

AireBridge LX with optional HyBridge feature for real-time monitoring & selection of best transmission method

- Software defined wireless bridge for maximum flexibility.
- All weather/always on capability with up to 2 Gbps aggregated link capacity.
- 4 transmit and 4 receive laser beams, with auto-tracking.
- The clear choice of IT professionals desiring wireless bridge reliability, maximum signal security, and fast ROI.



AireBridge LX

AireBridge LX: All weather/always-on secure data transmission

The 2014 AireBridge LX models are the most advanced laser bridges in the industry. For customers wanting the longest range and highest availability, the LX is the answer. Your data will fly between buildings on 8 beams of overlapping invisible laser light, all transmitting simultaneously (4 transmission beams and 4 receiving beams at each side of the link). A special 'floating' auto-tracking system fine-tunes the focus of the beams, thus compensating for building movement. Each side of the link can be ordered in a 250 Mbps, 500 Mbps, or 1000 Mbps (GigE/GbE) configuration—or can be upgraded later via software keys. These “future proof” solutions are also available with LightPointe’s patented HyBridge technology, which utilizes both laser and radio frequency transmission for nearly 100% reliability in all weather conditions. This optional real-time monitoring feature, which LightPointe patented, provides the best of both worlds in wireless transmission—highly secure, ultra fast laser throughput and integrated RF transmission.

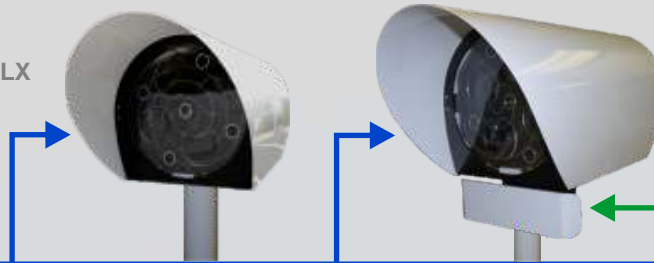
Laser & General Product Features

- World’s only 4-laser bridge with auto-tracking and AGC.
- Up to 2 Gbps aggregated link capacity.
- Full-duplex connectivity for transmission up to 2,500 meters at 3dB/km (or 1,500m at 10 dB/km and 1,000m at 17 dB/km) with HyBridge enabled.
- Configurable bandwidth (buy only the bandwidth needed). Each side of the link can be ordered to transmit at 250, 500, or 1,000 Mbps (asymmetric or symmetric capability, a LightPointe exclusive!).
- Optional HyBridge all-weather rtMAPS technology (the system monitors in real time and automatically switches between ultra-fast laser or RF path).
- Easy management via integrated “AireManager” web-based control system (SNMP v.1/v.2c compatible; alarm reports; SYSLOG; user selectable in-band/out-of-band interface support; remote firmware upload; integration into SNMP mgt system via MIB libraries).
- Flexible connection options (copper & fiber interfaces).
- Industry-leading 2 year warranty.

Radio Features (optional/with HyBridge)

- AireBridge LX with optional HyBridge feature includes a turn-key 5.4/5.8 GHz radio, which uses flexible 5.4/5.8 GHz frequencies for widespread unlicensed usage, and worldwide license-free optical spectrum. Throughput is 150 Mbps half duplex.
- Maximized Distance DualPath™ feature enables longer distances due to rate adaptive use of multiple bands.
- Superior RF technology via both OFDM and 4 antenna/2x2 MIMO technology (higher data rates and lower interference in congested areas).
- Superior QoS due to Ethernet Port Flow Control and intelligent packet queuing, providing priority to voice/video traffic when switching to alternative RF path.
- Channel Shifting operates at frequencies different from those used in unlicensed 802.11 networks, for increased security. Links are undetectable by most 5 GHz devices.
- AES-256 encryption for optimum security.

AireBridge LX



AireBridge LX
with HyBridge feature

LASER BRIDGE SPECS

Description	Four-Beam Optics System with Auto Tracking and Automatic Power Control
Receiver/Transmitter(s)	Four transmitters, four receivers (total of 8 active/simultaneous beams for link)
Dimensions (W x H x L)	321x297.5x620 mm (12.6x11.7x24.4 in)
FSO Head Weight	Without Pan/Tilt: 28 lbs (12.7 kg); With Pan/Tilt 33 lbs (15.0 kg)
Unit Shipping Weight	Each box includes: 1 FSO head, Pan/Tilt mount, PoE injector, LM-UU, access.
	Box A: 62 lbs (28 kg); 33"(.838m) x 17"(.432m) x 25"(.635m)
	Box B: 62 lbs (28 kg); 33"(.838m) x 17"(.432m) x 25"(.635m)
Operating Voltage	Direct 48 Vdc or 48 Vdc via PoE injector
Alignment System	Heavy duty pan/tilt alignment bracket
Operating Temperature	-25 C to 60 C (-13 F to 140 F)
Humidity Range	Up to 95% non-condensing
Power Consumption Max	40W
Immune to EMI & RF Interference	Yes
Built-In Alignment Telescope	Yes
Built-In Defroster	Yes
Bit Rate Options	250, 500, or 1000Mbps options; full-duplex; each side is bandwidth configurable
Modulation - Rate Adaptive	OOK (Optical carrier), 64QAM, 16QAM,QPSK, BPSK (RF carrier)
Operational Range	Up to 1 mile/~1500 meters (@10 dB/km attenuation)
Optical Transmitters	4 x VCSEL
Free-Space Wavelength	850 nm
Optical Receiver	Si APD
Receive Power Indicator	10-level bar graph
Status Indicator (LED)	Power, LOS, Overload

LAN NETWORKING INTERFACES

Protocol/Data Rate	802.3z, Gigabit Ethernet
Physical LAN Network Interface	Standard SFP interface for 1000Base-SX/LX (fiber), or 1000 RJ-45 (copper) up to 1000 Mbps, full-duplex, rate adaptive
VLAN Ethernet Support	VLAN/802.1Q pass-through support
rtMAPS support	Integrated multiport Ethernet switch w. transmission ch. monitoring/path select.
Physical Mgt. Interface	Inband via Ethernet connection or outband via 10/100 RJ-45 copper port
DualPath™ Interface (LX)	IP67 rated external 10/100 RJ45 conn., non-powered or passive PoE (4,5+;7,8-)
Management System	Integrated Ethernet based Web Browser GUI, SNMP v1/2c (optional v3), Alarm Reporting via SNMP traps, SYSLOG, TELNET

RADIO FREQUENCY SPECS (IF ORDERED OR UPGRADED TO HYBRIDGE FEATURE)

Bit Rate	up to 150 Mbps
Processor	Atheros MIPS 24KC, 400 MHz
Transmission frequencies	5.470 - 5.825 GHz (Manual or automatic country setting)
Channel width	(5 - 40 MHz) (Automatic or user selectable)
Dynamic Frequency Selection	Yes
Channel shifting support	Yes
Wireless Encryption	WPA/WPA AES-256
Antenna Gain	16 dBi
Polarization	Dual Linear

REGULATORY INFORMATION

EMC	Optical: FCC PART 15, CE Mark RF: FCC Part 15.247, IC RS210, CE MARK
Laser Safety	Eye safe Class 1M laser product (IEC/EN 60825-1/A2)

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