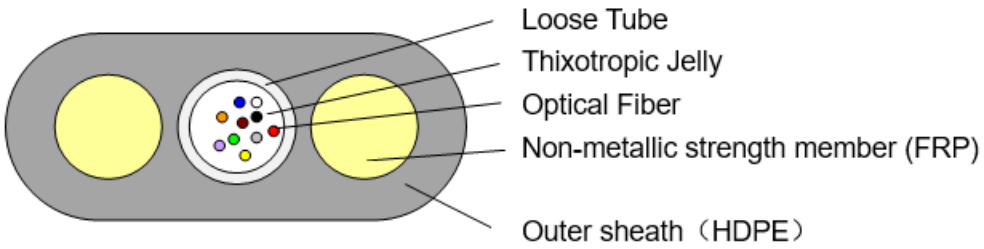
NEWLINK
Cabling Systems

NEW-9449002

Fiber Optic Cable - FTTH



Optical fiber characteristics:

Category	Description		Specifications
			G.652D
Optical Specifications	Attenuation	@1310nm	≤0.36dB/km
		@1550nm	≤0.22dB/km
	Attenuation discontinuity		≤0.05 dB
	Attenuation vs. Wavelength	@1285~1330nm	≤0.05 dB/km
		@1525~1575nm	≤0.05 dB/km
	Zero Dispersion Wavelength		1300~1324nm
	Zero Dispersion Slope		≤0.092ps/(nm^2.km)
	Dispersion	@1310nm	≤3.5 ps/nm.km
		@1550nm	≤18 ps/nm.km
	Cable Cutoff Wavelength(λcc)		≤1260nm
	PMD		≤0.20ps/km1/2
	Effective Group Index of Refraction	@1310nm	1.4675
		@1550nm	1.4681
Geometric Specifications	Mode Field Diameter	@1310nm	9.2±0.4μm
		@1550nm	10.4±0.8μm

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	Cladding Diameter	125±1μm
	Cladding Non-Circularity	≤1.0%
	Coating Diameter	243±7μm
	Coating/Cladding Concentricity Error	≤12μm
	Core/Cladding Concentricity Error	≤0.8μm
Mechanical Specifications	Proof Test level	≥1.0%
	Fiber Curl Radius	≥4.0m
	Fiber tensile strength	Proof-tested, at least 0.69 Gpa (100 kpsi)

Structure		Unit	Parameter
Fiber count		Fibers	2
Loose tube	Material	--	PBT
Strength Member	Material	--	Non-metallic strength member (FRP)
	Diameter	Mm	2.1
Cable diameter		mm	7.8*4.3(L*W)
Cable weight		Kg/km	Approx. 37
Bending Radius	Dynamic	mm	200
	Static	mm	100
Operating Temperature		℃	-30 --- +70
Max tensile strength		N	1335
Crush resistance		N/10cm	1000
Span		m	100

Fiber and Loose Tube coding. The color coding of the optical fiber shall be in accordance with:

No. of fiber per Tube	1	2
Color of Fiber	Blue	Orange

Test Requirements:

No	Item	Test standard	Method	Acceptance criteria
1	Tensile test	IEC-60794-1-E1	-Max. Tensile strength -Sample length:50 meters -Time: 1minutes;	-Attenuation increase≤0.10dB
2	Crush test	IEC-60794-1-E3	-Load:1000N -Time: 1 minutes -Length: 100mm	-No splits or cracks in the outer jacket; -Attenuation increase<0.10dB,
3	Impact test	IEC-60794-1-E4	-Impact energy: 300g - Height:1 meter -Impact points: min.1 --Number of impacts: 5	-No splits or cracks in the outer jacket -Attenuation increase≤0.10dB(after the test)
4	Repeated bending	IEC-60794-1-E6	-R=200mm -1m cable length with 100N weight,30 cycles	- No splits or cracks in the outer jacket -Attenuation increase ≤0.10dB(after the test)
5	Temperature cycling test	IEC-60794-1-F1	-Temperature step: +20℃→-30℃→+70℃→-30℃→ +70℃→+20℃ -Time per each step: 12 hrs -Number of cycles: 2 cycles	-Attenuation variation for reference value(the attenuation to be measured before test at +20±3℃) ≤0.10dB/km,
6	Water penetration test	IEC-60794-1-F5	-Water height: 1m -Sample length:3m -Duration of test: 24hrs	-No water leakage at the end of the sample
7	Drip test	IEC-60794-1-E14	-Five 0.3m samples suspended vertically in a climate chamber, raised temperature to +70℃	-No filling compound shall drip from tubes after 24 hr

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Ordering Information:

Part Number	Description
NEW-9449002	Fiber Optic Cable – FTTH