

The Glimmerglass Intelligent Optical System 100

Industry Leading Capabilities

- Industry's most compact / highest port density photonic cross-connect
- Bit rate independent - supports all optical data rates including 100 Gb/s
- Protocol and format independent; compatible with SONET/SDH, Ethernet, C/DWDM, Video, FC, FICON, ESCON, and all others
- Matrix size: 16x16 to 96x96 fiber ports
- Asymmetric configurations
- 20 millisecond switching
- Ultra-low power consumption: < 50 Watts
- Supports dark and very low power connections
- Single mode fiber, wideband (1270 nm - 1630 nm)

Easy to Manage and Use

- SNMPv3
- Web-based user interface
- Import and export topologies
- Command-Line Interface (TL1)

Powerful Carrier-Class Design

- Delivers 99.999+% availability
- In-service software upgrades

Outstanding Reliability

- MTBF > 30 years
- Dual -48V DC or redundant, hot-swappable AC power option

Advanced Optical Signal Management

- Optical power monitoring
- Threshold crossing alerts
- Protection switching rules
- Photonic multicasting for connecting point to multipoint
- Dedicated or switched Variable Optical Attenuation (VOA) to control output power levels
- Virtual Private Switch (VPS) allows administrators to partition ports for individual user access
- Bidirectional operation



System 100
16x16 - 96x96

Intelligent Optical Signal Management

The Glimmerglass Intelligent Optical System 100 revolutionizes optical signal management by enabling network operators to rapidly and remotely access, distribute and monitor optical signals and create and reconfigure optical paths in real time. Advanced management software combined with purely optical, photonic cross-connects provide remote operators with superior visibility and control of optical signals.

Intelligent Optical Systems provide transparent signal access and are key enablers of the Glimmerglass CyberSweep™. Their unique capabilities enable the dynamic selection and distribution of optical signals for analysis and storage.

Glimmerglass optical systems enable operators to:

- Access and monitor optical signals in real time without disrupting traffic
- Remotely create and reconfigure optical signal paths in milliseconds
- Handle any data rate, any protocol and any format including DWDM
- Select, duplicate, and distribute optical signals to one or many locations
- Continuously monitor signals and remotely test and diagnose optical paths

Create

Glimmerglass systems provide a fully non-blocking, transparent cross-connect. In milliseconds an optical path can be created between any fiber input and output. Since the technology is fully transparent, the newly created optical path will transport any signal regardless of data format or speed.

Monitor

Continuous optical power monitoring combined with transparent switching forms a superior solution for remotely monitoring network paths and performing diagnostics. Loopback paths may be created in milliseconds to help isolate a fault to a particular piece of equipment.

Reconfigure

Glimmerglass systems are the ideal solution for remotely adding, reconfiguring, and disconnecting optical paths on demand and making system level topology changes.

INTELLIGENT OPTICAL SYSTEM 100

DATA SHEET

Mechanical / Electrical

System 100

Fiber Type	Single Mode Fiber
Individual Fiber Connectors	LC, FC, SC
High Density, Multi-Fiber Connectors	MTP-8, MTP-12
19" Chassis Rack Space (Rack Units)	2 RU
Chassis Dimensions: Height x Width x Depth	inch: 3.5 x 17.0 x 20.8 mm: 89 x 432 x 528
Weight: lbs / kgs	20.0 / 9.1
Power Options	Dual -48 VDC or 100-240 VAC 50/60 Hz
AC High Availability Power Supplies	Redundant, Hot Swappable (1RU)
Power Consumption (DC)	<50W
Certified Compliance	UL, CSA, CE, FCC Class A, RoHS 5/6
Control Interface	RJ45 Ethernet 10/100 BASE-T
Craft Interface	RS-232 (DB9) and RJ45 Ethernet 10/100 BASE-T
Control/Craft Protocol	TL1, SNMPv3, HTML



Front



Back

Optical

	Unit	Min	Typical ¹	Max ¹
Ports (Fiber Inputs x Fiber Outputs) ²				
MTP-8 Connectors	fibers	32 (16 x 16)		192 (96 x 96)
MTP-12 Connectors		32 (16 x 16)		192 (96 x 96)
LC Connectors		32 (16 x 16)		96 (48 x 48)
FC Connectors		32 (16 x 16)		48 (24 x 24)
SC Connector		32 (16 x 16)		48 (24 x 24)
Insertion Loss (1 to 1 connections) ^{1,3}	dB		1.7	2.7
Insertion Loss (Multicasting, 1 to N connections) ^{1,3}	dB		1:2 1:4 1:6 1:8 8 11 14 15	1:2 1:4 1:6 1:8 9 12 15 16
Wavelength Range	nm	1270		1630
Loss Repeatability	dB		+/- 0.05	+/- 0.10
Spectral Variation (O, C, or L band)	dB			0.50
Polarization Dependent Loss	dB		0.05	0.10
Polarization Mode Dispersion	ps/nm		0.005	0.010
Optical Return Loss ¹	dB	30	35	
Crosstalk	dB			-70
Switching Speed	ms		20	
Input Optical Power ⁴	dBm	-25		+20
Operating Temperature	°C	-5		+50
Operating Humidity (Non-condensing)		5%		85%

¹ Measurements with LC, taken at 1310 nm and 1550 nm at 25 °C. ² Asymmetric configurations (NxM) are available. ³ Measured input fiber to output fiber, dependent upon hardware configuration. ⁴ Standard configuration. Low power option: -35 to +15dBm.

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Glimmerglass
Optical Cyber Solutions

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