

3D OptoLantern™ Photonic Lantern



Spatial multiplexing and de-multiplexing

The 3D OptoLantern™ series of products are a new class of glass components designed to interface Few Mode Fibers (FMFs) and Single Mode Fibers (SMFs) in a monolithic, scalable, compact solution with best-in-class fiber alignment precision.

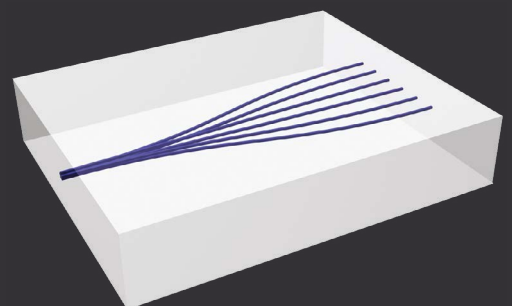
Our unique technology consists of laser scribed 3D waveguides which act as an interface between FMFs and SMFs. This compact and fully packaged solution easily integrates with existing technology to minimise disruption and maximise performance.

The OptoLantern™ is optimised for OFS fiber and is available in 3 and 6 channel configurations. Other interface geometries are available on request.

Using the OptoLantern™ users can dramatically increase the amount of data transferred across an optical fiber whilst minimising space. Contact us to find out more.

Key Advantages

- Accurate 3D embedded waveguide technologies
- Broad flat spectral response
- Low insertion loss
- Scalable for high volume applications
- Significantly smaller than alternative solutions
- Provision for custom geometries
- Monolithic single glass chip solution



3D OptoLantern™ Specifications

Parameter	3 Channels	6 Channels	Notes
Chip Insertion Loss	< 1.5 dB	< 1.5 dB	
Fully Packaged Insertion Loss	< 2.5 dB	< 2.5 dB	Fully packaged with FMF
Polarisation Dependant Loss	< 0.2 dB	< 0.2 dB	
Return Loss	< -60 dB	< -60 dB	
Core Positioning Accuracy	< ±50 nm	< ±50 nm	
Operating Wavelength	1500 – 1600 nm	1500 – 1600 nm	
Single Mode Fiber Type	G.657.A1 1 metre supplied	G.657.A1 1 metre supplied	Additional length available on request
Few Mode Fiber Type	OFS 2 Mode Graded Index	OFS 4 Mode Graded Index	Step index optional
SMF Connectors	SC/UPC or FC/APC	SC/UPC or FC/APC	Other connector types available on request
Operating Temperature Range	0-80°C	0-80°C	
Package Dimensions	50 x 15 x 10 mm	50 x 15 x 10 mm	

For further information please contact us, details below



Optoscribe Limited
 Rosebank Technology Park
 Rosebank Road
 Livingston
 EH54 7EJ
 United Kingdom

T: +44 (0) 1506 536000
F: +44 (0) 1506 691280
E: sales@optoscribe.com
W: www.optoscribe.com