

3D OptoFan™ Multicore Fiber Fanout



Spatial multiplexing and de-multiplexing

The 3D OptoFan™ series of products are a new class of glass components designed to interface multicore fibers (MCFs) and single mode fibers (SMFs) in a monolithic, scalable, compact solution with best-in-class core positioning accuracy.

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

The Optoscribe 3D OptoFan™ is a compact and fully packaged plug and play assembly for converting between multicore fiber (MCF) and single mode fiber (SMF), available in 4, 7, and 8 channel configurations as standard. Custom configurations are available on request.

The 3D OptoFan™ can be customised to suit different interface geometries and other core layouts. This is especially important where the users supply their own fiber and core positioning accuracy is key.

Using the 3D OptoFan™, users can dramatically increase the amount of data transferred across an optical fiber whilst minimising space. Contact us to find out more.

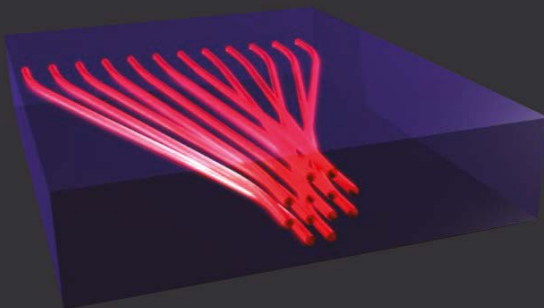
Key Advantages

- **Broad flat spectral response**
- **Minimal insertion loss**
- **Scalable for volume applications**
- **Significantly smaller than alternative solutions**
- **Provision for custom geometries**
- **Precision core positioning**
- **Monolithic single glass chip solution**

3D OptoFan™ Specifications

Parameter	4 Channels	7 Channels	8 Channels	Notes
Fully Packaged Insertion Loss	< 1.5 dB	< 1.5 dB	Dependent on fiber	
Chip Insertion Loss	< 1 dB	< 1 dB	< 1 dB	
Polarisation Dependant Loss	< 0.1 dB	< 0.1 dB	< 0.1 dB	
Core Positioning Accuracy	< ±50 nm	< ±50 nm	< ±50 nm	
Crosstalk	<-50 dB	<-50 dB	<-50 dB	Actual X-talk in MCF transmission line dependent upon fiber
Operating Wavelength	1300 – 1650 nm	1300 – 1650 nm	1300 – 1650 nm	
Single Mode Fiber Type (Input)	G.657.A1 1 metre supplied	G.657.A1 1 metre supplied	G.657.A1 1 metre supplied	Additional length available on request
MCF Type	Fibercore SM 4C or customer supplied	Fibercore SM 7C or customer supplied	Customer supplied	Typical core spacing 35 µm
SMF Connectors	SC/UPC or FC/APC	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	0-80°C	
Package Dimensions	50 x 15 x 10 mm	50 x 15 x 10 mm	50 x 15 x 10 mm	

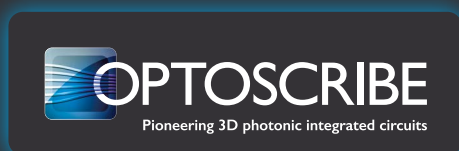
Standard Core Geometries



7 Channel

4 Channel

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