Sierra Wireless EM7355

Sierra Wireless AirPrime EM7355 Wireless Cellular Modem Instruction Manual

Model: EM7355 (314GLTEFU)

1. INTRODUCTION

This manual provides essential instructions for the installation, operation, and maintenance of your Sierra Wireless AirPrime EM7355 Wireless Cellular Modem. The EM7355 is a high-performance M.2 form factor module designed for seamless integration into various devices, offering robust 4G and 3G network connectivity.

Key features include global coverage, host-based network switching, and automatic fallback to 3G and 2G networks, making it suitable for mobile computing, networking, and industrial IoT applications.

2. PRODUCT OVERVIEW

The Sierra Wireless AirPrime EM7355 is a compact PCI Express M.2 module. Its design is optimized for low power consumption and easy integration into small and thin devices. It supports multiple network bands for global connectivity.

Figure 2.1: Sierra Wireless AirPrime EM7355 Wireless Cellular Modem. This image displays the compact M.2 module, highlighting its small form factor suitable for embedded applications.

Key Features:

- Global coverage with support for 4G, 3G, and 2G networks.
- PCI Express M.2 form factor for easy integration.
- Host-based network switching capabilities.

- Automatic fallback to 3G and 2G for continuous connectivity.
- Optimized for low power consumption.

3. SETUP

3.1. Hardware Installation

1. **Prepare your device:** Ensure your host device (e.g., laptop, industrial PC) is powered off and disconnected from its power source. Refer to your host device's manual for instructions on accessing its internal components.

2. **Locate the M.2 slot:** Identify an available M.2 slot on your device's motherboard. The EM7355 requires a B-key or B+M-key M.2 slot.

3. **Insert the modem:** Gently align the EM7355 module with the M.2 slot's keying and insert it at a 30-degree angle. Push it firmly until it seats properly.

4. **Secure the modem:** Once seated, push the module down towards the motherboard and secure it with the screw provided by your host device manufacturer.

5. **Install SIM card:** If your host device has an accessible SIM card slot, insert a compatible Nano-SIM card into the designated slot. Ensure it clicks into place.

6. **Connect antennas:** Attach the appropriate cellular antennas to the modem's antenna connectors. Refer to your host device's documentation for antenna routing.

3.2. Driver Installation

After hardware installation, power on your host device. The operating system (Linux, PC) may automatically detect and install generic drivers. For optimal performance and full functionality, it is recommended to download and install the latest drivers and firmware from the official Sierra Wireless support website.

- Visit the Sierra Wireless Support website.
- Navigate to the drivers and firmware section for the AirPrime EM7355.
- Download and run the installer package compatible with your operating system.
- Follow the on-screen instructions to complete the installation.

4. OPERATING THE MODEM

4.1. Establishing a Cellular Connection

Once drivers are installed, your operating system should recognize the EM7355 as a cellular modem. The process for connecting to a cellular network typically involves:

1. **Access Network Settings:** Open your operating system's network or cellular settings.

2. **Select Cellular Connection:** Locate the cellular modem entry.

3. **Configure APN:** You may need to enter the Access Point Name (APN) provided by your mobile network operator. This is often automatically detected but can be manually configured if necessary.

4. **Connect:** Initiate the connection. The modem will attempt to connect to the strongest available network (4G, 3G, or 2G).

4.2. Network Switching and Fallback

The EM7355 supports host-based network switching, allowing your device to manage network preferences. It

also features automatic fallback, meaning if a 4G signal is lost, it will seamlessly switch to an available 3G or 2G network to maintain connectivity, and vice-versa when a stronger signal becomes available.

5. MAINTENANCE

5.1. General Care

- Keep the modem and host device in a clean, dry environment.
- Avoid exposing the device to extreme temperatures or humidity.
- Ensure proper ventilation for the host device to prevent overheating.

5.2. Software and Firmware Updates

Regularly check the Sierra Wireless support website for updated drivers and firmware. Keeping your modem's software up-to-date ensures optimal performance, security, and compatibility with new network standards.

- Download updates only from the official Sierra Wireless website.
- Follow the provided instructions carefully during the update process.
- Do not interrupt the update process once it has started.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Modem not detected by OS	Incorrect installation, missing drivers, M.2 slot issue.	Verify modem is correctly seated in the M.2 slot. Install the latest drivers from Sierra Wireless. Check host device BIOS/UEFI settings for M.2 slot enablement.
Cannot connect to cellular network	No SIM card, invalid SIM, incorrect APN, no network coverage, antenna issue.	Ensure SIM card is properly inserted and active. Verify APN settings with your mobile network operator. Check for cellular network coverage in your location. Ensure antennas are securely connected.
Slow connection speed	Weak signal, network congestion, modem operating on 3G/2G.	Relocate to an area with better signal strength. Check network status with your mobile network operator. Ensure modem is connecting to 4G/LTE if available.

7. SPECIFICATIONS

Feature	Detail
Brand	Sierra Wireless
Series	314GLTEFU
Model Number	EM7355
Hardware Platform	Linux; PC
Item Weight	5.8 ounces
Product Dimensions (LxWxH)	9 x 5.5 x 1.5 inches
Connectivity Technology	Wireless (Cellular)
Compatible Devices	Personal Computer, Laptop, Smartphone, Tablet (via host device)
Number of Ports	1 (M.2 interface)
First Available Date	June 30, 2015

8. WARRANTY INFORMATION

Warranty terms and conditions for the Sierra Wireless AirPrime EM7355 are typically provided by the point of purchase or the manufacturer. Please refer to the documentation included with your product or visit the official Sierra Wireless website for detailed warranty information.

For specific warranty inquiries, it is recommended to contact Sierra Wireless customer support directly or the vendor from whom the product was purchased.

9. SUPPORT

For technical assistance, additional documentation, or software downloads, please visit the official Sierra Wireless support resources:

- **Sierra Wireless Support Website:** www.sierrawireless.com/support/
- **Product Documentation:** Look for the AirPrime EM7355 series for specific guides and FAQs.

When contacting support, please have your product model number (EM7355) and any relevant host device information ready.