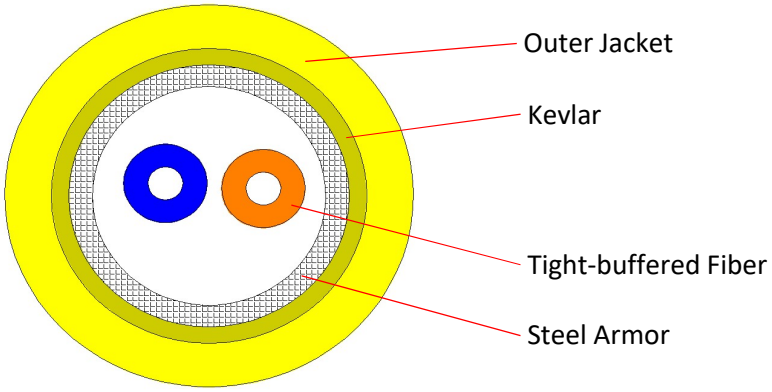
2 STRAND SINGLMODE STEEL ARMORED LSZH FIBER OPTIC CABLE

SPECIFICATION SHEET Item# SM2-A2-LSZH

2 Fibers SM Armored Cable Specification

Profile View



Cable Structure

S/N	Description	Model	Specifications
1	Tight Buffer Fiber	2F*G657A2	Φ600±50um
2	Metal Tube	Steel	Φ1.8±0.2mm
3	Strength Member	Kelvar	4*1000D
4	Outer Jacket	LSZH YELLOW	Φ3.0±0.5mm

Fiber Parameters

No.	Items		unit	Specification
				G657A2
1	Mode Field Diameter	1310nm	μm	9.2±0.4
		1550nm	μm	10.4±0.5
3	Cladding Diameter		μm	124.8±0.7
4	Cladding Non-Circularity		%	≤0.7
5	Core-Cladding Concentricity Error		μm	≤0.5
6	Coating Diameter		μm	245±5
7	Cladding-Coating Concentricity Error		μm	≤12.0
8	Cable Cutoff Wavelength		nm	λcc≤1260
9	Attenuation Coefficient	1310nm	dB/km	≤0.4
		1550nm	dB/km	≤0.3

Mechanical and Environmental Characteristics

No.of Fibers .	Size(mm)	Tensile(N)	Crush Resistance (N/100mm)		Bending Radius (mm)		Temperature(°C)
		Short Term	Long Term	Short Term	Dynamic	Static	
2	Φ3.0±0.5mm	200	200	500	20D	10D	-40~+70

Optical Fiber Specification
IEC 60793-2-50 type B1.3/B6

Characteristics	Conditions	Specified Values	Units
Optical Characteristics			
Attenuation	1310 nm	≤0.35	[dB/km]
	1383 nm (after H_2–aging)	≤0.35	[dB/km]
	1460 nm	≤0.25	[dB/km]
	1490 nm	≤0.23	[dB/km]
	1550 nm	≤0.21	[dB/km]
	1625 nm	≤0.23	[dB/km]
Attenuation vs. Wavelength	1285 ~ 1330 nm	≤0.03	[dB/km]
Max. α difference	1525 ~ 1575 nm	≤0.02	[dB/km]
Zero dispersion wavelength		1300 ~ 1324	[nm]
Zero dispersion slope		≤0.092	[ps/(nm² · km)]
PMD			
Maximum Individual Fibre		≤0.1	[ps $\sqrt{km}$]
Link Design Value (M=20,Q=0.01%)		≤0.06	[ps $\sqrt{km}$]
Typical value		0.04	[ps $\sqrt{km}$]
Cable cutoff wavelength λ_{cc}		≤1260	[nm]
Mode field diameter (MFD)	1310 nm	8.4 ~ 9.2	[μm]
	1550 nm	9.3 ~ 10.3	[μm]
Effective group index of refraction (N_{eff})	1310 nm	1.466	
	1550 nm	1.467	
Point discontinuities	1310 nm	≤0.05	[dB]
	1550 nm	≤0.05	[dB]
Geometrical Characteristics			
Cladding diameter		125.0 ± 0.7	[μm]
Cladding non–circularity		≤0.7	[%]
Coating diameter		245 ± 5	[μm]
Coating–cladding concentricity error		≤12.0	[μm]
Coating non–circularity		≤6.0	[%]
Core–cladding concentricity error		≤0.5	[μm]
Curl (radius)		≥4	[m]
Delivery length		2.1 to 50.4	[km/reel]
Environmental Characteristics	(1310 nm, 1550 nm & 1625 nm)		
Temperature dependence			
Induced attenuation at	–60℃ to +85℃	≤0.05	[dB/km]
Temperature–humidity cycling			
Induced attenuation at	–10℃ to +85℃, 98% RH	≤0.05	[dB/km]
Watersoak dependence			
Induced attenuation at	23℃, for 30 days	≤0.05	[dB/km]
Damp heat dependence			
Induced attenuation at	85℃ and 85% RH, for 30 days	≤0.05	[dB/km]
Dry heat aging at	85℃, for 30 days	≤0.05	[dB/km]
Mechanical Specification			
Proof test		≥9.0	[N]
		≥1.0	[%]
		≥100	[kpsi]
Macro–bend induced attenuation			
10 turns around a mandrel of 15 mm radius	1550 nm	≤0.03	[dB]
10 turns around a mandrel of 15 mm radius	1625 nm	≤0.1	[dB]
1 turn around a mandrel of 10 mm radius	1550 nm	≤0.1	[dB]
1 turn around a mandrel of 10 mm radius	1625 nm	≤0.2	[dB]
1 turn around a mandrel of 7.5 mm radius	1550 nm	≤0.2	[dB]
1 turn around a mandrel of 7.5 mm radius	1625 nm	≤0.5	[dB]
Coating strip force	typical average force	1.5	[N]
	peak force	≥1.3 ≤8.9	[N]
Dynamic stress corrosion susceptibility parameter (n_d, typical)		27	

Exclusively Manufactured by:
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