



# LiteAP<sup>™</sup> ac

5 GHz airMAX<sup>®</sup> AC AP

Models: LAP-120, LAP-GPS

High-Performance Sector AP

Up To 450+ Mbps Real TCP/IP Throughput

Lightweight, Low-Cost Solution

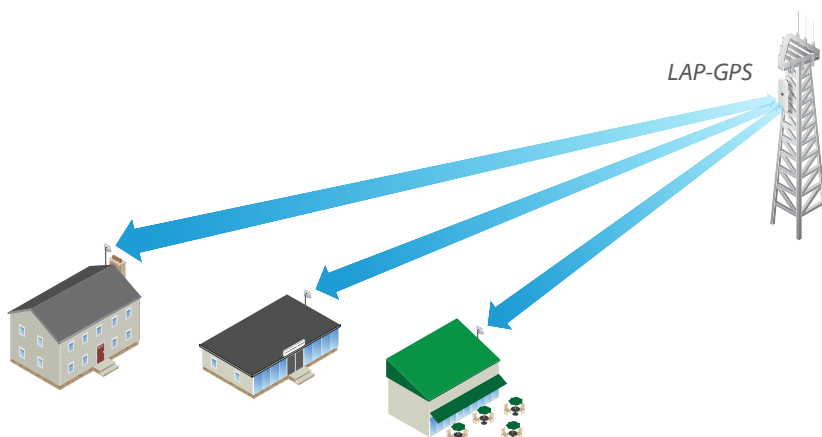


# LiteAP™ ac

Introducing the airMAX® LiteAP™ AC, the latest high-performance access point with disruptive pricing from Ubiquiti Networks. Featuring an ultra-lightweight form factor, the LiteAP AC was designed to be an affordable cost/performance solution for long-distance, wireless broadband bridging. Each of these models operates in the worldwide, license-free 5 GHz frequency range with high-performance speeds.

The LiteAP AC combines proprietary hardware and software technologies to deliver its breakthrough combination of throughput and range with cost-effective value.

## Application Examples



*In a cost-effective WISP deployment, the LAP-GPS is used as an Access Point in an airMAX ac Point-to-MultiPoint network.*

## Software airOS®8

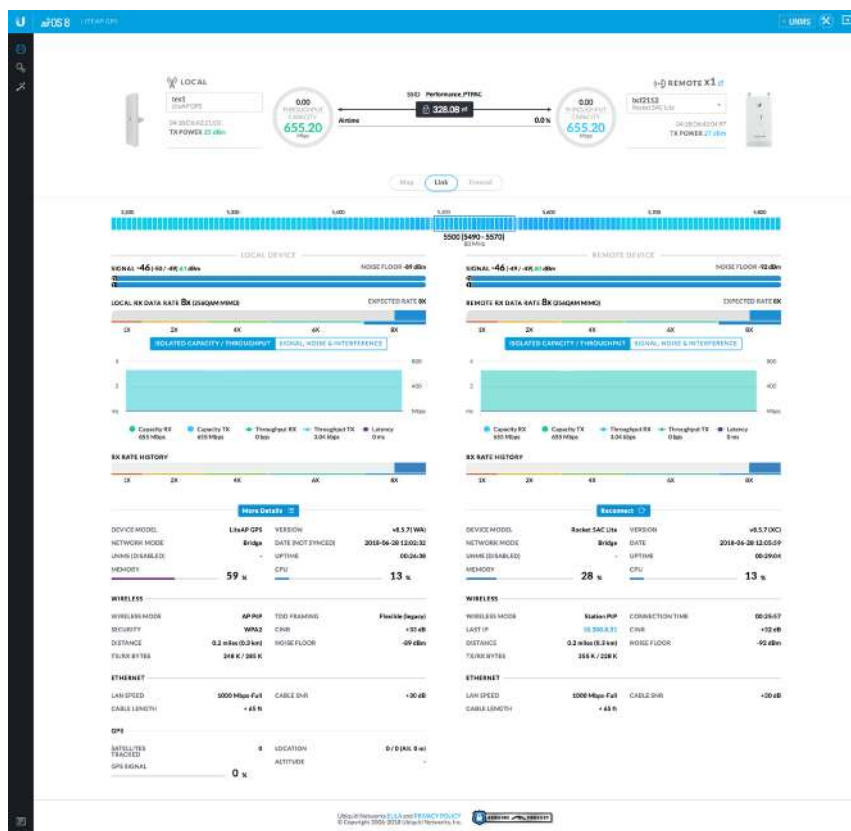
airOS® v8 is the revolutionary operating system for Ubiquiti® airMAX ac products.

### 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



# Hardware Overview

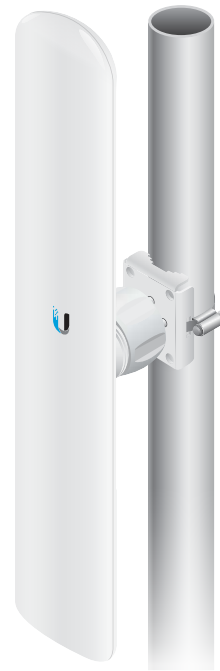
The LiteAP AC delivers up to 450+ Mbps real TCP/IP throughput and features an efficient form factor.

**Quick Installation** Minimal fasteners simplify installation. No tools are needed; only a single wrench is required for pole-mounting.

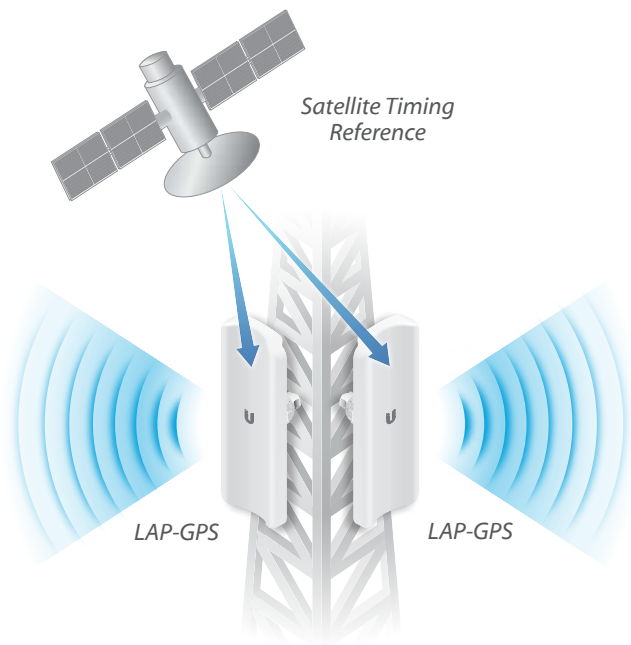
**Versatile Mounting** The ball-joint mount of the LiteAP AC provides adjustment flexibility for versatile mounting options.

**Efficient Design** The LiteAP AC features a lightweight antenna with an integrated radio in a sleek design.

**Gigabit Ethernet** The LiteAP AC delivers high throughput over its wired connection.



LAP-120 mounted on a pole



Two LAP-GPS devices transmitting simultaneously

## GPS Sync Support

Precise GPS frame synchronization enables co-located LAP-GPS devices to transmit and receive data without interfering with each other, allowing for better frequency reuse and increased network stability.

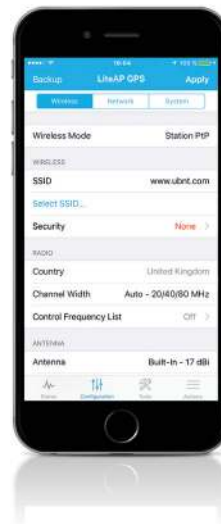
## Mobile App Support

The LAP-GPS integrates a separate Wi-Fi radio for fast and easy setup using your mobile device.

### Accessing airOS via Wi-Fi

The Ubiquiti Network Management System (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 your device, and offers various configuration options once you're connected or logged in.

\* UNMS app support for the LAP-120 requires the U-Installer, sold separately.



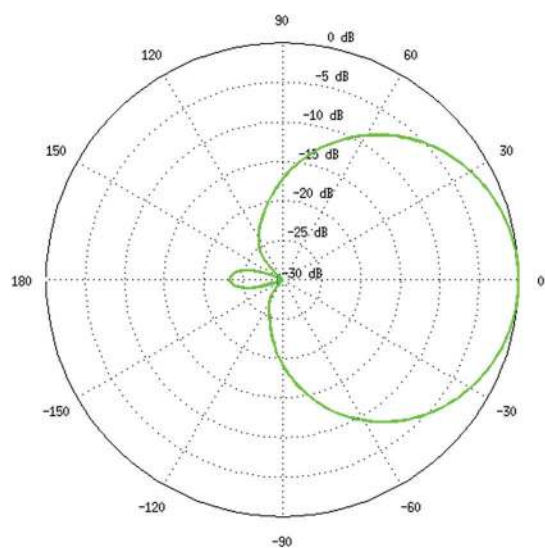
# LiteAP™ ac

| LAP-120                            |                                                  |
|------------------------------------|--------------------------------------------------|
| Dimensions<br>(Mount Not Included) | 452.3 x 78.7 x 54.4 mm<br>(17.81 x 3.10 x 2.14") |
| Weight (No Mount)                  | 420 g (14.82 oz)                                 |
| Mounting Kit                       | Pole Mounting Kit (Included)                     |
| Networking Interface               | (1) 10/100/1000 Ethernet Port                    |
| Memory                             | 64 MB                                            |
| Max. Power Consumption             | 7W                                               |
| Max. TX Power                      | 25 dBm                                           |
| Antenna Gain                       | 16 dBi                                           |
| Power Supply                       | 24V, 0.5A Gigabit PoE Adapter (Included)         |
| Power Method                       | Passive PoE (Pairs 4, 5+; 7, 8 Return)           |
| Processor Specs                    | Atheros MIPS 74Kc, 533 MHz                       |
| Shock and Vibration                | ETSI300-019-1.4                                  |
| ETSI Specification                 | EN 302 326 DN2                                   |
| ESD/EMP Protection                 | ± 24 kV Contact / Air                            |
| RoHS Compliance                    | Yes                                              |
| Operating Temperature              | -40 to 70° C (-40 to 158° F)                     |
| Operating Humidity                 | 5 to 95% Noncondensing                           |
| Certifications                     | FCC, IC, CE                                      |

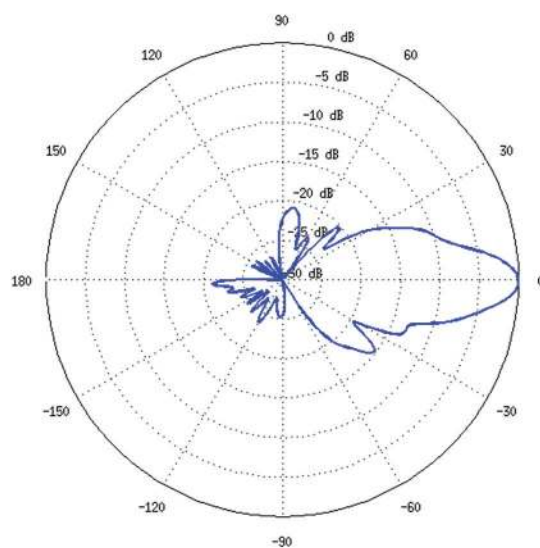
| Output Power: 25 dBm    |               |         |           |                         |               |             |           |
|-------------------------|---------------|---------|-----------|-------------------------|---------------|-------------|-----------|
| TX Power Specifications |               |         |           | RX Power Specifications |               |             |           |
| Modulation              | Data Rate     | Avg. TX | Tolerance | Modulation              | Data Rate     | Sensitivity | Tolerance |
| airMAX ac               | 1x BPSK (½)   | 25 dBm  | ± 2 dB    | airMAX ac               | 1x BPSK (½)   | -96 dBm     | ± 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    |

| Operating Frequency (MHz) |             |
|---------------------------|-------------|
| Worldwide                 | 5150 - 5875 |
| USA                       | 5150 - 5850 |

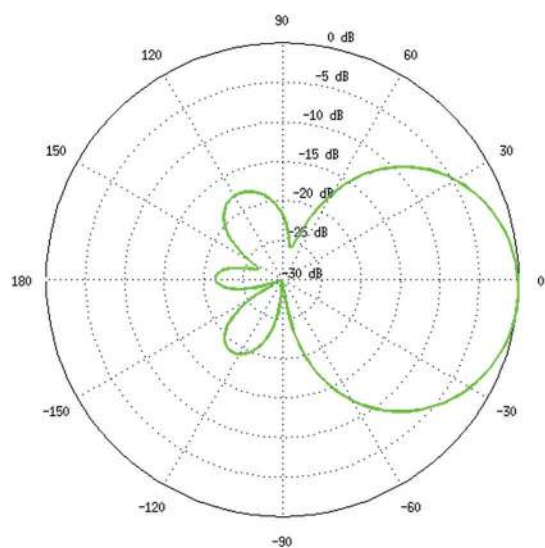
Vertical Azimuth



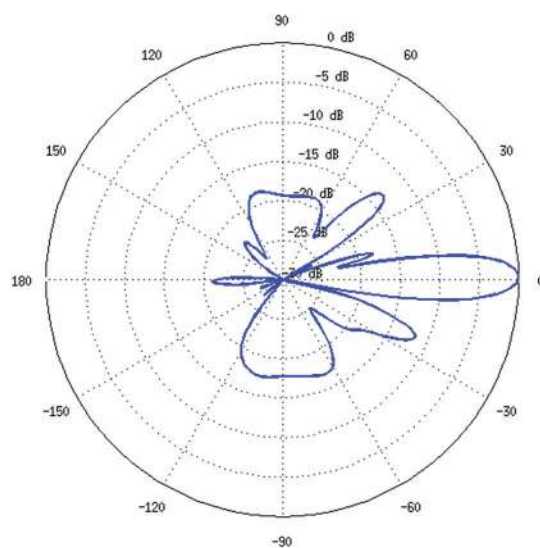
Vertical Elevation



Horizontal Azimuth



Horizontal Elevation



# LiteAP™ GPS

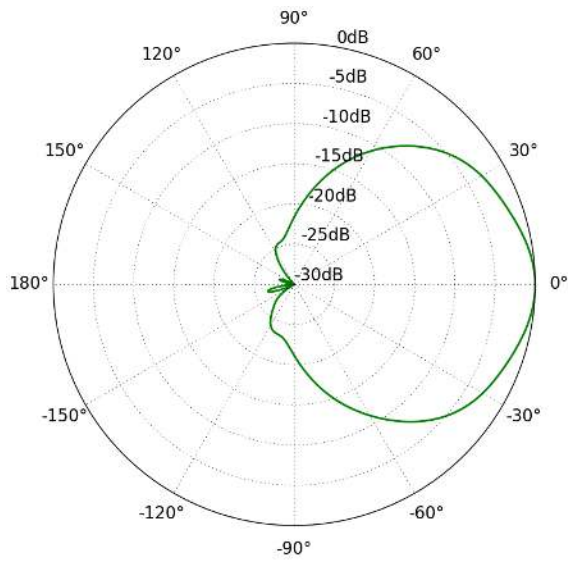
| LAP-GPS                         |                                                      |
|---------------------------------|------------------------------------------------------|
| Dimensions (Mount Not Included) | 360.98 x 124.57 x 71.28 mm<br>(14.21 x 4.90 x 2.81") |
| Weight (No Mount)               | 752 g (1.66 lb)                                      |
| Mounting Kit                    | Pole Mounting Kit (Included)                         |
| Networking Interface            | (1) 10/100/1000 Ethernet Port                        |
| Memory                          | DDR2 64 MB                                           |
| Max. Power Consumption          | 7.1W                                                 |
| Max. TX Power                   | 25 dBm                                               |
| Antenna Gain                    | 17 dBi                                               |
| Power Supply                    | 24V, 0.3A PoE Adapter (Included)                     |
| Power Method                    | Passive PoE (Pairs 4, 5+; 7, 8 Return)               |
| Processor Specs                 | Atheros MIPS 74Kc, 533 MHz                           |
| Shock and Vibration             | ETSI300-019-1.4                                      |
| ETSI Specification              | EN 302 326 DN2                                       |
| ESD/EMP Protection              | ± 24 kV Contact / Air                                |
| RoHS Compliance                 | Yes                                                  |
| Operating Temperature           | -40 to 70° C (-40 to 158° F)                         |
| Operating Humidity              | 5 to 95% Noncondensing                               |
| Certifications                  | FCC, IC, CE                                          |

| Output Power: 25 dBm    |               |         |           |                         |               |             |           |
|-------------------------|---------------|---------|-----------|-------------------------|---------------|-------------|-----------|
| TX Power Specifications |               |         |           | RX Power Specifications |               |             |           |
| Modulation              | Data Rate     | Avg. TX | Tolerance | Modulation              | Data Rate     | Sensitivity | Tolerance |
| airMAX ac               | 1x BPSK (½)   | 25 dBm  | ± 2 dB    | airMAX ac               | 1x BPSK (½)   | -96 dBm     | ± 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    |

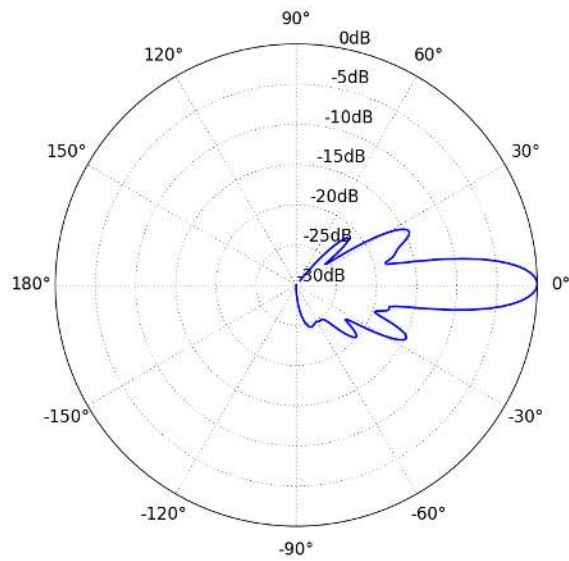
| Operating Frequency (MHz) |                        |                        |
|---------------------------|------------------------|------------------------|
| Worldwide                 | 5150 - 5875            |                        |
| USA                       | U-NII-1<br>5150 - 5250 | U-NII-3<br>5725 - 5850 |

| Management Radio (MHz) |             |
|------------------------|-------------|
| Worldwide              | 2412 - 2472 |
| USA                    | 2412 - 2462 |

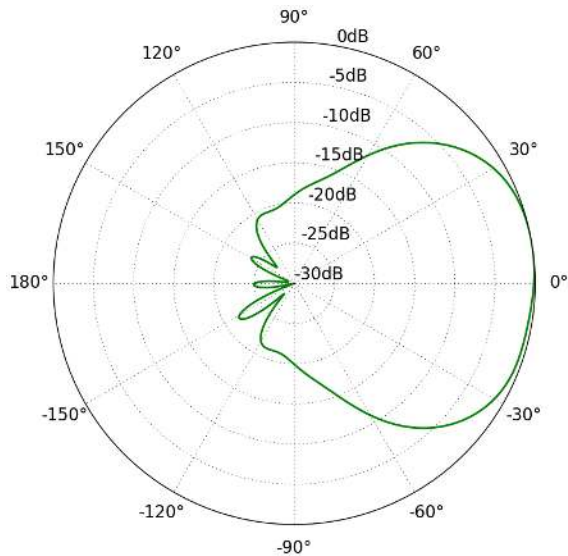
Vertical Azimuth



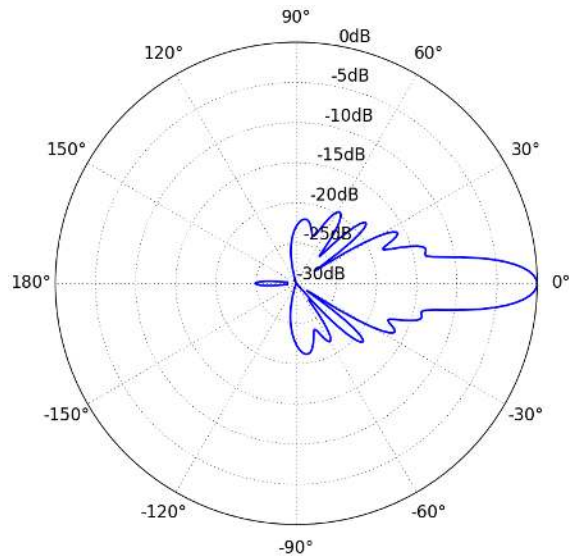
Vertical Elevation



Horizontal Azimuth



Horizontal Elevation



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)

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