

MaxCap-OM4 multimode fibre

Properties for cabled MaxCap-OM4 fibre

General and application

This cabled fibre is a graded-index multimode fibre with extended reach, optimised for 10 Gb/s transmission speeds. It has a 50 µm core diameter and a 125 µm cladding diameter. The fibre is designed for use at 850 nm, but can also be used at 1300 nm.

The fibre is compliant or better than all relevant network standards. This fibre was formerly named MaxCap 550

Standards and Norms

IEC 60793-2-10: type A1a.3 (in development)	EN 50173-1:2007. Amendment AB category OM4
EN 60793-2-10: type A1a.3 (in development)	ISO/IEC 11801:2002. Amendment 2 category OM4
TIA/EIA-492 AAAD	IEEE 802.3 - 2002. incl. amendment 802.3ae - 2002.

Cable attenuation

IEC 60793-1-40

Maximum attenuation value of cable at 850 nm	≤ 3.0 dB/km
Maximum attenuation value of cable at 1300 nm	≤ 1.0 dB/km
Attenuation limit according to IEC 60793-2-10, 850 nm	≤ 2.5 dB/km
Attenuation limit according to IEC 60793-2-10, 1300 nm	≤ 0.8 dB/km
Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths	Max. 0.1 dB/km

Bandwidth

IEC 60793-1-41

Overfilled (OFL) modal bandwidth at 850 nm	≥ 3500 MHz • km
Overfilled (OFL) modal bandwidth at 1300 nm	≥ 500 MHz • km
Effective Modal Bandwidth (EMB) at 850 nm (<i>Assured by means of differential mode delay (DMD) measurement as specified in IEC 60793-1-49</i>)	≥ 4700 MHz • km

Group index of refraction

IEC 60793-1-22

Group index of refraction at 850 nm	1.482
Group index of refraction at 1300 nm	1.477

Other properties

IEC 60793-1-xx

Attribute	Measurement method	Units	Limits
Core diameter	IEC/EN 60793-1-20	µm	50 ± 2.5
Cladding diameter	IEC/EN 60793-1-20	µm	125.0 ± 1.0
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 0.7
Core non-circularity	IEC/EN 60793-1-20	%	≤ 5
Core-cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 1.5
Primary coating diameter – uncoloured	IEC/EN 60793-1-21	µm	242 ± 7
Primary coating diameter - coloured	IEC/EN 60793-1-21	µm	250 ± 15
Primary coating non-circularity	IEC/EN 60793-1-21	%	≤ 5
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 10
Proof stress level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
Typical average strip force	IEC/EN 60793-1-32	N	1.7
Strip force (peak)	IEC/EN 60793-1-32	N	1.3 ≤ F _{peak,strip} ≤ 8.9
Numerical aperture:	IEC/EN 60793-1-43	N	0.200 ± 0.015

Note: The Draka policy of continuous improvement may cause in changed specifications without prior notice