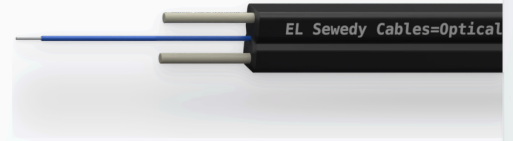


CABLES / FIBER OPTIC CABLES / FLAT DROP CABLE

1F FLAT DROP CABLE

2 E9/125 LG | Complying with ITU-T G.657.A1



BRIEF

Flat drop cable with G.657 A1 fiber is specifically designed for Fiber to the Home (FTTH) deployments. Its flat profile and bend-insensitive fiber make it ideal for tight bends and installations in confined spaces, common in residential settings. It's used to connect individual subscribers to the main fiber network.

CABLE CONSTRUCTION

CABLE COMPONENTS

- Embedded Element-FRP Rod(2Nos)
- Coloured fiber Core
- LSZH Outer Sheath

Fibers	1
Embedded Strength member	Embedded Element-FRP Rod(2Nos)
Outer Sheath	Black or Red LSZH
Cable Diameter (Approx.)	2x3 mm

Cable Weight (Approx.)	4 kg/km
Cable Marking	White Ink Jet Printing
Tensile Strength	200 N
Crush Strength	200 N

FIBER COLOR CODING

1
Blue

TEMPERATURE RANGE

Relative Humidity	5% to 95%
Installation / Transportation / Storage	-10 °C to 60 °C
Operating Temperature	-40 °C to 70 °C

APPLICABLE STANDARDS

IEC 60793, IEC 60794-1-2, ITU-T Recommendations, TIA/EIA-455 (FOTP), IEC 60332-1

CABLE MARKING

EL Sewedy Cables=Optical Fiber
Cable=YYYY=No. Of
Fibers=SM=G.657A1=L/M

CABLE MECHANICAL & ENVIRONMENTAL PROPERTIES

TESTS	SPECIFICATION	CONDITIONS	ACCEPTANCE CRITERIA
Temperature cycle	IEC 60794-1-22-F1	-20°C to +70°C, 1hr 2 cycle	Attenuation change < ±0.1 dB/km
Tensile Strength	IEC 60794-1-21-E1	Max 200 N; 1 min	Attenuation change < ±0.1 dB/km
Crush	IEC 60794-1-21-E3	200 N/100mm	Attenuation change < ±0.1 dB/km
Impact	IEC 60794-1-21-E4	1 spot, ½ m, ½ kg	Attenuation change < ±0.1 dB/km

TESTS	SPECIFICATION	CONDITIONS	ACCEPTANCE CRITERIA
Cable Bend Radius	IEC 60794-1-21-E11	20 x OD, No Load	Attenuation change < ±0.1 dB/km
Twist	IEC 60794-1-21-E7	1m, 1kg, 180°, 10 cycles	Attenuation change < ±0.1 dB/km
Repeated Bending	IEC 60794-1-21-E6	20 x OD, 1kg, 10 cycles	Attenuation change < ±0.1 dB/km

FIBER SPECIFICATIONS

OPTICAL CHARACTERISTICS

G.657A1

Attenuation	1310nm	≤ 0.33/0.35 dB/km
	1550nm	≤ 0.20/0.25 dB/km
Dispersion Coefficient	1285-1330nm	≤ 3.5 ps/(nm.km)
	1550nm	≤ 18 ps/(nm.km)
Polarization Mode Dispersion	-	≤ 0.2 ps/√km
Cable cut-off wavelength (λ _{cc})		≤ 1260 nm
Mode Field Diameter	1310nm	8.6 - 9.5 + 0.4 μm
Zero dispersion wavelength (λ _o)		1300 ≤ λ _o ≤ 1324 nm
Zero dispersion slope (S _o)	-	S _o ≤ 0.092 ps/(nm ² ·km)
Effective group index of refraction (N _{eff})	1310nm	1.466
	1550nm	1.467
Point Discontinuity	1310nm	≤ 0.1 dB
	1550nm	≤ 0.1 dB

GEOMETRICAL CHARACTERISTICS

G.657A1

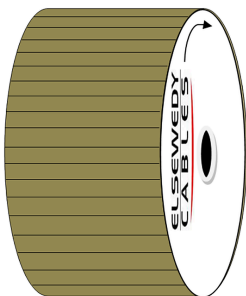
Cladding Diameter	125±0.7 μm
Cladding Non-Circularity	≤1%
Coating Diameter	250±10 μm
Core-Cladding Concentricity Error	≤0.6 μm

MECHANICAL CHARACTERISTICS

G.657A1

Proof Test	≥9N
	≥1%
	≥ 0.7GPa (100kpsi)

PACKAGING INFORMATION



- Standard Cutting Length: 1000 mts ± 5% (5% of the total order quantity can be non-standard length)
- All necessary cable information shall be marked on the wooden drum outer flanges by using waterproof Ink or waterproof label or aluminium plate.
- The cable wooden drum shall be of the standard manufacturing length but special length if any can also be provided on customer request. The wooden drum barrel diameter shall not be less than 40 times of the nominal outer diameter of the cable. The cable ends shall be sealed with shrinkable end caps on both sides of the cable. The cable wooden drum is protected by whether proof sheet and wooden battens. The direction of rotation shall be marked on the drum flange.

ORDERING INFORMATION

PRODUCT REFERENCE	DESCRIPTION
SW21WH4001-2	1F Flat Drop Cable, 2 E9/125 LG Complying with ITU-T G.657.A1