



# Specification for QSC60K1-APC/UPC Field Installable Connector (FIC Type 60-1-0.9 **Add 0.9 Cable Holder**)



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
2022-08-13	Liu Hongyu	V2.0A	Update LOGO

Dongguan Qingying Industry Co., Ltd.

<http://www.qyftth.com>

<http://www.OpticPatchCord.com>

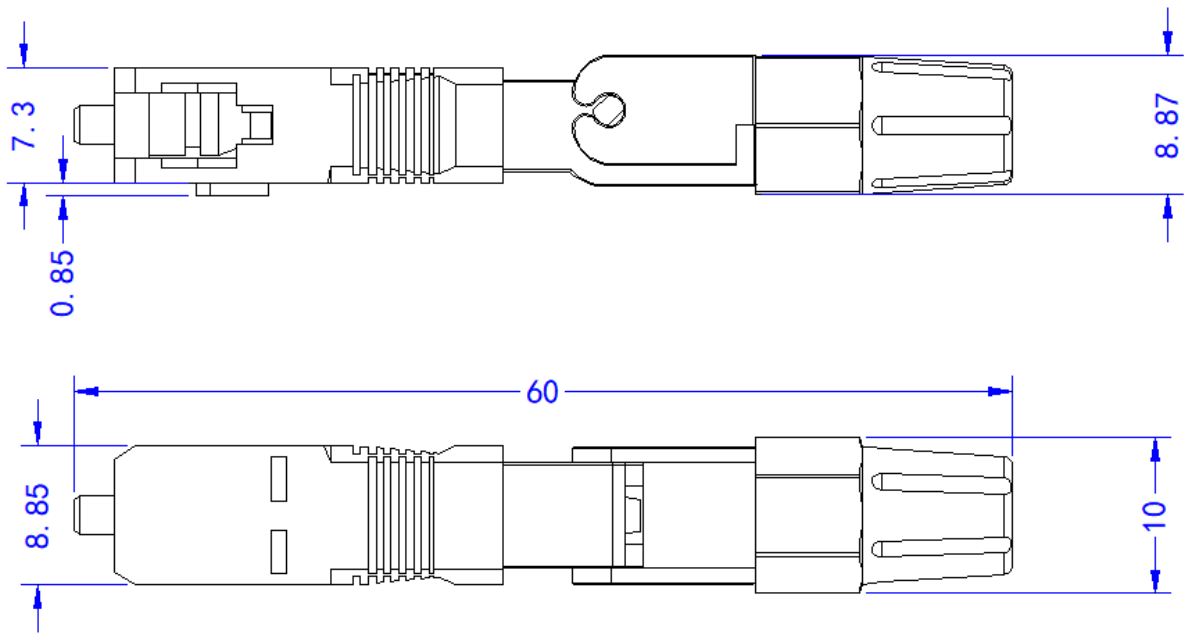


## 1. Description

This specification defines the characteristics of SC/APC & SC/UPC Field Installable Connector (FIC Type 60) with G652D fiber in a pre-polished SC ferrule. This FIC is produced by Dongguan QingYing Industry Co., Ltd. which is designed to be used with butterfly drop cable of 3.0mmx2.0mm dimension and 3.0mm patch cable, with small 0.9 holder part, can be used on 0.9 buffered cable.

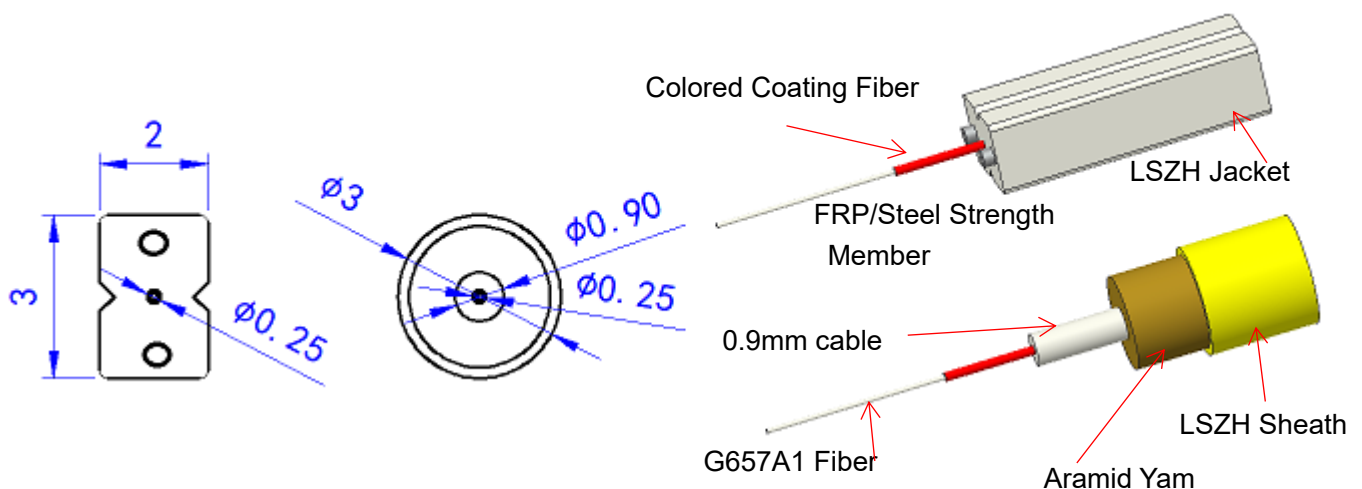
## 2. Outline Drawing of FIC

The outline of the FIC is as follows: (the 0.9 cable Holder please check the drawing)



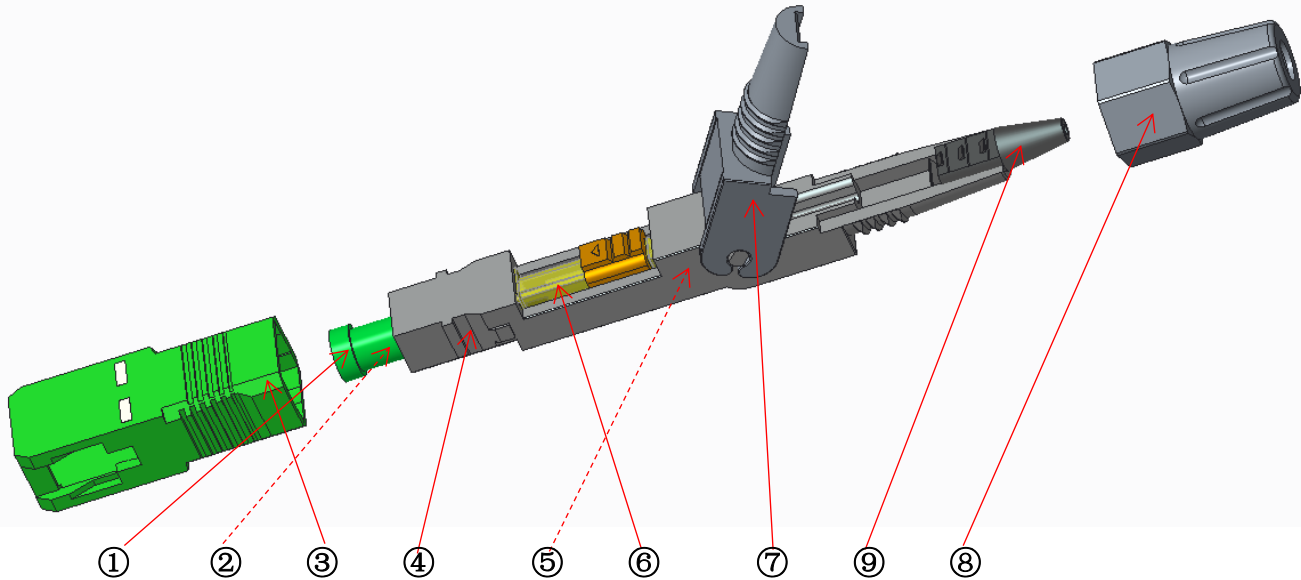
## 3. Outline Drawing of Cables

The outline of the fitted butterfly flat drop cable and 3.0mm simplex cable are as follows:  
**This model add 0.9 buffered cable holder, also suitable for 0.9 cable.**



## 4. Construction:

The FIC comprises several parts as shown in the following drawing

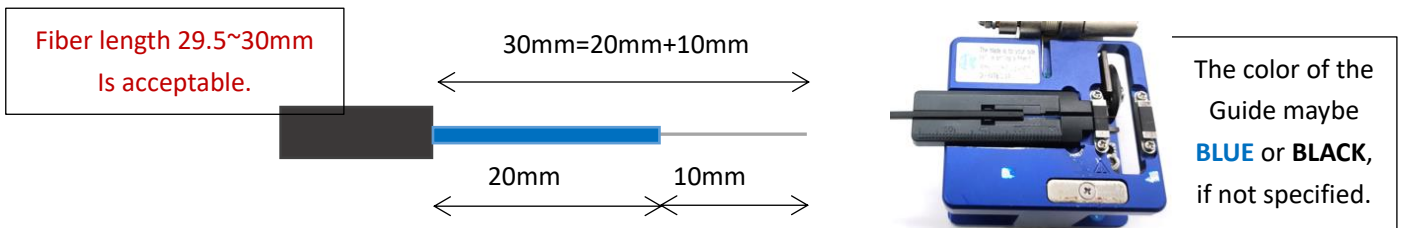


No.	Part name	Description
1	Dust cap	PE, APC:Green Color
2	SC Ferrule	Zirconia ceramics, embedding with G657A1/G657A2/G62D fiber or ordered
3	SC Housing	PBT, APC: Green
4	Long Shell	PBT/PC, Black
5	Spring	SUS304
6	V set	PEI, Groove/Cover/Lock
7	End Flip	PBT/PC, Black Color
8	Screw cap	PBT/PC, Black
9	<b>0.9 Holder</b>	<b>Rubber, Black</b>

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 black.

### 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: 20mm, and 0.125mm Bare Fiber: 10 mm

### 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 -55dB, so the FIC could bring lowest disturbance to the FTTx system.



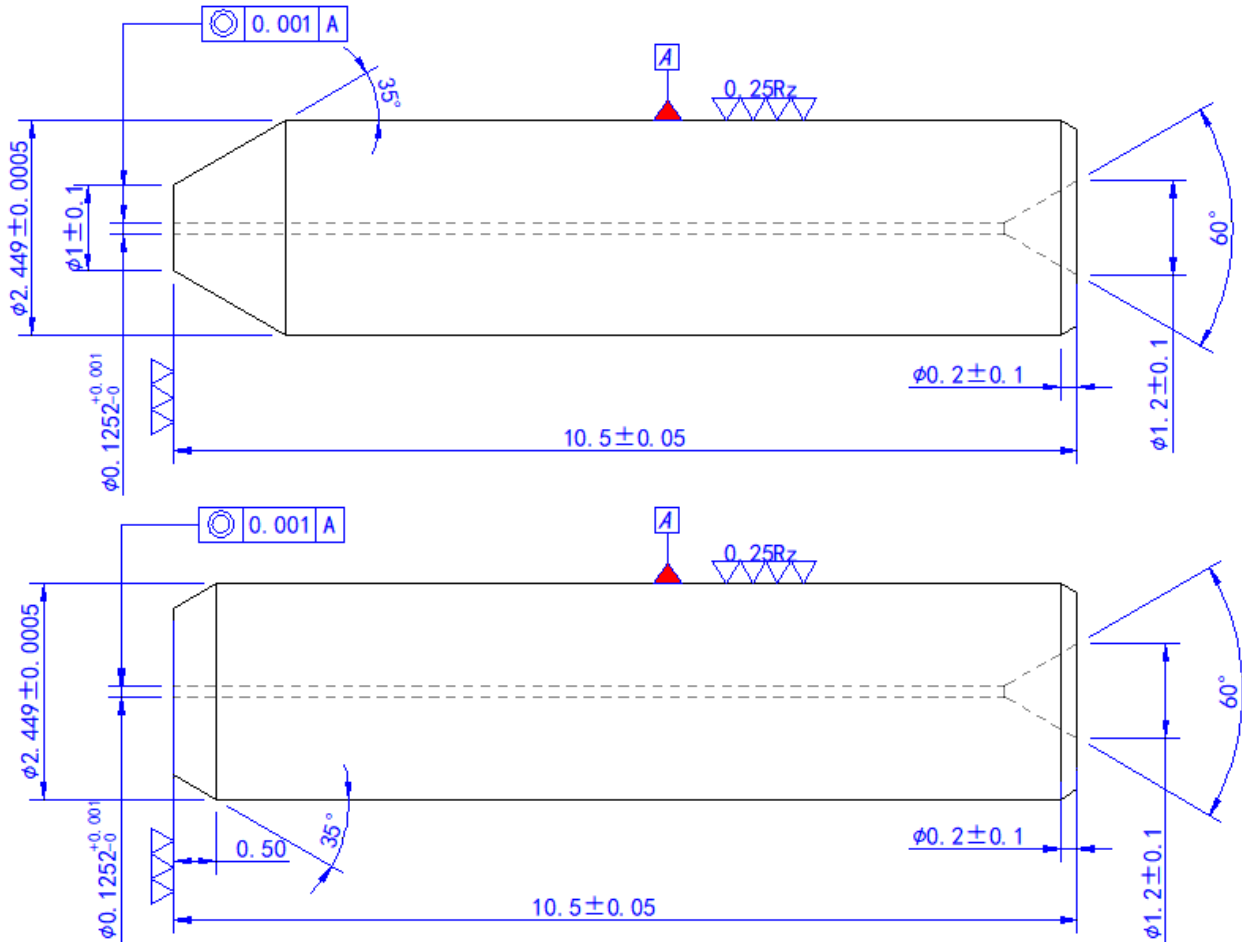
No.	Item Name	Description
1	Insertion Loss (dB)	Max.≤0.5dB, Typical≤0.3dB
2	Return Loss (dB)	Max.APC≤-50dB, Typical≤-55dB Max UPC≤-40dB, Typical≤-45dB
3	Ferrule End Face	A Zone no scratches at 400X
4	3D Interferometry	Complies to IEC 2009
5	Average Assembling Time	≤ 3 min
6	First-Time Done Yield Rate	≥ 95%
7	Re-Operation Times	Max. 5 times
8	Repeatability (±0.2dB)	≥ 90%
9	Appearance	No Defects
10	Tensile Strength	>50N for drop cable, 10N for 0.9 cable

### 6.1 Polished connector surface

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	
C	Glue circle No requirement, Not control						
	Scratch	<5um width	1pcs	Fracture			
D	Other unerasable defects	<10um	few pcs		Fracture		
	Scratch	---	---				
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 UPC/APC Ferrule

The conical type, Zirconia UPC/APC ferrule used in FIC shall meet the following dimensions or with better performance than the drawing here.



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

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:

Operating Temperature	-40°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, 10 blisters in a inner box.



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Blister Size (cm)	14.7x7x1.5
Q'ty (pcs/blister)	10
N.W. (g/pcs)	3.15
Inner box size (cm)	15x12x7.6
Inner box Q'ty (pcs)	100

#### 2) 1,000pcs in a big carton (10 inner boxes per carton)



Size(cm)	40x16.3x24.8
Q'ty(inner boxes/carton)	10
Q'ty (pcs/carton)	1000
N.W. (kg/carton)	3.97
G.W. (kg/carton)	4.87

The package contains: products, process instruction, and agreed proportion of guide tool.

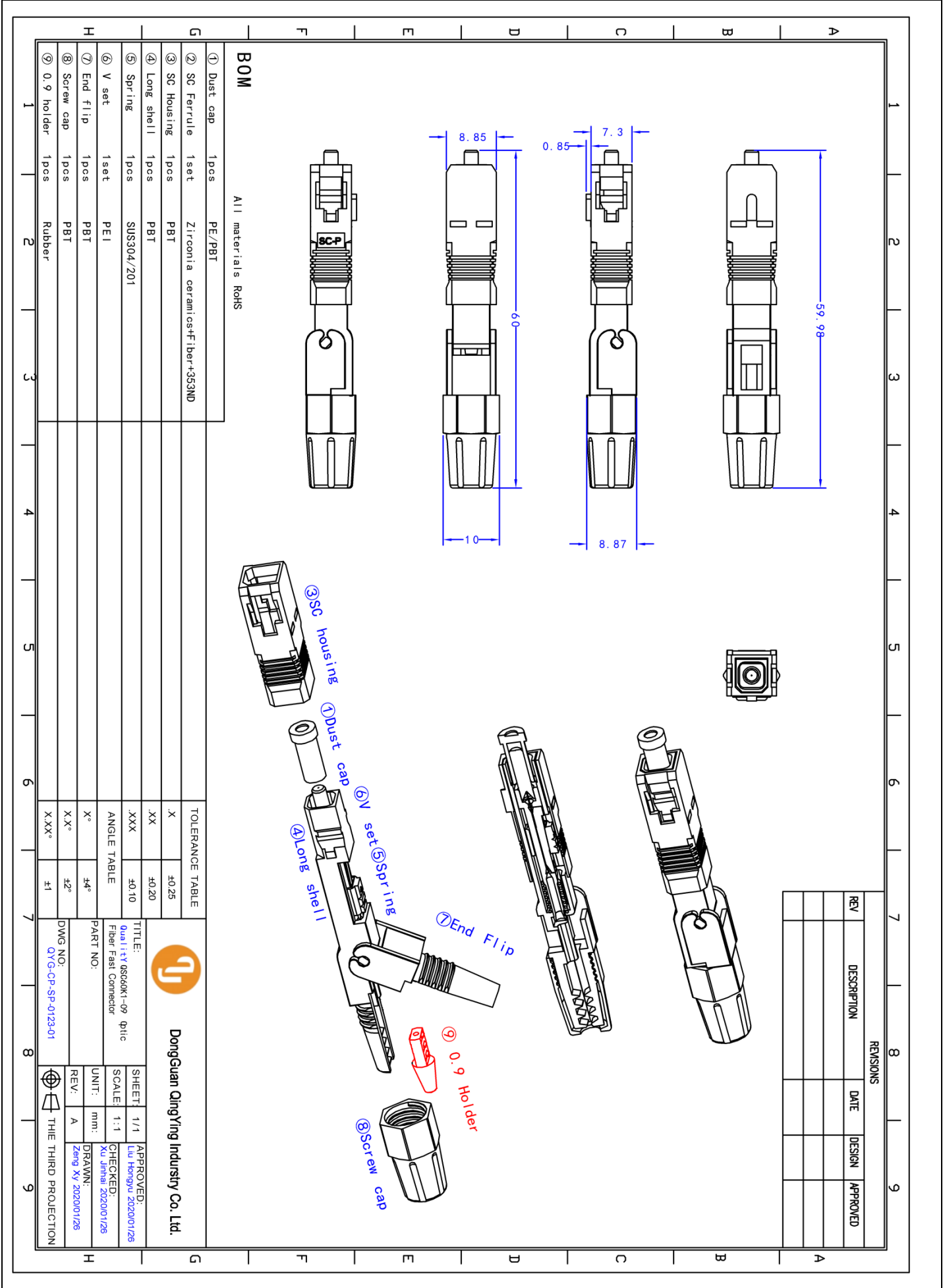
## 12. Warranty

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 month.

## 13. Product drawing:



QSC60K1-0.9 SC Type optic fiber fast connector specification



**BOM**

All materials RoHS

①	Dust cap	1pcs	PE/PBT
②	SC Ferrule	1set	Zirconia ceramic+fiber+3S3ND
③	SC Housing	1pcs	PBT
④	Long shell	1pcs	PBT
⑤	Spring	1pcs	SUS304/201
⑥	V set	1set	PEI
⑦	End flip	1pcs	PBT
⑧	Screw cap	1pcs	PBT
⑨	0.9 holder	1pcs	Rubber

TOLERANCE TABLE	
X	±0.25
XX	±0.20
XXX	±0.10
ANGLE TABLE	
X°	±4°
X.X°	±2°
X.XX°	±1

<p><b>Dongguan Qingying Industry Co., Ltd.</b></p>	
TITLE:	Quantity: QSC60K1-09 optic Fiber Fast Connector
PART NO.:	
DWG NO.:	QY-G-CP-SP-0123-01
SHEET:	1/1
SCALE:	1:1
UNIT:	mm
REV:	A
APPROVED:	Liu Hongyu 20200126
CHECKED:	Xu Yinhai 20200126
DRAWN:	Zeng Xy 20200126
THE THIRD PROJECTION	

REVISIONS				
REV	DESCRIPTION	DATE	DESIGN	APPROVED