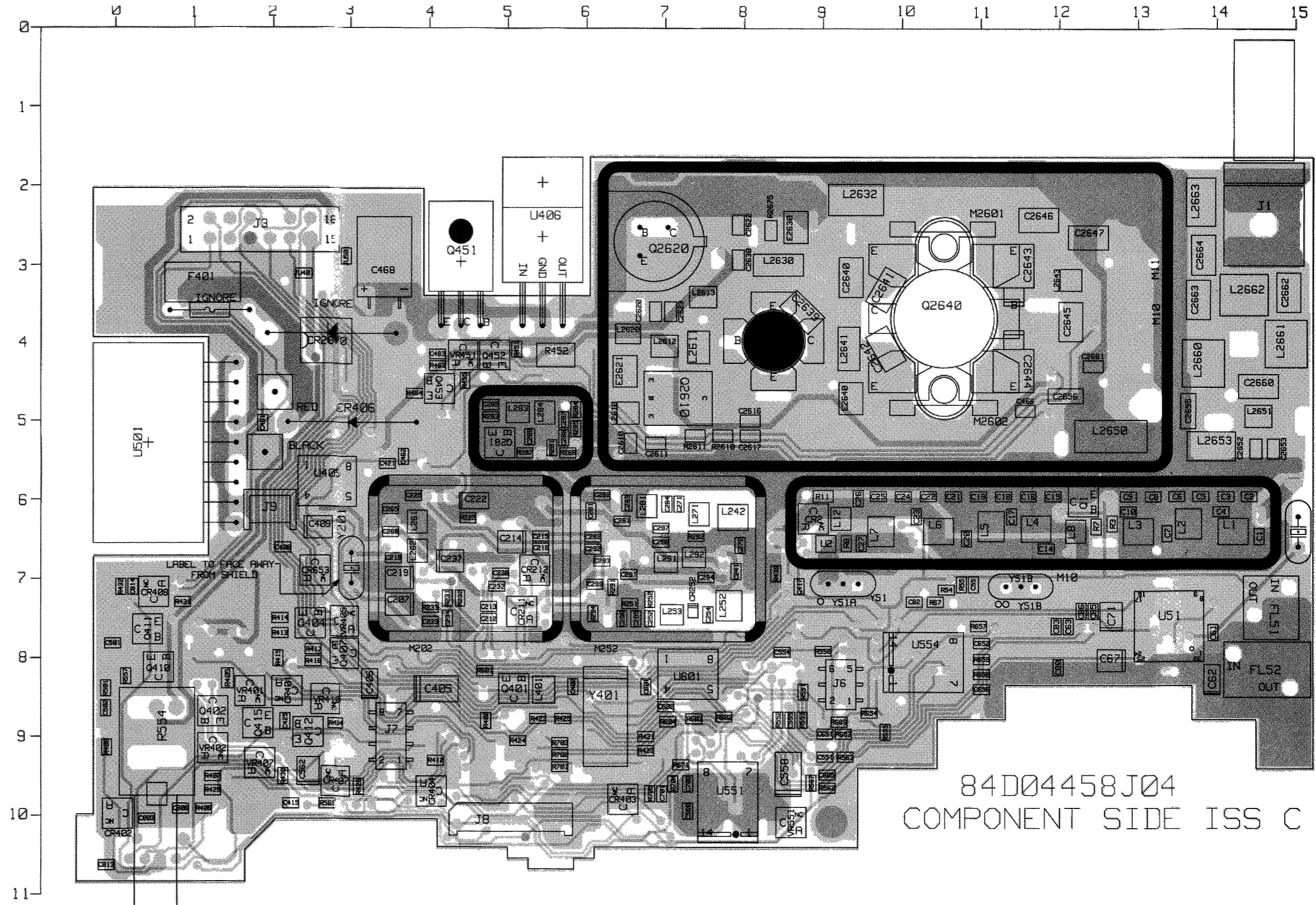


COMPONENT SIDE (GRAY) RCB-95126-A
 SOLDER SIDE (PINK) RCB-95129-A
 OVERLAY ----- RCB-95130-A

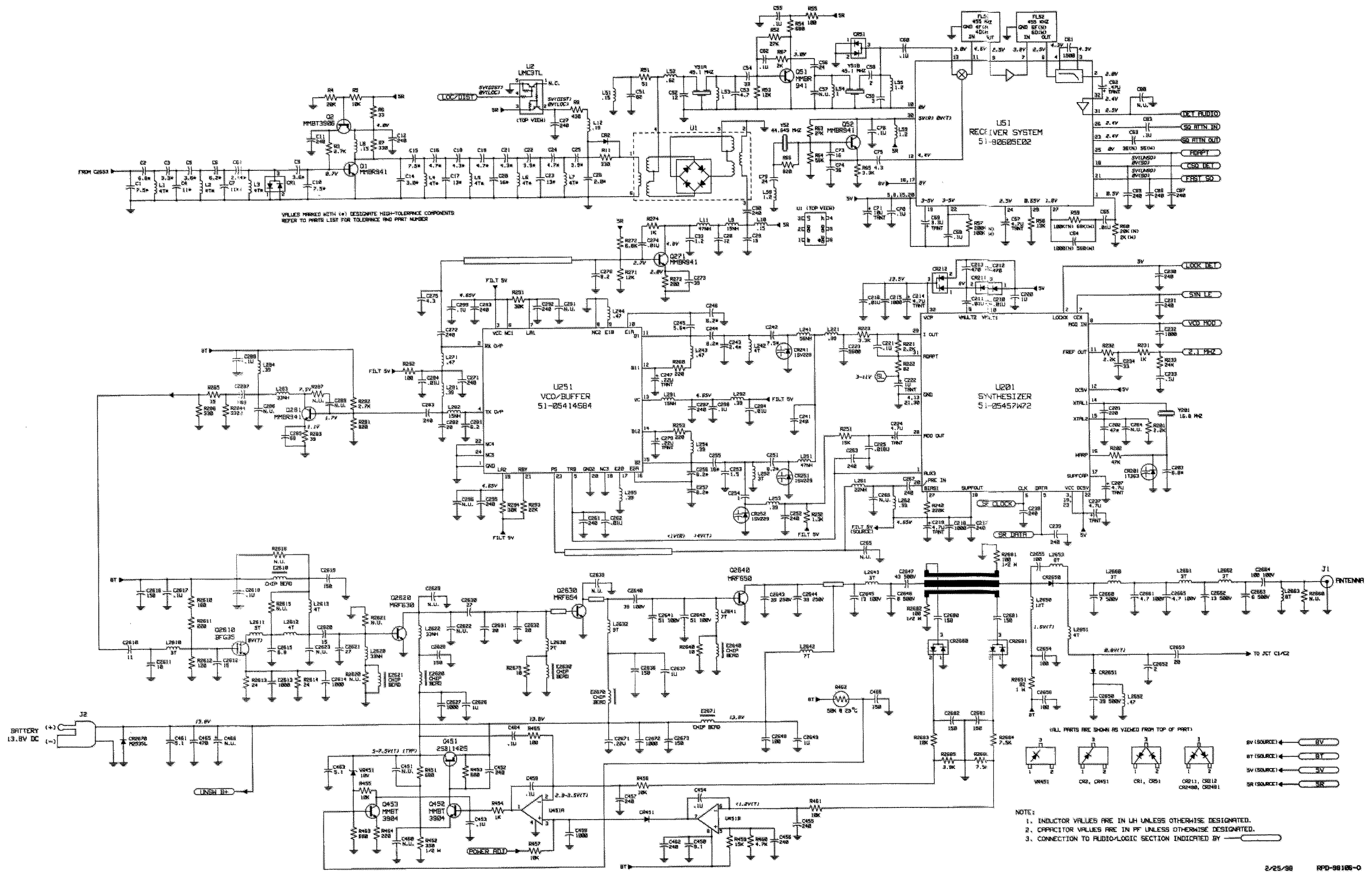
COMPONENT SIDE VIEW



COMPONENT SIDE INNER LAYER (GRAY) RCB-95127-A
 SOLDER SIDE INNER LAYER (PINK) RCB-95128-A
 OVERLAY ----- RCB-95130-A

COMPONENT SIDE VIEW

Circuit Board Details for
 UHF Main Boards, 450-470 MHz, 12.5 & 20-25 kHz, 40 W
 (Part of PMUE1039B, PMUE1040B, PMUE1056B, and PMUE1057B Radios)

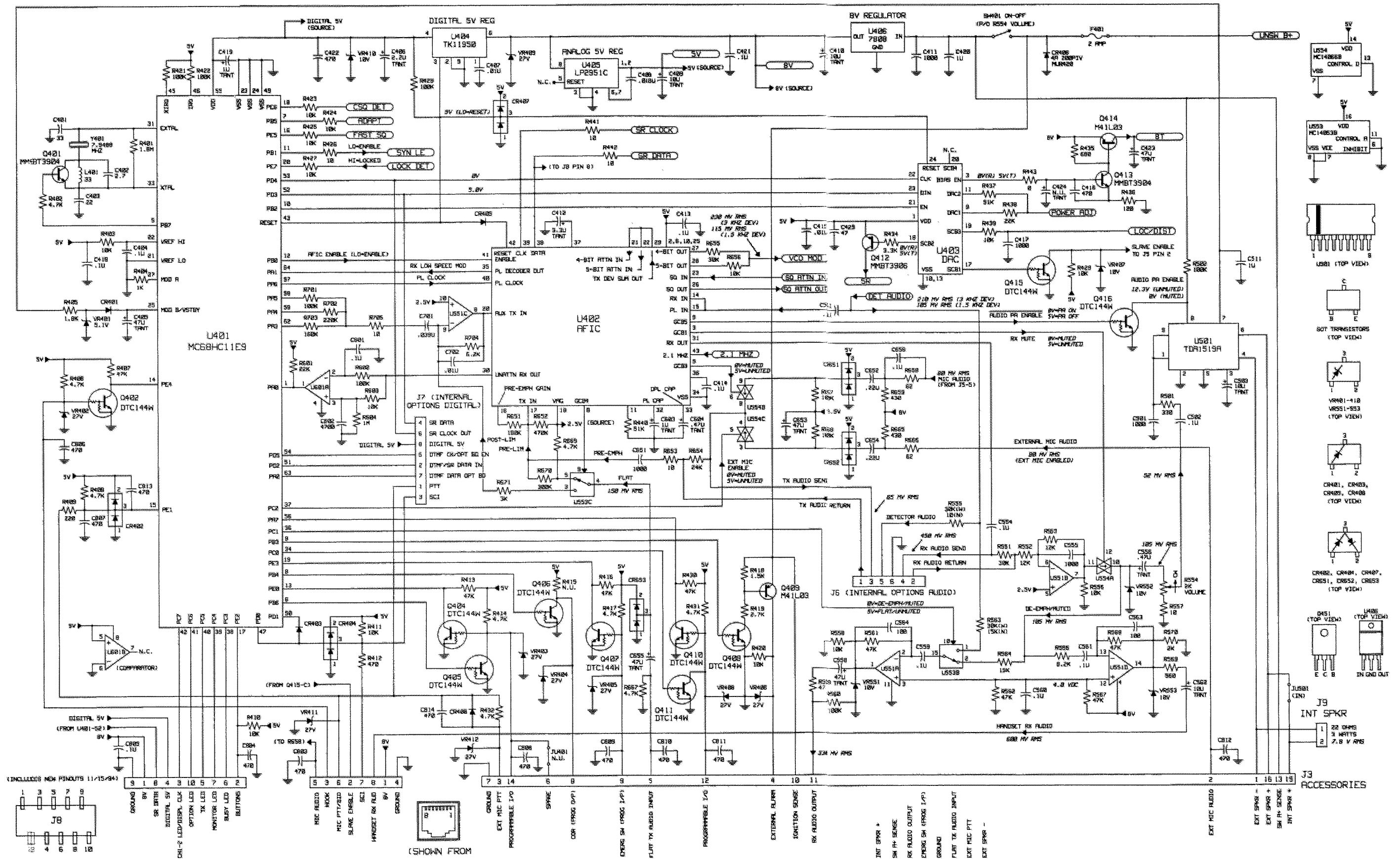


VALUES MARKED WITH (+) DESIGNATE HIGH-TOLERANCE COMPONENTS REFER TO PARTS LIST FOR TOLERANCE AND PART NUMBER

NOTE:
 1. INDUCTOR VALUES ARE IN UH UNLESS OTHERWISE DESIGNATED.
 2. CAPACITOR VALUES ARE IN PF UNLESS OTHERWISE DESIGNATED.
 3. CONNECTION TO AUDIO-LOGIC SECTION INDICATED BY

Schematic Diagram for
 UHF Main Boards, 450-470 MHz, 12.5 & 20-25 kHz, 40 W
 (Part of PMUE1039B, PMUE1040B, PMUE1056B, and PMUE1057B Radios)
 (Sheet 1 of 2)

2/25/98 RFD-98106-0



Schematic Diagram for
 UHF Main Boards, 450-470 MHz, 12.5 & 20-25 kHz, 40 W
 (Part of PMUE1039B, PMUE1040B, PMUE1056B, and PMUE1057B Radios)
 (Sheet 2 of 2)

1. CONNECTION TO RF SECTION INDICATED BY
2. AUDIO VOLTAGE LEVELS ARE AT 1 KHZ, 60% DEVIATION UNLESS OTHERWISE SPECIFIED.

Parts List

SM50/SM120 UHF Main Board, 450-470 MHz, 40 W, 12.5 kHz (N)
(later version) (used in PMUE1039 & PMUE1056)
SM50/SM120 UHF Main Board, 450-470 MHz 40 W, 20/25/30 kHz (W)
(later version) (used in PMUE1040 & PMUE1057) PL-981004-0

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C1	21-13740F39	capacitor, fixed: uF +/-10%; 100 V; unless otherwise stated
C2	21-13740F52	110 pF
C3	21-13740F50	91 pF
C4	21-13740F38	30 pF
C5	---	Not Used
C6	21-13740F20	5.1 +/-0.25 pF
C7	---	Not Used
C8	21-13740F38	30 pF
C9	21-13740F50	91 pF
C10	21-13740F51	100 pF
C11	21-13740F41	39 pF
C12	21-13741F29	1600 pF
C13	21-13740F41	39 pF
C14	21-13740F54	130 pF
C15	21-13740F50	91 pF
C16	21-13740F43	47 pF
C17	21-13740F50	91 pF
C18	21-13740F54	130 pF
C19	21-13740F40	36 pF
C20 thru 22	21-13741F29	1500 pF
C23	21-13743E20	0.1 uF 10%; 16 V
C24	21-13741F29	1500 pF
C26	21-13740L03	2.4 +/-0.1 pF
C27	21-13741F29	1500 pF
C28	21-13740F37	27 pF
C29	21-13740F30	19 pF
C30	21-13741F29	1500 pF
C33	21-13740F30	19 pF
C51	21-13740F49	82 pF
C52	21-13740F28	12 pF
C53	21-13740F19	4.7 +/-0.25 pF
C54	21-13740F39	33 pF
C55	21-13743E20	0.1 uF 10%; 16 V
C56	21-13740F36	24 pF
C57	---	Not Used
C58	21-13740F10	2.0 +/-0.25 pF
C59	21-13740F14	3.0 +/-0.25 pF
C60	21-13743E20	0.1 uF 10%; 16 V
C61	21-13741F29	1500 pF
C62	23-11049A05	tantalum 0.47 uF 10%; 25 V
C63(N)	21-13740F40	36 pF
C64(W)	21-13740F45	56 pF
C64(W)	21-13741F25	1000 pF
C65	21-13740F69	560 pF
C66	21-13741F49	0.01 uF
C67	23-11049J11	tantalum 4.7 uF 10%; 16 V
C68	21-13743E20	0.1 uF 10%; 16 V
C69	23-11049J07	tantalum 3.3 uF 10%; 20 V
C70	21-13743E20	0.1 uF 10%; 16 V
C71	23-11049A57	tantalum 10 uF 10%; 16 V
C73	21-13740F32	16 pF
C74	21-13740F40	36 pF
C75	21-13740F18	4.3 +/-0.25 pF
C76	21-13743E20	0.1 uF 10%; 16 V
C79	21-13740F36	24 pF
C80	---	Not Used
C82, 83	21-13743E20	0.1 uF 10%; 16 V
C85 thru 87	21-13740F60	240 pF
C201	21-13740F69	220 pF
C202	21-13740L34	47 pF 2%
C203	21-13740L14	6.8 +/-0.1 pF
C207	23-11049J11	tantalum 4.7 uF 10%; 16 V
C210, 211	21-13741F49	.01 uF
C212, 213	21-13741F17	470 pF
C214	23-11049J11	tantalum 4.7 uF 10%; 16 V
C215	21-13741F29	1500 pF
C216	21-13741F49	.01 uF
C217	21-13741F29	1500 pF
C218	21-13743E20	0.1 uF 10%; 16 V
C219	23-11049J11	tantalum 4.7 uF 10%; 16 V
C220	21-13743E20	0.1 uF 10%; 10 V
C221	21-13743E20	0.1 uF 10%; 16 V
C222	23-11049A07	tantalum 1 uF 10%; 16 V
C223	21-13741F43	5600 pF
C224	23-11049J11	tantalum 4.7 uF 10%; 16 V
C225	21-13743E05	.018 uF 10%; 16 V
C230, 231	21-13741F17	470 pF
C232	21-13741F25	1000 pF
C233	21-13743E20	0.1 uF 10%; 16 V

SM50/SM120 UHF Main Board, 450-470 MHz, 40 W, 12.5 kHz (N)
(later version) (used in PMUE1039 & PMUE1056)
SM50/SM120 UHF Main Board, 450-470 MHz 40 W, 20/25/30 kHz (W)
(later version) (used in PMUE1040 & PMUE1057) PL-981004-0

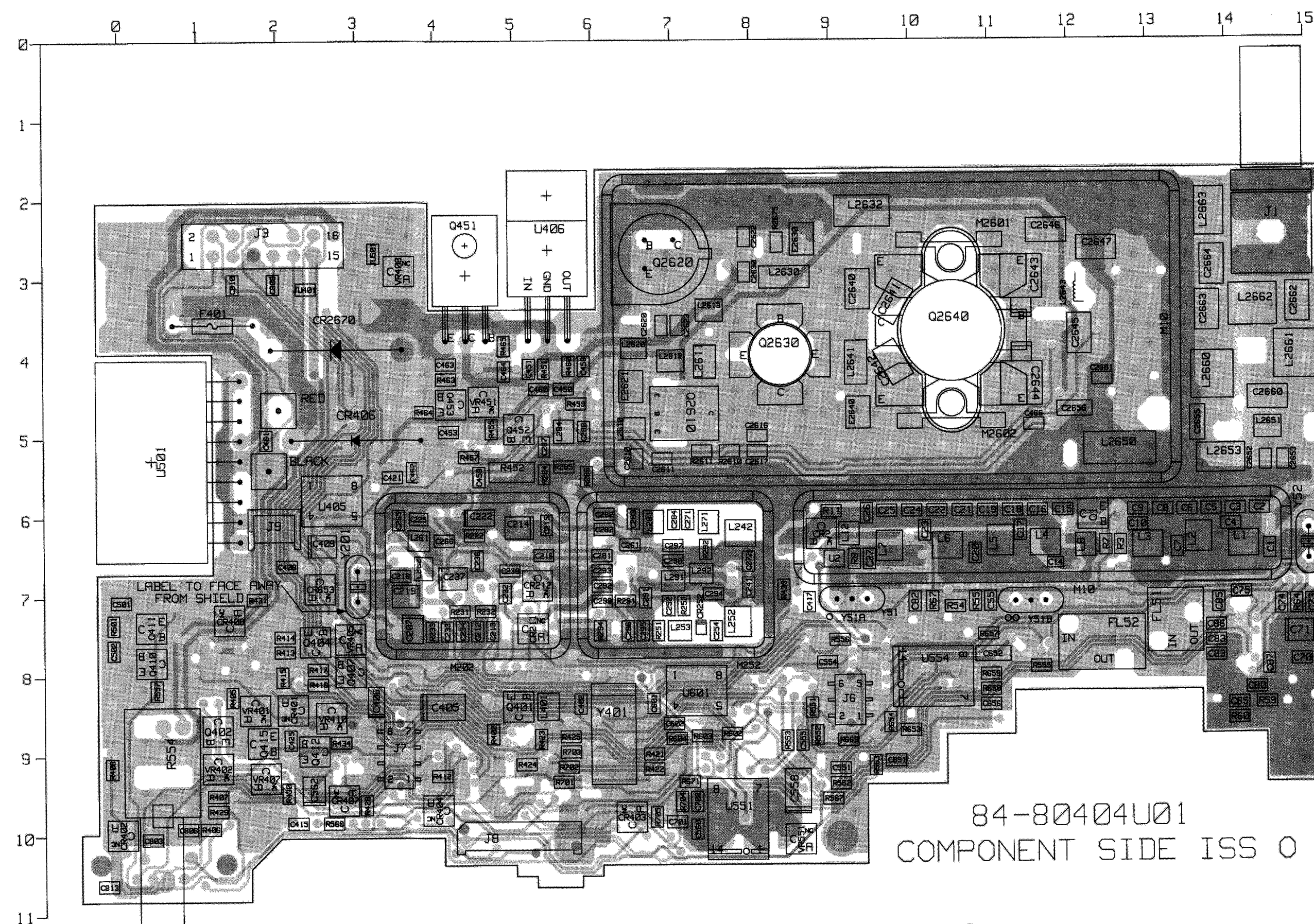
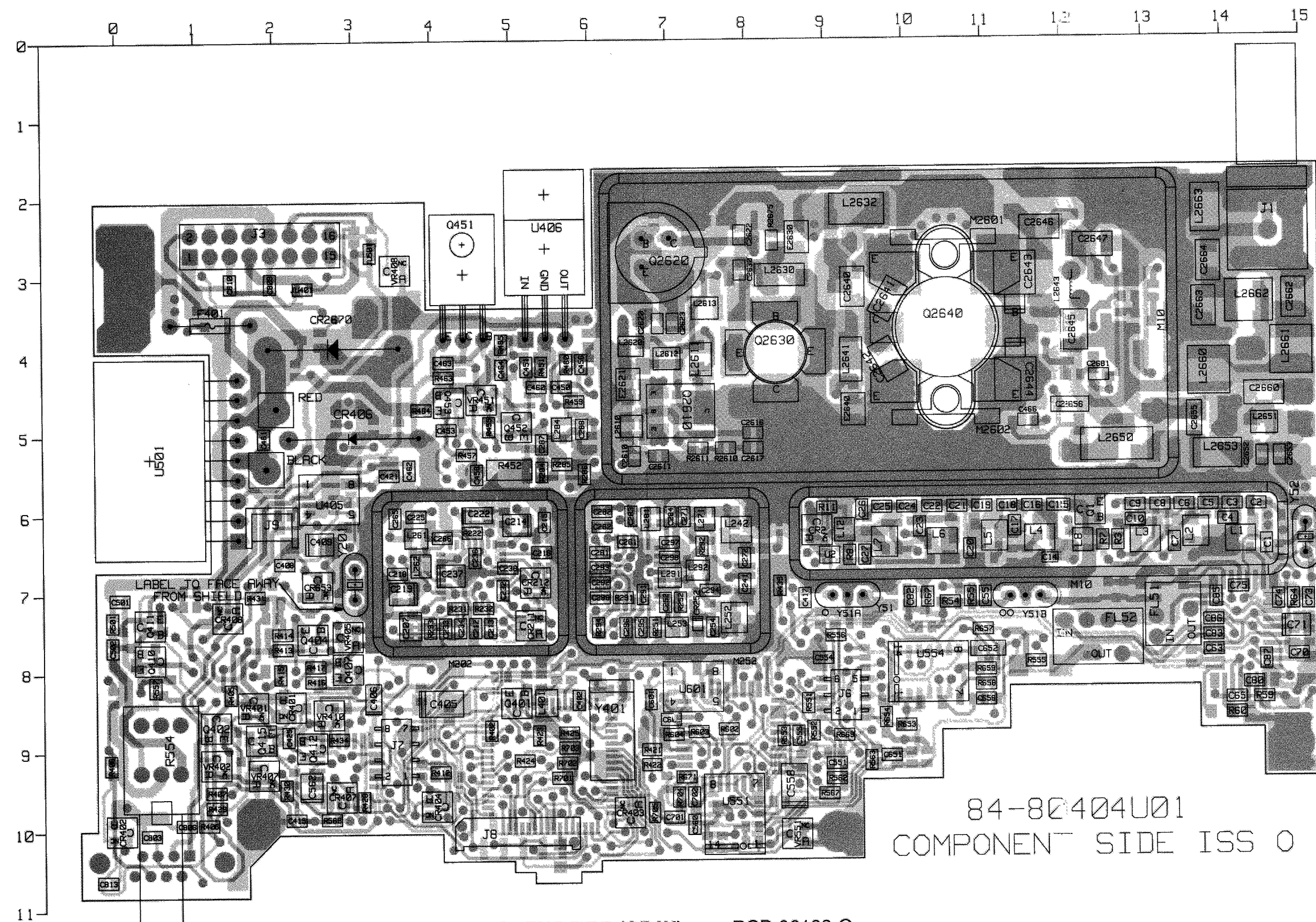
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C234	21-13740F39	33 pF
C237	23-11049J11	tantalum 4.7 uF 10%; 16 V
C238, 239	21-13740F55	150 pF
C241	21-13741F29	1500 pF
C242	21-13740L22	15 pF 2%
C243	21-13740F03	1 +/-0.025 pF
C244	21-13740L18	11 pF 2%
C245	21-13740L16	8.2 +/-0.1 pF
C246	21-13740L18	10 pF 2%
C247	23-11049A03	tantalum 0.22 uF 10%; 35 V
C251	21-13740L26	22 pF 2%
C252	21-13741F29	1500 pF
C253	21-13740F05	1.2 +/-0.25 pF
C254	21-13740F08	1.6 +/-0.25 pF
C255	21-13740L22	15 pF 2%
C256	21-13740L18	8.2 +/-0.1 pF
C257	21-13740L18	10 pF 2%
C261	---	Not Used
C262	21-13741F49	.01 uF
C263	21-13741F29	1500 pF
C264	---	Not Used
C265	21-13740F30	13 pF
C266	21-13740F24	7.5 +/-0.25 pF
C267	21-13741F29	1500 pF
C271 thru 273	21-13741F29	1500 pF
C274	21-13741F49	.01 uF
C275	21-13740F29	12 pF
C276	---	Not Used
C279	23-11049A03	tantalum 0.22 uF 10%; 35 V
C281	21-13740F25	8.2 +/-0.25 pF
C282	21-13740F31	15 pF
C283	21-13741F29	1500 pF
C284	---	Not Used
C285	21-13741F29	1500 pF
C286	21-13740F27	10 pF
C287	21-13741F25	1000 pF
C288	21-13743E20	0.1 uF 10%; 16 V
C289	---	Not Used
C291	---	Not Used
C292	21-13743E20	0.1 uF 10%; 16 V
C293	21-13741F29	1500 pF
C294	21-13741F49	.01 uF
C295	---	Not Used
C296	21-13743E20	0.1 uF 10%; 16 V
C297	---	Not Used
C298	21-13741F29	1500 pF
C299	21-13743E20	0.1 uF 10%; 16 V
C401	21-13740F39	33 pF
C402	21-13740F13	2.7 +/-0.25 pF
C403	21-13740F35	22 pF
C404	21-13743E20	0.1 uF 10%; 16 V
C405	23-11049J43	tantalum 47 uF 10%; 10 V
C406	23-11049A40	tantalum 2.2 uF 10%; 10 V
C407	21-13741F49	.01 uF
C408	21-13743E05	.018 uF 10%; 16 V
C409, 410	23-11049A57	tantalum 10 uF 10%; 16 V
C411	21-13741F25	1000 pF
C412	23-11049J07	tantalum 3.3 uF 10%; 20 V
C413, 414	21-13743E20	0.1 uF 10%; 16 V
C415	21-13741F49	.01 uF
C416	21-13741F17	470 pF
C417	21-13741F25	1000 pF
C418	21-13743E20	0.1 uF 10%; 16 V
C419	23-11049A07	tantalum 1 uF 10%; 16 V
C420	21-13741W01	1 uF 10%; 25 V
C421	21-13743E20	0.1 uF 10%; 16 V
C422	21-13741F17	470 pF
C423	23-11049J43	tantalum 47 uF 10%; 10 V
C424	---	Not Used
C425	21-13740F43	47 pF
C426	21-13740F26	9.1 +/-0.25 pF
C451	21-13743K16	0.22 uF +/-80/-20%; 16 V
C452	21-13741F29	1500 pF
C453, 454	21-13743E20	0.1 uF 10%; 16 V
C455 thru 458	21-13741F29	1500 pF
C459	21-13743E20	0.1 uF 10%; 16 V
C460	---	Not Used
C461	21-13740F20	5.1 +/-0.25 pF
C462	21-13741F29	1500 pF
C463	21-13740F20	5.1 +/-0.25 pF
C464	21-13743E20	0.1 uF 10%; 16 V

SM50/SM120 UHF Main Board, 450-470 MHz, 40 W, 12.5 kHz (N)
(later version) (used in PMUE1039 & PMUE1056)
SM50/SM120 UHF Main Board, 450-470 MHz 40 W, 20/25/30 kHz (W)
(later version) (used in PMUE1040 & PMUE1057) PL-981004-0

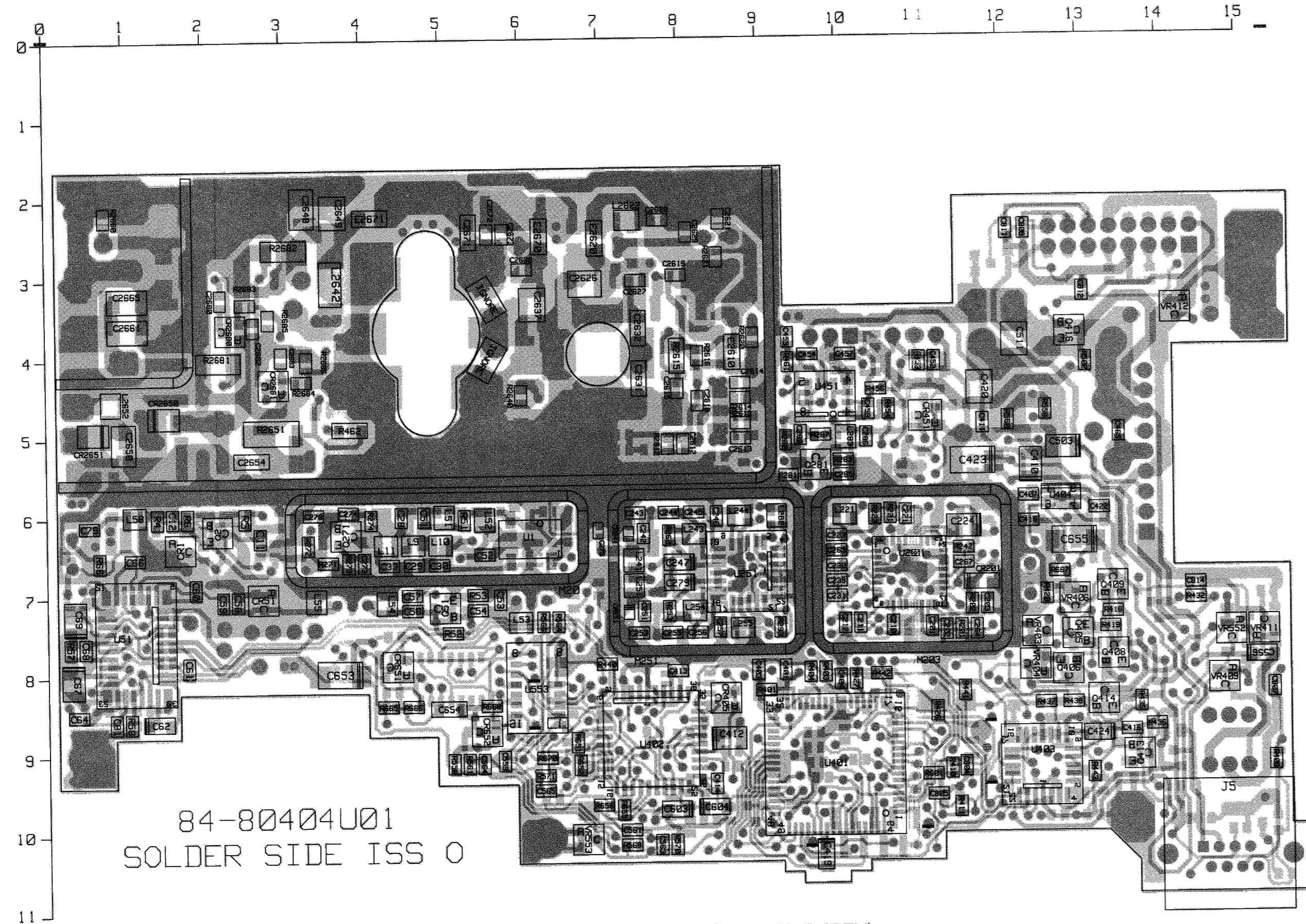
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C465	21-13741F29	1500 pF
C466	21-13740A71	470 pF
C468	---	Not Used
C501	21-13741F25	1000 pF
C502	21-13743E20	0.1 uF 10%; 16 V
C503	23-11049A57	tantalum 10 uF 10%; 16 V
C511	21-13741W01	1 uF 10%; 25 V
C512	21-13743E20	0.1 uF 10%; 16 V
C554	48-13833C07	diode silicon SOT
C555	21-13741F25	1000 pF
C556	23-11049A05	tantalum 0.47 uF 10%; 25 V
C558	23-11049J43	tantalum 47 uF 10%; 10 V
C559 thru 561	21-13743E20	0.1 uF 10%; 16 V
C562	23-11049A57	tantalum 10 uF 10%; 16 V
C563, 564	21-13740F51	100 pF
C601	21-13743E20	0.1 uF 10%; 16 V
C602	21-13741F41	4700 pF
C603	23-11049A07	tantalum 1 uF 10%; 16 V
C604	23-11049A05	tantalum 0.47 uF 10%; 25 V
C651	21-13741F25	1000 pF
C652	21-13743K16	0.22 uF +/-80/-20%; 16 V
C653	23-11049J43	tantalum 47 uF 10%; 10 V
C654	21-13743K16	0.22 uF +/-80/-20%; 16 V
C655	23-11049J43	tantalum 47 uF 10%; 10 V
C656	21-13743E20	0.1 uF 10%; 16 V
C701	21-13743E11	.039 uF 10%; 16 V
C702	21-13741F49	.01 uF
C805, 804	21-13741F17	470 pF
C806 thru 814	21-13741F17	470 pF
C2410	21-13740A71	470 pF
C2411	21-13740A40	30 pF
C2412	---	Not Used
C2413, 2414	21-13740A71	470 pF
C2416	21-13743A19	0.1 uF 10%; 16 V
C2417	21-13740A71	470 pF
C2418	21-13740A79	1000 pF
C2419, 2420	21-13740A71	470 pF
C2421	21-13740A42	470 pF
C2422, 2423	---	Not Used
C2424	21-13740A57	120 pF
C2425	21-13743A19	0.1 uF 10%; 16 V
C2426	21-13741W01	1 uF 10%; 25 V
C2427	21-13740A71	470 pF
C2428	---	Not Used
C2429	21-13740A62	200 pF
C2430	21-13740A61	180 pF
C2431	---	Not Used
C2432	21-13740A52	75 pF
C2433	21-13740B36	30 pF
C2434	21-13740A48	51 pF
C2435	---	Not Used
C2436	21-13740A71	470 pF
C2437	---	Not Used
C2438	21-11032B15	0.22 uF +/-80/-20%
C2439	21-11078B43	110 pF 100 V
C2440	21-11078B55	330 pF 100 V
C2441	21-11078B53	270 pF 100 V
C2442	21-11078B52	240 pF 100 V
C2443	21-11078B59	75 pF 100 V
C2444, 2455	21-11078B19	470 pF
C2446	21-80060M32	36 pF 500 V
C2447, 2448	21-11078B59	470 pF 100 V
C2449	21-13741W01	chip 2.2 uH 5%; 25 V
C2450	21-11078B55	330 pF 100 V
C2451	21-80060M24	16 pF 500 V
C2452	21-13740A35	18 pF
C2453, 2454	21-13740A71	470 pF
C2455	---	Not Used
C2456	21-13740A71	470 pF
C2460	21-80060M25	18 pF 500 V
C2461	21-11078B19	470 pF 100 V
C2462	21-80060M39	43 pF 500 V
C2463	21-80060M30	30 pF 500 V
C2464	21-13741F29	1500 pF
C2465	21-11078B18	15 pF 100 V
C2471	21-13741W01	1 uF 10%; 25 V
C2472	21-13743A19	0.1 uF 10%; 16 V
C2473	21-13740A71	470 pF
C2474	---	Not Used
C2480	21-13740A71	470 pF

SM50/SM120 UHF Main Board, 450-470 MHz, 40 W, 12.5 kHz (N)
(later version) (used in PMUE1039 & PMUE1056)
SM50/SM120 UHF Main Board, 450-470 MHz 40 W, 20/25/30 kHz (W)
(later version) (used in PMUE1040 & PMUE1057) PL-981004-0

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C2481 thru 2483	21-13740A71	470 pF
C2485, 2486	21-80464E52	clamped mica 60 pF 250V
CR1	48-80154K03	diode: (see note)
CR2	48-80142L01	dual Schottky SOT



Circuit Board Details for
UHF Main Boards, 470-490 MHz, 12.5 & 20-25 kHz, 40 W
(Part of HUE3761A, HUE3762A, HUE3611A, and HUE3612A Radios)

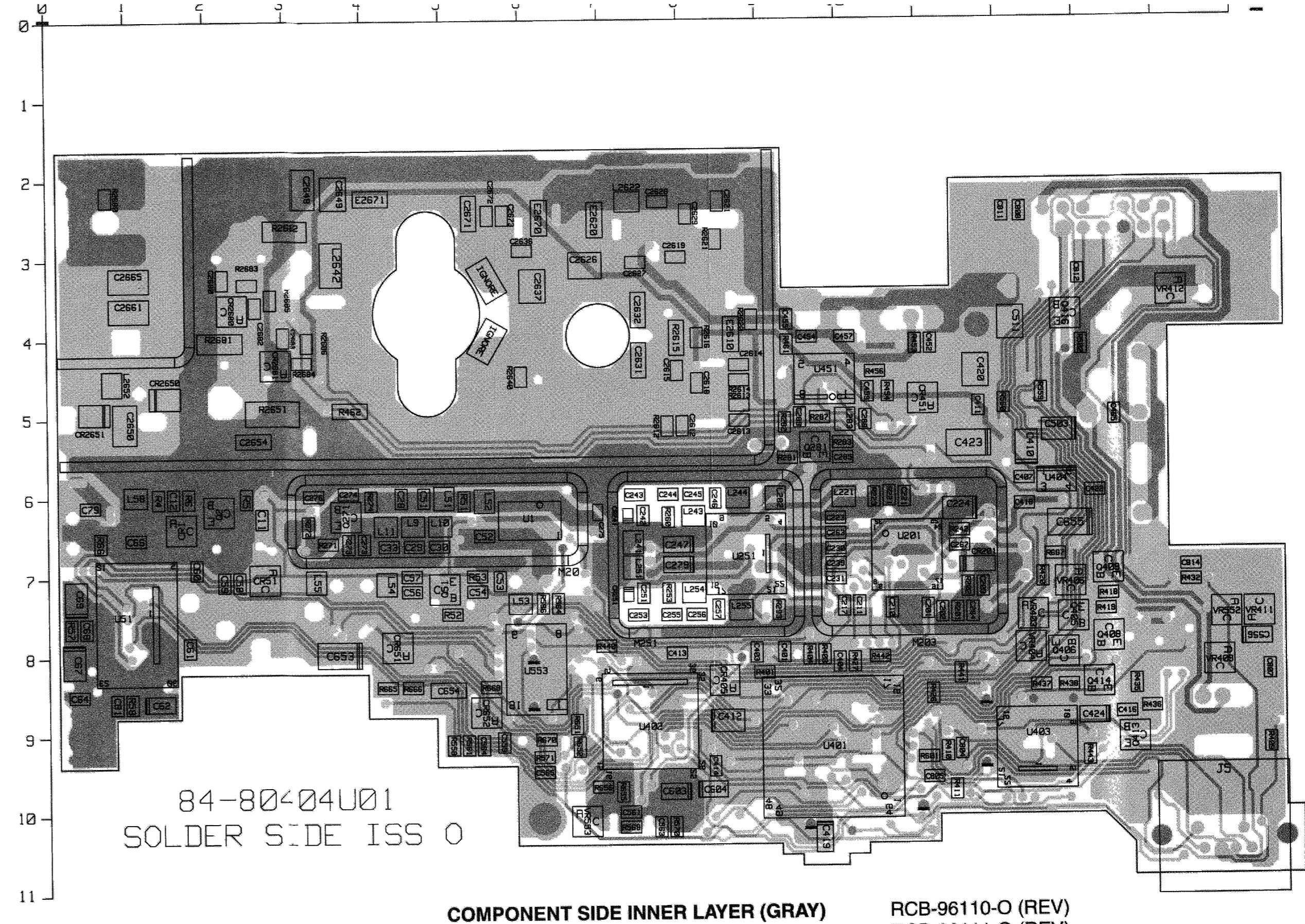


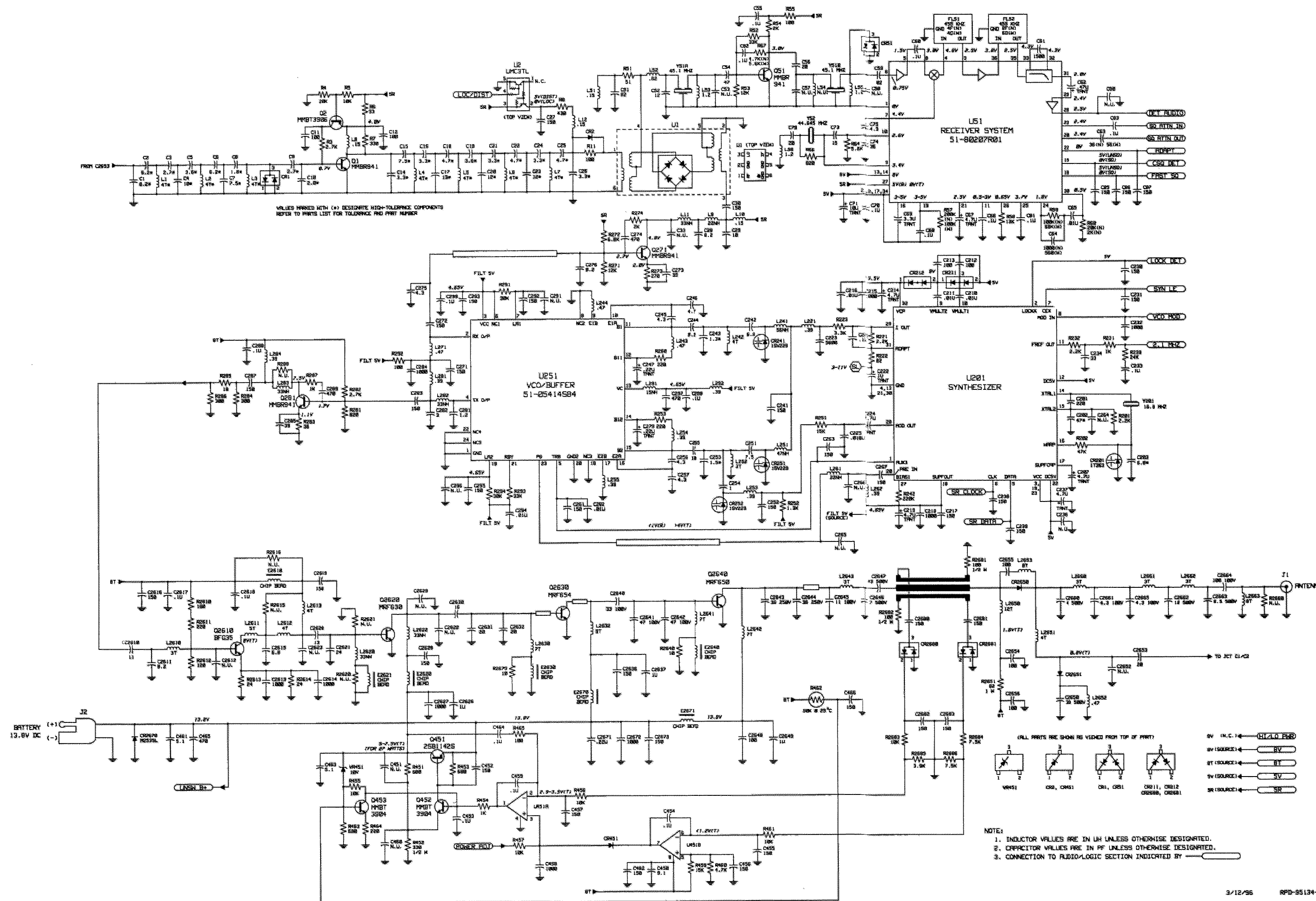
84-80404U01
SOLDER SIDE ISS 0

COMPONENT SIDE (GRAY)
SOLDER SIDE (PINK)
OVERLAY -----

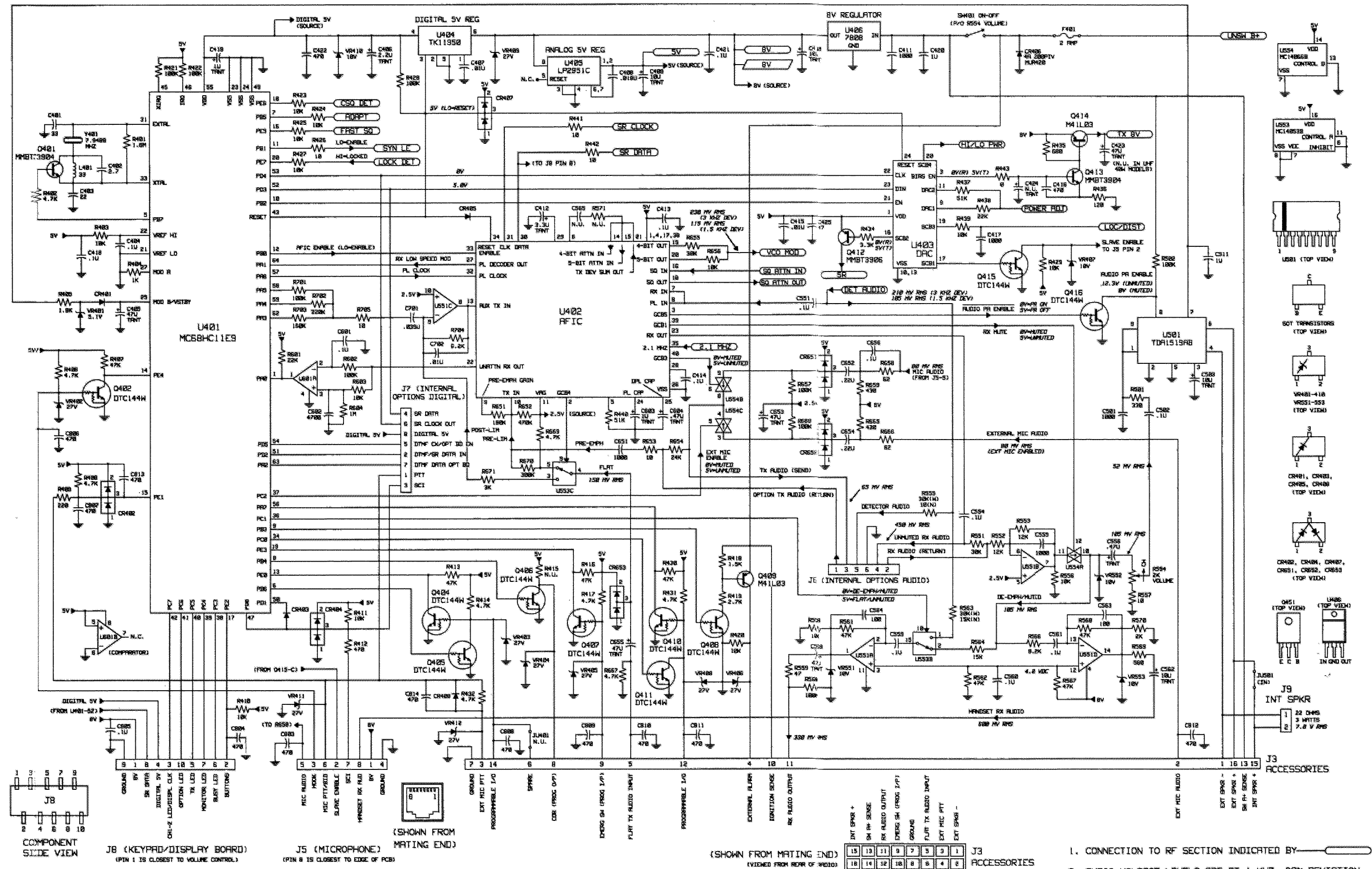
RCB-96109-O (REV)
RCB-96112-O (REV)
RCB-96114-O

SOLDER SIDE VIEW





Schematic Diagram for
 UHF Main Boards, 470-490 MHz, 12.5 & 20-25 kHz, 40 W
 (Part of HUE3761A, HUE3762A, HUE3611A, and HUE3612A Radios)
 (Sheet 1 of 2)



Schematic Diagram for UHF Main Boards, 470-490 MHz, 12.5 & 20-25 kHz, 40 W (Part of HUE3761A, HUE3762A, HUE3611A, and HUE3612A Radios) (Sheet 2 of 2)

1. CONNECTION TO RF SECTION INDICATED BY _____
2. AUDIO VOLTAGE LEVELS ARE AT 1 KHZ, 60% DEVIATION UNLESS OTHERWISE SPECIFIED.

Parts List

SM50/SM120 UHF Main Board, 470-490 MHz, 40 Watts
 12.5 kHz (N) (used in HUE3761 & HUE3611)
 SM50/SM120 UHF Main Board, 470-490 MHz, 40 Watts
 20/25 kHz (W) (used in HUE3762 & HUE3612) PL-951030-A

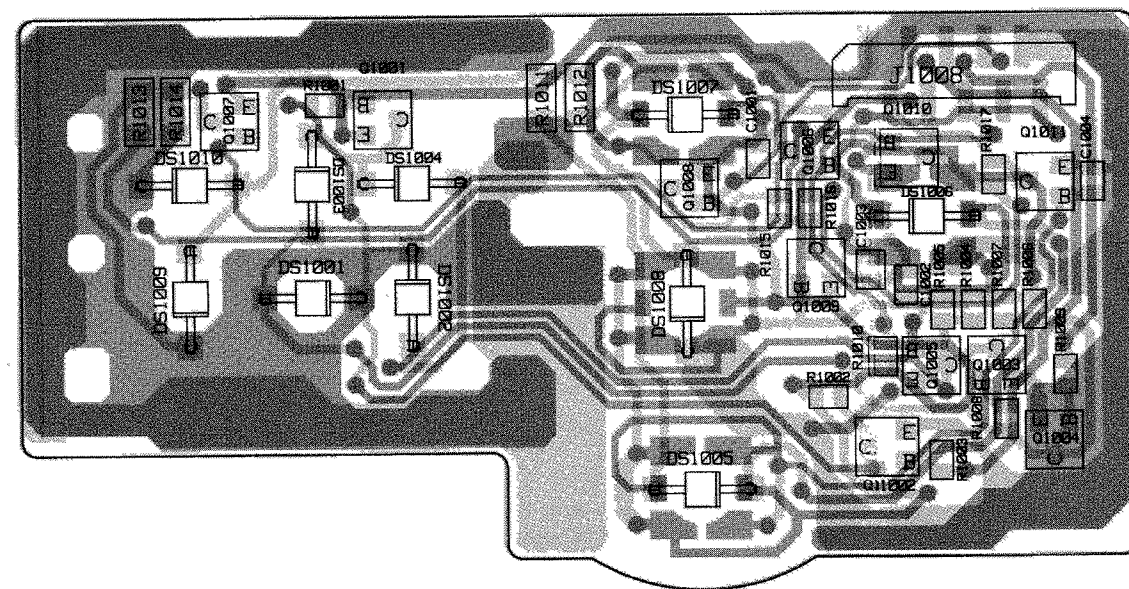
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C1	21-13740G27	capacitor, fixed: uF +/-5%; 50 V; unless otherwise stated
C2	21-13740G23	8.2 ±0.1 pF
C3	21-13740G13	2.7 ±0.1 pF
C4	21-13740G29	10 pF 2%
C5	21-13740G16	3.6 ±0.1 pF
C6	21-13740G23	6.2 ±0.1 pF
C7	21-13740G25	7.5 ±0.1 pF
C8	21-13740G09	1.8 ±0.1 pF
C9	21-13740G13	2.7 ±0.1 pF
C10	21-13740G10	2.0 ±0.1 pF
C11, 12	21-13740A55	100 pF
C14	21-13740L06	3.3 ±0.1 pF
C15	21-13740G25	7.5 ±0.1 pF
C16	21-13740A29	3.3 ±0.1 pF
C17	21-13740G32	13 pF 2%
C18	21-13740G19	4.7 ±0.1 pF
C19	21-13740G16	3.6 ±0.1 pF
C20	21-13740G31	12 pF 2%
C21	21-13740G15	3.3 ±0.1 pF
C22	21-13740G19	4.7 ±0.1 pF
C23	21-13740G31	12 pF 2%
C24	21-13740G15	3.3 ±0.1 pF
C25	21-13740G19	4.7 ±0.1 pF
C26	21-13740G15	3.3 ±0.1 pF
C27	21-13740A59	150 pF
C28	21-13740A27	8.2 ±0.25 pF
C29	21-13740A29	10 pF
C30	21-13740A59	150 pF
C39	---	Not Used
C51	21-13740A53	82 pF
C52	21-13740A31	12 pF
C53	---	Not Used
C54	21-13740A46	47 pF
C55	21-13743A19	0.1 uF 10%; 16 V
C56	21-13740A36	20 pF
C57, 58	---	Not Used
C59	21-13740A53	82 pF
C60	21-13743A19	0.1 uF 10%; 16 V
C61	21-13741A25	1500 pF
C62	23-11049A05	tantalum 0.47 uF 10%; 25 V
C63(N)	21-13740A42	36 pF
C63(W)	21-13740A49	56 pF
C64(N)	21-13740A79	1000 pF
C64(W)	21-13740A73	560 pF
C65	21-13741A45	.01 uF
C66	21-13743A19	0.1 uF 10%; 16 V
C67	23-11049J11	tantalum 4.7 uF 10%; 16 V
C68	21-13743A19	0.1 uF 10%; 16 V
C69	23-11049J07	tantalum 3.3 uF 10%; 20 V
C70	21-13743A19	0.1 uF 10%; 16 V
C71	23-11049A57	tantalum 10 uF 10%; 16 V
C73	21-13740A33	15 pF
C74	21-13740A42	36 pF
C75	21-13740A18	4.3 ±0.25 pF
C79	21-13740A36	20 pF
C80	---	Not Used
C81 thru 83	21-13743A19	0.1 uF 10%; 16 V
C85 thru 87	21-13740A59	150 pF
C201	21-13740A63	220 pF
C202	21-13740G46	47 pF 2%
C203	21-13740G24	6.8 ±0.1 pF
C207	23-11049A11	tantalum 4.7 uF 10%; 16 V
C210, 211	21-13741A45	.01 uF
C212, 213	21-13740A55	100 pF
C214	23-11049J11	tantalum 4.7 uF 10%; 16 V
C215	21-13740A79	1000 pF
C216	21-13741A45	.01 uF
C217	21-13740A59	150 pF
C218	21-13740A79	1000 pF
C219	23-11049J11	tantalum 4.7 uF 10%; 16 V
C221	21-13743A19	0.1 uF 10%; 16 V
C222	23-11049A07	tantalum 1 uF 10%; 16 V
C223	21-13741A39	5600 pF
C224	23-11049J11	tantalum 4.7 uF 10%; 16 V
C225	21-13741A51	.018 uF
C230, 231	21-13740A59	150 pF
C232	21-13740A79	1000 pF
C233	21-13743A19	0.1 uF 10%; 16 V

SM50/SM120 UHF Main Board, 470-490 MHz, 40 Watts
 12.5 kHz (N) (used in HUE3761 & HUE3611)
 SM50/SM120 UHF Main Board, 470-490 MHz, 40 Watts
 20/25 kHz (W) (used in HUE3762 & HUE3612) PL-951030-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C234	21-13740A41	33 pF
C236	---	Not Used
C237	23-11049J11	tantalum 4.7 uF 10%; 16 V
C238, 239	21-13740A59	150 pF
C241	21-13740A59	150 pF
C242	21-13740A24	6.8 ±0.25 pF
C243	21-13740G09	1.8 ±0.1 pF
C244	21-13740A25	7.5 ±0.25 pF
C245	21-13740A18	4.3 ±0.25 pF
C246	21-13740A19	4.7 ±0.25 pF
C247	23-11049A03	tantalum 0.22 uF 10%; 35 V
C251	21-13740A25	7.5 ±0.25 pF
C252	21-13740A59	150 pF
C253	21-13740G05	1.2 ±0.1 pF
C254	21-13740A03	1 ±0.25 pF
C255	21-13740A29	10 pF
C256, 257	21-13740A18	4.3 ±0.25 pF
C261	21-13740A59	150 pF
C262	21-13741A45	.01 uF
C263	21-13740A59	150 pF
C264 thru 266	---	Not Used
C267	21-13740A59	150 pF
C271, 272	21-13740A59	150 pF
C273	21-13740A43	39 pF
C274	21-13740A71	470 pF
C275	21-13740F18	4.3 ±0.25 pF
C276	21-13740A27	8.2 ±0.25 pF
C279	23-11049A03	tantalum 0.22 uF 10%; 35 V
C281	21-13740A05	1.2 ±0.25 pF
C282	21-13740A14	3 ±0.25 pF
C283	21-13740A59	150 pF
C284	21-13740A79	1000 pF
C285	21-13740A43	39 pF
C287	21-13740A59	150 pF
C288	21-13743A19	0.1 uF 10%; 16 V
C289	21-13740A71	470 pF
C291	---	Not Used
C292, 293	21-13740A59	150 pF
C294	21-13741A45	.01 uF
C295	21-13740A59	150 pF
C296	---	Not Used
C297	21-13740A59	150 pF
C298, 299	21-13743A19	0.1 uF 10%; 16 V
C401	21-13740A41	33 pF
C402	21-13740A13	2.7 ±0.25 pF
C403	21-13740A37	22 pF
C404	21-13743A19	0.1 uF 10%; 16 V
C405	23-11049J43	tantalum 47 uF 10%; 10 V
C406	23-11049A40	tantalum 2.2 uF 10%; 10 V
C407	21-13741A45	.01 uF
C408	21-13741A51	.018 uF
C409, 410	23-11049A57	tantalum 10 uF 10%; 16 V
C411	21-13740A79	1000 pF
C412	23-11049J07	tantalum 3.3 uF 10%; 20 V
C413, 414	21-13743A19	0.1 uF 10%; 16 V
C415	21-13741A45	.01 uF
C416	21-13740A71	470 pF
C417	21-13740A79	1000 pF
C418	21-13743A19	0.1 uF 10%; 16 V
C419	23-11049A07	tantalum 1 uF 10%; 16 V
C420	21-13741W01	1 uF 10%; 25 V
C421	21-13743A19	0.1 uF 10%; 16 V
C422	21-13740A71	470 pF
C423, 424	---	Not Used
C425	21-13740A46	47 pF
C426	21-13740A28	9.1 ±0.25 pF
C451	---	Not Used
C452	21-13740A59	150 pF
C453, 454	21-13743A19	0.1 uF 10%; 16 V
C455 thru 457	21-13740A59	150 pF
C458	21-13740A79	1000 pF
C459	21-13743A19	0.1 uF 10%; 16 V
C460	---	Not Used
C461	21-13740A20	5.1 ±0.25 pF
C462	21-13740A59	150 pF
C463	21-13740A29	5.1 ±0.25 pF
C464	21-13743A19	0.1 uF 10%; 16 V
C465	21-13740A71	470 pF
C466	21-13740A59	150 pF
C467	21-13740A79	1000 pF
C501	21-13740A79	1000 pF
C502	21-13743A19	0.1 uF 10%; 16 V

SM50/SM120 UHF Main Board, 470-490 MHz, 40 Watts
 12.5 kHz (N) (used in HUE3761 & HUE3611)
 SM50/SM120 UHF Main Board, 470-490 MHz, 40 Watts
 20/25 kHz (W) (used in HUE3762 & HUE3612) PL-951030-A

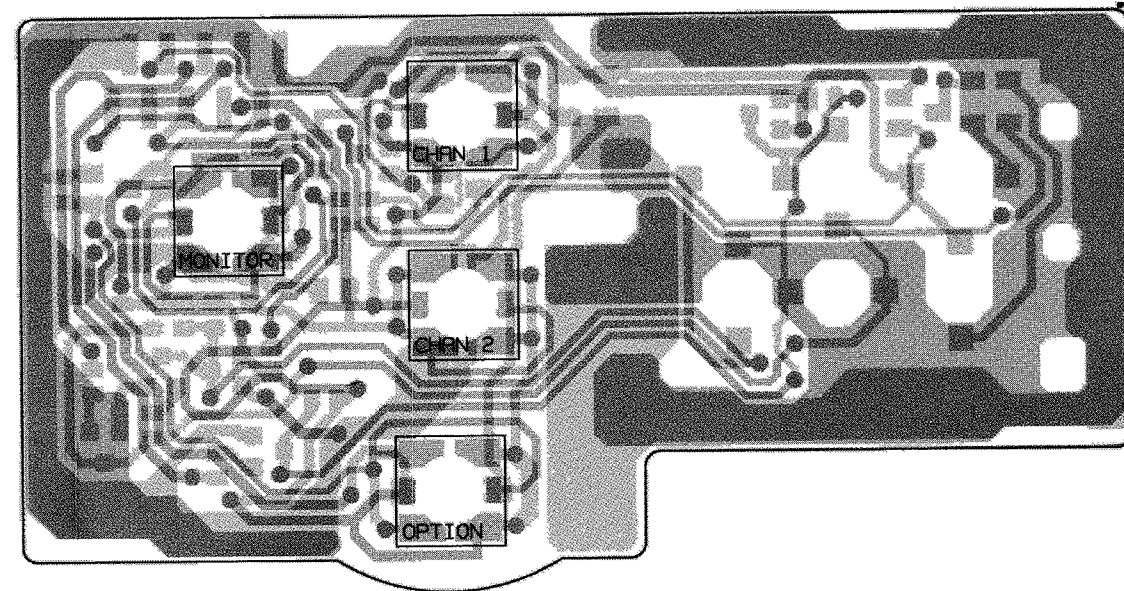
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C503	23-11049A57	tantalum 10 uF 10%; 16 V
C511	21-13741W01	1 uF 10%; 25 V
C551	21-13743A19	0.1 uF 10%; 16 V
C554	21-13743A19	0.1 uF 10%; 16 V
C555	21-13740A79	1000 pF
C556	23-11049A05	tantalum .47 uF 10%; 25 V
C558	23-11049J43	tantalum 47 uF 10%; 10 V
C559 thru 561	21-13743A19	0.1 uF 10%; 16 V
C562	23-11049A57	tantalum 10 uF 10%; 16 V
C563, 564	21-13740A55	100 pF
C565	---	Not Used
C601	21-13743A19	0.1 uF 10%; 16 V
C602	21-13741A37	4700 pF
C603	23-11049A07	tantalum 1 uF 10%; 16 V
C604	23-11049A05	tantalum 0.47 uF 10%; 25 V
C651	21-13740A79	1000 pF
C652	21-11032B15	0.22 uF +80/-20%
C653	23-11049J43	tantalum 47 uF 10%; 10 V
C654	21-11032B15	0.22 uF +80/-20%
C655	23-11049J43	tantalum 47 uF 10%; 10 V
C656	21-13743A19	0.1 uF 10%; 16 V
C701	21-13741A59	.039 uF
C702	21-13741A45	.01 uF
C803, 804	21-13740A71	470 pF
C805	21-13743A19	0.1 uF 10%; 16 V
C806 thru 814	21-13740A71	470 pF
C2610	21-13740A30	11 pF
C2611	21-13740A27	8.2 ±0.25 pF
C2612	---	Not Used
C2613, 2614	21-13740A79	1000 pF
J5	09-04424J03	6-pin, internal options audio
J7	09-04424J06	6-pin, internal options digital
J8	09-04424J02	10-pin, display board
J9	28-04423J01	2-pin, internal speaker
JU401	---	Not Used
JU501	06-62057C01	jumper
L1 thru 7	24-64662T11	4 turns airwound 2%
L2	24-62587X55	chip 0.15 uH 5%
L3	24-62587X45	chip 22 nH 5%
L10	24-63411T63	0.15 uH 5% shielded
L11	24-62587X47	chip 33 nH 5%
L12	24-62587X55	chip 0.15 uH 5%
L51	24-62587X55	chip 0.15 uH 5%
L52	24-62587X63	chip 0.62 uH 5%
L53	24-62587X69	chip 1.2 uH 5%
L54	---	Not Used
L55	24-62587X69	chip 1.2 uH 5%
L58	24-62587X69	chip 1.2 uH 5%
L221	24-62587X60	chip 0.39 uH 5%
L241	24-62587X50	chip 56 nH 5%
L242	24-64562T11	4 turns airwound 2%
L243, 244	21-62587X61	chip 0.47 uH 5%
L251	24-62587X49	chip 47 nH 5%
L252	21-64562T13	3 turns airwound 2%
L261	21-11078B04	4.3 ±0.25 pF 100 V
L262	21-62587X60	chip 0.39 uH 5%
L263 thru 255	24-62587X49	chip 47 nH 5%
L264	21-62587X60	chip 0.39 uH 5%
L265	21-62587X60	chip 0.39 uH 5%
L266	21-62587X60	chip 0.39 uH 5%
L267	21-62587X60	chip 0.39 uH 5%
L268	21-62587X60	chip 0.39 uH 5%
L269	21-62587X60	chip 0.39 uH 5%
L270	21-62587X60	chip 0.39 uH 5%
L271	21-62587X60	chip 0.39 uH 5%
L272	21-62587X60	chip 0.39 uH 5%
L273	21-62587X60	chip 0.39 uH 5%
L274	21-62587X60	chip 0.39 uH 5%
L275	21-62587X60	chip 0.39 uH 5%
L276	21-62587X60	chip 0.39 uH 5%
L277	21-62587X60	chip 0.39 uH 5%
L278	21-62587X60	chip 0.39 uH 5%
L279	21-62587X60	chip 0.39 uH 5%
L280	21-62587X60	chip 0.39 uH 5%
L281	21-62587X60	chip 0.39 uH 5%
L282	21-62587X60	chip 0.39 uH 5%
L283	21-62587X60	chip 0.39 uH 5%
L284	21-62587X60	chip 0.39 uH 5%
L285	21-62587X60	chip 0.39 uH 5%
L286	21-62587X60	chip 0.39 uH 5%
L287	21-62587X60	chip 0.39 uH 5%
L288	21-62587X60	chip 0.39 uH 5%
L289	21-62587X60	chip 0.39 uH 5%
L290	21-62587X60	chip 0.39 uH 5%
L291	21-62587X60	chip 0.39 uH 5%
L292	21-62587X60	chip 0.39 uH 5%
L401	24-60578C43	chip 33 uH



COMPONENT SIDE
84-04430J03 ISS B

COMPONENT SIDE (GRAY) RCB-95132-O
SOLDER SIDE (PINK) RCB-95133-O
OVERLAY ---- RCB-95134-O

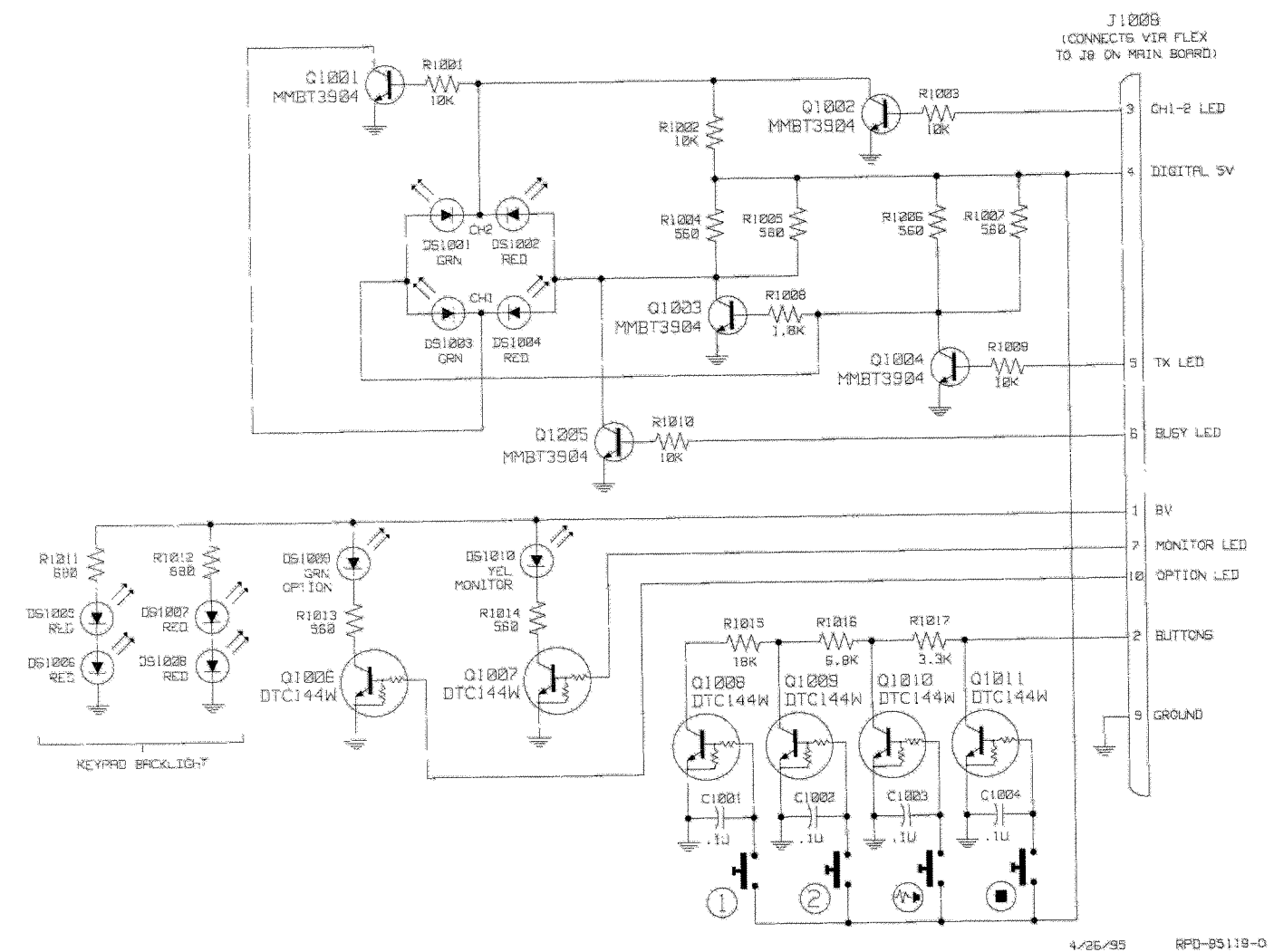
COMPONENT SIDE VIEW



SOLDER SIDE
84-04430J03 ISS B

COMPONENT SIDE (GRAY) RCB-95132-O (REV)
SOLDER SIDE (PINK) RCB-95133-O (REV)
OVERLAY ---- RCB-95135-O (REV)

SOLDER SIDE VIEW



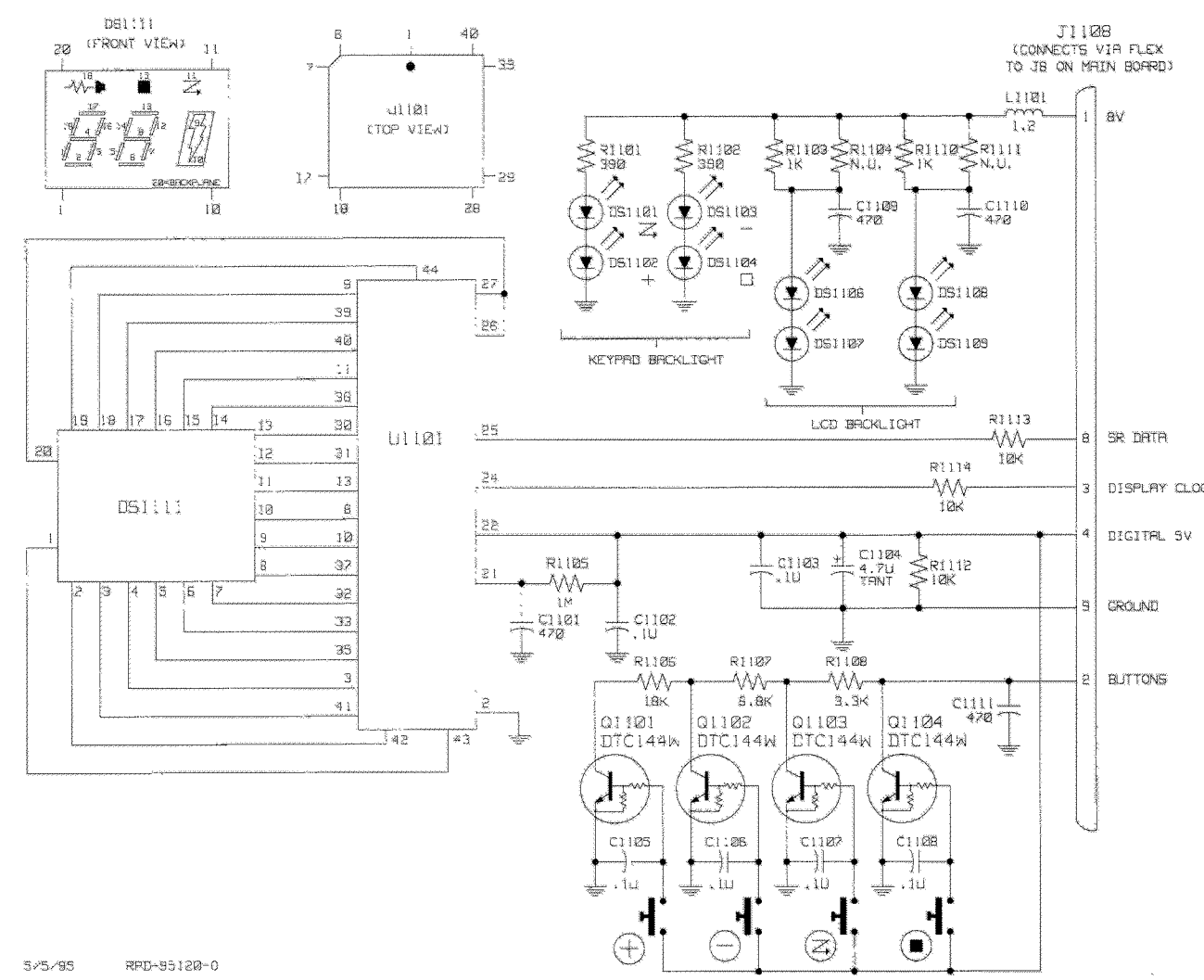
PARTS LIST		
PMLN4022 SM50 Display Board, 2-Frequency		
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C1001 thru 1004	21-13743A19	capacitor, fixed: uF +/-5%; 50 V; unless otherwise stated 0.1 uF 10%; 16 V
DS1001	48-82565T07	displays and indicators: diode LED GRN
DS1002	48-82565T05	diode LED RED
DS1003	48-82565T07	diode LED GRN
DS1004 thru 1008	48-82565T05	diode LED RED
DS1009	48-82565T07	diode LED GRN
DS1010	48-82565T06	diode LED YEL
J1008	09-04422J01	connector, receptacle: 10 pin, main board
Q1001 thru 1005	48-80214G02	transistor: (see note) NPN; type MMBT3904
Q1006 thru 1011	48-80947V01	digital NPN; type DTC144W
R1001 thru 1003	06-62057C99	resistor, fixed: +/-5%; 1/10 W; unless otherwise stated 10k
R1004 thru 1007	06-62057C69	560
R1008	06-62057C81	1.8k
R1009, 1010	06-62057C99	10k
R1011, 1012	06-11077A70	680
R1013, 1014	06-11077A68	560
R1015	06-62057D06	18k
R1016	06-62057C95	6.8k
R1017	06-62057C87	3.3k
non-referenced itemsNon-referenced items		
61-04731J01	Assembly, lightpipe	
29-04431J01	Cable, flat flexible, 10-position	

note: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part numbers.

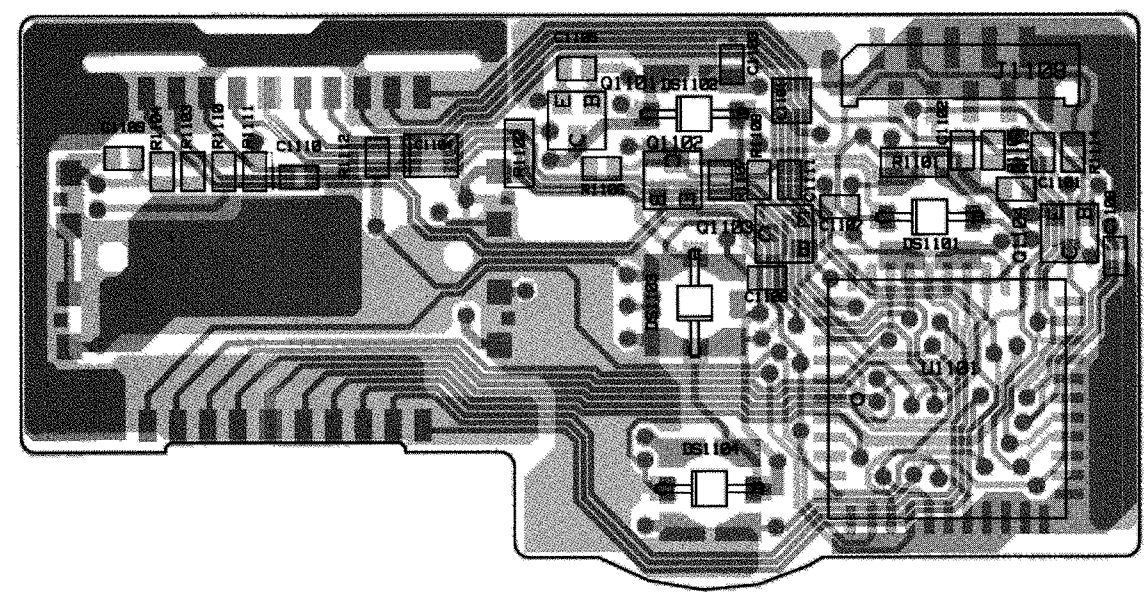
Parts List
PMLN4023 SM120 Display Board, 16-Frequency PL-951014-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C1101	21-13740A71	capacitor, fixed: uF +/-5%; 50 V; unless otherwise stated
C1102, 1103	21-13743A19	0.1 uF 10%; 16 V
C1104	23-11049J11	tantalum 4.7 uF 10%; 16 V
C1105 thru 1108	21-13743A19	0.1 uF 10%; 16 V
C1109 thru 1111	21-13740A71	470 pF
DS1101 thru 1104	48-82565T05	diode LED RED
DS1106 thru 1109	48-05729G91	diode LED RED right-angle
DS1111	72-04427J01	display, LCD
J1108	09-04422J01	connector, receptacle: 10 pin, main board
L1101	24-62587N69	coll. rf; chip 1.2 uH 5%
Q1101 thru 1104	48-80947V01	transistor: (see note) digital NPN; type DTC144W
R1101, 1102	06-11077A64	resistor, fixed: +/-5%; 1/10 W; unless otherwise stated
R1103	06-62057C75	390
R1104	---	Not Used
R1105	06-62057D48	1 meg.
R1106	06-62057D06	18k
R1107	06-62057C95	6.8k
R1108	06-62057C87	3.3k
R1110	06-62057C75	1k
R1111	---	Not Used
R1112 thru 1114	06-62057C99	10k
U1101	51-80968X01	integrated circuit: (see note) LCD driver MC145453

non-referenced items
07-04435J02 BRACKET, display bezel
28-04431J01 Cable, flat flexible, 10-position
note: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part numbers.



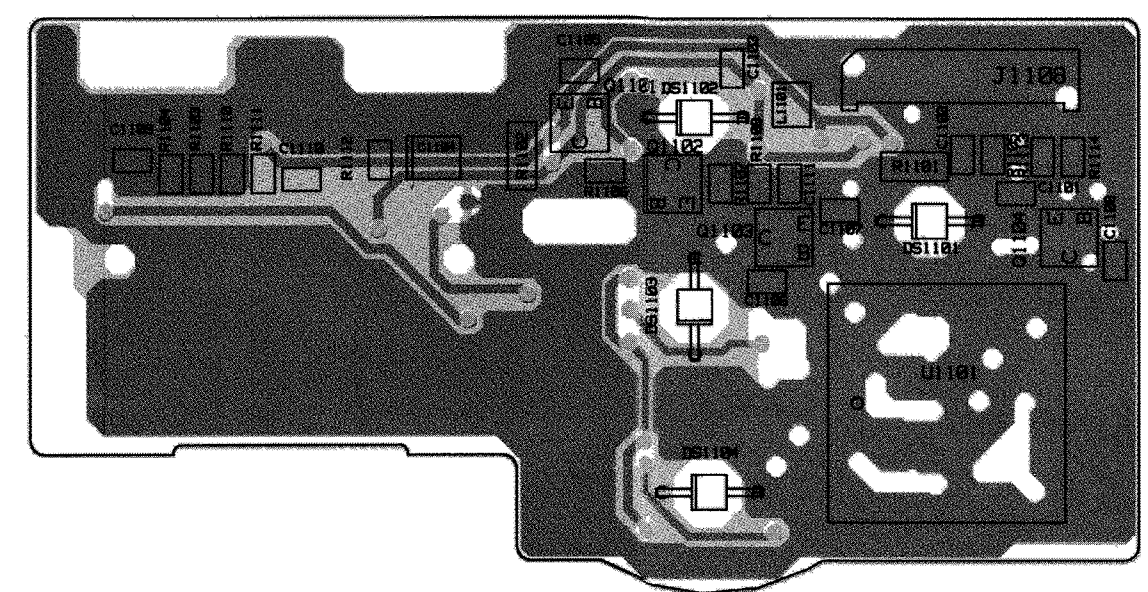
5/5/95 RPD-95120-0



COMPONENT SIDE
84-04429J03 ISS B

COMPONENT SIDE (GRAY) RCB-95136-O
SOLDER SIDE (PINK) RCB-95139-O
OVERLAY ---- RCB-95140-O

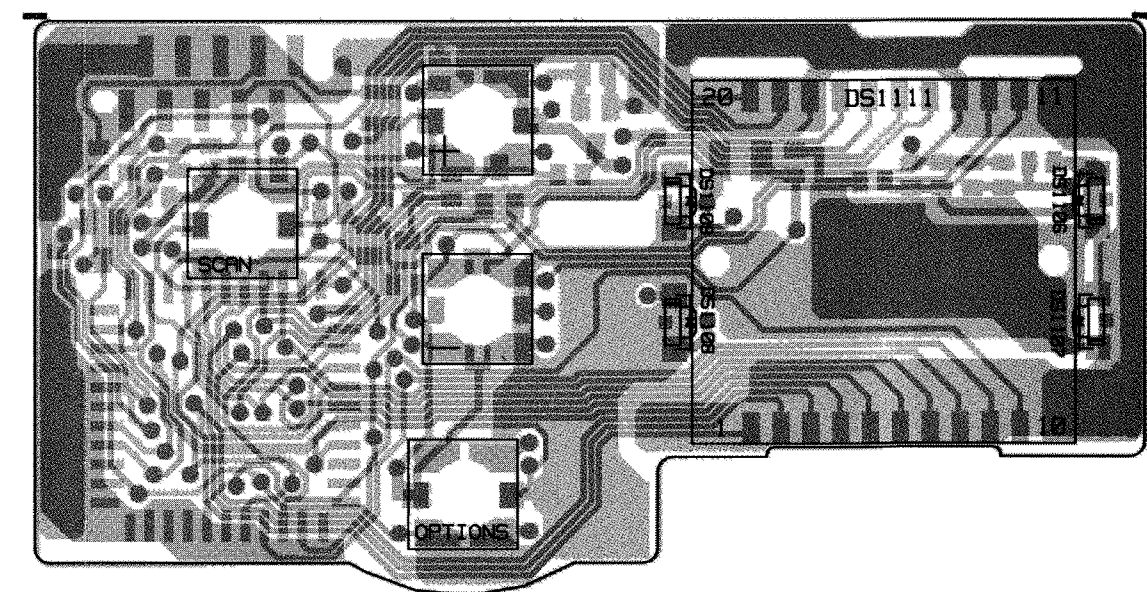
COMPONENT SIDE VIEW



COMPONENT SIDE
84-04429J03 ISS B

COMPONENT SIDE INNER LAYER (GRAY) RCB-95137-O
SOLDER SIDE INNER LAYER (PINK) RCB-95138-O
OVERLAY ---- RCB-95140-O

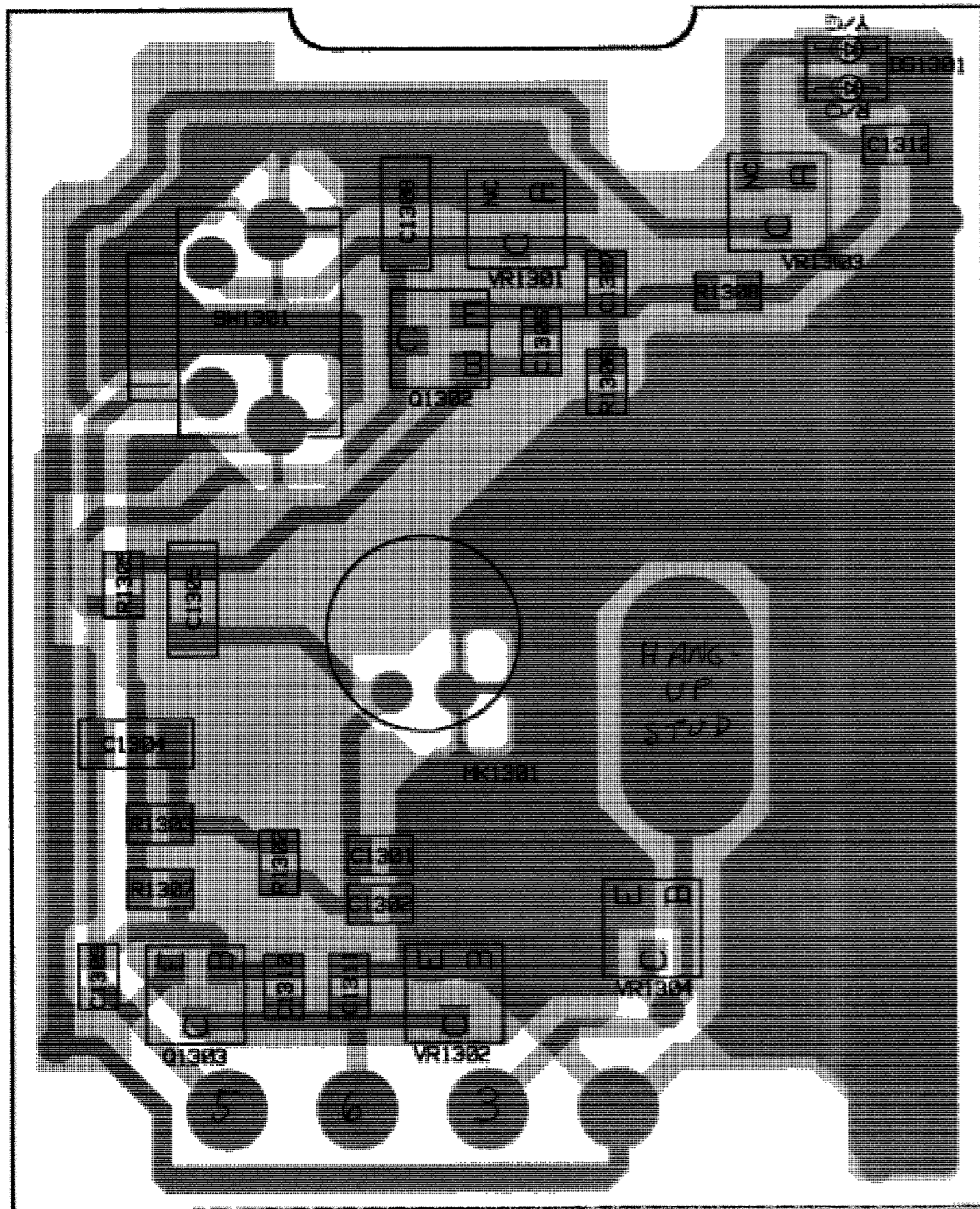
COMPONENT SIDE VIEW



SOLDER SIDE
84-04429J03 ISS B

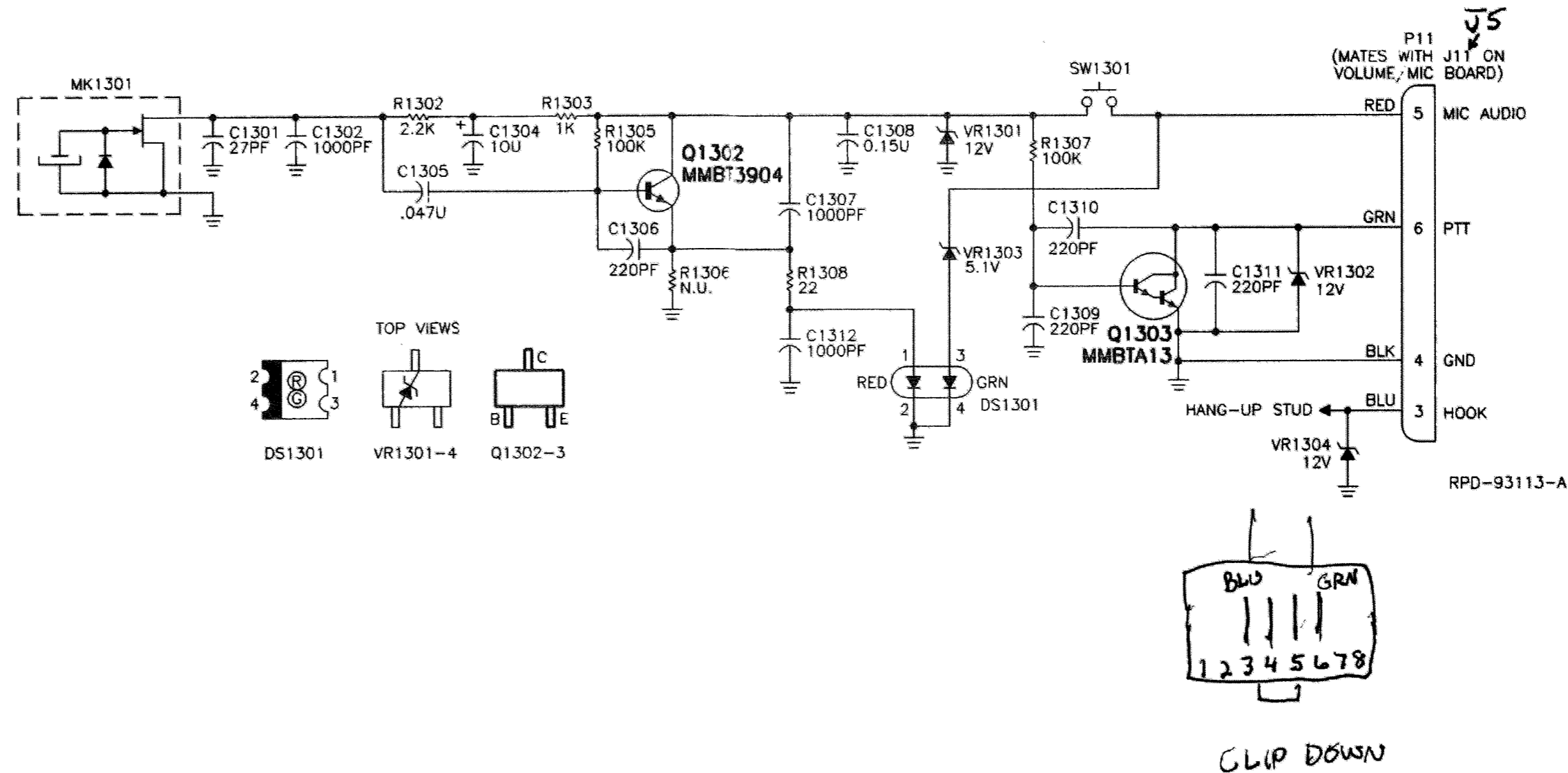
COMPONENT SIDE (GRAY) RCB-95136-O (REV)
SOLDER SIDE (PINK) RCB-95139-O (REV)
OVERLAY ---- RCB-95141-O (REV)

SOLDER SIDE VIEW



COMPONENT SIDE (GRAY) FCB-95101-O
 SOLDER SIDE (PINK) FCB-95102-O
 OVERLAY ----- FCB-95103-O

COMPONENT SIDE VIEW



Parts List

01-80446E01 Microphone Board with Cord
 (Used in HMN3174B Compact Microphone w/LED Indicator) PL-951006-A

REFERENCE NUMBER	MOTOROLA PART NO.	DESCRIPTION
C1301	21-13740A39	capacitor, chip, uF +/-5%, 50 V; unless otherwise stated
C1302	21-13740A79	27 pF
C1304	23-11049A59	1000 pF
C1305	21-13741A61	tantalum 10 uF, +/-10%; 6 V
C1306	21-13740A59	.047 uF
C1307	21-13740A79	150 pF
C1308	21-13740A79	1000 pF
C1309 thru 1311	21-11032B14	0.15 uF
C1309 thru 1311	21-13740A59	150 pF
C1312	21-13740A79	1000 pF
DS1301	48-05729G49	display: dual LED red/grn
MK1301	50-80258E04	microphone: cartridge electret
Q1302	48-80214G02	transistor: see note NPN; type MMBT3904
Q1303	48-05128M19	NPN Darlington; type MMBA13
R1302	06-60076A57	resistor, chip; uF +/-5%, 1/10 W; unless otherwise stated
R1303	06-60076A49	2.2k
R1305	06-60076B01	1k
R1306	---	100k
R1307	---	Not Used
R1308	06-60076B01	100k
R1308	06-60076A09	22
SW1301	40-80164S01	switch: momentary pushbutton
VR1301, 1302	48-80140L17	voltage regulator: see note Zener diode SOT 12 V MMBZ5242L
VR1303	48-80140L06	Zener diode SOT 5.1 V MMBZ5231L
VR1304	48-80140L17	Zener diode SOT 12 V MMBZ5242L
non-referenced items		
	30-80978Z03	coiled cord

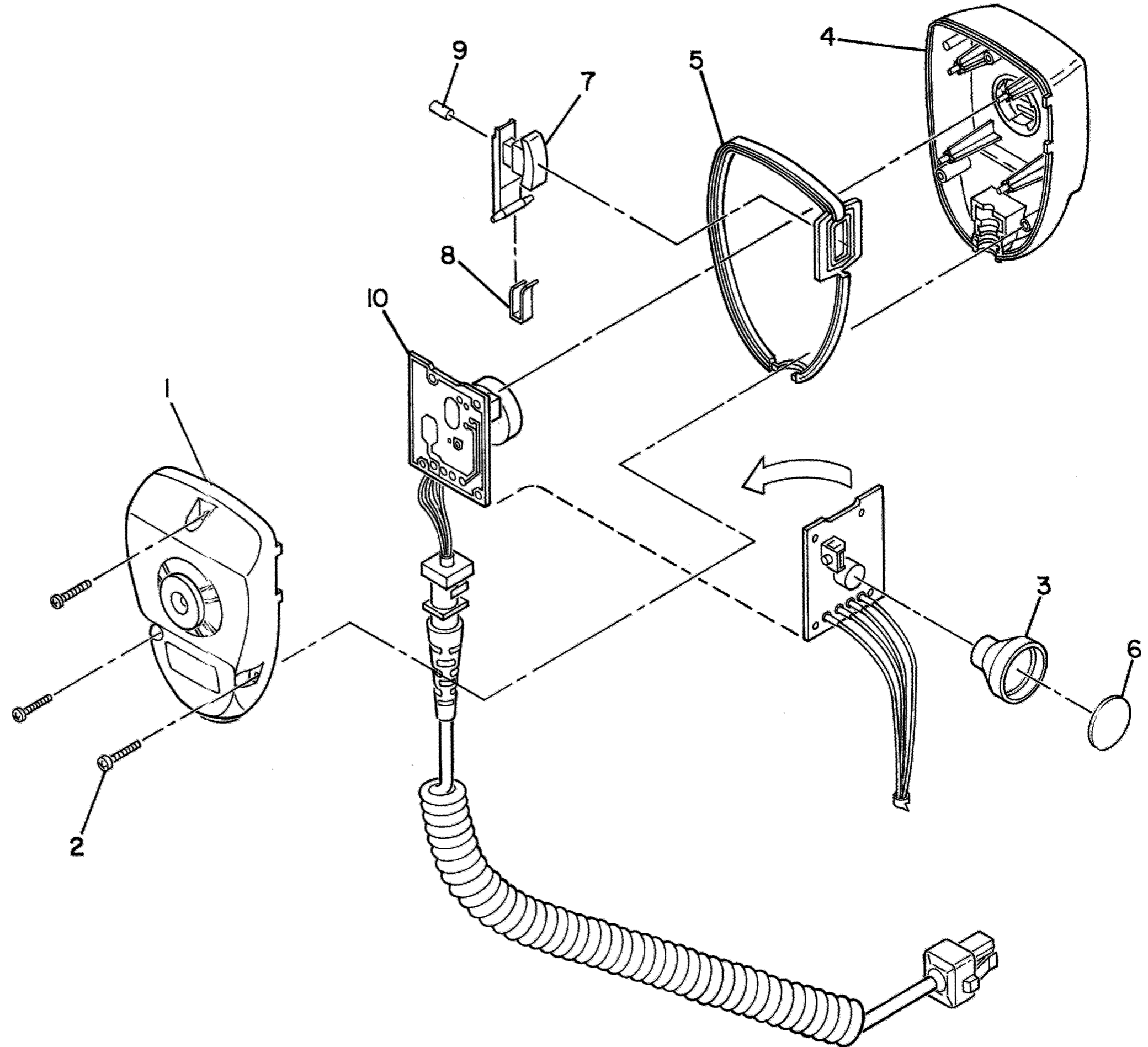
note: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part numbers.

Parts List

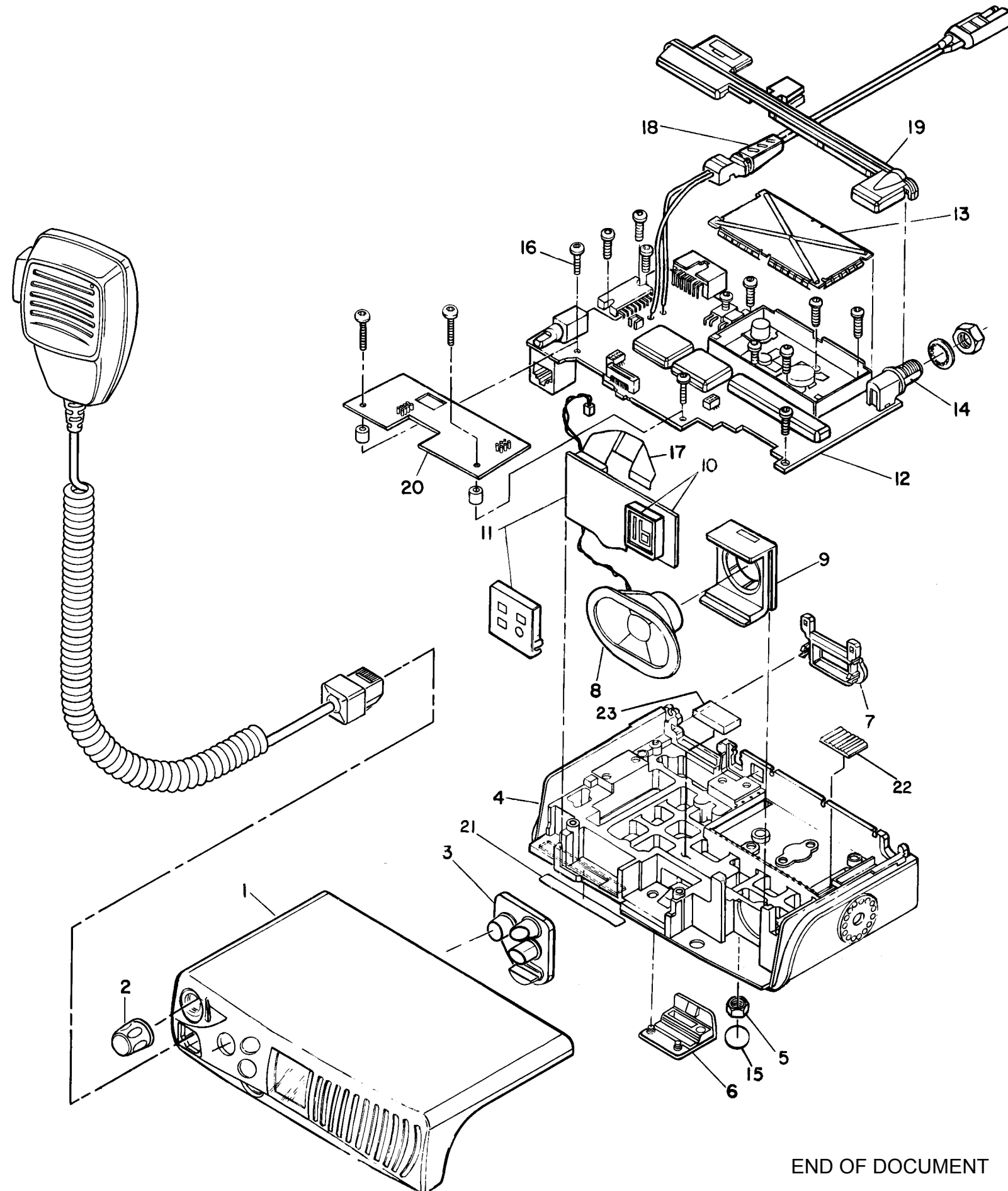
HMN3174B Compact Microphone w/LED Indicator

PL-951005-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
1	0180669D01	Assembly, HOUSING, rear
2	03139959	SCREW, 5-20 x 5/8; 3 used
3	0580149R01	GROMMET, microphone
4	1580443E01	HOUSING, front
5	3280565B01	GASKET, microphone
6	3580132R02	BAFFLE, felt
7	3880654D01	BUTTON, PTT
8	4180658D01	SPRING, PTT
9	7580983Z01	RUBBER SPACER, switch



Exploded Mechanical View and Parts List for HMN3174B Compact Microphone



Parts List

SM Series Exploded View, Mechanical

PL-951001-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
1	1504606J01	HOUSING, cover assembly, SM50
	1504606J02	HOUSING, cover assembly, SM120
2	3604414J02	KNOB, volume control
3	7504436J03	KEYPAD, SM50
	7504436J02	KEYPAD, SM120
4	2680424U01	HEATSINK
5	0200007003	NUT, 8-32 x 5/16 x 1/8 hex, UHF
6	3204502J02	GASKET, release latch
7	1504501J01	SHROUD, spacer, snap-on
8	5004410J01	SPEAKER, w/wire assembly
9	3204411J01	GASKET, speaker retaining
10	PMLN4023	ASSY, front panel display, SM120
11	PMLN4022	ASSY, front panel display, SM50
12	---	Main Board
13	2604420J01	SHIELD, PA frame cover
14	0980627E01	CONNECTOR, Mini-U antenna
15	3880603U01	PLUG BUTTON, VHF 10-25 W
16	0310943J11	SCREW, 3mm x 10; 12 used
17	2804431J01	CABLE, folded; 10 position
18	3004510J01	CABLE, power w/strain relief
19	3204412J02	GASKET, rear
20	---	Option Board
21	5404605J01	LABEL, warning
22	3204416J01	GASKET, thermal conductive pad
23	7504682J01	PAD, pullout VCO
non-referenced items		
	4280654E01	CLIP, PA

END OF DOCUMENT

SM Series Radio Exploded Mechanical View and Parts List