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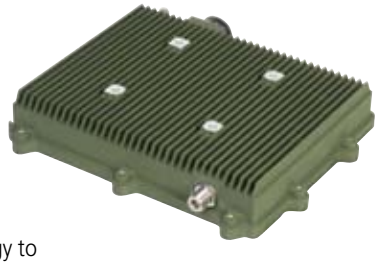
RF-7800W-OU440

BROADBAND ETHERNET RADIO



Long-range, high-capacity wireless IP

Point-to-Point and Point-to-Multipoint Support

The RF-7800W Broadband Ethernet Radio leverages proven OFDM technology to deliver high-speed Ethernet throughput over wireless links. Its all-Internet Protocol (IP) design delivers a seamless extension of Ethernet LANs and WANs, at data rates over 80 Mbps.

Under clear line-of-sight conditions, the RF-7800W provides robust, long-range connectivity at distances beyond 50 km. Lightweight and easy to deploy, the RF-7800W is configured using only a standard Web browser, which gives the user access to all required controls and statistics necessary to operate and monitor the radio. Third-party network management applications can also be utilized via the standard SNMP interface.

A versatile wireless networking solution, the RF-7800W can be used by public safety and first responders for training and long/short-haul surveillance network extension. Extremely low latency ensures the successful delivery of bandwidth-intensive applications such as VoIP, real-time video, and teleconferencing.

The RF-7800W can be used for a variety of applications, from border security to disaster relief to infrastructure monitoring. The radio's ability to multiplex and transmit live video feeds makes it a perfect tool for monitoring ports of entry and designated security zones. Able to provide 24-hour surveillance, the RF-7800W allows response teams to converge quickly when needed.

The low power consumption and small footprint of the RF-7800W make it an ideal media gateway solution for disaster relief. The radio can transmit data from phones, computers, and video coverage back to the command center for damage assessment. The RF-7800W can also be used to temporarily reestablish a secure, wide-bandwidth infrastructure network for public or government use.

The RF-7800W—dependable, wireless broadband communications for commercial and government network-dependant applications.

Specifications for the RF-7800W-OU440

General

System Capability	LOS, optical-LOS, and non-LOS (OFDM)
Operating Modes	Point-to-Point (PTP), Point-to-Multipoint (PMP)
Power Cable	Ethernet, up to 91m (299 ft.)
Software Architecture	Upgradeable via HTTP interface
Power Consumption	22 W Max
Power Requirements	110/220/240 VAC 50/60 Hz (with PoE block or NIU) 10.5 to 34.5 VDC (with NIU)

Wireless

Wireless Transmission	OFDM, Time Division Duplex (TDD) and Time Division Multiple Access (TDMA)
Frequency Range	4.4-5.0 GHz
Channel Size	10, 20, 40 MHz (PTP), 10, 20 MHz (PMP)
Channel Spacing	1 MHz
TX Power	Up to 20 dBm adjustable (automatic/manual)
Rx Sensitivity	-88 dBm @ 6 Mbps max. (BER of 1x10 e -9)
Modulation	8 levels from BPSK to 64 QAM
Encryption	256 bit AES (PTP), 64 bit private key (PMP)
Interference Control	Dynamic Frequency Selection Automatic Transmit Power Control (PTP) Adaptive Modulation (PTP)

Performance

Data Rate	Up to 108 Mbps (Uncoded Burst Rate) PTP Up to 54 Mbps (Uncoded Burst Rate) PMP
Ethernet Rate	Greater than 80 Mbps PTP Greater than 40 Mbps PMP
Range	Greater than 50 km clear LOS PTP Greater than 20 km clear LOS PMP

Accessories

RF-7800W-IU100	Nework Interface Unit (NIU)

Antennas:

RF-7800W-AT001	One Foot Panel
RF-7800W-AT002	Two Foot Panel
RF-7800W-AT003	Three Foot Grid Parabolic
RF-7800W-AT005	60° Sector
RF-7800W-AT006	Omni

Masts

RF-5941-PM150	15 meter Pushup with ground kit
RF-5941-PM155	15 meter Pushup w/manual winch & ground kit

Networking

Attributes	IPv4, Transparent bridge, Automatic link distance ranging (PTP), DHCP pass-through
Latency	PTP: Less than 4 ms, PMP: Less than 10 ms
Ethernet	802.3x (PTP)
QOS	802.1p (PTP)
VLAN	802.1Q (PMP)

Interfaces

Network Connection	10/100 Ethernet
System Configuration	HTTP Internet browser interface, SNMP, Telnet
Network Management	SNMP

Environmental

Temperature	-40°C to +60°C operational
Ingress Protection	IP67
Humidity	0 - 95%
Altitude	15,000 ft. operational (40,000 ft. storage)
Weight	5.5 lbs. (2.5 kg)

FCC Part 90, Part 15

Secure Area Communications System Utilizing the RF-7800W-OU440

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