



# Specification for QSC55K1-APC QSC55K1-UPC SC/APC Field Installable Connector (FIC Type 55)



Draft	Audit	Approve
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## Revision List

Revise Date	Author	Document Rev.	Modification Record
2019-05-10	Xu Jinhai	V1.0	First writing
2021-2-12	Liu Hongyu	V2.0	Add more detailed description & modify format
2022-08-11	Liu Hongyu	V2.0A	Update LOGO

Chongqing Lixun Communication Device Co., Ltd.

<http://www.lxftth.com>



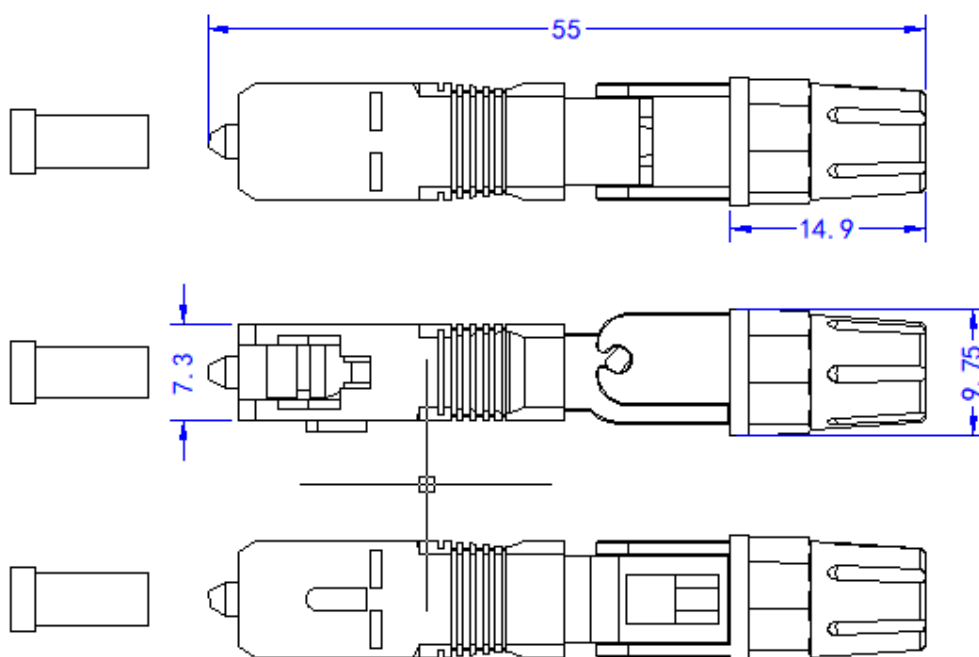
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## 1. Description

This specification defines the characteristics of SC/APC Field Installable Connector (FIC Type 50) with G652D fiber in a pre-polished SC/APC ferrule. This FIC is produced by Chongqing Lixun Communication Device Co., Ltd. which is designed to be used with butterfly drop cable of 3.0mmx2.0mm dimension and 3.0mm patch cable.

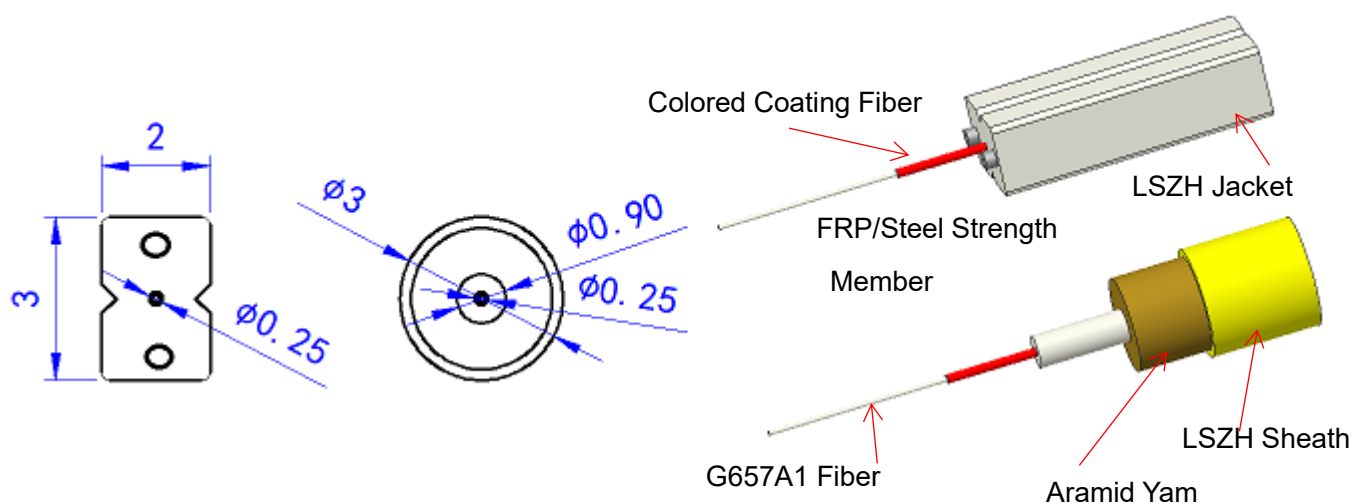
## 2. Outline Drawing of FIC

The outline of the FIC is as follows:



## 3. Outline Drawing of Cables

The outline of the fitted butterfly flat drop cable and 3.0mm simplex cable are as follows:



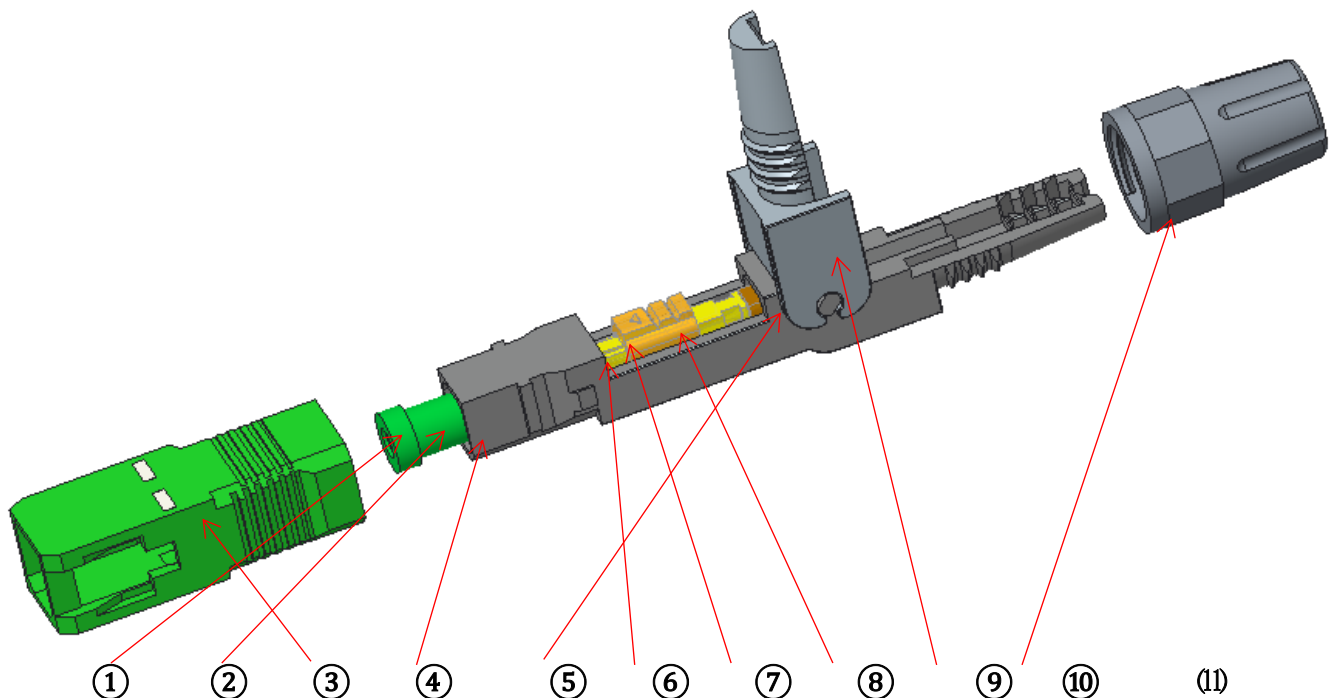
## 4. Construction:

The FIC comprises several parts as shown in the following drawing



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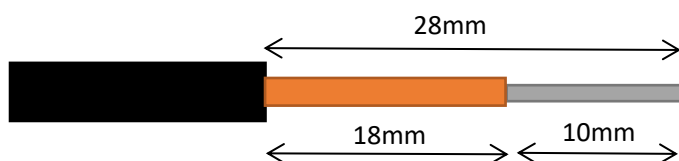


Part No.	Part Name
1	Dust Cap, APC:Green Color, UPC: Transparent
2	Pre-polished Ferrule
3	SC Coupling, APC: Green, UPC: Blue
4	Long Shell, Black
5	Spring
6 7 8	V Groove/Cover/Lock
9	FIC End Flip, Black Color
10	Screw End, Black

It is acceptable for customer to label their company logo or name, etc., by laser marking on the surface of FIC. It is also negotiable to change the color of FIC per customer's request. The standard color of main body of FIC is grey.

### 5. Fiber length

The length guide is a specially designed tool to help user to strip the fiber coating to the preset length. It has a ruler on itself to help user to strip to preset length effectively.



0.250mm Primary Coating: 28mm, and 0.125mm Bare Fiber: 10mm



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## 6. Overall Performance

**6.1 IL & RL:** The FIC fulfills the following spec. and insertion loss is tested 100%. The return loss is produced to be as low as -55dB, so the FIC could bring lowest disturbance to the FTTx system.

No.	Item Name	Description
1	Insertion Loss (dB)	Max.≤0.5dB, Typical≤0.3dB
2	Return Loss (dB)	Max. APC≤-50dB, Typical≤-55dB Max UPC≤-40dB, Typical≤-45dB
3	Ferrule End Face	A Zone no scratches at 400X
4	3D Interferometry	Complies to IEC 2009
5	Average Assembling Time	≤ 3 min
6	First-Time Done Yield Rate	≥ 95%
7	Re-Operation Times	Max. 5 times
8	Repeatability (±0.2dB)	≥ 90%
9	Appearance	No Defects
10	Drop cable Tensile Strength	>30N
11	Bare Fiber tension	3N

## 6.2 Polished ferrule standard

Class A Endface Test (400x)			File No.	WI-P3-02				
			Page	Page 1 (Total 1 Page)				
Client	Applicable Range	Product Type	Procedure					
All	SC/LC Endface	UPC/APC	Connector Endface Test					
			Detailed requirement (can be customized)					
			Zone	Acceptable characteristic			Unacceptable characteristic	
				Type	Size	Quantity		
			A	Any defects such as visible dirty, fragment concave, scratch are not allowable				
			B	Scratch	<2um width	2pcs	Fracture	
				Other unerasable defects	<5um width	3pcs		
			Glue circle	No requirement, Not control				
				Scratch	<5um width	1pcs	Fracture	
			C	Other unerasable defects	<10um	few pcs		Fracture
				Scratch	---	---	Fracture	
D	Other unerasable defects:	≤30um 30-50um	--- 5pcs	Fracture				
	Remarks: 1. Special requirements: Can be customized 2. Environment production requirements: No hazardous wastes is generated during production. 3. Safety requirements: Work protection is required during production process, etc. 4. Related files: Work instructions on Endface Test.							
By Liu Jian		Inspect: Liu Hongyu		Approval: Huang Xiayu				
Date: 2020-10-11		Date: 2020-10-11		Date: 2020-10-11				

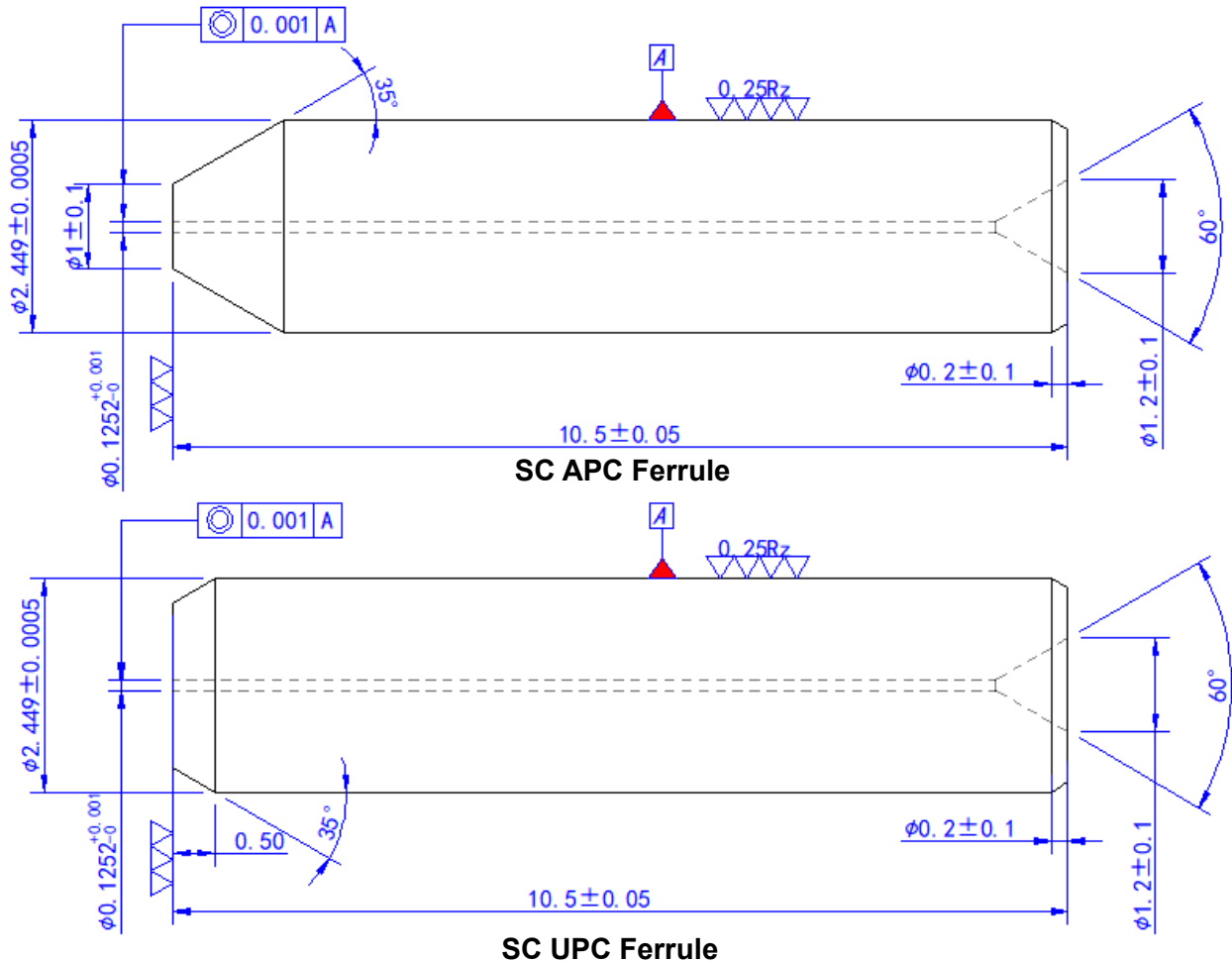
## 7. Material – Zirconia APC Ferrule

The conical type, Zirconia APC ferrule used in FIC shall meet the following dimensions or with



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better performance than the drawing here.



### 8. Material – FIC Housing & Dust Cap

The FIC shall adopt engineered resin that meet the demand of RoHS and could withstand the temperature changes of the spec. values.

### 9. Material – Matching Gel

The matching gel in FIC is well enough for 5-time re-operation in the field. The gel should also meet the RoHS requirement and providing superior optical performance

### 10. Working Conditions

The FIC could be operated normally during the following environmental conditions:

Item Name	Spec. Value
Operating Temperature	-20°C~+75°C
Storage Temperature	-40°C~+85°C





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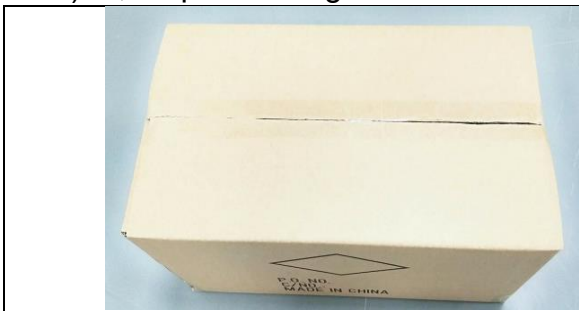
## 11. Packing

The FIC shall be packed according to the followings:

1) 10pcs in a small blister box, 10 blisters in a inner box.

		Size (cm)	14.7x7x1.5
		Q'ty (pcs/box)	10
		N.W. (g/pcs)	3.2
		Inner box size (cm)	15x12x7.6
		Inner box Q'ty (pcs)	100

2) 1,000pcs in a big carton

	Size(cm)	40x16.3x24.8
	Q'ty(inner	10
	Q'ty (pcs/carton)	1000
	N.W. (kg/carton)	3.2
	G.W. (kg/carton)	4.87

## 12. Warranty

If defective products are found and could be proved to be the responsibility of QingYing, then all the defectives will be replaced free of charge, within in 1 month.

## 13. Product Drawing:



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