

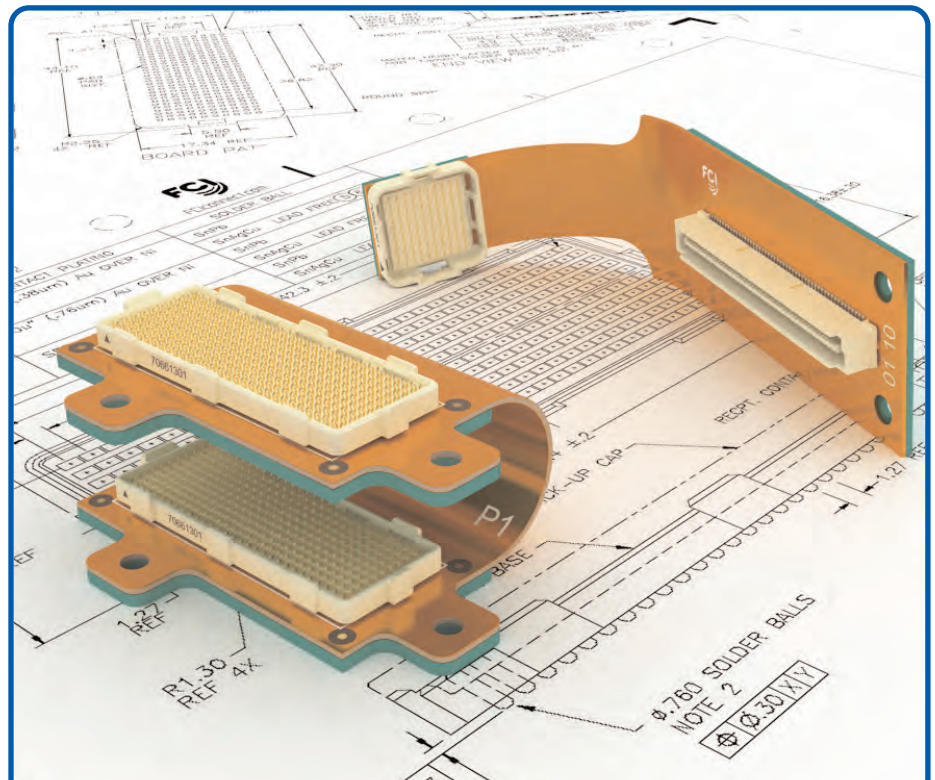
FCI FLEXIBLE CONNECTIONSSM

DESCRIPTION

FCI integrates flexible circuitry and a broad range of connector options to optimize interconnect performance.

Disciplined quality processes and low cost manufacturing produce superior products at competitive prices.

FCI prioritizes fast service on design recommendations, pricing, revisions, proto-typing, documentation and production fulfillment.



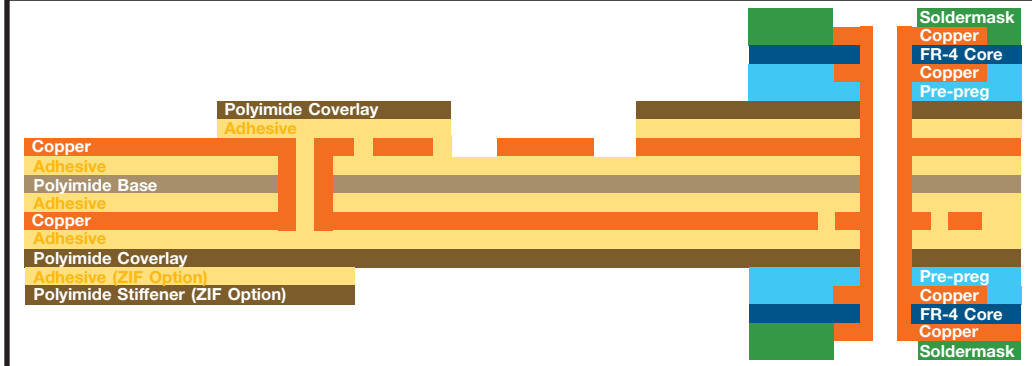
FEATURES & BENEFITS

- Accurate integration of connectors and flexible circuitry:
 - Satisfies electrical and mechanical design priorities
 - Enhances system performance
- PCB-mount connectors can be used in cabling applications.
- “2D” flexible connections conform to system surfaces to expand spaces and improve ventilation.
- Ground planes, shielding and materials options satisfy critical electrical and EMI requirements.
- Turnkey assembly, testing and just-in-time delivery relieve operations resources and frees working capital.
- Niche market benefits
 - Low density flex materials reduce system weight.
 - Rolled annealed copper construction supports repeated movement and vibration in dynamic applications.
 - Flexible connection solutions provide consistent circuit quality, and replace the labor and quality risks of wire harnessing.

TARGET MARKETS / APPLICATIONS

- Medical Instrumentation
- Test and Measurement Electronics
- Industrial Controls
- Navigation Electronics
- Military Electronics
- LED Systems
- Point-of-Sale and Gaming
- Rugged handheld Equipment
- Communications and Data Embedded
- Network Diagnostics
- Data Storage

FLEX ASSEMBLIES FL	FINE PITCH JUMPERS FP	HIGH DENSITY BGA BGA	RIGID FLEX WITH PRESS-FIT BACKPLANE CONNECTORS BP
High Quality Flex circuits liberate electro-mechanical designs	Smaller circuits employ rugged fine pitch connectors	Highest density circuits featuring renowned FCI BGA connectors	Flex versatility supporting popular FCI backplane connectors
Low loss, low cost circuit routing, heat dissipation	Space savings, Low cost, Process-controlled termination quality	Space savings, X ray-certified BGA termination	Flexible backplane interface, Press-fit compatibility
Typical connectors: Card Edge PC Card Conan® 1.0mm Modular Disk Drive	Typical connectors: MezzoStak™ 0.5mm BergStak® 0.8mm PC Card	Typical connectors: Meg-Array® Gig-Array®	Typical connectors: Airmax VS® Metral® Minitek™ Modular Disk Drive



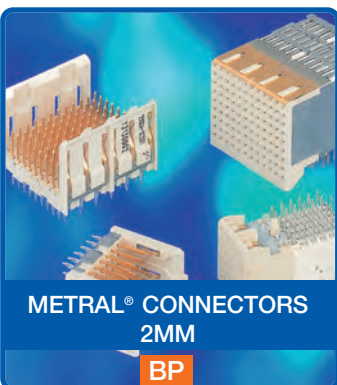
KEY DESIGN ISSUES

Application Information (If FCI Design)

- Static or Dynamic application?
- Estimated number of conductors
- Performance speed in GHz (if applicable)
- Single-ended or Differential (if applicable)
- Impedance
- Power and Signal schematic
- Practical assembly length, width, shape
- Connector preferences
- Special accessories or hardware needed?
- Letter screen needed?

Customer Print (Please provide if customer design)

- Number of connectors and stiffeners
- Number of layers: ground layers, shield layers
- Minimum Conductor width and spacing
- Number of holes
- Hole diameter, Largest and smallest
- Solder Mask, SMOBC
- Conductor weight/ thickness
- Materials and Adhesives
- Rigid circuit sections (if any)
- Max. bend radius (if applicable)



Field Guide

CAPABILITY

- ▀ Flex, Rigid/Flex
 - to 10 Layers for Flex; to 18 Layers for Rigid
 - 1/2 ounce+
 - >0.003 inch Line width and spacing
 - >0.008 inch drill hole diameter
 - 5 mil minimum via for Flex; 6 mil for Rigid
 - 3 mil minimum micro via
- ▀ High density, Fine pitch
 - < 4 Layers
 - 1/4 to 1/2 ounce
 - >0.00075 inch Line width and spacing
 - >0.006 inch drill hole diameter
 - 1 mil minimum via
 - 1 mil minimum micro via
- ▀ Stiffeners
 - 10 mil (0.25mm) registration
 - 10% Thickness tolerance
- ▀ Solder Mask
 - 5 mil (0.13mm) Bridge between dam; 4 mil (0.11mm) for High density
 - 4 mil (0.11mm) Registration tolerance; 5 mil (0.15mm) for Rigid
- ▀ Legend
 - 35 mil minimum height; 25 mil for High Density
 - 8 mil Minimum width and space

MATERIALS

- ▀ Conductor
 - Rolled annealed (RA copper, Electrodeposited (ED) Copper, Aluminum, Carbon, Silver Ink
- ▀ Adhesives
 - Epoxy, Acrylic, Pressure sensitive, Adhesive-less (Base material)
- ▀ Insulator
 - Polyimide, Polyester, PEN and PET, soldermask, Flexible soldermask, Photo imageable coverlay (PIC)
- ▀ Finishes
 - Solder, Tin, Immersion nickel, gold, Hard nickel, gold, Wire bondable gold, Organic, Silver, carbon
- ▀ Shielding Material
 - Copper, Silver Ink, Tatsuta, Carbon
- ▀ Stiffener
 - Materials: Polyimide, FR4, Metal

TESTING

- ▀ Electrical
 - In-line circuit tester, Network Analysis Machine, High Potential DWV tester.
- ▀ Inspection
 - Automatic Optical, X Ray and Cross Section



Choose precisely what you need from FCI's MezzSelect™ mezzanine connector portfolio.

In-line and array-configured connectors satisfy a wide range of low-to-high pin count and low-to-high speed applications in many electronics segments.

The MezzSelect™ Connector Family is supported by simple, powerful web-based design tools and other resources to help customers expedite connector design work and improve time-to-market.

www.mezzselect.com