



PRODUCT DESCRIPTION

Hyperlines Field Installable Connector (FIC) is cost-effective, and is ease to install, optical attenuation from 1dB to 20dB, and Fiber Bragg Grating (FBG) for fiber line monitoring system. FIC requires no field polishing or epoxy as they are pre-polished connectors, so no heat cure devices or special tooling are needed to terminate the fiber. It takes about one to two minutes per fiber to install a connector out in the field.

OPTICAL CHARACTERISTICS

| Process | Specifications (at 1310nm and 1550nm) | |
|----------------|--|-------------------------------|
| Insertion Loss | Avg. | 0.2dB (with master) |
| | Max | Less than 0.3dB (with master) |
| Return Loss | Min. | 50-60dB (with master) |
| Item | Applicable Fiber | |
| Specifications | Singlemode Fiber ITU-T Rec. G652.D or G.657.A1 Diameter: 250um | |

TEMPERATURE RANGE

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

MECHANICAL CHARACTERISTICS

| Process | Method / Condition | Specifications |
|--|---|--|
| Durability Test | 100 matings | Deviation in insertion loss Max. ≤ 0.3 dB, Avg. ≤ 0.2 dB |
| Vibration Test | Vibrating the connectors for 2 hours at amplitude of 1.52mm (±0.75mm) with the frequency sweeping continuously between 10 and 55Hz at a rate of 45Hz per minute, 1 cycle is 4 minute. | Deviation in insertion loss Max ≤ 0.3 dB, Avg. ≤ 0.2 dB |
| Impact Test | Accidentally dropping the connectors from 4 m height, repeat 8 times | Deviation in insertion loss Max ≤ 0.3 dB, Avg. ≤ 0.2 dB |
| Transmission with Applied Tensile Load | Applying loads using the tensile test facility – 3N load, last for 60 sec | Deviation in insertion loss Max ≤ 0.3 dB, Avg. ≤ 0.2 dB |
| Thermal Cycle Test | Temperature -40°C to 75°C each cycle, 21 cycles, 168 hr. (7 days) | Deviation in insertion loss Max ≤ 0.3 dB, Avg. ≤ 0.2 dB |
| End face Geometry Test | Interferometer | Apex offset: 0~50um Radius of Curve: 5~12um Protrusion/Undercut: ±100nm APC Angular Tolerance: 7.850~8.050 degree |



STANDARDS

- Telcordia GR-326-CORE, GR-1081-CORE, and IEC 61300

FEATURES AND BENEFITS

- Cost effective and reusable
- Easy to deploy fiber solution, such as FTTH (Fiber To The Home), Optical Networks
- Applicable for Field installable attenuator and FBG (Fiber Bragg Gratings for fiber line monitoring system)
- No field polishing or epoxy required

TECHNICAL SPECIFICATIONS

| Parameter | SM : SC/PC, LC/PC | MM : SC/PC, LC/PC |
|--------------------------------------|---|--|
| Fiber Type | Single Mode : | Multi Mode |
| | 9/125 μm | 50/125 μm , 503/125 μm , 504/125 μm |
| Insertion Loss | Max \leq 0.3 dB, Avg. \leq 0.2 dB | Max \leq 0.3 dB, Avg. \leq 0.2 dB |
| Reflectance | \geq 40-50 dB(PC/UPC), \geq 50-60 dB(APC) | |
| Operational Temperature | -30 ~ 75°C | |
| Storage Temperature | -40 ~ 80°C | |
| Tensile Load (on 900 μm) | 0.55 lb (250g) Load \leq 0.2 dB Change | |

ORDERING

| | |
|---------------------|--|
| FIC9-SC-APC-0.9-9 | SC/APC for 0.9mm single mode (insert Guide type) Field Installable Connector |
| FIC9-SC-UPC-0.9-9 | SC/UPC for 0.9mm single mode (insert Guide type) Field Installable Connector |
| FIC9-LC-APC-0.9-9 | LC/APC for 0.9mm single mode (insert Guide type) Field Installable Connector |
| FIC9-LC-UPC-0.9-9 | LC/UPC for 0.9mm single mode (insert Guide type) Field Installable Connector |
| FIC9-SC-UPC-0.9-503 | SC/UPC for 0.9mm multi-mode OM3 (insert Guide type) Field Installable Connector |
| FIC9-SC-UPC-0.9-504 | SC/UPC for 0.9mm multi-mode OM4 (insert Guide type) Field Installable Connector |
| FIC9-LC-UPC-0.9-503 | LC/UPC for 0.9mm multi-mode OM3 (insert Guide type) Field Installable Connector |
| FIC9-LC-UPC-0.9-504 | LC/UPC for 0.9mm multi-mode OM4 (insert Guide type) Field Installable Connector |



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