

SAMSUNG

GSM TELEPHONE

GT-E2600

SERVICE *Manual*

GSM TELEPHONE

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

**SAMSUNG
ELECTRONICS**



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.

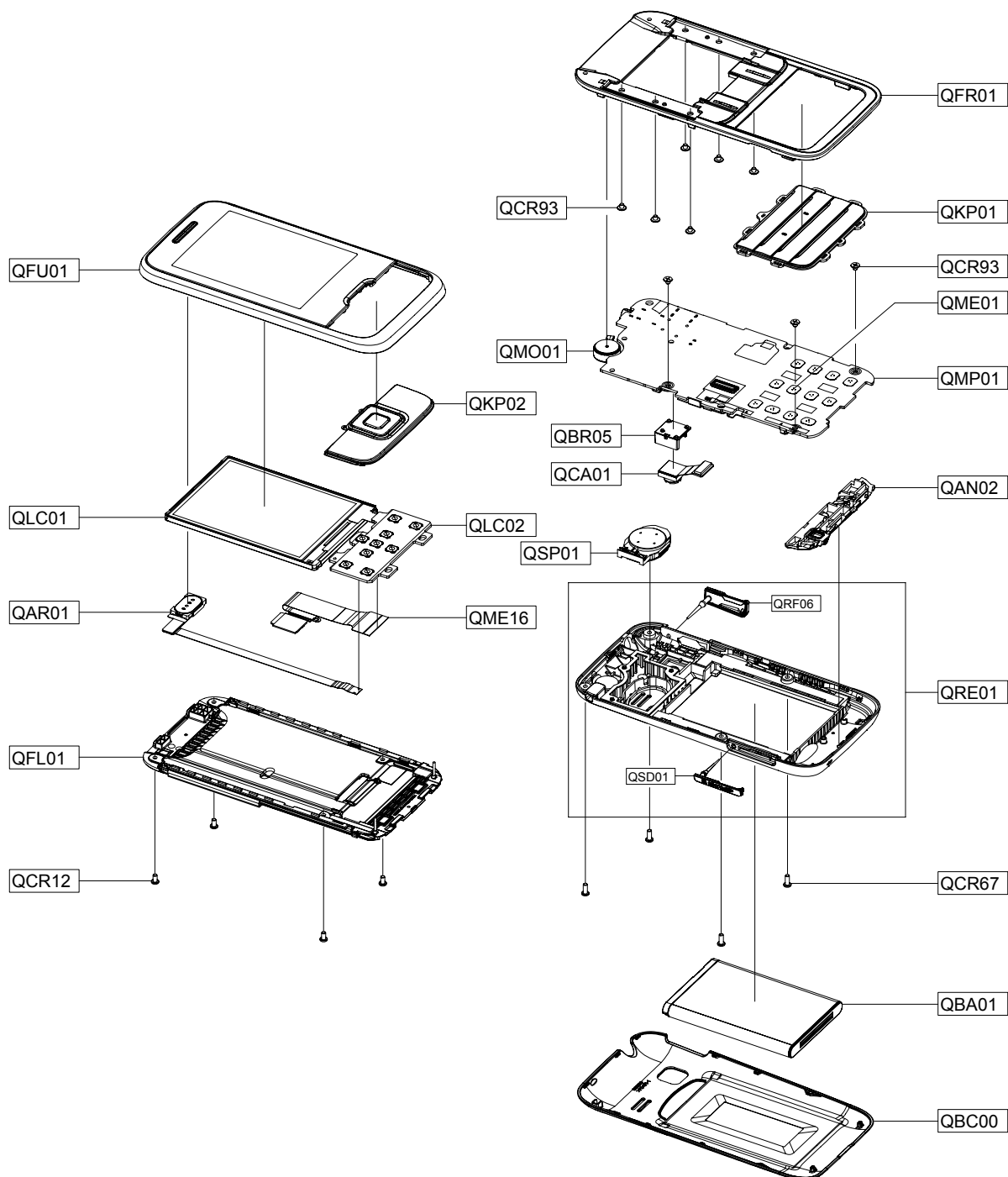
Use only desoldering tools with plastic tips to prevent static discharge.

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.

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



4-2. Cellular phone Parts list

Design LOC		Description	SEC CODE
QSP01		SPEAKER	3001-002671
QAR01		AUDIO-RECEIVER	3009-001578
QCR12		SCREW-MACHINE	6001-001530
QCR67		SCREW-MACHINE	6001-002083
QCR93		SCREW-MACHINE	6001-002263
QCR93		SCREW-MACHINE	6001-002263
QMO01		MOTOR DC-SPHM500	GH31-00242A
QAN02		INTENNA-MAIN (GT-E2600)	GH42-03316A
QBA01		INNER BATTERY PACK-800MAH,BLK,UNI,MAIN	GH43-03241A
QLC02		ASSY ETC-LCD SUB PBA(GT-E2600)	GH59-11614A
QME01		DOME SHEET-MAIN (GT-E2600)	GH59-11619A
QME16		UNIT-CON TO CON(GT-E2600)	GH59-11632A
QKP01		RMO KEY-MAIN (RUSSIA)	GH73-15553A
QMP01		A/S ASSY-PBA MAIN	GH82-06093A
QLC01		ELA MODULE-GT_C3500 LCD	GH96-04920A
QCA01		ASSY CAMERA-2M 1/5 SF MODULE(GT-E2600)	GH96-05387A
QKP02		ASSY KEYPAD-SUB	GH98-21047A
QFU01		ASSY CASE-SLIDE UPPER	GH98-21042A
QBC00		ASSY COVER-BATTERY	GH98-21044A
QFR01		ASSY CASE-SLIDE FRONT	GH98-21045A
QFL01		ASSY CASE-SLIDE LOWER	GH98-21048A
QBR05		ASSY DECO-CAM DUMMY	GH98-21481A
QRE01		ASSY CASE-SLIDE REAR	GH98-21046A
	QSD01	PMO COVER-SD	GH72-65019A
	QRF06	PMO COVER-USB	GH72-65020A

5. MAIN Electrical Parts List

SEC CODE	Design LOC	Description
0401-001141	D501	Switching Diode
0403-001688	D300	Zener Diode
0406-001286	ZD300,ZD302	TVS Diode
0406-001361	ZD500	TVS Diode
0406-001369	D400	TVS Diode
0406-001375	ZD501	TVS Diode
0406-001446	ZD504,ZD505	TVS Diode
0501-002680	Q100	FET-SILICON
0601-002652	LED300,LED301,LED302,LED303	LED
1001-001706	U402	IC
1009-001035	U201	IC
1108-000406	UME200	IC
1201-003208	U501	IC
1201-003290	PAM100	IC
1202-001088	U500	IC
1203-005580	U401	IC
1203-005848	U400	IC
1205-004116	U101	IC
1205-004215	UCP200	IC
1404-001224	TH200	THERMISTOR
1405-001317	D301	Diode
2007-000138	R331,R332,R333,R338,R339,R519	R-CHIP
2007-000140	R318	R-CHIP
2007-000141	R210,R211	R-CHIP
2007-000143	R312,R405	R-CHIP
2007-000148	R103,R202,R205,R209	R-CHIP
2007-000148	R324,R325,R326,R327	R-CHIP
2007-000148	R328,R400,R401,R402	R-CHIP
2007-000148	R517,R539	R-CHIP
2007-000153	R120,R408,R515	R-CHIP
2007-000157	R213,R329,R500	R-CHIP
2007-000162	R111,R208,R412,R416	R-CHIP
2007-000166	R520	R-CHIP
2007-000170	R522	R-CHIP
2007-000172	R406,R407	R-CHIP
2007-000242	R403,R404	R-CHIP

SEC CODE	Design LOC	Descrption
2007-001288	R501,R502	R-CHIP
2007-001292	R334,R335,R336,R337	R-CHIP
2007-002970	R119	R-CHIP
2007-007142	R204	R-CHIP
2007-007308	R526,R527	R-CHIP
2007-007317	R518	R-CHIP
2007-007528	R512	R-CHIP
2007-007942	R521	R-CHIP
2007-008296	R523	R-CHIP
2007-008516	R413	R-CHIP
2007-008582	R117	R-CHIP
2007-009804	R509	R-CHIP
2203-000233	C117,C118,C141,C142,C413	C-CERAMIC,CHIP
2203-000254	C309	C-CERAMIC,CHIP
2203-000278	C105,C241,C242,C243,C244	C-CERAMIC,CHIP
2203-000311	C143	C-CERAMIC,CHIP
2203-000386	C114,C531,C532	C-CERAMIC,CHIP
2203-000438	C120,C132,C138,C139,C140,C203,C211	C-CERAMIC,CHIP
2203-000466	C104	C-CERAMIC,CHIP
2203-000550	C227,C228	C-CERAMIC,CHIP
2203-000585	C109,C503,C504	C-CERAMIC,CHIP
2203-000812	C107,C302,C303,C304,C305	C-CERAMIC,CHIP
2203-000854	C119,C125,C400	C-CERAMIC,CHIP
2203-000995	C233	C-CERAMIC,CHIP
2203-001153	C505,C506,C508,C535	C-CERAMIC,CHIP
2203-002443	C229	C-CERAMIC,CHIP
2203-002487	C214,C221	C-CERAMIC,CHIP
2203-002668	C230,L103	C-CERAMIC,CHIP
2203-005234	C108	C-CERAMIC,CHIP
2203-005382	C100,C135	C-CERAMIC,CHIP
2203-005480	C226	C-CERAMIC,CHIP
2203-005481	C205,C220	C-CERAMIC,CHIP
2203-005483	C507,C511	C-CERAMIC,CHIP
2203-005717	C500	C-CERAMIC,CHIP
2203-005736	C537	C-CERAMIC,CHIP
2203-005777	C131	C-CERAMIC,CHIP

SEC CODE	Design LOC	Description
2203-005993	C518,C525	C-CERAMIC,CHIP
2203-006048	C113,C200,C201,C202	C-CERAMIC,CHIP
2203-006048	C207,C210,C219,C222	C-CERAMIC,CHIP
2203-006048	,C224,C236,C317,C405	C-CERAMIC,CHIP
2203-006048	C406,C530	C-CERAMIC,CHIP
2203-006190	C204,C238	C-CERAMIC,CHIP
2203-006257	C111,C209,C215	C-CERAMIC,CHIP
2203-006260	C235,C237	C-CERAMIC,CHIP
2203-006324	C217,C218	C-CERAMIC,CHIP
2203-006399	C239,C516,C519,C521,C523	C-CERAMIC,CHIP
2203-006562	C206,C216,C223,C225	C-CERAMIC,CHIP
2203-006562	C404,C509,C510,C524,C529	C-CERAMIC,CHIP
2203-006668	C127,C128	C-CERAMIC,CHIP
2203-006681	C314	C-CERAMIC,CHIP
2203-006839	C316	C-CERAMIC,CHIP
2203-006841	C212	C-CERAMIC,CHIP
2203-006872	C110,C112,C116,C402,C403,C414	C-CERAMIC,CHIP
2203-006890	C514	C-CERAMIC,CHIP
2203-007269	C231	C-CERAMIC,CHIP
2203-007271	C126,C234,C401,C410	C-CERAMIC,CHIP
2203-007279	C103,C315,C407	C-CERAMIC,CHIP
2203-007317	C411	C-CERAMIC,CHIP
2203-007342	C408,C409	C-CERAMIC,CHIP
2203-007385	C240	C-CERAMIC,CHIP
2203-007693	C412	C-CERAMIC,CHIP
2203-007701	C208	C-CERAMIC,CHIP
2203-007753	C133	C-CERAMIC,CHIP
2203-007756	C134	C-CERAMIC,CHIP
2203-007760	C136	C-CERAMIC,CHIP
2203-007456	C419	C-CERAMIC,CHIP
2703-001181	L102	INDUCTOR-SMD
2703-001734	L114	INDUCTOR-SMD
2703-001747	L106	INDUCTOR-SMD
2703-002176	L126,L127	INDUCTOR-SMD
2703-002198	L105,L108	INDUCTOR-SMD
2703-002208	L110,L111,L125	INDUCTOR-SMD


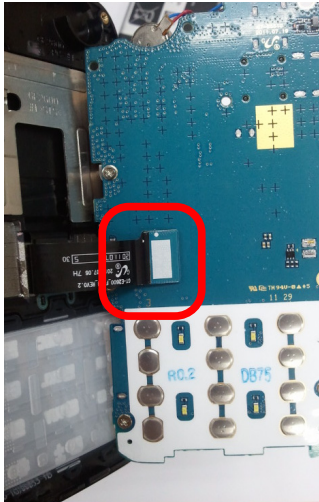
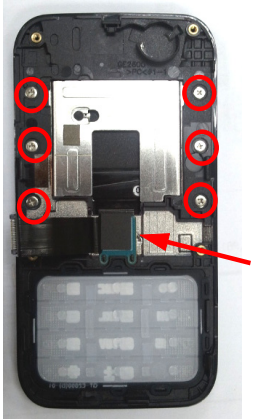
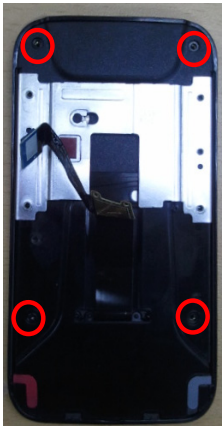
SEC CODE	Design LOC	Description
2703-002308	L119	INDUCTOR-SMD
2703-002365	L113,L118	INDUCTOR-SMD
2703-002369	L112	INDUCTOR-SMD
2703-002907	L124	INDUCTOR-SMD
2703-003476	L122,L123	INDUCTOR-SMD
2703-003869	L201	INDUCTOR-SMD
2703-004197	L505	INDUCTOR-SMD
3301-001885	L500,L501,L502,L503,L504,L506,L508	INDUCTOR-SMD
3301-001917	L509,L510	INDUCTOR-SMD
3301-002000	L200	INDUCTOR-SMD
3301-002070	L507	INDUCTOR-SMD
2801-004909	OSC200	Crystal Unit
2801-004931	OSC201	Crystal Unit
2901-001422	F403,F404	Filter-EMI
2901-001435	F400,F401,F402	Filter-EMI
2904-001987	F100	Filter-SAW
2909-001337	F102	Filter-SAW
3003-001136	MIC500	Microphone Unit
3301-001342	F200	Filter-SAW
3705-001731	RFS100	Connector-Coaxial
3709-001570	CD301	Connector-Card Edge
3709-001645	SIM300	Connector-Card Edge
3711-005581	HEA400	HEADER-BOARD TO BOARD
3711-007071	CN400	HEADER-BOARD TO BOARD
3711-007393	BTC300	HEADER-BATTERY
3722-003115	IFC400	Connector-USB
GH62-00019A	CON100	GASKET
3722-003388	EAR500	EARJACK

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

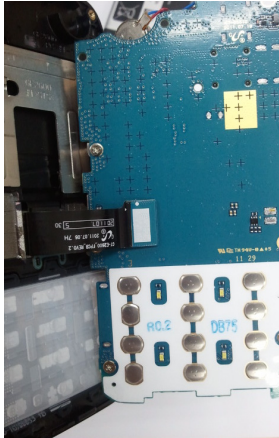

<div data-bbox="175 338 196 365" data-label="Text">1</div> <div data-bbox="269 352 646 394" data-label="Text">Unscrew REAR.</div> <div data-bbox="321 436 573 919" data-label="Image"></div>	<div data-bbox="829 338 850 365" data-label="Text">2</div> <div data-bbox="919 352 1442 394" data-label="Text">Disassemble PBA</div> <div data-bbox="967 432 1284 930" data-label="Image"></div>
<div data-bbox="159 972 565 1052" data-label="Text"><p>1. Unscrew 4 points. (Size: M1.4*L3.5) → REAR SCREW (Torque: 1.2+ 0 kgf.cm/ -0.1kgf.cm)</p></div>	<div data-bbox="812 978 1117 1041" data-label="Text"><p>1. Turn over the PBA 2. Take off LCD connector.</p></div>
<div data-bbox="175 1066 196 1094" data-label="Text">3</div> <div data-bbox="269 1073 760 1115" data-label="Text">Detach Slide FPCB & Unscrew FRONT</div> <div data-bbox="321 1203 573 1619" data-label="Image"></div>	<div data-bbox="829 1066 850 1094" data-label="Text">4</div> <div data-bbox="919 1073 1442 1115" data-label="Text">Unscrew LOWER</div> <div data-bbox="1032 1230 1252 1654" data-label="Image"></div>
<div data-bbox="159 1724 591 1856" data-label="Text"><p>1. Detach Slide FPCB using a tweezer. 2. Unscrew 6 points. (Size: M1.4*L1.3) (Torque: 1.2+ 0 kgf.cm/-0.1kgf.cm)</p></div>	<div data-bbox="812 1759 1409 1822" data-label="Text"><p>1. Unscrew 4 points. (Size: M1.4*L2.5) (Torque: 1.2 + 0 kgf.cm/-0.1kgf.cm)</p></div>

<div data-bbox="175 237 199 268" data-label="Text"><p>5</p></div> <div data-bbox="248 247 776 300" data-label="Text"><p>Detach SUB PBA TAPE</p></div> <div data-bbox="191 415 719 846" data-label="Image"></div> <div data-bbox="151 940 467 972" data-label="List-Group"><ol style="list-style-type: none">1. Detach SUB PBA Tape.</div>	<div data-bbox="833 237 857 268" data-label="Text"><p>6</p></div> <div data-bbox="906 247 1433 342" data-label="Text"><p>Disassemble SUB PBA, RCV and SLIDE FPCB</p></div> <div data-bbox="930 394 1377 846" data-label="Image"></div> <div data-bbox="816 898 1157 1014" data-label="List-Group"><ol style="list-style-type: none">1. Disassemble SLIDE FPCB.2. Disassemble RCV.3. Disassemble SUB PBA.</div>
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7-1. Disassembly and Assembly Instructions

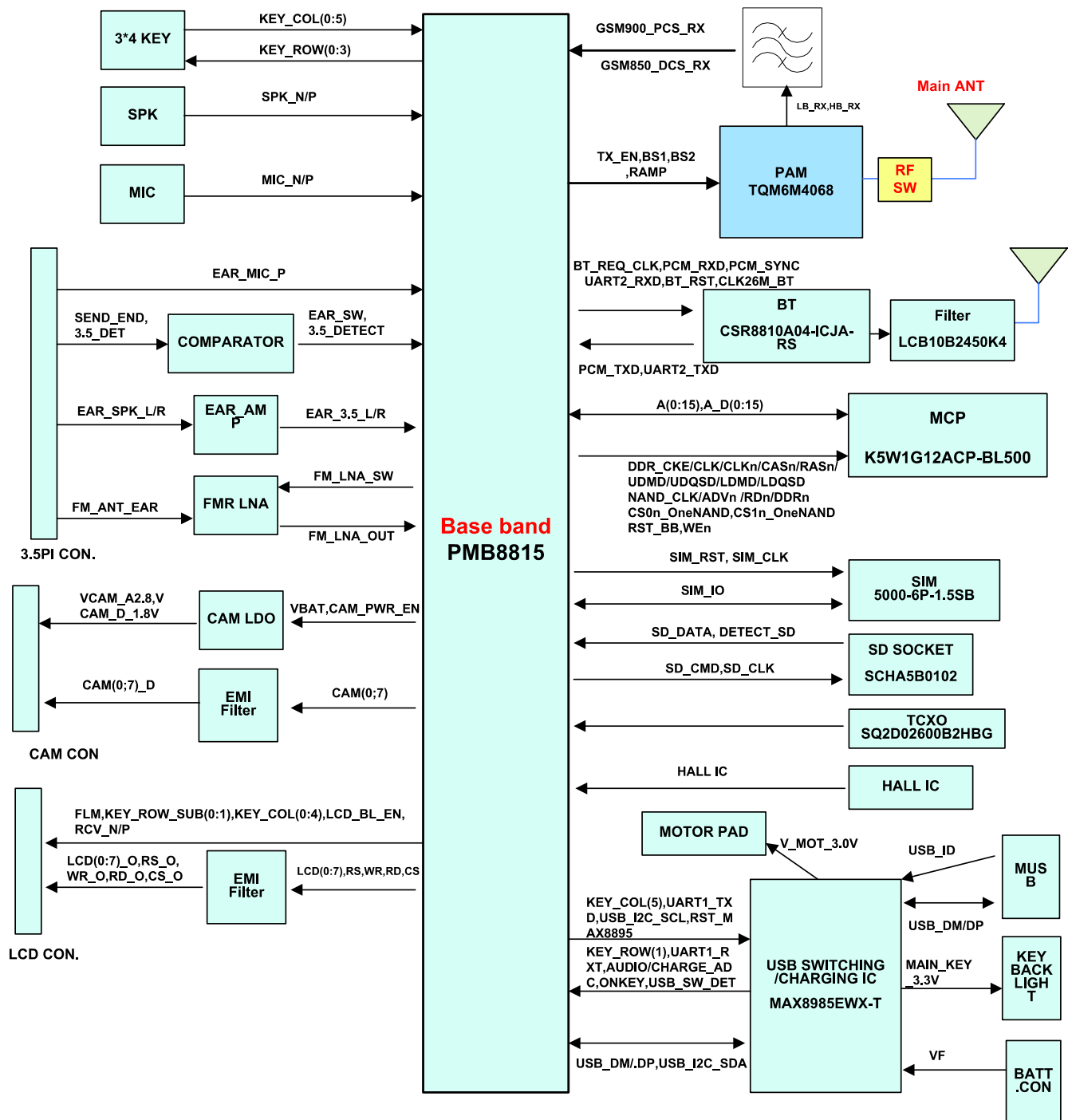
7-1-2. Assembly

<div data-bbox="175 340 198 369" data-label="Text">1</div> <div data-bbox="266 352 727 403" data-label="Text">Assemble LCD module & SUB PBA</div> <div data-bbox="347 470 607 911" data-label="Image"> </div>	<div data-bbox="824 340 847 369" data-label="Text">2</div> <div data-bbox="915 352 1448 403" data-label="Text">Assemble SLIDE FPCB and RCV</div> <div data-bbox="1013 436 1273 890" data-label="Image"> </div>
<div data-bbox="152 932 802 1062" data-label="List-Group"> <ol style="list-style-type: none"> 1. Close LCD Module FPCB connector after assembling with SUB PBA. 2. Assemble LCD module & SUB PBA. with UPPER. - Becareful FPCB damage </div>	<div data-bbox="802 932 1468 1062" data-label="List-Group"> <ol style="list-style-type: none"> 1. Close SILDE FPCB connector after assembling on SUB PBA. 2. Close RCV connector after assembling on SUB PBA. - Becareful FPCB damage </div>
<div data-bbox="175 1071 198 1100" data-label="Text">3</div> <div data-bbox="266 1083 708 1134" data-label="Text">Assemble Lower & Screw</div> <div data-bbox="181 1247 721 1667" data-label="Image"> </div>	<div data-bbox="824 1071 847 1100" data-label="Text">4</div> <div data-bbox="915 1083 1435 1134" data-label="Text">Assemble FRONT & KEY PAD</div> <div data-bbox="1006 1255 1256 1667" data-label="Image"> </div>
<div data-bbox="152 1789 802 1875" data-label="List-Group"> <ol style="list-style-type: none"> 1. Screw 4 Points. </div>	<div data-bbox="802 1734 1468 1875" data-label="List-Group"> <ol style="list-style-type: none"> 1. Detach a white tape & attach SLIDE FPCB. => Follow red arrow direction. 2. Screw 6 points. 3. Assemble KEY PAD </div>

<div data-bbox="175 237 196 264" data-label="Text"><p>5</p></div> <div data-bbox="248 247 423 279" data-label="Section-Header"><p>Assemble PBA</p></div> <div data-bbox="303 417 579 852" data-label="Image">A close-up photograph showing the assembly of the PBA (Printed Board Assembly). A blue printed circuit board (PCB) is being inserted into a white plastic housing. The PCB has various electronic components and a yellow label. The white housing has several circular openings for screws.</div> <div data-bbox="151 936 363 968" data-label="List-Group"><ol style="list-style-type: none">1. Assemble PBA.</div>	<div data-bbox="833 237 854 264" data-label="Text"><p>6</p></div> <div data-bbox="917 247 1105 279" data-label="Section-Header"><p>Assemble REAR</p></div> <div data-bbox="971 338 1263 842" data-label="Image">A photograph of the back of a black Samsung smartphone. The phone is shown with its rear cover removed, revealing the internal components, including the battery, camera, and various connectors. Four red circles are drawn around the screw holes on the rear cover, indicating the locations for the screws.</div> <div data-bbox="805 921 1036 984" data-label="List-Group"><ol style="list-style-type: none">1. Assemble REAR2. Screw 4 points.</div>
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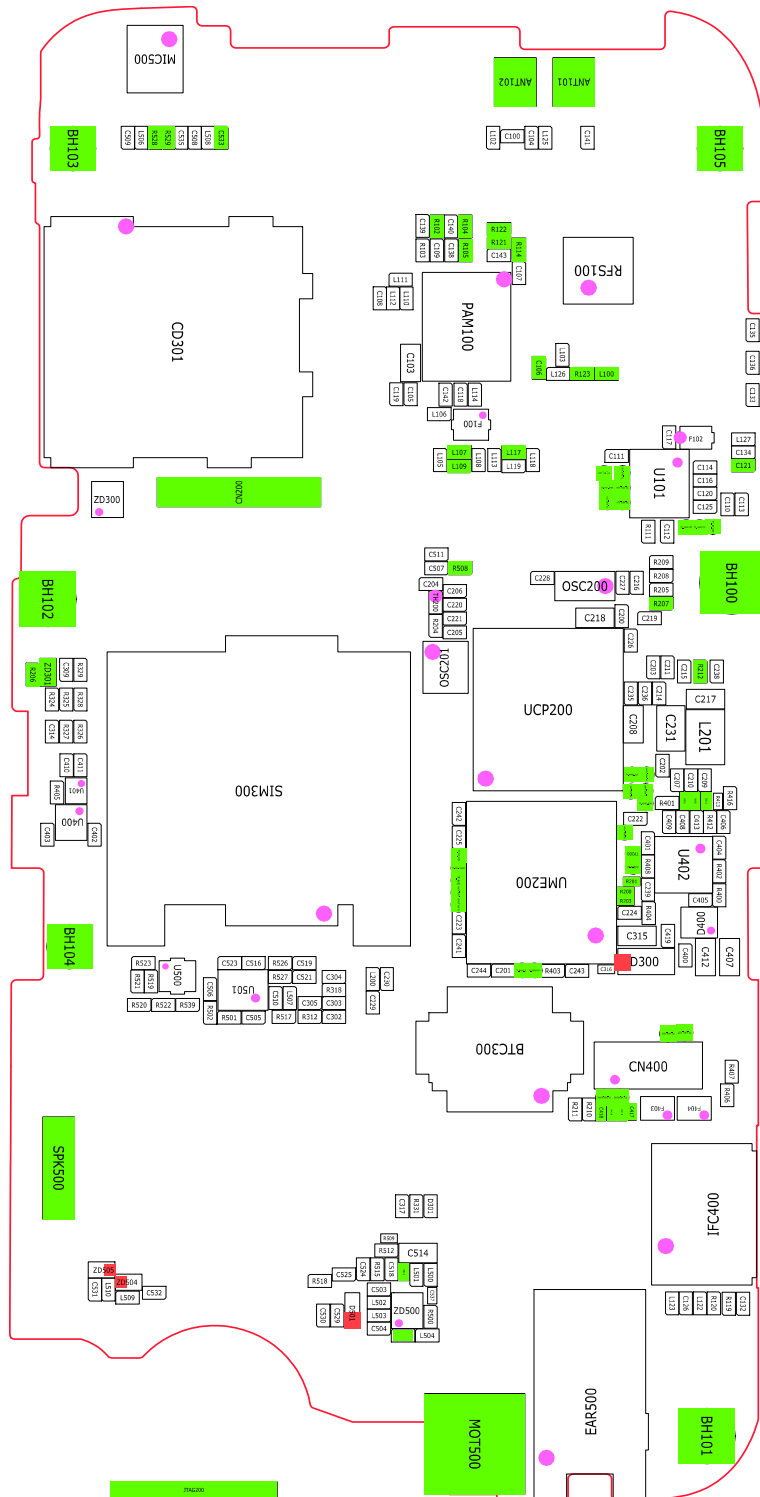
8. Level 3 Repair

8-1. Block Diagram

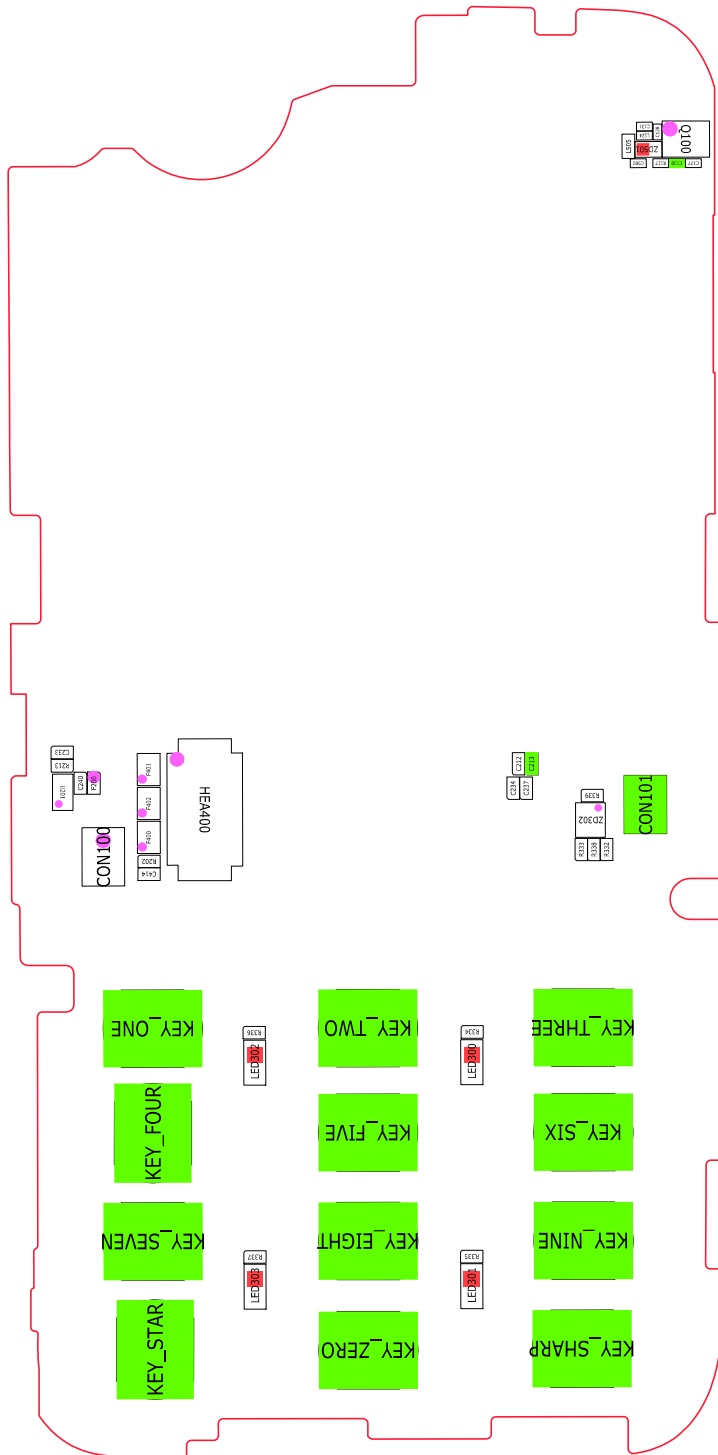


8-2. PCB Diagrams

8-2-1. Top

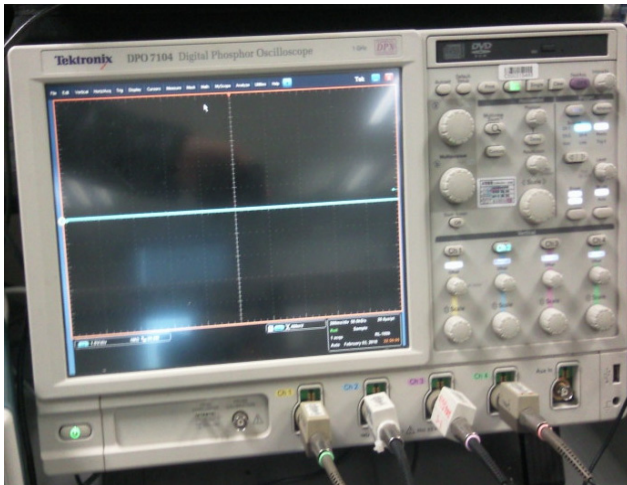


8-2-2. Bottom



8-3. Flow Chart of Troubleshooting

Equipments



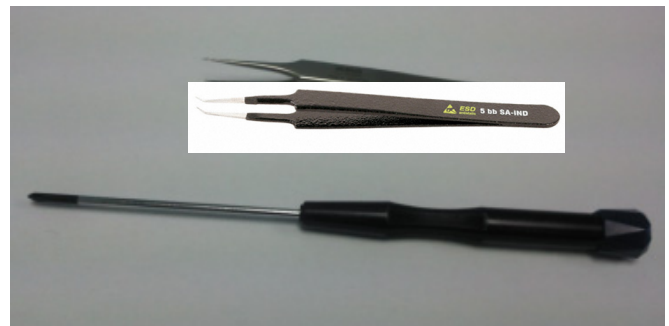
↗ Oscilloscope



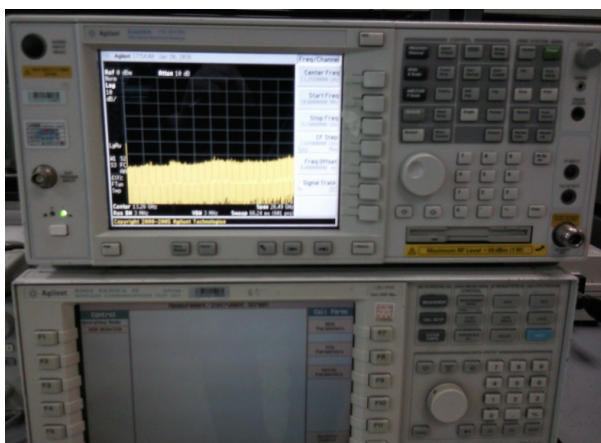
↗ Digital Multimeter



↗ Power Supply



↗ + driver, ESD Safe Tweezer

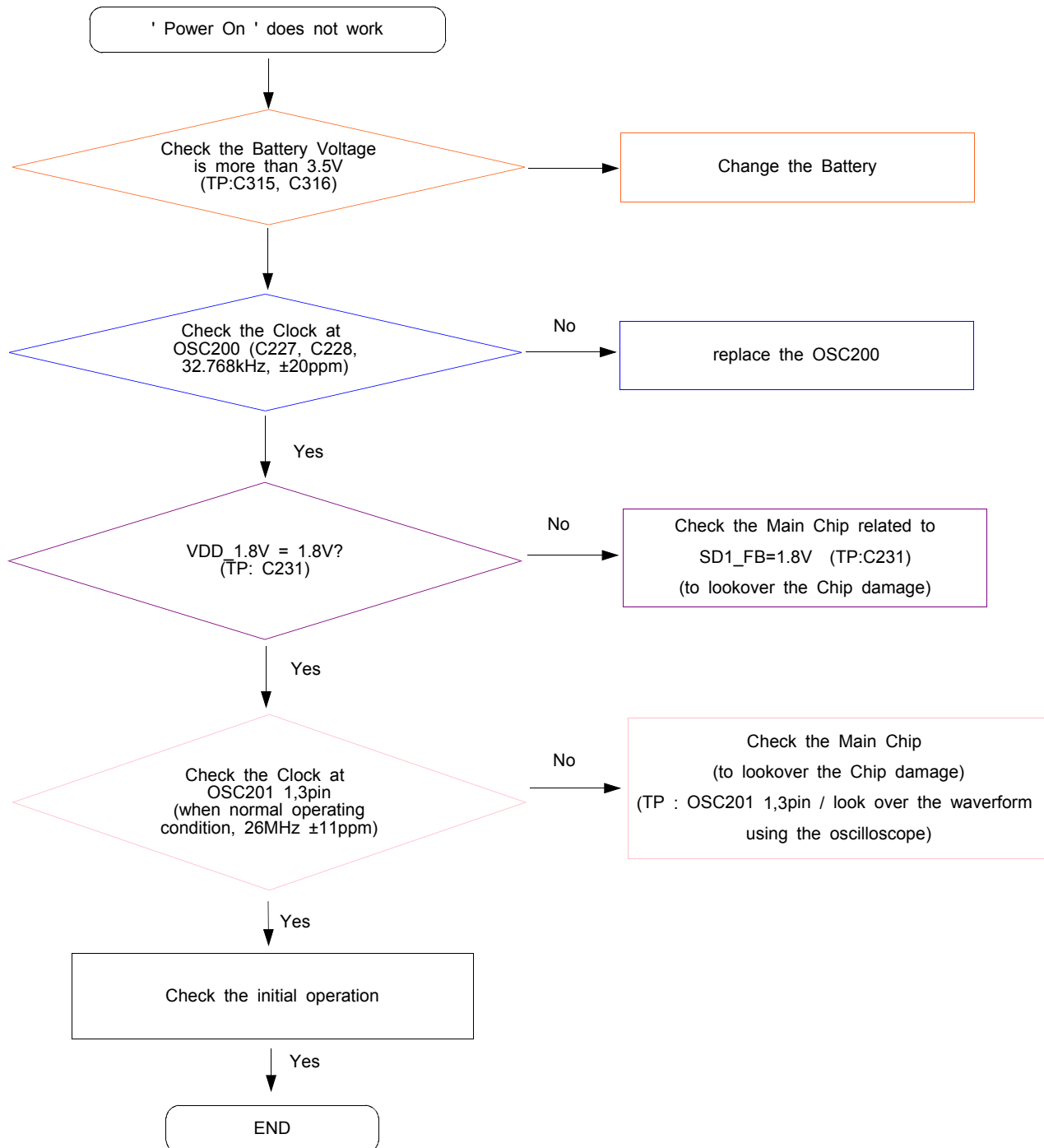


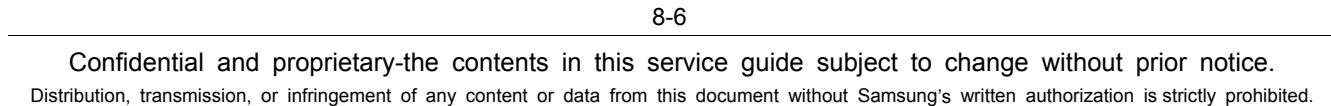
↑ 8960 & Spectrum Analyzer



↗ Soldering iron

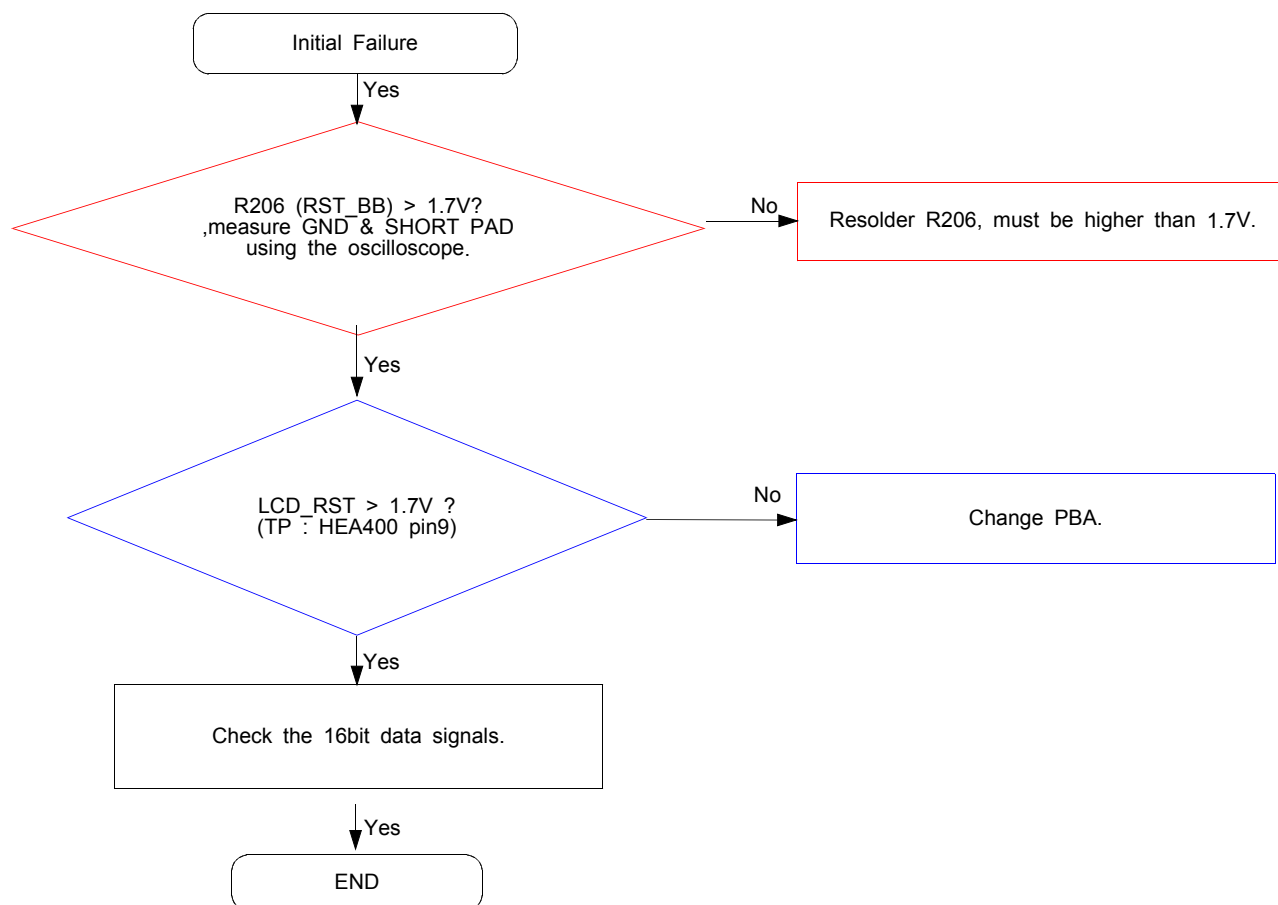
8-3-1. Power On

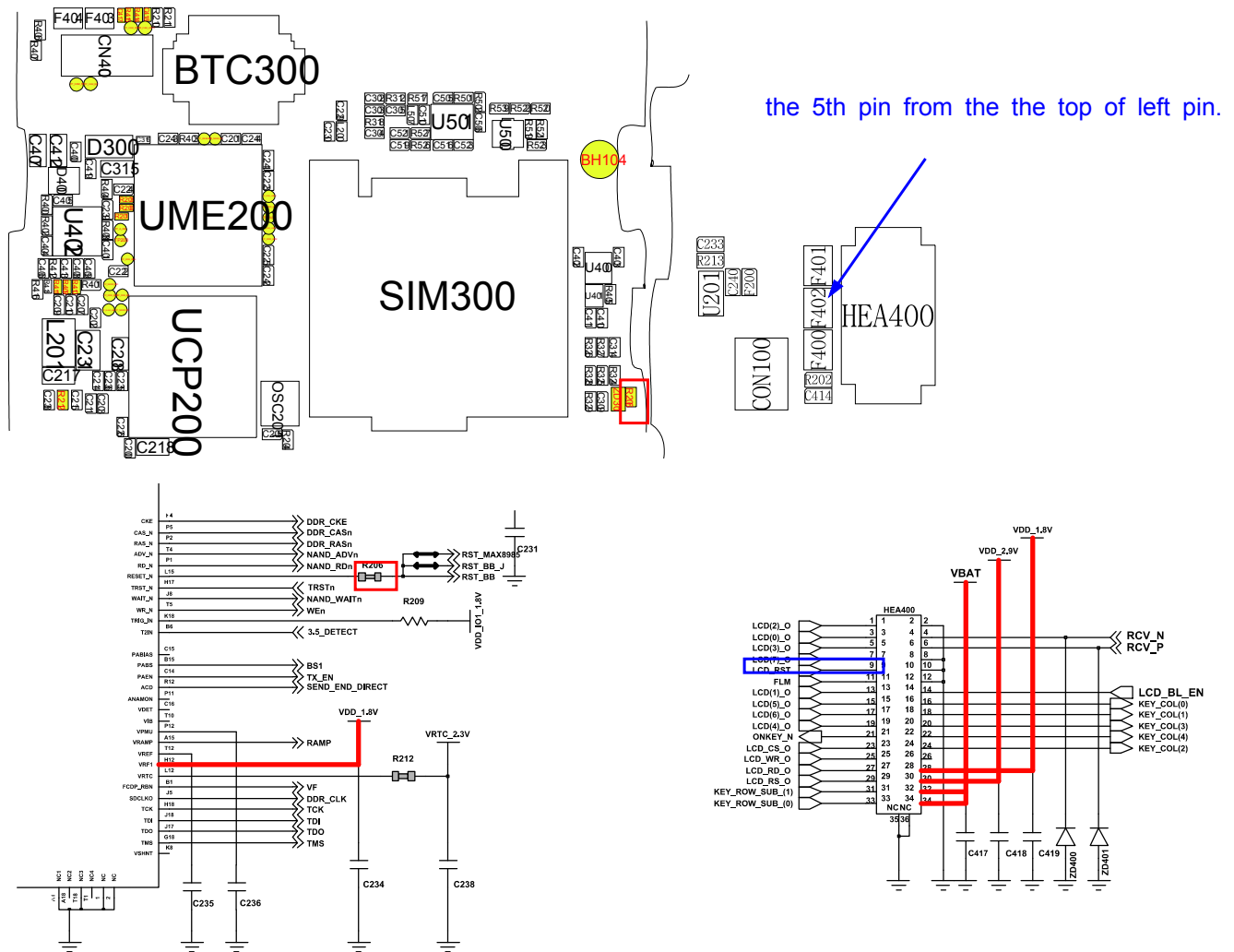




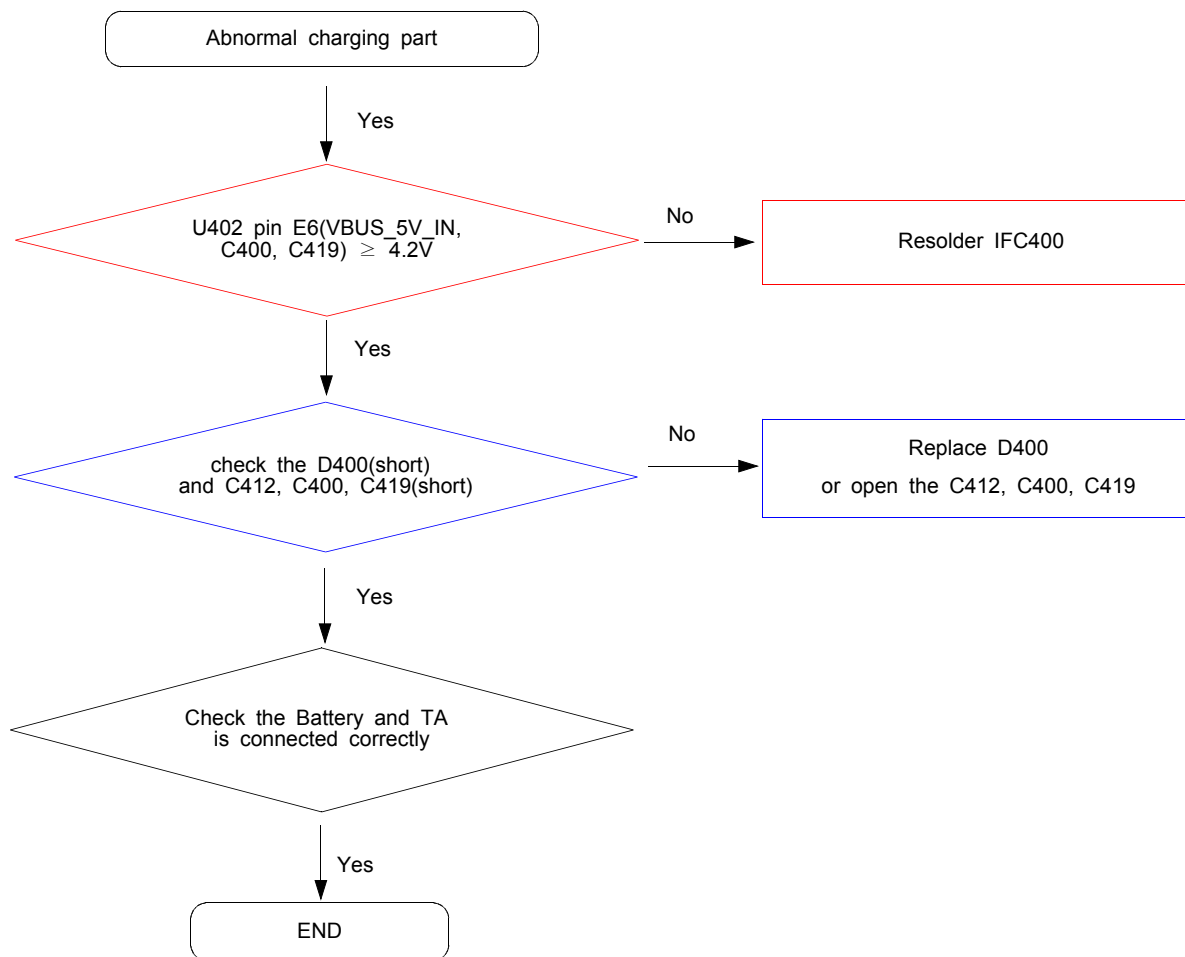


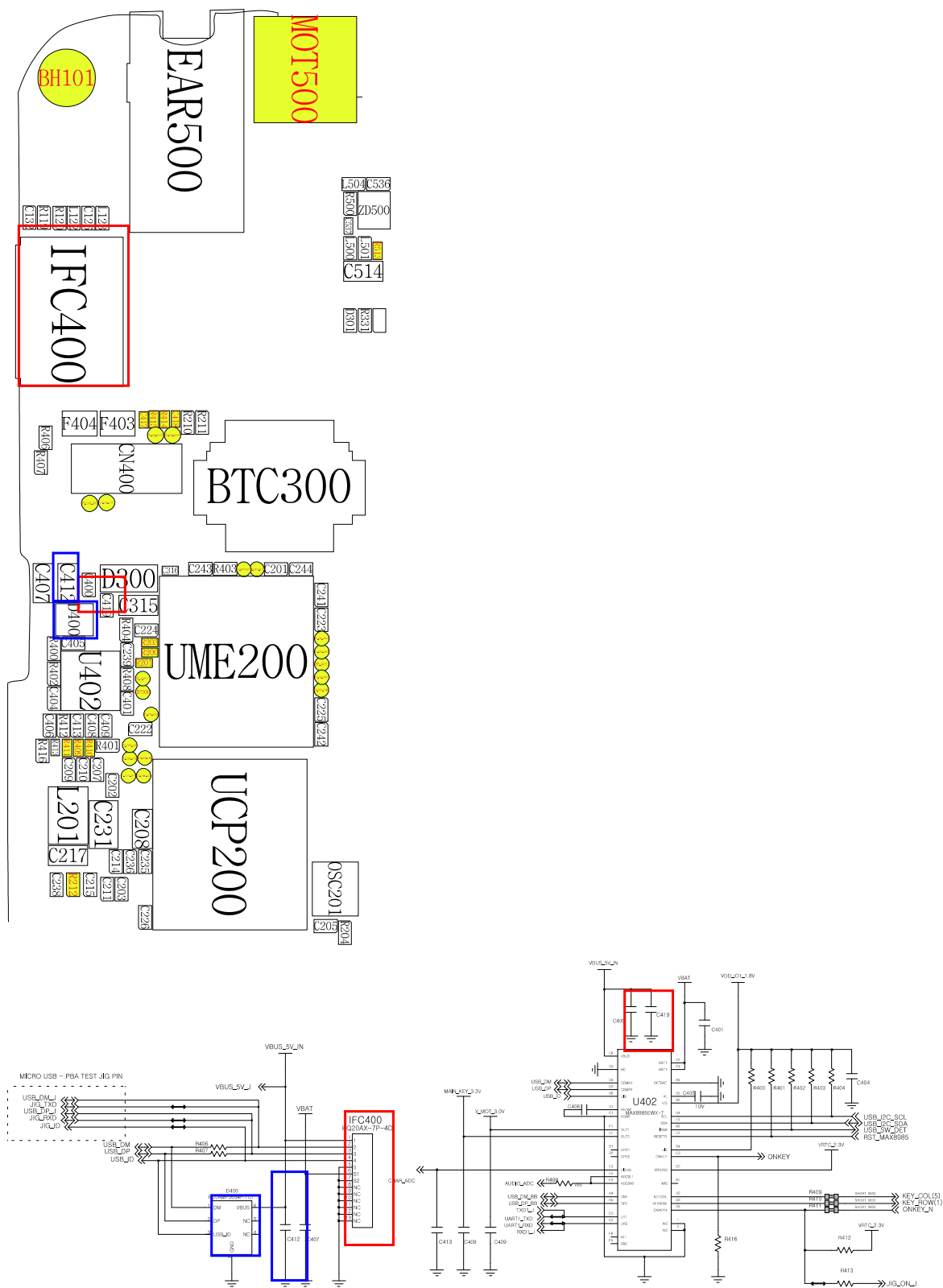
8-3-2. Initial



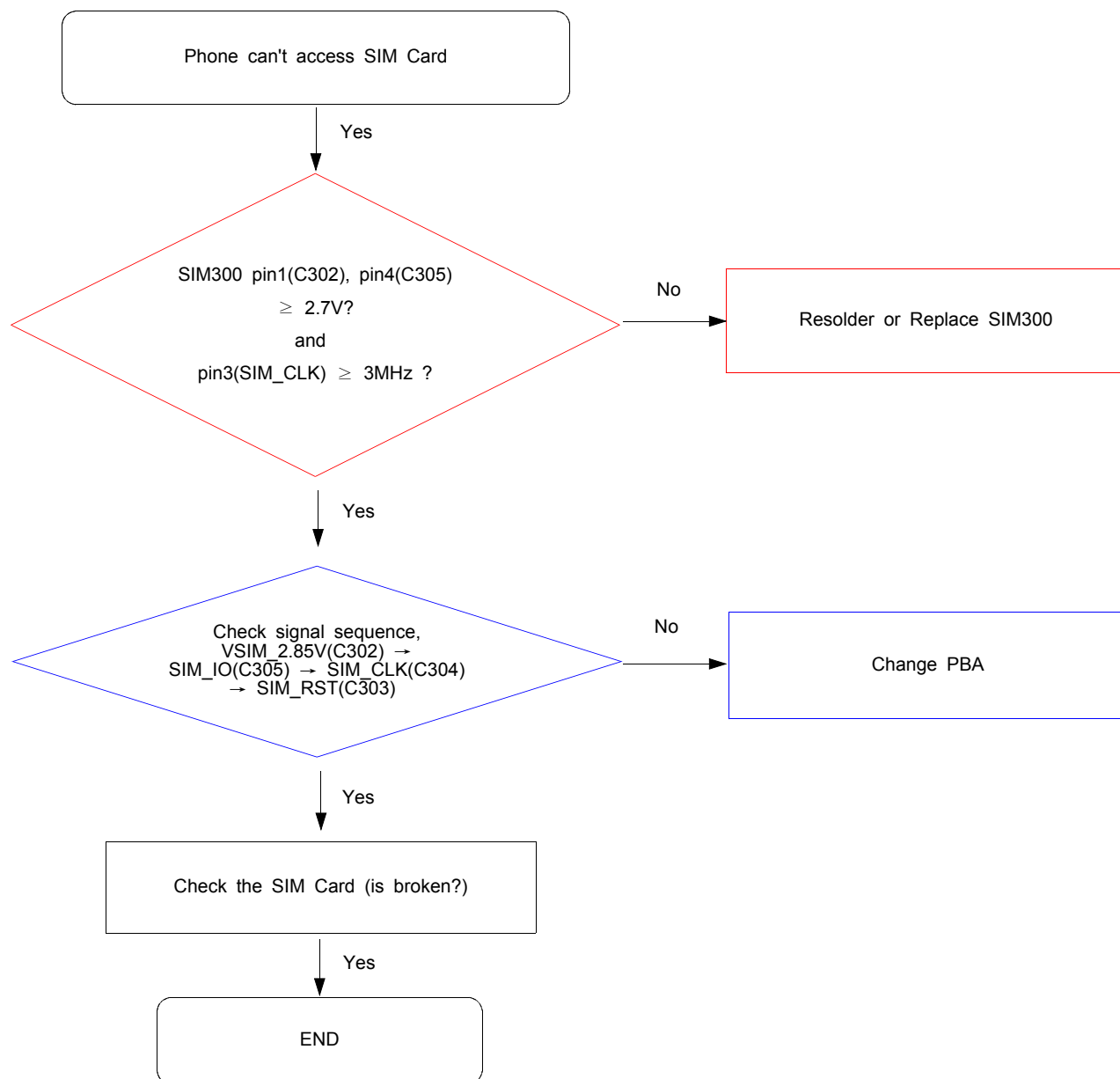


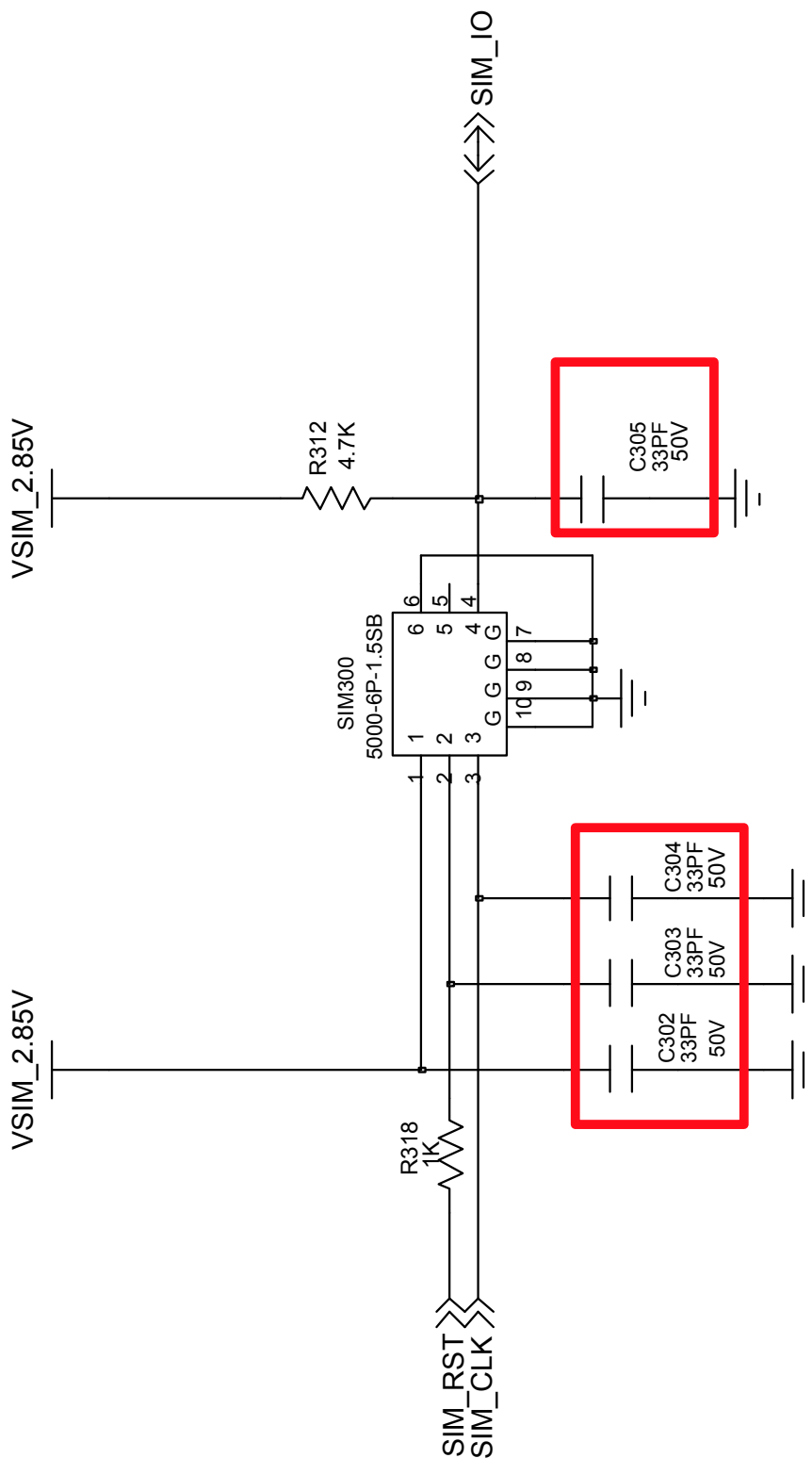
8-3-3. Charging Part

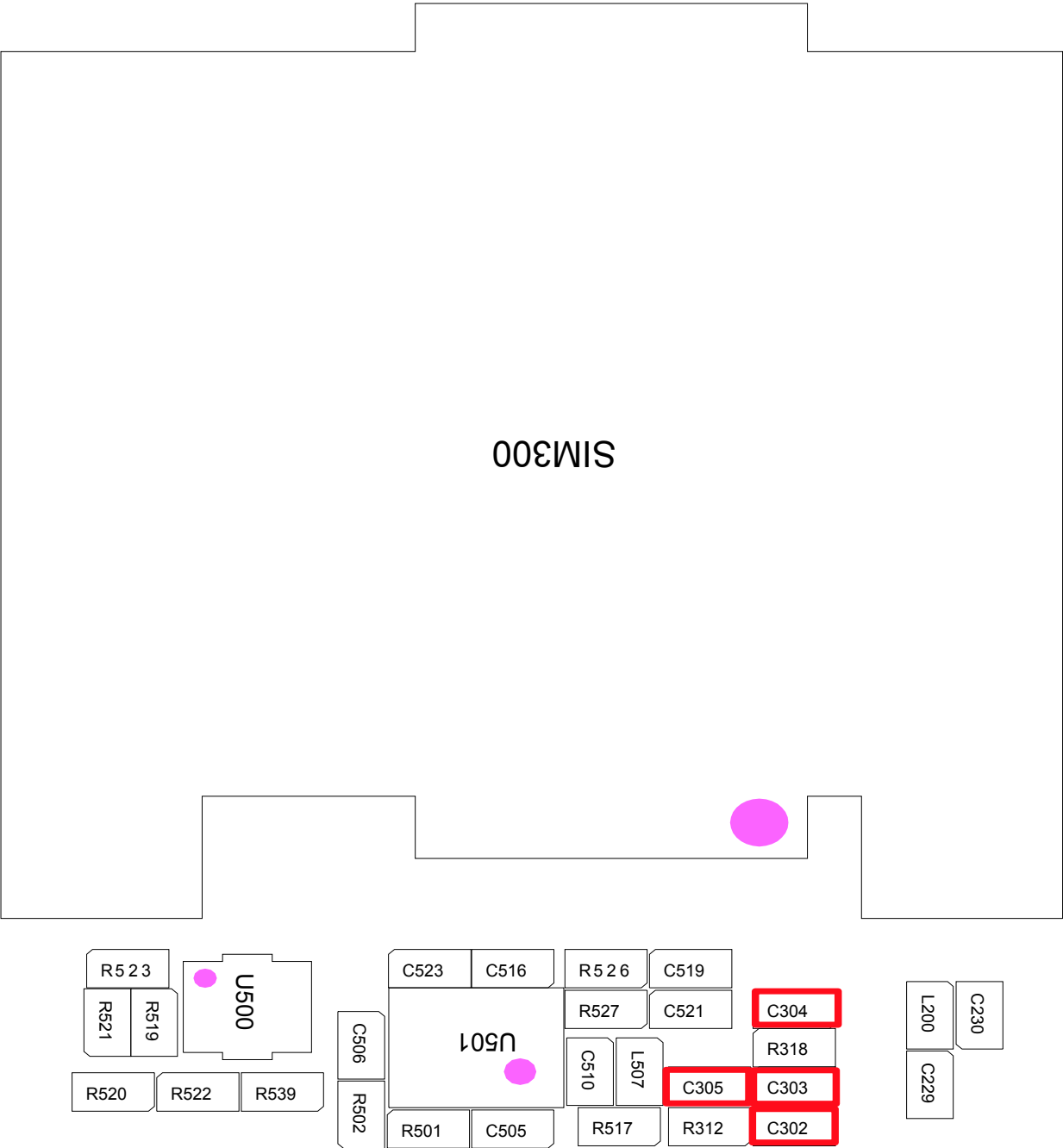




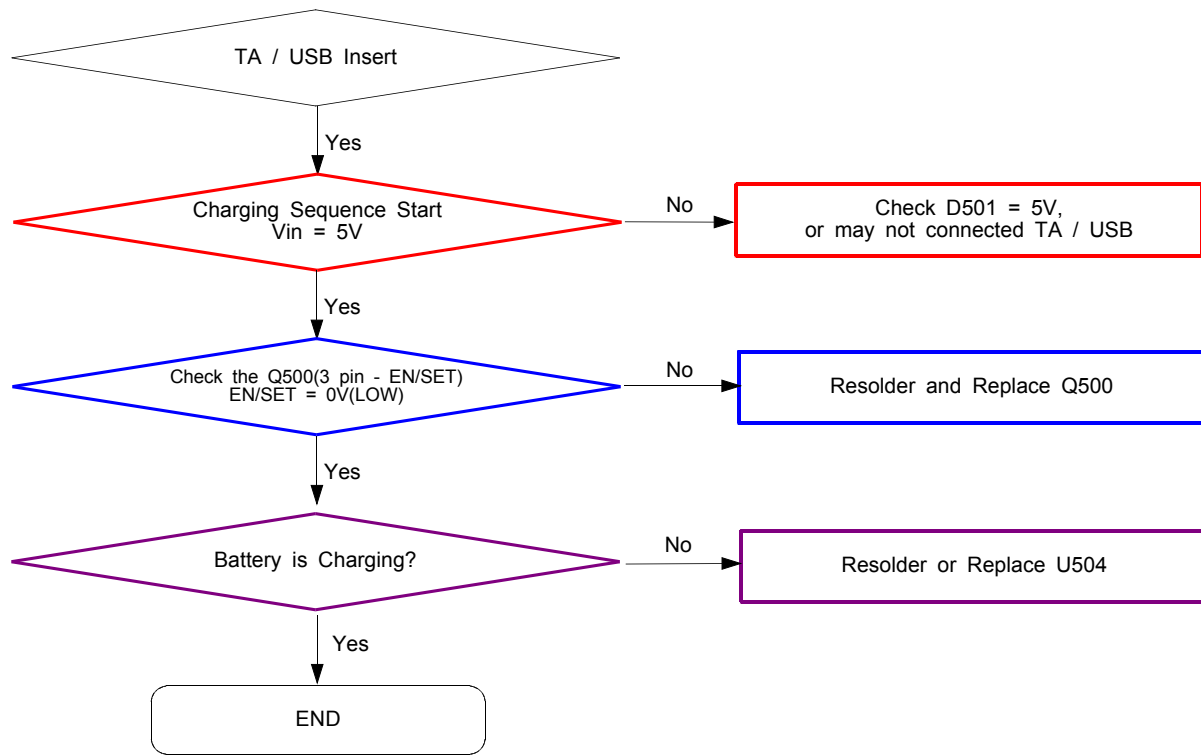
8-3-4. Sim Part

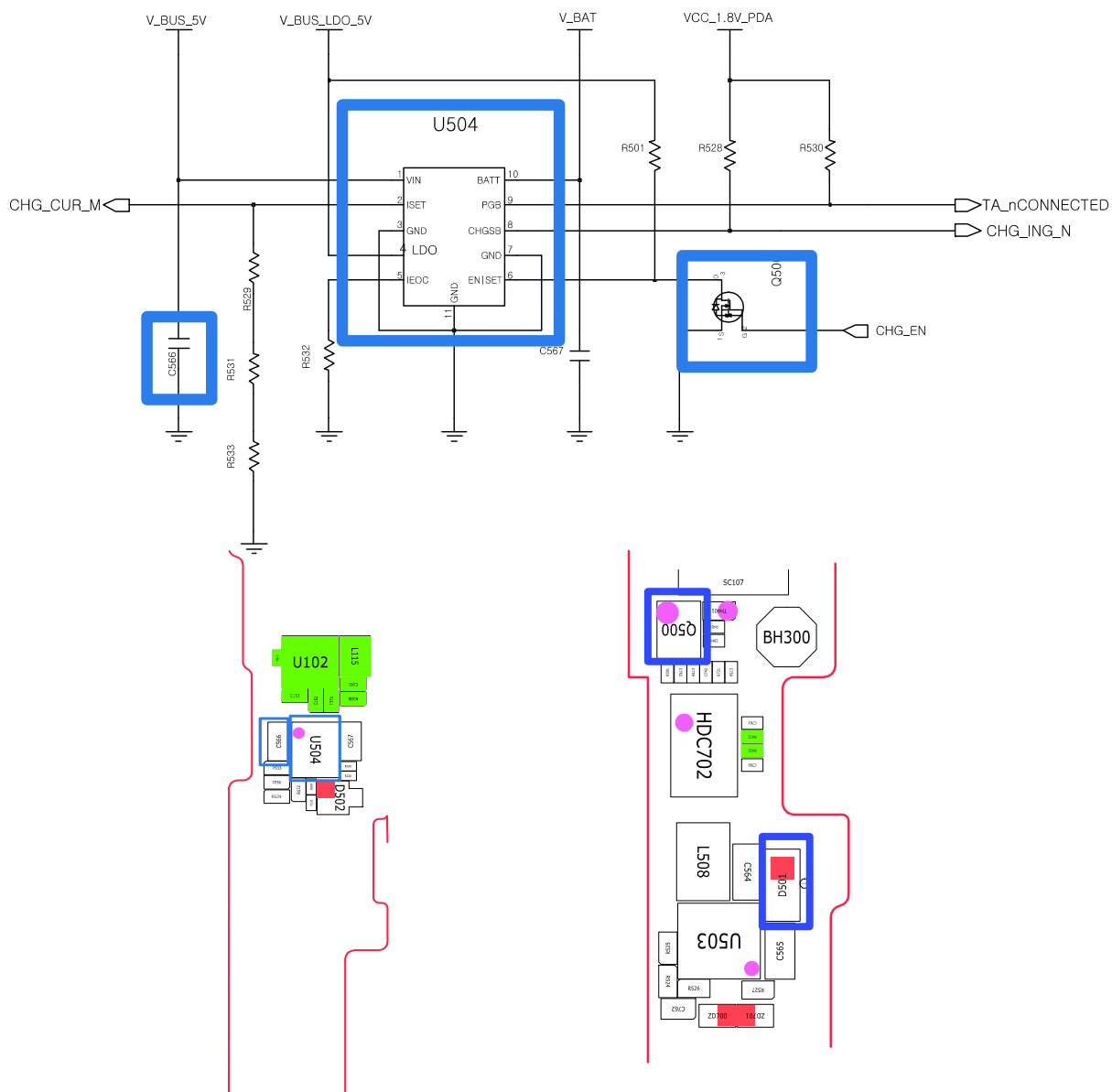




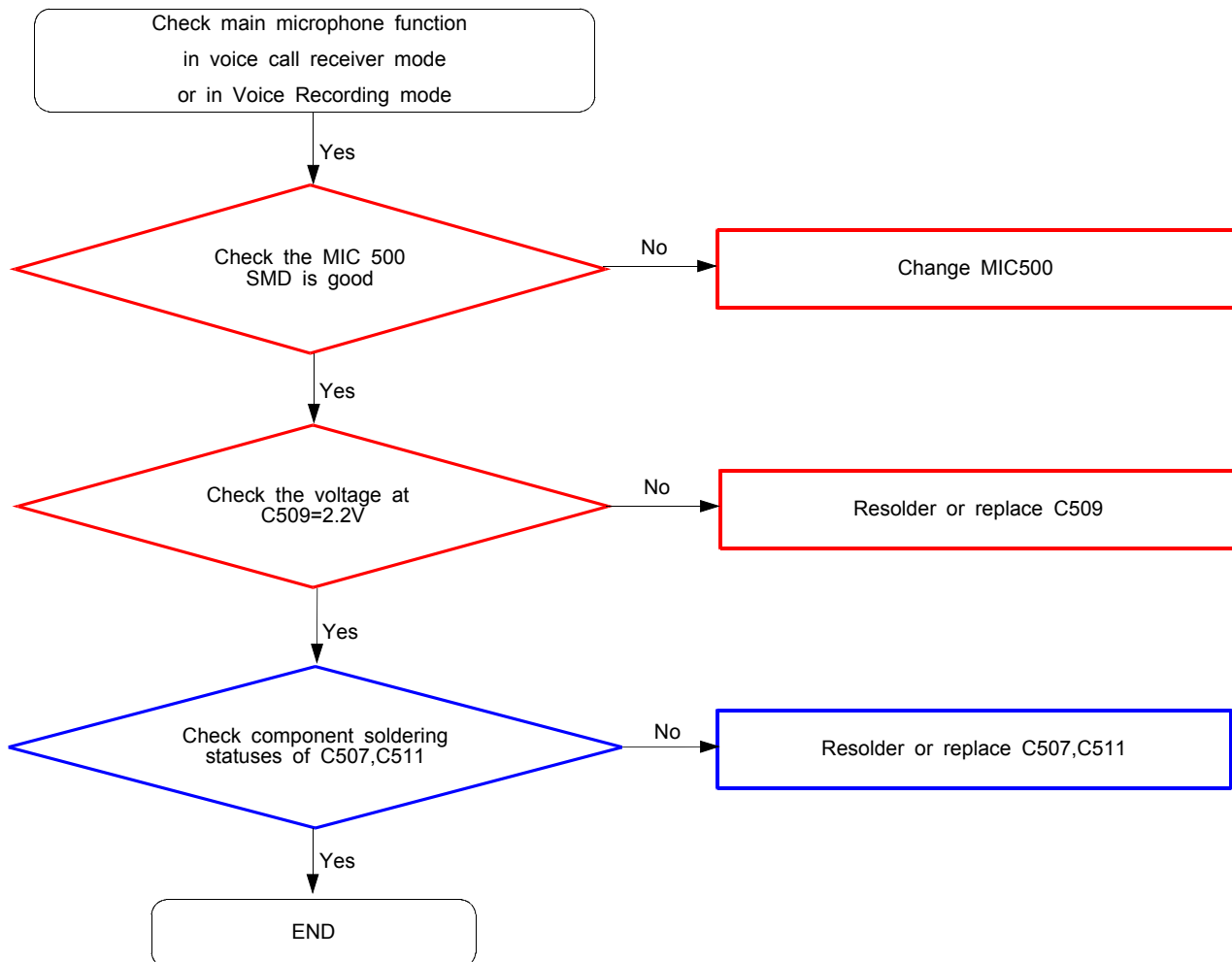


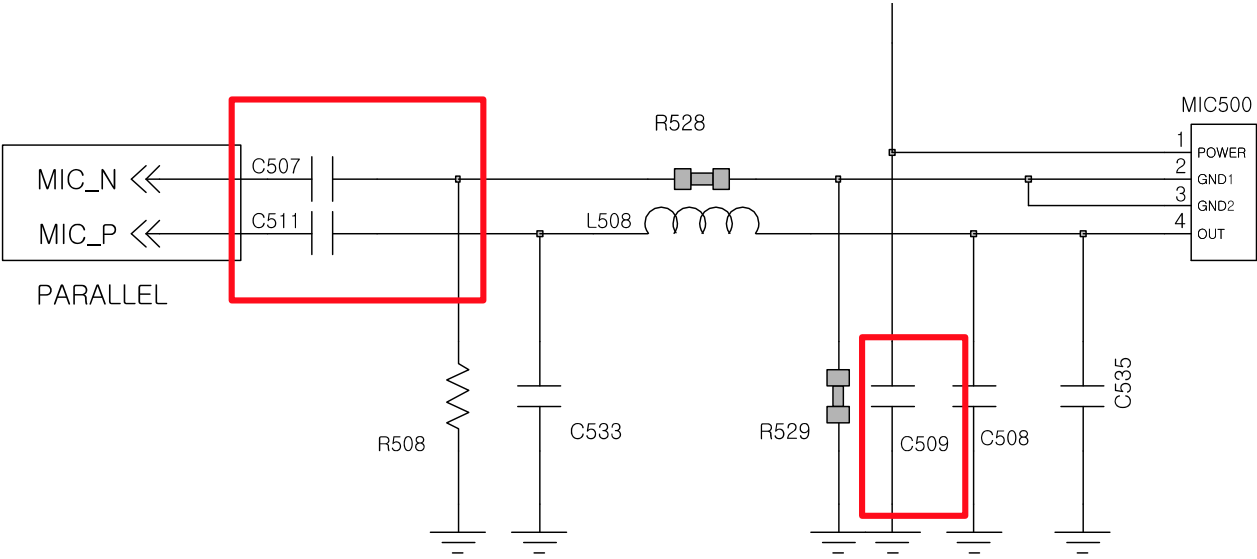
8-3-5. Charging Part



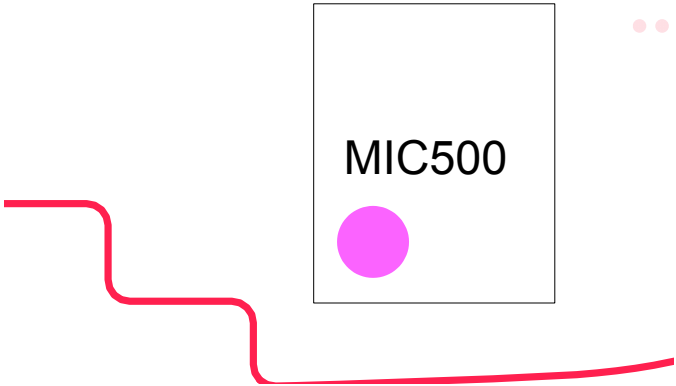


8-3-6. Microphone Part (Main MIC)

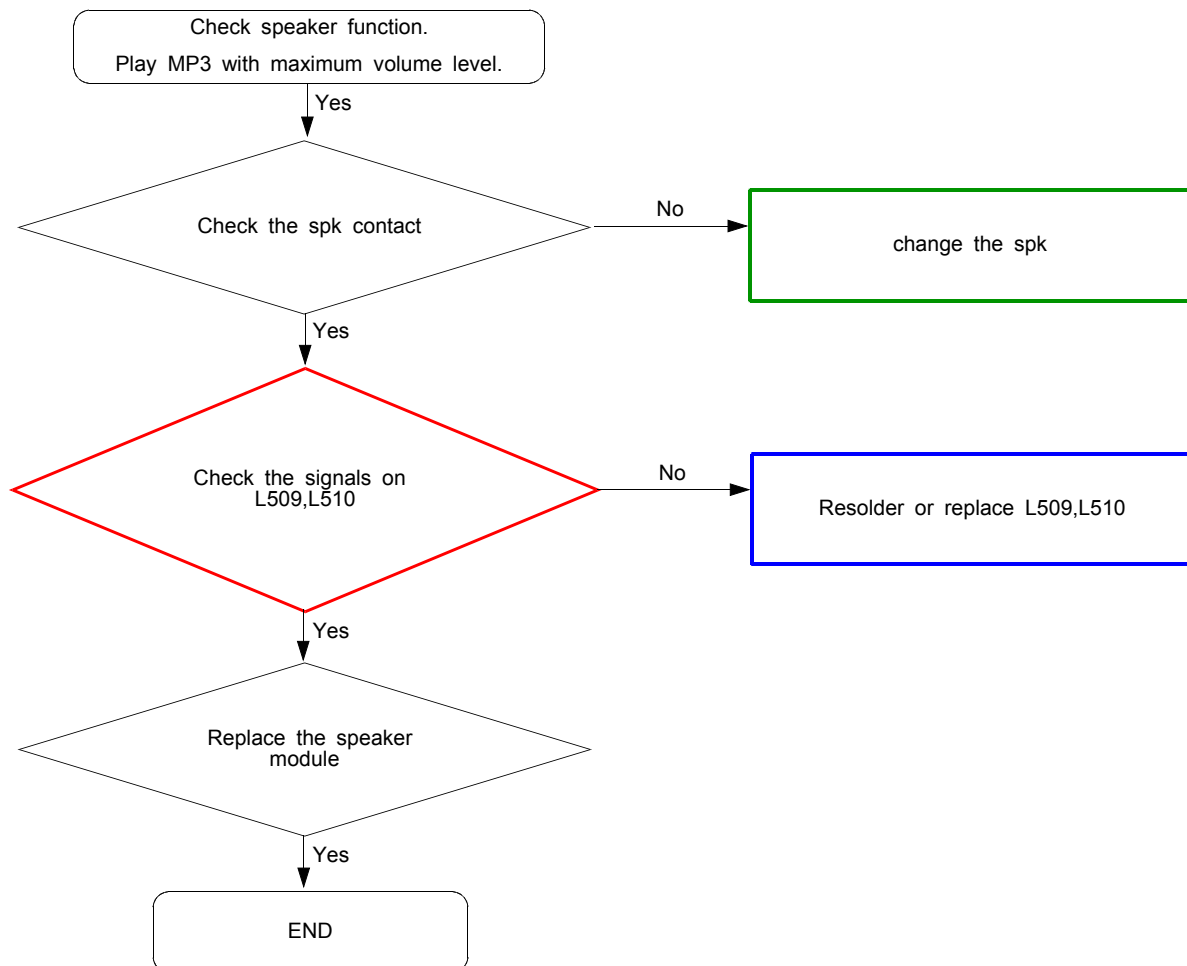


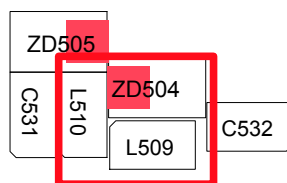
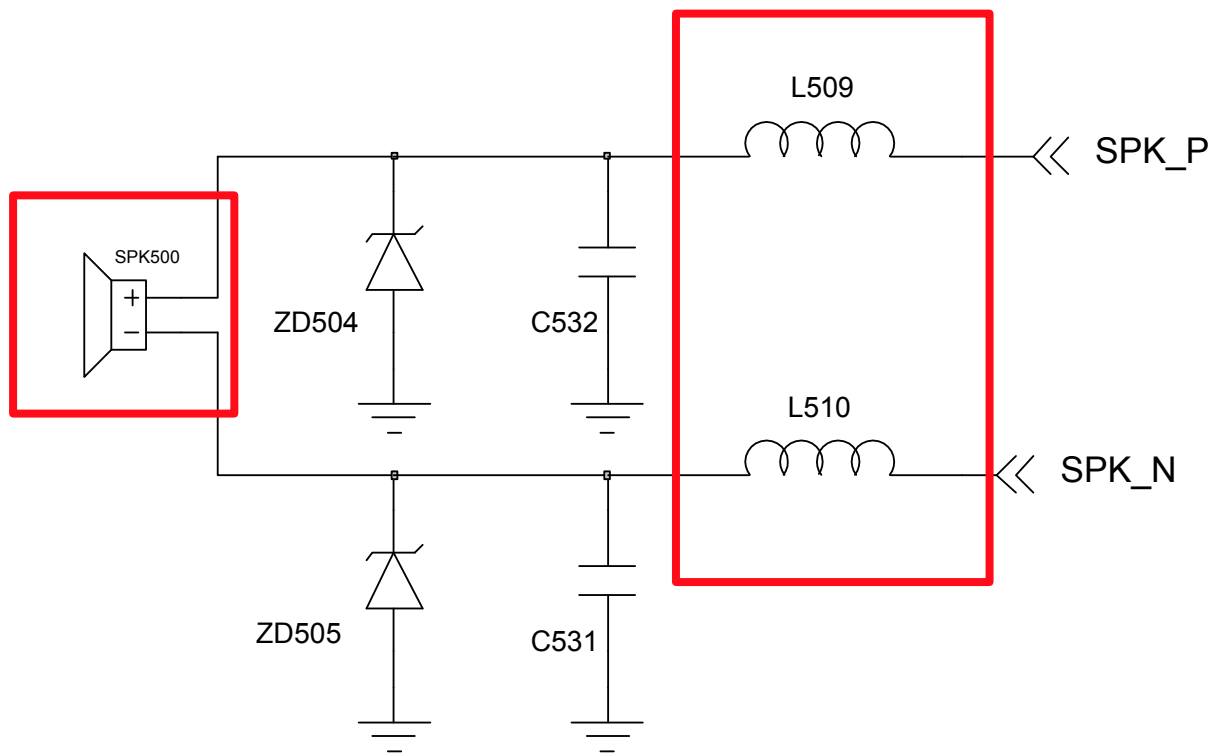


C533	L508	C508	C535	R529	R528	L506	C509
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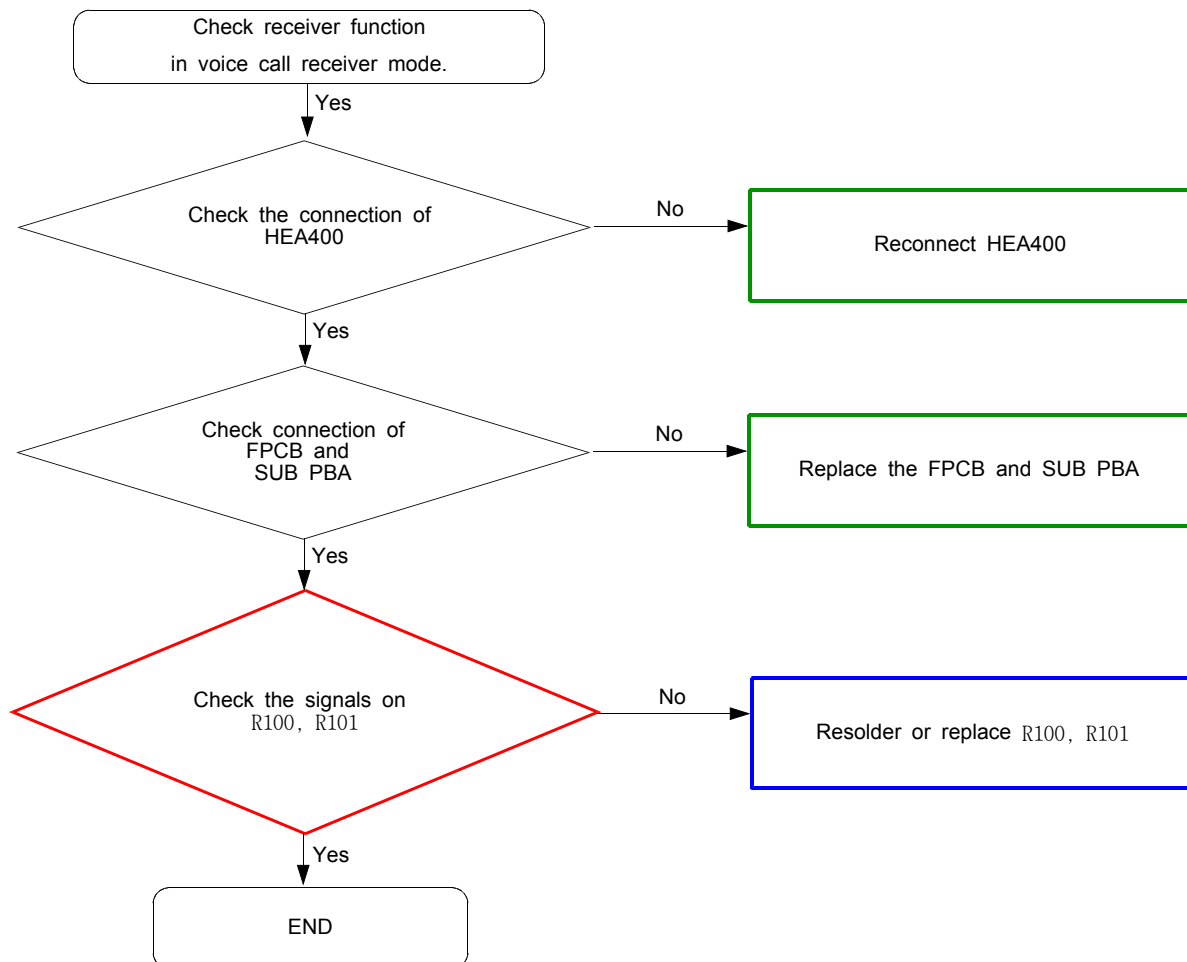


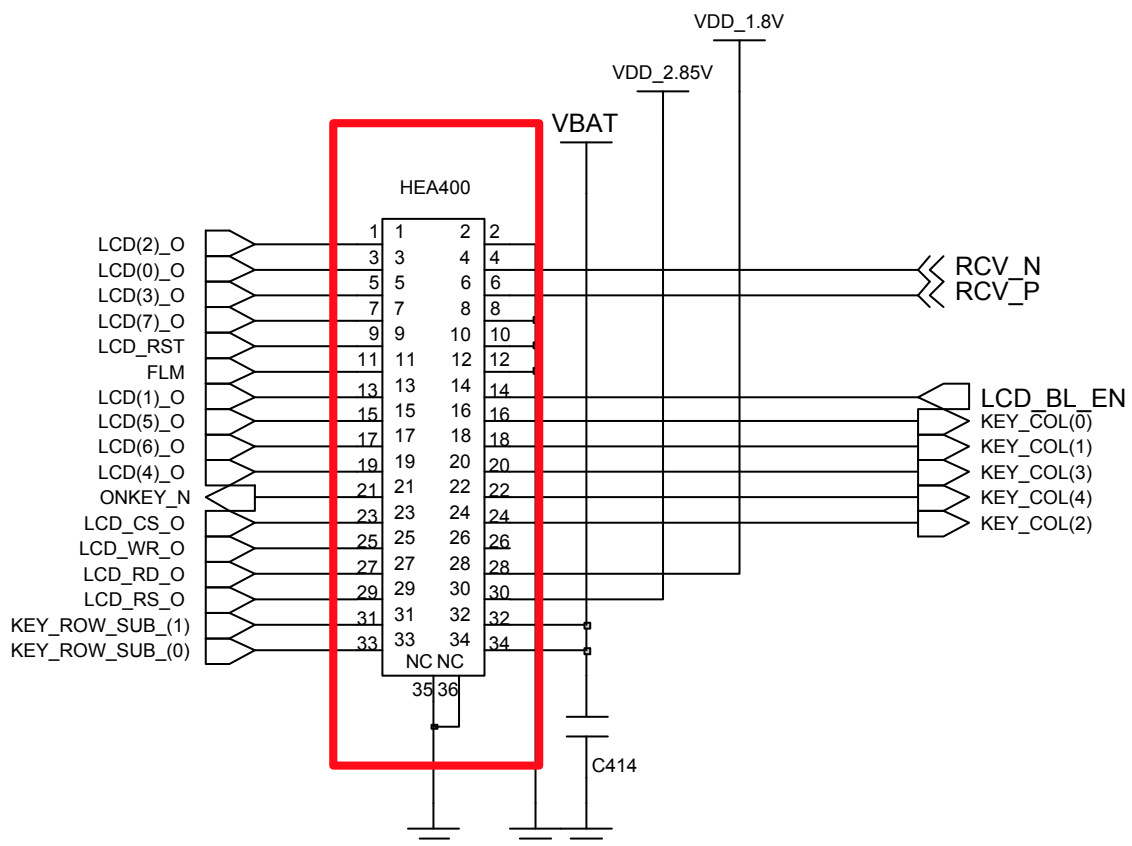
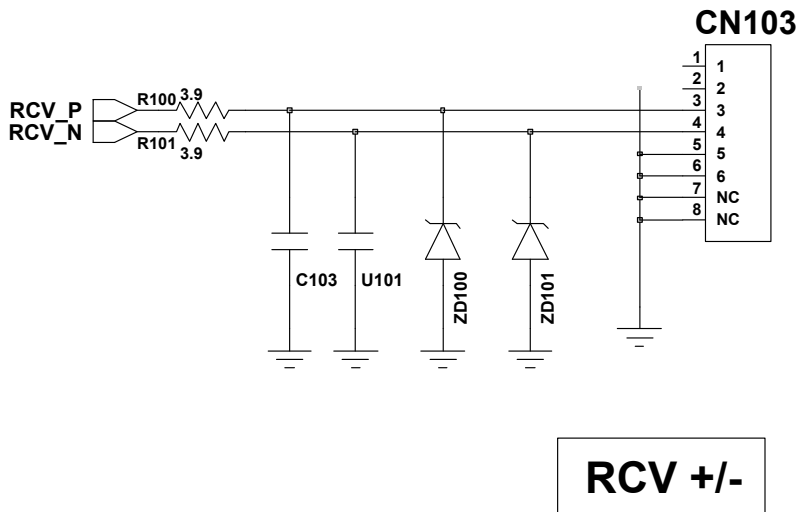
8-3-7. Speaker Part

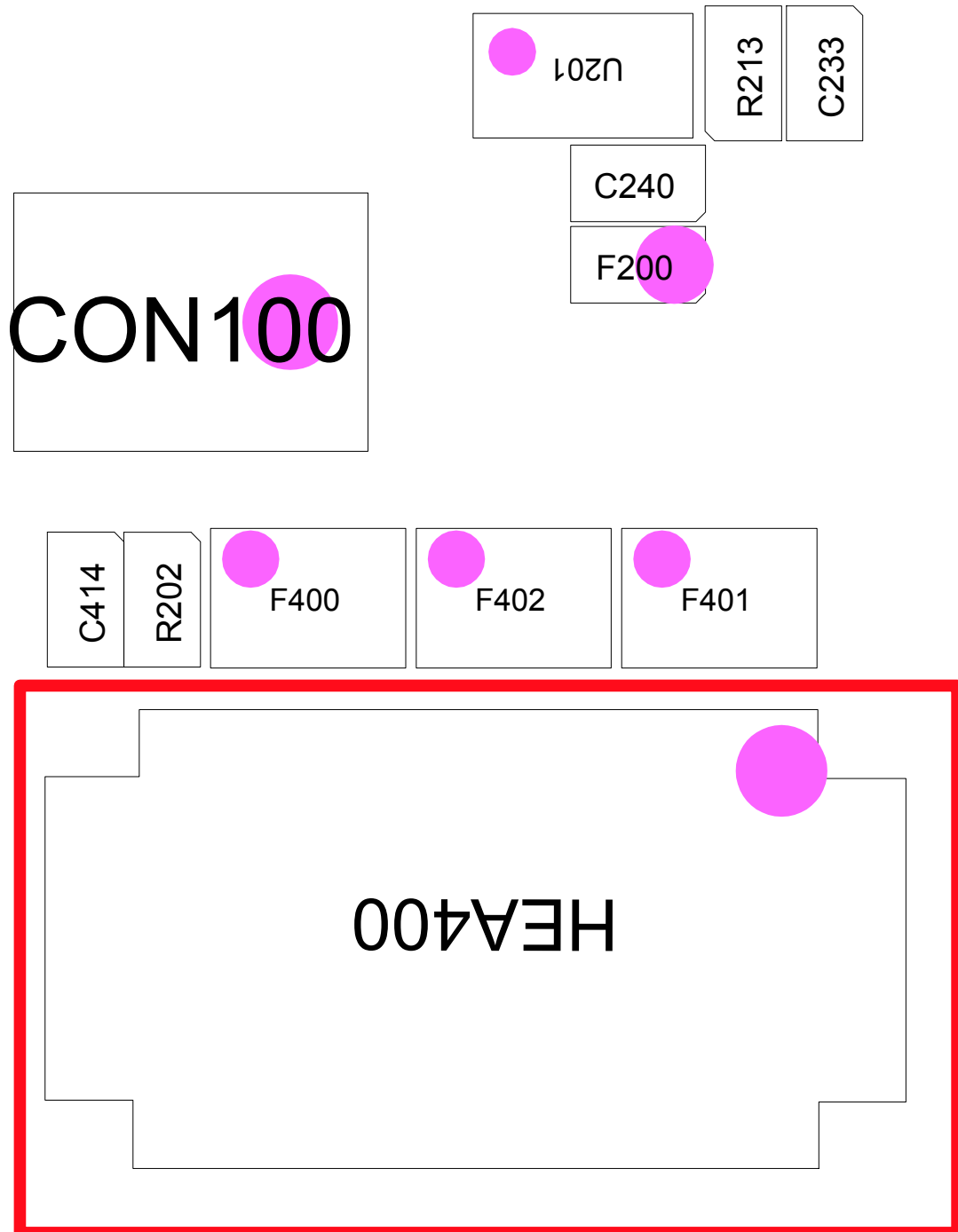




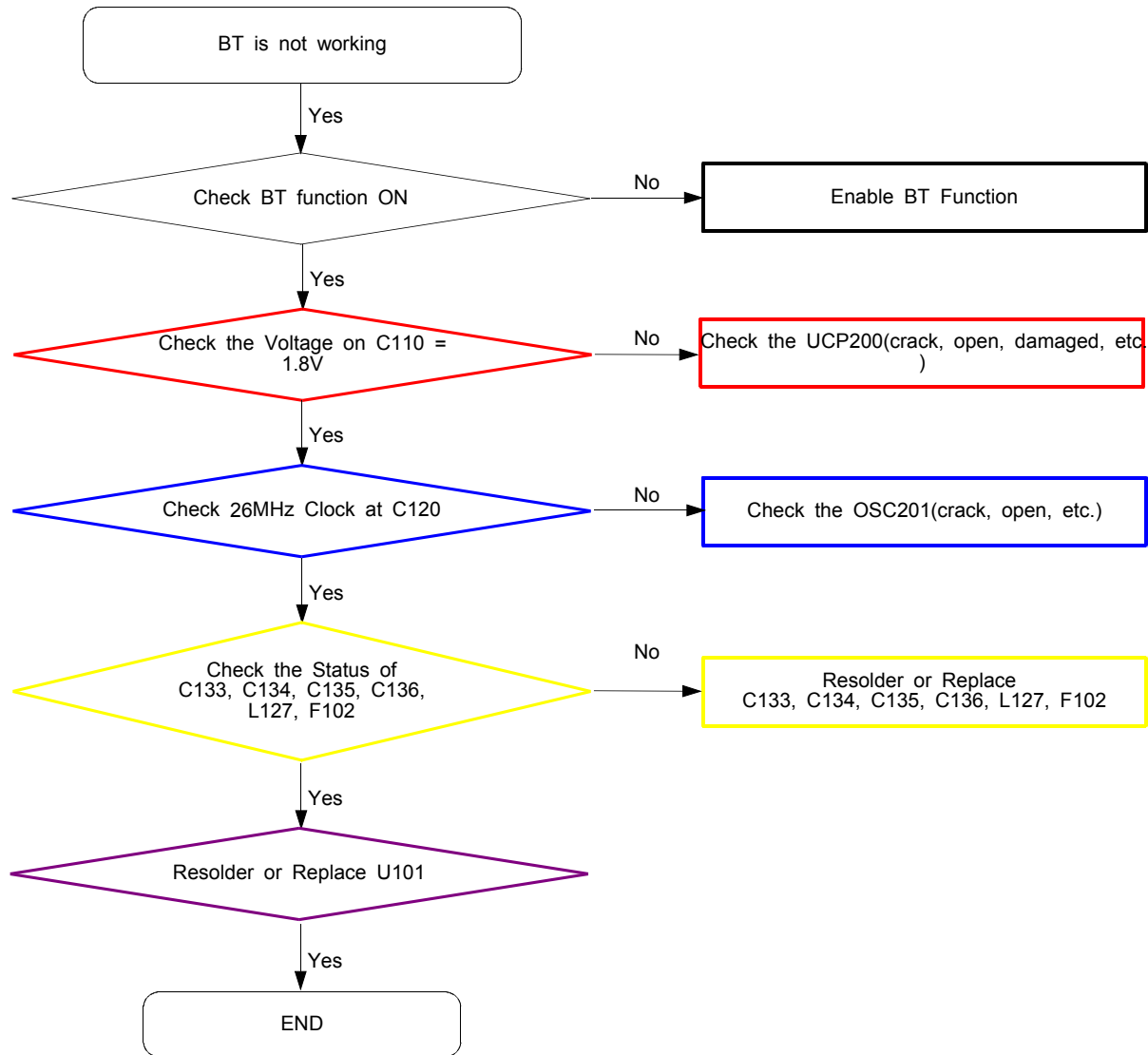
8-3-7. Receiver Part

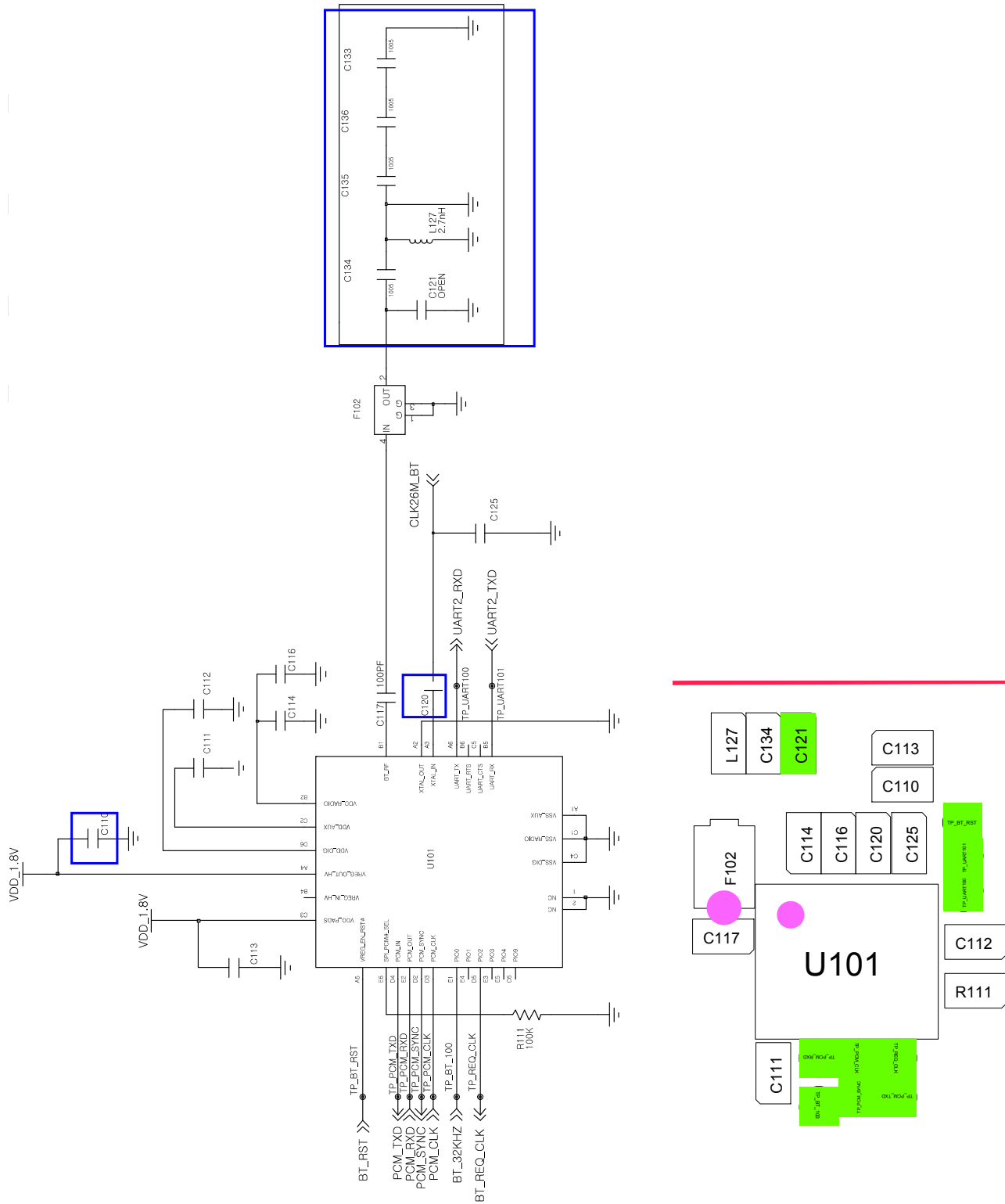




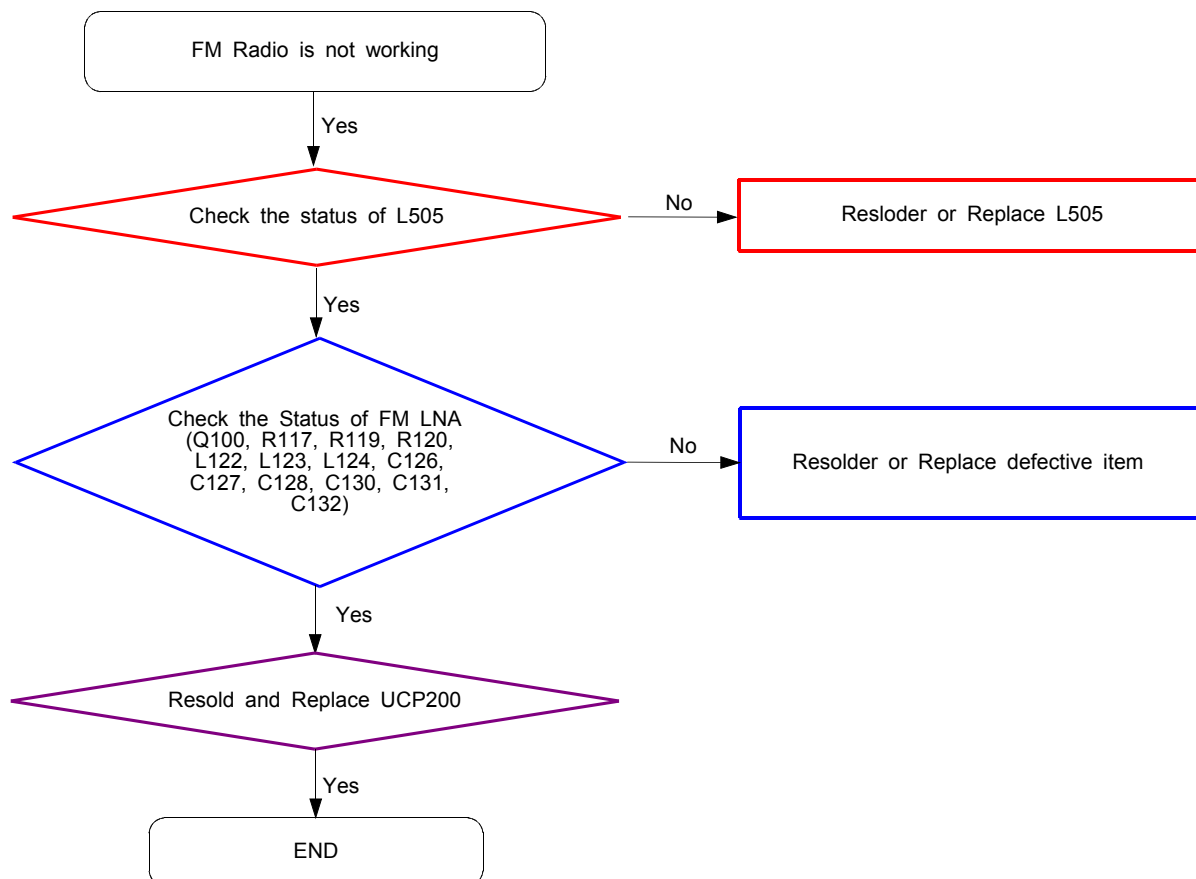


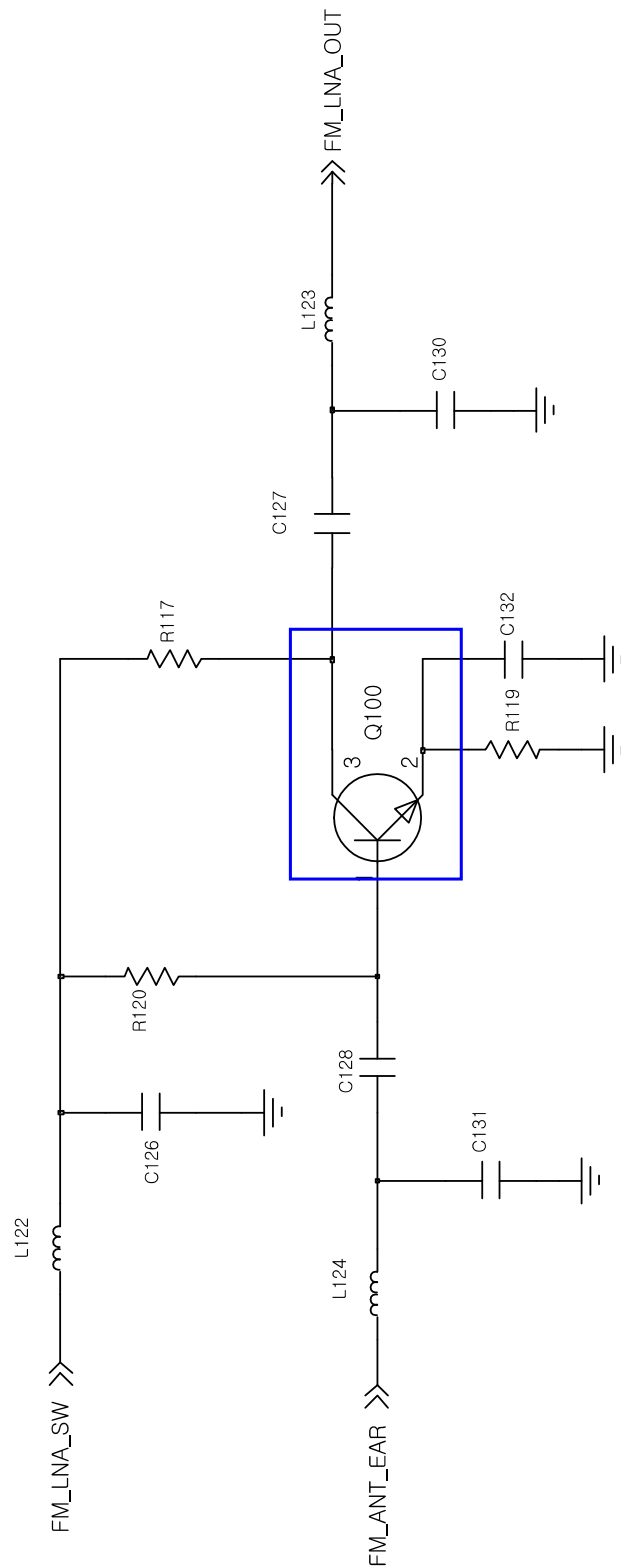
8-3-8. BT



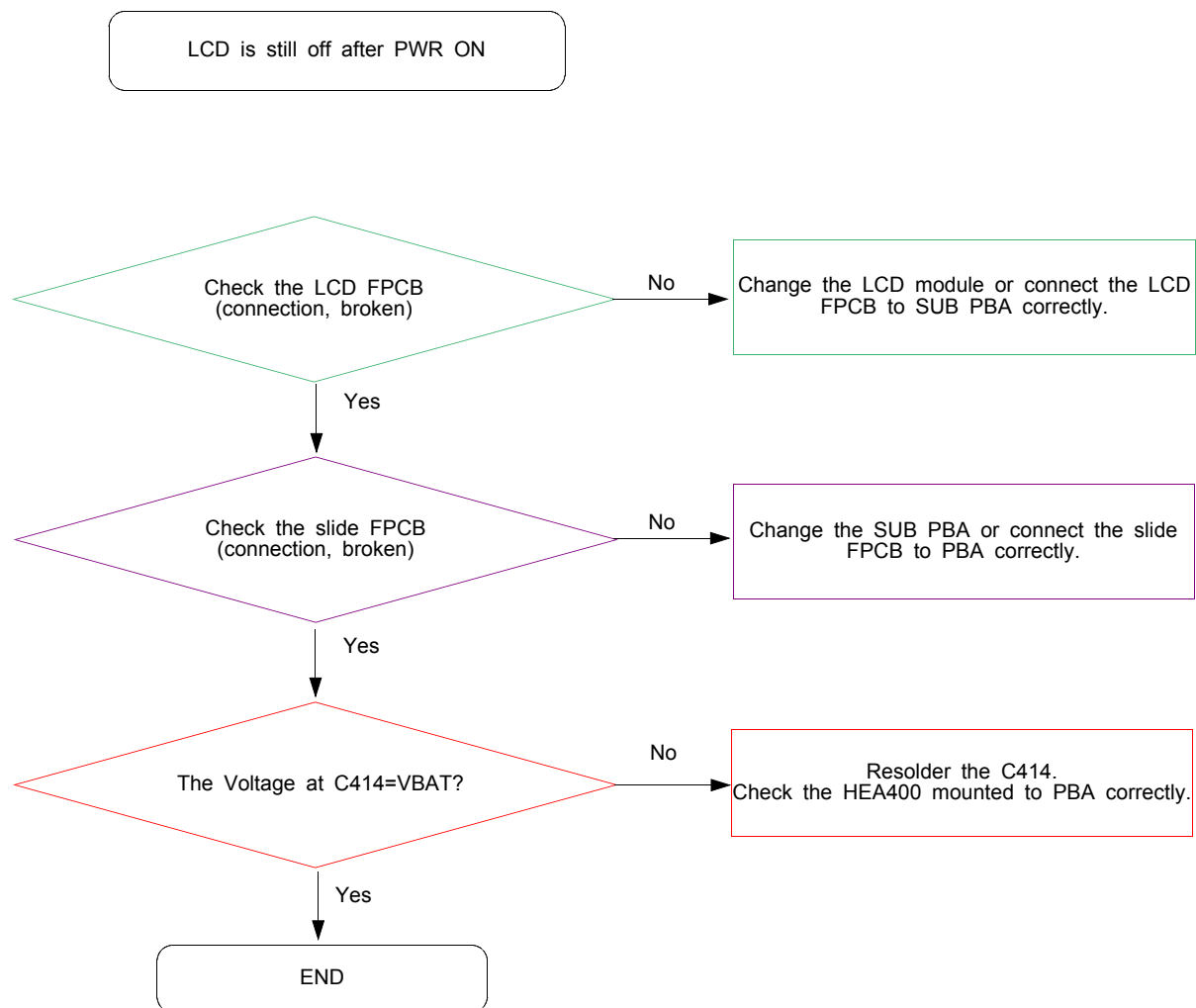


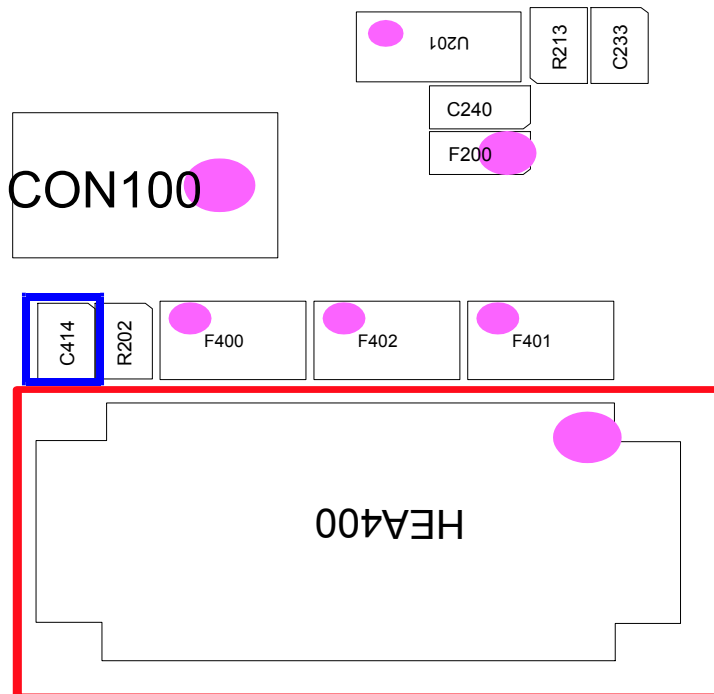
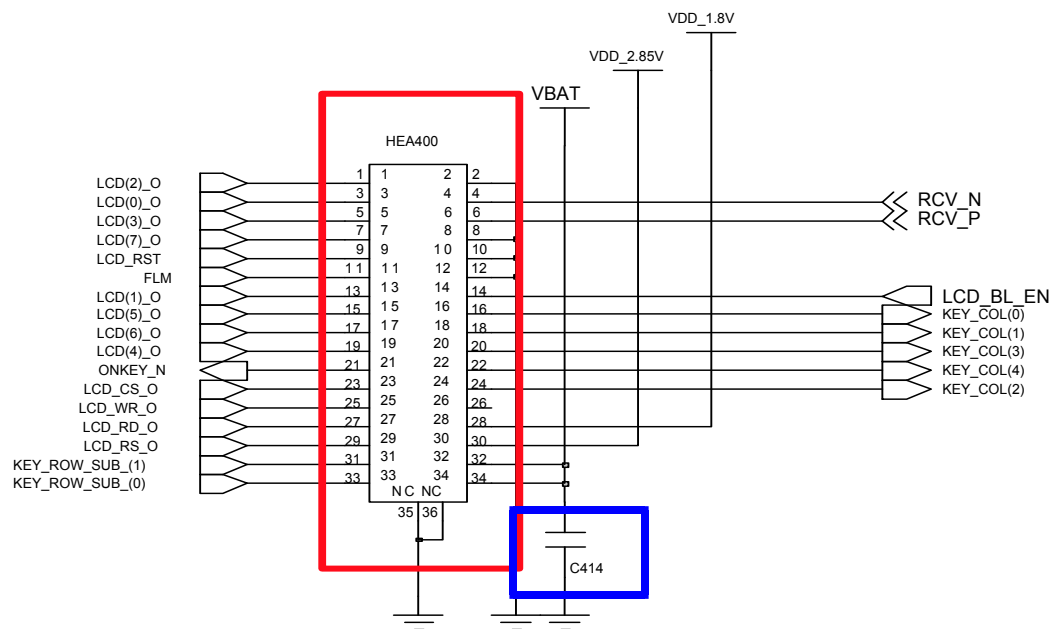
8-3-9. FM RADIO



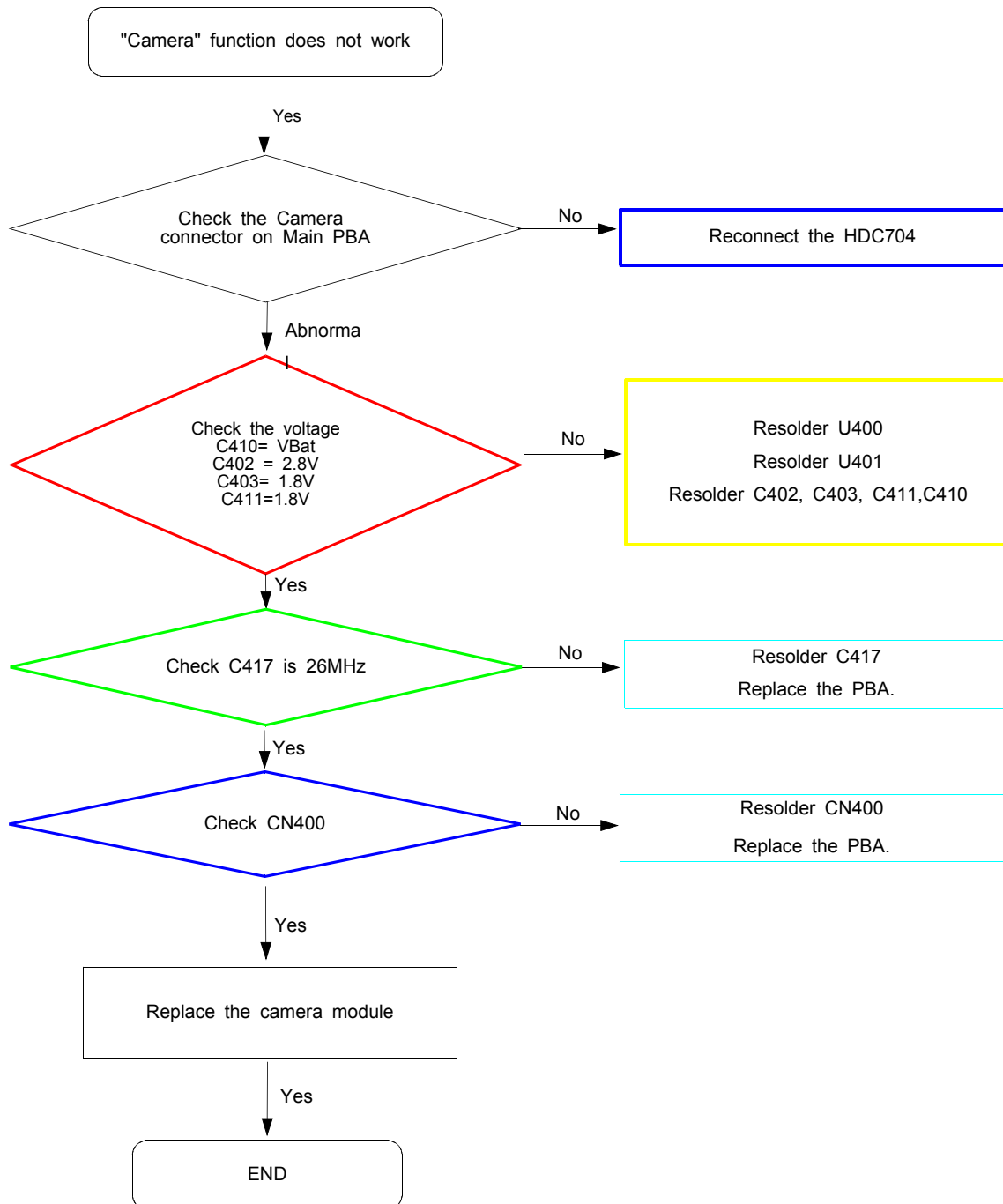


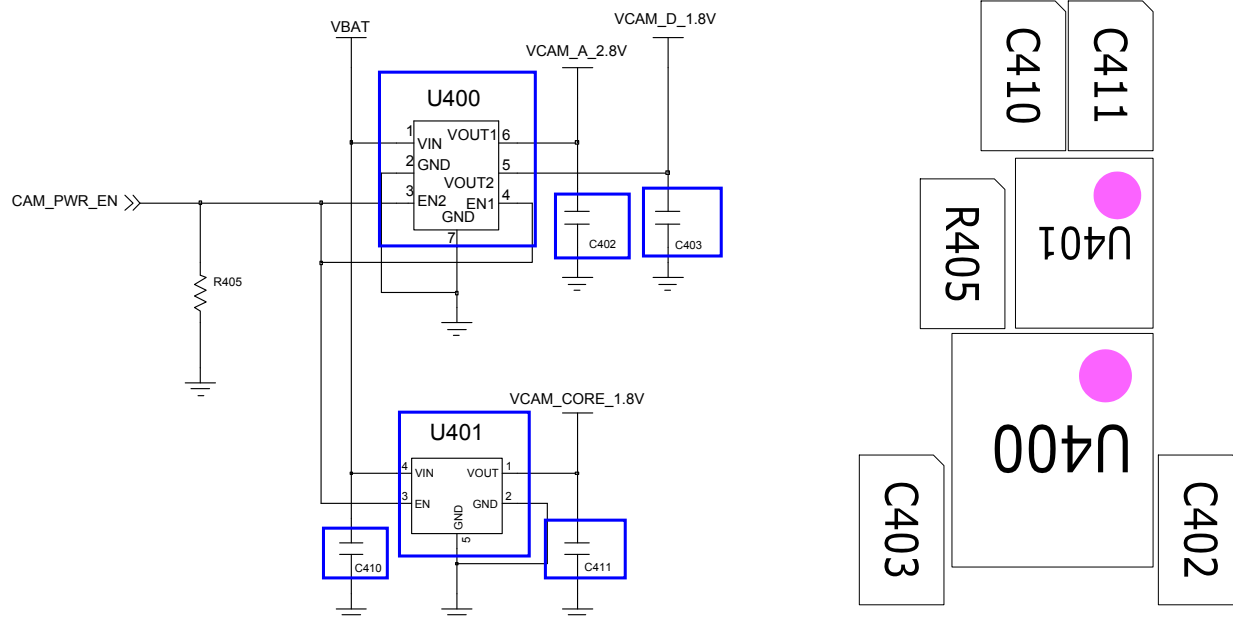
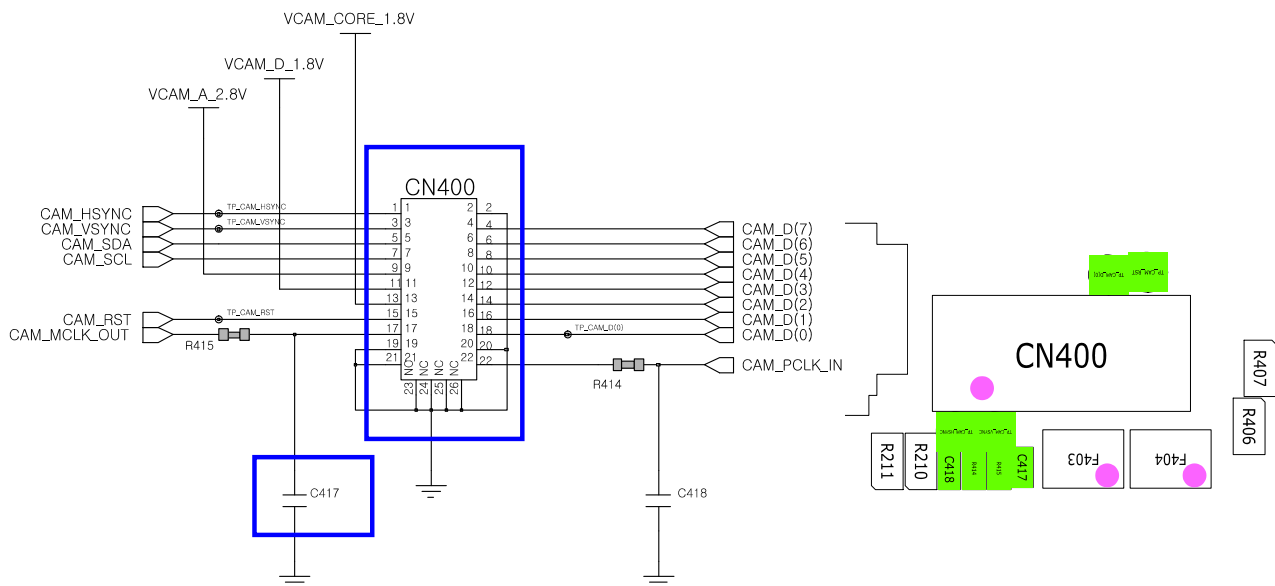
8-3-10. LCD



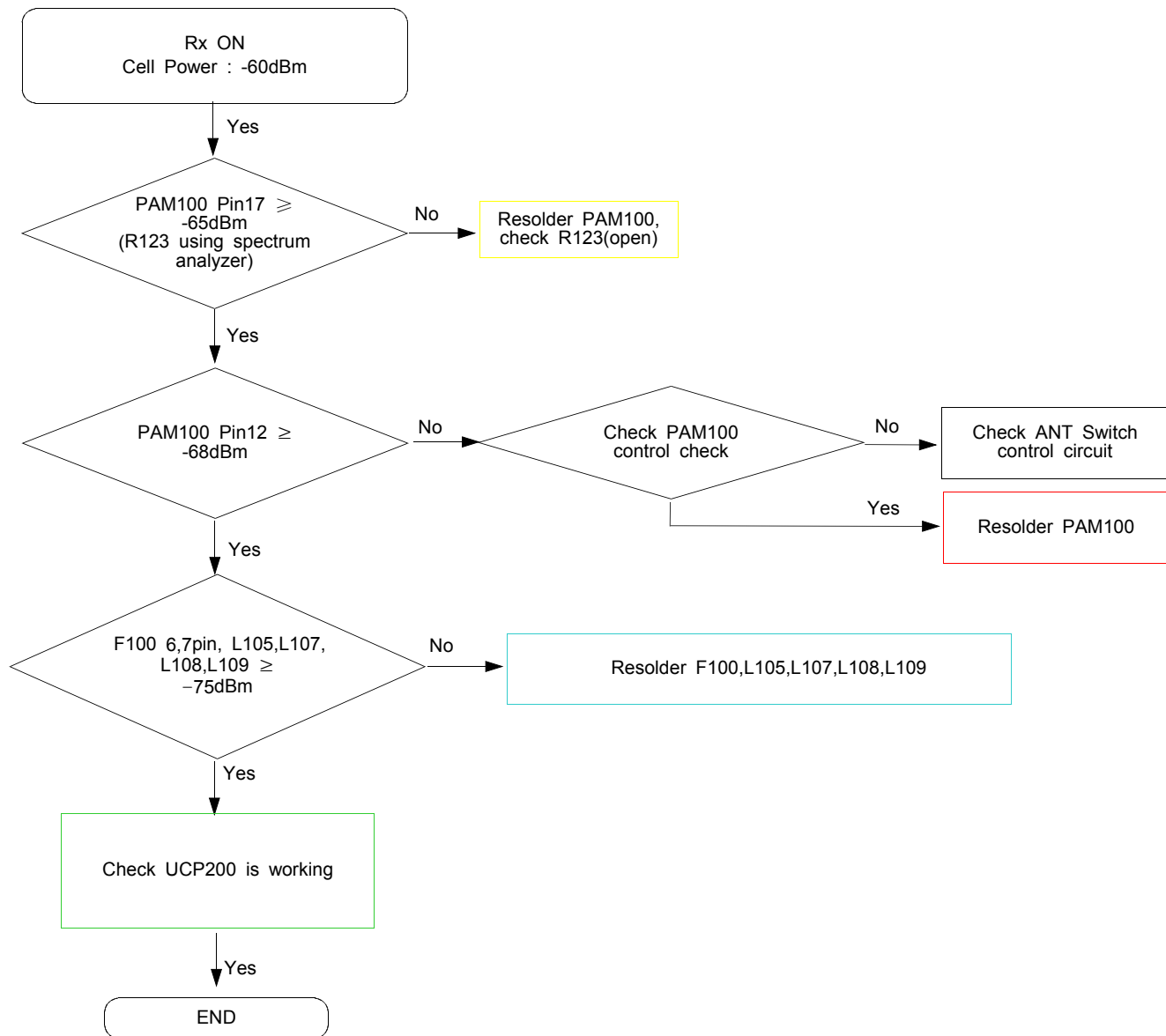


8-3-11. 2M CAM

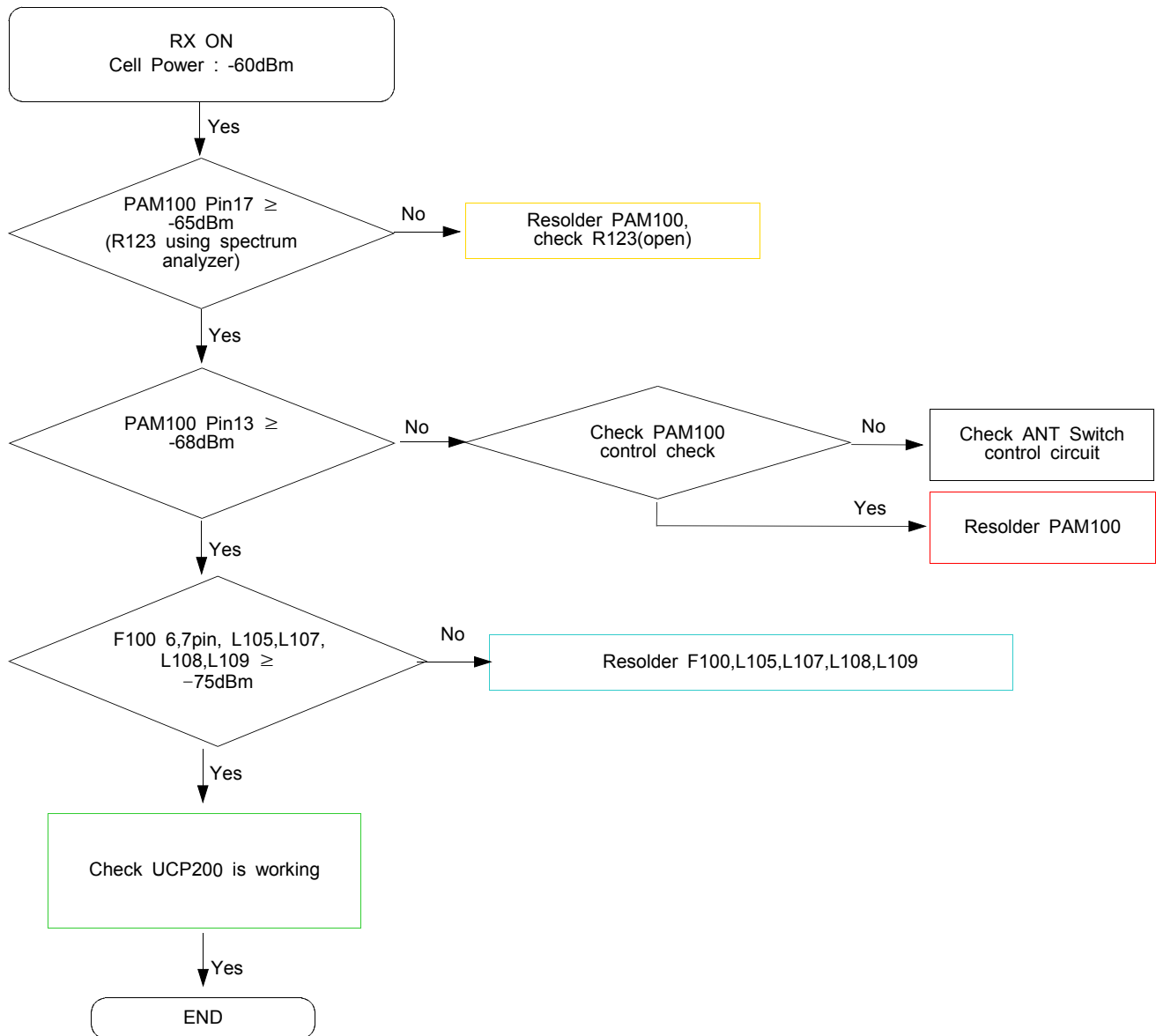




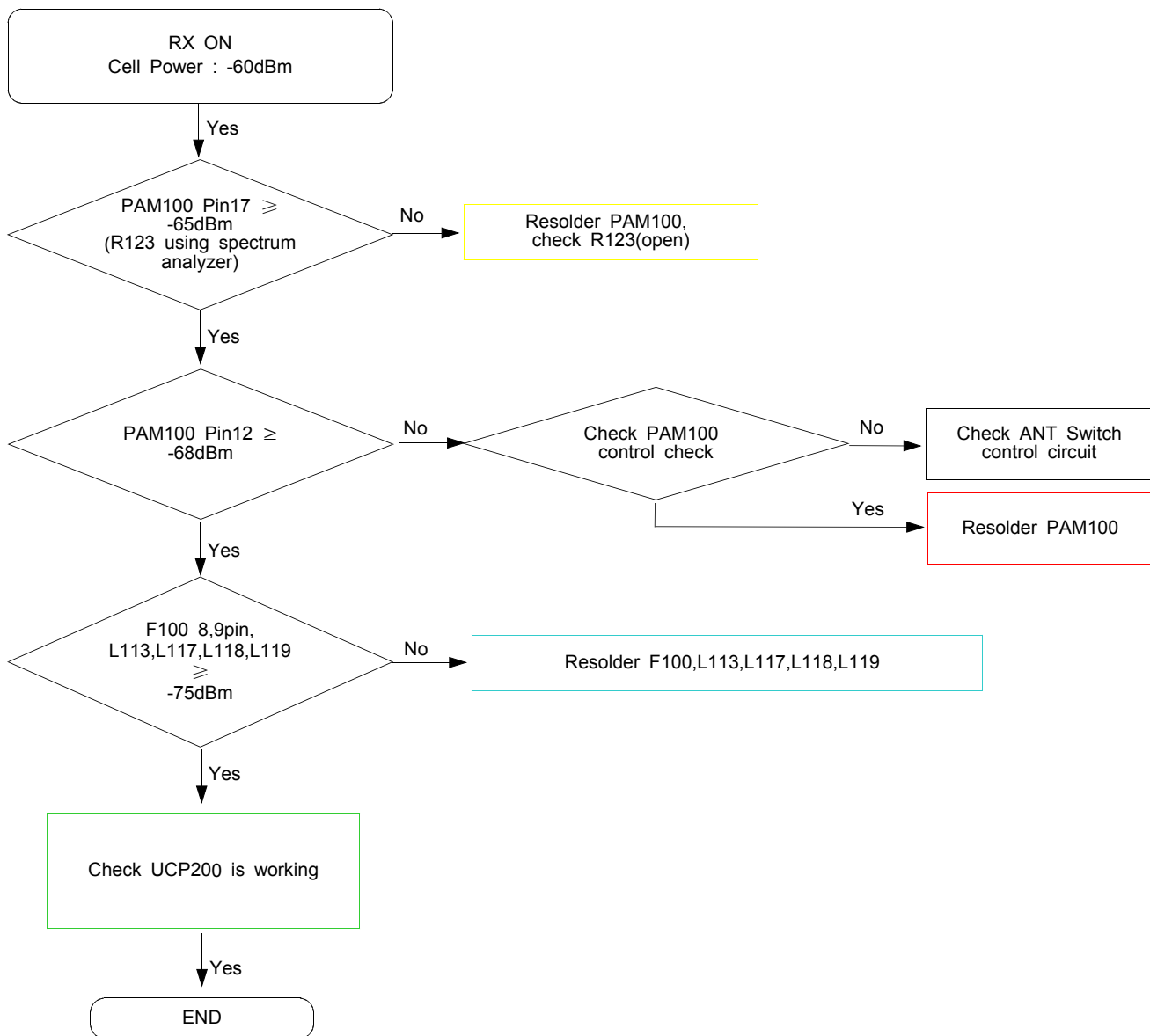
8-3-12. GSM850 Rx



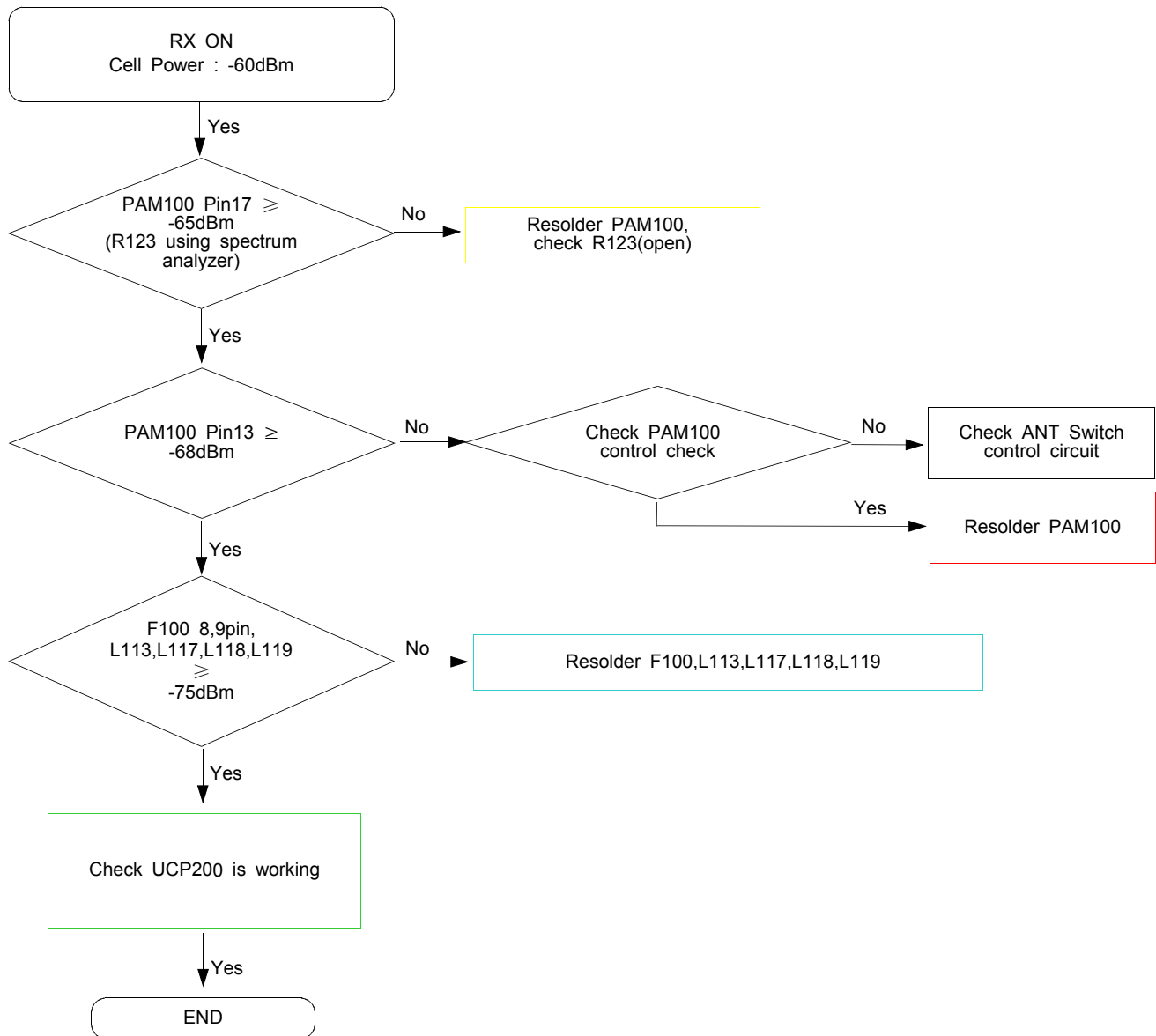
8-3-13. GSM900 Rx

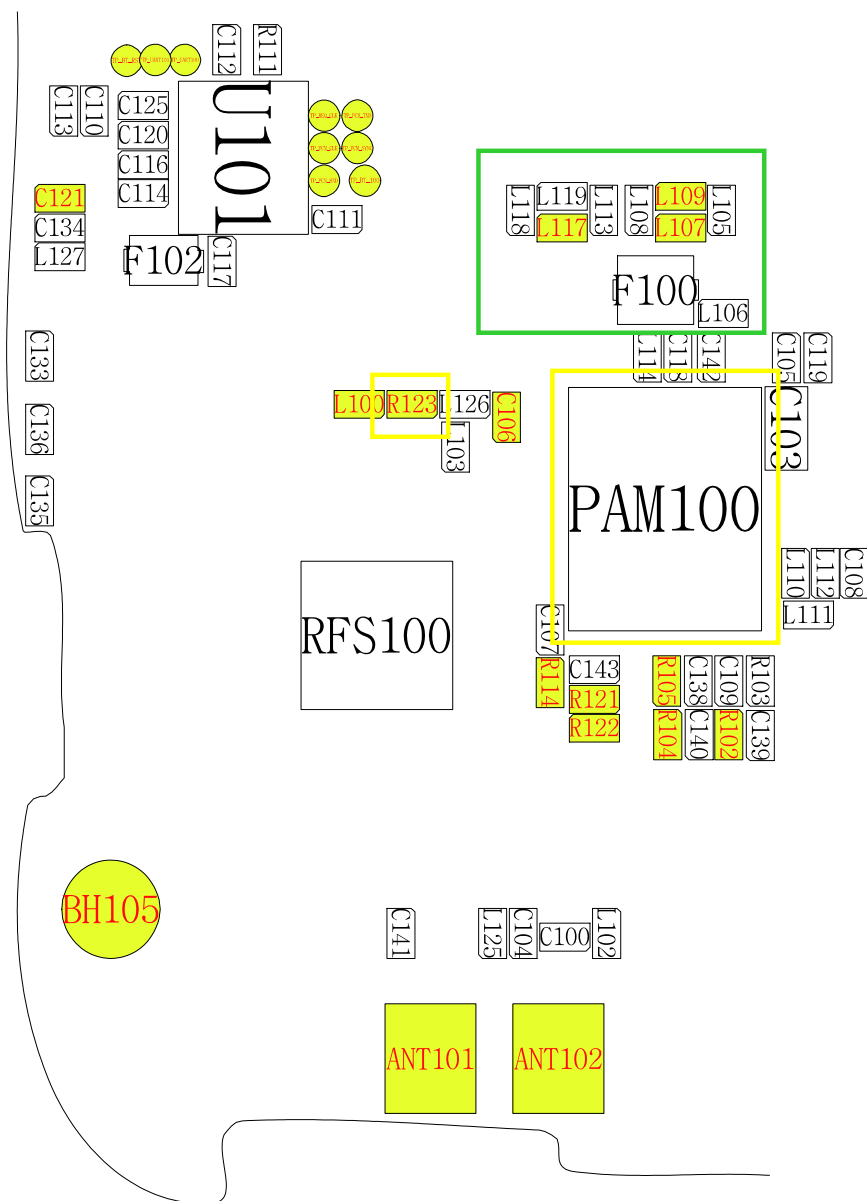


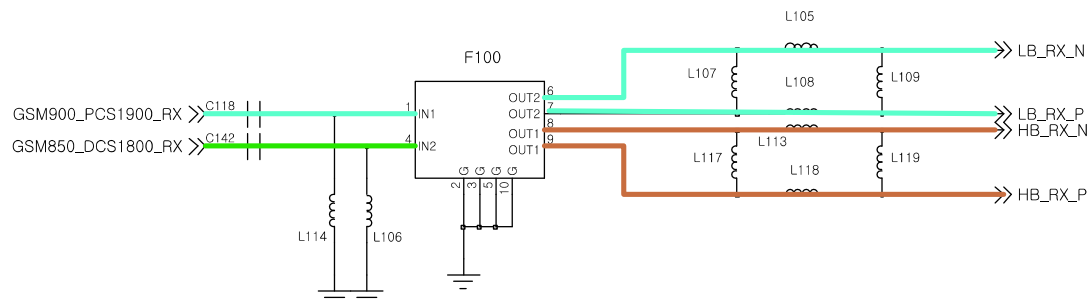
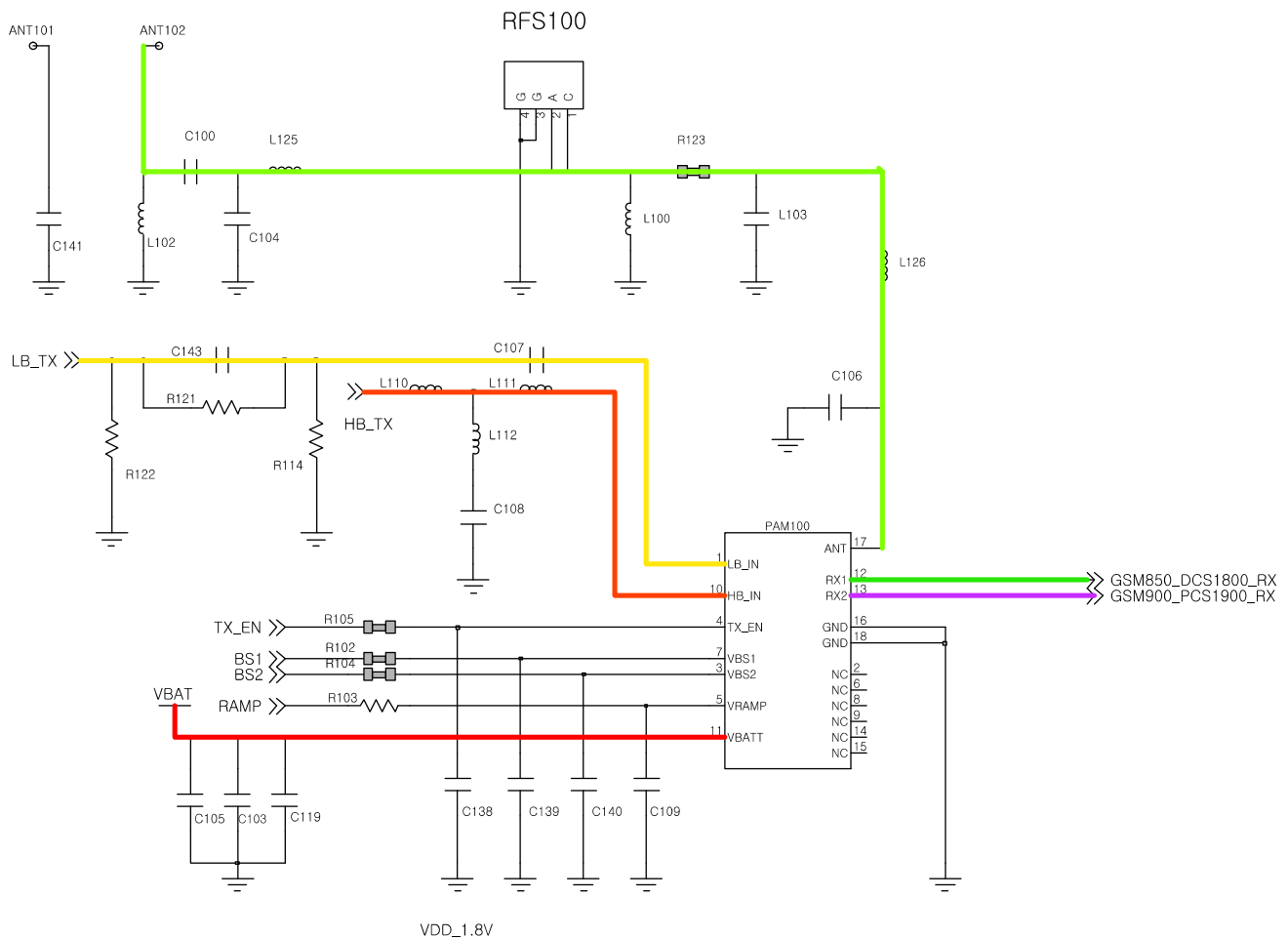
8-3-14. DCS Rx



8-3-15. PCS Rx



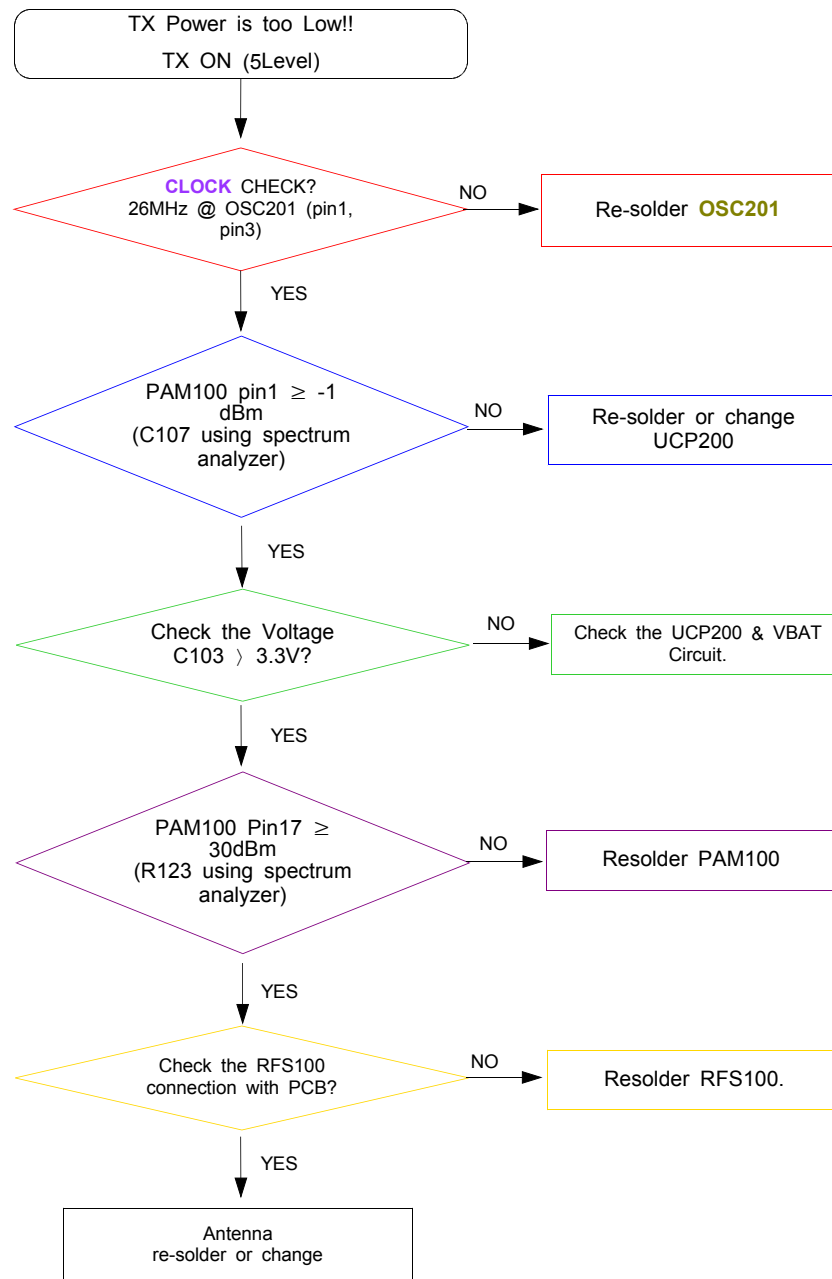




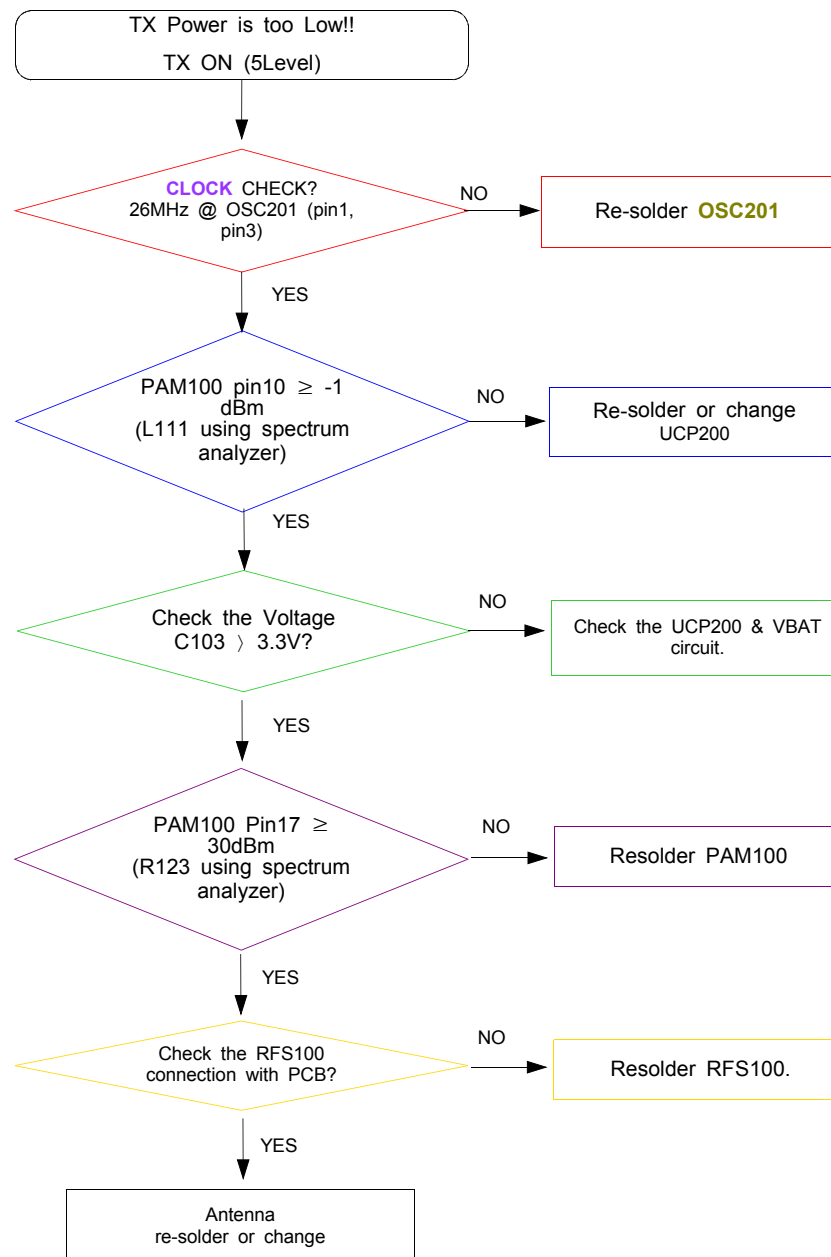
UCP200

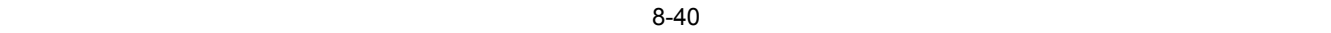


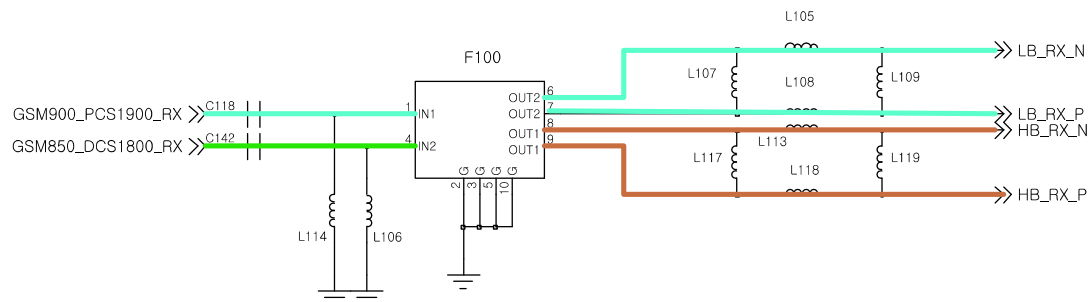
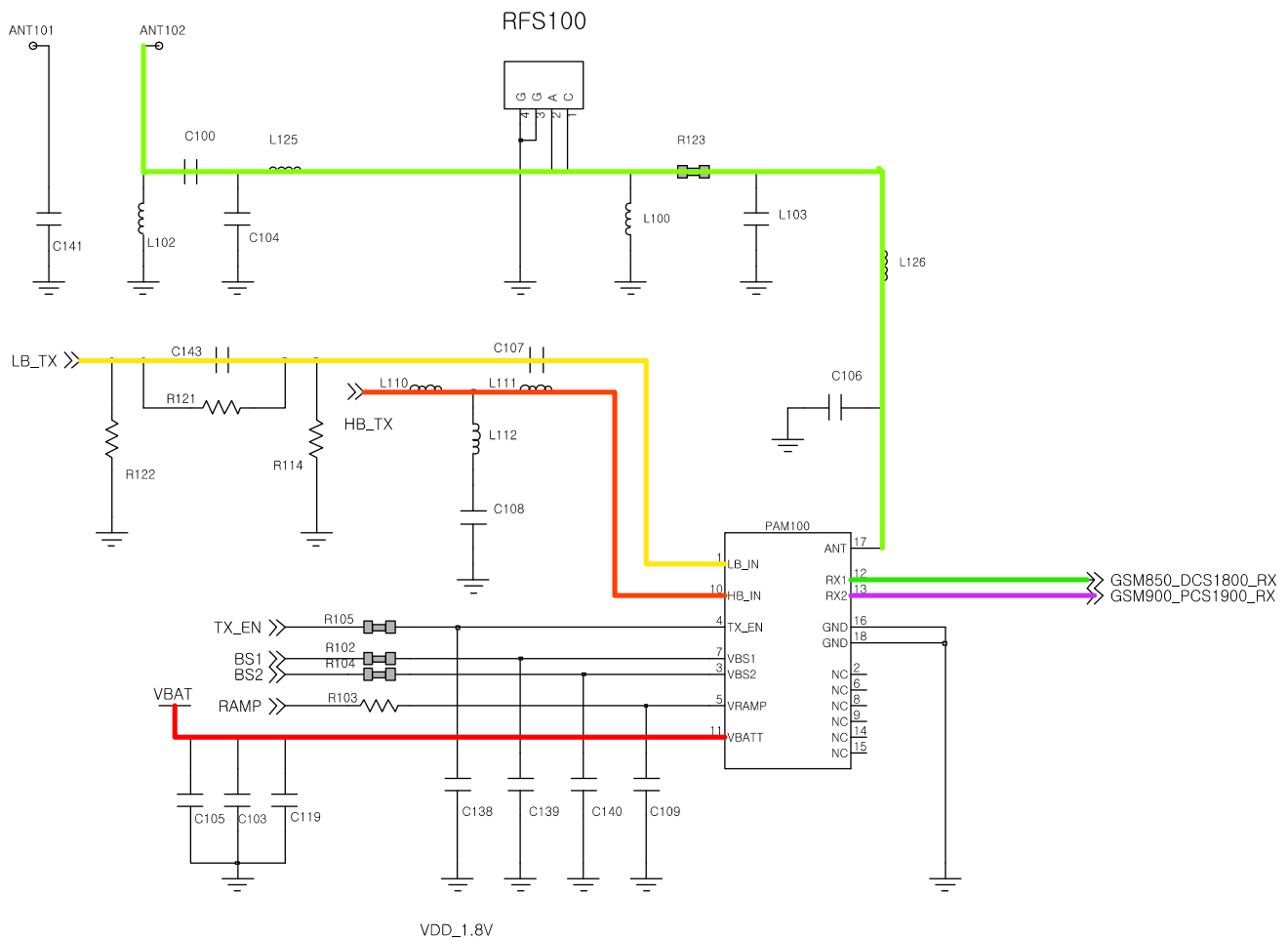
8-3-16. GSM850/900 Tx



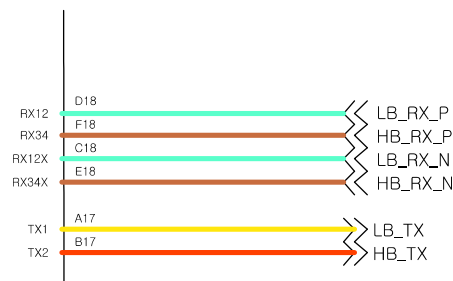
8-3-17. DCS/PCS Tx







UCP200



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