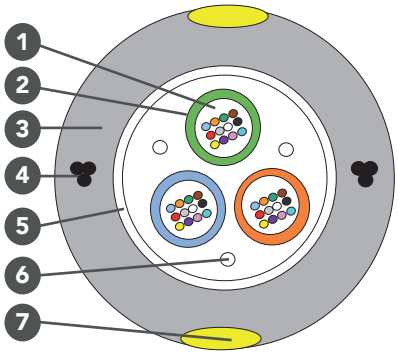
DATASHEET

ULTRA LIGHT WEIGHT OVERHEAD OPTICAL FIBRE CABLE 12/24/48F

36F Cable Shown



LEGEND	
1	Fibre
2	Micromodule (gel filled)
3	Outer Sheath
4	Steel Wires
5	Water Swellable Tape
6	Water Swellable Yarn
7	Yellow Stripe

Super lightweight and robust, the Ultra-lightweight cable is designed for aerial deployment across access fibre networks. BT approved; this cable conforms to the standard 7mm diameter as well as having a breaking tensile force of less than 2000n for maximum security. The cable combines low-loss, bend-insensitive G.657. A1 fibres with longitudinal water swellable elements to eliminate water ingress.

FEATURES & BENEFITS

- Optical Fibre are loosely packed in micro modules
- Water blocked core interstices
- HDPE sheath as external protection
- PIA Approved and Tested, and as clamp & cable package- PLP & Telenco Clamps

CABLE CONSTRUCTION

PARAMETER	STRUCTURE/LAYOUT/MATERIAL
Fibre count	12/24/48F
Number of fibres per Micromodule	12
Number of Fillers	2/1/0
Embedded Strength Member	3 x 0.32mm - Brass Coated Steel Wire
Moisture Barrier	Water Blocking Yarn & Water Swellable Tape
Strip Marking Width	1.25mm(Nominal) – HDPE - Yellow
Outer Sheath	1.6mm (Nominal) – HDPE UV Black
Cable Diameter	7.0 ± 0.3mm
Cable Weight	40.0kg/km (Nominal)

CABLE MARKING

12/24/48F SM G.657A1 ULW AERIAL OPTICAL CABLE MMYYYY Length Code Meter Marking

CABLE LENGTH

2.0/4.0km ± 5%

PACKAGING

Wooden drums or reels

Cable end sealed

Drum marking: Drum number, User name, Fibre 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.

Cable is Openreach PIA approved & Tested.

Cable is also Openreach PIA approved & tested with Telenco & PLP Clamps so requires no separate testing with these clamps.

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COLOUR CODING

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

Tube colour EIA/TIA - 598	Bl	Or	Gr	Br

CABLE & FIBRE CHARACTERISTICS

Tensile Break Load	<2000N				IEC-60794-1-21-E1
Crush Resistance	2000N				IEC-60794-1-21-E3
Minimum Bend Radius	70mm				IEC-60794-1-21-E11
Water Penetration Test	1m water head, 3m sample, 24 hours				IEC-60794-1-22-F5
Maximum Environmental Load	950N @< 0.6% fibre strain				IEC-60794-1-21-E1
Environmental Performance	Installation	-10°C to +60°C			IEC-60794-1-22-F1
	Operation	-30°C to +70°C			
	Storage	-40°C to +70°C			
Voltage Test	11Kv	If installed along power line minimum vertical distance of 1.8M should be maintained			
Resistance to wind/ice	Cable shall withstand 97kph wind, no ice. 80kph wind + 5mm ice. 0kph wind, + 10mm ice. without appreciable sag				
Maximum Span	68M (80M in exceptional circumstances)				
Fibre Type	G.657A1				
Attenuation	1310nm	≤ 0.35dB/km			
	1550nm	≤ 0.21dB/km			
	1625nm	≤ 0.23dB/km			
Chromatic Dispersion	1285 – 1330nm	≤ 3.5ps/nm.km			
	1550nm	≤ 18ps/nm.km			
	1625nm	≤ 22ps/nm.km			
PMD (Max. Individual)	≤ 0.15ps/√km				
PMD (Link design value)	≤ 0.06ps/√km				
Cable cut off wavelength λcc	≤ 1260nm				
MFD	1310nm	9.1 ± 0.3µm			
	1550nm	10.3 ± 0.5µm			
Bending Induced Attenuation	1 Turn	Ø 20	1550nm	≤ 0.75dB	
			1625nm	≤ 1.5dB	
	10 Turn	Ø 30	1550nm	≤ 0.25dB	
			1625nm	≤ 1.0dB	
Core-Cladding Concentricity Error	≤ 0.5µm				
Cladding Diameter	125 ± 0.7µm				
Cladding Non Circularity	≤ 0.8%				
Primary Coating Diameter	242 ± 5µm (Uncoloured)				

CABLE & FIBRE CHARACTERISTICS

Fibre Type	G.657A2		
Attenuation	1310nm	≤ 0.35dB/km	
	1550nm	≤ 0.21dB/km	
	1625 nm	≤ 0.23dB/km	
Chromatic Dispersion	1285 – 1330nm	≤ 3.5ps/nm.km	
	1550nm	≤ 18ps/nm.km	
PMD (Max. Individual)	≤ 0.1ps/√km		
PMD (Link design value)	≤ 0.08ps /√km		
Cable cut off wavelength λcc	≤ 1260nm		
MFD	1310nm	8.6 ± 0.4µm	
	1550nm	9.8 ± 0.5µm	
Bending Induced Attenuation	1550nm	1 turn, R – 7.5mm	≤ 0.5dB
	1625nm	1 turn, R – 7.5mm	≤ 1.0dB
	1550nm	1 turn, R – 10mm	≤ 0.1dB
	1625nm	1 turn, R – 10mm	≤ 0.2dB
	1550nm	10 turn, R – 15mm	≤ 0.03dB
	1620nm	10 turn, R – 15mm	≤ 0.1dB
Core-Cladding Concentricity Error	≤ 0.5µm		
Cladding Diameter	125 ± 0.7µm		
Cladding Non Circularity	≤ 0.7%		
Primary Coating Diameter	245 ± 5µm (Uncoloured)		

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