

EUM3005

900 MHz Unlicensed
Plug & Play Indoor Modem

www.vecimanetworks.com



The WaveRider EUM3005 Indoor Modem is the latest addition to WaveRider LMS4000 900 MHz Non-Line-of-Sight (NLOS) broadband wireless access system offered by Vecima Networks.

The EUM3005 Indoor Modem significantly enhances key system capabilities. The modem's active diversity indoor antenna, and higher output power improve its performance. The modem also includes auto CCU (base station) discovery, automatic remote configuration, VoIP support, and is DHCP enabled, offering users true 'Plug and Play' capabilities.

Features

Higher RF Power

The WaveRider EUM3005 provides 27.3 dBm PEAK output power, as allowed under new FCC regulations, increasing the modem's performance.

Easy End-User Indoor Installation

The EUM3005 includes tools and features that make it simple for end-users to install and configure their modem, eliminating the need for expensive truck rolls.

Features include:

DHCP Client

The EUM3005 can obtain its IP address, subnet mask and IP gateway information from a DHCP server. The Network Operator can re-assign IP addresses to EUMs without having to access the EUM itself.

Auto CCU Discovery

The EUM3005 searches the full RF frequency range and selects the CCU with the best RF signal that allows it to register. The user does not need to enter ANY configuration parameters into the EUM3005.

Automatic Remote Configuration

The EUM3005 will accept parameters from a RADIUS server to set other configurable parameters in the modem, including password, all SNMP parameters, RF Frequency (including enabling auto-discovery), and number of customers.

SETUP Menu Installation Tool

The EUM3005 has a SETUP Menu to make installation and alignment easy and error-free. The EUM3005 supports the local link IP address, 169.254.10.250, on its Ethernet port at all times. Using the local-link address, the user can use the password "setup" to call up the setup menu that allows any user to check the RF link quality to help align the EUM3005 and troubleshoot the link. This avoids needing to know the IP address and password of the modem.

Active Diversity Indoor Antenna

Designed for use with the EUM3005, the active diversity indoor antenna which is sold separately, offers several advantages. The benefits of this antenna include reduced RF losses since there are no long cable runs, and easy mounting and positioning of the antenna, using a wall, window, window frame, or other surface. The antenna's active diversity is on a packet by packet basis, so that the EUM3005 performs better in a multi-path fading environment.

Advantages

- True "Plug and Play" Capability
- LOS range up to 25 miles
- Advanced tools enable single-user installation
- Increased power output for improved performance
- Enables VoIP services
- Suitable for business and residential subscribers
- Affordable subscriber unit supports profitable business models



WaveRider EUM3005 Indoor Modem with Indoor Active Diversity Antenna

EUM3005 Indoor Modem Specifications

Radio Specifications

Operating Frequency	902 to 928 MHz
Radio Type	DSSS
Radio Modulation	Complementary Code Keying (CCK)
Peak Output Power	+27.3 to 16.3 dBm at antenna port (software selectable) +26.0 to 15.0 dBm at antenna port (EUM3005 (Cdn) – for use in Canada) -89 dBm (BER<10 ⁻⁶) at antenna port, not including antenna gain
RF Rx Threshold	
Minimum/Maximum Center Channel Frequency	905/925 MHz
Channel Bandwidth	5.5 MHz
Center Frequency Spacing Increment	0.2 MHz
Orthogonal Channels	4
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

Antenna Specification (antenna is sold separately)

Antenna Package	Active diversity indoor package with mounting bar
Antenna Gain	6.5 dBi
Antenna Beamwidth	45 degrees (approx.) – main beam
Front-Back Min. Ratio	15 dB
Diversity	Automatic diversity selection of beam pattern per packet

Power Specifications

Supply Type	4.2 VDC
Power Supply Input	Auto-sensing 100-240 VAC, 47-63 Hz
Power Supply Output	4.2 VDC, <2.4 A
Power Consumption (typical)	10W
DC Connector	Standard barrel (5.5 x 2.5 x 9.5 mm)

Interface Specifications

Data Interface	10BaseT RJ-45 HDX Ethernet socket
Max. Ethernet Cable Length	330 feet (100 m)
RF Interface	WaveRider proprietary connector WC-(f) External

Dimensions

L x W x H	5.95 x 2.25 x 8.3 inches 14.9 x 5.7 x 21.3 cm
Weight	1 lb
Materials	Plastic

Environmental Specifications

Operating Temperature	-10° C to 50° C
Storage Temperature	-40° C to 70° C
Operating Humidity	0% to 95% RH (non-condensing @ 50° C)
Environments	Designed for sheltered conditions

Approvals

Radio Transmitter	FCC Class A, CFR 47 Part 15. Industry Canada RSS-102 and RSS-210.
Safety	UL, CSA

Vecima Networks' Continuous Improvement Policy means that specifications are subject to change without notice.



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