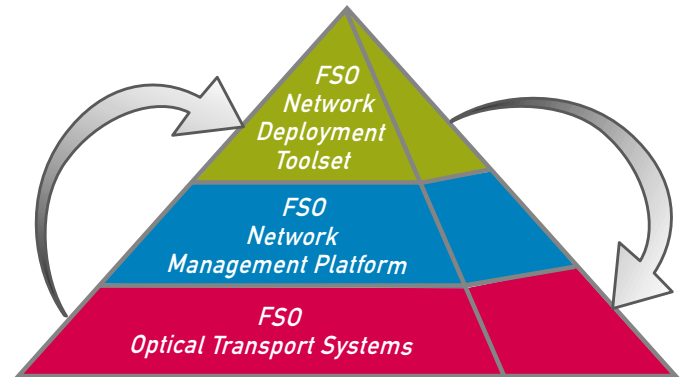


LightPointe is a designer and manufacturer of carrier-class Flight Free Space Optical (FSO™) solutions. Our scalable products meet the incredible bandwidth demands placed on today's networks by data, video, and voice traffic. We provide a full spectrum of protocol agnostic FSO networking products to meet a wide range of connectivity options.



LightPointe's Flight FSO Carrier-class solutions combine three essential elements:

FlightTransport: The core of LightPointe's FSO solutions, FlightTransport is optical transmission equipment that delivers high speed communications faster and more cost effectively than traditional fiber-optic cable with the following features:

- Bandwidth
- Distance
- Flexible topology and deployment geometry
- Protocol agnostic

FlightManager: A robust SNMP-based network management interface between the FSO link heads and the customer's back-office operations offering:

- Comprehensive network monitoring support
- Compatibility with existing network management packages
- Out-of-band network support
- User-friendly graphical interfaces
- Remote, decentralized management capabilities.

FlightNavigator: A critical element of deployment, the FlightNavigator toolsets permit deployment simplicity and the ability to perform network traffic monitoring functions such as:

- Link availability analysis
- Regional deployment analysis
- Traffic simulation

We provide a full spectrum of protocol agnostic FlightTransport networking products to meet a wide range of connectivity options, secure transmission, and flexible deployment options on rooftops or through windows. Typical applications include:

- Access/last mile solutions
- Wireless backhaul
- Metro network extension
- Disaster recovery
- Storage area networks (SAN)
- Enterprise/LAN solutions



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F r e e d o m F l e x i b i l i t y F a s t

FlightSpectrum™ Product Specification



FlightSpectrum 20Mbps FlightSpectrum 155Mbps FlightSpectrum 622Mbps FlightSpectrum 1.25Gbps

OUTDOOR UNIT

Description	Multiple beam system	Multiple beam system	Multiple beam system	Multiple beam system
Dimensions (WxHxL)	300x300x640mm (11.8x11.8x25 inches)	300x300x640mm (11.8x11.8x25 inches)	300x300x640mm (11.8x11.8x25 inches)	300x300x640mm (11.8x11.8x25 inches)
Unit Weight	13.5kg (29.71lbs)	13.5kg (29.71lbs)	13.5kg (29.71lbs)	13.5kg (29.71lbs)
Shipping Weight	25.4kg (56lbs)	25.4kg (56lbs)	25.4kg (56lbs)	25.4kg (56lbs)
Operating voltage	90 to 240 V (50/60 Hz)	90 to 240 V (50/60 Hz)	90 to 240 V (50/60 Hz)	90 to 240 V (50/60 Hz)
Operating Temperature Range	-13°F to 122°F (-25°C to 50°C)	-13°F to 122°F (-25°C to 50°C)	-13°F to 122°F (-25°C to 50°C)	-13°F to 122°F (-25°C to 50°C)
Humidity Range	Up to 95% non-condensing	Up to 95% non-condensing	Up to 95% non-condensing	Up to 95% non-condensing
Power consumption max.	20W	20W	20W	20W
Immune to EMI & RF Interference	Yes	Yes	Yes	Yes
Built-in alignment telescope	Yes	Yes	Yes	Yes

FREE SPACE

Bit Rate	10 to 20Mbps	155Mbps	622Mbps	1.25Gbps
Recommended Optimal Distance	Up to 4000 meters*	Up to 2000 meters*	1000 meters*	1000 meters*
Opt. Transmitter	LED	VCSEL	VCSEL	VCSEL
Wavelength	850nm	850nm	850nm	850nm
Beam divergence	2mrad	2mrad	2mrad	2mrad
Opt. Receiver	PIN	Si APD	Si APD	Si APD
Opt. Output Power	1mW x 4	1mW x 4	3.9mW x 4	3.9mW x 4
Receiver sensitivity	-38dBm	-41dBm	-38dBm	-30dBm
Dynamic range	28dB	30dB	28dB	20dB
Receive power indicator	10-level bar graph	10-level bar graph	10-level bar graph	10-level bar graph
Status indicators (LED)	Power, TX Data, LOS, Overload	Power, TX Data, LOS, Overload	Power, TX Data, LOS, Overload	Power, TX Data, LOS, Overload

NETWORK INTERFACE USING MULTI MODE FIBER 50-62.5µm (inner core). 125µm (external diameter)

Protocol	Transparent	Transparent	ATM/Sonet	Transparent
System interface	ST/SC compatible	SC compatible	SC compatible	SC compatible
Wavelength	780 to 900nm	1270 to 1350nm	1270 to 1350nm	(SX) 850nm
Opt. Receive power	-30 to -15dBm	-30 to -15dBm	-30 to -15dBm	-17 to 0dBm
Opt. Transmission power	-20dBm	-20dBm	-11dBm	-9.5 to -4dBm
Wavelength				(LX)1270 to 1350nm
Opt. Receive power				-20 to -3dBm
Opt. Transmission power				-9.5 to -3dBm

NETWORK INTERFACE USING SINGLE MODE FIBER 6-9.5µm (inner core). 125µm (external diameter)

Protocol		Transparent	ATM/Sonet	Transparent
System interface		SC compatible	SC compatible	SC compatible
Wavelength		1300nm	1300nm	(LX) 1300nm
Opt. Receive power		-30 to -15dBm	-30 to -15dBm	-20 to -3dBm
Opt. Transmission power		-20dBm	-11dBm	-9.5 to -3dBm

CLASSIFICATIONS

IEC/EN 60825-1	CLASS IIIB	CLASS IIIB	CLASS IIIB	CLASS IIIB
CDRH	CLASS IIIB	CLASS IIIB	CLASS IIIB	CLASS IIIB

SAFETY GUIDELINES

Important: Direct viewing into the FlightSpectrum transmission beam aperture with an optical instrument (e.g. magnifying glass) can be dangerous. The LightPointe FlightTransport FlightSpectrum products are certified eye-safe in accordance with IEC Class IIIB.

*Distances are for reference only. Actual distances achieved are dependent on bandwidth required and environmental conditions.