Quanta LM175 Test Operation Guide

Version 0.1 Jun. 04, 2014 Robert

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Version	Release Date	Description
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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

LTE ALT3100 ADCC Connection Manager DbgView MDM MsgView O Offline Logs Playback SmartCLI Uninstall HLVUSB	🍌 Altair Semiconductor
ADCC Connection Manager DbgView MDM MsgView Offline Logs Playback Control Uninstall HLVUSB	🗼 LTE ALT3100
 Connection Manager DbgView MDM MsgView Offline Logs Playback SmartCLI Uninstall HLVUSB 	ADCC
 DbgView MDM MsgView Offline Logs Playback SmartCLI Uninstall HLVUSB 	Connection Manager
 MDM MsgView Offline Logs Playback SmartCLI Uninstall HLVUSB 	💥 DbgView
M MsgView O Offline Logs Playback C SmartCLI O Uninstall HLVUSB	MDM
 Offline Logs Playback SmartCLI Uninstall HLVUSB 	M MsgView
SmartCLI C Uninstall	Offline Logs Playback
Uninstall	C SmartCLI
🔐 HLVUSB	🕥 Uninstall
	🗼 HLVUSB
🍶 Internal Tools	🍶 Internal Tools

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.

- 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.

装直驅動程式軟體女裝个成切		
Gadget Serial (COM111)	★装置已拔除	
Multifunction Gadget with multiple configurations	✓ 己可使用	
Remote NDIS based Internet Sharing Device #4	✓已可使用	
Gadget Serial (COM112)	✔ 己可使用	
如何處理裝置未正確安裝的問題?		
		[關閉(C)]

3. Operation of Connection Manager

3.1. Windows 7 (32 bit)

3.1.1. Basic Configuration

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

Start \rightarrow Programs \rightarrow Altair Semiconductor \rightarrow LTE ALT3100 \rightarrow Connection Manager.

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

Options \rightarrow Device Location \rightarrow 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.

	100	ADCC				
		Connection	n Manager			
	*	DbgView				
	9	MDM				
	M	MsgView				
	Q	Offline Log	s Playback			
	e	SmartCLI				
	Q Uninstall					
	14	HLVUSB				
		Internal To	ols			
IFE - Local SIM State Device N Automatic Connection 0 dBm	View Manual PLMN Change to Comme Options Help Reset Quit For IP Enter IP an	rcial Mode rcial Mode pri pri pri pri pri pri pri pri	sable Polling V Management tomatic Connect Mode en New R8 wice Location grade Image wice Mode		Local Open Platfon Technician PK Enable Remc Multiple UEs Android Tabl	m C Ste Support Let
	Enter IP at	nd port for re: 0.0.0.1	mote device:			
	Port	5555				
		OK	Ca	ncel		

Altair Semiconductor

LTE ALT3100

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

 $View \rightarrow Extended$ 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.



Extended Informatic	n	X				
Configuration Exten	ded Data	At Commands				
👿 Execute Pre Conr	V Execute Pre Connect Actions:					
Pre Connect Actions:						
DL EARFCN:	5230					
DL Frequency:	751.0	Mhz				
Band:	13					
🔘 None						
Only Set EARF	CN					
🔵 Only Run Scrip	ot					
EARFCN and S	Script					
_APN #1 Settings:						
apn #1: IP	apn #1: IP default					
Authenticatio	on:					
Authenticatio	n Host Ne	ime'				
	JII HOSt No	ane.				
APN #2 Settings:	÷	1 (572.2				
📄 apn #2: []	efualt					
Authentication:						
📃 📃 Authenticatio	Authentication Host Name:					
📃 📃 Tum On Signal	l Strength	Sounds				
L						

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.

Configuration Exter		
And an and a second	nded Data At Commands	
Information		
Connection Status:	Not connected	
#apn: 1 - PV4:	None	
ADM.	None	
APN: Tana and indian and Jac	None	
Dond Midth:	None	
	None 5220	
DL Frequency:	751 0 Mhz	
Band:	13	
PLMN:	None	
Physical Cell ID:	None	
RSRP:	0 dBm	
RSRQ:	0 dB	
SINR:	0 dB	
Connection lime:	00:00:00:00	
Activity		
Operator Limitation:	None / None	
Rx/Tx Rate:	Obp/s / Obp/s	
Received/Sent:	0b / 0b	
ended Informatio	n	
onfiguration Exter	oded Data At Commands	
AT Command Pane		
10000		
l>at		
> at at		
> at at OK		
> at OK		
> at oK		
> at oK		
> at at OK		

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.

pervisor Password	-	-	
'assword is required to	perform this	operation:	
kokokokok			
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	UK		uncel
ger			-
6 LogCreator Dispatcher Relay GPS Tool	in the Marke		
[1019/20 F-+ 02:2001] Initializing Device to technit	Ionro Mote		

X

Manual PLMN

Change to Commercial Mode

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Extended Information

LTE Manager

View

Options

() LTE - Technician PC

SIM inserted

Service Area

Automatic PLN

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.

Plmn Sear	ch	
	Select	Cancel

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.

	SIM inserted	Manual PLMN	
Н	Service Area	Change to Commercial Mode	
Ц	Automatic PL	Options	•
H	G	Help Reset	•
Н	Connection Tim	Quit	

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

User Mode Change	d	
Card must be rest Do you wish to re	arted to complet start card?	e transition.
	是()	香(N)

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.

) LTE - Technician	View Manual PLMN Change to Commercial	Mode		
Automatic F	Options	•	Disable Polling	
Connection T:	Help Reset Quit	•	PIN Management Automatic Connect Mod Open New RB	• le
	a i r niconductor		Device Location Upgrade Image Device Mode	•

3.1.7. PIN Management

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

"Options \rightarrow PIN Management \rightarrow PIN Information" to get PIN information.

- 2. Connection manager will pop out "PIN Information" window.
- 3. Please click "OK" button.



PIN Inform	nation	No. of Concession, name	×
0	PIN is not in u PIN retry cour PUK retry cour	se. nter: 3 nter: 10	
LTE - Technician P SIM inserted Service Area Adomatic PL C	View Manual PLMN Change to Commercial Mode Options Help	Disable Polling PIN Management	確定 PIN Information
Connection Tim O dB	Reset Quit i r onductor	Automatic Connect Mode Open New RB Device Location > Upgrade Image Device Mode >	Enable PIN Usage Enter PIN Code Change PIN Code
Pleas PI Ev Re	se Enter PIN Co N is currently loc! nter a 4-8 digits fo emaining retries: 3 N Code ****	ode ked or the SIM PIN 3 * OK Cance	

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.

SIM inserted Service Area	View Manual PLMN Change to Commercial Mode	2		
Automatic PL	Options	•	Disable Polling	
c	Help	•	PIN Management	×
	Reset		Automatic Connect Mode	
Connection I in	Quit		Open New RB	
	i r		Device Location	×
00.00			Upgrade Image Device Mode	•

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 \rightarrow Device Location \rightarrow 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 \rightarrow 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.



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View

Q LTE - Technician P

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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 PLMN	
Device Not Fo	Change to Commercial Mode Options	•
Co	Help	ļ
	Reset	
Connection Time	Quit	

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:

- $^\circ$ ~~ 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.