LTE USB Modem

USER GUIDE

IPWireless™

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Introduction

This User Guide provides installation and configuration instructions for the IPWireless LTE USB Modem. Follow the instructions in this guide to install the IPWireless LTE Connection Manager and driver files.

This device is an LTE USB Modem operating with 3GPP LTE networks. Used with laptop or desktop computers, the device provides the user with superior performance for fixed or mobile Internet access.

System Requirements

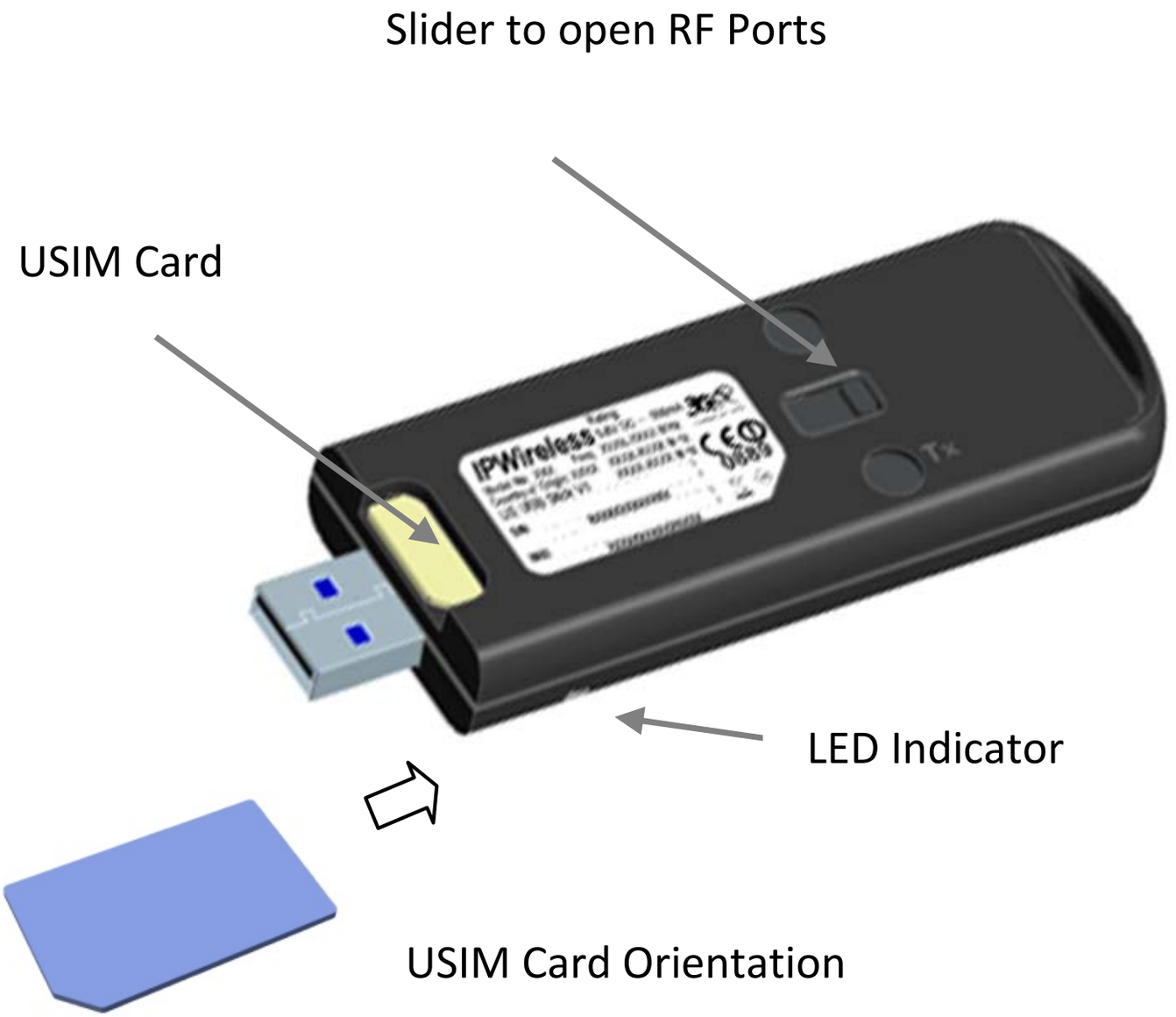
For your IPWireless LTE USB Modem to work properly your computer must be running:

- Operating System:
  - Windows XP (32bit SP3, 64bit SP2)
  - Windows Vista (32 or 64 bit) Operating System:
  - Windows 7 (32 or 64 bit)

- Minimum System Configuration:
  - Intel Pentium III or faster
  - 64MB RAM
  - 200MB or greater free disk space
  - USB 2.0 port

IPWireless LTE USB Modem Features

The diagram below shows the main mechanical features of the IPWireless LTE USB Modem



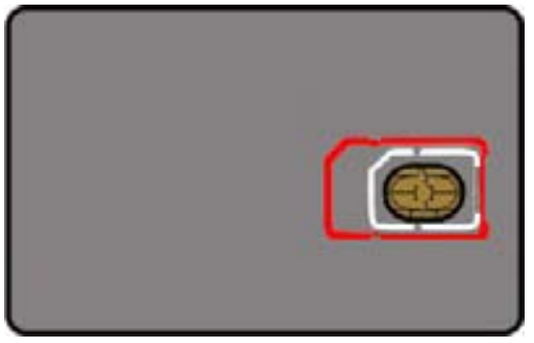
Installing USIM Card

Before using the IPWireless LTE USB Modem, gently insert USIM card into the slot as shown on the previous page.

Please pay attention to how to place the card in the slot. The metal contacts on the card should face downwards and the cut edge of the card will be visible after inserting the card into the slot - the modem will not work if the card is inserted improperly.

WARNING!

The LTE USB stick currently supports the most popular mini card format. This is shown below by the red outline. The smaller micro SIM (shown by the white outline) can be supported also using the adaptor supplied with the USIM card.

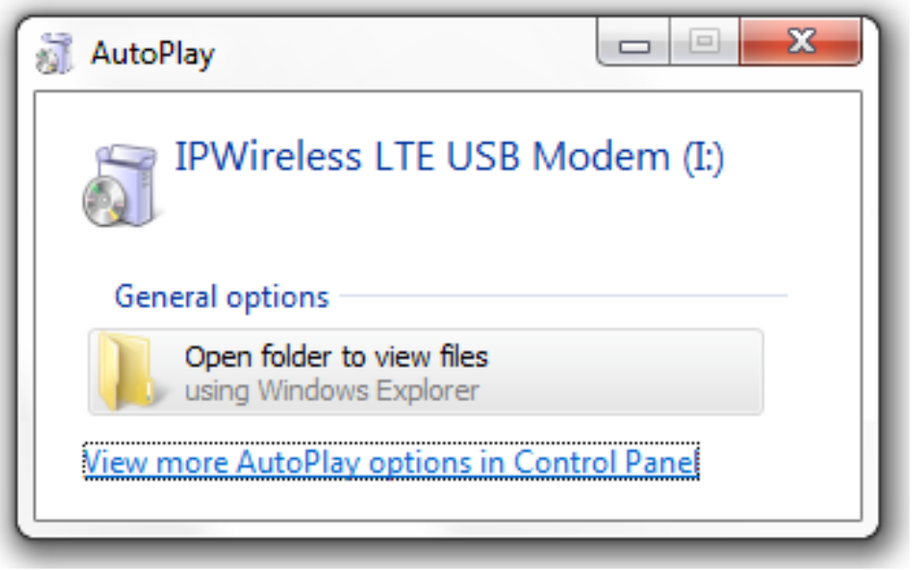


1. Installing the IPWireless LTE Connection Manager

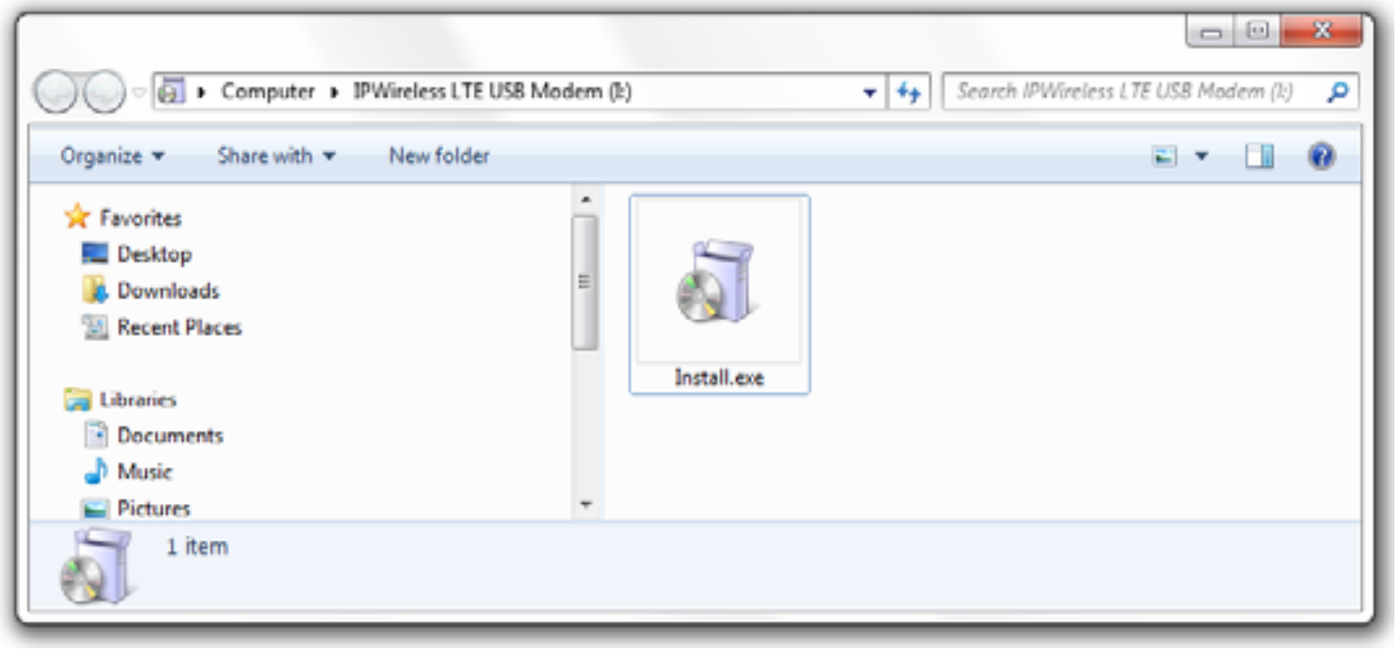
The first time the IPWireless LTE USB Modem is connected to your computer it will automatically install the required drivers and application software. On subsequent connections this is not carried out.

Connect the IPWireless LTE USB Modem to a USB port on your PC. If you don't know where the USB port is, just look for the USB ymbol.

If AutoPlay is enabled then the folder will automatically appear.

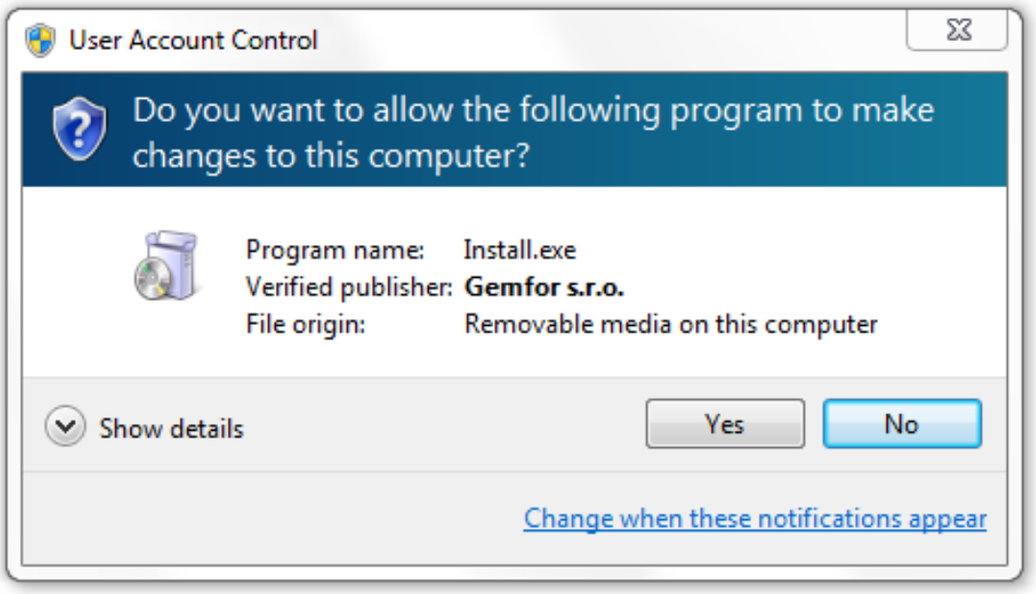


Double click on **Install** to start the installation process

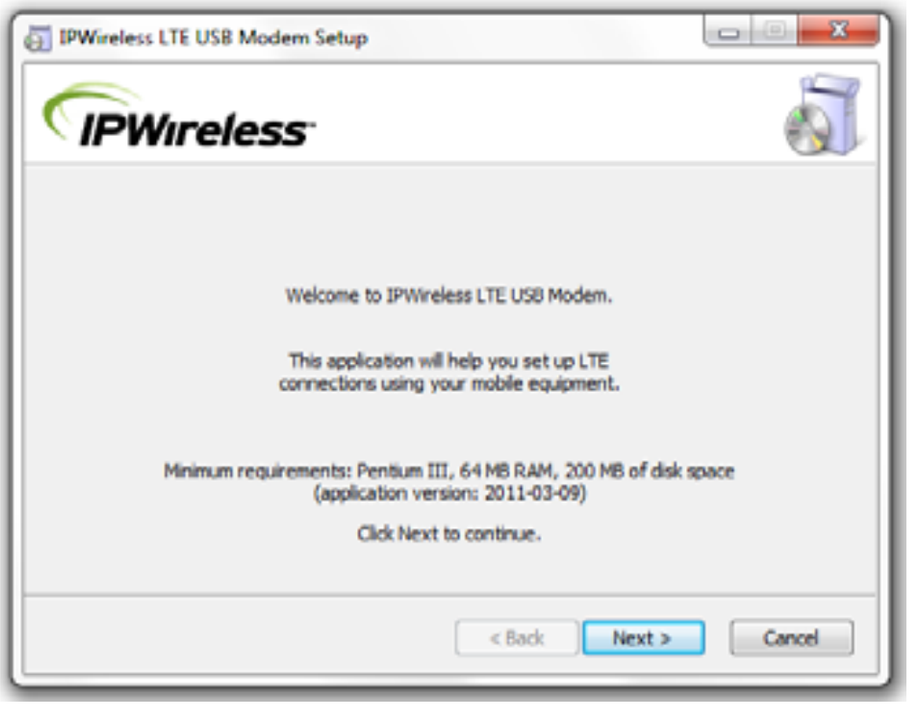


*If autoplay is not enabled then you need to navigate to the drive manually in Windows explorer. Click on the Start button and then **My Computer** (Windows XP) or **Computer** (Windows Vista and Windows 7). Then double click on the drive named "IPWireless LTE USB Modem" and then double click on **install***

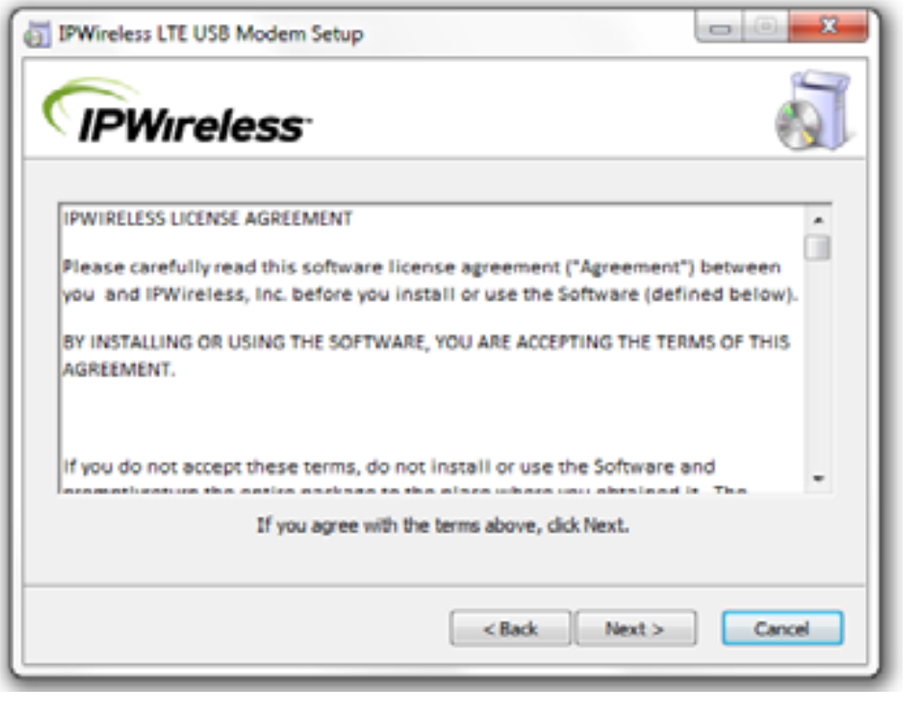
Depending on your operating system and/or system settings you may be prompted by User Account Control. Click Yes to continue the installation



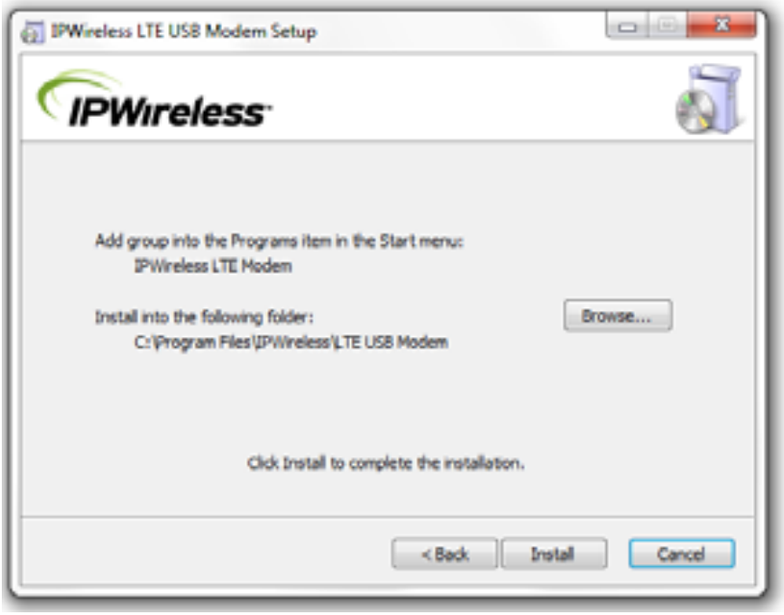
Click Next to continue the installation



Click Next to agree to the license agreement



Choose an alternative installation folder or click Install to use the default



The setup program will take a few minutes to install

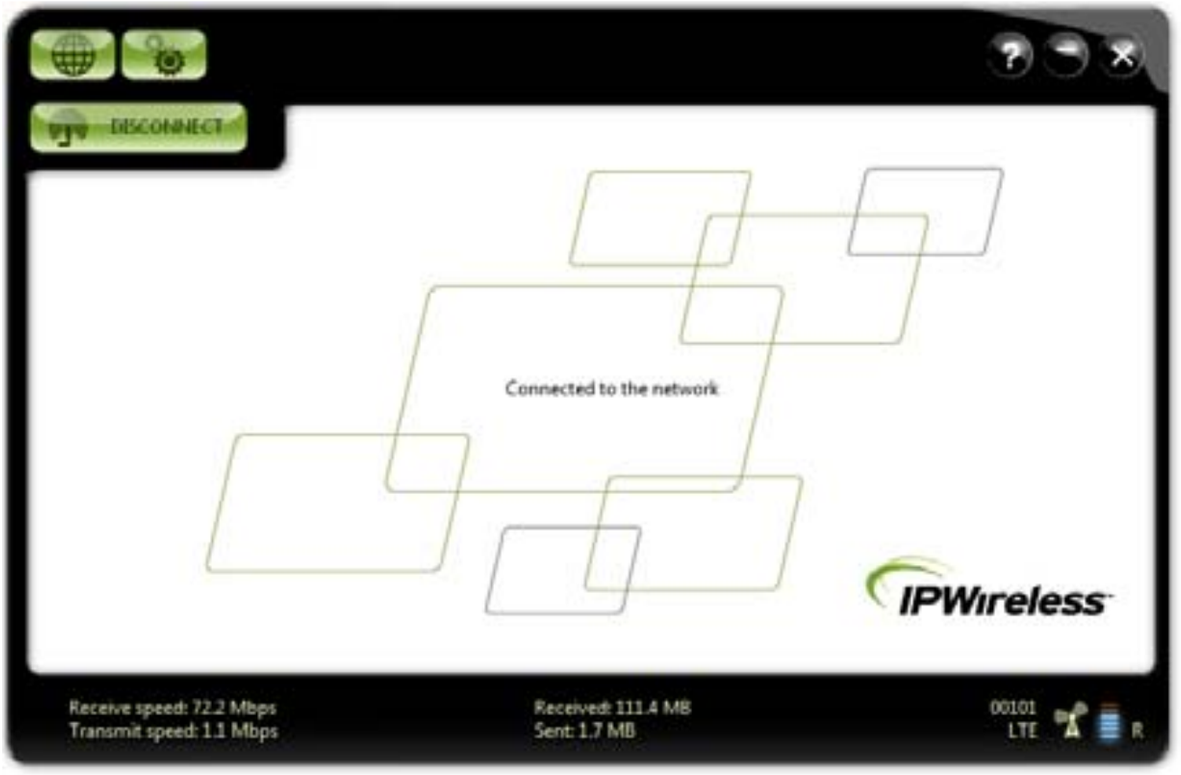
The installation is now complete, click on Finish to exit.

The IPWireless LTE Connection Manager will now start and the IPWireless LTE USB Modem drivers will be installed

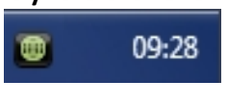
2. IPWireless LTE Connection Manager

The IPWireless LTE Connection Manager can be started by clicking the shortcut on the desktop.

Detailed description of application functions is located in the help file that is available when you click the button:



Controls

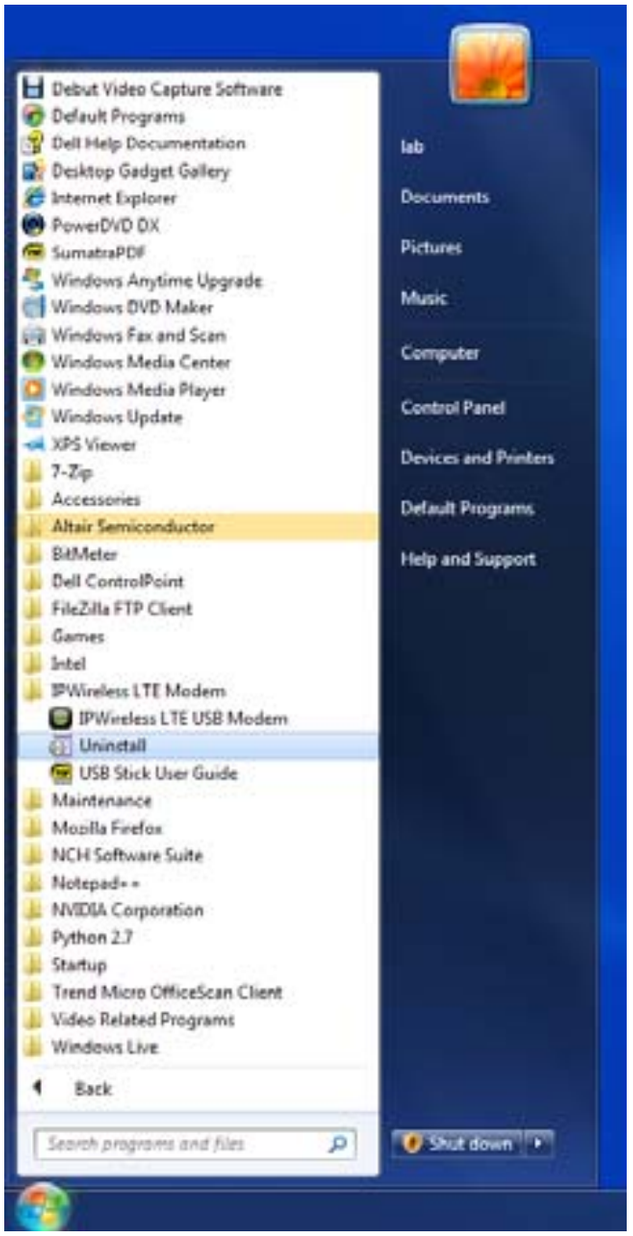
	Connect / Disconnect Button	Click the button to connect or disconnect the LTE Internet connection
	Main Window	Display the main window. Status messages are displayed in the application area in the center of the main window.
	Tools	Display the tools window.
	Help	View the help files
	Minimize	Minimize the IPWireless LTE Connection Manager to the Windows task bar. When minimized, the IPWireless LTE Connection Manager is still running and any internet connection is maintained. The IPWireless LTE Connection Manager can be displayed by double clicking the Windows task bar icon. 

	Close	Close the IPWireless LTE Connection Manager. The IPWireless LTE Connection Manager is closed but the internet connection is maintained. The IPWireless LTE Connection Manager can be re-opened to establish a new internet connection.

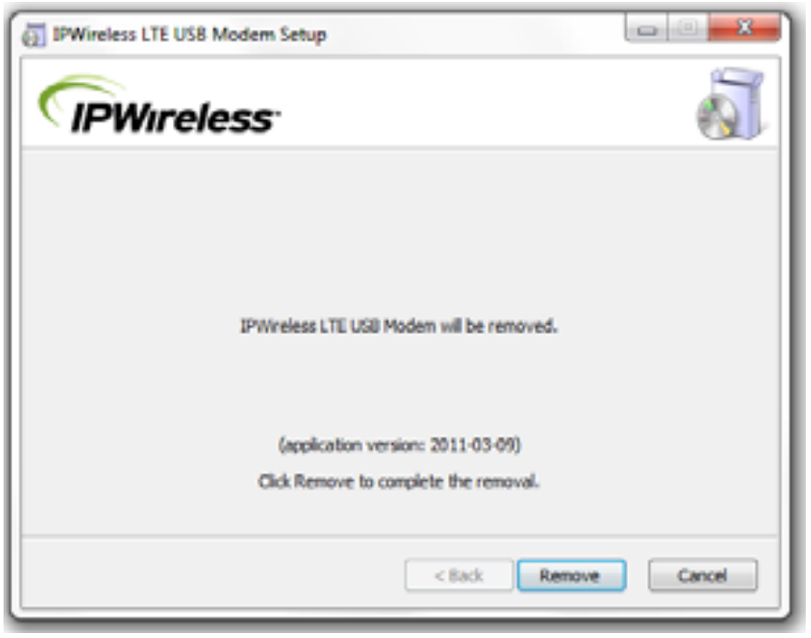
Uninstalling

To uninstall the IPWireless LTE Connection Manager select:

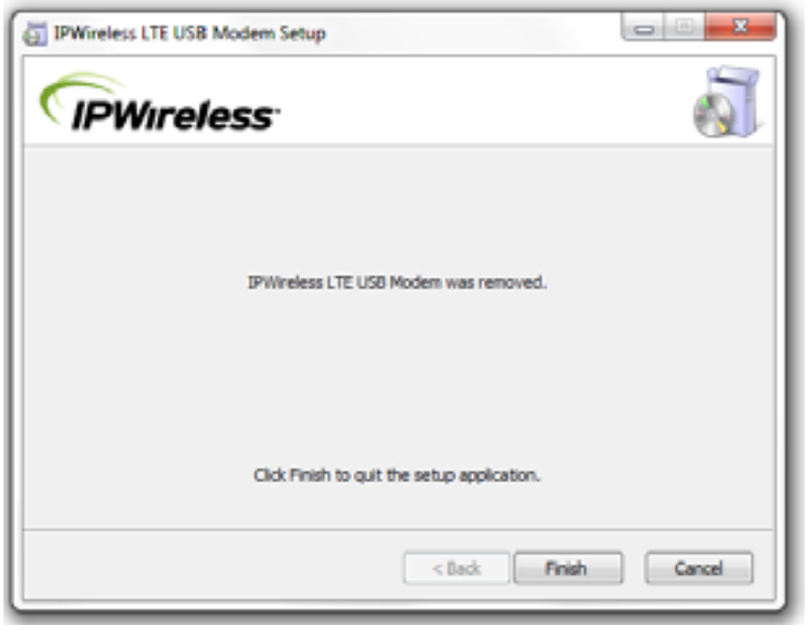
Start > IPWireless LTE USB Modem > Uninstall



Click **Remove** to uninstall the software.



Click **Finish** to complete the uninstallation.



3. LED Function

The IPWireless LTE USB Modem has a multi-colour LED showing the current status of the modem as shown in the table below:

LED	Colour	Status
	Red	Initialising
	Amber flashing	Searching for Network Coverage
	Green/Amber flashing	Network is available, not connected
	Green	Network is available, connected
	Green flashing	Network is available, connected, data transfer in progress
	Red/Amber flashing	No Network available
	Red fast flashing then Green fast flashing	Firmware upgrade in progress
	Red fast flashing	No USIM fitted
	Red/Green fast flashing	Self Test failure

4. Specifications

The table below contains the technical specification for the equipment:

Interface Type	USB 2.0, USB Type A connector
Supported Operating Systems	Microsoft Windows XP, Vista, 7
Network Standards	3GPP LTE, Release 8 FDD and TDD modes
User Equipment Category	Category 3
Maximum PHY Data Rate	Up to 100Mbps downlink and 50 Mbps uplink in 20 MHz FDD Up to 100Mbps downlink and 30 Mbps uplink in 20 MHz TDD Actual data rates is bandwidth and duplex mode dependent
Frequency Bands	Band 1-40 depending on hardware
Transmit Power	+23 dBm ± 2 dB (power class 3)
Antenna System	Internal MIMO antenna Option to connect external MIMO antenna
Dimensions	83.75 x 32 x 12.45mm (excluding USB connector) 99 x 32 x 12.45mm (including cap)
Weight	34g

Accessories	Laptop Clip and 1.2m USB Cable
Power Consumption	2.5 Watts
Operating Temperature	-20°C to +40°C
Storage Temperature	-20°C to +60°C

5. Accessories

Remote Antenna

An approved optional outdoor remote antenna (model LTE-ODUP001-IPW) is available to boost performance. The antenna has a magnetic base suitable for mounting on an outdoor metal window-sill as well as screw mounting slots for wall mounting.

The antenna is supplied with 3m of dual cable having two compatible RF connectors.

Detailed installation instructions are supplied with the external antenna.

WARNING

- The recommended place to install the remote antenna is a windowsill.
- The installation site should be chosen so that the radio signal level indicator gives the greatest value.
- External antenna LTE-ODUP001-IPW is intended solely for connecting to the IPWireless LTE USB Modem. Connecting LTE-antenna ODUP001-IPW to other modems is not recommended. Using a modem or an antenna with incompatible devices or accessories can damage equipment and void your warranty.

Laptop Clip

A laptop clip and USB cable are provided to allow the IPWireless LTE USB Modem to be attached to the lid of a laptop or secured to a suitable surface.

6. Safety Precautions and Usage

Safety Precautions

- Do not attempt to dissassemble the IPWireless LTE USB Modem. Disassembly of the device will void the warranty.
- Follow any rules and regulations or posted notices that apply to the use of electronic or radio equipment in areas such as hospitals, petrol stations, aircraft, etc.
- Before using the IPWireless LTE USB Modem near a pacemaker or similar device, consult a physician or the device manufacturer for more information.
- Do not use the IPWireless LTE USB Modem when you need to pay attention to other activities; for example, never use it while driving or while supervising or operating machinery.
- The IPWireless LTE USB Modem should be kept away from children as small parts may present a choking hazard.

Use of the Device

- The device should be used only with the original manufacturer's accessories. Using non-approved accessories may invalidate the warranty.
- Do not allow liquids to spill on or into the IPWireless LTE USB Modem. Keep in a dry place away from direct sunlight.
- Please be careful handling the device. Avoid dropping or striking the device. Do not use the device in any manner that is inconsistent with its intended purpose.
- Note that the product will not transmit without network coverage

7. FCC Interference Statement

15.19 This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions.

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications made to this equipment not expressly approved by the manufacturer may void the user's FCC authorisation to operate the equipment.

NOTE: 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 or more of the following measures:

- Reorient or relocate the USB modem
- 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.

8. Additional Information

Correct Disposal of this Product

This marking on the product indicates the product should not be disposed of with other household waste at the end of its working life. Please separate these items from other waste types and recycle responsibly. The user should contact the retailer, service centre as indicated on the Warranty Card or local government office for details of where and how this product can be recycled.

This product is compliant with the EU RoHS directive 2002/95/EC - Restriction of the use of certain Hazardous Substances.

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