

# LiteBeam<sup>®</sup> AC GEN2

airMAX<sup>®</sup> ac CPE with Dedicated Management Radio

Model: LBE-5AC-Gen2, LBE-5AC-LR

Lightweight, Low-Cost Solution

---

Full Adjustment Flexibility

---

Quick Assembly and Installation



# Overview

Ubiquiti Networks launches the latest generation of airMAX® CPE (Customer Premises Equipment), the LiteBeam® 5AC Gen 2, with dedicated Wi-Fi management.

## Improved Noise Immunity

The LiteBeam 5AC Gen 2 directs RF energy in a tighter beamwidth. With the focus in one direction, the LiteBeam 5AC Gen 2 blocks or spatially filters out noise, so noise immunity is improved. This feature is especially important in an area crowded with other RF signals of the same or similar frequency.

## Innovative Design

Ubiquiti's InnerFeed® technology integrates the radio into the feedhorn of an antenna, so there is no need for a cable. This improves performance because it eliminates cable losses.

Featuring high performance and innovative mechanical design, the LiteBeam 5AC Gen 2 is versatile and cost-effective to deploy.

# Software

## airOS® 8

airOS® v8 is the revolutionary operating system for Ubiquiti® airMAX® ac products.

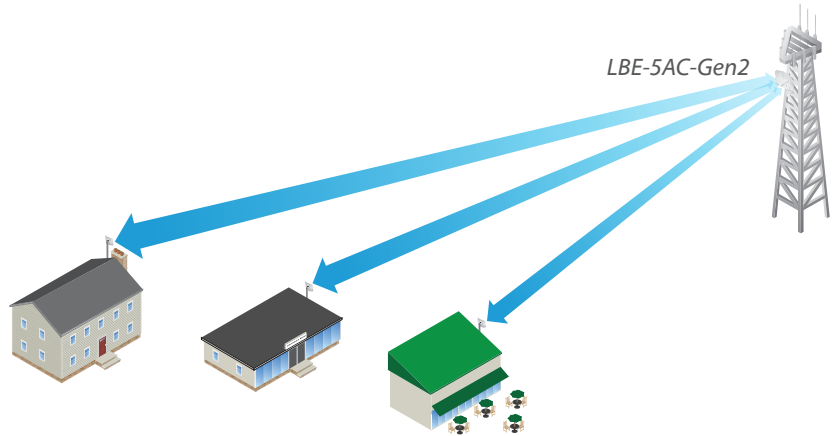
## Powerful Wireless Features

- Access Point PtMP airMAX Mixed Mode
- airMAX ac Protocol Support
- Long-Range Point-to-Point (PtP) Link Mode
- Selectable Channel Width
  - PtP: 10/20/30/40/50/60/80 MHz
  - PtMP: 10/20/30/40 MHz
- Automatic Channel Selection
- Transmit Power Control: Automatic/Manual
- Automatic Distance Selection (ACK Timing)
- Strongest WPA2 Security

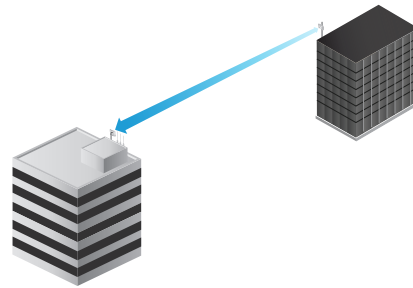
## Usability Enhancements

- airMagic® Channel Selection Tool
- Redesigned User Interface
- Dynamic Configuration Changes
- Instant Input Validation
- HTML5 Technology
- Optimization for Mobile Devices
- Detailed Device Statistics
- Comprehensive Array of Diagnostic Tools, including RF Diagnostics and airView® Spectrum Analyzer

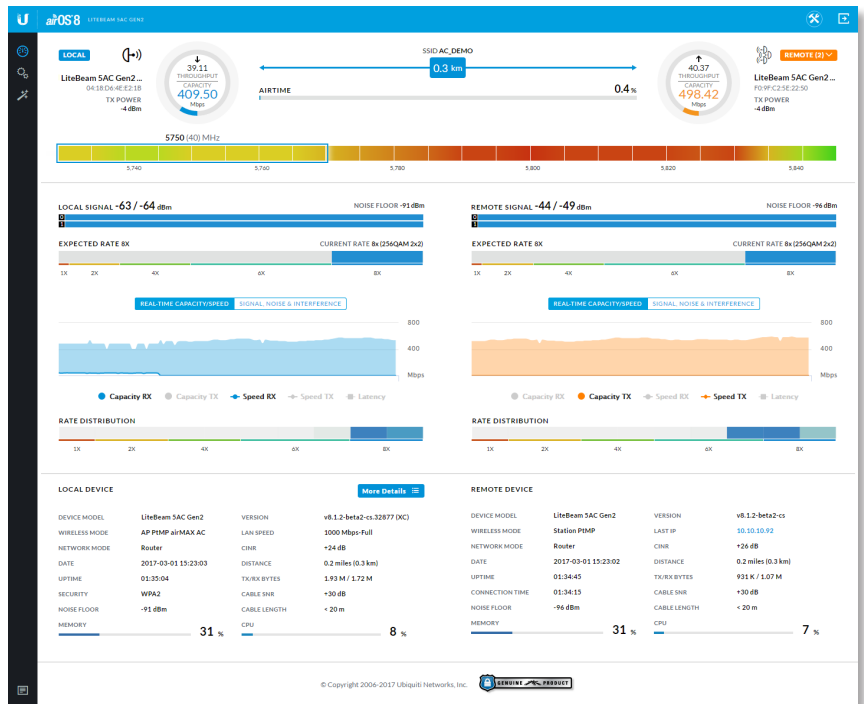
## Application Examples



*LiteBeam as a cost-effective WISP deployment in an airMAX ac Point-to-MultiPoint network.*



*A LiteBeam on each side of a Point-to-Point link.*



# UNMS App

The LiteBeam 5AC Gen 2 integrates a separate Wi-Fi radio for fast and easy setup using your mobile device.

## Accessing airOS via Wi-Fi

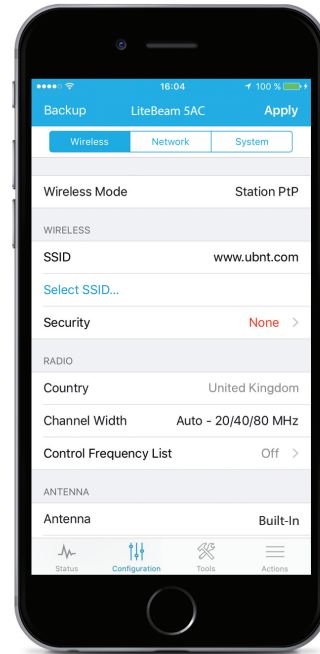
The UNMS™ app provides instant accessibility to the airOS configuration interface and can be downloaded from the App Store (iOS) or Google Play™ (Android). UNMS allows you to set up, configure, and manage the LiteBeam 5AC Gen 2. It offers the following options once you're connected or logged in to the device:

**Status** Check link status information or the basic configuration settings of the LiteBeam 5AC Gen 2.

**Configuration** Change or update the existing configuration of the LiteBeam 5AC Gen 2.

**Tools** Access tools for initial installation and configuration of the LiteBeam 5AC Gen 2.

**Actions** Back up or update the configuration, upload new firmware, reboot the device, reset the device to factory defaults, access the airOS UI in the web browser, or disconnect from the LiteBeam 5AC Gen 2.



## Models

The LiteBeam 5AC Gen 2 offers quick and easy alignment and enhanced protection against power surges. There are two models available:

### LiteBeam® AC GEN2

#### Model: LBE-5AC-Gen2

The LBE-5AC-Gen2 features a robust mount with separate azimuth and elevation adjustments.



### LiteBeam® AC LR

#### Model: LBE-5AC-LR

Designed for long-range applications, the LBE-5AC-LR features a larger reflector size and elevation adjustment (azimuth is adjusted by rotation around the pole).



# Specifications

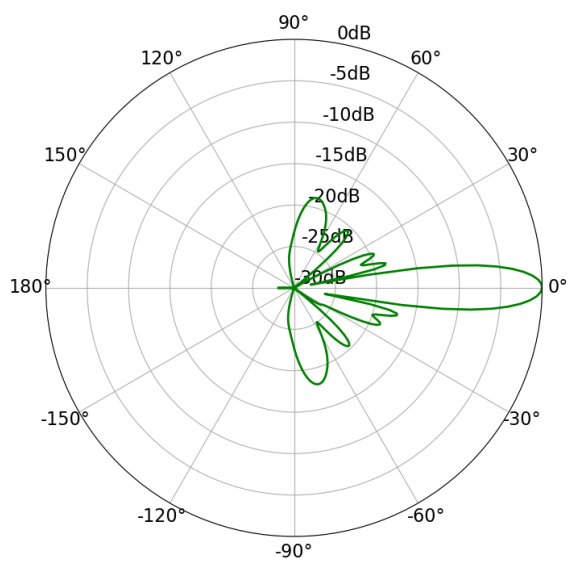
| LBE-5AC-Gen2              |  |                 |
|---------------------------|--|-----------------|
| Dimensions                | 358 x 271.95 x 272.5 mm (14.09 x 10.71 x 10.73") |                 |
| Weight                    | 800 g (1.76 lb)                                  |                 |
| Without Mount             |  |                 |
| With Mount                | 980 g (2.16 lb)                                  |                 |
| Power Supply              | 24V, 0.3A Gigabit PoE Adapter (Included)         |                 |
| Max. Power Consumption    | 7W   |                 |
| Power Method              | Passive PoE (Pairs 4, 5+; 7, 8 Return)           |                 |
| Supported Voltage Range   | 24V ± 10%  |                 |
| Gain                      | 23 dBi   |                 |
| Networking Interface      | (1) 10/100/1000 Ethernet Port                    |                 |
| Processor Specs           | MIPS 74Kc  |                 |
| Memory                    | 64 MB DDR2                                       |                 |
| LEDs                      | Power, Ethernet                                  |                 |
| Channel Sizes             | PtP Mode   | PtMP Mode       |
|                           | 10/20/30/40/50/60/80 MHz                         | 10/20/30/40 MHz |
| Enclosure Characteristics | Reflector (SGCC 0.6T) / Plastic: PC              |                 |
| Mounting                  | Pole-Mounting Kit (Included)                     |                 |
| Wind Loading              | 275 N @ 200 km/h (61.8 lbf @ 125 mph)            |                 |
| Wind Survivability        | 200 km/h (125 mph)                               |                 |
| ESD/EMP Protection        | ± 24 kV Contact / Air                            |                 |
| Operating Temperature     | -40 to 70° C (-40 to 158° F)                     |                 |
| Operating Humidity        | 5 to 95% Noncondensing                           |                 |
| Certifications            | CE, FCC, IC                                      |                 |

| Operating Frequency (MHz) |                         |                              |                              |                         |
|---------------------------|-------------------------|------------------------------|------------------------------|-------------------------|
| Worldwide                 | 5150 - 5875             |                              |                              |                         |
| US/CA                     | U-NII-1:<br>5150 - 5250 | U-NII-2A:<br>5250 - 5350 MHz | U-NII-2C:<br>5470 - 5725 MHz | U-NII-3:<br>5725 - 5850 |

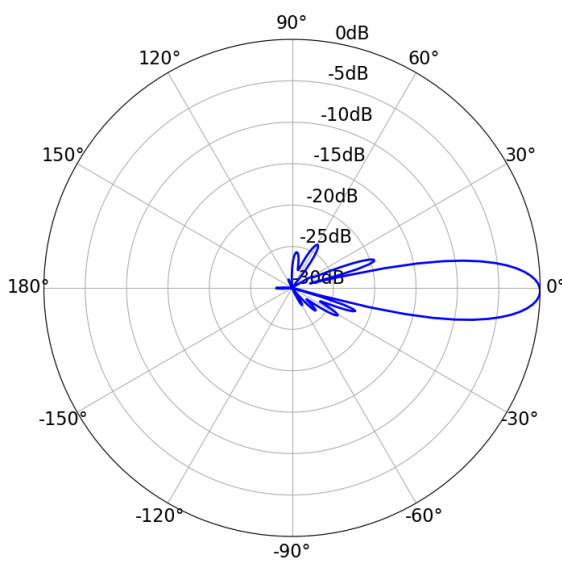
| Management Radio (MHz) |             |
|------------------------|-------------|
| Worldwide              | 2412 - 2472 |
| US/CA                  | 2412 - 2462 |

| LBE-5AC-Gen2 Output Power: 25 dBm |               |         |           |                         |               |              |           |
|-----------------------------------|---------------|---------|-----------|-------------------------|---------------|--------------|-----------|
| TX Power Specifications           |               |         |           | RX Power Specifications |               |              |           |
| Modulation                        | Data Rate     | Avg. TX | Tolerance | Modulation              | Data Rate     | Sensitivity  | Tolerance |
| <b>airMAX ac</b>                  | 1x BPSK (½)   | 25 dBm  | ± 2 dB    | <b>airMAX ac</b>        | 1x BPSK (½)   | -96 dBm Min. | ± 2 dB    |
|                                   | 2x QPSK (½)   | 25 dBm  | ± 2 dB    |                         | 2x QPSK (½)   | -95 dBm      | ± 2 dB    |
|                                   | 2x QPSK (¾)   | 25 dBm  | ± 2 dB    |                         | 2x QPSK (¾)   | -92 dBm      | ± 2 dB    |
|                                   | 4x 16QAM (½)  | 25 dBm  | ± 2 dB    |                         | 4x 16QAM (½)  | -90 dBm      | ± 2 dB    |
|                                   | 4x 16QAM (¾)  | 25 dBm  | ± 2 dB    |                         | 4x 16QAM (¾)  | -86 dBm      | ± 2 dB    |
|                                   | 6x 64QAM (¾)  | 25 dBm  | ± 2 dB    |                         | 6x 64QAM (¾)  | -83 dBm      | ± 2 dB    |
|                                   | 6x 64QAM (¾)  | 24 dBm  | ± 2 dB    |                         | 6x 64QAM (¾)  | -77 dBm      | ± 2 dB    |
|                                   | 6x 64QAM (¾)  | 23 dBm  | ± 2 dB    |                         | 6x 64QAM (¾)  | -74 dBm      | ± 2 dB    |
|                                   | 8x 256QAM (¾) | 21 dBm  | ± 2 dB    |                         | 8x 256QAM (¾) | -69 dBm      | ± 2 dB    |
|                                   | 8x 256QAM (¾) | 21 dBm  | ± 2 dB    |                         | 8x 256QAM (¾) | -65 dBm      | ± 2 dB    |

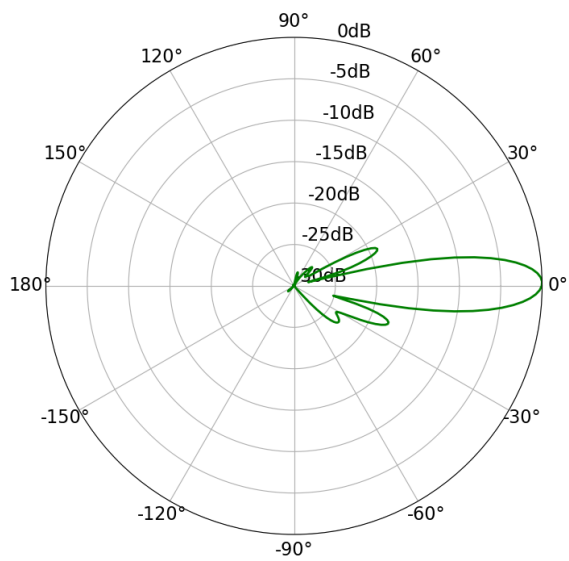
Vertical Azimuth



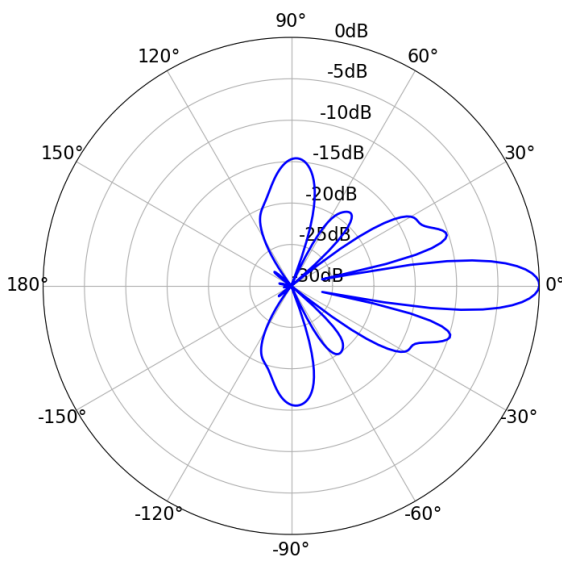
Vertical Elevation



Horizontal Azimuth



Horizontal Elevation



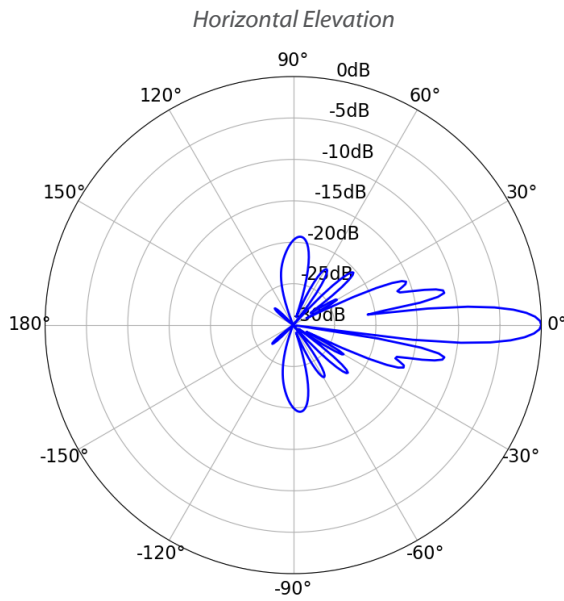
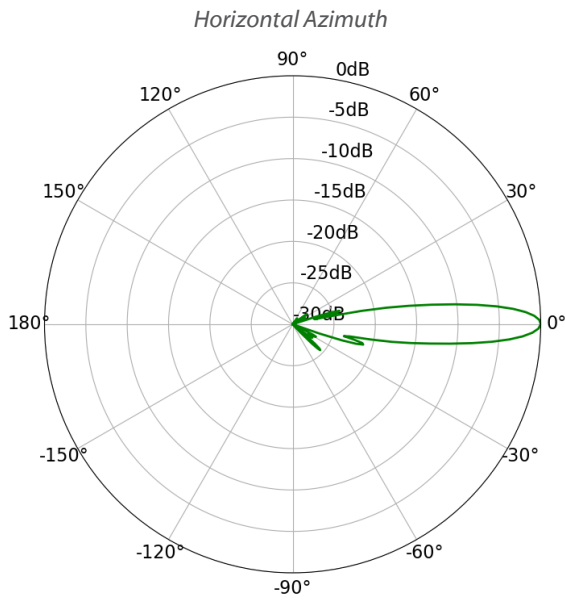
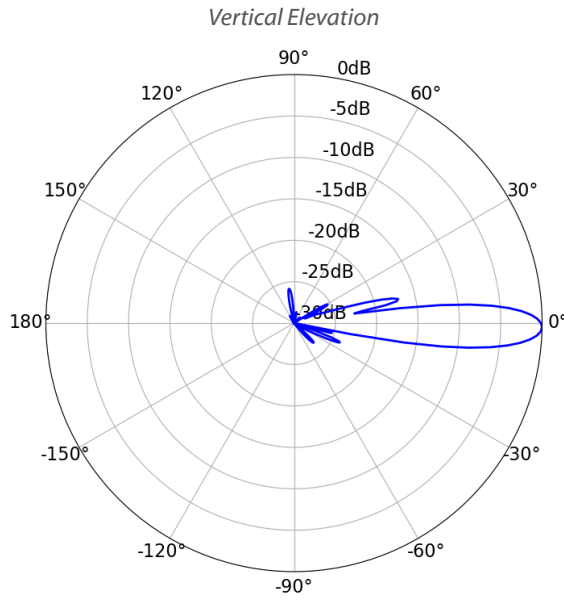
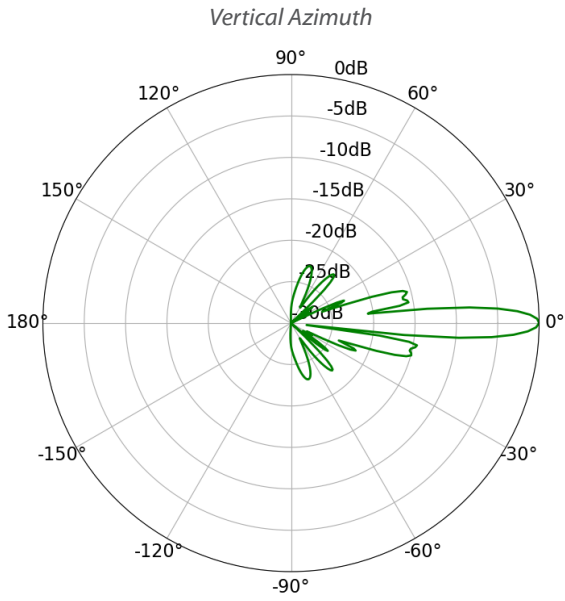
# Specifications

| LBE-5AC-LR                |  |                 |
|---------------------------|--|-----------------|
| Dimensions                | 512.5 x 385.75 x 258.3 mm (20.18 x 15.19 x 10.17") |                 |
| Weight                    | 1.360 kg (2.998 lb)                                |                 |
| Without Mount             | 1.735 kg (3.825 lb)                                |                 |
| With Mount                |  |                 |
| Power Supply              | 24V, 0.3A Gigabit PoE Adapter (Included)           |                 |
| Max. Power Consumption    | 7W   |                 |
| Power Method              | Passive PoE (Pairs 4, 5+; 7, 8 Return)             |                 |
| Supported Voltage Range   | 24V ± 10%  |                 |
| Gain                      | 26 dBi   |                 |
| Networking Interface      | (1) 10/100/1000 Ethernet Port                      |                 |
| Processor Specs           | MIPS 74Kc  |                 |
| Memory                    | 64 MB DDR2   |                 |
| LEDs                      | Power, Ethernet                                    |                 |
| Channel Sizes             | PtP Mode   | PtMP Mode       |
|                           | 10/20/30/40/50/60/80 MHz                           | 10/20/30/40 MHz |
| Enclosure Characteristics | Reflector (Aluminum) / Plastic: PC                 |                 |
| Mounting                  | Pole-Mounting Kit (Included)                       |                 |
| Wind Loading              | 550 N @ 200 km/h (123.6 lbf @ 125 mph)             |                 |
| Wind Survivability        | 200 km/h (125 mph)                                 |                 |
| ESD/EMP Protection        | ± 24 kV Contact / Air                              |                 |
| Operating Temperature     | -40 to 70° C (-40 to 158° F)                       |                 |
| Operating Humidity        | 5 to 95% Noncondensing                             |                 |
| Certifications            | CE, FCC, IC  |                 |

| Operating Frequency (MHz) |                         |                              |                              |                         |
|---------------------------|-------------------------|------------------------------|------------------------------|-------------------------|
| Worldwide                 | 5150 - 5875             |                              |                              |                         |
| US/CA                     | U-NII-1:<br>5150 - 5250 | U-NII-2A:<br>5250 - 5350 MHz | U-NII-2C:<br>5470 - 5725 MHz | U-NII-3:<br>5725 - 5850 |

| Management Radio (MHz) |             |
|------------------------|-------------|
| Worldwide              | 2412 - 2472 |
| US/CA                  | 2412 - 2462 |

| LBE-5AC-LR Output Power: 25 dBm |               |         |           |                         |               |              |           |
|---------------------------------|---------------|---------|-----------|-------------------------|---------------|--------------|-----------|
| TX Power Specifications         |               |         |           | RX Power Specifications |               |              |           |
| Modulation                      | Data Rate     | Avg. TX | Tolerance | Modulation              | Data Rate     | Sensitivity  | Tolerance |
| <b>airMAX ac</b>                | 1x BPSK (½)   | 25 dBm  | ± 2 dB    | <b>airMAX ac</b>        | 1x BPSK (½)   | -96 dBm Min. | ± 2 dB    |
|                                 | 2x QPSK (½)   | 25 dBm  | ± 2 dB    |                         | 2x QPSK (½)   | -95 dBm      | ± 2 dB    |
|                                 | 2x QPSK (¾)   | 25 dBm  | ± 2 dB    |                         | 2x QPSK (¾)   | -92 dBm      | ± 2 dB    |
|                                 | 4x 16QAM (½)  | 25 dBm  | ± 2 dB    |                         | 4x 16QAM (½)  | -90 dBm      | ± 2 dB    |
|                                 | 4x 16QAM (¾)  | 25 dBm  | ± 2 dB    |                         | 4x 16QAM (¾)  | -86 dBm      | ± 2 dB    |
|                                 | 6x 64QAM (¾)  | 25 dBm  | ± 2 dB    |                         | 6x 64QAM (¾)  | -83 dBm      | ± 2 dB    |
|                                 | 6x 64QAM (¾)  | 24 dBm  | ± 2 dB    |                         | 6x 64QAM (¾)  | -77 dBm      | ± 2 dB    |
|                                 | 6x 64QAM (¾)  | 23 dBm  | ± 2 dB    |                         | 6x 64QAM (¾)  | -74 dBm      | ± 2 dB    |
|                                 | 8x 256QAM (¾) | 21 dBm  | ± 2 dB    |                         | 8x 256QAM (¾) | -69 dBm      | ± 2 dB    |
|                                 | 8x 256QAM (¾) | 21 dBm  | ± 2 dB    |                         | 8x 256QAM (¾) | -65 dBm      | ± 2 dB    |



Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: [www.ubnt.com/support/warranty](http://www.ubnt.com/support/warranty)  
The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.  
©2017-2019 Ubiquiti Networks, Inc. All rights reserved. Ubiquiti, Ubiquiti Networks, the Ubiquiti U logo, the Ubiquiti beam logo, airMAX, airOS, airMagic, InnerFeed, LiteBeam, and UNMS are trademarks or registered trademarks of Ubiquiti Networks, Inc. in the United States and in other countries. All other trademarks are the property of their respective owners.