

SINGLEMODE OPTICAL FIBRE SMF – G657



Low macrobending sensitive fibre (G.657) provides high resistance to additional losses due to macrobending. Ideal for cable mounting inside buildings, patchcords and/or interconnection cables. It offers significant added value in Fibre-to-the-Home access networks.

The fibre fully comply with or exceeds the IEC 60793-2-50, ITU G.652.D, G657A1, G.657A2, G.657B2, G657B3, Telcordia GR-20-CORE, ANSI/IECA S-87-640.

GEOMETRICAL AND MECHANICAL CHARACTERISTICS	G.657.A1	G.657.A2 / B2	G.657.B3
Cladding Diameter	$125 \pm 0.7 \mu\text{m}$		$125 \pm 0.4 \mu\text{m}$
Core / Cladding Concentricity	$\leq 0.5 \mu\text{m}$		$\leq 0.3 \mu\text{m}$
Cladding Non-Circularity	$\leq 0.7 \%$		$\leq 0.3 \%$
Primary Coating Diameter	$242 \pm 0.7 \mu\text{m}$		$242 \pm 0.5 \mu\text{m}$
Coating / Cladding Concentricity	$\leq 12 \mu\text{m}$	$\leq 10 \mu\text{m}$	$\leq 12 \mu\text{m}$
Coating Non-Circularity	$\leq 5 \%$		
Proof Test	$\geq 8.8 \text{ N} / \geq 1 \% / \geq 100 \text{ Kpsi}$		$\geq 200 \text{ Kpsi}$

OPTICAL CHARACTERISTICS		G.657.A1	G.657.A2 / B2	G.657.B3
Attenuation with Bending* (1550 nm)	1 turn / Mandrel 10mm	≤ 0.75	≤ 0.10	≤ 0.03
	10 turns / Mandrel 15mm	≤ 0.25	≤ 0.03	
	1 turn / Mandrel 7.5mm			≤ 0.08
	1 turn / Mandrel 5mm			≤ 0.15
Mode Field Diameter (μm)	1310 nm	$(8.9 - 9.2) \pm 0.4$	$(8.9 - 9.2) \pm 0.4$	$(8.9 - 9.2) \pm 0.4$
	1550 nm	$(9.9 - 10.4) \pm 0.5$	$(9.9 - 10.4) \pm 0.5$	$(9.9 - 10.4) \pm 0.5$
Attenuation Coefficient (dB/Km)	1310 nm	≤ 0.35	≤ 0.35	≤ 0.35
	1383 nm	≤ 0.35	≤ 0.35	≤ 0.35
	1460 nm	≤ 0.25	≤ 0.25	
	1550 nm	≤ 0.21	≤ 0.21	≤ 0.22
	1625 nm	≤ 0.23	≤ 0.23	≤ 0.24
Chromatic Dispersion Coefficient (ps/nm.Km)	1285 – 1330 nm	$\leq 3 $		
	1550 nm	≤ 18		
	1625 nm	≤ 22		
Zero Dispersion Wavelength (nm)		1300 – 1322	1300 – 1324	1300 – 1324
Zero Dispersion Slope (ps / nm ² Km)		≤ 0.090	≤ 0.092	≤ 0.092
Cable Cut-off Wavelength (nm)		≤ 1260		
PMD (ps / (ps/√Km))	1550 nm	≤ 0.1		

Characteristics according to ITU-T G652.D, G657A, G657B, IEC 60793-2-50, ISO/IEC 11801, ISO/IEC 24702 OS2, Telcordia GR-20-CORE, ANSI/ICEA S-87-640.

Important notice- At present, G657 fibres are not recognized by some splicing machines. Check your machine before use or ask your local distributor.

Optical specifications for uncabled fibre

* Mandrel dimension = Radius