

SureLIGHT™ MLTGF DataGuard™ SWA Fibre Optic Cable



Cable Construction		Mechanical Characteristics	
Loose Tube:	Thermoplastic material (PBT), jelly filled	Tensile strength (max.)	*E1A 4000 N
Fibre Colour Code:	IEC 60304	Crush resistance	*E3 4000 N/10cm
Tubes Colour Code:	1 - Red / 2 - Green - others White	Impact resistance	*E4 3 impacts (w/20N.m)
Cable Core:	Loose tubes are stranded around a central strength member	Min. bending radius	*E11A 15 x Ø
Strength member:	Waterblocking aramid yarns		*E11B 25 x Ø (load)
Inner Jacket:	Black LSZH FireFighter™	Moisture resistance	*F5 passed
Metallic Armour:	Galvanised Steel Wire Armour (SWA)	Compound flow	*E14 30cm/24h/70° C passed
Tape:	Water-swellaable tape	Thermal Characteristics	
Outer Jacket:	Black LSZH FireFighter™ UV Stable	Storage	-40° C to +70° C
		Temperature range *F1	Installation -5° C to +50° C
			Operating -30° C to +70° C
		Fire behaviour	
		Flammability	EN 50266-1, EN 50266-2-2
		Smoke density	EN 50267-1, EN 50267-2-2, EN50267-2-3
		Acid gases	EN 61034-1, EN 61034-2

Part Number	No. of fibres	Tube Diameter (mm)	Nominal Ø (mm)	Cable Weight (kg/km)
1410*244MLT-01	24	2.3 ± 0.05	13.1 ± 0.5	316
1410*364MLT-01	36	2.3 ± 0.05	13.1 ± 0.5	316
1410*484MLT-01	48	2.3 ± 0.05	13.1 ± 0.5	316

*denotes fibre type required 1 = 62.5/125 | 2 = 50/125 | 8 = 9/125

* IEC 60794-1-2

Note: When installing or assembly under temperature below -5° C the cable has to be stored at 20° C for at least 24 hours before installation.

Optical Characteristics

Multi Mode Fibre						
Fibre Type			62.5/125 µm OM1	50/125 µm OM2	50/125 µm OM3	50/125 µm OM4
Bandwidth (overfilled launch)	@ 850 nm	Mhz.km	≥ 220	≥ 500	≥ 1500	≥ 3500
	@ 1300 nm		≥ 600	≥ 500	≥ 500	≥ 500
Bandwidth (laser EMB ³)	@ 850 nm	Mhz.km	-	-	≥ 2000	≥ 4700
	@ 1300 nm		-	-	≥ 500	≥ 500
1 Gbps Ethernet operation link length	@ 850 nm	(m)	≤ 300	500 ¹	-	-
	@ 1300 nm		≤ 500	550 ²	-	-
10 Gigabit Ethernet link lengths	@ 850 nm	(m)	-	-	≤ 300	550
Attenuation (Typical/Maximum)	@ 850 nm	dB/km	2.6 / 3.0	2.4 / 3.0	2.0 / 3.0	2.0 / 3.0
	@ 1300 nm		0.5 / 1.0	0.7 / 1.2	0.5 / 1.0	0.5 / 1.0
Numerical Aperture		µm	0.275 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015
Core Diameter		µm	62.5 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5
Cladding Diameter		µm	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0
Coating Diameter		µm	245 ± 10	245 ± 10	245 ± 10	245 ± 10

1 - serial Laser 1000BA SE-SX

2 - serial Laser 1000BA SE-LX

3 - Effective modal Bandwidth per TIA/EIA-492AAAC and draft IEC 60793-2-10 type A1a.2, ensured by DMD performance specifications for sources meeting launch conditions specified in 10Gbit Ethernet (IEEE 802.3a), OIF OC-192/STM-64 VSR-4-04, and 10 Gbit Fibre Channel (10GFC)

Single Mode Fibre			
Fibre Type			9/125 µm OS2 G.652D - ZWP
Attenuation (Typical/Maximum)	@ 1310 nm	dB/km	0.31 / 0.35
	@ 1550 nm		0.20 / 0.24
	@ 1625 nm		0.21 / 0.26
Mode Field Diameter	@ 1310 nm	µm	9.24 ± 0.4
	@ 1550 nm		10.4 ± 0.5
Chromatic Dispersion	@ 1285 - 1330 nm	ps/(nm.km)	≤ 3.5
	@ 1550 nm		≤ 18
Cable Cut-off Wavelength		nm	≤ 1260
Zero Dispersion Wavelength		nm	1302 - 1322
Fibre PMD Individual fibre		ps/√km	0.1
Cladding Diameter		µm	125 ± 0.7
Coating Diameter		µm	245 ± 10