

Gigabit Wireless Ethernet Link

- ◆ 70/80 GHz system with spectrum efficient 64QAM modulation
- ◆ E-Band's exclusive MMIC technology
- ◆ Frequency agile
- ◆ Integrated carrier-grade L2 switch

Spectrum Efficient 64QAM Links

The E-Link Eagle is an all outdoor, IP, millimeter wave radio system operating in the 71-86 GHz band providing the user with capacities up to 3000Mbps using 64QAM modulation.

The radio system is available in both long and extended range configurations and includes a carrier grade L2 Ethernet switch.

The E-Link Eagle provides the operator a "future-proof" hardware solution for the exponentially increasing data backhaul requirements faced by network operators. The E-Link Eagle can initially be configured for 1000Mbps operation and expanded to either 2000 or 3000Mbps by a simple license upgrade reducing costly network equipment replacement.

Features & Performance

- ◆ Spectrum Efficient using 64QAM in 250, 500, and 750 MHz wide channels
- ◆ Full Duplex providing up to 3000Mbps upstream and downstream
- ◆ Hitless Adaptive Rate and Modulation
- ◆ Adaptive Modulation QPSK/8PSK/16/32/64QAM
- ◆ Link distances up to 5 miles/8 km at 99.995% availability
- ◆ Internal Carrier Grade L2 switch
- ◆ SyncE and IEEE1588v2 compliant
- ◆ Power over Ethernet

Applications

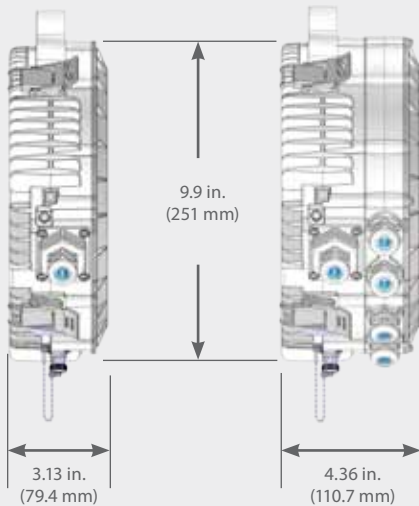
- ◆ 4G/LTE backhaul for access and aggregation
- ◆ "Last Mile" fiber extension for enterprises
- ◆ Temporary high capacity links for disaster recovery
- ◆ Local Area Network (LAN) Extensions

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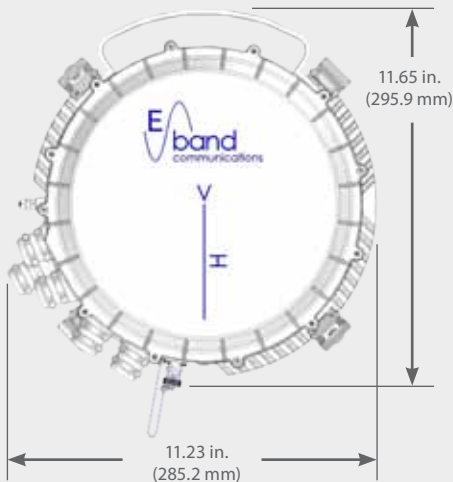
Dimensions

Eagle SP

Eagle EP



Eagle EP



Data Throughput Rate	83 Mbps to 3000 Mbps		
Frequency Range	71-76 GHz / 81-86 GHz		
Air Interface	FDD		
RF Channel Tuning	Frequency Agile in 125 MHz steps		
Channel Bandwidths	250, 500, and 750 MHz		
Tx Power Output	+21 dBm @QPSK		
Management	In-Band		
Latency	<50µs @ 64QAM with 1024B packets		
Modulation	QPSK/8PSK/32QAM/64QAM Hitless Adaptive Code and Modulation		
System Performance	Modulation	Throughput	System Gain
@ 250 MHz Channel BW	64QAM	1000 Mbps	74 dB
	32QAM	835 Mbps	78 dB
	16QAM	666 Mbps	83 dB
	8PSK	500 Mbps	87 dB
	QPSK	333 / 166 / 83 Mbps	93 / 96 / 103 dB
@ 500 MHz Channel BW	64QAM	2000 Mbps	73 dB
	32QAM	1666 Mbps	75 dB
	16QAM	1333 Mbps	80 dB
	8PSK	1000 Mbps	84 dB
	QPSK	666 / 333 / 166 / 83 Mbps	92 / 95 / 96 / 103 dB
@ 750 MHz Channel BW	64QAM	3000 Mbps	69 dB
	32QAM	2500 Mbps	73 dB
	16QAM	2000 Mbps	78 dB
	8PSK	1500 Mbps	82 dB
	QPSK	1000 / 666 / 333 / 166 / 83 Mbps	88 / 90 / 93 / 96 / 103 dB
Ethernet Interfaces			
	Eagle SP	Single GE, Cu	
	Eagle EP	7xGE ports, including 2xSFP ports	
Ethernet			
	Max Packet Size	9600 bytes (Jumbo Frame Compatible)	
	Ethernet Timing and Synchronization	SyncE, IEEE 1588v2	
	Features	<ul style="list-style-type: none"> • IPv6, IPv4 • L2- 8192 MAC Address • 4096 VLAN (IEEE 802.1Q) • VLAN tag translation on ingress or egress • Provider Bridging (IEEE 802.1ad, Q-in-Q) • RSTP / MSTP 	
Ethernet QoS			
	Classification	<ul style="list-style-type: none"> • 8 QoS queues per port with SP or DWRR scheduling • TCAM classification and remarking • DSCP translation, ingress and egress • Per Queues and Per Port policing and shaping • Full Duplex Flow control 	
	Protection	ITU-T G.8032 Ring	
	OAM	ITU-T Y.1731	
Mechanical and Environmental			
	Input Power Requirements	-48VDC, PoE, @ 55W	
	Size	SP: 286 mm x 295 mm x 79.4 mm / 11.2 in x 11.6 in x 3.1 in EP: 286 mm x 295 mm x 110.7 mm / 11.2 in x 11.6 in x 4.4 in	
	Weight	SP: 3.9 kg / 8.6 lbs; EP: 4.2 kg / 9.2 lbs	
	Temperature Range	-45°C to +60°C (-49° to +140° F)	
	Weather	IP67 / All Weather	
	Safety	IEC 60950-1, -22	
	Regulatory RF Certification	US FCC Part 101, FCC Part 15B; ETSI EN 302 217-3	

Note: Specifications are typical and subject to change without notice.

Have Questions? Contact Us:

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