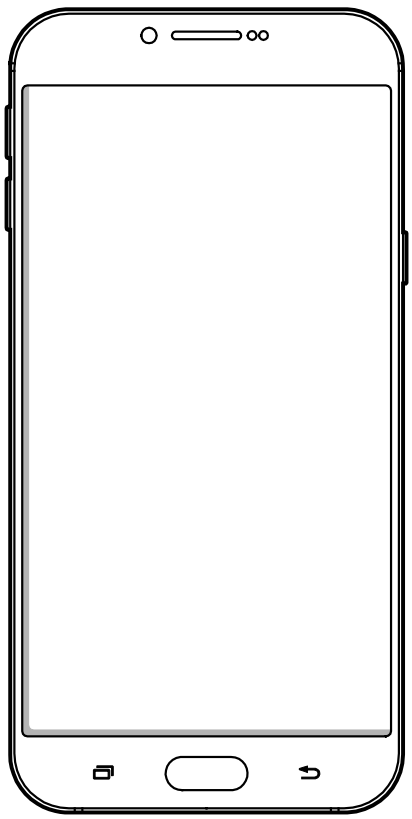
SAMSUNG

Mobile Device

SM-A810F

SERVICE Manual

Mobile Device



CONTENTS

1-1. Repair Precaution

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

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

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

Use only conductor wire of the properly gauge and insulation for low resistance, because of the low margin of error of most testing equipment.
We recommend 22-gauge twisted copper wire.

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

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

1-2. ESD(Electrostatically Sensitive Devices) Precaution

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

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

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

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

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

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

2. Specification

2-1. GSM General Specification

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

2-2. GSM Tx Power Class

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

2-3. LTE General Specification

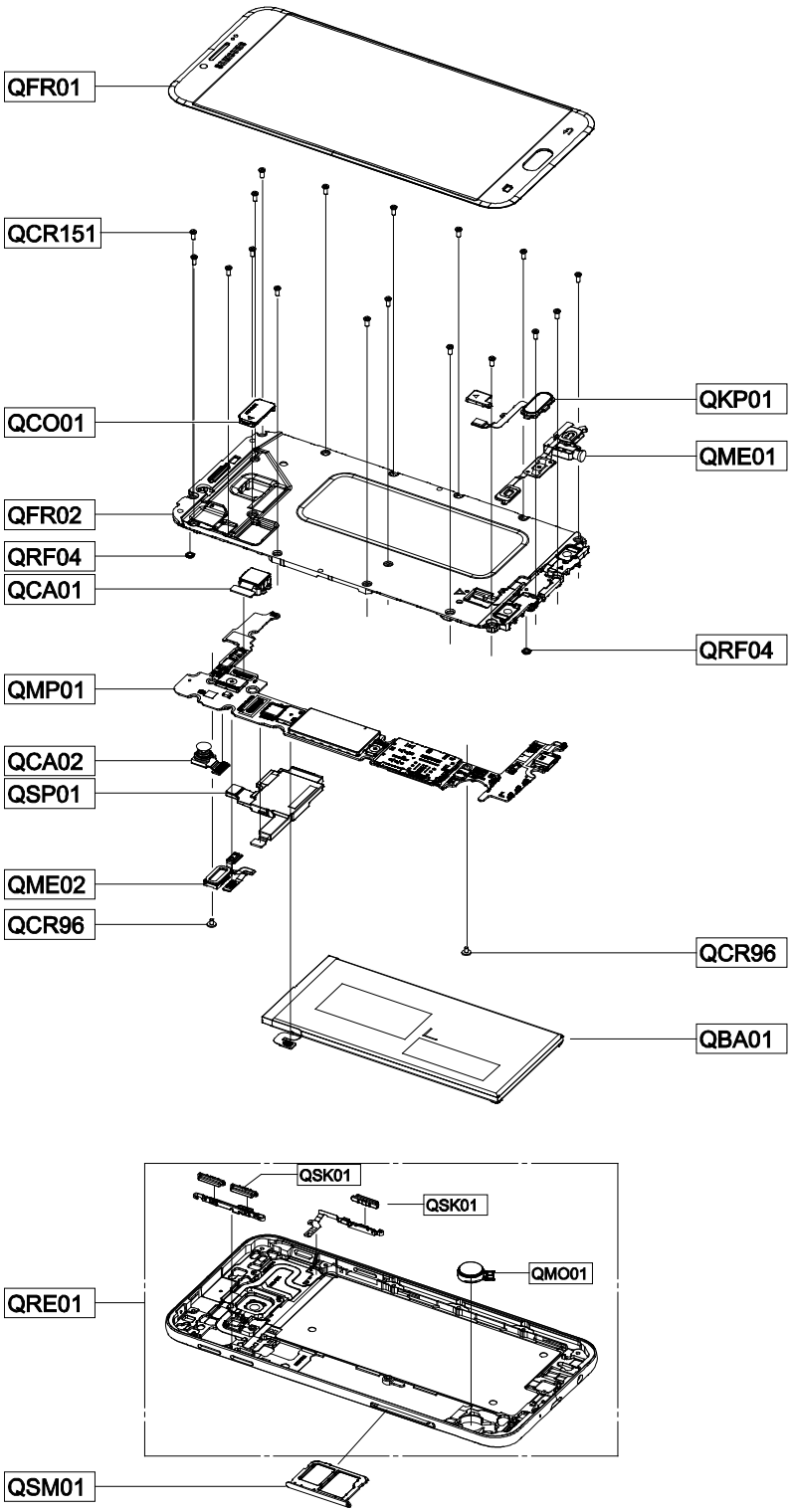
	LTE Band1	LTE Band3	LTE Band5	LTE Band7	LTE Band8	LTE Band 20
Freq. Band[MHz] Uplink/ Downlink	1920~1980 2110~2170	1710~1785 1805~1880	824~849 869~894	2500~2570 1805~1880	2500~2570 1805~1880	704~716 734~746
ARFCN range	UL: 18000~18599 DL: 0~599	UL: 19200~19950 DL: 1805~1880	UL: 20400~20649 DL: 2400~2649	UL: 20750~21449 DL: 2750~3449	UL: 21450~21799 DL: 3450~3799	UL: 24150~24449 DL: 6150~6449
Tx/Rx spacing	190MHz	95MHz	45MHz	120MHz	45MHz	41MHz
Channel Bandwidth	60 MHz	75 MHz	25 MHz	70 MHz	35 MHz	30 MHz
Modulation	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM
MS Power (MPR)	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm
Sensitivit (QPSK) (BW 10MHz)	-94 dBm	-92 dBm	-92 dBm	-95dBm	-95dBm	-95dBm
Cell Radius	>5Km	>5Km	>5Km	>5Km	>5Km	>5Km

Main Function

Item	Description
OS	Android V6.0.1 (Marshmallow)
RF	2G : 850/900/1800/1900 3G : 850/900/1900/2100 LTE : Band 1/3/5/7/8/20
Battery	3,300mAh
Base Band	Exynos7420 S5E7420(2.1GHz Octa)
Other RF	GPS, Glonass, BT 4.1, USB 2.0, WIFI 802.11 a/b/g/n(2.4+5GHz)
Camera	16 MP Rear, 8.0 MP Front
LCD	5.7” FHD OCTA, 1980×1080
RAM	3GB RAM +328GB eMMC
Sensor	Accelerometer, Proximity, Fingerprint, Geomagnetic, RGB
Accessory	Charger: 5V/2A, 9V/1.67A Data cable:2.7pi, 4Pin Earphone : 3.5pi

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



※ SVC REPAIR TAPE
QRT01, QRT02, QRT03
QRT04, QRT05

5. MAIN Electrical Parts List

Design LOC	SEC CODE	Description
0401-001110	D9007	DIODE-SWITCHING
0404-001250	D7000,D7001,D7003	DIODE-SCHOTTKY
0406-001413	ZD8005	DIODE-TVS
0406-001505	ZD9014	DIODE-TVS
0406-001592	U8004,ZD7001,ZD8006	DIODE-TVS
0406-001592	ZD8010,ZD8011,ZD8012	DIODE-TVS
0406-001592	ZD8015,ZD9002,ZD9003	DIODE-TVS
0406-001592	ZD9004	DIODE-TVS
0406-001623	D9000,D9001	DIODE-TVS
0406-001642	ZD8013,ZD8014	DIODE-TVS
0406-001682	U7008,U7009	DIODE-TVS
0406-001690	D9002,D9003,D9004	DIODE-TVS
0406-001690	D9005,D9006	DIODE-TVS
0406-001709	ZD8007,ZD8008,ZD8009	DIODE-TVS
0406-001717	ZD9005,ZD9006,ZD9007	DIODE-TVS
0406-001717	ZD9008,ZD9009,ZD9010	DIODE-TVS
0406-001717	ZD9013,ZD9017	DIODE-TVS
0406-001733	ZD7000	DIODE-TVS
0505-003234	TR7000,TR9000	FET-SILICON
0505-003529	TR7001	FET-SILICON
0601-003541	LED7000	LED
0902-003144	UCP500	IC
0903-002171	U9008	IC
1001-001650	U3003	IC
1001-001835	U4038	IC
1001-001964	U2022	IC
1001-001971	U1023	IC
1001-001972	U1014	IC
1001-001981	U1021	IC
1001-002002	U1012	IC
1003-002769	U4042	IC
1009-001066	U9013	IC
1201-003790	PAM4000	IC
1201-003832	PAM1001	IC
1201-003943	PAM1002	IC
1201-004006	PAM1000	IC
1201-004027	U8000	IC

1203-008472	U7001	IC
1203-008477	U7000	IC
1203-008478	U3001	IC
1203-008507	U7003	IC
1203-008603	U9011	IC
1203-008605	U7010	IC
1203-008693	U1018	IC
1203-008716	U7006	IC
1203-008717	U9007	IC
1205-005248	U8001	IC
1205-005271	UCP300	IC
1205-005310	U4016	IC
1205-005372	U4039	IC
1205-005485	U3002	IC
1205-005529	U8003	IC
1205-005680	U4044	IC
1209-002452	U9005	IC
1404-001664	TH7000	THERMISTOR
1404-001724	TH5000,TH5001,TH7001	THERMISTOR
1404-001734	TH3000	THERMISTOR
1405-001395	VR9002,VR9003	VARISTOR
1405-001404	VR5000	VARISTOR
1405-001415	VR1006	VARISTOR
1405-001425	VR1000,VR1003,VR1004	VARISTOR
1405-001425	VR1005,VR1007,VR1009	VARISTOR
1405-001425	VR1010,VR2000,VR2001	VARISTOR
1405-001425	VR2002,VR2003,VR2004	VARISTOR
1405-001425	VR2005,VR4002,VR4003	VARISTOR
1405-001425	VR9001	VARISTOR
1405-001428	VR4004	VARISTOR
1405-001429	VR9004	VARISTOR
2007-003015	R7023,R7032,R8020	R-CHIP
2007-003015	R8022	R-CHIP
2007-007310	R5047,R5067	R-CHIP
2007-007315	R3001,R3002,R3010	R-CHIP
2007-007489	R3009	R-CHIP
2007-007573	R3003	R-CHIP
2007-007588	R4006	R-CHIP

2007-007741	R3018,R3022,R3025	R-CHIP
2007-007741	R3026,R3028,R3029	R-CHIP
2007-007741	R4004,R5001,R5002	R-CHIP
2007-007741	R5004,R5006,R5013	R-CHIP
2007-007741	R5015,R5048,R7000	R-CHIP
2007-007741	R7022,R7031,R8000	R-CHIP
2007-007741	R8013,R8017,R8029	R-CHIP
2007-007741	R9005,R9012,R9015	R-CHIP
2007-007942	R7029	R-CHIP
2007-007946	R7030	R-CHIP
2007-008026	R8011,R8012	R-CHIP
2007-008043	R3021	R-CHIP
2007-008210	R1001,R5056	R-CHIP
2007-008211	R9022	R-CHIP
2007-008420	R8014	R-CHIP
2007-008531	R5022	R-CHIP
2007-008542	C8077	R-CHIP
2007-008582	R1002,R1003	R-CHIP
2007-008587	R8015,R8016	R-CHIP
2007-008774	R9025,R9026,R9027	R-CHIP
2007-008774	R9028,R9029,R9030	R-CHIP
2007-008798	R7001	R-CHIP
2007-008800	R3005,R3006,R3007	R-CHIP
2007-008800	R3008,R3012,R3013	R-CHIP
2007-009111	R8028	R-CHIP
2007-009155	R8018	R-CHIP
2007-009157	R5016,R5017,R5018	R-CHIP
2007-009157	R5020,R5024,R5025	R-CHIP
2007-009157	R5026,R5049,R5050	R-CHIP
2007-009157	R5051,R7003,R7006	R-CHIP
2007-009157	R7012,R7014,R7015	R-CHIP
2007-009157	R7021,R8023,R8024	R-CHIP
2007-009157	R9002	R-CHIP
2007-009171	R3011,R7020	R-CHIP
2007-009212	R5033,R5034,R5045	R-CHIP
2007-009212	R5046,R8001,R8003	R-CHIP
2007-009212	R8004,R8019,R8021	R-CHIP
2007-009212	R8025,R8026,R9007	R-CHIP

2007-009315	R8002	R-CHIP
2007-009352	R3014,R9001,R9003	R-CHIP
2007-009352	R9004	R-CHIP
2007-009402	R7019,R7026	R-CHIP
2007-009408	R5027,R5028,R5031	R-CHIP
2007-009408	R5032,R5037,R5038	R-CHIP
2007-009408	R5039,R5040,R5041	R-CHIP
2007-009408	R5042,R5043,R5044	R-CHIP
2007-009408	R5073,R5074,R5075	R-CHIP
2007-009408	R5076,R9000,R9017	R-CHIP
2007-009408	R9018,R9019,R9020	R-CHIP
2007-009793	R5055,R8035	R-CHIP
2007-009801	R3020,R7013	R-CHIP
2007-009805	R1000,R1004	R-CHIP
2007-009866	R5023,R7002,R7005	R-CHIP
2007-009866	R7007,R7009,R7017	R-CHIP
2007-009866	R7018	R-CHIP
2007-009920	R3016,R3017,R5058	R-CHIP
2007-009920	R5060,R5063,R5064	R-CHIP
2007-009920	R5065,R5068	R-CHIP
2007-009969	R7010,R7011,R8006	R-CHIP
2007-010029	R7027	R-CHIP
2007-010202	R4000,R4001,R4002	R-CHIP
2007-010202	R4003,R9010,R9011	R-CHIP
2007-010202	R9013,R9014	R-CHIP
2007-010685	R5008,R7004,R9009	R-CHIP
2007-011043	R5057	R-CHIP
2007-011648	R7028	R-CHIP
2007-012197	R7016	R-CHIP
2203-000254	C4022	C-CERAMIC,CHIP
2203-000386	C4077	C-CERAMIC,CHIP
2203-000654	C4076	C-CERAMIC,CHIP
2203-001153	C4068,C4081	C-CERAMIC,CHIP
2203-001239	C7116	C-CERAMIC,CHIP
2203-005446	C1157	C-CERAMIC,CHIP
2203-005659	C4072,C4078	C-CERAMIC,CHIP
2203-005682	C1084,C4039,C8029	C-CERAMIC,CHIP
2203-005682	C8045,C8066,C8067	C-CERAMIC,CHIP

2203-005682	C9042	C-CERAMIC,CHIP
2203-005717	C7119,C9005,C9013	C-CERAMIC,CHIP
2203-005725	C1115,C1158,C4031	C-CERAMIC,CHIP
2203-005725	C5068,C7033,C9000	C-CERAMIC,CHIP
2203-005725	C9056	C-CERAMIC,CHIP
2203-005726	C1113	C-CERAMIC,CHIP
2203-005727	C4014,C4055,C4056	C-CERAMIC,CHIP
2203-005727	C5000	C-CERAMIC,CHIP
2203-005729	C5001,C8025,C8026	C-CERAMIC,CHIP
2203-005731	C8049,C8051,C8060	C-CERAMIC,CHIP
2203-005731	C8062	C-CERAMIC,CHIP
2203-005732	C8027,C8028,C8050	C-CERAMIC,CHIP
2203-005732	C8052,C8074,C8075	C-CERAMIC,CHIP
2203-005734	C8063,C8065	C-CERAMIC,CHIP
2203-005736	C1006,C1017,C1061	C-CERAMIC,CHIP
2203-005736	C1062,C1063,C1075	C-CERAMIC,CHIP
2203-005736	C1087,C1123,C1142	C-CERAMIC,CHIP
2203-005736	C1145,C1148,C1153	C-CERAMIC,CHIP
2203-005736	C1159,C1162,C2001	C-CERAMIC,CHIP
2203-005736	C2003,C2004,C2008	C-CERAMIC,CHIP
2203-005736	C2009,C2012,C2025	C-CERAMIC,CHIP
2203-005736	C2028,C2030,C2031	C-CERAMIC,CHIP
2203-005736	C2038,C2040,C4019	C-CERAMIC,CHIP
2203-005736	C4035,C4089,C4094	C-CERAMIC,CHIP
2203-005736	C4095,C9041,L2017	C-CERAMIC,CHIP
2203-005736	L2018	C-CERAMIC,CHIP
2203-005777	C1134,C1139,C1140	C-CERAMIC,CHIP
2203-005777	C2036,C4041	C-CERAMIC,CHIP
2203-005779	C4015	C-CERAMIC,CHIP
2203-005789	C1036,C1091,C1112	C-CERAMIC,CHIP
2203-005789	C1149,C1161,C4044	C-CERAMIC,CHIP
2203-005789	C4083,C4097	C-CERAMIC,CHIP
2203-005792	C1052,C1114	C-CERAMIC,CHIP
2203-005806	C1083	C-CERAMIC,CHIP
2203-006120	C4091	C-CERAMIC,CHIP
2203-006121	C1015	C-CERAMIC,CHIP
2203-006123	C4096	C-CERAMIC,CHIP
2203-006187	C1043	C-CERAMIC,CHIP

2203-006194	C1021,C3072,C9051	C-CERAMIC,CHIP
2203-006305	C4032,C4037,C4082	C-CERAMIC,CHIP
2203-006305	C4085	C-CERAMIC,CHIP
2203-006318	C2017	C-CERAMIC,CHIP
2203-006348	C7105	C-CERAMIC,CHIP
2203-006379	C8047	C-CERAMIC,CHIP
2203-006399	C3043,C8071,C8073	C-CERAMIC,CHIP
2203-006400	C1085,C2005,C3039	C-CERAMIC,CHIP
2203-006400	C3040,C3053,C3059	C-CERAMIC,CHIP
2203-006400	C3068,C4006,C4036	C-CERAMIC,CHIP
2203-006400	C4070,C5071,C5072	C-CERAMIC,CHIP
2203-006400	C7087,C7098,C8055	C-CERAMIC,CHIP
2203-006423	C1038,C1059,C1069	C-CERAMIC,CHIP
2203-006423	C1076,C1081,C1082	C-CERAMIC,CHIP
2203-006423	C2039,C3006,C3007	C-CERAMIC,CHIP
2203-006423	C3009,C3010,C3012	C-CERAMIC,CHIP
2203-006423	C3047,C3050,C3057	C-CERAMIC,CHIP
2203-006423	C3058,C3060,C4001	C-CERAMIC,CHIP
2203-006423	C4010,C4011,C4013	C-CERAMIC,CHIP
2203-006423	C4062,C5070,C5074	C-CERAMIC,CHIP
2203-006423	C6009,C6010,C6011	C-CERAMIC,CHIP
2203-006423	C6012,C6013,C6016	C-CERAMIC,CHIP
2203-006423	C6017,C6019,C6022	C-CERAMIC,CHIP
2203-006423	C6023,C6025,C6026	C-CERAMIC,CHIP
2203-006423	C6027,C6028,C7009	C-CERAMIC,CHIP
2203-006423	C7014,C7015,C7103	C-CERAMIC,CHIP
2203-006423	C8012,C8013,C8014	C-CERAMIC,CHIP
2203-006423	C8015,C8016,C8046	C-CERAMIC,CHIP
2203-006423	C8054,C9025,C9026	C-CERAMIC,CHIP
2203-006423	C9027,C9028,C9029	C-CERAMIC,CHIP
2203-006423	C9034,C9046,C9047	C-CERAMIC,CHIP
2203-006423	C9048,C9049,C9055	C-CERAMIC,CHIP
2203-006556	C4005	C-CERAMIC,CHIP
2203-006562	C7102,C7106	C-CERAMIC,CHIP
2203-006604	C9053	C-CERAMIC,CHIP
2203-006665	C2022	C-CERAMIC,CHIP
2203-006668	C3069,C3071,C5073	C-CERAMIC,CHIP
2203-006707	C4042,C4043,C4046	C-CERAMIC,CHIP

2203-006707	C4047,C4090	C-CERAMIC,CHIP
2203-006712	C8061,C8064	C-CERAMIC,CHIP
2203-006839	C3003,C3004,C3008	C-CERAMIC,CHIP
2203-006839	C3013,C3014,C3028	C-CERAMIC,CHIP
2203-006839	C3065,C3067,C7008	C-CERAMIC,CHIP
2203-006839	C8003,C8007,C8008	C-CERAMIC,CHIP
2203-006839	C8048	C-CERAMIC,CHIP
2203-006841	C9021	C-CERAMIC,CHIP
2203-006846	C1128	C-CERAMIC,CHIP
2203-006872	C3066,C9001	C-CERAMIC,CHIP
2203-006979	C3042,C3044,C3046	C-CERAMIC,CHIP
2203-006979	C3049,C3052,C3056	C-CERAMIC,CHIP
2203-007143	C1023	C-CERAMIC,CHIP
2203-007210	C4016,C4023,C4024	C-CERAMIC,CHIP
2203-007210	C9031	C-CERAMIC,CHIP
2203-007269	C9035,C9037	C-CERAMIC,CHIP
2203-007270	C7107	C-CERAMIC,CHIP
2203-007271	C7006,C7007,C7010	C-CERAMIC,CHIP
2203-007271	C7013,C7017,C7031	C-CERAMIC,CHIP
2203-007271	C7034,C7036,C7038	C-CERAMIC,CHIP
2203-007271	C7040,C7041,C7042	C-CERAMIC,CHIP
2203-007271	C7043,C7046,C7048	C-CERAMIC,CHIP
2203-007271	C7049,C7051,C7100	C-CERAMIC,CHIP
2203-007271	C8005,C8030,C8033	C-CERAMIC,CHIP
2203-007271	C8042	C-CERAMIC,CHIP
2203-007279	C1138,C7002,C7003	C-CERAMIC,CHIP
2203-007317	C4008,C4026,C4029	C-CERAMIC,CHIP
2203-007317	C6015,C7019,C7074	C-CERAMIC,CHIP
2203-007317	C7075,C7084,C7085	C-CERAMIC,CHIP
2203-007317	C8002,C8009,C8031	C-CERAMIC,CHIP
2203-007317	C8032,C8034,C8035	C-CERAMIC,CHIP
2203-007317	C8037,C8053,C8072	C-CERAMIC,CHIP
2203-007317	C9002,C9033,C9050	C-CERAMIC,CHIP
2203-007369	C4018,C7112,C7113	C-CERAMIC,CHIP
2203-007369	C7114,C7115,C8038	C-CERAMIC,CHIP
2203-007369	C8039,C8043,C8044	C-CERAMIC,CHIP
2203-007391	C4017,C7032,C8036	C-CERAMIC,CHIP
2203-007392	C7090,C7108,C7111	C-CERAMIC,CHIP

2203-007393	C1022,C1072,C4027	C-CERAMIC,CHIP
2203-007393	C7012,C7088,C7099	C-CERAMIC,CHIP
2203-007403	L1108	C-CERAMIC,CHIP
2203-007449	C1071,C3011,C3015	C-CERAMIC,CHIP
2203-007449	C3016,C3018,C3019	C-CERAMIC,CHIP
2203-007449	C3020,C3021,C3022	C-CERAMIC,CHIP
2203-007449	C3023,C3024,C3025	C-CERAMIC,CHIP
2203-007449	C3027,C3029,C3048	C-CERAMIC,CHIP
2203-007449	C3055,C3070,C4000	C-CERAMIC,CHIP
2203-007449	C4002,C4003,C4004	C-CERAMIC,CHIP
2203-007449	C4009,C4012,C4025	C-CERAMIC,CHIP
2203-007449	C4053,C4054,C4059	C-CERAMIC,CHIP
2203-007449	C4065,C4067,C5006	C-CERAMIC,CHIP
2203-007449	C5007,C5008,C5009	C-CERAMIC,CHIP
2203-007449	C5010,C5011,C5012	C-CERAMIC,CHIP
2203-007449	C5021,C5022,C5034	C-CERAMIC,CHIP
2203-007449	C5037,C5057,C5058	C-CERAMIC,CHIP
2203-007449	C5059,C5060,C5061	C-CERAMIC,CHIP
2203-007449	C5062,C5063,C5064	C-CERAMIC,CHIP
2203-007449	C5065,C5066,C5075	C-CERAMIC,CHIP
2203-007449	C6000,C6001,C6002	C-CERAMIC,CHIP
2203-007449	C6003,C6004,C6005	C-CERAMIC,CHIP
2203-007449	C6006,C6007,C6008	C-CERAMIC,CHIP
2203-007449	C6018,C6020,C6021	C-CERAMIC,CHIP
2203-007449	C7052,C7055,C7056	C-CERAMIC,CHIP
2203-007449	C7067,C7080,C7097	C-CERAMIC,CHIP
2203-007449	C8000,C8001,C8006	C-CERAMIC,CHIP
2203-007449	C8010,C8011,C8021	C-CERAMIC,CHIP
2203-007449	C8022,C8023,C8024	C-CERAMIC,CHIP
2203-007449	C8040,C8041,C8078	C-CERAMIC,CHIP
2203-007449	C9003,C9004,C9020	C-CERAMIC,CHIP
2203-007449	C9022,C9030,C9040	C-CERAMIC,CHIP
2203-007449	C9043,C9044,C9045	C-CERAMIC,CHIP
2203-007456	C7018	C-CERAMIC,CHIP
2203-007474	C8076,C9007,C9008	C-CERAMIC,CHIP
2203-007474	C9010	C-CERAMIC,CHIP
2203-007503	C4064	C-CERAMIC,CHIP
2203-007634	C7104	C-CERAMIC,CHIP

2203-007775	C7089	C-CERAMIC,CHIP
2203-007781	C8004,C9032,C9036	C-CERAMIC,CHIP
2203-007781	C9038	C-CERAMIC,CHIP
2203-007795	C3005,C3031,C3032	C-CERAMIC,CHIP
2203-007795	C3033,C3041,C3045	C-CERAMIC,CHIP
2203-007795	C3051,C3054,C4051	C-CERAMIC,CHIP
2203-007795	C5033,C6014,C7061	C-CERAMIC,CHIP
2203-007796	C3035,C3036,C3037	C-CERAMIC,CHIP
2203-007796	C3038,C3062,C8058	C-CERAMIC,CHIP
2203-007796	C8059,C9016	C-CERAMIC,CHIP
2203-008097	C7094,C8017	C-CERAMIC,CHIP
2203-008242	C3017,C3026,C3064	C-CERAMIC,CHIP
2203-008242	C4007,C4028,C4030	C-CERAMIC,CHIP
2203-008242	C5014,C5015,C5020	C-CERAMIC,CHIP
2203-008242	C5035,C5036,C5041	C-CERAMIC,CHIP
2203-008242	C5042,C5043,C5044	C-CERAMIC,CHIP
2203-008242	C5045,C5046,C5047	C-CERAMIC,CHIP
2203-008242	C5049,C5050,C5051	C-CERAMIC,CHIP
2203-008242	C5052,C5053,C5054	C-CERAMIC,CHIP
2203-008242	C5055,C5056,C5067	C-CERAMIC,CHIP
2203-008242	C7000,C7001,C7020	C-CERAMIC,CHIP
2203-008242	C7021,C7022,C7023	C-CERAMIC,CHIP
2203-008242	C7024,C7025,C7026	C-CERAMIC,CHIP
2203-008242	C7027,C7028,C7029	C-CERAMIC,CHIP
2203-008242	C7030,C7053,C7054	C-CERAMIC,CHIP
2203-008242	C7057,C7058,C7063	C-CERAMIC,CHIP
2203-008242	C7064,C7068,C7069	C-CERAMIC,CHIP
2203-008242	C7070,C7079,C7081	C-CERAMIC,CHIP
2203-008242	C7082,C7083,C7086	C-CERAMIC,CHIP
2203-008242	C7117,C9006,C9009	C-CERAMIC,CHIP
2203-008242	C9017	C-CERAMIC,CHIP
2203-008243	C7093	C-CERAMIC,CHIP
2203-008572	C8018,C8019,C8020	C-CERAMIC,CHIP
2203-008654	C7091	C-CERAMIC,CHIP
2203-008860	C1020,C1080,C1086	C-CERAMIC,CHIP
2203-008860	C4066,C7109,C9014	C-CERAMIC,CHIP
2203-008860	C9023,C9039	C-CERAMIC,CHIP
2203-009064	C5002,C5003,C5024	C-CERAMIC,CHIP

2203-009064	C5025,C5031,C5039	C-CERAMIC,CHIP
2203-009167	C4074,C4080	C-CERAMIC,CHIP
2203-009328	C3034,C5032,C7011	C-CERAMIC,CHIP
2203-009328	C9054	C-CERAMIC,CHIP
2203-009537	C3030,C5040,C5048	C-CERAMIC,CHIP
2203-009537	C7016,C7037,C7039	C-CERAMIC,CHIP
2203-009537	C7044,C7045,C7047	C-CERAMIC,CHIP
2203-009537	C7050,C7059,C7060	C-CERAMIC,CHIP
2203-009537	C7062,C7065,C7066	C-CERAMIC,CHIP
2203-009537	C7071	C-CERAMIC,CHIP
2203-009618	C7092	C-CERAMIC,CHIP
2203-009732	C7077,C7078	C-CERAMIC,CHIP
2203-009733	C1129,C3000,C3001	C-CERAMIC,CHIP
2203-009733	C3002,C7004,C7005	C-CERAMIC,CHIP
2203-009733	C7035,C7072,C7073	C-CERAMIC,CHIP
2203-009733	C7095,C7096,C7110	C-CERAMIC,CHIP
2203-009733	C7118	C-CERAMIC,CHIP
2203-009734	C7076	C-CERAMIC,CHIP
2409-001369	TA4000,TA7000	C-Tantal
2703-002176	L4024	INDUCTOR-SMD
2703-002900	L2003,L2030	INDUCTOR-SMD
2703-002951	L4011	INDUCTOR-SMD
2703-002953	L1073	INDUCTOR-SMD
2703-002958	L1046,L4025,L8014	INDUCTOR-SMD
2703-002959	L1084,L8025	INDUCTOR-SMD
2703-002960	L8010,L8012,L8015	INDUCTOR-SMD
2703-002960	L8016	INDUCTOR-SMD
2703-002999	L1111	INDUCTOR-SMD
2703-004012	L2014,L2020,L2027	INDUCTOR-SMD
2703-004013	L1010,L1089,L2010	INDUCTOR-SMD
2703-004014	L1050,L1055,L1059	INDUCTOR-SMD
2703-004014	L1105	INDUCTOR-SMD
2703-004018	C2026	INDUCTOR-SMD
2703-004030	L1083	INDUCTOR-SMD
2703-004034	L1002,L1004,L1047	INDUCTOR-SMD
2703-004034	L2012,L2015,L4002	INDUCTOR-SMD
2703-004034	L4017	INDUCTOR-SMD
2703-004036	L1026	INDUCTOR-SMD

2703-004038	C2007,L1049,L1076	INDUCTOR-SMD
2703-004038	L1093,L2019,L2025	INDUCTOR-SMD
2703-004286	L1021,L1056,L1065	INDUCTOR-SMD
2703-004286	L1079	INDUCTOR-SMD
2703-004287	L4030	INDUCTOR-SMD
2703-004288	C1101,C1130,L1048	INDUCTOR-SMD
2703-004288	L1094,L2006	INDUCTOR-SMD
2703-004290	L4031	INDUCTOR-SMD
2703-004295	L1036,L1069,L1096	INDUCTOR-SMD
2703-004295	L2001,L2016,L8021	INDUCTOR-SMD
2703-004298	L1060	INDUCTOR-SMD
2703-004328	L1022,L1088,L1107	INDUCTOR-SMD
2703-004366	L4013	INDUCTOR-SMD
2703-004367	L1033,L1034,L1092	INDUCTOR-SMD
2703-004367	L2021	INDUCTOR-SMD
2703-004368	L1039,L1061,L1062	INDUCTOR-SMD
2703-004368	L1091,L1095,L1106	INDUCTOR-SMD
2703-004369	L4029	INDUCTOR-SMD
2703-004371	L9013	INDUCTOR-SMD
2703-004597	L8023,L8024	INDUCTOR-SMD
2703-004763	C1131,L1054,L1064	INDUCTOR-SMD
2703-004853	L1003	INDUCTOR-SMD
2703-004862	L4007,L4028	INDUCTOR-SMD
2703-004901	L7007,L7012	INDUCTOR-SMD
2703-004914	L4023	INDUCTOR-SMD
2703-004947	L8001	INDUCTOR-SMD
2703-004976	L2004	INDUCTOR-SMD
2703-005066	L1044,L7000	INDUCTOR-SMD
2703-005067	L7001,L7003,L7005	INDUCTOR-SMD
2703-005067	L7008,L7009,L7013	INDUCTOR-SMD
2703-005067	L7014,L7015,L7016	INDUCTOR-SMD
2703-005085	C2010	INDUCTOR-SMD
2703-005087	L1019,L1038,L1052	INDUCTOR-SMD
2703-005087	L1053,L1070,L1082	INDUCTOR-SMD
2703-005087	L4012,L4016	INDUCTOR-SMD
2703-005117	L9004,L9014	INDUCTOR-SMD
2703-005118	L9005	INDUCTOR-SMD
2703-005136	L7019	INDUCTOR-SMD

2703-005219	L8003,L8004	INDUCTOR-SMD
2703-005225	L3000,L3001,L3002	INDUCTOR-SMD
2703-005225	L3003,L3004,L7017	INDUCTOR-SMD
2703-005226	L7002,L7004,L7006	INDUCTOR-SMD
2703-005226	L7010,L7011	INDUCTOR-SMD
2703-005366	L1015	INDUCTOR-SMD
2703-005555	L4021,L4022	INDUCTOR-SMD
2801-005345	OSC5000	CRYSTAL-UNIT
2801-005393	OSC7000	CRYSTAL-UNIT
2801-005406	OSC4000	CRYSTAL-UNIT
2802-001287	OSC4002	OSCILLATOR
2805-001113	OSC4001	OSCILLATOR
2809-001411	TCX3000	OSCILLATOR
2901-001690	C3073,C3074,C3075	FILTER-EMI
2901-001690	C3076,C3077,C3078	FILTER-EMI
2901-001690	C5016,C5017,C5018	FILTER-EMI
2901-001690	C5019,C5023,C5028	FILTER-EMI
2901-001690	C5029,C5030,C5038	FILTER-EMI
2904-002123	F2000	FILTER
2904-002257	F1002,F2001	FILTER-SAW
2904-002266	F2003	FILTER-SAW
2904-002314	F4002	FILTER-SAW
2904-002350	F1003	FILTER-SAW
2904-002355	F4003,F4004	FILTER-SAW
2910-000253	DUF1000	FILTER
2911-000414	F1000	FILTER
2911-000415	DUF2000	FILTER
3003-001233	MIC8000,MIC8001	MIC-CONDENSOR
3301-001917	L8007	CORE-FERRITE
3301-002122	L1040,L1041	CORE-FERRITE
3301-002228	L8000	CORE-FERRITE
3301-002236	L2028,L8011,L8013	CORE-FERRITE
3301-002236	L8017,L8018,L8019	CORE-FERRITE
3301-002236	L9002,L9003	CORE-FERRITE
3301-002237	L1018,L2000,L4000	CORE-FERRITE
3301-002237	L4008,L4009,L8002	CORE-FERRITE
3301-002239	L1025	CORE-FERRITE
3301-002241	L4005	CORE-FERRITE

5. MAIN Electrical Parts List

3301-002242	L8008,L8009	CORE-FERRITE
3301-002269	L7020	CORE-FERRITE
3301-002286	L8005,L8006,L9010	CORE-FERRITE
3301-002286	L9011	CORE-FERRITE
3301-002304	L9000,L9001	CORE-FERRITE
3301-002312	L3005,L3006,L3007	CORE-FERRITE
3301-002312	L9006,L9007,L9008	CORE-FERRITE
3301-002331	L7018	CORE-FERRITE
3705-001708	RFS1000,RFS1001	CONNECTOR-COAXIAL
3709-001891	SIM9000	CONNECTOR-CARD
3710-003402	SOC8000	CONNECTOR
3710-003869	SOC9000	CONNECTOR
3710-004008	BTC7000	CONNECTOR
3711-008182	HDC9002	CONNECTOR-HEADER
3711-008511	HDC9001	CONNECTOR-HEADER
3711-008800	CN8000	CONNECTOR-HEADER
3711-008986	HDC9000	CONNECTOR-HEADER
3711-008997	HDC8000	CONNECTOR-HEADER
3712-001604	ANT1003,ANT1006	CONNECTOR
3712-001604	ANT2000,ANT2001	CONNECTOR
3712-001604	ANT2002,ANT2003	CONNECTOR
3712-001604	ANT2004,ANT2006	CONNECTOR
3712-001604	ANT2007,ANT2009	CONNECTOR
3712-001604	ANT2010,ANT4000	CONNECTOR
3712-001604	U4000,U4001	CONNECTOR
3712-001621	ANT9000,ANT9001	CONNECTOR
3712-001626	ANT1005	CONNECTOR
3712-001633	ANT4001,ANT4002	CONNECTOR
3712-001633	ANT4003,ANT4004	CONNECTOR
3712-001694	ANT8000,ANT8001	CONNECTOR
3712-001694	U8006	CONNECTOR
3712-001715	ANT1000,ANT1001	CONNECTOR
3712-001715	ANT1002	CONNECTOR
3722-003954	IFC7000	JACK-PHONE
4709-002193	CPL1000,CPL1001	COUPLER
4709-002226	CPL2000	DISTRIBUTER
4709-002284	F4000	DISTRIBUTER
4709-002351	F4001	DISTRIBUTER

5. MAIN Electrical Parts List

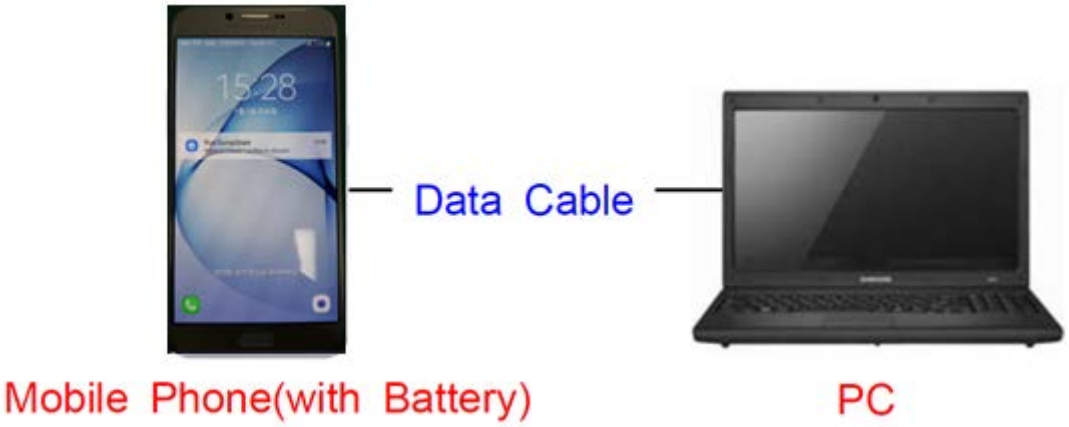
4709-002387	CPL1002	DISTRIBUTER
4709-002484	CPL2001	DISTRIBUTER
GH62-00047A	GA9001	RUBBER
GH63-08401A	SUS1001,SUS1002	SUS-SMN910F
GH63-10972A	SC4000	SC-A8KOR-GPS
GH63-11154A	SC8000	SC-SMG928V
GH63-12874A	SC1001	SC-C5-APT
GH63-12877A	SC7002	SC-C5-APT
GH63-13516A	SC6000	SC-SMA810S-AP
GH63-13517A	SC4001	SC-SMA810S-BT
GH63-13518A	SC7000	SC-SMA810S-DCDC
GH98-40671A	SC7001	SC-SMA810S-PMIC
GH98-40672A	SC1000	SC-SMA810S-RF
1107-002425	UCP300UP	MEMORY
1105-002837	UCP500UP	MEMORY

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

6-1. S/W Download

6-1-1. Prepare for S/W Downloading

- Diagram of connection



6-2-2. How to download S/W

1) Downloading Binary Files

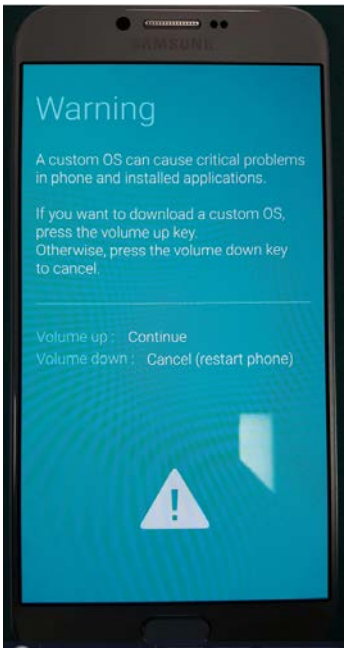
- Binary file for downloading SM-A810F
  - **xxx.pit**
  - **AP_XXXX.tar.md5**
  - **BL_XXXX.tar.md5**
  - **CP_XXXX.tar.md5**
  - **CSC_XXXX.tar.md5**

  (file size is about 2.9GB)

2) Prepare for Downloading

- Downloader Program (**Odin3 v3.14.exe**)
- SM-A810F Mobile Phone
- Data Cable
- Binary files

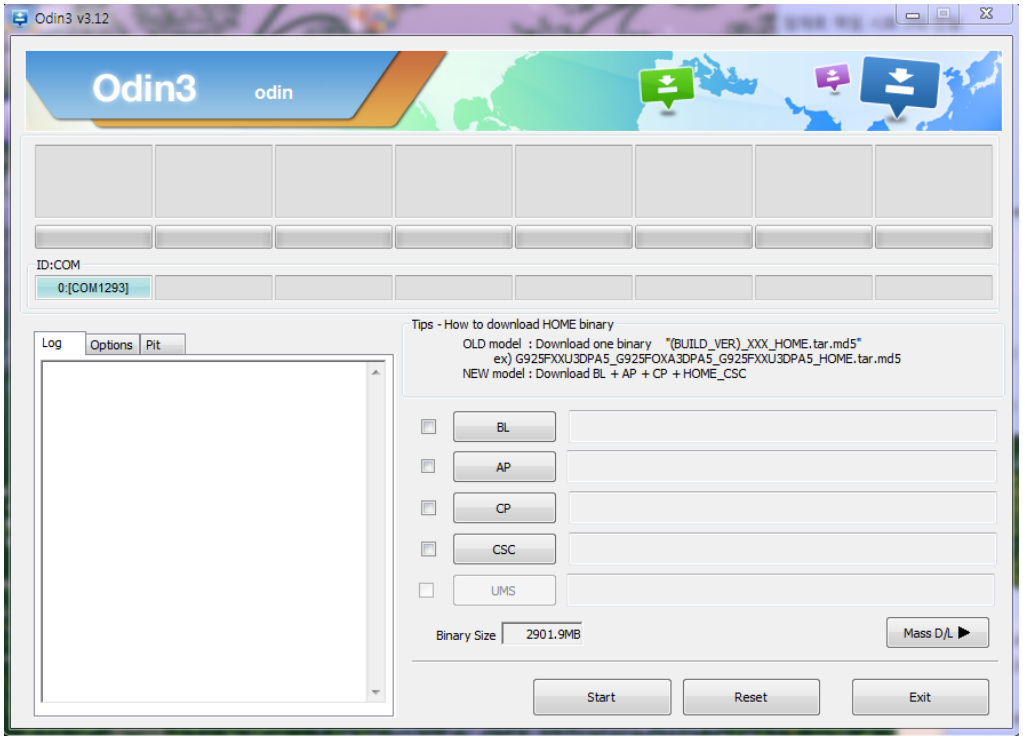
3) Boot the mobile phone by pressing 'Home + Vol Down + Power key at the same time, If you do properly, you can see the following message on the main LCD as the following.



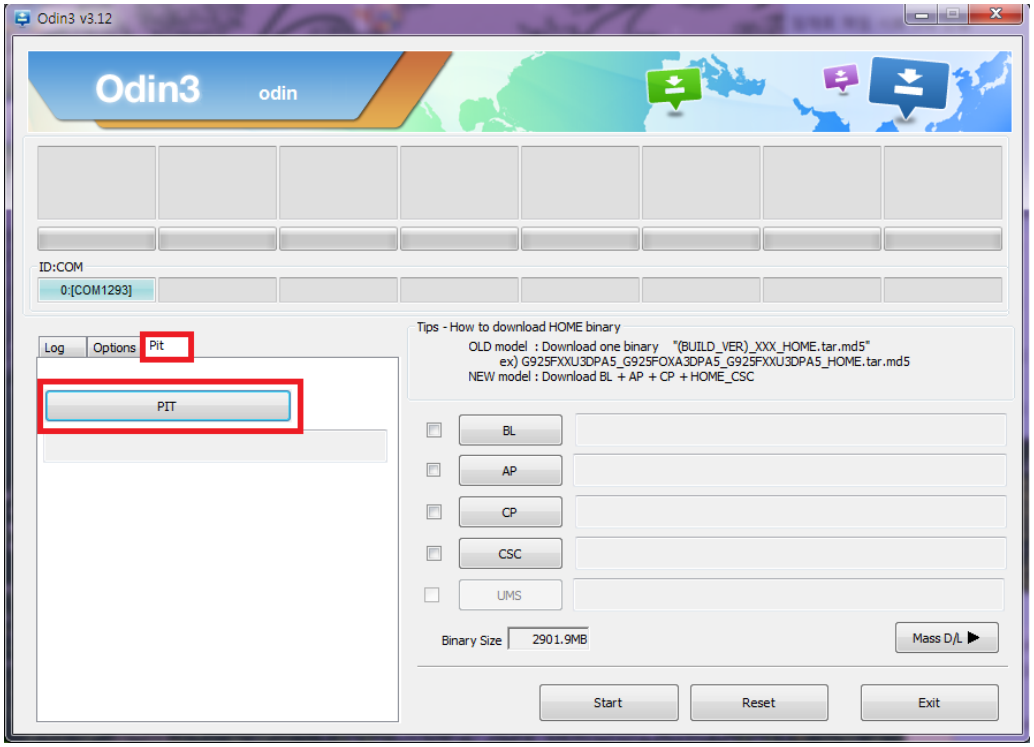
4) Press the Vol Up Key again, and you will see below message on Main LCD.

" Downloading... "

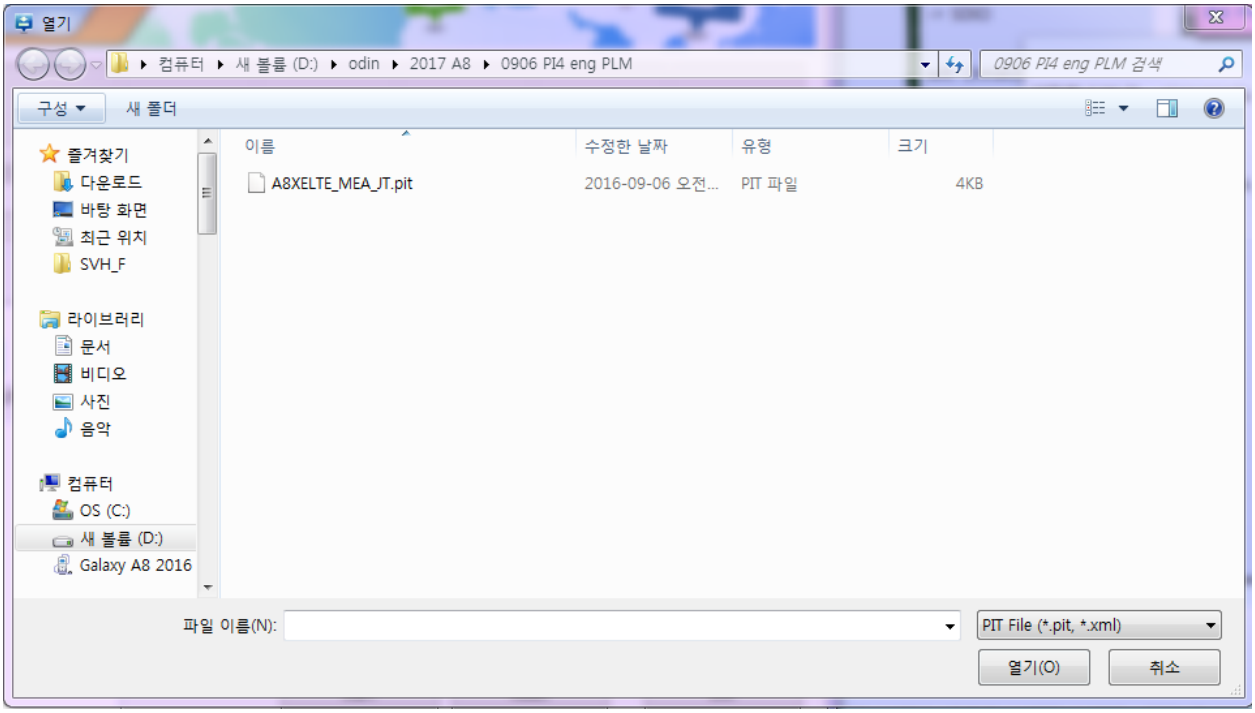
5) Load the binary download program.



6) Press "PIT" button to open the phone binary. (If you downloaded it once, afterward you don't need to download it again)

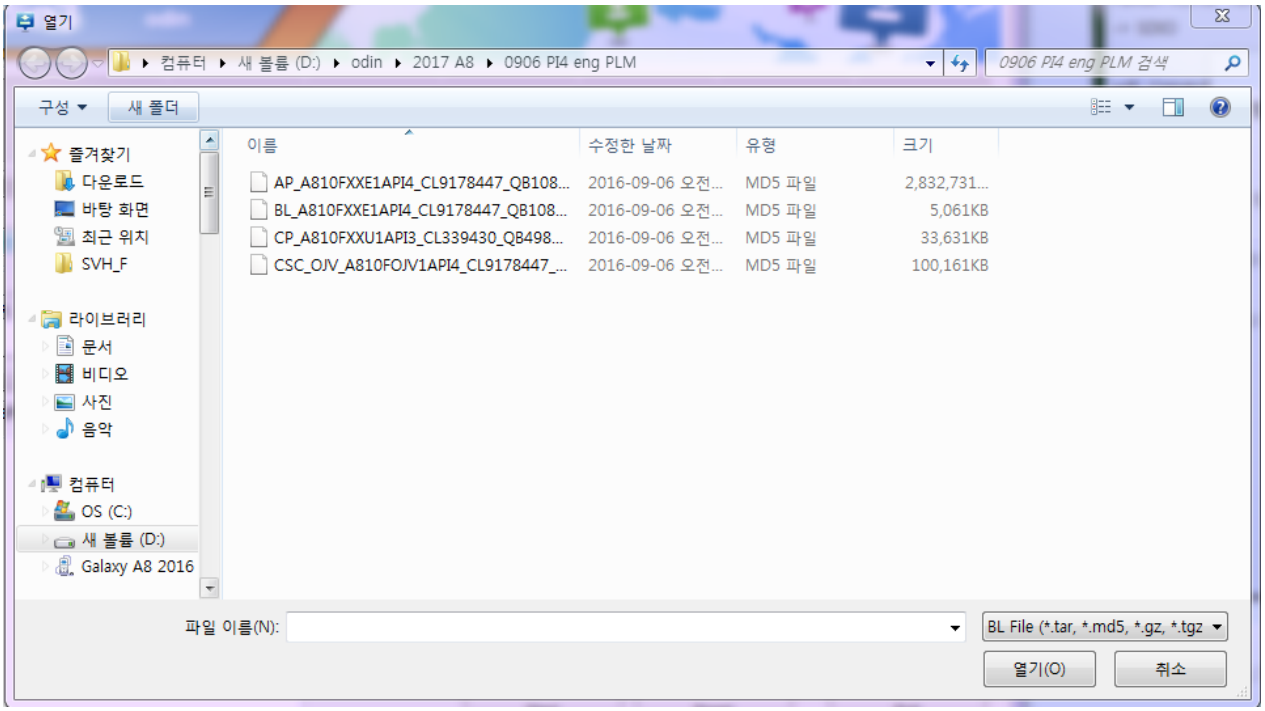


7) Select the phone SM-J120 "xxx.pit" binary from the file directory.



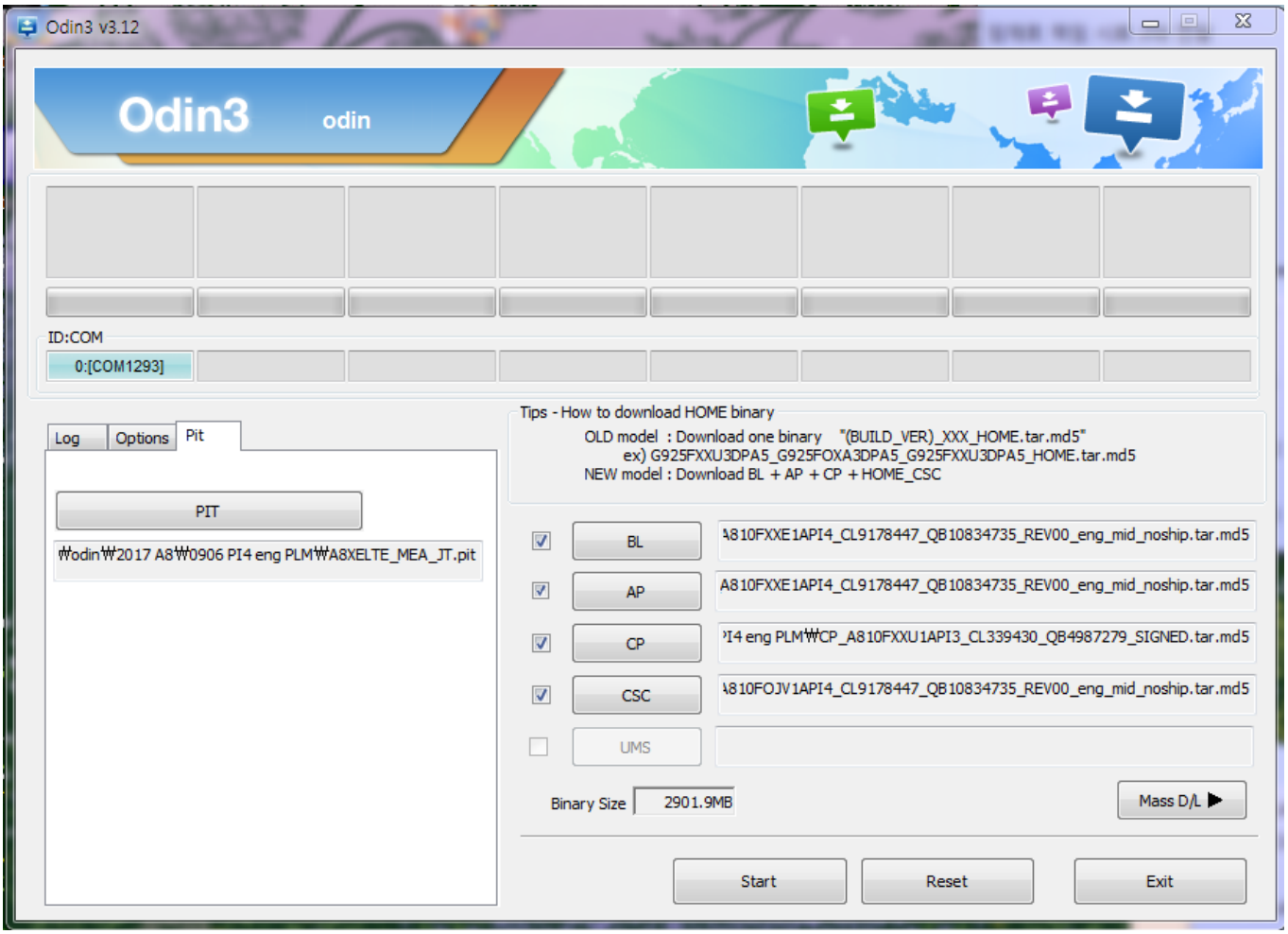
Slect the file as above:

- **AP_XXXX.tar.md5**
- **BL_XXXX.tar.md5**
- **CP_XXXX.tar.md5**
- **CSC_XXXX.tar.md5**



6. Level 1 Repair

8) Connect mobile and computer. The program show as follow.



9) Now press the button "Start".

10) Now it's time to take a rest and finish the downloading.

11) After finished downloading of phone binary, the mobile phone will restart automatically.

12) 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 Reset by Settings → Accounts → Backup and reset

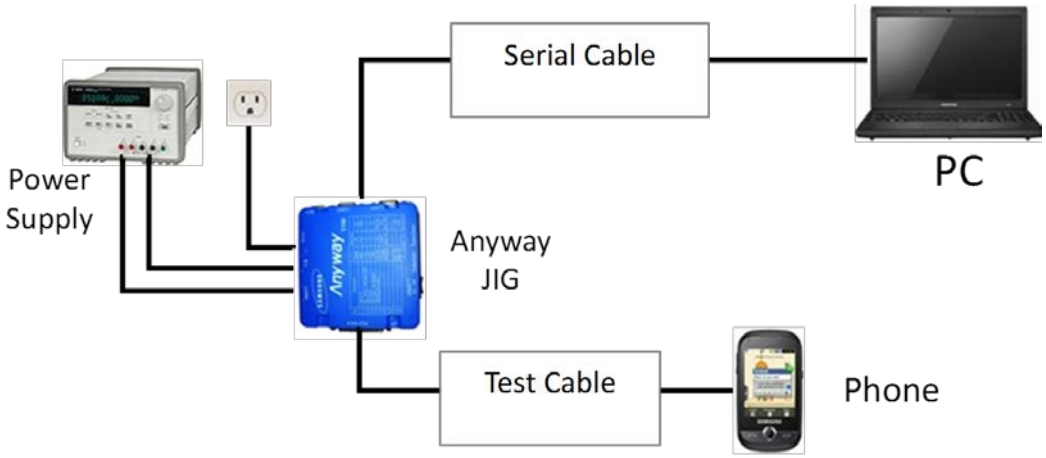
※ Caution. Never disconnect during the S/W downloading.

6-2 IMEI writing

6-2-1 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

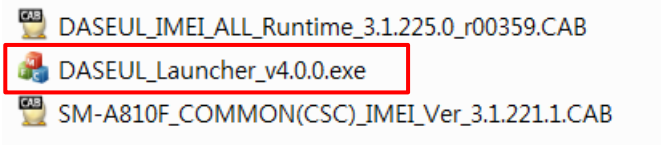


- S/W

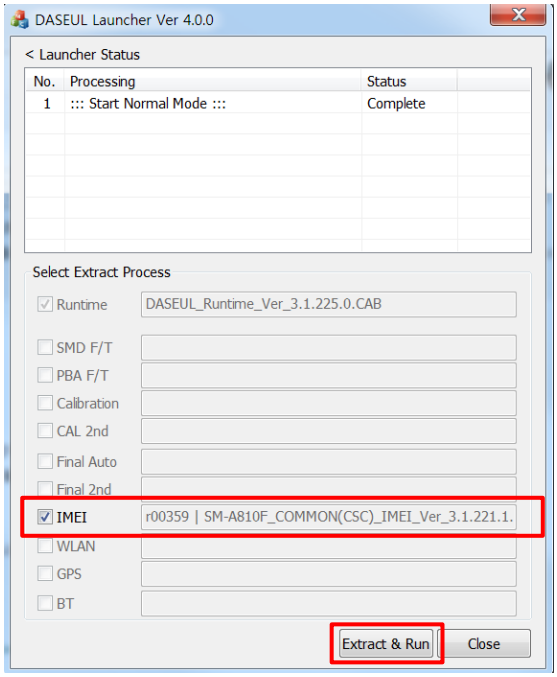
① Library Install	To use Daseul, library files should be installed. Refer to SVC Bulletin "(11-82) Daseul (New IMEI writing Program) Library Install guide_rev1.0"
②Launcher	DASEUL_SVC_Launcher_v3_0_25 or higher -Uploaded on HHPsvc Notice
③ Runtime File	1. DASEUL_IMEI_ALL_Runtime_3.1.136_r00183 .CAB or higher -Uploaded on HHPsvc Notice 2. Make 'ModelName' folder at the same position with launcher & Runtime file. DASEUL_IMEI_ALL_Runtime_3.1.225.0_r00359.CAB DASEUL_Launcher_v4.0.0.exe SM-A810F_COMMON(CSC)_IMEI_Ver_3.1.221.1.CAB
④Model File	Copy Model File under the 'Model Name' folder

6-2-2 IMEI writing Process

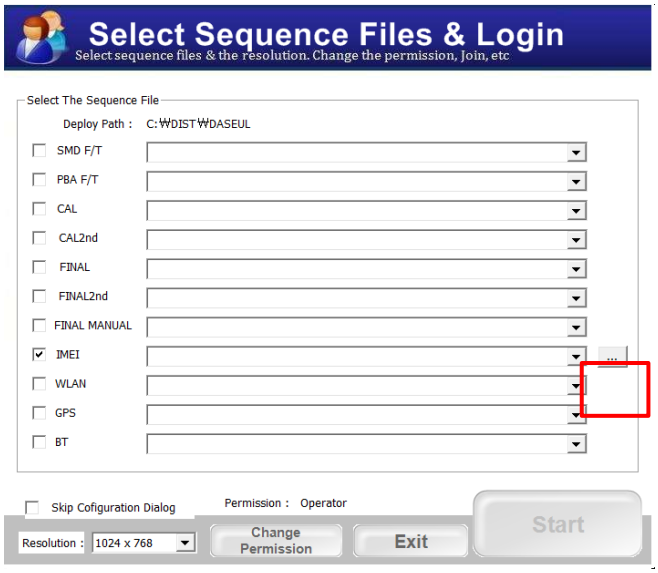
1. Run DASEUL_SVC_Launcher_v3_0_25



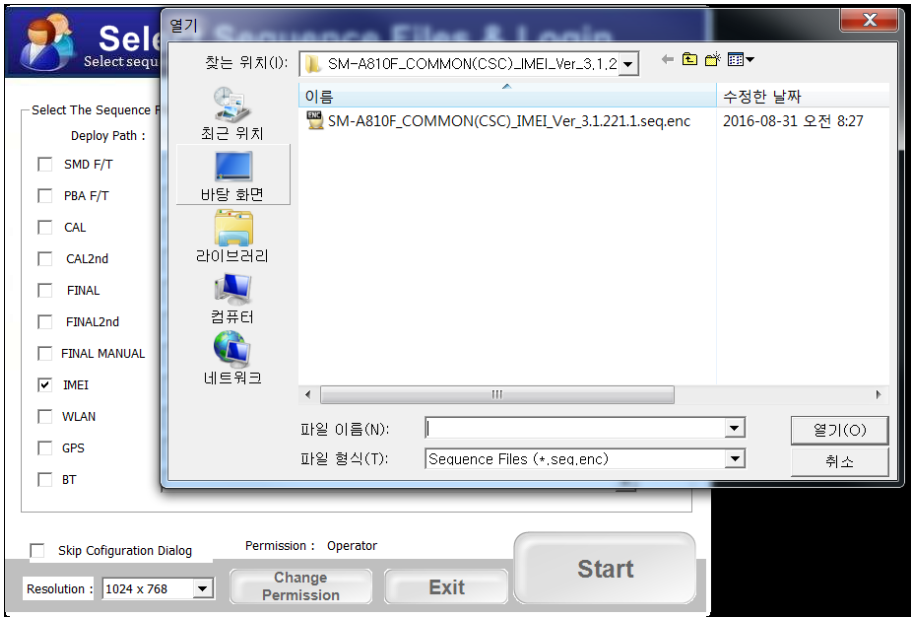
2. check IMEI and click 'Extract & Run'



3. Click ...

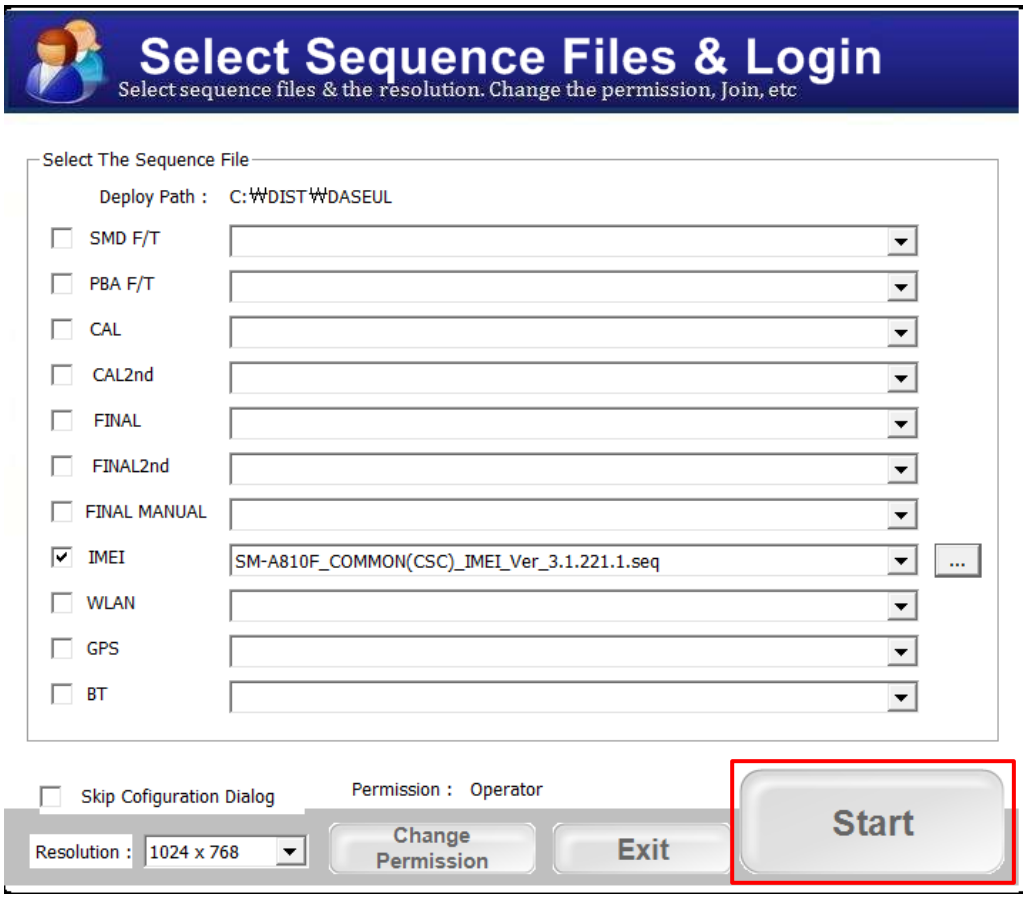


4. Select folder where the Launcher exists



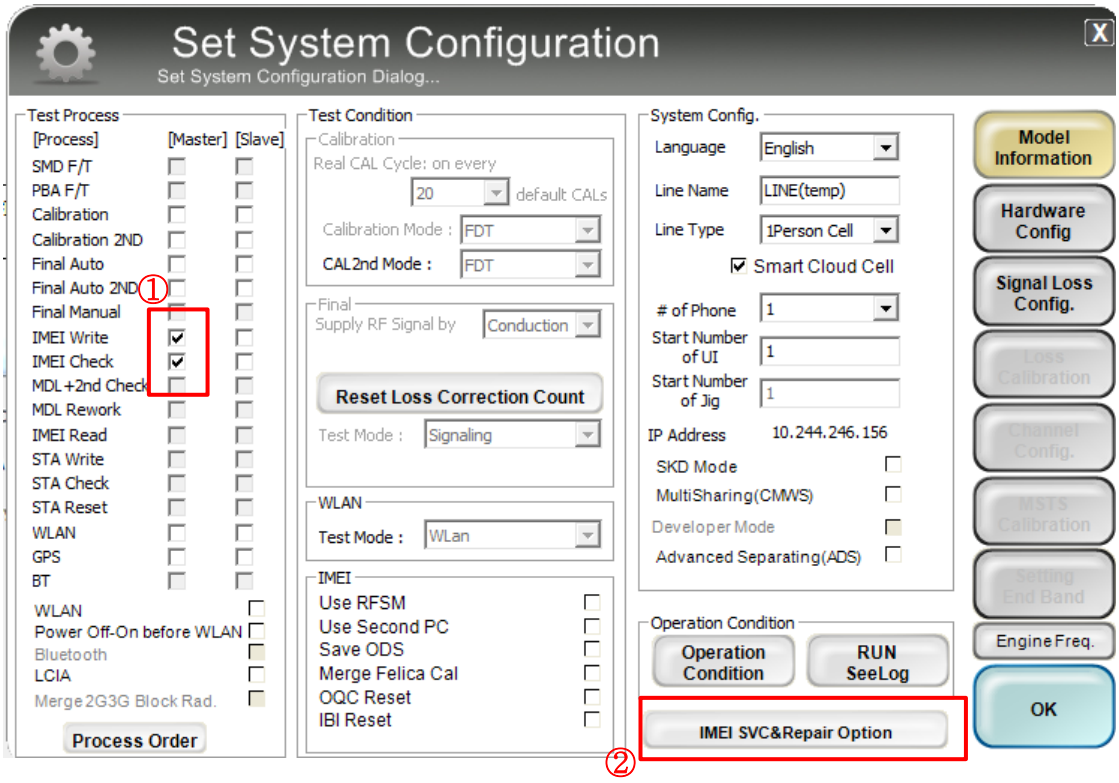
5. Check IMEI and click ‘Start

※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’.

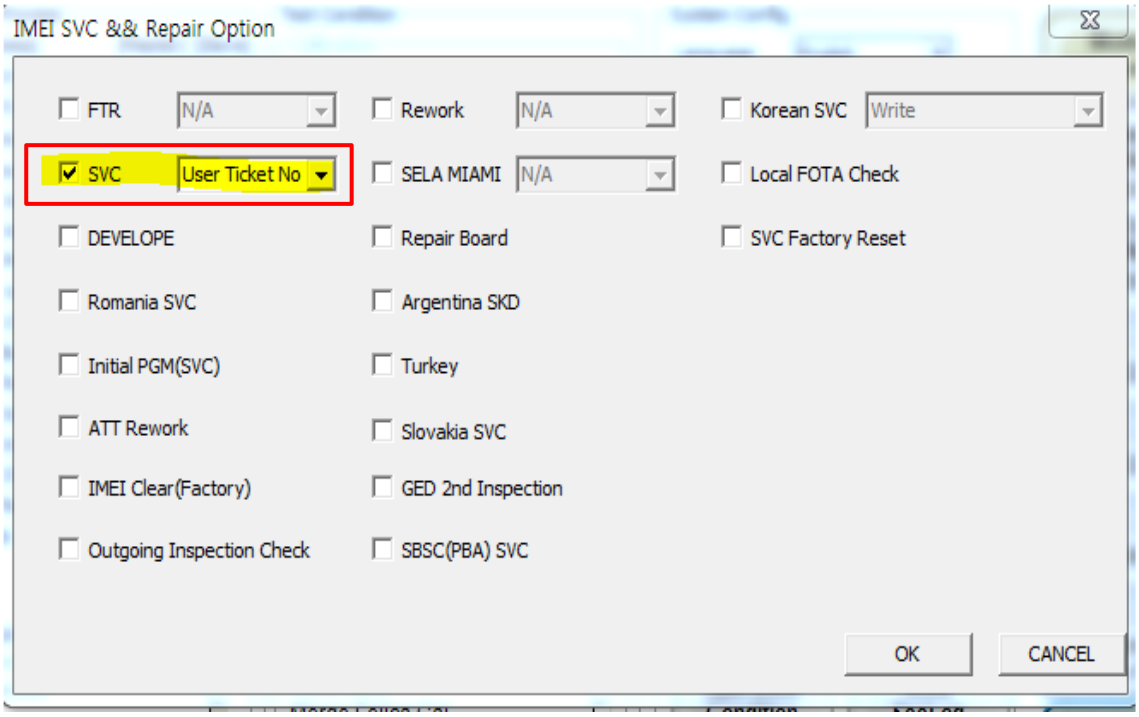


6. Level 1 Repair

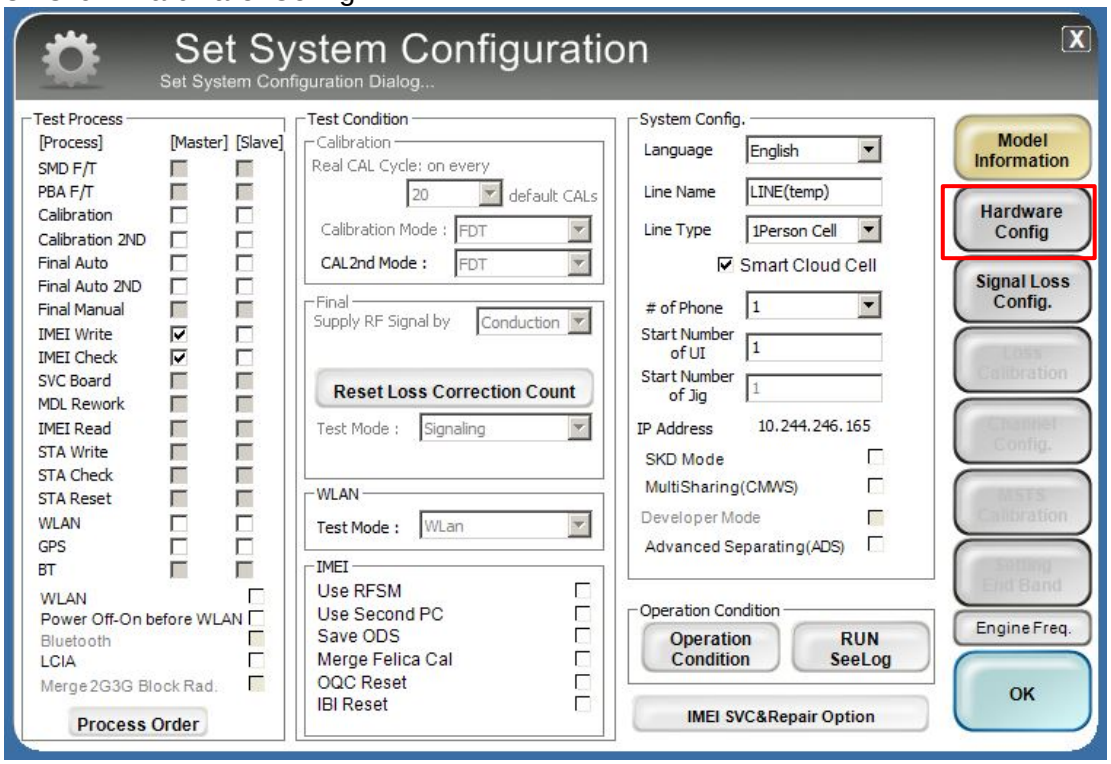
6. Check ‘IMEI Write / IMEI Check’, and click ‘IMEI SVC & Repair Option’



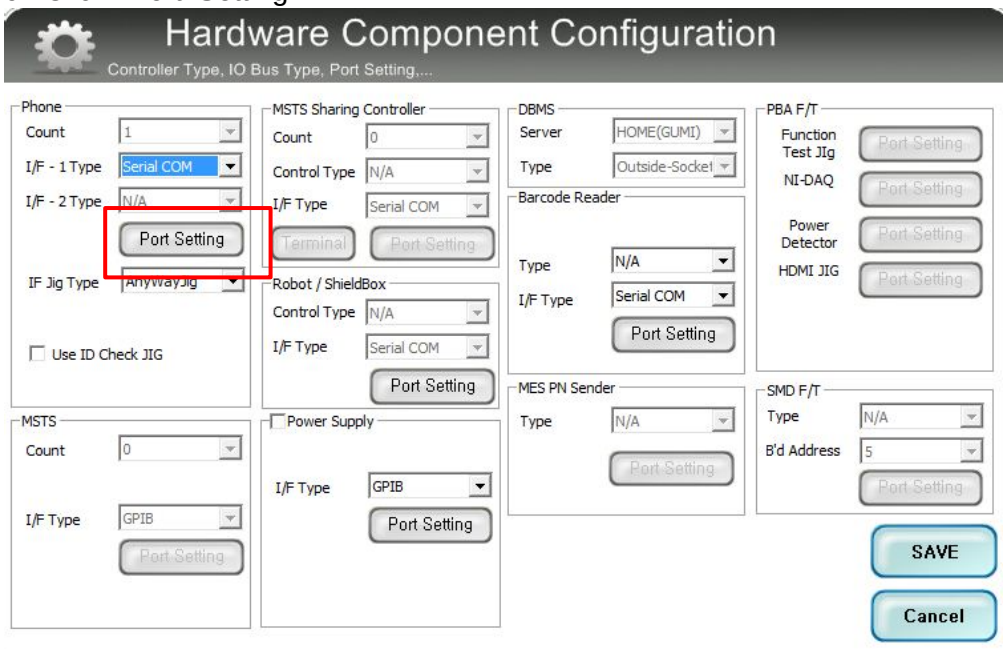
7. Check ‘SVC , User Ticket No’ and click OK



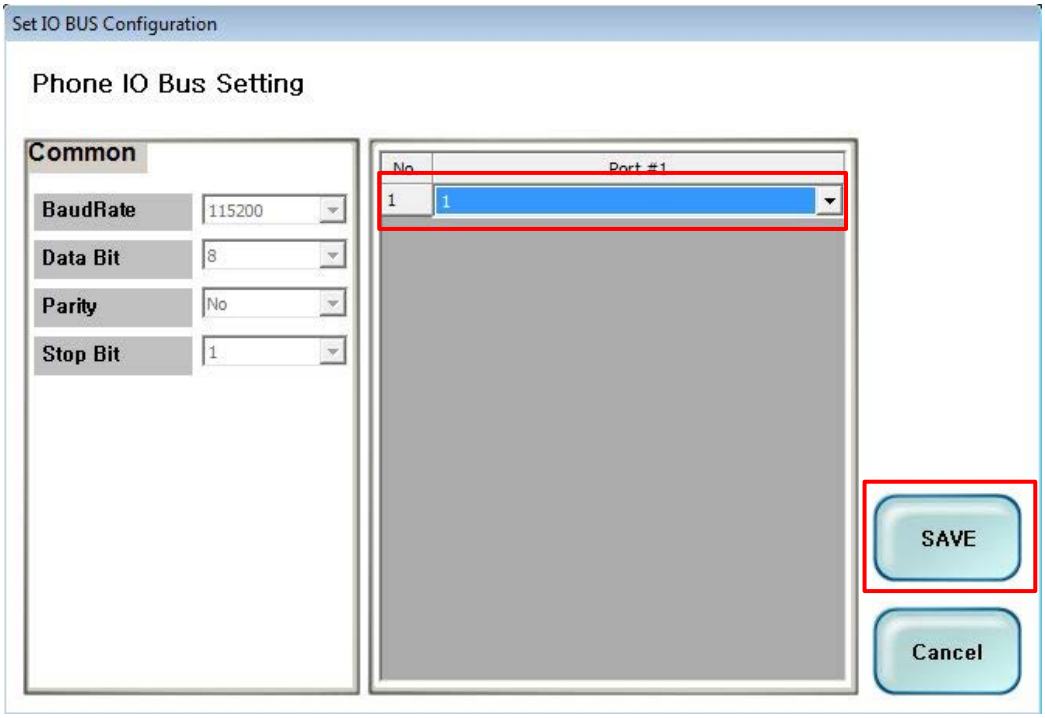
8. Click ‘Hardware Config’



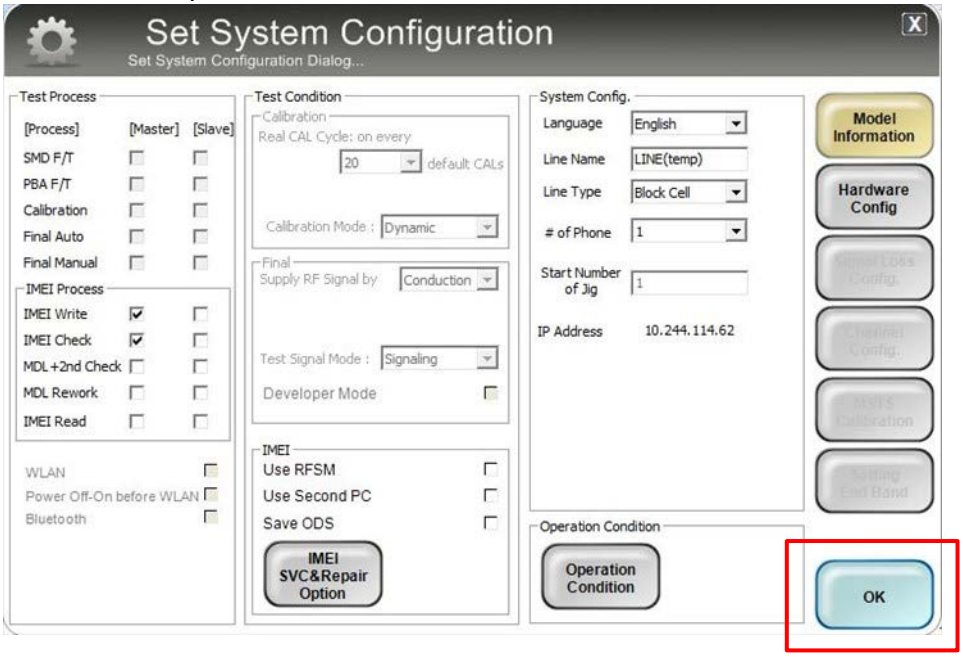
9. Click ‘Port Setting’



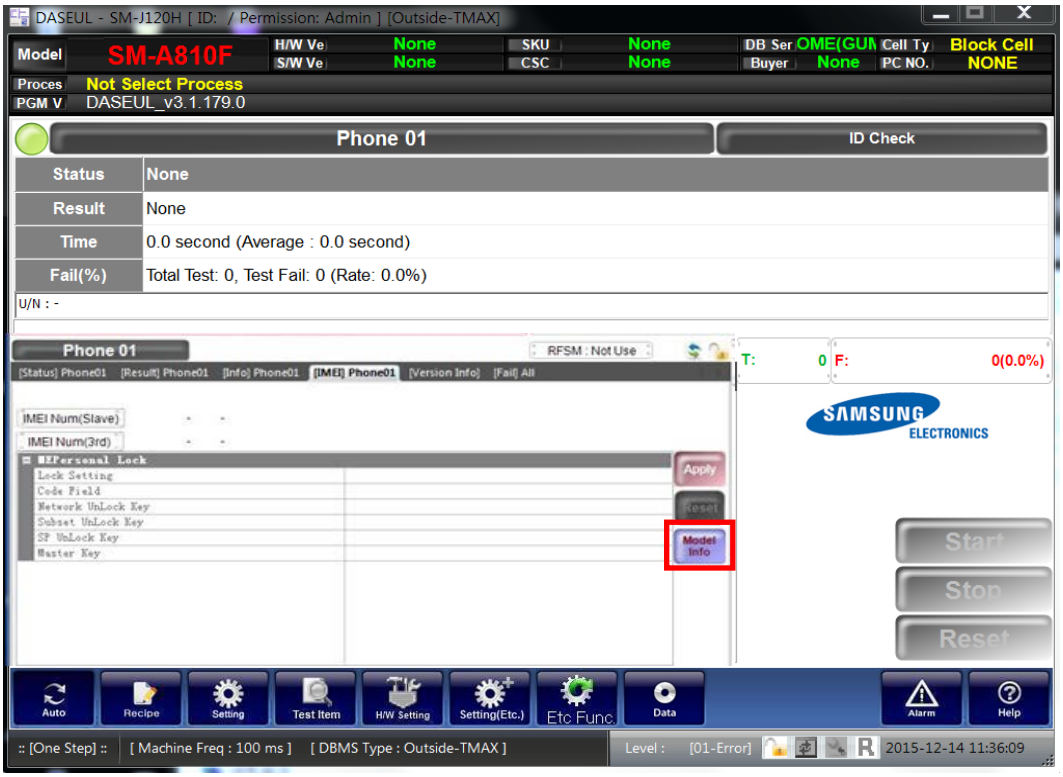
10. Select Port Number and SAVE



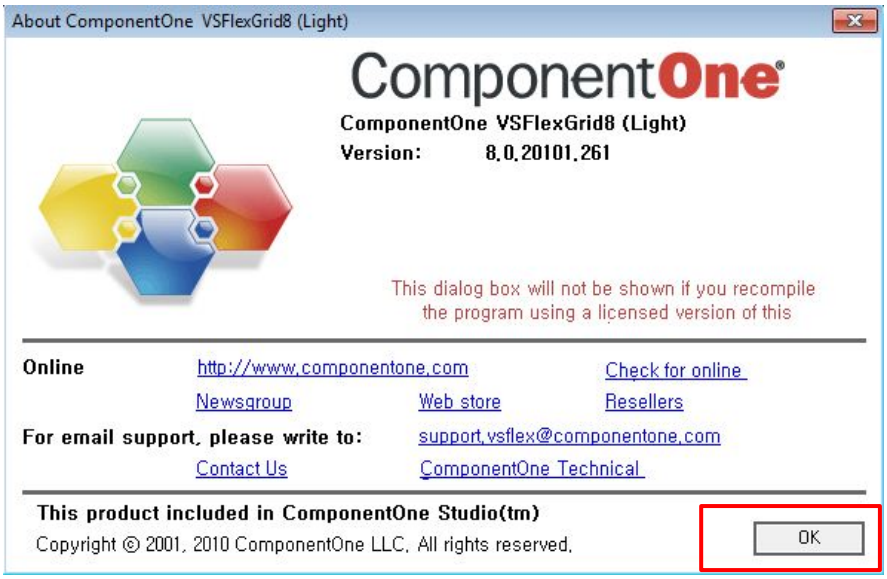
11.Click OK to proceed



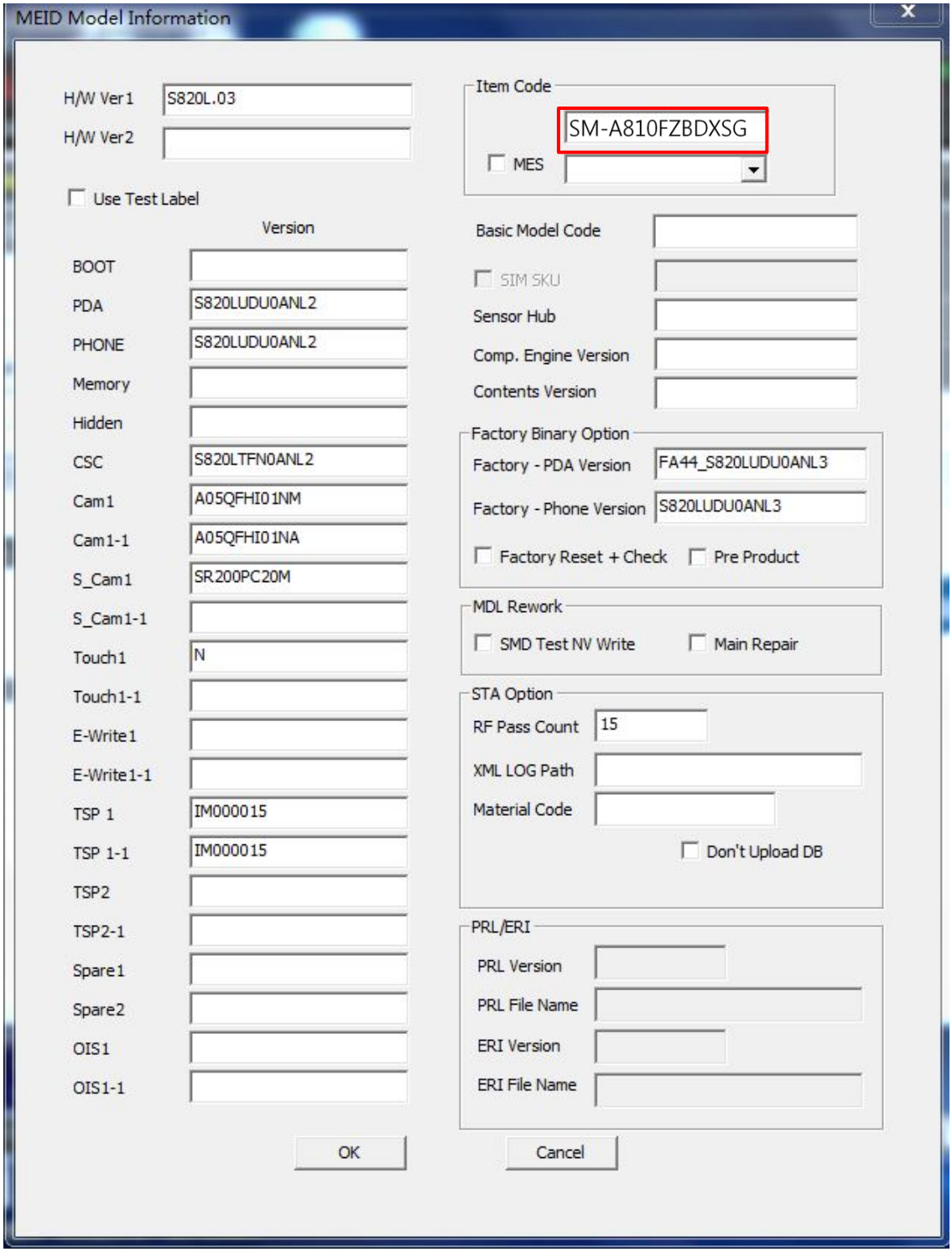
12. Click Model Info and OK when pop-up shows



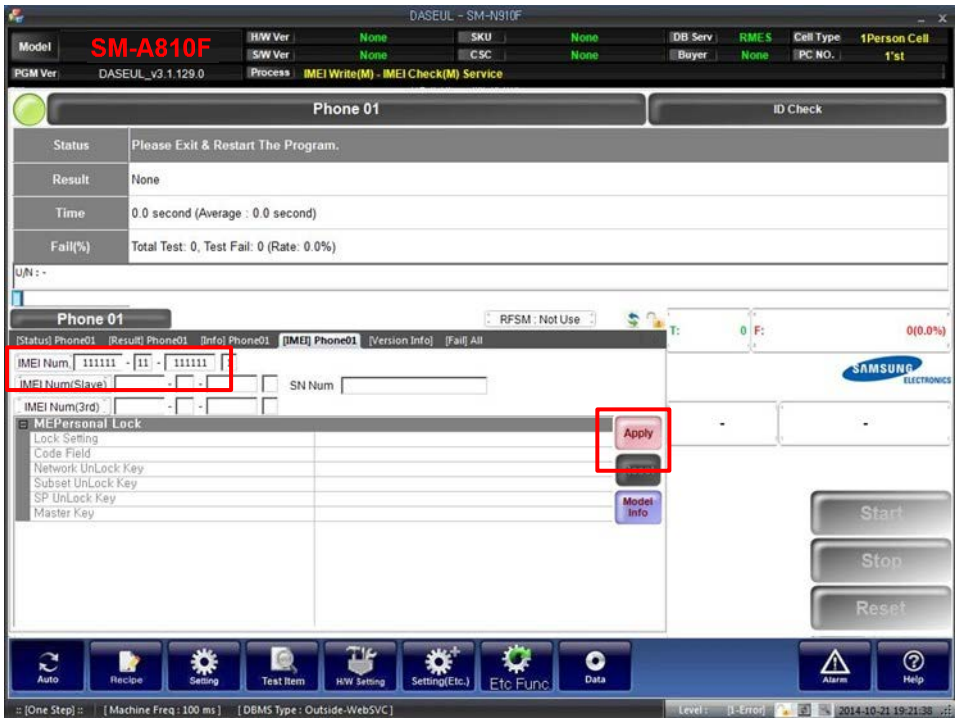
13. Click OK



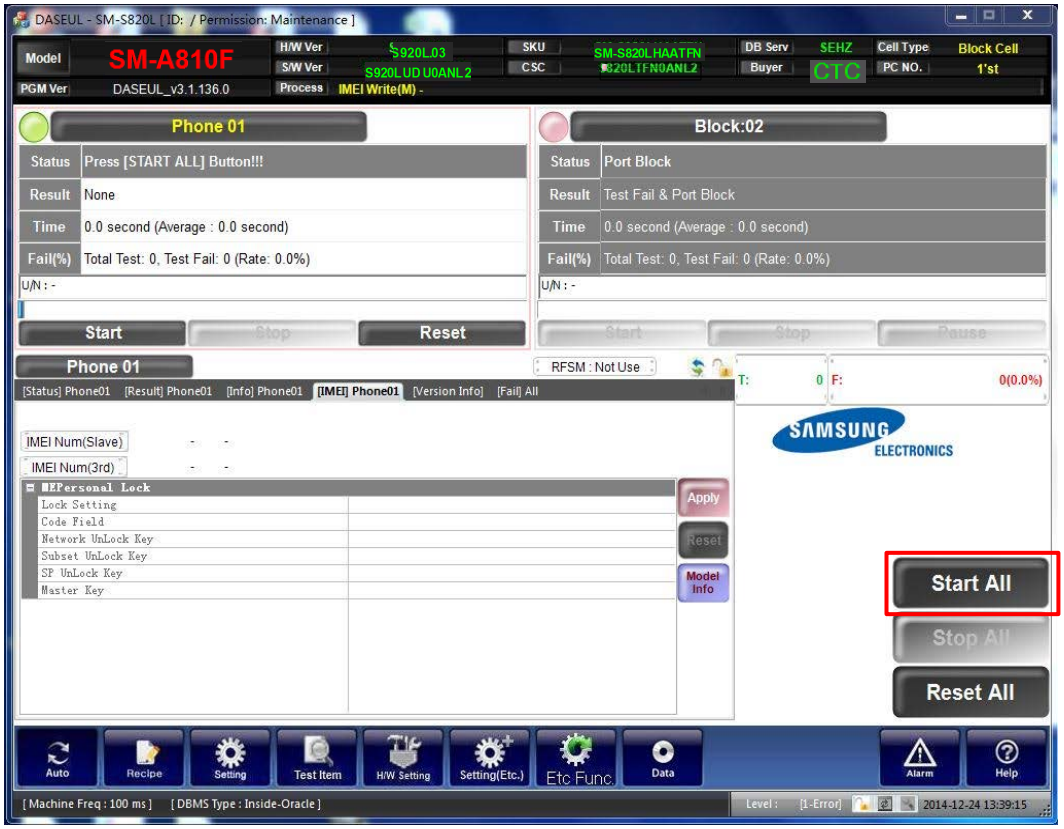
14. Input SKU_CODE, then click OK button.
※ Refer to HHPsvc→IMEI Review to check SKU Code and buyer



15. Input IMEI Number and click Apply



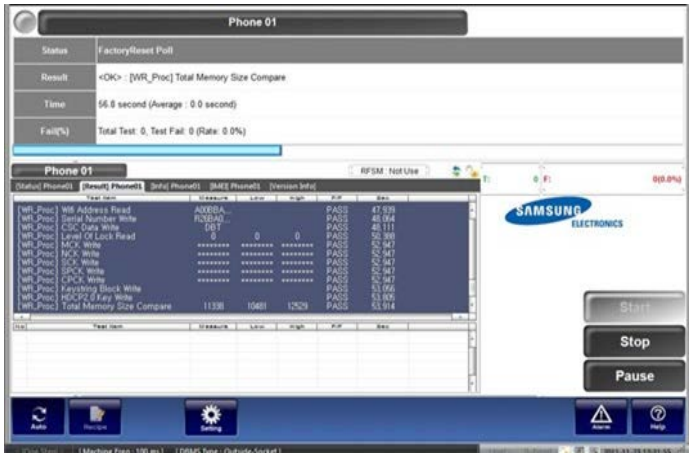
16. Click Start ALL



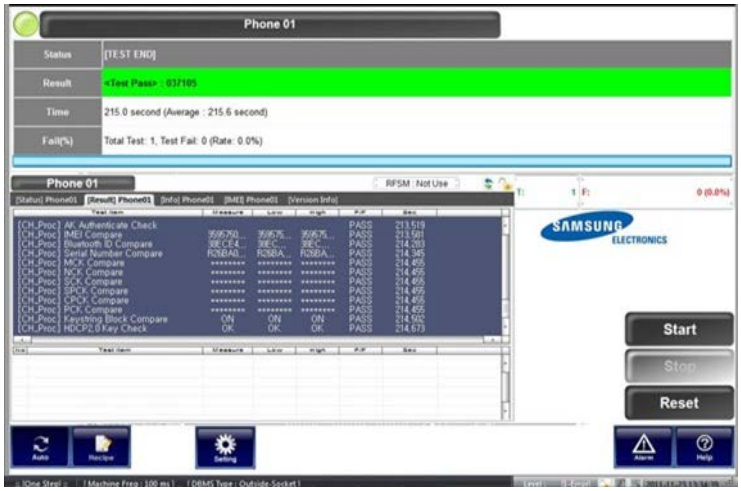
17. Connect the phone to Anyway JIG

※ 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



6-3. RF Calibration

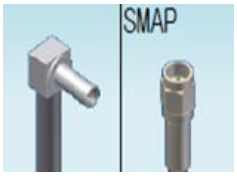
6-3-1. Required items in order to calibrate RF

• Installation program: RF Calibration Program
- Daseul_Launcher_vx.x.xx.exe
- Daseul_CAL_ALL_Runtime_x.x.xxx.x.CAB
- Model File (**SM-A810F_OPEN_CALIBRATION_Ver_3.1.131.0.CAB**)

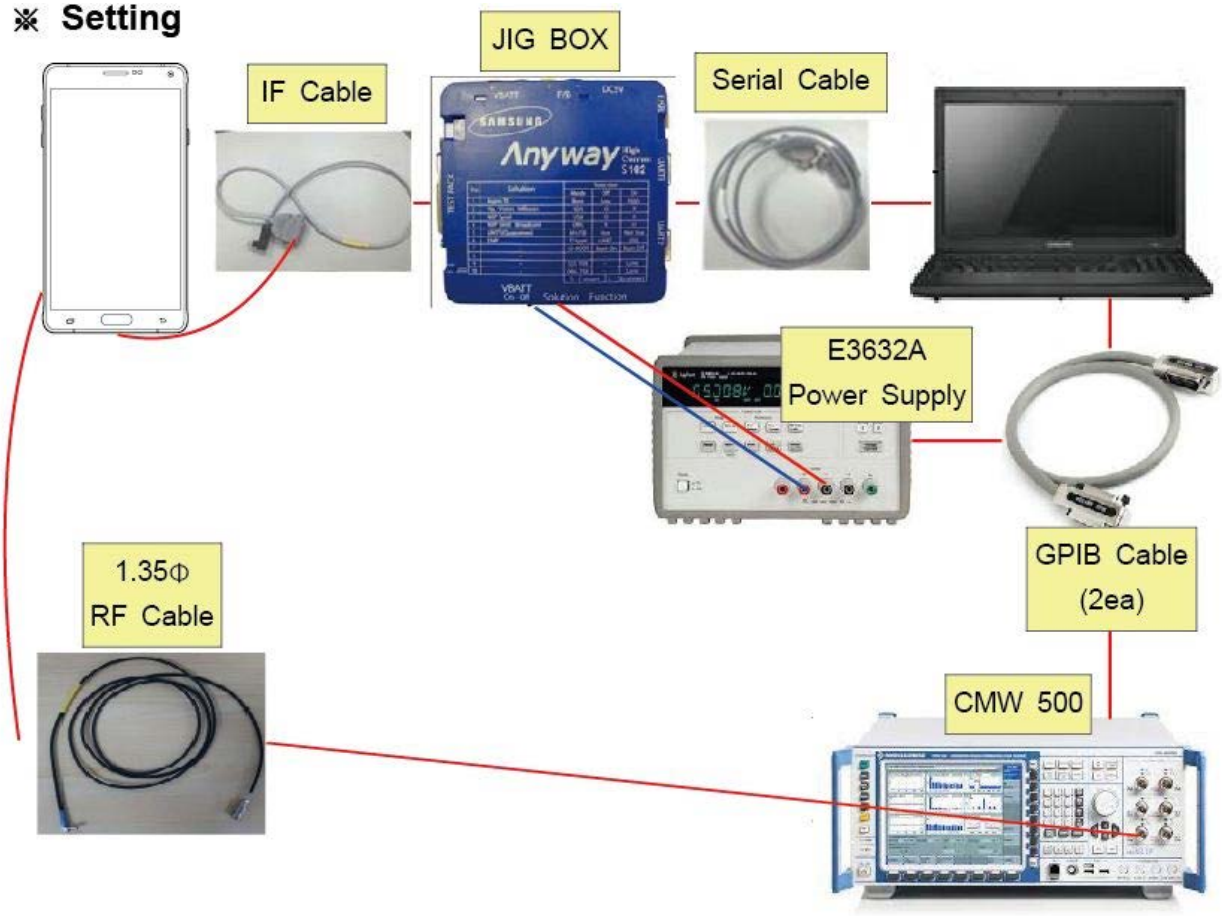
※ It is required to use the latest program.

• **SM-A810F** Mobile Phone
• E3632A Power Supply
• JIG BOX (GH81-11888A)
• Adapter (GH81-11888K)
• 1.35Φ RF Cable (GH81-11962G 1ea)
• R&S CMW500
• GPIB Cable (2ea)
• IF Cable (GH81-10952A)
• UART Serial Cable

• Table of test cables

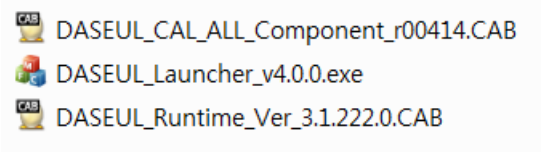
IF Cable	GH81-10631A 11 pin	GH81-10952A 7 pin (New)	GH81-11171A 7 pin (Old)	
RF Cable (Manual)	GH81-11962D 1.35T, Short 	GH81-11962G 1.35T, Long 	GH81-11962C 1.6T, Short 	GH81-11962F 1.6T, Long 
4 Port Divider	GH81-11962A Use / No use 	GH81-11962B Divider Cable 	GH81-11962E 50Ω terminator 	

※ Setting

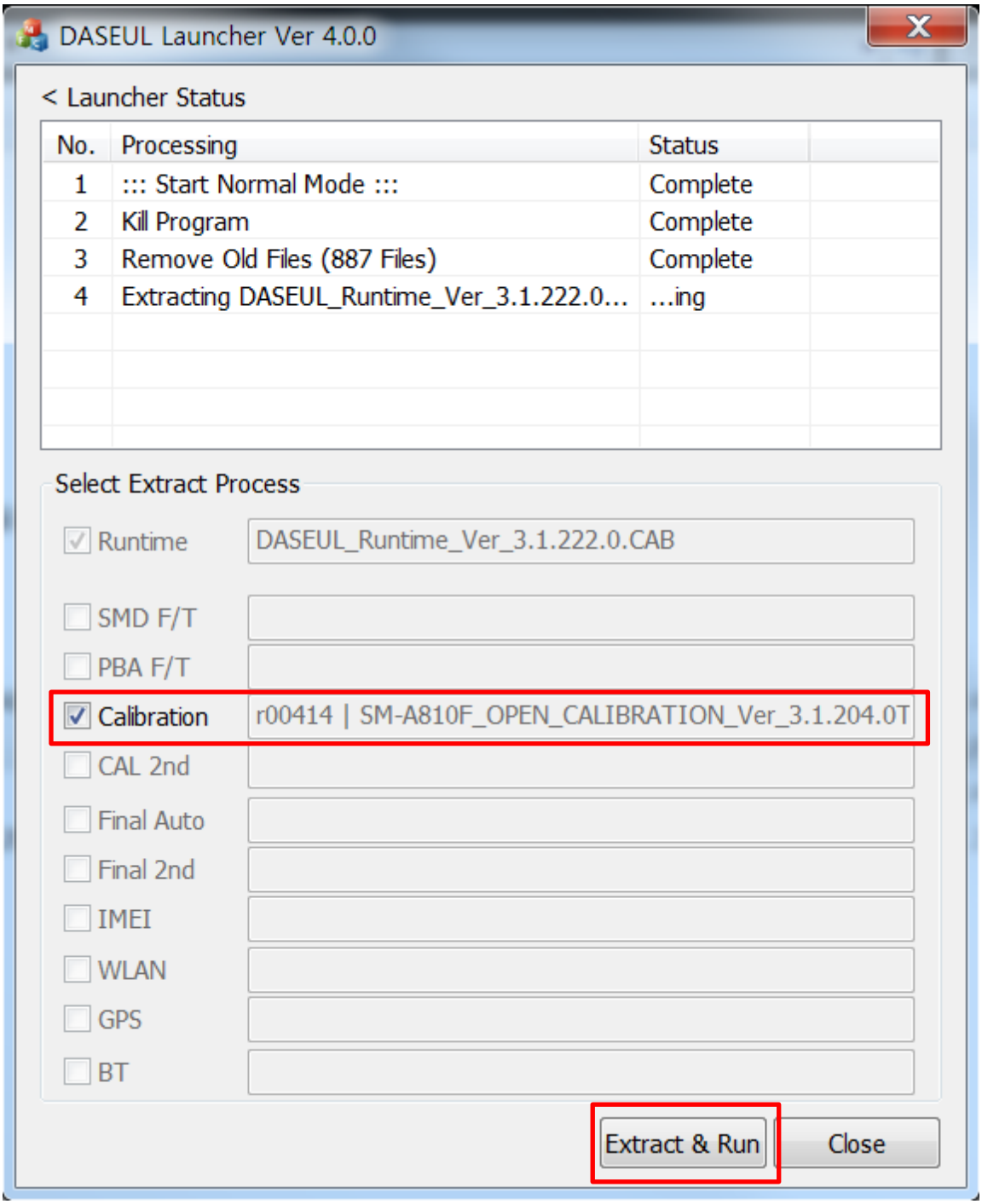


6-3-2. RF Calibration Program

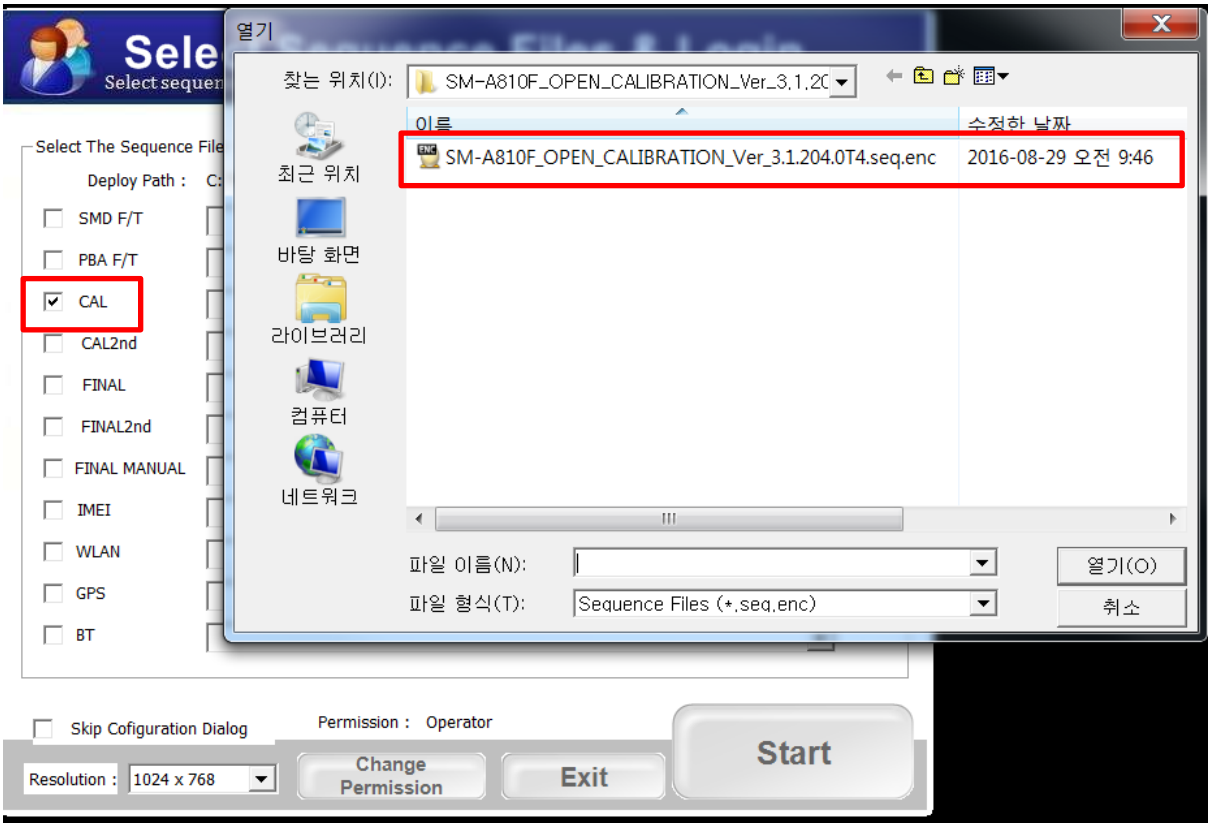
1. Run the RF Calibration Program Launcher, 'DASEUL_Launcher_vx.x.xx.exe'.



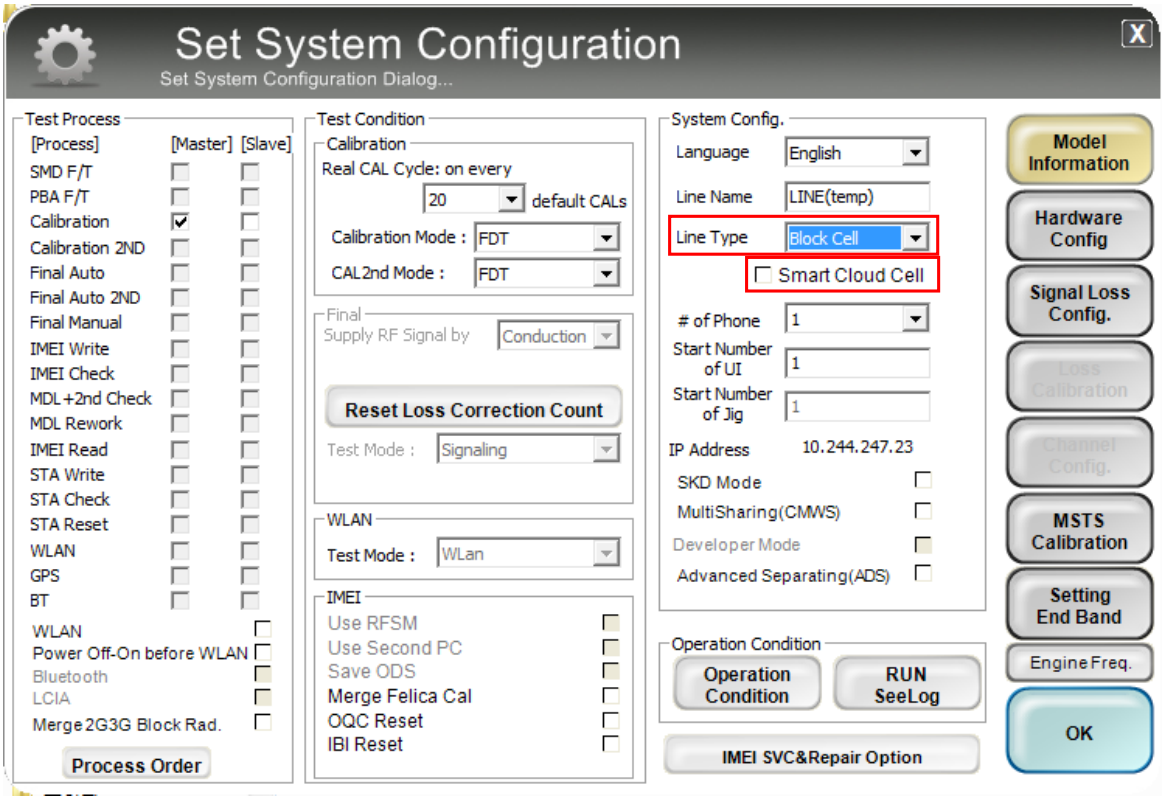
2. Check the 'Calibration' menu, and select 'Extract & Run'.



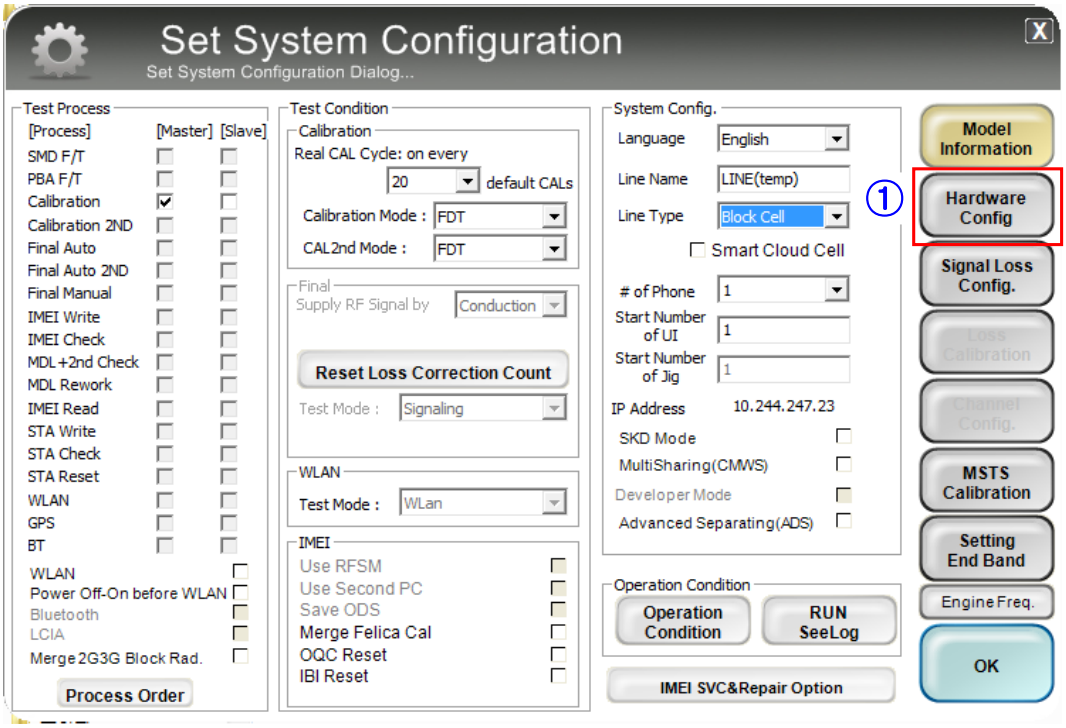
3. Check the 'CAL' and open the model file, then select 'Start' button.

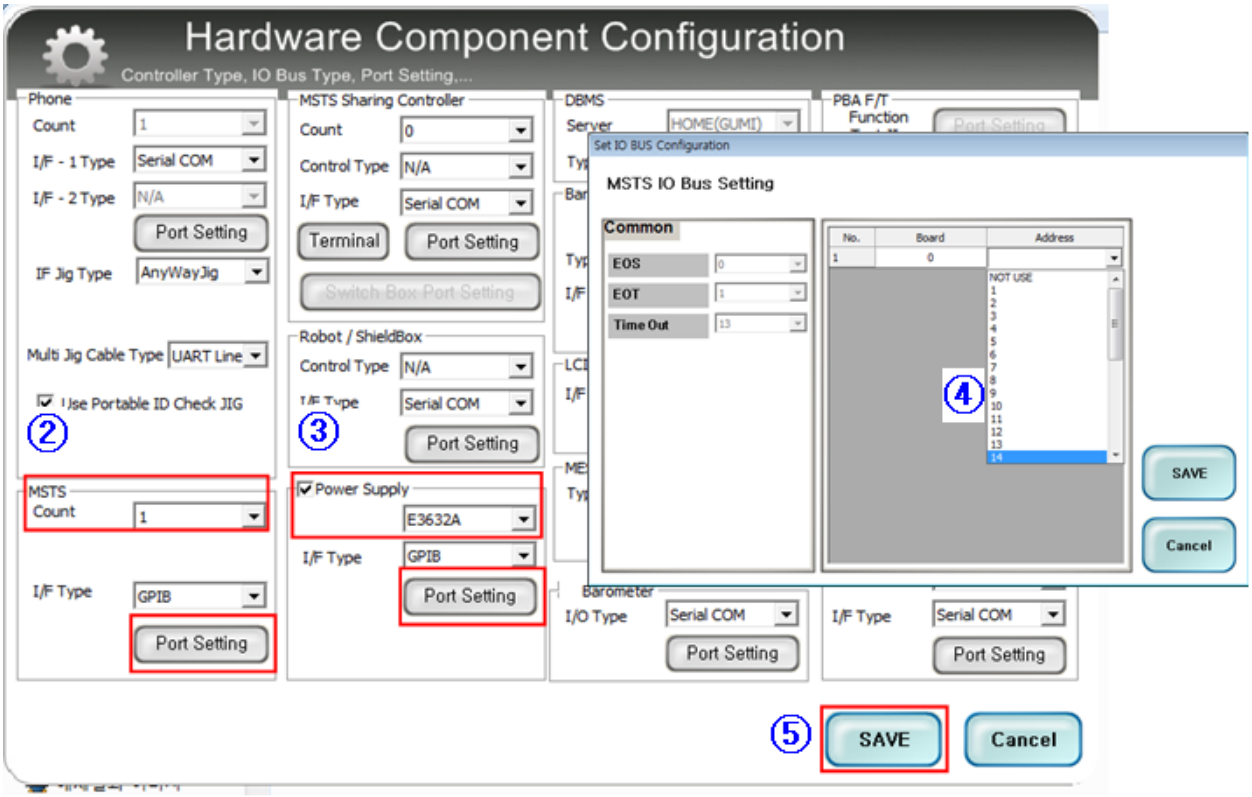


4. Change the Line Type to 'Block Cell' and disable 'Smart Cloud Cell'.

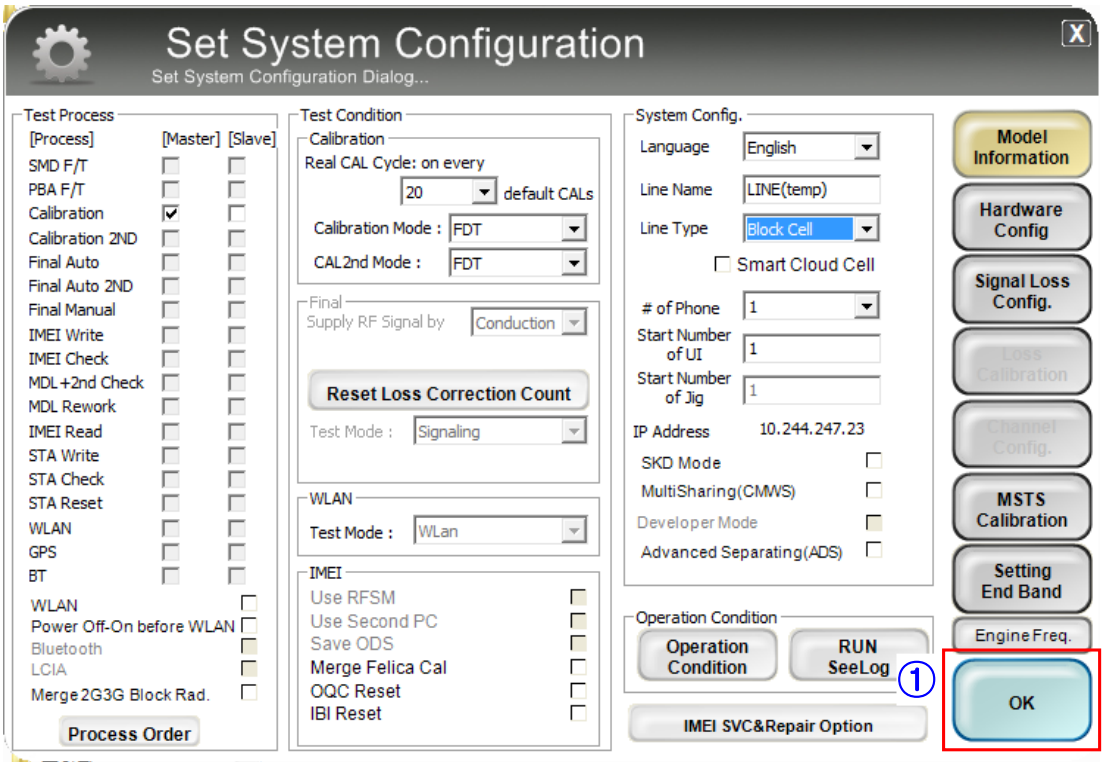


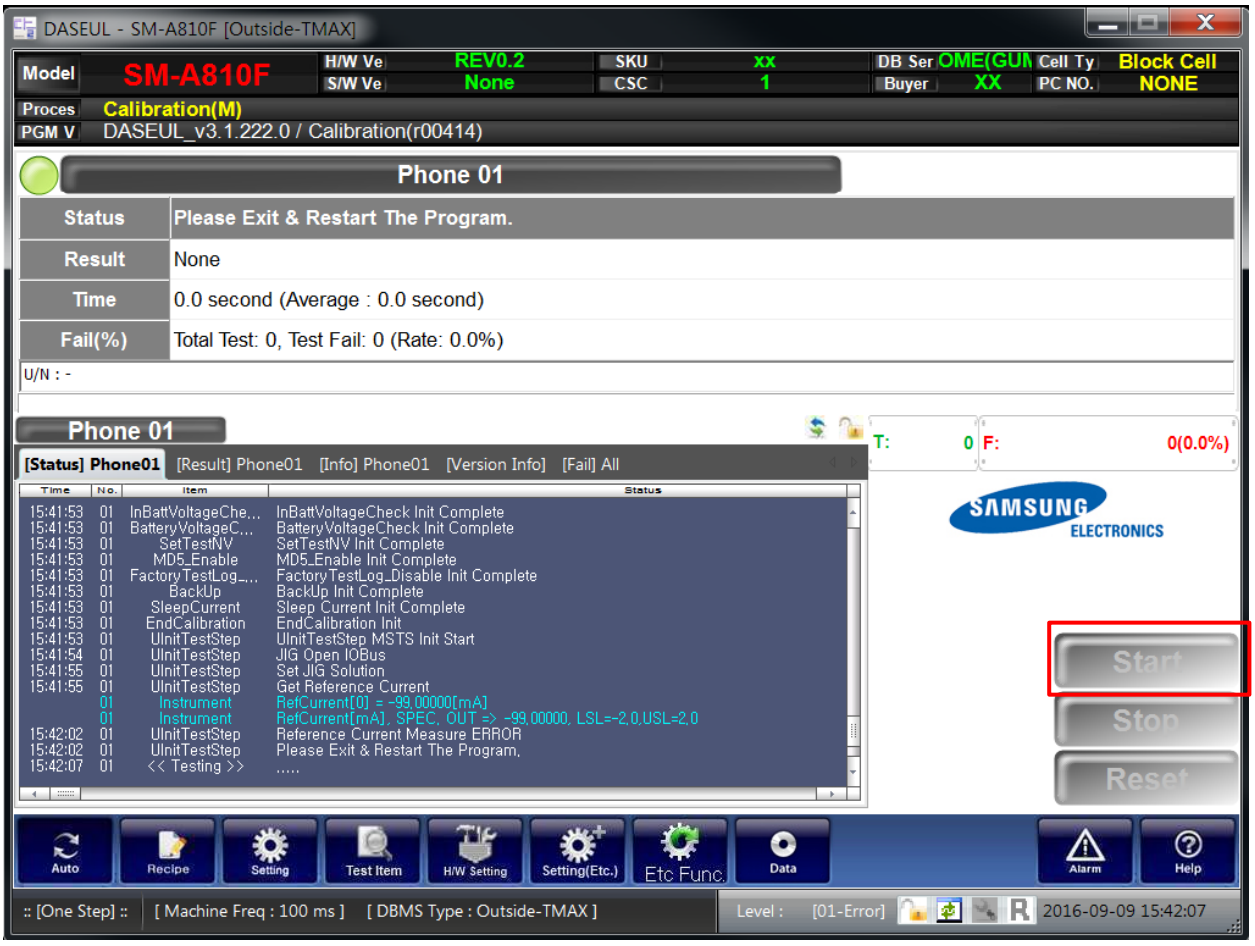
5. Set the GPIB address of MSTS(CMW500) and Power Supply(E3632A) to enter 'Hardware Config' and 'Save'. (Check the GPIB address of equipments in advance)





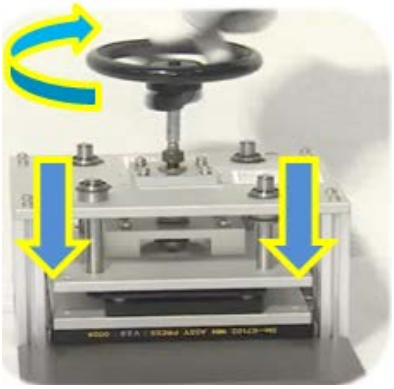
6. Press 'OK' to start RF Calibration after completing all settings.



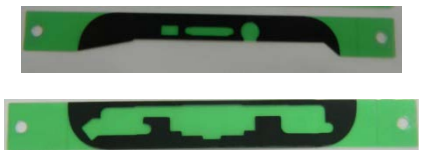


7-1. Components on the Rear Case

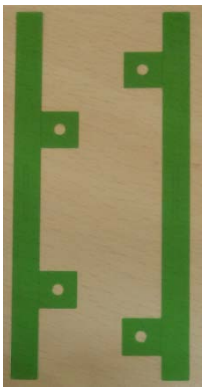
7-2. Pre-requisite

	
Tweezers / Disass'y Stick / Screw Driver	Anti-static Gloves
	
Clean Swab	Ethyl Alcohol
	
OCTA Disassembly Holder	OCTA Disassembly Upper
	
Mobile Dryer	OCTA Attach JIG(1N for 1 minute)

7-3. Parts which must be changed after repair

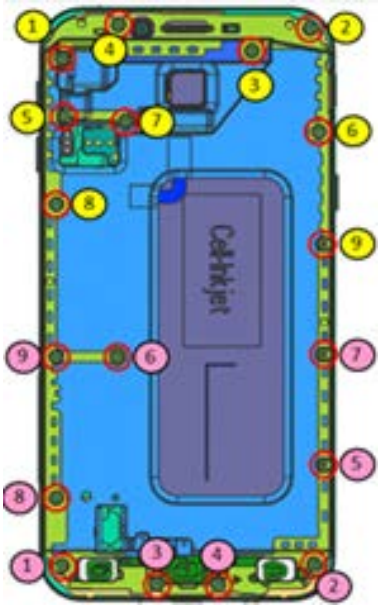
BOM Discription	Picture	Remarks
A/S-SVC REPAIR OCTA WINDOW TAPE [GH02-13578A] [GH02-13579A]		Replace when repair Front part
A/S-SVC REPAIR TAPE PET-HR [GH02-13687A]		
A/S-SVC REPAIR TAPE-TOUCH EARJACK TAPE4 [GH81-14190A]		
A/S-SVC REPAIR TAPE WATERPROOF-0.05 [GH02-13688A]		

7. Level 2 Repair

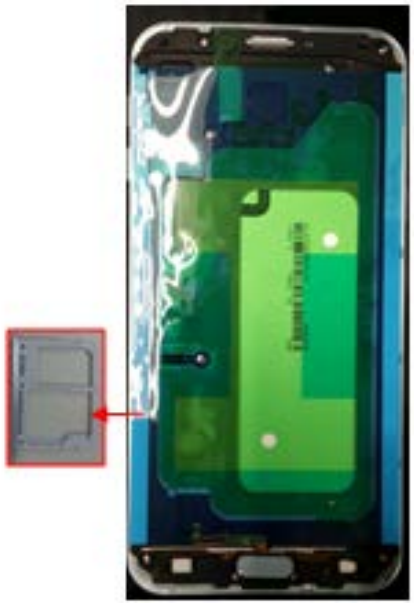
Battery TAPE **[GH02-13764A]** **[GH02-13765A]**		**Replace for** **Battery repair**

7-4. Disassembly

※ **Be careful to put on antistatic wrist strap !**

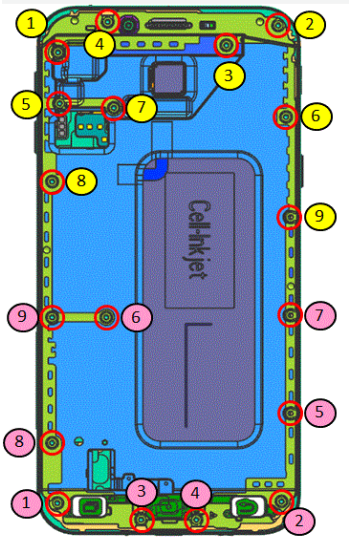
	
[1] After heating for 20 minutes the device at 75℃, take out the device from Mobile dryer.	**[2]** **1) Detach the OCTA from SET.** **2) Be careful tear FPCB.**
	
[3] Remove Warterproof Tape 2point	**[4] Disassemble the REAR Hook**

7. Level 2 Repair

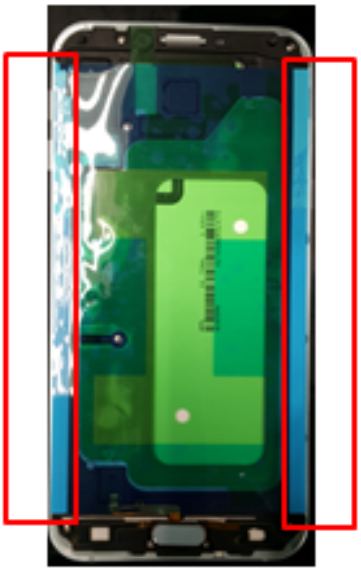
	
[5] **1) Remove SIM Tray.** **2) Remove Home Key.**	**[6] Disassemble Rear from Bracket (TOP → Bottom)**
	
[7] **1)Disassemble 2point screw** **2)Disassemble 4point connector**	**[8] Remove Battery from Bracket** **Use Battery remove JIG** **- Press force: 3 kgf/cm2** **- Press time : 4sec**

7-5. Assembly

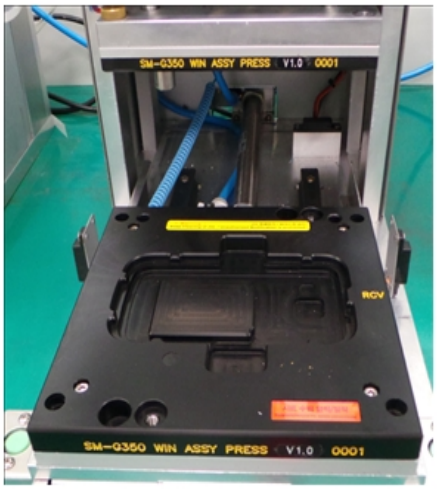
※ Be careful to put on antistatic wrist strap !

<table>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>[1] Assemble Battery</td><td>[2]Assemble 2point Screw
Assemble 4point Connector</td></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>[3])Assemble Bracket with Rear(Bottom → Top)</td><td>[4] Assemble 18point Screw
- Torque : 1.3 Kgf·cm (Spec : 1.23 ~ 1.37)
- Size : 1.4 * 2.5 (6001-003226, Silver)</td></tr>
</table>

[5]
1)Assemble HomeKey to Bracket
2)Assemble Homekey connector



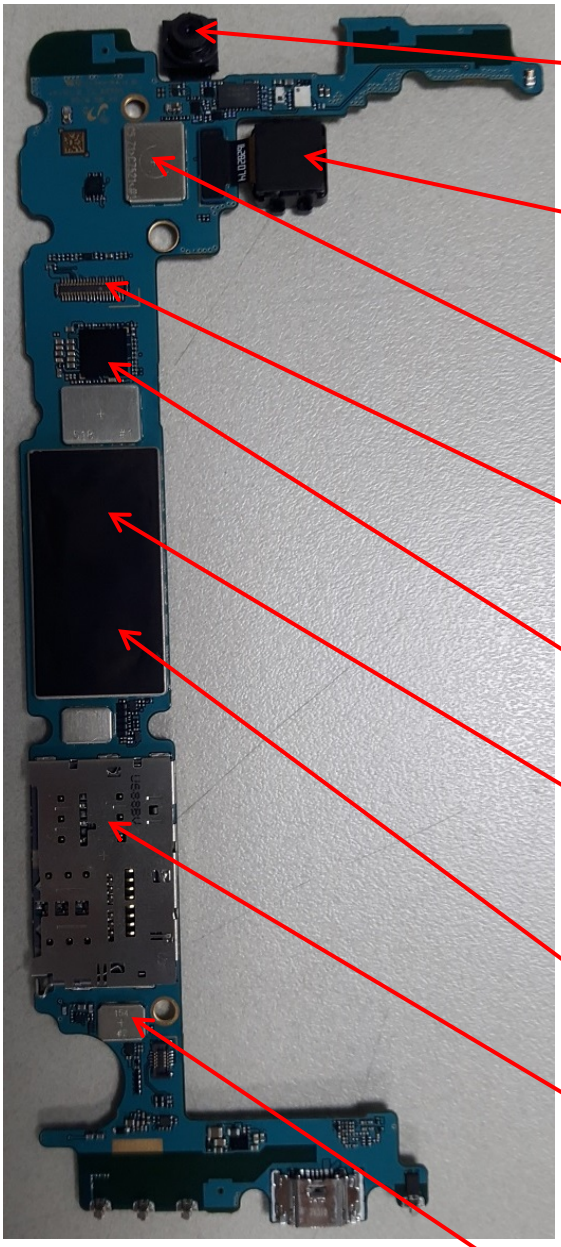
[6] Attach Waterproof tape



[7]
1)Attach OCTA to Bracket
2)Press OCTA&SET
- Press force : 1N
- Press time : 1min

8-1. Components Layout

PBA TOP Side



Front CAM
8M FF

Main CAM
16M AF

U7001
SUB PMIC

HDC9002
OCTA CON

U8001
CODEC

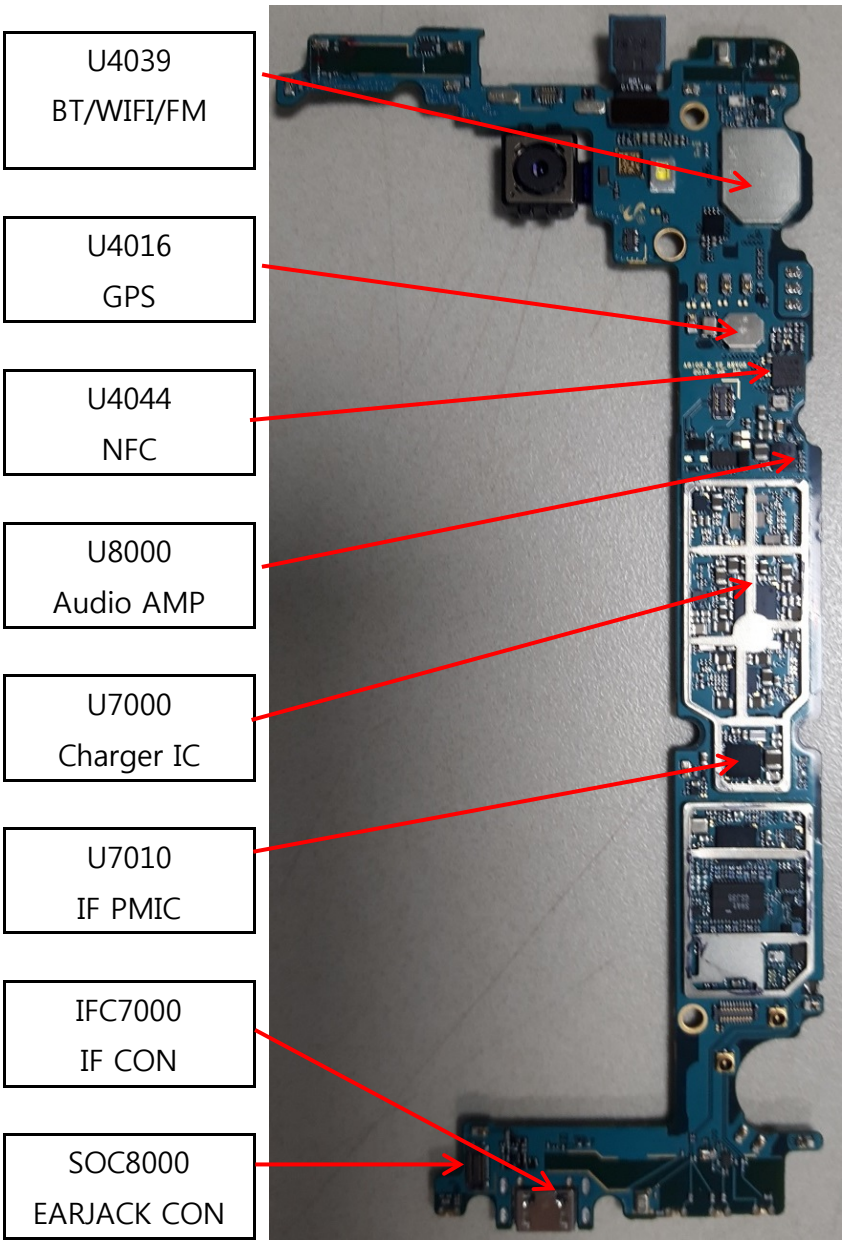
UCP500
AP

UCP300
CP

SIM9000
DUAL SIM/SD socket

U8003
Touch key IC

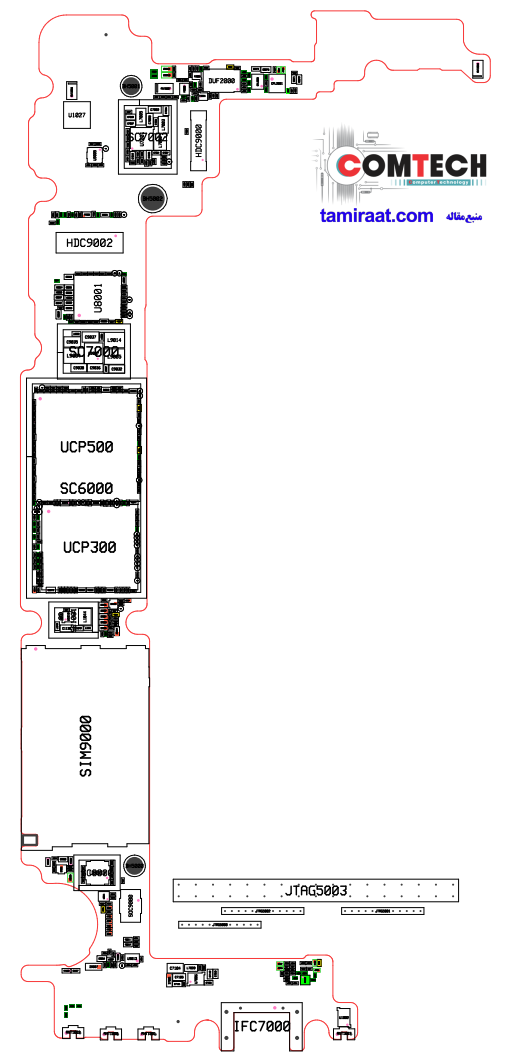
PBA BOT Side

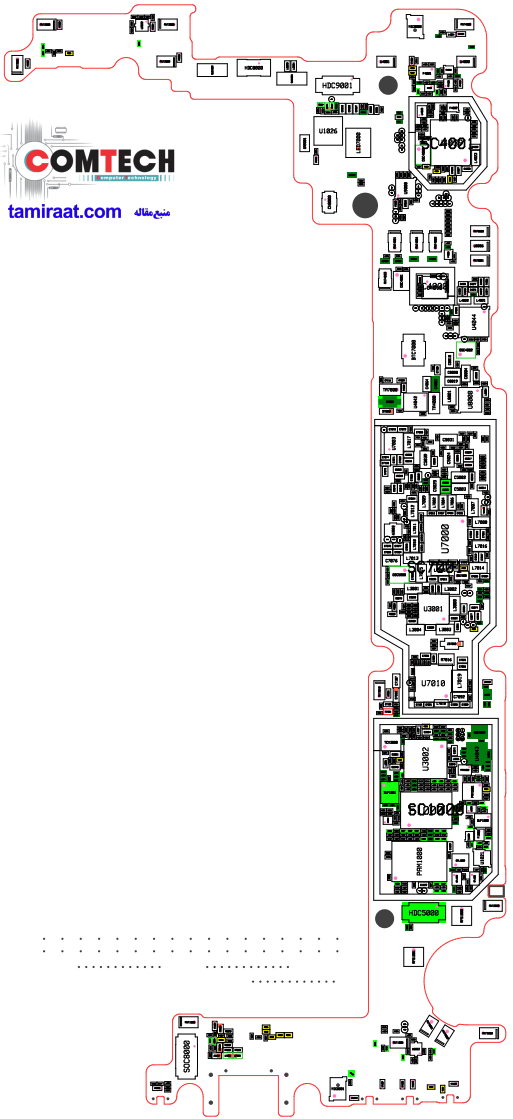


A8 2016 MEA Block Diagram

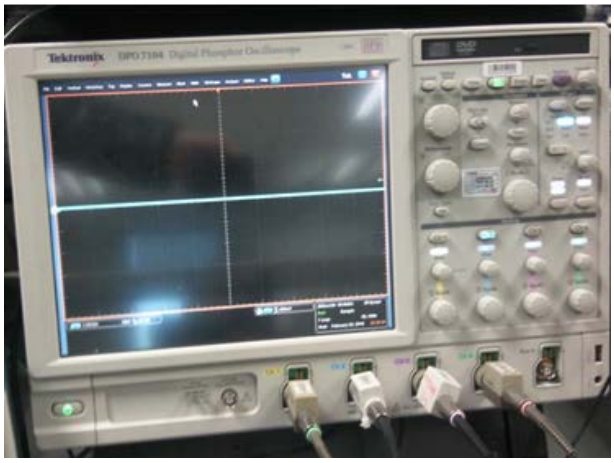
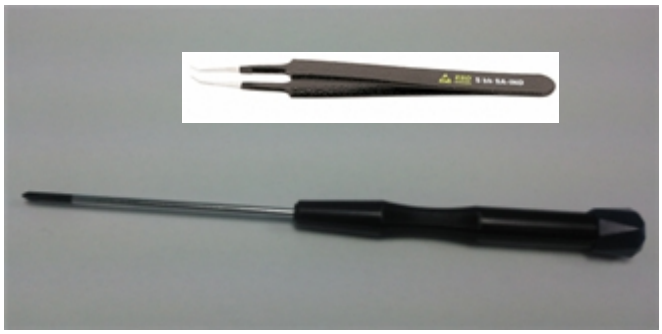
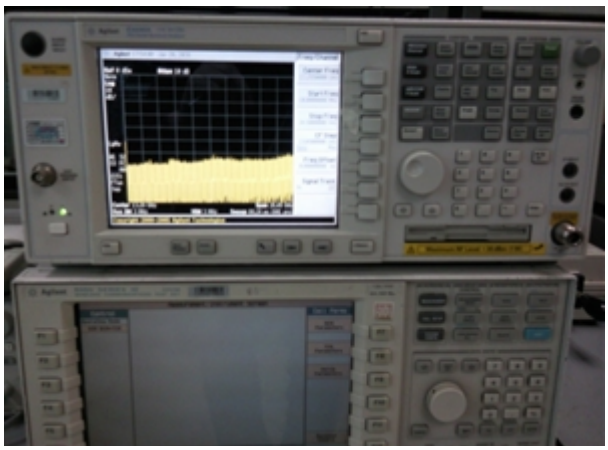
Confidential

GPS
TCXO 26MHz
GPS BCM47522
GPS_UART
GPS_RF
GPS/GNSS LNA RDALN1609
GPS_ANT_IN
DIPLEXER
WLAN_2G/5G
FM Radio
BT/WIFI/FM BCM43455HKUBG
CP_COEX UART
BT_PCM
SPEECH_I2S
UART
PCIeW
6 Axics
PROX/RGB
I2C
Sensor Hub STM32F410TBY6TR
TCXO 26MHz
Audio Codec WM1840ECS-R
MAIN_MIC
SUB_MIC
EAR mic
EAR OUT
RCV
MM_I2S
SPI
AMP_I2S
SPK AMP MAX98505
SPK_OUT_L/R
SPK_OUT_FB
DBMD_UART
M/LB ANT B1,B2,B3,B5,B8,B20 GSM/DCS/PCS
Diplexer DPX202700DT -4162A1
FEMID LMSWKHGS-J35
PRX_TR_IN_B2
PRX_TR_IN_GSMHB
PRX_TR_IN_B3
PRX_TR_IN_B1
PRX_TR_IN_G900_B8
PRX_TR_IN_B20
PRX_TR_IN_B5
PRX_MB1
PRX_MB2
PRX_MB4
PRX_MB5
PRX_LB2
PRX_LB4
PRX_LB5
GSM QUAD MMMB PA (WIPS115749-25)
TX_TR_OUT_B1_2_3
TX_TR_OUT_GSMHB
TX_TR_OUT_B5_8
TX_TR_OUT_G900
TX1_HMB1
TX1_MB1
TX1_LB1
TX2_LB2
PA_DET0
Transceiver SHANNON933
I/Q
Baseband Processor SHANNON333
Cortex-R7 700MHz
LPDDR2 400MHz
Cat.10, 3x20CA
32G POP UFS2.0
MEM BUCK BOOSTER S2ABB01X01
SPI
LLI
MPHY 2-Lane
NFC SEN81DSXS1
X-TAL 27.12MHz
I2C
eSE_SPI
GPS_UART
CP PMIC S2MPM03X01
5 bucks
14 LDOs
26MHz
SPEECH_I2S
UIM
Application Processor SC57420
4xA53 1.6GHz
4xA57 2.1GHz
3GB LPDDR4 (1.6GHz)
MIPI 4lane
OCTA (FHD)
OCTA DCDC STOD34JR
TSP FTS4BD56
MIPI 2 lane
5M CAM
MIPI 4 lane
16M CAM
Flash LED
MAIN CAM
FRONT CAM
SUB PMIC S2MPB02X01
2-BUCK
1-BUCKBOOST
18 LDOs
TOUCH KEY TC305K
GRIP
Finger Print
IF PMIC MAX77833
OVP
SW charger
USB OTG
Safeout LDO
Motor driver
UMIC
Fuel Gauge
USB2.0/UART
I/F connector
Wall CHG /OTG
USB2.0 DM/P
DC Motor
CODEC_24MHz
CLK Buffer
X-TAL 26MHz
AP PMIC S2MPS15A01
10 bucks
1 buck-boost
27 LDOs
RTC
GPS
BT module
CODEC
CP
AP
X-TAL 32.768KHz
MST_D+/D-
MST_EN
MST ISP7022
HB ANT B7,B40
SWITCH MXD8632A
SAW FILTER SFHG52AA002
SAW FILTER SAYEY2G53BA0F3K
LNA SFML17RB002
SAW FILTER B8347
SWITCH RDASW293
PAM SKY77781
PRX_TR_IN_B40
PRX_TR_IN_B7
TX_TR_OUT_B7_40
PRX_HB3
PRX_HB2
TX1_HB2
DRX Ant B1,2,3,5,7,8,20,40
DIPLEXER DPX202700DT-4062A1
DIPLEXER DPX202690DT-4084A1K
SUB CA FEM SFML6R0H001
DRX_TR_IN_B5_8_20
DRX_TR_IN_B1_2_3
DRX_TR_IN_B7_40
DRX_MB5
DRX_MB1
DRX_HB1
TCXO 26MHz
26MHz to CP PM
UART SW
CP_IF UART

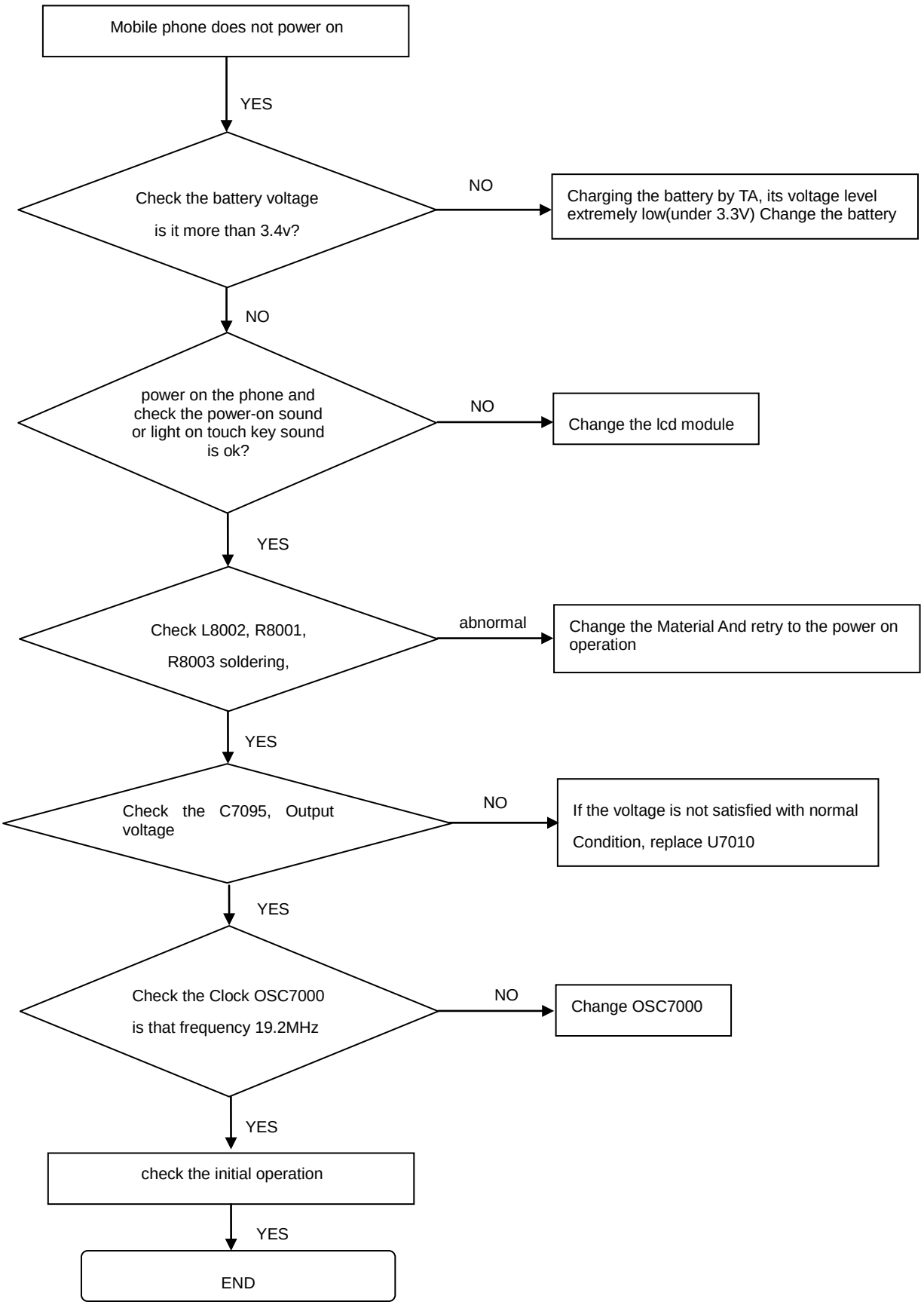




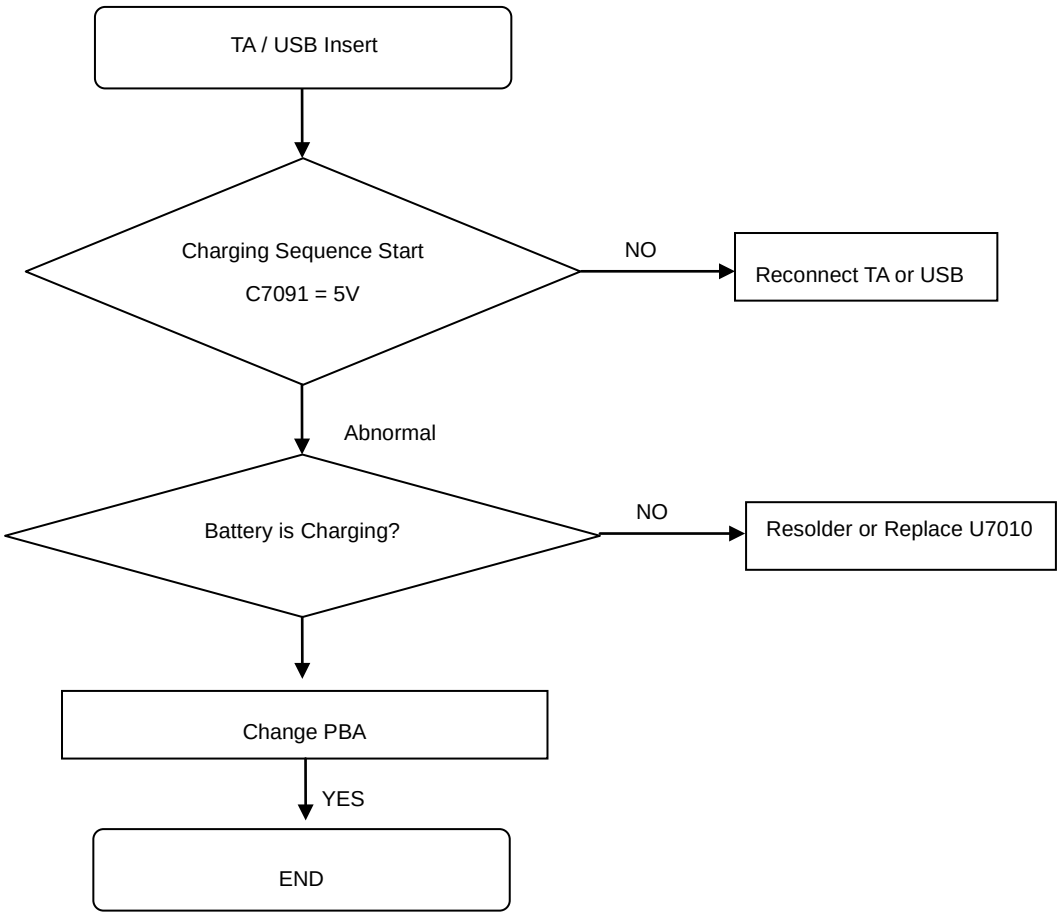
8-3. Flow chart of Troubleshooting.

	
Oscilloscope	**Digital Multimeter**
	
Power Supply	**+ driver, ESD Safe Tweezer**
	
8960 & Spectrum Analyzer	**Soldering iron**

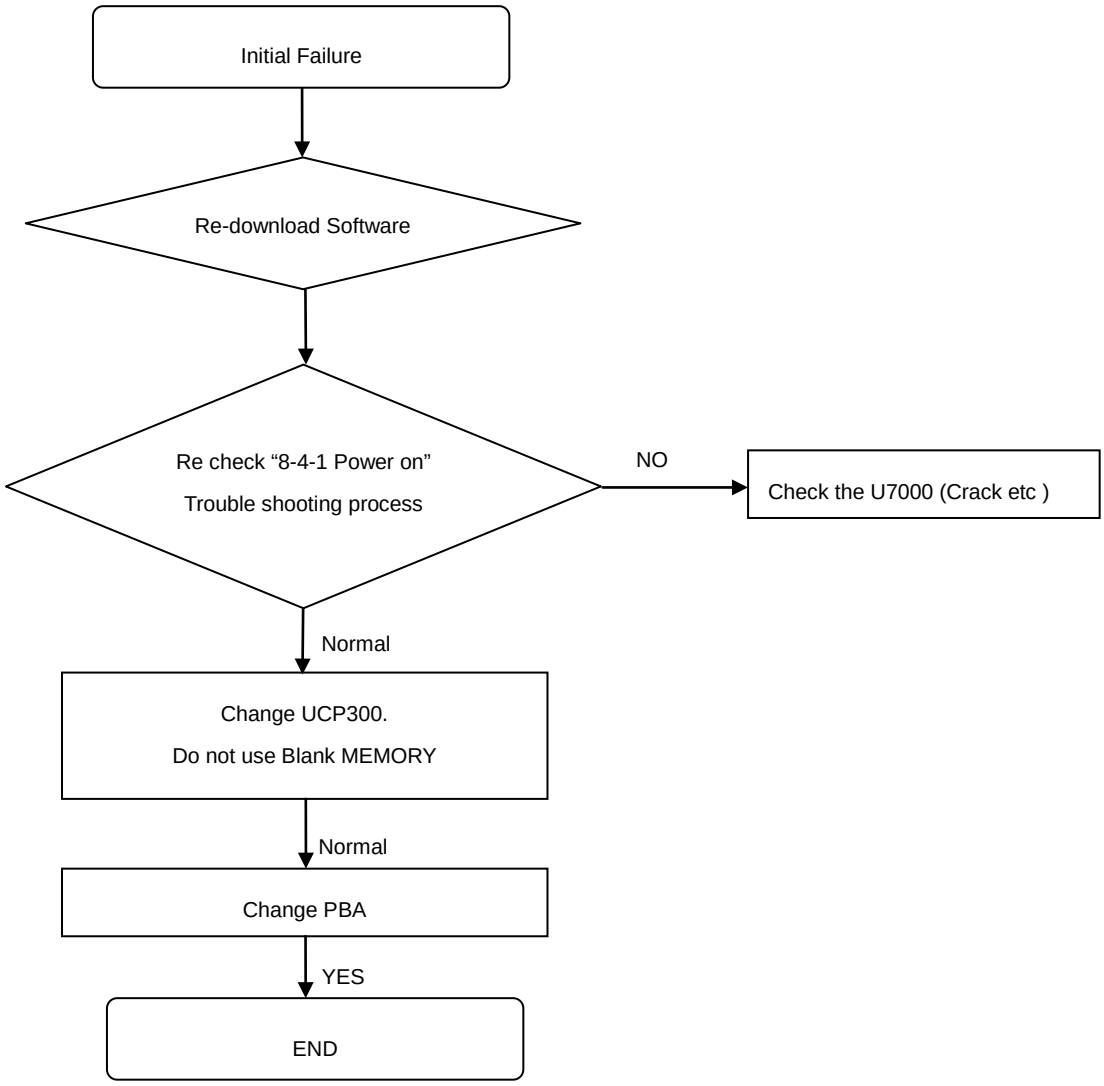
8-4-1. Power on



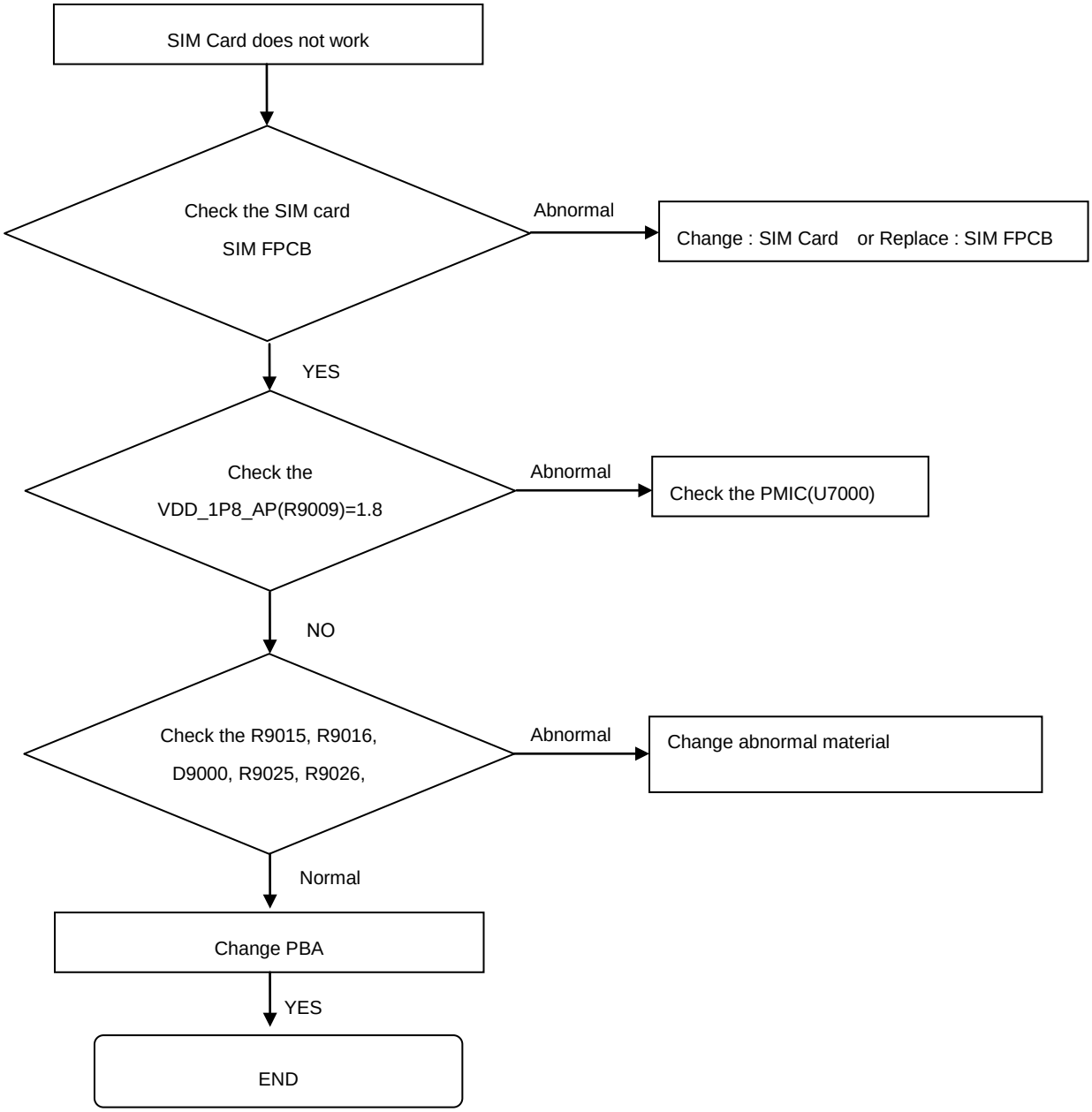
8-4-2. Charging Part



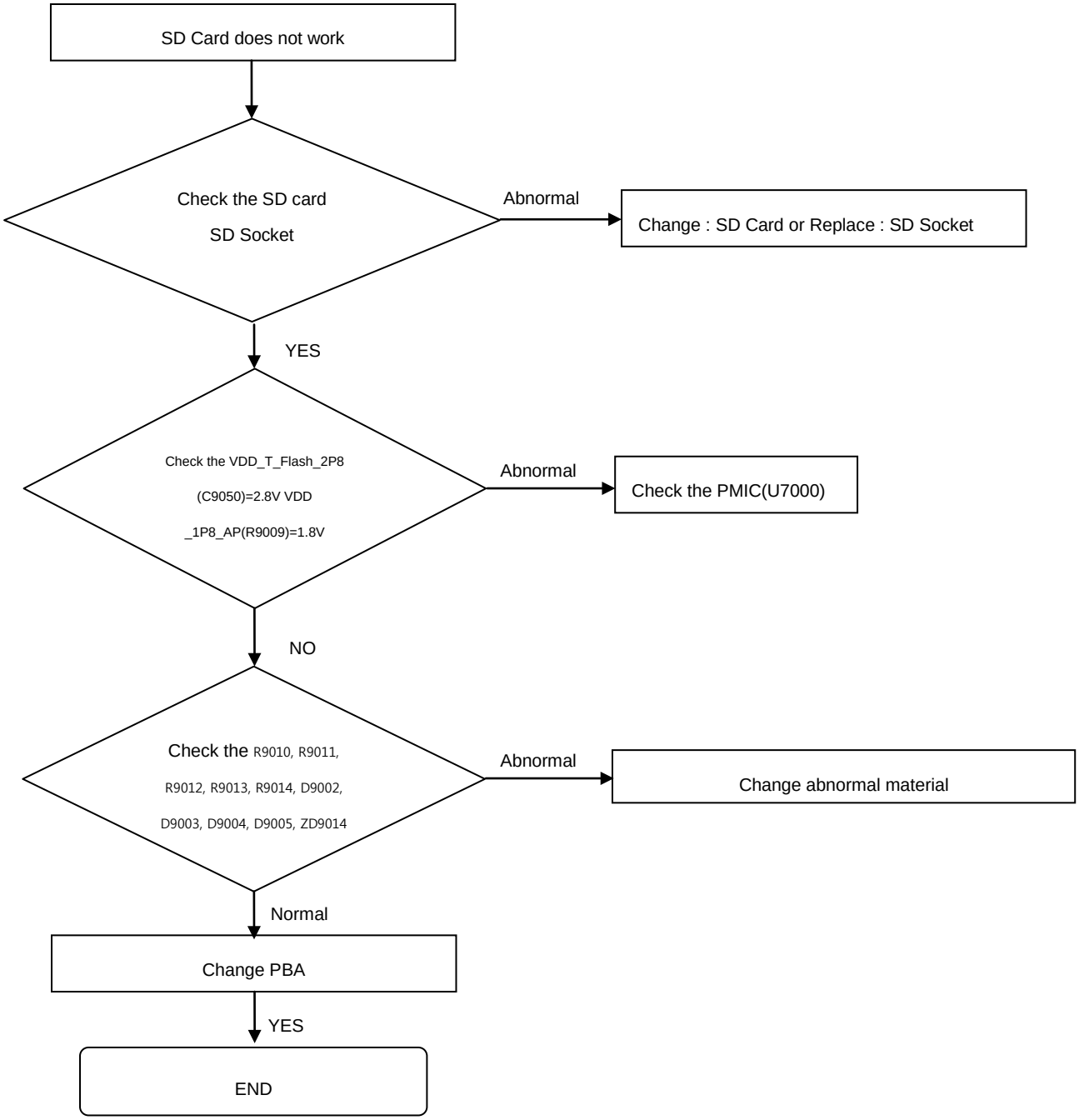
8-4-3. initial



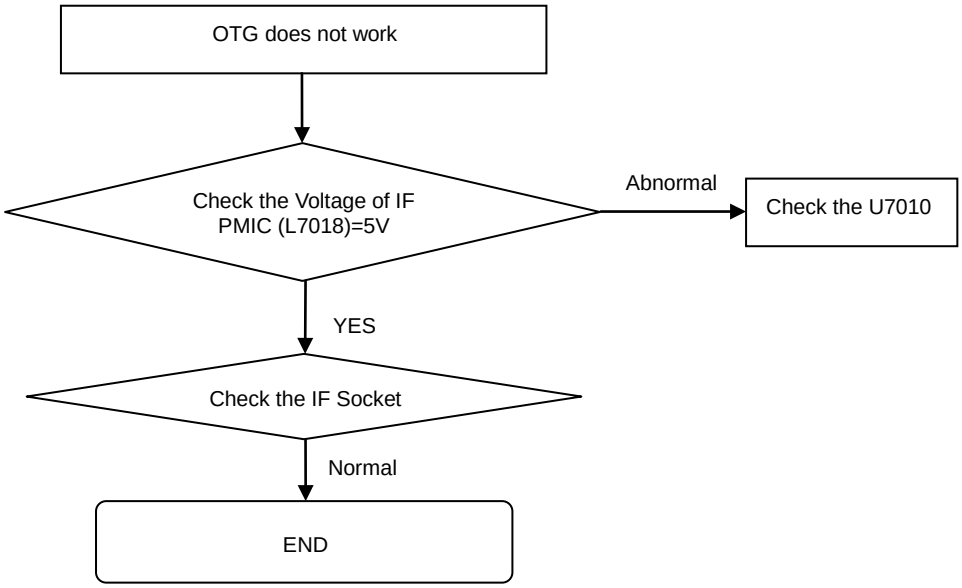
8-4-4. SIM PART



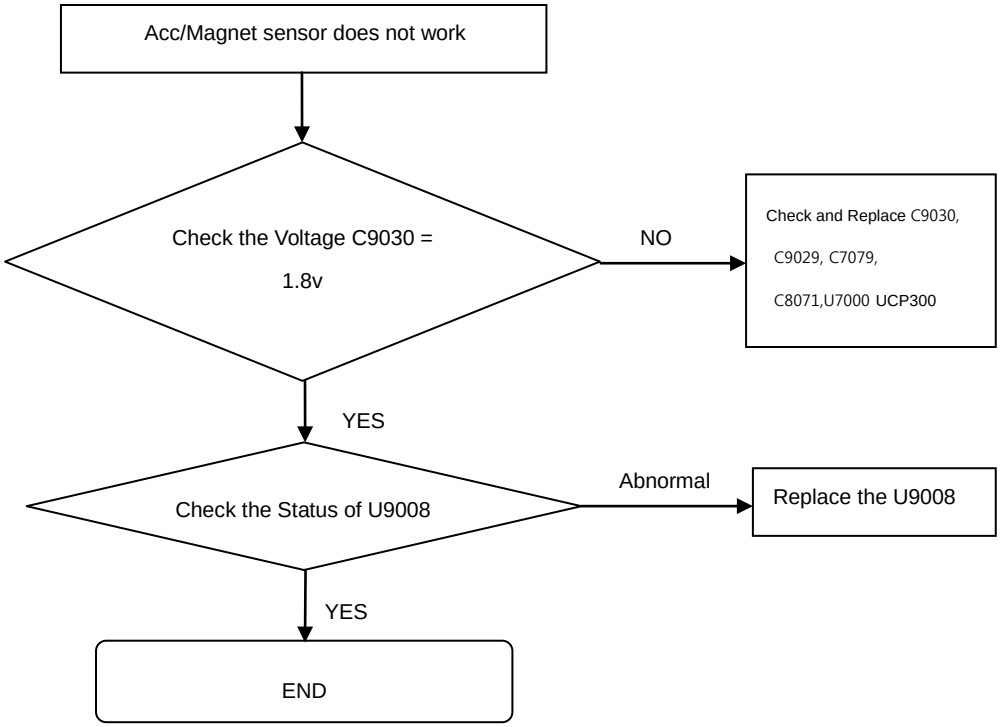
8-4-5. SIM/SD PART



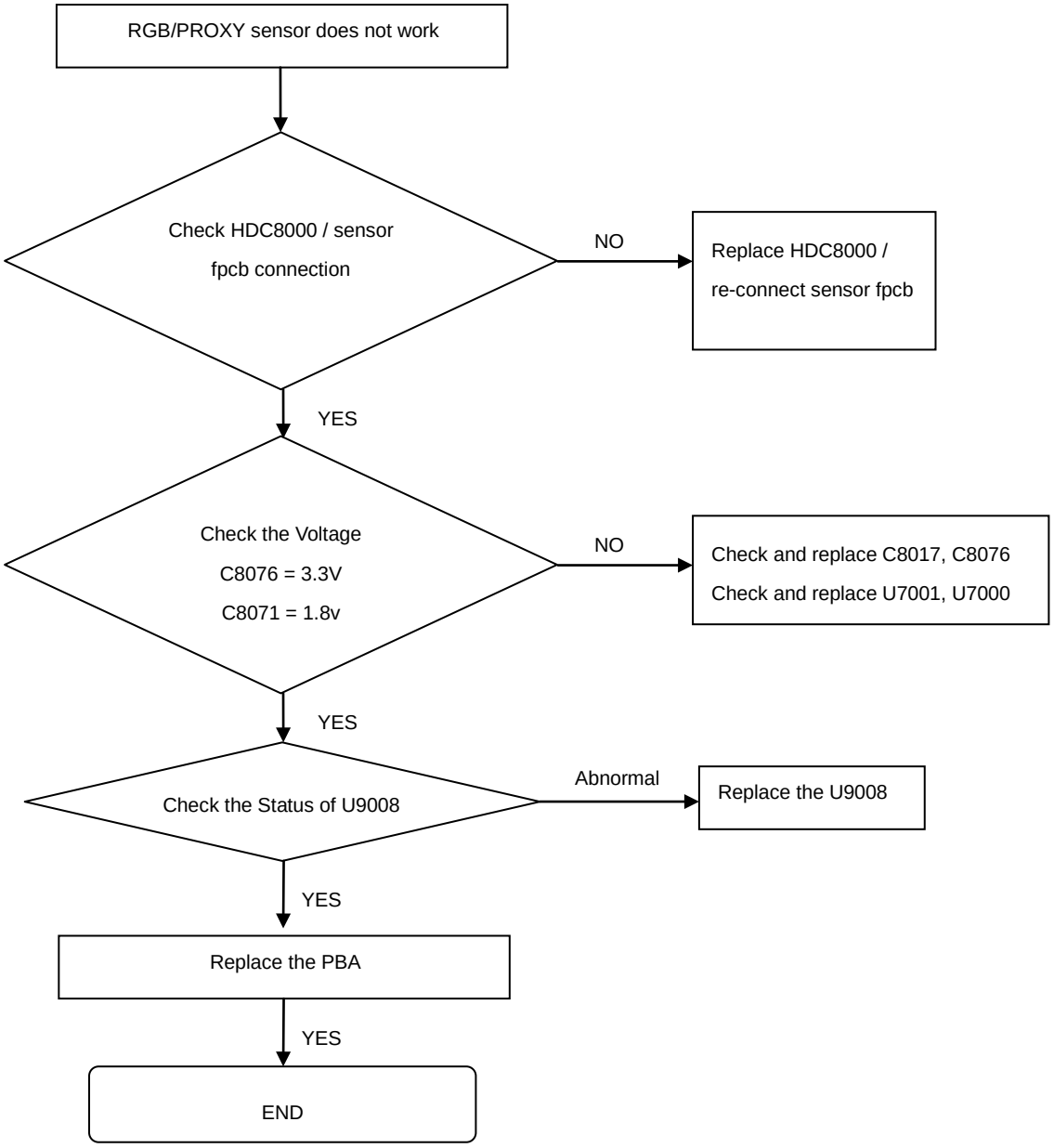
8-4-6. OTG



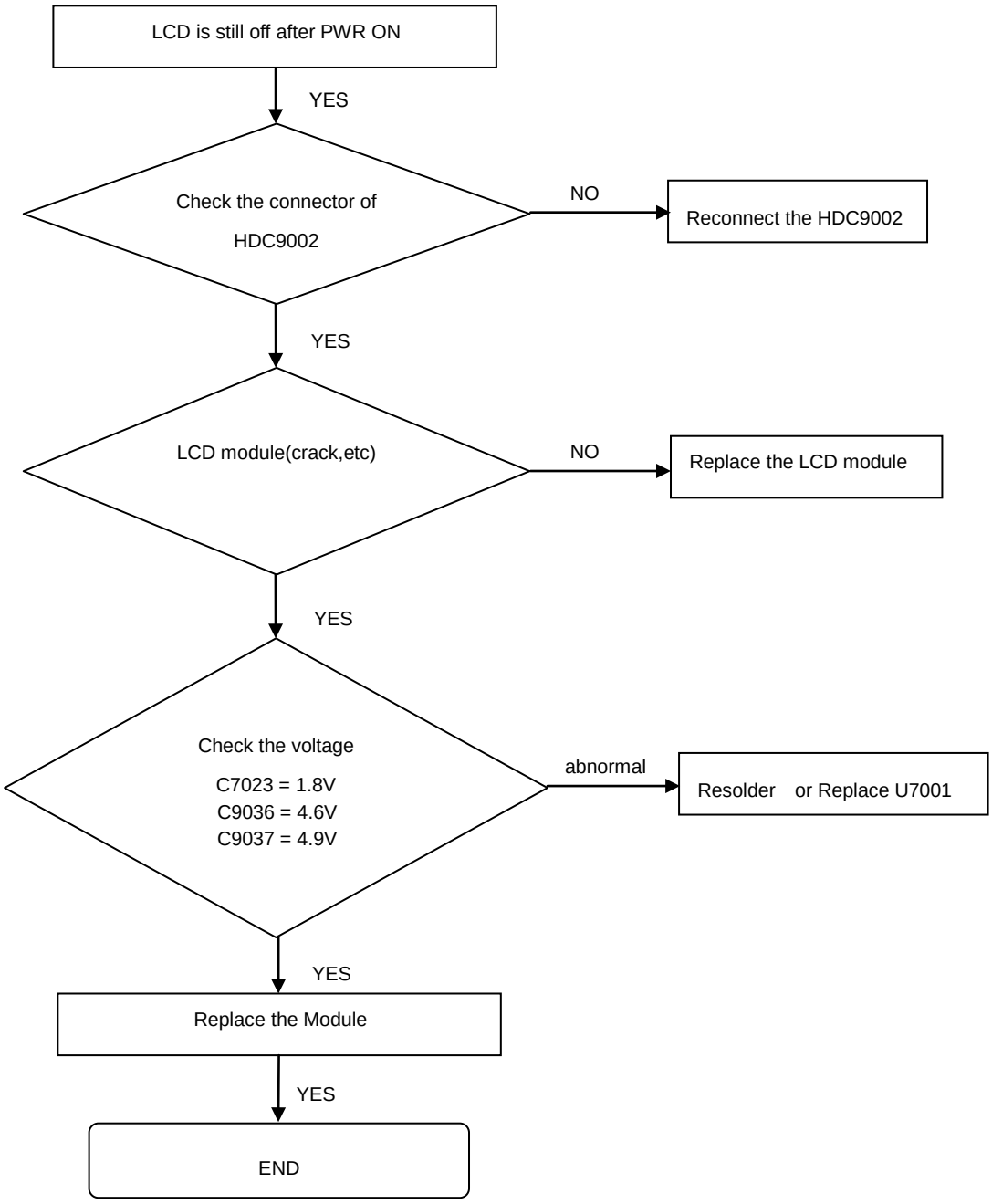
8-4-7. Acc/Magnet sensor



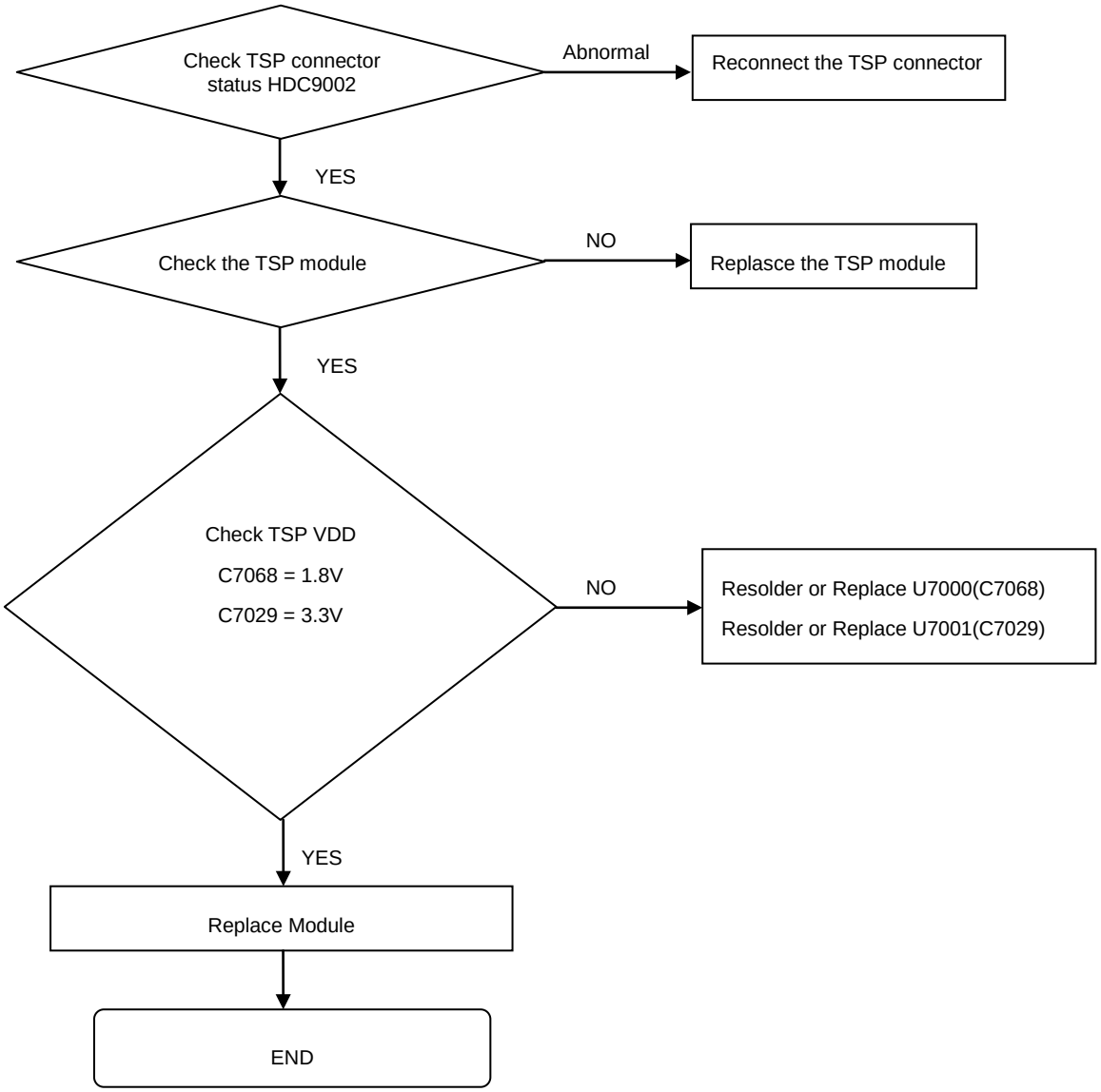
8-4-8. RGB/PROXY sensor



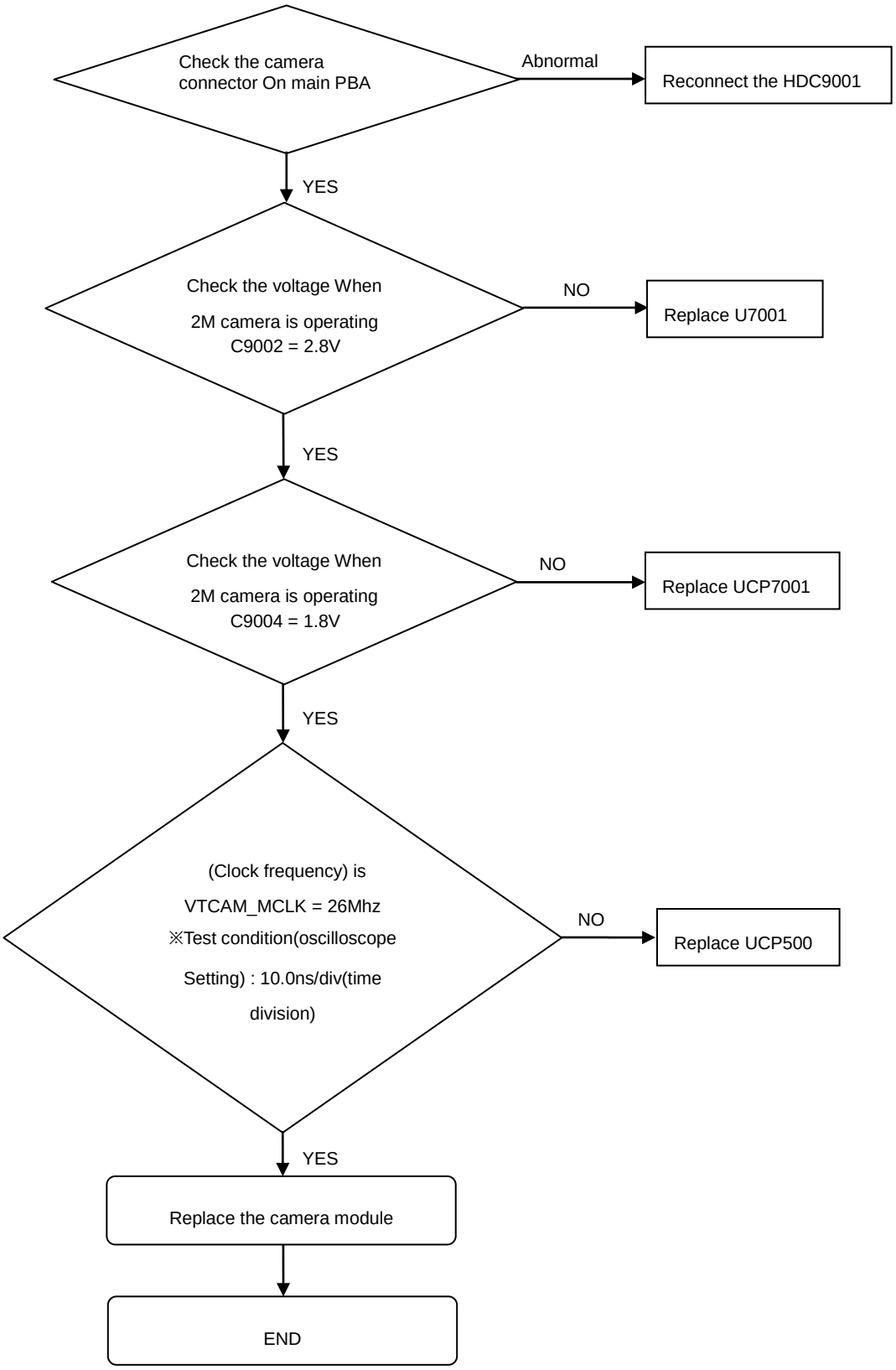
8-4-9. Display



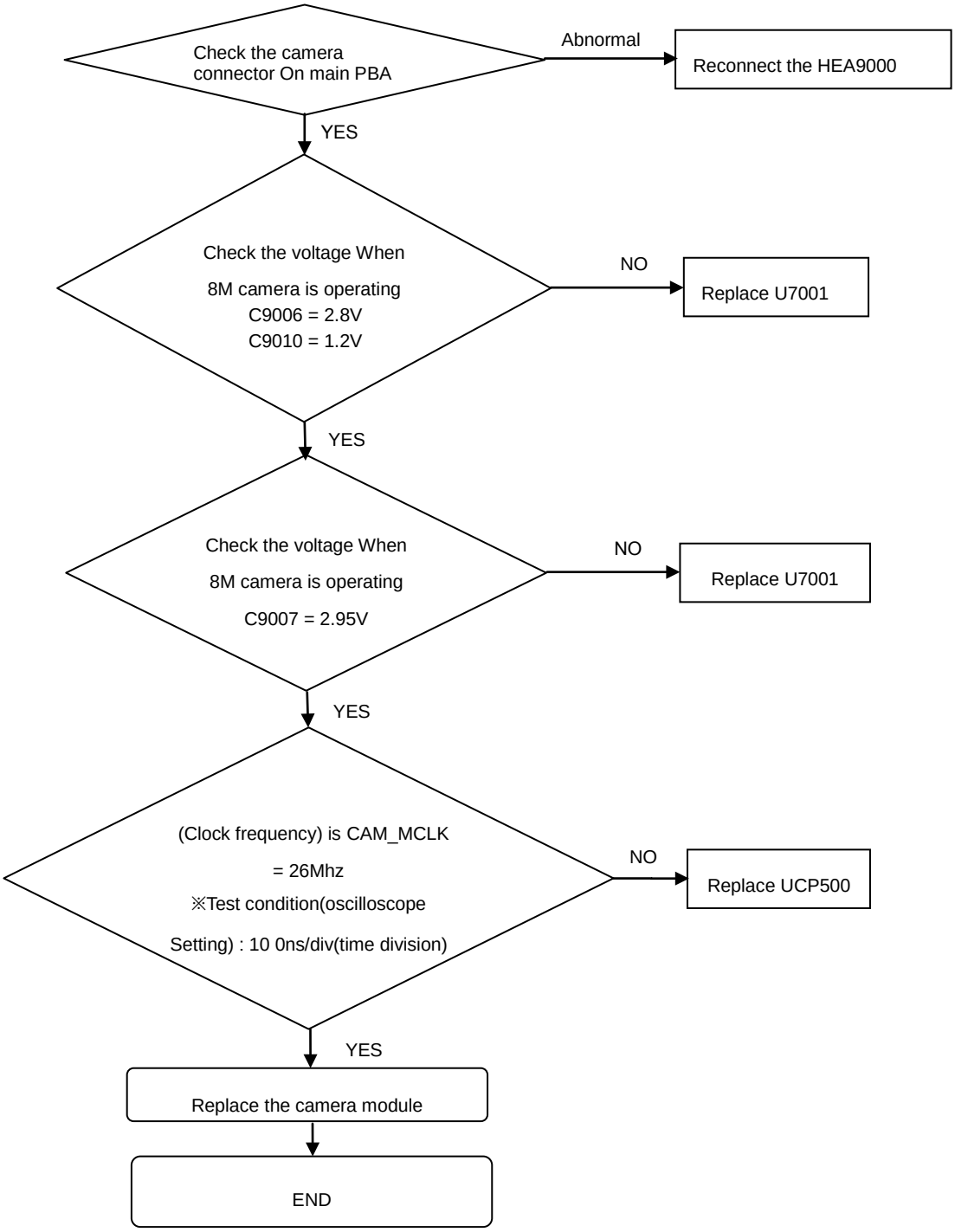
8-4-10. TSP



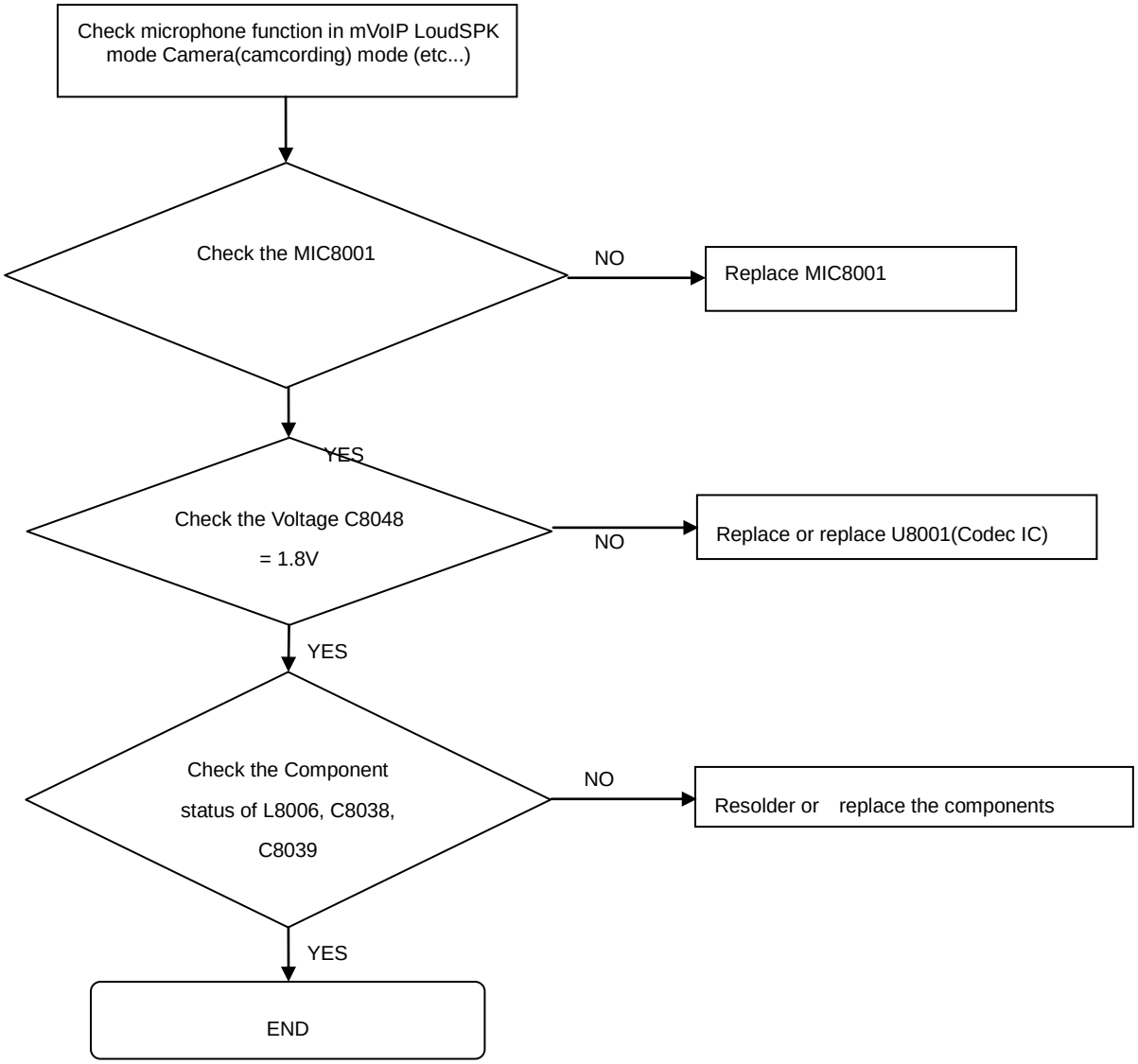
8-4-11. 8M CAMERA



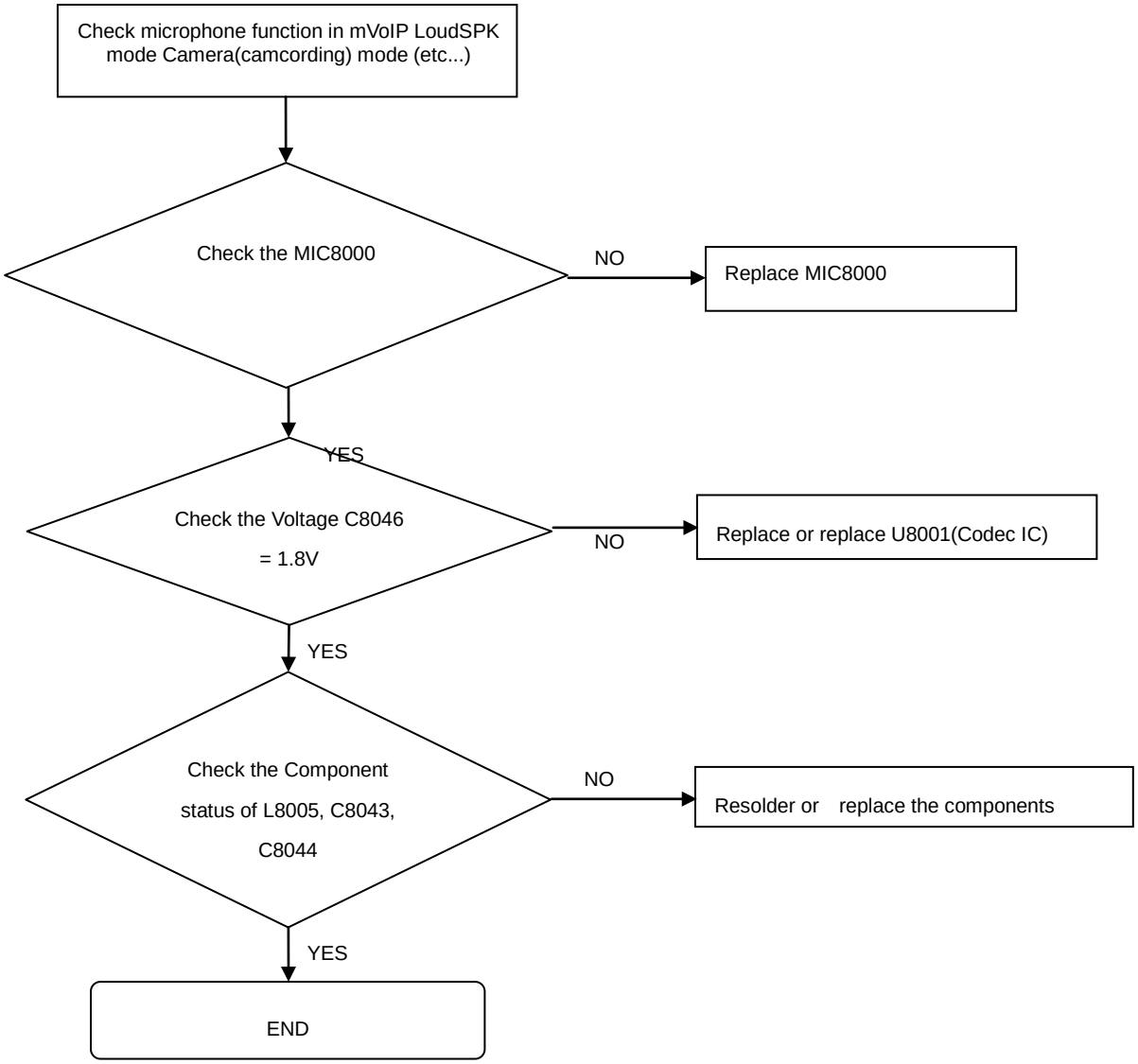
8-4-12. 16M CAMERA



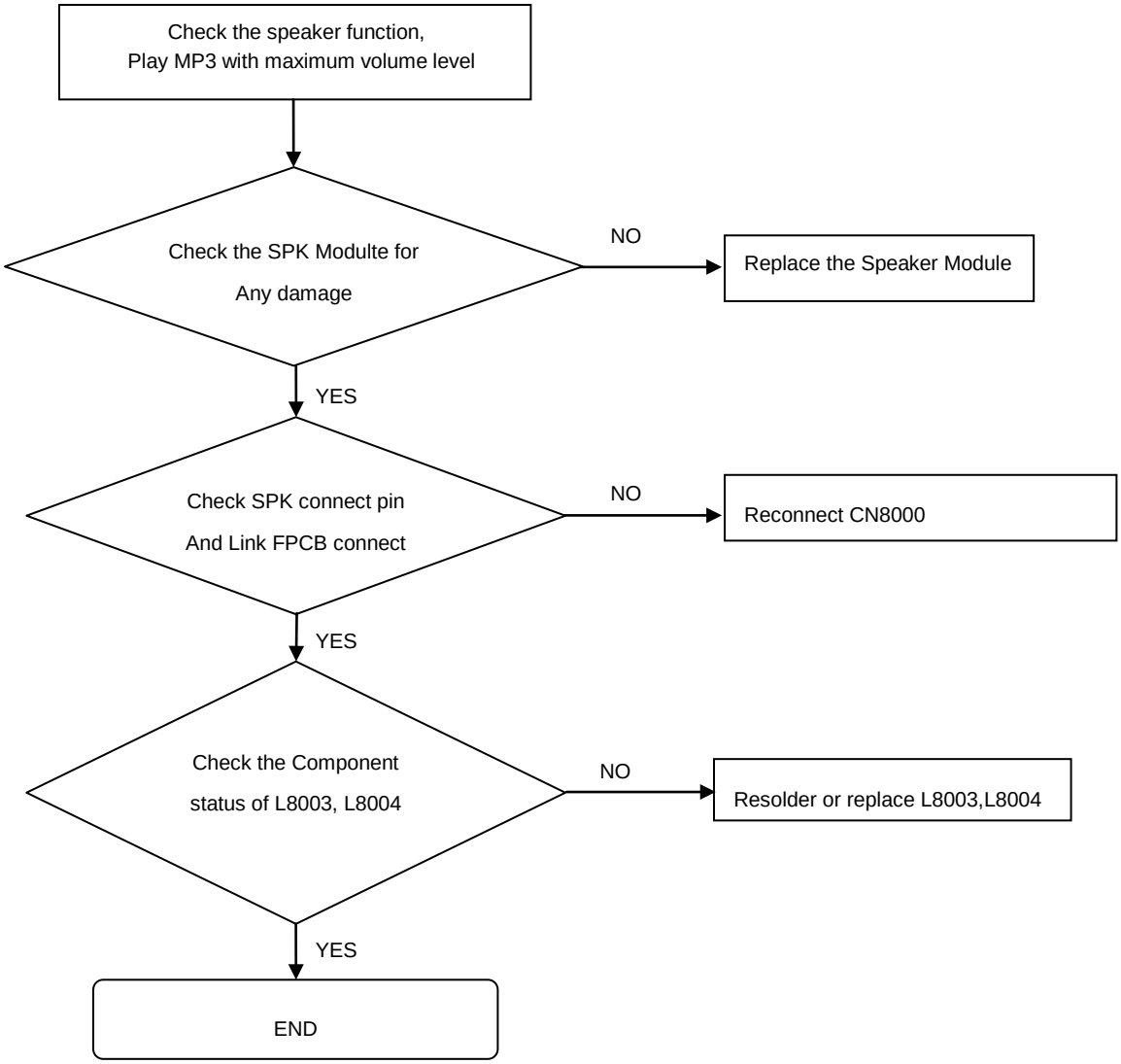
8-4-13. Microphone Part – Main MIC



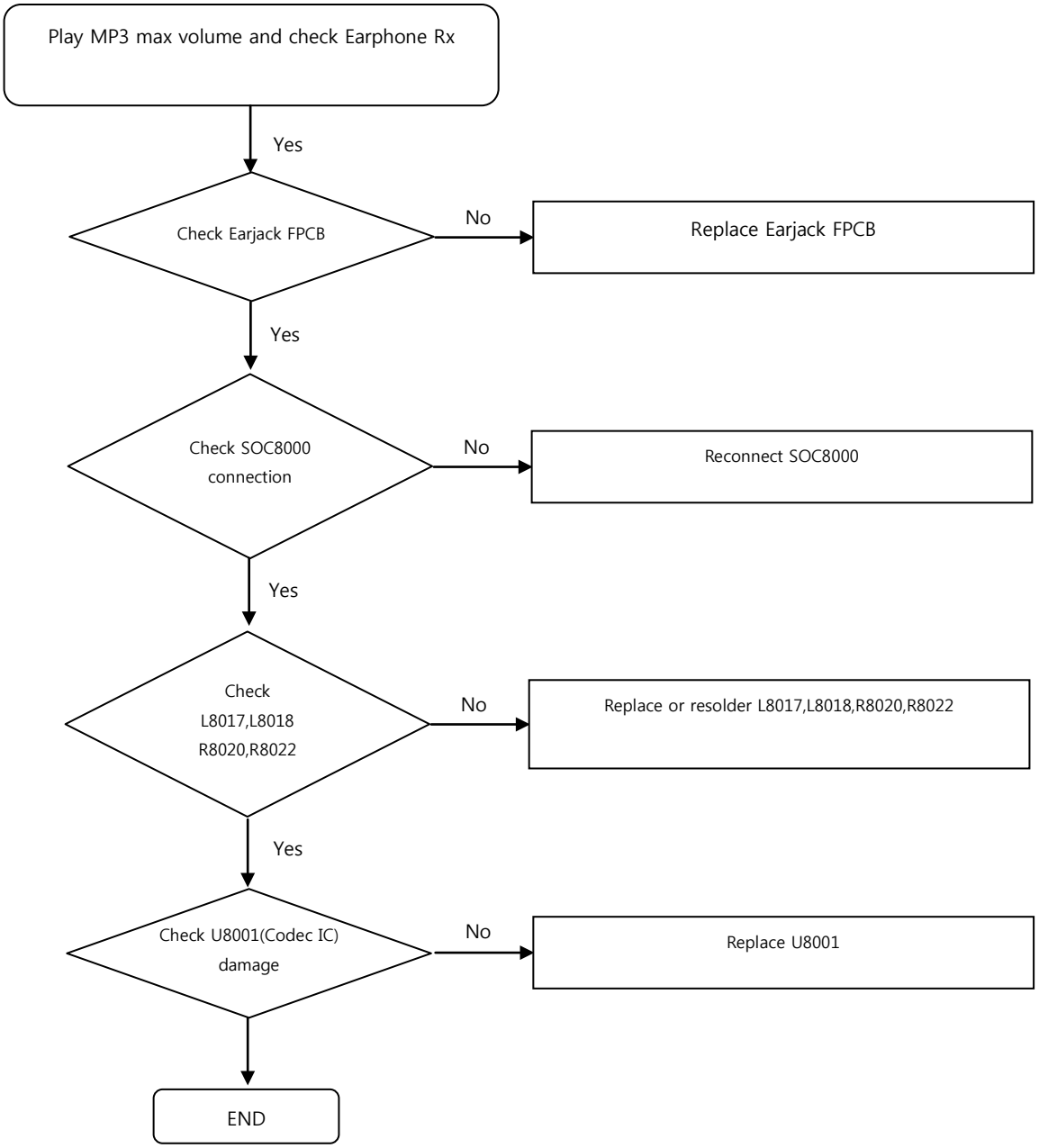
8-4-14. Microphone Part – SUB MIC



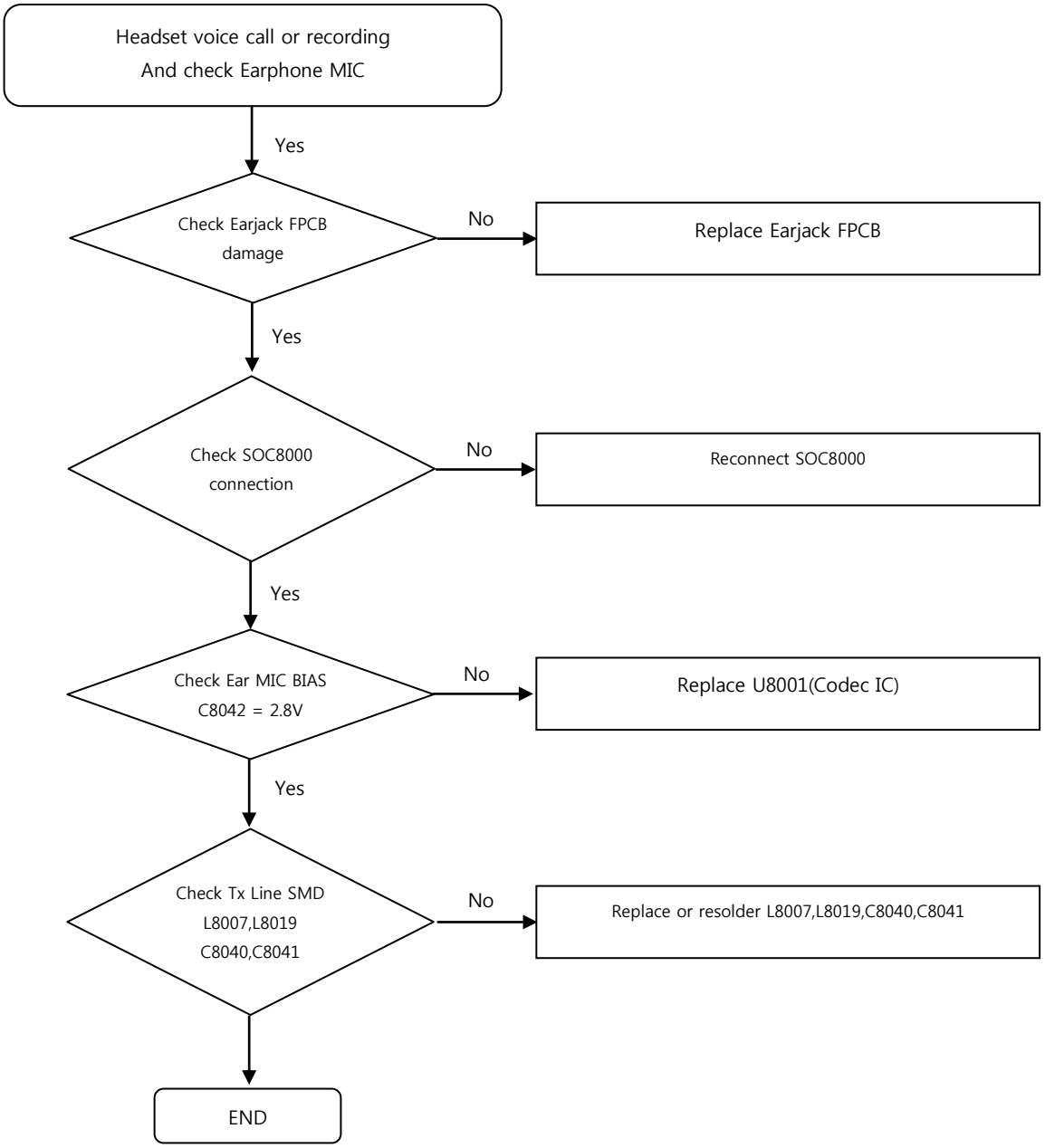
8-4-15. Speaker part



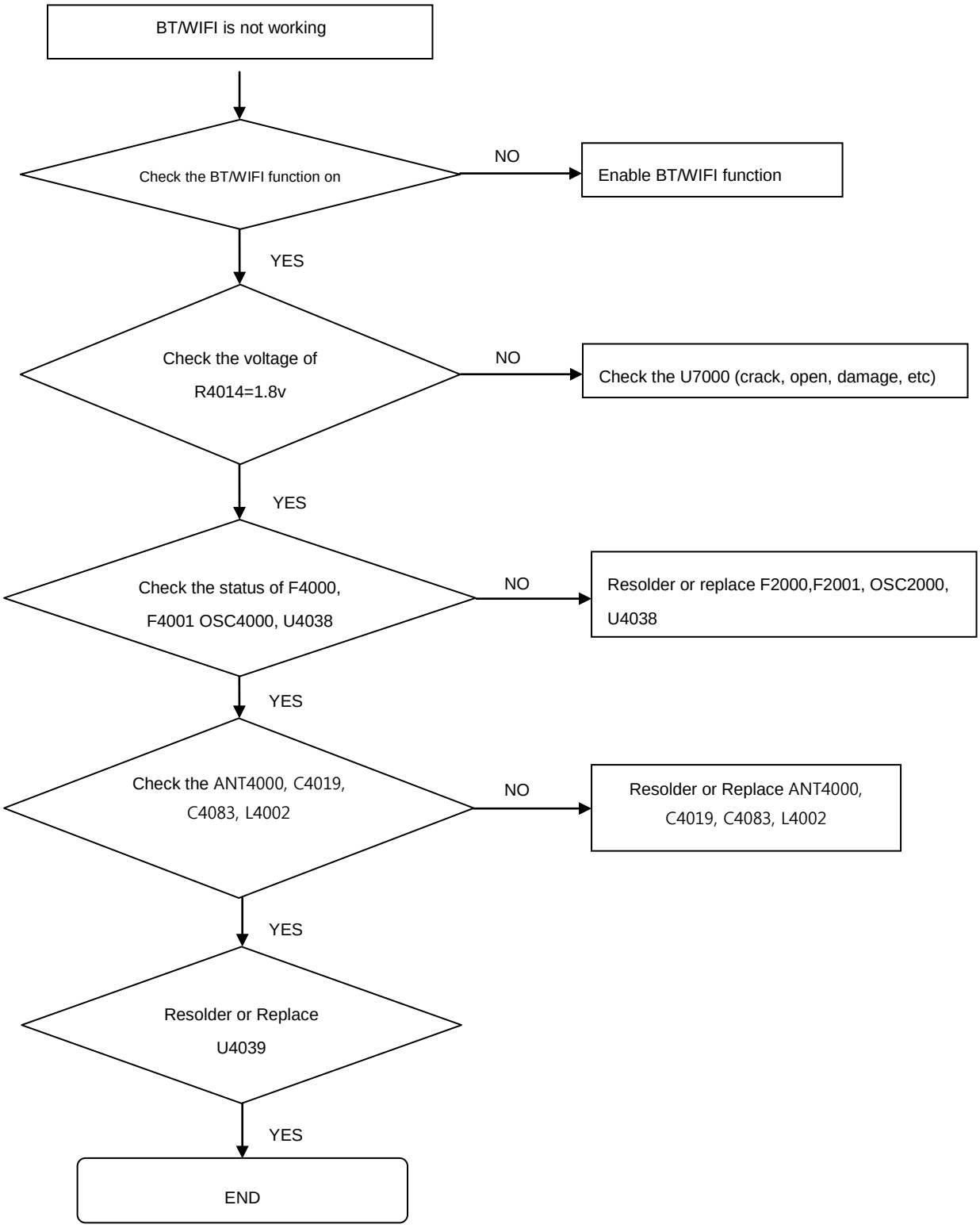
8-4-16. Earjack Part - Rx



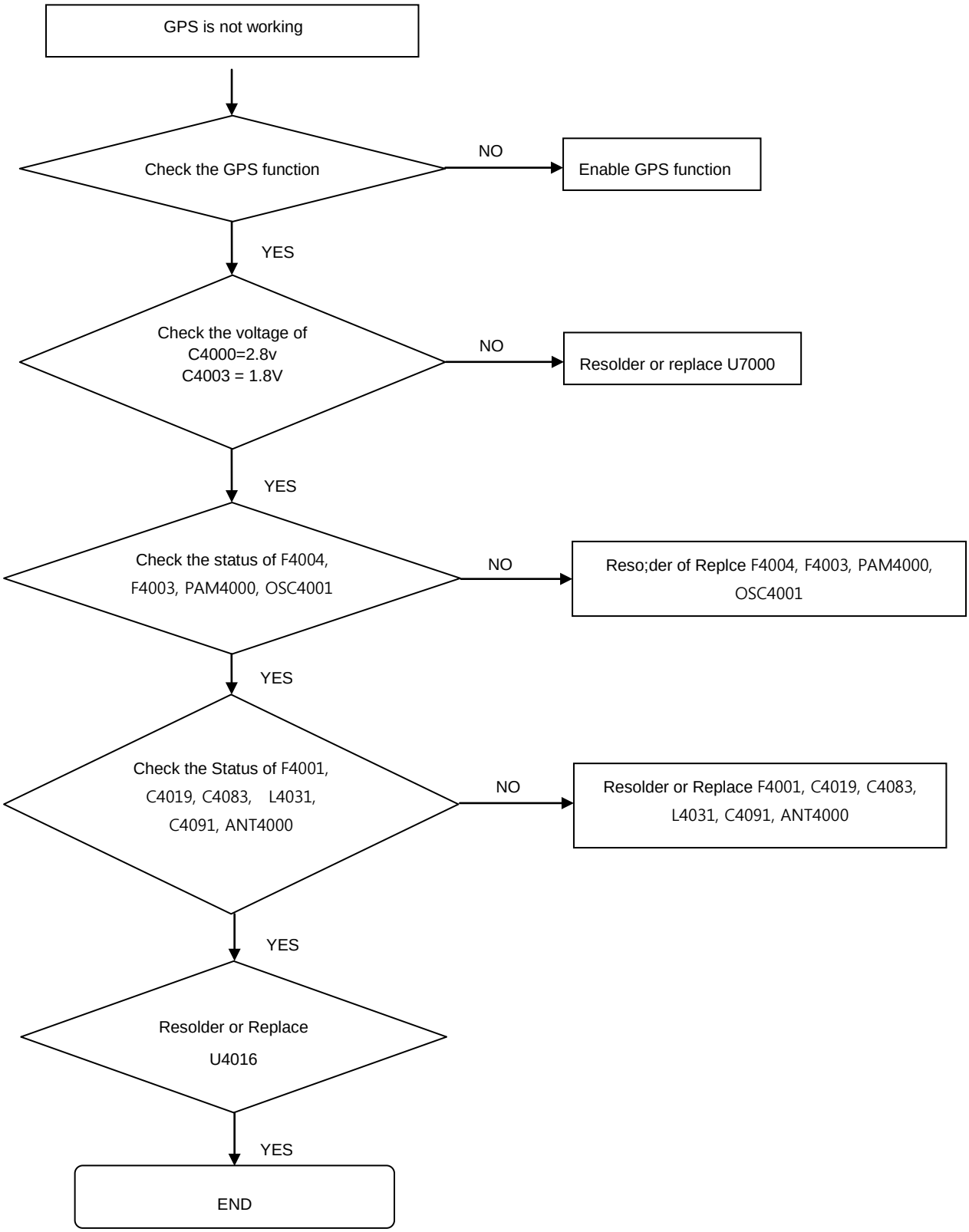
8-4-17. Earjack Part - Tx



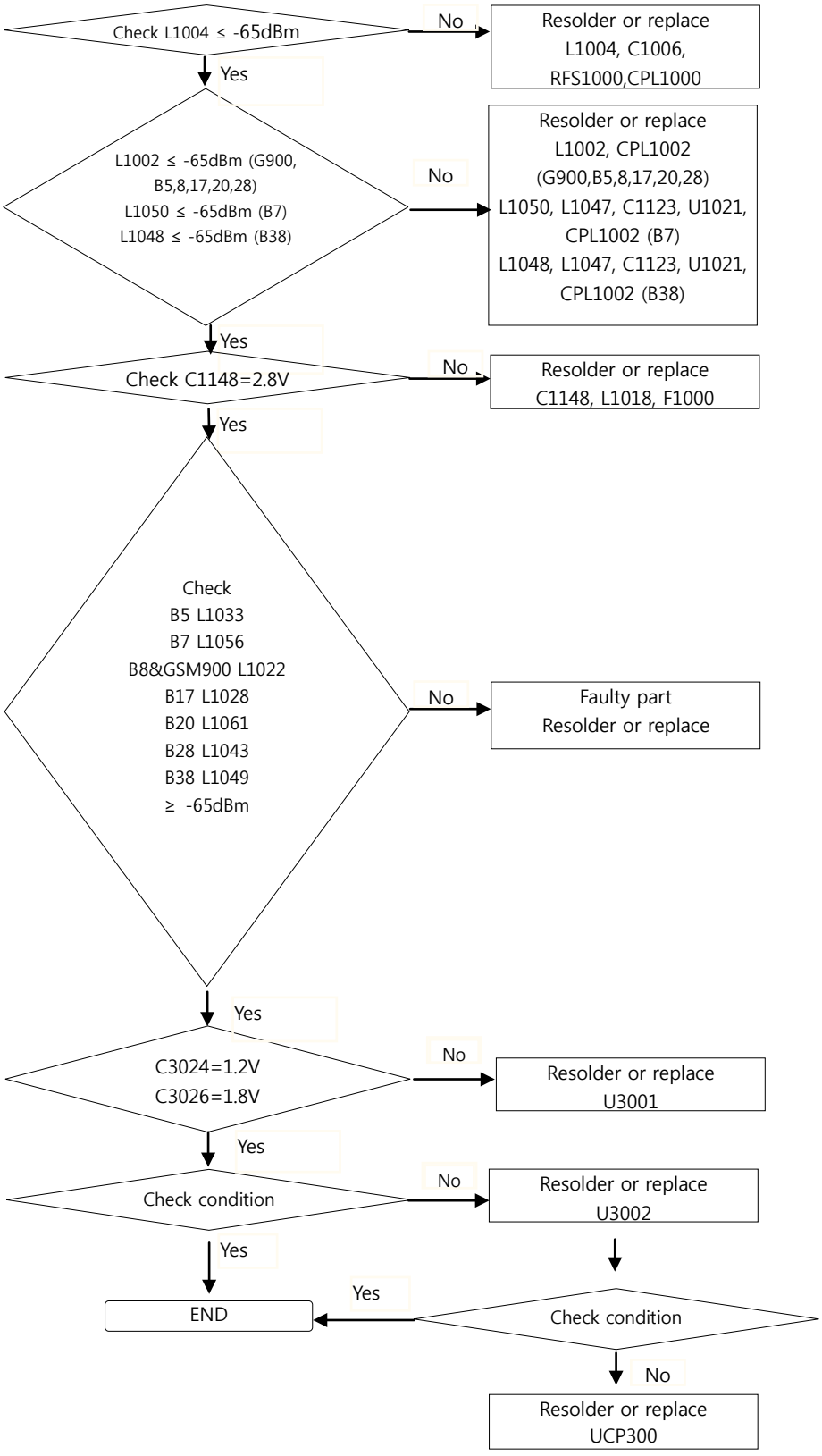
8-4-18. BT/WIFI part



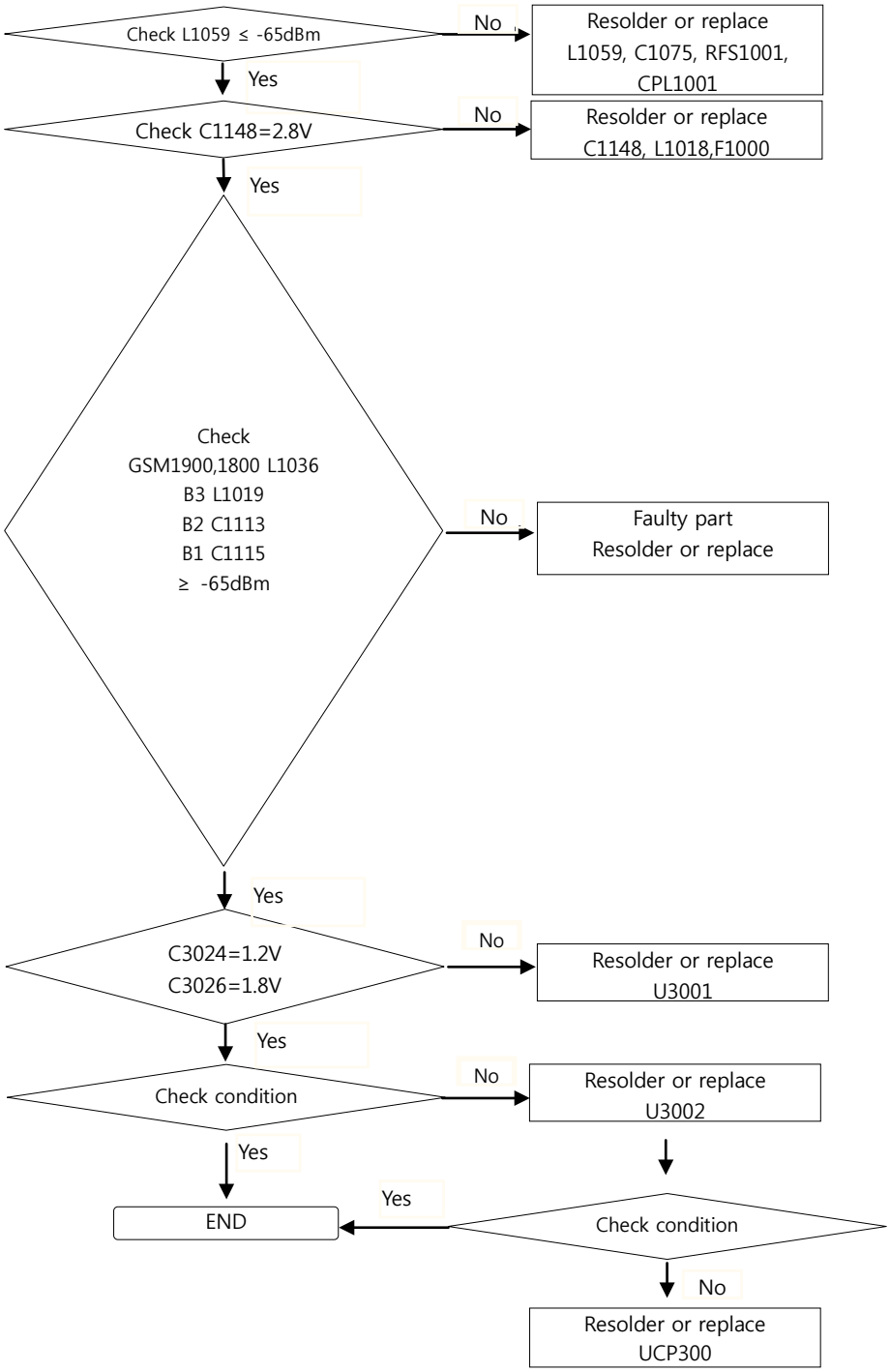
8-4-19. GPS part



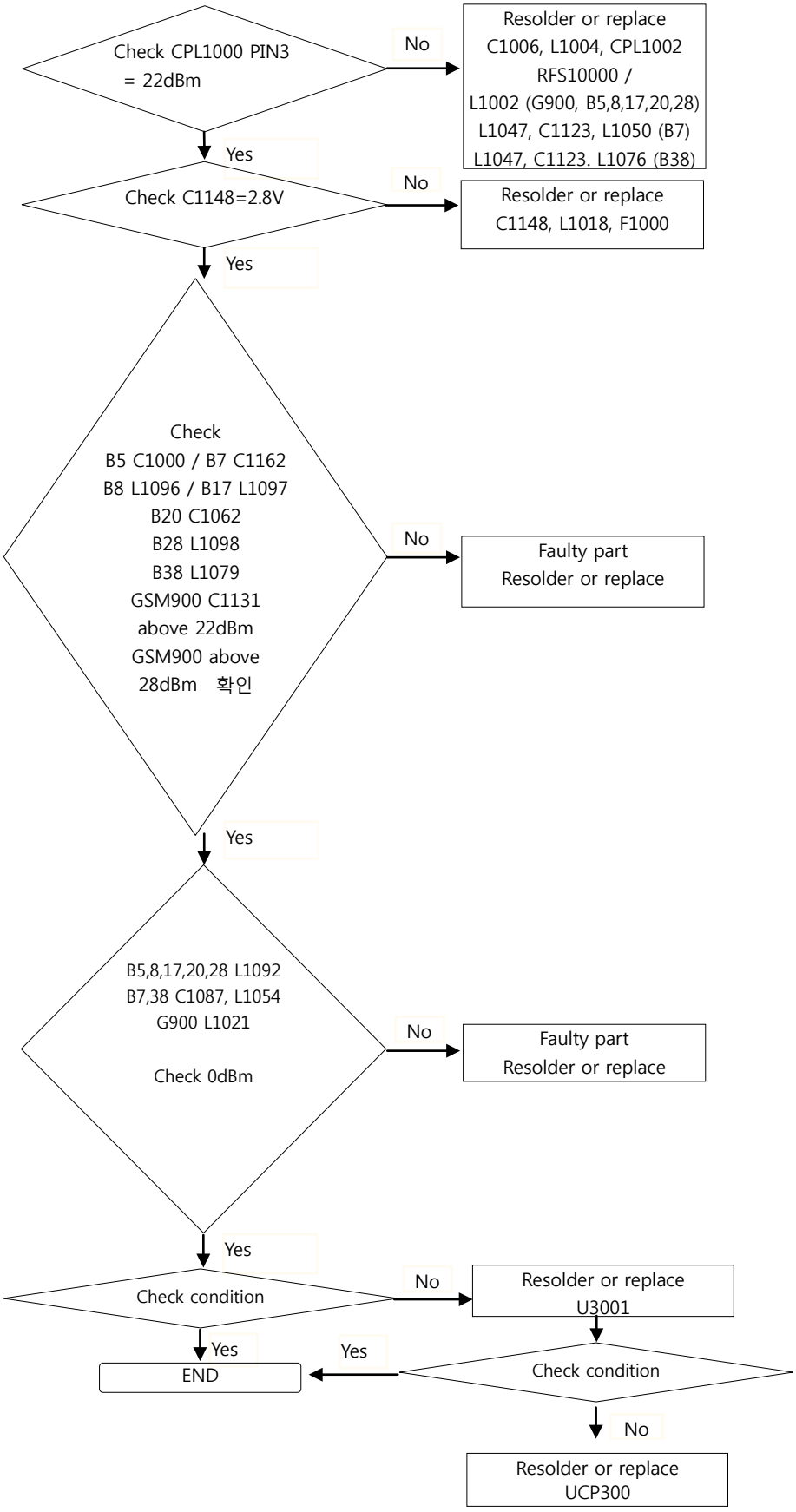
8-4-20. RX(GSM 900/ WCDMA 5 / LTE 5,7,8,17,20,28,38)



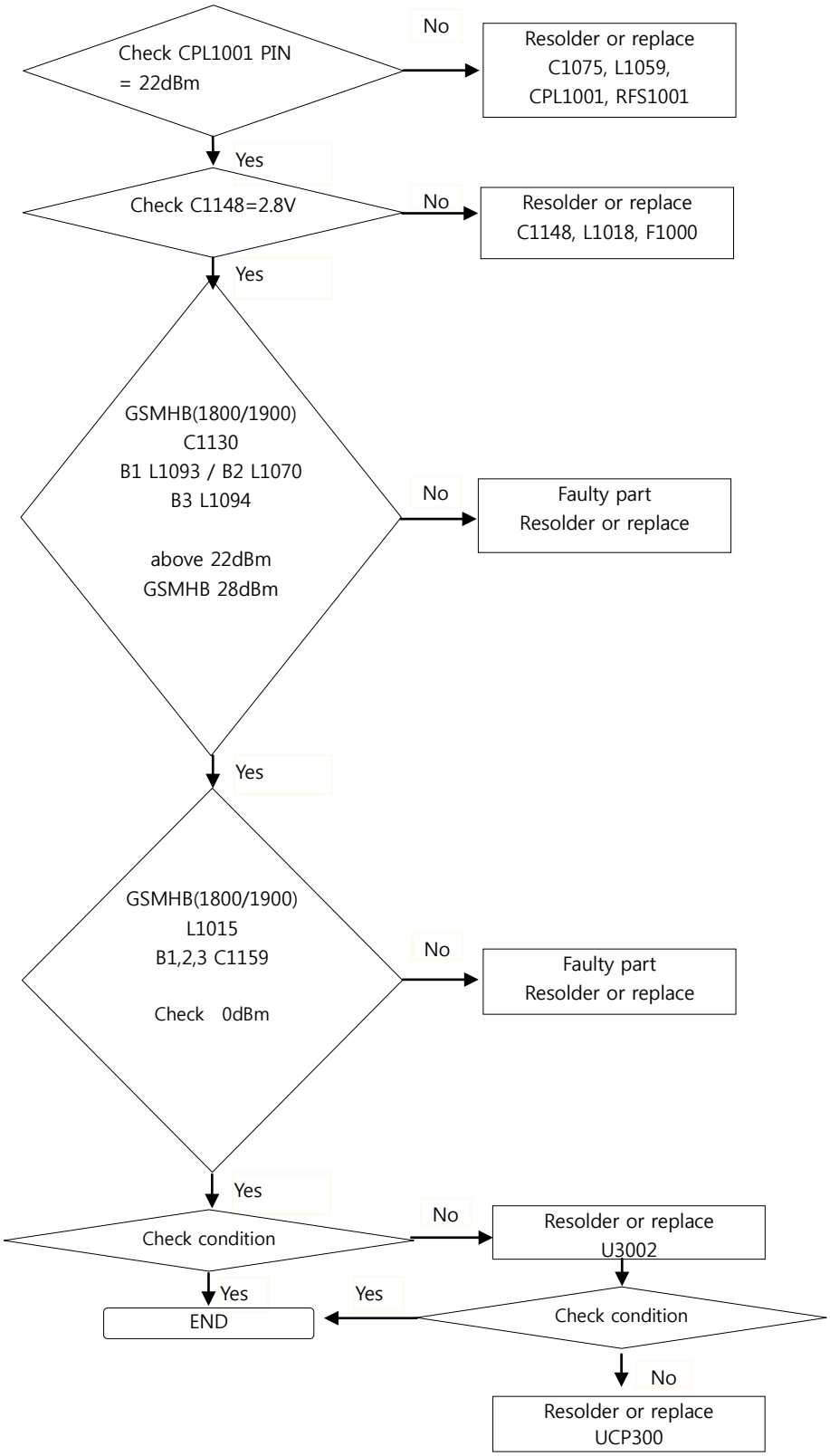
8-4-21. RX(GSM 1800,1900/ WCDMA 1,2 / LTE 1,3)



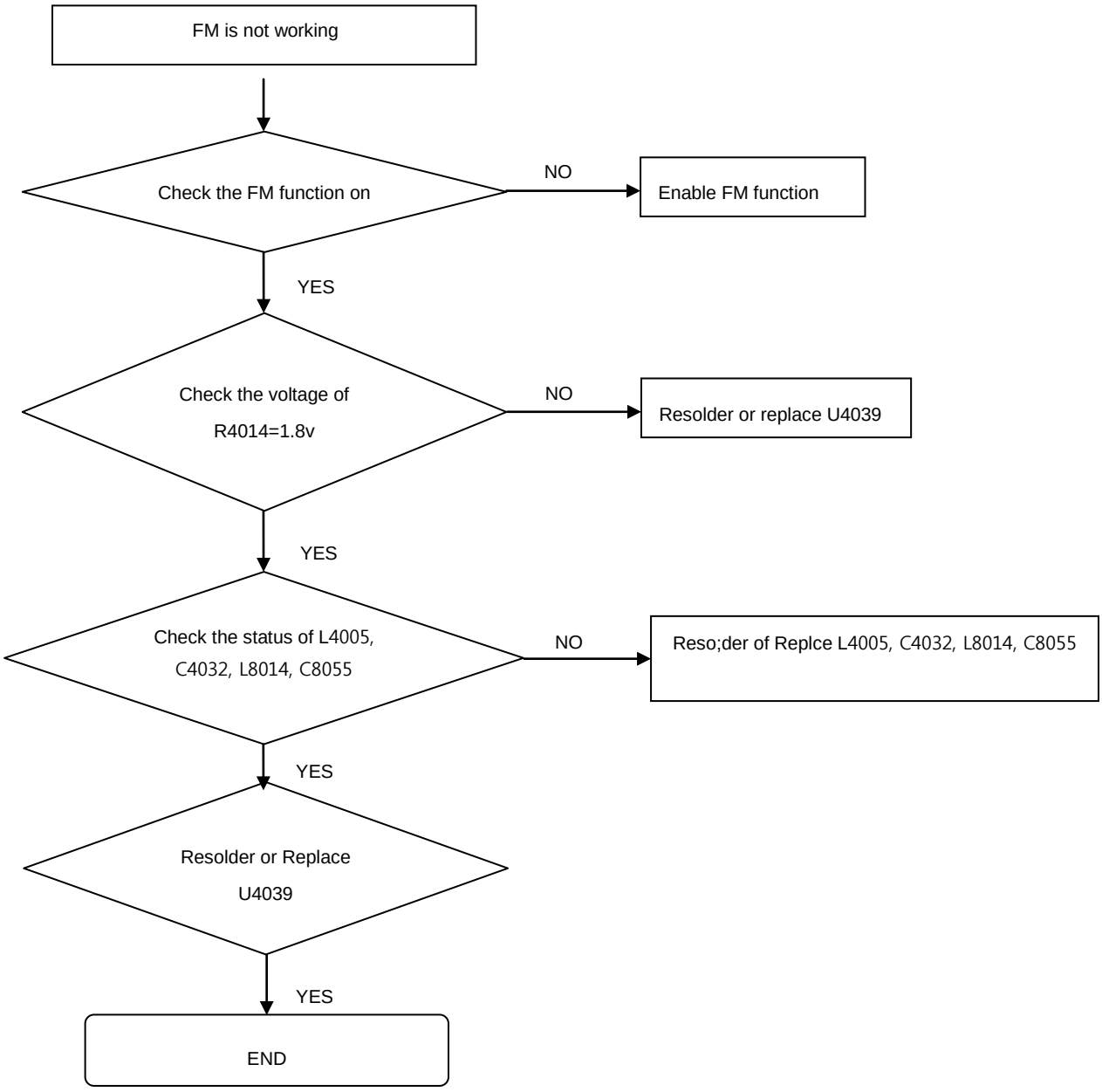
8-4-22. TX (GSM900 / WCDMA 5 / LTE 5,7,8,17,20,28,38)



8-4-23. TX (GSM 1800,1900 / WCDMA 1,2 / LTE 1,3)



8-4-24. FM radio part



Reference Abbreviate

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

SAMSUNG

2016. 11. Rev 1.1