## LTE FIX IT SERIES

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## MC7455 | EM7455 - Utilities, Drivers and Firmware

This *LTE Fix It Series* topic will demonstrate how to connect a Sierra Wireless AirPrime MC7455 modem to a Windows based PC/Laptop. This process is often necessary to update the modem's firmware as well as to configure and/or program the modem for various applications.

This process is equally applicable to the EM7455 (and other modems) by using the Sierra Wireless firmware and drivers particular to that modem. In this tutorial, the Huawei Terminal will be used to communicate with the modem.

**DISCLAIMER**: Always take caution when accessing a modem's interface. Make sure that the correct firmware is used for updating a particular model of modem. LTE Fix, LLC, as well as the writer, assumes NO liability for use of this information. In short, be cautious

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### **USB to Modem Adapters**

In order to connect the Sierra Wireless modem to a PC/laptop, it is most often necessary to use an adapter. They are also handy to have around when using a router with a built in slot for the modem.

The MC7455 uses a mini PCIe (mPCIe) to USB adapter with SIM card slot.

The EM7455 uses a NGFF (M.2) to USB adapter with SIM card slot.

Some PC/laptops have a built in adapters (and SIM card slots) that are designed especially for 3G/4G modems. There are also adapters that may be installed inside a PC on a PCIe slot.



Unless one has plans to permanently install and use the modem within a laptop or PC, an external USB modem adapter is generally needed. There are a couple of inexpensive choices that most use (as shown in the photo with or without an enclosure.



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## Sierra Wireless AirPrime MC7455

Form Factor:	mPCle
Technology:	LTE – cat 6
Antenna	IPEX U.FL
MIMO:	Yes
Size:	51 x 30 x 2.7mm
Max DL Speed:	300 Mbps
Max UL Speed:	50 Mbps
Chipset:	Qualcomm
GPS:	Yes

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## **Tip Time**

Always take caution when accessing a modem's interface. Make sure that the correct firmware is used for updating a particular model of modem.

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## **Utilities, Drivers and Firmware**

This topic uses three basic items for setting up and programming the Sierra Wireless modem. The driver and firmware links are for the MC7455.

Windows USB Drivers Build (allows Windows to communicate with the modem)

Latest AirPrime Generic Firmware Package (Firmware for the MC7455 modem)

Huawei Terminal (Used to issues the commands to the modem)

Download the items and place them in a folder on your desktop for easy access.

If you are using a modem other than the MC7455, locate and use the correct firmware and drivers for your modem.

#### Lets get started

### Installing USB Drivers and Connecting to Modem

- 1. Plug the USB modem adapter into the USB port on the Windows PC.
- 2. Right-click the Windows USB Driver Build executable file and Run as administrator.
- 3. Once installed, reboot the PC.
- 4. Once the PC is backup and running, right-click the Huawei Terminal ("HT") executable file and Run as administrator.
- 5. Select the white down arrow button at the top of the HT.
- Select the COM port that corresponds to the "Sierra Wireless Snapdragon™ X7 LTE-A WWAN Modem"
- 7. Click the Connect button.
- 8. Test connection to the modem by issuing (typing) the ATI command.
- 9. If properly connected, details of the modem will be returned on the terminal.
- 10. Once the modem is determined to be properly connecting, close out the HT using the X on

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Done!

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## Updating the Firmware on the Sierra Wireless Modem

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With the modem connected to the Windows PC, right-click the AirPrime Generic Firmware's executable file and Run as administrator. This will update the firmware on the Sierra Wireless modem.

Give it a few minutes. The steps of the upgrade will be displayed on the screen of the PC. Do not disconnect the modem from the PC until the firmware update has completed.

Once the firmware has updated, unplug the modem and reboot the PC. If all went according to plan, the modem is now ready to program using the Huawei Terminal.

In a LTE Fix-It Series topic to follow, we will examine various programming techniques, configurations and commands.

### The MC7455 is ready for programming

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Feel free to send topic requests to info@ltefix.com

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Watch for future publications exploring different LTE MIMO antennas, their specs and configurations. Our follow-up will look at the installation and testing procedures.

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