LiteAP™ **ac**

5 GHz, airMAX® AC AP

Model: LAP-120

Lightweight, Low-Cost Solution

Full Adjustment Flexibility

Quick Assembly and Installation

UBIQUITI®
N E T W O R K S

LiteAP™ ac

The LiteAP™ ac is the latest evolution of a lightweight and compact, outdoor wireless broadband product from Ubiquiti Networks. It was designed to be an affordable cost/performance solution for long-distance, wireless broadband bridging. It 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.

Integrated airMAX Technology

Unlike standard Wi-Fi protocol, the exclusive Ubiquiti Networks® airMAX Time Division Multiple Access (TDMA) protocol allows each client to send and receive data using pre-designated time slots managed by an intelligent AP controller. This "time slot" method eliminates hidden node collisions and maximizes airtime efficiency.

Compared to other systems in its class, the LiteAP ac product delivers superior performance in reduced latency, throughput, and scalability.

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

• **Scalability** High capacity and scalability.
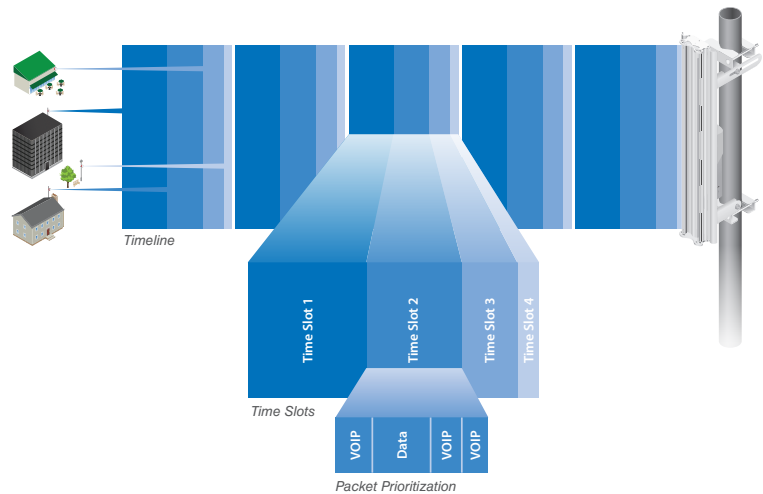
• **Long Distance** Capable of high-speed, 30+ km links.

Application Examples
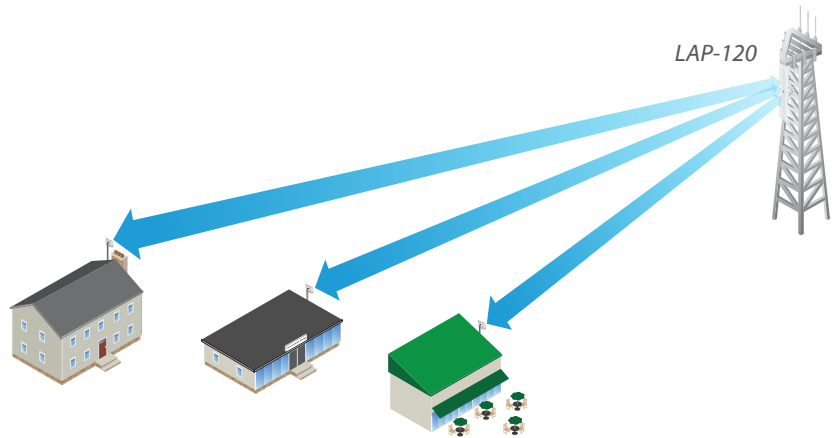
In a cost-effective WISP deployment, the LAP-120 is used as an Access Point in an airMAX ac Point-to-MultiPoint network.
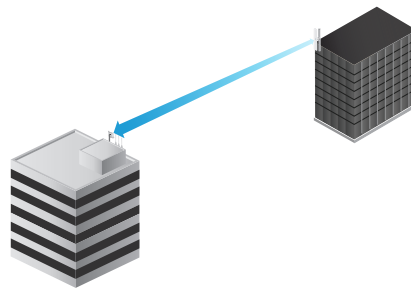

A LiteAP on each side of a Point-to-Point link.

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

Hardware Overview

Full Adjustment Flexibility

The LiteAP ac features a unique ball joint mount that provides adjustment flexibility along three axes for versatile mounting options. The mounting system, coupled with the built-in bubble level, enables quick and easy alignment.
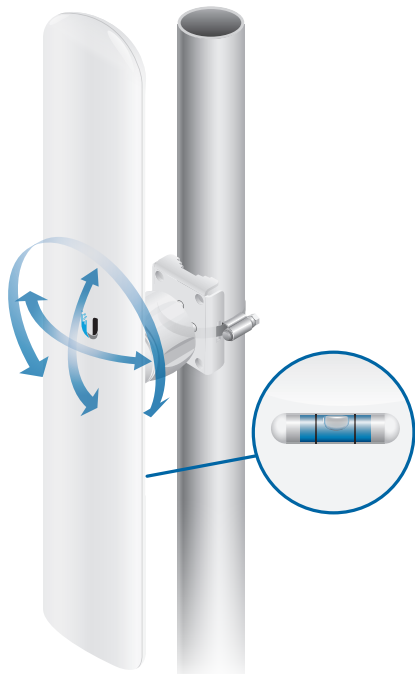
Simple Assembly

No tools are required. Simply connect the ball joint mount to the LiteAP ac by turning the lock nut clockwise by hand.
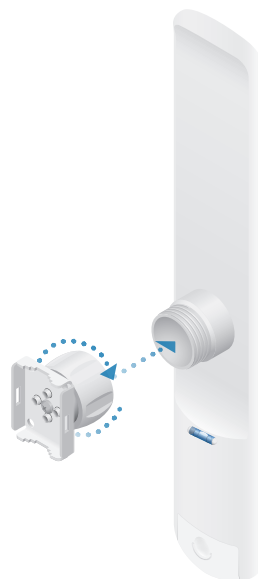
Features Overview

Frequency Band	5 GHz
Antenna Gain	16 dBi
Antenna Type	2x2 MIMO
Polarization	Vertical + Horizontal
airMAX ac	✓
Gigabit Ethernet	✓
Point-to-Point Functionality	✓
Point-to-MultiPoint Functionality	✓

UNMS App

The LiteAP ac can be accessed by the UNMS™ (Ubiquiti® Network Management System) app once it has been set up on the same Wi-Fi network as your mobile device. (Original setup is done through your browser.)

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 configure and manage the LiteAP ac and offers various configuration options once you're connected or logged in.

LiteAP ac
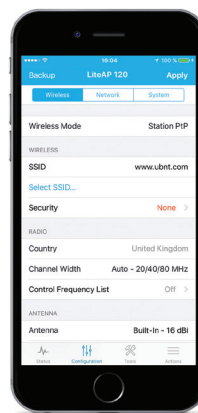
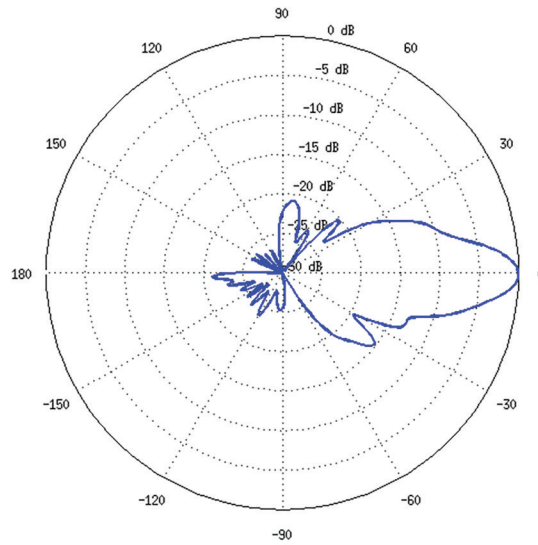# Specifications

LAP-120	
Dimensions (No Mount)	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
Operating Frequency	Worldwide: 5150 - 5875 MHz USA: 5150 - 5850 MHz
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
Operating Temperature	-40 to 70° C (-40 to 158° F)
Operating Humidity	5 to 95% Noncondensing
Shock and Vibration	ETSI300-019-1.4
ETSI Specification	EN 302 326 DN2
ESD/EMP Protection	± 24 KV Contact / Air
Wireless Approvals	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

LiteAP™ ac
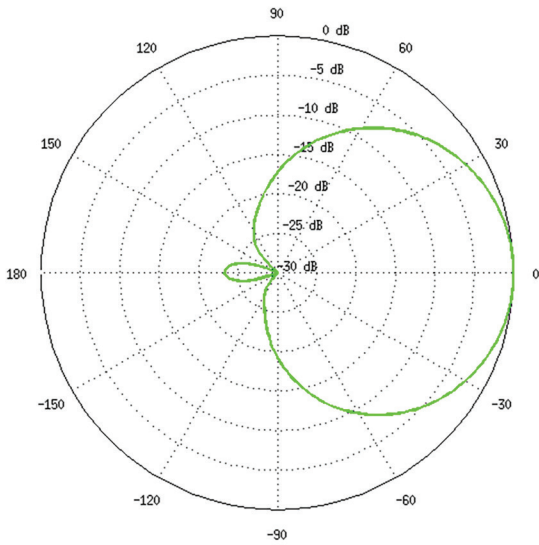
Vertical Azimuth

Vertical Elevation

Horizontal Azimuth
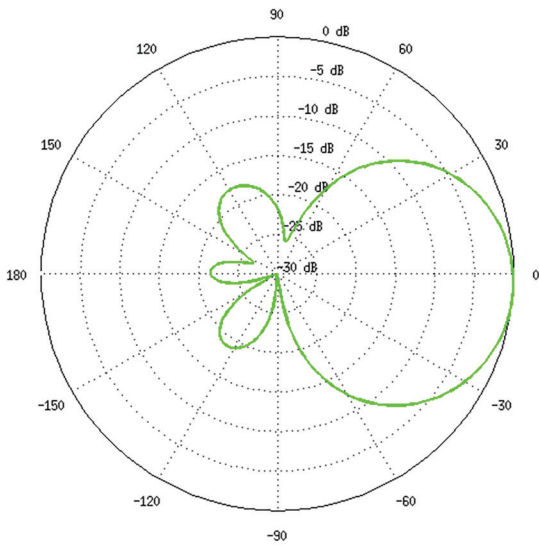
Horizontal Elevation

Return Loss

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