Phantom-II™

IP Modem for License-Free Spectrum

The Phantom-II delivers secure, wireless connectivity between Ethernet and serial devices. Operational in the license-free 902-928 ISM band, Phantom-II offers extraordinary data throughput for point-to-point and point-to-multipoint networks. Typical uses include Ethernet bridging, SCADA networks, and other industrial automation or data collection applications.

Phantom-II can provide Ethernet or serial connectivity between a base station and multiple remote devices, or it can function as a high-speed, transparent bridge between two Ethernet networks.

High Speed

Long Range

Ruggedized

Safe/Secure

Diversity

Connectivity

Key Features

- Low Power Consumption
- Up to 1.2 Mbps Wireless Link Rate
- Master, Remote, Repeater operation in a single unit
- 2 Serial Com Ports, 1 USB Port, and 1 Ethernet Port
- Supports Point-to-Point, Point-to-Multipoint, Repeater, Peer-to-Peer
- 100 mW - 1 W Adjustable Tx power
- Radius Server Support

- Full VLAN Support (for separate management and Data networking)
- User interface through local console, telnet, and web browser
- Network management capability with SNMP V1, V2, V3
- Local and remote wireless firmware upgrading through FTP
- Quality of Service (QoS) Available for IP Protocols and Ports

CalAmp ®

Phantom-II Specifications

Frequency
- 902 - 928 MHz
- 915 - 928 MHz (Australia)
- 921 - 929 MHz (New Zealand)

Spread Method
- Frequency Hopping / DTS

Link Rate
- Up to 1.2 Mbps

Error Detection
- 32 bits of CRC, ARQ

Encryption
- 128-bit WEP/WPA (Canada & USA only. NOT AVAILABLE for export, see –AES option)

Range
- Up to 30+ miles (50+ km) @ 1.2 Mbps

Sensitivity
- -105 dBm @ 345 kbps link rate
- -97 dBm @ 1.2 Mbps link rate

Output Power
- 100 mW - 1W (20-30 dBm)

Serial Interface
- RS232
- RS485
- RS422

Serial Baud Rate
- 300 bps to 921 kbps

USB
- USB 2.0
- USB Console Port
- USB to Serial Data Routing
- USB to Ethernet Data Routing

Ethernet
- 10/100 BaseT, Auto - MDI/X IEEE 802.3

Network Protocols
- TCP, UDP, TCP/IP, TFTP, ARP, ICMP, DHCP, HTTP, HTTPS*, SSH*, SNMP, FTP, DNS, Serial over IP, QoS (* Only available in – AES)

Operating Modes
- Point-to-Point
- Point-to-Multipoint
- Store & Forward Repeater
- Peer-to-Peer

Management
- Local Serial Port Console
- Telnet
- WebUI
- SNMP
- FTP & Wireless Upgrade
- RADIUS authentication
- VLAN

Diagnostics
- Battery Voltage
- Temperature
- RSSI, and remote diagnostics

Rejection
- Excellent strong signal interference & rejection characteristics

Input IP3
- +12 dBm (Antenna Connector)

Input Voltage
- 7-30 VDC

Power Consumption (Typical @ 12V)
- Sleep: < 1 mA
- Idle: 35 mA
- Rx: 110 mA to 145 mA
- Tx: 350 mA to 500 mA

Connectors:
- Antenna: RP-TNC Bulkhead
- Data: RJ-45 (Ethernet) Female DB9 Mini-USB

Temperature
- -40°F to 170°F (-40°C to +75°C)

Humidity
- 5-95%, noncondensing

Weight
- 8 oz (237 g)

Dimensions
- 2.25" x 3.75" x 1.75" (57mm x 95mm x 45mm)

Approvals
- FCC Part 15.247
- IC RSS210

Order Options
- C1D2 — Class 1 Div 2 (for use in hazardous environments)
- AES — 128/256-bit AES Encryption, Secure Shell, HTTPS (Canada & USA only. NOT AVAILABLE for export)
- EXP — Export Version, removes encryption