FlightStrata™

OVERVIEW

The FlightStrata is first Optical Wireless product family to incorporate auto-tracking, which instantly made it the most popular with major Enterprises and Telecommunication Carriers seeking longer distance fiber-like connectivity. The FlightStrata takes proven multiple-beam technology—first incorporated in the FlightSpectrum—to the next level. FlightStrata's optical transmitter and receiver lens layout enables improved operation through improved link margin, while Optical Beam Shaping (OBS), in conjunction with Automatic Power Control (APC), addresses changing atmospherics and building movement. The FlightStrata transmits four redundant beams of light that overlap and adjust via Multi-Beam Array Tracking (MBAT) technology. The combination of rotational optics, MBAT and APC results in greater link margins, which translate into improved Optical Wireless performance. The FlightStrata is a direct result of customer feedback and our years of field experience around the world.

FEATURES AND BENEFITS

- Multiple Bandwidth & Distance Options – The FlightStrata can support full-duplex data rates ranging from 52 Mbps to 1.25 Gbps. Distances vary depending on product.
- Gigabit Ethernet Throughput – The FlightStrata can deliver up to 1.25 Gbps of full-duplex throughput between two buildings at distances up to 2 kilometers.
- Auto Tracking – The FlightStrata is the first product to combine multiple-beam and multiple-receiver architecture with auto tracking. The combination provides the best performance of stand-alone FSO-based solutions.
- Zero-Distance Performance – While some FSO-based products on the market must be deployed at a minimum distance to avoid "over saturation" of optical receivers, the FlightStrata can be deployed at very short distances—literally 1 meter, due to its Automatic Power Control feature.
- Robust Product Housing and Design – With its internal heating element and lens cover defroster, the FlightStrata can perform in temperature ranges of -25 C to 60 C (-13 F to 140 F).
- Immune to Radio Frequency Interference - Optical Wireless products are immune to radio frequency interference and licensing or planning challenges.

Data Sheet

OUTDOOR UNIT

Description	Four-Beam Optics System with Auto Tracking and Auto Power Control
Receiver/Transmitter(s)	Four receivers, four transmitters
Dimensions (W x H x L)	321 x 297.5 x 620 mm (12.6 x 11.7 x 24.4 in)
Unit Weight	11.1 kg (24.4 lbs)
Shipping Weight	26.4 kg (58 lbs) x 1 linkhead
Operating Voltage	90 to 240 V (50/60 Hz) or +/– 48 V DC
Operating Temperature	-25 C to 60 C (-13 F to 140 F)
Humidity Range	Up to 95% non-condensing
Power Consumption Max	40 W
Immune to EMI & RF Interference	Yes
Built-In Alignment Telescope	Yes
Built-In Defroster	Yes
SNMP Management	Option

FREE SPACE

Bit Rate

FSA52E, FSA52EW = 1.5 Mbps to 54 Mbps
FSA155E, FSA155EW = 1.5 Mbps to 155 Mbps
FSA622 = 622 Mbps, FSA-G = 1.25 Gbps

Operational Ranges
(At 5dB System Fade Margin)

	Light Haze Light Rain	Thin Fog Heavy Rain	Moderate Fog Monsoon
	-3 dB	-10 dB	-30 dB
FSA52E	5.6 km	2.4 km	1.1 km
FSA52EW	5.2 km	2.3 km	1.0 km
FSA155E	4.8 km	2.2 km	1.0 km
FSA155EW	4.4 km	2.0 km	900 m
FSA622	3.3 km	1.6 km	800 m
FSA-G	2.0 km	1.1 km	600 m

Free-Space Optical Transmitter	VCSEL
Free-Space Wavelength	850 nm
Optical Receiver	Si APD
Receive Power Indicator	10-level bar graph
Status Indicator (LED)	Power, TX Data, LOS, Overload, Data In, Data Out

MULTIMODE FIBER INTERFACE	FSA 52E(W)/155E(W)/622	FSA-G
Protocol	Transparent (FSA622: SONET/SDH/ATM)	Gigabit Ethernet
System Interface	SC Connector	SC Connector
Interface Wavelength	1270 to 1350 nm	780 to 950 nm
Optical Receive Power	-14 to -30 dBm	0 to –17 dBm
Optical Transmit Power	-14 to -22 dBm	-4 to -9.5 dBm

SINGLEMODE FIBER INTERFACE	FSA 52E(W)/155E(W)/622	FSA-G
Protocol	Transparent (FSA622: SONET/SDH/ATM)	Gigabit Ethernet
System Interface	SC Connector	SC Connector
Interface Wavelength	1270 to 1350 nm	1260 to 1360 nm
Optical Receive Power	-8 to -31 dBm	-3 to -20 dBm
Optical Transmit Power	-8 to -15 dBm	-3 to -9.5 dBm

CLASSIFICATION

IEC/EN 69825-1/A2	Class 1M

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