



GE80X & AR80X

80GHz Extended Range Gigabit Wireless Links

80GHZ WIRELESS LINKS FOR HIGH-BANDWIDTH APPLICATIONS

BridgeWave is the leading supplier of gigabit RF connectivity solutions for service provider, government, military and enterprise applications. BridgeWave Gigabit Ethernet links extend network operator fiber to provide high-capacity access and backhaul, as well as extending enterprise LANs between buildings and sites.

FEATURES

PERFORMANCE:

- Full rate, full duplex Gigabit Ethernet
- Highly secure, narrow antenna beamwidth
- Interference-free operation enabling high-density deployments
- Simple, fast path licensing
- AdaptRate™ switching overcomes peak rain downpours
- Low latency for fiber-equivalent performance
- Forward Error Correction provides maximum link range

RELIABILITY:

- Rigorous HALT/HASS testing
- Up to 99.999% availability; 28-Year MTBF

EASE-OF-USE:

- Connects directly to standard network equipment
- All-outdoor, compact design
- Low voltage power cabling
- Rapid & flexible deployment
- Embedded web and SNMP based network management agent



CONNECTIVITY RANGES

GE80X	Up to 5 Miles (8,047 m)
AR80X	Up to 6 Miles (9,656 m)

WIRELESS "VIRTUAL FIBER" SOLUTIONS FOR SERVICE PROVIDER, GOVERNMENT/MILITARY, AND ENTERPRISE APPLICATIONS

LAN EXTENSION
Extends LAN backbones between buildings

FIRST/LAST MILE
Supports high-speed access services

METRO AREA NETWORK (MAN)
Complements/extends metro fiber

SERVER CONSOLIDATION
Enables centralization of IT facilities

SPATIAL DIVERSITY
Creates redundant paths for mission-critical applications

FAST AND FLEXIBLE
Provides temporary and disaster-recovery connectivity

FIBER ALTERNATIVE
Offers fiber-equivalent performance, security and reliability

CONFIGURATIONS:

- Point-to-point
- Hot standby
- Multi-hop/repeater
- Hub-and-spoke
- Ring
- Mesh

SPECIFICATIONS

	GE80X Gigabit Ethernet Extended Range	AR80X AdaptRate™ Extended Range
Data Rate	1000 Mbps full duplex	1000/100 Mbps full duplex
Latency	< 50 microseconds	< 50 microseconds @ 1000 Mbps < 220 microseconds @ 100 Mbps
RF Interface	72.5/82.5GHz (FDD), digitally modulated (BFSK) with Forward Error Correction (RS 204,188)	
	1.4GHz bandwidth	1.4GHz bandwidth @ 1000 Mbps 140MHz bandwidth @ 100 Mbps
	Min. Link Distance: 800 m (1/2 mile)	Min. Link Distance: 800 m (1/2 mile)
AdaptRate Mode Switching	< 50 milliseconds	
	Software configurable: full-time 1000 Mbps, full-time 100 Mbps, or AdaptRate	
Ethernet Interfaces	1000Base-SX with LC connectors – up to 270 m 62.5/125µm MMF, or 500 m 50/125µm MMF	
	10/100Base-TX with RJ-45 connector – up to 100 m Cat 5 cable (two Ethernet surge suppressors required)	
	Maximum Ethernet frame length: 1632 bytes	
Management	Web-based (HTML) embedded management agent: setup, security, status, statistics, software update	
	SNMP support: MIB-II and BridgeWave enterprise MIB	
	Voltmeter test points: Receive Signal Level and Link Quality	
Power	100-240 VAC input / +24 VDC output indoor power supply — 45 watts max. consumption	
	Max. cable length: 650 ft (200 m) with 12AWG; 400 ft (125 m) with 14AWG (24VDC surge suppressor required)	
Mount	Fine-adjust pole mount: 3.5-4.5in (8.9-11.4cm) OD -- SCH40 or higher	
Size	Radio with antenna/mount: 62w * 62h * 50d (cm)	
Weight	Radio : 5.2 kg (11.5 lbs)	
	Mount: 3.6 kg (8 lbs)	
	Antenna: 8.5 kg (19 lbs)	
Environmental	Operating temperature: -30 to +50 °C (-22 to 122 °F) Operating altitude: 14,764 ft maximum (4,500 m)	
Wind Loading	120 lbs force @ 100MPH	
Regulatory	Safety: UL Listed; meets FCC 1.1310 general population RF MPE limits RF Certification: US FCC Part 101	
Install Kit	Voltmeter test cable, power connectors	



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