

# FIBER OPTIC CABLE ASSEMBLIES AND ADAPTERS

## DESCRIPTION

The FC optical connector is an industry standard, particularly in telecom applications. Its threaded barrel and keyed ferrule coupling mechanism allow highly repeatable low-loss connections. All FCI optical cable assemblies are manufactured to the customer's specifications with the highest standards of quality. Each jumper, pigtail or fan-out is 100% visually inspected and tested. A data package tailored to specific requirements is available upon request.

Custom design services and rapid prototyping are offered to speed product development.



## FEATURES & BENEFITS

- Optically non-disconnecting design
- The precision zirconia ferrules are highly concentric and pre-radiused
- A variety of connector and adapter styles are available to meet all application requirements
- Available in either single-mode or multi-mode
- Signal interruption is prevented via the optically non-disconnecting feature
- Insertion loss and return loss are minimized via the precision zirconia ferrule

## TARGET MARKETS / APPLICATIONS

- Telephony
- CATV
- Datacom
  - Telecommunications networks
  - Cable television
  - Local area networks
  - Data processing networks
  - Device terminations
  - Premises distribution

## ELECTRICAL PERFORMANCE

- Insertion loss (IAW EIA FOTP 171)
  - Single-mode 0.20 dB typical, 0.50 dB maximum
  - Multi-mode 0.15 dB typical, 0.50 dB maximum
- Return loss
  - SPC45 dB typical, 40 dB minimum
  - UPC55 dB typical, 50 dB minimum
  - APC65 dB typical, 60 dB minimum

## MECHANICAL PERFORMANCE

- JIS-C-5973 compliant
- End face Polish radius 10 to 25mm (PC or UPC)  
5 to 15mm (APC)
- Fiber extension  $\pm 0.05\mu\text{m}$
- Apex offset  $\leq 50\mu\text{m}$
- Durability  $\leq 0.2$  dB change after 1,000 matings  
(IAW JIS C 5961-1990)
- Tensile strength 10 lbs. (3.0mm) 1.5 lbs. (0.9mm)
- Operating temperature  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
(IAW Bellcore GR-326-CORE)

## OPTIONS

- Cable Type
  - SBJ 900 micron cable
  - 3.0 mm Jumper Cable - OFNR
  - 900 micron buffered fiber
  - Duplex 3.0 mm Zipcord - OFNR
  - 3.0 mm Jumper Cable - OFNR
  - Duplex 3.0 mm Zipcord - OFNR
  - Custom configuration  
(use digits 7-14 for drawing file name: YYMMDD##)
- Fiber Type
  - SM depressed-clad, dispersion-shifted
  - SM, depressed-clad, 1300 nm dispersion-optimized
  - SM, matched-clad, dual-window (SMF-28 or equiv.)
  - 100/140 micron MM, graded-index
  - 50/125 micron MM, graded-index
  - 62.5/125 micron MM, graded-index

## OPTIONS

- Cable
  - Single-mode or multi-mode fiber
  - 3.0mm or 0.9mm cordage
  - Simplex, duplex or multifiber
  - Riser or plenum rated
- Connector
  - PC, UPC or APC finish
  - Pull-proof to 10 pounds (non-optical disconnect)
  - Metallic or molded housing
- Adapters
  - Phosphor-bronze or zirconia ceramic alignment sleeve
  - Flanged, snap-in or card-edge housing
  - PC or APC
  - Hybrid

## PACKAGING

- Reel or sealed bag

- Connector Type
  - ST 2
  - Metral SC
  - Duplex SC - plastic housing, ceramic ferrule
  - FC - stainless steel housing, ceramic ferrule
  - LC
  - SC - plastic housing, ceramic ferrule
  - MU
  - Unterminated
- Connector Detail
  - Standard, flat-polished end face
  - APC (Angled Physical Contact) end face
  - PC (Physical Contact) end face
  - SPC (Super Physical Contact) end face
  - UPC (Ultra Physical Contact) end face
  - Unterminated

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

FCI:

[56866-M001LF](#) [57629-M025LF](#) [57650-M030LF](#) [57650-M020LF](#) [57650-M025LF](#) [56866-M001](#) [57629-M025](#)