

FO Patch cord LC/LC tde 50/125µ OM5 Duplex MiniZip LSOH Length: xxxxx



# tde - Fiber Optic Assemblies

tde

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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## **Technical Data**

### **FO Connectors**

Connector Type	LC Unibody Duplex
Housing	Plastic, lime green
Ferrule	Zirkonia Staight Split, Spring-loaded Axially
Ferrule Hole	126 μ
Mating Cycles	1.000
Operating Temperature	-40°C up to +75°C
Strain Relief to	100 N
Manufacturer	tde
Simplex / Duplex Clip	with Duplex Clip

## **Optical performance**

Fiber	Туре	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
50/125μ OM5	LC	850 nm	$\leq 0.25 \; dB$	0.45 dB	30 dB

## **FO Cables**

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

#### **Cable construction**

Туре	IVH02G50 0M5
Tight buffer	2x 900μ coated fibers (free movable in the compound)
Fiber type	MM-OM5, 50/125μ, Corning ClearCurve
Strength members	Aramid yarn (free movable in the compound)
Outer jacket	LSZH (Halogen free, low smoke, flame retardant thermoplastic compound)
Jacket color	LimeGreen
Identification	"t d e - IVH02G50 - OM5 - 2.0mm LSZH" and sequential meter marking + Lot number

## **Physical properties**

Outer diameter cable	2x 2.0 ± 0.1 mm
Temperature range	-20°C to +70°C

## FO Fiber

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

## **Geometrical properties**

Core concentricity error	< 5 %
Coating concentricity error	< 1 %
Core coating eccentricity	< 1.5 μm
Eccentricity of coating	< 12 μm
Screen test	≥ 0.7 GPa (100 kpsi)

#### **Transmission characteristics**

Attenuation, maximum values 850	2.5 dB/km
nm (cabled fibre)	
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	≤ 0.3 dB (at 1300 nm)
Macrobending, induced attenuation 2 turns, 7.5 mm	≤ 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
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





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Effective group of refraction 1300	1.477
nm	

# **Product variants & accessories**

ArtNo.	Description
L-LC/LC09D-Lxxxxx	FO Patch cord LC/LC tde 9/125μ OS2 Duplex Large 2,9mm LSOH Length: xxxxx
L-LC/LC09D-Mxxxxx	FO Patch cord LC/LC tde 9/125μ OS2 Duplex MiniZip LSOH Length: xxxxx
L-LC/LC50D3Mxxxxx	FO Patch cord LC/LC tde 50/125µ OM3 Duplex MiniZip LSOH Length: xxxxx
L-LC/LC50D3-xxxxx	FO Patch cord LC/LC tde 50/125μ OM3 Duplex LSOH Length: xxxxx
L-LC/LC50D4Mxxxxx	FO Patch cord LC/LC tde 50/125µ OM4 Duplex MiniZip LSOH Length: xxxxx
L-LC/LC50D4-xxxxx	FO Patch cord LC/LC tde 50/125μ OM4 Duplex LSOH Length: xxxxx
L-LC/LC50D5Mxxxxx	FO Patch cord LC/LC tde 50/125μ OM5 Duplex MiniZip LSOH Length: xxxxx
L-LC/LC50D-Mxxxxx	FO Patch cord LC/LC tde 50/125µ OM2 Duplex MiniZip LSOH Length: xxxxx
L-LC/LC50Dxxxxx	FO Patch cord LC/LC tde 50/125μ OM2 Duplex LSOH Length: xxxxx