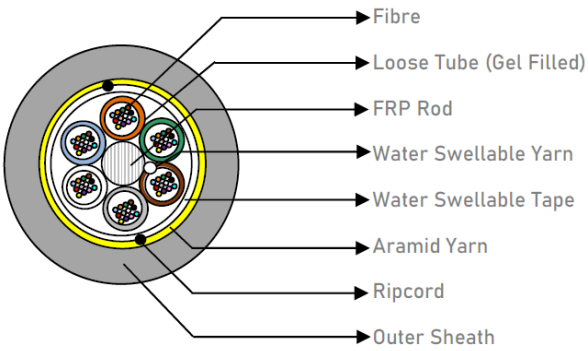
Netceed

MULTITUBE AERIAL OPTICAL CABLE

Part Number: ADSS-xFG657A1-300x

Description

Multitube Aerial Optical Cable



Key Features

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

Applications

- Aerial network

Standards

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

Product Specifications

Cable Construction

Parameter	Structure/Layout/Material		
Fibre Count	12F/24F/36F/48F/72F	96F	144F
Number of fibres per tube	12		
Number of loose tubes – PBT	1/2/3/4/6	8	12
Loose Tube OD	2.0 ± 0.1 mm		
Number of Fillers – HDPE Black	5/4/3/2/0	0	
Central Strength Member	FRP Rod	FRP Rod PE Upcoated	

Moisture Barrier	Water swellable yarn & water swellable tape		
Peripheral Strength Member – Aramid Yarn	Over WS Tape		
Outer Sheath	HDPE – Black – UV Proof		
Number of Ripcords	2 - Polyester		
Cable Diameter	10.0 ± 0.5 mm	11.0 ± 0.5 mm	13.5 ± 0.5 mm
Cable Weight	75 ± 10 kg/km	90 ± 10 kg/km	145 ± 15 kg/km

Colour Coding

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

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

Cable & Fibre Characteristics

Tensile Strength	Installation: 3000 N Operation: 1500 N		IEC-60794-1-21-E1
Crush Resistance	2000 N/10 cm		IEC-60794-1-21-E3
Impact Strength	10 N.m		IEC-60794-1-21-E4
Torsion	±180°		IEC-60794-1-21-E7
Minimum Bend Radius	20 x D		IEC-60794-1-21-E11
Water Penetration Test	1 m water head, 3 m sample, 24 hours		IEC-60794-1-21-F5
Environmental Performance	Installation	-10 °C to + 60 °C	IEC-60794-1-22-F1
	Operation	-40 °C to + 70 °C	
	Storage	-40 °C to + 70 °C	

NESC Conditions	Heavy
Span	100 m

Fibre 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

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PMD (Max. Individual)	≤ 0.2 ps/√ km	
PMD (Link design value)	≤ 0.08 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	≤ 0.6 µm	
Cladding Diameter	125 ± 1.0 µm	
Cladding Non Circularity	≤ 1.0 %	
Primary Coating Diameter (Uncoloured)	242 ± 5 µm	

Fibre Type	G.657A2			
Attenuation	1310 nm	≤ 0.36 dB/km		
	1550 nm	≤ 0.22 dB/km		
Chromatic Dispersion	1550 nm	≤ 18 ps/nm.km		
PMD (Max. Individual)	≤ 0.1 ps/√ km			
PMD (Link design value)	≤ 0.06 ps/√ km			
Cable cut off wavelength λcc	≤ 1260 nm			
Zero Dispersion Slope	≤0.092 ps/nm^2.km			
MFD	1310 nm	8.6 ± 0.4 µm		
Bending Induced Attenuation	1 turn	ϕ 15	1550 nm	≤ 0.2 dB
			1625 nm	≤ 0.5 dB
	1 turn	ϕ 20	1550 nm	≤ 0.1 dB
			1625 nm	≤ 0.2 dB
	10 turn	ϕ 30	1550 nm	≤ 0.03 dB
			1625 nm	≤ 0.1 dB
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			

Fibre Type	G.657A1	
Attenuation	1310 nm	≤ 0.36 dB/km
	1550 nm	≤ 0.22 dB/km
Chromatic Dispersion	1285-1330 nm	≤ 3.5 ps/nm.km
	1550 nm	≤ 18 ps/nm.km

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	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 λcc	≤ 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 Length

Cable Length	4.0 km ± 5%

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