rocket™ M TITANIUM

rocket™ M TITANIUM

Powerful 2x2 MIMO airMAX™ BaseStation

Models: RM2-Ti, RM5-Ti

Rugged Weatherproof Die-Cast Aluminum Enclosure

High Throughput Gigabit Ethernet Port
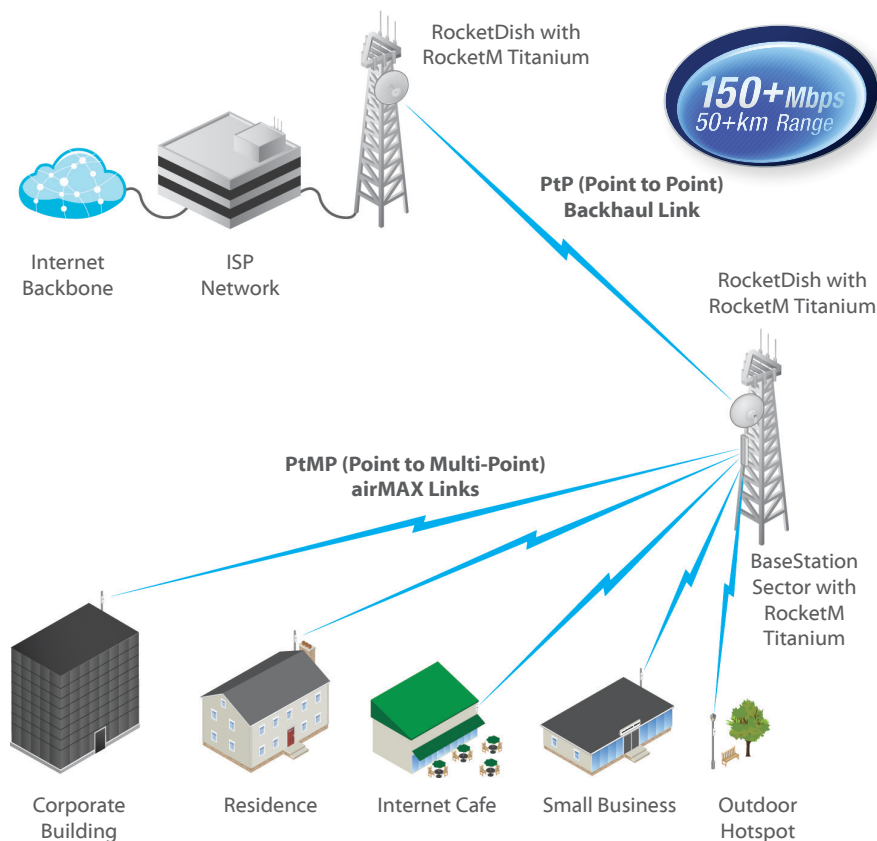
Incredible 50+ km Range and 150+ Mbps Speed

UBIQUITI
NETWORKS

rocket™ M TITANIUM

Powerful airMAX™ BaseStation Platform

Building upon our market-leading Rocket™ series, the RocketM Titanium features enhanced radio perfomance and superior durability. Its carrier-class capabilities link distances up to 50+ km and provide breakthrough speeds of up to 150+ Mbps. The RocketM Titanium takes advantage of its Gigabit Ethernet connection to deliver high throughput for reliable data transfers.

The RocketM Titanium enclosure was specifically designed to improve performance in harsh RF environments and in extreme weather conditions. Enclosed in aircraft-grade aluminum, the RocketM Titanium is a rugged, high-power, linear 2x2 MIMO radio.

Rocket devices may be deployed in PtP bridging or PtMP airMAX BaseStation applications. They can be paired with your choice of airMAX BaseStation™ Sector or RocketDish™ antennas. This versatility gives network architects unparalleled flexibility and convenience.

RocketDish with RocketM Titanium

150+Mbps 50+km Range

PtP (Point to Point) Backhaul Link

Internet Backbone

ISP Network

RocketDish with RocketM Titanium

PtMP (Point to Multi-Point) airMAX Links

BaseStation Sector with RocketM Titanium

Corporate Building

Residence

Internet Cafe

Small Business

Outdoor Hotspot

airMAX Technology

Unlike 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 airtime efficiency. It significantly improves performance in throughput, reduces latency, and increases scalability compared to all other outdoor systems in its class.

- **Intelligent QoS** Priority is given to voice or video for seamless streaming.
- **Scalability** High capacity and scalability.
- **Long Distance** Capable of high-speed links up to 50+ km.
- **Latency** Multiple features dramatically reduce noise.

GPS Synchronization*

RocketM5 Titanium has integrated Ubiquiti airSync™ technology. airSync enhances the hardware and software of the Rocket to utilize GPS signals for precision timing.

GPS Signal Reporting
airOS™ was upgraded to take full advantage of the new GPS hardware in the RocketM5 Titanium. Easily manage and monitor GPS satellite signals.
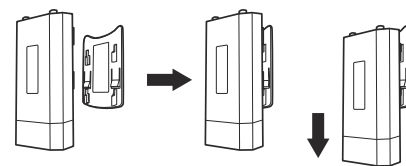
No Co-Location Interference
Synchronized transmission among RocketM5 Titanium Basestations effectively eliminates co-location interference.

External GPS Antenna
The RocketM5 Titanium includes a weatherproof, external GPS antenna.

Easy Installation

The RocketM Titanium and airMAX antennas have been designed to seamlessly work together.

Installing the RocketM Titanium on an airMAX BaseStation Sector or RocketDish antenna requires no special tools. You simply snap it securely into place with the universal Rocket mount built into the antenna.
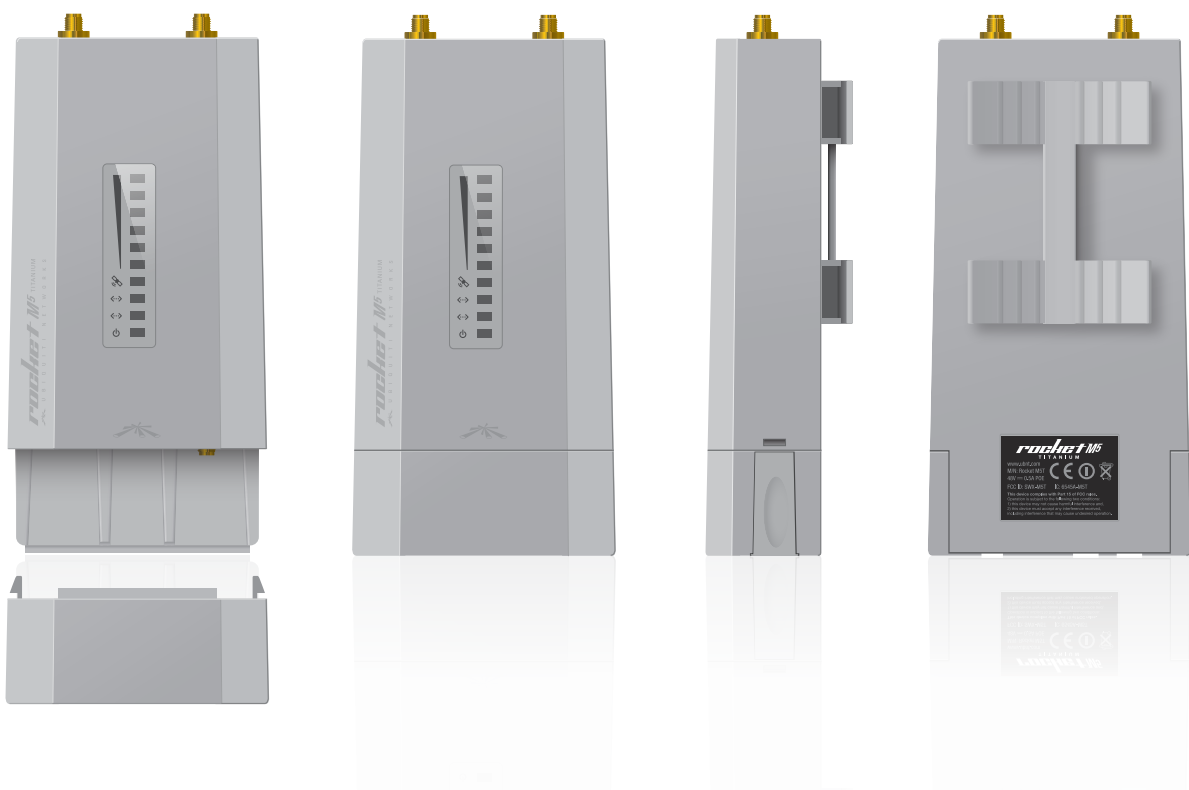
* GPS features only available on RocketM5 Titanium

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Models

RocketM2 Titanium

RocketM5 Titanium

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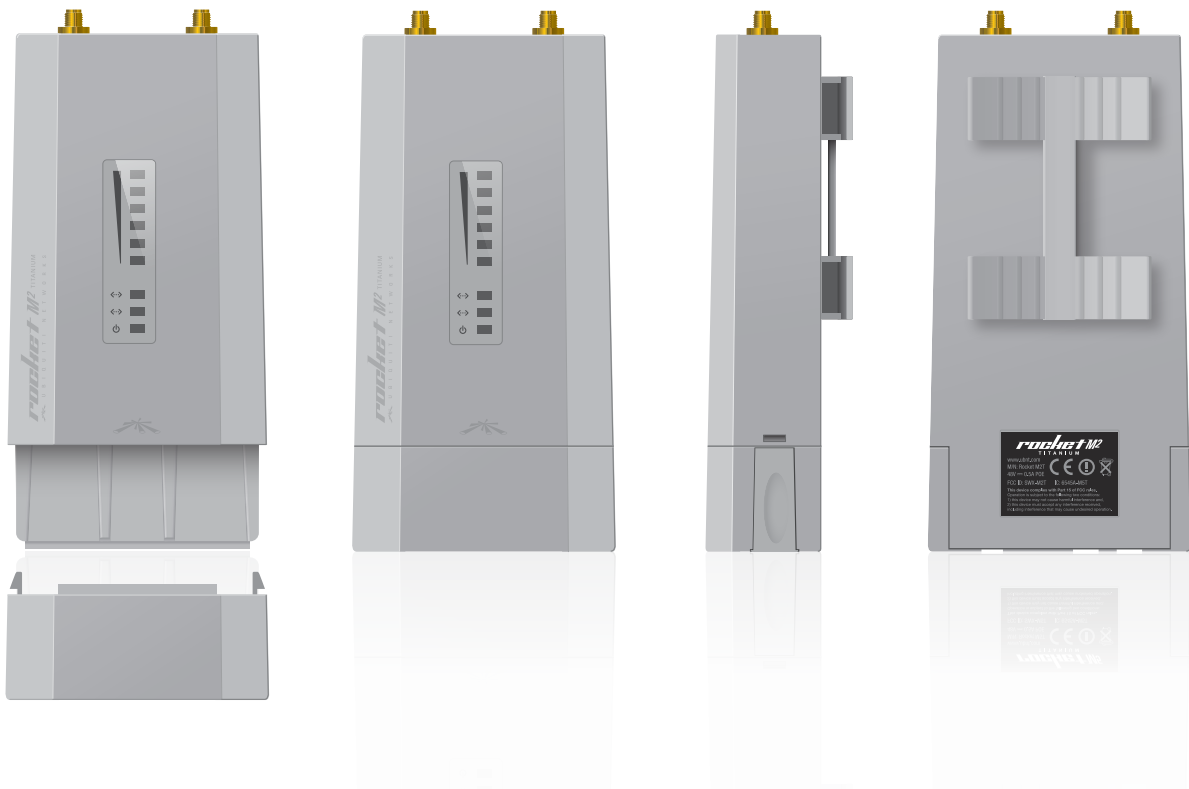
Software

airOS™

airOS is a versatile, highly developed Ubiquiti firmware technology. It is exceptionally intuitive and was designed to require no training to operate. Behind the user interface is a powerful firmware architecture that enables high-performance, outdoor multipoint networking.

• Protocol Support
• Channel Shifting
• Spectral Width Adjustment
• ACK Auto-Timing
• AAP Technology
• Multiple VLAN Support
• DHCP Relay
• Multi-Language Support

airView™

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.

airControl™

airControl is a powerful and intuitive, Web-based server network management application that allows operators to centrally manage entire networks of Ubiquiti devices.

• Network Map
• Monitor Device Status
• Mass Firmware Upgrade
• Web UI Access
• Manage Groups of Devices
• Task Scheduling

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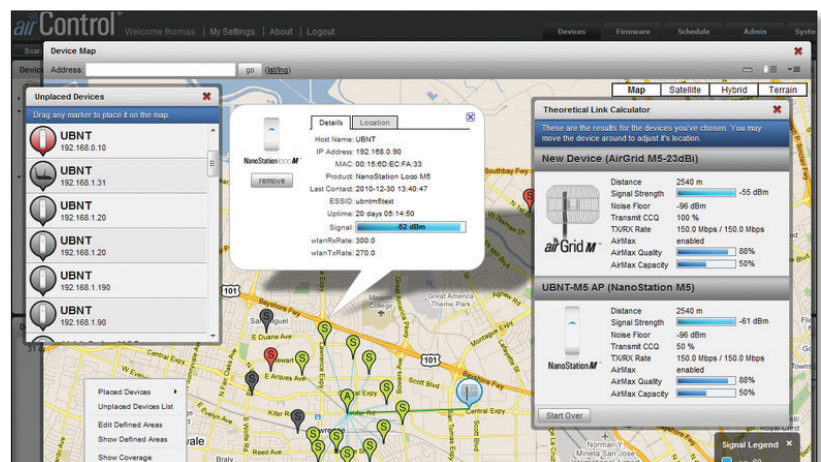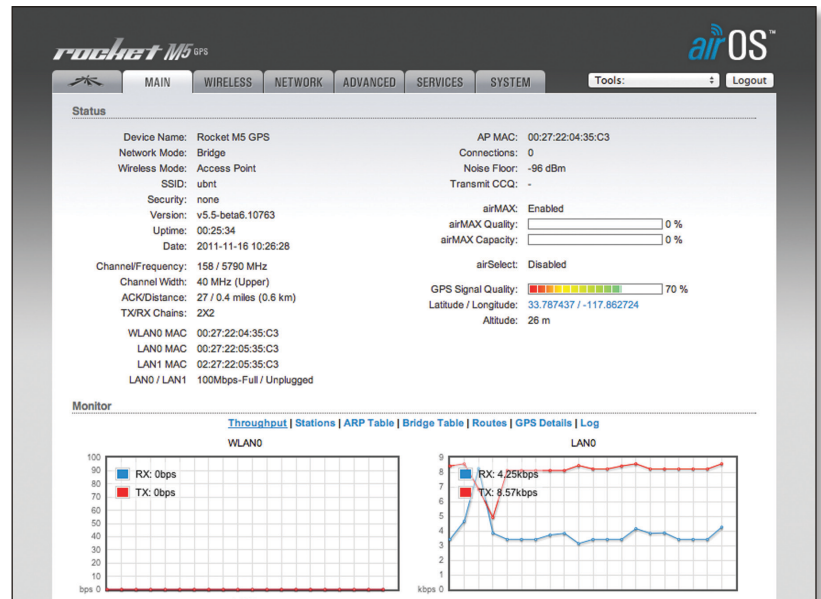
Specifications

System Information		
Model	**RM2-Ti**	**RM5-Ti**
Processor Specs	Atheros MIPS 74KC, 550 MHz	Atheros MIPS 74KC, 550 MHz
Memory Information	128 MB SDRAM, 8 MB Flash	128 MB SDRAM, 8 MB Flash
RF Connections	2 RP-SMA (Waterproof)	2 RP-SMA (Waterproof) 1 SMA (GPS)
Regulatory / Compliance Information		
Wireless Approvals		FCC Part 15.247, IC RS210, CE
RoHS Compliance		Yes
Physical / Electrical / Environmental		
Dimensions		160 x 80 x 44 mm
Weight		350 g
Enclosure Characteristics		Die-Cast Aluminum
Networking Interface		(1) 10/100/1000 Ethernet Port (1) 10/100 Ethernet Port
Max. Power Consumption		6.5 Watts (RM2-Ti), 8.0 Watts (RM5-Ti)
Power Supply		48V, 0.5A PoE Adapter (Included)
Power Method		802.3af Compliant
ESD/EMP Protection		30KV Contact / Air for Ethernet
Operating Temperature		-30 to 75° C
Operating Humidity		5 to 95% Condensing
Shock and Vibration		ETSI300-019-1.4
Software Information		
Modes		Station, Access Point, AP Repeater
Services		SNMP, DHCP, NAT
Utilities		Site Survey with Preferred SSID, Antenna Alignment Tool, Discovery Utility
Security		WEP/WPA/WPA2
QoS		802.11e / WMM Support
Statistical Reporting		Ethernet Activity, Uptime, Packet Success/Errors
LED Indicators		
System LEDs		Power, WAN, LAN, GPS (RM5-Ti only)
Antenna Align / Signal Strength LEDs		Software Adjustable to Correspond to Custom Signal Strength Levels

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Specifications

RocketM2 Titanium							
Operating Frequency				2412 - 2462 MHz			
Range Performance				50+ km (Outdoor - Antenna Dependent)			
Output Power				28 dBm			
TX Power Specifications				RX Power Specifications			
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
11g	1 - 24 Mbps	28 dBm	± 2 dB	11g	1 - 24 Mbps	-97 dBm min.	± 2 dB
	36 Mbps	26 dBm	± 2 dB		36 Mbps	-80 dBm	± 2 dB
	48 Mbps	25 dBm	± 2 dB		48 Mbps	-77 dbm	± 2 dB
	54 Mbps	24 dBm	± 2 dB		54 Mbps	-75 dBm	± 2 dB
11n / airMAX	MCS0	28 dBm	± 2 dB	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
	MCS8	28 dBm	± 2 dB		MCS8	-95 dBm	± 2 dB
	MCS9	28 dBm	± 2 dB		MCS9	-93 dBm	± 2 dB
	MCS10	28 dBm	± 2 dB		MCS10	-90 dBm	± 2 dB
	MCS11	28 dBm	± 2 dB		MCS11	-87 dBm	± 2 dB
	MCS12	27 dBm	± 2 dB		MCS12	-84 dBm	± 2 dB
	MCS13	25 dBm	± 2 dB		MCS13	-79 dBm	± 2 dB
	MCS14	23 dBm	± 2 dB		MCS14	-78 dBm	± 2 dB
	MCS15	22 dBm	± 2 dB		MCS15	-75 dBm	± 2 dB

Specifications

RocketM5 Titanium	
Operating Frequency	5170 - 5825 MHz*
Range Performance	50+ km (Outdoor - Antenna Dependent)
Output Power	27 dBm

TX Power Specifications				RX Power Specifications			
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
11a	6 - 24 Mbps	27 dBm	± 2 dB	11a	6 - 24 Mbps	-94 dBm min.	± 2 dB
	36 Mbps	25 dBm	± 2 dB		36 Mbps	-80 dBm	± 2 dB
	48 Mbps	23 dBm	± 2 dB		48 Mbps	-77 dbm	± 2 dB
	54 Mbps	22 dBm	± 2 dB		54 Mbps	-75 dBm	± 2 dB
11n / airMAX	MCS0	27 dBm	± 2 dB	11n / airMAX	MCS0	-96 dBm	± 2 dB
	MCS1	27 dBm	± 2 dB		MCS1	-95 dBm	± 2 dB
	MCS2	27 dBm	± 2 dB		MCS2	-92 dBm	± 2 dB
	MCS3	27 dBm	± 2 dB		MCS3	-90 dBm	± 2 dB
	MCS4	26 dBm	± 2 dB		MCS4	-86 dBm	± 2 dB
	MCS5	24 dBm	± 2 dB		MCS5	-83 dBm	± 2 dB
	MCS6	22 dBm	± 2 dB		MCS6	-77 dBm	± 2 dB
	MCS7	21 dBm	± 2 dB		MCS7	-74 dBm	± 2 dB
	MCS8	27 dBm	± 2 dB		MCS8	-95 dBm	± 2 dB
	MCS9	27 dBm	± 2 dB		MCS9	-93 dBm	± 2 dB
	MCS10	27 dBm	± 2 dB		MCS10	-90 dBm	± 2 dB
	MCS11	27 dBm	± 2 dB		MCS11	-87 dBm	± 2 dB
	MCS12	26 dBm	± 2 dB		MCS12	-84 dBm	± 2 dB
	MCS13	24 dBm	± 2 dB		MCS13	-79 dBm	± 2 dB
	MCS14	22 dBm	± 2 dB		MCS14	-78 dBm	± 2 dB
	MCS15	21 dBm	± 2 dB		MCS15	-75 dBm	± 2 dB

* Only 5725 - 5850 MHz supported in the USA

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TOUGHCable™

OUTDOOR CARRIER CLASS SHIELDED

rocket™ M TITANIUM

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 increase power handling performance for extended cable run lengths.

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.

Bulletproof your networks

TOUGHCable is currently available in two versions: PRO Shielding Protection and CARRIER Shielding Protection.

TOUGHCable PRO is a Category 5e, outdoor, carrier-class shielded cable with an integrated ESD drain wire.

TOUGHCable CARRIER is a Category 5e, outdoor, carrier-class shielded cable that features an integrated ESD drain wire, anti-crosstalk divider, and secondary shielding. It 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 and damage
• PE outdoor-rated, weatherproof jacket
• Multi-layered shielding
• Available in lengths of 1000 ft (304.8 m)

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

MAIN
ESD

Unshielded cable with no ESD drain

LAN
ESD

PoE adapter with no earth ground

Ubiquiti TOUGHCable

Ubiquiti PoE Adapter

TERMS OF USE: The Ubiquiti radio device must be professionally installed. Shielded Ethernet cable and earth grounding must be used as conditions of product warranty. It is the installer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, and Dynamic Frequency Selection (DFS) requirements.

For further information, please visit www.ubnt.com.

All specifications in this document are subject to change without notice.

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