FLIGHTSTRATA™ 100 XA

OVERVIEW

The FlightStrata 100 XA (Extended Availability) is a breakthrough in outdoor wireless point-to-point solutions. Based on DualPath™ architecture, the FlightStrata 100 XA blends a high bandwidth optical link and an unlicensed radio frequency (RF) backup with intelligent seamless switching to provide Fast Ethernet throughput and 99.999% uptime in all weather conditions at distances up to 5 km.

The FlightStrata 100 XA is targeted to Enterprise LAN customers seeking a cost-effective, easy-to-install, high-performing alternative to leased lines when connecting buildings, campuses or remote locations. But unlike traditional optical wireless or RF links, LightPointe has combined these two technologies into a powerful, integrated wireless solution that delivers a balance of throughput and uptime.

With data rates up to 100 Mbps (full-duplex), the FlightStrata 100 XA is ideal for bandwidth-intensive, mission critical applications such as Voice-over-IP, medical imaging, CAD/graphic design and video.

FEATURES AND BENEFITS

- Fast Ethernet Throughput – 100 Mbps, full-duplex (primary optical link); 72 Mbps half-duplex (secondary RF link); standard RJ-45 interface is used for both optical and radio paths.

- Extended Availability – patented DualPath architecture ensures 99.999% network uptime even in harsh environmental conditions including dense fog.

- Maximized Distance – links can connect up to 5 km in fog, rain or other weather conditions.

- Proven Optical Technology – standard features such as multi-beam transmission, automatic power control and optical beam shaping enhances optical wireless performance.

- Superior RF Technology – Unlicensed, 5.8 GHz radios using Orthogonal Frequency Division Multiplexing (OFDM) results in higher data rates, longer distances and increased resistance to interference.

- Integrated Radio Design – radio, antenna and lightning protection are integrated into a single outdoor chassis for rapid and flexible deployment; Power-over-Ethernet simplifies installation using standard CAT-5 wiring.

- Intelligent Switching – patented algorithm enables seamless, sub-second switching between optical link and RF backup while also preventing "flapping" in unstable link situations.

- Configuration, Monitoring Flexibility – intuitive Web interface (FlightManager XA) allows links to be configured and monitored from a network computer.

- Enhanced Network Management – SNMP support triggers alarms during network failures while traffic prioritization features allow Quality of Service (QoS) and proper network load balancing.

- Secure Transmission – Inherent optical security (invisible beams of light) coupled with RF encryption (AES, WEP) and MAC access control make connectivity safe and worry-free.

Data Sheet

PRODUCT INFORMATION	OPTICAL	RADIO	SWITCH
Description	Outdoor Four-Beam Optics System with Auto Tracking and Auto Power Control	Outdoor RF Bridge	Managed Layer 2 Switch
Receiver/Transmitter(s)	Four Receivers, Four Transmitters	Integrated Radio, High Gain Panel Antenna (22 dBi), Lightning Protector	
Dimensions (W x H x L)	321 x 297.5 x 620 mm (12.6 x 11.7 x 24.4 in)	76.2 x 304.8 x 304.8 mm (3 x 12 x 12 in)	441 x 66 x 388 mm (17.36 x 2.6 x 15.28 in)
Unit Weight	11.1 kg (24.4 lbs)	9.09 kg (20 lbs)	6.0 kg (13.23 lbs)
Operating Voltage	90 to 240V (50/60 Hz) or + 48V DC	Power-Over-Ethernet, Indoor DC Injector (24V, 1.5A)	100 to 240V (50/60 Hz)
Operating Temperature	-25°C to 60° (-13°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	0°C to 40°C (32°F to 104°F)
Humidity Range	Up to 95% Non-Condensing	100% (IEC 529 / IP67) Condensing	5% to 95% Non-Condensing
Power	40W	100mW (20 dBm)	
Mount	Gimbal	Two-Axis Mast Mounting Kit (included)	19-inch Rack Mount Width

NETWORKING

	OPTICAL	RADIO	SWITCH
Connectivity	Ethernet 10BaseT, 100BaseT	Ethernet 10BaseT, 100BaseT	Ethernet 10BaseT, 100BaseT, 1000BaseT, 100BaseFX
Interface	RJ-45 Copper Interface	RJ-45 Copper Interface	RJ-45 Copper Interface; SFP/Mini-GBIC
Data Rate	100 Mbps (Full Duplex)	72 Mbps (Half Duplex)	8.8 Gbps Switch Fabric
Operational Ranges	Up to 5 km (Line-of-Sight)	5 km (Near-Line-of-Sight)	
Configuration & Management	HTTP	HTTP, SNMP v1	HTTP, CLI/Console, SNMP v1, QoS, Load Balancing

REGULATORY

	OPTICAL	RADIO	SWITCH
Regulatory Compliance	IEC/EN 69825-I/A2 Class 1M	FCC, CE, Industrie Canada, China, CE	FCC, CE, BSMI, VCCI, C-TIC

OTHER FEATURES

	OPTICAL	RADIO	SWITCH
	VCSEL Optical Transmitter	Orthogonal Frequency Division Multiplexing (OFDM)	Switching Fabric: 8.8 Gbps Capacity
	850 nm Wavelength		
	Si APD Optical Receiver	Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) Media Access Protocol	Transmission Method: Store and Forward
	10-Level Bar Graph Receive Power Indicator		Packet Buffer Memory: 3.3 Mbits
	LED Status Indicator for Power, Tx, Data, LOS, Overload, Data In, Data Out	Frequencies: 5.725-5.850 GHz (FCC) 5.500-5.700 GHz (ETSI)	
	Built-in Alignment Telescope	Encryption: 40, 128, 152-bit AES 40, 128-bit WEP	
	Built-in Defroster	MAC-Level Access Filtering	