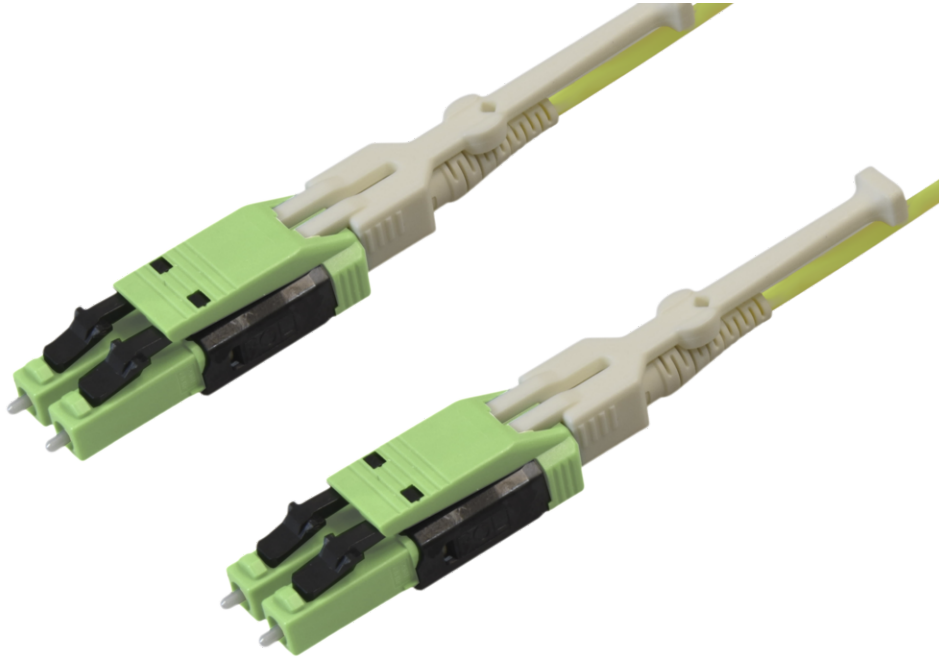


tML[®] HD - FO Patch cord switchable LC HD / LC HD Duplex Mini 50/125µ, FRNC, OM5, Crossover,
Length: xxx in m



tML[®] Xtended

tML[®] Xtended is a patented, modular cabling system consisting of the three key components module, trunk cable and rack mount enclosure. The system components are 100 percent manufactured, pre-assembled and tested in Germany. They enable plug-and-play installation on site – especially in data centres, but also in industrial environments – within the shortest possible time. Heart of the system are the rear MPO/MTP[®] 12 fiber and Telco connectors, which can be used to connect at least six or twelve ports at a time. Depending on the module configuration, transfer rates of up to 200G are currently possible with SR4. The fibre optic and TP modules can be used together in a module carrier with a very high port density. The tde offers its tML[®] cabling system as a proven tML[®] standard system and in the highly innovative variants tML[®] 24 system and now tML[®] 32 system for extreme scalability and very easy migration to higher transmission rates such as 40G, 100G, 200G and 400G.



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Technical Data

FO Connectors

Connector type	LC HD duplex Uniboot
Polarity change	tool-less
Housing	Plastic, integrated locking of unlocking aid
Ferrule	Zirkonia Staight Split, Spring-loaded Axially
Ferrule hole	126 μ m
Mating cycles	1000
Operating temperature	-40°C to 75°C
Strain relief to	100 N
Manufacturer	tde
Simplex/Cuplex clip	Uniboot Duplex Housing

Optical performance

Fiber	Type	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
50/125 μ OM5	LC Uniboot HD	850 nm	< 0.10 dB	0.30 dB	35 dB

FO Cables

Flame resistance	IEC 60332-3
	IEC 60754
	IEC 61034-1
	IEC 61034-2

Cable construction

Type	DVH02G50-OM5-2.0
Tight buffer	2x 600 μ coated fibers (free movable in the compound)
Fiber type	MM-OM4, 50/125 μ m, Corning ClearCurve OM5
Strength members	Aramid yarn (free movable in the compound)
Outer jacket	LSZH (Halogen free, low smoke, flame retardant thermoplastic compound)
Jacket color	Magenta, RAL 4003
Identification	"t d e – DVH02G50-OM5-2.0mm LSZH" and sequential meter marking + Lot number

Physical properties

Outer diameter cable	2.0 \pm 0.1 mm
Maximum tensile load, short term	500 N
Maximum tensile load, long term	300 N
Min. Bending radius, unloaded	20 mm

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Min. Bending radius, loaded	40 mm
Temperature range (operation)	-5°C to +60°C

FO Fiber

Type	Corning ClearCurve [®] 50/125 μ OM5 multimode fiber
Design	Optical fibre G50/125 μ m (conform to IEC 60793-2-10 type A1a.4b) with optical core 50 μ m +/- 2.5 μ m diameter and optical cladding 125 μ m +/- 1 μ m diameter

Geometrical properties

Core concentricity error	< 5 %
Coating concentricity error	< 1 %
Core coating eccentricity	< 1.5 μ m
Eccentricity of coating	< 12 μ m
Screen test	\geq 0.7 GPa (100 kpsi)

Transmission characteristics

Attenuation, maximum values 850 nm (cabled fibre)	2.5 dB/km
Attenuation, maximum values 953 nm (cabled fibre)	1.8 dB/km
Attenuation, maximum values 1300 nm (cabled fibre)	0.7 dB/km
Attenuation, maximum values 850 nm (uncabled fibre)	2.34 dB/km
Attenuation, maximum values 953 nm (uncabled fibre)	1.7 dB/km
Attenuation, maximum values 1300 nm (uncabled fibre)	0.64 dB/km
Macrobending, induced attenuation 100 turns, 37.5 mm	\leq 0.5 dB (at 850 nm)
Macrobending, induced attenuation 100 turns, 37.5 mm	\leq 0.5 dB (at 1300 nm)
Macrobending, induced attenuation 2 turns, 15 mm	\leq 0.1 dB (at 850 nm)
Macrobending, induced attenuation 2 turns, 15 mm	\leq 0.3 dB (at 1300 nm)
Macrobending, induced attenuation 2 turns, 7.5 mm	\leq 0.3 dB (at 850 nm)
Macrobending, induced attenuation 2 turns, 7.5 mm	\leq 0.5 dB (at 1300 nm)
Bandwidth (OFL), minimum values 850 nm	3500 MHz x km
Bandwidth (OFL), minimum values 953 nm	1850 MHz x km

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Bandwidth (OFL), minimum values 1300 nm	500 MHz x km
Effective modal Bandwidth-length product min. 850 nm	4700 MHz x km
Effective modal Bandwidth-length product min. 953 nm	2470 MHz x km
Numerical aperture	0.200 +/- 0.015
Effective group of refraction 850 nm	1.482
Effective group of refraction 1300 nm	1.477

Product variants & accessories

Art.-No.	Description
TML-HLCA/HLCA09DRMxxx	tML [®] HD - FO Patch cord switchable LC APC HD / LC APC HD Duplex Mini 9/125 μ , FRNC, OS2, Crossover, Length: xxx in m
TML-HLC/HLC09DRMxxx	tML [®] HD - FO Patch cord switchable LC HD / LC HD Duplex Mini 9/125 μ , FRNC, OS2, Crossover, Length: xxx in m
TML-HLC/HLC50D4RMxxx	tML [®] HD - FO Patch cord switchable LC HD / LC HD Duplex Mini 50/125 μ , FRNC, OM4, Crossover, Length: xxx in m
TML-HLC/HLC50D5RMxxx	tML [®] HD - FO Patch cord switchable LC HD / LC HD Duplex Mini 50/125 μ , FRNC, OM5, Crossover, Length: xxx in m