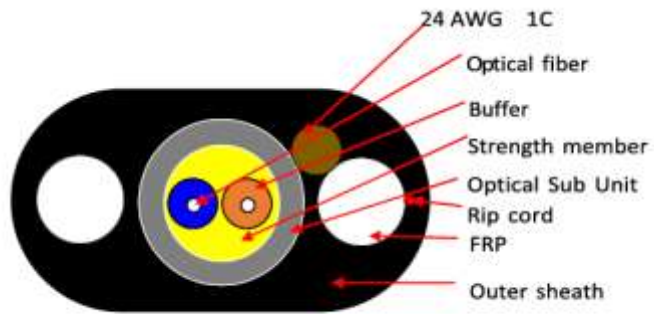


Tight Buffered Flat Toneable Drop Cable
Fiber type: G.657A1 /G.657A2
Fiber count: 1F/2F
Specification Number: LA-FD-02TB-160108A-T

1. Cable Structure

1.1 Cross Section



1.2 Construction

Structure		Description
Optical Fiber	Fiber	G657A1 / G657A2
	Count	1~2
Tight Buffer	Color	Blue / Orange
	Material	PVC
	Diameter	0.9±0.05 mm
Sub Unit	Strength Member	Aramid yarn
	Inner Sheath	Black PVC
	Diameter	2.9±0.1 mm
Water Blocking		Water blocking yarn
Strength Member	Material	FRP
	Diameter	1.5±0.1 mm
Trace Copper Wire		24 AWG
Ripcord		Red
Outer Jacket	Material	Black PVC
	Diameter	8.7±0.5 mm x 4.5±0.3 mm
Tensile Strength		1,500 N
Operating Temperature		-40 ~ 70 °C

2. Optical Fiber Property (in case of ITU-G.657A1)

Parameter	Specification
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	≤ 0.35dB/km ≤ 0.35dB/km ≤ 0.22dB/km ≤ 0.23dB/km
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1302 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm ² .km)
Mode field diameter @ 1310 nm	9.0 ± 0.4 μm
Core/Clad concentricity error	≤ 0.6 μm
Cladding diameter	124.8 ± 1.0 μm
Cladding non-circularity	≤ 1,0 %
Primary Coating diameter	245 ± 7 μm
Refractive index	1.4690 @ 1310 nm 1.4695 @ 1550 nm
Macro-bend Induced Attenuation	15 mm radius, 1 turn: Δ ≤ 0.1dB @1550nm 20 mm radius, 1 turn: Δ ≤ 0.1dB @1550nm 30 mm radius, 10 turns: Δ ≤ 0.1dB @1625nm

3. Mechanical and Environmental Requirements

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: Short term tension - Length of cable: about 100m	- Fiber strain ≤ 0.36% - Loss change ≤ 0.1 dB @1550 nm - No fiber break & sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.05dB@1550nm - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 5J	- Loss change ≤ 0.1dB@1550nm - No fiber break and no sheath damage.
Temperature Test YD/T901-2001-4.4.4.1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycles: 2	- Loss change ≤ 0.05 dB/km@1550 nm - No fiber break and no sheath damage.
Flame rating test IEC 60332-1-2	- Test time: 60sec - Length: 600mm	The total length must not burn.

Water penetration IEC 60794-1-2	- Length: 2m (horizontal install) - Water tank height: 1m - Time: 24h	No leak
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