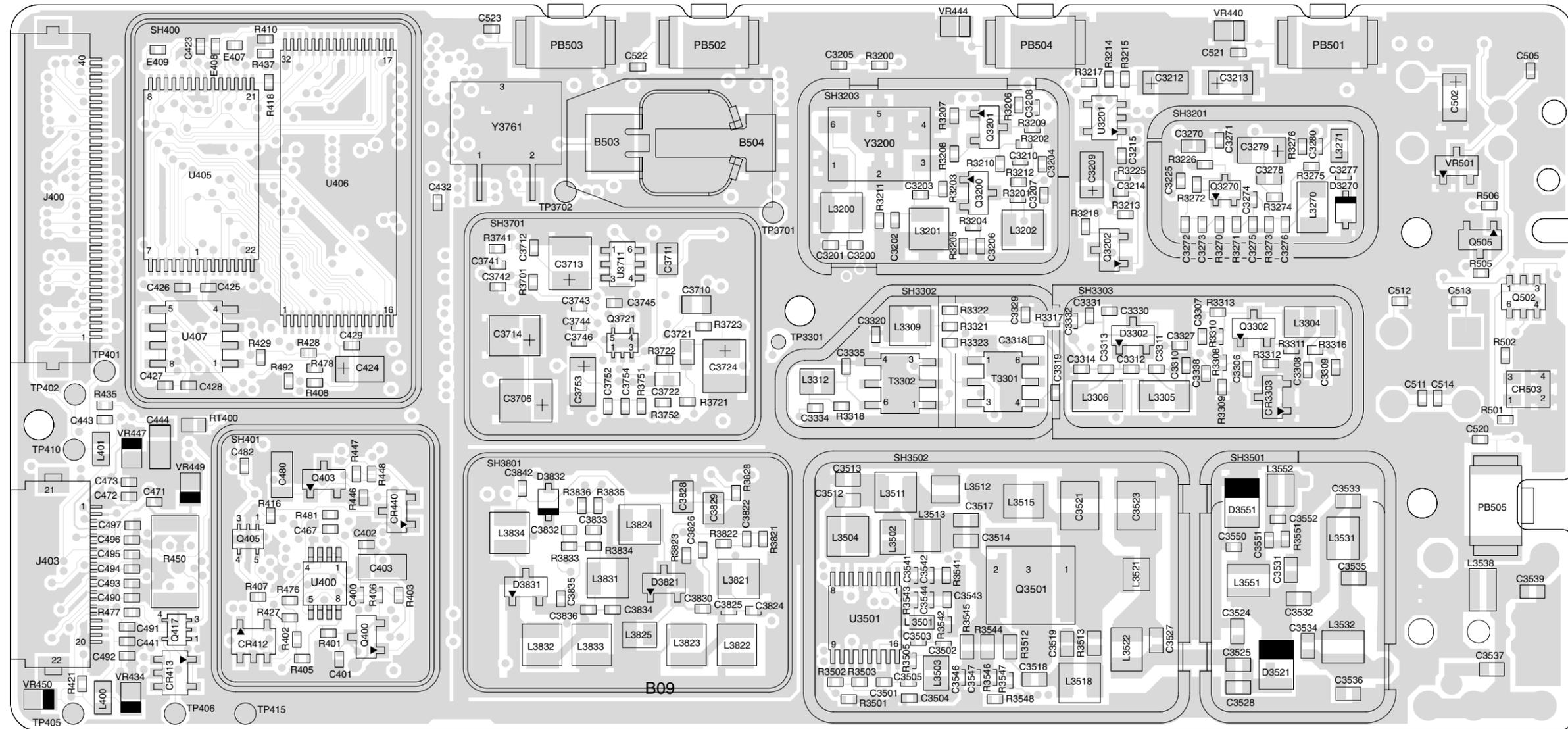


9.19 VHF Circuit Board/Schematic Diagrams and Parts List (PCB 8486062B09)

VIEWED FROM SIDE 1



ZWG0130072-A

Figure 9-165. VHF (136-174 MHz) 5000/7000 Series Main Board Top Side PCB 8486062B09

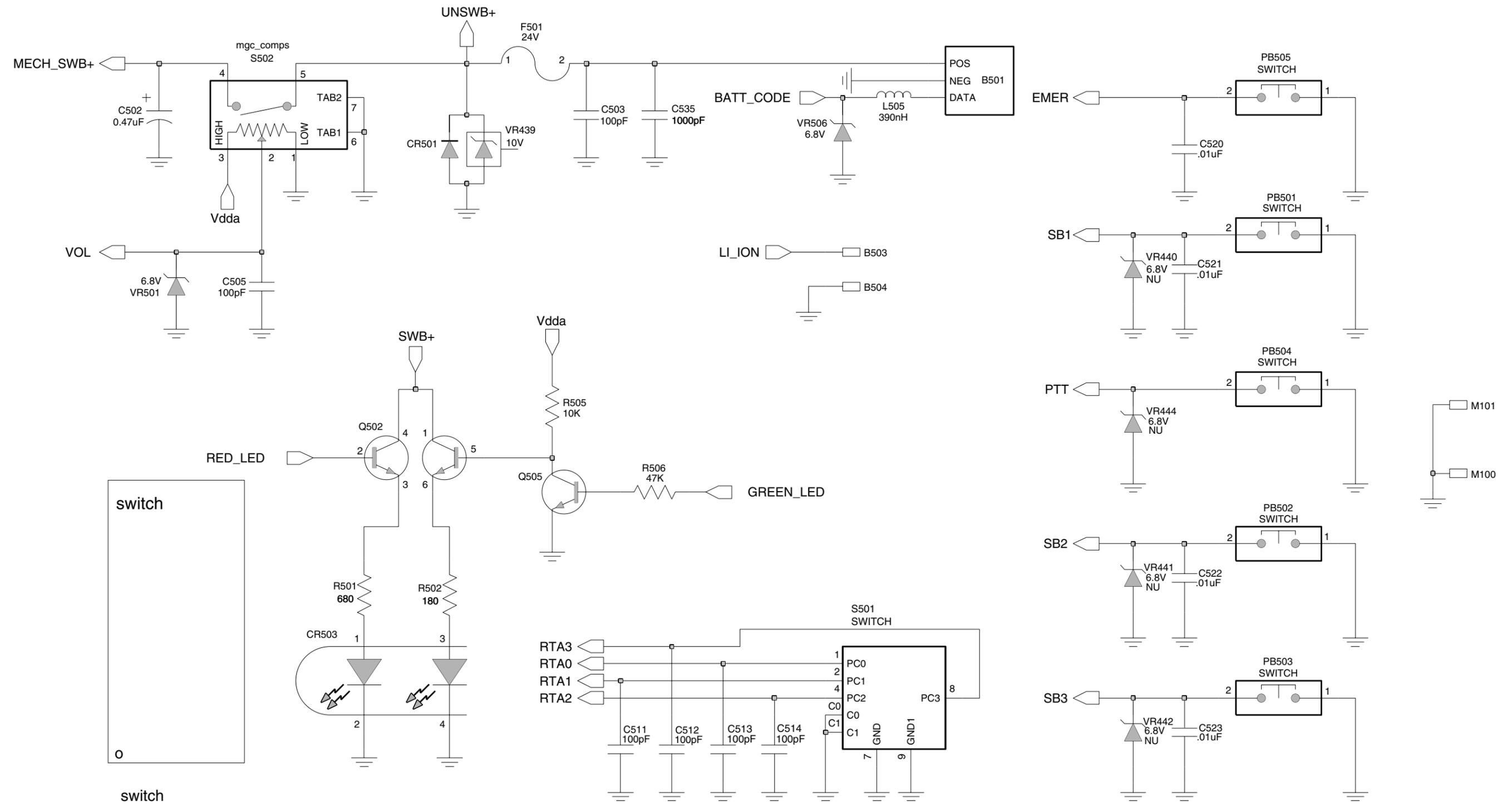
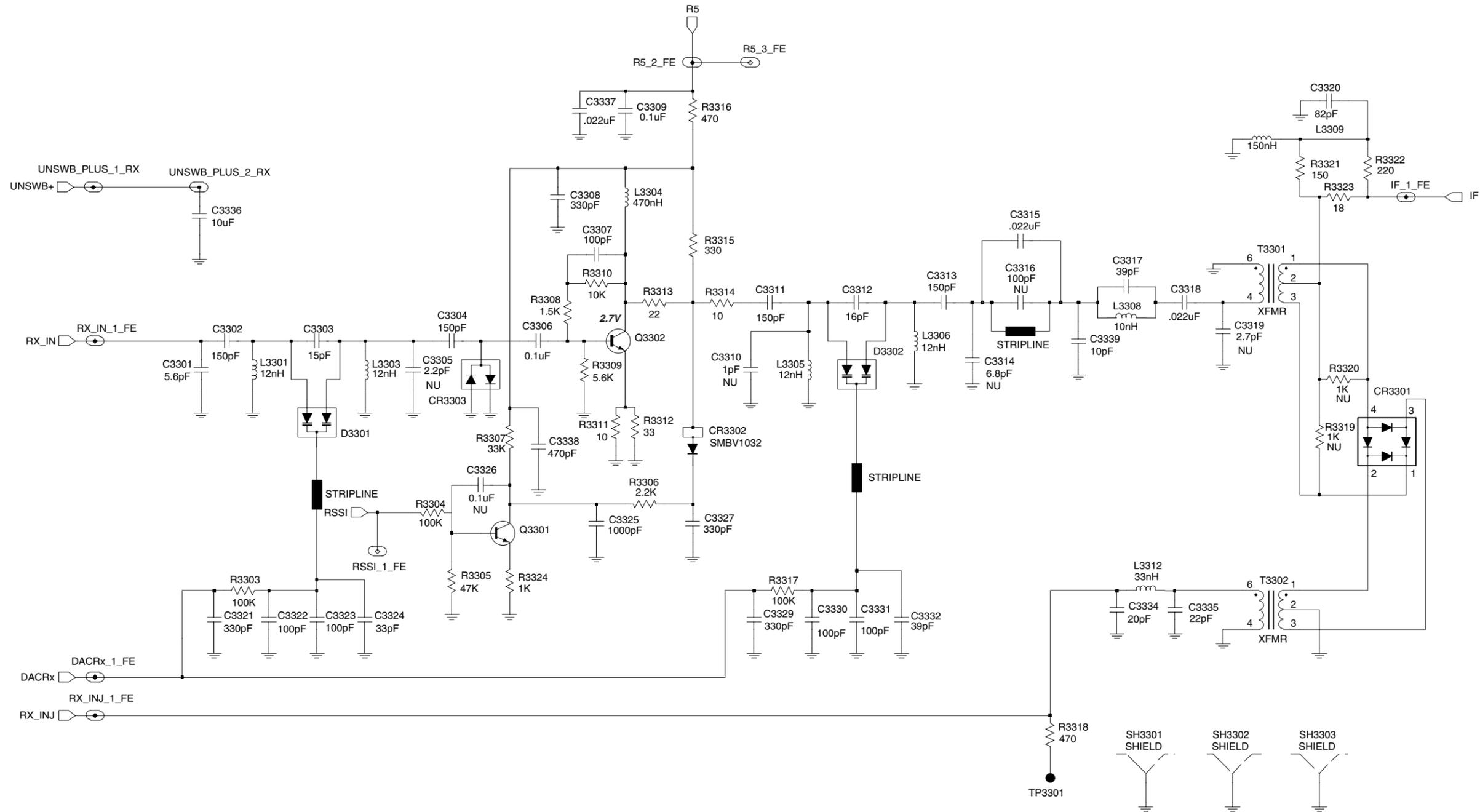
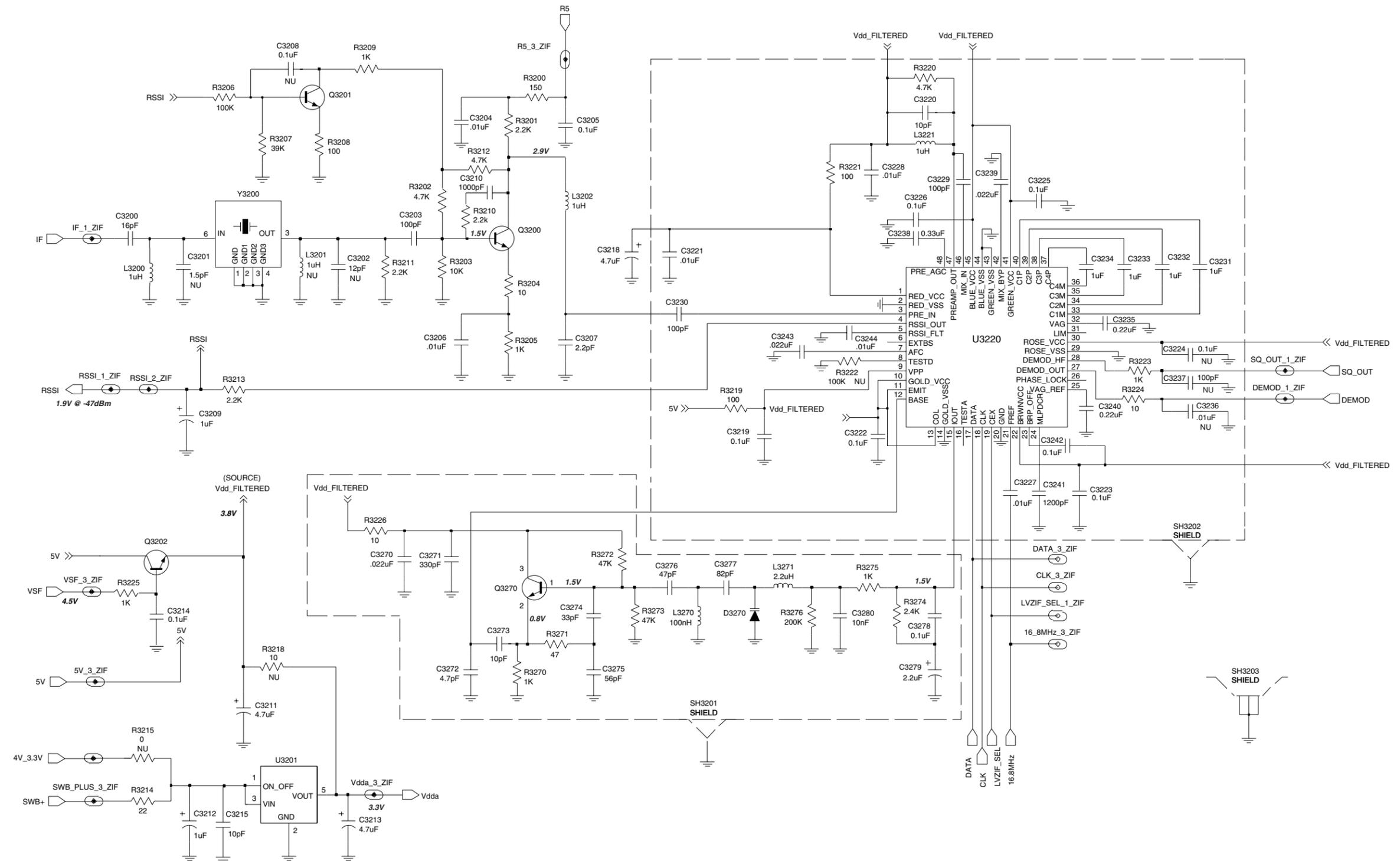


Figure 9-167. VHF (136-174 MHz) Controls and Switches Schematic Diagram



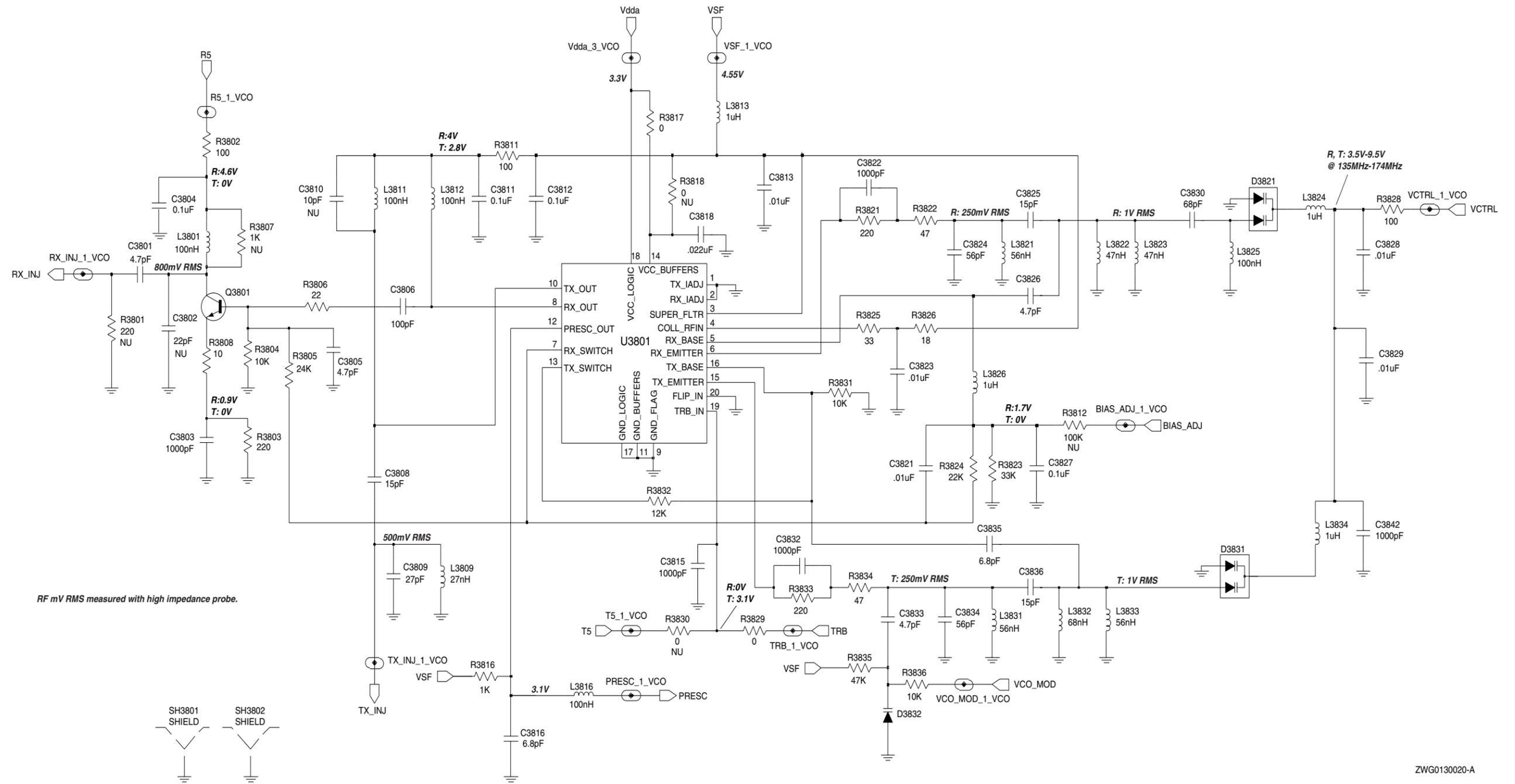
ZWG0130023-A

Figure 9-168. VHF (136-174 MHz) Receiver Front End Schematic Diagram



ZWG0130025-B

Figure 9-169. VHF (136-174 MHz) Receiver Back End Schematic Diagram



ZWG0130020-A

Figure 9-171. VHF (136-174 MHz) Voltage Controlled Oscillator Schematic Diagram

VHF (136-174 MHz) Radio Parts List (PCB 8486062B09)

Circuit Ref	Motorola Part No.	Description
B501	0986237A02	Battery Contact Module
B503	3980502Z01	Backup battery B+
B504	3980501Z01	Backup battery B-
C3200	2113743N31	16pF
C3203	2113743N50	100pF
C3204	2113743L41	.01uF
C3205	2113928N01	0.1uF
C3206	2113743L41	.01uF
C3207	2113743N10	2.2pF
C3209	2311049A07	1uF
C3210	2113743L17	1000pF
C3211	2311049A56	4.7uF
C3212	2311049A07	1uF
C3213	2311049A56	4.7uF
C3214	2113928N01	0.1uF
C3215	2113743N26	10pF
C3218	2311049A56	4.7uF
C3219	2113928N01	0.1uF
C3220	2113743N26	10pF
C3221	2113743L41	.01uF
C3222	2113928N01	0.1uF
C3223	2113928N01	0.1uF
C3224	2113928N01	0.1uF
C3225	2113928N01	0.1uF
C3226	2113928N01	0.1uF
C3227	2113743L41	.01uF
C3228	2113743L41	.01uF
C3229	2113743N50	100pF
C3230	2113740F51	100pF
C3231	2180478Z20	1uF
C3232	2180478Z20	1uF
C3233	2180478Z20	1uF
C3234	2180478Z20	1uF
C3235	2113743A23	0.22uF
C3238	2113743A21	0.15uF
C3239	2113743E07	.022uF
C3240	2113743A23	0.22uF
C3241	2113743L19	1200pF
C3242	2109720D14	0.1uF
C3243	2113743E07	.022uF
C3244	2113743L41	.01uF
C3270	2113743E07	.022uF
C3271	2113743L05	330pF
C3272	2113743N18	4.7pF
C3273	2113743N26	10pF
C3274	2113743N38	33pF
C3275	2113743N44	56pF
C3276	2113743N42	47pF
C3277	2113743N48	82pF
C3278	2113743E20	0.1uF
C3279	2311049A07	1uF
C3280	2113743L39	8200pF
C3301	2113743N20	5.6pF
C3302	2113743N54	150pF

Circuit Ref	Motorola Part No.	Description
C3303	2113743N30	15pF
C3304	2113743N54	150pF
C3306	2113743M24	0.1uF
C3307	2113743N50	100pF
C3308	2113743L05	330pF
C3309	2113743M24	0.1uF
C3311	2113743N54	150pF
C3312	2113743N31	16pF
C3313	2113743N54	150pF
C3315	2113743N26	10pF
C3316	2113743N14	3.3pF
C3317	2113743N40	39pF
C3318	2113743M08	.022uF
C3320	2113743N48	82pF
C3321	2113743L05	330pF
C3322	2113743N50	100pF
C3323	2113743N50	100pF
C3324	2113743N38	33pF
C3325	2113743L17	1000pF
C3327	2113743L05	330pF
C3329	2113743L05	330pF
C3330	2113743N50	100pF
C3331	2113743N50	100pF
C3332	2113743N40	39pF
C3334	2113743N33	20pF
C3335	2113743N34	22pF
C3336	2311049A18	10uF
C3337	2113743M08	.022uF
C3338	2113743L09	470pF
C3339	2113743N26	10pF
C3501	2113743L05	330pF
C3502	2113743N38	33pF
C3503	2113743N38	33pF
C3504	2113743M08	.022uF
C3505	2113743L05	330pF
C3508	2113743M08	.022uF
C3509	2113743L05	330pF
C3512	2113740F43	47pF
C3513	2113740F38	30pF
C3514	2113740F67	470pF
C3515	2113743L29	3300pF
C3516	2311049A08	1uF
C3517	2113740F51	100pF
C3518	2113740F63	330pF
C3519	2113740F35	22pF
C3521	2111078B51	220pF
C3523	2111078B44	120pF
C3524	2113740F33	18pF
C3525	2113740F27	10pF
C3526	2113743M08	.022uF
C3528	2113740F26	9.1pF
C3531	2113740F34	20pF
C3532	2113740F47	68pF
C3533	2113740F24	7.5pF
C3534	2113740F19	4.7pF
C3535	2113740F37	27pF

Circuit Ref	Motorola Part No.	Description
C3536	2113740F31	15pF
C3537	2113740F33	18pF
C3539	2113740F21	5.6pF
C3541	2113743M08	.022uF
C3542	2113743L05	330pF
C3543	2113743M08	.022uF
C3544	2113743L05	330pF
C3546	2113743L05	330pF
C3547	2113743M08	.022uF
C3550	2113743N23	7.5pF
C3551	2113743N46	68pF
C3552	2113743N44	56pF
C3560	2311049A07	1uF
C3561	2113743M08	.022uF
C3562	2113743L29	3300pF
C3563	2113743L29	3300pF
C3564	2113743L01	220pF
C3565	2113743M08	.022uF
C3566	2113743N50	100pF
C3568	2113743L29	3300pF
C3569	2113743M08	.022uF
C3701	2113743L41	.01uF
C3702	2113743L41	.01uF
C3703	2113743L41	.01uF
C3704	2113743L41	.01uF
C3705	2113743E20	0.1uF
C3706	2311049J11	4.7uF
C3707	2113743N34	22pF
C3708	2113743M24	0.1uF
C3709	2113743M24	0.1uF
C3710	2104993J02	2.2uF
C3711	2104993J02	2.2uF
C3712	2113743M24	0.1uF
C3713	2311049A09	2.2uF
C3714	2311049J11	4.7uF
C3721	2113743E20	0.1uF
C3722	2113743E20	0.1uF
C3724	2311049A08	1uF
C3726	2113743N24	8.2pF
C3727	2113743N50	100pF
C3731	2113743L41	.01uF
C3732	2113743L41	.01uF
C3733	2104993J02	2.2uF
C3734	2113743L41	.01uF
C3742	2113743L01	220pF
C3743	2113743L01	220pF
C3744	2113743L01	220pF
C3745	2113743L01	220pF
C3746	2113743L01	220pF
C3752	2113743L17	1000pF
C3753	2311049A56	4.7uF
C3754	2113743M24	0.1uF
C3755	2104993J02	2.2uF
C3761	2113743N44	56pF
C3762	2113740F63	330pF
C3763	2113743N08	1.6pF

Circuit Ref	Motorola Part No.	Description
C3801	2113743N18	4.7pF
C3803	2113743L17	1000pF
C3804	2113743E20	0.1uF
C3805	2113743N18	4.7pF
C3806	2113743N50	100pF
C3808	2113743N30	15pF
C3809	2113743N36	27pF
C3811	2113743M24	0.1uF
C3812	2113743M24	0.1uF
C3813	2113743L41	.01uF
C3815	2113743L17	1000pF
C3816	2113743N22	6.8pF
C3818	2113743E07	.022uF
C3821	2113743L41	.01uF
C3822	2113743L17	1000pF
C3823	2113743L41	.01uF
C3824	2113743N44	56pF
C3825	2113743N30	15pF
C3826	2113743N18	4.7pF
C3827	2113743E07	.022uF
C3828	2113741A45	.01uF
C3829	2113741A45	.01uF
C3830	2113743N46	68pF
C3832	2113743L17	1000pF
C3833	2113743N18	4.7pF
C3834	2113743N44	56pF
C3835	2113743N22	6.8pF
C3836	2113743N30	15pF
C3842	2113743L17	1000pF
C400	2113743L41	.01uF, 10%
C401	2113743M24	0.1uF, +80%/-20%
C402	2113743M24	0.1uF, +80%/-20%
C403	2113928D08	10uF, +80%/-20%
C407	2113928N01	0.1uF, 10%
C408	2113743N50	100pF
C409	2113743M24	0.1uF, +80%/-20%
C410	2113928N01	0.1uF, 10%
C411	2113743M24	0.1uF, +80%/-20%
C414	2113743M24	0.1uF, +80%/-20%
C415	2109720D01	.01uF, 10%
C416	2113928N01	0.1uF, 10%
C419	2113743L41	.01uF, 10%
C420	2113743L41	.01uF, 10%
C421	2113928N01	0.1uF, 10%
C422	2113743M24	0.1uF, +80%/-20%
C423	2113743N50	100pF
C424	2311049A59	10uF, 10%; 6V
C425	2113743M24	0.1uF, +80%/-20%
C426	2113743N50	100pF
C427	2113743N50	100pF
C428	2113743M24	0.1uF, +80%/-20%
C429	2113743M24	0.1uF, +80%/-20%
C430	2113928N01	0.1uF, 10%
	0662057M01	0 (SUB on LS+ Models Only)
C431	2113743N50	100pF
C432	Not Placed	

Circuit Ref	Motorola Part No.	Description
C433	2113743L41	.01uF, 10%
C434	2113743M24	0.1uF, +80%/-20%
C435	2113743M24	0.1uF, +80%/-20%
C436	2113743N34	22pF
C437	2113743N34	22pF
C440	2113743G26	4.7uF, +80%/-20%
C441	2113743N50	100pF
C442	2113743E20	0.1uF, 10%
C443	2113928N01	0.1uF, 10%
C444	2113743N50	100pF (for UHF only)
	2311049A56	4.7uF, 20%, 10V (for VHF only)
C445	2113743N50	100pF
C447	2113928N01	0.1uF, 10%
C448	2113928N01	0.1uF, 10%
C449	2113743N50	100pF
C450	2113743M24	0.1uF, +80%/-20%
C451	2113743M08	.022uF, +80%/-20%
C452	2113743G26	4.7uF, +80%/-20%
C453	2113743N50	100pF
C456	2113743N50	100pF
C458	2113743N50	100pF
C459	2113743N50	100pF
C463	2113743N50	100pF
C466	2113743N50	100pF
C467	2113928N01	0.1uF, 10%
C471	2113743N50	100pF
C472	2113743N50	100pF
C473	2113743N50	100pF
C475	2113743H14	10uF, +80%/-20%
C476	2113928D08	10uF, +80%/-20%
C479	2113928N01	0.1uF, 10%
C480	2113928D08	10uF, +80%/-20%
C481	2113928N01	0.1uF, 10%
C482	2113928N01	0.1uF, 10%
	0662057M01	0 (SUB on LS+ Models Only)
C490	2113743N50	100pF
C491	2113743N50	100pF
C492	2113743N50	100pF
C493	2113743N50	100pF
C494	2113743N50	100pF
C495	2113743N50	100pF
C496	2113743N50	100pF
C497	2113743N50	100pF
C502	2311049A05	0.47uF, 10%, 25V
C503	2113743N50	100pF
C505	2113743N50	100pF
C511	2113743N50	100pF
C512	2113743N50	100pF
C513	2113743N50	100pF
C514	2113743N50	100pF
C520	2113743L41	.01uF, 10%
C521	2113743L41	.01uF, 10%
C522	2113743L41	.01uF, 10%
C523	2113743L41	.01uF, 10%
CR3301	4802245J42	Ring Quad Diode
CR3302	4805129M96	SMBV1032

Circuit Ref	Motorola Part No.	Description
CR3303	4880154K03	Dual Common Anode Cathode
CR411	4802245J47	Schottky Diode
CR412	4802245J47	Schottky Diode
CR413	4802245J47	Schottky Diode
CR440	4813833C02	Dual Diode Common Cathode
CR501	4880107R01	Rectifier
CR503	4805729G49	LED Red/Yellow
D3270	4862824C01	Varactor
D3301	4802081B58	Diode Dual
D3302	4802081B58	Diode Dual
D3521	4880973Z02	Pin Diode
D3551	4880973Z02	Pin Diode
D3701	4802233J09	Triple Diode
D3702	4802233J09	Triple Diode
D3761	4862824C03	Varactor
D3821	4805649Q13	Dual Varactor
D3831	4805649Q13	Dual Varactor
D3832	4862824C01	Varactor
E400	2480640Z01	Ferrite Bead
E401	2480640Z01	Ferrite Bead
E402	2480640Z01	Ferrite Bead
E403	2480640Z01	Ferrite Bead
E404	2480640Z01	Ferrite Bead
E405	2480640Z01	Ferrite Bead
E406	2480640Z01	Ferrite Bead
E407	2480640Z01	Ferrite Bead
E408	2480640Z01	Ferrite Bead
E409	2480640Z01	Ferrite Bead
F501	6580542Z01	Fuse 3A
FL401	4870368G02	Osc Xtal 38.4 kHz
H3501	2680499Z01	HEATSINK
J3501	0180117S05	RF_JACK
J3502	0280519Z02	ANTENNA_NUT
J400	0905505Y04	40-pins Connector
J403	0905505Y02	20-pins Connector
L3200	2462587N68	1uH
L3202	2462587N68	1uH
L3221	2462587N68	1uH
L3270	2462587T15	100nH
L3271	2462587Q20	2.2uH
L3301	2462587T35	12nH
L3303	2462587T35	12nH
L3304	2462587T23	470nH
L3305	2462587T35	12nH
L3306	2462587T35	12nH
L3308	2462587T34	10nH
L3309	2462587N55	150nH
L3312	2462587V28	33nH
L3501	2413926H09	5.6nH
L3503	2462587V32	68nH
L3504	2462587N51	68nH
L3511	2462587N44	18nH
L3512	2460591B04	11.03nH
L3513	2460591A11	7.66nH
L3515	2460591C23	13.85nH
L3518	2462587N48	39nH

Circuit Ref	Motorola Part No.	Description
L3519	2484657R01	BEAD
L3521	2460591A11	7.66nH
L3522	2460591E24	23.75nH
L3523	2462587N68	1uH
L3531	2460591N36	43.67nH
L3532	2460591N36	43.67nH
L3538	2460591M36	30.54nH
L3551	2460591N36	43.67nH
L3552	2460591A11	7.66nH
L3701	2462587Q42	390nH
L3731	2462587Q20	2.2uH
L3801	2462587V34	100nH
L3809	2462587V27	27nH
L3811	2462587V34	100nH
L3812	2462587V34	100nH
L3813	2462587Q47	1uH
L3816	2462587V34	100nH
L3821	2462587N50	56nH
L3822	2462587N49	47nH
L3823	2462587N49	47nH
L3824	2462587N68	1uH
L3825	2462587V34	100nH
L3826	2462587N68	1uH
L3831	2462587N50	56nH
L3832	2462587N51	68nH
L3833	2462587N50	56nH
L3834	2462587N68	1uH
L400	2462587Q42	390nH, 10%
L401	2462587Q42	390nH, 10%
L410	2462587Q42	390nH, 10%
L411	2462587Q42	390nH, 10%
L505	2462587Q42	390nH, 10%
PB501	4080523Z01	Tactile, Pushbutton
PB502	4080523Z01	Tactile, Pushbutton
PB503	4080523Z01	Tactile, Pushbutton
PB504	4080523Z01	Tactile, Pushbutton
PB505	4080523Z01	Tactile, Pushbutton
Q3200	4813827A07	MMBR941
Q3201	4880214G02	NPN
Q3202	4880214G02	NPN
Q3270	4805218N63	BFQ67W
Q3301	4880214G02	NPN
Q3302	4813827A07	NPN
Q3501	4802245J55	RF Power FET
Q3721	4802245J50	UMC5N
Q3801	4813827A07	NPN
Q400	4809579E18	MOSFET P-Chan
Q403	4880214G02	NPN
Q405	4802245J54	Dual NPN
Q410	4802245J54	Dual NPN
Q416	4809579E18	MOSFET P-Chan
Q417	4802245J50	Dual NPN/PNP
Q502	5180159R01	Dual NPN
Q505	4880214G02	NPN
R3200	0662057M54	150
R3201	0662057M82	2.2K

Circuit Ref	Motorola Part No.	Description
R3202	0662057M90	4.7K
R3203	0662057M98	10K
R3204	0662057M34	22
R3205	0662057M74	1K
R3206	0662057N23	100K
R3207	0662057N13	39K
R3208	0662057M50	100
R3209	0662057M74	1K
R3210	0662057M82	2.2K
R3211	0662057M82	2.2K
R3212	0662057M90	4.7K
R3213	0662057M82	2.2K
R3214	0662057M50	100
R3215	0662057M50	100
R3218	0662057M26	10
R3219	0662057M50	100
R3220	0662057M90	4.7K
R3221	0662057M50	100
R3224	0662057M26	10
R3225	0662057M74	1K
R3226	0662057M26	10
R3270	0662057M74	1K
R3271	0662057M42	47
R3272	0662057N15	47K
R3273	0662057N15	47K
R3274	0662057M74	1K
R3275	0662057M88	3.9K
R3276	0662057N30	200K
R3303	0662057N23	100K
R3304	0662057N23	100K
R3305	0662057N15	47K
R3306	0662057M82	2.2K
R3307	0662057N11	33K
R3308	0662057M78	1.5K
R3309	0662057M92	5.6K
R3310	0662057M98	10K
R3311	0662057M26	10
R3312	0662057M38	33
R3313	0662057M34	22
R3314	0662057M26	10
R3315	0662057M62	330
R3316	0662057M66	470
R3317	0662057N23	100K
R3318	0662057M66	470
R3321	0662057M54	150
R3322	0662057M58	220
R3323	0662057M32	18
R3324	0662057M74	1K
R3501	0662057M61	300
R3502	0662057M32	18
R3503	0662057M61	300
R3505	0662057M66	470
R3512	0662057A27	120
R3513	0662057A25	100
R3519	0680539Z01	0.1
R3542	0662057M92	5.6K

Circuit Ref	Motorola Part No.	Description
R3543	0662057M50	100
R3544	0662057A25	100
R3545	0662057A25	100
R3546	0662057N11	33K
R3547	0662057N01	12K
R3548	0662057M98	10K
R3551	0662057M40	39
R3561	0662057N01	12K
R3562	0662057N11	33K
R3563	0662057N33	270K
R3564	0662057N35	330K
R3572	0662057A27	120
R3573	0662057A27	120
R3701	0662057M50	100
R3702	0662057M01	0 NU
R3703	0662057M54	150
R3704	0662057M54	150
R3705	0662057N11	33K
R3721	0662057M66	470
R3722	0662057M74	1K
R3723	0662057M50	100
R3727	0662057N23	100K
R3741	0662057M50	100
R3751	0662057N30	200K
R3752	0662057N35	330K
R3760	0662057M01	0 NU
R3761	0662057N15	47K
R3802	0662057M50	100
R3803	0662057M58	220
R3804	0662057M98	10K
R3805	0662057N08	24K
R3806	0662057M34	22
R3808	0662057M26	10
R3811	0662057M50	100
R3816	0662057M74	1K
R3817	0662057M01	0
R3821	0662057M58	220
R3822	0662057M42	47
R3823	0662057N11	33K
R3824	0662057N07	22K
R3825	0662057M38	33
R3826	0662057M32	18
R3828	0662057M50	100
R3829	0662057M01	0
R3831	0662057M98	10K
R3832	0662057N01	12K
R3833	0662057M58	220
R3834	0662057M42	47
R3835	0662057N15	47K
R3836	0662057M98	10K
R400	0662057N15	47K
R401	0662057M01	0
R402	Not Placed	
R403	Not Placed	
R405	0662057M01	0
R406	0662057N20	75K

Circuit Ref	Motorola Part No.	Description
R407	0662057N19	68K
R408	Not Placed	
R409	0662057M98	10K
R410	0662057N23	100K
R411	0662057M98	10K
R413	0662057M01	0
R414	0662057V34	180K, 1%
R415	0662057V26	91K, 1%
R416	0662057N13	39K
R418	0662057M01	0
R419	0662057M67	510
R420	0662057B46	10MEG
R421	0662057M81	2K
R423	0662057N15	47K
R424	0662057N12	36K
R425	0662057N10	30K
R426	0662057N35	330K
R427	0662057M84	2.7K
R428	0662057M10	2.2
R429	0662057M98	10K
R431	0662057N39	470K
R432	0662057N16	51K
R434	0662057M93	6.2K
R435	0662057M81	2K
R436	0662057M01	0
R437	Not Placed	
R445	0662057N08	24K
R446	0662057N31	220K
R447	0662057N50	1.3M
R448	0662057N33	270K
R449	0662057N08	24K
R450	0683962T45	68, 1W
R457	0662057M98	10K
R460	0662057M90	4.7K
R461	0662057M56	180
R462	0662057M98	10K
R463	0662057M61	300
R471	0662057M92	5.6K
R472	0662057M87	3.6K
R473	0662057M26	10
R475	0662057M01	0
R476	0662057N08	24K
R477	0662057M74	1K
R478	0662057M98	10K
R481	0662057N08	24K
R492	0662057M01	0
R501	0662057M70	680
R502	0662057M56	180
R505	0662057M98	10K
R506	0662057N15	47K
R507	0662057M01	0
RT400	0680590Z01	Thermistor 33K
S501	4080502B03	Channel Switch
	4080710Z02	Channel Switch (LS models- MDC in conventional)
S502	1880619Z01	Volume Switch

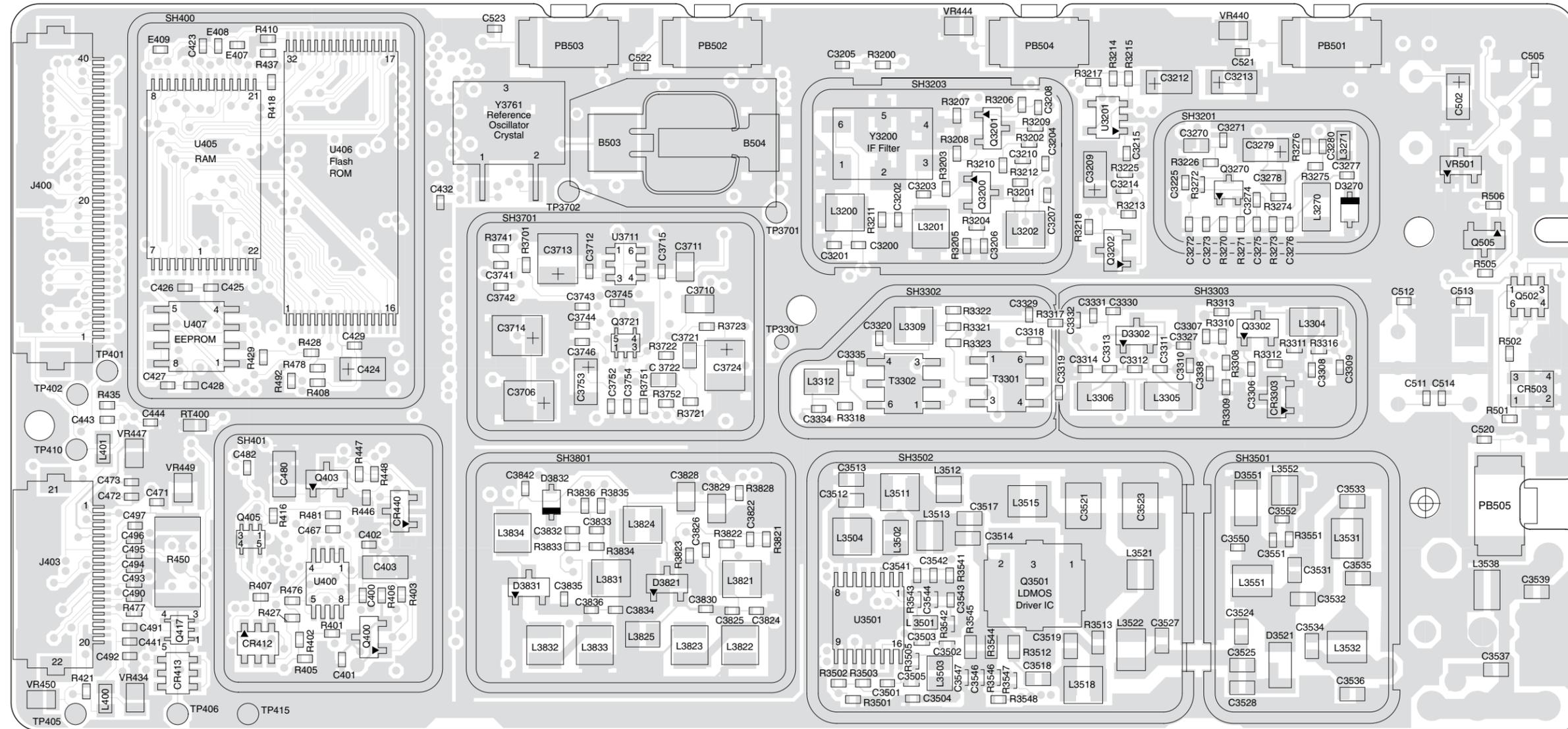
Circuit Ref	Motorola Part No.	Description
SH3201	2602023X08	SHIELD
SH3202	2686081B02	SHIELD
SH3203	2686081B03	SHIELD NU
SH3301	2686081B01	SHIELD
SH3302	2686081B05	SHIELD
SH3303	2686081B06	SHIELD
SH3501	2686081B03	SHIELD
SH3502	2686081B04	SHIELD
SH3702	2680511Z01	SHIELD
SH3801	2680513Z01	SHIELD
SH3802	2680514Z01	SHIELD
SH400	2680505Z01	Controller Memory Shield
SH401	2680506Z01	Controller On/Off Shield
SH402	2680515Z01	Controller Microprocessor Shield
SH403	2680516Z01	Controller AsficCmp/Audi PA Shield
T3301	2580541Z01	mgc_comps
T3302	2580541Z01	mgc_comps
U3201	5102463J58	LP2980
U3220	5109632D83	mgc_comps
U3501	5105109Z67	09Z67
U3502	5185765B01	H99S-4
U3503	5185963A15	Temperature Sense
U3701	5185963A27	mgc_comps
U3711	5105739X05	mgc_comps
U3801	5105750U54	50U54
U400	5102463J40	3.3V Reg
U404	5185963A53	AsficCmp
U405	Not Placed	
U406	*5102463J59	ROM 256K
U407	*5102463J64	EEPROM 16Kx8
U409	5102226J55	Microcontroller
U410	5102463J57	3.3V Reg
U420	5102463J44	Audio PA
VR300	Not Placed	
VR432	4805656W08	5.6V Zener
VR433	4805656W08	5.6V Zener
VR434	4802245J51	6.8V Zener
VR439	4880140L15	10V Zener
VR440	4802245J51	6.8V Zener
VR441	4802245J51	6.8V Zener
VR442	4802245J51	6.8V Zener
VR443	4802245J51	6.8V Zener
VR444	4802245J51	6.8V Zener
VR445	4802245J53	10V Zener
VR446	4802245J53	10V Zener
VR447	4802245J53	10V Zener
VR448	4802245J53	10V Zener
VR449	4802245J53	10V Zener
VR450	4802245J53	10V Zener
VR501	4813830A18	6.8V Zener
VR506	4802245J51	6.8V Zener
Y3200	4802245J43	XTAL
Y3761	4802245J49	mgc_comps

* Motorola Depot Servicing only

Notes

9.20 VHF Circuit Board/Schematic Diagrams and Parts List (PCB 8486062B12)

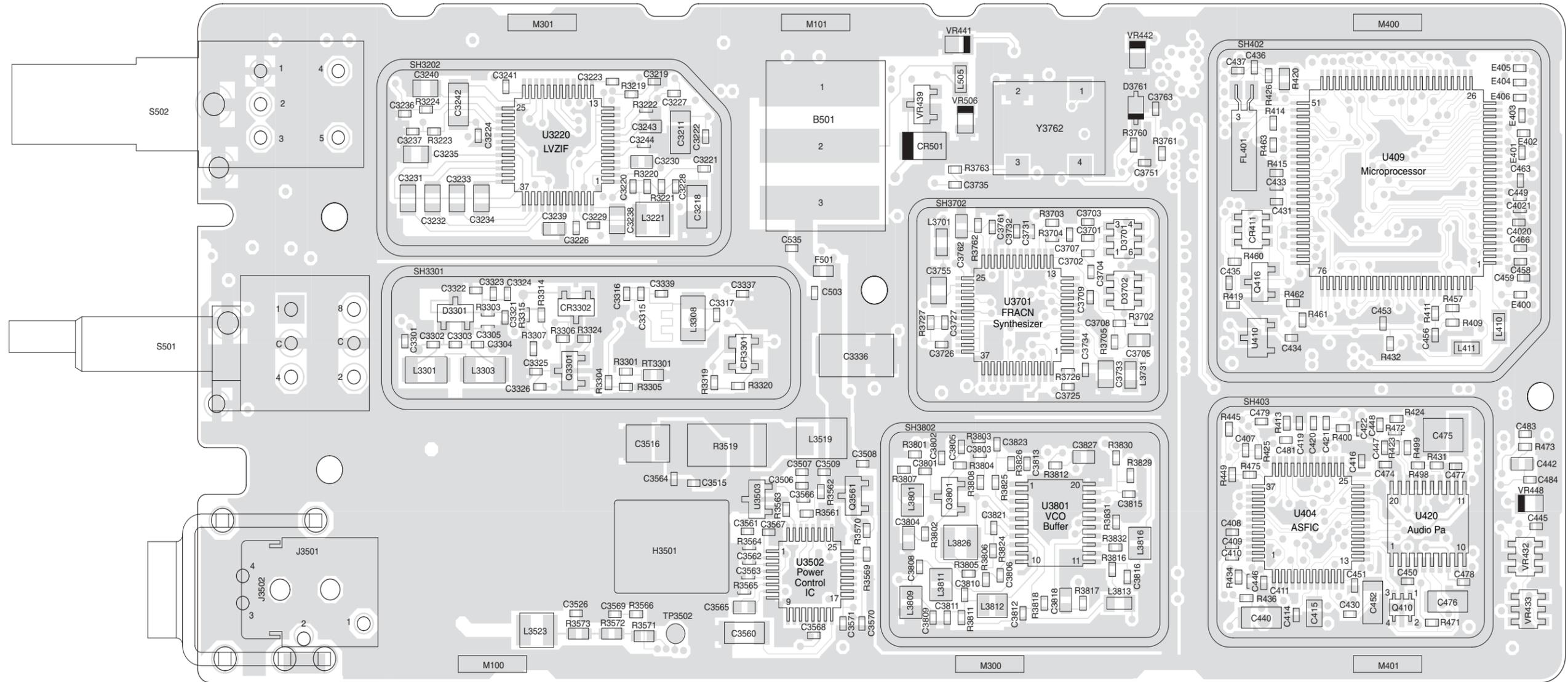
VIEWED FROM SIDE 1



ZWG0130072-E

Figure 9-173. VHF (136-174 MHz) 5000/7000 Series Main Board Top Side PCB 8486062B12

VIEWED FROM SIDE 2



ZWG0130073-D

Figure 9-174. VHF (136-174 MHz) 5000/7000 Series Main Board Bottom Side PCB 8486062B12

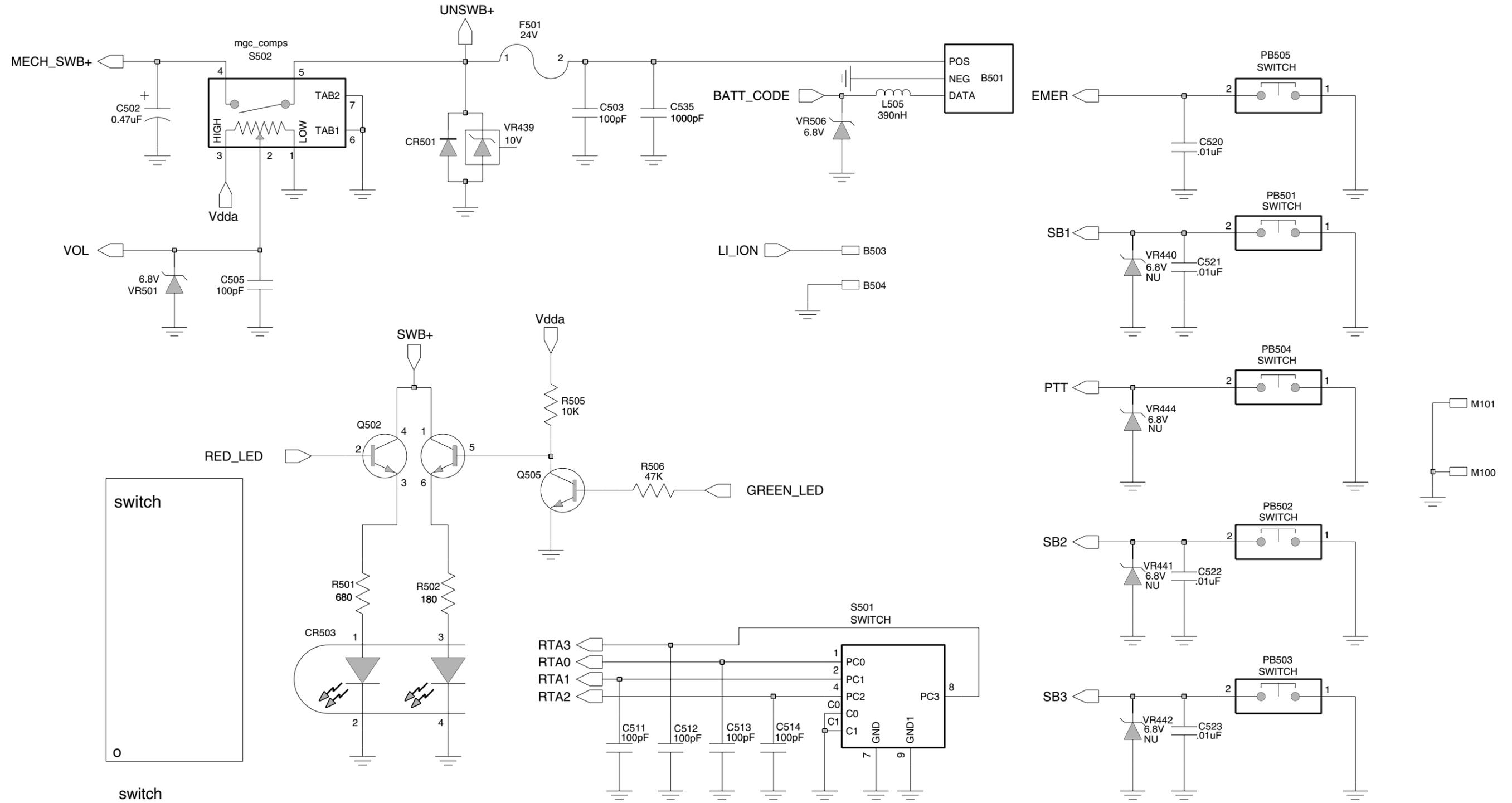
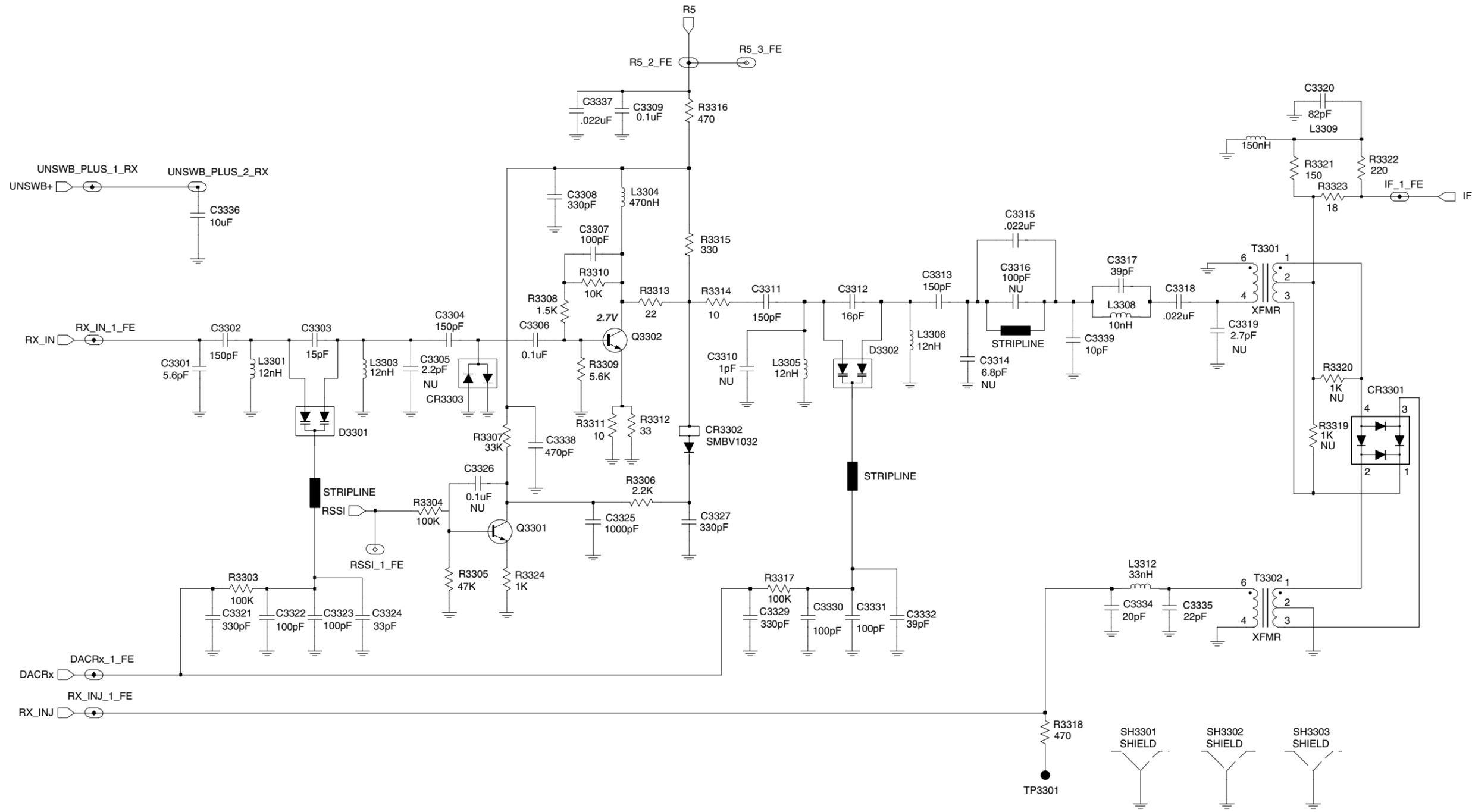
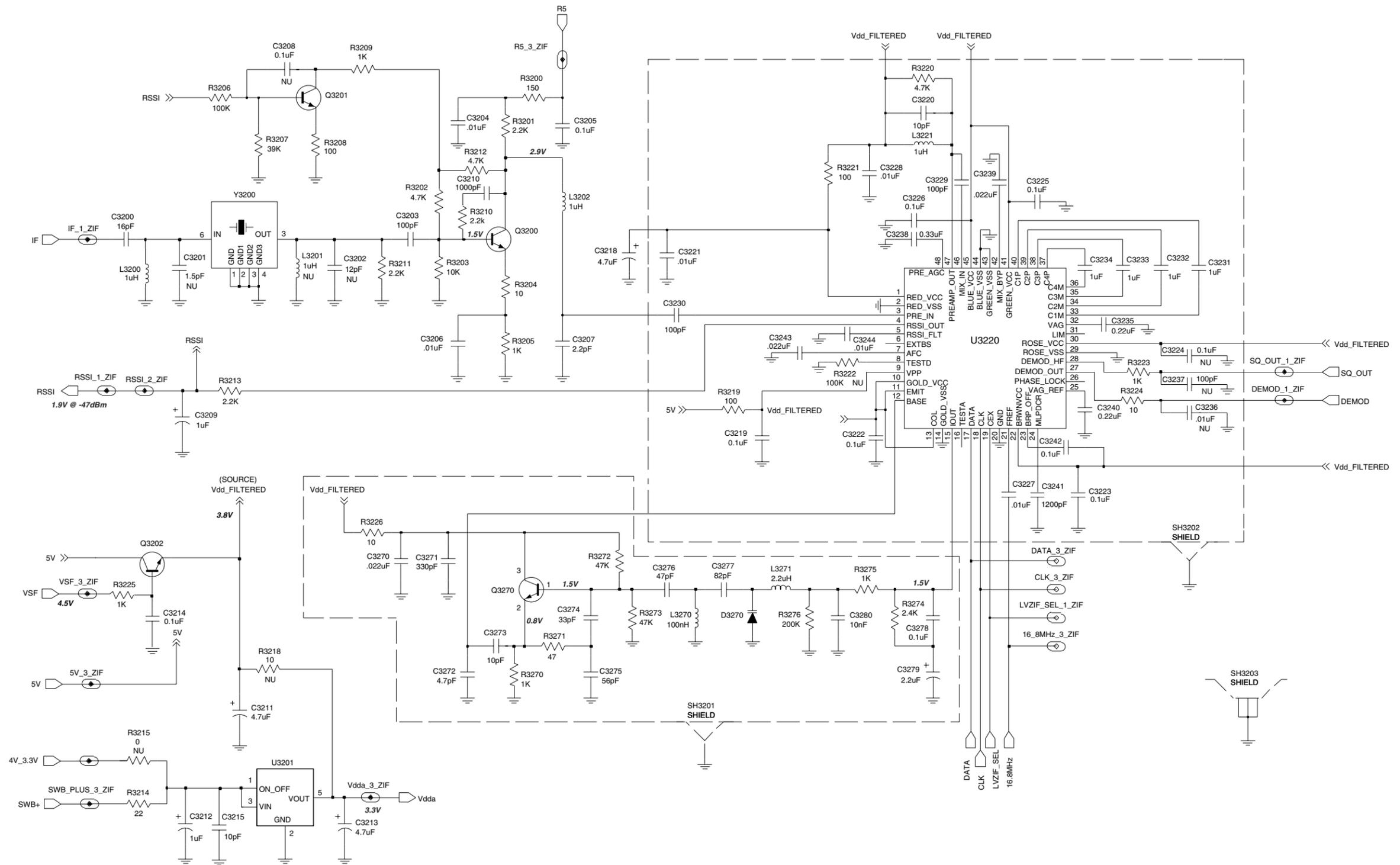


Figure 9-175. VHF (136-174 MHz) Controls and Switches Schematic Diagram



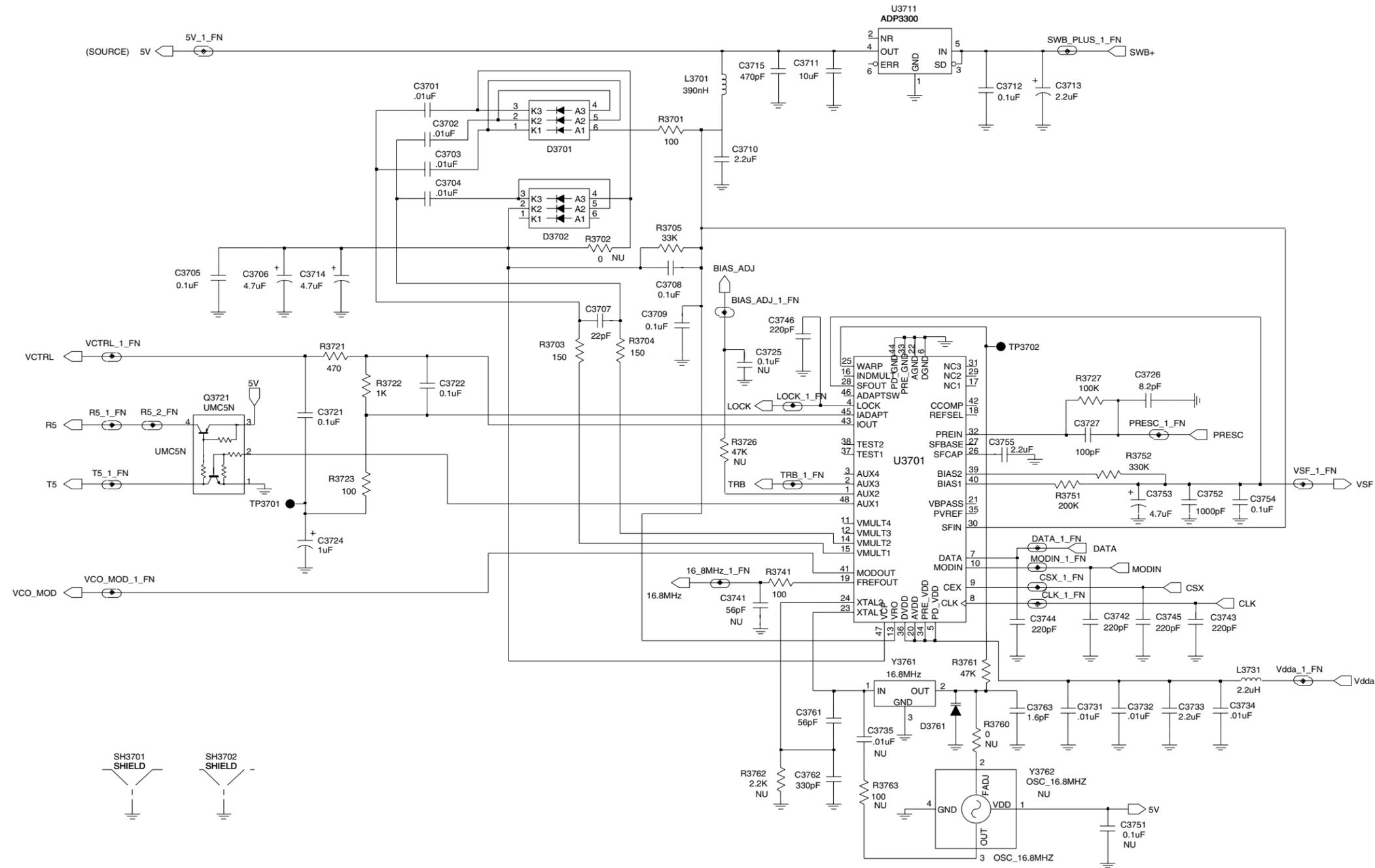
ZWG0130023-A

Figure 9-176. VHF (136-174 MHz) Receiver Front End Schematic Diagram



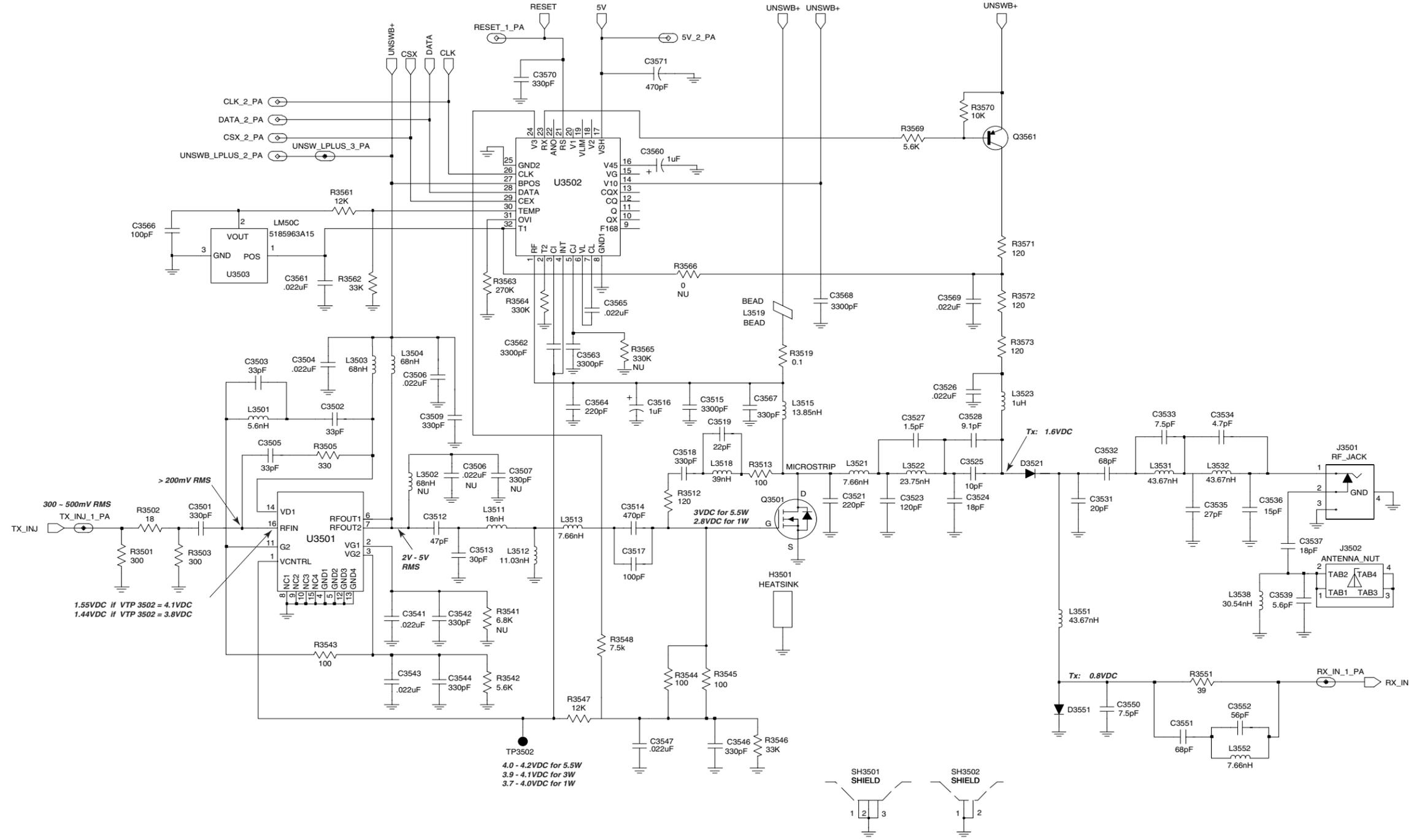
ZWG0130025-B

Figure 9-177. VHF (136-174 MHz) Receiver Back End Schematic Diagram



ZWG0130022-C

Figure 9-178. VHF (136-174 MHz) Synthesizer Schematic Diagram



ZWG0130021-D

Figure 9-180. VHF (136-174 MHz) Transmitter Schematic Diagram

**VHF (136-174 MHz) 5000/7000 Series Radio
Parts List (PCB 8486062B12)**

Circuit Ref	Motorola Part No.	Description
B501	0986237A02	Battery Contact Module
B503	3980502Z01	Backup battery B+
B504	3980501Z01	Backup battery B-
C3200	2113743N31	16pF
C3203	2113743N50	100pF
C3204	2113743L41	0.01uF
C3205	2113928N01	0.1uF
C3206	2113743L41	0.01uF
C3207	2113743N10	2.2pF
C3209	2311049A07	1uF
C3210	2113743L17	1000pF
C3211	2311049A56	4.7uF
C3212	2311049A07	1uF
C3213	2311049A56	4.7uF
C3214	2113928N01	0.1uF
C3215	2113743N26	10pF
C3218	2311049A56	4.7uF
C3219	2113928N01	0.1uF
C3220	2113743N26	10pF
C3221	2113743L41	0.01uF
C3222	2113928N01	0.1uF
C3223	2113928N01	0.1uF
C3224	2113928N01	0.1uF
C3225	2113928N01	0.1uF
C3226	2113928N01	0.1uF
C3227	2113743L41	0.01uF
C3228	2113743L41	0.01uF
C3229	2113743N50	100pF
C3230	2113740F51	100pF
C3231	2180478Z20	1uF
C3232	2180478Z20	1uF
C3233	2180478Z20	1uF
C3234	2180478Z20	1uF
C3235	2113743A23	0.220uF
C3238	2113743A24	0.330uF
C3239	2113743E07	0.022uF
C3240	2113743A23	0.220uF
C3241	2113743L19	1200pF
C3242	2109720D14	0.1uF
C3243	2113743E07	0.022uF
C3244	2113743L41	0.01uF
C3270	2113743E07	0.022uF
C3271	2113743L05	330pF
C3272	2113743N18	4.7pF
C3273	2113743N26	10.0pF
C3274	2113743N38	33.0pF
C3275	2113743N44	56.0pF
C3276	2113743N42	47.0pF
C3277	2113743N48	82.0pF
C3278	2113743E07	0.022uF
C3279	2311049A40	2.2uF
C3280	2113743L41	0.01uF
C3301	2113743N20	5.6pF
C3302	2113743N54	150pF

Circuit Ref	Motorola Part No.	Description
C3303	2113743N30	15.0pF
C3304	2113743N54	150pF
C3306	2113928N01	0.1uF
C3307	2113743N50	100pF
C3308	2113743L05	330pF
C3309	2113928N01	0.1uF
C3311	2113743N54	150pF
C3312	2113743N31	16.0pF
C3313	2113743N54	150pF
C3315	2113743N26	10.0pF
C3316	2113743N14	3.3pF
C3317	2113743N40	39pF
C3318	2113743M08	0.022uF
C3320	2113743N48	82pF
C3321	2113743L05	330pF
C3322	2113743N50	100pF
C3323	2113743N50	100pF
C3324	2113743N38	33pF
C3325	2113743L17	1000pF
C3327	2113743L05	330pF
C3329	2113743L05	330pF
C3330	2113743N50	100pF
C3331	2113743N50	100pF
C3332	2113743N40	39pF
C3334	2113743N33	20pF
C3335	2113743N34	22pF
C3336	2311049A18	10uF
C3337	2113743M08	0.022pF
C3338	2113743L09	470pF
C3339	2113743N26	10pF
C3501	2113743L05	330pF
C3502	2113743N38	33pF
C3503	2113743N38	33pF
C3504	2113743M08	0.022pF
C3505	2113743N38	33pF
C3508	2113743M08	0.022pF
C3509	2113743L05	330pF
C3512	2113740F43	47pF
C3513	2113740F38	30pF
C3514	2113740F67	470pF
C3515	2113743L29	3300pF
C3516	2311049A08	1uF
C3517	2113740F51	100pF
C3518	2113740F63	330pF
C3519	2113740F35	22pF
C3521	2111078B51	220pF
C3523	2111078B44	120pF
C3524	2113740F33	18pF
C3525	2113740F27	10pF
C3526	2113743M08	0.022pF
C3528	2113740F26	9.1pF
C3531	2113740F34	20pF
C3532	2113740F47	68pF
C3533	2113740F24	7.5pF
C3534	2113740F19	4.7pF
C3535	2113740F37	27

Circuit Ref	Motorola Part No.	Description
C3536	2113740F31	15
C3537	2113740F33	18
C3539	2113740F21	5.6
C3541	2113743M08	0.022pF
C3542	2113743L05	330pF
C3543	2113743M08	0.022pF
C3544	2113743L05	330pF
C3546	2113743L05	330pF
C3547	2113743M08	0.022pF
C3550	2113743N23	7.5pF
C3551	2113743N46	68pF
C3552	2113743N44	56pF
C3560	2311049A07	1.0uF
C3561	2113743M08	0.022pF
C3562	2113743L29	3300pF
C3563	2113743L29	3300pF
C3564	2113743L01	220pF
C3565	2113743E07	0.022uF
C3566	2113743N50	100pF
C3567	2113743L05	330pF
C3568	2113743L29	3300pF
C3569	2113743M08	0.022pF
C3570	2113743L05	330pF
C3571	2113743L09	470pF
C3701	2113743L41	0.01uF
C3702	2113743L41	0.01uF
C3703	2113743L41	0.01uF
C3704	2113743L41	0.01uF
C3705	2113743E20	10 uF
C3706	2311049J11	4.7uF
C3707	2113743N34	22pF
C3708	2113743M24	0.1uF
C3709	2113743M24	0.1uF
C3710	2104993J02	2.2uF
C3711	2311049A69	10uF
C3712	2113743M24	0.1uF
C3713	2311049A09	2.2 uF
C3714	2311049J11	4.7uF
C3715	2113743L09	470pF
C3721	2113743E20	10 uF
C3722	2113743E20	10 uF
C3724	2311049A08	1uF
C3726	2113743N24	8.2pF
C3727	2113743N50	100pF
C3731	2113743L41	0.01uF
C3732	2113743L41	0.01uF
C3733	2104993J02	2.2uF
C3734	2113743L41	0.01uF
C3742	2113743L01	220pF
C3743	2113743L01	220pF
C3744	2113743L01	220pF
C3745	2113743L01	220pF
C3746	2113743L01	220pF
C3752	2113743L17	1000pF
C3753	2311049A56	4.7uF
C3754	2113743M24	0.1uF

Circuit Ref	Motorola Part No.	Description
C3755	2104993J02	2.2uF
*C3761	2113743N44	56.0pF
*C3762	2113740F63	330pF
*C3763	2113743N08	1.6pF
C3801	2113743N18	4.7pF
C3803	2113743L17	1000pF
C3804	2113743E20	10uF
C3805	2113743N18	4.7pF
C3806	2113743N50	100pF
C3808	2113743N30	15pF
C3809	2113743N36	27pF
C3811	2113743M24	0.1uF
C3812	2113743M24	0.1uF
C3813	2113743L41	0.01uF
C3815	2113743L17	1000pF
C3816	2113743N22	6.8pF
C3818	2113743E07	0.022uF
C3821	2113743L41	0.01uF
C3822	2113743L17	1000pF
C3823	2113743L41	0.01uF
C3824	2113743N44	56pF
C3825	2113743N30	15pF
C3826	2113743N18	4.7pF
C3827	2113743E07	0.022uF
C3828	2109720D01	0.01uF
C3829	2109720D01	0.01uF
C3830	2113743N46	68.0pF
C3832	2113743L17	1000pF
C3833	2113743N18	4.7pF
C3834	2113743N44	56pF
C3835	2113743N22	6.8pF
C3836	2113743N30	15.0pF
C3842	2113743L17	1000pF
C400	2113743L41	0.01uF
C401	2113743M24	0.1uF
C402	2113743M24	0.1uF
C403	2113928D08	10uF
C407	2113928N01	0.1uF
C408	2113743N50	100pF
C409	2113743M24	0.01uF
C410	2113928N01	0.1uF
C411	2113743M24	0.01uF
C414	2113743M24	0.01uF
C415	2109720D01	0.01uF
C416	2113928N01	0.1uF
C419	2113743L41	0.01uF
C420	2113743L41	0.01uF
C421	2113928N01	0.1uF
C422	2113743M24	0.01uF
C423	2113743N50	100pF
C424	2311049A59	10uF
C425	2113743M24	0.01uF
C426	2113743N50	100pF
C427	2113743N50	100pF
C428	2113743M24	0.01uF
C429	2113743M24	0.01uF

Circuit Ref	Motorola Part No.	Description
C430	2113928N01 0662057M01	0.1uF, 10% 0 (SUB on LS+ Models Only)
C431	2113743N50	100pF
C433	2113743L41	0.01uF
C434	2113743M24	0.01uF
C435	2113743M24	0.01uF
C436	2113743N34	22pF
C437	2113743N34	22pF
C440	2113743G26	4.7uF
C441	2113743L09	470pF
C442	2113743E20	10 uF
C443	2113928N01	0.1uF
C444	2113743N50	100pF
C445	2113743L09	470pF
C446	2113743L09	470pF
C447	2113928N01	0.1uF
C448	2113928N01	0.1uF
C449	2113743N50	100pF
C451	2113743M08	0.022pF
C452	2113743G26	4.7uF
C453	2113743N50	100pF
C456	2113743N50	100pF
C458	2113743N50	100pF
C459	2113743N50	100pF
C463	2113743N50	100pF
C466	2113743N50	100pF
C467	2113928N01	0.1uF
C471	2113743L09	470pF
C472	2113743L09	470pF
C473	2113743L09	470pF
C474	2113743L41	0.01uF
C475	2113743H14	10uF
C476	2113928D08	10.0uF
C477	2113743L17	1000pF
C478	2113743L17	1000pF
C479	2113928N01	0.1uF
C480	2113928D08	10.0uF
C481	2113928N01	0.1uF
C482	2113928N01 0662057M01	0.1uF, 10% 0 (SUB on LS+ Models Only)
C483	2113743L09	470pF
C484	2113743L09	470pF
C490	2113743L09	470pF
C491	2113743L09	470pF
C492	2113743L09	470pF
C493	2113743N50	100pF
C494	2113743N50	100pF
C495	2113743L09	470pF
C496	2113743L09	470pF
C497	2113743L09	470pF
C502	2311049A05	0.47uF
C503	2113743N50	100pF
C505	2113743N50	100pF
C511	2113743N50	100pF
C512	2113743N50	100pF
C513	2113743N50	100pF

Circuit Ref	Motorola Part No.	Description
C514	2113743N50	100pF
C520	2113743L41	0.01uF
C521	2113743L41	0.01uF
C522	2113743L41	0.01uF
C523	2113743L41	0.01uF
C535	2113743L17	0.01uF
CR330	4802245J42	Ring Quad Diode
CR330	4805129M96	SMBV1032
CR330	4880154K03	Dual Common Anode Cathode
CR411	4802245J47	Schottky Diode
CR412	4802245J62	Schottky Diode
CR413	4802245J62	Schottky Diode
CR440	4813833C02	Dual Diode Common Cathode
CR501	4880107R01	Rectifier
CR503	4805729G49	LED Red/Yellow
D3270	4862824C01	Varactor
D3301	4802081B58	Dual Diode
D3302	4802081B58	Dual Diode
D3521	4880973Z02	Pin Diode
D3551	4880973Z02	Pin Diode
D3701	4802233J09	Triple Diode
D3702	4802233J09	Triple Diode
D3761	4862824C03	Varactor
D3821	4805649Q13	Dual Varactor
D3831	4805649Q13	Dual Varactor
D3832	4862824C01	Varactor
E400	2480640Z01	Ferrite Bead
E401	2480640Z01	Ferrite Bead
E402	2480640Z01	Ferrite Bead
E403	2480640Z01	Ferrite Bead
E404	2480640Z01	Ferrite Bead
E405	2480640Z01	Ferrite Bead
E406	2480640Z01	Ferrite Bead
E407	2480640Z01	Ferrite Bead
E408	2480640Z01	Ferrite Bead
E409	2480640Z01	Ferrite Bead
F501	6580542Z01	Fuse 3A
FL401	4870368G02	Crystal Oscillator 38.4 kHz
H3501	2680499Z01	Heatsink
J3501	0180117S05	RF Jack
J3502	0280519Z02	Antenna Nut
J400	0905505Y04	40-Pin Connector
J403	0905505Y02	20-Pin Connector
L3200	2462587N68	1uH
L3202	2462587N68	1uH
L3221	2462587N68	1uH
L3270	2462587T15	100nH
L3271	2462587Q20	2.2uH
L3301	2462587T35	12nH
L3303	2462587T35	12nH
L3304	2462587T23	470nH
L3305	2462587T35	12nH
L3306	2462587T35	12nH
L3308	2462587T34	10nH
L3309	2462587N55	150nH
L3312	2462587V28	33nH

Circuit Ref	Motorola Part No.	Description
L3501	2413926H09	5.6nH
L3503	2462587V32	68nH
L3504	2462587N51	68nH
L3511	2462587N44	18nH
L3512	2479990B01	11.03nH
L3513	2479990A02	7.66nH
L3515	2479990C03	13.85nH
L3518	2462587N48	39nH
L3519	2484657R01	Bead
L3521	2479990A02	7.66nH
L3522	2479990E01	23.75nH
L3523	2462587N68	1uH
L3531	2479990N01	43.67nH
L3532	2479990N01	43.67nH
L3538	2479990N01	30.54nH
L3551	2479990N01	43.67nH
L3552	2479990A02	7.66nH
L3701	2462587Q42	390nH
L3731	2462587Q20	2.2uH
L3801	2462587V34	100nH
L3809	2462587V27	27nH
L3811	2462587V34	100nH
L3812	2462587V34	100nH
L3813	2462587Q47	1uH
L3816	2462587V34	100nH
L3821	2462587N50	56nH
L3822	2462587N49	47nH
L3823	2462587N49	47nH
L3824	2462587N68	1uH
L3825	2462587V34	100nH
L3826	2462587N68	1uH
L3831	2462587N50	56nH
L3832	2462587N51	68nH
L3833	2462587N50	56nH
L3834	2462587N68	1uH
L400	2462587Q42	390nH
L401	2462587Q42	390uH
L410	2462587Q42	390uH
L411	2462587Q42	390uH
L505	2462587Q42	390uH
PB501	4080523Z01	Tactile, Pushbutton
PB502	4080523Z01	Tactile, Pushbutton
PB503	4080523Z01	Tactile, Pushbutton
PB504	4080523Z01	Tactile, Pushbutton
PB505	4080523Z01	Tactile, Pushbutton
Q3200	4813827A07	NPN
Q3201	4880214G02	NPN
Q3202	4880214G02	NPN
Q3270	4805218N63	BFQ67W
Q3301	4880214G02	NPN
Q3302	4813827A07	NPN
Q3501	4802245J55	RF Power FET
Q3561	4813824A17	PNP
Q3721	4802245J50	Dual NPN/PNP
Q3801	4813827A07	NPN
Q400	4809579E18	MOSFET P-Chan

Circuit Ref	Motorola Part No.	Description
Q403	4880214G02	NPN
Q405	4802245J54	Dual NPN
Q410	4802245J54	Dual NPN
Q416	4809579E18	MOSFET p-CHAN
Q417	4802245J50	Dual NPN/PNP
Q502	5180159R01	NPN
Q505	4880214G02	TSTR MMBT3904
R3200	0662057M54	150
R3201	0662057M82	2.2K
R3202	0662057M90	4.7K
R3203	0662057M98	10K 5
R3204	0662057M26	10
R3205	0662057M74	1K
R3206	0662057N23	100K
R3207	0662057N13	39K
R3208	0662057M50	100
R3209	0662057M74	1K
R3210	0662057M82	2.2K
R3211	0662057M82	2.2K
R3212	0662057M90	4.7K
R3213	0662057M82	2.2K
R3214	0662057M34	22
R3219	0662057M50	100
R3220	0662057M90	4.7K
R3221	0662057M50	100
R3224	0662057M26	10
R3225	0662057M74	1K
R3226	0662057M26	10
R3270	0662057M74	1KK
R3271	0662057M42	47 K
R3272	0662057N15	47KK
R3273	0662057N15	47K K
R3274	0662057M83	2.4K
R3275	0662057M74	1K
R3276	0662057N30	200K
R3303	0662057N23	100K
R3304	0662057N23	100K
R3305	0662057N19	68K
R3306	0662057M82	2.2K
R3307	0662057N11	33K
R3308	0662057M78	1.5K
R3309	0662057M92	5.6K
R3310	0662057M98	10K
R3311	0662057M26	10
R3312	0662057M38	33
R3313	0662057M34	22
R3314	0662057M26	10
R3315	0662057M62	330
R3316	0662057M66	470
R3317	0662057N23	100K
R3318	0662057M66	470
R3321	0662057M54	150
R3322	0662057M58	220
R3323	0662057M32	18
R3324	0662057M58	220
R3501	0662057M61	300

Circuit Ref	Motorola Part No.	Description
R3502	0662057M32	18
R3503	0662057M61	300
R3505	0662057M62	330
R3512	0662057A27	120
R3513	0662057A25	100
R3519	0680539Z01	0.1
R3542	0662057M92	5.6K
R3543	0662057M50	100
R3544	0662057A25	100
R3545	0662057A25	100
R3546	0662057N11	33K
R3547	0662057N01	12K
R3548	0662057M95	7.5K
R3551	0662057M40	39
R3561	0662057N01	12K
R3562	0662057N11	33K
R3563	0662057N33	270K
R3564	0662057N35	330K
R3569	0662057M92	5600
R3570	0662057M98	10K
R3571	0662057A27	5.6K
R3572	0662057A27	120
R3573	0662057A27	120
R3701	0662057M50	100
R3703	0662057M54	150
R3704	0662057M54	150
R3705	0662057N11	33K
R3721	0662057M66	470
R3722	0662057M74	1000
R3723	0662057M50	100
R3727	0662057N23	100K
R3741	0662057M50	100
R3751	0662057N30	200K
R3752	0662057N35	330K
R3761	0662057N15	47K
R3802	0662057M50	100
R3803	0662057M58	220
R3804	0662057M98	10K
R3805	0662057N08	24K
R3806	0662057M34	22
R3808	0662057M26	10
R3811	0662057M50	100
R3816	0662057M74	1K
R3817	0662057M01	0
R3821	0662057M58	220
R3822	0662057M42	47
R3823	0662057N11	33K
R3824	0662057N07	22K
R3825	0662057M38	33
R3826	0662057M32	18
R3828	0662057M50	100
R3829	0662057M01	0
R3831	0662057M98	10K
R3832	0662057N01	12K
R3833	0662057M58	220
R3834	0662057M42	47

Circuit Ref	Motorola Part No.	Description
R3835	0662057N15	47K
R3836	0662057M98	10K
R400	0662057N15	47K
R401	0662057M01	0
R405	0662057M01	0
R406	0662057N20	75K
R407	0662057N19	68K
R409	0662057M98	10K
R410	0662057N23	100K
R411	0662057M98	10K
R413	0662057M01	0
R414	0662057V34	180K
R415	0662057V26	91K
R416	0662057N13	39K
R418	0662057M01	0
R419	0662057M67	0
R420	0662057B46	10M
R421	0662057M81	2K
R423	0662057N21	82K
R424	0662057N12	36K
R425	0662057N10	30K
R426	0662057N35	330K
R427	0662057M84	2700
R428	0662057M10	2.2
R429	0662057M98	10K
R431	0662057N39	470K
R432	0662057N16	51K
R434	0662057M62	330
R435	0662057M81	2K
R436	0662057M01	0
R445	0662057N08	24K
R446	0662057N31	220K
R447	0662057N51	1.5M
R448	0662057N33	270K
R449	0662057N08	24K
R450	0683962T45	68
R457	0662057M98	10K
R460	0662057M90	4.7K
R461	0662057M56	180
R462	0662057M98	10K
R463	0662057M61	300
R471	0662057M92	5.6K
R472	0662057M93	6.2K
R473	0662057M26	10
R475	0662057M01	0
R476	0662057N08	24K
R477	0662057M74	1K
R478	0662057M98	10K
R481	0662057N08	24K
R492	0662057M01	0
R501	0662057M70	680
R502	0662057M56	180
R505	0662057M98	10K
R506	0662057N15	47K
RT400	0680590Z01	33K
S501	4080710Z02	Frequency Switch

Circuit Ref	Motorola Part No.	Description
S502	1880619Z01	Volume Potentiometer
SH3201	2602023X08	Shield
SH3202	2686081B02	Shield
SH3203	2686081B03	Shield
SH3301	2686081B01	Shield
SH3302	2686081B05	Shield
SH3303	2686081B06	Shield
SH3501	2686081B03	Shield
SH3502	2686081B04	Shield
SH3701	2680511Z01	Shield, Synthesizer
SH3702	2680511Z01	Shield
SH3801	2680513Z01	Shield, VCO Top
SH3802	2680514Z01	Shield, VCO Bottom/LVZIF
SH400	2680505Z01	Controller Memory Shield
SH401	2680506Z01	Controller On/Off Shield
SH402	2680515Z01	Controller Microprocessor Shield
SH403	2680516Z01	Controller ASFIC Compander/ Audio PA Shield
T3301	2580541Z01	Transformer Coil
T3302	2580541Z01	Transformer Coil
U3201	5102463J58	3.3V Regulator
U3220	5109632D83	Low Voltage ZIF
U3501	5105109Z67	LDMOS Driver
U3502	5185765B01	Power Control IC
U3503	5185963A15	Temperature Sense
U3701	5185963A27	Low Voltage FracN
U3711	5105739X05	Regulator, Linear
U3801	5105750U54	VCO Buffer
U400	5102463J40	3.3V Regulator
U404	5185963A53	ASFIC
U405	5102463J36	Static RAM
U406	5102463J60	512KX8 Flash ROM
U407	5102463J64	16KX8 EEPROM
U409	5102226J56	Microcontroller
U410	5102463J57	3.3V Regulator
U420	5102463J44	Audio PA
VR432	4805656W08	5.6V Zener
VR433	4805656W08	5.6V Zener
VR434	4802245J51	6.8V Zener
VR439	4880140L15	10V Zener
VR447	4802245J53	10V Zener
VR448	4802245J53	10V Zener
VR449	4802245J53	10V Zener
VR450	4802245J53	10V Zener
VR501	4813830A18	6.8V Zener
VR506	4802245J51	6.8V Zener
Y3200	9186153B01	Crystal Filter
Y3761	4802245J49	Crystal 16.8 MHz

* Motorola Depot Servicing only

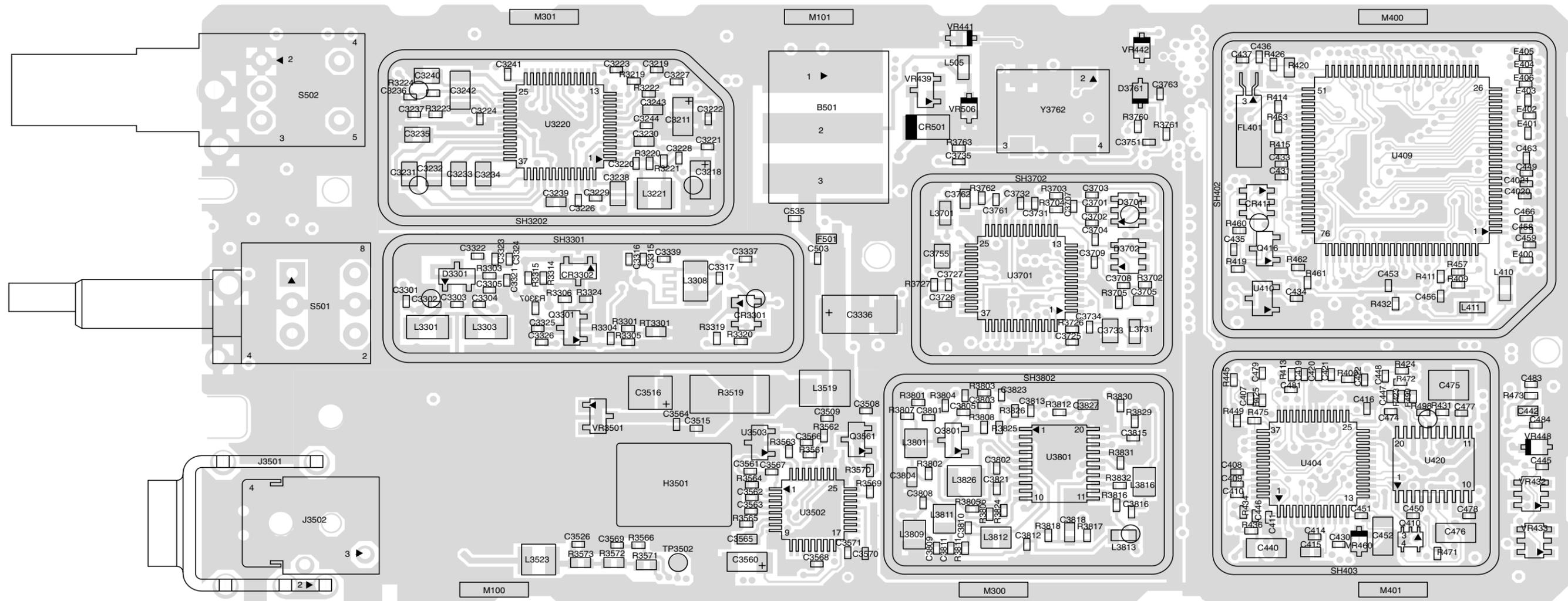


Figure 9-182. VHF (136-174 MHz) 5000/7000 Series Main Board Bottom Side PCB 8486062B16

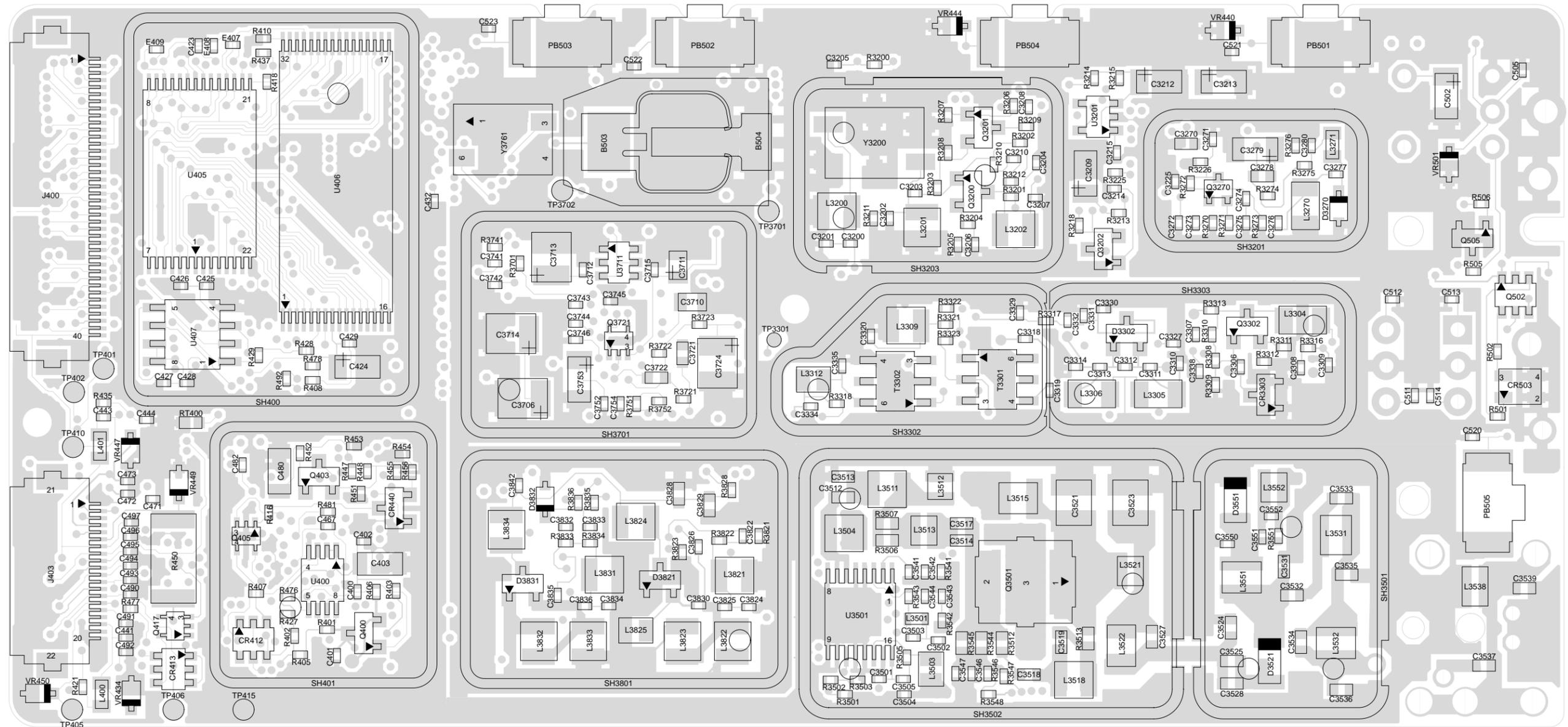


Figure 9-183. VHF (136-174 MHz) 5000/7000 Series Main Board Top Side PCB 8486062B17

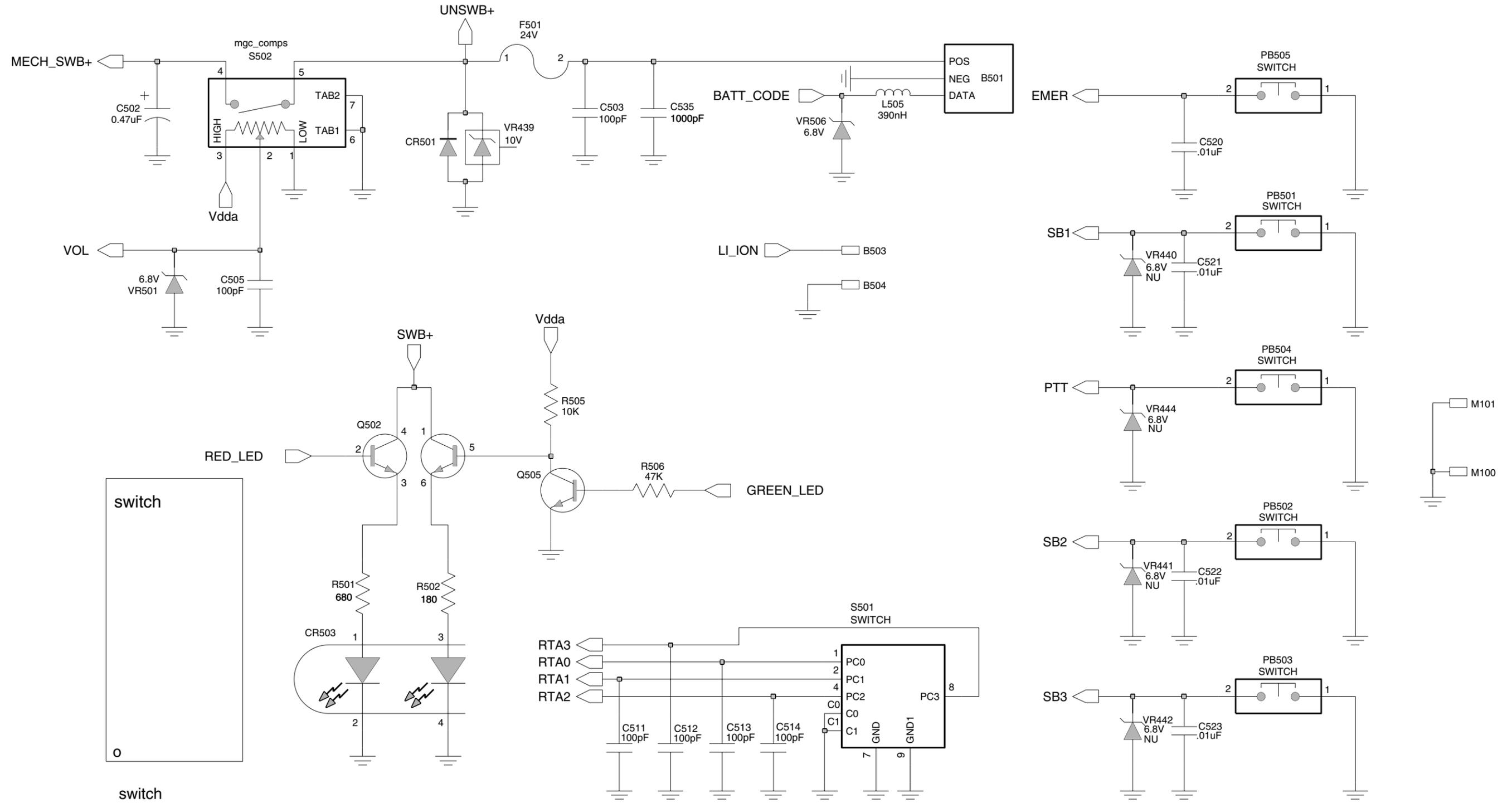
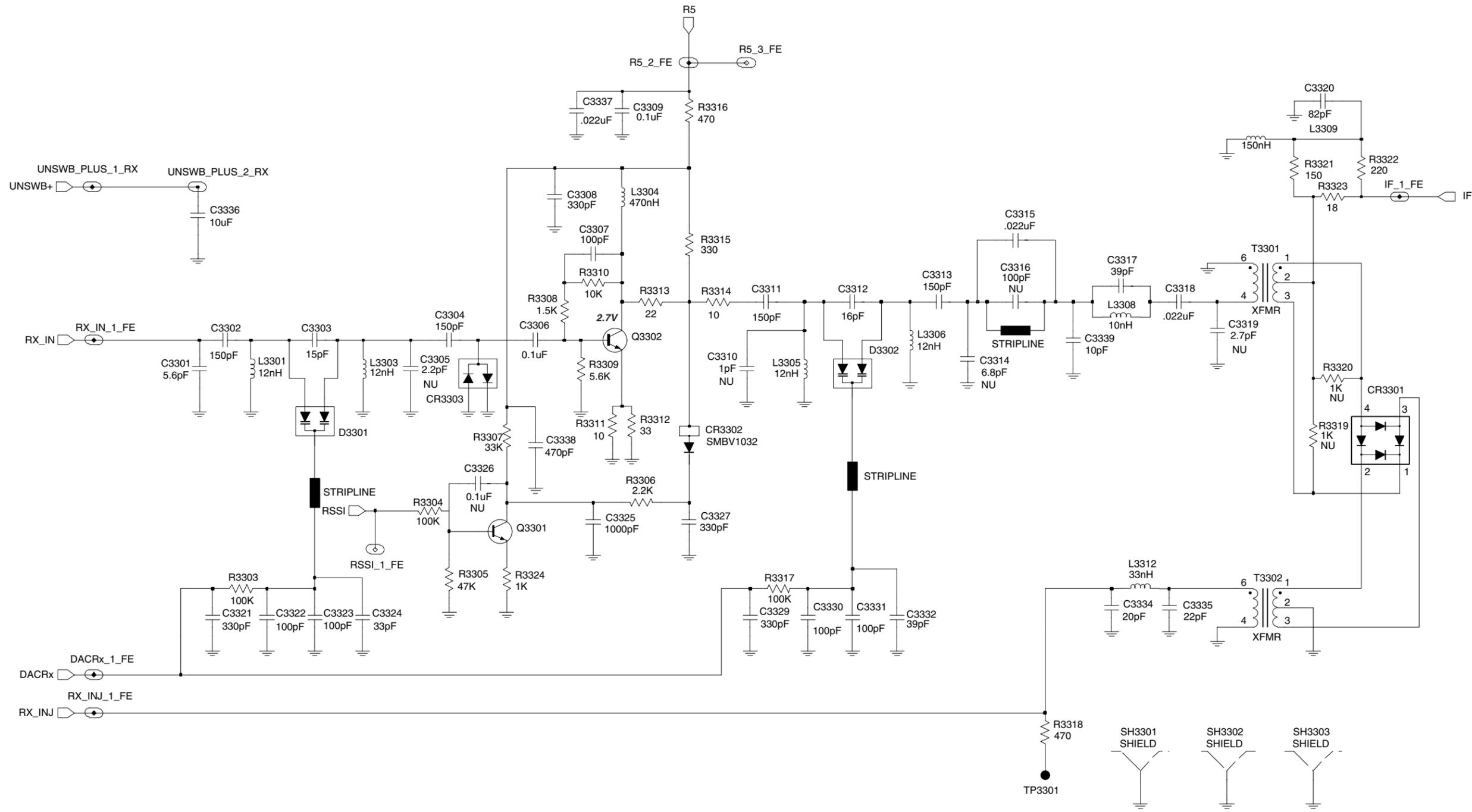
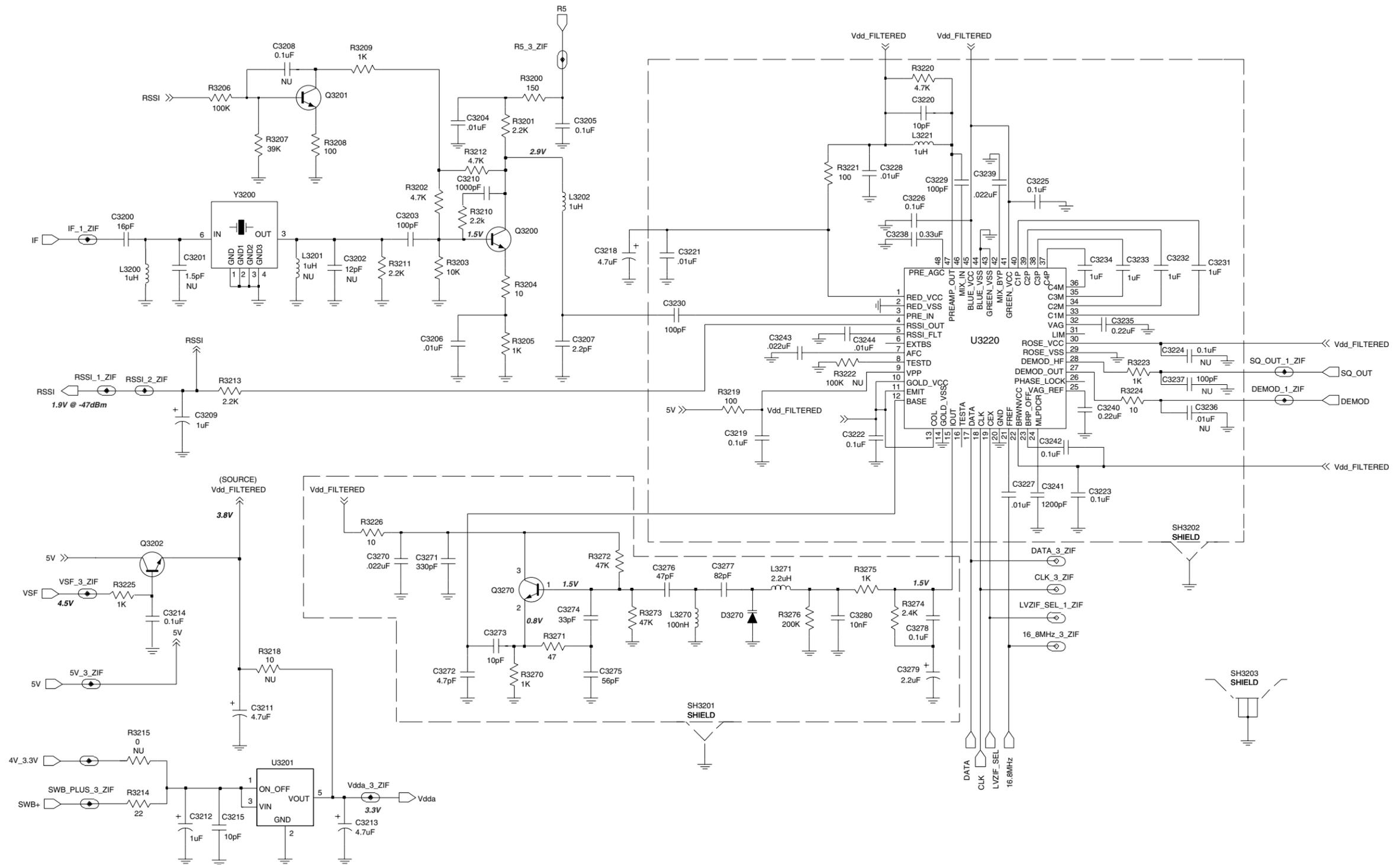


Figure 9-187. VHF (136-174 MHz) Controls and Switches Schematic Diagram



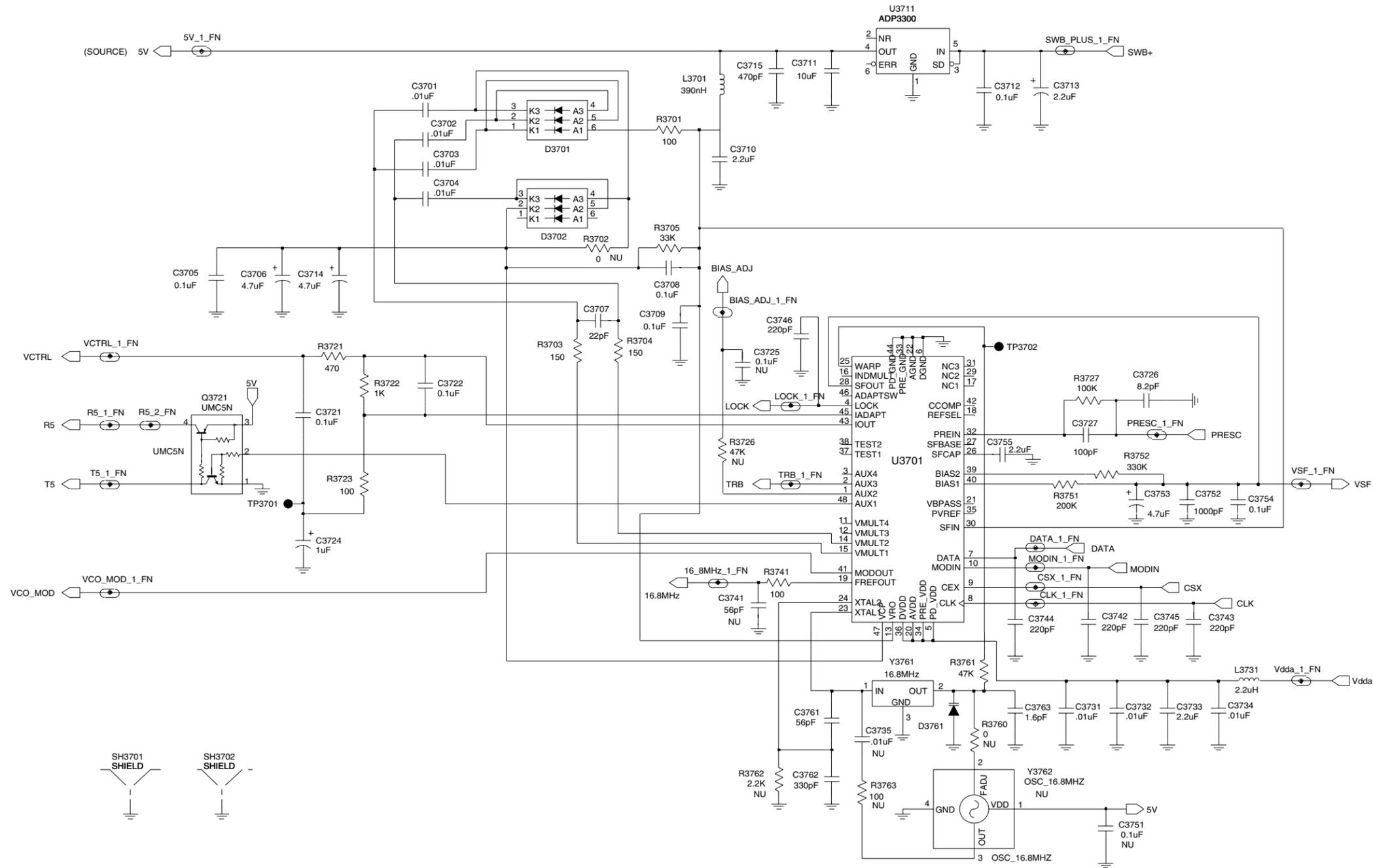
ZWG0130023-A

Figure 9-188. VHF (136-174 MHz) Receiver Front End Schematic Diagram



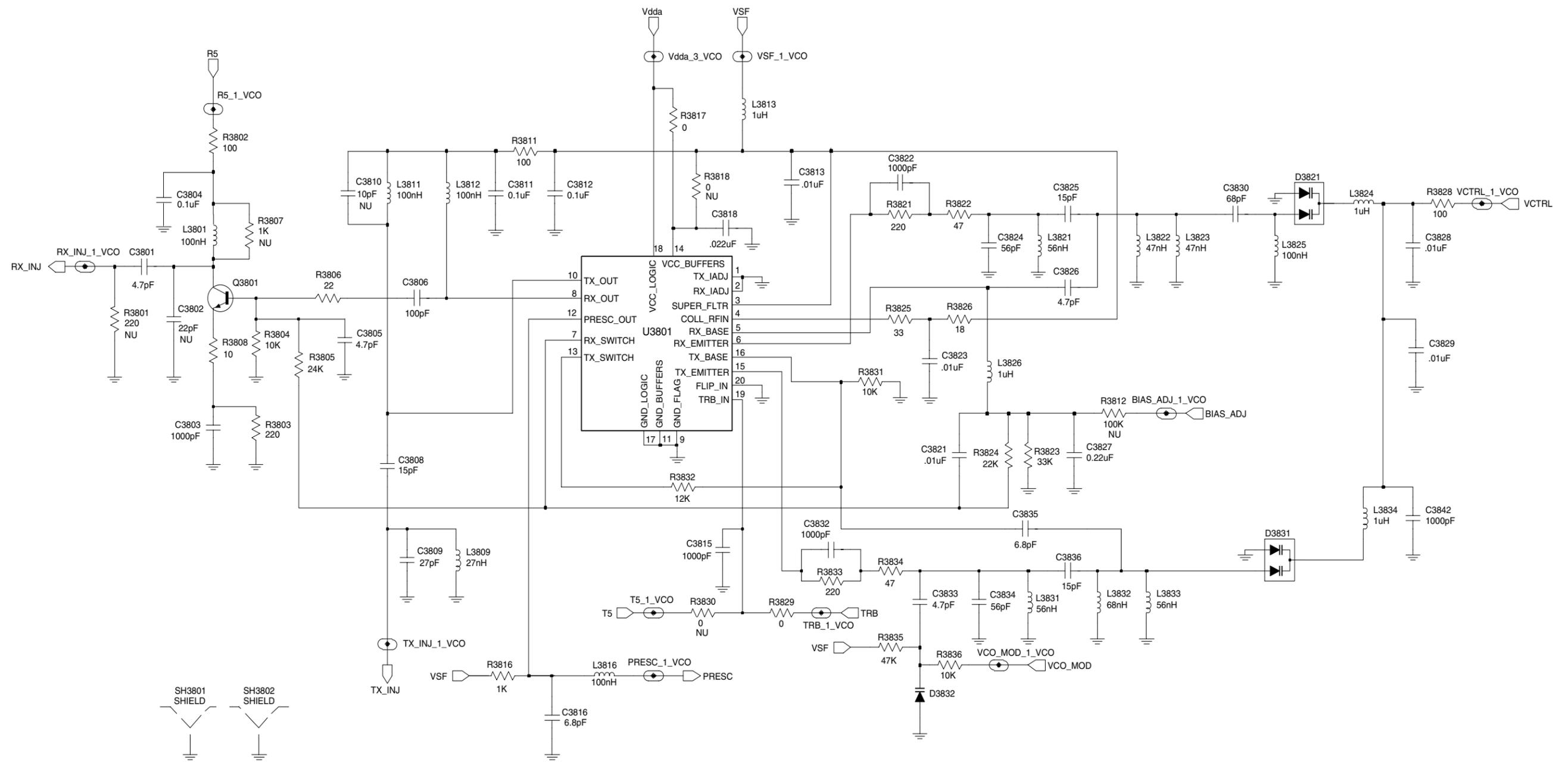
ZWG0130025-B

Figure 9-189. VHF (136-174 MHz) Receiver Back End Schematic Diagram



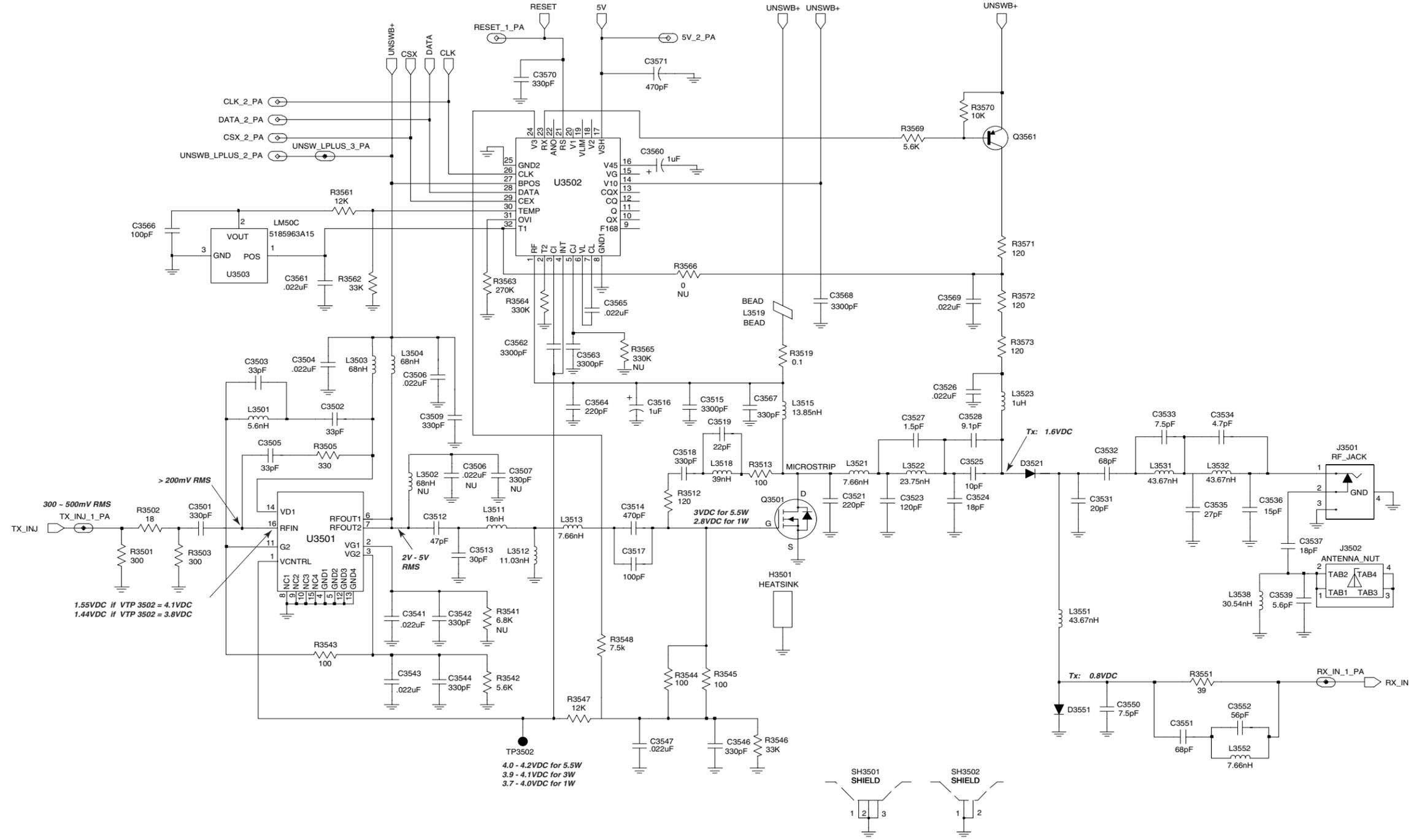
ZWG0130022-C

Figure 9-190. VHF (136-174 MHz) Synthesizer Schematic Diagram



ZWG0130020-B

Figure 9-191. VHF (136-174 MHz) Voltage Controlled Oscillator Schematic Diagram



ZWG0130021-D

Figure 9-192. VHF (136-174 MHz) Transmitter Schematic Diagram

**VHF (136-174 MHz) 5000/7000 Series Radio
Parts List (PCB 8486062B16 / 8486062B17 /
8486101B11)**

Circuit Ref	Motorola Part No.	Description
B501	0986237A02	Battery Contact Module
B503	3980502Z01	Backup battery B+
B504	3980501Z01	Backup battery B-
C3200	2113743N31	16pF
C3203	2113743N50	100pF
C3204	2113743L41	10000pF, 10%
C3205	2113928N01	0.1uF, 10%
C3206	2113743L41	10000pF, 10%
C3207	2113743N10	2.2pF
C3209	2311049A07	1uF
C3210	2113743L17	1000pF, 10%
C3211	2311049A56	4.7uF, 20%, 10V
C3212	2311049A57	10uF
C3213	2311049A56	4.7uF, 20%, 10V
C3214	2113928N01	0.1uF, 10%
C3215	2113743N26	10pF
C3218	2311049A56	4.7uF, 20%, 10V
C3219	2113928N01	0.1uF, 10%
C3220	2113743N26	10pF
C3221	2113743L41	10000pF, 10%
C3222	2113928N01	0.1uF, 10%
C3223	2113928N01	0.1uF, 10%
C3224	2113928N01	0.1uF, 10%
C3225	2113928N01	0.1uF, 10%
C3226	2113928N01	0.1uF, 10%
C3227	2113743L41	10000pF, 10%
C3228	2113743L41	10000pF, 10%
C3229	2113743N50	100pF
C3230	2113740F51	100pF
C3231	2180478Z20	1uF
C3232	2180478Z20	1uF
C3233	2180478Z20	1uF
C3234	2180478Z20	1uF
C3235	2113743A23	0.220uF
C3238	2113743A24	0.330uF
C3239	2113743E07	0.022uF
C3240	2113743A23	0.220uF
C3241	2113743L19	1200pF
C3242	2109720D14	0.1uF
C3243	2113743E07	0.022uF
C3244	2113743L41	10000pF, 10%
C3270	2113743E07	0.022uF
C3271	2113743L05	330pF
C3272	2113743N18	4.7pF
C3273	2113743N26	10pF
C3274	2113743N38	33pF
C3275	2113743N44	56pF
C3276	2113743N42	47pF
C3277	2113743N48	82pF
C3278	2113743E07	0.022uF
C3279	2311049A40	2.2uF, 10%, 16V
C3280	2113743L41	10000pF, 10%
C3301	2113743N20	5.6pF

Circuit Ref	Motorola Part No.	Description
C3302	2113743N54	150pF
C3303	2113743N30	15pF
C3304	2113743N54	150pF
C3306	2113928N01	0.1uF, 10%
C3307	2113743N50	100pF
C3308	2113743L05	330pF
C3309	2113928N01	0.1uF, 10%
C3311	2113743N54	150pF
C3312	2113743N31	16pF
C3313	2113743N54	150pF
C3315	2113743N26	10pF
C3316	2113743N14	3.3pF
C3317	2113743N40	39pF
C3318	2113743M08	22000pF, +80/-20%
C3320	2113743N48	82pF
C3321	2113743L05	330pF
C3322	2113743N50	100pF
C3323	2113743N50	100pF
C3324	2113743N38	33pF
C3325	2113743L17	1000pF, 10%
C3327	2113743L05	330pF
C3329	2113743L05	330pF
C3330	2113743N50	100pF
C3331	2113743N50	100pF
C3332	2113743N40	39pF
C3334	2113743N33	20pF
C3335	2113743N34	22pF
C3336	2311049A18	10uF
C3337	2113743M08	22000pF, +80/-20%
C3338	2113743L09	470pF, 10%
C3339	2113743N26	10pF
C3501	2113743L05	330pF
C3502	2113743N38	33pF
C3503	2113743N38	33pF
C3504	2113743M08	22000pF, +80/-20%
C3505	2113743N38	33pF
C3508	2113743M08	22000pF, +80/-20%
C3509	2113743L05	330pF
C3512	2113740F43	47pF
C3513	2113740F38	30pF
C3514	2113740F47	68pF
C3515	2113743L29	3300pF
C3516	2311049A08	1uF
C3517	2113740F47	68pF
C3521	2111078B51	220pF
C3523	2111078B44	120pF
C3524	2113740F33	18pF
C3525	2113740F27	10pF
C3526	2113743M08	22000pF, +80/-20%
C3528	2113740F27	10pF
C3531	2113740F34	20pF
C3532	2113740F47	68pF
C3533	2113740F24	7.5pF
C3534	2113740F19	4.7pF
C3535	2113740F37	27pF
C3536	2113740F31	15pF

Circuit Ref	Motorola Part No.	Description
C3537	2113740F33	18pF
C3539	2113740F29	12pF
C3541	2113743M08	22000pF, +80/-20%
C3542	2113743L05	330pF
C3543	2113743M08	22000pF, +80/-20%
C3544	2113743L05	330pF
C3546	2113743L05	330pF
C3547	2113743M08	22000pF, +80/-20%
C3550	2113743N23	7.5pF
C3551	2113743N46	68pF
C3552	2113743N44	56pF
C3560	2311049A07	1uF
C3561	2113743M08	22000pF, +80/-20%
C3562	2113743L29	3300pF
C3563	2113743L29	3300pF
C3564	2113743L01	220pF
C3565	2113743E07	0.022uF
C3566	2113743N50	100pF
C3567	2113743L05	330pF
C3568	2113743L29	3300pF
C3569	2113743M08	22000pF, +80/-20%
C3570	2113743L05	330pF
C3571	2113743L09	470pF, 10%
C3701	2113743L41	10000pF, 10%
C3702	2113743L41	10000pF, 10%
C3703	2113743L41	10000pF, 10%
C3704	2113743L41	10000pF, 10%
C3705	2113743E20	0.10uF, 10%
C3706	2311049J11	4.7uF
C3707	2113743N34	22pF
C3708	2113928N01	0.1uF, 10%
C3709	2113928N01	0.1uF, 10%
C3710	2104993J02	2.2uF
C3711	2311049A69	10uF
C3712	2113928N01	0.1uF, 10%
C3713	2311049A09	2.2uF
C3714	2311049J11	4.7uF
C3715	2113743L09	470pF, 10%
C3721	2113743E20	0.10uF, 10%
C3722	2113743E20	0.10uF, 10%
C3724	2311049A08	1uF
C3726	2113743N24	8.2pF
C3727	2113743N50	100pF
C3731	2113743L41	10000pF, 10%
C3732	2113743L41	10000pF, 10%
C3733	2104993J02	2.2uF
C3734	2113743L41	10000pF, 10%
C3742	2113743L01	220pF
C3743	2113743L01	220pF
C3744	2113743L01	220pF
C3745	2113743L01	220pF
C3746	2113743L01	220pF
C3752	2113743L17	1000pF, 10%
C3753	2311049A56	4.7uF, 20%, 10V
C3754	2113928N01	0.1uF, 10%
C3755	2104993J02	2.2uF

Circuit Ref	Motorola Part No.	Description
C3761	2113743N44	56pF
C3762	2113740F63	330pF
C3763	2113743N08	1.6pF
C3801	2113743N18	4.7pF
C3803	2113743L17	1000pF, 10%
C3804	2113743E20	0.10uF, 10%
C3805	2113743N18	4.7pF
C3806	2113743N50	100pF
C3808	2113743N30	15pF
C3809	2113743N36	27pF
C3811	2113928N01	0.1uF, 10%
C3812	2113928N01	0.1uF, 10%
C3813	2113743L41	10000pF, 10%
C3815	2113743L17	1000pF, 10%
C3816	2113743N22	6.8pF
C3818	2113743E07	0.022uF
C3821	2113743L41	10000pF, 10%
C3822	2113743L17	1000pF, 10%
C3823	2113743L41	10000pF, 10%
C3824	2113743N44	56pF
C3825	2113743N30	15pF
C3826	2113743N18	4.7pF
C3827	2113743E07	0.022uF
C3828	2185895Z01	0.01uF, 10%
C3829	2185895Z01	0.01uF, 10%
C3830	2113743N46	68pF
C3832	2113743L17	1000pF, 10%
C3833	2113743N18	4.7pF
C3834	2113743N44	56pF
C3835	2113743N22	6.8pF
C3836	2113743N30	15pF
C3842	2113743L17	1000pF, 10%
C400	2113743L41	10000pF, 10%
C401	2113928N01	0.1uF, 10%
C402	2113928N01	0.1uF, 10%
C4020	2113743L17	1000pF, 10%
C4021	2113743L17	1000pF, 10%
C403	2113743G24	2.2uF, +/-80%/-20%
C407	2113928N01	0.1uF, 10%
C408	2113743N50	100pF
C409	2113928N01	0.1uF, 10%
C410	2113928N01	0.1uF, 10%
C411	2113928N01	0.1uF, 10%
C414	2113928N01	0.1uF, 10%
C415	2185895Z01	0.01uF, 10%
C416	2113928N01	0.1uF, 10%
C419	2113743L41	10000pF, 10%
C420	2113743L41	10000pF, 10%
C421	2113928N01	0.1uF, 10%
C422	2113928N01	0.1uF, 10%
C423	2113743N50	100pF
C424	2311049A59	10uF, 10%, 6V
C425	2113928N01	0.1uF, 10%
C426	2113743N50	100pF
C427	2113743N50	100pF
C428	2113928N01	0.1uF, 10%

Circuit Ref	Motorola Part No.	Description
C429	2113928N01	0.1uF, 10%
C430	2113928N01	0.1uF, 10%
	0662057M01	0 (SUB on LS+ Models Only)
C431	2113743N50	100pF
C433	2113743L41	10000pF, 10%
C434	2113928N01	0.1uF, 10% (not placed in HT750 or PRO5150)
C435	2113928N01	0.1uF, 10%
C436	2113743N34	22pF (not placed in HT750 or PRO5150)
C437	2113743N34	22pF (not placed in HT750 or PRO5150)
C440	2113743G26	4.7F, + 80/-20%
C441	2113743L09	470pF, 10%
C442	2113743E20	0.10uF, 10%
C443	2113928N01	0.1uF, 10%
C444	2113743N50	100pF
C445	2113743L09	470pF, 10%
C446	2113743L09	470pF, 10%
C447	2113928N01	0.1uF, 10%
C448	2113928N01	0.1uF, 10%
C449	2113743N50	100pF
C451	2113743M08	22000pF, +80/-20%
C452	2113743B29	1uF
C453	2113743N50	100pF
C456	2113743N50	100pF
C458	2113743N50	100pF
C459	2113743N50	100pF
C463	2113743N50	100pF
C466	2113743N50	100pF
C467	2113928N01	0.1uF, 10%
C471	2113743L09	470pF, 10%
C472	2113743L09	470pF, 10%
C473	2113743L09	470pF, 10%
C474	2113743L41	10000pF, 10%
C475	2113743H14	10uF, +80/-20%
C476	2113928D08	10uF, +/-80%/-20%
C477	2113743L17	1000pF, 10%
C478	2113743L17	1000pF, 10%
C479	2113928N01	0.1uF, 10%
C480	2113928D08	10uF, +/-80%/-20%
C481	2113928N01	0.1uF, 10%
C482	2113928N01	0.1uF, 10%
	0662057M01	0 (SUB on LS+ Models Only)
C483	2113743L09	470pF, 10%
C484	2113743L09	470pF, 10%
C490	2113743L09	470pF, 10%
C491	2113743L09	470pF, 10%
C492	2113743L09	470pF, 10%
C493	2113743N50	100pF
C494	2113743N50	100pF
C495	2113743L09	470pF, 10%
C496	2113743L09	470pF, 10%
C497	2113743L09	470pF, 10%
C502	2311049A05	0.47uF, 10%, 25V
C503	2113743N50	100pF

Circuit Ref	Motorola Part No.	Description
C505	2113743N50	100pF
C511	2113743N50	100pF
C512	2113743N50	100pF
C513	2113743N50	100pF
C514	2113743N50	100pF
C520	2113743L41	10000pF, 10%
C521	2113743L41	10000pF, 10%
C522	2113743L41	10000pF, 10%
C523	2113743L41	10000pF, 10%
C535	2113743L17	1000pF, 10%
CR3301	4802245J42	Ring Quad diode
CR3302	4805129M96	Dual Bonds Pin Diode, RH Reeled
CR3303	4880154K03	Dual common anode-cathode diode
CR411	4802245J62	Schottky diode
CR412	4802245J62	Schottky diode
CR413	4802245J62	Schottky diode
CR440	4813833C02	Dual Diode Common Cathode
CR501	4880107R01	Rectifier
CR503	4805729G49	LED Red/Yellow
D3270	4862824C01	Varactor
D3301	4802081B58	Dual Diode
D3302	4802081B58	Dual Diode
D3521	4880973Z02	Pin diode
D3551	4880973Z02	Pin diode
D3701	4802233J09	Triple diode
D3702	4802233J09	Triple diode
D3761	4862824C03	Varactor
D3821	4805649Q13	Varactor
D3831	4805649Q13	Varactor
D3832	4862824C01	Varactor
E400	2480640Z01	Ferrite bead
E401	2480640Z01	Ferrite bead
E402	2480640Z01	Ferrite bead
E403	2480640Z01	Ferrite bead
E404	2480640Z01	Ferrite bead
E405	2480640Z01	Ferrite bead
E406	2480640Z01	Ferrite bead
E407	2480640Z01	Ferrite bead
E408	2480640Z01	Ferrite bead
E409	2480640Z01	Ferrite bead
F501	6580542Z01	3A Fuse
FL401	4870368G02	Real Time Clock Oscillator XTAL
H3501	2680499Z01	Heat spreader
J3501	0985613Z01	RF Jack
J3502	0280519Z02	Antenna_Nut
J400	0905505Y04	40-pin connector
J403	0905505Y02	20-pin connector
L3200	2462587N68	1uH
L3202	2462587N68	1uH
L3221	2462587N68	1uH
L3270	2462587T15	100nH
L3271	2462587Q20	2.2uF
L3301	2462587T35	12nH
L3303	2462587T35	12nH
L3304	2462587T23	470nH

Circuit Ref	Motorola Part No.	Description
L3305	2462587T35	12nH
L3306	2462587T35	12nH
L3308	2462587T34	10nH
L3309	2462587N55	150nH
L3312	2462587V28	33nH
L3501	2413926H09	5.6nH
L3503	2462587V32	68nH
L3504	2462587N51	68nH
L3511	2462587N44	18nH
L3512	2479990B01	11.03nH
L3513	2479990A02	7.66nH, 10%
L3515	2479990C03	13.85nH
L3519	2484657R01	Ferrite bead
L3521	2479990A02	7.66nH, 10%
L3522	2479990E01	23.75nH
L3523	2462587N68	1uH
L3531	2479990N01	43.67nH
L3532	2479990N01	43.67nH
L3538	2479990M01	30.54nH
L3551	2479990N01	43.67nH
L3552	2479990A02	7.66nH, 10%
L3701	2462587Q42	390nH, 10%
L3731	2462587Q20	2.2uF
L3801	2462587V34	100nH
L3809	2462587V27	27nH
L3811	2462587V34	100nH
L3812	2462587V34	100nH
L3813	2462587Q47	1000nH, 10%, QF45
L3816	2462587V34	100nH
L3821	2462587N50	56nH
L3822	2462587N49	47nH
L3823	2462587N49	47nH
L3824	2462587N68	1uH
L3825	2462587V34	100nH
L3826	2462587N68	1uH
L3831	2462587N50	56nH
L3832	2462587N51	68nH
L3833	2462587N50	56nH
L3834	2462587N68	1uH
L400	2462587Q42	390nH, 10%
L401	2462587Q42	390nH, 10%
L410	2462587Q42	390nH, 10%
L411	2462587Q42	390nH, 10%
L505	2462587Q42	390nH, 10%
PB501	4080523Z01	Tactile, Pushbutton
PB502	4080523Z01	Tactile, Pushbutton
PB503	4080523Z01	Tactile, Pushbutton
PB504	4080523Z01	Tactile, Pushbutton
PB505	4080523Z01	Tactile, Pushbutton
Q3200	4813827A07	NPN Transistor
Q3201	4880214G02	NPN Transistor
Q3202	4880214G02	NPN Transistor
Q3270	4805218N63	RF Transistor
Q3301	4880214G02	NPN Transistor
Q3302	4813827A07	NPN Transistor
Q3501	4813828A08	FET

Circuit Ref	Motorola Part No.	Description
Q3561	4813824A17	PNP Transistor
Q3721	4802245J50	Dual NPN/PNP Transistor
Q3801	4813827A07	NPN Transistor
Q400	4809579E18	Mosfet P - channel
Q403	4813824A17	PNP Transistor
Q405	4802245J54	Dual NPN Transistor
Q410	4802245J54	Dual NPN Transistor
Q416	4809579E18	Mosfet P - channel
Q417	4802245J50	Dual NPN/PNP Transistor
Q502	5180159R01	Dual NPN Transistor
Q505	4880214G02	NPN Transistor
R3200	0662057M54	150
R3201	0662057M82	2200
R3202	0662057M90	4700
R3203	0662057M98	10k
R3204	0662057M26	10
R3205	0662057M74	1000
R3206	0662057N23	100K
R3207	0662057N13	39K
R3208	0662057M50	100
R3209	0662057M74	1000
R3210	0662057M82	2200
R3211	0662057M82	2200
R3212	0662057M90	4700
R3213	0662057M82	2200
R3214	0662057M34	22
R3219	0662057M50	100
R3220	0662057M90	4700
R3221	0662057M50	100
R3224	0662057M26	10
R3225	0662057M74	1000
R3226	0662057M26	10
R3270	0662057M74	1000
R3271	0662057M42	47
R3272	0662057N15	47K
R3273	0662057N15	47K
R3274	0662057M83	2400
R3275	0662057M74	1000
R3276	0662057N30	200K
R3303	0662057N23	100K
R3304	0662057N23	100K
R3305	0662057N19	68K
R3306	0662057M82	2200
R3307	0662057N11	33K
R3308	0662057M78	1500
R3309	0662057M92	5600
R3310	0662057M98	10k
R3311	0662057M26	10
R3312	0662057M38	33
R3313	0662057M34	22
R3314	0662057M26	10
R3315	0662057M62	330
R3316	0662057M66	470
R3317	0662057N23	100K
R3318	0662057M66	470
R3321	0662057M54	150

Circuit Ref	Motorola Part No.	Description
R3322	0662057M58	220
R3323	0662057M32	18
R3324	0662057M58	220
R3501	0662057M61	300
R3502	0662057M32	18
R3503	0662057M61	300
R3505	0662057M62	330
R3506	0662057B62	3.9
R3507	0662057B62	3.9
R3519	0680539Z01	0.1
R3541	0662057N13	39K
R3542	0662057M92	5600
R3543	0662057M50	100
R3544	0662057A25	100
R3545	0662057A25	100
R3546	0662057N01	12K
R3547	0662057N11	33K
R3548	0662057N07	22K
R3551	0662057M40	39
R3561	0662057N01	12K
R3562	0662057N11	33K
R3563	0662057N33	270K
R3564	0662057N35	330K
R3569	0662057M92	5600
R3570	0662057M98	10k
R3571	0662057A27	120
R3572	0662057A27	120
R3573	0662057A27	120
R3701	0662057M50	100
R3703	0662057M54	150
R3704	0662057M54	150
R3705	0662057N11	33K
R3721	0662057M66	470
R3722	0662057M74	1000
R3723	0662057M50	100
R3727	0662057N23	100K
R3741	0662057M50	100
R3751	0662057N30	200K
R3752	0662057N35	330K
R3761	0662057N15	47K
R3802	0662057M50	100
R3803	0662057M58	220
R3804	0662057M98	10k
R3805	0662057N08	24K
R3806	0662057M34	22
R3808	0662057M26	10
R3811	0662057M50	100
R3816	0662057M74	1000
R3817	0662057M01	0
R3821	0662057M58	220
R3822	0662057M42	47
R3823	0662057N11	33K
R3824	0662057N07	22K
R3825	0662057M38	33
R3826	0662057M32	18
R3828	0662057M50	100

Circuit Ref	Motorola Part No.	Description
R3829	0662057M01	0
R3831	0662057M98	10k
R3832	0662057N01	12K
R3833	0662057M58	220
R3834	0662057M42	47
R3835	0662057N15	47K
R3836	0662057M98	10k
R400	0662057N15	47K
R401	0662057M01	0
R405	0662057M01	0
R406	0662057N20	75K
R407	0662057N19	68K
R409	0662057M98	10k
R410	0662057N23	100K
R411	0662057M98	10k
R413	0662057M01	0
R414	0662057V34	180K
R415	0662057V26	91K
R416	0662057M98	10k
R418	0662057M01	0
R419	0662057M67	510
R420	0662057B46	10M
R421	0662057M81	2000
R423	0662057N21	82K
R424	0662057N12	36K
R425	0662057N10	30K
R426	0662057N35	330K
R427	0662057M84	2700
R428	0662057M10	2.2
R429	0662057M98	10k
R431	0662057N39	470K
R432	0662057N16	51K
R434	0662057M62	330
R435	0662057M81	2000
R436	0662057M01	0
R445	0662057N08	24K
R447	0662057N51	1.5M
R448	0662057M98	10k
R449	0662057N08	24K
R450	0683962T45	68 ohms, 1W
R451	0662057N03	15K
R452	0662057N23	100K
R456	0662057M01	0
R457	0662057M98	10k
R460	0662057M90	4700
R461	0662057M56	180
R462	0662057M98	10k
R463	0662057M61	300
R471	0662057M92	5600
R472	0662057M93	6200
R473	0662057M26	10
R475	0662057M01	0
R476	0662057N35	330K
R477	0662057M74	1000
R478	0662057M98	10k
R481	0662057N08	24K

Circuit Ref	Motorola Part No.	Description
R492	0662057M01	0
R498	0662057M98	10k
R499	0662057M98	10k
R501	0662057M70	680
R502	0662057M56	180
R505	0662057M98	10k
R506	0662057N15	47K
RT400	0680590Z01	THERMISTOR 33K
S501	4080710Z02	Frequency Switch
S502	1880619Z02	Volume Switch
SH3201	2602023X08	Rx Backend Top Shield
SH3202	2686081B02	LVZIF shields
SH3203	2686081B03	45.1 MHz Xtal Filter Shield
SH3301	2686081B01	Rx Frontend Bottom Shield
SH3302	2686081B05	Mixer Shield
SH3303	2686081B06	Rx Frontend Top Shield
SH3501	2686081B03	Harmonic Filter Shield
SH3502	2686081B04	PA driver Shield
SH3701	2680511Z01	Synthesizer top shield
SH3702	2680511Z01	Synthesizer bottom shield
SH3801	2680513Z01	VCO Top Shield
SH3802	2680514Z01	VCO Bottom Shield
SH400	2680505Z01	Controller Memory Shield
SH401	2680506Z01	Controller on-off shield
SH402	2680515Z01	Controller Microprocessor shield
SH403	2680516Z01	Controller Asfic_Cmp/Audio PA shield
T3301	2580541Z01	Balun transformer
T3302	2580541Z01	Balun transformer
U3201	5102463J58	3.3V Regulator
U3220	5109632D83	LVZIF IC
U3501	5185130C65	VHF/UHF/800 MHZ LDMOS Driver
U3502	5185765B28	PCIC
U3503	5185963A15	Temperature Sense
U3701	5185963A27	LVFRACN Synthesizer IC
U3711	5105739X05	5V Regulator
U3801	5105750U54	VCO BUFFER IC
U400	5102463J40	3.3V Regulator
U404	5185963A53	ASFIC_CMP
U405	NOT PLACED	
U406	*5102463J59	128K x 8 Flash Memory
U407	*5102463J64	16K x 8 EEPROM
U409	5102226J56	Microprocessor IC
U410	5102463J57	3.3V Regulator
U420	5102463J44	Audio PA
VR3501	4880140L17	Zener diode-12V
VR432	4805656W08	5.6V Zener diode
VR433	4805656W08	5.6V Zener diode
VR434	4802245J73	ZENER DIODE-6.8V
VR439	4880140L17	Zener diode-12V
VR447	4802245J74	ZENER DIODE-10V
VR448	4802245J74	ZENER DIODE-10V
VR449	4802245J74	ZENER DIODE-10V
VR450	4802245J74	ZENER DIODE-10V
VR460	4802245J73	ZENER DIODE-6.8V

Circuit Ref	Motorola Part No.	Description
VR501	4802245J73	ZENER DIODE-6.8V
VR506	4802245J73	ZENER DIODE-6.8V
Y3200	9186153B01	Crystal Filter
Y3761	4805875Z04	16.8MHz Xtal oscillator (SMD)
	5480678Z01	PCB Bar Code Label
	8486062B16	VHF main PC Board

* Motorola Depot Servicing only

