

Datasheet**900MHz Licensed Ethernet Modem****Reliable High Power 900MHz Ethernet Modem**

The WI-MOD-950-E-5W Wireless Ethernet Modem is a robust, licensed wireless transceiver capable of long range and high bandwidth communications.

Operating at 900MHz and up to 5W, the 802.11 standards-based modem is optimized for throughputs of up to 19.6kbps, which provides robust and secure two-way wireless communications in challenging outdoor environments typical of industrial monitoring and control applications.

Capable of operating in Access Point/Client configuration, functioning as a network Bridge/Router, or serving as a Serial Server (RS232/485), the WI-MOD-950-E-5W offers node to node deterministic mesh network repeatability for further range and multiple channel spacing options to increase network scalability. Integrated Modbus server capability allows seamless I/O expansion through the use of Serial Expansion modules.

Features

- 928-960MHz Frequency and up to 5W RF Power
- 802.11 based, FSK to 19.6kbps Data Throughput
- 25kHz Channel Spacing Options
- Access Point/Client and Bridge/Router Configuration
- Serial Client/Server/Multicast Modbus TCP to RTU Gateway
- Spanning Tree (Self Healing) Support
- Deterministic AP to AP Mesh Network Repeatability
- AP to AP Fast Roaming for Movable Machinery
- IEEE 802.11i Secure 128bit AES Encryption (WPA2)
- MAC and IP Address Filtering
- Digital I/O Channel Transfer
- Configurable Settings for High Noise Environments
- Over-The-Air Network Diagnostics and Configuration
- VLAN Tagging Supported for Bridging and Routing Modes

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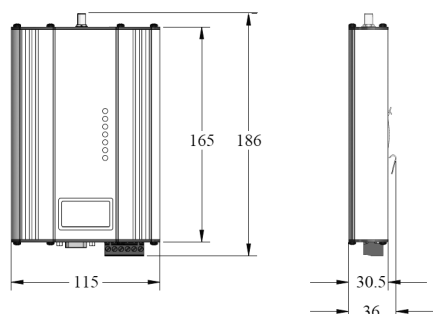
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WI-MOD-950-E-5W

Licensed Ethernet 900MHz @ 5W



Technical data

Description: Ethernet	10/100 BaseT RJ45, IEEE 802.3 compliant. Bridge/router functions work with all Ethernet protocols
Embedded Protocols:	TCP/IP, UDP ARP, PPP, ICMP, HTTP, FTP, TFTP, TELNET, SNMP, RADIUS/802.1X, DHCP
Serial	
RS232 V.24 DCE	1.2 to 230.4 Kb/s
RS485	1.2 to 230.4 Kb/s Serial server, Modbus to Modbus TCP conversion
Discrete I/O	One I/O channel, configurable for discrete input, output or analog input
Input	Discrete Voltage-free contact; Single Analog Input Range 0 - 25mA, Accuracy +/- 0.5%; Configuration for - Analog Input for 4-20mA Current Measurement; I/O accessible via MODBUS commands.
Output	FET 30 VDC @ 500mA
USB	Single USB-B port for Diagnostics
Networking	Configurable as Access Point or Client, Bridge or Router Point-to-point, Point-to-multipoint, User configurable addressing Repeater functionality MAC Filtering - whitelist or blacklist IP Filtering - whitelist or blacklist ARP Filtering - whitelist or blacklist
Transmitter/Receiver	
Radio Transceiver/Modulation	Half Duplex UHF radio supports operation on Licensed 900MHz bands. Based on 802.11 Meshing Standard, operating at lower data rates
Frequency - USA/Canada	928 - 960MHz
Channel Bandwidth	25 kHz
Transmit Power	5 Watt (+37 dBm)
Receiver sensitivity	25kHz Channel 19,200 baud @ -99 dBm; 9600 baud @ -110 dBm
Data rates	25 kHz bandwidth - 9600 baud, 19,200 baud
Protocol	CSMA/CA with 32 bit CRC and auto-correction
Radio range	LOS (Line of Sight) 5W-35 miles (40Kms) single hop with repeater options Range may be extended using repeater features
Antenna connection	Female SMA 50Ω
Security	WPA PSK - 802.11i - 802.1x MAC Filtering; IP Filtering; ARP Filtering Password protected configuration
Configuration	HTTP with remote configuration via wireless link
Diagnostics	RSSI, channel noise, BER, connection monitoring and statistics
General Data	
Operating Temperature	-30 to 60°C (-20 to 140°F)
Humidity	99% non-condensing
Power Supply	9-30 VDC
Current consumption	Idle: 12V - 270mA; 24V - 140mA Transmit: 2.5A @ 9VDC; 0.75A @ 30VDC
Mounting	DIN rail mounting
LED indication	Power/OK, Radio Rx and Tx, Radio Link, LAN Link/Activity, Serial Activity, Digital I/O, LAN 10/100Mbit Link
Dimensions (LxWxH) mm	186 x 115 x 36
Weight	< 0.55 kg / 1.2 lb
Approvals	
FCC CFR47 P 90,15	

Ordering data

Type	Part No.
WI-MOD-950-E-5W	6720005018