

# LC-UPC /APC Optical Fiber Quick Connector (TM-1007L)





# **Description**

LC fiber quick connector is a kind of quick connector for physical connection. It uses special optical silicone grease filling to replace the easy-to-lose matching paste. It is used for quick physical connection of small equipment. It is matched with a group of optical fiber standard tools. It is simple and accurate to complete the standard termination and reach the physical stable connection of optical fiber. The assembly steps are simple and low skills required. The connection success rate of our connector is nearly 100%, and the service life is more than 20 years.

# **Technical Parameter**

Characteristic	
Device length	44.3±0.2mm ,suitable for embedded small device connection44.3±0.2mm
Working wavelength	SM: 1310nm/1550nm
Applicable optical cable	2.0x3.0mm
Insertion loss	Single head $\leq 0.4$ dB, double head $\leq 0.7$ dB
Return loss	≥50dB (UPC) ≥55dB (APC)
End face performance	Conform to YD T 2341.1-2011
Mechanical durability	1000 times
Cable tension	≥30N
Torsion of optical cable	≥15N
Drop performance	Allow 10 drops under 1.5m height without abnormal performance
One time assembly success rate	≥98%
Repeatable assembly	10 times
Device operating temperature	-40°C∼+80°C
Hot and humid working environment	Long term operation under 90% relative humidity ,70 $^{\circ}$ C
Standard optical fiber tool replace third-party	Ensure that the connector is physically and perma-
cutter	nently docked
Drop performance of optical fiber standard tools	The end performance after 5 times of 1.5m hard ground dropping remains unchanged

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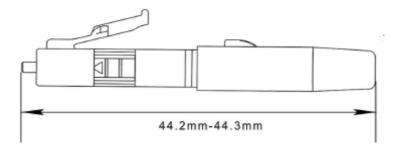


Key Accessories	
Fiber filler	Special optical silicone grease (not ordinary
	and easy-to-lose conventional matching
	past)
Material filling quantity	0.5X1.5X3mm=2.25mm <sup>3</sup> (End face filled with
	10000 times volume than previous
	generation product)
Volatilization test at -40 °C to +80 °C	Volatilization weight < 5% (40 years service
for 300h	life under simulation nature)

Material, process and molding	
Molding material	PEI,PC,PESU
Flame retardant grade	UL94 V-0

#### **RoHS** compliant products

# **Outline Drawing**



# **Devices and Tools**

LC fiber quick connector is mainly composed of the main body and the tail sheath (Figure 1). The matched tools required for on-site operation are shown in Figure 2 (distribution rate at 200:1, excluding cable stripping pliers and Dust-free paper).

By using the tools, applicable number of coating peeling  $\geq$  1000 times, fiber termination  $\geq$  3000 times.



Figure 1 Figure 2

# **Assembly instructions**

#### **Fiber Termination**

Insert the tail sleeve, and strip the optical cable for about 40-50mm.

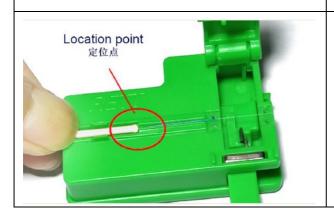
Peel off the coating using the coating stripper.

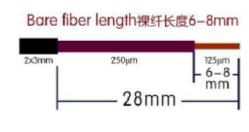




Clean the optical fibers with dust-free paper, then put the optical cable into the optical fiber cutter, and complete the standard end termination of optical fiber. Note: it is necessary using the matched cutter to cut the optical fiber, as shown in the figure

After cutting, the bare fiber length shall not exceed 8mm. It can reduce rate of fiber breakage.

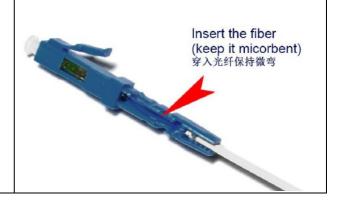




#### Assemble

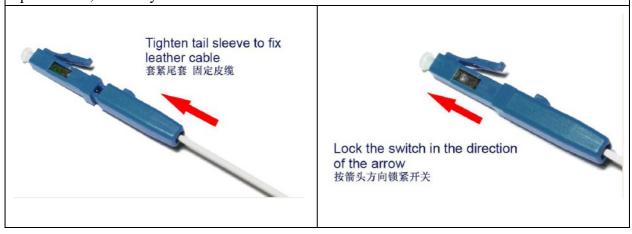
Insert the optical fiber to the positioning point and keep the optical fiber slightly bent.







Push the tail sleeve into the clamping point to lock the cable, move up the switch to dock the optical fiber, assembly finished.



# **Repetitive Assembly**

Steps: turn on the switch, press and hold the tail sleeve clamping point, push out the tail sleeve before pulling out the optical cable.



# **For More Information:**

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