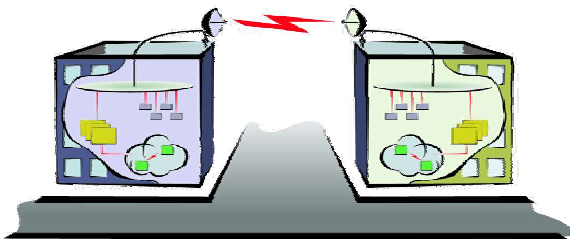## BridgeLINK-OFDM Wireless Bridge

Model RMG-515i

RadioLAN's award-winning BridgeLINK™ wireless bridges provide reliable, high-performance, "building-to-building" connectivity. Used in place of modems, DSL, Frame Relay, or T1 lines, BridgeLINKs connect structures that are miles apart, eliminating recurring costs while unifying the networks.

The BridgeLINK-OFDM is a Telco-grade bridging solution built upon an 802.11a chipset. The advanced architecture of the BL-OFDM provides maximum range and capacity, delivering outstanding performance in a simple, cost-effective package. Using OFDM technology in the 5 GHz ISM, UNII, and North American Public Safety bands (4.9-5.850 GHz), the BL-OFDM operates at a range of up to 48 miles and at a speed of up to 40 Mbps.

The integrated design of the BL-OFDM combines an outdoor antenna with a waterproof enclosure. IEEE compliant Power-over-Ethernet technology simplifies installation, diagnostics, and management.

BridgeLINK-OFDM provides:

- High-speed (Fast Ethernet) connectivity between locations.
- Reliable connections without high recurring costs.
- Simplified installation with Power-over-Ethernet, user-friendly browser interface and antenna aiming tool.

FEATURES

- ☑ Transparent Ethernet Bridge

- ☑ OFDM modulation for NLOS operation and superior interference immunity

- ☑ 15 Mbps TCP/IP data rate

- ☑ Operates in the license-free ISM and U-NII bands at 5 GHz

- ☑ Frequency range: 5.25-5.35 GZ and 5.725—5.875 GHz

- ☑ Range of up to 8 miles in with a line-of-sight (Preliminary)

- ☑ Point-to-point and Multipoint operation supported

- ☑ Embedded RadioNET Manager™ Operating System with built-in web server for simple management and configuration. Includes:
  - HTTP, Telnet, SNMP, and Win32 management interfaces
  - Antenna Aiming Tool
  - LED Diagnostics

- ☑ AES encryption without degradation, and legacy support for WEP and TKIP

- ☑ Quality of Service (QoS) Support for high-grade voice and video service

- ☑ DFS and TPC Support for International Certifications

- ☑ Support for IEEE 802.11e, f, h, and I draft standards

- ☑ Industrial-grade waterproof (IP67) housing (Preliminary)

- ☑ Power-over-Ethernet for simple installation

- ☑ Built-in lightning arrestor ensures network and power protection

- ☑ High-intensity External LED for easy operation and troubleshooting.

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The BridgeLINK-OFDM (Model RMG-515i) wireless bridge delivers high-speed connectivity and a rich set of product features which make it the ideal solution for outdoor connectivity. Based upon an industry standard chipset, the BridgeLINK-OFDM offers speeds up to 15 Mbps and supports the power and frequency negotiation features that make it deployable virtually anywhere in the world. With a range up to 8 miles, the BridgeLINK-OFDM is the ideal solution for corporate backbone links and campus area networks where performance and reliability are paramount.

Specifications

BridgeLINK-OFDM System

Model Number	RMG-515i
Technology	Orthogonal Frequency Division Multiplexing (OFDM)
Radio Signaling Rate	54 Mbps
Throughput	15 Mbps (when installed within specified range).
Range (USA)	~ 8 miles
Media Access Protocol	CSMA/CD for Ethernet, CSMA/CA for wireless
Ethernet Architecture	Transparent bridge
Security	MAC-Address authentication, data encryption
Topology	Line-of-sight, peer-to-peer architecture
Warranty	1 Year parts and labor (return to factory)

BridgeLINK-OFDM (Model RMG-515i) ODU (Outdoor Unit)

Frequency	5.300 & 5.850 GHz U-NII and ISM bands (unlicensed)
Ethernet Interface	IEEE 802.3 10BaseT/100BaseT, RJ-45 Connector
Diagnostics	POST - Memory, Ethernet interface, Radio Interface
Receive Sensitivity	-83 dBm typical—Range –66 to –91 dBm
Modulation	16-state Quadrature Amplitude Modulation (QAM16)
Transmission power	25 to 800 mW (+14 dBm to +29 dBm)
Power Consumption	13.2 W (Minimum voltage = 36 V at the Bridge Unit) (Preliminary)
Antenna Gain / Type	23.5 dBi Panel Antenna
Beam width / Polarity	9.4° / Horizontal
Adjustments	Azimuth: 360° Elevation: ±75°
Dimensions / Weight	14" x 14" x 1.5" - 11 lbs

RMG-515i

PoE Adapter

Dimensions	2.4" x 2.4" x 1"
Input Power	External 48VDC, .33 amp @110-220V Desktop Switcher (Provided)
Ethernet Cable	Unshielded Gel-filled outdoor-rated Category-5e - Watertight RJ-45
Supported lengths	15¼ Meters (50') standard—100 Meters (328') Max

Software

Management	RadioNET Manager™
Management Interface	HTTP and Windows BridgeLINK Console utility
Encryption Standards Supported	AES

Environmental

Temperature	-25°- +85° C (Preliminary)
Relative humidity	96% Maximum
Approvals (Intentional Radiator)	FCC Part 15.407 (U-NII), Industry Canada RSS-210, FCC Class B, Bellcore GR-63-CORE
Standards Compliance	802.11a (signaling) with Security extensions, 802.3 (Ethernet MAC), 802.1Q (VLANs), 802.11i (Security)
Environmental Compliance	NEMA4, IP-65, IP-67 (Preliminary)

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