



CEN LINK

FIBER OPTIC CONNECTIVITY

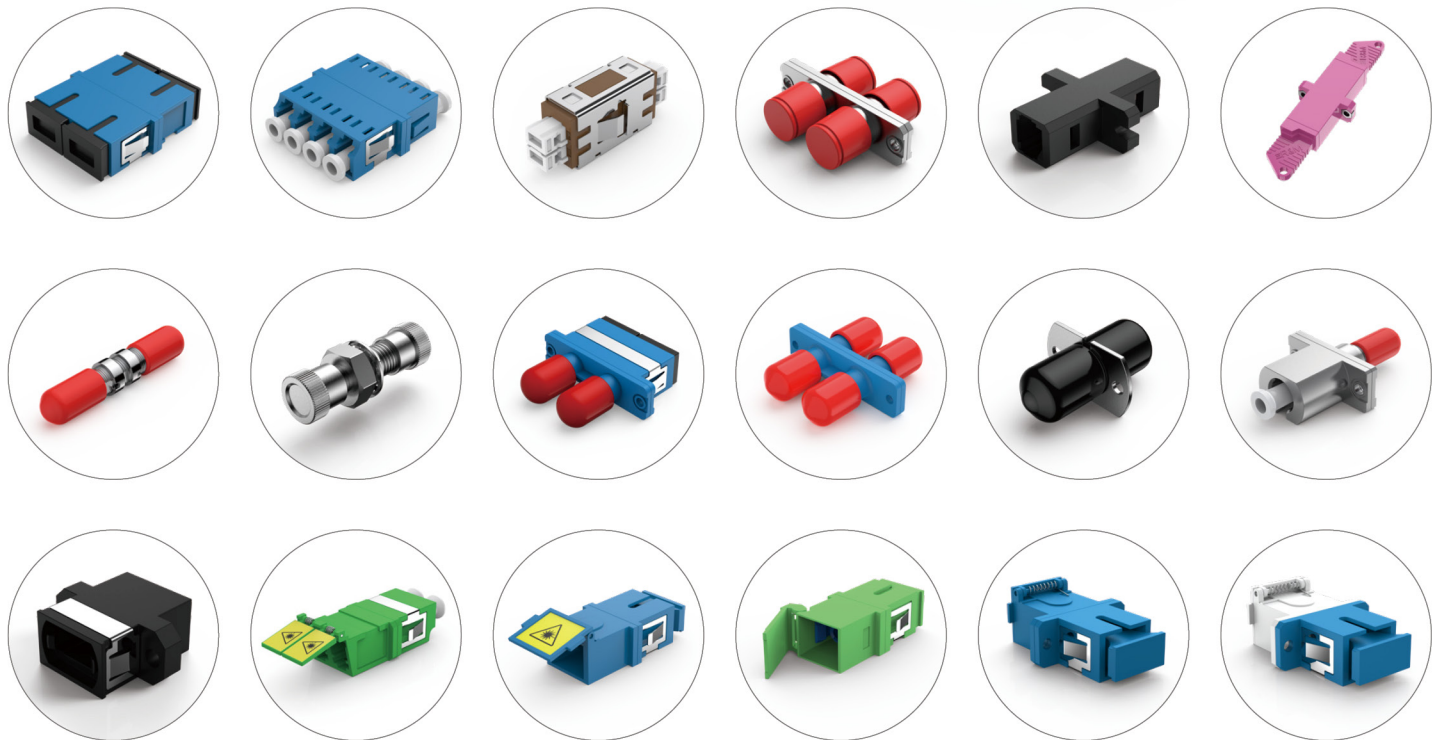
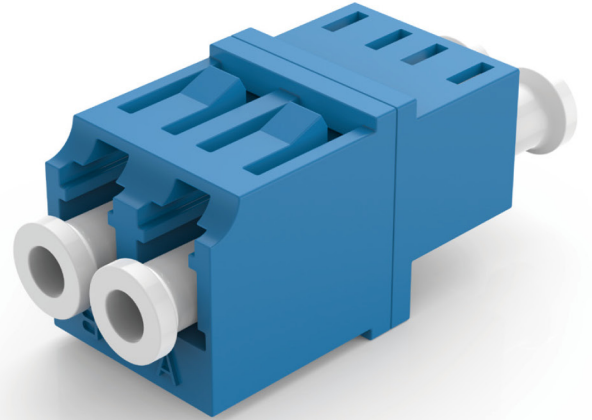
GLOBAL FIBER OPTIC CABLING
AND COMPONENTS SUPPLIER

NEW BROCHURE

Fiber Optic Adapter

CEN adapters are manufactured with high-quality sleeves and are available in bulkhead, male-female and also hybrid versions. Metal and plastic housings where suitable and UL94-V0 flame retardant also supplied if required. Bare fiber adapter available.

- Low insertion loss and back reflection loss
- High precision alignment
- Compact design
- With / Without flange
- Shuttered SC
- Choice of housing material and sleeve material
- Telcordia, ANSI, TIA/EIA, NTT and JIS compliance

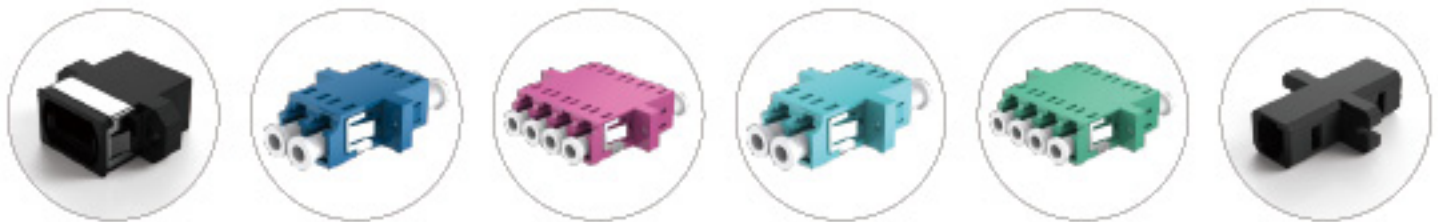


Item	
Insertion Loss	< 0.20dB
Durability	< 0.20dB typical change, 1000 matings
Operating Temperature	-40°C ~ 80°C

LC SC One Piece Adapter

One Piece adapters with enhanced Rattle Free wings. Available in both flange and flangeless configurations. The One Piece design has proven increased side loading performance over conventional adapters.

- One piece solid body
- Low insertion loss and back reflection loss
- High precision alignment
- Compact design
- With / Without flange
- Shuttered SC
- Choice of housing material and sleeve material
- Telcordia, ANSI, TIA/EIA, NTT and JIS compliance



Item

Insertion Loss	< 0.20dB
Durability	< 0.20dB typical change, 1000 matings
Operating Temperature	-40°C ~ 80°C

Order Guide

Duplex with Flange	Simplex	Blue	Zirconia	High Tg	No Shutter
Duplex without Flange	Duplex	Black	Metal		Internal Shutter
		Green			
		Violet			
		Beige			
		Aqua			

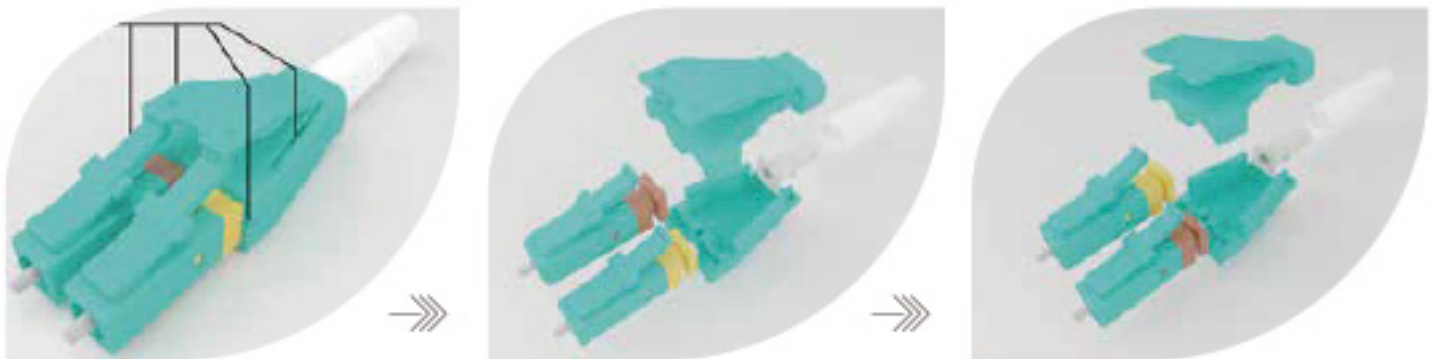
LC Duplex Uniboot Connector

- Have two dismount gap, easy to dismount
- Streamline design, good aesthetic
- Uniboot connector cable management
- Switchable Connector to change polarity
- MINI Boot & Flex angle boot available
- Right Angle Clip good for panel management

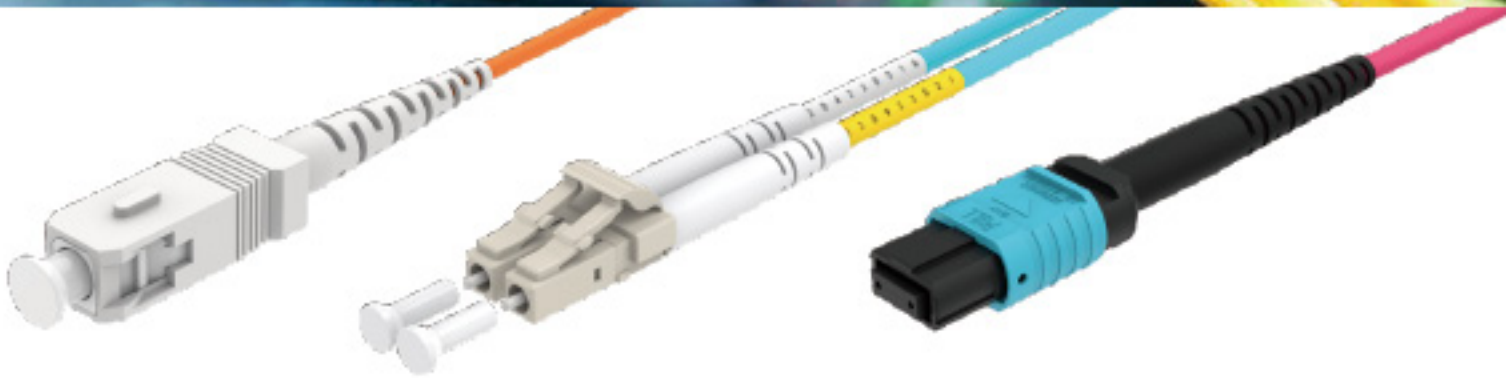
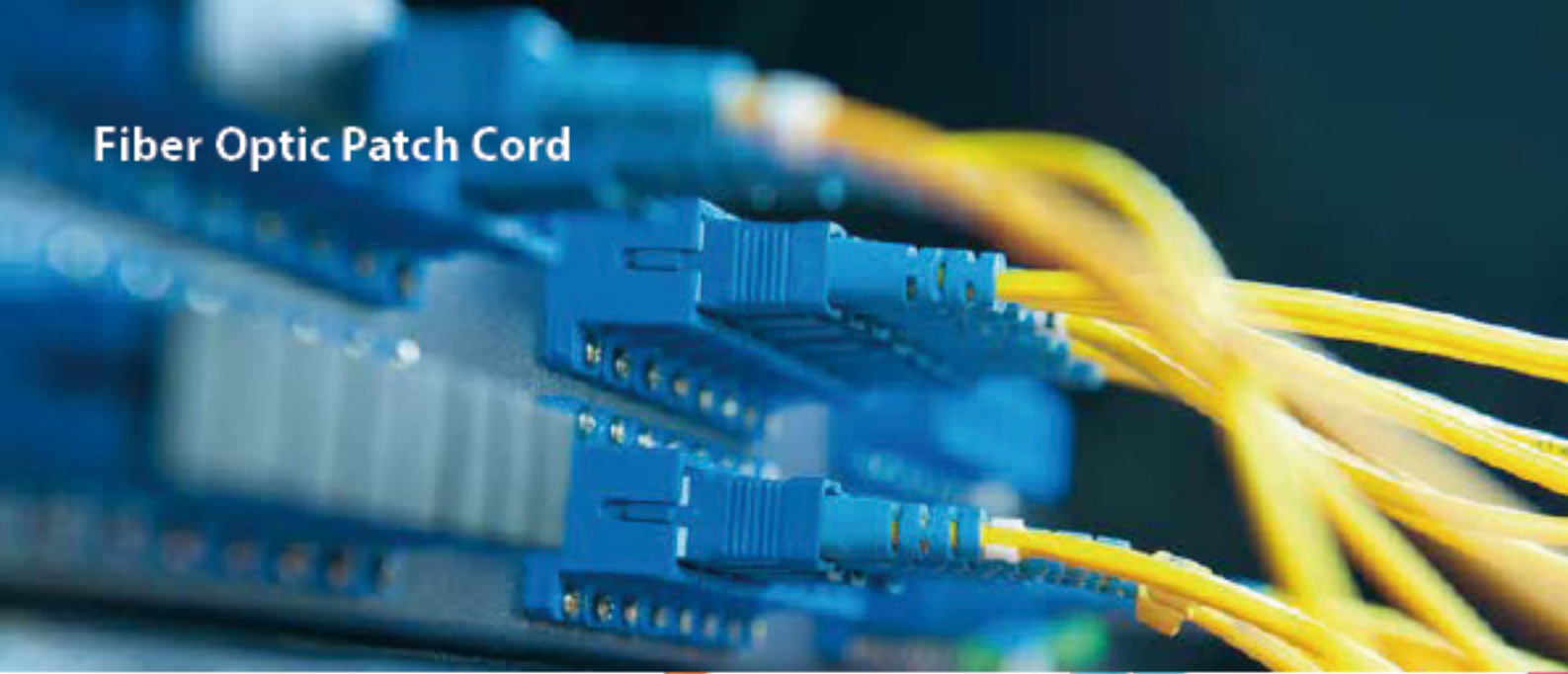


- Gigabit Ethernet
- Video
- Multimedia
- Active device termination
- Premise installations

Item	Single mode	Multimode
Insertion Loss	≤ 0.30dB	≤ 0.30dB
Return Loss	≥ 50dB(PC) / ≥ 60dB(APC)	
Durability	< 0.20dB typical change, 10000 matings	
Operating Temperature	-40°C ~ 85°C	-40°C ~ 85°C
Ferrule Hole Size	125.0+1/-0μm, Concentricity: ≤ 1.0μm	126.0μm, Concentricity: ≤ 3.0μm
	125.5+1/-0μm, Concentricity: ≤ 1.0μm	127.0μm, Concentricity: ≤ 3.0μm
	126.0+1/-0μm, Concentricity: ≤ 1.0μm	128.0μm, Concentricity: ≤ 3.0μm

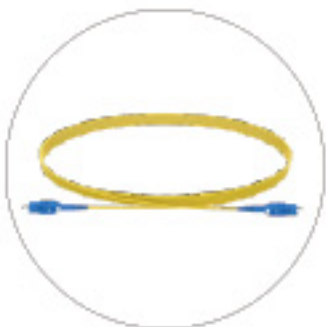


Fiber Optic Patch Cord



From simple pigtail or patchcord assemblies to larger multi-core projects with pulling protection, CEN is the specialist in this sector. Capacity is 40k terminations / day and quality is excellent and consistent. All terminations and a wide range of cables available.

- Low insertion loss and back reflection loss
- High exchangeability
- High Durability
- High temperature stability
- Standard: Telcordia GR-326-CORE



MTP/MPO - LC Patch Cord for QSFP to SFP+

The fan-out is applied to connect 12-core MTP / MPO connector to the LC connectors on the trunk cable. CEN provides both standard and customized branch lengths. When the network equipment is close to MTP patch panel frames, the length of fan-out patch cords are minimized. For the hardware and equipment in the same cabinet, the longer patch cords can provide flexibility at any location, and the branch cables can be wound into the vertical cable organizer.

- Array connectors with high precision low loss MTP / MPO connectors
- Smooth upgrading to next generation data center for 40GbE and 100GbE
- Outer jacket material option: PVC, LSZH and other selected materials
- Cable flammability rating: OFNR, OFNP, LSZH



Item	MTP / MPO - SM	LC - SM	MTP / MPO - MM	LC - MM
Insertion Loss	Low loss $\leq 0.35\text{dB}$	$\leq 0.3\text{dB}$	Low loss $\leq 0.35\text{dB}$	$\leq 0.3\text{dB}$
	Standard Loss $\leq 0.7\text{dB}$	/	Standard Loss $\leq 0.5\text{dB}$	/
Return Loss	$\geq 60\text{dB}$	$\geq 50\text{dB}$	$\geq 30\text{dB}$	$\geq 50\text{dB}$
Durability	$< 0.2\text{dB}$ typical change, 500 matings			
Operating Temperature	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$			

Polarity Switchable Duplex LC Patch Cord

Duplex Uniboot connector patch cord is designed by CEN. This highly flexible duplex cable reduces cabling congestion and improves patch cord management and installation, it improves cabling space.

- Fiber polarity A -> A or A -> B can be switched by installer
- Thin round cable
- Duplex connectors with single boot which is highly integrated and easy for installation
- Standard compatible, simplex / duplex LC connectors. Other options: SC / FC
- High performance, 100% tested
- Fiber type: OFNR, OFNP
- Customized patch cord length
- Two notches on the connectors for easy for installation and uninstallation
- Mini and flexible boot is available. Boot can be turned to any angle
- Quick deployment reduces installation time
- Fast upgrading supports parallel transmission system
- Outer jacket material, PVC, LSZH and other materials selection



Item	Single mode	Multimode
Insertion Loss	≤ 0.30dB	≤ 0.30dB
Return Loss	≥ 50dB (PC) , ≥ 60dB (APC)	/
Durability	< 0.20dB typical change, 1000 matings	/
Operating Temperature	-40°C ~ 85°C	-40°C ~ 85°C

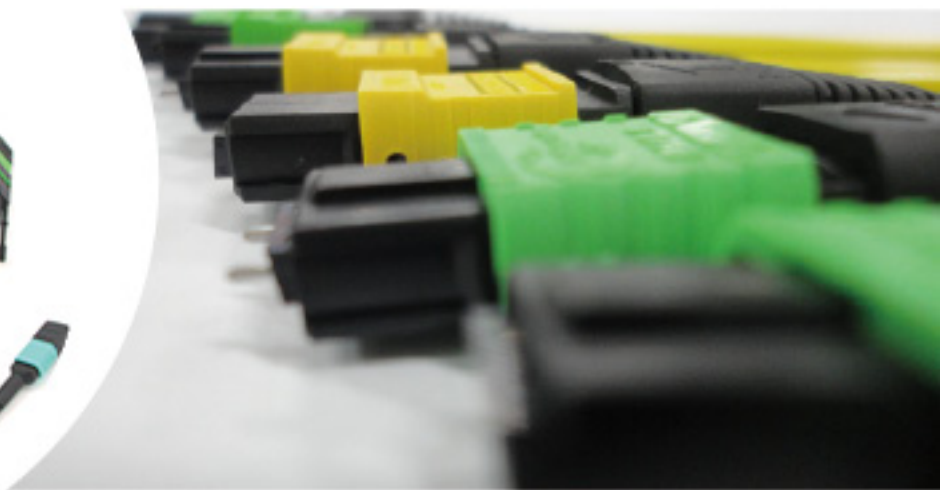


MPO Patch Cord for Internal Cabinet

MPO fiber optical patchcord which are highly demanded in fiber optical communication systems with high density optical fiber. CEN's MPO product comes in many types such as distribution and ribbon type. It can be split into 2 to 24 core 0.9mm or 2.0mm fiber branch through a splitter(round or square). The connector type and the length of fiber patchcord can be decided by customers. Our product conforms to Telcordia GR-326,IEC and RoHS standards.

- Low insertion loss and back reflection loss
- Good exchangeability
- Good Durability
- High temperature stability
- Standard: Telcordia GR-1435-CORE compliant

- CATV , and Multimedia
- Telecommunication networks
- Active device interface
- Telecommunication networks
- Gigabit Ethernet
- Data processing networks
- Interconnection for O/E modules
- Premise installations
- Optical switch interframe connection
- Asynchronous Transmission Mode (ATM)

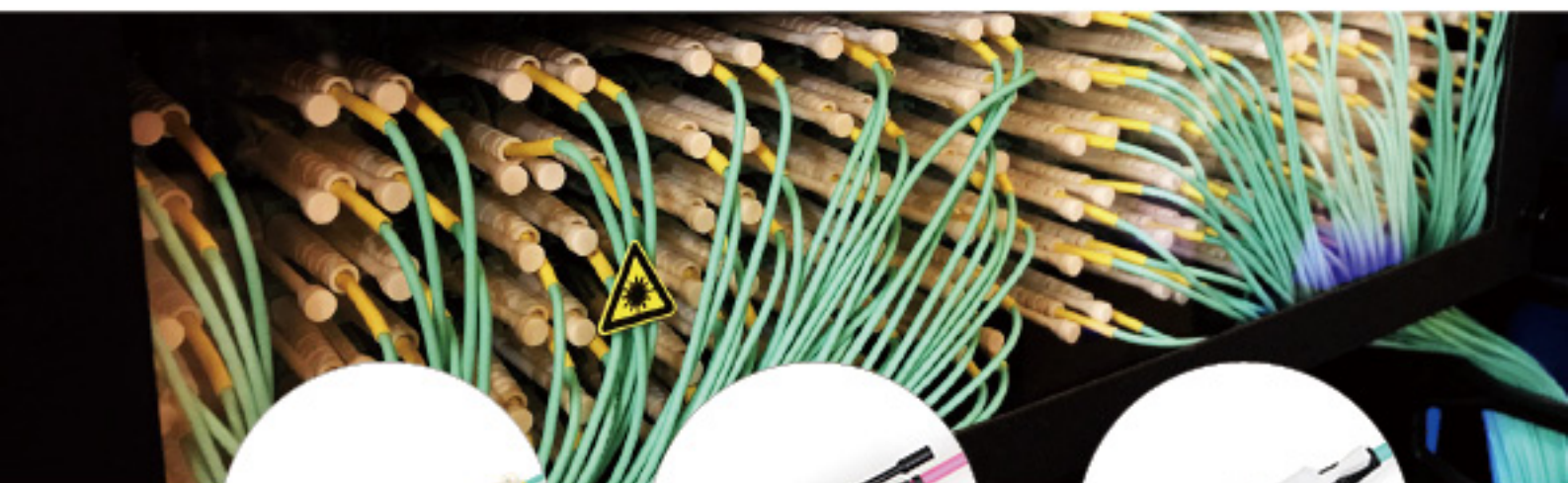


Item	Single mode	Multimode
Insertion Loss	Low loss $\leq 0.35\text{dB}$	Low loss $\leq 0.35\text{dB}$
	Standard Loss $\leq 0.7\text{ dB}$	Standard Loss $\leq 0.5\text{dB}$
Return Loss	$\geq 60\text{dB}$	$\geq 30\text{dB}$
Durability	$< 0.2\text{dB}$ typical change, 500 matings	
Operating Temperature	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$	
40G	8 Fiber	
100G	20 Fiber	

High Density LC/MPO Duplex Pull-Tap Patch Cord

The High Density LC/MPO Duplex Uni-boot Patch Cord is available for high-density fiber patch panels. The highly flexible duplex cable reduces cable congestion and can be plug in and out of the panel easily and quickly so that it improves management and installation convenience.

- Thin round cable
- Duplex LC/MPO with latched uni-boot, easy for plug in and out among panels
- Standard compatible, duplex LC connectors/MPO;
- High transmission, 100% tested under IEC standards
- Quick deployment reduces installation time
- Fast upgrading supports parallel transmission system
- Outer jacket material, PVC, LSZH and other materials selection
- Fiber type: ODNr, OFNP
- Customized patch cord length



Item	Single mode	Multimode
Insertion Loss	≤ 0.30dB	≤ 0.30dB
Return Loss	≥ 50dB (PC) , ≥ 60dB (APC)	/
Durability	< 0.20dB typical change, 1000 matings	/
Operating Temperature	-40°C ~ 85°C	-40 ~ 85°C

MPO Polarity Switchable Patch Cord

The MPO Switchable Connector is a unique design that allows the use of round style. The housing of the MPO Switchable Connector can be Polarity change in the field without any tool, and simple gender change without taking off the housing. This connector allows the fiber polarity to be switched at the time of cable assembly installation without having to reterminate the connectors. This design is commonly used in data centers.

- Low insertion loss and back reflection loss
- Polarity change in the field without any tool
- Simple gender change without taking off the housing
- Good exchangeability
- Good Durability
- High temperature stability
- Various boots types available
- Standard: Telcordia GR-1435-CORE compliant



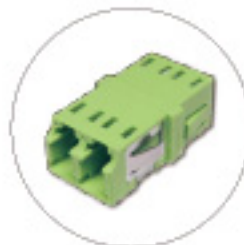
Item	Single mode	Multimode
Insertion Loss	Low loss $\leq 0.35\text{dB}$, Standard Loss $\leq 0.5\text{dB}$	Low loss $\leq 0.35\text{dB}$, Standard Loss $\leq 0.5\text{dB}$
Return Loss	$\geq 60\text{dB}$	$\geq 30\text{dB}$
Repeatability	$\leq 0.1\text{dB}$	
Durability	$\leq 0.2\text{dB}$ typical change, 500 matings	
Interchangeability	$\leq 0.2\text{dB}$	
Tensile Strength	$> 70\text{N}$	
Operating Temperature	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$	

High Density LC/MPO Duplex Pull-Tap Patch Cord

The OM5 fiber has been approved as a new multimode optical fiber for high-speed data center applications, and is designed to support at least four low-cost wavelengths in the 850-950 nm range, enabling optimal support of emerging Shortwave Wavelength Division Multiplexing (SWDM) applications that reduce parallel fiber count by at least a factor of four to allow continued use of just two fibers (rather than eight) for transmitting 40 Gb/s and 100 Gb/s and reduced fiber counts for higher speeds. SWDM has many applications in Data Centers and other applications. OM5 cabling fully compatible and intermateable with OM3 and OM4 cabling. The related OM5 patchcord, Cassette and Panels has attracted wide attention in the industry, and the patchcord cover also all type of fiber connectors.

- Wavelength Range 850-953 nm
- Low insertion loss and back reflection loss
- High precision alignment
- Good exchangeability
- High temperature stability
- Compatible with OM3 and OM4 patchcord

- Telecommunication networks
- Data Center
- CATV , and Multimedia
- Optical switch interframe connection
- Asynchronous Transmission Mode (ATM)



Item

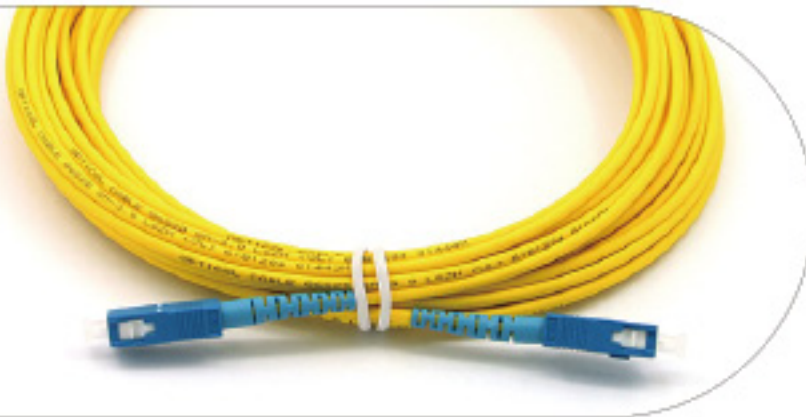
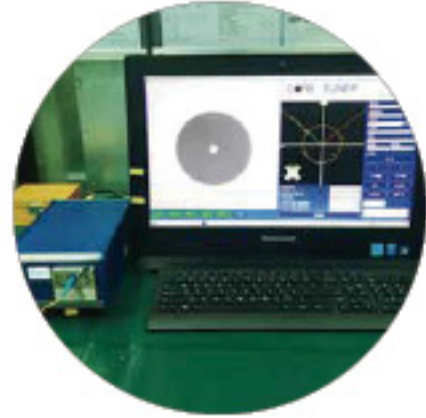
Fiber Type	OM5 (50µm multimode fiber)
Wavelength Range	850nm ~ 953nm
Jacket Color	Lime Green
Furcation Color	Lime Green
Connector Type	MPO / MTP / LC / SC / FC / Customized
Connector Color	Customized
Regulatory Compliance	IEC 60793-2-10 / TIA-492AAAE / RoHS / ISO9001
Operation Temperature	-40°C ~ 85°C

High Performance IEC Grade B Patch Cord

For high-speed fiber-optic communications and data networks, high-performance fiber jumpers mean lower insertion loss and better random interchangeability. IEC Grade B-class patch-cord require higher processing technology and materials than ordinary products. We offer reliable and stable IEC Grade A / B / C grade patch-cord.

- Conforms to IEC 61753-1 and IEC 61300-3-34
- Low insertion loss, low return loss
- Random test interchangeability is good
- High precision ferrule and connector material
- Products comply with Telcordia, IEC, RoHS, REACH

Beside using low concentricity ferrules for the products, all the Grade B connectors must be tuned by using the fiber core adjustment machine. This is a very important procedure to make high quality Grade B connectors. 100% connectors will be tuned in CEN factory.

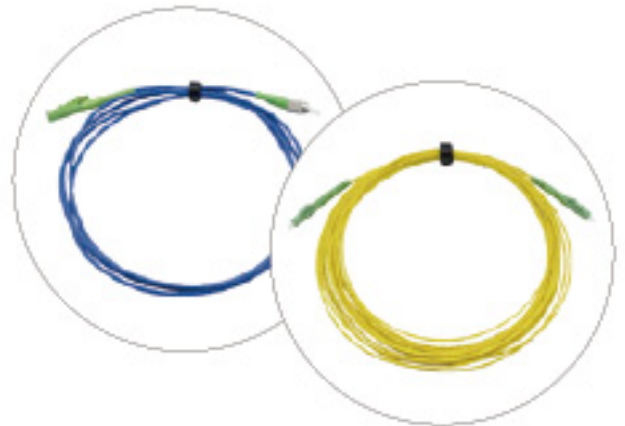


Item	Grade A	Grade B	Grade C
Relative Reference Insertion Loss	≤ 0.10dB	≤ 0.10dB	≤ 0.10dB
Random Insertion Loss	Typical ≤ 0.07dB	Typical ≤ 0.12dB	Typical ≤ 0.25dB
	Maximum ≤ 0.15dB	Maximum ≤ 0.25dB	Maximum ≤ 0.50dB
	UPC ≥ 55dB	UPC ≥ 50dB	UPC ≥ 50dB
Return Loss	APC ≥ 65dB	APC ≥ 60dB	APC ≥ 60dB
	Multimodal ≥ 30dB	Multimodal ≥ 30dB	Multimodal ≥ 30dB
Mechanical Durability	Change amount < 0.20dB, 1000 repetitions		
Operating Temperature	-40°C ~ 85°C		

Fiber standard reference test line

Fiber standard reference test line as a fiber optic patch-cord insertion loss test standard reference line, with high reliability, high stability characteristics, widely used in optical testing equipment, research institutes, laboratory agencies, optical devices, manufacturers and other test areas.

- High precision ceramic ferrule
- High precision connector
- High standard ferrule grinding geometric 3D control
precise control of concentricity direction
- low insertion loss, low return loss
- SC, LC, FC, MU and other models



Item	APC	UPC
Insertion loss	$\leq 0.10\text{dB}$	$\leq 0.10\text{dB}$
Return loss	$\geq 65\text{dB}$	$\geq 55\text{dB}$
2.5mm Ferrule grinding radius ROC	6 ~ 11mm	12 ~ 25mm
1.25mm ferrule end face radius ROC	6 ~ 11mm	7 ~ 20mm
Vertex offset	$\leq 30\mu\text{m}$	$\leq 30\mu\text{m}$
Angle deviation	$8^\circ \pm 0.2$	$0^\circ \pm 0.2$
Fiber height	$\pm 50\mu\text{m}$	
Concentricity offset angle	$\pm 45^\circ$	
Mechanical durability	Change Amount < 0.20dB, 1000 repetitions	
Operating temperature	$-40^\circ\text{C} \sim 75^\circ\text{C}$	

SUS Pigtails

- Optical performance 100% factory tested
- Customized assemblies available
- Precision ceramic ferrule with end-face geometry
- Environmentally stable
- Optical Module(LD,PD)
- Passive Device
- Active device termination
- Instrumentation



Item	Conditions	Values
Insertion Loss	/	< 0.2dB
Return Loss	SPC	> 45dB
	UPC	> 55dB
	APC	> 65dB

LD/PC Pigtails	Fiber Type	Connector Type	Polishing Type	Lenght(M)	Cable Diameter(MM)
LPP	9 - 9/125 μ m	S - SC	P - PC	1 ~ 99m	1 - 0.9mm
	5 - 50/125 μ m	F - FC	A - APC		2 - 2.0mm
	6 - 62.5/125 μ m	T - ST			
		L - LC			
		M - MU			
		E - E2000			

OptoNest Attenuation Fiber

OptoNest's specialty optical fibers are fabricated for WDM (Wavelength Division Multiplexing) applications with flat attenuation properties. The attenuation fibers have the potential to offer high reliability and stable input optical power endurance. OptoNest's attenuation fibers are designed to be used for plug and in-line types attenuators covering from 1250nm to 1650nm with 1~40dB/21mm and 22.4mm

- Ideal for DWDM application
- Durable for high-input power
- Precise control of attenuation range
- High attenuation for fixed, in-line type attenuators and terminator
- High reliability

- Dynamic power leveling in optical add/drop multiplexing
- EDFA
- Dynamic power balancing in DWDM systems
- CATV systems
- Optical network equipment
- Bi-directional systems



Item	Conditions
Operating Wavelength	1250 ~ 1650nm
Attenuation	1 ~ 30dB / 15.4mm, 1 ~ 40dB / 21mm, 22.4mm
Core Diameter	8 ~ 10 μ m
Cladding Diameter	125 \pm 0.5 μ m
Coating Diameter	250 \pm 0.5 μ m
Cutoff Wavelength	1200 \pm 20nm
Operating Temperature Range	-40°C ~ 75°C
Storage Temperature Range	-40°C ~ 85°C

Fiber Optic Attenuator

Wherever you need precise control over signal dB, CEN attenuators are the perfect choice. Available in plug-in, inline fixed and VOA models in all standard types, these precision connectivity solutions provide attenuation in 1dB increments.

- Bellcore Compliant
- Durability (well over 100mw)
- Wavelength Independent (DWDM)
- Simple and Reliable Structure
- Customized attenuation available



Adapter Type Fixed Attenuator

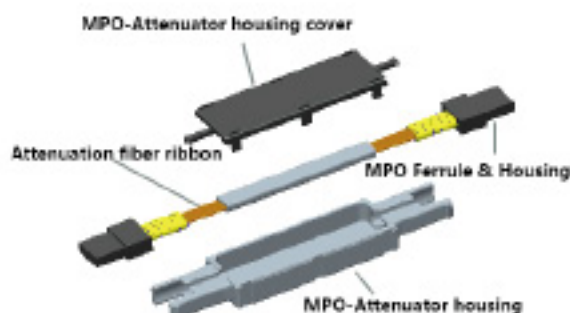
Attenuation Range	0 ~ 30dB
Available Wavelengths	1310nm or 1550nm
Fixed attenuation value	1, 2, 3, 5, 10, 15, 20dB or optional
Return Loss	≥ 50dB (SPC) , ≥ 60dB (APC)
Attenuation Accuracy	±0.5 (1 ~ 5) dB , ±10% (6 ~ 30) dB
Polarization Dependent Loss	≤ 0.2dB
Temperature Range	-40°C ~ 80°C
Humidity Range	±0.2 dB Change in 10% to 90% relative Humidity Range.
Vibration	≤ 0.1 dB change between 10Hz to 55Hz.
Drop	±0.2dB after 8 drops (3 axes) from 1.8 meters onto a hardsurface.

Plug-in Fixed Attenuator

Operating Wavelength	SM: 1200-1600nm or 1310nm, 1550nm . MM: 850nm, 1300nm
Return Loss	≥50dB (UPC) , ≥60dB (APC)
Attenuation Accuracy	±0.5 (1-5) dB , +/-10% (5-30) dB
Polarization Dependent Loss	≤ 0.2dB
Maximum Optical Input Power	200mW
Operating Temp. Range	-40°C ~ 80°C

MPO Attenuator

- Small / Compact Housing Design
- QSFP Available
- RoHS Compliant
- Data Center Infrastructure
- Storage Area Network and Fiber Channel
- Various 40G and 100Gbps Protocols
- High Stability and High Durability
- Compact Housing Dimension
- QSFP Available
- RoHS Compliant
- Data Center Infrastructure
- Parallel Optics
- Storage Area Network and Fiber Channel
- 40G and 100Gbps Protocols



Item	Conditions
Operation Wavelength	1310/1550nm
Attenuation Tolerance	$\pm 1\text{dB}$ (at 2-10dB) , $\pm 10\%$ (at 11-20dB)
Return Loss	60dB(8°Polishing, SM)
Operating Temperature	-25°C ~ 75°C
Attenuation	1~20dB
PDL	$\leq 0.2\text{dB}$
Maximum input optical power	200mW
Housing Dimension	80.0*11.3*8.1mm

Optical Loopback

Fiber Optic Loopbacks are designed to provide return patch for a fiber optic signal. They are used for fiber optic testing applications or network restorations. When it is used in testing applications, loopback signals are used for diagnosing problems. The best practice is to send a loopback test to network equipment, one at a time for isolating the problem.

- MPO, LC , SC or other type available
- Insertion loss: Less than 0.3dB
- Exchangeability < 0.2dB
- Operating temperature range: -40 ~ 80°C
- LAN and Optical equipment testing



Mini LC Multimode Loopback

Type	MLB-LC	Low loss $\leq 0.35\text{dB}$, Standard Loss $\leq 0.5\text{dB}$
Fiber Type	50/125	62.5/125
Cable Type	0.25	0.9

Loop back patch-cord

Type	LB - A - B - C
Connector Type	MPO / SC / SCA / LC / LCA / MTRJ ...
Mode Type	9(SM) / 6(MM62.5) / 5(MM50)
Cable Type	3 / 2 / 09 / 25

Mechanical Splicer

Mechanical splice is a tool for quick and easy operation of field fiber splice application. It employs the mature V-groove technology, can be widely applicable for different optical cable, optical fiber splicing in fiber distribution units. Not only for the splicing of the optical drop cables with the pigtails in multimedia boxes, but also applicable for repairing any damaged lines to realize firm and reliable splicing in optical fibers.

- Precision metallic alloy components with co-axial self centering, excellent and durable optical property.
- Axially firm fitting of optical fibers, reducing any performance degradation due to loss in the matching gel
- Uninterrupted fitting and connecting technology, hence signals are free of impact from external force
- High success rate and easiness in installation.
- Typical IL <0.2dB

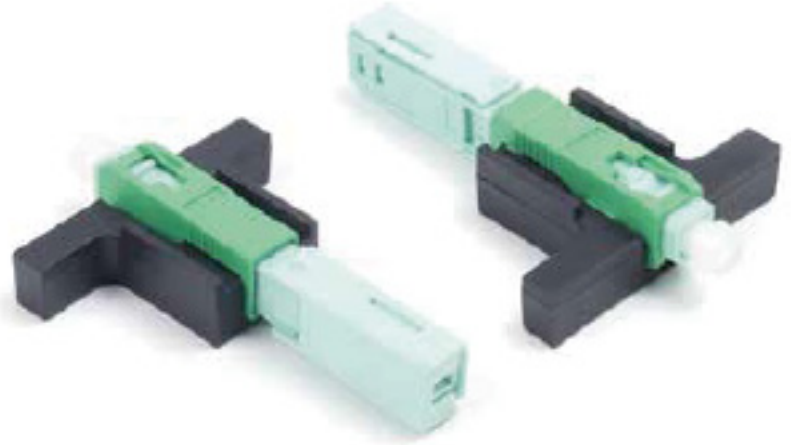


Item	
Fiber type	φ 0.25mm & φ 0.90 mm
Fiber diameter	125μm (657A & 657B)
Tight buffer diameter (μ m)	250μm & 900 μm
Mode	SM & MM
Average Insert loss	≤ 0.10dB(1310nm & 1550nm)
Return loss	≤ 40dB
Fastening strength of naked fiber	> 5N
Fastening strength of naked fiber holder	> 8N
Using temperature	-40℃ ~ 75℃
Repeatability(10 times)	ΔIL ≤ 0.2dB, ΔRL ≤ 5dB

SC - Aircraft Nut Type Fast Connector

FIC Connector (Field Installable Connector) is specially for single fiber FTTH drop cable filed termination. It provides efficient assembly and high reliability connection to make it easy for the last meters optic cable termination for FTTH.

- Good insertion loss, high return loss
 - Reliable optical performance
 - Good connection stability
 - Convenient for field installation
 - Installs fast, Operates easy
 - Low cost
-
- Patch panels
 - Distribution frames
 - Maintenance or emergency restoration of fiber networks
 - FTTH Outlets
 - Connection at the desk for LAN environments
-
- The connector can be chosed pc or APC.

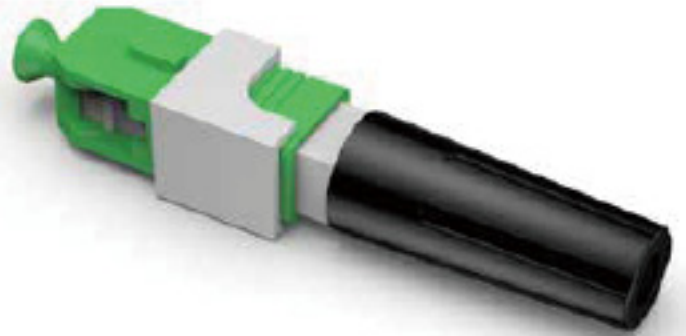


Item	Specification
Insertion Loss	Typical $\leq 0.3\text{dB}$, Maximum $\leq 0.5\text{dB}$
Return Loss	PC $\geq 40\text{dB}$, APC $\geq 55\text{dB}$
Durability	$\leq 0.3\text{dB}$ typical change, 500 matings
Operating Temperature	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
Housing type	APC - Green, PC - Blue

FIC Connector for FTTH Drop Cable

FTTH Drop Cable FIC Connector (Field Installable Connector) is specially for single fiber FTTH drop cable filed termination. It provides efficient assembly and high reliability connection to make it easy for the last meters optic cable termination for FTTH.

- This product is suitable for 3x2/ Φ 2/ Φ 3mm Rubber-insulated fiber optic drop cable.
- Make sure the construction environment within the allowable range.
- Please follow the instructions in the manual, otherwise the product performance problems caused thereby shall be borne by the operator.
- Please configure the operating tools required by this product.



Item	
Insertion Loss	Typical $\leq 0.3\text{dB}$, Maximum $\leq 0.5\text{dB}$
Return Loss	PC $\geq 40\text{dB}$, APC $\geq 55\text{dB}$
One-time Assembly Rate	$\geq 97\%$
Assembly Repeatability	≥ 5 times
Life time	≥ 10 years
Average Assembly Time	3 minutes
Tensile Resistance	$\geq 30\text{N}$
Operation Temperature	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

LC Field Installable Connector

Field Installable Connector (FIC) is a perfect solution for field working and FTTH connection. It is widely used for where need to quick connection, providing a quickly assembling and stable performance. When engineers work in field for installation, maintenance, repair of optical fiber, or FTTH indoor terminate, they can use it easily because it has no epoxy, no polishing. FIC is designed inside ferrule with fiber stuff and pre-polishing in the factory. It provides a perfect ferrule endface quality. This has great help to protect user's equipment interface and reduce the connector loss.

- Patent fiber alignment technology
 - High performance, high reliability
 - No Polishing, no electricity needed
 - Quick installation, easy for operation
 - High one-time assembly success rate
-
- For 0.9mm indoor Cable field termination
 - For emergency fiber path repair
 - FTTH, LAN and other fiber optic system
 - LC type available



Item	
Applicable for	Indoor cable 0.9mm
Optical fiber diameter	125 μ m (657A1 & 657A2)
Tight buffer diameter	250 μ m
Fiber mode	Single mode
Operation time	< 100s
Return loss	> 45dB
Fastening strength of naked fiber	> 4N
Fastening strength of naked fiber holder	> 8N
Tensile strength	> 10N
Using temperature	-40°C ~ 75°C
On-line tensile strength (20 N)	Δ IL \leq 0.5dB; Δ RL \leq 5dB
Mechanical durability (500 times)	Δ IL \leq 0.5dB; Δ RL \leq 5dB
Drop-off test (drop-off height 4m, once per direction, totally 3 times)	Δ IL \leq 0.5dB; Δ RL \leq 5dB

FC Simplex FTTH Fast Connector

- Patent fiber alignment technology
- High performance, high reliability
- No Polish, no electricity needed
- Quick installation, easy for operation
- High one-time assembly success rate
- For FTTH Drop Cable field termination
- For emergency fiber path repair
- FTTH, LAN and other fiber optic system
- SC type available

• Ferrule hole V-groove alignment ensure the fiber core alignment error $< 0.5\mu\text{m}$. This will reduce the connect loss.

• The V-groove has the advantage than V-groove when different fiber diameter are used. This will reduce core offset between customer and stuff fiber.

- Outdoor optical fiber temporary connection
- Flexible fiber connect, high pulling resistance



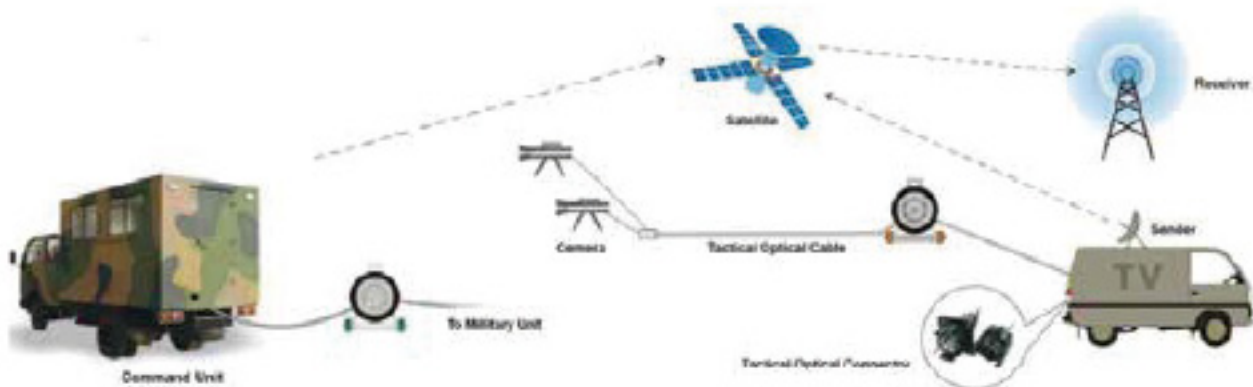
Item

Insertion Loss	Typical $\leq 0.3\text{dB}$, Maximum $\leq 0.5\text{dB}$
Return Loss	PC $\geq 40\text{dB}$, APC $\geq 55\text{dB}$
One-time Assembly Rate	$\geq 97\%$
Assembly Repeatability	≥ 5 times
Life time	≥ 10 years
Average Assembly Time	3 minutes
Tensile Resistance	$\geq 30\text{N}$
Operation Temperature	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

Outdoor Waterproof Connector Series

- Robust minicord-breakout or field cable
- UL OFNR or OFNP rated cables available
- High shock,vibration and mechanical resistance
- Blind insertion design,easy and cost effective installation
- Waterproof,dust proof and corrosion resistant
- Scoop and blind proof
- Additional alignment pins to gain better optical performance
- Broad temperature range and wide range of outdoor cable
- EMI protected and RoHS compliant

- CATV
- Data communication
- LAN&WAN
- Antenna to the box
- Broadband
- FTTP
- Mine
- Railway

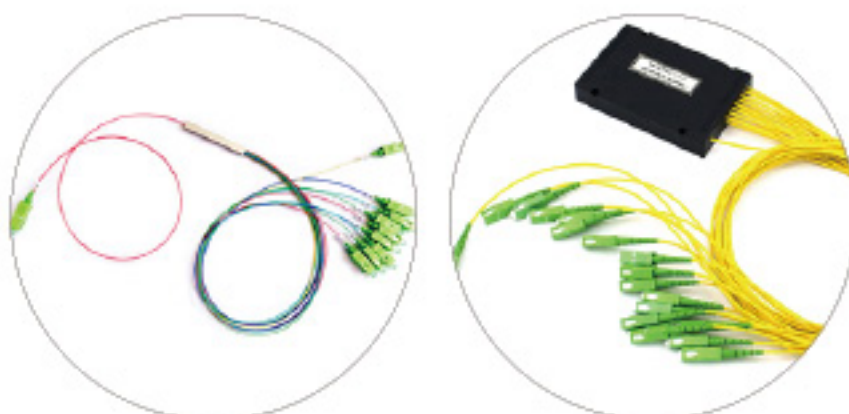


Item	APC	J599	J599MPO
Insertion Loss	SM	≤ 0.7dB(type ≤ 0.5dB)	≤ 1dB
	MM	≤ 0.6dB(type ≤ 0.2dB)	≤ 0.75dB
Return Loss	SM	≥ 50dB	≥ 50dB
Mechanical performance	Plug	≤ 500(Cable)	≤ 1000(Cable)
	Branch	≤ 100N(Branch)	≤ 100N(Branch)
Cable OD	5.0mm / 4.0mm / Customized	4.0mm / 7.0mm / Customized	7.0mm / Customized
Branch Connector	LC / FC / SC		
Operating Temperature	-40°C ~ 85°C		
IP Rating	IP67		

Planar Lightwave Circuit Splitter

The single-mode Planar Light wave Circuit Splitter (PLCS) is developed based on unique quartz glass waveguide and processes with reliable precision aligned fiber pigtail in a miniature package. It provides a low cost light distribution solution with small form factor and high reliability. The PLCS has the high performance in terms of low insertion loss, low PDL, high return loss and excellent uniformity over a wide wavelength range from 1260nm to 1620nm and working in temperature from -40°C to +85°C. CEN's PLCS has standard configurations of 1x2, 1x4, 1x8, 1x16 and 1x32 configurations, as well as customized structures of 2x16, 2x32 and so on.

- Low insertion loss and low PDL
- Wide operating wavelength range
- Compact design
- High reliability
- High channel counts
- Wide operating temperature range
- Customized packaging and configuration



Item	1x2	1x4	2x4	1x8	2x8	1x16	2x16	1x32	2x32	1x64	
Operating Wavelength(nm)	1260 ~ 1650										
PDL (dB)	< 0.2							< 0.3			< 0.2
Directivity (dB)	> 55										
Return Loss (dB)	> 55										
Operation Temperature	-40°C ~ 85°C										
Storage Temperature	-40°C ~ 85°C										
Fiber Type	G652D or G657A										
Insertion Loss (dB)	≤ 4.3	≤ 7.20	≤ 7.5	≤ 10.5	≤ 11.2	≤ 13.6	≤ 14.6	≤ 17.0	≤ 17.5	≤ 21	
LOSS Uniformity (dB)	≤ 0.5	≤ 0.6	≤ 1.2	≤ 0.8	≤ 1.5	≤ 1.4	≤ 2.0	≤ 1.6	≤ 2.5	≤ 2.5	
Ribbon Fiber Packaging Size (LxWxH) (mm)	40*4*4	40*4*4	45*4.5*4	40*4*4	45*4.5*4	45*4.5*4	60*7*4	50*7*4	65*7*4	60*12*4	
0.9mm Loose Tube Packaging Size (LxWxH)(mm)	50*7*4	50*7*4	60*7*4	60*7*4	60*12*4	60*12*4	80*12*4	80*20*6	90*20*6	100*40*6	

CEN LINK

FIBER OPTIC CONNECTIVITY

GLOBAL FIBER OPTIC CABLING
AND COMPONENTS SUPPLIER

NEW BROCHURE



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