

Optic Fibre Specification

Geometrical and Transmission Parameters

Fibre type to ITU-T recommendation:	OS1/2 (9/125) G.652.D	OS1/2 (9/125) ¹ G.657.A1	OS1/2 (9/125) ¹ G.657.A2	9/125 G.655.A-D
Fibre Nomenclature	S2	S7	S8	S5
Mode Field Diameter² (µm)				
@ 1310 nm	9.0 ± 0.4		8.8 ± 0.4	
@ 1550 nm	10.1 ± 0.5		9.8 ± 0.5	9.6 ± 0.4
Group Index of Refraction²				
@ 1310 nm	1.467		1.467	
@ 1550 nm	1.468		1.467	1.469
@ 1625 nm	1.468		1.468	
Cladding Diameter (µm)	125 ± 0.7			
Coating Diameter (µm)	242 ± 7			
Attenuation^{3,5} (dB/km)				
typical / max. @ 1310 nm	0.33 / 0.4			
typical / max. @ 1550 nm	0.20 / 0.4			0.20 / 0.4
typical / max. @ 1625 nm	0.24 / 0.4			0.24 / 0.4
Attenuation^{4,5} (dB/km)				
typical / max. @ 1310 nm	0.37 / 1.0			
typical / max. @ 1550 nm	0.25 / 1.0			-
typical / max. @ 1625 nm	0.27 / 1.0			-

Fibre type	OM1 (62,5/125)	OM2 (50/125) ¹	OM3 (50/125) ¹	OM4 (50/125) ¹	OM5 (50/125) ¹
Fibre Nomenclature	M1	M2	M3	M4	M5
Numerical Aperture (µm)	0.275 ± 0.015	0.200 ± 0.015			
Core Diameter (µm)	62.5 ± 2.5	50.0 ± 2.5			
Cladding Diameter (µm)	125 ± 1.0				
Coating Diameter (µm)	242 ± 5				
Overfilled Modal Bandwidth (Mhz.km)					
@ 850 nm	≥ 200	≥ 500	≥ 1500	≥ 3500	≥ 3500
@ 1300 nm	≥ 500	≥ 500	≥ 500	≥ 500	≥ 500
Group Index of Refraction					
@ 850 nm	1.496	1.482	1.482	1.482	1.482
@ 1300 nm	1.491	1.477	1.477	1.477	1.477
Attenuation^{3,5} (dB/km)					
typical / max. @ 850 nm	2.8 / 3.5	2.5 / 3.5		2.5 / 3.0	
typical / max. @ 1300 nm	0.6 / 1.5	0.6 / 1.5		0.6 / 1.5	
Attenuation^{4,5} (dB/km)					
typical / max. @ 850 nm	2.8 / 3.5	2.5 / 3.5		2.5 / 3.0	
typical / max. @ 1300 nm	0.6 / 1.5	0.6 / 1.5		0.6 / 1.5	

Notes:

1 - Bending-optimized fibres, 2 - values may vary depending on used fibre brand, actual MFD and GIR values available on request

3 - valid for loose-tube cables (OS2), 4 - valid for tightly-buffered cables (OS1), 5 - Max. attenuation value acc. to ISO IEC 11801-1

Reichle & De-Massari Czech Republic a.s.

Vítězství 67 | 405 02 Děčín 33 | Czech Republic

Phone +420 412 548 438-9 | www.rdm-czech.com

version 1.1 (issued date 1.5.2019)