



## BridgeWave Communications

Extended-Range Wireless Gigabit Ethernet Link  
Model GE60X

### Product Description



### Benefits

- Extends LAN backbones between buildings
- Connects buildings to metro fiber hub sites
- Enables centralization of IT facilities
- Provides GigE backbone for distributed servers
- Avoids construction costs and delays
- Creates temporary connections
- Creates redundant paths for fiber, copper or free space optic links

### Features

#### Transparent Network Integration

- Full rate, full duplex, gigabit Ethernet
- Functions as physical layer repeater
- Works with standard GigE network equipment

#### Operates in 60 GHz Frequency Band

- License-free operation in U.S.
- Outstanding frequency re-use
- Excellent immunity to interference

#### Extended Operating Range

- External, very high gain 2-foot antenna
- Maximum FCC-allowed transmit power
- Link distances of up to 2000 meters (dry air)
- Up to 99.999% availability

#### Professional Installation Recommended

- All-outdoor design
- Fine-adjust pole mount
- Radio is servicable without removing antenna
- No configuration required – “point and link”
- Contact BridgeWave to find a certified reseller

#### Configurations

- Point-to-point
- Hot standby
- Consecutive point-to-point
- Hub-and-spoke
- Ring
- Mesh

## Product Specifications

### Operating Frequency

FCC Part 15 Section 255

Low transmit 58.1 GHz

High transmit 62.9 GHz

Occupied bandwidth 1.4 GHz

Frequency Division Duplex (FDD)

### Modulation/Coding

BFSK

Reed-Solomon (204,188) FEC

### Link Budget

162dB @  $10^{-12}$  BER

### External Antenna

Type directional cassegrain

Polarization linear (vert. or horiz.)

Gain 46 dBi

Fine-adjust (azimuth and elevation) 4.5" pole mount

### Ethernet Interface

1000Base-SX with LC connectors

Up to 1522-byte 802.1Q VLAN tagged frames

&lt; 50 microseconds latency

Multimode fiber cable lengths:

62.5/125  $\mu$ m 270 meters (max.)50/125  $\mu$ m 500 meters (max.)

### Power

Indoor supply input 110/220 Vac

Indoor supply output +24 Vdc

Power consumption 40 watts (max.)

Power cable length: 125 meters (max. w/14AWG)  
250 meters (max. w/12AWG)

### Mechanical

Size (mounted): 62w \* 62h \* 50d (cm)

Weight: Radio unit 4.5 kg

Antenna 7.5 kg

Pole mount 3.8 kg

### Environmental

Operating temperature -30 to +50 deg C

Altitude 4,500 meters (max.)

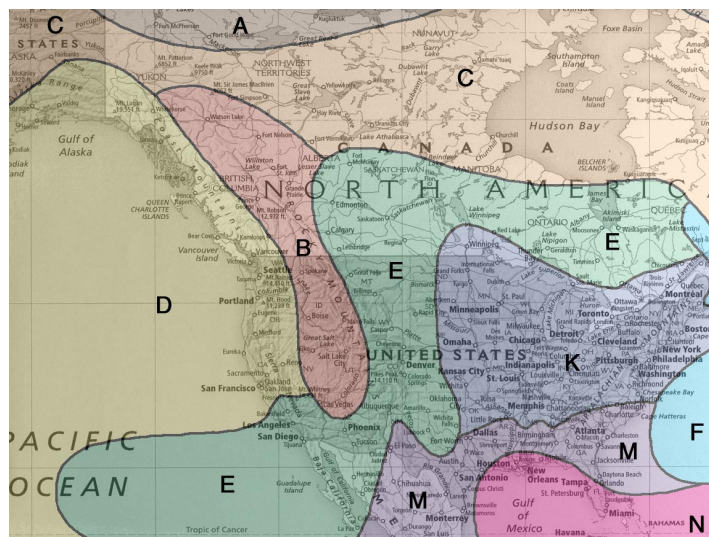
### Installation

Includes ¾" liquid tight non-metallic conduit adapter

Receive signal level and link quality voltage test points

Minimum link distance: 160 meters

## North American Rain Zones (ITU Model)



## Maximum Link Distance (Meters)

Rain Zone	Required Link Availability		
	99.9%	99.99%	99.999%
A	1820	1680	1500
B	1790	1580	1340
C	1760	1520	1250
D	1670	1450	1160
E	1730	1400	1110
F	1670	1320	1030
K	1580	1170	910
M	1400	1010	800
N	1190	850	690

### BridgeWave Communications

3350 Thomas Road

Santa Clara, CA 95054 USA

408.567.6900

[sales@bridgewave.com](mailto:sales@bridgewave.com)