



# Fibre specification

## MULTI MODE FIBRE

Fibre type		62,5/125 µm OM1	50/125 µm OM2	50/125 µm OM2	50/125 µm OM2	50/125 µm OM3	50/125 µm OM4
Bandwidth (overfilled launch) @ 850 nm @ 1 300 nm	Mhz/km	≥ 220 ≥ 600	≥ 500 ≥ 500	≥ 600 ≥ 1 200	≥ 600 ≥ 1 200	≥ 1 500 ≥ 500	≥ 3 500 ≥ 500
Bandwidth (overfilled launch) @ 850 nm @ 1 300 nm	Mhz/km	– –	– –	– –	– –	≥ 2 000 ≥ 500	≥ 4 700 ≥ 500
1 Gbps Ethernet operation Link Length @ 850 nm @ 1 300 nm	m	≤ 300 ≤ 550	550 <sup>1</sup> 550 <sup>2</sup>	≤ 600 <sup>1</sup> ≤ 600 <sup>2</sup>	≤ 750 <sup>1</sup> ≤ 2 000 <sup>2</sup>	– –	– –
10 Gigabit Ethernet Link Lengths @ 850 nm	m	–	–	–	–	≥ 300	550
Attenuation-Loose Tube Cables @ 850 nm (typical / maximum) @ 1 300 nm (typical / maximum)	dB/km	2.6 / 3.0 0.5 / 1.0	2.4 / 3.0 0.7 / 1.2	2.3 / 2.8 0.6 / 0.9	2.3 / 2.8 0.6 / 0.9	2.0 / 2.5 0.5 / 1.0	2.0 / 2.5 0.5 / 1.0
Attenuation-Tight Buffer Cables @ 850 nm (typical / maximum) @ 1 300 nm (typical / maximum)	dB/km	2.6 / 3.2 0.5 / 1.0	2.0 / 3.0 0.7 / 1.2	2.0 / 2.8 0.5 / 0.9	2.0 / 2.8 0.5 / 0.9	2.1 / 2.5 0.7 / 1.0	2.1 / 2.5 0.7 / 1.0
Numerical Aperture	µm	0.275 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015
Core Diameter	µm	62.5 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5
Cladding Diameter	µm	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0
Coating Diameter	µm	245 ± 10	245 ± 10	245 ± 10	245 ± 10	245 ± 10	245 ± 10
KDP fibre code		G6	G5	M5	N5	X5	Y5

1 – serial Laser 1000BASE-SX; 2 – serial Laser 1000BASE-LX

## SINGLE MODE FIBRE

Fibre type		9/125 µm OS2 G.652D – ZWP	9/125 µm OS2 G.657.A1 – ZWP	9/125 µm OS2 G.657.B3	9/125 µm G.655C&D	9/125 µm G.655C & E, G.656
Attenuation-Loose Tube Cables @ 1 310 nm (typical / maximum) @ 1 550 nm (typical / maximum) @ 1 625 nm (typical / maximum)	dB/km	0.31 / 0.35 0.20 / 0.24 0.21 / 0.26	0.31 / 0.35 0.20 / 0.24 0.21 / 0.26	0.31 / 0.35 0.20 / 0.24 0.21 / 0.26	- / 0.36 - / 0.30 - / 0.27	- / 0.45 - / 0.30 - / 0.27
Attenuation-Tight Buffer Cables @ 1 310 nm (typical / maximum) @ 1 550 nm (typical / maximum)	dB/km	0.40 / 0.50 0.30 / 0.40	0.40 / 0.50 0.30 / 0.40	0.35 / 0.40 0.25 / 0.30	0.40 / 0.50 0.28 / 0.32	0.40 / 0.48 0.28 / 0.32
Mode Field Diameter @ 1 310 nm @ 1 550 nm	µm	9.2 ± 0.4 10.4 ± 0.5	8.9 ± 0.4 10.8 ± 0.5	8.4 – 9.2 9.2 – 10.4	– 8.4 ± 0.4	– 8.6 ± 0.45
Chromatic Dispersion @ 1 285 – 1 330 nm @ 1 550 nm @ 1 530 – 1 565 nm @ 1 565 – 1 625 nm @ 1 460 – 1 625 nm	ps/nm.km	≤ 3.5 ≤ 18 – – –	– – – – –	– – – – –	– – 2.6 – 6.0 4.0 – 8.9 -1.0 – 8.9	– – 5.5 – 8.9 6.9 – 11.4 2.0 – 11.4
Cable Cut-Off Wavelength (λ <sub>cc</sub> )	nm	≤ 1 260	–	≤ 1 260	–	–
Zero Dispersion Wavelength (λ <sub>0</sub> )	nm	1 302 – 1 322	1 302 – 1 322	1 250 – 1 324	–	–
Fiber PMD Individual fiber	ps/√km	0.1	0.1	0.2	0.1	0.1
Cladding Diameter	µm	125 ± 0.7	125 ± 0.7	125 ± 0.7	125 ± 0.7	125 ± 0.7
Coating Diameter	µm	245 ± 10	245 ± 5	245 ± 10	245 ± 5	245 ± 5
KDP fibre code		E9	E8	D9	B9	R9