

Data sheet

DCCS2 OS2 MPO link

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P/N
130D2F9MPAXXXE

2016-14-01

Illustrations



Product specification

- pre-assembled fiber optic link consisting of one 12-fiber connection cable with one MPO plug on each side (Ribbon style)
- especially suited for the DCCS2 system
- suitable for 10 GBit Ethernet (IEEE 802.3an) when combined with DCCS2 subassemblies MPO 6xLC-D
- full assignment of the 12 fibers; therefore also suitable for 40 GBit Ethernet (direct cabling)
- delivery with serial number and measuring reports
- available in prefabricated, customer specific lengths – replace xxx in the part number by the length – examples: 0050 = 5.0 m; 0100 = 10.0 m; 0995 = 99.5 m; 2000 = 200.0 m
- maximum length 500 m

- variants: SM (OS2), MM (OM4), MM (OM3)

Technical Data

General Data

Fields of application	Data center
Design	Fiber optic link
Mounting style	DCCS
Transmission technology	Fiber optic
Color	green
Mode type of the fiber	Single mode
Fiber class	OS2 (IEC 60793-2-50 B.1.3, B6_b & ITU-T G.657.A2, G.657.B2, G.652.D)
Cable Type	Connection cable (Ribbon style)
Number of cables/ cores	1
Number of fibres each cable/ wire	12
Fiber construction	9/125 µm
Maximum length	500.00 m

Connections/interfaces

Connector technology interface 1	MPO - Polarity, method A
Connector technology interface 2	MPO - Polarity, method A

Optical characteristics

Insertion loss	max. 0.35 dB
Return loss	min. 60 dB

Mechanical characteristics

Life - Number of mating cycles	min. 1000
Permanent tensile strength	70 N

Approvals

RoHS	compliant
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The product meets the following standards

Fibre optic connector interfaces	IEC 61754-7
FOCIS - Fiber Optic Connector Intermateability Standard	TIA/EIA-604-5-D



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Fiber construction	9/125 µm

Transmission characteristics

Chromatic dispersion coefficient	
Chromatic dispersion coefficient - In the interval 1285 nm - 1330 nm (max.)	max. 3.7 ps/km * nm
Chromatic dispersion coefficient - At 1550 nm (max.)	max. 18.5 ps/km * nm
Chromatic dispersion coefficient - At 1625 nm (max.)	max. 23.0 ps/km * nm
Dispersionsnulldurchgang, λ_{D0}	1300-1324 nm
Zero dispersion slope (max.)	0.092 ps/(nm ² * km)
Polarisation mode dispersion (PMD) coefficient, cabled (min.)	0.1
PMDQ Link Design Value (min.)	0.06 ps/vkm
Threshold wavelength (max.)	1260

Connections/interfaces

Connector technology interface 1	Free line end
Connector technology interface 2	Free line end
Fasermanteldurchmesser	125.0 ± 0.7 µm
Primary coating diameter - colored	242 ± 7 µm

Optical characteristics

Attenuation of the fiber in the cable at 1310 nm	max. 0.38 dB/km
Attenuation of the fiber in the cable at 1383 nm	max. 0.38 dB/km
Attenuation of the fiber in the cable at 1550 nm	max. 0.23 dB/km
Attenuation of the fiber in the cable at 1625 nm	max. 0.25 dB/km

Mechanical characteristics

Proof stress level	min. 0.7 (~ 1 %) GPa
Strip force (peak)	1.2 ≤ F _{peak.strip} ≤ 8.9 N
10 turns on a mandrel R= 15 mm, @ 1550 nm	0.03 dB
10 turns on a mandrel R= 15 mm, @ 1625 nm	0.1 dB

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Mechanical characteristics

1 turn on a mandrel R= 10 mm, @ 1550 nm	0.1 dB
1 turn on a mandrel R= 10 mm, @ 1625 nm	0.2 dB
1 turn on a mandrel R= 7.5 mm, @ 1550 nm	0.5 dB
1 turn on a mandrel R= 7.5 mm, @ 1625 nm	1.0 dB
Fiber cladding non-circularity	max. 0.7 %
Core (MDF)-cladding concentricity error	max. 0.5 µm
Primary coating concentricity error	max. 5 %
Primary coating-cladding concentricity error	max. 12
Inhomogeneity of OTDR measurement report at 1310 nm und 1550 nm	max. 0.1 dB/km
Group refractive index at 1310 nm	1.467
Group refractive index at 1550 nm and 1625 nm	1.468

The product meets the following standards

Generic cabling systems	
General requirements	ISO/IEC 11801 DIN EN 50173-1 : 2007 cat. OS2
Optical fibers: Measuring methods and test procedures	
Fibre geometry	ISO/IEC 60793-1-20
Coating geometry	ISO/IEC 60793-1-21
Length measurement	ISO/IEC 60793-1-22
Fibre proof test	ISO/IEC 60793-1-30
Coating strippability	ISO/IEC 60793-1-32
Attenuation	ISO/IEC 60793-1-40
Chromatic dispersion	ISO/IEC 60793-1-42
Threshold wavelength	ISO/IEC 60793-1-44
Mode field diameter	ISO/IEC 60793-1-45
Macrobending loss	ISO/IEC 60793-1-47
Polarization mode dispersion	ISO/IEC 60793-1-48
Optical fibers: Indoor optical cables	
Sectional specification for class B single-mode fibres	ISO/IEC 60793-2-50 type B6_a/B6_b
Optical fibers: Outdoor optical fibre cables	
Outdoor cables	ISO/IEC 60794-3
ITU-T standard	G.657.A2, G.652.B2, G.652.A, B, C, D

