

Equipment
latency is **~.01%**
of the competition's
flagship radio!
<20 ns verses
<220,000 ns

Low Latency Point-to-Point Connectivity

Up to 7 miles (11.5 km)
depending on location
and desired availability

Ultra-Low Latency Point-to-Point Backhaul Solution

LightPointe's newly designed AireX-Stream™ Series is ideal for ultra-low latency and multi-mile long distance Gigabit Ethernet transmission. These state-of-the-art backhaul solutions can be utilized to easily establish point-to-point connectivity between buildings and/or towers in high speed Ethernet networks.

With equipment latency of less than 20 nanoseconds and full duplex layer 1 transmission transparency, the advanced Aire X-Stream™ Series is ideally suited for applications requiring ultra-low transmission latency. Applications include High Frequency Trading (HFT), military communications and other applications requiring extreme speed and low latency — even lower than optical fiber. AireX-Stream™ systems are available in medium distance (X80-MX) and long distance (X80-LX) configurations using high gain parabolic 1 foot and 2 foot antennas.

Applications

- Ultra-low latency fiber-like long distance building connectivity for schools, businesses, government buildings and hospitals—without trenching/installing fiber or the recurring costs of leased-line alternatives.
- Optimized for time sensitive applications such as High Frequency Stock Trading.
- Ideal for applications where time is of the essence, such as for Military Theater of Operations and base connectivity.
- Homeland security applications.
- Extreme long distance installations where daisy-chaining multiple radios (back-to-back) may be required, while maintaining excellent transmission speed/low latency and high availability.

Advanced Next Generation Radio Features

- High speed full-duplex layer 1 transparent 1.25 Gbps/Gigabit connectivity.
- World's lowest latency 70/80 Ghz system with equipment latency of less than 20 ns/nanoseconds.
- Clock and Data Recovery (CDR) for ultra long distance cascable back-to-back operation.
- MM or SM fiber connectors for each side of link.
- Ultra high gain 1ft/.3m & 2ft/.6m field-changeable antennas.
- Power-over-Ethernet (PoE) or direct 48 Vdc power connection.
- Industry exclusive link optimizer/indicators.
- Industry's lowest energy consumption (<15W).
- Easy-mount polarization adjustment.
- Lightweight all-weather enclosure.
- Web browser, Syslog, and SNMP support.

Product Specification

Description	Aire X-Stream™ X80-MX (medium range) Aire X-Stream™ X80-LX (long range) Ultra-low latency Layer 1 transparent outdoor MMW Radio transceiver with integrated high gain antenna including mounting/alignment assembly and power supply	
Frequency of Operation	74.875/84.875 GHz (FDD), digitally modulated	
Transmission Power	100 mW (+20dBm)	
Dimensions w/o Antenna	(57L x 33W x 36H) cm	(70 x 51 x 66) cm
Antenna Size	30 cm 60 cm	
Antenna Gain	45 dBi	51 dBi
Antenna Polarization	Horizontal/Vertical	
Polarization adjustment	Field adjustable via ODU rotation	
Antenna HPBW	0.7°	0.5°
Unit Weight	8.2 kg	11.1 kg
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	IP66	
Power Consumption	15W max	
Mounting Options	Pole mount alignment bracket w/coarse & fine-alignment (60-110 mm pole diameters)	
Status-LEDs	Power, RSSI LED bar graph, LOL, Overload	
Alignment tools	Antenna mounted Site Alignment spotting tool, RSSI LED bar graph	
Range	Up to 7 miles/11.5 km or more, depending upon rain zone and availability required	

Networking

Data Rate	1250 Mbps (Gigabit Ethernet), Full Duplex
OSI Layer	Physical layer 1
Equipment Latency	< 20 nanoseconds
Physical Interface	Singlemode (SM) or multimode (MM) fiber, LC style connector
Ethernet Interface	1000Base-SX/LX
Physical Connections	Fully outdoor rated IP67 network connection (No need to open radio enclosure)
Management Interface	Out-of-band 10/100 based RJ-45 Ethernet connection
Management Access	Integrated Ethernet based Web Browser GUI, SYSLOG, SNMP v1/2c
Alarm Reporting	Via SNMP traps, SYSLOG

REGULATORY

United States:	FCC 47 CFR Part 15 Class B, FCC CFR 47 Part 101; IC ICES-003 Class A
International:	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

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