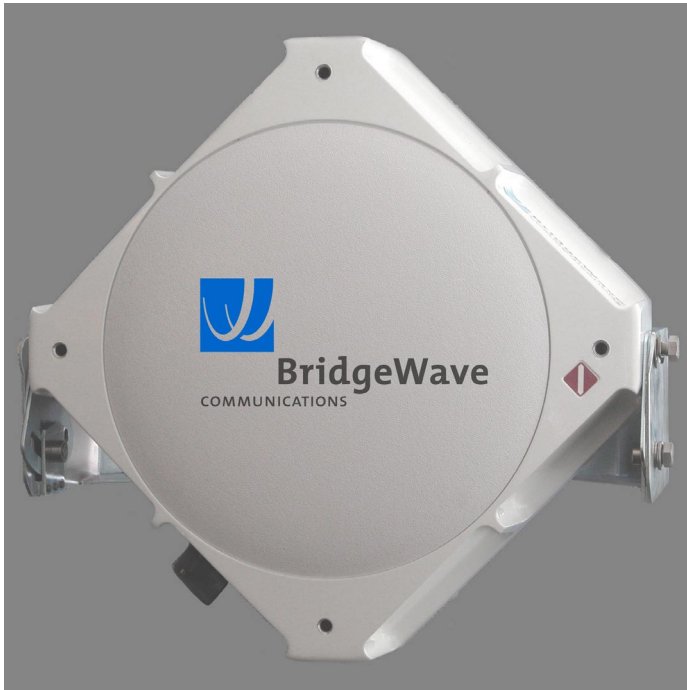




BridgeWave Communications

Wireless 100 Mbps Ethernet Link
Model FE60

Product Description



Features

Transparent Network Integration

- Full rate, full duplex, 100 Mbps Ethernet
- Functions as an un-managed Ethernet switch
- Works with standard Ethernet network equipment

Operates in 60 GHz Frequency Band

- License-free operation in U.S.
- Outstanding frequency re-use
- Excellent immunity to interference
- Link distances of up to one mile (dry air)
- Up to 99.999% availability

User Installable

- Compact form factor
- Single-box, all-outdoor design
- Mounts on side or roof of building
- Easy-to-use visual alignment mechanism
- No configuration required – “point and link”

Benefits

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

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 140 MHz
 Frequency Division Duplex (FDD)

Modulation/Coding

BFSK
 Reed-Solomon (204, 188) FEC

Link Budget

154.5dB @ 10^{-12} BER

Integrated Antenna

Type directional cassegrain
 Polarization linear (horizontal or vertical)
 Gain 40 dBi

Latency

< 150 microseconds

Ethernet Interface

1000Base-SX with LC connectors (GigE)

Up to 1522-byte 802.1Q VLAN tagged frames

Multimode fiber cable lengths:

62.5/125 μ m	270 meters (max.)
50/125 μ m	500 meters (max.)

Power

Indoor supply input 110/220 Vac
 Indoor supply output +24 Vdc
 Power consumption 45 watts (max.)
 Power cable length: 125 meters (max. w/14AWG)
 250 meters (max. w/12AWG)

Mechanical

Size: Radio unit 30w * 30h * 12d (cm)

Weight: Radio unit 4.5 kg
 Mounting bracket 3.0 kg

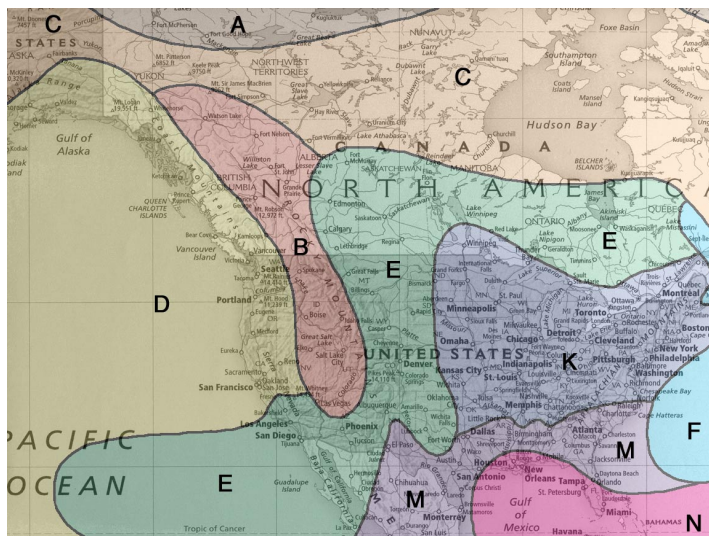
Environmental

Operating temperature -30 to +50 deg C
 Altitude 4,500 meters (max.)

Installation

Includes ¾" liquid tight non-metallic conduit adapter
 Wall and 2-4.5" mast mounts provided
 Visual alignment tool
 Receive signal level test point for fine adjustment
 Link quality test point to verify error-free performance
 Minimum link distance: 20 meters

North American Rain Zones (ITU Model)



Maximum Link Distance (Meters)

Rain Zone	Required Link Availability		
	99.9%	99.99%	99.999%
A	1470	1360	1220
B	1440	1280	1100
C	1420	1230	1030
D	1350	1180	960
E	1400	1140	910
F	1350	1080	850
K	1280	960	750
M	1140	840	660
N	980	710	580

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