



# **Technical Specification**

## **Swift Fusion Splice-on Connector**

### **(SC, 0.9mm)**

## 1. General

This technical specification describes the information for the components and the characteristics of Swift Fusion Splice-On Connector, SC, SM, 0.9mm tight buffered fiber.

## 2. Characteristics

### 2.1. Optical Characteristics

Process	Specifications (at 1310nm and 1550nm)	
Insertion Loss	Typ.	≤0.2dB
	Max	≤0.3dB
Return Loss	Min.	>50dB (UPC), >60dB (APC)

### 2.2. FSOC Fiber

Item	Specifications
Applicable Fiber	Singlemode Fiber ITU-T Rec. G.652 or G.657 Diameter: 250μm

### 2.3. Temperature Range

Item	Specifications
Storage Temperature	-40 ~ 80°C
Operational Temperature	-40 ~ 75°C

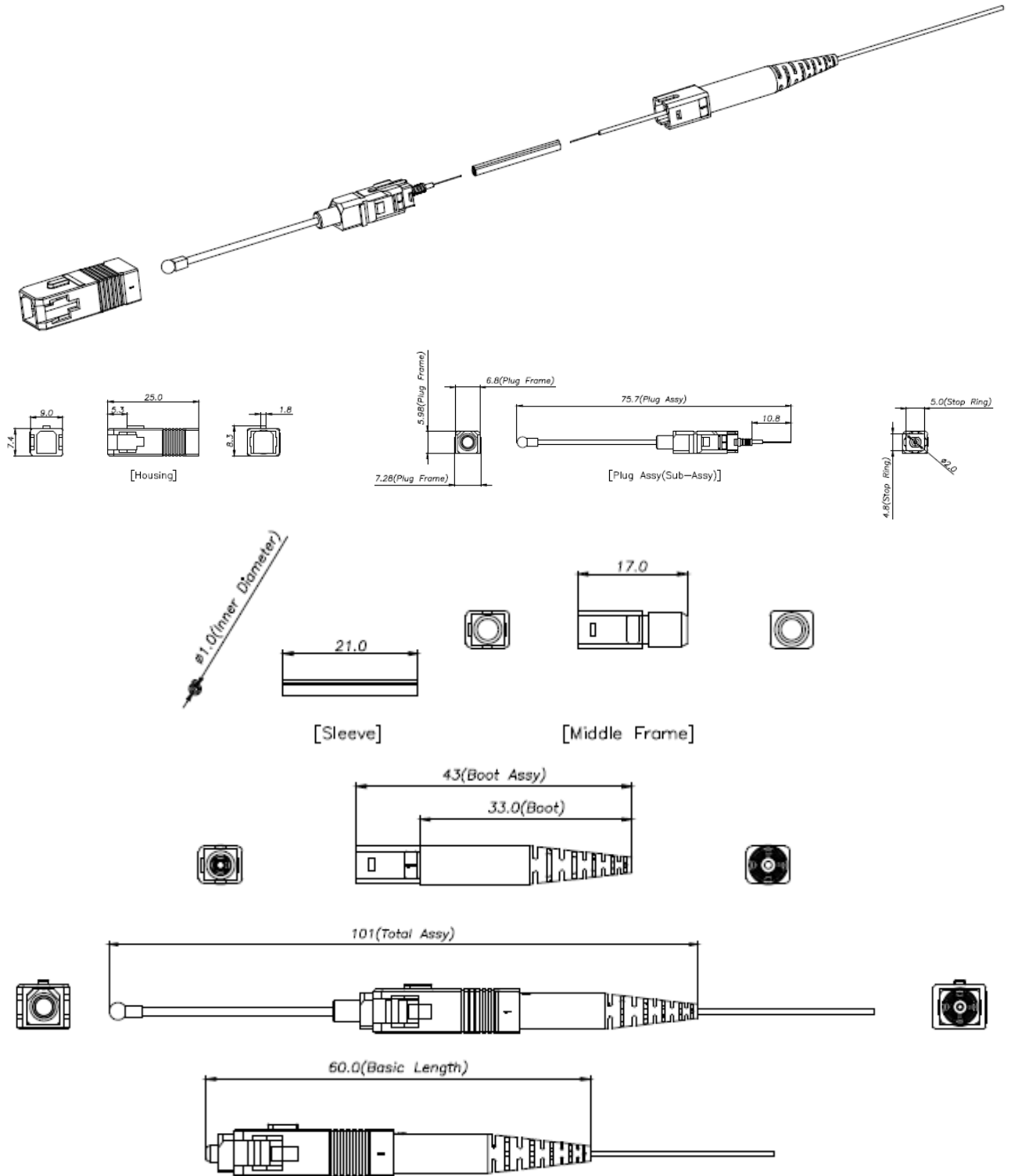
### 2.4. Mechanical and Environmental Characteristics

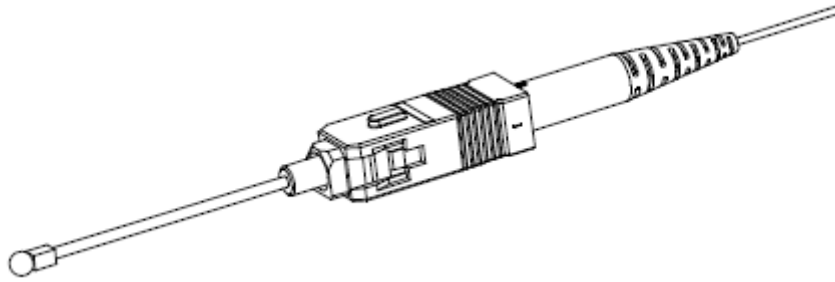
Test	Conformance	Method / Condition	Specifications
Mating Durability	IEC 61300-2-2 / GR-326-CORE, 4.4.3.8	No. of cycles: 200	Loss Increase ≤ 0.3dB Return Loss Decrease ≤ 5dB
Vibration	IEC 61300-2-1 / GR-326-CORE, 4.4.3.1	Freq. Range: 10Hz ~ 55Hz Duration: 2h/axis for 3 axis Sweep rate: 1 octave/min Amplitude: 1.5mm	Loss Increase ≤ 0.3dB Return Loss Decrease ≤ 5dB
Impact	IEC 61300-2-12 / GR-326-CORE, 4.4.3.7	8 drops 1.5m drop height	Loss Increase ≤ 0.3dB Return Loss Decrease ≤ 5dB
Transmission with Applied Tensile Load	IEC 61300-2-51 / GR-326-CORE, 4.4.3.5	Loads: 0.7kgf at 0°/90°, 0.25kgf at 135°	Loss Increase ≤ 0.5dB Return Loss Decrease ≤ 5dB
Thermal Cycle	GR-326-CORE, 4.4.2.2	-40°C±2°C to 75°C±2°C, 21 cycles, Dwell time: 1 hr at 23°C±2°C, Transition time: 1 hr	Loss Increase ≤ 0.3dB Return Loss Decrease ≤ 5dB
End face Geometry	GR-326-CORE, 4.4.5	Interferometer measurement	Apex offset: <50μm Radius of Curvature: 7~25mm (UPC) / 5~12mm(APC) Undercut/Protrusion: UPC: Undercut: -0.02R3+1.3R2-31R+325 (if ROC is 10~25mm), 125nm (if ROC is 7~10mm), Protrusion: ≤50nm, APC: Undercut/Protrusion ≤100nm APC Angular Tolerance: 7.850~8.050 degree

### 3. Standards

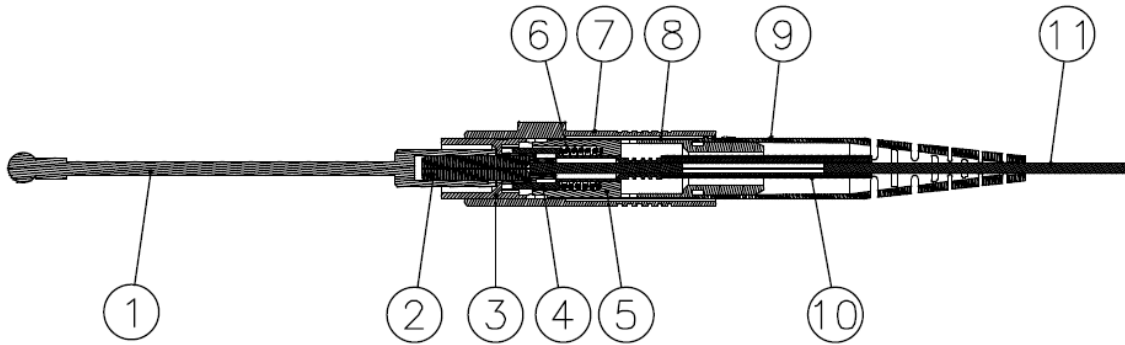
Swift Fusion Splice-On Connector, FSOC, SC 0.9mm type, complies with Telcordia GR-326-CORE, GR-1081-CORE, IEC 61754-4 and IEC 61300 Series.

### 4. Drawings





5. Components



1	Dust cap	2	Ferrule flange assembly
3	Plug frame	4	Ferrule bush
5	Stop ring	6	Spring
7	Housing	8	Heat shrinkable sleeve
9	Boot	10	Stopper
11	Optical fiber		