

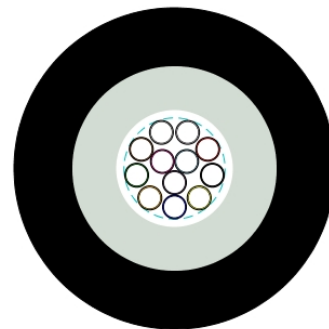
FTTx: DUCT DROP CABLES

Applications

- Short Haul, Campus, Lan
- Access
- FTTx

Construction

Mono or Single tube	PC(polycarbonate) filled with thixotropic gel.
Fibers	Max of 12 color coated fibers
Water blocking	Core wrapping and overall
Ripcord	1
Sheathing	High Density Polyethylene (Black UV resistant sheath is standard)



Mechanical properties

Fibre count	Number of elements	Cable diameter nominal (mm)	Cable weight (kg/km)	Maximum installation load (N)	Operation Temperature Range	Bending radius		Suitable duct size
						Long term	Short term	
Up to 12	1	3.4	9.5	100	-10°C to 70° C	20 x OD	5 x OD	8/5

Fibre and tube colors as TIA/EIA

1	Blue	2	Orange	3	Green	4	Brown	5	Grey	6	White
7	Red	8	Black	9	Yellow	10	Violet	11	Pink	12	Turquoise

Ordering information

Fibre count	Cable type	Fibre type ITU-T	Drum quantity(m)	Customer
12	Duct drop(D-Drop)	G657. A2	1000	CBI

Optical properties (Bend tolerant Multi Mode)

Characteristics		ITU-T G.651 OM2	ITU-T G.651 OM3	ITU-T G.651 OM4
Fibre core diameter (µm)		50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5
Cabled Attenuation (dB/km)	850nm	≤ 3	≤ 2.5	≤ 2.5
	1300nm	≤ 1	≤ 0.7	≤ 0.7
Macro-bend loss	850nm	Ø15mm, 2turn, ≤ 0.2dB	Ø15mm, 2turn, ≤ 0.2dB	Ø15mm, 2turn, ≤ 0.2dB
		Ø30mm, 2turns, ≤ 0.1dB	Ø30mm, 2turns, ≤ 0.1dB	Ø30mm, 2turns, ≤ 0.1dB
		Ø75mm, 100turns, ≤ 0.05dB	Ø75mm, 100turns, ≤ 0.05dB	Ø75mm, 100turns, ≤ 0.05dB
	1300nm	Ø15mm, 2turn, ≤ 0.5dB	Ø15mm, 2turn, ≤ 0.5dB	Ø15mm, 2turn, ≤ 0.5dB
		Ø30mm, 2turns, ≤ 0.3dB	Ø30mm, 2turns, ≤ 0.3dB	Ø30mm, 2turns, ≤ 0.3dB
		Ø75mm, 100turns, ≤ 0.15dB	Ø75mm, 100turns, ≤ 0.15dB	
Bandwidth	High Performance EMB* (MHz.km)	950@850nm	2000@850nm	4700@850nm
	Legacy Performance EMB** (MHz.km)	700@850nm 500@1300nm	1500@850nm 500@1300nm	3500@850nm 500@1300nm
Optimised data Rate over distance		-	40/100 Gb/s over 140m***	40/100 Gb/s over 170m***
		10 Gb/s over 150m	10 Gb/s over 300m	10 Gb/s over 550m
		1Gb/s over 750m	1Gb/s over 1000m	1Gb/s over 1100m
Cladding diameter (µm)		125 ± 1	125 ± 1	125 ± 1
Cladding non circularity (%)		≤ 1	≤ 1	≤ 1
Core-Clad concentricity (µm)		≤ 1.5	≤ 1.5	≤ 1.5
Cable cut-off wavelength (nm)			≤ 1260	≤ 1260
* Ensured via minEMBC, per TIA 455-22A and IEC 60793-1-49, for high performance laser-based systems (up to 100Gb/s)				
** OFLW, per TIA/EIA 455-2-4 and IEC 60793-1-41, for legacy and LED-based systems (typically up to 100Mb/s)				
*** Distances specified in the 40G/100G per IEEE 802.3ba standard are 150m for OM4 and 100m for OM3. (For these distances cabled attenuation ≤ 3.0dB/km and 1.0dB of connector loss is assumed.)				

Optical properties

Characteristics		ITU-T.657A2
Modefield diameter (µm)	1310nm	8.6 ± 0.4
	1550nm	9.4 ± 0.5
Cabled Attenuation (dB/km)	1310nm	± 0.35
	1550nm	± 0.22
Polarization Mode Dispersion (ps/vkm)	Link (PMDQ)	≤ 0.06
	Individual PMDmax)	≤ 0.2
Chromatic dispersion (ps/nm.km)	1285-1330nm	3
	1550nm	≤ 18
	1625nm	≤ 22
Macro-bend loss	1550nm	Ø7.5mm, 1turn, ≤ 0.4dB
	1625nm	Ø7.5mm, 1turn, ≤ 0.8dB
Cladding diameter (µm)		125 ± 0.7
Cladding non circularity (%)		≤ 1
Core-Clad concentricity (µm)		≤ 0.6
Cable cut-off wavelength (nm)		≤ 1260
Local variations: cabled (dB)		≤ 0.1@1550nm