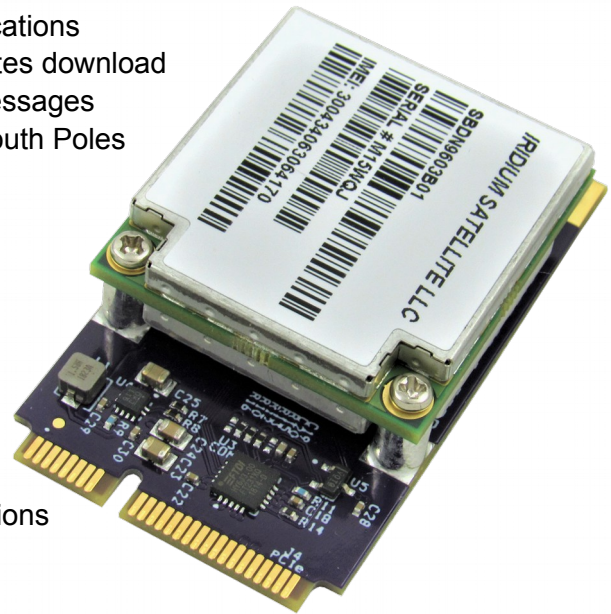


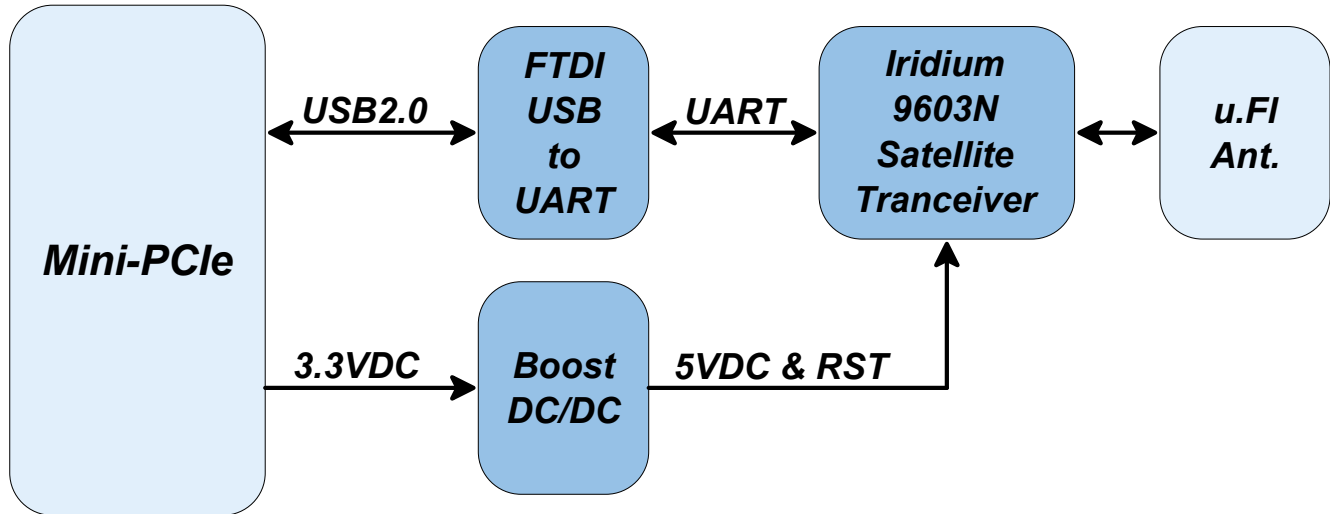
A Mini-PCIe Satellite Modem for IoT Applications

The GW16130 is a Mini-PCIe Satellite Modem that provides cost-effective, short burst satellite connectivity for asset tracking, fleet management, telemetry, oceanographic data, grid monitoring and Internet of Things (IoT) applications. The GW16130 features an Iridium 9603N satellite transceiver which allows two-way communications anywhere in the world with a clear line of sight to the sky. The Iridium network consists of 66 satellites and provides 24/7 world wide coverage. The 9603N module is used for short burst data packets (340bytes uplink, 270bytes downlink) and perfect for IoT remote sensor applications with minimal non-realtime data requirements. The GW16130 modem will work in a full size Mini-PCIe socket that includes a USB 2.0 interface. See the Gateworks website for suggested single board computers that can be used with this modem. Serial communication to the module is through an onboard FTDI USB to UART bridge. All power conditioning circuitry is contained on the board in addition to a u.FI antenna connector for connecting an external satellite antenna. Note that an Iridium approved satellite antenna must be used when operating on the Iridium network. The GW16130 modem requires a monthly data plan which can be established with a number of 3rd party providers. Typical data charges are ~\$20 USD per month with 12Kbytes of data included. See the Gateworks Support Wiki for more information on recommended antennas and data plans.

FEATURES

- ◆ Iridium 9603N SBD Satellite Transceiver
 - Small lightweight module for embedded applications
 - Offers low cost, low bandwidth satellite communications
 - Max Message payload: 340 bytes upload, 270 bytes download
 - Automatic message notification on incoming messages
 - Operates anywhere on earth including North & South Poles
 - Supports E-mail messages or HTTP POST
 - Simple UART AT command interface
 - Operating frequency: 1616MHz to 1626.5MHz
 - 1.6W Average transmit power
 - 117dBm Receiver sensitivity
 - Full industrial temperature operation
 - No SIM card required
- ◆ Onboard u.FI antenna port for antenna connection
- ◆ Full size Mini-PCIe mechanical form factor
- ◆ Utilizes Mini-PCIe USB 2.0 channel for communications
- ◆ See Gateworks website for compatible SBCs
- ◆ 3.3V Operating Voltage from Mini-PCIe Connector
 - 7.2W@25°C Peak Operating Power (Transmit)
 - 0.85W@25°C Average Operating Power (Receive/Idle)
- ◆ -40°C to +85°C Operating Temperature
- ◆ 1 Year Warranty





GW16130 Satellite Modem Block Diagram

SPECIFICATIONS

Electrical

Input Voltage

- ▼ 3.3V Mini-PCle Edge Connector

Operating Current

- ▼ 2.2A Peak Transmit
- ▼ 0.3A Average Receive/Idle

Mechanical

Dimensions

- ▼ 30.00 x 50.95 x 11.60 mm (1.18 x 2.00 x 0.46 in)

Weight

- ▼ 0.67oz (19.0g)

Environmental

Operating Parameters

- ▼ Temperature: -40°C to +85°C
- ▼ Humidity (non-condensing): 20% to 90%
- ▼ MTBF: TBD Years (MIL-HDBK-217)

Storage Parameters

- ▼ Temperature: -40°C to +85°C
- ▼ Humidity (non-condensing): 5% to 95%

ORDERING OPTIONS

Standard Configuration – GW16130