

SPECIFICATION **Fibre Optic Telecommunication Cable** **Indoor/Outdoor Tight Buffer**

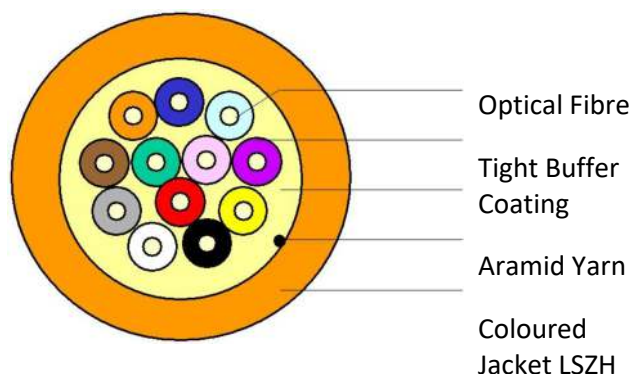
1.1 Cable Description

- 1) Single-Unit, Distribution Cable (2~24 Fibres)
 Tight buffered fibre, dielectric strength member, LSZH (Low Smoke Zero Halogen) colour specific jacket.

ITEMS	DESCRIPTION
Number of Fibres	2 ~ 24
Type of Fibre	Single Mode 9/125/900 Multi Mode 50e/125/900 OM3 and OM4
Tight Buffer Coating	Material: PVC Outer diameter: 900±50 μ m
Dielectric Strength Member	Aramid Yarn
Rip Cord	Aramid ripcord (For 6 ~ 12 fibre cable)
Outer Jacket	Material : LSZH Compound

Cross-sectional Drawing of Cable

IOR Distribution Cable up to 24 cores



ITEMS	TEST METHOD ACCEPTANCE CRITERIA # Test method: TIA/EIA-455
Resistance Test	-. Applied load: 500 N/10cm for 2~12 Fibre cable(10mins) -. Attenuation increment: ≤ 0.30 dB at 1300nm (MM) ≤ 0.20 dB at 1550nm (SM)
Tensile Loading and Bending Test	2~12 Fibre cable: 660N for 30 minutes -. Long term tensile load: 25% tensile load for 10 minutes -. Attenuation increment: ≤ 0.30 dB at 1300nm (MM) ≤ 0.20 dB at 1550nm (SM) (MM) ≤ 0.20 dB at 1550nm (SM)

2. SINGLEMODE OPTICAL FIBRE ITU G.652.D

ITEMS	UNITS	SPECIFICATION
Typical Attenuation	dB/km	≤0.40 at 1310nm ≤0.30 at 1550nm
Chromatic Dispersion	ps/nm.km	≤3.5 at 1285nm ~ 1330nm ≤18 at 1550nm
Zero Dispersion Wavelength	nm	1300 ~ 1322
Zero Dispersion Slope	ps/nm ² .km	≤0.093
Cut-off Wavelength (λ _{cc} , 22m of a cabled fibre)	nm	≤1260
Cable PMD (Linked value)	ps/□km	□ 0.2
Mode Field Diameter	μm	9.2 □ 0.5 at 1310nm 10.5 □ 1.0 at 1550nm
Mode Field Concentricity	μm	≤0.6
Cladding Diameter	μm	125 ± 1.0
Cladding Non-circularity	%	≤1.0
Coating Diameter	μm	245 ± 15
Proof Test	kpsi	≥100

3. MULTIMODE OPTICAL FIBRE

ITEMS	UNITS	SPECIFICATION	
		OM 3	OM 4
Attenuation	dB/km	≤3.0 at 850nm ≤1.0 at 1300nm	≤3.0 at 850nm ≤1.0 at 1300nm
Bandwidth (Overfilled Launch LED based sources)	MHz.km	≥1500 at 850nm ≥500 at 1300nm	≥3500 at 850nm ≥500 at 1300nm
Effective Modal Bandwidth (Laser based sources)	MHz.km	≥2000 at 850nm	≥4700 at 850nm
Transmission Link Length for 10Gbps	m	≥300 at 850nm	≥550 at 850nm
Numerical Aperture	-	0.20±0.015	0.20±0.015
Core Diameter	μm	50±2.5	50±2.5
Core Non-circularity	%	≤6.0	≤6.0
Cladding Diameter	μm	125±1.0	125±1.0
Cladding Non-circularity	%	≤2.0	≤2.0
Core/Cladding Concentricity Error	μm	≤1.5	≤1.5
Coating Diameter(uncoloured fibre)	μm	245±15	245±15
Proof Test	kpsi	≥100	≥100