

LOW PROFILE SUBSCRIBER INTERFACE

High-density, Cost-effective, Customer Interface for Very-high-bit-rate Digital Subscriber Loop (vDSL) Applications

DESCRIPTION

FCI's Low Profile Subscriber Input-Output (I/O) System is a fully developed line of cable connectors, printed circuit board (PCB) connectors and cable assemblies that support the connection of signals and power for DSL subscriber accounts.

This dual system uses separate power and signal connectors to conserve space in three dimensions while providing the optimal electrical and mechanical performance required for this special application.

The compact mechanical design conserves printed circuit board real estate and fits perfectly into systems with daughter cards arranged on 20mm card slot pitch, making the Low Profile Subscriber I/O System ideal for space-constrained applications.



FEATURES & BENEFITS

- Versatile, turnkey system designed especially for subscriber connection applications
- SIGNAL connectors have 24 contacts on 2.00mm pitch. PCB header uses minimal space: 16mm (depth from edge of card) x 33mm (along edge of card) x 13mm (height off card)
- Custom pin assignments are available to achieve very low cross-talk performance (<-55 dB) for vDSL applications
- POWER connectors have 2 contacts on 2.54mm pitch. PCB header uses minimal space: 20mm (depth from edge of card) x 14mm (along edge of card) x 13mm (height off card)
- Power cable connector design employs two additional first-mate/last-break (FMLB) sacrificial contacts to prevent arcing to the primary contacts and enable "hot" mating
- 35 degree angled cable exits provide easy cable routing
- Dual-metal PV® power contacts and dual-beam signal contacts maximize durability and optimize reliability
- Integral screw hardware fastens connectors together to prevent accidental un-mating
- Polarized design prevents mis-mating
- Lead-free, RoHS compatible design satisfies environmental regulations
- Available from FCI in component kits or as custom cable assemblies

TARGET MARKETS / APPLICATIONS

- Communications
 - aDSL / vDSL access networks
 - Wireless base stations

TECHNICAL INFORMATION

MATERIALS

- Cable Connectors:
 - Contact Plating: Gold or GXT over Nickel
 - Connector Covers: Polycarbonate, un-filled
 - Screws and Clamps: Steel, stainless steel.
 - Contact Base Metal:
 - Signal - Phosphor bronze
 - Power - Brass with beryllium copper spring
- PCB Headers:
 - Header Shields: Phosphor bronze
 - Contact Base Metal: Phosphor bronze
 - Contact Plating: Gold or GXT over nickel in mating area, Gold or GXT or pure tin over nickel in other areas.
 - Header Housings: Glass-Filled Polyester (PBT)
- Cable Assemblies:
 - Signal: 12 pair 26 AWG cable
 - Power: 2 conductor 18 AWG cable

ELECTRICAL PERFORMANCE

- Current Rating: 0.3A (Signal), 3.0A average (Power)
- Insulation resistance: 5000 MΩ minimum, 1000 MΩ minimum after damp heat steady stage
- Voltage Rating: 105 VAC
- Contact Resistance: 45 mΩ maximum (Signal), 12 mΩ maximum (Power)

MECHANICAL PERFORMANCE

- Insertion force: 0.50 N per contact (Signal), Dependent on spring thickness (Power)
- Withdrawal force: 0.15 N per contact
- Durability: 200 cycles (Signal), 200 cycles (Power)

APPROVALS AND CERTIFICATIONS

- UL approvals pending

PART NUMBERS

- Cable Assemblies
 - Signal: **10076684 Series**
 - Power: **Single-ended: 10076685 Series, Double-ended: 10076686 Series**

■ Power Cable Connector Kit 10074342-001LF



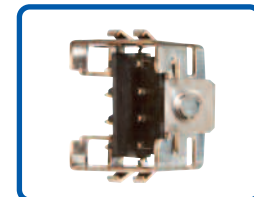
- 1x4, 2.54mm contact pitch
- Includes: Connector housing, top and bottom covers, two primary crimp-to-wire terminals plus two sacrificial terminals to enable hot plugging

■ Signal Cable Connector Kit 10073976-001LF



- 2x12, 2.00mm contact pitch
- Includes: Connector Housing, Top and Bottom Covers, 24 insulation-displacement-connector (IDC) terminals

■ Power PCB Header Connector 10066619-001LF



- 1x4, 2.54mm contact pitch
- Includes Power PCB Header with Integral Shield

■ Signal PCB Header Connector 10069230-001LF



- 2x12, 2.00mm contact pitch
- Includes Signal PCB Header with Integral Shield

Additional information on cable assemblies and connectors can be found at www.fci.com/cableassembly