



BULLET™ M TITANIUM

Zero-Variable Outdoor airMAX® Radio

Models: BM2-Ti, BM5-Ti

Fully Integrated Radio

Weatherproof Aluminum Casing

Directly Connects to Any Antenna with an N-Type Connector



Overview

Pair the Bullet™ M Titanium with any antenna for airMAX deployment in Point-to-Point (PtP) bridging or Point-to-MultiPoint (PtMP) applications.

Revolutionary Design

Like its predecessor, the Bullet M Titanium is a radio with an integrated N-Type RF connector that can be directly plugged into any antenna¹ to create a powerful and robust airMAX access point (AP), client, or bridge.

The Bullet M Titanium features a durable, weatherproof design. Made from aircraft-grade aluminum, the casing is designed to withstand harsh outdoor conditions.

Powerful Performance

Ideal for long-range² links, the Bullet M Titanium features up to 600 mW of power and an enhanced receiver design for PtP or PtMP deployment. It is capable of up to 100+ Mbps real TCP/IP throughput.

Zero-Variable Deployment

The Bullet M Titanium eliminates the need to use RF cables and requires no special antenna or tools to install. There are no radio card / host board issues, no RF cable quality concerns, no mechanical stability concerns, and no enclosure mounting requirements. With the Bullet M Titanium, you can just plug in and go.

airMAX Technology Included

Unlike standard Wi-Fi 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.

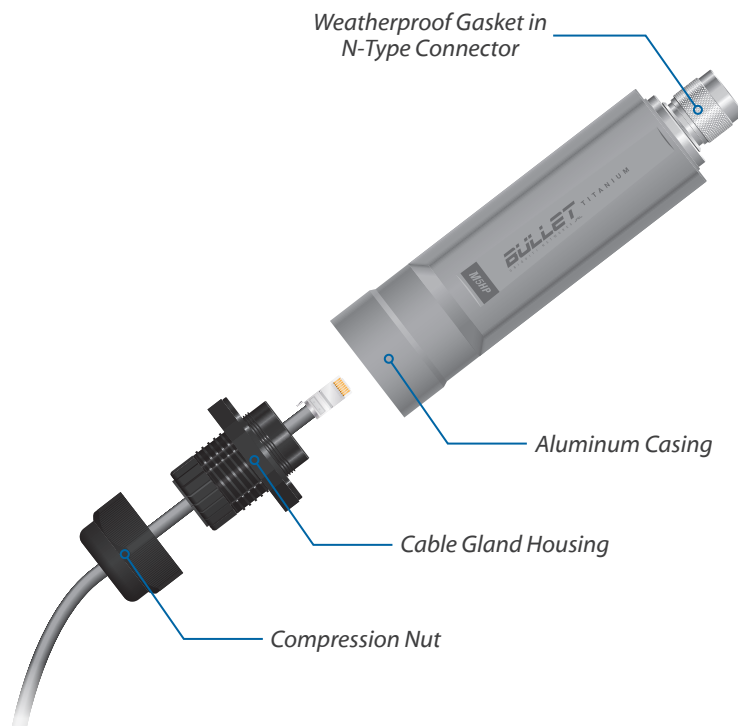
This time slot method eliminates hidden node collisions and maximizes airtime efficiency. It provides significant performance improvements in latency, throughput, and scalability compared to all other outdoor systems in its class.

- Intelligent QoS with voice/video priority for seamless streaming.
- High capacity and scalability.
- Long-distance, carrier-class links.

¹ Bullet M Titanium can be connected to any antenna with an N-Type connection gasket.

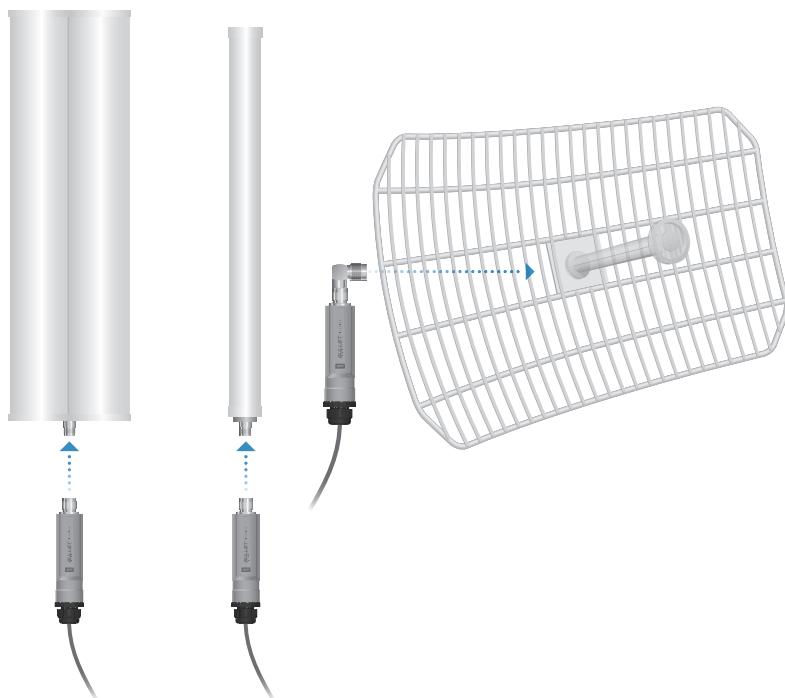
² Distance dependent on antenna.

Durability to Last Outdoors



Engineered to survive extreme conditions, the Bullet M Titanium features an upgraded aluminum casing, weatherproof N-Type connection gasket, and water-tight cable gland.

Antenna Compatibility



Plug in the Bullet M Titanium to transform any antenna into an airMAX basestation.

Software



airOS® is a versatile, highly developed Ubiquiti firmware technology. Behind the intuitive graphical user interface is a powerful firmware architecture, which enables high-performance, outdoor multi-point networking.

- Protocol Support
- Ubiquiti Channelization
- Spectral Width Adjustment
- ACK Auto-Timing
- AAP Technology
- Multi-Language Support



Integrated on all Ubiquiti M products, airView® provides advanced spectrum analyzer functionality: waterfall, waveform, and real-time spectral views allow operators to identify noise signatures and plan their networks to minimize noise interference.

- **Waterfall** Aggregate energy over time for each frequency.
- **Waveform** Aggregate energy collected.
- **Real-time** Energy is shown in real time as a function of frequency.
- **Recording** Automate airView to record and report results.

UNMS App

The Bullet M Titanium can be accessed by the UNMS™ (Ubiquiti® Network Management System) app once it has been set up on the same Wi-Fi network as your mobile device. (Original setup is done through your browser.)

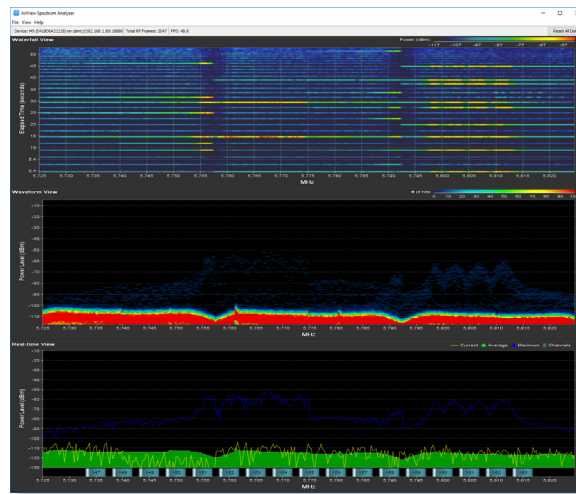
Accessing airOS via Wi-Fi

The UNMS app provides instant accessibility to the airOS configuration interface and can be downloaded from the App Store® (iOS) or Google Play™ (Android). UNMS allows you to configure and manage the Bullet M Titanium and offers various configuration options once you're connected or logged in.

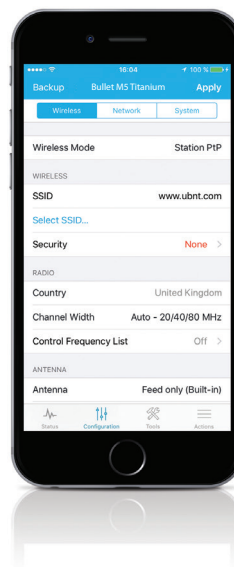
Main



airView



UNMS Configuration



Specifications

BULLET™ M2 HP
TITANIUM

BM2-Ti	
Dimensions	190 x 46 x 46 mm (7.72 x 1.81 x 1.81")
Weight	196 g (6.91 oz)
Power Supply	24V, 1A PoE Adapter (Included)
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 Return)
Max. Power Consumption	7W
Operating Frequency	2412-2472 MHz
Processor	MIPS 24Kc
Memory	32 MB SDRAM, 8 MB Flash
Networking Interface	(1) 10/100 Ethernet Port
Antenna Connector	N-Type Connector (Male)
Enclosure Characteristics	Powder Coated Aluminum
ESD/EMP Protection	± 24kV Air / Contact
Operating Temperature	-40 to 80° C (-40 to 176° F)
Operating Humidity	5 to 95% Noncondensing
Shock and Vibration	ETSI300-019-1.4
Wireless Approvals	FCC, IC, CE
RoHS Compliance	Yes
Modes	Access Point, Station
Services	Web Server, SNMP, SSH Server, Telnet , Ping Watchdog, DHCP, NAT, Bridging, Routing
Utilities	Antenna Alignment Tool, Discovery Utility, Site Survey, Ping, Traceroute, Speed Test
Distance Adjustment	Dynamic Ack and Ackless Mode
Power Adjustment	Software Adjustable UI or CLI
Security	WPA2 AES Only
QoS	Supports Packet Level Classification WMM and User Customer Level: High/Medium/Low
Statistical Reporting	Up Time, Packet Errors, Data Rates, Wireless Distance, Ethernet Link Rate
Other	Remote Reset Support, Software Enabled/Disabled, VLAN Support, 64QAM, 5/8/10/20/30/40 MHz Channel Width Support
Ubiquiti Specific Features	airMAX Mode, Traffic Shaping with Burst Support, Discovery Protocol, Frequency Band Offset, Ackless Mode

BM2-Ti Output Power: 28 dBm							
TX Power Specifications				RX Power Specifications			
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
802.11g	6 - 24 Mbps	28 dBm	± 2 dB	802.11g	6 - 24 Mbps	-83 dBm Min.	± 2 dB
	36 Mbps	25 dBm	± 2 dB		36 Mbps	-80 dBm	± 2 dB
	48 Mbps	24 dBm	± 2 dB		48 Mbps	-77 dBm	± 2 dB
	54 Mbps	23 dBm	± 2 dB		54 Mbps	-75 dBm	± 2 dB
802.11n/airMAX	MCS0	28 dBm	± 2 dB	802.11n/airMAX	MCS0	-96 dBm	± 2 dB
	MCS1	28 dBm	± 2 dB		MCS1	-95 dBm	± 2 dB
	MCS2	28 dBm	± 2 dB		MCS2	-92 dBm	± 2 dB
	MCS3	28 dBm	± 2 dB		MCS3	-90 dBm	± 2 dB
	MCS4	27 dBm	± 2 dB		MCS4	-86 dBm	± 2 dB
	MCS5	25 dBm	± 2 dB		MCS5	-83 dBm	± 2 dB
	MCS6	23 dBm	± 2 dB		MCS6	-77 dBm	± 2 dB
	MCS7	22 dBm	± 2 dB		MCS7	-74 dBm	± 2 dB



Specifications

BULLET™ M5 HP
TITANIUM

BM5-Ti	
Dimensions	190 x 46 x 46 mm (7.72 x 1.81 x 1.81")
Weight	196 g (6.91 oz)
Power Supply	24V, 1A PoE Adapter (Included)
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 Return)
Max. Power Consumption	6W
Operating Frequency	5150 - 5875 MHz
Worldwide	5725 - 5850 MHz
USA	
Processor	MIPS 24Kc
Memory	32 MB SDRAM, 8 MB Flash
Networking Interface	(1) 10/100 Ethernet Port
Antenna Connector	N-Type Connector (Male)
Enclosure Characteristics	Powder Coated Aluminum
ESD/EMP Protection	± 24kV Air / Contact
Operating Temperature	-40 to 80° C (-40 to 176° F)
Operating Humidity	5 to 95% Noncondensing
Shock and Vibration	ETSI300-019-1.4
Wireless Approvals	FCC, IC, CE
RoHS Compliance	Yes
Modes	Access Point, Station
Services	Web Server, SNMP, SSH Server, Telnet , Ping Watchdog, DHCP, NAT, Bridging, Routing
Utilities	Antenna Alignment Tool, Discovery Utility, Site Survey, Ping, Traceroute, Speed Test
Distance Adjustment	Dynamic Ack and Ackless Mode
Power Adjustment	Software Adjustable UI or CLI
Security	WPA2 AES Only
QoS	Supports Packet Level Classification WMM and User Customer Level: High/Medium/Low
Statistical Reporting	Up Time, Packet Errors, Data Rates, Wireless Distance, Ethernet Link Rate
Other	Remote Reset Support, Software Enabled/Disabled, VLAN Support, 64QAM, 5/8/10/20/30/40 MHz Channel Width Support
Ubiquiti Specific Features	airMAX Mode, Traffic Shaping with Burst Support, Discovery Protocol, Frequency Band Offset, Ackless Mode

BM5-Ti Output Power: 25 dBm							
TX Power Specifications				RX Power Specifications			
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
802.11a	6 - 24 Mbps	25 dBm	± 2 dB	802.11a	6 - 24 Mbps	-83 dBm Min.	± 2 dB
	36 Mbps	23 dBm	± 2 dB		36 Mbps	-80 dBm	± 2 dB
	48 Mbps	21 dBm	± 2 dB		48 Mbps	-77 dBm	± 2 dB
	54 Mbps	20 dBm	± 2 dB		54 Mbps	-75 dBm	± 2 dB
802.11n/airMAX	MCS0	25 dBm	± 2 dB	802.11n/airMAX	MCS0	-96 dBm	± 2 dB
	MCS1	25 dBm	± 2 dB		MCS1	-95 dBm	± 2 dB
	MCS2	25 dBm	± 2 dB		MCS2	-92 dBm	± 2 dB
	MCS3	25 dBm	± 2 dB		MCS3	-90 dBm	± 2 dB
	MCS4	24 dBm	± 2 dB		MCS4	-86 dBm	± 2 dB
	MCS5	22 dBm	± 2 dB		MCS5	-83 dBm	± 2 dB
	MCS6	20 dBm	± 2 dB		MCS6	-77 dBm	± 2 dB
	MCS7	19 dBm	± 2 dB		MCS7	-74 dBm	± 2 dB



Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: www.ubnt.com/support/warranty
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