

CONNECTOR



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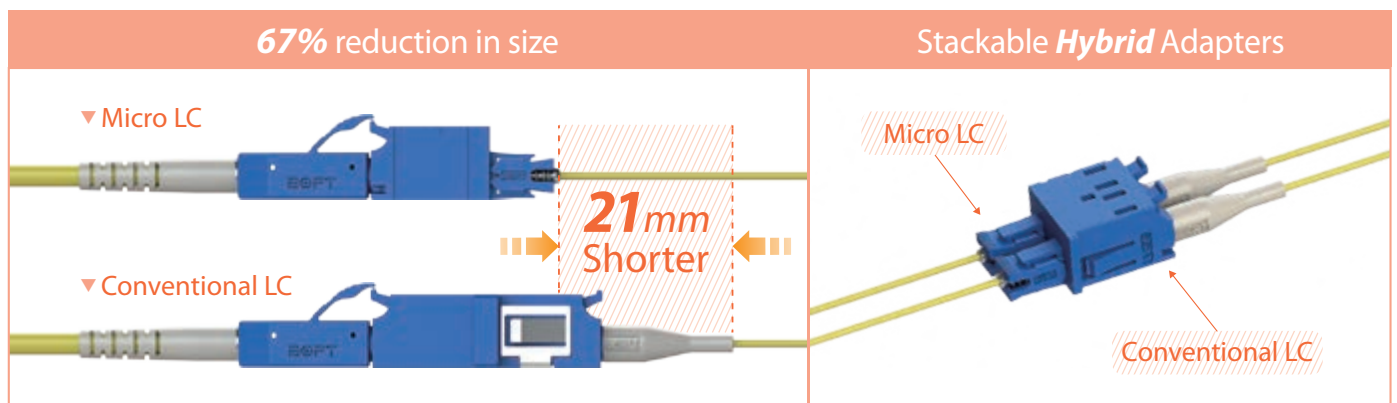
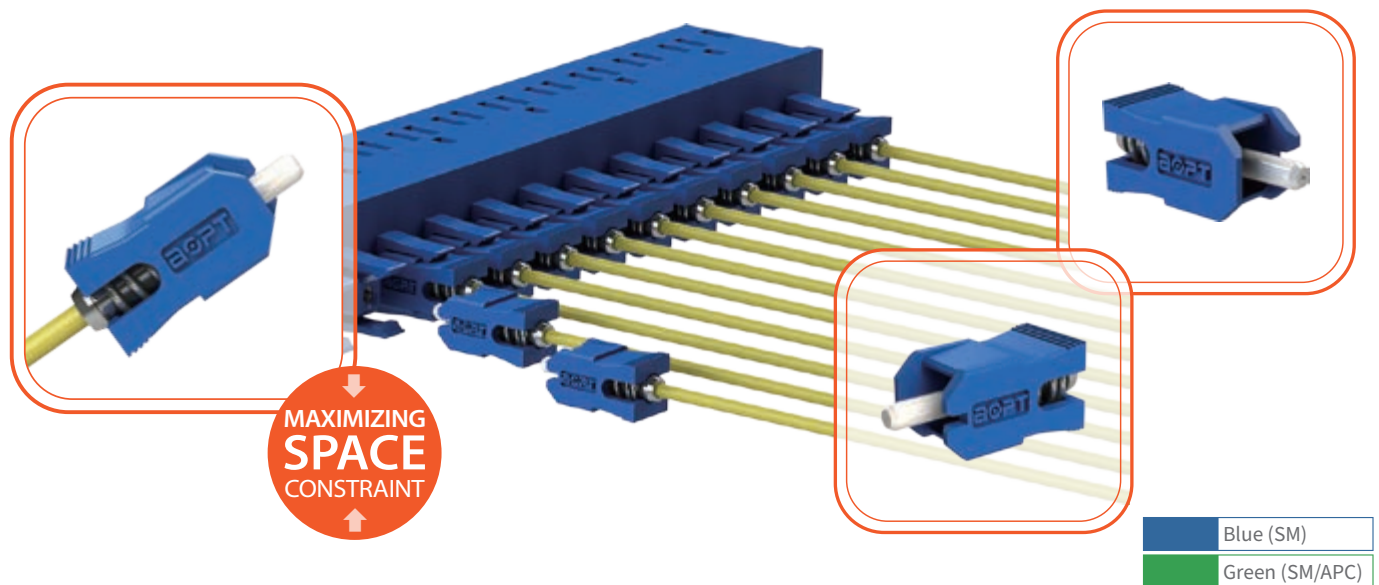
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Micro LC Snap-in Connector



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

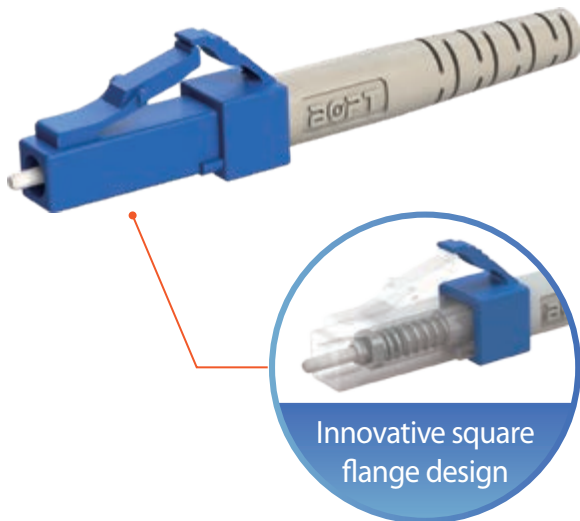


Blue (SM)
Green (SM/APC)

Polarity Switching Process

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

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

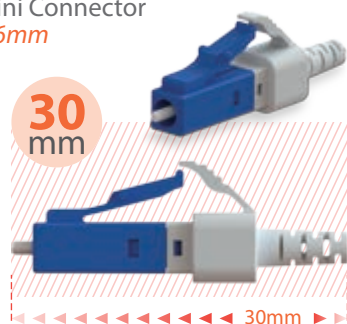
- World compact BTW LC with 900μm mini boot.
- Connector is half the length as compared to standard LC.
- Short boot design to save space for adapting small cassette.
- Remarkable increase in space on the back end panel.

Applications

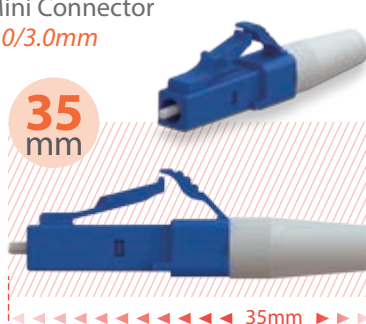
- Data communications
- Telecommunications
- Optical measurement instruments
- FTTx deployments
- 4G/LTE, 5G base station
- CATV

More LC Mini Connector Options

Mini Connector
1.6mm



Mini Connector
2.0/3.0mm



Mini Connector
2.0/3.0mm

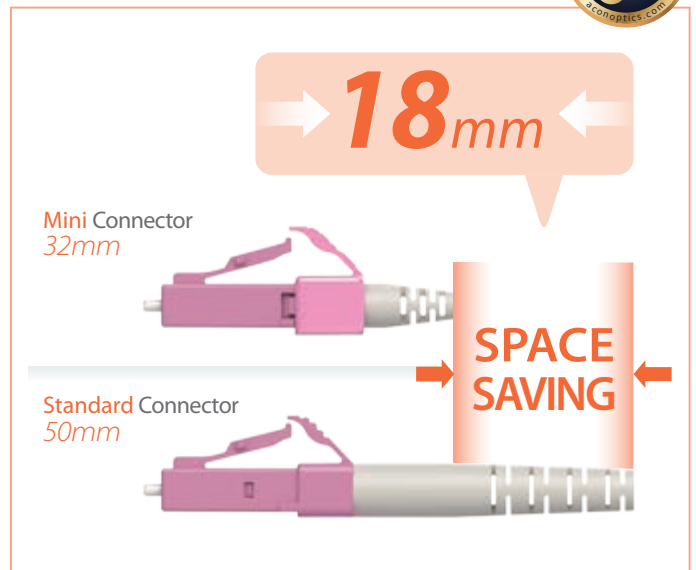


LC Mini 32mm Connector



**HOOK
-LOCK
DESIGN**

**SHORT
BOOT
DESIGN**



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

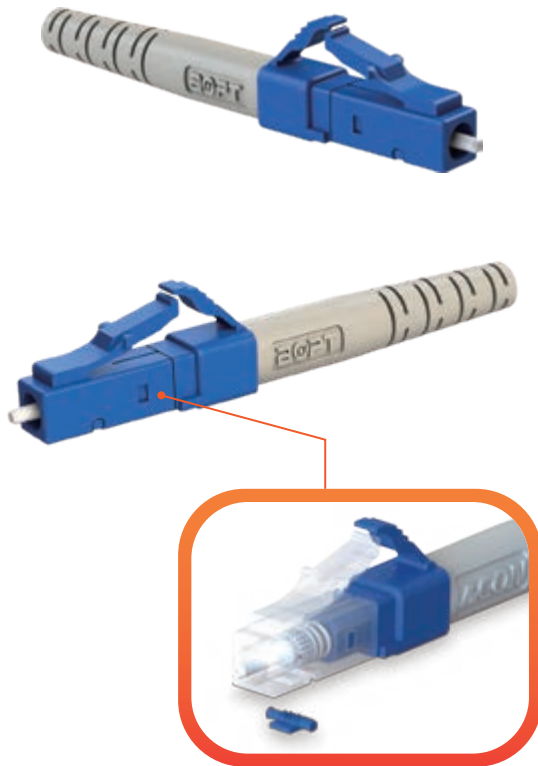


Connector firmly secure





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

INSERTION
LOSS ▼

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

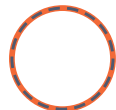


Rotate the ferrule to make the offset smaller.

3



Fiber core



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

LC Standard Connector

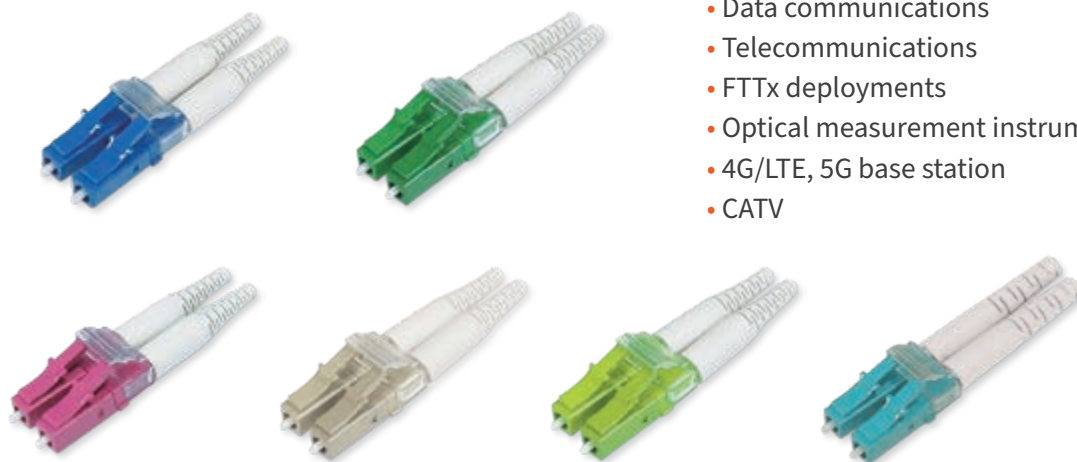
● LC Standard 45mm



● 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.

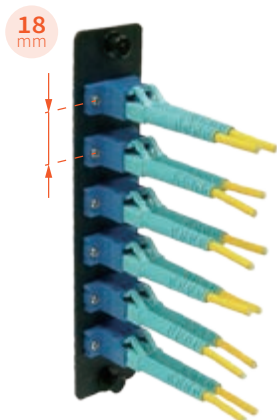
ACON OPTICS LC HD Uniboot lever design utilizes an adjustable “push-pull” rod which is available in 2 standard lengths (65mm & 80mm).

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

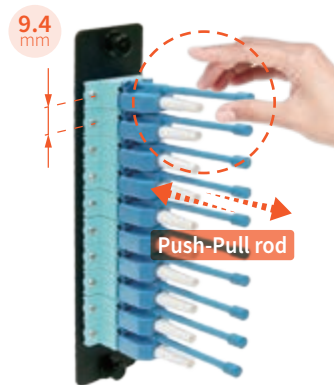
Features

- 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

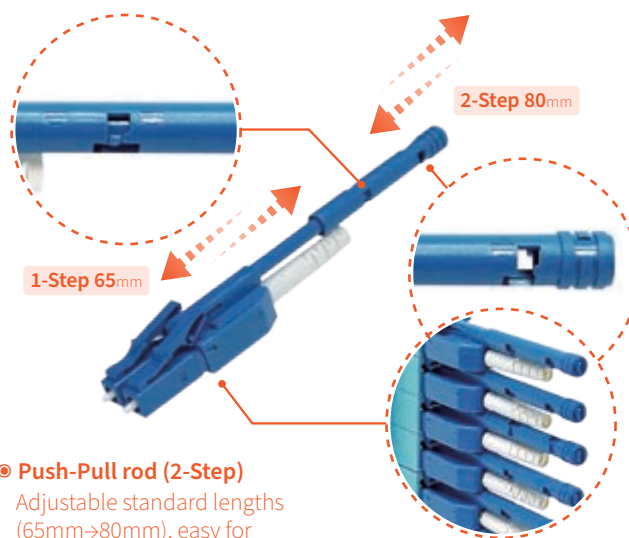


High density rack 10 pack spacing



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
mm
I.D.
5.5
↑

● Pulling Eye



↓
Install inside
microducts
mm
I.D.
6.5
↑

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

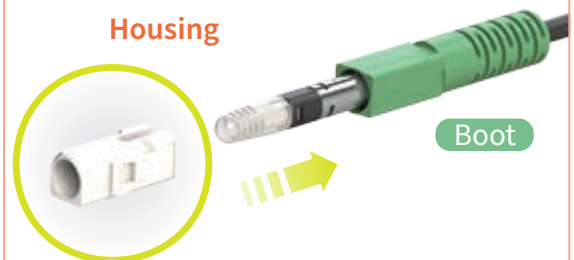
Installation

1.



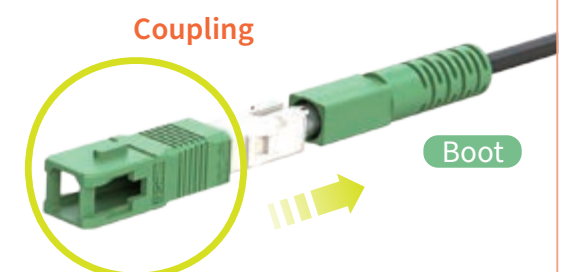
Slide boot over the body of the connector by aligning the 2 black dots on the body of the connector until it snaps into place.

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	Simplex Duplex
		1.2	
		1.6	
		1.8	
		2.0	
		2.4	
		3.0	
		4.0	

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 / MTRJ 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	

MTRJ Specification		
Assembling Type	Connector Type	Diameter (mm)
One Piece Multi Piece	Male	1.8
	Female	3.0

MTRJ Connector



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



After

LC



SC



2.0 mm



SC



FC



3.0 mm



FC



ST



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



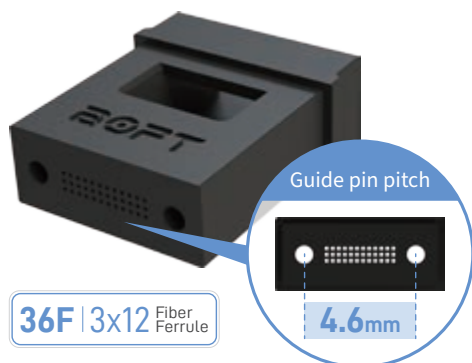
Yellow (SM)	Aqua (MM)
Green (SM/APC)	Erika Violet (MM)
Beige (MM)	Lime Green (MM)

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

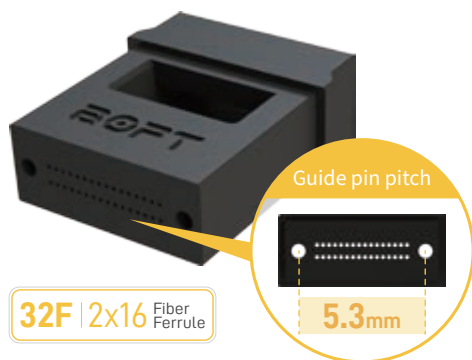
MT Ferrule SM 36F 400G 800G



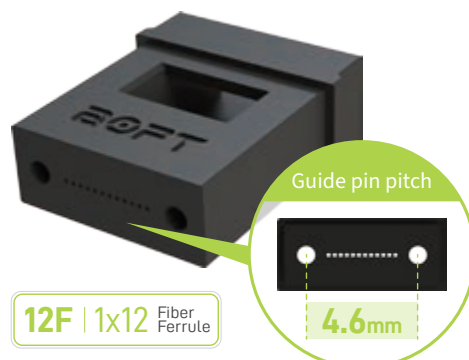
Applications

- 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					