

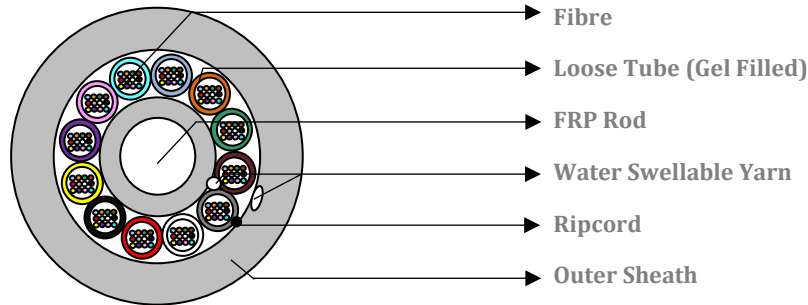


# HFCL Limited

(FORMERLY - HIMACHAL FUTURISTIC COMMUNICATIONS LIMITED) - GOA

Document no.: HFCL/(E)060722/MICRO 250/003 Rev 00 DATE: 06/07/22

## Technical Specifications 144F Multitube Micro OFC



Product

Details

Optical Fibre containing elements laid up around central strength member
Water blocked loose tubes
Water blocked core interstices
Polyethylene sheath as outer protection

Cable Construction

Parameter	Structure/Layout/Material
Fibre Count	144F
Number of fibres per tube	12
Number of loose tubes	12
Central Strength Member	FRP Rod PE Upcoated
Moisture Barrier	(FRP+Core) -Water Swellable Yarn
Outer Sheath	HDPE - Black
Ripcords	1 - Polyester
Cable Diameter	7.6 ± 0.3 mm
Cable Weight	55 ± 5 kg/km

## Colour Coding

Fibre Colour EIA/TIA - 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
-------------------------------	----	----	----	----	----	----	----	----	----	----	----	----

Tube Colour EIA/TIA - 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
------------------------------	----	----	----	----	----	----	----	----	----	----	----	----

## Cable & Fibre Characteristics

Tensile Strength	1500 N		IEC-60794-1-21-E1
Crush Resistance	1000 N		IEC-60794-1-21-E3
Impact Strength	1 N.m		IEC-60794-1-21-E4
Torsion	± 360 °		IEC-60794-1-21-E7
Minimum Bend Radius	20 x D		IEC-60794-1-21-E11
Environmental Performance	Installation	-5 °C to + 50 °C	IEC-60794-1-22-F1
	Operation	-20 °C to + 60 °C	
	Storage	-20 °C to + 70 °C	

Fibre Type	G.657A1			
Attenuation	1310 nm	≤ 0.36 dB/km		
	1550 nm	≤ 0.23 dB/km		
Chromatic Dispersion	1285-1330 nm	≤ 3.5 ps/nm.km		
	1550 nm	≤ 18 ps/nm.km		
	1625 nm	≤ 22 ps/nm.km		
PMD (Max. Individual)	≤ 0.15 ps/√km			
PMD (Link design value)	≤ 0.06 ps /√km			
Cable cut off wavelength λ <sub>cc</sub>	≤ 1260 nm			
MFD	1310 nm	9.1 ± 0.3 μm		
	1550 nm	10.3 ± 0.5 μm		
Bending Induced Attenuation	1 Turn	φ 20	1550 nm	≤ 0.75 dB
			1625 nm	≤ 1.5 dB
	10 Turn	φ 30	1550 nm	≤ 0.25 dB
			1625 nm	≤ 1.0 dB
Core-Cladding Concentricity Error	≤ 0.5 μm			
Cladding Diameter	125 ± 0.7 μm			
Cladding Non Circularity	≤ 0.8 %			
Primary Coating Diameter (Uncoloured)	242 ± 5 μm			

Cable Marking

HFCL Ltd, 144F SM G.657A1 MICRO *Year of manufacture, Length Code, Meter Marking Or As per customer requirement.*

Cable Length

2/4 km ± 5 %

Packaging

Wooden drums or reels

Cable end sealed

*Drum marking: Drum number, User name, HFCL Limited, Fibre count, Cable Length, Date of manufacture, Net weight, Gross weight*

Cable Performance Standards

IEC 60793, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T, RoHS, REACH.