
2. Specification

2-1. WCDMA General Specification

| | WCDMA 2100 | WCDMA 1900 | WCDMA 900 | WCDMA 850 |
|---|--|--|--|--|
| Freq. Band[MHz] Uplink/ Downlink | 1922~1977 2112~2167 | 1852~1907 1932~1987 | 880~915 925~960 | 824~849 869~894 |
| ARFCN range | 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 | 190MHz | 80MHz | 45MHz | 45MHz |
| Mod. Bit rate/ Bit Period | 3.84Mcps | 3.84Mcps | 3.84Mcps | 3.84Mcps |
| 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 | QPSKHQPSK | QPSKHQPSK | QPSKHQPSK | QPSKHQPSK |
| 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 |
| Cell Radius | 2Km | 2Km | 2Km | 2Km |

3. Operation Instruction and Installation

Main Function

- Android OS: JB
- HSPA+ 21Mbps / HSUPA 5.76Mbps
- 16MP AF with Xenon Flash and ×21 Optical zoom
- 4.8 TFT LCD MIPI (C-Type)
- A-GPS / BT v4.0 USB v2.0 / WiFi (802.11 a/b/g/n) 2.4 + 5GHz
- Recording definition: 1080p / Playback at 1080p resolution
- Sensors: Accelerometer, Geo-magnetic, Gyro
- Additional :
 - 1.4GHz Quad Core CPU

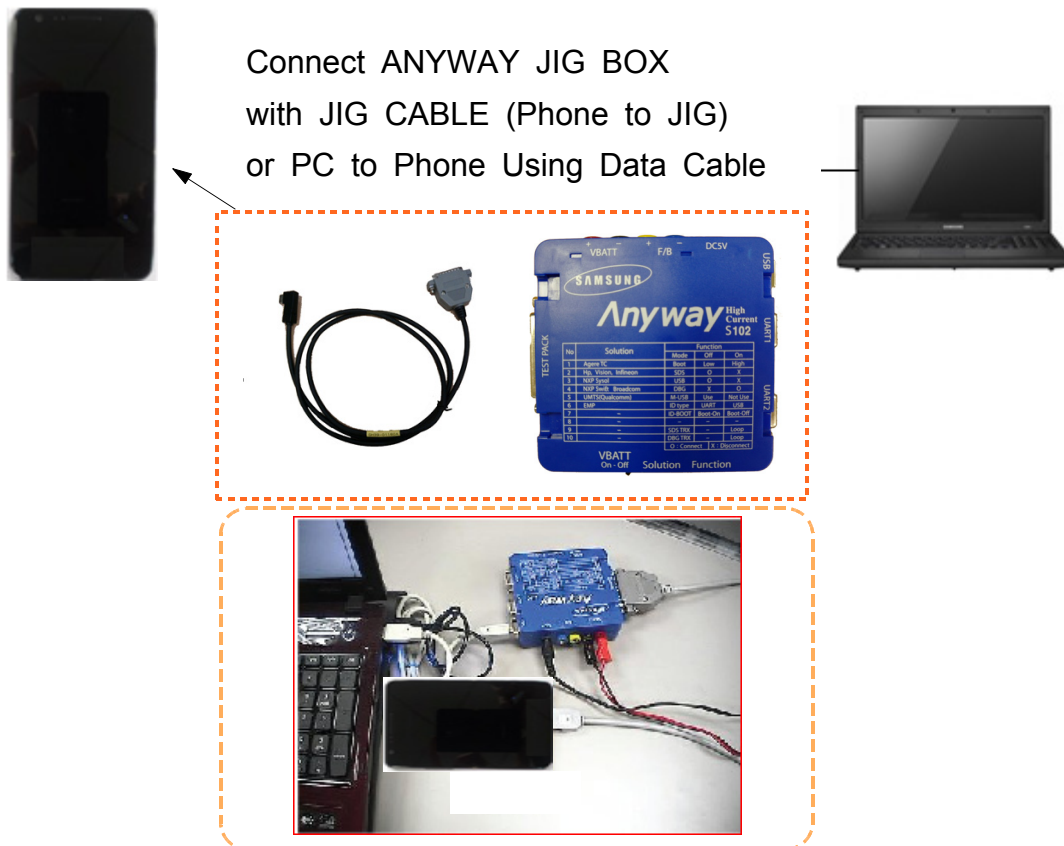
6. Level 6 Repair

6-1. S/W installation

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

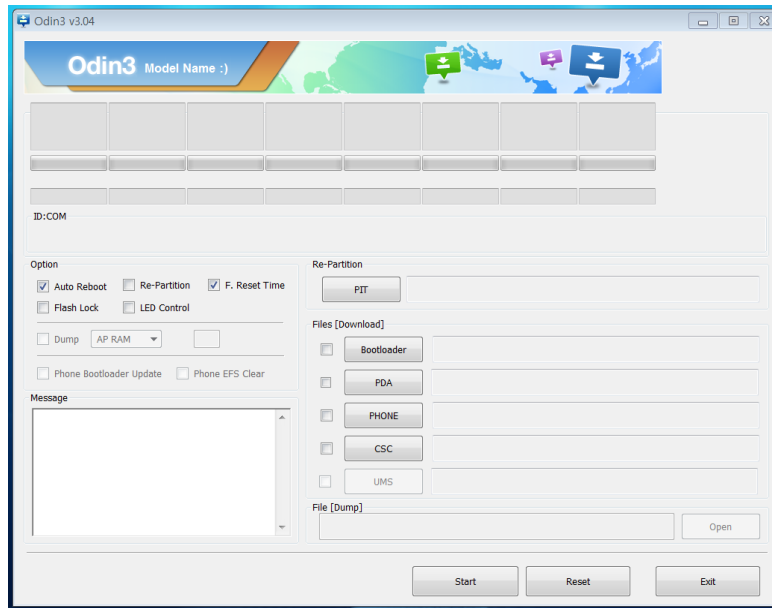
- Installation program: Downloader Program (**Odin3 v3.04.exe**)
- EK-GC100
- Data Cable
- JIG BOX (GH99-36900B)
- RF TEST CABLE (GH39-00985A)
- TFT LCD ASS'Y(AD96-00006A)
- JIG Cable (GH81-10631A)
- Adapter (GH99-38251A)
- Serial Cable
- Mobile device specific S/W: Binary files

※ Settings



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

- Open up the S/W Installation Program by executing the **"Odin3 v3.04.exe"**

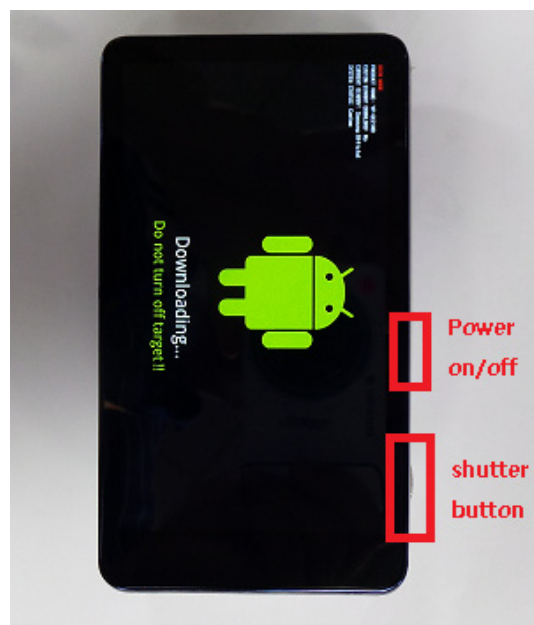
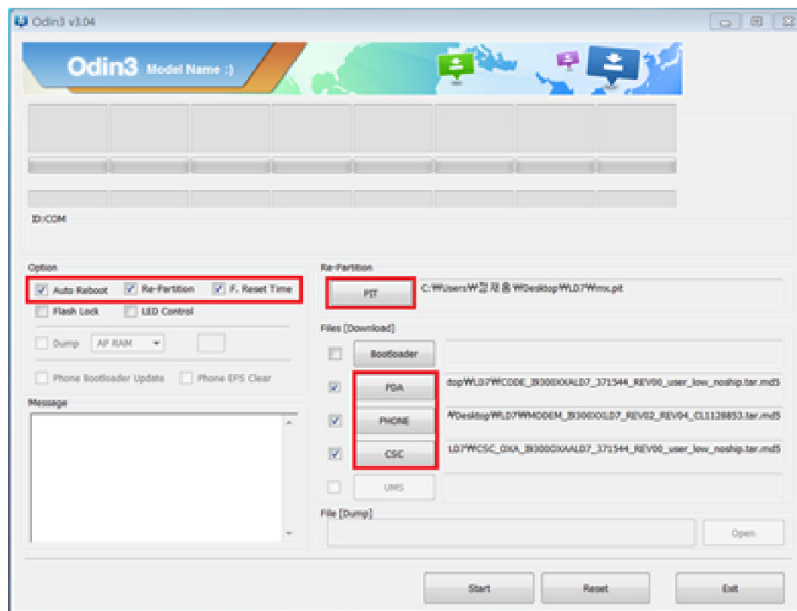


1. Enable the check mark by click on the following options,

- Check Re-Partition, Auto Reboot, and F. Reset Time
- Check PIT
- Check PDA, PHONE, and CSC Files

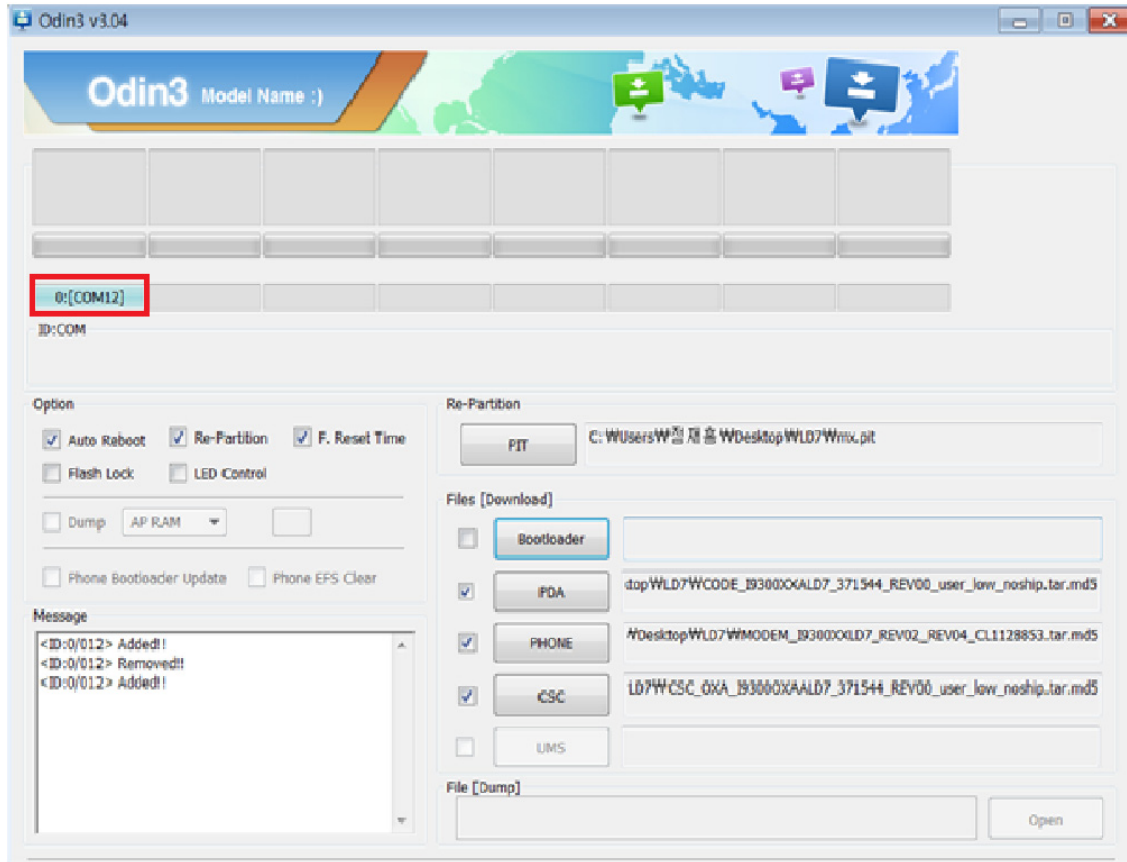
2. Enter into Download Mode

- Enter into Download Mode by pressing shutter button, and ON/OFF Button simultaneously. And then, press shutter button in Warning Page to enter the Download Mode.

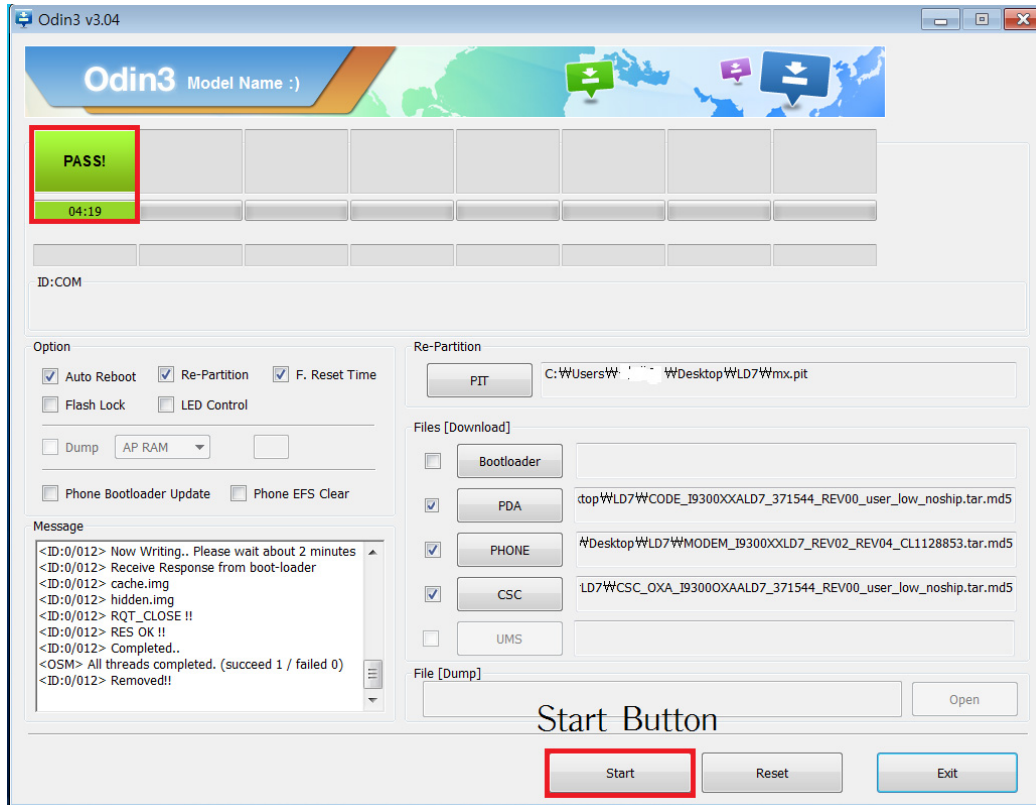


3. Connect the device to PC via Data Cable.

Make sure that the one of communication port [ID:COM] box is highlighted in light blue. The device is now connected with the PC and ready to download the binary file into the device.



4. Start downloading binary file 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 file has been successfully downloaded into the device.



5. Disconnect the device from the Data cable.

6. Once the device boots up, you can check the version of the binary file or name by the following steps.

Launch the built in calculator application, and type "(+30012012732+", it will make the device get into the factory mode.

Once the device gets into the factory mode, you can check the version of the binary file or name by pressing the following code in sequence;

***#1234#**

You can perform full reset by pressing the following code in sequence;

***2767*3855#**

9. Reference Abbreviate

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

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning. Take specially care of tuning or test, because specipicty of cellular phone is sensitive for surrounding interference(RF noise).
- Be careful to use a kind of magnetic object or tool, because performance of parts is damaged by the influence of magnetic force.
- Surely use a standard screwdriver when you disassemble this product, otherwise screw will be worn away.
- Use a thicken twisted wire when you measure level.
A thicken twisted wire has low resistance, therefore error of measurement is few.
- Repair after separate Test Pack and Set because for short danger (for example an overcurrent and furious flames of parts etc) when you repair board in condition of connecting Test Pack and tuning on.
- Take specially care of soldering, because Land of PCB is small and weak in heat.
- Surely tune on/off while using AC power plug, because a repair of battery charger is dangerous when tuning ON/OFF PBA and Connector after disassembling charger.
- Don't use as you pleases after change other material than replacement registered on SEC System. Otherwise engineer in charge isn't charged with problem that you don't keep this rules.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Several semiconductor may be damaged easily by static electricity. Such parts are called by ESD (Electrostatically Sensitive Devices), for example IC,BGA chip etc. Read Precaution below.

You can prevent from ESD damage by static electricity.

- Remove static electricity remained your body before you touch semiconductor or parts with semiconductor. There are ways that you touch an earthed place or wear static electricity prevention string on wrist.
- Use earthed soldering steel when you connect or disconnect ESD.
- Use soldering removing tool to break static electricity. , otherwise ESD will be damaged by static electricity.
- Don't unpack until you set up ESD on product. Because most of ESD are packed by box and aluminum plate to have conductive power,they are prevented from static electricity.
- You must maintain electric contact between ESD and place due to be set up until ESD is connected completely to the proper place or a circuit board.