



BridgeWave



# GE80X, AR80X & FE80UX

## 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 (GE80X & AR80X)
- Full rate, full duplex 100Mbps Ethernet upgradable to gigabit (FE80UX)
- 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/FE80UX**

**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

Datasheet

## SPECIFICATIONS

	<b>GE80X</b> Gigabit Ethernet Extended Range	<b>AR80X</b> AdaptRate™ Extended Range	<b>FE80UX</b> Fast Ethernet & Extended Range Upgradable
Data Rate	1000 Mbps full duplex	1000/100 Mbps full duplex	100 Mbps full duplex 1000 Mbps full duplex**
Latency	< 50 microseconds	< 50 microseconds @ 1000 Mbps < 150 microseconds @ 100 Mbps	< 50 microseconds @ 1000 Mbps** < 150 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	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)	Min. Link Distance: 800 m (1/2 mile)
AdaptRate Mode Switching		< 50 milliseconds	< 50 milliseconds**
		Software configurable: full-time 1000 Mbps, full-time 100 Mbps, or AdaptRate	Software configurable: full-time 1000 Mbps, full-time 100 Mbps, or AdaptRate**
Ethernet Interfaces	1000Base-SX with LC connectors – up to 270 meters 62.5/125µm MMF, or 500 meters 50/125µm MMF (1000Base-LX option available as special order)		
	10/100Base-TX with RJ-45 connector – up to 100 meters 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: 200 m. (650') with 12AWG; 125 m. (400') with 14AWG (24VDC surge suppressor required)		
Mount	Fine-adjust pole mount: 8.9-11.4cm (3.5-4.5in.) 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: 4,500 m (14,764 ft maximum)		
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		

\*\* = These features are only available for the FE80UX during the 30-day AR trial period or upon purchase of an FE80UX-to-AR80 upgrade license



[www.bridgewave.com](http://www.bridgewave.com)