AireBeam[™] Series

Flexible Layer 2 70/80 GHz Radios

Carrier-grade millimeter wave wireless bridges for long distance business, government, and 4G carrier applications up to 2.50 Gbps.

> 1.25 Gbps Long Range

2.50 Gbps Medium Range

> 2.50 Gbps Long Range

LightPointe's AireBeam Series is an ideal stateof-the-art backhaul solution for multi-mile long distance Layer 2 Gigabit Ethernet transmission for enterprise, government, and carrier customers.

The AireBeam Series provides low latency operation at full duplex Gigabit Ethernet bandwidth, low power consumption at less than 20 Watts, and there are two user selectable antenna configurations for long distance (2 foot/.6m antenna), and medium distance (1 foot/.3m antenna) applications.

AireBeam radios are available at different frequency settings and with +20 dBm or +23 dBm of output power ("Plus" models).

AireBeam Features

- High speed full-duplex Gigabit Ethernet transmission.
- Two independent Gigabit Ethernet connections via dual polarization operation over a single antenna.
- Highest E-Band transmission technology at up to +23 dBm.
- Low radio latency (< 40 microseconds).
- Multiple non-interfering frequency channels in the 70/80 GHz bands.
- All outdoor rated radio unit (ODU) with external connector (IP67 rated).
- Choice of RJ45 copper, MM, or SM fiber connectors for individual ODU.
- Ultra high gain 1ft/.3m & 2ft/.6m fieldchangeable antennas.
- Power-over-Ethernet (PoE) or direct 48 Vdc power connection.
- Industry exclusive ODU link optimizer/indicators.
- Easy-mount polarization adjustment.
- Low energy consumption (<20W).
- In-band and Out-of-Band web browser and SNMP v1/v2c support.

LIGHTPOIN

WIRELESS

Industry Leading 2 year warranty.

AireBeam 1.25 Gbps Layer 2 Radios +20 or +23 dBm



Product Specification Description

Frequency of Operation

Dimensions w/o Antenna

Transmission Power

Antenna Polarization

Polarization adjustment

Operating Temperature

Environmental/IP Rating

Power Consumption

Mounting Options

Antenna Size

Antenna Gain

Antenna HPBW

Operating Voltage

Humidity Range

Unit Weight

AireBeam Medium Range (1 foot/.3m) AireBeam Long Range (2 foot/.6m) Outdoor MMW Radio transceiver with integrated high gain antenna including mounting/alignment assembly and power supply 72.375 - 82.375 GHz and 74.875 - 84.875 GHz (FDD), digitally modulated +20 dBm or +23 dBm (depending on country) (57L x 33W x 36H) cm (70 x 51 x 66) cm 1 foot/.3m 2 foot/.6m 45 dBi 51 dBi Horizontal/Vertical Field adjustable via ODU rotation 0.5° 0.7° 8.2 kg 11.1 kg 110/230 ac; direct 48 Vdc (fully outdoor rated) or Power over Ethernet (PoE) -35°C to +60°C (-31°F to 140°F) Up to 95% (Non-Condensing) **IP67** 20W max/Radio ODU Pole mount alignment bracket w/coarse & fine-alignment (60-110 mm pole diameters) Power, TX Data, LOS, Overload, Data In, Data Out Antenna mounted Site Alignment spotting tool, RSSI LED bar graph Up to 10 miles/16.5 km or more, depending upon rain zone and availability required

1.25 Gbps, Gigabit Ethernet, Full Duplex

CDR to support daisy-chain configuration

Secondary/DualPath: 100/1000Base-TX

802.3z (Gigabit Ethernet)

Gigabit Ethernet, Full Duplex

Via SNMP traps, SYSLOG

Physical Layer 2

< 40 microseconds

Ethernet connection

Networking

Range

Status-LEDs

Alignment tools

Data Rate Protocol OSI Layer Ethernet Clock/Sync. QoS support Latency Ethernet Interfaces

Data Rate Physical Connections Management Interface

Management Access Alarm Reporting

REGULATORY

United States: International: FCC 47 CFR Part 15 Class A, FCC CFR 47 Part 101; IC ICES-003 Class A CE MARK EN 302 217-3 v1.3.1 (2009-7); EN 302 217-2-2 v1.4.1(2010-07); EN 302 217-4-2 (2010-01); EN 301 489-04 V1.4.1 (2009-05); EN 61000-3; EN 61000-4 EN 60950-1:2006 + A1:2010

Tagged based and protocol based prioritization, strict and weighted queuing models

Primary: copper 100/1000Base-TX or fiber 1000Base-SX/LX via standard SFP

Fully outdoor rated IP67 network connection (No need to open radio enclosure)

User selectable in-band management (VLAN support) or via separate out-of-band

Integrated Ethernet based Web Browser GUI, SNMP v1/v2c (optional v3), RMON,

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AireBeam 2.50 Gbps Layer 2 Radios -20 or +23 dBm





Product Specification Description

Product Specification	AireBeam [™] Medium Range (1 foot/.3m)	AireBeam Long Range (2 foot/.6m)	
Description	Outdoor MMW Radio transceivers with integrated high gain antenna		
	including mounting/alignment assembly and power supply		
Frequency of Operation	72.375 - 82.375 GHz and 74.875 - 84.875 GHz (FDD), digitally modulated		
Transmission Power	+20 dBm or +23 dBm (depending on country)		
Dimensions w/o Antenna	(22D x 12H) cm		
Antenna Size	1 foot/.3m	2 foot/.6m	
Antenna Gain	45 dBi	51 dBi	
Antenna Polarization	Dual H/V via supplied Dual Polarization Adaptor (DPA)		
Polarization adjustment	Field adjustable via ODU rotation		
Port-to-Port isolation	>40 dB		
Antenna HPBW	0.7°	0.5°	
Unit Weight	(Depends on options/contact Sales)		
Operating Voltage	110/230 ac; direct 48 Vdc (fully outdoor rated) or Power over Ethernet (PoE)		
Operating Temperature	-35°C to +60°C (-31°F to 140°F)		
Humidity Range	Up to 95% (Non-Condensing)		
Environmental/IP Rating	IP67		
Power Consumption	20W/Radio ODU x 2		
Mounting Options	Pole mount alignment bracket w/coarse & fine-alignment (60-110 mm pole diameters)		
Status-LEDs	Power, TX Data, LOS, Overload, Data In, Data Out		
Alignment tools	Antenna mounted Site Alignment spotting tool, RSSI LED bar graph		
Range	Up to 5 miles/8.5 km or more, depending up	on rain zone and availability required	
Networking			

Notworking

Networking		
Data Rate	2.50 Gbps Gigabit Ethernet, Full Duplex	
Protocol	802.3z (Gigabit Ethernet)	
OSI Layer	Physical Layer 2	
Configurations	2+0 (unprotected) and 1+1(protected)	
Ethernet Clock/Sync.	CDR to support daisy-chain configuration	
QoS support	Tagged based and protocol based prioritization, strict and weighted queuing models	
Latency	< 40 microseconds	
Ethernet Interfaces	Primary: copper 100/1000Base-TX or fiber 1000Base-SX/LX via standard SFP Secondary/DualPath: 100/1000Base-TX	
Physical Connections	Fully outdoor rated IP67 network connection (No need to open radio enclosure)	
Management Interface	User selectable in-band management (VLAN support) or via separate out-of-band Ethernet connection	
Management Access Alarm Reporting	Integrated Ethernet based Web Browser GUI, SNMP v1/v2c (optional v3), RMON, Via SNMP traps, SYSLOG	
REGULATORY		
United States:	FCC 47 CFR Part 15 Class A, FCC CFR 47 Part 101; IC ICES-003 Class A	
international.	EN 202 217 2 1/1 2 1 (2000 7) EN 202 217 2 2 1/1 4 1(2010 07)	
	EN 302 217-4-2 (2010-01); EN 301 489-04 V1.4.1 (2009-05); EN 61000-3; EN 61000-4	
	EN 60950-1:2006 + A1:2010	