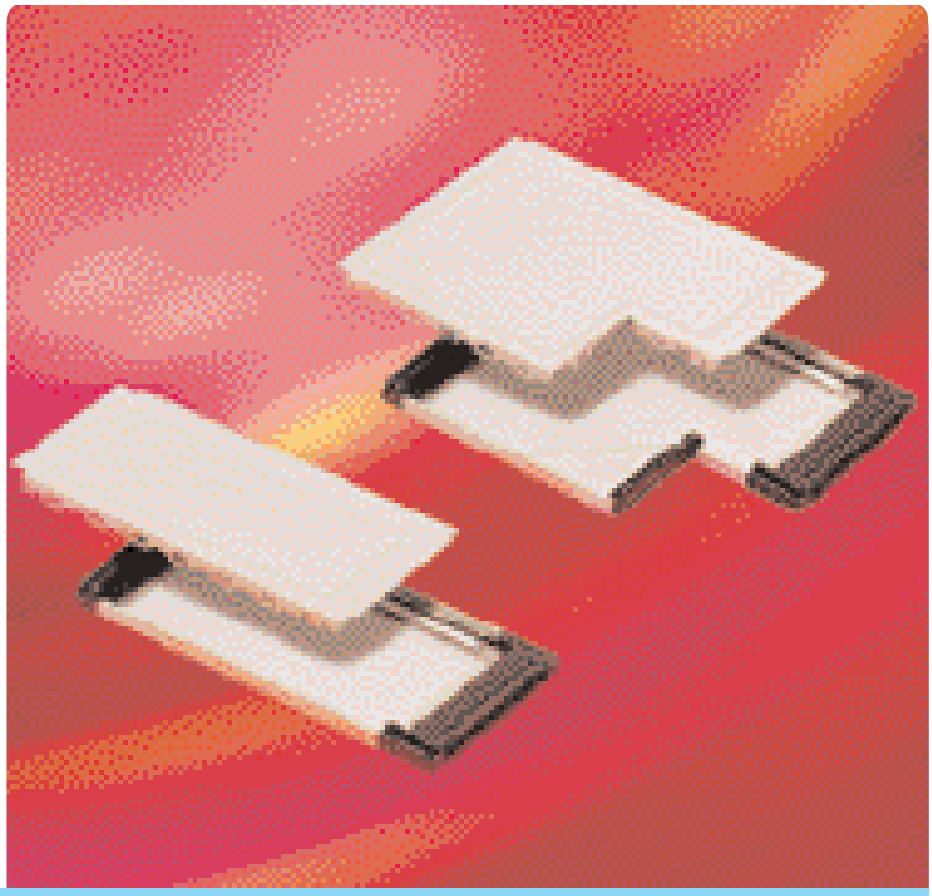
EXPRESSCARD™ MODULE CONNECTORS AND COMPONENTS

DESCRIPTION

ExpressCard™ module components and kits from FCI support module manufacturers' implementation of ExpressCard technology. The Personal Computer Memory Card International Association (PCMCIA) has developed the ExpressCard Standard as replacement for the PC Card Standard, which defines the popular CardBus and PC Card add-in cards. The new standard will carry forward the benefits of removable communication, storage, I/O, multimedia, security and adapter cards to new generations of mobile and desktop personal computers. The ExpressCard standard supports both USB 2.0 and PCI Express® high-speed serial interfaces. Module components are provided for both the ExpressCard/34 and ExpressCard/54 module form factors. ExpressCard modules are smaller than today's CardBus form factor. The more compact ExpressCard/34 module is a mere 55% of the size of a CardBus module.



FEATURES & BENEFITS

- Electrical performance is validated at the initial PCI Express data rate of 2.5 Gb/s and the anticipated second-generation speed of 5.0 Gb/s
- Simple beam-on-blade contact interface is rated for up to 10,000 cycles
- Single-row, in-line configuration for surface-mount solder tails for easy soldering and inspection
- Longer power and ground contacts on the 26-position module connector provide first-mate and last-break in relation to signal contacts
- Snap-together module design enables card assembly without requiring the use of adhesives or ultrasonic equipment
- Modules provide EMI/ESD contact areas, notches for optional security lock support, and a finger grip ridge for manual module removal
- RoHS compliant

TARGET MARKETS / APPLICATIONS

- Communications
  - Wireless cards
  - Wired cards
- Data / Instrumentation
  - Storage - SFF optical drives, SFF magnetic drives, memory modules
  - I/O - Additional I/O ports and legacy I/O
  - Security - Identity cards and sensors
- Consumer
  - Multimedia - TV tuners, PVR
  - Security - Identity cards and sensors
  - Adapters - Consumer memory cards

MATERIALS

- Module Connector
  - Housing: High-temperature thermoplastic
  - Terminal: Copper Alloy, Gold over nickel in contact area, tin over nickel in solder area
- Module Card Kits (Top and Bottom Shields)
  - Plastic Cap: Thermoplastic
  - Metal Shield: Stainless Steel

MECHANICAL PERFORMANCE

- Durability: 10,000 mating cycles
- Insertion Force: 39N max.
- Removal Force: 3.7N min.; 18.5N max.

ELECTRICAL PERFORMANCE

- Contact Resistance: Initial 40 m max.; 55 m max. after test
- Current Rating 0.75 amp per contact
- Meets Insertion Loss, Return Loss and Crosstalk requirements in ExpressCard Standard
- Insulator (optional)
  - 0.10mm max. thickness having dielectric withstanding voltage of 2500V

SPECIFICATIONS

- ExpressCard Connector: GS-12-285
- ExpressCard Module: GS-12-292

ENVIRONMENTAL

Per EIA-364-1000.001 with the test groups derived from the following requirements:

- Durability (mating/unmating) rating of 10,000 cycles
- Field temperature: 65ºC
- Field life: 5 years
- Temperature life (preconditioning): 105ºC for 72 hours
- Temperature life: 105ºC for 120 hours
- Mixed flowing gas duration: 7 days

APPROVALS AND CERTIFICATIONS

- ExpressCard Compliance ID:
  - EC100028 for connector series 10030570, solder tail offset +0.30

PACKAGING

- Connector: Tray, T&R, and Tube
- Metal Shield: Tray
- Specifications: GS-14-926, GS-14-927

PART NUMBERS

Module Type	Standard (closed end)		Extended (open end)	
Module Width	34mm	54mm	34mm	54mm
Module Connector	10030570-2113LF	10030570-2113LF	10030570-2113LF	10030570-2113LF
Top Shield	10030573-100LF	10030581-100LF	10030573-200LF	10030581-200LF
Bottom Shield	10030574-2100LF	10030582-2100LF	10030574-0010LF	10030582-0010LF

Use web link www.fciconnect.com/expresscard to obtain product drawings and additional technical information