FuseConnect™ LC Connector
- Fusion Spliced Field Installable Connector

1. Introduction

The FuseConnect™ LC connector is part of a series of field installable connectors that employs a fusion splicer to terminate the connector in the field. It is compatible with the standard LC connector, and demonstrates performance comparable to factory built jumpers.

Connector plug unit that is equipped with pre-polished connector can be easily set on fusion splicer for fusion splice connection purpose. Fusion splice addresses return loss concerns present in analog optical networks. This advanced process yields true APC performance of return loss in LC/APC configuration.

The unique and innovative design of FUSE connect eliminates the complicated crimping operation. The simplified field installation minimizes the potential for operator error.

### Compatible Fujikura’s fusion splicer models:
- FSM-60S / FSM-60R
- FSM-18S / FSM-18R
- FSM-17S-FH / FSM-17R
- FSM-11S / FSM-11R

### Simple installation process

1. Set cable and connector plug on fusion splicer and splice.
2. Slide splice sleeve over splice point.
3. Transfer to heater and heat shrink splice sleeve.
4. Assemble boot assembly and cut yarn.

2. Applications

- Connectorization in:
  - RF-overlay FTTP networks
  - Cable TV backbone network
  - Outside plant
  - FTTDesk
  - MDU FTTP Cabling
- Central office connector replacement
- Data center installation
3. Structure

3.1. FuseConnect™ LC for Ø2mm and Ø3mm cables

3.2. FuseConnect™ LC for Ø900μm fibers
4. Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector type</td>
<td>LC [IEC61754-20]</td>
</tr>
<tr>
<td>Cable type</td>
<td>900μm, 2mm, 3mm</td>
</tr>
<tr>
<td>Polish</td>
<td>APC, UPC, PC</td>
</tr>
<tr>
<td>Insertion loss</td>
<td>Single-mode: Average 0.15dB, Maximum 0.40dB Multimode: Average 0.10dB, Maximum 0.30dB</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>–20°C to +75°C</td>
</tr>
<tr>
<td>Environmental/mechanical characteristics</td>
<td>IEC 61753-1 category C</td>
</tr>
</tbody>
</table>

5. Performance Characteristics

<table>
<thead>
<tr>
<th>Test items</th>
<th>Test conditions</th>
<th>Connector loss</th>
<th>Return loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>High temperature test</td>
<td>85 deg C, 96 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low temperature test</td>
<td>-10 deg C, 96 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dump heat test</td>
<td>40 deg C, 95 %RH, 96 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature cycle test</td>
<td>-10 to 60 deg C, 5 cycle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vibration test</td>
<td>0.75mm, 10 - 55 Hz, 15cycle 1 octave / min , 3 axes</td>
<td>Max increase during and after test : 0.2dB</td>
<td>APC: Min 60dB</td>
</tr>
<tr>
<td>Flex test</td>
<td>2N, 100 cycle , ±90°</td>
<td></td>
<td>UPC: Min 45dB</td>
</tr>
<tr>
<td>Cable retention</td>
<td>900μm 5N , 60s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2mm/3mm</td>
<td>50N , 120s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact test</td>
<td>5 drops from 1.5m height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tensile strength of coupling mechanism</td>
<td>40N , 60s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mating durability</td>
<td>500 times</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Tool information

- Jacket Stripper
- Yarn Cutter
- φ 0.9Fiber Stripper
- Jacket Splitter
- Cable Clamp
7. Ordering information

FuseConnect-LC-SF-□□□□

① Fiber type
- APC : Single-mode; APC polished
- SM : Single-mode; UPC polished
- GI5 : Multimode 50µm; PC polished
- GI6 : Multimode 62.5µm; PC polished
- 10G : Multimode 50µm; PC polished

② Cable type
- 09 : φ900µm
- 20 : φ2mm
- 30 : φ3mm

8. Package Information:
10pcs / 1 package

9. References
IEC 61754-20
IEC 61753-1 category C

Important Notice
Fujikura does not accept responsibility or liability, direct or consequential arising from reliance upon any information provided and the user should determine the suitability of the products for their intended use. Nothing in this statement will be deemed to exclude or restrict Fujikura’s liability for death or personal injury arising from its negligence. All questions of liability relating to Fujikura products are governed by the seller's terms of sale subject where applicable to the prevailing law. If any goods supplied or processed by or on behalf of Fujikura prove on inspection to be defective in material or workmanship, Fujikura will (at its option) replace the same or refund to the buyer the price of the goods or services. Except as set out above, all warranties and conditions, whether express or implied, statutory or otherwise are excluded to the fullest extent permissible at law.

Specifications are subject to change without notice.