



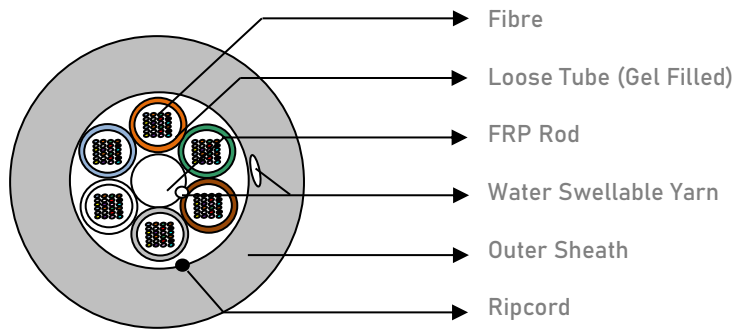
HFCL Limited

(FORMERLY - HIMACHAL FUTURISTIC COMMUNICATIONS LIMITED) - GOA

Document no.: HFCL/COM(E)290921/MICRO 200/001 Rev 00 DATE: 29/09/21

Technical Specifications 144/192/288F Multitube Micro OFC

144F Cable Shown



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
Suitable for PIA applications

Cable Construction

Parameter	Structure/Layout/Material		
	144F	192F	288F
Fibre Count	144F	192F	288F
Number of fibres per tube	24		
Number of loose tubes - PBT	6	8	12
Central Strength Member	FRP Rod		FRP Rod PE Upcoated
Moisture Barrier	(FRP+Core) - Water Swellable Yarn		
Outer Sheath	HDPE - Black		
Ripcords	1 - Polyester		
Cable Diameter	5.5 ± 0.3 mm	6.4 ± 0.3 mm	8.6 ± 0.3 mm
Cable Weight	30 ± 5 kg/km	40 ± 5 kg/km	75 ± 5 kg/km

Colour Coding

Fibre Colour EIA/TIA – 598 1-12	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
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Fibre Colour EIA/TIA – 598 13-24	Bl*	Or*	Gr*	Br*	Sl*	Wh*	Rd*	Nt*	Yl*	Vi*	Pk*	Aq*
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*Ring marking provided on 13-24F, natural ring marked fibre provided instead of black fibre

Tube Colour EIA/TIA – 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
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Cable & Fibre Characteristics

Tensile Strength	144F: 500 N 192F : 1000 N 288F: 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		≤ 0.34 dB/km	
	1550 nm		≤ 0.21 dB/km	
Chromatic Dispersion	1550 nm		≤ 17.5 ps/nm.km	
PMD (Max. Individual)	≤ 0.1 ps/√km			
PMD (Link design value)	≤ 0.06 ps /√km			
Cable cut off wavelength λ _{cc}	≤ 1260 nm			
Bending induced attenuation	1 turn	φ 20 mm	1550 nm	≤ 0.75 dB
			1625 nm	≤ 1.50 dB
	10 turns	φ 30 mm	1550 nm	≤ 0.25 dB
			1625 nm	≤ 1.00 dB
MFD	1310 nm		8.8 ± 0.4 μm	
Core-Cladding Concentricity Error	≤ 0.5 μm			
Cladding Diameter	125 ± 0.7 μm			
Cladding Non Circularity	≤ 0.7 %			
Primary Coating Diameter (coloured)	200 ± 10 μm			

Cable Marking

HFCL Ltd, 144/192/288F SM G.657A1 200 um MICROCABLE *Year of manufacture, Length Code, Meter Marking Or As per customer requirement.*

Cable Length

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.