DATASHEET



LiteBeam°

5 GHz, 23 dBi airMAX® CPE with InnerFeed Technology Models: LBE-M5-23, LBE-5AC-23

Lightweight, Low-Cost Solution

Full Adjustment Flexibility

Quick Assembly and Installation



LiteBeam[®]

The LiteBeam® is the latest evolution of a lightweight and compact, outdoor wireless broadband product from Ubiquiti Networks. Each of these models 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 LiteBeam combines proprietary hardware and software technologies to deliver its breakthrough combination of throughput and range with cost-effective value.

The InnerFeed® technology integrates the entire radio system into the antenna feed, and our revolutionary airMAX TDMA protocol enhances network performance and scalability.

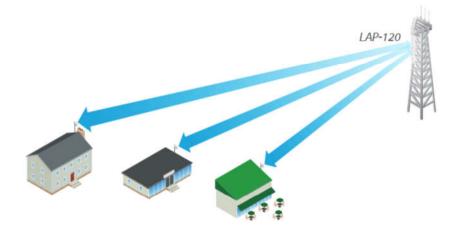
Integrated airMAX Technology

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.

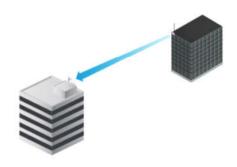
Compared to other systems in its class, the LiteBeam products deliver superior performance in reduced latency, throughput, and scalability.

- 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.

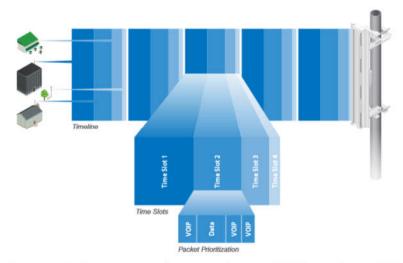
Application Examples



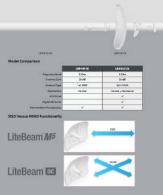
In a cost-effective WISP deployment, the LiteBeam acts as a CPE in an airMAX Point-to-Multipoint network.



A LiteBeam 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.

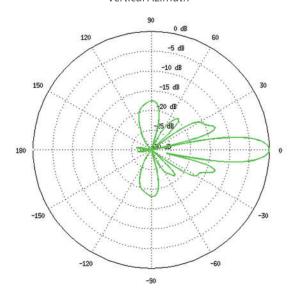


LBE-M5-23 Specifications

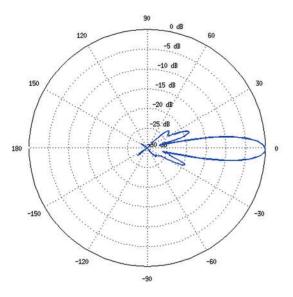
	LBE-M5-23
Dimensions (No Mount)	362 x 267 x 184 mm (14.25 x 10.51 x 7.24")
Weight (No Mount)	750 g (24.11 oz)
Mounting Kit	Pole Mounting Kit (Included)
Networking Interface	(1) 10/100 Ethernet Port
Memory	64 MB
Max. Power Consumption	4W
Max. TX Power	25 dBm
Antenna Gain	23 dBi
Operating Frequency	Worldwide: 5150 - 5875 MHz USA: 5150 - 5850 MHz
Power Supply	24V, 0.2A 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
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	
	MCS0	25 dBm	± 2 dB	802.11n/airMAX	MCS0	-97 dBm	± 2 dB	
×	MCS1	25 dBm	± 2 dB		MCS1	-96 dBm	± 2 dB	
A	MCS2	25 dBm	± 2 dB		MCS2	-93 dBm	± 2 dB	
/airMAX	MCS3	24 dBm	± 2 dB		MCS3	-91 dBm	± 2 dB	
T T	MCS4	23 dBm	± 2 dB		MCS4	-87 dBm	± 2 dB	
802.1	MCS5	22 dBm	± 2 dB		MCS5	-84 dBm	± 2 dB	
	MCS6	21 dBm	± 2 dB		MCS6	-78 dBm	± 2 dB	
	MCS7	19 dBm	± 2 dB		MCS7	-75 dBm	± 2 dB	

Vertical Azimuth



Vertical Elevation





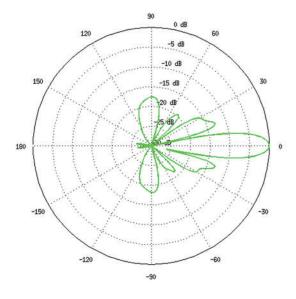


LBE-5AC-23 Specifications

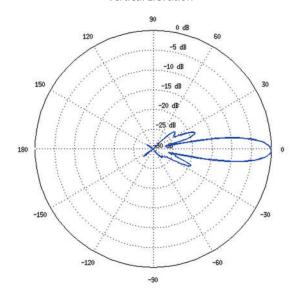
	LBE-5AC-23
Dimensions (No Mount)	362 x 273 x 203 mm (14.25 x 10.75 x 7.99")
Weight (No Mount)	907 g (2.00 lbs)
Mounting Kit	Pole Mounting Kit (Included)
Networking Interface	(1) 10/100/1000 Ethernet Port
Memory	64 MB
Max. Power Consumption	7W
Max. TX Power	24 dBm
Antenna Gain	23 dBi
Operating Frequency	Worldwide: 5150 - 5875 MHz USA: 5150 - 5850 MHz
Power Supply	24V, 0.3A 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
Certifications	FCC, IC, CE

Output Power: 24 dBm								
TX Power Specifications			RX Power Specifications					
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance	
	1x BPSK (1/2)	24 dBm	± 2 dB	airMAX ac	1x BPSK (½)	-96 dBm	± 2 dB	
	2x QPSK (½)	24 dBm	± 2 dB		2x QPSK (1/2)	-95 dBm	± 2 dB	
	2x QPSK (3/4)	24 dBm	± 2 dB		2x QPSK (3/4)	-92 dBm	± 2 dB	
ас	4x 16QAM (½)	24 dBm	± 2 dB		4x 16QAM (½)	-90 dBm	± 2 dB	
	4x 16QAM (¾)	24 dBm	± 2 dB		4x 16QAM (¾)	-86 dBm	± 2 dB	
airMAX	6x 64QAM (¾)	23 dBm	± 2 dB		6x 64QAM (¾)	-83 dBm	± 2 dB	
ai	6x 64QAM (¾)	22 dBm	± 2 dB		6x 64QAM (¾)	-77 dBm	± 2 dB	
	6x 64QAM (%)	21 dBm	± 2 dB		6x 64QAM (%)	-74 dBm	± 2 dB	
	8x 256QAM (¾)	20 dBm	± 2 dB		8x 256QAM (¾)	-69 dBm	± 2 dB	
	8x 256QAM (%)	19 dBm	± 2 dB		8x 256QAM (%)	-65 dBm	± 2 dB	

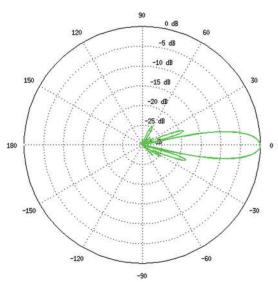
Vertical Azimuth



Vertical Elevation



Horizontal Azimuth



Horizontal Elevation

