RAVEN GPRS CELLULAR MODEM

FEATURES
- Supports GPRS Digital Cellular Networks
- Data retrieval via the internet with dynamic or static IP address
- Eliminates dialing delays
- Communicates at rates up to 70 kbps
- Housed in a rugged aluminum case
- Operates over a wide temperature range
- Eliminates long distance fees

The RavenXTG is a full-duplex, digital cellular modem manufactured by AirLink that communicates with the local cellular tower via the General Packet Radio Service (GPRS) system and with the base station computer via the internet. Communicating via the internet supports faster communication rates and eliminates dialing delays and long distance fees. The modem and accessories for mounting are Climatronics’ assembly P/N 102727-3.

Base Station Requirements
- PC running LOGGERNET software.
- GPRS coverage at the data logger site

Data Logger Site Equipment
- RavenXTG Modem—includes power and interface cable
- Data Logger—IMP-855, IMP-865, IMP-895, IMP-900
- CSC105 DCE Interface
- 14394 Raven Mounting Kit—includes mounting hardware for securing the modem to an environmental enclosure and a 9-pin male to 9-pin female cable.
- Antenna—Several antennas are available for the RavenXTG cellular modem. These include the following antennas, the best of which can be determined in consultation with Climatronics:
  21831 0 dBd ½ Wave Dipole Whip Cellular Antenna
  18285 1 dBd Omnidirectional Antenna with 10’ Cable
  10530 9 dBd Yagi Antenna with 10’ Cable
  20679 0 dBd (800 MHz) & 3 dBd (1.9 GHz) Omnidirectional

• Power Supply (see power considerations)
• Environmental Enclosure—typically a 12” x 14” or 16” x 18” enclosure

Power Considerations
A power cable included with the RavenXTG connects to the data logger’s 12 Vdc or switched 12 Vdc terminals. Connection to the switched 12 Vdc terminal allows the data logger to switch power to the modem during scheduled transmission intervals, thereby conserving power. When using the switched 12 Vdc terminal, the modem can be powered with a P/N 101139 battery backup power supply or with one of several solar panels.
SPECIFICATIONS

Network: 1900/850 MHz and 1800/900 MHz
Transmit Frequency: 1850-1910 MHz and 824-849 MHz; 1710-1785 MHz and 890-915 MHz
Transmit Power: 1.0 W for 1900 MHz; 0.8 W for 850 MHz
Receiver Frequency: 1930-1990 MHz and 869-894 MHz; 1805-1880 MHz and 935-960 MHz
Modes Supported: GPRS (MS-12), quad band
Throughput: Up to 70 kbps
RS-232 Data Rates: 1200 bps to 115.2 kbps
Input Voltage: 6 to 28 Vdc
Input Current: 40 to 250 mA
Typical Current Drain at 12 Vdc: 50 mA dormant connection (idle for 10 to 20 seconds), 120 mA transmit/receive
Operating Temperature Range: -30° to +65°C (10% duty cycle limit above 60°C)
Operating Humidity: 5% to 95% non-condensing
Serial Protocols: AT Commands, PPP, SLIP, UDP, TCP
Serial Interface: RS-232C
RF Antenna Connector: 50 Ohm SMA
Status LEDs: Power, Network, Signal, Activity
Dimensions: 3”W x 1”D x 4”L
7.6 W x 2.5 D x 10 L cm
Weight: < 1 lb (<0.5 kg)