

INTELLIGENT OPTICAL SWITCHING SOLUTION

TEST & MEASUREMENT

The Glimmerglass solution for fiber optic test and measurement applications greatly improves the speed and productivity in which organizations manage fiber optic connections. With a single click, engineers can set up tests of optical components and build network topologies of all types. This reliable solution has been in service for years - establishing non-blocking, transparent connections between input and output single mode fibers, without any signal regeneration.

Carriers, Equipment Vendors, Manufacturers

- Network services testing, service prototyping
- System verification & interoperability testing
- Component & systems manufacturing

Testing Productivity

- Point-and-click to make and break connections
- Save and restore connection matrix settings to files
- Connect and disconnect hundreds of fibers instantly
- Spend time testing, not patching and debugging fibers

Fiber Management Visibility

- Instantly identify lit and dark fibers
- Monitor optical power levels on all connections in real-time
- Name fibers, manage connections by meaningful terms

Remote, Automated Control

- Set up connections using a browser, remote control
- Make physical layer connections without touching a fiber
- Precisely control the optical power levels on fibers
- Programmable control, automate your test setups

Shorten Schedules, Improve Quality

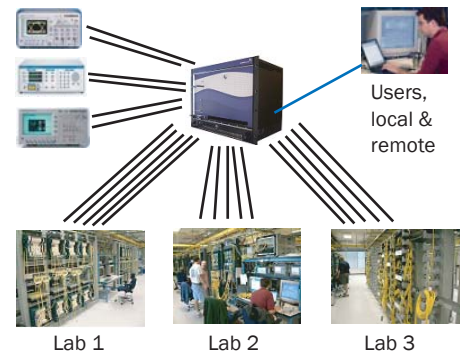
- Stay on schedule, reduce schedule slippage risks
- Ship higher-quality products with fewer bugs

Significant Savings

- Patch panels have huge hidden costs
- Reduce test-bed maintenance - no broken or dirty fibers
- Track and share optical test equipment easily, at a glance
- Buy less test equipment and still execute more tests

Connect network interfaces and optical test equipment to Glimmerglass, then:

- Build networks of any type
- Connect and share test equipment
- Remotely manage fiber connections
- Automate testing



Glimmerglass ClickFlow™

- Web browser control interface
- Save, restore connection matrix to files
- 1-click topology reconfigurations
- Real-time monitoring of optical power
- Controls variable optical attenuation
- Multiple, simultaneous users
- Lock connections by user ID



Transparent, Non-Blocking Fiber Connections

- Connects input fibers to output fibers (in x out)
- Single mode fiber, wideband (1270 nm - 1630 nm)
- Connects fibers without optical signal regeneration
- Supports all data rates, signal formats, analog and digital

Fast Installation, Easy to Use

- Ethernet connectivity, built-in fiber patch panel
- User-friendly ClickFlow™ web interface
- TL1 command-line and fast programming interface
- Save and restore an unlimited number of connection files
- Instant 1-click reconfiguration of all connections

Built-In Meters and Power Level Controls

- Built-in Optical Power Meters
 - On-screen visual indicators identify lit and dark fibers
 - Monitors optical power levels in real-time, printable reports
- Built-in Variable Optical Attenuation (VOA)
 - Set optical power to precise levels on each fiber
 - Test long-haul optics and receiver sensitivity



Outstanding Performance

- Fast, reliable switching
- Low insertion loss
- Excellent repeatability
- Broad ambient temperature range
- Operates with lit and dark fibers
- Activate more ports in-the-field



Chris McKinney is a visionary, in charge of ensuring that his company, the world's leading provider of data routing equipment, ships high-quality products on-schedule. Chris describes how Glimmerglass has helped him build and operate one of the world's most advanced test facilities.

Much Faster Testing

"We use the Glimmerglass switch to do the work for us... automating the part that was taking us the longest time...the patching of fibers."

Big Savings, Year After Year

"Our Glimmerglass switch has saved \$320k annually in salaries alone!"

Higher Quality Products

"We couldn't have done the amount of testing we do now... We've had very, very, very good success with this product in field trials... We owe it all to the fact that we're doing the testing the way we are now and using your switches in our network."

Share Equipment, Test Remotely

"The Glimmerglass switch allows multiple testers to remotely schedule and share our test bed...[With Glimmerglass], you're up and running in a minute, at the most - where before [without Glimmerglass], it could take you 30 to 45 minutes just to get the test equipment set up for the next test."

Simulate Real Networks

"We can simulate service disruptions anywhere, at any time, in any fashion or order we want... We were able to cause simultaneous fiber cuts on all 16 rings... We couldn't have done it without your switch."

Impress Your Customers

"Recently, a customer asked us to provide them with test results. He assumed it would take us a week or two for the answer. I told him, 'How does this afternoon sound?' He was floored by that. We never could have done something like that before."

SOLUTION SPECIFICATION

TEST & MEASUREMENT, SYSTEM 300 CONFIGURATION

Switch Parameter	Unit	Min	Typical ¹	Max ²
Fiber Ports (Inputs x Outputs) ³	fibers		72 x 72	
Insertion Loss ⁴	dB		1.7	3.7
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	psec		0.005	0.010
Optical Return Loss ⁵	dB	30	35	
Static Crosstalk	dB			-70
Switching Speed	ms		25	
Input Power ⁶	dBm	-25		+20
Operating Temperature	°C	-5		+50
VOA Parameter	Unit	Min	Typical ¹	Max
Output Ports with Integrated VOA	fibers	8		32
VOA Insertion Loss (excludes switch IL)	dB		0.4	0.8
Polarization Dependent Loss ⁷	dB			0.2
Attenuation without Power	dB		0 ("Bright")	
Attenuation Range	dB			35
Minimum Output Power Level	dBm	-40		
Attenuation Resolution	dB		0.01	
Attenuation Response Time	ms			100

¹ Measurements taken at 1310 nm and 1550 nm @ 25 °C

² Across wavelength, temperature and polarization

³ Other models support different fiber port configurations (40x40 to 144x144)

⁴ Fiber to fiber, including LC connectors

⁵ Greater than 20 dB at 1340 nm to 1490 nm

⁶ Connections can be made and established with lit or dark fibers

⁷ Up to 10 dB attenuation

Mechanical/ Electrical	
Fiber Type/Connectors	Single Mode/ LC, SC, FC
Chassis Dimensions	14" x 18" x 12" (HxWxD) 356mm x 458mm x 305mm
Weight	26 lbs (11.9 kg)
Power	100-240 VAC 50/60 Hz or - 48 VDC
Power Consumption	35 watts

Contact Information

Glimmerglass
26142 Eden Landing Road
Hayward, CA., 94545 USA

Contact: +1 510 780 1800
Europe: +44 1590 642869