



# multiverse

## Multi Core Optical Fibre

### Four Core Multicore

#### Product Description

Development of STL Multiverse, multi-core optical fibre targets to resolve data traffic problem due to high-capacity transmission. Data transmission capacity is directly proportional to the number of fibre cores. Higher number of cores increase the data carrying capacity as compared to standard SMF. Therefore, with the use of MCFs, the traditional optical fibre cable dimension can be dramatically reduced.

#### Product Application

The Data Center Interconnect network infrastructure and backbone of C-RAN infrastructure will benefit by an extremely compact, lighter optical fibre cable that also results in faster splicing and deployment.

#### Product Benefits

STL Multiverse, multi-core optical fibre has capability equivalent to four single core fibres. This results in 75% reduction in overall surface area as occupied by single core fibres. Therefore, for a cable with the same number of fibre cores, cables with a 4-core MCF will be more compact, slimmer, lightweight than equivalent cables made of single core fibre.

#### Manufacturing Process

STL controls every stage of the manufacturing process so that quality is built in to every meter of Fibre. To ensure the accuracy and precision of the manufacturing process, STL routinely calibrates and recertifies process equipment and measurement benches against internationally traceable standards from NPL/NIST, and follow test methods compliant with CEI-IEC and ITU standards.

## Product Specifications

Optical Characteristics		
Attenuation Max. (dB/Km)	1550 nm	< 0.25 (Typical <0.20)
Crosstalk @ 1550 nm (dB/km)		≤ - 50
Cable cut-off wavelength (nm)		≤ 1260
Zero Dispersion Wavelength (nm)		1290 to 1350
Dispersion at 1550 nm (ps/nm.km)		≤ 18.5
Mode Field Diameter (μm)	1310 nm	8.6 ± 0.4
	1550 nm	9.4 ± 0.5
Geometrical Characteristics		
Core to Core Spacing (μm)		40.0 ± 1.0
Outer Cladding Thickness (OCT) (μm)		33 ± 1.0
Cladding Diameter (μm)		125 ± 1
Cladding Non circularity (%)		≤ 0.8%
Coating Diameter (uncoloured) (μm)		242 ± 5
Coating Cladding Concentricity error (μm)		≤ 10
Mechanical Characteristics		
Proof Testing (kpsi)		≥ 125 (kpsi) (0.86GN/m <sup>2</sup> )
Fibre Curl (m)		≥ 4

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For additional information please contact your sales representative.

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