

SAMSUNG

GSM TELEPHONE

GT-N8000

SERVICE *Manual*

GSM TELEPHONE

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1. Safety Precautions

1-1. Repair Precaution

Before attempting any repair or detailed tuning, shield the device from RF noise or static electricity discharges.

Use only demagnetized tools that are specifically designed for small electronic repairs, as most electronic parts are sensitive to electromagnetic forces.

Use only high quality screwdrivers when servicing products. Low quality screwdrivers can easily damage the heads of screws.

Use only conductor wire of the properly gauge and insulation for low resistance, because of the low margin of error of most testing equipment.

We recommend 22-gauge twisted copper wire.

Hand-soldering is not recommended, because printed circuit boards (PCBs) can be easily damaged, even with relatively low heat. Never use a soldering iron with a power rating of more than 100 watts and use only lead-free solder with a melting point below 250°C (482°F).

Prior to disassembling the battery charger for repair, ensure that the AC power is disconnected. Always use the replacement parts that are registered in the SEC system. Third-party replacement parts may not function properly.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Many semiconductors and ESDs in electronic devices are particularly sensitive to static discharge and can be easily damaged by it. We recommend protecting these components with conductive anti-static bags when you store or transport them.

Always use an anti-static strap or wristband and remove electrostatic buildup or dissipate static electricity from your body before repairing ESDs.

Ensure that soldering irons have AC adapter with ground wires and that the ground wires are properly connected.

Use only desoldering tools with plastic tips to prevent static discharge.

Properly shield the work environment from accidental electrostatic discharge before opening packages containing ESDs.

The potential for static electricity discharge may be increased in low humidity environments, such as air-conditioned rooms. Increase the airflow to the working area to decrease the chance of accidental static electricity discharges.

2. Specification

2-1. GSM General Specification

	GSM850	EGSM 900	DCS1800	PCS1900	WCDMA 2100	WCDMA 1900	WCDMA 1700	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	1710~1755 2110~2155	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: 1312~1513 DL: 1537~1738	UL: 4132~4233 DL: 4357~4458
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz	190MHz	80MHz	400MHz	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~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	24dBm~ -50dBm	24dBm~ -50dBm	24dBm~ -50dBm	24dBm~ -50dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)
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

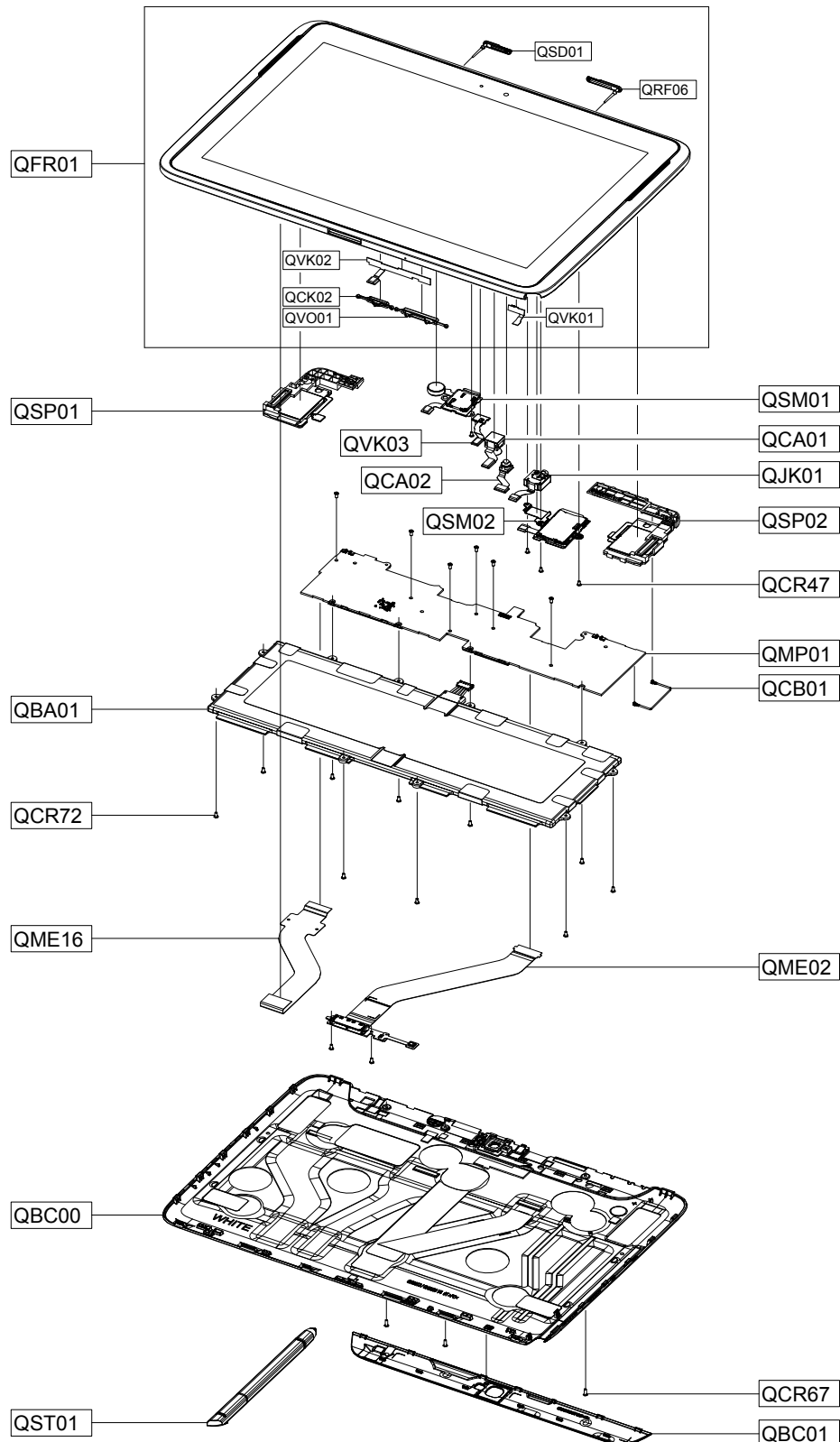
3. Operation Instruction and Installation

Main Function

- Android OS: IceCreamSandwich
- 5MP AF with LED Flash
- 10.1 WXGA TFT Full Touch (C-Type)
- A-GPS / BT v4.0 USB v2.0 / WiFi (802.11 a/b/g/n) 2.4+5GHz
- Recording 720p / Playback 1080p
- Sensors: Accelation, Magnetic, Gyro, Light
- Additional :
 - 1.4GHz Quad Core CPU
 - Application store / Voice & Motion UI
 - Multi-touch, Multi-task manager

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



5. MAIN Electrical Parts List

SEC CODE	Design LOC	Description
0403-001688	D505,ZD700	USFZ5.6V-RTK/H
0404-001172	D700	RB520S-30
0404-001669	D800	PMEG6020EPA
0406-001239	D500,D501,D502	RCLAMP0502B_TCT
0406-001267	ZD101	RCLAMP0521P
0406-001375	D503,D504,ZD501	UCLAMP0501T
0406-001375	ZD502,ZD505,ZD701	UCLAMP0501T
0406-001413	ZD300,ZD301,ZD302	PESD5V0F1BL
0406-001413	ZD303,ZD304,ZD305	PESD5V0F1BL
0406-001413	ZD306,ZD307,ZD308	PESD5V0F1BL
0406-001413	ZD309,ZD400,ZD401	PESD5V0F1BL
0406-001413	ZD404,ZD405,ZD406	PESD5V0F1BL
0406-001413	ZD407,ZD408,ZD409	PESD5V0F1BL
0406-001413	ZD503,ZD504	PESD5V0F1BL
0406-001505	D400,D401,ZD402	PESD5V0X1UALD
0406-001505	ZD403,ZD500	PESD5V0X1UALD
0504-001113	Q6000,TR700	DTC144EM
0504-001171	Q500	DTC114YM
0505-002341	Q701	SI1013X-T1-GE3
0505-002384	Q800	PMR280UN
0505-002720	TR701,TR702	SI7615DN-T1-GE3
0505-002748	Q700	FDMC510P
0505-003052	U704	NTJD4158C
0801-003437	U300	NL17SG32P5T5G
0801-003444	U112	74LVC1G02GM
0902-002950	UCP6000	SC54412ACB-A030
0903-001784	U906	UPD78F0514AGAA-GAM-G
0903-001815	U1004	MXT1664S
1001-001635	U500	FSA2259UMX
1001-001650	U405	DG2750DN-T1-E4
1001-001700	U504	FSUSB63UMX
1001-001733	U107	SKY13397-388LF
1003-002132	U503	ST2G3236QTR
1003-002216	U900,U901	NLSX4373MUTAG
1003-002277	U1005	ISA1200
1003-002430	U1000	NLSX5012MUTAG

SEC CODE	Design LOC	Description
1003-002469	U1103	FXMA2102UMX
1105-002329	UME300	W949D6CBHX51
1107-002134	UME6000	KLMAG2GE4A-A002
1201-003308	U200	SKY65702-11
1201-003406	U108	SKY77604-31
1202-001121	U404,U501	NCX2220GM
1203-004776	U902	RP103K331D-TR
1203-004818	U1001	RP103K181D-TR
1203-004819	U1003,U400,U403,U903	RP103K281D-TR
1203-005069	U508	MIC5235-5.0YM5
1203-005599	U803	LM2757TMX
1203-005831	U113	RP152L010B-TR
1203-006044	U1002	RT8517GQW
1203-006346	U708	FT8010MPX
1203-006392	U701	MAX17042G-T
1203-006766	U505	NCP367OPMUEOTBG
1203-006768	U801	TPS63010YFFR
1203-006794	U502	MAX8627ETD-T
1203-006801	U101	RF6590
1203-006862	U907	KTD267
1203-006874	U1104	RP154L006A-E2
1203-006920	U802	LP8553TLX
1203-006985	U110	LM3242
1203-007169	U702	SMB347S
1203-007322	U700	MAX77686EWE+T
1203-007324	U1105	RP114K121D-TR
1204-003387	U804	MC96FR332AUB-T
1205-003611	U6000	TPS22922YFPR
1205-003692	U402	STMPE811QTR
1205-004233	U1101	SII9244BO
1205-004242	U908	W8008
1205-004313	U800	DTC34LM85AM
1205-004396	U201	BCM47511IUB2G
1205-004474	U509	FPF1048BUCX
1205-004509	U401	WM1811AECS
1205-004511	UCP300	PMB9811C

SEC CODE	Design LOC	Description
1205-004515	U105	PMB5712A2
1209-002006	U103	TS01S
1209-002041	U1100	AK8975C
1209-002045	U100	K3DHTR
1209-002149	U1102	LSM330DLC
1404-001728	TH300,TH6000,TH6001	NCP03WB473J05RL
2007-000138	R137,R422	RC1005J101CS
2007-000140	R528,R529,R6051	RC1005J102CS
2007-000140	R6052	RC1005J102CS
2007-000141	R907,R908	RC1005J222CS
2007-000143	R1103,R1104,R302	RC1005J472CS
2007-000143	R303,R707,R828,R829	RC1005J472CS
2007-000148	R706,R903,R904	RC1005J103CS
2007-000162	R724,R909	RC1005J104CS
2007-000163	R822	RC1005J124CS
2007-000164	R510,R511	RC1005J154CS
2007-000165	R513,R515	RC1005J204CS
2007-000167	R504	RMC16S-394J-TP
2007-000170	R1018,R509,R535	RC1005J105CS
2007-000174	R902,R906	MCR01MZP5J470
2007-000758	R112,R719,R720	RC1005J334CS
2007-000775	R102	RC1005J333CS
2007-001217	R801,R802,R803,R804	MCR01MZP5J820
2007-001217	R806,R809,R810,R811	MCR01MZP5J820
2007-001217	R812,R814	MCR01MZP5J820
2007-001292	R901,R905	RC1005J330CS
2007-002796	R130	MCR01MZP5J511
2007-003010	R530,U507	RC1005J200CS
2007-003015	R532,R534	MCR01MZP5J2R2
2007-007092	R531	RC1005J112CS
2007-007107	R304	RC1005F1003CS
2007-007131	R1011	RC1005F133CS
2007-007132	R933	RC1005F153CS
2007-007136	R6077	RC1005F472CS
2007-007137	R401	MCR01MZP5F1201
2007-007142	R1013,R1017	RC1005F103CS

SEC CODE	Design LOC	Description
2007-007156	R132,R315,R418,R419	RC1005J1R0CS
2007-007156	R506,R512	RC1005J1R0CS
2007-007310	R500	MCR01MZP5F8201
2007-007312	R6086,R6087	MCR01MZP5F2002
2007-007489	R1012	RK73H1ETP1503F
2007-007517	R6045,R6046,R6084	MCR01MZP5F2400
2007-007517	R6085	MCR01MZP5F2400
2007-007538	R1010	RK73H1ETP5602F
2007-007573	R413	RK73H1ETP3303F
2007-007592	R505	RK73H1ETP2703F
2007-007627	R824	RK73H1ETP1602F
2007-007741	R1003,R1004,R1008	M5534204B10E0R
2007-007741	R1108,R1111,R6048	M5534204B10E0R
2007-007741	R6059	M5534204B10E0R
2007-007766	R503	RK73H1ETP2001F
2007-007942	R414,R416,R6021	RC-1005F105CS
2007-007981	R1016,R934	ERJ2RKF1803X
2007-008040	R1001	ERJ1GEJ470X
2007-008043	R119	MCR006YZPJ820
2007-008045	R318,R502,R726,R735	ERJ1GEJ101C
2007-008045	R920,R921,R922,R923	ERJ1GEJ101C
2007-008045	R924,R925,R926,R927	ERJ1GEJ101C
2007-008045	R928	ERJ1GEJ101C
2007-008048	R1112,R1113,R209	ERJ1GENJ201X
2007-008052	R1106,R322,R6029	ERJ1GENJ472X
2007-008052	R6030,R6055,R6056	ERJ1GENJ472X
2007-008052	R6082	ERJ1GENJ472X
2007-008055	R1020,R325,R522,R533	ERJ1GENJ104X
2007-008055	R536,R6023,R6060	ERJ1GENJ104X
2007-008055	R6067,R6070,R6076	ERJ1GENJ104X
2007-008055	R6078,R6079,R6080	ERJ1GENJ104X
2007-008055	R6081,R721,R722,R723	ERJ1GENJ104X
2007-008055	R823,R913,R936,R937	ERJ1GENJ104X
2007-008057	R709,R711	MCR006YZPJ151
2007-008211	R521,R912,R916	MCR006YZPJ200
2007-008275	R507	MCR01MZP5F303

SEC CODE	Design LOC	Description
2007-008401	R415	RC1005F754CS
2007-008419	R919	ERJ1GEJ102C
2007-008420	R1000,R516,R517	RMC-1/20-330JPA
2007-008478	R6041,R6042,R6049	RMC1/20152JPA
2007-008478	R6050	RMC1/20152JPA
2007-008483	R210,R211,R212,R213	RMC1/20473JPA
2007-008483	R214,R310,R312,R313	RMC1/20473JPA
2007-008483	R314,R323,R518,R523	RMC1/20473JPA
2007-008483	R6027	RMC1/20473JPA
2007-008486	R701,R705	ERJ1GEJ204C
2007-008516	R1021,R1102,R1107	ERJ1GEJ103C
2007-008516	R135,R311,R408,R423	ERJ1GEJ103C
2007-008516	R424,R525,R526,R527	ERJ1GEJ103C
2007-008516	R6000,R6002,R6026	ERJ1GEJ103C
2007-008516	R6028,R6065,R6066	ERJ1GEJ103C
2007-008516	R6072,R6073,R6074	ERJ1GEJ103C
2007-008516	R6075,R6083,R727	ERJ1GEJ103C
2007-008516	R813,R817,R932	ERJ1GEJ103C
2007-008531	R6011	MCR006MZPJ0100
2007-008588	R305,R306,R307,R411	MCR006YZPJ222
2007-008588	R6022	MCR006YZPJ222
2007-008721	R820	RC1005F125CS
2007-008774	R1009	ERJ1GEJ2R2C
2007-008798	R704	MCR006YZPJ153
2007-008800	R6043,R6044	MCR006MZPF2002
2007-008806	R417,R420,R501,R519	RC0603J510CS
2007-008806	R520	RC0603J510CS
2007-008812	R821	RC1005F2153CS
2007-008816	R403	MCR006MZPJ822
2007-009084	R1100,R702,R703,R830	MCR006YZPJ105
2007-009116	R120,R121	ERJ1GEJ910C
2007-009155	R326	MCR006YZPJ474
2007-009157	R6013,R6014,R6016	MCR006YZPF1003
2007-009157	R6017,R6018,R6047	MCR006YZPF1003
2007-009157	R917,R929,R931	MCR006YZPF1003
2007-009158	R1109,R1110	MCR006MZPF1503

SEC CODE	Design LOC	Description
2007-009168	R825	MCR006MZPJ563
2007-009170	R6038	MCR006YZPJ184
2007-009171	R6003,R6004,R6005	MCR006YZPJ513
2007-009171	R6006,R6007,R6008	MCR006YZPJ513
2007-009171	R6009,R6010	MCR006YZPJ513
2007-009182	R935	ERJ1GEF2203C
2007-009212	R400	MCR006YZPF1001
2007-009314	R105,R6024	MCR006MZPJ334
2007-009315	R301	RC0603J4R7CS
2007-009408	R6031,R6032,R6034	ERJ1GEF222C
2007-009408	R6035,R6036,R6037	ERJ1GEF222C
2007-009408	R6039,R6040,R6053	ERJ1GEF222C
2007-009408	R6054,R6057,R6058	ERJ1GEF222C
2007-009408	R6061,R6062,R6090	ERJ1GEF222C
2007-009408	R6091,R6092,R6093	ERJ1GEF222C
2007-009801	R115,R116	MCR006YZPF1000
2007-009964	R6071	MCR01MZPF5F44R2
2007-010233	R320	RC1005F4021CS
2007-010856	R731	RUW2012FR010CS
2007-010883	R914,R915	ACR0402T12R0F
2203-000233	C109,C138,C211,C214	GRP1555C1H101J
2203-000233	C226,L111	GRP1555C1H101J
2203-000254	C1025,C135,C205,C778	GRP155R71C103K
2203-000254	C779,C783	GRP155R71C103K
2203-000278	C225,C935,C942	GRP1555C1H100D
2203-000386	C823,C824	GRP1555C1H150J
2203-000438	C915	GRP155R71H102K
2203-000489	C6060	GRP155R71H222K
2203-000627	C208	GRM1555C1H220J
2203-000714	C6061,C6062	04025C332KAT2A
2203-000725	C1028	GRP155R71H392KA01E
2203-000812	C821	GRP1555C1H330J
2203-000854	C808	GRP1555C1H390J
2203-000995	C776,C781,C782	GRP1555C1H470J
2203-001437	C140,C2107	CM05X7R050C50AT
2203-002687	C763,C766,C775,C780	GRP155R71H122KD01E

SEC CODE	Design LOC	Description
2203-002709	C1104,C1105,C917	C1005Y5V1C104ZT
2203-002709	C921,C926,C930,C931	C1005Y5V1C104ZT
2203-002709	C932,C937,C941	C1005Y5V1C104ZT
2203-005682	C139,C206,C343,C345	GRP0335C1E330JD01E
2203-005682	C346	GRP0335C1E330JD01E
2203-005683	C144,C196	GRP0335C1E8R0DD01E
2203-005717	C705	GRP0335C1E270JD01E
2203-005725	C228,C706	GRP0335C1E220JD01E
2203-005726	C143	GRM0335C1E560J
2203-005727	C219	CL03C120JA3GNNC
2203-005729	C400,C401,C406,C407	CL03C150JAGC
2203-005731	C2101,C449,C6057	GRM0335C1E180J
2203-005731	C6058	GRM0335C1E180J
2203-005732	C404,C405,C408	GRP0335C1E680JD01E
2203-005734	C410,C418,C419,C420	GRM0335C1E820JD01D
2203-005734	C421,C447,C448	GRM0335C1E820JD01D
2203-005736	C162	GRP0335C1E101JD01E
2203-005789	C147,C148	ECJZEC1E0R5B
2203-005806	C156,C417	GRP033R71C102KD01E
2203-006047	C772	C1005X7R1C333K
2203-006048	C1031,C136,C510	GRM155R71A104K
2203-006048	C6063,C784,C903,C904	GRM155R71A104K
2203-006048	C905,C906,C911	GRM155R71A104K
2203-006121	C826	GRM33X7R471K16PT
2203-006190	C6030	GRM155R60J224KE01E
2203-006194	C152,C167,C301,C302	GRP033R70J103KA01E
2203-006194	C800	GRP033R70J103KA01E
2203-006305	C220,C514,C515	CM03CG100J25AH
2203-006318	C146	GRP0335C1E1R2CD01
2203-006324	C938	GRM188R61A225KE19D
2203-006379	C157	GRP033R70J472KA01
2203-006399	C104,C119,C344,C403	GRM155R60J105KE19D
2203-006399	C409,C441,C442,C802	GRM155R60J105KE19D
2203-006399	C803	GRM155R60J105KE19D
2203-006423	C1000,C1001,C1003	GRM33X5R104K6.3
2203-006423	C1004,C1005,C1006	GRM33X5R104K6.3

SEC CODE	Design LOC	Description
2203-006423	C1007,C1008,C101	GRM33X5R104K6.3
2203-006423	C1014,C1017,C102	GRM33X5R104K6.3
2203-006423	C103,C110,C1107	GRM33X5R104K6.3
2203-006423	C1108,C1110,C1112	GRM33X5R104K6.3
2203-006423	C1114,C1119,C1121	GRM33X5R104K6.3
2203-006423	C1124,C131,C132,C134	GRM33X5R104K6.3
2203-006423	C163,C168,C170,C209	GRM33X5R104K6.3
2203-006423	C210,C300,C303,C304	GRM33X5R104K6.3
2203-006423	C306,C307,C311,C314	GRM33X5R104K6.3
2203-006423	C315,C317,C319,C320	GRM33X5R104K6.3
2203-006423	C321,C322,C325,C326	GRM33X5R104K6.3
2203-006423	C328,C329,C330,C333	GRM33X5R104K6.3
2203-006423	C334,C335,C342,C347	GRM33X5R104K6.3
2203-006423	C505,C506,C6000	GRM33X5R104K6.3
2203-006423	C6002,C6005,C6009	GRM33X5R104K6.3
2203-006423	C6015,C6026,C6029	GRM33X5R104K6.3
2203-006423	C6047,C6048,C6059	GRM33X5R104K6.3
2203-006423	C700,C701,C704,C817	GRM33X5R104K6.3
2203-006423	U6042	GRM33X5R104K6.3
2203-006562	C1013,C1015,C1021	CV05X5R105K10AH
2203-006562	C1022,C1024,C171	CV05X5R105K10AH
2203-006562	C2103,C2104,C402	CV05X5R105K10AH
2203-006562	C414,C502,C6066	CV05X5R105K10AH
2203-006562	C6067,C703,C764,C785	CV05X5R105K10AH
2203-006562	C801,C815,C818,C819	CV05X5R105K10AH
2203-006562	C900,C901,C902,C916	CV05X5R105K10AH
2203-006562	C933	CV05X5R105K10AH
2203-006642	C6016,C6018,C6022	GRM033R71E331KA01D
2203-006647	C105,C106,C107,C112	GRM033R60J473KE19D
2203-006648	C159	GRM033R60J223KE01D
2203-006668	C825	GRM033R61A222K
2203-006681	C811	GRM155F51E104ZA01D
2203-006815	R117,R118	GRM033R70J682K
2203-006824	C195	CV105X5R475K10AT
2203-006839	C1115,C1117,C150	CL03A104KP3NNNC
2203-006839	C154,C155,C169,C172	CL03A104KP3NNNC

SEC CODE	Design LOC	Description
2203-006839	C222,C424	CL03A104KP3NNNC
2203-006841	C1009,C508,C771	CV05X5R105K16AH
2203-006844	C812,C814,C936	CV05X5R474K10AH
2203-006872	C1023,C1030,C108	GRM155R60J225ME15D
2203-006872	C1106,C1109,C1111	GRM155R60J225ME15D
2203-006872	C1113,C126,C200,C201	GRM155R60J225ME15D
2203-006872	C202,C203,C426,C438	GRM155R60J225ME15D
2203-006872	C439,C440,C6001	GRM155R60J225ME15D
2203-006872	C6008,C6014,C6027	GRM155R60J225ME15D
2203-006872	C6028,C6034,C6038	GRM155R60J225ME15D
2203-006872	C6045,C6046,C6049	GRM155R60J225ME15D
2203-006872	C726,C727,C731,C733	GRM155R60J225ME15D
2203-006872	C740,C744,C745,C746	GRM155R60J225ME15D
2203-006872	C752,C753,C822,C907	GRM155R60J225ME15D
2203-006872	C910,C912,C913,C922	GRM155R60J225ME15D
2203-006872	C923	GRM155R60J225ME15D
2203-006979	C127,C142	CL03B103KP3NNNC
2203-007133	C511	CL21A106KOCLRNC
2203-007210	C124,C305,C310,C312	CV03X5R224K06AH
2203-007210	C316,C318,C323,C327	CV03X5R224K06AH
2203-007210	C331,C332,C336,C348	CV03X5R224K06AH
2203-007210	C702	CV03X5R224K06AH
2203-007240	BAT700,C755,C756	CL10A226MQ8NRNE
2203-007240	C757,C758,C759	CL10A226MQ8NRNE
2203-007269	C337,C338,C786	CL21A226MPCLRNC
2203-007270	C1102,C1103,C115	CL10A106KP8NNNC
2203-007270	C182,C765,C767,C768	CL10A106KP8NNNC
2203-007270	C805,C809,C810	CL10A106KP8NNNC
2203-007271	C1016,C1019,C1020	CL05A225KP5NSNC
2203-007271	C151,C204,C207,C509	CL05A225KP5NSNC
2203-007271	C934	CL05A225KP5NSNC
2203-007279	C770,C773,C939	CV105X5R106M10AT
2203-007317	C123,C128,C129,C130	CV05X5R475M06AH
2203-007317	C224,C340,C427,C428	CV05X5R475M06AH
2203-007317	C431,C437,C6003	CV05X5R475M06AH
2203-007317	C6006,C6010,C6042	CV05X5R475M06AH

SEC CODE	Design LOC	Description
2203-007317	C720,C722,C723,C724	CV05X5R475M06AH
2203-007317	C750,C751,C754,C760	CV05X5R475M06AH
2203-007342	C1029,C707,C708,C709	CV05X5R225M10AH
2203-007342	C710,C711,C717,C820	CV05X5R225M10AH
2203-007342	C908	CV05X5R225M10AH
2203-007385	C100,C1100,C1101	CL05A106MR5NRNC
2203-007385	C1116,C6031,C6035	CL05A106MR5NRNC
2203-007385	C6039,C6064	CL05A106MR5NRNC
2203-007392	C1026,C1027	CL05A225KO5NQNC
2203-007393	C113,C153,C164,C769	CL05A475KP5NRNC
2203-007393	C804,C914,C940	CL05A475KP5NRNC
2203-007425	C761,C762	CL10A225KA5LNNC
2203-007449	C1002,C1122,C1123	CL03A105MQ3CSNH
2203-007449	C1125,C1126,C125	CL03A105MQ3CSNH
2203-007449	C2102,C2105,C2106	CL03A105MQ3CSNH
2203-007449	C324,C425,C429,C430	CL03A105MQ3CSNH
2203-007449	C433,C434,C445,C507	CL03A105MQ3CSNH
2203-007449	C6004,C6007,C6011	CL03A105MQ3CSNH
2203-007449	C6012,C6013,C6017	CL03A105MQ3CSNH
2203-007449	C6019,C6020,C6021	CL03A105MQ3CSNH
2203-007449	C6024,C6025,C6032	CL03A105MQ3CSNH
2203-007449	C6033,C6036,C6037	CL03A105MQ3CSNH
2203-007449	C6040,C6041,C6043	CL03A105MQ3CSNH
2203-007449	C6044,C718,C725,C728	CL03A105MQ3CSNH
2203-007449	C729,C730,C732,C734	CL03A105MQ3CSNH
2203-007449	C735,C736,C737,C738	CL03A105MQ3CSNH
2203-007449	C739,C741,C742,C743	CL03A105MQ3CSNH
2203-007449	C747,C748,C749,C788	CL03A105MQ3CSNH
2203-007449	C816	CL03A105MQ3CSNH
2203-007634	C512,C513	CL21A105KBCLNNC
2203-007775	C423,C719,C721	CV05X5R475M10AH
2203-007781	C500,C501,C503,C504	CL10A226MP8NUNE
2203-007781	C774,C777,C787	CL10A226MP8NUNE
2203-007790	C807,C813	UMK316ABJ475KD-T
2203-007795	C221,C308,C309,C313	CL05A106MP5NUNC
2203-007795	C712,C713,C714,C715	CL05A106MP5NUNC

SEC CODE	Design LOC	Description
2203-007795	C716	CL05A106MP5NUNC
2203-007796	C1120,C435,C436,C443	CL03A105MP3NSNC
2203-007796	C444,C6051,C6052	CL03A105MP3NSNC
2203-007796	C806	CL03A105MP3NSNC
2203-008097	C1010,C1011,C1012	CL03A104KA3NNNC
2203-008097	C1018	CL03A104KA3NNNC
2203-008243	C1118	CL03A103KA3NNNC
2404-001596	TA400	F950J107MPAAQ2
2409-001232	TA700	TCJH157M006R0200
2703-001178	R202	LL1005-FH3N3S
2703-002198	L205	CIH05T10NJNC
2703-002204	C213	CIH05T22NJNC
2703-002268	C212	CIH05T8N2JNC
2703-002281	L136	CIH05T5N6SNC
2703-002313	L109,L137	CIH05TR10JNC
2703-002369	C227	CIH05T1N5SNC
2703-002596	L103,L106	LQW15AN15NH00D
2703-002900	L120	LLV0603-F27NJ
2703-002901	L113	LLV0603-F15NJ
2703-002953	C216	CIH03T18NJNC
2703-002999	L119	CIH03T22NJNC
2703-003347	L904	CIG22L1R0MNE
2703-003479	C217	LQG15HSR10J02D
2703-003485	L1002	CIG22L100MNE
2703-003687	L700,L707,L708,L709	CIG21L1R0MNE
2703-003755	L102,L104,L105	MIPSZ2012D4R7-SS
2703-003869	L302,L303	LQM2HPN3R3MGCL
2703-003911	L500	CIG22H1R0MNE
2703-003913	L800	CIG22H2R2MNE
2703-003916	C215	CML0306-3N9-BNH
2703-003939	L801	PLF5020T-6R8M1R8
2703-004000	L101	LQP03TN47NJ02D
2703-004013	C133,C145	LQP03TN1N8B02D
2703-004014	L114,L123	LQP03TN1N2B02D
2703-004034	L121,L122	LQP03TN1N0B02D
2703-004035	L134	LQP03TN3N3B02D

SEC CODE	Design LOC	Description
2703-004037	L107,L115,L118	LQP03TN2N7B02D
2703-004185	L132	CIG21LR47MNE
2703-004244	L711	PLF5018T-1R0M
2703-004338	L203	LQM18PN2R5ND0D
2703-004373	L407,L408,L409,L410	1269AS-H-1R0N-P2
2703-004373	L701,L702,L703,L704	1269AS-H-1R0N-P2
2703-004373	L705,L706,L710	1269AS-H-1R0N-P2
2801-004449	OSC900	SQ3D01600B2HBA
2801-004543	OSC800	DSX321G(12MHZ,10PPM)
2801-005051	OSC201	FA-128-37.4MHZ
2801-005157	OSC700	TFX-03
2801-005163	OSC6000	SQBD02400D2JCG
2809-001369	OSC100	DSA221SCL
2809-001374	OSC200	KT2520F26000ACW18TAK
2901-001625	F800	ICMEF112P900MFR
2901-001634	F902,F903,F904	ICMEF112P500MFR
2901-001647	F801,F802,F901	ICMEF214P101MFR
2904-001988	F200	SAFEA1G58KA0F00
2910-000126	F100	SAPHU836MAD0F00
2911-000191	U106	SKY18106-455LF
3301-001659	L201	BLM15AG601SN1
3301-001729	L1100,L1101	BLM15AG102SN1D
3301-001812	L204	BLM15HD102SN1
3301-001885	L404,L405	BLM15HD182SN1D
3301-001901	L1000,L1001	BLM18EG221SN1D
3301-001929	L200,L406,L411	BLM15AG100SN1D
3301-001956	L300,L301	BLM21PG220SN1D
3301-002037	L900,L901	BLM18KG601SN1
3301-002062	L100	BLM18HE102SN1D
3301-002065	L400,L401,L402,L403	MMZ1005A182ET
3301-002065	L412,R800	MMZ1005A182ET
3301-002066	L902	MMZ1005S102ET
3705-001448	CN200	20369-001E
3705-001731	RFS100	KMS-560-002-BEF
3708-002015	CN800,CN801	04-6298-706-000-883
3708-002183	SLC800	FF12-45A-R12BN-D3

SEC CODE	Design LOC	Description
3708-002278	SLC500	FF12-51A-R12BN
3708-002781	CN900,SLC1000	FF10-80A-R12B-D3
3711-006615	HDC301,HDC302,HDC400	AXT610124AW1
3711-006615	HDC401,HDC402,HDC500	AXT610124AW1
3711-006852	HDC900	AXT624124AW1
3711-006919	HDC901	AXT620124AW1
3711-006923	HDC902,HDC903	14-5802-016-002-829
3711-007173	HDC300,HDC6000	AXE612124
3711-007494	BTC700	202-02970-00518
3712-001348	ANT102,ANT103,ANT200	HJ-ICT-05Y
3712-001348	ANT201	HJ-ICT-05Y
4709-002135	U202	LBEH5DKVMC-534TEMP
GH70-07980A	SC102	SHIELDCAN-GTP7560-RF
GH80-03320A	R1019,R133,R136,R138	PB-SHORT-1005
GH80-03320A	R203,R538,R714	PB-SHORT-1005
GH80-03321A	R1007,R1014,R201	PB-SHORT-0603
GH80-03321A	R206,R316,R412,R827	PB-SHORT-0603
GH98-20254A	SC100	SHIELDCAN-GTP7500-GPS

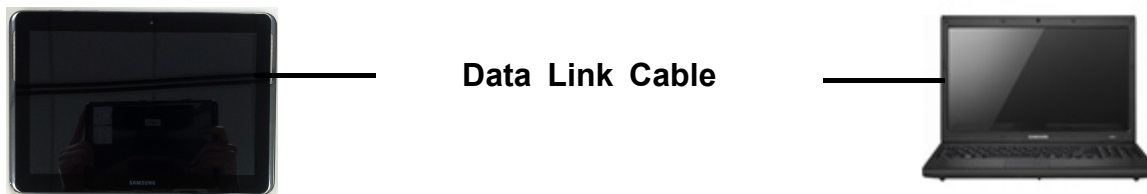
6. Level 6 Repair

6-1. S/W installation

6-1-1. Required items in order to install S/W

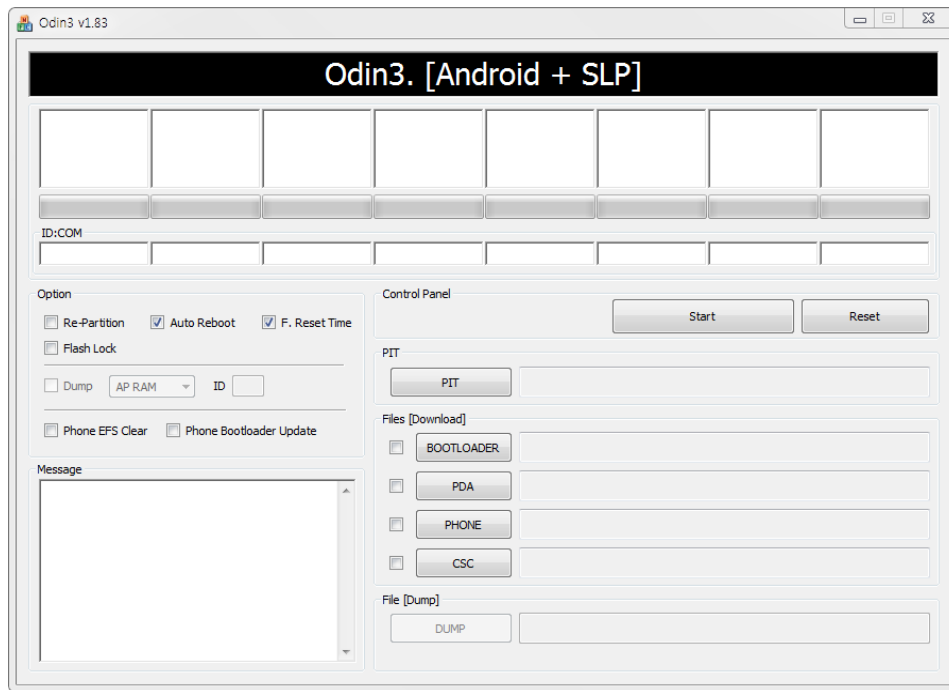
- Installation program: Downloader Program ([Odin3 v1.85.exe](#))
- GT-N8000 Tarblet PC
- Data Link Cable (GH39-01440H)
- Mobile device specific S/W: Binary files

※ Settings

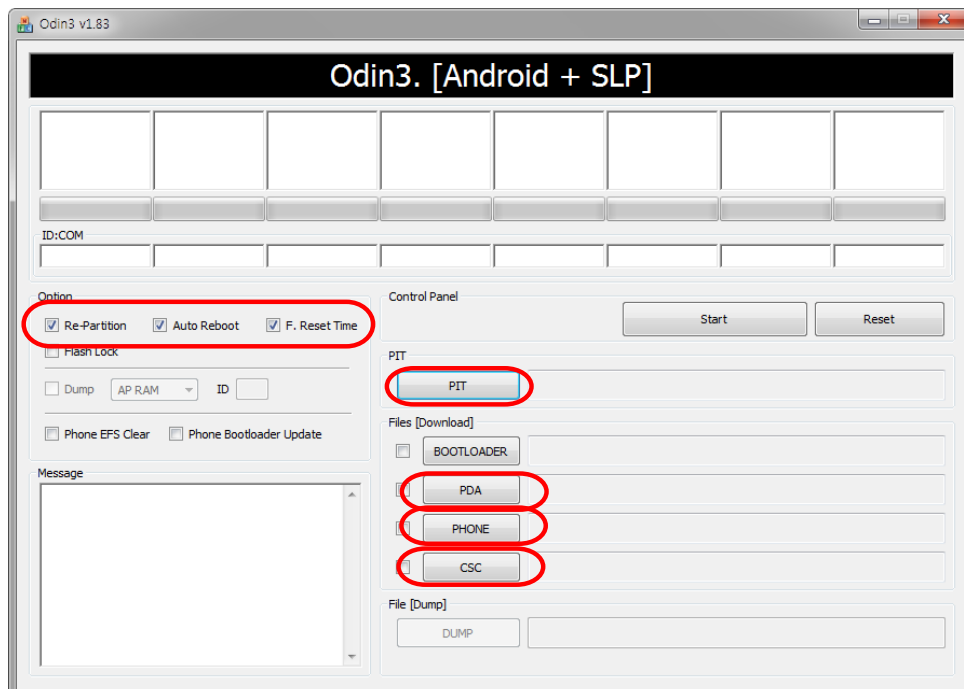


6-1-2. S/W Installation Program (Downloader program)

- Open up the S/W Installation Program by executing the **"Odin3 v1.85.exe"**

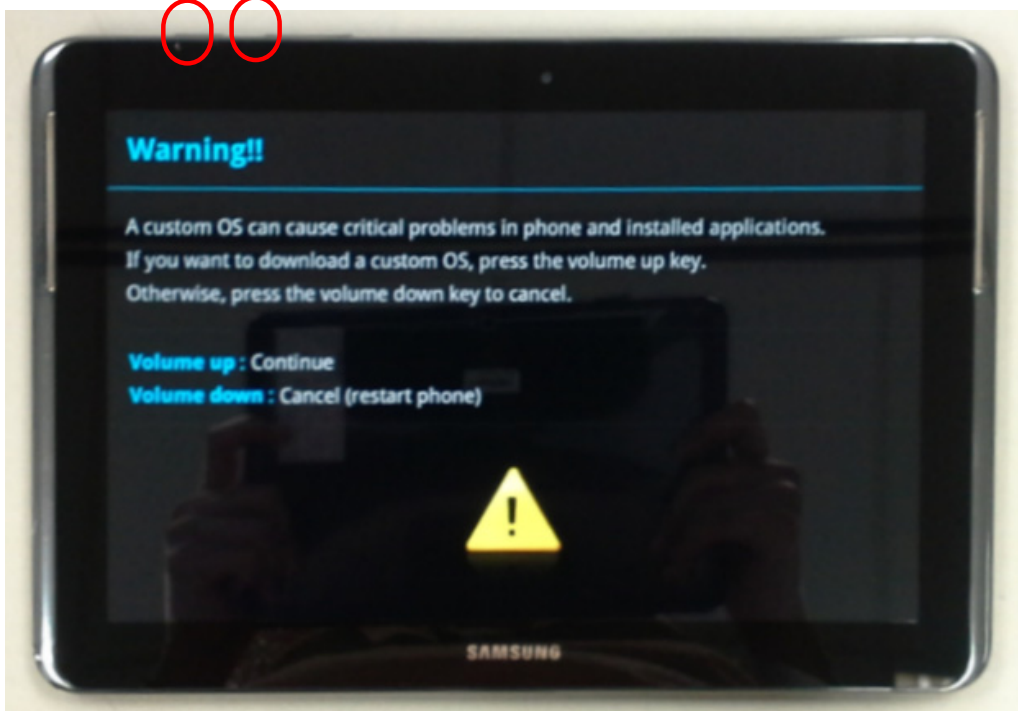


1. Enable the check mark by click on the following options,
 - Check Re-Partition, Auto Reboot, and F. Reset Time
 - Check PIT
 - Check PDA & Modem & CSC Files

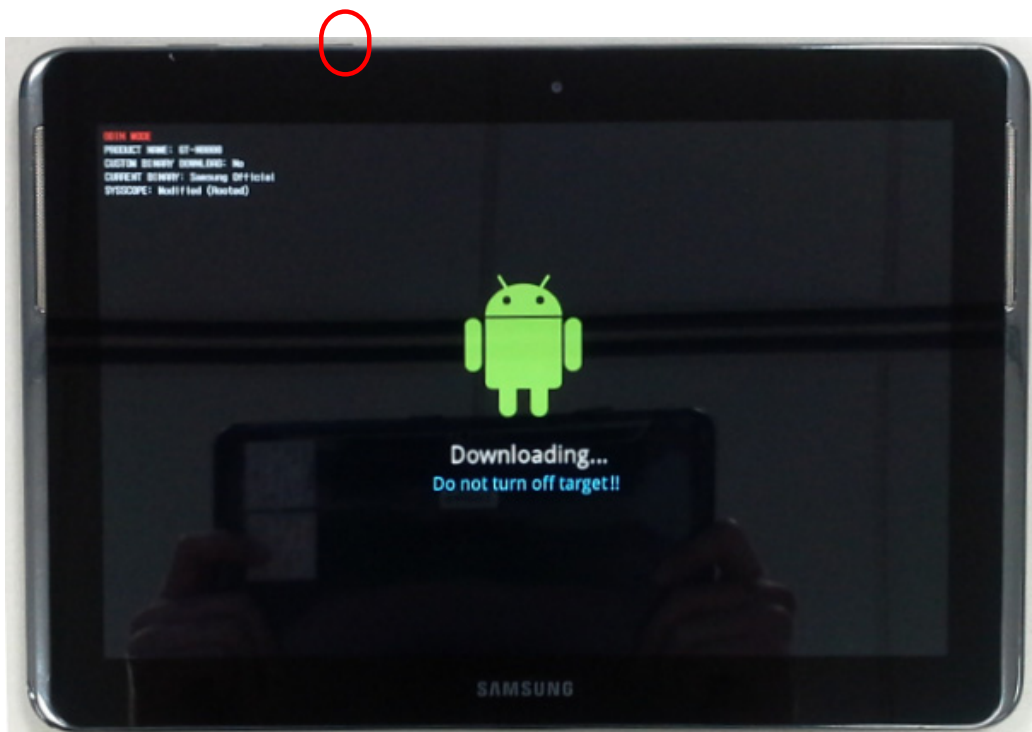


2. Enter into Download Mode

- Press down on Volume Down button and power key at same time for 10 seconds

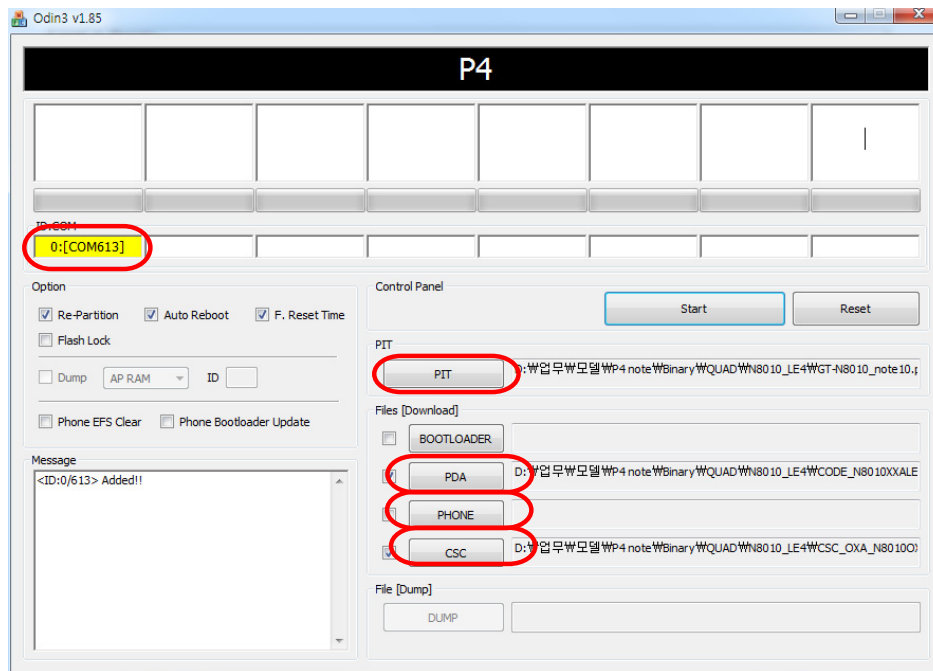


- Press down on Volume Up button to enter device into download mode

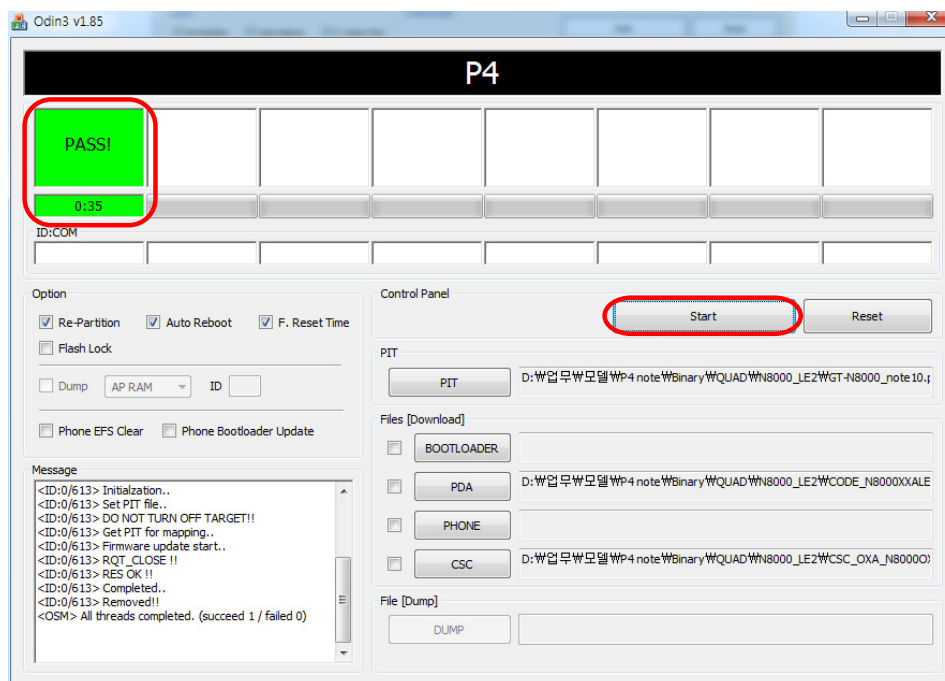


3. Connect the device to PC via Data Cable.

Make sure that the one of communication port [ID:COM] box is highlighted in yellow. The device is now connected with the PC and ready to download the binary file into the device.



4. Start downloading binary file into the device by clicking Start Button on the screen. the green colored "PASS!" sign will appear on the upper-left box if the binary file has been successfully downloaded into the device.



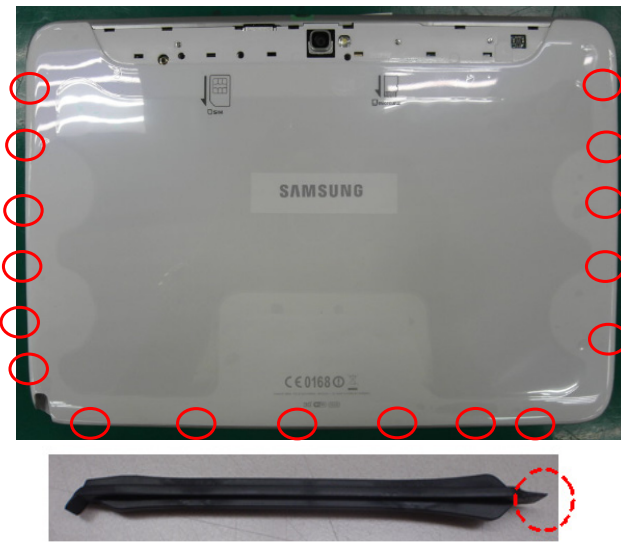
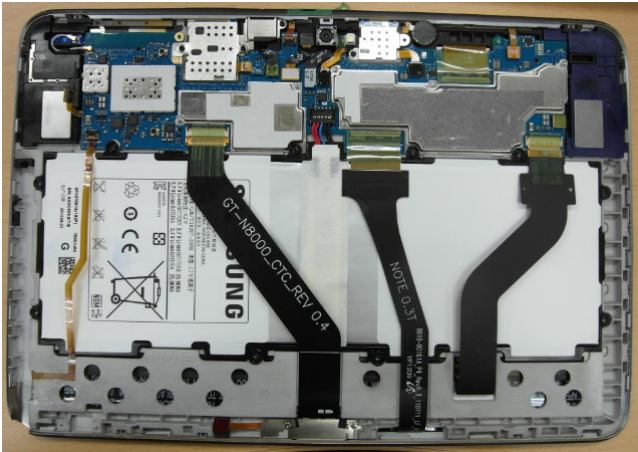
5. Disconnect the device from the Data cable.
6. Once the device boots up, you can check the version of the binary file or name by pressing the following code in sequence;
***#1234#**

You can perform full reset by pressing the following code in sequence;

***#87976633#**

7. Level 2 Repair

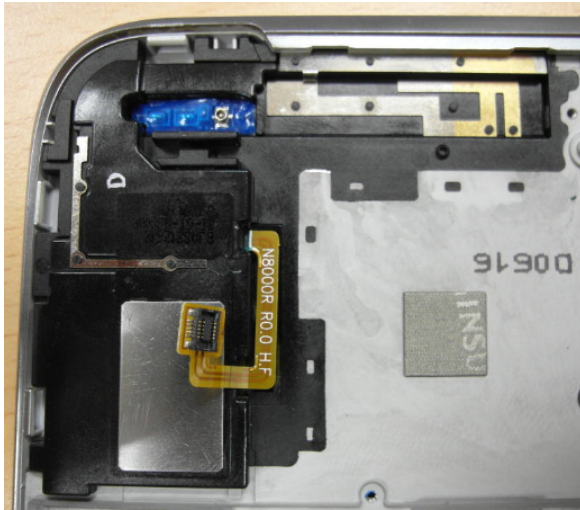
7-1. Disassembly

1 1) remove rear cover 	2 1) unscrewing those 3 points of the picture 
1) remove the rear cover using disassembly	
3 1) Rear JIS disassembly points 	4 1) remove the battery cover from SET 
	1) Make sure not to damage the rear and leave scratch on it

5 1) remove LCD FPCB	6 1) unscrew from SET
1) Make sure not to damage the connectors and FPCBs.	
7 1) remove screw and FPCB connector 2) remove hall IC FPCB	8 1) remove coaxial cable 2) remove speaker connector
1) Caution that fpcb is torn	

9

1) remove left speaker



1) Make sure not to damage the connectors of speaker

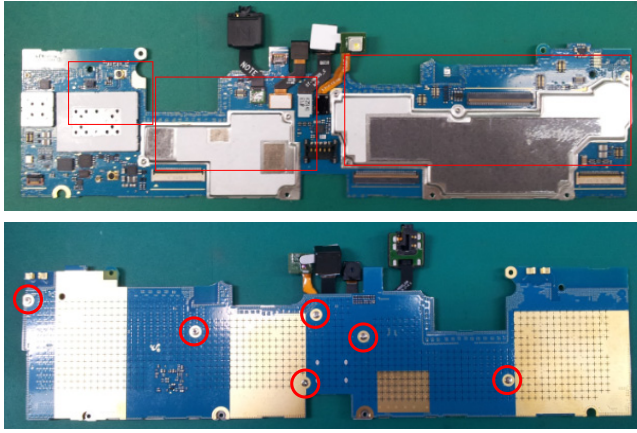
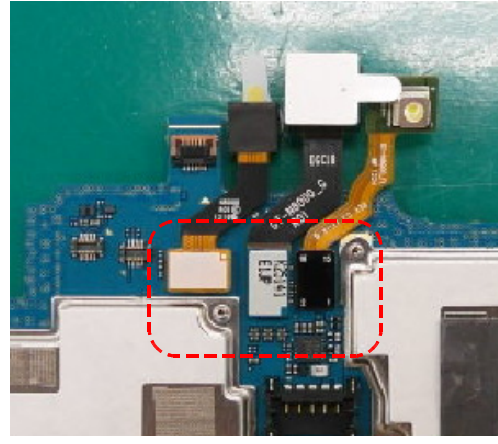
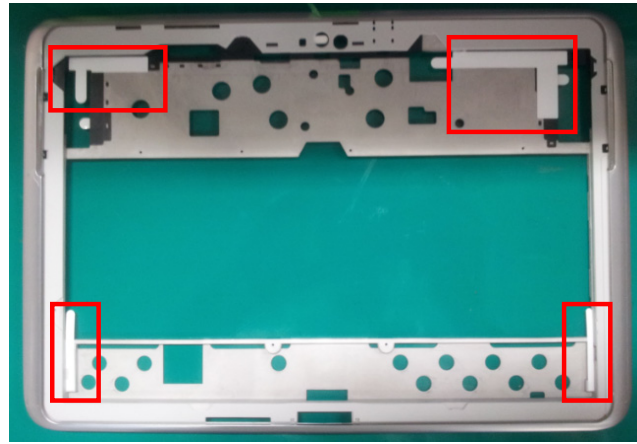
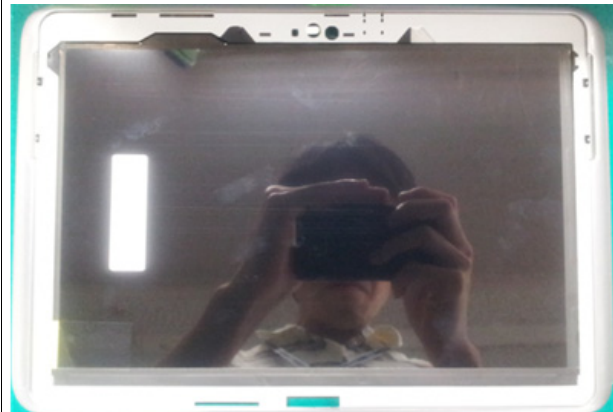
10

1) remove right speaker



1) Make sure not to damage the connectors of speaker

7-2. Assembly

1 1) assemble the shieldcan 2) Screw 6 points 	2 1) assemble FPCB connectors 
1) Make sure not to damage the PBA	
3 1) remove the bracket release paper 	4 1) assemble the LCD on the bracket 
	1) Make LCD do not tilt

5

1) assemble TSP



Press time : 9.7 sec

Press kgf : 6.0 ~ 7.0 kgf/cm2

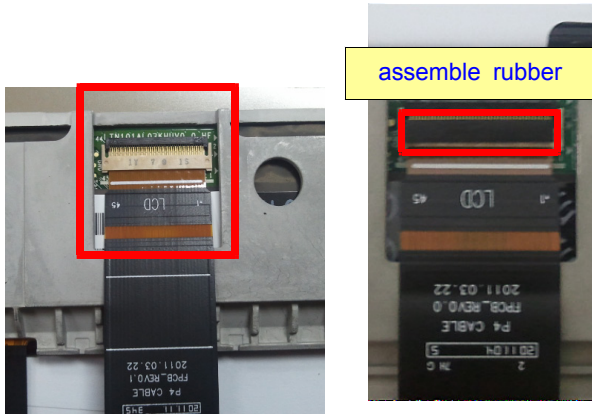
6

1) assemble speaker left and right

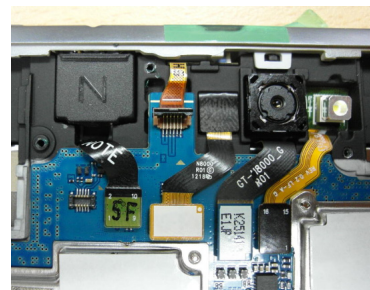
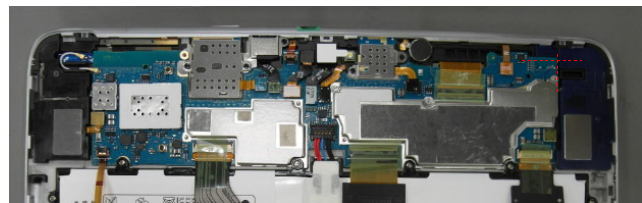


7

1) assemble the FPCB



8

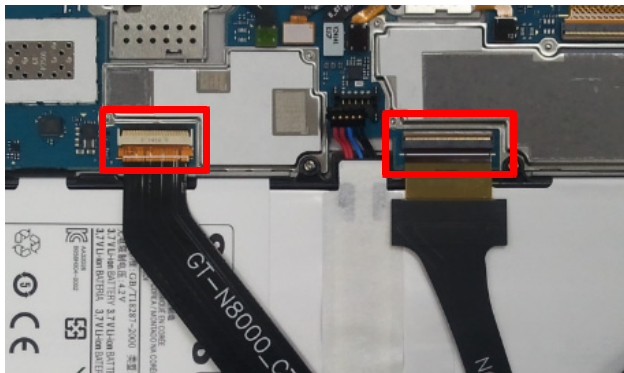
 1) Put the PBA on the Front Ass'y
 2) assemble all of connector


1) Make sure not to damage the FPCB

9 1) assemble coaxial cable and speaker connector	10 1) assemble SIM socket 2) screw 3 points 2) assemble the connector
	1) check the screw connector
11 1) assemble SD socket 2) screw 1 points 2) assemble the connector	12 1) assemble all of the connector
1) check the screw and connector	1) check the FPCB

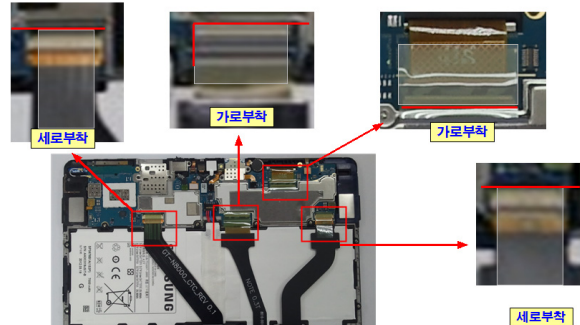
13

1) assemble LCD, TSP FPCB



14

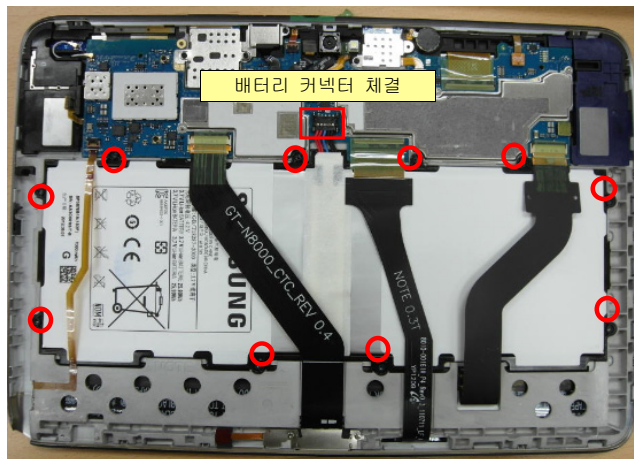
1) attach the tape on the FPCB



1) check the FPCB connector

15

1) assemble battery connector
2) screw 10 points



1) check the screw

16

1) assemble rear cover



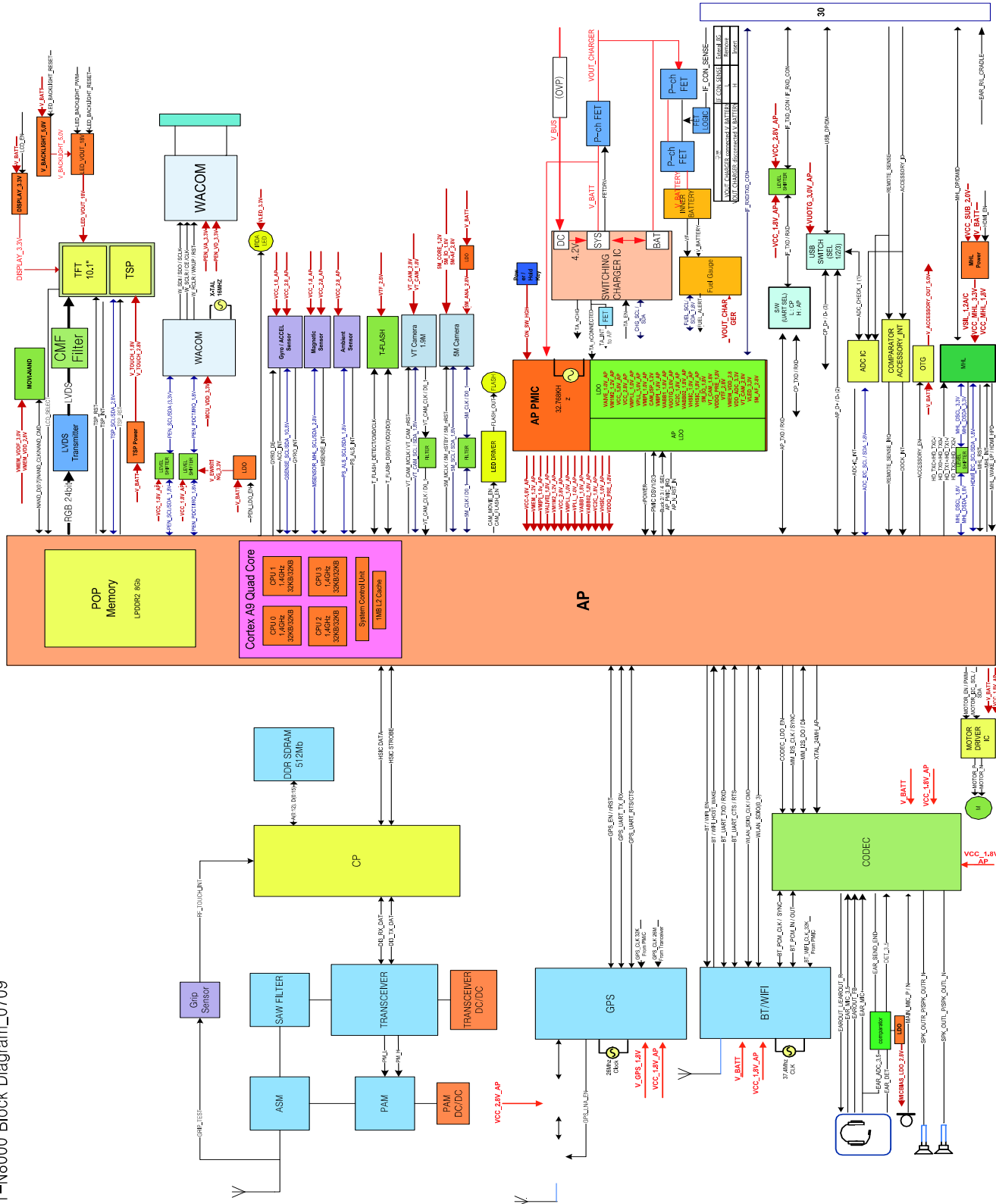
※Do not remove release paper of the shield can

17 1) check the assemble sequence	18 1) screw 3 points 2) assembly the rear deco
1) check the assemble sequence	1) check the screw
19 1) assemble the S-pen	
1) Make it sure assembly of S-PEN	

8. Level 3 Repair

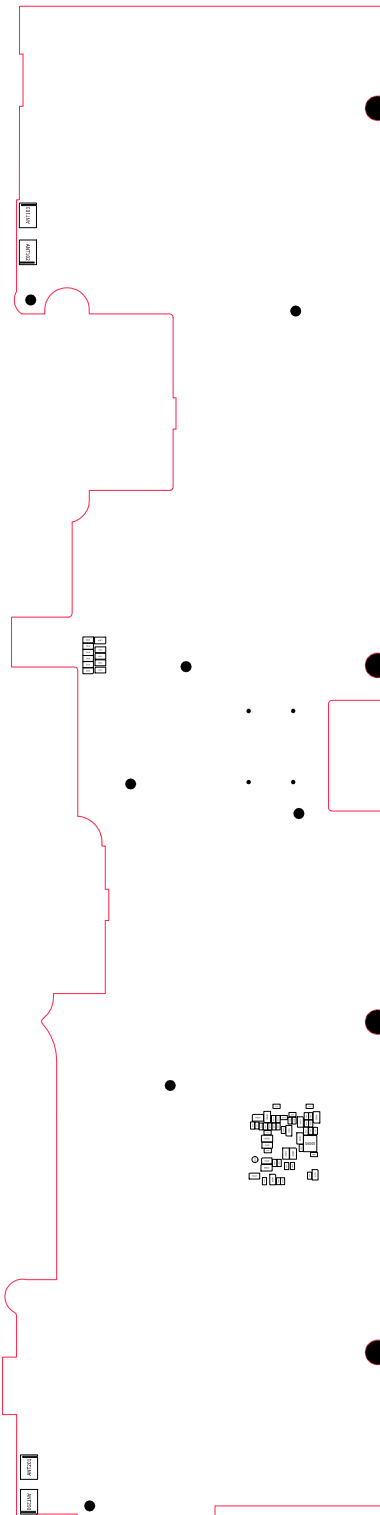
8-1. Block Diagram

GT-N8000 Block Diagram_0709

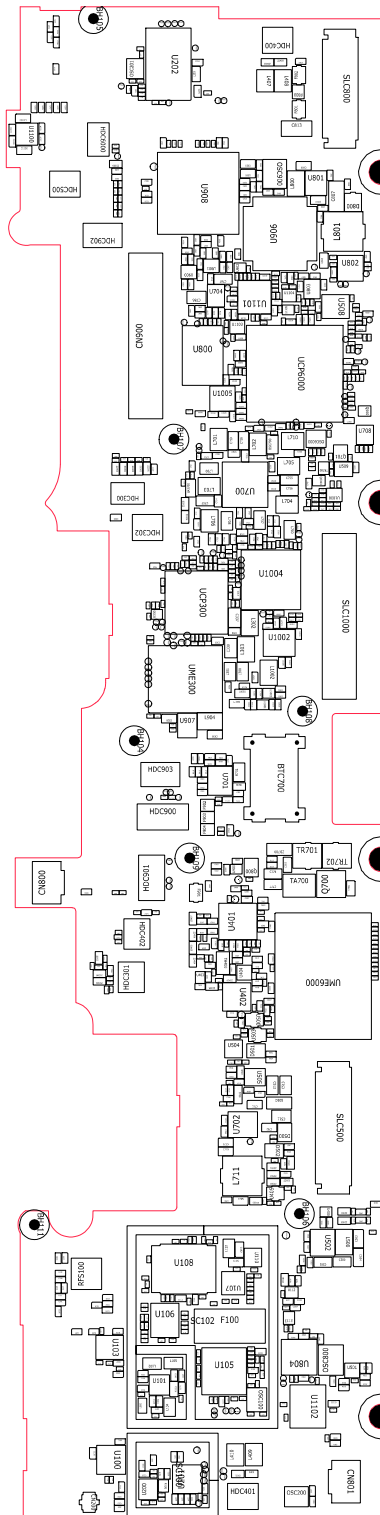


8-2. PCB Diagrams

8-2-1. Top

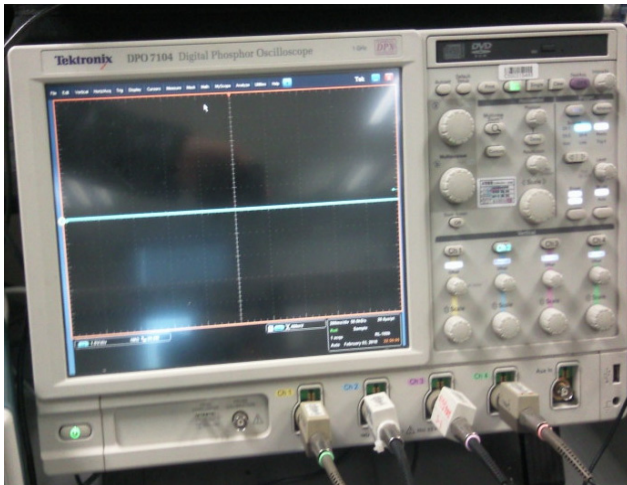


8-2-2. Bottom



8-3. Flow Chart of Troubleshooting

Equipments



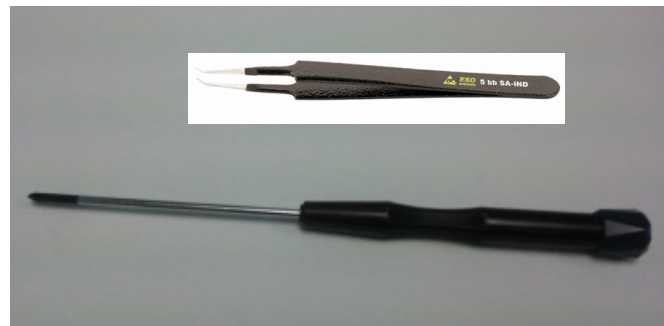
↑ Oscilloscope



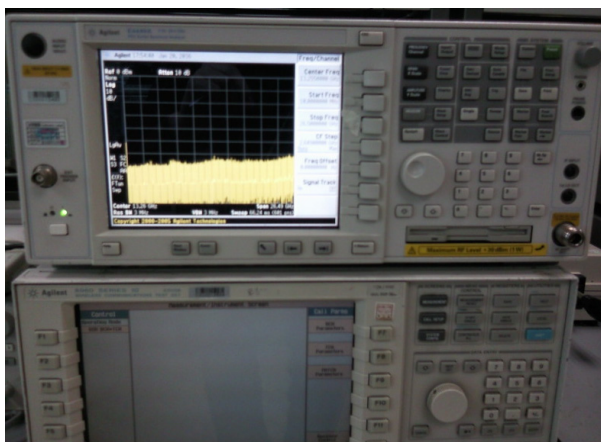
↑ Digital Multimeter



↑ Power Supply



↑ + driver, ESD Safe Tweezer

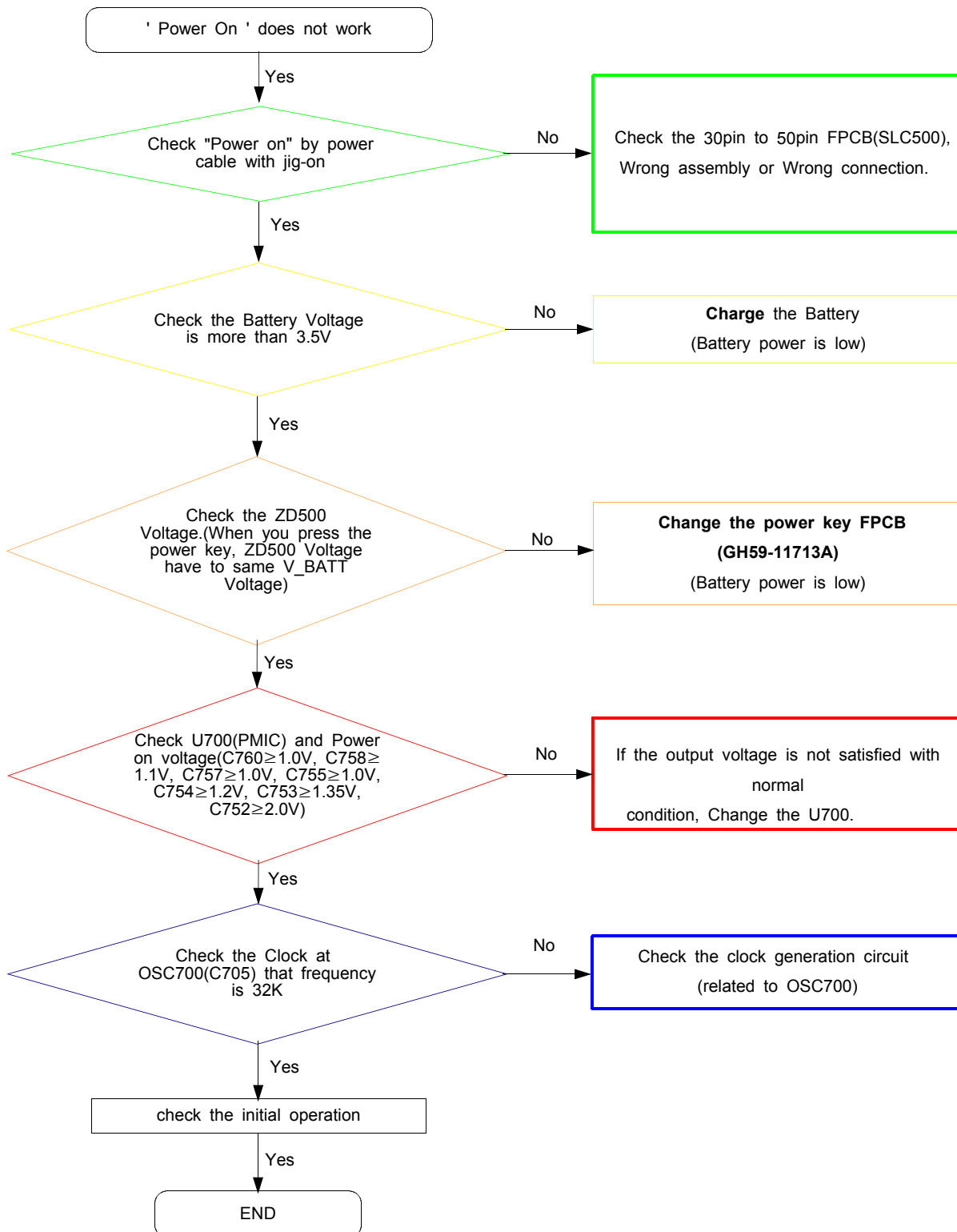


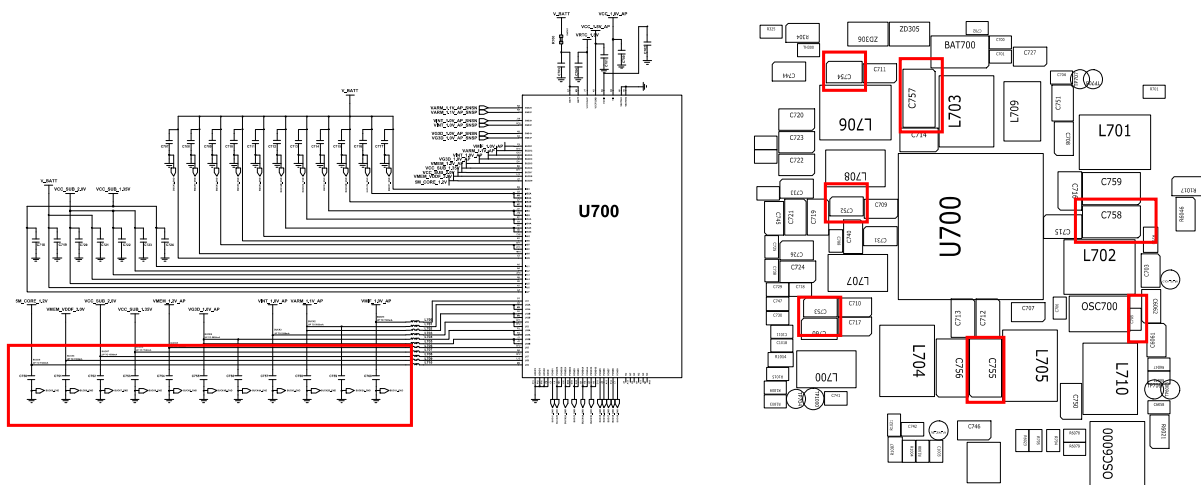
↑ 8960 & Spectrum Analyzer



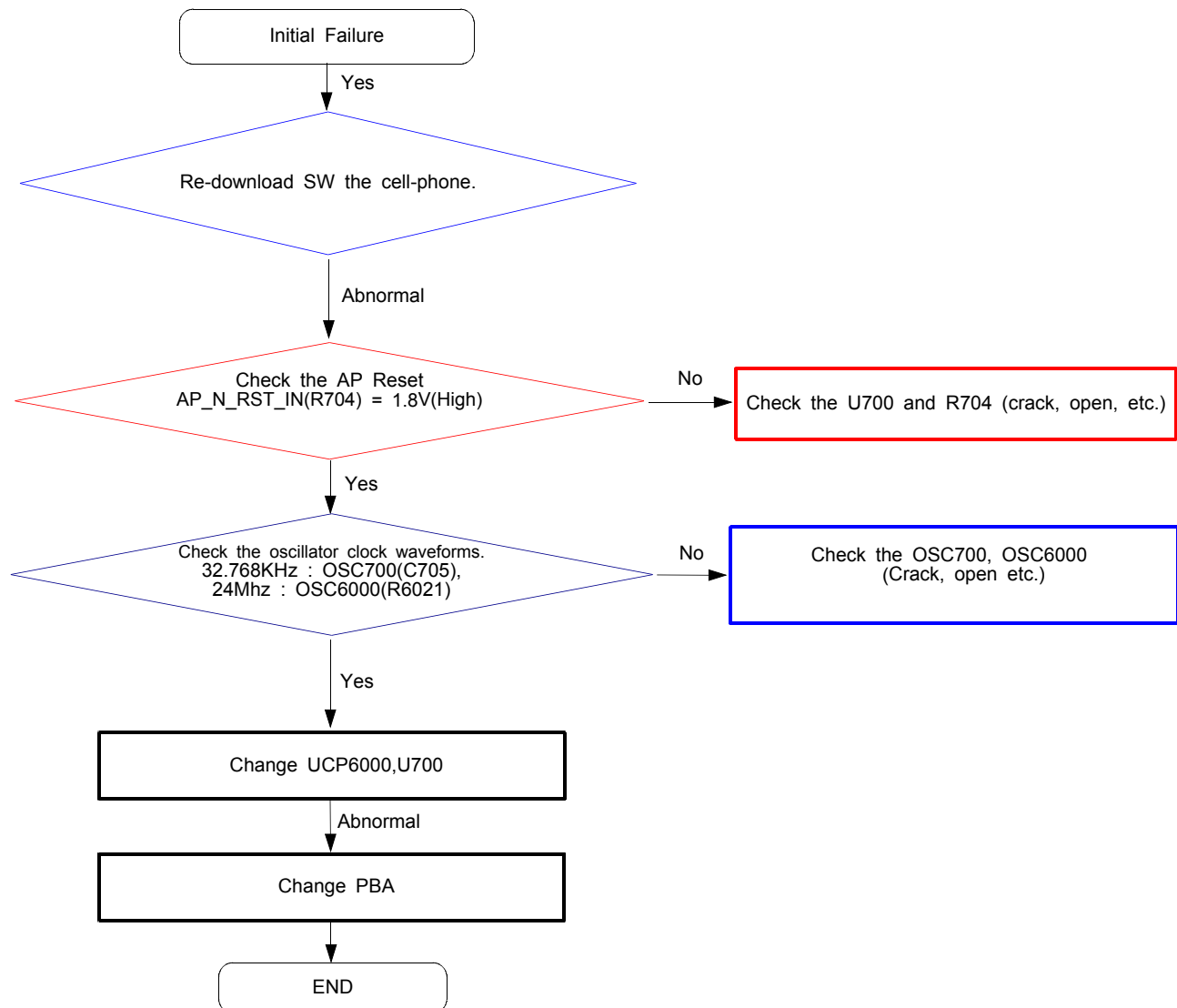
↑ Soldering iron

8-3-1. Power On

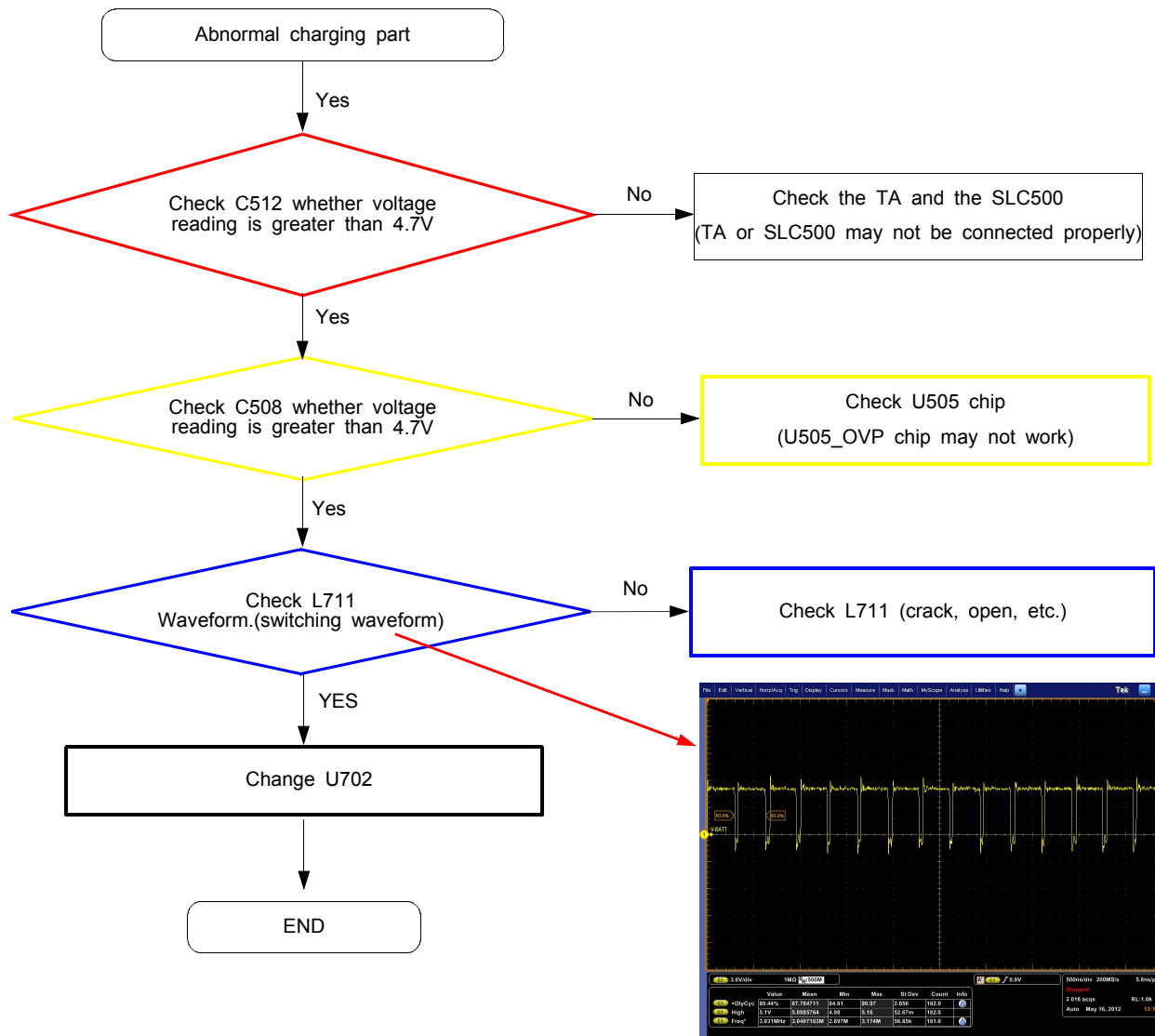


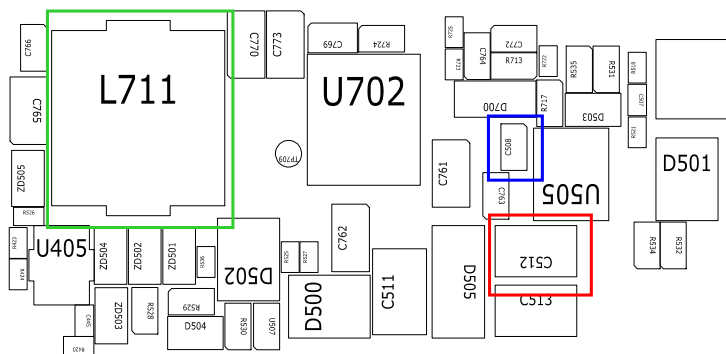
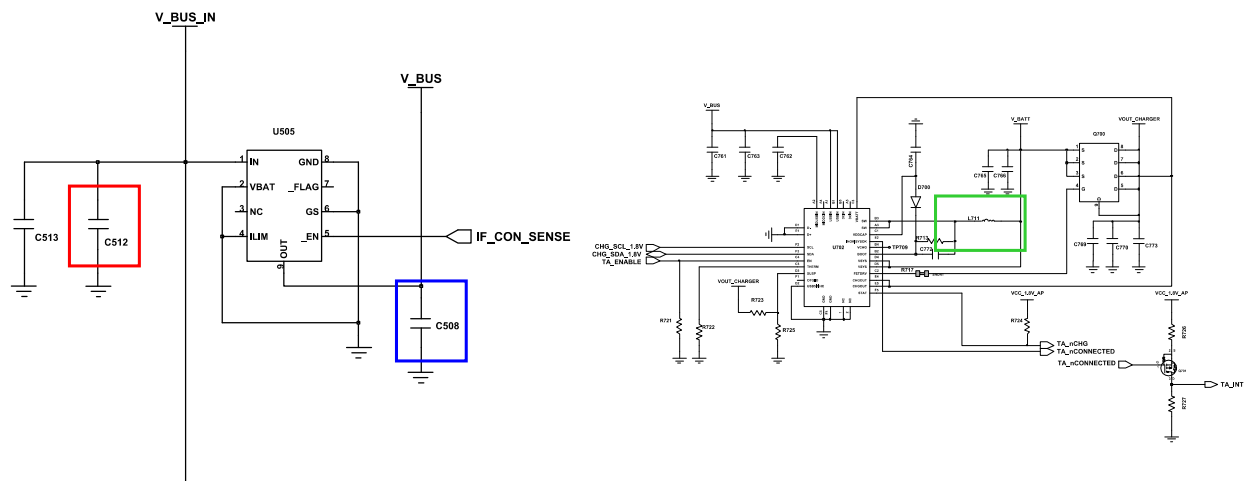


8-3-2. Initial

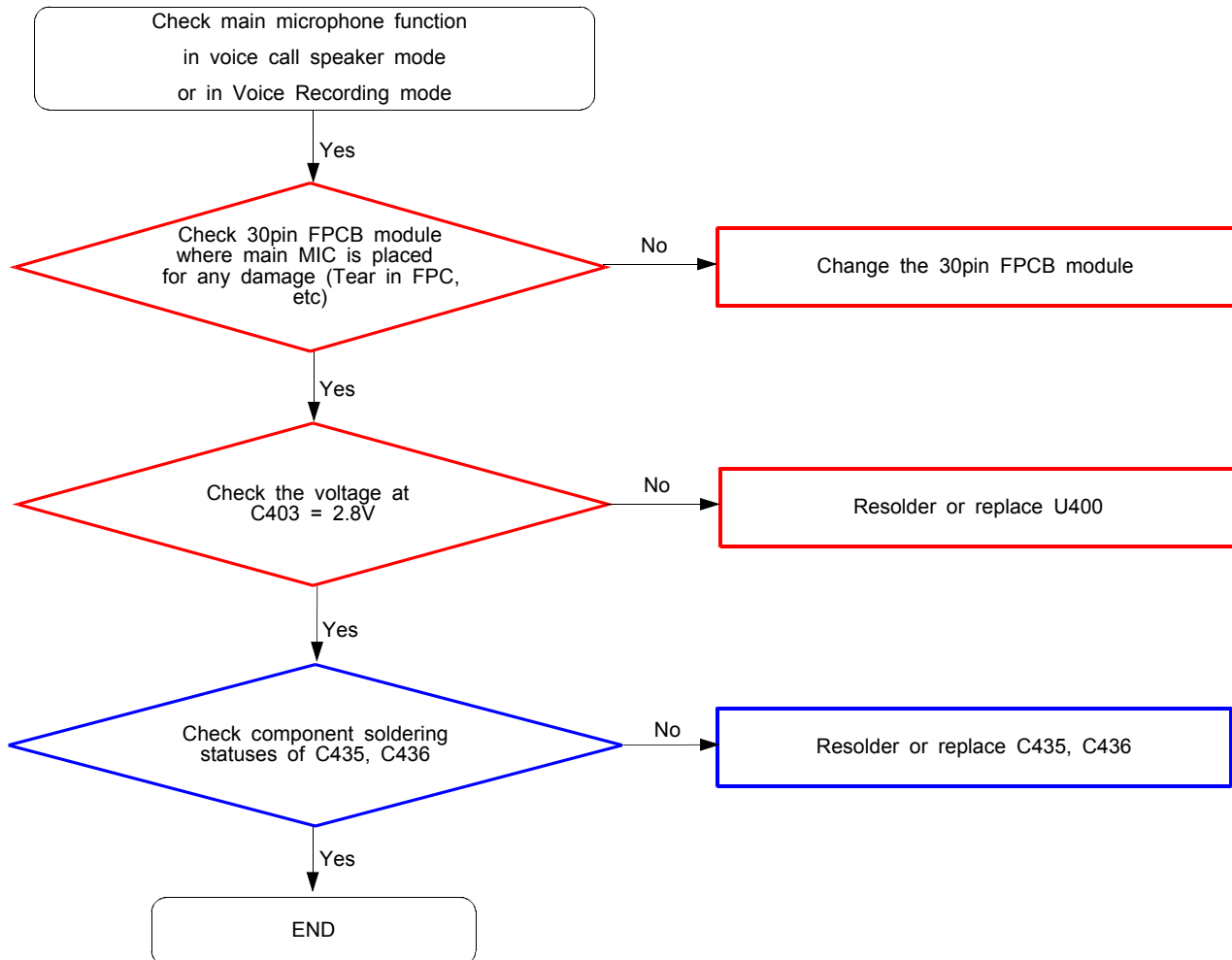


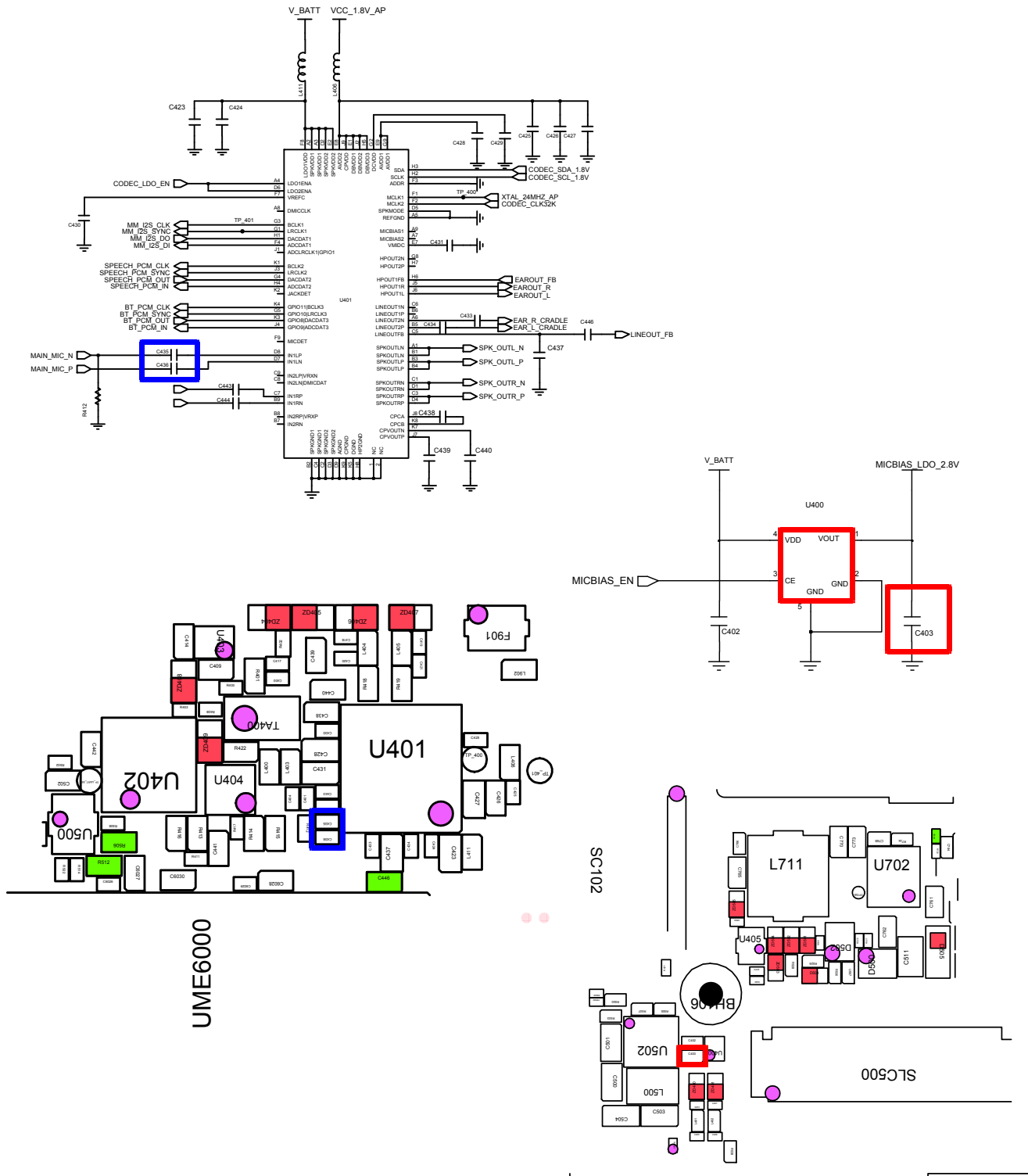
8-3-3. Charging Part



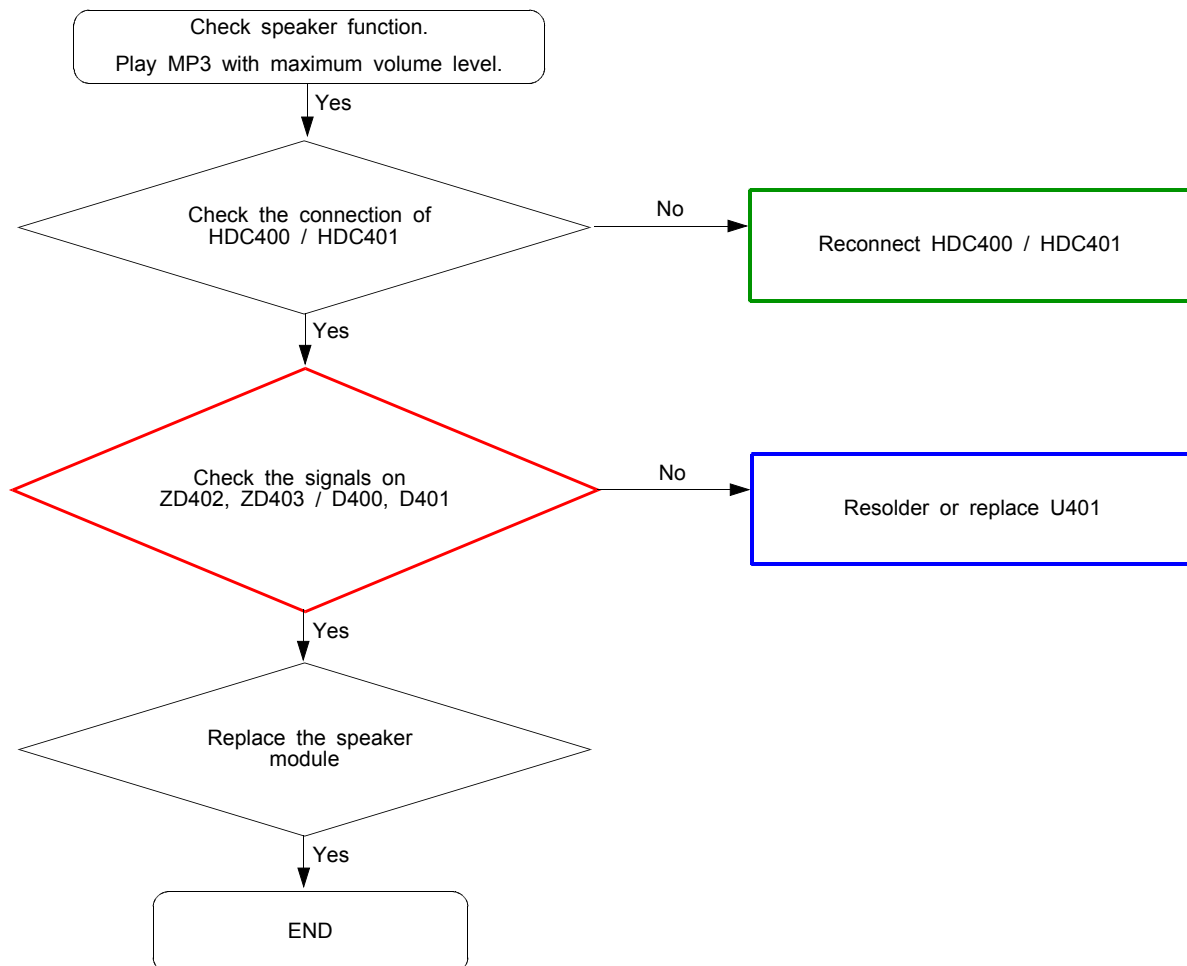


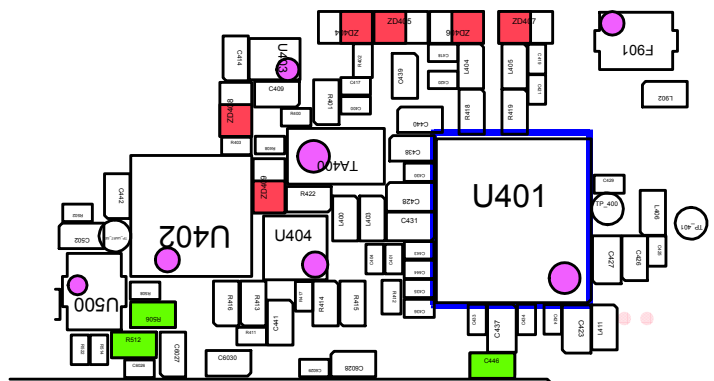
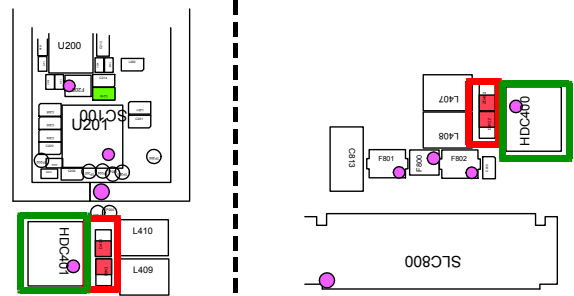
8-3-4. Microphone Part



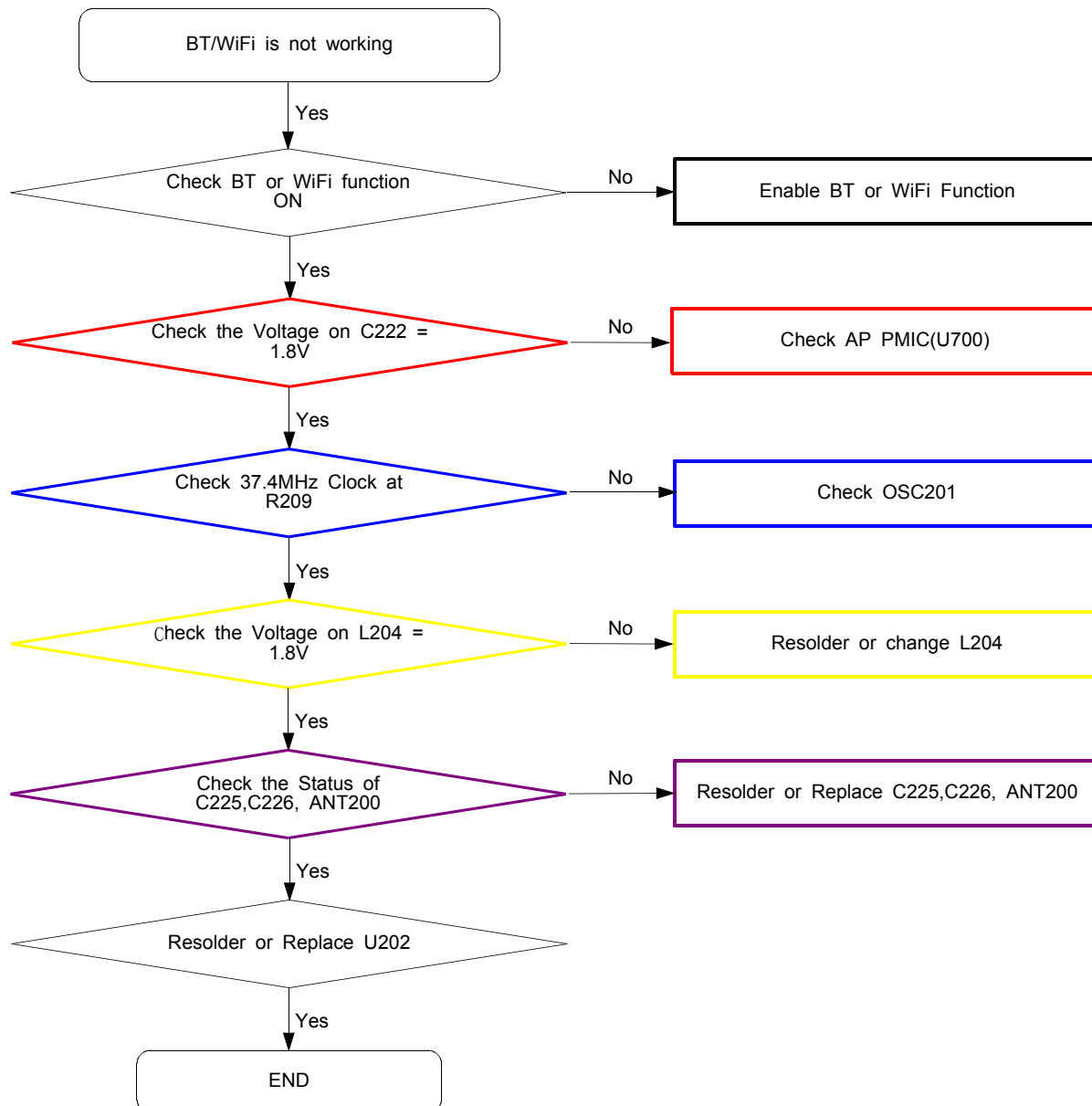


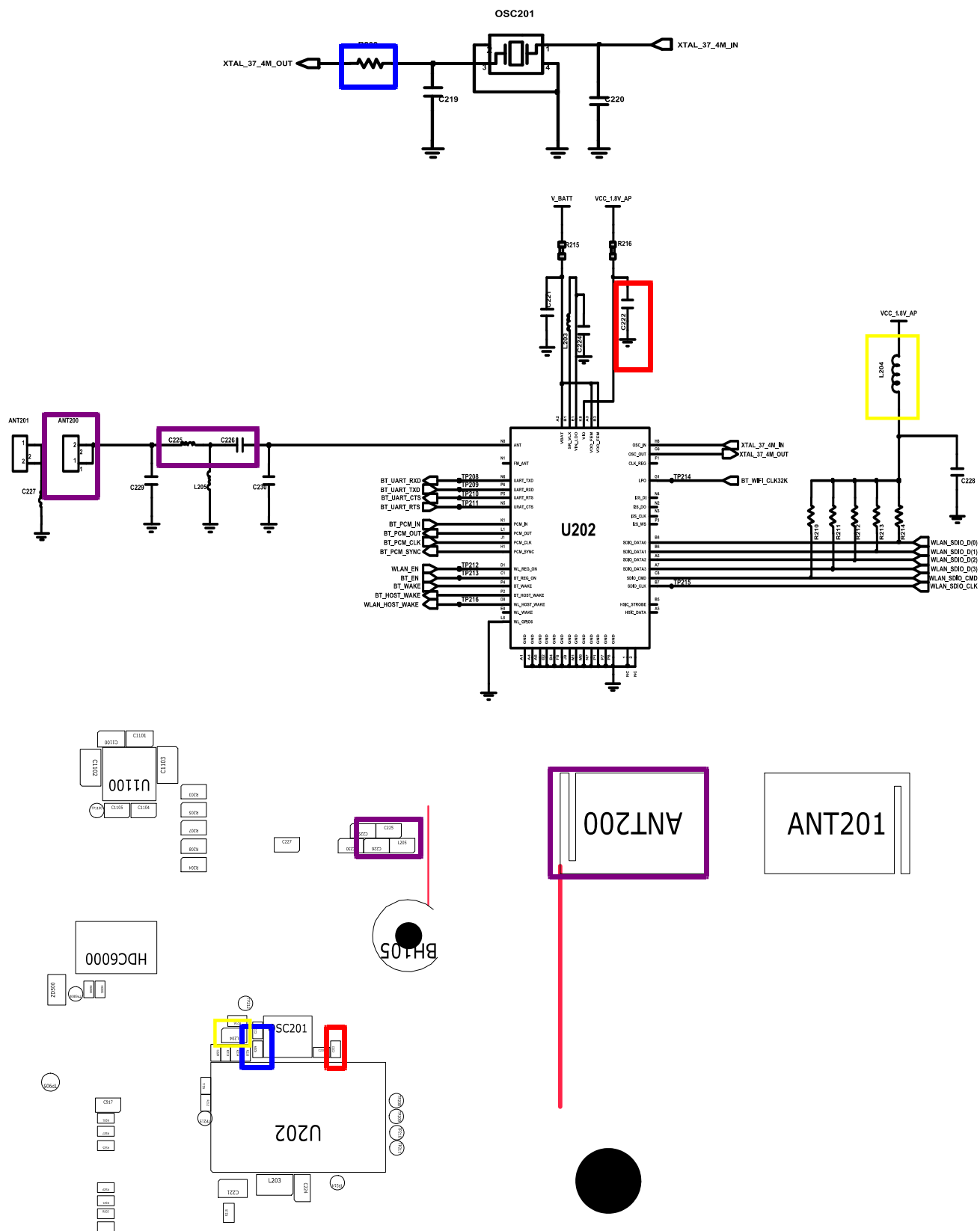
8-3-5. Speaker Part



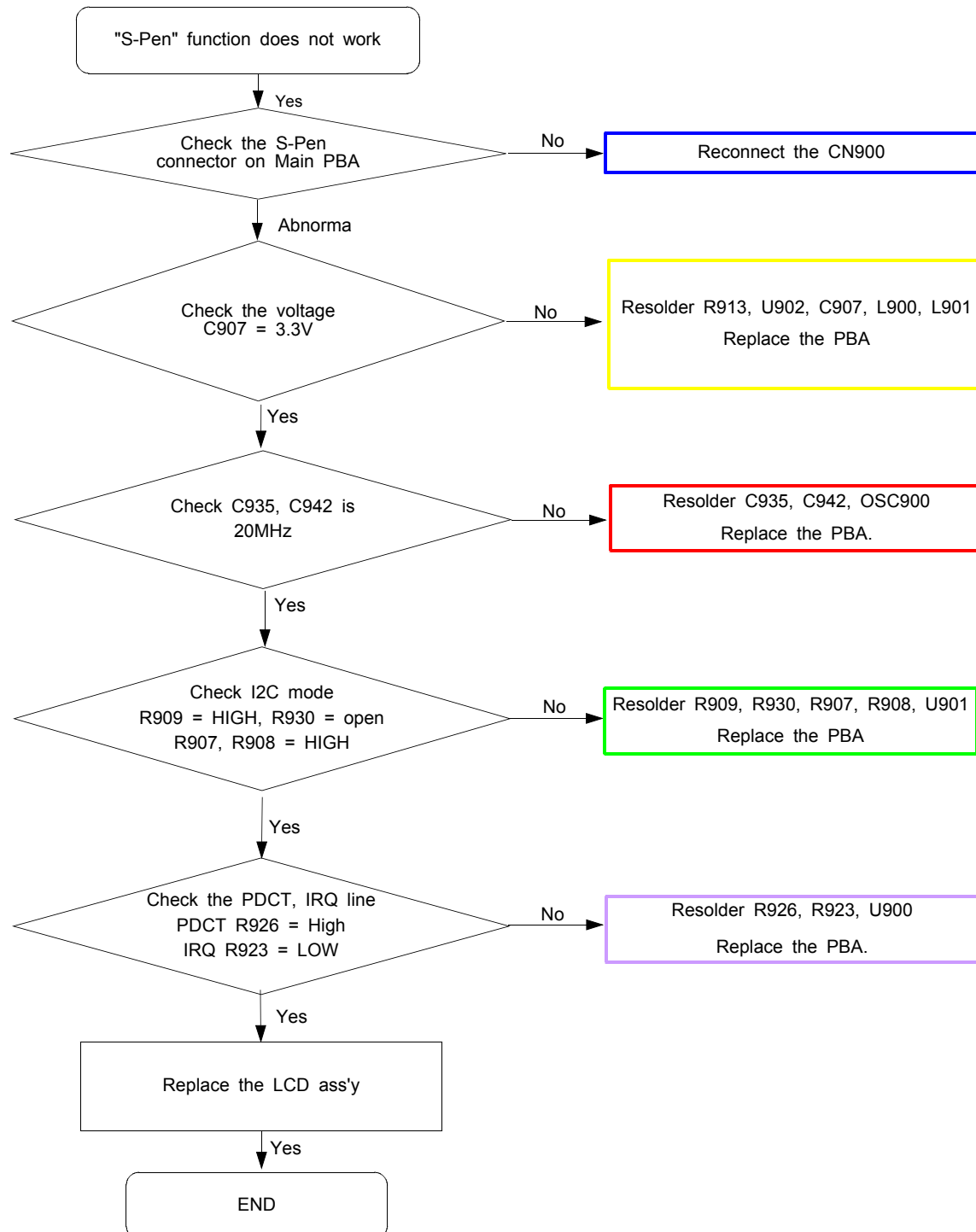


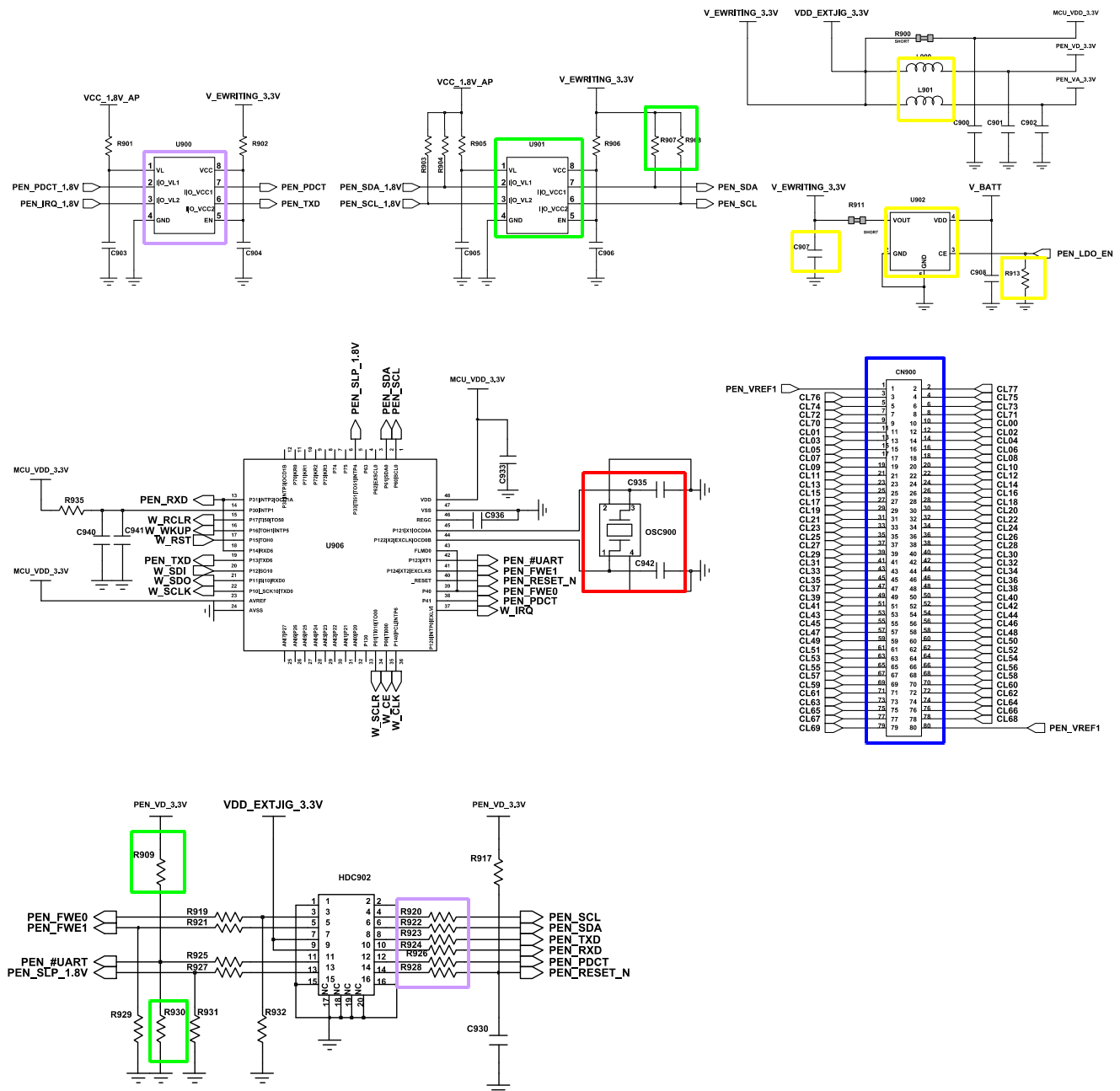
8-3-6. BT/WIFI





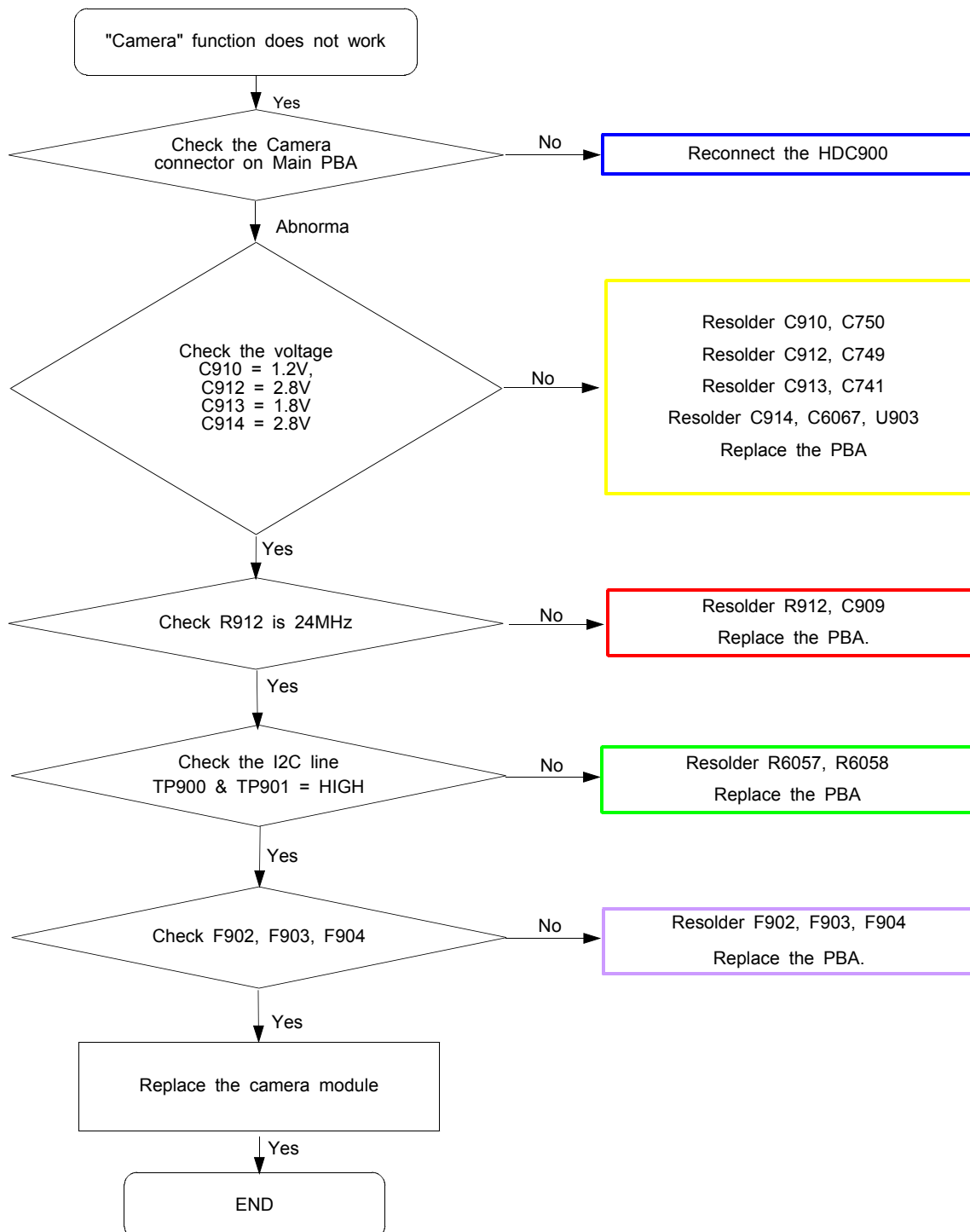
8-3-7. S-Pen



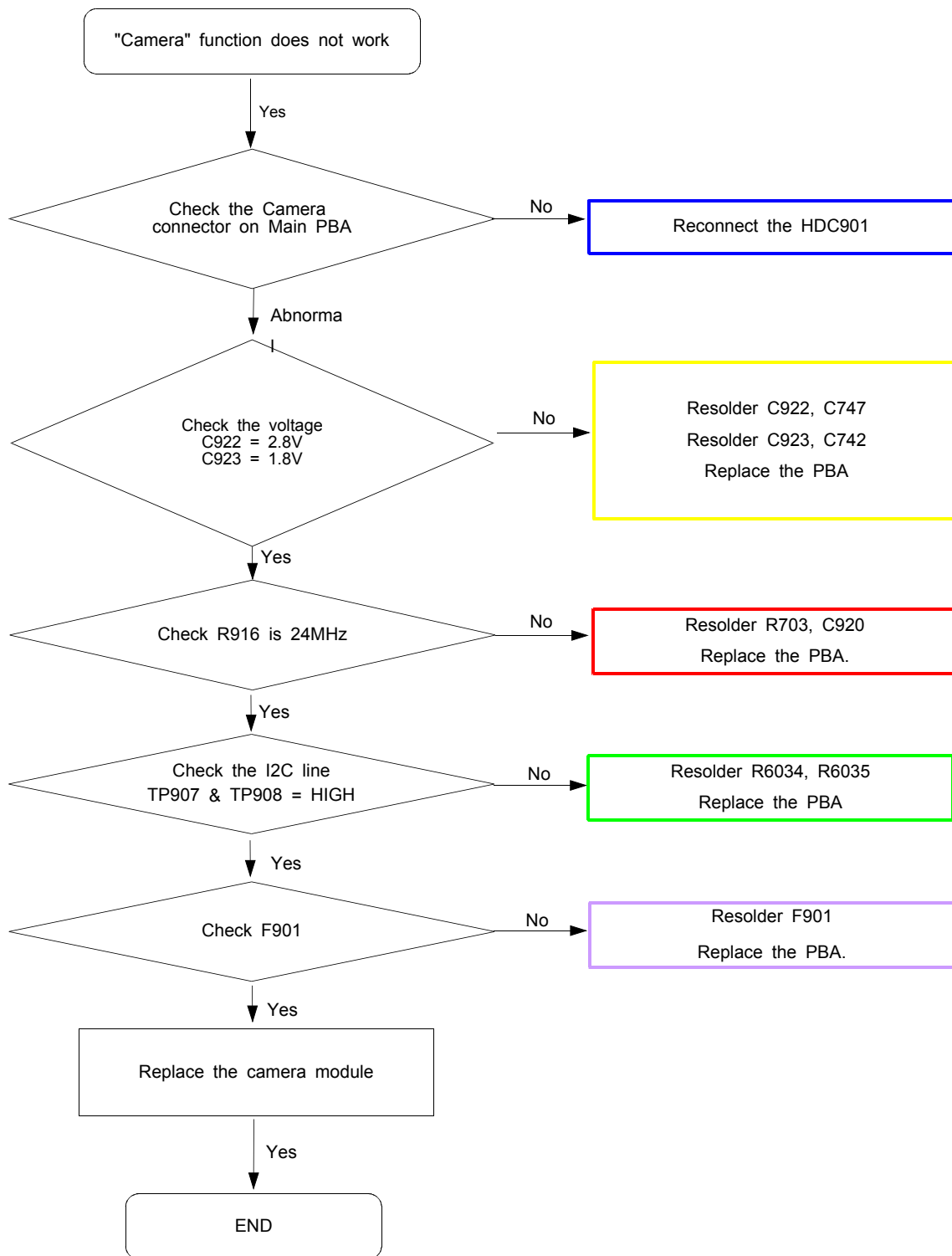


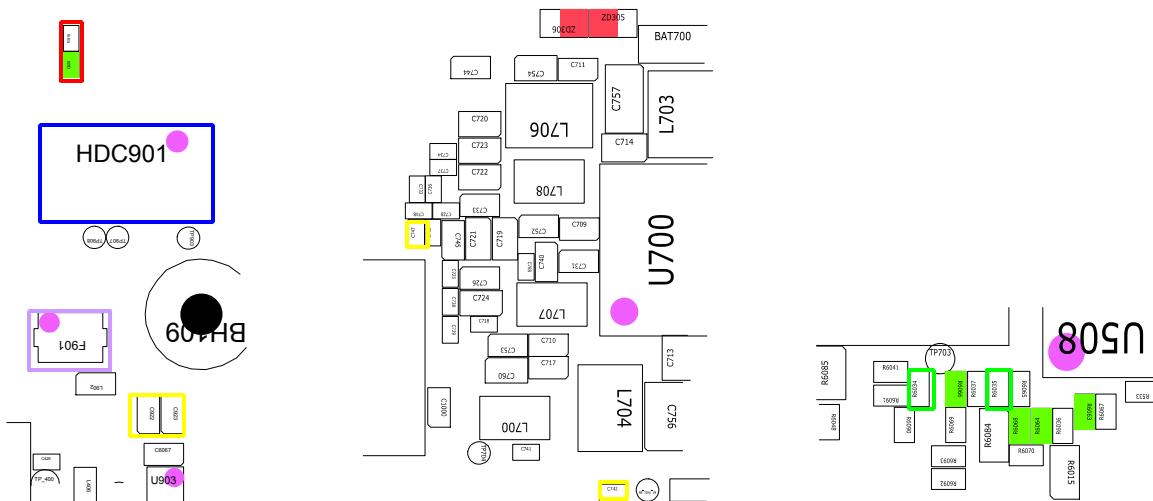
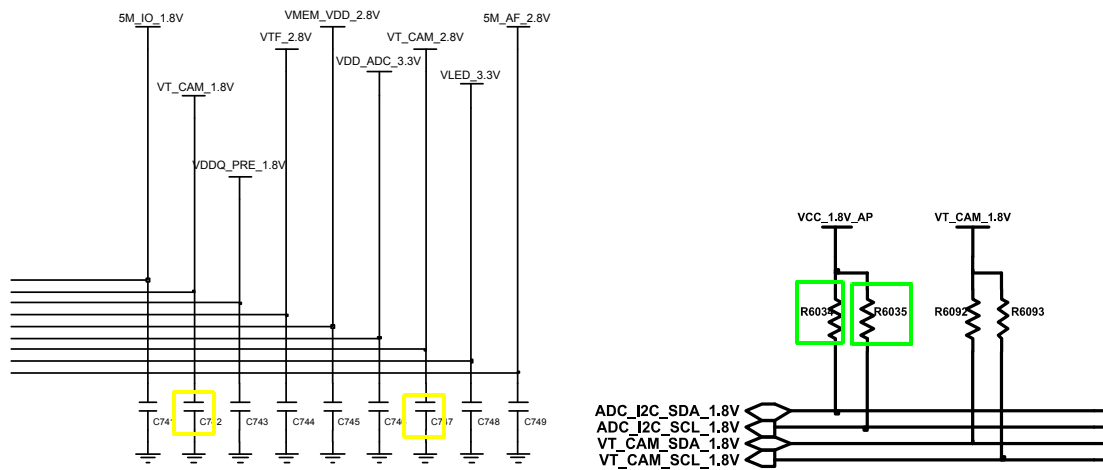
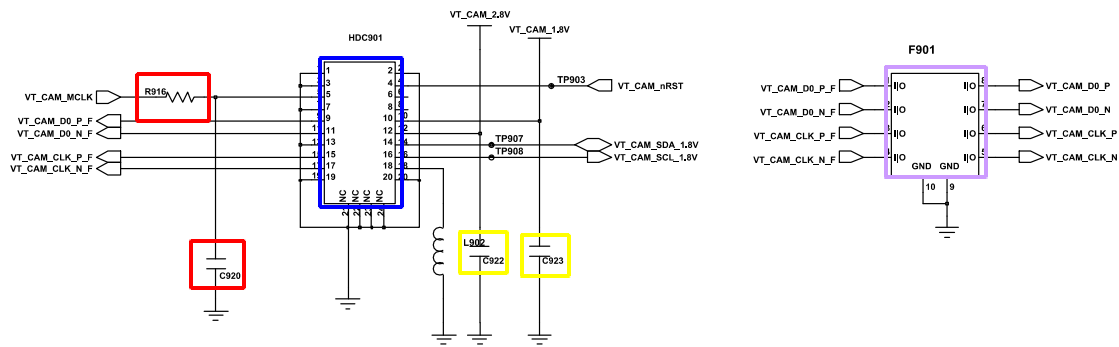


8-3-8. 5M CAM

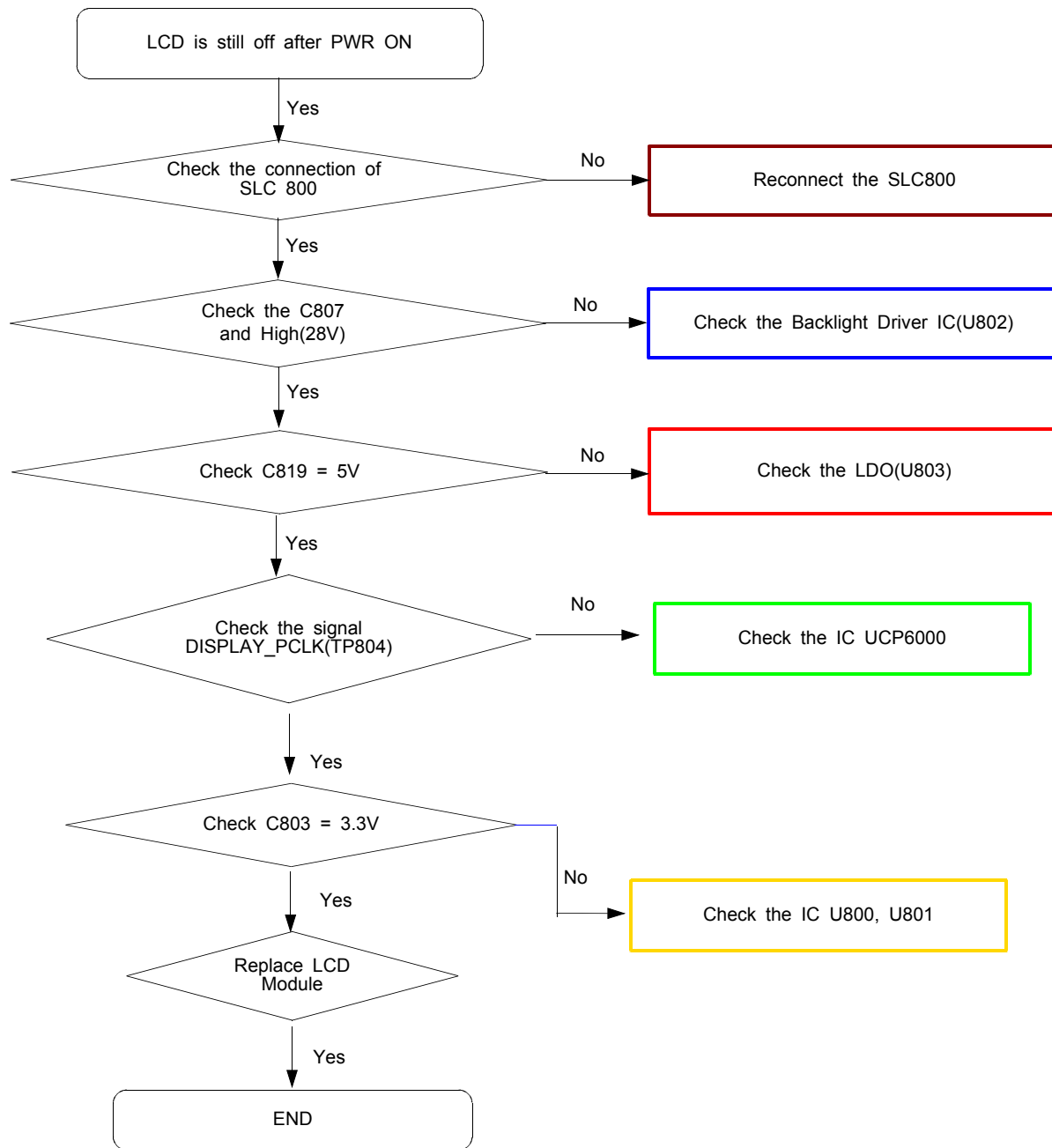


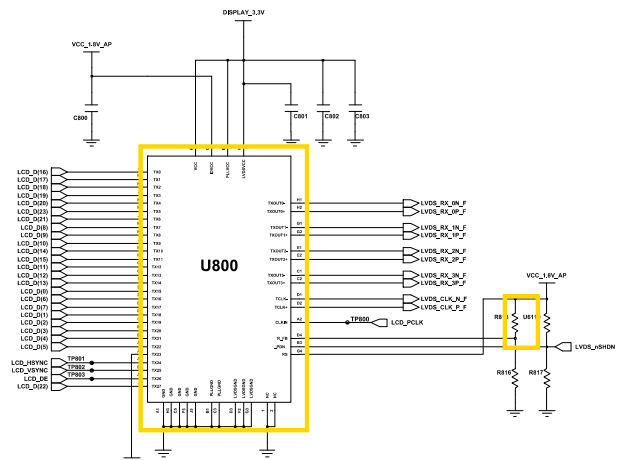
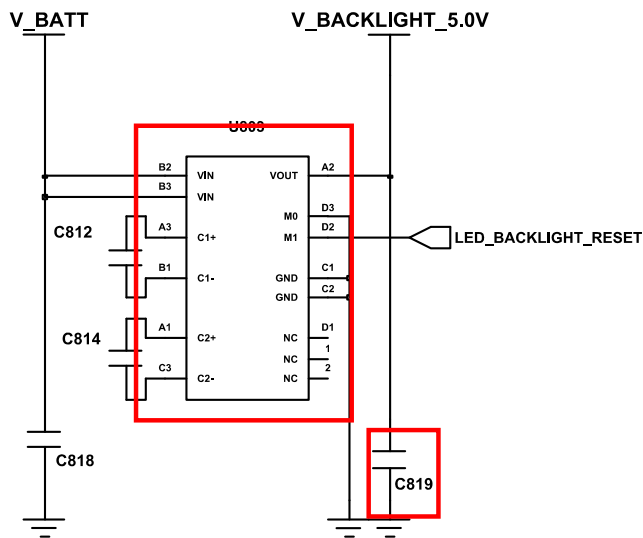
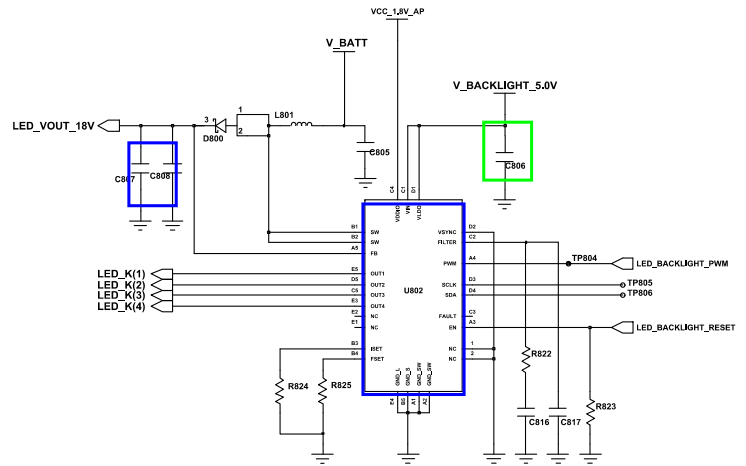
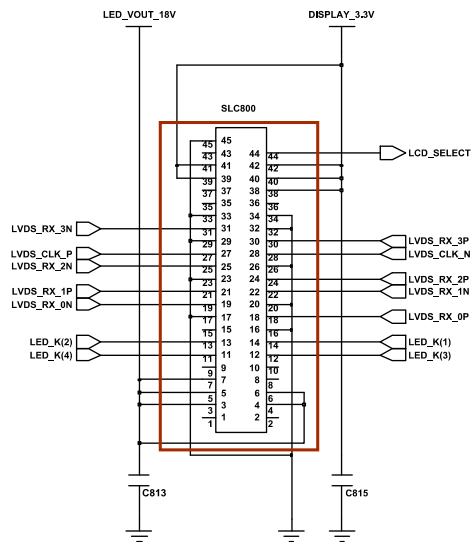
8-3-9. 1.9M CAM

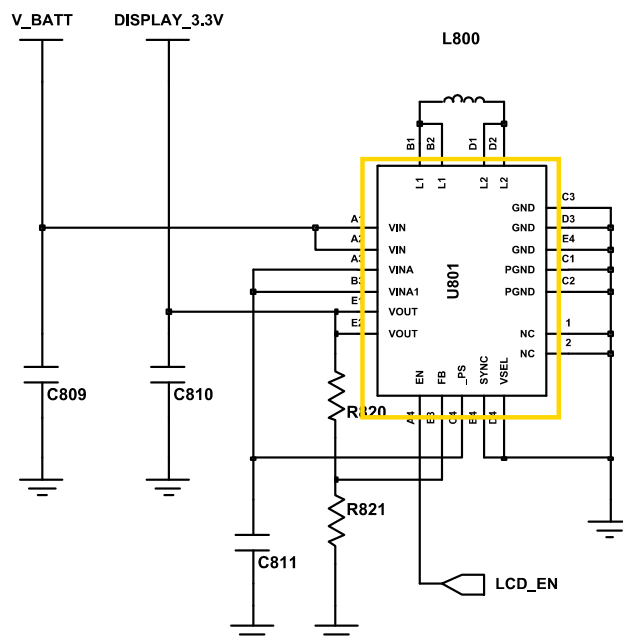


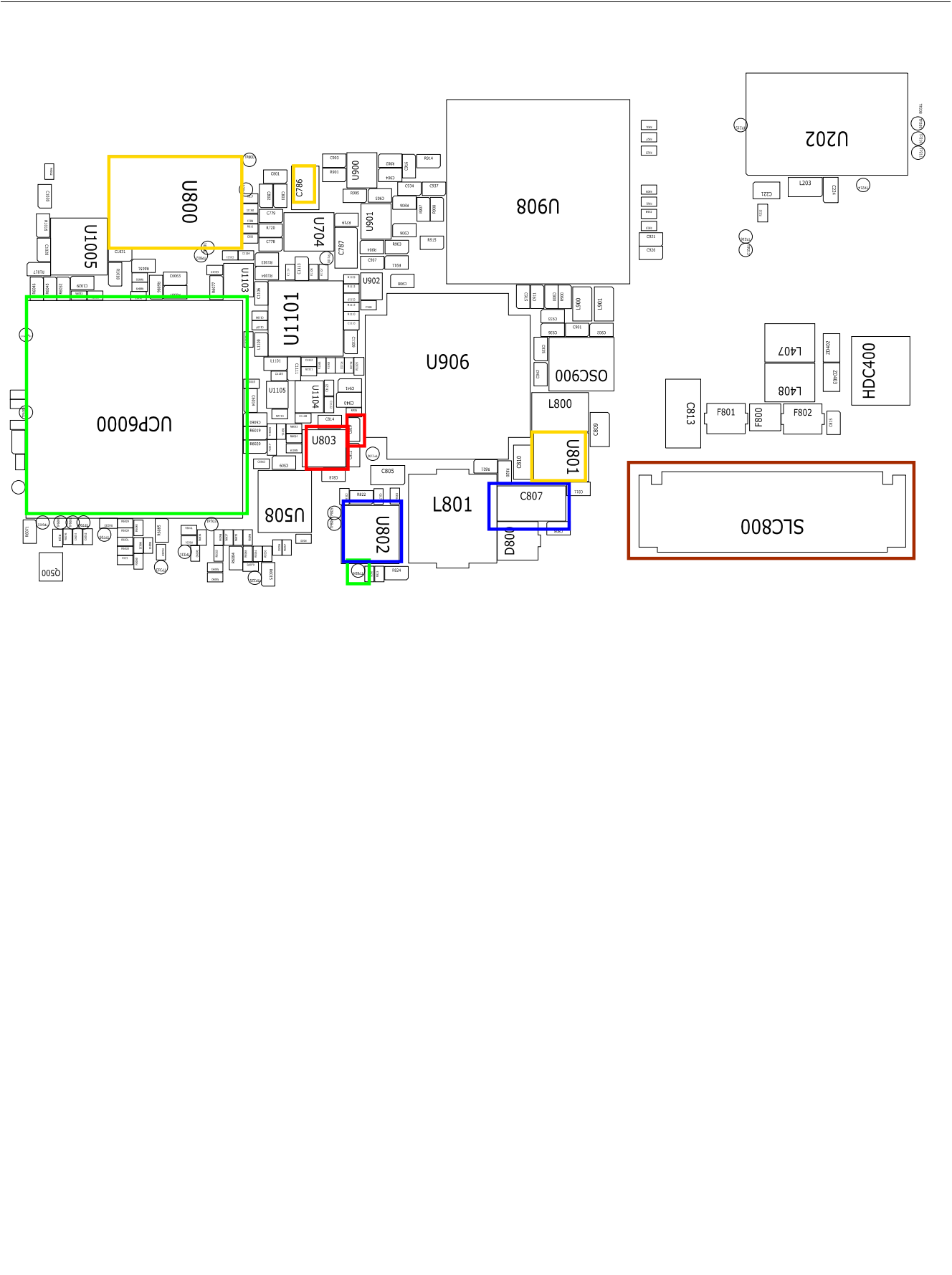


8-3-10. LCD

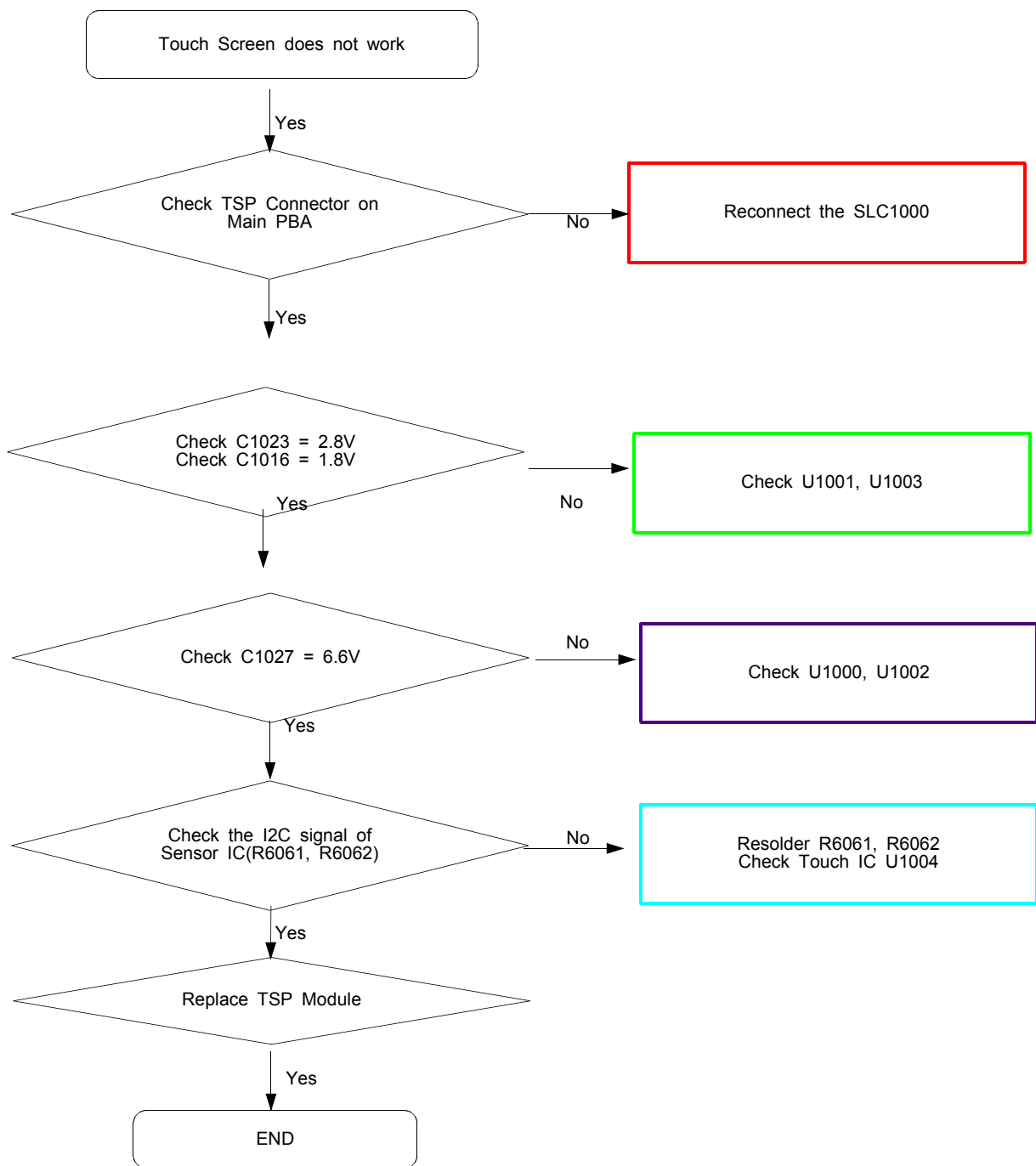


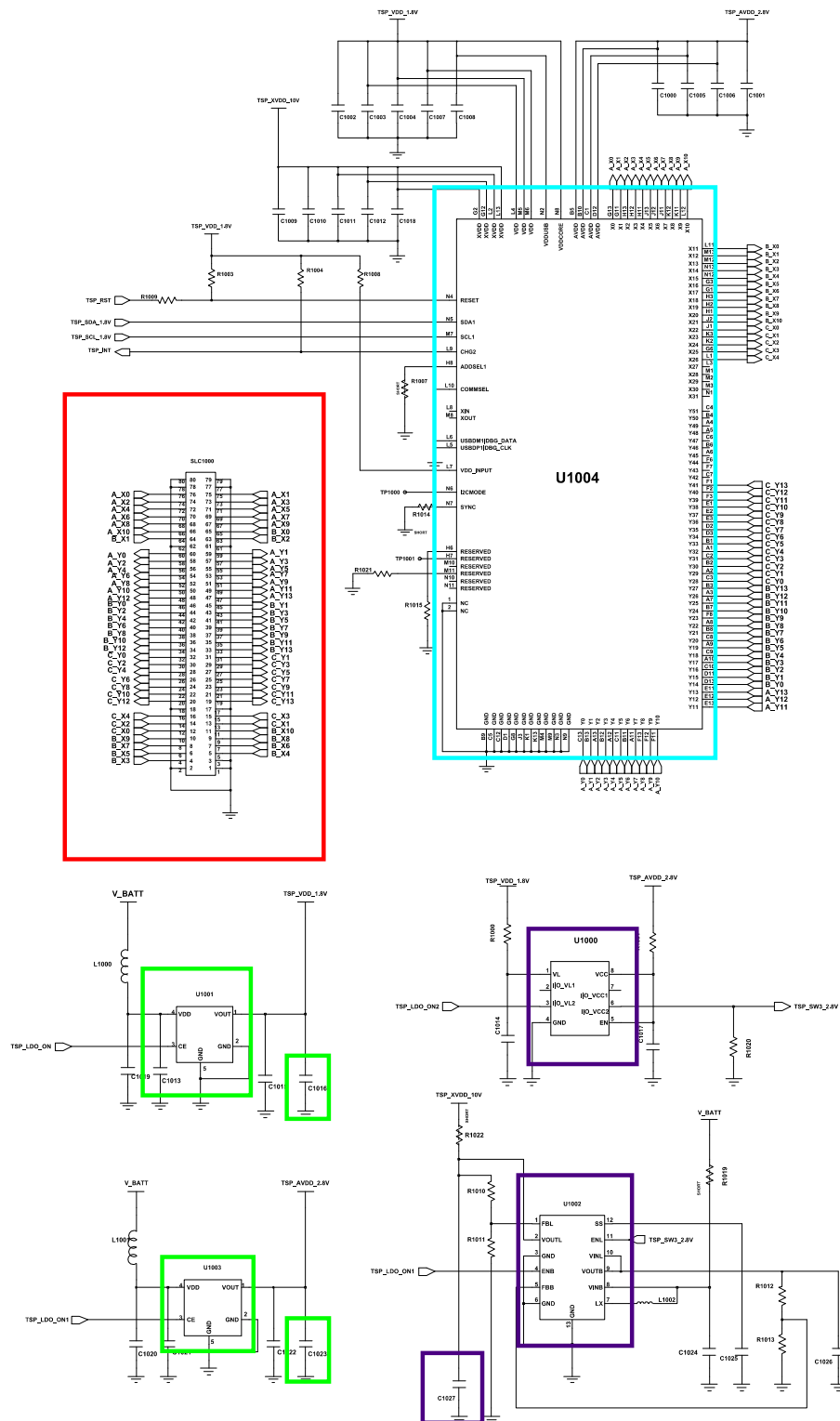




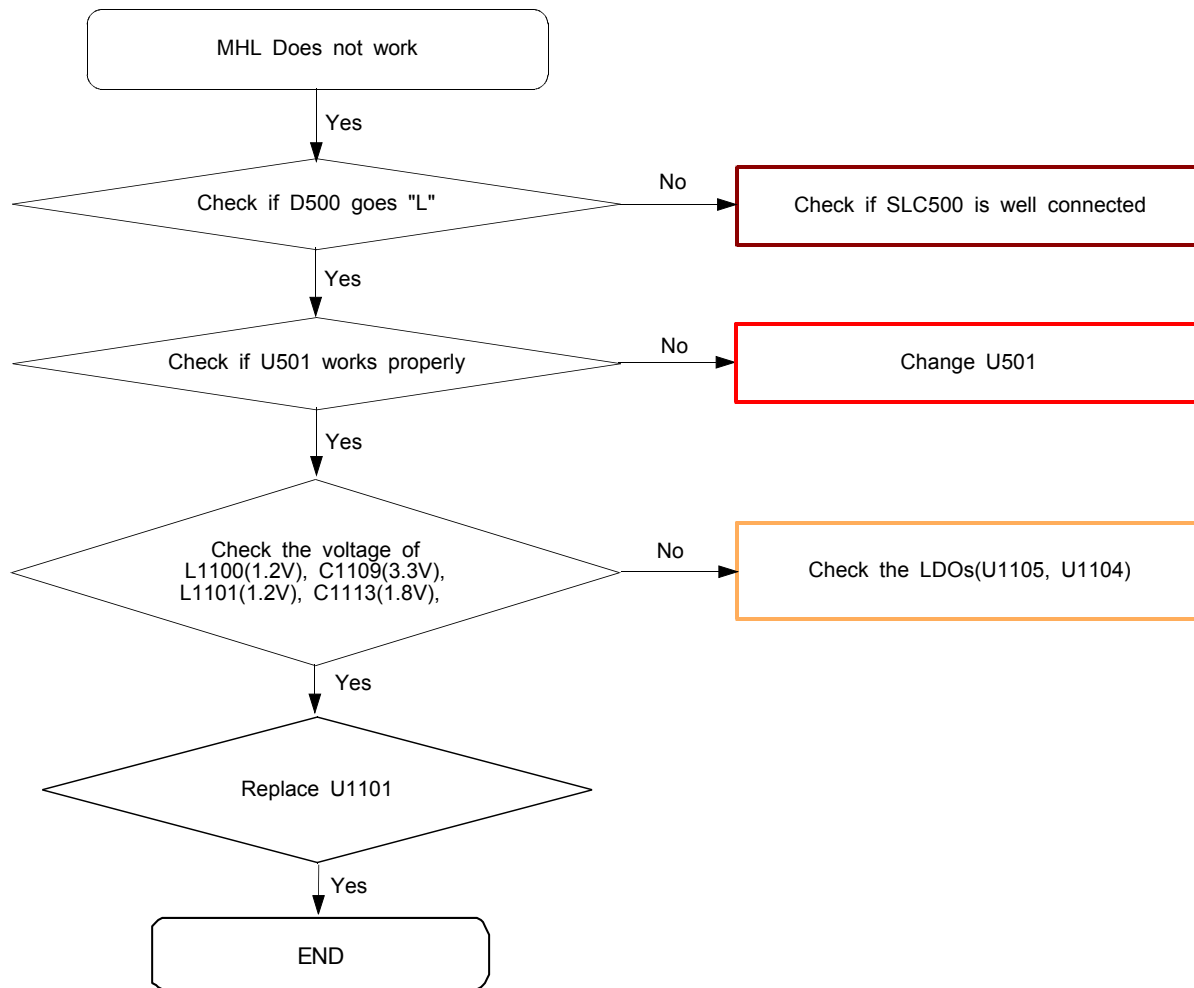


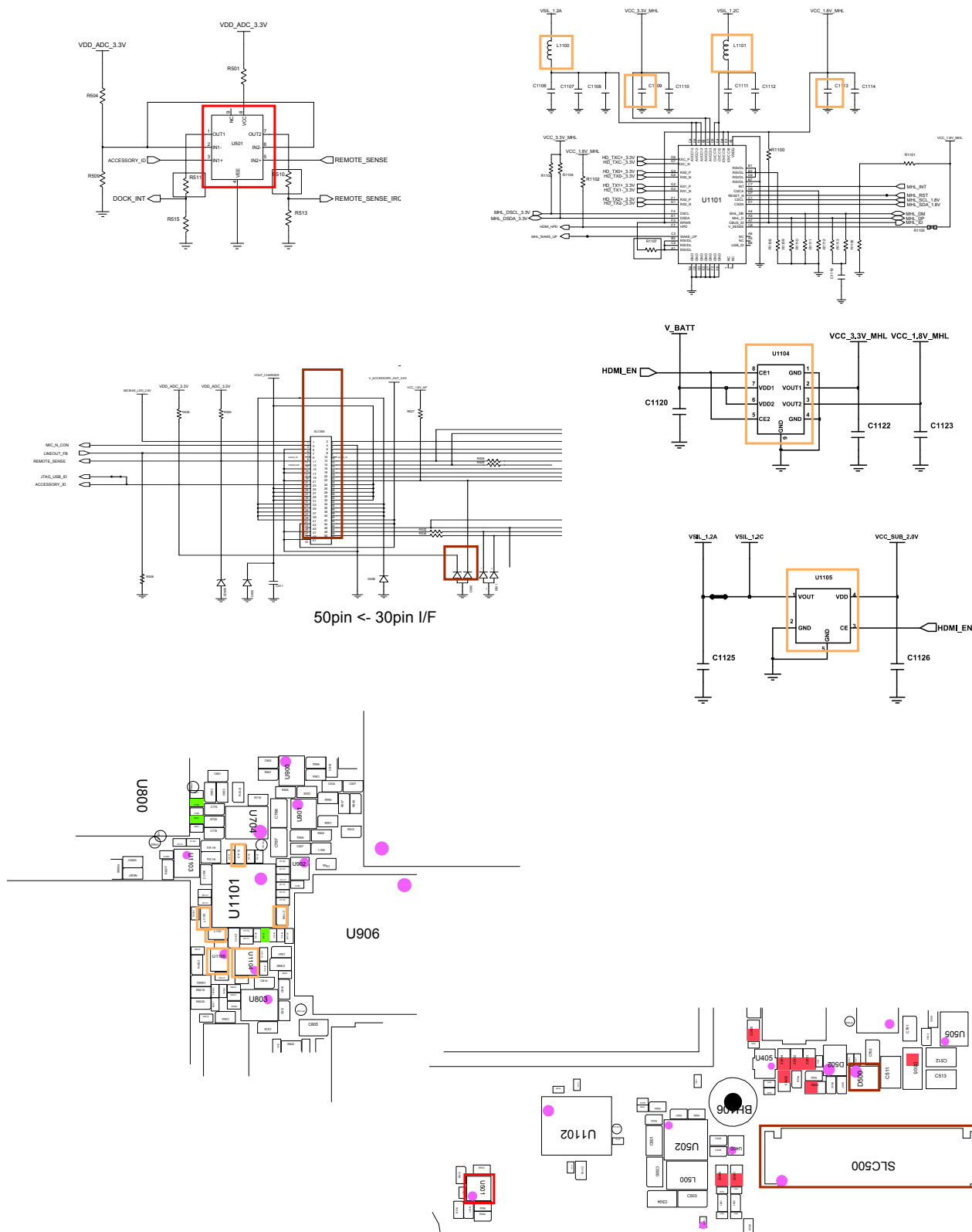
8-3-11. TSP



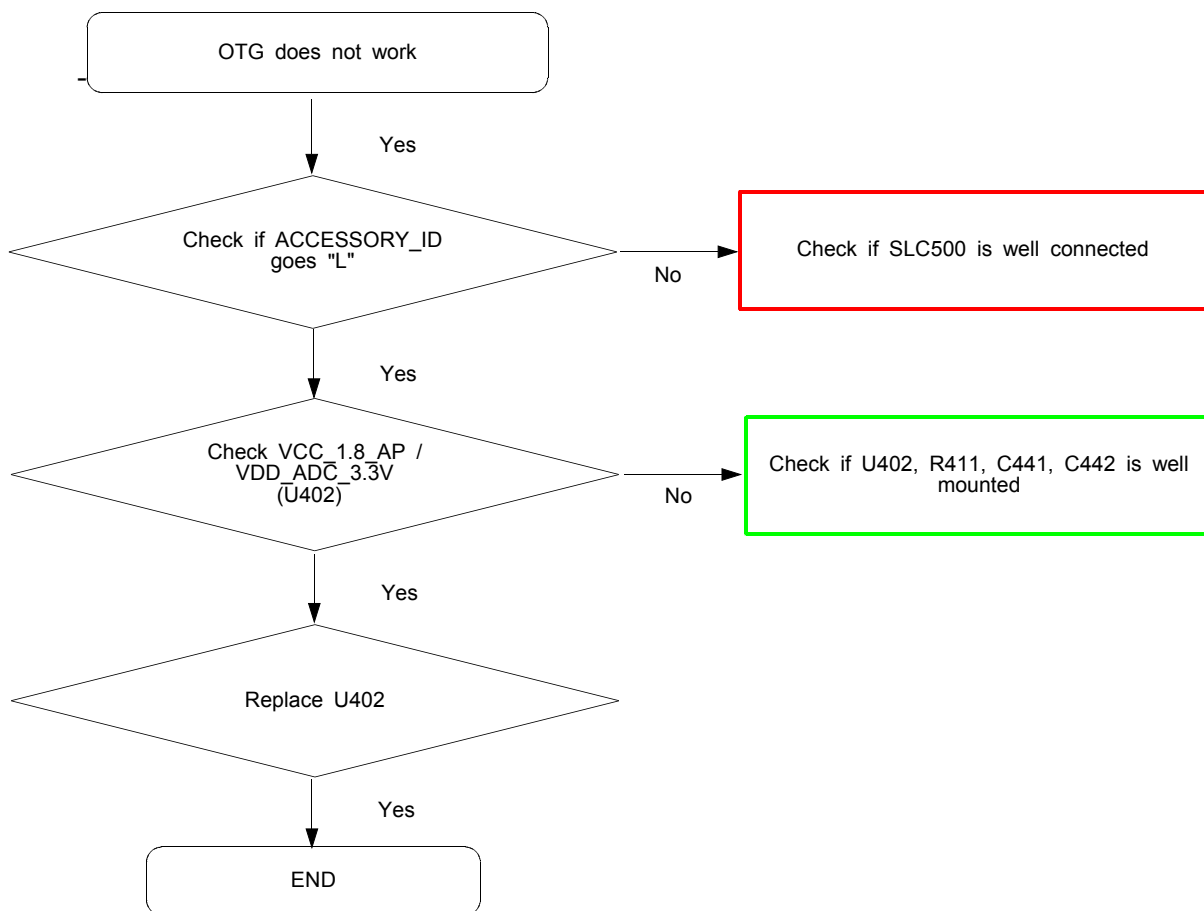


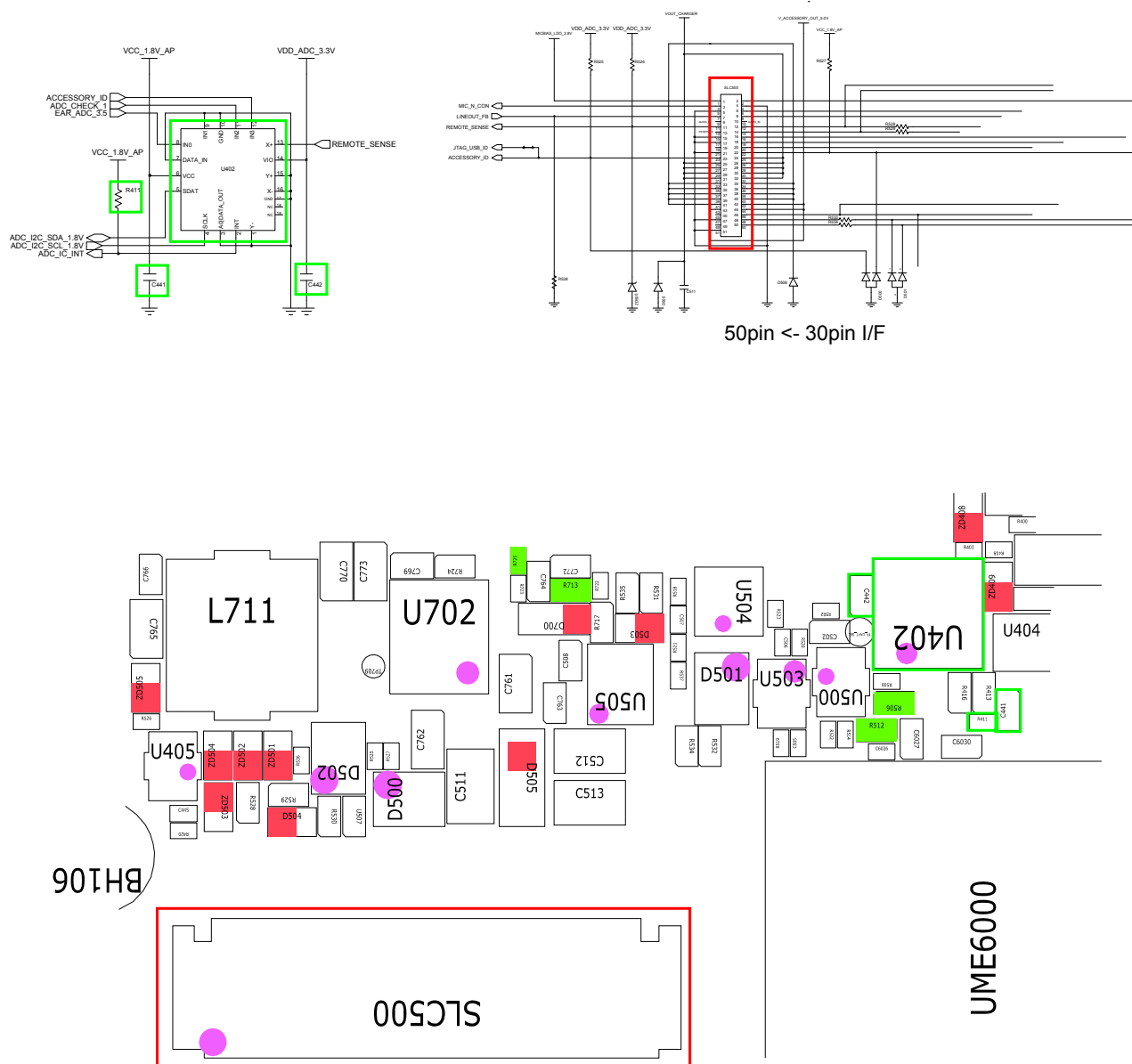
8-3-12. MHL



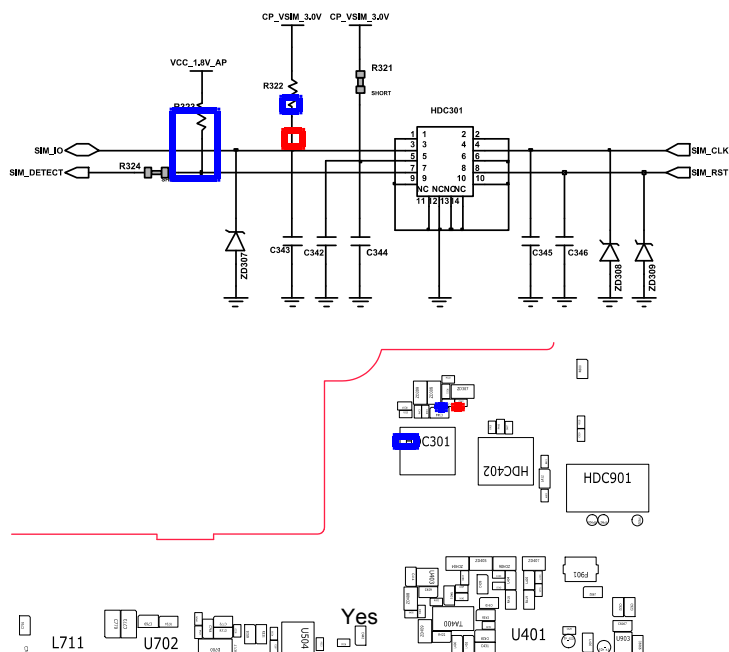
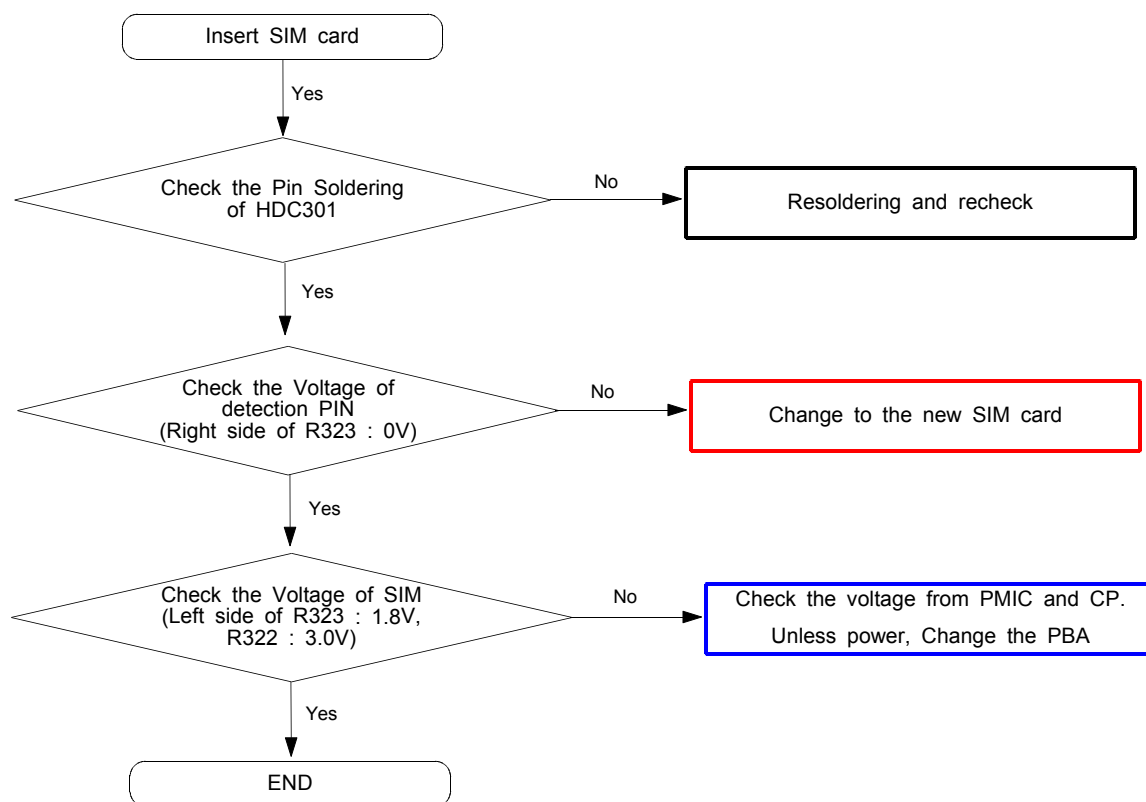


8-3-13. OTG

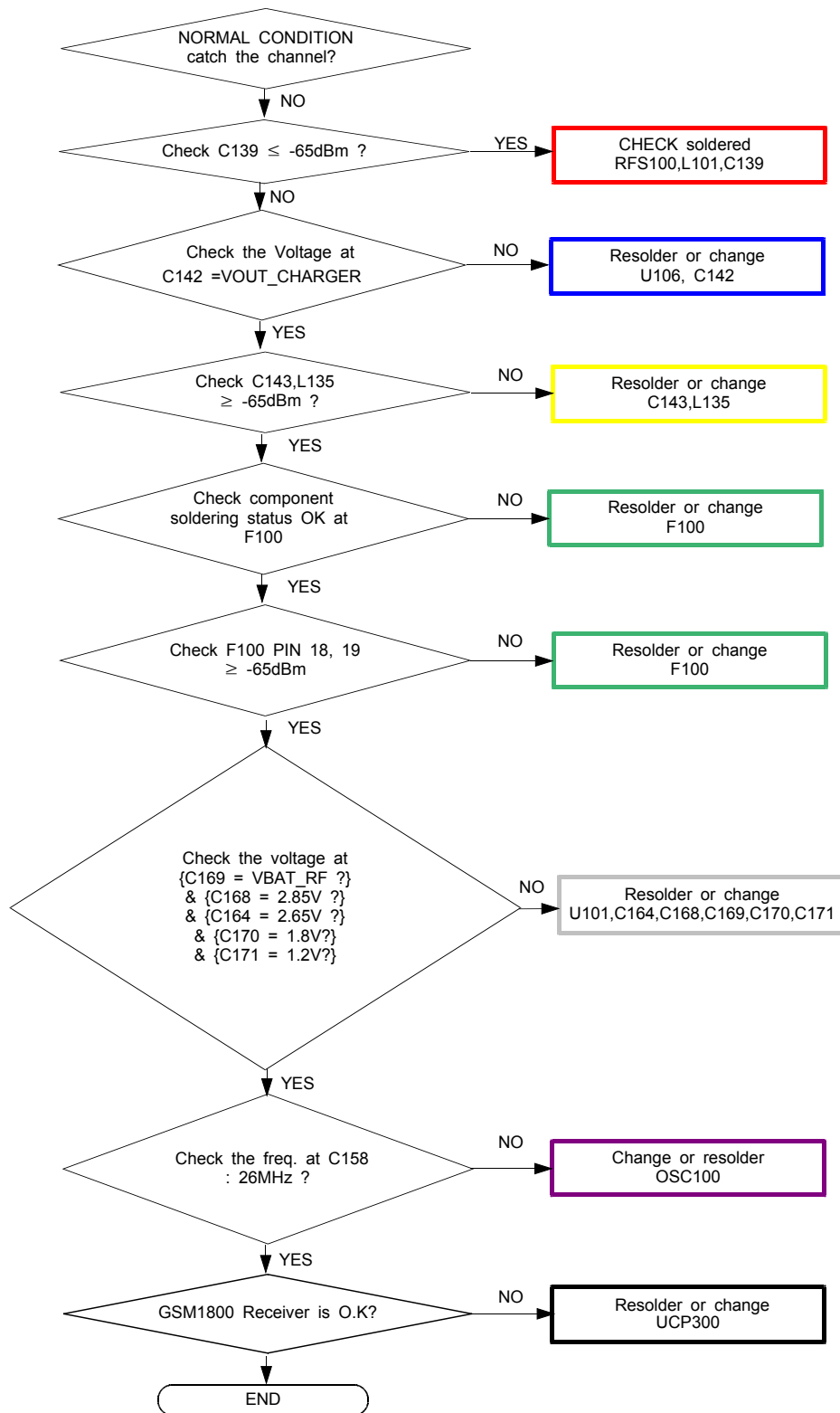




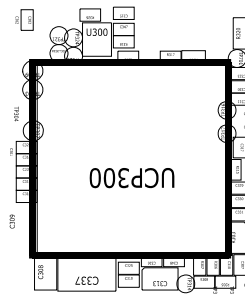
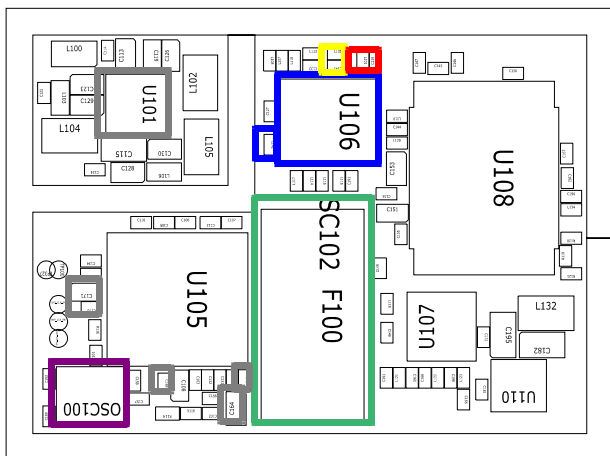
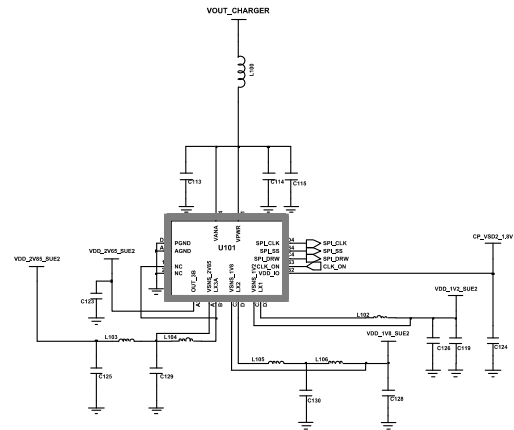
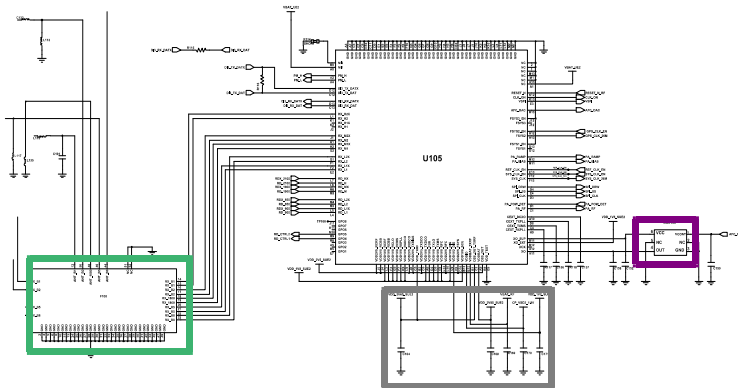
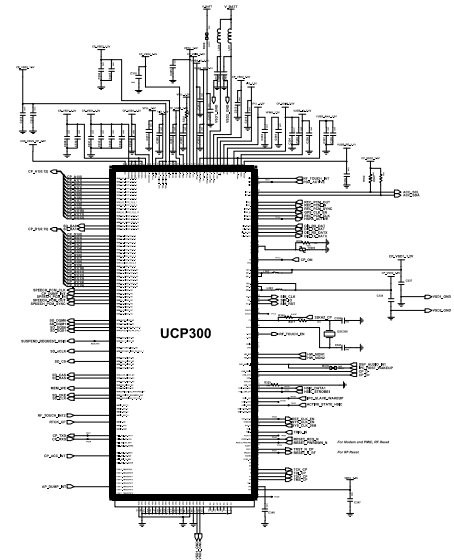
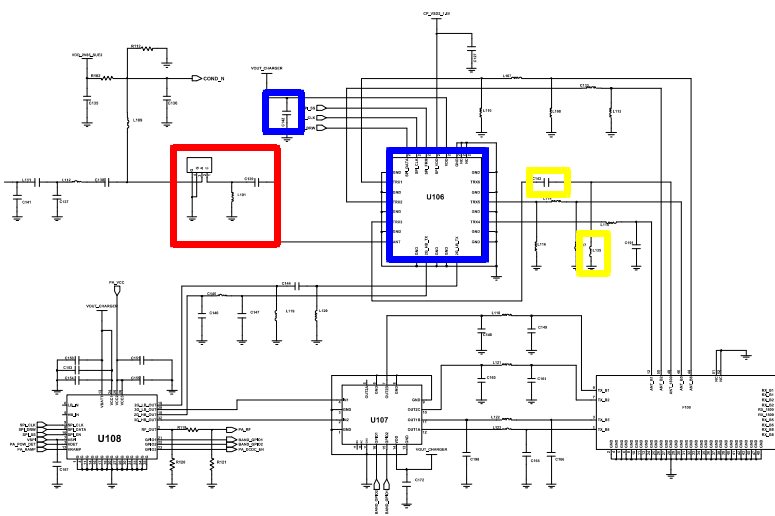
8-3-14. Sim Part



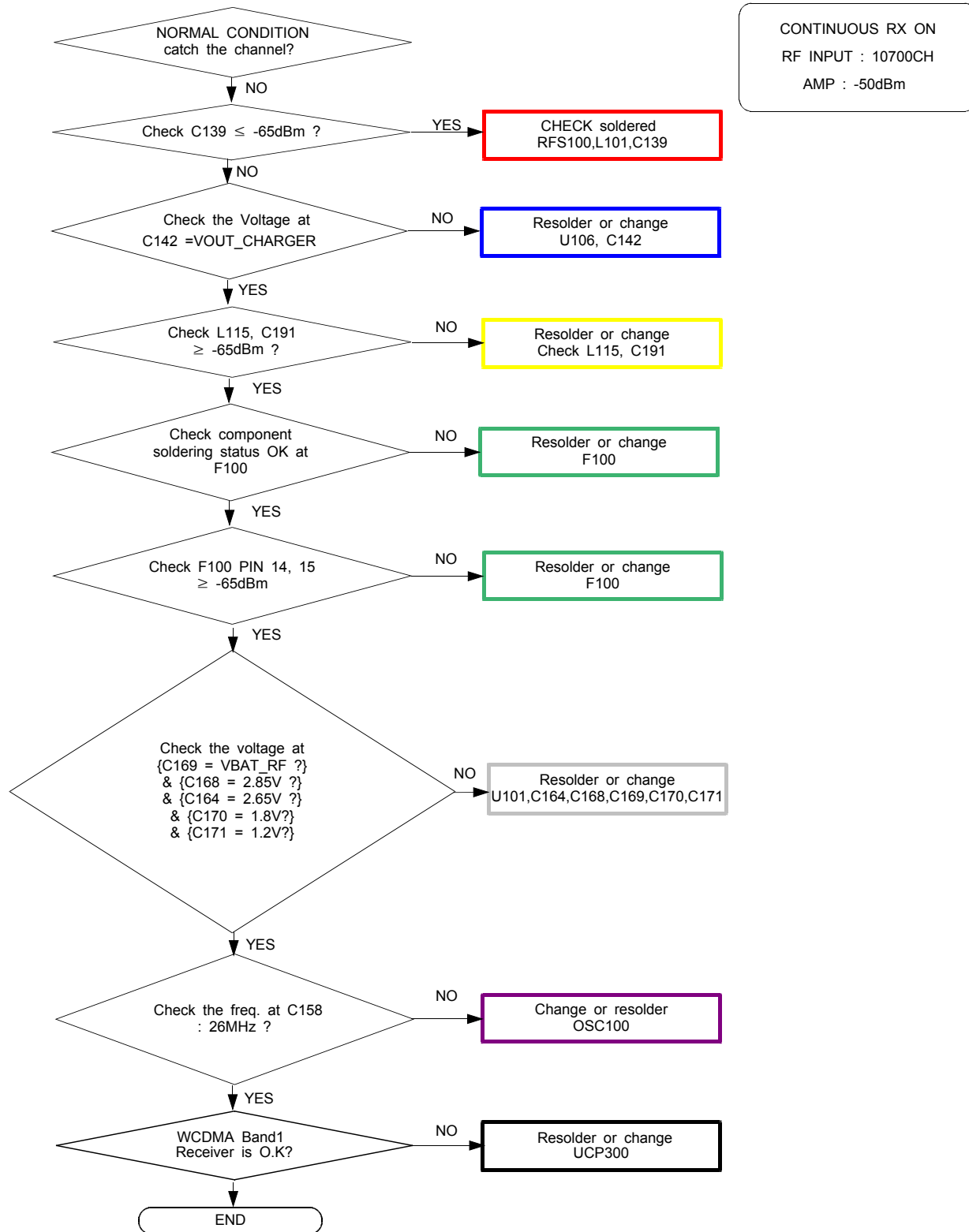
8-3-15. GSM1800 RX

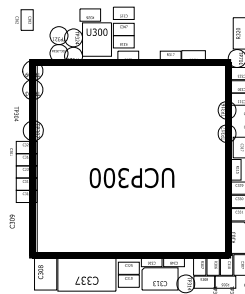
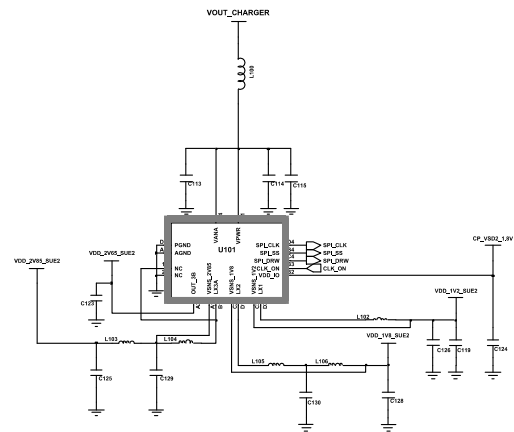
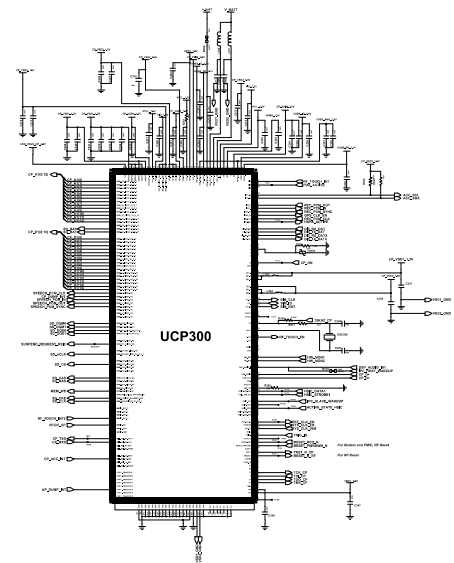


CONTINUOUS RX ON
RF INPUT : 698 CH
AMP : -50dBm

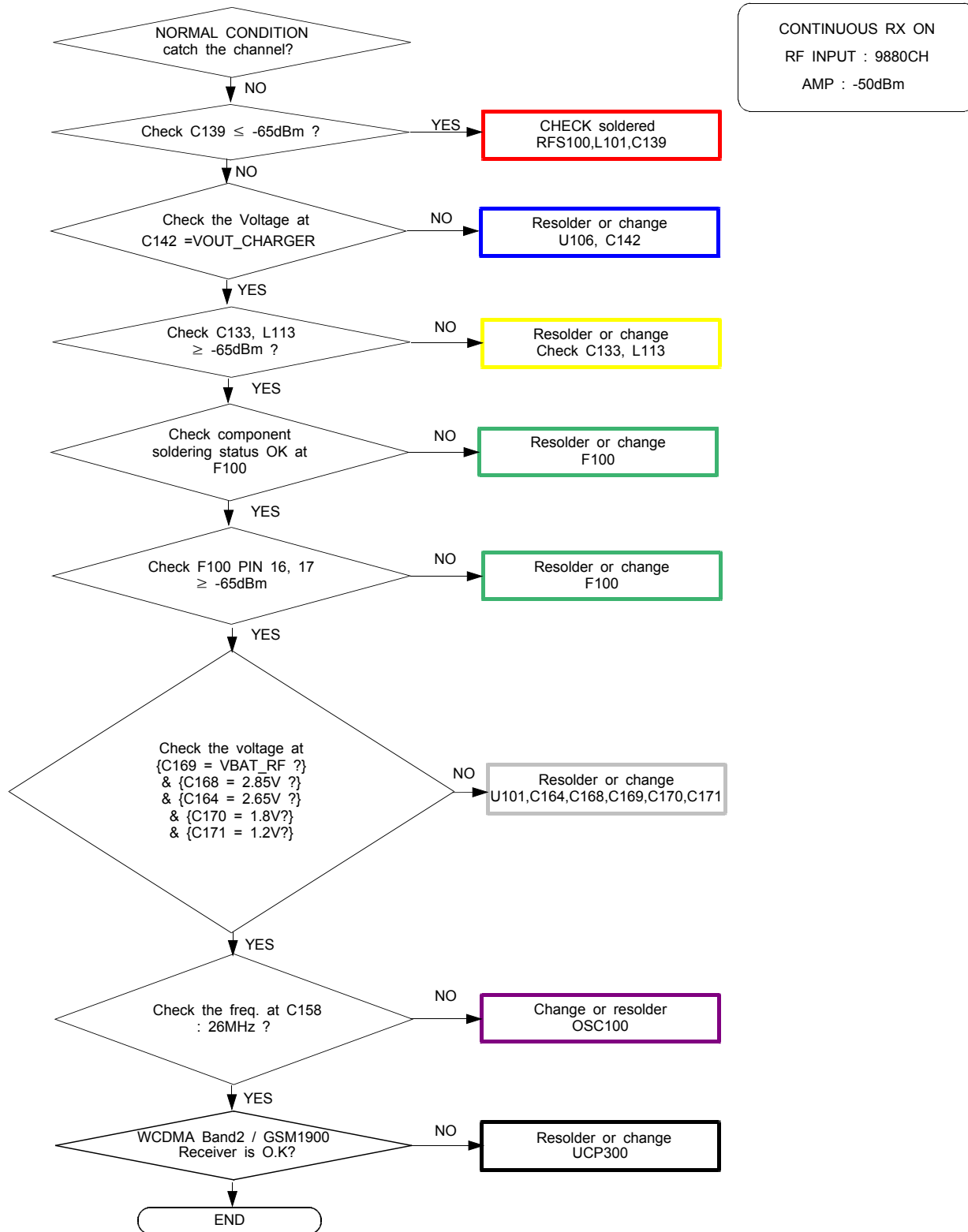


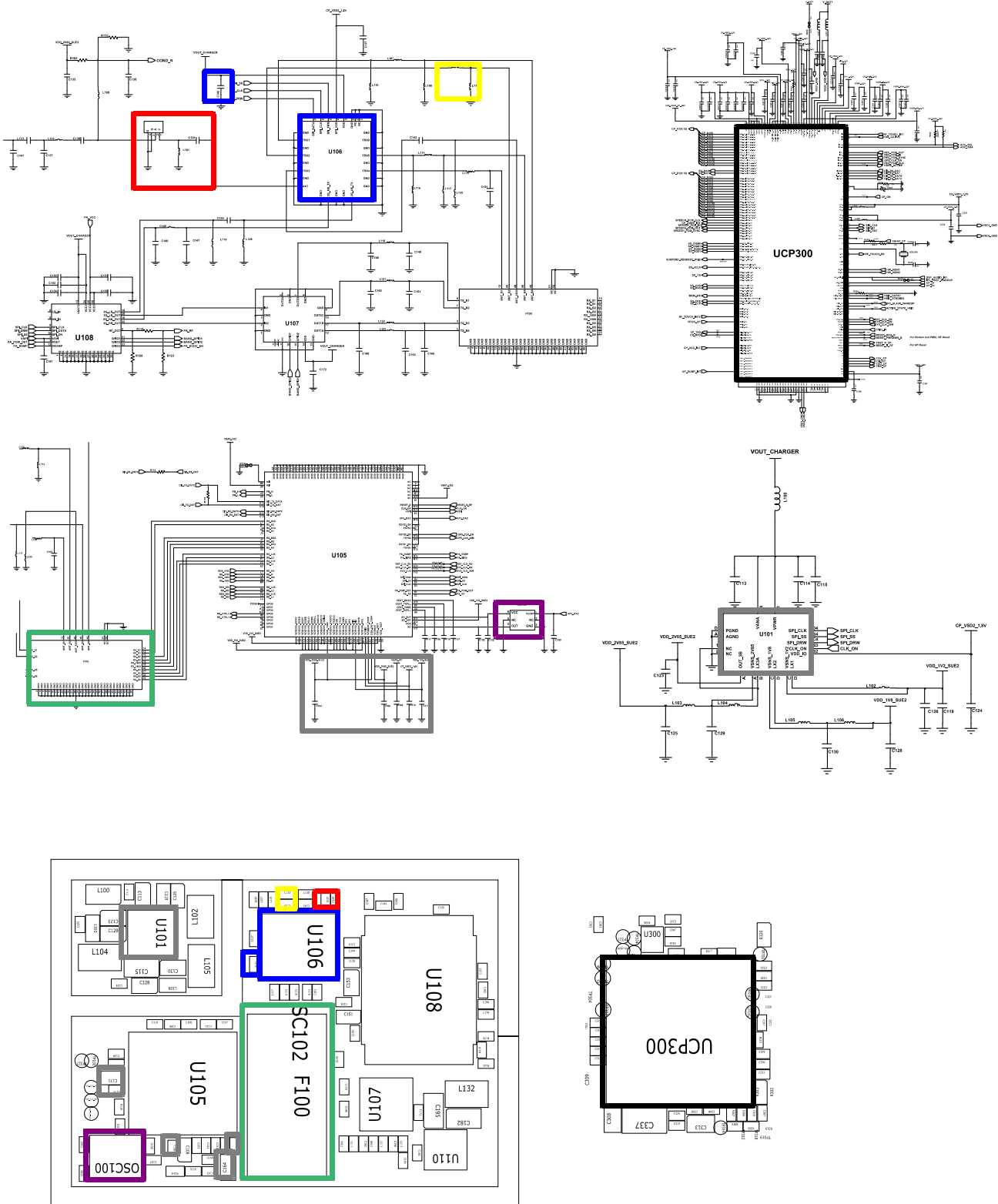
8-3-16. WCDMA Band1 RX



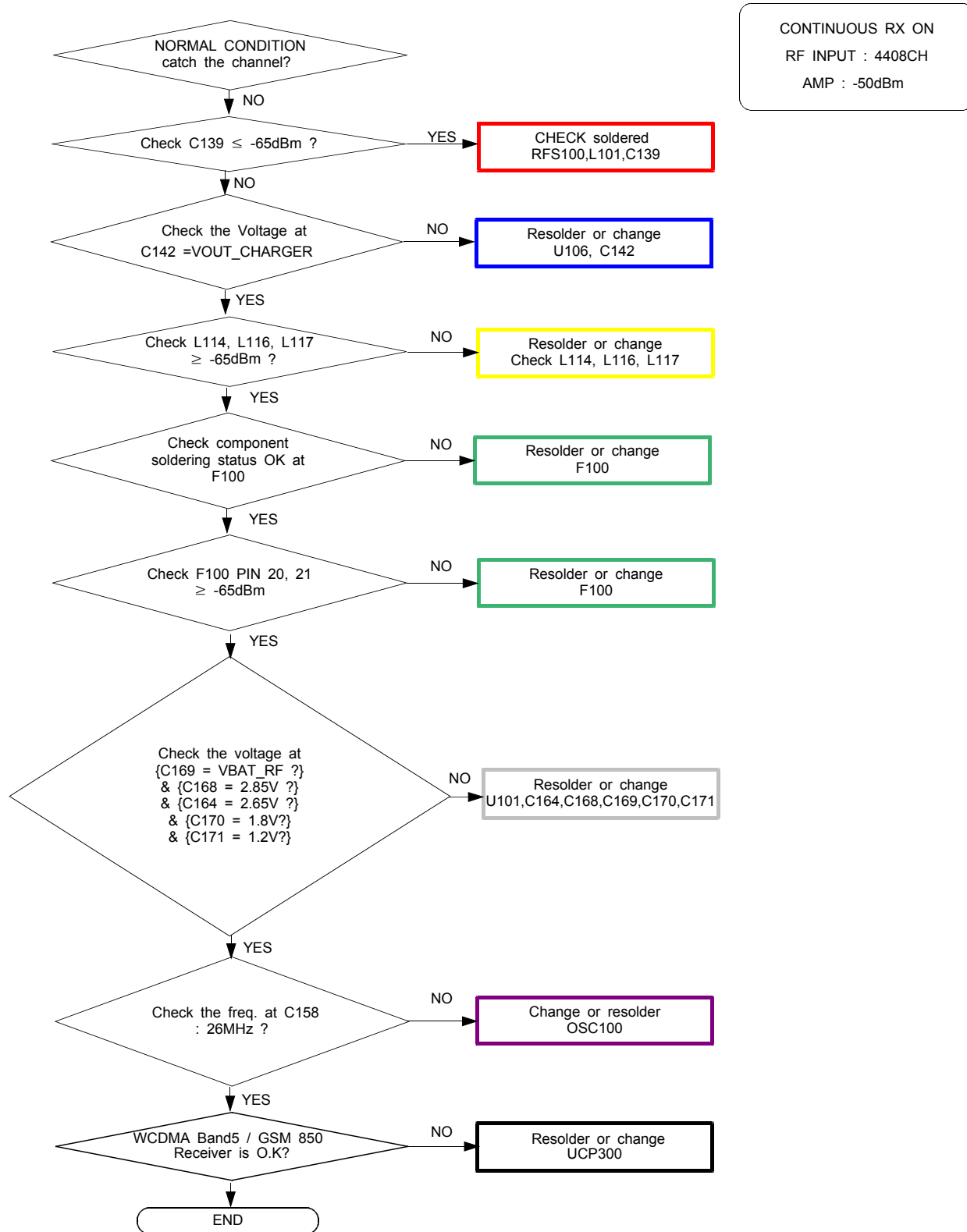


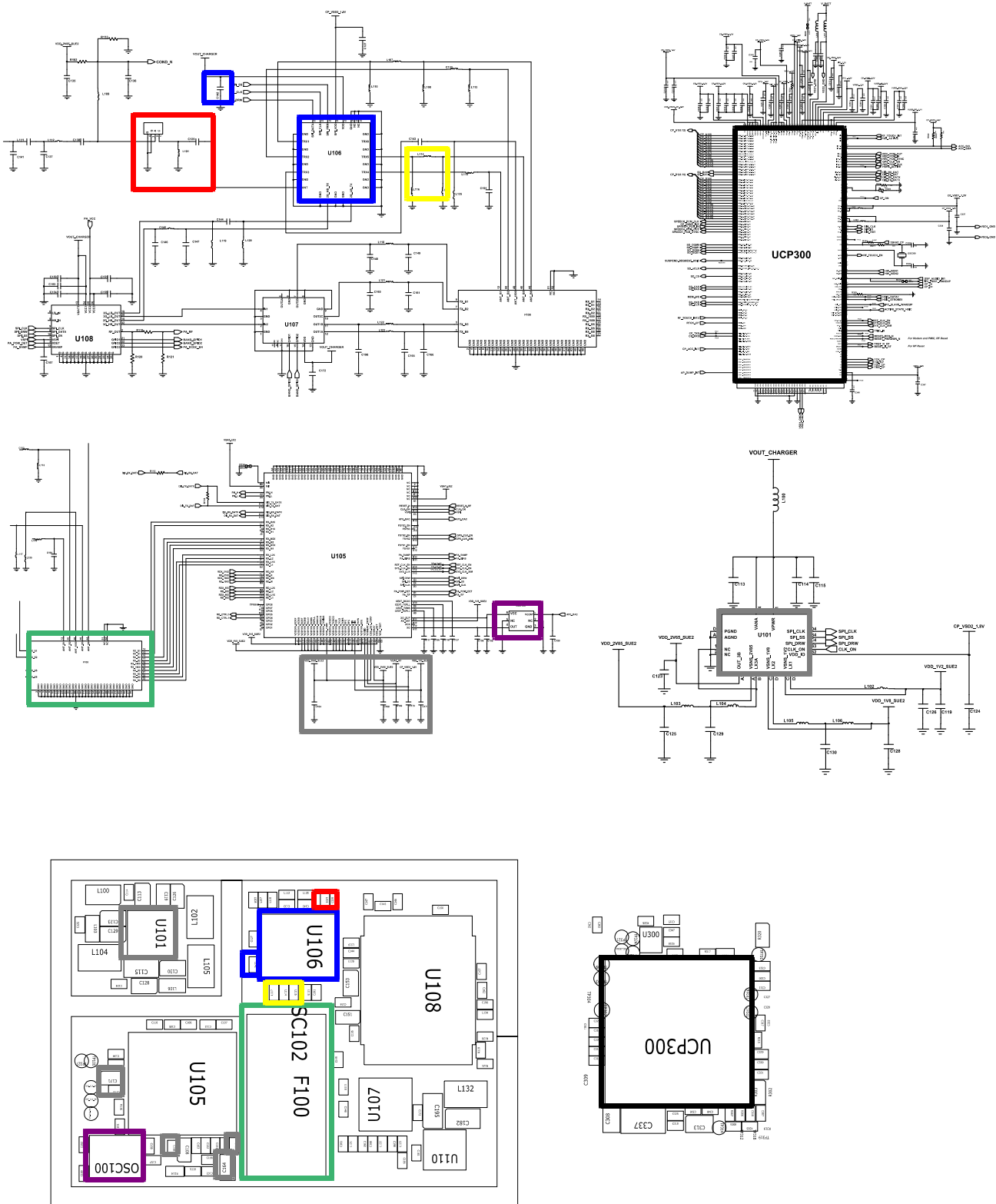
8-3-17. WCDMA Band2 / GSM1900 RX



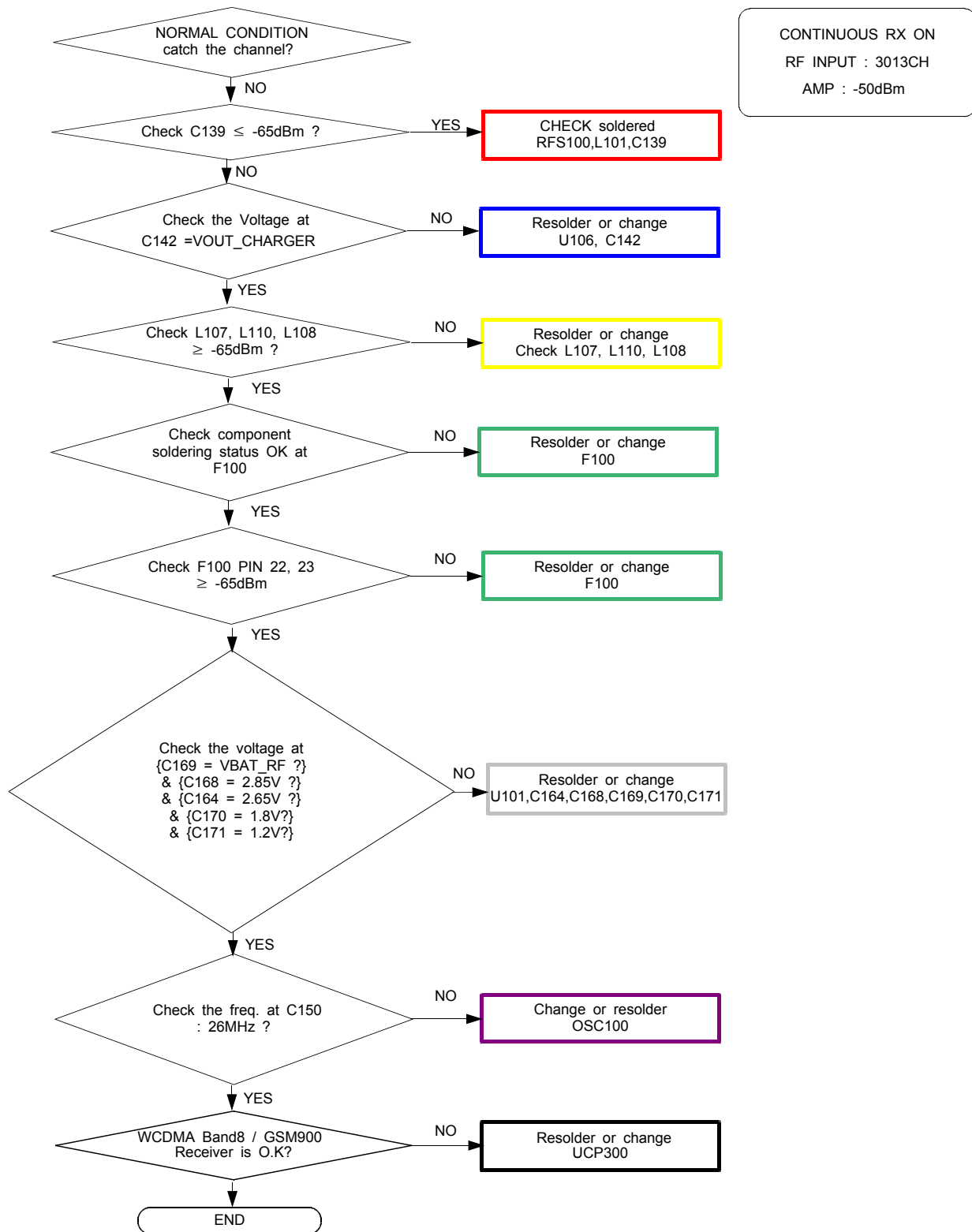


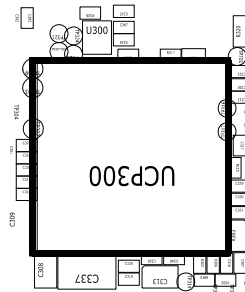
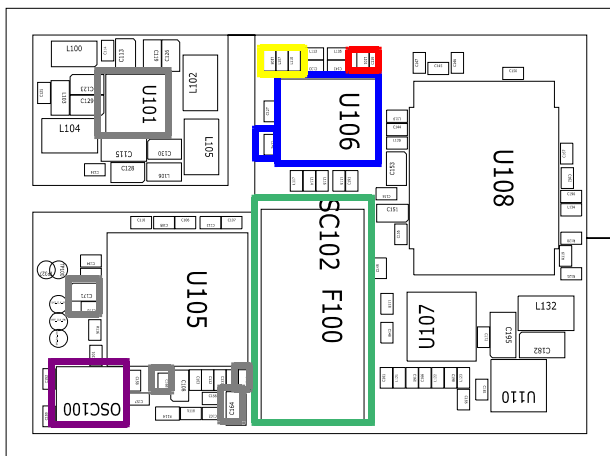
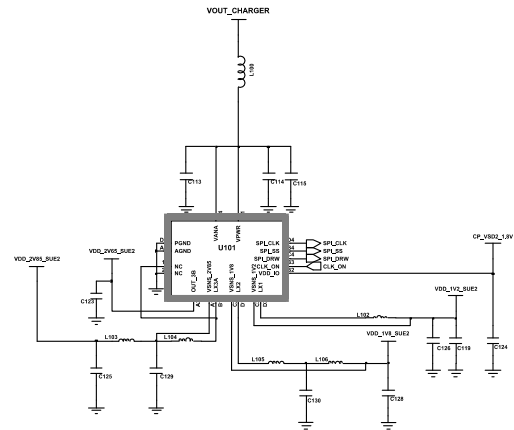
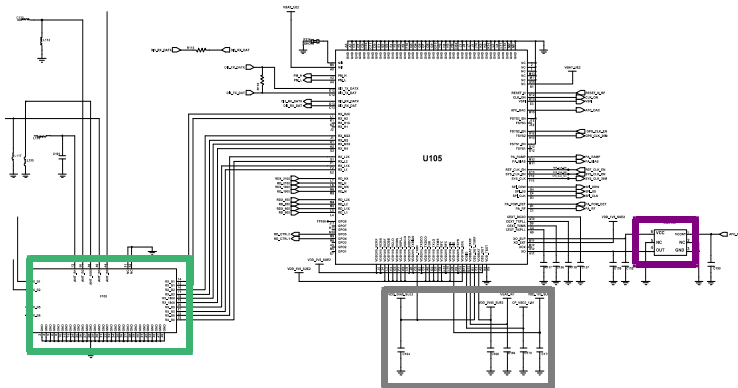
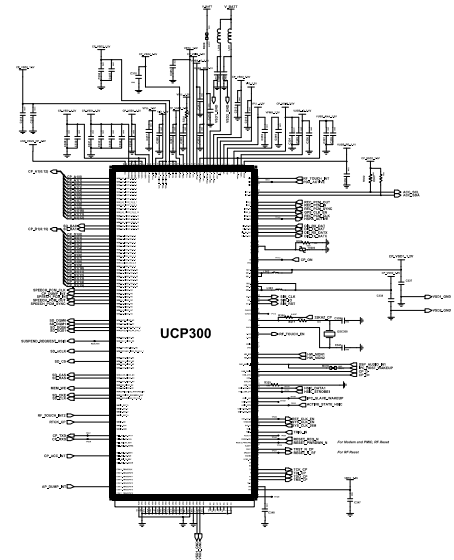
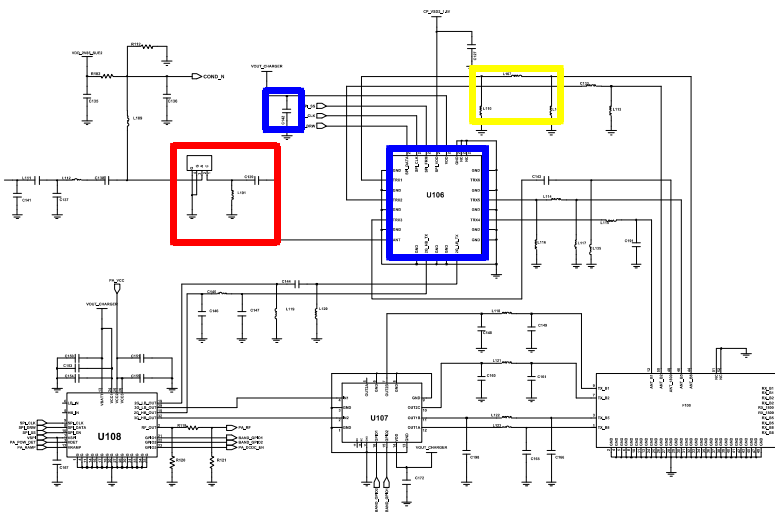
8-3-18. WCDMA Band5 / GSM 850 RX





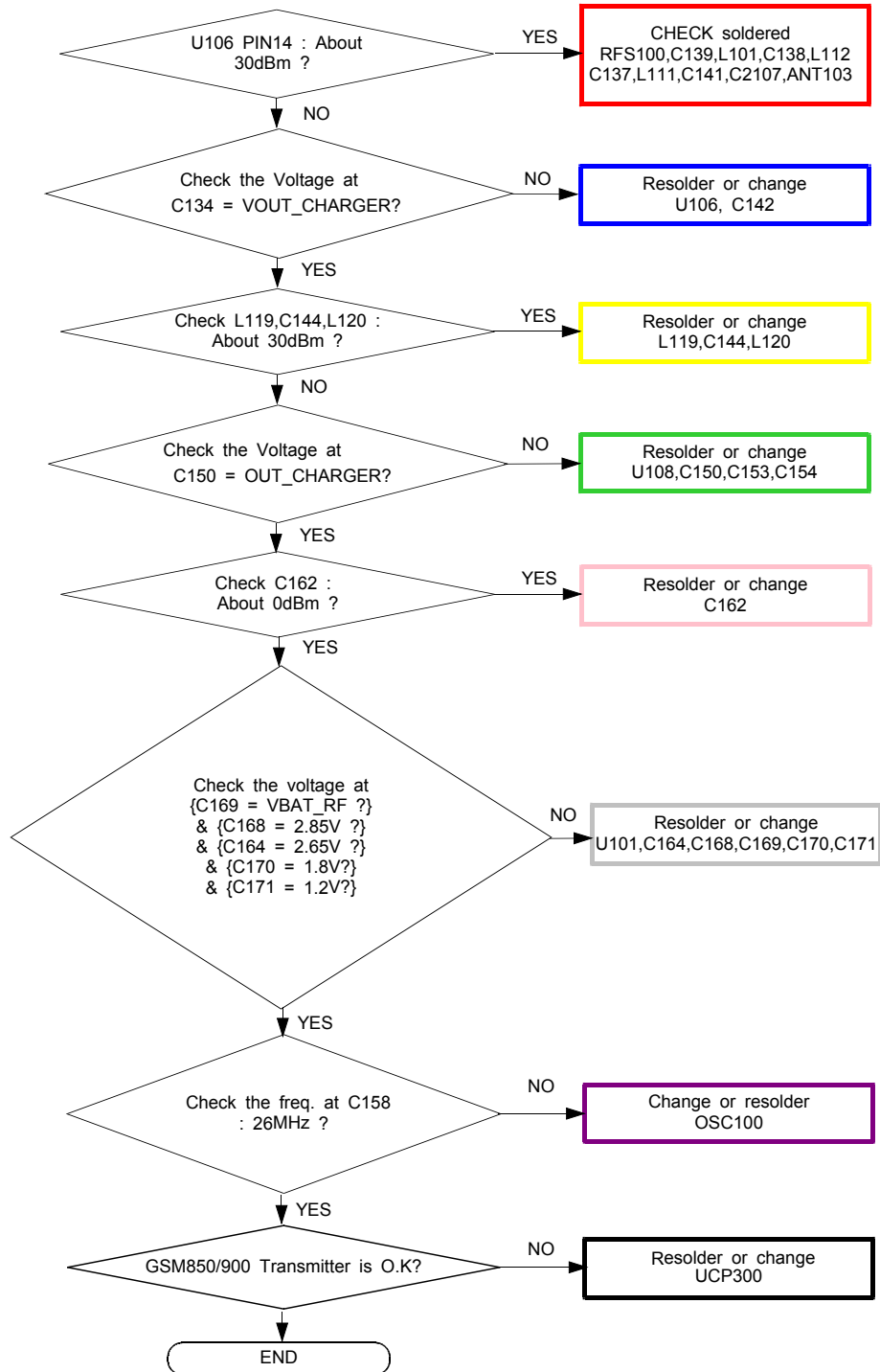
8-3-19. WCDMA Band8 / GSM900 RX

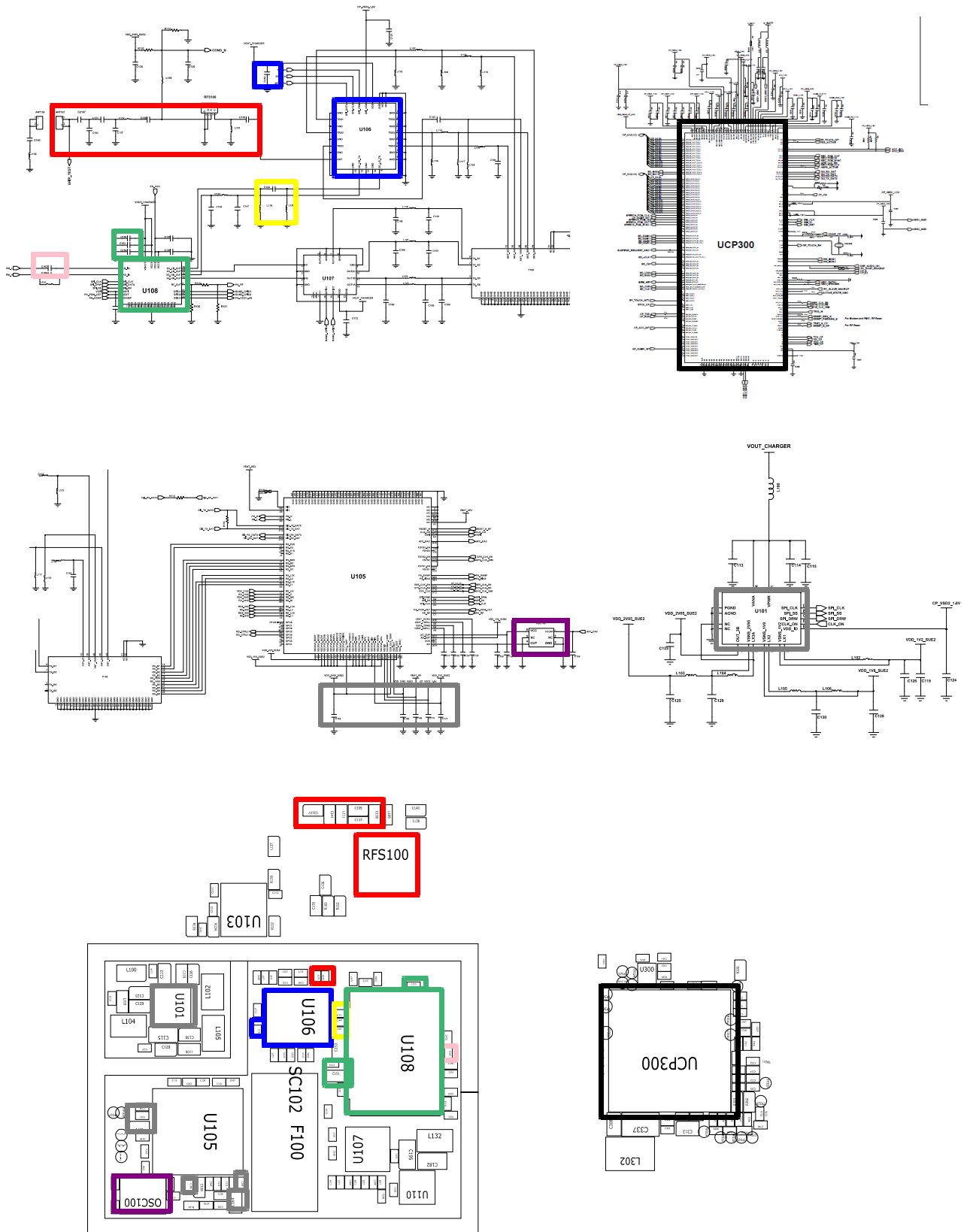




8-3-20. GSM850/GSM900 TX

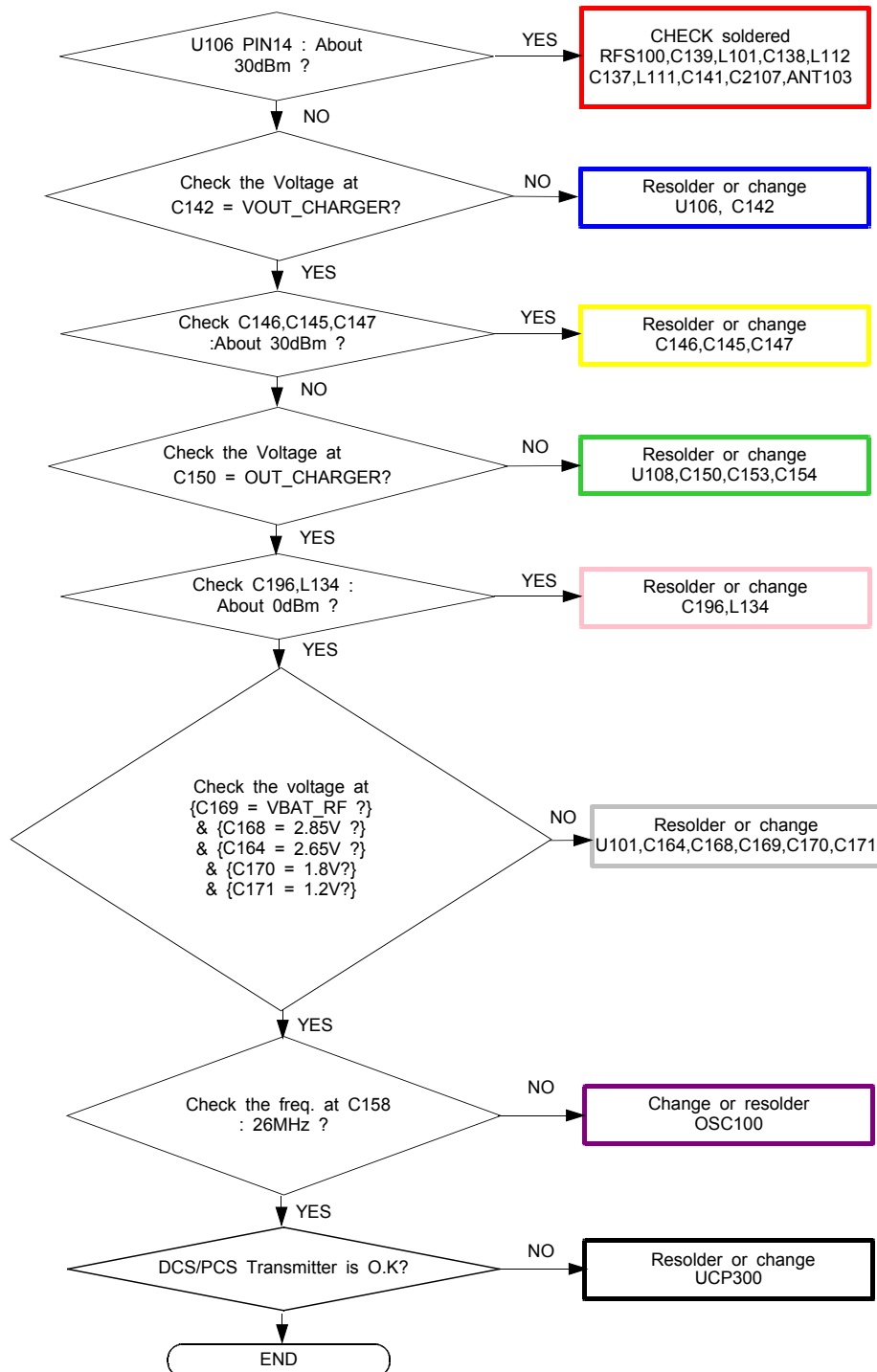
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
GSM850 CH : 190
GSM900 CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

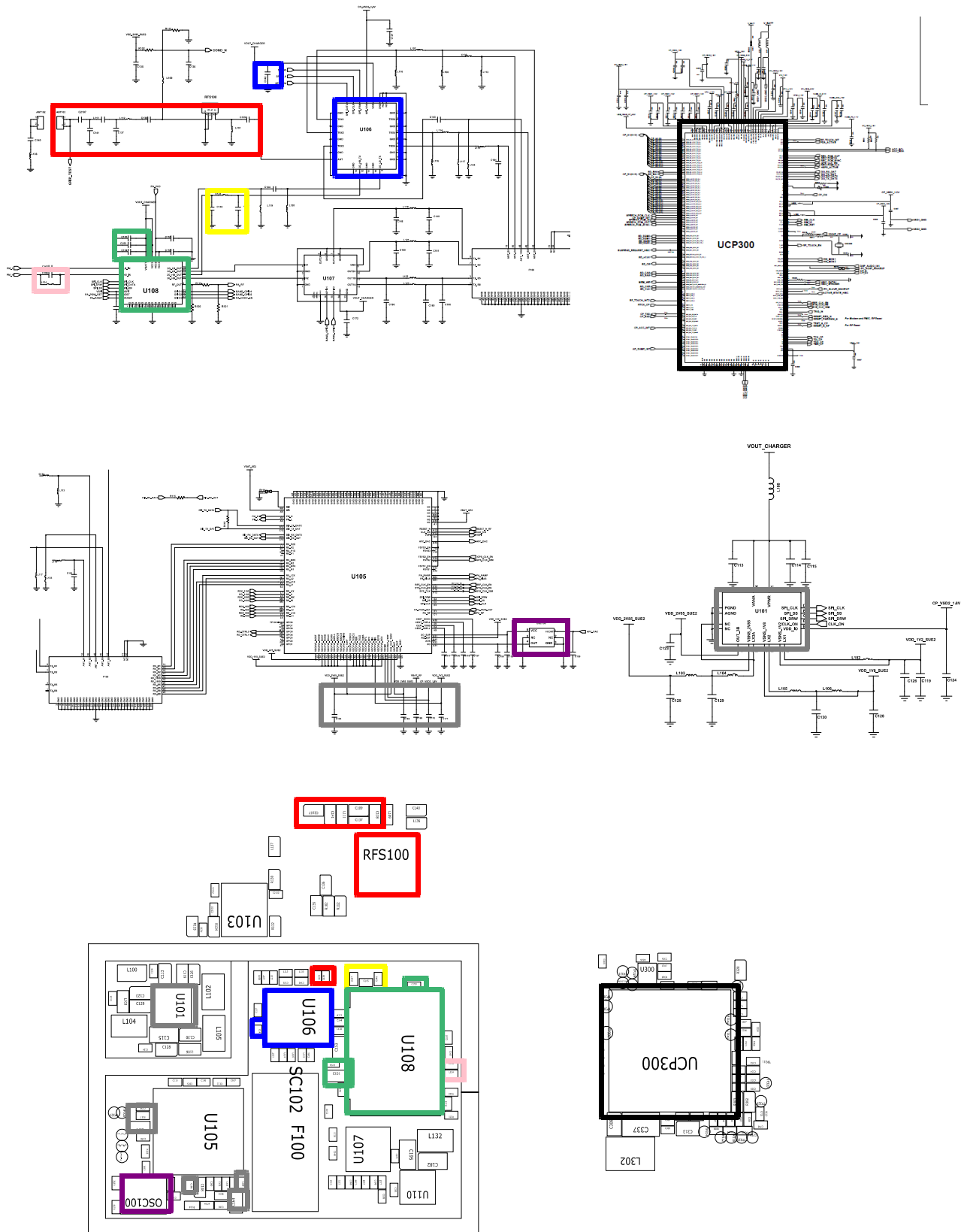




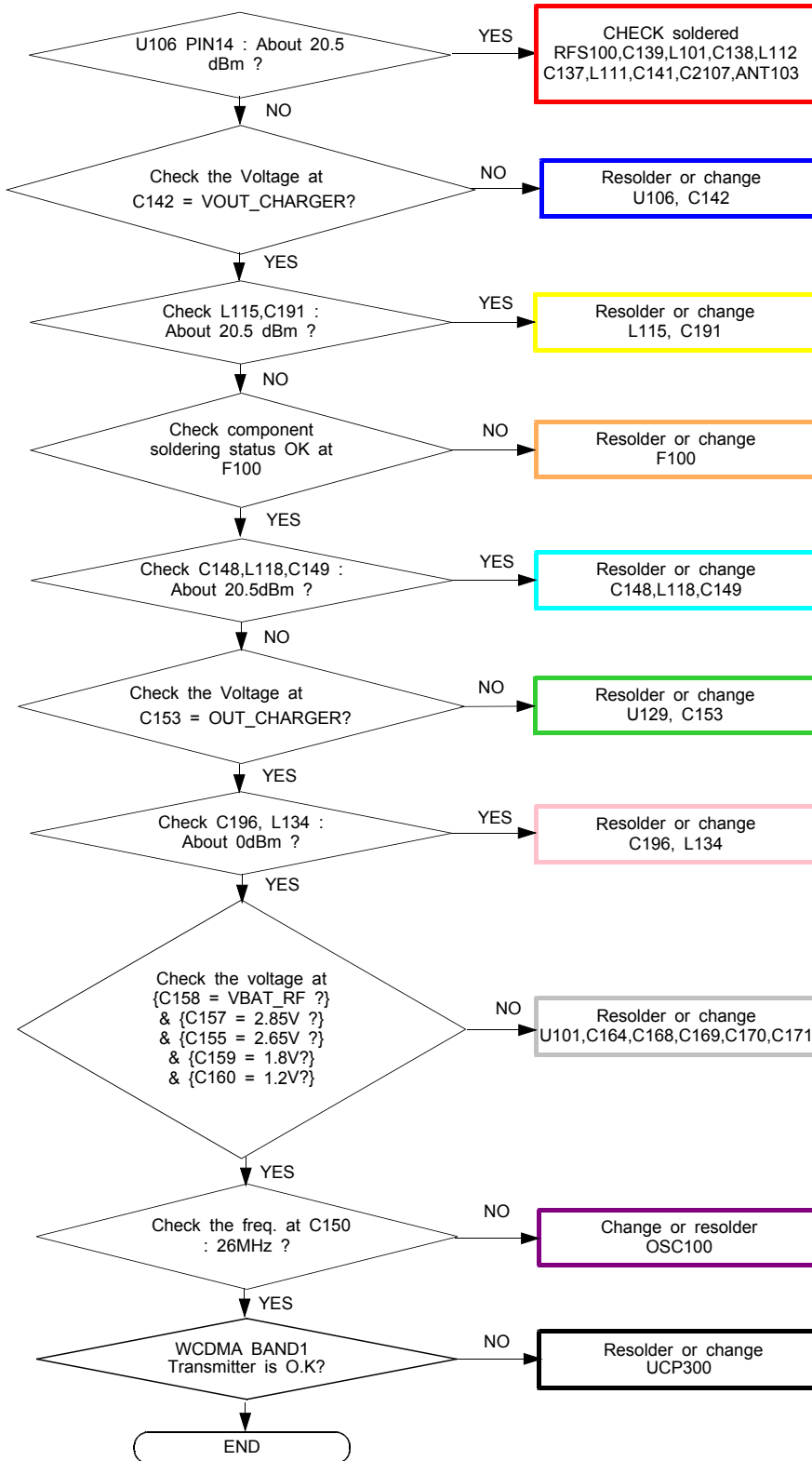
8-3-21. DCS/PCS TX

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

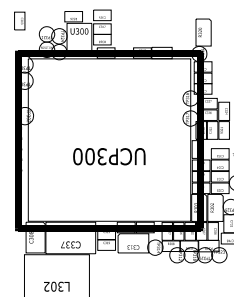
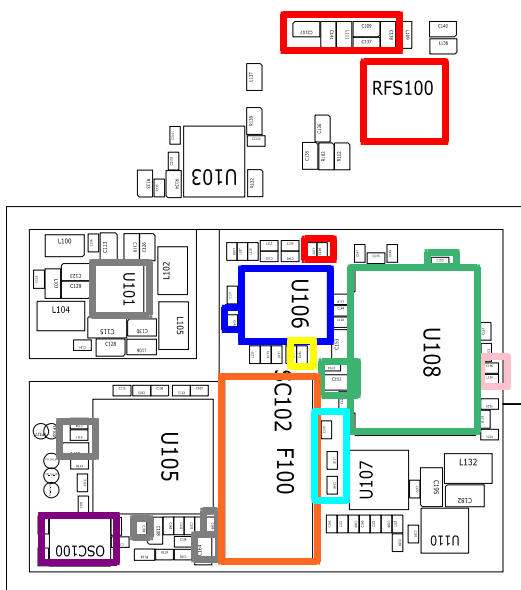
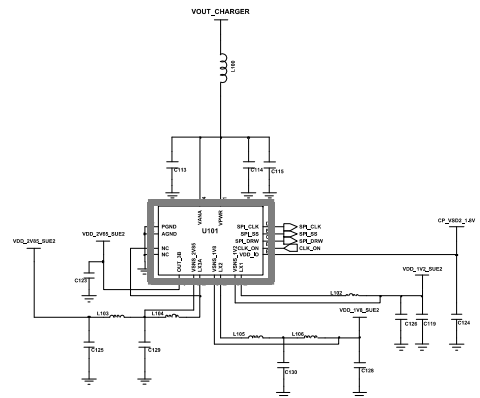
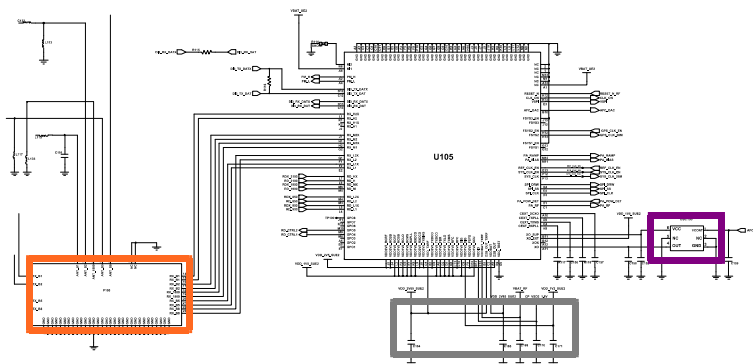
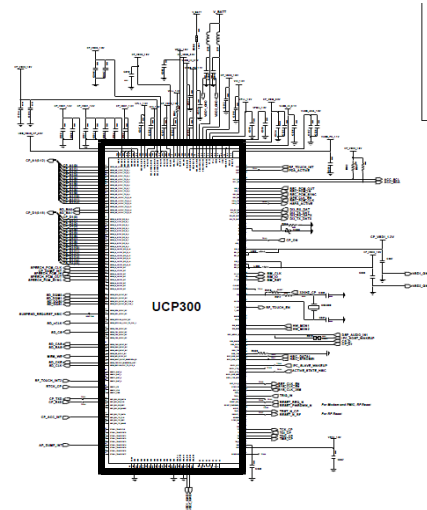
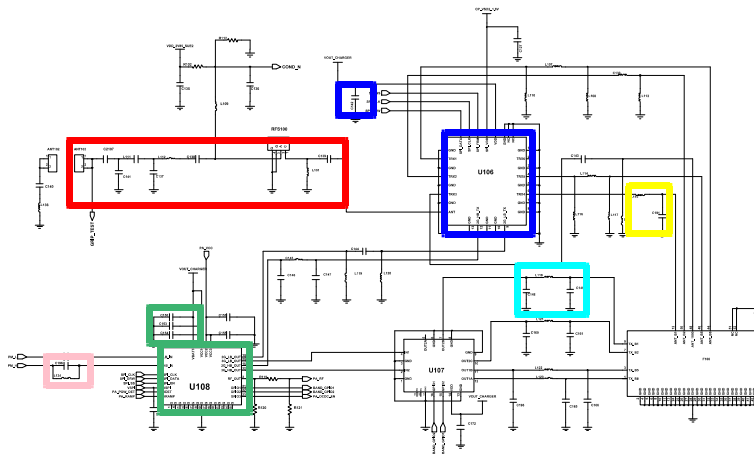




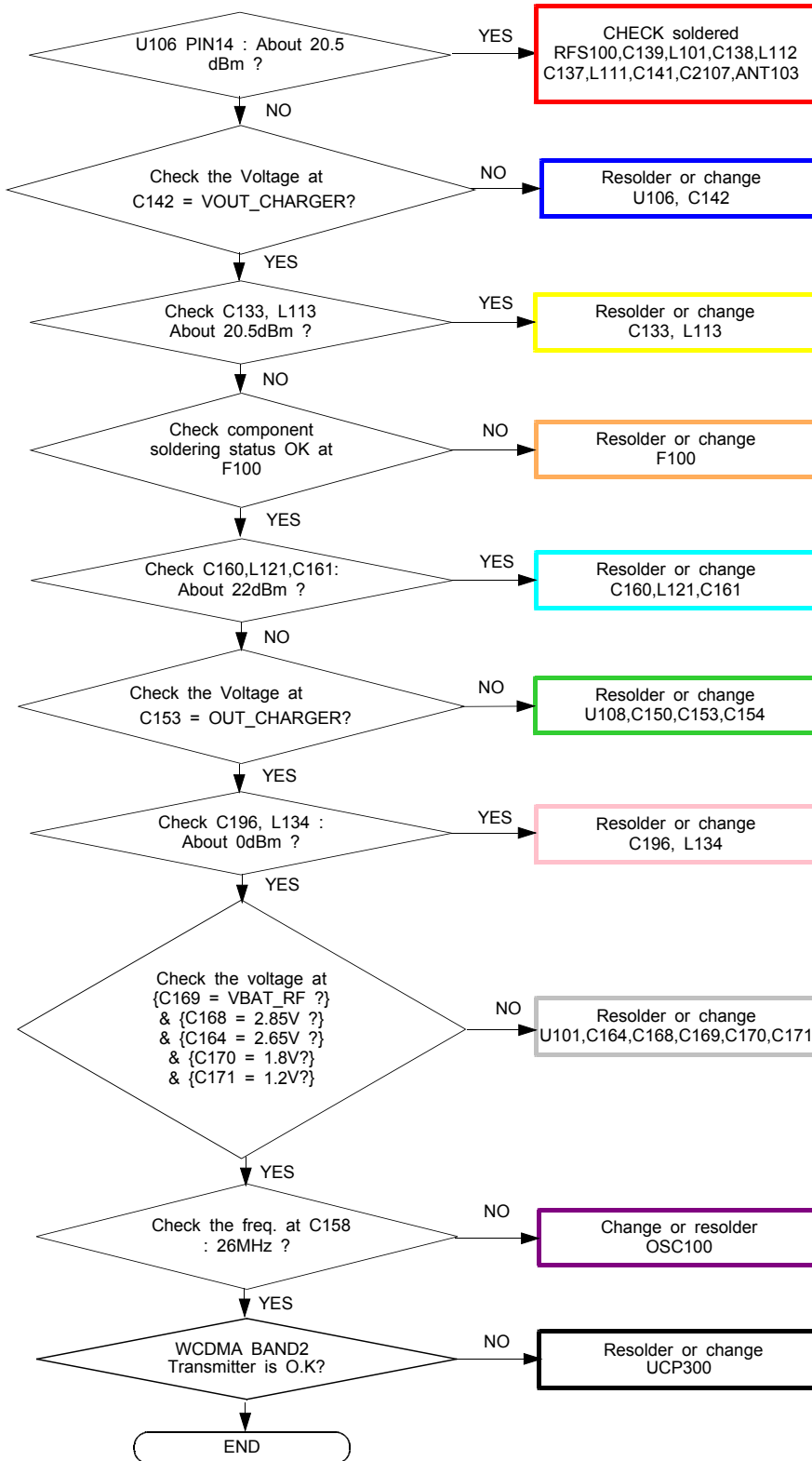
8-3-22. WCDMA BAND1 TX



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

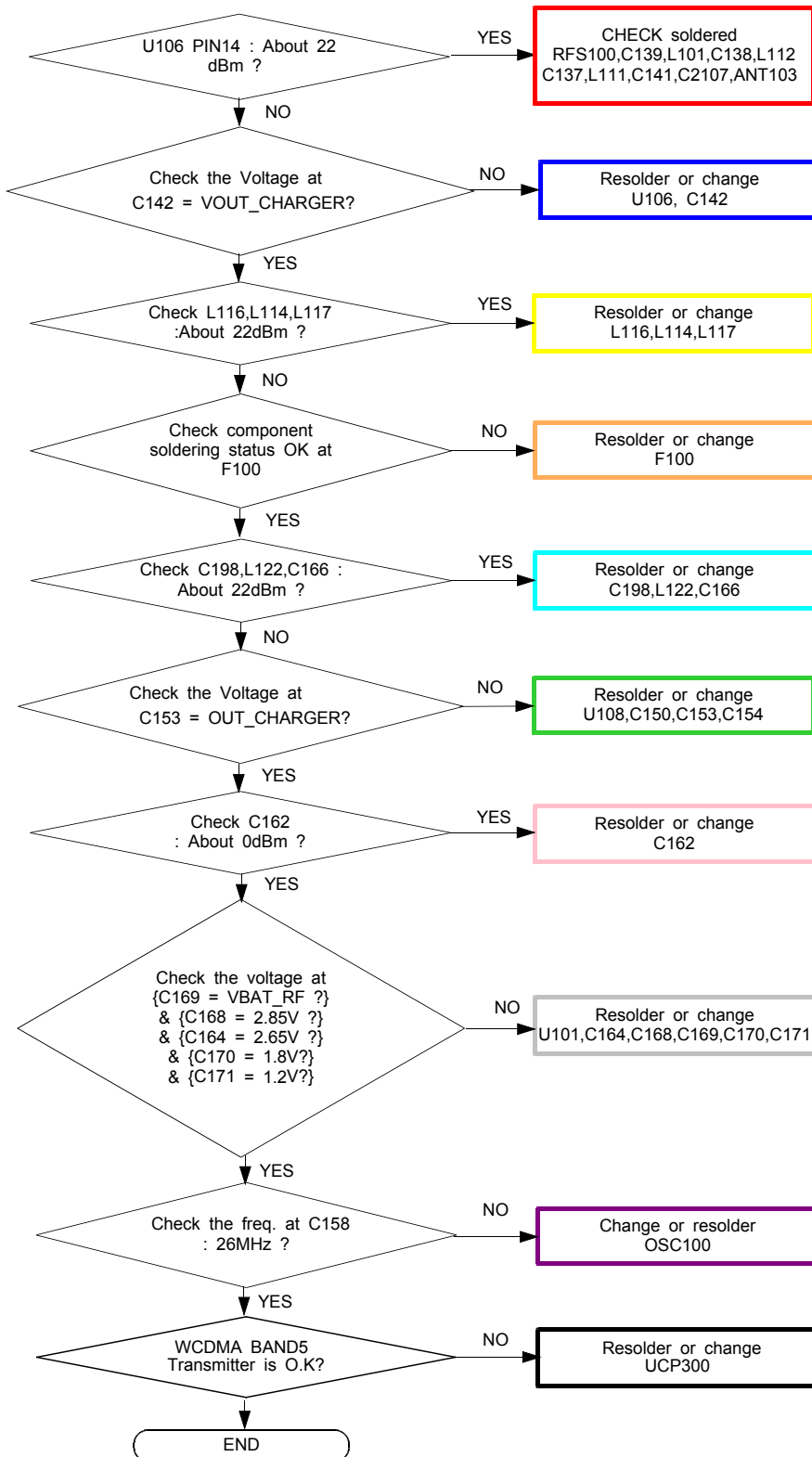


8-3-23. WCDMA BAND2 TX

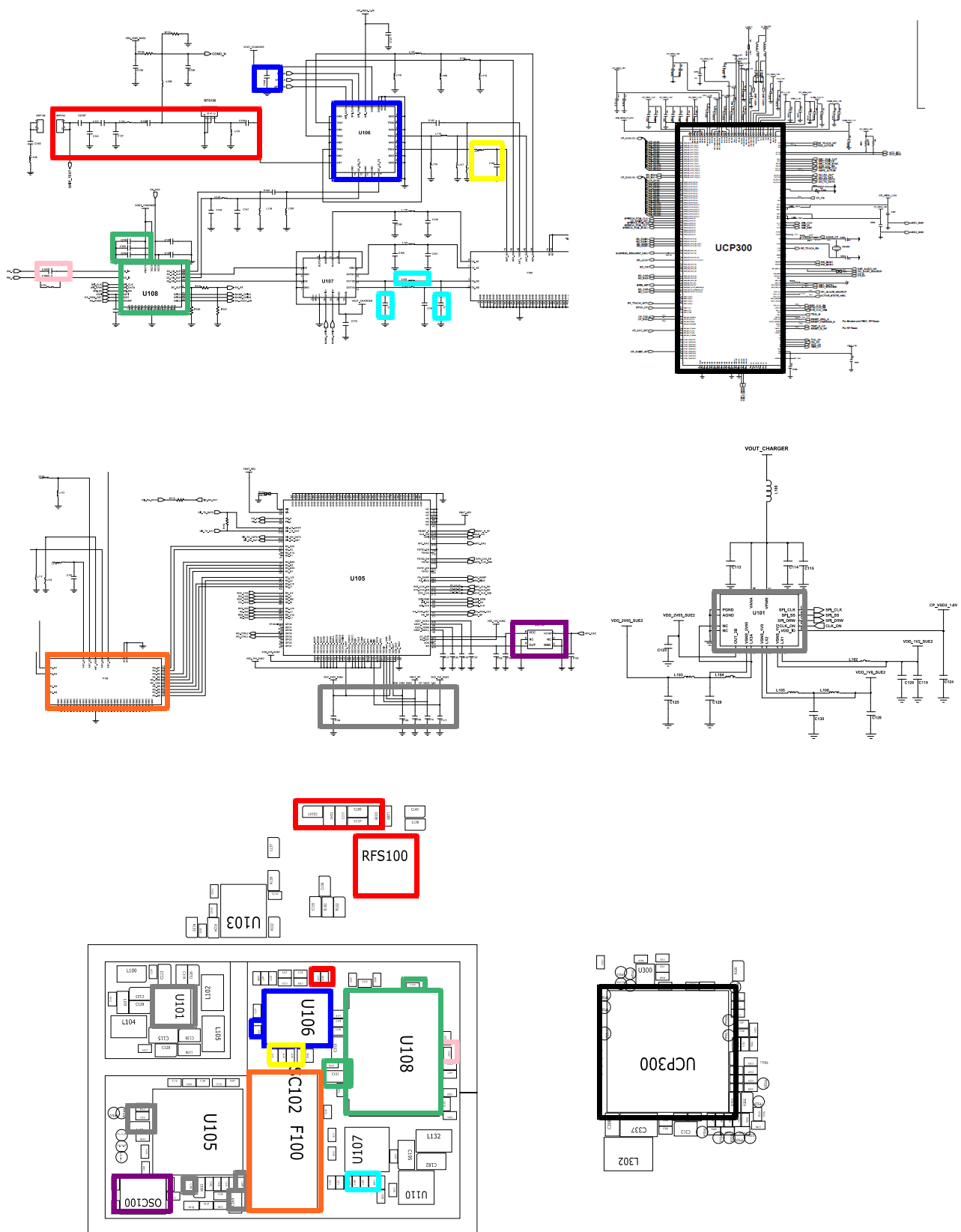


CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
WCDMA Band2 CH : 9880
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

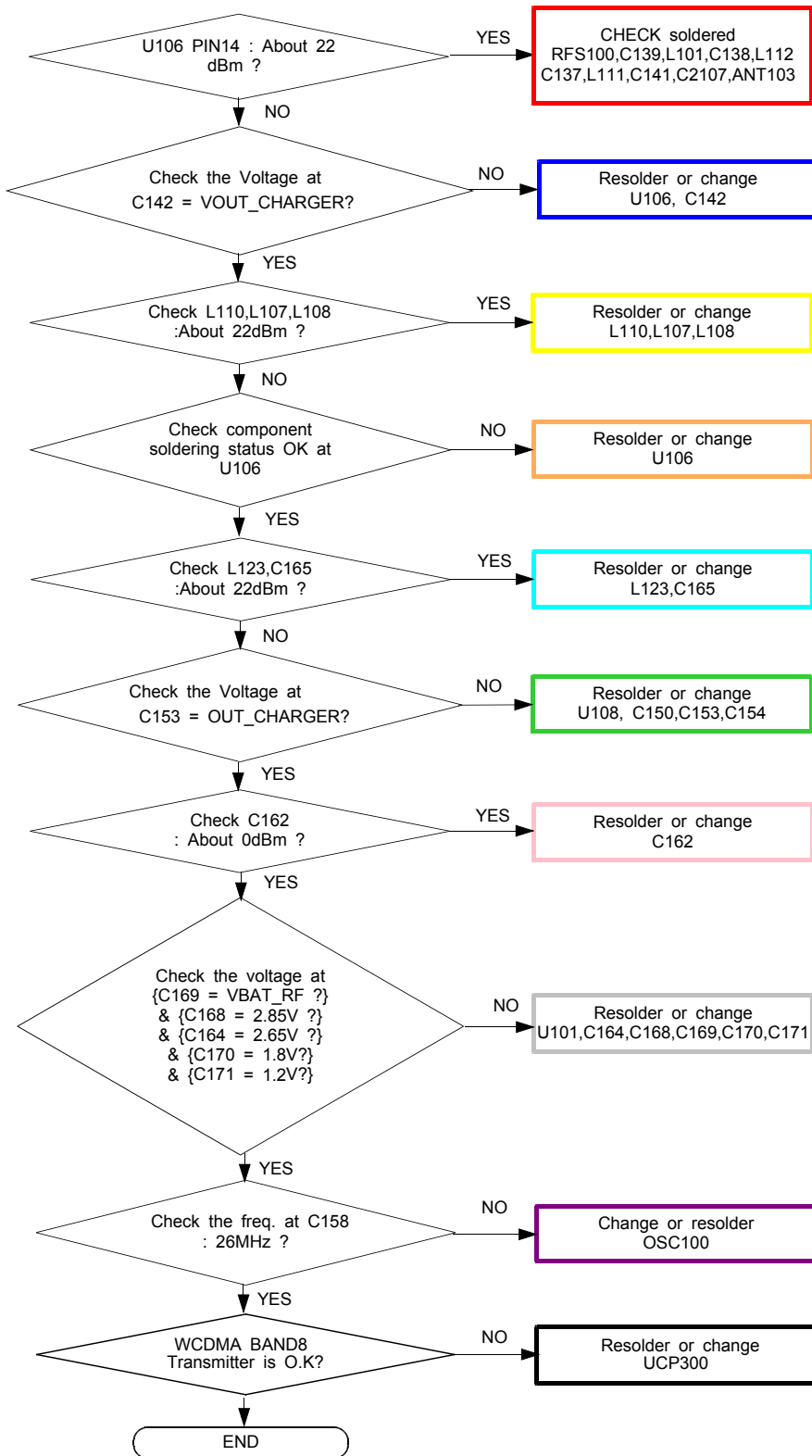
8-3-24. WCDMA BAND5 TX



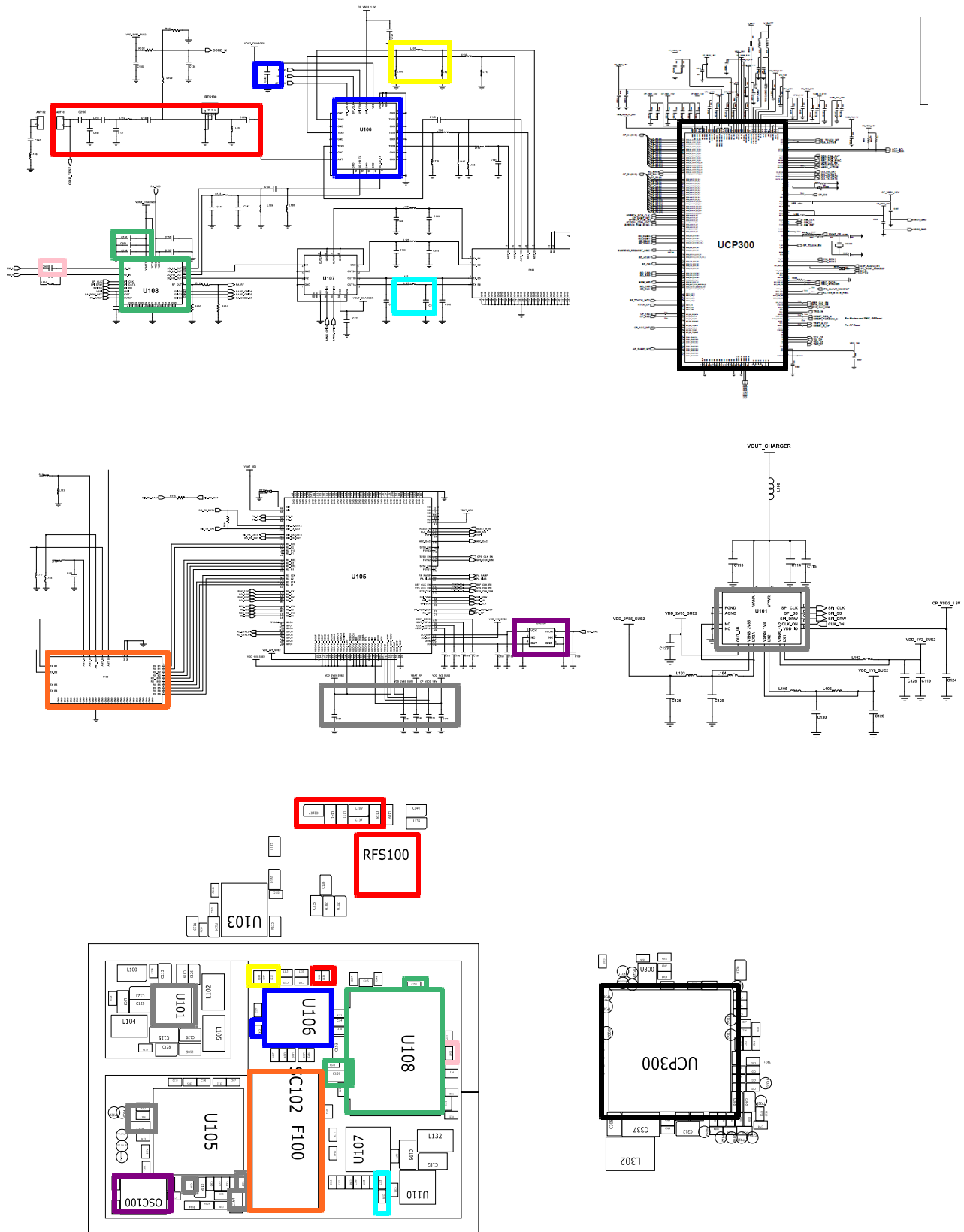
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
WCDMA Band5 CH : 4408
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB



8-3-25. 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



9. Reference Abbreviate

Reference Abbreviate

- AAC: AdvancedAudioCoding.
- AVC: AdvancedVideoCoding.
- BER: BitErrorRate
- BPSK: BinaryPhaseShiftKeying
- CA: ConditionalAccess
- CDM: CodeDivisionMultiplexing
- C/I: Carrier to Interference
- DMB: DigitalMultimediaBroadcasting
- E: EuropeanStandard
- ES: ElementaryStream
- ETSI: EuropeanTelecommunicationsStandardsInstitute
- MPEG: MovingPictureExpertsGroup
- PN: Pseudo-randomNoise
- PS: PilotSymbol
- QPSK: QuadraturePhaseShiftKeying
- RS: Reed-Solomon
- SI: ServiceInformation
- TDM: TimeDivisionMultiplexing
- TS: TransportStream

**SAMSUNG
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