



*Trusted partner for your data journey*



# OPTICAL INTERCONNECT SOLUTION



## Our Company

ACON, Advanced-Connectek Inc. A listed company at Taiwan's TAISDAQ was founded in 1986 to develop and manufacture innovative electrical and electronics connector products worldwide.

In 2001, ACON established Optical Communication BU and started design and production of all the fiber optic components in house. This includes the connectors, adapters, ferrule and all the plastic parts. We are also able to customize the patchcord with different connectors or adapters based on our customer needs.

In 2007, ACON became a LC licensed manufacturer, one of the 28 companies in the world. Our production is fully ISO certified and maintains the highest quality of products which can rival the Japanese competitors.

In December 2017, ACON becomes ACON Holdings and created a subsidiary ACON OPTICS Communications to focus on expansion of our communications products with our customers. We aim to provide our customers with a very competitive price for a high quality product and welcome any projects to develop new products with them.

Building on our brand value and reputation, ACON OPTICS has partnered with the world's top three major communication equipment manufacturers. ACON OPTICS Communications will aim to be your reliable partner and assist you in creating your solution of the future.

## Customize Service

An innovative design driven company, ACON OPTICS, has in-depth experience in different technologies. Our in-house capabilities include design, development, manufacturing and testing of high-quality precision fiber optic products for many different applications. ACON OPTICS is well equipped to meet the demand for customized solutions of our customers.

We are committed to satisfy our customer requirements in terms of technical performance, high reliability, short lead-time delivery and much more.

For special product or any customization requests, please do not hesitate to contact us for more information.

## Product

ACON OPTICS extensive portfolio of fiber optic products includes

- ◆ Complete range of connectors, adapters, patchcords and accessories.



CUSTOMIZED SOLUTIONS



DATA CENTER SOLUTIONS



4G/5G FTTH SOLUTIONS



FTTH SOLUTIONS



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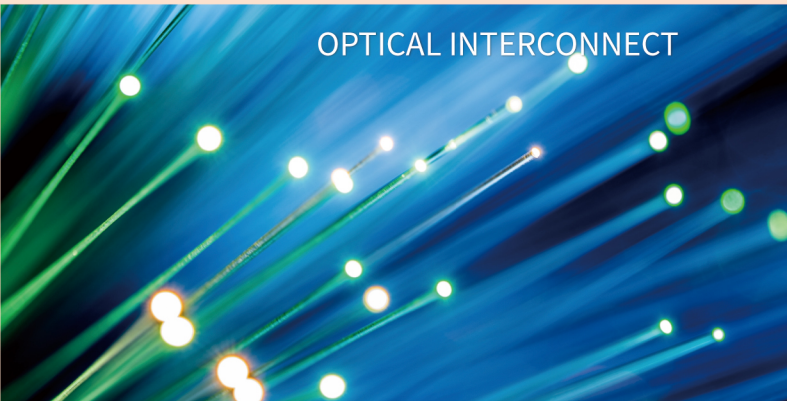
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# CONNECTOR



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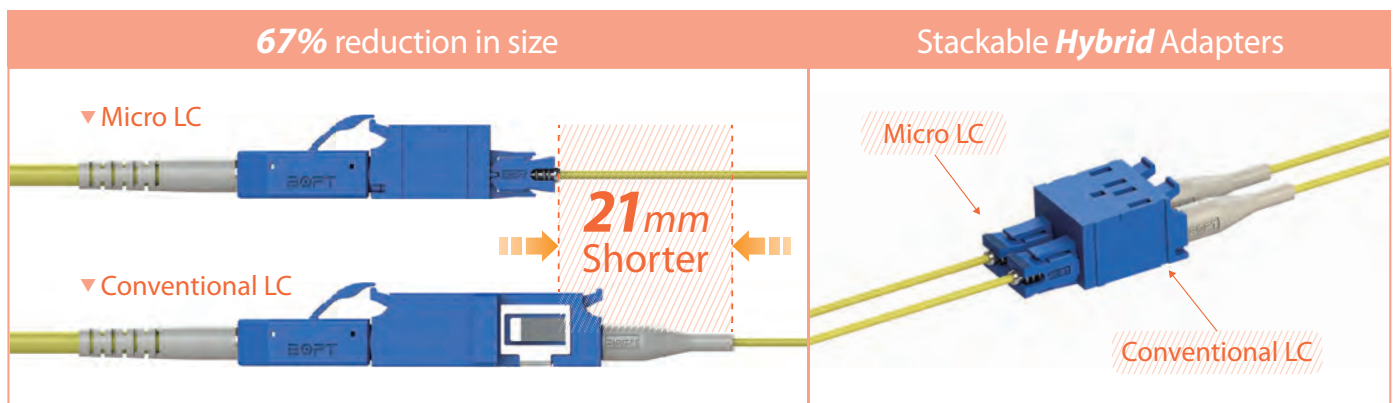
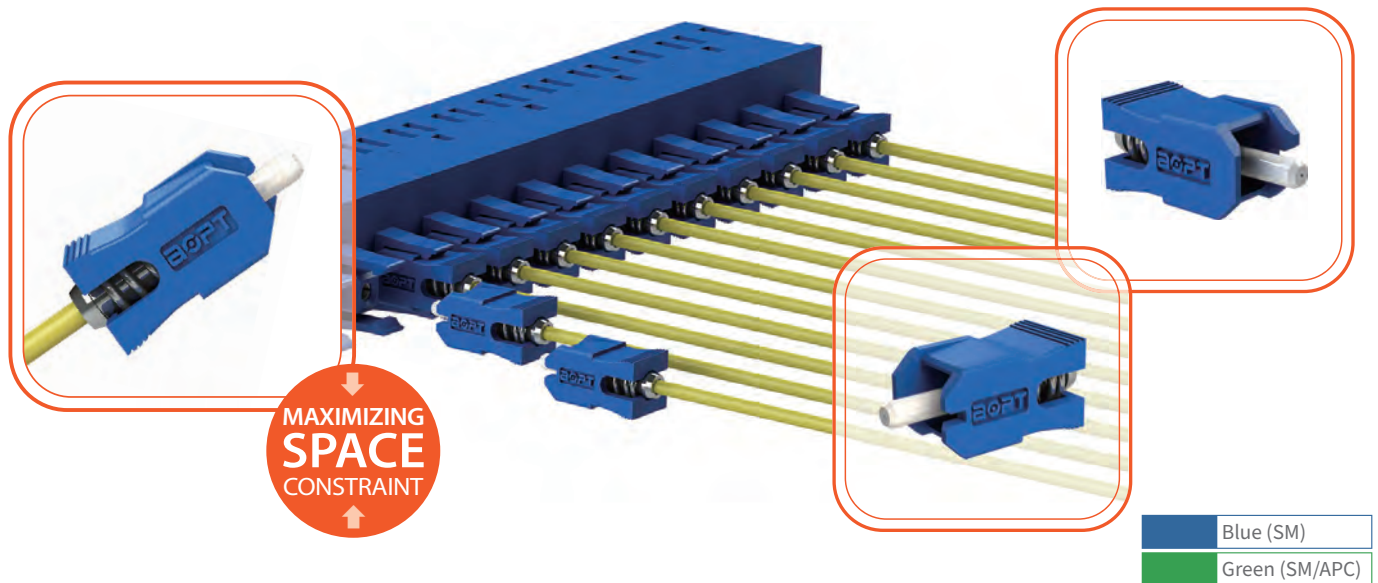
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# Micro LC Snap-in Connector



## Description

ACON OPTICS Micro LC Connector uses a simple snap-in connector design which makes ease of connecting and disconnecting. Its bootless design maximizes space constraint ideal for behind the wall application and high density solution.

## Applications

- Data communications
- Telecommunications
- Optical measurement instruments
- FTTx deployments
- 4G/LTE, 5G base station
- CATV

## Features

- Simple snap-in connector design makes ease of connecting and disconnecting.
- Compatible to conventional LC
- Remarkable increase in space on the back end panel and in small cassette.
- Micro LC adapter is a hybrid adapter which can accommodates micro LC connector and conventional LC connector.
- The best option for BTW application and high density solution.



## LC Polarity Switchable Uniboot Connector



### Description

ACON OPTICS new LC Polarity Switchable Connector is simple and easy to use without having to remove the housing and exposing fiber. Maximize space constraints with our uniboot design.

### Features

- Easy polarity reversal without removing housing and exposing fiber
- Uniboot design is crucial for maximizing space saving
- Available for SM/PC, SM/APC, MM/PC

### Applications

- Data communications
- Telecommunications
- FTTx deployments
- CATV
- Optical measurement instruments
- 4G/LTE, 5G base station

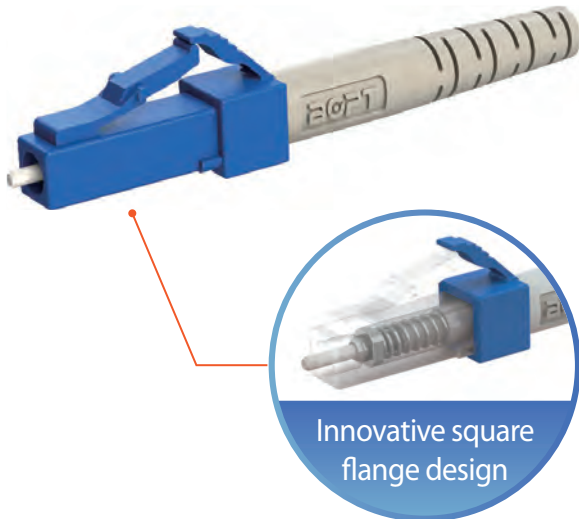


Blue (SM)
Green (SM/APC)

### Polarity Switching Process

<p><b>1</b> Open the latch.</p>	<p><b>2</b> Rotate the polarities 45° clockwise to unlock.</p>	<p><b>3</b> Move the polarities to the other side for polarity reversal.</p>
<p><b>4</b> Rotate the polarities 45° clockwise again to lock.</p>	<p><b>5</b> Close the latch on the B-side connector.</p>	<p><b>6</b> Finish.</p>

## LC Premium Connector



Innovative square flange design

INSERTION  
LOSS

Blue (SM)
Green (SM/APC)

### Description

ACON OPTICS Communications (AOPT) is featuring a revolutionary LC Premium Connector that allows precise of ferrule for Grade A patchcord, and machine free tuning.

### Features

- Innovative square flange design to avoid the rotation and reduce insertion loss
- Machine free tuning process
- Premium Low Loss SM to meet IEC 61753-1 Grade A random mating requirement of Max 0.15dB.
- Premium SM to meet IEC 61753-1 Grade B random mating requirement of Max 0.25dB

### Applications

- Data communications
- Telecommunications
- Optical measurement instruments
- FTTx deployments
- 4G/LTE, 5G base station
- CATV

### Coupling Options



LC Premium  
*Standard 0.9*



Grade A  
0.15dB

Grade B  
0.25dB



LC Premium  
*Standard 2.0*



Grade A  
0.15dB

Grade B  
0.25dB



LC Premium  
*Unibody 0.9*



Grade A  
0.15dB

Grade B  
0.25dB



LC Premium  
*Unibody 2.0*



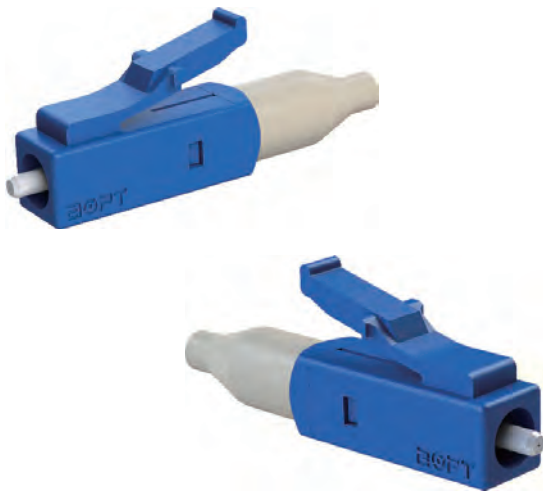
Grade A  
0.15dB

Grade B  
0.25dB

Features		LC Premium Low Loss SM	LC Premium SM	LC Standard SM
IL Mean Value Random Mating		0.07dB	0.12dB	0.25dB
IEC 61753-1	IEC Random Mating Grade A ≤ 0.15dB max for >97% of sample	★		
	IEC Random Mating Grade B ≤ 0.25dB max for >97% of sample	★	★	
	IEC Random Mating Grade C ≤ 0.50dB max for >97% of sample	★	★	★
Innovative square flange design		★	★	
Standard hexagon flange design				★
Machine free tuning process		★	★	



## LC Mini 25mm Connector



**50%** Reduction in size

▼Mini Connector



▲Standard Connector

Blue (SM)	Aqua (MM)
Green (SM/APC)	Erika Violet (MM)
Beige (MM)	Lime Green (MM)

### Description

ACON OPTICS Communications (AOPT) is featuring a revolutionary LC 25mm Connector that has an 25mm space saving compared to the current market connectors. The only smallest behind the wall (BTW) LC connector in the world.

### Features

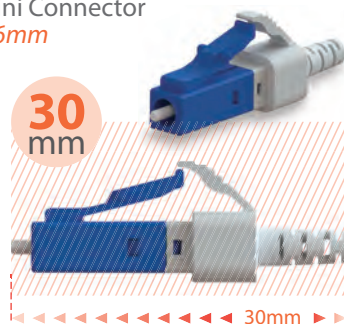
- World compact BTW LC with 900μm mini boot.
- Connector is half the length as compared to standard LC.
- Short boot design to save space for adapting small cassette.
- Remarkable increase in space on the back end panel.

### Applications

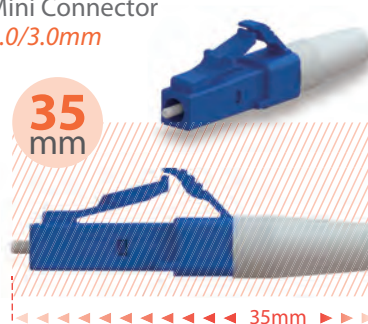
- Data communications
- Telecommunications
- Optical measurement instruments
- FTTx deployments
- 4G/LTE, 5G base station
- CATV

### More LC Mini Connector Options

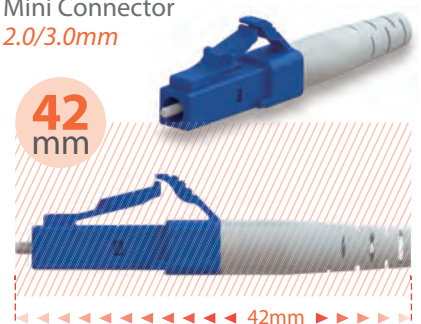
Mini Connector  
1.6mm



Mini Connector  
2.0/3.0mm



Mini Connector  
2.0/3.0mm



# LC Mini 32mm Connector



**HOOK-LOCK  
DESIGN**

**SHORT  
BOOT  
DESIGN**

Mini Connector  
32mm



Standard Connector  
50mm



**SPACE  
SAVING**

Blue (SM)	Aqua (MM)
Green (SM/APC)	Erika Violet (MM)
Beige (MM)	Lime Green (MM)

## Description

ACON OPTICS Communications (AOPT) is featuring a revolutionary LC 32mm Connector that has an 18mm space saving compared to the current market connectors.

## Features

- Rectangle flange design to avoid the rotation of ferrule
- Short boot design to save space for adapting front panel cabling.
- Special hook-lock design to secure connector structure.

## Applications

- Data communications
- Telecommunications
- Optical measurement instruments
- FTTx deployments
- 4G/LTE, 5G base station
- CATV

Rectangle ferrule  
flange design



Special hook-lock  
design

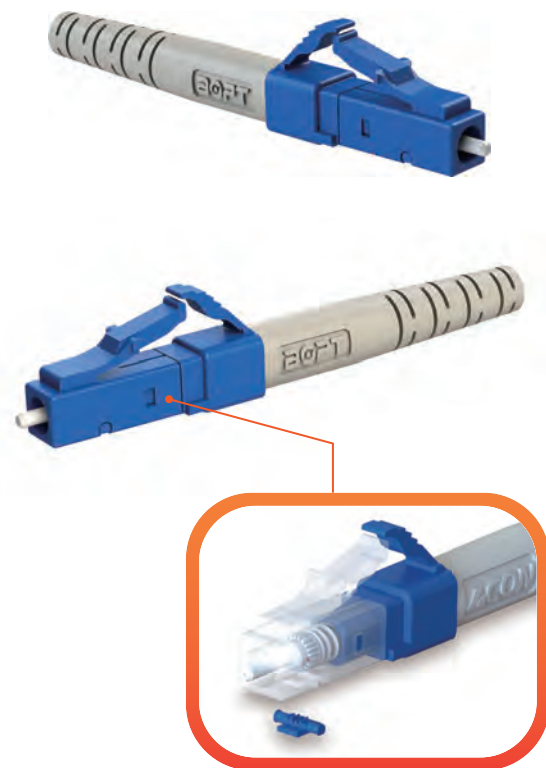


Connector firmly  
secure





## LC Alignment Adjustable Connector



### Description

ACON OPTICS Communications (AOPT) is featuring a revolutionary LC Alignment Adjustable Connector that allows precise alignment of ferrule for Grade A patchcord.

### Features

- Allow precise alignment of ferrule for Grade A patchcord
- Easy to adjust ferrule concentricity to reduce insertion loss
- Tool-less matching alignment adjustable type
- Adapting for random mating occasion

### Applications

- Data communications
- Telecommunications
- FTTx deployments
- Testing instruments
- 4G/LTE base station
- CATV



Blue (SM)	Aqua (MM)
Green (SM/APC)	Erika Violet (MM)
Beige (MM)	Lime Green (MM)

### Machine free tuning

1



Fiber core



Offset or concentricity misalignments occur when the two fiber cores are not matched.

2



Fiber core

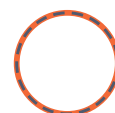


Rotate the ferrule to make the offset smaller.

3



Fiber core



Slightly adjust ferrule until the two fiber cores are perfectly matched. This will significantly reduce the insertion loss.



## LC Standard Connector

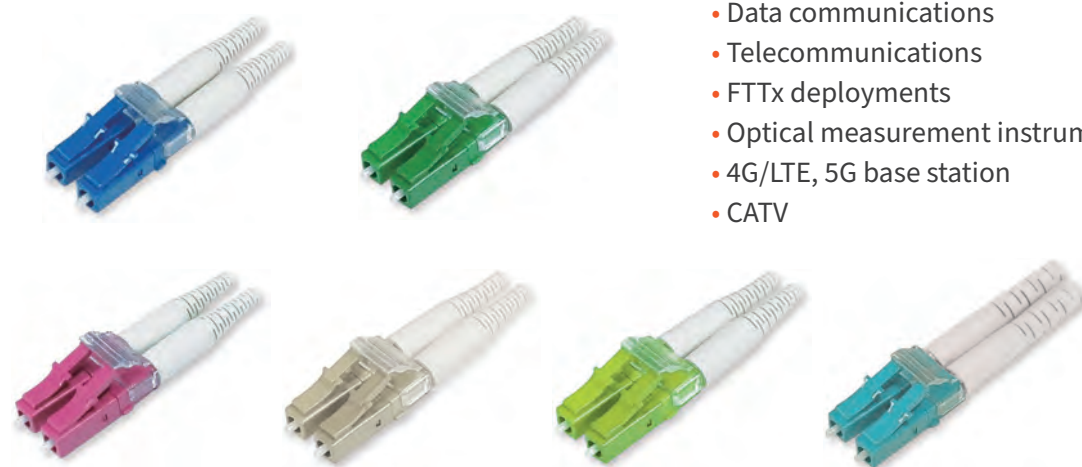
### ● LC Standard 45mm



### ● LC Standard 50mm



### ● LC Standard Series



Blue (SM)
Green (SM/APC)
Beige (MM)
Aqua (MM)
Erika Violet (MM)
Lime Green (MM)

### Description

ACON OPTICS LC Standard Connector has been our flagship product for more than 16 years. ACON OPTICS LC connectors are manufactured with PEI material. In-house ferrule and plastic injection gives vertically quality control. Telcordia GR-326, IEC, RoHS2, REACH, UL94V-0 standard compliance also gives reliability.

### Features

- One-piece type or multi-piece type for assembly options
- 0.9, 2.0, 3.0mm cable diameter available
- Colored boots for choices
- In-house ferrule and plastic injection
- Telcordia GR-326, IEC, RoHS2, REACH, UL94V-0 standard complying

### Applications

- Data communications
- Telecommunications
- FTTx deployments
- Optical measurement instruments
- 4G/LTE, 5G base station
- CATV

### LC Specification

Assembling Type	Other Requirement	Diameter (mm)	Type
One Piece Multi Piece	LC 13.8mm Short Boot	0.9	Simplex Duplex
	LC 20.4mm Short Boot	1.2	
	LC 23mm Universal Boot	1.4	
	Mini LC	1.6	
	LC Unibody	1.8	
	90 Degrees Boot	2.0	
	45 Degrees Boot	2.4	
		3.0	
		4.0	



## LC Switchable Uniboot Connector



### Description

ACON OPTICS LC Switchable Uniboot Connector has a clever design which allows duplex LC fiber polarity to be switched easily without connector re-termination.

### Features

- Meet EIA/TIA 604-10 & IEC 61754-20 standards
- Easy 3 steps to switch
- Boot type for option 2.0/4.8mm diameter
- High precision

### Applications

- Data communications
- Telecommunications
- FTTx deployments
- Testing instruments
- 4G/LTE base station
- CATV



Blue (SM)	Aqua (MM)
Green (SM/APC)	Erika Violet (MM)
Beige (MM)	Lime Green (MM)

### LC Switchable Uniboot Switching Process

1 Open the upper clip.



2 Right Flip to open secondary latch.



3 Switch the polarity-1.



4 Switch the polarity-2.



5 Close the upper clip to match the bottom.



6 Finish.



# LC HD Uniboot Connector



## LC HD Uniboot rod (Fixed)



## LC HD Uniboot rod (2-Step)



## Description

ACON OPTICS LC HD Uniboot Connector comes with a “push-pull” rod design which makes its density increase more than 50% in panel. These make the connector easier to disengage from densely loaded panels without the need for any tools.

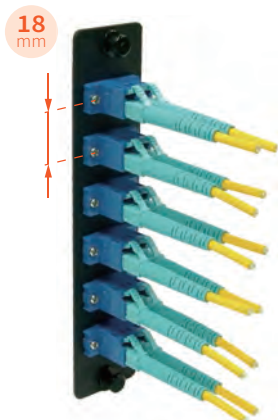
ACON OPTICS LC HD Uniboot lever design utilizes an adjustable “push-pull” rod which is available in 2 standard lengths (65mm & 80mm).

The new “push-pull rod” design enables access to the extremely dense fiber optic panels while doing cabling or maintenance.

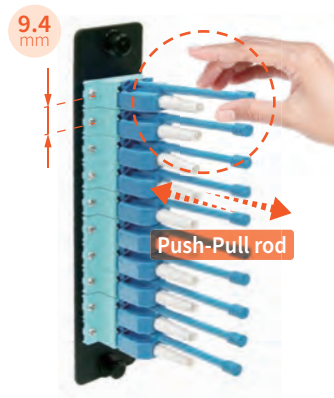
## Features

- ACON OPTICS unique design
- Activation of lever provides ease of connect and disconnect.
- No special tools are required.
- Mini boot allows for more assembly space.
- Increase panel density by more than 50%.
- Corning and various fiber options

### Conventional rack 6 pack spacing

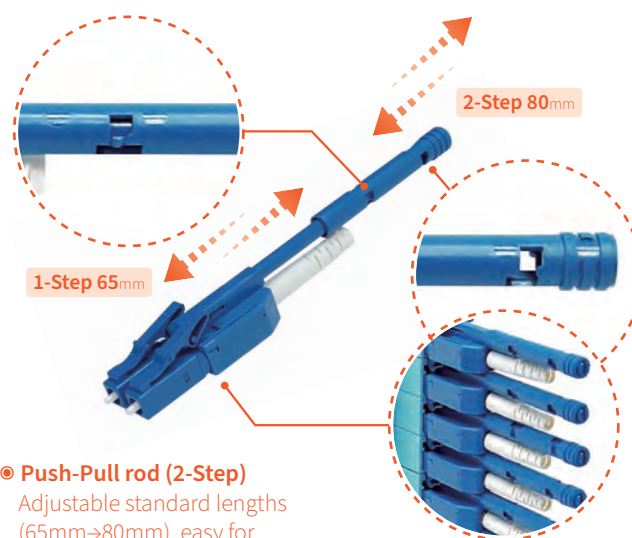


### High density rack 10 pack spacing



## Applications

- Data communications
- FTTx deployments
- Optical measurement instruments
- Telecommunications
- 4G/LTE, 5G base station
- CATV



- **Push-Pull rod (2-Step)**  
Adjustable standard lengths (65mm→80mm), easy for high-density cable management.

Blue (SM)	Aqua (MM)
Green (SM/APC)	Erika Violet (MM)
Beige (MM)	Lime Green (MM)

## LC HD Uniboot Specification

Assembling Type	Diameter (mm)	Type
One Piece	2.0	Switchable
Multi Piece	3.0	2-Step rod (65mm→80mm)
	5.0	Fixed rod (78mm)





# SC Pushable / Pulling Eye Connector



● Pushable



Install inside microducts  
5.5 mm I.D.

● Pulling Eye



Install inside microducts  
6.5 mm I.D.

## Description

A simple and costs effective optical fiber assembly deployment that is easy to use without compromising the optical fiber integrity or reliability. ACON OPTICS Pushable/Pulling Eye Connector offers a simple and flexible solution for FTTx deployment.

## Features

- Complies with IEC60874-14-2
- Guaranteed insertion loss & return loss with certification
- Install inside microducts as small as 5.5 mm I.D. (Pushable)/6.5 mm I.D. (Pulling Eye)
- Single-mode APC
- Low friction mechanism design
- Tool-less installation
- Pre-terminated pushable/pulling eye connectors

## Applications

- FTTx indoor/outdoor cable
- Telecoms
- DAS

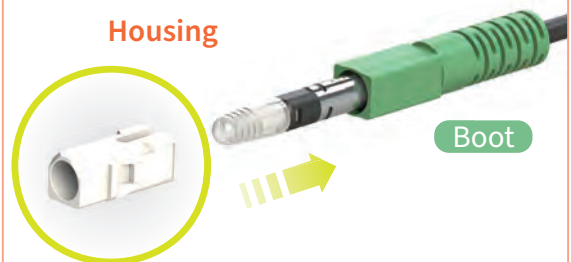
## Installation

1.



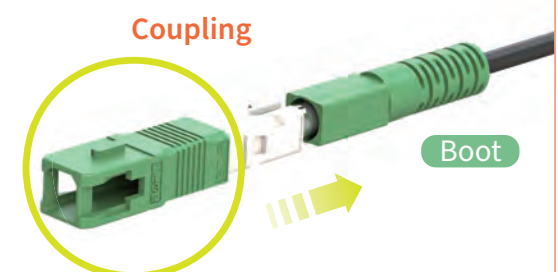
Slide boot over the body of the connector by aligning the 2 black dots on the body of the connector until it snaps into place.

2.



Insert the housing.

3.



Slide the coupling over the housing until it snaps into place.

## SC Simplex / Duplex Connector

• SC Universal Boot



L40  
mm

Boot  
10mm

• SC Short Boot Type



L50  
mm

Boot  
18mm

• SC Standard Type



L57  
mm

Boot  
27mm

• SC Duplex Connector



SC Specification

Assembling Type	Other Requirement	Diameter (mm)	Type
One Piece Multi Piece	Universal Boot Short Boot	0.9 1.2 1.6 1.8 2.0 2.4 3.0 4.0	Simplex Duplex

45°  
boot



90°  
boot



### Angle Boot

#### Features

- 45 degrees / 90 degrees boot for option.
- Designed for LC type 2.0/3.0mm connectors.
- Better cable management with increasing space.

# FC / ST Connector

FC Connector



FC Connector



FC Connector



FC Specification			
Assembling Type	Other Requirement	Diameter (mm)	Type
One Piece Multi Piece	23mm Short Boot 30mm Short Boot	0.9	Simplex
		1.2	
		1.8	
		2.0	
		2.4	
		3.0	

ST Connector



ST Connector



ST Connector



ST Specification		
Assembling Type	Diameter (mm)	Type
One Piece Multi Piece	0.9	Simplex
	1.2	
	1.8	
	2.0	
	2.4	
	3.0	



## LC / SC / FC / ST Universal Connector

### Description

ACON OPTICS Universal Boot series gives the highest value for better stocks management and consistent process.

• 1.2/1.6mm



### Features

- Suitable for standard LC / SC / FC / ST product
- Shorten boot length
- Makes you well management of products
- Shorten lead time

• 2.0mm



### Applications

- Data communications
- Telecommunications
- FTTx deployments
- Optical measurement instruments
- 4G/LTE, 5G base station
- CATV

• 3.0mm



ACON OPTICS provides a wide range of universal boot selections

Before

LC



Universal Boot

1.2 / 1.6 mm

2.0 mm

3.0 mm

After

LC

SC

FC

ST

SC

FC

ST



### Univeral Type Boot Specification

Connector Type	Assembling Type	Type	Diameter (mm)	Length
LC	One Piece Multi Piece	Simplex Duplex	1.2	23mm
SC			1.6	
FC			2.0	
ST			3.0	

# MPO Connector

● MPO Short Boot



● MPO Round 3mm



● MPO Bare Ribbon



● MPO Ribbon Boot



## Description

ACON OPTICS' MT Ferrule low insertion loss of 0.35db meets the IEC 61755-3-31 Grade B standard, making this the best quality and value for your common MT ferrule needs. It is available to support 40G, 100G, 200G, 400G and 800G parallel optics applications.

## Features

- Meet IEC 61755-3-31 Grade B standard
- Low insertion loss, 0.35dB Max
- Trapezoid spring enhances mechanical performance
- Available to support 40G/100G/200G/400G/800G
- Various boots are available for MPO connectors

## Applications

- Data center application
- Multi-channels high speed connectivity
- WDM networks
- Telecommunications



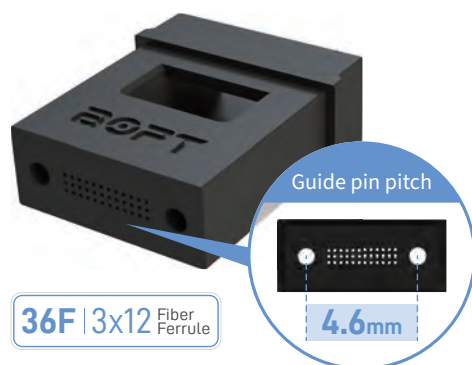
Yellow (SM)	Aqua (MM)
Green (SM/APC)	Erika Violet (MM)
Beige (MM)	Lime Green (MM)

## MPO Connector Specification

Assembling Type	Connector Type	Other Requirement	Diameter (mm)	Connector length (Include Boot)
One Piece Multi Piece	12F, 24F, 36F, 32F	Round Ribbon Bare Ribbon	2.0	33mm
			2.6	38mm
			3.0	43mm
			3.5	57mm
	Male Female		2.5*5.0	

## 36 Fiber / 32 Fiber Single-mode MT Ferrule

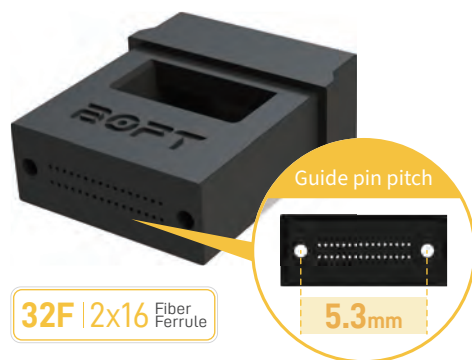
MT Ferrule SM 36F **400G** **800G**



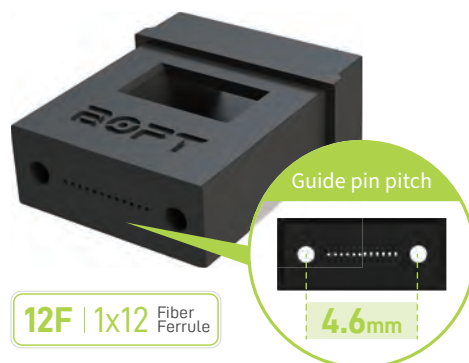
### Applications

- MPO/MTP cable assemblies
- Optical connectivity for OBO backplane
- Multi-channels high speed connectivity
- Data center application
- Telecommunications
- FTTx deployment
- WDM networks

MT Ferrule SM 32F **400G** **800G**



MT Ferrule SM/MM 12F **40G** **100G** **200G**



Features	36F SM MT Ferrule	32F SM MT Ferrule
High precision guide pin	★	★
Guide pin pitch	4.6mm	5.3mm
Fiber pitch of 0.25mm	★	★
High precision molding for high performance	★	★
Standard insertion loss of MAX 0.7 dB	★	★
Available to support for 400G and 800G link applications	★	★
Complies with IEC 61754-7-3; 61754-7-4; TIA 604-18		★
Complies with IEC 61754-5; IEC 61754-7-1; IEC61754-7-2; TIA 604-5	★	

MT Ferrule Specification				
Description	Standard		Low Loss	
Mode	SM	MM	SM	MM
Insertion Loss Maximum	0.70dB	0.50dB	0.35dB	
Return Loss	> 60dB	> 25dB	> 60dB	> 25dB

# LC / SC Field Installable Connector

Features

- Cable : 3.0\*2.0mm, 2.0\*1.6mm Drop Cable, Φ 3.0mm, Φ 2.0mm, Φ 0.9mm Round Cable
- Fiber : SM/ G657 Bending Insensitive; MM/ OM3, OM4
- Factory-installed fiber stub, no epoxy and polishing required, inside with index-matching gel
- Operating Temperature: -25°C~+75°C

Type A - LC (APC/PC)

Type A -SC (APC/PC)



Type A LC / SC Field Installable Performance			
Item	Parameter	Item	Parameter
Insertion Loss	AVG ≤ 0.3 dB, MAX ≤ 0.5 dB	Return Loss	SM : UPC ≥ 45 dB, APC ≥ 50 dB MM : UPC ≥ 25 dB
Tensile Strength	≥ 30N (Φ0.9mm Round Cable ≥ 5N)	Mechanical Endurance	500 Times
Repeat Assembly	≥3 Times	Assembly Time	Drop Cable ≤ 2 mins Round Cable ≤ 4 mins

Type B - SC (APC/PC)

Type C - SC (APC/PC)



Features

- Apply to drop cable or indoor cable
- Economical in both design and termination process
- Precision snap-in connector design
- Reduce assembly time and simplify training
- Stable performance
- Insertion Loss AVG ≤ 0.3 dB, MAX ≤ 0.5 dB
- Operating Temperature -40°C~85°C
- Tensile Strength >50 N

Applications

- FTTH & FTTx deployment

Type B & C SC Field Installable Specification					
	Diameter (mm)	Type	Mode	Coupling Color	Boot Color
Type B - SC	3.0 x 2.0, 2.0 x 1.6 Drop Cable, 3.0, 2.0, 0.9 Round Cable	Simplex	SM	Blue Green	Blue Green
Type C - SC					



# ADAPTER



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# LC Standard Adapter

## Description

LC Adapters are manufactured with PEI material. Non-welded design enhances the structure durability and decreases probability of breakdown. Telcordia GR-326, IEC, RoHS2, REACH, UL94V-0 standard compliance also gives reliability.

## Features

- PEI requested for high intensity and chemical resistance. Its thermostability keeps non-flammable and high stability
- Snap-in connector design precises mechanical dimensions
- Reduce assembly time and simplifies training
- Reduces maintenance and creates consistent optical performance
- Stable performance
- Comply Telcordia GR-326, IEC, RoHS2, REACH, UL94V-0 standard

### LC Simplex



### LC Duplex



## Applications

- Data communications
- FTTx deployments
- Optical measurement instruments
- Telecommunications
- 4G/LTE, 5G base station
- CATV

Blue	Aqua
Green	Erika Violet
Beige	Lime Green

## LC / SC Specification

	Mode	Sleeve Type	Housing Type	Housing Color	Type	Standards	Other Requirement
LC	SM / APC MM	Zirconia Sleeve	Plastic Metal	Blue Beige Green Aqua Violet	Simplex Duplex Quad 8 Ports	IEC61754-20 IEC61754-4 TIA/EIA-604-10	*AA (Senior Senior) *AR (Senior Junior) AA SC type with Flange AA SC type Flangeless AR SC type with Flange AR SC type Flangeless AR type AA type SC Vertical type Inner Shutter
SC				Lime green	Simplex Duplex Quad	JIS C5973 F04 EIA/TIA 604-3A IEC 60874-14-3 GR-326	With Flange Flangeless Shutter

## LC SC Footprint Adapter

- LC SC Footprint Duplex Flange with Clip



- LC SC Footprint Duplex Flangeless with Clip



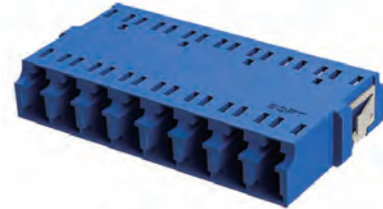
- LC SC Footprint Quad Flangeless



- LC SC Footprint Quad Flange



- LC SC Footprint 8 Port Flangeless with Clip



- LC SC Footprint Quad Flange with Clip



- LC SC Footprint Quad Flangeless with Clip



Blue
Green
Beige
Aqua
Erika Violet
Lime Green

### Description

LC Adapters are manufactured with PEI material. Non-welded design enhances the structure durability and decreases probability of breakdown. Telcordia GR-326, IEC, RoHS2, REACH, UL94V-0 standard compliance also gives reliability.

### Applications

- Data communications
- Telecommunications
- Optical measurement instruments
- FTTx deployments
- 4G/LTE, 5G base station
- CATV

### Features

- PEI requested for high intensity and chemical resistance. Its thermostability keeps non-flammable and high stability
- Snap-in connector design precises mechanical dimensions
- Reduce assembly time and simplifies training
- Reduces maintenance and creates consistent optical performance
- Stable performance
- Comply Telcordia GR-326, IEC, RoHS2, REACH, UL94V-0 standard
- Premium quad/8 ports adapters satisfy high density demands



# LC Inner Shutter Adapter

## ● LC Duplex



## ● LC Quad



Blue	Erika Violet
Beige	Lime Green
Aqua	

## Description

AOPT's LC Inner Shutter Adapter is designed for the lasers blocking and dust insulating with the returnable internal shutter which is easy for the LC connector insertion and extraction.

## Features

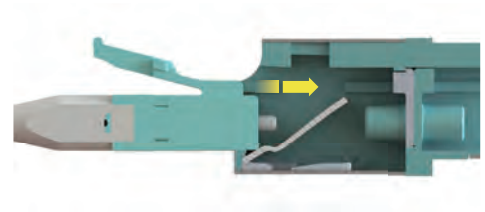
- One-piece molding case, without welding
- Compatible with SC adapter footprint
- Protect eye exposure from laser light
- Block out external dust for interior protection
- The automatic opening and closing shutter for easily loading and unloading the LC connector

## Applications

- Data communications
- Telecommunications
- FTTx deployments
- 4G/LTE, 5G base station

## Ultimate dust and laser protection

1.



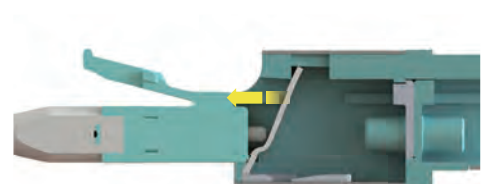
Internal shutter is open when inserted connector compressed the springs.

2.



Ferrule can be inserted into the adapter sleeve with ease.

3.



Internal shutter will automatically close when the connector is removed from the adapter.



## SC Adapter

• SC Simplex Flange with Clip



• SC Simplex Flangeless with Clip



• SC Duplex Flange with Clip



• SC Duplex Flangeless with Clip



• SC 4 Port



• SC Shutter Flange with Clip



• SC Shutter Flangeless with Clip



	Blue
	Green
	Beige
	Aqua
	Erika Violet
	Lime Green

### Description

ACON OPTICS offers a broad range of SC one-piece adapters for simplex, duplex and quad. Adapters are available in plastic, with flange or flangeless, and with metal clip and come with zirconia sleeves.

### Features

- Premium one-piece type
- High precision alignment
- Shutter adapter available

### Applications

- Data communications
- Telecommunications
- Optical measurement instruments
- FTTx deployments
- 4G/LTE, 5G base station
- CATV

## FC / ST Adapter

● FC D Type



● FC Double D Type



● FC Square Multi-Piece Type



● FC Square One-piece Type



FC Specification

Mode	Sleeve Type	Housing Type	Type	Standard	Dust Cap Color	Other Requirement
SM / APC MM	Zirconia Sleeve	Metal	Simplex	JIS C 5970 F01 TIA / EIA-604-4 IEC61754-13	Green Clear Red	D type Double D type Double Ear D type One-Piece Square Mult Piece Square

● ST Simplex



● ST Duplex



ST Specification

Mode	Sleeve Type	Housing Type	Type	Standard	Dust Cap Color	Other Requirement
SM / APC MM	Zirconia Sleeve	Metal	Simplex Duplex	EIA / TIA-604-2 IEC61754-2	Yellow Black	With Flange Flangeless

## MT-MPO Pro Adapter



High  
Compatibility



High  
Structural  
Strength



Simple  
Design



Best  
Solution

### Description

ACON OPTICS (AOPT) is featuring a revolutionary MT- MPO PRO Adapter which has the flexible flap design making ease of connecting and disconnecting MT ferrules. It is the best solution for BTW and high density applications.

### Features

- Hybrid adapter accommodates MT ferrule and MPO connector.
- One piece housing design without welding point enhances structure strength.
- Design makes connecting and disconnecting MT ferrule simple and straightforward.
- The best option for BTW application and high density solution.

### Applications

- Data center application
- Multi-channels high speed connectivity
- WDM networks
- Telecommunications

Black	Aqua
Blue	Erika Violet
Green	Lime Green
Beige	

### Instructions Guide



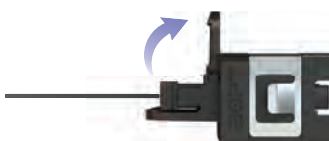
1 Open the flap



2 Insert the MT ferrule



3 Close the flap



4 Open the flap



5 Remove the MT ferrule



6 Done

# MPO Adapter

## MPO Standard Adapter



## MT-MPO



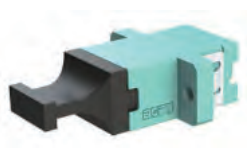
## MPO SC Footprint Flange



## MPO SC Footprint Flangeless



## MPO SC Footprint Flange with Clip



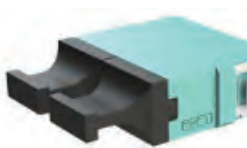
## MPO SC Footprint Flangeless with Clip



## MPO SC Footprint Duplex Flange



## MPO SC Footprint Duplex Flangeless with Clip



## Description

ACON OPTICS singlemode or multimode MPO Connectors and Adapters are suitable for high-density back panel applications in data and telecommunications systems. Available in a variety of housing colors plus other options upon request.

## Features

- Compliant to IEC and TIA standards
- Available in key-up to key-down and key-up to key-up
- High precision alignment
- Low insertion, high return loss and back reflection

## Applications

- Data center application
- Multi-channels high speed connectivity
- WDM networks
- Telecommunications

Black	Aqua
Blue	Erika Violet
Green	Lime Green
Beige	

## MPO Adapter Specification

Adapter Type	Flange Type	Key Orientation	Housing Color
Standard Simplex SC Simplex Footprint SC Duplex Footprint MT-MPO Simplex	with Flange Flangeless	Aligned Opposed	Black Aqua Blue Green Beige Violet Lime green



## SC / FC / LC / ST Hybrid Adapter

SC-ST Hybrid



SC-FC Hybrid



SC-FC Hybrid



SC-ST Hybrid



LC-ST Hybrid



LC-FC Hybrid



SC-LC Hybrid



FC-ST Hybrid



### Description

ACON OPTICS offers a variety of hybrid adapters, including the FC, ST, SC, LC series. These Hybrid Fiber Adapters are available in simplex or duplex types and metal or plastic for housing option. They come with high precision alignment zirconia sleeves for reliability and better reconnectability and are widely used when connecting different types of fiber optic connectors together in a fiber optic link.

### Features

- High-precision zirconia sleeve and mechanical dimensions
- Good reliability & stability
- Available in simplex and duplex types
- Available in metal and plastic housing

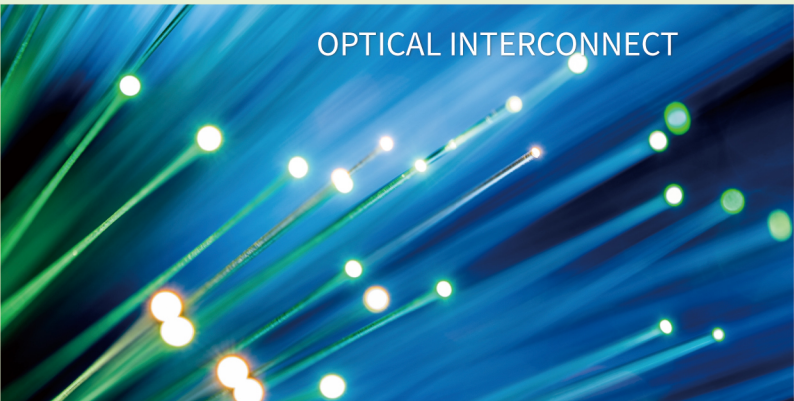
### Applications

- Data communications
- Telecommunications
- FTTx deployments
- Optical measurement instruments
- 4G/LTE, 5G base station
- CATV

Hybrid Adapter Specification

Connector 1	Connector 2	Sleeve Type	Type	Housing Type	Dust Cap Color
SC FC LC ST	SC FC LC ST	Zirconia Sleeve	Simplex Duplex	Metal Plastic	Blue Beige Black Clear Green Red Yellow

# PATCHCORD



## LC / SC / FC / ST / MU

LC / SC / FC / ST / MU .....32

## Pre-terminated

SC Pushable Patchcord .....33

SC Pulling Eye Patchcord .....33

## PLC

PLC Series .....33

## MPO / MTP

MPO / MTP Patchcord .....34

## Breakout / Drop

Breakout Cable .....35

Drop Cable .....35

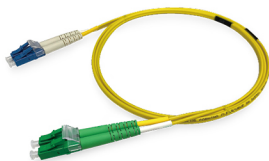
## FTTA

FTTA Hybrid Patchcord .....36

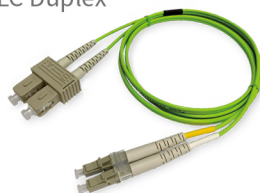
FTTA Solution .....36

## LC / SC / FC / ST / MU Patchcord

● LC Duplex



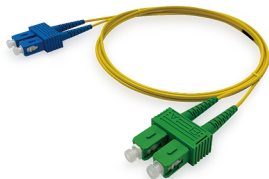
● SC - LC Duplex



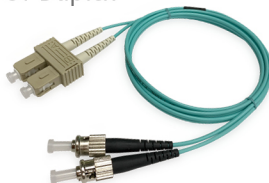
● ST



● SC Duplex



● SC - ST Duplex



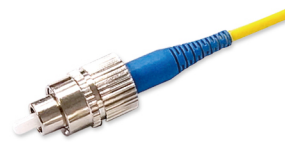
● LC Simplex



● SC Simplex



● FC



### Small Form LC / MU Specification

	Product	Mode	Jacket Type	Connector Type	Cable Type	Cable Diameter
LC	Patchcord Pigtail	SM G652D	PVC (OFNR) PVC (OFNP) LSZH LSZH(OFNR)	LC / PC LC / APC	Simplex Duplex Zipcord Duplex Round	0.9
		SM G657 A1				1.2
		SM G657 A2				1.4
		SM G657 B3				1.6
		OM1 (62.5/125)				1.8
		OM2 (50/125)				2.0
		OM3 (50/125)				2.4
		OM4 (50/125)		N/A	N/A	3.0
MU		OM5 (50/125)				N/A

### SC / FC / ST Specification

	Product	Mode	Jacket Type	Connector Type	Cable Type	Cable Diameter
SC	Patchcord Pigtail	SM G652D	PVC (OFNR)	SC / PC	Simplex Duplex Zipcord Duplex Round	0.9
		SM G657 A1		SC / APC		1.2
		SM G657 A2				1.4
FC		SM G657 B3	PVC (OFNP)	SC / PC		1.6
		OM1 (62.5/125)	LSZH	SC / APC		1.8
		OM2 (50/125)	LSZH(OFNR)			2.0
		OM3 (50/125)				2.4
ST		OM4 (50/125)		ST		2.4
		OM5 (50/125)		3.0		

## Pre-terminated Patchcord

● SC Pushable Patchcord

● SC Pulling Eye Patchcord



### Applications

- FTTx indoor/outdoor cable
- Telecoms
- DAS

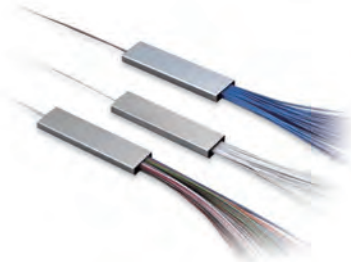
### Description

A simple and costs effective optical fiber assembly deployment that is easy to use without compromising the optical fiber integrity or reliability.

### Features

- Complies with IEC60874-14-2
- Guaranteed insertion loss & return loss with certification
- Install inside microducts as small as 5.5 mm I.D. (Pushable)/6.5 mm I.D. (Pulling Eye)
- Single-mode APC
- Low friction mechanism design
- Tool-less installation
- Pre-terminated pushable/Pulling eye connectors

## PLC Series



### PLC Specification

Product	Port Number	Wavelength (mm)	Connector	PLC Ratio	Fiber (mm)	Package	Steel Tube
Standard	1x2	1310 & 1550	SC / APC	AS Demand	0.9 2.0 Bare	Steel Tube ABS Box	50mm Box
WDM	1x4		SC / PC with white mark				
	1x6						
Single Window Wideband Coupler	1x8						
	1x10						
Dual Window Wideband Standard (MM)	1x12		SC / APC with white mark				
	1x14						
	1x16		1550				
WDM (MM)	1x18		SC / PC with white mark				
	1x20	850					
Single Window Wideband Coupler (MM)	1x22	LC / APC					
	1x24						
Dual Window Wideband (MM)	1x32		FC / PC				
	2x32						
	4x4						
	8x8						



## MPO / MTP Patchcord

● MPO/MTP Patchcord



● MPO-LC 16F Fan-out



● MPO-LC 32F Fan-out



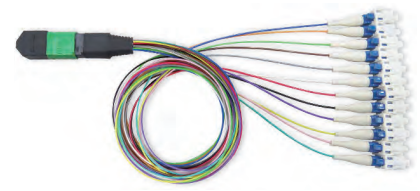
● MTP-LC Uniboot



● MTP-LC Hydra



● MPO-LC Hydra



● MTP-LC 24F Hydra-Mini Branch



● MTP-DLC



● Trunk Cable



### MPO / MTP® Specification

Description	Specification		Conditions
Insertion Loss	MPO	SM : $\leq 0.75$ dB MM : $\leq 0.6$ dB	SM $\lambda = 1310/1550$ nm MM $\lambda = 1300/850$ nm
	MTP®	SM : $\leq 0.5$ dB MM : $\leq 0.5$ dB	
	MPO Low Loss MTP Elite®	SM : $\leq 0.35$ dB MM : $\leq 0.35$ dB	
Return Loss	SM : $\geq 60$ dB		SM $\lambda = 1310/1550$ nm

### MPO / MTP® Specification

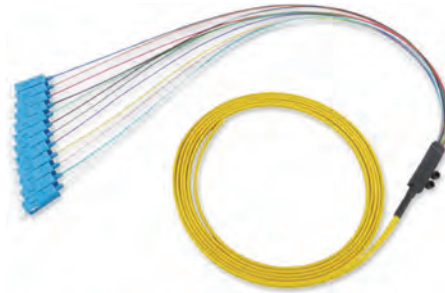
Connector Type	Mode	Cable Type	Jacket Type	Cable Diameter (mm)
MPO / MTP Male MPO / MTP Female MPO Low Loss Male MPO Low Loss Female MTP Elite Male MTP Elite Female	SM G652D SM G657 A1 SM G657 A2 SM G657 B3 OM1 (62.5/125) OM2 (50/125) OM3 (50/125) OM4 (50/125) OM5 (50/125)	8-Fiber 12-Fiber 16-Fiber 24-Fiber 32-Fiber	PVC (OFNR) PVC (OFNP) LSZH LSZH(OFNR)	Bare Ribbon Ribbon 2.5 x 5.0 Round 2.0 / 2.6 / 3.0 / 3.5

## Breakout / Drop Patchcord

### ● Breakout Cable



### ● Ribbon Type Breakout Cable



#### Multi-Fiber Breakout Specification

Product	Mode	Connector Type	Jacket Type	Cable Type			Cable Diameter
Patchcord Pigtail	SM G652D	LC / PC	PVC (OFNR)	4-Fiber	Round	Tight Buffer	3.0
	SM G657 A1	LC / APC		6-Fiber			
	SM G657 A2	SC / PC		8-Fiber			
	SM G657 B3	SC / APC		12-Fiber			
	OM1 (62.5/125)	FC / PC		16-Fiber			
	OM2 (50/125)	FC / PC	LSZH	18-Fiber	Ribbon	Loose Tube (Easy Stripped )	5.2
	OM3 (50/125)	FC / APC		24-Fiber			
	OM4 (50/125)	ST		36-Fiber			
	OM5 (50/125)	MU		48-Fiber			
				96-Fiber			
				144-Fiber			
				Customized			

### ● SC Simplex Drop Cable



### ● LC Duplex Drop Cable



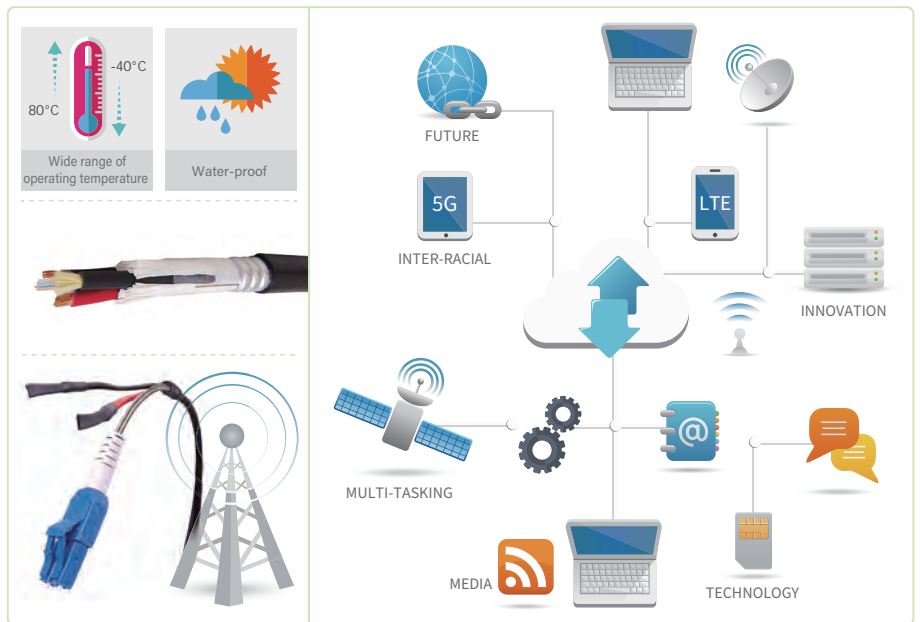
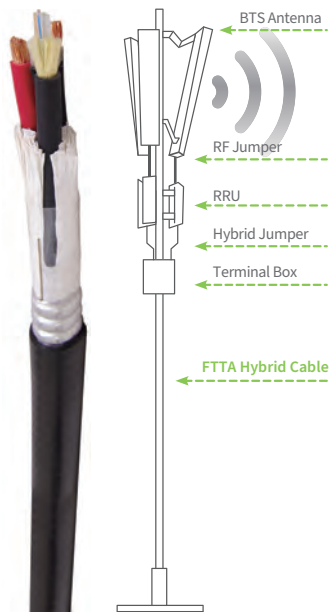
### ● ST Simplex Drop Cable



#### Drop Cable Specification

Product	Mode	Connector Type	Jacket Type	Cable Type		Cable Diameter
Patchcord Pigtail	SM G652D	LC / PC	LSZH	Simplex Duplex	Tight Buffer	2.0 x 1.6 2.0 x 3.0 5.3 x 2.0
	SM G657 A1	LC / APC				
	SM G657 A2	SC / PC				
	SM G657 B3	SC / APC				
	OM1 (62.5/125)	FC / PC	FRPE		Loose Tube ( Easy Stripped )	
	OM2 (50/125)	FC / PC				
	OM3 (50/125)	FC / APC				
	OM4 (50/125)	FC / APC				

## FTTA Hybrid Patchcord



### Description

The ACON OPTICS new FTTA Hybrid Patchcord, combined with copper wire and optical fiber in an unicable, supporting power and data transmission at the same time. It's waterproof and flame resistant.

### Features

- Three cladding fully protect the fiber
- Cable type for choice (7.0/4.8/3.5mm /customized diameter)
- PVC/LSZH/Armored cable for choice
- Pulling-eye addition enhances protection
- Braid sleeve and pulling-eye addition, more convenient and protective
- Hybrid cable construction, makes more efficiently and high quality operation

## FTTA Solution

- FTTA Cable with Mesh Cover



- FTTA Cable with Angled Boot



- FTTA Cable with Pulling-Eye + PVC Tube



- Armoured Cable



### Description

To keep pace with the ever-growing demand for bandwidth in the 5G era, ACON OPTICS FTTA solution provides customers with high-quality broadband capabilities while eliminating the need for building expensive infrastructures.

### Features

- GR-326-Core & RoHS2 compliant
- Smarter termination process
- Compact pull-proof design
- High precision alignment
- Reducing maintenance and creating consistent optical performance
- Pulling eye addition enhances protection
- Ruggedized, water-proof connector
- Cable type for choice

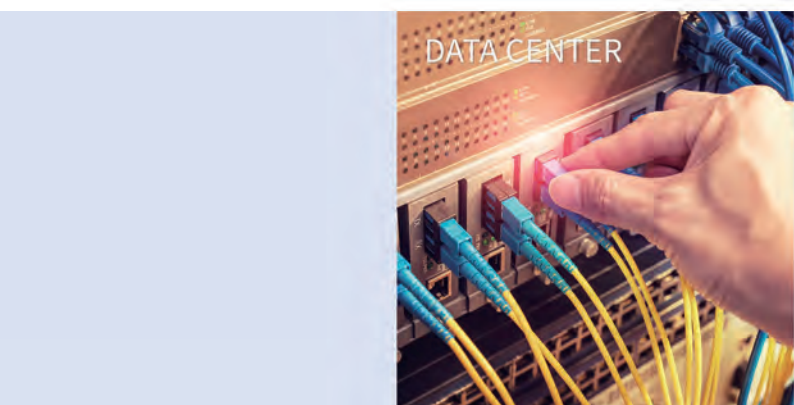
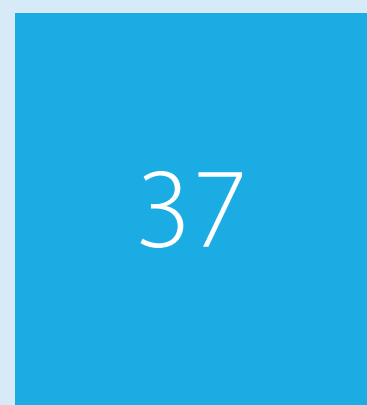
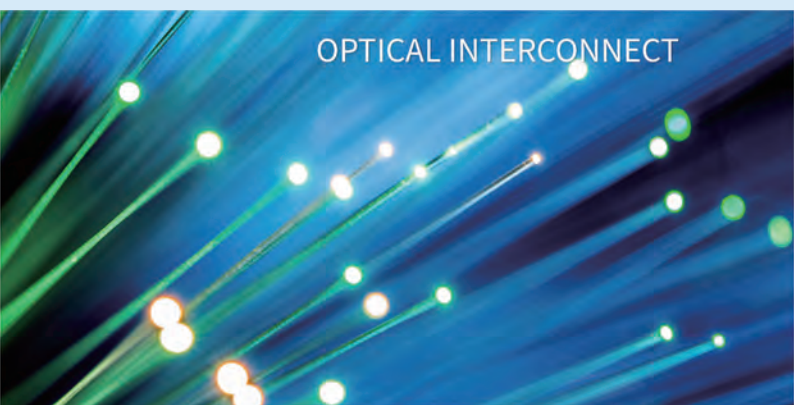
### Applications

- 4G/LTE, 5G base station

# ATTENUATOR

LC / SC / FC

LC / SC / FC Attenuator .....38



# LOOPBACK

LC / SC / MPO

LC / SC / MPO Loopback .....39



## Attenuator LC / SC / FC

### • LC Attenuator - LC/PC



### • SC Attenuator - SC/PC



### • SC Attenuator - SC/APC



### • FC Attenuator - FC/PC



### • FC Attenuator - FC/APC



### Description

ACON OPTICS high quality and performance attenuators are designed to give accurate attenuation over a wide range of wavelengths. The male-female plug type configuration can be used directly on the end of a patch cord, which in turn can insert directly into an adaptor. Available in LC, SC, FC, ST and MU connector styles with PC or APC finish, attenuators providing ultra-low return loss and are available from 1dB to 40dB.

### Features

- Excellent environmental stability
- Attenuation stability
- Excellent return loss
- Polarization insensitive
- Easy installation
- Telcordia GR-910-core requirement
- Bandwidth : 1310 / 1550±40nm / IL 1~5dB±0.75dB / 6~10dB±10dB / 11~15dB / 16~20dB±15% dB / >20dB

### Applications

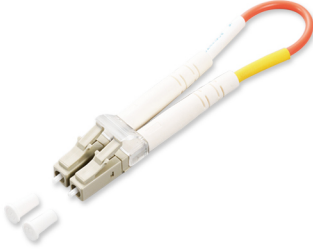
- LAN & WAN
- Telecommunication networks
- Fiber optic sensors
- Test & Measurement
- FTTx
- CATV

### Attenuator Specification

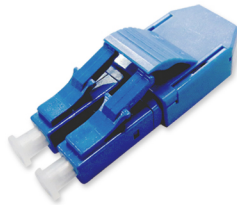
Connector Type	Attenuation Values (dB)		Wavelength (nm)
LC / PC	0	10	1310/1550nm(SM)  850/1300nm(MM)
LC / APC	1	11	
SC / PC	2	12	
SC / APC	3	13	
FC / PC	4	14	
FC / APC	5	15	
ST	6	16	
MU	7	17	
	8	18	
	9	19	
		20	

## Loopback LC / SC / MPO

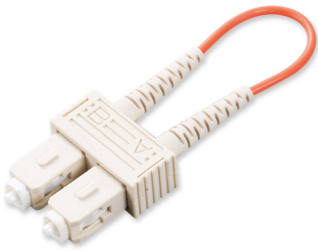
### • LC Loopback



### • LC Loopback with Shell



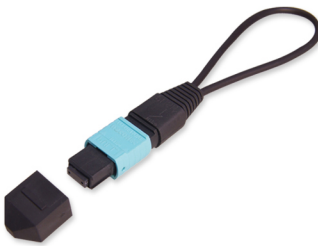
### • SC Loopback



### • SC Loopback with Shell



### • MPO Loopback



### • MPO Loopback with Shell



### Description

Fiber OPTICS Loopbacks is typically used for fiber optic testing applications or network restorations. It can detect potential bug by testing signal return of network or system.

### Features

- Compact design
- Precise attenuation value
- High durability and low loss performance
- Available in singlemode and multimode

### Applications

- Instrumentation
- Telecommunication networks
- Local area networks (LAN)
- Wide area networks (WAN)
- Data processing networks
- CATV

Loopback Specification

Mode	Connector Type	DB Type	Shell Color	Jacket Type	Diameter (mm)
SM G657 A2	LC / PC Duplex	0dB SM	Black	PVC (OFNR)	0.25
SM G657 B3		1dB	Blue(LC)	PVC (OFNP)	0.6
OM1 (62.5/125)	SC / PC Duplex	2dB	Beige(LC)	LSZH	0.9
OM2 (50/125)	MPO	0dB MM	Aqua(LC)	LSZH (OFNR)	2.0
OM3 (50/125)	MTP				3.0
OM4 (50/125)					

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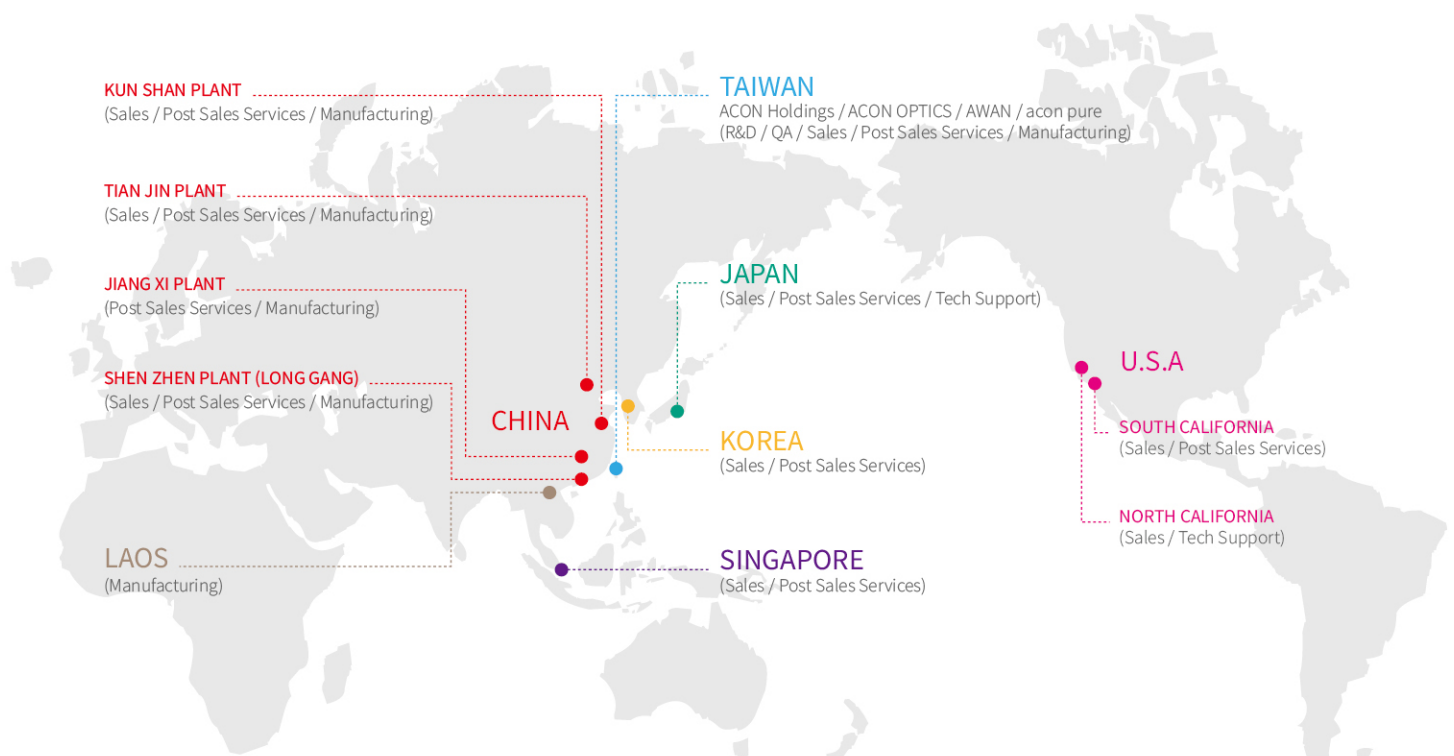
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