

OVERVIEW

The IndustrialPro™ BT-6600 series modems are rugged wireless modems built to provide simple and reliable communication over Sprint's CDMA EVDO Rev A wireless data network.

This guide covers initial activation and configuration of the following models:


FEATURES

- CDMA EVDO Rev.A, 1XRTT, and IS95
- Diversity antenna
- EVDO Rev. A speeds of up to 3.1 Mbps
- Ethernet, Serial, and USB
- Reliable Always-on cellular link
- Rugged electrical and mechanical design
- Remote diagnostics, configuration and updates
- Router and IP Pass-through modes
- 5-port Ethernet switch (on BT-6621)
- Power over Ethernet (on BT-6601EB)
- IPsec VPN multiple tunnel and 3DES/AES up to 256-bit encryption

LED INDICATORS

LED	State	Description
Power	ON	Power is applied to the router
	ON	Excellent signal strength
Signal	FLASH	Flashes faster as signal is stronger
	OFF	Very weak or no signal (less than -100dBm)
WAN	ON	Wireless link established, but no data activity
	FLASH	Data transmitted/received on wireless network
RS232	ON	Link established with serial device but no data activity
	FLASH	Data transmitted/received with attached serial device
GPS	ON	Position fix available
	OFF	No position fix available
Ethernet Link	ON	Link established with Ethernet device
Ethernet Activity	FLASH	Data transmitted/received with attached Ethernet device

POWER

There are 4 methods to provide power to the modem:

1. 4-pin Molex connector - available on BT-6x00
2. 4-pin screw terminal - available on BT-6xx1/EB
3. Side mounted 2.5mm barrel connectors - available on all models
4. Power-over-Ethernet - available on BT-6x01EB

The modem requires a power source between 8 and 30 VDC to operate:

LABEL	DESCRIPTION
GND	Ground
PWR+	Power 8 to 30 VDC (12 or 24 VDC nominal)
IN	Digital input
OUT	Digital output

* An AC-DC power adaptor can be purchased as an accessory.

ANTENNA

An antenna with an SMA connector should be connected to the modem. This antenna should meet the following specifications:

- Dual-band 800 & 1900 MHz
- Nominal 50 ohm impedance
- Voltage Standing Wave Ratio (VSWR) less than 2.5:1

*Antennas are sold separately.

DATA INTERFACES

Ethernet: 10/100 Mbps Auto-sensing Female RJ45 port

USB: USB 2.0 Type B Female

Serial: RS-232 9 pin DCE Female, with these default settings:

Speed: 115200 bps **Data bits:** 8
Parity: None **Stop Bits:** 1
Flow Control: Hardware

SETUP
1. Setup a data account for the modem

Contact your Sprint dealer and request a data account to be assigned to the modem's ESN (electronic serial number). The ESN is printed on modem's label.

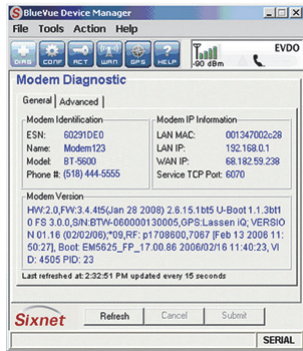
2. Wiring and power-up

1. Connect the modem to your computer using a standard Ethernet cable. Alternatively, the RS-232 or USB ports can be used for setup.
2. Connect the cellular antenna to the antenna connector.
3. Plug in the power connector to power-up the modem.

3. Start BlueVue Device Manager Software

1. Download and install the latest version of BlueVue Device Manager from www.redlion.net.
2. When launched, it will attempt to connect to 192.168.0.1 by default, once connected to the modem, the Modem Diagnostic window will open. (Note

that 192.168.0.1 connects to the Ethernet cable. To connect to the USB port use 192.168.111.1):



Troubleshooting: If BlueVue displays “Detecting Modem at 192.168.0.1” indefinitely, then:

- Make sure the modem is powered on.
- Check the Ethernet Link LED on the modem. If it’s off, it usually means you have a problem with the Ethernet cable or with your computer’s network card.
- Close all other network connections (such as WiFi)
- Set your computer to obtain an IP address automatically

4. Confirm that the modem is acquiring a cellular signal

The Signal LED should be on or flashing, indicating that the modem has a signal. BlueVue Device Manager displays signal information in the top right of its window; a minimum of 1 bar is required to connect to the carrier with the modem.

Troubleshooting: If the Signal LED is off, then there may be an issue with the antenna or cellular coverage might be too low in your current location.

5. Activate the modem

This step programs the phone number and other Sprint specific settings into the modem so that it may be used on the Sprint wireless network.

1. Click on the **ACT** button located at the top and enter the following information provided by Bell Mobility:
 - a. **Master Lock Code:** a 6-digit number
 - b. **Phone number (MDN):** a 10-digit number
 - c. **MIN/MSID:** a 10-digit number. If you were not provided with an MIN/MSID, enter the MDN here.
 - d. Click on Submit and wait for activation to complete.



2. This step is different depending on what type of account you have.

- a. If you purchased an IOTA account, then you will need to click on Carrier Provisioning and then click on IOTA to perform over-the-air provisioning.
- b. If you purchased an account with a static IP address or a datalink account, then you will have to click on Carrier Provisioning and then click on datalink. You will then be required to enter the credentials provided to you by Sprint and finally click on Submit.



2. Click on the **DIAG** button located at the top left to navigate to the **Modem Diagnostic** screen. Click on the **Refresh** button at the bottom and check the phone number reported by the modem under **Modem Identification**: it should match the MDN provided by Sprint.

Troubleshooting: If the above does not occur, then the modem most likely has no account. Contact the wireless service provider who provided you with the account and ask them to confirm that the phone number and MIN/MSID assigned correspond to the modem's ESN (electronic serial number), and that the account is ready to be used.

3. Confirm the modem has successfully connected to the cellular network:

- The WAN LED will be on or flashing.
- In BlueVue, click the DIAG button, the WAN IP should indicate the IP address assigned to the modem by the cellular network.

SETUP IS COMPLETE

The modem should be ready for use as a basic internet access point.

ADDITIONAL INFORMATION

For more advanced modem configuration, consult the support section on our website. Visit our support page at www.redlion.net to access the modem’s documentation, as well as configuration help, troubleshooting and firmware & software updates. Or contact Technical Support at 1-877-432-9908 or support@redlion.net.

INSTALLATION AND HAZARDOUS AREA WARNINGS

Suitable for use in Class I, Division 2, Groups A, B, C and D hazardous locations, or non-hazardous locations only. All power, input and output (I/O) wiring must be in accordance with Class I, Division 2 wiring methods and in accordance with the authority having jurisdiction.

WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.

WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.

AVERTISSEMENTS POUR INSTALLATION ET ENDROITS DANGEREUX

Cet équipement est adapté pour une utilisation en Classe I, Division 2, Groupes A, B, C et D pour endroits dangereux, ou endroits non-dangereux seulement. Tout câblage électrique, entrée et sortie (I / O) doivent être en conformité avec Classe I, Division 2 méthodes de câblage et conformément à l'autorité compétente.

AVERTISSEMENT - RISQUE D'AVERTISSEMENT - NE DÉBRANCHEZ PAS L'ÉQUIPEMENT PENDANT QUE LE CIRCUIT EST DIRECT OU À MOINS QUE L'ENVIRONNEMENT SOIT CONNU POUR ÊTRE NON-DANGEREUX.

AVERTISSEMENT - RISQUE D'EXPLOSION - LA SUBSTITUTION DE TOUT COMPOSANT PEUT NUIRE À LA CONFORMITÉ DE CLASSE I, DIVISION 2.