AMERICAN STANDARD

LINK American Cabling

PIGTAIL, PATCH CORD, CONNECTOR & ADAPTER

FIBER OPTIC

CATALOG 2025-2026

Series

Double Q Series

FIBER OPTIC PIGTAIL, PATCH CORD, CONNECTOR & ADAPTER

LINK American Cabling offers high-quality fiber optic pigtail, patch cord, connector & adapter designed for durable and reliable fiber networks. Their products adhere to industry standards and are built to minimize signal loss, with features such as high-quality ceramic ferrules and low insertion loss in connectors, ensuring optimal performance even in demanding environments.

For example, high-grade patch cords and pigtails are typically available in various types (single-mode, multimode, duplex, simplex) with connector types like SC, LC, ST, and FC. They also undergo rigorous optical testing to maintain consistent signal transmission and low reflection loss, making them suitable for applications in data centers, telecom networks, and enterprises requiring robust connectivity solutions.

LINK Fiber Optic pigtail, patch cord, connector & adapter which emphasize durability, performance in extreme conditions, and quality materials, LINK's offerings align well with industry expectations for reliability and customization across different cabling configurations. To highlight LINK American Cabling's fiber optic products, you can describe the product strengths under three main areas: high quality, fast delivery, and reliability.

LINK offer Double Q Series with

1. High-Quality Components: LINK products, including connectors, patch cords, and pigtails, use premium materials like ceramic ferrules to ensure low signal loss and high durability. The products meet rigorous industry standards, providing consistently strong connectivity, which is essential in high-performance applications such as data centers and telecom networks.

2. Rapid Delivery: LINK American Cabling offers efficient manufacturing and streamlined logistics, allowing them to deliver products quickly. This ensures minimal downtime for businesses needing prompt upgrades or installations.

Advanced Technology : LINK integrates , which enhances product reliability under various environmental conditions. This feature helps protect against potential damages from factors like moisture, temperature fluctuations, and physical stress, making these products suitable for demanding and critical environments.

Framing it this way emphasizes the complete value package LINK offers: high-quality materials, quick fulfillment, and enhanced durability for critical applications. This approach showcases the products' full capability and broad appeal across industries.

Fiber Pigtail & Patch Cord , Double Q Series

Double Q Series provides a complete line of fiber Pigtail & Patch cord SC, LC, ST, FC, MTRJ, MTP® and MPO, for the flexibility to answer any application termination need or others. Both single-mode and multimode are available. Each connector meets FOCIS and ANSI/TIA-568.3-D standards and deliver a pre-assembled from the factory to reduce Installation time. Zirconia ferrules with pre-radius end faces allows for physical contact polishing supporting Ultra PC performance (SPC or UPC).

- Pigtail, Simplex, and Duplex are available
- Fiber cable from 1C, 2C, 8C, 12C, 24C, 48C and up to 288C
- UL OFNR and OFNP Jacket, CPR flame retardant
- UPC and APC polish meets the standard requirement
- Options with multimode OM3, OM4 and OM5 bend insensitive fiber and single-mode OS2 G.657.A1, G.657.A2 fiber

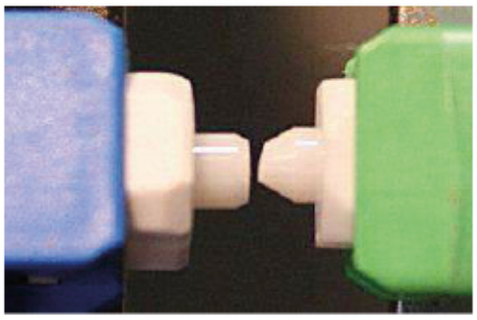
PC, UPC and APC

Whenever a connector is installed on the end of the fiber, the loss is incurred. Some of this light loss is reflected directly back down the fiber towards the light source that generated it. These back reflections, or Optical Return Loss (ORL), will damage the laser light sources and disrupt the transmitted signal. To reduce back reflections, we can polish connector ferrules to different finishes.

A typical hand-polished connector will measure at –30dB. This polish is referred to as a PC or Physical Contact polish, which for some systems is considered too high of an ORL measurement. To reduce the back reflection of a connector, we can machine polish it to UPC (Ultra Physical Contact) polish. Industry standard is a minimum of –55dB for UPC back reflection measurement.

If even less back reflection is required, an APC, or Angled Physical Contact polish, might be necessary. An APC connector has an 8°-angle cut into the ferrule. These connectors are identifiable by their green color. The industry standard minimum value for APC polished connectors is –60dB for measurement.

Physical Contact and Angled Physical Contact



Low Insertion Loss and High Return Loss

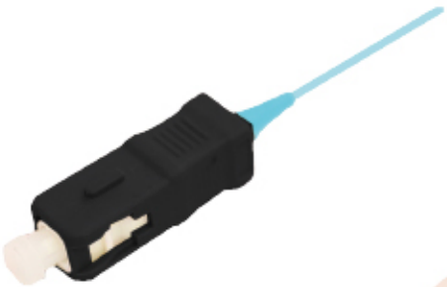
	LC			SC			FC			ST			MTRJ		
Ref. Intermateability Standard	TIA/EIA-604-10			TIA/EIA-604-3			TIA/EIA-604-4			TIA/EIA-604-2			TIA/EIA-604-12		
Insertion Loss & Return Loss	Typical IL	IL	RL	Typical IL	IL	RL	Typical IL	IL	RL	Typical IL	IL	RL	Typical IL	IL	RL
Single Mode (UPC Low Loss)	≤ 0.10dB	≤ 0.15dB	≥ 55dB	≤ 0.10dB	≤ 0.15dB	≥ 55dB	≤ 0.10dB	≤ 0.15dB	≥ 55dB	≤ 0.10dB	≤ 0.15dB	≥ 55dB	---	---	---
Single Mode (APC)	≤ 0.15dB	≤ 0.20dB	≥ 60dB	≤ 0.15dB	≤ 0.20dB	≥ 60dB	≤ 0.15dB	≤ 0.20dB	≥ 60dB	---	---	---	---	---	---
Multimode Mode (UPC Low Loss)	≤ 0.10dB	≤ 0.15dB	≥ 35dB	≤ 0.10dB	≤ 0.15dB	≥ 35dB	≤ 0.10dB	≤ 0.15dB	≥ 35dB	≤ 0.10dB	≤ 0.15dB	≥ 35dB	≤ 0.10dB	≤ 0.15dB	≥ 35dB

3D Interferometer	
APC Polish Angle	8°(APC) ± 0.2°
Ferrule ROC	PC Polish: Ø 2.5mm 10<R< 25mm , Ø1.25mm 7<R< 25mm (PC), 5<R<12mm (APC)
Apex Offset	PC: < 50um
Protrusion	PC: < 50nm, APC: < 50nm
Undercut	PC: < 50nm, APC: < 50nm

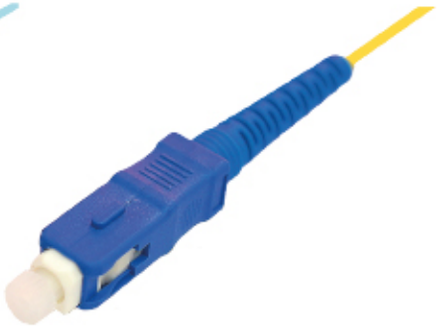
SC Fiber Pigtail and Patch Cord

SC is a snap-in connector with a 2.5mm ferrule to help precise positioning. It's a snap-in connector that latches with a simple push-pull motion. It complies with FOCIS-3 (TIA-604-3), which is available in both simplex and duplex configuration.
SC fiber patch cords are used for equipment cross-connects or interconnects in backbone, horizontal, work area applications and data room. SC is the one, recommended by TIA/EIA-568-B.3 at the wall outlet and the telecommunication closet. Multimode supports a robust and rapid termination for lower cost fiber to the desk applications. Single-mode connectors provide the flexible capacity.

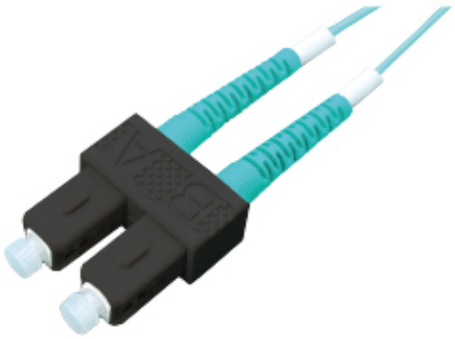
SC 0.9mm Pigtail



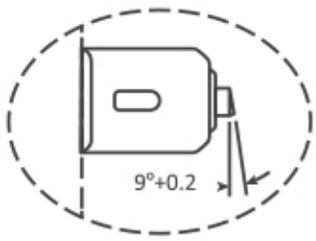
SC 2.0mm/3.0mm Simplex

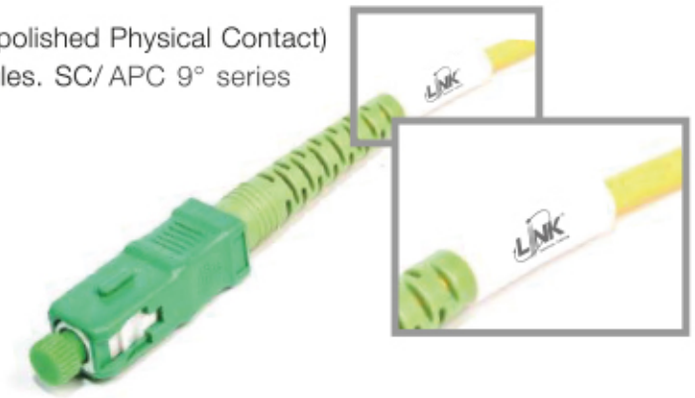


SC 2.0mm/3.0mm Duplex



LINK American Cabling also provides SC/APC (Angle-polished Physical Contact) optical fiber patch cords in polished 9 degrees ferrules. SC/ APC 9° series has high return loss (>65dB) and comes with an Indicator ring for easy identification.





What is Optical Fiber Insertion Loss? What is it for?

Insertion loss (IL) is the amount of light lost (it is measured in dB) from the origination of a signal to the reception of that same signal. What happens if insertion loss is too high? Too high of an insertion loss will lead to what is known as “channel errors” that can cause equipment to go down and possibly cause data center downtime.
Is insertion loss important? Sure, knowing the insertion loss before you purchase, ask for insertion loss specifications and pay attention to the words like “typical” versus “maximum” insertion loss. Don’t consider the suppliers or manufacturer if they just supply statistics in typical readings or averages. You should look for the maximum insertion loss of a fiber product, as permits you to know the highest possible loss amounts that you will incur.

LC Fiber Pigtail and Patch Cord

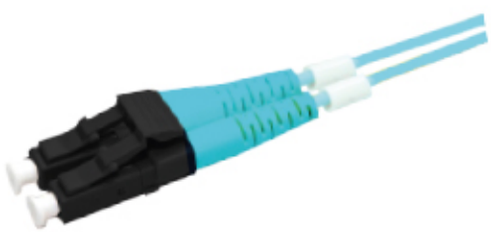
LC is a small form factor (SFF) connector that complies with TIA/EIA-604 FOCIS-10. It features a 1.25mm ceramic ferrule, which is half the size of an SC ferrule. LC connectors are compatible with transceivers and active networking components, which are ideal and commonly used in LANS, FTTH, and data centers.

LC 0.9mm Pigtail

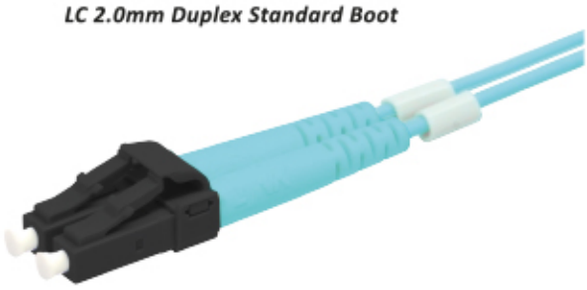
LC 2.0mm Simplex Short Boot

LC 2.0mm Simplex Standard Boot

LC 2.0mm Duplex Short Boot



LC 2.0mm Duplex Standard Boot



LINK also provides uniquely designed LC for high-density applications: LC Uniboot, LC Extractor, LC 1 Second Polarity Change Uniboot, and Extractor. This series optimizes space utilization and is an ideal solution for high-density data center infrastructures.

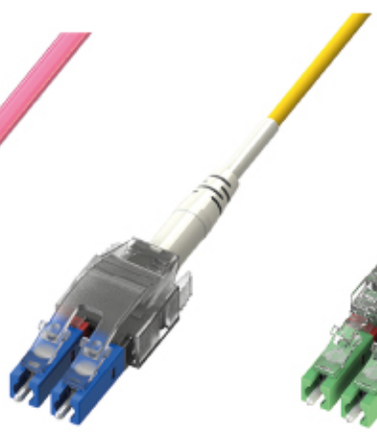
Round Duplex Cable Diameter

	1.6mm	2.0mm	3.0mm
LC Uniboot/Extractor		√	√
LC 1 Sec. Polarity Change Uniboot/Extractor	√	√	

New Generation

LC Uniboot

LC Extrator



LC 1 Sec. Polarity Change Uniboot

LC 1 Sec. Polarity Change Extractor

ST Fiber Pigtail and Patch Cord

ST is compatible with TIA FOCIS-2. Its housing is round metal. ST has a bayonet mount and a long cylindrical 2.5mm ceramic ferrule to hold the fiber. Therefore, single-mode APC (Angle-polished Physical Contact) is not available.

ST 0.9mm Pigtail

ST 2.0mm/3.0mm Simplex

ST 2.0mm/3.0mm Duplex

FC Fiber Pigtail and Patch Cord

FC is designed according to NTT-FC standard and compliant with TIA/EIA-604 FOCIS-4. FC connector is screw-type, designed as a cylindrical metal connection nut with keyed sleeves.
The pre-assembled, one-piece body design and pre-polished ferrules provide quick and economic terminations for in-factory and in-the-field setting. Besides, the pre-polished ferrule and LINK termination method guarantees uniform end-face geometry.
FC is specifically proved for telecommunication applications, such as ATM testing, CATV, active device termination, FTTX, Fiber channel testing and optical switches.

FC 0.9mm Pigtail

FC 2.0mm/3.0mm Simplex

FC 2.0mm/3.0mm Duplex

New Generation Fast Change Polarity LC

LC Uniboot

LC Extractor

VSFF Series Patch Cord

CS®

SN® EZ-Flip

DESCRIPTION/APPLICATION

LINK fiber optic pigtail compliant ISO/IEC 11801:2017, ANSI/TIA-568.3-D, UL-E337497 and RoHS. The cables are high grade simplex cable available FR-PVC and FR-LSZH. The pigtails are low insertion loss and high return loss. Good in repeatability and exchangeability. The pigtail shall be factory assembled with high quality control and 100% test. Cables are available on 900 µm (0.9mm) buffered 2.0 mm, 3.0 mm cordage connectorized on one end. The cord shall be available length in 1, 1.5, 2 and 3 meters or other

PERFORMANCE	MULTIMODE (OM2, OM3, OM4, OM5)	SINGLEMODE (0S2)
Insertion Loss Typ.	≤0.10 dB	≤0.10 dB
Max.	≤0.15 dB	≤0.15 dB
Return Loss	≥35 dB	≥55 dB
Pulling Force	200 N	200 N
Minimum Bending Radius	30 mm.	30 mm.
Ferrule	zirconia ceramic, pre-radiused	zirconia ceramic, pre-radiused
Durability	500 cycles	500 cycles
Operating Temperature	-40°C to 85°C	-40°C to 85°C
Storage Temperature	-40°C to 85°C	-40°C to 85°C

UFP440S01-01/UFP440S21-01
ST (MM) Pigtail

UFP940S01-01/UFP940S21-01
ST (SM) Pigtail

UFP460S01-01/UFP460S21-01
SC (MM) Pigtail

UFP960S01-01/UFP960S21-01
SC (SM) Pigtail

UFP420S01-01/UFP420S21-01
LC (MM) Pigtail

UFP920S01-01/UFP920S21-01
LC (SM) Pigtail

UFP980S01-01/UFP980S21-01
FC/PC (SM) Pigtail

UFP980S02-01/UFP980S22-01
FC/APC (SM) Pigtail

UFP □ □ □ □ □ □ - □□

FIBER OPTIC
9 = SM / OS2
5 = MM / OM2
4 = MM / OM3
3 = MM / OM4
2 = MM / OM5

CONNECTOR
2 = LC
4 = ST
6 = SC
8 = FC

CONNECTOR
0 = None (Pigtail)

JACKET
S = Simplex
D = Duplex

DIAMETER
0 = 0.9 mm.
1 = 2.0 mm.
2 = 3.0 mm.

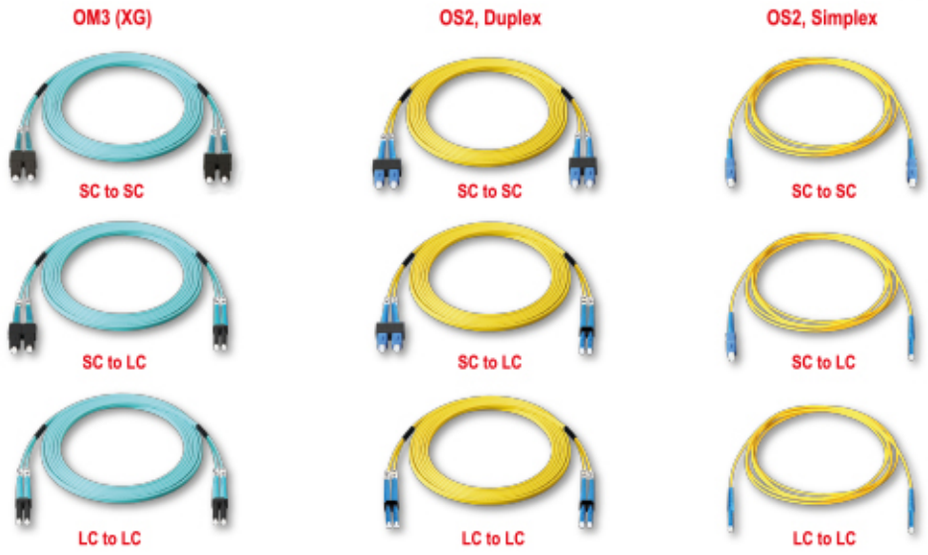
CONTACT
0 = PC
1 = UPC
2 = APC

LENGTHS
Lengths of cable as requested
01, 02, 03, ..., NN = 1, 2, 3 ..., NN

DESCRIPTION/APPLICATION

LINK fiber optic patch cord compliant ISO/IEC 11801:2017, ANSI/TIA-568.3-D,UL-E337497 and RoHS requirements for fiber optic patch cord. The cables are high grade duplex and simplex cable available FR-PVC and FR-LSZH. The patch cords are low insertion loss and high retum loss. Good in repeatability and exchangeability and provide label for easily to identify. The patch cord shall be factory assembled with high quality control and 100% test. Cables are available on 2.0 mm and 3.0 mm cordage connectorized on both end. The patch cord shall be available length in 3, 5, and 10 meters or other

PERFORMANCE	MULTIMODE (OM2, OM3, OM4, OM5)	SINGLEMODE (0S2)
Insertion Loss Typ.	≤0.10 dB	≤0.10 dB
Max.	≤0.15 dB	≤0.15 dB
Return Loss	≥35 dB	≥55 dB
Pulling Force	200 N	200 N
Minimum Bending Radius	30 mm.	30 mm.
Ferrule	zirconia ceramic, pre-radiused	zirconia ceramic, pre-radiused
Durability	500 cycles	500 cycles
Operating Temperature	-40°C to 85°C	-40°C to 85°C
Storage Temperature	-40°C to 85°C	-40°C to 85°C



UFP □ □ □ □ □ □ - □□

FIBER OPTIC
9 = SM / OS2
5 = MM / OM2
4 = MM / OM3
3 = MM / OM4
2 = MM / OM5

CONNECTOR
2 = LC
4 = ST
6 = SC
8 = FC

CONNECTOR
1 = MTP
2 = LC
3 = MPO
4 = ST
6 = SC
7 = MT-RJ, SMA, MU
8 = FC
9 = E2000

JACKET
S = Simplex
D = Duplex

DIAMETER
0 = 0.9 mm.
2 = 2.0 mm.
3 = 3.0 mm.

CONTACT
0 = PC-PC
1 = UPC-UPC
2 = APC-APC
6 = UPC-APC
8 = APC-UPC

LENGTHS
Lengths of cable as requested
01, 02, 03, ..., NN = 1, 2, 3 ..., NN

Fiber Adaptor ; Double Q Series

The optical fiber adapter (also called coupler) includes an adapter body and a universal mating sleeve

adapters can transmit the light sources and minimize the insertion loss.

Double Q Series provides high-quality SC, LC, ST, FC and MTRJ fiber adapters with low Insertion loss.

Adapter Performance

	SC	LC	ST	FC
Intermateability Standard	TIA/EIA-604-3	TIA/EIA-604-10	TIA/EIA-604-2	TIA/EIA-604-4
Insertion force test Zirconia sleeve	200~600gf	100~250gf	200~600gf	200~600gf
Insertion Loss	Multimode < 0.2 dB, Single-Mode < 0.2dB			
Thermal age: GR-326-CORD 4.4.2.1.	85°C for 168 hours < 0.2dB Change			
Temperature Cysling: IEC 60603-7-4	-40°C to + 70°C, 30min, 25 cycles < 0.2dB Change			
Damp Heat: IEC 60603-7-4	+65°C at 93% RH, 12 hours, +25°C at 93% RH, 10 hours, -10°C, 2 hours, 21 cycles < 0.25dB Change			
Salt Spray Test	Saline concentration: 5 %, PH: 6.8±0.45, value of spray: 1.0–2.0mL 80cm², Test hours: 8H;24H;48H;72H; 96H			

SC Adapter

By using high-quality zirconia sleeves, Double Q Series can offer a reliable connection and performance when using SC patch cords and adapters.

SC Simplex Flangeless

SC Simplex Flange

SC Duplex Flangeless

SC Duplex Flange

LC Adapters

Double Q Series LC duplex, quad and 6-port adapters are engineered in one-piece type. This one-piece housing feature prevents the breaking of the adapter due to the deficiency in the ultrasonic process. The true one-piece body optimizes side loading performance over conventional adapters.

LC duplex adapter is SC footprint type, which means it has the same external dimensions as the SC adapter.

LC Duplex Flangeless

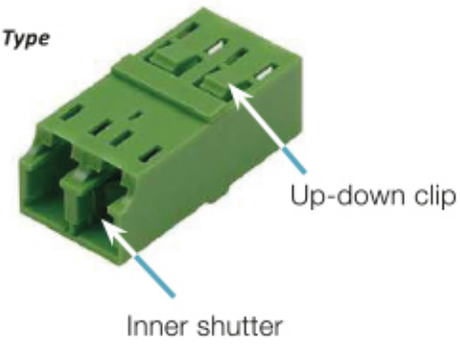
LC Duplex Flange

LC Quad Flangeless

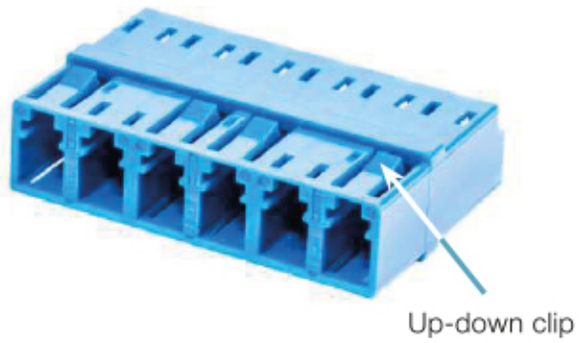
LC Quad Flange

Double Q Series also provides unique LC adapters with up-down clips design, suitable for high-density solutions.

LC Duplex HD Type



LC 6-port HD Type



Adapter Type	Flange	Flangeless
LC Duplex	√	√
LC Duplex HD Type	N/A	√
LC Quad	√	√
LC 6-Port	N/A	√
SC Simplex	√	√
SC Duplex	√	√

LC and SC Applications	Housing Color
MM OM1 and OM2	Beige
MM OM3	Aqua
MM OM4	Aqua
MM OM5	Lime Green
SM UPC	Blue
SM APC	Green

ST Adapter

The typical ST adapter uses metal body with a precision alignment mechanism.

FC Adapter

FC Adapters are all threaded types. FC simplex D type metal is the most common.

Zirconia Ceramic Alignment Sleeve for All Double Q Series Adapter

The signal is transmitted by LED and VCSELs (Vertical Cavity Surface Emitting Lasers) light source. It all requires a more accurate alignment to transmit effectively. For SC, LC, ST, FC and MTRJ adapters, we completely adopted zirconia sleeves instead of phosphor bronze alignment sleeves. It provides a tighter tolerance and guarantees a more accurate alignment when coupling two fiber end faces. The appropriate alignment sleeve for fiber application is the first step to stop significant loss of signal.

Zirconia Ceramic Alignment Sleeve

DESCRIPTION/APPLICATION

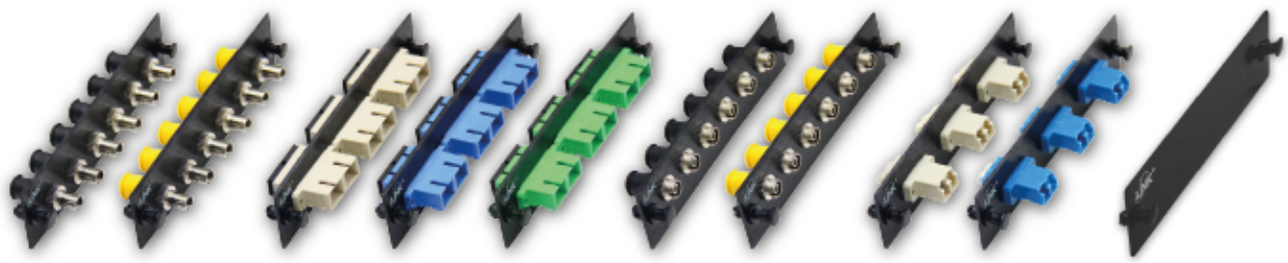
LINK adapter snap plates designed for convenient use with LINK Fiber Optic Distribution Unit (FDU), rack mount drawer and wall mount enclosures. LINK adapter snap plate wide variety of singlemode and multimode. Meets standard ANSI/TIA-568.3-D and ISO/IEC 11801:2017. RoHS Compliant.

FEATURES/MATERIAL

-Work with all LINK FDU, Rack Mount, Wall Mount
-Snap plate made of Aluminum Black Anodized, lightweight and very durability
-Provides 6 and 12 fiber ports for ST, SC, FC, LC, MT-RJ, E2000 and blank adapters,
-Low insertion loss and high return loss
-Good in repeatability and reconnect ability
-Loaded with adapter and included dust cap
-Adapter type female to female and number pereach port
-Provide nylon rivet (snap on) access easy to install and update.

PERFORMANCE	MULTIMODE	SINGLEMODE
Insertion Loss Max	≤0.20 dB	≤0.20 dB
Durability	500 cycles	500 cycles
Alignment Sleeve	Zirconia, ceramic	Zirconia, ceramic
Operating Temperature	-40°C 10 85°C	-40°C 10 85°C
Storage Temperature	-40°C to 85°C	-40°C to 85°C

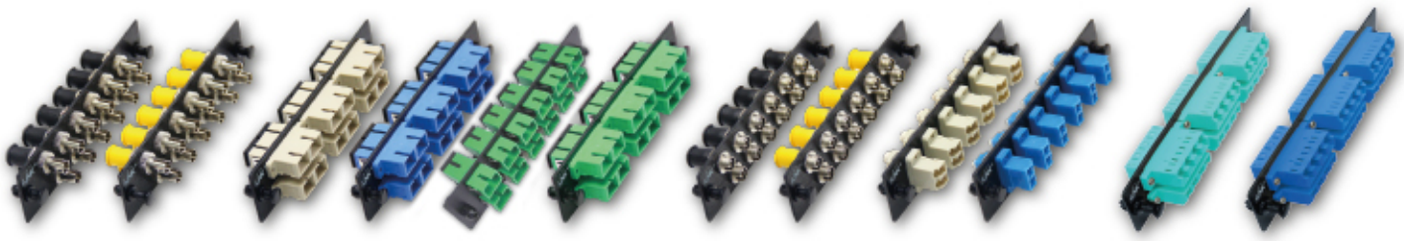
6 FIBER ADAPTER SNAP PLATE



ST SC FC LC Blank

Part Number	Description	Type	Housing	Housing Color	Dust cap
UF-2144	6 ST ADAPTER SNAP PLATE	MM	Nickel Plated Brass	Metalic	PVC
UF-2144SM	6 ST ADAPTER SNAP PLATE	SM	Nickel Plated Brass	Metalic	PVC
UF-2166	3 SC DUPLEX ADAPTER SNAP PLATE	MM	PBT, UL94V-0	Beige	PP
UF-2166SM	3 SC DUPLEX ADAPTER SNAP PLATE	SM	PBT, UL94V-0	Blue	PP
UF-2166SM-APC	3 SC DUPLEX ADAPTER SNAP PLATE	SM	PBT, UL94V-0	Green	PP
UF-2188	6 FC ADAPTER SNAP PLATE	MM	Nickel Plated Brass	Metalic	PVC
UF-2188SM	6 FC ADAPTER SNAP PLATE	SM	Nickel Plated Brass	Metalic	PVC
UF-2122	3 LC DUPLEX ADAPTER SNAP PLATE	MM	PC, UL94V-0	Beige	PVC
UF-2122SM	3 LC DUPLEX ADAPTER SNAP PLATE	SM	PC, UL94V-0	Blue	PVC
UF-2200	BLANK ADAPTER SNAP PLATE	-	-	Black	-

12 & 24 FIBER ADAPTER SNAP PLATE



ST SC FC LC (12F) LC QUAD (24F)

Part Number	Description	Type	Housing	Housing Color	Dust cap
UF-2244	12 ST ADAPTER SNAP PLATE	MM	Nickel Plated Brass	Metalic	PVC
UF-2244SM	12 ST ADAPTER SNAP PLATE	SM	Nickel Plated Brass	Metalic	PVC
UF-2266	6 SC DUPLEX ADAPTER SNAP PLATE	MM	PBT, UL94V-0	Beige	PP
UF-2266SM	6 SC DUPLEX ADAPTER SNAP PLATE	SM	PBT, UL94V-0	Blue	PP
UF-2255SM-APC	12 SC SIMPLEX ADAPTER SNAP PLATE	SM	PBT, UL94V-0	Green	PP
UF-2266SM-APC	6 SC DUPLEX ADAPTER SNAP PLATE	SM	PBT, UL94V-0	Green	PP
UF-2288	12 FC ADAPTER SNAP PLATE MM	MM	Nickel Plated Brass	Metalic	PVC
UF-2288SM	12 FC ADAPTER SNAP PLATE SM	SM	Nickel Plated Brass	Metalic	PVC
UF-2222	6 LC DUPLEX ADAPTER SNAP PLATE	MM	PC, UL94V-0	Beige	PVC
UF-2222SM	6 LC DUPLEX ADAPTER SNAP PLATE	SM	PC, UL94V-0	Blue	PVC
UF-2222Q	6 LC QUAD ADAPTER SNAP PLATE	MM	PC, UL94V-0	Beige	PVC
UF-2222QSM	6 LC QUAD ADAPTER SNAP PLATE	SM	PC, UL94V-0	Blue	PVC

MTP®/ MPO Array & Trunk , Double Q Series

MPO ARRAY CABLE 1-100 M.

SPECIFICATION

- Meet to ANSI/TIA-568.3-D and ISO/IEC 11801 standard.
- Pre-terminated fulfills the innovation cabling system of Factory-Assembled, Factory-Tested.
- 8, 12, 16 and 24 cores OM3, OM4 OM5 and OS2 fiber optic cable, jacket coating with FR-LSZH
- Achieve Data Center 10G, 25G, 40G, 50G, 100G, 400G, 800G and beyond migration
- Plug & Play fiber solution

MPO-MPO ARRAY CABLE

MPO TRUNK CABLE 3-100 M.

SPECIFICATION

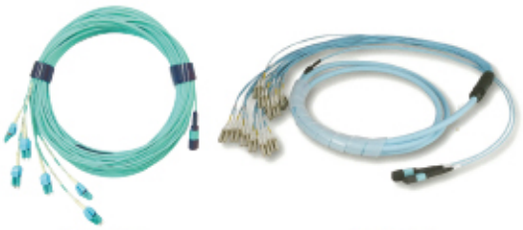
- Meet to ANSI/TIA-568.3-D and ISO/IEC 11801 standard.
- Pre-terminated fulfills the innovation cabling system of Factory-Assembled, Factory-Tested.
- 8, 12, 16, 24, 32, 48 and 96 cores OM3, OM4 OM5 and OS2 fiber optic cable, jacket coating with FR-LSZH.
- Achieve Data Center 10G, 25G, 40G, 50G, 100G, 400G, 800G and beyond migration
- Plug & Play fiber solution

MPO-MPO TRUNK CABLE

MPO HARNESS CABLE & TRUNK HARNESS CABLE

SPECIFICATION

- Meet to ANSI/TIA-568.3-D and ISO/IEC 11801 standard.
- Pre-terminated fulfills the innovation cabling system of Factory-Assembled, Factory-Tested.
- 8, 12 and 24 cores OM3, OM4 OM5 and OS2 fiber optic cable, jacket coating with FR-LSZH
- Achieve Data Center 10G, 25G, 40G, 50G, 100G, 400G, 800G and beyond migration
- Plug & Play fiber solution



MPO-LC ARRAY CABLE

MPO-LC TRUNK HARNESS CABLE

MTP®/MPO Mated Pair	BIMMF OM3/OM4/OM5		OS2 G.657.A	
	Std. Loss	//DOUBLE Q SERIES// Low Loss	Std. Loss	//DOUBLE Q SERIES// Low Loss
Insertion Loss	≤ 0.50 dB	≤ 0.35 dB	≤ 0.75 dB	≤ 0.35 dB
Return Loss	≥ 20 dB	≥ 25 dB	≥ 60 dB	≥ 60 dB

Optical Fiber Technology

Single-mode fiber (SMF) and multimode fiber (MMF) are widely used in signal transmission. The differences between single-mode and multimode fiber are fiber core diameter, wavelength, light source, bandwidth, and transmission distance.

Single-mode fibers use lasers or laser diodes. With multimode OM1 and OM2 fiber, the signal is transmitted by LED (light-emitting diodes) light source. The OM3, OM4, and OM5 are for use with VCSELs (vertical-cavity surface-emitting lasers). Compared with LED, VCSELs produces an energy output that is not uniform; it can change sharply across the face of the output.

STANDARD of Optical Fiber

Multimode Fiber Standards: IEC 60793-2-10, ANSI/TIA-492AAAx

Fiber Cable Type by ISO/IEC 11801	Core/Cladding Diameters (μm)	Glass Fiber Maximum Attenuation (dB/KM)			Cabled Maximum Attenuation (dB/KM)			Cabled Maximum Attenuation (dB/KM)				
								Overfilled Launch (OFL) Bandwidth			Effective Modal Bandwidth (EMB)	
		850 nm	953 nm	1300 nm	850 nm	953 nm	1300 nm	850 nm	953 nm	1300nm	850 nm	953 nm
OM1	62.5/125	3.0		1.0	3.5		1.5	200		500		
OM2	50/125	3.0		1.0	3.5		1.5	500		500		
OM3	50/125	2.5		0.8	3.0		1.5	1,500		500	2,000	
OM4	50/125	2.5		0.8	3.0		1.5	3,500		500	4,700	
OM5	50/125	2.5	1.8	0.8	3.0	2.3	1.5	3,500	1,850	500	4,700	2,470

Single-mode Fiber Standards: IEC 60793-2-50, ANSI/TIA-492CAAx

Fiber Cable Type by ISO/IEC 11801	Core/Cladding Diameters (μm)	Glass Fiber Maximum Attenuation (dB/KM)			Cabled Maximum Attenuation (dB/KM)		
		1310 nm	1383 nm	1550 nm	1310 nm	1383 nm	1550 nm
OS2	9/125	0.35	0.35	0.35	0.4	0.4	0.4

Multimode Fiber

The following table shows the maximum transmission distance of MMF in different applications. MMF is usually used in building and in short- and medium-term distance runs.

Ethernet Speed	Applications	IEEE Reference	Wavelength nm	Interface	Transceiver Module	Max. Distance (meter)		
						OM3	OM4	OM5
10G	10GBase-SR	802.3ae-2002	850	SC / LC	SFP+/XENPAK/X2/XPAK/XFP	300	550	550
25G	25GBase-SR	802.3by-2016	850	LC	SFP28	70	100	100
40G	40GBase-SR4	802.3ba-2010	850	MPO-12	CFP/QSFP+	100	150	150
	40GBase-eSR4	non IEEE	850	MPO-12	QSFP+	300	400	400
	40GBase-SR2-BiDi	non IEEE	850 / 900	LC	QSFP+	-	-	200
	40GBase-SWDM4	non IEEE	850-940*	LC	QSFP+	-	-	440
50G	50GBase-SR	802.3cd-2018	850	LC	SFP56	70	100	100
100G	100GBase-SR10	802.3ba-2010	850	MPO-24	CXP/CFP/CFP2/CFP4/CPAK	100	150	150
	100GBase-SR4	802.3bm-2015	850	MPO-12	QSFP28/CFP2/CFP4/CPAK	70	100	100
	100GBase-SWDM4	non IEEE	850-940*	LC	QSFP28	-	-	150
	100GBase-SR2	802.3cd-2018	850	MPO-12	QSFP28	70	100	100
200G	200GBase-SR4	802.3cd-2018	850	MPO-12	QSFP56	70	100	100
	2x100GBase-SR4	Prop.	850	MPO-24	QSFP-DD	70	100	100
400G	400GBase-SR16	802.3bs-2017	850	MPO-32	CFP8	70	100	100
	400GBase-SR8	802.3cm-2020	850	MPO-16	OSFP/QSFP-DD	70	100	100
	400GBase-SR4.2 BiDi	802.3cm-2020	850 / 910	MPO-12	OSFP/QSFP-DD	-	-	150
	400GBASE-VR4	802.3db-2022	850	MPO-12	QSFP-DD	30	50	50
	400GBASE-SR4	802.3db-2022	850	MPO-12	QSFP-DD	60	100	100
800G	800GBASE-VR8	802.3df	850	MPO-16	OSFP/QSFP-DD	30	50	50
	800GBASE-SR8	802.3df	850	MPO-16	OSFP/QSFP-DD	60	100	100

**** 850-940 Wavelength: 850, 880, 910, 940 nm***

Singlemode Fiber

The following table shows the maximum transmission distance of SMF and MMF in different applications. SMF is suitable for long- distance applications due to its small core diameter to pass one signal at a time.

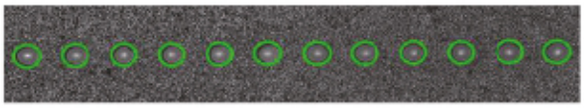
Ethernet Speed	Applications	IEEE Reference	Wavelength nm	Interface	Transceiver Module	Max. Distance OS2
10G	10GBase-LR	802.3ae-2002	1310	SC / LC	SFP+/XENPAK/X2/XPAK/XFP	10 km
	10GBase-ER	802.3ae-2002	1550	SC / LC	SFP+/XENPAK/X2/XFP	40 km
25G	25GBASE-LR	802.3cc-2017	1310	LC	SFP28	10 km
	25GBASE-ER	802.3cc-2017	1550	LC	SFP28	40 km
40G	40GBase-LR4	802.3ba-2010	1271-1331*	LC	CFP/QSFP+	10 km
	40GBase-ER4	802.3bm-2015	1271-1331*	LC	QSFP+	40 km
	40GBASE-PLR4	non IEEE	1310	MPO-12	QSFP+	10 km
	40GBase-FR	802.3bg-2011	1550	LC	CFP	2 km
50G	50GBase-LR	802.3cd-2018	1304.5-1317.5	LC	SFP56	10 km
	50GBase-FR	802.3cd-2018	1304.5-1317.5	LC	SFP56	2 km
	50GBase-ER	802.3cn-2019	1304.5-1317.5	LC	SFP56	40 km
100G	100GBase-LR4	802.3ba-2010	1296-1309*	LC	QSFP28/CFP/CFP2/CFP4/CPAK	10 km
	100GBase-ER4	802.3ba-2010	1296-1309*	LC	QSFP28/CFP/CFP2	40 km
	100GBASE-PSM4	non IEEE	1310	MPO-12	QSFP28/CFP4	500 m
	100GBASE-CWDM4	non IEEE	1271-1331*	LC	QSFP28/CFP2/CFP4	2 km
	100GBASE-CLR4	non IEEE	1271-1331*	LC	QSFP28	2 km
	100GBASE-DR	802.3cd-2018	1311	LC	QSFP28	500 m
	100GBASE-FR1	802.3cu-2021	1311	LC	QSFP28	2 km
	100GBASE-LR1	802.3cu-2021	1311	LC	QSFP28	10 km
	100GBASE-ZR	802.3ct-2021	1546.119	LC	CFP	80 km
200G	200GBase-DR4	802.3bs-2017	1310	MPO-12	QSFP56	500 m
	200GBase-FR4	802.3bs-2017	1271-1331*	LC	QSFP56	2 km
	200GBase-LR4	802.3bs-2017	1296-1309*	LC	QSFP56	10 km
	200GBASE-ER4	802.3cn-2019	1296-1309*	LC	QSFP56	40 km
	2x100GBASE-PSM4	Prop.	1310	MPO-24	QSFP-DD	500 m
	2x100GBASE-CWDM4	Prop.	1271-1331*	CS	QSFP-DD	2 km
400G	400GBase-DR4	802.3bs-2017	1310	MPO-12	CFP8/OSFP/QSFP-DD	500 m
				4 x SN	OSFP/QSFP-DD	500 m
	400GBase-XDR4	Prop.	1310	MPO-12	CFP8/OSFP/QSFP-DD	2 km
	400GBase-PLR4	Prop.	1310	MPO-12	CFP8/OSFP/QSFP-DD	10 km
	400GBase-2FR4	802.3bs-2017	1271-1331*	2 x CS	OSFP	2 km
	400GBase-FR8	802.3bs-2017	1273-1309*	LC	OSFP/QSFP-DD	2 km
	400GBase-LR8	802.3bs-2017	1273-1309*	LC	OSFP/QSFP-DD	10 km
	400GBASE-ER8	802.3cn-2019	1273-1309*	LC	QSFP-DD	40 km
	400GBase-FR4	802.3cu-2021	1271-1331*	LC	OSFP/QSFP-DD	2 km
	400GBase-LR4	802.3cu-2021	1271-1331*	LC	OSFP/QSFP-DD	10 km
800G	800GBASE-DR8	802.3df	1310	MPO-16	OSFP/QSFP-DD	500 m
	800GBASE-DR8-2	802.3df	1310	MPO-16	OSFP/QSFP-DD	2 km

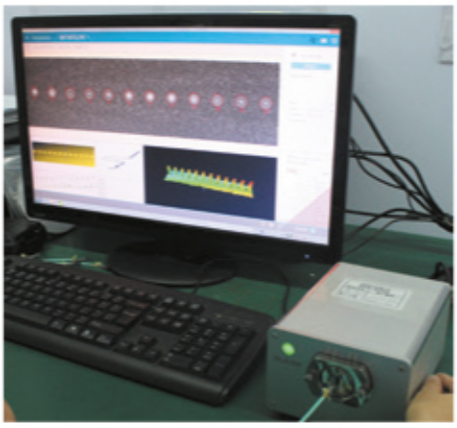
**** 1273-1309 Wavelength: 1273, 1277, 1282, 1286, 1295, 1300, 1304, 1309 nm***
**** 1271-1331 Wavelength: 1271, 1291, 1311, 1331 nm***
**** 1296-1309 Wavelength: 1295.56, 1300.05, 1304.59, 1309.14 nm***

Double Q Series Quality Assurance

- EXFO Fiber Inspection Scopes.
- 100% Interferometer Inspection.
- Premium Insertion Loss.

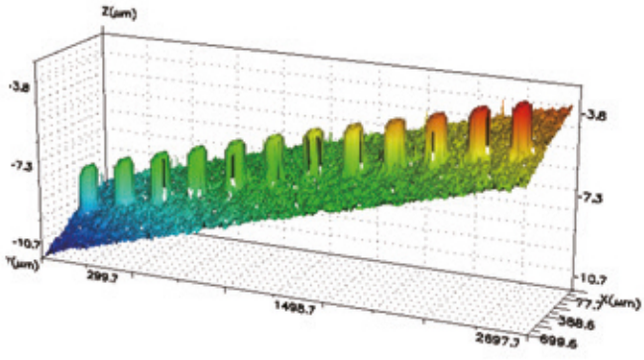
100% GUARANTEED





FIP Results

Image	Overlay	P/F	Fiber	Zones	Scratches: Criteria	Thresholds	Counts	Defects: Criteria	Thresholds	Counts
			1	A. 纖芯(0 μm -> 65 μm)	0 μm ≤ size < 3 μm	Any	0	0 μm ≤ size < 2 μm	Any	0
					3 μm ≤ size < 4 μm	4	0	2 μm ≤ size < 5 μm	4	0
					4 μm ≤ size < ∞	0	0	5 μm ≤ size < ∞	0	0
				B. 纖包(65 μm -> 110 μm)	0 μm ≤ size < ∞	Any	0	0 μm ≤ size < 25 μm	Any	0
					---	---	---	25 μm ≤ size < ∞	0	0
			2	A. 纖芯(0 μm -> 65 μm)	0 μm ≤ size < 3 μm	Any	0	0 μm ≤ size < 2 μm	Any	0
					3 μm ≤ size < 4 μm	4	0	2 μm ≤ size < 5 μm	4	0
					4 μm ≤ size < ∞	0	0	5 μm ≤ size < ∞	0	0
				B. 纖包(65 μm -> 110 μm)	0 μm ≤ size < ∞	Any	0	0 μm ≤ size < 25 μm	Any	0
					---	---	---	25 μm ≤ size < ∞	0	0
			3	A. 纖芯(0 μm -> 65 μm)	0 μm ≤ size < 3 μm	Any	0	0 μm ≤ size < 2 μm	Any	0
					3 μm ≤ size < 4 μm	4	0	2 μm ≤ size < 5 μm	4	0
					4 μm ≤ size < ∞	0	0	5 μm ≤ size < ∞	0	0
				B. 纖包(65 μm -> 110 μm)	0 μm ≤ size < ∞	Any	0	0 μm ≤ size < 25 μm	Any	0
					---	---	---	25 μm ≤ size < ∞	0	0



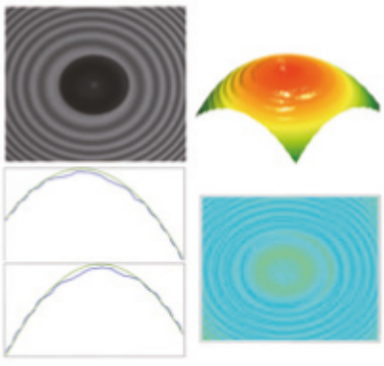
Measure Report

Dimension — SANA 2 Interferometer
Dimension Technology Co.,Ltd

Pass

Measure ID	1162
Description	2402220040
MeasureTask	Single Fiber 1.25mm-PC-INT-LC
Company	Dimension
TestTime	2024/3/9 15:35
Operator	Liu Sue Ling

Parameter	Unit	Min	Max	Result
ROC	mm	7	25	9.04
ApexOffset	um	0	50	11.76
FiberHeight	nm	-50	0	-44.02
Angle				
KeyError				
FiberRoughnessRa	nm	0	20	4.46
FiberRoughnessRq	nm	0	20	5.54
FerruleRoughnessRa	nm	0	20	9.95
FerruleRoughnessRq	nm	0	20	11.41



ANSI TIA ISO IEC ITU RoHS

AMERICAN STANDARD

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American Cabling