

1. Outer Sheath (Low Friction LSZH)
2. 1 Fiber G.657A2
3. Strength Member (KFRP)



Description

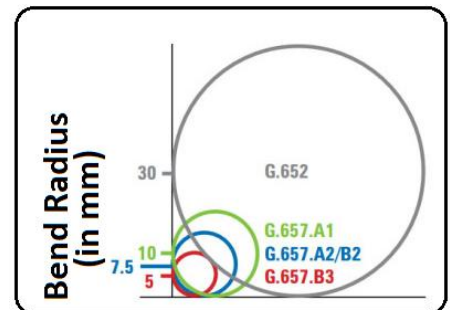
DME PROLINK's 1 Core Indoor Drop Fiber cable is designed and manufactured to the highest standards. Available as Single-mode (G.657A2 compliant), it provides the bend-insensitivity and robustness essential to a successful FTTH deployment

The Aramid Reinforced Plastic Rod strength member offers more than adequate strength to pull long lengths of this cable while significantly reducing the weight of the cable.

The Fiber used in DME PROLINK's Fiber Optic cables, are made of pure silica and germanium doped silica. A UV curable acrylate material is applied over the Fiber Cladding as primary protective coating. DME PROLINK quality personals ensures product reliability through rigorous qualification testing to assure cable performance and durability in adverse field environments. Excellent quality control is achieved through intense in-house quality check and stringent audit acceptance by ISO 9001.

Features & Benefits

- Complying with ITU-T G.657A2 specs
- Approved by Service Providers
- LSZH Rated
- Predictable lifetime of 30 years
- Color code scheme: According to EIA/TIA 598
- Compact Figure & Easy to Install
- Suitable for Indoor Connections within Multi Dwelling Units (MDU)
- Designed as per Etisalat standards for FTTH Deployments and applications



The Fiber within FO Drop cable are designed, Manufactured and tested according to below standards:

- IEC 60793-1: Optical Fiber Part 1: Generic Specification
- IEC 60793-2: Optical Fiber Part 2: Product Specification
- IEC 60794-2: Optical Fiber Cables Part 2 Indoor cables- Sectional Specification
- ITU-T G650: Definition and test methods for the relevant parameters of single-mode fibers
- ITU-T G.655: Characteristics of a non-zero dispersion-shifted single-mode optical fiber and cable
- ITU-T G.657: Characteristics of a bending-loss insensitive single-mode optical fiber

Optical Fiber G.657A2 Specification

Category	Description	Values
Optical Specifications	Attenuation @1310 nm	≤0.35 dB/km
	Attenuation @1550 nm	≤0.21 dB/km
	Cable Cutoff Wavelength (λ _{cc})	≤1260 nm
	Macro-bend loss (1 turn, 7.5mm radius) @ 1550nm @ 1625nm	≤ 0.50 dB ≤ 1.00 dB
	Mode Field Diameter @1310 nm	8.6 ± 0.4μm
Dimensional Specifications	Cladding Diameter	125 ±0.7μm
	Cladding non circularity	≤1.0%
	Coating diameter	245 ± 5μm
	Coating non circularity	≤ 6%
	Cladding / coating concentricity error	≤ 12μm
	Core/clad concentricity error	≤0.5μm
Mechanical Specifications	Proof stress Level	≥100 Kpsi
Environmental Specification	Operation temperature range	-20°C to + 60°C
	Installation temperature range	-20°C to + 60°C
	Transport and storage temperature range	-20°C to + 60°C

Physical / Mechanical Characteristics of Fiber Optic Cable

Physical	Fiber count	1 core G.657A2
	Strength member Material	KFRP
	Strength member Diameter	0.58mm
	Cable OD	(2.0*3.0mm) ± 5%
	Cable weight	8.8 kg/km ± 15%
Mechanical	Max. tensile load (Short Term)	80N
	Max. tensile load (Long Term)	40N
	Crush resistance (Short Term)	500N/100mm
	Crush resistance (Long Term)	250N/100mm
	Dynamic bending radius	20 x OD
	Static bending radius	10 x OD
Cable Attenuation	≤ 0.4dB/km @ 1310nm, ≤ 0.3dB/km @ 1550nm	

Routine Factory tests of single-mode fiber

Parameters	Test Standards
Mode field diameter	IEC 60793-1-45.
Mode field Core/clad concentricity	IEC 60793-1-20
Cladding diameter	IEC 60793-1-20
Cladding non-circularity	IEC 60793-1-20
Attenuation coefficient	IEC 60793-1-40
Chromatic dispersion	IEC 60793-1-42
Cable cut-off wavelength	IEC 60793-1-44

Factory Test List for Fiber Optic Cable*

Tension Loading Test

Test Standard	IEC 60794-1-2 E1
Sample Length	No less than 50 meters
Load	Short Term Tension
Duration time	1 minute
Test results	Fiber strain $\leq 0.4\%$; Additional attenuation $\leq 0.4\text{dB}$
	No fiber breakage and no sheath damage

Crush / Compression Test

Test Standard	IEC 60794-1-2 E3
Load	Short Term crush
Duration time	1 minute
Test number	1
Test results	Additional attenuation $\leq 0.4\text{dB}$
	No fiber breakage and no sheath damage

Impact Resistance Test

Test Standard	IEC 60794-1-2 E4
Impact energy	1J
Radius	12.5mm
Impact Points	3
Impact Number	1
Test results	Additional attenuation $\leq 0.4\text{dB}$
	No fiber breakage and no sheath damage

Bend Test

Test Standard	IEC 60794-1-2 E11
Bending Radius	20 x diameter of cable
Turn number	4
Number of cycles	1
Test results	Additional attenuation $\leq 0.4\text{dB}$
	No fiber breakage and no sheath damage

Repeated Bending Test

Test Standard	IEC 60794-1-2 E6
Bending Radius	30 x H
No. of Cycles	300
Load	20N
Test results	Additional attenuation $\leq 0.4\text{dB}$ There shall be no damage to the cable elements under visual inspection.

Torsion Test

Test Standard	IEC 60794-1-2 E7
Length	1m
Twist Angle	$\pm 180^\circ$
No. of Cycle	20
Test results	No fiber breakage and no sheath damage

Temperature Cycling Test

Test Standard	IEC 60794-1-2 F1
Temperature	-20°C to +60°C
Time of each step	8 Hrs
Number of cycle	2
Test results	Additional attenuation $\leq 0.4\text{dB}$ There shall be no damage to the cable elements under visual inspection.

Part Number

D1149-ID1F77A2WT Fiber Optic Indoor Drop Cable, 1 Core, Single-mode OS2, LSZH, G.657A2, white