

EUM3006

900 MHz NLOS Outdoor Modem with Integrated Antenna & Power over Ethernet

The LMS4000 is the world's most advanced NLOS (non-line-of-sight) broadband wireless system designed specifically for the 900 MHz spectrum. The EUM3006 Integrated Outdoor Modem is a major step in the evolution of the LMS4000 system and significantly enhances key system capabilities.

Designed for outdoor installations, the EUM3006 provides operators with a cost-effective solution for subscribers who require an outdoor antenna. The EUM3006 also offers new software features that enhance system performance and simplify installations.

Smart-Diversity Antenna

- Provides superior performance in a multipath environment by automatically switching to either a vertical or horizontal polarization mode.
- High gain (10 dBi) antenna enables the EUM3006 to generate the full 36 dBm average EIRP allowed by the FCC.

Weatherproof Package

- Tested to meet ETSI 300-019 environmental standards for outdoor installations with an extended temperature range of -40° C to 50° C plus solar loading.

Power over Ethernet (PoE)

- The EUM3006 is powered by standard 48 VDC Power over Ethernet (802.3af Mode B compatible).

New Configuration Capabilities

- Auto CCU discovery: EUM3006 selects CCU with best RF signal.
- DHCP Client: EUM3006 can obtain its IP address, subnet mask and IP gateway information from a DHCP server.
- Automatic remote configuration: EUM3006 will accept parameters from a RADIUS server to set other configurable parameters in the modem.

Installation Tools

- MDB1000: hand-held device provides detailed key signal quality information to facilitate installation and alignment by a single installer.
- Setup Menu: allows any user to check and troubleshoot the RF link.



LMS4000 System Advantages

- 2.75 Mbps over-the-air data rate with access speeds up to 2.0 Mbps.
- Average outdoor NLOS range of 5 miles (8 Km).
- LOS range up to 25 miles (40 Km).
- Up to 300 users per base station radio.
- Dynamic Polling MAC software provides dynamic bandwidth management to maximize system capacity and performance.
- Integrated Grade of Service (GoS) controls allows operator to define and assign up to 4 GoS levels.
- VoIP Support.
- Built-in spectrum analyzer.
- Mobile survey utility.
- Supports RADIUS AAA.
- SNMP Management.
- PPPoE support.
- Enables a profitable business model.

Specifications subject to change without notice.

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EUM3006 Integrated Outdoor Modem Technical Specifications

Radio Specifications	
Operating Frequency	902 to 928 MHz
Radio Type	DSSS with Complementary Code Keying (CCK)
Average Output Power	+36 to +25 dBm EIRP (software selectable)
RF Rx Threshold	-89 dBm (BER < 10 ⁻⁶) internal antenna port
Minimum/Maximum Center Channel Frequency	905 / 925 MHz
Channel Bandwidth	5.5 MHz
Center Frequency Spacing Increment	0.2 MHz
Channels	4 + 3
Orthogonal Channel Separation	6.6 MHz
Radio Performance	
Maximum Over-the-Air Raw Data Rate	2.75 Mbps
User Data Rate	Up to 2.0 Mbps
Maximum Link Path Distance	Up to 25 miles (40 Km)
Antenna Specification	
Antenna Package	Integrated with modem in single outdoor package
Antenna Gain	10 dBi
Antenna Half Power Beamwidth	45 degrees for horizontal/vertical polarization
Front-Back Minimum Ratio	15 dB
Diversity	Automatic diversity selection of polarization per packet
Power Specifications	
Supply Type	48 VDC 802.3af Mode B compatible Power over Ethernet
PoE Power Injector Input	Auto-sensing 110 – 240 VAC, 47 – 63 Hz
PoE Power Injector Output	48 VDC, 350 mA max
PoE Power Consumption (typical)	10 Watts
Interface Specifications	
Physical Interface (Ethernet)	10BaseT RJ45 HDX Ethernet Jack (TIA – T568A)
Power over Ethernet	+48 VDC on pins 4 & 5 (pair 1) / 0 VDC on pins 7 & 8 (pair 4)
Ethernet Cable Length Supplied	25 feet unshielded CAT5e Outdoor Rated
Maximum Ethernet Cable Length	330 feet (100 m)
Dimensions	
Length x Width x Height	16.25" x 8.25" x 3.5" (41.5 x 21 x 9 cm)
Weight	6.4 lbs (2.9 Kg)
Materials	Aluminum Base, Polycarbonate Radome
Environmental Specifications	
Operating Temperature	-40° to 50°C plus solar loading
Operating Humidity	0% to 95% RH (non-condensing @ 50°C)
Standards	ETSI 300-019-1-4 Class 4.1 with extended temperature range
Wind Loading	Better than 110 mph (180 Km/h) Maintains alignment to better than 56 mph (90 Km/h)
Mounting Interface	Mounts to any secure pole from 1" to 3" (2.5 to 7.6 cm)
Orientation	Mounts horizontally or vertically
Approvals	
Radio Transmitter	FCC Class A, CFR 47 Part 15
Safety	UL, CSA

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