

# DATASHEET

## Fast Install Fiber Optic Connector

Adapted with Cable: 2.0/3.0mm Simplex cable/2x3 FTTH Drop Cable

Locking Method Included: Shell Types and Spiral Types

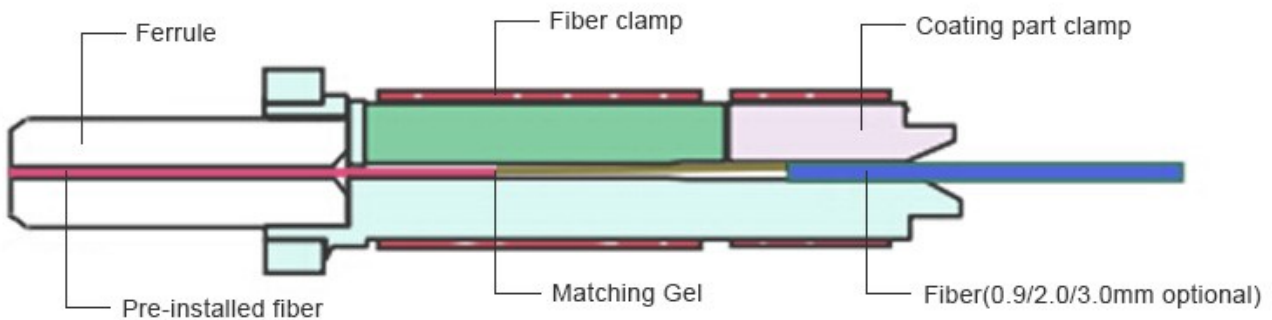


OMC INDUSTRY CO.LIMITED

**Fast installation connector** also be called Field install connector is a new kind of connector that could be used in FTTH project scene. They don't need to polishing, no epoxy. They could be installed in the field and make connection less than two minutes. Of course, It don't need fused the fiber. Just some little tools enough, so it could save time and cost.

The Fast Assembly Connector series are already a popular solution for optical wiring inside buildings and floors for LAN & CCTV applications and with the expansion of FTTH, is already proving itself to be the connector of choice by incumbents, municipalities, utilities & alternative carriers.

### Working principle



The Field Assembly Connector products have been factory-polished, eliminating the need for any polishing materials, thereby enabling the preparation and termination of optical fibers in a fraction of the time of other conventional methods. The connector also uses **Ceramic V-groove** mechanical splice principals and therefore the use of an epoxy is not required for the termination of the connector. This Fast Connector offers convenience in assembling and strong stability. It allows simple optical core connection without any additional practices, or adhesives. It does not require a working space by connecting itself in the challenging environments such as a telephone pole and a manhole. It reconnects the cables and reduces the connection defect rate by an installer error in the field.

### Key Component –V-Groove



V-groove is a small V shape channel. The input fiber will be connected with the embedded fiber of Connector in V Groove.

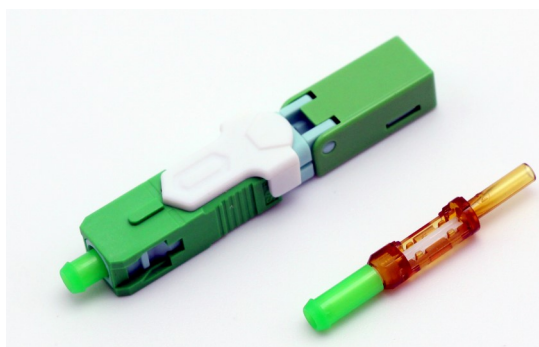
A good V-Groove have a Precise size to make sure the fiber lay at correct position. At the same time the V Groove should have a good body stable during different temp change for purpose of good connection in FTTH cabling. All of this can be satisfied with a Ceramic V-Groove.

OMC's New Generation SC Fast connector build in a high precise size V Groove to make sure high quality and stable Connection in FTTH project. This is a high Quality solution for FTTH.

### Products Family-Shell Types



Part No.: J-J-SSU-55



Part No.: J-J-SSA-55

Connector Type	SC	Polishing	UPC and APC
Ferrule	Ceramic	V-Groove	Ceramic Material
Cable Diameters	2.0x3.0mm FTTH Drop Cable 1.6x2.0mm FTTH Drop Cable	<b>Length</b>	<b>55mm</b>
Insertion Loss	$\leq 0.3\text{dB}(\text{typical}); \leq 0.5\text{dB}(\text{Max})$	Return Loss	UPC $\geq 40\text{dB}$ ; APC $\geq 50\text{dB}$
Tension Strength	$\geq 30\text{N}$	Operating Temp	$-40^{\circ}\text{C} \sim +75^{\circ}\text{C}$

### Products Family-Spiral Types



Part No.: J-L-SSU-54



Part No.: J-L-SSA-54

Connector Type	SC	Polishing	UPC and APC
Ferrule	Ceramic	V-Groove	Ceramic Material
Cable Diameters	2.0x3.0mm FTTH Drop Cable 1.6x2.0mm FTTH Drop Cable	<b>Length</b>	<b>54mm</b>
Insertion Loss	$\leq 0.3\text{dB}(\text{typical}); \leq 0.5\text{dB}(\text{Max})$	Return Loss	UPC $\geq 40\text{dB}$ ; APC $\geq 50\text{dB}$
Tension Strength	$\geq 30\text{N}$	Operating Temp	$-40^{\circ}\text{C} \sim +75^{\circ}\text{C}$



### 3D Interferometer

Type	Radius (mm)	Apex offset( $\mu\text{m}$ )	Fiber (nm)
PC ( $\Phi 2.5\text{ mm}$ )	10 ~ 25	$\leq 70$	-100~+100
APC ( $\Phi 2.5\text{ mm}$ )	5 ~ 15	$\leq 70$	-100~+100

### End face appearance

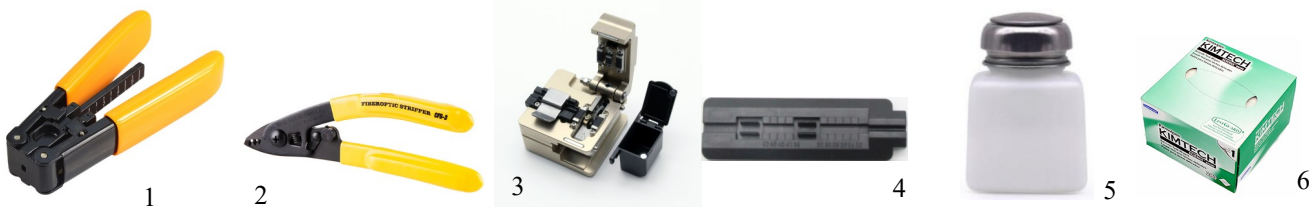
End face appearance tested by 200 times magnifying glass					
Test area		Standard			
area	area coverage	scratch	spot	shine spot/ white spot	crack
1	$\Phi 25\mu\text{m}$ within	not allowed	not allowed	no allowed	not allowed
2	$\Phi 25\mu\text{m} \sim \Phi 125\mu\text{m}$	width $\leq 5\mu\text{m}$ qty $\leq 3\text{pcs}$	Diam $\leq 5\mu\text{m}$ qty $\leq 3\text{pcs}$ .	not allowed	not allowed
3	$\Phi 125\mu\text{m} \sim \Phi 130\mu\text{m}$ (glue gap)	width $\leq 2\mu\text{m}$ , length $\leq 60\mu\text{m}$			
4	end face of ceramic( $\Phi 130\mu\text{m} \sim \Phi 250\mu\text{m}$ )	width $\leq 10\mu\text{m}$ qty $\leq 5\text{pcs}$ .	Diam $\leq 10\mu\text{m}$ qty $\leq 5\text{pcs}$ .	Diam $\leq 10\mu\text{m}$ qty $\leq 5\text{pcs}$ .	not allowed

### Environmental Specifications

Items	Requirements	Standards
Repeatability	Pull and Push 10 times	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage, as deformation cracking or relaxing and so on
High temp	+85C, 96h	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage. as deformation cracking or relaxing and so on
Low temp	-40'C, 96h	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage. as deformation cracking or relaxing and so on
Temp. cycle	-40C~+85C, 21Cycles, Total 168 h	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage. as deformation cracking or relaxing and so on
Damp and Hot	+75C, 95%, 96h	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage. as deformation cracking or relaxing and so on
Water Immersion	25 $\pm$ 2°C, 168h, Tap water	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage. as deformation cracking or relaxing and soon
Repeatability	5 times	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage, obvious scratch
Vibrate (Sine)	Frequency: 10-50Hz Scanning: 45times/min Amplitude: 0.75mm Half Time: three directions, 2h each	I1 range <0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage, obvious scratch
Drop	Height: about 1.5m, Times: 8	I1 range <0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage. as deformation cracking or relaxing and so on
Mechanical Durable	Pull and Push: 500 times	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage. as deformation cracking or relaxing and so on
Tension	Cable: 20N, online; Cable: 30N, offline, 2mins	I1 range 0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage. as deformation cracking or relaxing and so on
Torsion (Cable)	Load: 15N Rate: 10 times/min Times: 25	I1 range =0.3dB, R1 range $\leq 5\text{dB}$ No mechanical damage, as deformation cracking or relaxing and so on

### Installation introduction

Assembly of the connector requires only normal fiber preparation tools: a fiber stripping tool, wipes and a fiber cleaver. They don't need to polishing, no epoxy, No electrical power supply, no fused the fiber. Just Strip the buffer, cleave and clean the fiber and then insert the fiber into the Fast Connector. Installation takes just minutes and couldn't be easier.



### Related Tools:

- 1, FTTX Drop cable stripper, To strip the Bow type 2x3mm Drop cable
- 2, 0.9mm/2.0mm/3.0mm Fiber Cable Stripper. To Strip those round cable and bare fiber of 2x3mm Drop cable
- 3, Fiber cleaver to cut the fiber of Cable&Fiber
- 4, Use the Length guard board cut the fiber in requested length,.
- 5, Alcohol For Fiber Clean after cut
- 6, Cleanroom Wipes, for Fiber Clean after Alcohol Cleaned

### Feature:

- No epoxy and polishing required
- Quick and easy fiber termination
- Precision mechanical alignment insures low insertion loss
- Superior optical performance
- Streamlined component design, convenient operation
- Pre-installed, on-site assembly without end face grinding and consideration
- Uses proven, Ceramic V-groove technologies

### Application in FTTX:

- Fiber optic communication system and telecommunication networks
- Fiber optic data transmission
- CATV
- Optical access network
- Fiber to the Subscriber (FTTX) applications
- Optical cable interconnection
- Maintenance or emergency restoration of fiber networks
- Repair and replacement requirements
- Fiber optic equipment

### Package



Length guider for Fiber cut



10pcs in a Blister box



100pcs in a box

**OEM service is available**