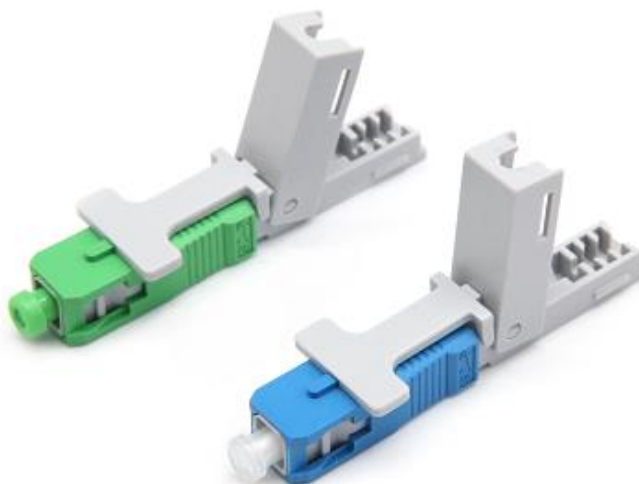




Specification for

QSC53KJ3-APC QSC53KJ3-UPC

Field Installable Connector (Type 53-3)



Prepared by	Proofread by	Approved by
Liu Jian	Liu Hongyu	Huang Xiaoyu

Revision List

Revise Date	Author	Document Rev.	Modification Record
2020-05-10	Zeng Xiaoyuan	V1.0	First writing
2021-8-4	Liu Hongyu	V2.0	Add more detailed description & modify format
2022-08-12	Liu Hongyu	V2.0A	Update LOGO

Chongqing Lixun Communication Device Co., Ltd.

<http://www.lxftth.com>

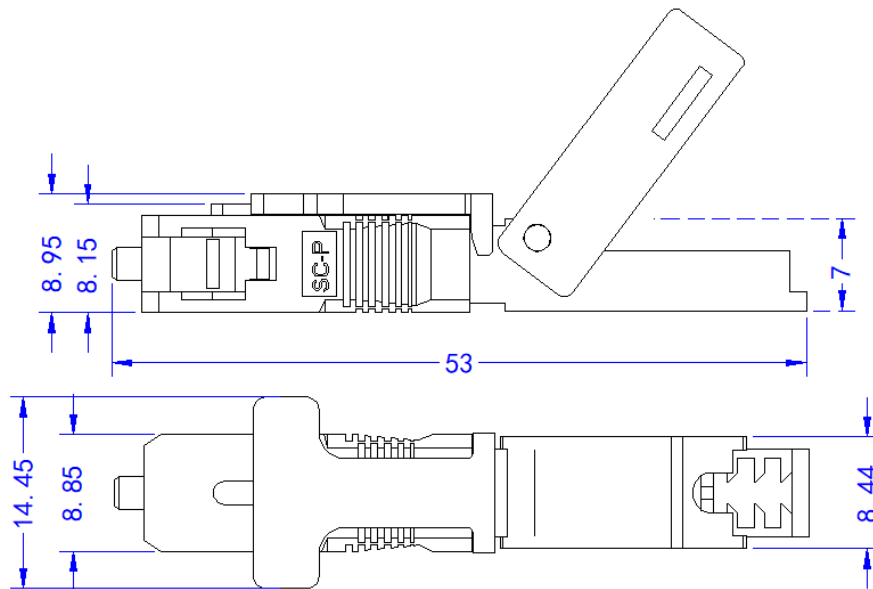


1. Description

This specification defines the characteristics of SC/UPC, SC/APC Field Installable Connector (FIC Type SC53-3) with G652D/G657A1/G657A2 fiber in a pre-polished SC ferrule (UPC or APC). This FIC is produced by Chongqing Lixun Communication Device Co., Ltd. which is designed to be used with drop cable of 3.0mmx2.0mm dimension.

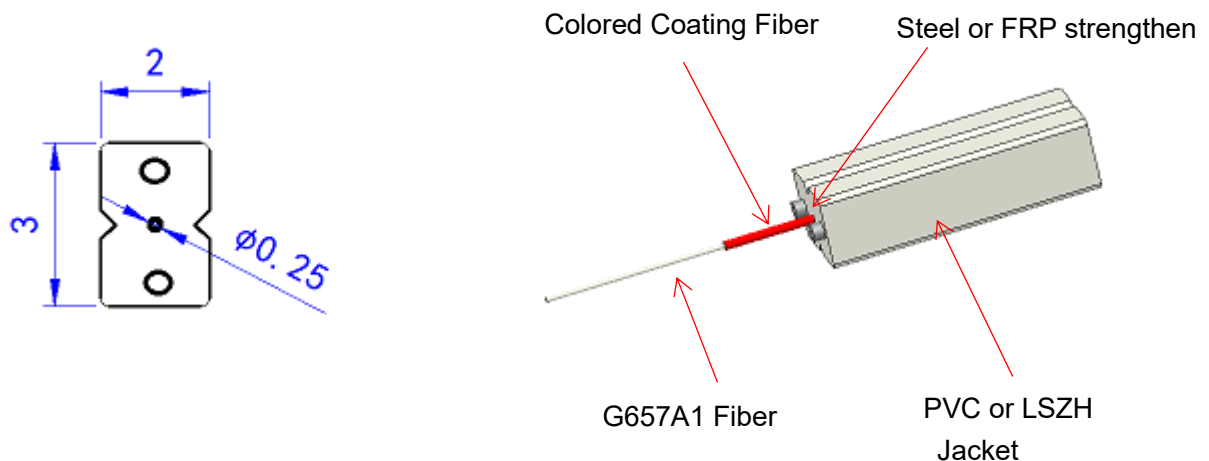
2. Outline Drawing of FIC

The outline of the FIC is as follows:



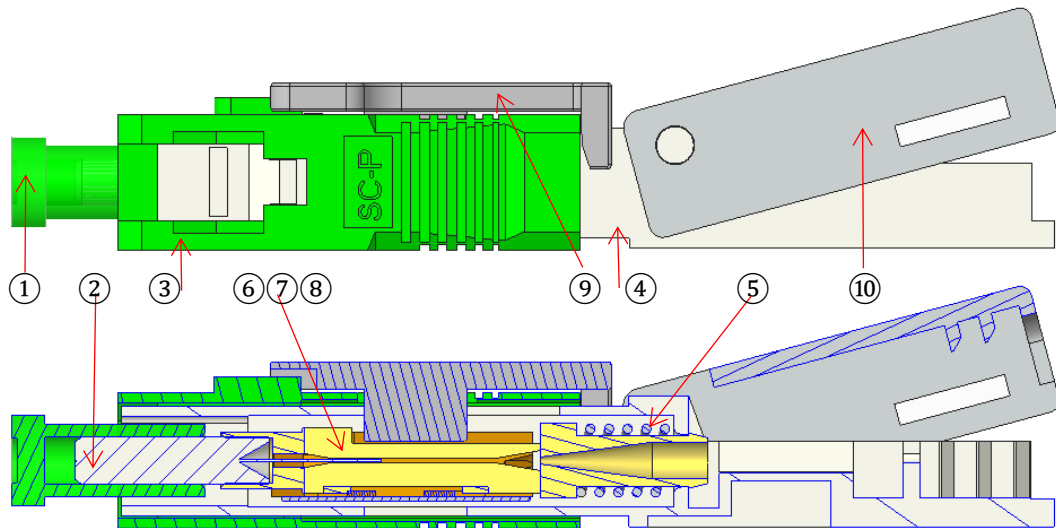
3. Outline Drawing of Cables

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



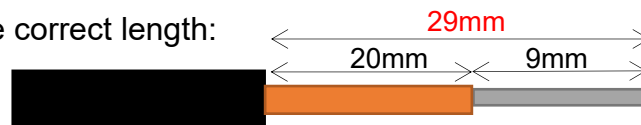
Bill of materials

Part No.	Part name	Description
①	Dust cap	PE, UPC:Transparent, APC:Green
②	Pre-polished ferrule	Zirconia ceramic, embedding with G657A1/G657A2/G62D/MM fiber as ordered
③	SC Housing	PBT/PC, UPC:Blue, APC: Green
④	SC Long shell	PBT/PC, White
⑤	Spring	SUS304
⑥⑦⑧	V-groove set	PEI, with V-groove, Cover, U Spring(SUS304)
⑨	Key	PBT/PC, White
⑩	Flip cover	PBT/PC, White

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 White.

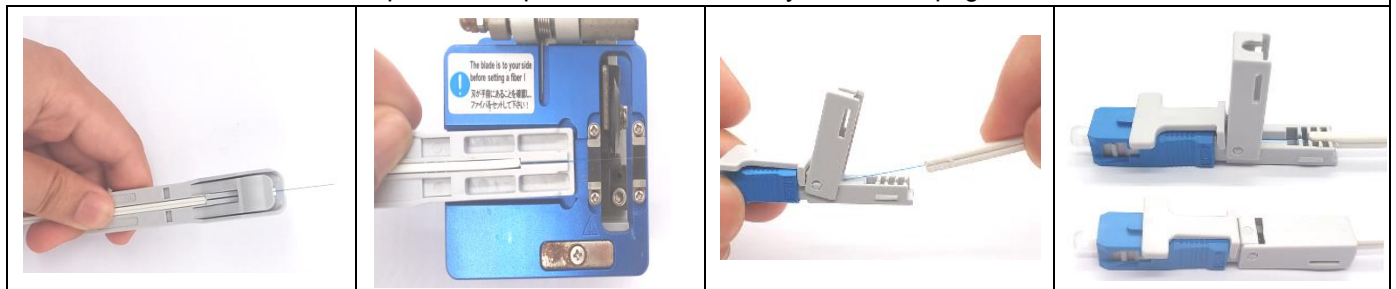
5. Cable Clamp

The cable clamp is the same clamp for Optical Fiber Splicing Machine, and use the following ruler to make correct length:



0.250mm Primary Coating: 20mm, 0.125mm Bare Fiber: 9 mm, total 29mm \pm 0.3mm

<How to Use>——Detailed procession please check assembly instruction page



Use the Guide part on the Optical Fiber Cleaver, be careful check the length mark, and make the fiber ready for assembling.

6. Overall Performance



The FIC fulfills the following spec. and Insertion Loss is tested 100%. The return loss is produced to be as low as APC: -55dB, UPC:45dB, so the FIC could bring lowest disturbance to the FTTx system.

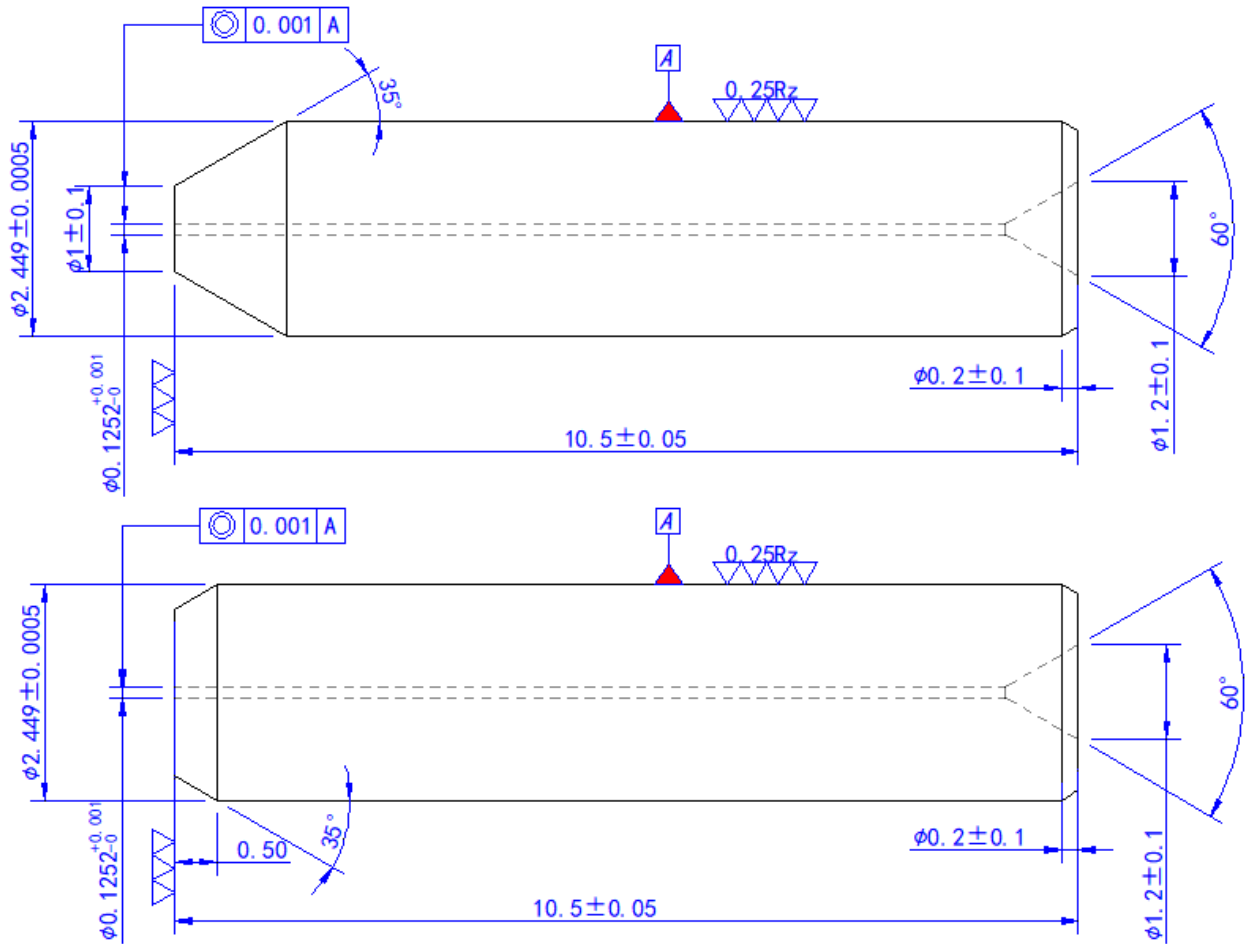
No.	Item Name	Description
1	Insertion Loss (dB)	Max.≤0.5dB, Typical≤0.3dB
2	Return Loss (dB)	Max. APC≤-50dB, Typical≤-55dB Max UPC≤-40dB, Typical≤-45dB
3	Ferrule End Face	A Zone no scratches at 400X
4	3D Interferometry	Complies to IEC 2009
5	Average Assembling Time	≤ 3 min
6	First-Time Done Yield Rate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

6.1 Polished connector surface

Class A Endface Test (200x)			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)	
			Acceptable characteristic	
			Type	Size Quantity Unacceptable characteristic
			A	Any defects such as visible dirty, fragment concave, scratch are not allowable
			B	Scratch <2um width 2pcs Other unerasable defects <5um width 3pcs Fracture
			C	Glue circle No requirement, Not control
			D	Scratch <5um width 1pcs Other unerasable defects <10um few pcs Long Fracture
			E	Scratch --- Other unerasable defects: ≤30um --- Long Fracture 30-50um 5pcs
			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 Xiaoyu
Date: 2020-10-11		Date: 2020-10-11		Date: 2020-10-11

7. Material – Zirconia APC Ferrule

The conical type, Zirconia UPC/APC ferrule used in FIC shall meet the dimension and performance of GR-326.



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



11. Packing

The FIC shall be packed according to the followings:

1) 10pcs in a small blister box

		Blister Size (cm)	14.7x7.0x1.45
		Q'ty (pcs/blister)	10
		Inner carton size(cm)	15.5*12.2*7.7
		Q'ty (blister/inner carton)	10
		Q'ty (pcs/inner carton)	100
		N.W. (g/each FIC)	3.2

2) 1,000pcs in a big carton

		Outer Carton Size(cm)	40x16.3x24.8
		Q'ty (inner box/outer carton)	10
		Q'ty (pcs/ outer carton)	1000
		N.W. (kg/outer carton)	3.2
		G.W. (kg/outer carton)	6.3

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 1 months.

13. Product Drawing

