

SECTION 7

PARTS LIST

Symbol Number	Description	Part Number
C 101	68pF 5% NPO 0603	610-3674-680
C 102	1.0UFD 16V SMD TANT RL	610-2625-109
C 103	68pF 5% NPO 0603	610-3674-680
C 104	.01MF X7R K 0603 CHPR	610-3675-103
C 105	1.0UFD 16V SMD TANT RL	610-2625-109
C 106	68pF 5% NPO 0603	610-3674-680
C 111	.01MF X7R K 0603 CHPR	610-3675-103
C 112	68pF 5% NPO 0603	610-3674-680
C 113	68pF 5% NPO 0603	610-3674-680
C 114	.1UFD X7R J 1206 RL	610-3609-104
C 115	.01MF X7R K 0603 CHPR	610-3675-103
C 116	.0082UF X7R K 0805 CHIP/R	610-3605-822
C 121	68pF 5% NPO 0603	610-3674-680
C 122	68pF 5% NPO 0603	610-3674-680
C 123	.01MF X7R K 0603 CHPR	610-3675-103
C 124	68pF 5% NPO 0603	610-3674-680
C 125	1.0UFD 16V SMD TANT RL	610-2625-109
C 131	68pF 5% NPO 0603	610-3674-680
C 132	1.0UFD 16V SMD TANT RL	610-2625-109
C 133	68pF 5% NPO 0603	610-3674-680
C 134	.01MF X7R K 0603 CHPR	610-3675-103
C 135	1.0UFD 16V SMD TANT RL	610-2625-109
C 136	68pF 5% NPO 0603	610-3674-680
C 137	.01MF X7R K 0603 CHPR	610-3675-103
C 141	1.0UFD 16V SMD TANT RL	610-2625-109
C 142	68pF 5% NPO 0603	610-3674-680
C 143	.01MF X7R K 0603 CHPR	610-3675-103
C 144	.01MF X7R K 0603 CHPR	610-3675-103
C 145	1.0UFD 16V SMD TANT RL	610-2625-109
C 146	68pF 5% NPO 0603	610-3674-680
C 151	68pF 5% NPO 0603	610-3674-680
C 152	68pF 5% NPO 0603	610-3674-680
C 153	68pF 5% NPO 0603	610-3674-680
C 154	68pF 5% NPO 0603	610-3674-680
C 155	68pF 5% NPO 0603	610-3674-680
C 156	68pF 5% NPO 0603	610-3674-680
C 157	68pF 5% NPO 0603	610-3674-680
C 158	68pF 5% NPO 0603	610-3674-680
C 159	68pF 5% NPO 0603	610-3674-680
C 160	68pF 5% NPO 0603	610-3674-680
C 161	68pF 5% NPO 0603	610-3674-680

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C 162	68pF 5% NPO 0603	610-3674-680
C 163	68pF 5% NPO 0603	610-3674-680
C 171	1.0UFD 16V SMD TANT RL	610-2625-109
C 172	68pF 5% NPO 0603	610-3674-680
C 201	68pF 5% NPO 0603	610-3674-680
C 202	.01MF X7R K 0603 CHPR	610-3675-103
C 203	68pF 5% NPO 0603	610-3674-680
C 204	.01MF X7R K 0603 CHPR	610-3675-103
C 205	68pF 5% NPO 0603	610-3674-680
C 206	68pF 5% NPO 0603	610-3674-680
C 207	3.9pf +/- .1pF NPO 0603	610-3673-399
C 208	22pF 5% NPO 0603	610-3674-220
C 209	5.6pF +/- .1pF NPO 0603	610-3673-569
C 210	.01MF X7R K 0603 CHPR	610-3675-103
C 211	.01MF X7R K 0603 CHPR	610-3675-103
C 212	.01MF X7R K 0603 CHPR	610-3675-103
C 213	.01MF X7R K 0603 CHPR	610-3675-103
C 214	3.9pf +/- .1pF NPO 0603	610-3673-399
C 215	68pF 5% NPO 0603	610-3674-680
C 221	1.5-5PF SMD CERAMIC	612-1602-001
C 222	3.3pF +/- .1pF NPO 0603	610-3673-339
C 223	39PF NPO J 0805 CHP RL (L	610-3601-390
C 223	.01UF X7R K 0805CHP RL (L	610-3605-103
C 231	68pF 5% NPO 0603	610-3674-680
C 232	.01MF X7R K 0603 CHPR	610-3675-103
C 233	10PF J NPO 1206 CHIP/R (L	610-3602-100
C 233	8.2PF J NPO 1206CHIP/R (L	610-3602-829
C 234	.01MF X7R K 0603 CHPR	610-3675-103
C 235	.01MF X7R K 0603 CHPR	610-3675-103
C 237	3.3UFD 16V SMD TANT RL	610-2625-339
C 261	68pF 5% NPO 0603	610-3674-680
C 262	.1UFD X7R J 1206 RL	610-3609-104
C 264	47UFD 10V SMD TANT RL	610-2624-470
C 265	.01MF X7R K 0603 CHPR	610-3675-103
C 266	68pF 5% NPO 0603	610-3674-680
C 267	.01MF X7R K 0603 CHPR	610-3675-103
C 268	.01MF X7R K 0603 CHPR	610-3675-103
C 271	.01MF X7R K 0603 CHPR	610-3675-103
C 272	.01MF X7R K 0603 CHPR	610-3675-103
C 273	.01MF X7R K 0603 CHPR	610-3675-103
C 275	.01MF X7R K 0603 CHPR	610-3675-103
C 276	.01MF X7R K 0603 CHPR	610-3675-103

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C 277	10pF +/- .1pF NPO 0603	610-3673-100
C 279	.01MF X7R K 0603 CHPR	610-3675-103
C 301	68pF 5% NPO 0603	610-3674-680
C 302	8.2pF +/- .1pF NPO 0603	610-3673-829
C 303	1.0UFD 16V SMD TANT RL	610-2625-109
C 304	68pF 5% NPO 0603	610-3674-680
C 305	68pF 5% NPO 0603	610-3674-680
C 306	5.6pF +/- .1pF NPO 0603	610-3673-569
C 307	68pF 5% NPO 0603	610-3674-680
C 401	.01MF X7R K 0603 CHPR	610-3675-103
C 402	.01MF X7R K 0603 CHPR	610-3675-103
C 403	.01MF X7R K 0603 CHPR	610-3675-103
C 404	.01MF X7R K 0603 CHPR	610-3675-103
C 405	82pF 5% NPO 0603	610-3674-820
C 406	6.8pF +/- .1pF NPO 0603	610-3673-689
C 407	82pF 5% NPO 0603	610-3674-820
C 408	.01MF X7R K 0603 CHPR	610-3675-103
C 409	.1UFD X7R J 1206 RL	610-3609-104
C 501	68pF 5% NPO 0603	610-3674-680
C 502	68pF 5% NPO 0603	610-3674-680
C 503	68pF 5% NPO 0603	610-3674-680
C 504	68pF 5% NPO 0603	610-3674-680
C 505	22pF 5% NPO 0603	610-3674-220
C 506	10pF +/- .1pF NPO 0603	610-3673-100
C 507	.01MF X7R K 0603 CHPR	610-3675-103
C 508	68pF 5% NPO 0603	610-3674-680
C 511	68pF 5% NPO 0603	610-3674-680
C 512	3.9pf +/- .1pF NPO 0603	610-3673-399
C 513	.01MF X7R K 0603 CHPR	610-3675-103
C 514	68pF 5% NPO 0603	610-3674-680
C 515	470pF 5% NPO 0603	610-3674-471
C 516	68pF 5% NPO 0603	610-3674-680
C 517	68pF 5% NPO 0603	610-3674-680
C 518	1.8pF +/- .1pF NPO 0603	610-3673-189
C 519	68pF 5% NPO 0603	610-3674-680
C 521	68pF 5% NPO 0603	610-3674-680
C 522	1.0UFD 16V SMD TANT RL	610-2625-109
C 523	.01MF X7R K 0603 CHPR	610-3675-103
C 524	68pF 5% NPO 0603	610-3674-680
C 531	68pF 5% NPO 0603	610-3674-680
C 532	68pF 5% NPO 0603	610-3674-680

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C 533	68pF 5% NPO 0603	610-3674-680
C 534	68pF 5% NPO 0603	610-3674-680
C 535	68pF 5% NPO 0603	610-3674-680
C 536	.01MF X7R K 0603 CHPR	610-3675-103
C 541	22pF 5% NPO 0603	610-3674-220
C 542	10pF +/- .1pF NPO 0603	610-3673-100
C 543	.01MF X7R K 0603 CHPR	610-3675-103
C 544	68pF 5% NPO 0603	610-3674-680
C 551	68pF 5% NPO 0603	610-3674-680
C 552	8.2PF NPO J 0805 CHP RL (L	610-3601-829
C 553	10PF NPO J 0805 CHP RL (L	610-3601-100
C 554	7.5PF NPO J0805 CHP RL	610-3601-759
C 555	11PF NPO J 0805 CHP RL	610-3601-110
C 556	13PF NPO J 0805 CHIP/R	610-3601-130
C 561	1PF NPO J 0805 CHP RL	610-3601-109
C 562	68pF 5% NPO 0603	610-3674-680
C 563	1.5PF NPO J0805 CHP RL	610-3601-159
C 564	33pF 5% NPO 0603	610-3674-330
C 581	68pF 5% NPO 0603	610-3674-680
C 591	27pF 5% NPO 0603	610-3674-270
C 592	.001uF 10% X7R 0603	610-3675-102
C 593	27pF 5% NPO 0603	610-3674-270
C 594	.001uF 10% X7R 0603	610-3675-102
C 701	.01MF X7R K 0603 CHPR	610-3675-103
C 702	.01MF X7R K 0603 CHPR	610-3675-103
C 703	.01MF X7R K 0603 CHPR	610-3675-103
C 704	.01MF X7R K 0603 CHPR	610-3675-103
C 706	.01MF X7R K 0603 CHPR	610-3675-103
C 707	68pF 5% NPO 0603	610-3674-680
C 708	1.0UFD 16V SMD TANT RL	610-2625-109
C 709	.01MF X7R K 0603 CHPR	610-3675-103
C 801	.01MF X7R K 0603 CHPR	610-3675-103
C 802	68pF 5% NPO 0603	610-3674-680
C 803	.01MF X7R K 0603 CHPR	610-3675-103
C 804	.01MF X7R K 0603 CHPR	610-3675-103
C 805	68pF 5% NPO 0603	610-3674-680
C 806	.01MF X7R K 0603 CHPR	610-3675-103
C 811	.01MF X7R K 0603 CHPR	610-3675-103
C 812	.01MF X7R K 0603 CHPR	610-3675-103
C 813	68pF 5% NPO 0603	610-3674-680
C 815	3.3pF +/- .1pF NPO 0603	610-3673-339
C 816	51 OHM J 063W 0603 CHIP	669-0155-510

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C 821	1.0UFD 16V SMD TANT RL	610-2625-109
C 822	68pF 5% NPO 0603	610-3674-680
C 825	.001uF 10% X7R 0603	610-3675-102
C 826	1.0UFD 16V SMD TANT RL	610-2625-109
C 827	68pF 5% NPO 0603	610-3674-680
C 831	100pF 5% NPO 0603	610-3674-101
C 832	.1UFD X7R J 1206 RL	610-3609-104
C 833	.0047UF X7R K 0805 C/R (L	610-3605-472
C 836	.0047UF X7R K 0805 C/R (L	610-3605-472
C 841	.01MF X7R K 0603 CHPR	610-3675-103
C 842	68pF 5% NPO 0603	610-3674-680
C 843	.01MF X7R K 0603 CHPR	610-3675-103
C 844	68pF 5% NPO 0603	610-3674-680
C 845	.01MF X7R K 0603 CHPR	610-3675-103
C 846	68pF 5% NPO 0603	610-3674-680
C 847	.01MF X7R K 0603 CHPR	610-3675-103
C 848	68pF 5% NPO 0603	610-3674-680
C 849	.01MF X7R K 0603 CHPR	610-3675-103
C 850	68pF 5% NPO 0603	610-3674-680
C 901	4.7UFD 10V SMD TANT RL	610-2624-479
C 902	.01MF X7R K 0603 CHPR	610-3675-103
C 903	68pF 5% NPO 0603	610-3674-680
C 911	.01MF X7R K 0603 CHPR	610-3675-103
C 912	.01MF X7R K 0603 CHPR	610-3675-103
CR 231	SWITCHING DIODE SOT-23	623-1504-002
CR 561	SOT23 LOW DIST. PIN DIODE	623-1504-042
CR 562	SOT23 LOW DIST. PIN DIODE	623-1504-042
CR 591	HC DIODE SOT23 T/REEL	623-1504-016
CR 592	HC DIODE SOT23 T/REEL	623-1504-016
CR 701	DUAL SW DIODE SOT23	623-1504-023
CR 901	BB535 SOD 323 VARACTOR	623-5005-022
EP 111	FERRITE BEAD SMD	617-2503-001
EP 200	MINI CER CRY PIN INSUL	010-0345-280
EP 501	FERRITE BEAD SMD	617-2503-001
EP 531	FERRITE BEAD SMD	617-2503-001
EP 532	FERRITE BEAD SMD	617-2503-001
EP 533	FERRITE BEAD SMD 1233	617-2503-010
EP 534	FERRITE BEAD SMD	617-2503-001
HW 102	GRAFOIL M577XX .463X1.870	018-1007-102
HW 104	4-40MACH PAN HD ZPS PH	675-1604-010
J 201	14P SGL ROW RCPT.1CNTR	615-7110-214
J 501	JACK RA PC MOUNT BULKHEAD	142-0701-501

PARTS LIST

L 201	INDUCT LL2012 F12N 0805 S	642-9003-127
L 202	10 NHY0805 SMD 10% INDUCT	642-9003-107
L 211	1+/-6%UH VAR. IND. 5MM	642-1012-015
L 221	0.82 MHY SMD INDUCTOR	642-9001-828
L 222	1+/-6%UH VAR. IND. 5MM	642-1012-015
L 253	QUAD COIL 68OUH//180PF SM	642-5102-001
L 301	INDUCT LL2012 F15N 0805 S	642-9003-157
L 302	INDUCT LL2012 F18N 0805 S	642-9003-187
L 401	.100 UHY SMD INDUCTOR	642-9001-108
L 402	.100 UHY SMD INDUCTOR	642-9001-108
L 403	1.0 UHY SMD INDUCTOR	642-9001-109
L 501	1.0 UHY SMD INDUCTOR	642-9001-109
L 511	INDUCT LL2012 F18N 0805 S	642-9003-187
L 512	1.0 UHY SMD INDUCTOR	642-9001-109
L 513	INDUCT LL2012 F18N 0805 S	642-9003-187
L 551	5T 18.5nh SMD AIR CORE IN	642-0030-005
L 552	9T 35.5nh SMD AIR CORE IN	642-0030-009
L 553	9T 35.5nh SMD AIR CORE IN	642-0030-009
L 554	5T 18.5nh SMD AIR CORE IN	642-0030-005
L 555	1.0 UHY SMD INDUCTOR	642-9001-109
L 561	8.0NH SM AIR CORE IND	642-0030-003
L 811	39 NHY0805 SMD 10% INDUCT	642-9003-397
MP 101	HEAT SINK 34XX	014-0778-047
MP 102	VHF/UHF MODULE SHIELD	017-2225-756
MP 107	3412-3422 LOW PASS TOP SH	017-2225-771
MP 108	3424 SYNTH. BOTTOM SHIELD	017-2225-776
MP 109	3412-3422 DRIVER BOTTOM S	017-2225-773
MP 110	3412-3422 LOW PASS BOTTOM	017-2225-774
MP 801	CAN-VCO 3474	017-2225-751
MP 806	XTAL FLTR SHIELD 3472	017-2225-699
PA 515	3412 AUTO INSERT 450-470	023-3412-515
PC 001	PCB 3412 SYN UHF (6)	035-3412-030
Q 101	DIG TRANS NPN 47K/47K SC-	676-0013-046
Q 102	DIG TRANS PNP 10K/47K SC-	676-0013-032
Q 121	DIG TRANS NPN 47K/47K SC-	676-0013-046
Q 122	DIG TRANS NPN 47K/47K SC-	676-0013-046
Q 123	DIG TRANS PNP 10K/47K SC-	676-0013-032
Q 124	NPN SOT223 HIGH CUR SW PZ	676-0006-027
Q 131	DIG TRANS NPN 47K/47K SC-	676-0013-046
Q 171	DIG TRANS NPN 47K/47K SC-	676-0013-046
Q 172	DIG TRANS PNP 10K/47K SC-	676-0013-032

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Q 173	DIG TRANS NPN 47K/47K SC-	676-0013-046
Q 201	PNP SC70 MSB1218 GEN PURP	676-0013-700
Q 202	IV (NPN) 85633 SOT23 R25	676-0003-636
Q 211	SOT SI N-CHAN JFET	676-0006-019
Q 231	VHF/UHF AMP SOT-23	676-0003-634
Q 301	IV (NPN) 85633 SOT23 R25	676-0003-636
Q 401	VHF/UHF AMP SOT-23	676-0003-634
Q 501	BIPOLAR MMIC, SOT143	676-0003-640
Q 511	IV (NPN) 85633 SOT23 R25	676-0003-636
Q 531	NPN SOT223 HIGH CUR SW PZ	676-0006-027
Q 701	VHF/UHF AMP SOT-23	676-0003-634
Q 801	NPN SC70 MSD1819 GEN PURP	676-0013-701
Q 841	DIG TRANS NPN 47K/47K SC-	676-0013-046
Q 842	DIG TRANS PNP 10K/47K SC-	676-0013-032
Q 901	NPN SC70 MSD1819 GEN PURP	676-0013-701
Q 902	NPN SC70 MSD1819 GEN PURP	676-0013-701
Q 911	XSTR, SI,NPN SOT-23	676-0003-658
R 102	1K OHM J 063W 0603 CHIP	669-0155-102
R 111	22K OHMS J 063W 0603 CHIP	669-0155-223
R 112	43K OHMS J 063W 0603 CHIP	669-0155-433
R 113	10K OHMS J 063W 0603 CHIP	669-0155-103
R 114	10K OHMS J 063W 0603 CHIP	669-0155-103
R 115	10K OHMS J 063W 0603 CHIP	669-0155-103
R 116	150K OHMS J 063W 0603 CHI	669-0155-154
R 117	150K OHMS J 063W 0603 CHI	669-0155-154
R 121	120 OHM J 1206SMD REEL	669-0115-121
R 122	120 OHM J 1206SMD REEL	669-0115-121
R 123	10K OHMS J 063W 0603 CHIP	669-0155-103
R 124	470 OHMS J 063W 0603 CHIP	669-0155-471
R 125	3.6K OHMS J 063W 0603 CHI	669-0155-362
R 126	5.6K OHM J 063W 0603 CHIP	669-0155-562
R 127	100k OHMS J 063W 0603 CHI	669-0155-104
R 131	100k OHMS J 063W 0603 CHI	669-0155-104
R 132	51 OHM J 1206 SMD REEL	669-0115-510
R 133	51K OHMS J 063W 0603 CHIP	669-0155-513
R 134	15k OHMS J 063W 0603 CHIP	669-0155-153
R 141	100k OHMS J 063W 0603 CHI	669-0155-104
R 142	15k OHMS J 063W 0603 CHIP	669-0155-153
R 171	10K OHMS J 063W 0603 CHIP	669-0155-103
R 201	100 OHMS J 063W 0603 CHIP	669-0155-101
R 202	3K OHMS J 063W 0603 CHIP	669-0155-302
R 203	10K OHMS J 063W 0603 CHIP	669-0155-103

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R 204	8.2k OHMS J 063W 0603 CHI	669-0155-822
R 205	180 OHMS J 063W 0603 CHIP	669-0155-181
R 211	10 OHMS J 063W 0603 CHIP	669-0155-100
R 212	1.8K OHMS J 063W 0603 CHI	669-0155-182
R 213	330 OHMS J 063W 0603 CHIP	669-0155-331
R 231	330 OHMS J 063W 0603 CHIP	669-0155-331
R 232	1K OHM J 063W 0603 CHIP	669-0155-102
R 233	30K OHMS J 063W 0603 CHIP	669-0155-303
R 234	10K OHMS J 063W 0603 CHIP	669-0155-103
R 235	680 OHMS J 063W 0603 CHIP	669-0155-681
R 255	39K OHMS J 063W 0603 CHIP	669-0155-393
R 261	100 OHMS J 063W 0603 CHIP	669-0155-101
R 262	27K OHMS J 063W 0603 CHIP	669-0155-273
R 263	68K OHM J 063W 0603 CHIP	669-0155-683
R 264	33K OHMS J 063W 0603 CHIP	669-0155-333
R 264	43K OHMS J 063W 0603 CHIP	669-0155-433
R 265	10K OHMS J 063W 0603 CHIP	669-0155-103
R 266	10 OHMS J 063W 0603 CHIP	669-0155-100
R 271	3.3K OHM J 063W 0603 CHIP	669-0155-332
R 272	2.4K OHMS J 063W 0603 CHI	669-0155-242
R 275	330 OHMS J 063W 0603 CHIP	669-0155-331
R 301	330 OHMS J 063W 0603 CHIP	669-0155-331
R 302	10K OHMS J 063W 0603 CHIP	669-0155-103
R 303	3.6K OHMS J 063W 0603 CHI	669-0155-362
R 304	1K OHM J 063W 0603 CHIP	669-0155-102
R 305	2.2K OHMS J 063W 0603 CHI	669-0155-222
R 306	270 OHMS J 063W 0603 CHIP	669-0155-271
R 401	10 OHMS J 063W 0603 CHIP	669-0155-100
R 402	39K OHMS J 063W 0603 CHIP	669-0155-393
R 403	10K OHMS J 063W 0603 CHIP	669-0155-103
R 404	1.2K OHM J 063W 0603 CHIP	669-0155-122
R 501	150 OHMS J 063W 0603 CHIP	669-0155-151
R 502	39 OHM J 0603 CHIP/R	669-0155-390
R 503	150 OHMS J 063W 0603 CHIP	669-0155-151
R 504	470 OHM J 1206SMD REEL	669-0115-471
R 505	470 OHM J 1206SMD REEL	669-0115-471
R 511	4.7K OHM J 063W 0603 CHIP	669-0155-472
R 512	1.8K OHMS J 063W 0603 CHI	669-0155-182
R 513	10 OHMS J 063W 0603 CHIP	669-0155-100
R 514	220 OHMS J 063W 0603 CHIP	669-0155-221
R 515	100 OHMS J 063W 0603 CHIP	669-0155-101
R 533	470 OHMS J 063W 0603 CHIP	669-0155-471

PARTS LIST

R 534	100k OHMS J 063W 0603 CHI	669-0155-104
R 535	100K SMD TRIMMER	662-0130-104
R 536	20K OHMS J 063W 0603 CHIP	669-0155-203
R 537	51 OHM J 2512SMD RL1W	669-0175-510
R 561	100 OHM J 2010.75W SMD	669-0135-101
R 565	47K OHMS J 063W 0603 CHIP	669-0155-473
R 572	10K OHMS J 063W 0603 CHIP	669-0155-103
R 581	10 OHMS J 063W 0603 CHIP	669-0155-100
R 583	10K OHMS J 063W 0603 CHIP	669-0155-103
R 584	10 OHMS J 063W 0603 CHIP	669-0155-100
R 586	10K OHMS J 063W 0603 CHIP	669-0155-103
R 591	51 OHM J 1206 SMD REEL	669-0115-510
R 592	10K OHMS J 063W 0603 CHIP	669-0155-103
R 593	51 OHM J 1206 SMD REEL	669-0115-510
R 594	10K OHMS J 063W 0603 CHIP	669-0155-103
R 701	100 OHMS J 063W 0603 CHIP	669-0155-101
R 702	1K OHM J 063W 0603 CHIP	669-0155-102
R 703	22K OHMS J 063W 0603 CHIP	669-0155-223
R 704	15k OHMS J 063W 0603 CHIP	669-0155-153
R 705	1K OHM J 063W 0603 CHIP	669-0155-102
R 706	1.0M OHMS J 063W CHIP	669-0155-105
R 801	10K OHMS J 063W 0603 CHIP	669-0155-103
R 802	20 OHM J 063W 0603 CHIP	669-0155-200
R 803	4.7K OHM J 063W 0603 CHIP	669-0155-472
R 804	10K OHMS J 063W 0603 CHIP	669-0155-103
R 811	4.7K OHM J 063W 0603 CHIP	669-0155-472
R 812	6.8K OHM J 063W 0603 CHIP	669-0155-682
R 813	4.7K OHM J 063W 0603 CHIP	669-0155-472
R 814	6.8K OHM J 063W 0603 CHIP	669-0155-682
R 815	4.7K OHM J 063W 0603 CHIP	669-0155-472
R 816	6.8K OHM J 063W 0603 CHIP	669-0155-682
R 817	4.7K OHM J 063W 0603 CHIP	669-0155-472
R 821	100k OHMS J 063W 0603 CHI	669-0155-104
R 822	4.7K OHM J 063W 0603 CHIP	669-0155-472
R 823	100K SMD TRIMMER	662-0130-104
R 825	100K SMD TRIMMER	662-0130-104
R 826	10K OHMS J 063W 0603 CHIP	669-0155-103
R 827	220K OHM SMD TRIMMER	662-0130-224
R 829	27K OHMS J 063W 0603 CHIP	669-0155-273
R 831	10 OHMS J 063W 0603 CHIP	669-0155-100
R 832	12K OHMSJ 063W 0603 CHIP	669-0155-123
R 833	18k OHMS J 063W 0603 CHIP	669-0155-183

PARTS LIST

R 841	10K OHMS J 063W 0603 CHIP	669-0155-103
R 842	100 OHMS J 063W 0603 CHIP	669-0155-101
R 843	1.5K OHM J 063W 0603 CHIP	669-0155-152
R 847	10K OHMS J 063W 0603 CHIP	669-0155-103
R 892	18 OHMS J 063W 0603 CHIP	669-0155-180
R 893	18 OHMS J 063W 0603 CHIP	669-0155-180
R 894	18 OHMS J 063W 0603 CHIP	669-0155-180
R 901	4.7K OHM J 063W 0603 CHIP	669-0155-472
R 902	2.2K OHMS J 063W 0603 CHI	669-0155-222
R 903	10K OHMS J 063W 0603 CHIP	669-0155-103
R 911	10K OHMS J 063W 0603 CHIP	669-0155-103
R 912	10K OHMS J 063W 0603 CHIP	669-0155-103
R 914	10K OHMS J 063W 0603 CHIP	669-0155-103
R 915	47K OHMS J 063W 0603 CHIP	669-0155-473
R 916	47K OHMS J 063W 0603 CHIP	669-0155-473
R 917	1K OHM J 063W 0603 CHIP	669-0155-102
U 111	QUAD OPAMP SO-14 33174	644-2020-017
U 131	VOLTAGE REGULATOR ADJUSTA	644-2603-093
U 141	VOLTAGE REGULATOR ADJUSTA	644-2603-093
U 211	DBL BAL MIXER MOT-1-04	644-0007-014
U 241	SA676DK LV FM IF SSOP 20	644-2002-037
U 261	SGL OP AMP SOT23-5 LMC710	644-2016-001
U 521	5W RF POWER MODULE 450-51	644-4001-064
U 581	MC33172D SO8 OP AMP	644-2019-017
U 811	FRACTIONAL-N SYNTHESIZER	644-3954-027
U 911	TLC5620ID QUAD 8BIT DAC S	644-2031-014
U 912	SHIFT REG. 8-STG SOIC	644-3016-094
U 913	3 2CH ANALOG MUX/DEMUX	644-3016-053
Y 801	17.5 MHZ TCXO +/-1.5 PPM	618-7009-521
Z 201	SMD HEL FLTR 459 MHZ 3 PO	632-1005-044
Z 202	SMD HEL FLTR 459 MHZ 3 PO	632-1005-044
Z 221	52.95MHZ 4P 15KHZ BW	632-0009-009
Z 221	52.95MHZ 4P 8KHZ BW	632-0009-011
Z 251	450 KHZ, 20 KHZ BW CERAMI	632-2004-013
Z 251	450 KHZ, 9 KHZ BW CERAMIC	632-2004-015
Z 252	450 KHZ, 20 KHZ BW CERAMI	632-2004-013
Z 252	450 KHZ, 9 KHZ BW CERAMIC	632-2004-015

PARTS LIST

023-3412-542

A 801	3474 PRINTED VCO ASSY	023-3474-543
C 850	68pF 5% NPO 0603	610-3674-680
C 851	68pF 5% NPO 0603	610-3674-680
C 852	8.2pF +/- .1pF NPO 0603	610-3673-829
C 853	12pF 5% NPO 0603	610-3674-120
C 854	68pF 5% NPO 0603	610-3674-680
C 855	68pF 5% NPO 0603	610-3674-680
C 856	2.7pF +/- .1pF NPO 0603	610-3673-279
C 858	68pF 5% NPO 0603	610-3674-680
C 859	5.6pF +/- .1pF NPO 0603	610-3673-569
C 861	6.8pF +/- .1pF NPO 0603	610-3673-689
C 862	6.8pF +/- .1pF NPO 0603	610-3673-689
C 863	68pF 5% NPO 0603	610-3674-680
C 864	10pF +/- .1pF NPO 0603	610-3673-100
C 865	68pF 5% NPO 0603	610-3674-680
C 866	68pF 5% NPO 0603	610-3674-680
C 867	68pF 5% NPO 0603	610-3674-680
C 868	1.8pF +/- .1pF NPO 0603	610-3673-189
C 869	1pF +/- .1pF NPO 0603	610-3673-109
C 870	1pF +/- .1pF NPO 0603	610-3673-109
C 871	100pF 5% NPO 0603	610-3674-101
C 873	100pF 5% NPO 0603	610-3674-101
C 874	3.3pF +/- .1pF NPO 0603	610-3673-339
C 876	8.2pF +/- .1pF NPO 0603	610-3673-829
C 877	1pF +/- .1pF NPO 0603	610-3673-109
C 878	10PF NPO J 0805 CHP RL	610-3601-100
CR 850	SOT PIN SW DIODE T/RL	623-1504-001
CR 851	BB535 SOD 323 VARACTOR	623-5005-022
CR 852	BB535 SOD 323 VARACTOR	623-5005-022
CR 853	BB535 SOD 323 VARACTOR	623-5005-022
CR 854	BB535 SOD 323 VARACTOR	623-5005-022
CR 855	BB535 SOD 323 VARACTOR	623-5005-022
CR 856	BB535 SOD 323 VARACTOR	623-5005-022
L 851	150 NHY0805 SMD 10% IND	642-9003-158
L 852	150 NHY0805 SMD 10% IND	642-9003-158
L 853	22 NHY0805 SMD 10% INDU	642-9003-227
L 854	150 NHY0805 SMD 10% IND	642-9003-158
L 855	INDUCT LL2012 F56N 0805	642-9003-567
L 856	22 NHY0805 SMD 10% INDU	642-9003-227
Q 850	NPN TRANS NE85619 SC90	676-0003-651
Q 851	NPN TRANS NE85619 SC90	676-0003-651

PARTS LIST

Q 852	NPN TRANS NE85619 SC90	676-0003-651
Q 853	NPN TRANS NE85619 SC90	676-0003-651
R 851	10K OHMS J 063W 0603 CH	669-0155-103
R 852	47K OHMS J 063W 0603 CH	669-0155-473
R 853	47K OHMS J 063W 0603 CH	669-0155-473
R 854	10 OHMS J 063W 0603 CHI	669-0155-100
R 856	10 OHMS J 063W 0603 CHI	669-0155-100
R 857	6.8K OHM J 063W 0603 CH	669-0155-682
R 858	1K OHM J 063W 0603 CHIP	669-0155-102
R 862	10K OHMS J 063W 0603 CH	669-0155-103
R 863	10 OHMS J 063W 0603 CHI	669-0155-100
R 864	10K OHMS J 063W 0603 CH	669-0155-103
R 865	10K OHMS J 063W 0603 CH	669-0155-103
R 866	390 OHMS J 063W 0603 CH	669-0155-391
R 867	12K OHMSJ 063W 0603 CHI	669-0155-123
R 868	330 OHMS J 063W 0603 CH	669-0155-331
R 869	270 OHMS J 063W 0603 CH	669-0155-271
R 870	18 OHMS J 063W 0603 CHI	669-0155-180
R 871	3.9K OHM J 063W 0603 CH	669-0155-392
R 872	1.2K OHM J 063W 0603 CH	669-0155-122
R 874	330 OHMS J 063W 0603 CH	669-0155-331
R 875	270 OHMS J 063W 0603 CH	669-0155-271
Z 850	0.5" LONG SMD RESONATOR	642-9004-006

SCHEMATIC AND COMPONENT LAYOUTS

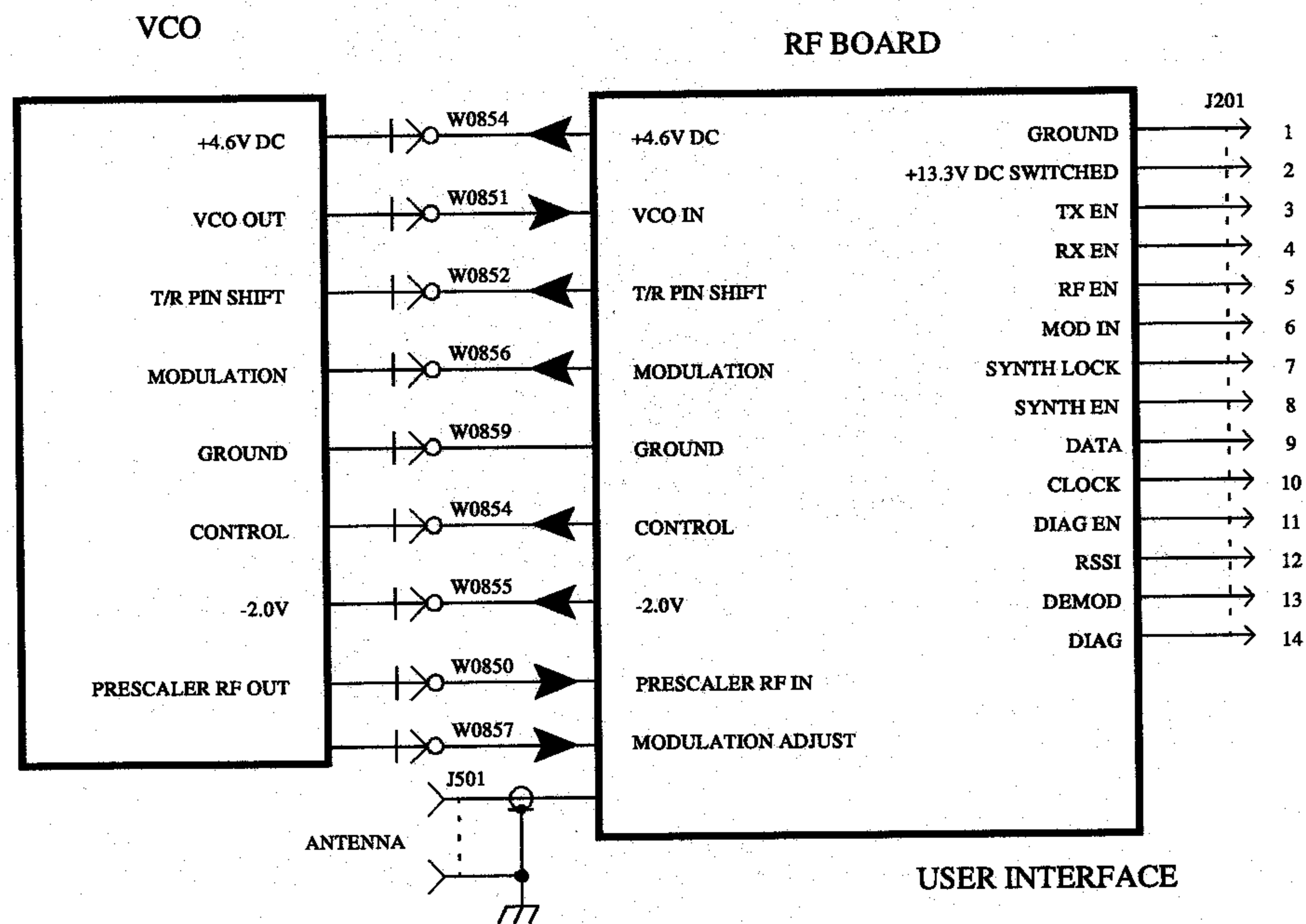


Figure 8-1 3412 INTERCONNECT

SCHEMATIC AND COMPONENT LAYOUTS

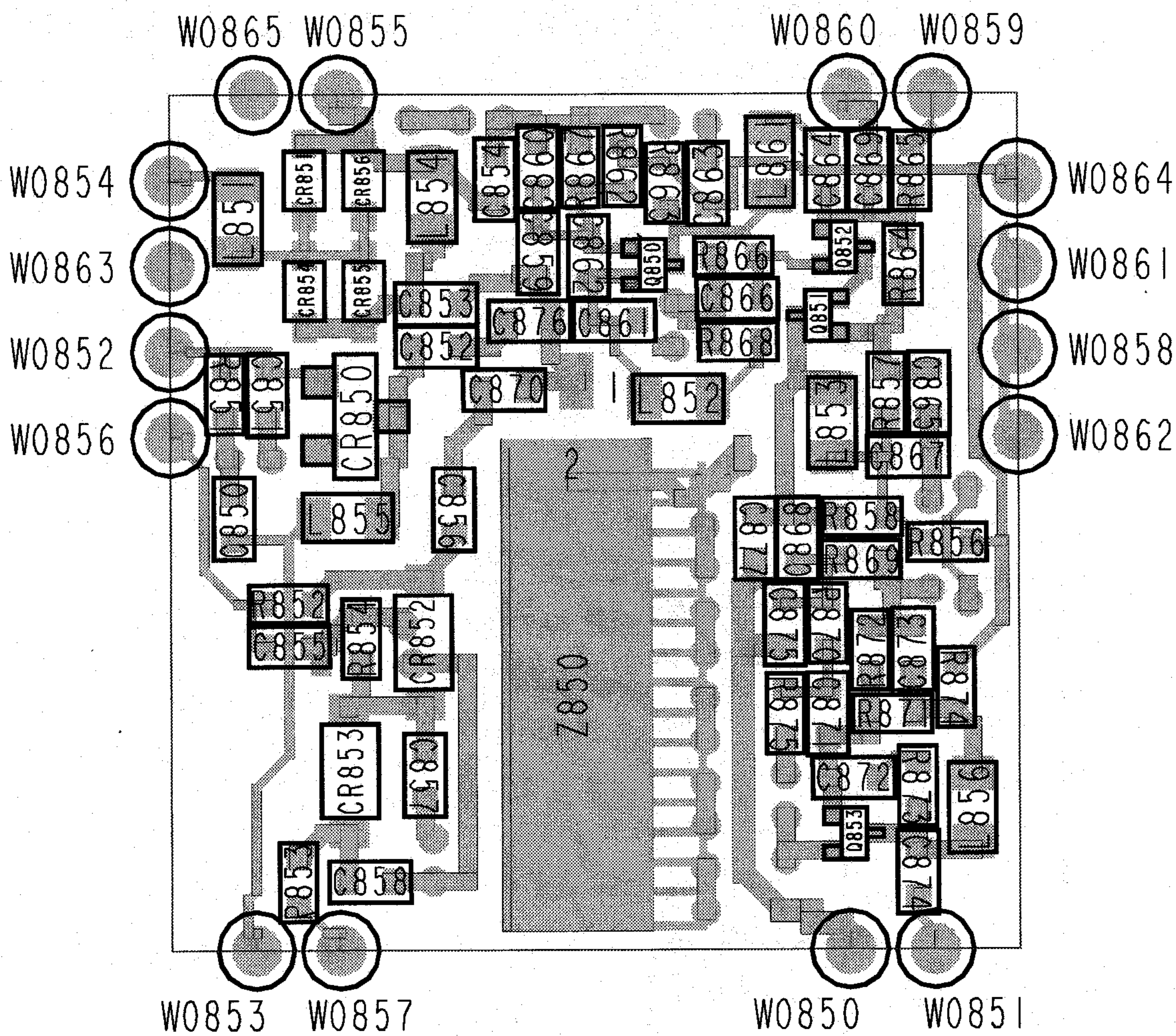


Figure 8-2 VCO COMPONENT LAYOUT (COMPONENT SIDE VIEW)

SCHEMATIC AND COMPONENT LAYOUTS

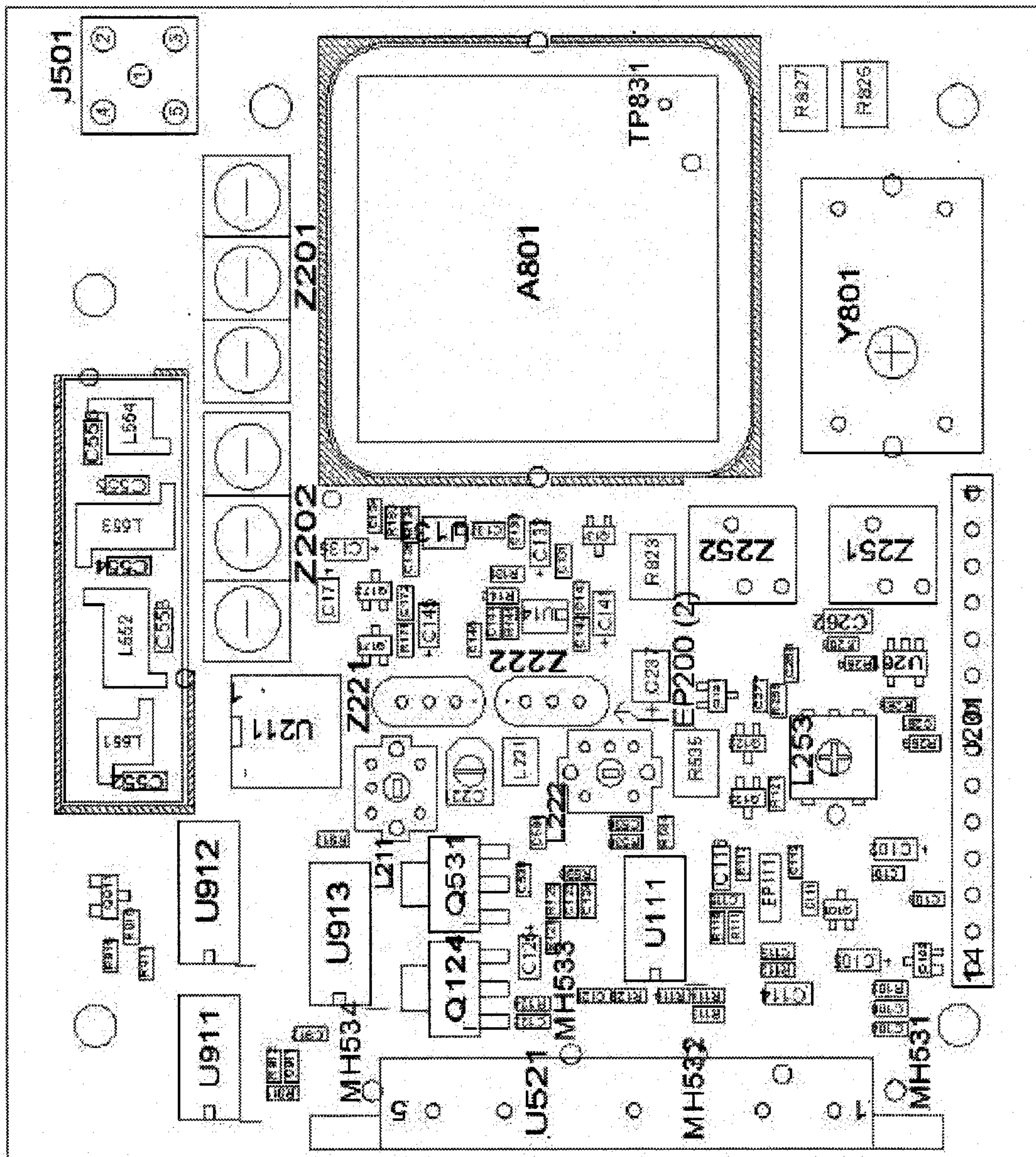


Figure 8-3 TRANSCEIVER COMPONENT LAYOUT (COMPONENT SIDE VIEW)

SCHEMATIC AND COMPONENT LAYOUTS

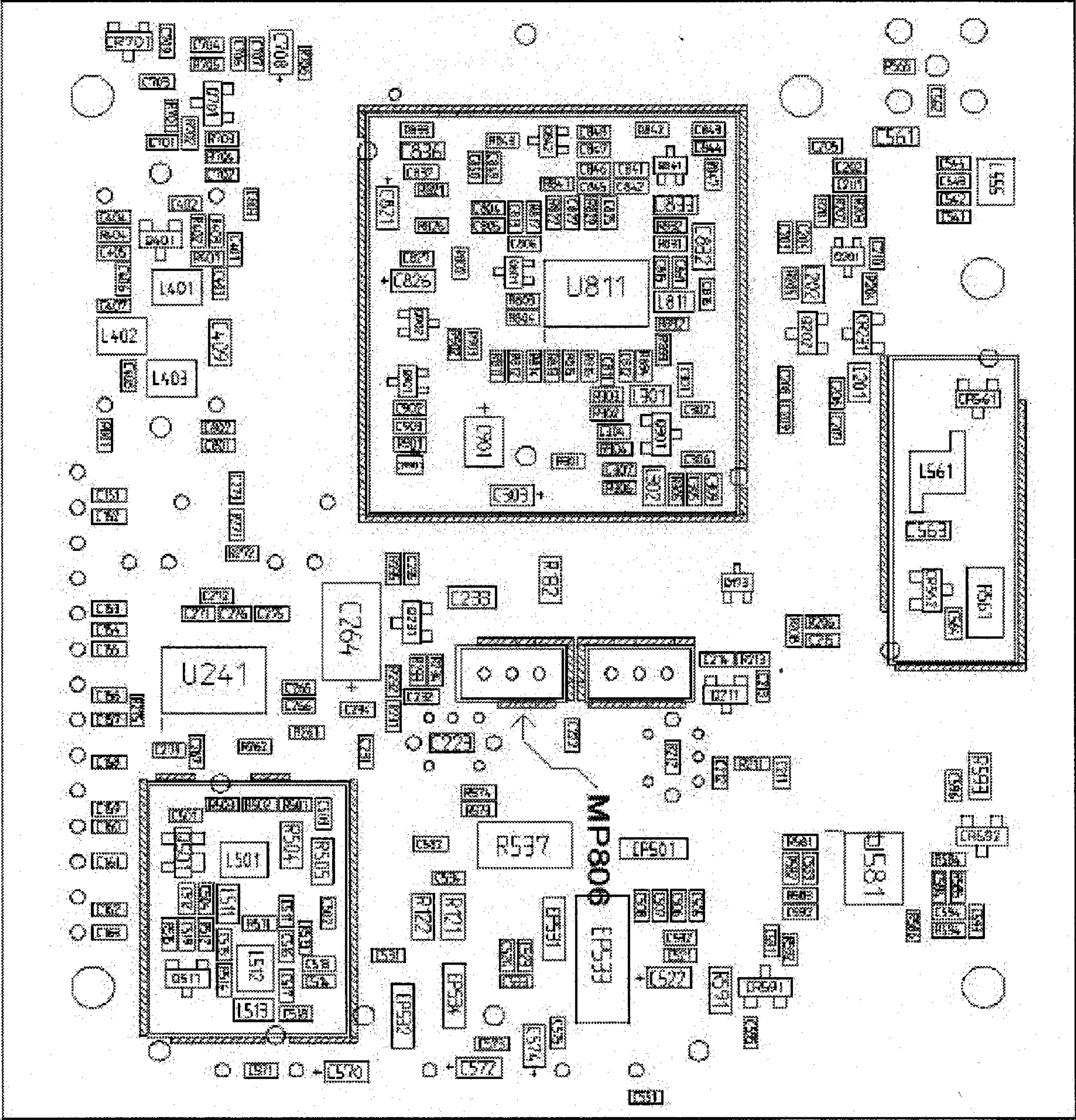


Figure 8-4 TRANSCEIVER COMPONENT LAYOUT (OPPOSITE COMPONENT SIDE VIEW)

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BILL	REVISION	TYPE	U/M	DESCRIPTION			
=====							
5A296-1	E1 (CURRENT)	STANDARD	EACH	Assy,PF1 Central Processor			
LAST USED: 03/20/01		MAX LOT SIZE: 0					
DRAWING: 296		REV: E					
COMPONENT	REV	TYP	QTY/BILL	U/M	DESCRIPTION	FIND#	STEP

0P296	1.00	EACH	PCB,Blank,PF1 Central Processo			A100	
3B378-220-F	2.00	EACH	Heat Sink,T0-220,6.8 C/W,thru			A104	
3H176-6909-1	4.00	EACH	Standoff,aluminum,7/8 in,swage			A150	
3H254-632	1.00	EACH	Nut,632,steel		A110		
3H235-6	1.00	EACH	Flatwasher,Zinc,#6		A115		
3H263-6	1.00	EACH	Lockwasher,#6		A120		
3H255-6-375	1.00	EACH	Screw,phil,p-hd,ssl,6x32x0.375			A125	
3H235-2	4.00	EACH	Flatwasher,Zinc,#2		A135		
3H263-2	4.00	EACH	Lockwasher,#2		A140		
3H255-2-25	4.00	EACH	Screw,Phil,p-hd,ssl,2x56x0.25			A145	
1Y143-A	2.00	EACH	Crystal insulator for HC-49		A160		
3M334-1	1.00	EACH	Shield Fence,Digital Section f		A210		
3M334-2	1.00	EACH	Shield Cover, Digital Section		A211		
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C1	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C2	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C3	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C4	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C5	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C6	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C7	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C8	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C9	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C10	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C11	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C12	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C13	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C14	
1C144-104	1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C15	
1C143-104	1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C16	
1C112-180	1.00	EACH	Cap,cer,5%,NPO,0805,50V,18pF			C17	
1C244-Q106	1.00	EACH	Cap,tant,20V,SMT,C case,10 uF,			C18	
1C118-105	1.00	EACH	Cap,tant,20%,16V,A case,1uF			C19	
1C112-330	1.00	EACH	Cap,cer,5%,NPO,0805,50V,33pF			C20	
1C143-103	1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.01u			C21	
1C399-472	1.00	EACH	Cap,cer,5%,X7R,0805,50V,4700pF			C22	
1C398-393	1.00	EACH	Cap,cer,5%,X7R,1206,50V,.039uF			C23	
1C398-104	1.00	EACH	Cap,cer,5%,X7R,1206,50V,0.1uF			C24	
1C143-104	1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C25	
1C143-104	1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C26	
1C143-102	1.00	EACH	Cap,cer,10%,X7R,0805,50V,1000p			C27	
1C143-102	1.00	EACH	Cap,cer,10%,X7R,0805,50V,1000p			C28	

1C118-105	1.00 EACH	Cap,tant,20%,16V,A case,1uF	C29
1C143-102	1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p	C30
1C143-102	1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p	C31
1C143-102	1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p	C32
1C118-105	1.00 EACH	Cap,tant,20%,16V,A case,1uF	C33

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BILL	REVISION	TYPE	U/M	DESCRIPTION			
5A296-1	E1 (CURRENT)	STANDARD	EACH	Assy,PF1 Central Processor			
COMPONENT	REV	TYP	QTY/BILL	U/M	DESCRIPTION	FIND#	STEP
1C118-105			1.00	EACH	Cap,tant,20%,16V,A case,1uF	C34	
1C399-272			1.00	EACH	Cap,cer,5%,X7R,0805,50V,2700pF	C35	
1C112-101			1.00	EACH	Cap,cer,5%,NPO,0805,50V,100pF	C36	
1C398-104			1.00	EACH	Cap,cer,5%,X7R,1206,50V,0.1uF	C37	
1C398-273			1.00	EACH	CAP,cer,5%,X7R,1206,.027uF	C38	
1R454-102	*	STD	1.00	EACH	Res,5%,SMT,2010,1K ohm	C39	
1C247-1E101			1.00	EACH	Cap,electrolytic,25V,100uF,thr	C40	
1C244-Q106			1.00	EACH	Cap,tant,20V,SMT,C case,10 uF,	C41	
1C117-475			1.00	EACH	Cap,tant,20%,10V,A case,4.7uF	C42	
1C112-101			1.00	EACH	Cap,cer,5%,NPO,0805,50V,100pF	C43	
1C112-120			1.00	EACH	Cap,cer,5%,NPO,0805,50V,12pF	C44	
NP		0.00	EACH	No placement for this referenc		C45	
1C143-222			1.00	EACH	Cap,cer,10%,X7R,0805,50V,2200p	C46	
1C143-104			1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C47	
1C112-121			1.00	EACH	Cap,cer,5%,NPO,0805,50V,120pF	C48	
1C398-123			1.00	EACH	CAP,cer,5%,X7R,1206,.012uF	C49	
1C112-101			1.00	EACH	Cap,cer,5%,NPO,0805,50V,100pF	C50	
1C206-336			1.00	EACH	Cap,tant,10%,6V,C case,33uF,Lo	C51	
NP		0.00	EACH	No placement for this reference		C52	
NP		0.00	EACH	No placement for this referenc		C53	
1C143-104			1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C54	
1C143-104			1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C55	
1C244-Q106			1.00	EACH	Cap,tant,20V,SMT,C case,10 uF,	C56	
1C143-153			1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.015	C57	
1C244-Q106			1.00	EACH	Cap,tant,20V,SMT,C case,10 uF,	C59	
1C398-333			1.00	EACH	Cap,cer,5%,X7R,1206,50V,.033uF	C61	
1C398-333			1.00	EACH	Cap,cer,5%,X7R,1206,50V,.033uF	C62	
1C398-333			1.00	EACH	Cap,cer,5%,X7R,1206,50V,.033uF	C63	
1C143-104			1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C60	
1C398-103			1.00	EACH	Cap,cer,5%,X7R,1206,50V,0.01uF	C64	
1C143-103			1.00	EACH	Cap,cer,10%,X7R,0805,50V,0.01u	C65	
1C247-1E102			1.00	EACH	Cap,electrolytic,25V,1000uF,th	C66	
1C112-330			1.00	EACH	Cap,cer,5%,NPO,0805,50V,33pF	C67	
1C112-330			1.00	EACH	Cap,cer,5%,NPO,0805,50V,33pF	C68	
1C244-Q106			1.00	EACH	Cap,tant,20V,SMT,C case,10 uF,	C69	
1C144-224			1.00	EACH	Cap,cer,10%,X7R,1206,50V,0.22u	C70	
1C404-D-102			1.00	EACH	Cap,Cer Disc,Hi Voltage,.001uf	C71	
1C404-D-102			1.00	EACH	Cap,Cer Disc,Hi Voltage,.001uf	C72	

NP	0.00 EACH	No placement for this referenc	C75
1C398-104	1.00 EACH	Cap,cer,5%,X7R,1206,50V,0.1uF	C76
1C143-104	1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C77
1C143-104	1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C78
1C112-330	1.00 EACH	Cap,cer,5%,NPO,0805,50V,33pF	C79
1C112-330	1.00 EACH	Cap,cer,5%,NPO,0805,50V,33pF	C80
1C143-104	1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C81
1C247-1E102	1.00 EACH	Cap,electrolytic,25V,1000uF,th	C82
1C118-105	1.00 EACH	Cap,tant,20%,16V,A case,1uF	C83
1C398-104	1.00 EACH	Cap,cer,5%,X7R,1206,50V,0.1uF	C84
1C247-1E102	1.00 EACH	Cap,electrolytic,25V,1000uF,th	C85

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BILL	REVISION	TYPE	U/M	DESCRIPTION			
5A296-1	E1 (CURRENT)	STANDARD	EACH	Assy,PF1 Central Processor			
COMPONENT	REV	TYP	QTY/BILL	U/M	DESCRIPTION	FIND#	STEP
1C144-224		1.00 EACH		Cap,cer,10%,X7R,1206,50V,0.22u		C86	
1C144-224		1.00 EACH		Cap,cer,10%,X7R,1206,50V,0.22u		C87	
1C244-Q106		1.00 EACH		Cap,tant,20V,SMT,C case,10 uF,		C88	
1C143-102		1.00 EACH		Cap,cer,10%,X7R,0805,50V,1000p		C89	
1C143-102		1.00 EACH		Cap,cer,10%,X7R,0805,50V,1000p		C90	
1C118-105		1.00 EACH		Cap,tant,20%,16V,A case,1uF		C91	
1C143-104		1.00 EACH		Cap,cer,10%,X7R,0805,50V,0.1uF		C92	
1C118-105		1.00 EACH		Cap,tant,20%,16V,A case,1uF		C93	
1C143-104		1.00 EACH		Cap,cer,10%,X7R,0805,50V,0.1uF		C94	
1C118-105		1.00 EACH		Cap,tant,20%,16V,A case,1uF		C95	
1C118-105		1.00 EACH		Cap,tant,20%,16V,A case,1uF		C96	
1C112-470		1.00 EACH		Cap,cer,5%,NPO,0805,50V,47pF		C97	
1C112-101		1.00 EACH		Cap,cer,5%,NPO,0805,50V,100pF		C98	
1C112-470		1.00 EACH		Cap,cer,5%,NPO,0805,50V,47pF		C99	
1C112-470		1.00 EACH		Cap,cer,5%,NPO,0805,50V,47pF		C100	
1C143-104		1.00 EACH		Cap,cer,10%,X7R,0805,50V,0.1uF		C101	
1C143-104		1.00 EACH		Cap,cer,10%,X7R,0805,50V,0.1uF		C102	
1C143-104		1.00 EACH		Cap,cer,10%,X7R,0805,50V,0.1uF		C103	
1C143-104		1.00 EACH		Cap,cer,10%,X7R,0805,50V,0.1uF		C104	
1C143-104		1.00 EACH		Cap,cer,10%,X7R,0805,50V,0.1uF		C105	
1C118-105		1.00 EACH		Cap,tant,20%,16V,A case,1uF		C107	
1C244-Q106		1.00 EACH		Cap,tant,20V,SMT,C case,10 uF,		C108	
1C144-104		1.00 EACH		Cap,cer,10%,X7R,1206,50V,0.1uF		C109	
1C144-104		1.00 EACH		Cap,cer,10%,X7R,1206,50V,0.1uF		C110	
1C144-104		1.00 EACH		Cap,cer,10%,X7R,1206,50V,0.1uF		C111	
1C144-104		1.00 EACH		Cap,cer,10%,X7R,1206,50V,0.1uF		C112	
1C144-104		1.00 EACH		Cap,cer,10%,X7R,1206,50V,0.1uF		C113	
1C117-475		1.00 EACH		Cap,tant,20%,10V,A case,4.7uF		C114	
1C143-104		1.00 EACH		Cap,cer,10%,X7R,0805,50V,0.1uF		C115	
1C424-102		1.00 EACH		Cap, X7R, 4up, 1000pf, 1206, 5		C116	
1C424-102		1.00 EACH		Cap, X7R, 4up, 1000pf, 1206, 5		C117	
1C424-102		1.00 EACH		Cap, X7R, 4up, 1000pf, 1206, 5		C118	

1C424-102	1.00 EACH	Cap, X7R, 4up, 1000pf, 1206, 5	C119
1C424-102	1.00 EACH	Cap, X7R, 4up, 1000pf, 1206, 5	C120
1C143-102	1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p	C121
1C398-104	1.00 EACH	Cap,cer,5%,X7R,1206,50V,0.1uF	C122
1C144-104	1.00 EACH	Cap,cer,10%,X7R,1206,50V,0.1uF	C123
1C112-152	1.00 EACH	Cap,cer,5%,NPO,0805,50V,1500pF	C124
NP	0.00 EACH	No placement for this referenc	C125
1C398-472	1.00 EACH	Cap,cer,5%,X7R,1206,50V,4700pF	C126
1C118-105	1.00 EACH	Cap,tant,20%,16V,A case,1uF	C127
1C143-102	1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p	C128
1C143-102	1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p	C129
1C143-102	1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p	C130
1C143-102	1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p	C131
1C143-104	1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C132
1C143-104	1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C133
1C143-104	1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C134
1C143-104	1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF	C135

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5A296-1	E1 (CURRENT)	STANDARD	EACH	Assy,PF1 Central Processor			
COMPONENT	REV	TYP	QTY/BILL	U/M	DESCRIPTION	FIND#	STEP
1C143-104		1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C136	
1C143-104		1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C137	
1C143-102		1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p			C138	
1C143-103		1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.01u			C139	
1C143-102		1.00 EACH	Cap,cer,10%,X7R,0805,50V,1000p			C140	
1C143-104		1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C141	
NP		0.00 EACH	No placement for this referenc			C142	
1C118-105		1.00 EACH	Cap,tant,20%,16V,A case,1uF			C143	
1C144-104		1.00 EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C144	
1C143-104		1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C145	
1C144-104		1.00 EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C146	
1C143-104		1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C147	
1C143-104		1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C148	
1C143-104		1.00 EACH	Cap,cer,10%,X7R,0805,50V,0.1uF			C149	
1C112-221		1.00 EACH	Cap,cer,5%,NPO,0805,50V,220,pF			C150	
1C143-332		1.00 EACH	Cap,cer,10%,X7R,0805,50V,3300p			C151	
1C112-681		1.00 EACH	Cap,cer,5%,NPO,0805,50V,680pF			C152	
1C144-104		1.00 EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C153	
1C144-104		1.00 EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C154	
1C144-104		1.00 EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C155	
1C144-104		1.00 EACH	Cap,cer,10%,X7R,1206,50V,0.1uF			C156	
1D149-BAV74		1.00 EACH	Diode,small sig,SOT-23,dual,CC			D1	
NP		0.00 EACH	No placement for this referenc			D2	
NP		0.00 EACH	No placement for this referenc			D3	
1P406-3		1.00 EACH	Surge Protector,SMT,100A,275V,			D4A	
1P406-3		1.00 EACH	Surge Protector,SMT,100A,275V,			D4B	

1P406-3	1.00 EACH Surge Protector,SMT,100A,275V,	D4C
1D149-BAV99	1.00 EACH Diode,small sig,SOT-23,dual	D5
1D149-BAV99	1.00 EACH Diode,small sig,SOT-23,dual	D6
1D149-BAV99	1.00 EACH Diode,small sig,SOT-23,dual	D7
1D145-DL4001	1.00 EACH Diode,Rectifier,SMT,DL1 case,1	D8
1D149-BAV99	1.00 EACH Diode,small sig,SOT-23,dual	D9
1D149-BAV99	1.00 EACH Diode,small sig,SOT-23,dual	D10
1D149-4736A	1.00 EACH Diode Zener, 6.8V, SMT DL-41,-	D11
1X232-2R0	1.00 EACH Fuse,SMT,2.0A,w/holder	F2
1X422-150-A	1.00 EACH Polyswitch,60V Max Operating V	F3
1X422-150-A	1.00 EACH Polyswitch,60V Max Operating V	F4
1X232-2R0	1.00 EACH Fuse,SMT,2.0A,w/holder	F5
1L137-1S0	1.00 EACH Inductor,choke,ferrite,SMT	FB1
4T391-DAA-1	1.00 EACH Telephone Line Interface, Dire	HY1
1J400-ASJ-B	1.00 EACH Connector,Jack,3.5mm Stereo,R/	J2
NP	0.00 EACH No placement for this referenc	J3
1J222-14C	1.00 EACH Connector,14 pin header,flat c	JP1
NP	0.00 EACH No placement for this referenc	JP3
1J401-MTJ-A	1.00 EACH Connector,Jack,Modular Telepho	JP6
1J222-14C	1.00 EACH Connector,14 pin header,flat c	JP8
1J403-MDJ-B	1.00 EACH Connector,Jack,Mini DIN,R/A,6p	JP9
1J402-DJ-A	1.00 EACH Connector,Jack,Circular DIN,5P	JP10
JUMPER-18	1.00 EACH Jumper,18 AWG	JP12

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NP	0.00	EACH	No placement for this referenc			JP13	
1J250-4	1.00	EACH	Connector,male,MAS-CON,straigh			JP14	
NP	0.00	EACH	No placement for this referenc			K1	
NP	0.00	EACH	No placement for this referenc			K2	
1L137-1S0	1.00	EACH	Inductor,choke,ferrite,SMT			L1	
1L137-1S0	1.00	EACH	Inductor,choke,ferrite,SMT			L2	
1Y405-A-48	1.00	EACH	Crystal,Clock Osc.48MHz,TTL Co			OSC1	
1J381-SS09C	1.00	EACH	Connector,Dual port D-Sub,09 p			P1/P5	
1J381-SP15C	1.00	EACH	Connector, Dual port D-Sub, 15			P2/P4	
1J155-A14S	1.00	EACH	Connector,Header,Single,14 Pin			P3	
NP	0.00	EACH	No placement for this referenc			Q1	
1T153-3906	1.00	EACH	Transistor,SMT,PNP,switching,S			Q3	
1T178-2212LT1	1.00	EACH	Transistor,Digital,NPN,8B,22/2			Q4	
NP	0.00	EACH	No placement for this referenc			Q5	
NP	0.00	EACH	No placement for this referenc			Q6	
1T178-2212LT1	1.00	EACH	Transistor,Digital,NPN,8B,22/2			Q8	
1T355-5484	1.00	EACH	Transistor,JFET, N-Chann,SOT-2			Q9	
1R104-103	1.00	EACH	Res,5%,SMT,0805,10k			R1	
1R104-103	1.00	EACH	Res,5%,SMT,0805,10k			R2	
1R104-472	1.00	EACH	Res,5%,SMT,0805,4.7k			R5	

1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R6
1R104-105	1.00 EACH	Res,5%,SMT,0805,1M	R7
1R104-471	1.00 EACH	Res,5%,SMT,0805,470 ohm	R8
1R241-W103	1.00 EACH	POT,1/4 in. round,single turn,	R9
1R104-223	1.00 EACH	Res,5%,SMT,0805,22k	R10
1R104-564	1.00 EACH	Res,5%,SMT,0805,560k	R11
1R104-824	1.00 EACH	Res,5%,SMT,0805,820k	R12
1R104-303	1.00 EACH	Res,5%,SMT,0805,30k	R13
1R104-273	1.00 EACH	Res,5%,SMT,0805,27k	R14
1R104-273	1.00 EACH	Res,5%,SMT,0805,27k	R15
1R150-503J	1.00 EACH	Pot,SMT,4mm,ST4 J lead,50k	R16
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R21
1R104-222	1.00 EACH	Res,5%,SMT,0805,2.2k	R22
1R104-273	1.00 EACH	Res,5%,SMT,0805,27k	R23
1R104-273	1.00 EACH	Res,5%,SMT,0805,27k	R24
1R104-303	1.00 EACH	Res,5%,SMT,0805,30k	R25
1R104-821	1.00 EACH	Res,5%,SMT,0805,820 ohm	R26
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R27
1R104-152	1.00 EACH	Res,5%,SMT,0805,1.5k	R29
1R104-472	1.00 EACH	Res,5%,SMT,0805,4.7k	R30
1R104-133	1.00 EACH	Res,5%,SMT,0805,13k	R31
1R150-204J	1.00 EACH	Pot,SMT,4mm,ST4 J lead,200k	R32
1R104-562	1.00 EACH	Res,5%,SMT,0805,5.6k	R33
1R150-503J	1.00 EACH	Pot,SMT,4mm,ST4 J lead,50k	R34
1R104-000	1.00 EACH	Res,jumper,SMT,0805,0 ohm	R35
1R104-393	1.00 EACH	Res,5%,SMT,0805,39k	R36
1R108-3322	1.00 EACH	Res,1%,SMT,0805,33.2k	R37
1R108-3322	1.00 EACH	Res,1%,SMT,0805,33.2k	R38
1R104-102	1.00 EACH	Res,5%,SMT,0805,1k	R39

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1R104-562		1.00 EACH	Res,5%,SMT,0805,5.6k		R40
1R150-503J		1.00 EACH	Pot,SMT,4mm,ST4 J lead,50k		R41
1R104-102		1.00 EACH	Res,5%,SMT,0805,1k		R42
NP	0.00 EACH	No placement for this referenc			R43
NP	0.00 EACH	No placement for this referenc			R44
1R230-103		1.00 EACH	Resistor array,10k X 4,SMT		R46
1R104-473		1.00 EACH	Res,5%,SMT,0805,47k		R47
1R230-102		1.00 EACH	Resistor array,1k X 4,SMT		R48
1R104-224		1.00 EACH	Res,5%,SMT,0805,220k		R50
1R104-203		1.00 EACH	Res,5%,SMT,0805,20k		R51
1R150-503J		1.00 EACH	Pot,SMT,4mm,ST4 J lead,50k		R52
1R104-222		1.00 EACH	Res,5%,SMT,0805,2.2k		R53
1R230-102		1.00 EACH	Resistor array,1k X 4,SMT		R54
1R104-472		1.00 EACH	Res,5%,SMT,0805,4.7k		R55

1R230-103	1.00 EACH	Resistor array,10k X 4,SMT	R56
1R104-124	1.00 EACH	Res,5%,SMT,0805,120k	R59
1R150-203J	1.00 EACH	Pot,SMT,4mm,ST4 J lead,20k	R60
1R104-472	1.00 EACH	Res,5%,SMT,0805,4.7k	R61
1R104-222	1.00 EACH	Res,5%,SMT,0805,2.2k	R62
1R104-123	1.00 EACH	Res,5%,SMT,0805,12k	R63
1R104-472	1.00 EACH	Res,5%,SMT,0805,4.7k	R64
1R104-474	1.00 EACH	Res,5%,SMT,0805,470k	R65
1R104-223	1.00 EACH	Res,5%,SMT,0805,22k	R66
1R104-473	1.00 EACH	Res,5%,SMT,0805,47k	R67
1R104-472	1.00 EACH	Res,5%,SMT,0805,4.7k	R68
1R150-203J	1.00 EACH	Pot,SMT,4mm,ST4 J lead,20k	R69
1R104-222	1.00 EACH	Res,5%,SMT,0805,2.2k	R72
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R73
1R104-682	1.00 EACH	Res,5%,SMT,0805,6.8k	R74
1R104-104	1.00 EACH	Res,5%,SMT,0805,100k	R75
1R104-514	1.00 EACH	Res,5%,SMT,0805,510k	R76
1R104-104	1.00 EACH	Res,5%,SMT,0805,100k	R77
1R104-104	1.00 EACH	Res,5%,SMT,0805,100k	R78
1R104-000	1.00 EACH	Res,jumper,SMT,0805,0 ohm	R79
1R104-2R7	1.00 EACH	Res,5%,SMT,0805,2.7 ohm	R80
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R82
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R83
1R104-472	1.00 EACH	Res,5%,SMT,0805,4.7k	R84
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R85
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R86
1R104-222	1.00 EACH	Res,5%,SMT,0805,2.2k	R87
1R104-204	1.00 EACH	Res,5%,SMT,0805,200k	R88
1R104-204	1.00 EACH	Res,5%,SMT,0805,200k	R89
1R104-152	1.00 EACH	Res,5%,SMT,0805,1.5k	R90
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R91
1R104-152	1.00 EACH	Res,5%,SMT,0805,1.5k	R92
1R104-273	1.00 EACH	Res,5%,SMT,0805,27k	R93
1R104-224	1.00 EACH	Res,5%,SMT,0805,220k	R94
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R95

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1R104-154		1.00 EACH	Res,5%,SMT,0805,150k		R96
1R104-223		1.00 EACH	Res,5%,SMT,0805,22k		R97
1R104-224		1.00 EACH	Res,5%,SMT,0805,220k		R98
1R104-104		1.00 EACH	Res,5%,SMT,0805,100k		R99
1R104-103		1.00 EACH	Res,5%,SMT,0805,10k		R103
1R104-103		1.00 EACH	Res,5%,SMT,0805,10k		R104
1R104-101		1.00 EACH	Res,5%,SMT,0805,100 ohm		R105
1R104-101		1.00 EACH	Res,5%,SMT,0805,100 ohm		R106

1R104-222	1.00 EACH	Res,5%,SMT,0805,2.2k	R107
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R108
1R241-W103	1.00 EACH	POT,1/4 in. round,single turn,	R109
1R104-104	1.00 EACH	Res,5%,SMT,0805,100k	R110
1R104-102	1.00 EACH	Res,5%,SMT,0805,1k	R112
1R104-432	1.00 EACH	Res,5%,SMT,0805,4.3k	R113
NP	0.00 EACH	No placement for this referenc	R114
1R104-105	1.00 EACH	Res,5%,SMT,0805,1M	R115
1R104-682	1.00 EACH	Res,5%,SMT,0805,6.8k	R116
1R104-822	1.00 EACH	Res,5%,SMT,0805,8.2k	R117
1R104-682	1.00 EACH	Res,5%,SMT,0805,6.8k	R118
1R104-432	1.00 EACH	Res,5%,SMT,0805,4.3k	R119
1R104-104	1.00 EACH	Res,5%,SMT,0805,100k	R120
1R104-471	1.00 EACH	Res,5%,SMT,0805,470 ohm	R121
1R104-331	1.00 EACH	Res,5%,SMT,0805,330 ohm	R122
1R104-102	1.00 EACH	Res,5%,SMT,0805,1k	R123
1R104-000	1.00 EACH	Res,jumper,SMT,0805,0 ohm	R124
1R104-471	1.00 EACH	Res,5%,SMT,0805,470 ohm	R125
1R104-102	1.00 EACH	Res,5%,SMT,0805,1k	R126
1R104-102	1.00 EACH	Res,5%,SMT,0805,1k	R127
1R104-203	1.00 EACH	Res,5%,SMT,0805,20k	R129
1R104-123	1.00 EACH	Res,5%,SMT,0805,12k	R130
1R104-223	1.00 EACH	Res,5%,SMT,0805,22k	R131
NP	0.00 EACH	No placement for this referenc	R132
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R133
1R104-103	1.00 EACH	Res,5%,SMT,0805,10k	R134
1R104-472	1.00 EACH	Res,5%,SMT,0805,4.7k	R135
1R104-683	1.00 EACH	Res,5%,SMT,0805,68k	R136
1R104-393	1.00 EACH	Res,5%,SMT,0805,39k	R137
1R104-473	1.00 EACH	Res,5%,SMT,0805,47k	R138
1R104-273	1.00 EACH	Res,5%,SMT,0805,27k	R139
1R104-513	1.00 EACH	Res,5%,SMT,0805,51k	R140
1R104-223	1.00 EACH	Res,5%,SMT,0805,22k	R141
1R104-472	1.00 EACH	Res,5%,SMT,0805,4.7k	R142
NP	0.00 EACH	No placement for this referenc	R143
1R104-473	1.00 EACH	Res,5%,SMT,0805,47k	R144
NP	0.00 EACH	No placement for this referenc	R145
1R104-223	1.00 EACH	Res,5%,SMT,0805,22k	R146
1R104-514	1.00 EACH	Res,5%,SMT,0805,510k	R147
1R104-561	1.00 EACH	Res,5%,SMT,0805,560 ohm	R148
1R104-514	1.00 EACH	Res,5%,SMT,0805,510k	R149

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BILL	REVISION	TYPE	U/M	DESCRIPTION		

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1R104-104		1.00 EACH	Res,5%,SMT,0805,100k			R150
1R104-225		1.00 EACH	Res,5%,SMT,0805,2.2M			R151

1R104-223	1.00 EACH	Res,5%,SMT,0805,22k	R152
1R104-223	1.00 EACH	Res,5%,SMT,0805,22k	R153
1R104-225	1.00 EACH	Res,5%,SMT,0805,2.2M	R154
1R104-000	1.00 EACH	Res,jumper,SMT,0805,0 ohm	R155
NP	0.00 EACH	No placement for this referenc	R156
1R104-473	1.00 EACH	Res,5%,SMT,0805,47k	R157
1R104-104	1.00 EACH	Res,5%,SMT,0805,100k	R158
1R104-104	1.00 EACH	Res,5%,SMT,0805,100k	R159
1R150-203J	1.00 EACH	Pot,SMT,4mm,ST4 J lead,20k	R160
1R104-104	1.00 EACH	Res,5%,SMT,0805,100k	R161
1R230-101	1.00 EACH	Resistor,array,100 X 4,SMT,060	R162
1R230-101	1.00 EACH	Resistor,array,100 X 4,SMT,060	R163
1R230-101	1.00 EACH	Resistor,array,100 X 4,SMT,060	R164
1R230-101	1.00 EACH	Resistor,array,100 X 4,SMT,060	R165
1R104-000	1.00 EACH	Res,jumper,SMT,0805,0 ohm	R166
NP	0.00 EACH	No placement for this referenc	R167
1R104-101	1.00 EACH	Res,5%,SMT,0805,100 ohm	R168
1R104-101	1.00 EACH	Res,5%,SMT,0805,100 ohm	R169
1R104-223	1.00 EACH	Res,5%,SMT,0805,22k	R170
NP	0.00 EACH	No placement for this referenc	S1
NP	0.00 EACH	No placement for this referenc	TST1
1Q124-431000A	1.00 EACH	IC,Static RAM,1M bit CMOS,128K	U2
5P306-1 * STD	1.00 EACH	EPROM & Firmware for 5A296 - U4	U4
1Q133-25043	1.00 EACH	IC,EEPROM,512 bytes,5V,SOIC	U7
1Q125-208ECWG	1.00 EACH	IC,RS-232 Transceiver with 0.1u	U10
1Q123-28F160S5	1.00 EACH	IC,FlashFile Mem,SSOP-56,5V PS	U11
1Q127-LP2982IM5	1.00 EACH	IC,VREG,5V out,SOT-23,-40 to 1	U12
1Q126-33174DW	1.00 EACH	IC,OP-AMP,Quad,low pwr,SMT,SO-	U13
1Q127-78L05	1.00 EACH	IC,VREG,5V,SMT,SOP-8	U14
1Q126-LM6144M	1.00 EACH	IC,OP-AMP,Quad,Hi speed,5V,SMT	U15
1Q127-78L05	1.00 EACH	IC,VREG,5V,SMT,SOP-8	U16
NP	0.00 EACH	No placement for this referenc	U17
1Q128-CD4066	1.00 EACH	IC,Digital CMOS,SMT,4066 Quad	U18
1Q127-7808	1.00 EACH	IC,VREG, 1A @ 8V,metal tab,0	U19
1Q126-LM6144M	1.00 EACH	IC,OP-AMP,Quad,Hi speed,5V,SMT	U20
1Q128-CD4066	1.00 EACH	IC,Digital CMOS,SMT,4066 Quad	U21
1Q390-8889CS	1.00 EACH	IC,Integrated DTMF Transceiver	U22
1Q132-DAC0832WM	1.00 EACH	IC,DAC,Double Buffered D to A	U23
1Q126-380N-14	1.00 EACH	IC, Audio Power Amp, 14 pin Di	U24
1Q126-33174DW	1.00 EACH	IC,OP-AMP,Quad,low pwr,SMT,SO-	U25
1Q126-33174DW	1.00 EACH	IC,OP-AMP,Quad,low pwr,SMT,SO-	U26
1Q393-82C55A-2V	1.00 EACH	IC,Programmable Peripheral,3 t	U27
1Q393-82C55A-2V	1.00 EACH	IC,Programmable Peripheral,3 t	U28
1Q393-82C55A-2V	1.00 EACH	IC,Programmable Peripheral,3 t	U29
1Q394-MX465DW	1.00 EACH	IC,CTCSS Encoder/Decoder, 3.3	U30
1Q122-386EXTC33	1.00 EACH	IC,386 EX Embedded Microproces	U99
1Q128-74HC04	1.00 EACH	IC,CMOS,Hex inverter,SMT,SO-14	U101

Run Date: 03/22/01
B/M Date: 03/22/01

Sonik Technologies Corporation
SINGLE-LEVEL BILL OF MATERIALS REPORT
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BILL	REVISION	TYPE	U/M	DESCRIPTION
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5A296-1 E1 (CURRENT) STANDARD EACH Assy,PF1 Central Processor

COMPONENT	REV	TYP	QTY/BILL U/M	DESCRIPTION	FIND# STEP
1Q124-431000A			1.00 EACH	IC,Static RAM,1M bit CMOS,128K	U102
1Q128-CD4066			1.00 EACH	IC,Digital CMOS,SMT,4066 Quad	U104
1Q128-74HC05D			1.00 EACH	IC,Hex Inverter,SMT,-0.5 to 7V	U103
1Q125-208ECWG			1.00 EACH	IC,RS-232 Tranceiver with 0.1u	U105
1Q128-DS1869-10			1.00 EACH	IC,Dig. Rheostat,10K, SOIC-8,3	U106
1Q128-CD4066			1.00 EACH	IC,Digital CMOS,SMT,4066 Quad	U107
1Q126-LMC6035MM			1.00 EACH	IC,Dual Op Amp,2.0 to 15.5V PS	U108
1Q124-431000A			1.00 EACH	IC,Static RAM,1M bit CMOS,128K	U109
1Q124-431000A			1.00 EACH	IC,Static RAM,1M bit CMOS,128K	U110
1Y203-4.00			1.00 EACH	Crystal,4.00MHz,HC-49 short,50	Y1
1Y210-3.579545			1.00 EACH	Crystal,3.579545 MHz, +/- 50pp	Y2
5A296-1-MFG			1.00 EACH	MFG for PF1 Central Processor	

Alignment Procedure

General Setup

1. Apply DC power to the unit. Connect the service monitor to the ANT port.
2. Download the Flash code to the unit if it is not already programmed. Hold down the "-" key while powering up the unit to enter Flash code programming mode. See the section on "Firmware Updating" for additional information.
3. Adjust the LCD contrast control on the rear panel of the unit.

Radio Interface

This procedure assumes a properly tuned transceiver is installed in the unit. You will need a DC power source, service monitor, oscilloscope, and DVM. Full System Deviation = 5.0 kHz for wide-band versions, and FSD = 2.5 kHz for narrow-band versions. Depending upon the type bandwidth of the transceiver used, you will have to make slightly different adjustments.

1. Program the unit's transmit and receive frequencies. Disable sub-audible signaling.
2. Set the TX bandwidth to "wide band" or "narrow band" depending on the bandwidth of the transceiver unit installed.
3. Generate an RF carrier on the receive frequency, 1 kHz tone, 60% FSD = 3 kHz (wideband units) / 1.5 kHz. (narrowband units), RF level 10 uV.
4. Adjust R16 for a 1.5 V p-p (530 mV RMS) signal on TP8.
5. Adjust the RF generator to .35 uV. Adjust the squelch (located on the rear panel) so that the carrier detect LED is on, and so that it goes off when the RF level is below .25 uV.

Telco Interface - Receive Mode

1. Generate an RF carrier on the receive frequency, 1 kHz tone, 60% FSD = 3 kHz / 1.5 kHz. RF level 10 uV.
2. Connect the TELCO line to the RX audio by holding the 1 button down on power up to bring-up the test mode, then enter the password and press 6 F1 and F2.
3. Adjust R69 (telco line level) for a level of -13 dBm on the line.
4. Disable the RX audio by pressing F2 twice more. Generate a DTMF tone from the by pressing 3 and then F4.
5. Verify that the line level is between -15 and -12 dBm. Then press the DOWN arrow to turn off the DTMF.

Telco Interface - Transmit Mode

1. Set the service monitor to measure the transmitter's FM deviation.
2. Generate a 2500 Hz tone onto the TELCO line from an external test instrument with a power level of > 5 dBm into 600 ohms.
3. Connect the TELCO to the transmitter by pressing F1, then press F2 twice to key the transmitter.
4. Adjust R52 clockwise for maximum gain, then adjust R41 (limiter) for 4.5 kHz / 2.25 kHz deviation.
5. Adjust the TELCO signal to a power level of -15 dBm.
6. Adjust R52 so that the deviation is at half scale (2.25 kHz / 1.125 kHz).

Paging Modulation

1. Turn the unit off.
2. Generate a 1200 baud paging test signal by holding the 1 button down upon power up, then entering the password and pressing 6 1 2. Specify an ON time of 30000 mS and an OFF time of 0 mS.
3. Adjust R34 for 5 kHz / 2.5 kHz (0 to peak) deviation.
4. Turn off the power to the unit.

Voice Modulation & CTCSS

1. Turn the unit back on.
2. Key the transmitter using the F3 key. Adjust R160 so the carrier is on frequency.

3. Adjust R60 (mic gain) for 3 kHz / 1.5 kHz deviation when speaking into the mic with a normal voice level from a distance of about 1 foot away.
4. Enable a 100 Hz CTCSS encoder on the transmit frequency.
5. Key the transmitter with the F3 key. Adjust R32 for 500 Hz / 250 Hz deviation of the CTCSS tone.
6. Measure the transmitter's power level to verify that it is set to the desired level with the internal jumpers.