FO Patch cord MPO/MPO Female/Male 12G50/125µ OM2 LSOH, Type A, Length: xxx



tde - Fiber Optic Assemblies

The tde patch and trunk cables are manufactured completely at the German facility in Ohrte. Production processes at tde meet the latest standards, and the company has one of the most up-to-date fiber optic assembly houses in Europe. Fiber optic patch cables and trunk cables are manufactured in many different configurations using highly automated processes on two independent mass production lines. The range of products on offer encompasses the entire spectrum of connector types available on the market. Production capacity is around 100,000 fiber optic connectors per month, and this can be ramped up easily whenever required. To guarantee consistently top quality, only the best components from renowned vendors are used. All tde production staff have the necessary qualifications and education, and have been well trained in using specialist technical equipment such as laser cleavers and glue-dispensing robots.
Each cable application is subjected to a full test procedure comprising interferometer measurements, insertion loss and return loss measurements and a final visual inspection to ensure that only 100% error-free products are shipped to the customer.

Products made by tde perform at least internationally accepted quality standards and norms. The quality management system is ISO 9001, ISO 14001 and TL9000 certified.

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FO Patch cord MPO/MPO Female/Male 12G50/125µ OM2 LSOH, Type A, Length: xxx

Technical Data

The FO patch cord is preterminated with MPO/MTP®connectors on both ends. The Cable is very slim and flexible. The end faces of the connectors are optimized by means of Lasercleaving and machine polish. The MPO/MTP®plug has a defined fiber hieght of 1 - 3µ with a difference ≤ 0,5µ. All system components (modules, trunk cables and patch cords) are co-ordinated for the reaching of the performance particularly. The module is marked with sequential serial number and article number.

Cable	Round cable, loose tube, LSOH, orange
Nominal diameter	3.0mm
Connectors	MPO/MTP®Female/Male Push Pull (grey)
Pin out	Method A
Tests	Interferometer, Insertion Loss, Return Loss and Visual Final Inspection; all measured values are electronically archived
	QS-Managementsystem ISO 9001, ISO 14001 and TL 9000

xxx - stands for the cable length in cm (every length available)

FO Connectors

The end faces of the connectors are optimized by means of Lasercleaving and machine polish. The MPO/MTP® plug has a defined fiber height of 1 - 3.5µ. The max. adjacent fiber height difference is 0.2µm and for all fibers 0.3µm.

Connector

Type	MPO/MTP® Female Push Pull Locking (Beige)
Ferrule	12 Fiber MM Elite® ferrule, PPS
Boot colour	Black
Temperature range	-40°C to +75°C
Manufacturer	tde/US Conec

Optical Performance

Fiber	Type	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
50/125µ OM2	MPO/MTP®	850 nm	≤ 0.25 dB	0.45 dB	20 dB
62.5/125µ OM1	MPO/MTP®	850 nm	≤ 0.25 dB	0.45 dB	

FO Connectors

The end faces of the connectors are optimized by means of Lasercleaving and machine polish. The MPO/MTP® plug has a defined fiber height of 1 - 3.5µ. The max. adjacent fiber height difference is 0.2µm and for all fibers 0.3µm.

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FO Patch cord MPO/MPO Female/Male 12G50/125µ OM2 LSOH, Type A, Length: xxx

Connector

Type	MPO/MTP® Male Push Pull Locking with Elite Pins (beige)
Ferrule	12 Fiber MM Elite® ferrule, PPS
Boot colour	Black
Temperature range	-40°C to +75°C
Manufacturer	tde/US Conec

Optical Performance

Fiber	Type	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
50/125µ OM2	MPO/MTP®	850 nm	≤ 0.25 dB	0.45 dB	20 dB
62.5/125µ OM1	MPO/MTP®	850 nm	≤ 0.25 dB	0.45 dB	

FO Cables

Standards	EN 50173-5
	IEC 60794-2-20
	ISO/IEC 24764
Flame resistance	IEC 60332-1-2
	IEC 60332-2-2
	IEC 60754-1
	IEC 60754-2
	IEC 61034

Cable construction

Type	IVH12G50-OM2
Loose tube	12 coated fibers within PVC-core tube
Wall thickness PVC-tube	0.20 mm – 0.25 mm
Fiber type	MM-OM2, 50/125µ, Corning
Strength members	Aramid yarn
Outer jacket	LSZH (Halogen free, low smoke, flame retardant thermoplastic compound)
Jacket color	Orange, RAL 2003
Identification	"t d e – IVH12G50-MPO-OM2 LSZH" and sequential meter marking + Lot number

Physical properties

Outer diameter cable	3.0 ± 0.1 mm
Diameter PVC-core tube	1.8 ± 0.1 mm
Max. tensile load	300 N
Min. bending radius	30 mm
Temperature range (storage, installation, operation)	-20°C to +70°C

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FO Patch cord MPO/MPO Female/Male 12G50/125µ OM2 LSOH, Type A, Length: xxx

FO Fiber

Type	Corning 50/125µ OM2 multimode fiber
Manufacturer	Corning

Optical Specifications

Bandwidth	500 at 850 nm / 500 at 1300 nm
Attenuation	At 850 nm max. ≤ 2.5 dB/km At 1300 nm max. ≤ 0.8 dB/km
Numerical Aperture	0.200 ± 0.015

Dimensional Specifications

Core Diameter	50.0 ± 3.0 µm
Cladding Diameter	125.0 ± 2.0 µm
Core-Clad Concentricity	≤ 3.0 µm
Cladding Non-Circularity	< 2.0%
Core Non-Circularity	≤ 5.0%
Coating Diameter	245 ± 5 µm
Coating-Cladding Concentricity	< 12 µm

Environmental Specifications

Enviromental Test	Test Condition	Induced Attenuation 850 nm and 1300 nm (dB/km)
Temperature Dependence	-60°C to +85°C	≤ 0.20
Temperature Humidity Cycling	-10°C to +85°C and 4% to 98% RH	≤ 0.20
Operating Temperature Range	-60°C to +85°C	

Mechanical Specifications

Proof Test	The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.7 GN/m²).
Length	Fiber lengths available up to 8.8 km/spool.

Performance Characterizations

Refractive Index Difference	2%
Effective Group Index of Refraction	850 nm: 1.490 1300 nm: 1.486
Fatigue Resistance Parameter (nd)	20
Coating Strip Force	Dry: 0.6 lbs (2.7N) Wet: 14 days in 23°C water soak: 0.6 lbs (2.7N)
Cromatic Dispersion	Zero Dispersion Wavelength (λ0): 1300 nm ≤λ0 ≤ 1320 nm Zero Dispersion Slope (S0): ≤ 0.101 ps/(nm²*km)

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FO Patch cord MPO/MPO Female/Male 12G50/125µ OM2 LSOH, Type A, Length: xxx

Product variants & accessories

Art.-No.	Description
L-MP/MP50I12G-Axxx	FO Patch cord MPO/MPO Female 12G50/125µ OM2 LSOH, Type A, Length: xxx
L-MP/MP50I12G-Bxxx	FO Patch cord MPO/MPO Female 12G50/125µ OM2 LSOH, Type B, Length: xxx
L-MP/MPP50I12G-Axxx	FO Patch cord MPO/MPO Female/Male 12G50/125µ OM2 LSOH, Type A, Length: xxx
L-MP/MPP50I12G-Bxxx	FO Patch cord MPO/MPO Female/Male 12G50/125µ OM2 LSOH, Type B, Length: xxx
L-MPP/MPP50I12G-Axxx	FO Patch cord MPO/MPO Male 12G50/125µ OM2 LSOH, Type A, Length: xxx
L-MPP/MPP50I12G-Bxxx	FO Patch cord MPO/MPO Male 12G50/125µ OM2 LSOH, Type B, Length: xxx

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