

FTTx: AERIAL DROP FIBRE OPTIC CABLE

APPLICATION

- ◆ Self Supporting All Dielectric
- ◆ Spans up to 50m
- ◆ Access
- ◆ FTTx

A-DROP CABLES

CONSTRUCTION

LOOSE TUBE	PC (Polycarbonate) filled with thixotropic gel
FIBRES	Up to 12 colour coated fibres per tube
PERIPHERAL STRENGTH MEMBER	Glass Composite Oval (Optimized load transfer between GCO and sheath)
RIPCORD	
SHEATHING	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	4.1	15.2	95	-10°C to 70°C	20 x OD	5 x OD	8/6

SAG AND TENSION CALCULATIONS (Max installation load)

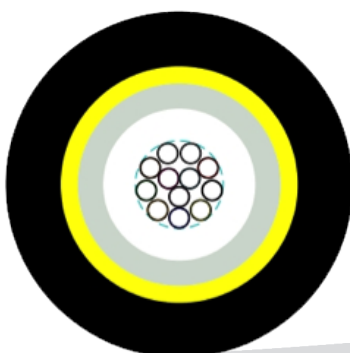
SPAN	50m	NORMAL SAG (m)	0.5
------	-----	----------------	-----

FIBRE AND BUFFER COLOURS 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)
12	Aerial Drop (A-DROP)	G657.A2	1000



FTTx: AERIAL DROP FIBRE OPTIC CABLE

Page 2 of 3

A-DROP CABLES

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, 2turns, ≤ 0.2dB	Ø15mm, 2turns, ≤ 0.2dB	Ø15mm, 2turns, ≤ 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, 2turns, ≤ 0.5dB	Ø15mm, 2turns, ≤ 0.5dB	Ø15mm, 2turns, ≤ 0.5dB
		Ø30mm, 2turns, ≤ 0.3dB	Ø30mm, 2turns, ≤ 0.3dB	Ø30mm, 2turns, ≤ 0.3dB
		Ø75mm, 100turns, ≤ 0.15dB	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
		1 Gb/s over 750m	1 Gb/s over 1000m	1 Gb/s over 1100m
Cladding Diameter (µm)		125 ± 1	125 ± 1	125 ± 1
Cladding Non Circulatory (%)		≤ 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.)

FTTx: AERIAL DROP FIBRE OPTIC CABLE

Page 3 of 3

A-DROP CABLES

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/√km)	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 Circulatory (%)	≤ 1	
Core-Clad Concentricity (µm)	≤ 0.6	
Cable Cut-Off Wavelength (nm)	≤ 1260	
Local Variations : Cabled (dB)	≤ 0.1@1550nm	