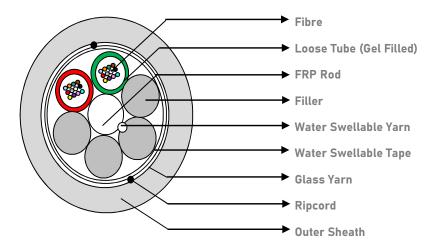


HFCL Limited

(FORMERLY - HIMACHAL FUTURISTIC COMMUNICATIONS LIMITED) - GOA

Document no.: HFCL/TELE COLUMBUS/UNARM - 061120 - 009 Rev 00 DATE: 06/11/20

Technical Specifications 24F Multitube Unarmoured OFC IA-DQ(ZN)BH-MT



Product Details

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

Cable Construction

Parameter	Structure/Layout/Material
Fiber Count	24
Number of fibers per tube	12
Number of loose tubes – PBT	2
Number of fillers – HDPE - Black	4
Central Strength Member – FRP Rod	2.3 ± 0.1 mm
Moisture Barrier	Water Swellable yarn & Water Swellable tape
Peripheral Strength Member	Glass Yarn
Outer Sheath – LSZH – Black	
Number of Ripcords - Polyester	2
Cable Diameter	9.9 ± 0.5 mm
Cable Weight	95 ± 10 kg/km

Colour Coding

Fibre Colour DIN VDE 0888	Rd	Gr	Bl	Yl	Wh	Sl	Br	Vi	Aq	Bk	0r	Pk
Tube Colour DIN VDE 0888	Rd	Gr	Bl	Υl	Wh	Sl	Br	Vi	Aq	Bk	0r	Pk

Cable & Fibre Characteristics

Tensile Strength		3000 N	IEC-60794-1-21-E1		
Crush Resistance		1000 N IEC-607			
Impact Strength		10 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		
Water Penetration Test	1 m water he	ead, 3m sample, 24 hours	IEC-60794-1-22-F5		
Environmental Performance	Installation	-20 °C to + 70 °C			
	Operation	-30 °C to + 70 °C	IEC-60794-1-22-F5		
	Storage	-30 °C to + 70 °C			

Fiber Type	G.652D				
A.L	1310 nm	≤ 0.36 dB/km			
Attenuation	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 λcc	≤ 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				

Cable Marking

HFCL Ltd, 24F SM G.652D DUCT 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.