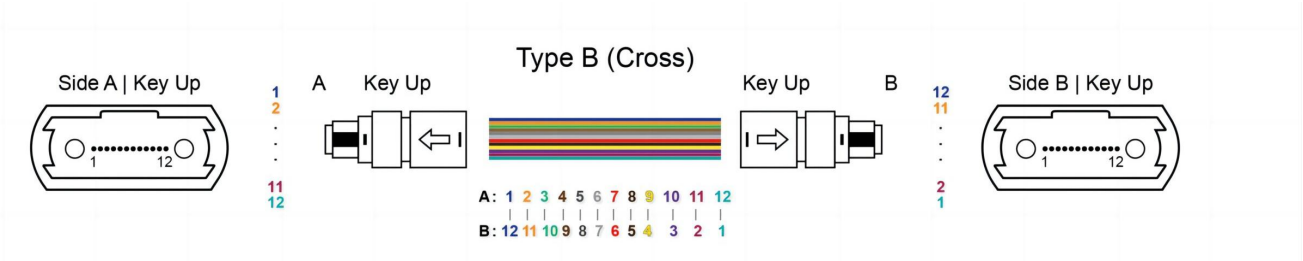
Fiber Optic Patch Cable 8C MPO/APC to MPO/APC F/M MM OM3 Corning® ClearCurvee® Fiber LSZH Aqua

The 8C MPO/APC to MPO/APC Male/Female MM OM3 Fiber Optic Patch Cable is a high-performance fiber connectivity solution designed for high-density data centers and high-speed optical transmission applications. Manufactured with Corning® ClearCurve® OM3 multimode fiber, it provides excellent bend resistance, low insertion loss, and stable 40G/100G network performance. The LSZH aqua jacket offers enhanced safety and environmental protection for indoor installations, while the MPO/APC male/female connectors ensure precise alignment and reliable signal transmission. We offer strong supplying capability with advanced production lines, stable material sourcing, fast delivery, and convenient online shop services to support customer demands efficiently. Strict quality control is implemented throughout production, including 100% testing for insertion loss, return loss, polarity, and end-face inspection, ensuring consistent quality and dependable performance for every product.

Drawings：

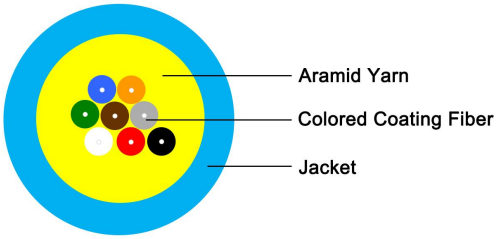
Type B Polarity



Connector Technical Parameter

Model		MM
Connector A : MPO		
Insertion Loss	Elite Low Loss	≤0.35dB
Return Loss		PC≥25dB
Test Wavelength		850nm&1300nm
Connector B: MPO		
Insertion Loss	Elite Low Loss	≤0.35dB
Return Loss		PC≥25dB
Test Wavelength		850nm&1300nm

Cable Structure Diagram



Cable Dimensions and Constructions

Items	Descriptions

Optical Fiber	Fiber count	8
	Color	Optical Fiber Chromatography
	Diameter	250±50μm
Sheath	Material	Flame Retardant LSZH
	Color	Aqua
	Diameter	3.0±0.1mm

Mechanical and Environmental Characteristics

Items	Descriptions	
Tensile	short-term	100N
	long-term	60N
Min.Bend Radius（Dynamic）	mm	20D
Min.Bend Radius（Static）	mm	10D
Operating Temperature	-20 to 70° C (-4 to 158℉)	
Temperature Range	-40 to 80° C (-40 to 176℉)	

Fiber Attenuation

Corning® ClearCurve® OM3 Optical Fibers

Standards Compliance

	ClearCurve® OM3 fiber
IEC 60793-2-10 T	Type A1-OM3 fiber
TIA	492AAAC-B

Optical Specifications

Bandwidth

	High Performance EMB* (MHz•km)	Overfilled Modal Bandwidth** (MHz•km)

Corning optical fiber	850 nm	850 nm	1300 nm
ClearCurve® OM3 fiber	2000	1500	500

*Ensured via minEMBc, per TIA/EIA 455-220A and IEC 60793-1-49, for high performance laser-based systems.

**OFL BW, per TIA/EIA 455-204 and IEC 60793-1-41.

Attenuation

Wavelength (nm)	Maximum Value (db/km)
850	⩽ 2.3
1300	⩽ 0.6

No point discontinuity greater than 0.2dB. Attenuation at 1380 nm does not exceed the attenuation at 1300 nm by more than 3.0 dB/km.

Macrobend Loss

Mandrel Radius (nm)	Number of Turns	Induced Attenuation (dB) 850nm	1300nm
15	2	⩽ 0.1	⩽ 0.3
7.5	2	⩽ 0.2	⩽ 0.3

Numerical Aperture

0.200 ± 0.015

Dimensional Specifications

Glass Geometry*

Core Diameter	50.0 ± 2.5 μm
Cladding Diameter	125.0 ± 1.0 μm
Core-Clad Concentricity	≤ 1.5 μm
Core Non-Circularity	≤ 5%

*Improved geometry available upon request.

Coating Geometry

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

Environmental Specifications

Environmental Test	Test Condition	Induced Attenuation 850 nm and 1300 nm (dB/km)
Temperature Dependence	-60°C to +85°C*	≤ 0.10
Temperature Humidity Cycling	-10°C to +85°C and up to 98% RH	≤ 0.10
Water Immersion	23°C ± 2°C	≤ 0.20
Heat Aging	85°C ± 2°C	≤ 0.20
Damp Heat	85°C at 85% RH	≤ 0.20

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.

Performance Characterizations

Characterized parameters are typical values.

Effective Group Index of Refraction (n_{eff})	850 nm: 1.482 1300 nm: 1.477
Fatigue Resistance Parameter (n_d)	20
Coating Strip Force	Dry: 0.6 lbs. (2.7 N) Wet: 14 days in 23°C water soak: 0.6 lbs. (2.7 N)
Chromatic Dispersion	
Zero Dispersion Wavelength (λ_0):	1297 nm ≤ λ_0 ≤ 1315 nm
Zero Dispersion Slope (S_0):	≤ 4(-103)/(840 (1-(λ_0/840)^4)) ps/(nm^2•km)
Spectral Attenuation (Typical Fiber)