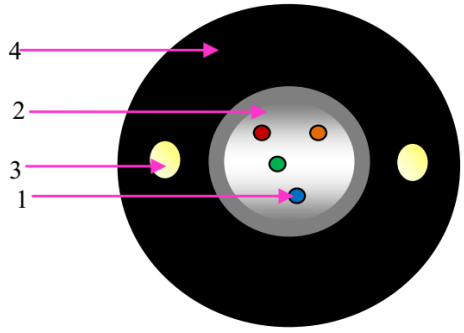
4F-8F-12F-24F SM UT UNARMOURED OFC

1. SM optical fibre.
2. Fibres housed in jelly filled PBTP loose tube.
3. FRP Rods [2 Nos.] embedded within the HDPE sheath.
4. HDPE sheath [Nominal thickness 2.5 mm]



Typical cross section of 4F UT UA Cable

Technical Specification

Description	Typical Values											
Single Mode Optical Fibre	**Complying to ITU - T : G – 652D**											
Fibre Colour Code	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
Buffer Loose Tube/ Bundling Thread Colour	Natural / Blue + Orange											
Optical Performance	Max. Attenuation at 1310nm			0.36 dB/km		Max. Attenuation at 1550nm					0.23 dB/km	
Mechanical Performance	Tensile Strength			Crush		Impact		Torsion		Min. Static Bend Radius		
	300N at Maximum 0.25% Strain			1000N/10cm		10 N-Mt.		± 180 deg		20 x Cable diameter – long term & 10 x Cable diameter – Short term		
Environmental Performance	Temperature			Service		Installation				Storage		
	Specification			- 30° C to + 70° C		- 10° C to + 50° C				- 30° C to + 70° C		

DRG.NO	SIZE	FIBERS/ TUBE	No. OF TUBES	FRP DIAMETER (2FRP RODS) (mm)	TUBE DIAMETER (mm)	CABLE DIAMETER (mm)	CABLE WEIGHT (Kg/Km)
8037	4F	4	1	1.0 ± 0.1	1.8 ± 0.1	6.0 Nominal	30 Nominal
8039	8F	8	1	1.0 ± 0.1	2.2 ± 0.1	6.0 Nominal	30 Nominal
8040	12F	12	1	1.0 ± 0.1	2.4 ± 0.1	6.0 Nominal	30 Nominal
9103	24F	24	1	1.0 ± 0.1	2.8 ± 0.1	7.0 Nominal	40 Nominal

Specifications of Optical characteristics:

The cables are made with high quality optical fibres suitable for operation at 1310 nm and 1550 nm. The fibres conform to international standards ***ITU-T G 652D.*** The fibres have excellent geometrical properties to yield low splice loss. The fibres have dual acrylate coating and colour of the coating will not change over a period of time. The fibres used in the cables conform to the following specifications:

Parameter	Unit	Specification
1. Cladding Diameter	μm	125.0 ± 1.0
2. Cladding Non-Circularity	%	≤ 1.0%
3. Coated Fiber Diameter	μm	235 to 255
4. Core/Cladding concentricity Error	μm	≤ 0.8
5. Mode Field Diameter	μm	9.3 ± 0.5 at 1310 nm 10.4 ± 0.5 at 1550 nm
6. Coating/cladding concentricity error	μm	≤ 12
7. Minimum Proof Strength Strain	GPa %	0.70 (100 kpsi) 1
8. Fiber Curl	m	≥ 4
9. Zero-Dispersion Wavelength	nm	1300 to 1324
10. Zero-Dispersion Slope	ps/nm^2-km	≤ 0.092
11. Chromatic Dispersion 1285-1330 nm 1270-1340 nm 1550 nm	ps/nm-km	 ≤ 3.5 ≤ 5.3 ≤ 18
12. Polarisation Mode Dispersion Coefficient for fibre.	ps/√km	≤ 0.2 at 1310 nm & 1550 nm
13. Fiber Cut-off Wavelength	nm	≥ 1150 ≤ 1320
14. Fiber Macrobend : (100 turns 60 mm dia.)	dB	≤ 0.05 at 1310 nm ≤ 0.10 at1550 nm
15. Fiber Macrobend : (1 turn 32 mm diameter)	dB	≤ 0.5 at 1550 nm
16. Coating Strip Force	N	1.3 ≤ F ≤ 8.9
17. Dynamic Tensile Strength	kpsi	Unaged : >550 (3.8 GPa) Aged : >440 (3.0 GPa)
18. Dynamic Fatigue		≥ 20
19. Static Fatigue		≥ 20