

SAMSUNG

GSM TELEPHONE

GT-P1000

SERVICE *Manual*

GSM TELEPHONE

CONTENTS



1. Safety Precautions
2. Specification
3. Product Function
4. Exploded View and Parts list
5. MAIN Electrical Parts List
6. Level 1 Repair
7. Disassembly and Assembly Instructions
8. Chart of Troubleshooting
9. Reference data

Notice :

All functionality, features, specifications and other product information provided in this document including, but not limited to, the benefits, design, pricing, components, performance, availability, and capabilities of the product are subject to change without notice or obligation. Samsung reserves the right to make changes to this document and the product described herein, at anytime, without obligation on Samsung to provide notification of such change.

**SAMSUNG
ELECTRONICS**



GSPN (Global Service Partner Network)

Country	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
Europe	europa.samsungportal.com
China	china.samsungportal.com
Asia	asia.samsungportal.com
Mideast & Africa	mea.samsungportal.com

2. Specification

2-1. GSM General Specification

	GSM850	EGSM 900	DCS1800	PCS1900	WCDMA 2100	WCDMA 1900	WCDMA 900
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
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
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz	190MHz	80MHz	45MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	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
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK	QPSKHQPSK	QPSKHQPSK	QPSKHQPSK
MS Power	33dBm~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	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)
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm	-106.7dBm	-106.7dBm	-106.7dBm
TDMA Mux	8	8	8	8	8	8	8
Cell Radius	35Km	35Km	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: Froyo
- HSDPA 7.2Mbps / HSUPA 5.76Mbps
- 3MP AF with LED Flash
- 7.0" WSVGA TFT Full Touch (C-Type)
- A-GPS / BT v3.0 / USB v2.0 / WiFi (802.11 a/b/g/n)
- Recording 480p (D1, 720*480) / Full HD Playback 1080p, DLNA
- Sensors: Accelation, Magnetic, Gyro, Light
- Additional :
 - Application store / Voice & Motion UI
 - SMS/MMS/Email/Push Email (Exchange ActiveSync)/
Video Messaging Email
 - Multi-touch, Multi-task manager

6. Level 1 Repair

6-1. S/W Download

6-1-1. Pre-requisite for S/W Downloading

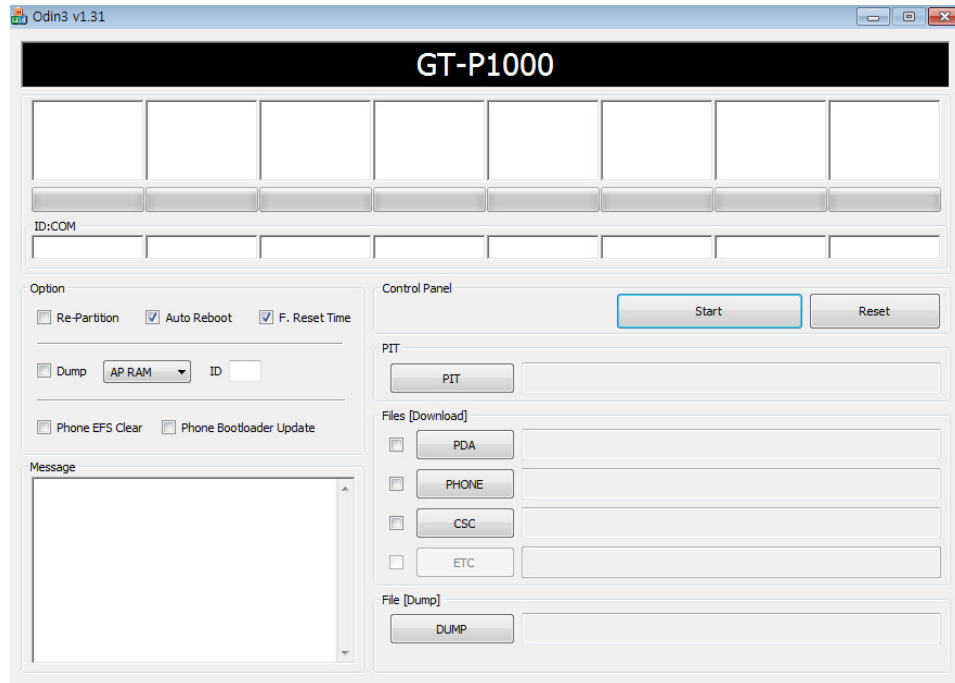
- Downloader Program (**Odin3 v1.31.exe**)
- GT-P1000 Mobile Phone
- JIG BOX (GH99-36900A)
- RF Test Cable (GH39-00985A)
- JIG Cable (GH39-09211A)
- Adapter (GH99-38251A)
- Data Link Cable
- Binary files

❖ Settings



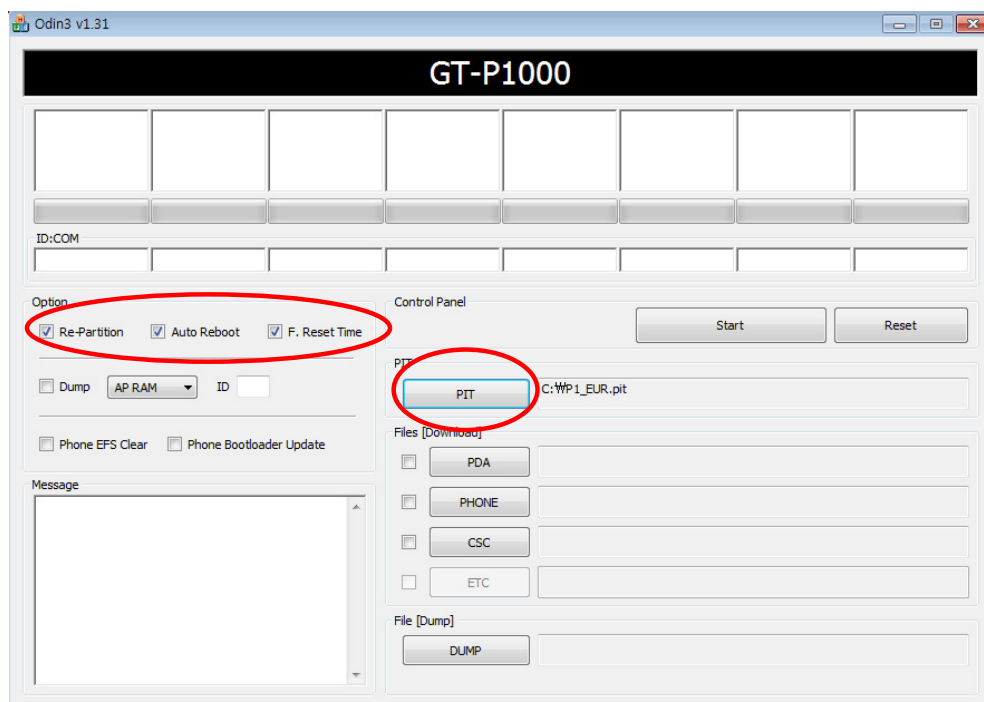
6-1-2. S/W Downloader Program

- Load the binary download program by executing the **"Odin3 v1.31.exe" ← Run this file.**



1. Option Selection

- Check Re-Partition, Auto Reboot and F. Reset Time, then select PIT File



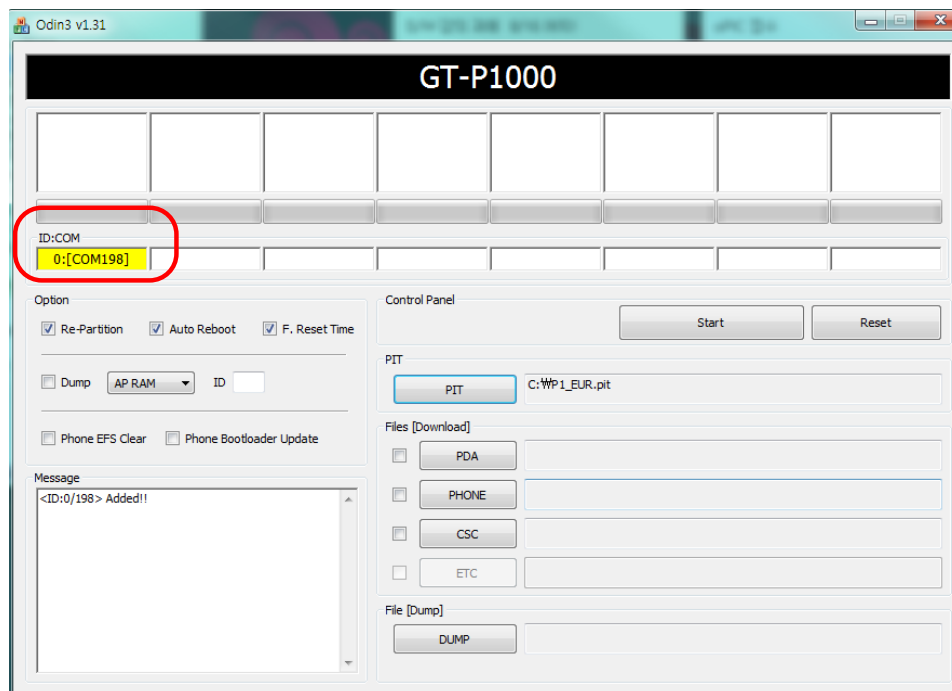
2. Enter Device into Download Mode

- Enter the device into Download Mode by pressing down on Volume Down button and Power On button at the same time.

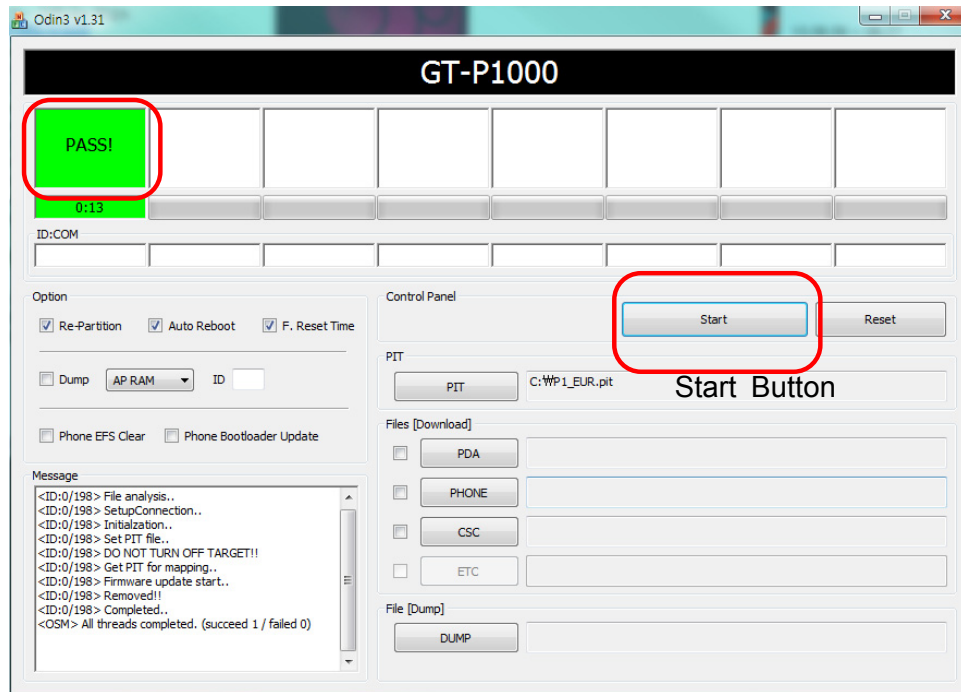


3. Connect the Device to PC via Data Cable.

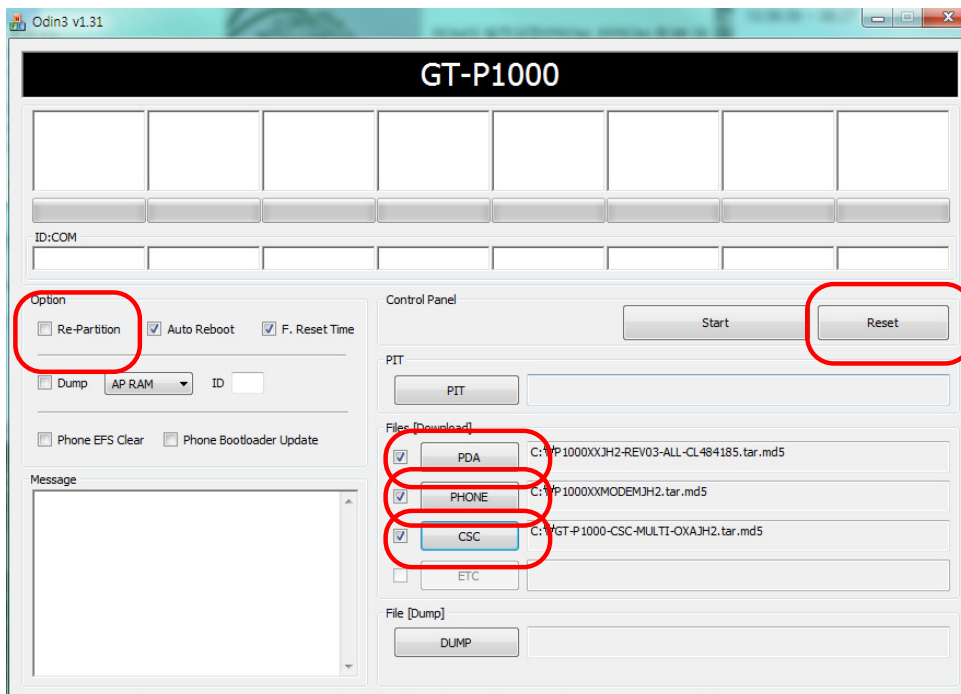
Make sure ID:COM box highlighted yellow that the device is connected to the PC.



4. Start Downloading PIT file by clicking Start Button. Then wait for "Pass" to be appear on the screen.

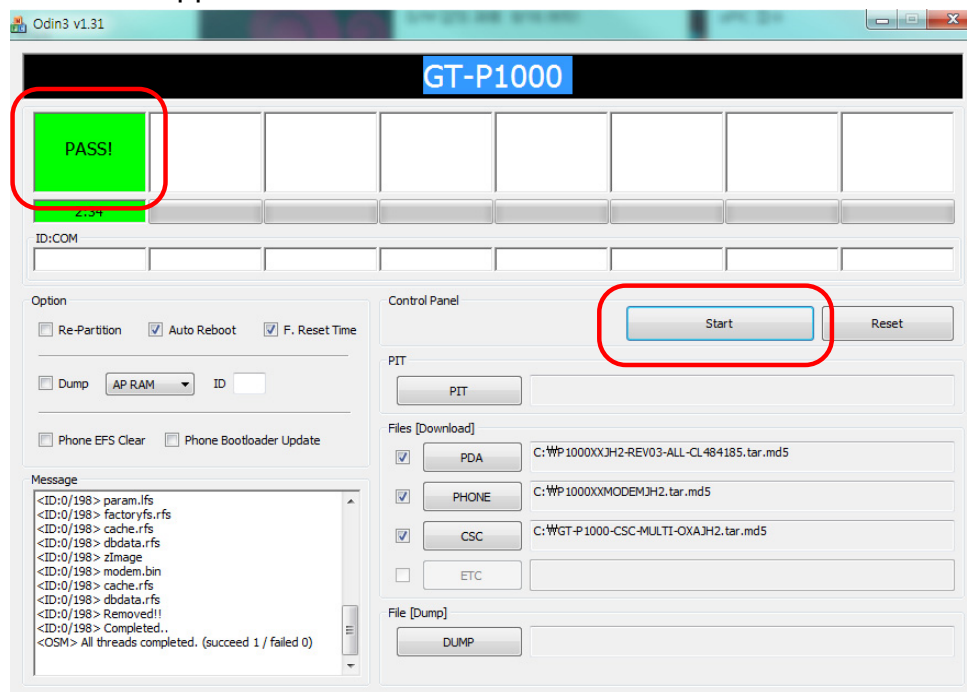


5. Click on Reset button, then unselect Re-Partition box. Then select PDA, PHONE and CSC Files.



7. Remove the battery, then enter Device into Download Mode again as in step #3. then connect to the PC.

8. Start Downloading PDA, PHONE and CSC files by clicking Start Button. Then wait for "Pass" to be appear on the screen.



9. Once the device boots up, confirm the downloaded version name and etc. :
***#1234#**

Full Reset :
***2767*3855#**

9. Reference Abbreviate

Reference Abbreviate

- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** : European Standard
- **ES** : Elementary Stream
- **ETSI**: European Telecommunications Standards Institute
- **MPEG**: Moving Picture Experts Group
- **PN** : Pseudo-random Noise
- **PS** : Pilot Symbol
- **QPSK**: Quadrature Phase Shift Keying
- **RS** : Reed-Solomon
- **SI** : Service Information
- **TDM** : Time Division Multiplexing
- **TS** : Transport Stream

1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning. Take specially care of tuning or test, because specipicty of cellular phone is sensitive for surrounding interference(RF noise).
- Be careful to use a kind of magnetic object or tool, because performance of parts is damaged by the influence of magnetic force.
- Surely use a standard screwdriver when you disassemble this product, otherwise screw will be worn away.
- Use a thicken twisted wire when you measure level.
A thicken twisted wire has low resistance, therefore error of measurement is few.
- Repair after separate Test Pack and Set because for short danger (for example an overcurrent and furious flames of parts etc) when you repair board in condition of connecting Test Pack and tuning on.
- Take specially care of soldering, because Land of PCB is small and weak in heat.
- Surely tune on/off while using AC power plug, because a repair of battery charger is dangerous when tuning ON/OFF PBA and Connector after disassembling charger.
- Don't use as you pleases after change other material than replacement registered on SEC System. Otherwise engineer in charge isn't charged with problem that you don't keep this rules.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Several semiconductor may be damaged easily by static electricity. Such parts are called by ESD (Electrostatically Sensitive Devices), for example IC,BGA chip etc. Read Precaution below.

You can prevent from ESD damage by static electricity.

- Remove static electricity remained your body before you touch semiconductor or parts with semiconductor. There are ways that you touch an earthed place or wear static electricity prevention string on wrist.
- Use earthed soldering steel when you connect or disconnect ESD.
- Use soldering removing tool to break static electricity. , otherwise ESD will be damaged by static electricity.
- Don't unpack until you set up ESD on product. Because most of ESD are packed by box and aluminum plate to have conductive power,they are prevented from static electricity.
- You must maintain electric contact between ESD and place due to be set up until ESD is connected completely to the proper place or a circuit board.

4-1. Cellular phone Exploded View



5. MAIN Electrical Parts List

Design LOC	SEC CODE	Description
ANT100,ANT101,ANT104	3712-001348	CONNECTOR-TERMINAL
ANT108,ANT202,ANT203	3712-001348	CONNECTOR-TERMINAL
ANT206	3712-001361	CONNECTOR-TERMINAL
BTC700	3711-007494	CONNECTOR-HEADER
C100,C114,C160,C170	2203-005736	C-CER,CHIP
C102,C308,C309,C343	2203-006399	C-CER,CHIP
C103,C226,C254,C307	2203-007210	C-CER,CHIP
C104,C105,C106,C107	2203-006194	C-CER,CHIP
C108,C109,C110,C111	2203-006194	C-CER,CHIP
C112,C130,C134,C135	2203-006194	C-CER,CHIP
C115	2203-006318	C-CER,CHIP
C116,C125,C127	2203-005732	C-CER,CHIP
C117,C138,C188,C189	2203-005682	C-CER,CHIP
C121	2203-005731	C-CER,CHIP
C123,C129,C227,C228	2203-006423	C-CER,CHIP
C124	2203-005727	C-CER,CHIP
C126,C142,C143,C146	2203-005726	C-CER,CHIP
C128	2203-005552	C-CER,CHIP
C132,C234	2203-005729	C-CER,CHIP
C133,C181,C304,C321	2203-006562	C-CER,CHIP
C136,C215,C219,C220	2203-006839	C-CER,CHIP
C137,C513,C767,C768	2203-007133	C-CER,CHIP
C139,C704,C814,C849	2203-007270	C-CER,CHIP
C140,C720,C721,C831	2203-006208	C-CER,CHIP
C141,C403,C404,C421	2203-000627	C-CER,CHIP
C144	2203-006123	C-CER,CHIP
C147,C289,C297	2203-006187	C-CER,CHIP
C148,C150	2203-005726	C-CER,CHIP
C149,C153,C158,C300	2203-007271	C-CER,CHIP
C151	2203-006620	C-CER,CHIP
C152,C214	2203-006979	C-CER,CHIP
C154,C231,C235,C239	2203-006305	C-CER,CHIP
C155	2203-006693	C-CER,CHIP
C156,C161	2203-006194	C-CER,CHIP
C159,C221,C238,C247	2203-005683	C-CER,CHIP
C165	2203-005234	C-CER,CHIP

Design LOC	SEC CODE	Description
C167,C212	2203-005725	C-CER,CHIP
C185,C301,C303,C313	2203-006048	C-CER,CHIP
C186,C312,C763	2203-000254	C-CER,CHIP
C187,C296	2203-000233	C-CER,CHIP
C190,C283	2203-005682	C-CER,CHIP
C200,C201,C203,C204	2203-006872	C-CER,CHIP
C205,C213,C318,C319	2203-006872	C-CER,CHIP
C206	2203-006410	C-CER,CHIP
C216	2203-007474	C-CER,CHIP
C217,C218,C224,C225	2203-007317	C-CER,CHIP
C222,C299,C302	2203-007449	C-CER,CHIP
C223,C278,C279,C298	2203-006839	C-CER,CHIP
C229,C244	2203-006423	C-CER,CHIP
C240,C242,C243,C246	2203-006305	C-CER,CHIP
C248,C250,C514,C517	2203-007393	C-CER,CHIP
C249	2203-006994	C-CER,CHIP
C252,C253,C259,C260	2203-006305	C-CER,CHIP
C257,C286	2203-005683	C-CER,CHIP
C268	2203-006968	C-CER,CHIP
C272	2203-006439	C-CER,CHIP
C273,C288,C290	2203-006305	C-CER,CHIP
C274	2203-005736	C-CER,CHIP
C277	2203-005792	C-CER,CHIP
C281,C284,C292	2203-007369	C-CER,CHIP
C291	2203-006400	C-CER,CHIP
C305,C454,C456	2203-006839	C-CER,CHIP
C306,C310,C311,C322	2203-006190	C-CER,CHIP
C314,C316,C719	2203-006890	C-CER,CHIP
C315,C323,C324,C329	2203-006048	C-CER,CHIP
C317,C320,C715,C739	2203-006681	C-CER,CHIP
C325,C331,C336,C341	2203-006260	C-CER,CHIP
C326,C327	2203-000812	C-CER,CHIP
C328,C348,C349,C350	2203-000812	C-CER,CHIP
C330,C337,C771	2203-007230	C-CER,CHIP
C332,C333,C701	2203-007240	C-CER,CHIP
C334,C335,C408,C418	2203-006048	C-CER,CHIP

Design LOC	SEC CODE	Description
C338,C339,C412,C460	2203-000386	C-CER,CHIP
C340,C426,C427,C433	2203-007317	C-CER,CHIP
C342,C437,C438,C439	2203-006872	C-CER,CHIP
C345,C346,C347,C407	2203-006562	C-CER,CHIP
C406,C413,C445,C448	2203-000425	C-CER,CHIP
C409,C417,C446,C447	2203-001153	C-CER,CHIP
C411,C425,C429,C457	2203-006562	C-CER,CHIP
C422	2203-000627	C-CER,CHIP
C428,C430,C431,C432	2203-006048	C-CER,CHIP
C434,C435,C502,C600	2203-006048	C-CER,CHIP
C440,C441,C443,C444	2203-007317	C-CER,CHIP
C449,C453,C462,C835	2203-000425	C-CER,CHIP
C450,C451,C463	2203-001153	C-CER,CHIP
C458,C465,C466,C507	2203-006562	C-CER,CHIP
C461	2203-000386	C-CER,CHIP
C467,C528,C605,C608	2203-007317	C-CER,CHIP
C500,C773,C791,C792	2203-007279	C-CER,CHIP
C503,C762	2203-006841	C-CER,CHIP
C504	2203-006978	C-CER,CHIP
C506,C532	2203-006844	C-CER,CHIP
C509,C510,C511,C512	2203-006562	C-CER,CHIP
C518,C519,C522,C524	2203-007393	C-CER,CHIP
C525,C527,C811	2203-007393	C-CER,CHIP
C526,C779	2203-006190	C-CER,CHIP
C529,C531,C533,C603	2203-006562	C-CER,CHIP
C530,C820,C821,C853	2203-007271	C-CER,CHIP
C601,C602,C604,C606	2203-006048	C-CER,CHIP
C607,C610,C611,C613	2203-006562	C-CER,CHIP
C609,C612,C615,C617	2203-006048	C-CER,CHIP
C614,C619,C703,C716	2203-006562	C-CER,CHIP
C616,C852	2203-007317	C-CER,CHIP
C618,C623,C625,C626	2203-006048	C-CER,CHIP
C620	2203-005138	C-CER,CHIP
C621,C622	2203-006133	C-CER,CHIP
C627,C806,C809,C818	2203-002709	C-CER,CHIP
C628	2203-000489	C-CER,CHIP

Design LOC	SEC CODE	Description
C700	2203-006348	C-CER,CHIP
C702	2203-006399	C-CER,CHIP
C705,C706,C708,C709	2203-006824	C-CER,CHIP
C710,C711,C712,C777	2203-006824	C-CER,CHIP
C717,C723,C724,C727	2203-006562	C-CER,CHIP
C718,C740	2203-000550	C-CER,CHIP
C725,C726,C730,C732	2203-006872	C-CER,CHIP
C728,C729,C731,C733	2203-006562	C-CER,CHIP
C734,C737,C754,C765	2203-006562	C-CER,CHIP
C735,C736,C738,C794	2203-006872	C-CER,CHIP
C753	2203-000725	C-CER,CHIP
C764,C803,C805,C834	2203-006048	C-CER,CHIP
C775,C776	2203-007425	C-CER,CHIP
C780	2203-006824	C-CER,CHIP
C782	2203-007133	C-CER,CHIP
C789,C807,C808,C810	2203-000254	C-CER,CHIP
C793	2203-007279	C-CER,CHIP
C800,C804,C812,C813	2203-006562	C-CER,CHIP
C817	2203-006562	C-CER,CHIP
C819,C822,C823	2203-002709	C-CER,CHIP
C824,C825,C826,C827	2203-006872	C-CER,CHIP
C828,C829,C830,C833	2203-006872	C-CER,CHIP
C832,C783	2203-006208	C-CER,CHIP
C836,C837	2203-006872	C-CER,CHIP
C838,C839,C848	2203-006048	C-CER,CHIP
C840,C841	2230-005057	C-CER,CHIP
C842	2203-003054	C-CER,CHIP
C850	2203-006257	C-CER,CHIP
C851	2203-000254	C-CER,CHIP
C854	2203-007269	C-CER,CHIP
CD300	3709-001575	CONNECTOR-CARD EDGE
D100,D101,D600	0404-001250	DIODE-SCHOTTKY
D301,D302,D303,D400	0406-001239	DIODE-TVS
D401,D402,D403,D404	0406-001375	DIODE-TVS
D500,D900	0407-001002	0407-001002
D501,D502,D804,ZD501	0406-001239	0407-001002

Design LOC	SEC CODE	Description
D800,D801,D802,D803	0406-001375	0407-001002
F100	2904-001939	FILTER-SAW
F201	2910-000108	DUPLEXER-SAW
F204	2909-001330	FILTER-LC
F500	2901-001634	FILTER-EMI/ESD
F800,F801,F802	2901-001525	FILTER-EMI/ESD
HDC400,HDC401,HDC500	3711-006615	HEADER-BOARD TO BOARD
HDC800	3711-006865	HEADER-BOARD TO BOARD
HDC801,HDC802	3711-006882	HEADER-BOARD TO BOARD
HDC803	3711-007245	HEADER-BOARD TO BOARD
IFC500	3710-003319	SOCKET-BOARD TO CABLE
L102,L117	2703-002918	INDUCTOR-SMD
L105	2703-002870	INDUCTOR-SMD
L107,L115	2703-002793	INDUCTOR-SMD
L108	2703-002953	INDUCTOR-SMD
L111	2703-002775	INDUCTOR-SMD
L114	2703-002900	INDUCTOR-SMD
L116	2703-001949	INDUCTOR-SMD
L121	2703-002313	INDUCTOR-SMD
R124	3301-001912	INDUCTOR-SMD
L204	3301-001659	INDUCTOR-SMD
L205,L206,L207,L208	3301-001895	INDUCTOR-SMD
L209	3301-001895	INDUCTOR-SMD
L212,L221,L222,L223	2703-002958	INDUCTOR-SMD
L213,L302,L303	2703-003869	INDUCTOR-SMD
L219	2703-002842	INDUCTOR-SMD
L220,L403,L404,L405	3301-001885	INDUCTOR-SMD
L300,L301	3301-001120	INDUCTOR-SMD
L304,L804,L806	3301-001956	INDUCTOR-SMD
L400,L401,L407,L409	3301-001756	INDUCTOR-SMD
L408	3301-001885	INDUCTOR-SMD
L410,L411,L412,L413	3301-001812	INDUCTOR-SMD
L504,L801	2703-003502	INDUCTOR-SMD
L701,L702,L703	2703-003913	INDUCTOR-SMD
L704	2703-003907	INDUCTOR-SMD
L705,L706	2703-001868	INDUCTOR-SMD

Design LOC	SEC CODE	Description
L800	3301-001901	INDUCTOR-SMD
L802,L803	3301-001729	INDUCTOR-SMD
L805	2703-003412	INDUCTOR-SMD
LED800	0601-002413	LED-FLASH
OSC100	2809-001358	OSCILLATOR-VCTCXO
OSC200	2809-001348	OSCILLATOR-VCTCXO
OSC201	2801-004589	CRYSTAL-SMD
OSC300,OSC700	2801-004909	CRYSTAL-SMD
OSC600	2801-004682	CRYSTAL-SMD
OSC800	2801-004626	CRYSTAL-SMD
PAM100	1201-003034	IC-POWER AMP
PAM101	1201-003033	IC-POWER AMP
PAM102	1201-003032	IC-POWER AMP
PAM103	1201-002801	IC-POWER AMP
Q100,Q500	0504-001113	TR-DIGITAL
R100	2007-008419	R-CHIP
R101,R102,R342	2007-009801	R-CHIP
R103	2007-000155	R-CHIP
R109	2007-007008	R-CHIP
R110	2007-007099	R-CHIP
R115,R118,R119	2007-000758	R-CHIP
R116	2007-000775	R-CHIP
R202	2007-007132	R-CHIP
R203,R204,R205,R206	2007-010202	R-CHIP
R207	2007-010202	R-CHIP
R208	2007-008579	R-CHIP
R212	2007-008531	R-CHIP
R213	2007-008806	R-CHIP
R216	2007-008043	R-CHIP
R217	2007-009111	R-CHIP
R218,R225,R428,R429	2007-008516	R-CHIP
R300,R320,R322,R325	2007-000157	R-CHIP
R306,R334,R360,R540	2007-000148	R-CHIP
R307,R308,R309,R310	2007-007014	R-CHIP
R311,R586,R602,R694	2007-000143	R-CHIP
R314,R332,R595	2007-000167	R-CHIP

Design LOC	SEC CODE	Description
R315,R321	2007-007107	R-CHIP
R317,R318,R319,R424	2007-000141	R-CHIP
R326,R340,R341,R345	2007-000157	R-CHIP
R330	2007-003018	R-CHIP
R331,R632,R633,R634	2007-000162	R-CHIP
R333	2007-000566	R-CHIP
R339,R343,R344,R425	2007-000138	R-CHIP
R349,R426,R427	2007-000173	R-CHIP
R352,R353,R354,R355	2007-007014	R-CHIP
R357	2007-007014	R-CHIP
R401,R442	2007-001119	R-CHIP
R414,R420,R449,R500	2007-000170	R-CHIP
R436,R437	2007-008211	R-CHIP
R440,R448	2007-000138	R-CHIP
R441,R443	2007-008478	R-CHIP
R451,R820	2007-000141	R-CHIP
R501,R517,R564,R594	2007-000170	R-CHIP
R503	2007-007092	R-CHIP
R510,R512,R579	2007-003015	R-CHIP
R532,R563,R810,R812	2007-000138	R-CHIP
R560	2007-000166	R-CHIP
R569,R575,R581,R620	2007-000148	R-CHIP
R583,R611,R612,R614	2007-000140	R-CHIP
R596,R597	2007-001339	R-CHIP
R610	2007-007177	R-CHIP
R613	2007-001319	R-CHIP
R615,R616,R617,R644	2007-000140	R-CHIP
R621,R625,R628,R663	2007-000148	R-CHIP
R637,R638,R640,R641	2007-000162	R-CHIP
R645,R665,R666,R685	2007-000140	R-CHIP
R646,R647,R651,R660	2007-000162	R-CHIP
R657,R659	2007-009964	R-CHIP
R667,R682,R705,R707	2007-000148	R-CHIP
R680	2007-007009	R-CHIP
R686,R692,R693,R695	2007-000140	R-CHIP
R688,R689,R691,R743	2007-000162	R-CHIP

Design LOC	SEC CODE	Description
R696,R755,R766,R805	2007-000140	R-CHIP
R704,R706,R778,R779	2007-000758	R-CHIP
R708,R753,R817,R846	2007-000148	R-CHIP
R715,R756,R802,R807	2007-000143	R-CHIP
R736	2007-010509	R-CHIP
R758,R759,R760	2007-001306	R-CHIP
R762	2007-008633	R-CHIP
R768,R832,R117	2007-000162	R-CHIP
R793	2007-007480	R-CHIP
R806,R830,R831	2007-000140	R-CHIP
R818	2007-001290	R-CHIP
R819	2007-001298	R-CHIP
R824,R835	2007-000143	R-CHIP
R825,R826,R828,R837	2007-000157	R-CHIP
R836	2007-000170	R-CHIP
R838,R840,R841	2007-000157	R-CHIP
R844,R850,R851	2007-008780	R-CHIP
R847,R848	2007-000148	R-CHIP
R849	2007-007334	R-CHIP
R444,R445,	2007-008780	R-CHIP
RFS100	3705-001731	CONNECTOR-COAXIAL
SC200	GH71-09660A	ICT SHIELD-CAN
SIM300	3709-001631	CONNECTOR-CARD EDGE
TA400	2404-001572	C-TA,CHIP
TA401	2404-001596	C-TA,CHIP
TH300,TH600	1404-001221	THERMISTOR-NTC
TR703,TR704,TR705	0505-002748	FET-SILICON
U100	1201-002999	;BGA735N16
U101	1205-003949	;PMB5703
U102	1203-006199	;AAT1171IUP-1-T1
U105,U705	0505-002353	IC-SENSOR
U107	1209-002006	IC-SENSOR
U200	1205-003966	IC-RECEIVER
U201	1201-003129	IC-RF AMP
U202	1205-004045	IC-TRANSCIVER
U203	1001-001536	IC-RF SWITCH

Design LOC	SEC CODE	Description
U204	1201-002971	IC-RF AMP
U205	1201-003173	IC-RF AMP
U206	1201-003172	IC-POWER AMP
U207	1203-004819	IC-POSI.FIXED REG.
U300	0801-003139	IC-CMOS LOGIC
U301,U405	1003-002355	IC-LEVEL DRIVER
U302	1205-003993	IC-MODEM
U304	0801-003227	IC-CMOS LOGIC
U305	1203-005263	IC-MULTI REG
U401,U402	1203-005396	IC-POSI.FIXED REG
U407,U519	1202-001036	IC-VOLTAGE COMP.
U501	1001-001580	IC-ANALOG MULTIPLEX
U502	1203-005599	IC-DC/DC CONVERTER
U503	1203-006463	IC-DC/DC CONVERTER
U514	1203-006346	IC-RESET
U515	1205-004055	IC-TRANSMITTER
U516,U804	1203-005478	IC-DC/DC CONVERTER
U517	1203-005244	IC-DC/DC CONVERTER
U518	1203-005373	IC-VOL. DETECTOR
U601	0902-002619	IC-MICROPROCESSOR
U700	1203-006186	IC-POWER SUPERVISOR
U701	1203-006392	IC-POWER SUPERVISOR
U702	1203-006493	IC-Switching Charger
U704	1003-002047	IC-MOTOR DRIVER
U801	1203-006476	IC-MULTI REG
U802	0903-001633	IC-MICROCONTROLLER
U803	1205-004036	IC-INTERFACE
U805	1209-001817	IC-SENSOR
U806	1209-001872	IC-SENSOR
U807	1203-004776	IC-POSI.FIXED REG
U808	0904-002596	IC-GRAPHIC CONT
U809	1209-001997	IC-SENSOR
U810	1203-006025	IC-DC/DC CONVERTER
UCD400	1205-003943	IC-Codec
UME300	1107-001937	IC-NAND FLASH
ZD300	0406-001267	DIODE-TVS

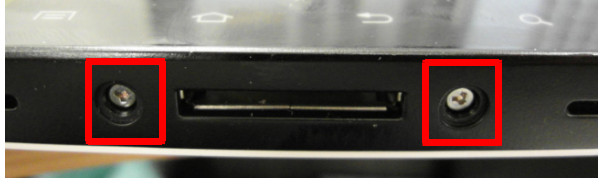
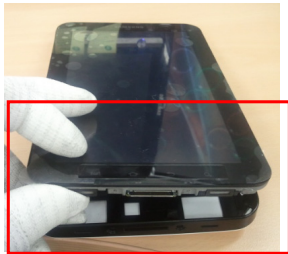
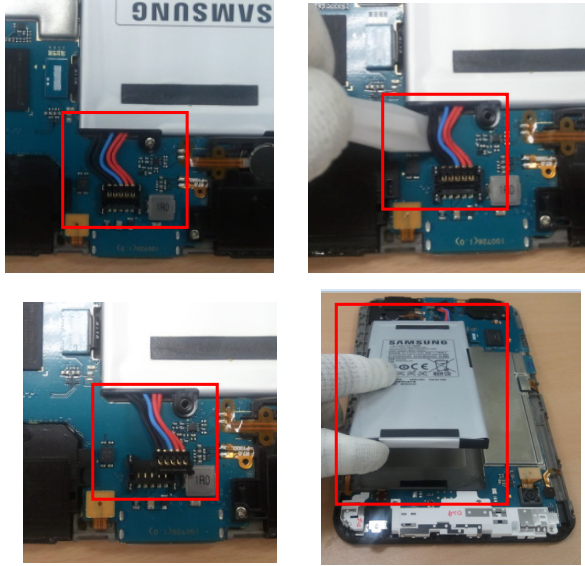
Design LOC	SEC CODE	Description
ZD400	0406-001223	DIODE-TVS
ZD403	0406-001281	DIODE-TVS
ZD407,ZD408,ZD505	0406-001375	DIODE-TVS
ZD502,ZD701	0403-001688	DIODE-ZENER
ZD506,ZD507,ZD508	0406-001375	DIODE-TVS
ZD509,ZD702	0406-001375	DIODE-TVS
ZD510,ZD511	1405-001296	VARISTOR

Please consult the GSPN website (Samsung Portal) for the most recent version of the product's part list.

7. Level 2 Repair

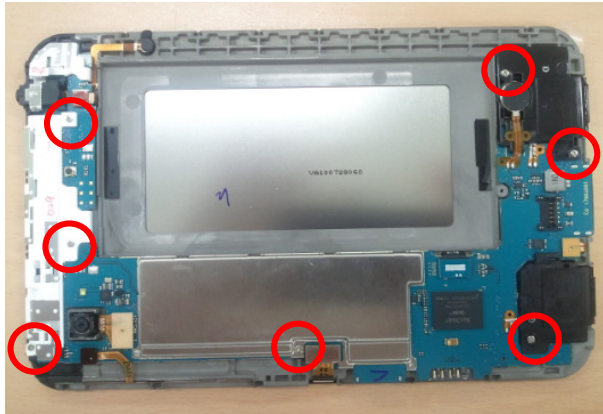
7-1. Disassembly and Assembly Instructions

7-1-1. Disassembly

1 loosen the screw(2 points) screw code(6001-002656) screw driver code(2713577900)   	2 disassembly FRONT Ass'y 
loosen the 2 points of screw screw:1.7 *3.5 (Torque 1.3 ± 0.1, star type)	Use diassembly JIG, loosen the hook
3 disassembly the FRONT Ass'y from REAR  	4 disassembly the battery connector 
Disassembly the FRONT Ass'y from REAR	loosen the screw, and use assembly JIG, disassembly battery connector. (screw: 1.4 *3 Torque 1.1+-0.1)

5

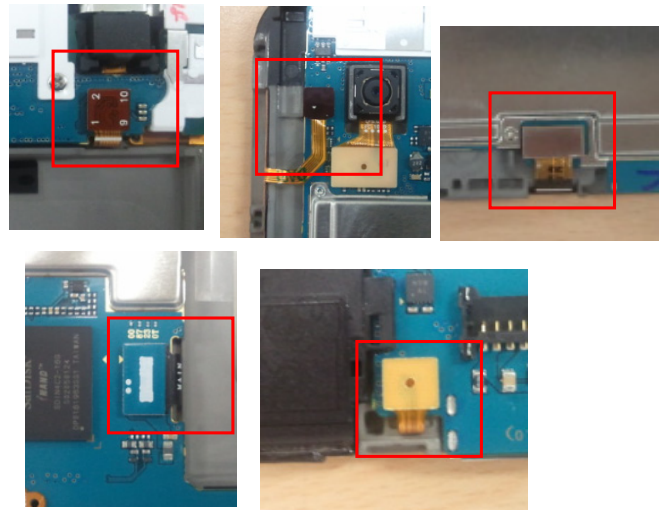
loosen the screw



loosen the 7 points of screw
screw: 1.4 *3 Torque 1.1+0.1

6

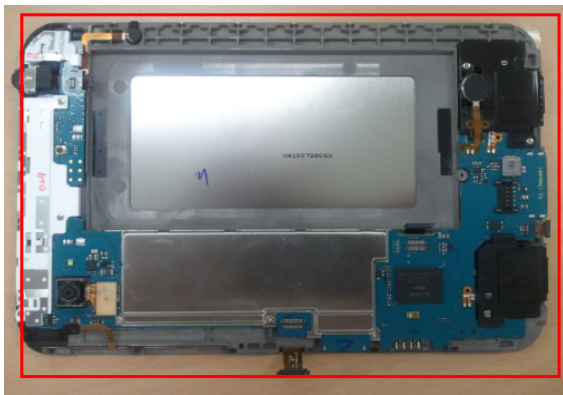
disassembly the connector



disassembly connector. be careful, do not damage connector.

7

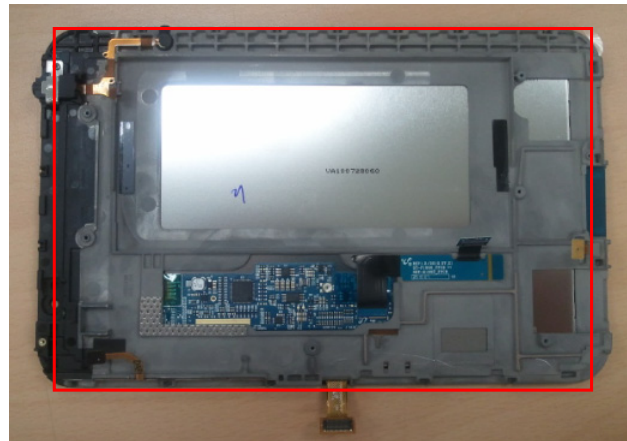
take off the PBA from the FRONT Ass'y



take off the PBA from the FRONT Ass'y

8

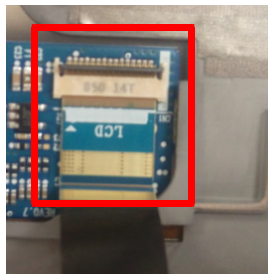
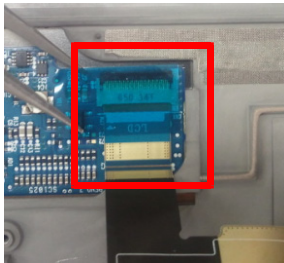
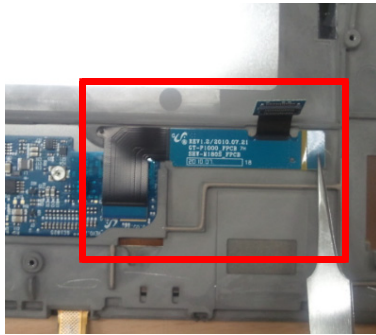
take off the PBA from the FRONT Ass'y



take off the PBA from the FRONT Ass'y

9

disassembly the LCD con to con FPCB



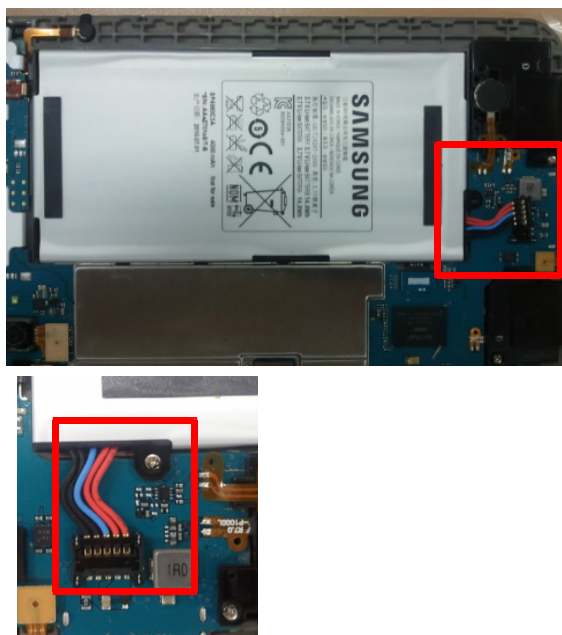
do not damage the FPCB, be careful.

7-1-2. Assembly

1 Assembly bracket, LCD, TSP	2 assembly the LCD con to con FPCB
Use the assembly JIG, attach the TSP	attach LCD con to con tape and fix it
3 Place the PBA on the Front Ass'y	4 assembly connector
Place the PBA on the Front Ass'y	assembly connector and tighten the screw(7 points) screw: 1.4 *3 Torque 1.1+-0.1

5

assembly the battery connector



assembly the battery connector and tighten the serew(screw: 1.4 *3 Torque 1.1+/-0.1)

6

Assembly Front Ass'y and Rear



Assembly the Front Ass'y and Rear

7

Assembly Front Ass'y and Rear



check side gap

8

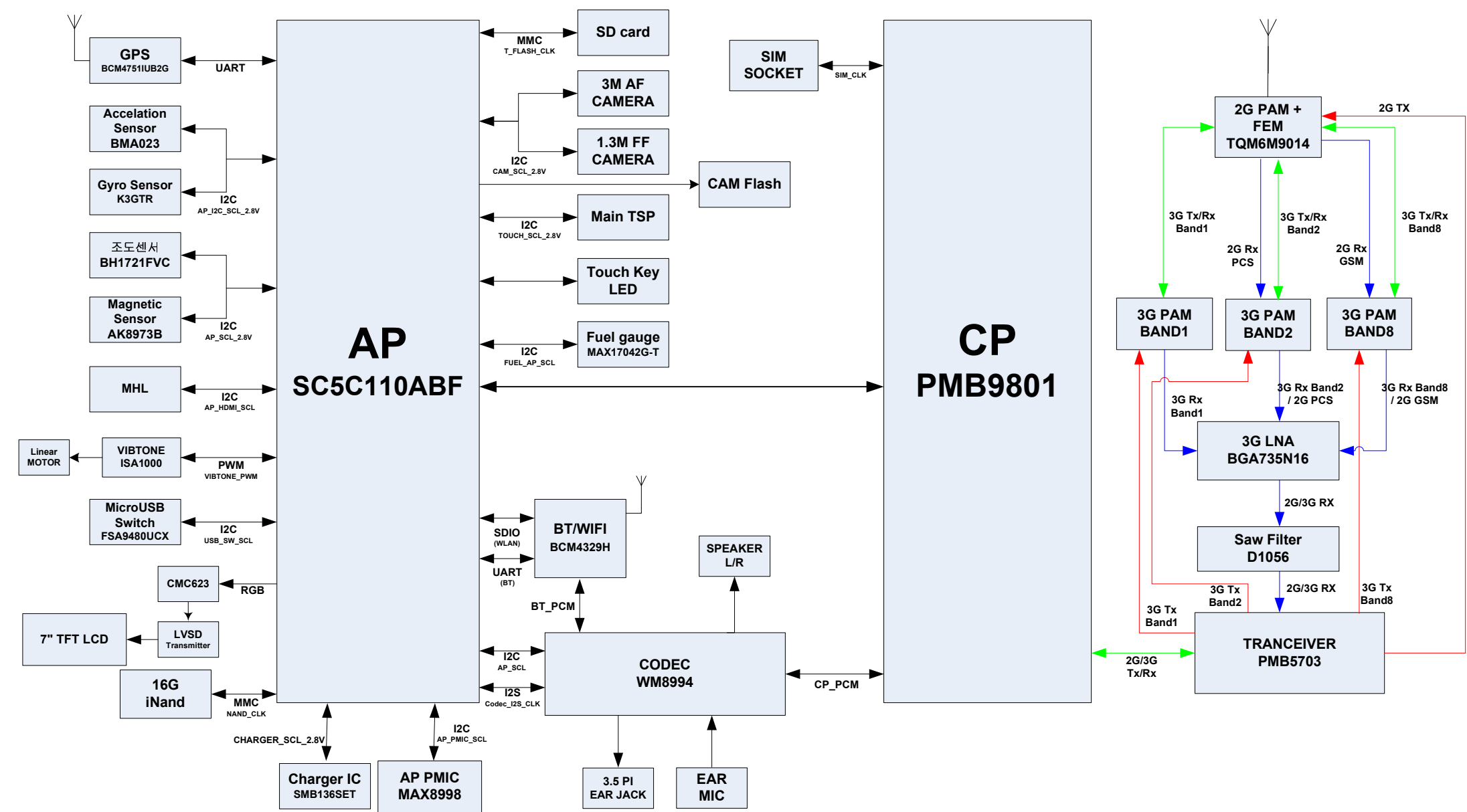
tighten screw(2points)
screw code(6001-002656)
screw driver code(2713577900)

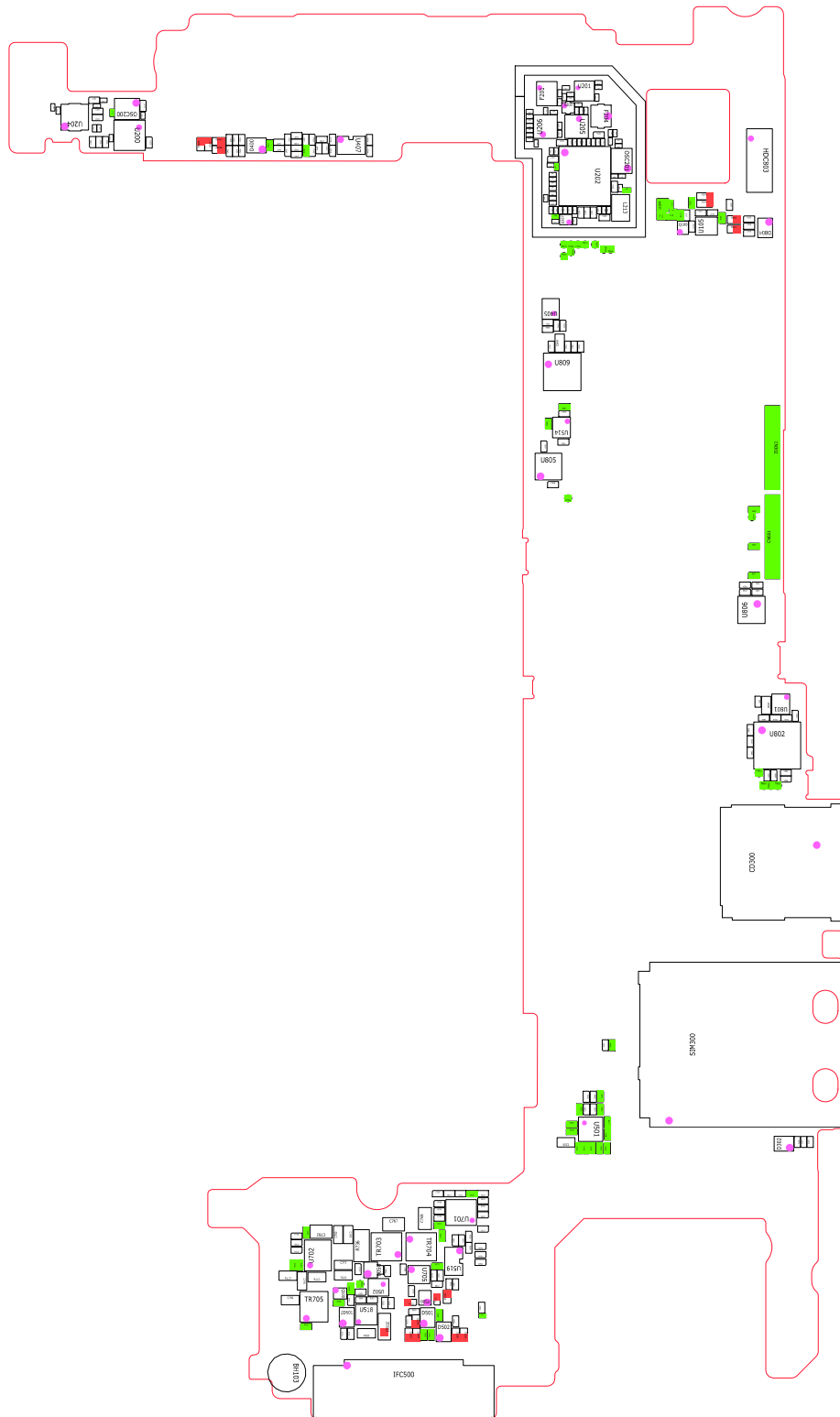


tighten screw(2points)
screw:1.7 *3.5 (Torque 1.3 ± 0.1, star type)

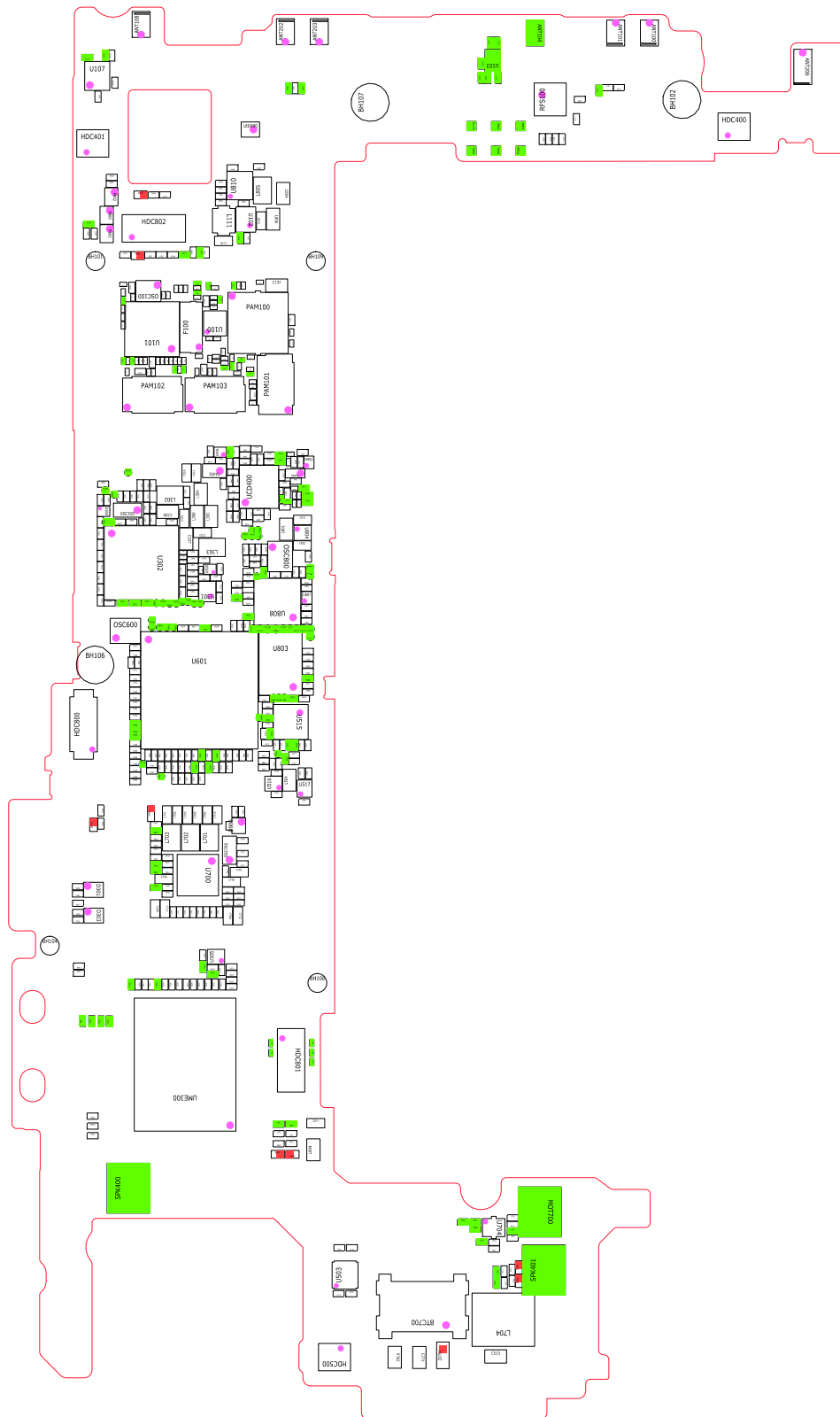
8. Level 3 Repair

8-1. Block Diagram



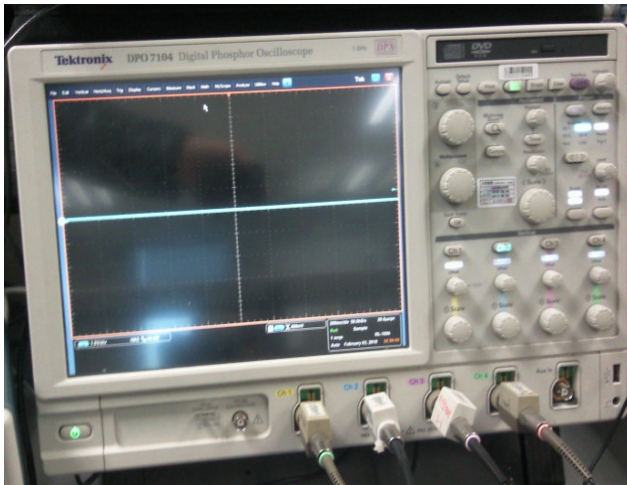


8-2-2. Bottom



8-3. Flow Chart of Troubleshooting

Equipments



↵ Oscilloscope



↵ Digital Multimeter

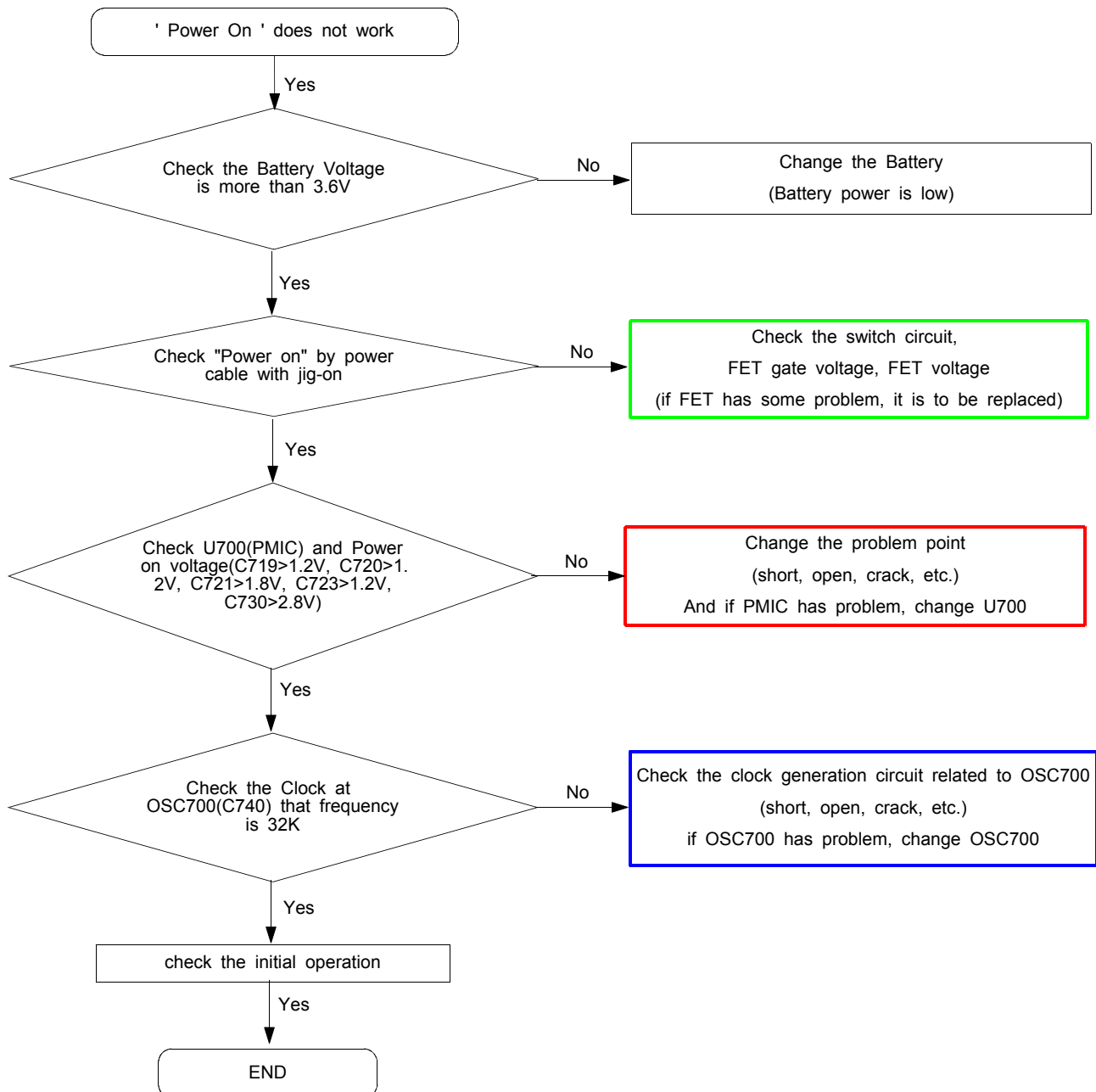


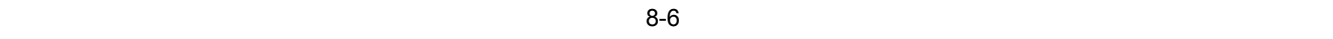
↵ Power Supply



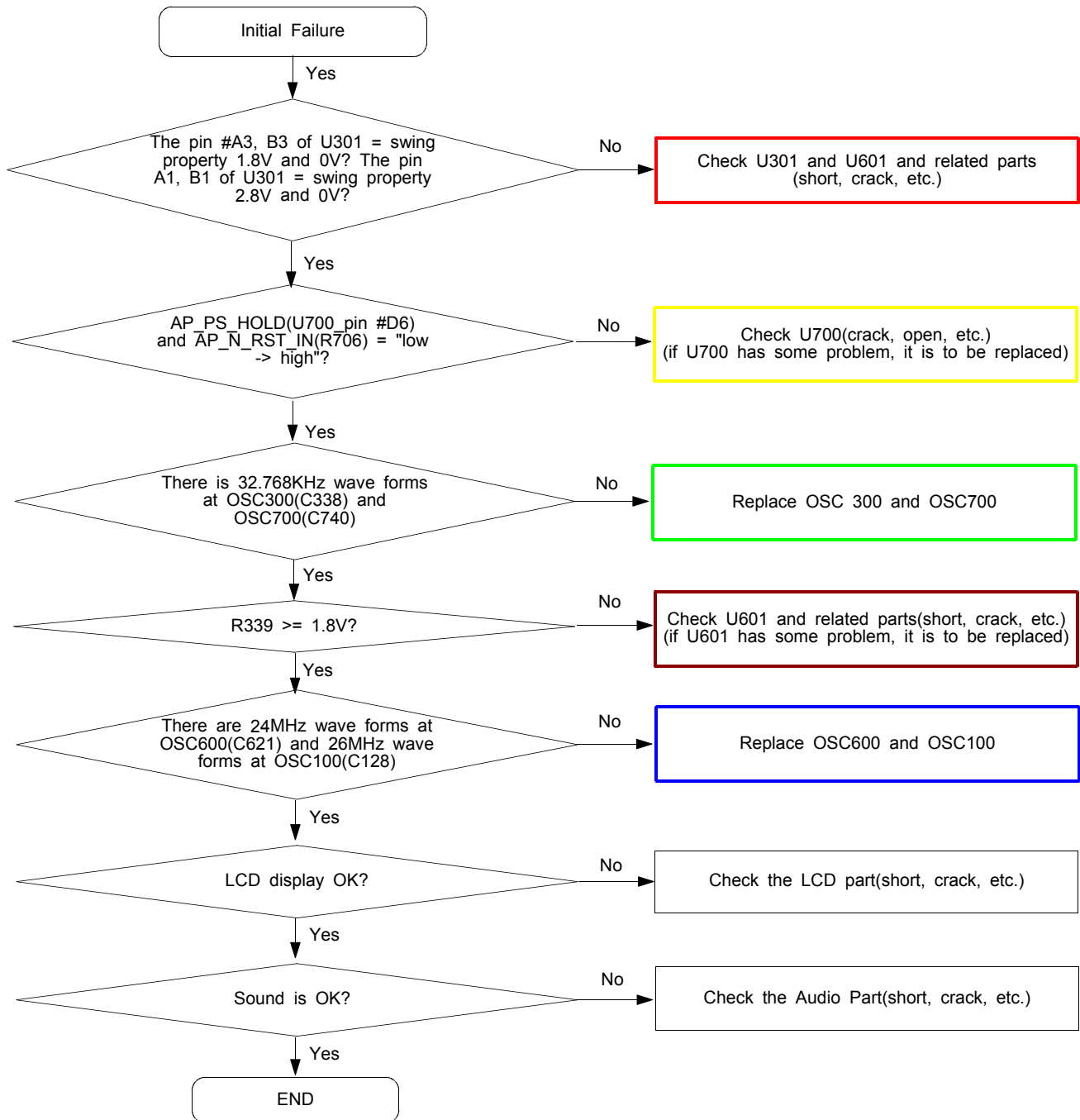
↵ + driver, Tweezer

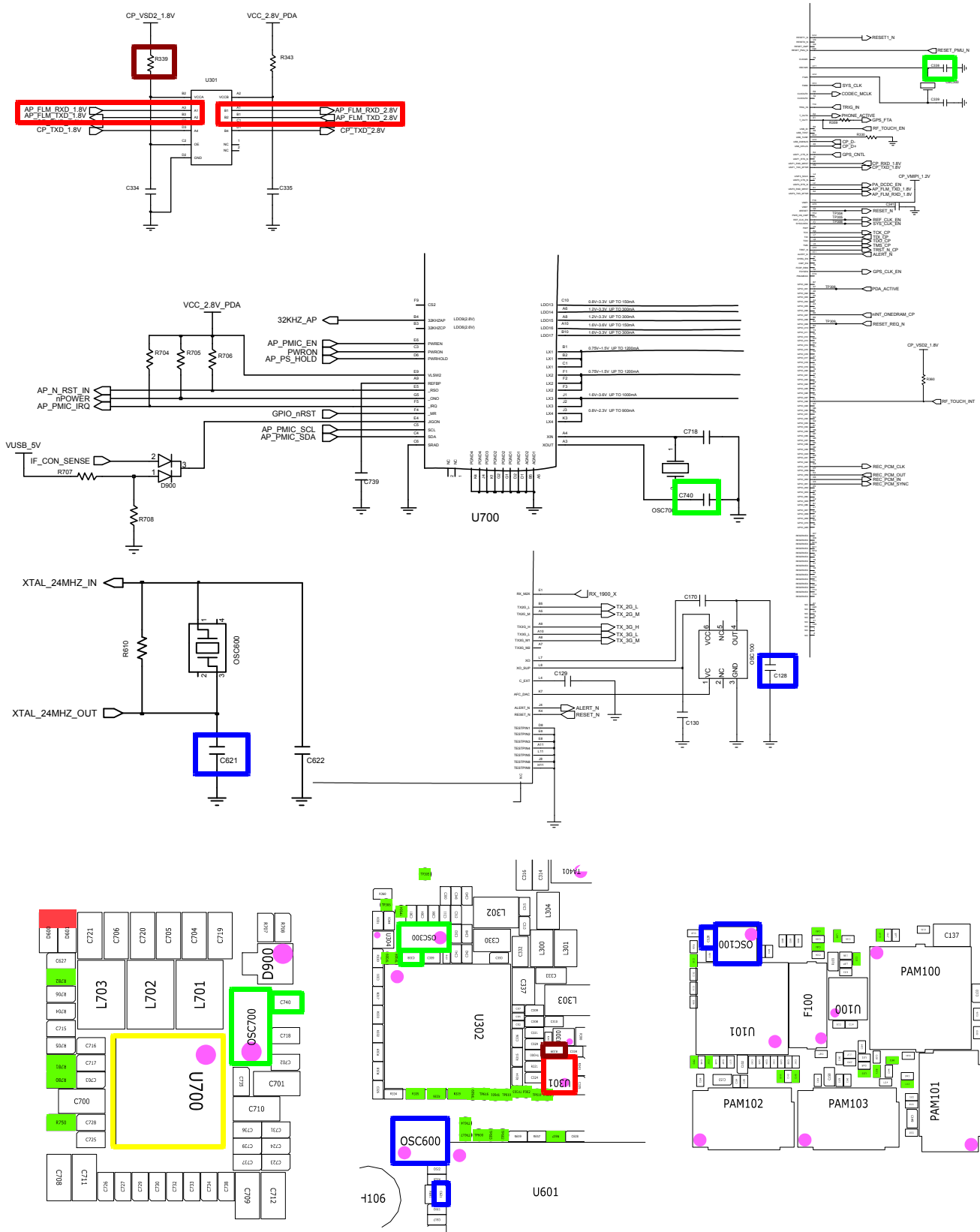
8-3-1. Power On



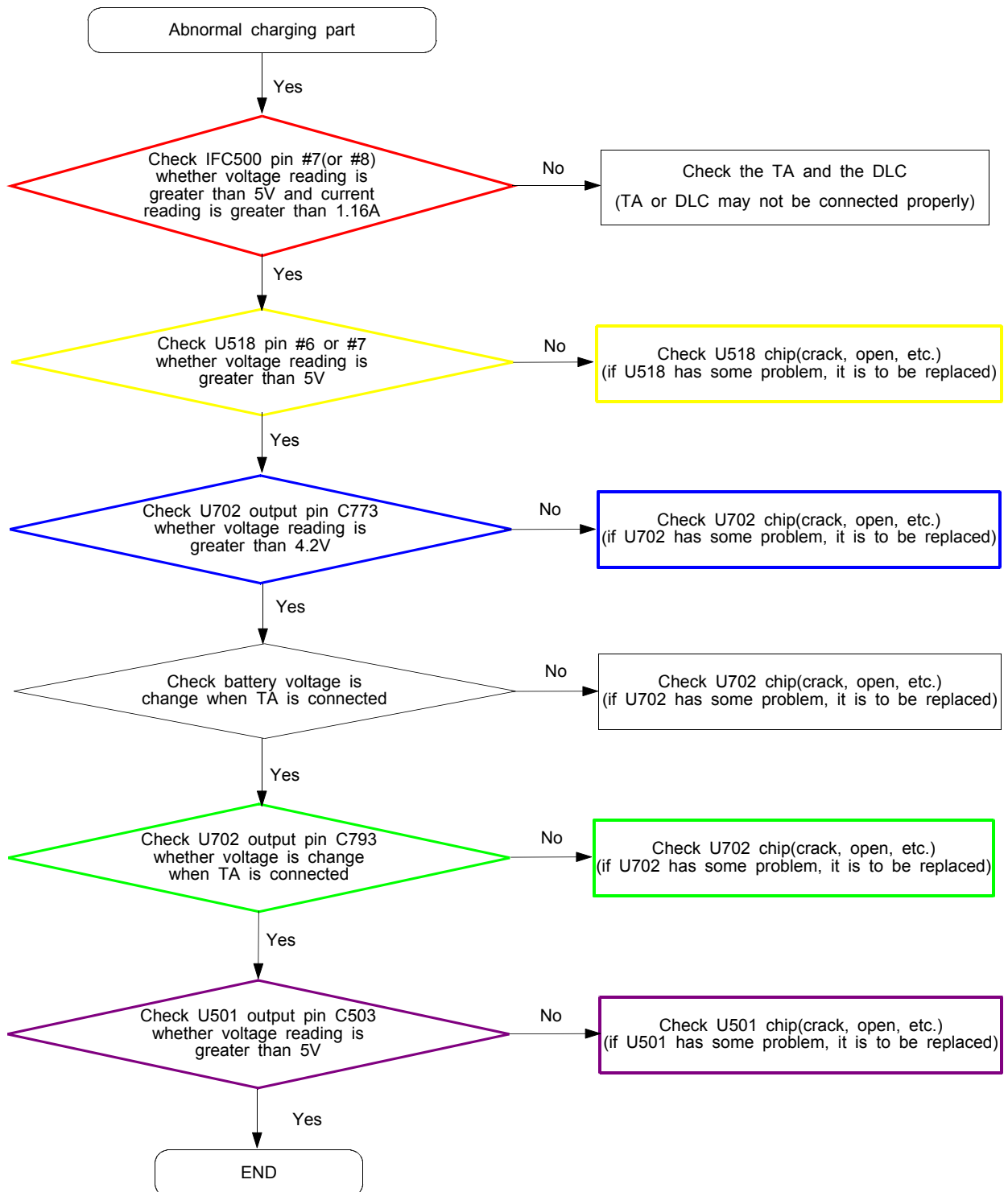


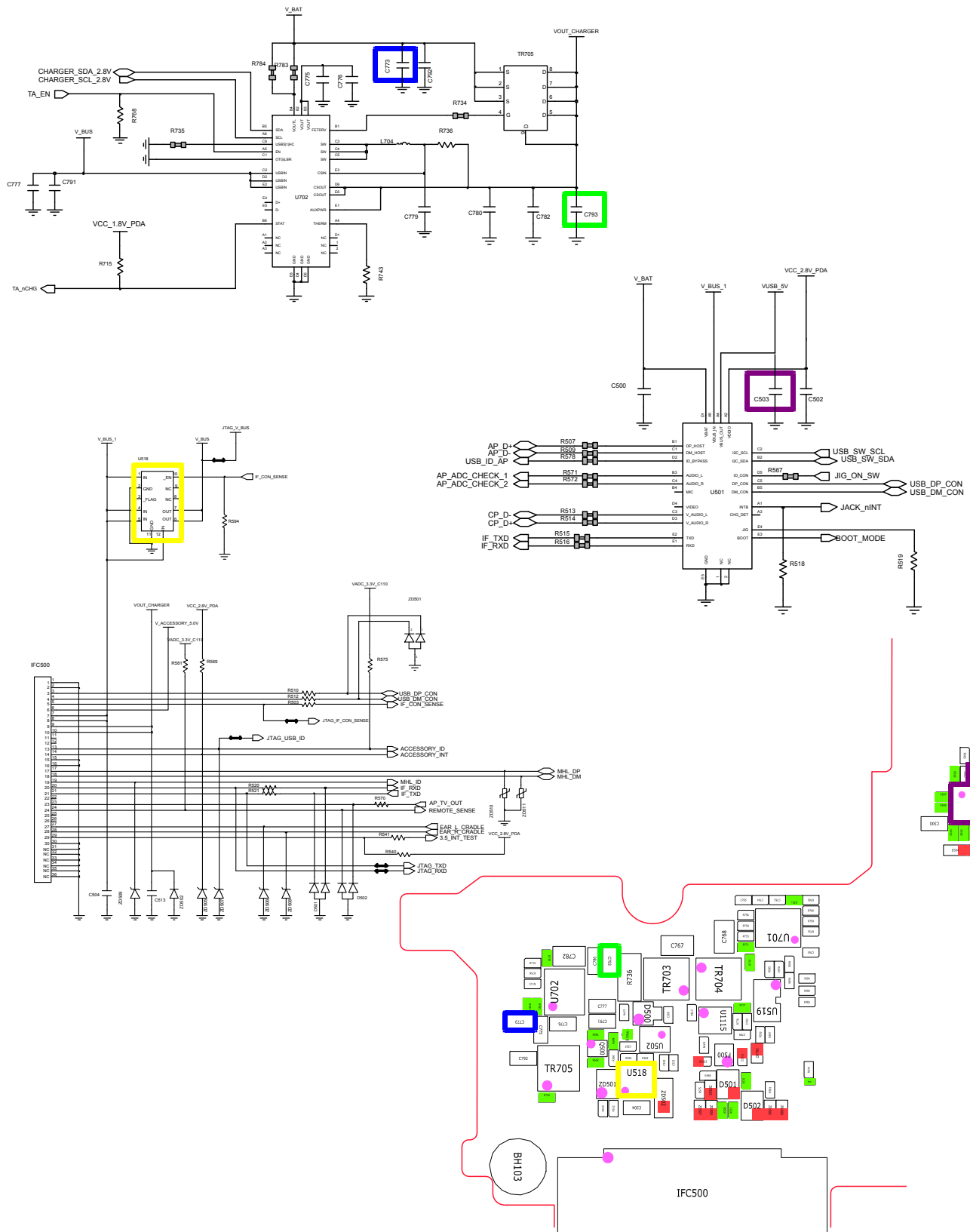
8-3-2. Initial

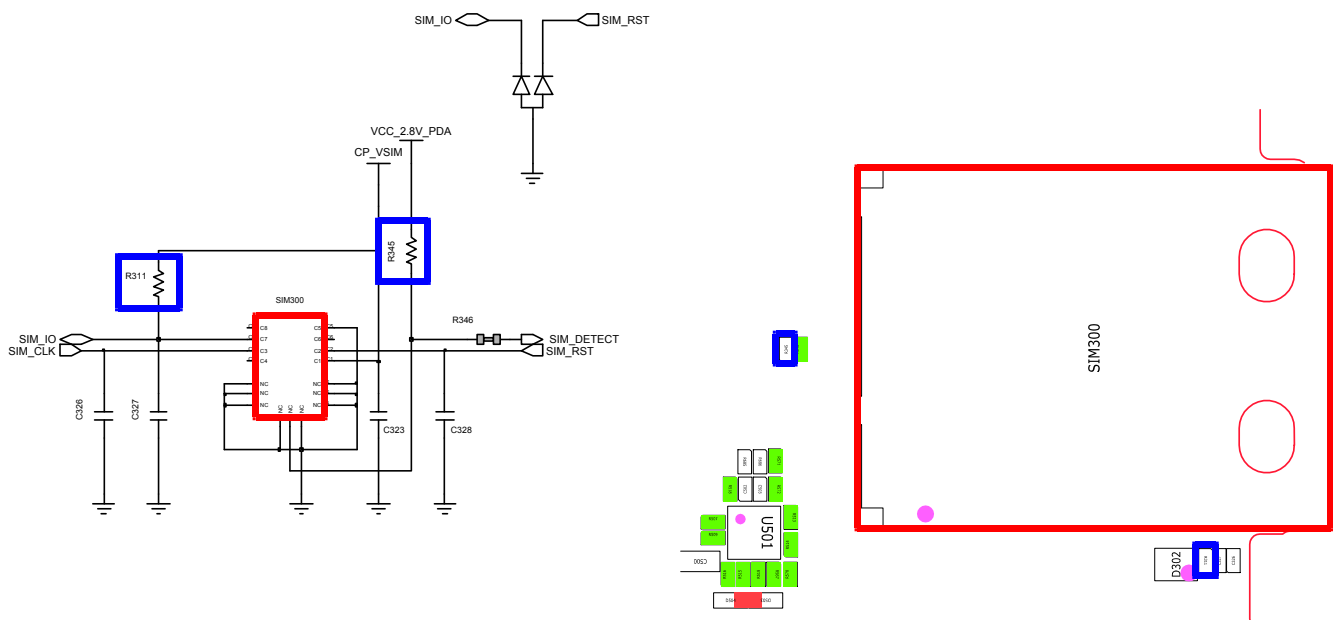




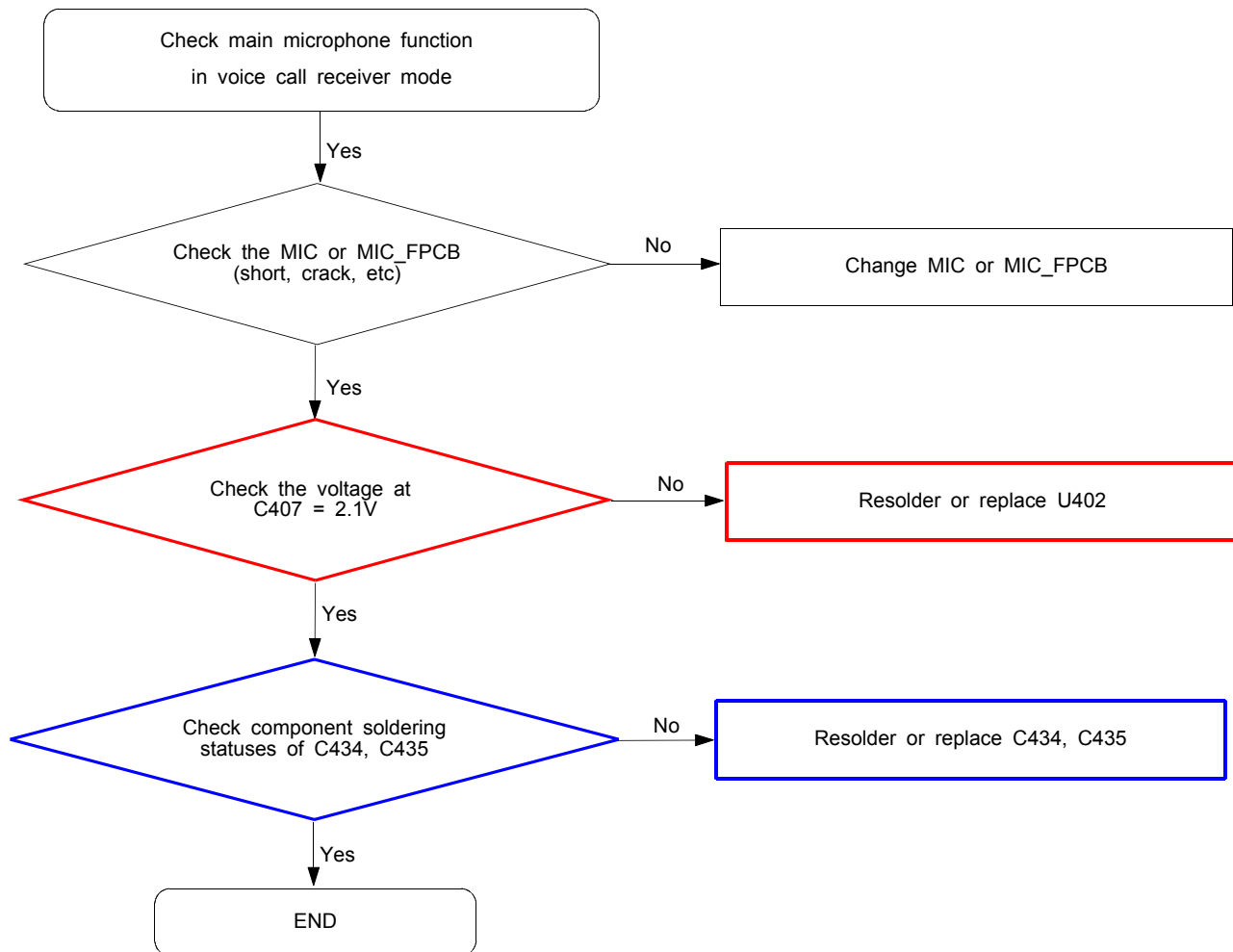
8-3-3. Charging Part

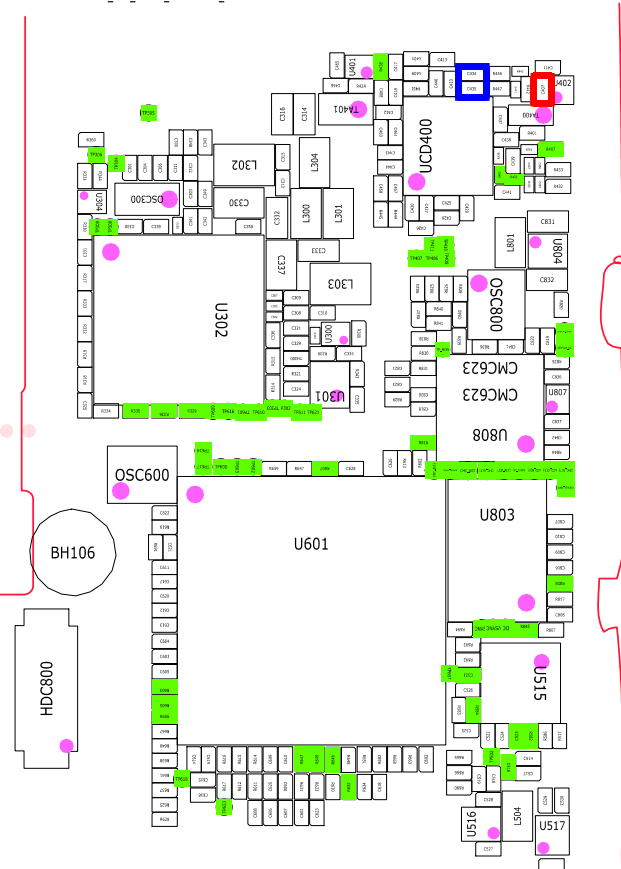
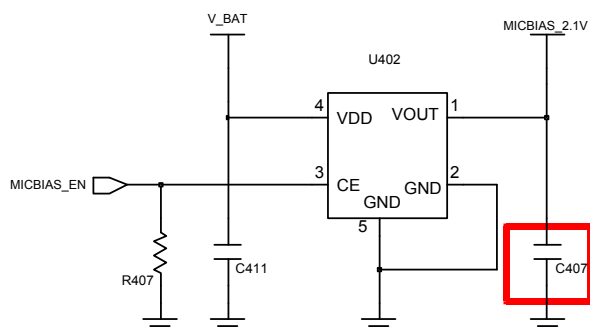
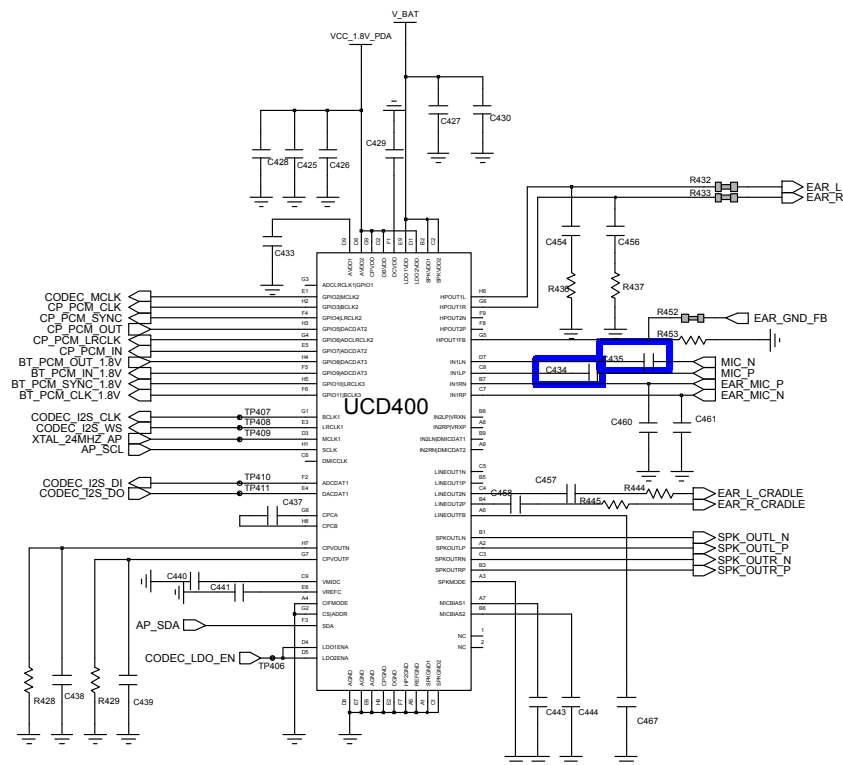




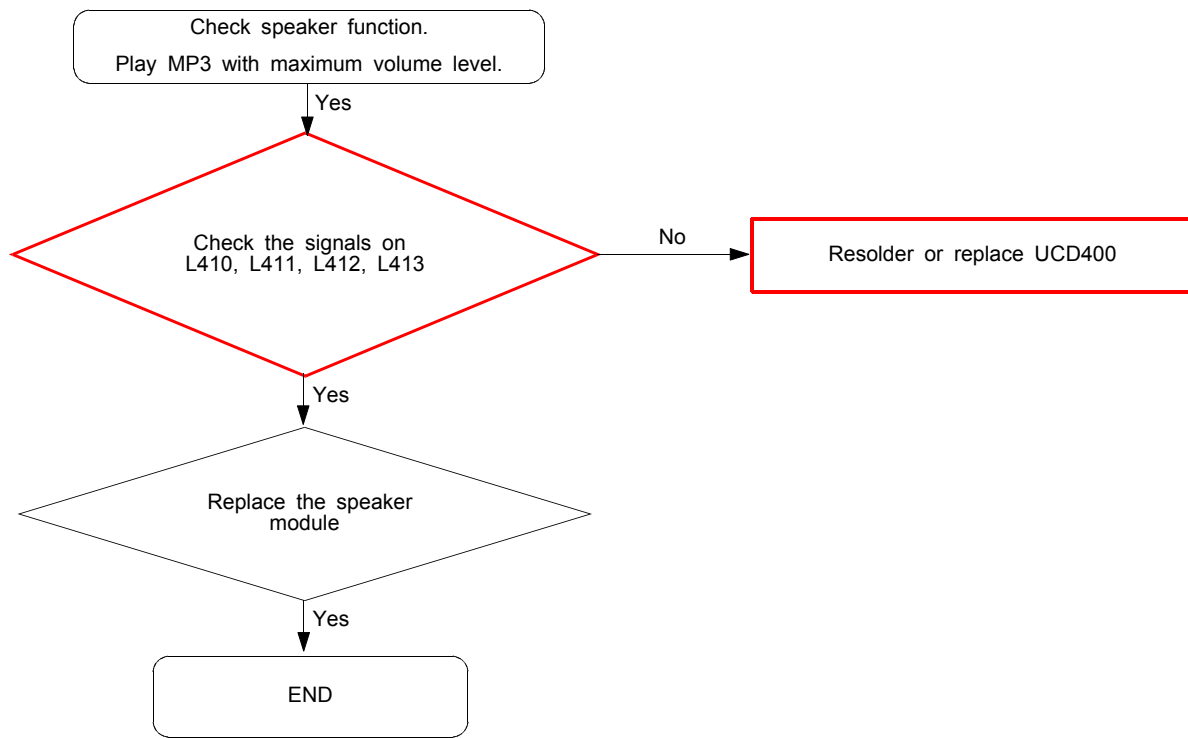


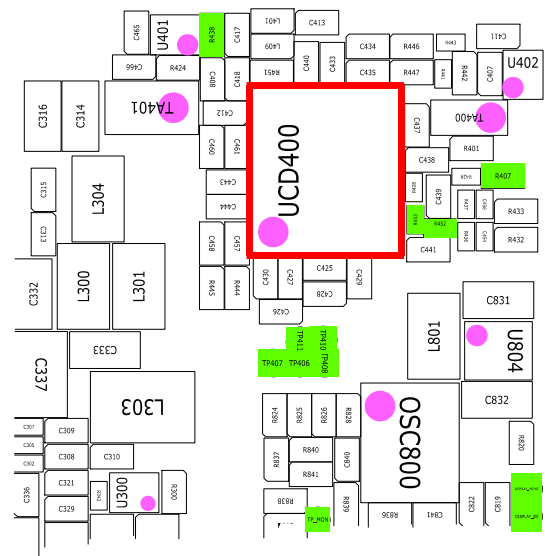
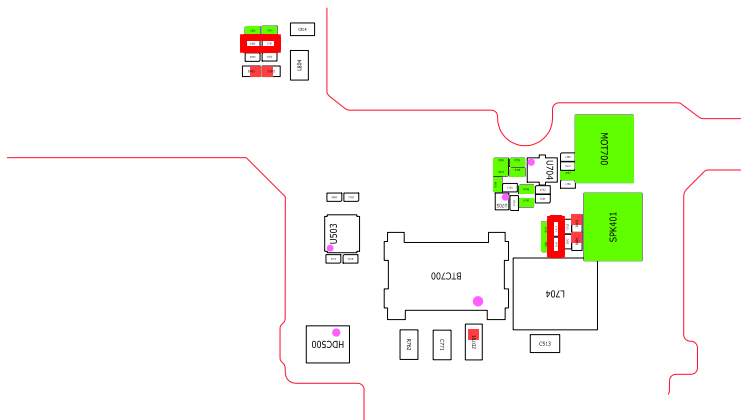
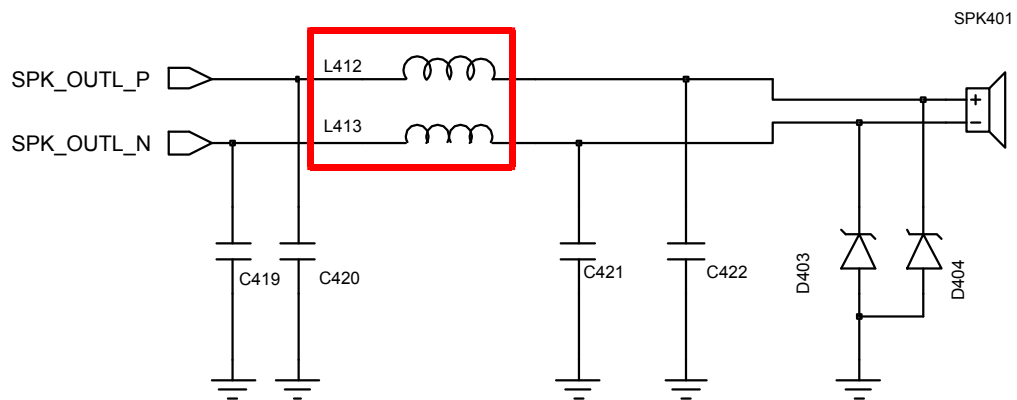
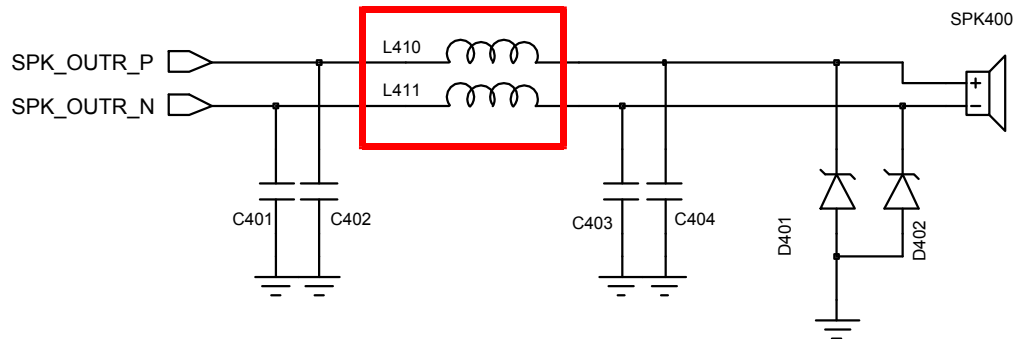
8-3-5. Microphone Part



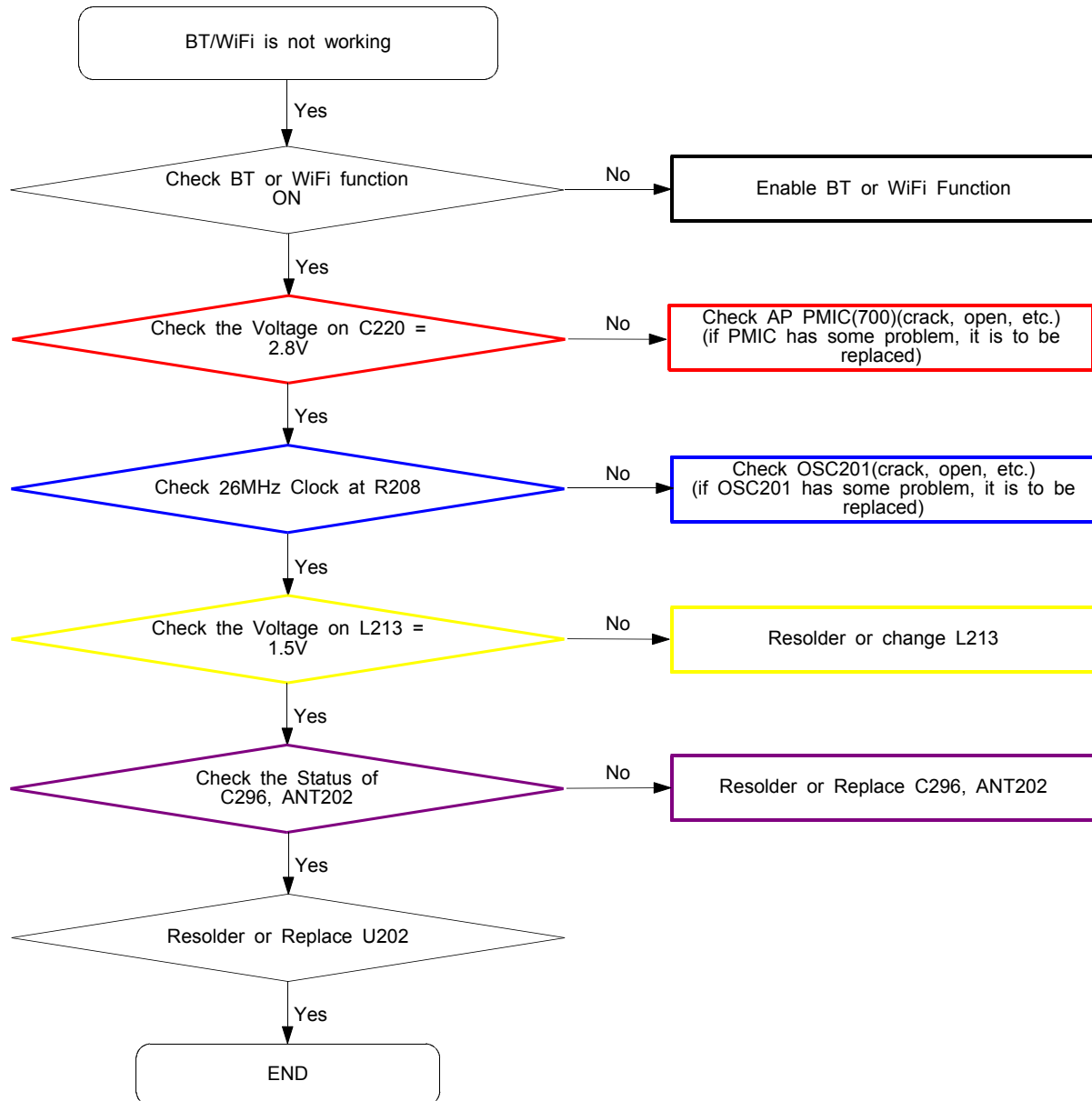


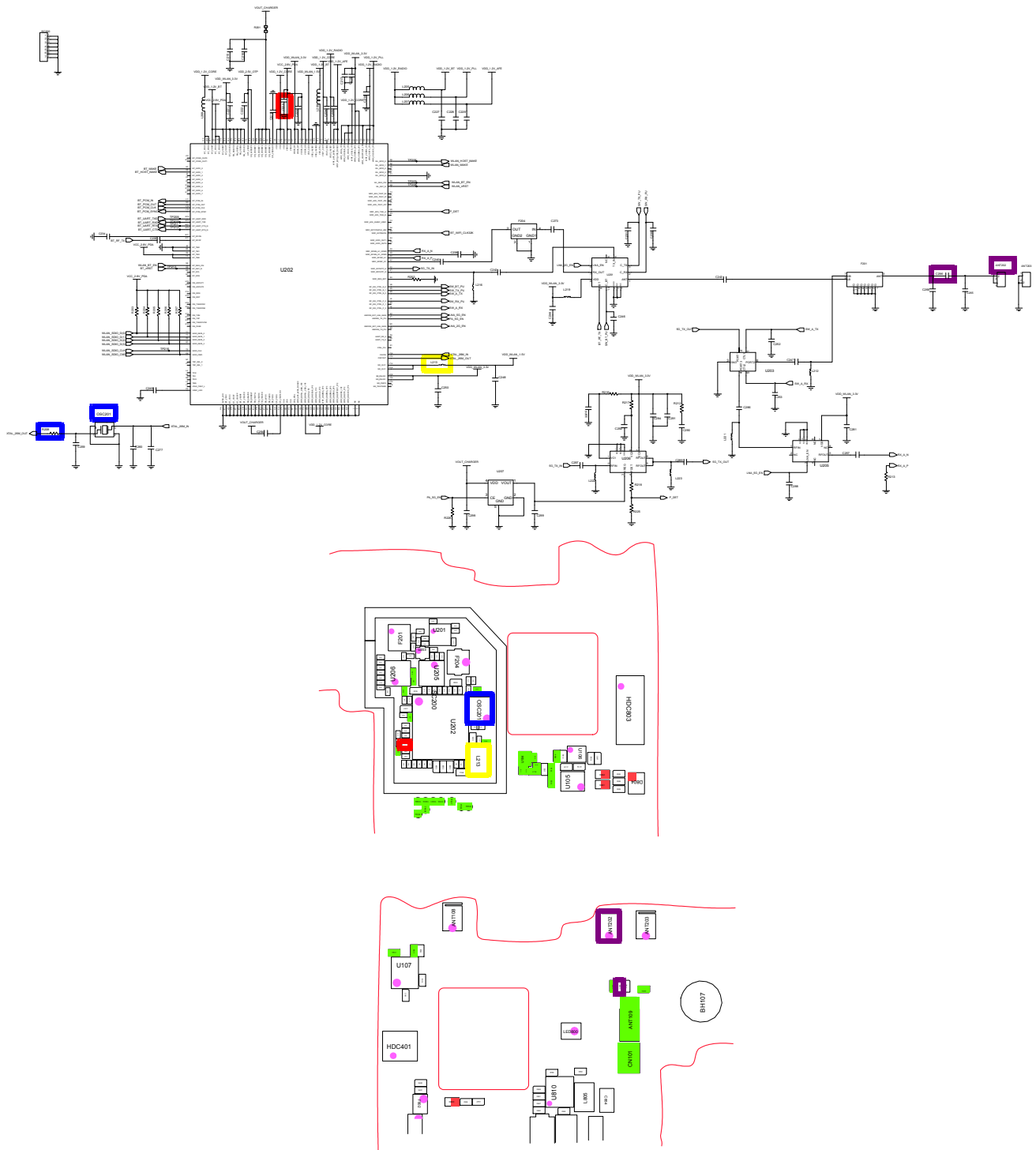
8-3-6. Speaker Part



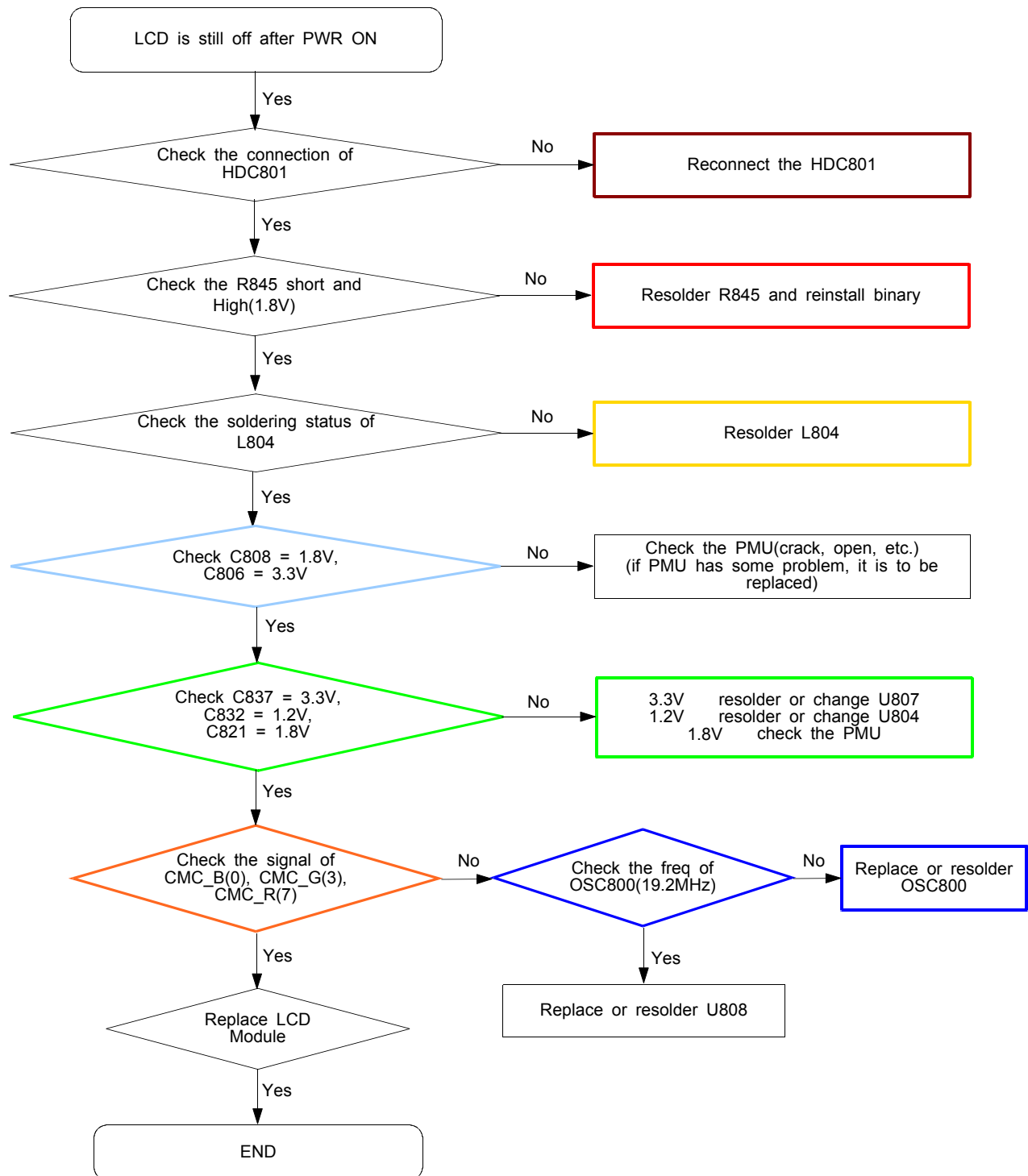


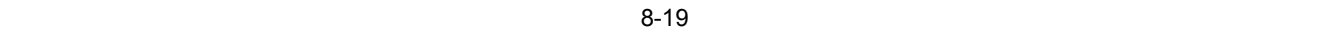
8-3-7. BT/WIFI



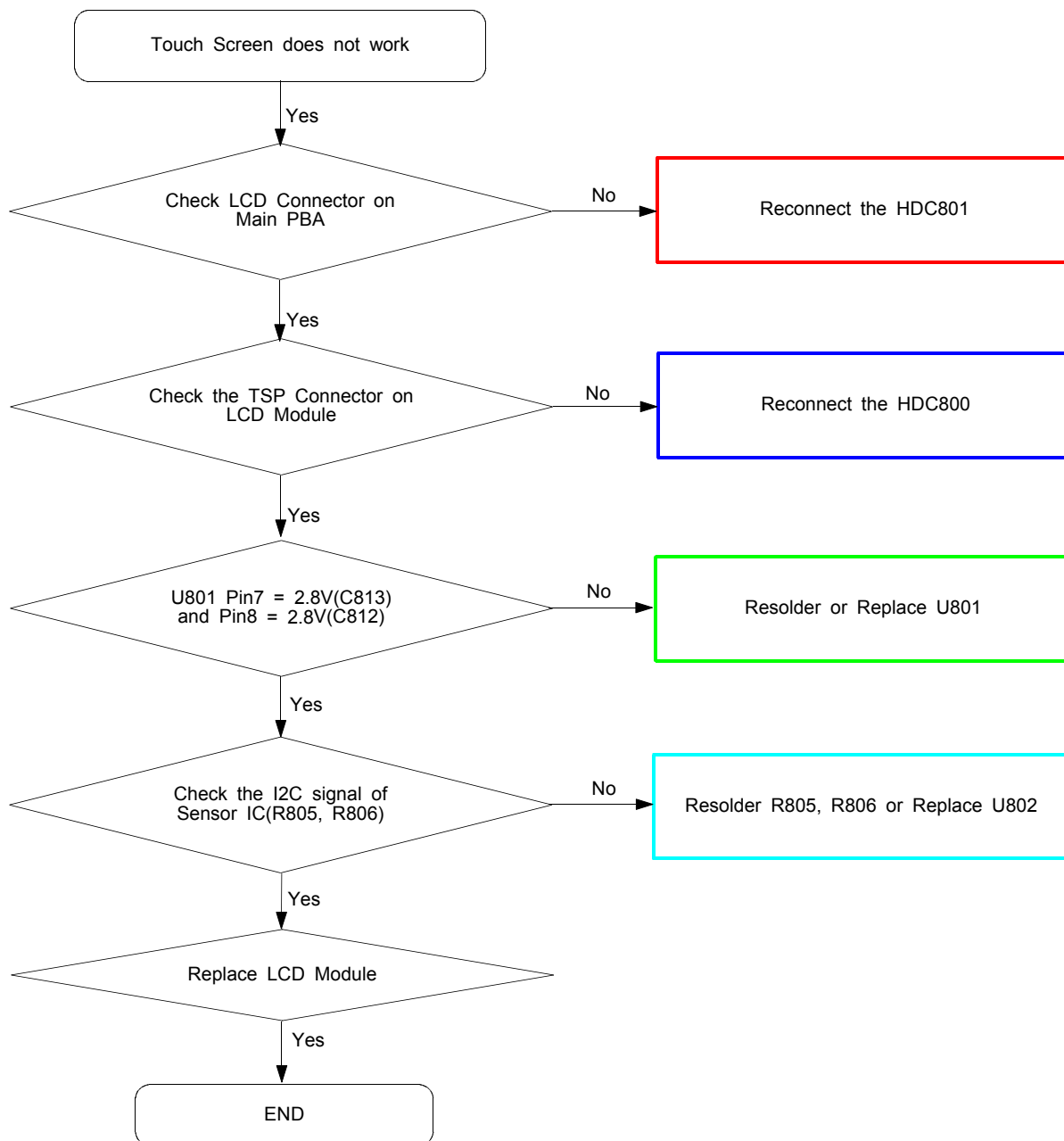


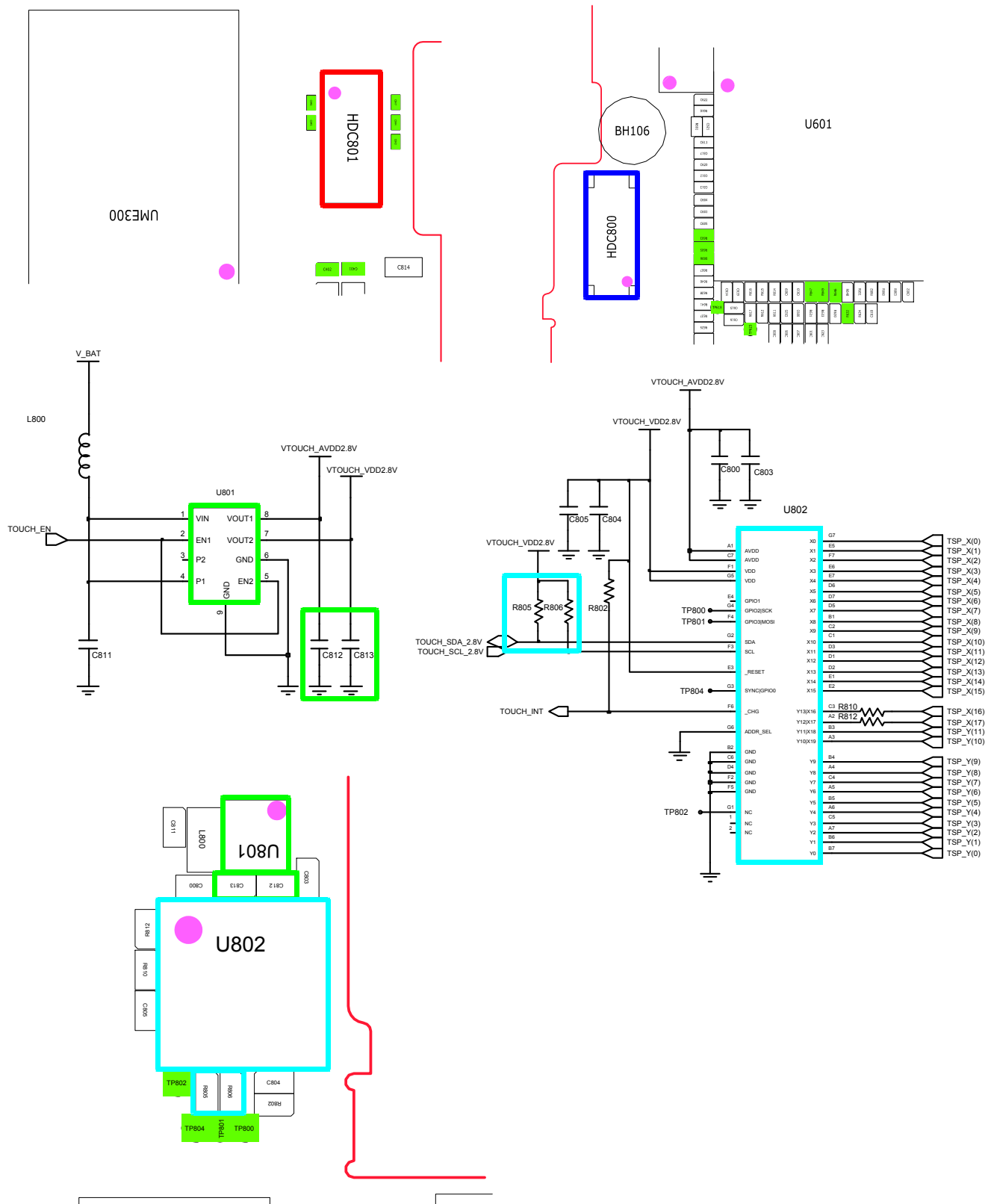
8-3-8. LCD



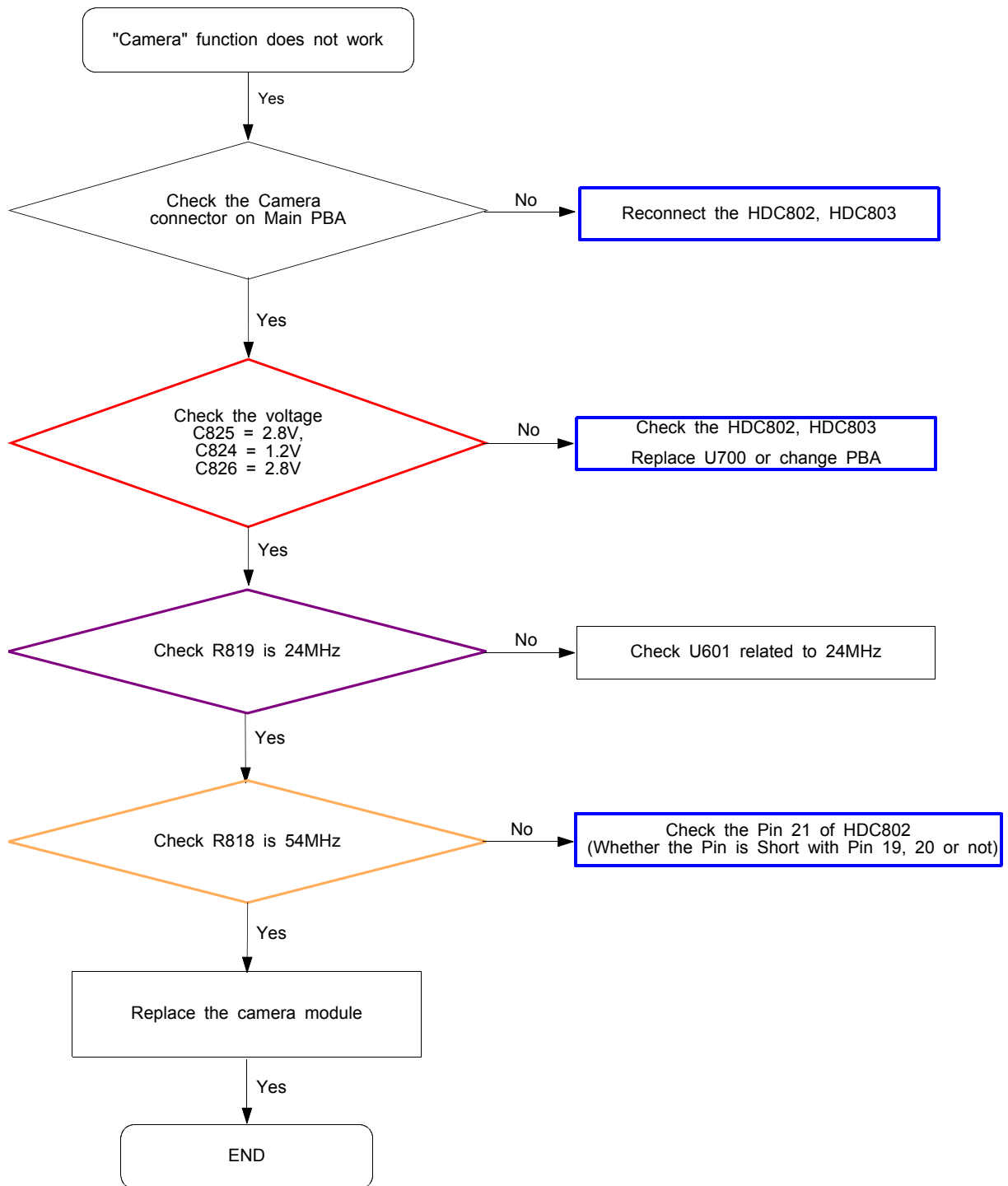


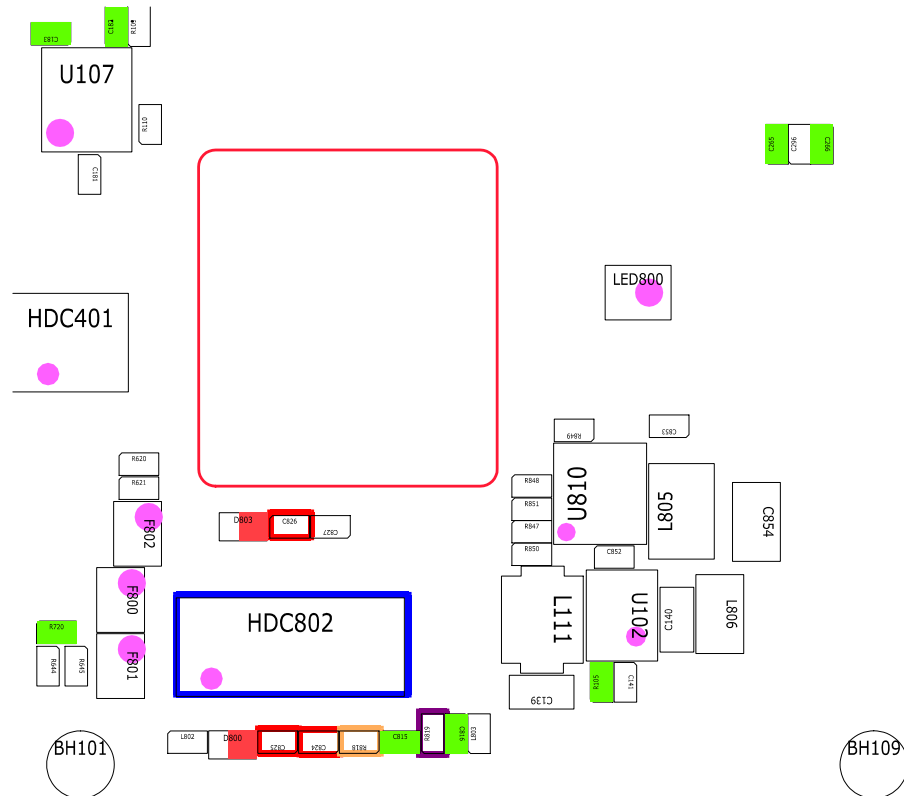
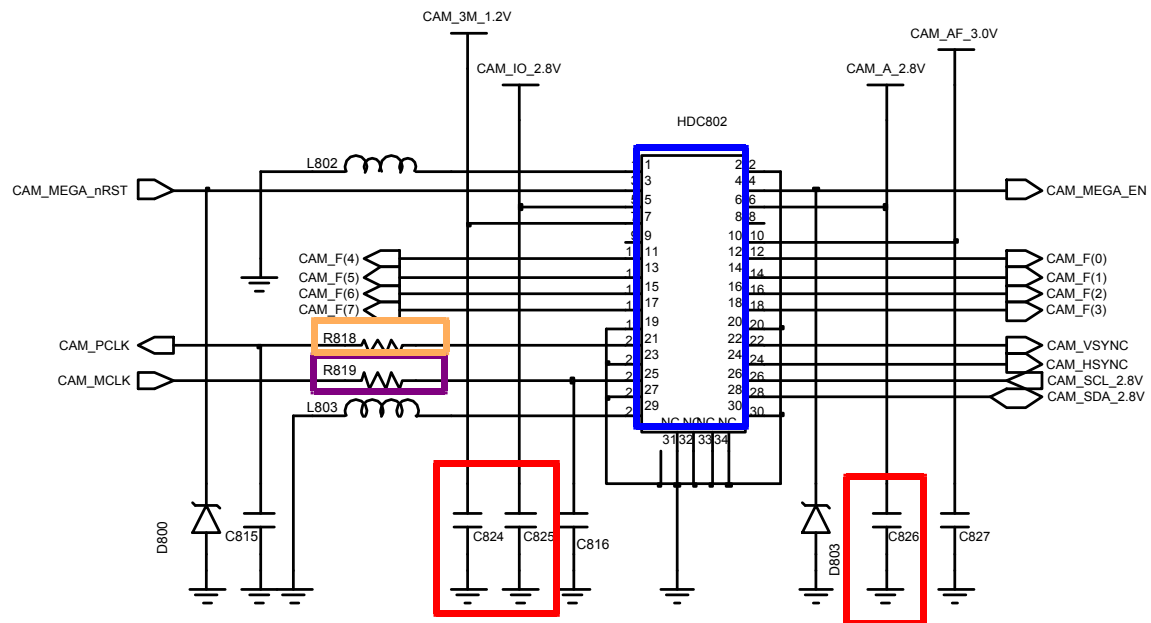
8-3-9. TSP



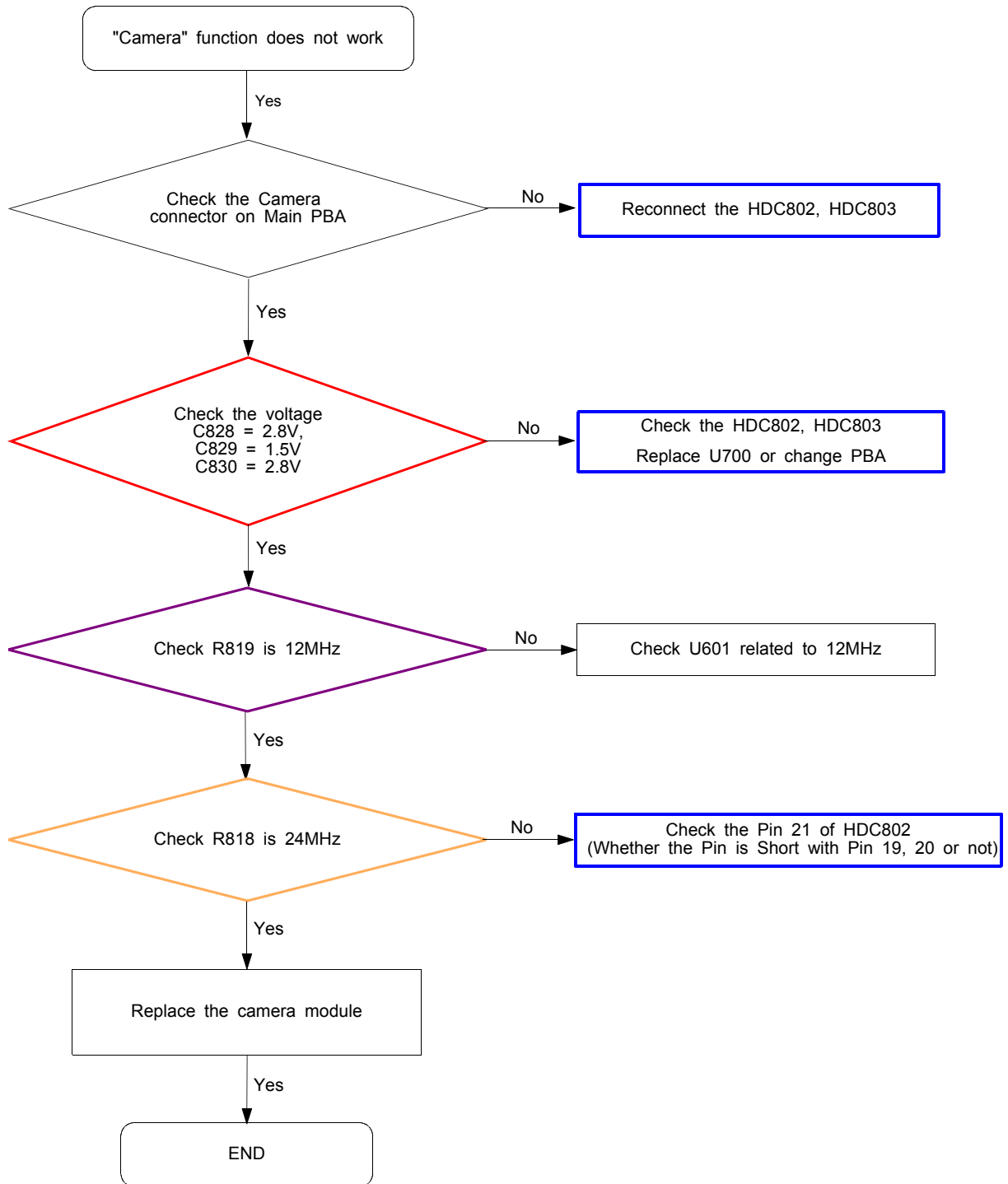


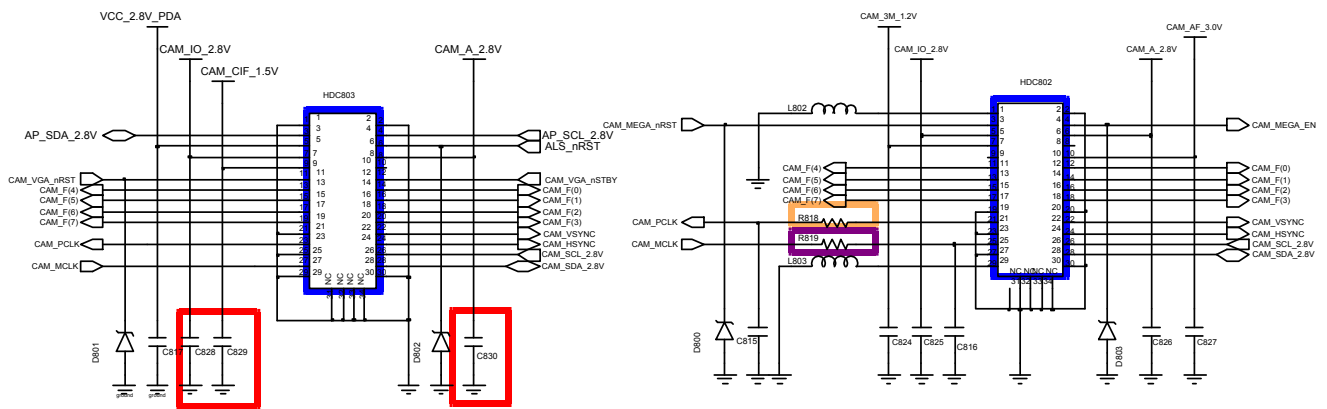
8-3-10. 3M CAM





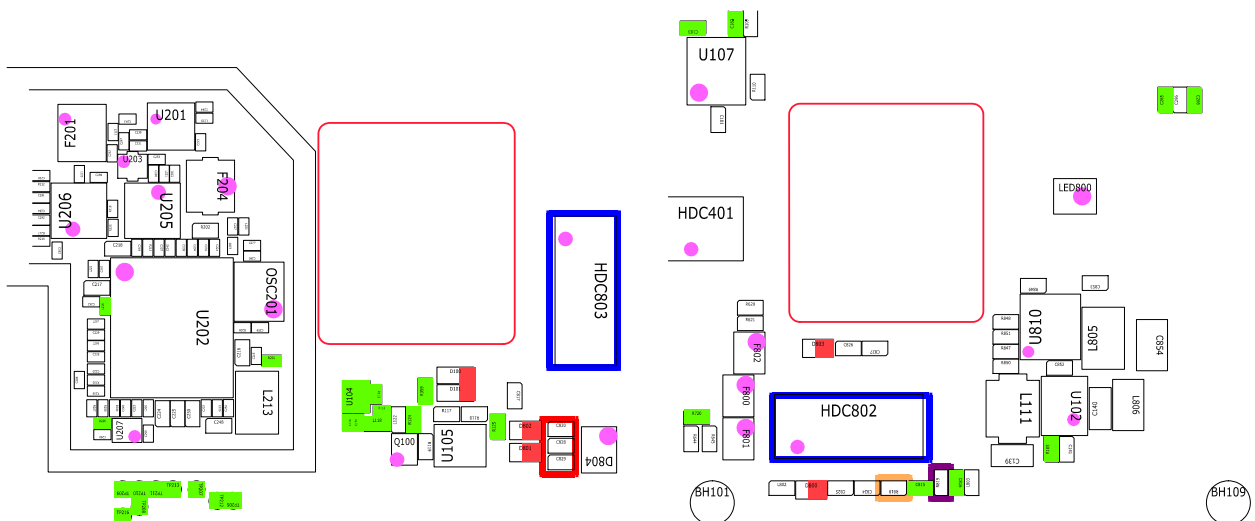
8-3-11. 1.3M CAM



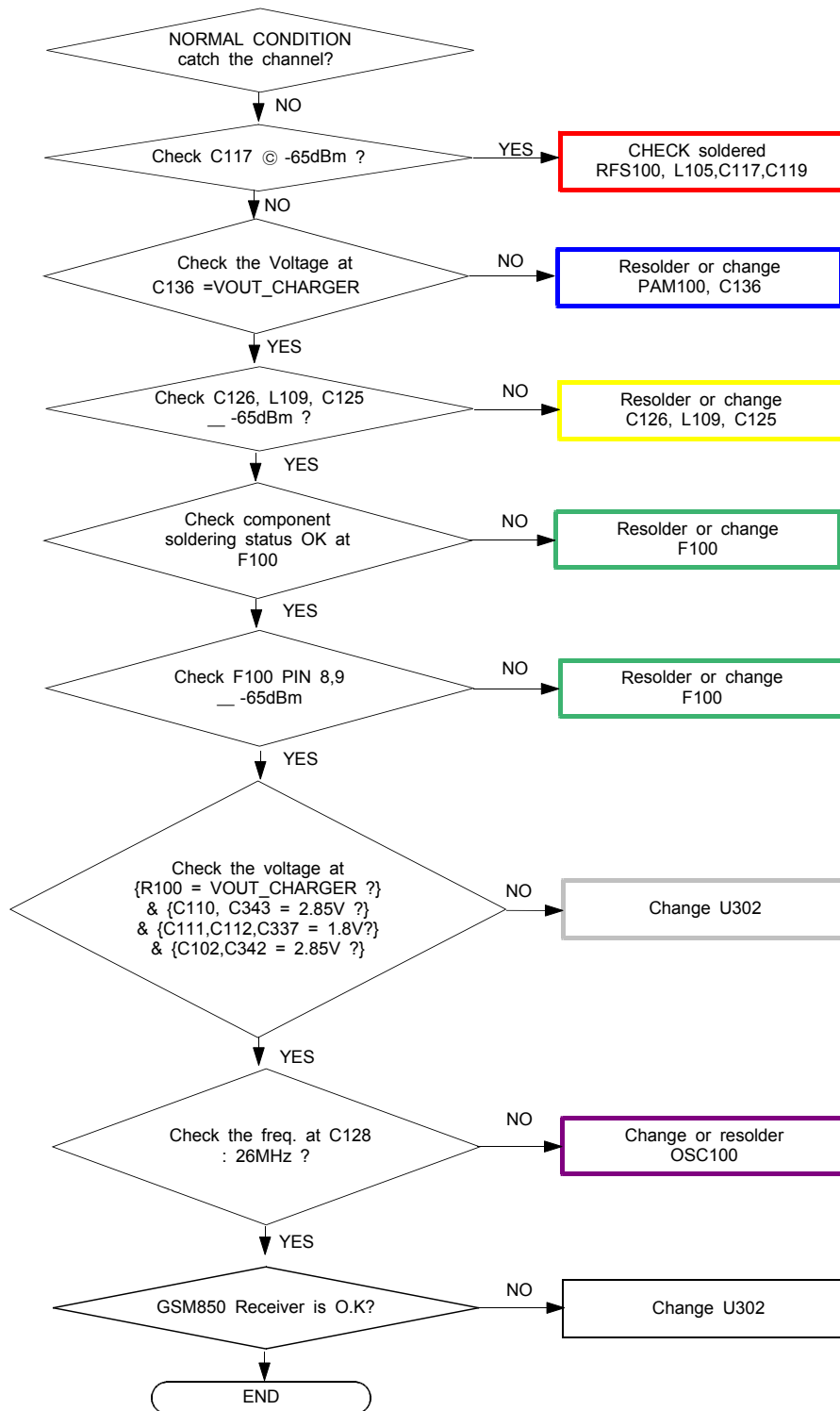


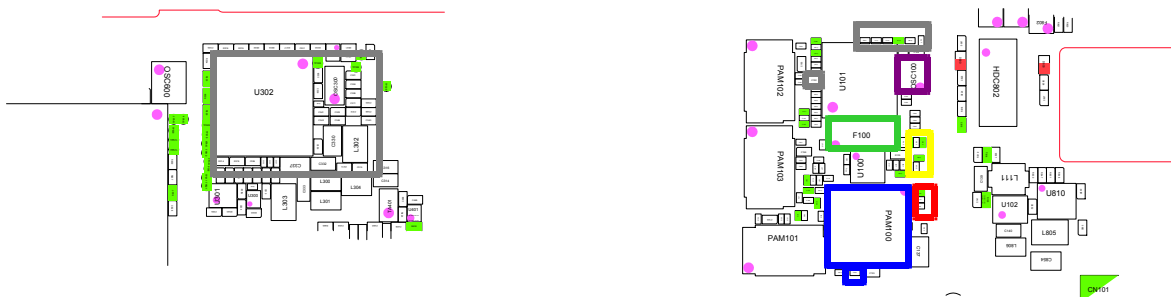
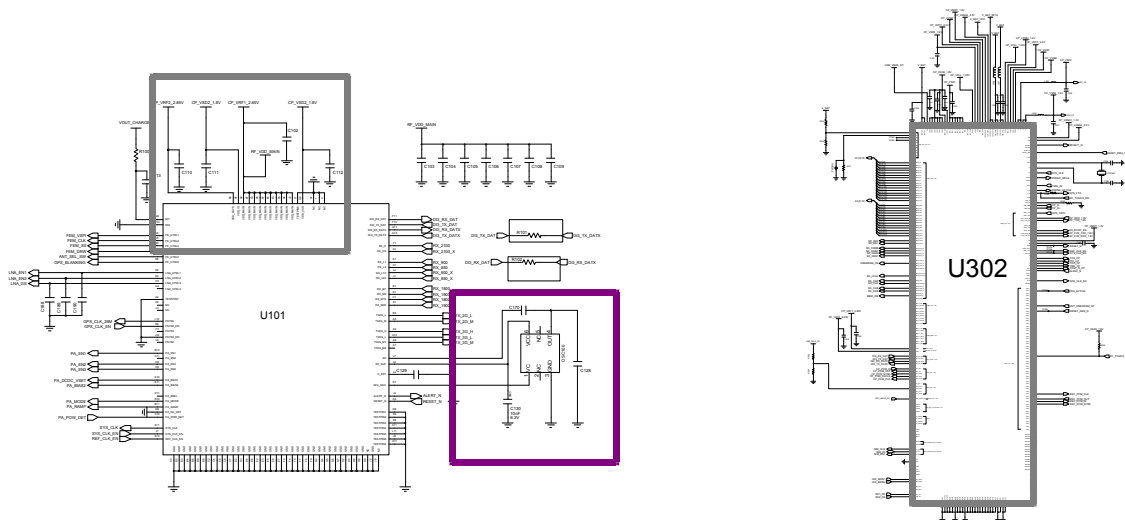
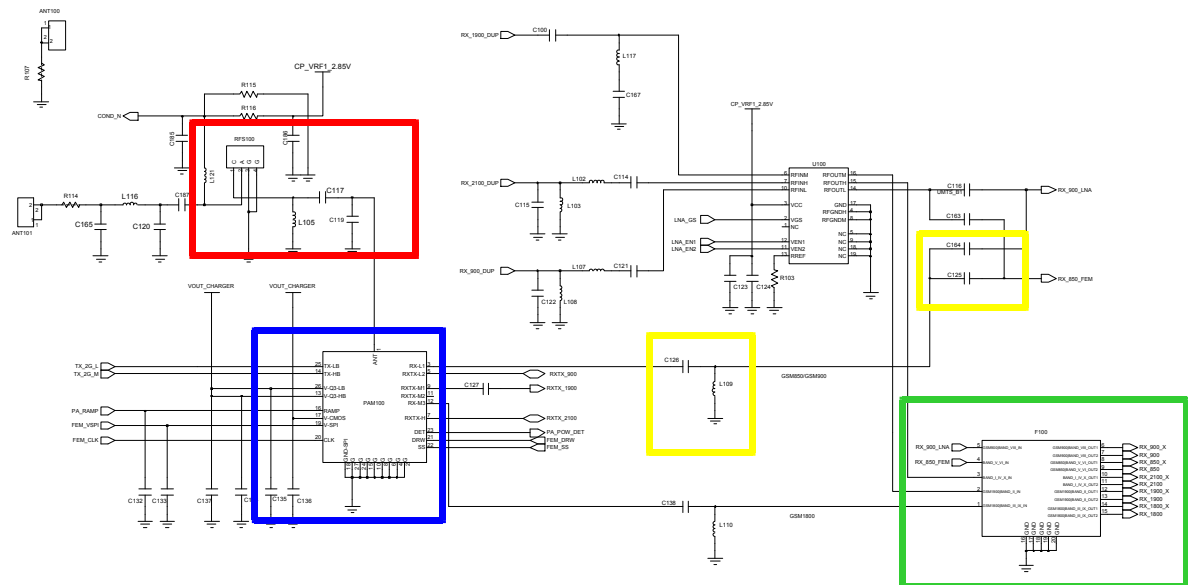
1.3M_CAM & LUME CONN.

3M_CAMERA CONN.

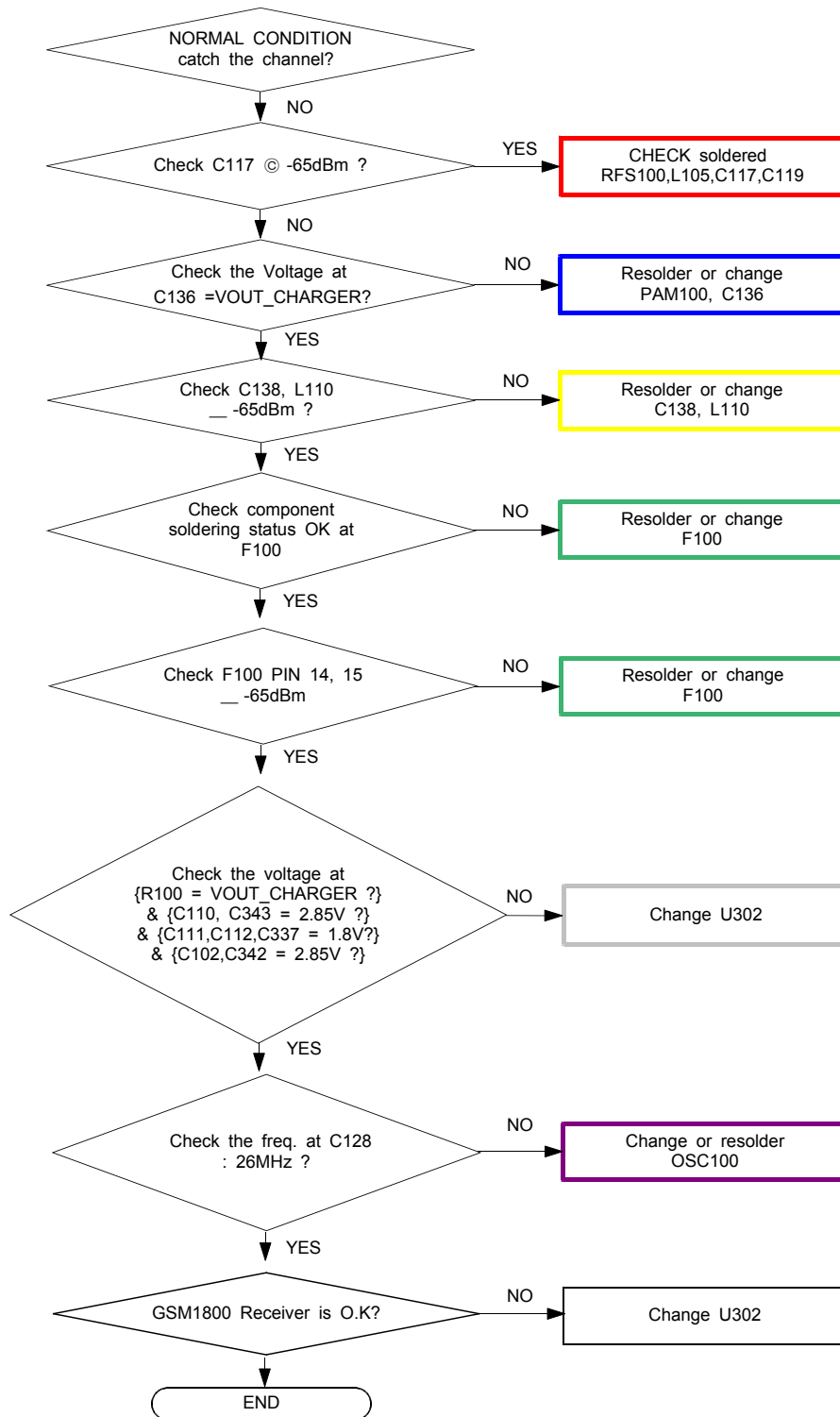


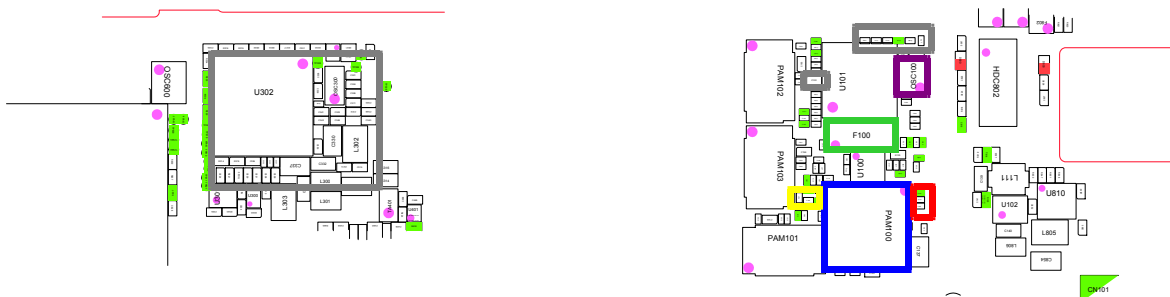
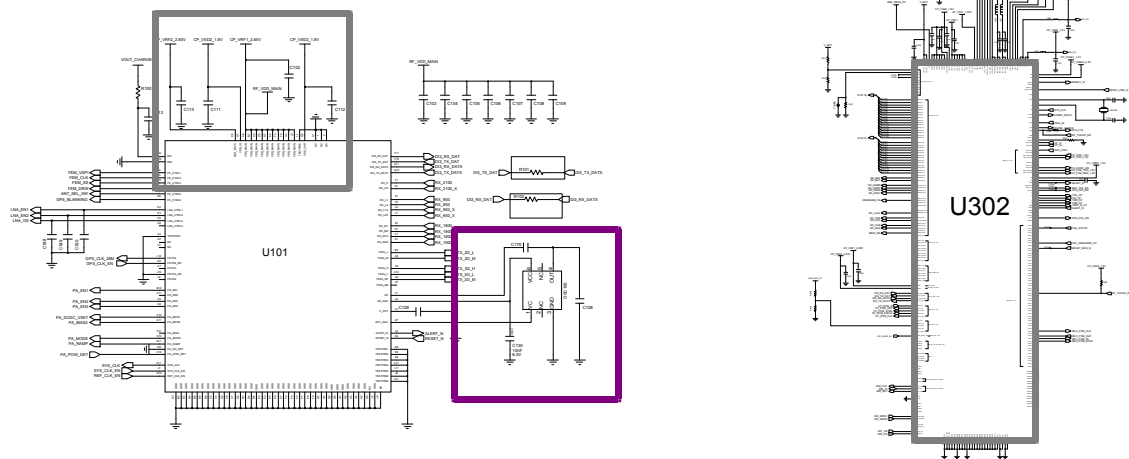
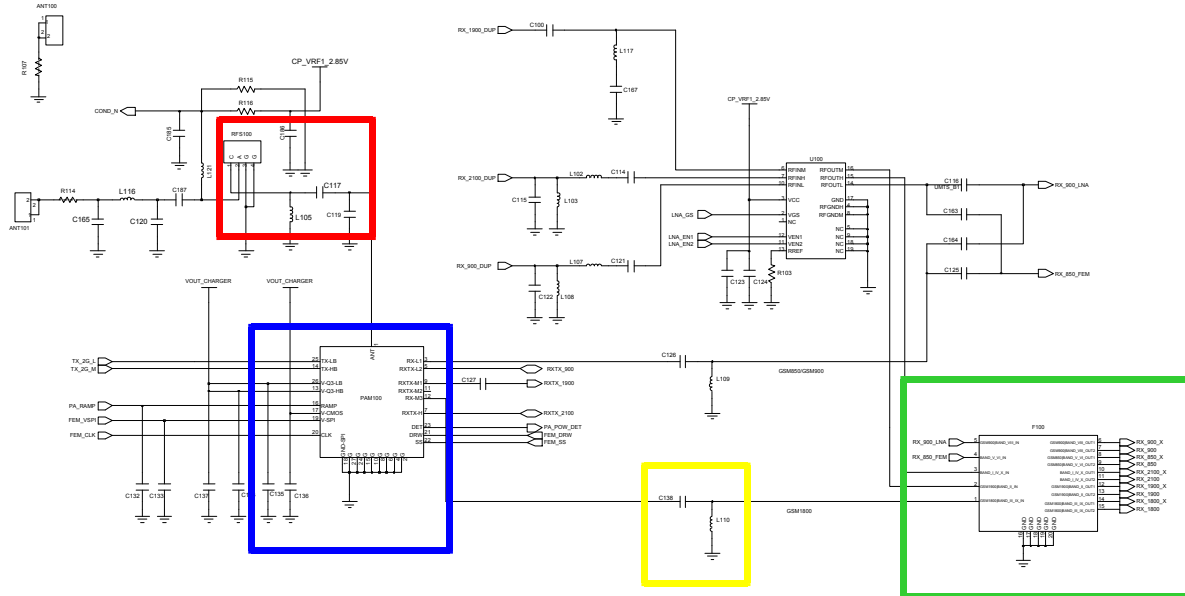
8-3-12. GSM850 RX



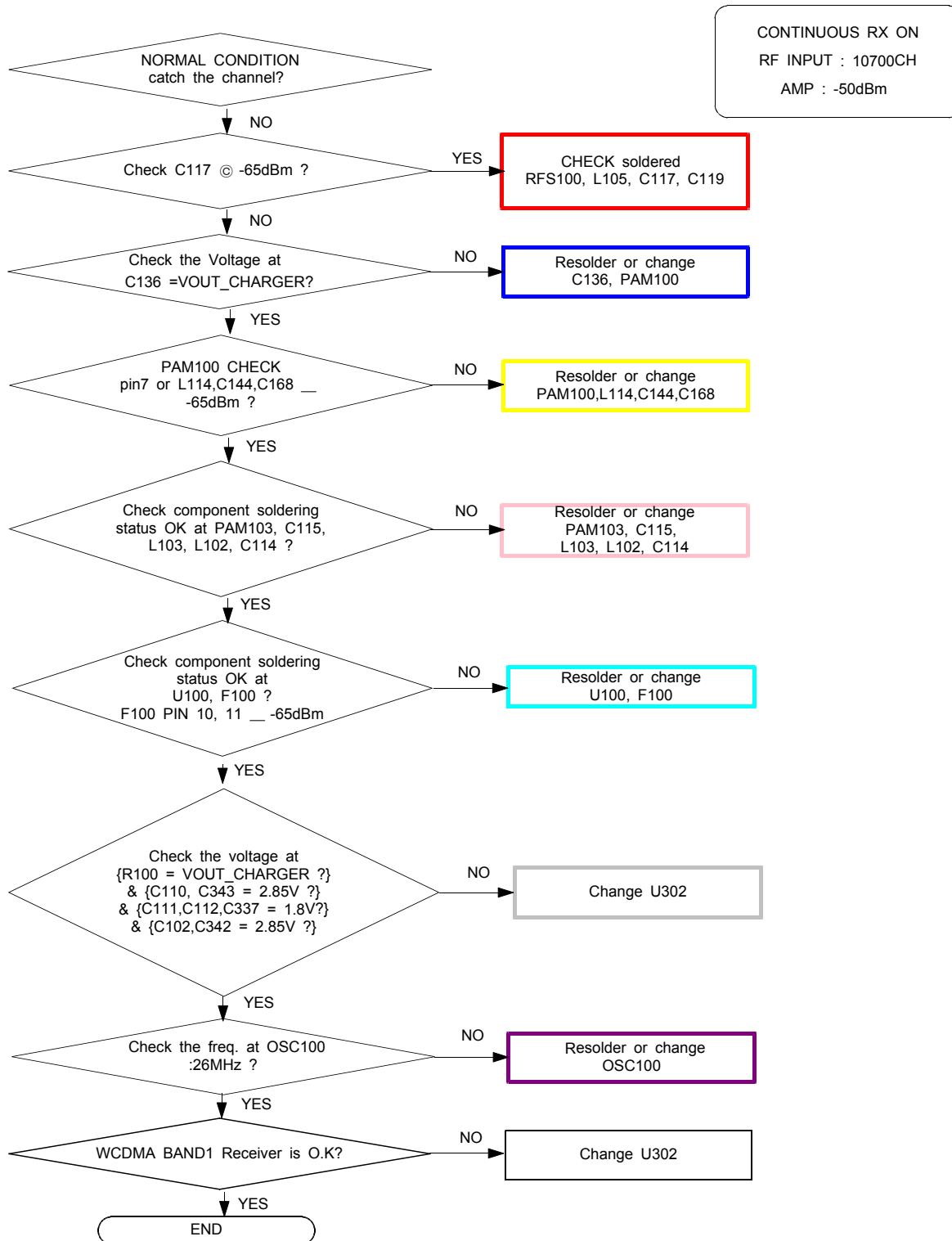


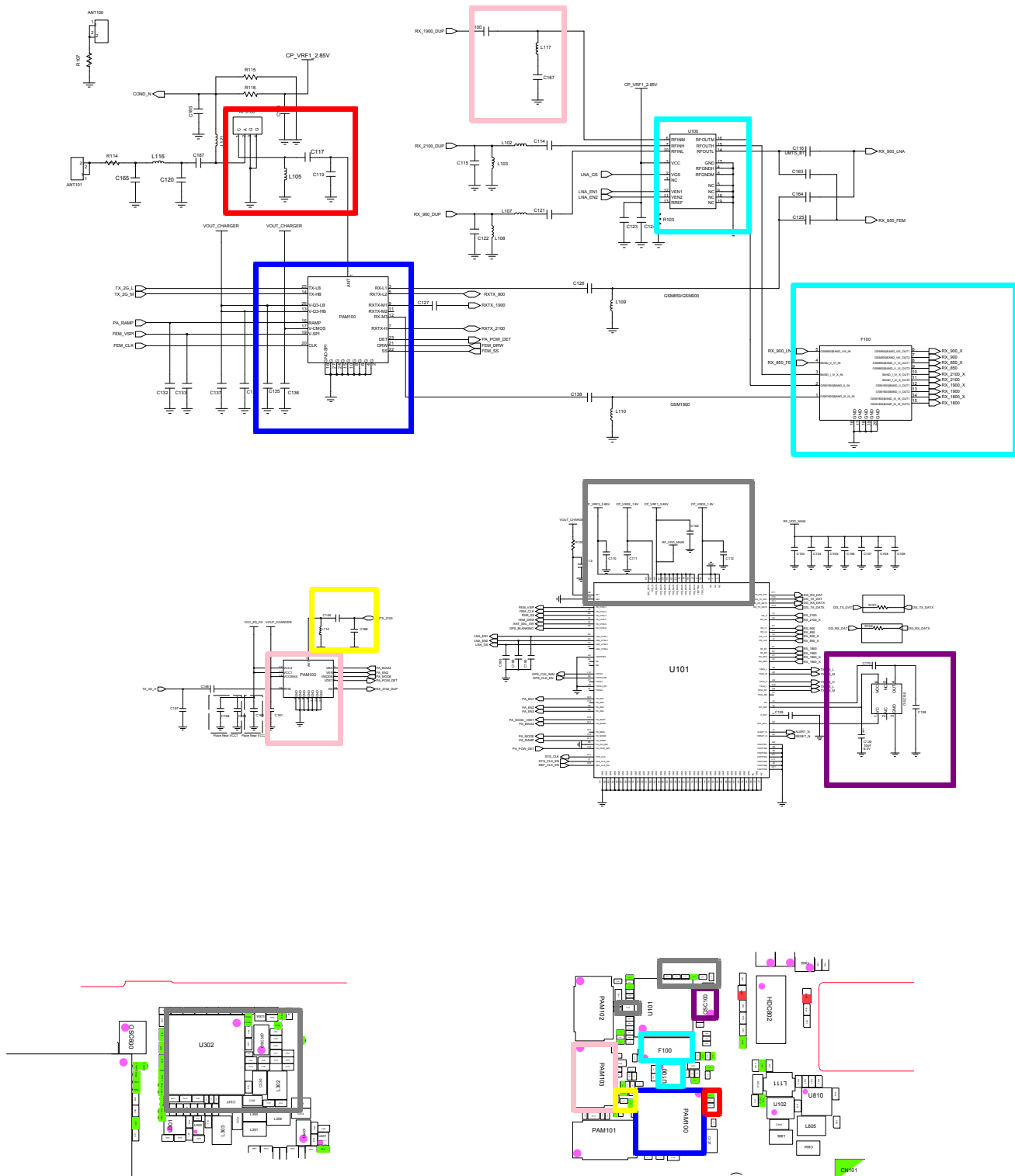
8-3-13. GSM1800 RX



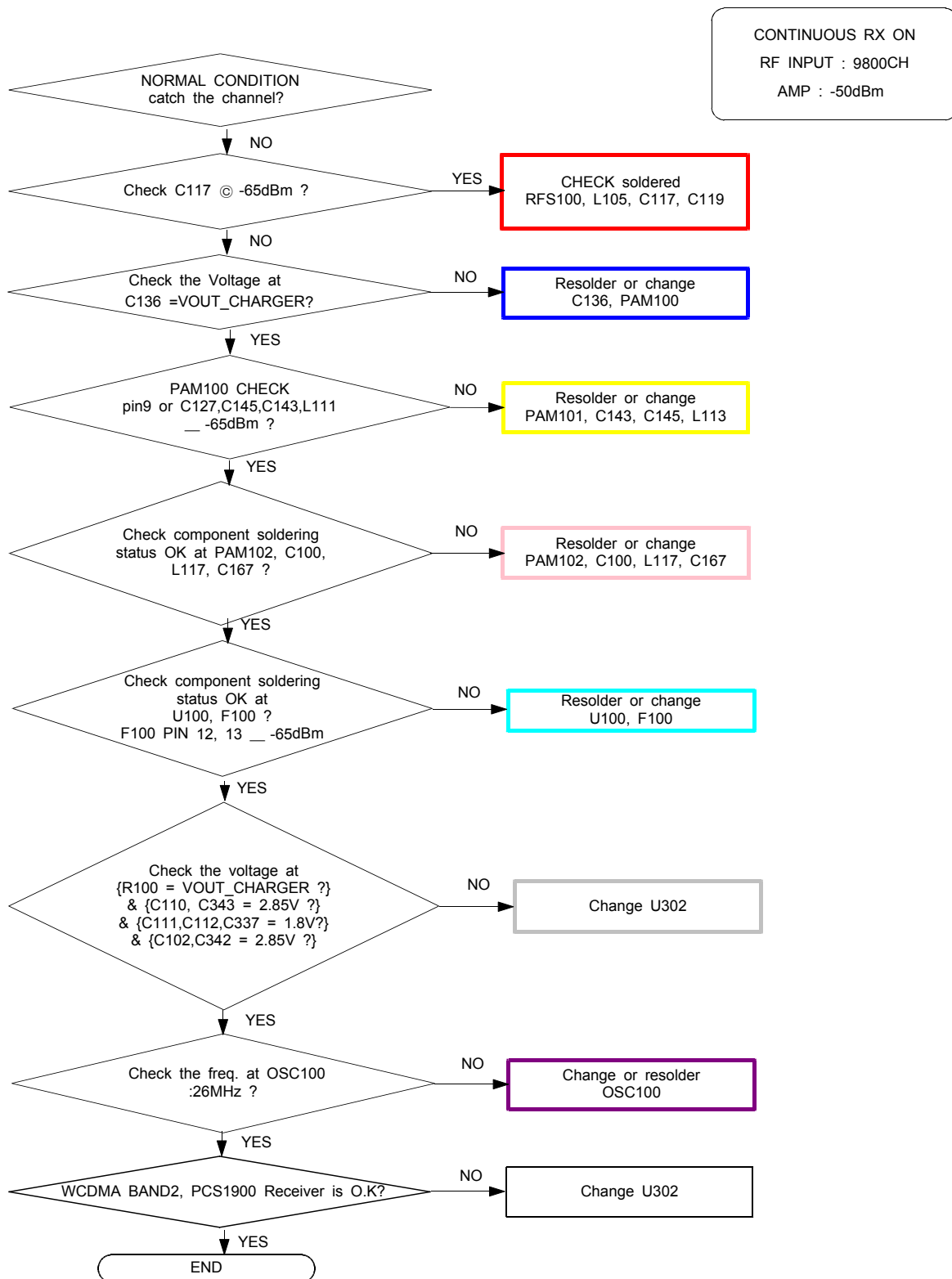


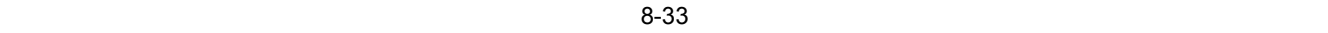
8-3-14. WCDMA Band1 RX



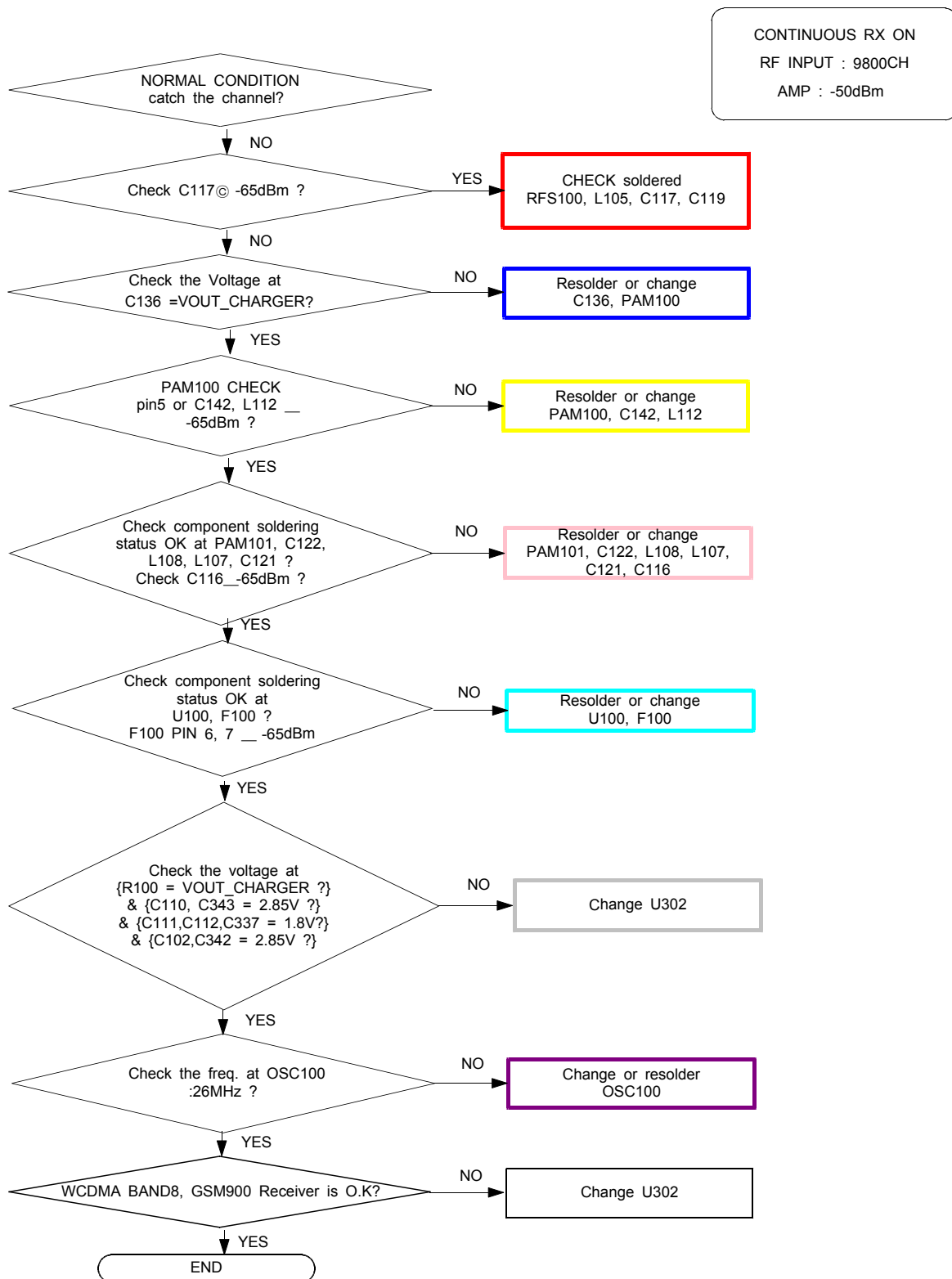


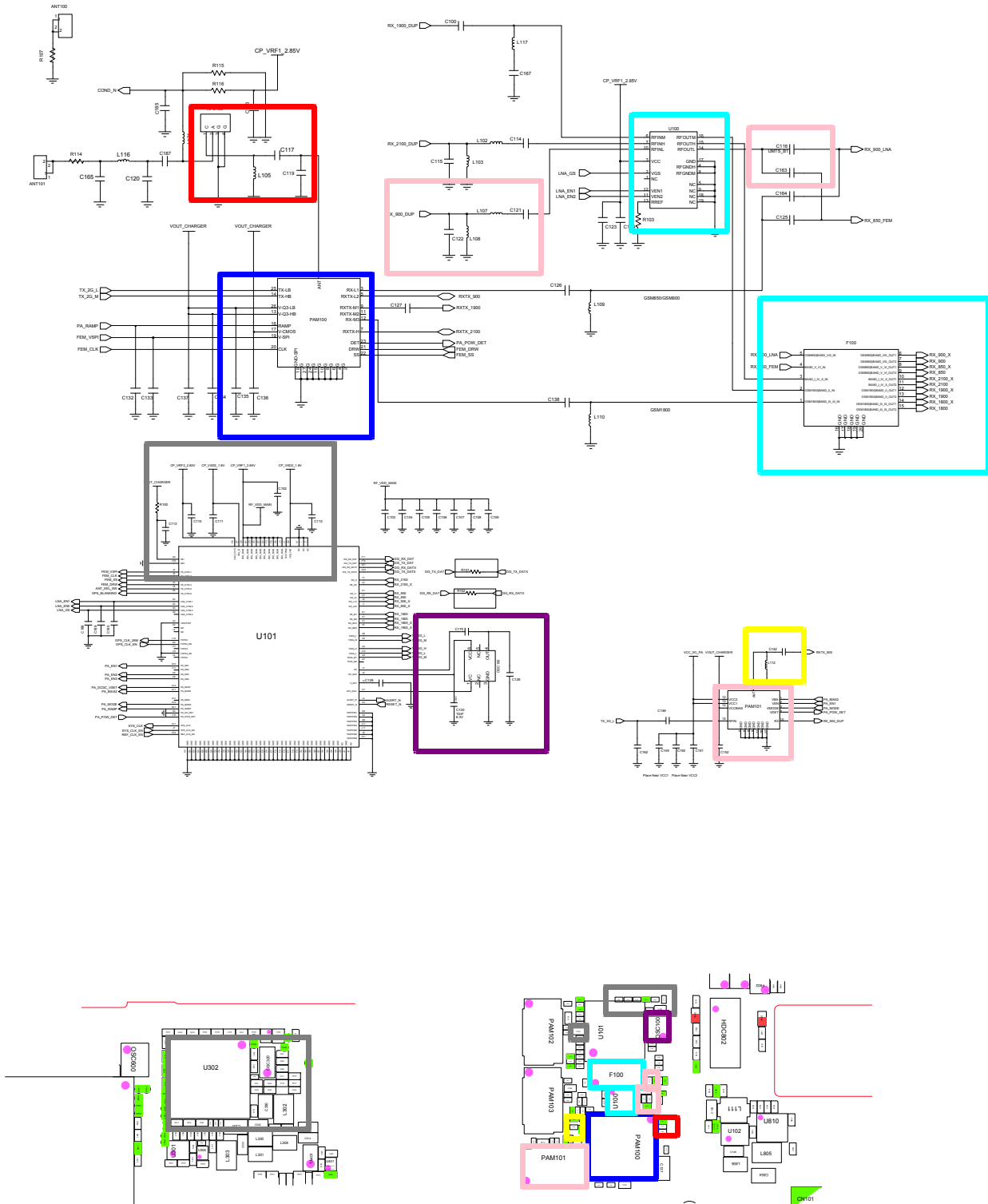
8-3-15. WCDMA Band2 / GSM1900 RX





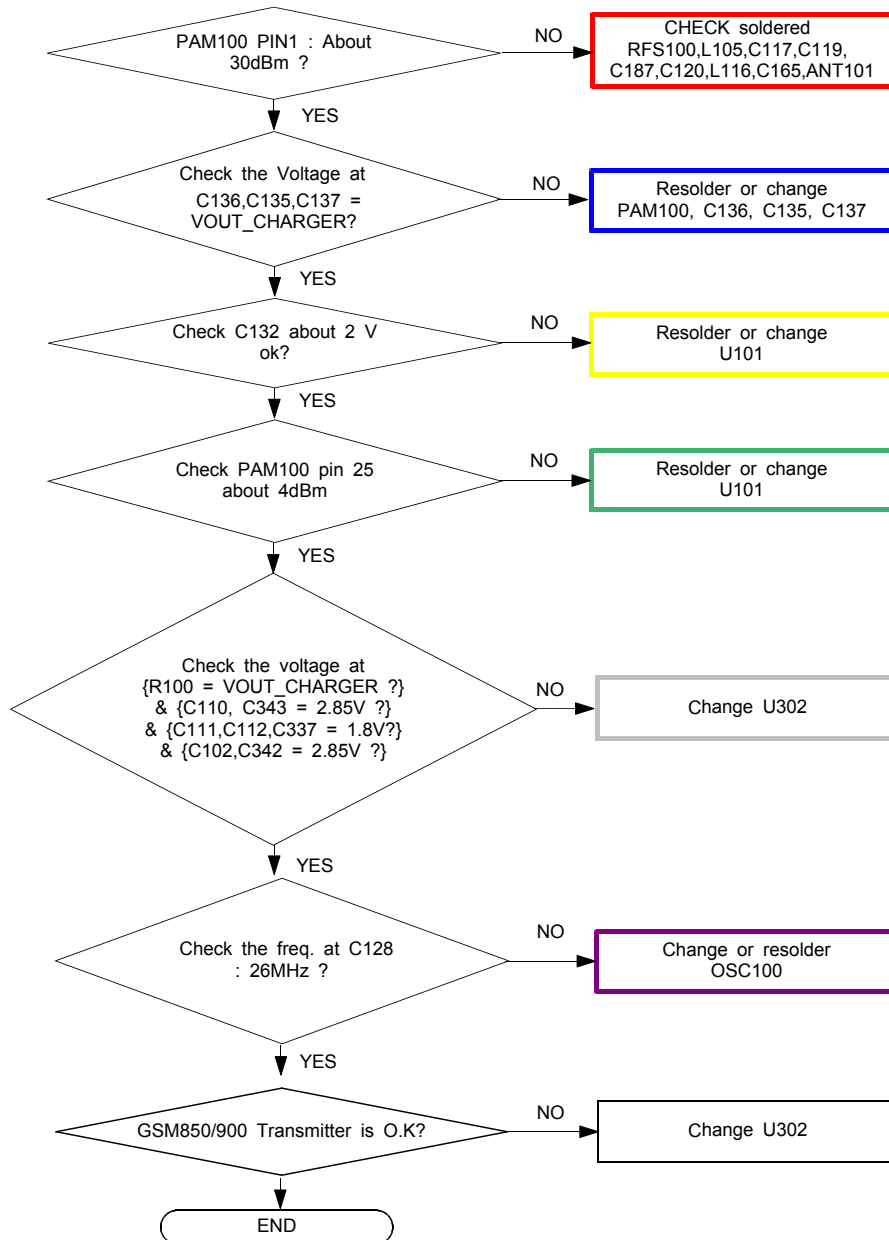
8-3-16. WCDMA Band8 / GSM900 RX





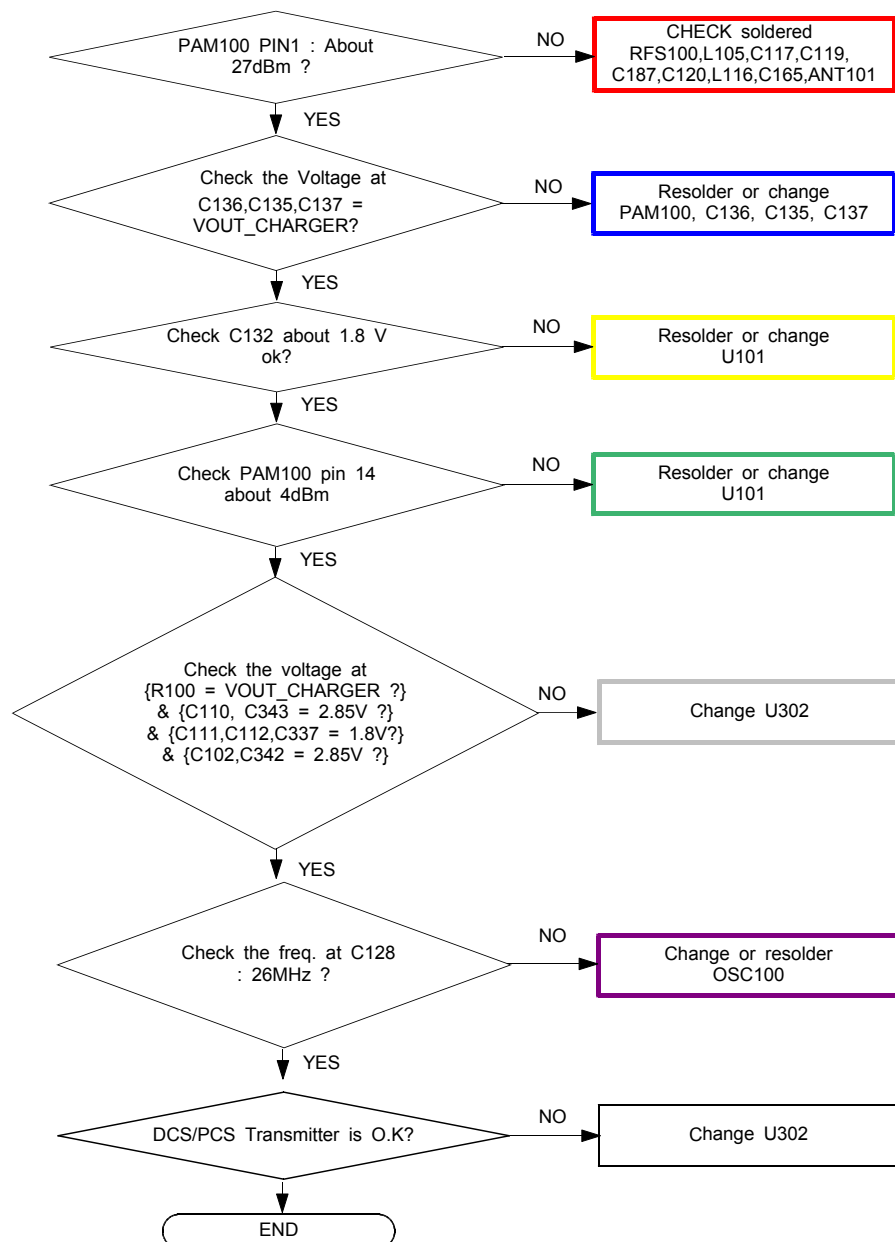
8-3-17. GSM850/GSM900 TX

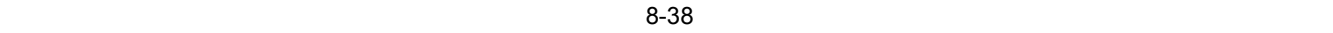
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
GSM850 CH : 190
GSM900 CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB



8-3-18. DCS/PCS TX

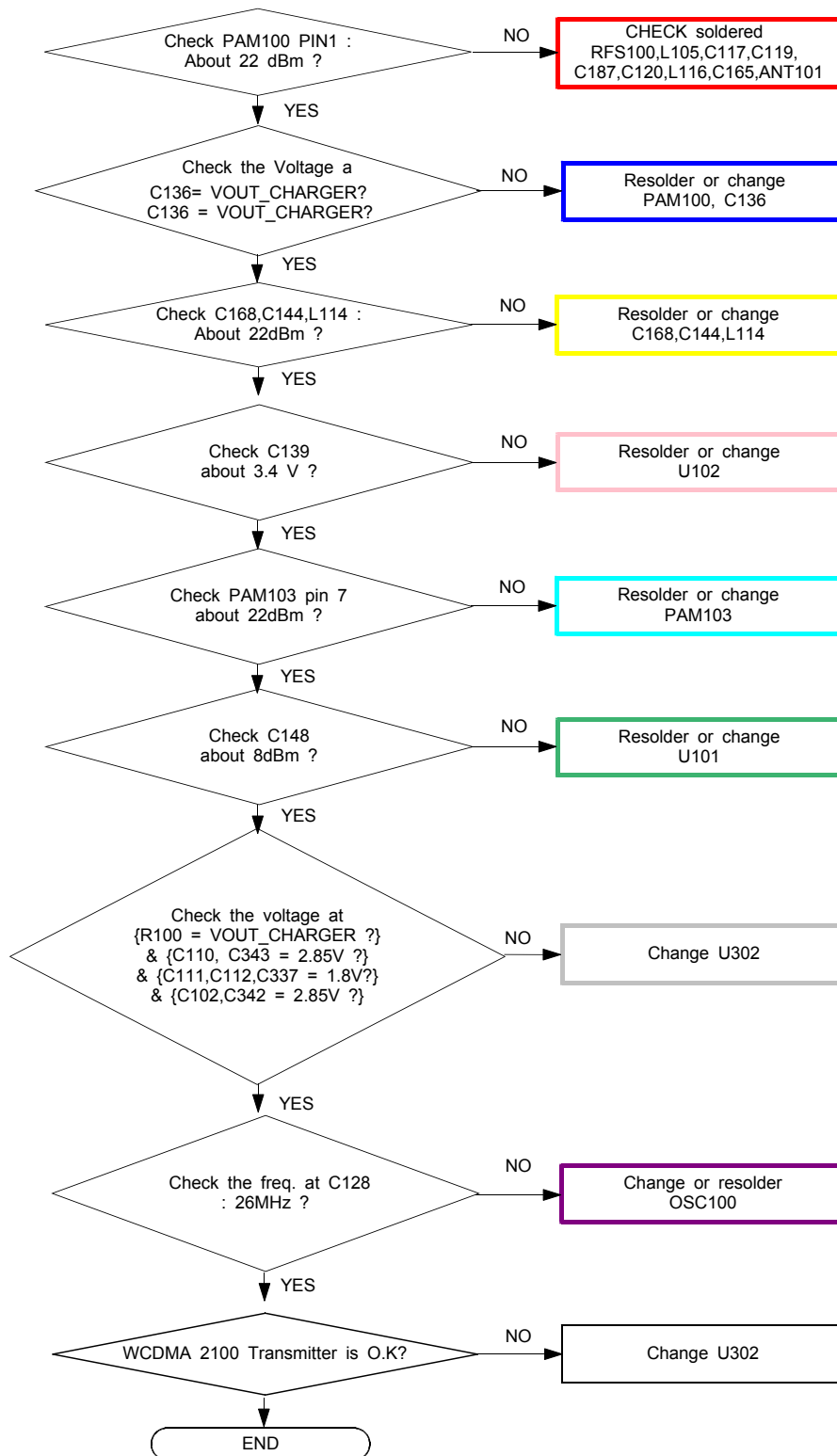
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
GSM850 CH : 190
GSM900 CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

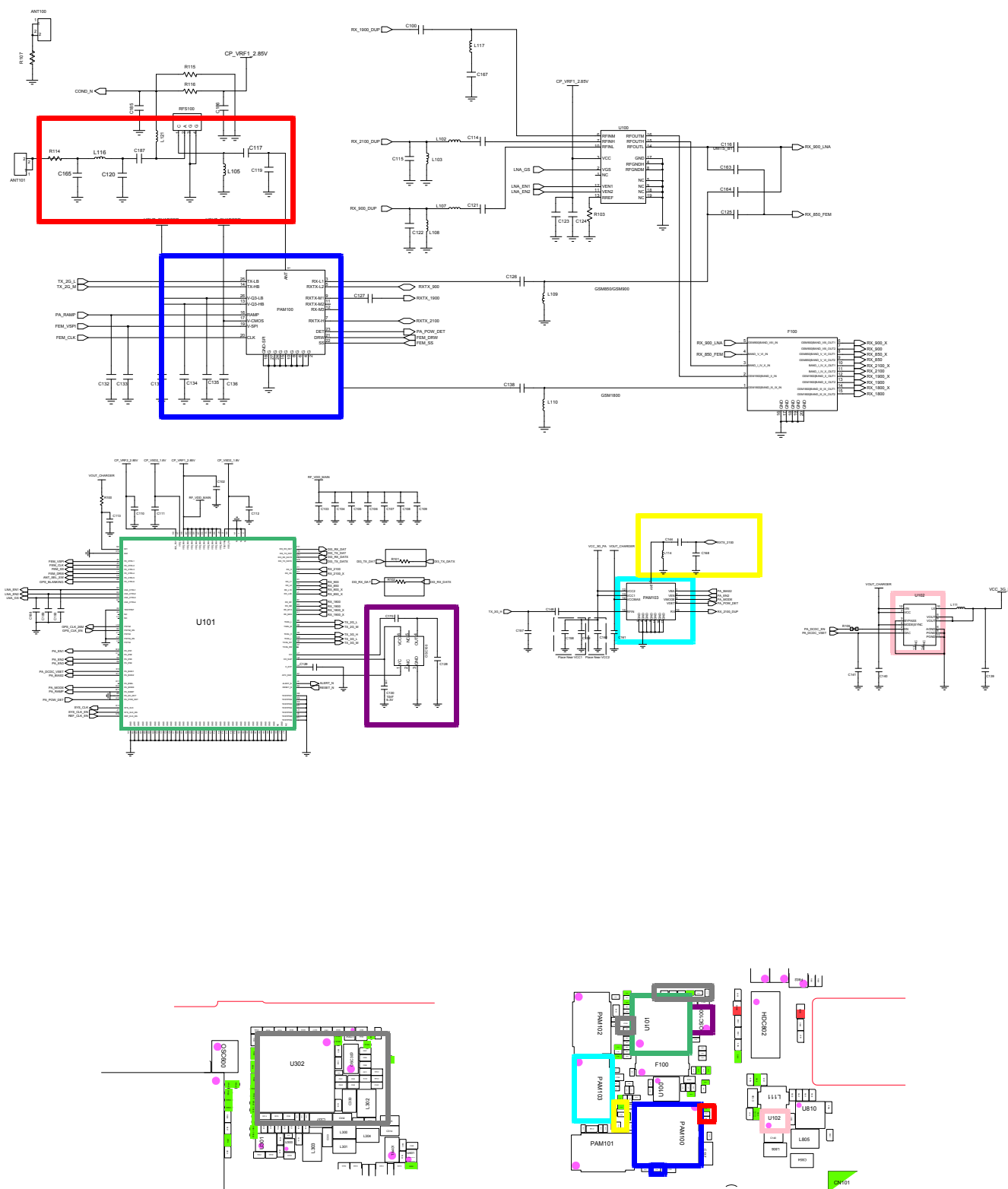




8-3-19. WCDMA BAND1 TX

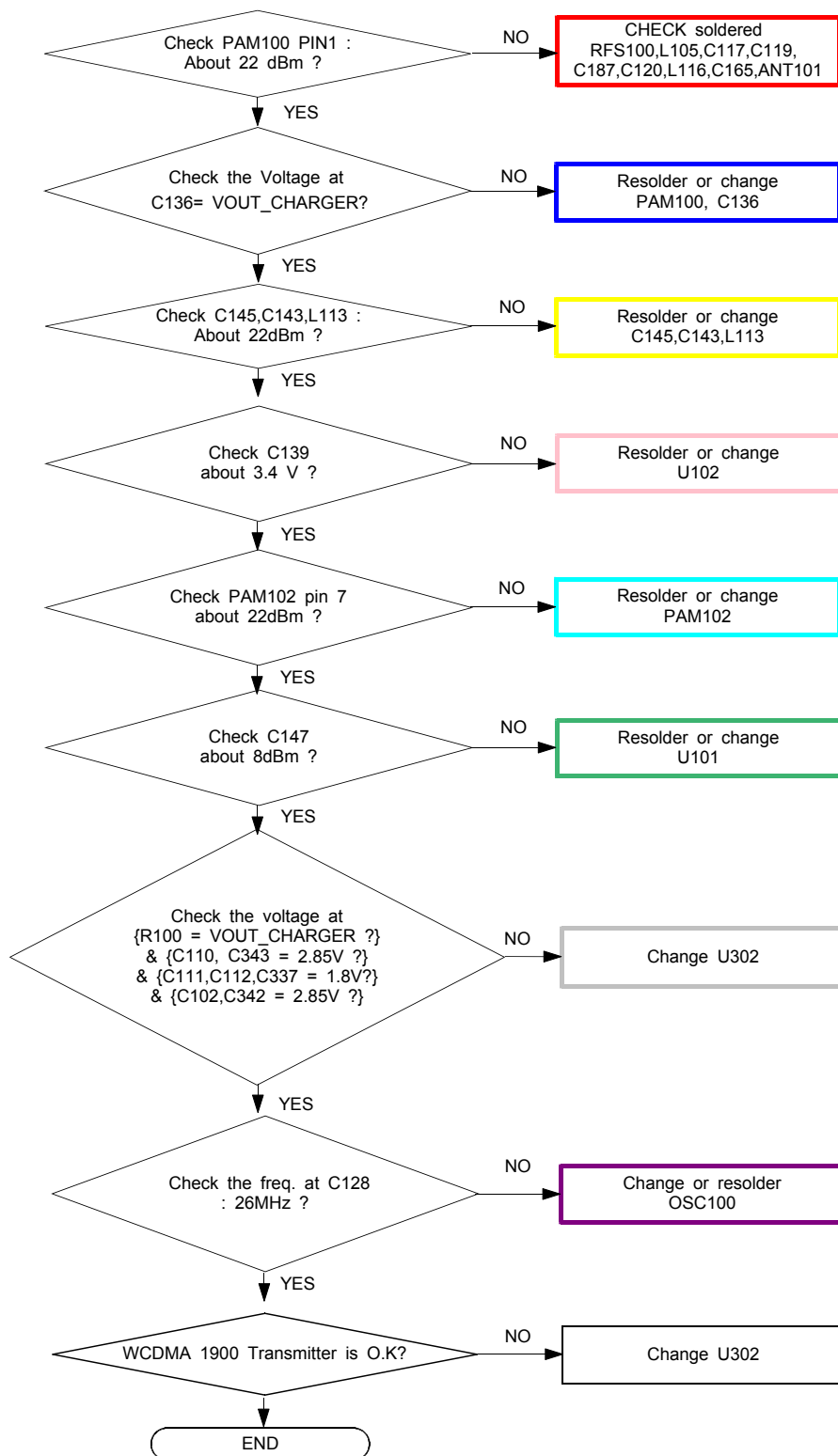
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
GSM850 CH : 190
GSM900 CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

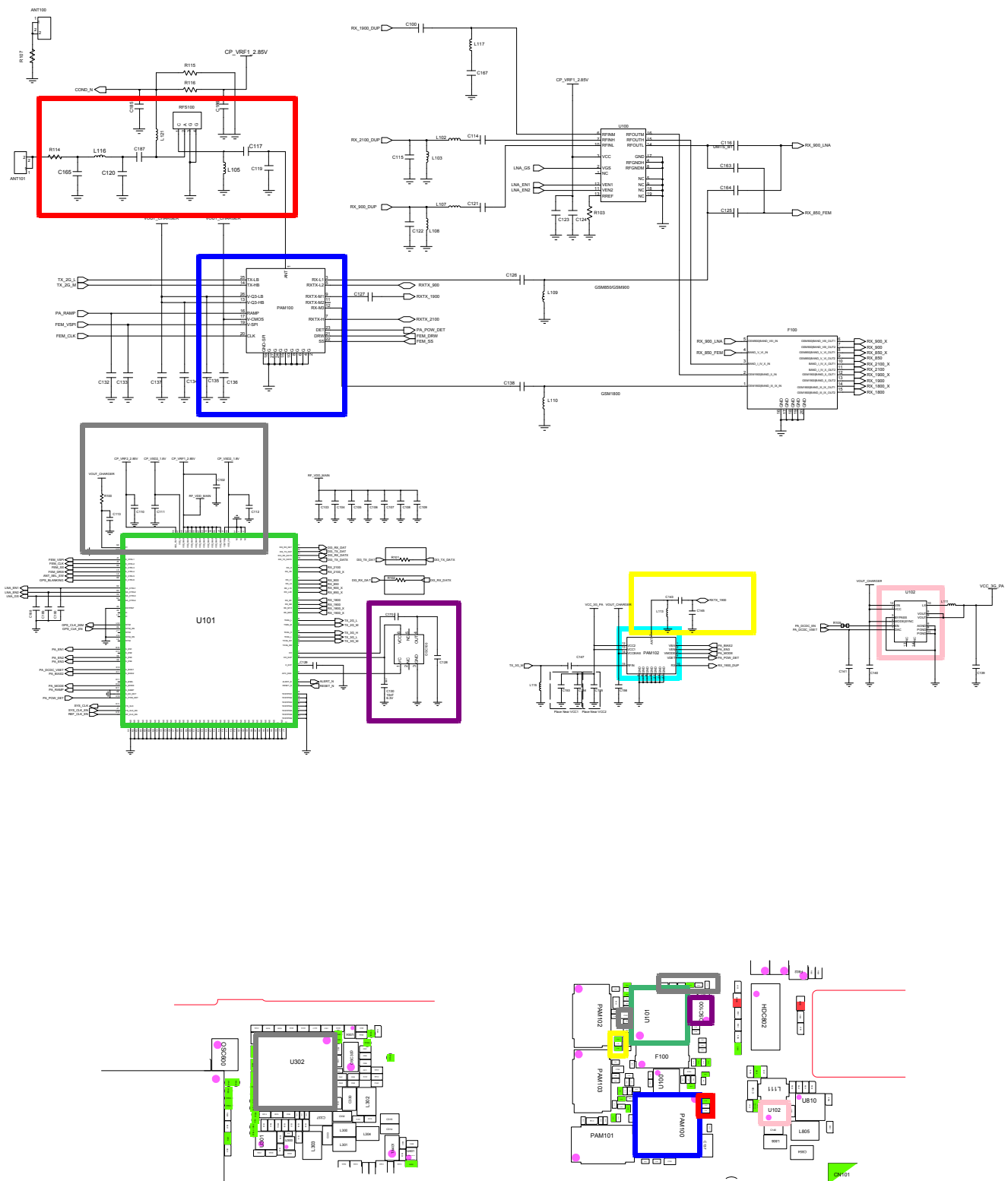




8-3-20. WCDMA BAND2 TX

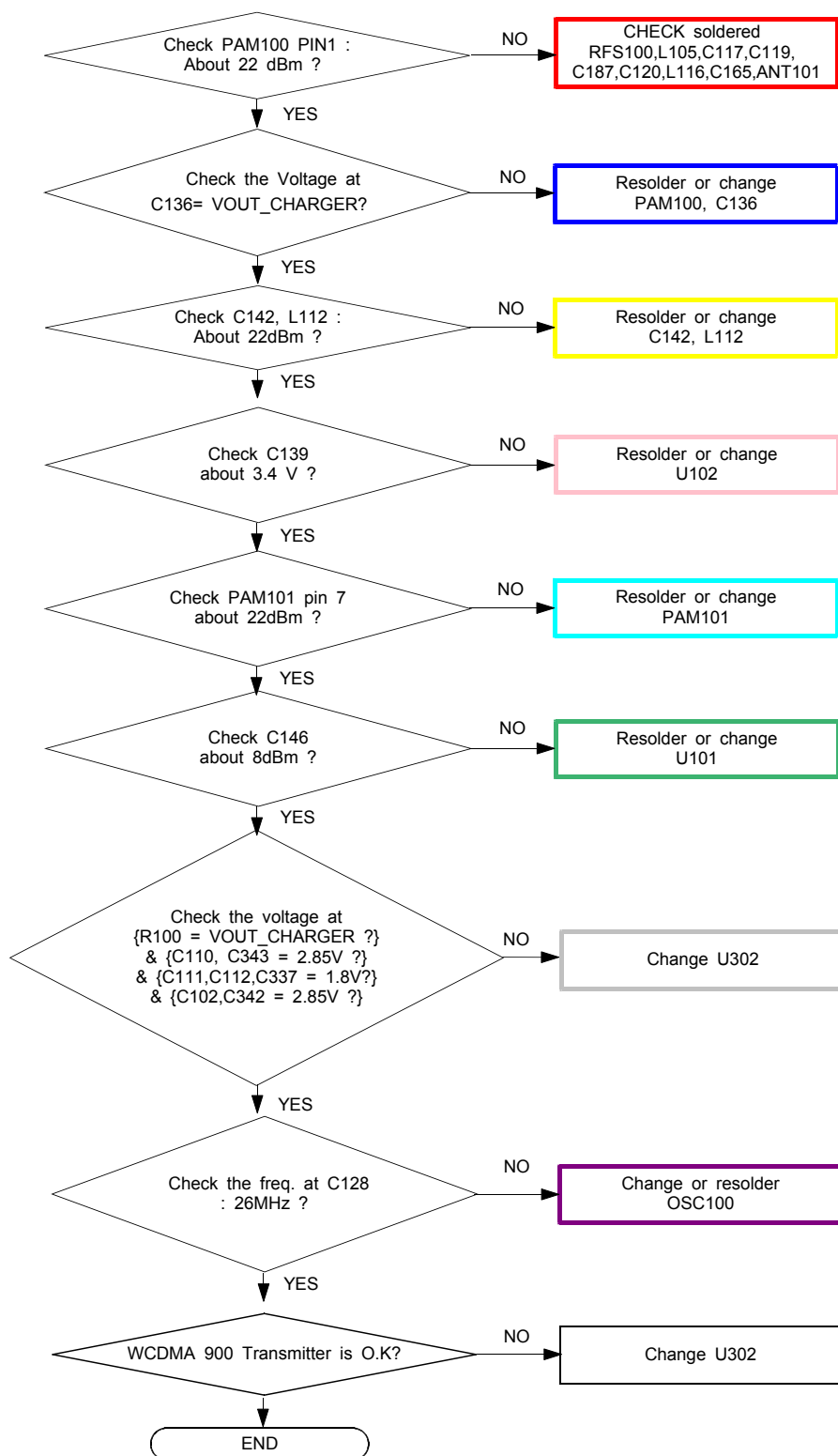
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
GSM850 CH : 190
GSM900 CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

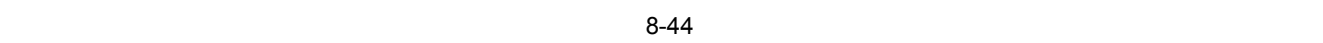




8-3-21. WCDMA BAND8 TX

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

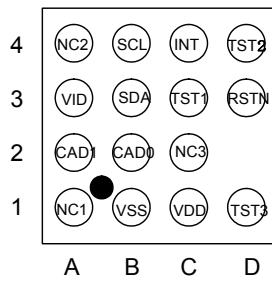




8-4. Service Schematics

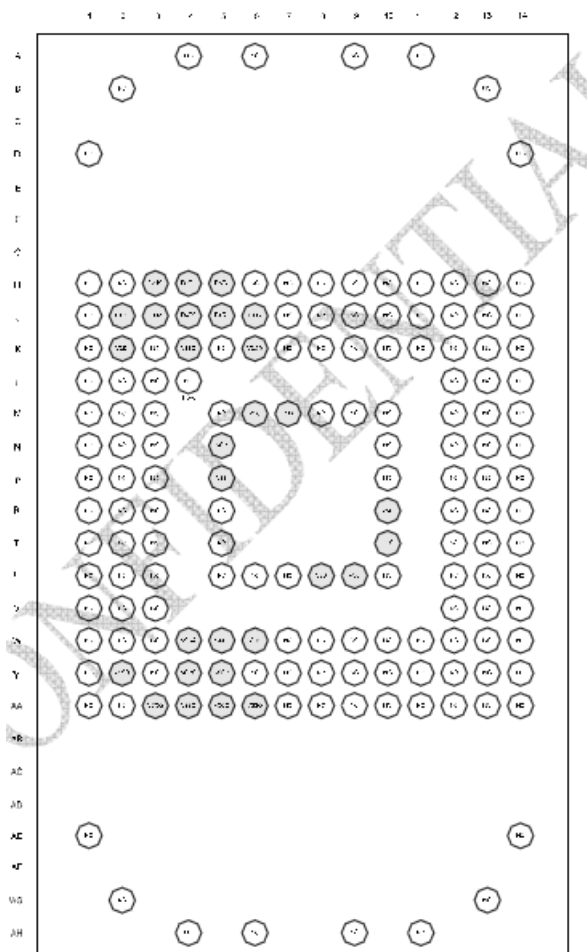
- NC Point(Top View)

U806



UME300

○ : NC



U700

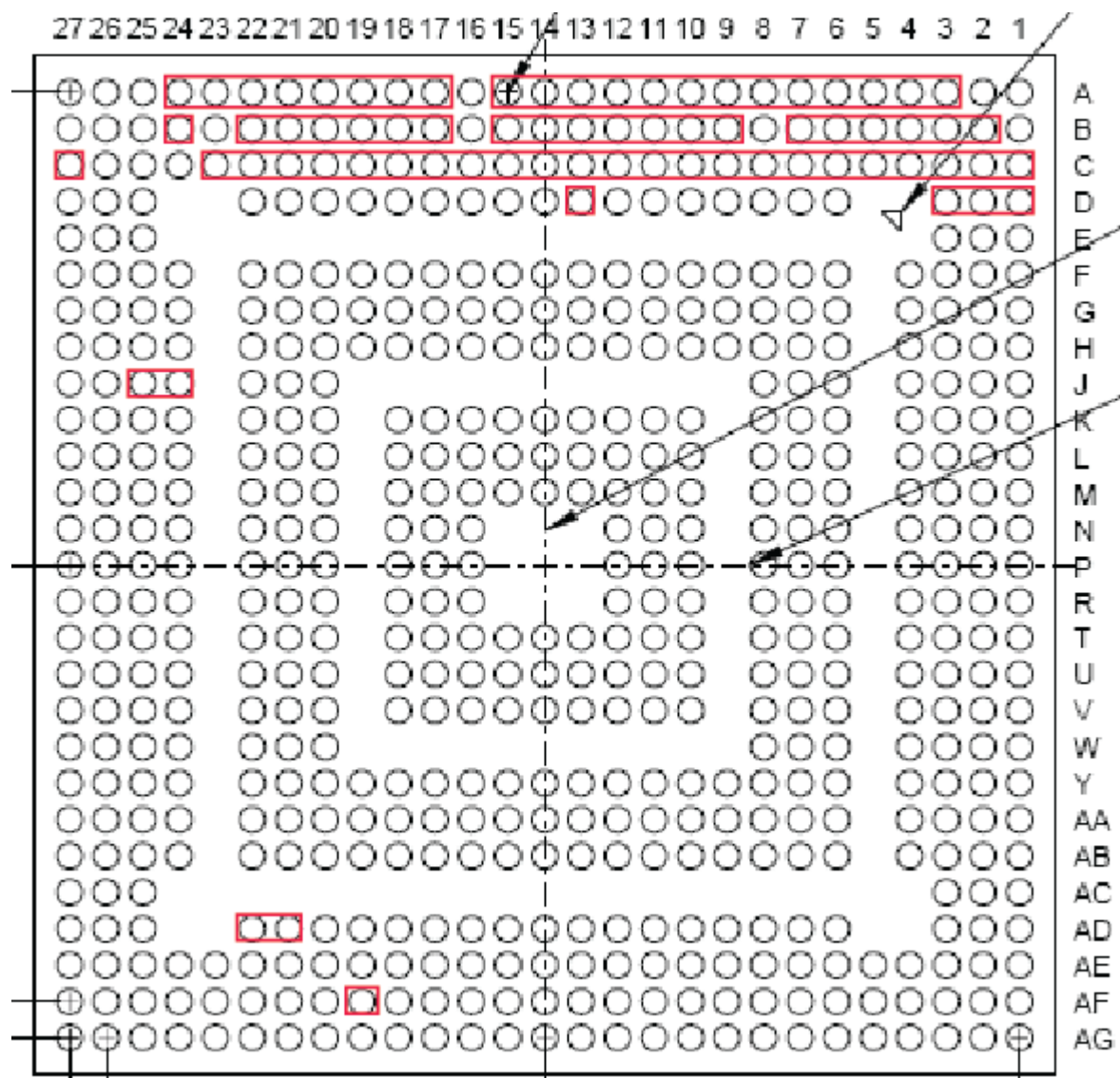
	1	2	3	4	5	6	7	8	9	10
A	IN1	IN1	XOUT	XIN	AGND 1	LDO 14	IN7	LDO 15	REF BP	LDO 16
B	LX1	LX1	32kHz CP	32kHz AP	AGND 2	VCON	IN7	LDO 2	IN9	LDO 17
C	LX1	BUCK 1	PWR ON	SDA	SCL	SRAD	LDO 10	LDO 3	IN6	LDO 13
D	PGND 1	PGND 1	SET1	SET2	SET3	PWR HOLD	NC22	NC21	IN6	LDO 12
E	IN2	IN2	BUCK 2	JIG ON	RSO1	PWR EN	COM 22	COM 21	VLSW 2	LDO 11
F	LX2	LX2	LX2	MRI	IRQ	BATT MON	NC22	NC21	CS2	LDO 9
G	PGND 2	PGND 2	BUCK 3	VL	ONOA	VCHG	NC12	NC11	IN8	LDO 8
H	IN3	IN3	BUCK 4	SAFE OUT1	SAFE OUT2	DET BAT	COM 12	COM 11	IN8	LDO 6
J	LX3	LX3	LX4	PGND 4	BATT	DCIN	NC12	NC11	CS1	LDO 5
K	PGND 3	IN4	LX4	PGND 4	BATT	DCIN	LDO 7	IN5	IN5	LDO 4

U302

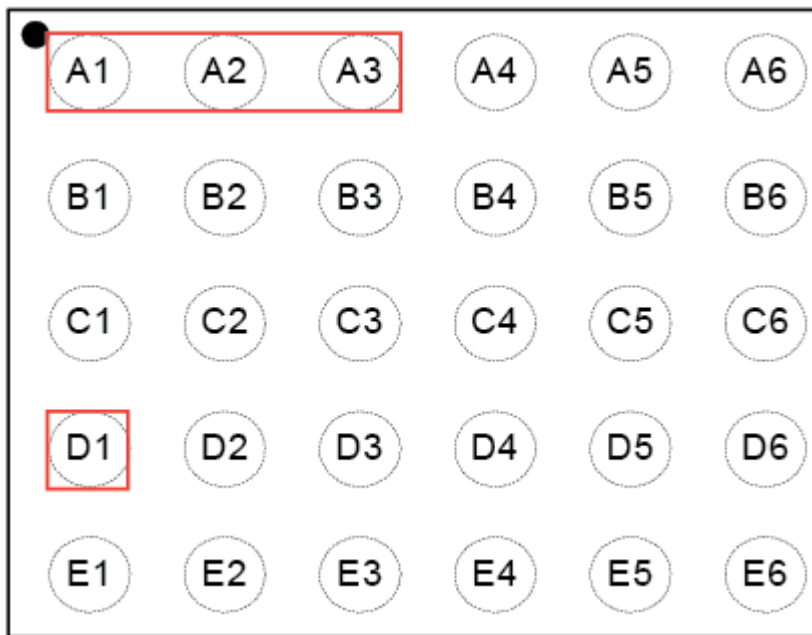
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	Y	
20	NC	VSD2	VSD2	VSS_S D2	SD2_F B	RESET _PMU_ N	EPP1	VSS_M AIN	HF_SP K1P	VBAT HF_SP K	HF_SP K2P	CP1	MEM_A D[0]	MEM_A [0]	MEM_A [1]	MEM_A [3]	MEM_B C2_n	MEM_A [5]	MEM_A [7]	NC	20
19	VSD1	VSS_S D1	VSS_S D1	VSS_S D2	PMUM EAS	VDD_V SIM	EPN1	VSS_H F_SPK	VBAT HF_SP K	HF_SP K1N	HF_SP K2N	CP2	MEM_A D[1]	MEM_A D[2]	MEM_A [2]	MEM_A [4]	MEM_B C0_n	MEM_A [6]	MEM_A [9]	MEM_A [8]	19
18	VDD_V BAT_S D1	VSD1				VANA2			VSS_H F_SPK			VDD_C PN			MEM_A D[6]				MEM_A [11]	MEM_A [10]	18
17	SD1_F B	VDD_V BAT_S D1		VDD_V BAT_S D2	VDD_V BAT_S D2	VDD_V PMU	VDD_V RTC	MICP1	AUX1P	AUX2P	EPPA2	EPPA1	MEM_A D[3]	MEM_A D[5]	MEM_A D[8]	MEM_A D[11]	VDDP_ DIG		MEM_A [12]	MEM_B C3_n	17
16	VRF1	VSS_A NA		VSS_M AIN	VDD_V BAT_L DO	VMIPI	VANA1	MICN1	AUX1N	AUX2N	VMIC	VUMIC	MEM_A D[4]	MEM_A D[7]	MEM_A D[10]	VSS_M AIN	MEM_A D[15]		MEM_A [13]	MEM_A [15]	16
15	VREF	VDD_V BAT_R F12	VSS_R F12	VRF2	VDD_V USB				M2			M3				VDD_C ORE	MEM_ WAIT_n	MEM_A DV_n	MEM_B C1_n	MEM_A [14]	15
14	Di3_TX _DAT	Di3_RX _DAT		VDD_V BAT_R F12	VDD_O SD2		ON_OF F1	VDDP_ DIG_M S	M1	M0	M7	M9	MEM_A D[9]	MEM_A D[13]		MEM_C AS_n	MEM_B FCLKO 0		MEM_B FCLKO 1	Reserv ed	14
13	Di3_TX _DATX	Di3_RX _DATX		F26M	VDD_V PLL		ON_OF F2	M6	M4	M5	M8	M10	MEM_A D[12]	MEM_A D[14]		MEM_R AS_n	MEM_ WR_n		MEM_S DCLKO	Reserv ed	13
12	F32K	VDD_R TC	VSS_R TC	VDD_L VDS	DPLUS	CC_IO	RESET 1_N	PWR_ ON_CM P					MMCH1 _CLK	MEM_C S0_n	MEM_C S1_n	MEM_C S2_n	MEM_R D_n	VSS_M AIN	Reserv ed	Reserv ed	12
11	OSC32 K	VSS_M AIN		VSS_M AIN	DMINU S		CC_CL K	ALERT _N		VDD_C ORE	VSS_M AIN		MMCH1 _CMD	MMCH1 _DAT[0]		MEM_C SA0_n	MEM_C KE		Reserv ed	Reserv ed	11
10	USB_D MINUS	USB_T UNE		VDD_U SB_DI G	CC_RS T		REF_C LK_EN	HW_M ON1		MMCH1 _DAT[2]	MMCH1 _DAT[3]		VDDP_ MMC	MMCH1 _DAT[1]		TRIG_I N	TRST_ n		Reserv ed	Reserv ed	10
9	USB_D PLUS	VBUS1	VDD_U SB	VDD_U SB_HS PHY	VDD_C ORE	CLK32 K	RESET _CMP	HW_M ON2					MMCH1 _CD	VDD_F USE_L S	TCK	FCDP_ RBn	RESET 2_N	FWP	VSS_M AIN	Reserv ed	9
8	USB_T EST	USB_ID		MMC12 _CMD	CLKOU T0		CMP_E N	I2S1_R X	I2S1_C LK0	VDDP_ DIG	TDO	GPIO_0 35	GPIO_0 41	VDD_F USE_F S		VDD_C ORE	MIPI1_ DATA7		Reserv ed	Reserv ed	8
7	GPIO_0 01	GPIO_0 00		MMC12 _DAT[0]	VSS_M AIN		VSS_M AIN	I2S1_W A0	I2S1_W A1	VSS_M AIN	TDI	GPIO_0 36	GPIO_0 29	VSS_M AIN		VSS_M AIN	MIPI1_ DATA6		Reserv ed	Reserv ed	7
6	GPIO_0 02	GPIO_0 07	NC	MMC12 _DAT[1]	VDDP_ DIG				SWIF_ TXRX			GPIO_0 30				VDDP_ DIG	MIPI1_ DATA5	NC	MIPI1_ DATA2	Reserv ed	6
5	GPIO_0 03	GPIO_0 08		MMC12 _DAT[2]	MMC12 _DAT[3]	VDD_C ORE	DSP_A UDIO_I N1	I2S1_T X	CHRG_ EN	USIF1_ RXD_M RST	TMS	GPIO_0 37	GPIO_0 31	GPIO_0 25	VDD_C ORE	GPIO_0 20	MIPI1_ DATA4		MIPI1_ DATA1	Reserv ed	5
4	GPIO_0 04	GPIO_0 09		MMC13 _CD	MMC12 _CLK	VSS_M AIN	MMC12 _CD	USIF1_ TXD_M TSR	USIF1_ RTS_N	USIF1_ CTS_N	USIF3_ SCLK	GPIO_0 38	GPIO_0 32	GPIO_0 42	VSS_M AIN	GPIO_0 21	MIPI1_ DATA3		MIPI1_ DATA0	MIPI1_ CLK	4
3	GPIO_0 05	GPIO_0 10			VDDP_ DIG			VSS_M AIN				VSS_M AIN			VDDP_ DIG				GPIO_0 13	GPIO_0 11	3
2	GPIO_0 06	MMC13 _CMD	MMC13 _DAT[0]	MMC13 _DAT[2]	T_OUT 0	FSYSE N	XRESE T	I2C1_S CL	I2C2_S CL	USIF3_ TXD_M TSR	USIF3_ RTS_N	GPIO_0 39	GPIO_0 33	GPIO_0 27	GPIO_0 24	CLKOU T2	GPIO_0 18	GPIO_0 16	GPIO_0 14	GPIO_0 12	2
1	NC	MMC13 _CLK	MMC13 _DAT[1]	MMC13 _DAT[3]	T_OUT 1	SYSCL KEN	I2C_IN T	I2C1_S DA	I2C2_S DA	USIF3_ RXD_M RST	USIF3_ CTS_N	GPIO_0 40	GPIO_0 34	GPIO_0 28	GPIO_0 26	GPIO_0 23	GPIO_0 19	GPIO_0 17	GPIO_0 15	NC	1
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	Y	

U601

 : NC



U702

 : NC

- This Document can not be used without Samsung's authorization -

5-2. Cellular phone Parts list : GT-P1000CWAFTM

Design LOC	Description	SEC CODE
QAN02	ANTENNA-GT_P1000	GH42-02645A
QAN03	ANTENNA-GPS(GT-P1000)	GH42-02695A
QBA01	SOFT BATTERY PACK-4000MAH,UNI,BLACK,MAIN	GH43-03457A
QCA01	ASSY CAMERA-MODULE(GTP1000_3M)	GH96-04944A
QCA02	ASSY CAMERA-MODULE(P1000_1.3M)	GH96-04949A
QCK01	PMO KEY-POWER	GH72-61569A
QCR03	SCREW-MACHINE	6001-001811
QCR103	SCREW-MACHINE	6001-002656
QCR47	SCREW-MACHINE	6001-001695
QJK03	KEY FPCB-EARJACK FPCB(SHW-M180S)	GH59-09694A
QJK07	IPR COVER-HOLDER_EARJACK	GH70-06456A
QLC01	MEA FRONT-GT-P1000(ORANGE)	GH97-11771A
QME16	ASSY ETC-CON TO CON(GT_P1000)	GH59-09817A
QMO01	MOTOR LINEAR VIBRATION-GT-P1000	GH31-00513A
QMP01	A/S ASSY-PBA MAIN(COMM)GT_P1000	GH82-05204A
QRE01	ASSY CASE-REAR(ORANGE)	GH98-18586A
QRF03	ASSY DECO-EAR	GH98-18306A
QRF07	PMO COVER-SIM_CARD	GH72-61567A
QSC01	TAPE-SHEET SCREW CAP	GH74-52532A
QSD01	PMO COVER-SD_CARD	GH72-61566A
QSP01	MODULE-SPEAKER_R	GH59-09691A
QSP02	MODULE-SPEAKER_L	GH59-09692A
QVK01	KEY FPCB-SIDE KEY(GT-P1000)	GH59-09830A
QVO01	ASSY KEY-VOLUME	GH98-18671A