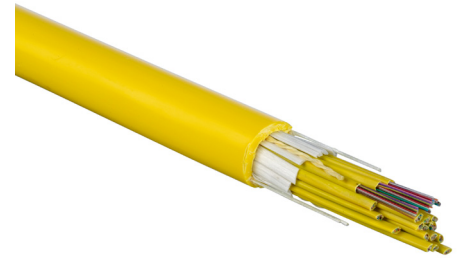


Opti-Core™ 144 and 288-Fibre Indoor Ribbon Cables, LSZH and EuroClass for EMEA

specifications

This cable shall contain 144 or 288 singlemode fibres for high density data center distribution applications. The fibres shall be ribbonized for easy mass fusion splicing and termination with 12-fibre MPO style connectors. Each ribbon shall have its own sub-unit tube for easy handling and management. The cable shall be flame rated for indoor use and compliant with standards for low smoke zero halogen and EuroClass. The construction shall be robust, compact and all-dielectric.



standards and flame ratings

- EN 50173-5 (generic cabling: data centre)
- IEC 60794-2-20 (optical fibre cables, indoor)
- IEC 60332-1-2 and 60332-3-24 (flame retardant)
- IEC 60754-1 & 2 (acid gas)
- IEC 61034 (smoke density)
- EN 50399 (EuroClass B2ca-s1-d1-a1)
- RoHS Compliant

optical properties:

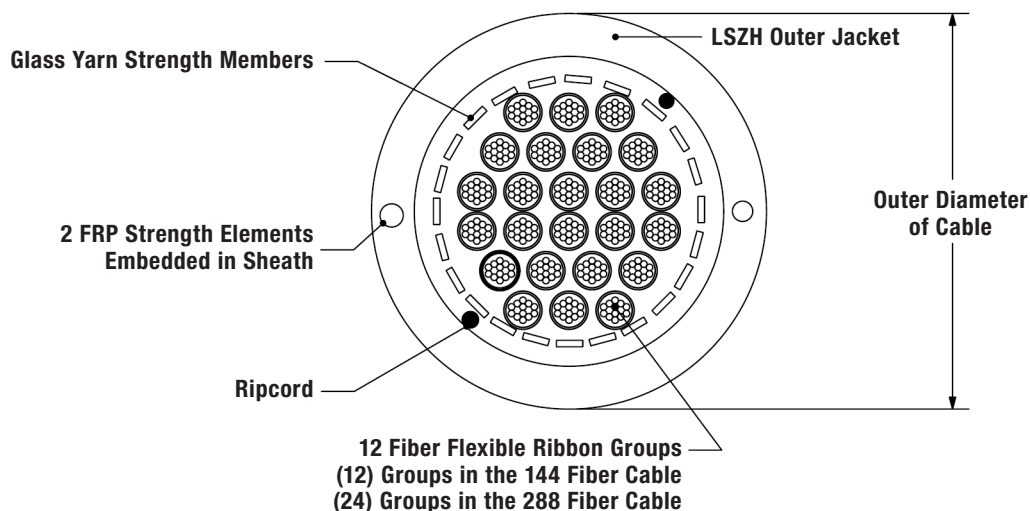
maximum attenuation (cabled)

OS2 Singlemode (ITU G.657.A2/B2):	0.4 dB/km @ 1310, 1383 and 1550 nm
----------------------------------------------	---------------------------------------

construction

Flexible Fibre Ribbons:	12 color-coded fibres are connected to each other intermittently to form a ribbon that is flexible and compactible. The intermittent nature of the bonds allows the fibres to be bunched together when inside the cable. When the outer jacket and sub-unit tubes are removed, the ribbons naturally open out into color-sequenced flat ribbons that are ready for mass fusion splicing or terminating.
Sub-Unit Tubes:	Each 1.8 mm sub-unit tube contains one 12-fibre ribbon and ripcord. Sub-unit tubes are yellow and sequentially marked for easy identification.
Strength Members:	Sub-units are surrounded by ultra-high modulus glass yarns. There are two FRP (fiberglass reinforced plastic) strength elements embedded in the outer sheath.
Outer Sheath:	1.7 mm outer sheath / jacket is flame retardant and UV stabilized. It is yellow and includes two ripcords.

Representative Cross Section (not to scale)



applications

- This cable was designed for indoor use as a distribution cable in data centers. It is well suited for colocation facilities, service providers and central offices.
- This cable is typically installed on ladder rack and used with termination frames.
- 12-fibre ribbons with 250µm coating are ideal for mass fusion splicing and MPO multi-fibre connectors.

Opti-Core™ 144 and 288-Fibre Indoor Ribbon Cables, LSZH and EuroClass for EMEA

key features and benefits

Ribbonized fibres:	Allow the installer to splice or terminate 12 fibres at a time; reduced installation time; compatible with MPO connectors and pigtails
Flexible ribbon technology:	Allows more fibres to fit in a smaller cable; less material to remove than traditional flat ribbons when fusion splicing or terminating
Sub-unit tubes:	Assist with handling, organizing, and routing the flexible ribbons at the termination frame
Flame retardant LSZH EuroClass materials:	Provide life safety benefits and meet industry standards for EMEA region
G.657.A2/B2 singlemode fibres:	Deliver high bit rate data transmission and are bend insensitive

physical & mechanical properties

	144 Fibres	288 Fibres
Number of Sub-Units:	12	24
Fibre Coating Diameter:	250 microns	250 microns
Cable Outer Diameter:	12.0 mm	14.0 mm
Cable Weight:	135 kg/km	165 kg/km
Minimum Bend Radius (installation / load):	240 mm	280 mm
Minimum Bend Radius (long term / no load):	120 mm	140 mm
Tensile Strength (installation / load / short term):	1000 N (fibre strain ≤0.6%)	
Tensile Strength (long term / no load):	300 N (fibre strain ≤0.2%)	
Compressive Strength (Crush):	1500 N/100mm	
Temperature Range:		
Shipping and Storage:	-10 to 60°C	
Installation:	0 to 50°C	
Operation:	0 to 50°C	
	(max attenuation variation 0.3 dB/km @1550nm)	

Tested according to IEC 60794-1-21 / 22 Methods

ribbon fibre color sequence

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua

According to TIA-598-C and in agreement with IEC 60304

ordering information

Part Number	Description	Unit of Measure
FFDCBT144-14M	OS2 144 Fibre Indoor Distribution Cable, LSZH CPR B2ca-s1-d1-a1, Flexible Ribbon in Tube, MT	Meters
FFDCBT288-14M	OS2 288 Fibre Indoor Distribution Cable, LSZH CPR B2ca-s1-d1-a1, Flexible Ribbon in Tube, MT	Meters

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1/2023