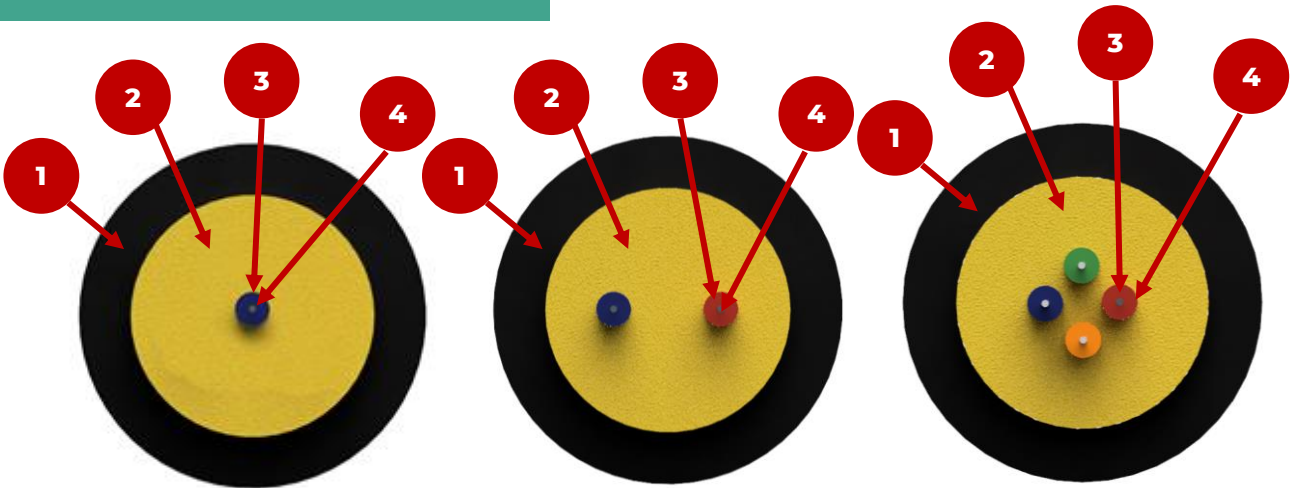


1. Cable Construction



- 1

Jacket:

 - Black TPU UV stabilised sheath in accordance with **BS EN 50290-2-24.**
 - Excellent abrasion resistance to tree rub.
 - Free of hazardous substances according to RoHS 2002/95/EG
 - Diameter - 3.0 ± 0.2 mm (1f) / 3.5 ± 0.2 mm (2f, 4f) /
 - Material - Flame Retardant Poly-urethane
- 2

Water Blocking Aramid Yarn

 - Laid up longitudinally along longitudinal section
- 3

Tight Buffer Module

 - Diameter – 900um (1f); 600um (2f, 4f)
 - Colour = EIA 598 – Blue, Orange, Green, Brown
 - Material = LSZH (Low Smoke Zero Halogen)
- 4

Fibre

ITU-T G.657A2

2. Cable Description

- Compact lightweight optical fibre drop cable
- Packaged in lightweight cardboard box for rapid dispensing and safe storage.
- Excellent mechanical and environmental characteristics.
- Suitable for external deployment (compliant with **BS EN 50290-2-24**)

3. Packaging



Compact high strength robust box

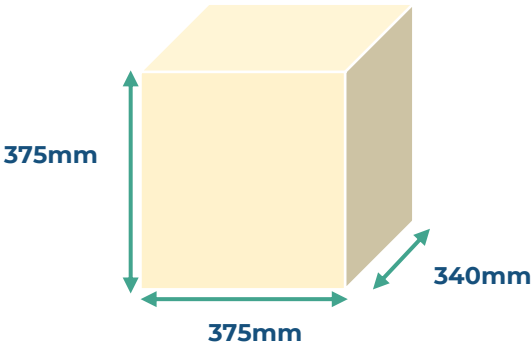


Easy to dispense drum



Cable drum fits securely in box

Box Dimensions



Pallet quantity - approx. 45 boxes

Pallet Size – 1.15M x 1.05M x 2.1M

Box Gross Weight

Fibre Count	Cable	Box + Reel	Total
1f	10 KG/KM	2.5 KG	12.5 KG
2f	12 KG/KM	2.5 KG	14.5 KG
4f	14 KG/KM	2.5 KG	16.5 KG

4. Construction Details

4.1 Jacket

- Material: Flame retardant polyurethane
- Colour: Black standard, Other Colours available
- Sheath thickness: Nominal 0.7mm

Item	Nominal Diameter		
Fibre Count	1f	2f	4f
Diameter (mm)	3.0 ± 0.3	3.5 ± 0.4	

4.2 Strength Member

Material Water swellable Aramid Yarn

4.3 Tight Buffer

- Material: Flame Retardant Halogen Free Poly-olefin (PO)
- Diameter: See chart
- Colour: EIA598 (Others available according to operators requirements)

1f	2f	4f
900µm ± 50µm	600µm ± 50µm	

#1	#2	#3	#4
BLUE	ORANGE	GREEN	BROWN

4.4 Fibre Parameters

No.	Items		Unit	Specification
1	Mode field diameter	1310nm	µm	8.8±0.4
		1550nm	µm	9.8±0.5
2	Cladding diameter		µm	125.0±1
3	Cladding non-circularity		%	≤0.7
4	Core-cladding concentricity error		µm	≤0.5
5	Coating diameter		µm	245±5
6	Coating non-circularity		%	≤6.0
7	Cladding-coating concentricity error		µm	≤12.0
8	Cable cut off wavelength		nm	λ _{CC} ≤1250
9	Attenuation (max.)	1310nm	dB/km	≤0.35
		1550nm	dB/km	≤0.21
		1625nm	dB/Km	≤0.22
10	Macro bending loss	1turn×5mm radius@1550nm	dB	≤0.1
		1turn×5mm radius@1625nm	dB	≤0.3
11	Zero dispersion slope		Ps/nm^2*Km	≤0.092
12	Fibre manufacturer and Brand		YOFC Easyband	ITU-T G.657.A1 / G.657.A2 / G.657.B3

5. Cable Jacket Performance

5.1 Routine Test

Measurement Thickness of Jacket / Sheath per clause 13.2 of IEC 60092-350
Measurement of attenuation of optical cable per method C of IEC 60793-1-40

Properties	Wavelength	SMF
Attenuation	1310nm	Max. 0.35 dB / km
	1550nm	Max. 0.21 dB / km

See Fibre tble at Section 4

5.2 Enhanced Test

Sunlight(UV) resistance : in accordance with UL1581

Conditions	Test	Requirements
Xenon arc, 300hrs	Retention of Tensile strength and elongation	> 85%

5.3 Flame Retardant

Flame retardant test per IEC 60332-1.

6. Cable Parameters

Items		Specifications		
Fibre Count		1	2	4
Tight-buffered Fibre	Dimension	0.9mm±0.05mm	0.6mm±0.03mm	
	Material	LSZH		
	Color	Blue	Blue, Orange	Blue, Orange Green, Brown
Strength Member		Aramid Yarn		
Outer Jacket	Dimension	3.0mm±0.1mm	3.5mm±0.3mm	
	Material	TPU		
	Color	UV Black		
Cable Weight		10g/m	12g/m	14g/m

7. Mechanical & Environmental Characteristics

Performance Test	Type	Conditions	Test	SMF (at 1550nm)	Fibre Strain	Result
Tensile Strength per IEC 60794-1-2-E1	Installation	Loadmax = 500N	Change in attenuation	0.1dB after Test	≤ 0.5%	-
	Operation	Loadmax = 200N		0.2dB during Test	≤ 0.33%	-
				0.1dB after test		
Crush Test per IEC 60794-1-2-E3	-	Loadmax = 500N / 5cm	Change in attenuation	0.1 dB after Test	-	-
Impact Test IEC 60794-1-2-E4	-	5J 1 Impact, 3 Point	Change in attenuation	0.1 dB after Test	-	-
Torsion Test per IEC 60794-1-2-E7	-	15N, ±180°, 2m, 10cycles	Change in attenuation	0.1 dB after Test	-	-
Temperature Cycling per IEC 60794-1-2-F1	-	+20°C(12hrs) → -40°C(12hrs) → +70°C(12hrs) → -40°C(12hrs) → +70°C(12hrs) → +20°C(12hrs)	Change in attenuation	0.2dB during test 0.1dBafter test	-	--
Water Penetration Resistance Per 60794-1-22-FSB	-	IEC 60794-1-22-FSB Cable length = 3m; Water head = 1m; duration = 24 hours	Presence of Dye	-	-	No fluorescent dye present at the collection end of the cable either during or on

8. Cable Printing

Marked at interval of at least 1meter with following information:

Hyperoptic - 1f Ext Drop - Dexgreen - Batch Number – Line Number - XXXXmeters

Batch Number = DD-MM-YYYY Date Format
Line Number = factory line number

9. Cable Test Report

This is standard test report extract for 1f version. Further information can be provided upon request

No.	Item		Unit	Standard&Requirement	Result	Conclusion
1	Tensile Performance	Fibre Strain	--	Tension=800N, the Fibre Strains≤0.2%	0.152%	PASS
		Additional Attenuation	dB	Tension=800N, Change in Attenuation@1550nm	0.013	PASS
			--	No significant damage to cable components	No damage	PASS
Test Method and standard:IEC60794-1-21-E1						

2	Crush Performance				
		dB	Maximum load applied=100N/mm, Duration of maximum load=10min, Total number of applied loads=3, Change in attenuation@1550nm≤0.05dB	0.002	PASS
			--		
Test Method and standard:IEC60794-1-21-E3					

3	Cable Repeat Bending Performance	dB	Mandrel parameter (radius)=60mm,	0.003	PASS
			Tension=25N		
			Angle=180°		
			Number of cycles=20,		
			Change in attenuation@1550nm≤0.05dB		
	--	No significant damage to cable components	No damage	PASS	
Test Method and standard:IEC60794-1-21-E6					

9. Cable Test Report Contd.

4	Torsion Performance	dB	Tension=50N, Torsion Angle=±180° Number of cycles=10, Change in attenuation@1550nm≤0.05dB	0.001	PASS
		--	No significant damage to cable components	No damage	PASS
Test Method and standard:IEC60794-1-2-E7					
5	Impact Performance	dB	Impact Area=20mm, Impact energy=3J, Number of impacts at same location=5, Height between impact locations=150mm, Number of locations=3, Change in attenuation@1550nm≤0.05dB	0.001	PASS
		--	No significant damage to cable components	No damage	PASS
Test Method and standard:IEC60794-1-21-E4					
6	Temperature Cycles	dB	Ta= -40℃, Tb=+70℃, Test Time per Cycles:48Hour, Number of cycle=2, Samples Length=18meter, Change in attenuation@1550nm≤0.05dB	0.01	PASS
Test Method and standard:IEC60794-1-22-F1					
7	Flame Retardant Test	--	Sample Length=600mm, Select PCS=3, Flame Height:175mm, Flame Angle=45°, Combustion length≤425mm	80mm	PASS
Test Method and standard:IEC60332-1					

Cable Test Report Conclusion

Product Name:	3.0mm MDU Cable
Sample QTY:	1Drum, 1150meter
Test Standard	IEC60794-1-21 Basic Optic Fibre cable test procedures
Test Conclusion	Total Test 7 item, PASS :7 item 2021.07.17