

# **MPCIE-3G**

## **Quick Installation Guide**

**Version 1.0**

Jul 01, 2014

### **Package Contents:**

MPCIE-3G package includes the following items:

- 1 x MPCIE-3G PCI Express Mini 3G adapter card
- 1 x Driver CD
- 1 x RF antenna cable (optional)
- 1 x GSM antenna cable (optional)



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## 1.1 Specifications

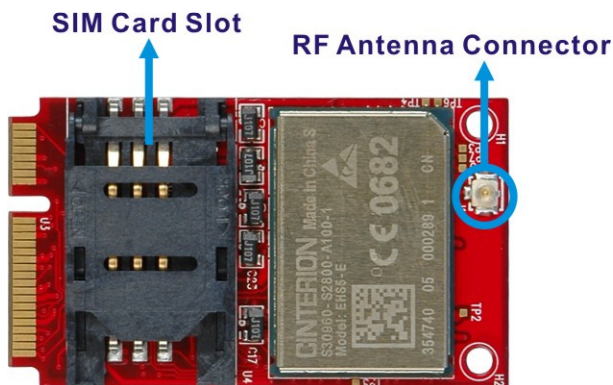
	<b>MPCIE-3G</b>
<b>Frequency Bands</b>	GSM/GPRS/EDGE : Dual band GSM 900 / 1800 MHz UMTS/HSPA+ : Dual band UMTS 900/2100MHz
<b>Output Power (according to Release 99, V5)</b>	Class 4 (+33dBm 2dB) for EGSM900 Class 1 (+30dBm 2dB) for GSM1800 Class E2 (+27dBm 3dB) for GSM900 8-PSK Class E2 (+26dBm+3 /-4dB) for GSM1800 8 - PSK Class 3 (+24dBm +1/-3dB) for UMTS 2100, WCDMAFDD BdI Class 3 (+24dBm +1/-3dB) for UMTS 900, WCDMAFDD BdVIII
<b>Power supply</b>	3V < VMAIN < 3.6V
<b>Operating Temperature (Board Temperature)</b>	Normal operation: -30 °C to +85 °C Restricted operation: -40 °C to +95 °C
<b>Storage Temperature</b>	-40 °C to +95 °C
<b>Physical Dimensions</b>	50.95 mm x 30 mm x 4.75 mm
<b>Supported OS</b>	Microsoft Windows 8 Microsoft Windows 7 Microsoft Windows Vista Microsoft Windows XP Linux Kernel 2.4.31 (and above)

<b>HSPA</b>	
<b>3GPP Release 6, 7</b>	DL 7.2Mbps, UL 5.7Mbps HSDPA Cat.8 / HSUPA Cat.6 data rates Compressed mode (CM) supported according to 3GPP TS25.212
<b>UMTS</b>	
<b>3GPP Release 4</b>	PS data rate 384 kbps DL / 384 kbps UL CS data rate 64 kbps DL / 64 kbps UL
<b>GSM/GPRS/EGPRS</b>	
<b>Data Transfer</b>	<p><b>GPRS:</b> Multislot Class 12 Full PBCCH support Mobile Station Class B Coding Scheme 1 4</p> <p><b>EGPRS:</b> Multislot Class 12 EDGE E2 power class for 8 PSK Downlink coding schemes CS 1-4, MCS 1-9 Uplink coding schemes CS 1-4, MCS 1-9 SRB loopback and test mode B 8-bit, 11-bit RACH PBCCH support 1 phase/2 phase access procedures Link adaptation and IR NACC, extended UL TBF Mobile Station Class B</p> <p><b>CSD:</b> V.110, RLP, non-transparent 14.4kbps USSD</p>

<b>SMS</b>	Point-to-point MT and MO Cell broadcast Text and PDU mode Storage: SIM card plus SMS locations in mobile equipment
<b>Interface</b>	
<b>Antenna</b>	50Ohms. Main GSM/UMTS antenna
<b>USB</b>	USB 2.0 High Speed (480Mbit/s) device interface, Full Speed (12Mbit/s) compliant
<b>Serial Interface</b>	<p><b>ASC0:</b>  8-wire modem interface with status and control lines, unbalanced, asynchronous  Adjustable baud rates: 1,200bps to 921,600 bps  Autobauding: 1,200bps to 921,600bps  Supports RTS0/CTS0 hardware flow control.  Multiplex ability according to GSM 07.10 Multiplexer Protocol.</p> <p><b>ASC1:</b>  4-wire, unbalanced asynchronous interface  Adjustable baud rates: 1,200bps to 921,600 bps  Supports RTS1/CTS1 hardware flow control</p>

## 1.2 Hardware Installation

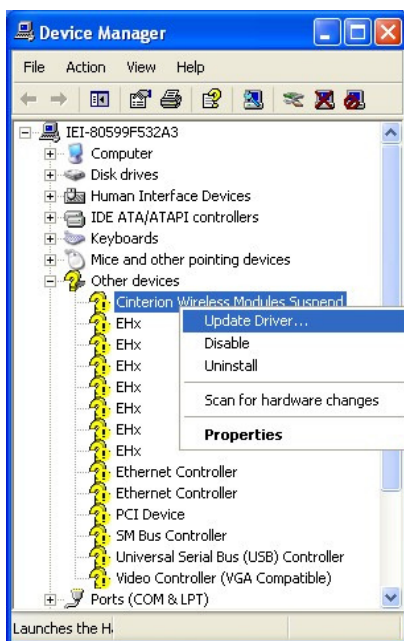
- Step 1:** Install the MPCIE-3G card into the PCIe Mini full-size slot of the system. Please refer to the system manual for the detail installation instruction.
- Step 2:** Connect the RF antenna cable to the RF antenna connector on the MPCIE-3G.



- Step 3:** Insert a SIM card into the SIM card slot on the MPCIE-3G.
- Step 4:** Connect the GSM antenna cable to the RF antenna cable connector.
- Step 5:** Power up the system.

## 1.3 Software Installation

- Step 1:** Insert the MPCIE-3G driver CD into the system.
- Step 2:** Open the **Device Manager**. Right click on Cinterion Wireless Modules Suspend under Other devices and select **Update Driver Software**.



### NOTE:

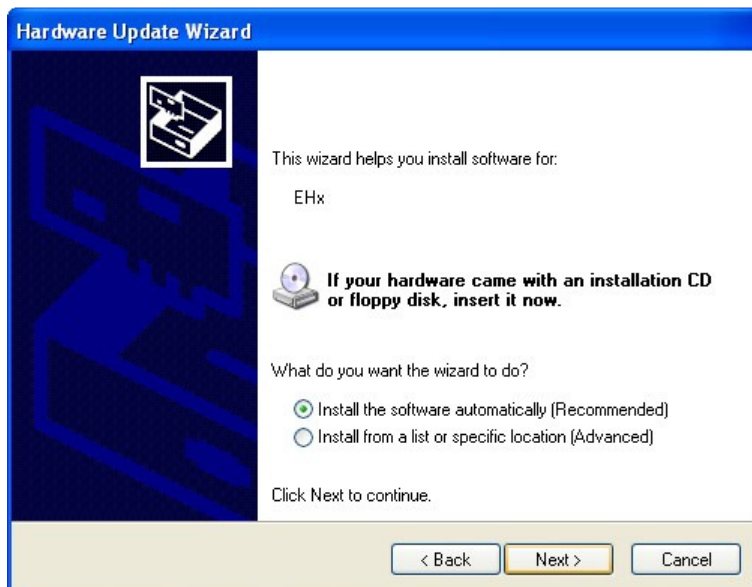
There are seven further EHx ports located under “Other devices” that are reserved for future use. The ports numbered 3, 4 and 5 provide an AT command interface to the module via USB. Install the INF file for these ports in the same way as for the USB modem if necessary.

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**Step 3:** The Hardware Update Wizard appears. Select “Yes, this time only” and click **Next** to continue.



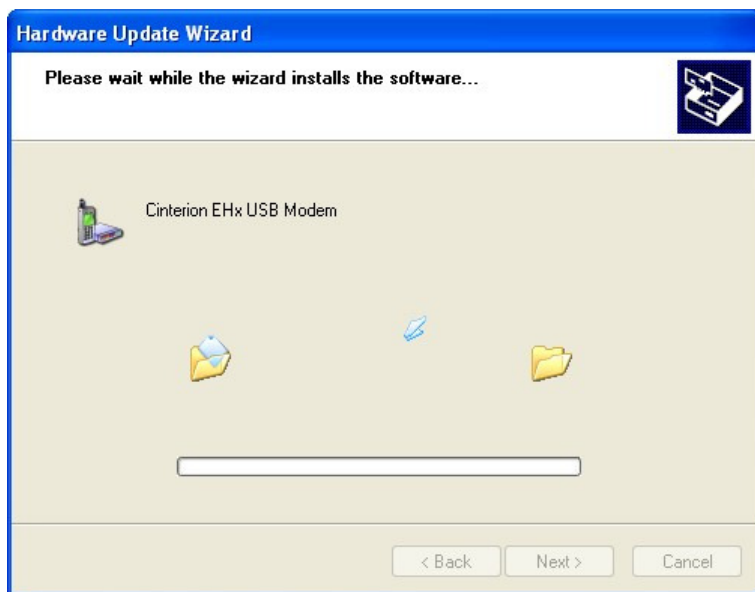
**Step 4:** Select “Install the software automatically” and click **Next**.



**Step 5:** The Hardware Installation warning windows appears. Click “Continue Anyway”.

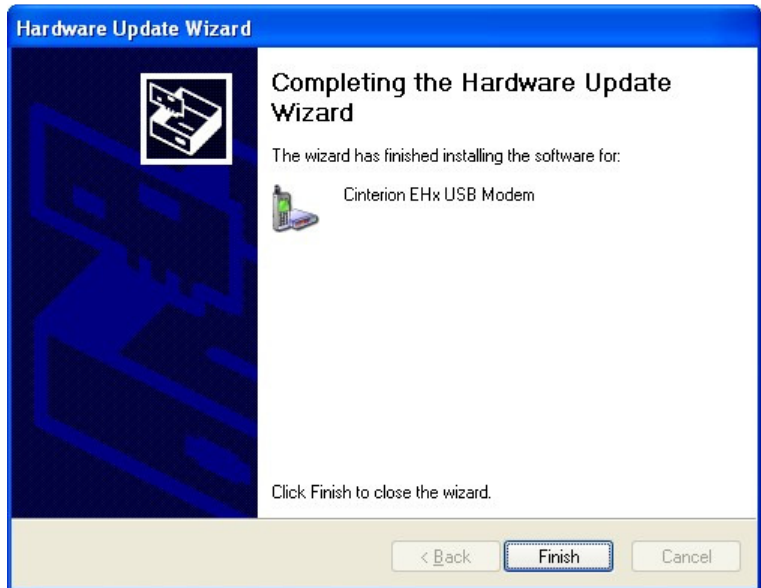


**Step 6:** The system starts installing drivers.

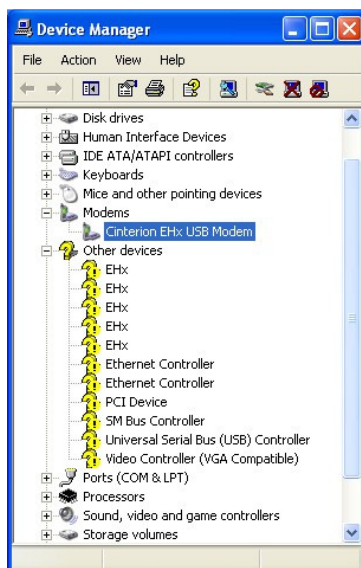




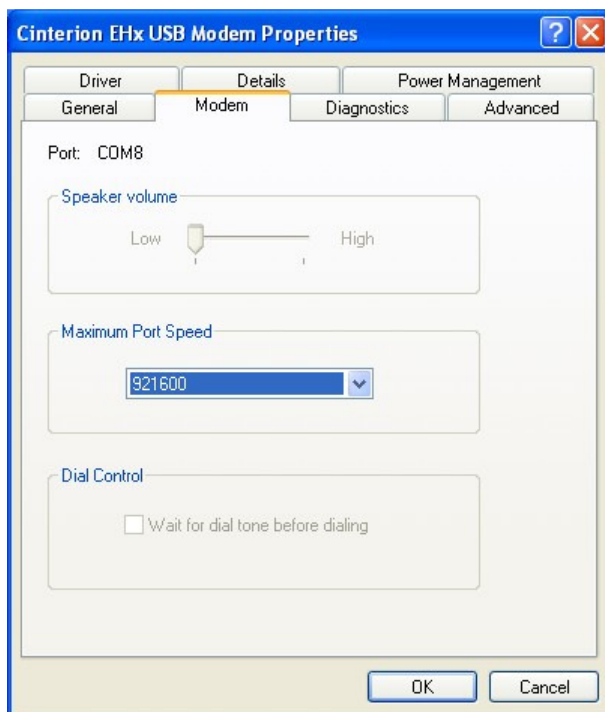
**Step 7:** When the Hardware Update Complete window appears, click **Finish** to close the wizard.



**Step 8:** The Cinterion EHx USB Modem appears in the Device Manager under Modems.



**Step 9:** Right click the Cinterion EHx USB Modem on the Device Manager and select **Properties**. Click the **Modem** tab to display the selected COM port as well as the maximum port speed.

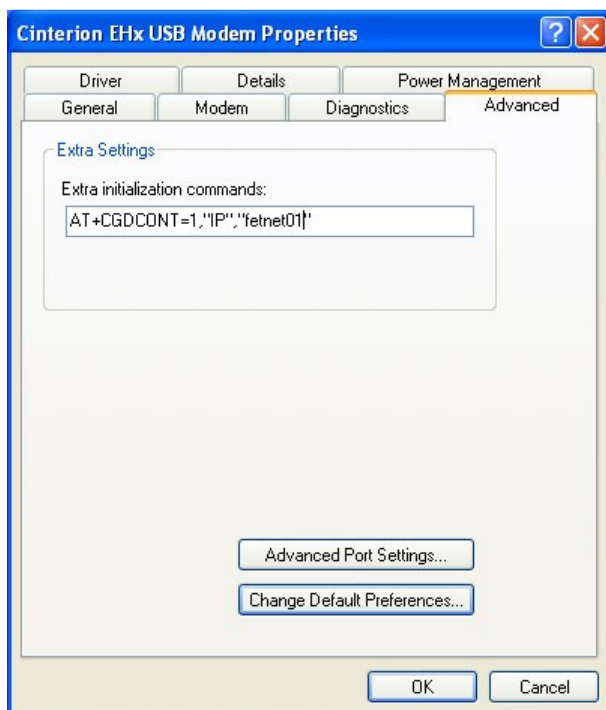


**Step 10:** Click the **Advanced** tab to specify the Extra Initialization Commands:  
AT+CGDCONT=1,"IP","[APN]"



**NOTE:**

[APN] stands for the APN information provided by the MNO of the SIM card installed on the MPCIE-3G. Ensure that the SIM card does not require a PIN.



## 1.4 Create a Connection

**Step 1:** Open Control Panel. Select **Network and Internet Connections** → **Network Connections**. Click “Create a new connection”.

**Step 2:** The New Connection Wizard appears. Click **Next** to continue.



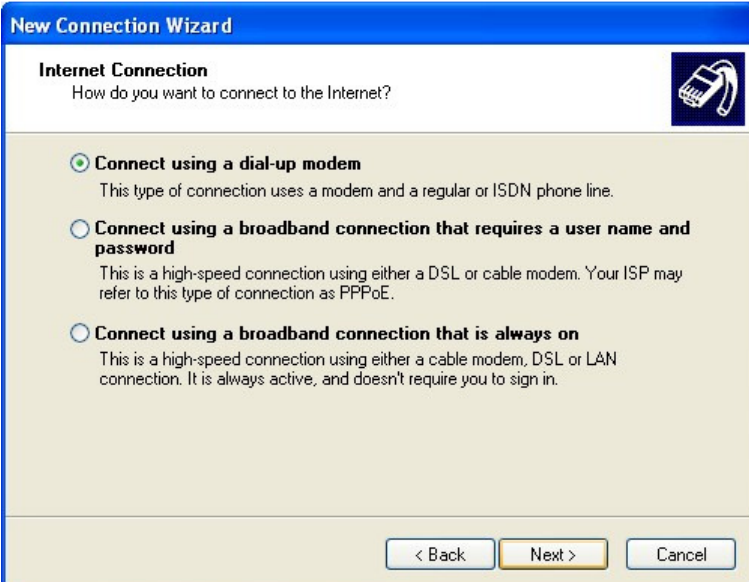
**Step 3:** Select a network connection type. Click **Next** to continue.



**Step 4:** Select “**Set up my connection manually**”. Click **Next** to continue.



**Step 5:** Select “Connect using a dial-up modem”. Click **Next** to continue.



The screenshot shows the 'New Connection Wizard' window with the 'Internet Connection' tab selected. The question 'How do you want to connect to the Internet?' is at the top. There are three radio button options: 'Connect using a dial-up modem' (selected), 'Connect using a broadband connection that requires a user name and password', and 'Connect using a broadband connection that is always on'. Each option has a brief description. At the bottom right are three buttons: '< Back', 'Next >', and 'Cancel'.

**New Connection Wizard**

**Internet Connection**  
How do you want to connect to the Internet?

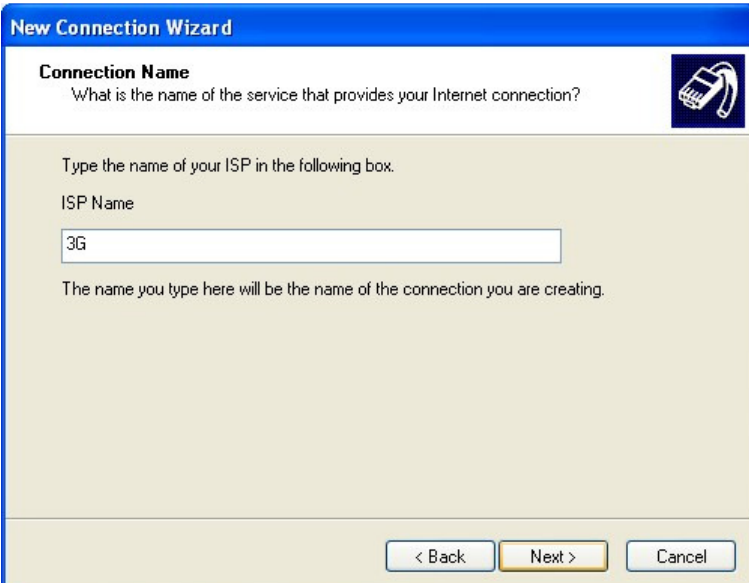
☒ **Connect using a dial-up modem**  
This type of connection uses a modem and a regular or ISDN phone line.

☐ **Connect using a broadband connection that requires a user name and password**  
This is a high-speed connection using either a DSL or cable modem. Your ISP may refer to this type of connection as PPPoE.

☐ **Connect using a broadband connection that is always on**  
This is a high-speed connection using either a cable modem, DSL or LAN connection. It is always active, and doesn't require you to sign in.

< Back   Next >   Cancel

**Step 6:** Type a name for this connection. Click **Next** to continue.



The screenshot shows the 'New Connection Wizard' window with the 'Connection Name' tab selected. The question 'What is the name of the service that provides your Internet connection?' is at the top. Below it, it says 'Type the name of your ISP in the following box.' and 'ISP Name'. There is a text input field containing '3G'. Below the field, it says 'The name you type here will be the name of the connection you are creating.' At the bottom right are three buttons: '< Back', 'Next >', and 'Cancel'.

**New Connection Wizard**

**Connection Name**  
What is the name of the service that provides your Internet connection?

Type the name of your ISP in the following box.

ISP Name

3G


The name you type here will be the name of the connection you are creating.

< Back   Next >   Cancel

**Step 7:** Enter the Internet Service Provider settings in the following two setup windows. The information should be provided by the MNO of the installed SIM card, including phone number, user name and password. Click **Next** to continue.

**New Connection Wizard**

**Phone Number to Dial**  
What is your ISP's phone number?



Type the phone number below.

Phone number:

You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telephone. If you hear a modem sound, the number dialed is correct.

< Back   **Next >**   Cancel

**New Connection Wizard**

**Internet Account Information**  
You will need an account name and password to sign in to your Internet account.



Type an ISP account name and password, then write down this information and store it in a safe place. (If you have forgotten an existing account name or password, contact your ISP.)

User name:

Password:

Confirm password:

☒ Use this account name and password when anyone connects to the Internet from this computer

☒ Make this the default Internet connection

< Back   **Next >**   Cancel

**Step 8:** The setup steps are completed. To create the connection and close the wizard, click **Finish**.

