



GlobeTrotter PCI Express Mini Card Quick Start Guide Module Certification

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Version History

Date	Version	Author(s)	Revision(s)	Remarks
July 31., 2006		J. Boeckx		How to amount module

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1 INTRODUCTION

For evaluation purposes the GlobeTrotter PCI Express mini cards modules are housed in a cradle, offering a convenient evaluation and development platform. This document further describes the hardware and software installation and basic usage instructions for Windows XP English edition.

2 OVERVIEW

1. SIM card holder
2. SIM card eject mechanism
3. Audio CODEC chip reset button
4. Small USB connector¹



Figure 1: Pepijn Cradle bottom view

3 HARDWARE INSTALLATION

Step-by-step instructions:

(1) Insert the module skew into the cradle and (2) push the module down, so it makes proper contact in the PCI Express connector. (3) Secure the module with the locking mechanism.

Remark: Fasten the screw of the locking mechanism when it becomes too loose by holding one finger on top of the screw and turning the leg in counter clockwise direction.

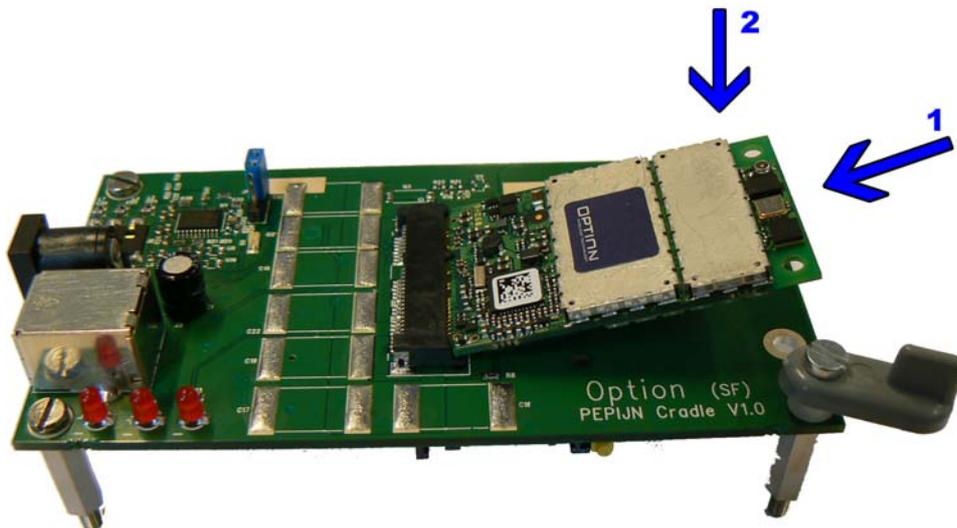


Figure 2: Module and Cradle board

(4) Carefully insert your SIM card in the SIM card holder (with the contact side up), and (5) insert the holder into the socket, making sure it is aligned correctly. To remove the SIM card holder, (6) press the small eject button with the tip of a pen (you may need to apply gentle force).

¹ The small and big USB connector both work for the same USB interface



Figure 3: SIM card holder

(7) Connect the external antenna (or SMA connector cable for test equipment) to the RF connector on the module.

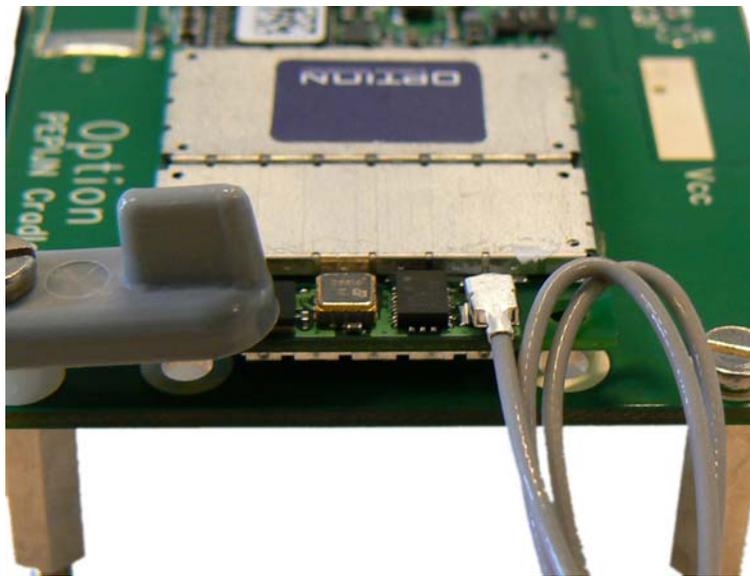


Figure 4: RF connector on the module

(8) Connect the headset into the audio jack (MODULE WILL ALSO WORK PROPERLY EVEN WITHOUT THIS JACK). Next, (9) connect the power supply plug (the adapter should already be connected to the mains) to the evaluation platform. And when you are ready you can (10) connect the USB cable from the GTM cradle to your PC. At this point your module should be detected by the host PC.



Figure 5: Top to bottom: USB cable, power plug and audio jack

NOTES:

In case a hard reset of the unit is necessary, unplug the power supply and wait until the power led (led closest to the fan) is fully extinguished before reconnecting the power supply (A large buffer capacitor on the cradle board needs about 10 seconds to discharge).

4 DRIVER INSTALLATION

Following drivers are available for Win XP, Win 2K and Win XP x64 edition:

- Device: GlobeTrotter Module 3G+
- Multifunction Adapter: GlobeTrotter Module 3G+ Flip-Flop Bus
- Port: GlobeTrotter Module 3G+ Diagnostics Port
- Port: GlobeTrotter Module 3G+ Application Port
- Network: GlobeTrotter Module 3G+ Network Card
- Modem: GlobeTrotter Module 3G+ Modem
- Smart Card: GlobeTrotter Module 3G+ Smart Card Interface (Optional)

For full functionality of your module, you need to make sure all drivers are installed correctly.

4.1 Installation procedure:

(1) If you have not already done so, install and connect the cradle as described in chapter 3. The unit is connected correctly only if the “Found New Hardware” balloon and subsequent “Welcome to the Found New Hardware” Wizard appears.

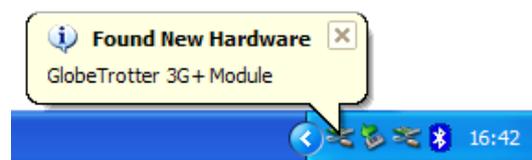


Figure 6: Found New Hardware



Figure 7: Welcome to the Found New Hardware Wizard

(2) For Windows XP: on the first dialog (“Can Windows connect to Windows Update to search for software?”) select “No, not this time”

(3) On the next dialog, select “Install software automatically (Recommended)”. At this point make sure the CD-ROM with drivers is inserted into your optical drive.

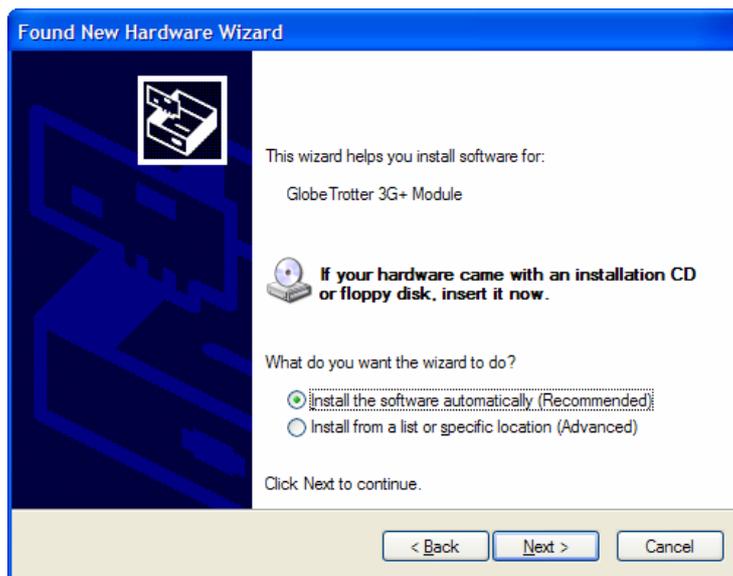


Figure 8: Install the software automatically (Recommended)

Or if you know the location of the drivers yourself you can select “Install from a list or specific location (Advanced)”. In this case make sure to select the option “Include this location in the search:” in the next screen and enter the correct path to your drivers.

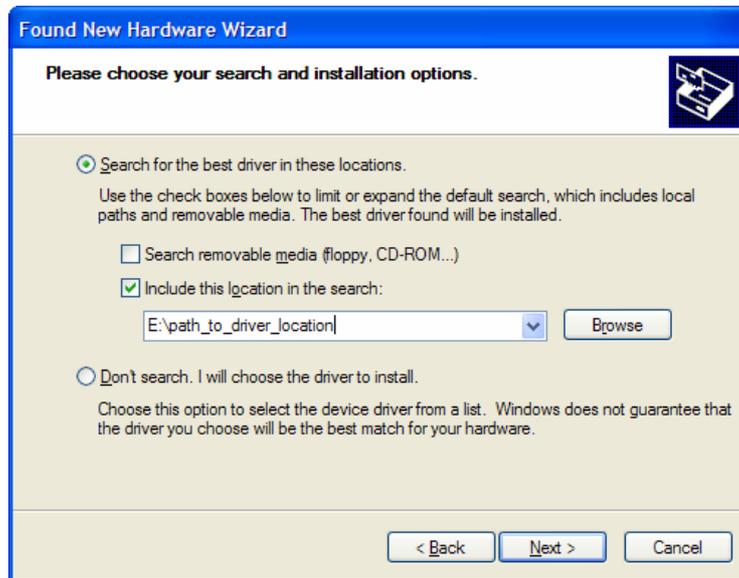


Figure 9: Install from a list or specific location (Advanced)

(4) If the drivers have been fully signed, an automatic process takes you further. If however the supplied drivers are not yet WHQL signed for Windows², you will get a pop-up with signing warnings from Windows. Just click "Continue Anyway":

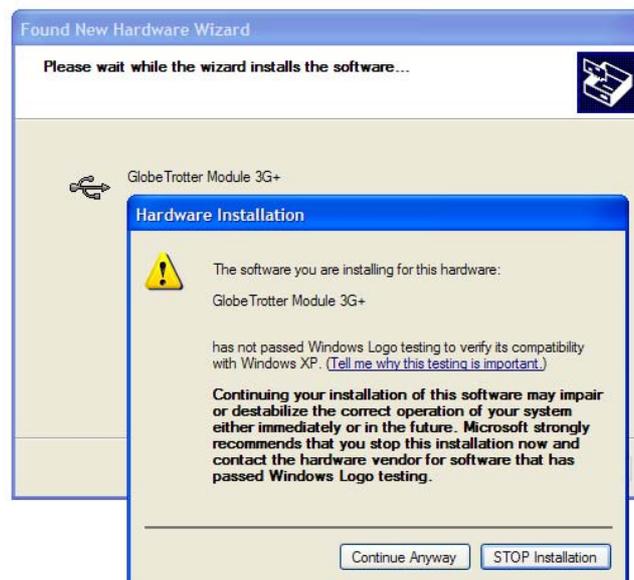


Figure 10: Continue Anyway

(5) Click "Finish" in the next screen "Completing the Found New Hardware Wizard"

² Un-signed drivers are fully functional and have been thoroughly tested when released. But only they are not yet "Microsoft certified".

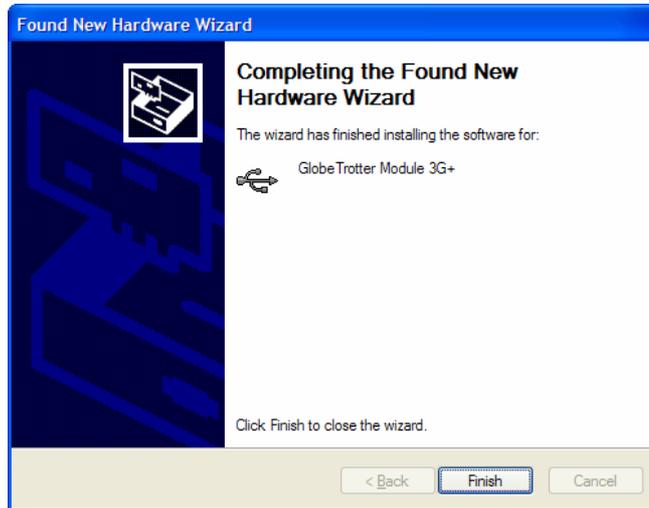


Figure 11: Completing the Found New Hardware Wizard

(6) Repeat step 3 to 5 for all mentioned drivers.

(7) On successful installation of all drivers the device manager will show following typical installed devices.

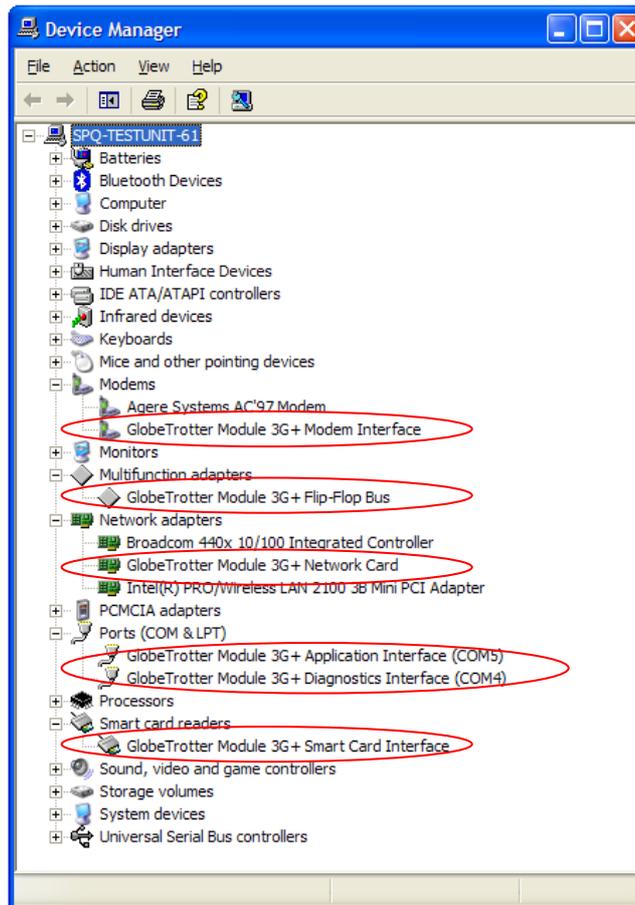


Figure 12: Device manager after driver installation

To get to device manager go to “Start” menu and select “Run”. In the next dialogue type “devmgmt.msc” as shown on the next screenshot:

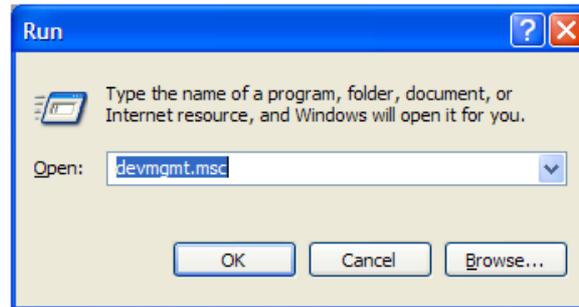


Figure 13: Run to device manager

5 HYPERTERMINAL

This section describes briefly how to setup HyperTerminal to communicate with the PCI Express Mini Card by AT commands.

- (1) Go to device manager, and check which port is the Application port. In this example, the application port is COM6.

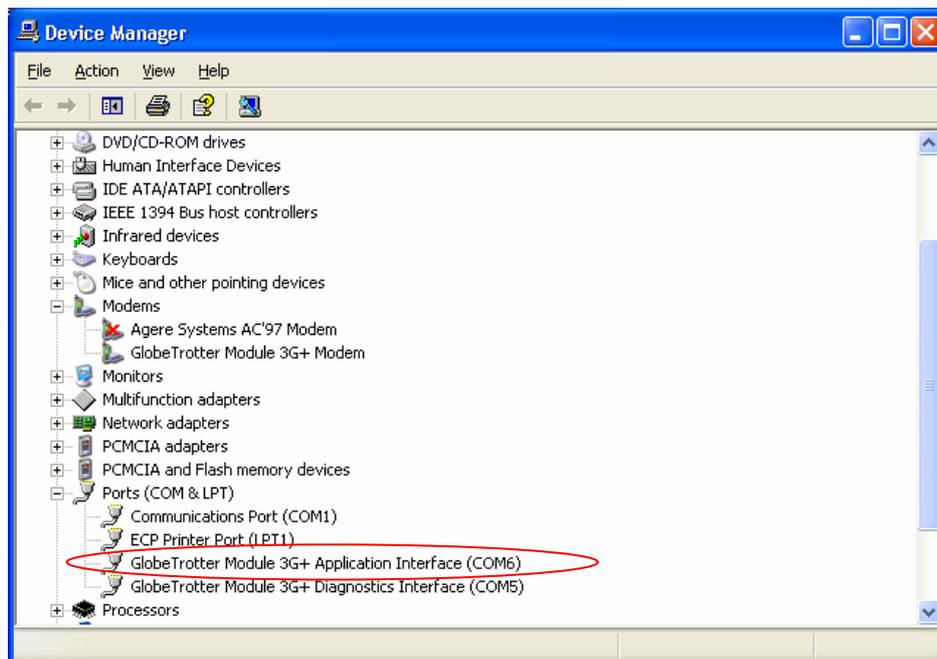


Figure 14: Device manager

- (2) Open HyperTerminal with the “Start” menu in Windows:
Start → Programs → accessories → Communication → HyperTerminal
- (3) Normally, you have to do the following two steps only once. If you already have done so in the past you can skip to step 5. If not, choose a country and an area code. For use with the module, it does not matter, so just enter anything.



Figure 15: Location information

(4) Just “OK” the next “Phone and Modem Options” screen.

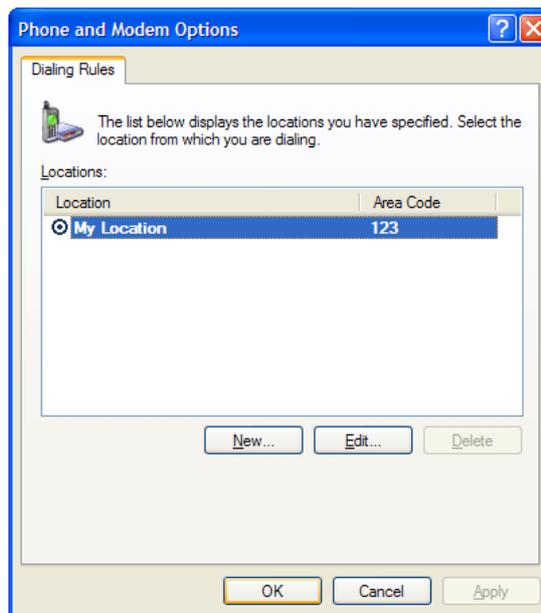


Figure 16: Phone and Modem Options

(5) Enter a name for your HyperTerminal Connection and press OK.



Figure 17: Connection Description

(6) In the next window, change the “Connect using:” field to the Application Port (COM6 in this example). Click OK.



Figure 18: Connect To

(7) Now the next window will appear. Modify the Bit per second field to 115200 and click OK.

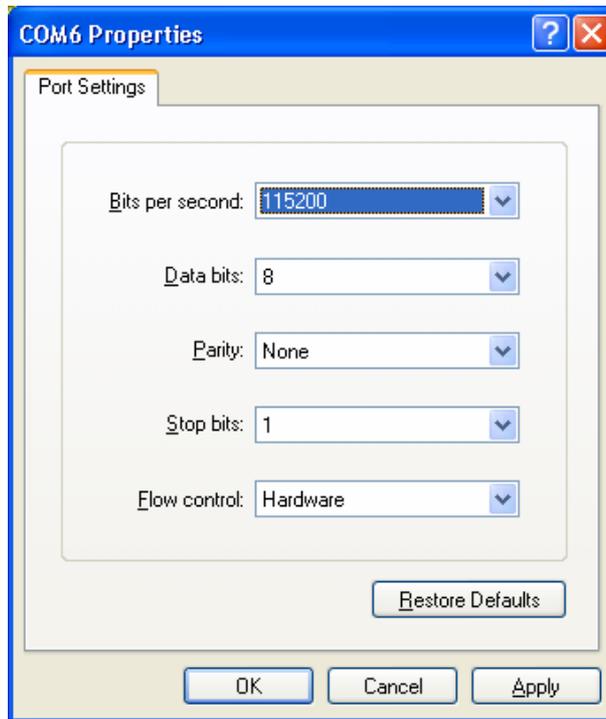


Figure 19: Connection Properties

HyperTerminal is configured and you are now ready issue AT commands to the PCI Express Mini Card module. Figure 20 shows a typical HyperTerminal session. If you don't have visual feedback of what you are typing, you need to turn echo on by typing ATE1 followed by enter first as shown in below example.

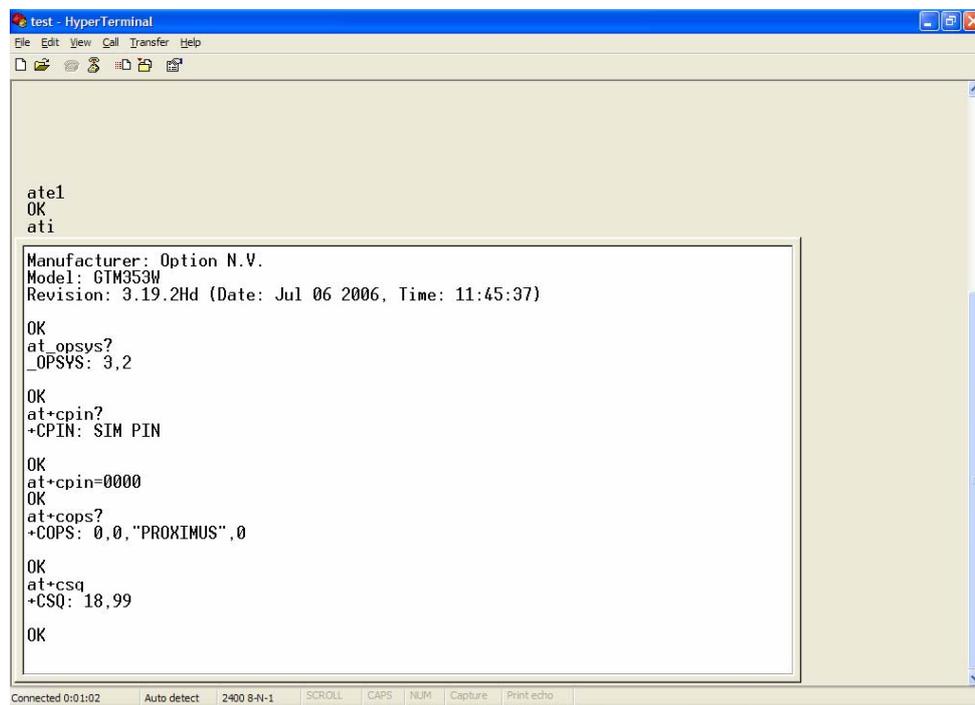


Figure 20: Typical HyperTerminal session

When you close HyperTerminal, you have the opportunity to save your HyperTerminal profile. Saved profiles can be found under Start → Programs → accessories → Communication → HyperTerminal