DATASHEET



# LiteAP™ ac

## 5 GHz airMAX® AC AP

Models: LAP-120, LAP-GPS

High-Performance Sector AP

Up To 450+ Mbps Real TCP/IP Throughput

Lightweight, Low-Cost Solution

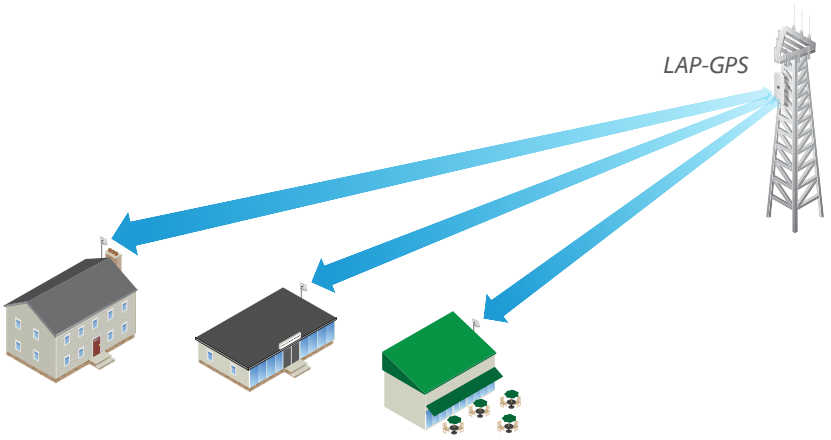
UBIQUITI®
NETWORKS

# 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

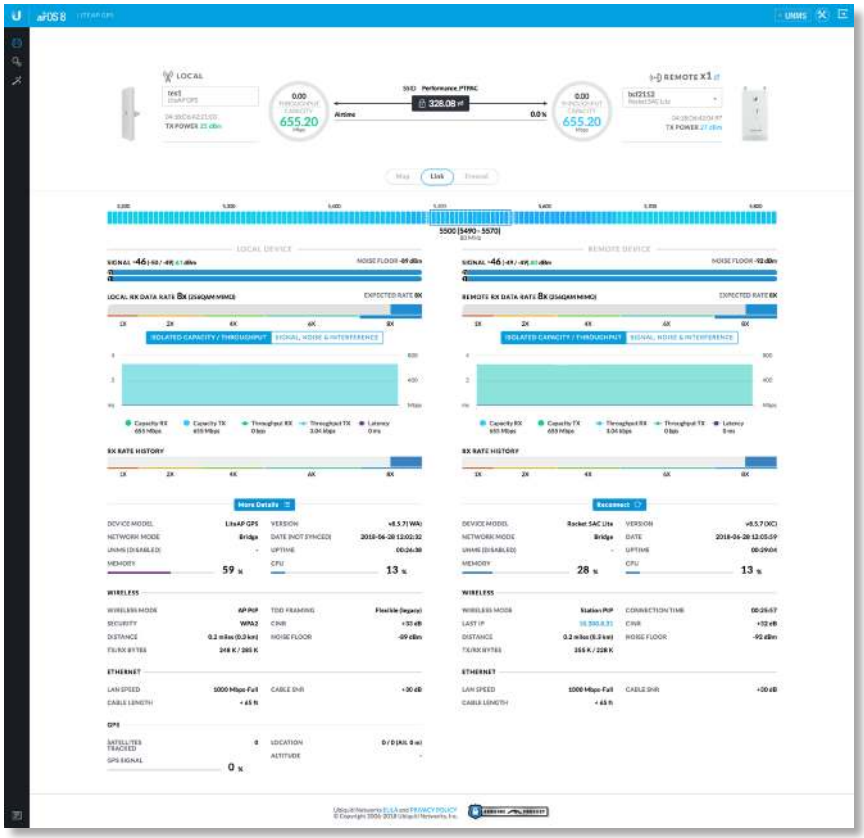
airOS® v8 is the revolutionary operating system for Ubiquiti® airMAX ac products.

### 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.

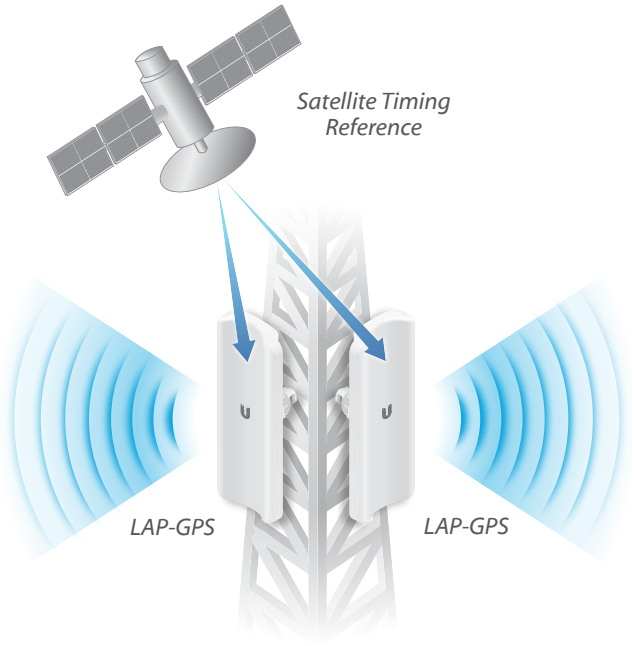
**Versatile Mounting** The ball-joint mount of the LiteAP AC provides adjustment flexibility for versatile mounting options.

**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.*



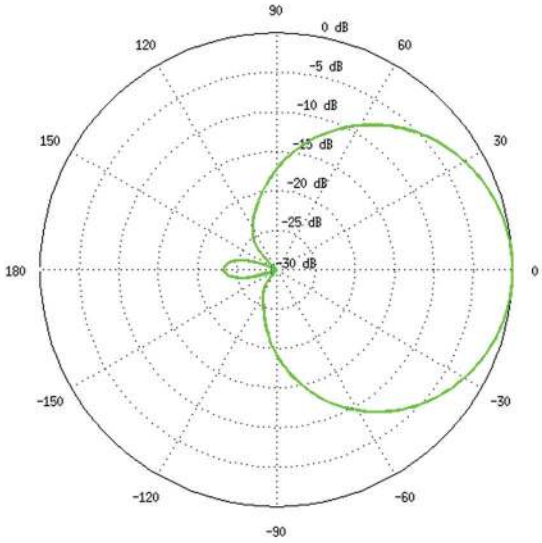
# LiteAP ac

| LAP-120 | |
|---|---|
| Dimensions (Mount Not Included) | 452.3 x 78.7 x 54.4 mm (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 |

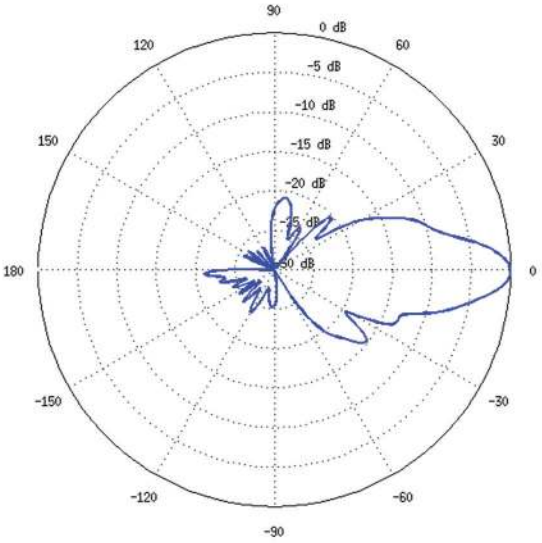
| Output Power: 25 dBm | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TX Power Specifications** | | | | **RX Power Specifications** | | | |
| Modulation | Data Rate | Avg. TX | Tolerance | Modulation | Data Rate | Sensitivity | Tolerance |
| **airMAX ac** | 1x BPSK (½) | 25 dBm | ± 2 dB | **airMAX 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 (⅔) | 25 dBm | ± 2 dB | | 6x 64QAM (⅔) | -83 dBm | ± 2 dB |
| | 6x 64QAM (¾) | 24 dBm | ± 2 dB | | 6x 64QAM (¾) | -77 dBm | ± 2 dB |
| | 6x 64QAM (⅚) | 23 dBm | ± 2 dB | | 6x 64QAM (⅚) | -74 dBm | ± 2 dB |
| | 8x 256QAM (¾) | 21 dBm | ± 2 dB | | 8x 256QAM (¾) | -69 dBm | ± 2 dB |
| | 8x 256QAM (⅚) | 21 dBm | ± 2 dB | | 8x 256QAM (⅚) | -65 dBm | ± 2 dB |

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

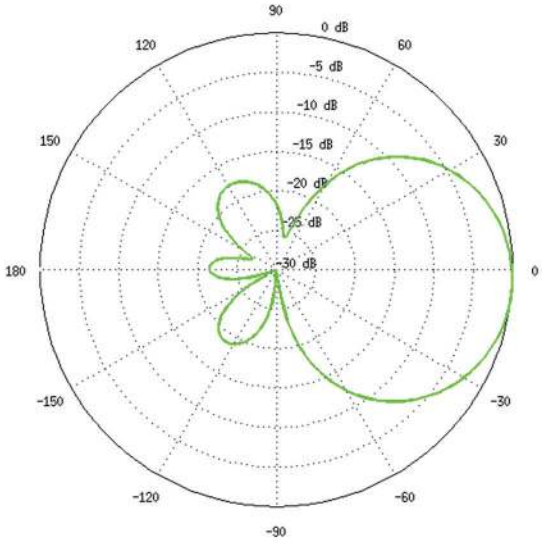
*Vertical Azimuth*




*Vertical Elevation*




*Horizontal Azimuth*

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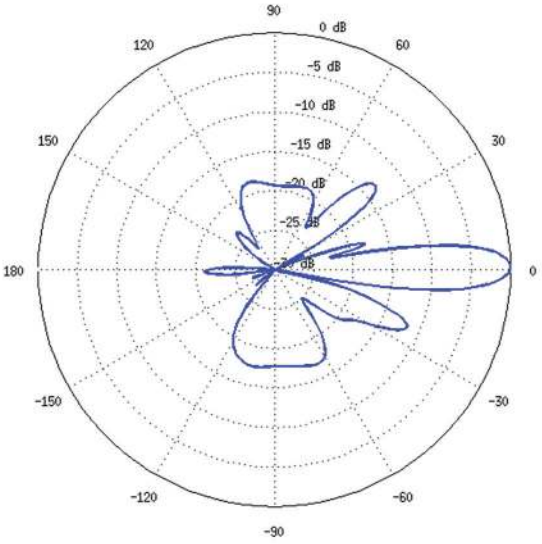




# LiteAP GPS

| LAP-GPS | |
|---|---|
| Dimensions (Mount Not Included) | 360.98 x 124.57 x 71.28 mm (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 | | | | | | | |
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| Modulation | Data Rate | Avg. TX | Tolerance | Modulation | Data Rate | Sensitivity | Tolerance |
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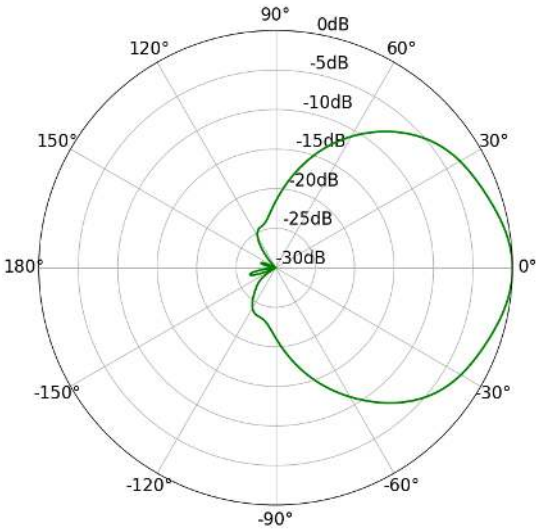
| | 8x 256QAM (⅚) | 21 dBm | ± 2 dB | | 8x 256QAM (⅚) | -65 dBm | ± 2 dB |

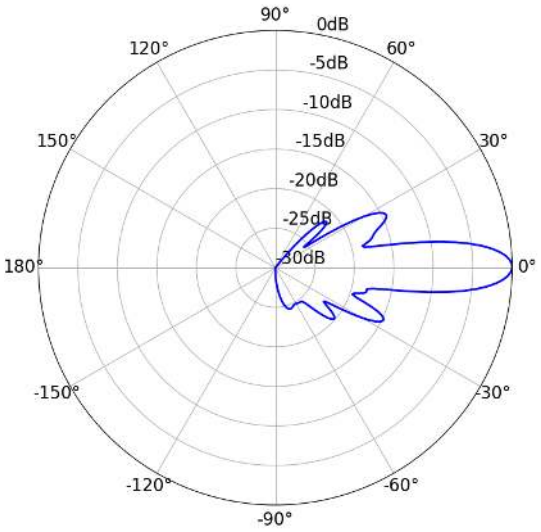
| Operating Frequency (MHz) | | |
|---|---|---|
| Worldwide | 5150 - 5875 | |
| USA | U-NII-1<br>5150 - 5250 | U-NII-3<br>5725 - 5850 |

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

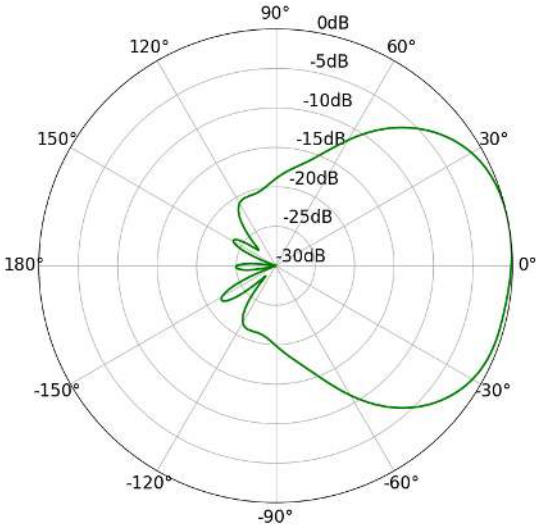
*Vertical Azimuth*



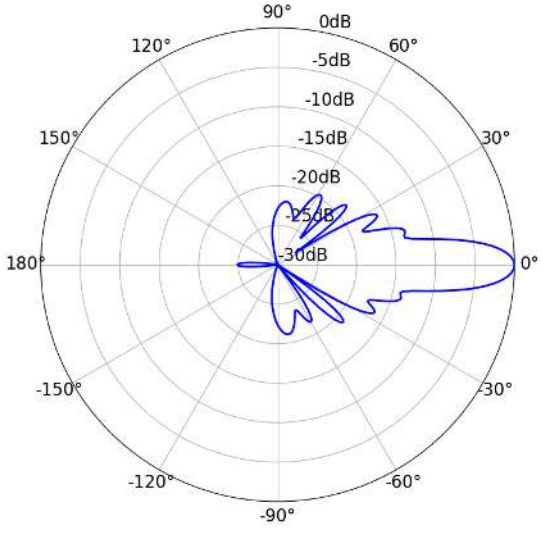

*Vertical Elevation*




*Horizontal Azimuth*




*Horizontal Elevation*



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