

## 2. Specification

### 2-1. CDMA & GPS General Specification

ITEM	CDMA	GPS
Tx Freq. range	824.04~848.97MHz	-
Rx Freq. range	869.04~893.97MHz	1575.42MHz
Channel Bandwidth	1.23MHz	2MHz
Channel Spacing	30KHz	Not Used
Number of Channel	832	1
Duplex Separation	45MHz	-
In/Output Impedance	50Ohm	50Ohm
Tx Local Frequency	$F_{Tx} * 1.6666$	-
Rx Local Frequency	$F_{Rx} * 2$	$F_{Rx} * 2$
TCXO Frequency	19.2MHz	19.2MHz
Freq. Stability	$(FRX-45MHz) \pm 300Hz$	-
Operating Temperature	-30 °C ~ +60 °C	-30 °C ~ +60 °C

## 2. Specification

Item		GSM 850	EGSM 900	DCS1800	PCS1900
Freq. Band[MHz] Uplink/Downlink		824~849 869~894	880~915 925~960	1710~1785 1805~1880	1850~1910 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/ GPRS	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK
MS Power		33dBm ~5dBm	33dBm ~5dBm	30dBm ~0dBm	30dBm ~0dBm
Power Class		5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl
Sensitivity		-102dBm	-102dBm	-100dBm	-100dBm
TDMA Mux		8	8	8	8
Cell Radius		35Km	35Km	2Km	2Km

## 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

	WCDMA2100	WCDMA1900	WCDMA850	WCDMA900
Freq. Band[MHz] Uplink/Downlink	1922~1977 2112~2167	1852~1907 1932~1987	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: 2712~2863 DL: 2937~3088
Tx/Rx spacing	190MHz	80MHz	45MHz	45MHz
Mod. Bit rate/ Bit Period	3.84 Mcps	3.84 Mcps	3.84 Mcps	3.84 Mcps
Time Slot Period/Frame Period	FrameLength:10ms Slotlength:0.667ms	FrameLength:10ms Slotlength:0.667ms	FrameLength:10ms Slotlength:0.667ms	FrameLength:10ms Slotlength:0.667ms
Modulation	QPSK/HQPSK	QPSK/HQPSK	QPSK/HQPSK	QPSK/HQPSK
MS Power	24dBm~-50dBm	24dBm~-50dBm	24dBm~-50dBm	24dBm~-50dBm
Power Class	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)
Sensitivity	-106.7dBm	-106.7dBm	-106.7dBm	-106.7dBm
TDMA Mux	8	8	8	8
Cell Radius	2Km	2Km	2Km	2Km

## 2. Specification

### 2-4. TD-SCDMA General Specification

	Band34	Band39
Freq. Band[MHz] Uplink/Downlink	2010~2025	1880~1920
ARFCN range	10054~10121	9404~9596
Tx/Rx spacing	/	/
TCXO Frequency	19.2MHz	19.2MHz
Modulation	QPSK/16-QAM	QPSK/16-QAM
MS Power	-49dBm~ 25dBm	-49dBm~ 25dBm
Power Class	2 (max: 24 +1/-3dBm)	2 (max: 24 +1/-3dBm)
Sensitivity	-108dBm/1.28MHz	-108dBm/1.28MHz
Cell Radius	>10Km	>10Km
In/Output Impedance	50Ω	50Ω
Operating Temperature	-30℃ ~ +60℃	-30℃ ~ +60℃

## 2. Specification

### 2-5. LTE General Specification(FDD)

	Band1 (FDD)	Band3 (FDD)	Band5 (FDD)	Band7 (FDD)	Band8 (FDD)
Freq. Band[MHz] UL/DL	1920~1980 2110~2170	1710~1785 1805~1880	824~849 869~894	2500~2570 2620~2690	880~915 925~960
ARFCN range UL/DL	18000~18599 0~599	19200~19949 1200~1949	20400~20649 2400~2649	20750~20449 2750~3449	21450~21799 3450~3799
Tx/Rx spacing	190MHz	95MHz	45MHz	120MHz	45MHz
TCXO Frequency	19.2MHz	19.2MHz	19.2MHz	19.2MHz	19.2MHz
Modulation	QPSK/16-QAM/64-QAM	QPSK/16-QAM/64-QAM	QPSK/16-QAM/64-QAM	QPSK/16-QAM/64-QAM	QPSK/16-QAM/64-QAM
MS Power	-40dBm~ 25dBm	-40dBm~ 25dBm	-40dBm~ 25dBm	-40dBm~ 25dBm	-40dBm~ 25dBm
Power Class	3 (max: 23 ±2dBm)	3 (max: 23 ±2dBm)	3 (max: 23 ±2dBm)	3 (max: 23 ±2dBm)	3 (max: 23 ±2dBm)
Sensitivity	-100 (BW : 5 MHz) -97 (BW : 10 MHz) -95.2 (BW : 15MHz) -94 (BW : 20MHz)	-101.7 (BW : 1.4MHz) -98.7(BW : 3MHz) -97 (BW : 5 MHz) -94 (BW : 10 MHz) -92.2 (BW : 15MHz) -91 (BW : 20MHz)	- 105.7 (BW : 1.4MHz) -103.7(BW : 3MHz) -102 (BW : 5 MHz) -99 (BW : 10 MHz)	-98 (BW : 5 MHz) -95 (BW : 10 MHz) -93.2 (BW : 15MHz) -92 (BW : 20MHz)	- 105.7 (BW : 1.4MHz) -103.7(BW : 3MHz) -102 (BW : 5 MHz) -99 (BW : 10 MHz) -97 (BW : 15MHz) -96 (BW : 20MHz)
Cell Radius	>5Km	>5Km	>5Km	>5Km	>5Km
In/Output Impedance	50Ω	50Ω	50Ω	50Ω	50Ω
Operating Temperature	-30°C ~ +60°C	-30°C ~ +60°C	-30°C ~ +60°C	-30°C ~ +60°C	-30°C ~ +60°C

## 2. Specification

### 2-6. LTE General Specification(TDD)

	Band38 (TDD)	Band39 (TDD)	Band40 (TDD)	Band41 (TDD)
Freq. Band[MHz] Uplink/Downlink	2570~2620	1880~1920	2300~2400	2555~2655
ARFCN range	37750~38249	38250~38649	38650~39649	40240~41240
Tx/Rx spacing	/	/	/	/
TCXO Frequency	19.2MHz	19.2MHz	19.2MHz	19.2MHz
Modulation	QPSK/16-QAM/64-QAM	QPSK/16-QAM/64-QAM	QPSK/16-QAM/64-QAM	QPSK/16-QAM/64-QAM
MS Power	-40dBm~ 25dBm	-40dBm~ 25dBm	-40dBm~ 25dBm	-40dBm~ 25dBm
Power Class	3 (max: 23 ±2dBm)	3 (max: 23 ±2dBm)	3 (max: 23 ±2dBm)	3 (max: 23 ±2dBm)
Sensitivity	-100 (BW:5 MHz) -97 (BW:10 MHz) -95.2 (BW:15MHz) -94 (BW:20MHz)	-100 (BW:5 MHz) -97 (BW:10 MHz) -95.2 (BW:15MHz) -94 (BW:20MHz)	-100 (BW:5 MHz) -97 (BW:10 MHz) -95.2 (BW:15MHz) -94 (BW:20MHz)	-99 (BW:5 MHz) -96 (BW:10 MHz) -94.2 (BW:15MHz) -93 (BW:20MHz)
Cell Radius	>5Km	>5Km	>5Km	>5Km
In/Output Impedance	50Ω	50Ω	50Ω	50Ω
Operating Temperature	-30℃ ~ +60℃	-30℃ ~ +60℃	-30℃ ~ +60℃	-30℃ ~ +60℃

### 3. Operation Instruction and Installation

#### Main Function

Item	Description
OS	Android M OS
RF	GSM850/900/1800/1900, CDMA, WCDMA(1/2/5/8), TDS(34/39), FDD(1/3/5/7/8)TDD(38/39/40/41)
Battery	3000mAh
Base Band	MSM8953 OCTA A53 2.2GHz
Other RF	GPS, Glonass, Beidou, BT4.2, USB 2.0, WIFI 802.11 a/b/g/n, NFC
Camera	F : 16M FF F1.9 R : 16M PDAF F1.9 w/Dual LED Flash
LCD	5.2" super AMOLED, 1920*1080(FHD)
RAM	4GB
Sensor	Proxi+RGB / Accel / Gyro, Magnetic / FPS
Accessory	Charger: 5V/2A or 9V/1.67A Data cable: 2.8pi, 1.2m



## 9. Reference Abbreviate

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### Reference Abbreviate

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

# 1. Safety Precautions

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## 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

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## 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.

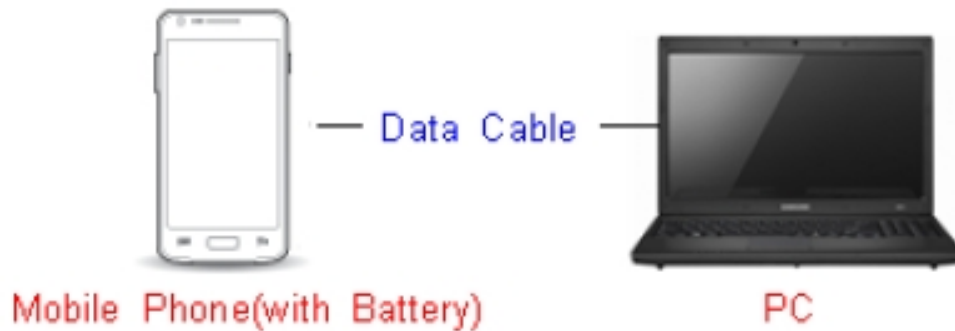
## 6. Level 1 Repair

### 6-1. S/W installation

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

- Installation program: Downloader Program ([Odin3 v3.12.5.exe](#))
- Mobile Phone
- Data Cable
- Mobile device specific S/W: Binary files

#### ✘ Settings

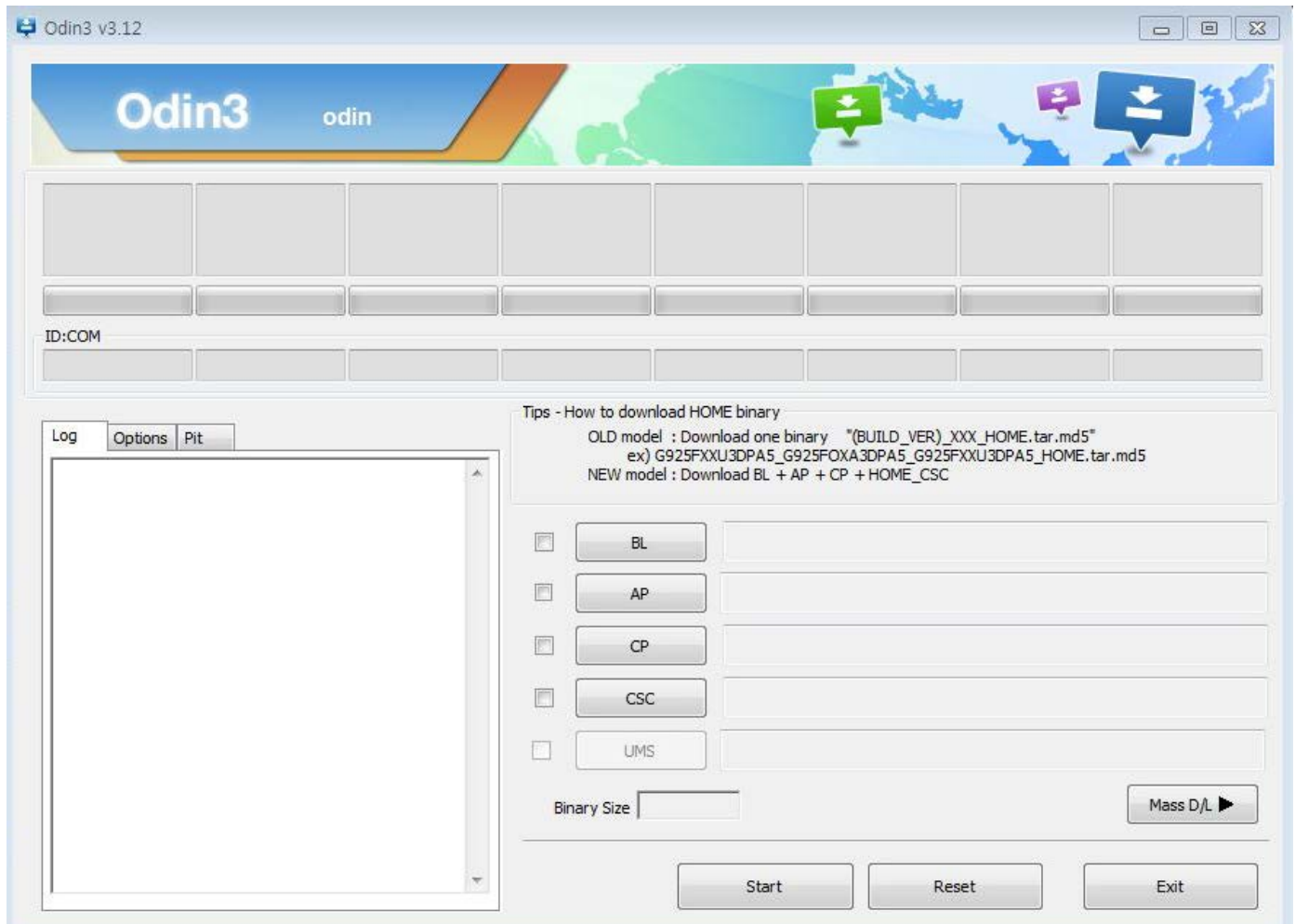


Data Cable : GH39-01886A

## 6. Level 1 Repair

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

- Open up the S/W Installation Program by executing the "**Odin3 v3.12.5.exe**"

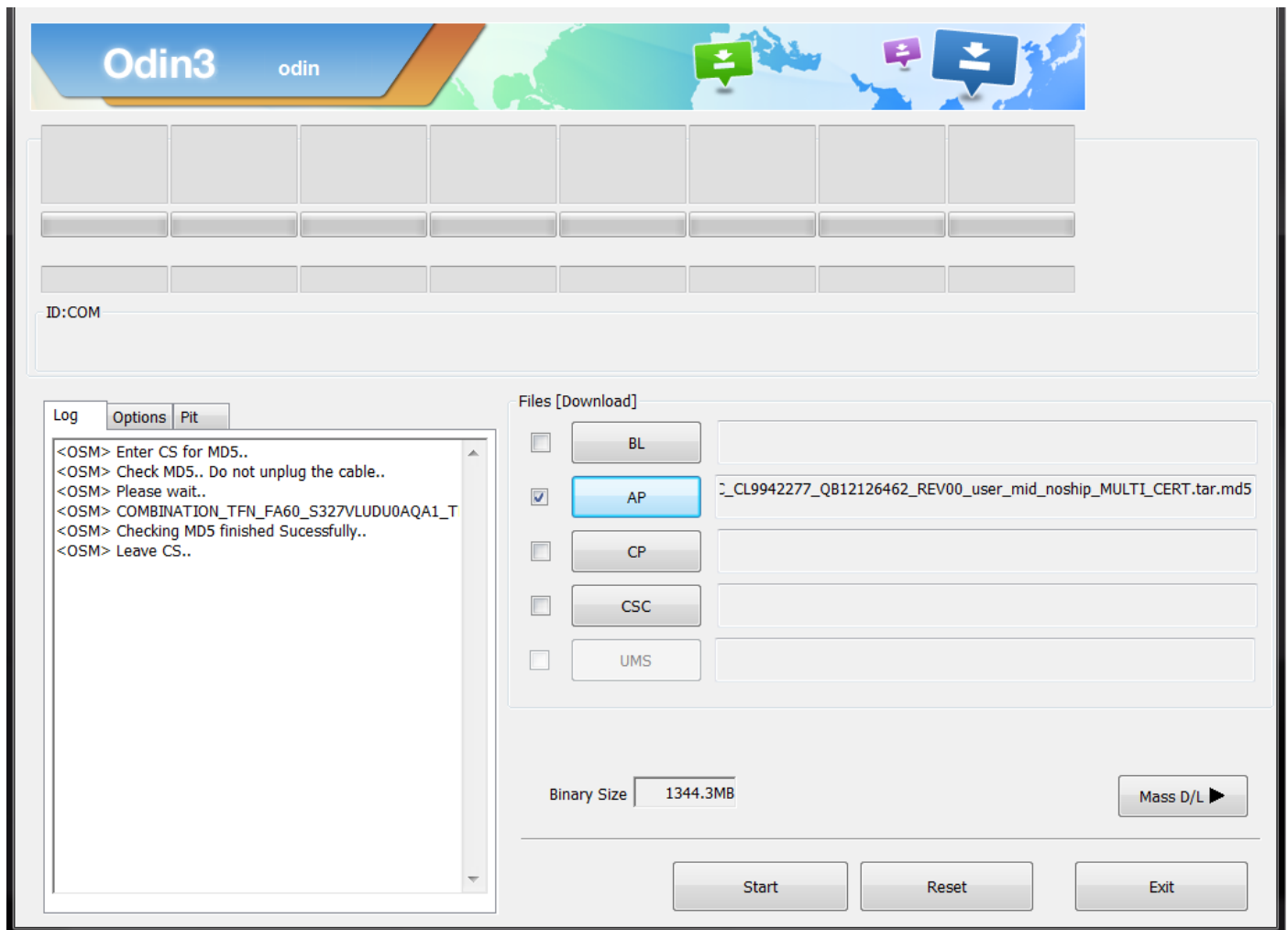


## 6. Level 1 Repair

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

- Check Auto Reboot, Re-Partition, and F. Reset Time-
- Check PIT
- Check Nand Erase All
- Check BL, AP, CP, and CSC Files

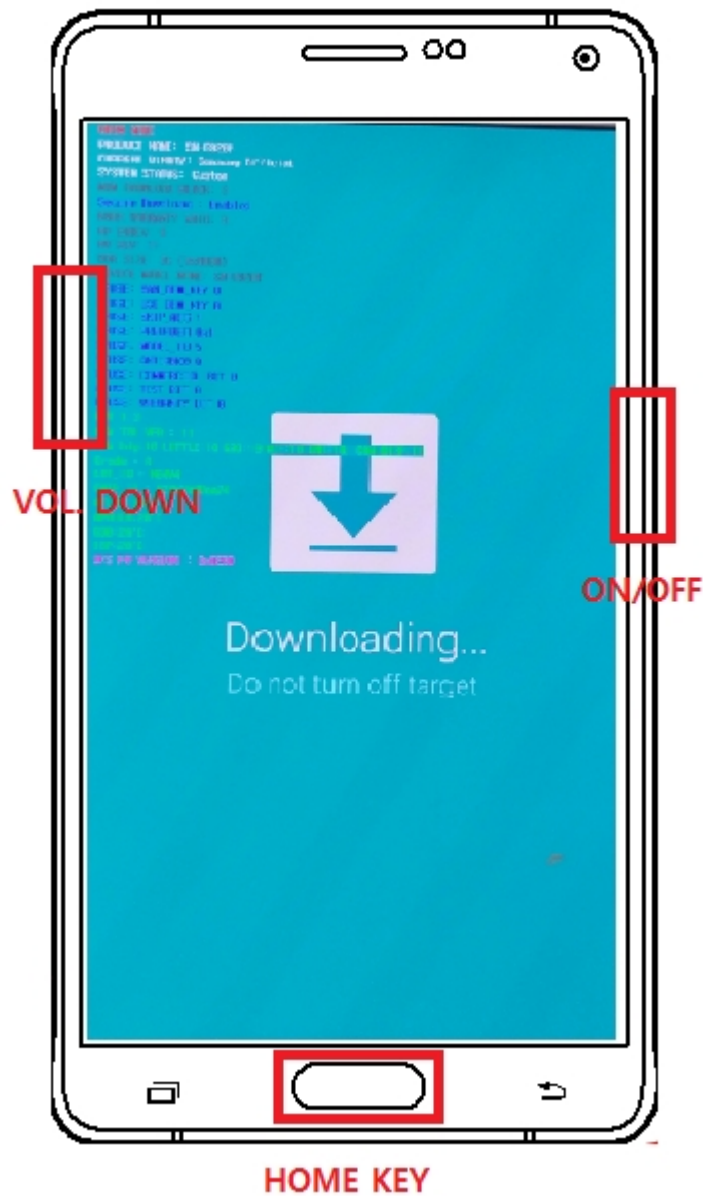
\* Note : "Odin v3.12 or above" checks MD5 checksum just after file selection.



## 6. Level 1 Repair

### 2. Enter into Download Mode

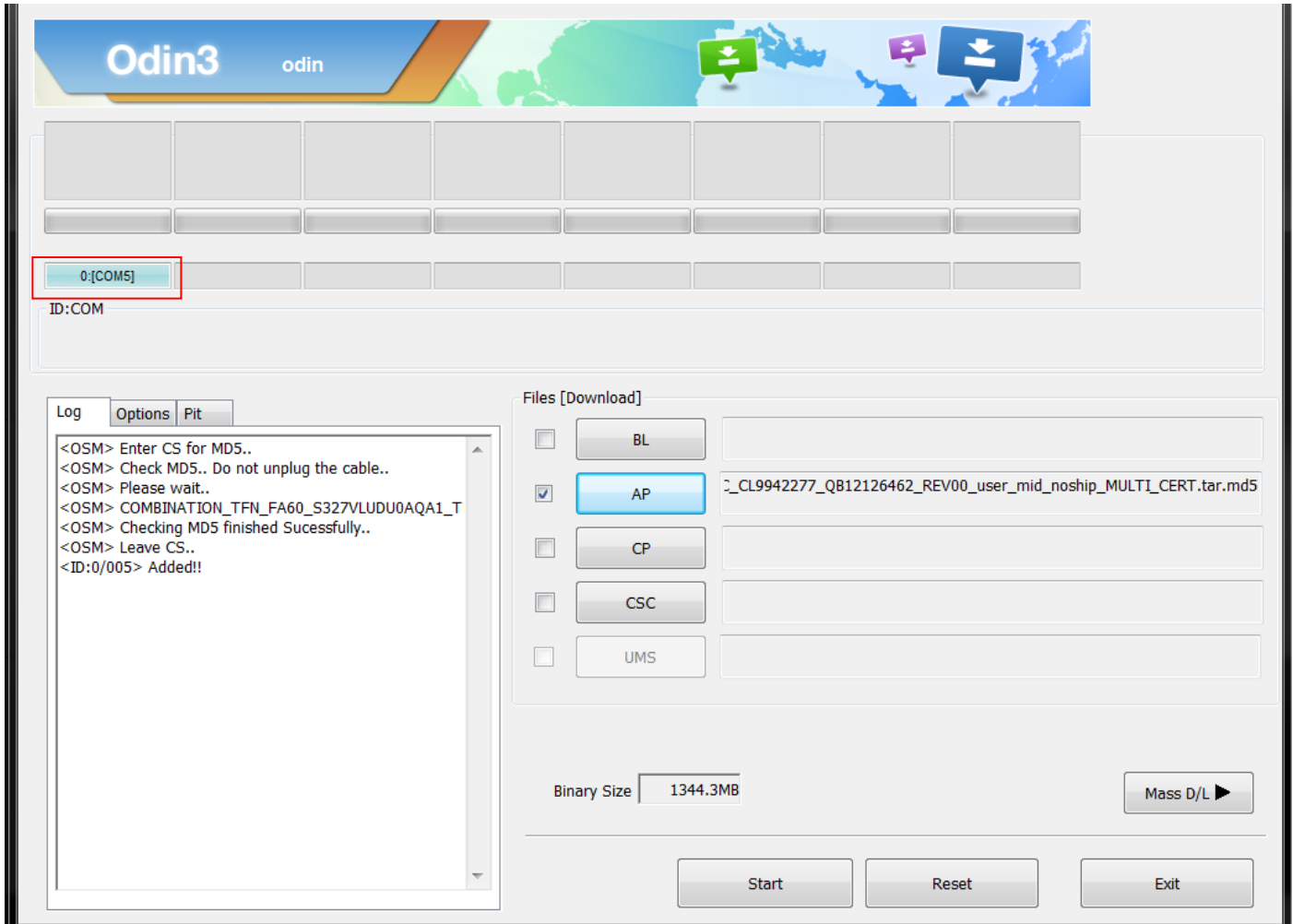
- Enter into Download Mode by pressing Home button, Volume Down button and Power On/Off Button simultaneously followed by pressing Volume up button as a direction of the phone.



## 6. Level 1 Repair

### 3. Connect the device to PC via Data Cable.

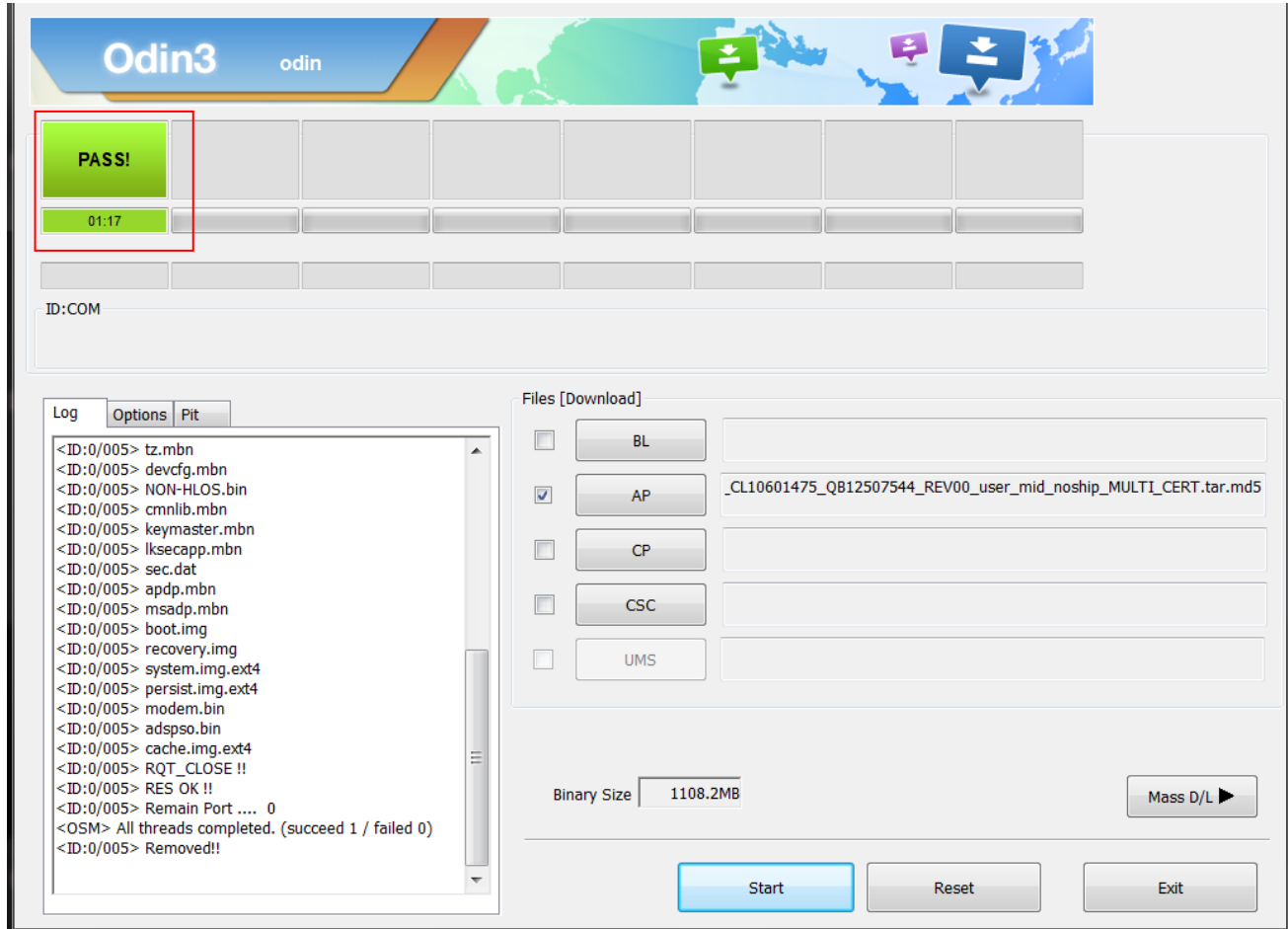
Make sure that the one of communication ports [ID:COM] box is highlighted in sky blue. The device is now connected with the PC and ready to download the binary files in it.





## 6. Level 1 Repair

- 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.



- Disconnect the device from the Data cable.
- 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

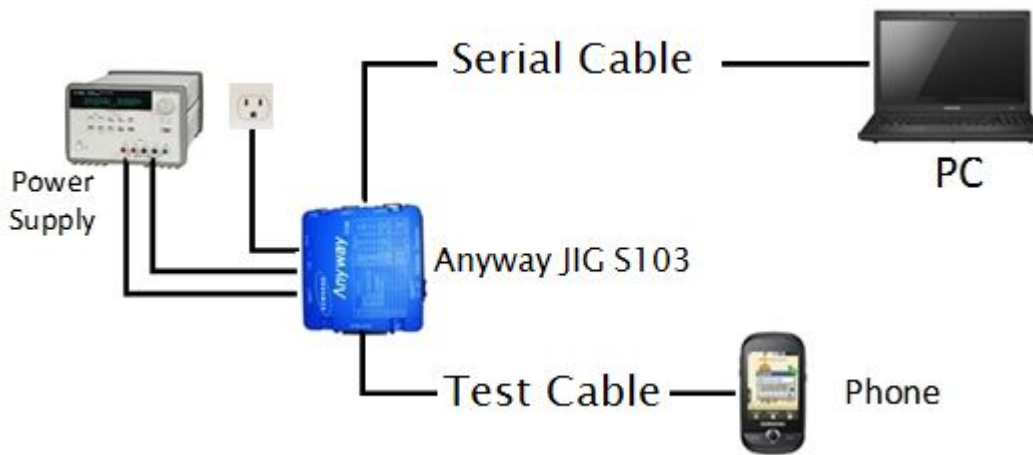
## 6. Level 1 Repair

### 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



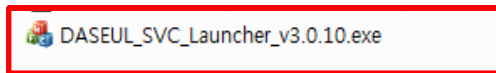
#### - S/W

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”
② Launcher	DASEUL_SVC_Launcher_v3_0_25 or higher -Uploaded on HHPsvc Notice
③ Runtime File	1. DASEUL_Runtime_Ver_3.1.139.0.CAB or higher -Uploaded on HHPsvc Notice 2. Make 'ModelName' folder at the same position with launcher & Runtime file.
④ Model File	Copy Model File under the 'Model Name' folder

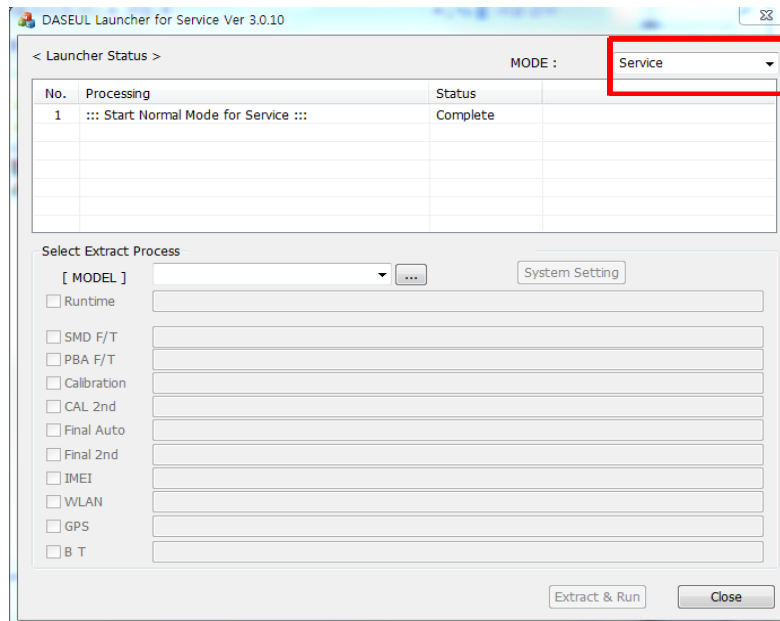
## 6. Level 1 Repair

### 6-2-2 IMEI writing Process

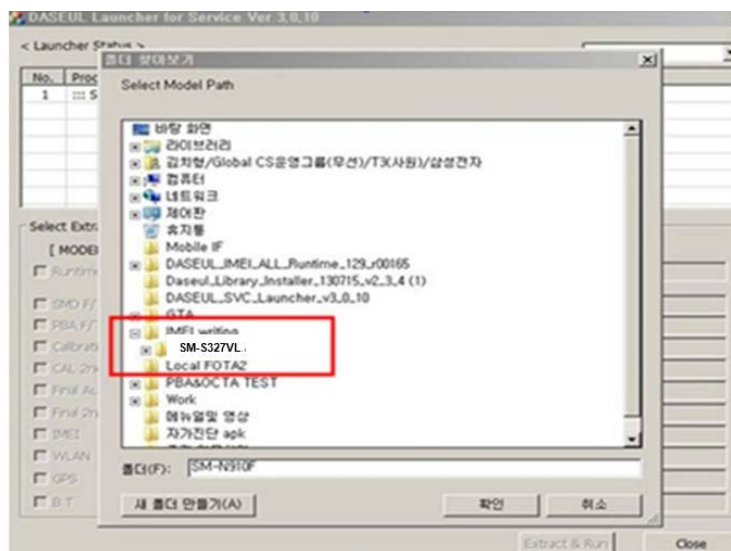
1. Run DASEUL\_SVC\_Launcher\_v3.0.10.exe



2. Select Service Mode

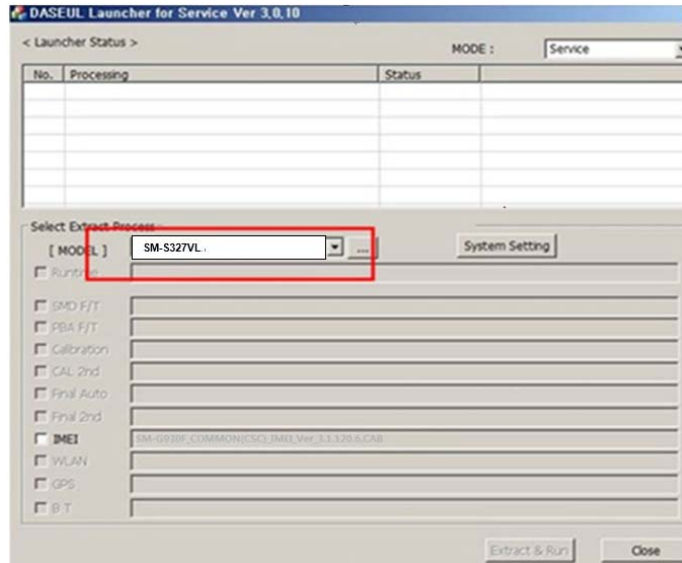


3. Click and Select folder where the Launcher exists



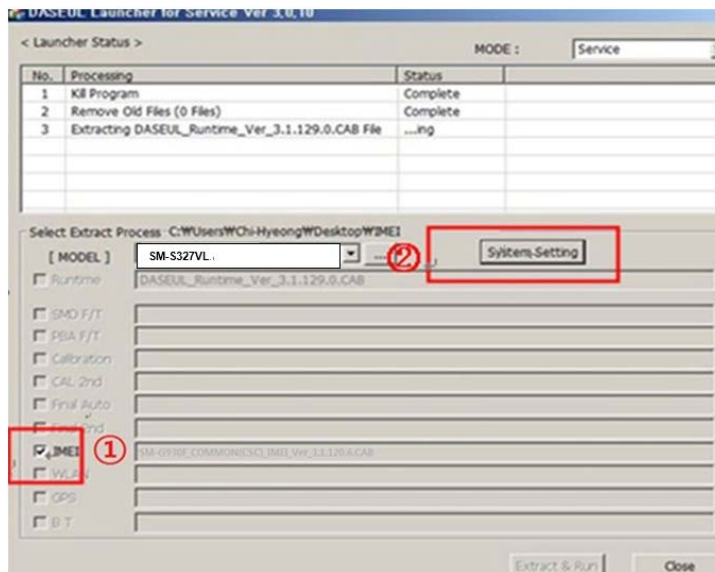
## 6. Level 1 Repair

### 4. Select Model



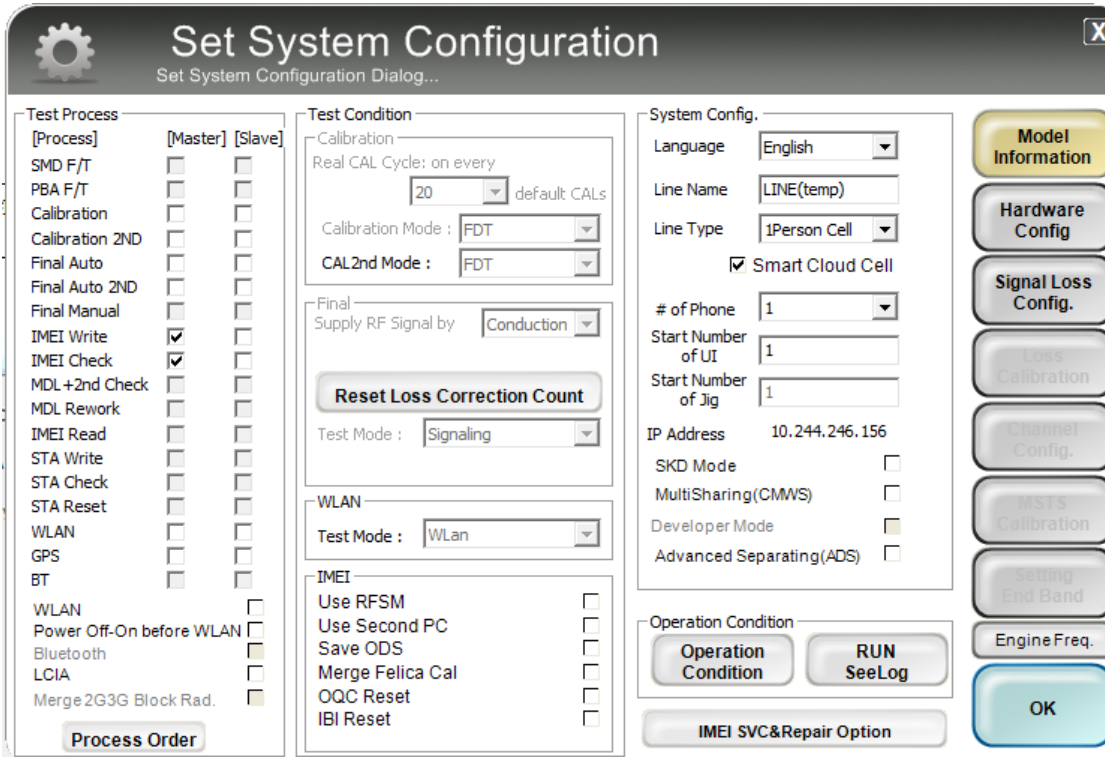
### 5. Check IMEI and click System Setting

※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  
20 default: CALs  
Calibration Mode : FDT  
CAL2nd Mode : FDT

Final  
Supply RF Signal by : Conduction

**Reset Loss Correction Count**

Test Mode : Signaling

WLAN  
Test Mode : WLAN

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

**System Config.**

Language : English  
Line Name : LINE(temp)  
Line Type : 1Person Cell  
 Smart Cloud Cell

# of Phone : 1  
Start Number of UI : 1  
Start Number of Jig : 1  
IP Address : 10.244.246.156

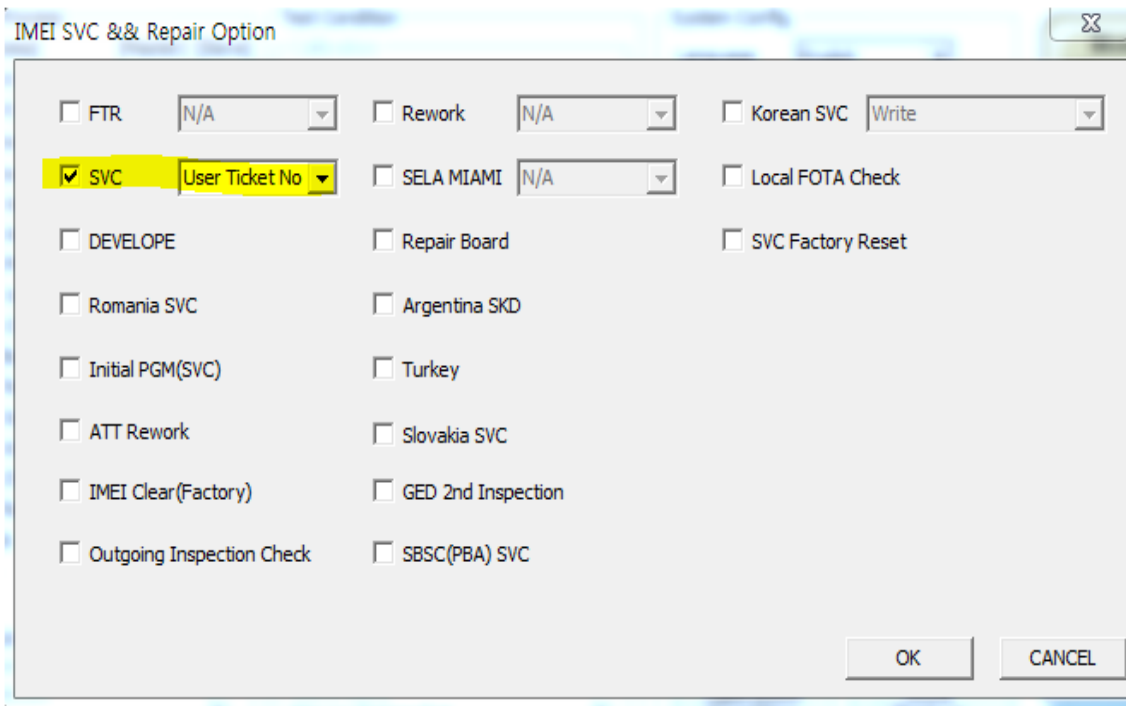
SKD Mode   
MultiSharing(CMWS)   
Developer Mode   
Advanced Separating(ADS)

**Operation Condition**

Operation Condition  SeeLog

**IMEI SVC&Repair Option**

7. Check SVC , User Ticket No and click OK



**IMEI SVC & Repair Option**

FTR N/A  Rework N/A  Korean SVC Write

SVC User Ticket No  SELA MIAMI N/A  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"/>
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"/>
SVC Board	<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  
20 default: CALs  
Calibration Mode : FDT  
CAL2nd Mode : FDT

Final  
Supply RF Signal by : Conduction

**Reset Loss Correction Count**

Test Mode : Signaling

**WLAN**

Test Mode : WLAN

**IMEI**

Use RFSM	<input type="checkbox"/>
Use Second PC	<input type="checkbox"/>
Save ODS	<input type="checkbox"/>
Merge Felica Cal	<input type="checkbox"/>
OQC Reset	<input type="checkbox"/>
IBI Reset	<input type="checkbox"/>

**System Config.**

Language : English  
Line Name : LINE(temp)  
Line Type : 1Person Cell  
 Smart Cloud Cell  
# of Phone : 1  
Start Number of UI : 1  
Start Number of Jig : 1  
IP Address : 10.244.246.165  
SKD Mode :   
MultiSharing(CMWS) :   
Developer Mode :   
Advanced Separating(ADS) :

**Operation Condition**

Operation Condition    RUN SeeLog

IMEI SVC&Repair Option

**Model Information**  
**Hardware Config**  
Signal Loss Config.  
Loss Calibration  
Channel Config.  
MSTS Calibration  
Setting End Band  
Engine Freq.  
OK

### 9. Click Port Setting

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

**Phone**

Count : 1  
I/F - 1 Type : Serial COM  
I/F - 2 Type : N/A  
Port Setting  
IF Jig Type : AnyWayJig  
 Use ID Check JIG

**MSTS**

Count : 0  
I/F Type : GPIB  
Port Setting

**MSTS Sharing Controller**

Count : 0  
Control Type : N/A  
I/F Type : Serial COM  
Terminal    Port Setting

**Robot / ShieldBox**

Control Type : N/A  
I/F Type : Serial COM  
Port Setting

**Power Supply**

I/F Type : GPIB  
Port Setting

**DBMS**

Server : HOME(GUMI)  
Type : Outside-Socket

**Barcode Reader**

Type : N/A  
I/F Type : Serial COM  
Port Setting

**MES PN Sender**

Type : N/A  
Port Setting

**PBA F/T**

Function Test JIG : Port Setting  
NI-DAQ : Port Setting  
Power Detector : Port Setting  
HDMI JIG : Port Setting

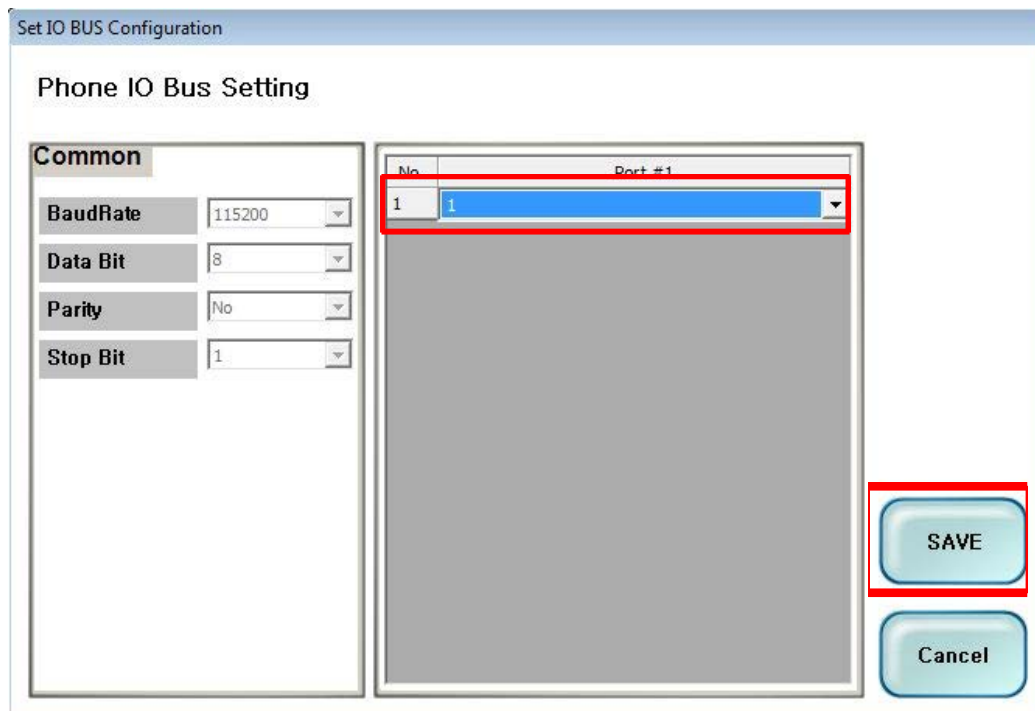
**SMD F/T**

Type : N/A  
B'd Address : 5  
Port Setting

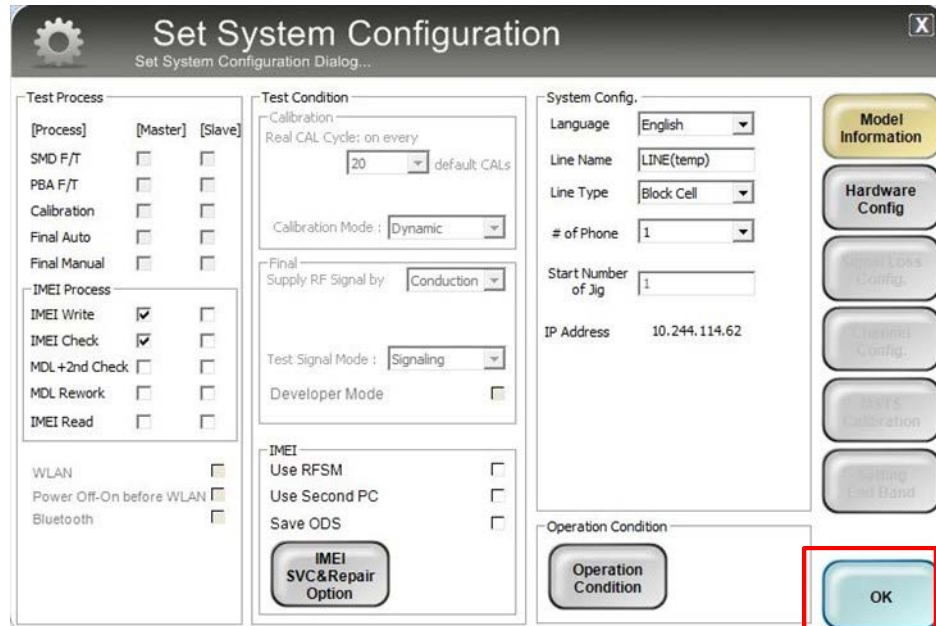
SAVE  
Cancel

## 6. Level 1 Repair

### 10. Select Port Number and SAVE

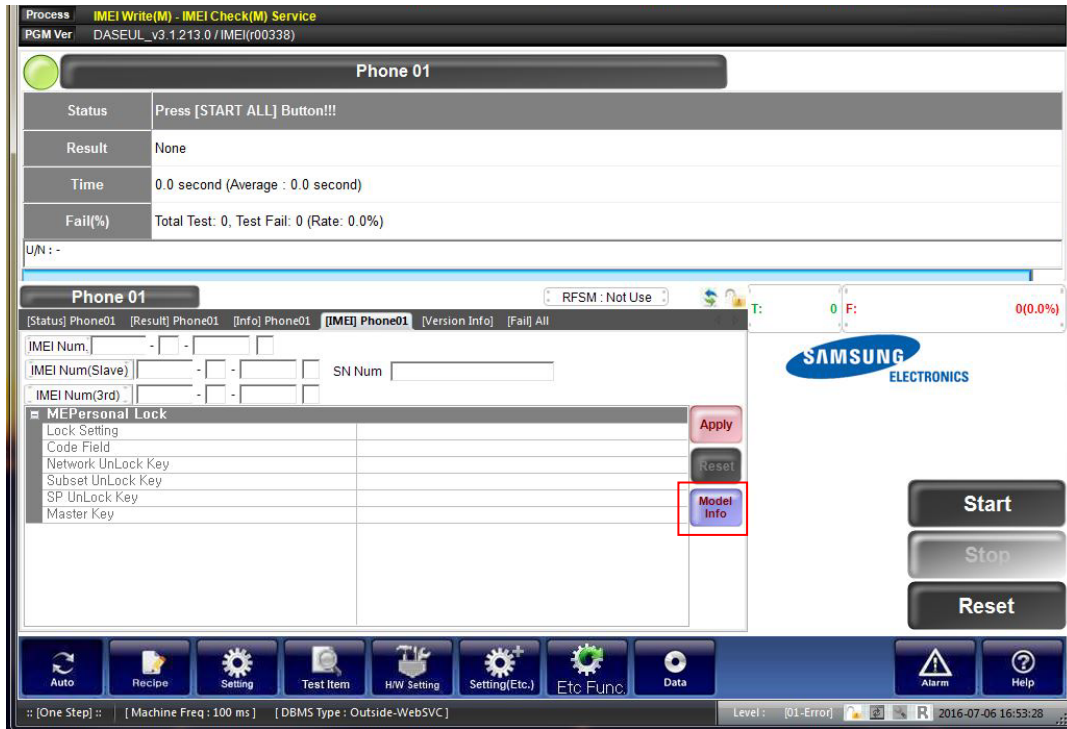


### 11. Click OK to proceed

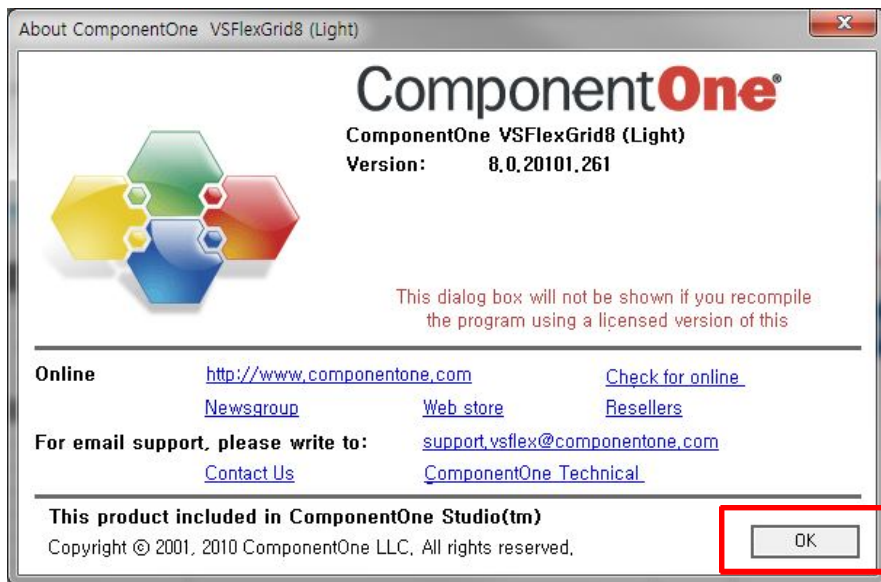


## 6. Level 1 Repair

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



13. Click OK

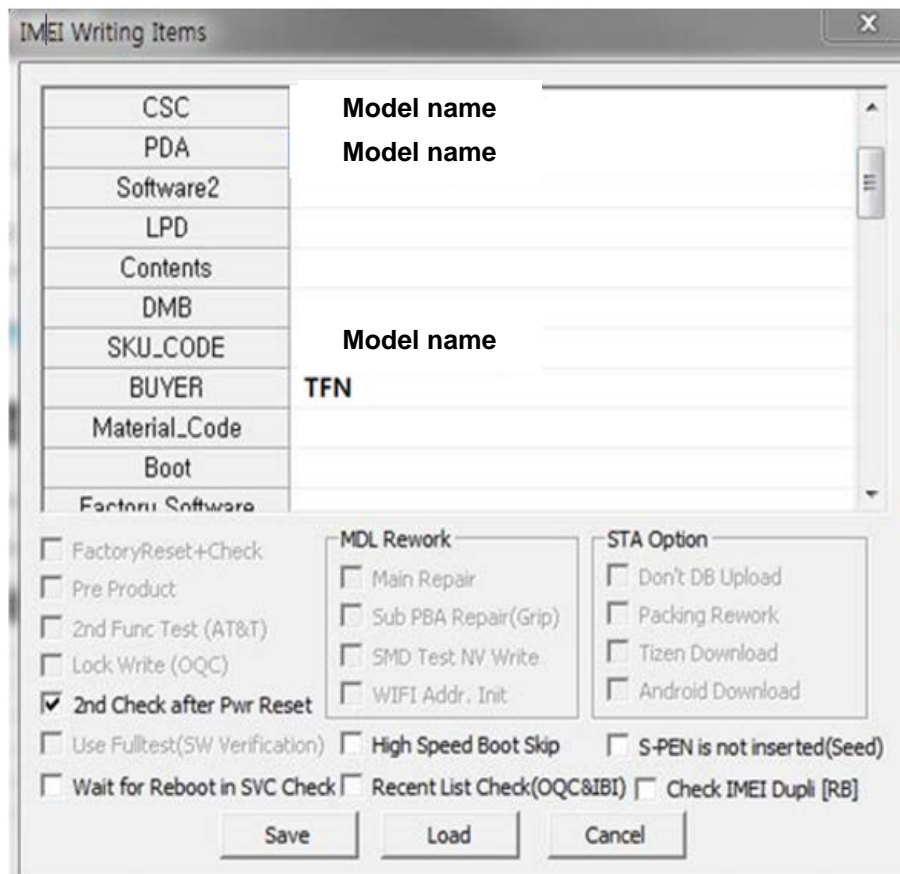




## 6. Level 1 Repair

14. Input SKU\_CODE and BUYER, then click Save button.

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



Item	Value
CSC	Model name
PDA	Model name
Software2	
LPD	
Contents	
DMB	
SKU_CODE	Model name
BUYER	TFN
Material_Code	
Boot	
Factory Software	

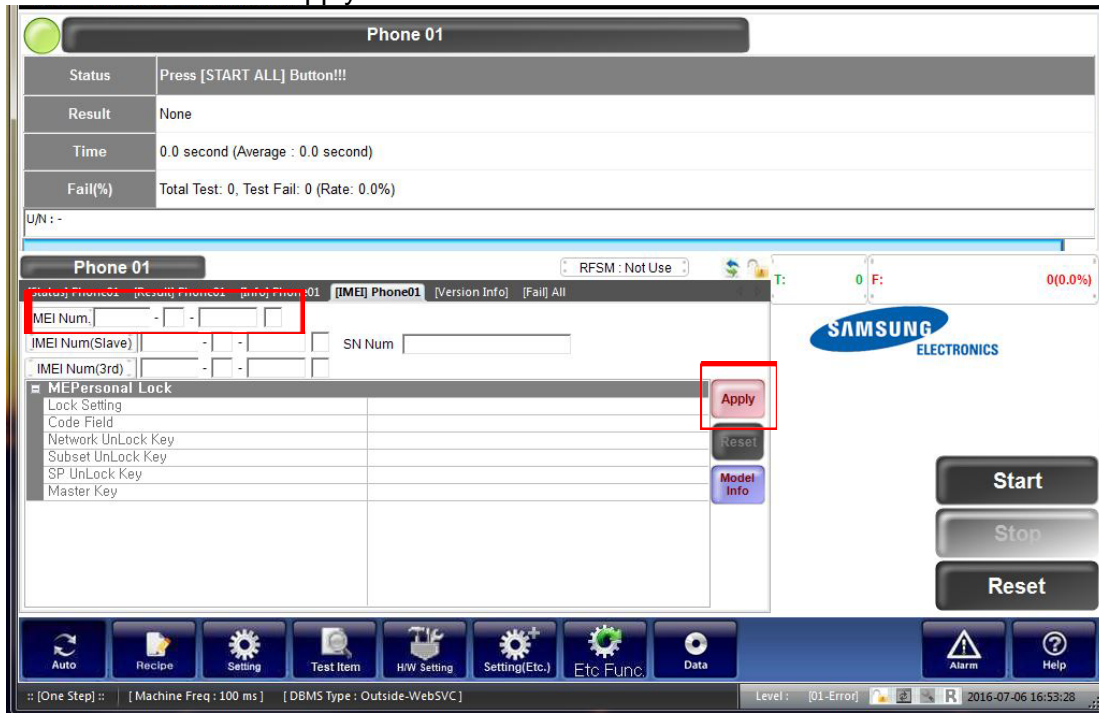
  

<input type="checkbox"/> FactoryReset+Check	<b>MDL Rework</b>	<b>STA Option</b>
<input type="checkbox"/> Pre Product	<input type="checkbox"/> Main Repair	<input type="checkbox"/> Don't DB Upload
<input type="checkbox"/> 2nd Func Test (AT&T)	<input type="checkbox"/> Sub PBA Repair(Grip)	<input type="checkbox"/> Packing Rework
<input type="checkbox"/> Lock Write (OQC)	<input type="checkbox"/> SMD Test NV Write	<input type="checkbox"/> Tizen Download
<input checked="" type="checkbox"/> 2nd Check after Pwr Reset	<input type="checkbox"/> WIFI Addr. Init	<input type="checkbox"/> Android Download
<input type="checkbox"/> Use Fulltest(SW Verification)	<input type="checkbox"/> High Speed Boot Skip	<input type="checkbox"/> S-PEN is not inserted(Seed)
<input type="checkbox"/> Wait for Reboot in SVC Check	<input type="checkbox"/> Recent List Check(OQC&IBI)	<input type="checkbox"/> Check IMEI Dupli [RB]

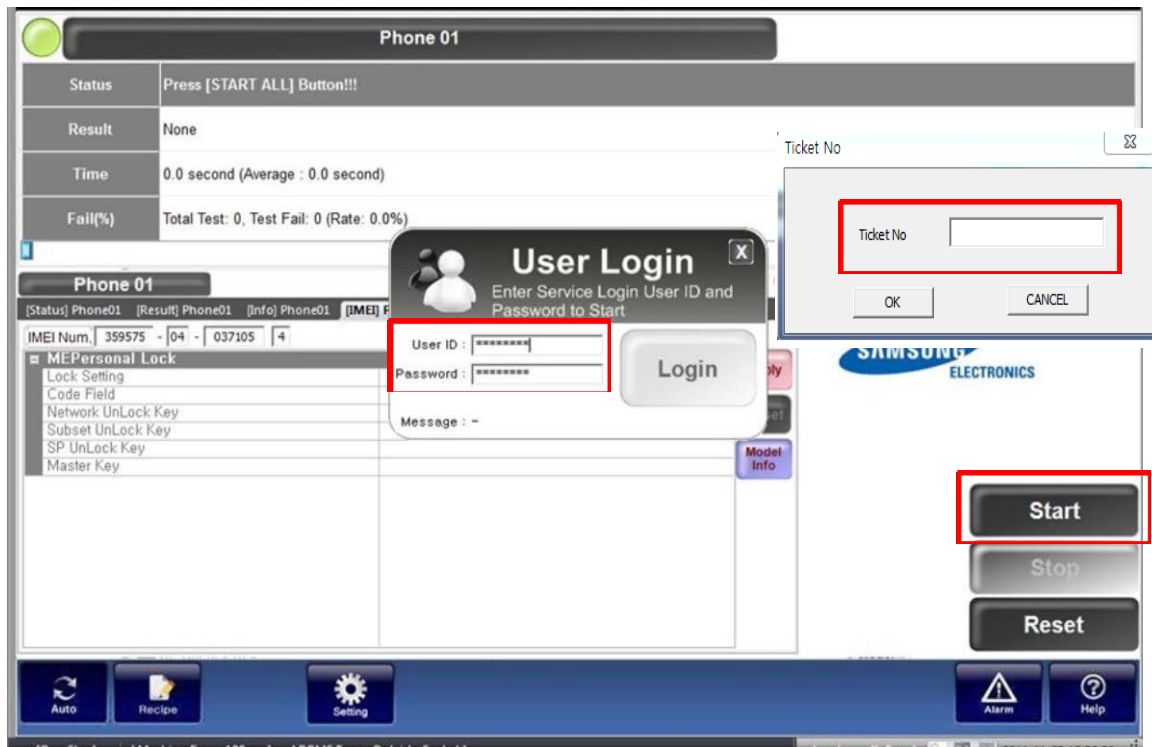
Save Load Cancel

## 6. Level 1 Repair

### 15. Input IMEI Number and click Apply



### 16. ① Click Start, and input IMEI writing ID and Password → ② input Ticket No



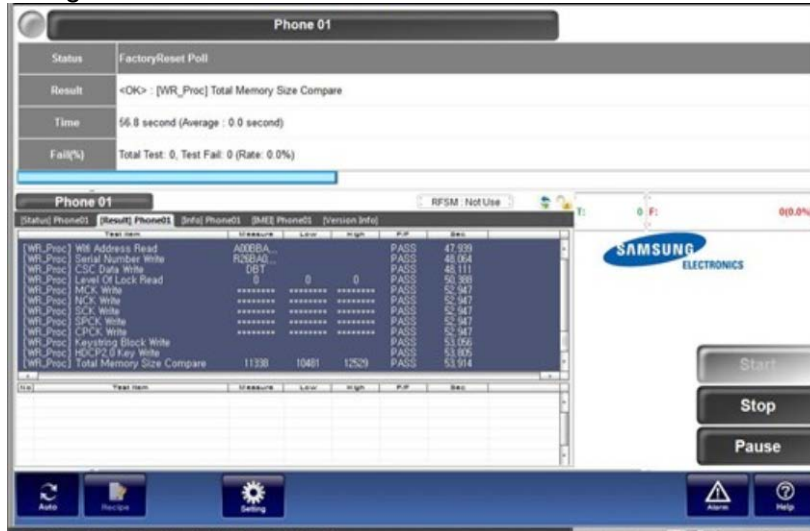
## 6. Level 1 Repair

17. Connect the phone to Anyway JIG

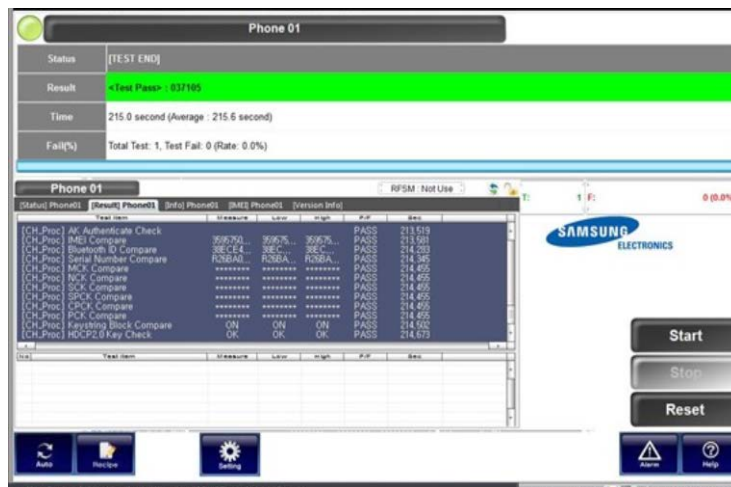
✘ When you connect the phone, the phone should be turned off.

After connecting the phone, the phone will be booted automatically.

18. IMEI Writing Proceeding



19. IMEI Writing Success



## 6. Level 1 Repair

### 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




**: Slave: SM-C5010\_OPEN\_CALIBRATION\_Ver\_3.1.268.2TJ03\_S**

**: Master: SM-C5010\_OPEN\_CALIBRATION\_Ver\_3.1.268.2TJ03\_M**

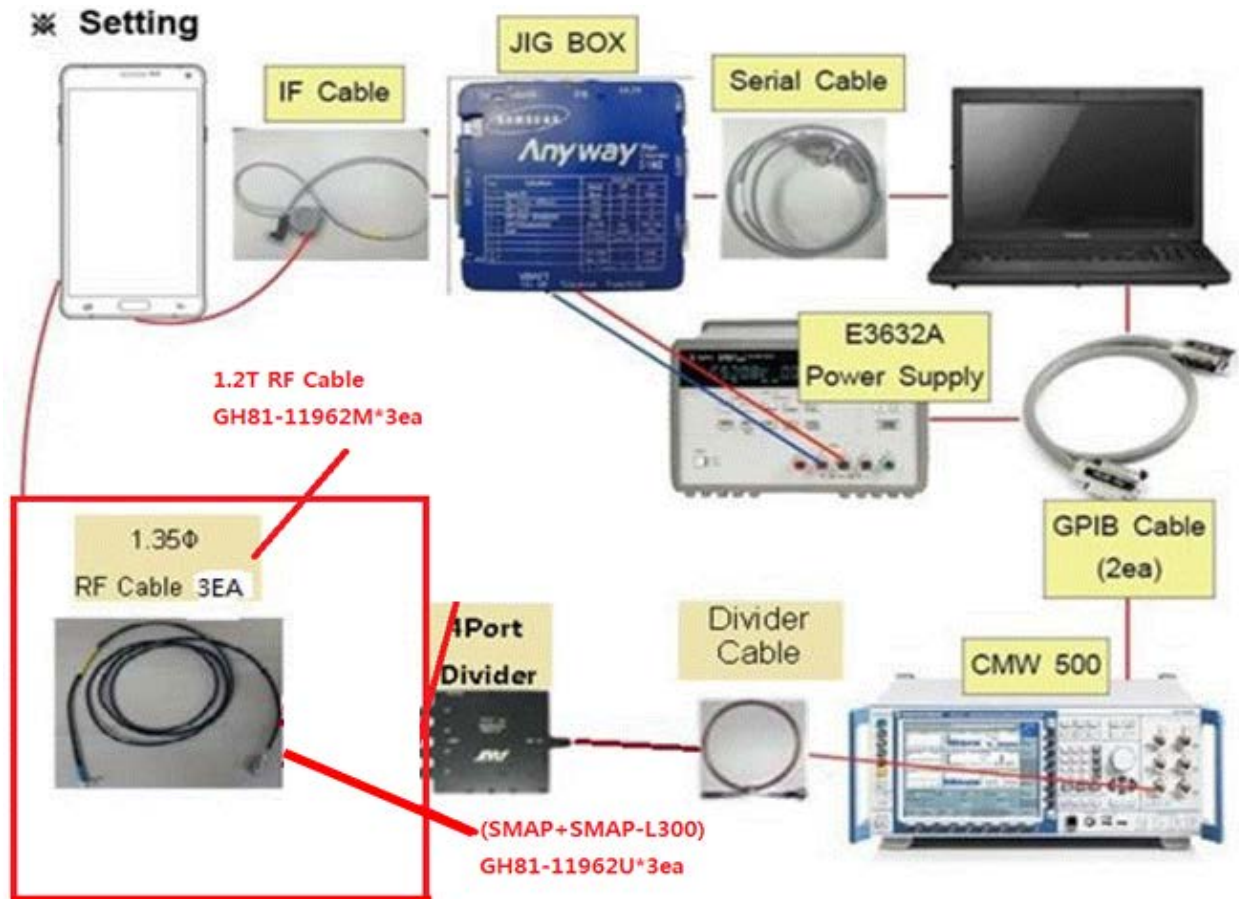
**※ It is required to use the latest program.**

- **SM-C5010** Mobile Phone
- R&S CMW500
- E3632A Power Supply
- GPIB Cable (2ea)
- JIG BOX (Anyway S103)
- IF Cable (GH81-11962W)
- Adapter (GH81-11888K)
- UART Serial Cable
- RF Cable (GH81-11962U) 3EA
- 1.35ΦRF Cable (GH81-11962M 3ea)
- Divider Cable (GH81-11962B 1EA)

#### • Table of test cables

IF Cable	GH81-11962W			
	USB C type			
RF Cable (Manual)	GH81-11962M	GH81-11962U		
	1.2T, 102mm 3ea 	SMAP, 300mm 3ea 		
4 Port Divider	GH81-11962A	GH81-11962B	GH81-11962E	
	Divider 1ea 	Divider Cable 1ea 	50Ω terminator 1ea 	




## 6. Level 1 Repair



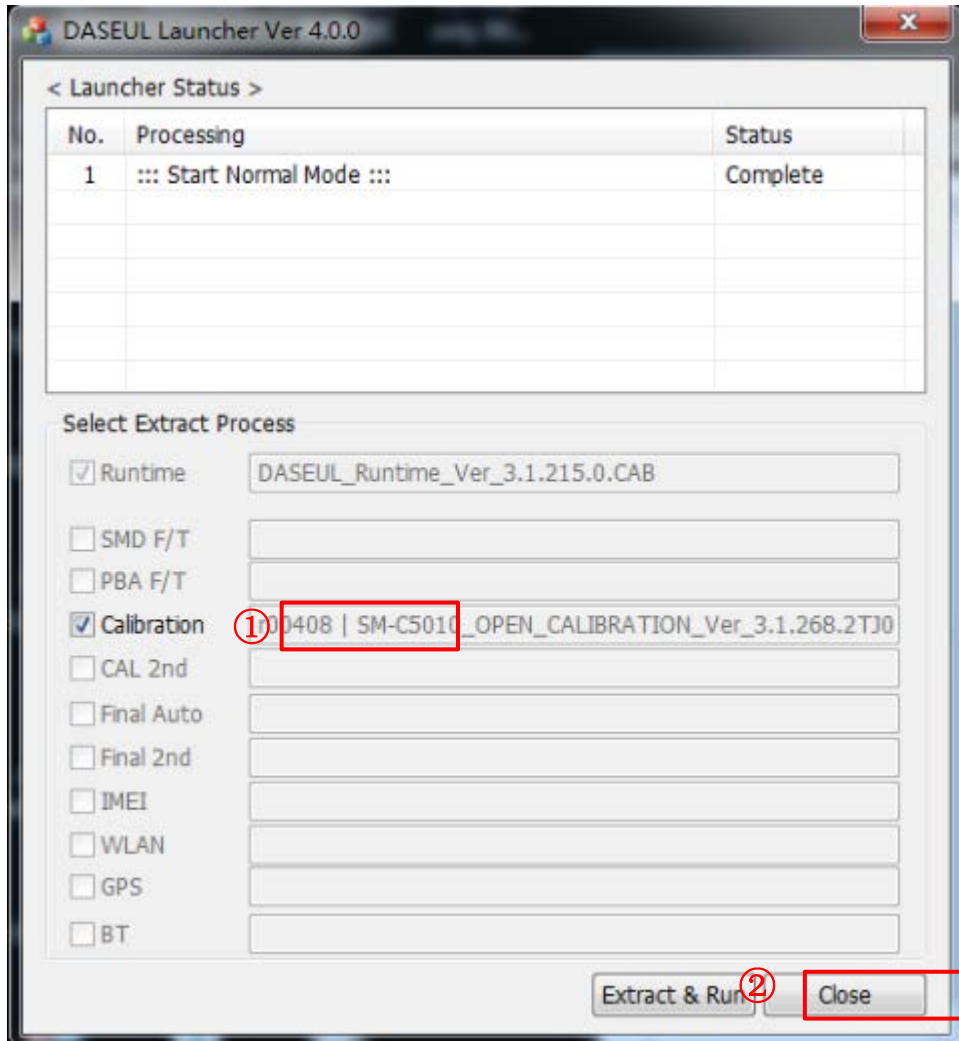
## 6. Level 1 Repair

### 6-3-2. RF Calibration Program

1. Run the RF Calibration Program Launcher, 'DASEUL\_Launcher\_vx.x.xx.exe'.

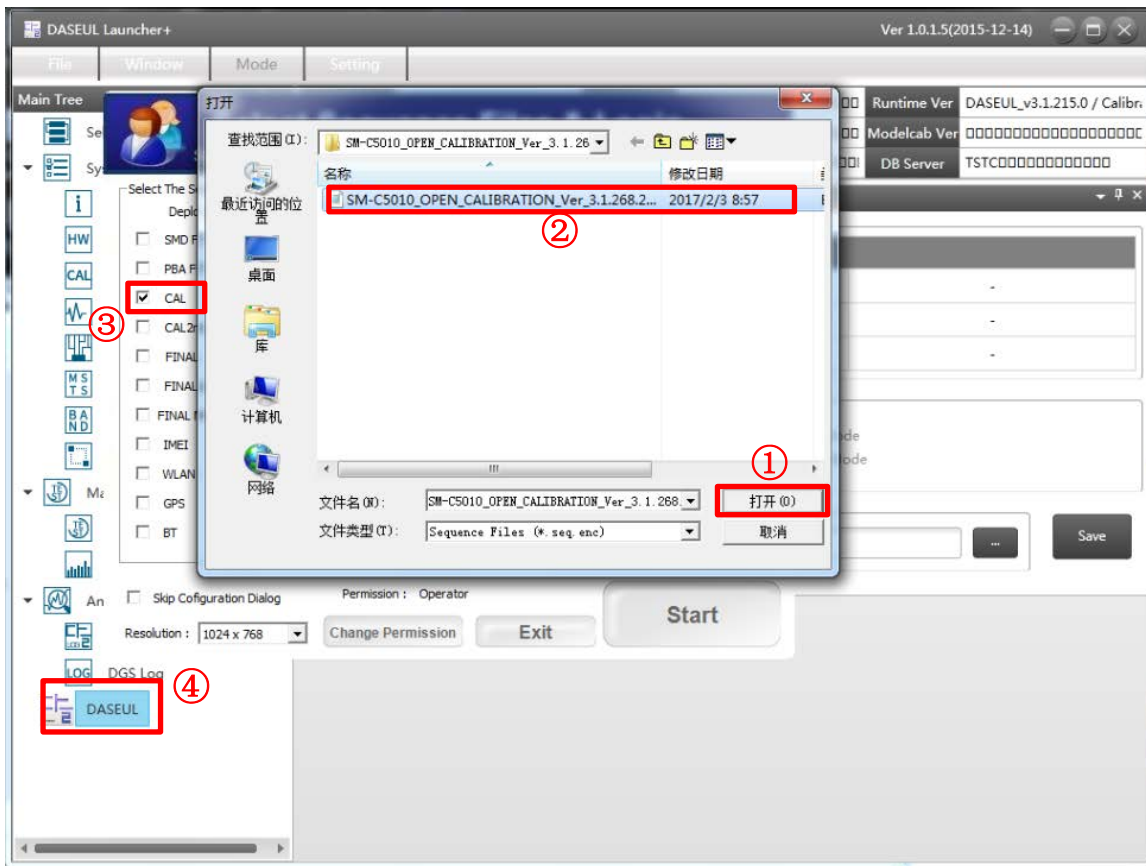
-  DASEUL\_CAL\_ALL\_Component\_r00467.CAB
-  DASEUL\_Launcher\_v4.0.0.exe
-  DASEUL\_Runtime\_Ver\_3.1.264.0.CAB

2. Check the 'Calibration' option and Click 'Extract & Run'.



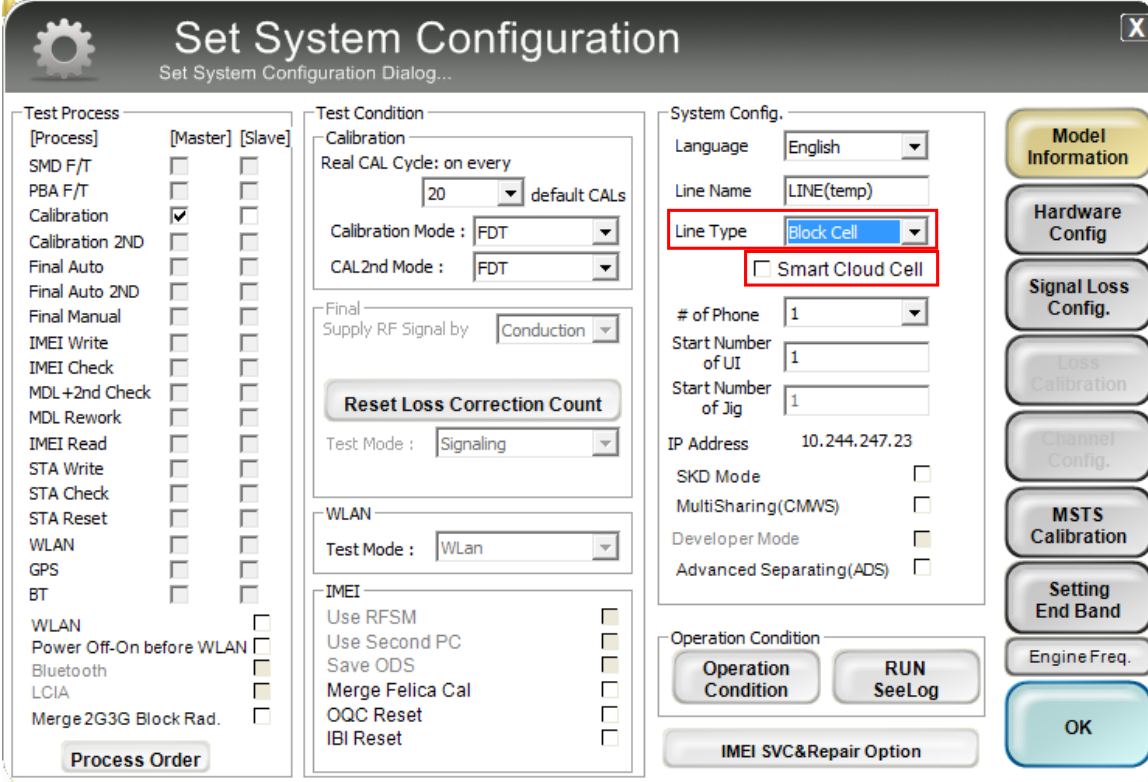
## 6. Level 1 Repair

3. Check the 'CAL' and open the [model file](#), then select 'Start' button. [SM-C5010]



## 6. Level 1 Repair

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



**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 checked="" 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 type="checkbox"/>	<input type="checkbox"/>
IMEI Check	<input 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

SKD Mode

MultiSharing(CMWS)

Developer Mode

Advanced Separating(ADS)

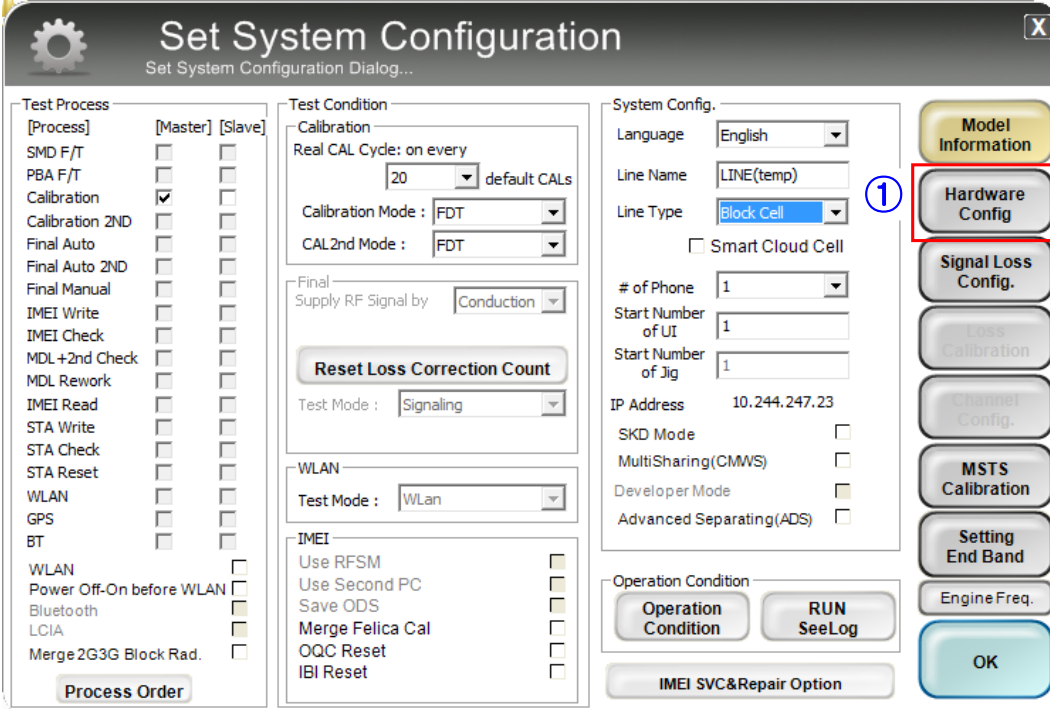
**Operation Condition**

**Model Information**  
**Hardware Config**  
**Signal Loss Config.**  
**Loss Calibration**  
**Channel Config.**  
**MSTS Calibration**  
**Setting End Band**  
**Engine Freq.**



## 6. Level 1 Repair

- 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)



**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 checked="" 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 type="checkbox"/>	<input type="checkbox"/>
IMEI Check	<input 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 20 default CALs

Calibration Mode: FDT  
CAL2nd Mode: FDT

Final  
Supply RF Signal by: Conduction

**Reset Loss Correction Count**

Test Mode: Signaling

WLAN  
Test Mode: WLAN

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

**System Config.**

Language: English  
Line Name: LINE(temp)  
Line Type: Block Cell  
Smart Cloud Cell

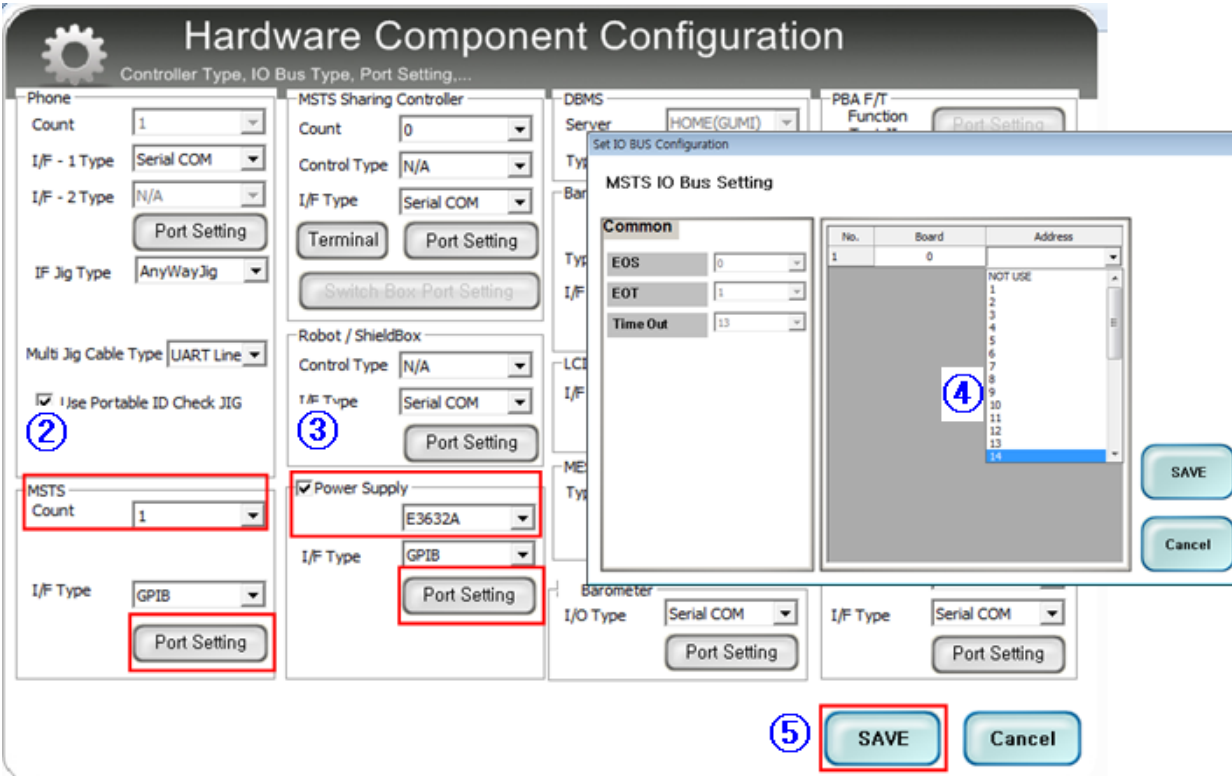
# of Phone: 1  
Start Number of UI: 1  
Start Number of Jig: 1

IP Address: 10.244.247.23  
SKD Mode   
MultiSharing(CMWS)   
Developer Mode   
Advanced Separating(ADS)

Operation Condition  
**Operation Condition** **RUN SeeLog**

**IMEI SVC&Repair Option**

**Model Information**  
**Hardware Config**  
Signal Loss Config.  
Loss Calibration  
Channel Config.  
MSTS Calibration  
Setting End Band  
Engine Freq.  
OK



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

Phone  
Count: 1  
I/F - 1 Type: Serial COM  
I/F - 2 Type: N/A  
IF Jig Type: AnyWayJig  
Multi Jig Cable Type: UART Line  
 Use Portable ID Check JIG

MSTS Sharing Controller  
Count: 0  
Control Type: N/A  
I/F Type: Serial COM  
Terminal  
Switch Box-Port Setting

Robot / ShieldBox  
Control Type: N/A  
I/F Type: Serial COM

Power Supply  
E3632A  
I/F Type: GPIB

MSTS  
Count: 1  
I/F Type: GPIB

DBMS  
Server: HOME(GUMI)

Set IO BUS Configuration  
MSTS IO Bus Setting

Common  
EOS: 0  
EOT: 1  
Time Out: 15

No.	Board	Address
1	0	NOT USE
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

SAVE Cancel

SAVE Cancel

## 6. Level 1 Repair

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

