

*Pioneering products for faster Internet*

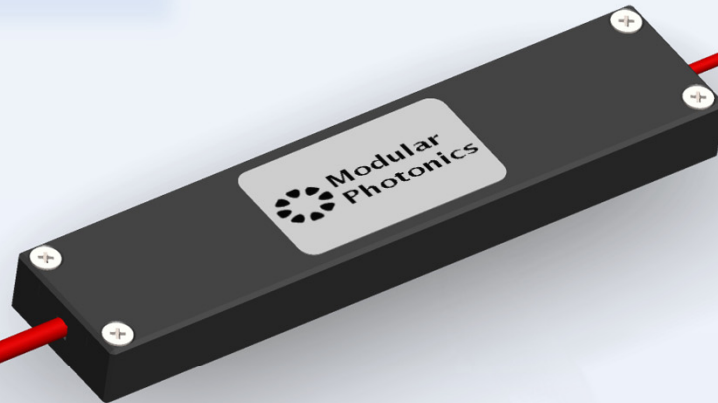
## MCMUX Series

### Key Features

- Based on 3D waveguide photonic integrated circuit
- Compact and robust solution
- Ultra-low insertion losses (< 0.5 dB)
- Customized to client-supplied multicore fibre (number of cores and core-to-core geometry)
- Low core-to-core crosstalk
- O-band and S, C & L-band compatible
- Low return loss and virtually free of polarisation dependent losses

### Applications

- High density data centre interconnects
- Fibre sensing
- Space-division multiplexing



## MCMUX - Multicore fibre fan IO

The MCMUX series are state-of-the-art 3D waveguide-based fan-in and fan-out devices for multicore fibres. MCMUX devices are typically customized to client supplied multicore fibres. The devices are optimized to provide ultra-low insertion losses, low crosstalk and low return losses across the common telecommunication wavelength band from 1250 to 1650 nm.

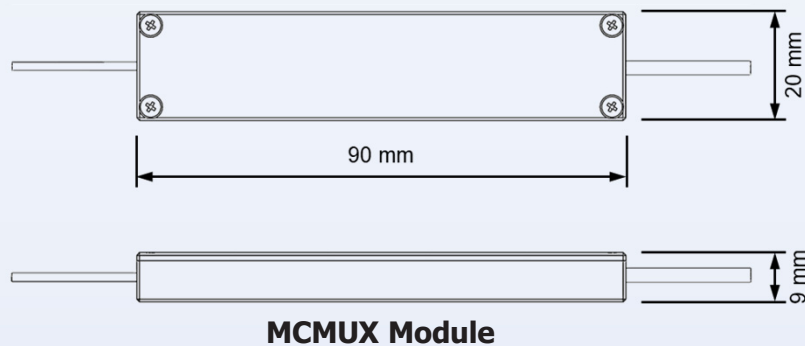
Enabled by Modular Photonics' proprietary 3D waveguide inscription process, the devices are virtually free of polarization dependent losses. The devices are highly robust by utilizing telecommunication industry proven pigtailling processes.

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## Specifications

Parameter	Value	Typical
Operating wavelength	1250 – 1650 nm	–
* Insertion loss (connectorized)	< 0.5 dB	0.4 dB
* Insertion loss (chip)	< 0.35 dB	0.3 dB
Polarisation dependent loss	< 0.1 dB	0.0 dB
Core-to-core crosstalk	< -40 dB	–
Return loss	< -50 dB	–
Single-mode fibre	G657A1	–
Single-mode fibre length	> 1 m	–
Multicore fibre	Client supplied	–
Multicore fibre termination	Scissor cut	–
Maximum input power per port	300 mW	–
Package dimensions	90 x 20 x 9 mm	–
Operating temperature	-5 to 70 °C	–
Storage temperature	-50 to 85 °C	–

*\*Specifications based on a 4-core fan IO for 1310 nm using premium grade single-mode connectors. The final performance specifications are dependent on the multicore fibre design.*



## Part Ordering

