OPTOKON KABLE Co., Ltd., s.r.o.
Kourimskeho 2500
393 01, Pelhrimov, Czech Republic
WWW.OPTOKONKABLE.COM

Multimode Fiber OM2+

Specifications:

Fiber type 50/125 OM2+
OPK code OM2+
Rev. 008-21/41

Fiber type	**50/125 OM2+**
OPK code	**OM2+**

Optical Characteristics

Attenuation coefficient Loose tube Cables (Typical / Maximum)	
at 850 nm	2.2 / 3.5 dB/km
at 1300 nm	0.5 / 1.5 dB/km
Attenuation coefficient Tight Buffered Cables (Typical / Maximum)	
at 850 nm	2.5 / 3.5 dB/km
at 1300 nm	0.6 / 1.5 dB/km
Point of discontinuity at 1300 nm	≤ 0.2 dB
Zero dispersion wavelength	1295 – 1340 nm
Zero dispersion slope 1295 ≤ l0 ≤ 1310 nm	≤ 0.105 ps/(nm2·km)
Zero dispersion slope 1310 ≤ l0 ≤ 1340 nm	≤ 0.000375·(1590-l0) ps/(nm2·km)
Numerical Aperture	0.200 ± 0.015
Effective group index of refraction at 850 nm	1.483
Effective group index of refraction at 1300 nm	1.478

Performance Characteristics

Bandwidth (Overfilled launch, LED based source)	
at 850 nm	≥ 500 MHz·km
at 1300 nm	≥ 500 MHz·km
Transmission Link Lengths at 1Gb/s	
at 850 nm	≥ 500 m
at 1300 nm	≥ 500 m
Effective Modal Bandwidth (EMB)1 at 850 nm	≥ 1000 MHz·km
Transmission Link Lengths for 10 Gb/s1	
at 850 nm	150 m

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at 1300 nm	300 m

Geometrical Characteristics

Core diameter	50 ± 2.5 µm
Core non-circularity	≤ 5.0 %
Core/Cladding concentricity error	≤ 1.5 µm
Cladding diameter	125.0 ± 1.0 µm
Cladding non-circularity	≤ 1.0 %
Primary coating diameter (uncoloured fibre)	242 ±7 µm
Primary coating diameter (coloured fibre)	250 ±10 µm
Coating-Cladding concentricity	≤ 10 µm

Macrobending loss

100 turns, mandrel diameter 75 mm at 850 nm	≤ 0.05 dB
100 turns, mandrel diameter 75 mm at 1300 nm	≤ 0.15 dB
2 turns, mandrel diameter 30 mm at 850 nm	≤ 0.1 dB
2 turns, mandrel diameter 30 mm at 1300 nm	≤ 0.3 dB
2 turns, mandrel diameter 15 mm at 850 nm	≤ 0.2 dB
2 turns, mandrel diameter 15 mm at 1300 nm	≤ 0.5 dB

Mechanical Characteristics

Proof test level	≥ 0.69 Gpa (≥ 8.8 N)
Coating strip force	1.9 N
Dynamic fatigue resistance parameter	≥ 23

1 850 nm operating wavelength with transmitters meeting encircled flux of ≤ 30% @ radius 4.5 µm

and ≥ 86 % @ radius 19.0 µm. At 1300nm link length using LX4.

Typical attenuation is the value measured for at least 90% of the fibers in the cable.

OTDR measurement values can only be guaranteed for cable lengths of 1000 m and more.

Cable on the reel may show an discontinuity of the OTDR curve caused by winding of the cable on the reel.

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