

## 2. Specification

### 2-1. GSM General Specification

| Item                               |              | GSM850                 | EGSM 900               | DCS1800                | PCS1900                |
|------------------------------------|--------------|------------------------|------------------------|------------------------|------------------------|
| Freq. Band[MHz]<br>Uplink/Downlink |              | 824~849<br>869~894     | 880~915<br>925~960     | 1710~1785<br>1805~1880 | 1850~1910<br>1930~1990 |
| ARFCN range                        |              | 128~251                | 0~124 & 975~1023       | 512~885                | 512~810                |
| Tx/Rx spacing                      |              | 45MHz                  | 45MHz                  | 95MHz                  | 80MHz                  |
| Mod. Bit rate/<br>Bit Period       |              | 270.833kbps<br>3.692us | 270.833kbps<br>3.692us | 270.833kbps<br>3.692us | 270.833kbps<br>3.692us |
| Time Slot Period/<br>Frame Period  |              | 576.9us<br>4.615ms     | 576.9us<br>4.615ms     | 576.9us<br>4.615ms     | 576.9us<br>4.615ms     |
| Modulation                         | GSM/<br>GPRS | 0.3GMSK                | 0.3GMSK                | 0.3GMSK                | 0.3GMSK                |
| MS Power                           |              | 33dBm<br>~5dBm         | 33dBm<br>~5dBm         | 30dBm<br>~0dBm         | 30dBm<br>~0dBm         |
| Power Class                        |              | 5pcl ~ 19pcl           | 5pcl ~ 19pcl           | 0pcl ~ 15pcl           | 0pcl ~ 15pcl           |
| Sensitivity                        |              | -102dBm                | -102dBm                | -102dBm                | -102dBm                |
| TDMA Mux                           |              | 8                      | 8                      | 8                      | 8                      |
| Cell Radius                        |              | 35Km                   | 35Km                   | 2Km                    | 2Km                    |

## 2. Specification

### 2-2. GSM Tx Power Class

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

## 2. Specification

### 2-3. WCDMA General Specification

|                                    | WCDMA2100  | WCDMA1900  | WCDMA850   | WCDMA900   |
|------------------------------------|--|--|--|--|
| Freq. Band[MHz]<br>Uplink/Downlink | 1922~1977<br>2112~2167                           | 1852~1907<br>1932~1987                           | 824~849<br>869~894                               | 880~915<br>925~960                               |
| ARFCN range                        | UL: 9612~9888<br>DL: 10562~10838                 | UL: 9262~9538<br>DL: 9662~9938                   | UL: 4132~4233<br>DL: 4357~4458                   | UL: 2712~2863<br>DL: 2937~3088                   |
| Tx/Rx spacing                      | 190MHz   | 80MHz  | 45MHz  | 45MHz  |
| Mod. Bit rate/<br>Bit Period       | 3.84 Mcps  | 3.84 Mcps  | 3.84 Mcps  | 3.84 Mcps  |
| Time Slot Period<br>/Frame Period  | Frame Length:<br>10ms<br>Slot length:<br>0.667ms | Frame Length:<br>10ms<br>Slot length:<br>0.667ms | Frame Length:<br>10ms<br>Slot length:<br>0.667ms | Frame Length:<br>10ms<br>Slot length:<br>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  | -104.7dBm  | -104.7dBm  | -103.7dBm  |
| TDMA Mux                           | 8  | 8  | 8  | 8  |
| Cell Radius                        | 2Km  | 2Km  | 2Km  | 2Km  |

## 2. Specification

### 2-4. LTE General Specification

|                                  | LTE Band1                          | LTE Band3                              | LTE Band5                              | LTE Band7                              | LTE Band8                              | LTE Band 20                            | LTE BAND 40    |
|----------------------------------|------------------------------------|--|--|--|--|--|----------------|
| Freq. Band[MHz] Uplink/ Downlink | 1920~1980<br>2110~2170             | 1710~1785<br>1805~1880                 | 824~849<br>869~894                     | 2500~2570<br>1805~1880                 | 2500~2570<br>1805~1880                 | 704~716<br>734~746                     | 2300~2400      |
| ARFCN range                      | UL:<br>18000~18599<br>DL:<br>0~599 | UL:<br>19200~19950<br>DL:<br>1805~1880 | UL:<br>20400~20649<br>DL:<br>2400~2649 | UL:<br>20750~21449<br>DL:<br>2750~3449 | UL:<br>21450~21799<br>DL:<br>3450~3799 | UL:<br>24150~24449<br>DL:<br>6150~6449 | 38650~39649    |
| Tx/Rx spacing                    | 190MHz                             | 95MHz                                  | 45MHz                                  | 120MHz                                 | 45MHz                                  | 41MHz                                  |                |
| Channel Bandwidth                | 60 MHz                             | 75 MHz                                 | 25 MHz                                 | 70 MHz                                 | 35 MHz                                 | 30 MHz                                 | 5/10/15/20 MHz |
| Modulation                       | QPSK,16/64QAM                      | 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                           | -35~25.7dBm    |
| Sensitivit (QPSK) (BW 10MHz)     | -94 dBm                            | -92 dBm                                | -92 dBm                                | -95dBm                                 | -95dBm                                 | -95dBm                                 | -97dBm         |
| Cell Radius                      | >5Km                               | >5Km                                   | >5Km                                   | >5Km                                   | >5Km                                   | >5Km                                   | >5Km           |

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## 3. Operation Instruction and Installation

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### Main Function

| Item      | Description   |
|-----------|---|
| OS        | Android 6.0.1   |
| RF        | 2G GSM, 3G WCDMA, 4G LTE FDD,   |
| Battery   | 3100mAh   |
| Base Band | 1.2GHz Quad core  |
| Other RF  | Bluetooth 4.1, WIFI 802.11 b/g/n 2.4GHz,USB2.0, GPS, Glonass ,NFC                     |
| Camera    | 13MP AF with LED Flash , 5MP Front camera with LED Flash                              |
| LCD       | 5.2" / 720*1280(Super AMOLED)   |
| Memory    | 16GB eMMC,2Gb DDR   |
| Sensor    | Accelerometer, Proximity, Hall IC, Grip,  |
| Accessory | Charger: 5V/1.55A, White<br>Data Cable : 3.0PI, 0.8M, White<br>Ear phone: 3.5PI, 4Pin |

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## 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

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# 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.

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# 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.

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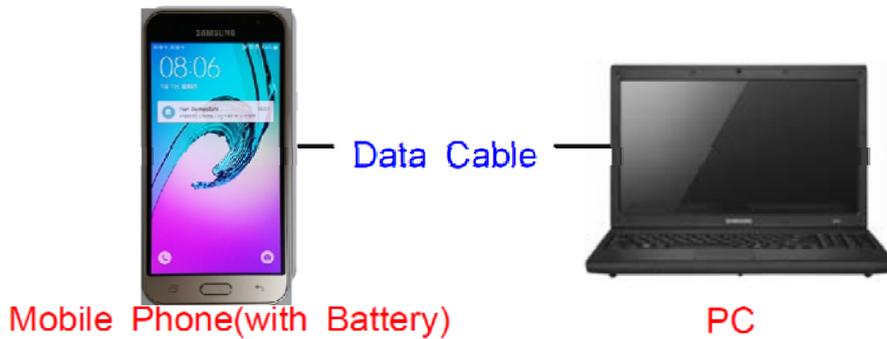
## 6. Level 1 Repair

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### 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-J510FN
  - AP\_XXXX.tar.md5
  - BL\_XXXX.tar.md5
  - CP\_XXXX.tar.md5
  - CSC\_XXXX.tar.md5(file size is about 2.2GB)

##### 2) Prepare for Downloading

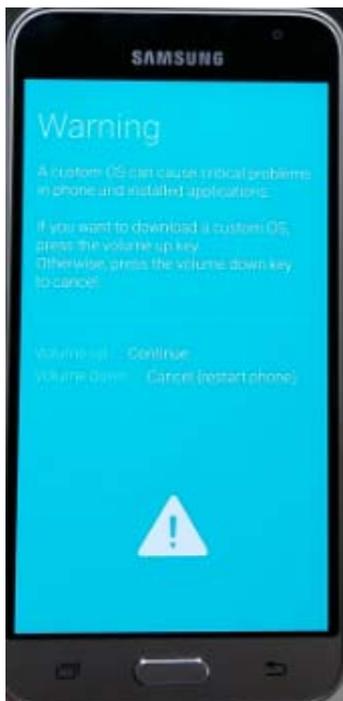
- Downloader Program ([Odin3 v3.10.exe](#))
- SM-J510FN Mobile Phone
- Data Cable
- Binary files

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.

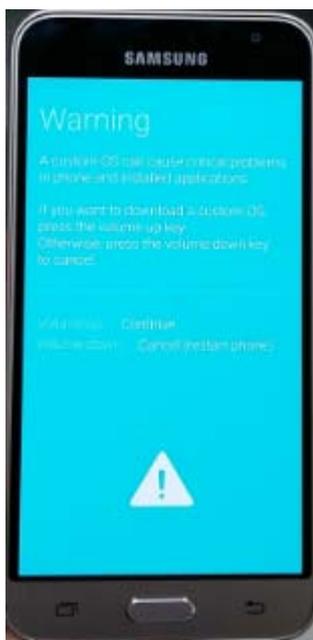
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## 6. Level 1 Repair

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



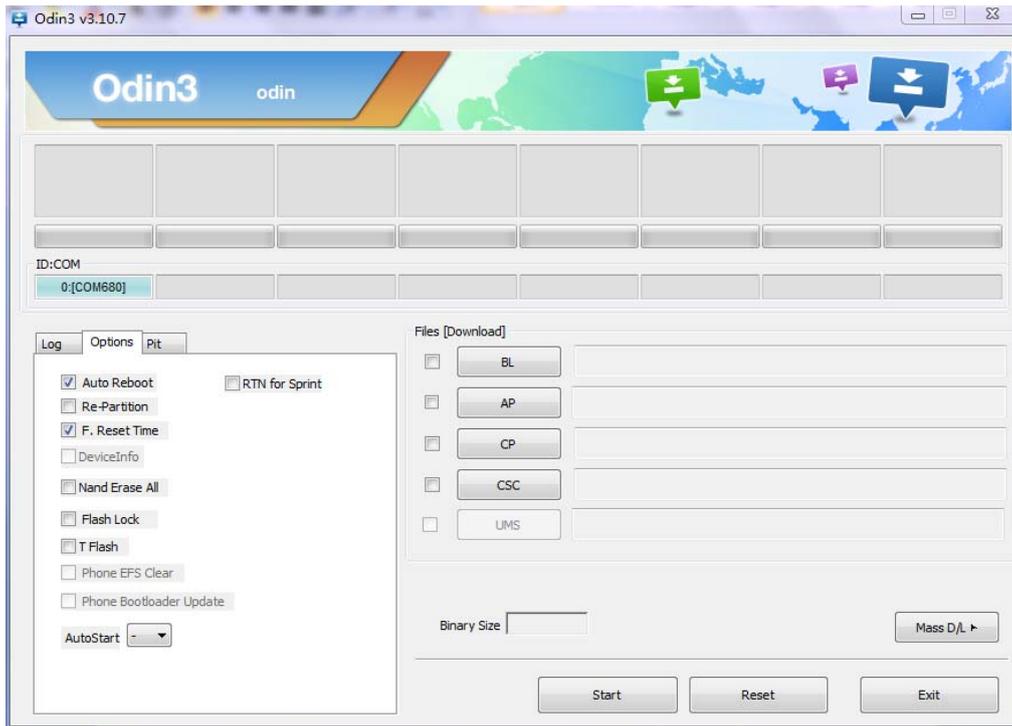
“

Downloading...

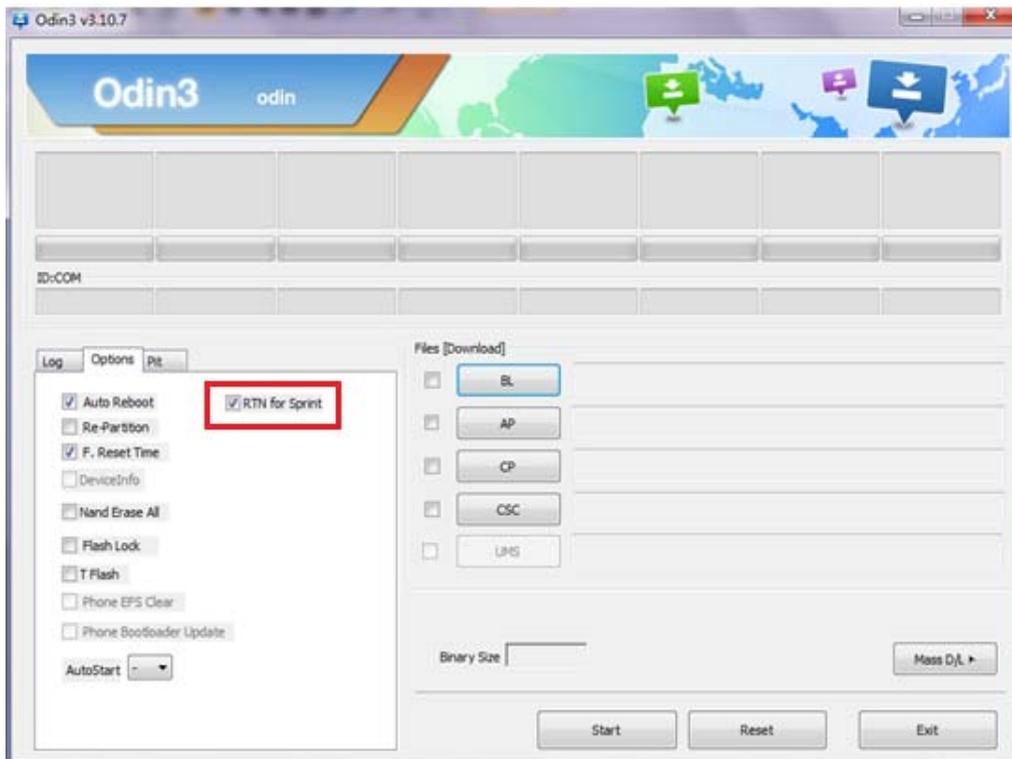
”

5) Load the binary download program.

## 6. Level 1 Repair



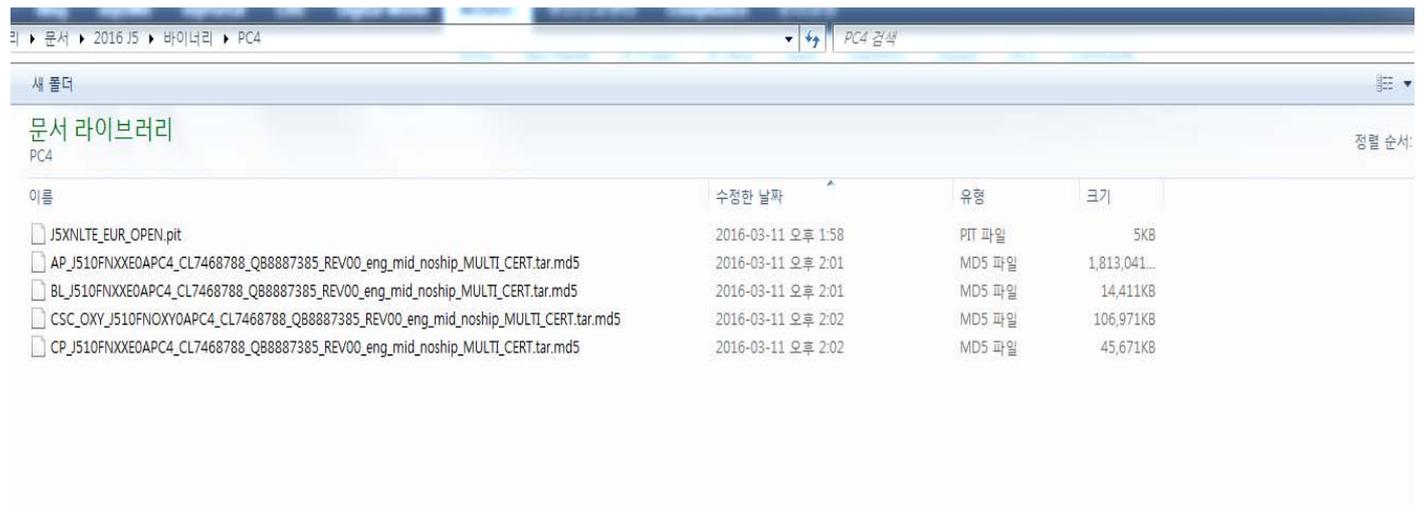
### 6) Choose "RTN for Sprint"



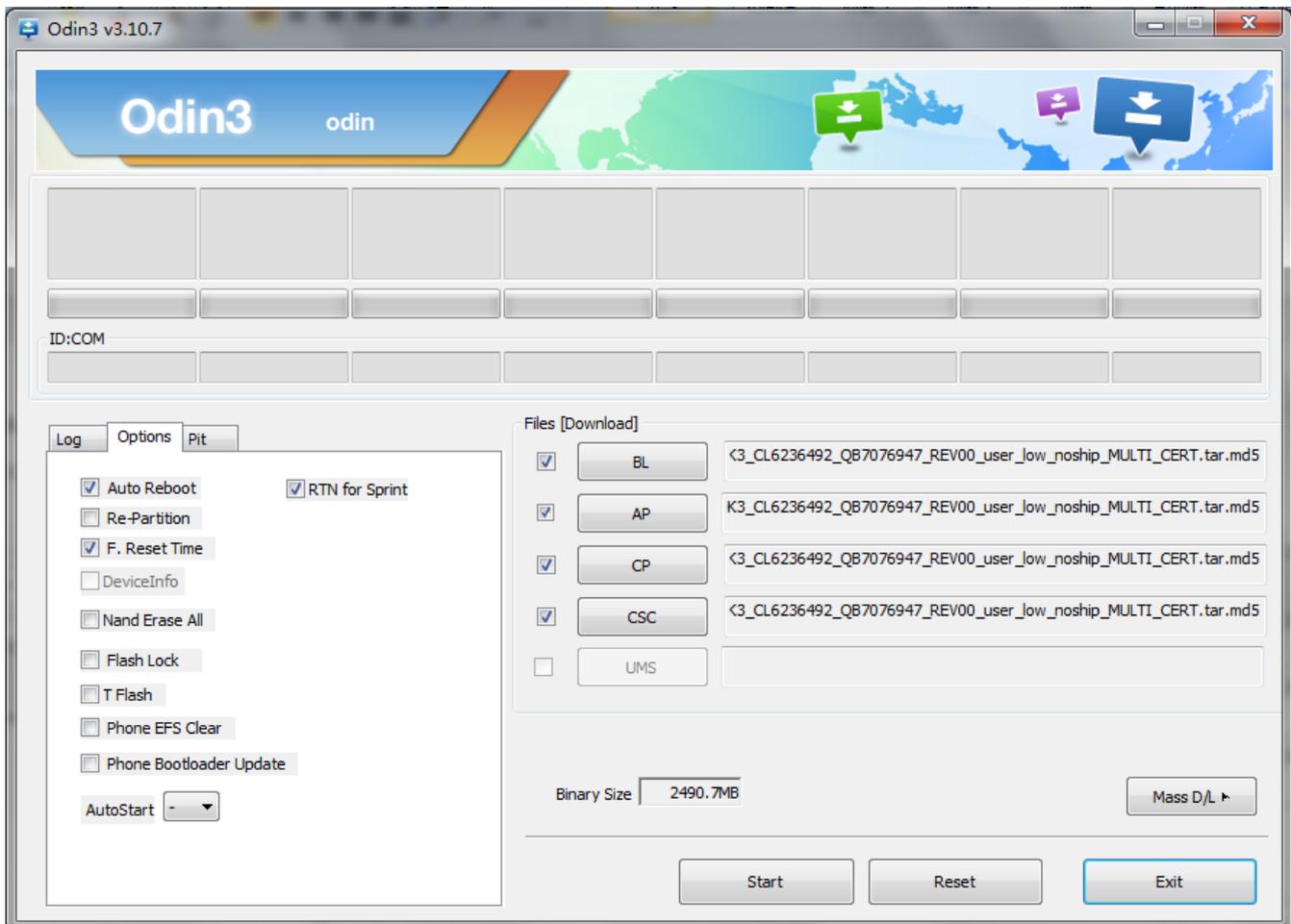
### 7) Select the file as above:

- AP\_XXXX.tar.md5
- BL\_XXXX.tar.md5
- CP\_XXXX.tar.md5
- CSC\_XXXX.tar.md5

## 6. Level 1 Repair



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



8) Now press the button "Start".

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

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

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## 6. Level 1 Repair

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11) 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

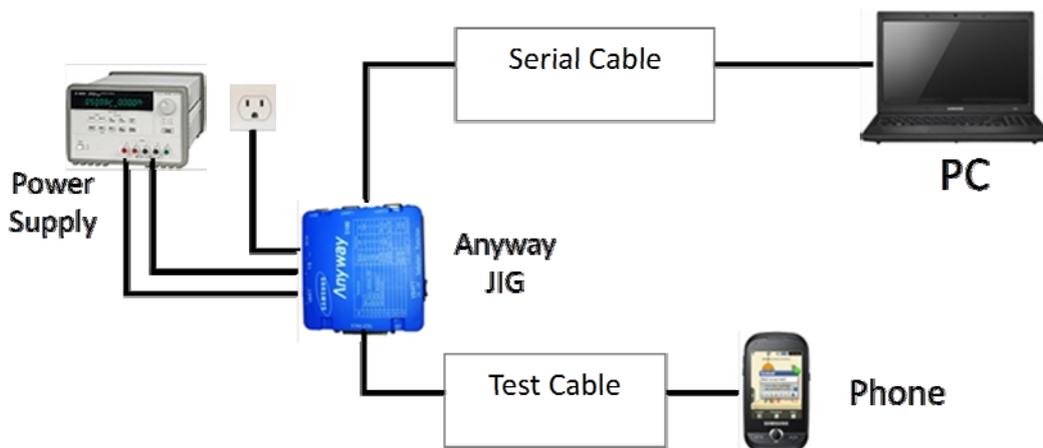
※ **Caution. Never disconnect during the S/W downloading.**

### 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**

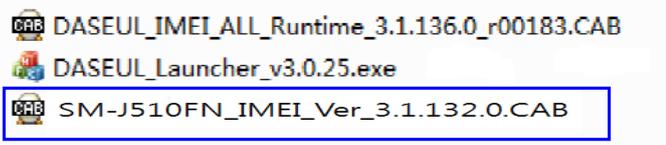


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## 6. Level 1 Repair

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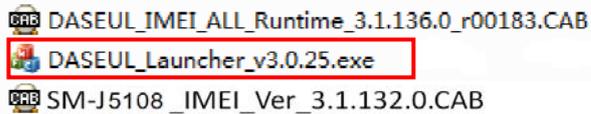
### - S/W

|                   |   |
|-------------------|---|
| ① Library Install | To use Daseul, library files should be installed.<br>Refer to SVC Bulletin<br>“(11-82) Daseul (New IMEI writing Program) Library Install guide_rev1.0”  |
| ② Launcher        | DASEUL_SVC_Launcher_v3_0_25 or higher<br>-Uploaded on HHPsvc Notice   |
| ③ Runtime File    | 1. DASEUL_IMEI_ALL_Runtime_3.1.136_r00183 .CAB or higher<br>-Uploaded on HHPsvc Notice<br>2. Make 'ModelName' folder at the same position with launcher & Runtime file.<br> |
| ④ Model File      | Copy Model File under the 'Model Name' folder   |

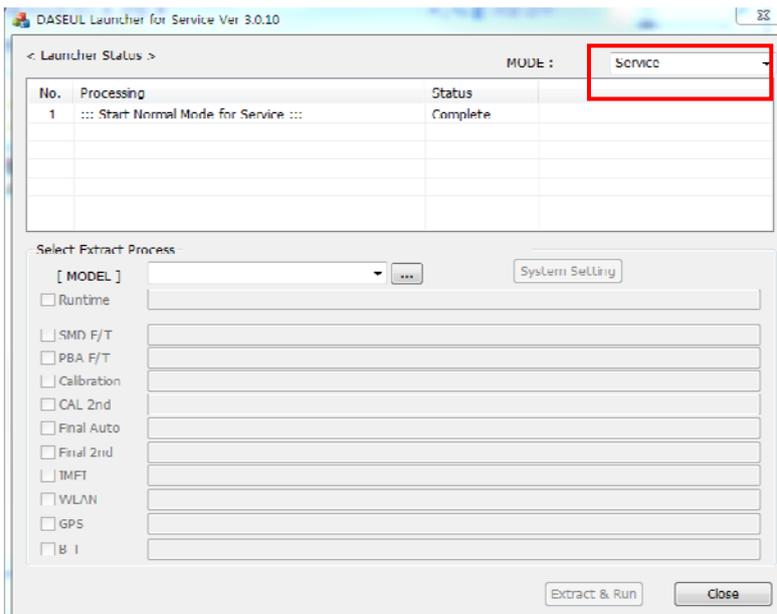
## 6. Level 1 Repair

### 6-2-2 IMEI writing Process

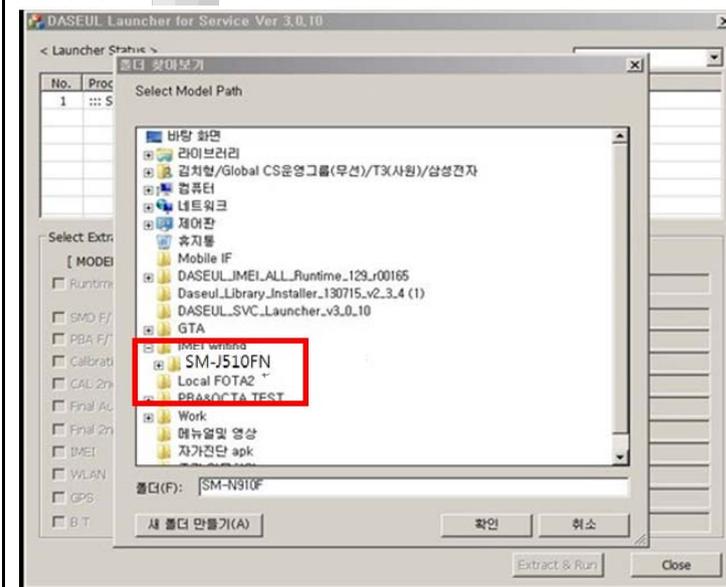
#### 1. Run DASEUL\_SVC\_Launcher\_v3\_0\_25



#### 2. Select Service Mode



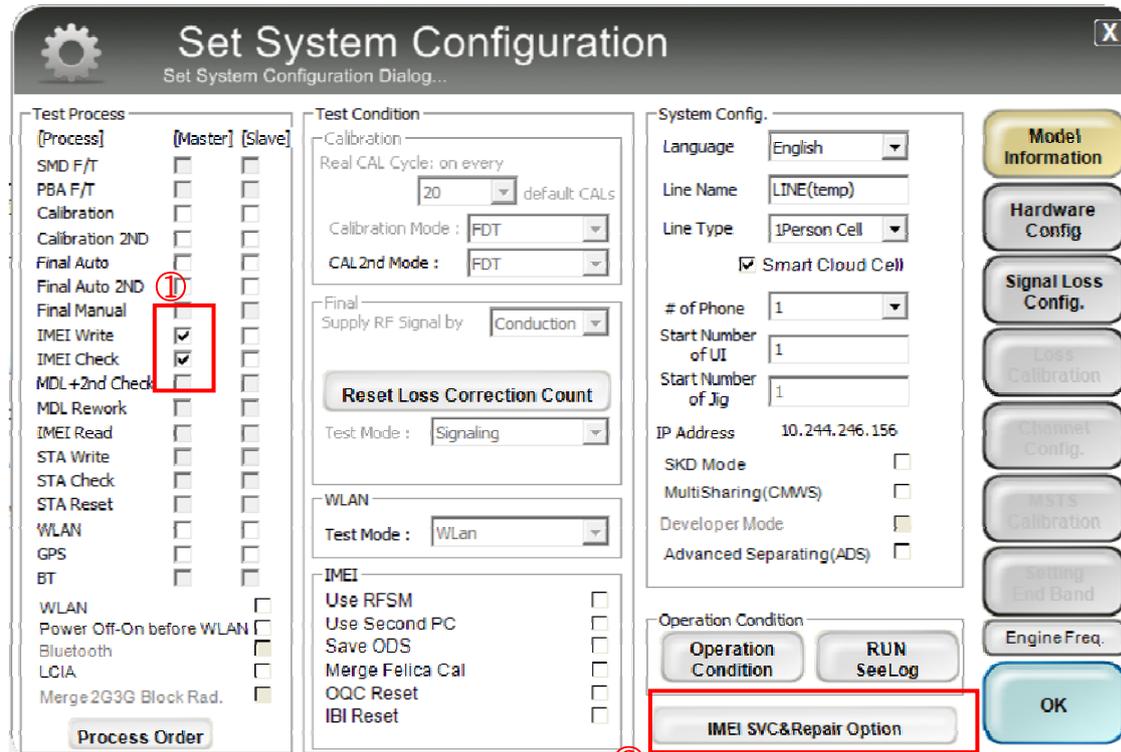
#### 3. Click [ ... ] and Select folder where the Launcher exists



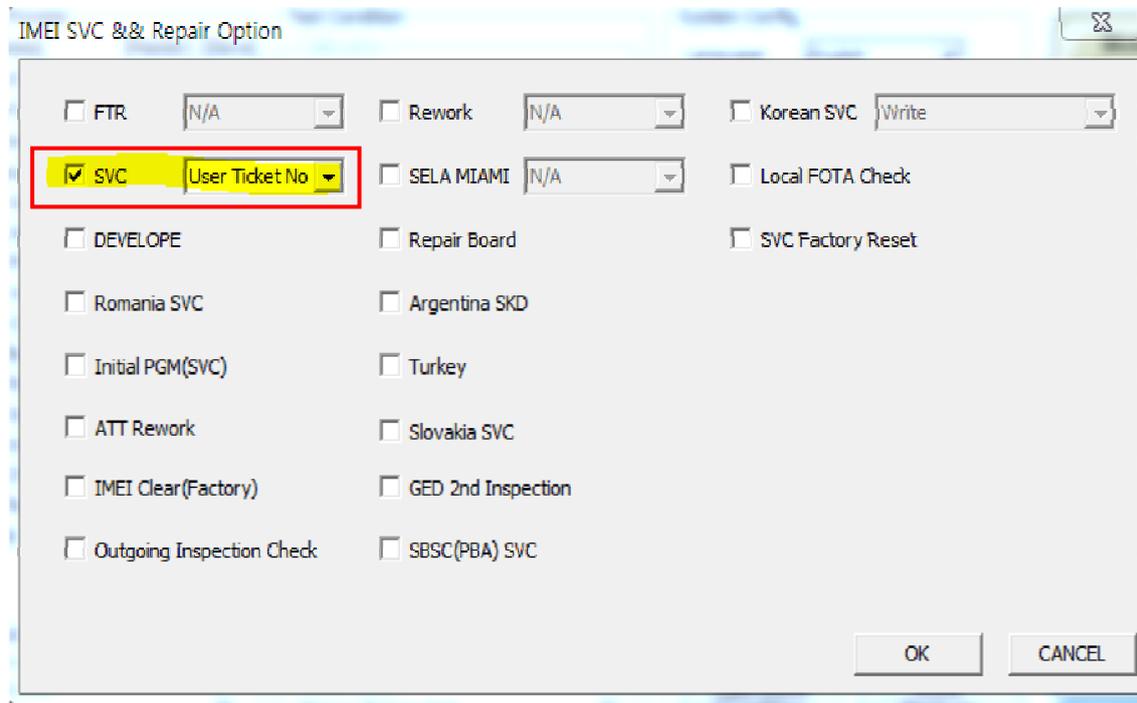


## 6. Level 1 Repair

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



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



## 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  
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 UT: 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.  
MSTF Calibration  
Setting End Band  
Engine Freq.  
OK

Process Order

### 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  
I/F Jig Type: Anywaysig  
 Use ID Check JIG

**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**

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  
NI-DAQ  
Power Detector  
HDMI JIG  
Port Setting  
Port Setting  
Port Setting  
Port Setting

**MSTS**

Count: 0  
I/F Type: GPIB  
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

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

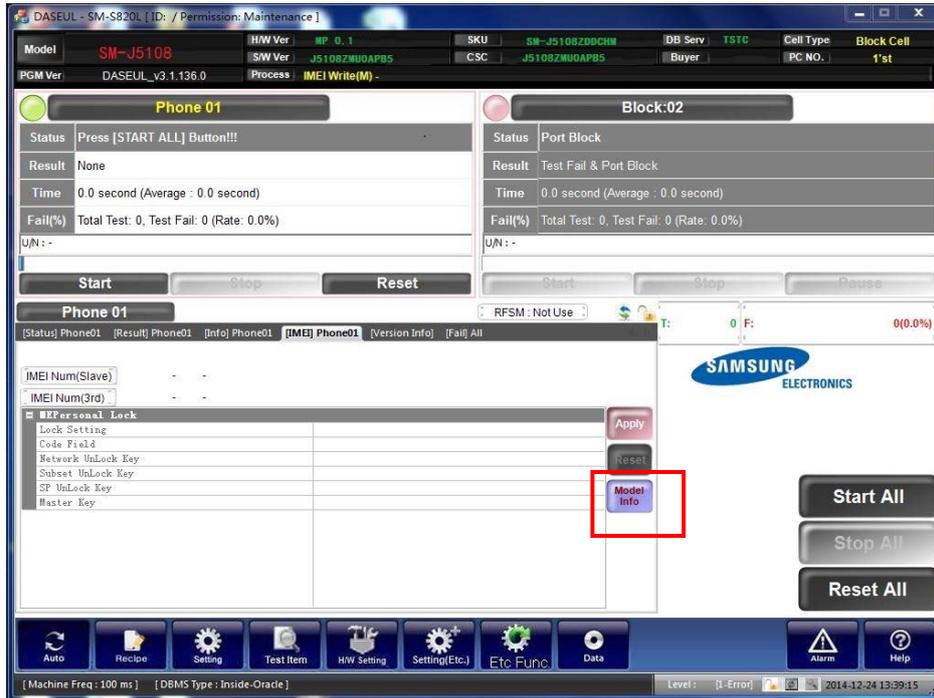
Operation Condition

Model Information  
Hardware Config  
Signal Loss Config  
Channel Config.  
RSSI 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, then click OK button.

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

MEID Model Information

H/W Ver1: MP 0.1  
H/W Ver2:

Use Test Label

|            | Version       |
|------------|---------------|
| BOOT       |               |
| PDA        | J5108ZMU0APB3 |
| PHONE      | J5108ZMU0APB3 |
| Memory     |               |
| Hidden     |               |
| CSC        | J5108ZMU0APB3 |
| Cam1       | V13QLIA00SA   |
| Cam1-1     | V13QLIA00SA   |
| S_Cam1     | D05QLIA00CA   |
| S_Cam1-1   |               |
| Touch1     | N             |
| Touch1-1   |               |
| E-Write1   |               |
| E-Write1-1 |               |
| TSP 1      | IM001005      |
| TSP 1-1    | IM001003      |
| TSP2       |               |
| TSP2-1     |               |
| Spare1     |               |
| Spare2     |               |
| OIS1       |               |
| OIS1-1     |               |

Item Code: SM-J5108ZZDCHM  
 MES

Basic Model Code:   
 SIM SKU:   
Sensor Hub:   
Comp. Engine Version:   
Contents Version:

Factory Binary Option  
Factory - PDA Version: FA51-J5108ZMU0APE3  
Factory - Phone Version: J5108ZMU0APB3  
 Factory Reset + Check  Pre Product

MDL Rework  
 SMD Test NV Write  Main Repair

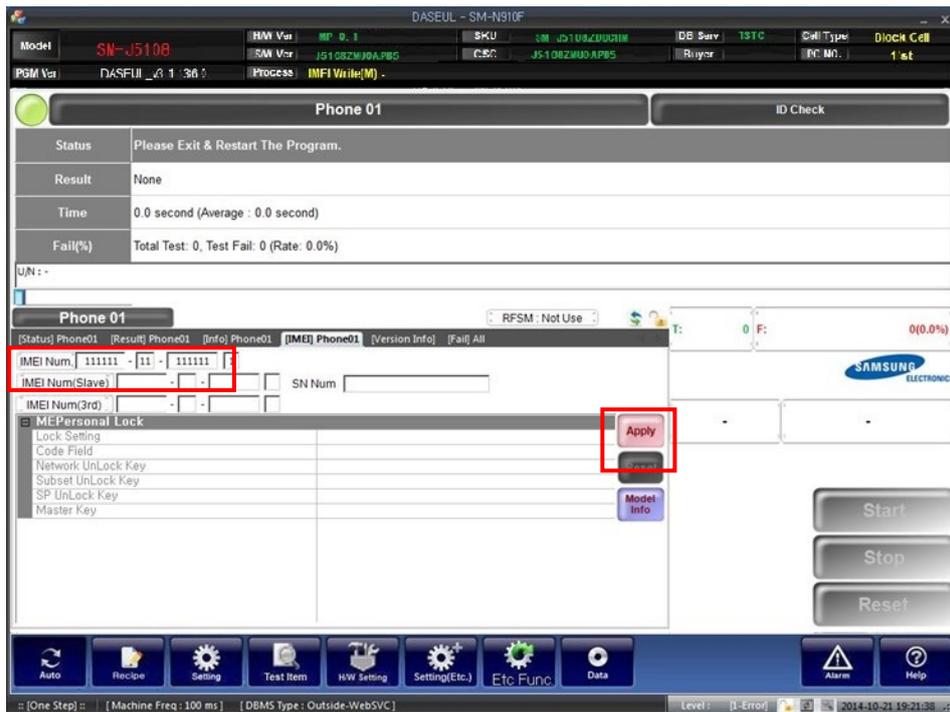
STA Option  
RF Pass Count: 15  
XML LOG Path:   
Material Code:   
 Don't Upload DB

PRL/ERI  
PRL Version:   
PRL File Name:   
ERI Version:   
ERI File Name:

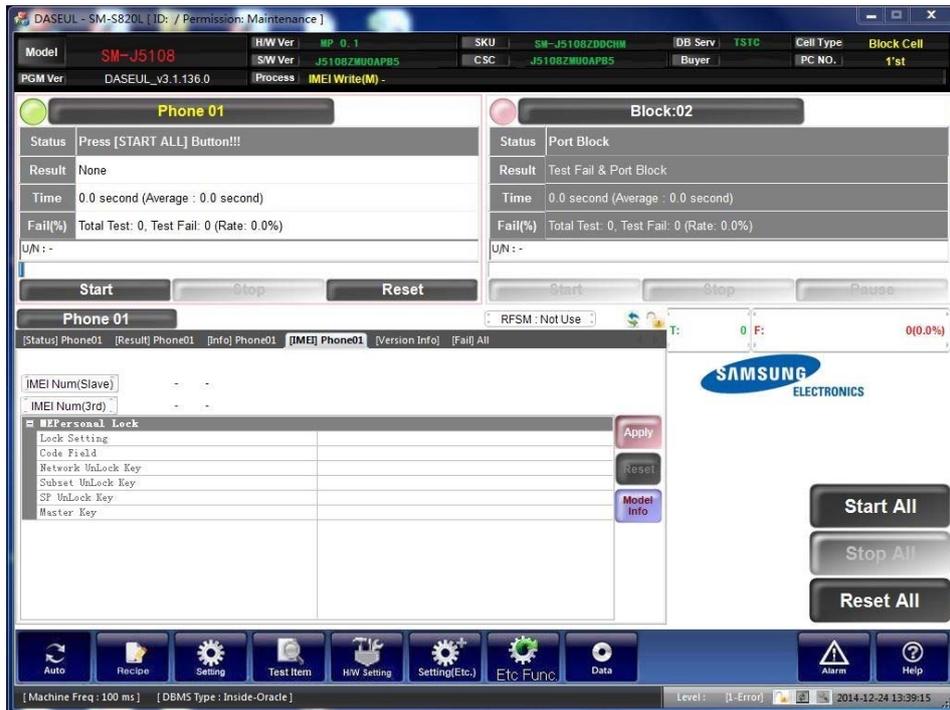
OK Cancel

## 6. Level 1 Repair

### 15. Input IMEI Number and click Apply



### 16. Click Start ALL



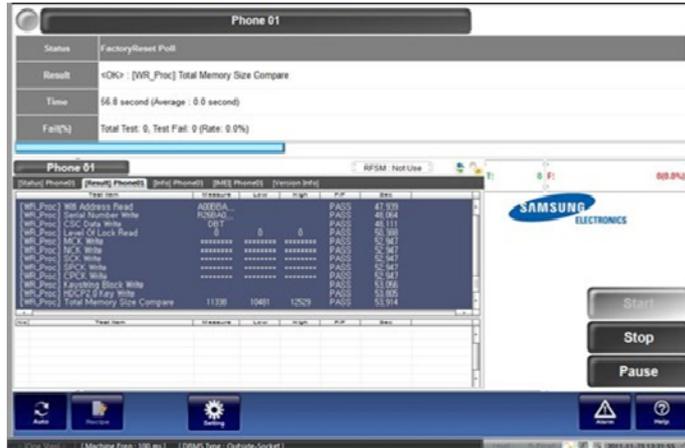
## 6. Level 1 Repair

17. Connect the phone to Anyway JIG

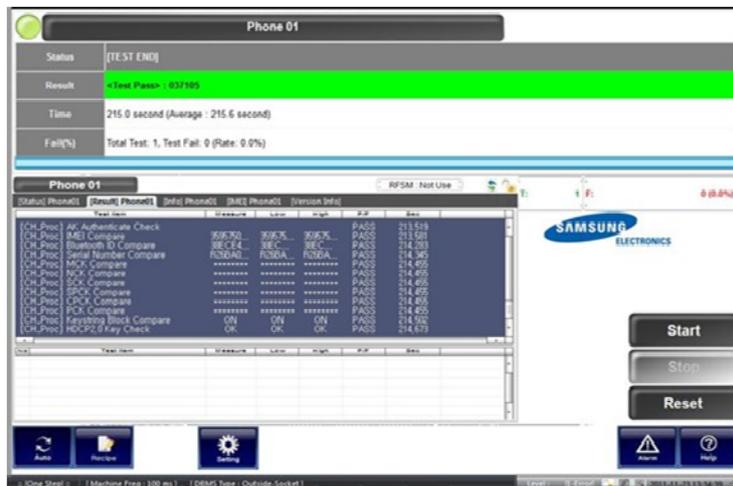
※ When you connect the phone, the phone should be turned off.

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 ([SM-J510FN\\_OPEN\\_CALIBRATION\\_Ver\\_3.1.131.0.CAB](#))

※ It is required to use the latest program.

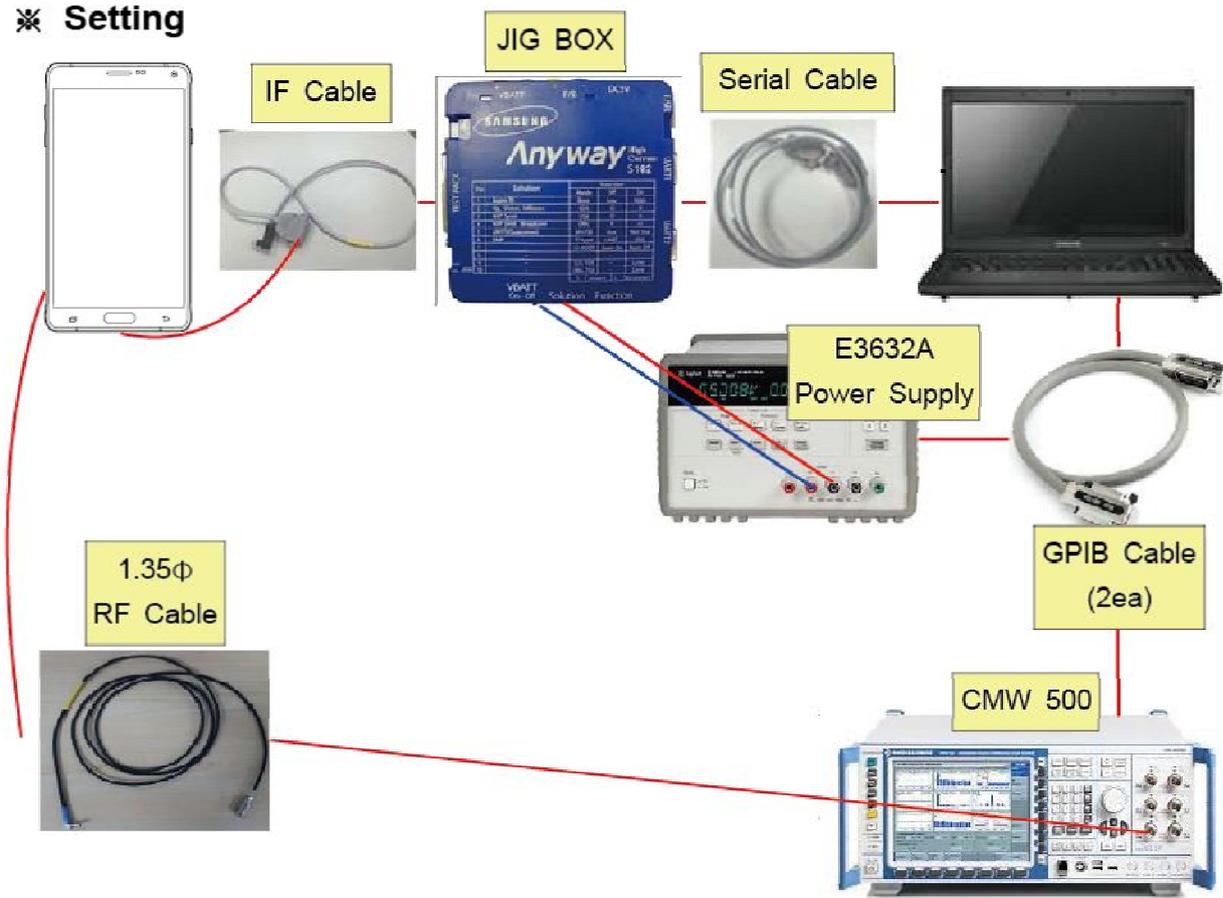
- [SM-J510FN](#) Mobile Phone
- R&S CMW500
- E3632A Power Supply
- JIG BOX (GH81-11888A)
- Adapter (GH81-11888K)
- GPIB Cable (2ea)
- IF Cable (GH81-10952A)
- UART Serial Cable
- 1.35Φ RF Cable (GH81-11962G 1ea)

- Table of test cables

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

## 6. Level 1 Repair

### ※ Setting



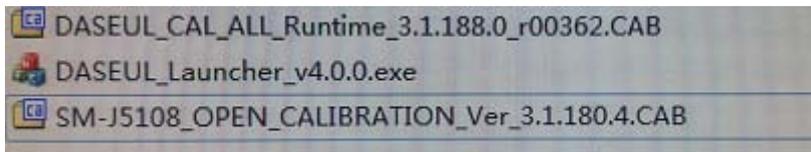
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## 6. Level 1 Repair

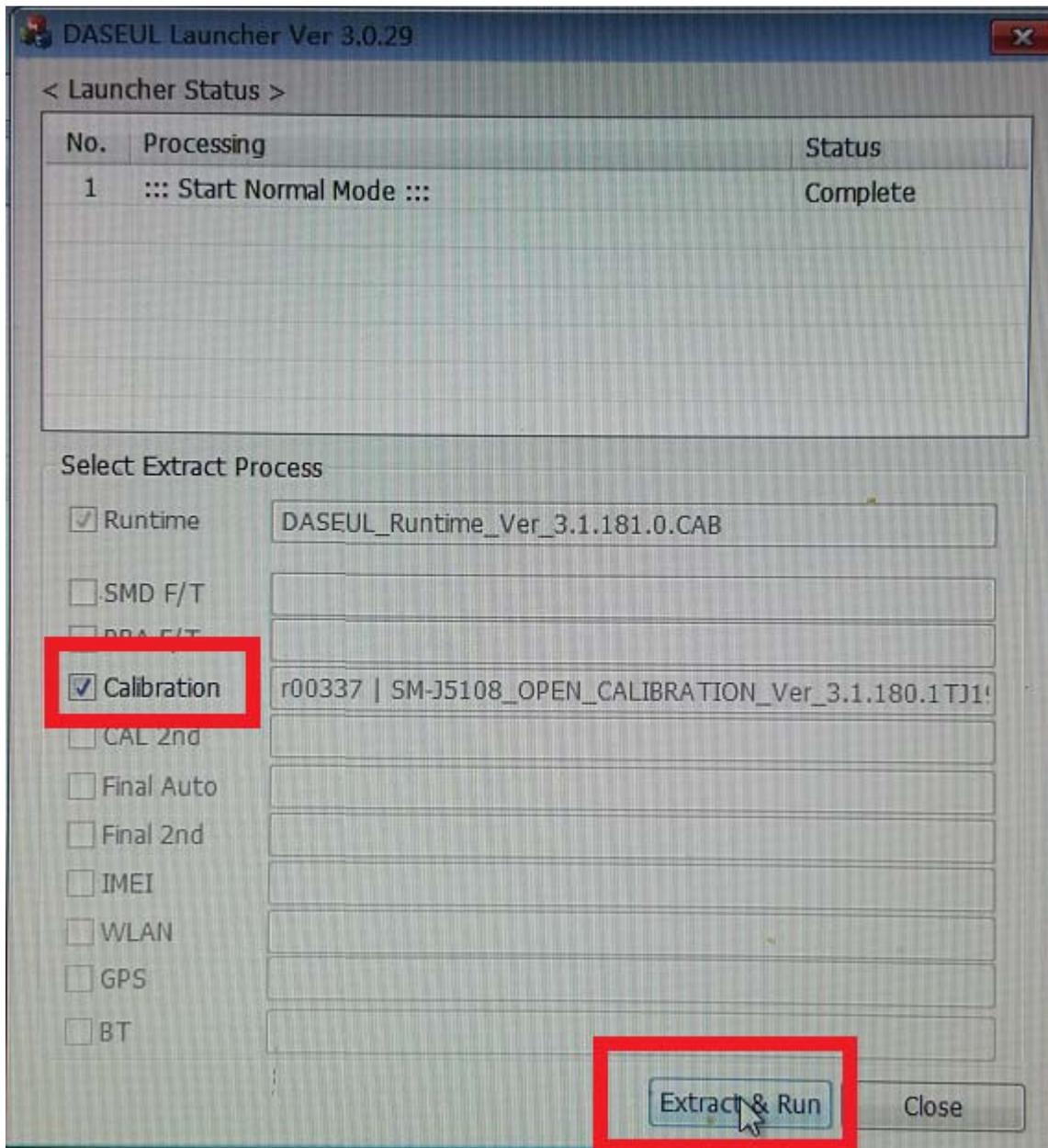
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### 6-3-2. RF Calibration Program

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

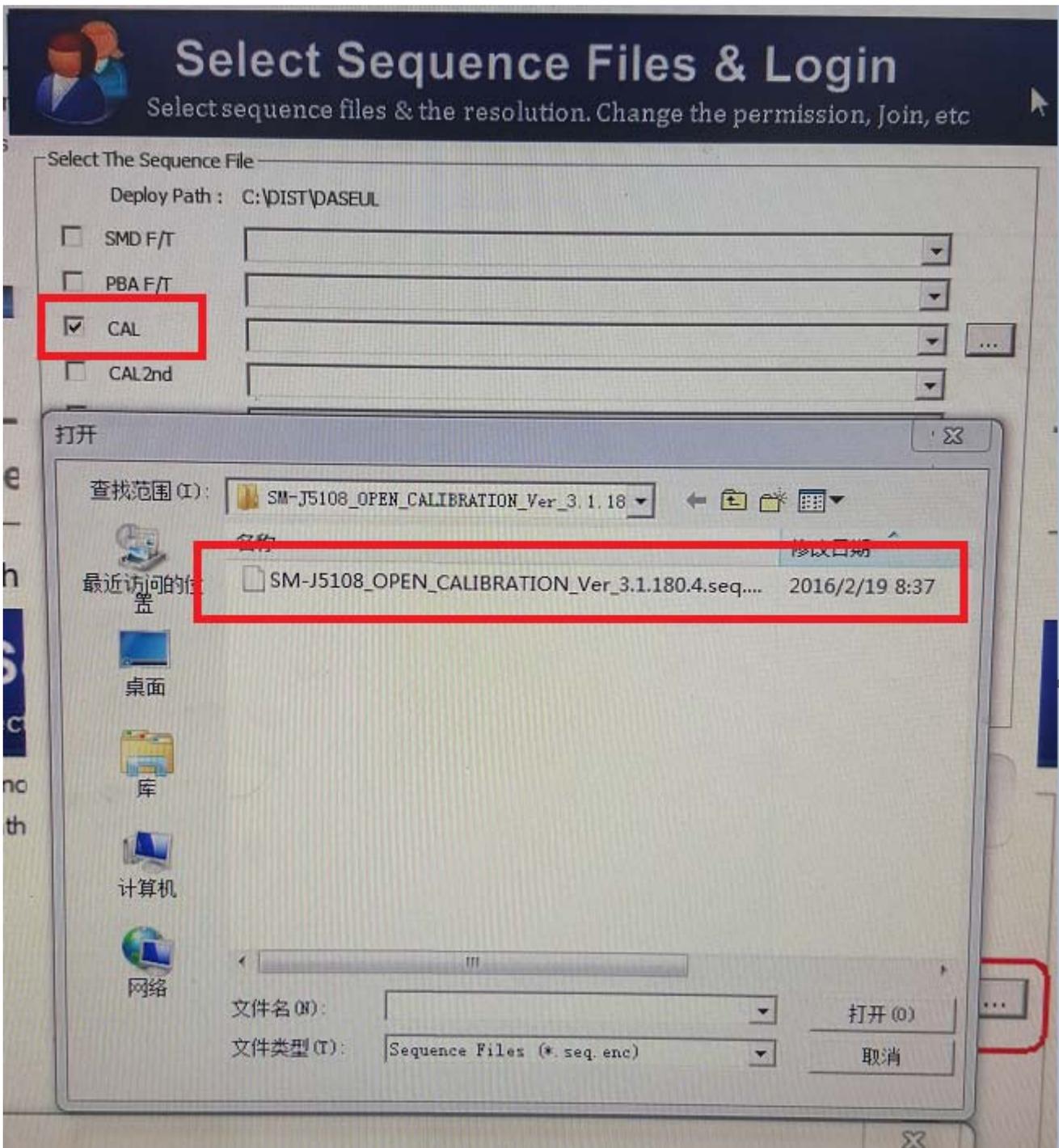


2. Check the 'Calibration' menu, and select 'Extract & Run'.



## 6. Level 1 Repair

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



## 6. Level 1 Repair

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

**Set System Configuration** [X]

Set System Configuration Dialog...

| Test Process             | [Master]                            | [Slave]                  |
|--------------------------|-------------------------------------|--------------------------|
| [Process]                |                                     |                          |
| 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

**IMEI SVC&Repair Option**

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

## 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  default CALs

Calibration Mode :

CAL2nd Mode :

Final  
Supply RF Signal by :

**Reset Loss Correction Count**

Test Mode :

**WLAN**

Test Mode :

**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 :

Line Name :

Line Type :

Smart Cloud Cell

# of Phone :

Start Number of UI :

Start Number of Jig :

IP Address : 10.244.247.23

SKD Mode

MultiSharing(CMWS)

Developer Mode

Advanced Separating(ADS)

**Operation Condition**

**Model Information**

## 6. Level 1 Repair

The screenshot displays the 'Hardware Component Configuration' software interface. A 'Set IO BUS Configuration' dialog box is open, showing the 'MSTS IO Bus Setting' section. The dialog has a 'Common' tab with fields for EOS (0), EOT (1), and Time Out (13). A table lists board addresses, with address 14 highlighted and circled in blue. The background software has several fields circled in red and numbered 2 through 5.

**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  
Port Setting  
Switch-Box Port Setting

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

**MSTS**  
Count: 1  
I/F Type: GPIB  
Port Setting

**Power Supply**  
 Power Supply  
E3632A  
I/F Type: GPIB  
Port Setting

**MSTS IO Bus Setting**

**Common**  
EOS: 0  
EOT: 1  
Time Out: 13

| 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.

