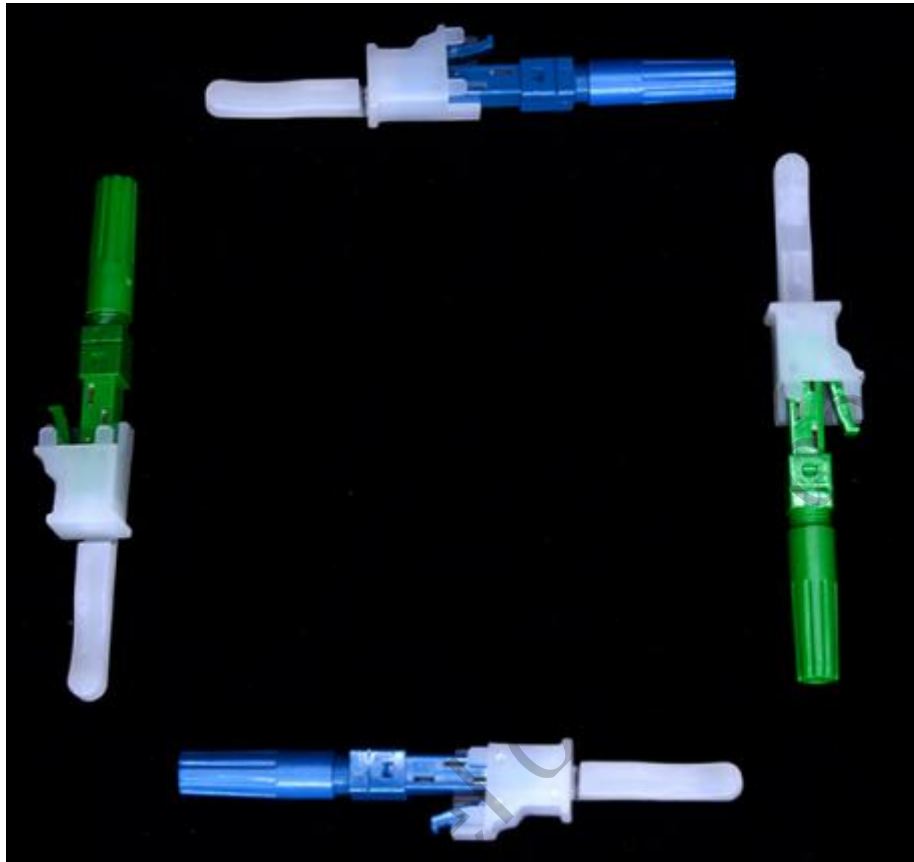


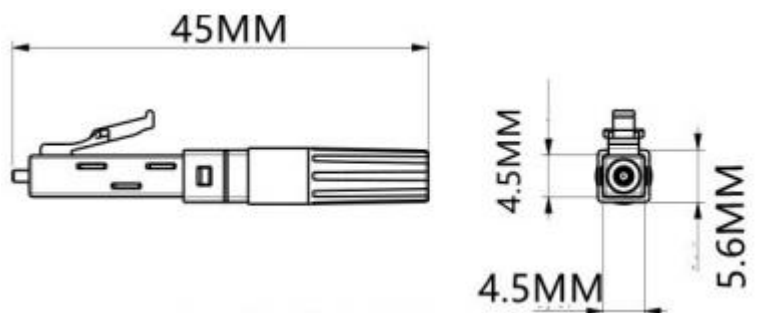
# MT-1041-LC-A/U

## LC Fast Connector



### Quick Details:

01. Product Name : LC Fast Connector
02. Place of Origin : China
03. Model No : MT- 1041-LC
04. Product Length : 45mm
05. Net Weight : 8g
06. Connector Type: LC/APC or LC/UPC
07. Apply for : FTTH Cable 2\*1.6mm  $\Phi$ 3.0,  $\Phi$ 2.0,  $\Phi$ 0.9
08. Insert Loss (IL) :0.2dB
09. Return Loss (RL) :48dB
10. Fiber:SM 9/125um G657A1



### Technical Parameter:

Item	Parameters	Remark
Insert Loss (IL)	Typical : 0.20dB    Max: 0.4dB	1310nm&1550nm
Return Loss (RL)	Typical : 48dB    Max: 45dB	1310nm&1550nm
Fiber	SM 9/125um G657A1	
Installation time	<10S (excluding fiber dispose)	
Tensile Strength	>30N	Peak force of cable tension
Reassembly times	10times	
Operating Temperature	-40~+85°C	
Connection cable	Φ900μm, Φ2.0mm, Φ3.0mm indoor round cable and 2 x 1.5mm hybrid cable,	

### Key Features:

- Linkage structure design, when docking with equipment and joints, the reserved Micro bend remains unchanged
- Metal V-slot structure design, fiber optic docking is stable and reliable
- The core structure: the use of normally closed elastic fastening method, excellent technical indicators
- Easy to operate, fast construction, high installation success rate, long life cycle, easy maintenance in the later period

### Description:

This kind of Field Assembly Optical Connector is designed for fast and simple field termination of single fiber, without polishing or epoxy. The Connector is made with precision and high quality Zirconium ferrules and provides a highly reliable connection in most of the network application. The LC type is available with FTTH Cable 2×1.6mm ,Φ3.0,Φ2.0,Φ0.9.

### Applications:

- All fiber interconnection
- Telecom Distribution and Local Area Networks; Telecom Distribution and Local Area Networks
- FTTH and FTTX
- Passive optical networks [ATM, WDM, Ethernet]
- Broadband, Cable TV(CATV)

### Batch-by-batch inspection of projects, methods, standards and sampling plans:

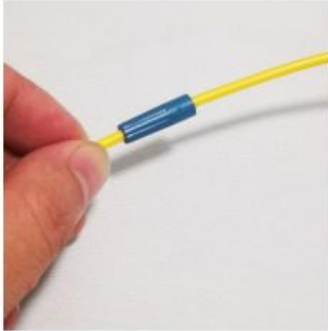
Inspection Area		Judgments Standard			
Area	Range	Scratch	Spot	Bright spots /white spots	Crack
1	Within Φ25μm	Not Allowed	Not Allowed	Not Allowed	Not Allowed
2	Φ25μm~Φ60μm	Width ≤ 1 μm Quantity ≤ 2pcs	Diameter≤ 1μm Quantity ≤ 2pcs	Not Allowed	Not Allowed
3	Φ60μm~Φ125μm	Width ≤ 2 μm Quantity ≤ 3pcs	Diameter≤ 2μm Quantity ≤ 3pcs	Not Allowed	Not Allowed

Items	Methods	Standard				Samples Chosen
<b>Visual Inspection</b>	1. Visual inspection 2. 200 times magnifying lass	1, the surface can not appear obvious scratches, corners, deformation and other defects, product specifications and models and actual compliance. 2. See Table 2.				General inspection level I, AQL 0.04
<b>Geometric Size</b>	CCD projector detection	According to the drawings				General inspection level I, AQL 0.04
<b>End Face Geometry Index</b>	3D detector detection	Part No.	Curvature Radius (mm)	Vertex Shift Amount ( $\mu\text{m}$ )	Concavity and Convexity (nm)	General inspection level I, AQL 0.04
		PC Type ( $\Phi 2.5\text{mm}$ )	10~25	$\leq 50$	-100~+50	General inspection level I, AQL 0.04
		PC Type ( $\Phi 1.25\text{mm}$ )	7~25	$\leq 50$	-100~+50	
		APC Type ( $\Phi 2.5\text{mm}$ )	5~12	$\leq 50$	-100~+50	
APC Type ( $\Phi 1.25\text{mm}$ )	5~1	$\leq 50$	-100~+50			
<b>Insertion Loss</b>	Loss detector standard line detection method	PC: Average Value: $\leq 0.2\text{dB}$ , Maximum Value: $\leq 0.4\text{dB}$ APC: Average Value: $\leq 0.3\text{ dB}$ , Maximum Value: $\leq 0.5\text{ dB}$				General inspection level II, AQL 0.025
<b>Return Loss</b>	Loss detector standard line detection method	PC: $\geq 40\text{ dB}$ , APC: $\geq 55\text{ dB}$ .				General inspection level II, AQL 0.025
<b>Average Assembly Time</b>	Normal skilled operator	$\leq 2.5\text{Mins}$				General inspection level II, AQL 0.025
<b>One Assembly Success Rate</b>	Normal skilled operator	$\geq 98\%$				At least 98 per assembly
<b>Repeated Assembly</b>	Normal skilled operator	$\geq 5\text{ Times}$				Special inspection level S-I level, AQL 1.5

### Inspection items, requirements and criteria:

Inspection Item	Inspection Requirements	Judgments Standard
Insertion Loss	Loss detector standard line detection method	PC: average value: $\leq 0.2\text{dB}$ , maximum value: $\leq 0.4\text{dB}$ , APC: average value: $\leq 0.3\text{ dB}$ , maximum value: $\leq 0.5\text{ dB}$ .
Return Loss	Loss detector standard line detection method	PC: $\geq 40\text{ dB}$ , APC: $\geq 50\text{ dB}$ .
Average Assembly Time	Normal skilled operator	$\leq 2.5\text{Mins}$
One Assembly Success rate	Normal skilled operator	$\geq 98\%$
Repeatability	Insert 10 times	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena
High Temperature	+85 $^{\circ}\text{C}$ , 96hrs	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena
Low Temperature	-45 $^{\circ}\text{C}$ , 96hrs	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena
Warm Cycle	-40 $^{\circ}\text{C}$ ~ +85 $^{\circ}\text{C}$ , 30 cycles, a total of 240hrs	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena
Damp Heat	+75 $^{\circ}\text{C}$ , 95%, 96hrs	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena
Soaking Water	25 $\pm 2^{\circ}\text{C}$ , 168hrs, tap water	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena
Repeated Assembly	Assembly Times: 5 Times	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, no obvious scratches on the surface of the pin.
Vibration (Sine)	Frequency: 10-50Hz Sweep: 45 times per minute Amplitude: 0.75mm single amplitude Time: three directions, each 2hrs	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, no obvious scratches on the surface of the pin.
Fall Test	Height: 1.5m No. of times: 8 times	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena
Mechanical Durability	Plug and Pull>500 Times	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena.
Tensile	Cable Type: 20N, online measurement; Cable Type: 30N, not measured online, the time is 2 minutes.	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena.
Torsion (optical cable type)	Load: 15N Rate: 10 times / min No. of times: 200 times	Insertion loss change: $\leq 0.2\text{dB}$ , return loss change: $\leq 4\text{dB}$ . No mechanical damage, such as deformation, cracks, Chi and other phenomena.

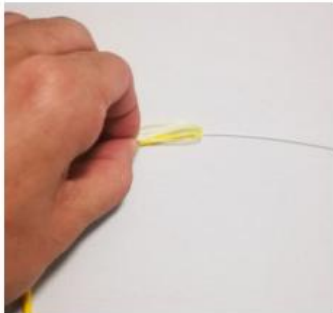
**Installation steps:**



1. Cable insert into the tail boot



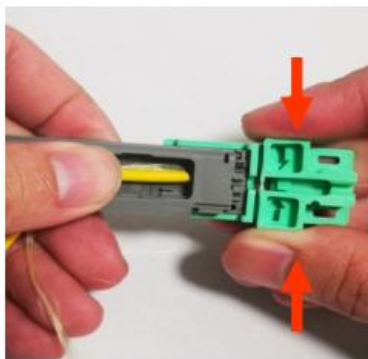
2. Strip off the jacket at a reserved place of about 40mm



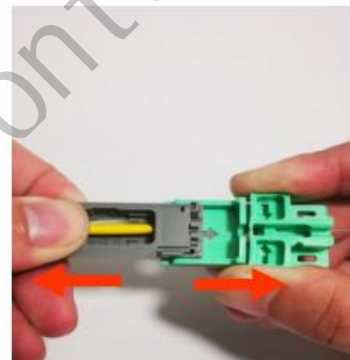
3. Strip the 0.9mm cable



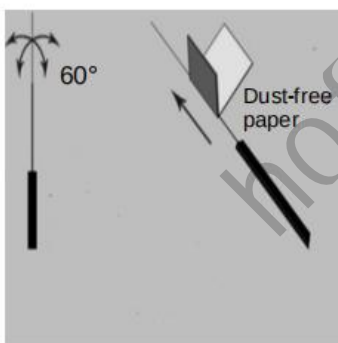
4. Fiber need to put on the cable holder



5. Up and Down strength press



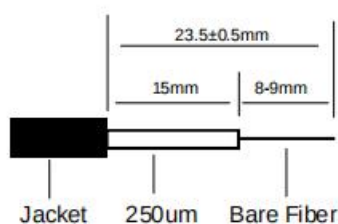
6. Right and Left strength pull



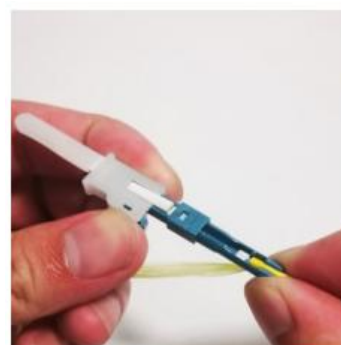
7. Bend the fiber to four directions of 60° to check whether damage



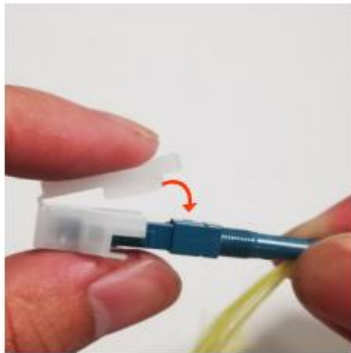
8. Using cleaver cut the bare fiber



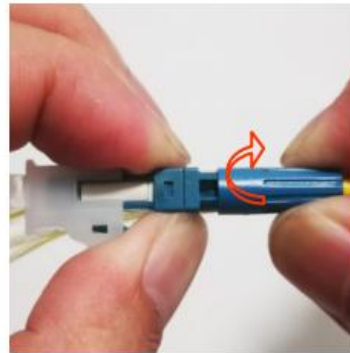
9. Different length of structure for reference



10. Fiber insert into the tail of connector till the limit



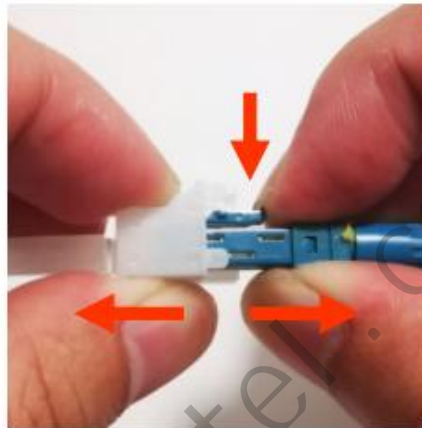
11. Cover the locker meet limit



12. Screw tight the tail boot

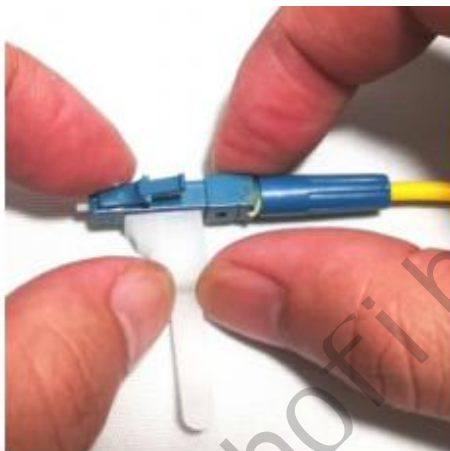


13. Cut of Kevlar Yarn

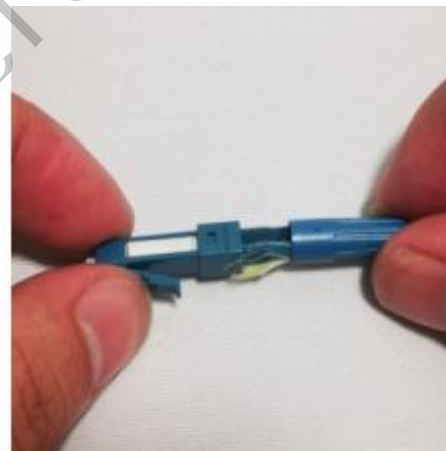


14. Press down LC ear and put out the dust cap, assembly complete

**Re-assembly:**



1. Dust cap has 2 pins, insert into the holes correctly and press



2. Screw out the tail boot, take out the cable, easy way to go.

**You may interested:**

