Quanta LM175 Test Operation Guide

Version 0.1
Jun. 04, 2014
Robert

Contents

Revision History

Version	Release Date	Description
0.1	Jun. 04, 2014	1st Test Operation Guide Release

1. Introduction

This document gives the guidance on how to test Quanta devices.

2. Test Environment

Quanta LM175 device supports Windows XP, Windows Vista (32 bit), and Windows 7 (32 bit) operating system. It's recommended to install Quanta LM175 software in Windows 7 32-bit OS.
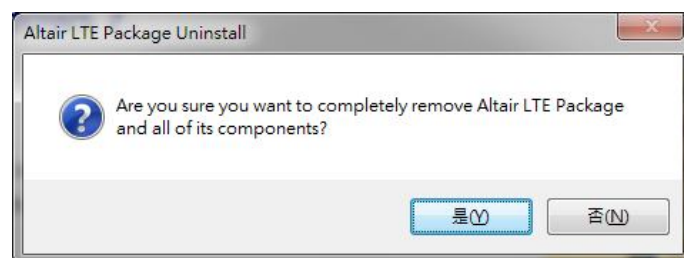
2.1. Uninstallation

In order to install latest version of software, uninstallation of previous version is required, including drivers, connection manager, and corresponding software tools.
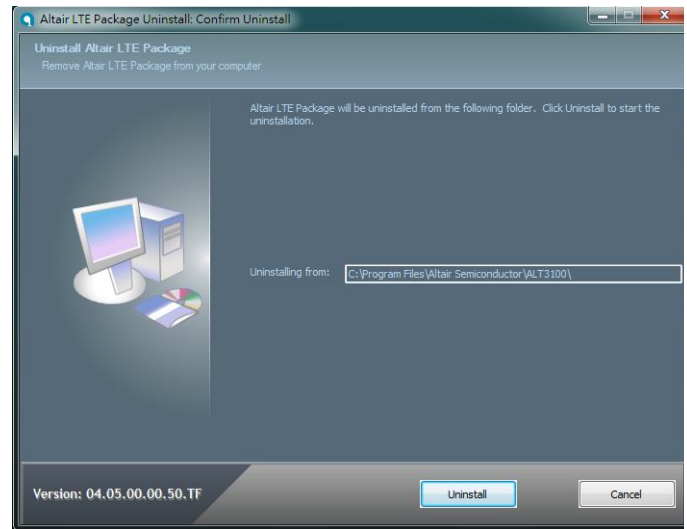
2.1.1. Windows 7 (32 bit)

1. Please click

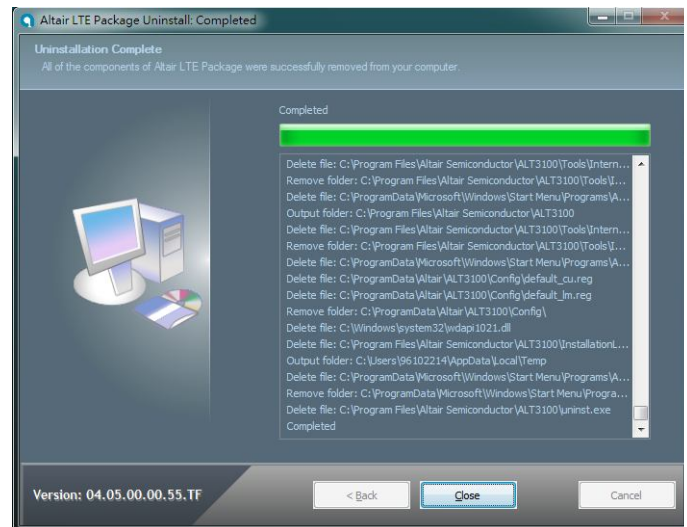   Start→Programs→Altair Semiconductor→LTE ALT3100→Uninstall
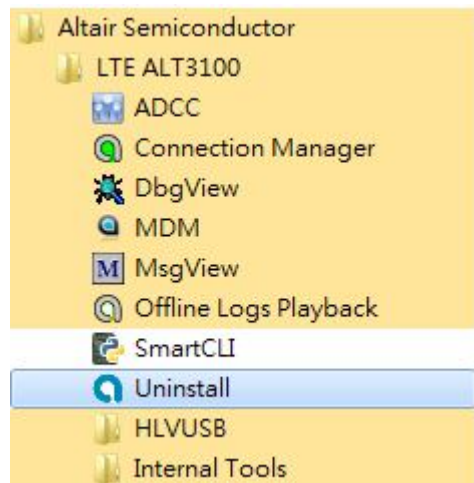
2. Please click "Yes (Y)" button.

3. Please click "Uninstall" button.

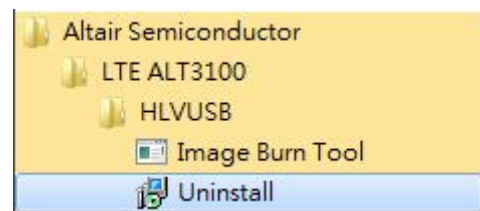4. Please wait a few seconds to complete uninstallation.

5. Please click "Close" button.

6. Please click "OK" button.

7. Please click

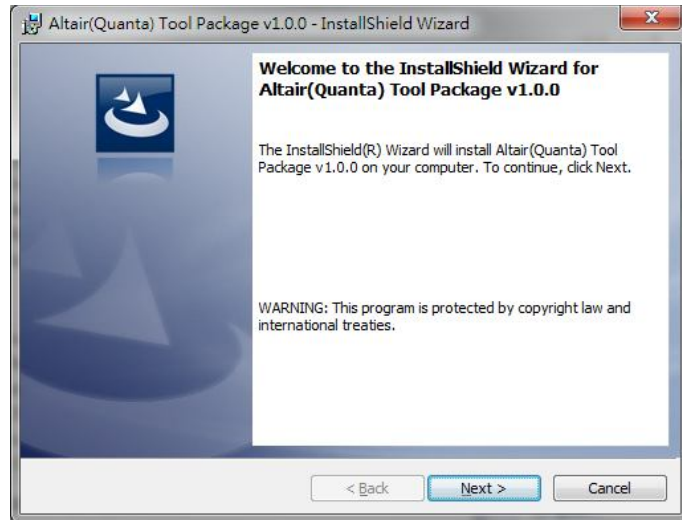   "Start→Programs→Altair Semiconductor→LTE ALT3100→HLVUSB→Uninstall".

8. Please click "YES (Y)" button.

9. Please reboot your computer after you have completed the uninstallation.
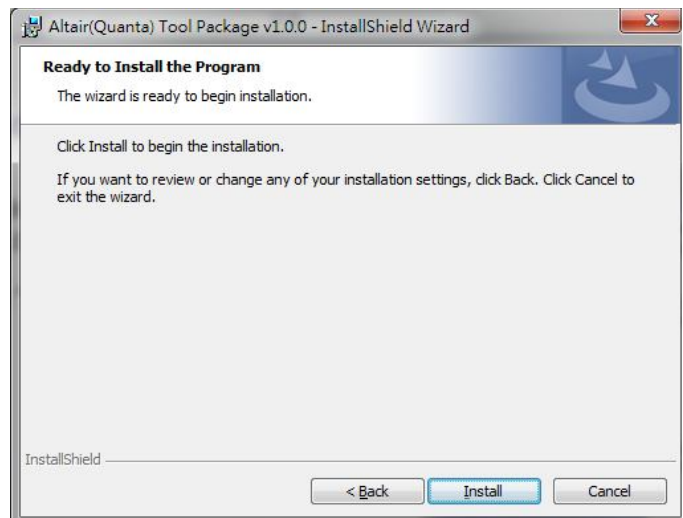
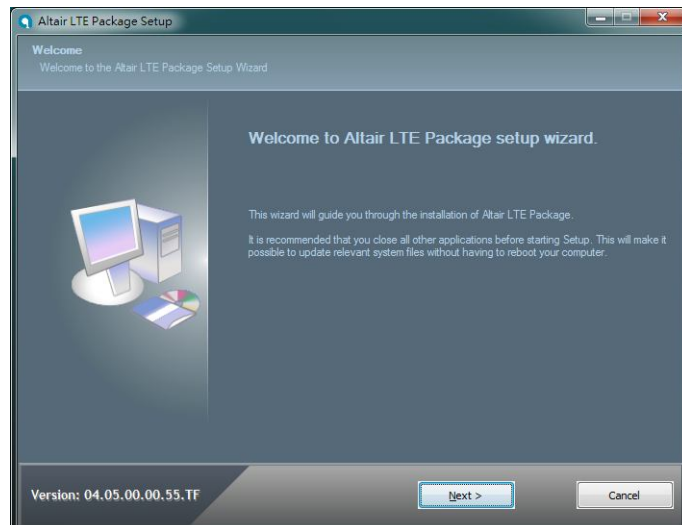## 2.2. Installation of drivers

2.2.1. Windows 7 (32 bit)

1. Please double clicks on "Altair(Quanta) Tool Package v1.0.0.exe" to start installation.

2. Please click "Next >" button.

3. Please click "Install" button.

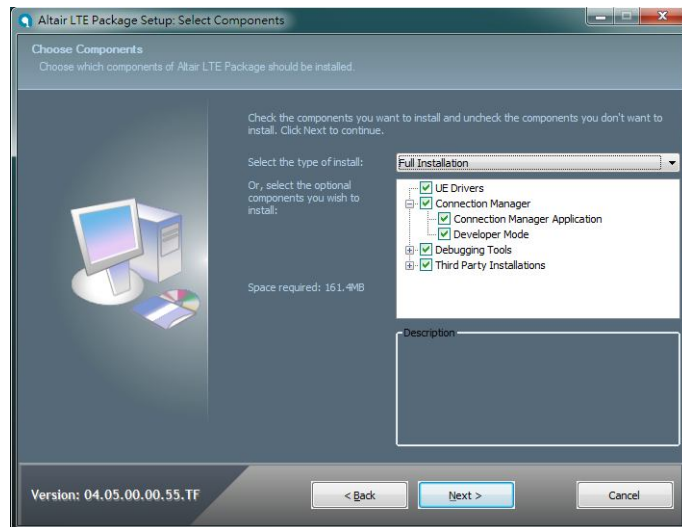4. It will take a few minutes to complete installation.

5. Please click "Next >" button.

6. Please check "I accept the terms in the license agreement".

7. Please click "Next >" button.
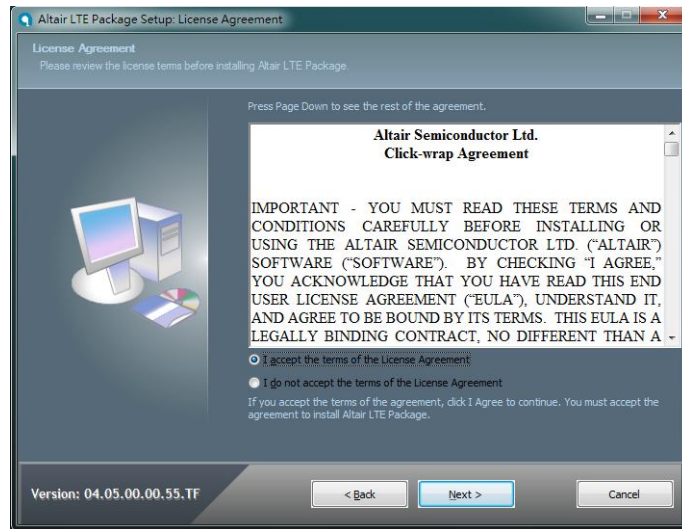
8. Please select "Full Installation" type.

9. Please click "Next >" button.

10. Please click "Next >" button.

11. Please click "Install" button.

12. Please click "Next >" button.

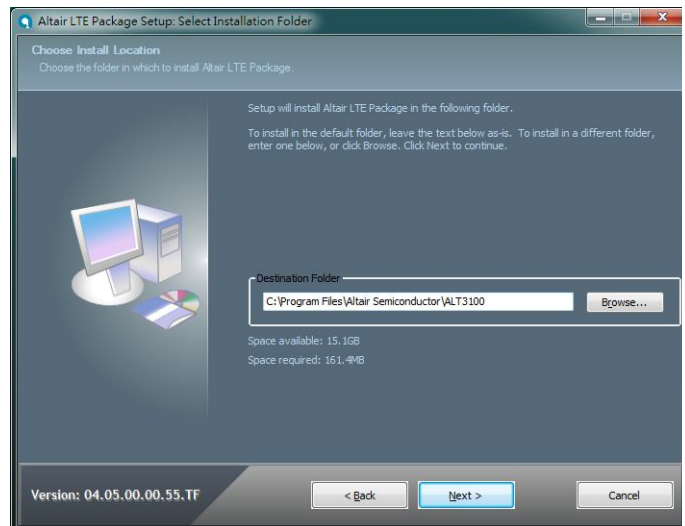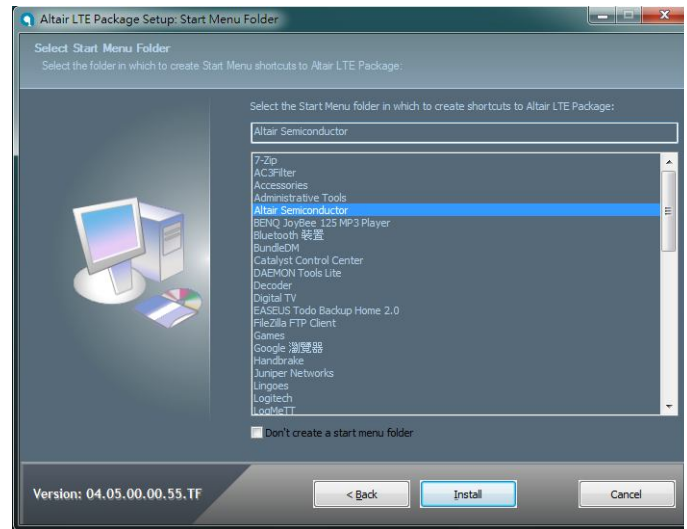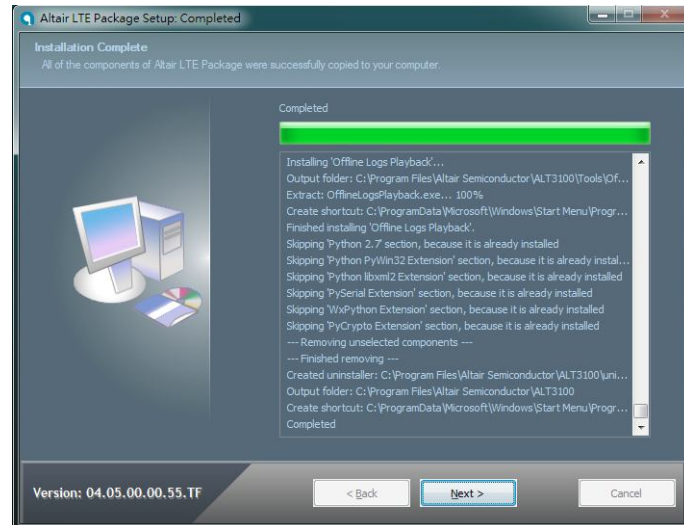13. Please click "Finish" button.
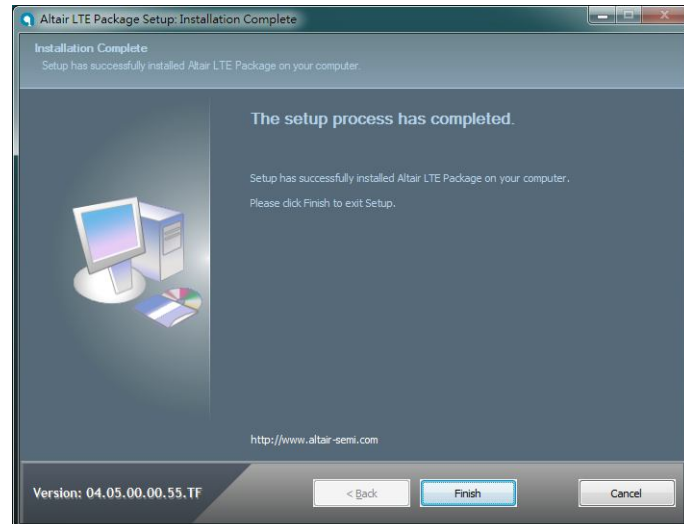
14. Please click "Next >" button.
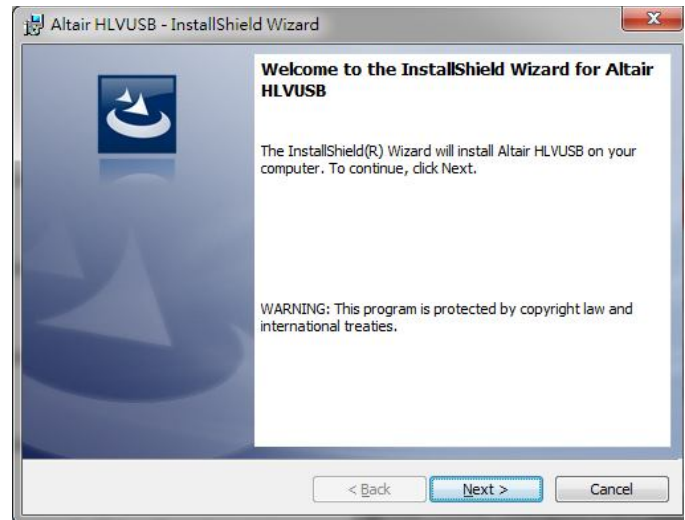
15. Please check "I accept the terms in the license agreement".

16. Please click "Next >" button.
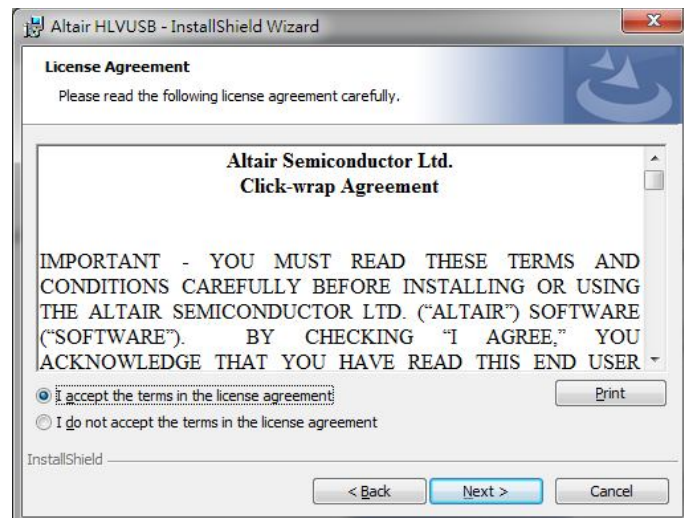
17. Please click "Install" button.
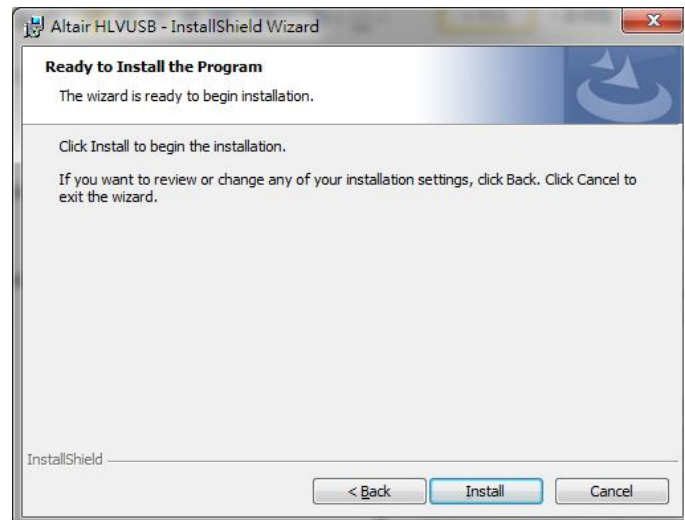
18. Please click "Continue to install driver anyway (I)".

19. Please click "Continue to install driver anyway (I)".

20. Please click "Continue to install driver anyway (I)".

21. Please click "Continue to install driver anyway (I)".

22. Please un-check "Launch "Hostless Image Burn"".

23. Please click "Finish" button to complete driver installation.
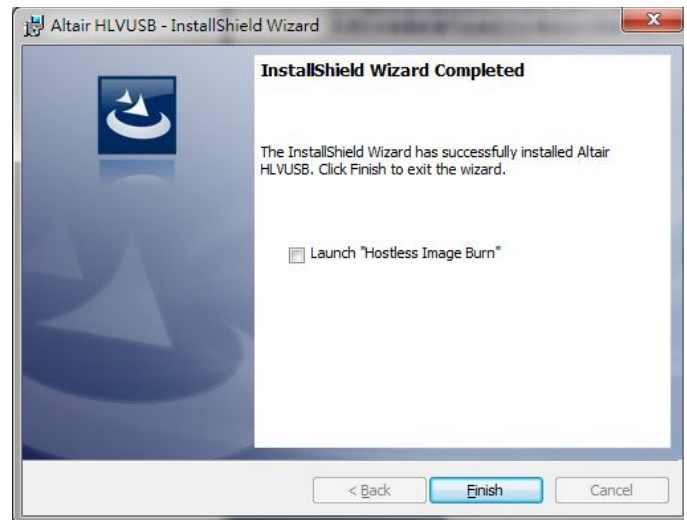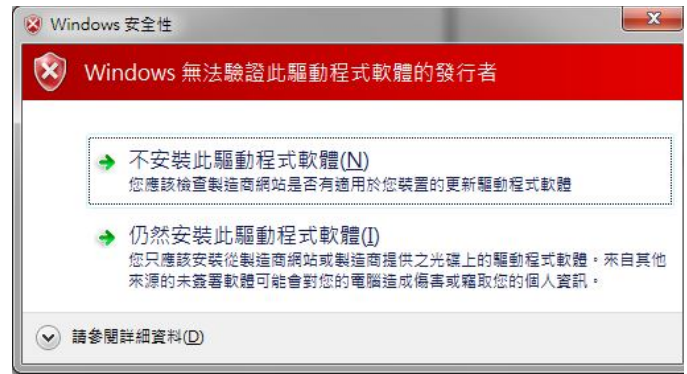
24. Please click "OK" button.
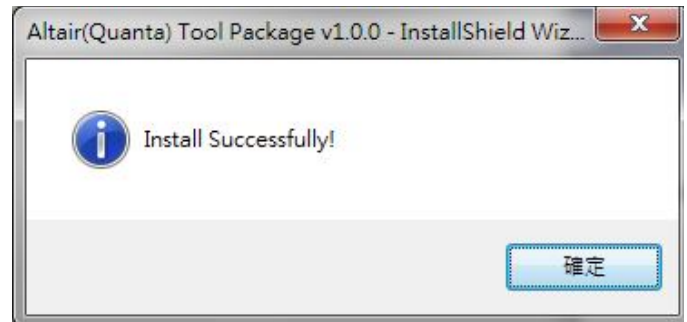
25. Please click "Finish" button.
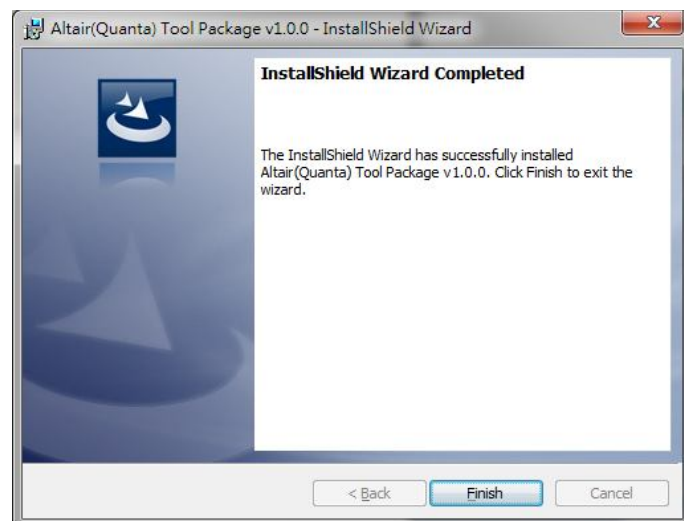
26. Please plug in Quanta device and please be patient and wait a few minutes to complete driver installation.

27. Please click "Close (C)" button.

28. Please reset Quanta device (take out and plug in the usb cable), it will take about 50 seconds for Quanta embedded system to be ready.

3. Operation of Connection Manager

3.1. Windows 7 (32 bit)

3.1.1. Basic Configuration

1. In order to get information from our embedded connection manager, it's mandatory to configure as the following instructions.

2. Please click

   Start→Programs→Altair Semiconductor→LTE ALT3100→Connection Manager.
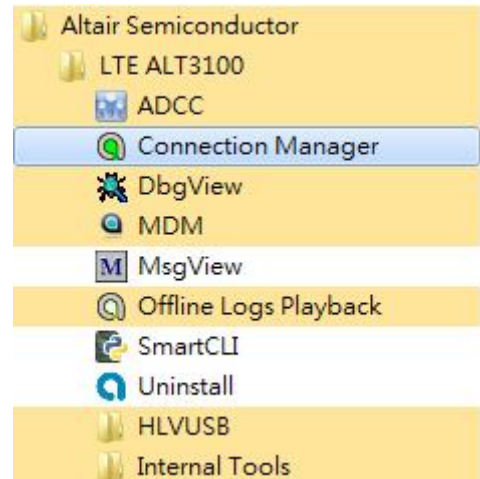
3. Please right click on top of connection manager and select

   Options→Device Location→Technician PC.
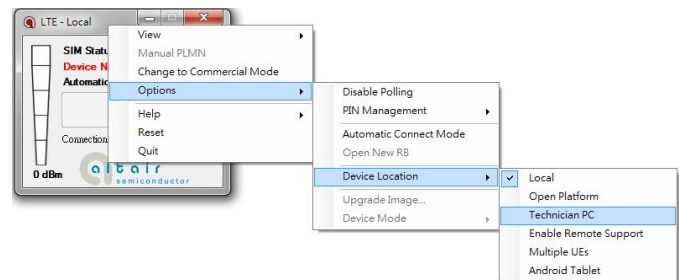
4. Connection manager will pop out window for you to enter IP and port.

5. Please enter IP address "10.0.0.1". **(see NOTE)**

6. Please click "OK" button.

NOTE: If you have successfully installed Quanta LM175 device, the embedded module will generate DHCP server and its IP address is "10.0.0.1". Meanwhile, our Quanta device will get a DHCP address "10.0.0.133" automatically.

7. Please check if connection manager shows device information correctly and the red Altair logo turns into yellow color.
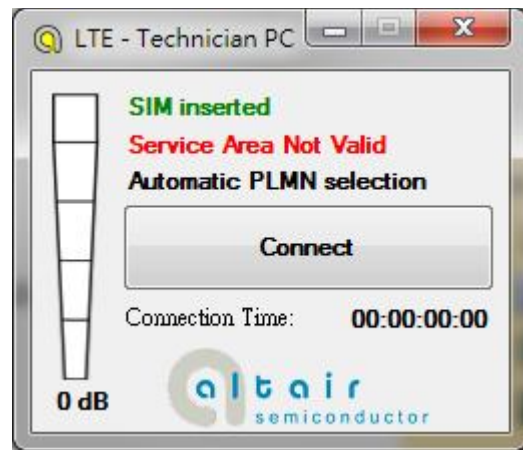
3.1.2. Extended Information

1. Please right click on top of connection manager and select

    View→Extended Information.

2. Connection manager will pop out "Extended Information" window.

3. It's NOT mandatory to set up this "Configuration" tab, connection manager will scan all the supported frequency bands and try to connect to the network.
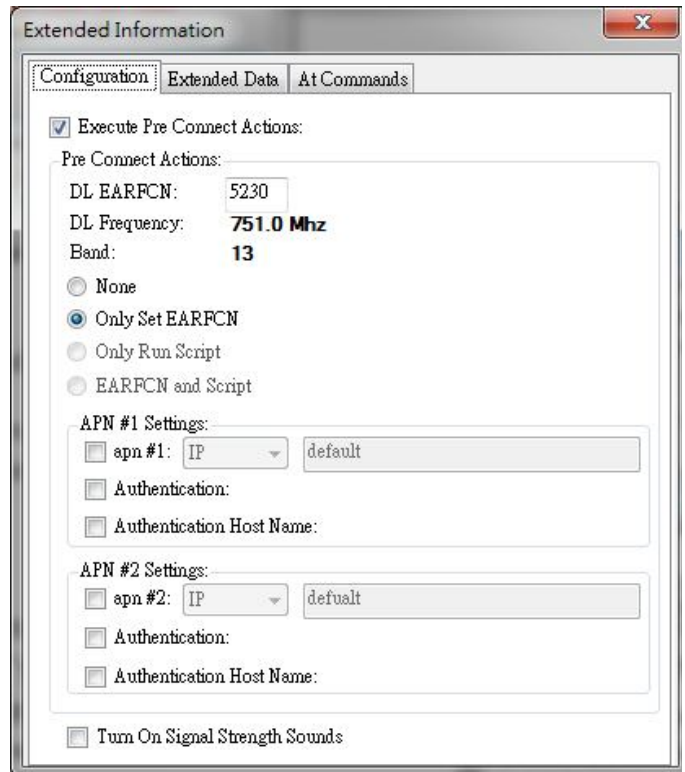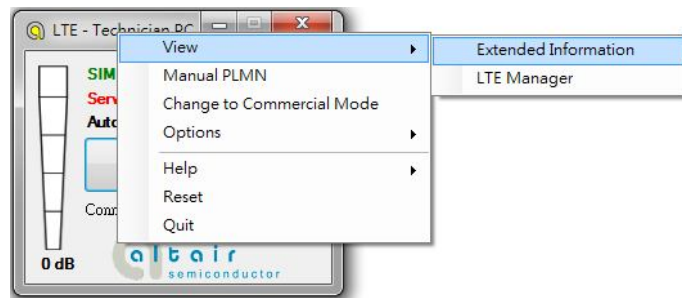
4. The "Extended Data" tab shows information of Connection Status, APN, Transmission mode, Bandwidth, DL EARFCN, Band, PLMN and Physical Cell ID and so on.
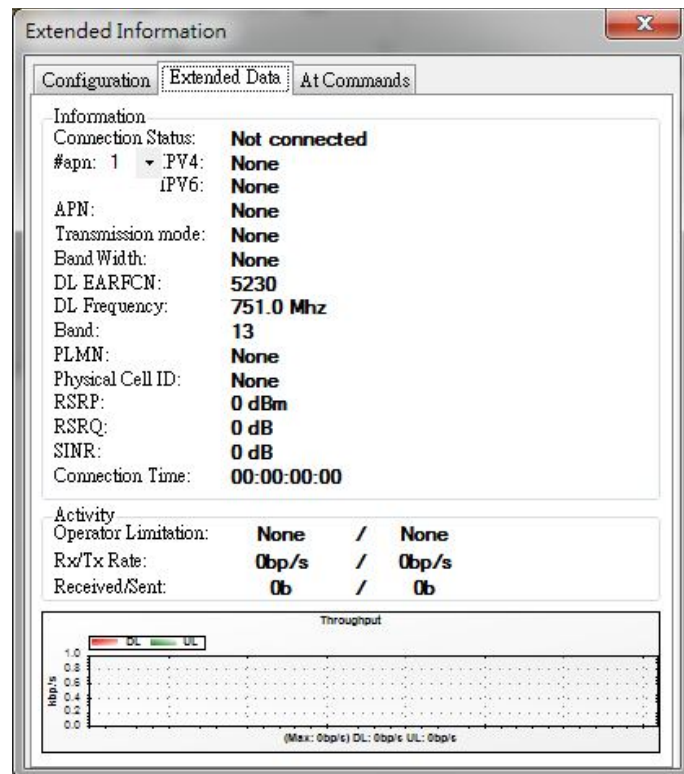
5. The "At Commands" tab will allow you to send AT Commands sets to configure supported functional parameters or to get supported information you want.
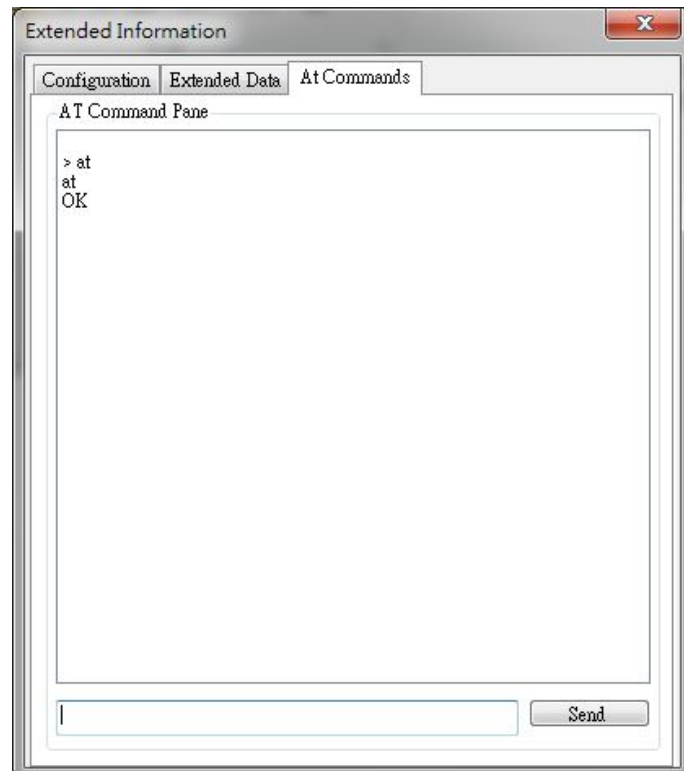
3.1.3. LTE Manager

1. Please right click on top of connection manager and select

    View→LTE Manager.

2. Connection manager will pop out a "Supervisor Password" window.

3. Please input "123456" and click "OK" button.

4. It will pop out a "LTE Manager" window.

5. LTE Manager shows information about GeneralInfo, LogCreator, Dispatcher, Relay, and GPS Tool.
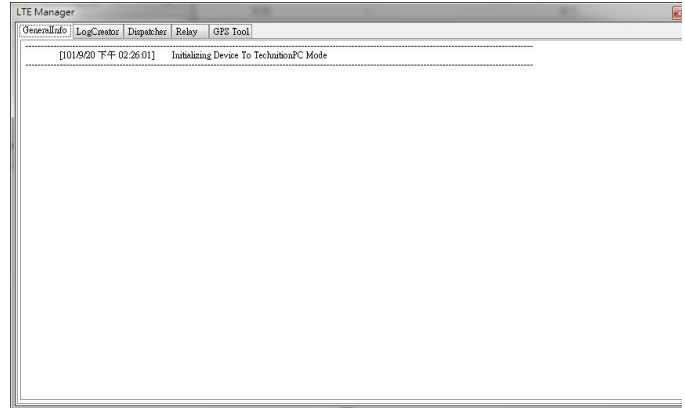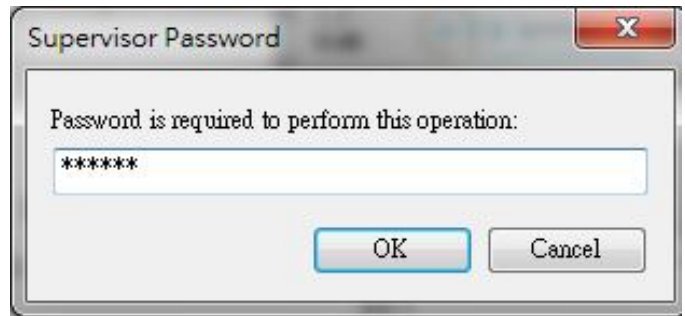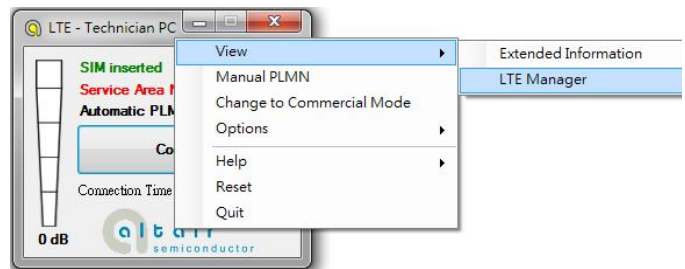
3.1.4. Manual PLMN

1. Please right click on top of connection manager and select

   Manual PLMN.

2. Connection manager will pop out a "Plmn Search" window.
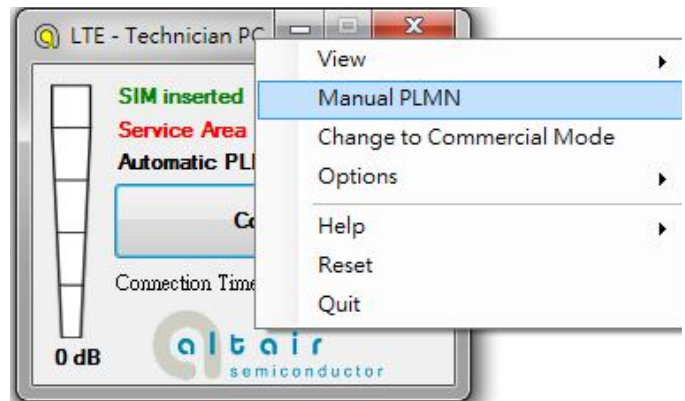
3. It's not necessary for you to select PLMN manually if you want to connect to network.
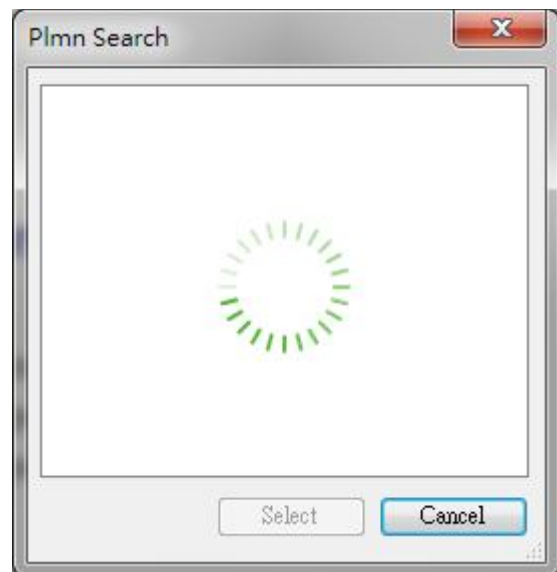
3.1.5. Change to Commercial Mode

1. Please right click on top of connection manager and select

    "Change to Commercial Mode".

2. Connection manager will pop out a "User Mode Changed" dialog.
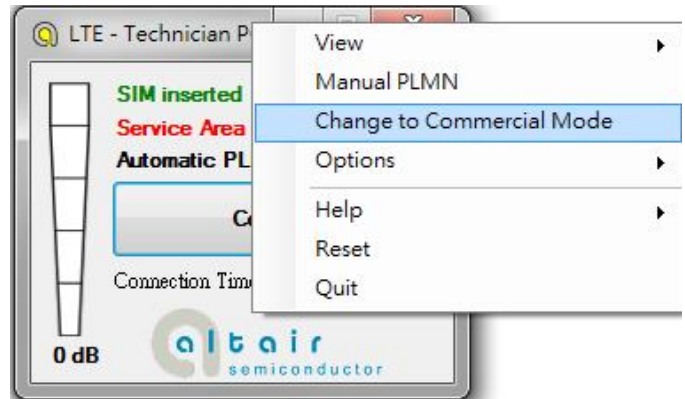
3. Please click "YES (Y)" button.
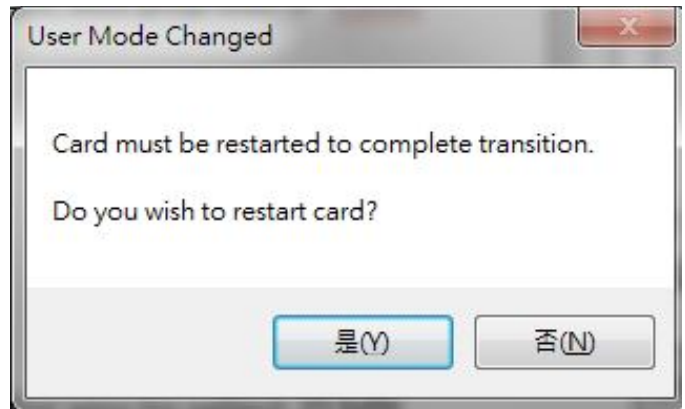
4. Please wait a few seconds for device to be ready.

3.1.6. Disable Polling

1. Please right click on top of connection manager and select

   "Options→Disable Polling".

2. Connection manager will stop searching for available network.
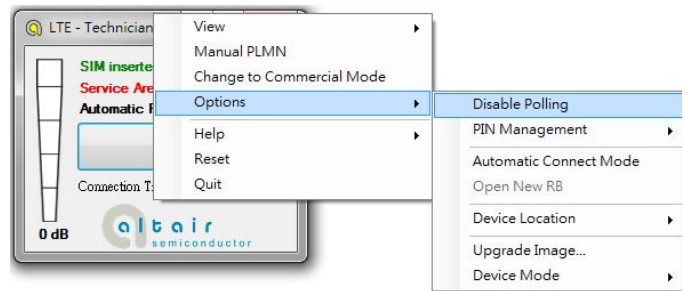
3.1.7. PIN Management

1. Please right click on top of connection manager and select

   "Options→PIN Management→PIN Information" to get PIN information.

2. Connection manager will pop out "PIN Information" window.

3. Please click "OK" button.
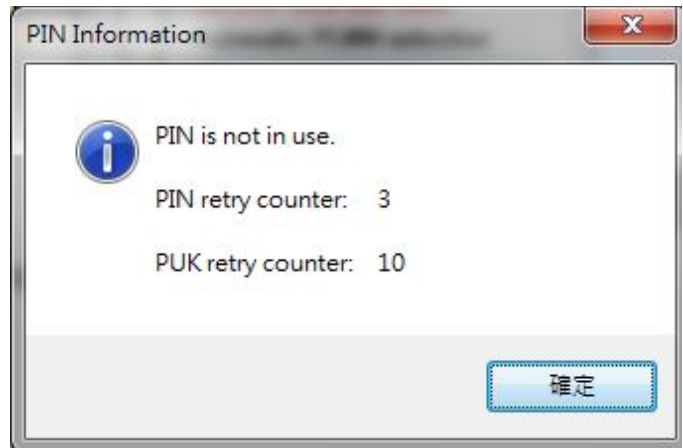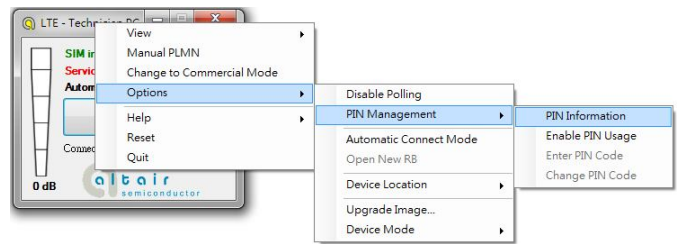
4. You also can enable PIN usage by right click on top of connection manager and select

   "Options→PIN Management→Enable PIN Usage".

5. Please input correct PIN code and click "OK" button.
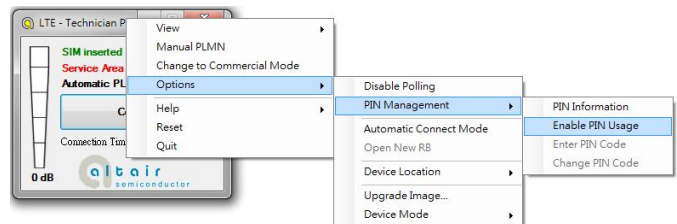
3.1.8. Automatic Connect Mode

1. Please right click on top of connection manager and select

   "Options→Automatic Connect Mode" to switch connection manager from manual connect mode to automatic connect mode.

2. Connection manager will automatically connect to network.
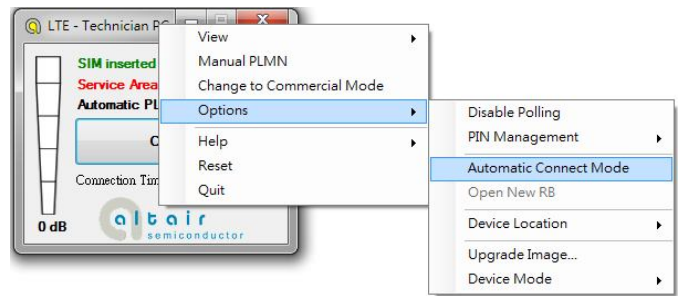
3.1.9. Device Location

1. For Quanta hostless device, please use "Technician PC" only.

2. Please right click on top of connection manager and select

   "Options→Device Location→Technician PC".

3. Please set IP address to "10.0.0.1" and click "OK" button.

4. Connection manager will get information from Quanta hostless device.
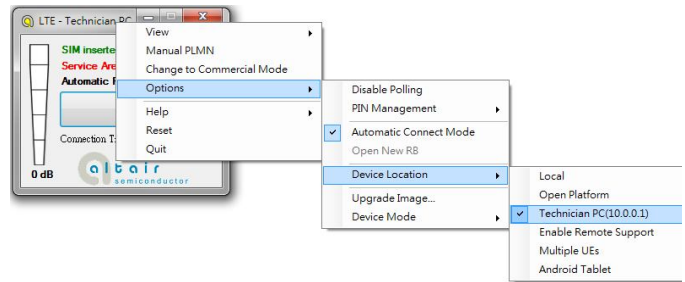
3.1.10. Help

1. Please right click on top of connection manager and select

   "Help→About".

2. Connection manager will pop out a "LTE Card Info" message box.
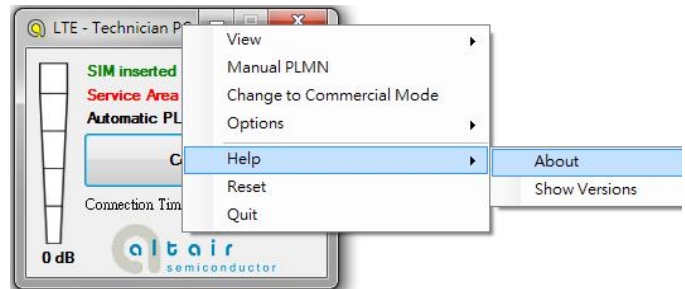
3. It will show information of IMSI number, IMEI number, Supported Bands, Current firmware version, and System package version.

4. Please click "OK" button.
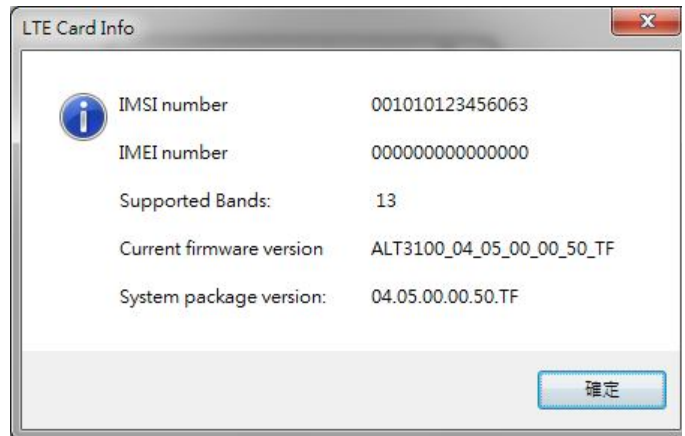
5. Please right click on top of connection manager and select

   "Help→Show Versions".

6. Connection manager will pop out a "Version info" message box.
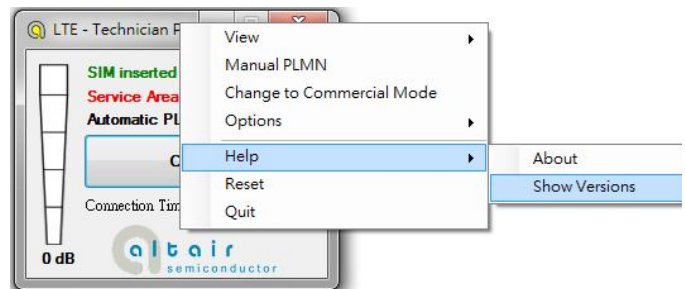
7. It will show information of System release version, SWInfra release version, and Current firmware version.

8. Please click "OK" button.
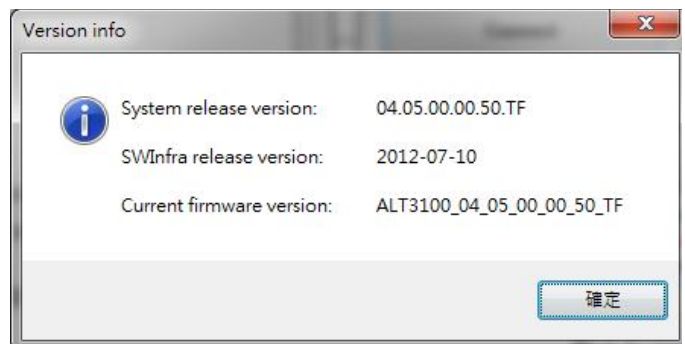
3.1.11.　Reset

1. Please right click on top of connection manager and select

   "Reset".

2. Connection manager will pop out a "" message box.
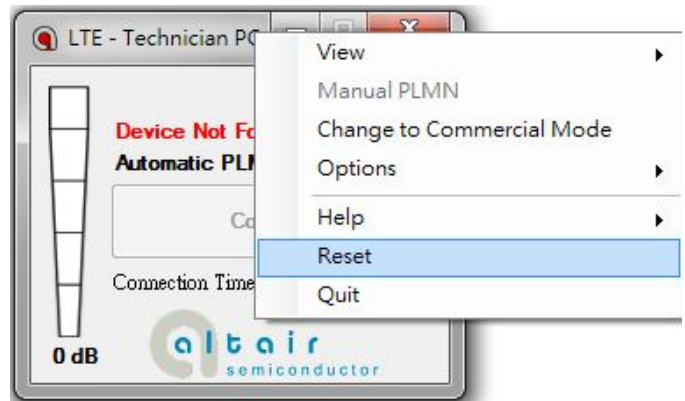
Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.   However, there is no guarantee that interference will not occur in a particular installation.   If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

End Product Labeling

When the module is installed in the host device, the FCC ID label must be visible through a window on the final device or it must be visible when an access panel, door or cover is easily re-moved. If not, a second label must be placed on the outside of the final device that contains the following text: "Contains FCC ID: HFS-LM175"

The grantee's FCC ID can be used only when all FCC compliance requirements are met.

This device is intended only for OEM integrators under the following conditions:

(1) The antenna must be installed such that 20 cm is maintained between the antenna and users,

(2) The transmitter module may not be co-located with any other transmitter or antenna except as described below.

(3) To comply with FCC regulations limiting both maximum RF output power and human exposure to RF radiation, the maximum antenna gain including cable loss in a mobile exposure condition must not exceed:

Standalone Condition:
- 5.0 dBi in 1700 MHz Band
- 9.0 dBi in 700 MHz Band

Assuming collocated with a WLAN transmitter with maximum 34 dBm average EIRP power
- 5.0 dBi in 1700 MHz Band
- 6.0 dBi in 700 MHz Band

Remark: This assumption is not valid if the output power of the collocated WLAN transmitter is higher than 34 dBm.

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization. A separate approval is required for all other operating configurations, including portable configurations with respect to 2.1093 and different antenna configurations.

To ensure compliance with all non-transmitter functions, the host manufacturer is responsible for evaluating host system for Part 15 subpart B requirement.