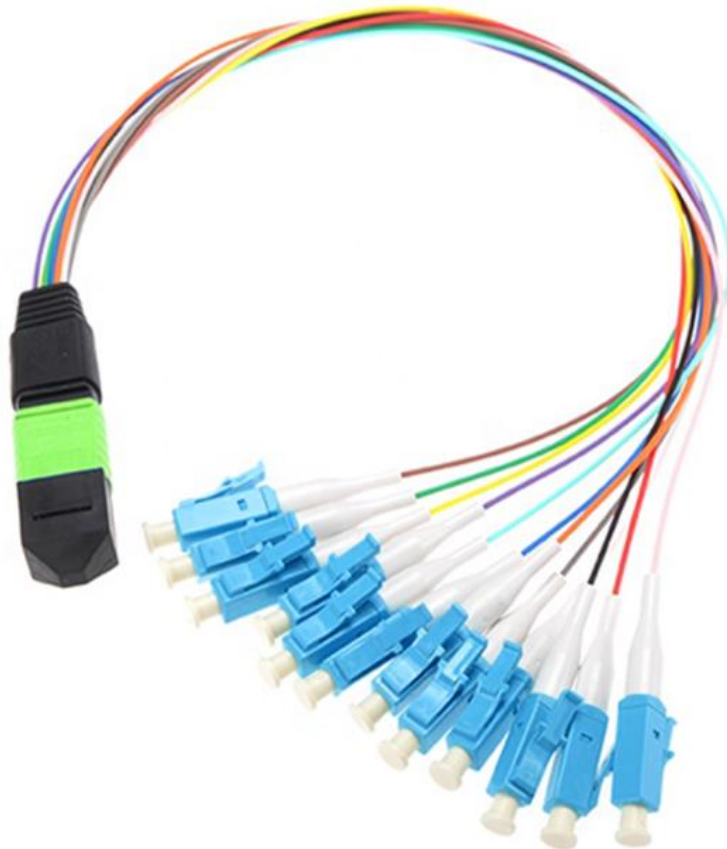


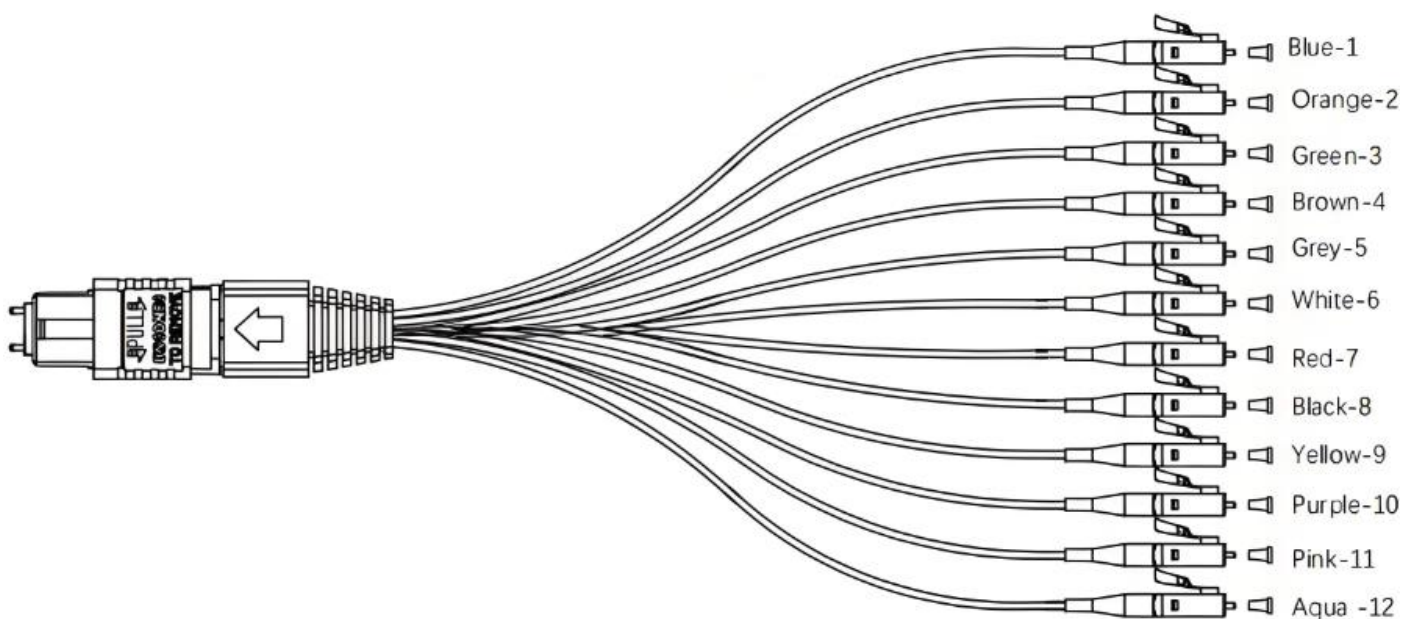
## Fiber Optic Patch Cord 12 cores MPO/MTP Male to 0.9mm LC/UPC SM G657A1 Corning® Fiber LSZH/OFNR/OFNP 0.3m

UnitekFiber specializes in manufacturing high-quality fanout MPO/MTP-LC fiber patch cords, which are widely deployed in structured cabling systems and fiber patch panel connections. We offer a full range of fiber options including single-mode OS2 and multimode OM1/OM2/OM3/OM4/OM5 to satisfy diverse network deployment needs.

Our 0.3-meter fanout MPO/MTP-LC patch cords are available in 8-core, 12-core, and 24-core configurations, and feature premium cable jackets in LSZH, OFNR, and OFNP grades to comply with stringent safety and installation requirements. Specifically engineered for high-density data center applications to ensure efficient, space-saving, and reliable optical connectivity.



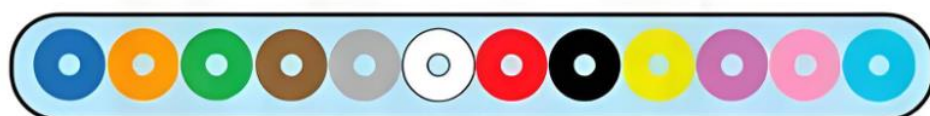
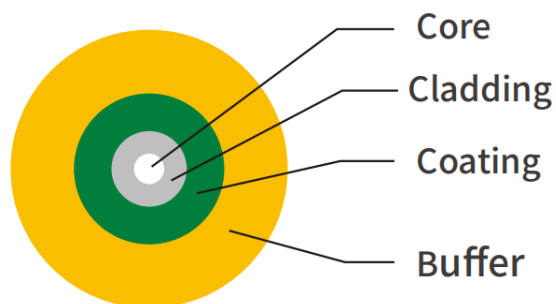
**Drawings:**



**Connector Technical Parameter**

Model		SM
Connector A : MPO/MTP		
Insertion Loss	Standard	≤0.70dB
	Elite Low Loss	≤0.35dB
Return Loss		APC≥60dB
Test Wavelength		1310nm&1550nm
Connector B: LC		
Insertion Loss	Standard	≤0.30dB
Return Loss		UPC≥50dB
Test Wavelength		1310nm&1550nm

**Cable Structure Diagram**



12-fiber ribbon fiber cable

### Cable Dimensions and Constructions

Items		Descriptions
Optical Fiber	Fiber count	12
	Color	Optical Fiber Chromatography
Sheath	Material	LSZH/OFNR/OFNP
	Color	Blue、 Orange、 Green、 Brown、 Grey、 White、 Red、 Black、 Yellow、 Purple、 Pink、 Aqua
	Diameter	0.9±0.05mm

### Mechanical and Environmental Characteristics

Items	Descriptions	
Tensile	short-term	6N
	long-term	2N
Min.Bend Radius (Dynamic)	mm	50
Min.Bend Radius (Static)	mm	30
Operating Temperature	- 2 0 °C--+ 6 0 °C	
Temperature Range	- 2 0 °C--+ 6 0 °C	

### Fiber Attenuation

# Corning® G657A1 Optical Fiber

## Optical Specifications

### Maximum Attenuation

Wavelength (nm)	Maximum Value* (dB/km)
1310	≤ 0.32
1383	≤ 0.32
1490	≤ 0.21
1550	≤ 0.18
1625	≤ 0.20

\*Alternate attenuation offerings available upon request.

\*\*Attenuation values at this wavelength represent post-hydrogen aging performance.

### Attenuation vs. Wavelength

Range (nm)	Ref. λ (nm)	Max. α Difference (dB/km)
1285 – 1330	1310	0.03
1525 – 1575	1550	0.02

The attenuation in a given wavelength range does not exceed the attenuation of the reference wavelength (λ) by more than the value α.

### Macrobend Loss

Mandrel Radius (mm)	Number of Turns	Wavelength (nm)	Induced Attenuation* (dB)
10	1	1550	≤ 0.50
10	1	1625	≤ 1.5
15	10	1550	≤ 0.05
15	10	1625	≤ 0.30
30	100	1625	≤ 0.1

\*The induced attenuation due to fiber wrapped around a mandrel of a specified radius.

### Point Discontinuity

Wavelength (nm)	Point Discontinuity (dB)
1310	≤ 0.05
1550	≤ 0.05

### Cable Cutoff Wavelength (λ<sub>cc</sub>)

λ<sub>cc</sub> ≤ 1260 nm

### Mode Field Diameter

Wavelength (nm)	Mode Field Diameter (μm)
1310	9.2 ± 0.4
1550	10.4 ± 0.5

### Dispersion

Wavelength (nm)	Dispersion Value [ps/(nm·km)]
1550	≤ 18
1625	≤ 22

Zero Dispersion Wavelength (λ<sub>0</sub>): 1304 nm ≤ λ<sub>0</sub> ≤ 1324 nm Zero Dispersion Slope (S<sub>0</sub>): ≤ 0.092 ps/(nm<sup>2</sup>·km)

### Polarization Mode Dispersion (PMD)

	Value (ps/√km)
PMD Link Design Value	≤ 0.04*
Maximum Individual Fiber PMD	≤ 0.1

\*Complies with ITU-T G.650-2 Appendix IV, (m = 20, Q = 0.01%), August 2015.

The PMD link design value is a term used to describe the PMD of concatenated lengths of fiber (also known as PMDQ). This value represents a statistical upper limit for total link PMD. Individual PMD values may change when fiber is cabled.

## Dimensional Specifications

### Glass Geometry

Fiber Curl	≥ 4.0m radius of curvature
Cladding Diameter	125.0 ± 0.7 μm

### Coating Geometry

Coating Diameter	242 ± 5 μm
Coating-Cladding Concentricity	< 12 μm

Core-Clad Concentricity	≤ 0.5 μm
Cladding Non-Circularity	≤ 0.7%

## Environmental Specifications

Environmental Test	Test Condition	Induced Attenuation
		1310 nm, 1550 nm, and 1625 nm (dB/km)
Temperature Dependence	-60°C to +85°C*	≤ 0.05
Temperature Humidity Cycling	-10°C to +85°C up to 98% RH	≤ 0.05
Water Immersion	23°C ± 2°C	≤ 0.05
Heat Aging	85°C ± 2°C	≤ 0.05
Damp Heat	85°C at 85% RH	≤ 0.05

Operating Temperature Range: -60°C to +85°C

\*Reference temperature = +23°C

## Mechanical Specifications

### Proof Test

The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.69 GPa). Higher proof test levels are available.

### Length

Fiber lengths available up to 50.4 km/spool.

## Performance Characterizations

Characterized parameters are typical values.

Core Diameter	8.2 μm
Numerical Aperture	0.14 NA is measured at the one percent power level of a one-dimensional far-field scan at 1310 nm.
Effective Group Index of Refraction ( $n_{eff}$ )	1310 nm: 1.4676 1550 nm: 1.4682
Fatigue Resistance Parameter ( $n_d$ )	20
Coating Strip Force	Dry: 0.6 lbs. (3 N) Wet, 14-day room temperature: 0.6 lbs. (3 N)
Rayleigh Backscatter Coefficient (for 1 ns Pulse Width)	1310 nm: -77 dB 1550 nm: -82 dB