

## MICRO OPTICAL CABLE

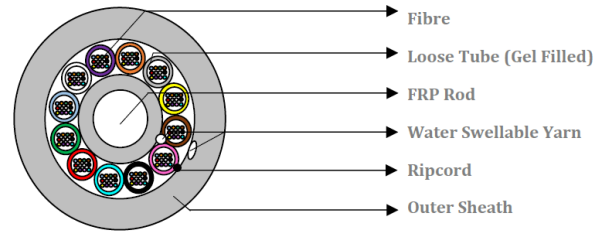
Part Number: MICRO-xFG657A1-10xx

### Description

Multitube Micro Optical Fibre Cable

### Key Features

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



### Applications

- Microduct cabling air-blowing system application

### Standards

- IEC 60794
- 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	1/2/3/4/6	8	12
Number of Fillers– HDPE- Black	5/4/3/2/0	-	
Central Strength Member	FRP Rod		FRP Rod PE upcoated
Moisture Barrier	(FRP + Core) - Water Swellable Yarn		
Outer Sheath	HDPE – Black – UV Stabilized		
Number of Ripcords	1 - Polyester		
Cable Diameter	5.3 ± 0.3 mm	6.0 ± 0.3 mm	7.7 ± 0.3 mm

Cable Weight	20 ± 10 kg/km	30 ± 10 kg/km	55 ± 10 kg/km
--------------	---------------	---------------	---------------

### Colour Coding

Fiber 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
----------------------------------	----	----	----	----	----	----	----	----	----	----	----	----

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

### Cable & Fibre Characteristics

Tensile Strength (max)	750 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	±180°		IEC-60794-1-21-E7
Minimum Bend Radius	Installation: 20 x D Operation: 10 x D		IEC-60794-1-21-E11
Water Penetration Test	1 m water head, 3 m sample, 24 hours		IEC-60794-1-22-F5
Environmental Performance	Installation	-10°C to +50°C	IEC-60794-1-22-F1
	Operation	-40°C to +70°C	
	Storage	-40°C to +70°C	

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	
	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 %			
Coating Diameter	242 ± 5 μm			

**Cable Length**

Cable Length	4.0 km ± 5%
--------------	-------------