

ELECTRONICS

CONNECTOR OVERVIEW

FCI: SETTING THE STANDARD FOR CONNECTORS

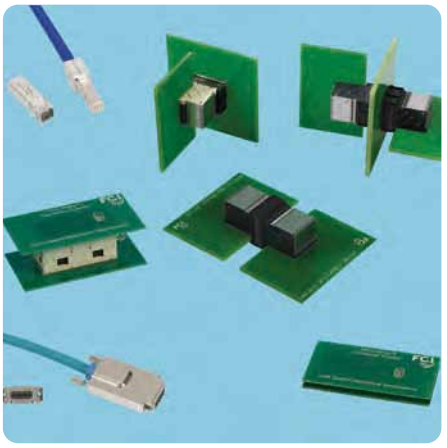
With 14,000 employees in 30 countries and sales of 1.1 billion euros in 2011, FCI is a global manufacturer of connectors for various markets such as automotive, telecommunications infrastructure, consumer and industrial Electronics.

ELECTRONICS

FCI ELECTRONICS is a key supplier to companies that manufacture computing, networking, telecommunications, and personal communications equipment ranging from servers and storage devices to base stations and switches to cellular telephones, personal computers and cashless payment systems.

FCI is the leading innovator in the design, development and high volume manufacturer of Ball Grid Array (BGA) connectors for dense mezzanine board packaging operating at extremely high signal rates. FCI provides low profile miniature connectors for Flex Flexible Circuits and Flex Print Circuits.
FCI is also a world leader in providing cost-effective and innovative backplane, board-to-board, and I/O interconnect solutions that satisfy increasingly-demanding performance requirements in the converging Datacom and Telecom markets.









HOW TO USE THIS BROCHURE

Welcome to the Product Overview brochure for FCI ELECTRONICS. In this brochure, you will find an overview of each of our major product lines accompanied by a list of some of the most commonly used parts within that connector family. Using those references you can go directly to FCI's home page on the internet, enter the part number and see full data sheets and drawings for that part. We also indicate the link to the landing page in our interactive catalog where you can obtain more information for these and other part numbers within each connector family.



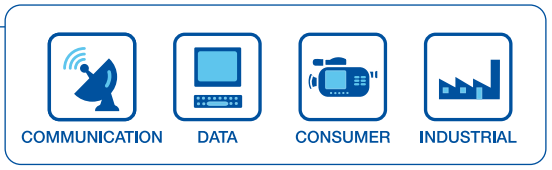
www.fciconnect.com/electronics



Enter the part reference in FCI web site

Or go directly to the landing page

Use icon to find application



View data sheet and drawings online



FCI Electronics also has micro sites available that offer more direct access to specific products and all technical related product details like: customer drawings, technical specifications, 3D-models, mating half information and more:

www.fciconnect.com/backplane
www.fciconnect.com/basics
www.fciconnect.com/boardwiresystems
www.fciconnect.com/cableassembly
www.fciconnect.com/flex
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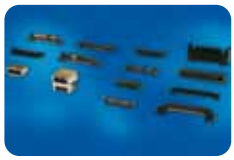
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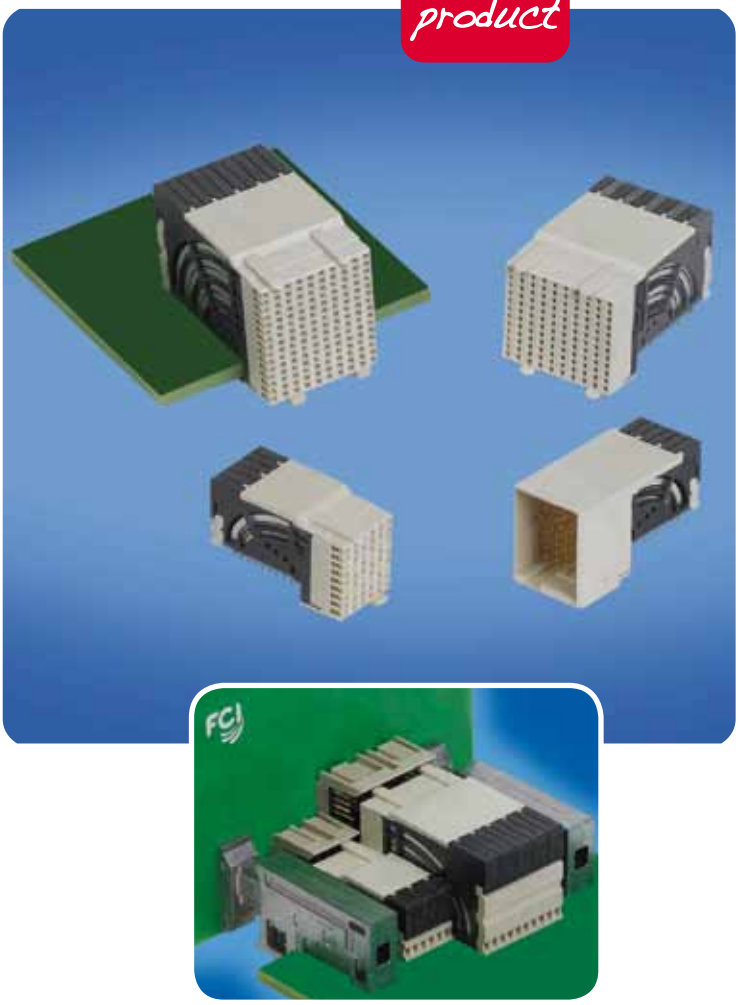
AIRMAX VSe® HIGH SPEED BACKPLANE CONNECTORS

Enable High Speed Differential Signaling at up to 25 Gb/s

New product

FEATURES & BENEFITS

- Provides AirMax® system migration path for up to 25 Gb/s per differential pair
- FCI technologies for a shield-less design with no metallic plates and closely edge-coupled differential pairs combined with innovative design improvements yield low loss and crosstalk
- Fully backwards mating-compatible interfaces to existing AirMax VS® connectors with minimal changes to connector PCB footprints
- Maintains pin assignment flexibility of AirMax VS open pin field design
- Connectors with 3, 4 or 5 signal pairs/column will enable backplane or coplanar applications
- Available power and guide modules complement signal connector offering
- Compatible with Hard Metric equipment design practice



APPLICATIONS

- Communications
  - Switches
  - Routers
  - Access (xDSL, CMTS)
  - Optical Transport / Transmission
  - Wireless Base Stations
- Data
  - Servers
  - Storage Systems
- Industrial
- Medical
- Test & Measurement

Main Products	Part References
Right-Angle Receptacle: 3 Pairs/column x 6 columns (18 differential pairs) on 2mm column pitch	10115910
Right-Angle Receptacle: 4 Pairs/column x 10 columns (40 differential pairs) on 2mm column pitch	10115911
Right-Angle Receptacle for Orthogonal Midplane: 4 Pairs/column x 4 columns (16 differential pairs) on 4.2mm column pitch	10115642
Right-Angle Receptacle: 5 Pairs/column x 10 columns (50 differential pairs) on 2mm column pitch	10115913
Right-Angle Header: 3 Pairs/column x 6 columns (18 differential pairs) on 2mm column pitch	10119886
Right-Angle Header: 4 Pairs/column x 10 columns (40 differential pairs) on 2mm column pitch	10120001
Right-Angle Header: 5 Pairs/column x 10 columns (50 differential pairs) on 2mm column pitch	10120009

More comprehensive technical information and part number listings can be found online.

Further information can be found at:
www.fciconnect.com/highspeed

AIRMAX VS®

HIGH SPEED BACKPLANE CONNECTORS

FEATURES & BENEFITS

- A full set of building blocks for Vertical Header or Vertical receptacle on backplane, co-planar, mezzanine, and cable-to-board applications in Hard Metric building practices
- Uses air dielectric between adjacent conductors to deliver low insertion loss and crosstalk
- High-speed serial data rates that can scale from 2.5Gb/s to beyond 12.5Gb/s without requiring a redesign of the basic platform
- Opposed dual-beam receptacle
- Contact structure provides high reliability
- Contains no interleaving shields reducing connector weight, cost, and PCB routing complexity
- Available with Power and guide accessories
- "Eye of the Needle" (EON)-compliant tail for press-fit PCB termination
- Lead-free and RoHS-compatible

APPLICATIONS

Data

- Servers
- Storage systems

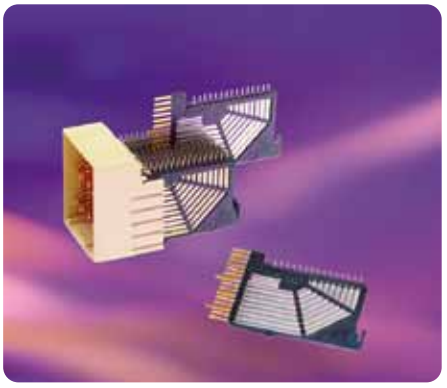
Communications

- IP routers
- IP Switches & gateways
- ATM switches
- IP PBX's
- Enterprise routers
- 3G Base stations
- ATCA® Zone 3

Industrial

- Medical
- Test & measurement





AIRMAX VS® QUICK SELECTOR GUIDE

	# Contacts per module	# Differential pairs per module	Nominal Plug In Unit pitch [mm]	Contact pitch (columns)	Header Drawing Number	Receptacle Drawing Number	Impedence [Ω]
APPLICATION: BACK PANEL, GENDER: RIGHT ANGLE HEADER, VERTICAL RECEPTACLE							
"5 pair"	150	50	25	2 mm	10025613 10016527	10016537	100
	150	50	25	3 mm	10037324 10037323	10035146	100
	150	50	25	2 mm	10097311	10099767	85
	150	50	25	3 mm	10087771	10099768	85
	120	40	25	3 mm	10064489 10064488	10064493	100
	120	40	25	2 mm	10041460 10041746	10040993	100
"4 pair"	120	40	20	2 mm	10028436 10029391	10028264	100
	120	40	20	3 mm	10035515 10035514	10035465	100
	96	32	20	2 mm	10052838 10052837	10052842	100
	72	24	20	2 mm	10052825 10052824	10052829	100
"3 pair"	90	30	17	2 mm	10034249 10034264	10034251	100
	72	24	17	2 mm	10045267 10045266	10045271	100
	54	18	17	2 mm	10039851 10040862	10043546	100
	54	18	17	2 mm	10097256	10096461	85

Further information can be found at:
www.fciconnect.com/airmax
www.fciconnect.com/highspeed

AIRMAX VS® QUICK SELECTOR GUIDE

	# Contacts per module	# Differential pairs per module	Nominal Plug In Unit pitch [mm]	Contact pitch (columns)	Header Drawing Number	Receptacle Drawing Number	Impedence [Ω]
APPLICATION: BACK PANEL, GENDER: RIGHT ANGLE RECEPTACLE, VERTICAL HEADER							
"5 pair"	150	50	25	2 mm	10056098	10034475	100
	150	50	25	3 mm	10056427	10057041	100
	120	40	25	2 mm	10055140	10045548	100
	150	50	25	2 mm	10095500	10095504	85 *
	150	50	25	3 mm	10073377	10095505	85 *
"4 pair"	120	40	20	2 mm	10056100	10035754	100
	120	40	20	3 mm	10056430	10045722	100
	96	32	20	3 mm	10056429	10076645	100
	96	32	20	2 mm	10055307	10060905	100
"3 pair"	90	30	17	2 mm	10056103	10056335	100
	54	18	17	2 mm	10056101	10053656	100
APPLICATION: COPLANAR, RIGHT ANGLE RECEPTACLE TO RIGHT ANGLE HEADER							
"5 pair"	150	50	25	2 mm	10025613 10016527	10034475	100
	150	50	25	3 mm	10037324 10037323	10057041	100
	120	40	25	2 mm	10041460 10041746	10045548	100
	150	50	25	2 mm	10097311	10095504	85 *
	150	50	25	3 mm	10087771	10095505	85 *
"4 pair"	120	40	20	2 mm	10028436 10029391	10035754	100
	120	40	20	3 mm	10035515 10035514	10045722	100
	96	32	20	2 mm	10052838 10052837	10060905	100
"3 pair"	90	30	17	2 mm	10034249 10034264	10056335	100
	72	24	17	2 mm	10052838 10052837	10077323	100
	54	18	17	2 mm	10039851 10040862	10053656	100
APPLICATION: MEZZANINE, VERTICAL RECEPTACLE TO VERTICAL HEADER							
"5 pair"	150	50	12.5	2 mm	10056098	10016537	100
	150	50	26	2 mm	10056246	10016537	100
	150	50	12.5	3 mm	10056427	10035146	100
	150	50	26	3 mm	10059957	10035146	100
	120	32	12.5	2 mm	10055140	10040993	100
	150	50	12.5	2 mm	10095500	10099767	85 *
	150	50	12.5	3 mm	10073377	10099768	85 *
"4 pair"	120	40	12.5	2 mm	10056100	10028264	100
	120	40	12.5	3 mm	10056430	10035465	100
	96	32	12.5	3 mm	10056429	-	100
"3 pair"	90	30	12.5	2 mm	10056103	10034251	100
	54	18	12.5	2 mm	10056101	10043546	100
APPLICATION: FRONT IO AND REAR PLUG UP							
"4 pair"	120	40	25	2 mm	10041268 vertical	na	100
	120	40	25	2 mm	10041398 right angle	na	100
	96	32	25	2 mm	10061399 right angle	na	100
	72	24	25	3 mm	10062319 right angle	na	100
APPLICATION: ORTHOGONAL							
"5 pair"	48	16	20	4.2 mm	10073718	10074050	100

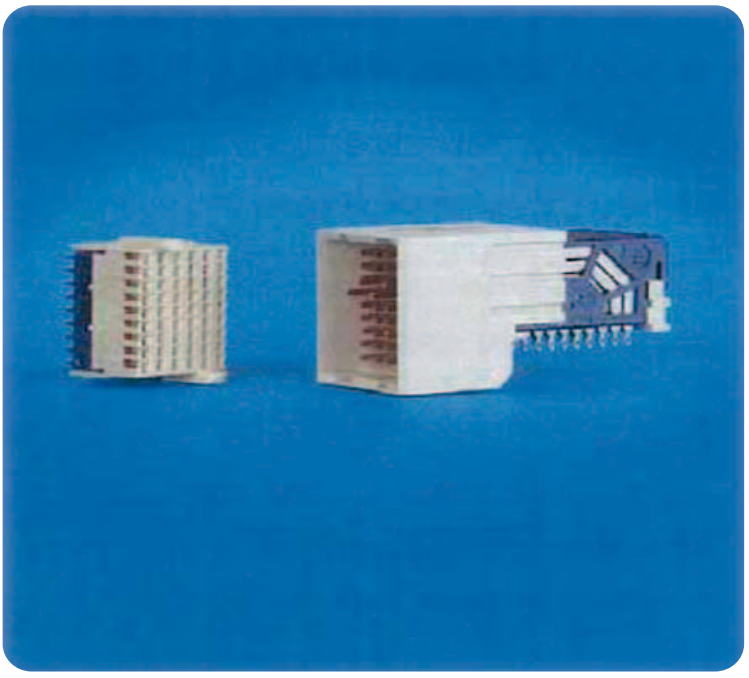
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Further information can be found at:
www.fciconnect.com/airmax
www.fciconnect.com/highspeed

AIRMAX VS® HIGH-SPEED CONNECTORS
FOR STORAGE BRIDGE BAY MIDPLANE INTERFACE

FEATURES

- Innovative shield-less design and air dielectric between adjacent conductors deliver low insertion loss and crosstalk
- High-speed serial data rates can scale from 2.5 Gb/s to 12.5 Gb/s without requiring redesign of a basic platform
- Opposed dual-beam receptacle contact structure provides high reliability
- Contains no interleaving shields reducing connector weight, cost and PCB routing complexity
- Compact 2x2 power connectors provide capacity for up to 20A/contact
- Rugged guide modules offer ESD grounding option
- Keyed guide modules differentiate between 2 Gb/s and 4 Gb/s Fibre Channel and 3 Gb/s SAS signal profiles
- Low-profile design helps facilitate airflow through canister for cooling
- Compatible with Hard Metric design practice



APPLICATIONS

- Data Storage
  - Low and midrange storage systems conforming to the Storage Bridge Bay (SBB) Specification, Version 1.0 or 2.0
    - Storage enclosures with up to 48 drives
    - 2 Gb/s and 4 Gb/s Fibre Channel or 3 Gb/s SAS signal profiles
  - Controllers conforming to the SBB Specification, Version 1.0 or 2.0
    - JBOD, RAID, ISCSI SAN, FC SAN, NAS, IB, VTL
    - Canister power profiles up to 200w

PART NUMBERS

3 Gb/s SAS Signal Profile	Module Description	SBB Midplane	SBB Canister / Controller Card
AirMax VS 3-pair, 6 IMLA signal modules	M1-M3, M5, M7-M13	10043546-101LF	10039851-101LF
AirMax VS guide module	M4	10037911-102LF	10037912-104LF (with ESD contact) or 10037812-114LF (without ESD contact)
AirMax VS power module	M6	10028916-4555P00LF	10028917-001LF (14.7mm above PCB) or 10073379-001LF (11 5mm above PCB)

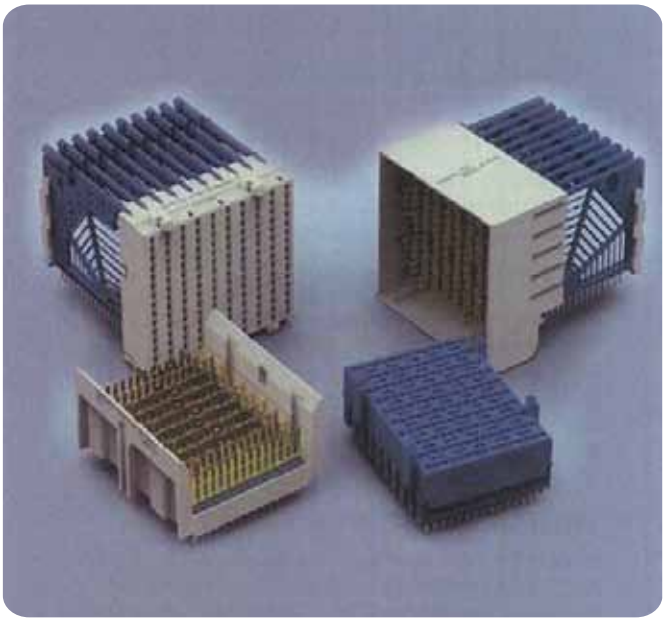
2 Gb/s or 4 Gb/s Fibre Channel Signal Profie	Module Description	SBB Midplane	SBB Canister / Controller Card
AirMax VS 3-pair 6 IMLA signal modules	M1-M3, M5, M7-M13	10043546-101LF	10039851-101LF
AirMax VS guide module	M4	10037911-102LF	10037912-102LF (with ESD contact) or 10037812-112LF (without ESD contact)
AirMax VS power module	M6	10028916-4555 P00LF	10028917-001LF (14.7mm above PCB) or 10073379-001LF (11 5mm above PCB)

Further information can be found at:
www.fciconnect.com/airmax
www.fciconnect.com/highspeed

AIRMAX VS® 85Ω CONNECTOR SYSTEM ENABLES INTEL® QUICK PATH INTERCONNECT (INTEL® QPI) LINKS

FEATURES

- Tested and fully compliant with Intel® QPI connector specifications
- Support increased QPI link speeds of 6.4 Gb/s and >8 Gb/s
- Right-angle and vertical receptacles and headers support backplane and coplanar connections
- Backwards-compatibility to 100Ω mating interfaces provides a smooth transition to new designs
- Available with 2mm or 3mm column spacing
- Complementary power connectors and guide modules complete range
- Compatible with Hard Metric design practice
- Halogen-free products aid efforts to minimize the use of environmentally sensitive materials in the electronics industry



APPLICATIONS

- Data
  - Servers
  - External Storage Systems
  - Intel® QPI links

PART NUMBERS

Application	Column Pitch	Configuration	Header Type	Right-Angle Header	Vertical Receptacle
Backplane	2mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10097311-101LF ★	10099767-101LF
Backplane	3mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10087771-101LF ★	10099768-101LF
Backplane	2mm	3 pars/column x 6 columns (18 differential pairs)	4-wall	10097256-101LF ★	10096461-101LF

Application	Column Pitch	Configuration	Header Type	Vertical Header	Right-Angle Receptacle
Backplane	2mm	5 pairs/column x 10 columns (50 differential pairs)	2-wall	10095500-1050011LF	10095504-101LF
Backplane	3mm	5 pairs/column x 10 columns (50 differential pairs)	2-wall	10073377-1050011LF	10095505-101LF

Application	Column Pitch	Configuration	Header Type	Right-Angle Header	Right-Angle Receptacle
Coplanar	2mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10097311-101LF ★	10095504-101LF
Coplanar	3mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10087771-101LF ★	10095505-101LF

Product drawings, specifications and additional technical information are available at www.fciconnect.com/airmax
Note: contact FCI at airmax@fci.com for additional information on these part numbers.

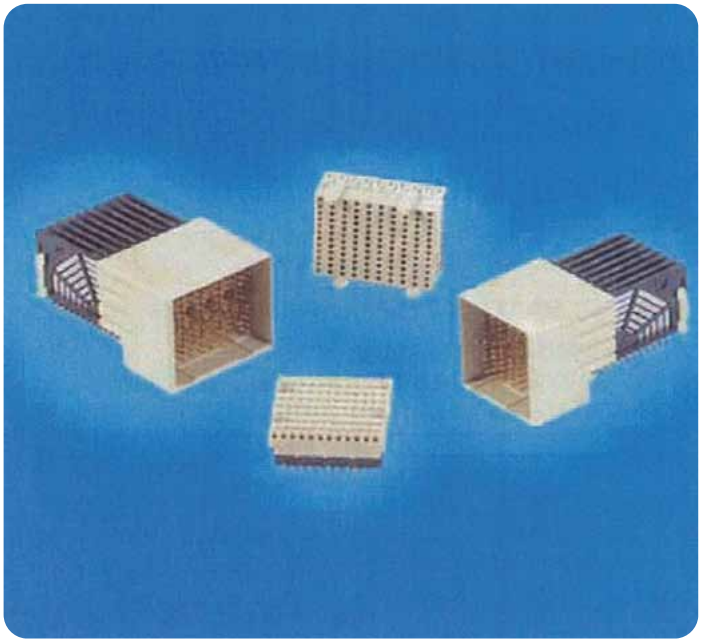
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Further information can be found at:
www.fciconnect.com/airmax
www.fciconnect.com/highspeed

AIRMAX VS® HIGH-SPEED CONNECTORS
FOR SERVER SYSTEM INFRASTRUCTURE (SSI) MODULAR BLADE SERVER PLATFORMS

FEATURES

- SSI Modular Blade Specifications ensure compatibility and interoperability among compliant modules and midplanes
- AirMax VS® 96-position signal modules enable high-speed connections between the Compute Blade and Mezzanine modules and midplane
- AirMax VS® 120-position signal modules enable connections between the Chassis Management Module and midplane
- Signal connectors deliver low insertion loss and crosstalk
- High-speed serial data rates can scale to 12.5 Gb/s
- Opposed dual-beam receptacle contact structure provides high reliability
- Rugged guide modules assure proper alignment
- Compatible with hard metric design practice



APPLICATIONS

- Server System Infrastructure (SSI) Modular Blade Server Platforms
  - Compute Blade Module
  - Mezzanine Module
  - Chassis Management Module (CMM)
  - Midplane
  - Chassis

PART NUMBERS

Compute Blade and Midplane interface	**Compute Blade**	**Midplane**
AirMax VS® 2mm, 4-pair, 96-position signal module	10084604-111LF	10084605-101LF
Airmax VS® 2mm, 4-pair, 96-position signal module (2nd optional signal module)	10084604-111LF	10084605-101LF
AirMax VS® guide module without ESD clip	10084609-111LF	10084610-101LF
AirMax VS® 2x2 power module	10084603-001LF	10084602-4554P00LF
Mezzanine and Midplane Interface	**Compute Blade**	**Midplane**
Airmax VS® 2mm, 4-pair, 96-position signal module	10084604-111LF	10084605-101LF
Chassis Management Module (CMM) and Midplane Interface	**CMM**	**Midplane**
Airmax VS® 2mm, 4-pair, 120-position signal module	10084600-111LF	10084601-101LF
Airmax VS® 2mm, 4-pair, 120-position signal module	10084600-111LF	10084601-101LF
Airmax VS® guide module without ESD clip	10084609-111LF	10084610-101LF
Compute Blade and Mezzanine Interface	**Compute Blade (receptacle)**	**Mezzanine (plug)**
BergStak® 0.8mm, 120-position, 16mm connector	61082-123402LF or 61082-123400LF	61083-124402LF or 61083-124400LF
BergStak® 0.8mm, 80-position, 16mm connector (optional expansion connector)	61082-083402LF or 61082-083400LF	61083-084402LF or 61083-084400LF

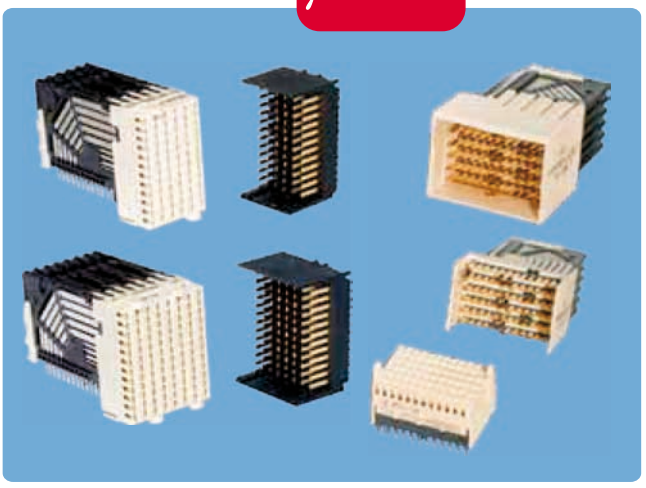
Use web links www.fciconnect.com/airmax or www.fciconnect.com/bergstak to obtain product drawings, models, specifications and additional technical information.

Product names are trademarks of their respective owners

Further information can be found at:
www.fciconnect.com/airmax
www.fciconnect.com/highspeed

AIRMAX VS® HIGH-SPEED CONNECTORS for CompactPCI® Serial

New product



FEATURES & BENEFITS

- Meet the mechanical and electrical requirements of the CompactPCI Serial Specification
- FCI technologies for shield-less design with no metallic plates and closely coupled differential pairs deliver low loss and crosstalk
- Support PCI Express, SATA/SAS, USB 2.0/3.0 and 10 Gigabit Ethernet high-speed serial interfaces
- Signal density of up to 184 pin pairs (on 3U) with serial data rates up to 12.5 Gb/s.
- Opposed dual-beam receptacle contact structure provides high reliability
- Open pin field design provides flexibility to use pins for differential or single-ended signals, ground or power
- Compatible with Hard Metric equipment design practice
- Halogen free products aid efforts to minimize the use of environmentally sensitive materials in the electronics electronics industry
- Lead-Free and RoHS compliant

APPLICATIONS

- Industrial computing and storage systems
- Industrial automation, control and monitoring equipment
- Data acquisition equipment
- Instrumentation
- Simulation and test equipment
- Surveillance systems
- Medical equipment
- High speed / high bandwidth data communication applications

FCI AirMax VS® connectors required for the CompactPCI® Serial Specification

FRONT DAUGHTER CARD CONNECTORS (Right-Angle Headers)

COLUMNS	WALLS	PART NUMBER
6	4	10052825-101LF
6	4	10052825-101LF
8	2	10052837-101LF
8	2	10052837-101LF
8	2	10052837-101LF
6	2	10052824-101LF
8	4	10052838-101LF

MIDPLANE FRONT SIDE CONNECTORS (Vertical Receptacles)

PART NUMBER
10052829-101LF
10052829-101LF
10052842-101LF
10052842-101LF
10052842-101LF
10052829-101LF
10052842-101LF

MIDPLANE REAR SIDE CONNECTORS (Vertical Headers)

COLUMNS	WALLS	PART NUMBER
6	2	10114761-101LF
8	2	10114760-101LF
8	2	10114760-101LF
6	2	10114761-101LF

REAR DAUGHTER CARD CONNECTORS (Right-Angle Receptacles)

PART NUMBER
10114633-101LF
10060905-101LF
10060905-101LF
10114633-101LF

Further information can be found at:
www.fciconnect.com/cpciserial
www.fciconnect.com/airmax
www.fciconnect.com/highspeed

XCEDE® HIGH-SPEED BACKPLANE CONNECTOR SYSTEM

FEATURES & BENEFITS

- High-speed backplane system designed for 25 Gb/s
- Use of engineering materials in the shield aids in reduction of crosstalk resonances
- 1.85mm column pitch offers high linear signal density
  - Configurations with 6 differential pairs/column fit 36 mm card slot pitch and provide 82.4 pairs/inch
  - 4 pairs/column fit 25 mm slot pitch with 54.9 pairs/inch
  - 2 pairs/column fit 15 mm slot pitch with 27.5 pairs/inch
- Two ground vias between differential pairs allow elongated antipads to further improve impedance
- Optional short compliant pin permits deeper backdrilling and dual diameter vias to enhance return loss performance
- Wide ground contacts feature a stiffening rib and are advanced well ahead of signals for exceptional robustness and signal pin protection
- Intermateable, electrically and mechanically interchangeable licensed second source to Amphenol TCS



MAIN PRODUCTS

		PART REFERENCES
Right-angle receptacle	4 pair 4 column	10091844
	4 pair 6 column	10091799
	4 pair 8 column	10091812
	6 pair 4 column	10105004
	6 pair 6 column	10105007
	6 pair 8 column	10105010
Vertical header	2 pair 4 column	10114868
	2 pair 6 column	10113947
	2 pair 8 column	10113949
	4 pair 4 column	10091836
	4 pair 6 column	10091767
	4 pair 8 column	10091777
	6 pair 4 column	10114508
	6 pair 6 column	10104997
	6 pair 8 column	10104999

APPLICATIONS

Communications

- Routers
- Switches
- Networking
- Access
- Transport
- Wireless

Data

- Servers
- Storage Systems

Industrial

- Industrial
- Medical
- Test & Measurement

XCede® is a registered trademark of Amphenol Corporation

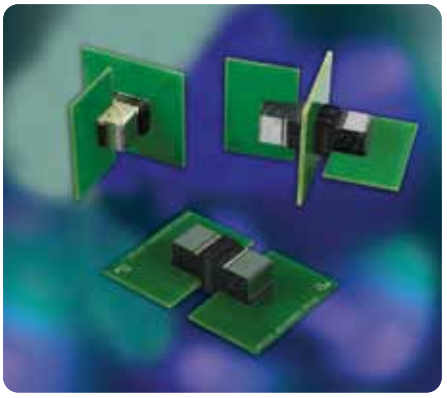
Further information can be found at:
www.fciconnect.com/xcede
www.fciconnect.com/highspeed

ZIPLINE®

HIGH-SPEED, HIGH-DENSITY CONNECTOR SYSTEM

FEATURES & BENEFITS

- Supports backplane, coplanar, and orthogonal midplane applications
- 6-pair modules with IMLAs on 1.8 mm column pitch deliver 84.6 differential pairs per inch of card edge while allowing aminimum 1-inch card slot pitch
- Provides maximum signal density available at data rates up to 12.5 Gb/s
- Use FCI Technologies for shield-less design with no metalic plates and closely coupled differential pairs to deliver low insertion loss and crosstalk
- Allows for mixed differential, single-ended or power pin assignments within a connector
- A special power wafer, with up to 36A capacity, can be integrated within a 6-pair module
- Compatible with Hard Metric equipment practice



PART REFERENCES	MAIN PRODUCTS
10076197-101LF	6 pairs/column x 12 columns (72 differential pairs) vertical 2 wall header
10080638-101LF	6 pairs/column x 12 columns (72 differential pairs) vertical 4 wall header
10076222-101LF	6 pairs/column x 12 columns (72 differential pairs) orthogonal midplane 2 wall header
10080640-101LF	6 pairs/column x 12 columns (72 differential pairs) orthogonal midplane 4 wall header
10084160-101LF	6 pairs/column x 16 columns (72 orthogonal pass-through pairs + 24 backplane pairs) orthogonal midplane 2 wall header
10076209-101LF	6 pairs/column x 12 columns (72 differential pairs) right angle receptacle
10084186-101LF	6 pairs/column x 16 columns (96 differential pairs) vertical 2 wall header
10084155-101LF	6 pairs/column x 16 columns (72 differential pairs) right angle receptacle
10084166-101LF	1 power wafer + 6 pairs/column x11 columns 66 differential pairs) vertical 2 wall header
10084164-102LF	1 power wafer + 6 pairs/column x11 columns 66 differential pairs) right angle header
10077555-101LF	6 pairs/column x 12 columns (72 differential pairs) right angle header

APPLICATIONS

Communications
- Routers
- Switches
- Networking
- Access
- Transport

Data
- Servers
- Storage Systems

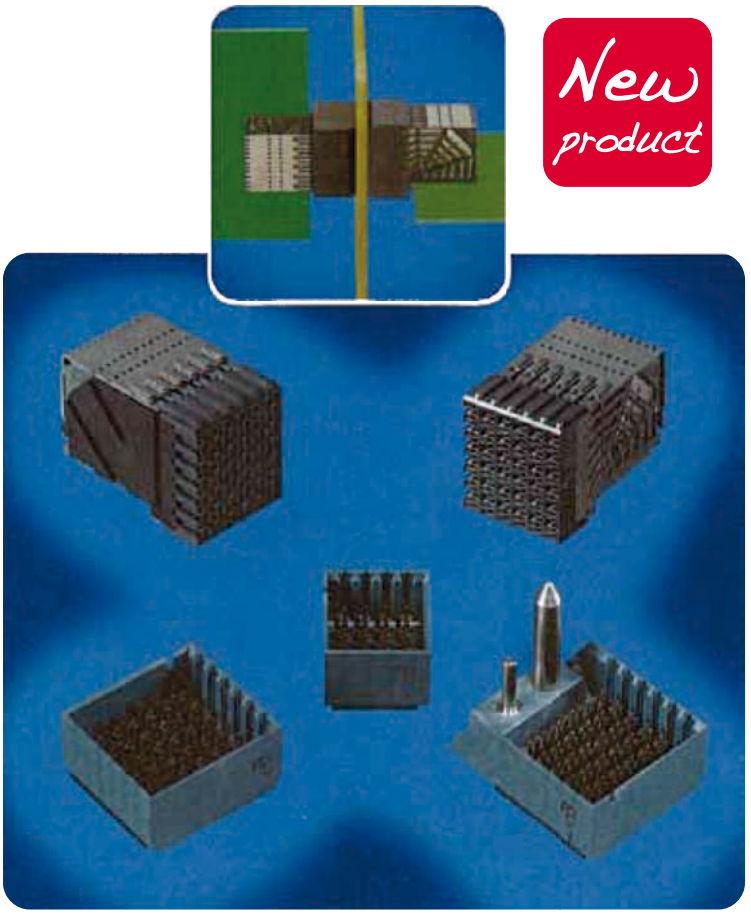
Industrial
- Medical
- Test & Measurement

Further information can be found at:
www.fciconnect.com/zipline
www.fciconnect.com/highspeed

CROSSBOW™ ORTHOGONAL MIDPLANE CONNECTOR SYSTEM

FEATURES & BENEFITS

- Capable of high-speed differential signaling at up to 20 Gb/s
- Optimized for orthogonal midplane architectures
- 6x6 midplane headers provide 36 crossover pairs
  - Available with or without polarization and guidance features
- 4X4 midplane headers provide 16 crossover pairs
  - Without polanzation and guide features
- Daughter card receptacle connectors are available as individual modules or as a mono-block assembly with modules and support components attached to a stainless steel organizer
- Two press-fit "Eye-Of-Needle" options are available for receptacles. Standard drill size is .0180" dia. Micro drill size is .0160" dia
- Intermateable, electrically and mechanically interchangeable second source to Amphenol TCS



APPLICATIONS

- Communications
  - Switches
  - Routers
- Data
  - Servers
  - Storage Systems

PART NUMBERS

Lead-free part numbers are listed, Crossbrow products are also available with tin-lead plating.

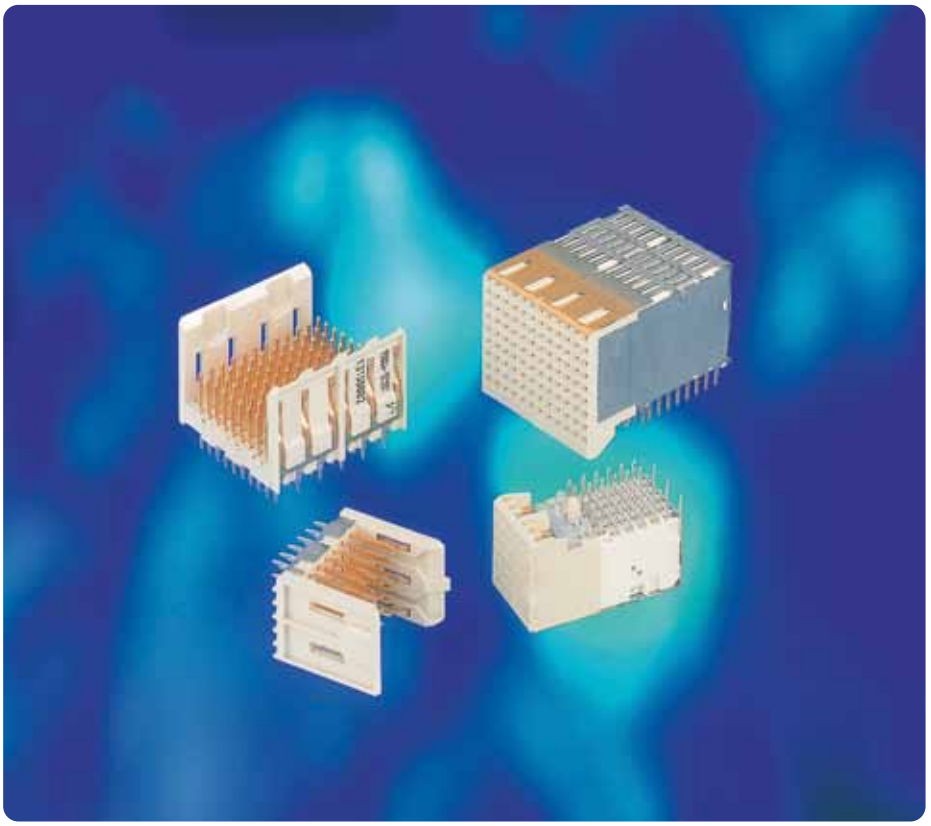
Main Products	Polarizing Key	Part References
6x6 vertical header with right guide	position C	10089485-1C03LF
6x6 vertical header with right guide	position E	10089485-1E03LF
6x6 vertical header	no key	10089480-1003LF
6x6 vertical header with right guide	no key	10089514-1001LF
4x4 vertical header	no key	10089463-1001LF
4x4 daughter card receptacle	no key	10089500-1001LF

Crossbow™ is a trademark of Amphenol Corporation

METRAL® 1000, 2000, 4000
HIGH SPEED BACKPLANE CONNECTORS

FEATURES & BENEFITS

- IEC 61076-4-104 / Telcordia* GR-1217-CORE
- Optimized Signal Integrity performance for 5 Gb/sec and more
- Part of the Metral® system to allow performance and cost efficiency
- 2 mm square pitch for efficient straight vertical and horizontal routing



	1000 Header	2000 Header	4000 Header
1000 Receptacle	622 Mb/s	1.25 Gb/s	2.5 Gb/s
4000 Receptacle	1.25 Gb/s	2.5 Gb/s	5 Gb/s

MAIN PRODUCTS — PART REFERENCES

		5 row	8 row
Metral 1000	Header	84817	74983
	Receptacle	84688	74981
Metral 2000	Header	74977	74978
	Receptacle	84688	74981
Metral 4000	Header	55003	55004
	Receptacle	52057	
Shrouds	Metral 1000	73993	74993
	Metral 2000	84621	84625

APPLICATIONS

Communications
- Routers
- Switches
- Networking
- Access
- Transport

Data
- Servers
- Storage Systems

Industrial
- Medical
- Test & Measurement

*Telcordia® is a registered trademark of Telcordia ®.

Further information can be found at:
www.fciconnect.com/metral
www.fciconnect.com/highspeed
www.fciconnect.com/backplane

METRAL®

2 MM MODULAR INTERCONNECT SYSTEM

FEATURES & BENEFITS

Low-cost application solutions:
- Press-Fit termination for backplanes
- Pin-in-Paste terminations for daughter-cards

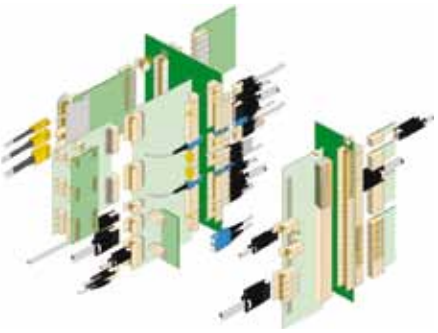
Scalability and flexibility:
- Mix low and high speed signal modules
- Mix signal and power modules

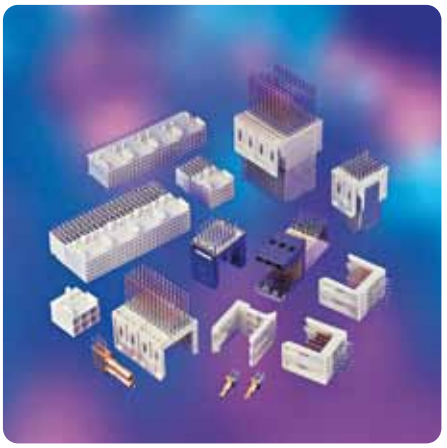
Power Distribution solutions:
- Ranging from 3 amps up to 60 amps
- Straight or inverse solutions

Complete I/O solutions:
- Rear-plug-up or front I/O
- Shielded or non-shielded
- Speeds from 2 Mb/s up to 5 Gb/s
- Designed in accordance with IEC 61076-4-104, performance according Telcordia® GR-1217-CORE

APPLICATIONS

- Transmission & switching equipment for data & telecommunications, medical equipment.





MAIN PRODUCTS — PART REFERENCES

		4-row Signal	4-row Power	5-row Signal	5-row Power
Headers					
	Press-Fit	70232	70236	89006	89099
Right angle Receptacles					
	Pin-in-Paste		72651		63793
	Solder	89035	89039	85863	85876
	Press-Fit	HM1F41FDP000H6LF 88945		HM1F51FDPOOOH6LF 89047	89096
Straight Receptacles					
	Press-Fit	85757		85761	
Right angle Headers					
	Pin-in-Paste	58361-101LF	Contact FCI	HM1L51LFP000H6PLF	Contact FCI
	Solder	HM1L41LAP000H6PLF		HM1L51LAP000H6PLF	
	Press-Fit	HM1L41LDP000H6PLF	HM1K41LDPOOOH6PLF	HM1L51LDP000H6PLF	
Cable Connectors					
	IDC	72476 / 72477		72478 / 72479	

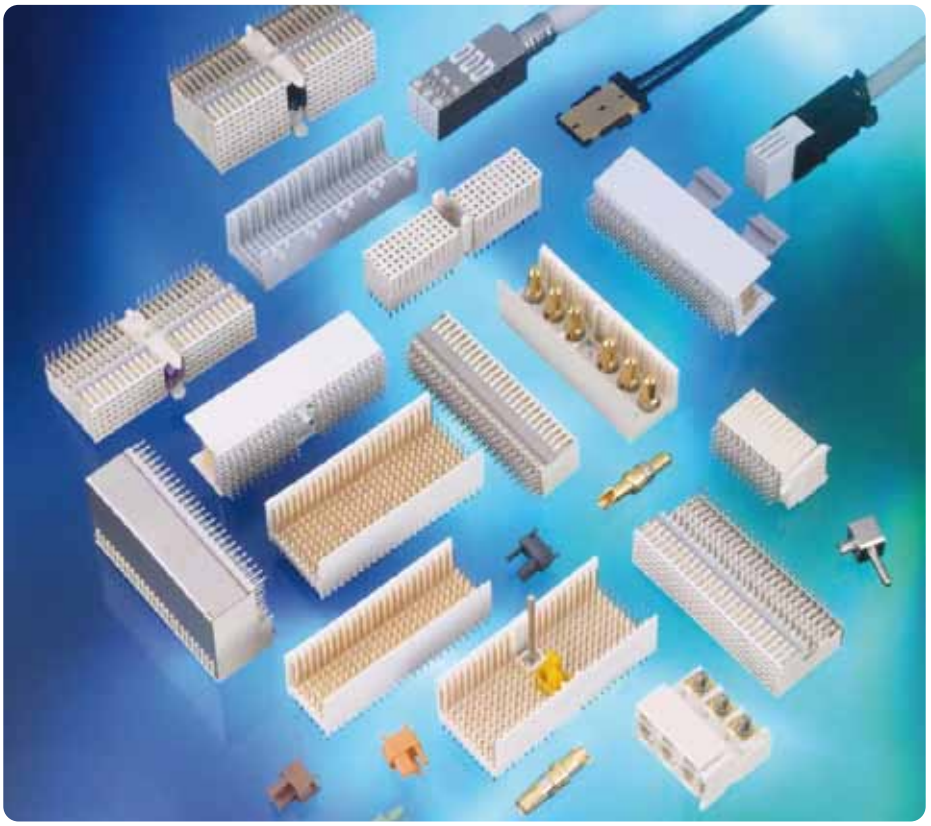
Further information can be found at:
www.fciconnect.com/metral
www.fciconnect.com/backplane

MILLIPACS®

HARD METRIC 2 MM CONNECTORS

FEATURES & BENEFITS

- Millipacs® is a 2.00 mm modular board to board or cable to board Interconnection system in Hard Metric configuration, designed in accordance with IEC 917 and IEC 61076 - 4 - 101
- Fits DIN 43356 and IEEE1301 Hard Metric Equipment Practice
- UL and CSA recognized
- Qualified by Bellcore as defined by GR-1217-CORE
- Versions meetings requirements of CompactPCI specifications
- 5+2 row and 8+2 row high density connectors
- Popular Versions include Vertical & Right Angle Headers, Vertical & Right Angle Receptacles, Cable Connectors
- Special versions include Vertical Receptacle with increased stack heights for Mezzanine applications, Right Angle Header with Latch Locking option for cable connector mating, Mating Header & Receptacle with offset polarization.
- Accessories with functionalities: Keying, Guiding, Power and Coax inserts, Shielding & Shrouds
- Headers with Staggered contacts with differential mating lengths
- Terminations with Standard EON pressfit. Also Pin-in-Paste (PIP) Version for Header & Receptacle and Pin-in-Paste (PIP) for Header.



APPLICATIONS

- Switches
- Base stations
- Embedded computers
- Medical testing
- PLC's & all applications requiring high density connectors

Further information can be found at:
www.fciconnect.com/millipacs
www.fciconnect.com/compactPCI
www.fciconnect.com/backplane

MAIN PRODUCTS — PART REFERENCES

No. of signal rows	Type	Header Series	Pin orientation	Receptacle Series	Pin orientation	Max No. of signal pins	Mounting style
5	A	HM2P07P	Vertical	HM2R01P /HM2R10P	Right Angle	110	Press-fit
		HM2J07PE	Right Angle	HM2S01P /HM2S10P	Vertical	110	Press-fit
	B	HM2P08P	Vertical	HM2R02P	Right Angle	125	Press-fit
		HM2J08PE	Right Angle	HM2S02P	Vertical	125	Press-fit
	B22	HM2P70P	Vertical	HM2R70P	Right Angle	110	Press-fit
		HM2J70P	Right Angle	HM2S70P	Vertical	110	Press-fit
	B19	HM2P71P	Vertical	HM2R71P	Right Angle	95	Press-fit
		HM2J71P	Right Angle	HM2S71P	Vertical	95	Press-fit
	AB	HM2P65P	Vertical	HM2R65P	Right Angle	125	Press-fit
		HM2J65PE	Right Angle	HM2R65P	Right Angle	125	Press-fit
	AB22	HM2P66P	Vertical	HM2R66P	Right Angle	110	Press-fit
	AB19	HM2P67P	Vertical	HM2R67P	Right Angle	95	Press-fit
	C	HM2P09P	Vertical	HM2R03P /HM2R30P	Right Angle	55	Press-fit
		HM2J09P	Right Angle	HM2S30P	Vertical	55	Press-fit
	CR	HM2P80P	Vertical	HM2R20P	Right Angle	55	Press-fit
	L	HM2A30P	Vertical	HM2E30P	Right Angle	6 Spl.	Press-fit
	M	HM2P11P	Vertical	HM2R05P	Right Angle	3 Spl.+ 55	Press-fit
	N	HM2A32P	Vertical	HM2E32P	Right Angle	3 Spl.	Press-fit
8	D	HM2P87P	Vertical	HM2R87P /HM2R81P	Right Angle	176	Press-fit
	DE	HM2P95P	Vertical	HM2R95P	Right Angle	200	Press-fit
	E	HM2P88P	Vertical	HM2R88P	Right Angle	200	Press-fit
	F	HM2P89P	Vertical	HM2R89P /HM2R83P	Right Angle	88	Press-fit
	A	HM2P40S	Vertical			110	PIP
5	C	HM2P09S	Vertical			55	PIP
	M	HM2P11S	Vertical			3 Spl.+ 55	PIP

MAIN PRODUCTS — PART REFERENCES

Other Options	Features	Application	Series
Cable Connectors	Non shielded/Shielded	Input/Output	HM2C---
Coding Devices	Plug and Receptacle with pre defined RAL colours	Prevent incorrect insertion	HM2DK---
Power Contacts	High Precision Pin and Socket contacts	Hybrid, Power, Coax for increased durability	RM……..(Pin) / RC……..(Sockets)
Millipacs Shrouds	5 row and 8 row available	Rear-Plug-up	HM2H---
Bottom Shield	Pre-assembled shields for Right Angle Receptacles	Shielding	HM2LS---
Guiding Pins	Stackable, Different Pin lengths	Guiding & Premating	HM2G….

Further information can be found at:
www.fciconnect.com/millipacs
www.fciconnect.com/backplane

DIN 41612

FEATURES & BENEFITS

- Standardized per DIN 41612
- Full interconnect system
  - BTB and I/O solutions
  - Signal and power
- Low cost application solutions
  - Press-fit termination, receptacle and header
  - IDC cable termination

APPLICATIONS

- Switching & transmission
- Radio base stations
- PBX's



DIN standard and reversed signal



DINStyle F, H & F24/H7



DIN IDC

STANDARD SIGNAL — PART REFERENCES

Style	No. rows	pos.	Termination	
Style B right angle header	2 row	64	solder-to-board	8609 264 51 13 XXX XX LF
Style B/2 right angle header	2 row	32	solder-to-board	8609 232 53 13 XXX XX LF
Style C right angle header	3 row	96	solder-to-board	8609 396 71 13 XXX XX LF
			press-fit	8609 396 71 94 XXX XX LF
Style C/2 right angle header	3 row	48	solder-to-board	8609 348 73 13 XXX XX LF
Style B straight receptacle	2 row	64	solder-to-board	8609 264 61 14 XXX XX LF
Style B/2 straight receptacle	2 row	32	solder-to-board	8609 232 63 14 XXX XX LF
Style C straight receptacle	3 row	96	solder-to-board	8609 396 81 14 XXX XX LF
			press-fit	8609 396 81 94 XXX XX LF
Style C/2 straight receptacle	3 row	48	solder-to-board	8609 348 83 14 XXX XX LF

Further information can be found at:
www.fciconnect.com/din41612
www.fciconnect.com/backplane

REVERSED SIGNAL — PART REFERENCES

Style	No. rows	pos.	Termination	
Style R straight header	3 row	96	solder-to-board	8609 396 78 14 XXX XX LF
			press-fit	8609 396 78 94 XXX XX LF
Style R/2 straight header	3 row	48	solder-to-board	8609 348 76 14 XXX XX LF
Style R right angle receptacle	3 row	96	solder-to-board	8609 396 88 13 XXX XX LF
			press-fit	8609 396 88 94 XXX XX LF
Style R/2 right angle receptacle	3 row	48	solder-to-board	8609 348 86 13 XXX XX LF

POWER — PART REFERENCES

Style	No. rows	pos.	Termination	
Style F right angle header	3 row	48	medium - 5.5A	5159 009 48 63 94 XXX LF
Style F straight receptacle	3 row	48	medium - 5.5A	5159 909 48 11 94 111LF
Style H right angle header	3 row	48	high - 15A	5159 029 15 23 XXX LF
Style H straight receptacle	3 row	48	high - 15A	5159 029 15 19 XXX LF
Style F24/H7 right angle header	3 row	24 / 7	medium/high	5159 002 31 23 54 XXX LF
Style F24/H7 straight receptacle	3 row	24 / 7	medium/high	5159 002 31 11 93 XXX LF

IDC — PART REFERENCES

Style	No. rows	pos.	Termination	
IDC cable connector	3 row	96	IDC	BPS 8B 96 FLD XXX XX LF
		21	IDC	BPS 8B 21 FLD XXX XX LF
		9	IDC	BPS 8B 09 FLD XXX XX LF

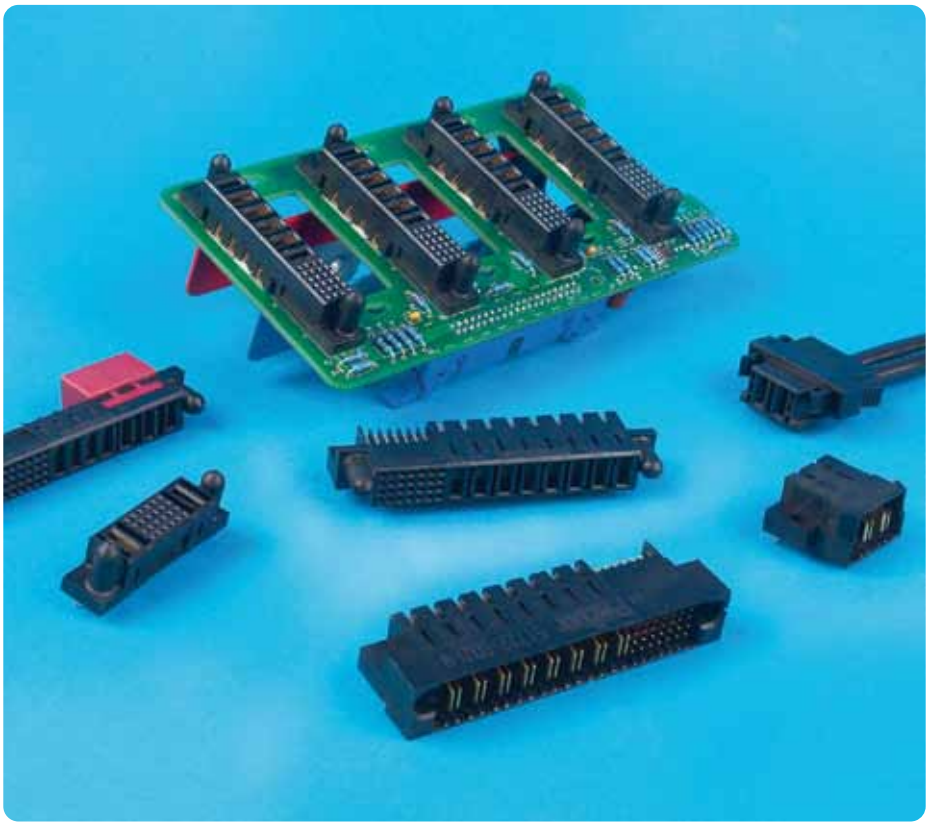
Further information can be found at:
www.fciconnect.com/din41612
www.fciconnect.com/backplane

PWRBLADE®

AC/DC POWER DISTRIBUTION CONNECTOR SYSTEM

FEATURES & BENEFITS

- 48A/individual power contact; 30A/contact for 10 adjacent contacts at 30°C temperature rise in still air
- 60A/contact using UL test guidelines
- SSI-compliant connector interface for pluggable power supplies & power distribution applications
- Provides power contacts for power distribution and signal contacts for power control
- Number and placement of power and signal contacts are highly configurable for custom power needs
- Power contact spacing options exist for AC (300V max), DC (200V max) or high-density power (at same voltage)
- Meets applicable UL current interruption criteria for hot plug applications
- Rugged, molded-in guides enable blind mating
- Up to 3 levels of sequential contact including a short detect pin for hot swap applications
- Existing tooling capabilities accommodate up to 20 power contacts and 148 signal contacts in a single molded housing
- Solder or press-fit tail options are available for termination flexibility
- Board retention devices are provided to secure connectors during wave solder process
- AC cable port option (cable pass-through) as well as direct attach to busbars for power distribution are available
- Lead free plating is available for RoHS compliance



APPLICATIONS

- AC/DC pluggable power supplies in data, telecom & datacom/networking
- Server System Infrastructure (SSI)-compliant server systems
- Industrial PCs
- Industrial controls & instrumentation

MAIN PRODUCTS	PART REFERENCES
Power+Signal+Power Right Angle Header	51720-1XXXXXXXXXLF
Power+Signal+Power Vertical Header	51700-1XXXXXXXXXLF
Power+Signal+Power Right Angle Receptacle	51760-1XXXXXXXXXLF
Power+Signal+Power Vertical Receptacle	51740-1XXXXXXXXXLF

Power Solutions℠

Further information can be found at:
www.fciconnect.com/pwrblade
www.fciconnect.com/powersolutions

TYPICAL PRODUCTS

PART REFERENCES

SERVER SYSTEM INFRASTRUCTURE (SSI STANDARD)

Distributed Power Supply (1 Power + 24 Signal + 1 Power Configuration)

Server	Right Angle Receptacle	51416-001LF
	Vertical Press-Fit Receptacle	51666-001LF
Power Supply	Right Angle Header	51415-001LF
	Vertical Header	51952-001LF
	Vertical Press-Fit Header	51952-002LF

High-End Power Supply (24 Signal + 12 Power Configuration)

Server	Vertical Receptacle	51261-XX001LF
	Vertical Press-Fit Receptacle	51617-XX002LF
Power Supply	Right Angle Header	51219-XX002LF

Mid-Range Power Supply (5 Power + 24 Signal + 6 Power Configuration)

Server	Right Angle Receptacle	51625-XX001LF
	Vertical Press-Fit Receptacle	51667-XX001LF
Power Supply	Right Angle Header	51624-XX001LF
	Vertical Header	51860-001LF
	Vertical Press-Fit Header	51860-002LF

AC CABLE PORT RIGHT ANGLE RECEPTACLE

Cable+Power+Signal+Power	51894-YYYLF
Cable+Signal+Power	51921-YYYLF
Cable+Power+Signal	51923-YYYLF

AC CABLE PORT VERTICAL RECEPTACLE

Cable+Power+Signal+Power	51897-YYYLF
Cable	51897-YYYLF
Cable+Signal+Power	51897-YYYLF/51927-YYYLF
Cable+Power+Signal	51929-YYYLF

Note: The XX and YYY utilized in the part numbers above are placeholders for certain product specific criteria.
Reference the product drawings to obtain detailed dimensions and complete part numbers.
For non-SSI applications other configurations are available upon request.Please contact your local FCI representative.

Power Solutions℠

Further information can be found at:
www.fciconnect.com/pwrblade
www.fciconnect.com/powersolutions

PWRBLADE+™

AC/DC POWER DISTRIBUTION CONNECTOR SYSTEM

FEATURES & BENEFITS

- High power contact option (up to 75A/contact; 30°C temperature rise in still air) for cost-effective power delivery in 1U and 2U power supplies or power distribution applications
- Low power contact option (up to 49A/contact; 30°C temperature rise in still air) for applications with multiple voltages and lower power requirements
- Highly vented housing design maximizes heat dissipation for effective system cooling
- Half-bullet guides offer a reduced connector footprint
- Housing material is halogen-free for next generation environmental requirements
- Large operating temperature range (-40°C to +125°C) for extreme environments
- Right angle and co-planar options are available with both power contacts for power distribution and signal contacts for power control
- Number and placement of power and signal contacts are highly configurable for custom power needs
- Solder or press-fit tails are available for termination flexibility
- Compatible with lead-free processing temperatures



APPLICATIONS

- AC/DC pluggable power supplies in data, telecom & datacom/networking equipment
- Industrial PCs
- Industrial controls & instrumentation
- Medical

MAIN PRODUCTS	PART REFERENCES
2P+16S+2P Right Angle Header	10106124-4004001LF
2P+16S+2P Right Angle Receptacle	10106126-4004001LF
10HDP+32S Right Angle Header	10106132-A008001LF
10HDP+32S Vertical Receptacle	10106139-A008001LF

Power Solutions℠

Further information can be found at:
www.fciconnect.com/pwrblade+
www.fciconnect.com/powersolutions

High Power Card Edge (HPCE®)
Next Generation Power Card Edge Connector

FEATURES & BENEFITS

- Current rating to 9A/power contact beam (with multiple power contacts fully energized) without exceeding a 30°C temperature rise in still air
- Low profile height (2.8 mm for straddle mount; 7.50 mm for right angle) maximizes airflow for effective system cooling
- One-piece assembly enables cost-effective power delivery for 1U and 2U power supplies or power distribution applications
- Highly vented housing design maximizes heat dissipation
- Vertical, right angle and straddle mount options are available with both power contacts for power distribution and signal contacts for power control
- Number and placement of power and signal contacts are highly configurable for custom power needs
- Polarized housing option ensures proper mating board orientation
- Plastic housing features and mounting ear options are available for polarization to the host PCB as well as to secure the connector during the wave solder process
- Robust design includes touch-proof safety features that are ULVIEC 60950 compliant
- Solder or press-fit tails are available on the vertical option for termination flexibility
- Compatible with lead-free processing temperatures



MAIN PRODUCTS — PART REFERENCES

VERTICAL SOLUTION		Orientation Key	Part number
56 P + 12 S		No	10088418-002LF

RIGHT ANGLE SOLUTION	Hold down	Orientation Key	Part number
56 P + 12 S	No	No	10096926-002LF
56 P + 12 S	Yes	No	10096926-004LF

STRADDLE MOUNT SOLUTION	Mounting ears	Front Rear Orientation Key	Part number
36 P + 24 S	Yes	No	10107844-002LF

APPLICATIONS

- AC/DC pluggable power supplies in data, telecom & datacom/networking equipment
- Industrial PCs
- Industrial controls & instrumentation
- Medical

Power Solutions℠

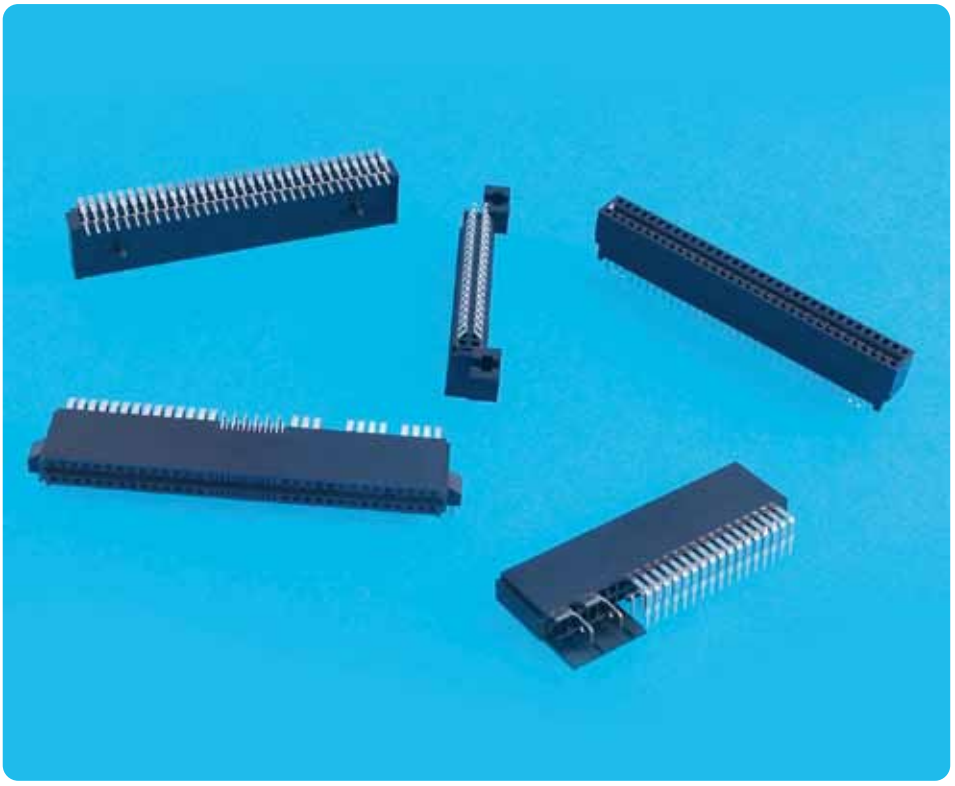
Further information can be found at:
www.fciconnect.com/hpce
www.fciconnect.com/powersolutions

POWER CARD EDGE

LOW PROFILE AC/DC POWER DISTRIBUTION CONNECTOR SYSTEM

FEATURES & BENEFITS

- 7A/contact for multiple contacts at 30°C temperature rise in still air
- One-piece card edge design enables cost-effective power delivery for 1U and 2U power supplies or power distribution applications
- Low-profile design maximizes airflow for system cooling
- Right angle option is available with both power contacts for power distribution and signal contacts for power control
- Integrated power and signal design simplifies board assembly
- Right angle product range includes version with molded posts or metal fork locks for board retention
- Straddle-mount connectors feature mounting ears for secure PCB attachment
- Optional AC cable port is available for a cable pass-through solution
- Lead free plating is available for RoHS compliance



MAIN PRODUCTS — PART REFERENCES

Right Angle Solutions

10P + 24S + 10P	10028886
14P + 24S + 10P	
20P + 24S + 20P	
28P + 24S + 28P	
2x14, 2x17, 2x22, 2x25, 2x28, 2x29, 2x31, 2x32 power	10035388
2x32 power w/ housing stand-offs	10053363

Vertical Solutions

2x19, 2x31, 2x32, 2x35 power	10046971
2x8 power w/ mounting ears	10046972
2x19, 2x31 power w/ press-fit tails	10075664

Straddle-Mount Solutions

2x19, 2x23 power	10034908

APPLICATIONS

- AC/DC pluggable power supplies in data, telecom & datacom/networking
- Industrial PCs
- Industrial controls & instrumentation
- Medical

Power Solutions℠

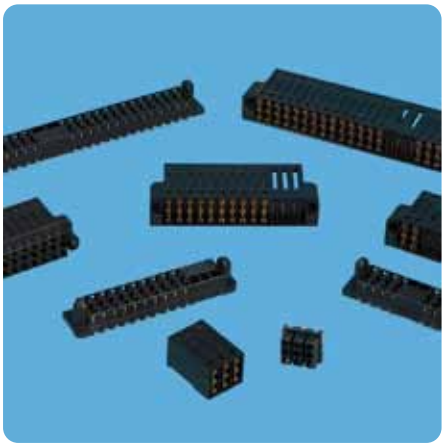
Further information can be found at:
www.fciconnect.com/pwrcardedge
www.fciconnect.com/powersolutions

HCI®

AC/DC HIGH POWER DISTRIBUTION CONNECTOR SYSTEM

FEATURES & BENEFITS

- Up to 135A/ power contact without exceeding a 30°C temperature rise in still air
- 95A/contact using UL test guidelines
- For high-wattage or high current density needs in power supplies & power distribution applications
- Provides power contacts for power distribution and signal contacts for power control
- Number and placement of power and signal contacts are highly configurable for custom power needs
- Power contact spacing options exist for AC (400V max) and DC (250V max) power
- Highly vented housing design maximizes airflow effects around and through the connector system
- Rugged, molded-in guides enable blind mating
- Connector housing does not overhang the board edge so the board-to-board spacing can be adjusted if needed
- Up to 3 levels of sequential contact including a short detect pin for hot swap applications
- Two and three position modules are available for use alongside the ZipLine®, AirMax VS® or Millipacs® Hard Metric-compatible connector series
- UL/CSA and TUV approved
- Board retention devices are provided to secure connectors during wave solder process
- AC cable port option (cable pass-through) as well as direct attach to busbars for power distribution are available
- Lead free plating is available for RoHS compliance



MAIN PRODUCTS	PART REFERENCES
2DC+16S+4DC Right Angle Header	10074864-003LF
2DC+16S+4DC Vertical Receptacle	10074866-001LF
20S+8DC Right Angle Header	10078546-001LF
20S+8DC Vertical Receptacle	10078548-001LF
10DC+24S Right Angle Header	10065864-003LF
10DC+24S Vertical Receptacle	10065127-001LF
11DC+24S Right Angle Header	10082091-003LF
11DC+24S Vertical Receptacle	10082093-001LF
7DC+24S+4DC Right Angle Header	10082722-001LF
7DC+24S+4DC Right Angle Receptacle	10082724-001LF
14DC+24S+14DC Right Angle Header	10084757-001LF
14DC+24S+14DC Vertical Receptacle	10084759-001LF

APPLICATIONS

- AC/DC pluggable power supplies in data, telecom & datacom/networking
- Industrial PCs
- Industrial controls & instrumentation
- Medical

Custom configurations are readily available upon request. Please contact your local FCI representative.

Further information can be found at:
www.fciconnect.com/hci
www.fciconnect.com/powersolutions

HARD METRIC HIGH POWER CONNECTORS

FEATURES & BENEFITS

- Current rating to 80 amps for 1x2 or 2x2 modules
- Hard Metric (HM) Equipment Practice
- Layout compatible with AirMax VS® and Millipacs® connector series
- 1x2, 2x2 or 2x3 contact configurations for backplane applications
- Standard-profile 1x2 and 2x2 right-angle modules extend 14.7 mm above the PCB
- Lower-profile 2x2 and 2x3 modules stand only 11.5 mm above board
- Options for first-mate/last-break sequencing, 2 mating lengths available
- Protected Backplane connector UL 60950 Compliant (Finger Probe)
- Options for 1x2 or 2x2 Co-planar applications
- Press-fit termination
- Compatible with lead-free processing temperatures

APPLICATIONS

Data
- Servers
- Storage Devices
- Computing Platforms

Communications
- Switches
- Routers
- Internet Equipment

Medical

Instrumentation



Power Solutions℠

AirMax VS®

MAIN PRODUCTS — PART REFERENCES

	NUMBER OF CONTACTS	CONTACT ARRAY	HEIGHT ABOVE PCB	PART NUMBERS	
				Vertical Receptacle	Right-Angle Header
Backplane Application	2	1x2	14.7 mm	10028916-xxxxP00LF**	10028918-001LF
	4	2x2	14.7 mm	10028916-xxxxP00LF**	10028917-001LF
	4	2x2*	11.5 mm	10028916-xxxxP00LF**	10073379-001LF
	6	2x3*	11.5 mm	10061290-xxxxxxPLF**	10061289-001LF
				Right-Angle Receptacle	Right-Angle Header
Co-planar Application	2	1x2	14.7 mm	10052620-xxxxP00LF	10028918-001LF
	4	2x2	14.7 mm	10052620-xxxxP00LF	10028917-001LF
	4	2x2*	11.5 mm	10052620-xxxxP00LF	10073379-001LF

Notes: * indicates the connector set matches the above-board height of an AirMax VS 3-pair signal connector.
** xxxx and xxxxxx are placeholders for contact mating length combinations. Reference the product drawings for available options.

Further information can be found at:
www.fciconnect.com/hmhighpower
www.fciconnect.com/powersolutions

METRAL® POWER CONNECTORS

FEATURES & BENEFITS

- 3 Amps per individual power contact
- Designed in accordance with IEC 61076-4-104
- Modular design offers system design flexibility
- Stackable end-to-end with other Metral modules without loss of positions
- 12 mm wide power modules are form and fit interchangeable with signal modules on the same footprint
- "Eye-of-Needle" compliant section provides gas-tight, press-fit termination
- First-Make-Last-Break options that enable sequential mating are available in the vertical header
- RoHS-compliant options aid compliance with environmental regulations

APPLICATIONS

- Communication
- Instrumentation
- Medical



MAIN PRODUCTS

PART REFERENCES

		4 Rows (8 contacts)	5 Rows (10 contacts)
Header, vertical	Press-fit	70236	89099
Header, right-angle	Press-fit	HM1K41	HMIK51
Receptacle, right-angle	Press-fit	88949	89096
Receptacle, right-angle	Solder	89039	85876
Receptacle, right-angle	Solder	93239	94561

Power Solutions℠

METRAL® HIGH POWER CONNECTORS

FEATURES & BENEFITS

- Available in 1 x2 or 2x2 contact configurations
- Rated for up to 80 Amps current for a single module
- Voltage Rating: 150V
- Receptacle connectors can be provided with two contact lengths to enable first-mate/last-break sequencing
- Protected backpanel receptacle connector is UL 60950 (Finger Probe) compliant
- Layout compatible with Metral 2mm backpanel connector family
- Press-fit termination

APPLICATIONS

- Data
  - Switches
  - Routers
  - Internet Equipment
- Communications
  - Servers
  - Storage Devices
  - Computing Platforms
- Medical
- Instrumentation



MAIN PRODUCTS / PART REFERENCES

MAIN PRODUCTS	PART REFERENCES
Vertical receptacle, 8.0mm mating length	10009536-001
Vertical receptacle, 6.5mm mating length	10009536-002
Vertical receptacle, "XXXX" designates FMLB (First Mate, Last Break) loading pattern options	10025058-XXXX
Right-angle header, 2x2 Contacts	10009542-001
Right-angle header, 1x2 Contacts	10009556-001

Power Solutions℠

Further information can be found at:
www.fciconnect.com/powersolutions

HCI® HIGH POWER

HIGH POWER BACKPLANE/MIDPLANE CONNECTOR SYSTEM

FEATURES & BENEFITS

- Current rating to 113A/ contact without exceeding a 30°C temperature rise in still air
- Design is compliant with the Hard Metric (HM) Equipment Practice and compatible with the ZipLine™, AirMax VS® and Millipacs® connector series
- Connector housing does not overhang the board edge so the board-to-board spacing can be adjusted if needed
- Two- and three-position modules support backplane or midplane applications
- The two-position module with integrated center guide can eliminate the need for separate guidance
- Housing walls surround the power contacts to ensure that adjacent contacts cannot short together
- Two contact mating length options provide capability for sequentially mating power and ground contacts
- Protected backplane/midplane receptacle is UL 60950 compliant (Test Finger & Test Probe)
- Press-fit termination is available for thicker, higher-layer-count boards
- Compatible with lead-free processing temperatures



MAIN PRODUCTS	PART REFERENCES
1x2 Right Angle Header w/o Integrated Guide	10078770-001LF
1x2 Vertical Receptacle w/o Integrated Guide	10078768-001LF
1x2 Right Angle Header w/ Integrated Guide	10087937-001LF
1x2 Vertical Receptacle w/ Integrated Guide	10087939-001LF
1x3 Right Angle Header	10078904-001LF
1x3 Vertical Receptacle	10078902-001LF

APPLICATIONS

- Data - servers & storage enclosures
- Telecommunications
- Datacom/networking
- Industrial controls & instrumentation
- Medical

Note: For right angle headers with one first mate/last break contact, please use the -002LF dash number option per the applicable product drawing.

Further information can be found at:
www.fciconnect.com/hcihighpower
www.fciconnect.com/powersolutions

PWR PROFILE+™

LOW PROFILE I/O CABLE ASSEMBLIES

FEATURES & BENEFITS

- Current rating to 37A/contact for two contacts without exceeding a 30°C temperature rise in still air
- Compact design is ideal for limited space applications
- Low 8.38mm profile height maximizes airflow for system cooling
- Vented cable housing design maximizes heat dissipation
- Two signal contacts are available for presence detection or power control
- Integrated latching system minimizes connector/cable footprint
- Robust design includes touch-proof safety features that are IEC 60950 compliant
- Polarized housing design ensures proper mating
- Compatible with lead-free processing temperatures



MAIN PRODUCTS	PART REFERENCES
Right Angle Board Mount Header w/ Grounding Shield	10089872-101LF
Cable Receptacle Assembly 1P+2S+1P Receptacle-6mm² Wire, 1m Cable Length & Jumpered Signal Contacts	10105849-40100DYLF

APPLICATIONS

- Power I/O & distribution in data, telecom & datacom/networking
- Uninterruptible power supplies (UPS)
- Battery & power strip monitoring
- Industrial controls & instrumentation
- Medical

Please contact your local FCI representative for applicable receptacle cable assembly part number information.

Power Solutions℠

Further information can be found at:
www.fciconnect.com/pwrprofile+
www.fciconnect.com/powersolutions

PWRBLADE®
CABLE ASSEMBLIES

FEATURES & BENEFITS

- 48A/individual power contact; 30A/contact for 10 adjacent contacts at 30°C temperature rise in still air
- Right angle board connector enables front I/O applications
- Vertical board connector enables power distribution to mid-board components
- Panel-mount option or squeeze-to-release latches are available to accommodate various system configurations
- Supports multiple wire sizes including 8 - 14 AWG wire for power contacts and 22 - 26 AWG for signal contacts
- Power contact spacing options exist for AC (300V max) or DC (200V max) power
- Provides power contacts for power distribution and signal contacts for power control
- Number and placement of power and signal contacts are highly configurable for custom power needs
- Rugged, molded-in guides on panel-mount version enable blind mating
- Polarized housing design ensures proper mating
- Up to 3 levels of sequential contact including a short detect pin for hot swap applications
- Lead free plating is available for RoHS compliance





APPLICATIONS

- Power I/O & distribution in data, telecom & datacom/networking
- Uninterruptible power supplies (UPS)
- Industrial controls & instrumention
- Medical

MAIN PRODUCTS	PART REFERENCES
2P Right Angle Board Mount Header	51939-198LF
2P Cable Receptacle w/ Squeeze-To-Release Latches (8 AWG wire; 1 m cable length)	10080594-1AD0078LF
24S+6P Right Angle Board Mount Header	51721-10002406AALF
24S+6P Cable Receptacle For Panel-Mount (10 AWG wire; 1 m cable length)	10080591-HAB0023LF

Additional custom cable assemblies are readily available upon request. Please contact your local FCI representative.

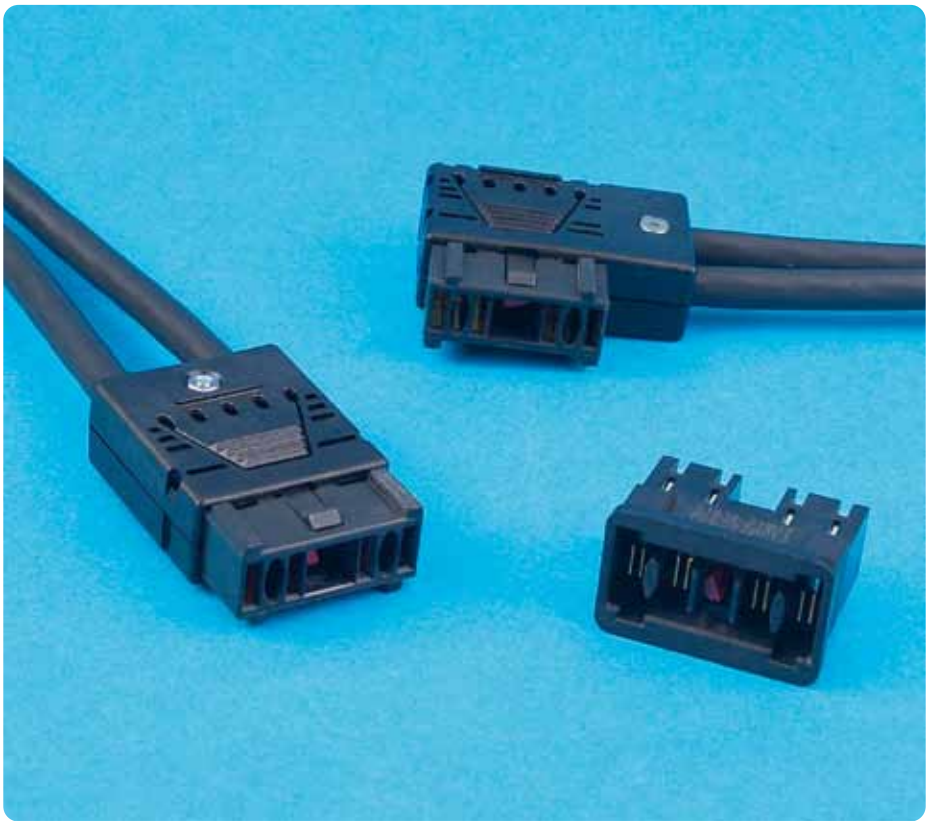
Power Solutions℠

Further information can be found at:
www.fciconnect.com/cableassembly
www.fciconnect.com/powersolutions

PWR TWINBLADE®
I/O CABLE ASSEMBLIES

FEATURES & BENEFITS

- Up to 100A/twin contact for two conductors at 30°C temperature rise in still air
- Right angle board connector enables front I/O applications
- Straight and right angle cable exit options facilitate routing flexibility
- Supports multiple wire sizes including 10 mm^2, 16 mm^2 or 25 mm^2 wire as well as 2 x 6 mm^2 wires
- Rated up to 300V DC for higher voltage applications
- Robust connector design includes touch-proof safety features
- Integrated latching system minimizes connector/cable footprint
- Polarized housing design ensures proper mating
- Four coding options allow keying to block insertion of incorrect cables
- Lead free plating is available for RoHS compliance



MAIN PRODUCTS	PART REFERENCES
Right Angle Board Mount Header	51939-219LF
Right Angle Exit Cable Receptacle Assembly (10 mm^2 wire; 1 m cable length)	10080068-4FEL100LF
Right Angle Exit Cable Receptacle Assembly (16 mm^2 wire; 1 m cable length)	10080068-4GEL100LF
Right Angle Exit Cable Receptacle Assembly (25 mm^2 wire; 1 m cable length)	10080068-4HEL100LF
Straight Exit Cable Receptacle Assembly (16 mm^2 wire; 1 m cable length)	10080068-2GEL100LF

APPLICATIONS

- Power I/O & distribution in data, telecom & datacom/networking
- Uninterruptible power supplies (UPS)
- Industrial controls & instrumention

Additional custom cable assemblies are available upon request. Please contact your local FCI representative.

Further information can be found at:
www.fciconnect.com/cableassembly
www.fciconnect.com/powersolutions

POWER DISTRIBUTION SOLUTIONS

Integrated systems including bus bars, connectors, cables, PCBs, and other components

FEATURES & BENEFITS

- Broad range of power connector solutions includes high current density and low contact resistance products, touch-proof designs, low-profile solutions and options with integrated signal contacts for power control
- Customized designs integrate connectors and other components such as PCBs, breakers, switches, capacitors and cables
- Low inductance, distributed capacitance and low resistance minimize impedance, voltage drop and noise
- Integration of a bus bar can replace thick copper traces and reduce board layers
- Improved thermal characteristics compared to cables
- More efficient utilization of cabinet space and less complexity compared to wire harnesses
- Simplified designs can reduce component count and cost fast, error-free and cost-effective installation and lower field service costs
- Improved quality results from predictable and repeatable electrical performance
- Design capability includes analysis of current flow, thermal characteristics, voltage drop and inductance to ensure maximum efficiency



APPLICATIONS

Communications
- Wireless base stations
- Switches
- Routers

Data
- Servers
- Supercomputers
- Storage Systems

Industrial
- Power supplies
- Medical scanners
- Electrical cabinets (switchgear)

Power Solutions℠

Further information can be found at:
www.fciconnect.com/powersolutions
www.fciconnect.com/powerdistribution

POWER DISTRIBUTION SOLUTIONS
Integrated systems including bus bars, connectors, cables, PCBs, and other components

COST EFFECTIVE

- Fewer conductors can feed a common voltage to multiple outputs optimizing use of available cabinet space
- Can replace thick copper traces and can reduce backplane or board layers
- Reduction in overall component count and cost
- Enables quick and easy installation into a cabinet
- Eliminates complicated wiring and can eliminate wiring installation errors
- Enables quick and easy system maintenance and field service

ELECTRICAL PROPERTIES

- High current density - 5A / mm^2 - well suited for fuse racks, power distribution assemblies (PDAs) or power distribution units (PDUs)
- Clean power distribution enabled by high capacitance and low inductance
- High voltage distribution - up to 4 kV - with low resistance and low voltage drop
- Multiple voltages accommodated by laminated designs
- Wide range of standard insulating films and coatings are available
- Predictable, repeatable performance

MECHANICAL PROPERTIES

- Capability for customized profiles and shapes for efficient use of cabinet space and PCB surface
- Can be formed to fit in small areas or in corners where bend radius complicates use of cables
- Requires less space than a wire harness
- Integrates functional components related to power distribution such as breakers, switches, capacitors, connectors, PCBs and cables
- Wide variety of available connection methods, including power interconnect solutions with increased current density and lower contact resistance, touch-proof designs, low-profile solutions, and connector systems offering capability to integrate signal contacts for power control or sensing
  - Commonly-used power supply interconnects, such as PwrBlade®, HCI®, or HPCEtv power card edge connectors
  - Soldered or ultrasonically welded cables with lugs or power I/O connectors, such as Pwr Twin Blade™,
  - PwrBlade®, and Pwr Profile+™ cable connectors Clinch studs/nuts, blades, holes/bolts, other terminals Transfer PCBs
- Provides stable structure for additional components
- Neat, attractive appearance

THERMAL MANAGEMENT ADVANTAGES

- Wide thin copper sheet dissipates heat more efficiently than round cable
- Lower profile increases airflow compared to power harnesses and cables
- Greater power density can often be achieved with less temperature rise compared to cable

Power Solutions℠

APPLICATIONS



- Server application uses PwrBlade® connectors as the interface to pluggable AC/DC power supplies and a bus bar to distribute power within the rack unit
- Power distribution unit for a wireless base station distributes power to a bank of circuit breakers
- Server application includes PwrBlade® connectors as the interface to AC/DC power supplies, power management components, and a bus bar for power distribution

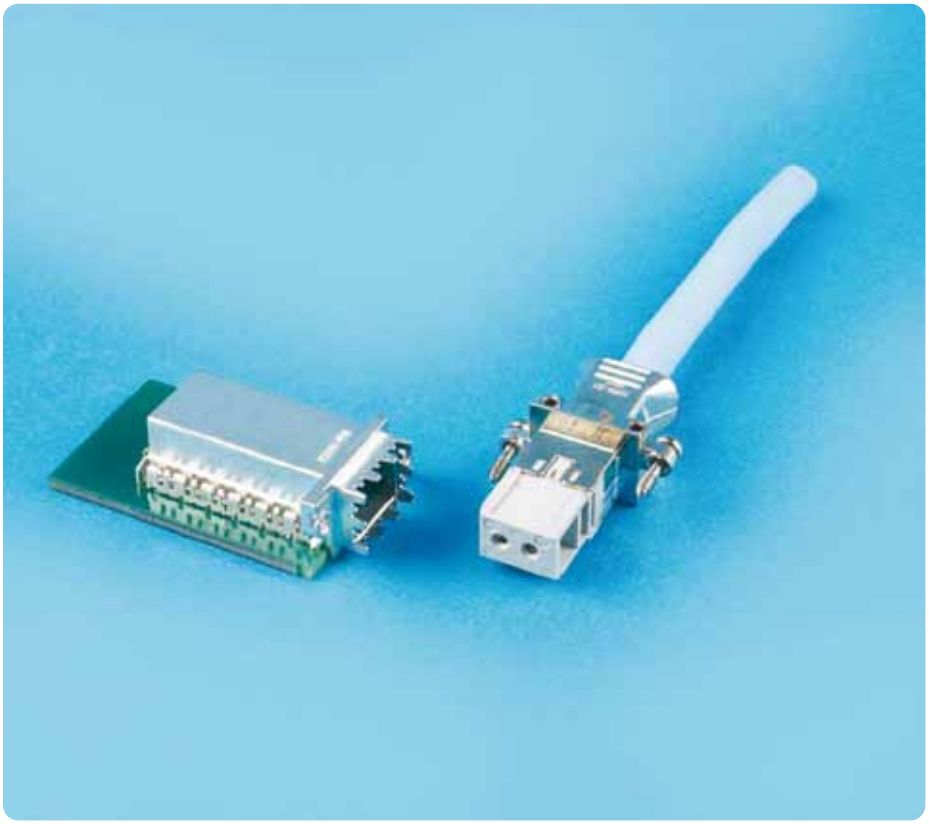
Further information can be found at:
www.fciconnect.com/powersolutions
www.fciconnect.com/powerdistribution

SOFIX® POWER CABLE ASSEMBLIES

Part of the Metral® Backplane Connector Family

FEATURES & BENEFITS

- Unique EMC properties
- 10 Amps per power contact
- According to IEC 60950 and UL 1950
- Hot pluggable
- Robust design
- 15mm slot pitch
- RoHS-compliant design



MAIN PRODUCTS	PART REFERENCES
Header Right Angle with 15 Amp filter	72846-204LF
Cable connector kit	72846-201LF

APPLICATIONS

- Communication
- Instrumentation
- Medical
- Hazardous environments

Contact your local FCI sales representative for cable assemblies.

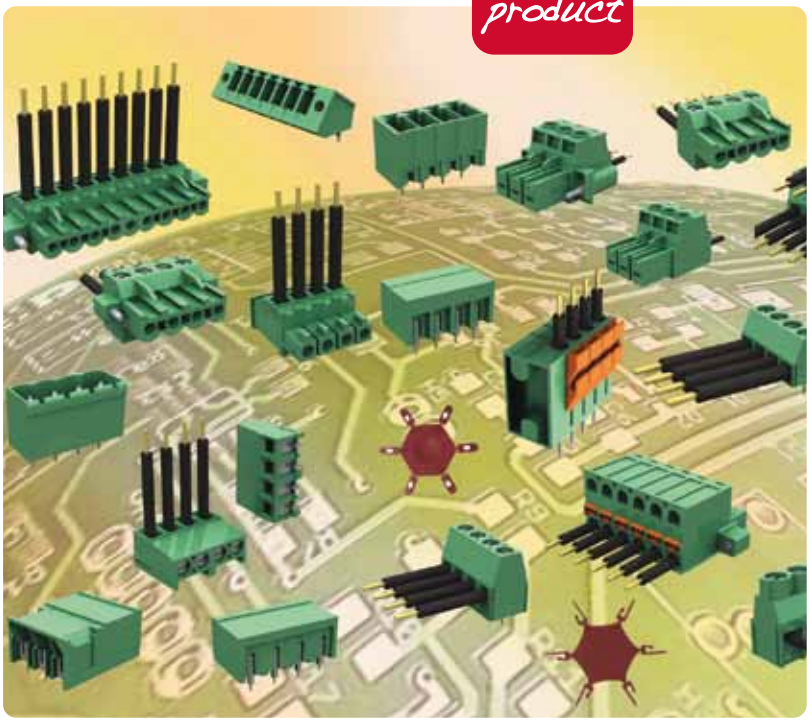
Power Solutions℠

TERMINAL BLOCKS

FEATURES & BENEFITS

- Robust and solid design
- Modular system, 2 up to 24 positions
- End-to-end stackable & screw-lock flange option
- Pitch-sizes: 3.50/3.81/5.00/5.08/6.35/7.62/9.52/10.16mm
- High performance rising-cage-clamp-contact system and spring-contact system
- Signal and power (current rating: 8A up to 55A)
- Standard green color (optional: black, blue & grey)
- Text/number printing option (on request)
- RoHS compatible
- Durability: 200 cycles
- Flammability UL94V-0
- recognized and IEC / / TÜV approved

New product



	MAIN PRODUCTS	PART REFERENCES
Pluggable	Pitch 3.50 / 3.81 / 5.00 / 5.08 MM	
	Key on entry side	20020 008
	Key on back side	20020 010
	Contact up side	20020 004 / 20020 006
	Front screw	20020 013
	Straight	20020 107
	Right angle	20020 110
Pluggable Power	Pitch 7.62 / 10.16 MM	
	Contact down side	20020 516 / 20020 520
	Right angle	20020 618 / 20020 624
Pluggable Spring	Pitch 3.50 / 3.81 / 5.00 / 5.08 MM	
	Spring contact, down side	20020 038 / 20020 039
	Spring contact, down side flange	20020 036 / 20020 035
Fixed	Pitch 3.50 / 3.81 / 5.00 / 5.08 MM	20020 327 / 20020 316
	Horizontal wire inlet	20020 325 / 20020 328
	2 level horizontal wire inlet	20020 326 / 20020 329
	Vertical wire inlet	20020 300 / 20020 315
Fixed Power	Pitch 6.35 / 7.62 / 9.52 MM	
	Horizontal wire inlet	20020 705
Fixed Spring	Pitch 3.81 / 5.00 / 5.08 MM	
	Spring vertical wire inlet	20020 302
	Spring horizontal wire inlet	20020 303

APPLICATIONS

- Embedded control units
- Measurement equipment
- Medical instrumentation
- Power supplies

Security
HVAC
Lighting
Communication

Terminal Blocks

Further information can be found at:
www.fciconnect.com/terminalblocks

MEG-ARRAY®

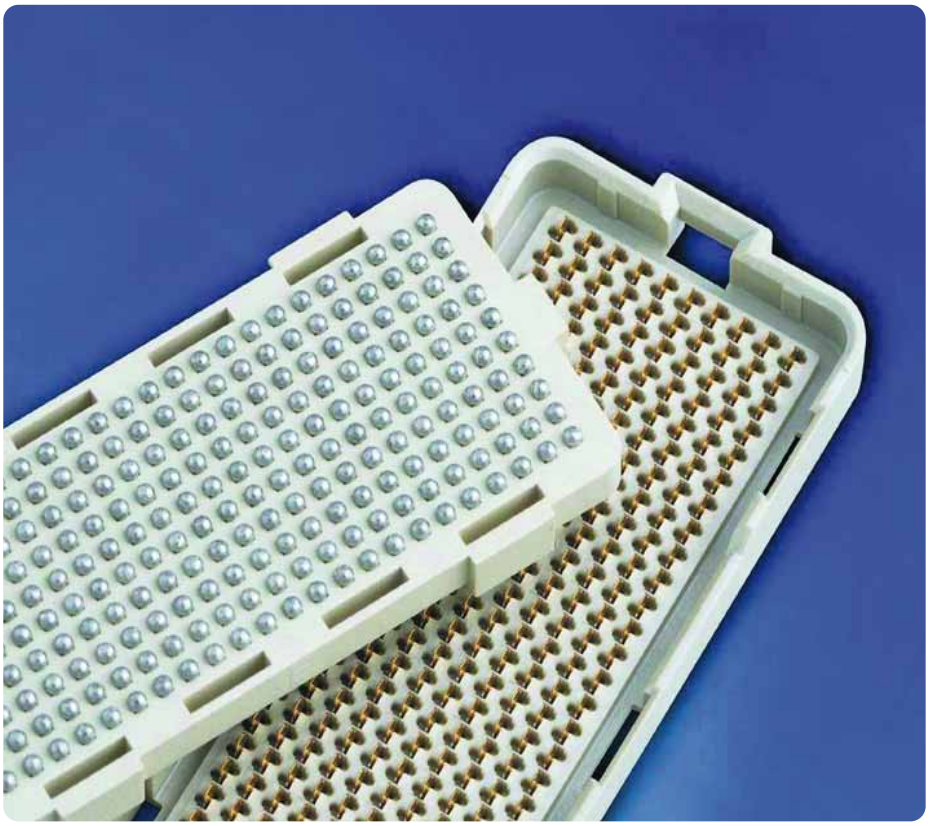
HIGH SPEED, HIGH DENSITY MEZZANINE CONNECTORS

FEATURES & BENEFITS

- Flexible ground distribution sustains high speed signal integrity up to 28 Gb/s
- 1.27mm x 1.27mm array saves space and optimizes trace routing
- Proven BGA termination supports standard, low cost SMT assembly
- Wide range of sizes and stack heights

- Online signal integrity reports and S-parameter models support high speed designs and performance
- Natural physics of BGA provides precise self-alignment on X, Y and Z axes during PCB assembly
- Time tested reliability record; 17 Billion+ lines shipped to customer satisfaction
- Protective precious metal plating; Includes Telcordia® options per GR-1217-CORE and NPS-25298-2
- Certified 22+ year solder joint reliability
- Polarized design assures proper connector mating

- 6 PCB Stack Heights: 4mm low profile to 14mm
- 7 Connector sizes: 81 to 528 positions



APPLICATIONS

Communications
- Transmission
- Access
- Switching
- Optics
- Networking

Data
- Servers
- Storage

I&I
- Industrial controls & equipment
- Analytical & diagnostic
- Medical

MEZ Select™

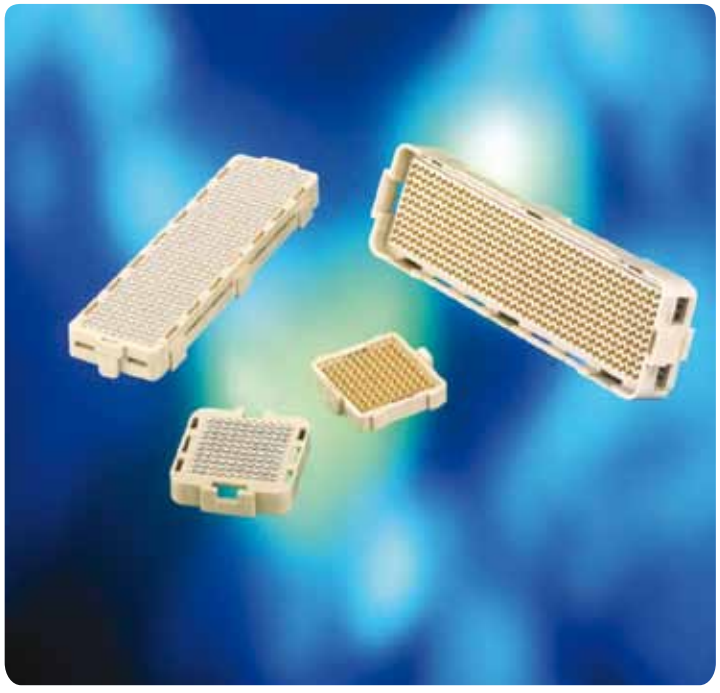
*Telcordia® is a registered trademark of Telcordia ® .

Further information can be found at:
www.fciconnect.com/megarray
www.fciconnect.com/mezzselect
www.fciconnect.com/highspeed

MAIN PRODUCTS

PART REFERENCES

		Total Mated Height					
Size	**Type**	**4.0 mm**	**6.0 mm**	**8.0 mm**	**10.0 mm**	**12.0 mm**	**14.0 mm**
81 Position 9 x 9	Plug	55714					
	Receptacle	55715					
100 Position 10 x 10	Plug	84512					
	Receptacle	84513					
200 Position 10 x 20	Plug	84516	84516	84516	84530	84530	84530
	Receptacle	84517	55724	84535	84517	55724	84535
240 Position 8 x 30	Plug	74213	74213				
	Receptacle	74217	55755				
300 Position 10 x 30	Plug	84500	84500	84500	84578	84578	84578
	Receptacle	84501	84502 for 5.5 mm BTB	84553	84501	84502 for 11.5 mm BTB	84553
400 Position 10 x 40	Plug	84740	84740	84740	84520	84520	84520
	Receptacle	74221	74388	74390	74221	74388	74390
528 Position 12 x 44	Plug		10022671				
	Receptacle		10026846				



MEZ Select™

Further information can be found at:
www.fciconnect.com/megarray
www.fciconnect.com/mezzselect
www.fciconnect.com/highspeed

GIG-ARRAY®

HIGH SPEED MEZZANINE CONNECTORS

FEATURES & BENEFITS

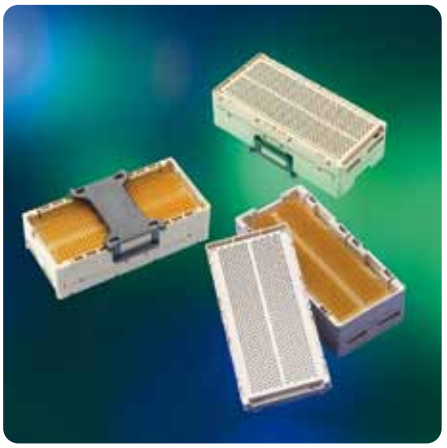
- RoHS compliant (Lead-Free) options are available
- Optimized design for utilization in high-density, high-speed mezzanine applications
- Ball Grid Array (BGA) termination for process friendly attachment
- 1 mm x 0.65 mm BGA interface pitch optimizes routing and electrical performance
- Stack Heights available from 15 mm to 40 mm provide mezzanine design flexibility
- Connector sizes of 200 and 296 signals providing 62 signal contacts per linear cm (158 signal contacts per linear inch) allow for optimization of board space and signal requirements
- 100 Ohm differential pair matched impedance assures consistent high speed performance
- Up to 10 Gb/s differential pair performance
- Very low cross-talk (VLC) design of less than 1% allows for required signal integrity performance
- Dual beam signal contacts provide two points of contact increasing product reliability
- Polarized design assures proper mating of the connector

APPLICATIONS

Communications
- Transmission
- Access
- Switching
- Optics
- Networking

Data
- Servers
- Storage

I&I
- Industrial controls & equipment



MEZ Select™

MAIN PRODUCTS

PART REFERENCES

200 Positions*		Plug Height** 10 mm 55737	12 mm 10026802	13 mm 10060910	15 mm 55738	20 mm 55739	25 mm 10054783
Receptacle Height**	5 mm 55740	15 mm	17 mm	18 mm	20 mm	25 mm	30 mm
	11 mm 10081497	21 mm	23 mm	24 mm	26 mm	31 mm	36 mm
	15 mm 10060912	25 mm	27 mm	28 mm	30 mm	35 mm	40 mm

296 Positions*		Plug Height** 10 mm 55720	12 mm 10026804	13 mm 10060911	15 mm 55700	20 mm 55727	25 mm 10054784
Receptacle Height**	5 mm 55701	15 mm	17 mm	18 mm	20 mm	25 mm	30 mm
	11 mm 10081496	21 mm	23 mm	24 mm	26 mm	31 mm	36 mm
	15 mm 10060913	25 mm	27 mm	28 mm	30 mm	35 mm	40 mm

**Signal contacts only, ground contacts not included*

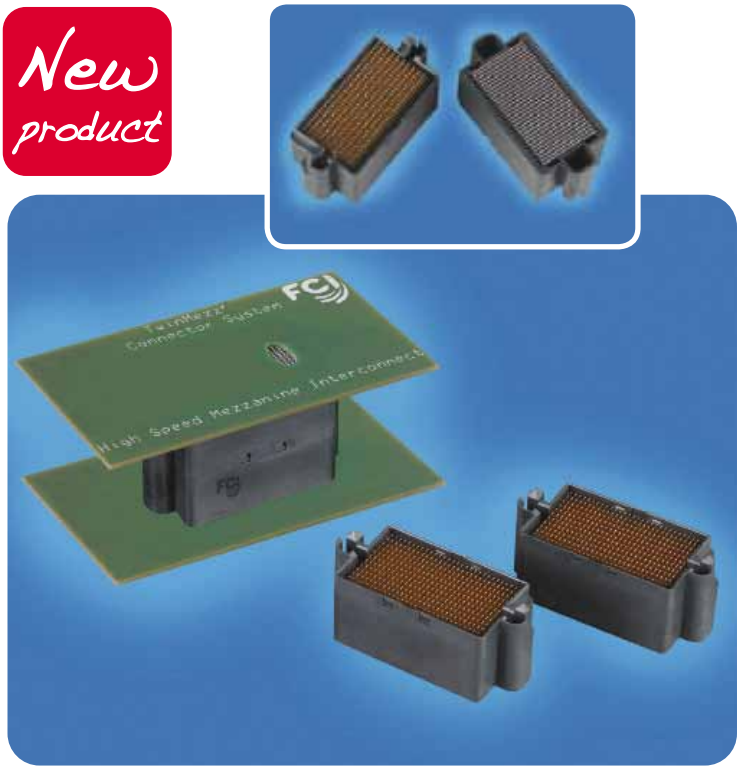
***Base part number listed under connector height*

Further information can be found at:
www.fciconnect.com/gigarray
www.fciconnect.com/mezzselect
www.fciconnect.com/highspeed

TWINMEZZ® CONNECTOR SYSTEM

FEATURES & BENEFITS

- 1.0 x 1.3 mm contact grid provides high signal density: 25 pairs/cm² (161 pairs/in²)
- 6 differential signal pairs per column
- Shield-less design provides the lowest possible loss
- Open pin field design with no designated grounds allows for differential, single-ended or power pin assignments in a connector
- Capability to address a range of applications
  - 200 to 800 contacts/connector
  - Stack heights from 12 mm to 38 mm
- 2.0 mm (nominal) wipe length and redundant split-beam contacts enhance reliability
- Integrated guidance compensates for ± 2.0 mm misalignment in all directions
- Optional power contacts
- Proven FCI Ball Grid Array (BGA) technology enables reliable, SMT-compatible attachment
- RoHS compliant (lead-free) options

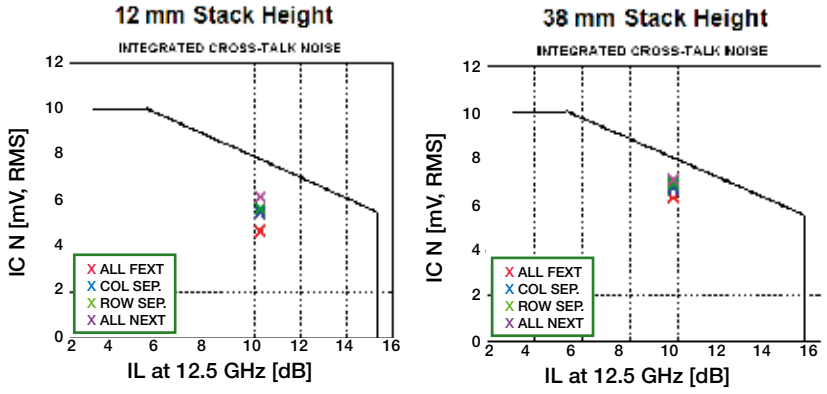


APPLICATIONS

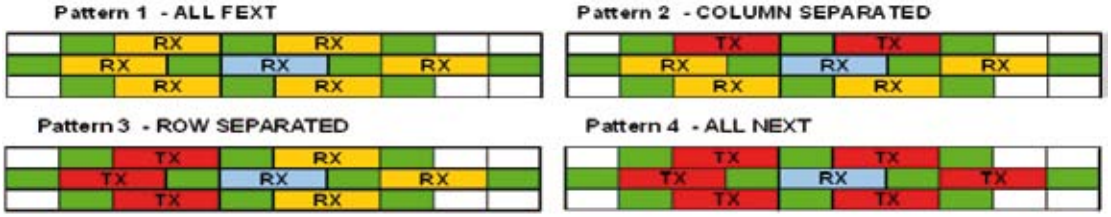
- Communications
  - Transmission
  - Access
  - Switching
  - Optics
  - Networking
- Data
  - Servers
  - Storage
- I & I
  - Industrial controls & equipment
  - Analytical & diagnostic

MEZ Select™

25 Gb/s Integrated Cross-Talk Noise Charts



ICN (Integrated Cross-Talk Noise) is shown for links simulated with 150 mm of traces -> Footprint -> TwinMezz 12 / 38mm connector -> Footprint -> 150 mm of traces. (wiring patterns below)



Further information can be found at:
www.fciconnect.com/twinnmezz
www.fciconnect.com/mezzselect

BERGSTAK® 0.8 MM
FINE PITCH, MEZZANINE CONNECTORS

FEATURES & BENEFITS

- Vast range of heights and sizes
  - 5 mm to 16 mm stack heights
  - 40 to 200 positions
- Precision mini-contact design assures easy mating, long term performance and reliability
- Blade-on-beam contacts prevent “stubbing” and allow “peeling”
- Surface mount product design, mounting and packaging support automated assembly
- Generous lead-in angles and mate polarization provide worry free mating
- Validated inter-mating with similar competitive connectors
- Early receptacle contact point increases mating wipe and allows early engagement/late disengagement
- Tapered PCB locator pegs increase the ease and accuracy of hand assembly
- Up to 5 Gb/s high speed performance



MAIN PRODUCTS		PART REFERENCES
BergStak® system	Receptacle	61082
	Plug	61083

APPLICATIONS

- Routers
- Servers
- Telecom/Datacom equipment
- Office equipment
- IP phones
- Test and measurement
- Point-of-sale terminals
- Portable industrial terminals

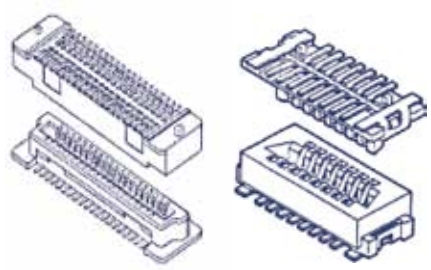
MEZ Select™

Further information can be found at:
www.fciconnect.com/bergstak
www.fciconnect.com/mezzselect

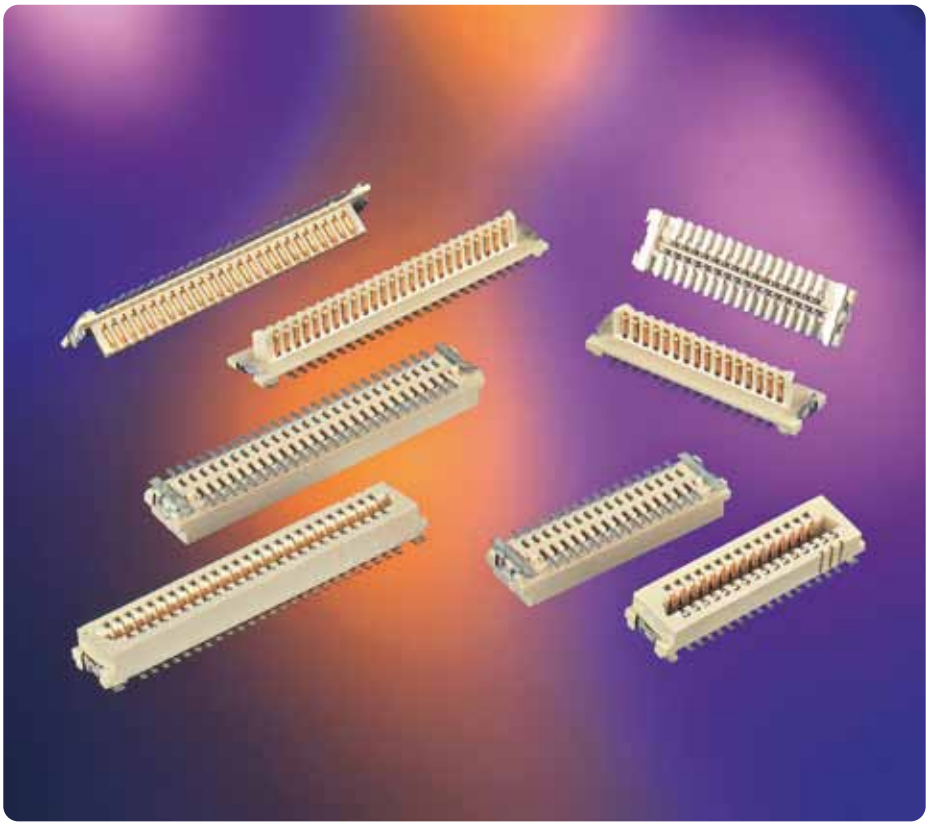
CONAN® 1.0 MM
FINE PITCH, MEZZANINE CONNECTORS

FEATURES & BENEFITS

- Blade-on-beam contacts prevent “stubbing” and allow “peeling”
- High un-mating force is ideal for portable and mobile electronics
- Snap engagement contacts signal reliable mating with and audible “click”
- Surface mount product design, mounting and packaging support automated assembly
- Generous lead-in angles and mate polarization provide worry free mating
- Focused range of heights and sizes
  - 5 stack heights between 4.15 mm and 7 mm
  - 9 sizes between 9 and 69 positions



- Up to 6 Gb/s high speed performance
- Environmental plating options satisfy customer cost interests



Conan® system

MAIN PRODUCTS / PART REFERENCES

Receptacle	91921 / 91931 / 10118744
Plug	91901 / 91911 / 10118744

APPLICATIONS

- Mobile, personal and high end computing
- Servers and routers
- Office equipment
- Measuring equipment, Industrial control
- POS, Retail equipment and Motor Vehicle
- Metering and Energy
- Wireless M2M

MEZ Select™

Further information can be found at:
www.fciconnect.com/conan
www.fciconnect.com/mezzselect

RIB-CAGE™ 1.27 MM
MEZZANINE CONNECTORS

FEATURES & BENEFITS

- Exclusive Rib-Cage™ multi-point receptacle contacts provide optimal reliability in high vibration and shock-prone applications
- High density 1.27 mm (.050 in.) x 1.27 mm (.050 in.) system for connecting PCBs
- Multiple stack height options
- Polarization option prevents mis-mating
- Surface mount and through-hole attachment options
- Versatile range of heights
  - 3 stack heights between 6.4 mm and 9.9 mm
  - 10 sizes between 10 and 100 positions
- Competitive commercial pricing

Up to 5 Gb/s high speed performance



MAIN PRODUCTS

		PART REFERENCES
Headers	Vertical Surface Mount	87409 / 90098 / 87849 / 93221 / 73546 / 73547
	Right Angle Through Hole	87402
Receptacles	Vertical, Surface Mount	87021 / 87022 / 87023 / 87024

APPLICATIONS

- Handheld test and diagnostic equipment
- Outdoor test and measurement devices
- Military communication equipment
- Security systems and access control
- Point-of-sale terminals
- Electronic sub-assemblies used in conjunction with fans, motors and mechanical devices
- Metering and Energy
- Wireless M2M

MEZ Select™

Further information can be found at:
www.fciconnect.com/ribcage
www.fciconnect.com/mezzselect

MEZZOSTAK® 0.5 MM HERMAPHRODITIC
FINE PITCH, MEZZANINE CONNECTORS

FEATURES & BENEFITS

- Hermaphroditic design “mates to itself”
  - Consolidates connector selection and documentation
  - Reduces Component Engineering costs
- Easy, Reliable Mating
  - Guidance "scoops" permit easy mating when mis-aligned
  - Polarization prevents mis-mating
  - Dual-point, long wipe contacs
- High un-mating force insures connection security
- Extreme operating temperature range assures reliable performance between -40 and 125 degrees C
- Precise 0.08 mm maximum SMT lead co-planarity eases attachment of connector leads to PCBs
- Footprint compatible with major competitors
- High Speeds, including PCIe®G2, supported by signal integrity reports and S-parameter models
- 0.5 mm high density contact pitch in two rows
  - 7 Stack heights: 4 mm to 7 mm (0.5 mm increments)
  - 6 Sizes: 20 to 90 positions (10 position increments)



MAIN PRODUCTS		PART REFERENCES
Hermaphroditic	Standard length	10106813
Connectors	Short length	10106814

APPLICATIONS

- Portable and mobile electronic equipment
- Medical and Instrumentation
- Point-of-Sale/Retail equipment
- Hand-held terminals
- Automatic Identification and Data Capture (AIDC)
- Sensors
- Motor-vehicle
- Military
- Communications and Networking
- Data and mass-storage
- Metering and Energy

MEZ Select™

Further information can be found at:
www.fciconnect.com/mezzostak
www.fciconnect.com/mezzselect

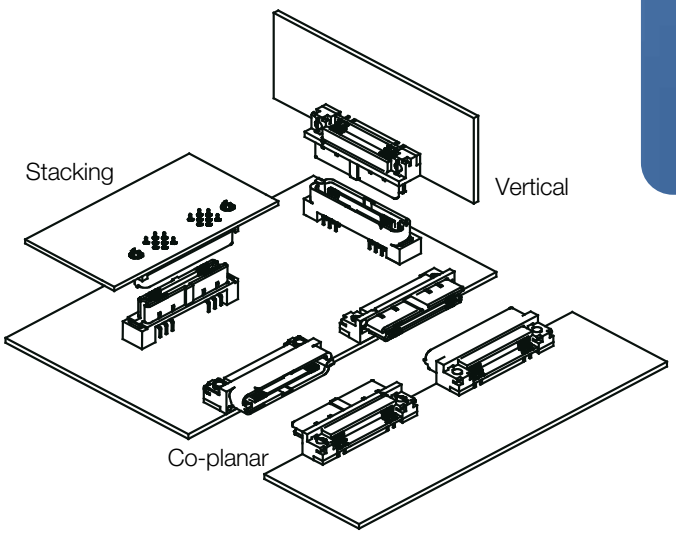
1.27MM SPACING BOARD-TO-BOARD CONNECTOR

PHEC SERIES



FEATURES & BENEFITS

- 1.27mm spacing board to board products
- PHEC has abundant pin and mating variation
- Allowed miss-alignment is 1.3mm maximum by mating guide
- It is possible to put Multi pieces connector on the same board
- Robustness housing design. No damage of housing and contact when slant mated condition
- To prevent flux moving up



APPLICATIONS

- Industrial controls & instrumentation
- Medical
- Office equipment
- Test & Measurement
- Audio equipment
- Professional camera

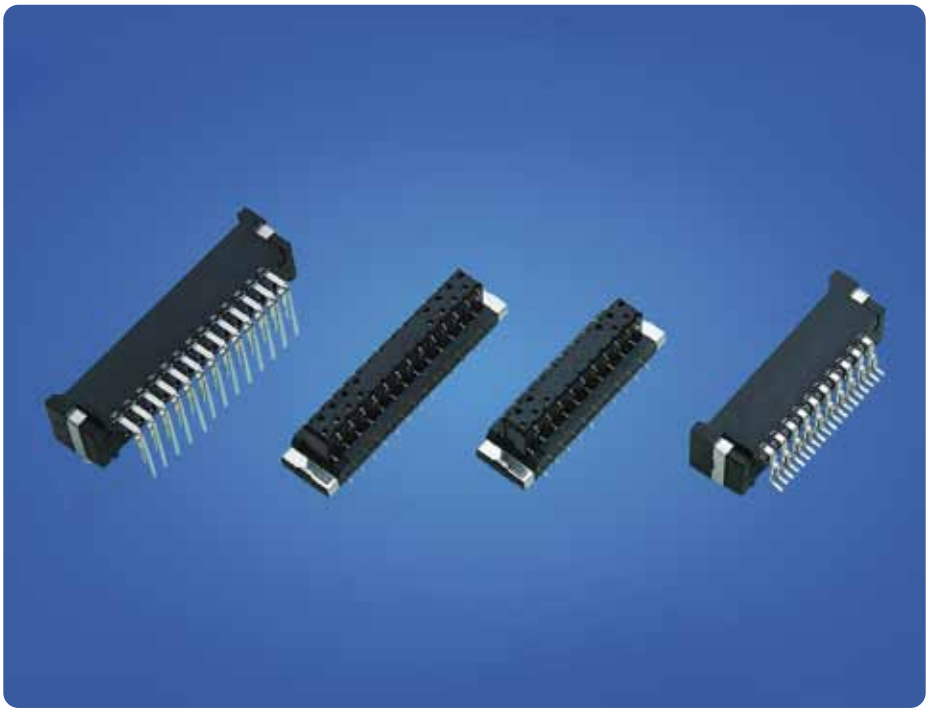
MAIN PRODUCTS		PART REFERENCES
PLUGS	S: Straight /R: Right angle	PHECxxP-S/R111LF
Number of contacts: 30,34,40,50,60,68,80,100,120		
RECEPTACLES	S: Straight /R: Right angle	PHECxxR-R111LF
Number of contacts: 30,34,40,50,60,68,80,100,120		

MEZ Select™

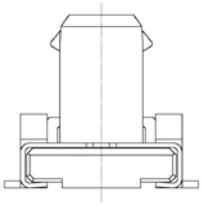
FLOATING BOARD-TO-BOARD
BTFW SERIES

FEATURES & BENEFITS

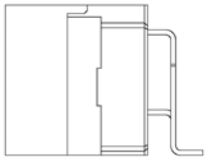
- 1 mm (0.039 in.) staggered contact design saves valuable board space
- Wide floating allowance absorbs mating shift between plug and receptacle, permitting self alignment of the mating connectors; and provides highly reliable mechanical performance
- Rigid entry guide design withstands rough handling such as angled insertion, preventing contact deformation; and provides vibration shock absorption
- Wide guide distance for mating assures easy handling and correct mating of the plug and receptacle, and allows blind mating
- Mounting plates on both sides of the plug and receptacle assure PCB retention
- Flat top surfaces of SMT housings allow pickup with vacuum nozzle and eliminate the need for pickup covers that must be removed after soldering



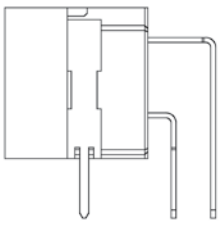
MAIN PRODUCTS — PART NUMBERS



Plug: BTFW_ _ P-3SSTAE4LF
10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 contacts
Vertical (Straight)
Surface mount (SMT)
Gold or Tin plating (Contact area)
Tape & Reel packaging (Card Board or Plastic)
Lead Free / RoHS compliant



Receptacle: BTFW_ _ R-3RSTAE4LF
10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 contacts
Right Angle
Surface mount (SMT)
Gold or Tin plating (Contact area)
Tape & Reel packaging (Card Board or Plastic)
Lead Free / RoHS compliant



Receptacle: BTFW_ _ R-3RDA7MLF
10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 contacts
Right Angle
Dip
Gold or Tin plating (Contact area)
Tray packaging
Lead Free / RoHS compliant

APPLICATIONS

Consumer
- Car Multimedia Device
- LCD displayer & TV
- Set top boxes
- DVD players/recorders
- D-VHS players

Data
- Entertainment PC

Other
- POS terminals
- Barcode scanners
- Other handheld equipment

Further information can be found at:
www.fciconnect.com/boardmate

FFC - FPC CONNECTORS

FEATURES & BENEFITS

- Suitable for FFC / FPC / CIC cable
- 0.20 - 0.30 - 0.40 - 0.50 - 1.00 - 1.25 - 2.54 mm pitch sizes
- Highly reliable Gas Tight High pressure (GTH) contact system
- Zero Insertion Force (ZIF) and Low Insertion Force (LIF) options
- Straight and Right-Angle versions
- Surface Mount and Through Hole



APPLICATIONS

- LC Display to Board connections
- Interior Automotive electronics
- Membrane Switches
- DVD / HDD connection
- Mobile phone and Digital camera

FFC - FPC CONNECTORS

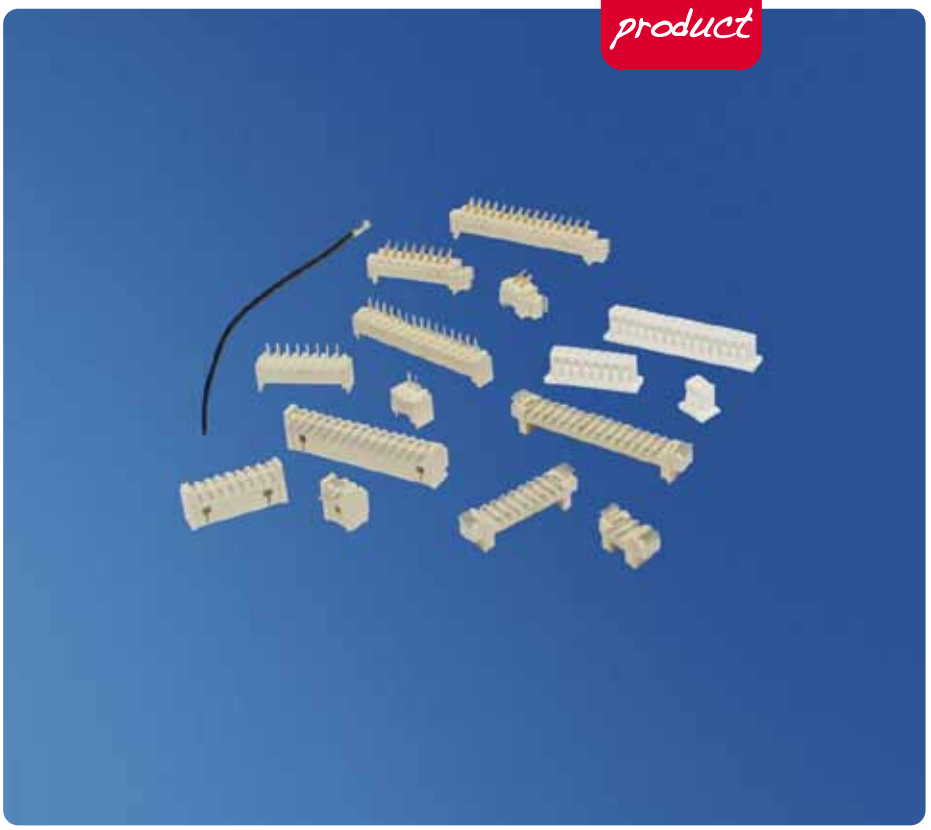
PITCH	FAMILY NAME	HEIGHT (MM)	CONTACT LOCATION	ZIF / NON-ZIF(*)	PART REFERENCE
0.2mm	XL-D	0.9	Bottom	ZIF (FF)	10108361
0.3mm	YLL-D	0,9	Bottom	ZIF (FF)	10061122
	YLL-U	0,9	Top	Non-ZIF (FF)	10064555
0.4mm	SFGL	0.9	Bottom	ZIF (BF)	10117184
0.5mm	VLP	0,7	Bottom	ZIF (BF)	10062827
	SFVL-D	0,9	Bottom	ZIF (BF)	59453
	SFVL-U	0,9	Top	ZIF (BF)	59453
	SFVE	1,2	Top	ZIF (FF)	10054365
	VLL	1,2	Bottom	ZIF (BF)	10051922
	VLH	1,3	Bottom	ZIF (BF)	10042867
	VLK	1,3	Bottom	ZIF (FF)	10076529
	SFV-R	1,8	Top, Bottom	ZIF (SL)	SFVxxR
	OPU-D	2,0	Bottom	ZIF (SL)	62684
	OPU-U	2,0	Top	ZIF (SL)	62684
	VHC	2,0	Bottom	ZIF (FF)	10085901
	SFV-S	4,1	N/A	ZIF (SL)	62674
1.0mm	HFW-R	1,9	Top, Bottom	Non-ZIF	HFWxxR
	HFW-S	5,3	N/A	Non-ZIF	HFWxxS
	HLW-R	3,9	Top	Non-ZIF	HLWxxR
	HLW-S	5,9	N/A	Non-ZIF	HLWxxS
	SFW-R	2,7	Top, Bottom	ZIF (SL)	SFWxxR
	SFW-S	5,3	N/A	ZIF (SL)	SFWxxS
	SLW-R	4,0	Bottom	ZIF (SL)	SLWxxR
	SLW-S	5,5	N/A	ZIF (SL)	SLWxxS
1.25mm	HLEM-S	8,0	N/A	Non-ZIF	HLEMxxS
	HLEM-R	5,0	Top	Non-ZIF	HLEMxxR
2.54mm	Duflex	Contact and Housings			76785/67013/66987
	Clincher	pre-assembled snap-shut system (mates to PCB Headers			65801/67516/66226/ 10027313/10022753
		Shrouded PCB headers for 2.54mm Clincher			95735/95736

(*) ZIF (SL): Slider action
ZIF/Non-ZIF (FF): F ront side flip
ZIF/Non-ZIF (BF): Back side flip

Further information can be found at:
www.fciconnect.com/flex

WIRE-TO-BOARD
1.25 MM

New product



FEATURES & BENEFITS

- Operating temperature: -40°C to +105°C
- Plating options: gold flash or tin
- Circuits: #2~#15 positions available, extension up to 20 positions
- Current rating: 1 Amp
- Polarized Mating Geometry: crimping housing is polarized to prevent mis-mating with PCB header
- Friction lock: crimping housing is equipped with friction locks to secure retention force with PCB header
- Housing meets EU Industry Safety Standard
- RoHS compliance and UL approved
- Tape and reel packaging befits pick and place of SMT production process.

MAIN PRODUCTS

MAIN PRODUCTS		PART REFERENCES
Headers	Vertical , Through-mount	10114829
	Right angle , Through-mount	10114831
	Vertical , SMT	10114828
	Right angle , SMT	10114830
Housing		10114826
Contact		10114827

APPLICATIONS

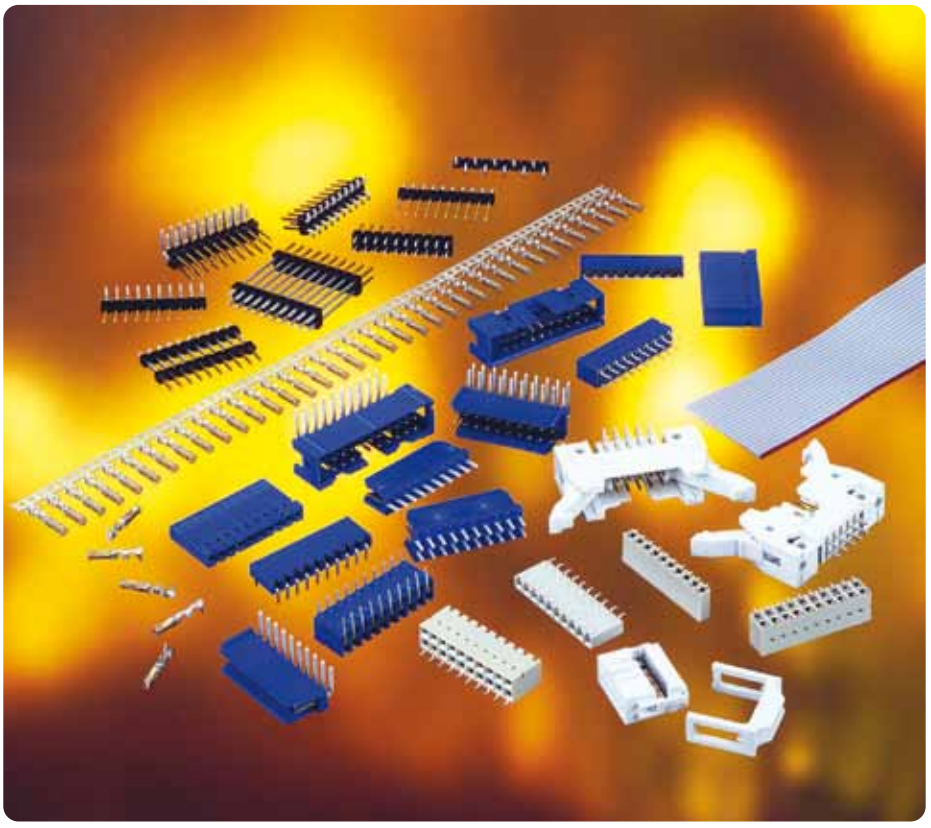
- Office equipment
- Industry control
- Instrumentation/metering
- Vending POS machine
- Small motor/robot control
- Security
- Car audio and alarm system

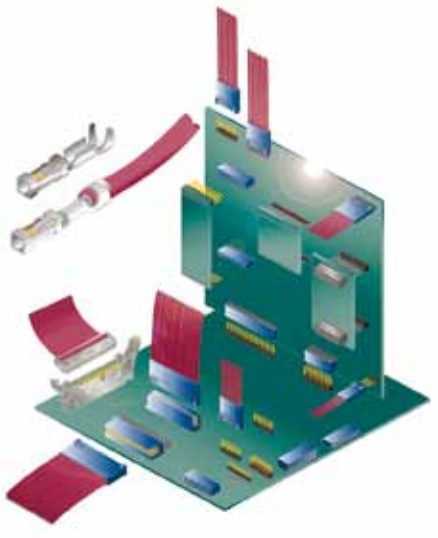
BERGSTIK® / DUBOX™ / QUICKIE® / PV®

2.54 MM MODULAR SYSTEM

FEATURES & BENEFITS

- Versatile 2.54 mm modular system includes board-to-board, wire-to-board and flat cable interconnects, offering complete design flexibility
- Range: 1x2 to 2x36 positions
- Selective plating is reliable and economical
- Easy part number selection at **www.fciconnect.com/basics**
- Bergstik unshrouded headers available in custom configurations





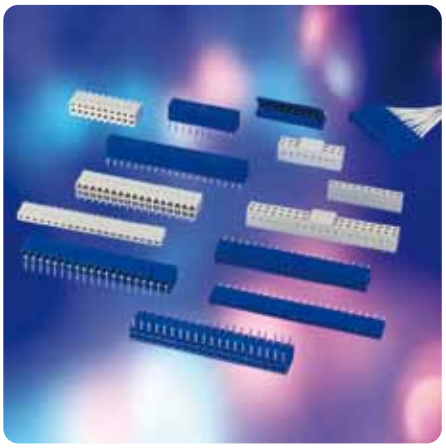
APPLICATIONS

- Electronic equipment or devices requiring a parallel, planar or perpendicular board-to-board, wire-to-board or flat cable interconnects
- Uses span industry segments (e.g. base stations, measuring equipment, industrial control)

Further information can be found at:
www.fciconnect.com/basics



BergStik®



Dubox™

MAIN PRODUCTS

		PART REFERENCES
BergStik® Unshrouded Headers	Straight	77311 / 77313 / 95293 / 95278 / 98401 / 67997 / 68000 / 68001 / 68002 / 67996 / 68602
	Right-Angle	77315 / 77317 / 68015 / 68020 / 68016 / 68021
	Stacking	54111 / 54121 / 54112 / 54122 / 54242
Dubox™ Shrouded Headers	Straight	76384 / 76385
	Right-Angle	76382 / 76383
PV® Shrouded Headers	Straight	69167 / 69168
	Right-Angle	78208 / 78207
Dubox™ PCB-Mounted Receptacles	Vertical	91601 / 89898 / 91614 / 91615 / 91618 / 71991 / 87606 / 76341 / 76342 / 71991 / 75915/ 71920 / 89891
	Horizontal	71607 / 71609 / 89882 / 89883
Crimp-to-Wire Receptacles	Dubox™ contacts	76347 / 76357
	Dubox™ housings	65239 / 65240
	PV® contacts	Master print 47212 / 75543
	PV® housings	65039 / 65043 / 65846 / 78211
Quickie® IDC System	IDC receptacles	71600 / 69830
	Eject latch headers	71918 / 71922
	Low profile headers	75867 / 75869 / 10056844 / 10056845 / 72454
Shunts		68786 / 69145 / 63429

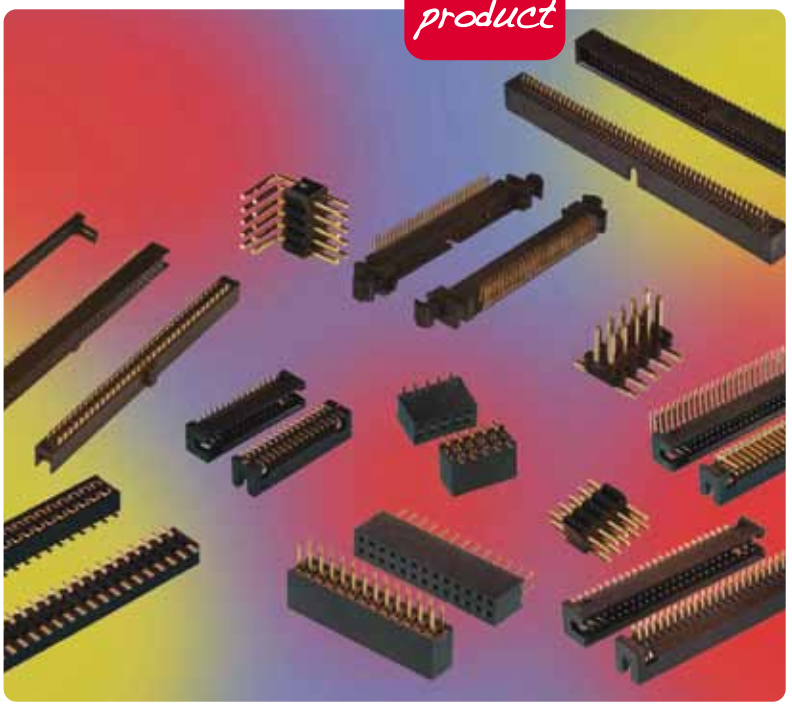
MINITEK™

1.27 MM MODULAR SYSTEM

New product

FEATURES & BENEFITS

- Fully configured modular system increases mechanical design flexibillty
- Competitive compatibility provides dual-sourcing and reduces customer rise
- Simple part selection reduces design time
- Global distribution inventory assures product availability



MAIN PRODUCTS	PART REFERENCES
Unshrouded headers	20021111, 20021112, 20021121,20021122
Shrouded Headers	20021211, 20021212, 20021221
PCB Receptacles	20021311, 20021321, 20021323
IDC Receptacles	20021444
IDC Headers	20021511, 20021521, 20021512, 20021611, 20021612 20021621

APPLICATIONS

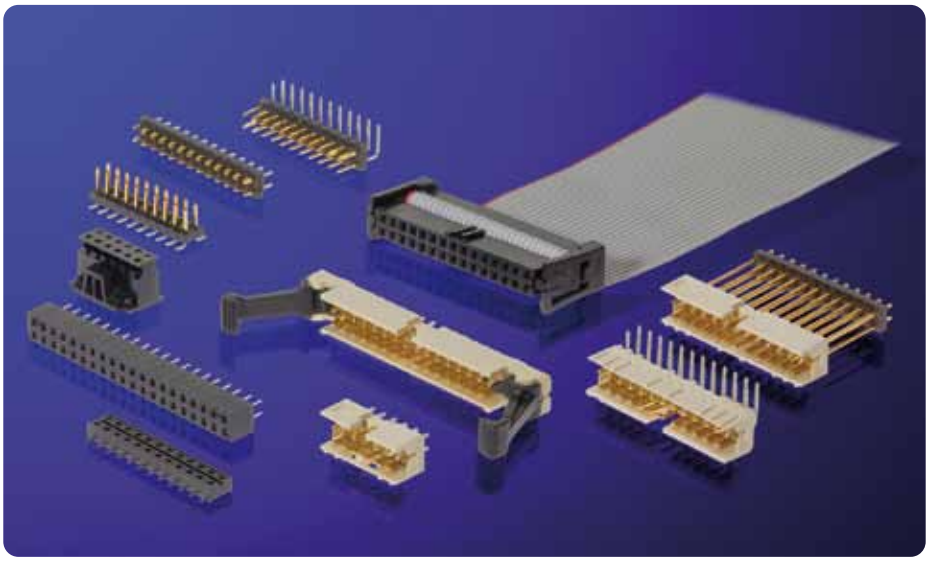
- Industrial controls
- Sensors
- Security
- POS
- Automotive
- Portable medical devices
- Any board to board or cable to board connection that needs a degree of miniaturization

Further information can be found at:
www.fciconnect.com/minitek127

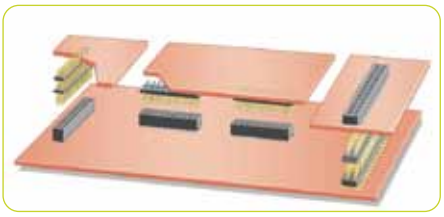
MINITEK™
2 MM MODULAR SYSTEM

FEATURES & BENEFITS

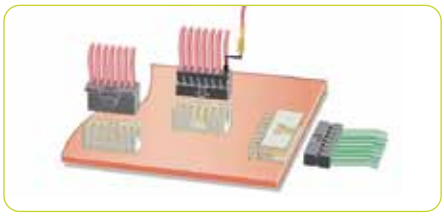
- Everything intermateable!
- The most complete 2 mm system ever!
  - Board-to-Board
  - Wire-to-Board
  - Flat Cable-to-Board
- 38% less board space, yet fully equivalent to 2.54 mm systems like BergStik®, Dubox™ , etc.
- Lowest profile eject header
- Lowest coplanarity at 0.1 mm
- Operating temperatures as high as 125°C
- New optional active latch
- Pin-in-Paste headers
- Lowest profile strain relief



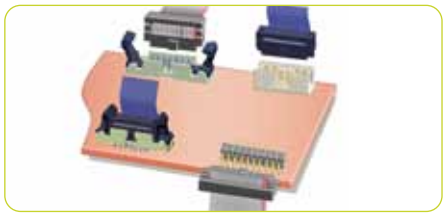
Board-to-Board



Wire-to-Board



Flat Cable-to-Board



MAIN PRODUCTS / PART REFERENCES

MAIN PRODUCTS	PART REFERENCES
Unshrouded Headers	57102 / 57202 / 98423 / 10072353 / 10075024
Shrouded Headers	98414 / 98424 / 98464 / 10075025 / 10072354
Stacking Headers	59112 / 59132 / 59202
PCB receptacles (4.5 and 2.3 mm)	55510 / 55508 / 91596 / 63453
IDC receptacles	89361 / 89947
CTW housings	10073599 / 90311
CTW contacts	77138
Shunts	86730

APPLICATIONS

- Electronic equipment or devices requiring a parallel or perpendicular board-to-board, wire-to-board or flat cable interconnection
- Uses span industry segments, e.g. mobile base stations, measuring equipment, industrial controls, computers

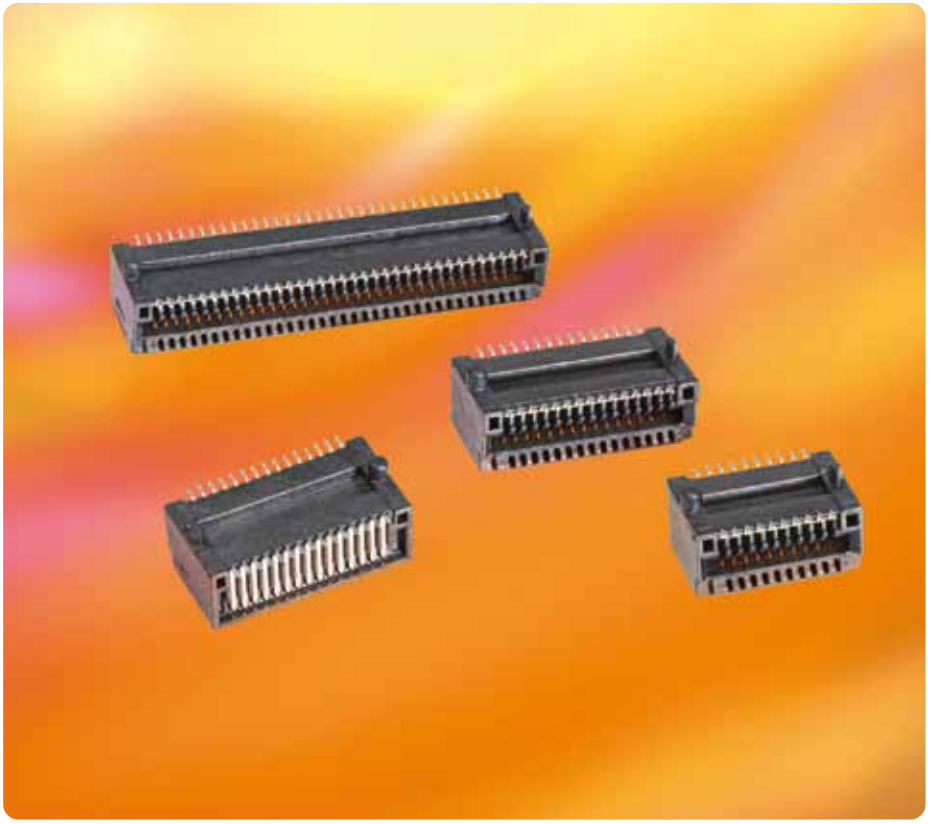
basics+

Further information can be found at:
www.fciconnect.com/minitek
www.fciconnect.com/basics

CARD EDGE CONNECTORS
FOR SFP, XFP AND XENPAK APPLICATIONS

FEATURES & BENEFITS

- 0.8 mm pitch connectors accept 1.0 mm thick PCBs used in MSA-compliant pluggable transceiver modules
- Available 20, 30 and 70-position sizes provide interfaces for SFP, XFP, XENPAK, X2 or XPAK modules
- Surface-mount (SMT) termination
- Formed contacts provide smooth contact surfaces for improved reliability
- Alignment posts aid placement during board assembly
- SMT design and short posts enable connectors to be placed “belly-to-belly” on opposite sides of a host board
- Tape-on-reel packaging to support automated placement
RoHS-compatible



MAIN PRODUCTS — PART REFERENCES

MSA	# Contacts	Part Number
SFP	20 position	10084423-X01LF
XFP	30 position	10084423-X02LF
XENPAK, X2, XPAK	70 position	10084423-X03LF

APPLICATIONS

Communications

- Switches
- Routers
- Network interface cards (NICs)
- Host bus adapters (HBAs)

Data

- Servers
- Storage systems
- Storage controller cards

Further information can be found at:
www.fciconnect.com/cardedge

CARD EDGE CONNECTORS
FOR MICRO*TCA*™ APPLICATIONS

FEATURES & BENEFITS

- FCI connectors are in full compliance with the MicroTCA® standard developed within PICMG®
- Designed to enable AdvancedMC™ (AMC™) modules directly to a backplane
- 170 position card edge interface with 0.75 mm contact pitch
- Options for press-fit or surface-mount (SMT) termination
- Metal retention clips at ends of SMT connector provide additional mechanical strength after soldering
- Balanced Signal Integrity Characteristics. Very low loss and crosstalk for low voltage differential signaling at data rates up to 12.5 Gb/s per lane
- SMT footprint allows for increased flexibility in routing PCB traces with multiple widths and multiple configurations
- Telcordia UE compliant
- Lead-free and RoHS-compatible



MAIN PRODUCTS — PART REFERENCES

Terminal Type	Part Reference	Part Number
Surface mount (SMT)	Without mylar	10058835-1000LF
Surface mount (SMT)	With mylar	10058835-1001LF
Surface mount (SMT)	With mylar	10058835-1002LF
Press-fit (PF)	Without Peg	10058831-110LF
Press-fit (PF)	With Peg	10058831-111LF

APPLICATIONS

Telecommunications
- Radio Base Stations
- RF antenna units
- IP gateways

Date Communications
- Enterprise Switches
- Customer Premises Equipment (CPE)

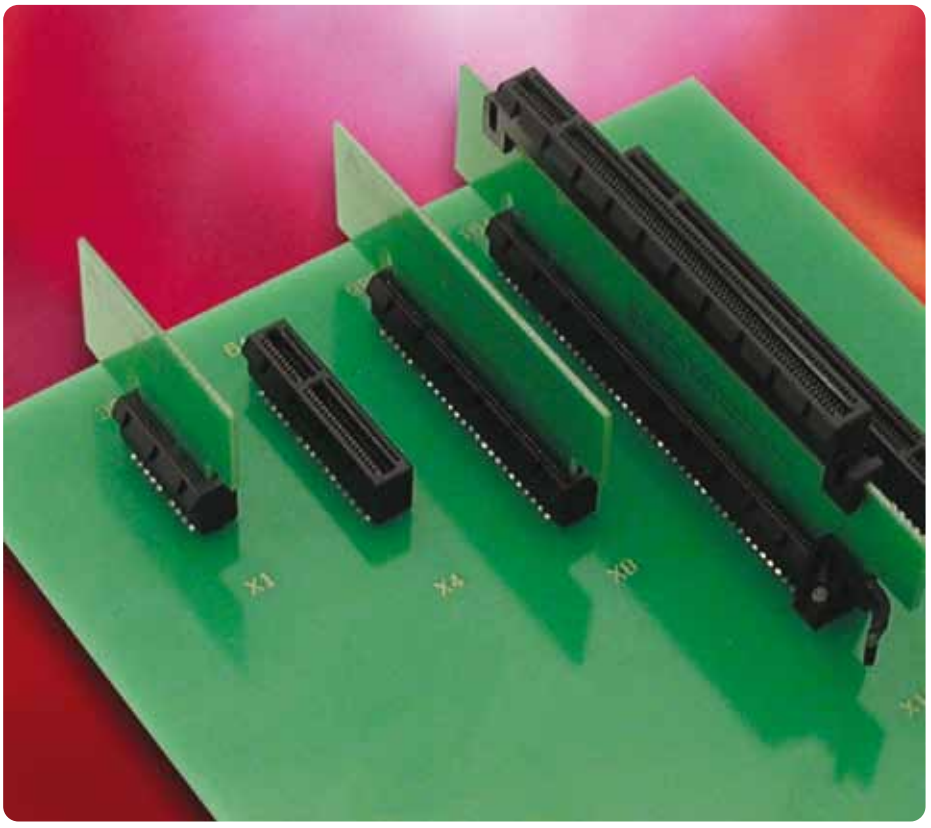
µTCA®

PICMG®, AdvancedMC™, AMC™, and MicroTCA ® are trademarks of the PCI Industrial Computer Manufacturers Group.

CARD EDGE CONNECTORS
FOR PCI EXPRESS® TECHNOLOGY

FEATURES & BENEFITS

- Base connector range offers 1, 4, 8, or 16 serial PCI Express® links to scale to different bandwidth requirements
- Each serial link supports 2.5 Gb/s (per direction) in PCI Express Gen. 1 systems and 5.0Gb/s in PCI Express Gen. 2 systems
- Options for through-hole solder, press-fit, or surface-mount termination
- Straddle-mount connectors feature mounting ears for additional mechanical support and a molded post to assure proper alignment to the host PCB
- Options for rugged stand-alone mechanisms or a x16 connector with an integrated retention arm to retain graphics cards during shipping and handling
- Larger 200, 230 (x24), and 280 position vertical connectors accept server riser cards
- ExpressModule™ versions provide an expanded lead-in window for blind-mate server applications
- RoHS-compliant connector versions are available



MAIN PRODUCTS	PART REFERENCES
x1, x4, x8 or x16 suitable for wave soldering	10018784
x1, x4, x8 or x16 suitable for reflow soldering	10018783
x1, x4, x8 or x16 surface-mount (SMT)	10061913
x1, x4, x8 or x16 straddle-mount for extender cards	10025026 / 10069690
200-position vertical, solder version	10054652
230-position (x24) vertical, solder version	10063960
280-position vertical, solder version	10027747 / 10037901/ 10057596 / 10066356
x8 vertical to mount on x16 PCB layout	10036767
x16 Integrated Type PCI Express®	10083987/10085429
Graphics card retention mechanism	10042618
x1, x4, x8 or x16 ExpressModule™-type, surface-mount (SMT)	10073228

APPLICATIONS

Data

- Desktop PCs
- Servers
- Workstations

Industrial

- SHB Express backplanes per PICMG 1.3 specification

PCI Express® and ExpressModule™ are trademarks of PCI-SIG. SHB Express™ is a trademark of PICMG

Further information can be found at:
www.fciconnect.com/pciexpress

SAS
SERIAL ATTACHED SCSI

New product



FEATURES & BENEFITS

- 29-position SAS receptacle and plug connectors enable the high-speed, Serial Attached SCSI (SAS) hard disk drive (HDD) interface that is replacing the SCSI
- Designed to support differential signaling of up to 6 Gb/s Connectors conform to SFF-8482
- Provide dual signal ports (7 contacts/port) and 15
- contacts for power
  SAS receptacles also accept SATA drives
- Designed to support hot-plugging and blind-mating of
- HDDs
  Connector retainers provide additional mechanical
- strength after soldering
  RoHS-compliant and compatible with lead-free process-
- ing temperatures
  Staggered contact lengths provide sequential mating of
- contacts to enable hot plugging
  Molded guide posts provide angled lead-in to compen-
- sate for SAS connector misalignment, allowing the device plug and the SAS receptacle to self align during the mating process
  Most FCI SAS connectors also feature stamped reten-
- tion clips that provide additional mechanical strength for robust PCB attachment
  Offers wide-base housing options on vertical backplane
- receptacles for even more stability
  Provides a wide range of SAS plug and receptacle
- connectors for enterprise applications.
  Vertical and right angle connector configurations provide
- options for use in servers, server or storage blades, storage backplanes, HDD carriers, and HDDs
  Options exist for through-hole solder, press fit, or
- surface-mount termination

APPLICATIONS

Data

- Servers
- Server and storage blades
- External storage systems
- HDDs
- HDD carriers

Communications

- Processor and storage blades
- Mezzanine cards

Industrial, Instrumentation & Medical

- Embedded system boards

Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/SAS

SAS
SERIAL ATTACHED SCSI

FCI's SAS connector is capable of up to 6 Gb/s.
For latest 6 Gb/s SAS product offerings, pls consult FCI team or visit www.fci.com/SAS

MAIN PRODUCTS — PART REFERENCES

Drive Device Plug	Straddle / Non-Straddle Mount	Contact FCI for information / customization
Adapter Plug	Vertical SMT	10031193* / 10041724*
	Vertical, SMT (with rivet holes)	10045105
	Vertical, SMT, Wide Base	10071375
	Right Angle, SMT	10034524* / 10099439* / 10098678*
Host Receptacle	Vertical, Wide Base, Hybrid Footprint	10036876* / 10036312
	Vertical , Wide Base, Thru Hole	10039748 / 10045665
	Vertical, Press Fit	10031077*
	Vertical , Wide Base, SMT	10039845* / 10076579*
	Vertical, SMT	10031567* / 10077259*
	Vertical, Wide Base, Press Fit	10038064* / 10045782*
	Vertical, Thru Hole	10018182*
	Vertical, SMT, Extended Height	10038334
	Vertical, SMT, Open SAS Pins	10036355*
	Right-Angle, SMT	10035202*
	Right-Angle, SMT, Reversed	10036587*
	Right-Angle, SMT, Extended Height	10044002
4 Lane Internal Plug	Vertical, Press Fit	10028542
	Vertical, SMT	10045646
	Vertical, Thru Hole	10044625
	Right-Angle, Thru Hole	10035104

NOTES :

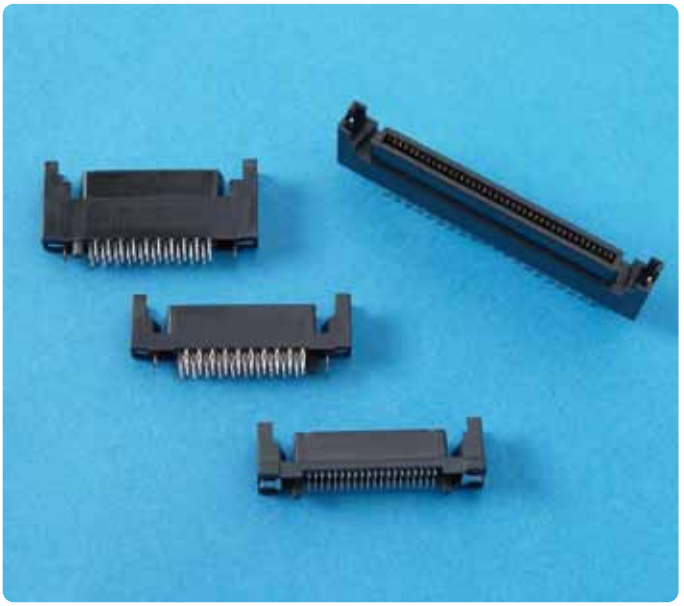
* Product capable of 6 Gb/s data depending on customer application & design optimisation. Consult FCI Technical team for further information.

Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/SAS

SCA-2 CONNECTOR SYSTEM

FEATURES & BENEFITS

- Meet requirements of SFF-8451 specification
- Options for through-hole solder, press-fit or SMT board termination
- Enhanced SMT receptacle meets requirements of SFF-8454 specification
- Enhanced version improves impedance and insertion loss profiles and reduces crosstalk
- Blade-on-beam contact design delivers high reliability
- Molded alignment and polarization features enable blind mating
- First-Mate-Last-Break (FMLB) contacts in accordance with SFF requirements
- ESD contacts provide static discharge paths to prevent damage
- High temperature plastic suitable for wave or reflow soldering
- Lead-free and RoHs-compliant versions are available
- The SCA-2 (Single Connect Attachment-2) connector system consists of device plugs and vertical receptacles that enable the hard disk drive (HDD) to backplane interface in enterprise
- storage systems.
- The device plug resides on the HDD, while the receptacle is attached to the backplane.
- 40-position backplane receptacles are designed to accept Fibre Channel (FC) drives, while 80-position receptacles accept SCSI drives
- The SCA-2 connector interface utilizes high-reliability, dual-row, blade-on-beam contacts spaced on 1.27mm pitch.
- Robust alignment and polarization features at the drive interface allow blind-mating.
- Dual ESD contacts provide paths for static discharge protection.
- Vertical backplane receptacles are available with 11.5mm and 17.5mm extended body heights with options for through-hole solder, press-fit, or surface-mount (SMT) board termination.
- Available SCA-2 device plugs are designed for straddle-mount board termination.



APPLICATIONS

Data

- Storage backplanes
- External storage systems
- Servers
- HDDs

*Note: * symbol designates enhanced SCA-2 receptacle for 4G or 8G Fibre Channel applications*

Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/sca2

SCA-2 CONNECTOR SYSTEM

MAIN PRODUCTS — PART REFERENCES

HDD Interface Interface	Number of Contacts	Connector Type	Orientation	Termination Type	Part References
Fibre Channel	40	Receptacle	Vertical	Through-hole solder	71781
	40	Receptacle	Vertical	Press-fit	87567
	40	Receptacle*	Vertical	Surface-mount	10038339 (See Note 1)
	40	Receptacle*	Vertical	Surface-mount	10073037 (See Note 1)
	40	Receptacle	Vertical	Through-hole solder	72437
	40/80	Plug	Right-angle	Straddle-mount	71292
	40	Plug	Vertical	Surface-mount	10095045 (See Note 1)
SCSI	20	Plug	Right-angle	Straddle-mount	72547
	80	Receptacle	Vertical	Through-hole solder	71780
	80	Receptacle	Vertical	Press-fit	87566
	80	Receptacle	Vertical	Through-hole solder	72436
	80	Receptacle	Vertical	Press-fit	72442

NOTES :
(1) * symbol designates enhanced SCA-2 receptacle for 4G or 8G Fibre Channel applications

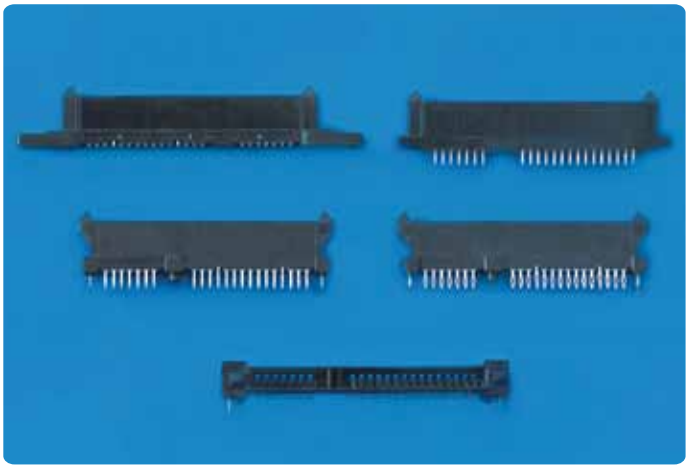
Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/sca2

SATA

SERIAL ATA I/O

FEATURES & BENEFITS

- For implementation of high-speed Serial-ATA storage interface
- Designed to support differential signaling of up to 6Gb/s
- Connectors meet requirements of Serial ATA Specification
- 22-position connectors provide 7 contacts for signal port and 15 contacts for power
- Designed to support hot-plugging and blind-mating of HDDs
- 7-position signal plugs for internal cable connections
- Connector retainers provide additional mechanical strength after soldering
- RoHS-compliant and compatible with lead-free processing temperatures
- Staggered contact lengths provide sequential mating of contacts to enable hot plugging
- Molded guide posts provide angled lead-in to compensate for connector misalignment, allowing the device plug and corresponding receptacle to self align during the mating process
- FCI offers options for through-hole solder, press fit, or surface-mount termination, allowing engineers to select the termination technique best suited to their backplane design and manufacturing process
- Most backplane connectors also feature stamped retention clips that provide additional mechanical strength for robust PCB attachment
- FCI offers a wide range of SATA plug and receptacle connector configurations
- Vertical and right angle connector configurations provide options for use in servers, server or storage blades, storage backplanes, HDD carriers, and HDDs



APPLICATIONS

Data
- Notebook & Desktop PCs
- Servers
- Server and storage blades
- External storage systems
- HDDs
- HDD carriers

Communications
- Processor and storage blades
- Mezzanine cards

Industrial, Instrumentation & Medical
- Embedded system boards

Consumer
- Audio/video storage

Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/SATA

SATA
SERIAL ATA I/O

MAIN PRODUCTS		PART REFERENCES
7-Position Signal Plug, 2 Wall	Right-Angle, SMT	59335
	Vertical, Thru Hole	59333 / 10028860
	Vertical, SMT	59334
7-Position Signal Plug, 4 wall	Vertical, Thru Hole	10035690
	Vertical, SMT	10035691
7-Position Signal Plug, 3 wall	Right-Angle, SMT	10035692
22-Position Device Plug	Right-Angle, SMT (Interposer)	10039651
	Right-Angle, SMT	10101788*
		Contact FCI for customization
22-Position Host Receptacle	Vertical, SMT	10029065*/10042140*
	Vertical, SMT (With Rivet Holes)	10045103*
	Vertical, Thru Hole	10017660*
	Vertical, Press Fit	10022676*
	Right-Angle, SMT	10029364 / 10034814 / 10031569

NOTES :
* Product capable of 6Gb/s data depending on customer application & design optimisation. consult FCI Technical team for further information.

Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/SATA

eSATA CONNECTORS

FEATURES & BENEFITS

- Compliant with eSATA requirements in Serial ATA Specification
- Up to five times faster than USB2.0 or FireWire 400 external storage solutions
- Supports Gen 1 (1.5Gb/s) and Gen 2 (3Gb/s) data rates
- Provide external data backup and protection at up to 3Gb/s data transfer rate
- High-durability design supports 2500 cycles
- RoHS-compliant and compatible with lead-free processing temperatures
- Available range includes eSATA, eSATA/USB (2-in-1), and eSATA/ USB (2-in-1) + USB combo types



MAIN PRODUCTS

		PART REFERENCES
eSATA	2-in-1 right-angle plug, through-hole solder	10074703
eSATA	2-in-1 reversed right-angle plug, through-hole solder	10069848
USB	over eSATA 2-in-1 right angle combo plug, reversed, through-hole solder	10081268

APPLICATIONS

- Desktop / Notebook PC
- Set top box
- Gaming equipment
- External portable storage
- USB related applications product/ equipment

Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/esata

MICRO SATA CONNECTORS

FEATURES & BENEFITS

- Compliant with Micro SATA requirements in Serial ATA Specification
- 16 contacts on 1.27 mm pitch: 7 for signals and 7+2 for power
- Supports Gen 1 (1.5Gb/s) and Gen 2 (3Gb/s) data rates
- High-durability design supports 500 mating cycles
- Designed to support hot-plugging and blind-mating
- Connector retainers provide additional mechanical strength after soldering
- RoHS-compliant and compatible with lead-free processing temperatures



MAIN PRODUCTS — PART REFERENCES

Micro SATA	Plug -straddle mount	10078287
Micro SATA	Receptacle - through hole mount	10080211

APPLICATIONS

Data

- Notebook PC
- Sub-notebook PC
- Portable storage (external drive)

Consumer

- Set top box
- Gaming console
- Audio / Video storage

Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/microsata

SLIMLINE SATA CONNECTORS

FEATURES & BENEFITS

- Compliant with Slimline SATA requirements in Serial ATA Specification
- Supports Gen 1 (1.5Gb/s) and Gen 2 (3Gb/s) data rates
- 7 contacts on 1.27 mm pitch for signals
- 6 contacts on 1 mm pitch for 5V power delivery
- High-durability design supports 500 mating cycles
- Designed to support warm-plugging and blind-mating
- Connector retainers provide additional mechanical strength after soldering
- Options for screw-attachment of plug connector
- RoHS-compliant and compatible with lead-free processing temperatures



MAIN PRODUCTS — PART REFERENCES

SMT	right-angle plug with rounded screw-hole tabs	10085303
SMT	right-angle plug with square screw-hole tabs	10085304
SMT	right-angle plug with solder-tab retainers	10085305

APPLICATIONS

Data

- Desktop PC
- Notebook PC
- Optical disk drive (ODD)

Consumer

- Set top box
- Gaming equipment
- Optical disk drive (ODD)

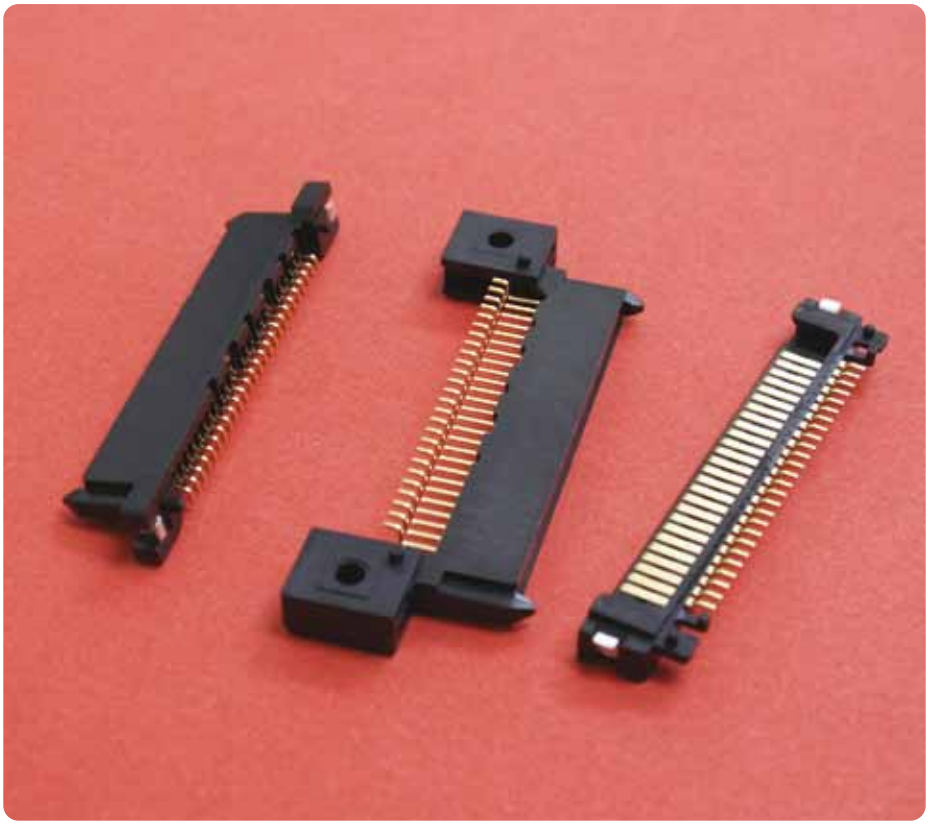
Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/slimlinesata

iVDR CONNECTORS

INFORMATION VERSATILE DISK FOR REMOVABLE USAGE

FEATURES & BENEFITS

- Provide 26 contacts in a single row on 1.27 mm pitch
- Surface-mount design is RoHS-compliant and compatible with lead-free soldering temperatures
- Low insertion force for high durability:10,000 mating cycles
- External dimensions match standard 22-position SATA connector
- The right-angle plug provides solder tabs for added retention
- Options for right-angle or vertical receptacle provide capability to install
- Cartridges in either orientation to host board
- The right-angle receptacle features a fixed screw hole at each end while the vertical type features a solder tab retainer at each end



MAIN PRODUCTS — PART REFERENCES

SMT	Right-angle receptacle with screw holes	10033998
SMT	Vertical receptacle with solder tab retainers	10034273
SMT	Right-angle plug with holddown	10079510
SMT	iVDR Plug+SATA Receptacle Adapter	10069461

APPLICATIONS

iVDR Plug:

- Media cartridge, internal port termination, hard disk drive, solid state drive.

iVDR Receptacle:

- Host application with iVDR interface, such as home recorder, Set-top box, PC, server, TV, automobile. Auto-loading mechanism at host applications.

Further information can be found at:
www.fciconnect.com/storageinterface
www.fciconnect.com/ivdr

SCFF Optical Transceivers

FEATURES & BENEFITS

- Designed to save significant in-board real estate without sacrificing performance or linear board density
- Built to a small cubic form factor (SCFF) that is mechanically modified from the industry standard SFP+ form factor
- 11pin electrical interface to mating ob-board connector with top and bottom EMI shielding
- Complies with 2G/4G/8G FibreChannel specifications
- Digital diagnostic through 2 wire serial interface (SFP+ compatible)
- SFP+ compatible SFI high speed electrical interface
- Low power consumption at <0.6W
- Transmission of up to 150m over OM3 multi-mode fiber at 8G FC
- 0°C to +70°C operating temperature
- 850nm VCSEL laser
- Duplex LC optical interface
- SCFF is UL certified for use in Low Power Systems (LPS)



MAIN PRODUCTS	PART REFERENCES
SCFF OPTICAL TRANSCEIVER - 850nm wavelength	TRX08GVP2540

APPLICATIONS

- Enterprise storage hardware, NICs, HBAs, HCAs
- Industrial
- Instrumentation
- Medical

SFP+ Optical Transceivers

FEATURES & BENEFITS

- Compliant to SFP+ industry standards SFF-8431, SFF-8432 and SFF-8472
- Comply with 10G Ethernet application specifications
- Digital diagnostic through 2 wire serial interface (SFP+ compatible)
- SFP+ compatible SFI high speed electrical interface
- Low power consumption at <0.6W for SR; <0.8W for LR and LRM
- Transmission of
  SR - up to 300m on OM3 MMF
  LR - up to 10km on SMF
  LRM - up to 220m on OM1 fiber
- 0°C to +70°C operating temperature
- Duplex LC optical interface
- RoHs 6/6 compliance



MAIN PRODUCTS	PART REFERENCES
LRM TRANSCEIVER - 1310nm wavelength	TRX10GDL0610
LR TRANSCEIVER - 1310nm wavelength	TRX10GDP0310C1
SR TRANSCEIVER - 850 nm wavelength	TRX10GVP2010C1

APPLICATIONS

- Network and enterprise transmission

Further information can be found at:
www.fciconnect.com/hsio

40 Gbit/s QSFP - QSFP AOC Cables

FEATURES & BENEFITS

- Full duplex 4 channel 850nm parallel active optical cable
- Supports transmission data rates up to 10.3 Gbit/s per channel
- SFF-8436 QSFP+ compliant housing and hot pluggable electrical interface
- Management Interface and digital diagnostic monitoring (DDM) through I2C
- Supports Rx output pre-emphasis
- 4ch 850nm VCSEL array
- 4ch PIN photo detector array
- Helix type multi-mode optical fibre cable of up to 100m
- OFNP (Optical Fiber Non-Conductive Plenum) rated cable
- Differential AC-coupled high speed data interface
- Low power consumption of typical 0.8W per end
- Housing isolated from connector ground
- Easy to use release mechanism
- 0°C to +70°C operating temperature
- 3.3V power supply voltage
- RoHS 6/6 compliance
- Laser class 1-IEC/CDRH product



MAIN PRODUCTS	PART REFERENCES
AOC-QSFP-QSFP-10 meters	ICD040GVP1630-10
AOC-QSFP-QSFP-20 meters	ICD040GVP1630-20
AOC-QSFP-QSFP-50 meters	ICD040GVP1630-50
AOC-QSFP-QSFP-100 meters	ICD040GVP1630-C0

APPLICATIONS

- Infiniband transmission at 4ch SDR (2.5Gbit/s), DDR(5Gbit/s) and QDR(10Gbit/s)
- Multi-channel 10Gb Ethernet transmission up to 4 channels

120Gbit/s CXP-CXP AOC CABLES

FEATURES

- Full Duplex 12 Channel 850nm Parallel Active Optical Cable
- Supports transmission rates up to 10.3Gbit/s per channel
- CXP-based Small Form-factor hot pluggable interface
- Supports Rx Pre-Emphasis
- EEPROM-based Serial-ID, accessible through two-wire Serial Interface
- 12ch 850nm VCSEL array
- 12ch PIN-detector array
- Helix type 24-fiber Multi-Mode Optical cable of up to 50m to allow bending in any direction.
- Fire-resistant OFNP (Optical Fiber Non-Conductive Plenum) rated cable
- Low power consumption: 2.2 Watts (typ.)
- Power class 4
- 0°C to +70°C operating temperature
- Laser Class 1 IEC/CDRH compliant
- RoHS 6/6 compliant
- Angled boot cable exit option available



APPLICATIONS

- Infiniband transmission at 12x SDR, 12x DDR and 12x QDR
- Multi-channel 10GE transmission up to 12 channels

MAIN PRODUCT	PART REFERENCE	LENGTH
CXP-CXP cable-straight cable exit	ICD120GVP2410-05	5 meters
CXP-CXP cable-straight cable exit	ICD120GVP2410-10	10 meters
CXP-CXP cable-straight cable exit	ICD120GVP2410-20	20 meters
CXP-CXP cable-straight cable exit	ICD120GVP2410-50	50 meters
CXP-CXP cable-angled boot cable exit	ICD120GVP2430-10	10 meters
CXP-CXP cable-angled boot cable exit	ICD120GVP2430-20	20 meters

Further information can be found at:
www.fciconnect.com/hsio

120 Gbit/s CXP - 3xQSFP AOC Cables

FEATURES & BENEFITS

- Full duplex 12 channel 850nm parallel active optical cable
- Supports transmission rates up to 10.3 Gbit/s per channel
- CXP-based module at one end and QSFP-based modules at the other ends
- Hot pluggable electrical interfaces
- CXP-based module supports Rx pre-emphasis
- EEPROM-based Serial-ID, accessible through two-wire Serial Interface
- Multi-channel 850nm VCSEL array
- Multi-channel PIN-detector array
- Helix type 24-fiber Multi-Mode Optical cable of up to 50m to allow bending in any direction
- Fire-resistance OFNP (Optical Fiber Non-Conductive Plenum) rated cable
- Low power CXP-based module: 2.2 Watts (max)
- Power class 4
- 0°C to +70°C operating temperature
- Laser class 1 IEC/CDRH product
- RoHS 6/6 compliant

New product



DESCRIPTION	PART REFERENCE	LENGTH
CXP-3xQSFP cable	ICD120GVP2420-05	5 meters
CXP-3xQSFP cable	ICD120GVP2420-10	10 meters
CXP-3xQSFP cable	ICD120GVP2420-20	20 meters
CXP-3xQSFP cable	ICD120GVP2420-50	50 meters

APPLICATIONS

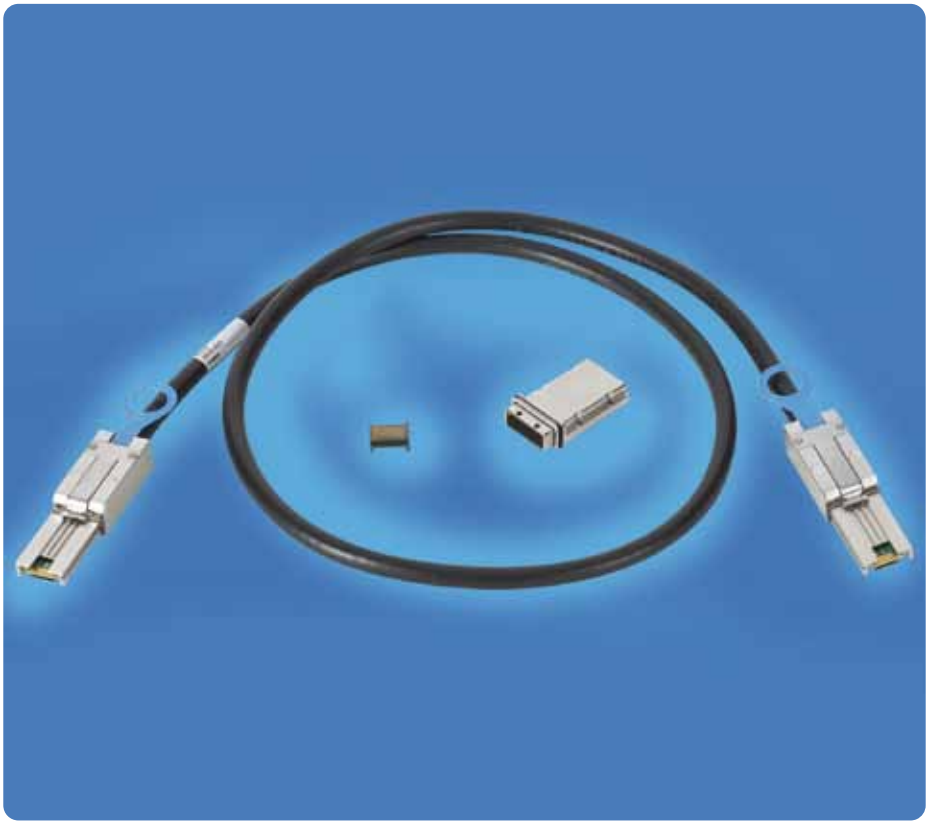
- Infiniband transmission at 12x SDR, 12x DDR and 12x QDR
- Multi-channel 10GE transmission up to 12 channels

MINI MULTILANE EXTERNAL CABLE ASSEMBLIES

FOR HIGH-SPEED SERIAL MINI SAS OR MINI SATA 4X LINKS

FEATURES & BENEFITS

- Ruggedized 26-position cabling interconnect system is SFF- 8088 (shielded – external) and SFF-8086 compatible
- Available options support Mini SAS and Mini SATA 4x external cable requirements -SAS 2.0 & SAS 2.1
- Cable assembly paddle card design is optimized for signal integrity and mechanical performance
- Low profile “pull-to-release” latching system provides secure connection and allows stacking
- Adaptive, robust EMI Gasket and die-cast backshell assure proper EMI shielding
- Robust cable strain relief system isolates cable termination from mechanical stress
- Reduced backshell protrusion provides short cable exit
- Fully compliant with SAS and SATA defined keying options
- Controlled wire management and termination process assures consistent high-speed electrical performance
- RoHS compliant



MAIN PRODUCTS — PART REFERENCES

Mini-Multilane SAS/SATA cable assemblies - passive	10084749
Mini-Multilane SAS/SATA cable assemblies - passive - SAS 2.1	10111837
Mini-Multilane 26 position connector	10098870
Mini-Multilane single port cage - 0° and 1°	10098871
Mini-Multilane 1x2 ganged port cage - 0° and 1°	10098872

APPLICATIONS

Data

- Servers
- RAID systems
- Storage racks
- External Storage systems
- SAS/SATA HBA interfaces
- Direct-attached storage (DAS)

Communications

- Switches

Industry Standards

- SATA-IO Serial ATA (SATA) Specification
- INCITS/ANSI Serial-Attached SCSI (SAS) specifications
- SFF-8088 and SFF-8086

Further information can be found at:
www.fciconnect.com/minisas
www.fciconnect.com/hsio
www.fciconnect.com/highspeed

MINI-SAS HD

Connectors and Cable Assemblies Next generation SAS storage interface

FEATURES & BENEFITS

- IMLA based board connector insures compliance to the SAS 2.1 & proposed 3.0 electrical performance criteria
- Internal and external board connector and cable assemblies provide end-to-end application solutions
- 1X1, 1X2 and 1X4 connector/cage assemblies offer product family design flexibility
- All board connectors and configurations are fully 6G and 12G compliant allowing for use of same part numbers when system speeds increase from 6G to 12G
- Metal cages on the connector and cables provide 360° EMI shielding and replaces problematic EMC elastomeric gaskets
- Cable assemblies offered in 4x and 8x configurations
- Eye-of-the-needle connector and cage single step termination yields consistent application to the PCB
- The cable strain relief results in an axial pull force in excess of 20 lbs
- Cable latch design reduces cable insertion force and un-mating issues
- Hybrid cables (mini-SAS HD to mini-SAS) allow for backwards compatible cabling with older system hardware



Product Description	Signal Pairs	Part Number
PART NUMBERS-BOARD CONNECTORS		
Mini-SAS HD 1 X 1 External Assembly (12 Gb/channel)	8 Pair	10112626-101LF
Mini-SAS HD 1 X 2 External Assembly (12 Gb/channel)	16 Pair	10112627-101LF
Mini-SAS HD 1 X 4 External Assembly (12 Gb/channel)	32 Pair	10112628-101LF
Mini-SAS HD 1 X 1 Internal Assembly (12 Gb/channel)	8 Pair	10112632-101LF
Mini-SAS HD 1 X 2 Internal Assembly (12 Gb/channel)	16 Pair	10112633-101LF
Mini-SAS HD 1 X 4 Internal Assembly (12 Gb/channel)	32 Pair	10112634-101LF
PART NUMBERS-CABLE ASSEMBLIES		
Mini-SAS HD to Mini-SAS HD passive cable assembly - 4x configuration - SAS 2.1 (6Gb/s) compatible	8 Pair	10112041
Mini-SAS HD to Mini-SAS passive cable assembly- SAS 2.1 (6Gb/s) compatible - 4 x configuration on mini-SAS HD end and universal keying on mini-SAS end	8 Pair	10117771
Mini-SAS HD to Mini-SAS HD passive cable assembly - 8x configuration - SAS 2.1 (6Gb/s) compatible	16 Pair	10112359
Mini-SAS HD to Mini·SAS passive cable assembly- SAS 2.1 (6Gb/s) compatible - 8x configuration on mini-SAS HD end and universal keving on mini-SAS end	16 Pair	10117947
Mini-SAS HD to Mini·SAS HD passive cable assembly- proposed SAS 3.0 (12Gb/s) compatible - 4x configuration	8 Pair	10117949
Mini-SAS HD to Mini·SAS HD passive cable assembly- proposed SAS 3.0 (12Gb/s) compatible - 8x configuration	16 Pair	10117950

APPLICATIONS

Data
- Servers
- RAID systems
- Storage racks

External Storage Systems
- SAS/SATA HBA interfaces
- Direct-attached storage (DAS)

Communications
- Switches

Further information can be found at:
www.fciconnect.com/hsio
www.fciconnect.com/minisashd

SFP+ COPPER CABLE ASSEMBLIES
FOR ETHERNET AND FIBER CHANNEL APPLICATIONS

FEATURES & BENEFITS

Fully compatible with all SFP+ interfaces & mechanical backwards compatibility with SFP
Designed to be compliant with SFF-8431 industry standard
100 ohm differential impedance
Supports for 10Gb/s per channel transmission
Optimized PCB interface board to minimize crosstalk and insertion loss
Stamped EMI girdle to assure superior EMI shielding effectiveness
EEPROM for cable signature & system communications
30 AWG to 24 AWG cable sizes available
RoHS compliant



MAIN PRODUCTS	PART REFERENCES
Cable Assembly	
SFP+ cable assembly - passive - Leoni raw cable	10101497
SFP+ cable assembly - passive - Standard raw cable	10110818
Mating Header & Cage	
20 position SFP+ connector	10099099
1×1 SFP+ cage with EMI fingers	10099100
1×2 ganged SFP+ cage + elastomeric gasket	10099101
1×4 ganged SFP+ cage – EMI fingers	10099102
1×1 SFP+ cage – EMI fingers with light pipe hooks	10099103
1×4 SFP+ cage – elastomeric gasket with light pipe hooks	10099104
1×1 SFP+ light pipe kit assembly (for P/N 10099103)	10099106
1×4 SFP+ light pipe kit assembly (for P/N 10099104)	10099108

APPLICATIONS

Data
- Servers
- Networked storage systems
- External storage systems
- High Performance Computing (HPC) applications
- Data Center networking

Communications
- Switches
- Routers

Industry Standards
- 10 Gigabit-Ethernet (10 GBASE-CU)
- Gigabit-Ethernet (IEEE 802.3ae)
- 8G FC and 10G FCoE
- SFF-8431 & SFF-8461

Further information can be found at:
www.fciconnect.com/hsio

QSFP QSFP+ COPPER CABLE ASSEMBLIES
FOR 40GB/S AGGREGATE BANDWIDTH APPLICATIONS

FEATURES & BENEFITS

- Fully compatible with IEEE802.3ba and Infiniband QDR specifications
- 100 ohm differential impedance system
- Allows for 10Gb/s per channel transmission; aggregate of 40 Gb/s total bandwidth
- Optimized PCB interface board to minimize crosstalk and insertion loss
- Robust diecast covers for superior EMI shielding effectiveness
- EEPROM for cable signature & system communications
- 32 AWG to 24 AWG cable sizes available
- RoHS compliant



MAIN PRODUCTS	PART REFERENCES
QSFP / QSFP+ 38 position connector	10099113
QSFP / QSFP+ 1x1 cage with EMI fingers	10099114
QSFP / QSFP+ cage heat sink	10099115
QSFP / QSFP+ cage heat sink clip	10099116
QSFP+ cable assembly - passive	10093084
QSFP cable assembly - passive	10115856

APPLICATIONS

Data
- Servers
- Networked storage systems
- Routers
- External storage systems
- High Performance Computing (HPC) applications
- Data Center networking

Communications
- Switches
- Routers

Industry Standards
- InfiniBand Trade Association (IBTA)
- IEEE802.3ba
- 40Gigabit Ethernet (40G BASE - CR4)

DENSISHIELD™ I/O SYSTEM

FEATURES & BENEFITS

- 8-pair connectors can be mounted side by side on 12.5 mm pitch enabling multiple I/O ports along a card edge
- Connects EMC shield to chassis panel and provides shielding to PCB level
- Low vertical profile allows use in systems having 15 mm pitch card slot spacing
- Low crosstalk between differential pairs with controlled 100-ohm impedance to match 100-ohm shielded pair cable
- Crimp ferrule system reliably terminates EMC shield of cable to connector covers
- Signal ground is isolated from EMC ground
- SMT reflow-compatible PCB connector
- Dual-beam contact system provides redundancy and long term reliability
- RoHS-compliant
- µTCA® profile compliant Header available
- Short cable strain relief area allows for tight cable routing
- Supports up to 10Gb/s per channel signal transmission



MAIN PRODUCTS	PART REFERENCES
PCB Mount Board Connector	10044471
Cable Mount Plug Kit	10044473
Cable assemblies	10054999
PCB board mount connector for single-width Micro TCA®	10076181

APPLICATIONS

Data
- Servers
- Storage systems

Communications
- Switches
- Routers
- Base stations

Medical

Instrumentation

Test equipment

Further information can be found at:
www.fciconnect.com/densishield
www.fciconnect.com/hsio
www.fciconnect.com/highspeed

METRAL® HDXS

HIGH SPEED FRONT I/O INTERCONNECTION SYSTEM

FEATURES & BENEFITS

- Complies with standard telecom building practices (IEC 60917-2-2 & IEC 60297-3)
- 24, 48 and 72 pair VDSL-2
- Resistibility to over-voltage of up to 2500V
- Robust design
- RoHS design allows for environmental friendly end application
- Die cast shells for enhanced EMI shielding performance
- Right-Angle, Press-Fit board connectors suitable for 1.6 and 2.4mm PCB thickness
- Meets Telcordia GR1217-CORE performance CO
- Insulation Displacement Technology with mechanical relief per individual wire
- Polarized design prevents mis-mating
- Integral screw hardware fastens connector to the panel preventing accidental unmating
- Available as custom cable assemblies



MAIN PRODUCTS

		PART REFERENCES
Metral HDXS	Board Connector	10075388-101LF
	Cable assembly 72 pair	Customized
	Cable assembly 24 pair	Customized

APPLICATIONS

Communications

- ADSL, VDSL, VDSL-2 networks

Further information can be found at:
www.fciconnect.com/metralhdxs
www.fciconnect.com/highspeed

METRAL® CABLE CONNECTORS

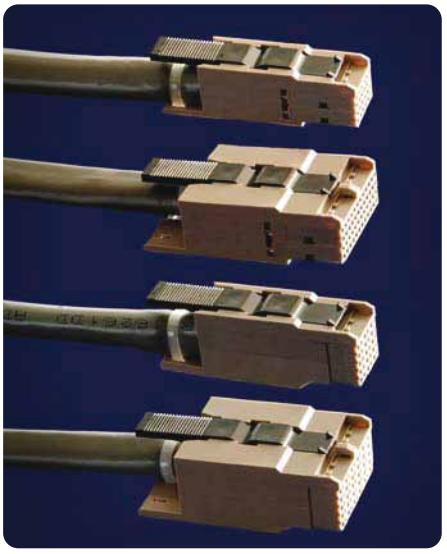
CABLE CONNECTORS FOR METRAL AND IEC 2MM PCB HEADERS

FEATURES & BENEFITS

- Interface compatible with IEC 61076-4-104 backplane connectors
- Next generation design offers easy and fast cable assembly
- Four Row versions provide 24 or 48 contacts; Five Row versions provide 30 or 60 contacts
- Insulation displacement design offers quick termination without the need to strip conductors
- Active backshell latches securely connect assembled cable connectors to standard Metral® headers
- Different latch designs are available to satisfy ergonomic and mechanical requirements
- End-stackable cable connectors enable adjacent connectors to plug to headers without loss of positions
- Application tooling supported by FCI

APPLICATIONS

- Applications in communications, data, and industrial electronics using IEC 61076-4-104/Metral®-compatible connector architecture



MAIN PRODUCTS

Standard cable connector kits

4 rows x 6 = 24 positions, standard latch
4 rows x 12 = 48 positions, standard latch
5 rows x 6 = 30 positions, standard latch
5 rows x 12 = 60 positions, standard latch
4 rows x 6 = 24 positions, short latch
4 rows x 12 = 48 positions, short latch
5 rows x 6 = 30 positions,short latch

PART REFERENCES

7247V-WXY1LF

V Number of Positions
6=4 Rows x 6 = 24 Positions
7=4 Rows x 12 = 48 Positions
8=5 Rows x 6 = 30 Positions
9=5 Rows x 12 = 60 Positions
W Plating Section
1=Gold plating on mating face
X Latch Style
1=Standard finger latch for easiest actuation
2=Short finger latch for extra large diameter cable
Y Wire / Conductor Size
1=For 26 to 24 AWG wire
2=For 30 to 28 AWG wire

MAIN PRODUCTS

Right angle Metral® headers

PART REFERENCES

4 Rows x 6 = 24 Positions	HM1L41LAP000H6PLF	HM1L41LDP000H6P
4 Rows x 12 = 48 Positions	HM1L42LAP000H6PLF	HM1L41LDP000H6P
5 Rows x 6 = 30 Positions	HM1L51LAP000H6PLF	HM1L51LDP000H6P
5 Rows x 12 = 60 Positions	HM1L52LAP000H6PLF	HM1L52LDP000H6P

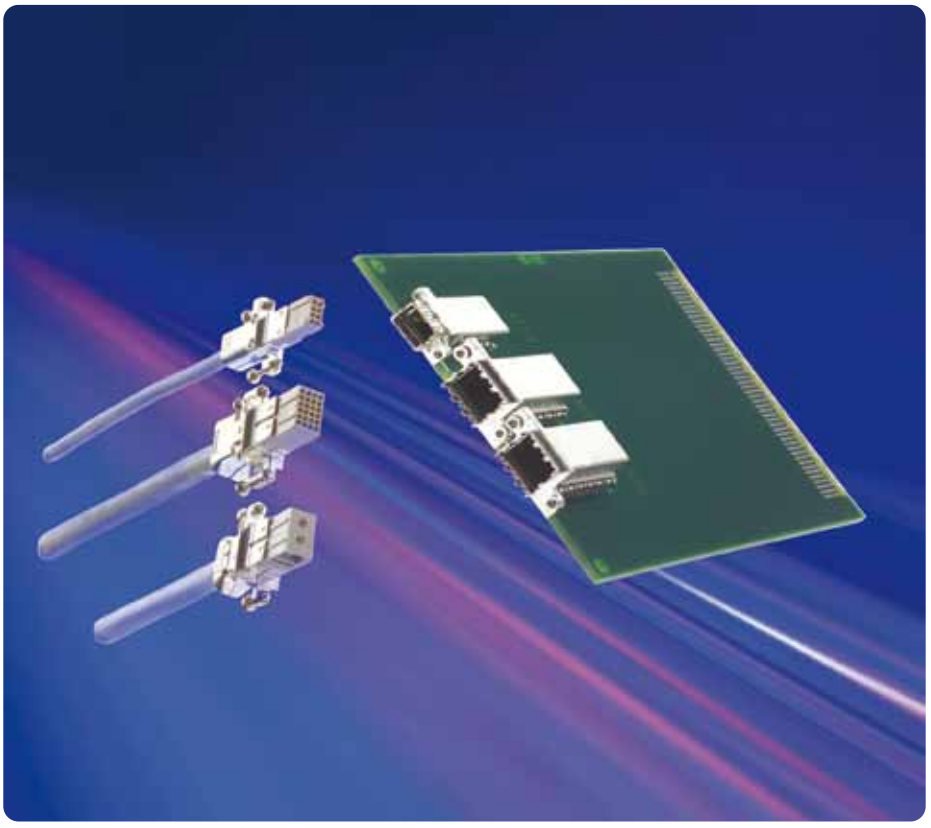
Further information can be found at:
www.fciconnect.com/metral
www.fciconnect.com/cableassembly

SOFIX®

FRONT I/O INTERCONNECTION SYSTEM

FEATURES & BENEFITS

- Complies with standard telecom building practices (IEC 60917-2-2 & IEC 60297-3)
- Signal and power modules
- Both 10/100 BaseT and 1000 BaseT 8 position solutions
- Hot plugable
- Robust design
- 15 mm slot pitch
- RoHS design allows for environmental friendly end application



MAIN PRODUCTS

		PART REFERENCES
2x4	Sofix Board Connector	72860
4x6	Sofix Cable Connector Coax Twisted pair	HM1C16D2J110EBLF

APPLICATIONS

- Wireless
- Switching (mobile)
- Transmission (Ethernet & GbE line lines, E1/T1, 2 Mb).

LOW PROFILE SUBSCRIBER INTERFACE

SIGNAL & POWER FOR DSL SUBSCRIBER ACCOUNTS

FEATURES & BENEFITS

- Versatile, turnkey system designed especially for subscriber connection applications
- Signal connectors have 24 contacts on 2.00 mm pitch. PCB header uses minimal space: 16 mm (depth from edge of card) x 33 mm (along edge of card) x 13 mm (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 2.54 mm pitch. PCB header uses minimal space: 20 mm (depth from edge of card) x 14 mm (along edge of card) x 13 mm (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



APPLICATIONS

Communications

- aDSL / vDSL access networks
- Wireless base stations

MAIN PRODUCTS

MAIN PRODUCTS		PART REFERENCES
Cable Assemblies	Signal	10076684
	Power: Single-ended	10076685
	Power Double-ended	10076686
Power Cable Connector Kit	1x4, 2.54 mm contact pitch	10074342-001LF/10074342-002LF
Power PCB Header Connector	1x4, 2.54 mm contact	10066619-001LF
Signal Cable Connector Kit	2x12, 2.00 mm contact	10073976-001LF
Signal PCB Header Connector	2x12, 2.00 mm contact	10069230-001LF

Further information can be found at:
www.fciconnect.com/cableassembly

MICRO-USB CONNECTOR

New product

FEATURES & BENEFITS

- Size reduction:
  Approximately 60% smaller in size compared to FCI's mini -USB connector range
- Receptacle styles:
  Two interface configurations: B and AB type. Mid-mount and Reverse mounting styles
- Plug styles:
  Used for data transmission, earphone or charging applications
- High durability:
  Passive latching prevents unintentional cable release: 10,000 cycles
- RoHS compatible



MAIN PRODUCT	PART REFERENCES
B Type Receptacle, Reverse	10103592
B Type Receptacle, STD, Miot-Mount	10103593
B Type Receptacle, STD	10103594
B Type Receptacle, Plug	10104109
B Type Receptacle, STD	10104110
A/B Type Receptacle, STD	10104111
B Type Receptacle, STD, SMT	10118192
B Type Receptacle, STD, 2 DIP Legs	10118193
B Type Receptacle, STD, 4 DIP Legs	10118194

APPLICATIONS

- Mobile phone
- PDA
- Portable music players
- Digital cameras
- Rugged handhelds
- Controller boards
- Other applications requiring high relability Micro-USB interface connectors

USB
UNIVERSAL SERIAL BUS

FEATURES & BENEFITS

- USB 2.0 compliant, speed to 480 Mb/sec
- Type A (Host) receptacles, 4 position
  - Through hole and SMT versions
  - PCB mount options: Position, orientation, hold-down.
  - Panel fixing and grounding options
  - Additional sensor contact versions
  - Double deck, 8 position version
- Type B (peripheral) receptacles, 4 position
- Mini USB receptacles, 5 position
- Plug kits for over mold cable assembly
- USB + power versions available



MAIN PRODUCTS — PART REFERENCES

Style		
A	S/D Upright, Through hole Receptacle	73725
	S/D Right angle, Through hole Receptacle	87520
	D/D Right angle, Through hole Receptacle	72309
	S/D Right angle, SMT Receptacle	87583
B	S/D Right angle, Through hole Receptacle	61729
USB+POWER	S/D Right angle, Through hole Receptacle (Full range)	55917
	Plug Kit (Full range)	74233
	S/D Right angle, Through hole Receptacle	57489
	Plug Kit	57496
Cable Assembly	Single-ended	10084088/10084089
	Double-ended (USB+POWER and LNL)	10089745/10089743 10083511/10083512

APPLICATIONS

- Computers, laptops, servers
- Printers, external drive units, monitors
- Digital cameras, TV's, set-top box
- Modems, keyboards, instrumentation
- Point-of-sale equipment

Further information can be found at:
www.fciconnect.com/usb
www.fciconnect.com/powersolutions
www.fciconnect.com/cableassembly

HDMI

HIGH DEFINITION MULTIMEDIA INTERFACE

FEATURES & BENEFITS

- Choice of partial SMT/PIP or full SMT mounting style
- Right angle and straight versions
- Metal shell for better EMI shielding protection, especially for the straight version
- Excellent durability
- HDMI 1.4 compliance
- RoHS compliant
- Low impedance mismatch
- Straight version features additional grounding pins for enhanced EMI performance
- Backward compatible with DVI



MAIN PRODUCTS	PART REFERENCES
HDMI A-Type Right angle,with or without flange receptacle	10029449
HDMI A-Type Straight receptacle	10078837
HDMI D-Type DIP + SMT leg receptacle	100118241
HDMI D-Type DIP + leg receptacle	100118242

APPLICATIONS

- Plasma Displays & TVs
- LCD Display & TVs
- Set-Top Boxes
- DVD Players/Recorders
- Audio/Video Receivers
- D-VHS Players
- High-Definition Monitors
- Entertainment PC
- Smart Mobile Phone

Further information can be found at:
www.fciconnect.com/hdmi

MODULAR JACKS

FEATURES & BENEFITS

- Right angle or straight
- Through mount or SMT
- Cat3, Cat5 performance category
- 4, 6, 8 positions, fully or selectively loaded
- Single to Stacked Multi-ports
- Shielded or non-shielded
- Inverted latch options
- Standard, raised or low profile versions
- Snap or diamond pegs options



APPLICATIONS

Networking

- Network servers
- Hubs
- Routers
- Ethernet switches

Computers and Peripherals

- Laptops
- Modems

Telecom

- PBX systems
- Fax machines
- Phone line security systems

Office and Home Equipment

- ATM machines
- Point of sales terminals
- Vending machines
- Security systems
- Set-top boxes
- Medical analysis equipment

Further information can be found at:
www.fciconnect.com/modjacks

MAIN PRODUCTS — PART REFERENCES

Single Port Cat3	Mounting Style	Positions	Pegs	Part Series
Right Angle	Through Mount	4,6,8	Snap	87180 54601
		8,10	Snap	54602
		8	Snap	10117863
	SMT	4		73306
		6		73305
		8		73304
Straight	Through Mount	4	Snap	90511
		4	Diamond	69253
		6	Snap	90512
		6	Diamond	69254
		8	Diamond	69255
	SMT	4		87543 98431
		6		87545 98432 98433(Keyed)
		8		87547 98435 97549(Keyed)

MultiPort Cat3	Mounting Style	Ports	Shield/EMI	Part Series
Right Angle	Through Mount	4,8	Yes/Yes	94910
		2,4,7,8	No/No	94911
		2 (6P + 6P)	No/No	10053565
		2	Yes/Yes	10118061
		4	Yes/No	10118062
		6	Yes/No	10118063
		8	Yes/No	10118064
		4 (10P)	Yes/Yes	10118065
		2	Yes/Yes	10118066(LED)
		4	Yes/Yes	10118067(LED)
		8	Yes/Yes	10118068(LED, TAB UP)
		8	Yes/Yes	10113616(LED, TAB DOWN)
Straight	Through Mount	3 (4P+4P+6P)	No/No	92266
Right Angle (Stacked)	Through Mount	2x1	Yes/No	10118069
		2x2	Yes/No	10118070
		2x3	Yes/No	10118071
		2x4	Yes/No	10118072
		2x4	Yes/Yes	74633
		2x6	Yes/No	10118073
		2x8	Yes/No	10118074
		2x1	Yes/Yes	10118075(LED)
		2x2	Yes/Yes	10118076(LED)
		2x4	Yes/Yes	10118077(LED)
		2x6	Yes/Yes	10118078(LED)

Single & MultiPort Cat5	Mounting Style	Ports	Shield/EMI	Part Series
Right Angle	Through Mount	1,4,8(filter)	Yes/Yes	95672
		1,4,8	Yes/Yes	95678
		1,2,4,6,8	No/No	95679

D-SUBMINIATURE
PCB APPLICATIONS

FEATURES & BENEFITS

- Signal: 9 to 50 way connectors - standard density
- Signal: 15 to 78 way connectors high density
- Power: wide range of layouts from 2V2 to 36W4
- Solder to board and press-fit and Pin-in-Paste (THR) terminations available
- Dedicated website

APPLICATIONS

- Our D-Sub connectors are suitable for every type of equipment including those in harsh environments





MAIN PRODUCTS		SERIES	WEBSITE CATEGORY
Standard application			
Signal	Right angled solder-to-board	Delta D	Std density
	Right angle press-fit	Delta D	Pressfit
	Right angle pin-in-paste	Delta D	Pin-in-Paste
	Straight solder-to-board	Delta D	Std density
	Straight press-fit	Delta D	Pressfit
	Straight pin-in-paste	Delta D	Pin-in-Paste
	High density solder-to-board	Compact D	High density
	High density press-fit	Compact D	High density
	High density pin-in-paste	Compact D	High density
Less Demanding application			
	Right angled solder-to-board	Economy Range	Economy Range
	Straight solder-to-board	Economy Range	Economy Range
Demanding application			
Full and mix power	Straight and right angle solder-to-board and press-fit	DW series	Power Connectors
	High Power I/O PCB connectors	µTCA®	µTCA Power IO
Severe environment application			
Signal	Right angle solder-to-board, Wire-wrap and straight solder-to-board	DP series	High Performance
	Right angle solder-to-board, Wire-wrap and straight solder-to-board	DM series	High Performance

µTCA®

Further information can be found at:
www.fciconnect.com/dsub

D-SUBMINIATURE
CABLE APPLICATIONS

FEATURES & BENEFITS

- Signal: 9 to 50 way connectors
- Power: wide range of layouts from 2V2 to 36W4
- Solder bucket, crimp and IDC available

APPLICATIONS

- Our D-sub connectors are suitable for almost every type of equipment including those in demanding environments



MAIN PRODUCTS		SERIES	Website Category
Standard application			
	Solder bucket	D series	Cable Connectors
	Crimp connectors and contacts	8656 series	Cable Connectors
	IDC flat cable connector	8657 series	Cable Connectors
Demanding application			
Full and mix power	Solder bucket	DW series	Cable Connectors
	Crimp connectors and contacts	DW series	Cable Connectors
	High Power I/O Cable connectors	µTCA®	Cable Connectors
Severe environment application			
	Solder bucket	DP series	High Performance
	Solder bucket	DM series	High Performance
Accessories			
	Hoods (Plastic, metalized and metallic)	Accessories	Accessories
	Locking devices	Accessories	Accessories

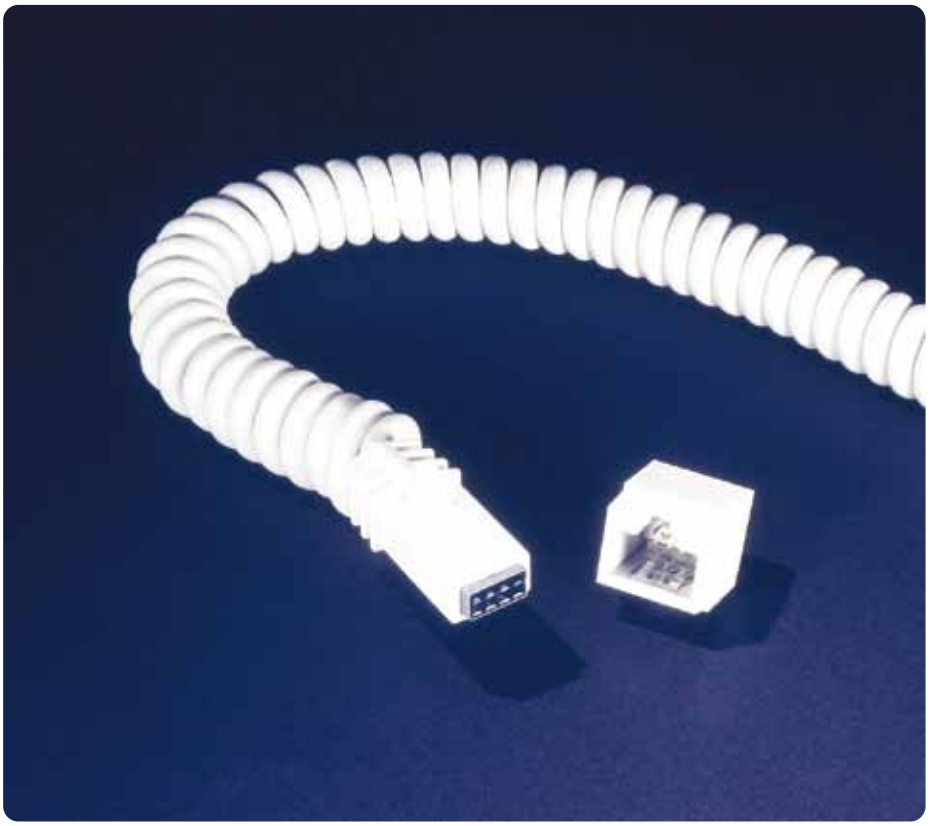
µTCA®

Further information can be found at:
www.fciconnect.com/dsub

LATCH-N-LOK™
I/O CONNECTOR SYSTEM

FEATURES & BENEFITS

- Versatile cable-to-board system includes PCB headers and cable connector kits for signal, power, grounding and shielding applications.
- Supports high speed, serial data transmission
- Quick disconnect system provides positive latching with an audible “click.”
- High reliability design features FCI PV™ receptacle contacts mating to phosphor bronze .025”sq pin contacts in single and double row configurations
- Polarized housings prevent mis-mating; Keying options prevent the mating of incorrect cables
- Cable connectors accommodate a wide variety of cable diameters and wires ranging from 20AWG to 32AWG



MAIN PRODUCTS / PART REFERENCES

PCB Receptacle		
Right angle,Through hole	1x4,1x6,1x8	69273/78304/69913
Right angle,Through hole	2x3,2x4,2x4	78097/69958/74355
	2x6,2x8,2x10	78098/69901/79610
Cable plug kits		
Enhanced shelding	1x4,1x8,2x3,2x4	74901/74903/74902/98028
Standard shelding	1x4,1x6,1x8,2x3	91481/91482/91483/91485
	2x4,2x6,2x8,2x10	91486/91487/91488/91489

APPLICATIONS

- Medical Instrumentation
- Handheld devices
- POS Equipment
- Test and Measurement
- Inventory Equipment
- USB Plus Power
- Telecommunications

Further information can be found at:
www.fciconnect.com/latchnlok

DDR2 MEMORY MODULE SOCKETS

FEATURES & BENEFITS

- Support convenient, add-on memory expansion with standard memory module assemblies
- Connectors provide mechanical voltage keying and end latches for module retention and ejection
- DDR2 FB-DIMM connectors accept module assemblies that conform to JEDEC MO-256
- DDR2 DIMM connectors accept assemblies that conform to JEDEC MO-237
- 240-position FB-DIMM and DIMM connectors feature a low insertion-force socket design that requires less than 24 pounds force for module installation
- Available solder tail options for vertical DDR2 DIMM connectors support use on 1.58 mm (.062") or 2.36 mm (.093") thick motherboards, while press-fit options extend use to thicker motherboards
- Contact design protects against stubbing and supports high-speed serial differential signaling at data rates extending to 4.8 Gb/s for FB-DIMM
- DDR2 SO-DIMM connectors offer keying options for standard and reverse module orientation. The 200-postion horizontal sockets accept modules that conform to JEDEC MO-224
- RoHS-Compliant and "Lead-free" process-compatible options are available to aid compliance with lead elimination initiatives



APPLICATIONS

Data
- Servers
- Workstations
- Desktop PCs
- Notebook PCs

Communications
- Routers
- Switches
- Base Stations

Industrial
- Embedded systems

MAIN PRODUCTS

		PART REFERENCES
240 position	Vertical DDR2 DIMM	10005639 / 10023061
	Vertical DDR2, press-fit	10034542
	Vertical DDR2, low-profile	10052286
	Vertical DDR2, SMT	10070983
	DDR2 FB-DIMM	10037402 / 10057443
200 position	DDR2 SO-DIMM Enhanced Retention Force Version	10033853 / 10033854 10116658 / 10117865
144 position	16b/32b SO-DIMM	10062086

Further information can be found at:
www.fciconnect.com/ddr

DDR3 MEMORY MODULE SOCKETS

FEATURES & BENEFITS

- Connector provides mechanical voltage keying and latches for modules retention and ejection
- DIMM connectors feature a low insertion-force socket design that requires less than 24 pounds force for module installation
- Available solder tall options for vertical DDR3 connectors support use on 1.58 mm (.062") or 2.36 mm (.93") thick motherboards, while press-fit options extend use to thicker motherboards
- Contact design protects against stubbling and supports high-speed serial differential signalling at data rates extending to 4.8 Gb/s for DDR3
- RoHS Compliant and "lead free" process compatible options are available to aid compliance with lead elimination initiatives
- Low Level Contact Resistance (LLCR) featured on DDR3 sockets accept RDDIMM DD3 modules
- VLP form factors provide connector heights of less than 21 mm above the board, while accepting modules with a seating height of less than 2.4 mm
- Slim latch and connector body designs facilitates optimized airflow



APPLICATIONS

Data
- Servers
- Workstations
- Desktop PCs
- Notebook PCs

Communications
- Routers
- Switches
- Base Stations

Industrial
- Embedded systems

MAIN PRODUCTS	PART REFERENCES
240-position vertical DDR3 RDIMM sockets	
Through mount and metal clip, RDIMM	10081530
Through mount and plastic post, RDIMM	10081531
Press - fit and plastic post, UDIMM	10087607
Press - fit and plastic post, RDIMM	10119101 (in development)
Very low profile (VLP),Press - fit	
Low seating plane	10076443 (in development)
Very low profile (VLP), through hole	
Through mount and metal clip	10079192
Very Low Profile (VLP), surface mount	
Surface mount with metal hold down	10079248

Further information can be found at:
www.fciconnect.com/ddr

SMART CARD CONNECTORS

FEATURES & BENEFITS

- Through mount, SMT or Flex mounted
- Sliding or landing contact technology
- Durability: From 10K to 200K cycles
- Vandalism-proof designs
- Suitable for friendly, harsh, portable or automotive environments
- EMV, NDS approved
- Blade or sealed switch available
- 6, 8 or 16 data contacts available
- SIM, SAM or full size card connectors available
- Smart Card Reader with customized FPC/FFC offer flexibility to solder onto the appropriate position of a PCB. The very low profile provides superior space savings, especially for Notebook PC application.
- Customization available upon request



APPLICATIONS

Networking

- Analog or digital set-top box
- Internet decoder
- Laptops

Telecom

- Mobile phones
- Public phones

Automotive

- Car radio
- GPS
- Tachograph / Tachometer

Others

- Point of sale terminals
- Vending machines
- Access control
- Customer loyalty equipment
- E-purse
- Gas, water, electricity meters

Further information can be found at:
www.fciconnect.com/smartcards

SMART CARD CONNECTORS

MAIN PRODUCTS — SERIES

Product	Number of Cycles	Card Size		Termination			Contact Technology		Switch Type	
		Full	SIM	TMT	SMT	FFC/FPC	Sliding	Landing	Blade	Sealed
Smart Card Reader 10010556 / 556040 Series	10K / 25K	◣				◣	◣		◣	
L04 Series	100K	◣		◣			◣		◣	
L08 Series	100K	◣		◣			◣			◣
L26 Series High Performance	10K - 100K	◣		◣		+ Flex	◣		◣	
L26 Series	2.5K	◣		◣			◣		◣	
E Series	200K	◣			◣	+ Flex		◣		◣
P Series	100K	◣			◣	+ Flex	◣		◣	
C Series	100K	◣		◣			◣			
S Series	10K	◣	◣		◣		◣		◣	

Part Number	Termination	Pin	Thickness	Push-Pull Cycles
10010556-0**LF	Customized FPC/FFC	8	3.6 mm	Without push-push
10026297-00*LF	Customized FPC	8	3.8 mm	10K
55640-2*20*LF/-20211LF	Customized FPC	8	3.7 mm	10K/25K

Further information can be found at:
www.fciconnect.com/smartcards

PC CARD HEADERS

FEATURES & BENEFITS

- Conform to PCMCIA and CardBus standards
  - CardBus PC Cards can meet high signal transmission requiring bandwidth (32 bits) and clock rate (33 MHz)
- Suitable for type I, II, III, 3.3 and 5V
  - Standard and CardBus PC Cards
  - Various stand-off options available
  - Single and double deck
- Eject and non eject mechanism available
- Through Mount, SMT In-Line, SMT
  - Staggered, Flex or patented SMT
  - Vertical Transition Board versions available
- Optional EMI metal shield cover (CardBus)



APPLICATIONS

- Notebooks, portable PCs, industrial PCs, network PCs
- Set-top boxes, digital TV, home entertainment devices
- Telecom, datacom equipments (switches, routers, remote access servers)
- Machine control systems
- Test & measurement devices, medical instrumentation

Further information can be found at:
www.fciconnect.com/pcmcia

PC CARD HEADERS

MAIN PRODUCTS — PART REFERENCES

Type	F/G	Mounting	Voltage	Deck	Ejector	Remark
PCMCIA	61126	T/H or SMT	3.3V	Single	Yes	
	95620	T/H or SMT	5.0V	Single	Yes	
	84648	T/H or SMT	3.3V	Single	None	
	92789	T/H or SMT	5.0V	Single	None	
	92194	T/H	5.0V	Doubl	Yes	
	84654	T/H	3.3V	Double	Yes	
	61125/61124	VTB	3.3V	Single/Double	Yes	Mating with 91931
	95547	VTB	5.0V	Single	Yes	Mating with 91931
	88640	VTB	5.0V	Single	None	Mating with 91931
	74423	VTB	3.3V	Single	None	Mating with 91931
	58431	VTB	3.3V	Single	Yes	Mating with 91931
	10074998	VTB	3.3V	Single	Yes	Mating with 91931
	10067972	T/H	3.3V	Single	None	Short Body（shield）
	10118309	T/H	3.3V	Single	None	Short Body（plastic）
	10074595	T/H	5.0V	Single	None	Short Body（shield）
	92150	T/H or SMT	5.0V	Single	None	Short Body（plastic）
	87536	T/H	5.0V	Single	None	Short Body（plastic）
Card Bus I	71299/71240	VTB	3.3V	Single/Double	Yes	Mating with 73277
	72305/72306	VTB	3.3V	Single/Double	None	Mating with 73277

Further information can be found at:
www.fciconnect.com/pcmcia

EXPRESSCARD™ SYSTEMS

EXPRESSCARD HOST AND MODULE CONNECTORS

FEATURES & BENEFITS

Host Connector

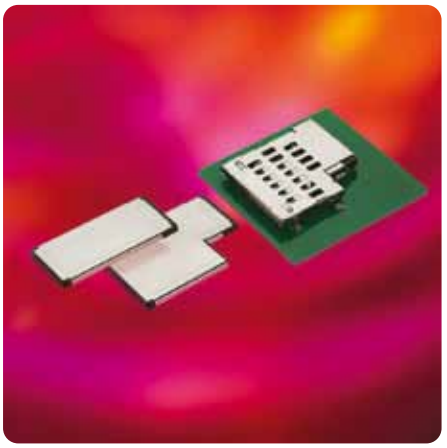
- Connector electrical performance is validated at the initial PCI Express data rate of 2.5 Gb/s and the anticipated second-generation speed of 5.0 Gb/s
- Simple beam-on-blade contact interface is rated for 5,000 cycles
- Single-row, in-line configuration for surface-mount solder tails to facilitate easy soldering and inspection
- Standoff options range between 0.0mm, which provides the lowest vertical profile for “thin” host systems, and 2.2mm, which provides clearance to mount PCB components between the slot and the host PCB

Module Connector

- Meet high-speed electrical requirements as outlined in Expresscard™ Standard
- Simple beam-on-blade contact interface is rated for up to 10,000 cycles
- Single-row,in-line solder tail configuration for easy soldering
- Longer power and ground contacts on the module connector proride fist-mate and last-disconnect in relation to signal contacts

APPLICATIONS

- Notebooks, portable PCs, industrial PCs, network PCs
- Set-top boxes, digital TV, home entertainment devices
- Telecom, datacom equipments (switches, routers, remote access servers)
- Machine control systems
- Test & measurement devices, medical instrumentation



MAIN PRODUCTS — PART REFERENCES

Host Connector P/N	10056265-122ABTLF	10047129-118ABTLF	10055606-110ABTLF	10053826-100ABTLF	10055262-100BBTLF	10056422-122BBTLF
Standoff Height	2.2 mm	1.8 mm	1.0 mm	0.0 mm	0.0 mm	2.2 mm
Mounting Type	Above	Above	Above	Above	Below	Below
Module connector P/N	10030570-211317					

Note: ExpressCard™ is a registered trademark of PCMCIA

Further information can be found at
www.fcicon nect.com/expresscard

For more information on FCI sales offices, headquarters, agents and local distributors, visit www.fciconnect.com/electronics

For more information please contact: elxcommunications@fci.com

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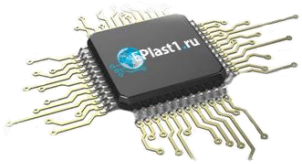
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

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- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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