

ITU-T G.657 A2

Optronics specification for standard 9/125 ITU-T G.654.A2 reduced bend sensitivity (RBS) trench assisted singlemode optical fibre. Optronics ITU-T G.657.A2 optical fibre is fully compatible with ITU-T G.652D optical fibre. Cabled values are given where appropriate. All fibre parameters meet or exceed the following requirements:

- ITU-T G.657.A2
- IEC 60793-2-50 type B6b
- TIA/EIA-492-AAAA
- Telcordia GR-20-CORE

Features

- ▶ Low macrobending loss at very low radii (≤ 15 mm)
- ▶ Compatibility with other G.652 single-mode fibre installations
- ▶ Low bending at partial bends in the mm bend radius range
- ▶ Low micro-bending loss
- ▶ Apart from its ideal use in office installations, as patch cords and/or interconnection cables, the use of G.657 compliant fibre in Fibre-to-the-Home networks offers significant added value to the network installers. Bend radii in fibre guidance ports can be reduced as well as minimum bend radii in wall and corner mountings.

Technical Specification

Optical Specifications (Uncabled Fibre)	
Attenuation	dB/km
1310nm	0.33 - 0.35
1383nm*	0.32 - 0.35
1460nm	0.25
1550nm	0.19 - 0.20
1625nm	0.20 - 0.21
* Including H2-aging according to IEC 60793-2-50, type B.1.3 Other values available on request.	

Attenuation with Bending	Number of Turns	Mandrel Radius (mm)	Wavelength	Attenuation (dB)
	10	15	1550	≤ 0.03
	10	15	1625	≤ 0.1
	1	10	1550	≤ 0.1
	1	10	1625	≤ 0.2
	1	7.5	1550	≤ 0.5
	1	7.5	1625	≤ 1.0
Cutoff Wavelength				
Cable cutoff wavelength (λ_{cct})		≤ 1260 nm		



Optical Specifications (Uncabled Fibre)			
Attenuation vs. Wavelength	Wavelength range	Reference λ (nm)	dB/km
	1285 - 1330nm	1310	≤ 0.03
	1525 - 1575nm	1550	≤ 0.02
	1460 - 1625nm	1550	≤ 0.04

Point discontinuities	
No point discontinuity greater than 0.05 dB at 1310 nm and 1550 nm.	
Mode Field Diameter	
Wavelength (nm)	(μ m)
1310	8.5 - 9.3
1550	9.4 - 10.4

Chromatic Dispersion	
Zero dispersion wavelength (λ_0)	1300 - 1324 nm
Slope (S_0) at λ_0	≤ 0.092 ps/(nm ² .km)

Polarization Mode Dispersion (PMD)	
PMD link design value**	≤ 0.06
Max. individual fibre	≤ 0.1
** According to IEC 60794 -3, Ed 3 (Q=0.01%)	