

## PULLABLE PRE-CONNECTORIZED, MINI(SC) - BULLET SC/APC - 2x5.2MM FTTH DROP CABLE

- For FTTx Solution



### Product Description

This kind of Pro-connectorized FTTH patch cord assembly with CHINA ARTIC's Own Patent Bullet SC/APC connector, Mini SC/APC waterproof connector and G.657A2 Aerial self supporting 2x5.2mm FTTH LSZH Flat Drop cable.

This Bullet SC/APC connector can be threaded through a Pipe with Inner Diameter > 6mm. This is a last cable in FTTH project. It will be used between FAP box, FTB, FDB, Face plate and ONU/ONT tec.

With easy accessibility to the fiber and simple installation, this kind of FTTH drop patch cable can be directly connected to the housing rooms.

## Optical Parameter

|                              |                        |                                        |                    |
|------------------------------|------------------------|----------------------------------------|--------------------|
| <b>Connector</b>             | Mini IP (SC)-Bullet SC | <b>Polish</b>                          | APC-APC            |
| <b>Fiber Mode</b>            | 9/125μm, G657A2        | <b>Jacket Color</b>                    | Black              |
| <b>Cable OD</b>              | 5.2(±0.2)*2.0(±0.1) mm | <b>Wavelength</b>                      | SM:1310/1550nm     |
| <b>Cable Structure</b>       | Simplex                | <b>Jacket Material</b>                 | LSZH               |
| <b>Insertion Loss</b>        | ≤0.3dB(IEC Grade C1)   | <b>Return loss</b>                     | SM APC ≥ 60dB(min) |
| <b>Operation Temperature</b> | -10 ~ +70°C            | <b>Install&amp;Storage Temperature</b> | -40 ~ +70°C        |

## End-face Quality

| Zone               | Range (μm) | Scratches | Defects | Reference           | SM APC                                                                              |
|--------------------|------------|-----------|---------|---------------------|-------------------------------------------------------------------------------------|
| A: Core            | 0 to 25    | None      | None    | IEC 61300-3-35:2015 |  |
| B: Cladding        | 25 to 115  | None      | None    |                     |                                                                                     |
| C: Adhesive        | 115 to 135 | None      | None    |                     |                                                                                     |
| D: Contact         | 135 to 250 | None      | None    |                     |                                                                                     |
| E: Rest of ferrule |            | None      | None    |                     |                                                                                     |

## ARTIC's Own Patent Bullet SCAPC connector



- 1, Bullet SC Connector cap
- 2, Ferrule Cap
- 3+4, Housing Body
- 5, Ferrule
- 6, Spring
- 7, Stop
- 8, Crimp Ring
- 9, Boot

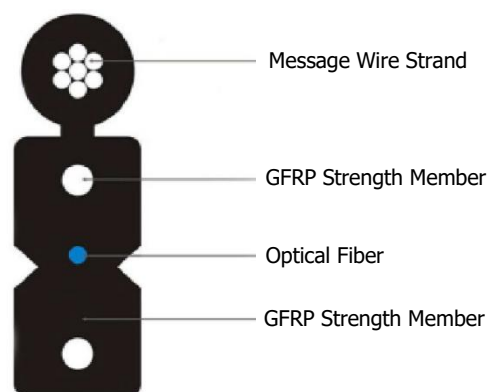
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|-----------------------------------------|------------------------------------------------------|
| <b>Pulling Eye Force</b>                | 150N-200N                                            |
| <b>Bullet SC Connector Cap Material</b> | SUS304                                               |
| <b>Boot</b>                             | 3.0mm                                                |
| <b>Drop Cable</b>                       | Round Drop Cable: 3.0mm & Flat Cable: 2x3mm; 2x5.0mm |

### Mini IP (SC APC) Connector



| Item No.                   | Description                                        |
|----------------------------|----------------------------------------------------|
| Mini IP (SC/APC) Connector | SC/APC dust cover black                            |
|                            | SC/APC outer housing black                         |
|                            | SC/APC boot black                                  |
| Drop Cable                 | Round Cable:3.0mm-5.0mm or Flat Cable: 2x3mm 2x5mm |
| Housing Component          | FastConnect outer housing in black                 |

## 1F 2x5.2mm Aerial self Supporting FTTH Drop Cable



| Item                                    | Contents    | Unit    | Value                                  |
|-----------------------------------------|-------------|---------|----------------------------------------|
| Optical Fiber                           | Fiber Count | /       | 1(single mode) G657A2                  |
| Strength Member                         | Material    | /       | GFRP                                   |
|                                         | Diameter    | mm      | 0.5                                    |
| Messenger Wire                          | Material    | /       | Stranded Galvanized Steel Wire         |
|                                         | Diameter    | mm      | (7*0.33mm)-1                           |
| Outer Jacket                            | Diameter    | mm      | 2.0 x 5.3 mm / $\Phi \pm 0.2\text{mm}$ |
|                                         | Material    | /       | LSZH with UV / $\geq 0.4\text{mm}$     |
|                                         | Color       | /       | Black                                  |
| Tensile Performance                     | Short Term  | N       | 600                                    |
|                                         | Long Term   | N       | 300                                    |
| Crush                                   | Short Term  | N/100mm | 2200                                   |
|                                         | Long Term   | N/100mm | 1000                                   |
| Min. Bending Radius (Without messenger) |             | mm      | Static: 20mm; Dynamic: 40mm            |
| Life time                               |             | Years   | 25                                     |
| Span                                    |             | Meters  | 60                                     |
| Cable Weight (Approx.)                  |             | kg/km   | 22 $\pm$ 10% kg/km                     |

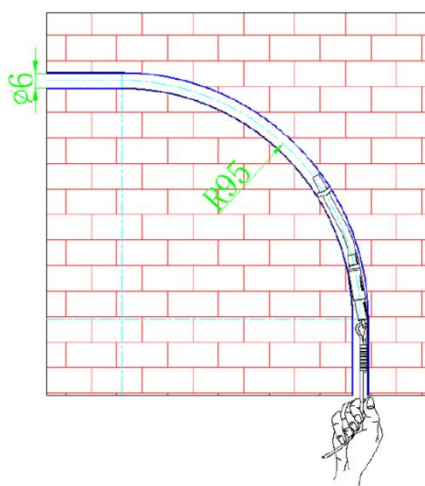
## Optical and Mechanical Performance of the Drop Cable

| OPTICAL CHARACTERIZATION OF CONNECTOR AND CABLE |                            |                                                                                                      |                                        |
|-------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------|
| Testing Items                                   | Standard                   | Data Request                                                                                         | Remark                                 |
| IL(Bullet SC )                                  | Telcordia GR-3120 2.4.1    | IL<=0.4dB Max                                                                                        |                                        |
| IL(Mini IP SC )                                 | Telcordia GR-3120 2.4.1    | IL<=0.4dB Max                                                                                        |                                        |
| RL(Bullet SC )                                  | Telcordia GR-3120 2.4.1    | RL>=60dB Min                                                                                         |                                        |
| RL(Mini IP SC )                                 | Telcordia GR-3120 2.4.1    | RL>=60dB Min                                                                                         |                                        |
| G657A.2 Cable                                   | IEC 60793-1-40             | 1310nm<0.35dB, 1550nm<0.21dB                                                                         |                                        |
| Cable Thermal Aging                             | Telcordia GR-3120, 4.2.1.1 | Temperature: 85°C Time: 168 h (7 days)                                                               | Cable Attenuation<0.01dB change        |
| CONNECTOR AND CABLE ENVIRONMENTAL TESTS         |                            |                                                                                                      |                                        |
| Testing Items                                   | Standard                   | Data Request                                                                                         | Remark                                 |
| IP68 water protection                           | Telcordia GR-3120, 4.2.4   | Depth: 10ft Time: 3h                                                                                 | TICW can do it in 1m water depth Only. |
| Thermal Aging                                   | Telcordia GR-3120, 4.2.1.1 | Temperature: 85°C Time: 168 h (7 days)<br>ConnectorIL≤0.1dB change                                   | Connector's IL≤0.1dB change            |
| Thermal Cycle Test                              | Telcordia GR-3120, 4.2.1.2 | Thermal cycling: -40°C a +75°C Number of cycles: 21 Time: 168 h (7 days)<br>ConnectorIL≤0.1dB change | Connector's IL≤0.1dB change            |
| CONNECTOR MECHANICAL TESTING                    |                            |                                                                                                      |                                        |
| Testing Items                                   | Standard                   | Data Request                                                                                         | Remark                                 |
| Mini SC                                         | GR-3120, 4.3.3             | Angle 0° Load 147N Time 60s Objective                                                                | Connector's IL≤0.15dB                  |

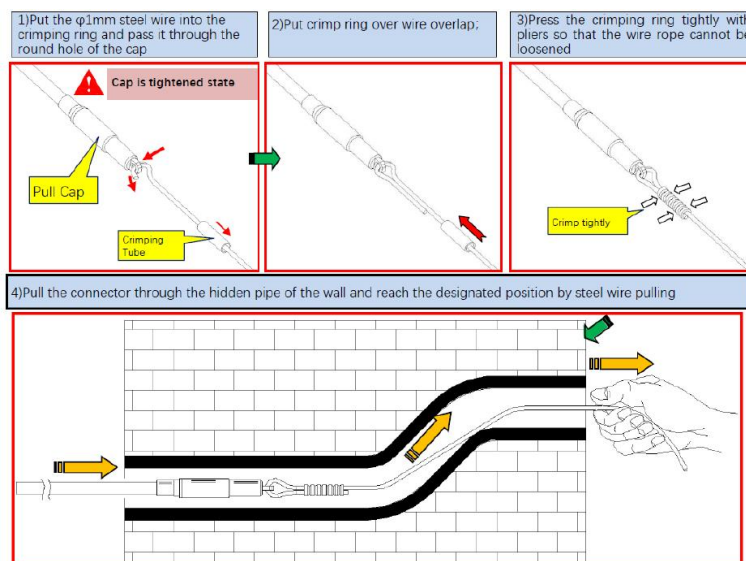
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|-----------------------------------------|--------------------|------------------------------------------------------------------------------------------|---------------------------------------------|
|                                         |                    | 0.15 attenuation change                                                                  | change                                      |
| Bullet SC                               | GR-3120, 4.3.3     | Angle 0° Load 200N Time 60s Objective<br>0.15 attenuation change                         | Connector's IL≤0.15dB<br>change             |
| <b>MECHANICAL TESTING OF CABLE Only</b> |                    |                                                                                          |                                             |
| Testing Items                           | Standard           | Data Request                                                                             | Remark                                      |
| Tension<br>Resistance                   | IEC-60794 1-21 E1  | Load: 600N, 10min measurement<br>uncertainty: 0.01 dB                                    | Cable Attenuation<br>change about 0.01dB    |
| Crush                                   | IEC-60794 1-21 E3: | Attenuation increment ≤0.1dB, @1550nm                                                    | Cable Attenuation<br>change<br>1550nm≤0.1dB |
| Impact                                  | IEC-60794 1-21 E4: | According to specifications 1J, R=12.5mm<br>Attenuation increment ≤0.1dB, @1550nm        | Cable Attenuation<br>change<br>1550nm≤0.1dB |
| Repeated<br>Bending                     | IEC-60794 1-21 E6: | Angle ± 90° Number of cycles: 100 Load:<br>150N Attenuation increment ≤0.1dB,<br>@1550nm | Cable Attenuation<br>change<br>1550nm≤0.1dB |
| Torsion                                 | IEC-60794 1-21 E7: | Angle ± 180° Number of cycles: 10 Load:<br>150N Attenuation increment ≤0.1dB,<br>@1550nm | Cable Attenuation<br>change<br>1550nm≤0.1dB |

## Application-Bullet SC APC Connector

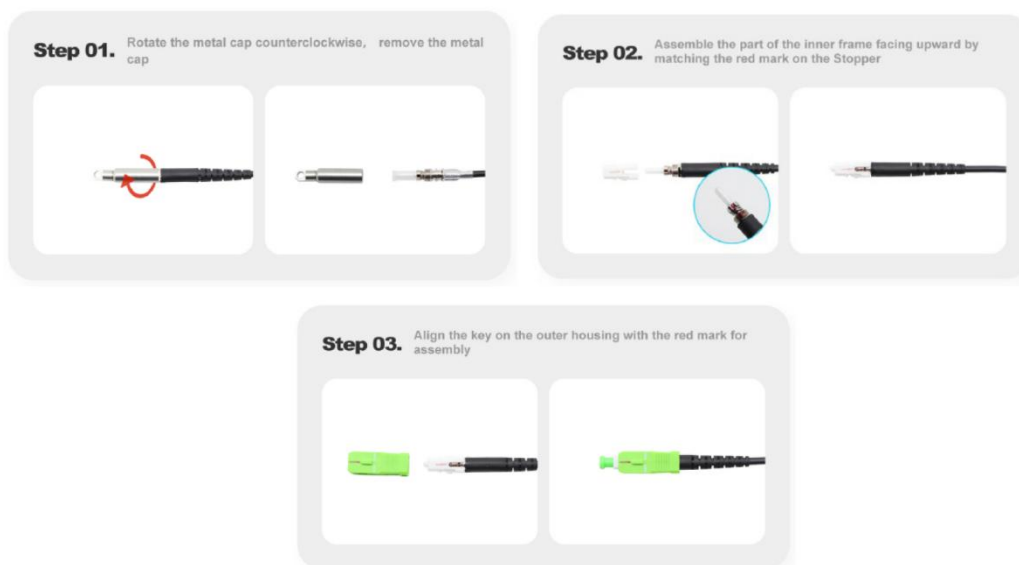
1, Suit for  
Pipe with Inner Diameter>6.5mm  
R>95mm



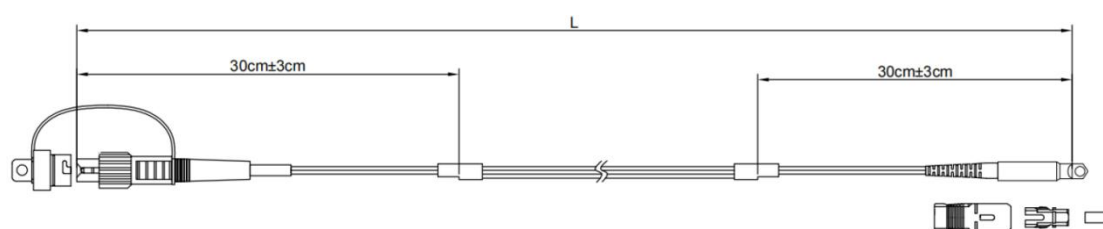
## 2, How to thread though Pipe in wall?



## 3, How to Assembly it in FTTH construction site?



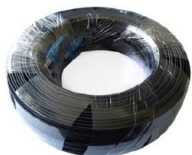
## Length Tolerance



| Overall Length(L) (m) | Length of Tolerance (cm) |
|-----------------------|--------------------------|
| 0<L<1                 | +5/-0                    |
| 1<L<10                | +10/-0                   |
| 10<L<40               | +15/-0                   |
| 40<L                  | +0.5% x L/-0             |

## Packaging

This easily taken and well-protected fiber patch cable package has been labelled and marked by ARTIC as default . Which carton to be used depends on goods Qty. Packing can be customized.



1, PE Wrap



2, Paper Carton



3, Fuming-free Pallet

| Length | Qty per box | Package box Dimension | Inner Hole Diameter |
|--------|-------------|-----------------------|---------------------|
| 30M    | 20pcs       | 365x365x265mm         |                     |
| 50M    | 20pcs       | 365x365x265mm         |                     |
| 80M    | 10pcs       | 450x230x265mm         |                     |
| 120M   | 5pcs        | 270x270x265mm         |                     |
| 150M   | 5pcs        | 270x270x265mm         |                     |
| 200M   | 5pcs        | 270x270x315mm         |                     |

| Length | Qty per box | Package box Dimension | Inner Hole Diameter |
|--------|-------------|-----------------------|---------------------|
| 30M    | 20pcs       | 380x380x280mm         |                     |
| 50M    | 20pcs       | 380x380x280mm         |                     |
| 80M    | 10pcs       | 520x260x290mm         |                     |
| 120M   | 5pcs        | 540x270x280mm         |                     |
| 150M   | 5pcs        | 540x270x280mm         |                     |
| 200M   | 5pcs        | 300x300x315mm         |                     |

## OEM Services:

- 1、Cable color, printing word, material of cable jacket, connector's color
- 2、OEM Label, Identify ring, cable's label, box, shipping marks.
- 3、Different quality Level.