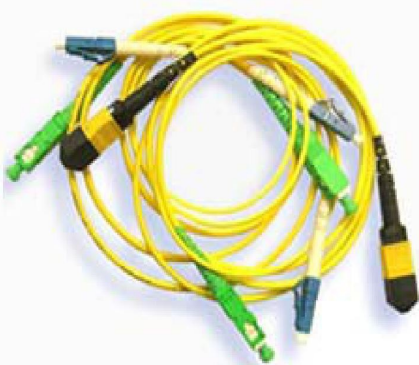
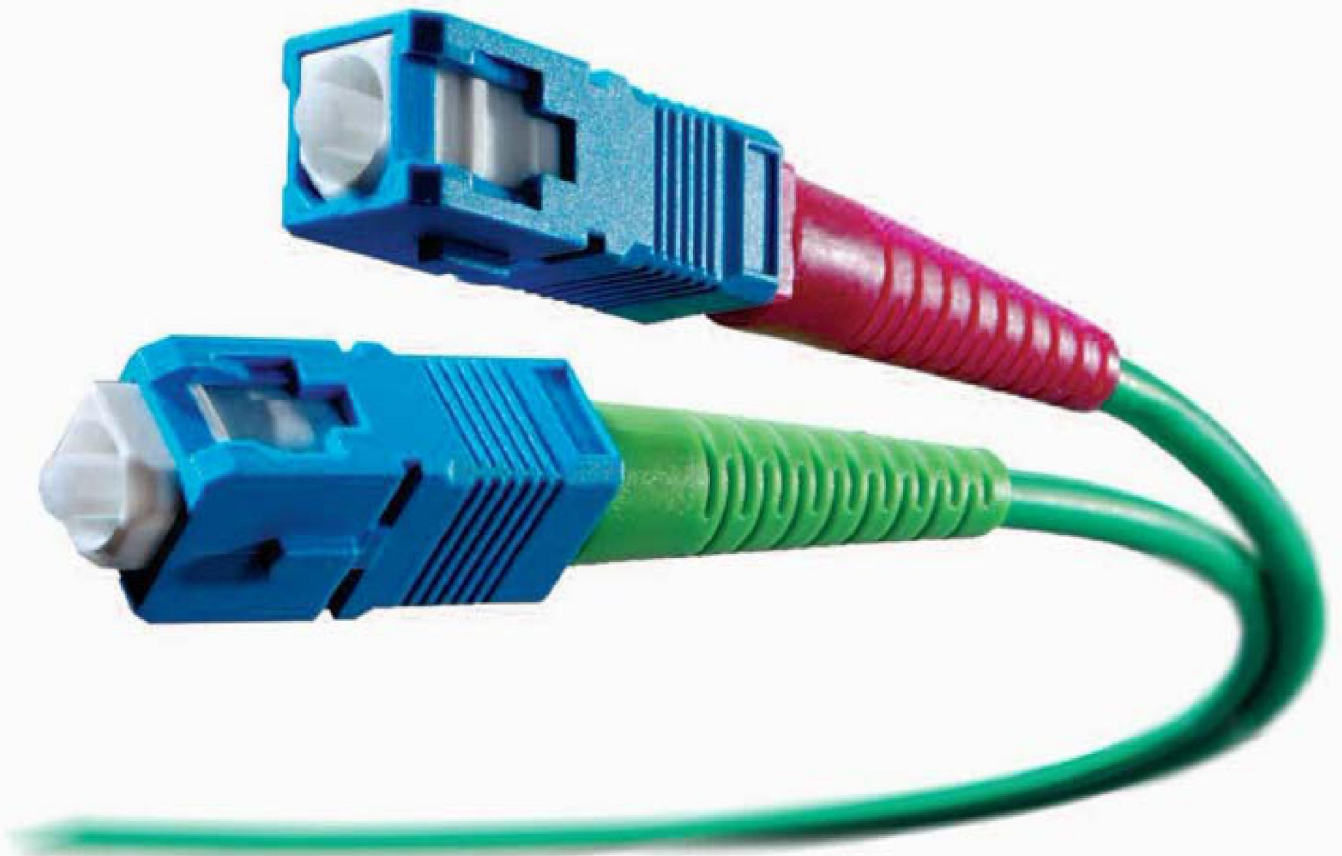


KINGTON



Patch cord/Pigtail/Connector/Adapter/Attenuators etc...

Singlemode Patchcord and Pigtail Information:

Connectorized cable assemblies are cord-type fiber optic cables terminated with connectors at both ends.

The type of cable, fiber and connector and the length of the patch cord can be freely specified by the customer

as shown below. Pigtails are used for terminating fiber optic cables by splicing them the fibers of the cable and

connecting the other end. Supplied with a connector, to a patch panel or directly to equipment.

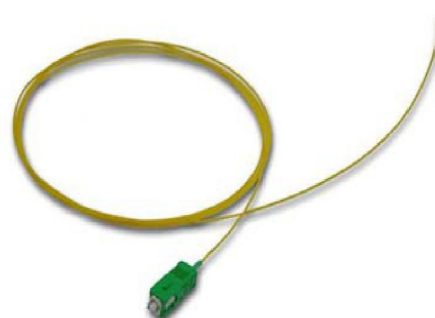
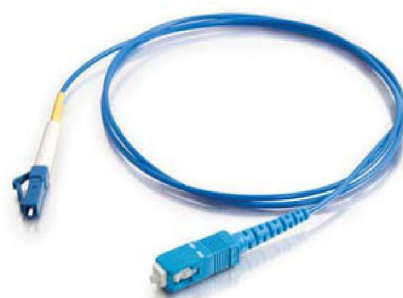
**Feature:**

- Compatible with all standard type connector, zirconia ceramic ferrule
- PC / SPC / UPC / APC polishing are also available in zirconia ceramic ferrule
- The Simplex, Duplex Patchcords and pigtails are jacketed with Kevlar Sheath Member, Aramid Yarns and Flame Retardant PVC Material
- Low Insertion Loss and High Return Loss
- Good exchangeability and repeatability
- Every cable assembly is 100% tested and guaranteed to meet all specification
- Identification label provides complete description of IL and RL.
- Customer Lengths and connectors are available upon request
- Refer to the Single Mode Patch Cable datasheet for the specifications
- G.652 and G.655 and G.657 fiber, LSZH, Plenum and Hytel cables available



Specifications:

Type	Standard, Master
Style	LC, SC, ST, FC, MU, DIN, D4, MPO, SC/APC, FC/APC, LC/APC, MU/APC Duplex MTRJ/Female, MTRJ/Male
Fiber Type	9/125 SMF-28 or equivalent (Singlemode) OS1 50/125, 62.5/125 (Multimode) OM2&OM1 50/125, 10G (Multimode) OM3
Cable Type	Simplex, Duplex (Zipcord) Φ 3.0mm, Φ 2.0mm, Φ 1.8mm Φ 1.6mm PVC or LSZH Φ 0.9mm, Φ 0.6mm buffered fiber PVC or LSZH
Polishing Manner	UPC, SPC, APC (8°)
Insertion Loss	$\leq 0.1\text{dB}$ (For Singlemode Master) $\leq 0.25\text{dB}$ (For Singlemode Standard) $\leq 0.25\text{dB}$ (For Multimode) Tested by JDS RM 3750
Return Loss (For Singlemode)	UPC $\geq 50\text{dB}$ SPC $\geq 55\text{dB}$ APC $\geq 60\text{dB}$ (typ. 65dB) Tested by JDS RM3750
Repeatability	$\pm 0.1\text{dB}$
Operating temperature	-40°C to 85°C

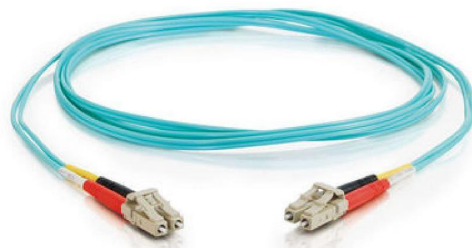
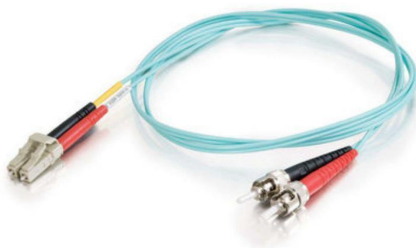


Multimode Patchcord and Pigtail Information:

Connectorized cable assemblies are Patchcords terminated with connectors at both end. The type of cable, fiber and connector and the length of the patch cord can be freely specified by the customer as shown below. Pigtails are used for terminating fiber optic cables by splicing them the fibers of the cable and connecting the other end, supplied with a connector, to a p

**Feature:**

- 50/125 and 62.5/125 and OM3/10G are also available
- Compatible with all standard type connector, zirconia ceramic ferrule, PC polishing
- The Simplex, Duplex Patchcords and pigtails are jacketed with Kevlar Sheath Member, Aramid Yarns and Flame Retardant PVC and LSZH material
- Good exchangeability and repeatability
- Every cable assembly is 100% tested and guaranteed to meet all specification
- Identification label provides complete of Insertion Loss
- Customer Lengths and connectors are available upon request
- For Data communication networks, Local Area Networks, Subscriber transmission system application
- Refer to the Multi Mode Patch Cable dat



Specifications:

Type	Standard, Master
Style	LC, SC, ST, FC, MU, DIN, D4, MPO, SC/APC, FC/APC, LC/APC, MU/APC Duplex MTRJ/Female, MTRJ/Male
Fiber Type	9/125 SMF-28 or equivalent (Singlemode) OS1 50/125, 62.5/125 (Multimode) OM2&OM1 50/125, 10G (Multimode) OM3
Cable Type	Simplex, Duplex (Zipcord) Φ 3.0mm, Φ 2.0mm, Φ 1.8mm Φ 1.6mm PVC or LSZH Φ 0.9mm, Φ 0.6mm buffered fiber PVC or LSZH
Polishing Manner	UPC, SPC, APC (8°)
Insertion Loss	$\leq 0.1\text{dB}$ (For Singlemode Master) $\leq 0.25\text{dB}$ (For Singlemode Standard) $\leq 0.25\text{dB}$ (For Multimode) Tested by JDS RM 3750
Return Loss (For Singlemode)	UPC $\geq 50\text{dB}$ SPC $\geq 55\text{dB}$ APC $\geq 60\text{dB}$ (typ. 65dB) Tested by JDS RM3750
Repeatability	$\pm 0.1\text{dB}$
Operating temperature	-40°C to 85°C





Bundle Fan-out Pigtail

Applications: Applicable to the fusion and distribution of multi-fiber cable and ODF.

Features: The fusion and distribution of multi-fiber in ODF available, Various optical connectors available, Low insertion loss and high return loss, Excellent reliability and stability.



Ribbon Fan-out Pigtail

Applications: Telecom network, Data transmission, LAN, Test equipments

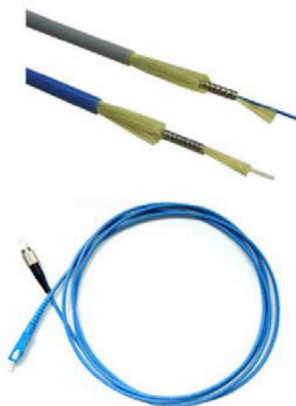
Features: Clamped connection, easy to operate, Controlled by the end face geometric parameters, Low insertion loss and high return loss, Excellent reliability and stability



Waterproof Pigtail

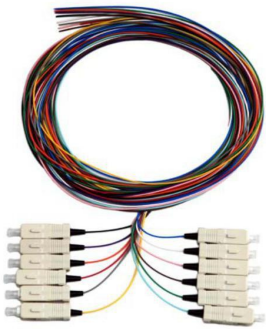
Applications: Field fiber CATV, Connection between main cable and optical receiver.

Features: Universal waterproof connector, reliable performance, Sealed and waterproof, high tensile strength, suitable for the poor field environment. Flexible connector is convenient for fixing, Various types of optical connectors available. Low insertion loss and high return loss.



Armored Fiber Optic Patch Cord

Armored fiber optic patch cord can be made similar outer diameter with the standard patch cords, this makes them space saving. They can be deployed directly in different harsh environments. Without additional tube for protection, they reduce construction cost and make maintenance more convenient. The stainless steel tube prevents the optical fiber from damage, which improves security and stability of the system. Furthermore, they can be with different jacket colors and jacket types such as OFNR etc. and the armored fiber optic patch cords are actually light weight. The armored fiber optic patch cords can be with SC, ST, FC, LC, MU, SC/APC, ST/APC, FC/APC, LC/APC etc types of terminations.



Fiber Optic Pigtails - 12 colors

In order to make each installation and splicing easy KINGTON offers set of 12 color pigtails. Regardless of fiber type pigtails are available in the following colors: red, green, blue, yellow, white, grey, brown, purple, orange, black, pink, aqua.



Multi-Fiber Assemblies

Fiber counts from 4 to 144 Indoor and outdoor applications
Single cable assembly with multiple fiber terminations Available in various connector types: Various fiber count and construction types
Custom configurations for cable and breakout style/length Single mode and multimode



Mode Conditioning Patch Cord

The Mode Conditioning Patch Cord is designed for long wave (-LX) multimode applications of Gigabit Ethernet. It is compliant with this IEEE 802.3z application standard. This patch cord consists of duplex SC connectors on each end of a cable assembly with a single-mode fiber offset to a multimode fiber connection in one of the two legs. Benefits: Avoids Different Mode Delay (DMD) signal, Correct offset always maintained, Aesthetically pleasing, Uses precision ceramic ferrules, Use in place of standard equipment-to-cable plant patch cord, Functions the same as standard patch cord

LC Connector



Description: The LC connector holds a single fiber in a 1.25mm ceramic ferrule, half the size of the standard SC ferrule. LC connectors are examples of small form factor connectors. The connector body is made of moulded plastic, and features a square front profile. An RJ-style latch (like that on a phone jack) on the top of the connector provides easy, repeatable connections. Two LC connectors may be clipped together to form a duplex LC. The small size and push-in connections of LC connectors make them an excellent choice for high-density fiber applications, or for crossconnects.

SC Connector



Description: The SC connector holds a single fiber in a standard-sized (2.5 mm) ceramic ferrule. The connector body has a square front profile, and is made of moulded plastic. Clips on either side of the body and the connector key allow for easy push-in connections. This push-pull latching mechanism makes the SC connector preferred in high-density interconnect applications such as telecommunications closets and premise wiring. Two SC connectors may be mounted side by side on a duplex cable. SC connectors have been preferred by the TIA/EIA-568-A industry standard for premise cabling because it is felt to be easier to maintain the polarity of duplex cables with this type of connector.

FC Connector



Description: The FC connector holds a single fiber in a standard-sized (2.5 mm) ceramic ferrule. The connector body is made of nickel-plated brass, and features a key-aligned, threaded locking coupling nut for repeatable, reliable coupling. The threaded coupling nut provides a secure connector even in high-vibration environments, although it takes slightly longer to connect, since it requires turning the connector instead of a simple push and click. Some FC style connectors exhibit tunable keying, which means the connector key can be tuned to obtain the best insertion loss, or to otherwise align the fiber.



ST Connector

Description: The ST connector holds a single fiber in a standard-sized (2.5 mm) ceramic ferrule. The connector body is made of a plastic composite, and the connector couples using a twist-lock mechanism. This connector type is often found in data communications applications. The ST is versatile, and very popular, as well as comparably cheaper than some other connector styles.



MU Connector

Description: The MU connector holds a single fiber in a ceramic ferrule.

MU connectors are small form factor connectors that emulate the design of the larger SC connector. The MU exhibits a square front profile and a moulded plastic body that provides simple push-pull attaching connections. The MU connector is well suited for high-density applications.



MTRJ Connector

Description: The MTRJ connector holds a pair of fibers in a monolithic ferrule made of a plastic composite. The ferrule is held inside a plastic body that clips into a coupler with an intuitive push and click motion, much like the copper RJ-45 jack. The fibers are aligned by the pair of metal guide pins in the end of the ferrule of a male connector, which join into guide pinholes on the female connector inside the coupler. The MT-RJ connector is an example of a duplex small form factor connector. Having the pair of fibers held by a monolithic ferrule makes it easy to maintain the polarity of connections, and renders the MT-RJ ideal for applications such as horizontal fiber runs in facility cabling.



DIN Connector

Description: DIN connectors. They are compact and have spring-loaded freefloating zirconia ferrules for superior performance.



E2000 Connector

Description: The E2000 connector holds a single fiber in a ceramic ferrule. E2000's are small form factor connectors with a moulded plastic body similar to that of an LC. The E2000 also exhibits a push-pull latching mechanism, and integrates a protective cap over the ferrule, which acts as a dust shield and shields users from laser emissions. The protective cap is loaded with an integrated spring to ensure proper closing of the cap. Like other small form factor connectors, the E-2000 connector is suited for high-density applications.



D4 Connector

Description: The D4 connector holds a single fiber in a 2.0 mm ceramic ferrule. The D4 connector's body is similar in design to the FC connector, except for the smaller ferrule, and a longer coupling nut. Properties and applications of the D4 are likewise comparable to the FC.



MPO Connector

Description: The MPO Fiber Connector uses precision molded MT ferrules, together with metal guide pins and precise housing dimensions ensure fiber alignment when mating. Mass termination in combinations of 4, 8, or 12 fiber ribbon cables are available. Single mode versions (with APC Polishing) are offered with premium low-loss or standard and multimode versions (with PC polishing) are also available. Available cable types include bare fiber ribbon and ruggedized ribbon.

Features:

- Zirconia ferrule
- Precise dimension
- Low insertion loss
- High return loss
- Convenience and ease of handling
- Environmentally stable

Application:

- CATV Networks
- Active Device Termination
- Industrial and Military
- Instrumentation
- FTTx

Specifications:

- Insertion Loss: Single mode $I \leq 0.20\text{dB}$ & Multimode $\leq 0.25\text{dB}$
- Return Loss: UPC $\geq 50\text{ dB}$, SPC $\geq 55\text{ dB}$ & APC $\geq 65\text{ dB}$
- Durability $< 0.20\text{ dB}$ typical change, 1000 mating
- Operating Temperature: -40 to 80°C
- Ceramic Ferrule Hole Sizes: Single mode: $125.0 \pm 0.1\text{ }\mu\text{m}$, Concentricity: $\leq 1.0\text{ }\mu\text{m}$, $125.5 \pm 0.1\text{ }\mu\text{m}$,
- Concentricity: $\leq 1.0\text{ }\mu\text{m}$, $126.0 \pm 0.1\text{ }\mu\text{m}$, Concentricity: $\leq 1.0\text{ }\mu\text{m}$ Multi mode: $125\text{ }\mu\text{m}$,
- Concentricity: $1 \leq 3\text{ }\mu\text{m}$ or $127\text{ }\mu\text{m}$, Concentricity: $1 \leq 3\text{ }\mu\text{m}$ or $128\text{ }\mu\text{m}$, Concentricity: $1 \leq 3\text{ }\mu\text{m}$



Fast Connector

Description: Optical fast connector takes use of the latest generation of Rapid Ready-Terminal technology. After terminating, both the optical and mechanical performances reach the standard for patchcord and meet the demand for making patchcord on site by mechanical splicing.

Features:

- Low insertion loss and back reflection loss -Extremely easy for operation
- Short operation time.
- No need of epoxy,
- No need of polishing (for PC)

Applications:

- FTTxRebuilding the wiring in optical equipments rooms.

Availability:

- Following types of connector is available:SC/PC 、 FC/PC

Specifications:

Operation time	About 2 min
Insert loss	$\leq 0.5\text{dB}$ (1310nm & 1550nm)
Return loss	$\geq -45\text{ dB}$
Using temperature	-40 ~ +75 centre degree
On-line tensile strength (20N)	IL $\leq 0.2\text{dB}$ RL $\geq 45\text{ dB}$
Mechanical durability (500 times)	IL $\leq 0.2\text{dB}$ RL $\geq 45\text{ dB}$



LC Adapter

Description: LC type adapters are used in high density applications and feature a quick plug in installation. Adapters are available in both simplex and duplex designs and utilize high quality zirconia and phosphorous bronze sleeves. The LC duplex adapter uses the same cutout as the copper RJ-45, resulting in less redesign work when retrofitting existing panels.



SC Adapter

Description: SC adapter has a plastic housing and either a precision zirconia or a rugged phosphor bronze sleeve. Zirconia sleeve enables stable connection and thus enhances performance, and is ideal for single mode applications. Phosphor bronze sleeve provides durability, and is ideal for multimode applications. Flange-mount type simplex and duplex adapters are available.



ST Adapter

Description: ST adapters connect industry standard ST connectors and are available in D-Mount and Flange-Mount versions. ST adapters are available with ceramic or metallic sleeves, feature a metal body for long life, and easily install in panel mount applications.



FC Adapter

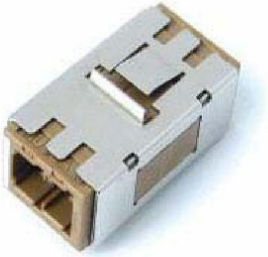
Description: FC adapter metal housing and either a precision zirconia or a rugged phosphor bronze sleeve. Zirconia sleeve enables stable connection and thus enhances performance, and is ideal for single mode applications. Phosphor bronze sleeve provides durability, and is ideal for multimode applications. Square flange mount and "D" hole mount styles are available.



MTRJ Adapter

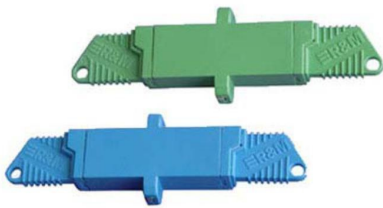
Description: The single mode and multi mode MT-RJ products are used in two fiber optical interconnects and are therefore well suited for high density applications. The MT-RJ Adapter comes standard in black, with additional colors available. An MT-RJ Adapter with SC style housing is also available for applications where SC footprint is required.

MU Adapter



Description: MU adapters are comprised of a polymer outer body and inner assembly fitted with a precision alignment mechanism. These adaptors are precision made and manufactured to demanding specifications. The combination of a ceramic/ bronze alignment sleeves and precision moulded polymer housing provides consistent long-term mechanical and optical performance.

E2000 Adapter



Description: The E2000 Fiber Optic Adaptor features injection-molded PBT housing, rated to the UL94V-01 Flammability Index. Spring-loaded shutters protect against dust and scratching. A high quality split ceramic sleeve ensures high performance over 1000 mating cycles.

MPO Adapter



Description: The MPO Fiber Optic Adaptor is to provide MPO Patchcord to MPO patchcord Fiber connecting. MPO Optical Adaptors are flange type adaptors with plastic housing, both single mode and multimode ones available. MPO Adaptors are used in high-density backplane and Printed Circuit Board (PCB) applications in data and telecommunications systems. They offer up to 12 times the density of standard connectors. The MPO adaptors provide significant space and cost savings.

DIN Adapter



Description: We supply DIN fiber optic adaptor which come with zirconia sleeves and threaded size. DIN Optical Adaptors are available in single mode type and multimode types. DIN 47256 (LSA) feature a single unit body with spring-loaded free floating zirconia ferrule. This unique connector offers superior performance in a compact DIN 47256 compatible design suitable for various applications. The DIN Adaptors are consistent performance and durability.

SMA Adapter



Description: SMA Fiber Optic Adaptors, these FSMA mating adapter can be used with all standard FSMA fiber optic connectors and are suitable for panel mounting. Standard FSMA ($\varnothing=3.175$ mm) fiber optic connectors are used for LAN, MAN, WAN, Test & Measurement, Industry, Medical and Sensors applications.



Hybrid Adapter

Description: Hybrid adapters are used to connect optical connectors of different type. are very useful in connecting patchcords with different connector. have low insertion loss and high return loss. supply a wide range of different kinds of hybrid optical fiber adapters with most popular connector type, such as LC, SC, ST, FC, E2000, MU in single mode, multi mode, UPC & APC.

Features :

- Compliance with Bellcore 326 and TIA/EIA 604 Standard
- High Precision
- Easy Installation
- Low insertion loss
- Good exchangeability and repeatability
- Zirconia or phosphor-bronze sleeve

Applications:

- Telecommunication
- Computer networks
- CATV networks
- Active device termination
- Instrumentation
- Fiber To the Home

Specifications:

Characteristics	Unit	Single Mode	Multimode
Insertion Loss (IL)	dB	≤ 0.25	
Exchangeability	dB	$IL \leq 0.2$	
Repeatability (500 remates)	dB	$IL \leq 0.3$	
Sleeve material	-	Zirconia	Phosphor Bronze
Housing material	-	Plastic	Metalic
Operating Temperature	° C	- 40 ~ +70	
Storage Temperature	° C	- 40 ~ +70	

Male to female fiber optic attenuators are doped fiber attenuators, providing low wavelength sensitivity, high stability, high return loss and good reliability. This makes our attenuators well suited for EDFA, DWDM and other high-power output applications. Their performances completely meet the standard Telcordia GR-910-CORE.



Features :

- Fixed attenuation values of 1 to 30dB
- Precise attenuation value
- Excellent reflectance
- Environmentally stable
- UPC and APC available
- 1310nm and 1550nm dual wavelength
- Low PDL

Applications:

- Telecommunication Networks
- CATV
- LAN
- FTTx
- Subscriber Loop

Specifications:

Characteristics	Unit	Conditions	Values
Attenuation	dB	UPC	1 ~ 30
		APC	
Return Loss	dB	UPC	>50
		APC	>60
Operating Wavelength	nm		1310 and 1550, 1240 - 1600
Attenuation Accuracy	-	1 ~ 4dB	$\leq 0.5\text{dB}$
		5 ~ 30dB	<10%
Operating Temperature	° C	—	-40 ~ +75
Storage Temperature	° C	—	-40 ~ +85
Polarization Dependent Loss	dB	—	<0.2
Relative Humidity	%	75° C	95
Vibration	dB	10 ~ 55, 2Hrs	$\Delta\text{IL} \leq 0.2$
Impact	dB	1.5m, 5 drops	$\Delta\text{IL} \leq 0.2$

Collimator variable optical attenuator is an useful tool for the optical components and systems test.



Features :

- Wide attenuation range
- High precision
- Low original loss
- Compact size

Applications:

- Fiber communication on system test
- Optical passive component test
- Optics lab use

Specifications:

Parameter	1310	1550	1310/1550 Dual window	850, 1310
Wavelength (nm)	1310 ± 40	1550 ± 40	1310 ± 40 & 1550 ± 40	850 ± 40 or 1310 ± 40
Attenuation range (dB)	0.6 ~ 60	0.6 ~ 60	0.8 ~ 60	0.8 ~ 40
Original loss (dB)	≤ 0.6	≤ 0.6	≤ 0.8	≤ 0.8
Return loss (dB)	≥ 50			≥ 30
Adjustment Precision (dB)	0.02			
Fiber type	SMF-28			50/125 or 62.5/125 multi-mode
PDL (dB)	≤ 0.15			
Operating temperature (°C)	0 ~ +70			
Storage temperature (°C)	- 40 ~ +85			

*Output connector can be made on customer's request.

In-line fixed attenuator utilizes fused fiber to achieve attenuation. Each cord is custom built to accommodate up to 10 meters of cable and the connectors styles of your choice.

**Features :**

- High stability
- High durability
- Low Polarization Dependent Loss

Applications:

- EDFA
- DWDM
- CATV
- Wide Area Networks
- High Power Applications

Specifications:

Characteristics	Unit	Conditions	Values
Attenuation	dB	UPC	1 ~ 25
Return Loss	dB	UPC	>50
Operating Wavelength	nm		1310 and 1550
Attenuation Accuracy	-	1 ~ 4dB	<0.5dB
		5 ~ 25dB	<10%
Operating Temperature	° C	—	-40 ~ +75
Storage Temperature	° C	—	-40 ~ +85
Polarization Dependent Loss	dB	—	<0.2

*Output connector can be made on customer's request.

The adapter attenuator mounts in place of the standard bulkhead adapter. These products are filter-type attenuators.

Bulkhead type attenuators are available for singlemode ST, SC, LC and FC connectors. They are available in fixed 3, 5, 10, 15dB ect. Select from 1310nm or 1550nm options.



Features :

- Fixed attenuation values of 1 to 25dB
- Precise attenuation value
- Excellent reflectance
- Environmentally stable
- 1310nm and 1550nm dual wavelength
- Low PDL

Applications:

- Telecommunication Networks
- CATV
- LAN
- FTTx
- Subscriber Loop

Specifications:

Characteristics	Unit	Conditions	Values
Attenuation	dB	UPC	1 ~ 25
Return Loss	dB	UPC	>50
Operating Wavelength	nm		1310 and 1550
Attenuation Accuracy	-	1 ~ 4dB	<0.5dB
		5 ~ 25dB	<10%
Operating Temperature	° C	—	-40 ~ +75
Storage Temperature	° C	—	-40 ~ +85
Polarization Dependent Loss	dB	—	<0.2



Features :

- High Directivity
- Low Insertion Loss
- Low PDL
- Excellent Environmental Stability

Applications:

- Fiber In The Loop (FITL)
- Local Area Networks (LAN)
- Cable Television (CATV)
- Long Haul Telecommunications
- Fiber Optical Sensors
- Test Equipment

Specifications Based on 50/50 coupling ratio coupler:

Type	Single Window		Dual Window	
Fiber Type	SMF-28			
Operation Wavelength	1310±40nm or 1550±40nm		1310±40nm or 1550±40nm	
Grade	Super	High	Super	High
Insertion Loss(dB)(Max)	3.4	3.6	3.6	3.8
Uniformity(dB)(Max)	0.6	1.0	0.8	1.2
Polarization Dependent Loss(dB)(Max)	0.1	0.15	0.15	0.2
Thermal Stability(dB/°C)(Max)	0.002			
Directivity(dB)(Min)	55			
Return Loss(dB)(Min)	55			
Operating Temperature(°C)	-40 to +70			
Storage Temperature(°C)	-40 to +85			

Specifications of Coupling Ratio/Insertion Conversion Chart:

Type	Single Window		Dual Window	
Grade	Super	High	Super	High
50/50	3.4	3.6	3.6	3.8
40/60	4.4/2.5	4.7/2.8	4.7/2.7	5.0/2.9
30/70	5.8/1.9	6.1/2.0	6.0/1.9	6.4/2.1
20/80	7.7/1.2	8.0/1.3	7.9/1.2	8.5/1.4
10/90	10.8/0.6	12.0/0.8	11.3/0.6	12.7/0.8
5/95	14.6/0.4	18.4/0.5	15.2/0.6	18.9/0.5