

Fiber Optic Solutions

Technology Innovation Service

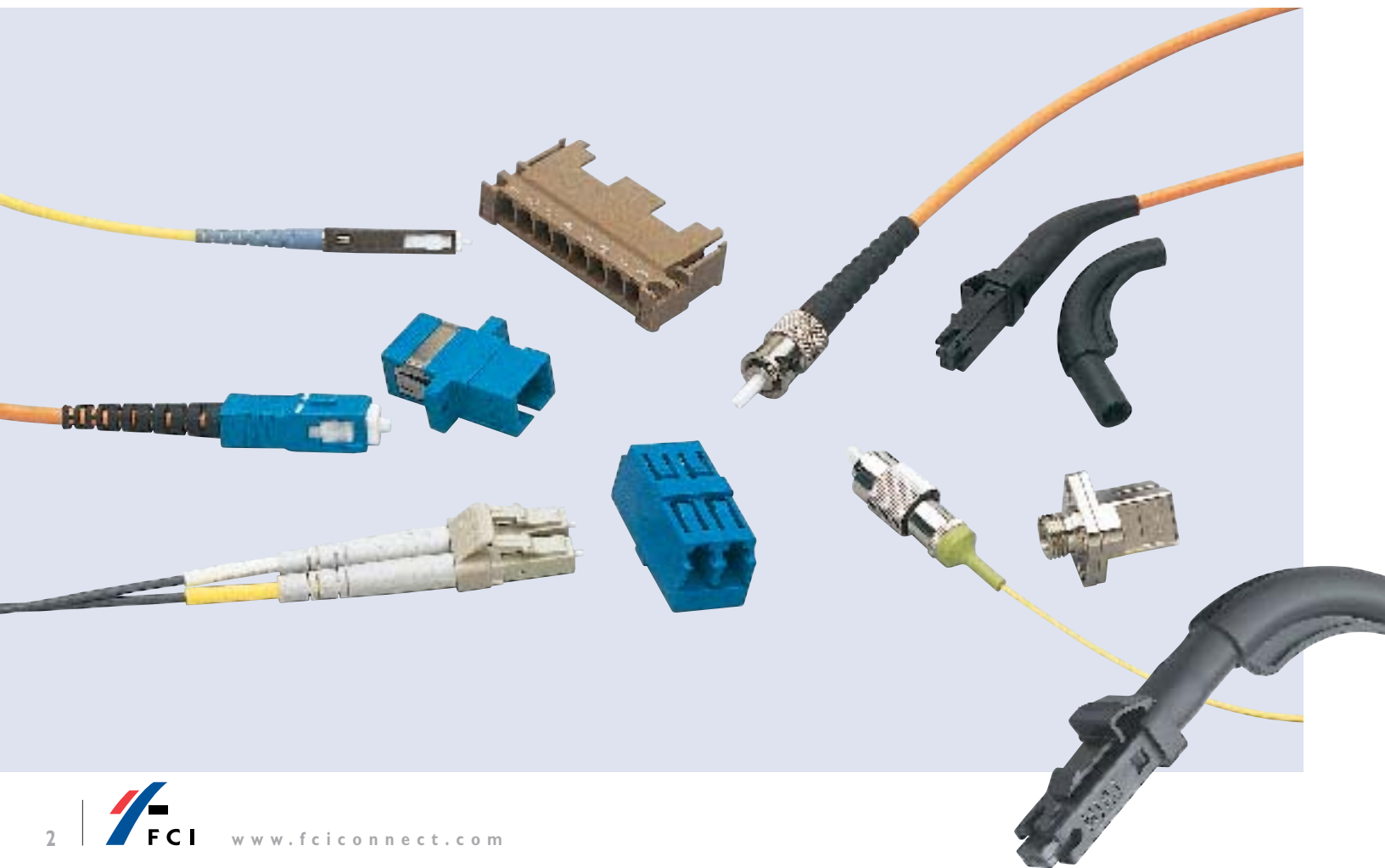


FCI Global Fiber

A New Light in the Industry

Today's Internet requires high speed, increased bandwidth, and high data rates driving the need for optoelectronic and fiber optic technologies to satisfy these requirements. To meet these evolving demands, FCI is committed to be a leading source of fiber optic products.

- **Cable Assemblies**
- **Array Connector Cable Assemblies**
- **Fiber Management Systems**
- **Active Optoelectronic and Passive Optical Components**



Optics

Committed to

Technology

State-of-the-Art Fiber Optics Design, Research & Development, Testing, and Manufacturing Centers

Dedicated to

- Providing solutions with the highest quality and reliability built-in
- Reducing time-to-market to best accommodate shortened life cycles
- Satisfying market-driven and custom design requirements

Innovation

Global Fiber Optics Team

Committed to

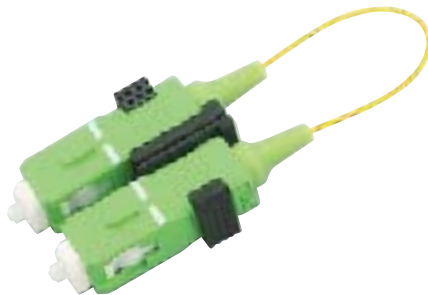
- Being a leader in the fiber optics sector
- Developing and launching fiber optic products to enable next-generation applications
- Providing design resources in each regional market—the Americas, Asia Pacific, and Europe

Service

Global Service Organization

Dedicated to

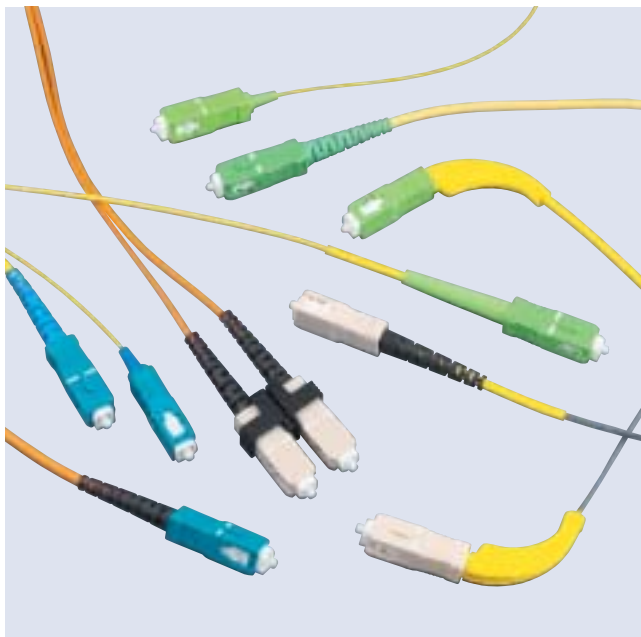
- Providing immediate and total response through preeminent global sales support, engineering, and product supply
- Ensuring customer satisfaction, not only with product performance, but with ease of ordering and receiving product
- Forming a partnership that makes it easy to do business with FCI



Optical Cable Assemblies and Adapters

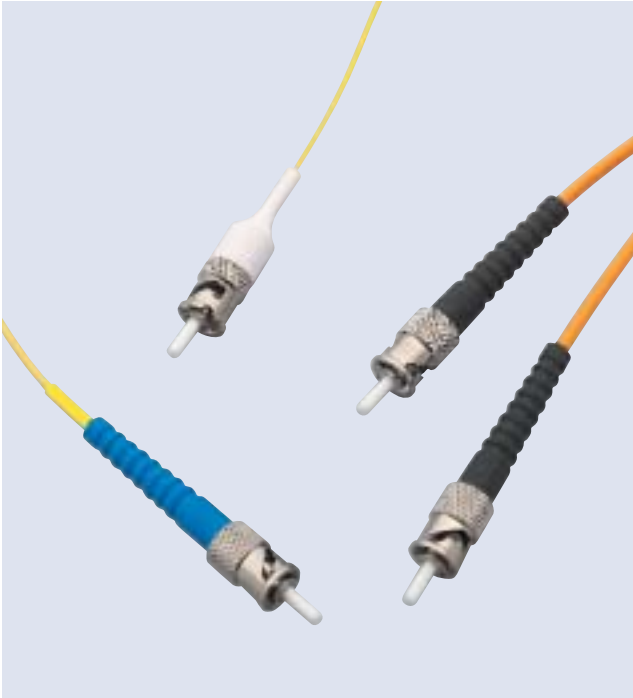
Product excellence is the driving force behind FCI's Fiber Optics Division. Experts at our Fiber Optics Research & Development Centers use state-of-the-art equipment to design interconnect and value-added solutions. We test 100% of our terminations for applicable parameters including insertion loss, return loss, apex offset, radius of curvature, and undercut in order to meet and exceed industry standards, such as Telcordia GR-326-CORE, and customer specific requirements.

SC Assemblies



- Simplex, duplex, and multifiber assemblies in standard and custom configurations
- Single-mode and multimode fiber
- Industry standard cable diameters and ratings: 0.90 mm (0.035 in.), 1.60 mm (0.063 in.), 2.00 mm (0.079 in.), 2.40 mm (0.094 in.), and 3.00 mm (0.118 in.) cables; Riser, Plenum, and Nonsmoke Zero Halogen Rated
- Push-pull, key-coded coupling mechanism minimizes the connector footprint and allows highly repeatable, low-loss connections
- Pull-proof to 10 lbs. (non-optical disconnect)
- PC, UPC, or APC finish
- 90° strain relief option facilitates cable management

ST[®] Assemblies

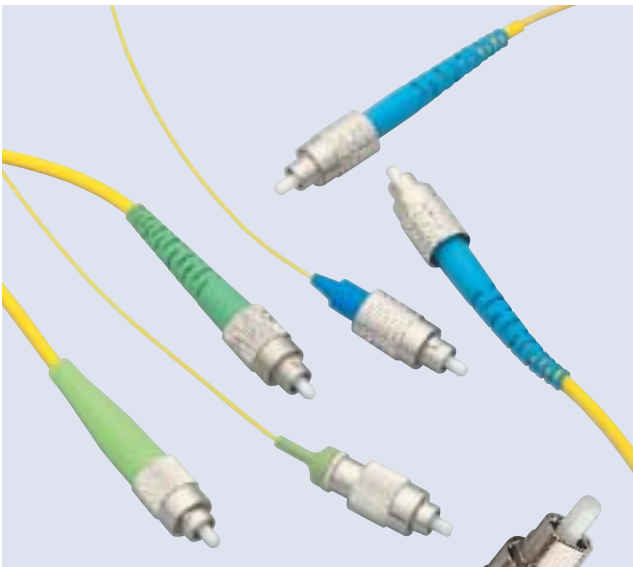


- High performance and ease of use in one highly reliable package
- Simplex, duplex, and multifiber assemblies in standard and custom configurations
- Single-mode and multimode fiber
- Industry standard cable diameters and ratings
- Twist-lock bayonet coupling mechanism ensures quick, highly repeatable, low-loss connections
- PC or UPC finish

ST is a registered trademark of Lucent Technologies Inc.



FC Assemblies

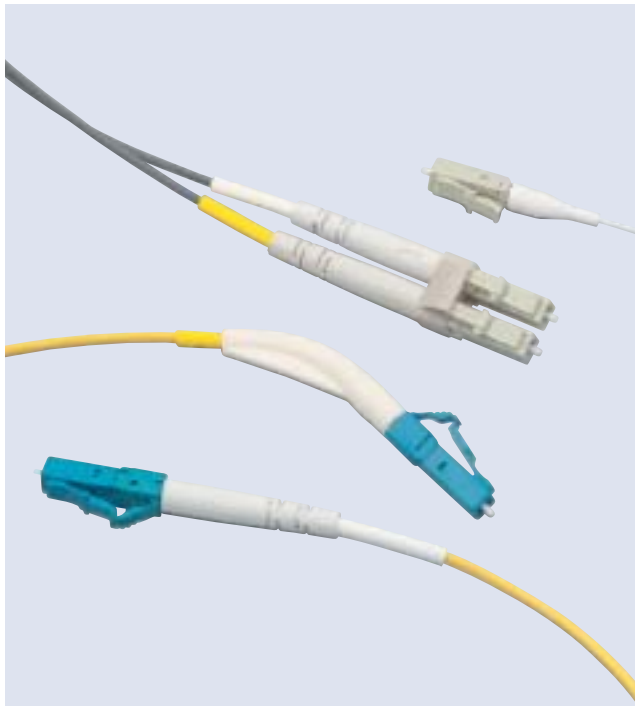


- An industry standard particularly in telecom applications
- Simplex, duplex, and multifiber assemblies in standard and custom configurations
- Single-mode and multimode fiber
- Industry standard cable diameters and ratings
- Threaded barrel and keyed ferrule coupling mechanism allow highly repeatable, low-loss connections
- PC, UPC, or APC finish

Small Form Factor Optical Cable Assemblies and Adapters

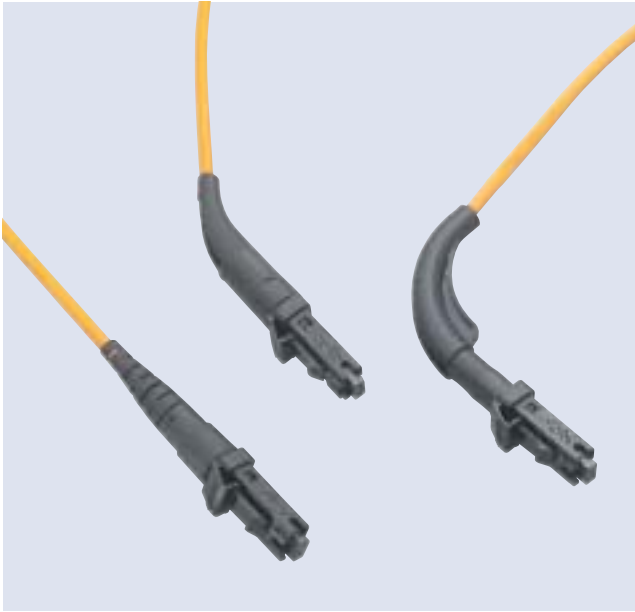
FCI offers Small Form Factor (SFF) fiber optic solutions in response to the need for easier-to-use fiber optic connectivity in high-density applications such as telecommunications and datacom networks.

LC Assemblies



- SFF—half the size of standard connectors—doubles fiber density in shelves, lowering system costs
- Simplex and duplex fiber assemblies in standard and custom configurations
- Single-mode and multimode fiber
- 0.90 mm (0.035 in.), 1.60 mm (0.063 in.), and 2.00 mm (0.079 in.) cable
- RJ45 push-pull style housing allows easy disengagement in dense spaces
- Pull-proof to 2 lbs. (non-optical disconnect)
- PC or UPC finish
- 45° and 90° strain relief options facilitate cable management

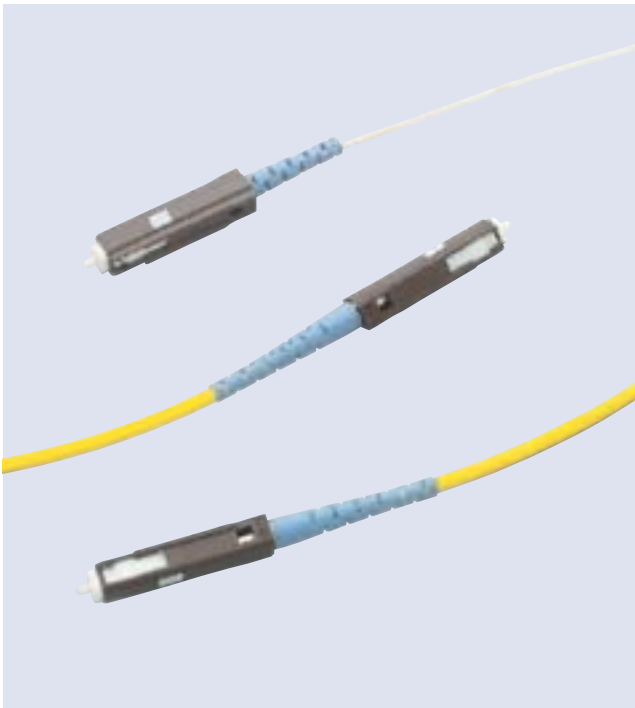
MT-RJ Assemblies



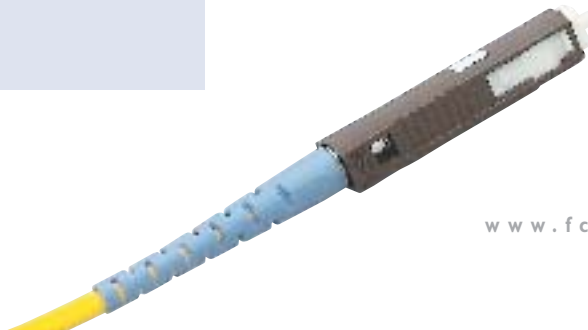
- MT-style ferrule with RJ45 push-pull style housing that allows easy disengagement in dense spaces
- One ferrule accommodates two fibers
- Duplex fiber assemblies in standard and custom configurations
- Single-mode and multimode fiber
- 0.90 mm (0.035 in.), 1.60 mm (0.063 in.), and 3.00 mm (0.118 in.) cable
- 45° and 90° strain relief options facilitate cable management



MU Assemblies



- Self-retentive optical backplane connector designed with twice the packaging density of the standard SC connector
- Design based on the SC connector technology
- Simplex and duplex fiber assemblies in standard and custom configurations
- Single-mode and multimode fiber
- 0.90 mm (0.035 in.), 1.60 mm (0.063 in.), and 2.00 mm (0.079 in.) cable
- Simplex and duplex plug configurations used for high-density, low-profile interconnect applications and backpanel connector applications
- PC or UPC finish



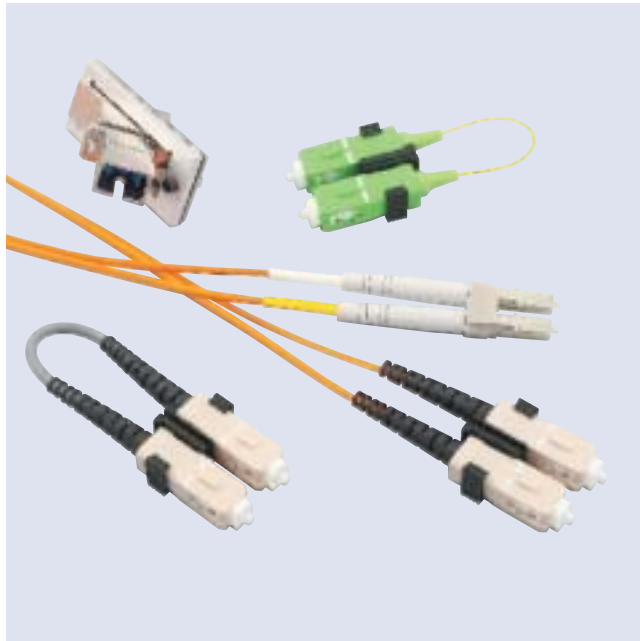
Custom Capabilities



FCI offers a wide variety of value-added solutions including custom configurations of our standard and SFF cable assembly offerings. Our array connector cable assemblies, cable assembly adapters and accessories, and box builds can also be designed to meet specific custom requirements.

FCI's Research & Development Centers provide custom design services, rapid prototyping, and extensive test and qualification capabilities.

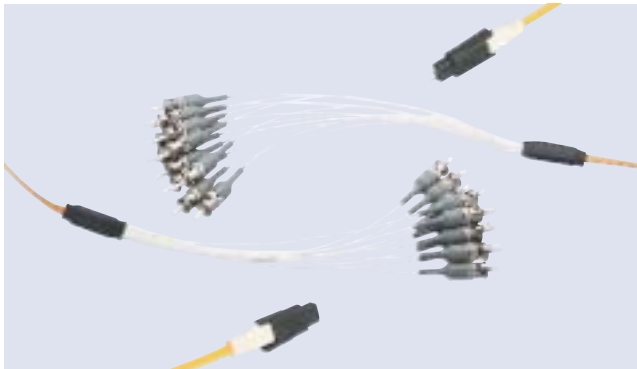
Custom Assemblies



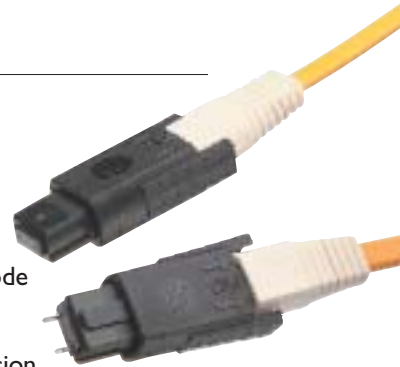
- All assemblies—standard and SFF offerings—can be designed to meet specific custom requirements
- Mix and match connectors to design the exact assembly required for a specific application
For example, MT-RJ to LC, MT-RJ to SC, MT-RJ to ST, and MT-RJ to MT-RJ multimode assemblies with a wide variety of hybrid cable lengths
- Custom breakouts and fanouts for array assemblies
- Customer specific labeling and packaging available



MPO Array Assemblies

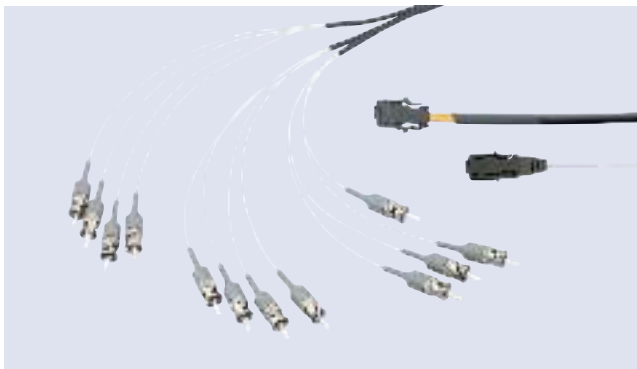


- Multifiber plug connector compatible with the MTP multifiber connector
- The standard MT interface connects 4, 8, up to a maximum of 12 single-mode or multimode fibers
- Precision guide pins provide high-precision alignment for high-optical performance
- Integral no-epoxy strain relief
- Backplane configuration compatible with FCI's Metral® and Millipacs® industrial standard systems



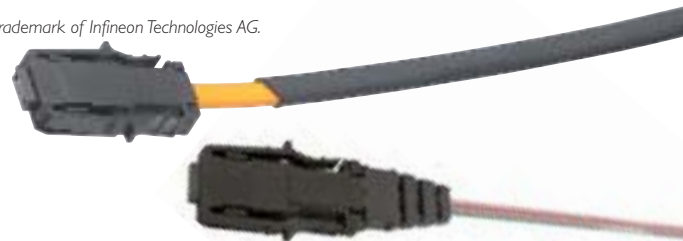
Metral and Millipacs are registered trademarks of FCI.

SMC® Array Assemblies



- Push-pull connector that utilizes side latching mechanism
- The standard MT interface connects 4, 8, up to a maximum of 12 single-mode or multimode fibers
- Precision guide pins provide high-precision alignment for high-optical performance

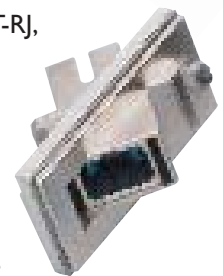
SMC is a registered trademark of Infineon Technologies AG.



Adapters and Accessories



- Broad selection ranging from the standard adapter to the fully shielded 45° SC and LC adapters
- Adapters available for SC, ST, FC, LC, MT-RJ, MU assemblies, MPO and SMC array assemblies
- 45° and 90° strain reliefs facilitate cable management and minimize the fiber space in applications
- Strain relief options available for SC, LC, and MT-RJ assemblies



And More . . .

To complete our product offering, FCI also manufactures a selection of fiber management systems, active components, and passive components, making us a one-stop fiber optic solution provider.

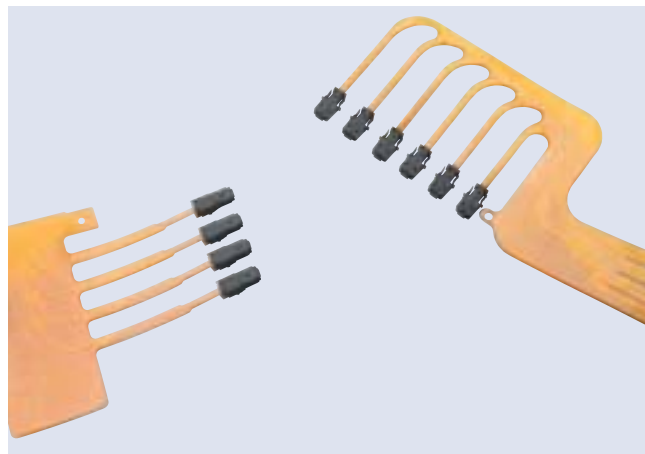
Fiber Management Systems

Box Builds



- Complete custom box builds with installation of all components reduce critical time-to-market
- Wide range of custom configurations for fiber management and distribution
- Full turnkey operation—design, prototype, manufacture, inspect, test, and ship

MACPLANE® Flexible Optical Circuit System



- Passive optical packaging and fiber management system for a significant number of fibers in complex routings
- Complex fiber routing includes crossovers, multiple simplex or multifiber termination points
- Optional external splitters or couplers available for complex fiber routing
- Single-mode and multimode fiber
- Fibers are “sandwiched” between two protective layers of laminate material that organize and protect fibers from debris, moisture, and handling
- Fibers connect to tabs or ribbons and terminate into standard, SFF, or array connectors
- No Measurable Additional Loss generated

MACPLANE is a registered trademark of FCI.

The ‘Perfect’ Shuffle Assemblies



- Passive optical packaging and fiber management system for a significant number of fibers in symmetrical routings
- Multiple symmetrical configurations include input X ribbons of Y fibers and output Y ribbons of X fibers
- Single-mode and multimode fiber
- Compact, rugged, and environmentally protective package
- Fibers connect to tabs or ribbons and terminate into standard, SFF, or array connectors
- No Measurable Additional Loss generated
- Zero Skew, compact design of 10 x 10 x 50 mm (0.39 x 0.39 x 1.97 in.) for 8 x 12 ribbon straight configuration

Active Optoelectronic Components

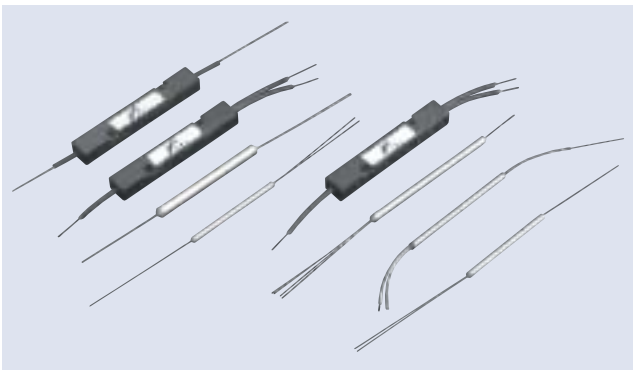
BATM155 Single-Mode Transceiver



- High-performance, cost-effective single-mode OC-3 ATM transceiver for high-speed optical digital transmission
- Data rate: 155 Mb/s
- Laser diode: Fabry-Perot LD/PIN-PD
- Industry standard packaging and footprint: 1 x 9
- Duplex SC interface
- Source voltage: single +5 V power supply
- Electrical interface: PECL differential inputs and outputs
- Integrated signal detection function
- Auto-power control circuit
- Applications: SDH/SONET ATM optical interface card, ATM optical switching hub, ATM exchanger; 155 Mb/s general purpose optical interface
- Compliant with: FCC Class B, EN55022

Passive Optical Components

Couplers and Wavelength Division Multiplexers



- Broad offering of single-mode and multimode couplers, and Wavelength Division Multiplexers (WDMs)
- Single-mode 1 x 2, 2 x 2 splitters and taps; 1 x 3, 1 x 4 splitters; narrow-band and wide-band WDMs
- Multimode 1 x 2, 2 x 2 splitters and taps; star couplers
- All products available with a wide range of factory installed and tested optical connectors

FCI Global Fiber Optics:

At FCI, Quality Control begins at the product planning stage and continues through design and production. The Quality Planning Process provides a standard methodology for developing, implementing, and maintaining the product quality plan that aligns customer needs, product specifications, and process capabilities. This process ensures that FCI fiber optic products fully meet all customer requirements.

Total Quality Program

Quality Policy

- FCI's Global Fiber Optics Division is committed to quality leadership and continuous improvement of products and services that offer the best value and meet our customers' requirements with on-time delivery

Design

- Stringent design control procedures include design reviews, customer needs analysis, Failure Mode and Effect Analysis, and process capability studies
- State-of-the-art design simulation, analysis, and prototyping tools

Production

- Processes are evaluated and monitored using Statistical Process Control techniques
- Design of Experiments and capability studies yield data-based decisions ensuring stringent Process Change Control
- 100% of fiber optic terminations are tested for applicable parameters that include insertion loss, return loss, apex offset, radius of curvature, and undercut

Testing

- In-house laboratories use the latest equipment for optical, mechanical, environmental, and electrical performance testing
- Qualification testing is performed as per industry standards, such as Telcordia GR-326-CORE, and customer specific requirements



Committed to Quality

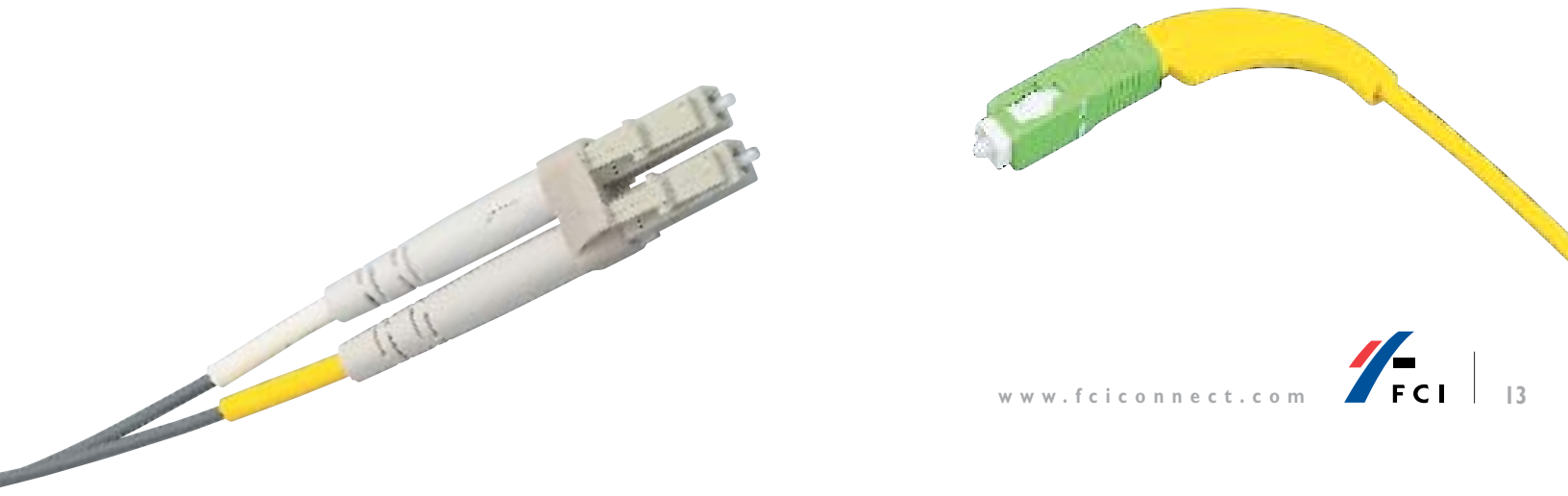
FCI is committed to producing fiber optic products of the highest quality and reliability possible. This commitment to quality means FCI is vigilant in enhancing its state-of-the-art Research & Development and manufacturing capabilities to meet the challenges of the twenty-first century and serve our customers well.

Worldwide Research & Development Network

- World-class Research & Development Centers, engineering facilities, and test laboratories in the Americas, Asia Pacific, and Europe support FCI's global fiber optic initiatives
- FCI's development centers are electronically linked to allow rapid communication worldwide, coordinating FCI resources with those of our customers

State-of-the-Art Facilities

- FCI's development centers provide in-house development, pilot production, analytical, mechanical, and environmental testing of fiber optic products
- Multiple manufacturing centers, located in each of the three regions, are fully equipped with state-of-the-art manufacturing and test equipment
- Temperature and humidity controlled manufacturing facilities, combined with global process standardization, ensure high quality and consistent performance on a worldwide basis



FCI is the Source for Fiber Optic Solutions
dedicated to providing optimal
technology, innovation, service, and quality.

To explore the full story, visit us on-line at: www.fciconnect.com

For detailed product information, drawings, specifications, and your local sales office.

FCI Fiber Optic Solutions at a Glance

Optical Cable Assemblies and Adapters

- SC
- ST
- FC

Small Form Factor (SFF) Cable Assemblies and Adapters

- LC
- MT-RJ
- MU

Custom Capabilities

- Custom Assemblies
- MPO Array Assemblies
- SMC Array Assemblies
- Adapters and Accessories

Fiber Management Systems

- Box Builds
- MACPLANE Flexible Optical Circuit System
- The 'Perfect' Shuffle Assemblies

Active Optoelectronic Components

- BATM155 Single-Mode Transceiver

Passive Optical Components

- Couplers
- Wavelength Division Multiplexers

ST is a registered trademark of Lucent Technologies Inc.
SMC is a registered trademark of Infineon Technologies AG.

MACPLANE is a registered trademark of FCI.

