
C30	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C31	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C32	Ceramic	56 pF 50 V ±5 % CH	BCMM815604Z
C33	Ceramic (2125)	0.001 μF 50 V ±10 % B	BCXT811025Z
C34	Electrolytic	2.2 μF 50 V ±20 % C-130	BCAP812296Z
	or	2.2 μF 50 V ±20 % C-156	BCAZ812296Z
	or	2.2 μF 50 V ±20 % C-290	BCDS812296Z
C35	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C36	Ceramic	0.001 μF 50 V ±10 % B	BCML811025Z
C37	Ceramic (2125)	0.1 μF 25 V ±10 % B	BCXT511045Z

Ref. No.	Description	RS Part No.	Mfr's Part No.
C38	Ceramic 3 pF 50 V ±0.25 pF CJ		BCMT813091Z
C39	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C40	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C41	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C42	Ceramic (2125) 0.1 μF 25 V ±10 % B		BCXT511045Z
C43	Ceramic (2125) 0.1 μF 25 V ±10 % B		BCXT511045Z
C44	Ceramic (2125) 0.1 μF 25 V ±10 % B		BCXT511045Z
C45	Ceramic (2125) 0.1 μF 25 V ±10 % B		BCXT511045Z
C46	Ceramic 3 pF 50 V ±0.25 pF CJ		BCMT813091Z
C47	Electrolytic 1000 μF 25 V ±20 % C-130 or 1000 μF 25 V ±20 % C-156		BCAP511026Z BCAZ511026Z
C48	Ceramic (2125) 0.1 μF 25 V ±10 % B		BCXT511045Z
C49	Ceramic (3216) 0.22 μF 16 V ±10 % R		BCBZ312245Z
C50	Ceramic (2125) 0.001 μF 50 V ±10 % B		BCXT811025Z
C51	Ceramic 150 pF 50 V ±5 % CH		BCMM811514Z
C52	Ceramic 39 pF 50 V ±5 % CH		BCMM813904Z
C53	Ceramic 7 pF 50 V ±0.5 pF CH		BCMM817092Z
C54	Ceramic 6 pF 50 V ±0.5 pF CH		BCMM816092Z
C55	Ceramic 82 pF 50 V ±5 % CH		BCMM818204Z
C56	Ceramic 1.5 pF 50 V ±0.25 pF CK		BCMS811591Z
C57	Ceramic 9 pF 50 V ±0.5 pF CH		BCMM819092Z
C58	Ceramic 15 pF 50 V ±5 % CH		BCMM811504Z
C59	Ceramic 39 pF 50 V ±5 % UJ		BCMP813904Z
C60	Ceramic 6 pF 50 V ±0.5 pF UJ		BCMP816092Z
C61	Ceramic 6 pF 50 V ±0.5 pF UJ		BCMP816092Z
C62	Electrolytic 47 μF 6.3 V ±20 % C-274 or 47 μF 6.3 V ±20 % C-258		BCZN904706Z BCFZ904706Z
C63	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C64	Ceramic 3 pF 50 V ±0.25 pF CJ		BCMT813091Z
C65	Tantalum Chip Tape 10 μF 6.3 V ±20 % C-122 or 10 μF 7 V ±20 % A C-241		BCSH901006Z BCSS951006Z
C66	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C67	Ceramic (2125) 100 pF 50 V ±5 % CH		BCBH811014Z
C68	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C69	Ceramic (2125) 0.001 μF 50 V ±10 % B		BCXT811025Z
C70	Ceramic 12 pF 50 V ±5 % RH		BCMN811204Z
C71	Ceramic 12 pF 50 V ±5 % CH		BCMM811204Z
C72	Ceramic 7 pF 50 V ±0.5 pF CH		BCMM817092Z
C73	Ceramic 7 pF 50 V ±0.5 pF CH		BCMM817092Z
C74	Electrolytic 47 μF 6.3 V ±20 % C-274 or or 47 μF 6.3 V ±20 % C-258		BCZN904706Z BCFZ904706Z
C75	Ceramic 10 pF 50 V ±0.5 pF CH		BCMM811002Z
C76	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C77	Ceramic (2125) 0.001 μF 50 V ±10 % B		BCXT811025Z
C78	Ceramic (2125) 0.022 μF 50 V ±10 % B		BCXT812235Z
C79	Ceramic (2125) 0.047 μF 50 V ±10 % B		BCXT814735Z
C80	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C81	Ceramic (2125) 0.01 μF 50 V ±10 % B		BCXT811035Z
C82	Ceramic (2125) 0.1 μF 25 V ±10 % B		BCXT511045Z
C83	Electrolytic 100 μF 10 V ±20 % C-130 or or 100 μF 10 V ±20 % C-156 or or 100 μF 10 V ±20 % C-290		BCAP111016Z BCAZ111016Z BCDS111016Z
C84	Ceramic (2125) 0.001 μF 50 V ±10 % B		BCXT811025Z

Ref. No.	Description	RS Part No.	Mfr's Part No.
C85	Ceramic 150 pF 50 V ±5 % CH		BCMM811514Z
C86	Ceramic 470 pF 50 V ±5 % CH		BCMM814714Z
C87	Ceramic 47 pF 50 V ±5 % CH		BCMM814704Z
C88	Ceramic 47 pF 50 V ±5 % CH		BCMM814704Z
C89	Ceramic 82 pF 50 V ±5 % CH		BCMM818204Z
C90	Ceramic 470 pF 50 V ±5 % CH		BCMM814714Z
C91	Ceramic 8 pF 50 V ±0.5 pF RH		BCMN818092Z
C92	Ceramic 4 pF 50 V ±0.25 pF RH		BCMN814091Z
C93	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C94	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C95	Ceramic 3 pF 50 V ±0.25 pF CJ		BCMT813091Z
C96	Ceramic 5 pF 50 V ±0.25 pF CH		BCMM815091Z
C97	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C98	Ceramic 220 pF 50 V ±5 % CH		BCMM812214Z
C99	Mylar* Chip 0.0047 μF 16 V ±5 % C-264		BCTG314724Z
C100	Mylar* Chip 0.1 μF 16 V ±5 % C-264		BCTG311044Z
C101	Mylar* Chip 0.0047 μF 16 V ±5 % C-264		BCTG314724Z
C102	Tantalum Chip 4.7 μF 10 V ±20 % C-122 TAPE		BCSH114796Z
	or Tantalum Chip Tape 4.7 μF 10 V ±20 % A C-241		BCSS114796Z
C103	Ceramic (2125) 0.001 μF 50 V ±10 % B		BCXT811025Z
C104	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C105	Ceramic 3 pF 50 V ±0.25 pF CJ		BCMT813091Z
C106	Electrolytic 22 μF 50 V ±20 % C-130		BCAP812206Z
	or 22 μF 50 V ±20 % C-156		BCAZ812206Z
	or 22 μF 50 V ±20 % C-290		BCDS812206Z
C107	Electrolytic 4.7 μF 50 V ±20 % C-130		BCAP814796Z
	or 4.7 μF 50 V ±20 % C-156		BCAZ814796Z
	or 4.7 μF 50 V ±20 % C-290		BCDS814796Z
C108	Ceramic (2125) 0.1 μF 25 V ±10 % B		BCXT511045Z
C109	Tantalum Chip 0.22 μF 35 V ±20 % C-122 TAPE		BCSH662286Z
C110	Electrolytic 4.7 μF 50 V ±20 % C-130		BCAP814796Z
	or 4.7 μF 50 V ±20 % C-156		BCAZ814796Z
	or 4.7 μF 50 V ±20 % C-290		BCDS814796Z
C111	Tantalum Chip Tape 1 μF 25 V ±20 % A C-228		BCPT511096Z
C112	Ceramic (2125) 0.001 μF 50 V ±10 % B		BCXT811025Z
C113	Ceramic 82 pF 50 V ±5 % CH		BCMM818204Z
C114	Ceramic 100 pF 50 V ±5 % CH		BCMM811014Z
C115	Ceramic (2125) 0.001 μF 50 V ±10 % B		BCXT811025Z
C116	Ceramic 0.5 pF 50 V ±0.1 pF CH		BCMM815088Z
C117	Ceramic 2 pF 50 V ±0.25 pF RK		BCMH812091Z
C118	Ceramic 2 pF 50 V ±0.25 pF RK		BCMH812091Z
C119	Mylar* Chip 0.0047 μF 50 V ±5 % C-264		BCTG814724Z
C120	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C121	Mylar* Chip 0.1 μF 50 V ±5 % C-264		BCTG811044Z
C122	Ceramic 22 pF 50 V ±5 % CH		BCMM812204Z
C123	Ceramic 33 pF 50 V ±5 % CH		BCMM813304Z
C124	Ceramic 3 pF 50 V ±0.25 pF CJ		BCMT813091Z
C125	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C126	Ceramic 470 pF 50 V ±5 % CH		BCMM814714Z
C127	Ceramic 47 pF 50 V ±5 % CH		BCMM814704Z
C128	Ceramic 0.001 μF 50 V ±10 % B		BCML811025Z
C129	Ceramic (2125) 22 pF 50 V ±5 % CH		BCBH812204Z

* Mylar is a registered trademark of E. I. DuPont de Nemours and Company.

Ref. No.	Description	RS Part No.	Mfr's Part No.	
C130	Electrolytic	100 μ F 10 V \pm 20 %	C-130	BCAP111016Z
	or	100 μ F 10 V \pm 20 %	C-156	BCAZ111016Z
	or	100 μ F 10 V \pm 20 %	C-290	BCDS111016Z
C131	Ceramic (2125)	1 μ F 10 V \pm 10 %	B	BCXT111055Z
C132	Ceramic (2125)	0.047 μ F 50 V \pm 10 %	B	BCXT814735Z
C133	Mylar* Chip	0.0047 μ F 50 V \pm 5 %	C-264	BCTG814724Z
C134	Ceramic	100 pF 50 V \pm 5 %	CH	BCMM811014Z
C135	Ceramic (2125)	0.027 μ F 50 V \pm 10 %	B	BCXT812735Z
C136	Tantalum Chip	4.7 μ F 10 V \pm 20 %	C-122 TAPE	BCSH114796Z
	or Tantalum Chip Tape	4.7 μ F 10 V \pm 20 %	A C-241	BCSS114796Z
C137	Ceramic (2125)	0.047 μ F 50 V \pm 10 %	B	BCXT814735Z
C138	Ceramic	0.0027 μ F 50 V \pm 10 %	B	BCML812725Z
C139	Electrolytic	10 μ F 35 V \pm 20 %	C-274	BCZN661006Z
	or	10 μ F 35 V \pm 20 %	C-258	BCFZ661006Z
C140	Ceramic	15 pF 50 V \pm 5 %	CH	BCMM811504Z
C141	Ceramic	0.01 μ F 50 V \pm 10 %	B	BCML811035Z
C142	Ceramic	0.01 μ F 50 V \pm 10 %	B	BCML811035Z
C143	Ceramic (2125)	0.056 μ F 25 V \pm 10 %	B	BCXT515635Z
C144	Ceramic (2125)	0.0027 μ F 50 V \pm 10 %	B	BCXT812725Z
C145	Ceramic (2125)	680 pF 50 V \pm 5 %	CH	BCBH816814Z
C146	Ceramic (2125)	0.056 μ F 25 V \pm 10 %	B	BCXT515635Z
C147	Ceramic (2125)	0.0027 μ F 50 V \pm 10 %	B	BCXT812725Z
C148	Ceramic (2125)	390 pF 50 V \pm 5 %	CH	BCBH813914Z
C149	Ceramic (2125)	0.001 μ F 50 V \pm 10 %	B	BCXT811025Z
C150	Ceramic (2125)	0.1 μ F 25 V \pm 10 %	B	BCXT511045Z
C151	Electrolytic	22 μ F 50 V \pm 20 %	C-130	BCAP812206Z
	or	22 μ F 50 V \pm 20 %	C-156	BCAZ812206Z
	or	22 μ F 50 V \pm 20 %	C-290	BCDS812206Z
C152	Ceramic (2125)	0.1 μ F 25 V \pm 10 %	B	BCXT511045Z
C153	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C154	Ceramic (2125)	680 pF 50 V \pm 5 %	CH	BCBH816814Z
C155	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C156	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C157	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C158	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C159	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C160	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C161	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C162	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C163	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C164	Ceramic (2125)	100 pF 50 V \pm 5 %	CH	BCBH811014Z
C165	Ceramic	0.001 μ F 50 V \pm 10 %	B	BCML811025Z
C166	Ceramic	0.001 μ F 50 V \pm 10 %	B	BCML811025Z
C167	Ceramic	100 pF 50 V \pm 5 %	CH	BCMM811014Z
C168	Ceramic	12 pF 50 V \pm 5 %	CH	BCMM811204Z
C169	Ceramic	5 pF 50 V \pm 0.25 pF	CH	BCMM815091Z
C170	Ceramic	47 pF 50 V \pm 5 %	CH	BCMM814704Z
C171	Ceramic	1.5 pF 50 V \pm 0.25 pF	CK	BCMS811591Z
C172	Ceramic	5 pF 50 V \pm 0.25 pF	CH	BCMM815091Z
C173	Ceramic (2125)	0.001 μ F 50 V \pm 10 %	B	BCXT811025Z
C174	Ceramic	5 pF 50 V \pm 0.25 pF	CH	BCMM815091Z
C175	Ceramic	0.001 μ F 50 V \pm 10 %	B	BCML811025Z
C176	Ceramic (2125)	0.001 μ F 50 V \pm 10 %	B	BCXT811025Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
C177	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z
C178	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z
C179	Ceramic (2125)	0.0027 μ F	50 V	± 10 %	B		BCXT812725Z
C180	Ceramic	100 pF	50 V	± 5 %	CH		BCMM811014Z
C181	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z
C182	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z
C183	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z
C184	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z
C185	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z
C186	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z
C187	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z
C188	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z
C189	Ceramic	10 pF	50 V	± 0.5 pF	CH		BCMM811002Z
C190	Electrolytic	4.7 μ F	50 V	± 20 %	C-130		BCAP814796Z
	or	4.7 μ F	50 V	± 20 %	C-156		BCAZ814796Z
	or	4.7 μ F	50 V	± 20 %	C-290		BCDS814796Z
C191	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z
C192	Ceramic	7 pF	50 V	± 0.5 pF	CH		BCMM817092Z
C193	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z
C194	Ceramic (2125)	0.015 μ F	50 V	± 10 %	B		BCXT811535Z
C195	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C196	Electrolytic	22 μ F	50 V	± 20 %	C-130		BCAP812206Z
	or	22 μ F	50 V	± 20 %	C-156		BCAZ812206Z
	or	22 μ F	50 V	± 20 %	C-290		BCDS812206Z
C197	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C198	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C199	Ceramic (2125)	0.022 μ F	50 V	± 10 %	B		BCXT812235Z
C200	Ceramic	56 pF	50 V	± 5 %	CH		BCMM815604Z
C201	Tantalum Chip Tape	4.7 μ F	16 V	± 20 %	A C-284		BCKT314796Z
C202	Tantalum Chip Tape	4.7 μ F	16 V	± 20 %	A C-284		BCKT314796Z
C203	Ceramic	100 pF	50 V	± 5 %	CH		BCMM811014Z
C204	Tantalum Chip Tape	10 μ F	6.3 V	± 20 %	C-122		BCSH901006Z
	or	10 μ F	7 V	± 20 %	A C-241		BCSS951006Z
C205	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C206	Ceramic	0.033 μ F	16 V	± 10 %	B		BCML313335Z
C207	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C208	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z
C209	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C210	Ceramic	0.01 μ F	50 V	± 10 %	B		BCML811035Z
C211	Ceramic	22 pF	50 V	± 5 %	CH		BCMM812204Z
C212	Ceramic	22 pF	50 V	± 5 %	CH		BCMM812204Z
C213	Tantalum Chip Tape	4.7 μ F	16 V	± 20 %	A C-284		BCKT314796Z
C214	Tantalum Chip Tape	4.7 μ F	16 V	± 20 %	A C-284		BCKT314796Z
C215	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C216	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C217	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C218	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z
C219	Tantalum Chip Tape	4.7 μ F	16 V	± 20 %	A C-284		BCKT314796Z
C220	Tantalum Chip Tape	4.7 μ F	16 V	± 20 %	A C-284		BCKT314796Z
C221	Not Used						
C222	Ceramic	0.033 μ F	16 V	± 10 %	B		BCML313335Z
C223	Ceramic	22 pF	50 V	± 5 %	CH		BCMM812204Z
C224	Ceramic (2125)	22 pF	50 V	± 5 %	CH		BCBH812204Z

Ref. No.	Description						RS Part No.	Mfr's Part No.
C225	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C226	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z	
C227	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C228	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C229	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z	
C230	Ceramic	4 pF	50 V	± 0.25 pF	CH		BCMM814091Z	
C231	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z	
C232	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z	
C233	Ceramic	33 pF	50 V	± 5 %	CH		BCMM813304Z	
C234	Ceramic	180 pF	50 V	± 5 %	CH		BCMM811814Z	
C235	Ceramic	15 pF	50 V	± 5 %	CH		BCMM811504Z	
C236	Ceramic	15 pF	50 V	± 5 %	CH		BCMM811504Z	
C237	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z	
C238	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z	
C239	Ceramic (2125)	0.0012 μ F	50 V	± 10 %	B		BCXT811225Z	
C240	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z	
C241	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z	
C242	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z	
C243	Ceramic (2125)	390 pF	50V	± 5 %	CH		BCBH813914Z	
C244	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C245~249	Not Used							
C250	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C251	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C252	Ceramic	2 pF	50 V	± 0.25 pF	RK		BCMH812091Z	
C253	Ceramic	18 pF	50 V	± 5 %	RH		BCMN811804Z	
C254	Ceramic	4 pF	50 V	± 0.25 pF	RH		BCMN814091Z	
C255	Ceramic	4 pF	50 V	± 0.25 pF	RH		BCMN814091Z	
C256	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z	
C257	Ceramic	3 pF	50 V	± 0.25 pF	CJ		BCMT813091Z	
C258	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C259	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z	
C260	Ceramic	68 pF	50 V	± 5 %	RH		BCMN816804Z	
C261	Ceramic	68 pF	50 V	± 5 %	CH		BCMM816804Z	
C262	Ceramic	15 pF	50 V	± 5 %	CH		BCMM811504Z	
C263	Ceramic	15 pF	50 V	± 5 %	CH		BCMM811504Z	
C264	Ceramic	10 pF	50 V	± 0.5 pF	CH		BCMM811002Z	
C265	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C266	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z	
C267	Ceramic (2125)	100 pF	50 V	± 5 %	CH		BCBH811014Z	
C268	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C269	Ceramic (2125)	0.001 μ F	50 V	± 10 %	B		BCXT811025Z	
C270~274	Not Used							
C275	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z	
C276~278	Not Used							
C279	Ceramic (2125)	0.0082 μ F	50 V	± 10 %	B		BCXT818225Z	
C280	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z	
C281	Ceramic (2125)	0.015 μ F	50 V	± 10 %	B		BCXT811535Z	
C282	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z	
C283	Ceramic (2125)	0.01 μ F	50 V	± 10 %	B		BCXT811035Z	
C284	Ceramic (2125)	0.0022 μ F	50 V	± 5 %	CH		BCBH812224Z	
C285	Ceramic	100 pF	50 V	± 5 %	CH		BCMM811014Z	
C286~289	Not Used							
C290	Ceramic	0.015 μ F	50 V	± 10 %	B		BCML811535Z	

Ref. No.	Description					RS Part No.	Mfr's Part No.
C291	Ceramic	0.015 μ F	50 V	± 10 %	B		BCML811535Z
C292	Ceramic	0.01 μ F	50 V	± 10 %	B		BCML811035Z
C293	Tantalum Chip Tape	1 μ F	25 V	± 20 %	A C-228		BCPT511096Z
C294	Not Used						
C295	Ceramic	27 pF	50 V	± 5 %	CH		BCMM812704Z
C296	Ceramic (2125)	0.1 μ F	25 V	± 10 %	B		BCXT511045Z
C297,298	Not Used						
C299	Ceramic	0.001 μ F	50 V	± 10 %	B		BCML811025Z
CT1	Trimmer	CT-090	ECR-LA030E52	30PF			BCTY0090300

Diodes

D1		DA-1041	1SS390	TE61		BDAY1041001
D2		DA-1041	1SS390	TE61		BDAY1041001
D3		DA-1041	1SS390	TE61		BDAY1041001
D4		DA-1041	1SS390	TE61		BDAY1041001
D5		DA-1041	1SS390	TE61		BDAY1041001
D6		DA-1041	1SS390	TE61		BDAY1041001
D7			1SS355	TE-17		BDAY0807001
D8			1SS355	TE-17		BDAY0807001
D9		DA-1041	1SS390	TE61		BDAY1041001
D10		DA-1041	1SS390	TE61		BDAY1041001
D11		DA-1041	1SS390	TE61		BDAY1041001
D12		DA-1041	1SS390	TE61		BDAY1041001
D13		DA-1041	1SS390	TE61		BDAY1041001
D14		DA-1041	1SS390	TE61		BDAY1041001
D15		DA-1041	1SS390	TE61		BDAY1041001
D16		DA-1041	1SS390	TE61		BDAY1041001
D17	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D18		DA-1041	1SS390	TE61		BDAY1041001
D19		DA-1041	1SS390	TE61		BDAY1041001
D20	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D21			1N4003			BDAY0133001
D22	Vari Cap		1SV269	(TPH3)		BDAY1055001
D23	Vari Cap		HVU308-1	TRF		BDAY0674001
D24		DA-1041	1SS390	TE61		BDAY1041001
D25		DA-1041	1SS390	TE61		BDAY1041001
D26	Vari Cap		1SV269	(TPH3)		BDAY1055001
D27	Vari Cap		HVU308-1	TRF		BDAY0674001
D28		DA-1041	1SS390	TE61		BDAY1041001
D29		DA-1041	1SS390	TE61		BDAY1041001
D30		DA-1041	1SS390	TE61		BDAY1041001
D31		DA-1041	1SS390	TE61		BDAY1041001
D32		DA-1041	1SS390	TE61		BDAY1041001
D33		DA-1041	1SS390	TE61		BDAY1041001
D34		DA-1041	1SS390	TE61		BDAY1041001
D35	Vari Cap		1SV269	(TPH3)		BDAY1055001
D36			1SS226	TE85L		BDAY0274001
D37			1SS355	TE-17		BDAY0807001
D38			1SS355	TE-17		BDAY0807001
D39		DA-1041	1SS390	TE61		BDAY1041001
D40			1SS355	TE-17		BDAY0807001
D41			1SS355	TE-17		BDAY0807001

Ref. No.	Description				RS Part No.	Mfr's Part No.
D42			1SS355	TE-17		BDAY0807001
D43			1SS184	TE85L		BDAY0256001
D44	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D45			1SS355	TE-17		BDAY0807001
D46		DA-1041	1SS390	TE61		BDAY1041001
D47	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D48	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D49		DA-1041	1SS390	TE61		BDAY1041001
D50	Zener or	DA-916	UDZS5.6B UDZ5.6B	TE-17 TE-17		BDAY1082013 BDAY0916013
D51			1SS355	TE-17		BDAY0807001
D52,53	Not Used					
D54			1SS355	TE-17		BDAY0807001
D55			1SS355	TE-17		BDAY0807001
D56	Zener or	DA-916	UDZS5.6B UDZ5.6B	TE-17 TE-17		BDAY1082013 BDAY0916013
D57	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D58			1SS355	TE-17		BDAY0807001
D59-202	Not Used					
D203			1SS355	TE-17		BDAY0807001
D204			1SS355	TE-17		BDAY0807001
D205	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D206	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D207	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D208	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D209	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D210	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D211	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D212	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D213	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D214	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D215	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D216	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D217	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
D218	Zener	DA-916	UDZ16B	TE-17		BDAY0916011
Filters						
FT1	SAW	FL-876	SAF380MA10T			BFLY0876001
FT2	Crystal	FL-842	UMF-7078A			BFLY0842001
FT3	Ceramic	FL-739	SFPC450D-TC			BFLY0739001
FT4	Ceramic	FL-969	FFE1070NA11UXL			BFLY0969001
FT5	Ceramic	FL-969	FFE1070NA11UXL			BFLY0969001
FT6	SAW	FL-875	SAF254MA10T			BFLY0875001
ICs						
IC1			UPC8112T-E3			BDEY2885003
IC2			MC3361CDR2			BDEY2768003
IC3			TBA820M			BDEY0659001
IC4			LA1600A			BDEY1000001
IC5			TK11238AM-TL			BDEY2756003

Ref. No.	Description		RS Part No.	Mfr's Part No.
IC6		MB15U36PFV-G-BND-ER		BDEY3642003
IC7		TK11806M		BDEY0999001
IC8		NJM3403AM(TE1)		BDEY3104003
IC9		NJM3403AM(TE1)		BDEY3104003
IC10		LA1822		BDEY3855001
IC11		TC4066BF(EL)		BDEY1180003
IC12		NJM78L05A		BDEY0088001
IC13		NJM2904M (TE3)		BDEY0703002
IC14		LMC567CMX TAPE		BDEY2734003
IC15		FX589D5 TR		BDEY3902003
IC16		SM8222BS-E2		BDEY3917003
IC17,18	Not Used			
IC19		BU2092FV-E2		BDEY3875003
IC20		UPD4722GS-GJG-E1		BDEY3878003
IC21~200	Not Used			
IC201		M30624FGLGPD5		BDEY3880001
IC202		UPD7225GB-3B7		BDEY1529001
IC203	Not Used			
IC204		RH5VL27CA-T1		BDEY2917003
IC205		24LC64T-I/SN		BDEY3877003
IC206		TK11231BMCL		BDEY3801003
Jacks				
J1	Speaker	JK-424 HSJ0836-01-500		BJKY0424001
J2	DC	JK-1171 DJ32-2		BJKY1171001
J3		JK-276 5267-02A		BJKY0276002
J4		JK-276 5267-11A		BJKY0276011
J5		JK-276 5267-11A		BJKY0276011
J6		JK-975 1210-062-09S-AA 9P		BJKY0975009
Coils				
L1	Inductor Molded Chip	LZ188	ELJRE2N2DF2 0.0022 μ	BLZY0188226
L2	Inductor Molded Chip	LZ188	ELJRE4N7JF2 0.0047 μ	BLZY0188476
L3	Inductor Molded Chip	LZ188	ELJRE4N7JF2 0.0047 μ	BLZY0188476
L4	Inductor Molded Chip	LZ-188	ELJRE27NJF2 0.027 μ	BLZY0188277
L5	Inductor Molded Chip	LZ-188	ELJRE12NJF2 0.012 μ	BLZY0188127
L6	Inductor Molded Chip	LZ-188	ELJRE47NJF2 0.047 μ	BLZY0188477
L7	Inductor Molded Chip	LZ188	ELJRE8N2JF2 0.0082 μ	BLZY0188826
L8	Inductor Molded Chip	LZ188	ELJRE1N8DF2 0.0018 μ	BLZY0188186
L9	Inductor Molded Chip	LZ-188	ELJRE39NJF2 0.039 μ	BLZY0188397
L10	Inductor Molded Chip	LZ-188	ELJRE56NJF3 0.056 μ	BLZY0188567
L11	Inductor Molded Chip	LZ-087	10 μ H J TAPE	BLZY0087100
L12		LF-271	614AG-0246GW=P3	BLFY0271001
L13	Inductor Molded Chip	LZ-188	ELJRE33NJF2 0.033 μ	BLZY0188337
L14	Inductor Molded Chip	LZ-199	ELJNDR15JF 0.15 μ H	BLZY0199158
L15	Inductor Molded Chip	LZ-199	ELJNDR27JF 0.27 μ H	BLZY0199278
L16	Inductor Molded Chip	LZ-188	ELJRE12NJF2 0.012 μ	BLZY0188127
L17	Inductor Molded Chip	LZ-199	ELJNDR15JF 0.15 μ H	BLZY0199158
L18	Inductor Molded Chip	LZ-199	ELJNDR15JF 0.15 μ H	BLZY0199158
L19	Inductor Molded Chip	LZ-199	ELJND12NJF 0.012 μ H	BLZY0199127

Ref. No.	Description			RS Part No.	Mfr's Part No.
L20	Inductor Molded Chip	LZ-199	ELJND10NJF 0.01 μ H		BLZY0199107
L21	Inductor Molded Chip	LZ-188	ELJRE39NJF2 0.039 μ		BLZY0188397
L22	Inductor Molded Chip	LZ-199	ELJNDR33JF 0.33 μ H		BLZY0199338
L23	Inductor Molded Chip	LZ-188	ELJRE22NJF2 0.022 μ		BLZY0188227
L24	Inductor Molded Chip	LZ-199	ELJND10NJF 0.01 μ H		BLZY0199107
L25	Inductor Molded	LZ-077	395AN-0054Z 1.2 MH		BLZY0077122
L26	Inductor Molded Chip	LZ-199	ELJNDR15JF 0.15 μ H		BLZY0199158
L27	Inductor Molded Chip	LZ-199	ELJNDR15JF 0.15 μ H		BLZY0199158
L28	Inductor Molded Chip	LZ-188	ELJRE10NJF2 0.01 μ H		BLZY0188107
L29	Inductor Molded Chip	LZ-188	ELJRE18NJF2 0.018 μ		BLZY0188187
L30	Inductor Molded Chip	LZ188	ELJRE2N7DF2 0.0027 μ		BLZY0188276
L31	Inductor Molded Chip	LZ-188	ELJRE27NJF2 0.027 μ		BLZY0188277
L32	Inductor Molded Chip	LZ-188	ELJRE82NJF3 0.082 μ		BLZY0188827
L33	Inductor Molded Chip	LZ-188	ELJRE12NJF2 0.012 μ		BLZY0188127
L34	Inductor Molded Chip	LZ-188	ELJRE82NJF3 0.082 μ		BLZY0188827
L35	Inductor Molded Chip	LZ-199	ELJND10NJF 0.01 μ H		BLZY0199107
L36	Inductor Molded Chip	LZ-199	ELJND12NJF 0.012 μ H		BLZY0199127
L37	Inductor Molded Chip	LZ-188	ELJRE22NJF2 0.022 μ		BLZY0188227
L38	Inductor Molded Chip	LZ188	ELJRE6N8JF2 0.0068 μ		BLZY0188686

Transistors

Q1		DB-036	2SA1162-Y	TE85L	BDBA1162124
Q2		DB-848	2SC5065-Y	(TE85R)	BDBC5065124
Q3		DB-848	2SC5065-Y	(TE85R)	BDBC5065124
Q4		DB-724	2SC3121	TE85L	BDBC3121000
Q5		DB-440	2SD1683-S		BDBD1683118
Q6		DB-711	2SC3356-R24	T1B	BDBC3356646
Q7		DB-711	2SC3356-R24	T1B	BDBC3356646
Q8		DB-711	2SC3356-R24	T1B	BDBC3356646
Q9		DB-711	2SC3356-R24	T1B	BDBC3356646
Q10		DB-711	2SC3356-R24	T1B	BDBC3356646
Q11		DB-711	2SC3356-R24	T1B	BDBC3356646
Q12		DB-711	2SC3356-R24	T1B	BDBC3356646
Q13		DB-711	2SC3356-R24	T1B	BDBC3356646
Q14		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q15		DB-036	2SA1162-Y	TE85L	BDBA1162124
Q16		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q17		DB-711	2SC3356-R24	T1B	BDBC3356646
Q18		DB-718	2SC2714-Y	TE85L	BDBC2714124
Q19		DB-036	2SA1162-Y	TE85L	BDBA1162124
Q20		DB-036	2SA1162-Y	TE85L	BDBA1162124
Q21		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q22		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q23		DB-1004	MMBT6428LT1		BDBZ1004001
Q24	Field Effect Transistor	DC-052	2SK209-GR		BDCB0209303
Q25		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q26		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q27		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q28		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q29		DB-381	2SC2712-Y	TE85L	BDBC2712124
Q30		DB-036	2SA1162-Y	TE85L	BDBA1162124

Ref. No.	Description	RS Part No.	Mfr's Part No.
Q31	DB-036 2SA1162-Y TE85L		BDBA1162124
Q32~34	Not Used		
Q35	DB-036 2SA1162-Y TE85L		BDBA1162124
Q36~201	Not Used		
Q202	DB-381 2SC2712-Y TE85L		BDBC2712124
Q203	DB-381 2SC2712-Y TE85L		BDBC2712124

Resistors

R1	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R2	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R3	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R4	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R5	Carbon Fixed Chip 4.7 kohm 1/10 W ±5 %		BRFC014724Z
R6	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R7	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R8	Carbon Fixed Chip 100 kohm 1/10 W ±5 %		BRFC011044Z
R9	Carbon Fixed Chip 100 ohm 1/10 W ±5 %		BRFC011014Z
R10	Carbon Fixed Chip 68 kohm 1/16 W ±5 %		BRFC166834Z
R11	Carbon Fixed Chip 15 kohm 1/16 W ±5 %		BRFC161534Z
R12	Carbon Fixed Chip 470 ohm 1/16 W ±5 %		BRFC164714Z
R13	Carbon Fixed Chip 15 ohm 1/16 W ±5 %		BRFC161504Z
R14	Carbon Fixed Chip 100 ohm 1/10 W ±5 %		BRFC011014Z
R15	Carbon Fixed Chip 68 kohm 1/16 W ±5 %		BRFC166834Z
R16	Carbon Fixed Chip 15 kohm 1/16 W ±5 %		BRFC161534Z
R17	Carbon Fixed Chip 1.2 kohm 1/16 W ±5 %		BRFC161224Z
R18	Carbon Fixed Chip 100 ohm 1/16 W ±5 %		BRFC161014Z
R19	Carbon Fixed Chip 82 ohm 1/16 W ±5 %		BRFC168204Z
R20	Carbon Fixed Chip 47 kohm 1/10 W ±5 %		BRFC014734Z
R21	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R22	Carbon Fixed Chip 100 ohm 1/16 W ±5 %		BRFC161014Z
R23	Carbon Fixed Chip 33 kohm 1/10 W ±5 %		BRFC013334Z
R24	Carbon Fixed Chip 470 kohm 1/10 W ±5 %		BRFC014744Z
R25	Carbon Fixed Chip 2.2 kohm 1/10W ±5 %		BRFC012224Z
R26	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R27	Carbon Fixed Chip 150 kohm 1/10 W ±5 %		BRFC011544Z
R28	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R29	Carbon Fixed Chip 1.2 kohm 1/10 W ±5 %		BRFC011224Z
R30	Carbon Fixed Chip 1 kohm 1/10 W ±5 %		BRFC011024Z
R31	Carbon Fixed Chip 33 kohm 1/10 W ±5 %		BRFC013334Z
R32	Carbon Fixed Chip 100 kohm 1/10 W ±5 %		BRFC011044Z
R33	Carbon Fixed Chip 680 kohm 1/16 W ±5 %		BRFC166844Z
R34	Carbon Fixed Chip 47 ohm 1/2 W ±5 %		BRFC124704Z
R35	Carbon Fixed Chip 47 kohm 1/10 W ±5 %		BRFC014734Z
R36	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R37	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R38	Carbon Fixed Chip 470 ohm 1/16 W ±5 %		BRFC164714Z
R39	Carbon Fixed Chip 330 ohm 1/16 W ±5 %		BRFC163314Z
R40	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R41	Carbon Fixed Chip 27 ohm 1/16 W ±5 %		BRFC162704Z
R42	Carbon Fixed Chip 1 Mohm 1/16 W ±5 %		BRFC161054Z
R43	Carbon Fixed Chip 22 kohm 1/10 W ±5 %		BRFC012234Z

Ref. No.	Description	RS Part No.	Mfr's Part No.
R44	Carbon Fixed Chip 22 kohm 1/10 W ±5 %		BRFC012234Z
R45	Carbon Fixed Chip 1 ohm 1/10 W ±5 %		BRFC011094Z
R46	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R47	Carbon Fixed Chip 68 ohm 1/2 W ±5 %		BRFC126804Z
R48	Carbon Fixed Chip 47 kohm 1/10 W ±5 %		BRFC014734Z
R49	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R50	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R51	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R52	Carbon Fixed Chip 22 kohm 1/16 W ±5 %		BRFC162234Z
R53	Carbon Fixed Chip 470 ohm 1/16 W ±5 %		BRFC164714Z
R54	Carbon Fixed Chip 270 ohm 1/16 W ±5 %		BRFC162714Z
R55	Carbon Fixed Chip 330 ohm 1/16 W ±5 %		BRFC163314Z
R56	Carbon Fixed Chip 220 ohm 1/16 W ±5 %		BRFC162214Z
R57	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R58	Carbon Fixed Chip 680 ohm 1/10 W ±5 %		BRFC016814Z
R59	Carbon Fixed Chip 39 kohm 1/16 W ±5 %		BRFC163934Z
R60	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R61	Carbon Fixed Chip 22 ohm 1/16 W ±5 %		BRFC162204Z
R62	Carbon Fixed Chip 820 ohm 1/10 W ±5 %		BRFC018214Z
R63	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R64	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R65	Carbon Fixed Chip 270 ohm 1/10 W ±5 %		BRFC012714Z
R66	Carbon Fixed Chip 4.7 ohm 1/10 W ±5 %		BRFC014794Z
R67	Meral Oxide (Formed) 39 ohm 2 WS ±5 %	(P=15)	BRSM023904Z
R68	Carbon Fixed Chip 22 kohm 1/10 W ±5 %		BRFC012234Z
R69	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R70	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R71	Carbon Fixed Chip 1.2 kohm 1/10 W ±5 %		BRFC011224Z
R72	Carbon Fixed Chip 15 kohm 1/16 W ±5 %		BRFC161534Z
R73	Carbon Fixed Chip 330 ohm 1/16 W ±5 %		BRFC163314Z
R74	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R75	Carbon Fixed Chip 68 ohm 1/16 W ±5 %		BRFC166804Z
R76	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R77	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z
R78	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z
R79	Carbon Fixed Chip 5.6 kohm 1/16 W ±5 %		BRFC165624Z
R80	Carbon Fixed Chip 47 ohm 1/10 W ±5 %		BRFC014704Z
R81	Carbon Fixed Chip 330 ohm 1/16 W ±5 %		BRFC163314Z
R82	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R83	Carbon Fixed Chip 68 ohm 1/16 W ±5 %		BRFC166804Z
R84	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R85	Carbon Fixed Chip 8.2 kohm 1/10 W ±5 %		BRFC018224Z
R86	Carbon Fixed Chip 4.7 kohm 1/10 W ±5 %		BRFC014724Z
R87	Carbon Fixed Chip 22 kohm 1/10 W ±5 %		BRFC012234Z
R88	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R89	Carbon Fixed Chip 47 kohm 1/10 W ±5 %		BRFC014734Z
R90	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R91	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R92	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R93	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R94	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R95	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R96	Carbon Fixed Chip 270 ohm 1/16 W ±5 %		BRFC162714Z

Ref. No.	Description	RS Part No.	Mfr's Part No.
R97	Carbon Fixed Chip 470 ohm 1/10 W ±5 %		BRFC014714Z
R98	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R99	Carbon Fixed Chip 1.8 kohm 1/16 W ±5 %		BRFC161824Z
R100	Carbon Fixed Chip 2.2 kohm 1/16 W ±5 %		BRFC162224Z
R101	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z
R102	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R103	Carbon Fixed Chip 390 kohm 1/16 W ±5 %		BRFC163944Z
R104	Carbon Fixed Chip 100 ohm 1/16 W ±5 %		BRFC161014Z
R105	Carbon Fixed Chip 10 ohm 1/16 W ±5 %		BRFC161004Z
R106	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R107	Carbon Fixed Chip 470 kohm 1/16 W ±5 %		BRFC164744Z
R108	Carbon Fixed Chip 180 kohm 1/16 W ±5 %		BRFC161844Z
R109	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R110	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R111	Carbon Fixed Chip 22 kohm 1/10 W ±5 %		BRFC012234Z
R112	Carbon Fixed Chip 22 kohm 1/10 W ±5 %		BRFC012234Z
R113	Carbon Fixed Chip 120 kohm 1/16 W ±5 %		BRFC161244Z
R114	Carbon Fixed Chip 22 kohm 1/10 W ±5 %		BRFC012234Z
R115	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R116	Carbon Fixed Chip 470 ohm 1/16 W ±5 %		BRFC164714Z
R117	Carbon Fixed Chip 5.6 kohm 1/16 W ±5 %		BRFC165624Z
R118	Carbon Fixed Chip 8.2 kohm 1/16 W ±5 %		BRFC168224Z
R119	Carbon Fixed Chip 3.9 kohm 1/16 W ±5 %		BRFC163924Z
R120	Carbon Fixed Chip 33 kohm 1/16 W ±5 %		BRFC163334Z
R121	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z
R122	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z
R123	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z
R124	Carbon Fixed Chip 390 kohm 1/10 W ±5 %		BRFC013944Z
R125	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R126	Carbon Fixed Chip 8.2 kohm 1/10 W ±5 %		BRFC018224Z
R127	Carbon Fixed Chip 3.3 kohm 1/10 W ±5 %		BRFC013324Z
R128	Carbon Fixed Chip 1 Mohm 1/10 W ±5 %		BRFC011054Z
R129	Carbon Fixed Chip 680 kohm 1/16 W ±5 %		BRFC166844Z
R130	Carbon Fixed Chip 220 kohm 1/16 W ±5 %		BRFC162244Z
R131	Carbon Fixed Chip 2.2 Mohm 1/16 W ±5 %		BRFC162254Z
R132	Carbon Fixed Chip 6.8 kohm 1/16 W ±5 %		BRFC166824Z
R133	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R134	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R135	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R136	Carbon Fixed Chip 100 ohm 1/16 W ±5 %		BRFC161014Z
R137	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R138	Carbon Fixed Chip 470 kohm 1/10 W ±5 %		BRFC014744Z
R139	Carbon Fixed Chip 1 kohm 1/10 W ±5 %		BRFC011024Z
R140	Not Used		
R141	Carbon Fixed Chip 470 kohm 1/10 W ±5 %		BRFC014744Z
R142	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R143	Carbon Fixed Chip 680 kohm 1/10 W ±5 %		BRFC016844Z
R144	Carbon Fixed Chip 680 kohm 1/10 W ±5 %		BRFC016844Z
R145	Carbon Fixed Chip 820 kohm 1/10 W ±5 %		BRFC018244Z
R146	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R147	Carbon Fixed Chip 820 kohm 1/10 W ±5 %		BRFC018244Z
R148	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z
R149	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z

Ref. No.	Description	RS Part No.	Mfr's Part No.
R150	Carbon Fixed Chip 56 kohm 1/10 W ±5 %		BRFC015634Z
R151	Carbon Fixed Chip 3.9 kohm 1/10 W ±5 %		BRFC013924Z
R152	Carbon Fixed Chip 3.3 kohm 1/10 W ±5 %		BRFC013324Z
R153	Carbon Fixed Chip 1 Mohm 1/10 W ±5 %		BRFC011054Z
R154	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R155	Carbon Fixed Chip 4.7 kohm 1/10 W ±5 %		BRFC014724Z
R156	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R157	Carbon Fixed Chip 22 ohm 1/10 W ±5 %		BRFC012204Z
R158	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R159	Carbon Fixed Chip 18 kohm 1/16 W ±5 %		BRFC161834Z
R160	Carbon Fixed Chip 1 kohm 1/10 W ±5 %		BRFC011024Z
R161	Carbon Fixed Chip 330 ohm 1/16 W ±5 %		BRFC163314Z
R162	Carbon Fixed Chip 330 ohm 1/16 W ±5 %		BRFC163314Z
R163	Carbon Fixed Chip 22 ohm 1/10 W ±5 %		BRFC012204Z
R164	Carbon Fixed Chip 22 ohm 1/10 W ±5 %		BRFC012204Z
R165	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R166	Carbon Fixed Chip 39 kohm 1/16 W ±5 %		BRFC163934Z
R167	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R168	Carbon Fixed Chip 22 ohm 1/16 W ±5 %		BRFC162204Z
R169	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R170	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R171	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R172	Carbon Fixed Chip 4.7 kohm 1/10 W ±5 %		BRFC014724Z
R173	Carbon Fixed Chip 47 kohm 1/10 W ±5 %		BRFC014734Z
R174	Carbon Fixed Chip 47 kohm 1/10 W ±5 %		BRFC014734Z
R175	Carbon Fixed Chip 4.7 kohm 1/10 W ±5 %		BRFC014724Z
R176	Not Used		
R177	Carbon Fixed Chip 4.7 kohm 1/10 W ±5 %		BRFC014724Z
R178,179	Not Used		
R180	Carbon Fixed Chip 1.2 kohm 1/16 W ±5 %		BRFC161224Z
R181	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC161034Z
R182	Carbon Fixed Chip 2.2 kohm 1/16 W ±5 %		BRFC162224Z
R183	Carbon Fixed Chip 2.7 kohm 1/16 W ±5 %		BRFC162724Z
R184	Carbon Fixed Chip 27 kohm 1/16 W ±5 %		BRFC162734Z
R185	Carbon Fixed Chip 18 kohm 1/16 W ±5 %		BRFC161834Z
R186	Carbon Fixed Chip 5.6 kohm 1/16 W ±5 %		BRFC165624Z
R187	Carbon Fixed Chip 15 kohm 1/10 W ±5 %		BRFC011534Z
R188	Carbon Fixed Chip 100 kohm 1/10 W ±5 %		BRFC011044Z
R189	Not Used		
R190	Carbon Fixed Chip 12 kohm 1/10 W ±5 %		BRFC011234Z
R191	Carbon Fixed Chip 100 kohm 1/10 W ±5 %		BRFC011044Z
R192	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R193	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R194	Carbon Fixed Chip 2.2 kohm 1/10 W ±5 %		BRFC012224Z
R195	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R196	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R197	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R198	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R199	Carbon Fixed Chip 39 kohm 1/10 W ±5 %		BRFC013934Z
R200	Carbon Fixed Chip 22 kohm 1/10 W ±5 %		BRFC012234Z
R201	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R202	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R203	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z

Ref. No.	Description	RS Part No.	Mfr's Part No.
R204	Carbon Fixed Chip 39 kohm 1/16 W $\pm 5\%$		BRFC163934Z
R205	Carbon Fixed Chip 39 kohm 1/16 W $\pm 5\%$		BRFC163934Z
R206	Carbon Fixed Chip 330 kohm 1/16 W $\pm 5\%$		BRFC163344Z
R207	Carbon Fixed Chip 100 kohm 1/16 W $\pm 5\%$		BRFC161044Z
R208	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R209	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R210	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R211	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R212	Carbon Fixed Chip 47 kohm 1/16 W $\pm 5\%$		BRFC164734Z
R213	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R214	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R215	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R216	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R217	Carbon Fixed Chip 39 kohm 1/16 W $\pm 5\%$		BRFC163934Z
R218	Carbon Fixed Chip 180 kohm 1/16 W $\pm 5\%$		BRFC161844Z
R219	Carbon Fixed Chip 180 kohm 1/16 W $\pm 5\%$		BRFC161844Z
R220	Carbon Fixed Chip 0 ohm 1/16 W $\pm 5\%$		BRFC160004Z
R221	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R222	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R223,224	Not Used		
R225	Carbon Fixed Chip 22 kohm 1/16 W $\pm 5\%$		BRFC162234Z
R226	Carbon Fixed Chip 27 kohm 1/16 W $\pm 5\%$		BRFC162734Z
R227	Carbon Fixed Chip 22 kohm 1/16 W $\pm 5\%$		BRFC162234Z
R228	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R229	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R230	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R231	Carbon Fixed Chip 680 kohm 1/16 W $\pm 5\%$		BRFC166844Z
R232	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R233	Carbon Fixed Chip 220 ohm 1/16 W $\pm 5\%$		BRFC162214Z
R234	Carbon Fixed Chip 4.7 kohm 1/16 W $\pm 5\%$		BRFC164724Z
R235	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R236	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R237	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R238	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R239	Carbon Fixed Chip 100 kohm 1/16 W $\pm 5\%$		BRFC161044Z
R240	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R241	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R242	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R243	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R244	Not Used		
R245	Carbon Fixed Chip 1 kohm 1/16 W $\pm 5\%$		BRFC161024Z
R246	Carbon Fixed Chip 1 Mohm 1/16 W $\pm 5\%$		BRFC161054Z
R247	Carbon Fixed Chip 10 kohm 1/16 W $\pm 5\%$		BRFC161034Z
R248	Carbon Fixed Chip 2.2 kohm 1/16 W $\pm 5\%$		BRFC162224Z
R249	Carbon Fixed Chip 4.7 kohm 1/16 W $\pm 5\%$		BRFC164724Z
R250	Not Used		
R251	Carbon Fixed Chip 1 Mohm 1/16 W $\pm 5\%$		BRFC161054Z
R252	Carbon Fixed Chip 100 kohm 1/16 W $\pm 5\%$		BRFC161044Z
R253	Carbon Fixed Chip 100 kohm 1/16 W $\pm 5\%$		BRFC161044Z
R254	Carbon Fixed Chip 100 kohm 1/16 W $\pm 5\%$		BRFC161044Z
R255	Carbon Fixed Chip 100 kohm 1/16 W $\pm 5\%$		BRFC161044Z
R256	Carbon Fixed Chip 100 kohm 1/16 W $\pm 5\%$		BRFC161044Z
R257	Carbon Fixed Chip 100 kohm 1/16 W $\pm 5\%$		BRFC161044Z

Ref. No.	Description	RS Part No.	Mfr's Part No.
R258	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		
R259	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R260	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R261	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161044Z
R262	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161044Z
R263	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R264	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R265	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R266	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R267	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R268	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R269	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R270	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R271	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R272	Carbon Fixed Chip 100 kohm 1/16 W ±5 %		BRFC161024Z
R273	Carbon Fixed Chip 22 kohm 1/16 W ±5 %		BRFC161044Z
R274	Carbon Fixed Chip 22 kohm 1/16 W ±5 %		BRFC162234Z
R275	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC162234Z
R276	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R277	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R278	Carbon Fixed Chip 4.7 kohm 1/16 W ±5 %		BRFC164724Z
R279	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		BRFC164724Z
R280~282	Not Used		BRFC161034Z
R283	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		
R284	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R285	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R286	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R287	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R288	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R289	Carbon Fixed Chip 1 kohm 1/16 W ±5 %		BRFC161024Z
R290	Carbon Fixed Chip 1 Mohm 1/10 W ±5 %		BRFC161024Z
R291	Carbon Fixed Chip 100 kohm 1/10 W ±5 %		BRFC011054Z
R292	Carbon Fixed Chip 220 ohm 1/16 W ±5 %		BRFC011044Z
R293	Carbon Fixed Chip 27 kohm 1/16 W ±5 %		BRFC162214Z
R294,295	Not Used		BRFC162734Z
R296	Carbon Fixed Chip 10 kohm 1/16 W ±5 %		
R297	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC161034Z
R298	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R299	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R300	Carbon Fixed Chip 220 kohm 1/10 W ±5 %		BRFC011034Z
R301	Carbon Fixed Chip 39 kohm 1/10 W ±5 %		BRFC012244Z
R302	Carbon Fixed Chip 33 kohm 1/10 W ±5 %		BRFC013934Z
R303	Carbon Fixed Chip 1 Mohm 1/10 W ±5 %		BRFC013334Z
R304	Carbon Fixed Chip 4.7 ohm 1/2 W ±5 %		BRFC011054Z
R305	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC124794Z
R306	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R307	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R308	Carbon Fixed Chip 56 kohm 1/10 W ±5 %		BRFC011034Z
R309	Carbon Fixed Chip 33 kohm 1/10 W ±5 %		BRFC015634Z
R310	Carbon Fixed Chip 1 kohm 1/8 W ±5 %		BRFC013334Z
R311	Carbon Fixed Chip 1 kohm 1/10 W ±5 %		BRFC181024Z
R312	Carbon Fixed Chip 1 kohm 1/10 W ±5 %		BRFC011024Z
R313	Carbon Fixed Chip 1 kohm 1/10 W ±5 %		BRFC011024Z

Ref. No.	Description	RS Part No.	Mfr's Part No.
R314	Carbon Fixed Chip 1 kohm 1/10 W ±5 %		BRFC011024Z
R315	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R316	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R317	Carbon Fixed Chip 47 kohm 1/10 W ±5 %		BRFC014734Z
R318	Carbon Fixed Chip 470 kohm 1/10 W ±5 %		BRFC014744Z
R319	Carbon Fixed Chip 220 kohm 1/10 W ±5 %		BRFC012244Z
R320	Carbon Fixed Chip 470 kohm 1/10 W ±5 %		BRFC014744Z
R321	Not Used		
R322	Carbon Fixed Chip 0 ohm 1/16 W ±5 %		BRFC160004Z
R323	Carbon Fixed Chip 10 kohm 1/10 W ±5 %		BRFC011034Z
R324	Carbon Fixed Chip 39 kohm 1/16 W ±5 %		BRFC163934Z
R325	Carbon Fixed Chip 39 kohm 1/16 W ±5 %		BRFC163934Z
R326	Carbon Fixed Chip 0 ohm 1/16 W ±5 %		BRFC160004Z
RT1	Semi-Fixed RT-552 100 KB		BRTY0552104
RT2	Semi-Fixed RT-552 100 KB		BRTY0552104
RT3	Semi-Fixed RT-552 100 KB		BRTY0552104
VR1	Variable RV-875 TP96N00N 100KA/S		BRVY0875001
VR2	Variable RV-876 TP96N00 100KC		BRVY0876001
Crystals			
X1	QX-631 10.4 MHz		BQXY0631001
X2	Discriminator FK-078 FCD1070MA11UK5L		BFKY0078001
X3~X200	Not Used		
X201	QX-650 9.9072 MHz		BQXY0650001
X202	QX-727 4.9152 MHz		BQXY0727001
X203	QX-722 3.6864 MHz		BQXY0722001
Miscellaneous			
DP201	Liquid Crystal Display DLC-1828P		BDLY0197001
PL1	Pilot Lamp PL-105		BPLY0105001
	Holder, Display ABS(HI-HEAT)		GHDZ352461A
	Shield Case ABS		GSDC342754Z
	Shield Case ABS		GSDC356839Z
	Holder, Antenna SECC		HHDZ452468Z
	Holder, Connector SPCC		HHDZ452469Z
	LCD Frame C5191(PBP)		HSDC452467Z
	Himelon		RBLD451794Z
	Insulation Plate PC		RZEB444013Z
	Screw Taptight Bind HD + M3X6 NI		SSCW343006N
	Screw Taptight Bind HD + D2X8 NI		SSCW802008N

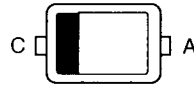
OTHER ELECTRICAL PARTS

Ref. No.	Description	RS Part No.	Mfr's Part No.	
AD951	AC Adaptor	AD-316 HY-9109	14W/500mA(input/output)	BADY0316001
AT951	Antenna	AT-192	TY-9009-1401	BATY0192001
B501	PCB Key	PH-215AA		BPHY0215AAZ
J501	Jack	JK-661	BNC-RF3	BJKY0661001
SP501	Speaker	SP-242	57R89T604 8-ohm, 2W	BSPY0242001
WA501	Wires Assembled	WZ-1202	65 W/P 2P	BWZY1202001
WA502	Wires Assembled	W-072073		CZDZ072073Z
WA503	Wire Assembled	W-072133		CZDZ072133Z

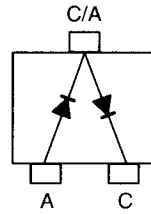
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DIODES

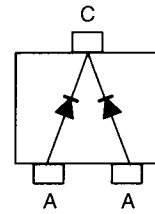
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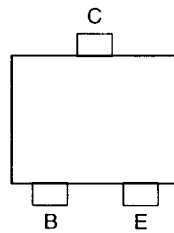


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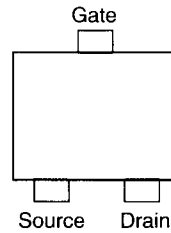


TRANSISTORS

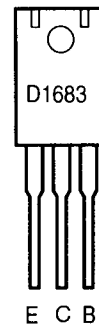
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 2SC3121
 2SC3356-R24
 MMBT6428LT1
 2SC5065



2SK209



2SD1683

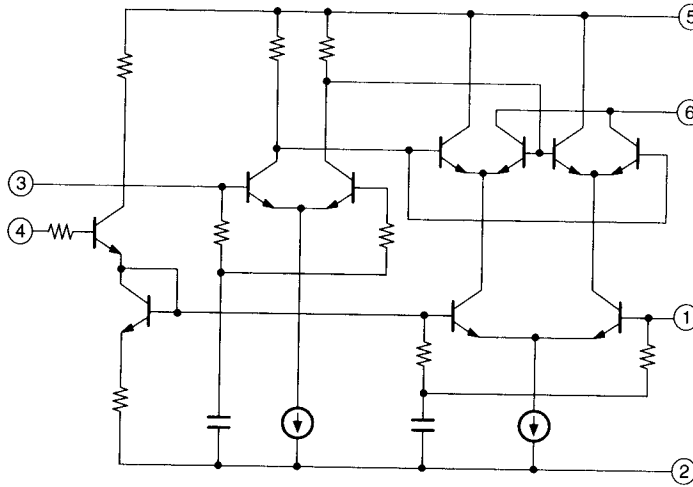
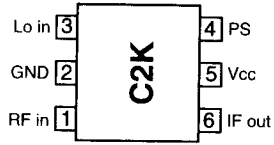


B: Base
 C: Collector
 E: Emitter

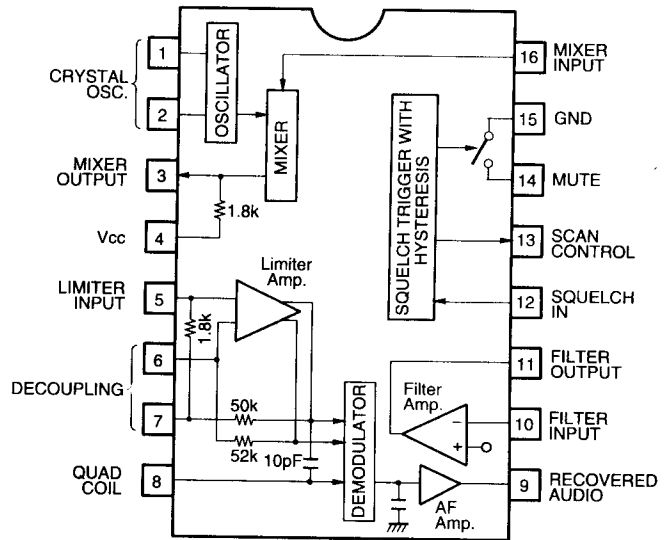
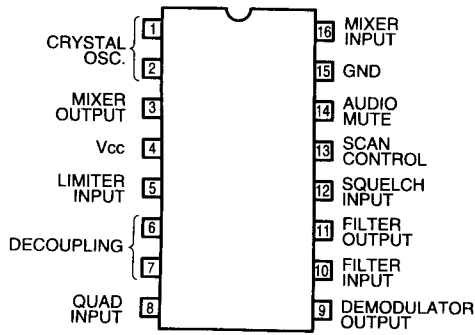
B: Base
 C: Collector
 E: Emitter

IC INTERNAL DIAGRAMS

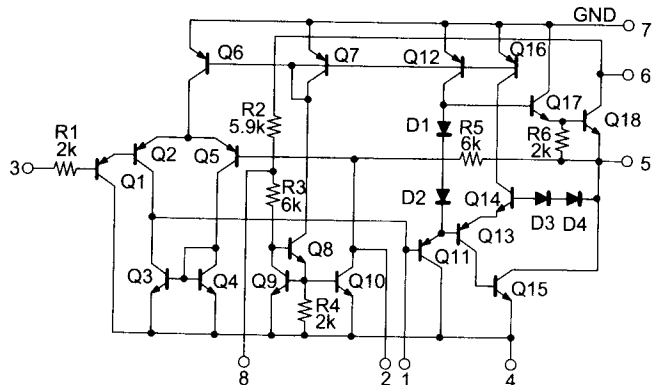
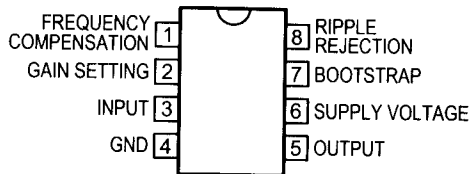
IC1
μPC8112T



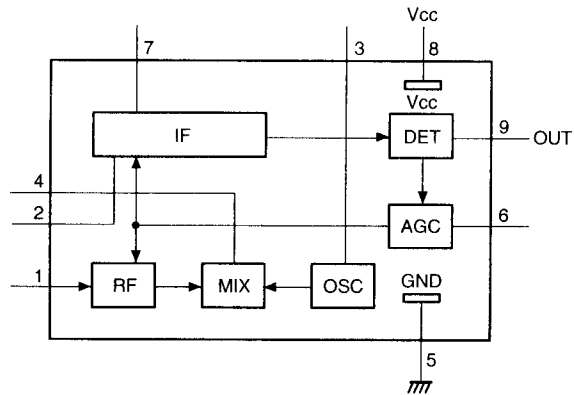
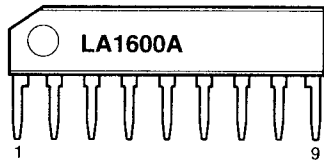
IC2
MC3361CDR2



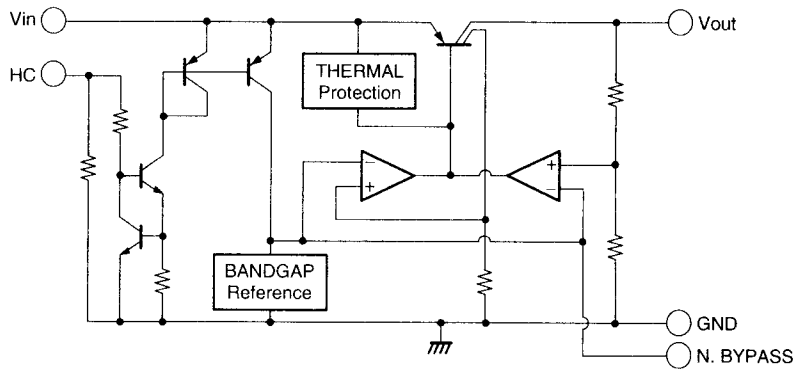
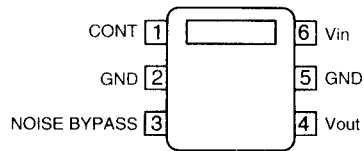
IC3
TBA820M



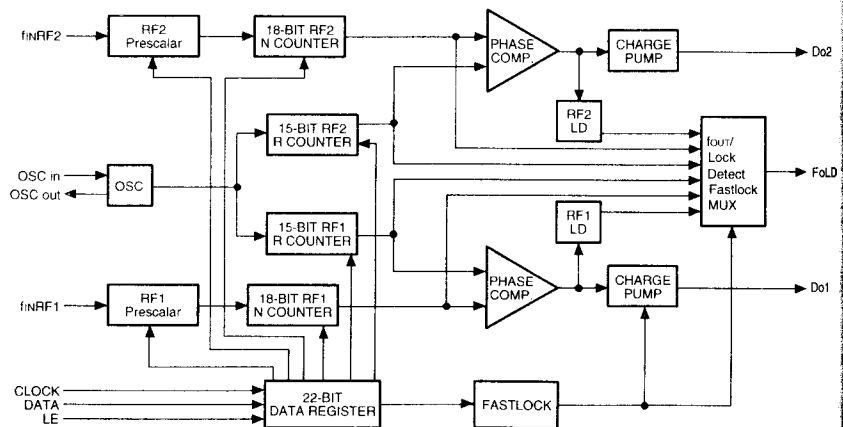
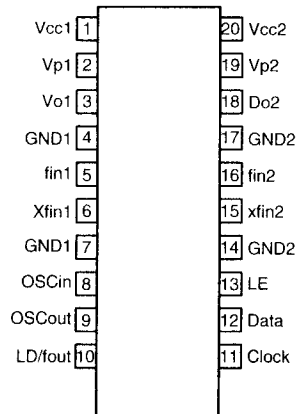
IC4
LA1600A



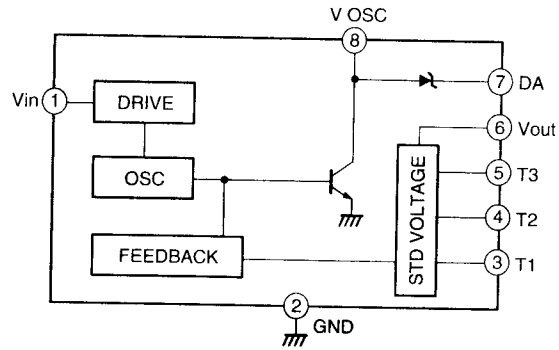
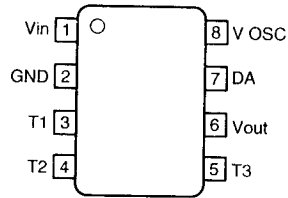
IC5
TK11238AM



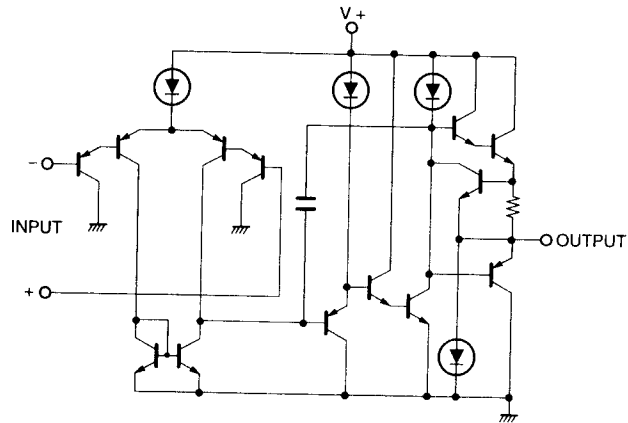
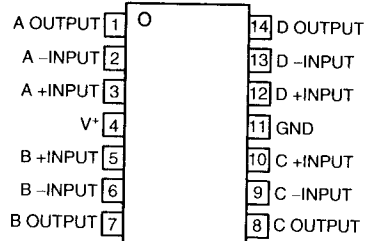
IC6
MB15U36PFV



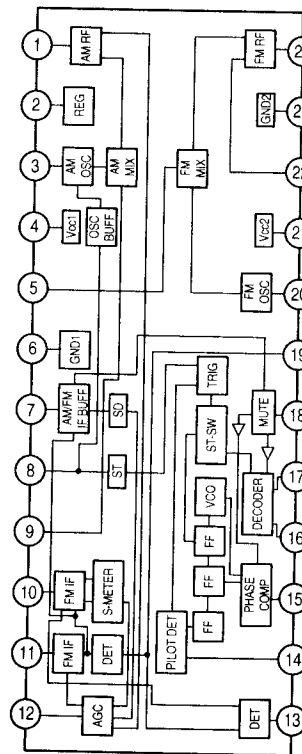
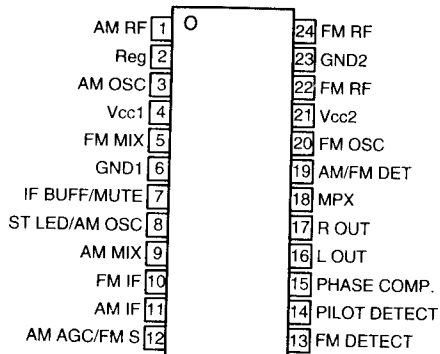
IC7
TK11806M



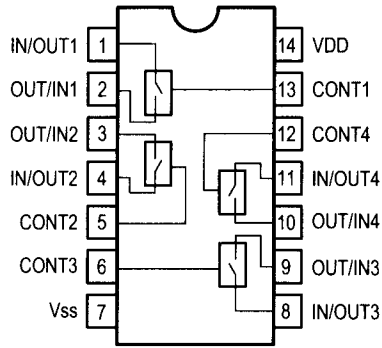
IC8/IC9
NJM3403AM



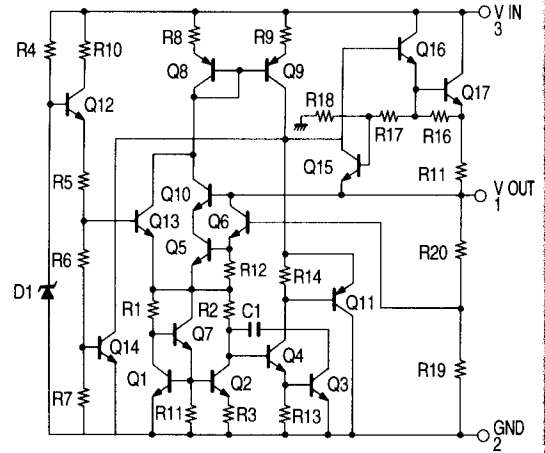
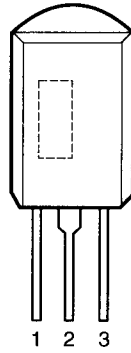
IC10
LA1822



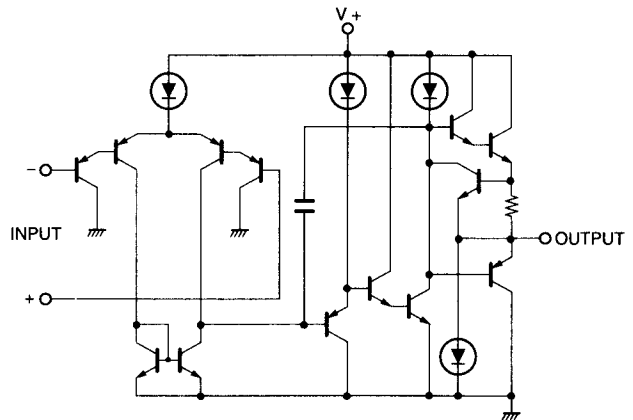
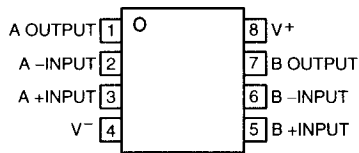
IC11
TC4066BF



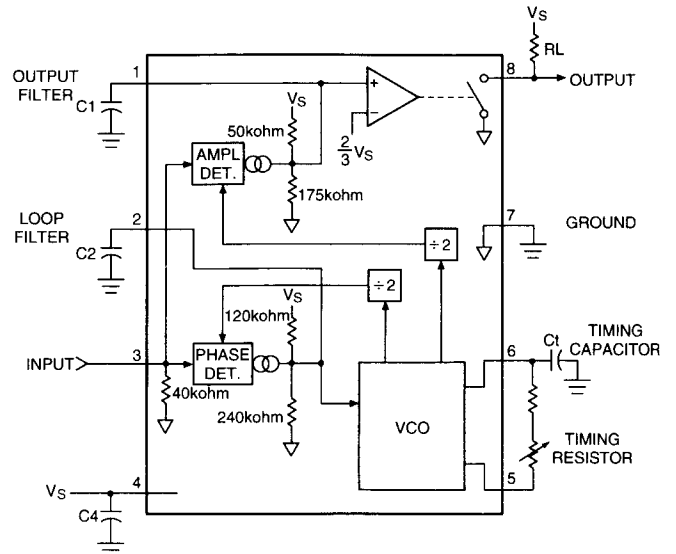
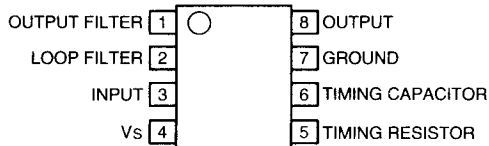
IC12
NJM78L05A



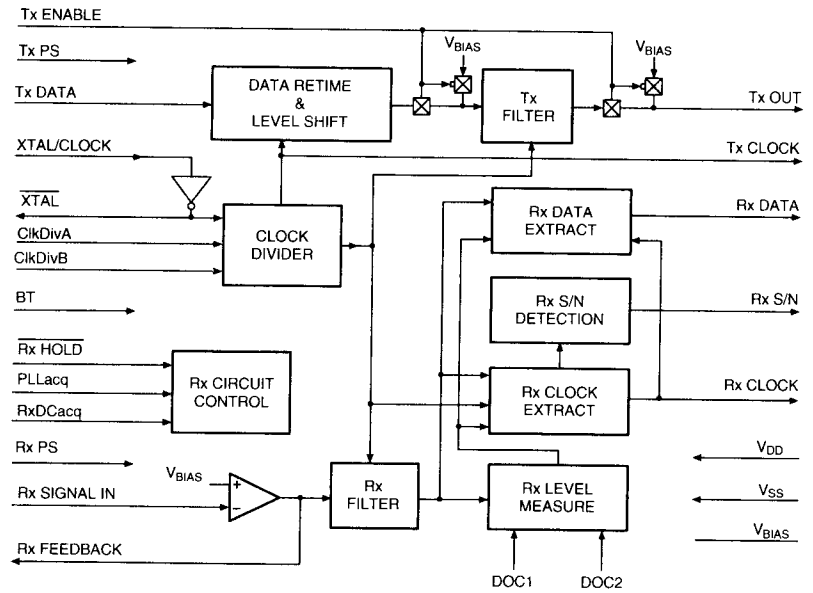
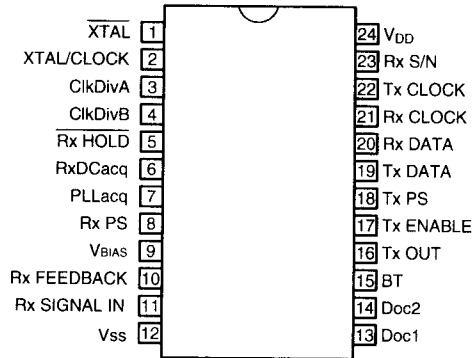
IC13
NJM2904M



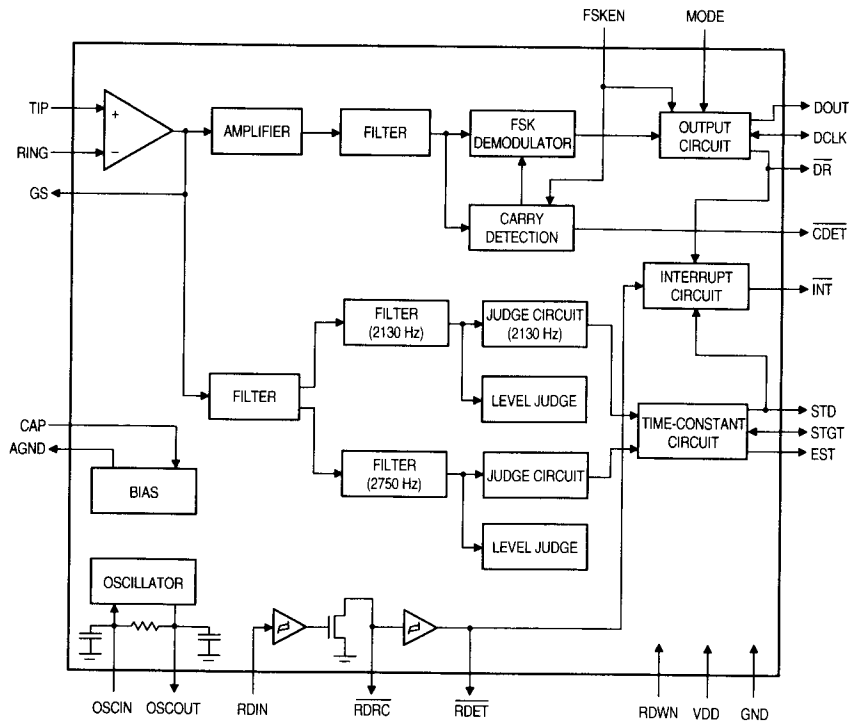
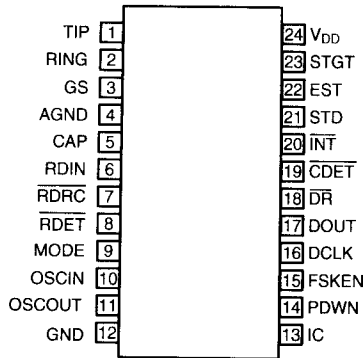
IC14
LMC567CMX



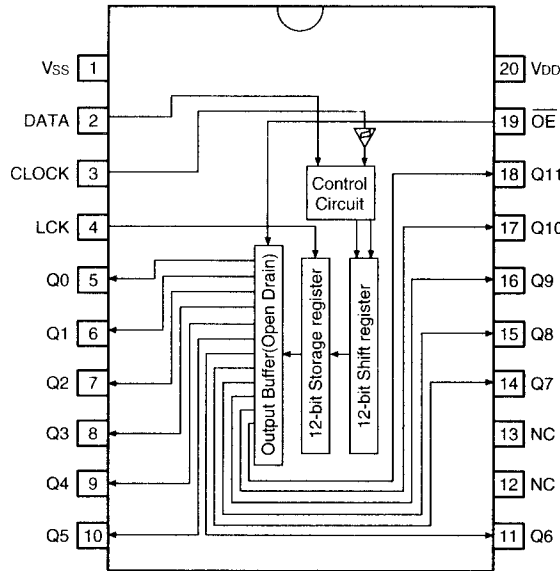
IC15
FX589D5



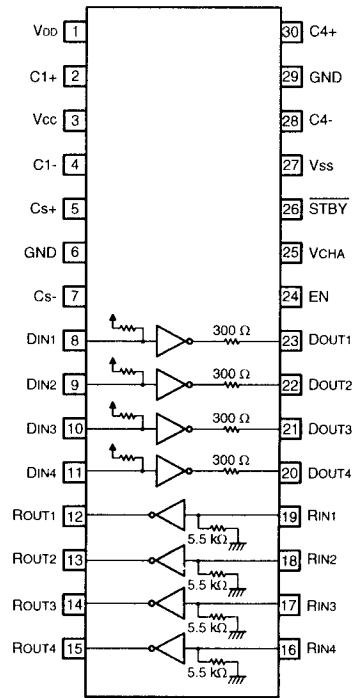
IC16
SM822BS



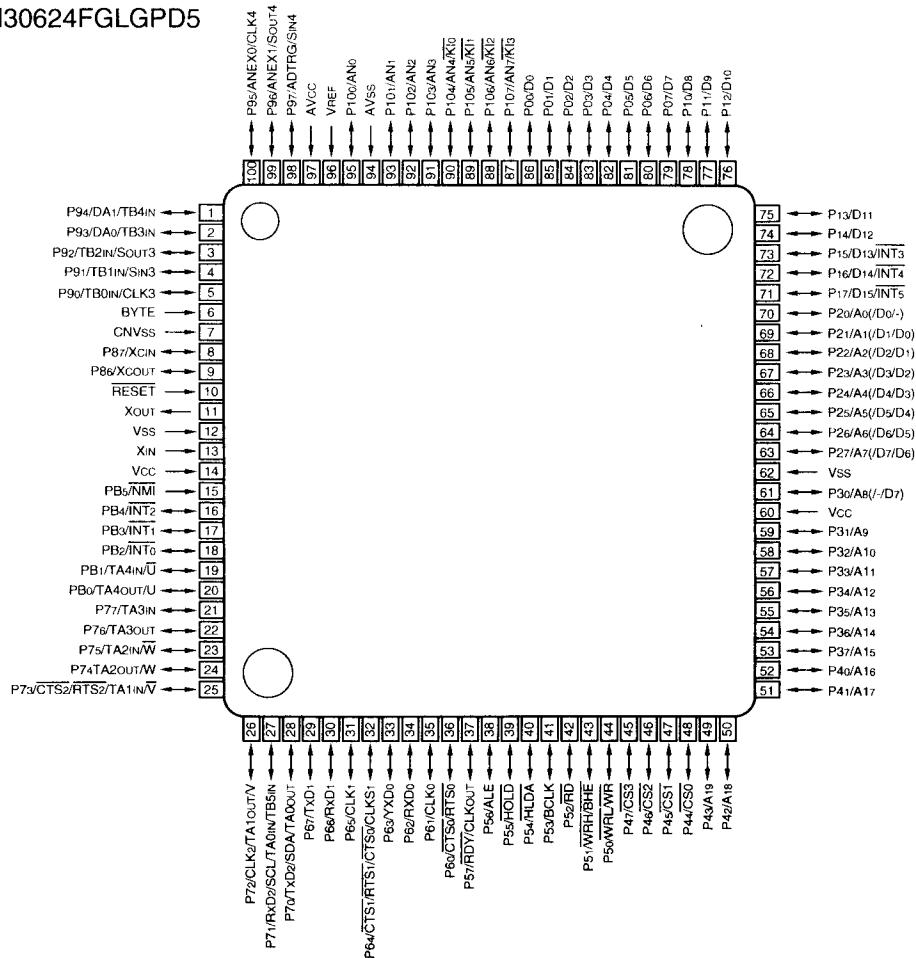
IC19
BU2092FV



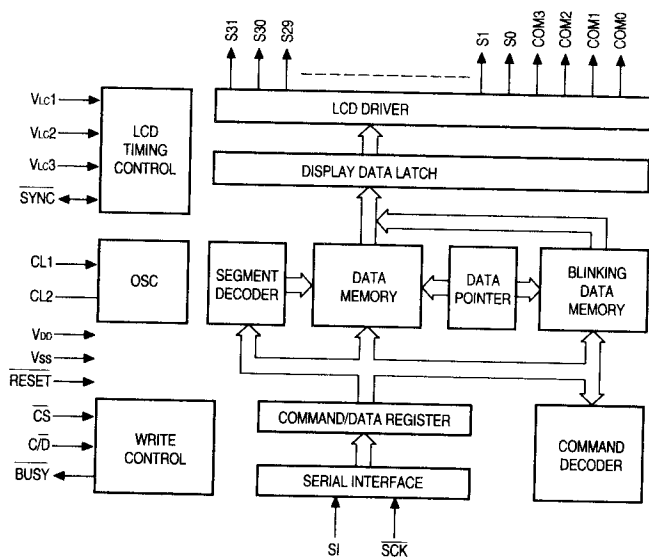
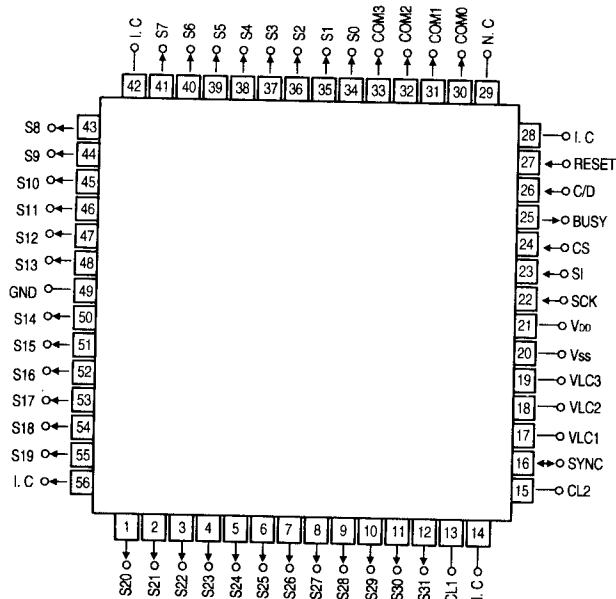
IC20
μPD4722GS



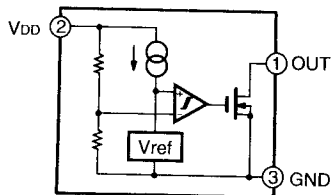
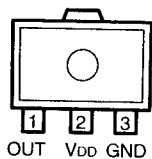
IC201
M30624FGLGPD5



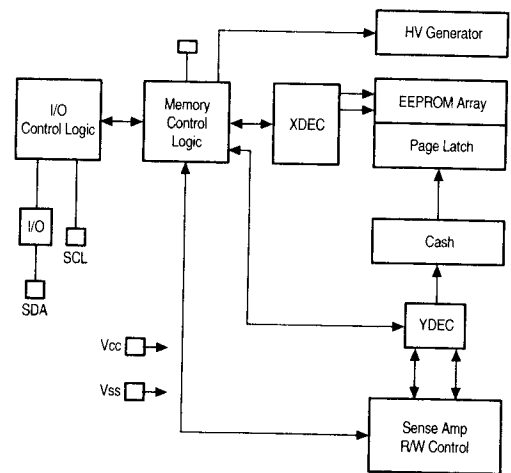
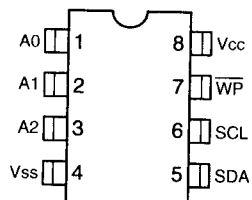
IC202
μPD7225GB



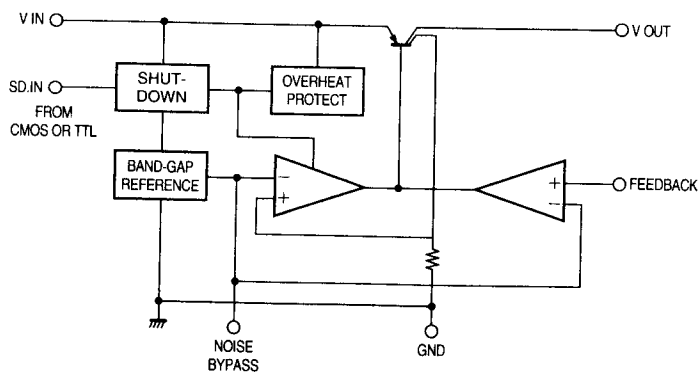
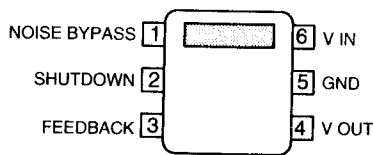
IC204
RH5VL27CA



IC205
24LC64T



IC206
TK11231BMCL



VOLTAGE CHART

TRANSISTORS

Unit [V]

Ref. No.	Pin	Voltage	Remarks
Q1	B	1.5/2.8	RF=ON/OFF SQ=TIGHT
	E	2.2/2.2	
	C	2.2/2.2	
Q2	B	0.75	
	E	0	
	C	2.43	
Q3	B	0.74	
	E	0	
	C	1.6	
Q4	B	1.1	
	E	0.4	
	C	3.7	
Q5	B	5.6	EXT. POWER
	E	4.9	
	C	5	
Q6	B	2.2	
	E	1.5	
	C	2.8	
Q7	B	2.3	
	E	1.5	
	C	2.8	
Q8	B	2.8	
	E	3.7	
	C	2.8	
Q9	B	2.8	
	E	3.7	
	C	2.8	
Q10	B	2.8	
	E	3.7	
	C	2.8	
Q11	B	0.88	
	E	0.1	
	C	3	
Q12	B	0.7	
	E	0	
	C	3.2	
Q13	B	0.8	
	E	0.1	
	C	2.4	
Q14	B	0.6	108.5 MHz
	E	0	
	C	1.7	
Q15	B	3	108.5 MHz
	E	3.7	
	C	3.6	
Q16	B	2.5	
	E	2.1	
	C	3.7	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
Q17	B	0.7	
	E	0	
	C	3	
Q18	B	0/0.7	162.4 MHz/195.5 MHz
	E	0/0	
	C	0/2.6	
Q19	B	4.9/4.3	162.4 MHz/195.5 MHz
	E	4.9/4.9	
	C	0/4.9	
Q20	B	0/2.4	162.4 MHz/195.5 MHz
	E	0/3.0	
	C	0/1.2	
Q21	B	0/0	162.4 MHz/WX test mode(MOD:1050Hz)
	E	0/0	
	C	2.7/2.7	
Q22	B	0.1/0.7	162.4 MHz/406.875 MHz
	E	0/0	
	C	3.7/0.1	
Q23	B	0.62	
	E	0	
	C	10.1	
Q24	G	0.6	
	S	1	
	D	3.7	
Q25	B	0.2/0.6	RF=ON/OFF SQ=TIGHT
	E	0/0	
	C	0.2/0	
Q26	B	0.9/2.6	RF=ON/OFF SQ=TIGHT
	E	0.3/3.0	
	C	0.4/2.4	
Q27	B	0.6/0	162.4 MHz/TRUNK test mode
	E	0/0	
	C	0/3.7	
Q28	B	1.3	
	E	0.68	
	C	3.7	
Q29	B	0/0.7	162.4 MHz/195.5 MHz
	E	0/0	
	C	1.3/0	
Q30	B	3.4/3.1	162.4 MHz/WX test mode
	E	3.7/3.7	
	C	0/3.7	
Q31	B	4.6/4.3	162.4 MHz/NWR-SAME test mode
	E	4.9/4.9	
	C	0.5/4.8	
Q35	B	3.4/3.1	162.4 MHz/EDACS test mode
	E	3.7/3.7	
	C	0/3.7	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
Q202	B	0	
	E	0	
	C	3.1	
Q203	B	0	
	E	0	
	C	3.1	

IC's

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC1	1	1.2	
	2	0	
	3	1.36	
	4	2.91	
	5	2.91	
	6	2.91	
IC2	1	3.7	
	2	NC	
	3	3.3	
	4	3.7	
	5	3.3	
	6	3.3	
	7	3.3	
	8	3.7	
	9	1.3	
	10	NC	
	11	NC	
	12	1.82	
	13	NC	
	14	1.3	
	15	0	
	16	3.7	
IC3	1	0.67	
	2	0.5	
	3	0	
	4	0	
	5	4.99	
	6	11.16	
	7	11.16	
	8	6.53	
IC4	1	NC	127.175 MHz
	2	1.67	
	3	NC	
	4	NC	
	5	0	
	6	1.4	
	7	1.5	
	8	3.68	
	9	2.4	
IC5	1	10.43	
	2	0	
	3	1.23	
	4	3.74	
	5	0	
	6	11.16	
IC6	1	3.49	
	2	3.49	
	3	0.6	
	4	0	
	5	2.46	
	6	2.46	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC6	7	0	
	8	1.47	
	9	1.32	
	10	3.46	
	11	0	
	12	0	
	13	0	
	14	0	
	15	2.48	
	16	2.48	
	17	0	
	18	2.74	
	19	3.46	
20	3.46		
IC7	1	11.16	
	2	0	
	3	9.35	
	4	9.35	
	5	9.35	
	6	24.8	
	7	27.7	
	8	11.11	
IC8	1	1.3/1.3	RF=ON/OFF SQ=TIGHT
	2	1.3/1.3	
	3	1.3/1.3	
	4	3.7/3.7	
	5	1.3/1.0	
	6	0.8/1.2	
	7	3.2/0	
	8	0/0	
	9	0/0	
	10	0.7/0.8	
	11	0/0	
	12	0.9/1.9	
	13	0.7/1.7	
	14	3.1/3.1	
IC9	1	1.4	
	2	1.4	
	3	1.33	
	4	3.7	
	5	1.31	
	6	1.31	
	7	1.5	
	8	1.3	
	9	1.3	
	10	1.32	
	11	0	
	12	1.3	
	13	1.4	
	14	1.4	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC10	1	1.3	195.5 MHz
	2	1.33	
	3	4.3	
	4	5	
	5	0	
	6	0	
	7	0.6	
	8	0.31	
	9	4.3	
	10	1.3	
	11	1.3	
	12	1.7	
	13	4.2	
	14	0	
	15	4.39	
	16	1.3	
	17	1.27	
	18	1.3	
	19	1	
	20	0	
	21	0	
	22	0	
	23	0	
	24	0	
IC11	1	1.5	
	2	1.3	
	3	1.3	
	4	1.3	
	5	2.9	
	6	0	
	7	0	
	8	0	
	9	0	
	10	0	
	11	0	
	12	0	
	13	0	
	14	3.7	
IC12	1	4.97	
	2	0	
	3	11.38	
IC13	1	1.1	
	2	1.1	
	3	1.1	
	4	0	
	5	2.2	
	6	2.2	
	7	2.2	
	8	5	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC14	1	2.1	WX test mode(MOD:1050Hz)
	2	2.9	
	3	0	
	4	3.7	
	5	PULSE	
	6	PULSE	
	7	0	
	8	0	
IC15	1	CLK	EDACS TRUNK test mode
	2	CLK	
	3	3.7	
	4	0	
	5	3.7	
	6	0	
	7	0	
	8	0	
	9	1.9	
	10	1.9	
	11	1.9	
	12	0	
	13	0.9	
	14	2.7	
	15	3.7	
	16	0	
17	0		
18	3.7		
19	3.7		
20	PULSE		
21	CLK		
22	NC		
23	NC		
24	3.7		
IC16	1	2.4	NWR-SAME test mode
	2	2.4	
	3	2.4	
	4	2.4	
	5	2.4	
	6	0	
	7	0	
	8	0	
	9	0	
	10	CLK	
	11	CLK	
	12	0	
	13	0	
	14	0	
15	4.9		
16	NC		
17	4.8		
18	NC		
19	NC		

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC16	20	NC	NWR-SAME test mode
	21	NC	
	22	NC	
	23	NC	
	24	4.9	
IC19	1	0	
	2	0	
	3	0	
	4	0	
	5	3.74	
	6	4.39	
	7	0.2	
	8	3.7	
	9	3.7	
	10	0.1	
	11	11.3	
	12	NC	
	13	NC	
	14	11.2	
15	0		
16	11.1		
17	11.1		
18	8		
19	0		
20	3.7		
IC20	1	9	
	2	PULSE	
	3	3.1	
	4	PULSE	
	5	PULSE	
	6	0	
	7	PULSE	
	8	3.1	
	9	3.1	
	10	3.1	
	11	NC	
	12	3.1	
	13	3.1	
	14	3.1	
15	3.1		
16	0		
17	0		
18	0		
19	0		
20	NC		
21	-9		
22	-9		
23	-9		
24	3.1		
25	3.1		
26	3.1		

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC20	27	-9	
	28	PULSE	
	29	0	
	30	PULSE	
IC201	1	NC	
	2	NC	
	3	3.1	
	4	2.7	
	5	PULSE	
	6	0	
	7	0	
	8	NC	
	9	NC	
	10	3.1	
	11	CLOCK	
	12	0	
	13	CLOCK	
	14	3.1	
	15	3.1	
	16	NC	
	17	3.2	
	18	3.1	
	19	NC	
	20	0	
	21	0	
	22	0	
	23	0	
	24	NC	
	25	0	
	26	0	
	27	0	
	28	0	
	29	0	
	30	0	
	31	3.1	
	32	0	
	33	3.1	
	34	3.1	
35	3.1		
36	3.1		
37	NC		
38	3.1		
39	3.1		
40	3.1		
41	3.1		
42	3.1		
43	3.1		
44	3.1		
45	NC		
46	NC		
47	0		

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC201	48	0	
	49	0	
	50	0	
	51	0	
	52	0	
	53	NC	
	54	NC	
	55	NC	
	56	NC	
	57	3.1	
	58	3.1	
	59	3.1	
	60	3.1	
	61	3.1	
	62	0	
	63	NC	
	64	3.1	
	65	3.1	
	66	3.1	
	67	3.1	
	68	0	
	69	3.1	
	70	0	
	71	NC	
	72	NC	
	73	NC	
	74	NC	
	75	NC	
	76	NC	
	77	NC	
	78	NC	
	79	3.1	
	80	0	
	81	0	
	82	0	
	83	0	
	84	0	
	85	0	
	86	3.1	
	87	3.1	
	88	3.1	
	89	3.1	
	90	NC	
	91	NC	
	92	NC	
	93	1.3	
	94	0	
	95	SIN	
	96	3.1	
	97	3.1	
	98	NC	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC201	99	3.1	
	100	0.18	
IC202	1	PULSE	
	2	PULSE	
	3	PULSE	
	4	PULSE	
	5	PULSE	
	6	PULSE	
	7	PULSE	
	8	PULSE	
	9	PULSE	
	10	PULSE	
	11	PULSE	
	12	PULSE	
	13	CLOCK	
	14	3.1	
	15	CLOCK	
	16	NC	
	17	2.13	
	18	1.2	
	19	0.3	
	20	0	
	21	3.13	
	22	3.1	
	23	0	
	24	3.13	
	25	3.13	
	26	3.1	
	27	3.13	
	28	3.13	
	29	NC	
	30	PULSE	
	31	PULSE	
	32	PULSE	
	33	PULSE	
	34	PULSE	
	35	PULSE	
	36	PULSE	
	37	PULSE	
	38	PULSE	
	39	PULSE	
	40	PULSE	
	41	PULSE	
	42	3.1	
	43	PULSE	
	44	PULSE	
	45	PULSE	
	46	PULSE	
	47	PULSE	
	48	PULSE	
	49	3.1	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC202	50	PULSE	
	51	PULSE	
	52	PULSE	
	53	PULSE	
	54	PULSE	
	55	PULSE	
IC204	56	3.13	
	1	3.1	
	2	3.1	
IC205	3	0	
	1	3.1	
	2	0	
	3	0	
	4	0	
	5	3.1	
	6	3.1	
	7	3.1	
IC206	8	3.1	
	1	10.5	
	2	0	
	3	1.24	
	4	3.11	
	5	0	
6	11.3		

SCHEMATIC DIAGRAMS (Cat. No.20-432)

KEY PCB

B501 PH-0215

