KOC

FIBER OPTIC CONNECTIVITY

GLOBAL FIBER OPTIC CABLING AND COMPONENTS SUPPLIER

NEW BROCHURE

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About **Our Company**

KOC ShenZhen R&D Center

KOC SiChuan Production Base

Located in Unibuilt Science and Technological Industrial Park in Dalang, Longhua district, Shenzhen KOC Communication Co. Ltd. (abbr. : KOC) was founded in 2001. It is one of the pioneer company engaged in fiber optical connector production business in China. With more than 20 years'development, it is a specialized manufacturer and sales company in ODN fiber connections, passive devices, IDC cabling and miro-connection, outdoor and indoor cables.

Nowadays, KOC products are extensively applied for telecom operators, fiber engineering projects, CATV, broadband networks, FTTH and data center constructions in Europe, South America, Mid-east, Asia Pacific regions. Under the concept of high quality principal, KOC provides reliable products and services to customers around the world.

KOC set up branches or representatives worldwide. We invite local expatriates for business and cooperations. To establish customer relations and stabilize long term cooperation have always be our pursuit.

Total operational space: 15000m^2.

Why to **Select KOC?**

- 20-year FO Telecom Industry Experiences
- Continuous Optimizing Costs for Customer Benefit Priority
- Honesty is Our First Business Principal
- Stable Personnel with Rich Experiences
- Capability to Provide Global Services
- Short Leadtime
- Fast Reasonable Logistics Network

Development Path

2001
KOC founded

2004
Patch cord Production base set up in Yingtan, Jiangxi Province.

2006
Production base relocated in Hitec Cluster - Shenzhen

2008
Sub-companies established for adapters, connecters and other components. Moved to Unibuilt.

2010
Set up PLC production Lines

2015
Acquired and integrated companies under KOC, set up ODN/PON , passivde device and data center divisions. KOC Group established.

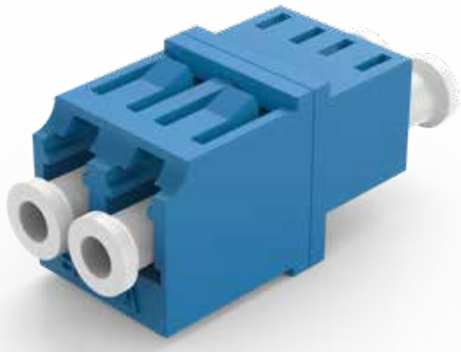
2020
Establishment of Sichuan KOC Communication Co., Ltd

2024
Building up Sichuan KOC's own Industrial Park.

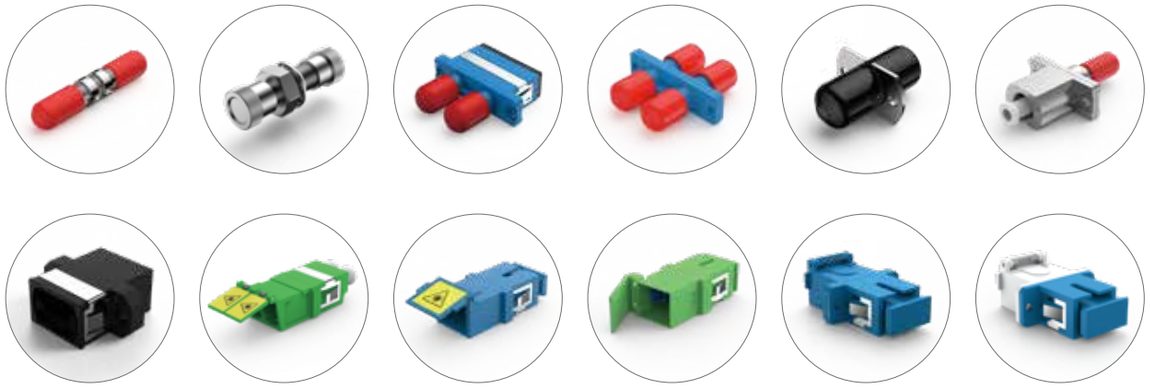
Contents

Fiber Optic Adapter

KOC 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

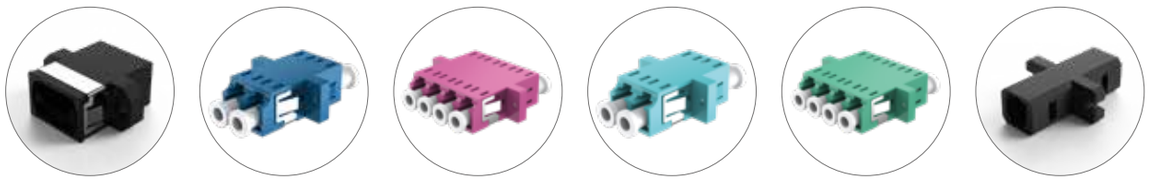


Item	
Insertion Loss	< 0.20dB
Durability	< 0.20dB typical change, 1000 matings
Operating Temperature	-40°C ~ 80°C

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

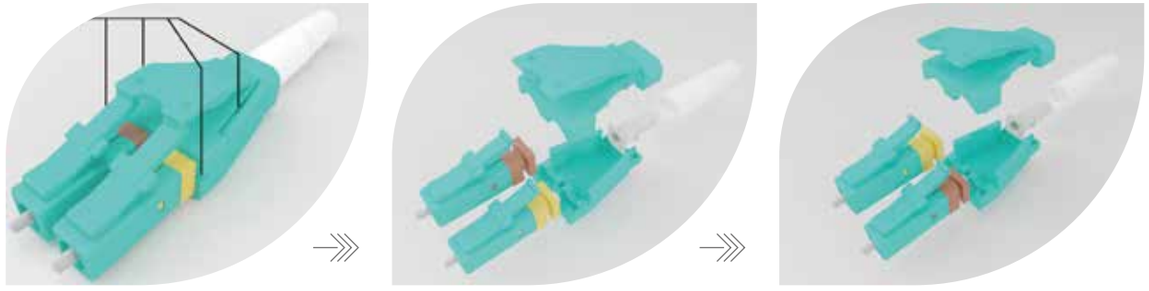
Duplex with Flange	Simplex	Blue	Zirconia	High Tg	No Shutter
Duplex without Flange	Duplex	Black	Metal		Internal Shutter
		Green			
		Violet			
		Beige			
		Aqua			

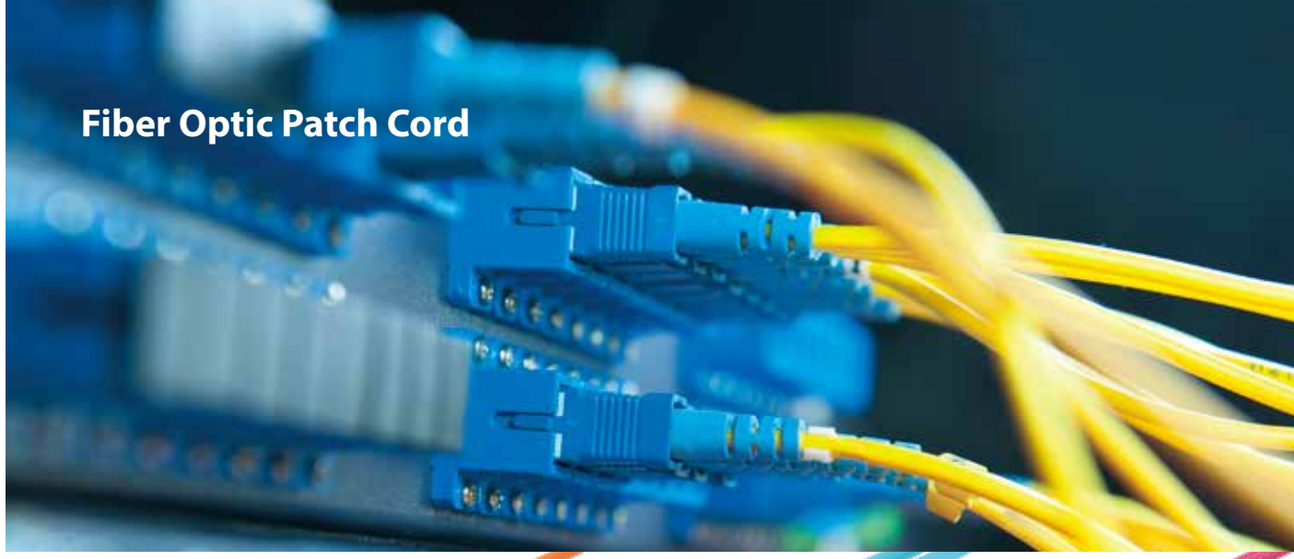
LC Duplex Uniboot Connector

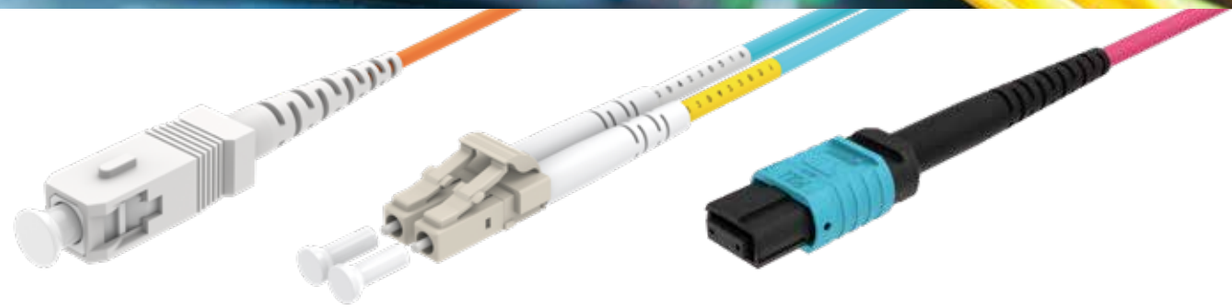
- Have two dismount gap, easy to dismount
- Streamline design, good aesthetic
- Uniboot connector cable management
- Switchable Connector to change polarity
- MINI Boot & Flex angle boot available
- Right Angle Clip good for panel management

- Gigabit Etherne
- 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

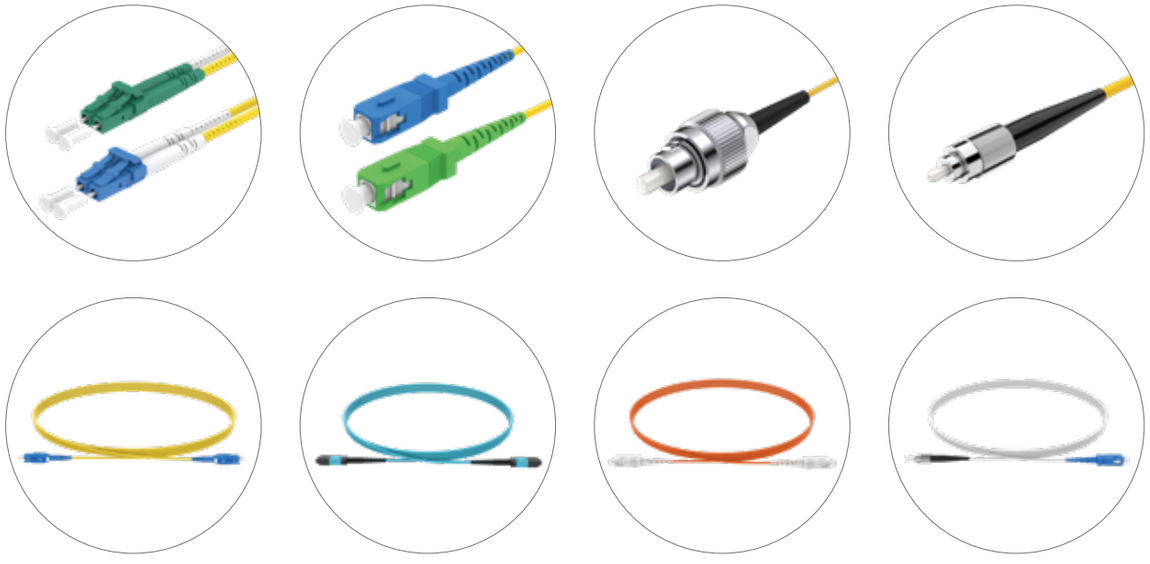






From simple pigtail or patchcord assemblies to larger multi-core projects with pulling protection, KOC is the specialist in this sector. Capacity is 40k terminations / day and quality is excellent and consistent. All terminations and a wide range of cables available.

- 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. KOC 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 winded into the vertical cable organizer.

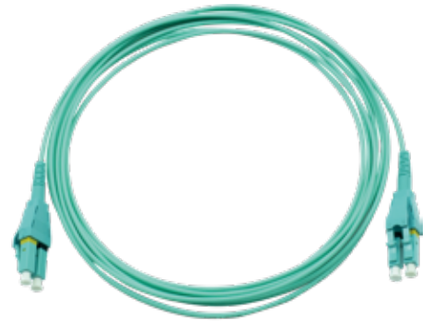
- Array connectors with high precision low loss MTP / MPO connectors
- Smooth upgrading to next generation data center for 40GbE and 100GbE
- Outer jacket material option: PVC, LSZH and other selected materials
- Cable flammability rating: OFNR, OFNP, LSZH

Item	MTP / MPO - SM	LC - SM	MTP / MPO - MM	LC - MM
Insertion Loss	Low loss ≤ 0.35dB	≤ 0.3dB	Low loss ≤ 0.35dB	≤ 0.3dB
	Standard Loss ≤ 0.7dB	/	Standard Loss ≤ 0.5dB	/
Return Loss	≥ 60dB	≥ 50dB	≥ 30dB	≥ 50dB
Durability	< 0.2dB typical change, 500 matings			
Operating Temperature	-40°C ~ 85°C			

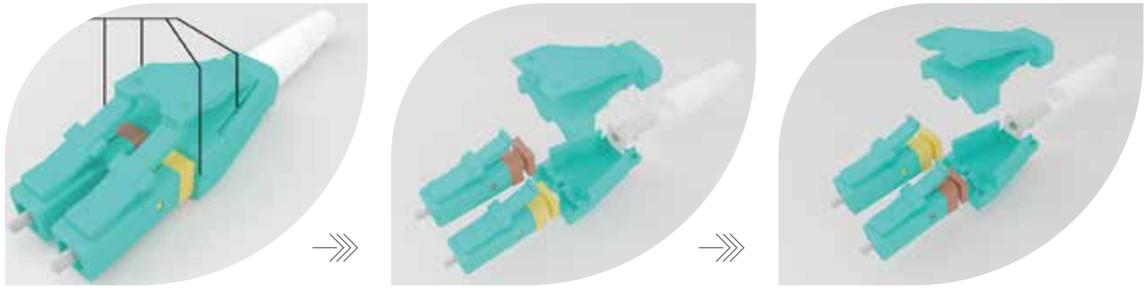
Polarity Switchable Duplex LC Patch Cord

Duplex Uniboot connector patch cord is designed by KOC. 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. KOC'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 though a splitter(round or square). The connector type and the lengh 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

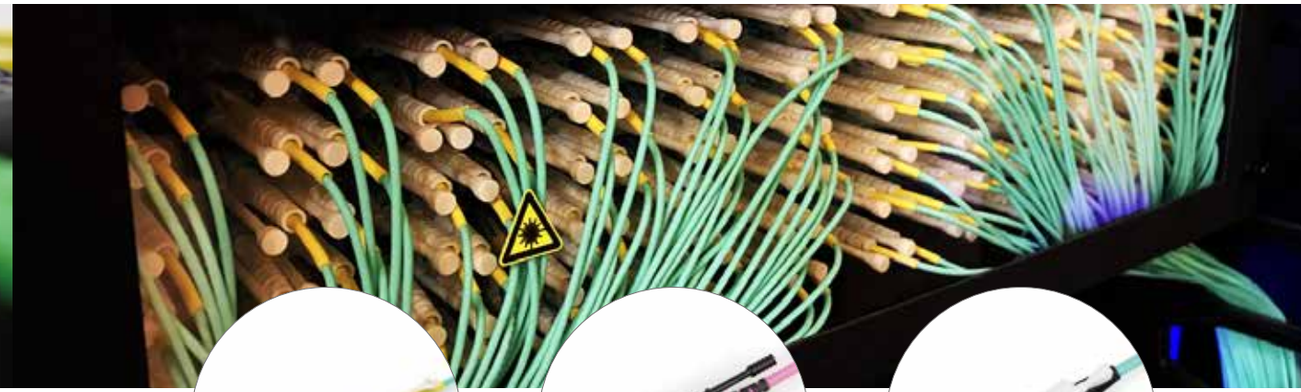
- CATV , and Multimedia
- Telecommunication networks
- Active device interface
- Telecommunication networks
- Gigabit Ethernet
- Data processing networks
- Interconnection for O/E modules
- Premise installations
- Optical switch interframe connection
- Asynchronous Transmission Mode (ATM)

Item	Single mode	Multimode
Insertion Loss	Low loss ≤ 0.35dB	Low loss ≤ 0.35dB
	Standard Loss ≤ 0.7 dB	Standard Loss ≤ 0.5dB
Return Loss	≥ 60dB	≥ 30dB
Durability	< 0.2dB typical change, 500 matings	
Operating Temperature	-40°C ~ 85°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 uniboot, 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

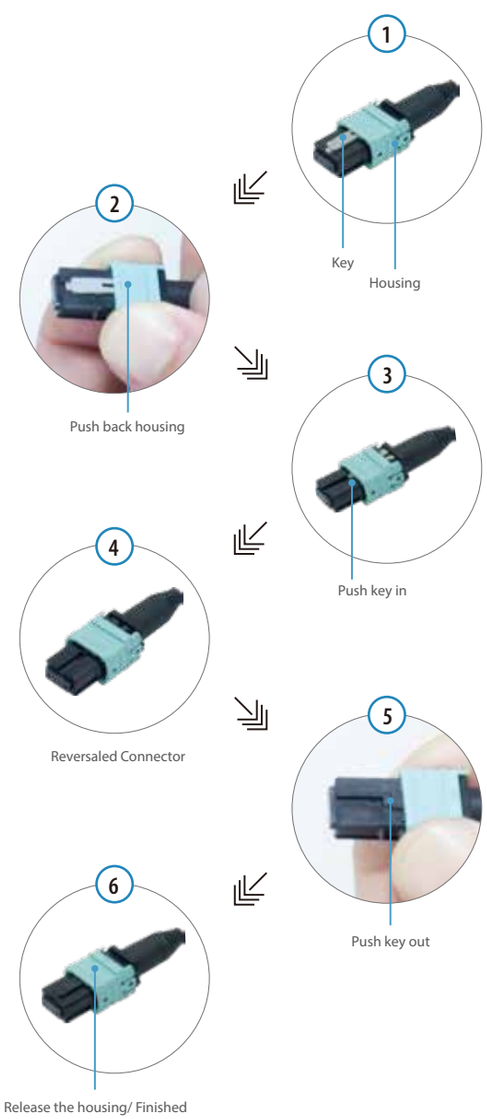


Item	Single mode	Multimode
Insertion Loss	≤ 0.30dB	≤ 0.30dB
Return Loss	≥ 50dB (PC) , ≥ 60dB (APC)	/
Durability	< 0.20dB typical change, 1000 matings	/
Operating Temperature	-40°C ~ 85°C	-40 ~ 85°C

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 chang 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 ≤ 0.35dB, Standard Loss ≤ 0.5dB	Low loss ≤ 0.35dB, Standard Loss ≤ 0.5dB
Return Loss	≥ 60dB	≥ 30dB
Repeatability	≤ 0.1dB	
Durability	≤ 0.2dB typical change, 500 matings	
Interchangeability	≤ 0.2dB	
Tensile Strength	> 70N	
Operating Temperature	-40°C ~ 85°C	

OM5 Product Series

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)

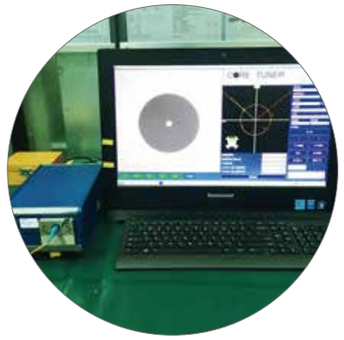
Item	
Fiber Type	OM5 (50μm multimode fiber)
Wavelength Range	850nm ~ 953nm
Jacket Color	Lime Green
Furcation Color	Lime Green
Connector Type	MPO / MTP / LC / SC / FC / Customized
Connector Color	Customized
Regulatory Compliance	IEC 60793-2-10 / TIA-492AAAE / RoHS / ISO9001
Operation Temperature	-40°C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

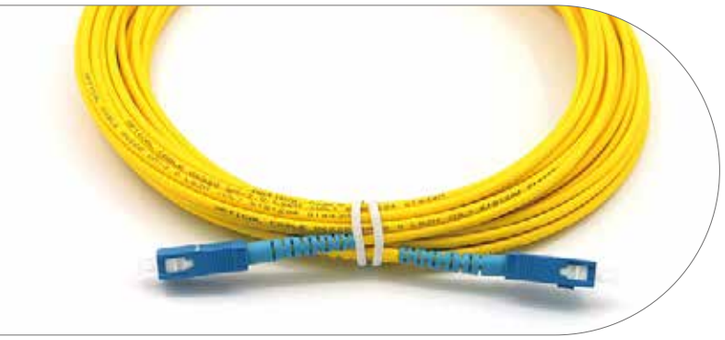
High Performance IEC Grade B Patch Cord

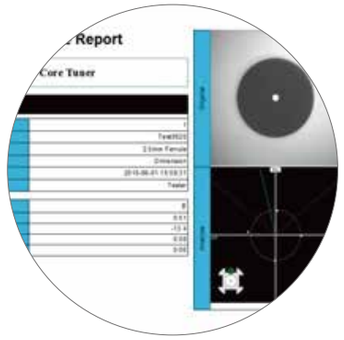
For high-speed fiber-optic communications and data networks, high-performance fiber jumpers mean lower insertion loss and better random interchangeability. IEC Grade B-class patch-cord require higher processing technology and materials than ordinary products. We offer reliable and stable IEC Grade A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





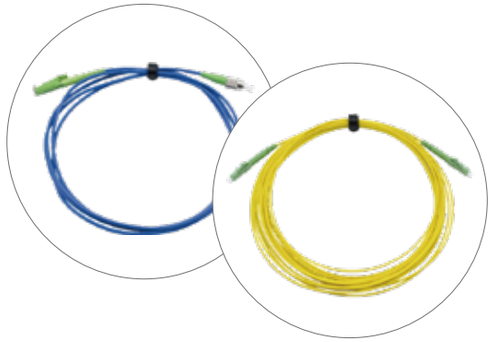


Item	Grade A	Grade B	Grade C
Relative Reference Insertion Loss	≤ 0.10dB	≤ 0.10dB	≤ 0.10dB
Random Insertion Loss	Typical ≤ 0.07dB	Typical ≤ 0.12dB	Typical ≤ 0.25dB
	Maximum ≤ 0.15dB	Maximum ≤ 0.25dB	Maximum ≤ 0.50dB
	UPC ≥ 55dB	UPC ≥ 50dB	UPC ≥ 50dB
Return Loss	APC ≥ 65dB	APC ≥ 60dB	APC ≥ 60dB
	Multimodal ≥ 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	≤ 0.10dB	≤ 0.10dB
Return loss	≥ 65dB	≥ 55dB
2.5mm Ferrule grinding radius ROC	6 ~ 11mm	12 ~ 25mm
1.25mm ferrule end face radius ROC	6 ~ 11mm	7 ~ 20mm
Vertex offset	≤ 30μm	≤30μm
Angle deviation	8° ±0.2	0° ±0.2
Fiber height	±50μm	
Concentricity offset angle	±45°	
Mechanical durability	Change Amount < 0.20dB, 1000 repetitions	
Operating temperature	-40°C ~ 75°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 - 9/125μm	S - SC	P - PC	1 ~ 99m	1 - 0.9mm
	5 - 50/125μm	F - FC	A - APC		2 - 2.0mm
	6 - 62.5/125μm	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 ~ 10μm
Cladding Diameter	125 ±0.5μm
Coating Diameter	250 ±0.5μm
Cutoff Wavelength	1200 ±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, KOC 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

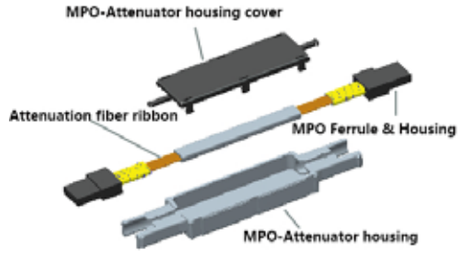
Attenuation Range	0 ~ 30dB
Available Wavelengths	1310nm or 1550nm
Fixed attenuation value	1, 2, 3, 5, 10, 15, 20dB or optional
Return Loss	≥ 50dB (SPC) , ≥ 60dB (APC)
Attenuation Accuracy	±0.5 (1 ~ 5) dB , ±10% (6 ~ 30) dB
Polarization Dependent Loss	≤ 0.2dB
Temperature Range	-40°C ~ 80°C
Humidity Range	±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.

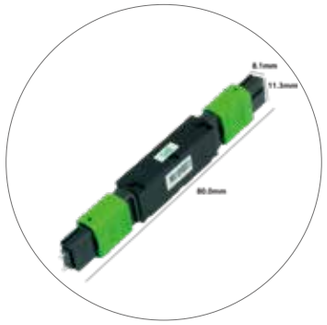
Plug-in Fixed Attenuator

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% (6-30) 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



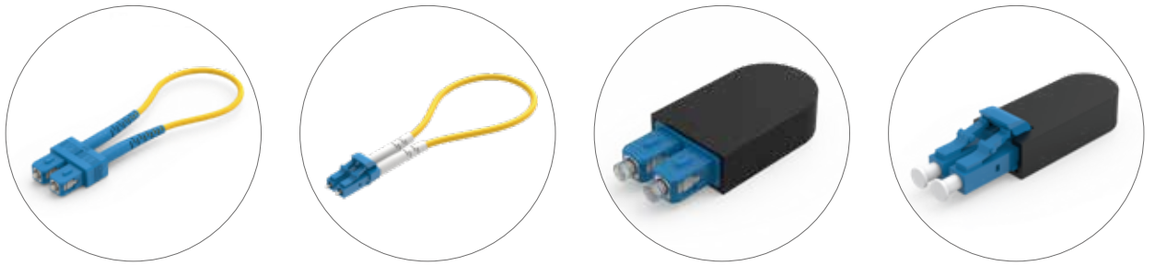


Item	Conditions
Operation Wavelength	1310/1550nm
Attenuation Tolerance	±1dB(at 2-10dB) , ±10%(at 11-20dB)
Return Loss	60dB(8°Polishing, SM)
Operating Temperature	-25°C ~ 75°C
Attenuation	1~20dB
PDL	≤ 0.2dB
Maximum input optical power	200mW
Housing Dimension	80.0*11.3*8.1mm

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 ≤ 0.35dB, Standard Loss ≤ 0.5dB
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.

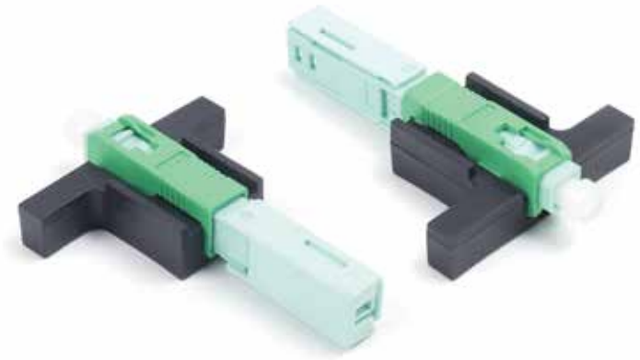
- Precision metallic alloy components with co-axial self centering, excellent and durable optical property.
- Axially firm fitting of optical fibers, reducing any performance degradation due to loss in the matching gel
- Uninterrupted fitting and connecting technology, hence signals are free of impact 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°C ~ 75°C
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

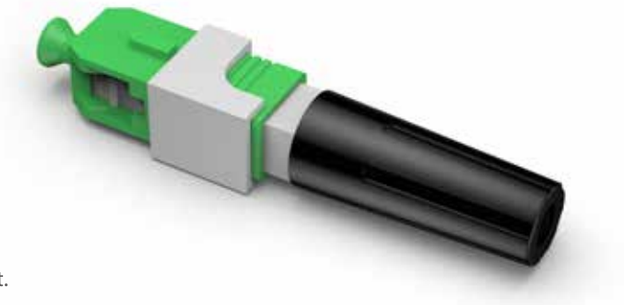
- The connector can be chosed pc or APC.

Item	Specification
Insertion Loss	Typical ≤ 0.3dB, Maximum ≤ 0.5dB
Return Loss	PC ≥ 40dB, APC ≥ 55dB
Durability	≤ 0.3dB typical change, 500 matings
Operating Temperature	-40°C ~ 85°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/ Φ2/ Φ3mm 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 ≤ 0.3dB, Maximum ≤ 0.5dB
Return Loss	PC ≥ 40dB, APC ≥ 55dB
One-time Assembly Rate	≥ 97%
Assembly Repeatability	≥ 5 times
Life time	≥ 10 years
Average Assembly Time	3 minutes
Tensile Resistance	≥ 30N
Operation Temperature	-40°C ~ 85°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	125μm (657A1 & 657A2)
Tight buffer diameter	250μm
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)	△IL ≤ 0.5dB; △RL ≤ 5dB
Mechanical durability (500 times)	△IL ≤ 0.5dB; △RL ≤ 5dB
Drop-off test (drop-off height 4m, once per direction, totally 3 times)	△IL ≤ 0.5dB; △RL ≤ 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
- FC type available

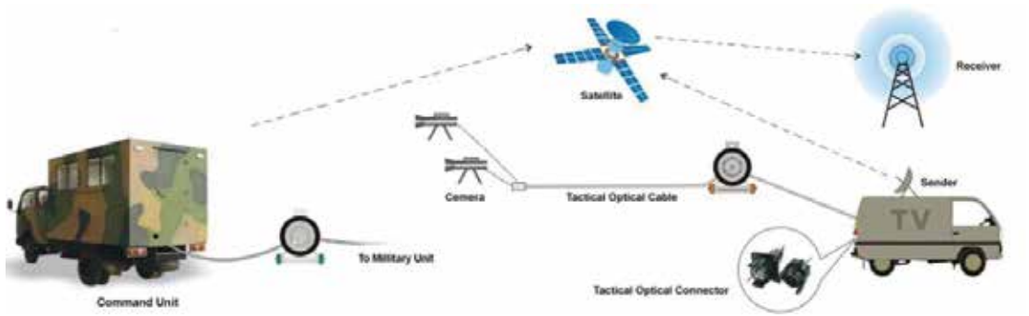
- Ferrule hole V-groove alignment ensure the fiber core alignment error <0.5um. This will reduce the connect loss.
- The V-groove has the advantage than V-groove when different fiber diameter are used. This will reduce core offset between customer and stuff fiber.
- Outdoor optical fiber temporary connection
- Flexible fiber connect, high pulling resistance

Item	
Insertion Loss	Typical ≤ 0.3dB, Maximum ≤ 0.5dB
Return Loss	PC ≥ 40dB, APC ≥ 55dB
One-time Assembly Rate	≥ 97%
Assembly Repeatability	≥ 5 times
Life time	≥ 10 years
Average Assembly Time	3 minutes
Tensile Resistance	≥ 30N
Operation Temperature	-40°C ~ 85°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	≤ 0.75dB(Low loss ≤ 0.3dB)
	MM	≤ 0.6dB(type ≤ 0.2dB)	≤ 0.75dB	≤ 0.6dB(type ≤ 0.2dB)
Return Loss	SM	≥ 50dB	≥ 50dB	≥ 50dB
Mechanical performance	Plug	≤ 500(Cable)	≤ 1000(Cable)	≤ 500(Cable)
	Branch	≤ 100N(Branch)	≤ 100N(Branch)	≤ 30N(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. KOC'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 (L×W×H) (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 (L×W×H)(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

Armored Patch Cord

Armored Patch cord is a patch cord which could be used as cooper patch cable. They adopted a cable with soft metal protection tube and standard connector. The apply place are in the floor corner. Those products could protect the fiber bite by mouse and ant. Although armored fiber optic cables are strong, they are actually as flexible as standard fiber optic patch cords; they can be bending randomly without being broken.

- High anti-tensility; High anti-pressure
- High bent Resistance; Anti-bite from rodent animals
- Flexible, convenient to connection and easy to deploy
- NO worry about damage in project, Save space
- Deploy easily and reduce cost of wiring, improve the inside




Item	Single mode	Multimode
Insertion Loss	≤ 0.30dB	≤ 0.20dB
Return Loss	≥ 50dB(PC) / ≥ 60dB(APC)	≥ 20dB(PC)
Durability	< 0.20dB typical change, 10000 matings	< 0.20dB typical change, 10000 matings
Test Wavelength(nm)	1310	850
Operating Temperature	-40°C ~ 85°C	-40°C ~ 85°C

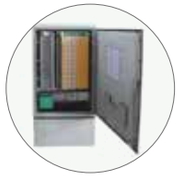
Fiber Interconnect Cabinet

Fiber Interconnect Cabinets for outdoor and indoor applications such as street distribution cabinet and building main distribution room. It provides fiber fusion splice, cross connect, optical signal split, fiber storage and management.

- Outdoor and indoor application
- Anti-corrosive and water-proof
- Ease and safe fiber distribution management
- Max capacity up to 288 fibers
- Modular design for easily hardware upgrade.
- Customizable

Precast Concrete Base Size

Capacity (Core)	Size (Width*Height*Depth)	The foundation into the thread hole
144	530*290*200mm	310*170*200mm
288	730*350*200mm	510*230*200mm
576	730*550*200mm	510*430*200mm



Item	Dimension (Width*Height*Depth)
KOFDS-GJ144-01	1030*550*310mm
KOFDS-GJ288-01	1450*750*320(360)mm
KOFDS-GJ288-02	1450*750*320(360)mm
KOFDS-GJ288-03	1450*750*320(360)mm
KOFDS-GJ288-04	1450*750*320(360)mm
KOFDS-GJ288-05	1450*750*320(360)mm
KOFDS-GJ288-06	1450*750*320(360)mm
KOFDS-GJ576-01	1450*750*550mm

Fiber Distribution Frame

The manufacturer specialized in data center cabling products and high precision connecting components. Its MTP * / MPO connector advanced capabilities provide guaranteed and reliable connection for 40G / 100G data centers.
KOC high-density fiber pre-connected system deploys high-density data center easily and quickly in horizontal area and storage area of the network. The maintenance and expansion in the future is very simple.
MTP / MPO pre-terminated cabling system consists of three parts: trunk cable, MTP / MPO pre-terminated module and patch panel.
KOFDS series of Fiber Distribution Frames, designed for Central Data Office or the building MDF room, provides high-density fiber management and distribution. The modular design ensures the easily maintenance and efficient management for your fiber cabling systems.

• Indoor cable distribution
• Fiber entries on top or bottom available
• High-density and modular design
• Max. capacity up to 792 fibers
• No tools are needed during operation
• Customizable
• 19" standard cabinet
• Accomplishing scientific arrangement for patch cords with fiber storage units
• suitable for inserting installation of SC, FC and ST adaptors
• Safety design in grounding and security door
• Top, bottom and rear openings for cable entry covered with removable blank panels.

Fiber Distribution Frame

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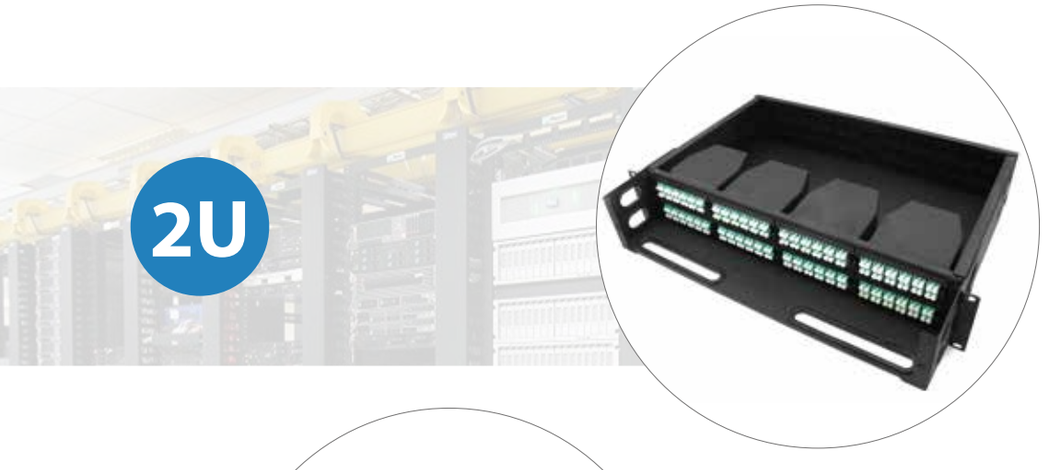
• Indoor cable distribution
• Fiber entries on top or bottom available
• High-density and modular design
• Max. capacity up to 792 fibers
• No tools are needed during operation
• Safety design in grounding and security door
• Customizable

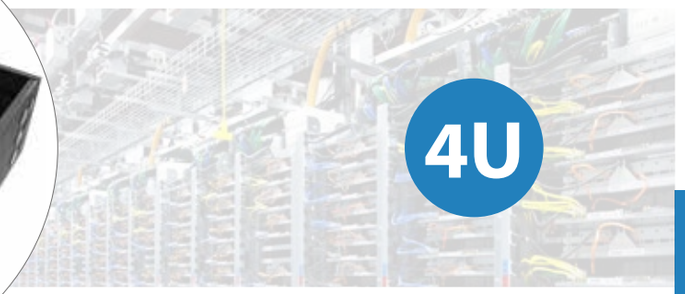
• Connecting distribution network and equipment cable
• Connecting with indoor cable termination equipments
• Widely applied in the computer network project, building wiring, telecommunication, intelligent building, school and so on.

Item	Net Size (mm)	Products Dimension	Products Weight	Package dimension for out side carton	No of units per carton	Total Weight
KOFDS-FDF-C-12	480*250*1U	465*285*75mm	3.1kg	485*425*305mm	5pcs	16.2kg
KOFDS-FDF-A-48	480*210*3U	450*255*145mm	6kg	530*480*340mm	4pcs	25.6kg
KOFDS-FDF-A-72	480*210*4U	455*255*195mm	7.7kg	545*475*425mm	4pcs	32.5kg

2U/4U High Density Fiber Distribution Frame

MTP * / MPO fiber distribution frame is a scalable solution mainly used in high-density 10 Gigabit Ethernet applications. There are Main Distribution Area (MDA) and Horizontal Distribution Area (HDA) terminal cabling products. There are usually three designs: 1U, 2U, 3U. According to data center setup needs, it simplifies the field installation, improves system performance and achieves higher system density, modular system management and pre-assembled components so that it reduces the installation time and achieves the movement and expansion in the fastest way.



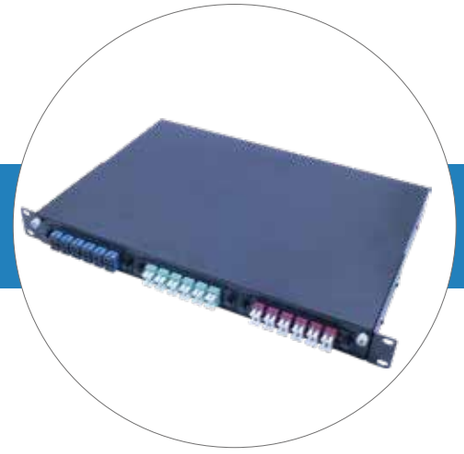


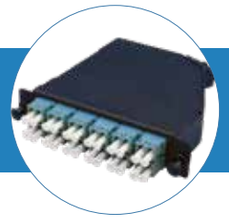
- Sliding tray design, the new type of the expansion and adequate operational space enable the highest density
- A variety of welding wiring signs enable easy welding and cabling records
- High-density trunk cable with lesser bending radius enables easy storage and installation
- Connector module, 19-inch rack mount for easy installation and expansion
- Low insertion loss enable multi-level connections in complete fiber link when deploying TIA-942 compliant systems
- Customized branch cable assemblies for seamless integration with mainstream SAN switches
- Factory termination provides stable quality and ensures system reliability . It reduces installation time, meet series standards of TIA / EIA604-5-D-2007, IEC61754-7-2008

72FO MTP/MPO - LC Sliding Type Fiber Optical Cassette

MPO fiber cassette is mainly used for data center with the security transactions between MPO pre-terminated trunk cable and LC or SC connectors. They are installed in the 19" 1U-3U fiber patch panels. LC or SC adapters are installed in the front panels. MPO adapters and pre-terminated trunk cable are installed in the rear panels. Plug-and-play modular structure enables quick deployment of data center fiber infrastructure and improve troubleshooting and reconfiguration after relocating, increasing and changing the cables. 100% of the terminals are terminated in the factory and rigorously tested to ensure minimal insertion loss. They are applicable to IDC and FTTB pre-wired systems and to Ethernet transmission. The cassettes are suitable for future 40G/100G system applications. They are able to meet the full demands of high speed networks with convenient for upgrading.

- Excellent transmission performance is 100% factory pre-terminated and tested
- The adoption of universal polarity design ensures the correct fiber polarity and the variety of polarity to be chosen in the system
- Flexible expansion, modular design
- Super bend-bright fiber, minimum fiber bending radius, minimized structure
- One-hand operation
- Smooth upgrade to next generation data center of 40GbE and 100GbE applications
- Metal shell design, good intensity, effective protection for internal fiber branch parts
- Compliant with TIA / EIA604-D-2007, IEC61754-7-2008 series standards

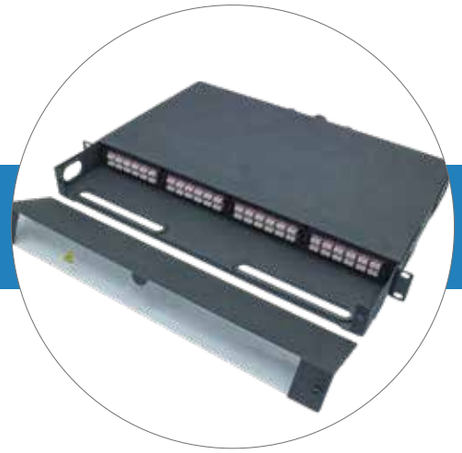




96FO Rack Mount Patch Panel

According to the needs of data center setup, we recommend to use HDF high-density rack-mounted cabinet; for data center with MDA, IDA or HDA wiring area fiber trunk connection and management. It is installed in 19-inch rack or cabinet with Pre-terminated MPO adapter module or MPO adapter front panels. This economical design of Highdensity and module reduces the number of frames, saving valuable rack space.

- MPO 1U optical fiber patch panel can accommodate 4 MPO pre-terminated cassettes. If MPO panels are installed, the maximum cores can reach 288
- MPO 2U optical fiber patch panel can accommodate 8 MPO pre-terminated cassettes. If MPO panels are installed, the maximum cores can reach 576
- MPO 3U optical fiber patch panel can accommodate 12 MPO pre-terminated cassettes. If MPO panels are installed, the maximum cores can reach 864
- Made of high quality cold rolled steel plate;
- Multiple cable entry and patch cord exit for easy operation and management
- More than four times the density of traditional patch panels, greatly save the space of the cabinet
- Compliant with TIA / EIA604-D-2007, IEC61754-7-2008 series standards
- Modular design, 19-inch rack mount, easy for future expansion



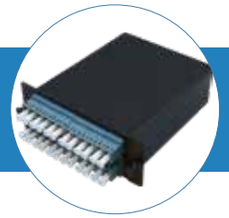
Fixed Type

Sliding Type

96FO MTP/MPO - LC Fix Type Fiber Optical Cassette

MTP / MPO-LC fiber optic cassette is a closed-type of device with a 12/24-core fiber patch cords for branching 12-core MTP / MPO trunk cable to LC Connectors so that the system appliances are easily be connected to the ports or panels. The cassette can be quickly deployed to 24 LC or 12 SC adapters and can be easily installed in HDF high-density rack-mounted ODF. The modular structure is high manageable and flexible. With the future requirements on the connectivity, the modules can be changed to meet the corresponding needs. In the meanwhile, the existing trunk cabling structure remains unchanged.

- Excellent transmission performance is 100% factory pre-terminated and tested
- The adoption of universal polarity design ensures the correct fiber polarity and the variety of polarity to be chosen in the system
- Flexible expansion, modular design
- One-hand operation
- Metal shell design, good intensity, effective protection for internal fiber branch parts
- Compliant with TIA / EIA604-D-2007, IEC61754-7-2008 series standards
- Super bend-bright fiber, minimum fiber bending radius, minimized structure
- Smooth upgrade to next generation data center of 40GbE and 100GbE applications

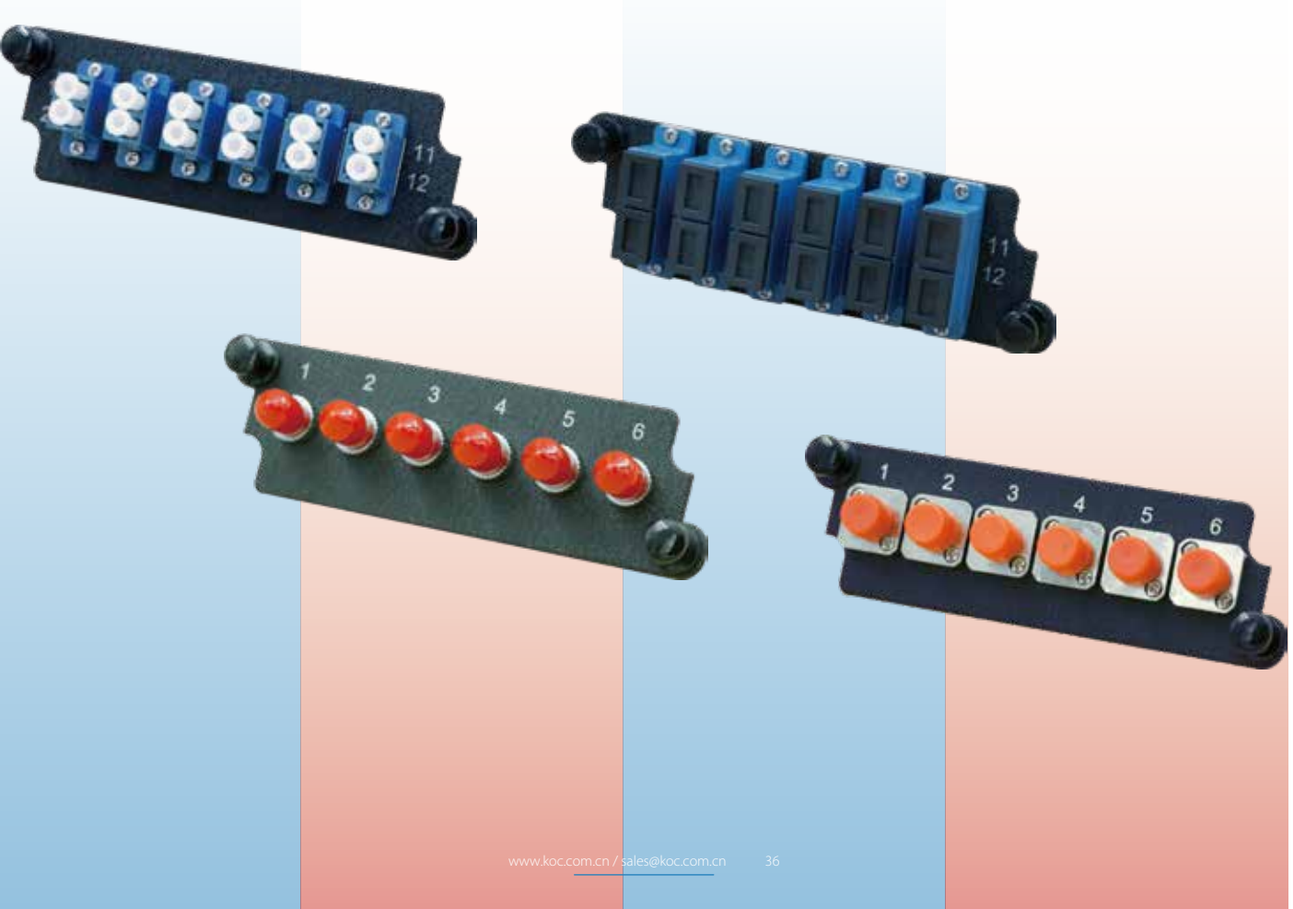


Item	Single mode Module IL (Max)	Multimode Module IL (Max)
Standard	1.0dB	1.0dB
Low Loss	0.7dB	0.7dB
Ultra-Low-Loss	0.5dB	0.35dB

Adapter Panel

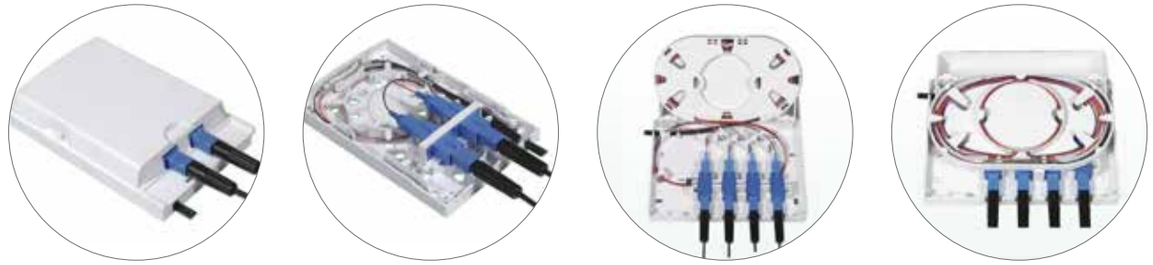
The adapter panel provides fast and efficient port management for MTP/MPO or LC/SC connectors. It is applicable for next-generation high-density data center solutions. The panel reaches the connection and deployment of the patch cords and pigtails between the devices and patch panels. The panel is used with the field mounting connectors, or with the pre-terminated cables device to the interconnect hardware.

• High-density ports, single adapter panel Configurable with 24 IP adapter ports or 6 SC adapter ports or 6 MPO / MTP adapter ports;
• High-quality cold-rolled steel, compliant with European ROHS standards
• Clear connector coding mark
• Flexible structure, adapter port configuration can be flexibly selected
• Applicable to all types of industrial standard adapters
• Cartridge installation for easy installation
• Easy to upgrade to 40G / 100G network without changing the fiber management structures
• Compliant with TIA / EIA604-D-2007, IEC61754-7-2008 series



Fiber Terminal Box

FCS series User Terminal Boxes are widely used in fiber to the home, fiber to the office and fiber to the desktop. KOC's last meter fiber terminal units provide different options for customer fiber access solutions.



• 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	
Application	3.0*2.0mm drop cable or indoor cable
Fiber diameter	125μm(652 & 657)
Tight cladding diameter	250μm & 900μm
Mode of application	MM or SM
Tensile strength	>50N
End-use temperature	-40 ~ 85°C
Adaptor	SC & FC
Insertion loss	≤0.2dB(1310nm & 1550nm)
Output	2

Module	Size	Max Capacity			Installation Size	
FCS-2H	84*130*24mm	2 SC	4 LC	4 PLC		85mm
FCS-2C	86*86*24mm	2 SC	4 LC	4/8 PLC		60mm
FCS-4C	149*110*33mm	4 SC	8 LC	4/8 PLC	132 x 50mm	

Fiber Distribution Box

• Available for small capacity communication system, wall mounting, reasonable and compact structure, harmonized with machine room.

• The cabinet is composed of two parts, one links with optical cables for fusion connection between optical cable and fiber pigtail and another links with patch cord.

• Provide fusion and storage appliance for optical cables.

• Reliable protection appliance of fixing, stripping and earthing for optical cables.

• Whole range protected design for fiber lay to ensure the bending radius ≥40mm.

• Provide various accessories to avoid any unexpected damage to the fiber.

• Indoor application

• Fiber splice, optical splitter, cable storage

• Max capacity up to 72 fibers

• Customizable





Item	Size	Max capacity	Remark
KWMSB-D /A-24	455*405*80mm	24 Cores	The case body is made of cold rolled steel sheet, electrostatic spraying, outdoor wall mounting, provide 24-72 adaptors, available for SC/ST/LC
KWMSB-D /A-48	455*405*120mm	48 Cores	
KWMSB-D /A-72	455*405*150mm	72 Cores	
KWMSB-D /B-48	455*405*120mm	48 Cores	The case body is made of stainless steel, electrostatic spraying, outdoor wall mounting, provide 48-72 adaptors available for FC\SC\ST\LC
KWMSB-D /B-72	455*405*150mm	72 Cores	The case body is made of stainless steel, electrostatic spraying, outdoor wall mounting, provide 48-72 adaptors available for FC\SC\ST\LC
KWMSB-D /A-24A	350*350*80mm	24 Cores	The case body is made of cold rolled steel sheet, electrostatic spraying, wall mounting, provide 12-24 adaptors, available for SC\ST\LC
KWMSB-D /C-FC12	350*300*80mm	12 cores	
KWMSB-D /C-SC12	350*300*80mm	12 Cores	
KWMSB-D /D-FC24	350*300*80mm	24 Cores	
KWMSB-D /D-SC24	350*300*80mm	24 Cores	
FSP-72A	550*480*120mm	72 Cores	
FSP-32B	360*345*100mm	32 Cores	
FSP-16C	400*385*110mm	16 Cores	
FSP-16B	320*270*100mm	16 Cores	
FSP-16A	360*345*100mm	16 Cores	

Indoor/Outdoor Fiber Terminal Box

Indoor/Outdoor Fiber Terminal Boxes are environmentally sealed enclosures to distribute fibers for FTTx networks. They can be mounted on the wall or pole, for fiber fusion connect, termination, splitter and management.

• Outdoor and indoor applications

• High quality engineering plastic construction

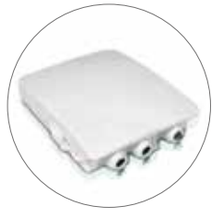
• IP55 for outdoor environment

• Max splicing capacity up to 72 fibers

• Max loading PLC splitter up to 2x16ch

Module	Size (mm)	Max Capacity			Installation Size		Cable-in way
FCS-2A	102*167*31	2 SC	4 LC	4 PLC	159*80mm		
FCS-4A	186*116*40	4 SC	8 LC	4/8 PLC		195mm	
FCS-4B	191*120*44	4 SC	8 LC	4/8 PLC	185*93mm		
FCS-2B	150*120*37	2 SC	4 LC			60mm	
FCS-6A	150*120*37	6 SC	6 LC				
FCS-8A	213*163*47	8 SC	16 LC	8/16 PLC	206*129mm		
FCS-8C	199*160*46	8 SC	16 LC	8/16 PLC	173*136mm		
FCS-8E	230*180*55	8 SC	16 LC	8/6 PLC	81*120mm		
FCS-12B	263*135*46.5	12 SC	24 LC			66mm	
FCS-8B	250*190*39	8 SC	16 LC	8/16 PLC	130*82mm		Cut free
FCS-12D	250*190*39	12 SC	24 LC	8/16 PLC	130*82mm		Cut free
FCS-16H	295*240*85	16 SC	24 LC	16 PLC	190*270mm		Cut free
FCS-8H	225*200*65	8 Splitting		2 Splicing	168*210mm		
FCS-12C	225*200*65	12 Splitting		12 Splicing	168*210mm		
FCS-16B	330*260*130	16 Splitting		4 Splicing	200*260mm		
FCS-16C	320*240*100	16 Splitting		4 Splicing	190*298mm		
FCS-16G	293*219*84	16 Splitting		16 Splicing	155*82mm		
FCS-24A	320*240*100	24 Splitting		24 Splicing	190*298mm		Cut free / With cut
FCS-24B	330*260*130	24 Splitting		24 Splicing	200*260mm		
FCS-32B	420*320*130	32 Splitting		8 Splicing	256*400mm		
FCS-36B	420*320*130	36 Splitting		36 Splicing	256*400mm		
FCS-48B	420*320*130	48 Splitting		48 Splicing	256*400mm		

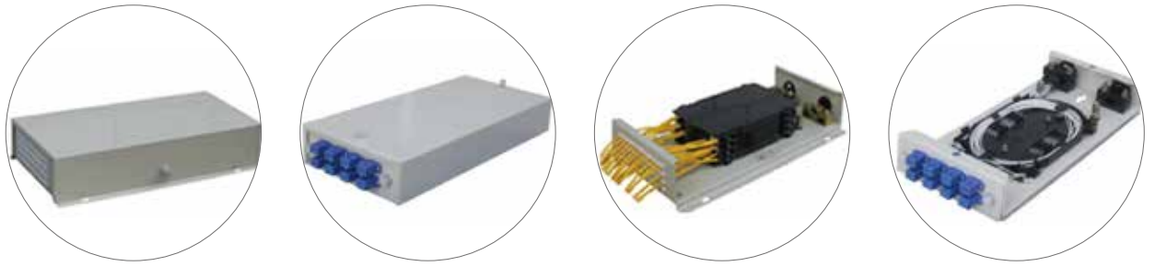



Indoor Fiber Terminal Box

KWMSB-A/L series Indoor Fiber Terminal Boxes are wall-mounted small size distribution units. The boxes have two cable entries. Fibers are spliced inside and distribute to the optical signal point. The interface can be adapters or pigtails.

- Indoor applications
- Capacity 8 - 48 fibers
- Output SC/FC/ST/LC connector available
- Splitter type is available, up to 2x32ch PLC splitter
- Customizable



Item	Size	Max capacity	Remark
KWMSB-A-FC12	330*183*70mm	12 Cores	The body is made from cold rolled steel plate, the surface use the technique of electrostatic spraying, 12 outlets for adaptors, available for FC/ST/SC adaptors.
KWMSB-A-SC12	330*183*70mm	12 Cores	
KWMSB-A-ST12	330*183*70mm	12 Cores	
KWMSB-A-FC24	330*183*100mm	24 Cores	
KWMSB-A-CQ48	330*183*70mm	48 Cores	
KWMSB/G-24A	300*120*46mm	24 Cores	The body is made from cold rolled steel plate, the surface use the technique of electrostatic spraying, fiber pigtail outlet
KWMSB-L-FC8	260*140*40mm	8 Cores	The body is made from cold rolled steel sheet, and the surface use the technique of electrostatic spraying, 8 outlets for adaptors, Available for FC/SC/ST adaptors.
KWMSB-L-SC8	260*140*40mm	8 Cores	
KWMSB-L-ST8	260*140*40mm	8 Cores	
KWMSB-L-CQ8	260*120*40mm	8 Cores	The body is made from cold rolled steel sheet, and the surface use the technique of electrostatic spraying,8 outlets for fiber pigtail

Fiber Splice Enclosure

FCS series User Terminal Boxes are widely used in fiber to the home, fiber to the office and fiber to the desktop. KOC's last meter fiber terminal units provide different options for customer fiber access solutions.

- 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

Cable Management Accessories

Cable management accessories help to fiber distribution managing.

- Splice tray (12 fibers, 24 fibers)
- 60mm and 40mm heatshrink protection sleeve
- Fiber bend radius limiter
- Other tools

Optical Collimator

Collimator is made up by capillary pigtail and G- Lens which aligned accurately. By the self Focus of G-Lens, collimator can realizable to Out put a parallel beam or input the parallel Beam into the fiber. It is widely used in optical Module or optical researching and lab field.

- Low insertion loss
- High return loss
- Epoxy-free in optical path

- WDM device and module
- Isolator
- Circulator
- Optical researching

Item	Single fiber		Dual fiber	
	Premium	A Grade	Premium	A Grade
Operating Wavelength	1310/1550nm, 1260 ~ 1620nm or Customized		1310 ±20nm, 1550 ±20nm	
Insertion Loss	≤0.18dB	≤0.20dB	≤0.30dB	≤0.35dB
Return Loss	60dB			
Receive angle	±0.15°			
Facula diameter	＜0.5mm			
Optical Power Handling	≤500mW			
Operating Temperature	-10°C ~ 70°C			
Storage Temperature	-40°C ~ 85°C			
Fiber Type	SMF-28, MMF50/125um or MMF62.5/125			
Fiber Length (Min.)	1 Meter Each End 0.25mm or 0.9mm			
Package Dimension	ϕ2.78*10mm or ϕ3.2*10mm or customized			

CWDM (Coarse Wavelength Division Multiplexers)

CWDM (Coarse Wavelength Division Multiplexer) is based on thin-film filter technology and patented athermal platform systems for optical devices. The CWDM is used to combine or separate different optical wavelength signals. This device offers a very flat and wide passband, low insertion loss, and high isolation, which make it ideal for CWDM Network applications and Optical Amplification Systems. KOC CWDM devices are Bellcore GR-1221 qualification tested and are in compliance with industry green initiatives such as RoHS and WEEE. All KOC CWDM products are epoxy-free in the optical path.

- Widely Operating Wavelength Range
- Low Insertion Loss
- High Channel Isolation
- High Stability and Reliability
- Insensitive to shock and vibration
- Ultra Flat Wide Pass band
- Epoxy Free Optical Path

- System Monitoring
- WDM System
- Transmitters and Fiber lasers
- Fiber Optical Amplifier
- Fiber optic instruments

Item		Specification
Channel Center Wavelength		1270 ~ 1610nm or 1271 ~ 1611nm
Channel Spacing		20nm
Channel Clear Passband		ITU+7nm
Transmission Insertion Loss	Max.	0.8dB (Typ 0.6)
Reflection Insertion Loss	Max.	0.6dB (Typ 0.4)
Passband Ripple	Max.	0.3dB
Transmission Isolation	Min.	30dB
Reflection Isolation	Min.	12dB
Return Loss	Min.	45dB
Directivity	Min.	45dB
Polarization Dependent Loss	Max.	0.1dB
Operating Temperature Range		0 ~ 70°C
Storage Temperature Range		-40 ~ 85°C
Maximum Power Handling		300mW
Package Dimension (L" ¢)		38*5.5mm

DWDM (Dense Wavelength Division Multiplexers)

DWDM (Dense Wavelength Division Multiplexer) is based on a patented athermal platform for optical devices. This multiplexer features ultra low insertion loss, superb thermal stability, and unparalleled reliability. The technology is a lead-free packaging platform and contains no epoxies in the optical path. KOC DWDM is Telcordia GR-1221 and GR-1209 tested, qualified for uncontrolled environment applications, and is in compliance with industry green initiatives such as RoHS and WEEE. KOC can provide customized designs to meet specialized feature applications. KOC also offers modular assemblies that integrate other components to form a full function module or subsystem.

Item		Specification						
Channel Wavelength (nm)		ITU 100GHz Grid			ITU 200GHz Grid			
Channel Spacing		100GHz			200GHz			
Channel Count (CH)		Single	2	4	8	16	20	40
Channel Passband (@-0.5dB bandwidth)	Min.	0.125nm			0.25nm			
Insertion Loss (dB)	Max.	<1.1 (add or drop) <0.8 (other)	1.3	2.2	3	4	4.2	4.5
Isolation (dB)	Min.	>30 (add or drop)	30					
		>12 (other)	40					
Passband Ripple	Max.	0.5dB						
Polarization Dependent Loss	Max.	0.1dB						
Polarization Mode dispersion	Max.	0.1ps						
Directivity	Min.	50dB						
Return Loss	Min.	45dB						
Insertion Loss Temperature Stability	Max.	0.005dB/°C						
Temperature Wavelength Drift	Max.	0.003nm/°C						
Power Handling	Max.	300mW						
Tensile Load	Max.	5N						
Pigtail Type		White 0.9mm loose tube						
Fiber Type		SMF-28e						
Fiber length		≥1.0m or customer requirements.						
Operating Temperature (°C)		-10 ~ 70°C						
Storage Temperature (°C)		-40 ~ 85°C						
Package Dimension		100*80*10mm & 141*115*18mm & 5.5*36mm						

CWDM Module

CWDM Module is based on Thin-Film-Filter and Micro-Optics, this product features wide pass band, low insertion loss and high channel isolation, high stability and reliability.

- Ultra-low Insertion Loss
- High Channel Isolation
- Super Thermal
- RoHS Compliance
- Optical Path Epoxy Free

- Metro CWDM system
- Access CWDM system
- Enterprise Network
- RoHS Compliance
- CATV Network

Item		Specification
Channel Space		20nm
Channel Number		2CH / 4CH / 8CH / 16CH
Center Wavelength		1270 ~ 1610nm
Channel Passband (@-0.5dB)		±7.5nm
Fiber Type		ITU-T G652D with0.9mm loose tube or Customized
IL		0.9dB / 1.5dB / 2.4dB / 3.5dB
Passband Ripple		0.5dB
Isolation	Adjacent Channel	30dB
	Non-Adjacent Channel	40dB
	Upgrade Port	13dB
PDL		0.2dB
PMD		0.1ps
RL		45dB
Directivity		50dB
Maximum Optical Power		500mw
Operating Temperature		-5 ~ 65℃
Storage Temperature		-40 ~ 85℃
Fiber Length		0.6m
Connector type		SC / PC , LC / PC or Customized
BOX Package		Rack mount 1U 19″ or Customized

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