

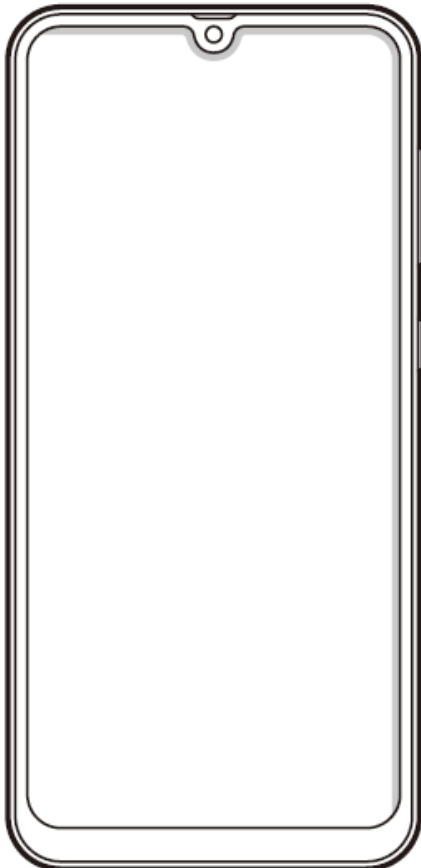
SAMSUNG

Mobile Device SM-A507FN/A5070 Common

SERVICE *Manual*

Mobile Device

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. Level 2 Repair
8. Level 3 Repair
9. Reference Abbreviation

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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. Safety Precautions

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

Item		GSM 850	EGSM 900	DCS1800	PCS1900
Freq. Band[MHz]		824~849	880~915	1710~1785	1850~1910
Uplink/Downlink		869~894	925~960	1805~1880	1930~1990
ARFCN range		128~251	0~124 & 975~1023	512~885	512~810
Tx/Rx spacing		45MHz	45MHz	95MHz	80MHz
Mod. Bit rate/ Bit Period		270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period/ Frame Period		576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	GSM/ EGPRS	GMSK/ 8PSK	GMSK/ 8PSK	GMSK/ 8PSK	GMSK/ 8PSK
MS Power		33dBm~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm
Power Class		4(GMSK) E2(8PSK)	4(GMSK) E2(8PSK)	1(GMSK) E2(8PSK)	1(GMSK) E2(8PSK)
Sensitivity		-102dBm	-102dBm	-100dBm	-100dBm
TDMA Mux		8	8	8	8

2. Specification

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±3 dBm	17	9±3 dBm	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

2. Specification

2-3. WCDMA General Specification

Item	WCDMA2100(B1)	WCDMA1900(B2)	WCDMA850(B5)	WCDMA900(B8)
Freq. Band[MHz] Uplink/Downlink	1920~1980 2110~2170	1850~1910 1930~1990	824~849 869~894	880~915 925~960
ARFCN range	UL: 9612~9888 DL: 10562~10838	UL: 9262~9538 DL: 9662~9938	UL: 4132~4233 DL: 4357~4458	UL: 2712~2868 DL: 2937~3088
Tx/Rx spacing	190MHz	80MHz	45MHz	45MHz
Mod. Bit rate/ Bit Period	42.2Mbps(DL) 5.42Mbps(UL)	42.2Mbps(DL) 5.42Mbps(UL)	42.2Mbps(DL) 5.42Mbps(UL)	42.2Mbps(DL) 5.42Mbps(UL)
Time Slot Period/ Frame Period	WCDMA 10ms/0.667ms HSPA 2ms/0.667ms	WCDMA 10ms/0.667ms HSPA 2ms/0.667ms	WCDMA 10ms/0.667ms HSPA 2ms/0.667ms	WCDMA 10ms/0.667ms HSPA 2ms/0.667ms
Modulation	QPSK 16QAM 64QAM	QPSK 16QAM 64QAM	QPSK 16QAM 64QAM	QPSK 16QAM 64QAM
MS Power (dBm)	25.7 ~ -49(↓)	25.7 ~ -49(↓)	25.7 ~ -49(↓)	25.7 ~ -49(↓)
Power Class	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)
Sensitivity	-106dBm	-104dBm	-104dBm	-103dBm

2. Specification

2-4. LTE General Specification

Item	LTE Band1	LTE Band3	LTE Band5	LTE Band7	LTE Band8
Freq. Band[MHz] Uplink/Downlink	1920~1980 2110~2170	1710~1785 1805~1880	824~849 869~894	2500~2570 2620~2690	880~915 925~960
ARFCN range	UL:18000~18599 DL:0~599	UL:19200~19949 DL:1200~1949	UL:20400~20649 DL:2400~2649	UL:20750~21449 DL:2750~3449	UL:21450~21799 DL:3450~3799
Tx/Rx spacing (MHz)	190	95	45	120	45
Channel Bandwidth (MHz)	5/10/15/20	1.4/3/5/10/15/20	1.4/3/5/10	5/10/15/20	1.4/3/5/10
Modulation	QPSK,16/64QAM 256QAM(DL only)	QPSK,16/64QAM 256QAM(DL only)	QPSK,16/64QAM 256QAM(DL only)	QPSK,16/64QAM 256QAM(DL only)	QPSK,16/64QAM 256QAM(DL only)
MS Power (dBm)	25.7~-39(↓)	25.7~-39(↓)	25.7~-39(↓)	25.7~-39(↓)	25.7~-39(↓)
Sensitivity (QPSK, BW 10MHz) (dBm)	-96.3	-93.3	-94.3	-94.3	-93.3

Item	LTE Band20	LTE Band28	LTE Band38	LTE Band40	LTE Band41
Freq. Band[MHz] Uplink/Downlink	832~862 791~821	703~748 758~803	2570~2620	2300~2400	2496~2690
ARFCN range	UL:24150~24449 DL:6150~6449	UL:27210~27659 DL:9210~9659	UL/DL:37750 ~ 38249	UL/DL:38650 ~ 39649	UL/DL:39650 ~ 41589
Tx/Rx spacing (MHz)	-41	55	0	0	0
Channel Bandwidth (MHz)	5/10/15/20	3/5/10/15/20	5/10/15/20	5/10/15/20	5/10/15/20
Modulation	QPSK,16/64QAM 256QAM(DL only)	QPSK,16/64QAM 256QAM(DL only)	QPSK,16/64QAM 256QAM(DL only)	QPSK,16/64QAM 256QAM(DL only)	QPSK,16/64QAM 256QAM(DL only)
MS Power (dBm)	25.7~-39(↓)	25.7~-39(↓)	25.7~-39(↓)	25.7~-39(↓)	25.7~-39(↓)
Sensitivity(QPSK, BW 10MHz) (dBm)	-93.3	-94.8	-96.3	-96.3	-94.3

2. Specification

2-5. CDMA General Specification [A5070 CHN]

Item	US-CELLULAR
Tx Freq. range	1850 ~1910MHz
Rx Freq. range	1930 ~1990MHz
Channel Bandwidth	1.23MHz
Channel Spacing	50KHz
Number of Channel	1200
Duplex Separation	80MHz
Type of Emission	1M29F9W
In/Output Impedance	50Ω
Tx Local Frequency	FTx * 0.7999
Rx Local Frequency	FRx * 0.8888
TCXO Frequency	19.2MHz
Frequency Stability	(FRX-80MHz)±150Hz
Operating Temperature	-30°C ~ +60°C

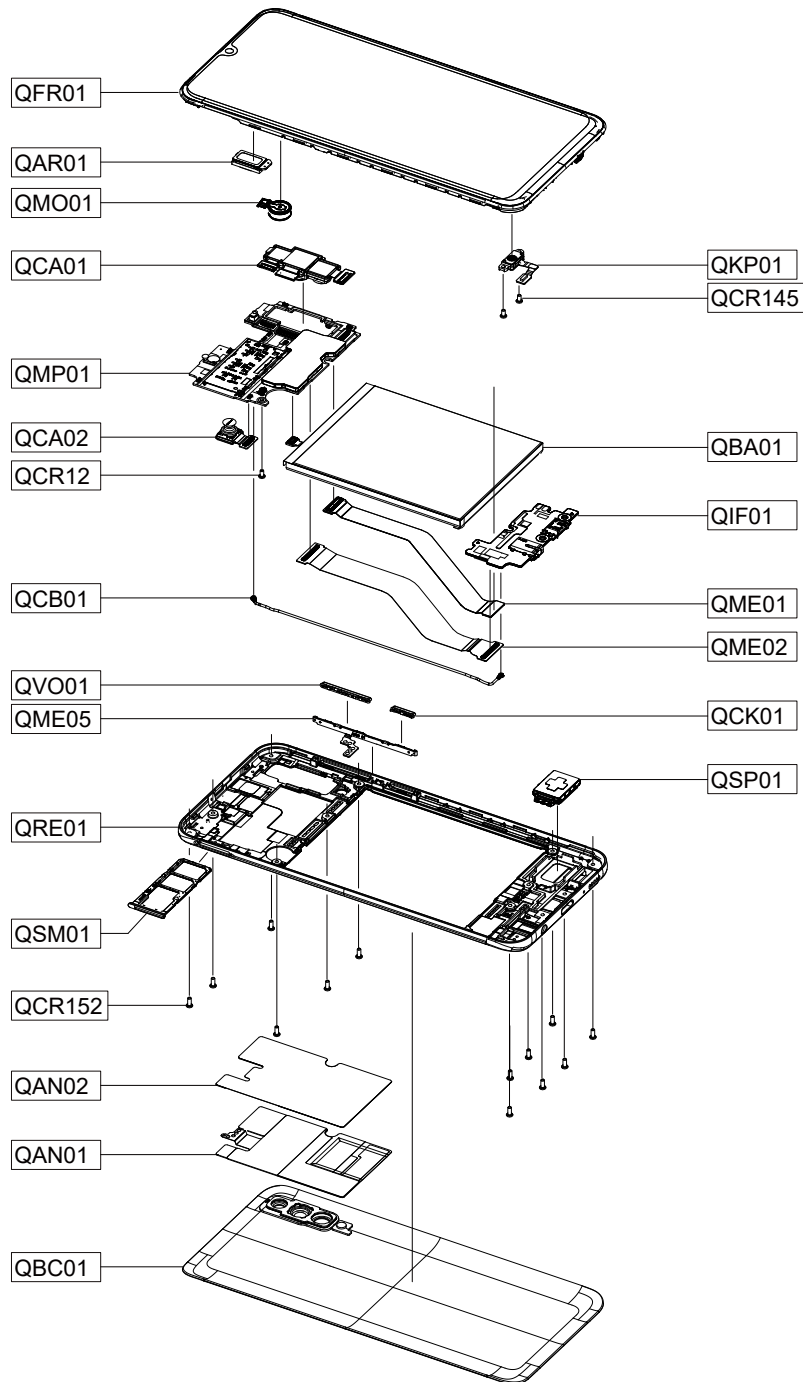
3. Product Function

Main Function

Item	Description
OS	Android P OS V9.0
SM-A507F RF	GSM850 / GSM900 / DCS1800 / PCS1900 WCDMA: B1/ B2/ B5/ B8 LTE: B1/B3/B5/B7/B8/B20/B28/B38/B40/B41
SM-A5070 RF	
	4,000mAh
Base Band	2.3Ghz Quad + 1.7GHz Quad
Other RF	GPS, Glonass, Beidou, Galileo / BT5.0 / USB 2.0 / WIFI 802.11 a/b/g/n/ac / NFC
Camera	Triple Camera (25MP(F1.7) + 5MP(F2.2) + 8MP(F2.2)) with LED Flash / Front Camera 24MP(F2.0)
LCD	6.4", FHD+, 2340x1080
RAM	4GB/6GB
Storage	64GB/128GB
Sensor	Accelerometer, Fingerprint Sensor, Gyro Sensor, Geomagnetic Sensor, Hall Sensor, Proximity Sensor, RGB Light Sensor, Grip sensor
Accessory	Charger: 9V/1.67A and 5V/2.0A AFC charging Data cable: 3.0pi, 0.8m(USB-C) Ear phone: 3.5pi, 4pin

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



※ SVC REPAIR TAPE
QRT01

5. MAIN Electrical Parts List

[SM-A507FN]

Parts Code	Design LOC	Description
D5001	0401-001110	DIODE-SWITCHING
D5000	0404-001250	DIODE-SCHOTTKY
ZD1000	0406-001506	DIODE-TVS
ZD5000,ZD5001,ZD6022	0406-001561	DIODE-TVS
ZD5003	0406-001592	DIODE-TVS
ZD7009	0406-001728	DIODE-TVS
ZD6018,ZD6023,ZD6024	0406-001781	DIODE-TVS
ZD6020,ZD6021	0406-001797	DIODE-TVS
ZD6016	0406-001808	DIODE-TVS
ZD1001,ZD5004	0406-001829	DIODE-TVS
LED5000	0601-003768	LED
U3003	1001-002062	IC
U1001	1001-002063	IC
U2005	1001-002078	IC
U1002	1001-002082	IC
U2006	1003-002802	IC
U3007	1009-001078	IC
UME5000	1107-002536	IC-FLASH MEMORY
U3006	1201-003869	IC
U1003	1201-004209	IC
U1004,U1006	1201-004219	IC
PAM1000	1201-004237	IC
U6000	1201-004240	IC
U3010,U3012	1203-008249	IC
U5004	1203-008251	IC
U7005	1203-008326	IC
U2002	1203-008693	IC
U5001	1203-008729	IC
U7001	1203-008865	IC
U7002,U7006	1203-008867	IC
U3014	1203-008925	IC
U7007	1203-008926	IC
U5005	1203-009113	IC
U7003	1203-009220	IC
U7000	1203-009221	IC
U500	1203-009224	IC
U6002	1203-009233	IC

5. MAIN Electrical Parts List

U6001	1205-005750	IC
U2004	1205-005767	IC
U3000	1205-005979	IC
U3005	1205-006087	IC
UCP400	1205-006177	IC
U3011	1209-002450	IC
U3015	1209-002513	IC
U3008	1209-002628	IC
U3013	1209-002629	IC
U3009	1209-002640	IC
TH1000,TH4000,TH4001	1404-001724	THERMISTOR
TH5000	1404-001724	THERMISTOR
V7000	1405-001458	VARISTOR
R3007	2007-000141	R-CHIP
R3005	2007-000148	R-CHIP
R5015	2007-000172	R-CHIP
R6026,R6027	2007-003015	R-CHIP
R1012	2007-007100	R-CHIP
R6028,R6029	2007-007192	R-CHIP
R2002,R2003,R5004	2007-007741	R-CHIP
R5007	2007-007741	R-CHIP
ZD6017	2007-007798	R-CHIP
R5002	2007-007942	R-CHIP
R5003	2007-007946	R-CHIP
R5001	2007-008043	R-CHIP
R4000	2007-008048	R-CHIP
R4016,R4030,R4032	2007-008052	R-CHIP
R4033,R5008,R5010	2007-008052	R-CHIP
R7002	2007-008052	R-CHIP
R5014,R7004	2007-008055	R-CHIP
R1001,R1002,R1008	2007-008056	R-CHIP
R1009	2007-008056	R-CHIP
R1011,R4055,R5009	2007-008419	R-CHIP
R6017	2007-008419	R-CHIP
R5005,R5006	2007-008483	R-CHIP
R5013,R5017,R5018	2007-008486	R-CHIP
R5019	2007-008486	R-CHIP
R4003,R5012,R6001	2007-008516	R-CHIP
R6010,R7000,R7001	2007-008531	R-CHIP

5. MAIN Electrical Parts List

R7005	2007-008531	R-CHIP
R3003,R3008,R4005	2007-008588	R-CHIP
R4008,R4009,R4010	2007-008588	R-CHIP
R4011,R4012,R4013	2007-008588	R-CHIP
R4014,R4019,R4022	2007-008588	R-CHIP
R4023,R4025,R4027	2007-008588	R-CHIP
R4028,R4029,R4034	2007-008588	R-CHIP
R4035,R4036,R4037	2007-008588	R-CHIP
R4038,R4039,R4040	2007-008588	R-CHIP
R4043,R4044,R4045	2007-008588	R-CHIP
R4046,R4047,R4048	2007-008588	R-CHIP
R4049,R4050,R4051	2007-008588	R-CHIP
R4052,R4053,R4054	2007-008588	R-CHIP
R6018,R6025	2007-008588	R-CHIP
R1000,R1010	2007-008785	R-CHIP
R1004,R1005,R1006	2007-008806	R-CHIP
R1007,R1014,R3001	2007-008806	R-CHIP
R4002	2007-008816	R-CHIP
R3004	2007-009111	R-CHIP
R5016	2007-009155	R-CHIP
R1013,R4006,R4007	2007-009157	R-CHIP
R5021	2007-009157	R-CHIP
R5011	2007-009182	R-CHIP
R6000	2007-009314	R-CHIP
R5020	2007-009315	R-CHIP
R1003	2007-009361	R-CHIP
R6008,R6031,R6032	2007-009410	R-CHIP
R2000	2007-009805	R-CHIP
R6013	2007-009838	R-CHIP
R4020,R4021,R4024	2007-009920	R-CHIP
R4026	2007-009920	R-CHIP
R3010,R3011,R6020	2007-009969	R-CHIP
R6030	2007-010031	R-CHIP
R6011	2007-011648	R-CHIP
C3095,C3102	2203-000233	C-CERAMIC,CHIP
C3098	2203-000311	C-CERAMIC,CHIP
C5119	2203-005344	C-CERAMIC,CHIP
C3099	2203-005395	C-CERAMIC,CHIP
C1018,C1021,C1023	2203-005682	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C1025,C1066,C1067	2203-005682	C-CERAMIC,CHIP
C5099,C5105,C5114	2203-005682	C-CERAMIC,CHIP
C7046,C7064,C7065	2203-005682	C-CERAMIC,CHIP
C3027,C3029,C3041	2203-005725	C-CERAMIC,CHIP
C7006,C7007	2203-005725	C-CERAMIC,CHIP
L2026	2203-005727	C-CERAMIC,CHIP
C1089,C5102,C6044	2203-005729	C-CERAMIC,CHIP
C6046,C6051,C6052	2203-005729	C-CERAMIC,CHIP
L1089	2203-005729	C-CERAMIC,CHIP
C2052,C6058,C6059	2203-005731	C-CERAMIC,CHIP
L1059	2203-005731	C-CERAMIC,CHIP
C5097,C6039,C6045	2203-005732	C-CERAMIC,CHIP
C6050	2203-005732	C-CERAMIC,CHIP
C1005,C3054	2203-005734	C-CERAMIC,CHIP
C1000,C1002,C1010	2203-005736	C-CERAMIC,CHIP
C1015,C1017,C1028	2203-005736	C-CERAMIC,CHIP
C1033,C1052,C1054	2203-005736	C-CERAMIC,CHIP
C1056,C1063,C1087	2203-005736	C-CERAMIC,CHIP
C2002,C2006,C2009	2203-005736	C-CERAMIC,CHIP
C2013,C2039,C2043	2203-005736	C-CERAMIC,CHIP
C2044,C2050,C3009	2203-005736	C-CERAMIC,CHIP
C3021,C3047,C3048	2203-005736	C-CERAMIC,CHIP
L1005,L1027,L1052	2203-005736	C-CERAMIC,CHIP
C1035	2203-005740	C-CERAMIC,CHIP
C1029,C1072,C1076	2203-005777	C-CERAMIC,CHIP
L1062,L1066,L1098	2203-005777	C-CERAMIC,CHIP
C1007,C1030,C1032	2203-005789	C-CERAMIC,CHIP
C1048,C1061,C1084	2203-005789	C-CERAMIC,CHIP
C1090,L1024,L1035	2203-005789	C-CERAMIC,CHIP
L1079	2203-005789	C-CERAMIC,CHIP
C1058	2203-005792	C-CERAMIC,CHIP
C1003,C1081,C2000	2203-005806	C-CERAMIC,CHIP
C6042	2203-006121	C-CERAMIC,CHIP
C1020	2203-006123	C-CERAMIC,CHIP
C6012	2203-006194	C-CERAMIC,CHIP
C1001,C1070	2203-006318	C-CERAMIC,CHIP
C2049,C3002,C3003	2203-006400	C-CERAMIC,CHIP
C3043,C3044,C3097	2203-006400	C-CERAMIC,CHIP
C3100,C4011,C4012	2203-006400	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C5080,C5123,C5124	2203-006400	C-CERAMIC,CHIP
C3045,L1061	2203-006410	C-CERAMIC,CHIP
C2031,C3057,C3059	2203-006423	C-CERAMIC,CHIP
C3071,C3072,C5104	2203-006423	C-CERAMIC,CHIP
C6000,C6004,C6006	2203-006423	C-CERAMIC,CHIP
C6038,C6049,C7040	2203-006423	C-CERAMIC,CHIP
C5096	2203-006556	C-CERAMIC,CHIP
C1057,C3053,L1057	2203-006604	C-CERAMIC,CHIP
C1069	2203-006611	C-CERAMIC,CHIP
L1065	2203-006665	C-CERAMIC,CHIP
C4003	2203-006668	C-CERAMIC,CHIP
C1053	2203-006674	C-CERAMIC,CHIP
C1031,C1065	2203-006707	C-CERAMIC,CHIP
C1004,C1024,C1040	2203-006839	C-CERAMIC,CHIP
C1042,C1043,C1045	2203-006839	C-CERAMIC,CHIP
C1077,C1080,C1085	2203-006839	C-CERAMIC,CHIP
C1086,C2001,C3086	2203-006839	C-CERAMIC,CHIP
C3093,C4007,C4010	2203-006839	C-CERAMIC,CHIP
C4034,C5076,C5077	2203-006839	C-CERAMIC,CHIP
C5078,C6009	2203-006839	C-CERAMIC,CHIP
C1050	2203-006846	C-CERAMIC,CHIP
C3087,C3088,C5006	2203-006872	C-CERAMIC,CHIP
C5013,C5026,C5027	2203-006872	C-CERAMIC,CHIP
C5028,C5032,C5043	2203-006872	C-CERAMIC,CHIP
C5044,C5048,C5090	2203-006872	C-CERAMIC,CHIP
C5094,C5095	2203-006896	C-CERAMIC,CHIP
C1027	2203-006968	C-CERAMIC,CHIP
C1083,C2020,C2023	2203-006979	C-CERAMIC,CHIP
C2025,C2026,C2030	2203-006979	C-CERAMIC,CHIP
C2033,C2034,C2035	2203-006979	C-CERAMIC,CHIP
C2037,C2051	2203-006979	C-CERAMIC,CHIP
C3049,C3058,C7031	2203-007194	C-CERAMIC,CHIP
L1003	2203-007194	C-CERAMIC,CHIP
C3085	2203-007210	C-CERAMIC,CHIP
C5109	2203-007271	C-CERAMIC,CHIP
C3035,C3064,C3069	2203-007317	C-CERAMIC,CHIP
C5008,C5036,C5037	2203-007317	C-CERAMIC,CHIP
C5040,C5041,C5042	2203-007317	C-CERAMIC,CHIP
C5065,C5068,C5074	2203-007317	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C7000,C7010,C7014	2203-007317	C-CERAMIC,CHIP
C7015,C7033,C7035	2203-007317	C-CERAMIC,CHIP
C2028,C3090,C6029	2203-007391	C-CERAMIC,CHIP
C6048	2203-007391	C-CERAMIC,CHIP
C2053	2203-007392	C-CERAMIC,CHIP
C1046,C1047,C2011	2203-007393	C-CERAMIC,CHIP
C3001,C3091,C3094	2203-007393	C-CERAMIC,CHIP
C4029,C4044,C4051	2203-007393	C-CERAMIC,CHIP
C4059,C4067,C4074	2203-007393	C-CERAMIC,CHIP
C5081,C5093,C5106	2203-007393	C-CERAMIC,CHIP
C5118,C6016,C6021	2203-007393	C-CERAMIC,CHIP
C6024,C6026,C6031	2203-007393	C-CERAMIC,CHIP
C6032,C6033,C6034	2203-007393	C-CERAMIC,CHIP
C6035,C6037,C7026	2203-007393	C-CERAMIC,CHIP
C5103	2203-007425	C-CERAMIC,CHIP
C6054	2203-007456	C-CERAMIC,CHIP
C2022,C2029,C2038	2203-007474	C-CERAMIC,CHIP
C2010,C2021,C2024	2203-007796	C-CERAMIC,CHIP
C2032,C2036,C3034	2203-007796	C-CERAMIC,CHIP
C3038,C3060,C3061	2203-007796	C-CERAMIC,CHIP
C3063,C3066,C3068	2203-007796	C-CERAMIC,CHIP
C3070,C4004,C4006	2203-007796	C-CERAMIC,CHIP
C4008,C4013,C4017	2203-007796	C-CERAMIC,CHIP
C4019,C4020,C4021	2203-007796	C-CERAMIC,CHIP
C4022,C4026,C4027	2203-007796	C-CERAMIC,CHIP
C4030,C4031,C4032	2203-007796	C-CERAMIC,CHIP
C4036,C4040,C4041	2203-007796	C-CERAMIC,CHIP
C4042,C4043,C4045	2203-007796	C-CERAMIC,CHIP
C4047,C4048,C4049	2203-007796	C-CERAMIC,CHIP
C4050,C4053,C4054	2203-007796	C-CERAMIC,CHIP
C4055,C4056,C4057	2203-007796	C-CERAMIC,CHIP
C4058,C4060,C4061	2203-007796	C-CERAMIC,CHIP
C4062,C4063,C4064	2203-007796	C-CERAMIC,CHIP
C4065,C4066,C4069	2203-007796	C-CERAMIC,CHIP
C4070,C4071,C4073	2203-007796	C-CERAMIC,CHIP
C4076,C4077,C4080	2203-007796	C-CERAMIC,CHIP
C4087,C4088,C4090	2203-007796	C-CERAMIC,CHIP
C4091,C4093,C4094	2203-007796	C-CERAMIC,CHIP
C4095,C4096,C4097	2203-007796	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C4099,C4100,C4101	2203-007796	C-CERAMIC,CHIP
C4102,C5011,C5014	2203-007796	C-CERAMIC,CHIP
C5015,C5022,C5031	2203-007796	C-CERAMIC,CHIP
C5038,C5039,C5047	2203-007796	C-CERAMIC,CHIP
C5049,C5069,C5072	2203-007796	C-CERAMIC,CHIP
C5073,C5111,C5116	2203-007796	C-CERAMIC,CHIP
C6002,C6017,C6020	2203-007796	C-CERAMIC,CHIP
C6022,C6023,C6025	2203-007796	C-CERAMIC,CHIP
C7001,C7004,C7005	2203-007796	C-CERAMIC,CHIP
C7008,C7009,C7013	2203-007796	C-CERAMIC,CHIP
C7016,C7018,C7022	2203-007796	C-CERAMIC,CHIP
C7032,C7050,C7077	2203-007796	C-CERAMIC,CHIP
C7082	2203-007796	C-CERAMIC,CHIP
C5112,C5115	2203-008097	C-CERAMIC,CHIP
C2056,C3005,C3006	2203-008242	C-CERAMIC,CHIP
C3011,C3022,C3023	2203-008242	C-CERAMIC,CHIP
C3030,C4000,C4038	2203-008242	C-CERAMIC,CHIP
C4039,C4072,C4075	2203-008242	C-CERAMIC,CHIP
C5029	2203-008242	C-CERAMIC,CHIP
C6057	2203-008243	C-CERAMIC,CHIP
C4081,C5001,C5003	2203-008312	C-CERAMIC,CHIP
C5004,C5052,C5054	2203-008312	C-CERAMIC,CHIP
C5056,C5058,C5060	2203-008312	C-CERAMIC,CHIP
C5062,C5064,C5067	2203-008312	C-CERAMIC,CHIP
C5100	2203-008572	C-CERAMIC,CHIP
C6053	2203-008654	C-CERAMIC,CHIP
C1082,C2055,C3000	2203-008860	C-CERAMIC,CHIP
C3062,C3065,C3067	2203-008860	C-CERAMIC,CHIP
C5007,C5098,C5101	2203-008860	C-CERAMIC,CHIP
C5110,C5113,C5122	2203-008860	C-CERAMIC,CHIP
C6008,C6014,C6015	2203-008860	C-CERAMIC,CHIP
C7017,C7019,C7052	2203-008860	C-CERAMIC,CHIP
C7053,C7054,C7078	2203-008860	C-CERAMIC,CHIP
C7079,C7080	2203-008860	C-CERAMIC,CHIP
C1041,C1079,C3084	2203-008876	C-CERAMIC,CHIP
C3092,C3105,C4001	2203-008876	C-CERAMIC,CHIP
C4002,C4014,C4016	2203-008876	C-CERAMIC,CHIP
C5023,C5024,C5025	2203-008876	C-CERAMIC,CHIP
C5030,C5046,C5050	2203-008876	C-CERAMIC,CHIP

5. MAIN Electrical Parts List

C5087,C5092,C5107	2203-008876	C-CERAMIC,CHIP
C5108,C6011,C6055	2203-008876	C-CERAMIC,CHIP
C7034,C7081	2203-008876	C-CERAMIC,CHIP
C4084,C4085,C4086	2203-009064	C-CERAMIC,CHIP
C3096,C3107	2203-009167	C-CERAMIC,CHIP
C5009	2203-009537	C-CERAMIC,CHIP
C7056	2203-009618	C-CERAMIC,CHIP
C2008,C2027,C4037	2203-009733	C-CERAMIC,CHIP
C4046,C4052,C4068	2203-009733	C-CERAMIC,CHIP
C4078,C4079,C4092	2203-009733	C-CERAMIC,CHIP
C5000,C5002,C5005	2203-009733	C-CERAMIC,CHIP
C5051,C5053,C5055	2203-009733	C-CERAMIC,CHIP
C5057,C5059,C5061	2203-009733	C-CERAMIC,CHIP
C5063,C5066,C5070	2203-009733	C-CERAMIC,CHIP
C5079,C5084,C5085	2203-009733	C-CERAMIC,CHIP
C5086,C5088,C5089	2203-009733	C-CERAMIC,CHIP
C5117,C5120,C5121	2203-009733	C-CERAMIC,CHIP
C6001,C6003,C6005	2203-009733	C-CERAMIC,CHIP
C6007,C6010,C7002	2203-009733	C-CERAMIC,CHIP
C7003,C7011,C7012	2203-009733	C-CERAMIC,CHIP
C7020,C7021,C7023	2203-009733	C-CERAMIC,CHIP
C7024,C7025,C7030	2203-009733	C-CERAMIC,CHIP
C7057,C7058,C7059	2203-009733	C-CERAMIC,CHIP
C7060,C7061,C7063	2203-009733	C-CERAMIC,CHIP
C7066,C7067,C7068	2203-009733	C-CERAMIC,CHIP
C7072,C7073,C7074	2203-009733	C-CERAMIC,CHIP
C7286,C7294	2203-009733	C-CERAMIC,CHIP
C4082,C4083	2203-009735	C-CERAMIC,CHIP
C5091	2203-009736	C-CERAMIC,CHIP
C6013,R6005	2203-009917	C-CERAMIC,CHIP
C5082,C5083	2203-010066	C-CERAMIC,CHIP
L3013	2703-002907	INDUCTOR-SMD
L1029	2703-002955	INDUCTOR-SMD
L2034	2703-002959	INDUCTOR-SMD
L1014,L1047	2703-002961	INDUCTOR-SMD
L1048	2703-003064	INDUCTOR-SMD
L3005	2703-003476	INDUCTOR-SMD
L1091,L3014	2703-003970	INDUCTOR-SMD
L1028	2703-004000	INDUCTOR-SMD

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5. MAIN Electrical Parts List

C1038,C3008,L1022	2703-004012	INDUCTOR-SMD
L1040,L1082,L1093	2703-004012	INDUCTOR-SMD
L2004,L3000	2703-004012	INDUCTOR-SMD
L1009,L1013,L1018	2703-004013	INDUCTOR-SMD
L2001,L2011,L2029	2703-004013	INDUCTOR-SMD
L3008,L3012	2703-004013	INDUCTOR-SMD
L1010,L1081,L1083	2703-004014	INDUCTOR-SMD
L1096,L3009	2703-004018	INDUCTOR-SMD
L1002,L1039,L1042	2703-004032	INDUCTOR-SMD
L1074	2703-004032	INDUCTOR-SMD
L1017,L1088,L2015	2703-004033	INDUCTOR-SMD
C2017,L1001,L1054	2703-004034	INDUCTOR-SMD
L2025,L2030,L3016	2703-004034	INDUCTOR-SMD
L1037	2703-004035	INDUCTOR-SMD
C1088,L2010	2703-004038	INDUCTOR-SMD
L3010	2703-004171	INDUCTOR-SMD
L3004	2703-004286	INDUCTOR-SMD
C1019,L1008,L1011	2703-004317	INDUCTOR-SMD
L1012,L2013	2703-004317	INDUCTOR-SMD
C2005,L1085	2703-004366	INDUCTOR-SMD
L2012	2703-004368	INDUCTOR-SMD
L1025,L1086	2703-004408	INDUCTOR-SMD
L1034	2703-004703	INDUCTOR-SMD
L1046,L1053	2703-004763	INDUCTOR-SMD
L1060,L1078,L1084	2703-004764	INDUCTOR-SMD
L2016,L2038	2703-004764	INDUCTOR-SMD
C2014,L1097,L2032	2703-004862	INDUCTOR-SMD
L3001	2703-004911	INDUCTOR-SMD
L2009	2703-004947	INDUCTOR-SMD
L1023	2703-004976	INDUCTOR-SMD
C1060,C1064,L1016	2703-005058	INDUCTOR-SMD
L1077,L1090,L2002	2703-005058	INDUCTOR-SMD
L2008	2703-005058	INDUCTOR-SMD
L5000,L5007,L5008	2703-005067	INDUCTOR-SMD
L5009,L5010	2703-005067	INDUCTOR-SMD
C2004,L1004,L1092	2703-005085	INDUCTOR-SMD
L1094	2703-005085	INDUCTOR-SMD
C1026,C1055,L1007	2703-005086	INDUCTOR-SMD
L1026,L1036,L1072	2703-005086	INDUCTOR-SMD

5. MAIN Electrical Parts List

L1073,L1095,L2000	2703-005086	INDUCTOR-SMD
L2033	2703-005086	INDUCTOR-SMD
L2037	2703-005087	INDUCTOR-SMD
C2015,L1055,L1056	2703-005088	INDUCTOR-SMD
L1058,L2003	2703-005088	INDUCTOR-SMD
L2035	2703-005089	INDUCTOR-SMD
C2019	2703-005098	INDUCTOR-SMD
L5013	2703-005136	INDUCTOR-SMD
L5001,L5004,L5005	2703-005201	INDUCTOR-SMD
L5006	2703-005201	INDUCTOR-SMD
L7010	2703-005224	INDUCTOR-SMD
L5011	2703-005225	INDUCTOR-SMD
L5002	2703-005226	INDUCTOR-SMD
C1049,L1019,L1021	2703-005295	INDUCTOR-SMD
L1045,L1049,L1100	2703-005295	INDUCTOR-SMD
L2014,L2017	2703-005295	INDUCTOR-SMD
L7007	2703-005418	INDUCTOR-SMD
L7008	2703-005419	INDUCTOR-SMD
L6001	2703-005505	INDUCTOR-SMD
L5003	2703-005509	INDUCTOR-SMD
L3023,L3024	2703-005555	INDUCTOR-SMD
C3015	2703-005718	INDUCTOR-SMD
OSC5000	2801-005389	CRYSTAL-UNIT
F1010	2904-002143	FILTER-SAW
F2001	2904-002198	FILTER-SAW
F1007	2904-002285	FILTER-SAW
F2002	2904-002326	FILTER-SAW
F3000,F3001	2904-002356	FILTER-SAW
U2000	2904-002368	FILTER-SAW
F1005	2904-002397	FILTER-SAW
F2000	2904-002405	FILTER-SAW
F1009	2910-000401	FILTER
F1008	2910-000402	FILTER
U3002	2911-000426	FILTER
U2001	2911-000430	FILTER
U1000	2911-000448	FILTER
MIC6000	3003-001237	MIC-CONDENSOR
L3011,L3015	3301-002078	CORE-FERRITE BEAD
L2006,L2007,L6002	3301-002122	CORE-FERRITE BEAD

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5. MAIN Electrical Parts List

L6003	3301-002122	CORE-FERRITE BEAD
L6000	3301-002228	CORE-FERRITE BEAD
L6004,L6005,L6008	3301-002235	CORE-FERRITE BEAD
L6009,L6011,L6012	3301-002235	CORE-FERRITE BEAD
L6013	3301-002235	CORE-FERRITE BEAD
L1000,L1101,L2039	3301-002237	CORE-FERRITE BEAD
L2041	3301-002237	CORE-FERRITE BEAD
C3046,L2019,L2020	3301-002238	CORE-FERRITE BEAD
L2021,L2023,L3007	3301-002238	CORE-FERRITE BEAD
L3017,L6010,L6014	3301-002238	CORE-FERRITE BEAD
L6016	3301-002238	CORE-FERRITE BEAD
L2040	3301-002242	CORE-FERRITE BEAD
L7000	3301-002244	CORE-FERRITE BEAD
L2018,L2022,L2024	3301-002312	CORE-FERRITE BEAD
L7006,L7009,L7011	3301-002312	CORE-FERRITE BEAD
L5012	3301-002331	CORE-FERRITE BEAD
L7001,L7002,L7004	3301-002394	CORE-FERRITE BEAD
RFS1001	3705-001708	CONNECTOR-COAXIAL
RFS1000	3705-001937	CONNECTOR-COAXIAL
SIM600UP	3709-001932	CONNECTOR-CARD EDGE
SIM6003	3709-001933	CONNECTOR-CARD EDGE
SIM6001,SIM6002	3709-001934	CONNECTOR-CARD EDGE
HDC7002	3710-003871	CONNECTOR-SOCKET
HDC7003	3710-004027	CONNECTOR-SOCKET
SOC6000	3710-004367	CONNECTOR-SOCKET
HDC7004	3711-007295	CONNECTOR-HEADER
HDC7001	3711-008511	CONNECTOR-HEADER
HDC5000	3711-008847	CONNECTOR-HEADER
HDC7000	3711-008931	CONNECTOR-HEADER
ANT3000,ANT3001	3712-001604	CONNECTOR
ANT1000,ANT2000	3712-001621	CONNECTOR
ANT2001,ANT2002	3712-001621	CONNECTOR
ANT2003,ANT2004	3712-001621	CONNECTOR
ANT2005	3712-001621	CONNECTOR
ANT2006,ANT2007	3712-001626	CONNECTOR
ANT2008	3712-001626	CONNECTOR
ANT5003,ANT5005	3712-001633	CONNECTOR
ANT6000,ANT6001	3712-001666	CONNECTOR
ANT5000,ANT5001	3712-001694	CONNECTOR

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5. MAIN Electrical Parts List

ANT5002,ANT5004	3712-001694	CONNECTOR
ANT5006	3712-001694	CONNECTOR
ANT3004,U3001	3712-001714	CONNECTOR
F2003	4709-002196	RF-MODULE
F1001	4709-002387	RF-MODULE
F1000	4709-002412	RF-MODULE
U2003	4709-002484	RF-MODULE

5. MAIN Electrical Parts List

[SM-A5070]

Parts Code	Design LOC	Description
D5001	0401-001110	DIODE-SWITCHING
D5000	0404-001250	DIODE-SCHOTTKY
ZD1000	0406-001506	DIODE-TVS
ZD5000,ZD5001,ZD6022	0406-001561	DIODE-TVS
ZD5003	0406-001592	DIODE-TVS
ZD7009	0406-001728	DIODE-TVS
ZD6018,ZD6023,ZD6024	0406-001781	DIODE-TVS
ZD6020,ZD6021	0406-001797	DIODE-TVS
ZD6016	0406-001808	DIODE-TVS
ZD1001,ZD5004	0406-001829	DIODE-TVS
LED5000	0601-003768	LED
U3003	1001-002062	IC
U1001	1001-002063	IC
U2005	1001-002078	IC
U1002	1001-002082	IC
U2006	1003-002802	IC
U3007	1009-001078	IC
UME5000	1107-002536	IC-FLASH MEMORY
U3006	1201-003869	IC
U1003	1201-004209	IC
U1004,U1006	1201-004219	IC
PAM1000	1201-004237	IC
U6000	1201-004240	IC
U3010,U3012	1203-008249	IC
U5004	1203-008251	IC
U7005	1203-008326	IC
U2002	1203-008693	IC
U5001	1203-008729	IC
U7001	1203-008865	IC
U7002,U7006	1203-008867	IC
U3014	1203-008925	IC
U7007	1203-008926	IC
U5005	1203-009113	IC
U7003	1203-009220	IC
U7000	1203-009221	IC
U500	1203-009224	IC
U6002	1203-009233	IC

5. MAIN Electrical Parts List

U6001	1205-005750	IC
U2004	1205-005767	IC
U3000	1205-005979	IC
U3005	1205-006087	IC
UCP400	1205-006177	IC
U3011	1209-002450	IC
U3015	1209-002513	IC
U3008	1209-002628	IC
U3013	1209-002629	IC
U3009	1209-002640	IC
TH1000,TH4000,TH4001	1404-001724	THERMISTOR
TH5000	1404-001724	THERMISTOR
V7000	1405-001458	VARISTOR
R3007	2007-000141	R-CHIP
R3005	2007-000148	R-CHIP
R5015	2007-000172	R-CHIP
R6026,R6027	2007-003015	R-CHIP
R1012	2007-007100	R-CHIP
R6028,R6029	2007-007192	R-CHIP
R2002,R2003,R5004	2007-007741	R-CHIP
R5007	2007-007741	R-CHIP
ZD6017	2007-007798	R-CHIP
R5002	2007-007942	R-CHIP
R5003	2007-007946	R-CHIP
R5001	2007-008043	R-CHIP
R4000	2007-008048	R-CHIP
R4016,R4030,R4032	2007-008052	R-CHIP
R4033,R5008,R5010	2007-008052	R-CHIP
R7002	2007-008052	R-CHIP
R5014,R7004	2007-008055	R-CHIP
R1001,R1002,R1008	2007-008056	R-CHIP
R1009	2007-008056	R-CHIP
R1011,R4055,R5009	2007-008419	R-CHIP
R6017	2007-008419	R-CHIP
R5005,R5006	2007-008483	R-CHIP
R5013,R5017,R5018	2007-008486	R-CHIP
R5019	2007-008486	R-CHIP
R4003,R5012,R6001	2007-008516	R-CHIP
R6010,R7000,R7001	2007-008531	R-CHIP

5. MAIN Electrical Parts List

R7005	2007-008531	R-CHIP
R3003,R3008,R4005	2007-008588	R-CHIP
R4008,R4009,R4010	2007-008588	R-CHIP
R4011,R4012,R4013	2007-008588	R-CHIP
R4014,R4019,R4022	2007-008588	R-CHIP
R4023,R4025,R4027	2007-008588	R-CHIP
R4028,R4029,R4034	2007-008588	R-CHIP
R4035,R4036,R4037	2007-008588	R-CHIP
R4038,R4039,R4040	2007-008588	R-CHIP
R4043,R4044,R4045	2007-008588	R-CHIP
R4046,R4047,R4048	2007-008588	R-CHIP
R4049,R4050,R4051	2007-008588	R-CHIP
R4052,R4053,R4054	2007-008588	R-CHIP
R6018,R6025	2007-008588	R-CHIP
R1000,R1010	2007-008785	R-CHIP
R1004,R1005,R1006	2007-008806	R-CHIP
R1007,R1014,R3001	2007-008806	R-CHIP
R4002	2007-008816	R-CHIP
R3004	2007-009111	R-CHIP
R5016	2007-009155	R-CHIP
R1013,R4006,R4007	2007-009157	R-CHIP
R5021	2007-009157	R-CHIP
R5011	2007-009182	R-CHIP
R6000	2007-009314	R-CHIP
R5020	2007-009315	R-CHIP
R1003	2007-009361	R-CHIP
R6008,R6031,R6032	2007-009410	R-CHIP
R2000	2007-009805	R-CHIP
R6013	2007-009838	R-CHIP
R4020,R4021,R4024	2007-009920	R-CHIP
R4026	2007-009920	R-CHIP
R3010,R3011,R6020	2007-009969	R-CHIP
R6030	2007-010031	R-CHIP
R6011	2007-011648	R-CHIP
C3095,C3102	2203-000233	C-CERAMIC,CHIP
C3098	2203-000311	C-CERAMIC,CHIP
C5119	2203-005344	C-CERAMIC,CHIP
C3099	2203-005395	C-CERAMIC,CHIP
C1018,C1021,C1023	2203-005682	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C1025,C1066,C1067	2203-005682	C-CERAMIC,CHIP
C5099,C5105,C5114	2203-005682	C-CERAMIC,CHIP
C7046,C7064,C7065	2203-005682	C-CERAMIC,CHIP
C3027,C3029,C3041	2203-005725	C-CERAMIC,CHIP
C7006,C7007	2203-005725	C-CERAMIC,CHIP
L2026	2203-005727	C-CERAMIC,CHIP
C1089,C5102,C6044	2203-005729	C-CERAMIC,CHIP
C6046,C6051,C6052	2203-005729	C-CERAMIC,CHIP
L1089	2203-005729	C-CERAMIC,CHIP
C2052,C6058,C6059	2203-005731	C-CERAMIC,CHIP
L1059	2203-005731	C-CERAMIC,CHIP
C5097,C6039,C6045	2203-005732	C-CERAMIC,CHIP
C6050	2203-005732	C-CERAMIC,CHIP
C1005,C3054	2203-005734	C-CERAMIC,CHIP
C1000,C1002,C1010	2203-005736	C-CERAMIC,CHIP
C1015,C1017,C1028	2203-005736	C-CERAMIC,CHIP
C1033,C1052,C1054	2203-005736	C-CERAMIC,CHIP
C1056,C1063,C1087	2203-005736	C-CERAMIC,CHIP
C2002,C2006,C2009	2203-005736	C-CERAMIC,CHIP
C2013,C2039,C2043	2203-005736	C-CERAMIC,CHIP
C2044,C2050,C3009	2203-005736	C-CERAMIC,CHIP
C3021,C3047,C3048	2203-005736	C-CERAMIC,CHIP
L1005,L1027,L1052	2203-005736	C-CERAMIC,CHIP
C1035	2203-005740	C-CERAMIC,CHIP
C1029,C1072,C1076	2203-005777	C-CERAMIC,CHIP
L1062,L1066,L1098	2203-005777	C-CERAMIC,CHIP
C1007,C1030,C1032	2203-005789	C-CERAMIC,CHIP
C1048,C1061,C1084	2203-005789	C-CERAMIC,CHIP
C1090,L1024,L1035	2203-005789	C-CERAMIC,CHIP
L1079	2203-005789	C-CERAMIC,CHIP
C1058	2203-005792	C-CERAMIC,CHIP
C1003,C1081,C2000	2203-005806	C-CERAMIC,CHIP
C6042	2203-006121	C-CERAMIC,CHIP
C1020	2203-006123	C-CERAMIC,CHIP
C6012	2203-006194	C-CERAMIC,CHIP
C1001,C1070	2203-006318	C-CERAMIC,CHIP
C2049,C3002,C3003	2203-006400	C-CERAMIC,CHIP
C3043,C3044,C3097	2203-006400	C-CERAMIC,CHIP
C3100,C4011,C4012	2203-006400	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C5080,C5123,C5124	2203-006400	C-CERAMIC,CHIP
C3045,L1061	2203-006410	C-CERAMIC,CHIP
C2031,C3057,C3059	2203-006423	C-CERAMIC,CHIP
C3071,C3072,C5104	2203-006423	C-CERAMIC,CHIP
C6000,C6004,C6006	2203-006423	C-CERAMIC,CHIP
C6038,C6049,C7040	2203-006423	C-CERAMIC,CHIP
C5096	2203-006556	C-CERAMIC,CHIP
C1057,C3053,L1057	2203-006604	C-CERAMIC,CHIP
C1069	2203-006611	C-CERAMIC,CHIP
L1065	2203-006665	C-CERAMIC,CHIP
C4003	2203-006668	C-CERAMIC,CHIP
C1053	2203-006674	C-CERAMIC,CHIP
C1031,C1065	2203-006707	C-CERAMIC,CHIP
C1004,C1024,C1040	2203-006839	C-CERAMIC,CHIP
C1042,C1043,C1045	2203-006839	C-CERAMIC,CHIP
C1077,C1080,C1085	2203-006839	C-CERAMIC,CHIP
C1086,C2001,C3086	2203-006839	C-CERAMIC,CHIP
C3093,C4007,C4010	2203-006839	C-CERAMIC,CHIP
C4034,C5076,C5077	2203-006839	C-CERAMIC,CHIP
C5078,C6009	2203-006839	C-CERAMIC,CHIP
C1050	2203-006846	C-CERAMIC,CHIP
C3087,C3088,C5006	2203-006872	C-CERAMIC,CHIP
C5013,C5026,C5027	2203-006872	C-CERAMIC,CHIP
C5028,C5032,C5043	2203-006872	C-CERAMIC,CHIP
C5044,C5048,C5090	2203-006872	C-CERAMIC,CHIP
C5094,C5095	2203-006896	C-CERAMIC,CHIP
C1027	2203-006968	C-CERAMIC,CHIP
C1083,C2020,C2023	2203-006979	C-CERAMIC,CHIP
C2025,C2026,C2030	2203-006979	C-CERAMIC,CHIP
C2033,C2034,C2035	2203-006979	C-CERAMIC,CHIP
C2037,C2051	2203-006979	C-CERAMIC,CHIP
C3049,C3058,C7031	2203-007194	C-CERAMIC,CHIP
L1003	2203-007194	C-CERAMIC,CHIP
C3085	2203-007210	C-CERAMIC,CHIP
C5109	2203-007271	C-CERAMIC,CHIP
C3035,C3064,C3069	2203-007317	C-CERAMIC,CHIP
C5008,C5036,C5037	2203-007317	C-CERAMIC,CHIP
C5040,C5041,C5042	2203-007317	C-CERAMIC,CHIP
C5065,C5068,C5074	2203-007317	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C7000,C7010,C7014	2203-007317	C-CERAMIC,CHIP
C7015,C7033,C7035	2203-007317	C-CERAMIC,CHIP
C2028,C3090,C6029	2203-007391	C-CERAMIC,CHIP
C6048	2203-007391	C-CERAMIC,CHIP
C2053	2203-007392	C-CERAMIC,CHIP
C1046,C1047,C2011	2203-007393	C-CERAMIC,CHIP
C3001,C3091,C3094	2203-007393	C-CERAMIC,CHIP
C4029,C4044,C4051	2203-007393	C-CERAMIC,CHIP
C4059,C4067,C4074	2203-007393	C-CERAMIC,CHIP
C5081,C5093,C5106	2203-007393	C-CERAMIC,CHIP
C5118,C6016,C6021	2203-007393	C-CERAMIC,CHIP
C6024,C6026,C6031	2203-007393	C-CERAMIC,CHIP
C6032,C6033,C6034	2203-007393	C-CERAMIC,CHIP
C6035,C6037,C7026	2203-007393	C-CERAMIC,CHIP
C5103	2203-007425	C-CERAMIC,CHIP
C6054	2203-007456	C-CERAMIC,CHIP
C2022,C2029,C2038	2203-007474	C-CERAMIC,CHIP
C2010,C2021,C2024	2203-007796	C-CERAMIC,CHIP
C2032,C2036,C3034	2203-007796	C-CERAMIC,CHIP
C3038,C3060,C3061	2203-007796	C-CERAMIC,CHIP
C3063,C3066,C3068	2203-007796	C-CERAMIC,CHIP
C3070,C4004,C4006	2203-007796	C-CERAMIC,CHIP
C4008,C4013,C4017	2203-007796	C-CERAMIC,CHIP
C4019,C4020,C4021	2203-007796	C-CERAMIC,CHIP
C4022,C4026,C4027	2203-007796	C-CERAMIC,CHIP
C4030,C4031,C4032	2203-007796	C-CERAMIC,CHIP
C4036,C4040,C4041	2203-007796	C-CERAMIC,CHIP
C4042,C4043,C4045	2203-007796	C-CERAMIC,CHIP
C4047,C4048,C4049	2203-007796	C-CERAMIC,CHIP
C4050,C4053,C4054	2203-007796	C-CERAMIC,CHIP
C4055,C4056,C4057	2203-007796	C-CERAMIC,CHIP
C4058,C4060,C4061	2203-007796	C-CERAMIC,CHIP
C4062,C4063,C4064	2203-007796	C-CERAMIC,CHIP
C4065,C4066,C4069	2203-007796	C-CERAMIC,CHIP
C4070,C4071,C4073	2203-007796	C-CERAMIC,CHIP
C4076,C4077,C4080	2203-007796	C-CERAMIC,CHIP
C4087,C4088,C4090	2203-007796	C-CERAMIC,CHIP
C4091,C4093,C4094	2203-007796	C-CERAMIC,CHIP
C4095,C4096,C4097	2203-007796	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C4099,C4100,C4101	2203-007796	C-CERAMIC,CHIP
C4102,C5011,C5014	2203-007796	C-CERAMIC,CHIP
C5015,C5022,C5031	2203-007796	C-CERAMIC,CHIP
C5038,C5039,C5047	2203-007796	C-CERAMIC,CHIP
C5049,C5069,C5072	2203-007796	C-CERAMIC,CHIP
C5073,C5111,C5116	2203-007796	C-CERAMIC,CHIP
C6002,C6017,C6020	2203-007796	C-CERAMIC,CHIP
C6022,C6023,C6025	2203-007796	C-CERAMIC,CHIP
C7001,C7004,C7005	2203-007796	C-CERAMIC,CHIP
C7008,C7009,C7013	2203-007796	C-CERAMIC,CHIP
C7016,C7018,C7022	2203-007796	C-CERAMIC,CHIP
C7032,C7050,C7077	2203-007796	C-CERAMIC,CHIP
C7082	2203-007796	C-CERAMIC,CHIP
C5112,C5115	2203-008097	C-CERAMIC,CHIP
C2056,C3005,C3006	2203-008242	C-CERAMIC,CHIP
C3011,C3022,C3023	2203-008242	C-CERAMIC,CHIP
C3030,C4000,C4038	2203-008242	C-CERAMIC,CHIP
C4039,C4072,C4075	2203-008242	C-CERAMIC,CHIP
C5029	2203-008242	C-CERAMIC,CHIP
C6057	2203-008243	C-CERAMIC,CHIP
C4081,C5001,C5003	2203-008312	C-CERAMIC,CHIP
C5004,C5052,C5054	2203-008312	C-CERAMIC,CHIP
C5056,C5058,C5060	2203-008312	C-CERAMIC,CHIP
C5062,C5064,C5067	2203-008312	C-CERAMIC,CHIP
C5100	2203-008572	C-CERAMIC,CHIP
C6053	2203-008654	C-CERAMIC,CHIP
C1082,C2055,C3000	2203-008860	C-CERAMIC,CHIP
C3062,C3065,C3067	2203-008860	C-CERAMIC,CHIP
C5007,C5098,C5101	2203-008860	C-CERAMIC,CHIP
C5110,C5113,C5122	2203-008860	C-CERAMIC,CHIP
C6008,C6014,C6015	2203-008860	C-CERAMIC,CHIP
C7017,C7019,C7052	2203-008860	C-CERAMIC,CHIP
C7053,C7054,C7078	2203-008860	C-CERAMIC,CHIP
C7079,C7080	2203-008860	C-CERAMIC,CHIP
C1041,C1079,C3084	2203-008876	C-CERAMIC,CHIP
C3092,C3105,C4001	2203-008876	C-CERAMIC,CHIP
C4002,C4014,C4016	2203-008876	C-CERAMIC,CHIP
C5023,C5024,C5025	2203-008876	C-CERAMIC,CHIP
C5030,C5046,C5050	2203-008876	C-CERAMIC,CHIP

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5. MAIN Electrical Parts List

C5087,C5092,C5107	2203-008876	C-CERAMIC,CHIP
C5108,C6011,C6055	2203-008876	C-CERAMIC,CHIP
C7034,C7081	2203-008876	C-CERAMIC,CHIP
C4084,C4085,C4086	2203-009064	C-CERAMIC,CHIP
C3096,C3107	2203-009167	C-CERAMIC,CHIP
C5009	2203-009537	C-CERAMIC,CHIP
C7056	2203-009618	C-CERAMIC,CHIP
C2008,C2027,C4037	2203-009733	C-CERAMIC,CHIP
C4046,C4052,C4068	2203-009733	C-CERAMIC,CHIP
C4078,C4079,C4092	2203-009733	C-CERAMIC,CHIP
C5000,C5002,C5005	2203-009733	C-CERAMIC,CHIP
C5051,C5053,C5055	2203-009733	C-CERAMIC,CHIP
C5057,C5059,C5061	2203-009733	C-CERAMIC,CHIP
C5063,C5066,C5070	2203-009733	C-CERAMIC,CHIP
C5079,C5084,C5085	2203-009733	C-CERAMIC,CHIP
C5086,C5088,C5089	2203-009733	C-CERAMIC,CHIP
C5117,C5120,C5121	2203-009733	C-CERAMIC,CHIP
C6001,C6003,C6005	2203-009733	C-CERAMIC,CHIP
C6007,C6010,C7002	2203-009733	C-CERAMIC,CHIP
C7003,C7011,C7012	2203-009733	C-CERAMIC,CHIP
C7020,C7021,C7023	2203-009733	C-CERAMIC,CHIP
C7024,C7025,C7030	2203-009733	C-CERAMIC,CHIP
C7057,C7058,C7059	2203-009733	C-CERAMIC,CHIP
C7060,C7061,C7063	2203-009733	C-CERAMIC,CHIP
C7066,C7067,C7068	2203-009733	C-CERAMIC,CHIP
C7072,C7073,C7074	2203-009733	C-CERAMIC,CHIP
C7286,C7294	2203-009733	C-CERAMIC,CHIP
C4082,C4083	2203-009735	C-CERAMIC,CHIP
C5091	2203-009736	C-CERAMIC,CHIP
C6013,R6005	2203-009917	C-CERAMIC,CHIP
C5082,C5083	2203-010066	C-CERAMIC,CHIP
L3013	2703-002907	INDUCTOR-SMD
L1029	2703-002955	INDUCTOR-SMD
L2034	2703-002959	INDUCTOR-SMD
L1014,L1047	2703-002961	INDUCTOR-SMD
L1048	2703-003064	INDUCTOR-SMD
L3005	2703-003476	INDUCTOR-SMD
L1091,L3014	2703-003970	INDUCTOR-SMD
L1028	2703-004000	INDUCTOR-SMD

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5. MAIN Electrical Parts List

C1038,C3008,L1022	2703-004012	INDUCTOR-SMD
L1040,L1082,L1093	2703-004012	INDUCTOR-SMD
L2004,L3000	2703-004012	INDUCTOR-SMD
L1009,L1013,L1018	2703-004013	INDUCTOR-SMD
L2001,L2011,L2029	2703-004013	INDUCTOR-SMD
L3008,L3012	2703-004013	INDUCTOR-SMD
L1010,L1081,L1083	2703-004014	INDUCTOR-SMD
L1096,L3009	2703-004018	INDUCTOR-SMD
L1002,L1039,L1042	2703-004032	INDUCTOR-SMD
L1074	2703-004032	INDUCTOR-SMD
L1017,L1088,L2015	2703-004033	INDUCTOR-SMD
C2017,L1001,L1054	2703-004034	INDUCTOR-SMD
L2025,L2030,L3016	2703-004034	INDUCTOR-SMD
L1037	2703-004035	INDUCTOR-SMD
C1088,L2010	2703-004038	INDUCTOR-SMD
L3010	2703-004171	INDUCTOR-SMD
L3004	2703-004286	INDUCTOR-SMD
C1019,L1008,L1011	2703-004317	INDUCTOR-SMD
L1012,L2013	2703-004317	INDUCTOR-SMD
C2005,L1085	2703-004366	INDUCTOR-SMD
L2012	2703-004368	INDUCTOR-SMD
L1025,L1086	2703-004408	INDUCTOR-SMD
L1034	2703-004703	INDUCTOR-SMD
L1046,L1053	2703-004763	INDUCTOR-SMD
L1060,L1078,L1084	2703-004764	INDUCTOR-SMD
L2016,L2038	2703-004764	INDUCTOR-SMD
C2014,L1097,L2032	2703-004862	INDUCTOR-SMD
L3001	2703-004911	INDUCTOR-SMD
L2009	2703-004947	INDUCTOR-SMD
L1023	2703-004976	INDUCTOR-SMD
C1060,C1064,L1016	2703-005058	INDUCTOR-SMD
L1077,L1090,L2002	2703-005058	INDUCTOR-SMD
L2008	2703-005058	INDUCTOR-SMD
L5000,L5007,L5008	2703-005067	INDUCTOR-SMD
L5009,L5010	2703-005067	INDUCTOR-SMD
C2004,L1004,L1092	2703-005085	INDUCTOR-SMD
L1094	2703-005085	INDUCTOR-SMD
C1026,C1055,L1007	2703-005086	INDUCTOR-SMD
L1026,L1036,L1072	2703-005086	INDUCTOR-SMD

5. MAIN Electrical Parts List

L1073,L1095,L2000	2703-005086	INDUCTOR-SMD
L2033	2703-005086	INDUCTOR-SMD
L2037	2703-005087	INDUCTOR-SMD
C2015,L1055,L1056	2703-005088	INDUCTOR-SMD
L1058,L2003	2703-005088	INDUCTOR-SMD
L2035	2703-005089	INDUCTOR-SMD
C2019	2703-005098	INDUCTOR-SMD
L5013	2703-005136	INDUCTOR-SMD
L5001,L5004,L5005	2703-005201	INDUCTOR-SMD
L5006	2703-005201	INDUCTOR-SMD
L7010	2703-005224	INDUCTOR-SMD
L5011	2703-005225	INDUCTOR-SMD
L5002	2703-005226	INDUCTOR-SMD
C1049,L1019,L1021	2703-005295	INDUCTOR-SMD
L1045,L1049,L1100	2703-005295	INDUCTOR-SMD
L2014,L2017	2703-005295	INDUCTOR-SMD
L7007	2703-005418	INDUCTOR-SMD
L7008	2703-005419	INDUCTOR-SMD
L6001	2703-005505	INDUCTOR-SMD
L5003	2703-005509	INDUCTOR-SMD
L3023,L3024	2703-005555	INDUCTOR-SMD
C3015	2703-005718	INDUCTOR-SMD
OSC5000	2801-005389	CRYSTAL-UNIT
F1010	2904-002143	FILTER-SAW
F2001	2904-002198	FILTER-SAW
F1007	2904-002285	FILTER-SAW
F2002	2904-002326	FILTER-SAW
F3000,F3001	2904-002356	FILTER-SAW
U2000	2904-002368	FILTER-SAW
F1005	2904-002397	FILTER-SAW
F2000	2904-002405	FILTER-SAW
F1009	2910-000401	FILTER
F1008	2910-000402	FILTER
U3002	2911-000426	FILTER
U2001	2911-000430	FILTER
U1000	2911-000448	FILTER
MIC6000	3003-001237	MIC-CONDENSOR
L3011,L3015	3301-002078	CORE-FERRITE BEAD
L2006,L2007,L6002	3301-002122	CORE-FERRITE BEAD

5. MAIN Electrical Parts List

L6003	3301-002122	CORE-FERRITE BEAD
L6000	3301-002228	CORE-FERRITE BEAD
L6004,L6005,L6008	3301-002235	CORE-FERRITE BEAD
L6009,L6011,L6012	3301-002235	CORE-FERRITE BEAD
L6013	3301-002235	CORE-FERRITE BEAD
L1000,L1101,L2039	3301-002237	CORE-FERRITE BEAD
L2041	3301-002237	CORE-FERRITE BEAD
C3046,L2019,L2020	3301-002238	CORE-FERRITE BEAD
L2021,L2023,L3007	3301-002238	CORE-FERRITE BEAD
L3017,L6010,L6014	3301-002238	CORE-FERRITE BEAD
L6016	3301-002238	CORE-FERRITE BEAD
L2040	3301-002242	CORE-FERRITE BEAD
L7000	3301-002244	CORE-FERRITE BEAD
L2018,L2022,L2024	3301-002312	CORE-FERRITE BEAD
L7006,L7009,L7011	3301-002312	CORE-FERRITE BEAD
L5012	3301-002331	CORE-FERRITE BEAD
L7001,L7002,L7004	3301-002394	CORE-FERRITE BEAD
RFS1001	3705-001708	CONNECTOR-COAXIAL
RFS1000	3705-001937	CONNECTOR-COAXIAL
SIM600UP	3709-001932	CONNECTOR-CARD EDGE
SIM6003	3709-001933	CONNECTOR-CARD EDGE
SIM6001,SIM6002	3709-001934	CONNECTOR-CARD EDGE
HDC7002	3710-003871	CONNECTOR-SOCKET
HDC7003	3710-004027	CONNECTOR-SOCKET
SOC6000	3710-004367	CONNECTOR-SOCKET
HDC7004	3711-007295	CONNECTOR-HEADER
HDC7001	3711-008511	CONNECTOR-HEADER
HDC5000	3711-008847	CONNECTOR-HEADER
HDC7000	3711-008931	CONNECTOR-HEADER
ANT3000,ANT3001	3712-001604	CONNECTOR
ANT1000,ANT2000	3712-001621	CONNECTOR
ANT2001,ANT2002	3712-001621	CONNECTOR
ANT2003,ANT2004	3712-001621	CONNECTOR
ANT2005	3712-001621	CONNECTOR
ANT2006,ANT2007	3712-001626	CONNECTOR
ANT2008	3712-001626	CONNECTOR
ANT5003,ANT5005	3712-001633	CONNECTOR
ANT6000,ANT6001	3712-001666	CONNECTOR
ANT5000,ANT5001	3712-001694	CONNECTOR

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5. MAIN Electrical Parts List

ANT5002,ANT5004	3712-001694	CONNECTOR
ANT5006	3712-001694	CONNECTOR
ANT3004,U3001	3712-001714	CONNECTOR
F2003	4709-002196	RF-MODULE
F1001	4709-002387	RF-MODULE
F1000	4709-002412	RF-MODULE
U2003	4709-002484	RF-MODULE

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

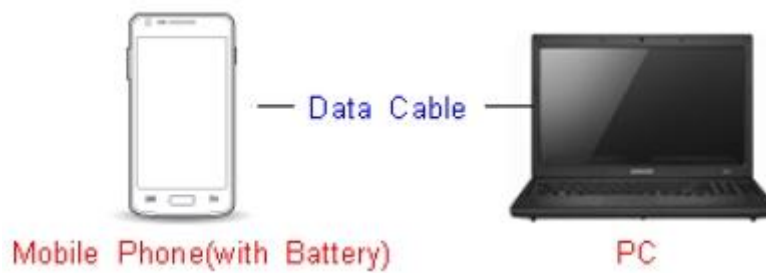
6. Level 1 Repair

6-1. S/W Update

6-1-1. Preparation

- S/W Update program : [Fenrir 5.17.xxxx](#)
- Mobile Phone
- Data Cable

※ Settings



Data Cable : [GH39-02003A](#)

6. Level 1 Repair

6-1-2. How to use 'Fenrir' S/W update program.

1) Launch Fenrir by clicking on the icon on the desktop



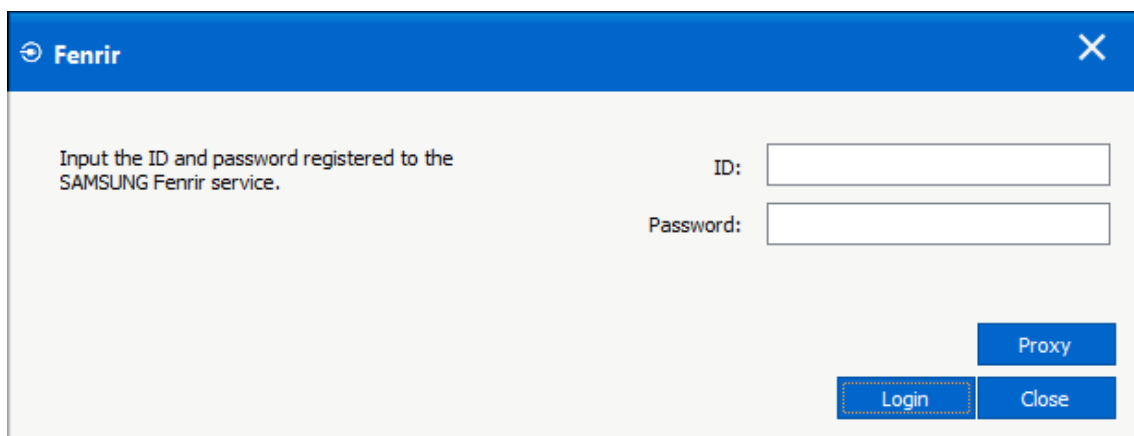
- SVH (Fenrir_Home) : It uses Home binary which does not have user data area in the memory when flashed to a device. (Keep user data)

- SVC (Fenrir_Factory) : It uses Factory binary which erases all user data in the memory when flashed to a device. (Clear user data)

- SVA (Fenrir_All) : It uses Factory and Home binaries. you can download Home and Factory binary in a PC (but requires double HDD storage and NW traffic)

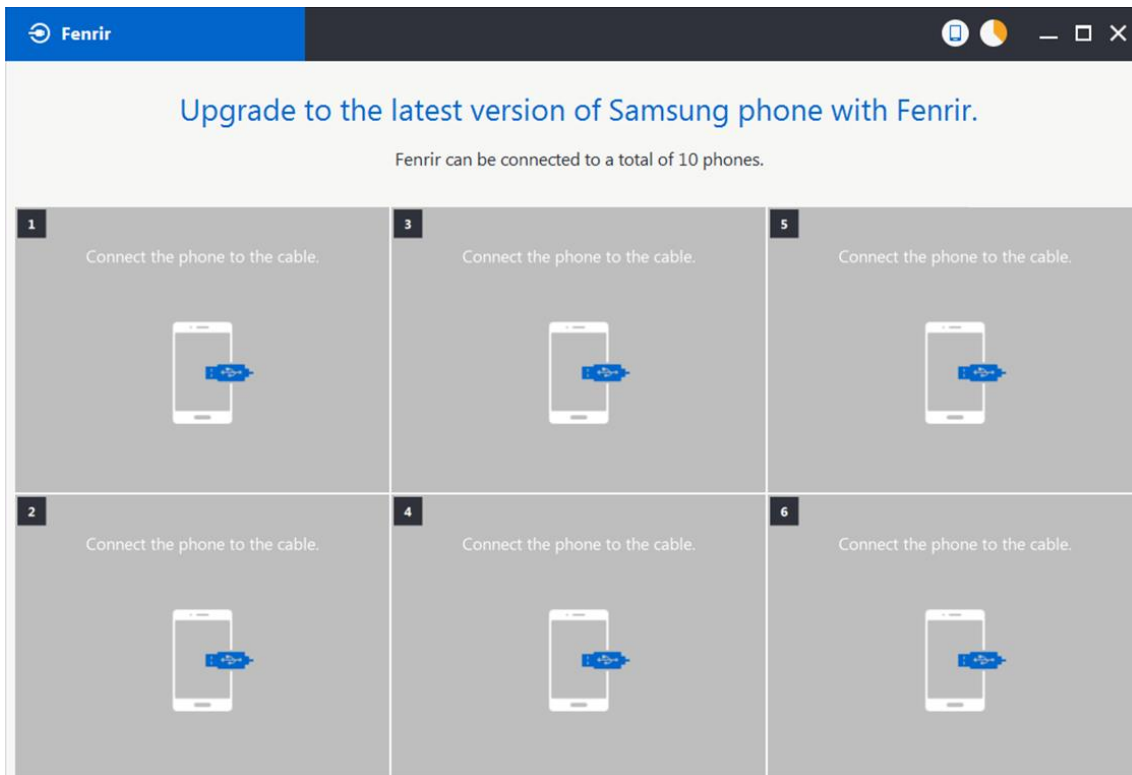
2) Input ID & password

※ You need to reset the ID information in case of PC change and format and repair, hard disk change



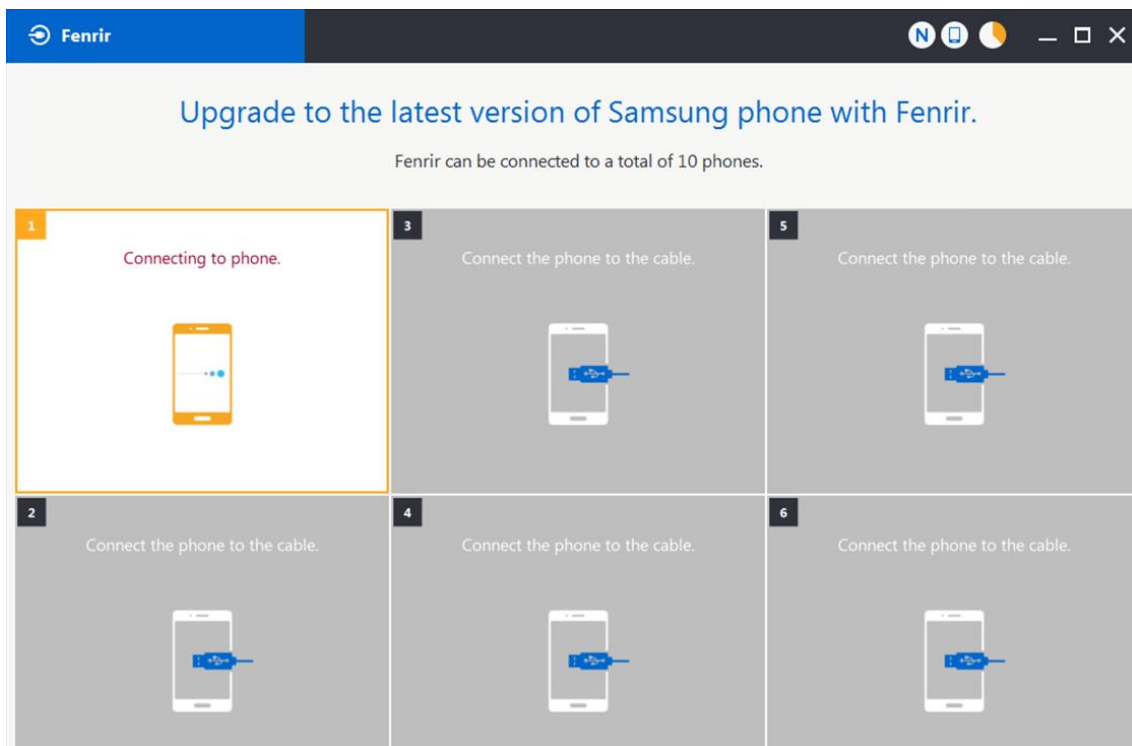
6. Level 1 Repair

3) Ensure device has sufficient charge (at least 20%) to start firmware update.



4) Connect the device to PC via data cable.

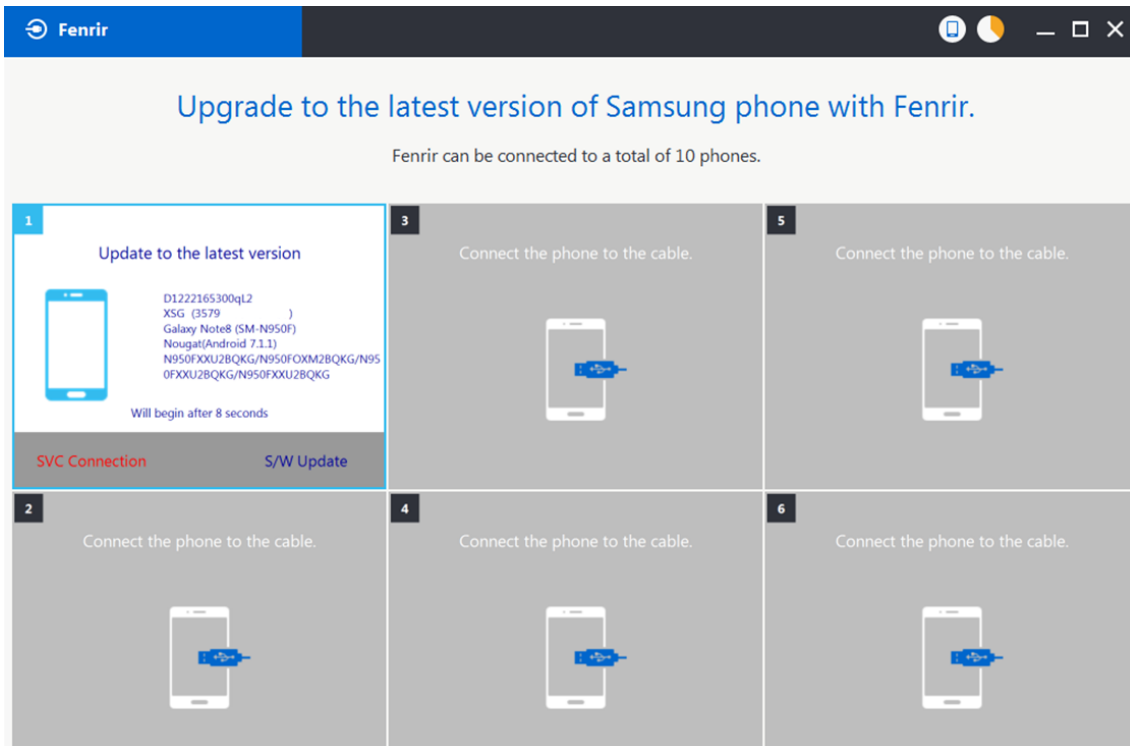
5) Upon USB connection, you will be presented with below screen.



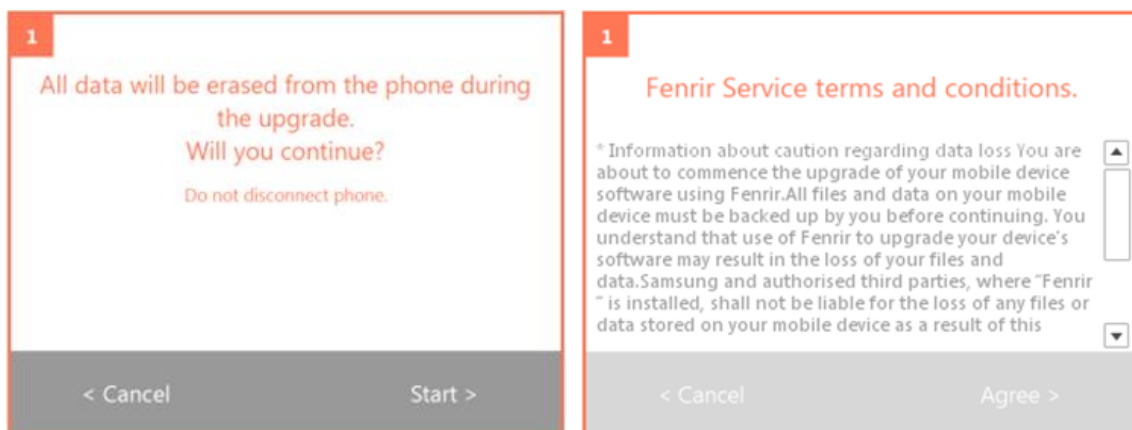
6. Level 1 Repair

=C

6) Once device is detected, you will be presented with below screen. To update S/W, select “S/W Update” or to exit select “SVC Connection”. If you select “SVC Connection”, only Fenrir connection history (record) will be stored in the FUS server to support warranty validation. (This is known as “Service Connection” history)

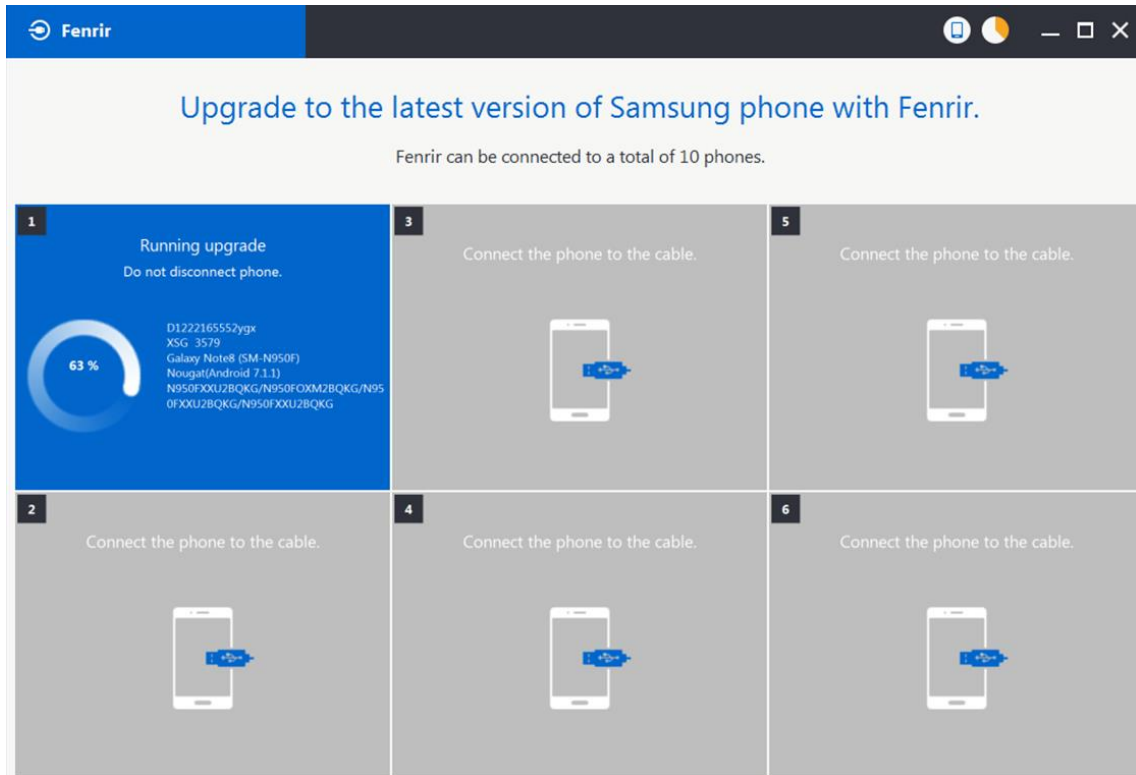


7) Once Fenrir starts, application will display the below screen. And select the Start button & Agree button.

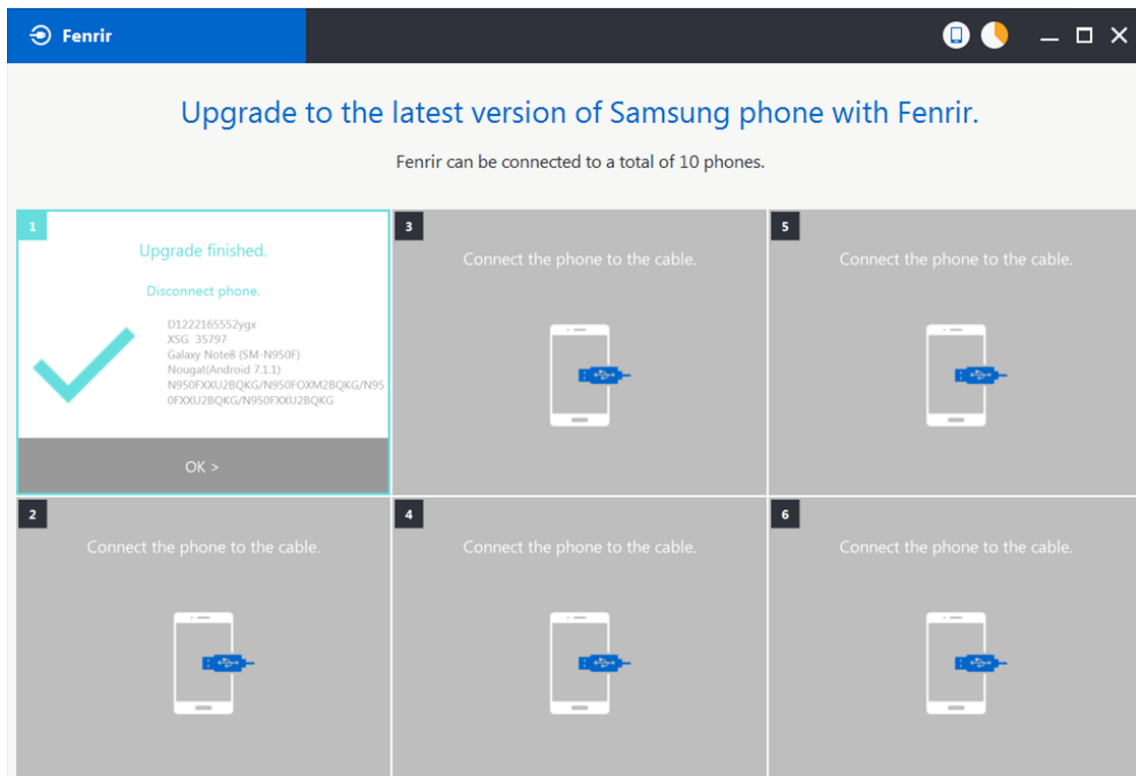


6. Level 1 Repair

8) The status circle increases as the update installs. The update process takes approximately 5-10 minutes to complete. Do not disconnect the device from USB during processing.



9) Once complete, application will present the below screen indicating update complete. Click Ok and detach device from USB.



6. Level 1 Repair

6-2. How to use 'Odin' program

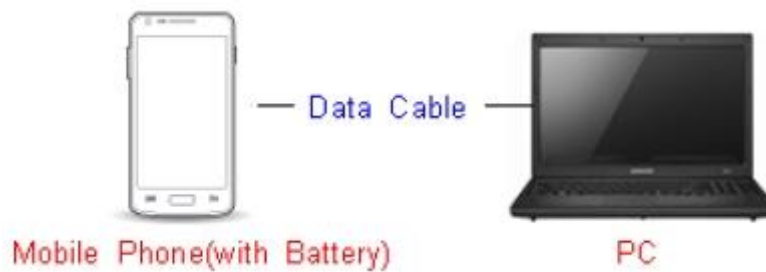
※ S/W Update via Fenrir is mandatory.

Below is the method to use 'Odin' program in any specific case.

6-2-1. Preparation

- Installation program : **Odin3 v3.13.2.exe or above**
- Mobile Phone
- Data Cable
- S/W Binary files (downloaded from GSPN)

※ Settings

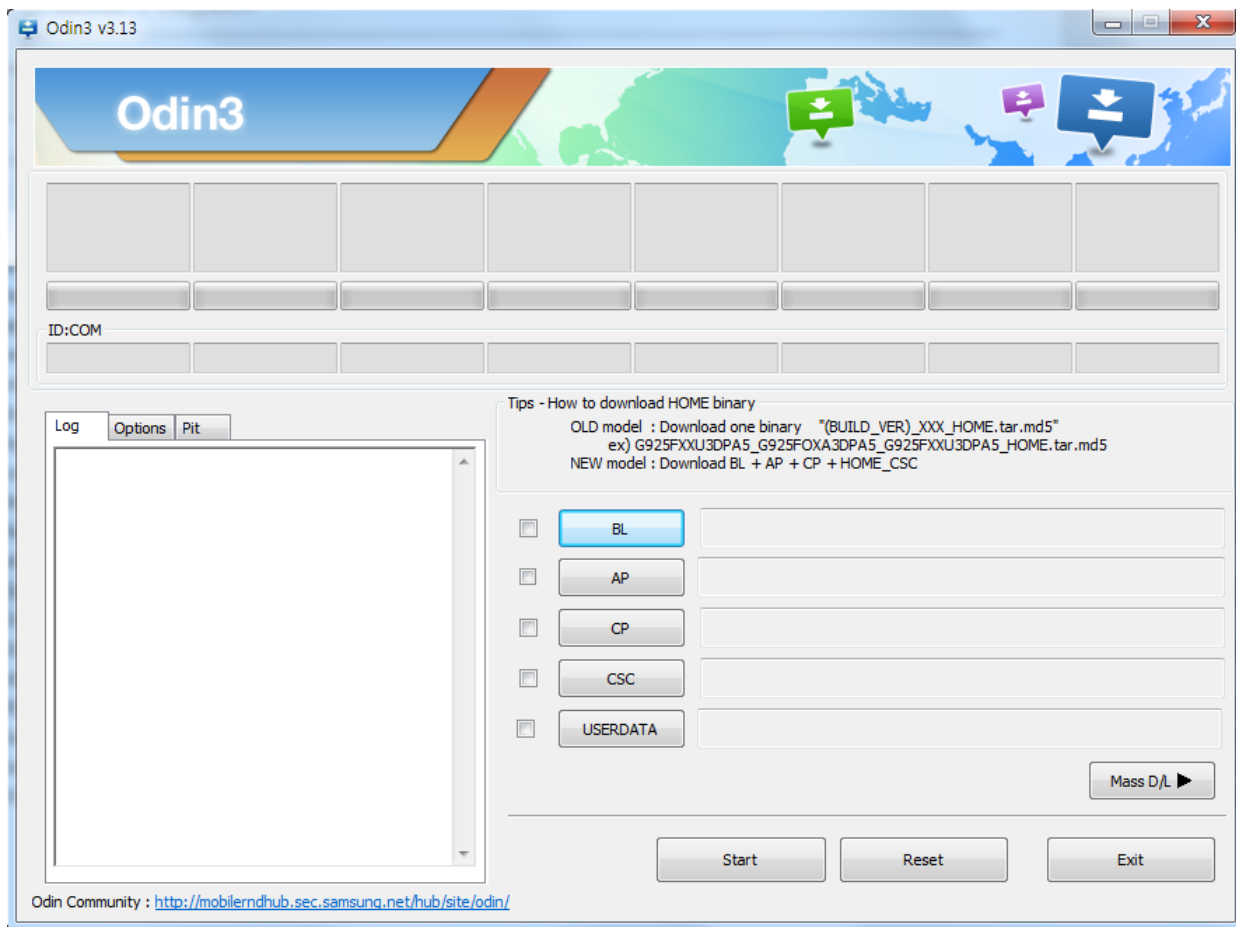


Data Cable : GH39-02003A

6. Level 1 Repair

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

Open up the S/W Installation Program by executing the "**Odin3 v3.13.2.exe**"

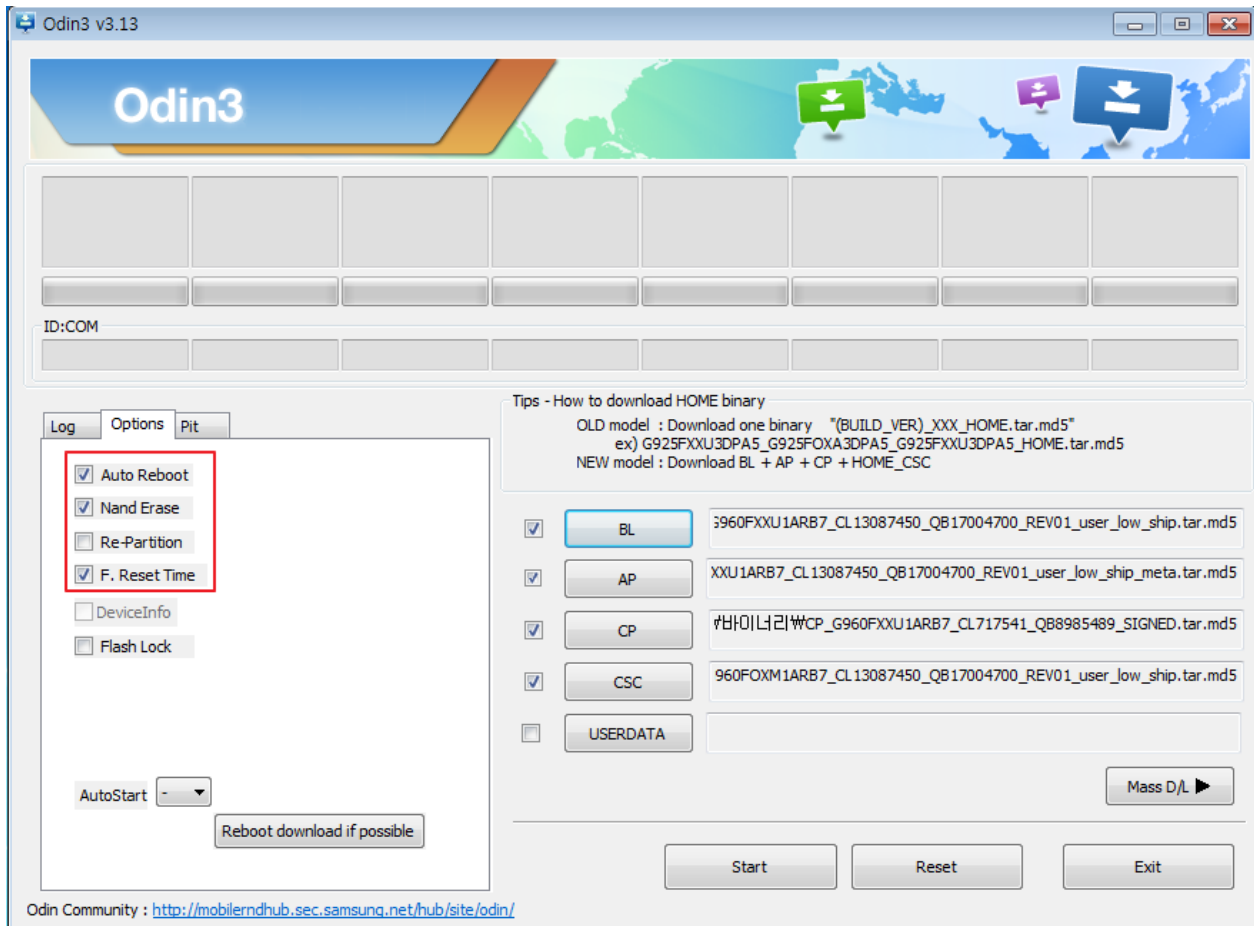


6. Level 1 Repair

1. Enable the check mark by click on the following options

- Check Auto Reboot, F. Reset Time, Nand Erase
- Check BL, AP, CP, CSC Files

* Note : "Odin v3.13.2 or above" checks MD5 checksum just after file selection.



6. Level 1 Repair

2. Enter into Download Mode

- Enter into Download Mode by pressing Volume Down button, Intelligence button and ON/OFF Button simultaneously followed by pressing Volume up button as a direction of the phone.



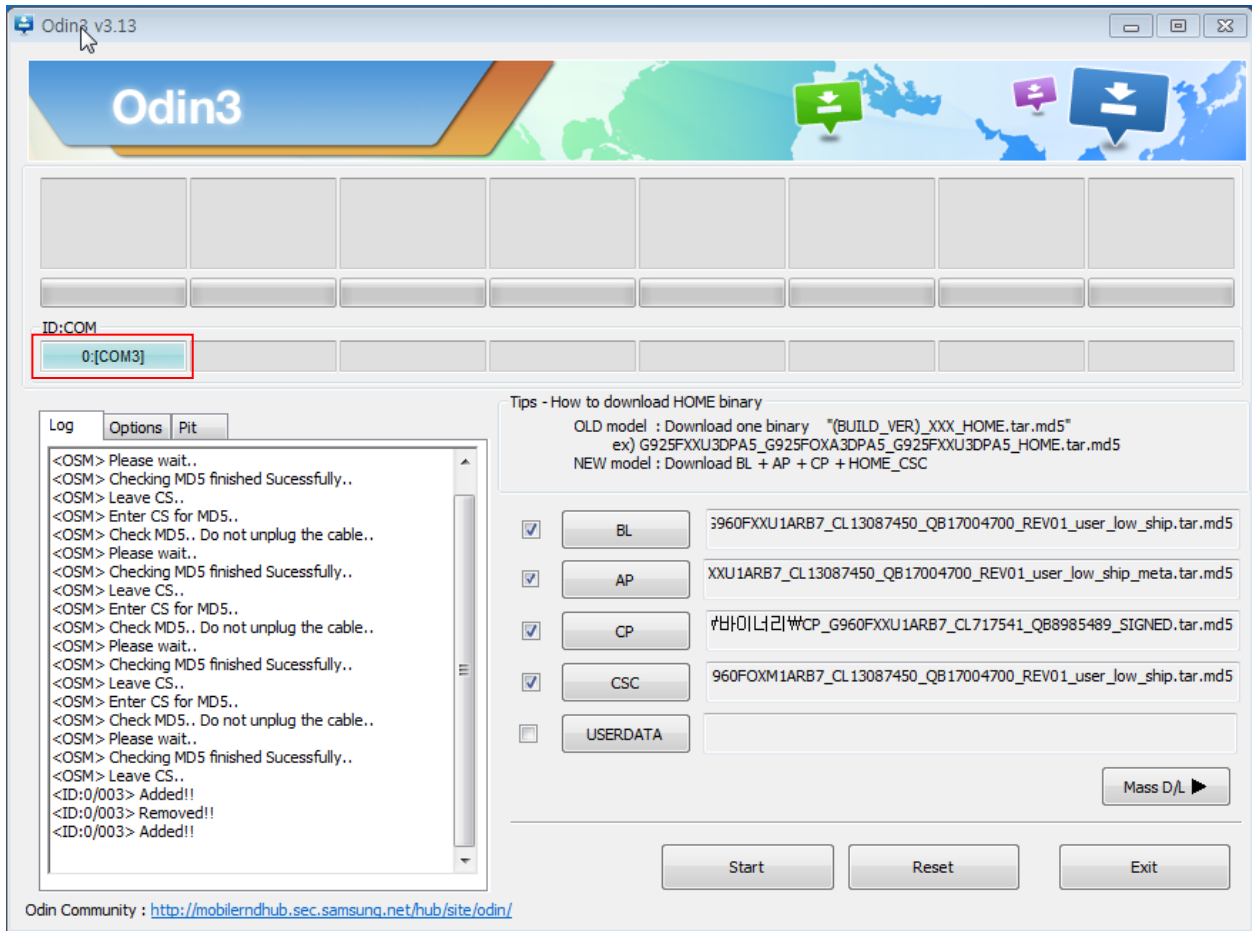
Volume UP+DOWN

USB Cable Connect

6. Level 1 Repair

3. Connect the device to PC via Data Cable.

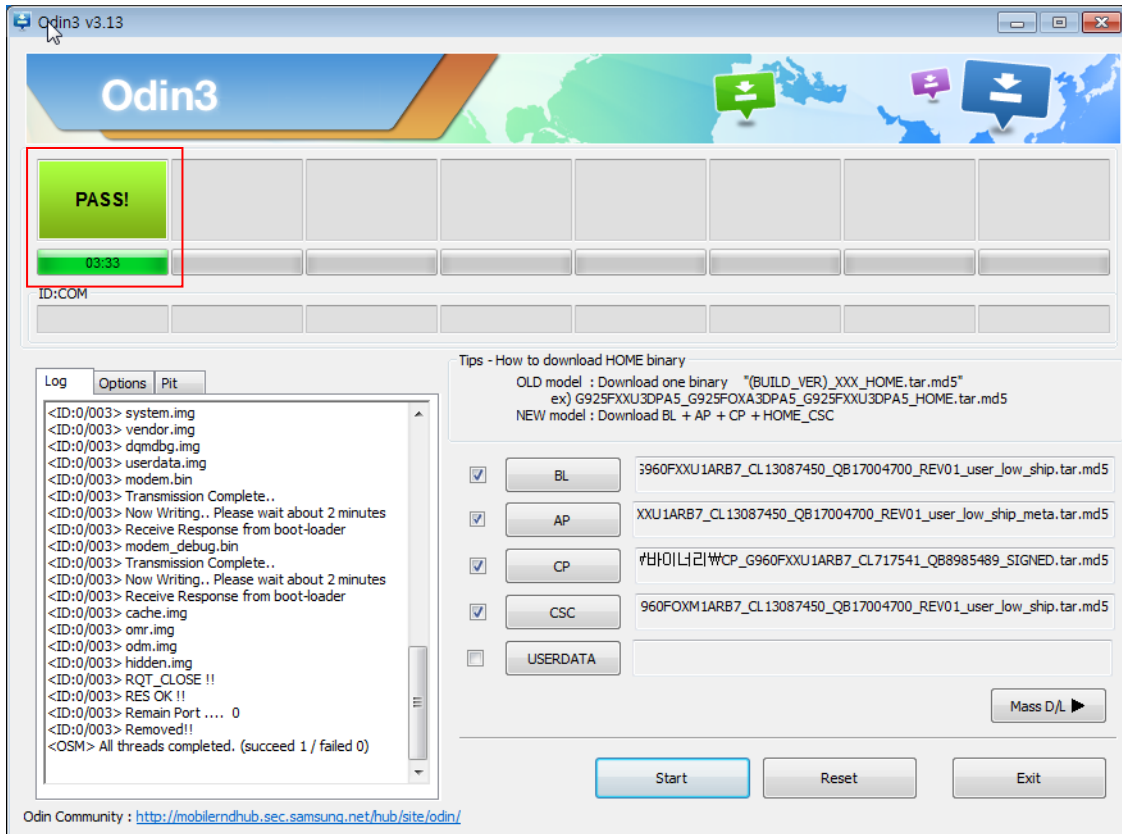
Make sure that the one of communication ports [ID:COM] box is highlighted in sky blue. The device is now connected with the PC and ready to download the binary files in it.



6. Level 1 Repair

4. Start downloading the binary files 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 files have 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 Factory data Reset by Settings → General Management → Reset

※ Caution. Never disconnect during the S/W downloading.

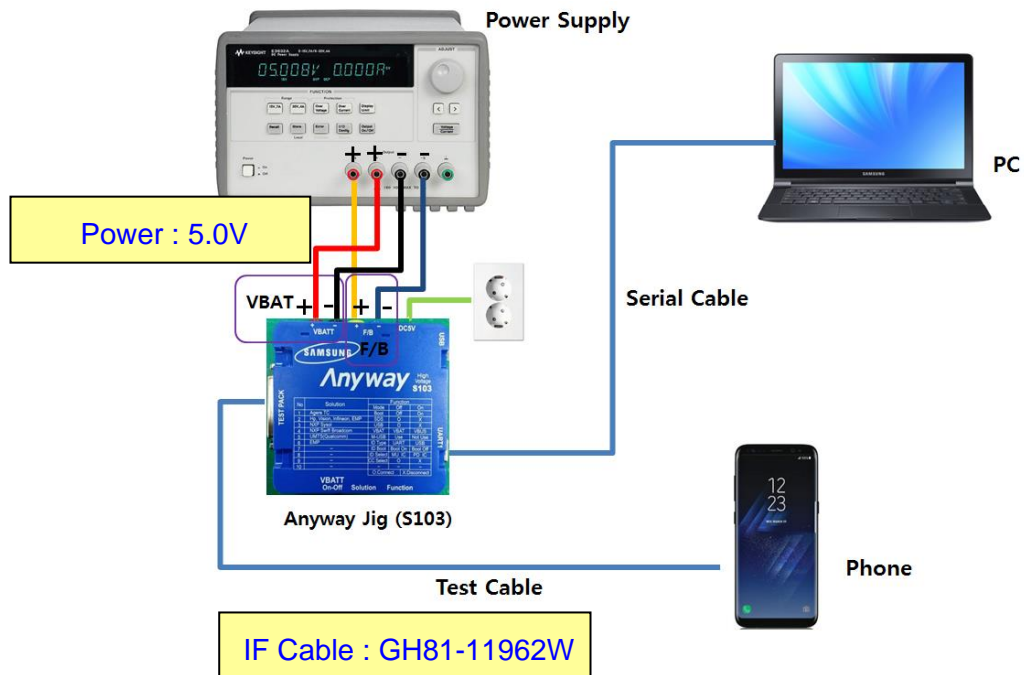
6. Level 1 Repair

6-3. IMEI writing

6-3-1. Preparation

- New IMEI writing Program has been released.
- Supported Model : Models which CAB files are uploaded on HHPsvc INI File category, instead of ini file.
- Refer to below IMEI writing procedure.

- H/W



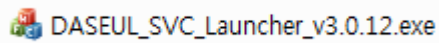
- SW

① Library Install	To use Daseul, library files should be installed. Refer to SVC Bulletin “(11-82) Daseul (New IMEI writing Program) Library Install guide_rev1.0”
② Launcher	DASEUL_SVC_Launcher_v3.0.12 or higher -Uploaded on HHPsvc Notice
③ Runtime File	1. DASEUL_IMEI_ALL_Runtime_3.1.348.0_r00519.CAB or higher -Uploaded on HHPsvc Notice 2. Make ‘SM-M205F’ folder at the same position with launcher & Runtime file. DASEUL_IMEI_ALL_Runtime_3.1.348.0_r00519.CAB DASEUL_Launcher_v4.0.0.exe SM-G960F_SS(CSC)_IMEI_Ver_3.1.343.10.CAB
④ Model File	Copy Model File under the ‘SM-M205F’ folder

6. Level 1 Repair

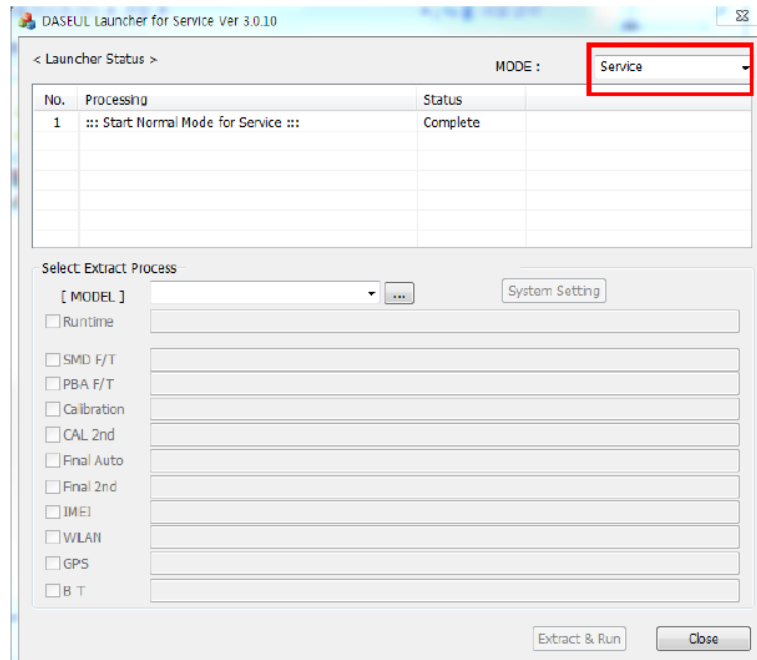
6-3-2. IMEI writing Process

1. Run DASEUL_SVC_Launcher_v3.0.12.exe

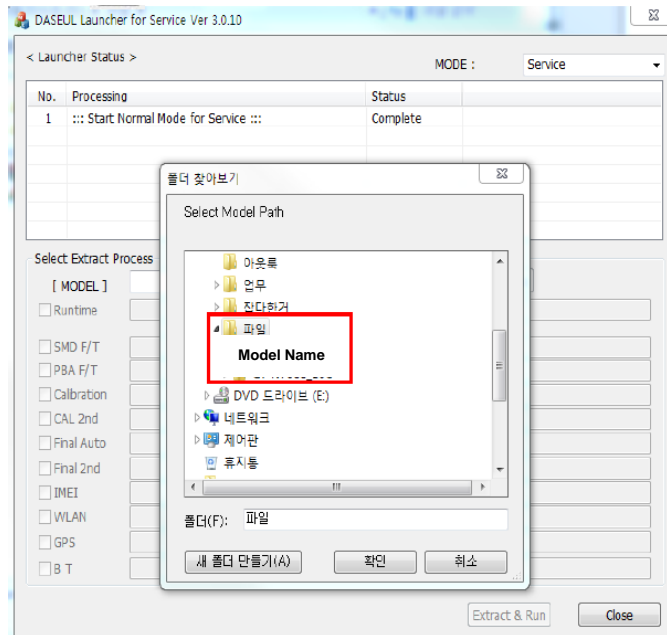


DASEUL_SVC_Launcher_v3.0.12.exe

2. Select Service Mode

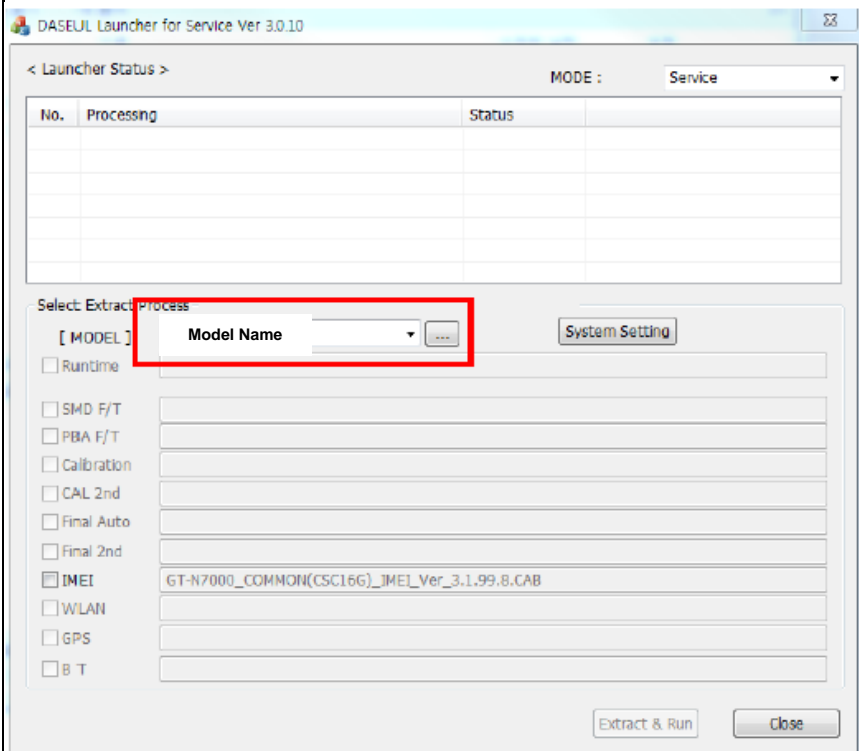


3. Click  and Select folder where the Launcher exists



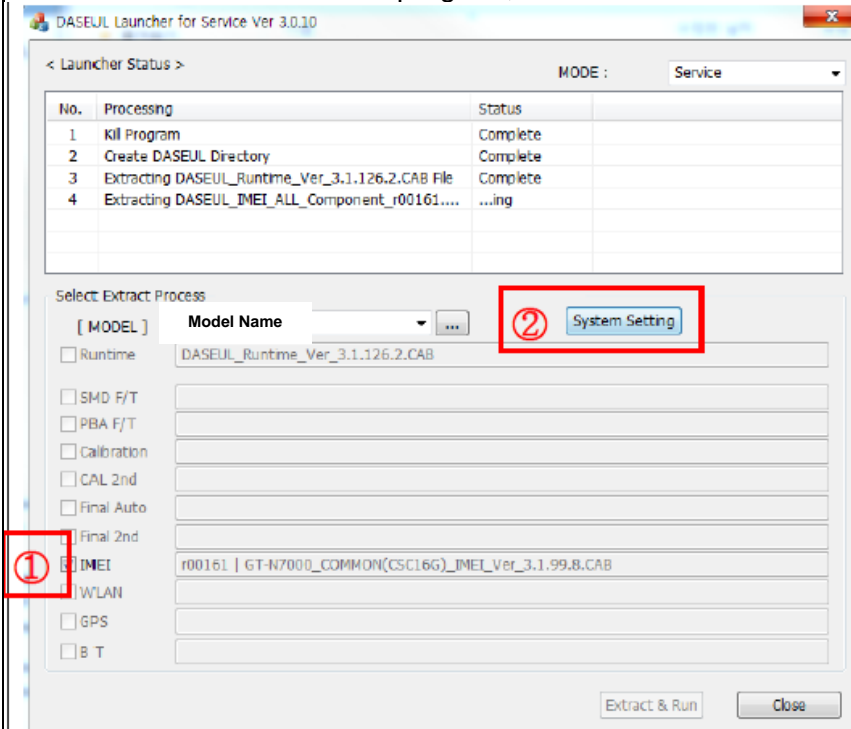
6. Level 1 Repair

4. Select Model



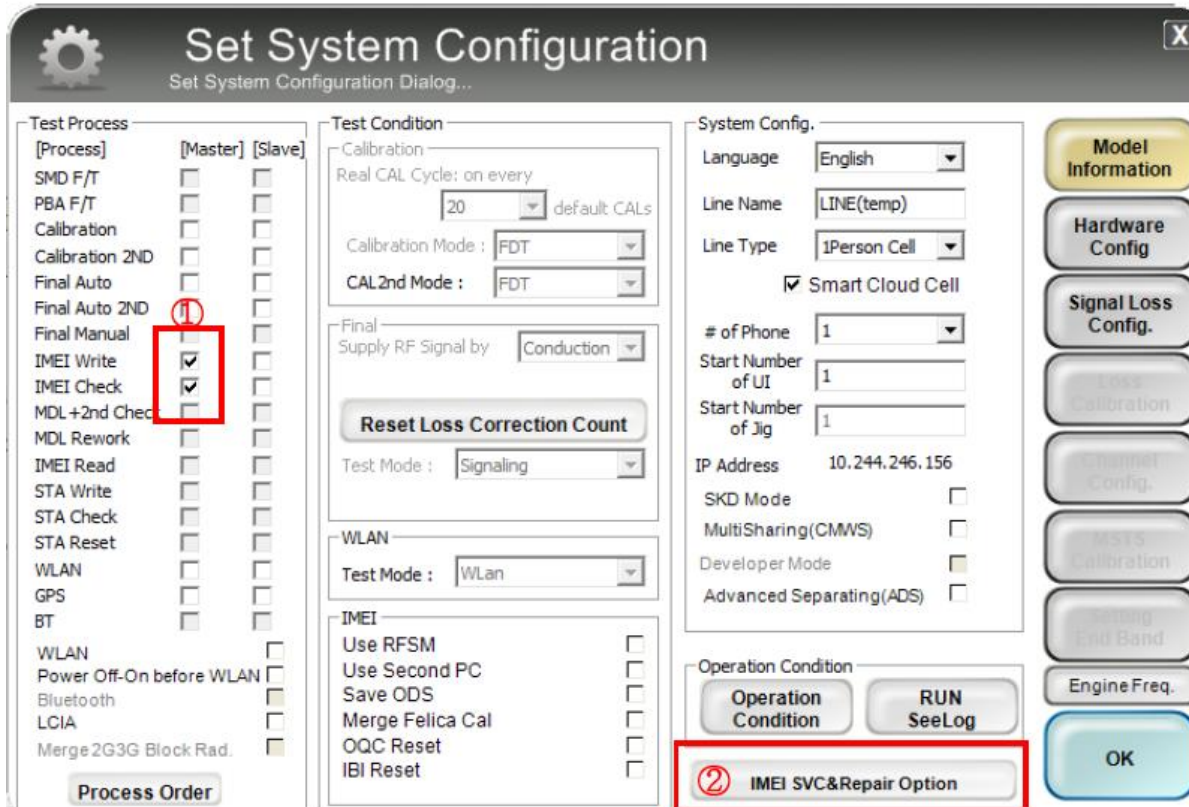
5. Check IMEI and click System Setting

※ Once you setup the setting, you don't have to do it again, unless there is change. From second run of the IMEI program, check IMEI and click Extract & Run.



6. Level 1 Repair

6. Check IMEI Write / IMEI Check and click IMEI SVC & Repair Option.



Set System Configuration
Set System Configuration Dialog...

Test Process

[Process]	[Master]	[Slave]
SMD F/T	<input type="checkbox"/>	<input type="checkbox"/>
PBA F/T	<input type="checkbox"/>	<input type="checkbox"/>
Calibration	<input type="checkbox"/>	<input type="checkbox"/>
Calibration 2ND	<input type="checkbox"/>	<input type="checkbox"/>
Final Auto	<input type="checkbox"/>	<input type="checkbox"/>
Final Auto 2ND	<input type="checkbox"/>	<input type="checkbox"/>
Final Manual	<input type="checkbox"/>	<input type="checkbox"/>
IMEI Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IMEI Check	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MDL +2nd Check	<input type="checkbox"/>	<input type="checkbox"/>
MDL Rework	<input type="checkbox"/>	<input type="checkbox"/>
IMEI Read	<input type="checkbox"/>	<input type="checkbox"/>
STA Write	<input type="checkbox"/>	<input type="checkbox"/>
STA Check	<input type="checkbox"/>	<input type="checkbox"/>
STA Reset	<input type="checkbox"/>	<input type="checkbox"/>
WLAN	<input type="checkbox"/>	<input type="checkbox"/>
GPS	<input type="checkbox"/>	<input type="checkbox"/>
BT	<input type="checkbox"/>	<input type="checkbox"/>
WLAN	<input type="checkbox"/>	<input type="checkbox"/>
Power Off-On before WLAN	<input type="checkbox"/>	<input type="checkbox"/>
Bluetooth	<input type="checkbox"/>	<input type="checkbox"/>
LCIA	<input type="checkbox"/>	<input type="checkbox"/>
Merge 2G3G Block Rad.	<input type="checkbox"/>	<input type="checkbox"/>

Test Condition

Calibration
Real CAL Cycle: on every default CALs

Calibration Mode :

CAL2nd Mode :

Final
Supply RF Signal by :

Reset Loss Correction Count

Test Mode :

WLAN
Test Mode :

IMEI
Use RFSM
Use Second PC
Save ODS
Merge Felica Cal
OQC Reset
IBI Reset

System Config.

Language :

Line Name :

Line Type :

Smart Cloud Cell

of Phone :

Start Number of UI :

Start Number of Jig :

IP Address : 10.244.246.156

SKD Mode

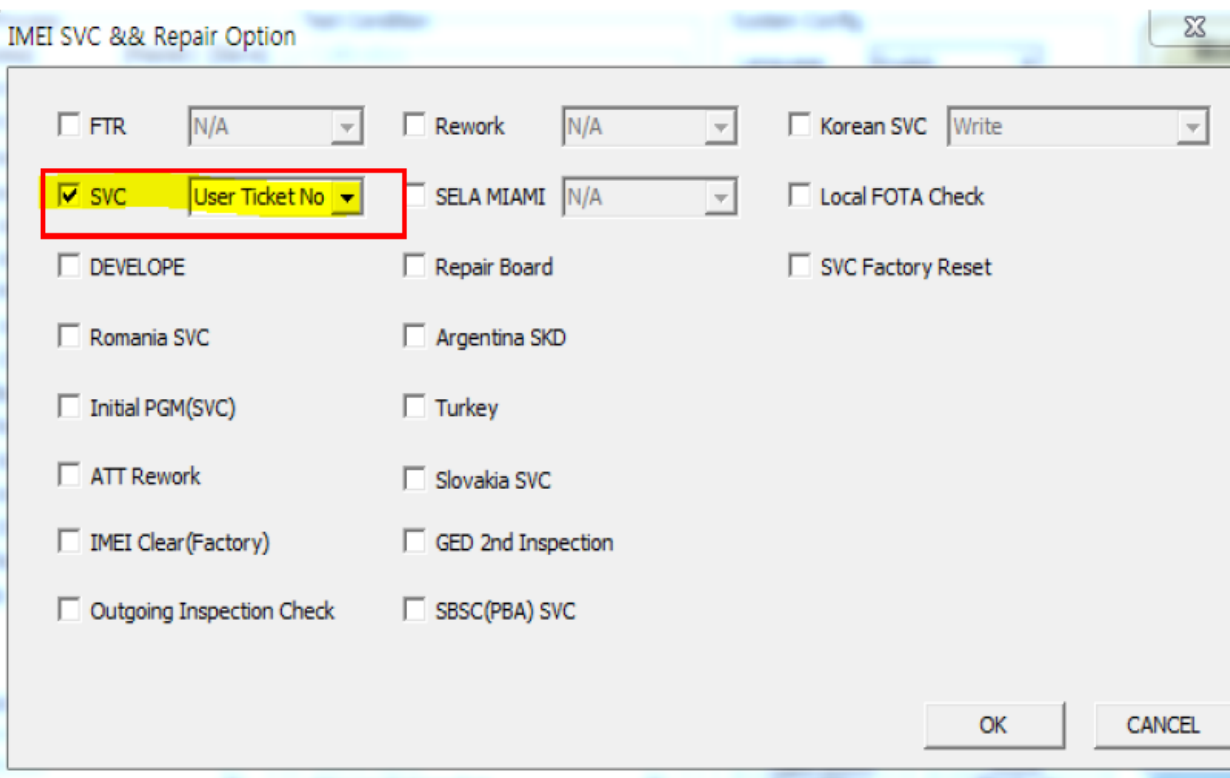
MultiSharing(CMWS)

Developer Mode

Advanced Separating(ADS)

Operation Condition

7. Check 'SVC , User Ticket No' and click OK



IMEI SVC & Repair Option

FTR Rework Korean SVC

SVC SELA MIAMI Local FOTA Check

DEVELOPE Repair Board SVC Factory Reset

Romania SVC Argentina SKD

Initial PGM(SVC) Turkey

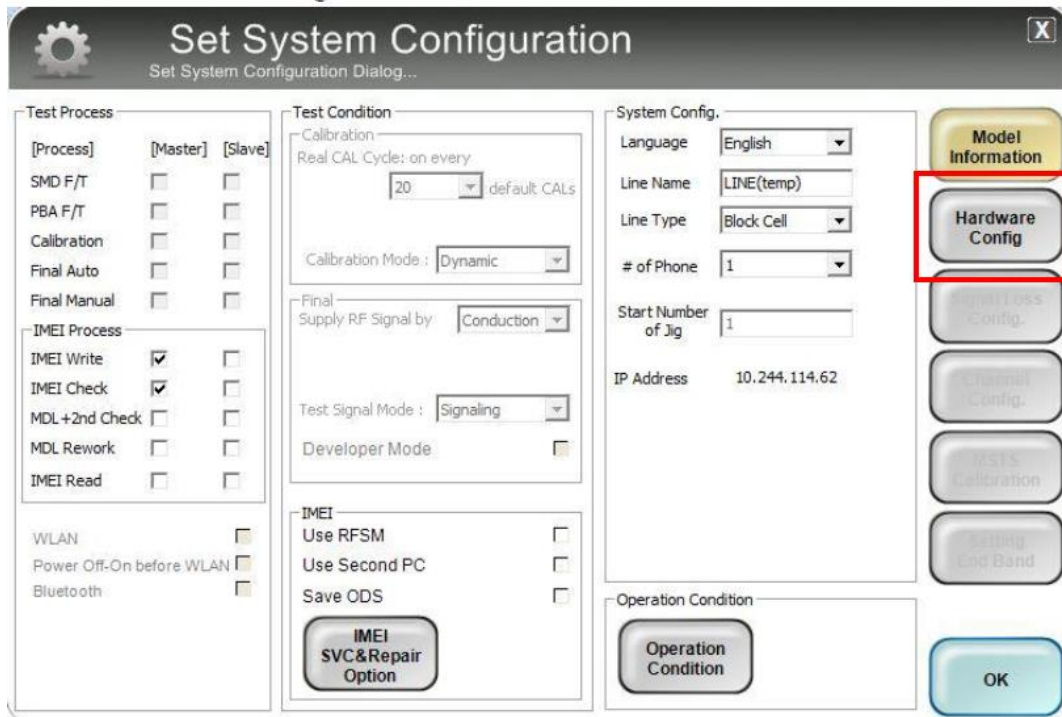
ATT Rework Slovakia SVC

IMEI Clear(Factory) GED 2nd Inspection

Outgoing Inspection Check SBSC(PBA) SVC

6. Level 1 Repair

8. Click 'Hardware Config'



Set System Configuration
Set System Configuration Dialog...

Test Process

[Process]	[Master]	[Slave]
SMD F/T	<input type="checkbox"/>	<input type="checkbox"/>
PBA F/T	<input type="checkbox"/>	<input type="checkbox"/>
Calibration	<input type="checkbox"/>	<input type="checkbox"/>
Final Auto	<input type="checkbox"/>	<input type="checkbox"/>
Final Manual	<input type="checkbox"/>	<input type="checkbox"/>

IMEI Process

IMEI Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IMEI Check	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MDL +2nd Check	<input type="checkbox"/>	<input type="checkbox"/>
MDL Rework	<input type="checkbox"/>	<input type="checkbox"/>
IMEI Read	<input type="checkbox"/>	<input type="checkbox"/>

WLAN
Power Off-On before WLAN
Bluetooth

Test Condition

Calibration
Real CAL Cycle: on every
20 default CALs

Calibration Mode:

Final
Supply RF Signal by:

Test Signal Mode:

Developer Mode

IMEI
Use RFSM
Use Second PC
Save ODS

IMEI SVC & Repair Option

System Config.

Language:
Line Name:
Line Type:
of Phone:
Start Number of Jig:
IP Address: 10.244.114.62

Operation Condition

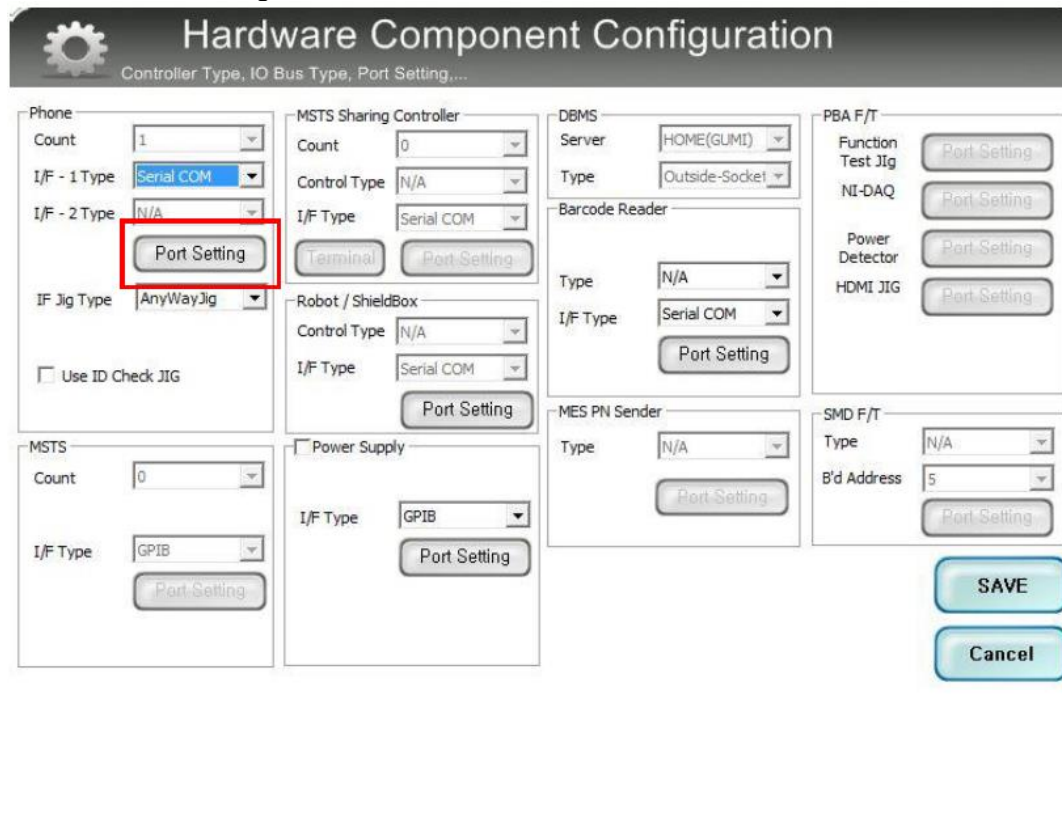
Model Information

Hardware Config

Signal Loss Config.
Channel Config.
MSTS Calibration
Setting End Band

OK

9. Click 'Port Setting'



Hardware Component Configuration
Controller Type, IO Bus Type, Port Setting,...

Phone

Count:
I/F - 1 Type:
I/F - 2 Type:
IF Jig Type:
 Use ID Check JIG

MSTS Sharing Controller

Count:
Control Type:
I/F Type:

Robot / ShieldBox

Control Type:
I/F Type:

Power Supply

I/F Type:

DBMS

Server:
Type:
Barcode Reader
Type:
I/F Type:

MES PN Sender

Type:

PBA F/T

Function Test Jig
NI-DAQ
Power Detector
HDMI JIG

SMD F/T

Type:
B'd Address:

SAVE

Cancel

6. Level 1 Repair

10. Select Port Number and SAVE

Set IO BUS Configuration

Phone IO Bus Setting

Common

BaudRate: 115200
Data Bit: 8
Parity: No
Stop Bit: 1

No.	Port #1
1	1

SAVE

Cancel

11. Click OK to proceed

Set System Configuration

Set System Configuration Dialog...

Test Process

[Process] [Master] [Slave]

SMD F/T

PBA F/T

Calibration

Final Auto

Final Manual

IMEI Process

IMEI Write

IMEI Check

MDL+2nd Check

MDL Rework

IMEI Read

WLAN

Power Off-On before WLAN

Bluetooth

Test Condition

Calibration

Real CAL Cycle: on every 20 default: CALs

Calibration Mode: Dynamic

Final Supply RF Signal by: Conduction

Test Signal Mode: Signaling

Developer Mode

IMEI

Use RFSM

Use Second PC

Save ODS

IMEI SVC&Repair Option

System Config.

Language: English

Line Name: LINE(temp)

Line Type: Block Cell

of Phone: 1

Start Number of Jig: 1

IP Address: 10.244.114.62

Operation Condition

Operation Condition

Model Information

Hardware Config

Power Lines Config

Reset Config

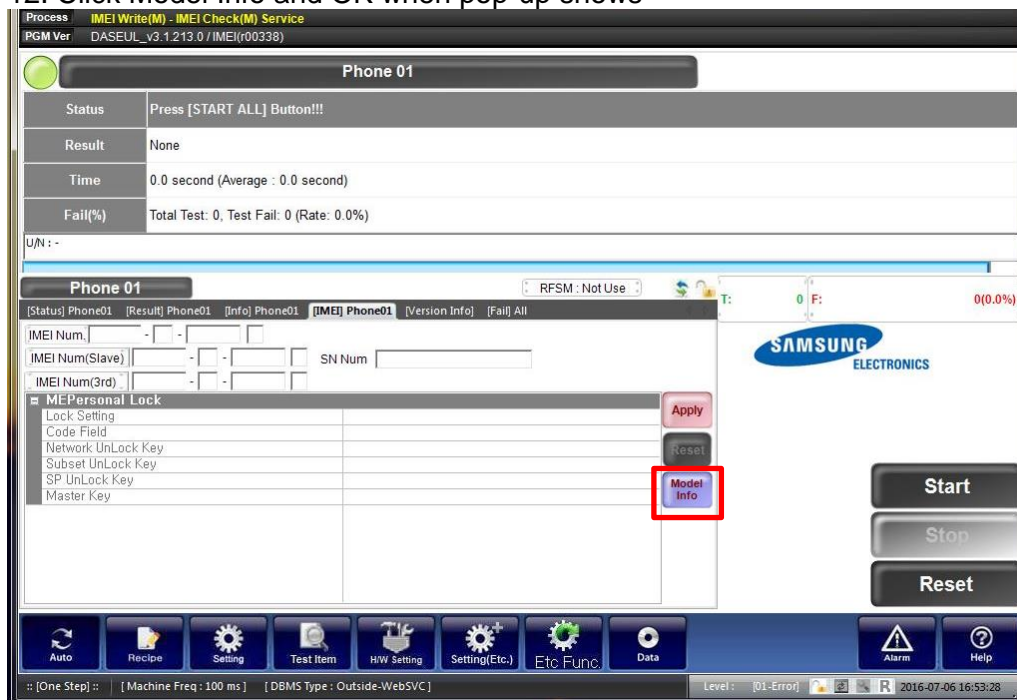
WLAN Calibration

Setting End Band

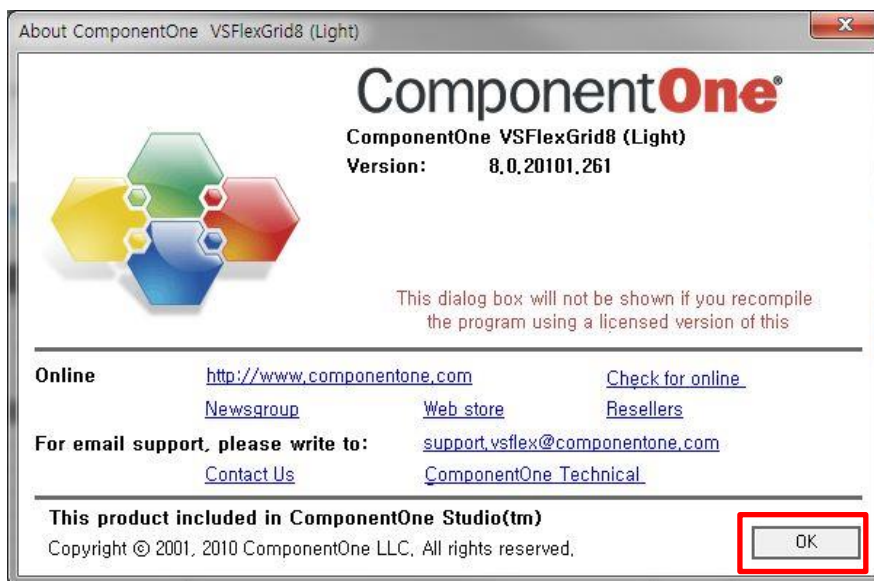
OK

6. Level 1 Repair

12. Click Model Info and OK when pop-up shows



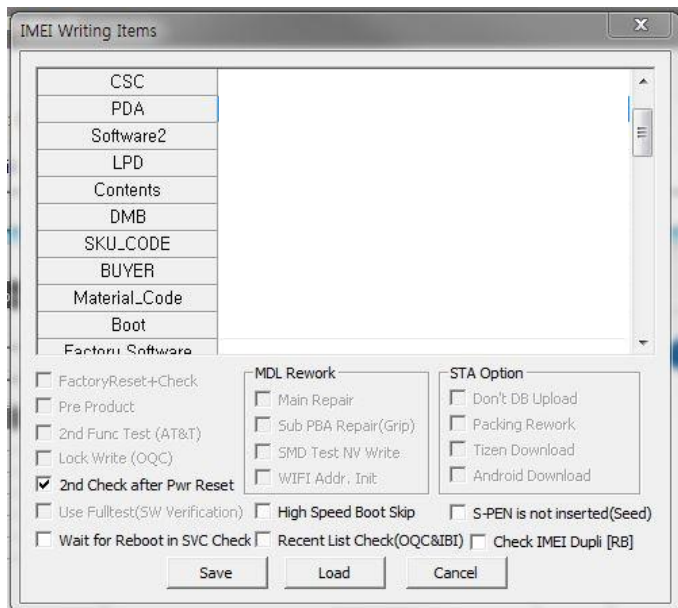
13. Click OK



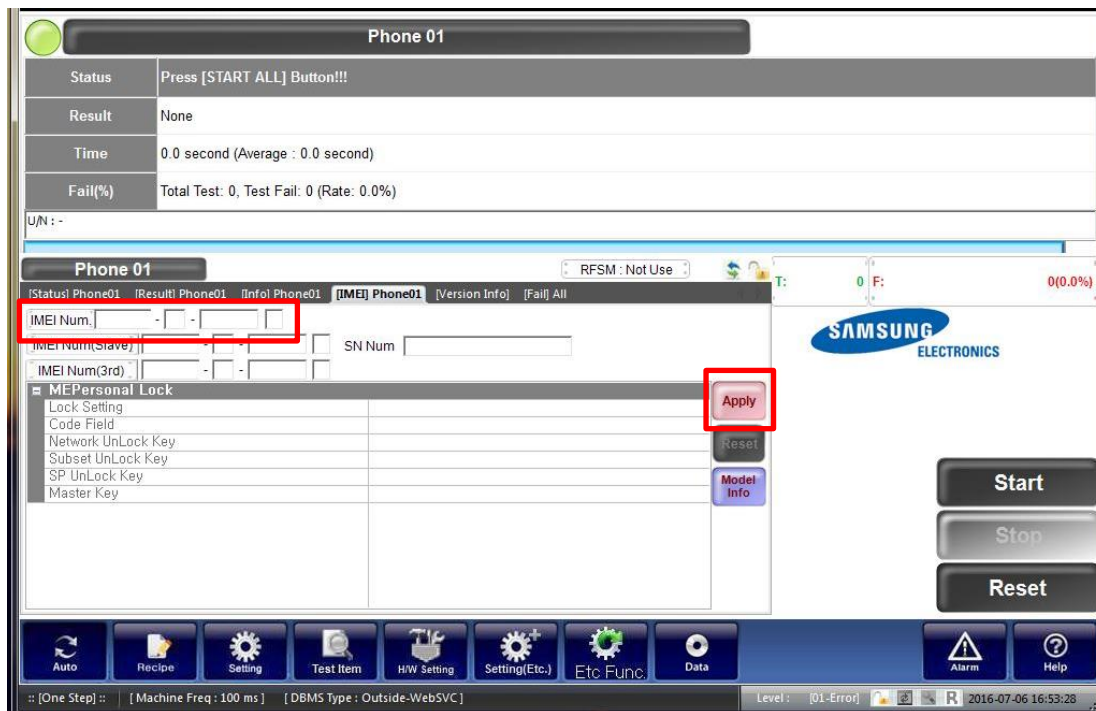
6. Level 1 Repair

14. Input SKU_CODE and BUYER, then click Save button.

※ Refer to HHPsvc→IMEI Review to check SKU Code and buyer

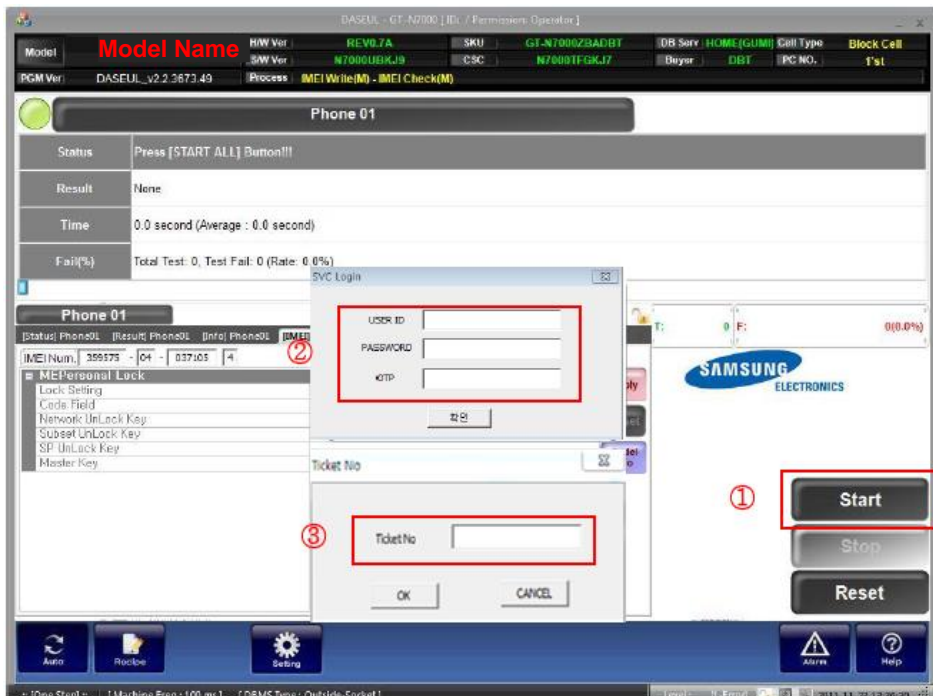


15. Input IMEI Number and click Apply



6. Level 1 Repair

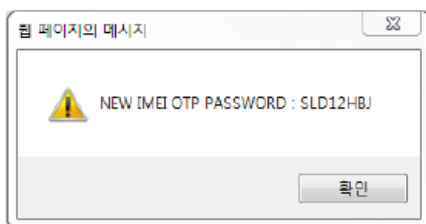
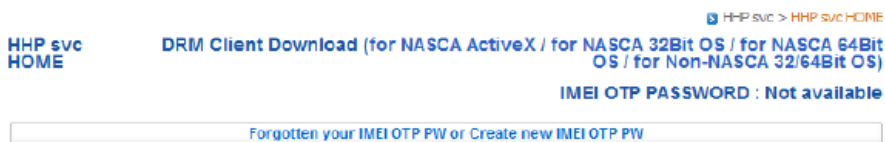
16. ① Click Start → ② Input IMEI writing ID and Password & OTP → ③ Input Ticket No



※ OTP(One time Password) : OTP is valid for 6 hours.

After that, you can get new OTP by click the “Forgotten your IMEI OTP PW or Create new IMEI OTP PW” button.

☞ OTP Location : GSPN → Knowledge → HHP svc → Home

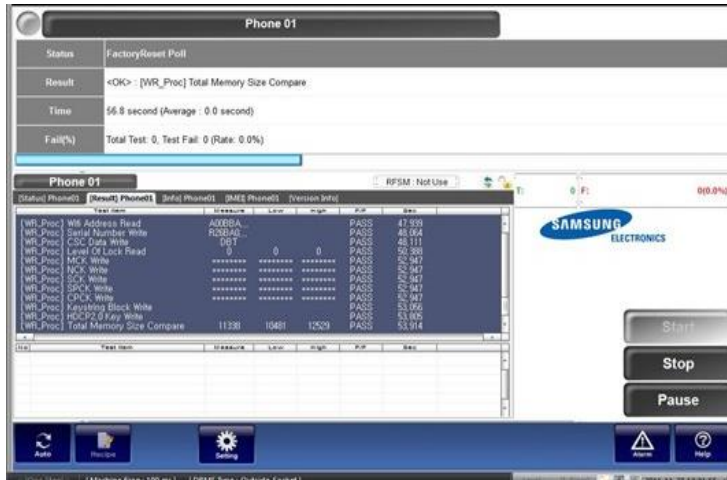


6. Level 1 Repair

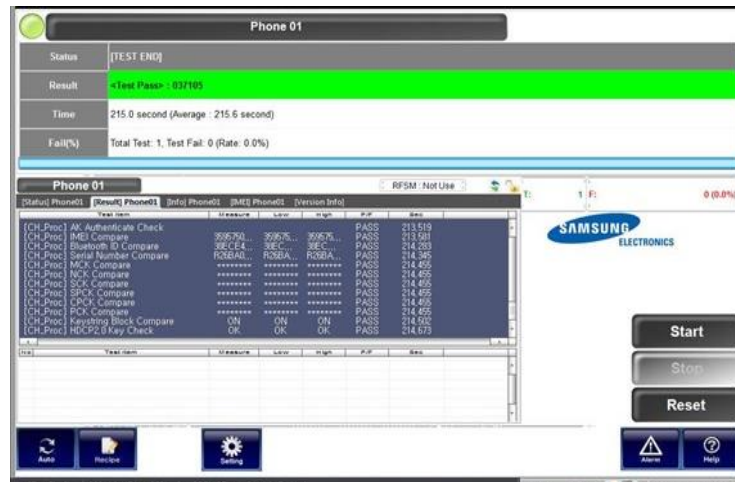
17. Connect the phone to Anyway JIG

- ✧ When you connect the phone, the phone should be turned off.
After connecting the phone, the phone will be booted automatically.

18. IMEI Writing Proceeding

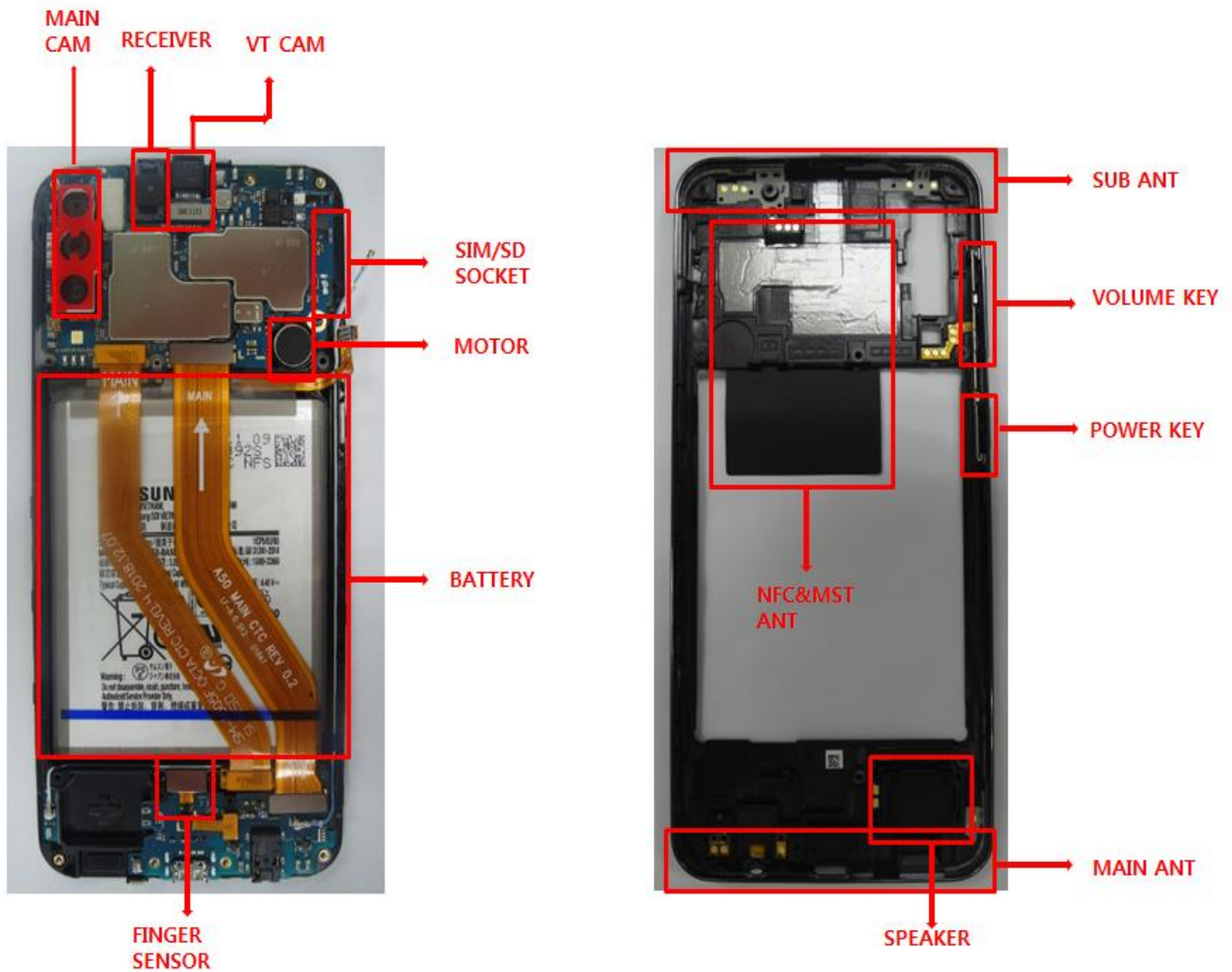


19. IMEI Writing Success



7. Level 2 Repair

7-1. Components on the Rear Case




7. Level 2 Repair

7-2. Pre-requisite

	
<p>Tweezers / Disass'y Stick / Screw Driver</p>	<p>Anti-static Gloves</p>
	
<p>Anti-static Mat</p>	<p>AOD for Tablet</p>
	
<p>Ethyl Alcohol</p>	<p>Cotton Swab</p>

7. Level 2 Repair

7-3. Parts which must be changed after repair

BOM Description & part code	Image	Remarks
<p>Backglass Outside tape [GH02-19324A]</p>		<p>Left items must be changed to the new one in case of disassemble the Back glass</p>

7. Level 2 Repair

7-4. Disassembly

1

- 1) Put the device in the AOD jig.
Set the AOD condition
 - SOC 68%↓: Upper 70 °C/ Lower 60 °C 5min
 - SOC 68%↑: Upper 60 °C/ Lower 60 °C 5min
- 2) Disassemble the OCTA using the AOD.
* Below picture shows how to detach Back Glass using service jig, however you can use manufactural jig if possible.



2

- Disassemble SIM Tray from device.
Unscrew 13Points.



*** Caution**

Be careful not to damage set and OCTA.

*** Caution**

Be care of scratch and molding damage.

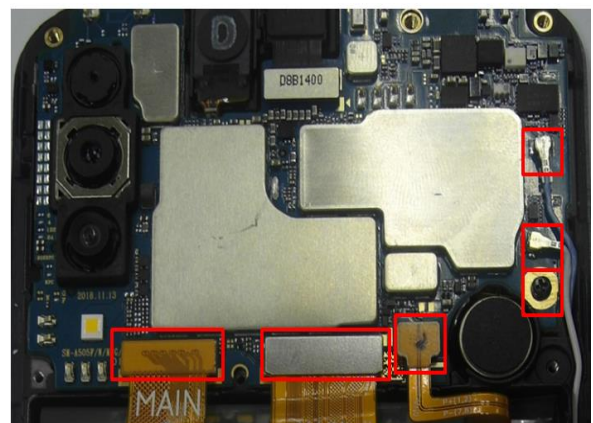
3

- Disassemble the REAR from Front Assy.



4

1. Disassemble Connector 3ea from PBA.
2. Unscrew 1 Points from PBA.
3. Disassemble Coaxial Cable 2ea from PBA.



*** Caution**

Be care of damage to components.

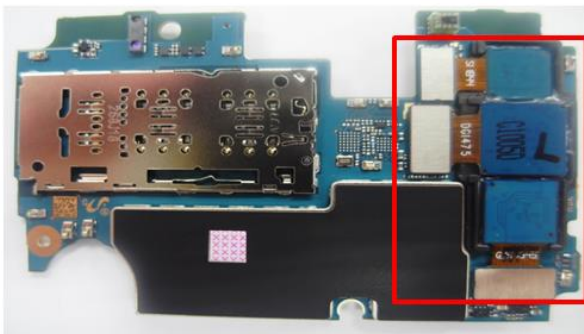
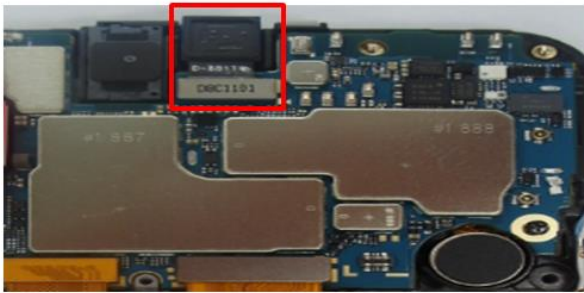
*** Caution**

Be careful not to damage the PBA.

7. Level 2 Repair

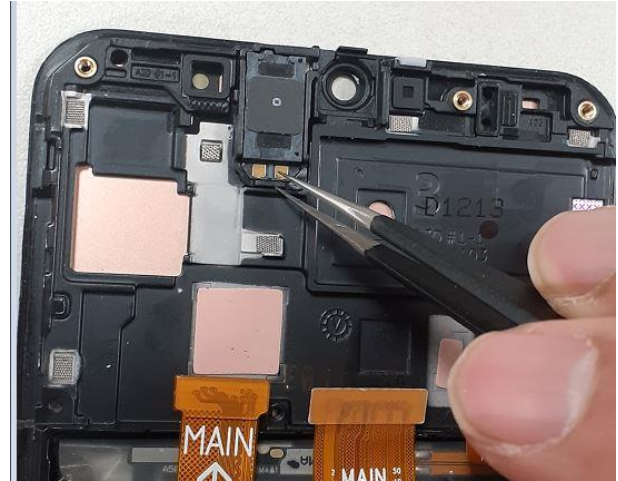
5

Disassemble PBA Assy from Front Assy.
Disassemble Front /Rear Camera from PBA.



6

Detach RCV from Front Ass'y.



※ Caution

1) Be careful not to damage the PBA.

※ Caution

Be careful not to damage the RCV.

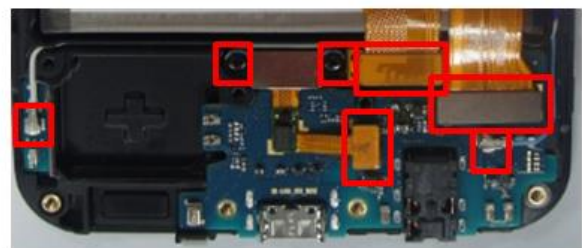
7

Detach Motor from Front Ass'y.



8

Remove FPCB 2ea and Fingersensor fix
screw 2ea+Fingersensor FPCB and RF
Cable 2ea.



※ Caution

Be careful not to damage the Motor.

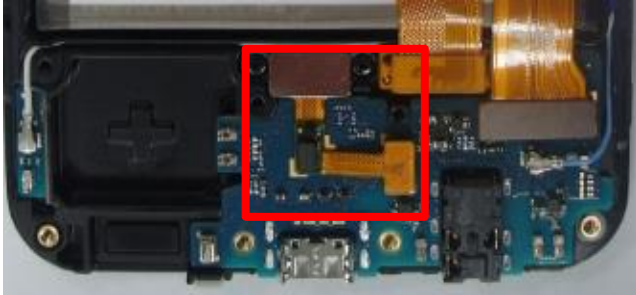
※ Caution

Be careful not to damage the Sub PBA and connector

7. Level 2 Repair

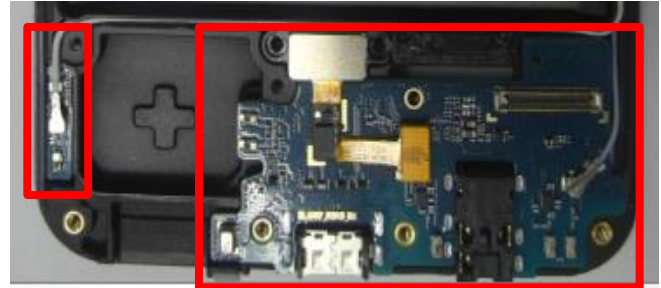
9

Detach Finger sensor.



10

Detach HB PBA and the Sub PBA.



※ Caution

Be careful not to damage fingersensor and the Sub PBA

※ Caution

Be careful not to damage HB PBA and the Sub PBA

11

Detach SPK from Rear Ass'y.



※ Caution

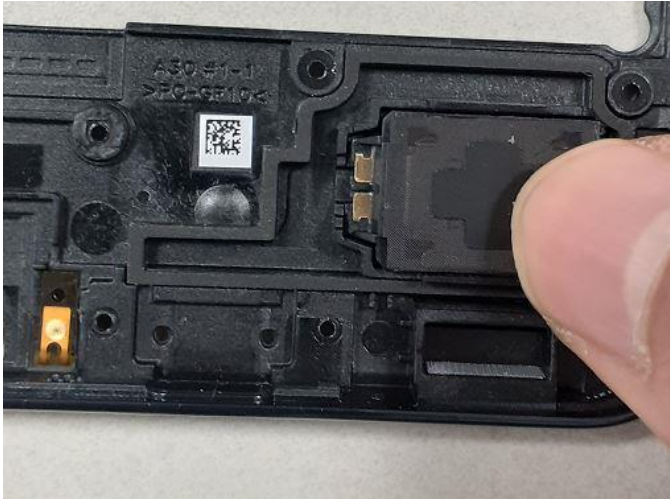
Be careful not to damage the SPK

7. Level 2 Repair

7-5. Assembly

1

Attach SPK on Rear Ass'y.



※ **Caution**
Be care of SPK damage.

2

Attach Sub PBA and HB PBA on Front Ass'y.

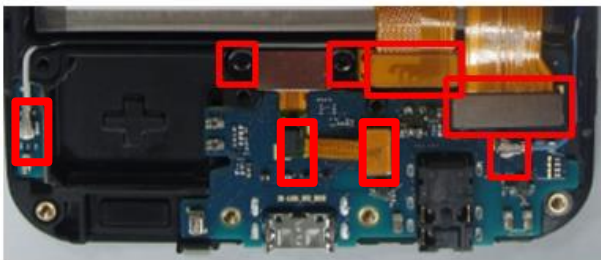


※ **Caution**
Be care of Sub PBA damage.

3

Attach RF Cable 2ea and FPCB 2ea,
fingersensor Screw 2ea & FPCB.

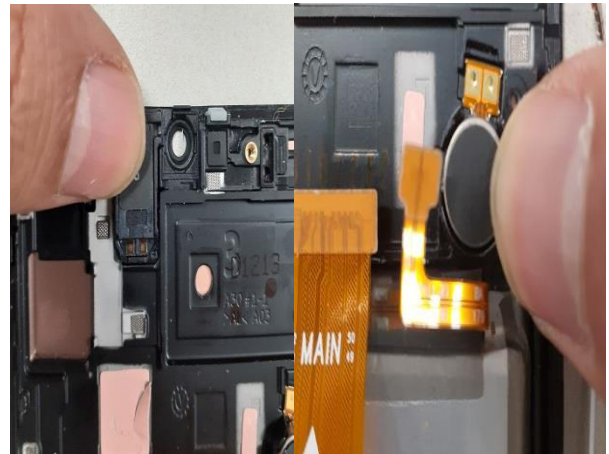
Screw insertion 2 Point.
* Torque Value : 0.95



※ **Caution**
Please keep the guide line for C to C FPCB and BLACK,
WHITE COAXIAL CABLE.

4

Attach Motor and Receiver in upper area.

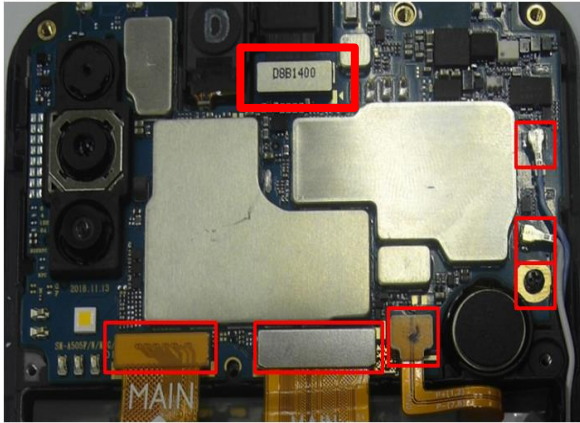


※ **Caution**
1) Be care of scratch CAM lens
2) Be care of damage each part.

7. Level 2 Repair

5

Assemble the PBA and C to C FPCB 2ea and Batt Conn and BLUE , WHITE COAXIAL CABLE. and VT Camera,



6

Screw insertion 1 Point.
* Torque Value : $0.95 \pm 7\%$



※ Caution

Check for each connector connection

※ Caution

Be care of PBA damage.

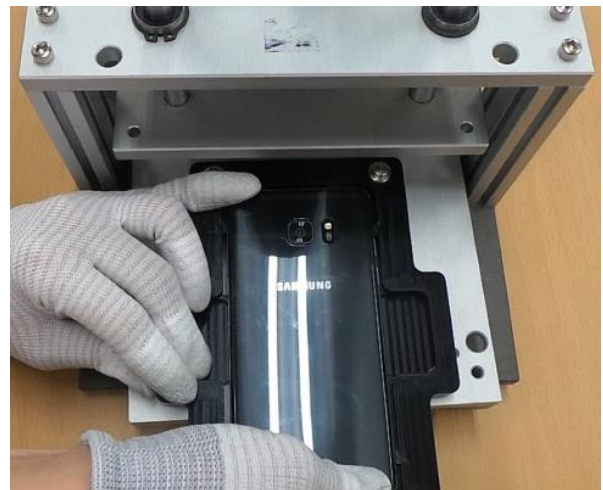
7

Assemble Rear and screw insertion 13 point
* Torque Value : $1.25 \pm 10\%$



8

Press Back Glass.
- Pressing force : 1 N
- Pressing time : 1 minute



※ Caution

Be care of PBA damage.

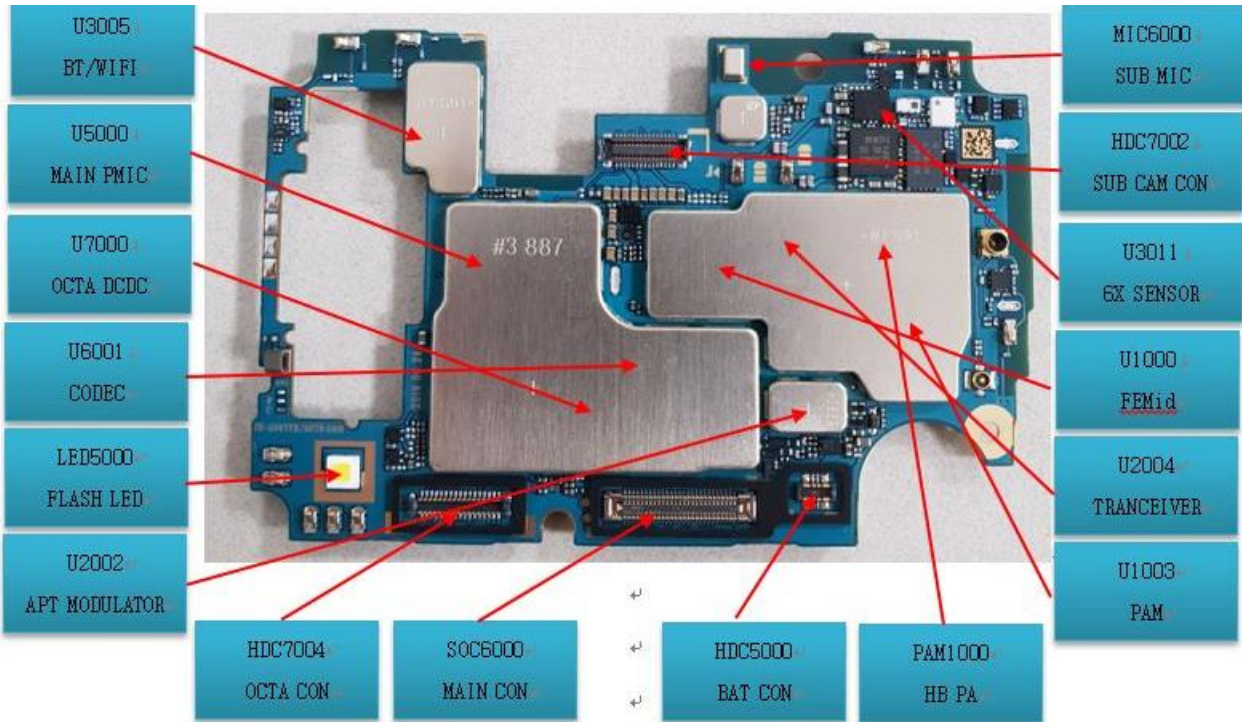
※ Caution

Be care of scratch Rear cover.

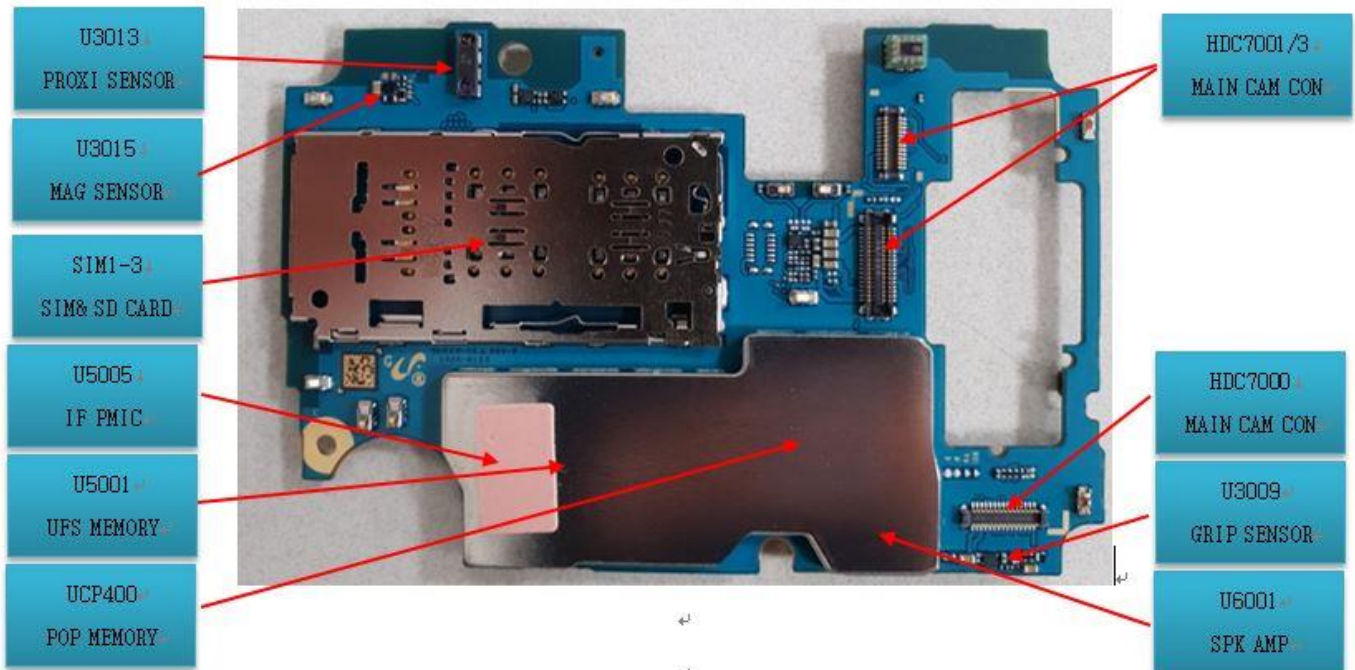
8. Level 3 Repair

8-1. Components Layout

MAIN PBA (TOP SIDE)

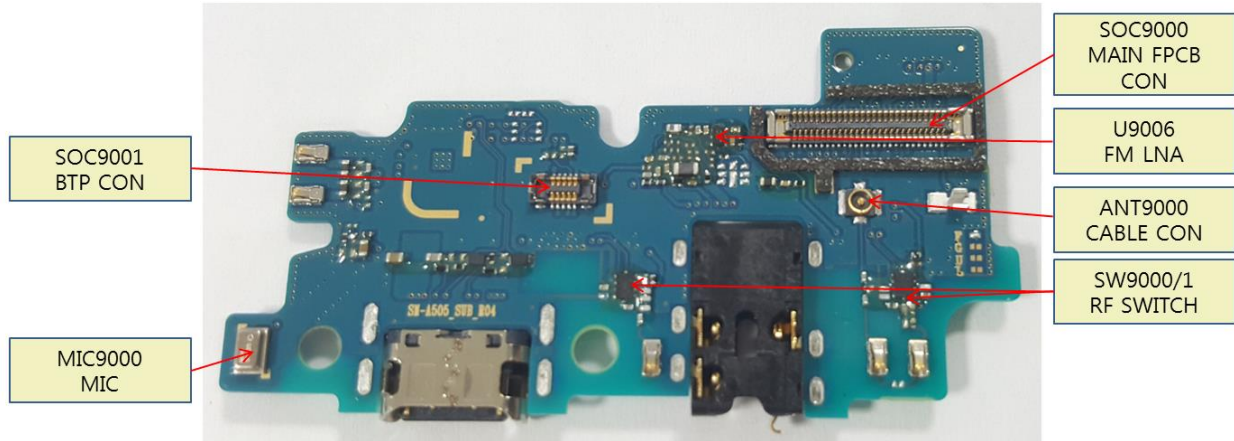


MAIN PBA (BOTTOM SIDE)

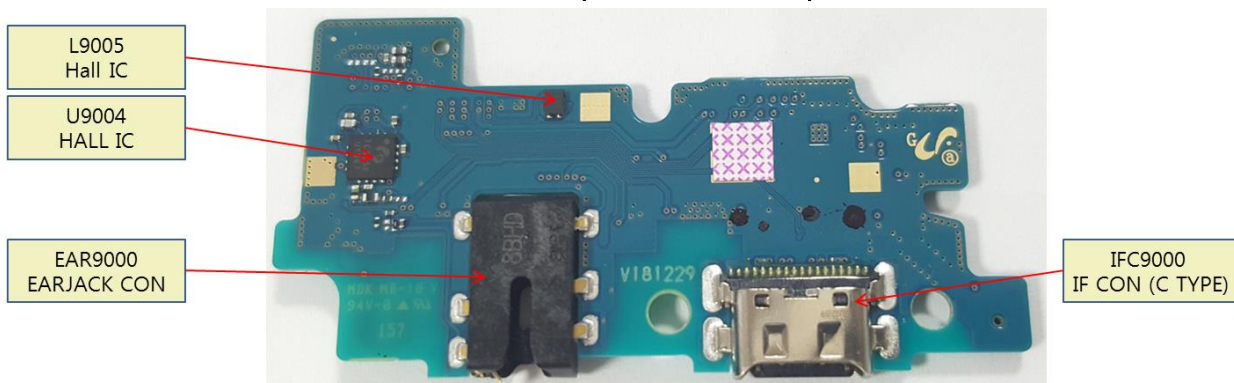


8. Level 3 Repair

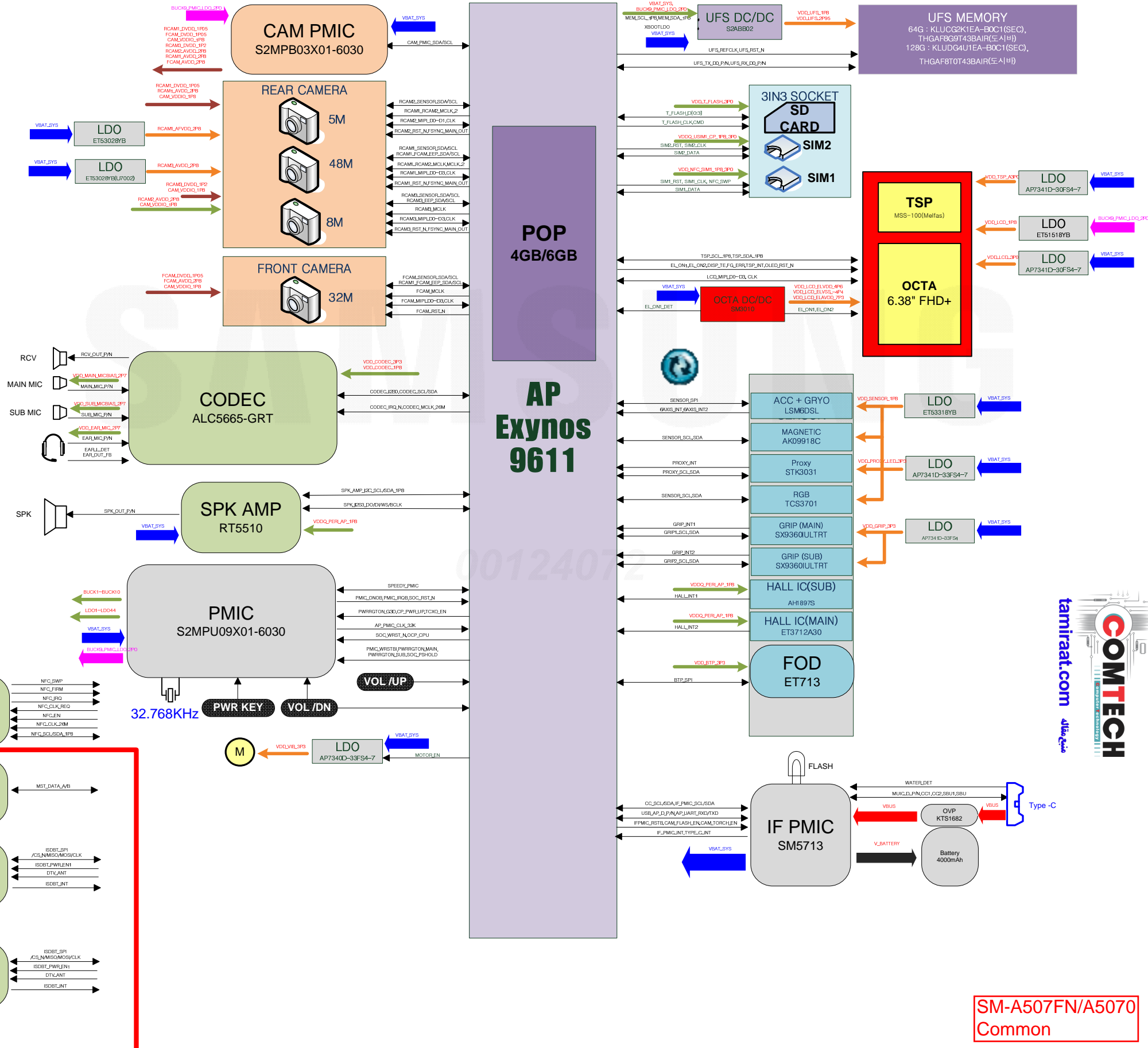
SUB PBA (TOP SIDE)



SUB PBA (BOTTOM SIDE)



A50s BB Block Diagram REV0.0A



tamiraat.com

COMTECH

COMPUTER TECHNOLOGY

지역별 조합

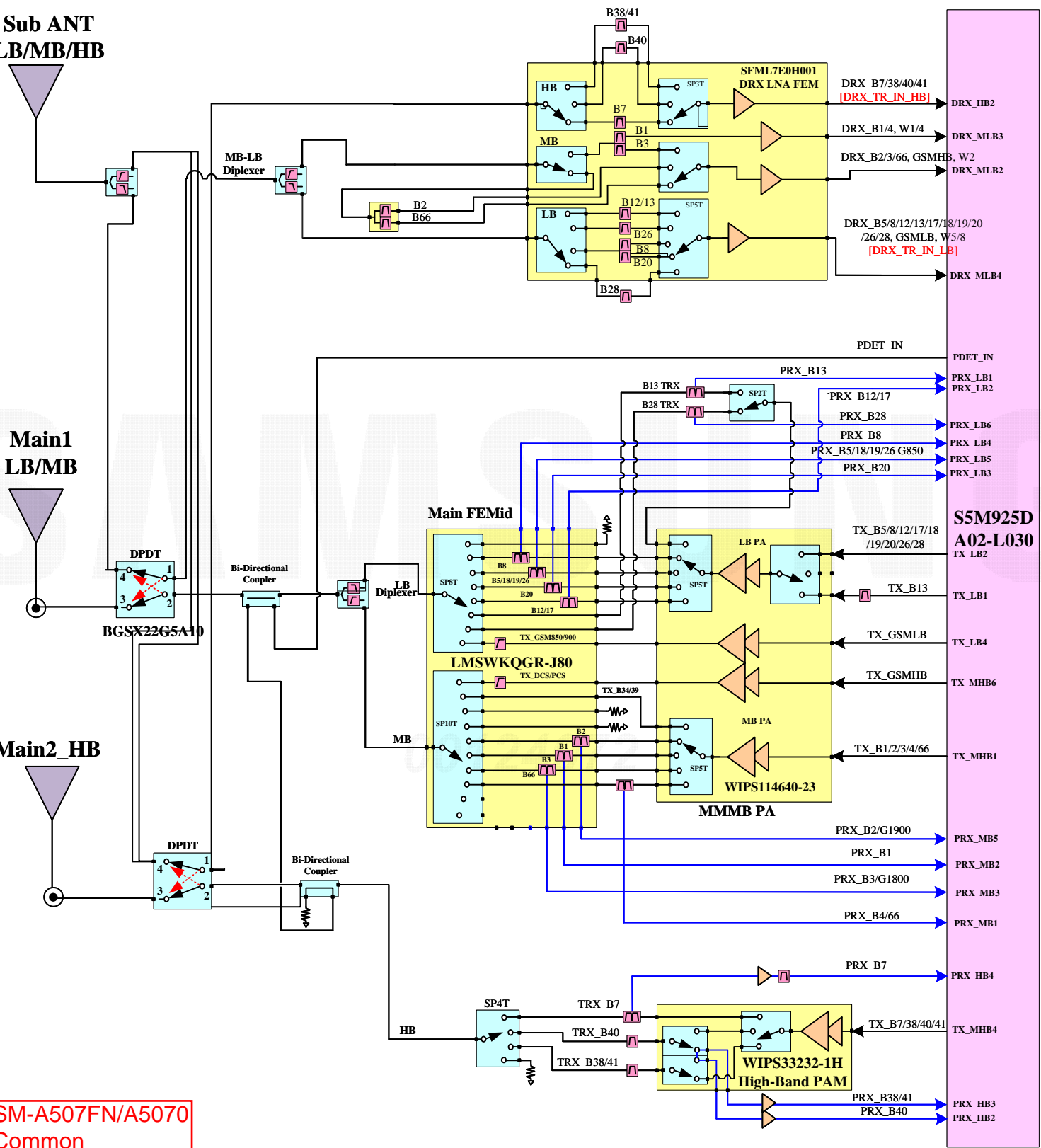
SM-A507FN/A5070
Common

Sub ANT
LB/MB/HB

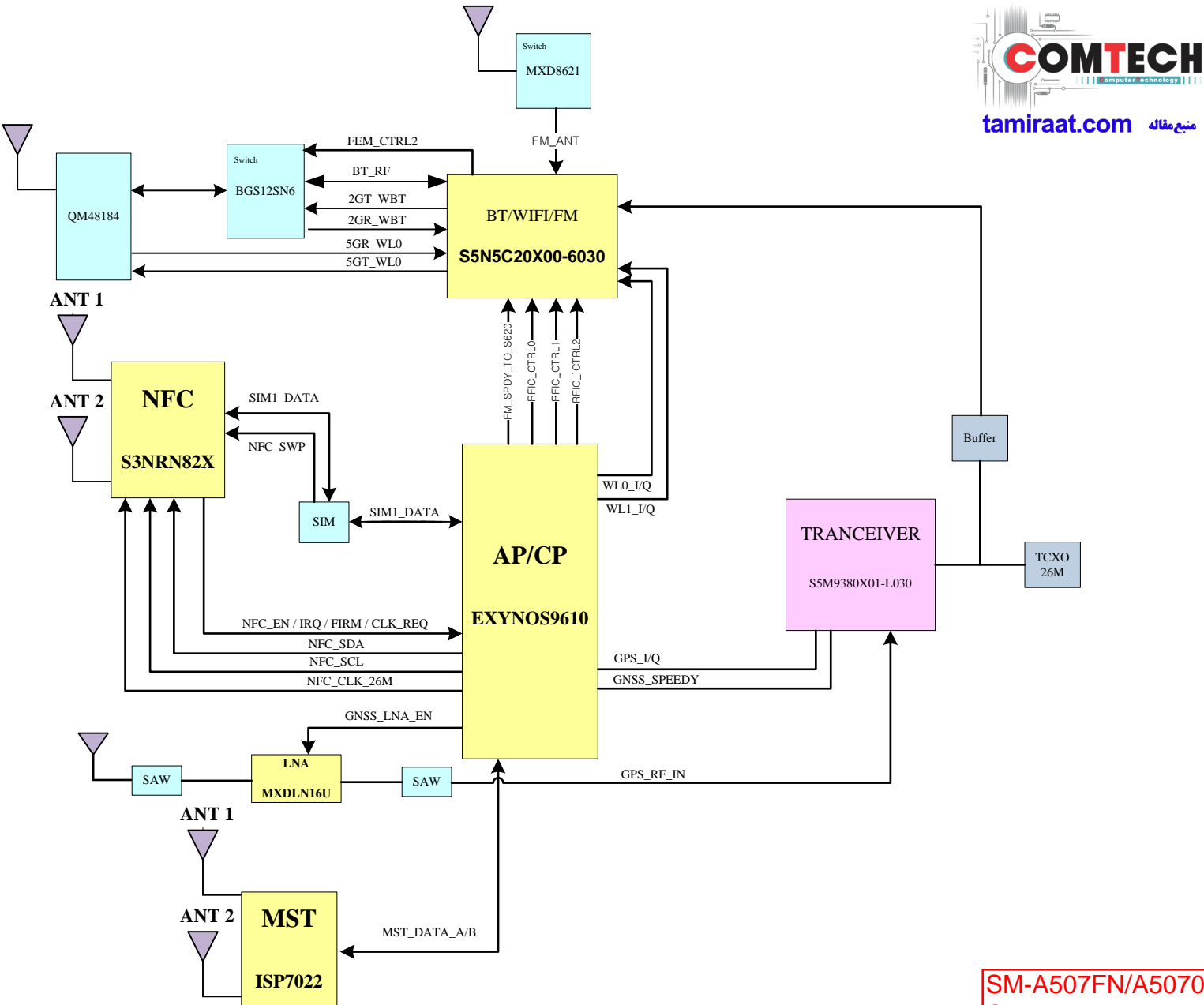
Main1
LB/MB

Main2_HB

SM-A507FN/A5070
Common

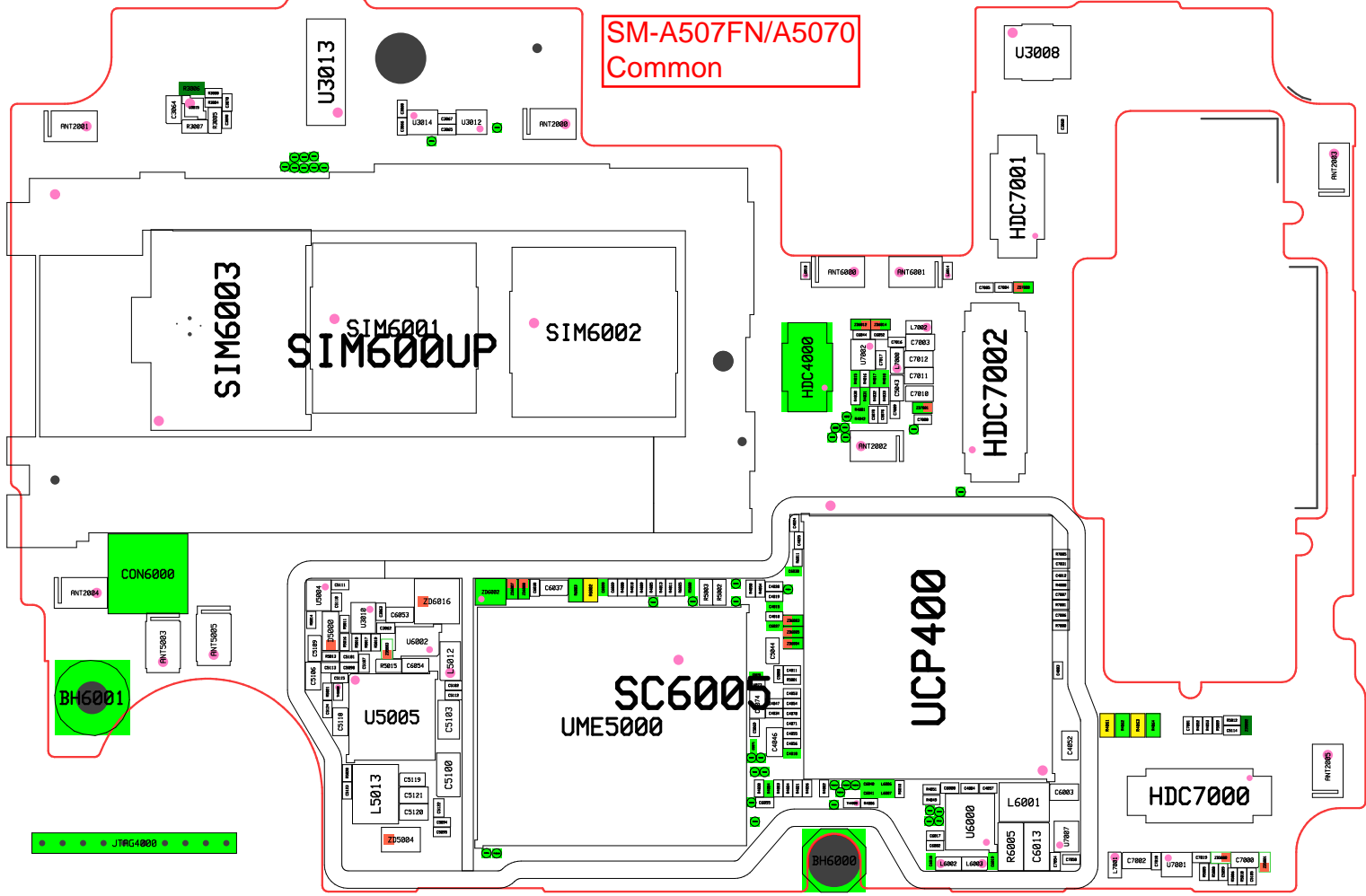


A50s Connectivity Block Diagram

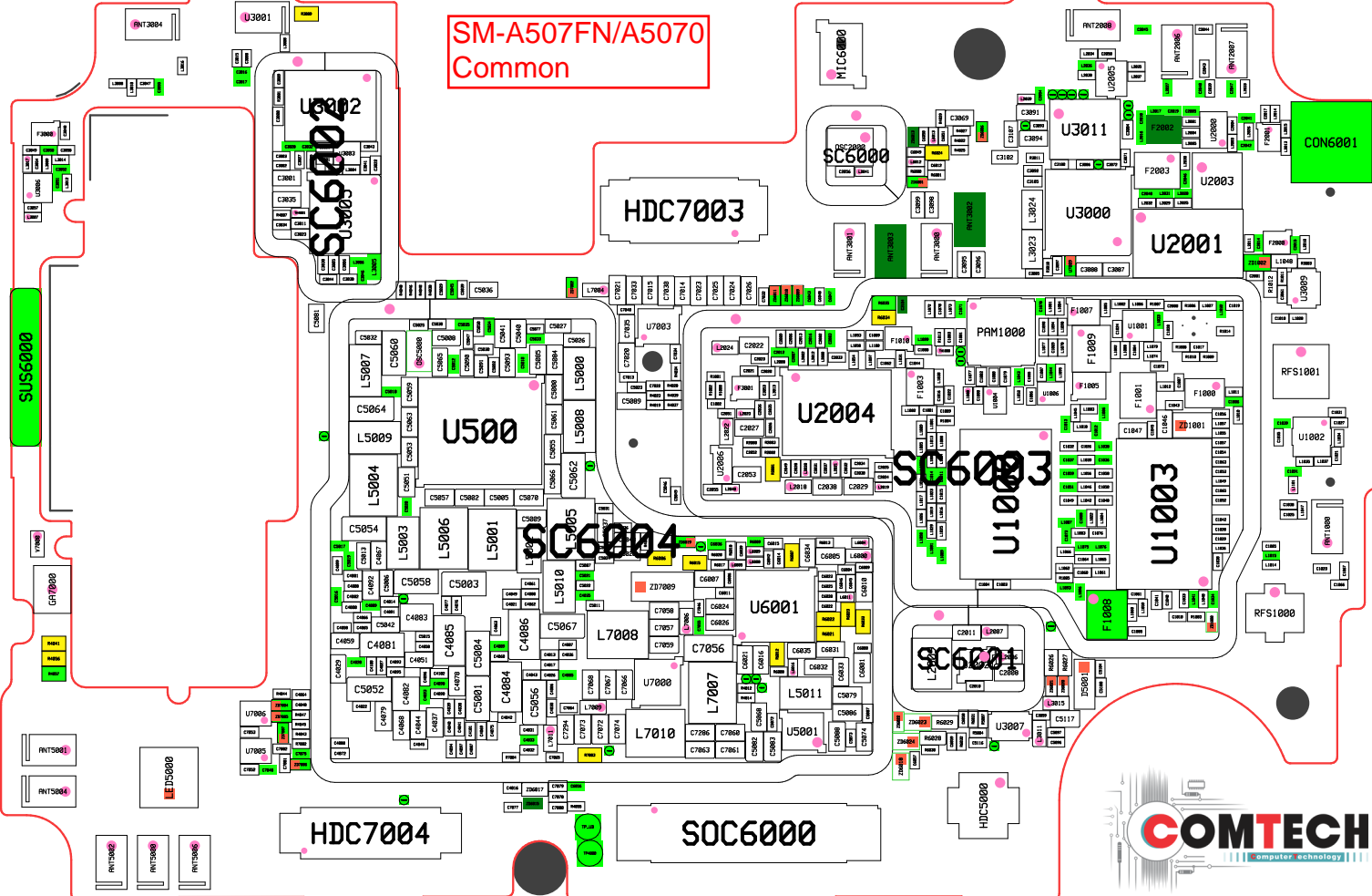


SM-A507FN/A507O
Common

SM-A507FN/A5070
Common



**SM-A507FN/A5070
Common**



HDC7004

HDC7003

SOC6000

U3002

SC6000

U2004

SC6003

SC6004

U1003

SC6001

F1003

CON6001


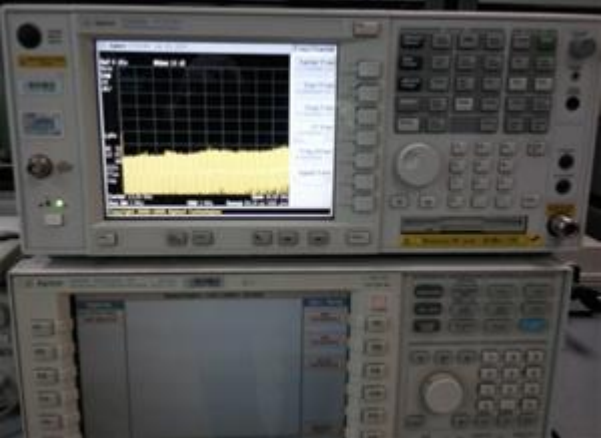
RFS1001

RFS1000



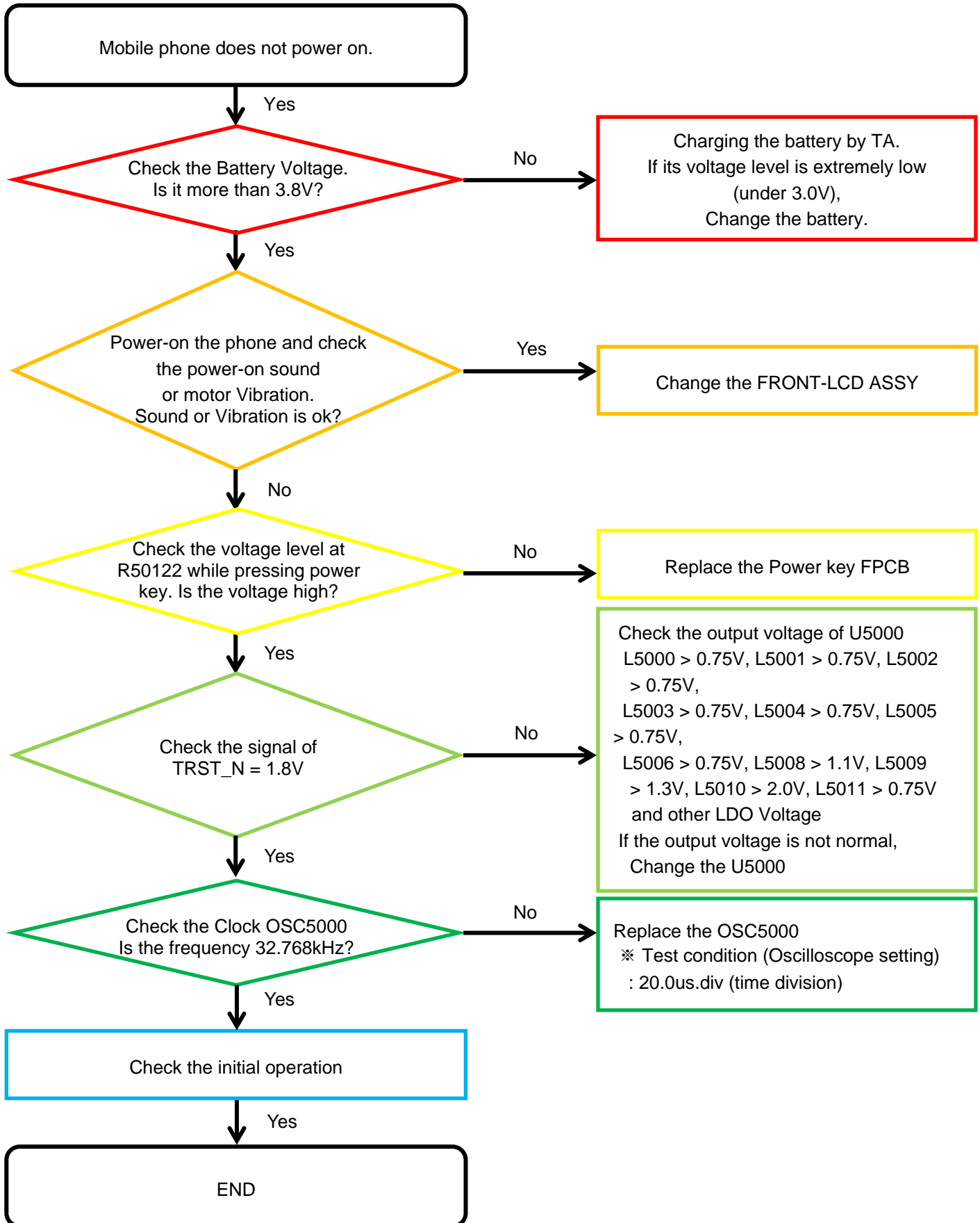
8. Level 3 Repair

8-3. Flow chart of Troubleshooting.

	
<p align="center">Oscilloscope</p>	<p align="center">Digital Multimeter</p>
	
<p align="center">Power Supply</p>	<p align="center">+ driver, ESD Safe Tweezer</p>
	
<p align="center">8960 & Spectrum Analyzer</p>	<p align="center">Soldering iron</p>

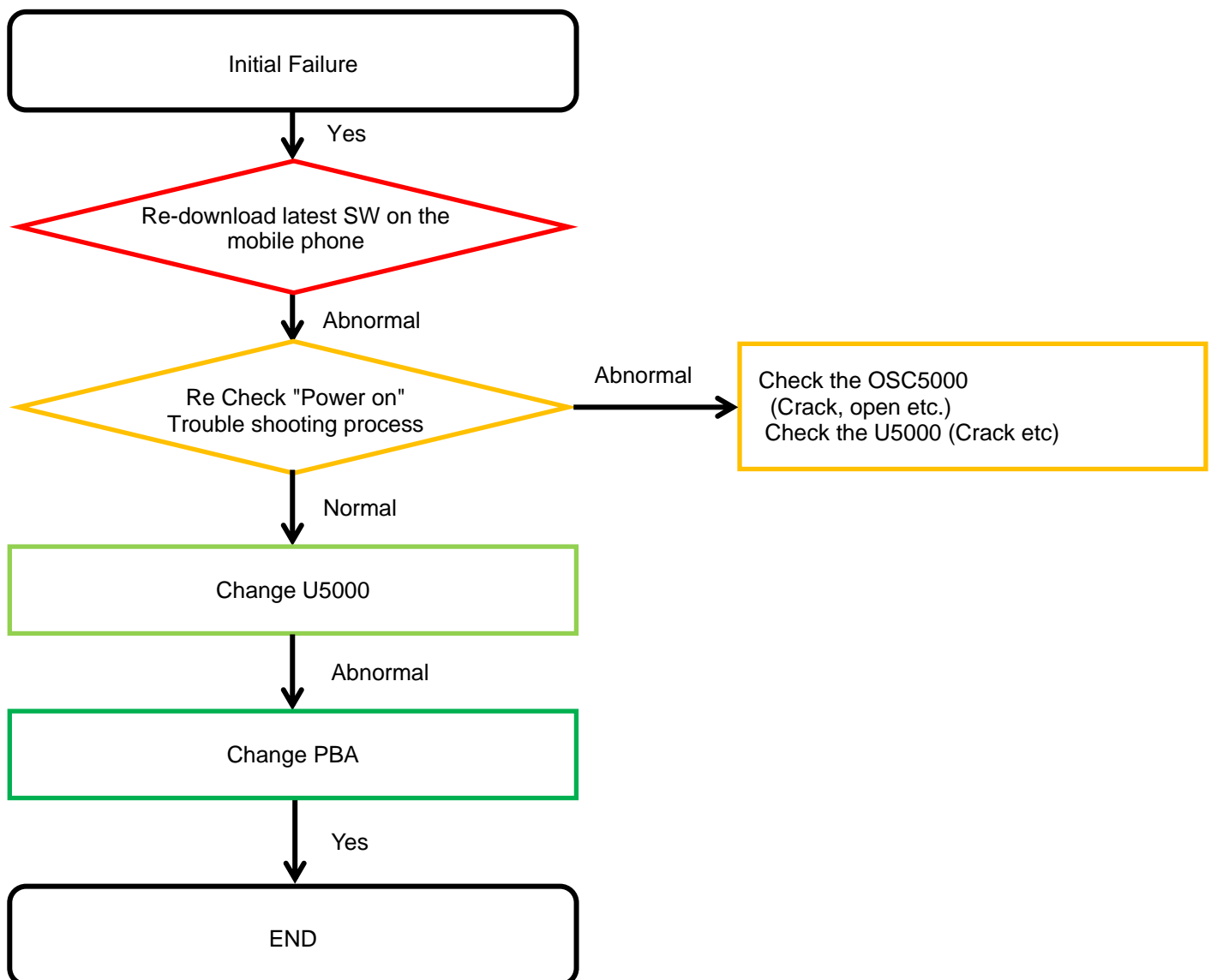
8. Level 3 Repair

8-4-1. Power On



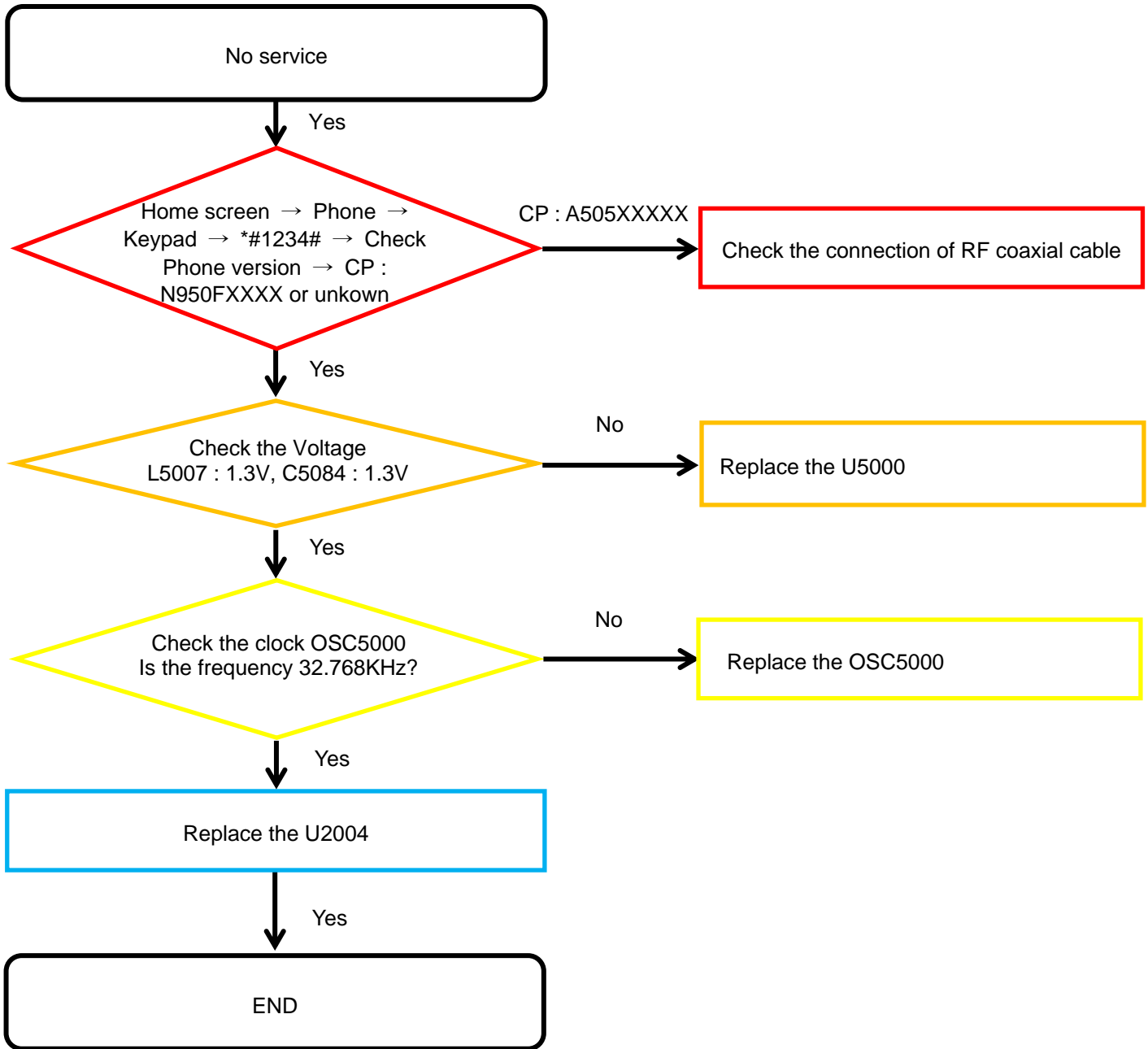
8. Level 3 Repair

8-4-2. Initial



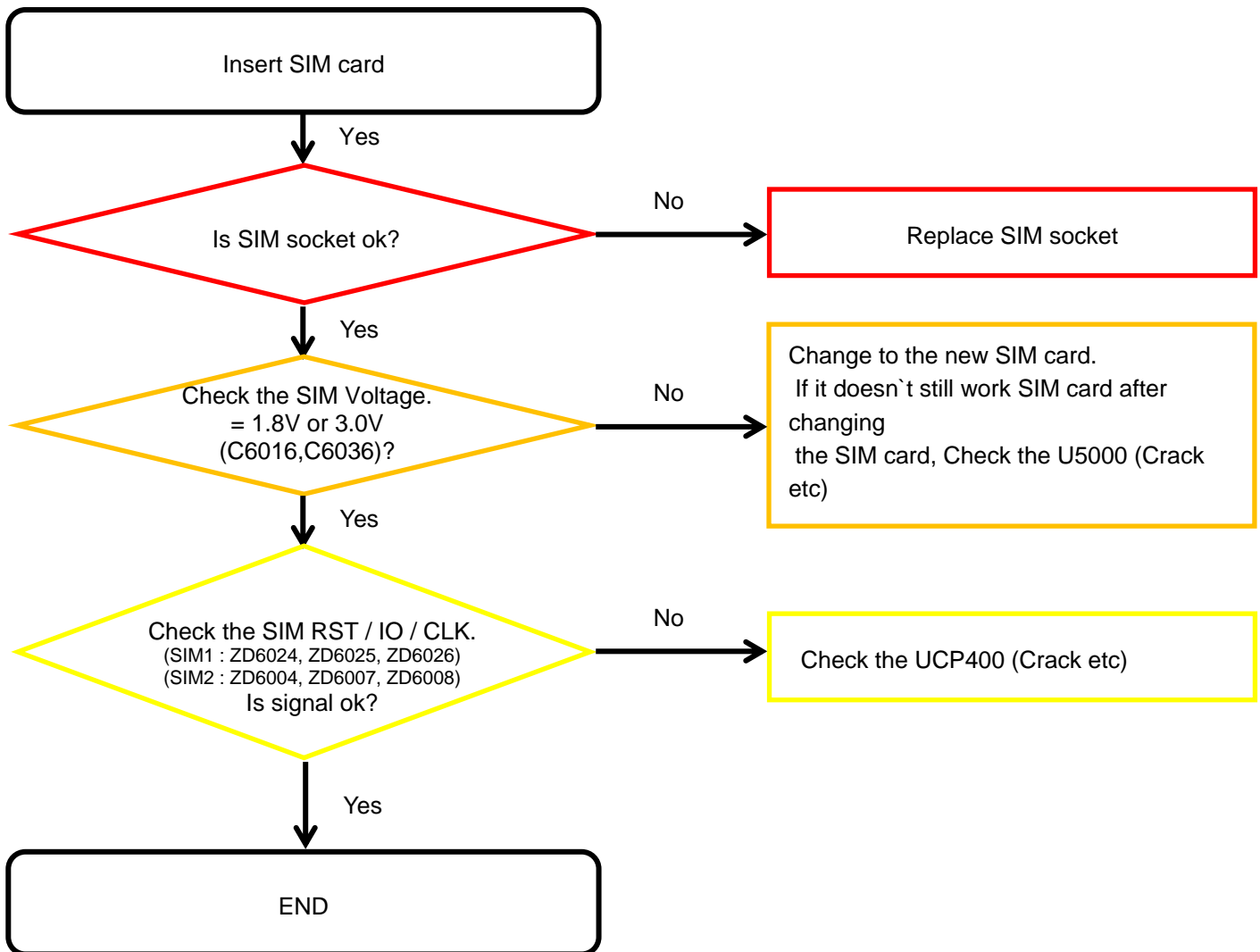
8. Level 3 Repair

8-4-3. No Service



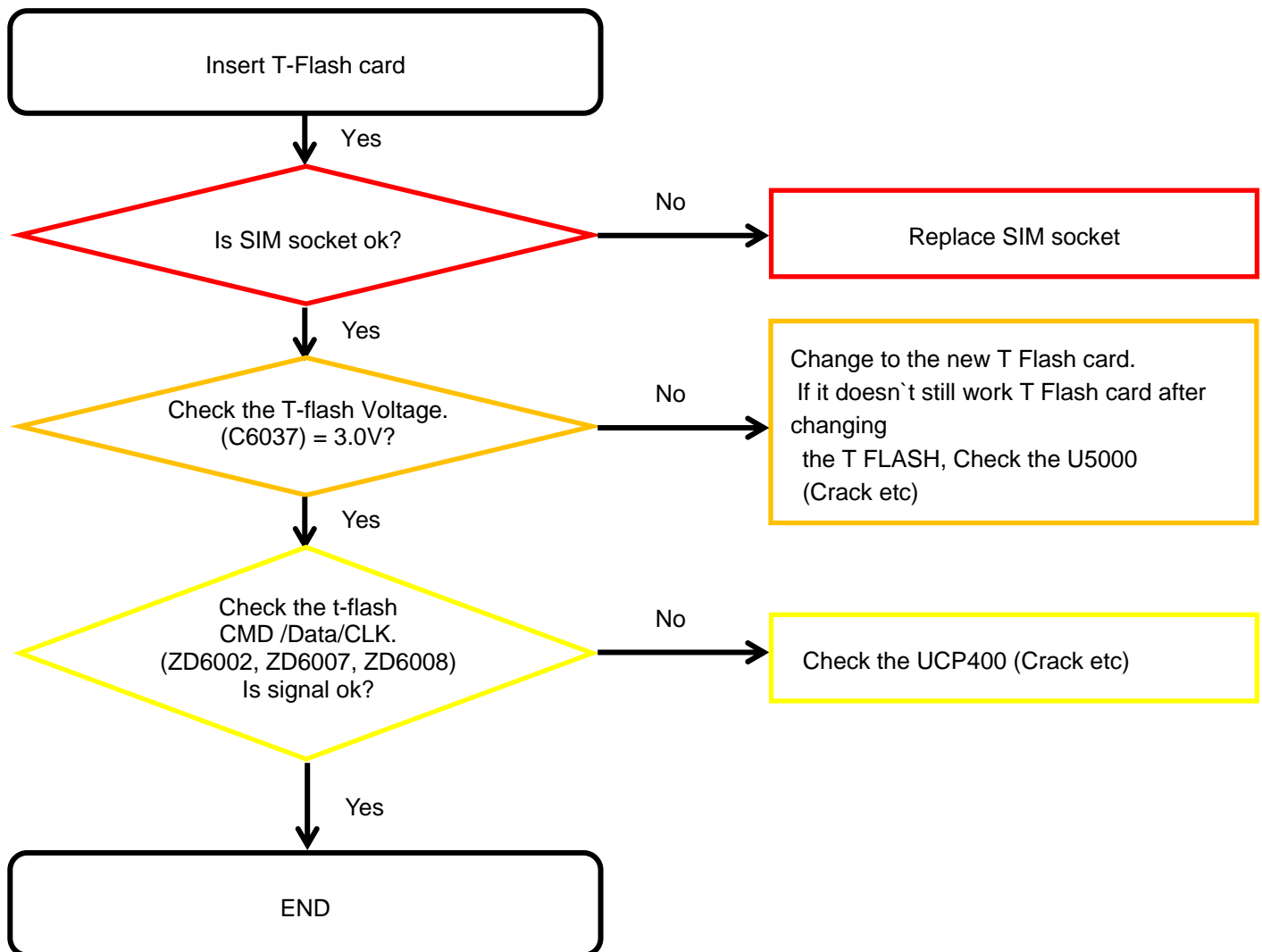
8. Level 3 Repair

8-4-4. SIM Part



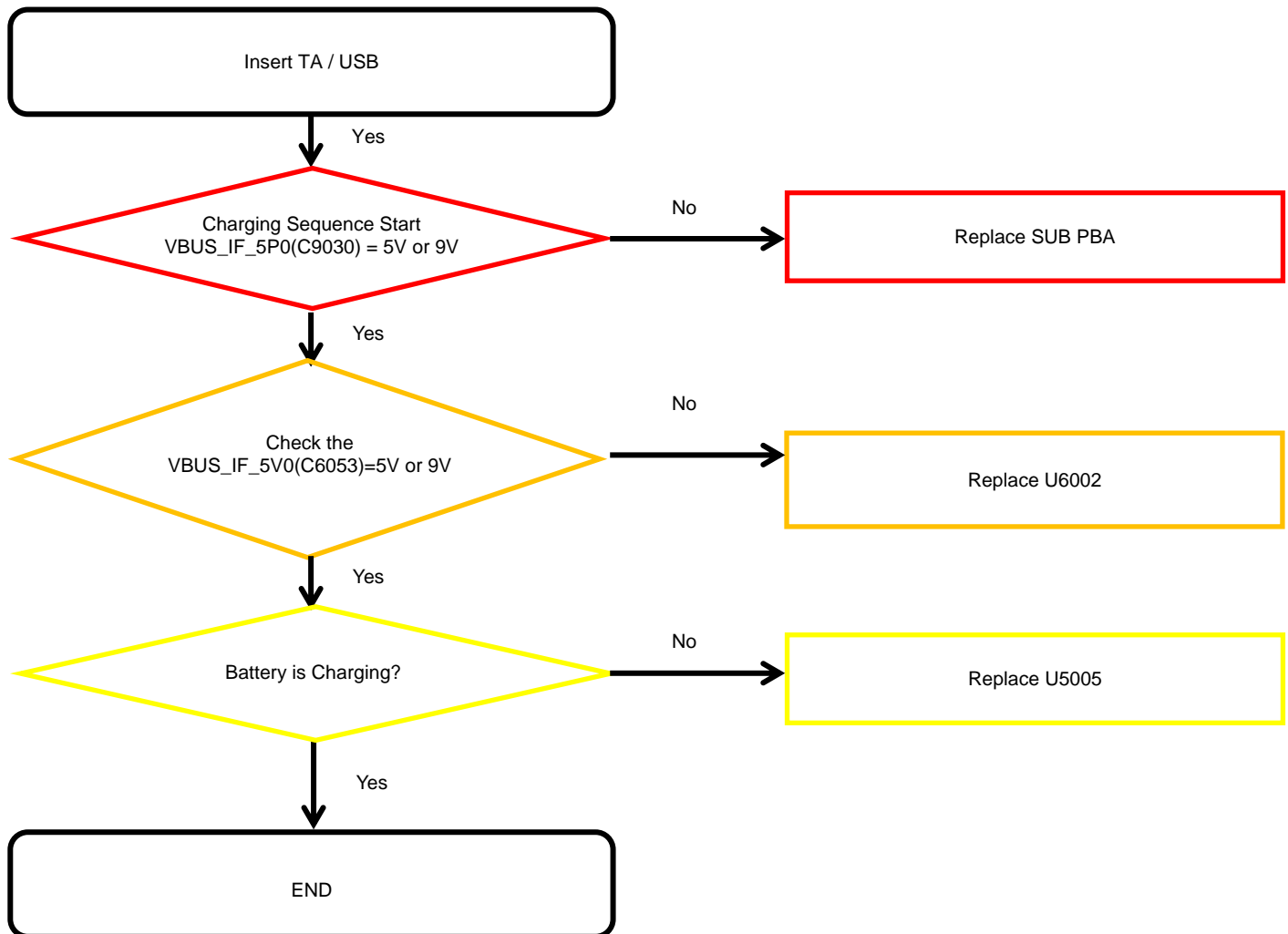
8. Level 3 Repair

8-4-5. T-Flash Part



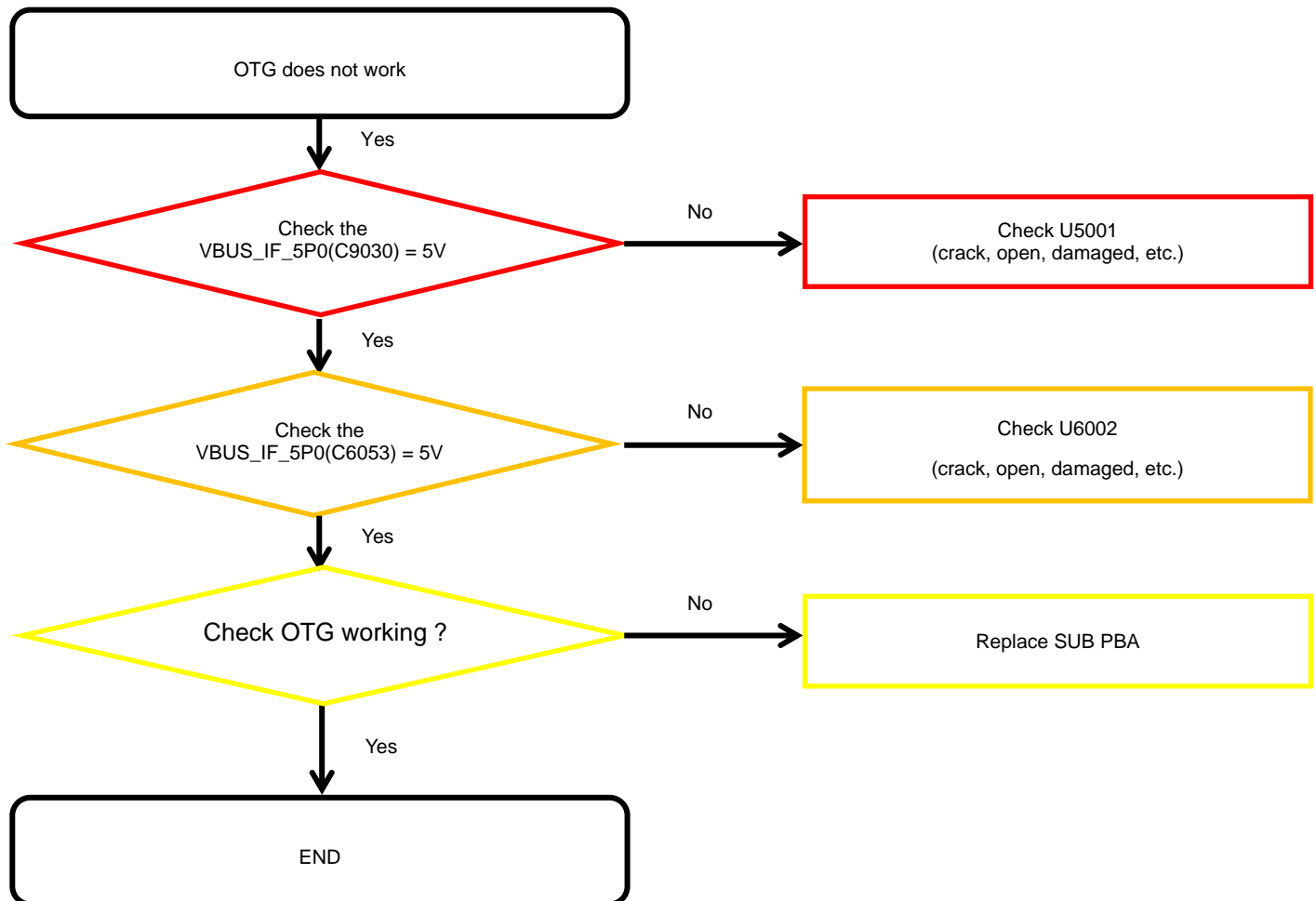
8. Level 3 Repair

8-4-6. Cable Charging Part



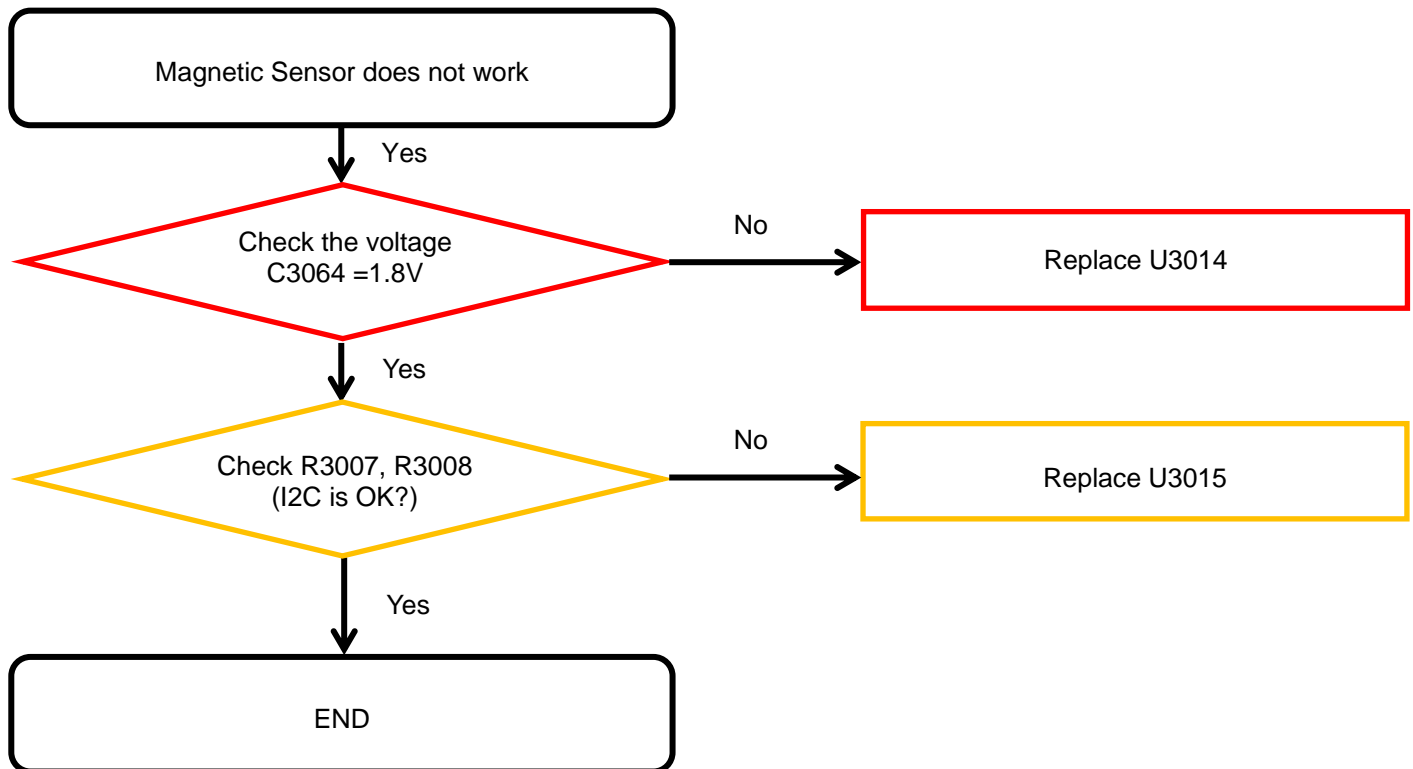
8. Level 3 Repair

8-4-7. OTG



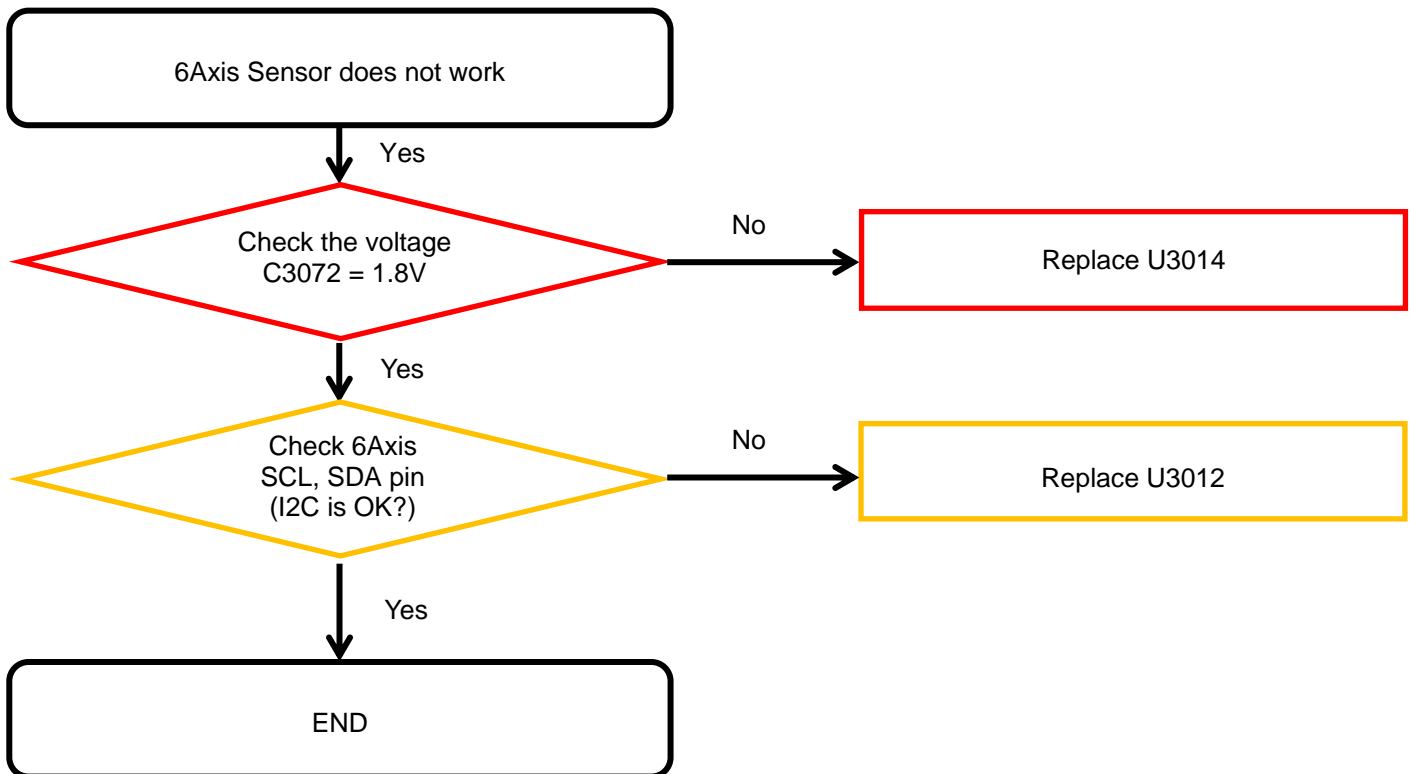
8. Level 3 Repair

8-4-8-1. Magnetic Sensor



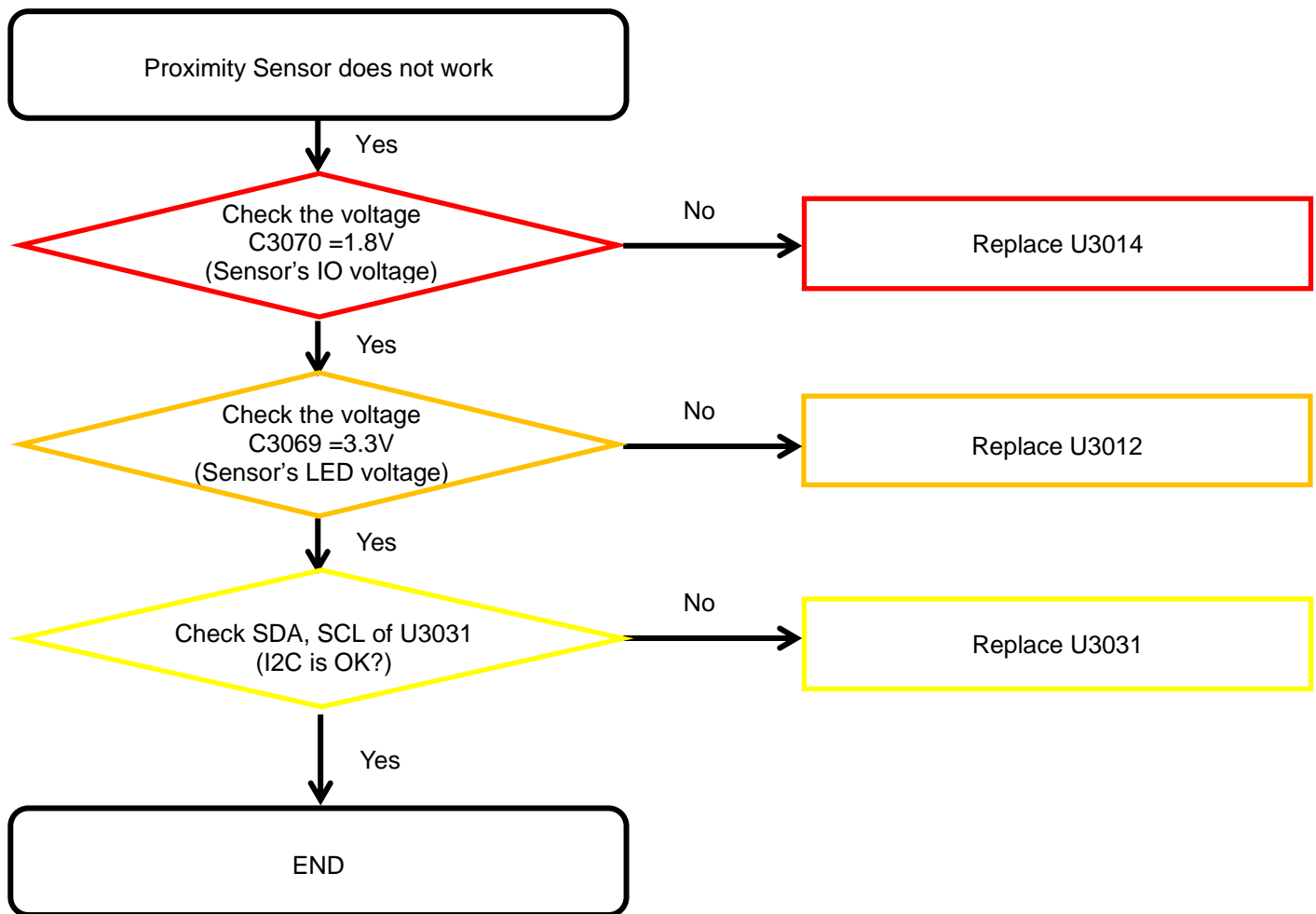
8. Level 3 Repair

8-4-8-2. 6Axis Sensor



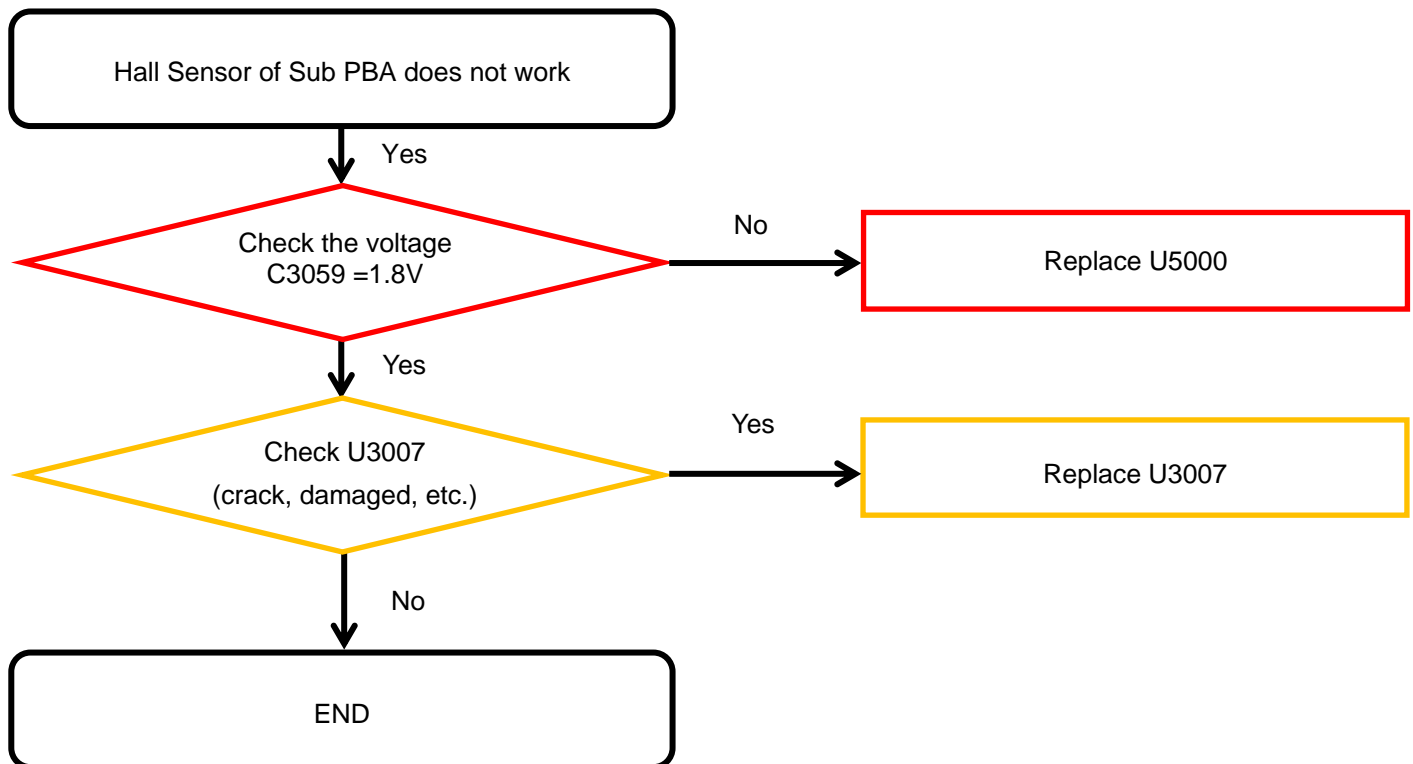
8. Level 3 Repair

8-4-8-3. Proximity



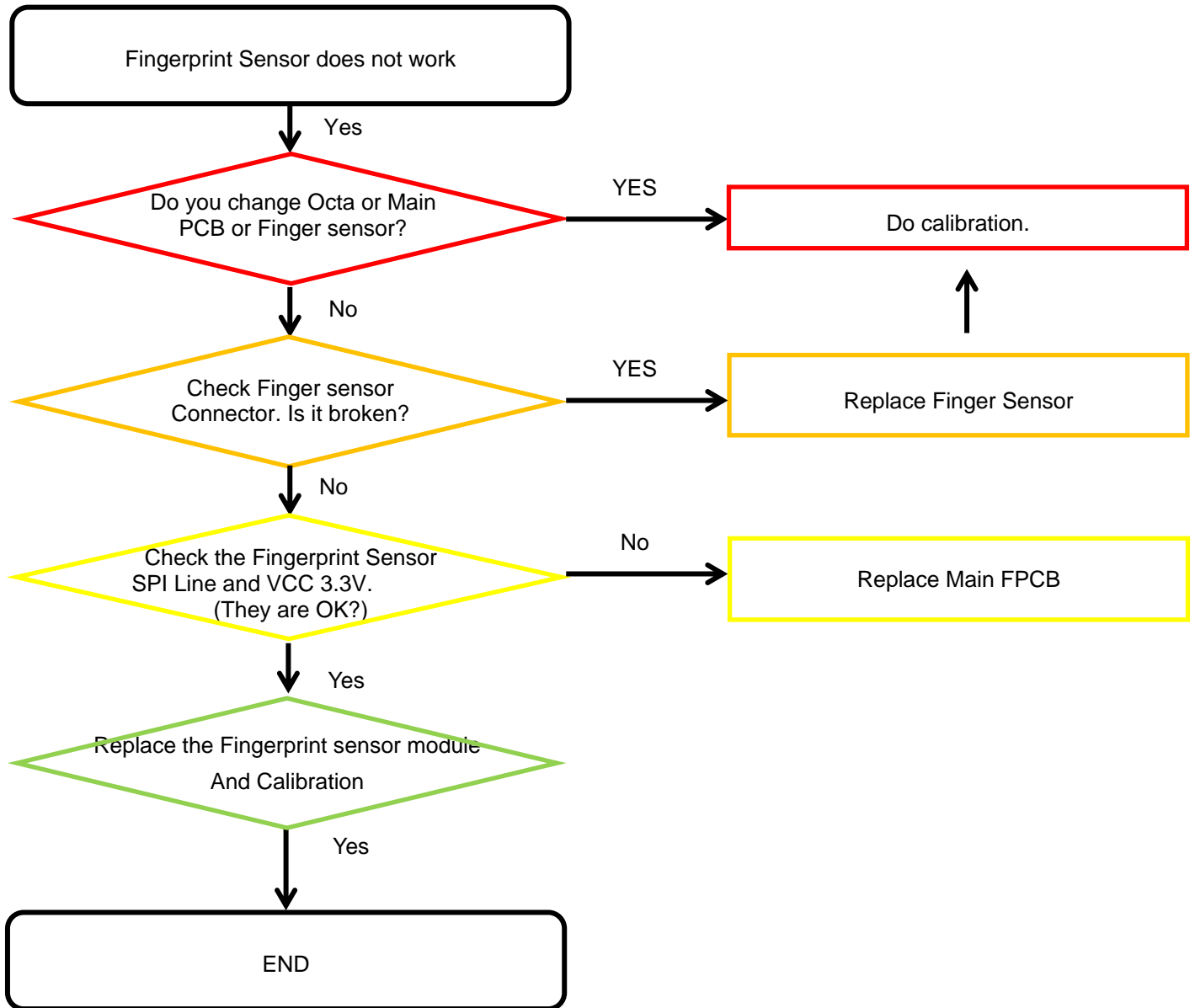
8. Level 3 Repair

8-4-8-4. Hall Sensor



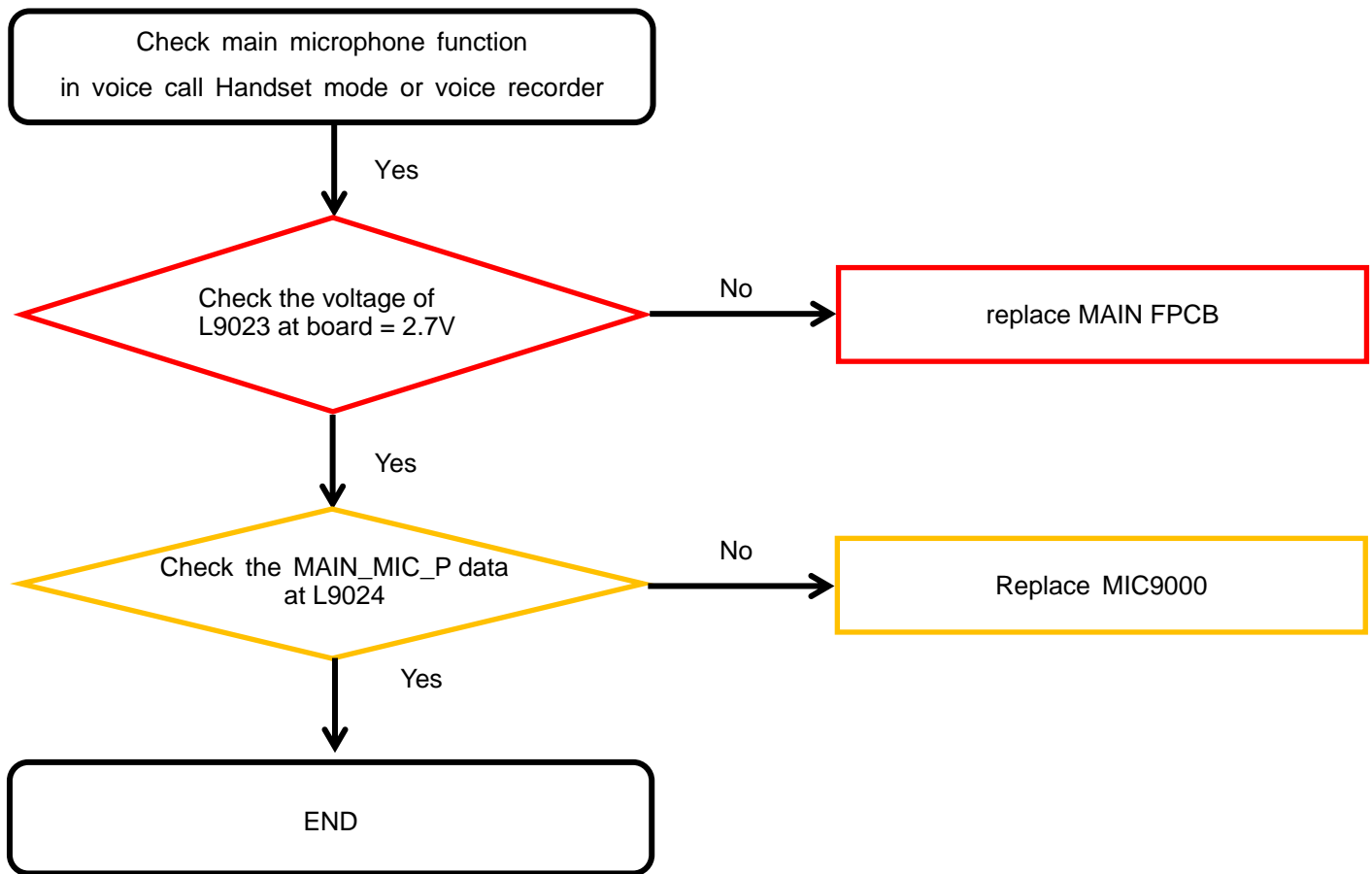
8. Level 3 Repair

8-4-8-5. Fingerprint Sensor



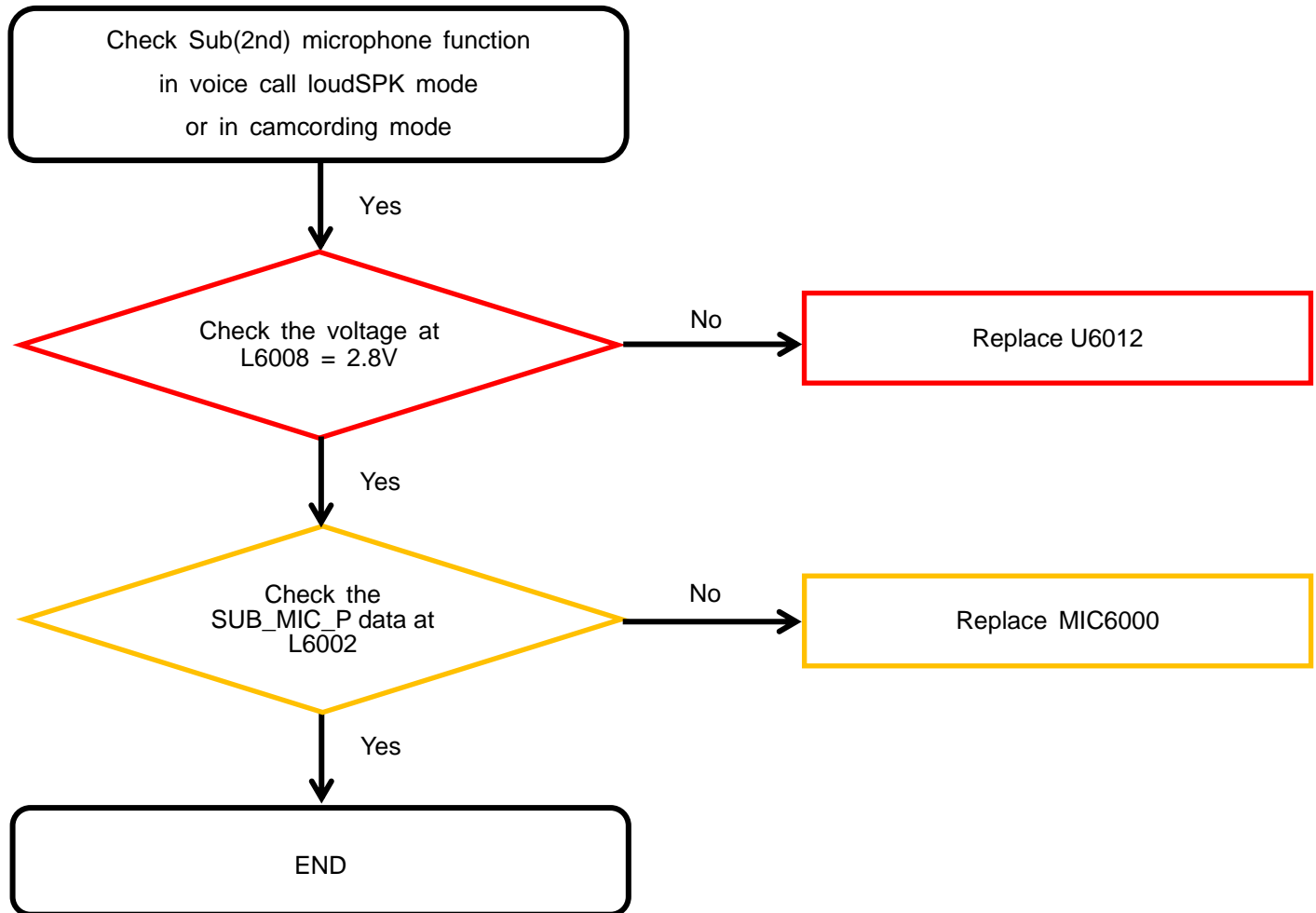
8. Level 3 Repair

8-4-9-1. Microphone Part - Main MIC



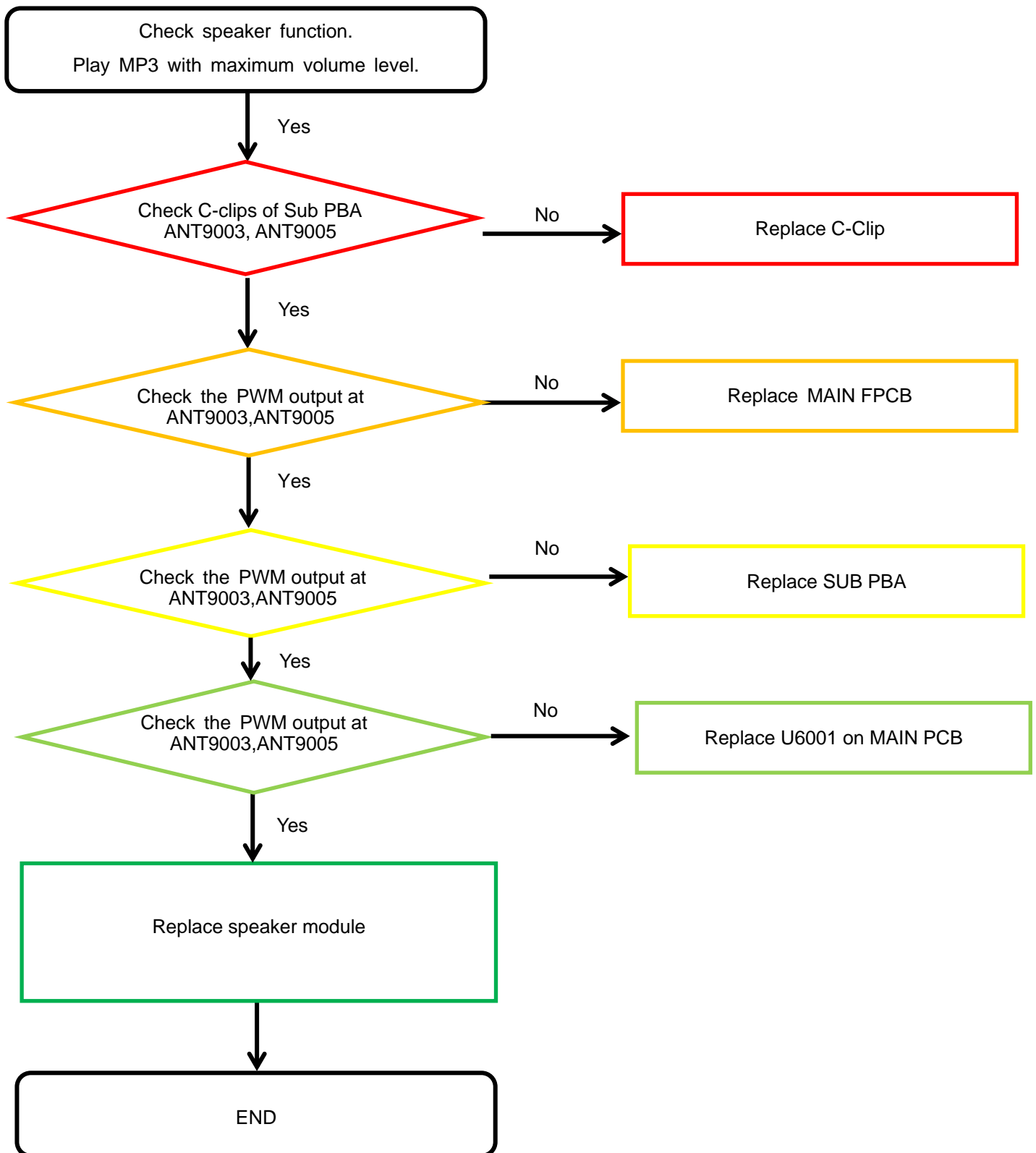
8. Level 3 Repair

8-4-9-2. Microphone Part - Sub(2nd) MIC



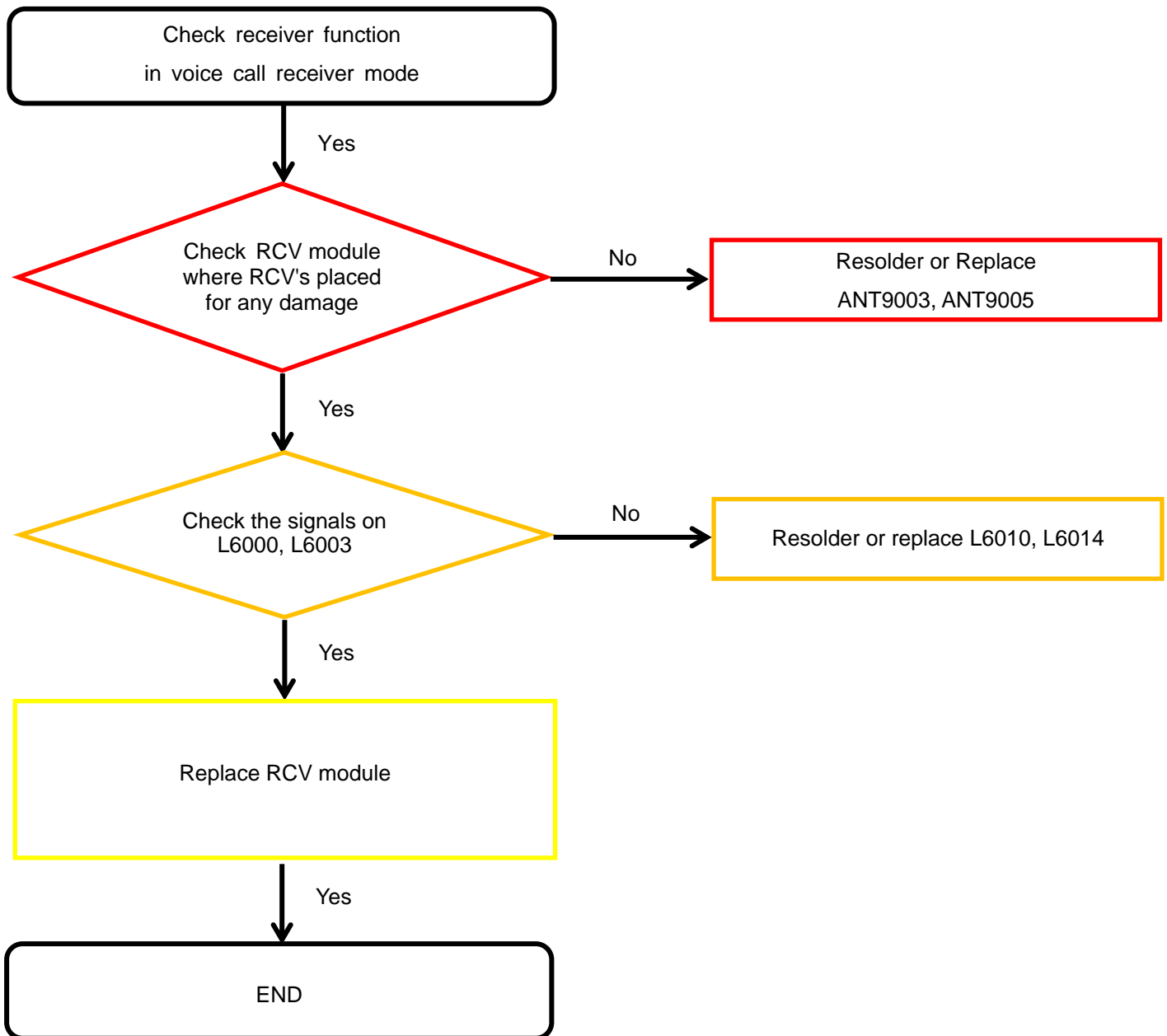
8. Level 3 Repair

8-4-10. Speaker Part



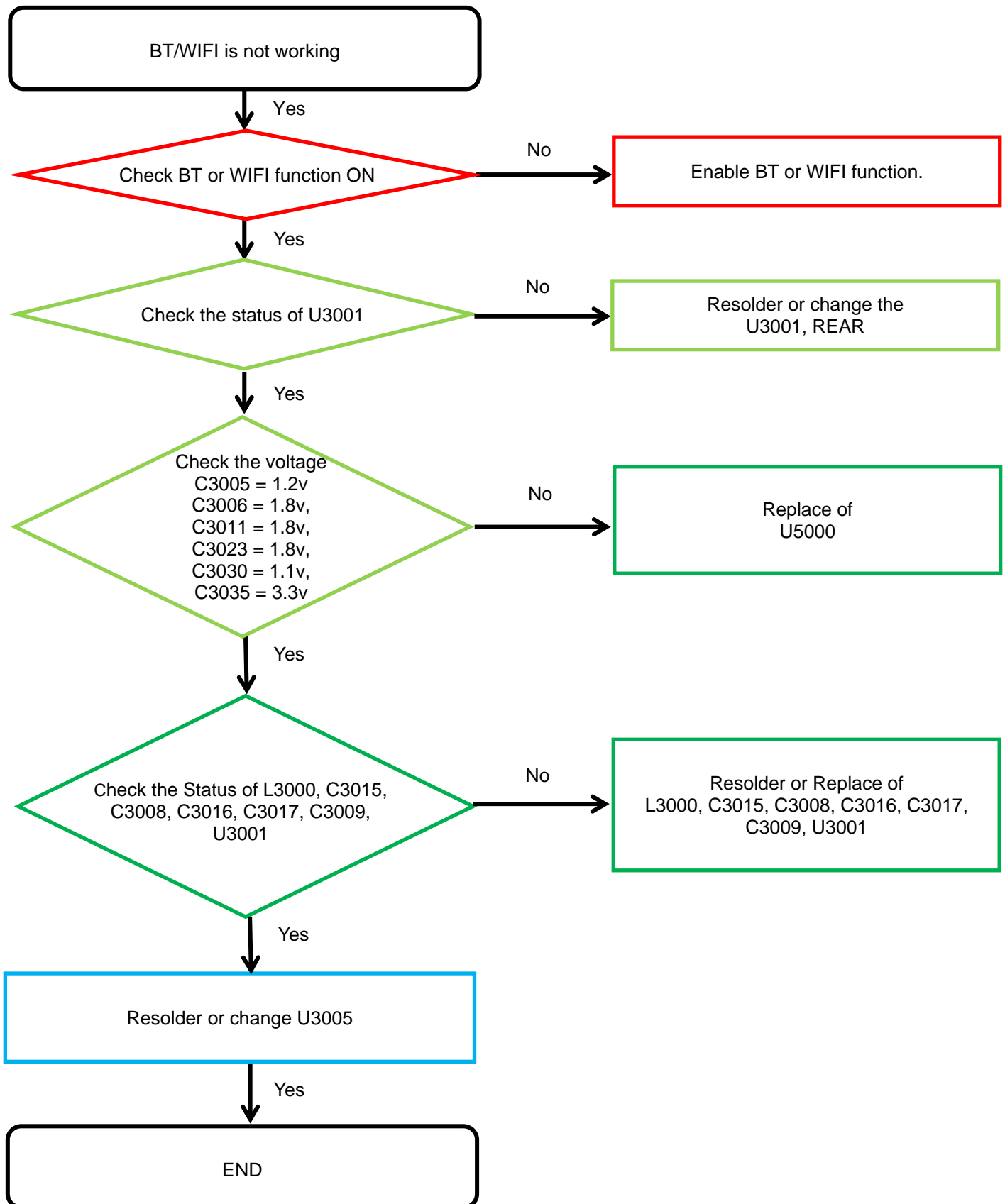
8. Level 3 Repair

8-4-11. Receiver Part



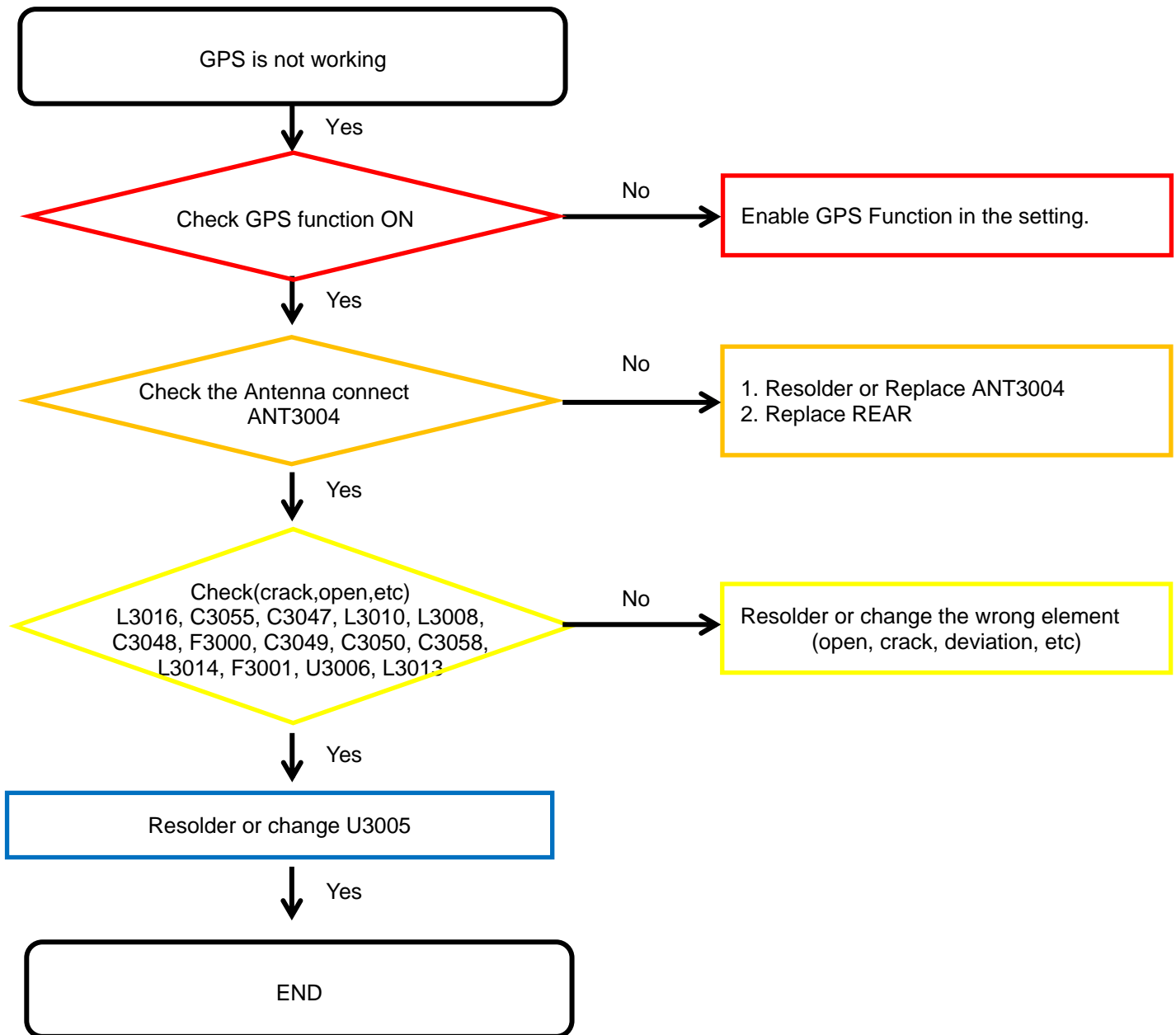
8. Level 3 Repair

8-4-12. BT/WIFI



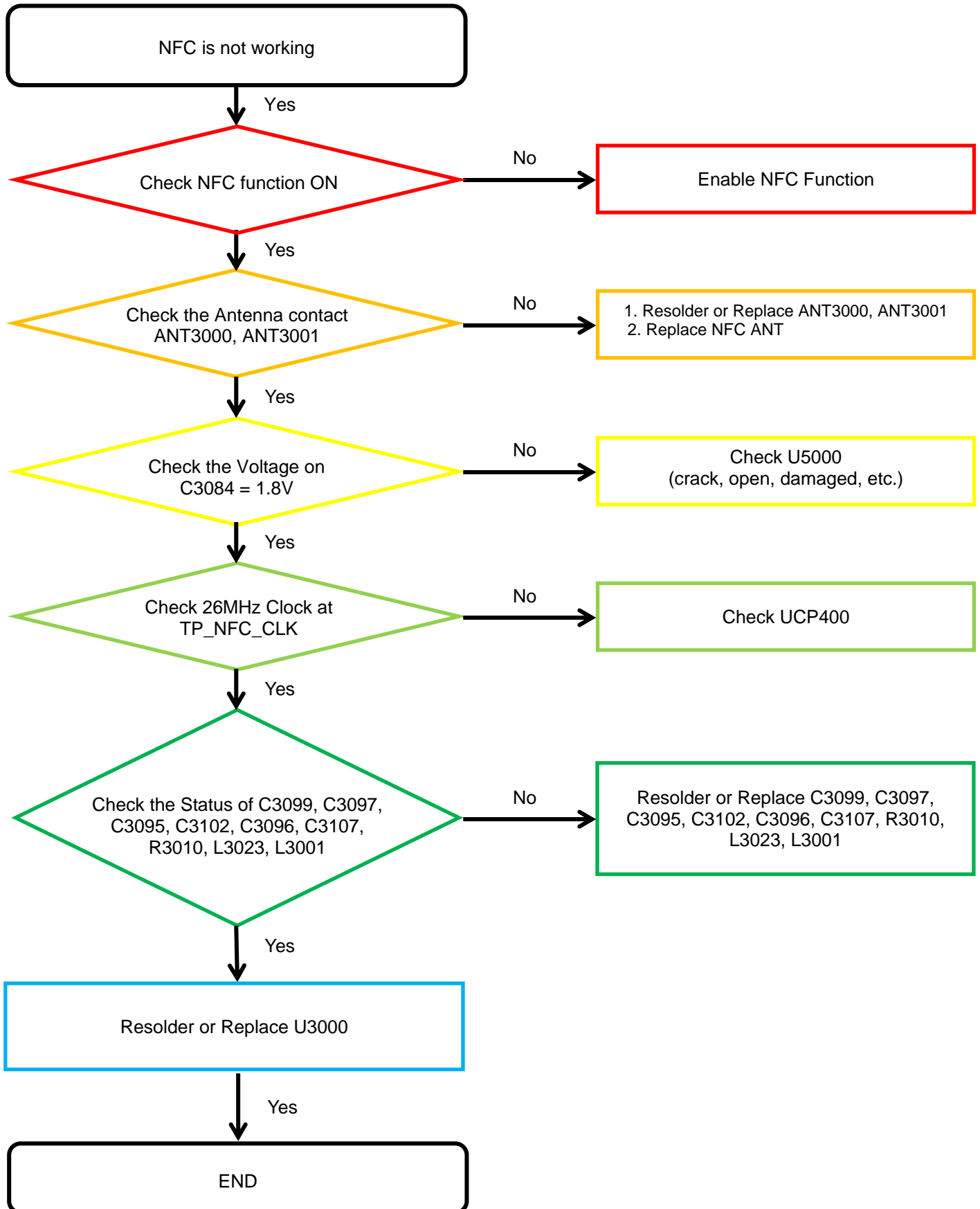
8. Level 3 Repair

8-4-13. GPS



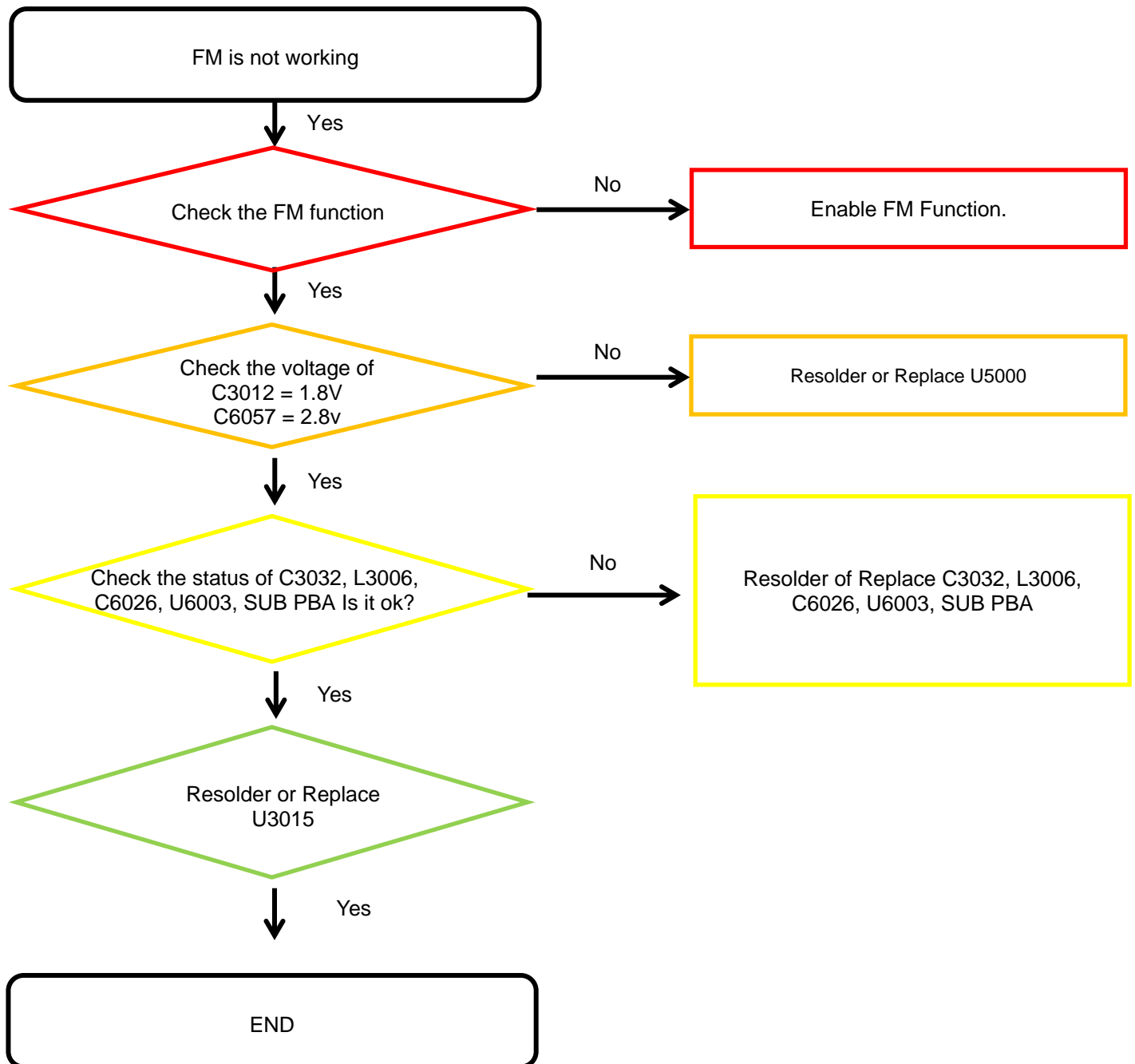
8. Level 3 Repair

8-4-14. NFC



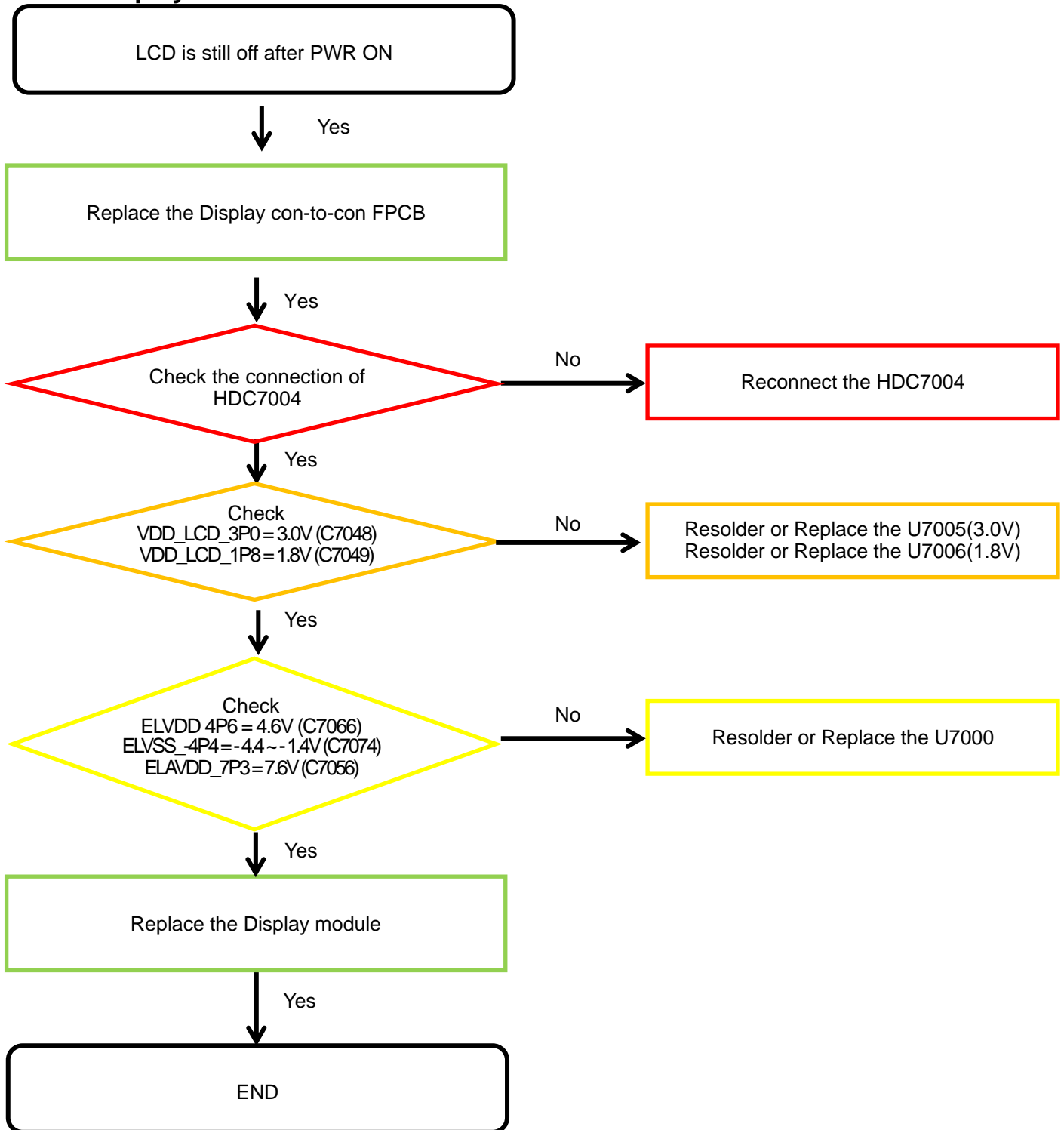
8. Level 3 Repair

8-4-15. FM radio part



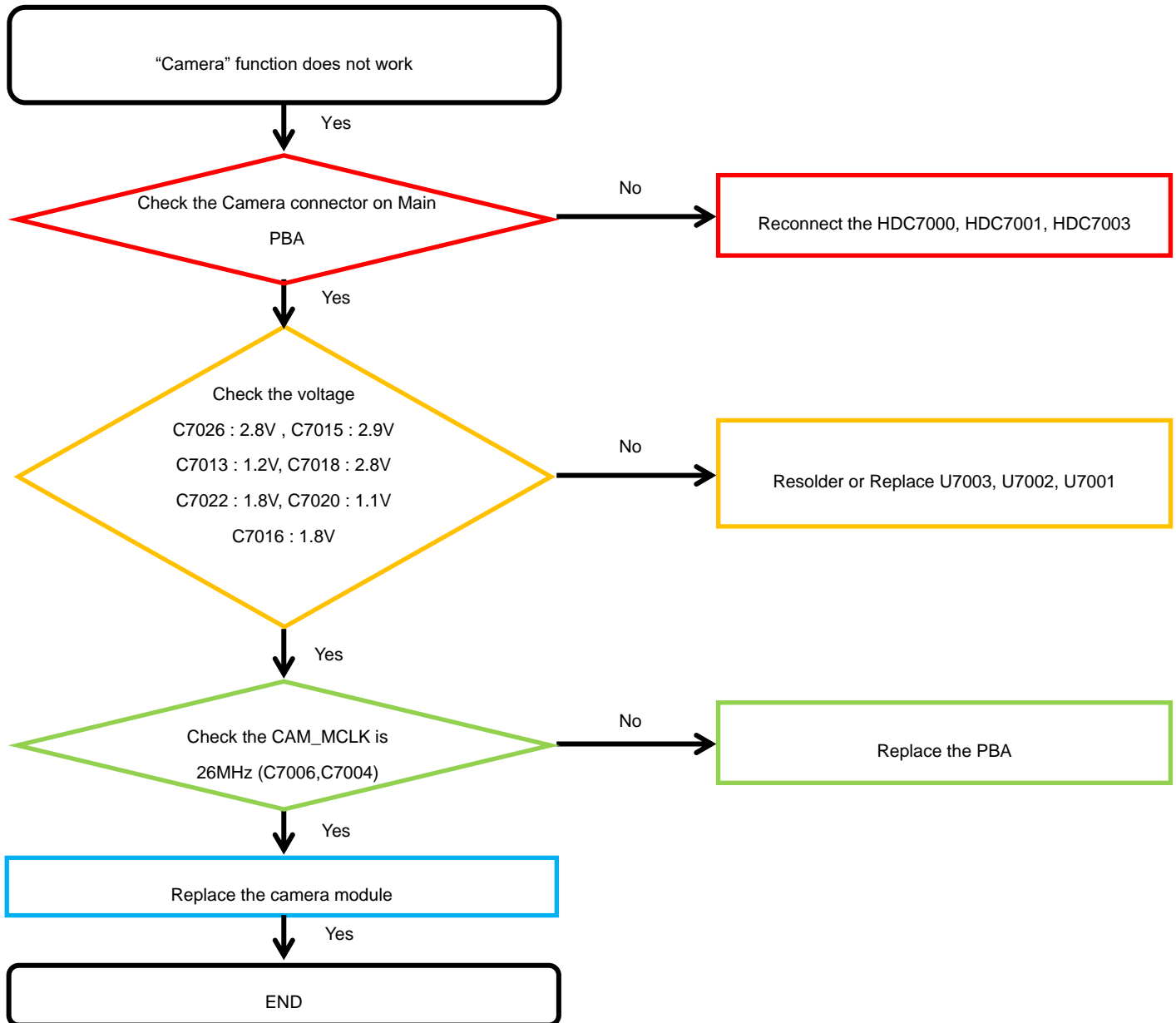
8. Level 3 Repair

8-4-16. Display



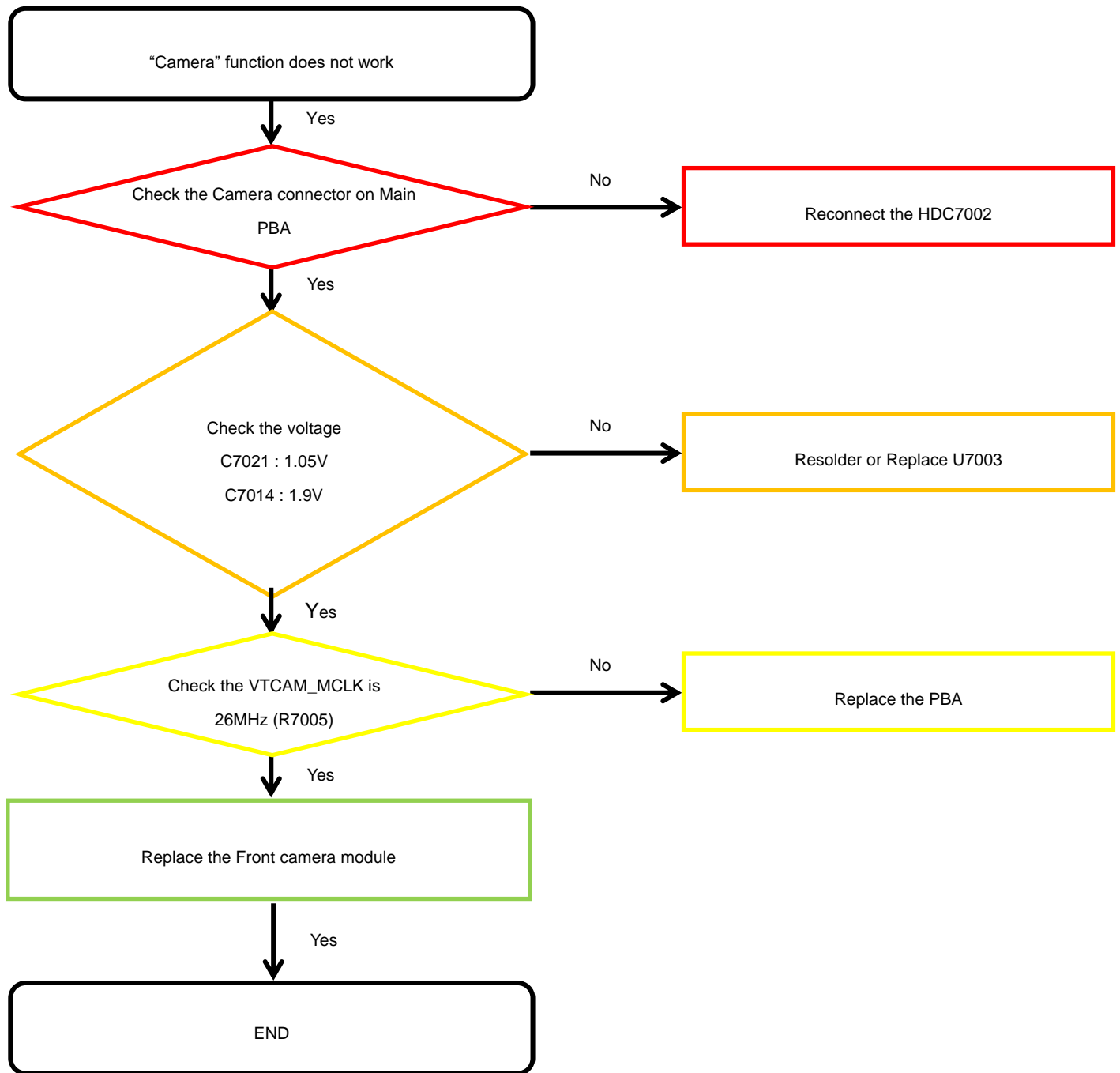
8. Level 3 Repair

8-4-17. Triple Camera



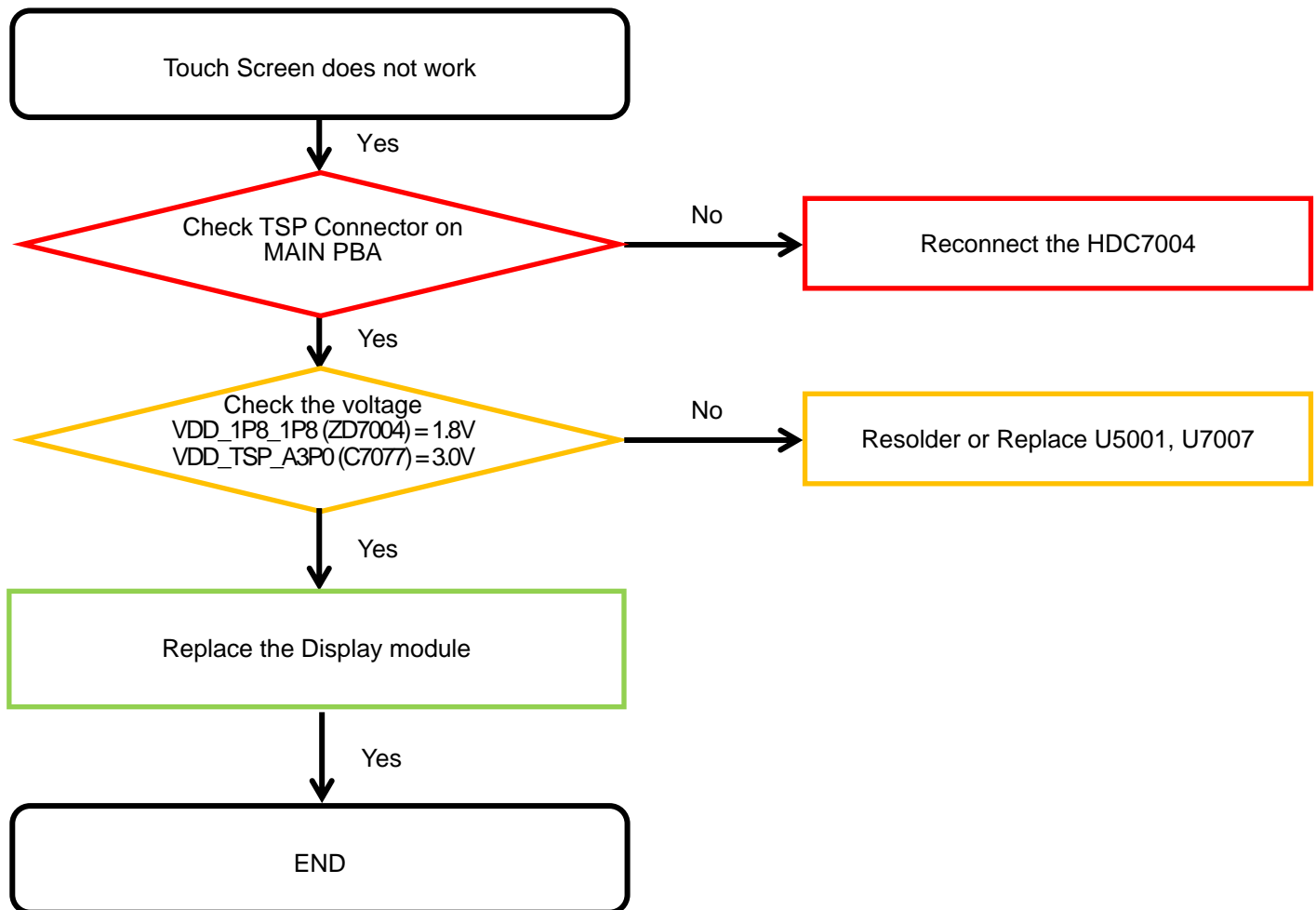
8. Level 3 Repair

8-4-18. VT CAMERA



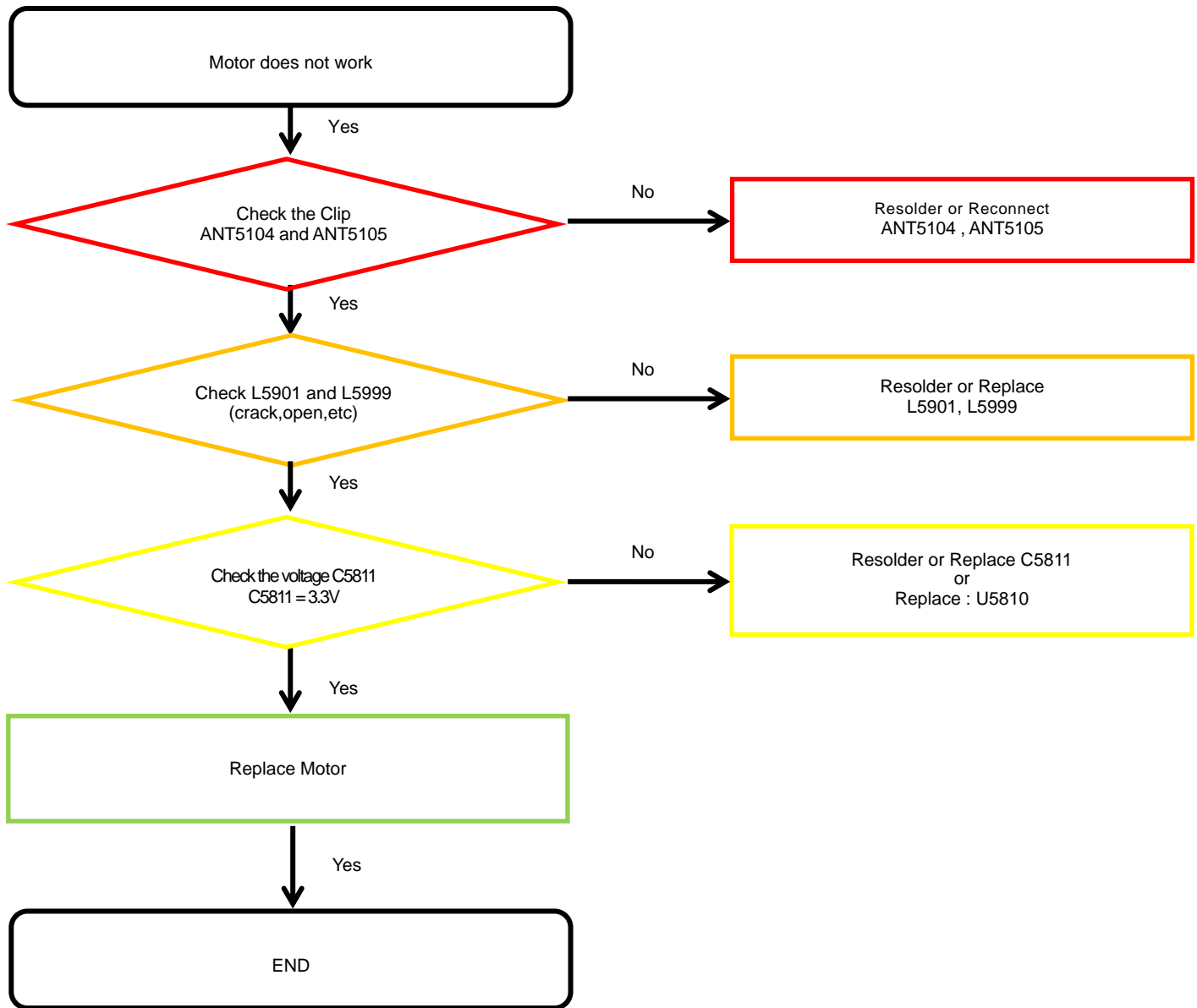
8. Level 3 Repair

8-4-19. TSP



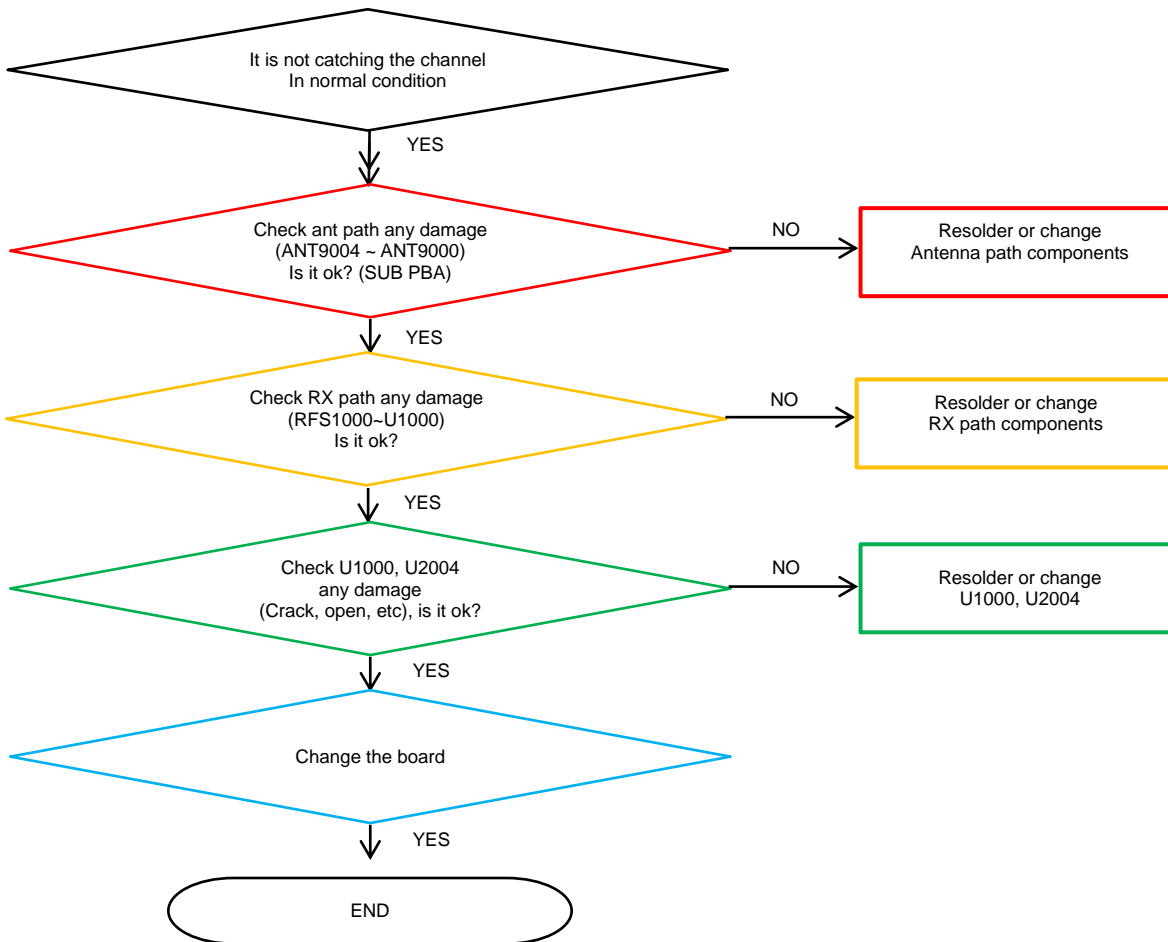
8. Level 3 Repair

8-4-20. Motor



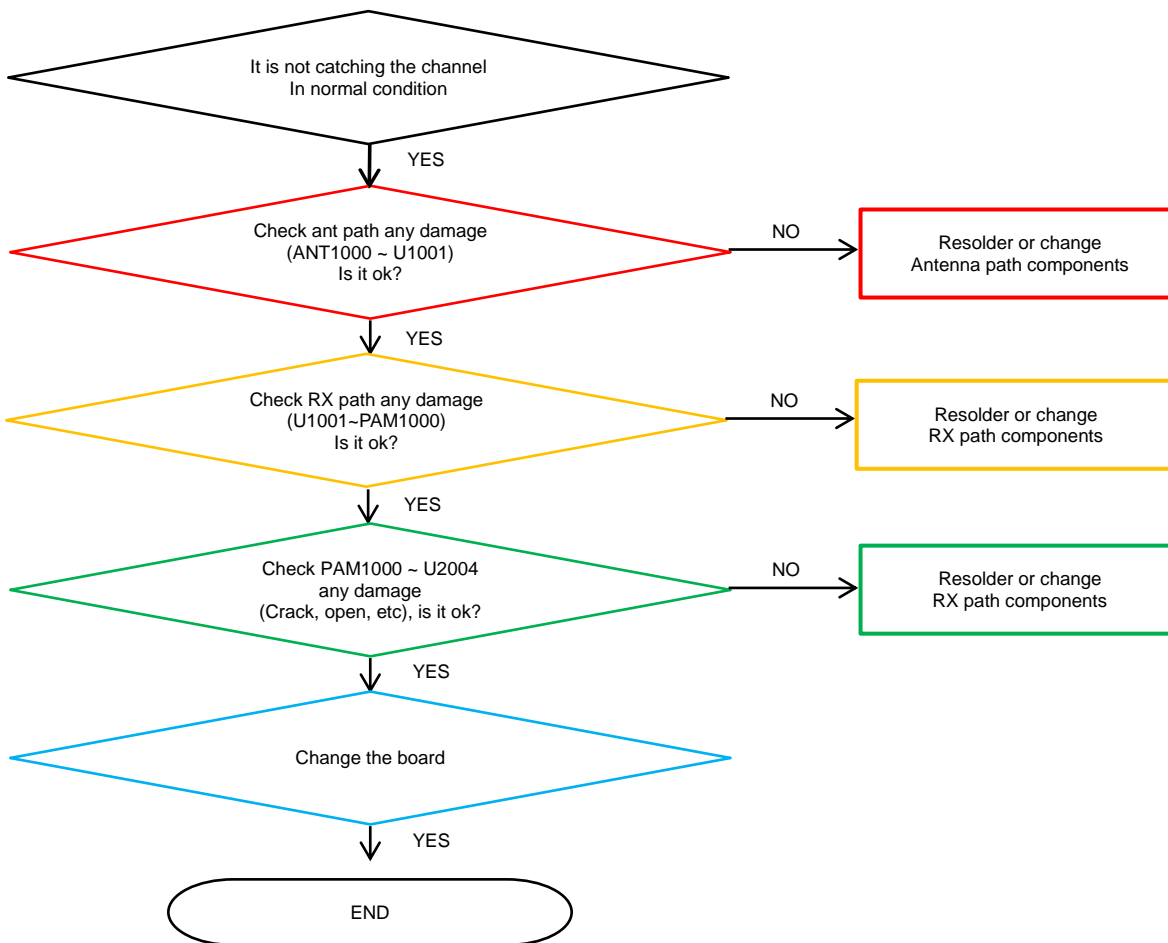
8. Level 3 Repair

8-4-21. GSM 850/900, WCDMA B5/8, LTE B5/8/20/28 PRx



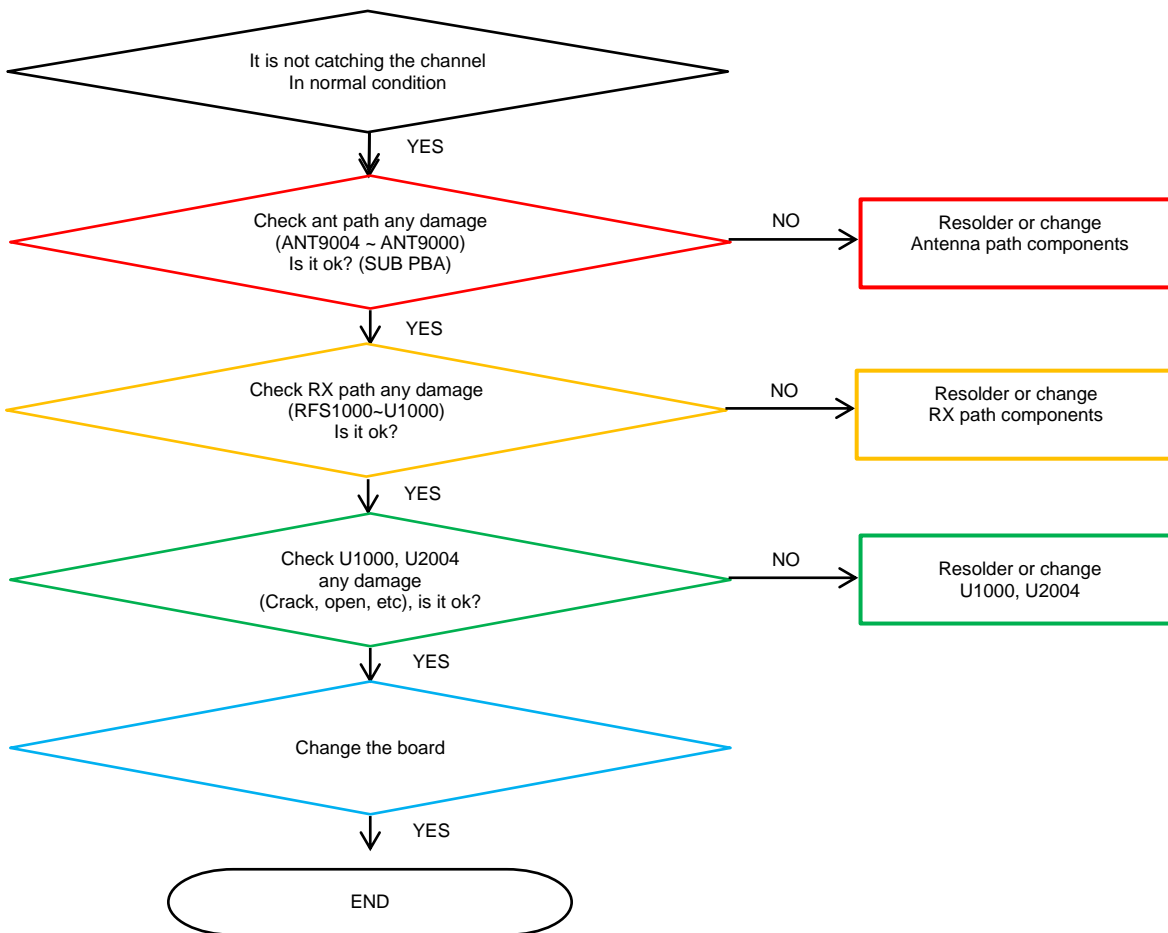
8. Level 3 Repair

8-4-22. LTE B7/38/40/41 PRx



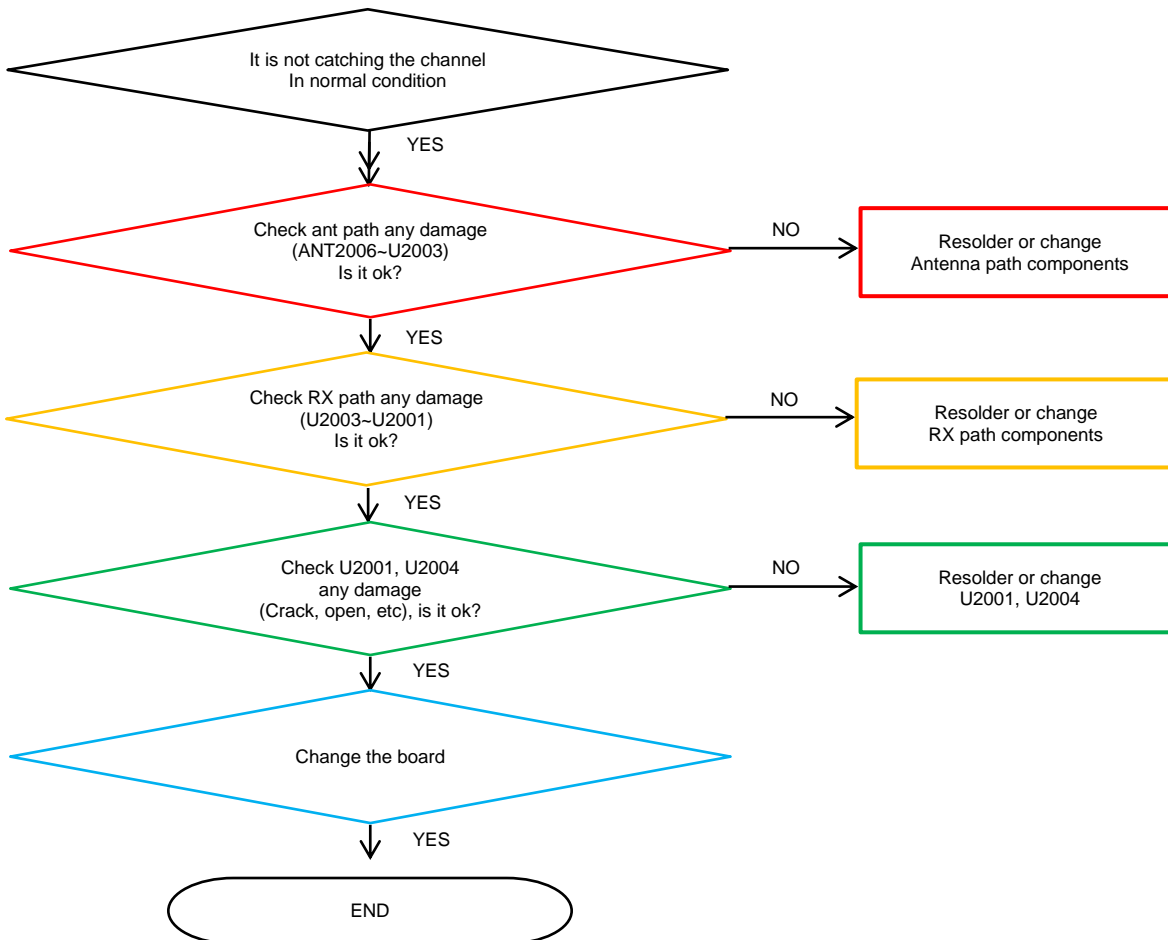
8. Level 3 Repair

8-4-23. GSM DCS/PCS, WCDMA B1/2, LTE B1/3 PRx



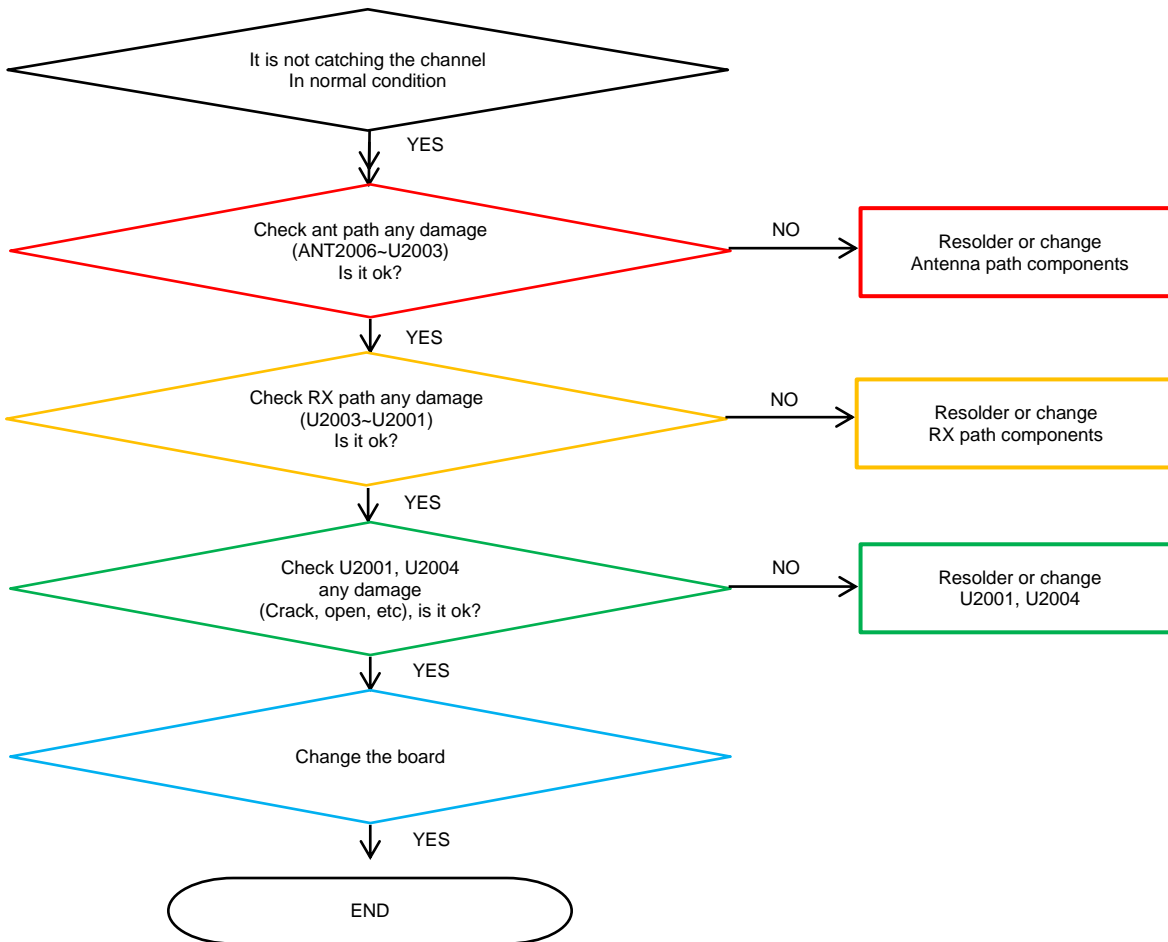
8. Level 3 Repair

8-4-24. GSM 850/900, WCDMA B5/8, LTE B5/8/20/28 DRx



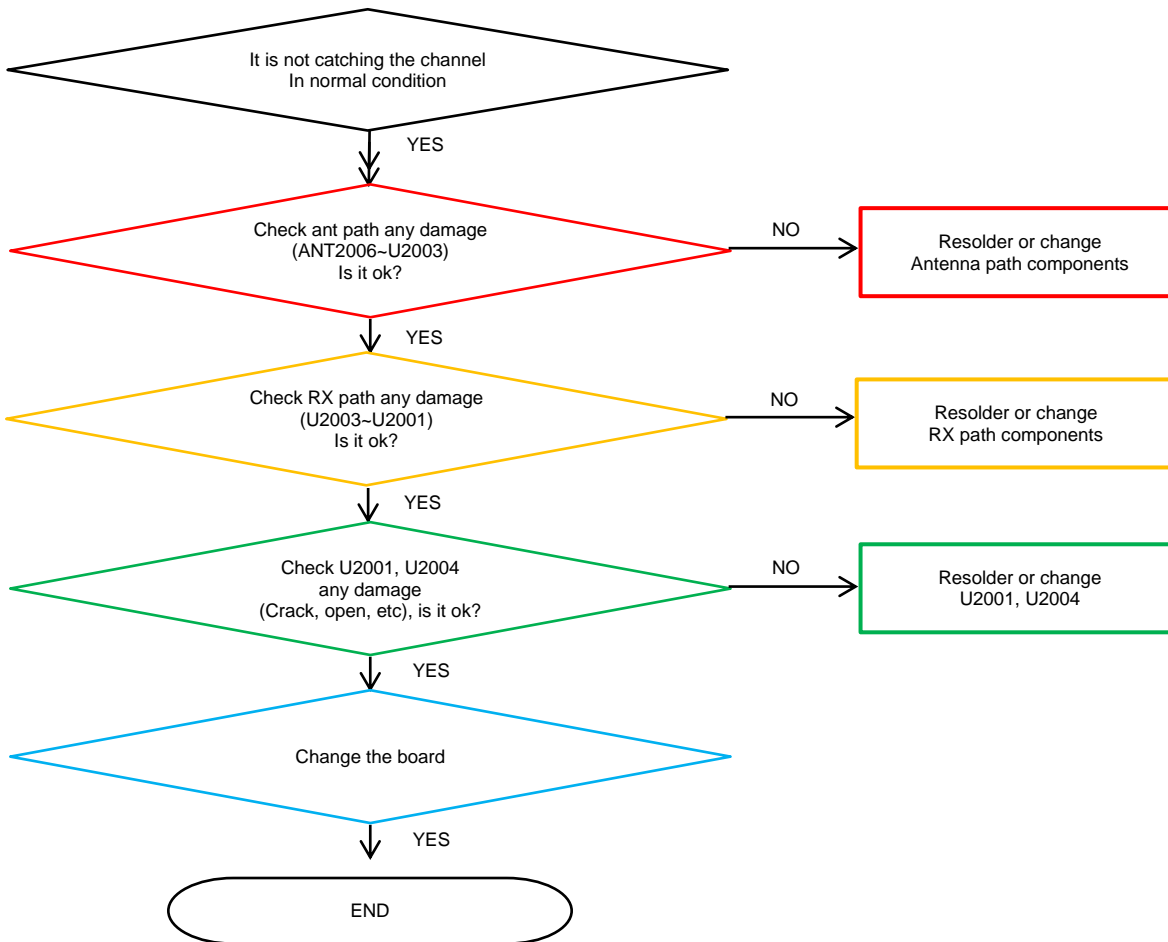
8. Level 3 Repair

8-4-25. LTE B7/38/40/41 DRx



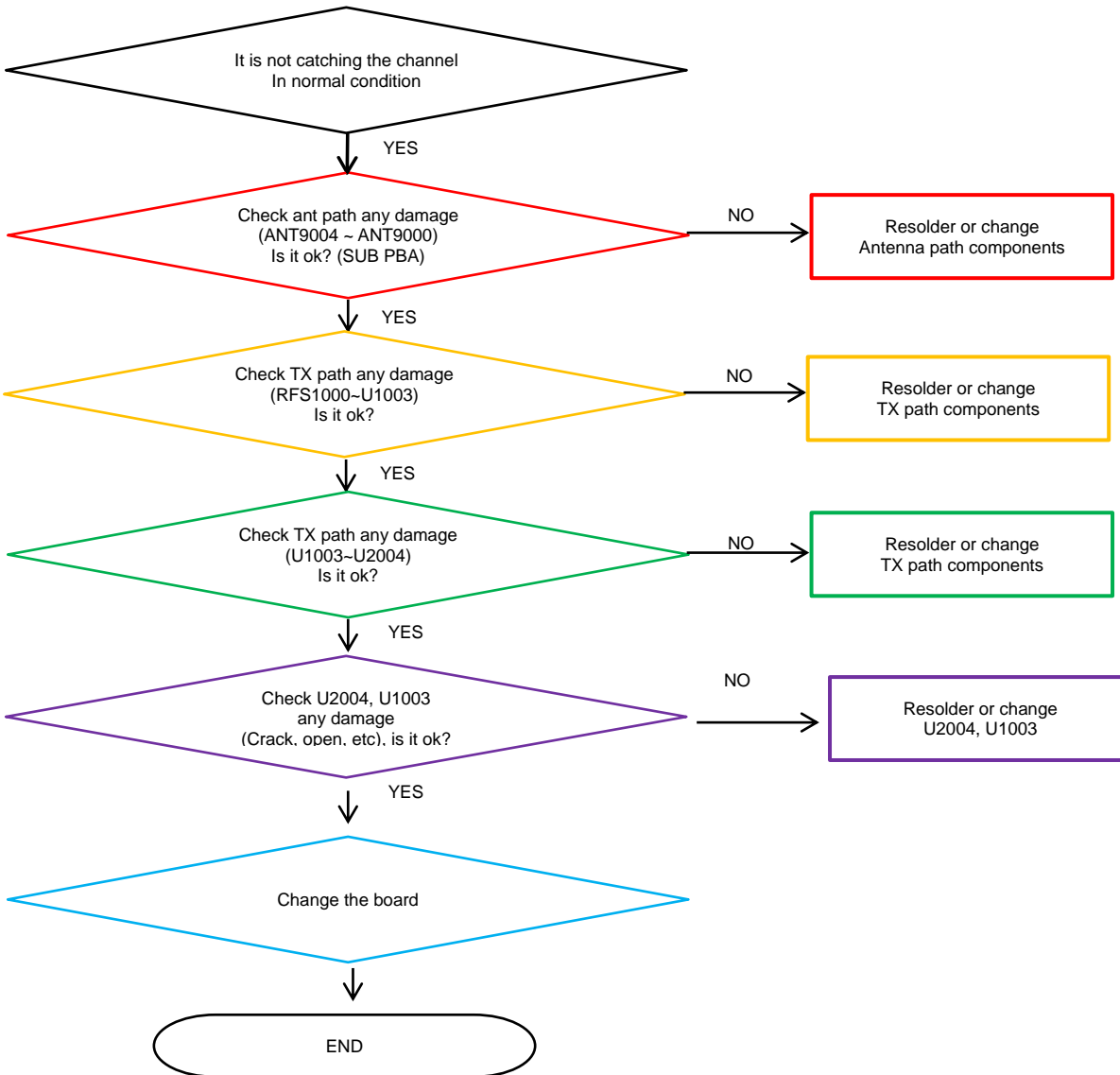
8. Level 3 Repair

8-4-26. GSM DCS/PCS, WCDMA B1/2, LTE B1/3 DRx



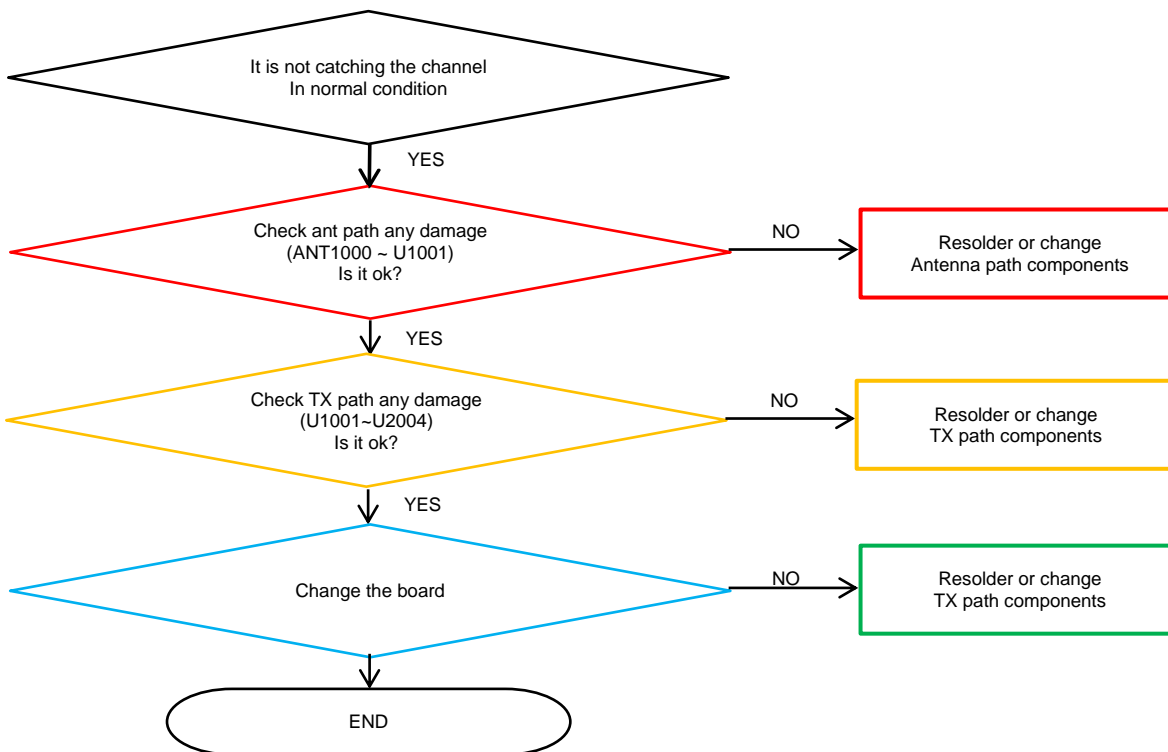
8. Level 3 Repair

8-4-27. GSM 850/900, WCDMA B5/8, LTE B5/8/20/28 Tx



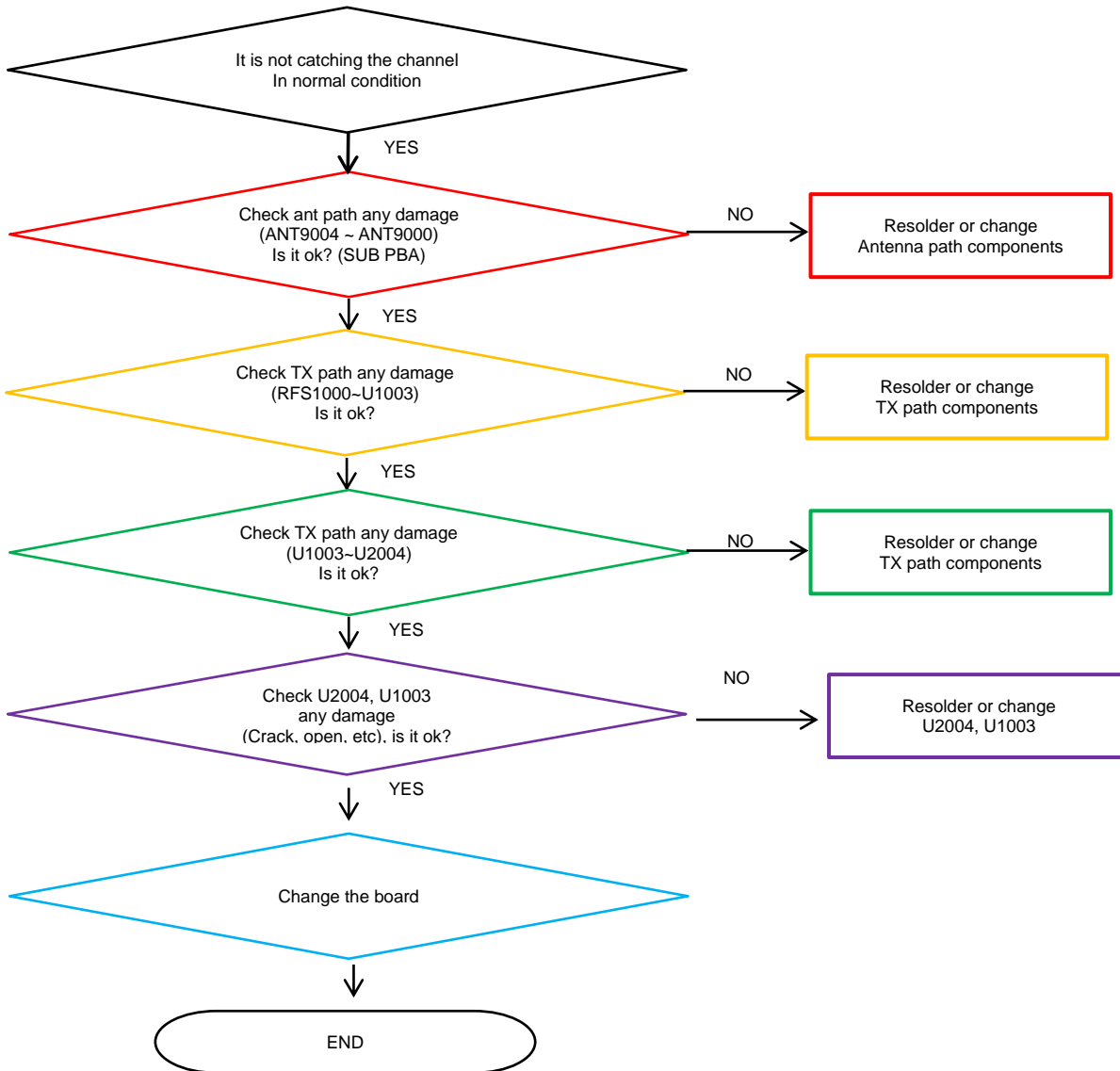
8. Level 3 Repair

8-4-28. LTE B7/38/40/41 Tx



8. Level 3 Repair

8-4-29. GSM DCS/PCS, WCDMA B1/2, LTE B1/3 Tx



9. Reference Abbreviation

Reference Abbreviation

- **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

SAMSUNG