

SAMSUNG

GSM TELEPHONE

GT-P5100

SERVICE *Manual*

GSM TELEPHONE



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2. Specification

2-1. GSM General Specification

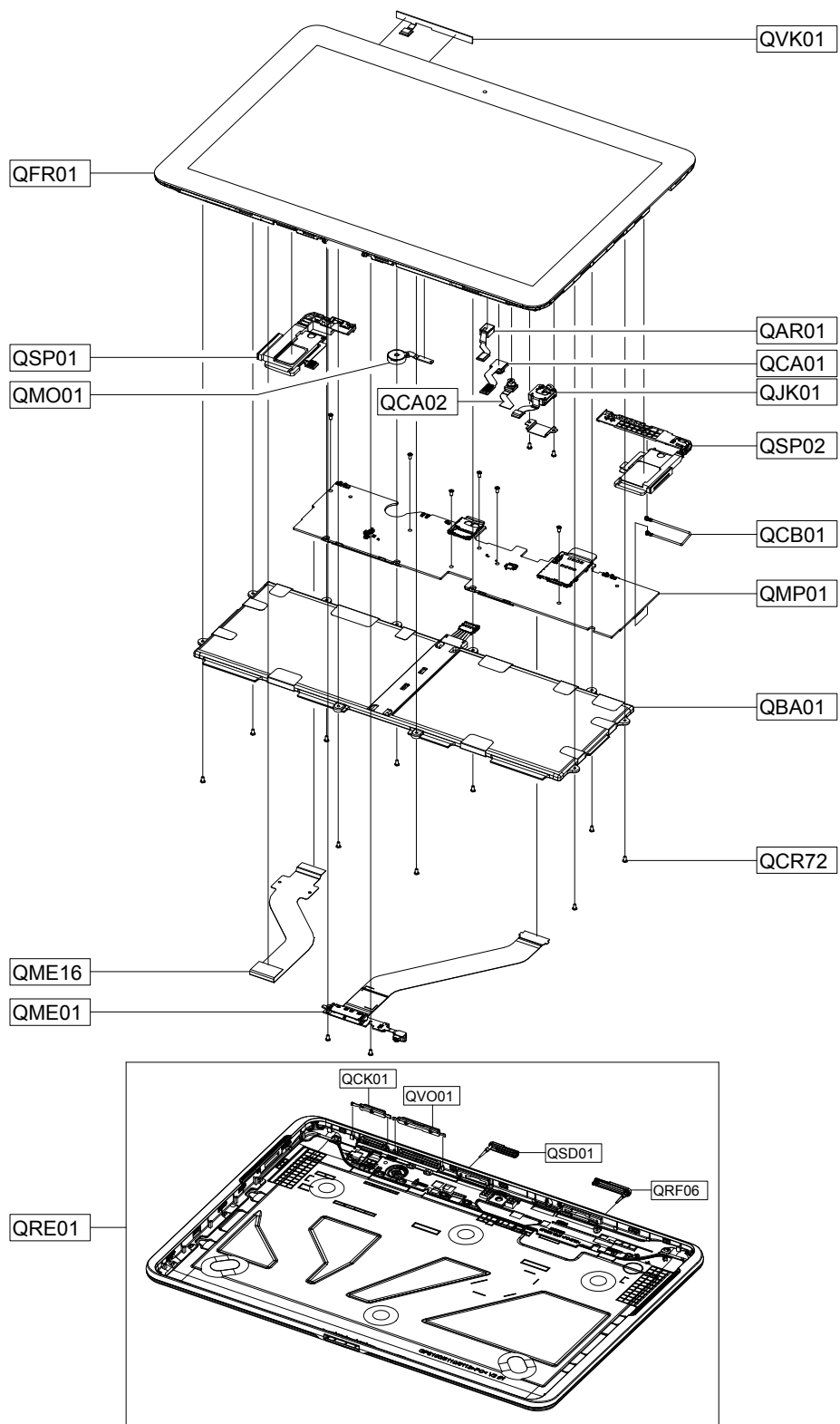
	GSM850	EGSM 900	DCS1800	PCS1900	WCDMA 2100	WCDMA 1900	WCDMA 900	WCDMA 850
Freq. Band[MHz] Uplink/ Downlink	824~849 869~894	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990	1922~1977 2112~2167	1852~1907 1932~1987	880~915 925~960	824~849 869~894
ARFCN range	128~251	0~124 & 975~1023	512~885	512~810	UL: 9612~9888 DL: 10562~10838	UL: 9262~9538 DL: 9662~9938	UL: 2712~2863 DL: 2937~3088	UL: 4132~4233 DL: 4357~4458
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz	190MHz	80MHz	45MHz	45MHz
Mod. Bit rate/ Bit Period	270.833kbp s 3.692us	270.833kbp s 3.692us	270.833kbp s 3.692us	270.833kbp s 3.692us	3.84Mcps	3.84Mcps	3.84Mcps	3.84Mcps
Time Slot Period/ Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK	QPSKHQPS K	QPSKHQPS K	QPSKHQPS K	QPSKHQPS K
MS Power	33dBm~5dB m	33dBm~5dB m	30dBm~0dB m	30dBm~0dB m	24dBm~ -50dBm	24dBm~ -50dBm	24dBm~ -50dBm	24dBm~ -50dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl	3(max+24dB m)	3(max+24dB m)	3(max+24dB m)	3(max+24dB m)
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm	-106.7dBm	-106.7dBm	-106.7dBm	-106.7dBm
TDMA Mux	8	8	8	8	8	8	8	8
Cell Radius	35Km	35Km	2Km	2Km	2Km	2Km	2Km	2Km

2-2. GSM Tx Power Class

TX Power control level	GSM850	TX Power control level	EGSM900	TX Power control level	DCS1800	TX Power control level	PCS1900
5	33±2 dBm	5	33±2 dBm	0	30±3 dBm	0	30±3 dBm
6	31±2 dBm	6	31±2 dBm	1	28±3 dBm	1	28±3 dBm
7	29±2 dBm	7	29±2 dBm	2	26±3 dBm	2	26±3 dBm
8	27±2 dBm	8	27±2 dBm	3	24±3 dBm	3	24±3 dBm
9	25±2 dBm	9	25±2 dBm	4	22±3 dBm	4	22±3 dBm
10	23±2 dBm	10	23±2 dBm	5	20±3 dBm	5	20±3 dBm
11	21±2 dBm	11	21±2 dBm	6	18±3 dBm	6	18±3 dBm
12	19±2 dBm	12	19±2 dBm	7	16±3 dBm	7	16±3 dBm
13	17±2 dBm	13	17±2 dBm	8	14±3 dBm	8	14±3 dBm
14	15±2 dBm	14	15±2 dBm	9	12±4 dBm	9	12±4 dBm
15	13±2 dBm	15	13±2 dBm	10	10±4 dBm	10	10±4 dBm
16	11±3 dBm	16	11±3 dBm	11	8±4 dBm	11	8±4 dBm
17	9±3dBm	17	9±3dBm	12	6±4 dBm	12	6±4 dBm
18	7±3 dBm	18	7±3 dBm	13	4±4 dBm	13	4±4 dBm
19	5±3 dBm	19	5±3 dBm	14	2±5 dBm	14	2±5 dBm
				15	0±5 dBm	15	0±5 dBm

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



5. MAIN Electrical Parts List

Design LOC	SEC CODE	Description
D600	0401-001110	DIODE-SWITCHING
D702,ZD506	0403-001870	DIODE-ZENER
D703	0404-001172	DIODE-SCHOTTKY
D800	0404-001669	DIODE-SCHOTTKY
D300,D301,D500,D501	0406-001239	DIODE-TVS
D302,ZD100,ZD700	0406-001267	DIODE-TVS
ZD300,ZD302,ZD403	0406-001413	DIODE-TVS
ZD404,ZD405,ZD406	0406-001413	DIODE-TVS
ZD503,ZD504,ZD903	0406-001413	DIODE-TVS
ZD904,ZD905	0406-001413	DIODE-TVS
ZD301	0406-001459	DIODE-TVS
ZD500,ZD501,ZD502	0406-001505	DIODE-TVS
ZD505,ZD507,ZD701	0406-001505	DIODE-TVS
D502	0406-001526	DIODE-TVS
D700	0407-001002	DIODE-ARRAY
TR700,TR702	0504-001113	TR-DIGITAL
Q500	0504-001307	TR-DIGITAL
TR701,TR703	0505-002720	FET-SILICON
Q700	0505-002748	FET-SILICON
TR704	0505-003052	FET-SILICON
U608	0801-003079	IC-CMOS LOGIC
U304	0801-003437	IC-CMOS LOGIC
U108	0801-003444	IC-CMOS LOGIC
UCP600	0902-002849	IC-MICROPROCESSOR
U102	1001-001733	IC-ANALOG SWITCH
U501,U502	1001-001755	IC-ANALOG SWITCH
U503	1003-002132	IC-LEVEL DRIVER
U601,U602	1003-002216	IC-LEVEL DRIVER
UME300	1105-002212	IC-RDRAM
U610	1107-002134	IC-FLASH MEMORY
U206	1201-003378	IC-GPS AMP
U103	1201-003406	IC-POWER AMP
U403,U500	1202-001121	IC-VOLTAGE COMP.
U605,U908	1203-004818	IC-POSI.FIXED REG.
U305,U401,U402,U715	1203-004819	IC-POSI.FIXED REG.

Design LOC	SEC CODE	Description
U900	1203-004819	IC-POSI.FIXED REG.
U707	1203-005069	IC-POSI.FIXED REG.
U609	1203-005512	IC-POSI.FIXED REG.
U805	1203-005599	IC-DC/DC CONVERTER
U109	1203-005831	IC-MULTI REG.
U905	1203-006115	IC-POWER SUPERVISOR
U717	1203-006392	IC-POWER SUPERVISOR
U506	1203-006766	IC-VOL. DETECTOR
U803	1203-006768	IC-DC/DC CONVERTER
U504	1203-006794	IC-DC/DC CONVERTER
U104	1203-006801	IC-DC/DC CONVERTER
U804	1203-006920	IC-BACKLIGHT DRIVER
U106	1203-006985	IC-DC/DC CONVERTER
U603	1203-007142	IC-DC/DC CONVERTER
U716	1203-007169	IC-BATTERY
U701	1203-007210	IC-POWER SUPERVISOR
U400	1205-003692	IC-EXPANDER
U800	1205-004313	IC-INTERFACE
U207	1205-004396	IC-GPS RECEIVER
U213	1205-004402	IC-WIFI
U404	1205-004509	IC-CODEC
UCP300	1205-004511	IC-MODEM
U100	1205-004515	IC-TRANSCIVER
U902	1205-004521	IC-CONTROLLER
U105	1209-002006	IC-SENSOR
U904	1209-002106	IC-SENSOR
U906	1209-002151	IC-SENSOR
TH300,TH700	1404-001728	THERMISTOR-NTC
VAR400,VAR401	1405-001091	VARISTOR
R120,R404,R624,R625	2007-000138	R-CHIP
R902	2007-000138	R-CHIP
R519,R520,R529,R530	2007-000140	R-CHIP
R414,R634,R635,R668	2007-000141	R-CHIP
R669	2007-000141	R-CHIP
R756,R924	2007-000143	R-CHIP
R111,R420,R608,R611	2007-000148	R-CHIP

Design LOC	SEC CODE	Description
R613,R614,R681,R683	2007-000148	R-CHIP
R690,R718,R722,R760	2007-000148	R-CHIP
R210,R211,R212,R213	2007-000157	R-CHIP
R214,R302,R304,R305	2007-000157	R-CHIP
R306,R324,R325	2007-000157	R-CHIP
R402,R516,R522,R680	2007-000162	R-CHIP
R704,R707,R754,R757	2007-000162	R-CHIP
R513,R515,R806	2007-000163	R-CHIP
R517,R518	2007-000164	R-CHIP
R101	2007-000165	R-CHIP
R503	2007-000167	R-CHIP
R702	2007-000169	R-CHIP
R512,R535	2007-000170	R-CHIP
R100,R122,R753,R770	2007-000758	R-CHIP
R501	2007-001217	R-CHIP
R679	2007-001292	R-CHIP
R508,R509	2007-001298	R-CHIP
R114	2007-002796	R-CHIP
R674	2007-003015	R-CHIP
R532	2007-007092	R-CHIP
R538	2007-007099	R-CHIP
R303	2007-007107	R-CHIP
R209	2007-007132	R-CHIP
R413	2007-007137	R-CHIP
R416,R417	2007-007156	R-CHIP
R900,R901	2007-007193	R-CHIP
R412	2007-007318	R-CHIP
R677,R678	2007-007517	R-CHIP
R502	2007-007529	R-CHIP
R691	2007-007538	R-CHIP
R510	2007-007592	R-CHIP
R808	2007-007627	R-CHIP
R403,R405,R408,R410	2007-007942	R-CHIP
R411	2007-007942	R-CHIP
R406,R407	2007-007943	R-CHIP
R108	2007-008044	R-CHIP

Design LOC	SEC CODE	Description
R308,R622,R623	2007-008045	R-CHIP
R310,R685,R686	2007-008052	R-CHIP
R536,R6001,R619,R675	2007-008055	R-CHIP
R709,R730,R732,R746	2007-008055	R-CHIP
R807,R927,R928	2007-008055	R-CHIP
R504,R505	2007-008211	R-CHIP
R511	2007-008275	R-CHIP
R409	2007-008312	R-CHIP
R670	2007-008354	R-CHIP
R500	2007-008403	R-CHIP
R506,R507,R758	2007-008483	R-CHIP
R311	2007-008486	R-CHIP
R323,R526,R527,R528	2007-008516	R-CHIP
R642,R643,R654,R801	2007-008516	R-CHIP
R802,R905	2007-008516	R-CHIP
R208	2007-008579	R-CHIP
R318,R319,R320,R400	2007-008588	R-CHIP
R627,R636,R667,R676	2007-008588	R-CHIP
R692	2007-008588	R-CHIP
R109,R110	2007-008686	R-CHIP
R811	2007-008721	R-CHIP
R115,R533,R534	2007-008774	R-CHIP
R812	2007-008812	R-CHIP
R415	2007-009084	R-CHIP
R666	2007-009108	R-CHIP
R664	2007-009111	R-CHIP
R312,R665	2007-009155	R-CHIP
R809	2007-009168	R-CHIP
R655,R656,R657,R658	2007-009171	R-CHIP
R659,R660,R661,R662	2007-009171	R-CHIP
R663	2007-009171	R-CHIP
R300	2007-009315	R-CHIP
R600,R617	2007-009354	R-CHIP
R103,R104	2007-009801	R-CHIP
R309	2007-010233	R-CHIP
R116,R123	2007-010783	R-CHIP

Design LOC	SEC CODE	Description
R755	2007-010856	R-CHIP
C120,C213,C231,C248	2203-000233	C-CER,CHIP
C256,C439,C440,C441	2203-000233	C-CER,CHIP
C442,L105	2203-000233	C-CER,CHIP
C104,C205,C7002,C768	2203-000254	C-CER,CHIP
C769,C929	2203-000254	C-CER,CHIP
C228,C229,C235,C236	2203-000278	C-CER,CHIP
C238,C239,C240,C241	2203-000278	C-CER,CHIP
C250	2203-000278	C-CER,CHIP
C425,C428,C429	2203-000386	C-CER,CHIP
C233,C691	2203-000585	C-CER,CHIP
C208	2203-000627	C-CER,CHIP
C164,C341,C342,C343	2203-000812	C-CER,CHIP
C826	2203-000854	C-CER,CHIP
C765,C766,C789	2203-000995	C-CER,CHIP
C426,C430,C434,C435	2203-001153	C-CER,CHIP
C764,C784,C785,C788	2203-002687	C-CER,CHIP
C717	2203-005249	C-CER,CHIP
C178	2203-005393	C-CER,CHIP
C121,C144,C190,C206	2203-005682	C-CER,CHIP
C255	2203-005682	C-CER,CHIP
C125	2203-005683	C-CER,CHIP
C338,C349	2203-005725	C-CER,CHIP
C119	2203-005726	C-CER,CHIP
C718,C719	2203-005727	C-CER,CHIP
C227	2203-005729	C-CER,CHIP
C433,C436,C437	2203-005731	C-CER,CHIP
C427,C515,C516,C517	2203-005732	C-CER,CHIP
C518	2203-005732	C-CER,CHIP
C143	2203-005736	C-CER,CHIP
C186	2203-005740	C-CER,CHIP
C184	2203-005777	C-CER,CHIP
C129,C180	2203-005789	C-CER,CHIP
C244	2203-005792	C-CER,CHIP
C137	2203-005806	C-CER,CHIP
C761	2203-006047	C-CER,CHIP

Design LOC	SEC CODE	Description
C105,C222,C223,C237	2203-006048	C-CER,CHIP
C242,C340,C407,C504	2203-006048	C-CER,CHIP
C505,C607,C612,C649	2203-006048	C-CER,CHIP
C653,C667,C678,C679	2203-006048	C-CER,CHIP
C680,C694,C778,C920	2203-006048	C-CER,CHIP
C126	2203-006187	C-CER,CHIP
C654,C685	2203-006190	C-CER,CHIP
C133,C148,C246,C302	2203-006194	C-CER,CHIP
C303,C800	2203-006194	C-CER,CHIP
C902	2203-006257	C-CER,CHIP
C230,C243	2203-006305	C-CER,CHIP
C692,C693,C7001	2203-006324	C-CER,CHIP
C138	2203-006379	C-CER,CHIP
C162,C347,C348,C617	2203-006399	C-CER,CHIP
C618,C665,C674,C690	2203-006399	C-CER,CHIP
C696,C697,C756	2203-006399	C-CER,CHIP
C106,C107,C108,C109	2203-006423	C-CER,CHIP
C110,C115,C116,C117	2203-006423	C-CER,CHIP
C149,C151,C209,C210	2203-006423	C-CER,CHIP
C301,C304,C305,C310	2203-006423	C-CER,CHIP
C316,C318,C319,C320	2203-006423	C-CER,CHIP
C321,C324,C325,C327	2203-006423	C-CER,CHIP
C328,C329,C332,C333	2203-006423	C-CER,CHIP
C334,C344,C402,C601	2203-006423	C-CER,CHIP
C602,C603,C604,C606	2203-006423	C-CER,CHIP
C608,C609,C611,C613	2203-006423	C-CER,CHIP
C614,C619,C620,C623	2203-006423	C-CER,CHIP
C624,C625,C628,C629	2203-006423	C-CER,CHIP
C630,C634,C635,C636	2203-006423	C-CER,CHIP
C637,C639,C640,C641	2203-006423	C-CER,CHIP
C647,C650,C651,C660	2203-006423	C-CER,CHIP
C661,C662,C663,C666	2203-006423	C-CER,CHIP
C668,C669,C670,C677	2203-006423	C-CER,CHIP
C681,C684,C699,C922	2203-006423	C-CER,CHIP
C923,C941	2203-006423	C-CER,CHIP
C152,C159,C175,C176	2203-006562	C-CER,CHIP

Design LOC	SEC CODE	Description
C177,C187,C400,C401	2203-006562	C-CER,CHIP
C408,C409,C410,C411	2203-006562	C-CER,CHIP
C413,C414,C415,C416	2203-006562	C-CER,CHIP
C418,C419,C420,C421	2203-006562	C-CER,CHIP
C502,C503,C510,C600	2203-006562	C-CER,CHIP
C689,C779,C791,C799	2203-006562	C-CER,CHIP
C801,C802,C803,C805	2203-006562	C-CER,CHIP
C816,C819,C825,C905	2203-006562	C-CER,CHIP
C907,C937,C940	2203-006562	C-CER,CHIP
C111,C112,C113,C118	2203-006647	C-CER,CHIP
C140	2203-006648	C-CER,CHIP
C824	2203-006681	C-CER,CHIP
R106,R107	2203-006815	C-CER,CHIP
C170,C707,C708,C720	2203-006824	C-CER,CHIP
C721,C722,C723,C724	2203-006824	C-CER,CHIP
C900	2203-006824	C-CER,CHIP
C131,C135,C136,C150	2203-006839	C-CER,CHIP
C153,C218,C818	2203-006839	C-CER,CHIP
C777,C829	2203-006841	C-CER,CHIP
C621,C813,C815	2203-006844	C-CER,CHIP
C114,C166,C200,C201	2203-006872	C-CER,CHIP
C202,C203,C403,C422	2203-006872	C-CER,CHIP
C423,C424,C682,C683	2203-006872	C-CER,CHIP
C716	2203-006872	C-CER,CHIP
C100,C103,C903,C904	2203-006979	C-CER,CHIP
C514	2203-007133	C-CER,CHIP
C167,C306,C307,C311	2203-007210	C-CER,CHIP
C315,C317,C322,C326	2203-007210	C-CER,CHIP
C330,C331,C335,C345	2203-007210	C-CER,CHIP
C626,C627,C633,C655	2203-007210	C-CER,CHIP
C656,C657,C658,C659	2203-007210	C-CER,CHIP
C664,C672,C673	2203-007210	C-CER,CHIP
C336,C337,C687	2203-007240	C-CER,CHIP
C156,C160,C631,C632	2203-007270	C-CER,CHIP
C644,C652,C695,C755	2203-007270	C-CER,CHIP
C757,C758,C804,C822	2203-007270	C-CER,CHIP

Design LOC	SEC CODE	Description
C823	2203-007270	C-CER,CHIP
C132,C204,C207,C234	2203-007271	C-CER,CHIP
C701,C703,C704,C705	2203-007271	C-CER,CHIP
C706,C709,C710,C711	2203-007271	C-CER,CHIP
C712,C713,C714,C715	2203-007271	C-CER,CHIP
C906,C908,C909,C910	2203-007271	C-CER,CHIP
C911,C914,C915,C916	2203-007271	C-CER,CHIP
C921,C936,C938,C939	2203-007271	C-CER,CHIP
C698,C702,C732,C733	2203-007279	C-CER,CHIP
C734,C735,C760,C762	2203-007279	C-CER,CHIP
C161,C169,C220,C221	2203-007317	C-CER,CHIP
C257,C339	2203-007317	C-CER,CHIP
C790	2203-007342	C-CER,CHIP
C605,C610,C622,C648	2203-007391	C-CER,CHIP
C134,C145,C154,C219	2203-007393	C-CER,CHIP
C225,C226,C615,C616	2203-007393	C-CER,CHIP
C638,C645,C646,C688	2203-007393	C-CER,CHIP
C700,C786	2203-007393	C-CER,CHIP
C754,C783	2203-007425	C-CER,CHIP
C165,C312,C313,C314	2203-007449	C-CER,CHIP
C323,C642,C643,C671	2203-007449	C-CER,CHIP
C675,C739,C912,C917	2203-007449	C-CER,CHIP
C918,C919,C925,C926	2203-007449	C-CER,CHIP
C927,C935	2203-007449	C-CER,CHIP
C512	2203-007456	C-CER,CHIP
C245	2203-007474	C-CER,CHIP
C508,C513	2203-007634	C-CER,CHIP
C300,C308,C309	2203-007701	C-CER,CHIP
C189	2203-007754	C-CER,CHIP
C404,C405,C406,C412	2203-007775	C-CER,CHIP
C417,C770	2203-007775	C-CER,CHIP
C500,C501,C506,C507	2203-007781	C-CER,CHIP
C736,C759,C763	2203-007781	C-CER,CHIP
C814,C827,C828	2203-007790	C-CER,CHIP
C168,C171,C188	2203-007795	C-CER,CHIP
C817	2203-007796	C-CER,CHIP

Design LOC	SEC CODE	Description
C901	2203-008126	C-CER,CHIP
TA400	2404-001561	C-TA,CHIP
TA700	2409-001232	C-POLYMER ,CHIP
L125	2703-001747	INDUCTOR-SMD
L104	2703-002208	INDUCTOR-SMD
L215,L408,L409,L410	2703-002268	INDUCTOR-SMD
L411	2703-002268	INDUCTOR-SMD
L102,L124,L213	2703-002313	INDUCTOR-SMD
L119,L123	2703-002596	INDUCTOR-SMD
L126	2703-002901	INDUCTOR-SMD
L113	2703-002903	INDUCTOR-SMD
L109	2703-002953	INDUCTOR-SMD
L101,L112	2703-002999	INDUCTOR-SMD
L210	2703-003545	INDUCTOR-SMD
L600	2703-003546	INDUCTOR-SMD
L901	2703-003754	INDUCTOR-SMD
L118,L120,L122	2703-003755	INDUCTOR-SMD
L302,L303	2703-003869	INDUCTOR-SMD
L500,L700,L701,L702	2703-003911	INDUCTOR-SMD
L703,L704	2703-003911	INDUCTOR-SMD
L802	2703-003913	INDUCTOR-SMD
L211,L214	2703-003916	INDUCTOR-SMD
L801	2703-003939	INDUCTOR-SMD
L108	2703-004000	INDUCTOR-SMD
C101,L114,L115	2703-004013	INDUCTOR-SMD
L116	2703-004014	INDUCTOR-SMD
C102	2703-004034	INDUCTOR-SMD
L106	2703-004035	INDUCTOR-SMD
L111	2703-004037	INDUCTOR-SMD
L121	2703-004185	INDUCTOR-SMD
L707	2703-004244	INDUCTOR-SMD
OSC300,OSC700	2801-004551	CRYSTAL-SMD
OSC201	2801-005107	CRYSTAL-SMD
OSC600	2804-001884	OSCILLATOR-CLOCK
OSC400	2804-001935	OSCILLATOR-CLOCK
OSC100	2809-001369	OSCILLATOR-VCTCXO

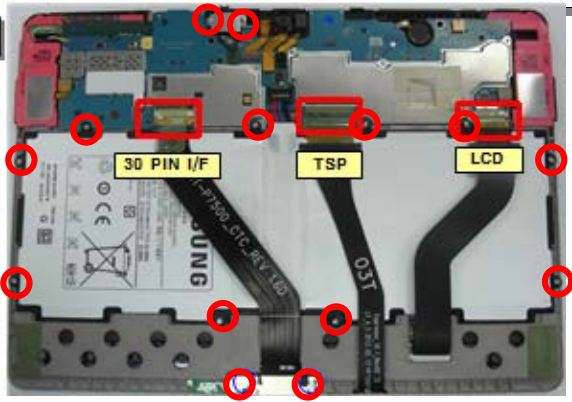
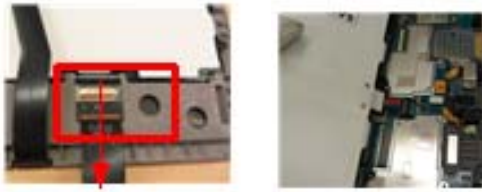
Design LOC	SEC CODE	Description
OSC200	2809-001374	OSCILLATOR-VCTCXO
F800	2901-001625	FILTER-EMI/ESD
F801,F802	2901-001647	FILTER-EMI SMD
F900,F901	2901-001674	FILTER-EMI SMD
F200	2904-001988	FILTER-GPS SAW
F201	2909-001324	FILTER-LC
F100	2910-000126	DUPLEXER-SAW
U212	2911-000168	DUPLEXER-FEM
U101	2911-000191	DUPLEXER-FEM
L203,L204	3301-001534	BEAD-SMD
L201	3301-001659	BEAD-SMD
L804,L805,L806,L807	3301-001756	BEAD-SMD
L402,L403,L404,L405	3301-001885	BEAD-SMD
L406,L407	3301-001885	BEAD-SMD
L205,L208	3301-001895	BEAD-SMD
L900,L902	3301-001901	BEAD-SMD
L200,L400,L401	3301-001929	BEAD-SMD
L300,L301	3301-001956	BEAD-SMD
L501,L803	3301-002037	BEAD-SMD
L117	3301-002062	BEAD-SMD
RFS200	3705-001448	CONNECTOR-COAXIAL
RFS100	3705-001731	CONNECTOR-COAXIAL
SLC800	3708-002183	CONNECTOR-FPC/FFC/PIC
CN900	3708-002222	CONNECTOR-FPC/FFC/PIC
SLC500	3708-002278	CONNECTOR-FPC/FFC/PIC
SLC900	3708-002781	CONNECTOR-FPC/FFC/PIC
CD300	3709-001575	CONNECTOR-CARD EDGE
CN300	3709-001625	CONNECTOR-CARD EDGE
HDC400,HDC401,HDC402	3711-006615	HEADER-BOARD TO BOARD
HDC500	3711-006615	HEADER-BOARD TO BOARD
HDC501	3711-006923	HEADER-BOARD TO BOARD
HDC900	3711-006925	HEADER-BOARD TO BOARD
HDC300,HDC600	3711-007173	HEADER-BOARD TO BOARD
BTC700	3711-007494	CONNECTOR-HEADER
ANT100,ANT101,ANT200	3712-001373	CONNECTOR-TERMINAL
ANT201	3712-001373	CONNECTOR-TERMINAL

Design LOC	SEC CODE	Description
CON600,CON601	3712-001412	CONNECTOR-TERMINAL
SC101	GH70-07980A	ICT SHIELD-RF FRAME
R203,R431,R435	GH80-03320A	SOLDER-CREAM/SMT KOREA(FREE)
R906,R908,R922,R923	GH80-03321A	SOLDER-CREAM/DHDMR(FREE)
SC100	GH98-20254A	ASSY COVER-SHIELD GPS

7. Level 2 Repair

7-1. Disassembly and assembly Instructions

7-1-1. Disassembly

1 Disassemble the rear cover with the front cover by using the hook   	2 (Caution) Be careful Earjack damage  
Be careful not to scratch cover. Follow the numbered sequence when you disjoint	Be careful not to damage to EARJACK.
3 Detach 3 insulation tapes. Carefully release the screws at 14 different locations from the Front. (L1.4*2.5, Torque 1.1 ± 0.1 kgf.cm) 	4 Separate LCD FPCB, IF FPCB, Battery from the PBA. 
Be careful not to scratch cover and damage to FPC.	Be careful not to damage the FPCBs Be careful not to damage the wires

5

Separate Earjack SUS, Earjack, 3M camera, VGA camera, Light sensor from the PBA



6

Separate SPK L/R connectors, Key connector and GPS coaxial cable connector. Separate PBA from the Front.

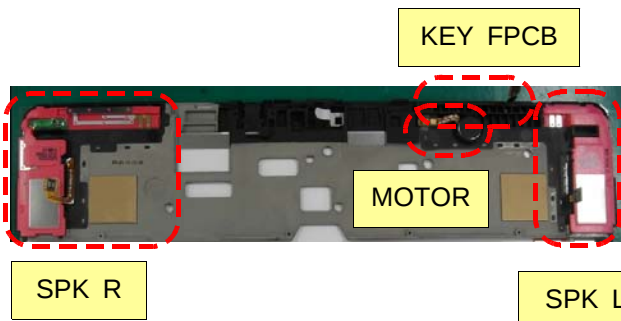


Be careful not to damage the FPCBs

Be careful not to scratch cover

7

Separate the SPK L/R, KEY FPCB, MOTOR from the Front.

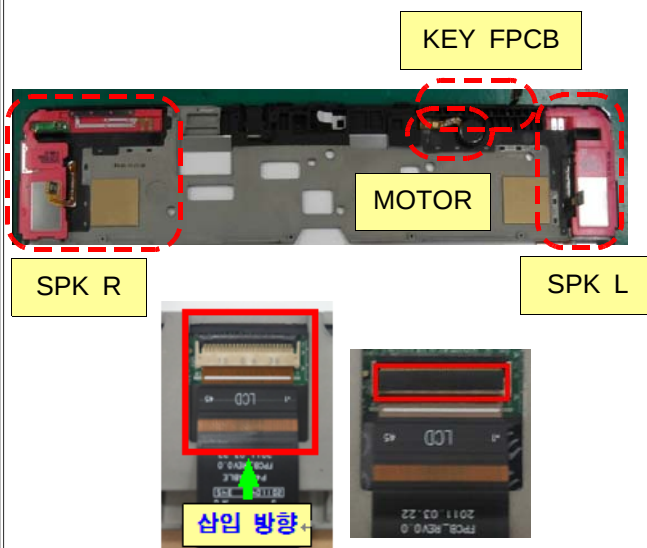


Be careful not to damage the FPCBs

7-1-2. assemble

1

Assemble KEY FPCB, MOTOR, SPK L/R
and LCD FPCB&rubber



Be careful not to damage the FPCBs

2

Put the PBA to Bracket ass'y then connect SPK
L/R, KEY FPCB.

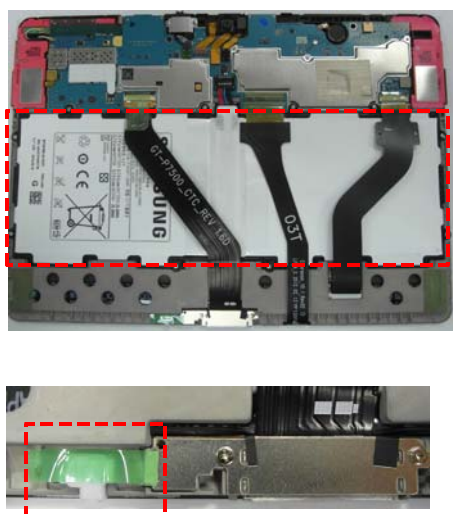
Assemble EAR JACK, EARJACK SUS, 3M/VGA
CAM and LIGHT SENSOR. and GPS Coaxial
cable



Be careful not to damage the FPCBs

3

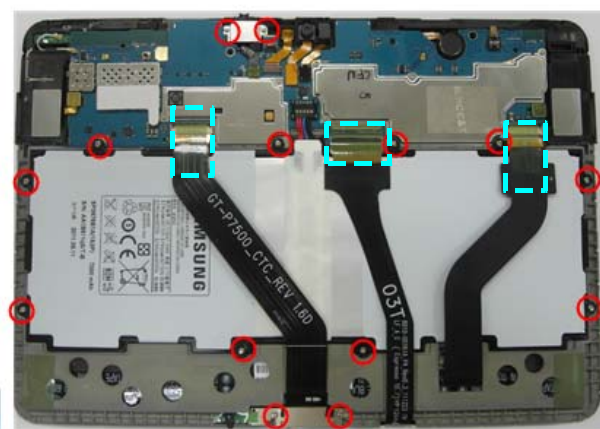
Assemble the Battery and IF FPCB.
MIC RUBBER and attach INSU TAPE.



Be careful not to damage the FPCBs

4

Attach 3 INSU TAPES to connector.
Screw 14 points.



Be careful not to damage the FPCBs

5

Assemble the REAR CASE.



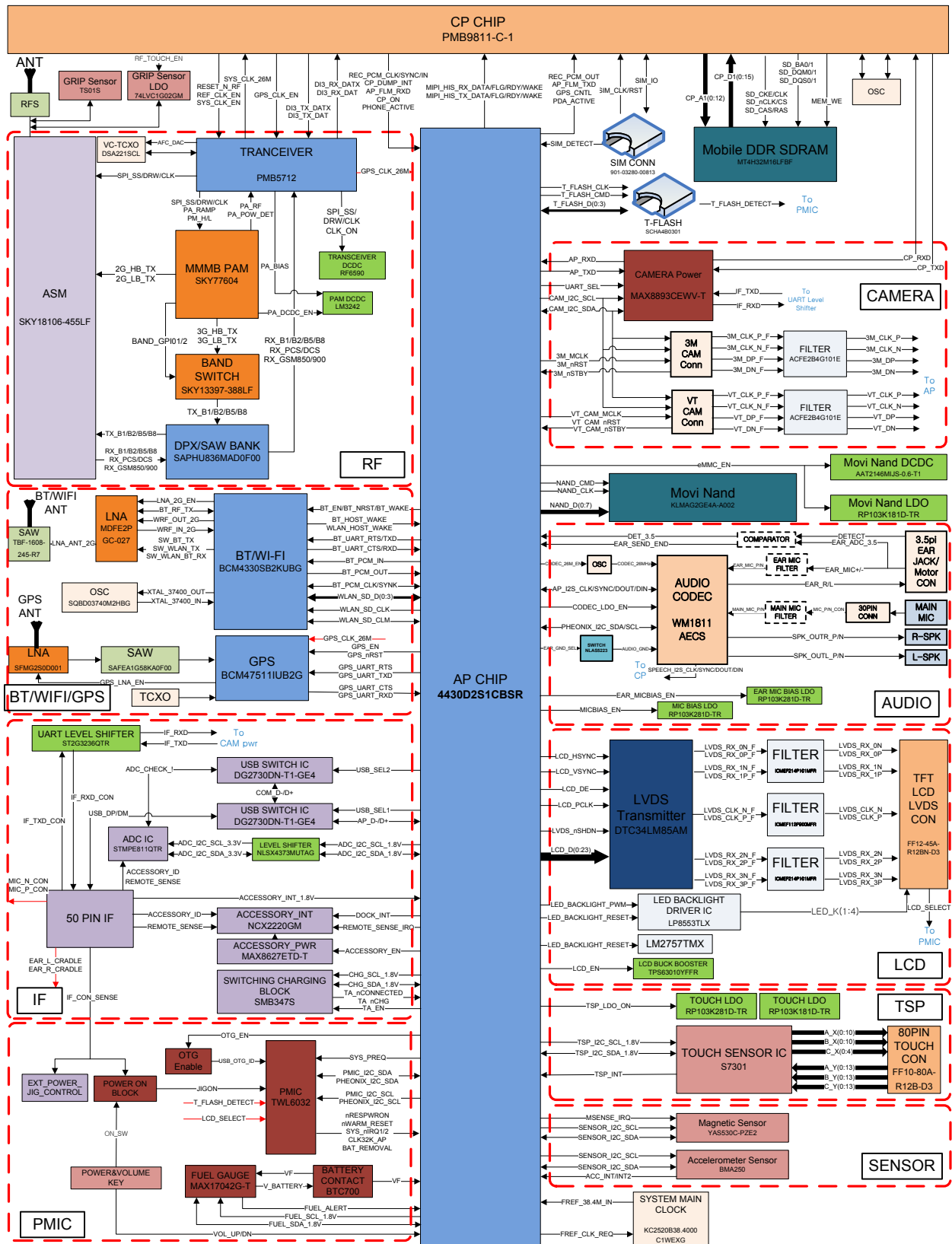
**check the
EARJACK
position.**



Be careful not to damage the CASE.

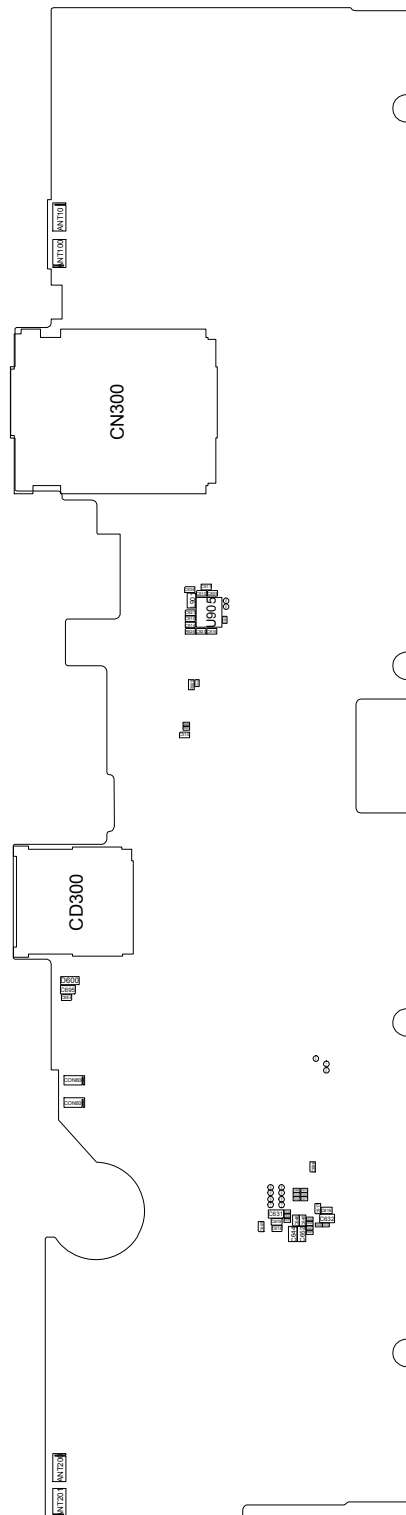
8. Level 3 Repair

8-1. Block Diagram

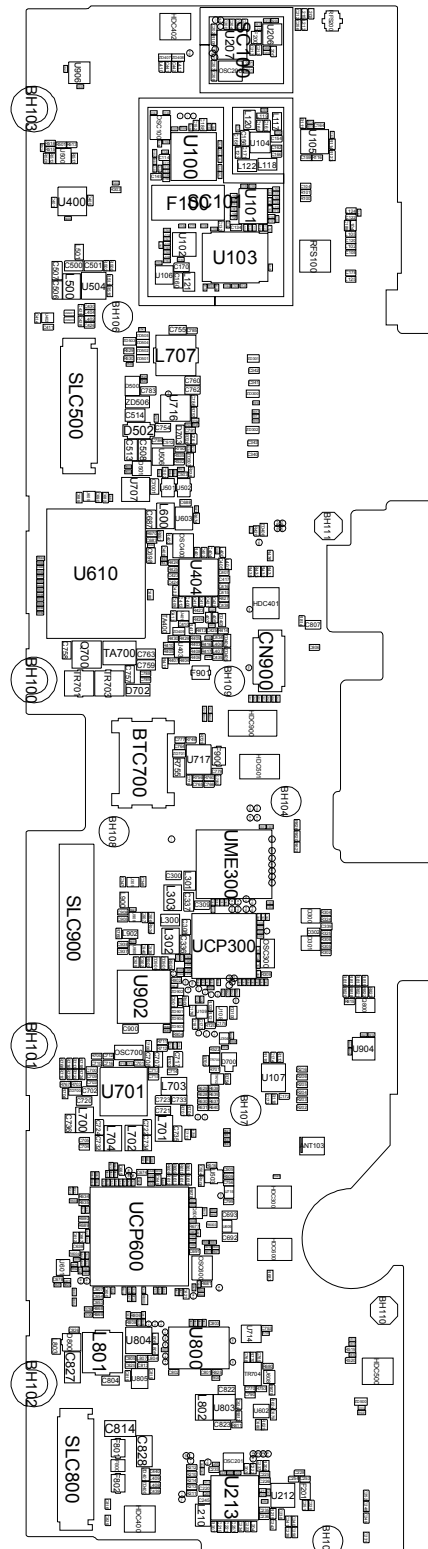


8-2. PCB Diagrams

8-2-1. Top

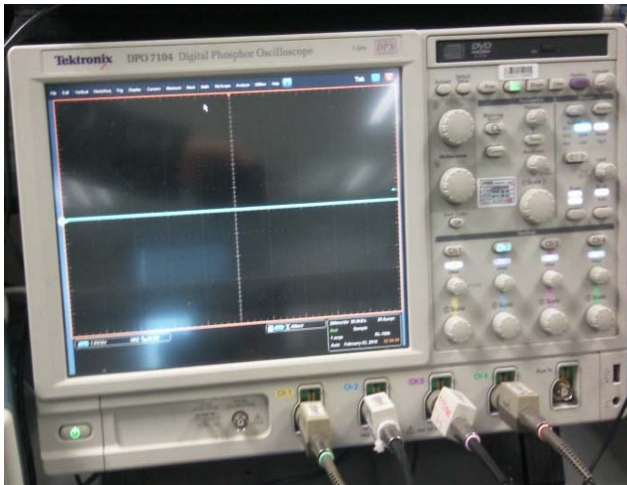


8-2-2. Bottom



8-3. Flow Chart of Troubleshooting

Equipments



↑ Oscilloscope



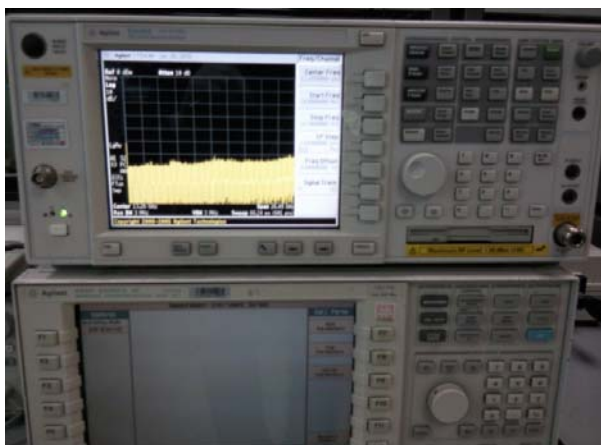
↑ Digital Multimeter



↑ Power Supply



↑ + driver, ESD Safe Tweezer

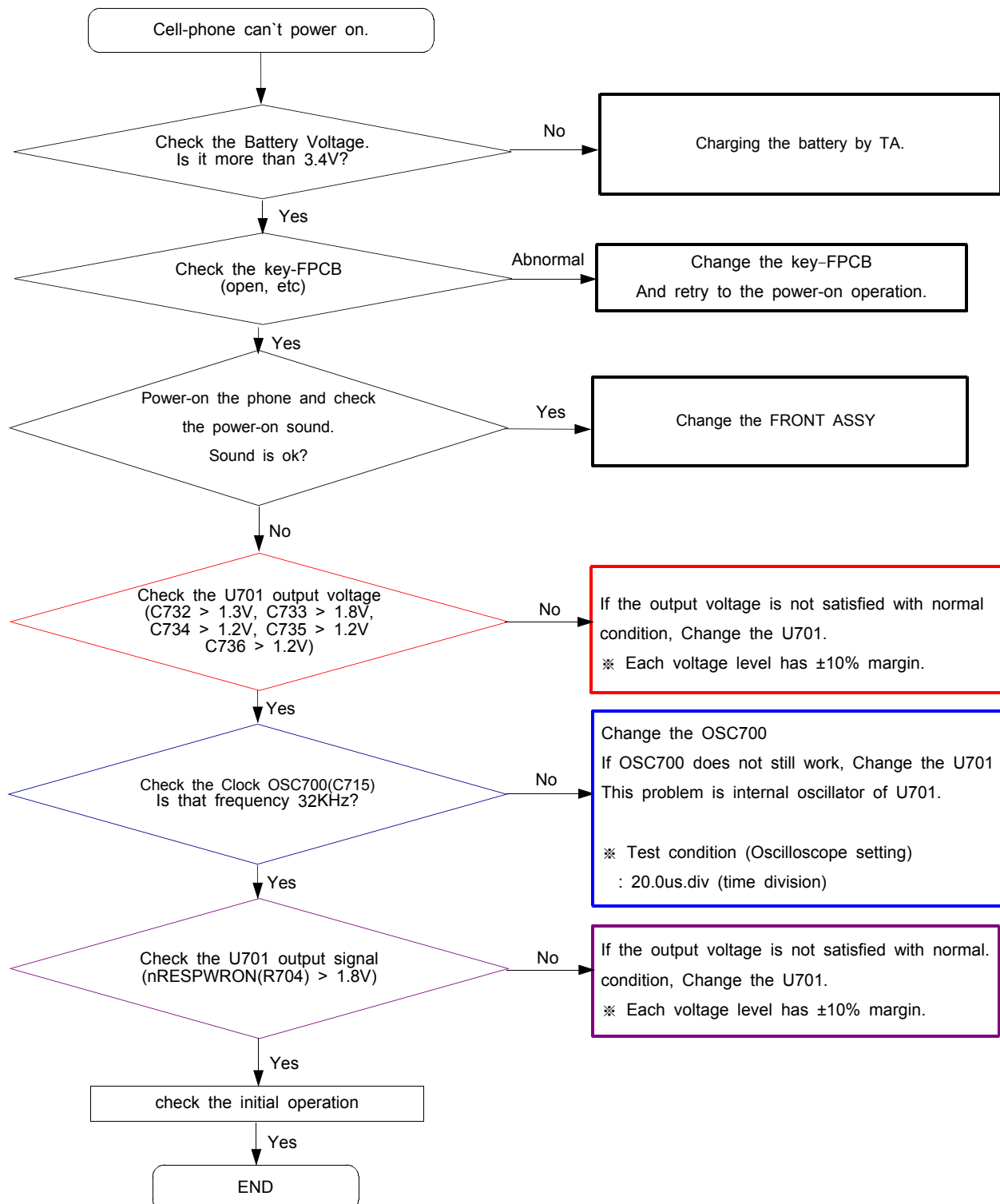


↑ 8960 & Spectrum Analyzer

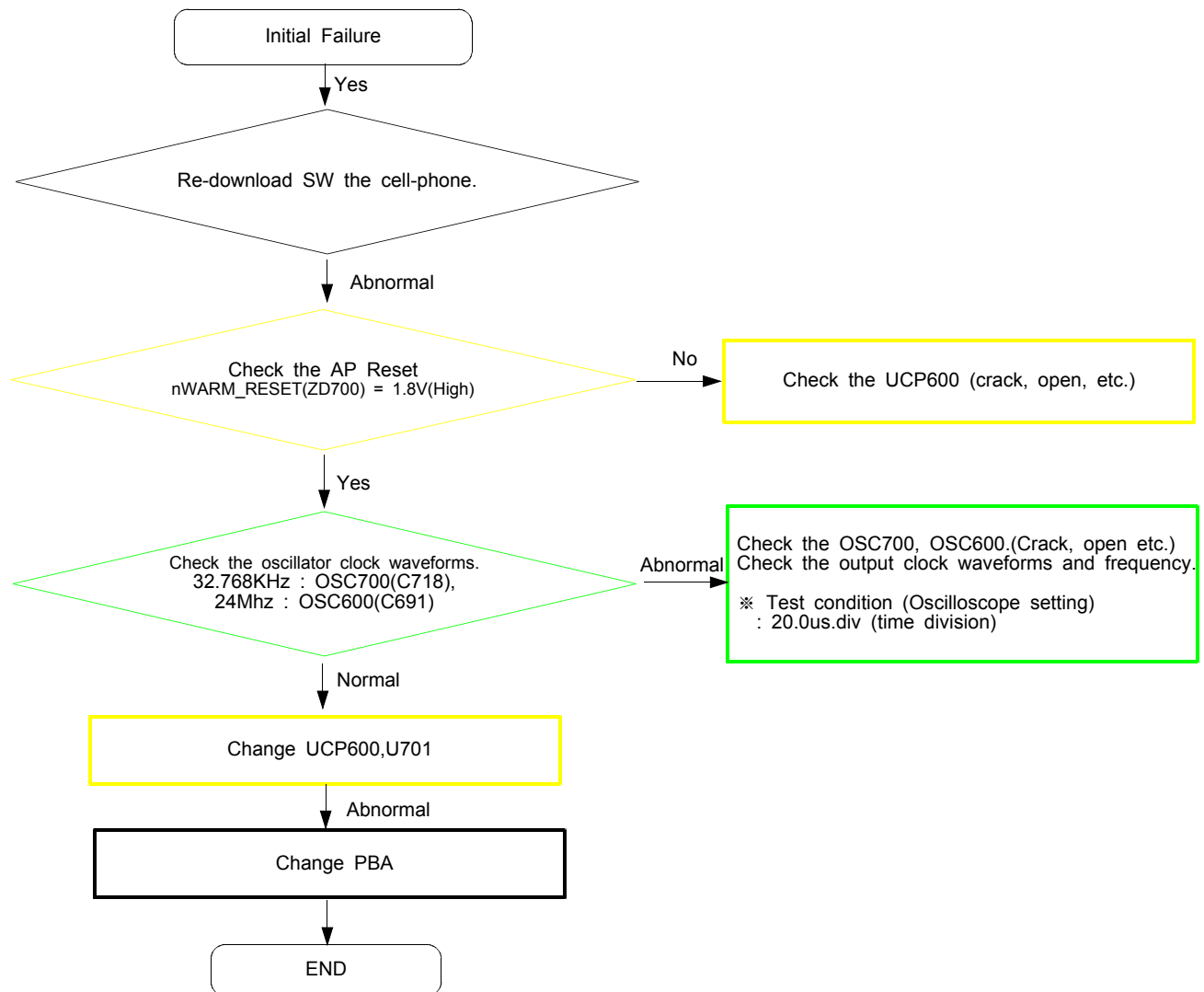


↑ Soldering iron

8-3-1. Power On

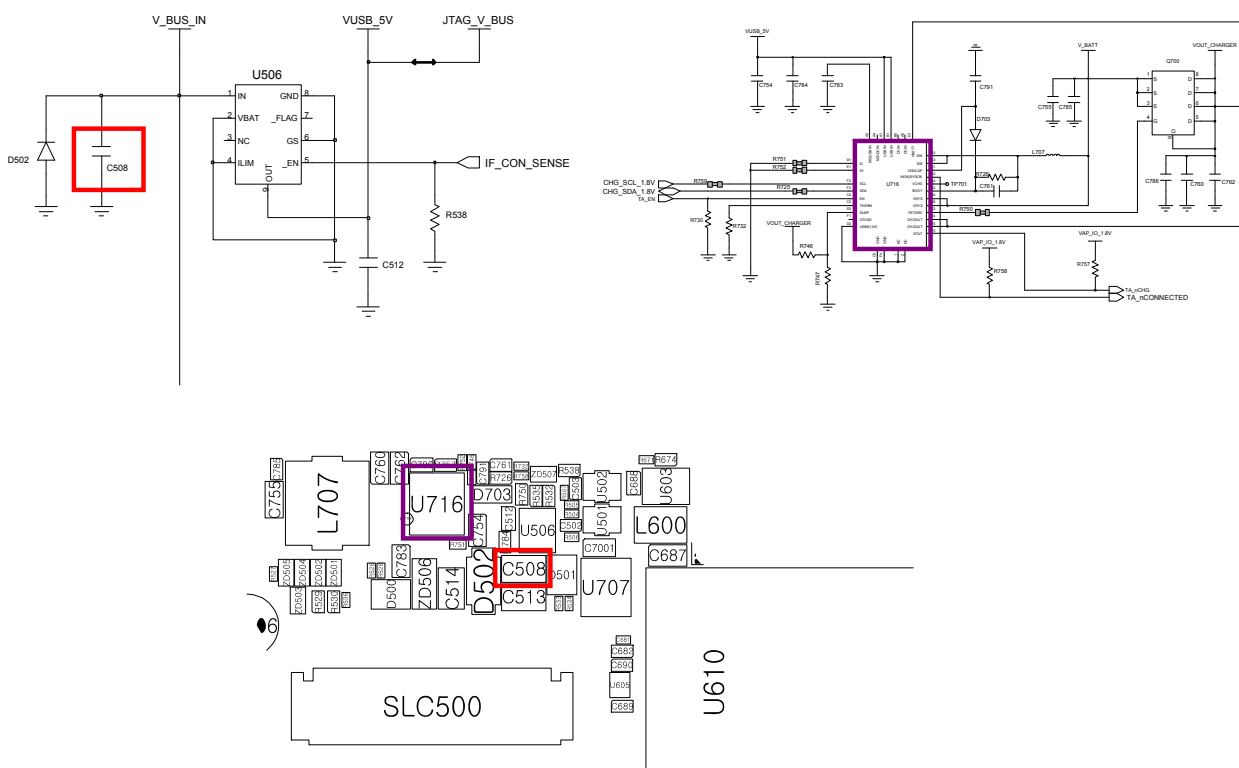
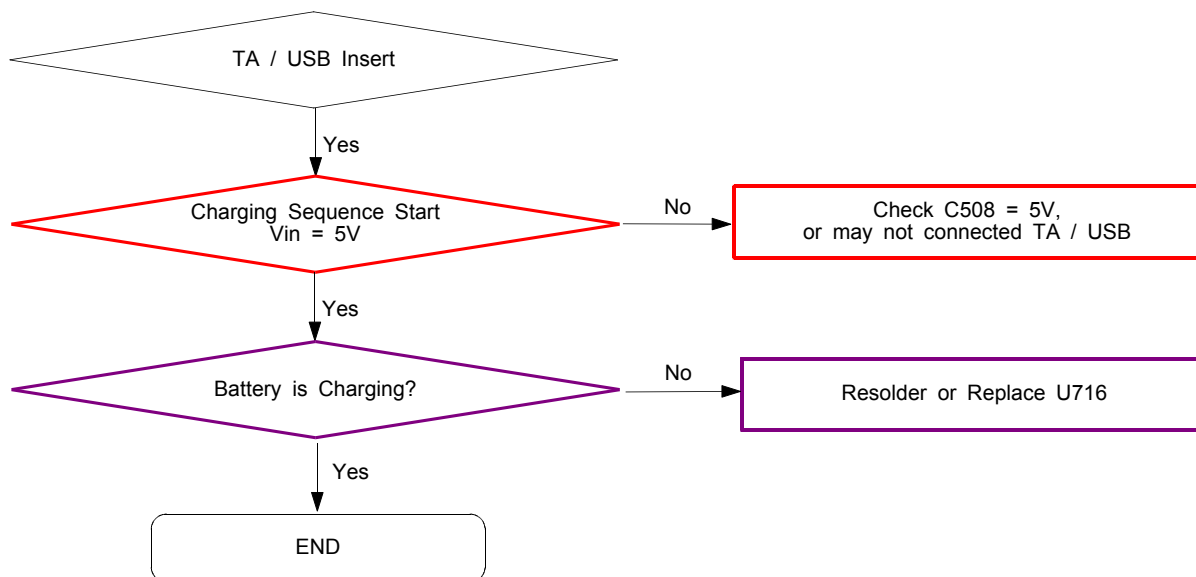


8-3-2. Initial

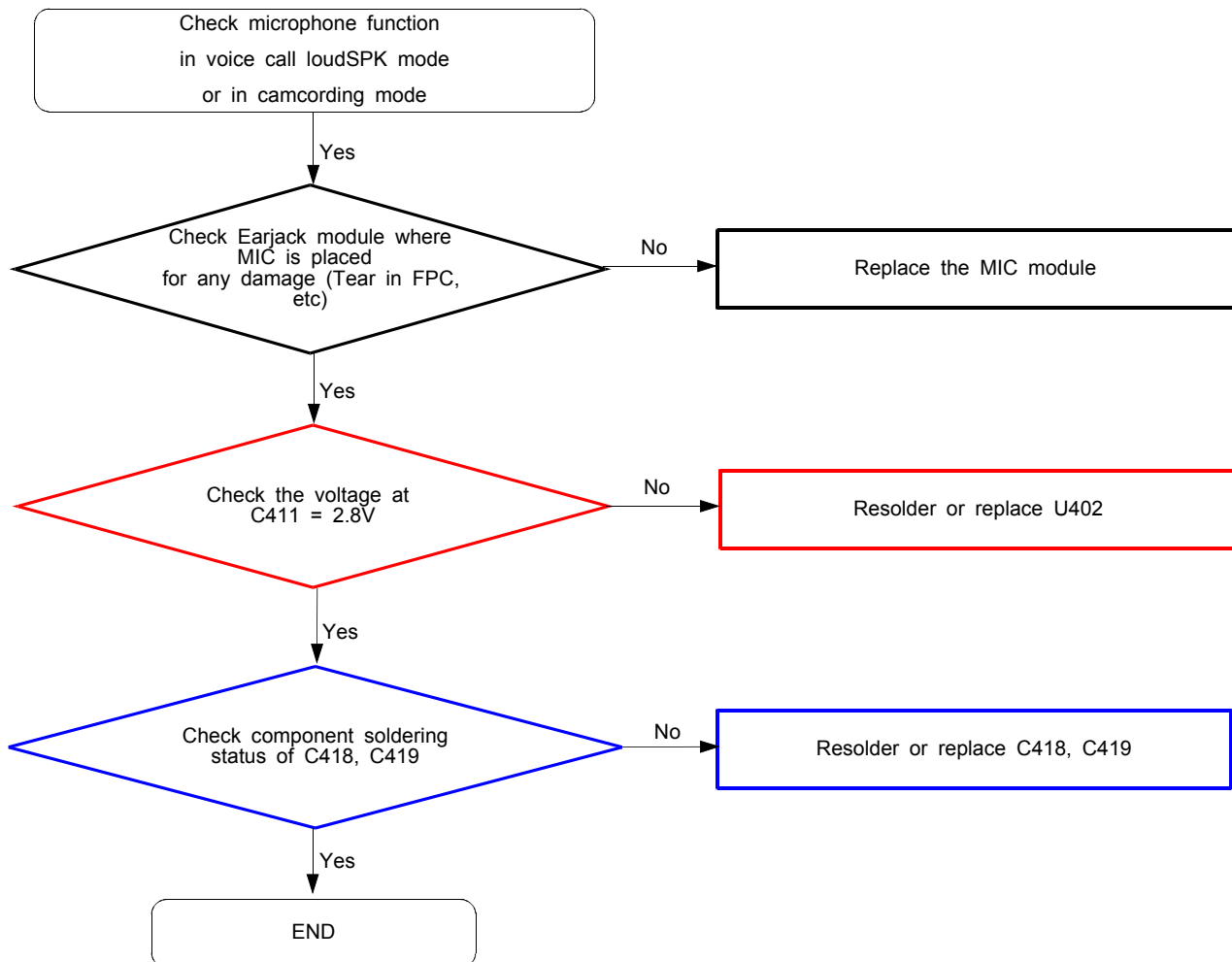


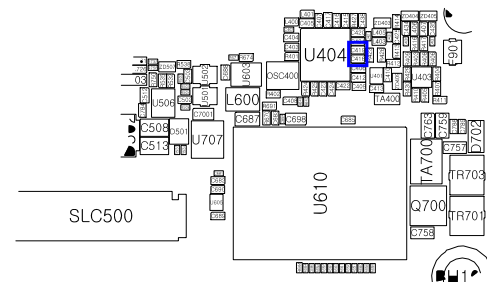
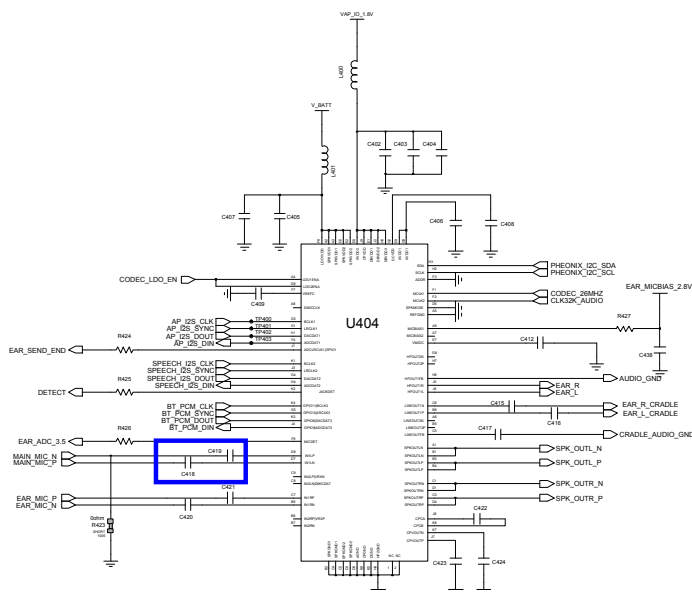
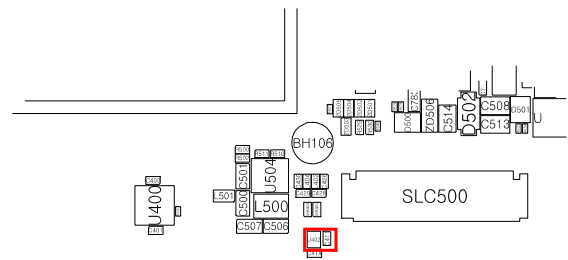
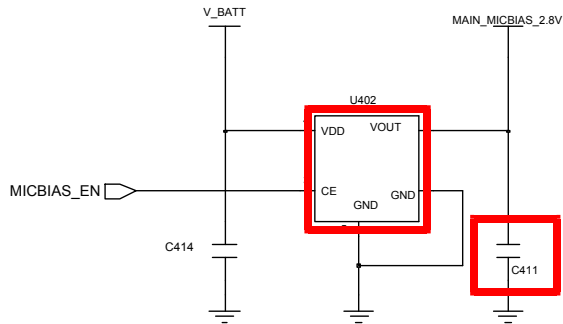


8-3-3. Charging Part

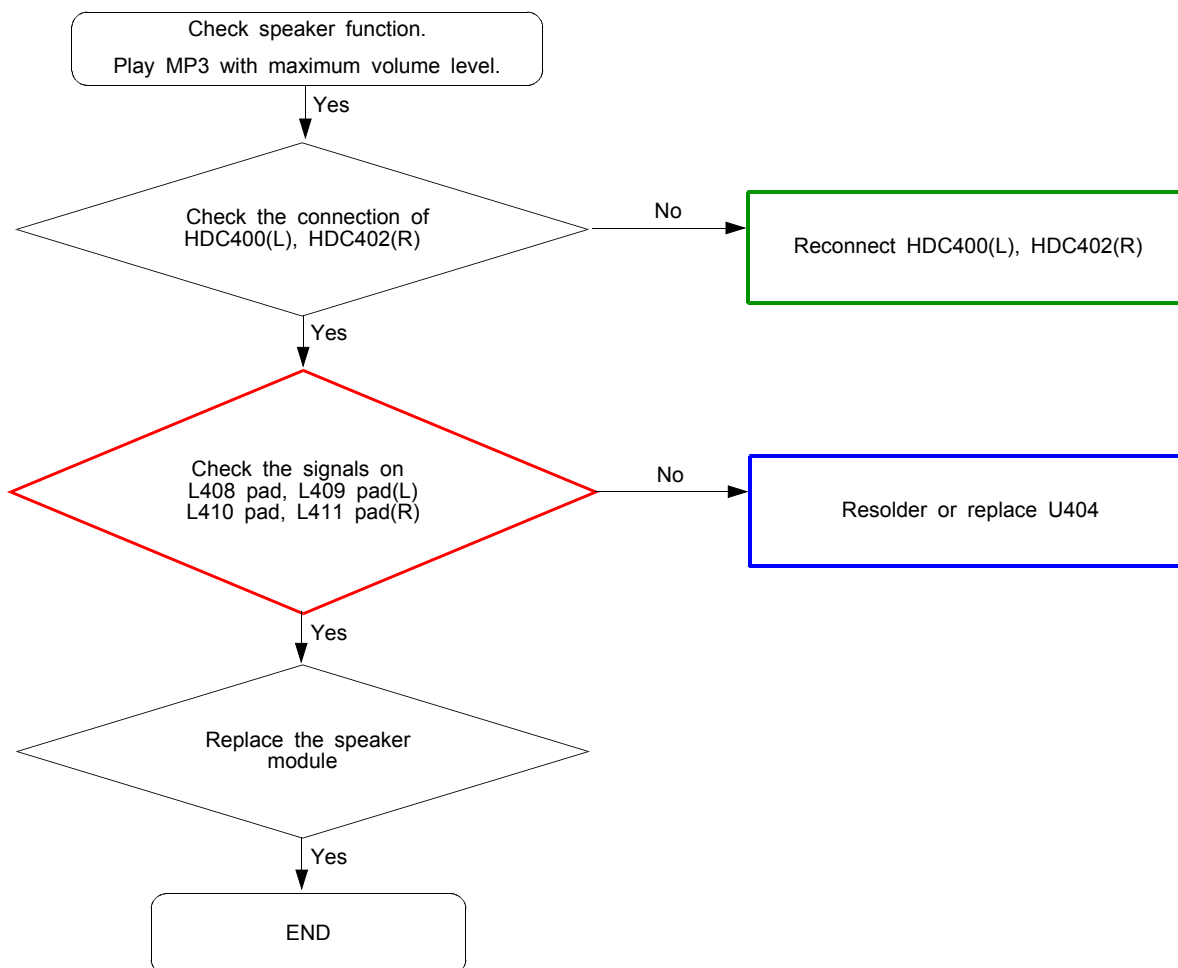


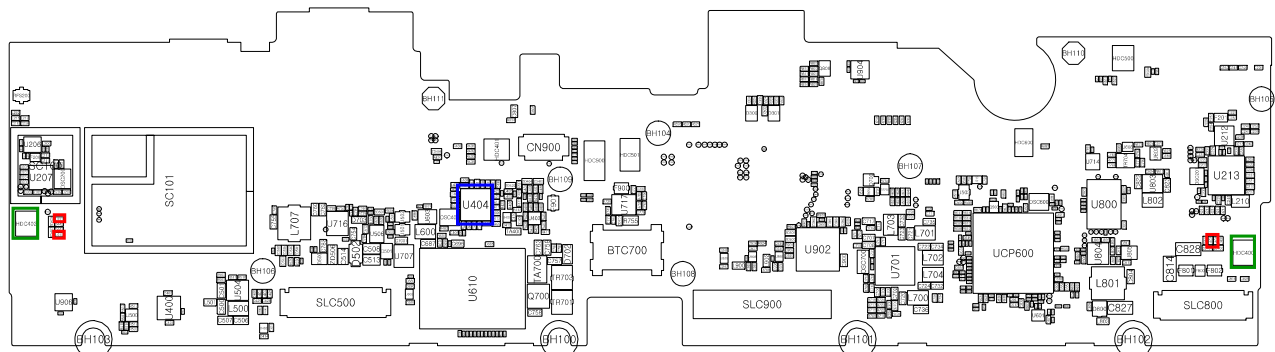
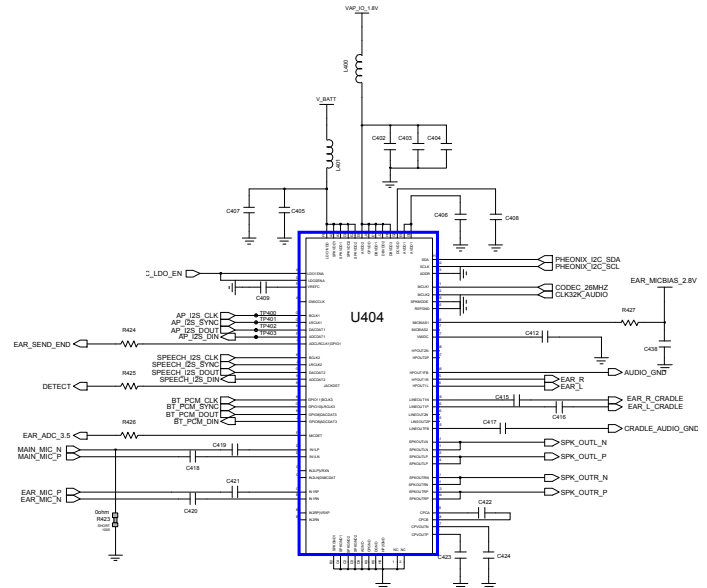
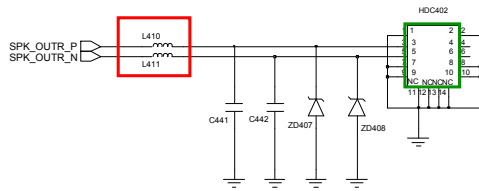
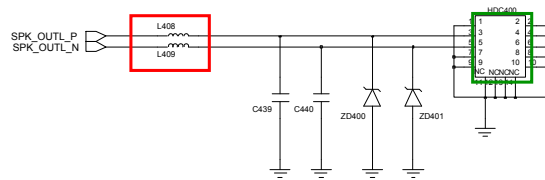
8-3-4. Microphone Part



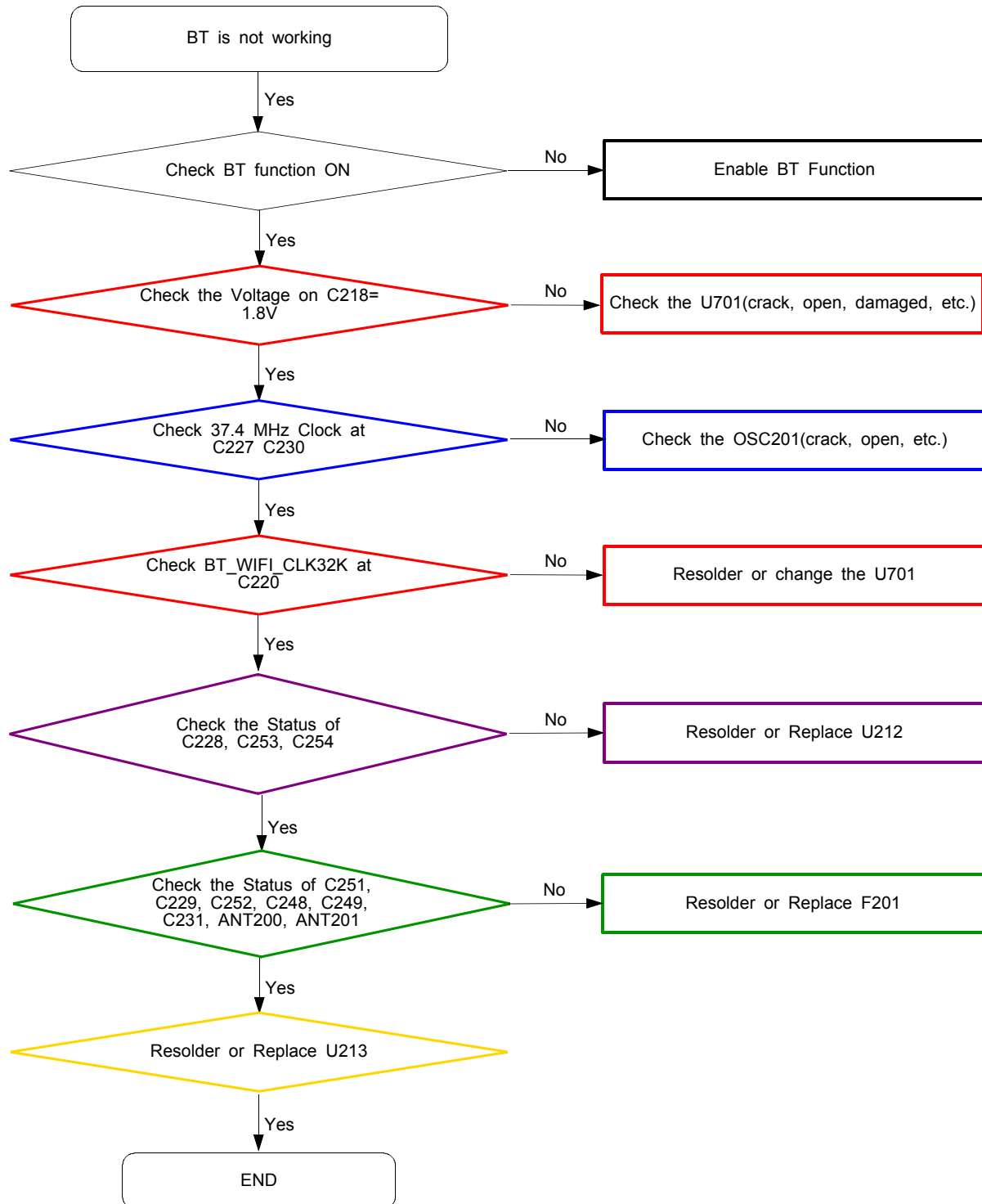


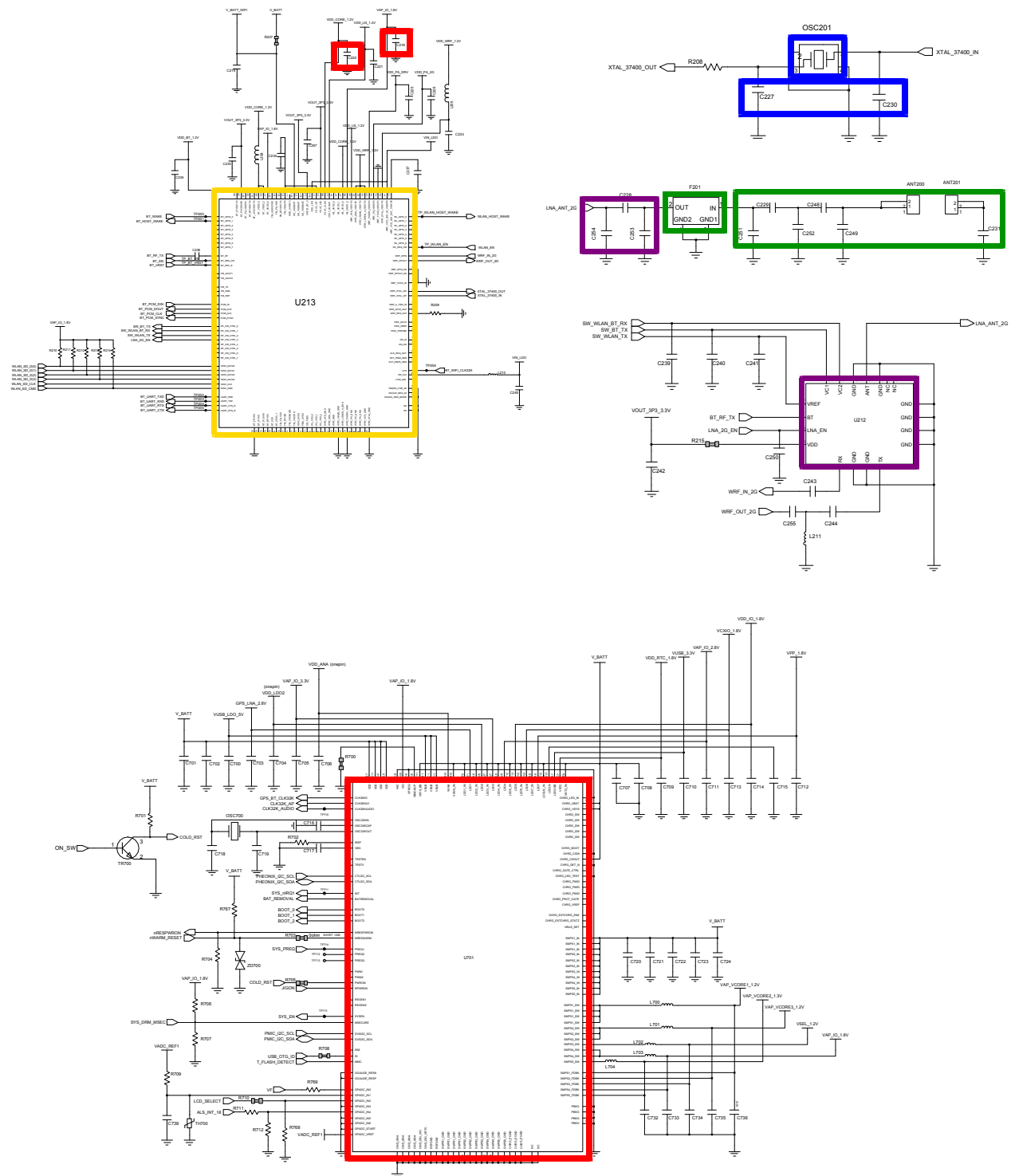
8-3-5. Speaker Part

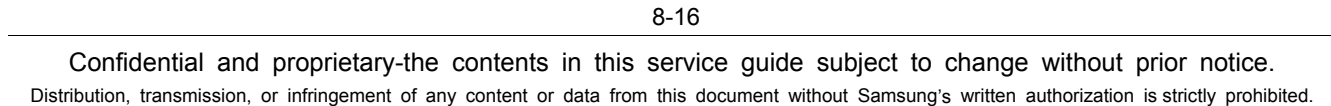




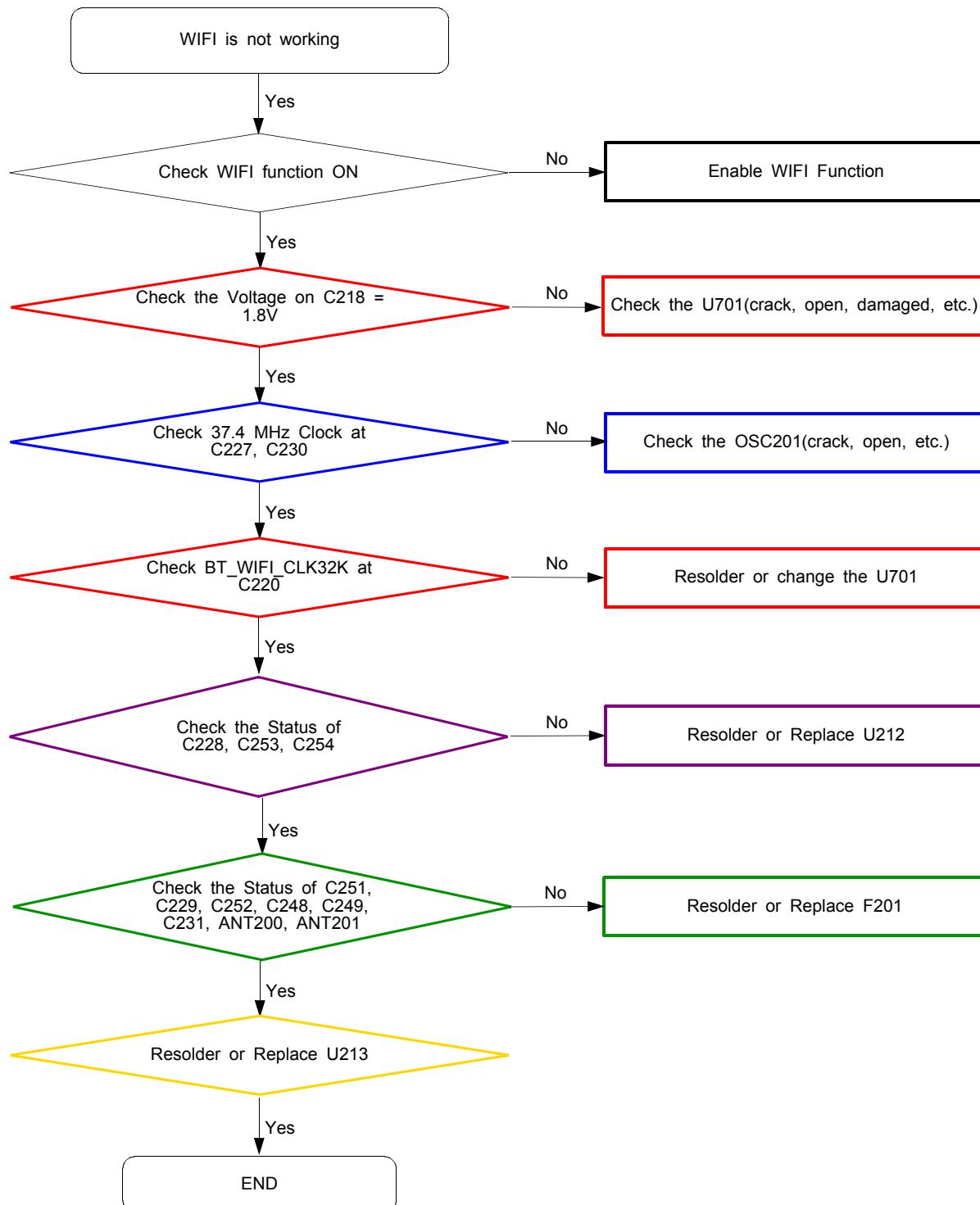
8-3-6. BT Part

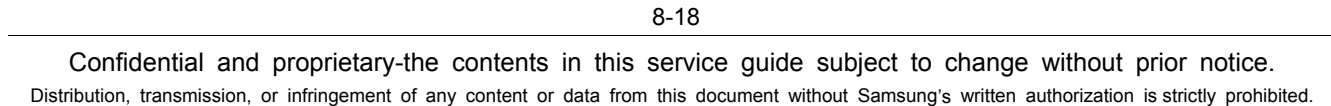


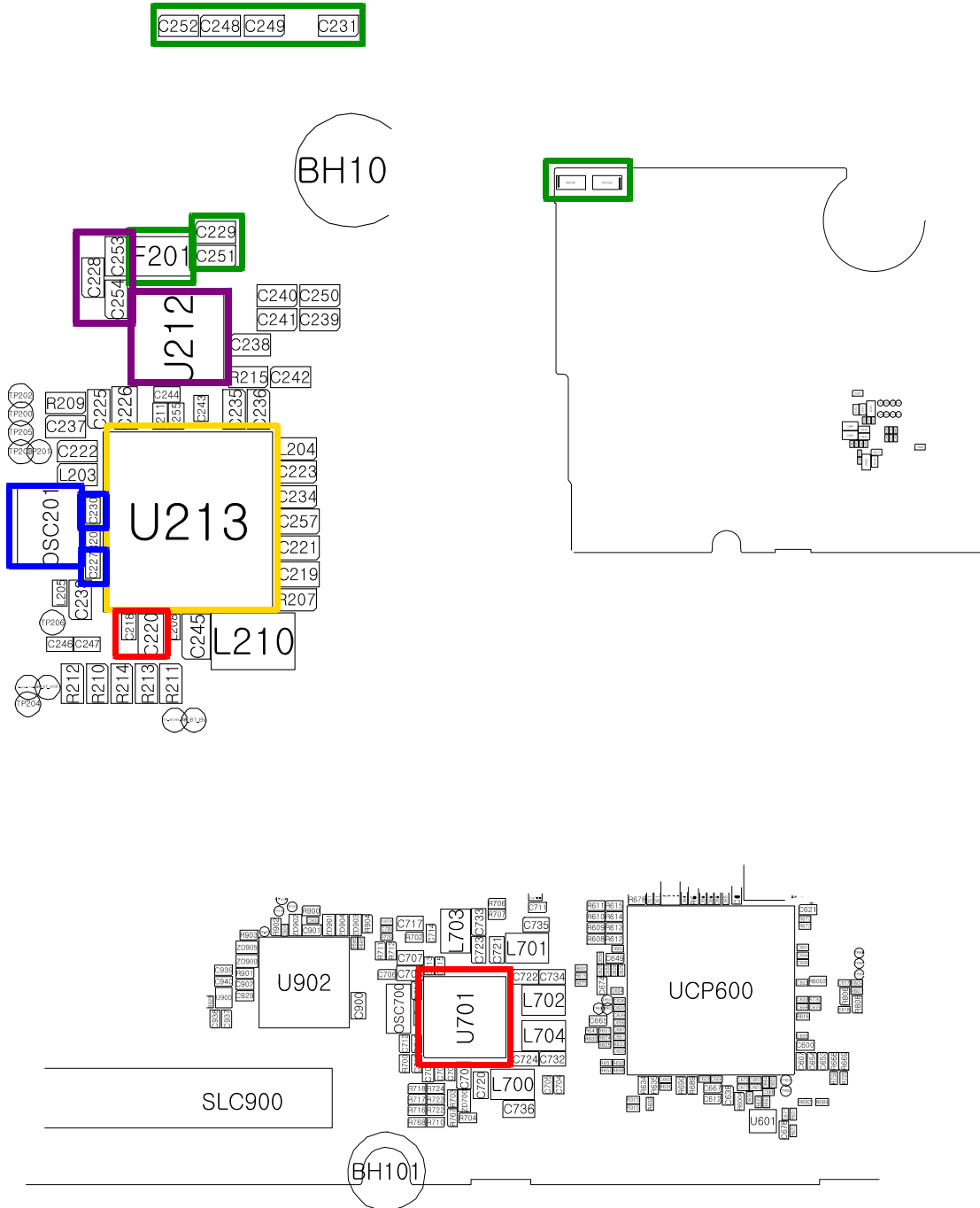




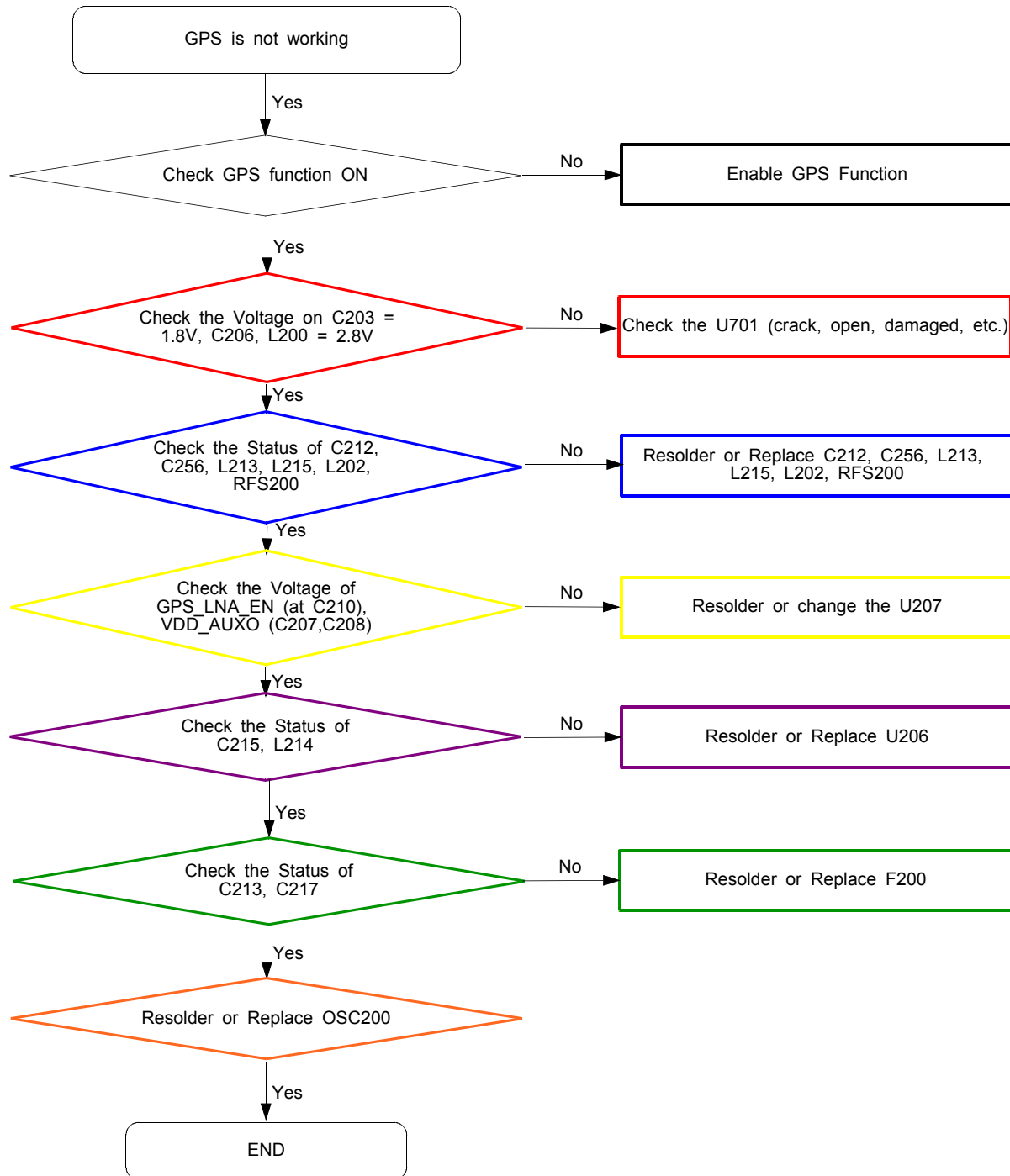
8-3-7. WIFI

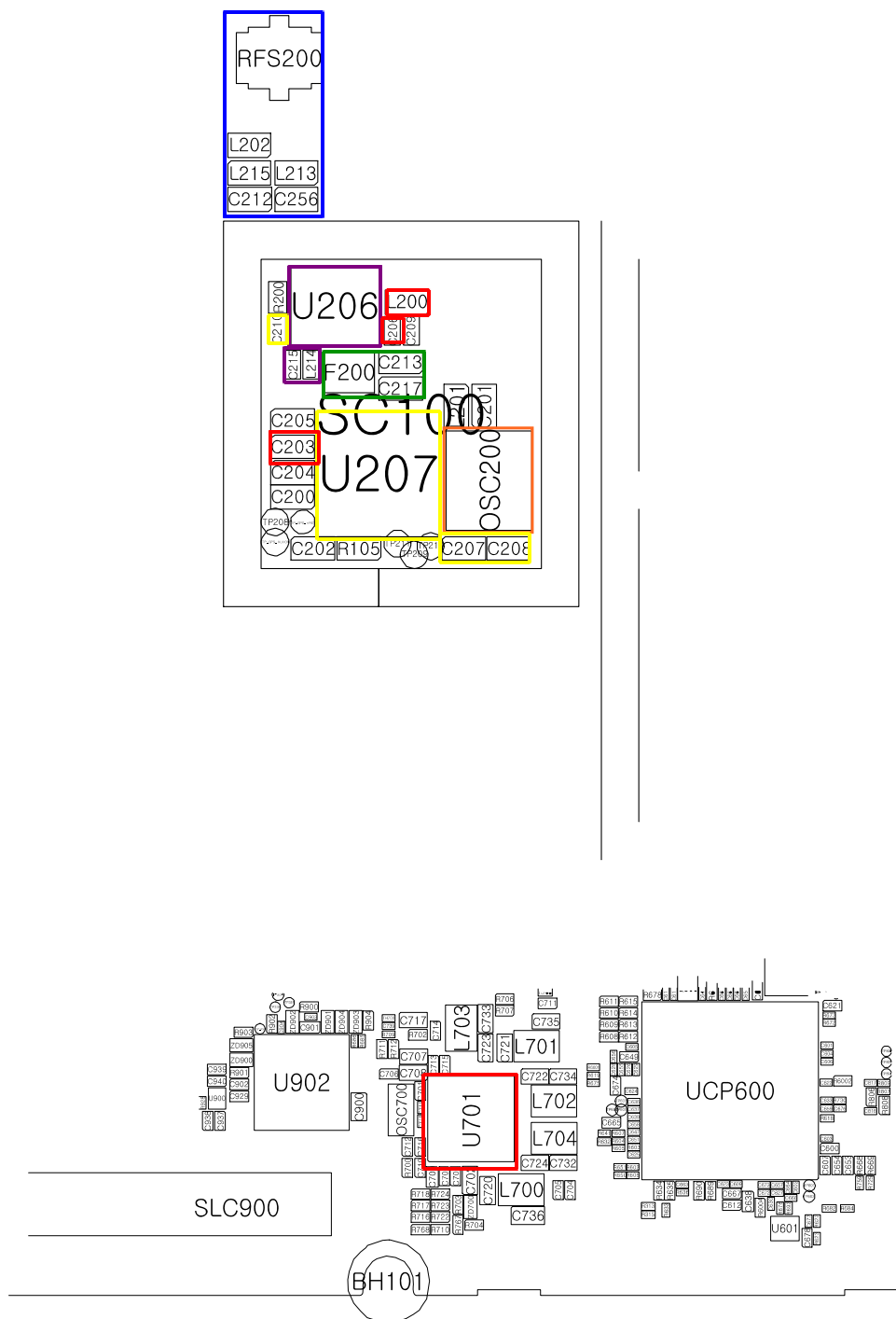




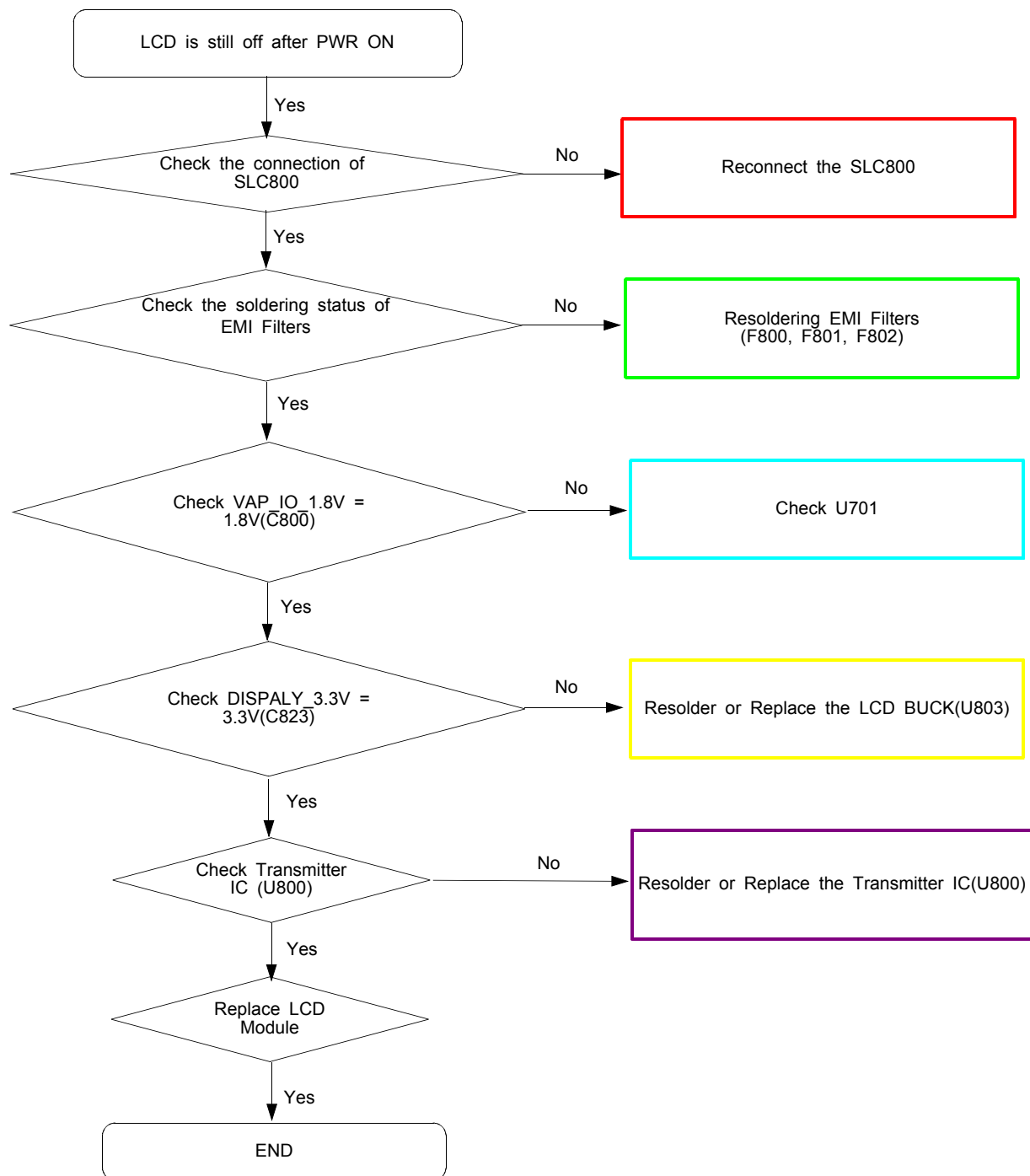


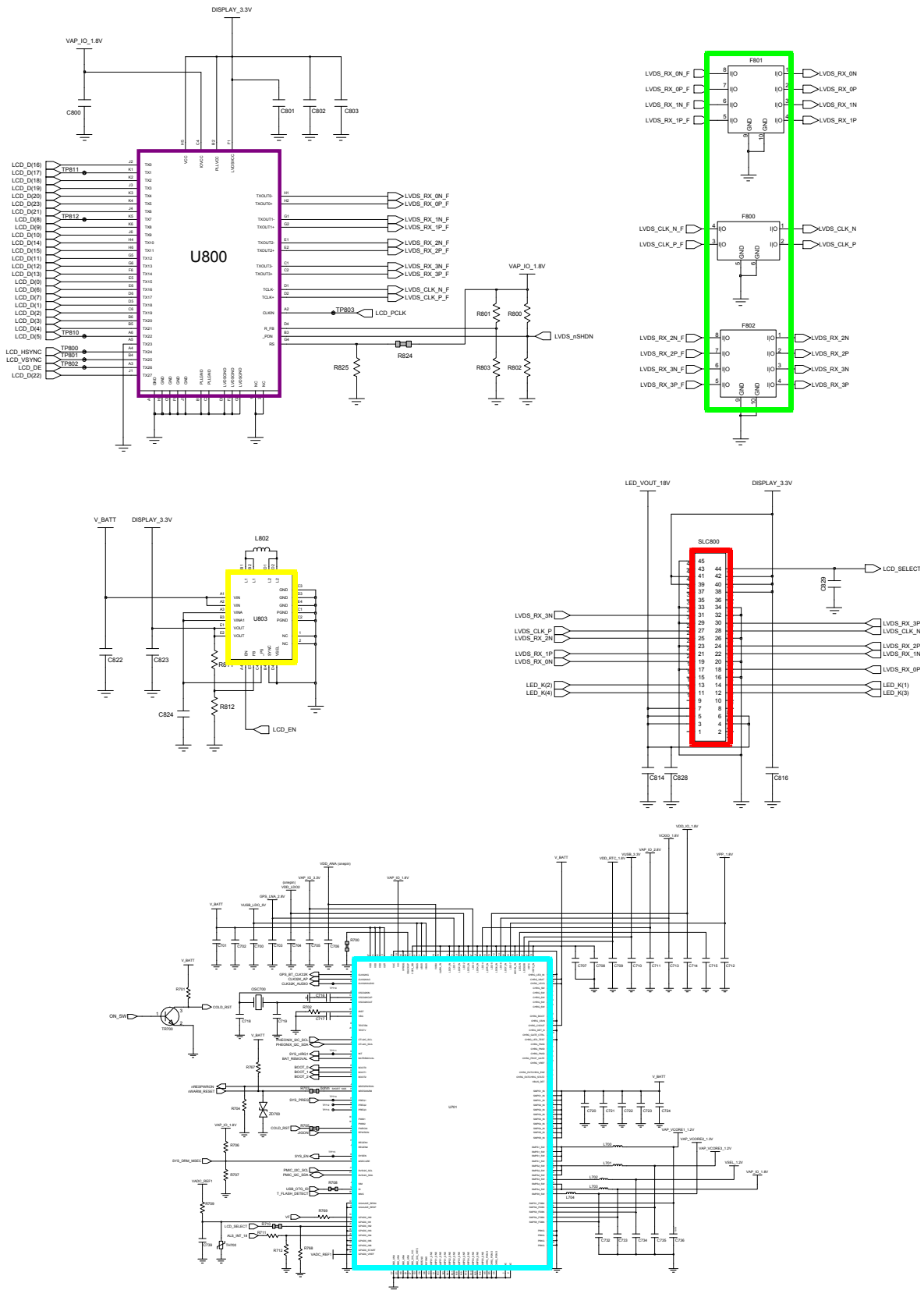
8-3-8. GPS

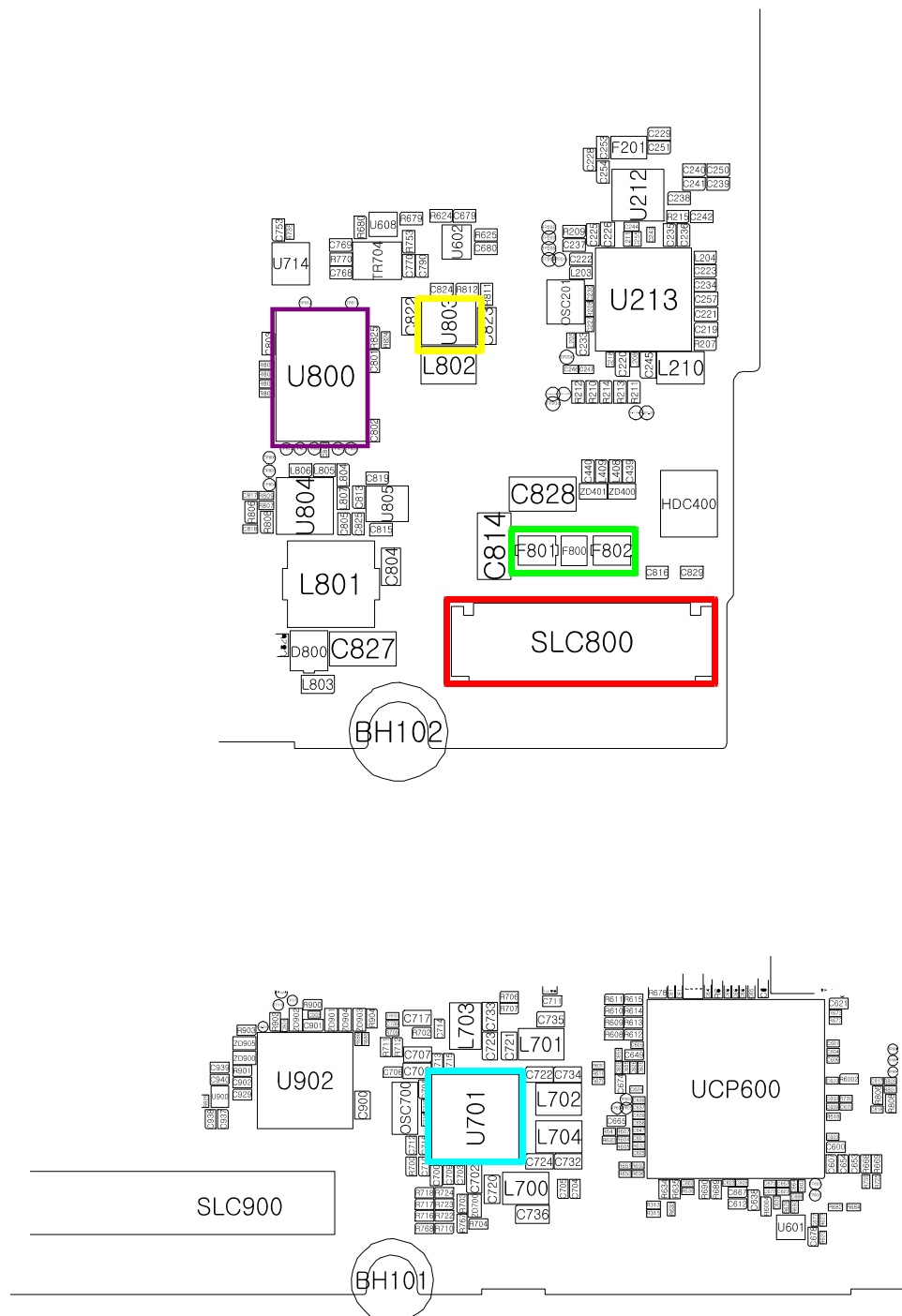




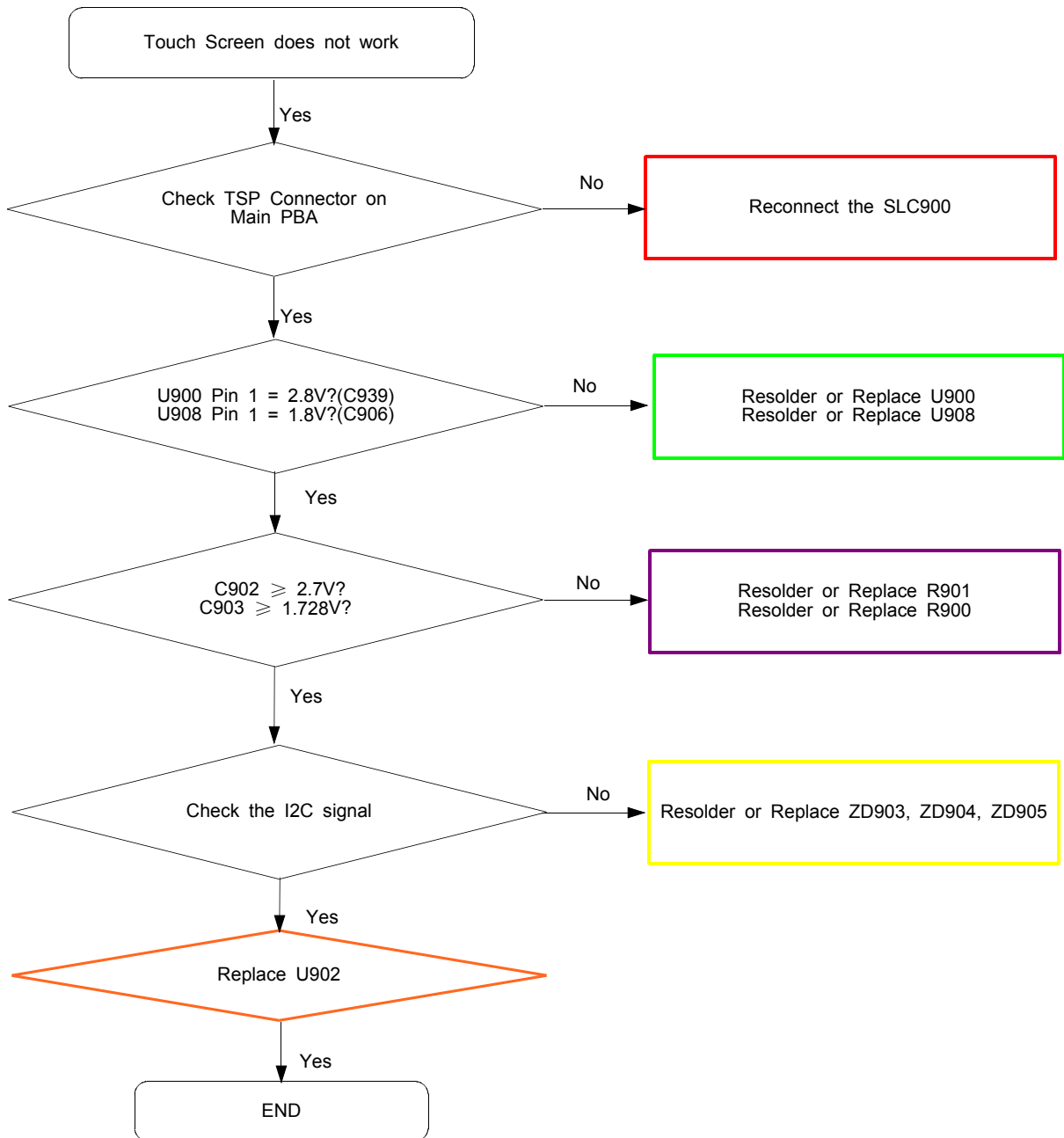
8-3-9. LCD

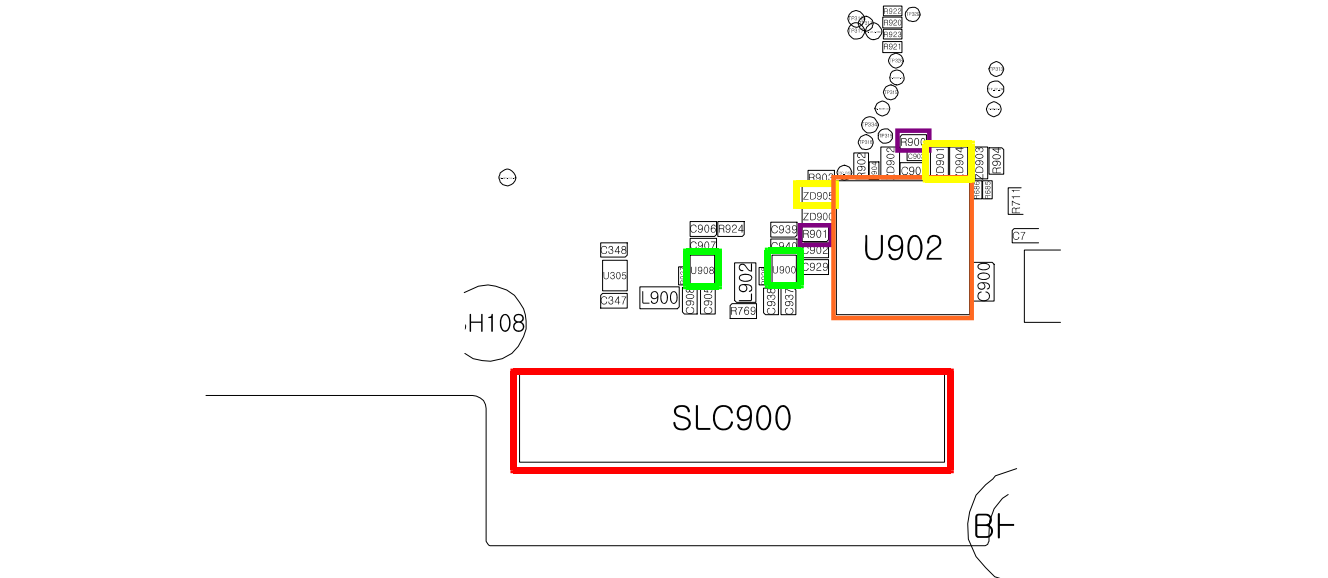




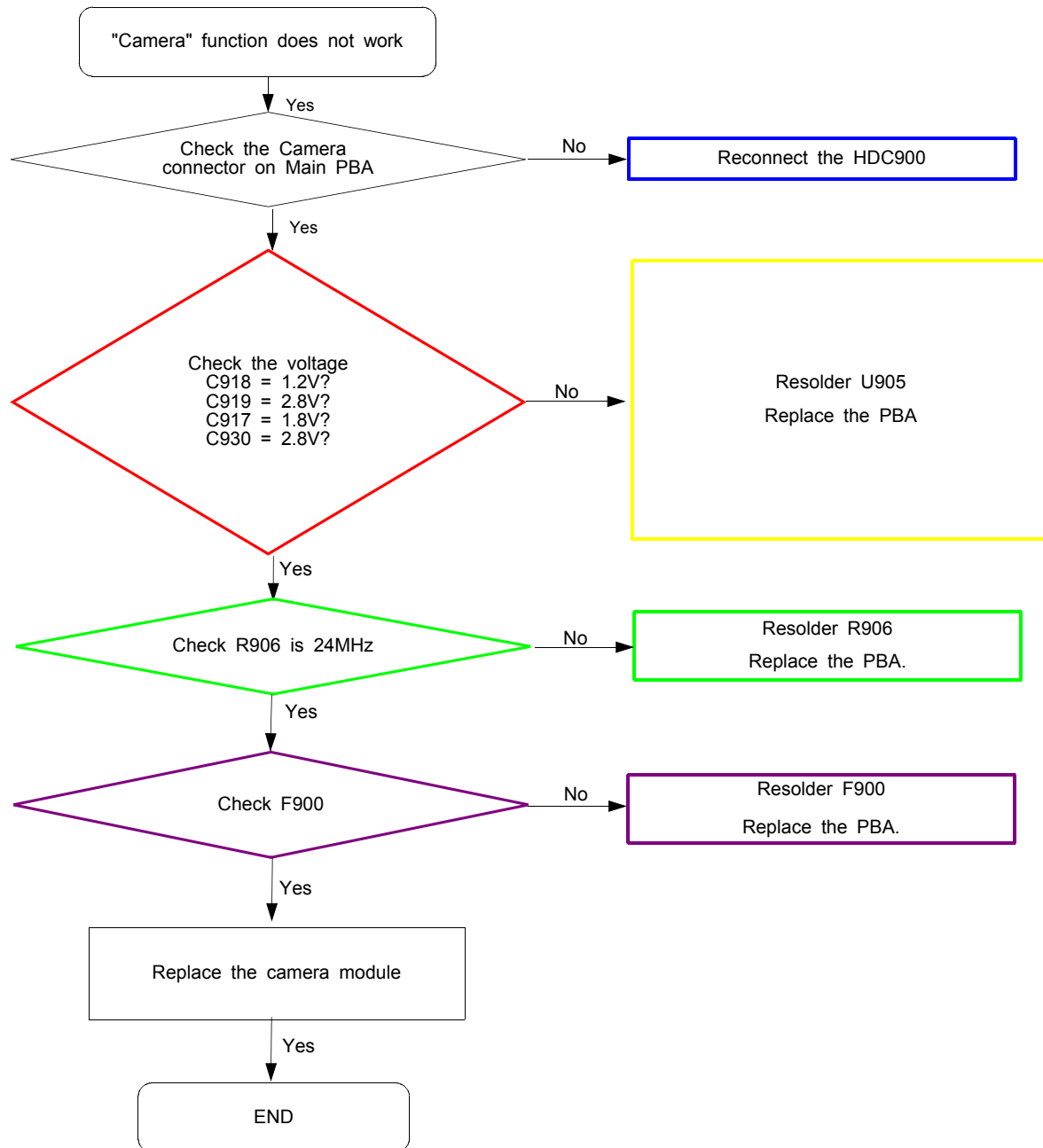


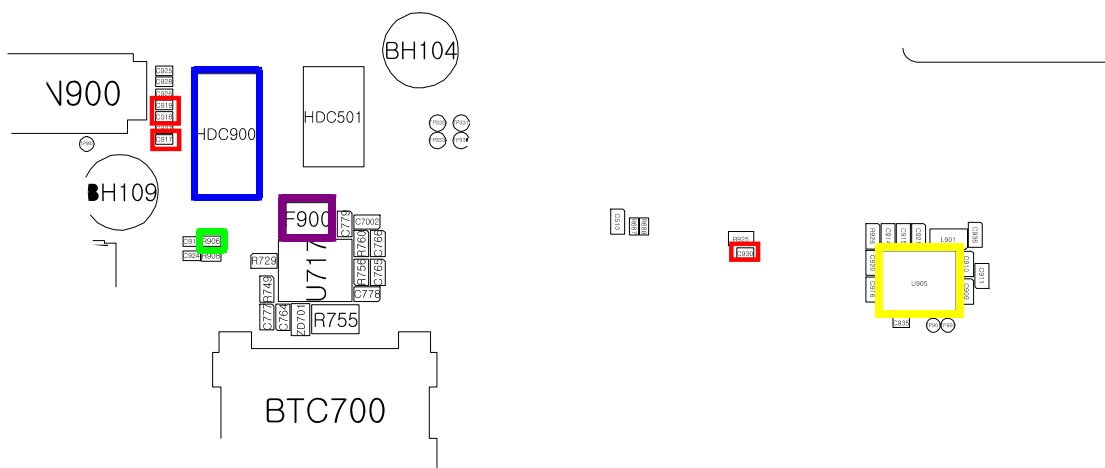
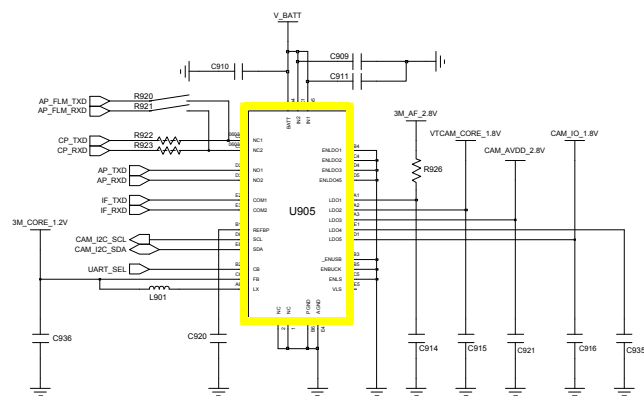
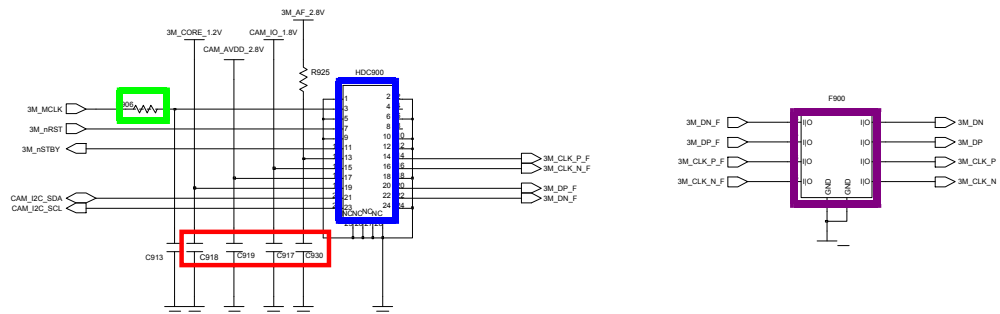
8-3-10. TSP



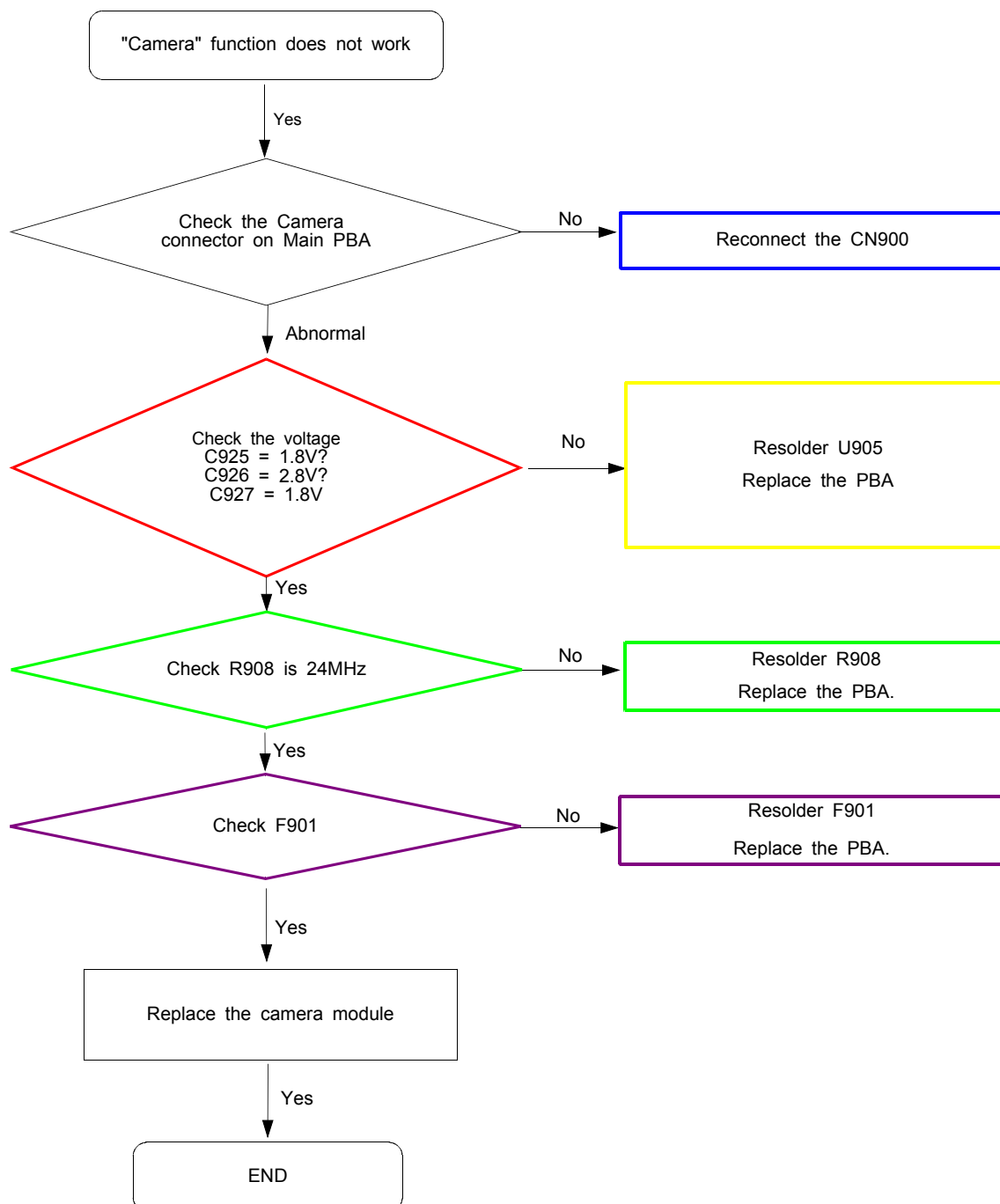


8-3-11. 3M CAM

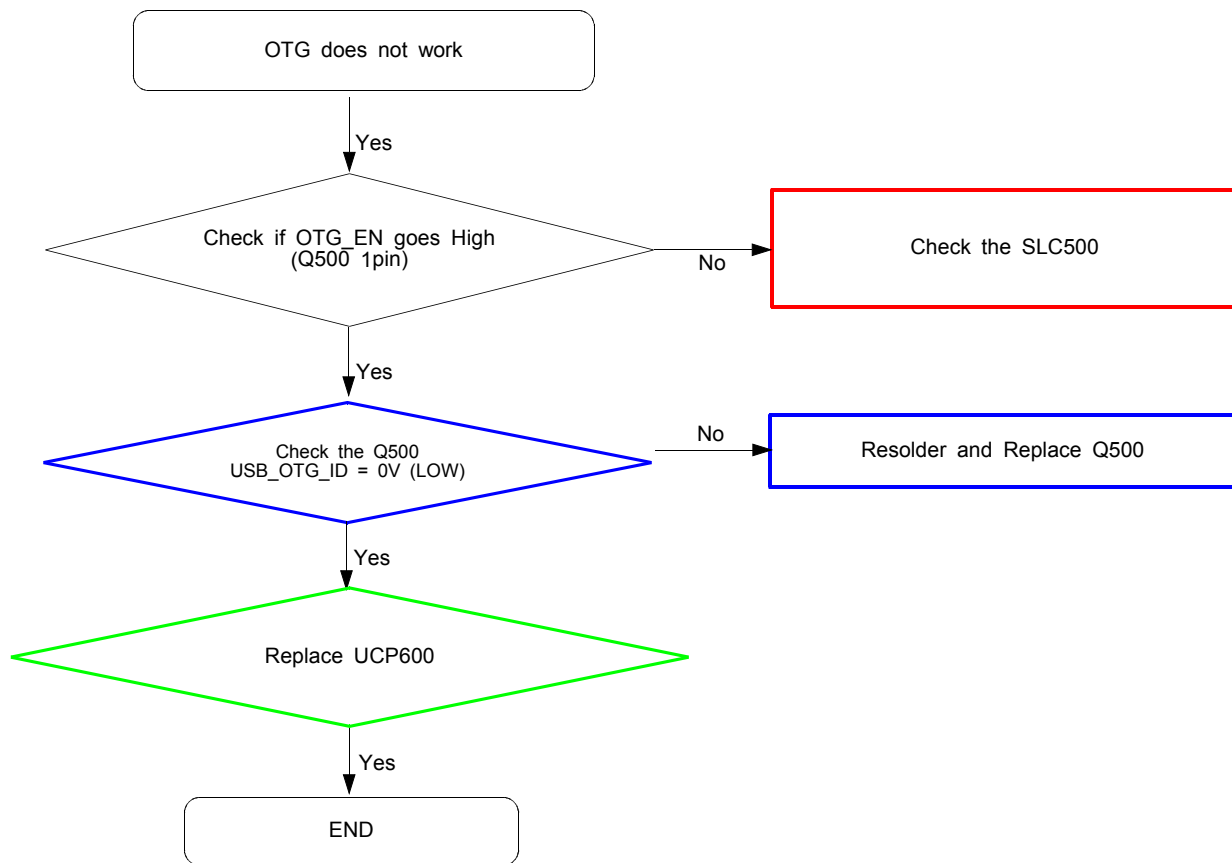


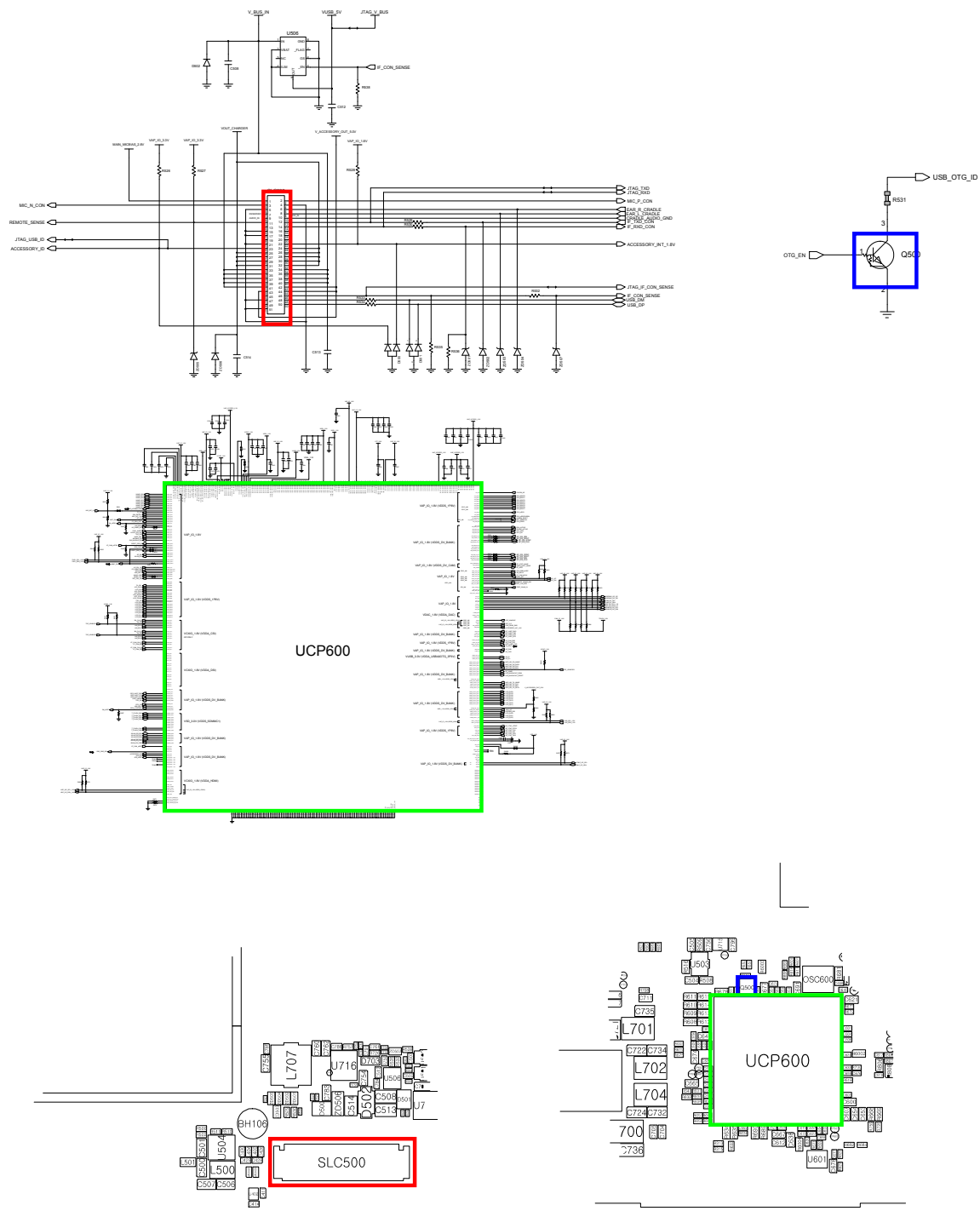


8-3-12. VGA CAM

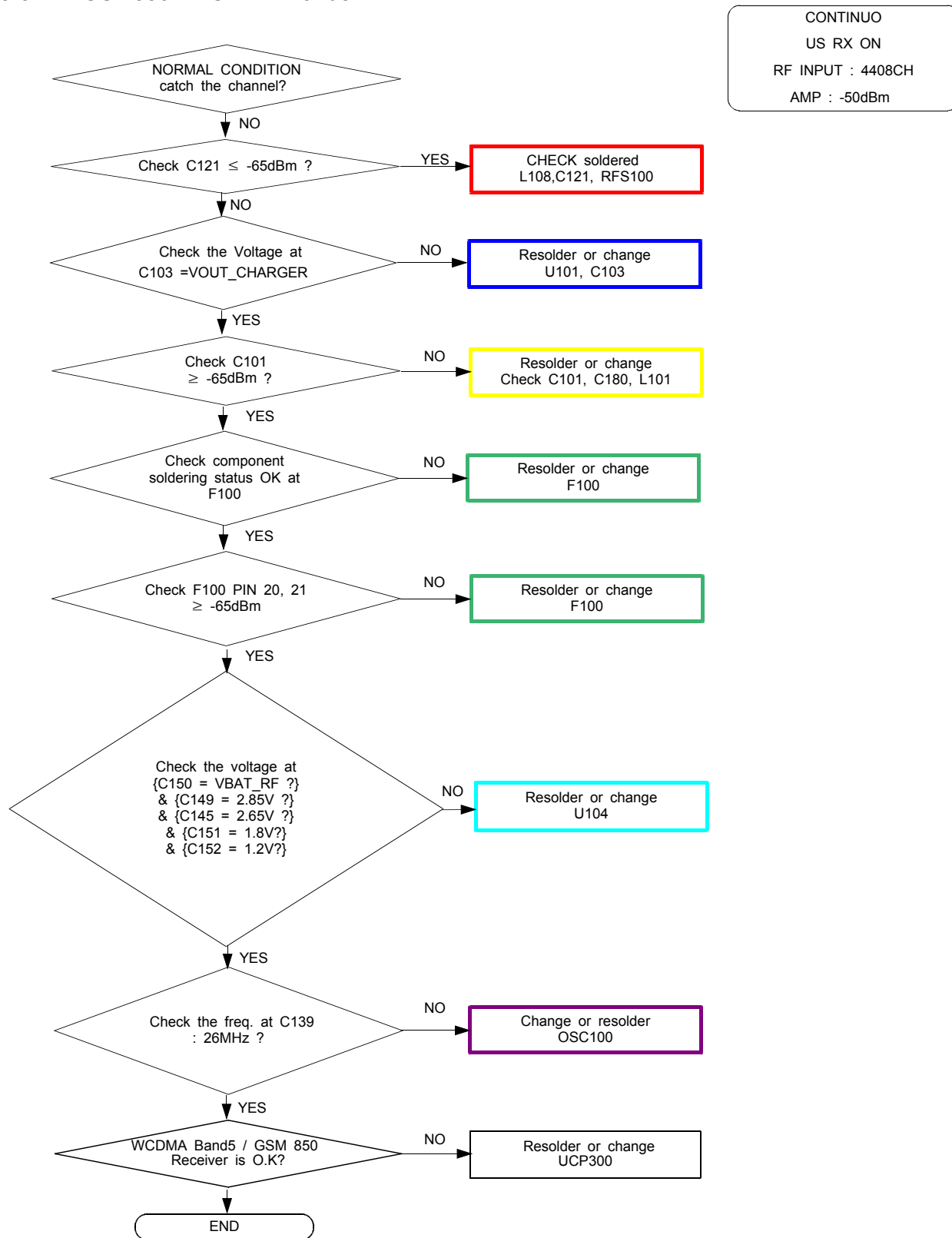


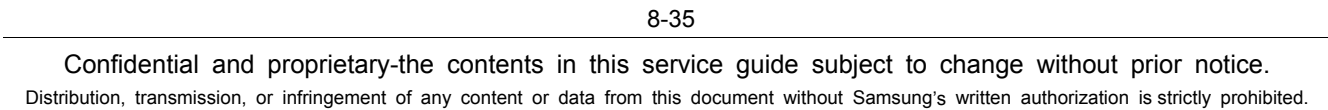
8-3-13. OTG

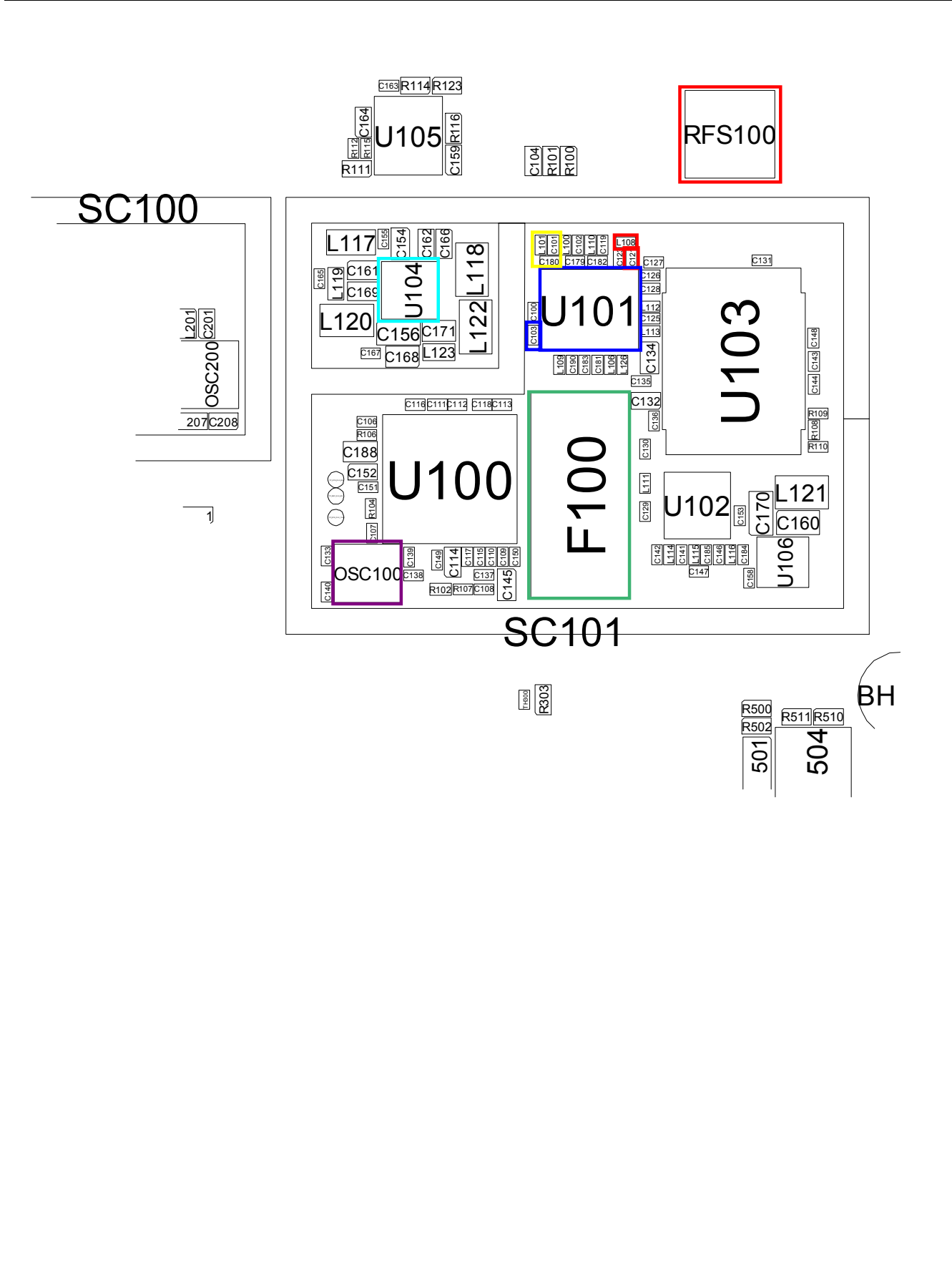




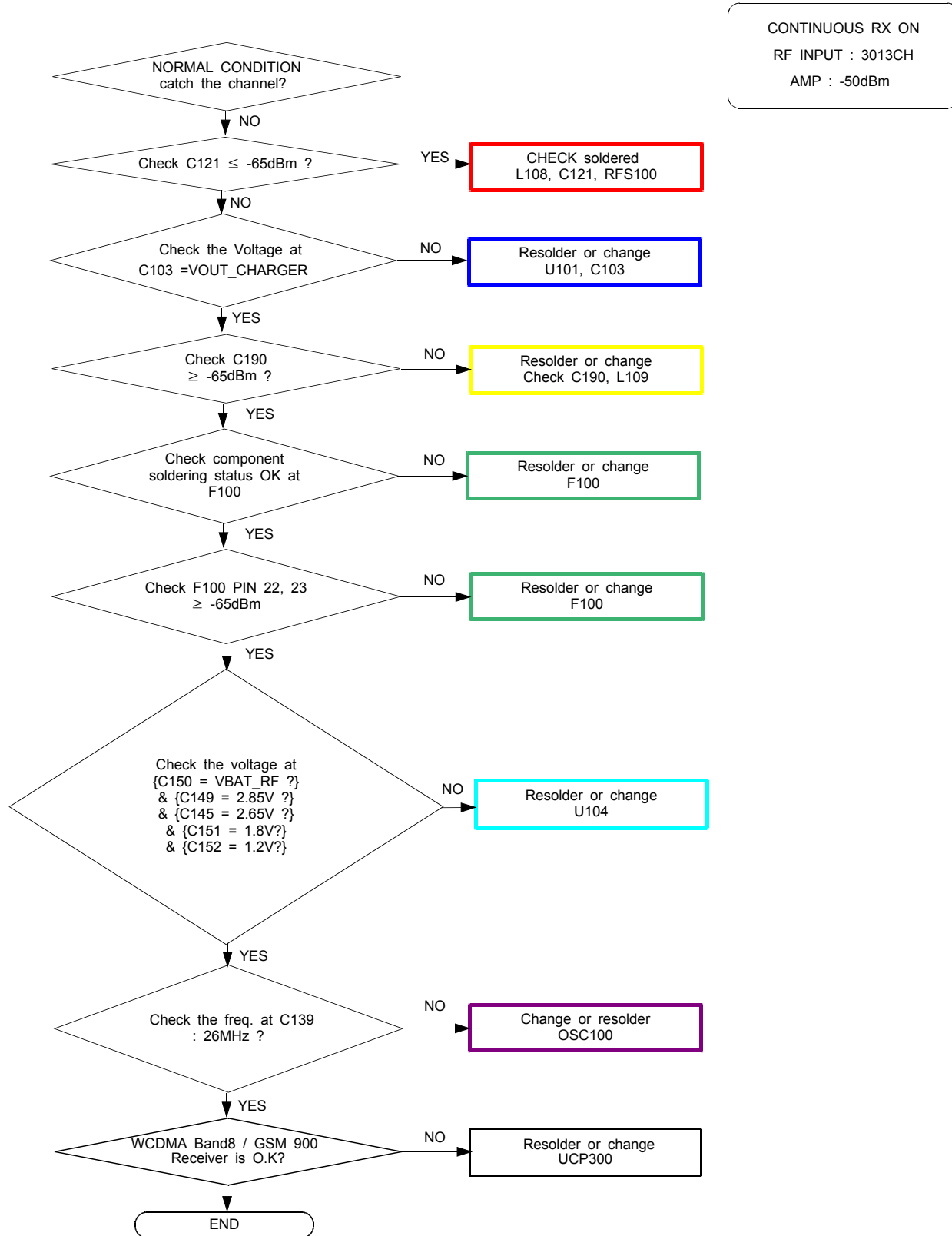
8-3-14. GSM850/ WCDMA Band5 RX

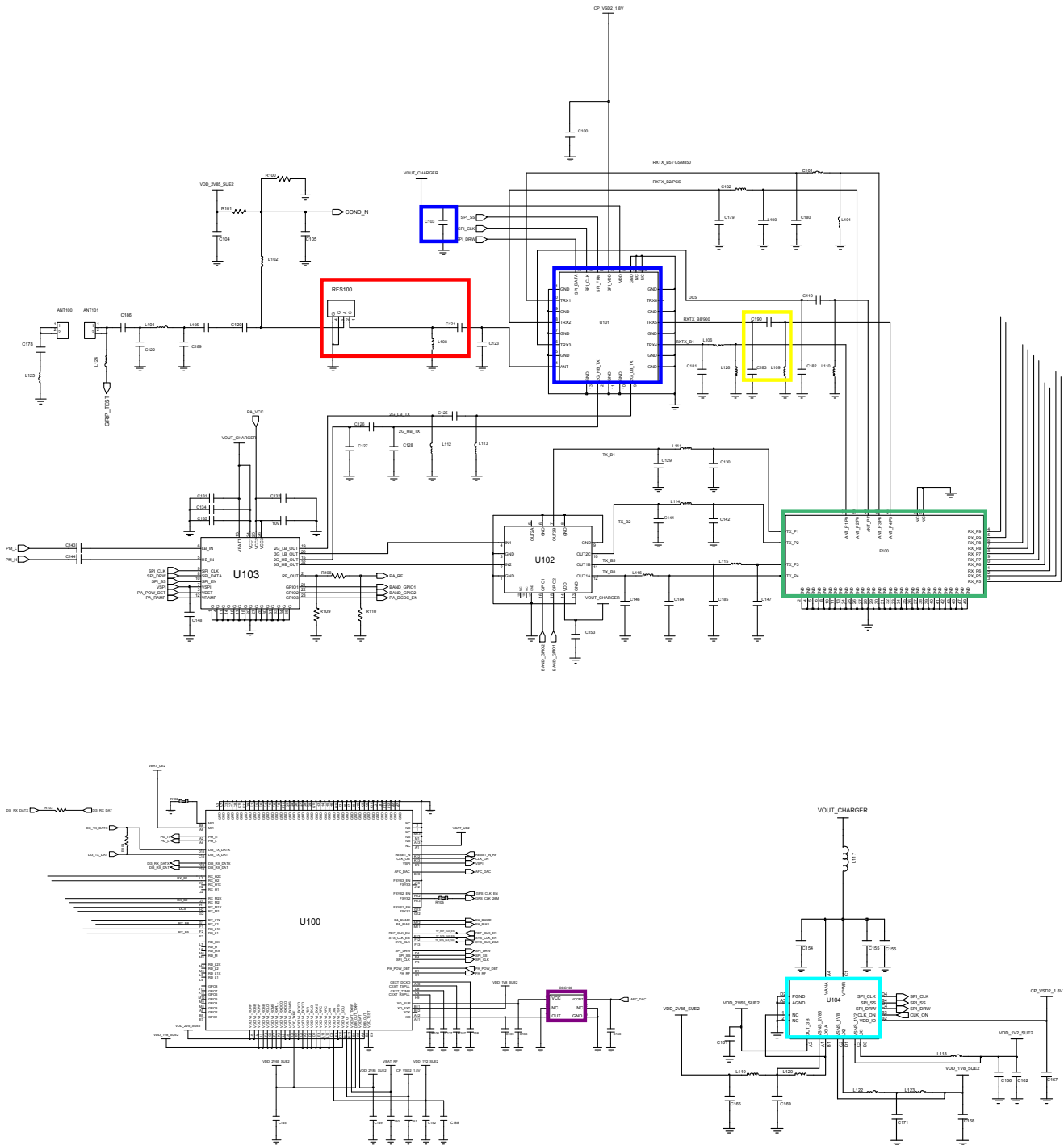




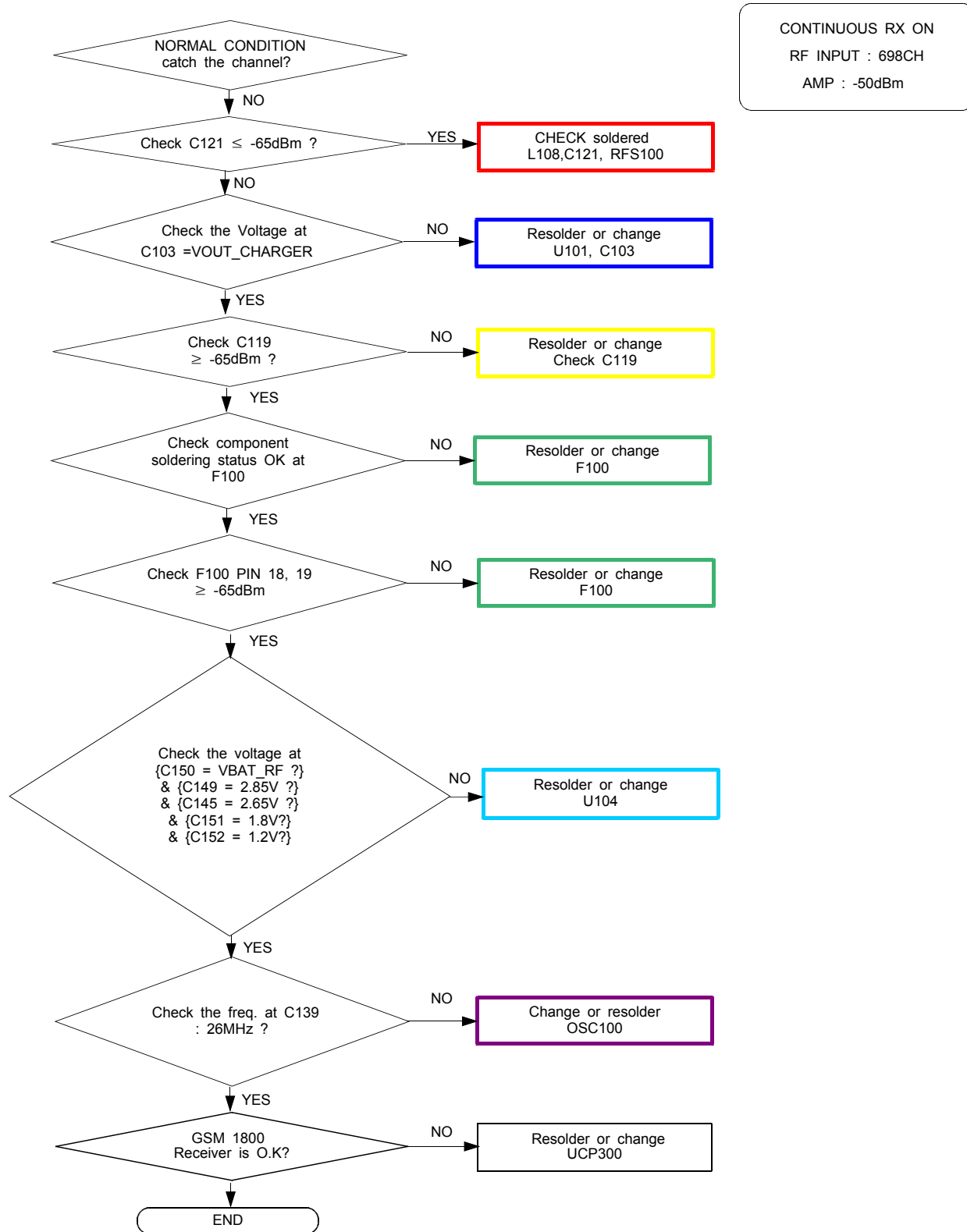


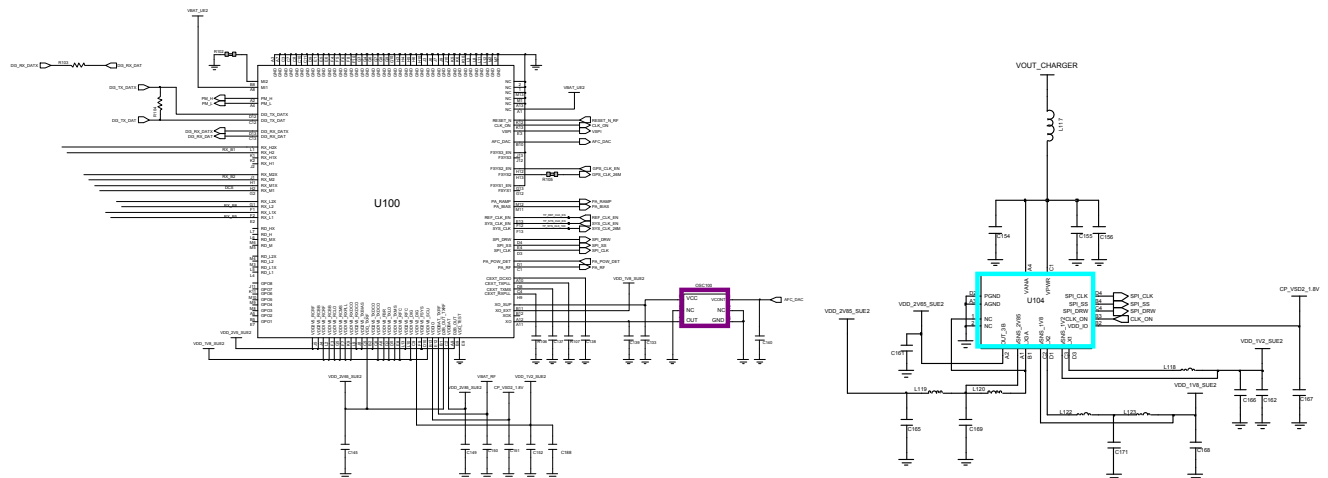
8-3-15. GSM900/ WCDMA Band8 RX

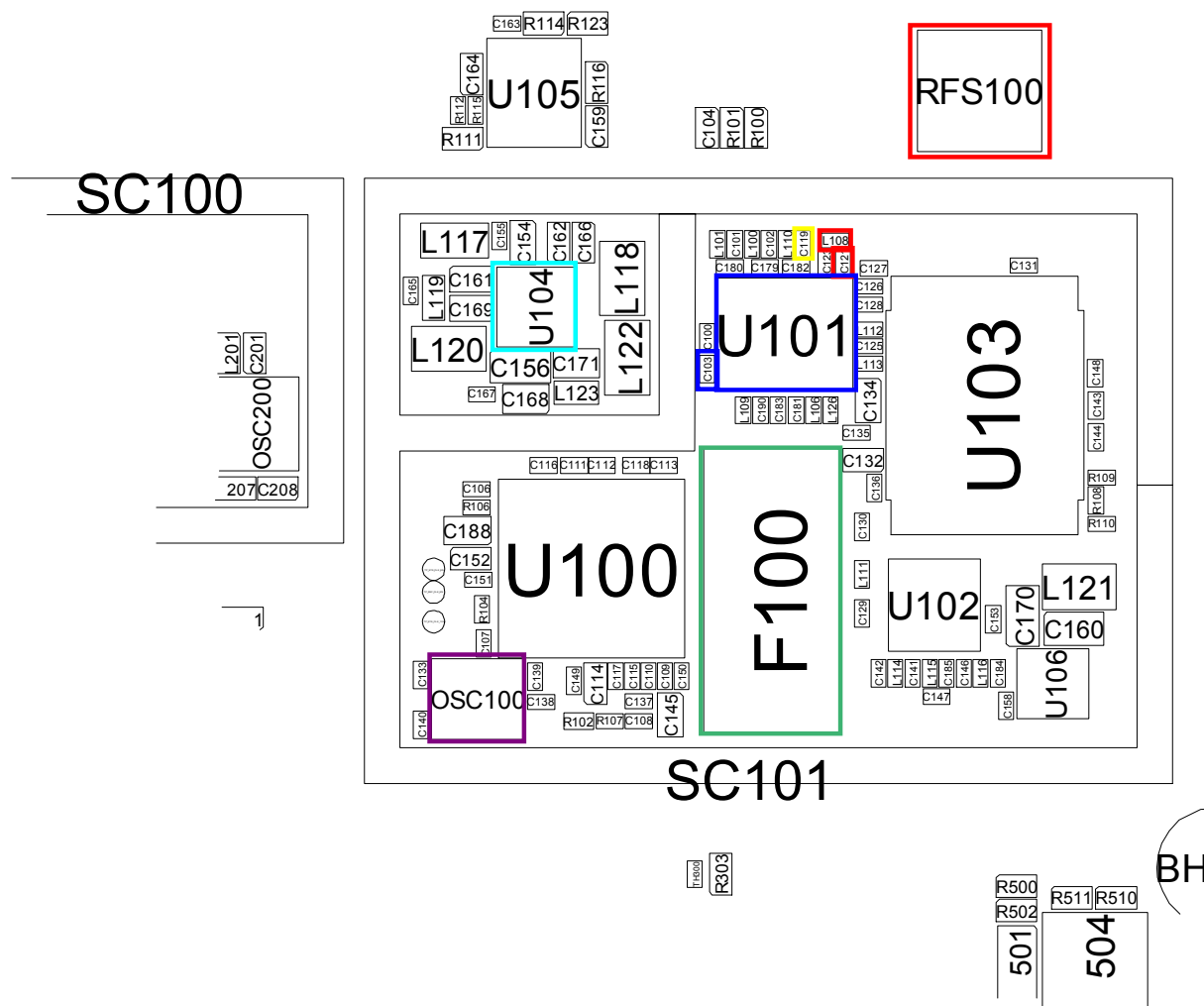




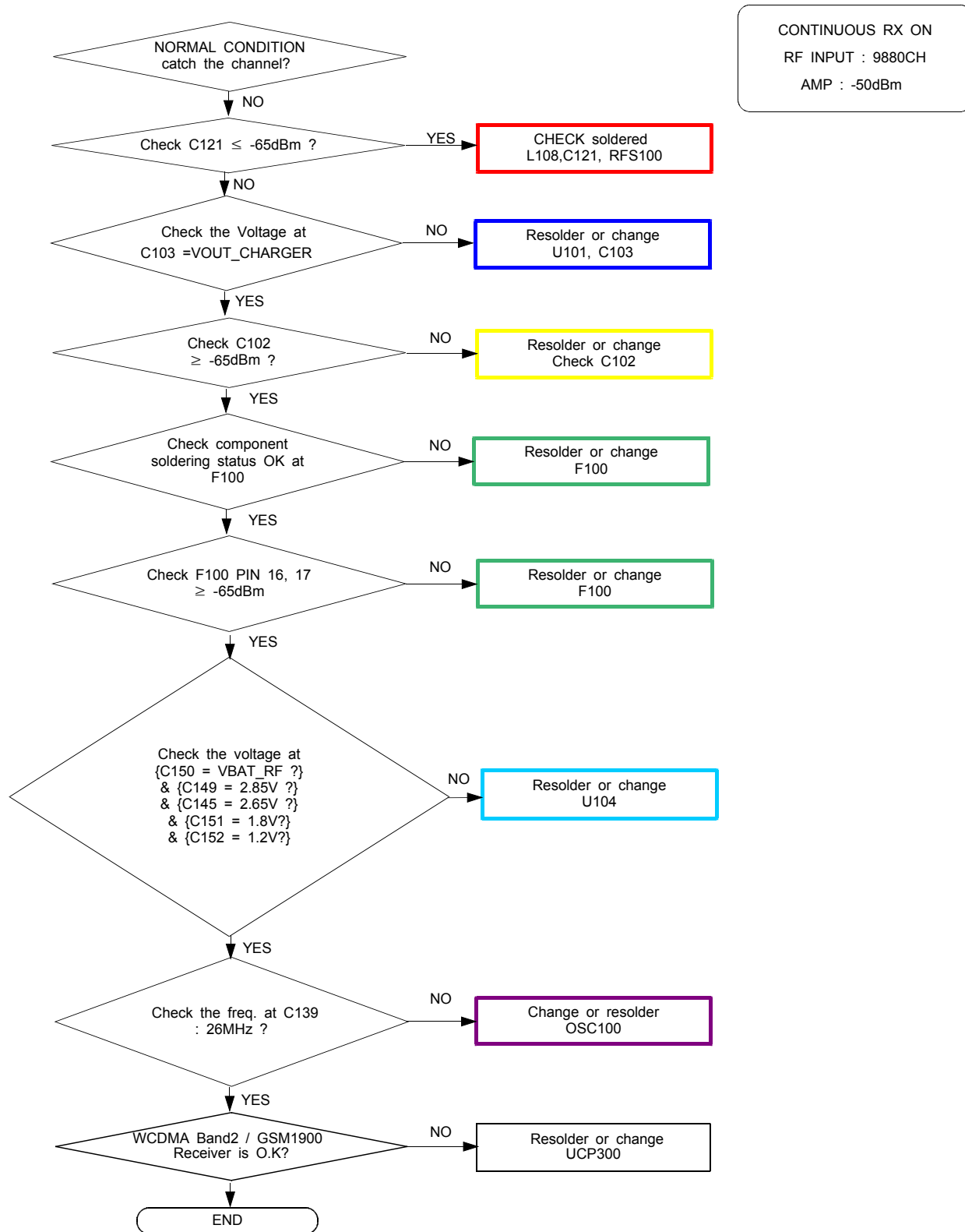
8-3-16. GSM1800 RX

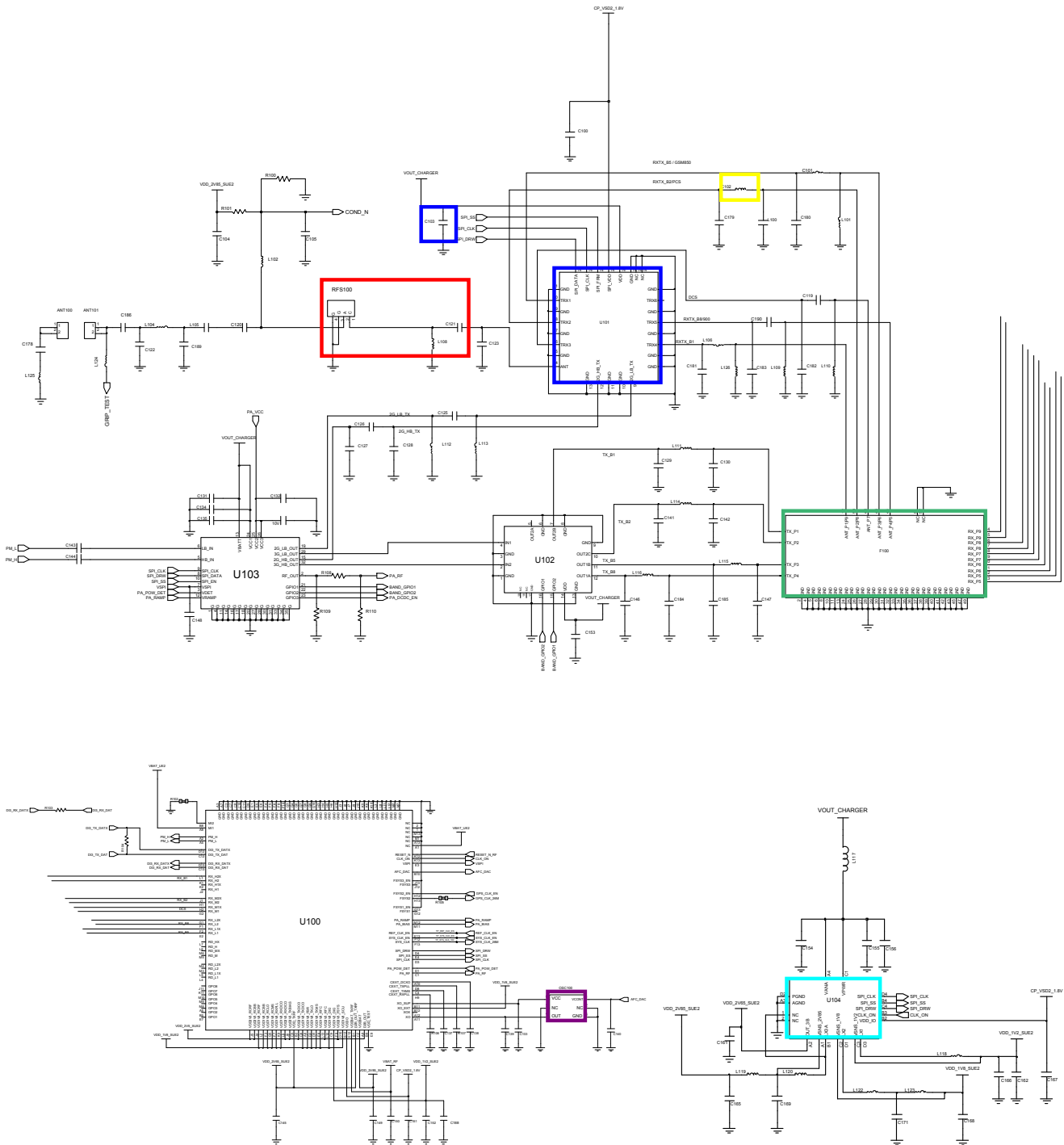




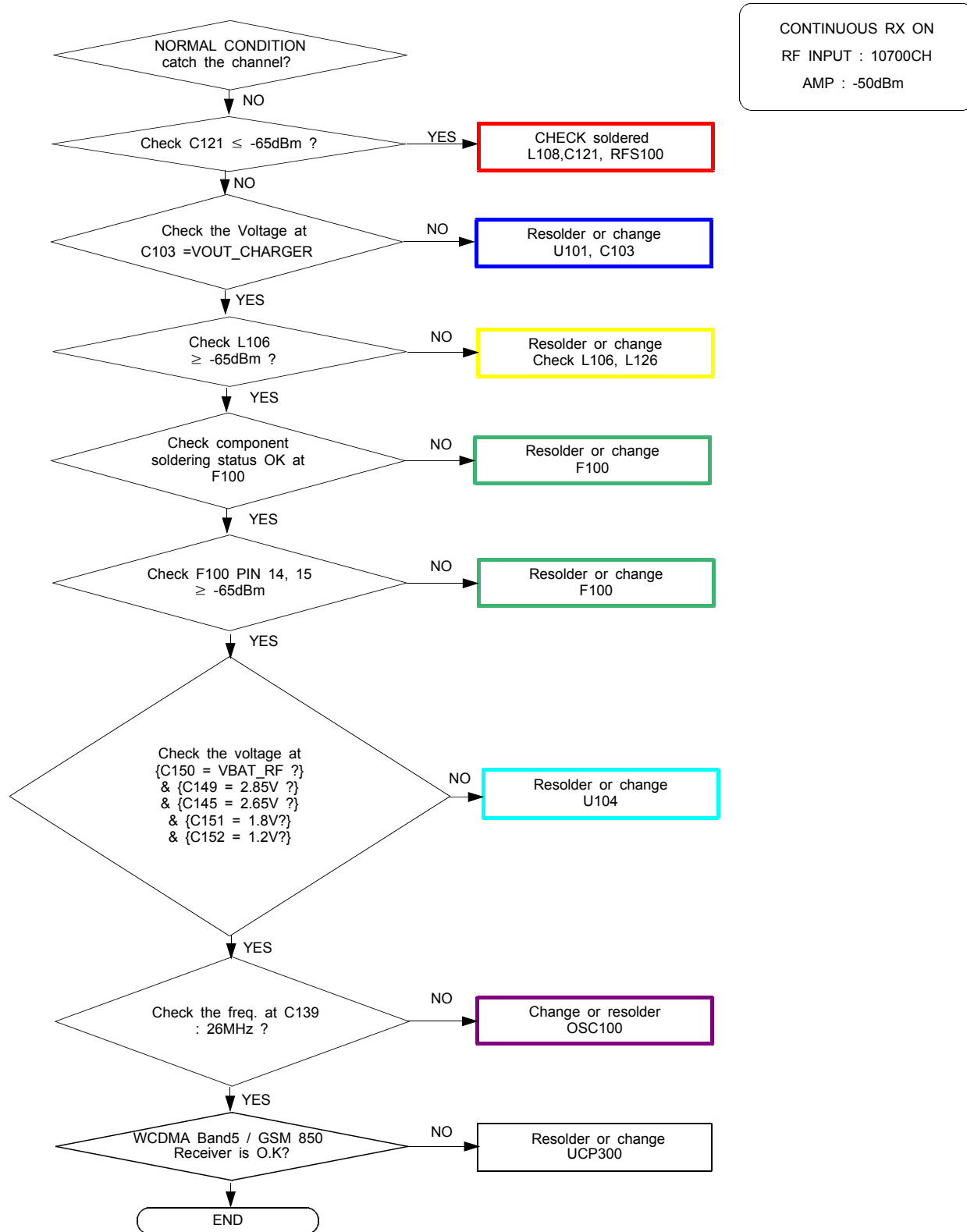


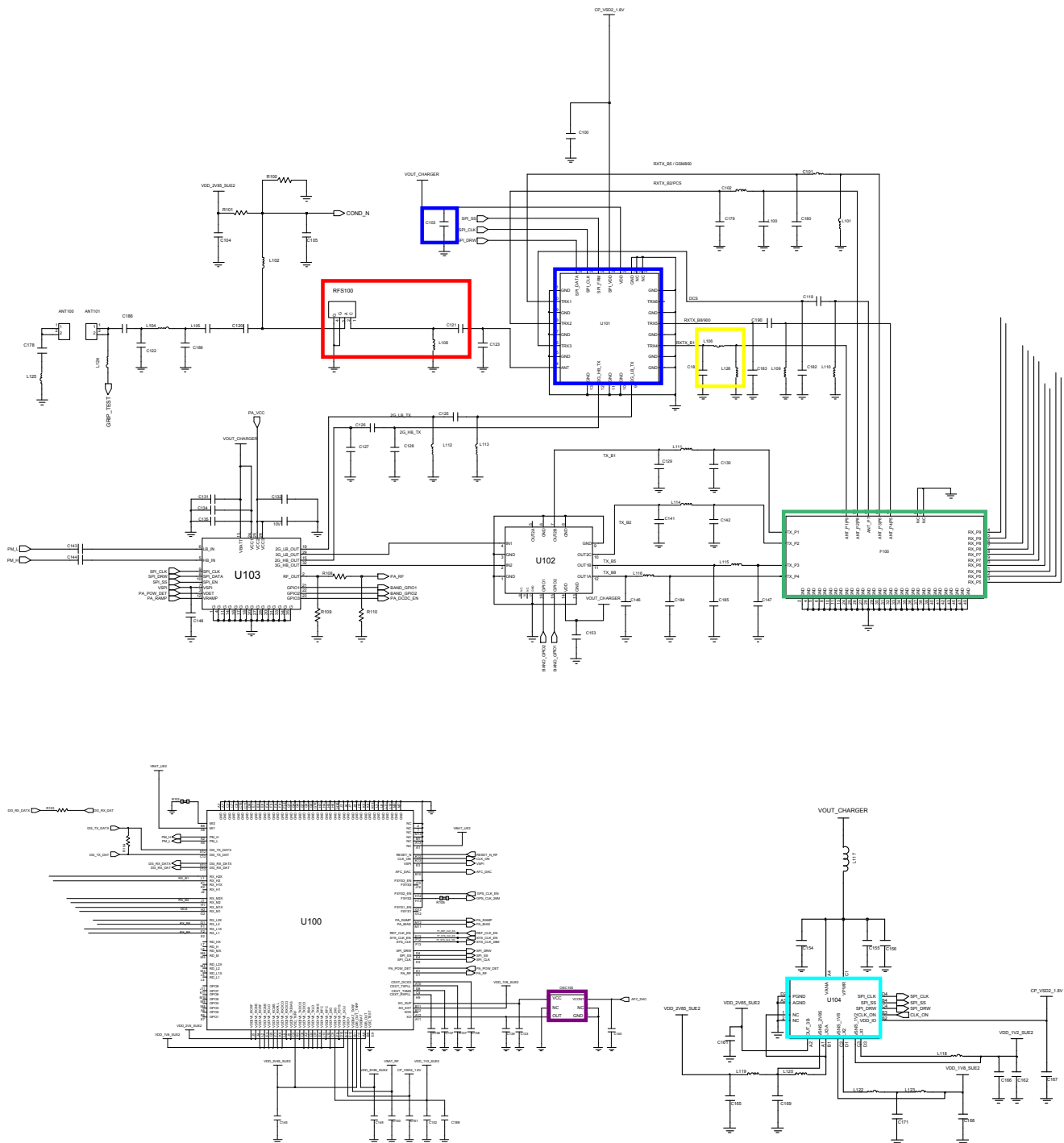
8-3-17. GSM1900/ WCDMA Band2 RX

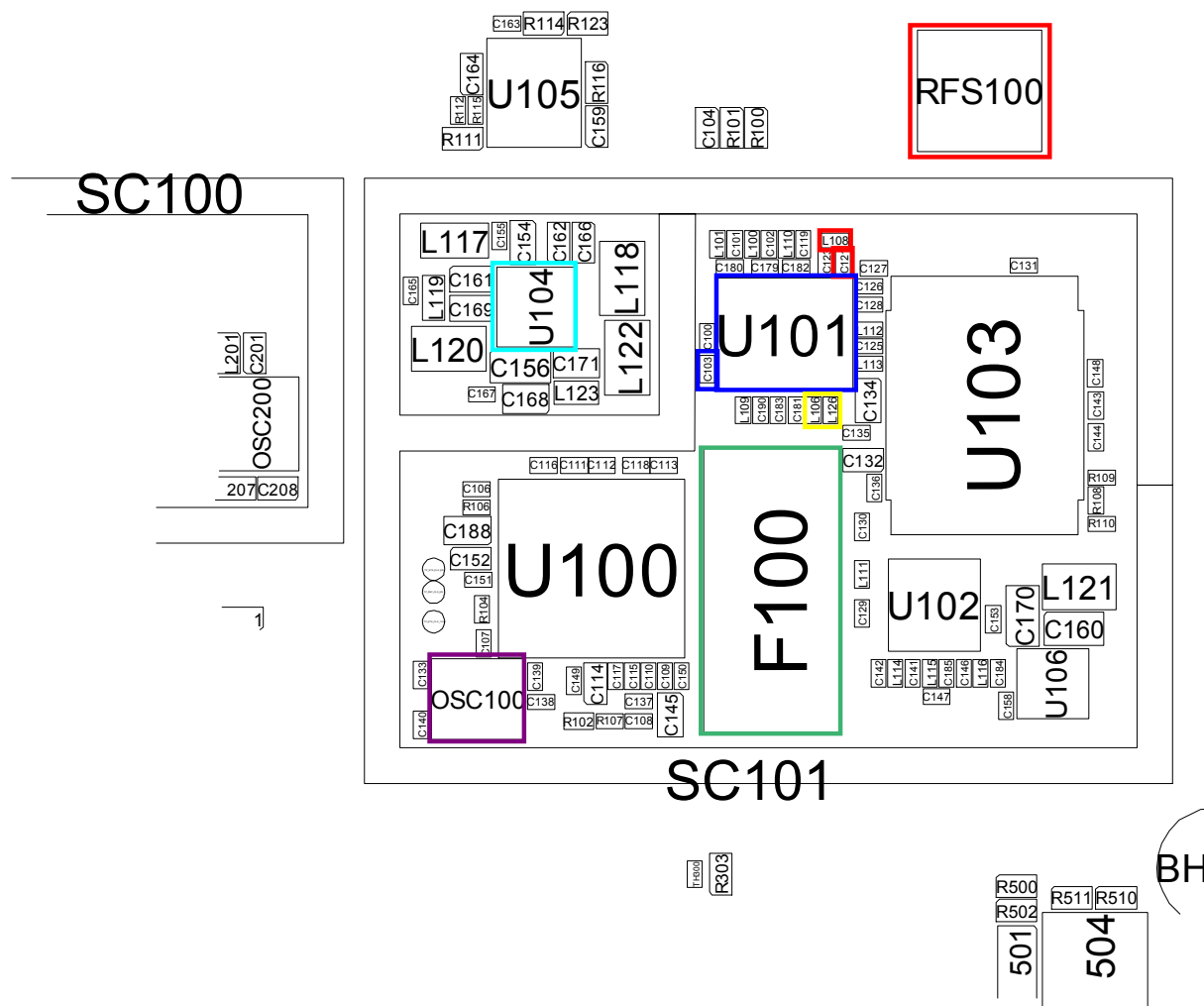




8-3-18. WCDMA Band1 RX

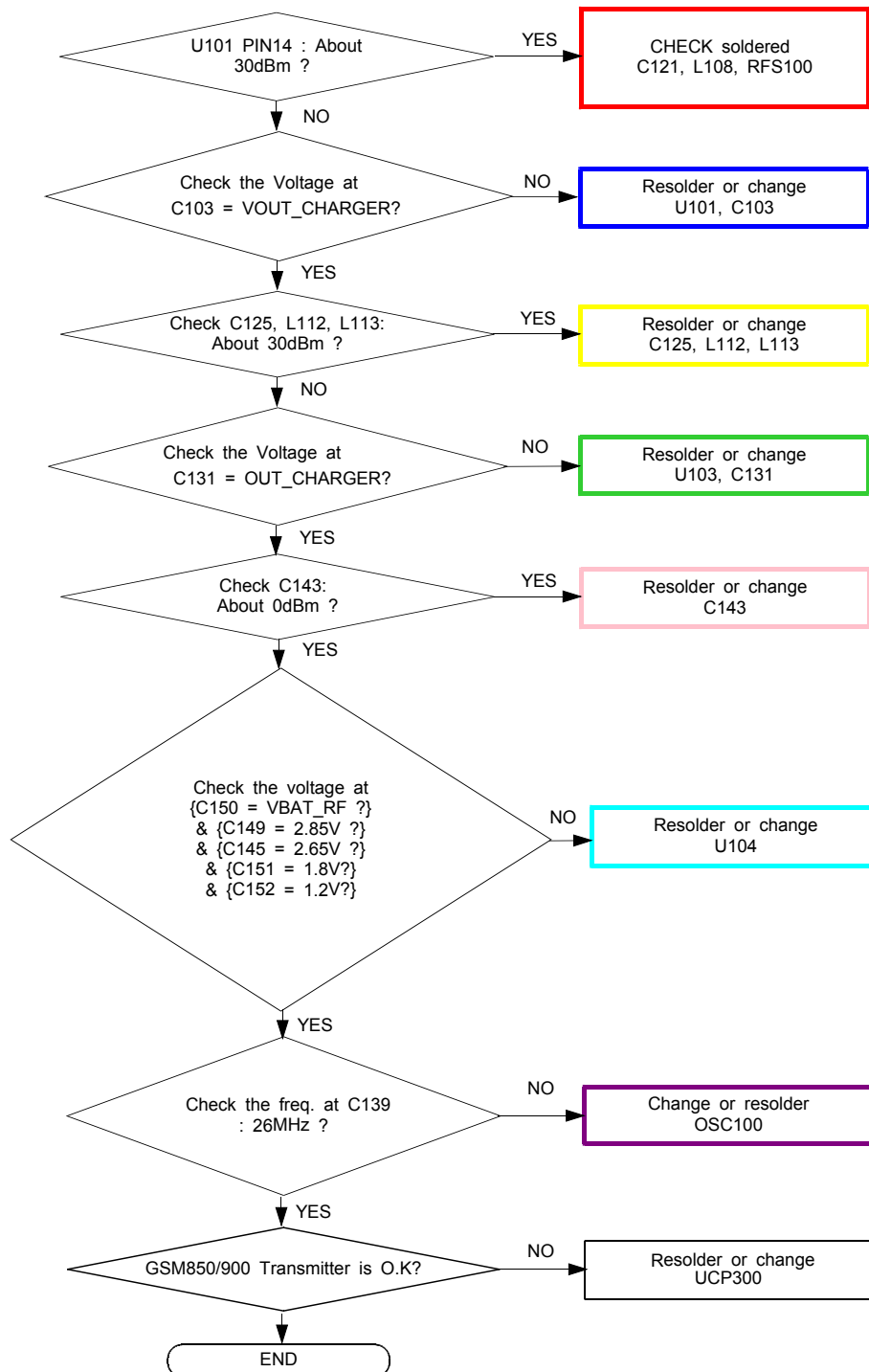


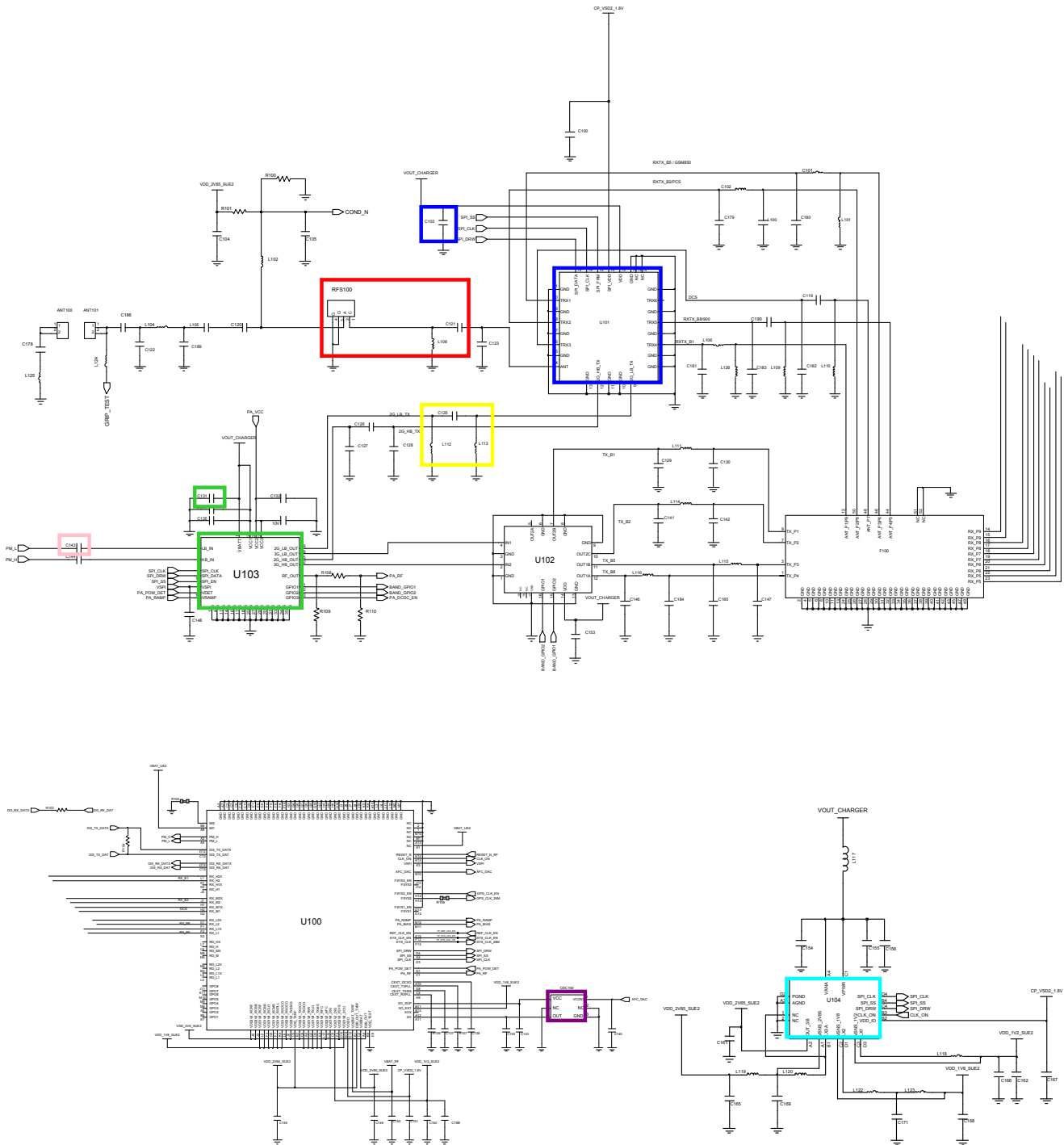


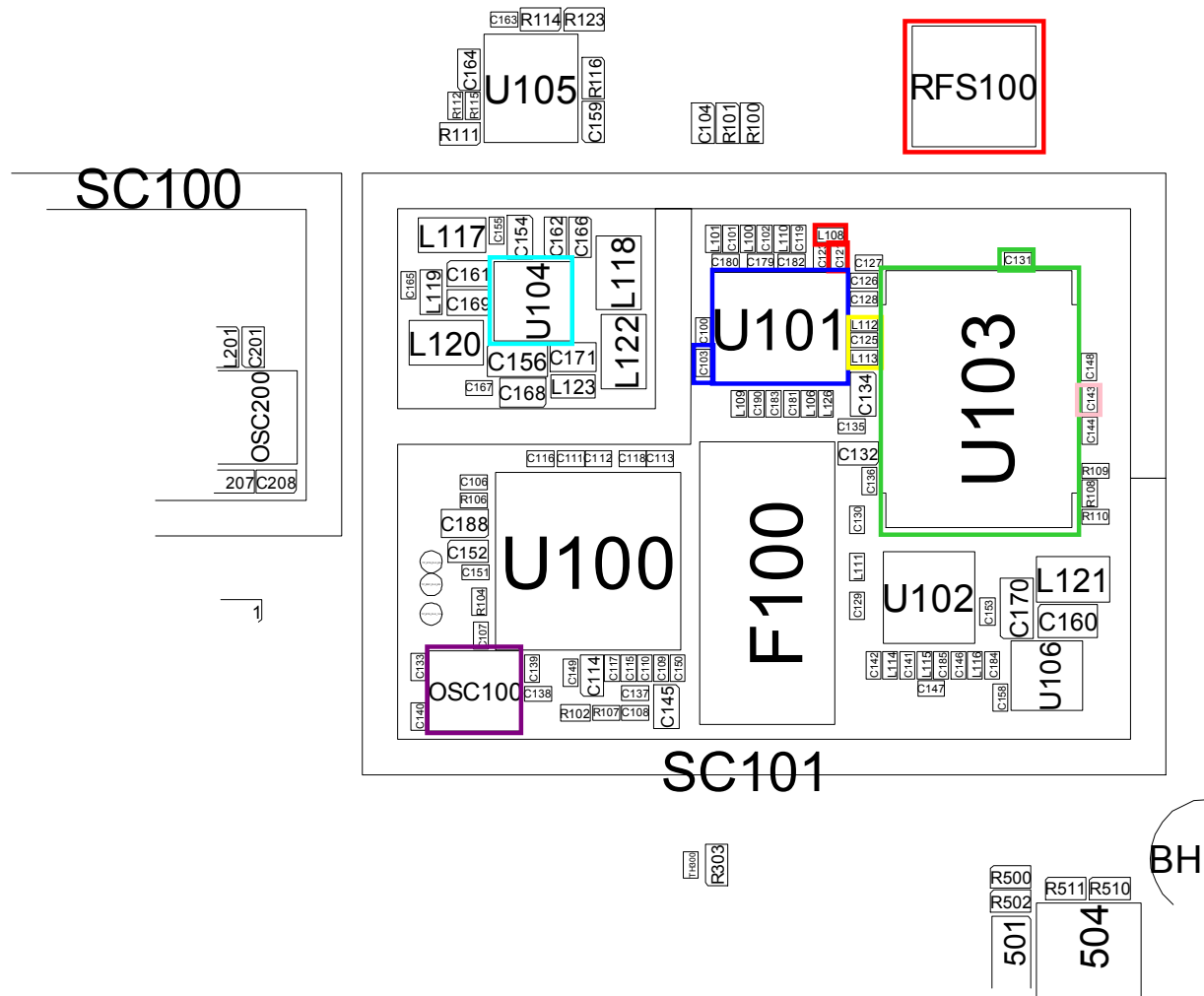


8-3-19. GSM850/ GSM900 TX

CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
GSM850 CH : 190
GSM900 CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

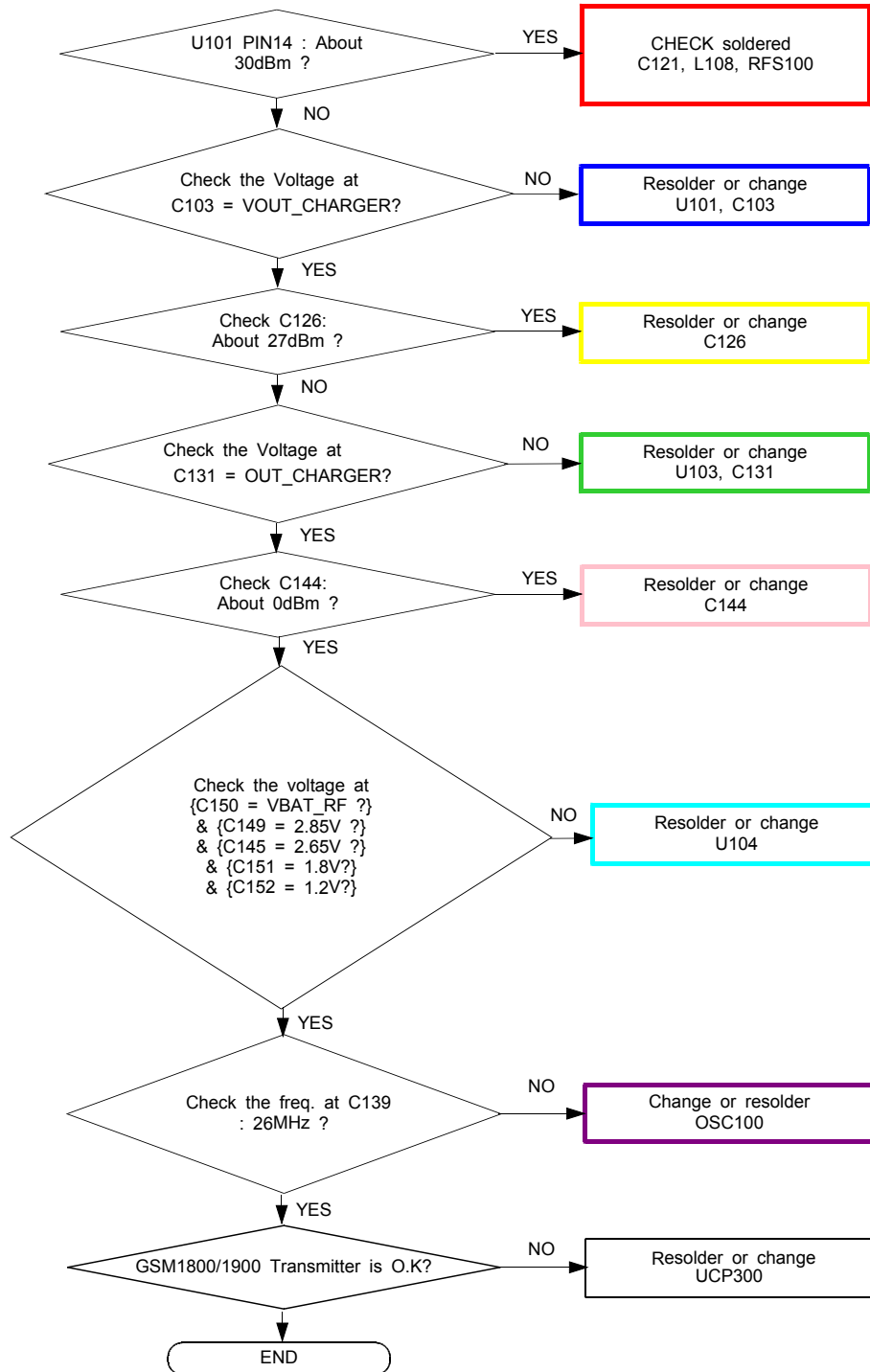


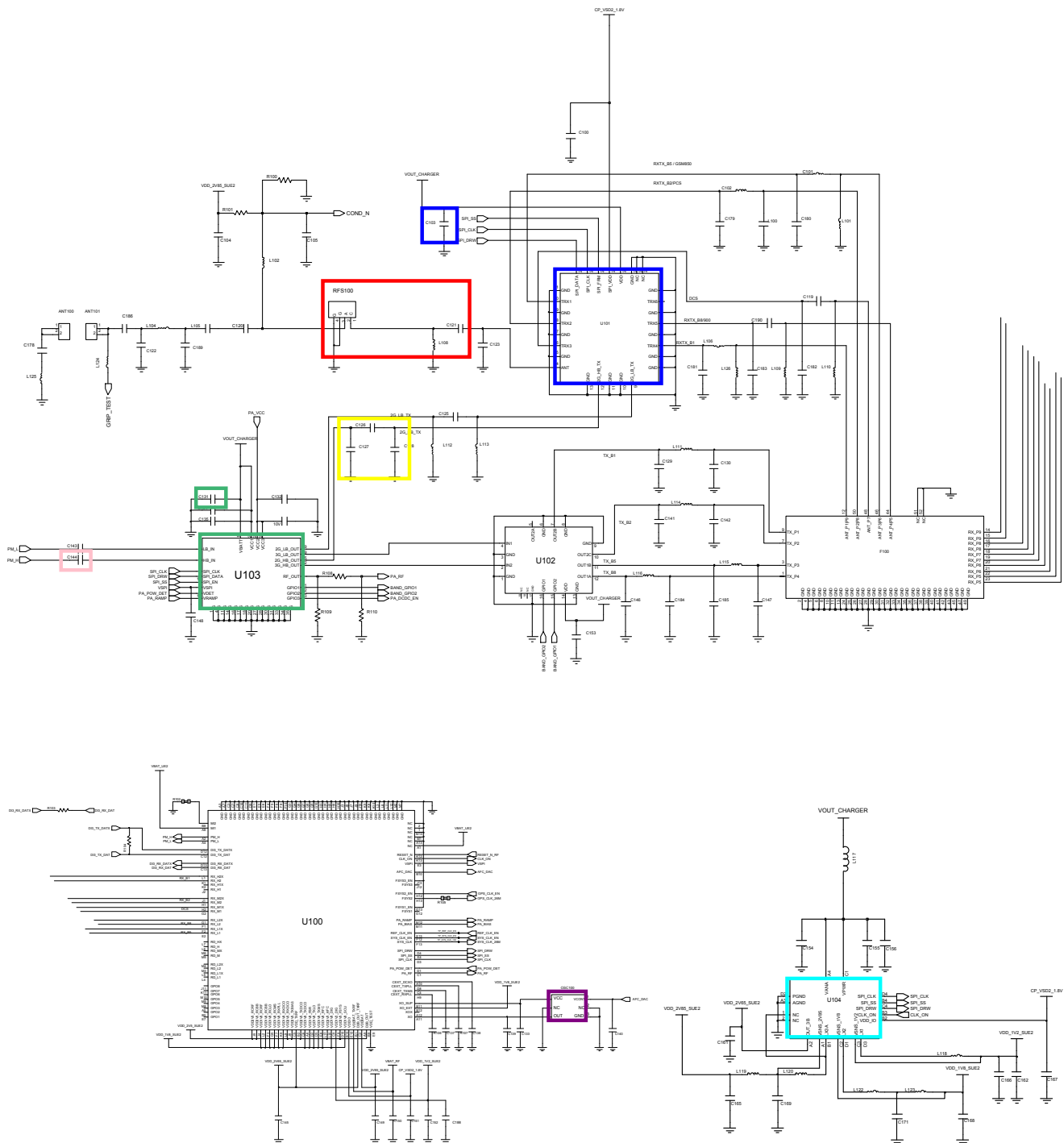


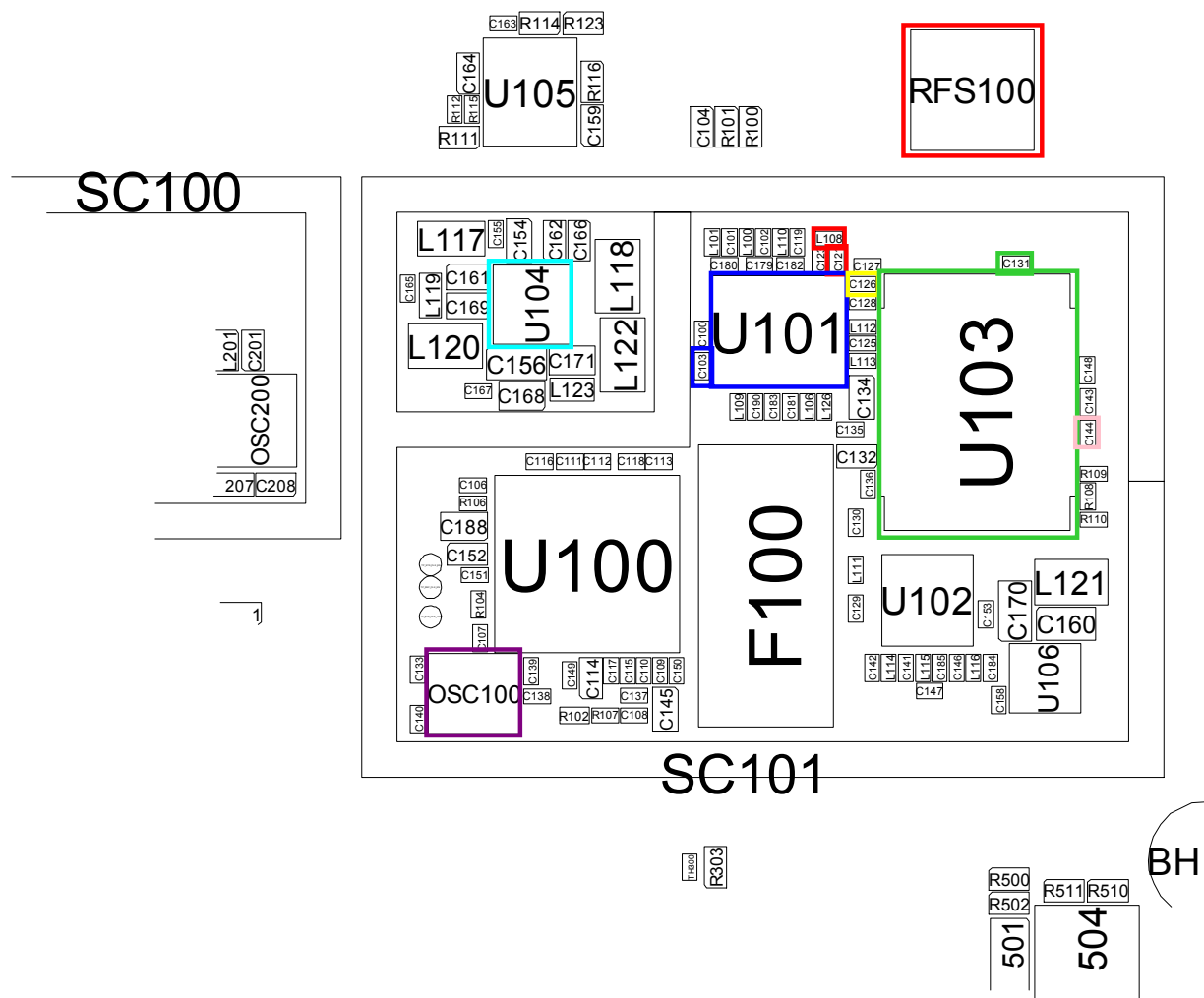


8-3-20. GSM1800/ GSM1900 TX

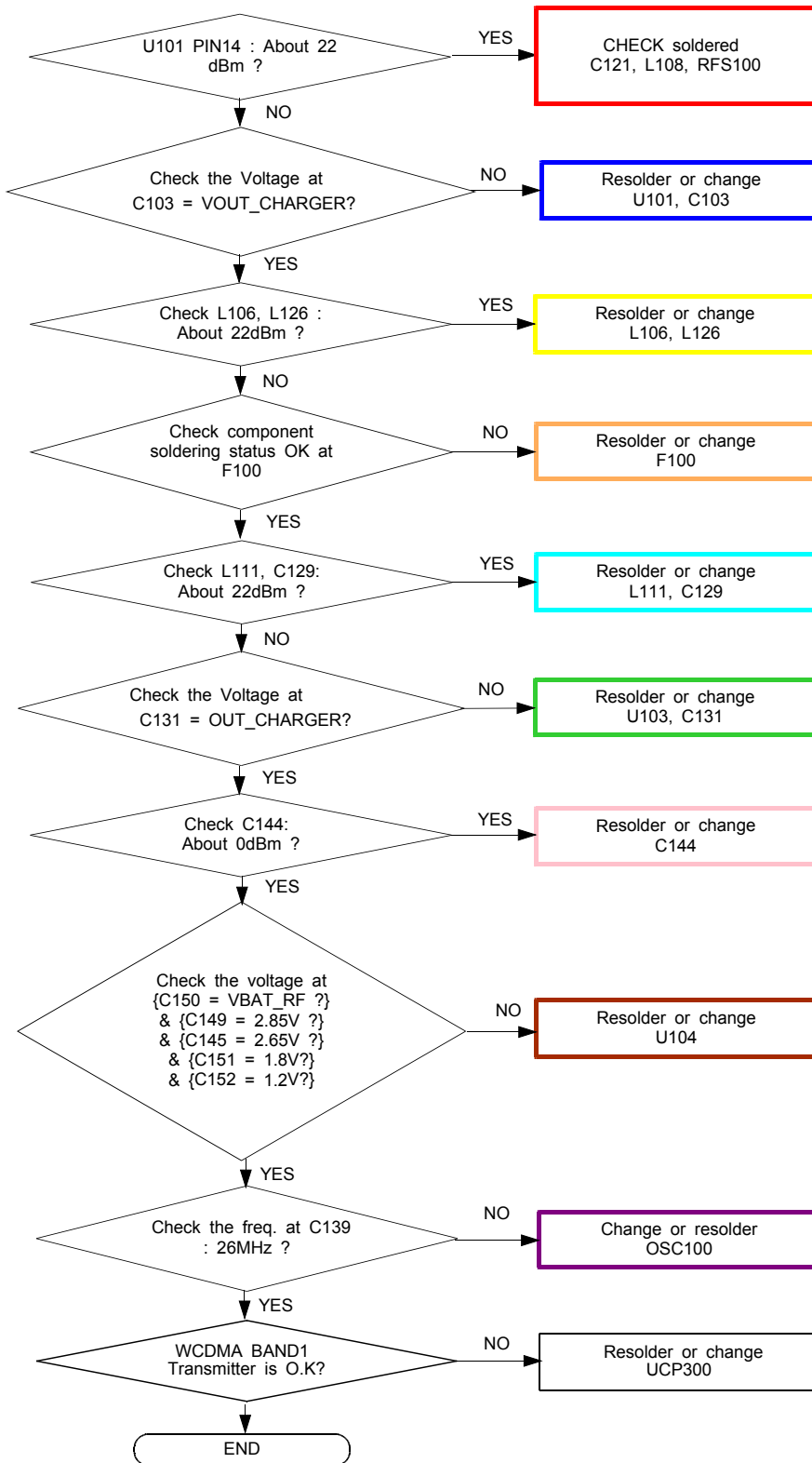
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
DCS CH : 685
PCS CH : 661
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB



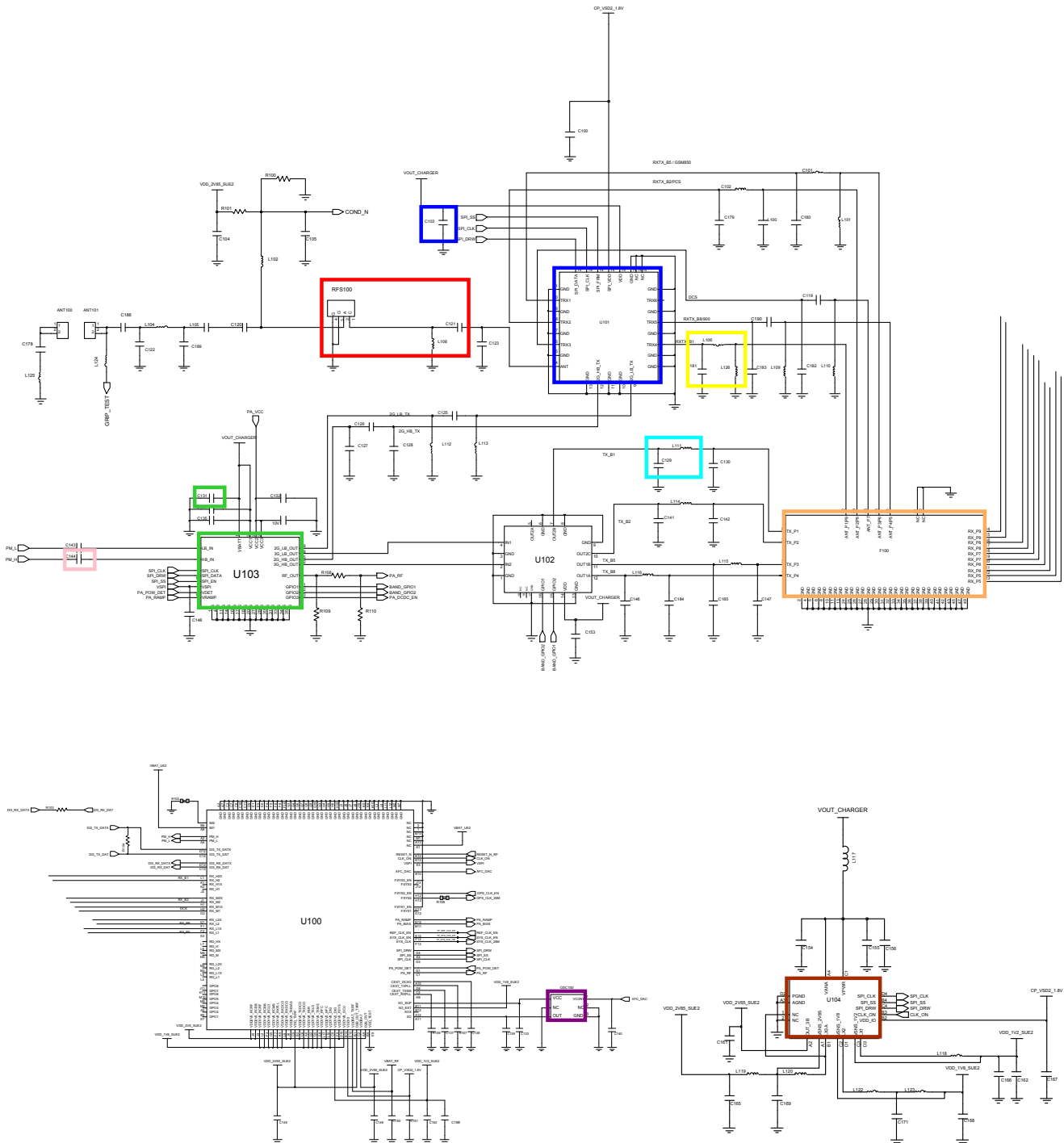


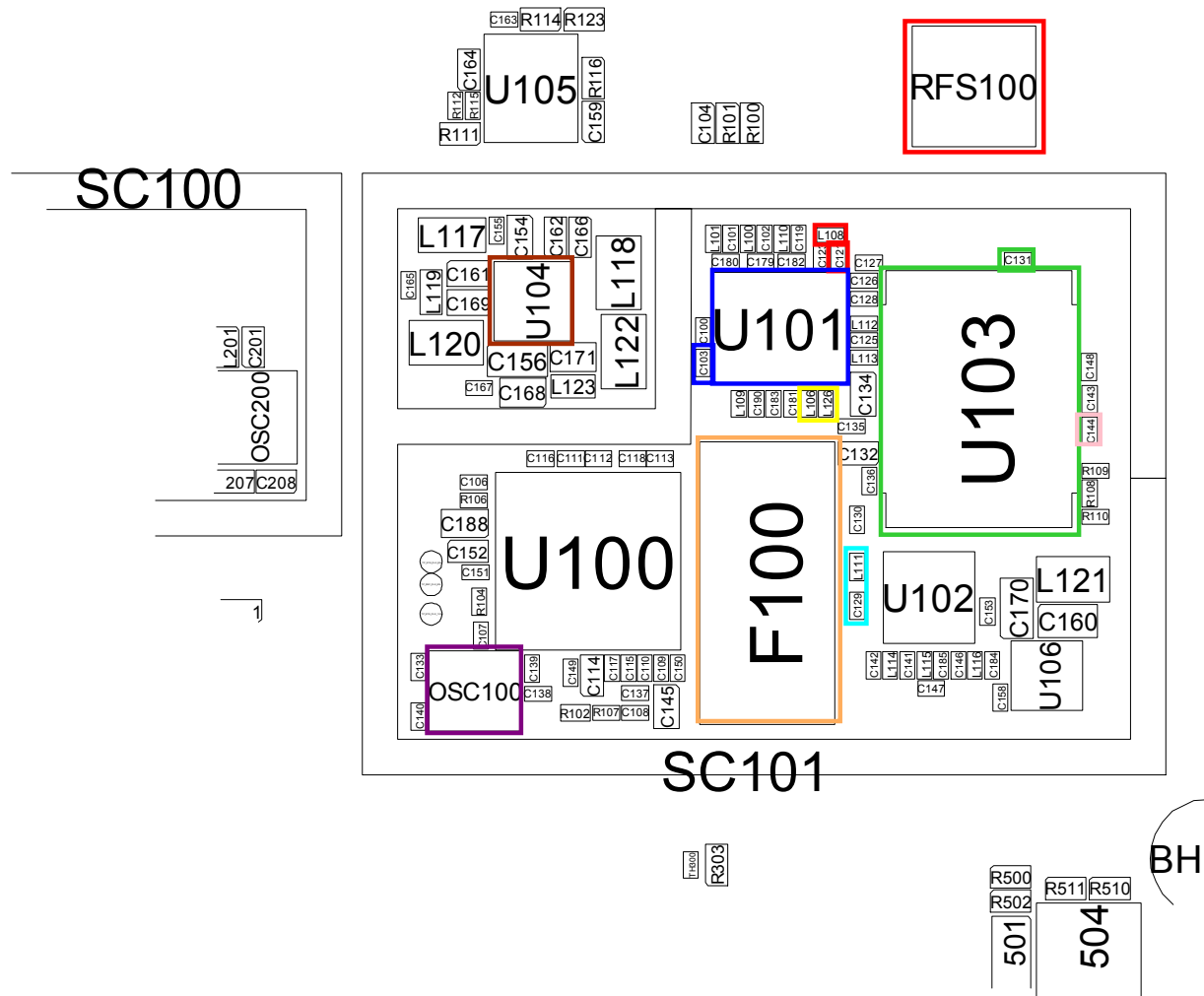


8-3-21. WCDMA BAND1 TX

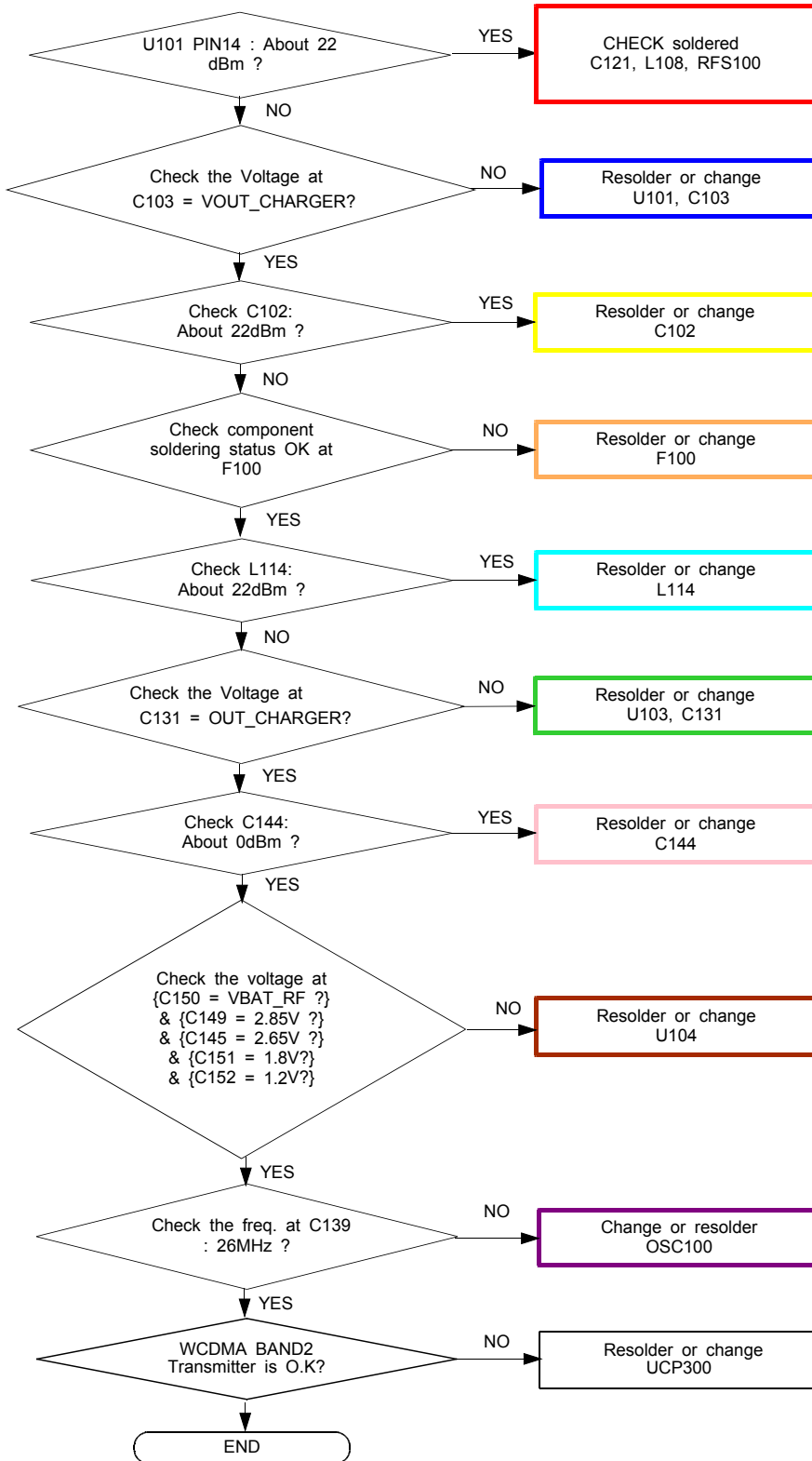


CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
WCDMA Band1 CH : 10700
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV : 10dBm
ATT : 20dB

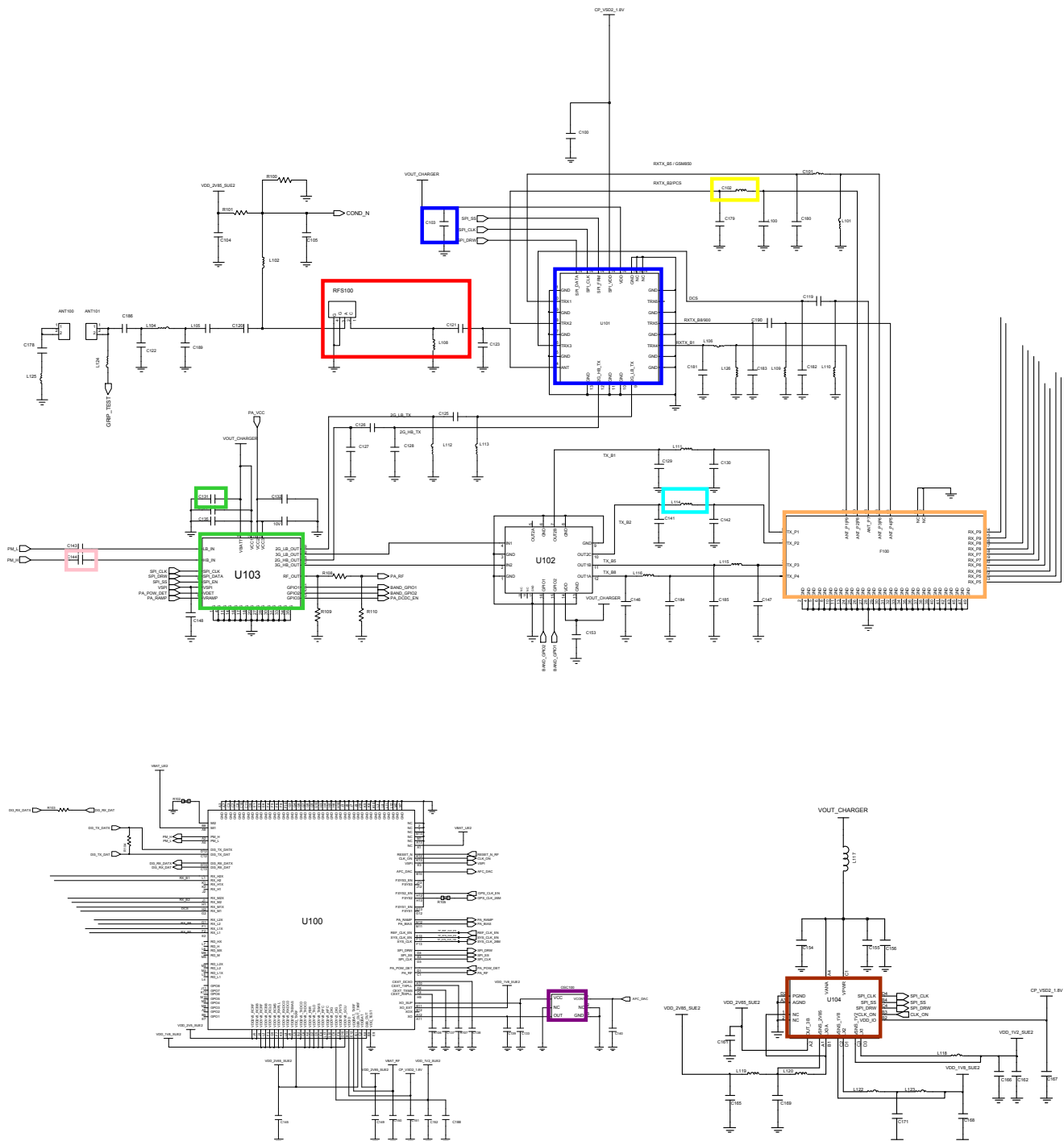


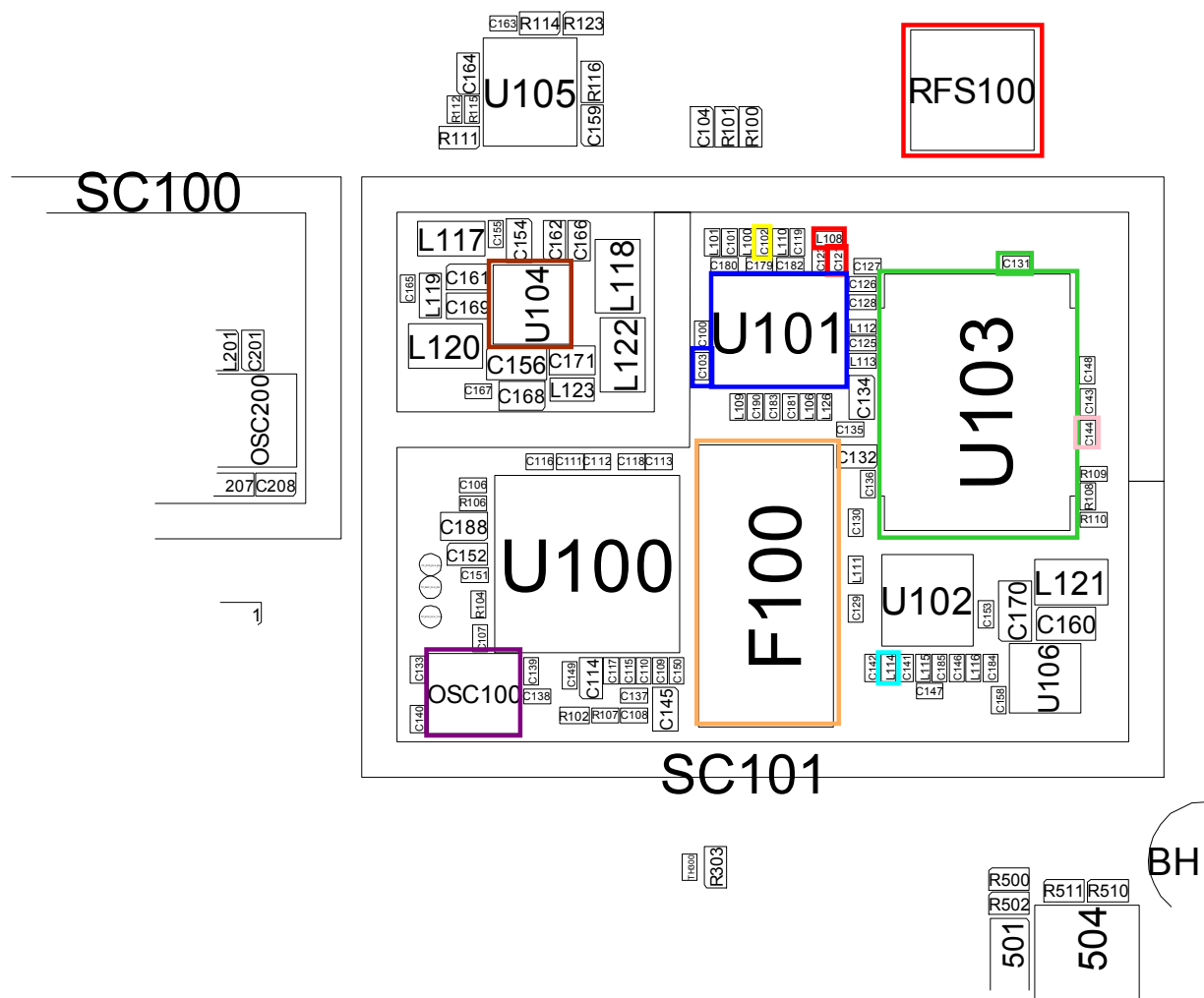


8-3-22. WCDMA BAND2 TX

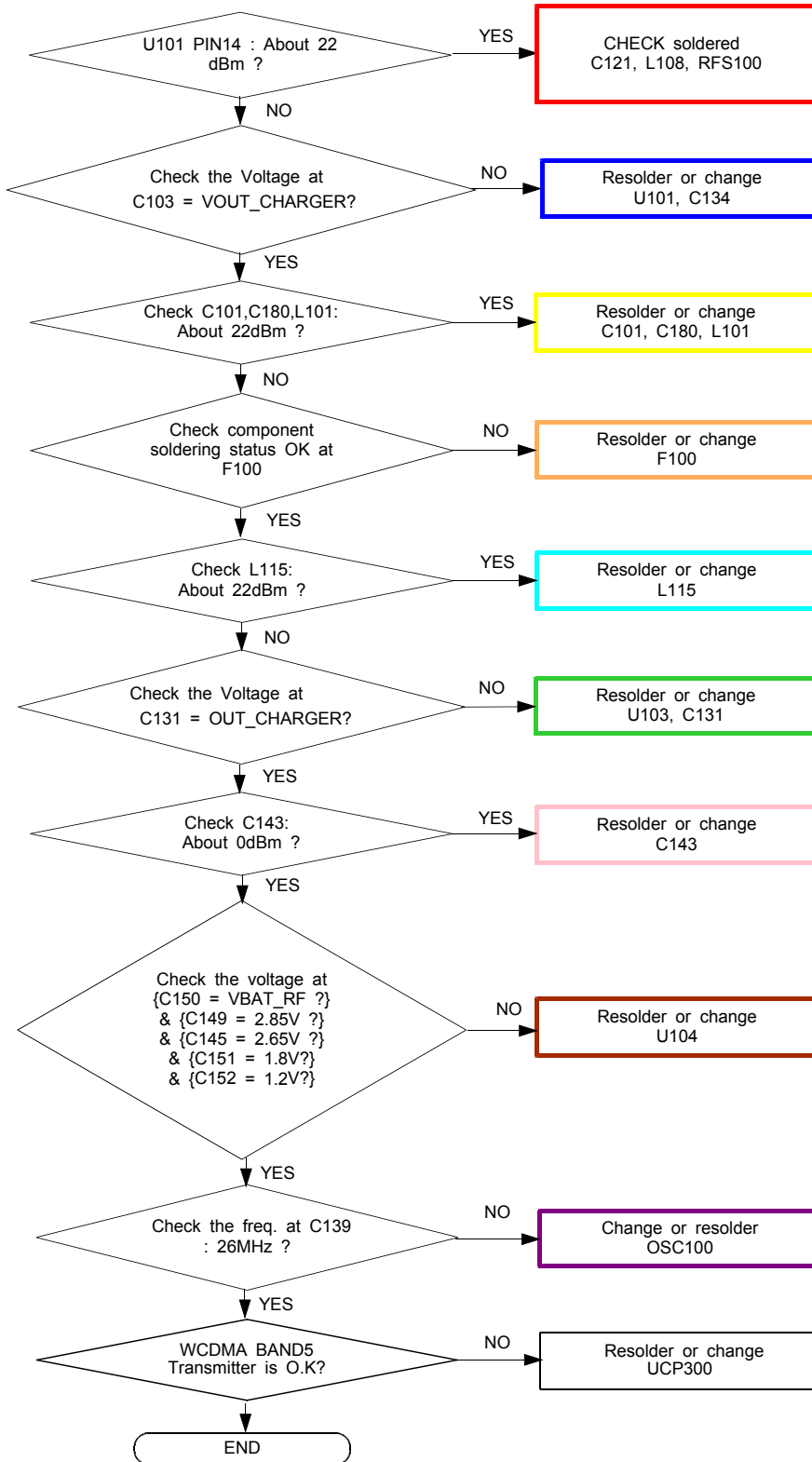


CONTINUOUS TX ON CONDITION
 TX POWER DAC:14500 CODE
 APPLIED
 WCDMA Band2 CH : 9880
 RBW : 100KHz
 VBW : 100KHz
 SPAN : 10MHz
 REF LEV. : 10dBm
 ATT. : 20dB

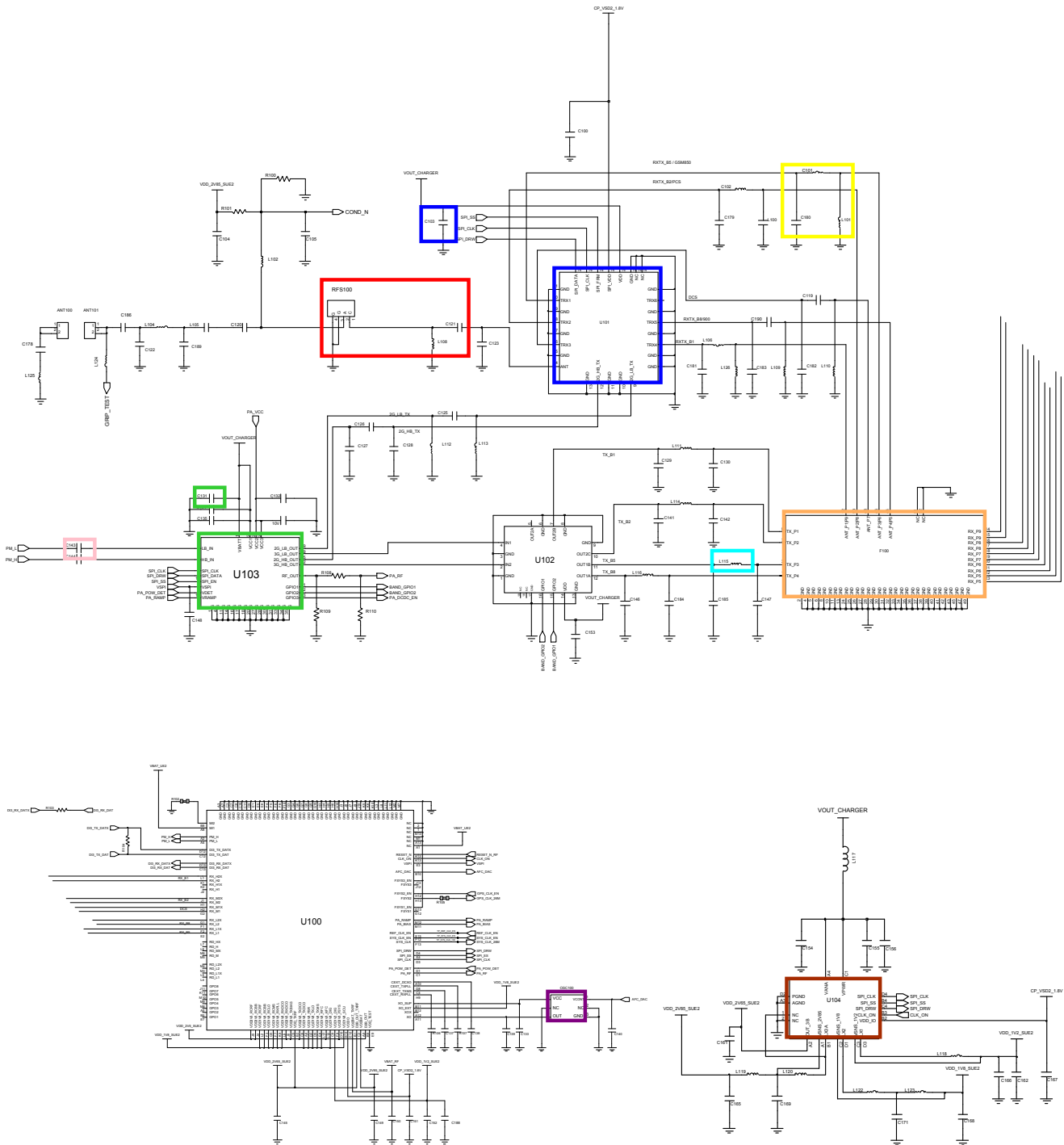




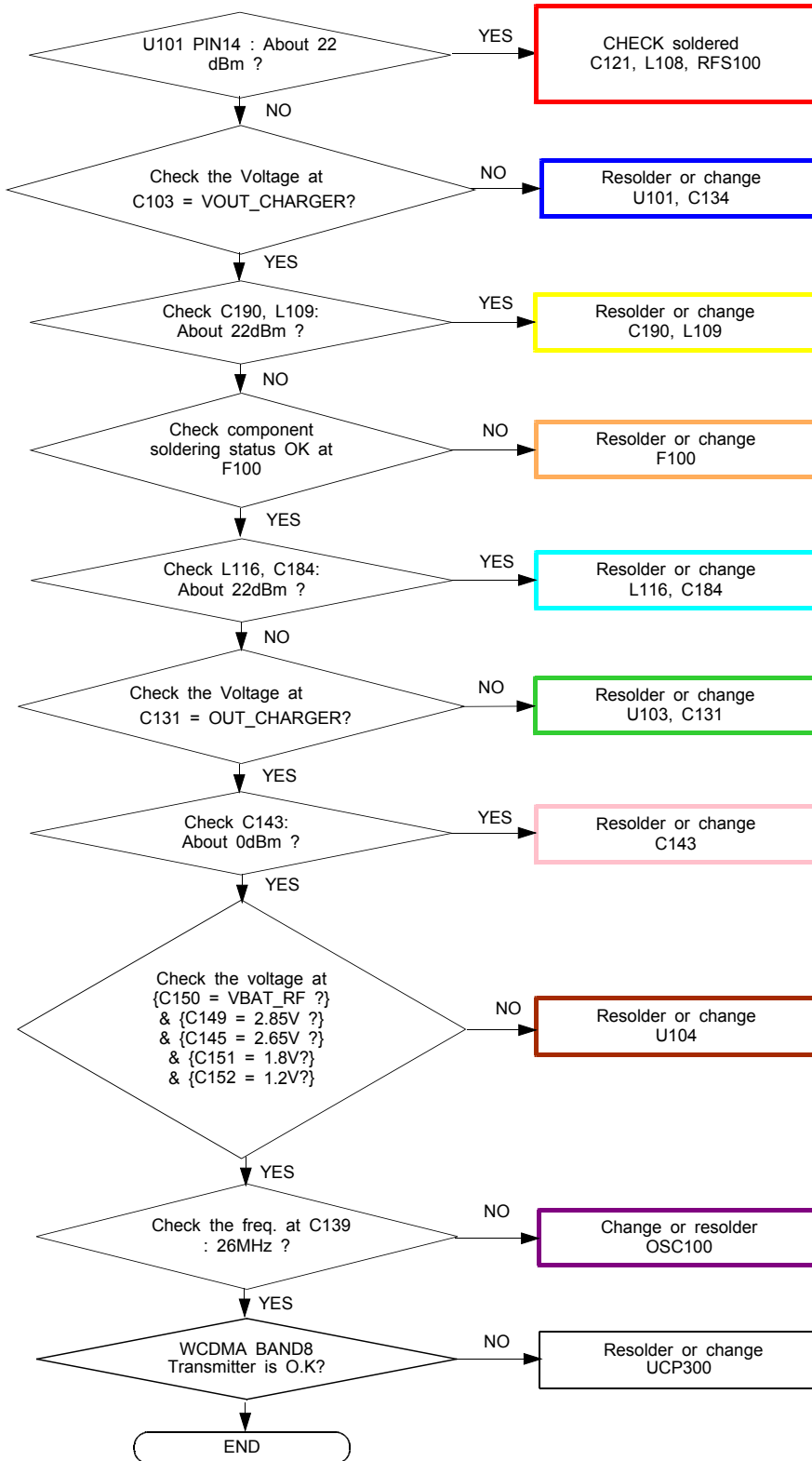
8-3-23. WCDMA BAND5 TX



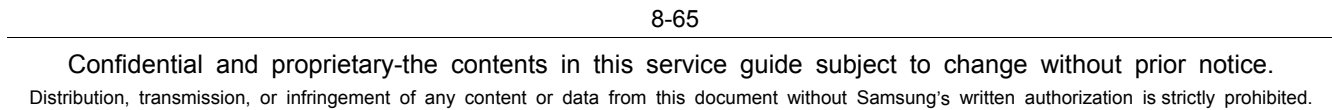
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
WCDMA Band5 CH : 4408
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV : 10dBm
ATT : 20dB

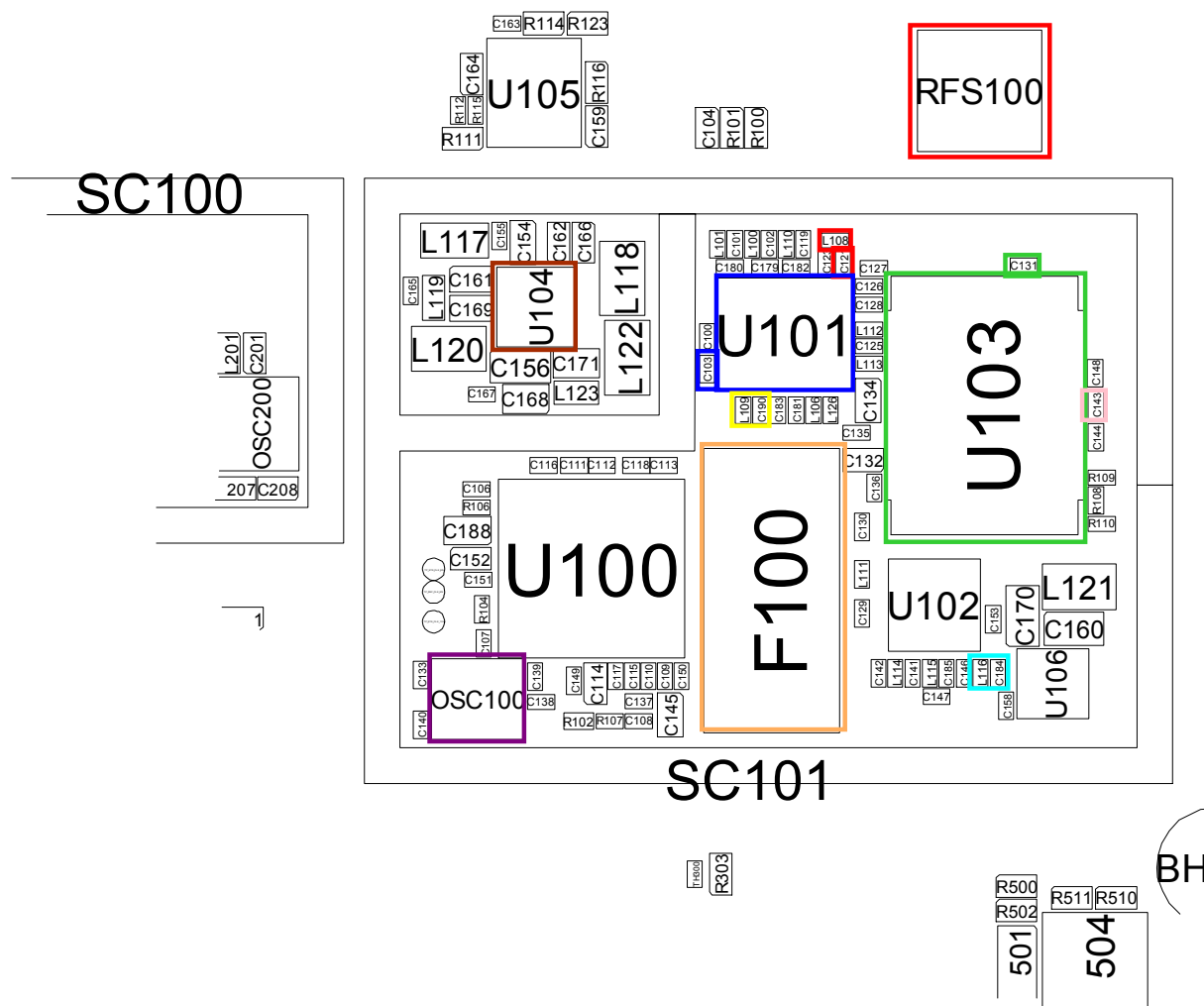


8-3-24. WCDMA BAND8 TX

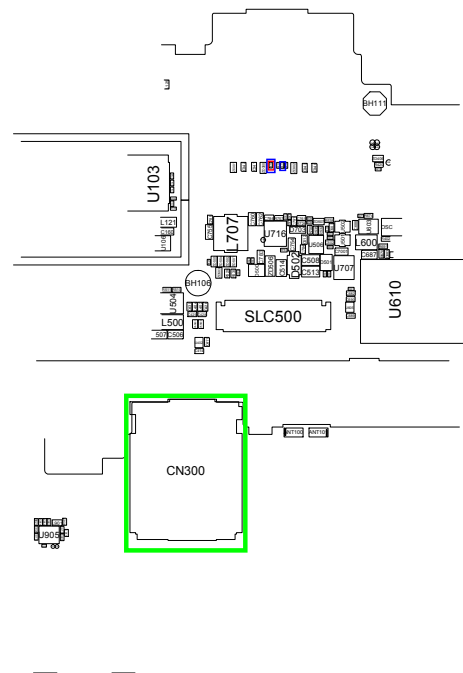
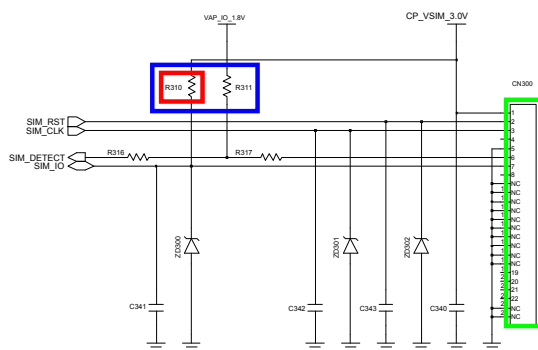
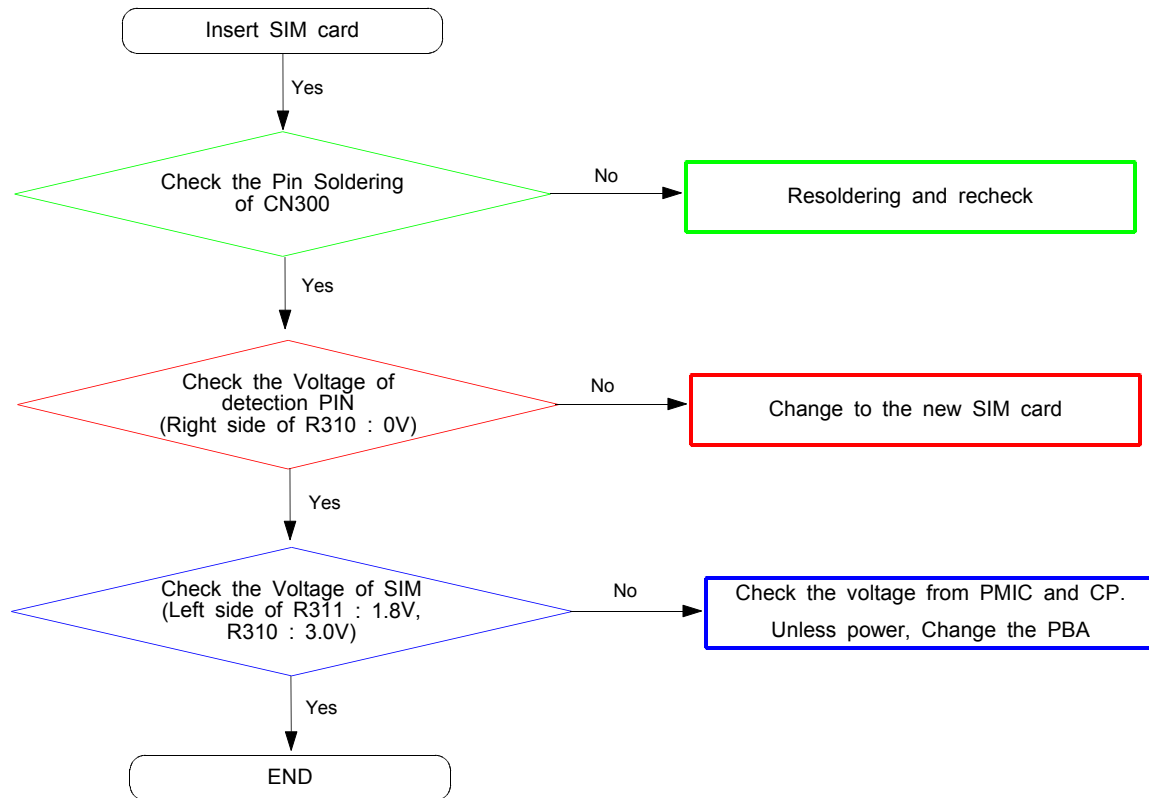


CONTINUOUS TX ON CONDITION
 TX POWER DAC:14500 CODE
 APPLIED
 WCDMA Band8 CH : 3013
 RBW : 100KHz
 VBW : 100KHz
 SPAN : 10MHz
 REF LEV. : 10dBm
 ATT. : 20dB





8-3-25. Sim Part



8-4. NC Point

- U213

 : NC

	12	11	10	9	8	7	6	5	4	3	2	1	
A	FM_AOU1	BT_VCOVDD1P2	BT_FEVSS	BT_RF	BT_PAVDD3P3	WRF_RFIN_2G	WRF_RFOUT_2G		WRF_VDDPA		WRF_RFOUT_5G		A
B	FM_AOU2	BT_PLLVDD1P2	BT_RFVSS	BT_RFVDD1P2	BT_IFVDD1P2	WRF_VDDANA_1P2_2G	WRF_PA_GND		WRF_PA_GND		WRF_PA_GND	WRF_RFIN_5G	B
C	FM_TX	FM_VSSAUDIO	BT_PLLVSS	BT_VSS	BT_IFVSS	WRF_GNDANA_2G		WRF_GND	WRF_PADRV_GND	WRF_PADRV_VDD		WRF_ANA_GND	C
D	FM_RXN	FM_RXP	FM_VDDAUDIO	BT_GPIO_1	WL_GPIO_6	BT_CLK_REQ_IN	BT_UART_TXD	WL_GPIO_3	WRF_A_TSS_IN	WRF_LOGEN_A_GND	WRF_LOGEN_A_VDD1P2	WRF_VDDANA_1P2	D
E	FM_RFVDD1P2	FM_RXVSS	FM_VDDPLL1P2	BT_CLK_REQ_MODE	BT_VDDC	WL_VDDC	BT_UART_RXD	WL_VSS_2	WRF_GPIO_OUT	WRF_RES_EXT		WRF_VDD_VCO_LDO_IN_1P8	E
F	FM_VDD2P5	FM_VSSVCO	FM_PLLVSS	BT_GPIO_0	BT_VSSC	BT_VDDIO	BT_UART_RTS_N	JTAG_SEL	WRF_AFE_GND	WRF_TOXO_VDD	WRF_VCO_LDO_OUT_1P2	WRF_VCO_GND	F
G	BT_CLK_REQ_OUT	BT_TM0	BT_RST_N		BT_GPIO_7	BT_I2S_DI	BT_UART_CTS_N	WL_GPIO_1	WRF_VDDAFE_1P2	WRF_TOXO_IN		WRF_XTAL_OP	G
H	BT_GPIO_4		BT_GPIO_2	BT_GPIO_3	BT_GPIO_6	BT_I2S_DO	BT_PCM_CLK	WL_GPIO_2	WL_GPIO_0	WRF_XTAL_VDD_1P2	WRF_XTAL_GND	WRF_XTAL_ON	H
J	VOUT_3P3	VOUT_3P1	EXT_PWM_REQ	BT_GPIO_5	WL_GPIO_4	LPO	BT_PCM_IN	BT_PCM_OUT	RF_SW_CTRL_5	RF_SW_CTRL_6	RF_SW_CTRL_1	HSC_RREF	J
K	SR_VDDBAT1	SR_VDDBAT2	BT_REG_ON	EXT_SMPS_REQ	BT_VDDC	WL_VDDC	BT_PCM_SYNC	RF_SW_CTRL_0	RF_SW_CTRL_7	RF_SW_CTRL_4	WL_VSS_0	WL_VDDC	K
L	SR_VDDBAT1	PMU_AVSS	VOUT_LNLD01	WL_REG_ON	SDIO_DATA_3	SDIO_CMD	WL_GPIO_5	WL_VSS_1	RF_SW_CTRL_2	VDDIO_RF	HSC_DATA	HSC_AVDD12	L
M	SR_VLX	SR_PVSS	VIN_LDO	VOUT_CLDO	SDIO_DATA_1	SDIO_CLK	SDIO_DATA_0	SDIO_DATA_2	RF_SW_CTRL_3	WL_VDDO	HSC_STROBE	HSC_AVSS	M
	12	11	10	9	8	7	6	5	4	3	2	1	

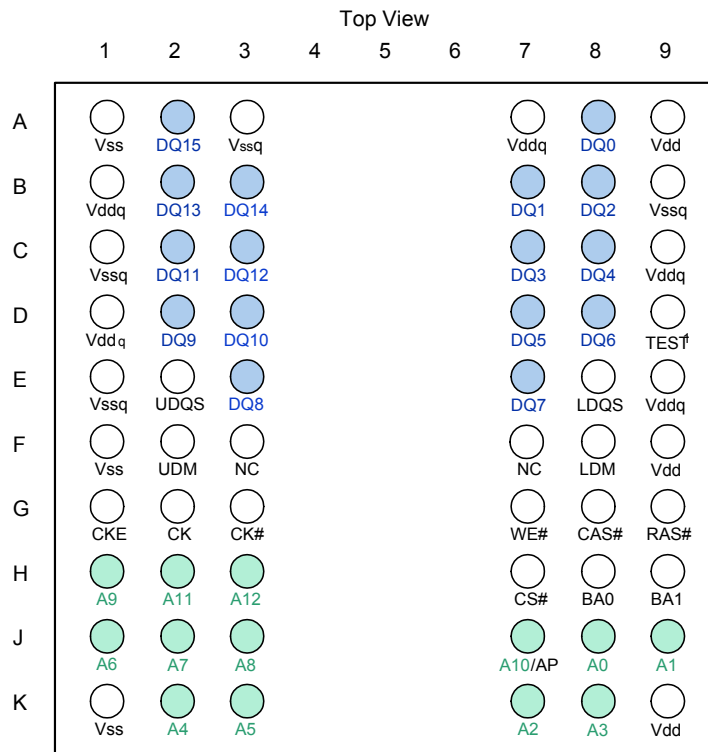
- UCP300

NC

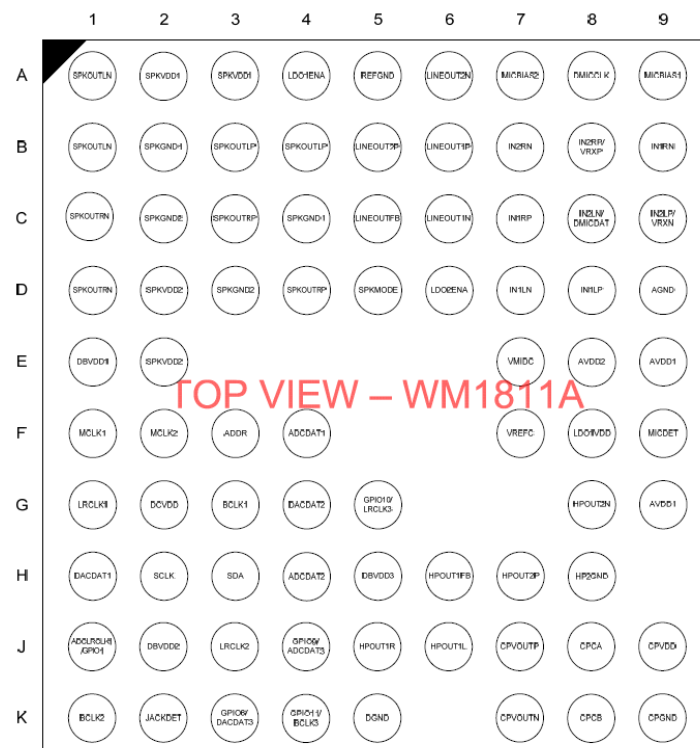
Bottom View

	17	16	15	14	13	12	11	10	9	8	765432						1	
A	NC	MEM_A_8	MEM_BFC_LKO_1	MEM_SDC_LKO	MEM_A_0	MEM_BC0_n	MEM_A_1	MEM_A_2	MEM_A_3	MEM_A_4	MEM_AD_9	FCDP_FB_n	VPLL	VDD_VBA_T_SD2	SD2_SW	SD2_SW	NC	A
B	MEM_A_9	MEM_A_2_3	MEM_BFC_LKO_0	MEM_CKE	MEM_RD_n	MEM_WR_n	VDD_IO18	MEM_BC2_n	MEM_A_6	FWP	MEM_CAS_n	DSP_AUDIO_IN1	x	VIO_12	x	x	VSS_SD2	B
C	MEM_A_1_0	MEM_A_2_2	xx		x	MEM_A_5	x	x	MEM_A_7	x	x	x	x	VUSB_PD	VDD_VSD_2	SD2_FB	VDD_VBA_T_SD1	C
D	MEM_A_1_1	MEM_A_2_1	x	VSS	MEM_AD_13	MEM_AD_12	MEM_AD_11	MEM_AD_7	VSS	MEM_AD_3	x	x	x	ANAMON	SD1_FB	x	SD1_SW	D
E	MEM_A_1_2	MEM_A_2_0	x	MEM_RAS_n	VDDCORE	VDDCORE_EBU	MEM_AD_8	VDDCORE	MEM_AD_6	MEM_AD_5	x	x	x	VSS	FSS	x	SD1_SW	E
F	MEM_A_1_3	MEM_BC1_n	VDD_IO18	VSS	MEM_AD_15	xx		x	MEM_AD_4	x	x	TRIG_B	x	VRTC	VDD_VBA_T_PMU	VUSB_ANA	VSS_SD1	F
G	MEM_A_1_4	MEM_BC3_n	MEM_A_1_9	MEM_BE0_n	MEM_BE1_n	x	MEM_AD_1	MEM_AD_V_n	MEM_AD_2	VSS	x	xxx			x	VPMU	VSIM	G
H	MEM_A_1_5	MEM_A_1_7	x	MEM_CS2_n	MEM_CS3_n	x	MEM_AD_0	MEM_AD_10	VDDCORE	RESERVE_D	x	M1	x	x	AGND	ON1	VUSB_IO	H
J	VDD_IO18	MEM_A_1_6	MEM_A_1_8	MEM_CS0_n	MEM_CS1_n	MEM_AD_14	VSS	x	x	VSS	x	M2	M3	M4	RESET_P_WRDWN_N	ON2_N	VREF	J
K	MEM_WA_IT_n	VDD_MIP1	x	VDDCORE	VSS	x	VDD_IO18	EINT3	VDDCORE	VDD_IO18	ETM11_T_RACECLK	x	ETM11_T_RACEPKT_4	TM_EN	REF_CLK_EN	RESET_B_B_N	ETM11_T_RACEPKT_7	K
L	F32K	VSS	x	VSS	MIPI_HSI_RX_RDY	x	MIPI_HSI_TX_FLG	VSS	ETM11_T_RACEPKT_5	VDD_MM_C	MMC1_C_MD	x	ETM11_T_RACEPKT_6	ETM11_T_RACEPKT_2	x	ETM11_T_RACEPKT_3	ETM11_T_RACEPKT_1	L
M	OSC32K	VSS	MIPI_HSI_TX_RDY	MIPI_HSI_RX_FLG	MIPI_HSI_TX_WAKE	xx		x	EINT1	EINT2	x	MMC1_D_AT_3	MMC1_D_AT_0	MMC1_D_AT_2	MMC1_C_LK	MMC1_D_AT_1	ETM11_T_RACEPKT_0	M
N	VDD_RTC	USB_ID	x	VSS_USB	MIPI_HSI_RX_DATA	MIPI_HSI_TX_DATA	VDD_IO18	I2C1_SCL	VPP	CLKOUT0	x	x	MMC1_C_D	T_OUT0	x	I2S2_CLK_1	I2S2_CLK_0	N
P	USB_TEST	VBUS	x	VDD_USB_ANA	MIPI_HSI_RX_WAKE	SYS_CLK	VSS_PLL	CLKOUT2	I2C1_SDA	VSS	HW_MON_2	xx		x	T_OUT1	I2S2_TX	I2S2_RX	P
R	USB_DM1_NUS	VDD_USB1_O	xx		x	VDD_PLL	x	x	VSS	VDDCORE	x	HW_MON_1	RESET2_N	NC	x	I2S2_WA1	I2S2_WA0	R
T	USB_DPLUS	USB_TUNE	VDD_USB_PD	CC_RST	CC_IO	VDD_SIM	DMINUS	VDD_DIG_RF	XRESET_N	DI3_TX_D_ATX	DI3_TX_D_AT	TCK	TRIG_IN	TRST_n	USIF1_TX_D_MTSR	USIF1_RX_D_MRST	USIF1_SCLK	T
U	NC	VSS	VDD_IO12	CC_CLK	HSIC_USB_DATA	HSIC_USB_STRB	DPLUS	ALERT_N	SYSCLK_N	DI3_RX_D_ATX	DI3_RX_D_AT	TMS	TDI	TDO	USIF1_RTS_N	USIF1_CTS_N	NC	U
	17	16	15	14	13	12	11	10	9	8	765432						1	

- UME300



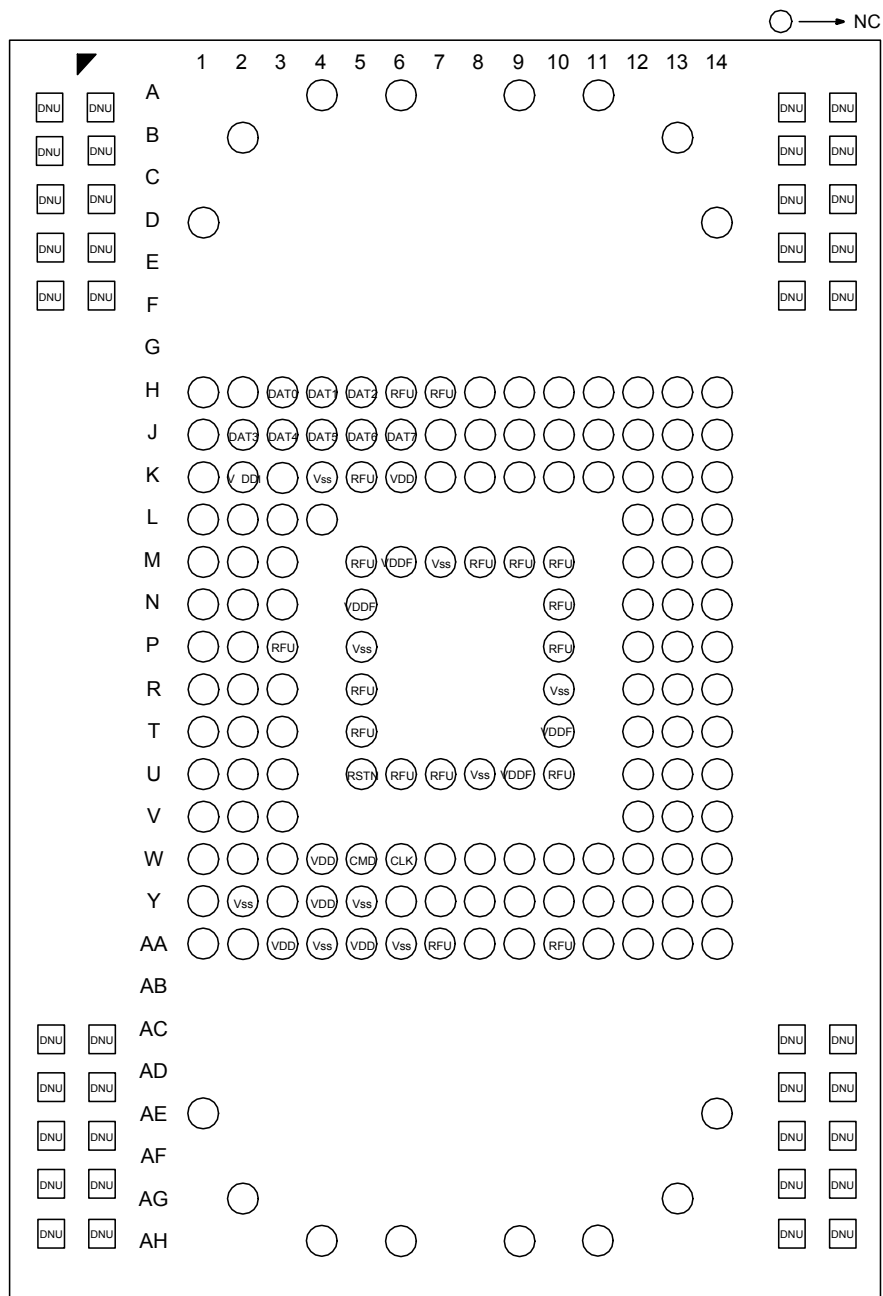
- U404



- UCP600

[illegible]

- U610



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