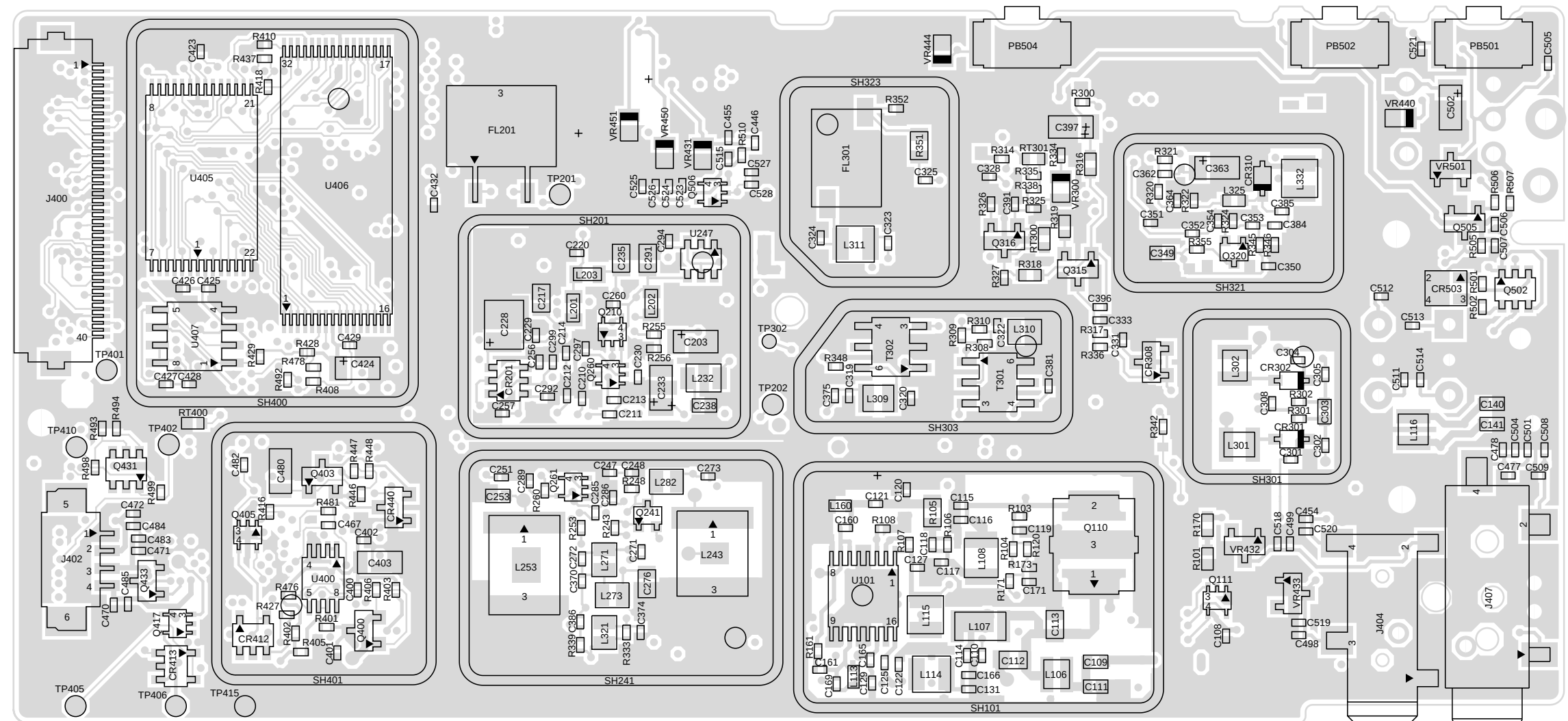
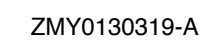


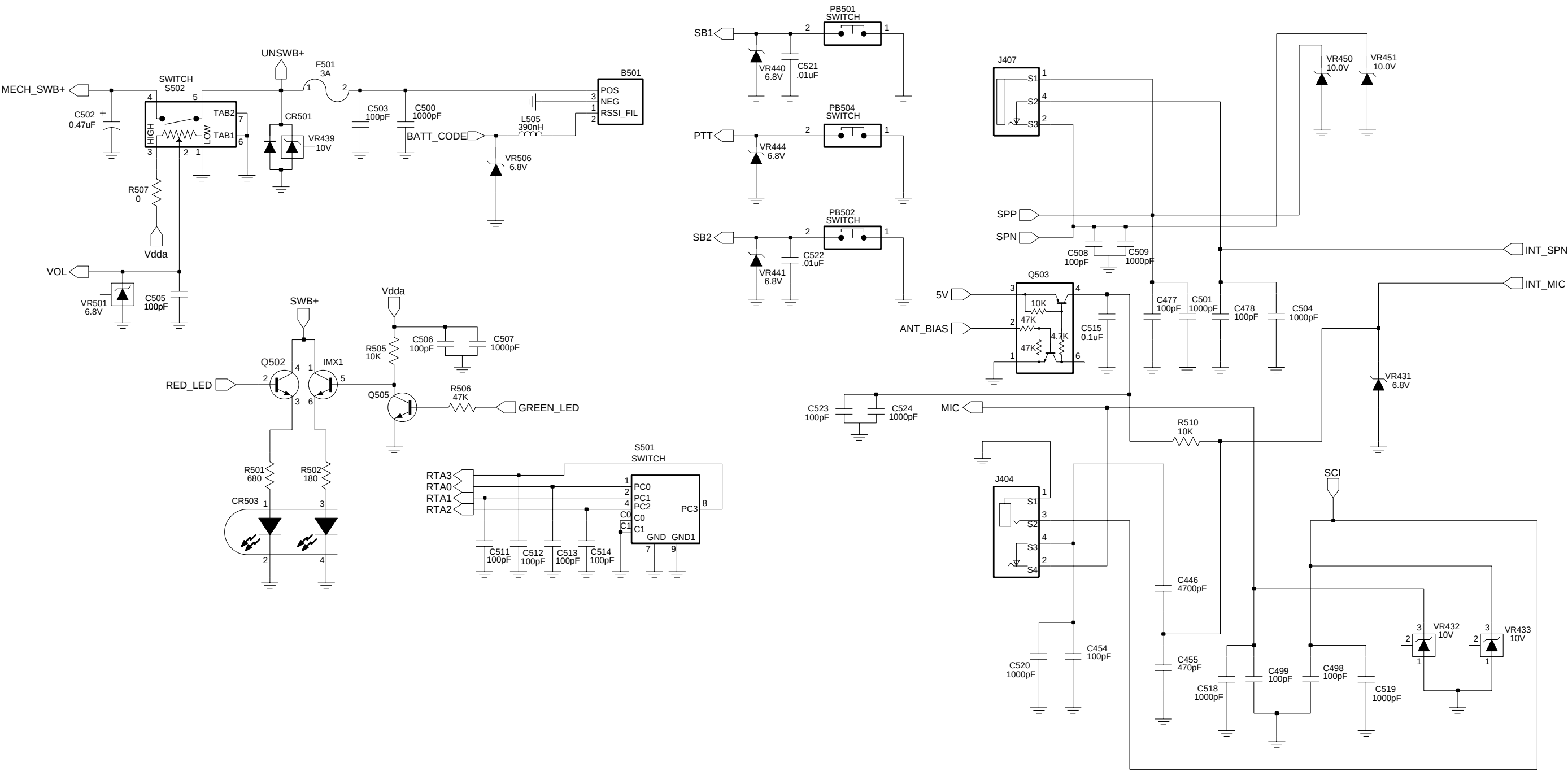
2.0 UHF PCB 8480672Z01 / Schematic Diagrams



ZMY0130320-A

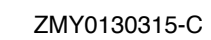
UHF (403-470MHz) Main Board Top Side PCB No. 8480672Z01



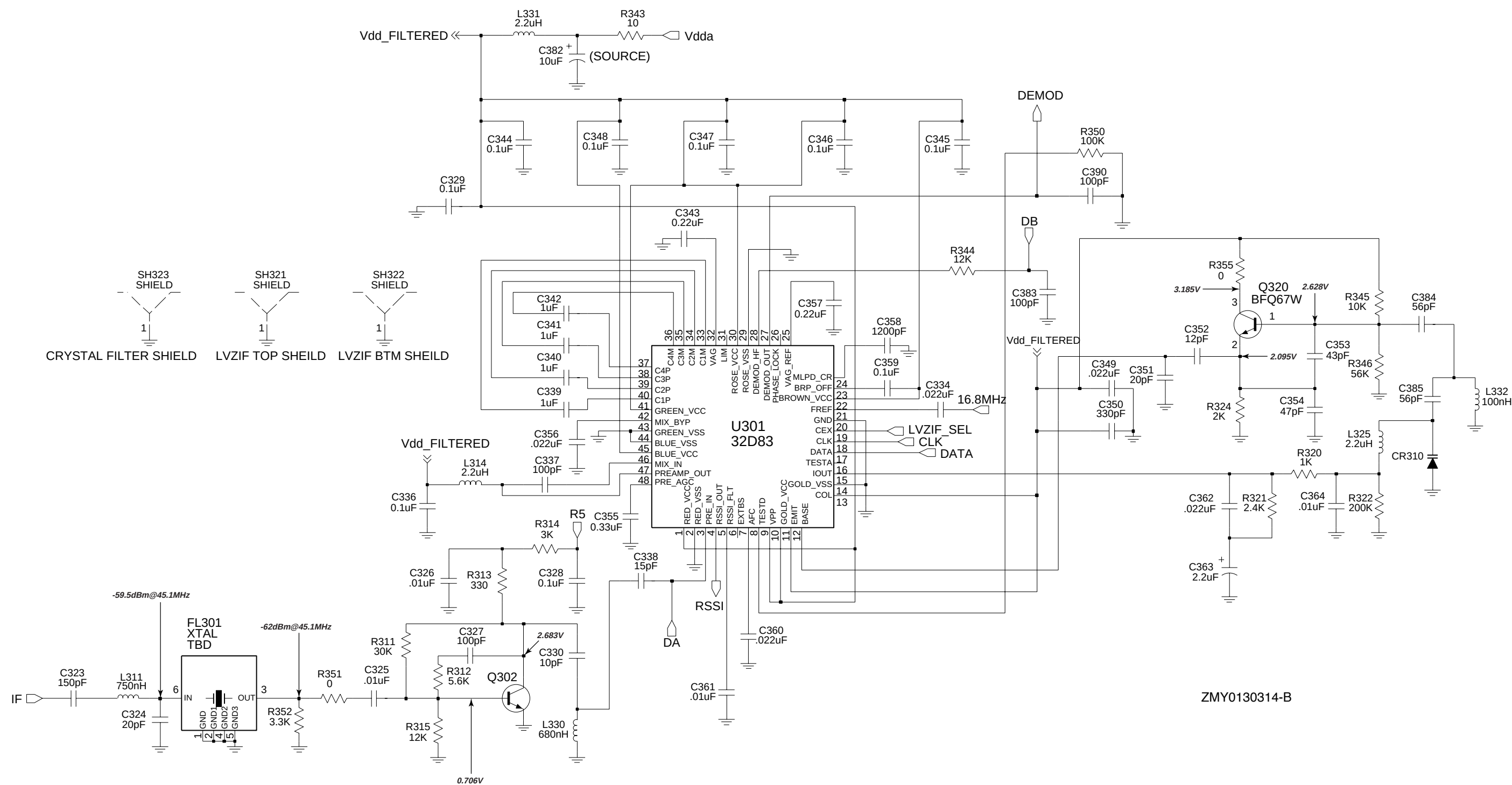


ZMY0130312-B

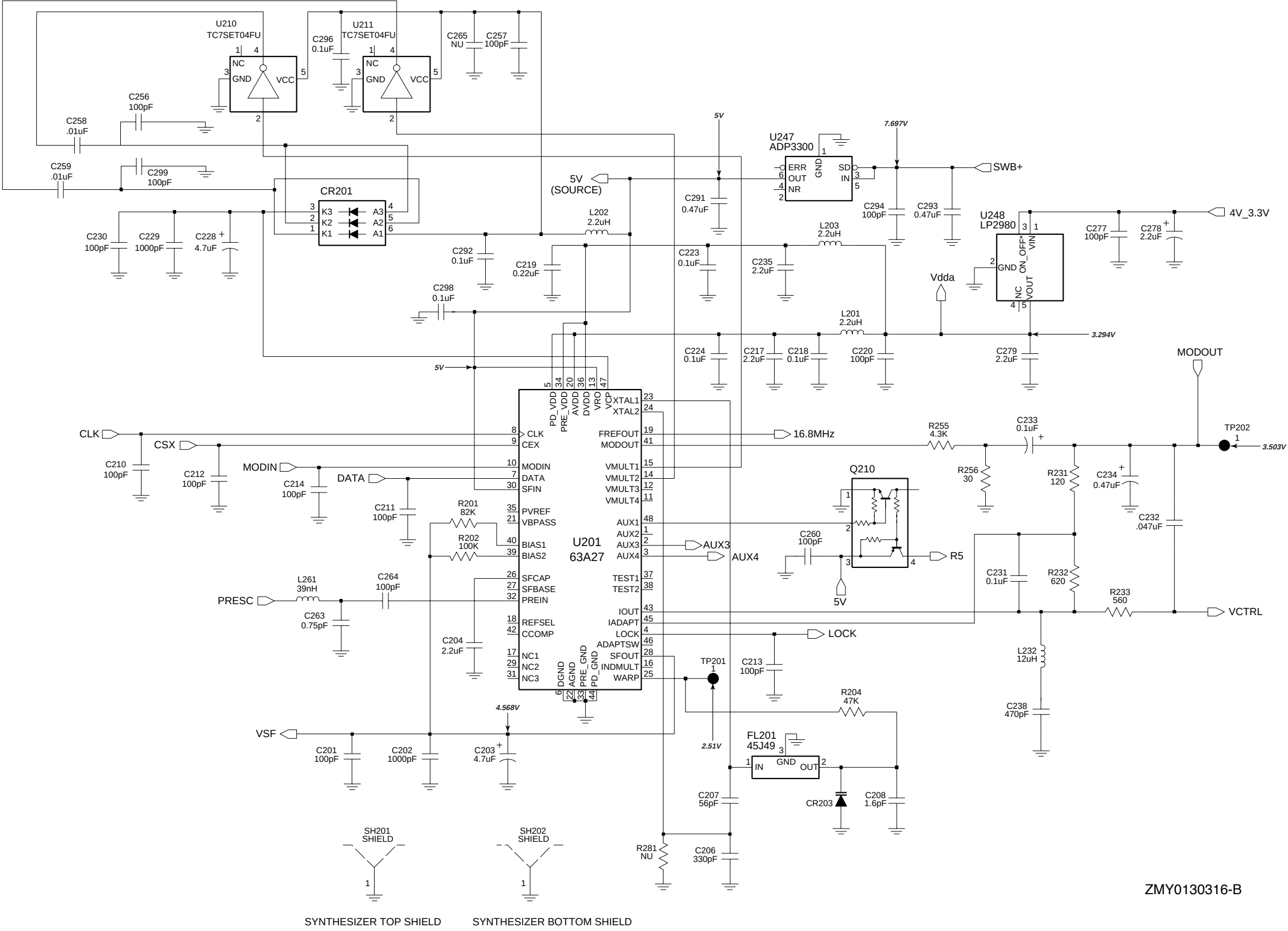
UHF Controls And Switches Schematic Diagram



UHF (403-470 MHz) Receiver Front End Schematic Diagram

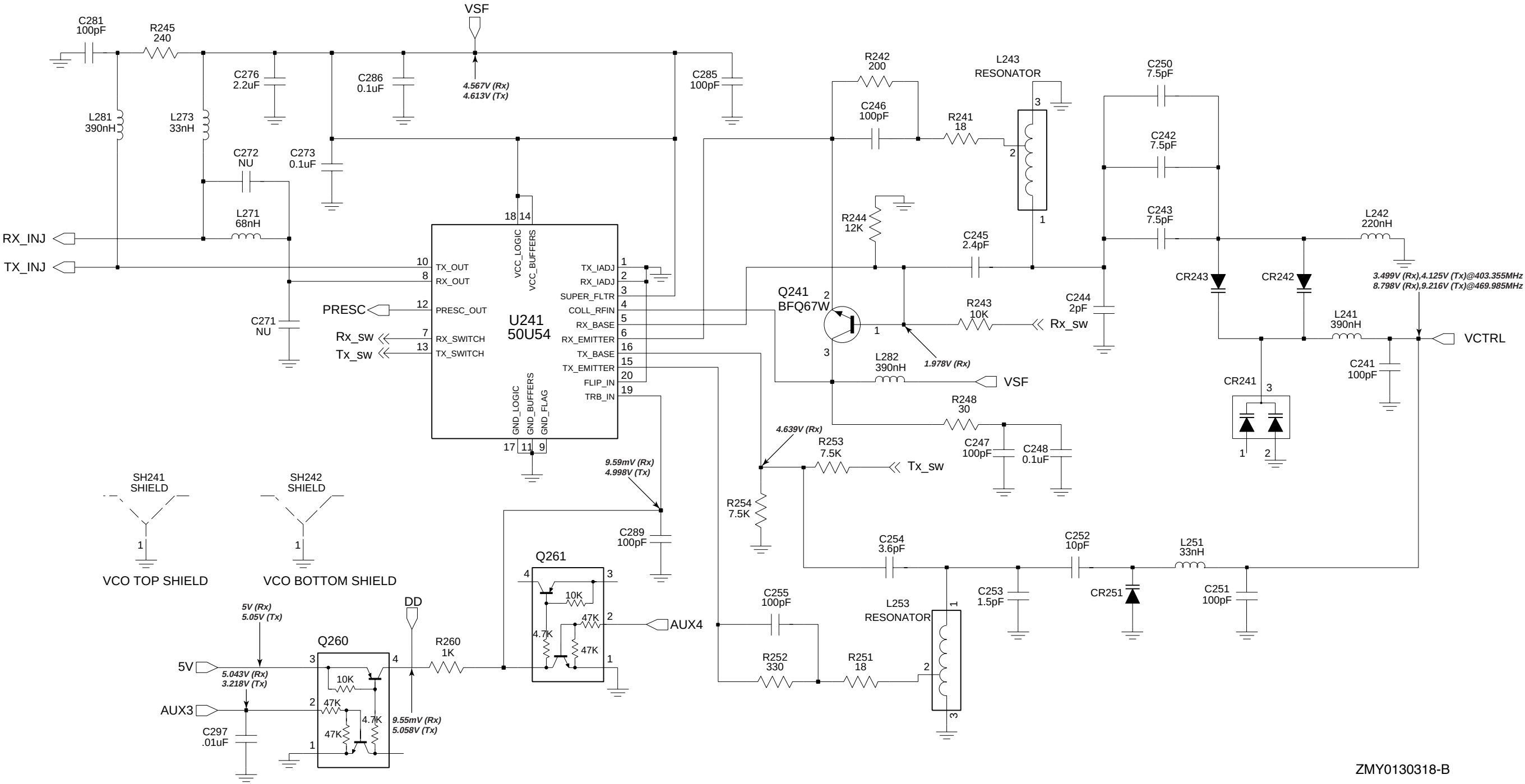


UHF (403-470 MHz) Receiver Back End Schematic Diagram



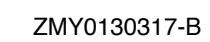
ZMY0130316-B

UHF (403-470 MHz) Synthesizer Schematic Diagram

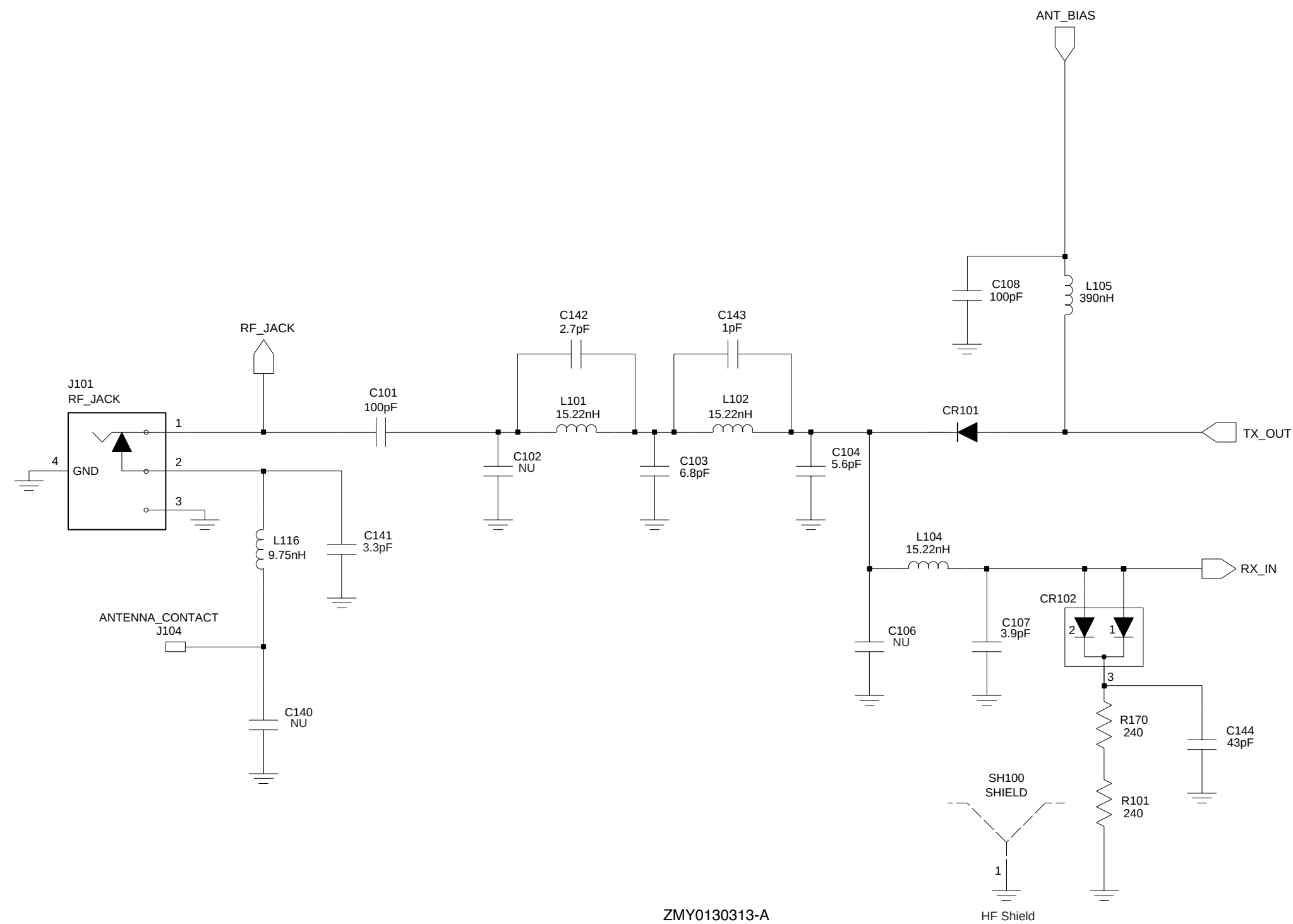


ZMY0130318-B

UHF (403-470 MHz) Voltage Controlled Oscillator Schematic



UHF (403-470 MHz) Transmitter Schematic Diagram



UHF (403-470 MHz) Harmonic Filter Schematic Diagram

3.0 UHF PCB 8480672Z01-Parts List

Circuit Ref	Motorola Part No.	Description
B501	0986237A02	Connector, Contact Battery
C101	2113740F51	100pF
C102	Not Placed	
C103	2113740F23	6.8pF
C104	2113740F21	5.6pF
C105	2113743N50	100pF
C106	Not Placed	
C107	2113740F25	8.2pF
C108	2113743N50	100pF
C109	2113740F51	100pF
C110	2113743N50	100pF
C111	2113740F30	13pF
C112	2180605Z32	47pF
C113	2180605Z16	10pF
C114	2113743N50	100pF
C115	2113743N26	10pF
C116	2113743N38	33.0pF
C117	Not Placed	
C118	2113743N50	100pF
C119	2113743N50	100pF
C120	2113743N26	10pF
C121	2113743N50	100pF
C122	2113743N50	100pF
C123	2311049A18	10uF
C125	2113743N50	100pF
C126	2113743M24	0.1uF
C127	2113743L17	1000pF
C128	2113743M08	0.022uF
C129	2113743N23	7.5pF
C130	2113743N50	100pF
C131	2113743M08	0.022uF
C132	2113743N50	100pF
C133	2113743L17	1000pF
C134	2113743L29	3300pF
C135	2113743M08	0.022uF
C138	2113743N50	100pF
C140	Not Placed	
C141	2113740F15	3.3pF
C142	2113740F13	2.7pF
C143	2113740F03	1pF
C144	2113740F42	43pF
C150	2113743M08	0.022uF
C151	2113743N50	100pF
C152	2113743M08	0.022uF
C160	2113743N50	100pF
C161	2113743N50	100pF

Circuit Ref	Motorola Part No.	Description
C165	2113743N50	100pF
C166	2113743N50	100pF
C169	2113743N20	5.6pF
C170	2113743N50	100pF
C171	2113743N50	100pF
C172	2113740F51	100pF
C173	2113743M08	0.022uF
C174	2113743N50	100pF
C201	2113743N50	100pF
C202	2113743L17	1000pF
C203	2311049A56	4.7pF
C204	2104993J02	2.2uF
C206	2113740F63	330pF
C207	2113743N44	56.0pF
C208	2113743N08	1.6pF
C210	2113743N50	100pF
C211	2113743N50	100pF
C212	2113743N50	100pF
C213	2113743N50	100pF
C214	2113743N50	100pF
C217	2104993J02	2.2uF
C218	2113743M24	0.1uF
C219	2113743K16	0.220uF
C220	2113743N50	100pF
C223	2113743M24	0.1uF
C224	2113743M24	0.1uF
C228	2311049J11	4.7uF
C229	2113743L17	1000pF
C230	2113743N50	100pF
C231	2113743M24	0.1uF
C232	2113743E12	0.047uF
C233	2311049A01	0.1pF
C234	2311049A05	0.47pF
C235	2104993J02	2.2uF
C238	2113741F17	470pF
C241	2113743N50	100pF
C242	2113743N23	7.5pF
C243	2113743N23	7.5pF
C244	2113740F10	2.0pF
C245	2113743N11	2.4pF
C246	2113743N50	100pF
C247	2113743N50	100pF
C248	2113743M24	0.1uF
C250	2113743N23	7.5pF
C251	2113743N50	100pF
C252	2113743N26	10pF
C253	2113740F09	1.8pF

Circuit Ref	Motorola Part No.	Description
C254	2113743N15	3.6pF
C255	2113743N50	100pF
C256	2113743N50	100pF
C257	2113743N50	100pF
C258	2113743L41	0.01uF
C259	2113743L41	0.01uF
C260	2113743N50	100pF
C263	2113743N02	0.75pF
C264	2113743N50	100pF
C271	Not Placed	
C272	Not Placed	
C273	2113743M24	0.1uF
C276	2104993J02	2.2uF
C277	2113743N50	100pF
C278	2311049A09	2.2uF
C279	2104993J02	2.2uF
C280	2311049A40	2.2uF
C281	2113743N50	100pF
C285	2113743N50	100pF
C286	2113743M24	0.1uF
C289	2113743N50	100pF
C291	2311049A69	10.0uF
C292	2113743M24	0.1uF
C293	2113743A27	0.470uF
C294	2113743N50	100pF
C295	2113743N50	100pF
C296	2113743M24	0.1uF
C297	2113743L41	0.01uF
C298	2113743M24	0.1uF
C299	2113743N50	100pF
C301	2113743N22	6.8pF
C302	2113743N29	13pF
C303	2113740L08	3.9pF
C304	2113743N29	13pF
C305	2113743N33	20.0pF
C306	Not Placed	
C307	2113743M24	0.1uF
C308	2113743N50	100pF
C309	2113743N50	100pF
C310	2113743M24	0.1uF
C311	Not Placed	
C312	2113743N29	13pF
C313	2113743N26	10pF
C314	2113743M24	0.1uF
C315	2113743N50	100pF
C316	2113740L08	3.9pF
C317	2113743N25	9.1pF

Circuit Ref	Motorola Part No.	Description
C318	2113743N23	7.5pF
C319	2113743N69	1.8pF
C320	2113743N23	7.5pF
C321	2113743N50	100pF
C322	2113743N48	82.0pF
C323	2113743N54	150pF
C324	2113743N33	20.0pF
C325	2113743L41	0.01uF
C326	2113743L41	0.01uF
C327	2113743N50	100pF
C328	2113743M24	0.1uF
C329	2113743M24	0.1uF
C330	2113743N26	10pF
C331	2113743N50	100pF
C333	Not Placed	
C334	2113743M08	0.022uF
C336	2113743M24	0.1uF
C337	2113743N50	100pF
C338	2113743N30	15.0pF
C339	2180478Z20	1.0uF
C340	2180478Z20	1.0uF
C341	2180478Z20	1.0uF
C342	2180478Z20	1.0uF
C343	2113743A23	0.220uF
C344	2113743M24	0.1uF
C345	2113743M24	0.1uF
C346	2113743M24	0.1uF
C347	2113743M24	0.1uF
C348	2113743M24	0.1uF
C349	2113743E07	0.022uF
C350	2113743L05	330pF
C351	2113743N33	20.0pF
C352	2113743N28	12.0pF
C353	2113743N41	43.0pF
C354	2113743N42	47.0pF
C355	2113743A24	0.330uF
C356	2113743M08	0.022uF
C357	2113743A23	0.220uF
C358	2113741A23	1200pF
C359	2109720D14	0.1uF
C360	2113743E07	0.022uF
C361	2113741F49	10NF
C362	2113743M08	0.022uF
C363	2311049A40	2.2uF
C364	2113743L41	0.01uF
C370	2113743N50	100pF
C371	Not Placed	

Circuit Ref	Motorola Part No.	Description
C372	Not Placed	
C373	Not Placed	
C374	2113743N50	100pF
C375	2113743N50	100pF
C378	Not Placed	
C380	2113743L41	0.01uF
C381	2113743N23	7.5pF
C382	2311049A59	10uF
C383	2113743N50	100pF
C384	2113743N44	56.0pF
C385	2113743N44	56.0pF
C386	2113743N50	100pF
C390	2113743N50	100pF
C391	Not Placed	
C395	2113743N50	100pF
C396	Not Placed	
C397	2311049A05	0.47pF
C400	2113743L41	0.01uF
C401	2113743M24	0.1uF
C402	2113743M24	0.1uF
C403	2113928D08	10.0uF
C407	2113928N01	0.1uF
C408	2113743N50	100pF
C409	2113743M24	0.1uF
C410	2113928N01	0.1uF
C411	2113743M24	0.1uF
C412	2113928N01	0.1uF
C414	2113743M24	0.1uF
C415	2109720D01	0.01uF
C416	2113928N01	0.1uF
C419	Not Placed	
C420	2113743L41	0.01uF
C421	2113928N01	0.1uF
C422	2113743M24	0.1uF
C423	2113743N50	100pF
C424	2311049A59	10uF
C425	2113743M24	0.1uF
C426	2113743N50	100pF
C427	2113743N50	100pF
C428	2113743M24	0.1uF
C429	2113743M24	0.1uF
C430	2113928N01	0.1uF
C431	2113743N50	100pF
C432	Not Placed	
C433	2113743L41	0.01uF
C434	2113743M24	0.1uF
C435	2113743M24	0.1uF

Circuit Ref	Motorola Part No.	Description
C436	Not Placed	
C437	Not Placed	
C440	2113743G26	4.7uF
C441	Not Placed	
C442	2113743E20	10uF
C443	2113928N01	0.1uF
C444	Not Placed	
C445	Not Placed	
C446	2113743R33	4700pF, 5%
C447	2113928N01	0.1uF
C448	Not Placed	
C449	2113743N50	100pF
C450	Not Placed	
C451	2113743M08	0.022uF
C452	2113743G26	4.7uF
C453	2113743N50	100pF
C454	2113743N50	100pF
C455	2113743L09	470pF
C456	2113743N50	100pF
C458	2113743N50	100pF
C459	2113743N50	100pF
C463	2113743N50	100pF
C466	2113743N50	100pF
C467	2113928N01	0.1uF
C471	2113743N50	100pF
C472	2113743N50	100pF
C473	2113743L09	470pF
C475	2113743H14	10.0uF
C476	2113928D08	10.0uF
C477	2113743N50	100pF
C478	2113743N50	100pF
C479	2113928N01	0.1uF
C480	2113928D08	10.0uF
C481	2113928N01	0.1uF
C482	2113928N01	0.1uF
C483	2113743L17	1000pF
C484	2113743L17	1000pF
C485	2113743L17	1000pF
C486	Not Placed	
C487	Not Placed	
C488	Not Placed	
C489	Not Placed	
C493	Not Placed	
C494	2113743N50	100pF
C498	2113743N50	100pF
C499	2113743N50	100pF
C500	2113743L17	1000pF

Circuit Ref	Motorola Part No.	Description
C501	2113743L17	1000pF
C502	2311049A05	0.47pF
C503	2113743N50	100pF
C504	2113743L17	1000pF
C505	2113743N50	100pF
C506	2113743N50	100pF
C507	2113743L17	1000pF
C508	2113743N50	100pF
C509	2113743L17	1000pF
C511	2113743N50	100pF
C512	2113743N50	100pF
C513	2113743N50	100pF
C514	2113743N50	100pF
C515	2113743M24	0.1uF
C518	2113743L17	1000pF
C519	2113743L17	1000pF
C520	2113743L17	1000pF
C521	2113743L41	0.01uF
C522	2113743L41	0.01uF
C523	2113743N50	100pF
C524	2113743L17	1000pF
C525	2113743N50	100pF
C526	2113743L17	1000pF
C527	2113743N50	100pF
C528	2113743L17	1000pF
CR101	4880973Z02	Pin Diode
CR102	4802245J41	Pin Diode
CR105	5185963A15	Temperature Sense
CR201	4802233J09	Diode Triple
CR203	4862824C03	Varactor
CR241	4805649Q13	Dual Varactor
CR242	4862824C01	Varactor
CR243	4862824C01	Varactor
CR251	4802245J22	Varactor
CR301	4862824C01	Varactor
CR302	4862824C01	Varactor
CR303	4880154K03	Dual Common Anode-cathode
CR304	4862824C01	Varactor
CR305	4862824C01	Varactor
CR306	4802245J42	Ring Quad Diode
CR308	4802245J41	Pin Diodes
CR310	4862824C01	Varactor
CR411	4802245J47	Diode Schottky
CR412	4802245J47	Diode Schottky
CR413	4802245J47	Diode Schottky
CR440	4813833C02	Dual Diode Common Cathode
CR501	4880107R01	Rectifier

Circuit Ref	Motorola Part No.	Description
CR503	4805729G49	LED Red/Yel
E101	2484657R01	Ferrite Bead
E400	2480640Z01	Ferrite Bead
F501	6580542Z01	Fuse 3A
FL201	4802245J49	Crystal 16.8MHz Clip
FL301	4802245J43	Xtal Filter 45.1MHz
H101	2680499Z01	Heat Spreader
J101	0985613Z01	RF Jack
J104	3980686Z01	Antenna Contact
J400	0905505Y04	40-Pin Connector
J402	2809926G02	4-Pin Connector
J404	0980689Z01	Connector (Stereo Jack 2.5m)
J407	0980688Z01	Connector (Mono Jack 3.5mm)
L101	2460591B48	15.22nH, 10%
L102	2460591B48	15.22nH, 10%
L104	2460591B48	15.22nH, 10%
L105	2462587N22	390nH
L106	2479990A02	7.66nH
L107	2479990G01	33.47nH
L108	2479990A01	4.22nH
L112	2462587N45	22nH
L113	2413926H09	5.6nH
L114	2462587N22	390nH
L115	2462587N22	390nH
L116	2460591B56	17.37nH
L160	Not Placed	
L201	2462587Q20	2.2uH
L202	2462587Q20	2.2uH
L203	2462587Q20	2.2uH
L232	2462587P25	12uH
L241	2462587V41	390nH
L242	2462587V38	220nH
L243	2460593C01	Teflon Resonator
L251	2462587V28	33nH
L253	2460593C02	Teflon Resonator
L261	2462587V29	39nH
L271	2462587V32	68nH
L273	2462587V28	33nH
L281	2462587V41	390nH
L282	2462587V41	390nH
L301	2479990C01	13.9nH
L302	2479990C01	13.9nH
L303	2462587V26	22nH
L304	2462587V37	180nH
L305	2462587V26	22nH
L306	2479990C01	13.9nH

Circuit Ref	Motorola Part No.	Description
L307	2479990C01	13.9nH
L309	2479990C02	16.28nH
L310	2462587V36	150nH
L311	2462587N65	750nH
L314	2462587N72	2.2uH
L321	Not Placed	
L325	2480646Z20	2.20uH
L330	2462587N64	680nH
L331	2480646Z20	2.20uH
L332	2462587N53	100nH
L340	2462587V41	390nH
L400	2462587Q42	390nH
L410	2462587Q42	390nH
L411	2462587Q42	390nH
L505	2462587Q42	390nH
PB501	4080523Z01	Tactile Push Button
PB502	4080523Z01	Tactile Push Button
PB503	4080523Z01	Tactile Push Button
Q110	4802245J55	RF Power FET
Q111	4802245J50	Dual NPN/PNP
Q210	4802245J50	Dual NPN/PNP
Q241	4805218N63	NPN
Q260	4802245J50	Dual NPN/PNP
Q261	4802245J50	Dual NPN/PNP
Q301	4802245J44	NPN
Q302	4802245J44	NPN
Q310	Not Placed	
Q315	4880214G02	NPN
Q316	Not Placed	
Q320	4805218N63	NPN
Q400	4809579E18	MOSFET P-Chan
Q403	4880214G02	NPN
Q405	4802245J54	Dual NPN
Q410	4802245J54	Dual NPN
Q417	4802245J50	Dual NPN/PNP
Q418	4802245J50	Dual NPN/PNP
Q419	5180159R01	Dual NPN
Q420	4805128M67	SOT STR MMBT
Q421	4880214G02	NPN
Q431	5180159R01	Dual NPN
Q433	4880214G02	NPN
Q502	5180159R01	Dual NPN
Q505	4880214G02	NPN
Q506	4802245J50	Dual NPN/PNP
R101	0662057A34	240
R102	0680735Z01	0.075
R103	0662057M41	43

Circuit Ref	Motorola Part No.	Description
R104	0662057N15	47K
R105	0662057C01	0
R106	0662057M26	10
R108	0662057M92	5.6K
R109	0662057N30	200K
R110	0662057M61	300
R111	0662057M33	20
R112	0662057M61	300
R120	0662057N14	43K
R130	0662057M98	10K
R131	0662057N05	18K
R132	0662057N33	270K
R133	Not Placed	
R134	0662057N52	1.6M
R161	0662057M47	75
R170	0662057A34	240
R171	0662057N14	43K
R172	0662057A32	200
R173	0662057N29	180K
R201	0662057N21	82K
R202	0662057N23	100K
R204	0662057N15	47K
R231	0662057M52	120
R232	0662057M69	620
R233	0662057M68	560
R241	0662057M32	18
R242	0662057M57	200
R243	0662057M98	10K
R244	0662057N01	12K
R245	0662057M59	240
R248	0662057M37	30
R251	0662057M32	18
R252	0662057M62	330
R253	0662057M95	7.5K
R254	0662057M95	6.8K
R255	0662057M89	4.3K
R256	0662057M37	30
R260	0662057M74	1K
R281	Not Placed	
R300	0662057M82	2.2K
R301	0662057N23	100K
R302	0662057N23	100K
R303	0662057M89	1K
R304	0662057N01	12K
R305	0662057M67	0
R306	0662057N23	100K
R307	0662057N23	100K

Circuit Ref	Motorola Part No.	Description
R308	0662057M42	47
R309	0662057M01	0
R310	0662057M60	270
R311	0662057N10	30K
R312	0662057M92	5.6K
R313	0662057M62	330
R314	0662057M85	3K
R315	0662057N01	12K
R316	0662057A96	91K
R317	0662057M74	1K
R318	0662057A79	18K
R319	0662057A29	150
R320	0662057M74	1K
R321	0662057M83	2.4K
R322	0662057N30	200K
R324	0662057M81	2K
R325	0662057M94	6.8K
R326	Not Placed	
R327	0662057N11	33K
R328	0662057M01	0
R329	0662057M01	0
R330	Not Placed	
R331	Not Placed	
R332	Not Placed	
R333	Not Placed	
R334	Not Placed	
R335	Not Placed	
R336	Not Placed	
R338	Not Placed	
R339	0662057M01	0
R340	0662057M94	6.8K
R342	0662057N23	100K
R343	0662057M26	10
R344	0662057N01	12K
R345	0662057M98	10K
R346	0662057N17	56K
R347	0662057M74	1K
R348	0662057M87	3.6K
R349	0662057C01	0
R350	0662057N23	100K
R351	0662057C01	0
R352	0662057M86	3.3K
R355	0662057M01	0
R400	0662057N15	47K
R401	0662057M01	0
R403	Not Placed	
R405	0662057M01	0

Circuit Ref	Motorola Part No.	Description
R406	0662057N20	75K
R410	0662057N23	100K
R411	0662057M98	10K
R413	0662057M01	0
R414	0662057V34	180K
R415	0662057V26	91K
R416	0662057N13	39K
R418	0662057M01	0
R419	0662057M90	4.7K
R423	0662057N39	470K
R425	0662057N10	30K
R427	0662057M98	10K
R428	0662057M10	2.2
R429	0662057M98	10K
R432	0662057N16	51K
R434	Not Placed	
R435	0662057M81	2K
R436	0662057N15	47K
R438	0662057M01	0
R439	0662057N23	100K
R445	0662057N08	24K
R446	0662057N31	220K
R447	0662057N51	1.5M
R448	0662057N33	270K
R449	0662057N08	24K
R457	0662057M98	10K
R460	0662057M90	4.7K
R461	0662057N23	100K
R462	0662057N23	100K
R463	0662057M61	300
R467	0662057M98	10K
R471	0662057M92	5.6K
R472	0662057N12	36K
R473	0662057M26	10
R475	0662057M01	0
R476	0662057N08	24K
R478	0662057M98	10K
R481	0662057N08	24K
R492	0662057M01	0
R493	Not Placed	
R494	0662057M01	0
R495	0662057N23	100K
R496	0662057N23	100K
R498	0662057N23	100K
R499	0662057M98	10K
R501	0662057M70	680
R502	0662057M56	180

Circuit Ref	Motorola Part No.	Description
R505	0662057M98	10K
R506	0662057N15	47K
R507	0662057M01	0
R510	0662057M98	10K
RT300	0680590Z01	Thermistor_33K
RT301	Not Placed	
RT400	0680590Z01	Thermistor_33K
S501	4080710Z01	Channel Switch
S502	1880619Z01	Volume Switch
SH100	2680687Z01	Shield, Harmonic Filter
SH101	2680510Z01	Shield, PA
SH201	2680511Z01	Synthesizer Top Shield
SH202	2680511Z01	Synthesizer Bottom Shield
SH241	2680513Z01	Shield, VCO Top
SH242	2680514Z01	Shield, VCO Bottom/LVZIF
SH301	2680554Z01	RX Pre Filter Shield
SH302	2680555Z01	RX Post Filter/RX AMP
SH303	2680509Z01	Shield, Mixer
SH304	2680624Z01	Shield, Mixer Diode
SH321	2680508Z01	Shield,LVZIF 2Nd LO
SH322	2680514Z01	ZIF Shield
SH323	2680553Z01	Shield, Crystal Filter
SH400	2680505Z01	Controller Memory Shield
SH401	2680506Z01	On/Off Controller Shield
SH402	2680515Z01	Microprocessor Controlled Shield
SH403	2680516Z01	ASFIC CMP/Audio PA Controller Shield
T301	2580541Z01	XFMR Coil
T302	2580541Z01	XFMR Coil
U101	5105109Z67	LDMOS Driver UHF IC
U102	5185765B01	Power Control IC
U201	5185963A27	LVFRACN
U210	5102463J61	Inverter
U211	5102463J61	Inverter
U241	5105750U54	VCO Buffer
U247	5105739X05	Regulator Linear
U248	5102463J58	3.3V Regulator
U301	5109632D83	LVZIF 2.2
U400	5102463J40	3.3V Regulator
U404	5185963A53	ASFIC CMP
U405	5102463J36	STATIC_RAM_32KX8 I
U406	*5102463J59	FLASH ROM 128KX8
U407	*5102463J64	16K X 8 EEPROM
U409	5102226J56	UP HC11FLO
U410	5102463J57	Regulator 3.3V
U420	5102463J44	Audio PA

Circuit Ref	Motorola Part No.	Description
VR300	Not Placed	
VR431	4802245J51	Zener 6.8V
VR432	4880140L15	10V Zener
VR433	4880140L15	10V Zener
VR434	Not Placed	
VR439	4880140L15	10V Zener
VR440	4802245J51	Zener 6.8V
VR441	4802245J51	Zener 6.8V
VR442	Not Placed	
VR443	Not Placed	
VR444	4802245J51	Zener 6.8V
VR445	Not Placed	
VR446	Not Placed	
VR447	Not Placed	
VR448	Not Placed	
VR449	Not Placed	
VR450	4802245J53	Zener_10V
VR451	4802245J53	Zener_10V
VR501	4813830A18	6.8V Zener
VR506	4802245J51	Zener 6.8V
	7580671Z01	Pad (Flexible Circuit)

* Motorola Depot Servicing only

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