



## *rocket*<sup>™</sup> M

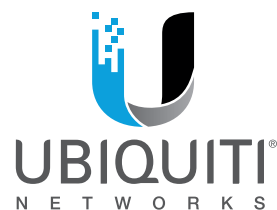
Powerful 2x2 MIMO airMAX<sup>®</sup> BaseStation

Models: M5, RM5-Ti, M3, M365, M2, RM2-Ti, M900

Advanced Software Technology to Maximize Performance

Plug and Play Integration with airMAX Antennas

Frequency and Channel Flexibility



# Overview

Featuring mix-and-match industrial design, the Rocket™ is a Ubiquiti Networks® airMAX® BaseStation that supports speeds of up to 150+ Mbps real TCP/IP throughput. It is ideal for deployment in Point-to-Point (PtP) bridging or Point-to-MultiPoint (PtMP) airMAX applications.

## Flexibility

The Rocket is available in several frequency models: 900 MHz, 2.4 GHz, 3/3.65 GHz, and 5 GHz, to support your specific application. You have the freedom to locate, deploy, and operate the Rocket in these unlicensed bands (subject to local country regulations).

The Rocket allows for a high degree of flexibility in configuring channel bandwidths: 2, 3, 5, 8, 10, 20, 25, 30, and/or 40 MHz, depending on the specific product model and local country regulations.

## Plug and Play Integration

Rocket radios and airMAX antennas have been designed to seamlessly work together. Every airMAX Sector, RocketDish™, Omni, or Yagi antenna has a built-in Rocket mount, so installation requires no special tools. Snap the Rocket securely into place and mount the antenna; then you have the optimal combination of Rocket radio and airMAX antenna for your PtP or PtMP application.

## 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.

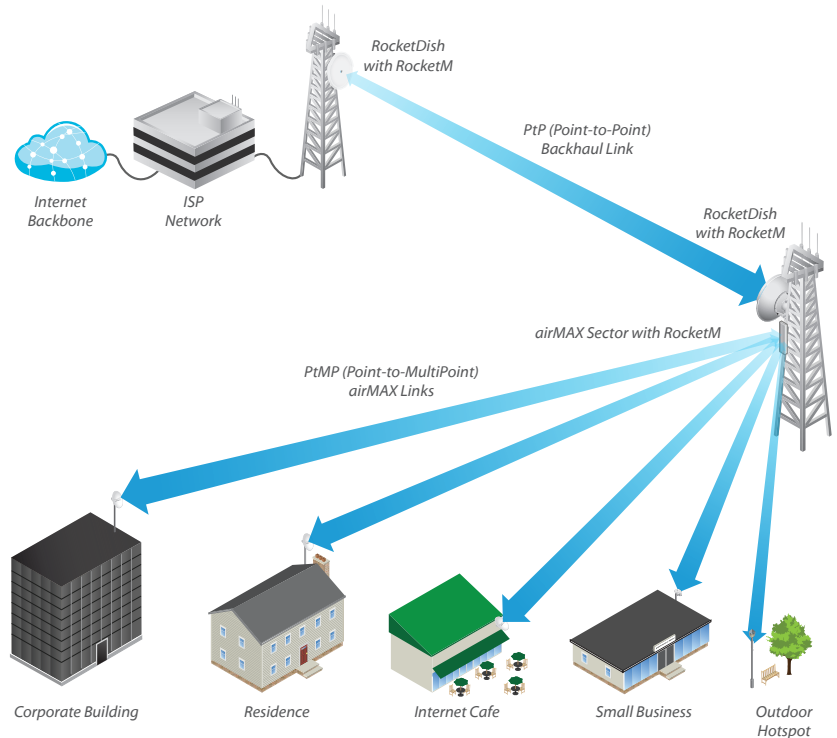
This time slot method eliminates hidden node collisions and maximizes airtime efficiency. It provides many magnitudes of performance improvements in latency, throughput, and scalability compared to all other outdoor systems in its class.

**Intelligent QoS** Priority is given to voice/video for seamless streaming.

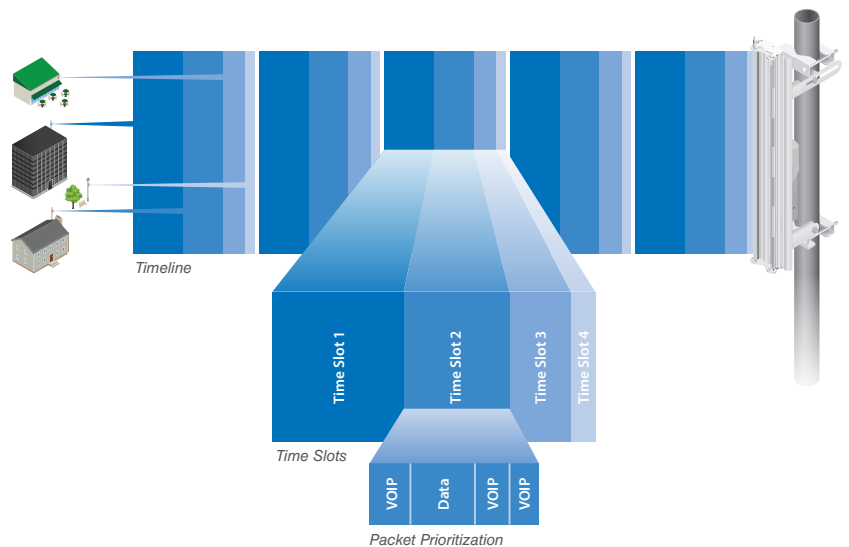
**Scalability** High capacity and scalability.

**Long Distance** Capable of high-speed, carrier-class links.

## Application Example



## airMAX TDMA Technology



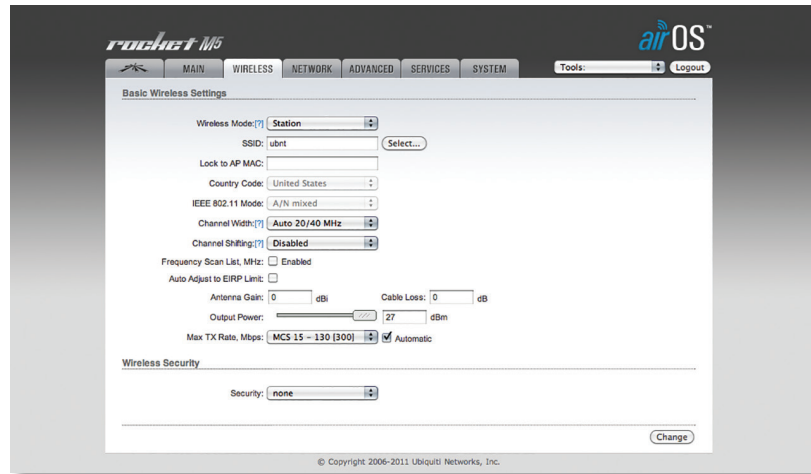
Up to 100 airMAX stations can be connected to an airMAX Sector; four airMAX stations are shown to illustrate the general concept.

# Software

## airOS®

Built upon an intuitive user interface foundation, airOS® 5 is an advanced operating system for Ubiquiti airMAX M Series products.

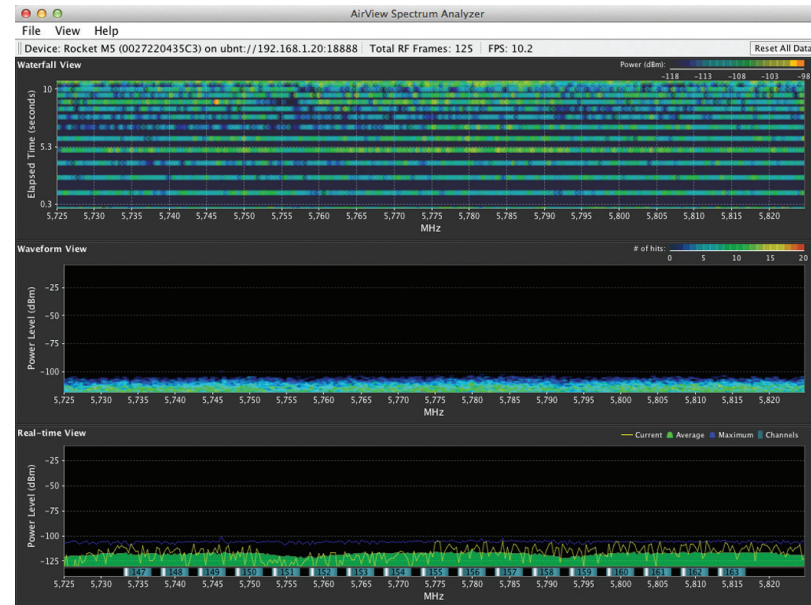
- airMAX Protocol Support
- Long-Range PtP Link Mode
- Transmit Power Control: Automatic/Manual
- Automatic Distance Selection (ACK Timing)
- Device Statistics
- Diagnostic Tools



## 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.

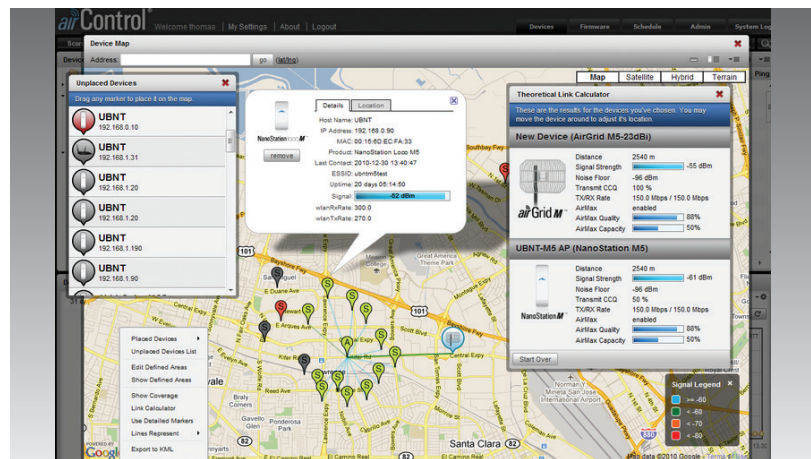
- **Waterfall** Aggregate energy over time for each frequency.
- **Waveform** Aggregate energy collected.
- **Real-time** Energy is shown in real time as a function of frequency.
- **Recording** Automate airView to record and report results.



## airControl®

airControl® is a powerful and intuitive, web-based server network management application, which 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



## 5 GHz Models

The 5 GHz frequency band is free to use, worldwide, offers plentiful spectrum, and works well for long-distance links. However, 5 GHz signals have more difficulty passing through obstacles than lower-frequency signals.

### M5

The Rocket enclosure is built to survive harsh environments and fits the Rocket mount built into every airMAX antenna. Pair the Rocket with the appropriate antenna for your PtP link or PtMP network.



### RM5-Ti

Its Gigabit Ethernet connection delivers high throughput, and its aircraft-grade aluminum casing improves performance in harsh RF environments and extreme weather conditions.



## 3/3.65 GHz Models

The 3 or 3.65 GHz frequency band is noise-free in most areas; however, its use requires a license. There may be additional restrictions on its use depending on local country regulations.

### M3

The Rocket enclosure is built to survive harsh environments and fits the Rocket mount built into every airMAX antenna. Pair the Rocket with the appropriate antenna for your PtP link or PtMP network.



### M365

The Rocket enclosure is built to survive harsh environments and fits the Rocket mount built into every airMAX antenna. Pair the Rocket with the appropriate antenna for your PtP link or PtMP network.



## 2.4 GHz Models

The 2.4 GHz frequency band is free to use, worldwide; however, it is extremely crowded due to interference from other wireless devices. Also, there are only three non-overlapping, 20 MHz channels available for use.

### M2

The Rocket enclosure is built to survive harsh environments and fits the Rocket mount built into every airMAX antenna. Pair the Rocket with the appropriate antenna for your PtP link or PtMP network.



### RM2-Ti

Its Gigabit Ethernet connection delivers high throughput, and its aircraft-grade aluminum casing improves performance in harsh RF environments and extreme weather conditions.



## 900 MHz Model

The 900 MHz frequency band has a higher tolerance for obstacles that may obstruct line of sight; however noise levels are typically higher. Also its use may require a license in some parts of the world.

### M900

The Rocket enclosure is built to survive harsh environments and fits the Rocket mount built into every airMAX antenna. Pair the Rocket with the appropriate antenna for your PtP link or PtMP network.





# Specifications

## *rocket™ M5*

### M5 Physical / Electrical / Environmental Information

|                           |  |
|---------------------------|--|
| Dimensions                | 160 x 80 x 30 mm (6.30 x 3.15 x 1.18") |
| Weight                    | 500 g (1.1 lb)                         |
| Enclosure Characteristics | Outdoor UV Stabilized Plastic          |
| Processor                 | MIPS 74Kc                              |
| Memory                    | 128 MB SDRAM, 8 MB Flash               |
| Networking Interface      | (1) 10/100 Mbps                        |
| RF Connections            | (2) RP-SMA (Waterproof)                |
| LEDs                      | Power, Ethernet, (4) Signal Strength   |
| Max. Power Consumption    | 8W                                     |
| Power Supply              | 24V, 1A PoE Adapter                    |
| Power Method              | Passive PoE (Pairs 4, 5+; 7, 8 Return) |
| ESD/EMP Protection        | ± 24KV Air / Contact                   |
| Operating Temperature     | -30 to 75° C (-22 to 167° F)           |
| Operating Humidity        | 5 to 95% Noncondensing                 |
| Shock and Vibration       | ETSI300-019-1.4                        |

### M5 Software Information

|                            |   |
|----------------------------|---|
| 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        |

### M5 Compliance

|                    |             |
|--------------------|-------------|
| Wireless Approvals | FCC, IC, CE |
| RoHS Compliance    | Yes         |

| M5 Operating Frequency  |             |         |           |   |             |              |           |
|-------------------------|-------------|---------|-----------|---|-------------|--------------|-----------|
| Operating Frequency     |             |         |           | Worldwide: 5170 - 5875 MHz<br>USA: 5725 - 5850 MHz* |             |              |           |
| Output Power            |             |         |           | 27 dBm  |             |              |           |
| TX Power Specifications |             |         |           | RX Power Specifications                             |             |              |           |
| Modulation              | Data Rate   | Avg. TX | Tolerance | Modulation  | Data Rate   | Sensitivity  | Tolerance |
| <b>802.11a</b>          | 6 - 24 Mbps | 27 dBm  | ± 2 dB    | <b>802.11a</b>                                      | 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    |
| <b>802.11n/airMAX</b>   | MCS0        | 27 dBm  | ± 2 dB    | <b>802.11n/airMAX</b>                               | 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      |              |           |

\* US units with FCC ID: SWX-RM5 are allowed 5250 - 5850 MHz.



# Specifications



| RM5-Ti Physical / Electrical / Environmental Information |   |
|--|---|
| Dimensions   | 160 x 80 x 44 mm (6.30 x 3.15 x 1.73")                      |
| Weight   | 350 g (12.35 oz)  |
| Enclosure Characteristics                                | Die-Cast Aluminum   |
| Processor  | MIPS 74Kc   |
| Memory   | 128 MB SDRAM, 8 MB Flash                                    |
| Networking Interface                                     | (1) 10/100/1000 Mbps<br>(1) 10/100 Mbps                     |
| RF Connections   | (2) RP-SMA (Waterproof), 1 SMA (GPS)                        |
| LEDs   | Power, (2) Ethernet, (6) Signal Strength, GPS               |
| Max. Power Consumption                                   | 8W  |
| Power Supply   | 48V, 0.5A PoE Adapter                                       |
| Power Method   | Passive PoE (Pairs 4, 5+; 7, 8 Return)<br>802.3af Compliant |
| ESD/EMP Protection                                       | ± 30KV Air / Contact  |
| Operating Temperature                                    | -30 to 75° C (-22 to 167° F)                                |
| Operating Humidity                                       | 5 to 95% Noncondensing                                      |
| Shock and Vibration                                      | ETSI300-019-1.4   |

| RM5-Ti Software Information |  |
|-----------------------------|--|
| 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,<br>5/8/10/20/30/40 MHz Channel Width Support |
| Ubiquiti Specific Features  | airMAX Mode, Traffic Shaping with Burst Support,<br>Discovery Protocol, Frequency Band Offset, Ackless Mode        |

| RM5-Ti Compliance  |             |
|--------------------|-------------|
| Wireless Approvals | FCC, IC, CE |
| RoHS Compliance    | Yes         |



| RM5-Ti Operating Frequency |             |         |           |   |             |              |           |
|----------------------------|-------------|---------|-----------|---|-------------|--------------|-----------|
| Operating Frequency        |             |         |           | Worldwide: 5170 - 5875 MHz<br>USA: 5725 - 5850 MHz* |             |              |           |
| Output Power               |             |         |           | 27 dBm  |             |              |           |
| TX Power Specifications    |             |         |           | RX Power Specifications                             |             |              |           |
| Modulation                 | Data Rate   | Avg. TX | Tolerance | Modulation  | Data Rate   | Sensitivity  | Tolerance |
| <b>802.11a</b>             | 6 - 24 Mbps | 27 dBm  | ± 2 dB    | <b>802.11a</b>                                      | 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    |
| <b>802.11n/airMAX</b>      | MCS0        | 27 dBm  | ± 2 dB    | <b>802.11n/airMAX</b>                               | 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      |              |           |

\* US units with FCC ID: SWX-RM5T-DFS are allowed 5250 - 5850 MHz.



# Specifications

## *rocket*™ M3 / M365

### M3/M365 Physical / Electrical / Environmental Information

|                           |  |
|---------------------------|--|
| Dimensions                | 160 x 80 x 30 mm (6.30 x 3.15 x 1.18") |
| Weight                    | 500 g (1.1 lb)                         |
| Enclosure Characteristics | Outdoor UV Stabilized Plastic          |
| Processor                 | MIPS 24Kc                              |
| Memory                    | 64 MB SDRAM, 8 MB Flash                |
| Networking Interface      | (1) 10/100 Mbps                        |
| RF Connections            | (2) RP-SMA (Waterproof)                |
| LEDs                      | Power, Ethernet, (4) Signal Strength   |
| Max. Power Consumption    | 6.5W                                   |
| Power Supply              | 24V, 1A PoE Adapter                    |
| Power Method              | Passive PoE (Pairs 4, 5+; 7, 8 Return) |
| ESD/EMP Protection        | ± 24KV Air / Contact                   |
| Operating Temperature     | -30 to 75° C (-22 to 167° F)           |
| Operating Humidity        | 5 to 95% Noncondensing                 |
| Shock and Vibration       | ETSI300-019-1.4                        |

### M3/M365 Software Information

|                            |  |
|----------------------------|--|
| 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                                     |
| M3                         | 5/8/10/20/25/40 MHz Channel Width Support  |
| M365                       | 5/10/20/25 MHz Channel Width Support   |
| Ubiquiti Specific Features | airMAX Mode, Traffic Shaping with Burst Support, Discovery Protocol, Frequency Band Offset, Ackless Mode |

### M3/M365 Compliance

|                    |              |
|--------------------|--------------|
| Wireless Approvals |              |
| M3                 | FCC, IC, CE  |
| M365               | FCC Part 90Y |
| RoHS Compliance    | Yes          |

| M3/M365 Operating Frequency |           |         |           |                         |           |              |           |
|-----------------------------|-----------|---------|-----------|-------------------------|-----------|--------------|-----------|
| Operating Frequency         |           |         |           | 3370 - 3730 MHz*        |           |              |           |
| M3                          |           |         |           | 3650 - 3675 MHz         |           |              |           |
| M365                        |           |         |           | 25 dBm                  |           |              |           |
| Output Power                |           |         |           | 25 dBm                  |           |              |           |
| TX Power Specifications     |           |         |           | RX Power Specifications |           |              |           |
| Modulation                  | Data Rate | Avg. TX | Tolerance | Modulation              | Data Rate | Sensitivity  | Tolerance |
| airMAX                      | MCS0      | 25 dBm  | ± 2 dB    | airMAX                  | MCS0      | -94 dBm Min. | ± 2 dB    |
|                             | MCS1      | 25 dBm  | ± 2 dB    |                         | MCS1      | -93 dBm      | ± 2 dB    |
|                             | MCS2      | 25 dBm  | ± 2 dB    |                         | MCS2      | -90 dBm      | ± 2 dB    |
|                             | MCS3      | 25 dBm  | ± 2 dB    |                         | MCS3      | -89 dBm      | ± 2 dB    |
|                             | MCS4      | 24 dBm  | ± 2 dB    |                         | MCS4      | -86 dBm      | ± 2 dB    |
|                             | MCS5      | 23 dBm  | ± 2 dB    |                         | MCS5      | -83 dBm      | ± 2 dB    |
|                             | MCS6      | 22 dBm  | ± 2 dB    |                         | MCS6      | -77 dBm      | ± 2 dB    |
|                             | MCS7      | 20 dBm  | ± 2 dB    |                         | MCS7      | -74 dBm      | ± 2 dB    |
|                             | MCS8      | 25 dBm  | ± 2 dB    |                         | MCS8      | -93 dBm      | ± 2 dB    |
|                             | MCS9      | 25 dBm  | ± 2 dB    |                         | MCS9      | -91 dBm      | ± 2 dB    |
|                             | MCS10     | 25 dBm  | ± 2 dB    |                         | MCS10     | -89 dBm      | ± 2 dB    |
|                             | MCS11     | 25 dBm  | ± 2 dB    |                         | MCS11     | -87 dBm      | ± 2 dB    |
|                             | MCS12     | 24 dBm  | ± 2 dB    |                         | MCS12     | -84 dBm      | ± 2 dB    |
|                             | MCS13     | 23 dBm  | ± 2 dB    |                         | MCS13     | -79 dBm      | ± 2 dB    |
|                             | MCS14     | 22 dBm  | ± 2 dB    |                         | MCS14     | -78 dBm      | ± 2 dB    |
| MCS15                       | 20 dBm    | ± 2 dB  | MCS15     | -75 dBm                 | ± 2 dB    |              |           |

\* RocketM3 not supported in the USA



# Specifications

## *rocket™ M2*

### M2 Physical / Electrical / Environmental Information

|                           |  |
|---------------------------|--|
| Dimensions                | 160 x 80 x 30 mm (6.30 x 3.15 x 1.18") |
| Weight                    | 500 g (1.1 lb)                         |
| Enclosure Characteristics | Outdoor UV Stabilized Plastic          |
| Processor                 | MIPS 24Kc                              |
| Memory                    | 128 MB SDRAM, 8 MB Flash               |
| Networking Interface      | (1) 10/100 Mbps                        |
| RF Connections            | (2) RP-SMA (Waterproof)                |
| LEDs                      | Power, Ethernet, (4) Signal Strength   |
| Max. Power Consumption    | 6.5W                                   |
| Power Supply              | 24V, 1A PoE Adapter                    |
| Power Method              | Passive PoE (Pairs 4, 5+; 7, 8 Return) |
| ESD/EMP Protection        | ± 24KV Air / Contact                   |
| Operating Temperature     | -30 to 75° C (-22 to 167° F)           |
| Operating Humidity        | 5 to 95% Noncondensing                 |
| Shock and Vibration       | ETSI300-019-1.4                        |

### M2 Software Information

|                            |   |
|----------------------------|---|
| 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        |

### M2 Compliance

|                    |             |
|--------------------|-------------|
| Wireless Approvals | FCC, IC, CE |
| RoHS Compliance    | Yes         |

| M2 Operating Frequency  |             |         |           |                         |             |              |           |
|-------------------------|-------------|---------|-----------|-------------------------|-------------|--------------|-----------|
| Operating Frequency     |             |         |           | 2402 - 2462 MHz         |             |              |           |
| Output Power            |             |         |           | 28 dBm                  |             |              |           |
| TX Power Specifications |             |         |           | RX Power Specifications |             |              |           |
| Modulation              | Data Rate   | Avg. TX | Tolerance | Modulation              | Data Rate   | Sensitivity  | Tolerance |
| <b>802.11g</b>          | 1 - 24 Mbps | 28 dBm  | ± 2 dB    | <b>802.11g</b>          | 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    |
| <b>802.11n/airMAX</b>   | MCS0        | 28 dBm  | ± 2 dB    | <b>802.11n/airMAX</b>   | 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



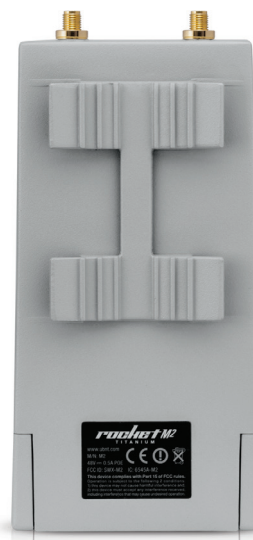
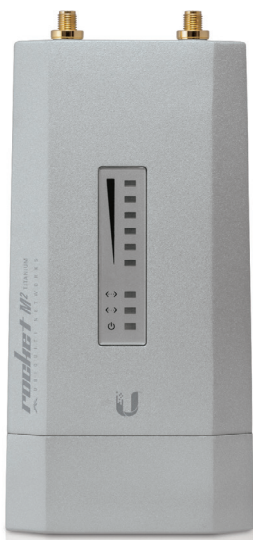
| RM2-Ti Physical / Electrical / Environmental Information |   |
|--|---|
| Dimensions   | 160 x 80 x 44 mm (6.30 x 3.15 x 1.73")                      |
| Weight   | 350 g (12.35 oz)  |
| Enclosure Characteristics                                | Die-Cast Aluminum   |
| Processor  | MIPS 74Kc   |
| Memory   | 128 MB SDRAM, 8 MB Flash                                    |
| Networking Interface                                     | (1) 10/100/1000 Mbps<br>(1) 10/100 Mbps                     |
| RF Connections   | (2) RP-SMA (Waterproof)                                     |
| LEDs   | Power, (2) Ethernet, (6) Signal Strength                    |
| Max. Power Consumption                                   | 6.5W  |
| Power Supply   | 48V, 0.5A PoE Adapter                                       |
| Power Method   | Passive PoE (Pairs 4, 5+; 7, 8 Return)<br>802.3af Compliant |
| ESD/EMP Protection                                       | ± 30KV Air / Contact  |
| Operating Temperature                                    | -30 to 75° C (-22 to 167° F)                                |
| Operating Humidity                                       | 5 to 95% Noncondensing                                      |
| Shock and Vibration                                      | ETSI300-019-1.4   |

| RM2-Ti Software Information |  |
|-----------------------------|--|
| 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,<br>5/8/10/20/30/40 MHz Channel Width Support |
| Ubiquiti Specific Features  | airMAX Mode, Traffic Shaping with Burst Support,<br>Discovery Protocol, Frequency Band Offset, Ackless Mode        |

| RM2-Ti Compliance  |             |
|--------------------|-------------|
| Wireless Approvals | FCC, IC, CE |
| RoHS Compliance    | Yes         |



| RM2-Ti Operating Frequency |             |         |           |                         |             |              |           |
|----------------------------|-------------|---------|-----------|-------------------------|-------------|--------------|-----------|
| Operating Frequency        |             |         |           | 2402 - 2462 MHz         |             |              |           |
| Output Power               |             |         |           | 28 dBm                  |             |              |           |
| TX Power Specifications    |             |         |           | RX Power Specifications |             |              |           |
| Modulation                 | Data Rate   | Avg. TX | Tolerance | Modulation              | Data Rate   | Sensitivity  | Tolerance |
| <b>802.11g</b>             | 1 - 24 Mbps | 28 dBm  | ± 2 dB    | <b>802.11g</b>          | 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    |
| <b>802.11n/airMAX</b>      | MCS0        | 28 dBm  | ± 2 dB    | <b>802.11n/airMAX</b>   | 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

*rocket™ M9*

## M900 Physical / Electrical / Environmental Information

|                           |  |
|---------------------------|--|
| Dimensions                | 160 x 80 x 30 mm (6.30 x 3.15 x 1.18") |
| Weight                    | 500 g (1.1 lb)                         |
| Enclosure Characteristics | Outdoor UV Stabilized Plastic          |
| Processor                 | MIPS 24Kc                              |
| Memory                    | 64 MB SDRAM, 8 MB Flash                |
| Networking Interface      | (1) 10/100 Mbps                        |
| RF Connections            | (2) RP-SMA (Waterproof)                |
| LEDs                      | Power, Ethernet, (4) Signal Strength   |
| Max. Power Consumption    | 6.5W                                   |
| Power Supply              | 24V, 1A PoE Adapter                    |
| Power Method              | Passive PoE (Pairs 4, 5+; 7, 8 Return) |
| ESD/EMP Protection        | ± 24KV Air / Contact                   |
| Operating Temperature     | -30 to 75° C (-22 to 167° F)           |
| Operating Humidity        | 5 to 95% Noncondensing                 |
| Shock and Vibration       | ETSI300-019-1.4                        |

## M900 Software Information

|                            |   |
|----------------------------|---|
| 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, 3/5/8/10/20 MHz Channel Width Support |
| Ubiquiti Specific Features | airMAX Mode, Traffic Shaping with Burst Support, Discovery Protocol, Frequency Band Offset, Ackless Mode    |

## M900 Compliance

|                    |             |
|--------------------|-------------|
| Wireless Approvals | FCC, IC, CE |
| RoHS Compliance    | Yes         |

| M900 Operating Frequency |           |         |           |                         |           |             |           |
|--------------------------|-----------|---------|-----------|-------------------------|-----------|-------------|-----------|
| Operating Frequency      |           |         |           | 902 - 928 MHz           |           |             |           |
| Output Power             |           |         |           | 28 dBm                  |           |             |           |
| TX Power Specifications  |           |         |           | RX Power Specifications |           |             |           |
| Modulation               | Data Rate | Avg. TX | Tolerance | Modulation              | Data Rate | Sensitivity | Tolerance |
| airMAX                   | MCS0      | 28 dBm  | ± 2 dB    | 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      | 28 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      | 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     | 28 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    |             |           |



# Antenna Compatibility



**RocketM9**



**RocketM2  
RocketM2-Ti**


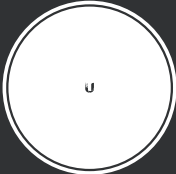
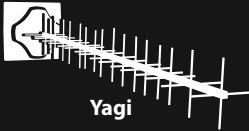


**RocketM3  
RocketM365**



**RocketM5  
RocketM5-Ti**

Frequency Band

|   | 900 MHz  | 2.4 GHz                                | 3/3.65 GHz  | 5 GHz  |
|---|----------|--|-------------|--|
| <br><b>Sector</b>       | AM-9M13  | AM-V2G-Ti<br>AM-2G15-120<br>AM-2G16-90 | AM-3G18-120 | AM-V5G-Ti<br>AM-M-V5G-Ti<br>AM-5G16-120<br>AM-5G17-90<br>AM-5G19-120<br>AM-5G20-90<br>AM-5AC21-60<br>AM-5AC22-45 |
| <br><b>Rocket Dish</b> |          | RD-2G24                                | RD-3G26     | RD-5G31-AC<br>RD-5G30<br>RD-5G34   |
| <br><b>Yagi</b>        | AMY-9M16 |  |             |  |

