

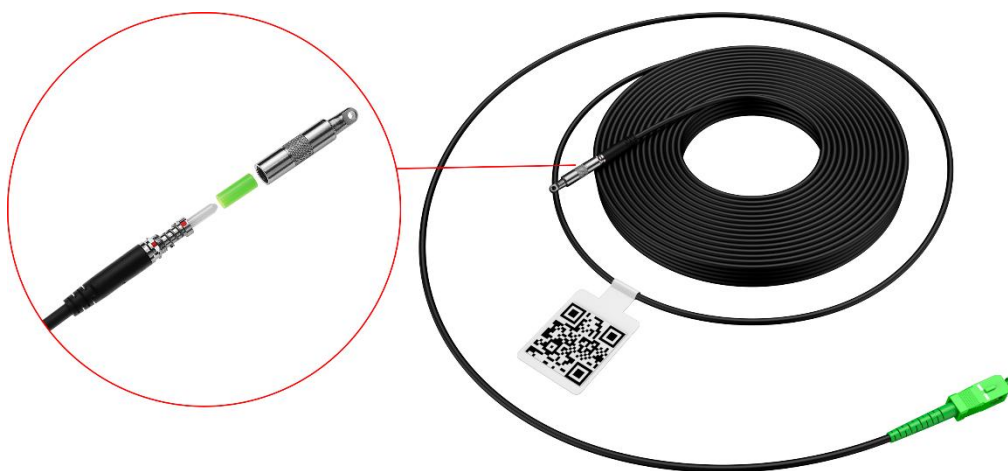
■Product Information

Product Name: SM Bullet Simplex Patch Cord (DSCA-SCA)

Product Model: Bullet Fiber optical drop connectorized, 1F G657B3 ϕ 3.0mm Cable, SCA/SCA

■Description

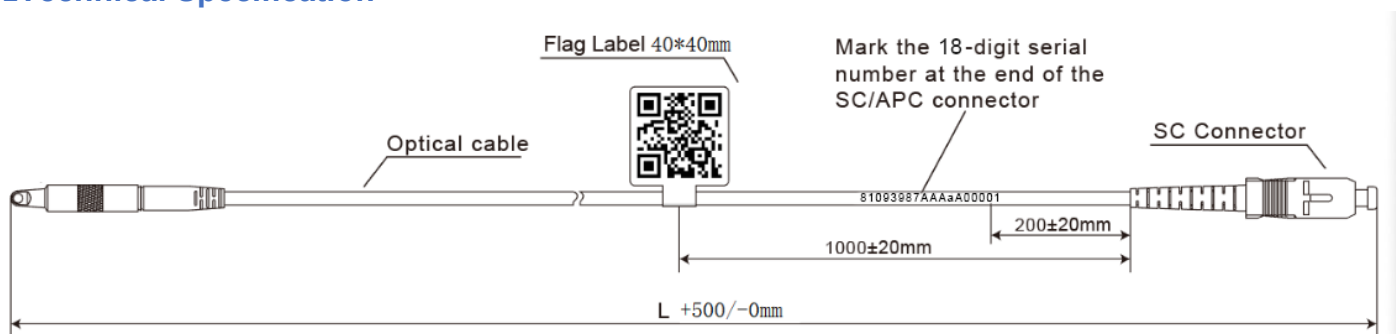
The SM bullet simplex patch cord can be installed by a traction rope onto its head. Pulling the connector with cable to get through the narrow duct. It has advantages of small volume, strong tensile and convenient installation. And widely using in micro-duct and wall traction etc.



■Product Features

- ▶ The SCAPC connectors assembled on site can be used for traction construction.
- ▶ Small size easy to get through narrow pipes.
- ▶ The Assembling SCAPC connectors protected by metal parts. Its upper end have a hole from which a guide wire can be attached in order to be pulled, Which is able to be pulled over free and occupied ducts
- ▶ 100% optically tested to ensure good performance
- ▶ Broad temperature range (-40-70°C) is ideal for indoor applications
- ▶ Application for outdoor and aerial installations

■Technical Specification



►Connector Material



SN	Part Name	Material	Remarks
1	Dust Cap	PE	Consistent with ROHS、REACH
2	Housing	PBT	
3	White inner shell	PBT	
4	Bullet Head	CU	
5	Ceramic Ferrule	Zirconia ceramics	
6	Ceramic Ferrule Tail peduncle	CU	
7	Spring	SUS304	
8	Stop dog	CU	
9-10	Black Boot (Used for Bullet-shaped connector) Green Boot (Used for SCAPC connector)	TPV	

►The connector optical Performance (Single mode cable)

Project	Spec.	Standard
Operating wavelength	1260~1650nm	Follow GR326-CORE and IEC Standard
APC Angle	$8^{\circ}\pm 0.3^{\circ}$	
Insertion loss	$\leq 0.3\text{dB}$ (Typical: 0.2dB)	
Return loss	≥ 60	
Repeatability	$\leq 0.1\text{dB}$	
Interchangeability	$\leq 0.1\text{dB}$	
Mechanical Durability	≥ 500 times	
Diameter of Bullet-shaped connector	5.9mm	
Tractive power	$\geq 150\text{N}$	
Attenuation change after traction	$\leq 0.1\text{dB}$	
Working temperature	-40-70°C	

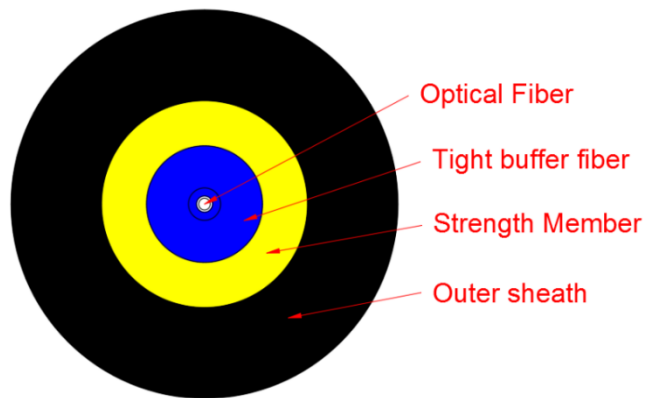
►Connector ferrule

	Diameter (mm)	Inner aperture (um)	Shape	Picture
APC-SM	2.449 ± 0.0005	125-126	Hole,cone	

►Environmental and Mechanical properties

Project	Test condition	Index
High temperature	85°C, 96H	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$
Low temperature	-40°C, 96H	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$
Temperature Cycle	-40~+85°C, 3.5H/Cycle, 40times loop	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$
Hot and humid	110°C, 90%RH, 2 atmospheric pressure, 96H	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$
Immersion	25°C, PH5.5, 168H	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$
Impact	1.8m, three axial, 8 times / axial	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$
Vibration	10 to 50HZ, 45 times /min, amplitude 0.75mm, three axial. Each axial 30min	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$
Reverse	Distance machine 20 to 28cm, 50N, ± 180 degrees, 6s/ times, 25 times	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$
Tensile	The distance from the plug is 20 to 28cm, 1min, the load is 70N for SC connector and 150N for SCAPC Bullet-shaped connector	$\Delta IL \leq 0.2\text{dB}$, $\Delta RL \leq 5\text{dB}$

■Optical Cable Spec.



►Cable Structure Parameter

Items		Descriptions
Optical Fiber	Fiber Type	Single mode - G.657B3
	Fiber count	1F G657B3
	Color	Blue
Tight buffer fiber	Material	LSZH
	Diameter	0.85±0.05mm
	Color	Blue
Strength Member	Material	Aramid yarn
Sheath	Material	FRTPU- Anti-UV

	Color	Black
	Diameter	3.0±0.1mm
weight ±5%KG/KM		9.0
span length		≥80m
Maximum wind speed resistance		50KM/H
Sag and / or sag performance		≤1%
Manufacturer core brand		CareFiber
Bobina drum from origin		3KM per Roller; Roller Size: (φ400-φ200) *H300mm

►Optical fiber G657B3

Items		Unit	Test Standard
Cladding diameter		μm	125.0±0.7
Cladding noncircularity		/	≤ 0.7%
Coating diameter-No color added		μm	245±5
Coating/cladding concentricity error			≤ 12
Zero dispersion slope		ps/(nm².km)	≤ 0.092
Zerodispersion wavelength		nm	1300~1324
Mode field diameter		μm	1310nm:8.6±0.4
			1550nm:9.6±0.5
Cut-off wavelength		nm	1260
Chromatic dispersion	1285 to 1340nm	ps/(nm*km)	-3.5~3.5
	@1550 nm		≤18
	1625 nm		≤22
Attenuation coefficient		dB/km	1310nm:≤0.35
			1550nm:≤0.21
			1625nm:≤0.23
Additional losses	1turn-5mm&1550nm	dB	≤0.15
	1turn-5mm&1625nm		≤0.45
	1turn-10mm&1550nm		≤0.03
	1turn-10mm&1625nm		≤0.1

►Mechanical and Environmental Characteristics

Items		Descriptions	
Tensile Strength	IEC 60794-1-2-E1	short-term	800N
		long-term	400N
Crush Resistance	IEC 60794-1-2-E3	short-term	1000N/100mm
		long-term	500N/100mm

Cable Impact	IEC 60794-1-2-E4	Attenuation change is less than 0.1dB
Repeat Bending	IEC 60794-1-2-E6	
Torsion to 180°	IEC 60794-1-E7	
Cable Bend	IEC 60794-1-E11	
Temperature Range	IEC 60794-1-2-F1	-40~70℃
Bending Radius	Static	10XCable Diameter
	Dynamic	20XCable Diameter
Operation temperature	℃	-25℃~+70℃
Installation temperature	℃	-10℃~+60℃
Storage temperature	℃	-40℃~+70℃

►Optical cable printing

- ① The cable will be provided with identifications and length marks located along the surface of the outer cover. Marking shall be carried out by means of an appropriate system which ensures legibility .which is indelible,weather-resistant and which is perfectly adhered to the basic material.
- ② The colour of the marking shall preferably be white
- ③ The actual length of the cable must be within+1.0/-0.0%of the length indicated by the sequential markup.
- ④ Printed content:

■Packing

►The product packaged independently in self-sealing bag

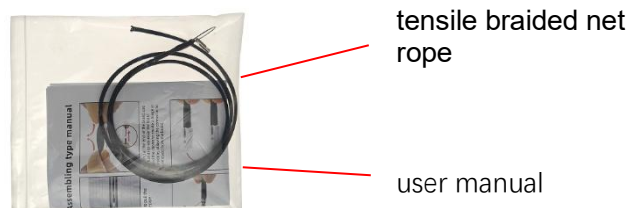
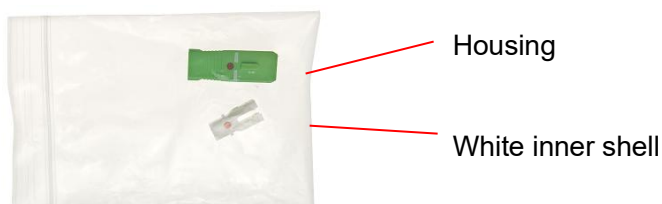
- ①The Patch Cord packed into the bag along with the mounting accessories , See “ **Connector Material**”: Part Name-①、②、③



- ②Place the product label in the center of the self-sealing bag:

►Accessories Details

No.	Accessory Name	Match with patch cord	Descriptions
1	tensile braided net rope	1:100	L: 1000±30mm ; Tensile strength: ≥200N
2	user manual	1:100	
3	Housing	1:1	
4	White inner shell	1:1	



Operation Guide of the Drop cable

■Assembly method for Bullet-shaped connector

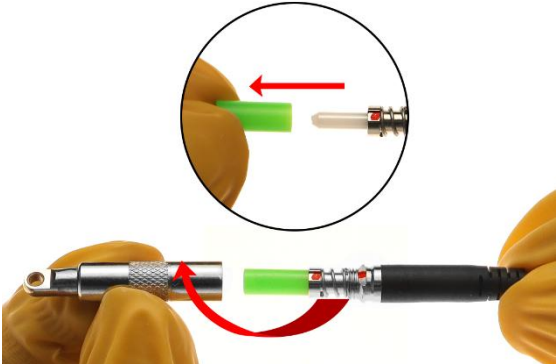
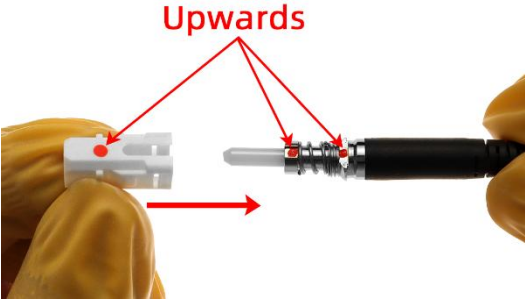
The Bullet-shaped connector is 1:1 configured with SC components for on-site assembly, as shown in the following figure:



►Assemble tensile braided net rope

1. Insert the through-wall connector into the braided mesh and use both hands to squeeze the mesh toward the center to make it bulge in the middle, allowing the connector to smoothly enter the mesh to the end.	2. Use the pull rope to pull the connector out of the pipe	3. Starting at the end of the braid, use both hands to squeeze the braid toward the center to create a bulge in the middle, allowing the connector to be removed from the braid.

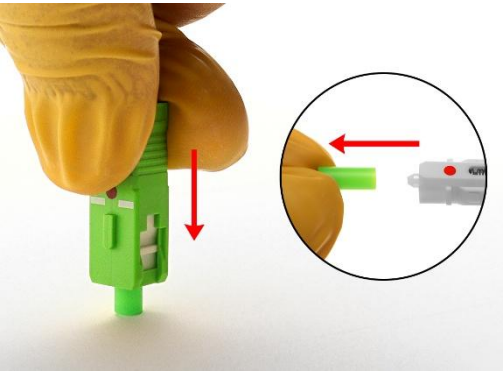
►Bullet-shaped Connector On-site Assembly Instructions

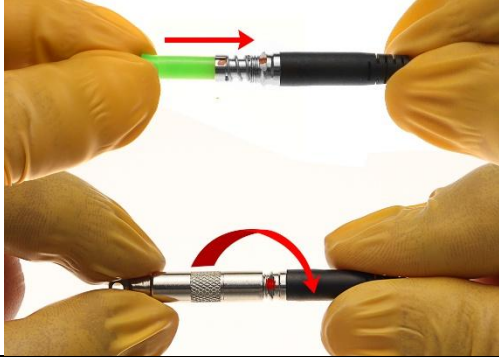
	
4. Remove the metal cap body then Remove the green Dust Cap	5. Install the white inner frame:Note that the red mark faces upwards
	
6.The installation of the white inner frame is completed then install the green Dust Cap	7. Install the outer frame: Make sure the red mark on the outer frame faces upwards

Note:

- ①The piece needs to be of the rotary type to prevent the optical cable from twisting during the traction process
- ②The connector tail sleeve and the stopper need to be fixed together and should not be separable.
- ③The core tail handle must have one slot to ensure the uniqueness of the assembly.

►Bullet-shaped Connector Restore to factory default state Instruction

	
8. Remove the green housing by pressing on the	9. Pinch the connector tail, twist the white inner to

connector and then remove the dust cap	loosen it, and then remove the white inner
	
10. Install the dust cap and tighten the bullet head	11. Restore to factory settings

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