

# MICRO OPTICAL CABLE

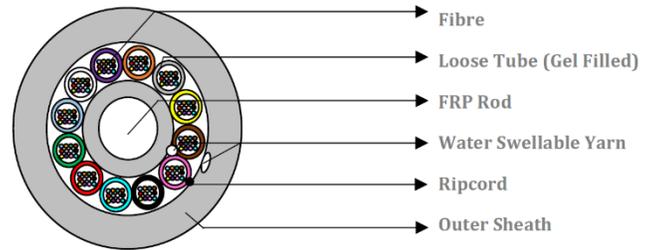
Part Number: MICRO-xFG657A1-103x

## Description

Multitube Micro OFC

## 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	5.7 ± 0.3 mm	6.2 ± 0.3 mm	7.7 ± 0.3 mm

Cable Weight	25 ± 10 kg/km	35 ± 10 kg/km	55 ± 10 kg/km
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### Colour Coding

Fibre Colour	Rd	Gr	Bl	Wh	Vi	Or	Sl	Yl	Br	Pk	Bk	Aq
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Tube Colour	Rd	Gr	Bl	Wh	Vi	Or	Sl	Yl	Br	Pk	Bk	Aq
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### Cable & Fibre Characteristics

Tensile Strength (max)	12-72F : 1000N 96F : 1500 N 144F : 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	±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
	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	$\leq 0.5 \mu\text{m}$
Cladding Diameter	$125 \pm 0.7 \mu\text{m}$
Cladding Non Circularity	$\leq 0.8 \%$
Coating Diameter	$242 \pm 5 \mu\text{m}$

## Cable Length

Cable Length	$4.0 \text{ km} \pm 5\%$
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