



HFCL Limited

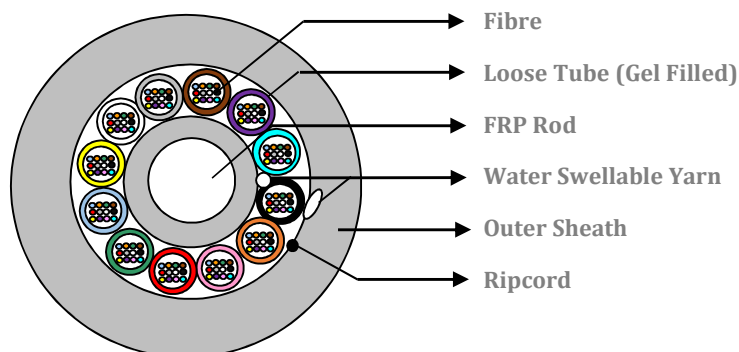
(FORMERLY - HIMACHAL FUTURISTIC COMMUNICATIONS LIMITED) - GOA

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Technical Specifications

4/12/24/48/72/96/144/288/432F Multitube Micro OFC

A-DQ2Y - MT - 250 um



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					
Fiber Count	4/12/24/48/72	96F	144F	288	432	
Number of fibers per tube	4/12				24	24
Number of loose tubes - PBT	1/1/2/4/6	8	12	Layer I : 9 Layer II : 15	12	Layer I : 6 Layer II : 12
Number of fillers - HDPE - Black	5/5/4/2/0	0				
Central Strength Member - FRP Rod	1.6 ± 0.1 mm	2.4 ± 0.1 mm	2.5 mm PE upcoated	2.0 mm PE upcoated	3.5 mm PE upcoated	2.2 ± 0.1 mm
Moisture Barrier - (FRP + Core)	Water Swellable yarn					
Outer Sheath - HDPE - Black	---					
Number of Ripcords - Polyester	1					
Cable Diameter	5.8 ± 0.3 mm	6.5 ± 0.3 mm	8.0 ± 0.3 mm	9.5 ± 0.3 mm	11.3 ± 0.3 mm	11.7 ± 0.3 mm
Cable Weight	25 ± 5 kg/km	40 ± 5 kg/km	55 ± 5 kg/km	80 ± 10 kg/km	115 ± 10 kg/km	110 ± 10 kg/km

Colour Coding

Fibre Colour DIN VDE 0888	Rd	Gr	Bl	Yl	Wh	Sl	Br	Vi	Aq	Bk	Or	Pk
	Rd	Gr	Bl	Yl	Wh	Sl	Br	Vi	Aq	Nt	Or	Pk

*Fibers from 13-24 shall be ring marked.

Tube Colour DIN VDE 0888	Rd	Gr	Bl	Yl	Wh	Sl	Br	Vi	Aq	Bk	Or	Pk
	Rd	Gr	Bl									

#Stripe mark tubes from 13-15

Cable & Fibre Characteristics

Tensile Strength (max.)	4/12/24/48/72F : 500 N 96F : 800 N 144(12F/T) : 1000 N 144F(24F/T) : 2000 N 288F(12F/T) : 1200 N 288(24F/T) : 1500 N 432F : 1000 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	-20 °C to + 70 °C	IEC-60794-1-22-F5
	Operation	-30 °C to + 70 °C	
	Storage	-30 °C to + 70 °C	

Fiber Type	G.652D	
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
PMD	≤ 0.2 ps/√km	
Cable cut off wavelength λ_{cc}	≤ 1260 nm	
MFD	1310 nm	9.2 ± 0.4 μm
	1550 nm	10.4 ± 0.5 μm
Core-Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 0.7 %	
Primary Coating Diameter (Uncoloured)	242 ± 5 μm	

Fiber 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
PMD	≤ 0.2 ps/ $\sqrt{\text{km}}$	
Cable cut off wavelength λ_{cc}	≤ 1260 nm	
MFD	1310 nm	9.2 ± 0.4 μm
	1550 nm	10.4 ± 0.5 μm
Core-Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 0.7 %	
Primary Coating Diameter (Uncoloured)	242 ± 5 μm	

Fiber Type	G.657A2	
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
PMD	≤ 0.2 ps/ $\sqrt{\text{km}}$	
Cable cut off wavelength λ_{cc}	≤ 1260 nm	
MFD	1310 nm	8.6 ± 0.4 μm
Core-Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 0.7 %	
Primary Coating Diameter (Uncoloured)	245 ± 10 μm	

Cable Marking

HFCL Ltd, 4/12/24/48/72/144/288/432F SM G.652D/G.657A1/G.657A1 MICRO *Year of manufacture, Length Code, Meter Marking*

Cable Length

2.0 km ± 10 %

Packaging

Wooden drums or reels

Cable end sealed

Drum marking: Drum number, User name, HFCL Limited, Fiber 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.