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

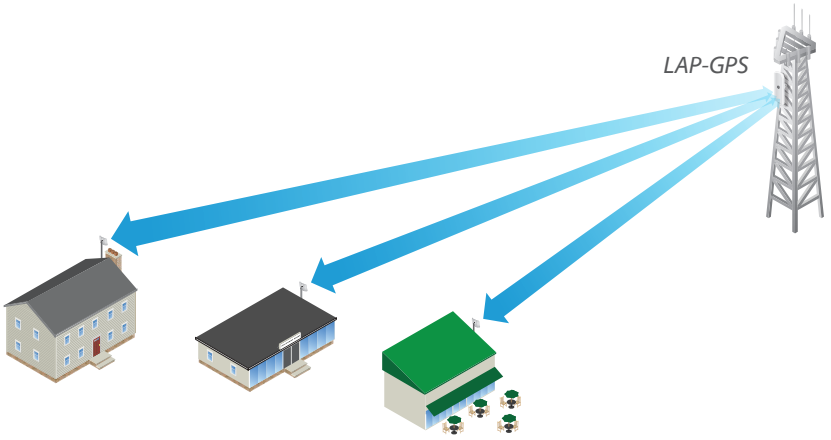
UBIQUITI®
NETWORKS

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

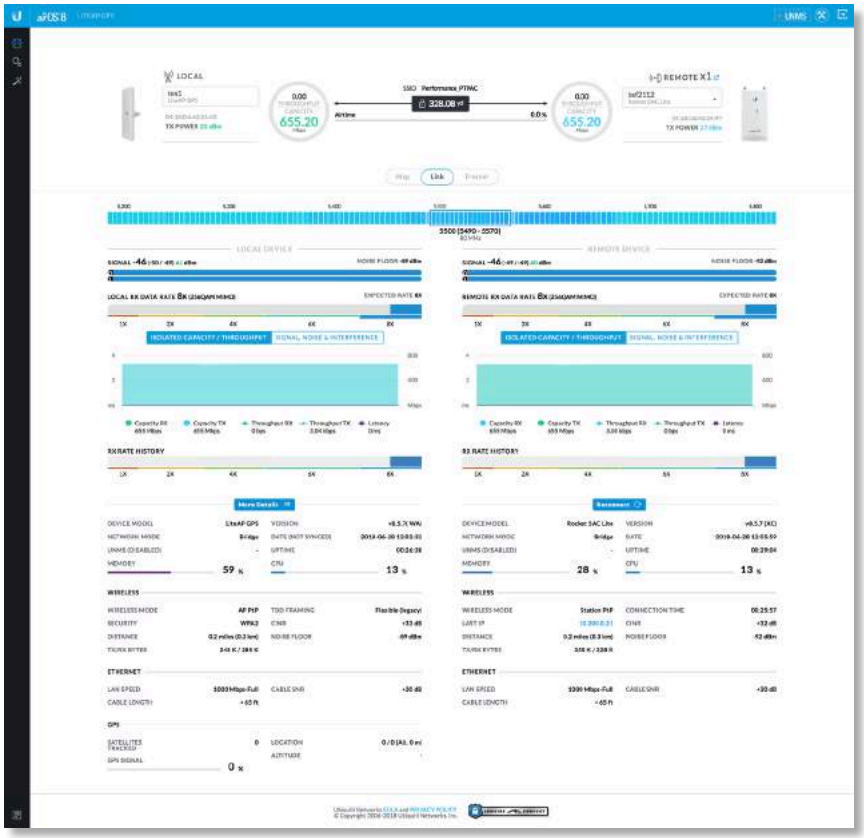
airOS® v8 is the revolutionary operating system for Ubiquiti® airMAX ac products.

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.

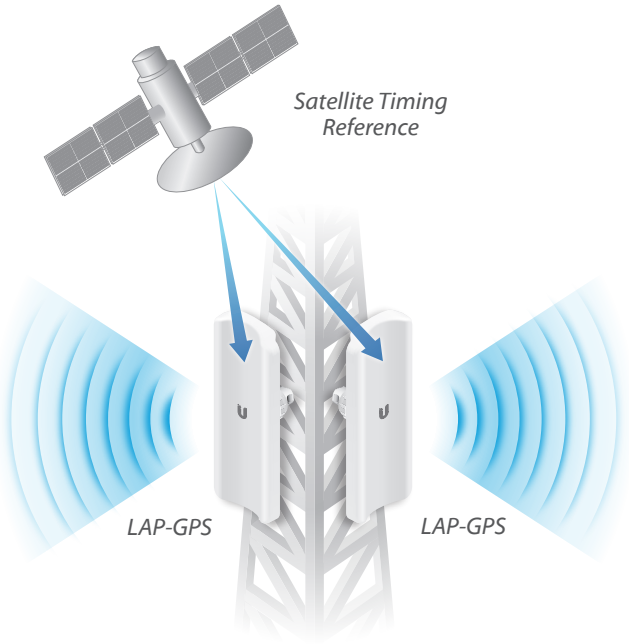
Versatile Mounting The ball-joint mount of the LiteAP AC provides adjustment flexibility for versatile mounting options.

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.

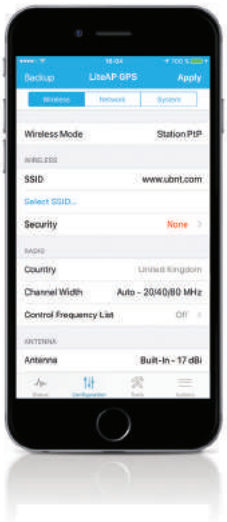
Mobile App Support

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.*



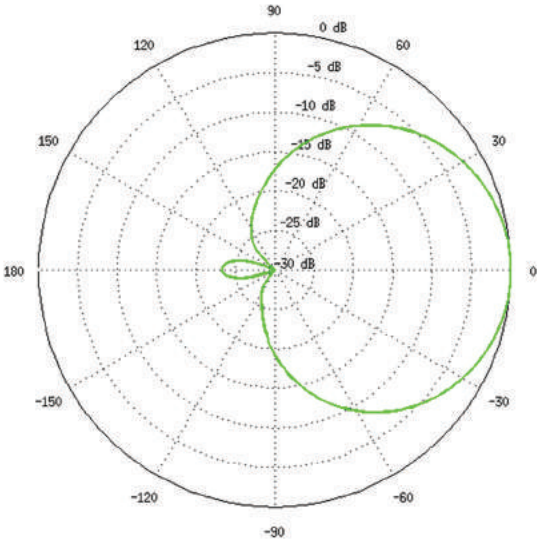
LiteAP ac

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

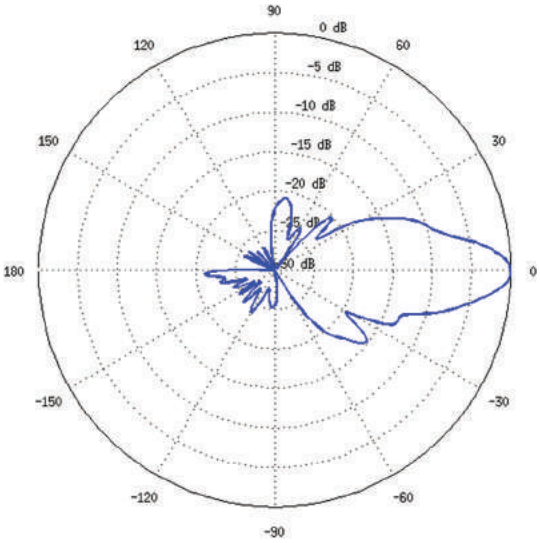
Output Power: 25 dBm							
TX Power Specifications				**RX Power Specifications**			
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
airMAX ac	1x BPSK (½)	25 dBm	± 2 dB	**airMAX ac**	1x BPSK (½)	-96 dBm	± 2 dB
	2x QPSK (½)	25 dBm	± 2 dB		2x QPSK (½)	-95 dBm	± 2 dB
	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

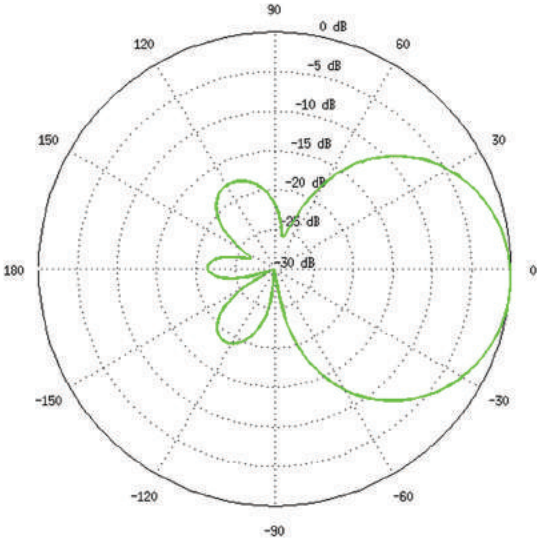
Vertical Azimuth



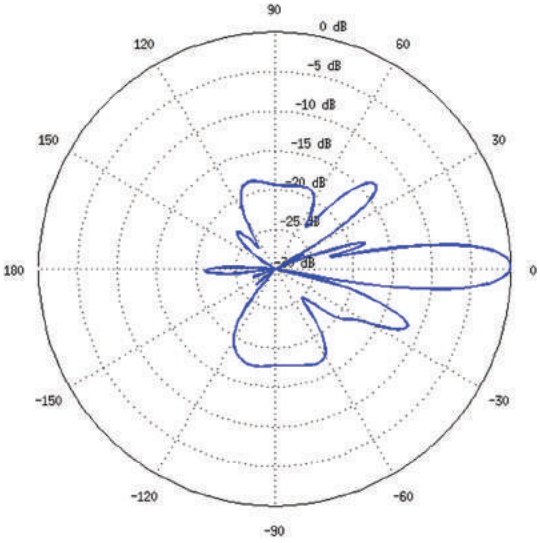
Vertical Elevation



Horizontal Azimuth



Horizontal Elevation





LiteAP GPS

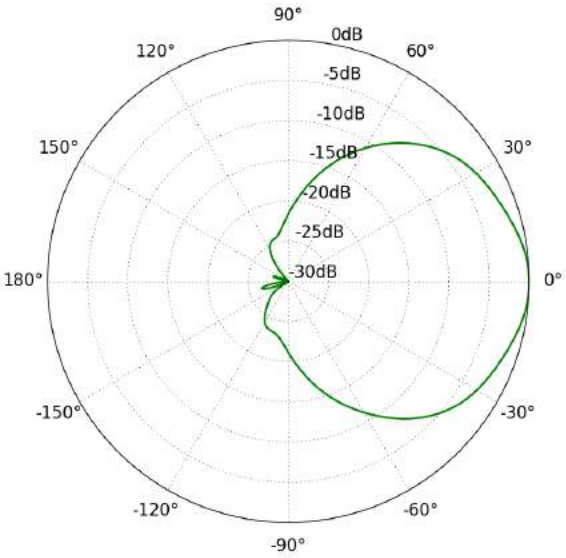
LAP-GPS	
Dimensions (Mount Not Included)	360.98 x 124.57 x 71.28 mm (14.21 x 4.90 x 2.81")
Weight (No Mount)	752 g (1.66 lb)
Mounting Kit	Pole Mounting Kit (Included)
Networking Interface	(1) 10/100/1000 Ethernet Port
Memory	DDR2 64 MB
Max. Power Consumption	7.1W
Max. TX Power	25 dBm
Antenna Gain	17 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							
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

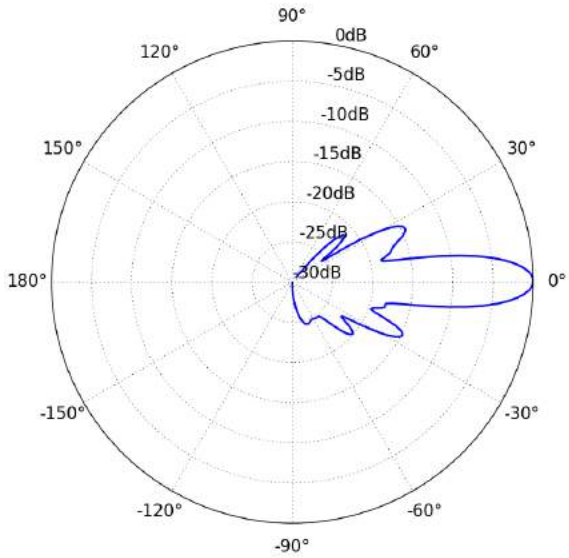
Operating Frequency (MHz)		
Worldwide	5150 - 5875	
USA	U-NII-1 5150 - 5250	U-NII-3 5725 - 5850

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

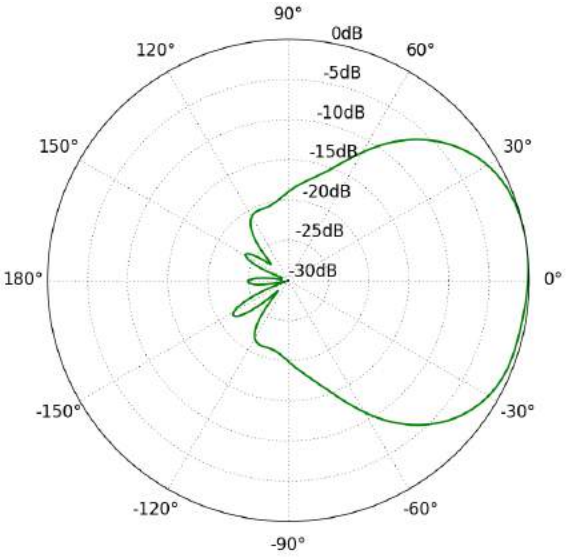
Vertical Azimuth



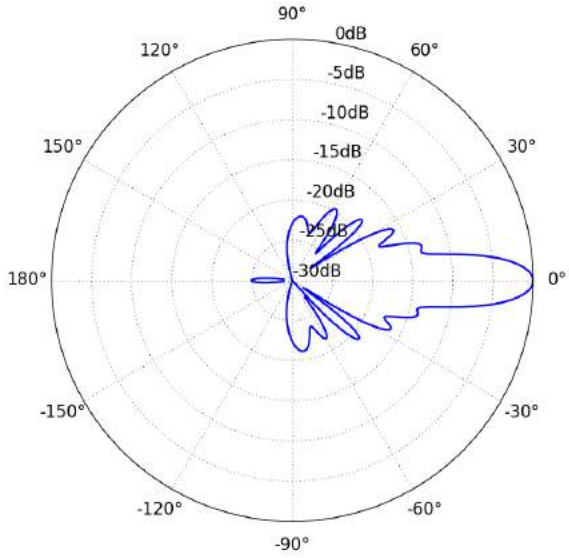
Vertical Elevation



Horizontal Azimuth



Horizontal Elevation





Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: www.ubnt.com/support/warranty
©2018 Ubiquiti Networks, Inc. All rights reserved. Ubiquiti, Ubiquiti Networks, the Ubiquiti U logo, the Ubiquiti beam logo, airMagic, airMAX, airOS, airView, GPS Sync, InnerFeed, LiteAP, and UNMS are trademarks or registered trademarks of Ubiquiti Networks, Inc. in the United States and in other countries. Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple, Inc., registered in the U.S. and other countries. Google, Android, and Google Play are trademarks of Google Inc. All other trademarks are the property of their respective owners.

www.ubnt.com