

TYPE OF EXHIBIT: SEMICONDUCTOR FUNCTION

FCC PART: 2.1033 (c) (10)

MANUFACTURER: RITRON, INC.
505 West Carmel Drive
Carmel, IN 46032

MODEL: PBS-446D

TYPE OF UNIT: UHF-FM Base Transceiver

FCC ID: AIERIT16-446

DATE: November 27, 2002

DESCRIPTION:

The following list specifies the manufacturer, identification and function of each semiconductor device used in the PBS-446D base transceiver.

<u>Schem ID</u>	<u>RITRON PN#</u>	<u>Manufacturer</u>	<u>Manufacturer ID</u>	<u>Function</u>
CR1	48A1005C	ON Semiconductors	MMBD7000LT1	Voltage clamp
CR2	02450101	Panasonic	LN514GK-GREEN	7-segment LED display
CR3	48A1005C	ON Semiconductors	MMBD7000LT1	Voltage clamp
CR101	48D100A2	M/A Com, Inc.	MA4CP101A	TX/RX switching
CR102	48E1005G	ON Semiconductors	MMBD-352LT1	Voltage clamp
CR201	48D100A2	M/A Com, Inc.	MA4CP101A	TX/RX switching
CR301	48B61012	Philips Semiconductors	BZD27-C12	Over voltage protection
CR303	48A1005B	ON Semiconductors	MMBD6100LT1	Turn-on detection
CR304	48A100A3	ON Semiconductors	MMBD2835LT1	PTT switching
CR307	48A60001	General Semiconductors	ASBCS1B	Reverse voltage protection
CR401	48A1005C	ON Semiconductors	MMBD7000LT1	Biasing
CR402	48CB0002	Philips Semiconductors	BB149A	VCO tuning
CR403	48C1004G	ON Semiconductors	MMBV-2101L	VCO modulation
CR404	48A1004D	ON Semiconductors	MMBV3401TI	TX/RX VCO switching
Q 1	4841006B	ON Semiconductors	MMBF5484LT1	AGC switch
Q 2	4801001Q	ON Semiconductors	MMBT-5088LT1	AGC audio detection
Q 5	480100DH	ON Semiconductors	BCW68GLT1	+5V switching
Q 6	4821003B	Motorola Semiconductors	MMBT918LT1	Micro clock amplifier
Q 3		Central Semiconductor	CZT122	Over voltage protection
Q 101	4801002A	Philips Semiconductors	PMBT3906	RX +V switching
Q 102	482100V0	Philips Semiconductors	PBR941	RX RF amplifier
Q 103	4841006U	ON Semiconductors	MMBFJ309LT1	RX Mixer
Q 104	4821003B	Motorola Semiconductors	MMBT918LT1	RX IF amplifier
Q 105	4821003B	Motorola Semiconductors	MMBT918LT1	RX 1st LO multiplier/amp
Q 106	480A0001	Rohm Electronics	UMZ1NTR	Biased noise detector
Q 107	4841006B	ON Semiconductors	MMBF5484LT1	Analog switch
Q 201	48130001	Central Semiconductor	CBCX69	TX +V switching
Q 202	4801001Q	ON Semiconductors	MMBT-5088LT1	TX +V switching
Q 203	482100V0	Philips Semiconductors	PBR941	TX RF amplifier
Q 204	48280002	Philips Semiconductors	BFG-35	TX RF driver amplifier
Q 205	4828PH59	Philips Semiconductors	BLT-50	TX RF final amplifier
Q 301	48010A8A	ON Semiconductors	MMUN2211T1	PTT detection
Q 302	4801002A	Philips Semiconductors	PMBT3906	PTT detection
Q 303	4801001Q	ON Semiconductors	MMBT-5088LT1	+V switching
Q 304	480100DH	ON Semiconductors	BCW68GLT1	+V switching
Q 307	48010A8A	ON Semiconductors	MMUN2211T1	Audio amplifier enable
Q 308	480100DH	ON Semiconductors	BCW68GLT1	Audio amplifier +V switching

<u>Schem ID</u>	<u>RITRON PN#</u>	<u>Manufacturer</u>	<u>Manufacturer ID</u>	<u>Function</u>
Q 401	482100V0	Philips Semiconductors	PBR941	VCO buffer amplifier
Q 402	482100V0	Philips Semiconductors	PBR941	VCO buffer amplifier
Q 403	482100V0	Philips Semiconductors	PBR941	VCO oscillator
Q 404	4801001Q	ON Semiconductors	MMBT-5088LT1	VCO voltage de-coupling
Q 405	48010A6A	ON Semiconductors	MMUN2111LT1	TX/RX VCO switching
Q 406	48010A8A	ON Semiconductors	MMUN2211T1	TX/RX VCO switching
U 1	314L0003	Motorola Semiconductors	MC68HC908GR8FA	Microcontroller
U 2	31210005	Atmel Corporation	AT24C04AN-10SC	EEPROM
U 3	31120003	Philips Semiconductors	74HC164PW	Audio process switching
U 5	31120003	Philips Semiconductors	74HC164PW	7-segment LED driver
U 101	31030006	Toshiba	TA31136FN	RX FM-IF subsystem
U 303	310K0004	National Semiconductors	LMV324MT	Audio processing
U 304	311K0001	Philips Components	74LV4066PW	Audio signal switching
U 305	310K0004	National Semiconductors	LMV324MT	Audio processing
U 306	310K0001	Dallas Semiconductor	DS1806E	Audio signal level control
U 307	03131007	National Semiconductors	LM380N-8	Audio amplifier
U 308	310K0002	Maxim Integrated Products	MAX7410CUA	Tone low pass filter
U 309	310E0002	National Semiconductors	LP2980AIM5X-5.0	+5 VDC voltage regulator
U 401	313K0006	National Semiconductors	LMX2306TM	Frequency synthesizer

TYPE OF EXHIBIT: PARTS LIST

FCC PART: 2.1033 (c) (9)

MANUFACTURER: RITRON, INC.
505 West Carmel Drive
Carmel, IN 46032

MODEL: PBS-446D

TYPE OF UNIT: UHF-FM Base Transceiver

FCC ID: AIERIT16-446

DATE: November 27, 2002

DESCRIPTION:

The following is a complete parts list for the PBS-446D base transceiver.

<u>REF</u>	<u>PN#</u>	<u>DESCRIPTION</u>	<u>X</u>	<u>Y</u>					
C1	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2757	838	90	Bottom	20	081	
C10	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	3314	351	0	Top	15	081	
C101	151103A3	3.3pf NPO 0805 CHIP CAPACITOR	3238	2437	0	Bottom	20	081	
C102	151102A7	2.7PF NPO 0805 50V CHIP	3347	2324	270	Bottom	20	081	
C103	15110120	12PF NPO 0805 50V CHIP CAP	3128	1959	0	Bottom	20	081	
C104	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2908	2401	90	Bottom	20	081	
C105	15110100	10PF NPO 0805 50V CHIP CAP	3310	2070	180	Bottom	20	081	
C106	15110180	18PF NPO 0805 50V CHIP	3271	2193	0	Top	20	081	
C107	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	3047	2340	0	Bottom	20	081	
C108	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2856	2401	90	Bottom	20	081	
C109	151106A8	6.8PF NPO 0805 50V CHIP	2897	2084	0	Bottom	20	081	
C11	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	3402	618	180	Top	15	081	
C110	151103A3	3.3pf NPO 0805 CHIP CAPACITOR	2763	2191	90	Bottom	20	081	
C111	151103A3	3.3pf NPO 0805 CHIP CAPACITOR	2722	2084	0	Bottom	20	081	
C112	151103A3	3.3pf NPO 0805 CHIP CAPACITOR	2559	2084	0	Bottom	20	081	
C113	15110100	10PF NPO 0805 50V CHIP CAP	2682	2191	90	Bottom	20	081	
C114	151108A2	8.2PF NPO 0805 50V CHIP	2359	2084	0	Bottom	20	081	
C115	15110150	15PF 0805 NPO 50V CHIP CAP	2249	2043	270	Bottom	20	081	
C116	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	2004	2108	90	Top	15	081	
C117	151101A8	1.8PF NPO 0805 50V CHIP	2004	1835	270	Top	15	081	
C118	151108A2	8.2PF NPO 0805 50V CHIP	2112	1970	270	Top	15	081	
C119	15181472	.0047uF CAPACITOR, CHIP, 0402, X7R,5/10%	1801	1593	270	Bottom	20	081	
C12	15110100	10PF NPO 0805 50V CHIP CAP	1889	679	0	Bottom	20	081	
C120	151108A2	8.2PF NPO 0805 50V CHIP	2330	1580	270	Bottom	20	081	
C121	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2472	1540	180	Bottom	20	081	
C122	152B6106	10uF 10V 3.4 X 2.8 CHIP TANTALUM 20%tol	2226	1954	90	Top	15	081	
C123	15181222	.0022uF CAPACITOR, CHIP, 0402, X7R,5/10%	2653	1213	90	Bottom	20	081	
C124	15181222	.0022uF CAPACITOR, CHIP, 0402, X7R,5/10%	2627	1138	0	Bottom	20	081	
C125	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	2524	131	590	Top	15	081	
C126	15110101	100PF NPO 0805 50V CHIP CAP	2976	1277	270	Top	15	081	
C127	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	3187	1531	180	Bottom	20	081	
C128	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	3013	1386	180	Bottom	20	081	
C129	15181472	.0047uF CAPACITOR, CHIP, 0402, X7R,5/10%	2794	1163	270	Bottom	20	081	
C13	15110100	10PF NPO 0805 50V CHIP CAP	2285	476	270	Bottom	20	081	
C130	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	2895	1102	270	Top	20	081	
C131	15110390	39PF NPO 0805 50V CHIP CAP	2656	1505	90	Top	15	081	
C132	15110330	33PF NPO 0805 50V CHIP	2576	1505	90	Top	15	081	
C133	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	2962	1130	90	Top	15	081	
C134	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	2631	1649	270	Bottom	20	081	
C135	15110220	22PF NPO 0805 50V CHIP CAP	2772	1665	90	Bottom	20	081	
C136	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	3271	105	0	Top	15	081	

REF	PN#	DESCRIPTION	X	Y					
C14	15110100	10PF NPO 0805 50V CHIP CAP	2465	414	270	Bottom	20	081	
C15	15111103	.01MF X7R 0805 50V CHIP	2203	476	270	Bottom	20	081	
C16	15111103	.01MF X7R 0805 50V CHIP	2383	414	270	Bottom	20	081	
C17	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	670	1029	270	Bottom	20	081	
C18	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	1399	1609	90	Top	15	081	
C19	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	154	641	90	Bottom	20	081	
C2	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	3440	867	270	Top	15	081	
C20	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1164	680	90	Bottom	20	081	
C201	15180330	33pF CAPACITOR, CHIP, 0402, C0G, 5%	1909	2189	180	Bottom	20	081	
C202	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2357	2330	90	Bottom	20	081	
C203	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2502	2324	0	Top	20	081	
C204	151106A8	6.8PF NPO 0805 50V CHIP	1617	2229	90	Bottom	20	081	
C205	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	1905	2393	0	Bottom	20	081	
C206	15110100	10PF NPO 0805 50V CHIP CAP	1730	2337	180	Bottom	20	081	
C207	15110270	27pf NPO 0805 50V CHIP CAPACITOR	1690	2787	90	Bottom	20	081	
C208	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1920	2461	0	Top	20	081	
C209	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2641	2705	90	Bottom	20	081	
C21	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	2248	1093	0	Top	15	081	
C210	151106A8	6.8PF NPO 0805 50V CHIP	1609	2787	270	Bottom	20	081	
C211	15110270	27pf NPO 0805 50V CHIP CAPACITOR	1873	2761	270	Bottom	20	081	
C212	15180330	33pF CAPACITOR, CHIP, 0402, C0G, 5%	2594	2705	90	Bottom	20	081	
C213	15110150	15PF 0805 NPO 50V CHIP CAP	2624	3007	180	Bottom	20	081	
C214	151101A8	1.8PF NPO 0805 50V CHIP	2664	2899	270	Bottom	20	081	
C215	151108A2	8.2PF NPO 0805 50V CHIP	2796	2780	270	Bottom	20	081	
C216	151104A7	4.7PF 0805 50V CHIP CAP.	3038	3211	90	Bottom	20	081	
C217			3435	2994	90	Bottom	20	081	
C218	15110101	100PF NPO 0805 50V CHIP CAP	3283	2954	0	Bottom	20	081	
C219	151105A6	5.6PF NPO 0805 50V CHIP CAPACITOR	2583	2899	270	Bottom	20	081	
C22	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2247	1185	0	Top	15	081	
C23	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1494	1101	180	Top	15	081	
C24	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2247	1344	0	Top	15	081	
C25	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2247	1139	0	Top	15	081	
C26	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2164	906	270	Top	15	081	
C27	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1608	1112	180	Top	15	081	
C28	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2247	954	0	Top	15	081	
C29	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1833	908	270	Top	15	081	
C3	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	3420	508	270	Bottom	20	081	
C30	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2247	1252	0	Top	15	081	
C301	15111103	.01MF X7R 0805 50V CHIP	1889	761	0	Bottom	20	081	
C302	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	3403	1801	0	Bottom	20	081	
C303	152B4226	22uF 6.3V 3.4 X 2.8 CHIP TANTALUM CAP	3221	1679	270	Bottom	20	081	
C304	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1475	145	270	Top	15	081	
C305	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1941	426	90	Bottom	20	081	
C306	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	3258	1787	90	Top	15	081	
C307	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	2930	1667	90	Bottom	20	081	
C308	15111102	.001MF X7R 0805 50V CHIP CAP	0	0	0	Bottom	40	541	
C308	15111102	.001MF X7R 0805 50V CHIP CAP				Bottom	40	541	
C31	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2017	805	270	Top	15	081	
C310	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	1845	373	180	Top	15	081	
C311	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1980	606	270	Top	15	081	
C312	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	2148	395	270	Top	15	081	
C313	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	387	385	180	Top	15	081	
C32	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	1970	906	270	Top	15	081	
C323	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1608	1310	180	Top	15	081	
C33	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2249	1046	180	Top	15	081	
C333	152A6475	4.7UF 10V A-SIZE TANTALUM CHIP CAP	900	920	270	Top	15	081	
C334	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	1118	896	90	Top	15	081	
C335	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2914	983	90	Top	15	081	
C336	15181332	.0033uF CAPACITOR, CHIP, 0402, X7R,5/10%	3044	860	0	Top	15	081	
C337	152B6106	10uF 10V 3.4 X 2.8 CHIP TANTALUM 20%tol	668	1828	270	Top	15	081	
C338	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2965	983	270	Top	15	081	
C339	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	996	1752	90	Top	15	081	
C34	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1608	1185	180	Top	15	081	
C340	15111333	.033MFD X7R 0805 50V CHIP CAP	1198	896	90	Top	15	081	

<u>REF</u>	<u>PN#</u>	<u>DESCRIPTION</u>	<u>X</u>	<u>Y</u>				
C341	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	2517	848	90	Top	15	081
C342	15110821	820PF NPO 0805 50V CHIP CAP	1235	1712	0	Top	15	081
C343	15111102	.001MF X7R 0805 50V CHIP CAP	1127	1752	90	Top	15	081
C344	15181472	.0047uF CAPACITOR, CHIP, 0402, X7R,5/10%	3025	484	90	Bottom	20	081
C345	15181472	.0047uF CAPACITOR, CHIP, 0402, X7R,5/10%	3051	558	180	Bottom	20	081
C346	152A8105	1MFD 16V ~3.2 X 1.6~ CHIP TANTALUM	2507	1019	270	Top	15	081
C347	15180180	18pF CAPACITOR, CHIP, 0402, COG, 5%	2884	532	270	Bottom	20	081
C348	15119473	.047uF X7R 0805 25V CHIP CAPACITOR	2941	656	90	Bottom	20	081
C349	15111333	.033MFD X7R 0805 50V CHIP CAP	1283	898	270	Top	15	081
C35	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2067	1553	90	Top	15	081
C350	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2746	618	180	Bottom	20	081
C351	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	971	1166	270	Top	15	081
C352	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2471	642	270	Top	15	081
C353	15181472	.0047uF CAPACITOR, CHIP, 0402, X7R,5/10%	2423	742	90	Top	15	081
C354	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	3242	910	180	Top	15	081
C355	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2700	554	270	Top	15	081
C357	15181221	220pF CAPACITOR, CHIP, 0402, X7R, 5/10%	2925	725	270	Top	15	081
C358	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	3189	768	180	Bottom	20	081
C359	15180100	10pF CAPACITOR, CHIP, 0402, COG, 5%	1157	1150	270	Top	15	081
C36	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2106	1229	90	Bottom	20	081
C360	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1233	1516	90	Top	15	081
C361	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1105	1153	270	Top	15	081
C362	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	769	453	0	Top	15	081
C363	152B6106	10uF 10V 3.4 X 2.8 CHIP TANTALUM 20%tol	1362	112	90	Top	15	081
C365	01503212	220MF 10V ELT CAPACITOR, 5mm HEIGHT	372	239	270	Bottom	10	040
C366	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	683	163	270	Top	15	081
C367	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	501	444	90	Bottom	20	081
C368	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	940	663	270	Bottom	20	081
C369	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	2710	838	90	Bottom	20	081
C37	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1608	1264	180	Top	15	081
C370	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	848	1599	270	Top	15	081
C372	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	1395	1264	90	Top	15	081
C373	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	891	1166	90	Top	15	081
C374	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1249	1351	90	Top	15	081
C38	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	1595	1378	180	Top	15	081
C383	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1362	271	270	Top	15	081
C384	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2805	553	270	Top	15	081
C385	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2755	553	270	Top	15	081
C39	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1608	1066	180	Top	15	081
C4	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	3339	507	270	Bottom	20	081
C40	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	2021	1553	90	Top	15	081
C401	15110101	100PF NPO 0805 50V CHIP CAP	1305	1948	0	Bottom	20	081
C402	15110101	100PF NPO 0805 50V CHIP CAP	1305	1853	180	Bottom	20	081
C403	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1339	2070	180	Bottom	20	081
C404	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	709	2014	0	Bottom	20	081
C405	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1007	1852	0	Bottom	20	081
C406	151101A5	1.5PF NPO 0805 50V CHIP	849	2124	90	Bottom	20	081
C407	151105A6	5.6PF NPO 0805 50V CHIP CAPACITOR	1097	2263	180	Bottom	20	081
C408	151105A6	5.6PF NPO 0805 50V CHIP CAPACITOR	1205	2153	270	Bottom	20	081
C409	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	621	2101	270	Bottom	20	081
C41	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	1949	1391	0	Bottom	20	081
C410	151104A7	4.7PF 0805 50V CHIP CAP.	1085	2370	90	Bottom	20	081
C411	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1028	2658	90	Bottom	20	081
C412	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	689	2087	270	Bottom	20	081
C413	151101A5	1.5PF NPO 0805 50V CHIP	1209	2512	90	Bottom	20	081
C414	152B6106	10uF 10V 3.4 X 2.8 CHIP TANTALUM 20%tol	382	2242	180	Bottom	20	081
C415	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1341	2900	90	Bottom	20	081
C416	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1312	2249	0	Bottom	20	081
C417	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	1201	2358	270	Bottom	20	081
C418	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	316	2605	0	Bottom	20	081
C419	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	316	2559	0	Top	20	081
C42	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	98	692	90	Bottom	20	081
C420	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	316	2692	0	Top	20	081
C421	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	642	2301	90	Bottom	20	081

REF	PN#	DESCRIPTION	X	Y					
C422	15110100	10PF NPO 0805 50V CHIP CAP	932	2285	270	Bottom	20	081	
C423	151101A0	1.0PF NPO 0805 50V CHIP	972	2410	180	Bottom	20	081	
C424	15110100	10PF NPO 0805 50V CHIP CAP	864	2772	90	Bottom	20	081	
C425	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	590	2938	0	Bottom	20	081	
C426	15111222	.0022uF X7R 0805 50V CHIP CAPACITOR	494	2932	90	Bottom	20	081	
C427	152AB334	.33MF 35V, 3.2X1.6 CHIP TANTALUM	549	2821	0	Bottom	20	081	
C428	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	539	2270	90	Bottom	20	081	
C429	15111333	.033MFD X7R 0805 50V CHIP CAP	308	2932	90	Bottom	20	081	
C43	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1856	1069	0	Bottom	20	081	
C430	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	765	2624	0	Bottom	20	081	
C431	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	345	2393	0	Bottom	20	081	
C432	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	676	2480	270	Bottom	20	081	
C433	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	594	2462	270	Bottom	20	081	
C434	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	367	2831	0	Bottom	20	081	
C435	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	316	2738	0	Top	20	081	
C436	15180101	100pF CAPACITOR, CHIP, 0402, COG, 5%	424	2487	0	Bottom	20	081	
C44	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	1643	1666	270	Top	15	081	
C45	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	1800	1830	90	Top	15	081	
C46	15181102	.001uF CAPACITOR, CHIP, 0402, X7R, 5/10%	98	793	90	Bottom	20	081	
C47	01503011	220uf ELT CAP 16V .12~ .32~x.48~ r	0	0	0	Bottom	10	040	
C47	01503011	220uf ELT CAP 16V .12~ .32~x.48~ r				Bottom	10	040	
C48	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20	0	0	0	Bottom	15	081	
C48	15182103	.01uF CAPACITOR, CHIP, 0402,Z5U,5/10/20				Top	15	081	
C49	151102A2	2.2PF NPO 0805 50V CHIP CAP	0	0	0	Bottom	15	081	
C49	151102A2	2.2PF NPO 0805 50V CHIP CAP				Top	15	081	
C5	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	2967	94	90	Top	15	081	
C6	15119104	.1uF X7R 0805 25V CERAMIC CHIP CAP	2866	94	90	Top	15	081	
C7	152A8105	1MFD 16V ~3.2 X 1.6~ CHIP TANTALUM	3372	976	180	Top	15	081	
C8	152A8105	1MFD 16V ~3.2 X 1.6~ CHIP TANTALUM	3037	310	90	Top	15	081	
C9	152A8105	1MFD 16V ~3.2 X 1.6~ CHIP TANTALUM	3428	298	270	Top	15	081	
CR1	48A1005C	MMBD7000, DUAL DIODES IN SERIES, SOT-23	3273	354	90	Bottom	20	081	
CR101	48D100A2	MA4CP101A PIN DIODE, SOT-23	3238	2326	180	Bottom	20	081	
CR102	48E1005G	MMBD-352LT1 SCHOTTKY DIODE SOT23	3308	1958	180	Bottom	20	081	
CR2	02450101	7 SEGMENT GREEN LED COM. CATH. .4~	377	1241	90	Top	30	541	
CR201	48D100A2	MA4CP101A PIN DIODE, SOT-23	3323	3064	90	Bottom	20	081	
CR3	48A1005C	MMBD7000, DUAL DIODES IN SERIES, SOT-23	1265	694	90	Bottom	20	081	
CR301	48B61012	1N4742A ZENER DIODE, 12V 1W DL-41 MELF	1837	279	270	Bottom	20	081	
CR303	48A1005B	MMBD6100, DUAL DIODES,COM CATHODE, SOT23	2941	1660	0	Top	15	081	
CR304	48A100A3	MMBD2835, DUAL DIODES, COM ANODE, SOT-23	1957	262	0	Top	15	081	
CR307	48AA01SA	DIODE, 1A, 50V, SMT, D0214AC CASE	1123	305	270	Top	15	081	
CR401	48A1005C	MMBD7000, DUAL DIODES IN SERIES, SOT-23	428	1916	0	Bottom	20	081	
CR402	48CB0002	VARACTOR DIODE,SOD-323, BB149A	940	2903	90	Bottom	20	081	
CR403	48C1004G	MMBV-2101L DIODE VVC SOT-23	787	2286	270	Bottom	20	081	
CR404	48A1004D	MMBV3401 PIN/UHF DIODE SOT-23	1289	2644	90	Bottom	20	081	
F301	06000040	WIRE; #40AWG TINNED BUS (INCHES)	1837	525	270	Bottom	40	541	
J2	02100343	JACK; PHONO PC MOUNT VERTICAL	3020	2701	270	Bottom	30	541	
J301	02100001	2.5MM PC-MT JACK; ANT-CHGR	1565	61	180	Bottom	30	541	
J303	02100053	3.5MM STEREO JACK; PANEL MOUNT	1163	82	180	Bottom	30	541	
L1	18414109	9.5T AIRCOIL #24AWG .0625ID RHH SMT *	2086	719	0	Bottom	20	081	
L101	01850201	1.5T SW COIL W/5MM SHIELD & ALUM CORE	2933	1887	270	Bottom	30	541	
L102	18110151	CHIP INDUCTOR .15uhy	2937	2232	90	Bottom	20	081	
L103	01850201	1.5T SW COIL W/5MM SHIELD & ALUM CORE	2690	1887	90	Bottom	30	541	
L104	01850201	1.5T SW COIL W/5MM SHIELD & ALUM CORE	2447	1887	90	Bottom	30	541	
L105	18433103	3T AIRCOIL, SMT, 8.0nH, .120 X .145	2112	1981	0	Bottom	20	081	
L106	18110102	CHIP INDUCTOR 1.0uhy	2004	1975	90	Top	15	081	
L107	18433101	1T AIRCOIL, SMT 2.5nH, .120 X .145	1744	1781	180	Bottom	20	081	
L108	18110681	CHIP INDUCTOR .68uhy	2656	1650	90	Top	15	081	
L2	18414109	9.5T AIRCOIL #24AWG .0625ID RHH SMT *	2113	184	90	Bottom	20	081	
L201	18414104	4.5T AIRCOIL #24AWG .0625ID RHH SMT	1800	2064	270	Bottom	20	081	
L202	18360001	BEAD; FERRITE SURFACE MOUNT	2528	2471	90	Bottom	20	081	
L203	18110151	CHIP INDUCTOR .15uhy	1945	2571	90	Bottom	20	081	
L204	18433102	2T AIRCOIL SMT 5.0nH .120 X .145	1665	2956	90	Bottom	20	081	
L205	18360001	BEAD; FERRITE SURFACE MOUNT	1873	2942	270	Bottom	20	081	
L206	18414108	8.5T AIRCOIL #24AWG .0625ID RHH SMT	2448	2721	180	Bottom	20	081	

REF	PN#	DESCRIPTION	X	Y					
L207	18433103	3T AIRCOIL, SMT, 8.0nH, .120 X .145	2424	2951	90	Bottom	20	081	
L208	18414104	4.5T AIRCOIL #24AWG .0625ID RHH SMT	2781	2985	180	Bottom	20	081	
L209	18414104	4.5T AIRCOIL #24AWG .0625ID RHH SMT	2996	3065	90	Bottom	20	081	
L210	18110102	CHIP INDUCTOR 1.0uhy	2763	2506	90	Bottom	20	081	
L211	18414105	5.5T AIRCOIL #24AWG .0625ID RHH *	3373	2777	0	Bottom	20	081	
L3	18414109	9.5T AIRCOIL #24AWG .0625ID RHH SMT *	2352	707	90	Bottom	20	081	
L4	18414109	9.5T AIRCOIL #24AWG .0625ID RHH SMT *	2376	269	0	Bottom	20	081	
L401	18433208	8T AIRCOIL, SMT, 8.80 nH, .159 X .056	1124	2541	90	Bottom	20	081	
L402	18414109	9.5T AIRCOIL #24AWG .0625ID RHH SMT *	1136	2826	90	Bottom	20	081	
L403	18110820	INDUCTOR, CHIP 82nH	1297	2782	180	Bottom	20	081	
L404	18110101	CHIP INDUCTOR 0.1uhy	818	2907	0	Bottom	20	081	
L405	18110101	CHIP INDUCTOR 0.1uhy	474	2393	180	Bottom	20	081	
L5	18414109	9.5T AIRCOIL #24AWG .0625ID RHH SMT *	2555	558	0	Bottom	20	081	
L6	18414109	9.5T AIRCOIL #24AWG .0625ID RHH SMT *	2580	184	90	Bottom	20	081	
M301	05500046	MIC, ELECTRET	0	0	0	Bottom	40	541	
M301	05500046	MIC, ELECTRET				Bottom	40	541	
P2	21320201	HEADER, 2-PIN TOP ENTRY SHROUDED	133	421	90	Bottom	30	541	
P3	2141D203	CABLE ASSY, 2-POS. PLUG	289	323	270	Top	40	541	
Q1	4841006B	MMBF5484 NFET GP SOT23	3387	134	0	Top	15	081	
Q101	4801002A	MMBT3906 PNP, SOT23	2453	1139	0	Bottom	20	081	
Q102	482100V0	TRANSISTOR, NPN, UHF, SOT-23, PBR-941	3073	218	5180	Top	20	081	
Q103	4841006U	MMBFJ309LT1, N-CHAN, RF, SOT23	1945	1915	270	Bottom	20	081	
Q104	4821003B	MMBT918LT1 VHF SOT23 (3B)	2219	1540	0	Bottom	20	081	
Q105	4821003B	MMBT918LT1 VHF SOT23 (3B)	2795	1585	90	Top	15	081	
Q106	480A0001	TRANSISTOR,DUAL,PNP/NPN,UMZ1NTR,SOT23-6	2973	1479	0	Bottom	20	081	
Q107	4841006B	MMBF5484 NFET GP SOT23	3230	1148	90	Top	15	081	
Q2	4801001Q	MMBT5088, NPN, SOT-23	3173	214	180	Bottom	20	081	
Q201	48130001	TRANSISTOR PNP 1AMP CBCX69 SOT-89	2201	2296	180	Bottom	20	081	
Q202	4801001Q	MMBT5088, NPN, SOT-23	2232	2488	0	Bottom	20	081	
Q203	482100V0	TRANSISTOR, NPN, UHF, SOT-23, PBR-941	1621	2090	0	Bottom	20	081	
Q204	48280002	BFG35 WB SOT-223 1W TRANSISTOR	1690	2549	0	Bottom	20	081	
Q205	4828PH59	BLT50, UHF, SOT-223, 1W	2121	2894	90	Bottom	20	081	
Q3	48180006	NPN 2W PWR DARLINGTON, CZT122, SOT-223	0	0	0	Bottom	15	081	
Q3	48180006	NPN 2W PWR DARLINGTON, CZT122, SOT-223				Top	15	081	
Q301	48010A8A	MMUN2211, NPN W 10K/10K, SOT-23	1881	621	270	Top	15	081	
Q302	4801002A	MMBT3906 PNP, SOT23	1844	482	270	Top	15	081	
Q303	4801001Q	MMBT5088, NPN, SOT-23	3220	1661	90	Top	15	081	
Q304	480100DH	BCW68GLT1 .8AMP PNP SOT-23	3394	1650	270	Top	15	081	
Q307	48010A8A	MMUN2211, NPN W 10K/10K, SOT-23	660	532	180	Top	15	081	
Q308	480100DH	BCW68GLT1 .8AMP PNP SOT-23	771	343	90	Top	15	081	
Q401	482100V0	TRANSISTOR, NPN, UHF, SOT-23, PBR-941	1130	1948	90	Bottom	20	081	
Q402	482100V0	TRANSISTOR, NPN, UHF, SOT-23, PBR-941	949	1947	90	Bottom	20	081	
Q403	482100V0	TRANSISTOR, NPN, UHF, SOT-23, PBR-941	1094	2153	90	Bottom	20	081	
Q404	4801001Q	MMBT5088, NPN, SOT-23	479	2101	90	Bottom	20	081	
Q405	48010A6A	MMUN2111, PNP W 10K/10K, SOT-23	1340	2485	0	Bottom	20	081	
Q406	48010A8A	MMUN2211, NPN W 10K/10K, SOT-23	1300	2345	270	Bottom	20	081	
Q5	480100DH	BCW68GLT1 .8AMP PNP SOT-23	2407	1352	180	Top	15	081	
Q6	4821003B	MMBT918LT1 VHF SOT23 (3B)	1790	1654	180	Top	15	081	
R1	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	427	1541	180	Bottom	20	081	
R10	47180182	1.8K OHM RESISTOR, CHIP, 0402, 1/16W,5%	3113	134	180	Top	15	081	
R101	47180103	10K OHM, RESISTOR, CHIP, 0402, 1/16W,5%	2379	1016	90	Bottom	20	081	
R102	47180103	10K OHM, RESISTOR, CHIP, 0402, 1/16W,5%	3047	2390	0	Bottom	20	081	
R103	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W,5%	3098	2287	0	Top	20	081	
R104	47180392	3.9K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3171	219	590	Top	20	081	
R105	47180561	560 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2808	2350	90	Bottom	20	081	
R106	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	1605	1811	90	Bottom	20	081	
R107	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	2399	1565	90	Bottom	20	081	
R108	47180223	22K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2205	1440	180	Bottom	20	081	
R109	47180101	100 OHM RESISTOR, CHIP, 0402, 1/16W,5%	2122	1528	270	Bottom	20	081	
R11	47180105	1 MEG RESISTOR, CHIP, 0402, 1/16W 5%	3289	208	270	Top	15	081	
R110	47180564	560K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2748	1163	270	Bottom	20	081	
R111	47180122	1.2K OHM RESISTOR, CHIP, 0402, 1/16W,5%	2702	1163	90	Bottom	20	081	
R112	47180274	270K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2601	1212	90	Bottom	20	081	
R113	47180103	10K OHM, RESISTOR, CHIP, 0402, 1/16W,5%	2748	1264	270	Bottom	20	081	

<u>REF</u>	<u>PN#</u>	<u>DESCRIPTION</u>	<u>X</u>	<u>Y</u>					
R114	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	2848	1103	90	Bottom	20	081	
R115	47180154	150K OHM RESISTOR, CHIP, 0402, 1/16W,5%	3091	1505	270	Bottom	20	081	
R117	47180332	3.3K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3192	1269	270	Top	15	081	
R118	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	2703	1650	90	Bottom	20	081	
R119	47180102	1K OHM RESISTOR, CHIP,0402, 1/16W,5%	2807	1683	0	Top	15	081	
R12	47180101	100 OHM RESISTOR, CHIP, 0402,1/16W,5%	3037	159	90	Top	15	081	
R120	47180681	680 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2488	1615	270	Bottom	20	081	
R121	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	3148	1435	270	Bottom	20	081	
R122	47180392	3.9K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3268	1269	90	Top	15	081	
R13	47180822	8.2K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3188	108	270	Top	15	081	
R14	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	3402	572	180	Top	15	081	
R15	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	3428	448	270	Top	15	081	
R16	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	133	1241	180	Bottom	20	081	
R17	47180272	2.7K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	427	1441	180	Bottom	20	081	
R18	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	426	941	0	Bottom	20	081	
R19	47180223	22K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1878	908	90	Top	15	081	
R2	47180472	4.7K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3344	904	180	Top	15	081	
R20	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	2117	906	270	Top	15	081	
R201	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	2406	2330	270	Bottom	20	081	
R202	47100471	470 OHM 0805 CHIP RES.	2192	2628	270	Bottom	20	081	
R203	47100821	820 OHM 0805 CHIP RES.	2082	2526	0	Bottom	20	081	
R205	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	1607	1988	180	Bottom	20	081	
R206	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	1527	2077	270	Bottom	20	081	
R207	47100470	47 OHM 0805 CHIP RES.	1813	2229	90	Bottom	20	081	
R208	47180222	2.2K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1716	2269	180	Bottom	20	081	
R209	47180391	390 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1605	2337	180	Bottom	20	081	
R21	47180471	470 OHM RESISTOR, CHIP, 0402, 1/6W, 5%	1189	596	0	Bottom	20	081	
R211	47180181	180 OHM RESISTOR, CHIP, 0402, 1/16W,5%	2633	2435	270	Bottom	20	081	
R212	47180102	1K OHM RESISTOR, CHIP,0402, 1/16W,5%	3186	2979	270	Bottom	20	081	
R22	47180471	470 OHM RESISTOR, CHIP, 0402, 1/6W, 5%	1290	596	0	Bottom	20	081	
R23	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	1363	622	90	Bottom	20	081	
R24	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	1494	1147	180	Top	15	081	
R25	47180472	4.7K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2247	1390	0	Top	15	081	
R26	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	2017	907	90	Top	15	081	
R27	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	2247	907	180	Top	15	081	
R28	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	670	928	90	Bottom	20	081	
R29	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W,5%	132	1041	0	Bottom	20	081	
R3	47180472	4.7K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3221	977	180	Top	15	081	
R30	47100102	1K OHM 0805 CHIP RES	0	0	0	Bottom	15	081	
R30	47100102	1K OHM 0805 CHIP RES				Top	15	081	
R301	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	3381	1551	0	Top	15	081	
R302	47100471	470 OHM 0805 CHIP RES.	3079	1622	180	Top	15	081	
R303	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	3081	1723	270	Top	15	081	
R304	47180102	1K OHM RESISTOR, CHIP,0402, 1/16W,5%	3182	1787	270	Top	15	081	
R305	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	3033	1774	270	Top	15	081	
R307	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	1832	262	180	Top	15	081	
R308	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	1832	306	0	Top	15	081	
R309	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	2026	606	270	Top	15	081	
R31	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	0	0	0	Bottom	20	081	
R31	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%				Bottom	20	081	
R311	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	489	385	0	Top	15	081	
R32	47180473	47K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	0	0	0	Bottom	20	081	
R32	47180473	47K OHM RESISTOR, CHIP, 0402, 1/16W, 5%				Bottom	20	081	
R322	47180183	18K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3018	983	90	Top	15	081	
R324	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	2940	907	180	Top	15	081	
R325	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	3044	907	0	Top	15	081	
R326	47180183	18K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2491	746	90	Top	15	081	
R327	47180183	18K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2466	848	270	Top	15	081	
R328	47180103	10K OHM, RESISTOR, CHIP, 0402,1/16W,5%	1268	143	0	Top	15	081	
R329	47180153	15K OHM RESISTOR, CHIP, 0402, 1/16W,5%	3050	410	0	Bottom	20	081	
R330	47180100	10 OHM RESISTOR, CHIP,0402, 1/16W 5%	2563	873	90	Top	15	081	
R331	47180104	100K OHM, RESISTOR, CHIP, 0402,1/16W,5%	3076	484	90	Bottom	20	081	
R332	47180154	150K OHM RESISTOR, CHIP, 0402, 1/16W,5%	2977	532	270	Bottom	20	081	
R333	47180473	47K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2931	532	270	Bottom	20	081	

<u>REF</u>	<u>PN#</u>	<u>DESCRIPTION</u>	<u>X</u>	<u>Y</u>				
R334	47180273	27K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2931	779	270	Bottom	20	081
R335	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1253	688	270	Top	15	081
R336	47180104	100K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	1300	688	270	Top	15	081
R337	47180103	10K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	2746	664	0	Bottom	20	081
R338	47180274	270K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2424	642	270	Top	15	081
R34	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1691	1666	90	Top	15	081
R342	47180683	68K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2972	725	270	Top	15	081
R343	47180273	27K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2375	793	270	Top	15	081
R344	47180683	68K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2781	478	180	Top	15	081
R345	47180104	100K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	3165	889	90	Top	15	081
R348	47180473	47K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1204	1150	270	Top	15	081
R349	47180154	150K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	759	1327	0	Top	15	081
R35	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1831	1527	270	Top	15	081
R350	47180564	560K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	759	1373	0	Top	15	081
R352	47100225	2.2M 0805 CHIP RESISTOR	773	1442	0	Top	15	081
R353	47180472	4.7K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1204	1351	90	Top	15	081
R354	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	784	569	0	Top	15	081
R355	47180103	10K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	784	522	180	Top	15	081
R356	47180273	27K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	671	287	270	Top	15	081
R358	47180103	10K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	1878	806	270	Top	15	081
R359	47180100	10 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	752	97	90	Top	15	081
R36	47180682	6.8K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1774	1756	0	Top	15	081
R362	47180100	10 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1204	1251	270	Top	15	081
R37	47180471	470 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1905	1552	0	Top	15	081
R373	47180562	5.6K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1040	1151	90	Top	15	081
R374	47180394	390K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2925	826	90	Top	15	081
R375	47180683	68K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2679	479	180	Top	15	081
R376	47180224	220K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3242	863	180	Top	15	081
R377	47180104	100K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	2653	554	90	Top	15	081
R378	47180823	82K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2606	554	90	Top	15	081
R38	47180683	68K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	2247	1298	180	Top	15	081
R39	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	132	1541	180	Bottom	20	081
R4	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3440	721	270	Top	15	081
R401	47180101	100 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	803	1866	270	Bottom	20	081
R402	47180101	100 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1265	2044	90	Bottom	20	081
R403	47180272	2.7K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1104	1852	0	Bottom	20	081
R404	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1117	2046	0	Bottom	20	081
R405	47180101	100 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	803	1962	90	Bottom	20	081
R406	47180272	2.7K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	849	1962	90	Bottom	20	081
R407	47180470	47 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	735	2087	90	Bottom	20	081
R408	47180470	47 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	780	2138	270	Bottom	20	081
R409	47180271	270 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1273	2166	90	Bottom	20	081
R41	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	132	1341	0	Bottom	20	081
R410	47180153	15K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	997	2173	270	Bottom	20	081
R411	47180153	15K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1152	2356	270	Bottom	20	081
R412	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	936	2046	0	Bottom	20	081
R413	47180472	4.7K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	413	2016	180	Bottom	20	081
R414	47180103	10K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	1423	2565	90	Bottom	20	081
R415	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	1423	2666	270	Bottom	20	081
R416	47180104	100K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	688	2301	90	Bottom	20	081
R417	47180102	1K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	590	2892	0	Bottom	20	081
R418	47180473	47K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	404	2892	0	Bottom	20	081
R419	47180123	12K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	721	2796	90	Bottom	20	081
R42	47180104	100K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	2117	760	270	Top	15	081
R420	47180392	3.9K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	675	2796	270	Bottom	20	081
R422	47180100	10 OHM RESISTOR, CHIP, 0402, 1/16W, 5%	367	2785	180	Bottom	20	081
R423	47180474	470K OHM RESISTOR, 0402, 1/16W, 5%	521	2486	0	Bottom	20	081
R5	47180103	10K OHM, RESISTOR, CHIP, 0402, 1/16W, 5%	3393	721	270	Top	15	081
R6	47180152	1.5K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	427	1041	180	Bottom	20	081
R7	47180105	1 MEG RESISTOR, CHIP, 0402, 1/16W, 5%	3263	134	180	Top	15	081
R8	47180223	22K OHM RESISTOR, CHIP, 0402, 1/16W, 5%	3373	340	270	Bottom	20	081
R9	47180334	330K RESISTOR, CHIP, 0402, 1/16W, 5%	3172	340	270	Bottom	20	081
SW301	05100043	TACT SWITCH, 260gf 3.85	3067	1500	180	Top	40	541
SW302	05100043	TACT SWITCH, 260gf 3.85	377	500	0	Top	40	541

<u>REF</u>	<u>PN#</u>	<u>DESCRIPTION</u>	<u>X</u>	<u>Y</u>					
SW303	05100043	TACT SWITCH, 260gf 3.85	2316	1500	180	Top	40	541	
SW304	05100043	TACT SWITCH, 260gf 3.85	2316	500	180	Top	40	541	
SW305	05100043	TACT SWITCH, 260gf 3.85	3067	500	180	Top	40	541	
SW306	05100043	TACT SWITCH, 260gf 3.85	1566	1500	180	Top	40	541	
U1	314L0003	MCU, 32 PIN TQFP, FLASH, MC68HC908GR8CFA	1942	1230	0	Top	15	081	
U101	31030006	IC, FM IF, TA31136FN	2731	1301	0	Top	15	081	
U2	31210005	EEPROM, 512X8, 24C04 SEE NOTE	864	979	0	Bottom	20	081	
U3	31120003	SHIFT REGISTER, 8 BIT, TSSOP	631	714	0	Top	15	081	
U303	310K0004	LMV324MT RAIL TO RAIL QUAD OP AMP	2723	720	0	Top	15	081	
U304	311K0001	IC, SWITCH,ANALOG,74LV4066,QUAD,TSSOP-14	1042	715	0	Top	15	081	
U305	310K0004	LMV324MT RAIL TO RAIL QUAD OP AMP	3187	721	0	Top	15	081	
U306	310K0001	DS1806E 6 PROG POTS 10K OHM 20-PIN TSSOP	1008	1389	0	Top	15	081	
U307	03131007	AUDIO POWER AMPLIFIER, LM380N-8, S0-8	891	403	0	Bottom	30	541	
U308	310K0002	MAX7410 SW CAP BUTTERWORTH LPF	1020	1612	0	Top	15	081	
U309	310E0002	REGULATOR,LDO,LP2980,5V,W ENABLE,SOT-25	3391	1654	90	Bottom	20	081	
U401	313K0006	IC, SYNTHESIZER TSSOP, LMX2306	550	2637	0	Bottom	20	081	
U5	31120003	SHIFT REGISTER, 8 BIT, TSSOP	227	715	0	Top	15	081	
Y101	02302006	CER DISCRIMINATOR, CDB450C24 see note *	3079	1189	270	Bottom	30	541	
Y302	23050003	TCVCXO, 14.400 MHz, 1.5 PPM, VC=30 PPM/V	1308	1536	0	Bottom	40	541	
YF101	02301403	43.650 MHz Crystal Filter +/-6.0KHz UM-1	0	208	1716	Top	10	040	
YF102	02301013	FILTER,CERAMIC,450KHz,+/-7.5KHz,6 POLE	3401	1090	90	Bottom	30	541	
	06001023	#28 AWG STRANDED WIRE;GREEN INCHES							
	06001029	#28 AWG STRANDED WIRE; BLUE INCHES							
	1750330B	PCB ML4 FR4 6UPM .062 MIX, PBS-446D							
	25602500	CRYSTAL SUPPORT, RUBBER PAD, SMALL/UM-1							
	25107800	SHIELD, SYNTH, SST-PLUS							
	25603900	SPACER, MIC FOAM, SST							
	25605300	GRILL CLOTH, MIC, BMR							
	25605400	HOLDER, MIC, PRIMO							

<u>PN#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
06001001	COAX; TEFLON RG 178 B/U (INCHES)	4
02100030	PHONO PLUG W/STRAIN RELIEF	1
02100362	Connector, BNC Bulkhead w/Hardware	1
02100367	JACK,PANEL MOUNT,COAX, 5.5MM OD,2.1MM ID	1
2142D020	CONNECTOR CABLE ASSEMBLY, 2-POS SST	1
01801003	BEAD FAIR-RITE 2643000301	2
02802004	2-56 X 3/16~ X 1/16~ HEX NUT	2
28111200	SCREW, 2-56X.312,PPH,STL,BLK ZINC	2
05500027	SPEAKER; 1.75~ X 3.0~ OVAL 4W ALNICO	1
2141D204	CABLE ASSY, 2-POS RECEPT.	1
25603000	FOAM, MOUNTING, SPEAKER,SST	1
02801005	4-40, 1/4", PHILLIPS PAN	3
02802026	NUT; KNURLED; M4PO.5;/2.5MM JACK	1
02802027	NUT; KNURLED; M6PO.5/3.5MM JACK	1
02803004	#4 INTERNAL TOOTH LOCKWASHER	3
02803023	WASHER; FLAT STEEL #4	3
13624001	ENCLOSURE, BOTTOM, BMR	1
13993029	ENCLOSURE, TOP, JBS W/ DISPLAY	1
14220010	LABEL, CONTROLS, JBS BASE W/DISPLAY	1
14290001	BLANK LABEL, 3" X 2", GLOSSY WHITE POLY	1
02800028	ROUND RUBBER FEET (SELF ADHESIVE)	4
25201100	BUTTON,SWITCH,X-SERIES,CHARGER	4
25202400	ACTUATOR, SWT, PTT, BMR	1
25605200	GRILL CLOTH, SPEAKER, BMR	1
28111401	SCREW,4-40X.250,PPH,STL, BLK ZINC =4KO	2
2811B601	SCREW,6-32X.312 PHTRST,STL W/BLK ZINC	2
RPS-1A	POW SUP 110VAC - 13VDC 1A W/FILTER	1
AFB-1545	ANT,MOLDED, BNC HINGED, 150-170,450-470	1
01410049	BOX, 9X4X3, JBS/MISC. BOX	1
14290004	BLANK LABEL, 3" X 1" PAPER	1
14352003	INSERT; WRAP; FAST CHGRS/ JBS	1
14500036	OWNERS MANUAL, PBS-446D, -146D	1
14540006	WARRANTY REGISTRATION CARD	1