PowerBridge *M10*

10 GHz Carrier Class airMAX PtP Bridge with Dish Antenna

Model: PBM10

Ultimate in RF Performance using the Super-High 10 GHz Radio Frequency

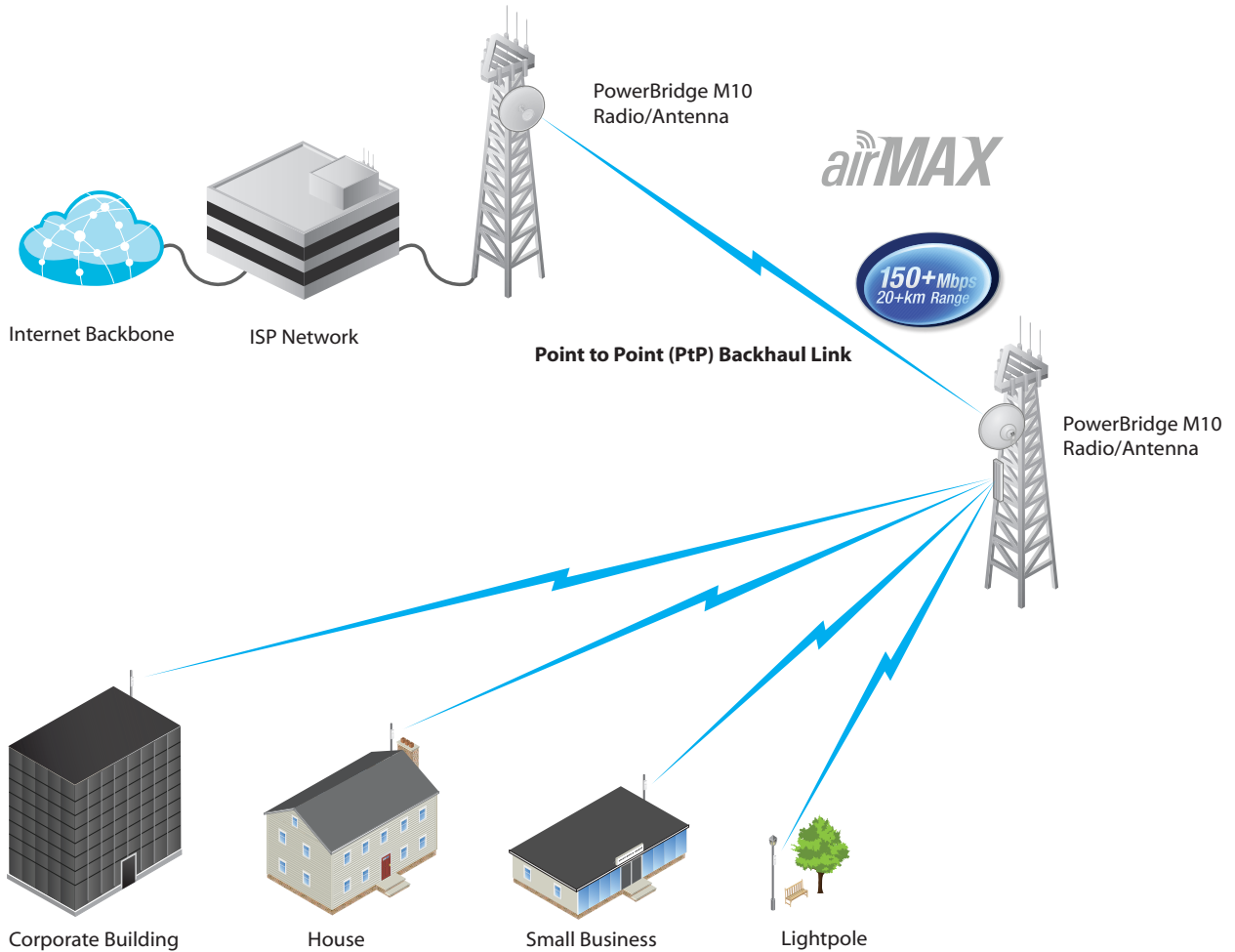PowerBridge M10 Radio Easily and Securely Attaches to Dish Antenna

Incredible Range and Speed

UBIQUITI
NETWORKS

Overview

airMAX 2X2 PtP Bridge

PowerBridge M10 is a rugged, hi-power, 2x2 MIMO radio with enhanced receiver performance using the super-high 10 GHz radio frequency. It features incredible range performance (20+km) and breakthrough speed (150+Mbps real TCP/IP). The PowerBridge M10 radio pairs seamlessly with the included Carrier Class PowerBridge M10 dish antenna, to create powerful PtP bridging applications. Below is an example of how the PowerBridge M10 can be deployed:

PowerBridge M10
Radio/Antenna

airMAX

150+Mbps
20+km Range

Internet Backbone   ISP Network

Point to Point (PtP) Backhaul Link

PowerBridge M10
Radio/Antenna

Corporate Building   House   Small Business   Lightpole

Integrated airMAX Technology

Unlike the standard WiFi protocol, Ubiquiti's Time Division Multiple Access (TDMA) airMAX protocol allows each client to send and receive data using pre-designated time slots scheduled by an intelligent AP controller.

This "time slot" method eliminates hidden node collisions and maximizes air time efficiency. It provides many magnitudes of performance improvements in latency, throughput, and scalability compared to all other outdoor systems in its class.

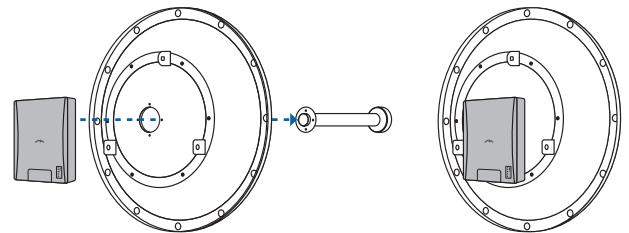**Intelligent QoS** Priority is given to voice/video forseamless access.

Scalability High capacity and scalability.

Long Distance Capable of high speed 20km+ links.

Latency Multiple features dramatically reduce noise.

Easy Installation

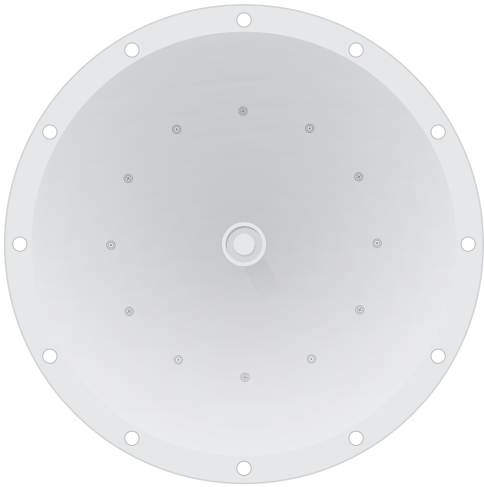The PowerBridge M10 radio and PowerBridge M10 dish antenna have been designed specifically to work together.

Installing the PowerBridge M10 radio onto the PowerBridge M10 dish antenna is simple and secure with the use of a Phillips-head screwdriver.

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Model Details

PowerBridge M10 Radio and Dish*

Model: PBM10 (2 ft / 648 mm)

• 10.322 GHz - 10.574 GHz

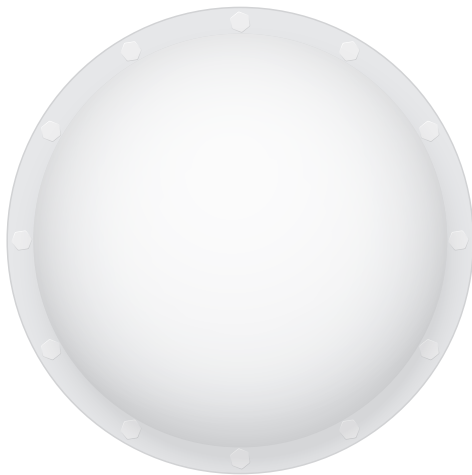• 33.0 - 34.4 dBi
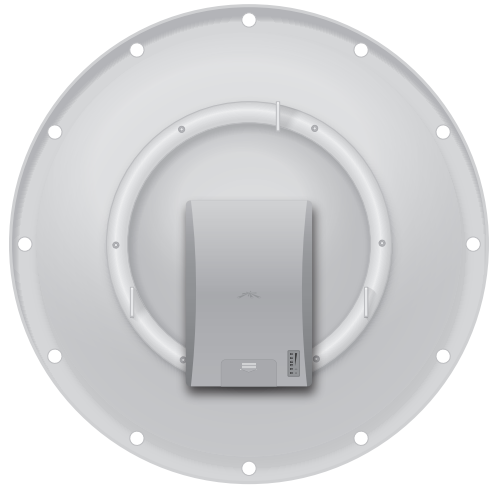
Front View   **Side View**   **Rear View**

RocketDish Radome**

Model: RAD-2RD (2 ft / 648 mm)

• Greatly Reduce Wind Load

• Protect Antenna Surfaces from Harsh Environments

• Conceal Antenna Equipment from Public View

Front View   **Side View**

*PowerBridge M10 Radio and Dish sold together.

**RocketDish Radome sold separately.

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Specifications

System Information	
Processor Specs	Atheros MIPS 24KC, 400 MHz
Memory Information	64MB SDRAM, 8MB Flash
Networking Interface	(1) 10/100 Ethernet Port

Regulatory/Compliance Information	
Wireless Approvals	CE
RoHS Compliance	Yes

Physical / Electrical / Environmental	
Enclosure Size	170 x 250 x 53 mm (without the feed) 170 x 250 x 272 mm (with the feed)
Weight	1.15 kg (without the feed) 1.2 kg (with the feed)
Enclosure Characteristics	Die Cast Aluminum
Mounting Kit	Pole Mounting Kit included
Max. Power Consumption	8 Watts
Power Supply	24V, 1A PoE Supply included
Power Method	Passive Power over Ethernet (pairs 4, 5+; 7, 8 return)
Operating Temperature	-40 to 80° C
Operating Humidity	5 to 95% Condensing
Shock and Vibration	ETSI300-019-1.4

Antenna Characteristics	
PBM10	
Frequency Range	10.322 GHz - 10.574 GHz
Gain	33.0 - 34.4 dBi
HPOL Beamwidth	3.0 - 3.7° over band
VPOL Beamwidth	3.0 - 3.7° over band
F/B Ratio	33 dB
Max VSWR	< 1.4:1
Dimensions	2 ft / 648 mm
Weight	9.8 kg
Wind Survivability	120 mph
Wind Loading	113 lb @ 100 mph
Polarization	Dual Linear
Cross-pol Isolation	35 dB min
ETSI Specification	EN 302 326 DN2
Mounting	Universal pole mount, PowerBridge M10 bracket

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TOUGHCable
OUTDOOR CARRIER CLASS SHIELDED

Protect your networks from the most brutal environments with Ubiquiti's industrial-grade shielded Ethernet cable, TOUGHCable.

Increase Performance Dramatically improve your Ethernet link states, speeds, and overall performance with Ubiquiti TOUGHCables.

Extreme Weatherproof TOUGHCables have been built to perform even in the harshest weather and environments.

ESD Damage Protection Protect your networks from devastating electrostatic discharge (ESD) attacks.

Extended Cable Support TOUGHCables have been developed to have increased power handling performance for extended cable run lengths.

Bulletproof your networks

TOUGHCable is currently available in two versions: Level 1 Shielding Protection and Level 2 Shielding Protection.
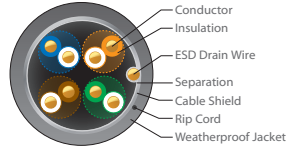
Level 1 is a Category 5e outdoor carrier-class shielded cable.

Level 2 is a Category 5e outdoor carrier-class shielded cable that features an Anti-Crosstalk Divider, additional shielding and is rated to provide optimal performance on Gigabit Ethernet networks.
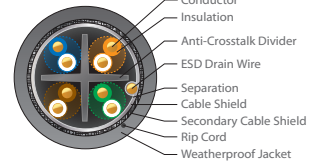
Additional Information:

• 24 AWG copper conductor pairs
• 26 AWG integrated ESD drain wire to prevent ESD attacks & damage
• PE outdoor-rated weatherproof jacket
• Multi-layered shielding
• Available in 1000 ft (304.8 m) length

LEVEL 1
SHIELDING PROTECTION

Conductor
Insulation
ESD Drain Wire
Separation
Cable Shield
Rip Cord
Weatherproof Jacket

LEVEL 2
SHIELDING PROTECTION

Conductor
Insulation
Anti-Crosstalk Divider
ESD Drain Wire
Separation
Cable Shield
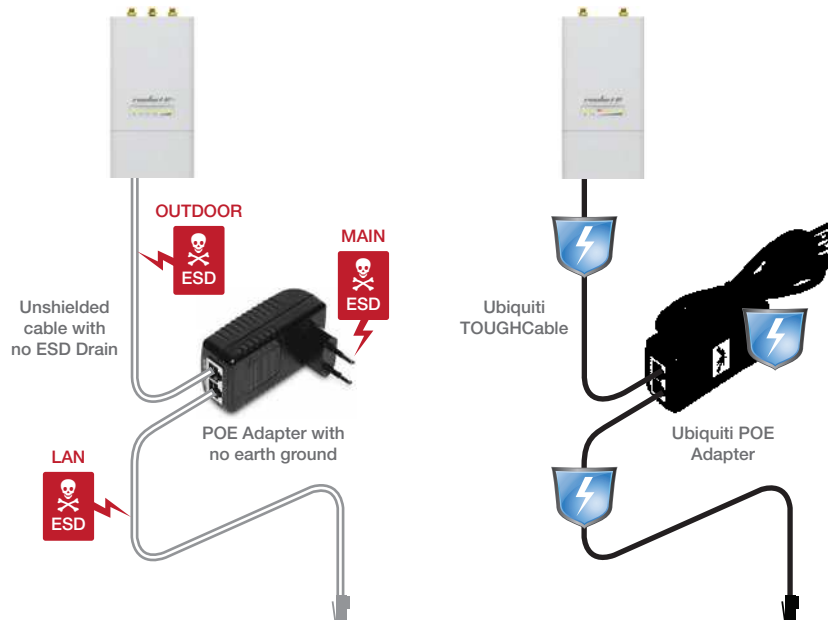Secondary Cable Shield
Rip Cord
Weatherproof Jacket

TOUGHCable Connectors

Specifically designed for use with Ubiquiti TOUGHCables and available in 100 pc. bags, TOUGHCable Connectors protect against ESD attacks and Ethernet hardware damage while allowing rapid field deployment without soldering.

ESD attacks are overwhelmingly the leading cause for device failures. The diagram below illustrates the areas vulnerable to ESD attacks in a defenseless network.

By using a grounded Ubiquiti Power over Ethernet (PoE) adapter along with Ubiquiti TOUGHCable and TOUGHCable Connectors, you can effectively protect against ESD attacks.

OUTDOOR
MAIN
Unshielded cable with no ESD Drain
ESD
ESD
POE Adapter with no earth ground
LAN
ESD

Ubiquiti TOUGHCable
Ubiquiti POE Adapter

www.ubnt.com/toughcable

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