



BridgeWave



GE80, AR80 & FE80U

80GHz 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 (GE80 & AR80)
- Full rate, full duplex 100Mbps Ethernet upgradable to gigabit (FE80U)
- 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

GE80

Up to 4 Miles
(6,437 m)

AR80/FE80U

Up to 5 Miles
(8,047 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

	GE80 Gigabit Ethernet	AR80 AdaptRate™ Gigabit Ethernet	FE80U Fast Ethernet & Gigabit 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: 200 m (656 ft)	Min. Link Distance: 200 m (656 ft)	Min. Link Distance: 200 m (656 ft)
AdaptRate Mode Switching		< 50 milliseconds Software configurable: full-time 1000 Mbps, full-time 100 Mbps, or AdaptRate	< 50 milliseconds** 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 / +24VDC 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: 7-11 cm (2.8-4.5 in.) OD		
Size	Radio + antenna: 33w * 33h * 22d (cm); with mount: 50w * 36h * 25d (cm)		
Weight	Radio + antenna + mount: 10 kg (22 lbs)		
Environmental	Operating temperature: -30 to +50 °C (-22 to 122 °F) Operating altitude: 4,500 meters (max.)		
Wind Loading	60 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 FE80U during the 30-day AR trial period or upon purchase of an FE80U-to-AR80 upgrade license



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