ELECTRONICS

CONNECTOR OVERVIEW

With 13,000 employees in 30 countries and sales of 1.25 billion euros in 2008, FCI is a leading manufacturer of connectors for various markets such as automotive, telecommunication infrastructures and 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. In the field of smart cards, FCI provides both the micro-flex circuitry for semi-conductor packaging and the chip card connectors for applications that include pay phones, banking machines, health data applications, and toll payment systems. 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.fci.com
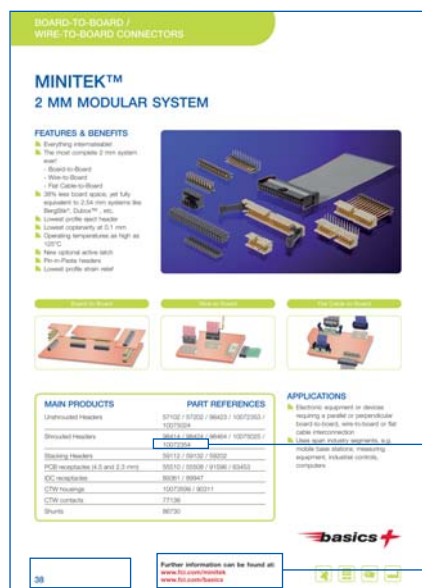
Enter the part reference in FCI web site

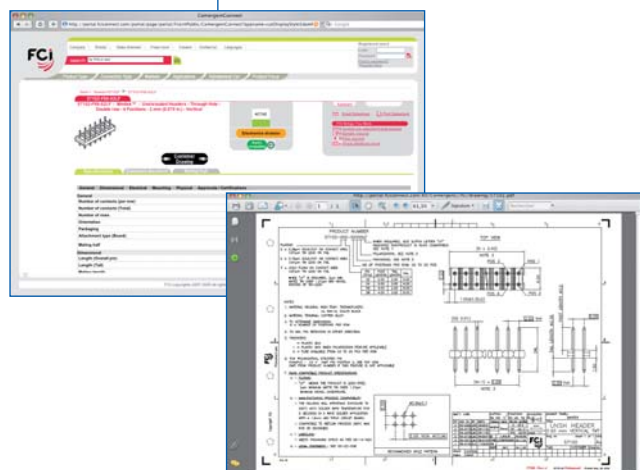Or go directly to the landing page

Use icon to find application

View data sheet and drawings online

| COMMUNICATION | DATA | CONSUMER | INDUSTRIAL |

FCI also has 9 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.fci.com/backpanel

www.fci.com/basics

www.fci.com/cableassembly

www.fci.com/flex

www.fci.com/highspeed
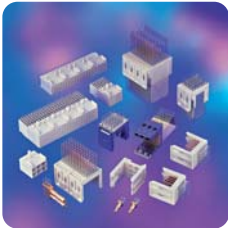
www.fci.com/io (available fall 2009)

www.fci.com/mezzselect

www.fci.com/powersolutions

www.fci.com/storageinterface

CONTENTS

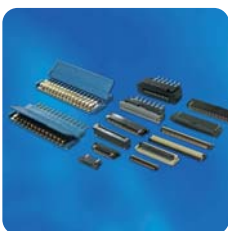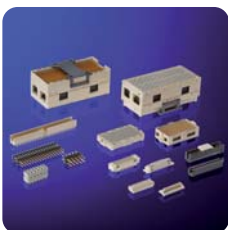**www.fci.com**

STORAGE INTERFACE CONNECTORS

INPUT/OUTPUT CONNECTORS / CABLE ASSEMBLIES

CARD SYSTEMS

XCEDE® HIGH-PERFORMANCE BACKPLANE CONNECTOR SYSTEM

UNIQUE RESONANCE DAMPING SHIELD TECHNOLOGY ENABLES VERY LOW CROSSTALK

FEATURES & BENEFITS

- High-speed backplane system capable of 20+ Gb/s
- Use of advanced engineering materials in the shield aids in elimination of crosstalk resonances
- 1.85mm column pitch offers high linear signal density
- 4 pair 6 column fits 25mm card slot pitch and provides 55 differential 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 shield contacts feature a stiffening rib and are advanced well ahead of signals for exceptional robustness and signal pin protection
- Intermateable, electrically and mechanically interchangeable second source to Amphenol TCS

New product
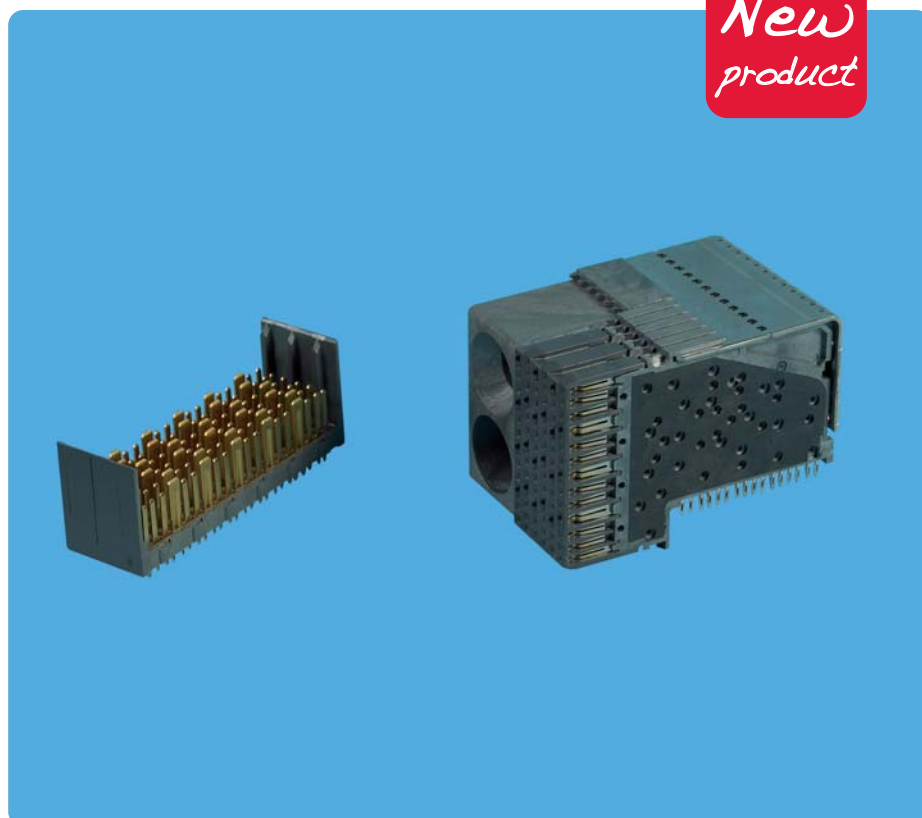
Parts will become available in January 2010

PART REFERENCES   MAIN PRODUCTS

Description	FCI P/N
4 pair 6 column 2 wall Open Module	10091767-00C-10DLF
4 pair 6 column 2 wall Open Module	10091767-00C-20B
4 pair 6 column 2 wall Open Module	10091767-00C-20DLF
4 pair 6 column Left Polarization Guidance Module	10091767-A0C-20DLF
4 pair 6 column Left Polarization Guidance Module	10091767-C0C-20DLF
4 pair 6 column Left Polarization Guidance Module w/o Key	10091767-J0C-20B
4 pair 6 column 3 wall Left Module	10091767-L0C-20B
4 pair 6 column 3 wall Left Module	10091767-L0C-20DLF
4 pair 6 column 3 wall Right Module	10091767-M0C-20DLF
4 pair 6 column Right Polarization Guidance Module	10091767-P0C-20DLF
4 pair 6 column Right Polarization Guidance Module	10091767-R0C-20DLF
4 pair 6 column Right Polarization Guidance Module w/o Key	10091767-Y0C-20B

APPLICATIONS

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

Data
- Servers
- Storage Systems

Industrial
- Medical
- Test & Measurement

XCede® is a registered trademark of Amphenol Corporation

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

ZIPLINE™

HIGH-DENSITY, HIGH-PERFORMANCE CONNECTOR SYSTEM

FEATURES & BENEFITS

- Supports backplane 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 a minimum 1-inch card slot pitch
- Supports coplanar applications with 6-pair module with IMLAs on 1.8 mm column pitch
- 6-pair modules can also be configured on 1.5 mm column pitch to provide >100 pairs per inch for even more density 3-pair configuration is under development to enable use on 15 mm card slot pitch

- Provides maximum signal density available at data rates up to 12.5 Gb/s
- Use innovative shield-less design and air dielectric between conductors to deliver low insertion loss and crosstalk
- Allows for mixed differential (orthogonal or backplane), 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
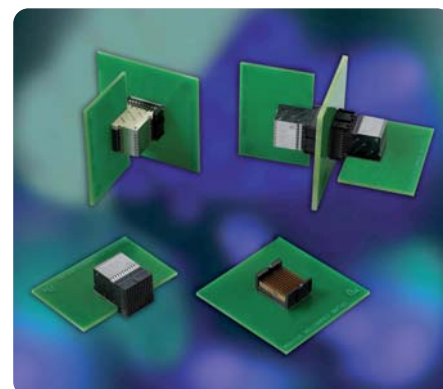
PART REFERENCES	MAIN PRODUCTS
10076197-101LF	6 pairs/column x 12 columns (72 differential pairs) vertical backplane header
10076209-101LF	6 pairs/column x 12 columns (72 differential pairs) right-angle receptacle
10076222-101LF	6 pairs/column x 12 columns (72 differential pairs) orthogonal midplane header
10084164-101LF	1 power wafer + 6 pairs/column x 11 columns (66 differential pairs) right-angle receptacle
10084164-102LF	2 power wafers + 6 pairs/column x 10 columns (60 differential pairs) right-angle receptacle
10084166-101LF	1 power wafer + 6 pairs/column x 11 columns (66 differential pairs) vertical backplane header
10084166-103LF	2 power wafers + 6 pairs/column x 10 columns (60 differential pairs) vertical backplane Header
10077555-101LF	6 pairs/column x 12 columns (72 differential pairs) right-angle coplanar header

APPLICATIONS

Communications
- Routers
- Switches
- Networking
- Access
- Transport

Data
- Servers
- Storage Systems

Industrial
- Medical
- Test & Measurement

Further information can be found at:
www.fci.com/zipline
www.fci.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 lowest 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.fci.com/airmax
www.fci.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	2mm	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

* Parts will become available in Q1 2010

Telcordia® is a registered trademark of Telcordia®.

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

METRAL® 1000, 2000, 4000
HIGH SPEED BACKPLANE CONNECTORS

FEATURES & BENEFITS

Metral® 1000, 2000, 4000.

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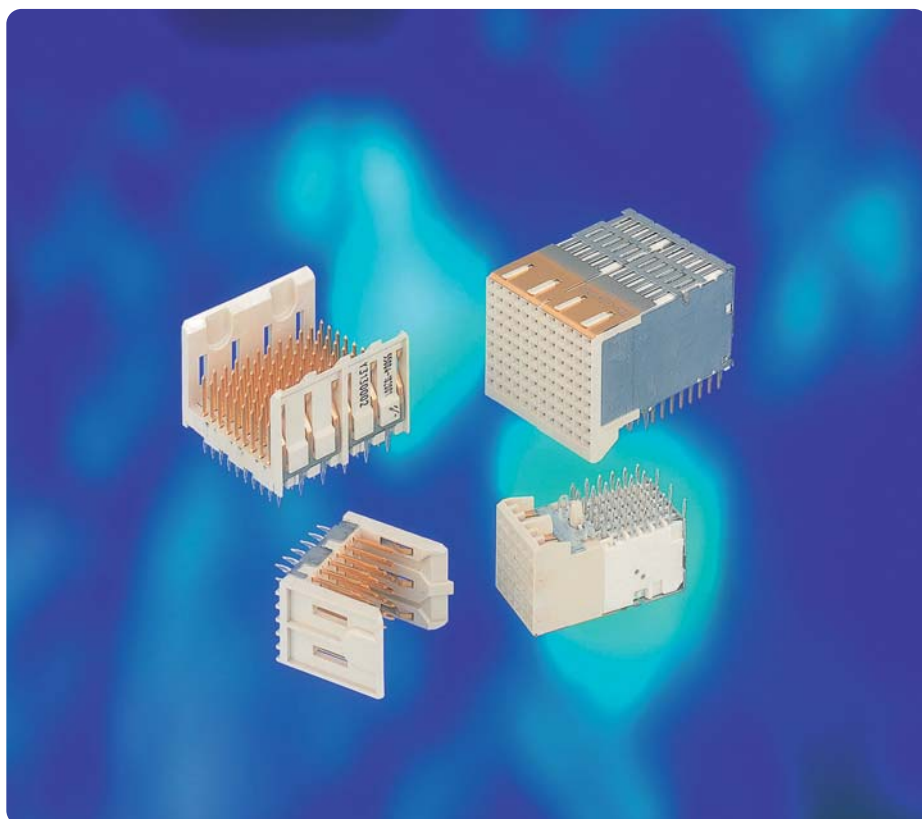
	1000 Header	2000 Header	4000 Header
1000 Receptacle	622 Mb/s	1.25 Gb/s	2.5 Gb/s
4000 Receptacle	1.25 Gb/s	2.5 Gb/s	5 Gb/s

MAIN PRODUCTS

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.fci.com/metral
www.fci.com/highspeed
www.fci.com/backpanel

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.
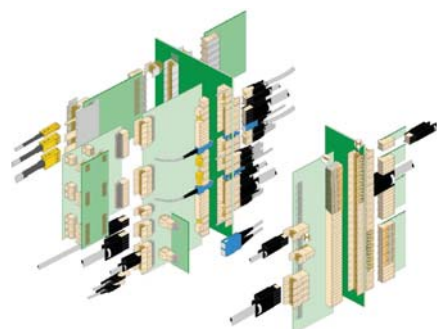
MAIN PRODUCTS   PART REFERENCES

	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		HM1F51FDP000H6LF	
	88945	88949	89047	89096
Straight Receptacles				
Press-Fit	85757		85761	
Right angle Headers				
Pin-in-Paste	58361-101LF	Contact FCI	HM1L51LFP000H6PLF	Contact FCI
Solder	HM1L41LAP000H6PLF	HM1K41DAP000H6PLF	HM1L51LAP000H6PLF	
Press-Fit	HM1L41LDP000H6PLF	HM1K41LDP000H6PLF	HM1L51LDP000H6PLF	HM1K51DDP000H6PLF
Cable Connectors				
IDC	72476 / 72477	-	72478 / 72479	-

Further information can be found at:
www.fci.com/metral
www.fci.com/backpanel

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
- Accessories with functionalities: Keying, Guiding, Power and Coax inserts, Shielding & Shrouds
- Headers with Staggered contacts with differential lengths
- Terminations with Standard EON pressfit. Also Pin-in-Paste (PIP) Version for select positions of Vertical Headers
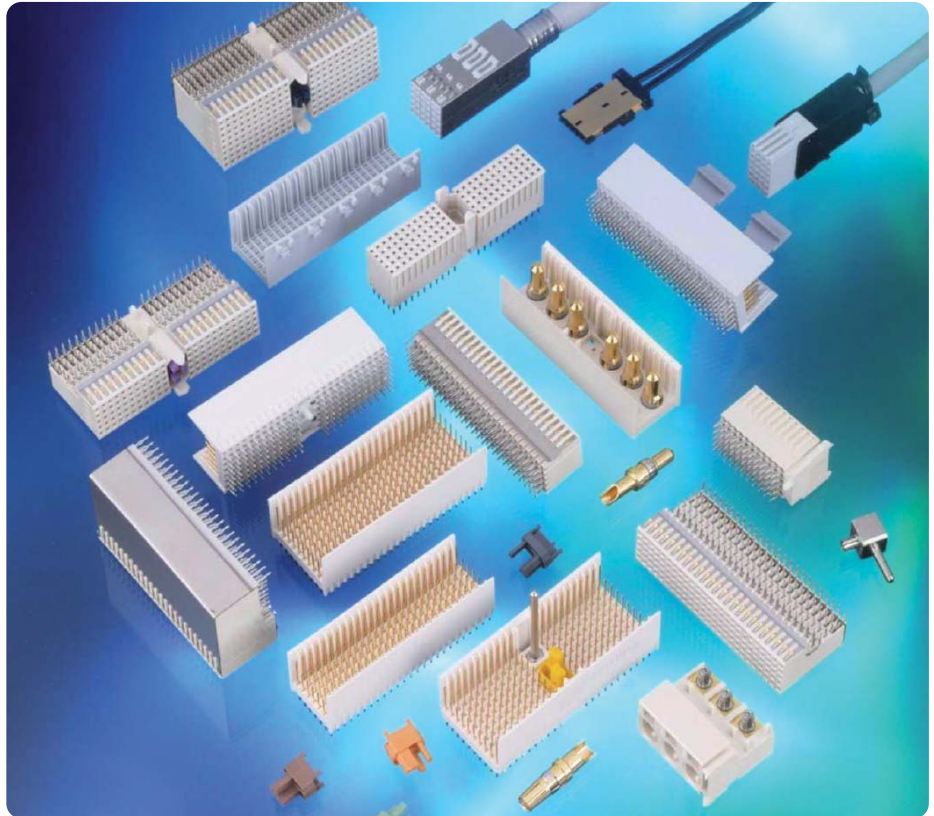
APPLICATIONS

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

Further information can be found at:
www.fci.com/millipacs
www.fci.com/compactPCI
www.fci.com/backpanel

MAIN PRODUCTS

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		
	B	HM2P08P	Vertical	HM2R02P	Right Angle	125	Press-fit
		HM2J08PE	Right Angle	HM2S02P	Vertical		
	B22	HM2P70P	Vertical	HM2R70P	Right Angle	110	Press-fit
		HM2J70P	Right Angle	HM2S70P	Vertical		
	B19	HM2P71P	Vertical	HM2R71P	Right Angle	95	Press-fit
		HM2J71P	Right Angle	HM2S71P	Vertical		
	AB	HM2P65P	Vertical	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		
	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
5	C	HM2P09S	Vertical			55	PIP
	M	HM2P11S	Vertical			3 Spl.+ 55	PIP

MAIN PRODUCTS

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.fci.com/millipacs
www.fci.com/backpanel

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

DIN Style M

DIN Style F, H & F24/H7

DIN IDC

STANDARD SIGNAL   PART REFERENCES

Style	No. rows	pos.	Termination	Part Reference
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.fci.com/din41612
www.fci.com/backpanel

REVERSED SIGNAL

<div align="right">PART REFERENCES</div>

Style	No. rows	pos.	Termination	Part Reference
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

STYLE M

<div align="right">PART REFERENCES</div>

Style	Signal pos.	Insert pos.	Termination	Part Reference
Style M right angle header	24	8	solder-to-board	8609 324 G1 13 XXX XX LF
	42	6	solder-to-board	8609 342 E1 13 XXX XX LF
	60	4	solder-to-board	8609 360 C1 13 XXX XX LF
	78	2	solder-to-board	8609 378 A1 13 XXX XX LF
Style M straight receptacle	24	8	press-fit	8609 324 H1 94 XXX XX LF
	42	6	press-fit	8609 342 F1 94 XXX XX LF
	60	4	press-fit	8609 360 D1 94 XXX XX LF
	78	2	press-fit	8609 378 B1 94 XXX XX LF

POWER

<div align="right">PART REFERENCES</div>

Style	No. rows	pos.	Termination	Part Reference
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 009 48 63 94 XXX LF
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 18 93 XXX LF

IDC

<div align="right">PART REFERENCES</div>

Style	No. rows	pos.	Termination	Part Reference
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.fci.com/din41612**
www.fci.com/backpanel

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
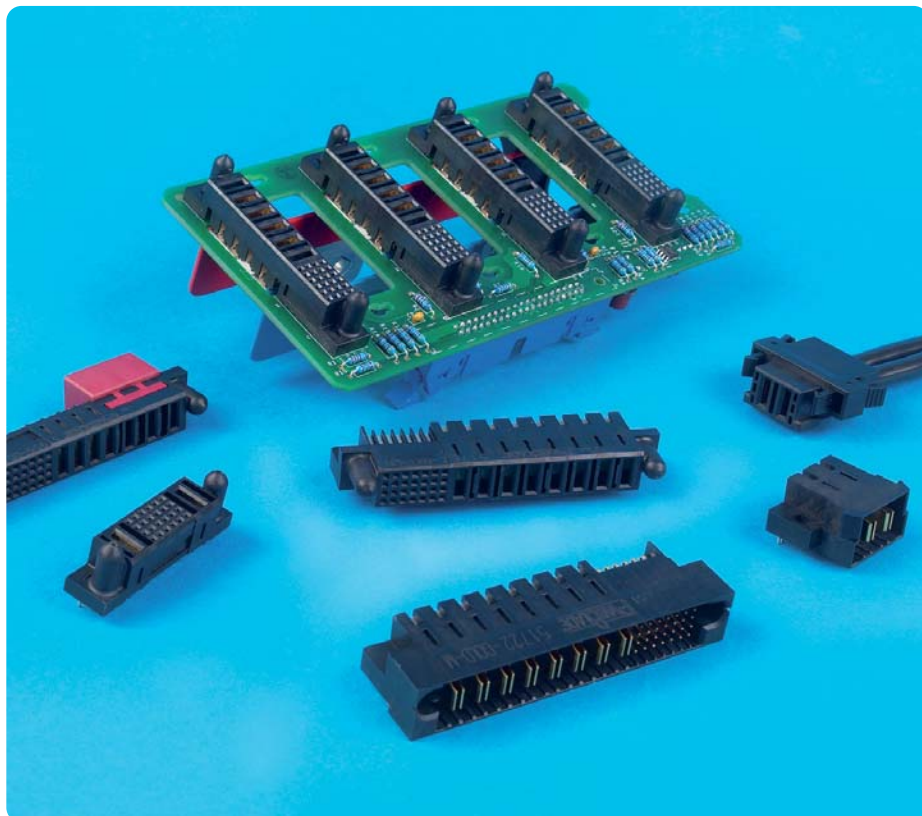
APPLICATIONS

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

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

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

Power Solutions℠

MAIN PRODUCTS

<div align="right">

PART REFERENCES

</div>

SERVER SYSTEM INFRASTRUCTURE (SSI STANDARD)

High-End Power Supply (24 Signal + 12 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 (12 Power + 24 Signal 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
Power+Signal+Cable	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.

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

POWER CARD EDGE

LOW PROFILE AC/DC POWER DISTRIBUTION CONNECTOR SYSTEM

FEATURES

- 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

Product	Part Reference
10P + 24S + 10P	
14P + 24S + 14P	10028886
20P + 24S + 20P	
28P + 24S + 28P	
With AC power port	10055090
2x14, 2x17, 2x22, 2x25, 2x28, 2x29, 2x31, 2x32 power	10035388
2x32 power w/ housing stand-offs	10053363

Vertical Solutions

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

Straddle-Mount Solutions

Product	Part Reference
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.fci.com/pwrcardedge
www.fci.com/powersolutions

HCI®

AC/DC HIGH POWER DISTRIBUTION CONNECTOR SYSTEM

FEATURES & BENEFITS

- Up to 82A/ power contact; at 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
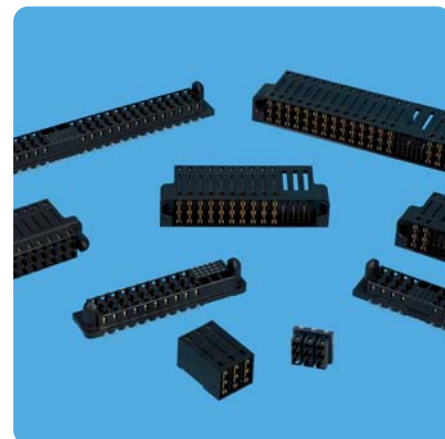
MAIN PRODUCTS

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

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

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.fci.com/hci
www.fci.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® Zipline™ 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 (compatible with 4 and 5 pair AirMax VS® modules)
- Lower-profile 2x2 and 2x3 modules stand only 11.5 mm above board (compatible with 3 pair AirMax VS® modules)
- 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

MAIN PRODUCTS   PART REFERENCES

	NUMBER OF CONTACTS	CONTACT ARRAY	HEIGHT ABOVE PCB	PART NUMBERS	
				Vertical Receptacle	**Right-Angle Header**
Backplane	2	1x2	14.7 mm	10028916-xxxxP00LF**	10028918-001LF
Application	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	2	1x2	14.7 mm	10052620-xxxxP00LF	10028918-001LF
Application	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.fci.com/hmhighpower
www.fci.com/powersolutions

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HCI® HIGH POWER

HIGH POWER BACKPLANE/MIDPLANE CONNECTOR SYSTEM

FEATURES & BENEFITS

- 83A/ contact for the two-position module, 75A/contact for the three-position module at 30°C temperature rise in still air
- 95A/contact using UL test guidelines
- For high current density needs in backplane/midplane applications
- Power contact spacing options exist for operating voltages of 300V and beyond
- 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
- Highly vented housing design maximizes airflow effects around and through the connector system
- 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)
- UL/CSA and TUV approved
- Press-fit termination is available for thicker, higher-layer-count boards
- Lead free plating is available for RoHS compliance

New product

MAIN PRODUCTS

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

Power Solutions℠

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.fci.com/hcihighpower**
www.fci.com/powersolutions

PWR PROFILE+™

LOW PROFILE I/O CABLE ASSEMBLIES

New product

FEATURES & BENEFITS

- 35A/contact for two contacts at 30°C temperature rise in still air
- Compact design is ideal for limited space applications
- Low 8.35mm 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
- Polarized housing design ensures proper mating
- Lead free plating is available for RoHS compliance

MAIN PRODUCTS / PART REFERENCES
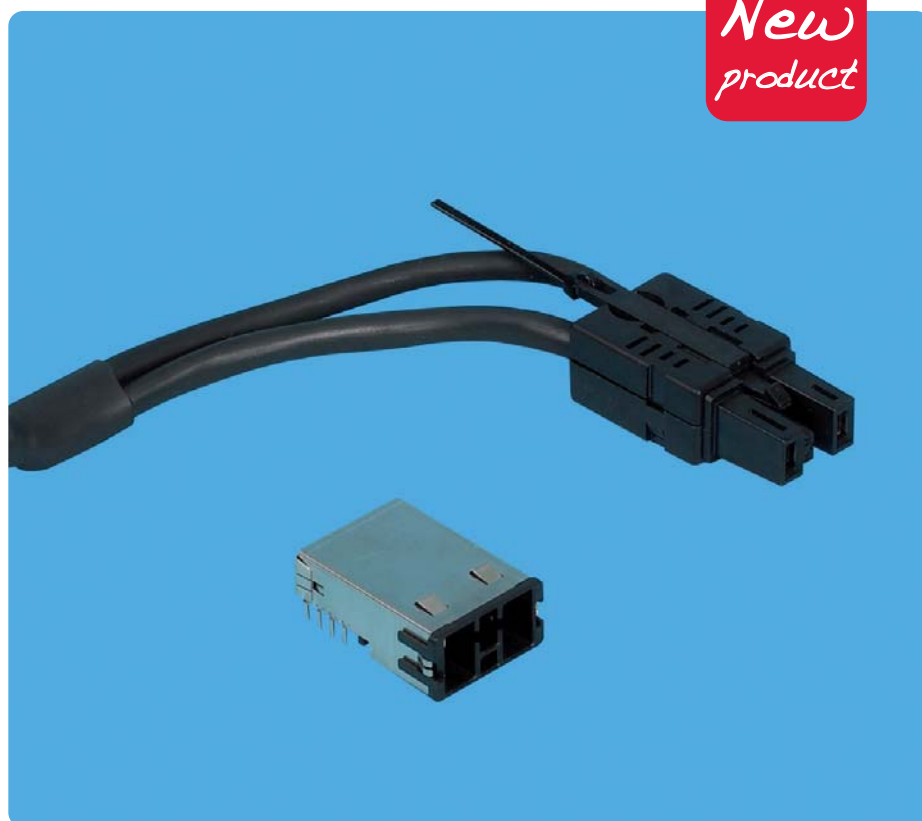
MAIN PRODUCTS	PART REFERENCES
Right Angle Board Mount Header w/ Grounding Shield	10089872-101LF
Right Angle Board Mount Header w/o Grounding Shield	10089870-101LF

APPLICATIONS

- Power I/O & distribution in data, telecom & datacom/networking
- Uninterruptible power supplies (UPS)
- 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.fci.com/cableassembly
www.fci.com/powersolutions

PWRBLADE®
POWER I/O 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
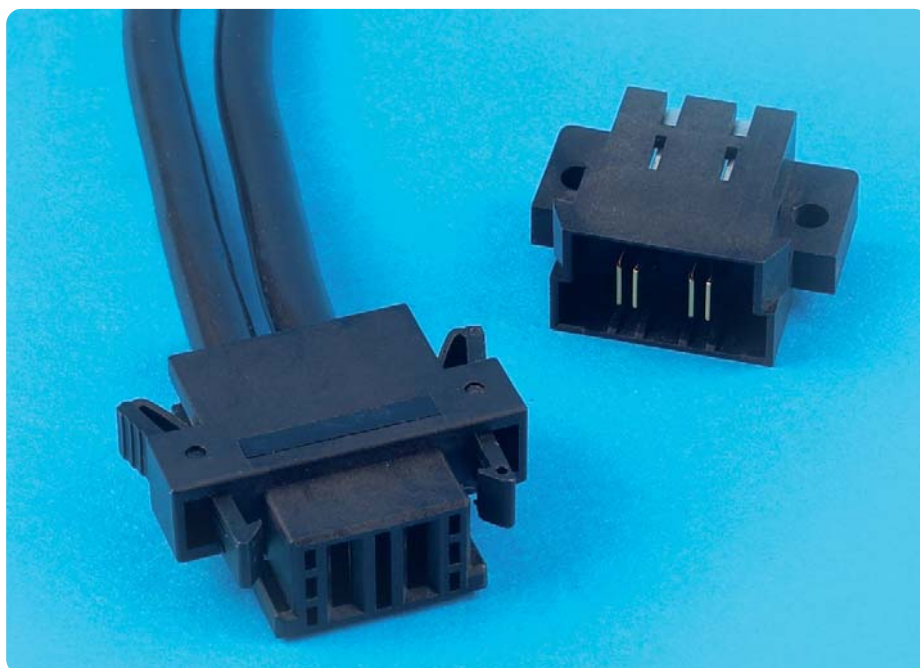
APPLICATIONS

- 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.

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

PWR TWINBLADE™
HIGH POWER 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
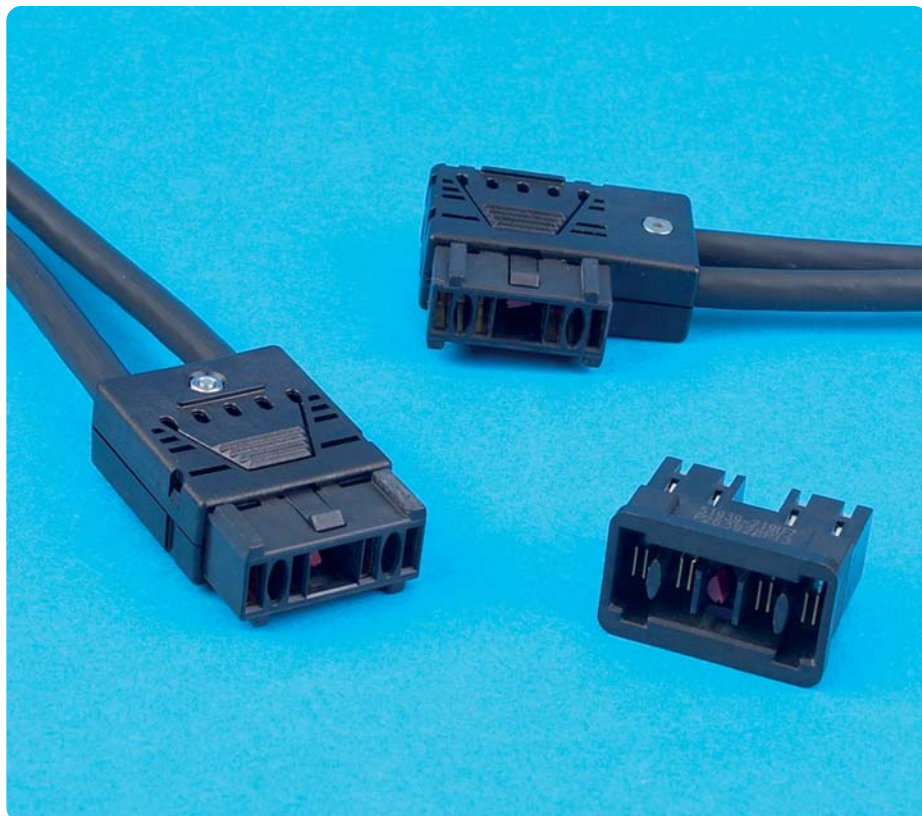
MAIN PRODUCTS	PART REFERENCES
Right Angle Board Mount Header	51939-219LF
Right Angle Exit Cable Receptacle Assembly (10 mm^2 wire; 1 m cable length)	10080068-4FEL100LF
Right Angle Exit Cable Receptacle Assembly (16 mm^2 wire; 1 m cable length)	10080068-4GEL100LF
Right Angle Exit Cable Receptacle Assembly (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.fci.com/cableassembly
www.fci.com/powersolutions

NOTES

MEG-ARRAY®
HIGH SPEED MEZZANINE CONNECTORS

FEATURES & BENEFITS

- RoHS Compliant (Lead-Free)
- Ball Grid Array (BGA) termination for process friendly attachment
- .050" x .050" BGA interface pitch optimizes routing and electrical performance
- Stack Heights available from 4 mm to 14 mm
- Connector sizes of 81 signals to 528 signals providing 80 usable signals per linear cm (205 signals per linear inch) allow for optimization of board space and signal requirements
- Up to 10 Gb/s differential pair performance at less than 1% cross-talk meets the needs of high speed mezzanine applications
- Meets Telcordia GR-1217-CORE and NPS-25298-2 specifications for utilization in telecom applications
- Demonstrated solder joint reliability of greater than 22 years life (per IPC-SM-785) is unmatched for a BGA mezzanine connector
- Polarized design assures proper mating of the connector
- Back to Back testing connector (Interposer) available upon special request

APPLICATIONS

Communications
- Transmission
- Access
- Switching
- Optics
- Networking

Data
- Servers
- Storage

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

Telcordia® is a registered trademark of Telcordia®.

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

MAIN PRODUCTS

Size	Type	Total Mated Height					
		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
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
240 Position 8 x 30	Plug	74213	74213				
	Receptacle	74217	55755				
528 Position 12 x 44	Plug		10022671				
	Receptacle		10026846				

MEZ Select™

Further information can be found at:
www.fci.com/megarray
www.fci.com/mezzselect
www.fci.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
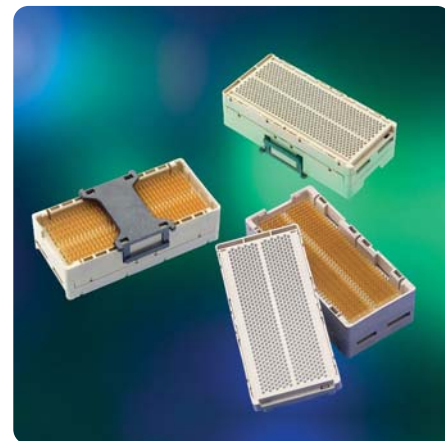
APPLICATIONS

Communications
- Transmission
- Access
- Switching
- Optics
- Networking

Data
- Servers
- Storage

I&I
- Industrial controls & equipment

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.fci.com/gigarray
www.fci.com/mezzselect
www.fci.com/highspeed

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
- 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
- Precision mini-contact design assures, easy mating, long term performance and reliability
- Fully inter-matable 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

APPLICATIONS

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

MAIN PRODUCTS		PART REFERENCES
BergStak® system	Receptacle	61082
	Header	61083

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

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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
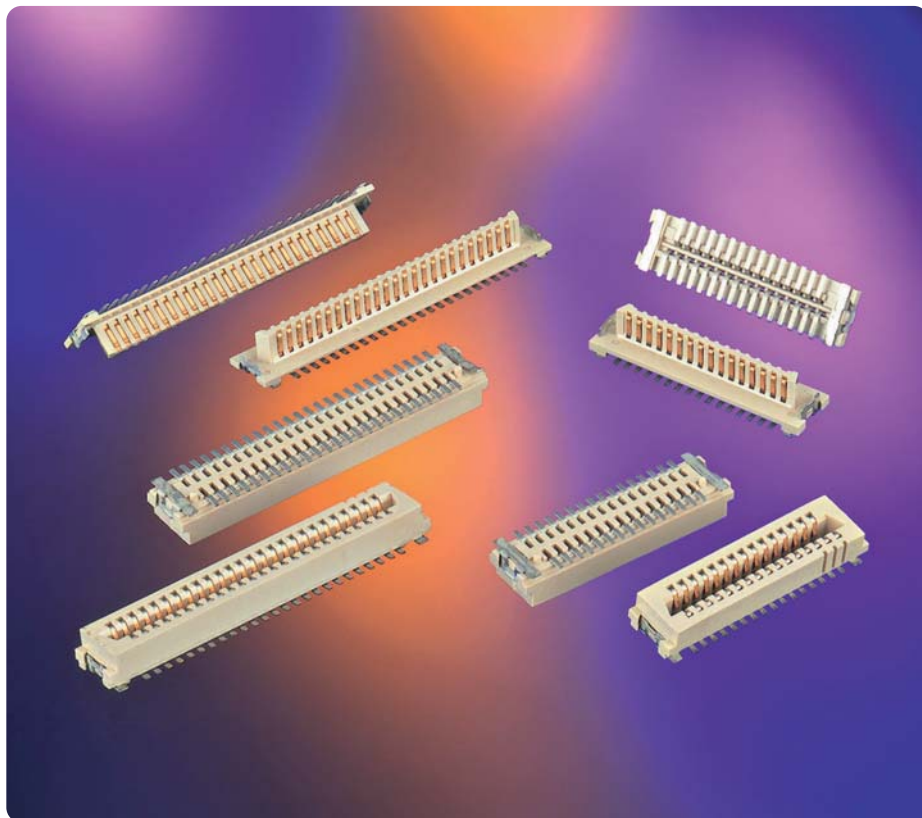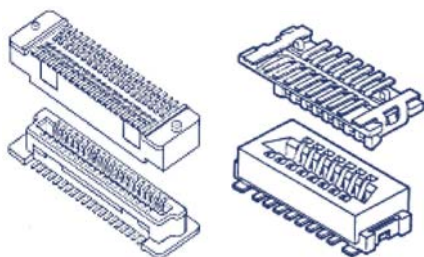
MAIN PRODUCTS — PART REFERENCES

Conan® system		PART REFERENCES
	Receptacle	91921 / 91931
	Header	91901 / 91911

APPLICATIONS

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

MEZ Select™

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

RIB-CAGE™ 1.27 MM
MEZZANINE CONNECTORS

FCi

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

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

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

Reference to data sheet: 950521-010

MEZ Select™

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

MEZZOSTAK™ 0.5 MM HERMAPHRODITIC
FINE PITCH, MEZZANINE CONNECTORS

New product

FEATURES & BENEFITS

- Hermaphroditic design "mates to itself"
  - Consolidates connector selection, documentation and purchasing
  - Polarization prevents mis-mating
- Pressure-managed, dual-point contact interface provides easier use, fault tolerance and added reliability.
- Long 1 mm minimum wipe assures reliable contact and accommodates system mechanical tolerances.
- Tactile feedback signals effective mating
- 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
- Optional hold-downs increase strength of PCB solder attachment
- Footprint compatible with major competitors
- 0.5 mm high density contact pitch in two rows
  - 7 Stack heights: 4 mm to 7 mm (0.5 mm increments)
  - 7 Sizes: 10 to 70 positions (10 position increments)
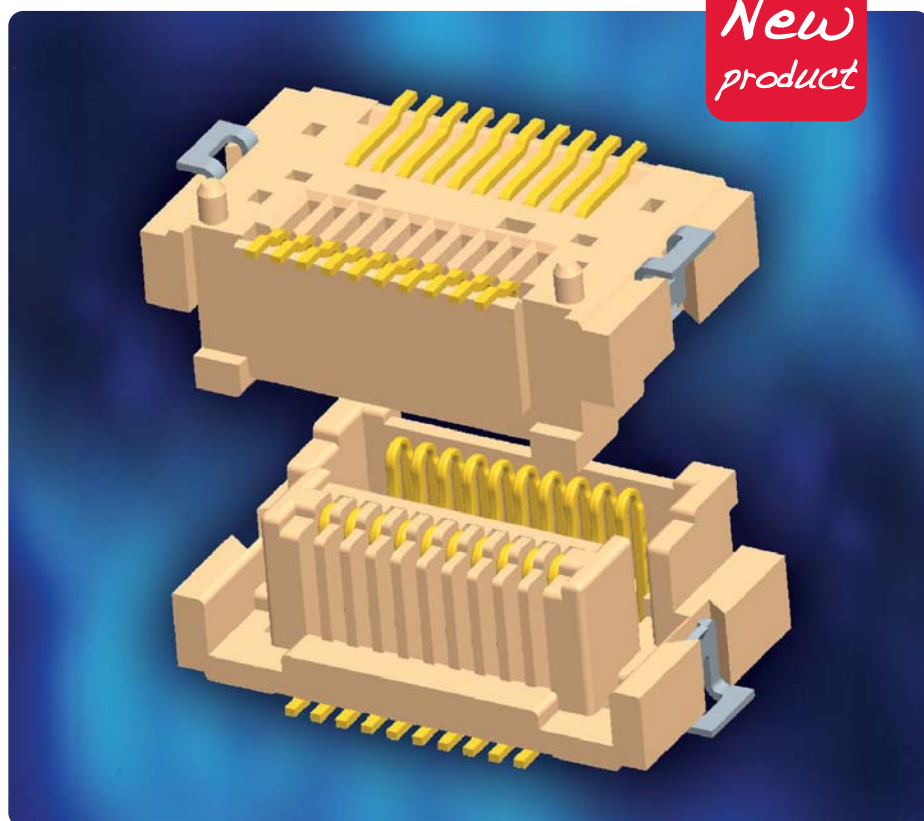
MAIN PRODUCTS		PART REFERENCES
Hermaphroditic	Standard with Hold-downs, Pegs	10090503
Connectors	Short	10090504

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

MEZ Select™

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

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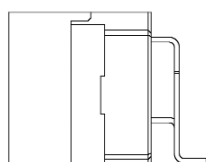
## MAIN PRODUCTS   PART NUMBERS
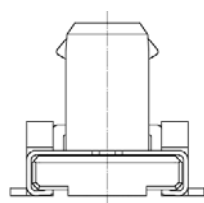
Plug: BTFW_ _ P-3SSTAE4LF
10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 contacts
Vertical (Straight)
Surface mount (SMT)
Gold or Tin plating (Contact area)
Tape & Reel packaging (Card Board or Plastic)
Lead Free / Rohs compliant

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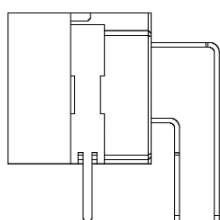
Receptacle: BTFW_ _ R-3RDA7MLF
10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 contacts
Right Angle
Dip
Gold or Tin plating (Contact area)
Tray packaging
Lead Free / Rohs compliant

APPLICATIONS

Consumer
- PDP displayer & TV
- 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.fci.com/boardmate

FFC - FPC CONNECTORS

FEATURES & BENEFITS

- Suitable for FFC / FPC / CIC cable
- 0.30 - 0.40 - 0.50 - 1.00 - 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

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

PITCH	FAMILY NAME	HEIGHT (MM)	CONTACT LOCATION	ZIF / NON-ZIF(*)	PART REFERENCE
0.3mm	SFY	2,0	Bottom	Non-ZIF (FF)	62789
	SFYL-D	1,2	Bottom	Non-ZIF (FF)	10013057
	SFYL-U	1,2	Top	Non-ZIF (FF)	10017251
	YLL-D	0,9	Bottom	ZIF (FF)	10061122
	YLL-U	0,9	Top	Non-ZIF (FF)	10064555
0.4mm	GLH	1,2	Bottom	ZIF (FF)	10051806
0.5mm	OPU-D	2,0	Bottom	ZIF (SL)	62684
	OPU-U	2,0	Top	ZIF (SL)	62684
	SFVA	2,0	Top and Bottom	Non-ZIF (BF)	10014265
	SFVE	1,2	Top	ZIF (FF)	10054365
	SFVL-D	0,9	Bottom	ZIF (BF)	59453
	SFVL-U	0,9	Top	ZIF (BF)	59453
	SFV-R	1,8	Top, Bottom	ZIF (SL)	SFVxxR
	SFV-S	4,1	N/A	ZIF (SL)	62674
	VHC	2,0	Bottom	ZIF (FF)	10085901
	VLH	1,3	Bottom	ZIF (BF)	10042867
	VLK	1,3	Bottom	ZIF (FF)	10076529
	VLL	1,2	Bottom	ZIF (BF)	10051922
	VLP	0,7	Bottom	ZIF (BF)	10062827
0.8mm	SFR	2,5	Bottom	ZIF (SL)	SFRxxR
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	SLD-R	7,0	Bottom	ZIF (SL)	SLDxxR
	SLD-S	8,0	N/A	ZIF (SL)	SLDxxS
	SLP-R	5,0	Top	ZIF (SL)	SLPxxR
	SLP-S	5,5	N/A	ZIF (SL)	SLPxxS
2.54mm	Duflex	Contactand 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): Front side flip
   *ZIF/Non-ZIF (BF): Back side flip*

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.fci.com/basics**
- Bergstik unshrouded headers available in custom configurations
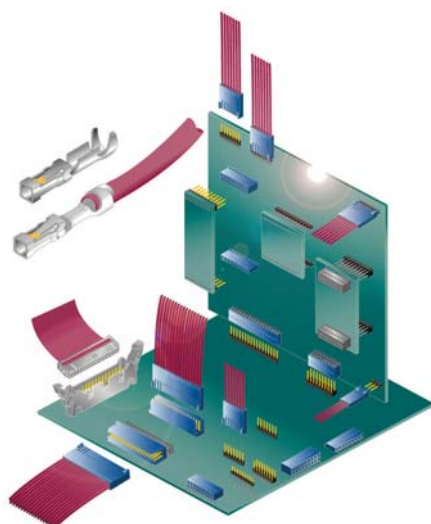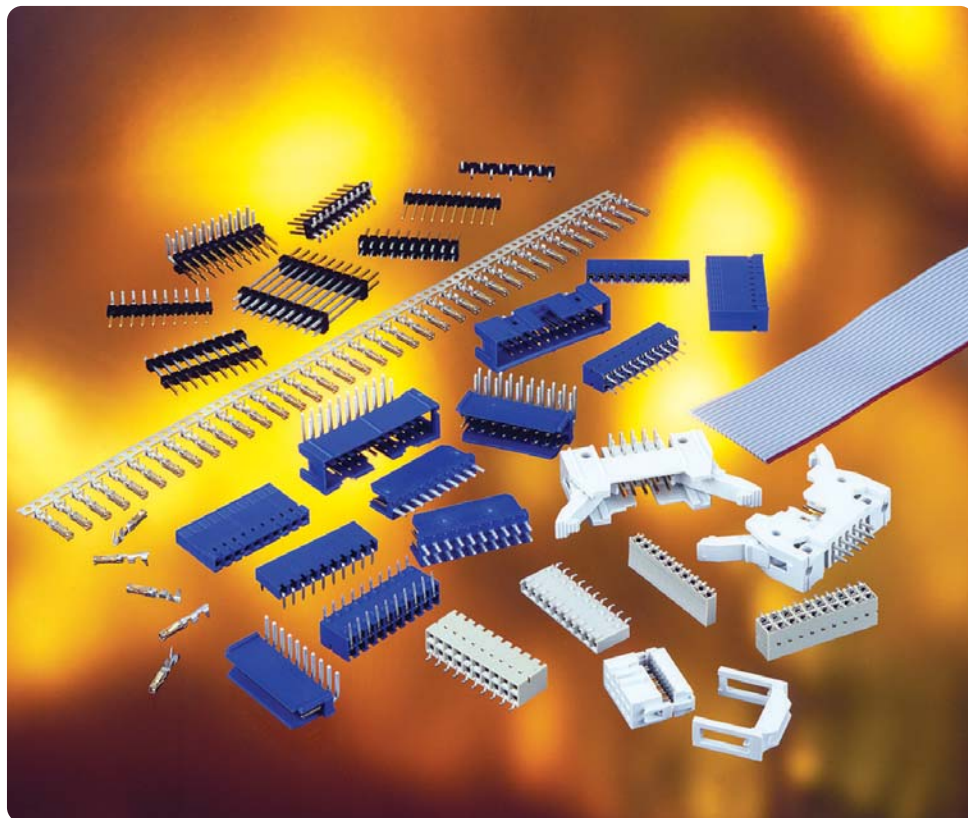
APPLICATIONS

- 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)

basics+

Further information can be found at:
www.fci.com/basics
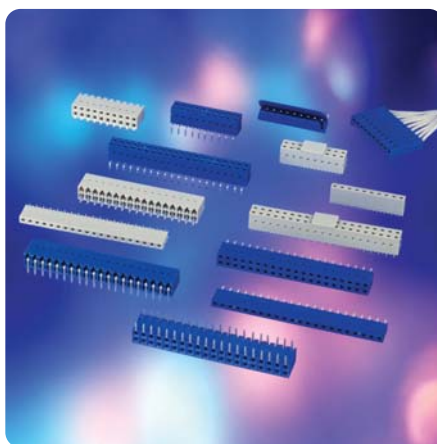
BergStik®

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	48049 / 48231 / 48047 / 48048 / 48051 / 48045 48050 / 48052 / 48046 / 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

basics+

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

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
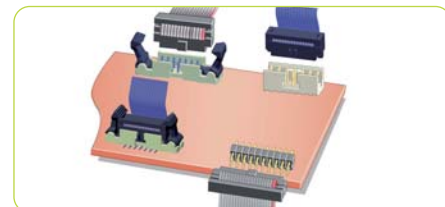- Pin-in-Paste headers
- Lowest profile strain relief
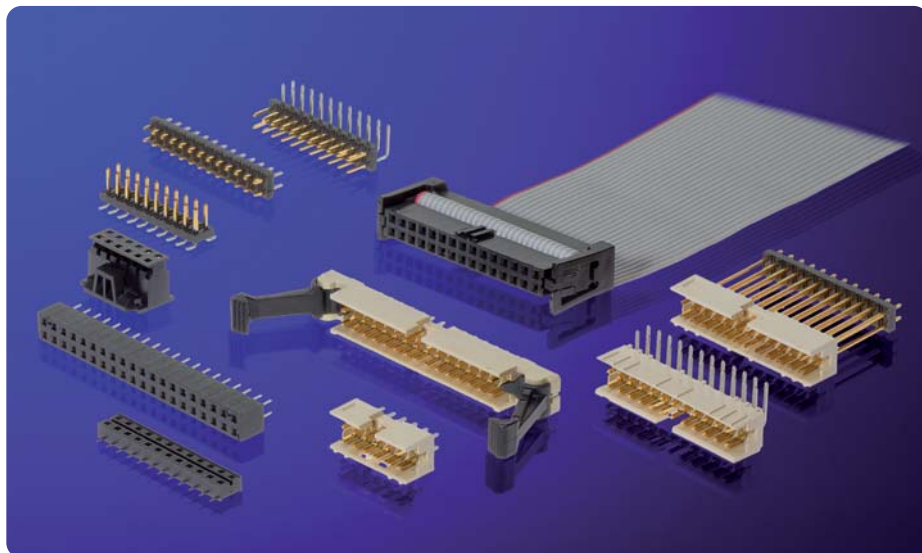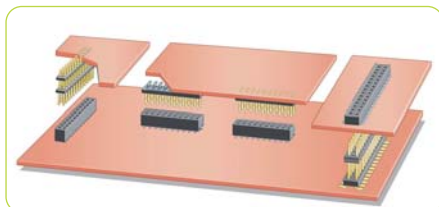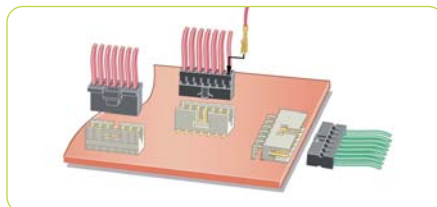
Board-to-Board	Wire-to-Board	Flat Cable-to-Board

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.fci.com/minitek
www.fci.com/basics

CARD EDGE CONNECTORS
FOR SFP, XFP AND XENPAK APPLICATIONS

FCi

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
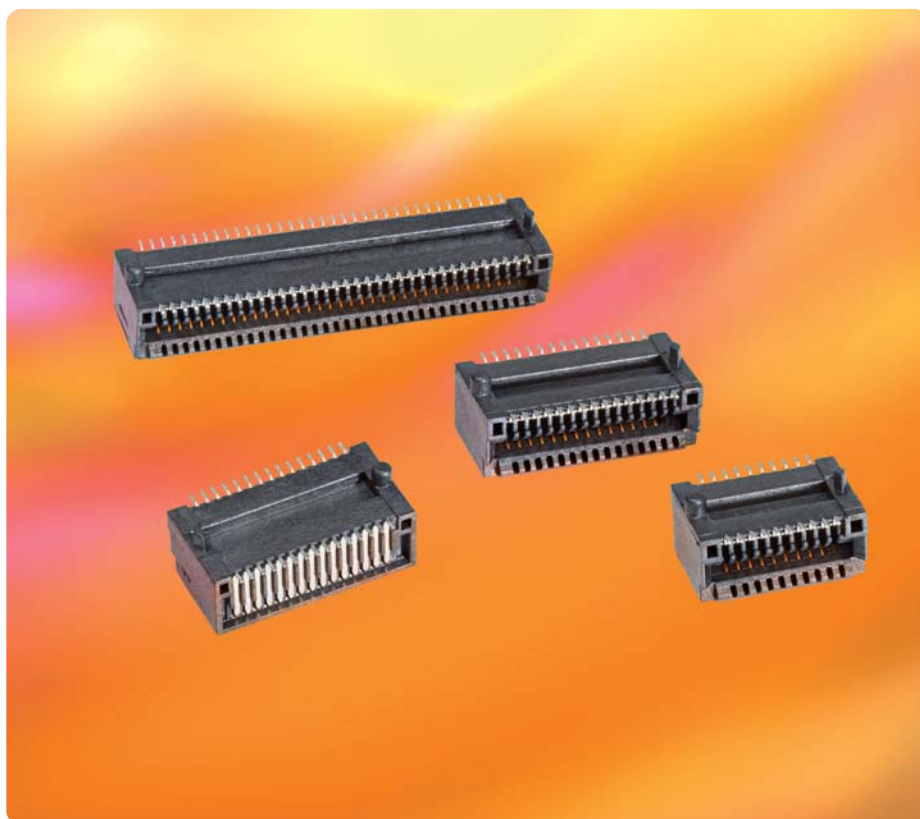
MAIN PRODUCTS / PART REFERENCES

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.fci.com/cardedge

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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

Termination style	Drawing Number*
Surface-mount (SMT)	10058835
Press-fit	10058831

APPLICATIONS

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

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

µTCA®

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

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
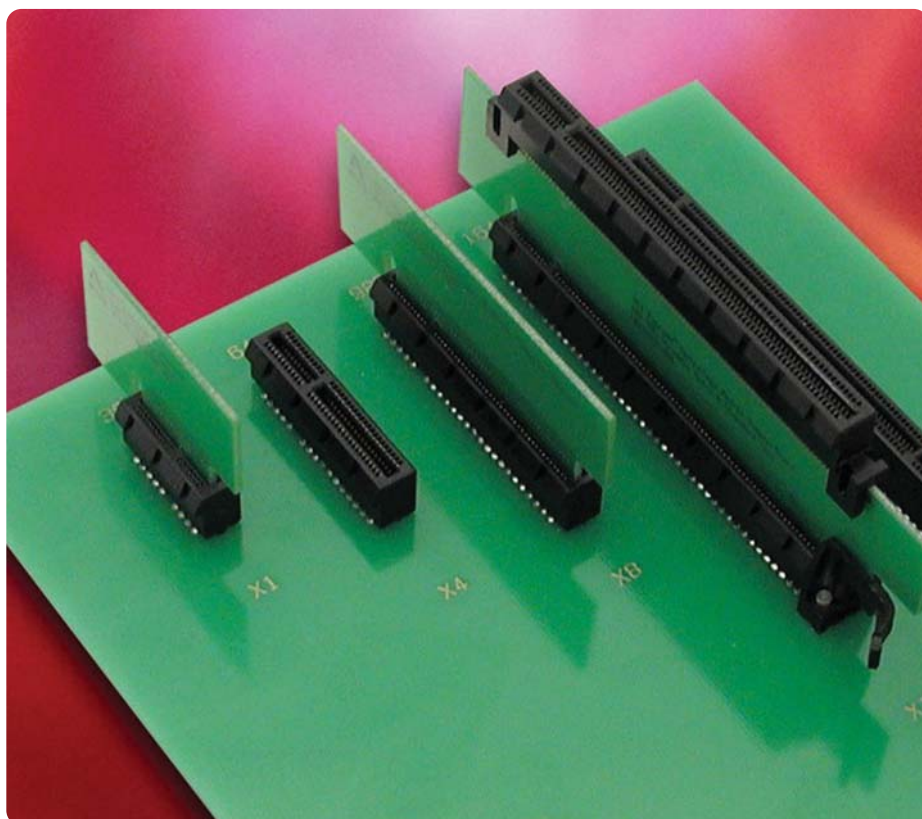
MAIN PRODUCTS

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

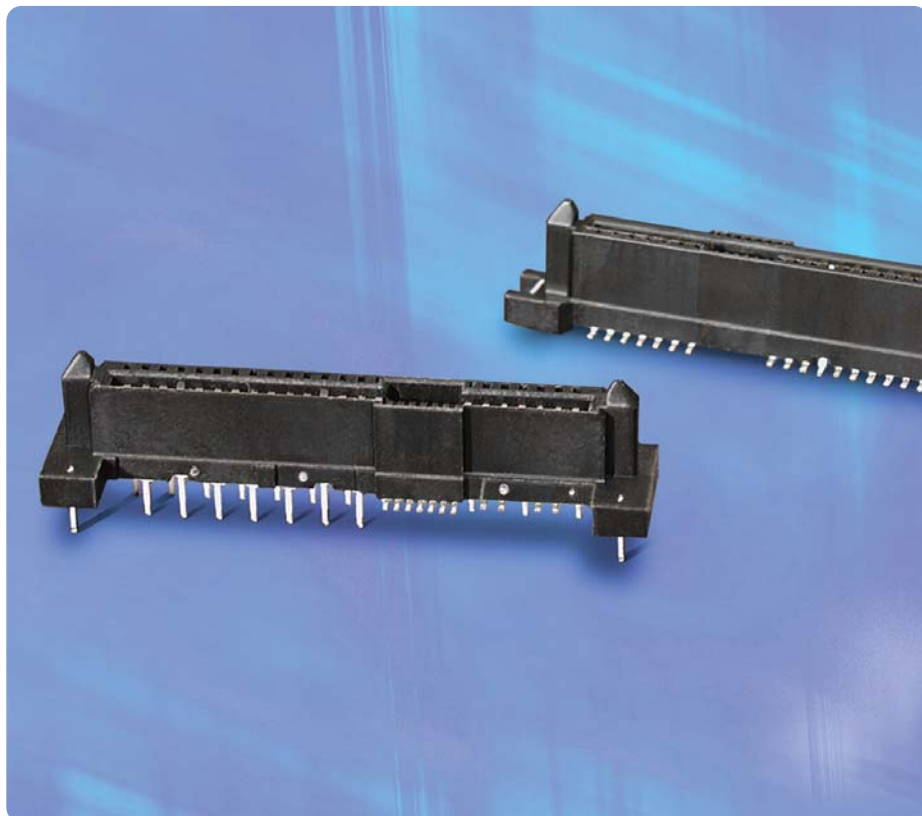*PCI Express® and ExpressModule™ are trademarks of PCI-SIG. SHB Express™ is a trademark of PICMG*

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

SAS
SERIAL ATTACHED SCSI

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 processing temperatures

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.fci.com/storageinterface
www.fci.com/SAS

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 (See Note 1) / 10041724
	Vertical, SMT (with rivet holes)	10045105 (also : see SATA 10045103)
	Vertical, SMT, Wide Base	10071375
	Right Angle, SMT	10034524 (See Note 2)
Host Receptacle	Vertical, Wide Base, Hybrid Footprint	10036876 (See Note 1) / 10036312
	Vertical , Wide Base, Thru Hole	10039748 / 10045665
	Vertical, Press Fit	10031077 (See Note 1)
	Vertical , Wide Base, SMT	10039845 (See Note 1) / 10076579 (See Note 1)
	Vertical, SMT	10031567 (See Note 1) / 10077259 (See Note 1)
	Vertical, Wide Base, Press Fit	10038064 (See Note 2) / 10045782 (See Note 2)
	Vertical, Thru Hole	10018182
	Vertical, SMT, Extended Height	10038334
	Right-Angle, SMT	10035202 (See Note 2)
	Right-Angle, SMT, Reversed	10036587
	Right-Angle, SMT, High Rise	10044002
4 Lane Internal Plug	Vertical, Press Fit	10028542
	Vertical, SMT	10045646
	Vertical, Thru Hole	10044625
	Right-Angle, Thru Hole	10035104

NOTES :
(1) Product meet 6 Gb/s data rate, per SAS specification.
(2) Product capable of 6 Gb/s data depending on customer application & design optimisation.
Consult FCI Technical team for further information.
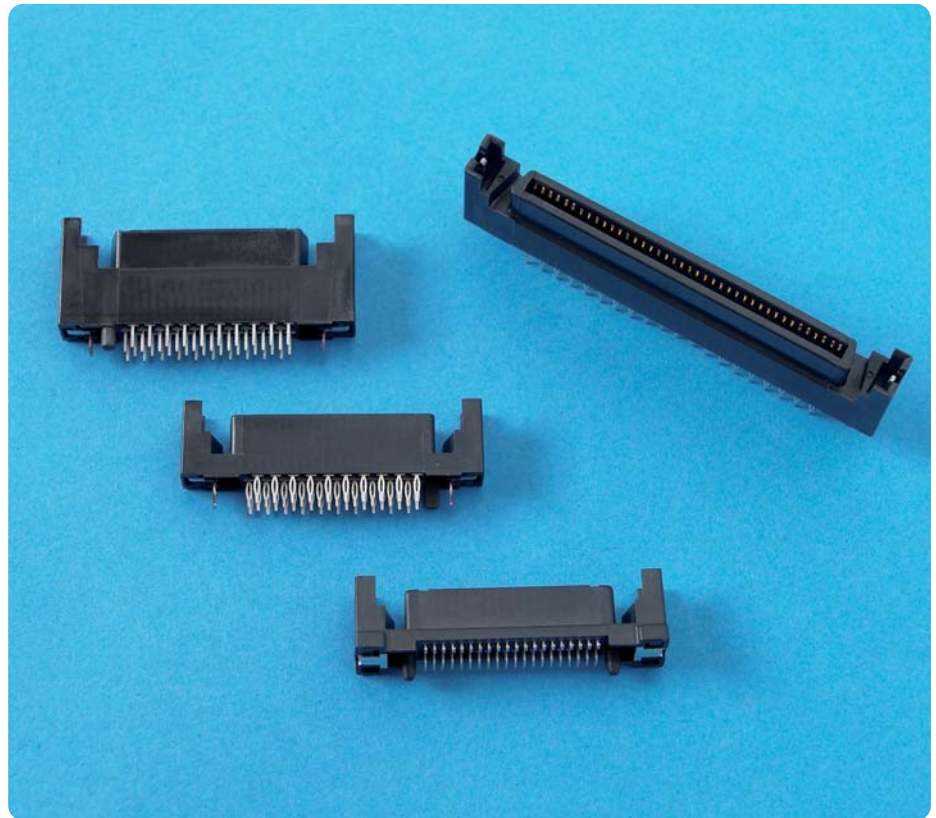
Further information can be found at:
www.fci.com/storageinterface
www.fci.com/SAS

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
- Vertical receptacle range includes 11.5 mm and 17.5 mm body heights
- High temperature plastic suitable for wave or reflow soldering
- Lead-free and RoHS-compliant versions are available

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.fci.com/storageinterface
www.fci.com/sca2

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	Receptacle	Vertical	Press-fit	72443
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
	80	Plug	Right-angle	Straddle-mount	71292

NOTES :

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

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

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SATA
SERIAL ATA I/O

FEATURES & BENEFITS

- For implementation of high-speed Serial-ATA storage interface
- Designed to support differential signaling of up to 6 Gb/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

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.fci.com/storageinterface
www.fci.com/SATA

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	Straddle Mount, SMT	10035541
	Right-Angle, SMT (Interposer)	10039651
	Right-Angle, SMT (4 Wall Latch Feature)	10052369
	Right-Angle, Thru Hole (4 Wall Latch Feature)	10038031
		Contact FCI for customization
22-Position Host Receptacle	Vertical, SMT	10029065/59337/10042140
	Vertical, SMT (With Rivet Holes)	10045103
	Vertical, Thru Hole	10017660
	Vertical, Press Fit	10022676
	Vertical , Cable Solder Tab	10043820
	Right-Angle, SMT	10029364 / 10034814

Further information can be found at:
www.fci.com/storageinterface
www.fci.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	right-angle plug, through-hole solder	10067172
eSATA	right-angle, upright plug, through-hole solder	10074141
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.fci.com/storageinterface
www.fci.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.fci.com/storageinterface
www.fci.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.fci.com/storageinterface
www.fci.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
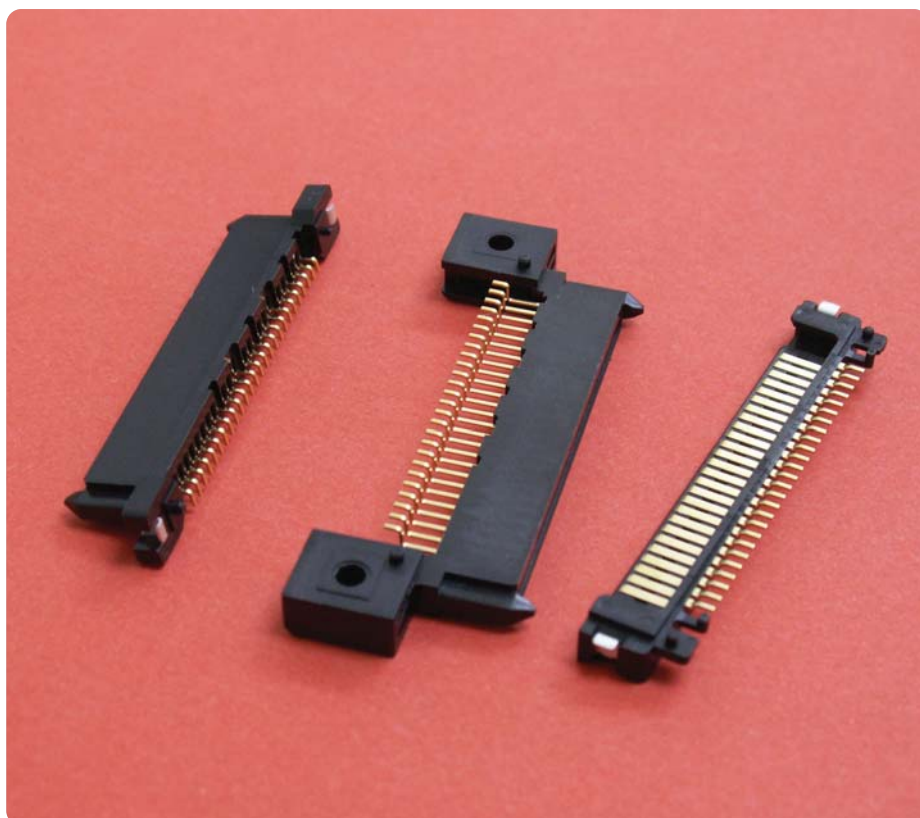
	MAIN PRODUCTS	PART REFERENCES
SMT	Right-angle receptacle with screw holes	10033998
SMT	Vertical receptacle with solder tab retainers	10034273
SMT	Right-angle plug with holddown	10079510

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.fci.com/storageinterface
www.fci.com/ivdr

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MINI MULTILANE EXTERNAL CABLE ASSEMBLIES

FOR HIGH-SPEED SERIAL MINI SAS (2.0 & 2.1) 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 (SAS 2.0 & 2.1) and Mini SATA 4x external cable requirements
- 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
- Controlled wire management and termination process assures consistent high-speed electrical performance RoHS compliant

New product
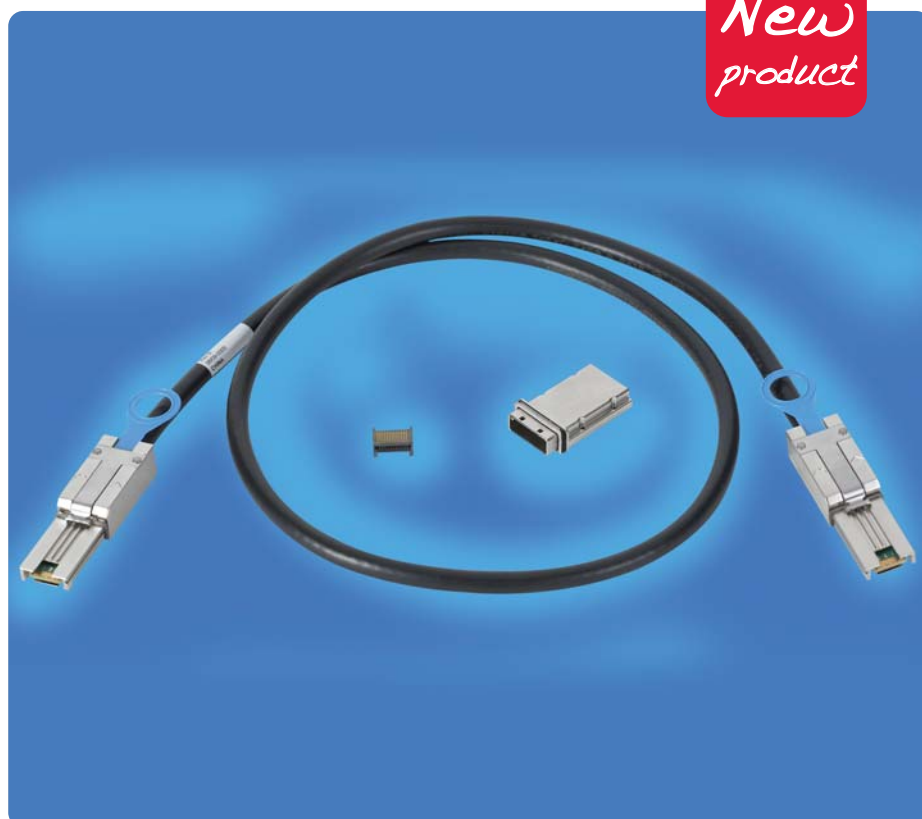
MAIN PRODUCTS	PART REFERENCES
Unequalized Mini-Multilane SAS / SATA cable assemblies	10084749
Mini-Multilane 20 position connector	10098870
Mini-Multilane single port cage - 0° and 1°	10098871
Mini-Multilane 1x2 ganged port cage - 0° and 1°	10098872

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 2.0 & 2.1) specifications
- SFF-8088 and SFF-8086

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

SFP+ COPPER CABLE ASSEMBLIES
FOR ETHERNET AND FIBER CHANNEL APPLICATIONS

FCI's SFP+ cable assemblies are designed to meet data center, storage networking and high performance computing application needs for a high density cabling interconnect system capable of 10Gb/s per channel transmission rates. These cable assemblies are designed to meet the requirements of Small Form Factor industry standard SFF-8431. The SFP+ cables support the bandwidth transmission requirements as defined by 10Gigabit-Ethernet (10G Base-CU), 8G Fibre Channel (FC) and 10G Fibre Channel over Ethernet (FCoE) specifications

The cable assembly's printed circuit paddle card has been designed to not only address the stringent mechanical interface requirements but also the higher-bandwidth signal integrity requirements for 10Gb/s per channel transmission. It has also been designed to accommodate EEPROM cable signature needs as well as address applications for both passive and active equalized cable assembly applications. The assembly also includes robust diecast covers and an EMI girdle to assure proper EMI shielding effectiveness and termination. FCI manufactures these cable assemblies using highly controlled and stable cable assembly manufacturing processes minimize wire management and termination variations that impact the performance of the cable assembly. Robust final test and quality systems assure high quality cable assemblies conforming to the high-speed electrical performance requirements in industry specifications.

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
- Allows for 10Gb/s per channel transmission up to 7 meters (passive cable assembly)
- Allows for 10Gb/s per channel transmission up to 15 meters (actively equalized cable assembly)
- Optimized PCB interface board to minimize crosstalk and insertion loss
- Stamped EMI girdle to assure superior EMI shielding effectiveness
- EEPROM for cable signature
- Actively equalized cables enable longer cable lengths or the use of smaller cable diameters for shorter cable lengths
- Lower cost and lower power solution when compared to fiber optic links
- 32 AWG to 24 AWG cable sizes available
- RoHS compliant

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

New product

Part will become available in Q4 2009

MAIN PRODUCTS	PART REFERENCES
Unequalized SFP+ cable assembly	10101497

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

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
- Connects EMC shield to chassis panel and provides shielding to PCB level
- 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

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.densishield.com
www.fci.com/hsio
www.fci.com/highspeed

EYEMAX®
HIGH SPEED I/O SYSTEM

FEATURES & BENEFITS

- Robust pull-to-release latching or thumbscrew cable-lock hardware
- 4x version provides 8 differential pairs
- High-speed data rates:
  - Infiniband SDR: 2.5 Gb/s per channel
  - Infiniband DDR: 5.0 Gb/s per channel
  - Ethernet CX4: 3.125 Gb/s per channel
- Custom paddle-card design for improved crosstalk performance
- Impedance-controlled paddle card with capability to upgrade for equalization
- Die-cast shells for enhanced EMI shielding performance
- Cable assembly offering available with various high-speed raw cable options
- Right-angle, surface-mount PCB receptacles offer variety of locating post and panel-mount options
- RoHS compliant

MAIN PRODUCTS — PART REFERENCES

Receptacles

4x Latch type, clip mount	58368
4x Latch type, screw mount	58369
4x Thumbscrew version, screwlock mount	10009629

Plug Kits for cable assemblies

4x Latch type	58441
4x Thumbscrew version	10013923

APPLICATIONS

Data
- Servers
- Server clusters
- Storage systems
- HPC and data centers

Communications
- Switches
- Routers

Industry standards
- Infiniband architecture
- Infiniband SDR, DDR
- 10G Fibre Channel
- 10G Base-CX4 Ethernet (IEEE 802.3ak)
- SFF-8470 for SATA or SAS

Further information can be found at:
www.eyemax.com
www.fci.com/hsio
www.fci.com/highspeed

OUTDOOR I/O
OUTDOOR I/O SOLUTIONS

The Outdoor I/O product is a ruggedized-waterproof product ideal for outdoor applications. The product supports multiple product variations with the utilization of various inserts (Power, Ethernet, and Fiber) to be snapped into a standard container. This flexible and cost effective solution easily adapts to increasing market needs for high speed and power transmission in a ruggedized form factor that meets international protection code testing.

FEATURES & BENEFITS

- Standardized cost effective housings allows for integration of many standard FCI solutions
  - Power
  - High Speed Copper
  - Fiber
- Easy PushPull engagement provides reliable, audible connectivity
  - Audible click assures optimal insertion versus competitive "screw-tight" solutions
- IP 65 and IP67 compliant to meet harsh environmental conditions
- Easy Installation facilitates field installable solutions
  - Optimized design allows for easy maintenance and repair
- The flexible form factor can be dedicated for single mode or multimode fiber

New product
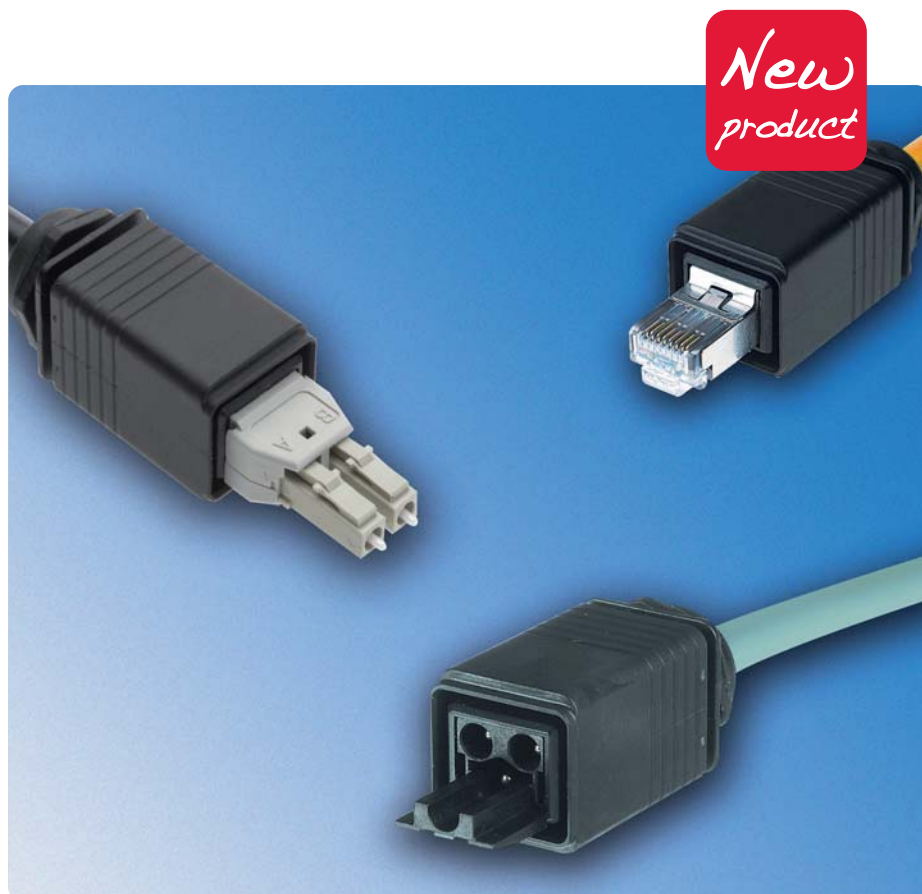
APPLICATIONS

- FTTH – Fiber to the home
- FTTA – Fiber to the antenna
- Base Stations
- WIMAX
- Mobile Infrastructure
- Industrial
- Video Broadcast Equipment

Further information can be found at:
**www.fci.com/outdoorio**

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 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

New product

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.fci.com/metralhdxs
www.fci.com/highspeed

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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

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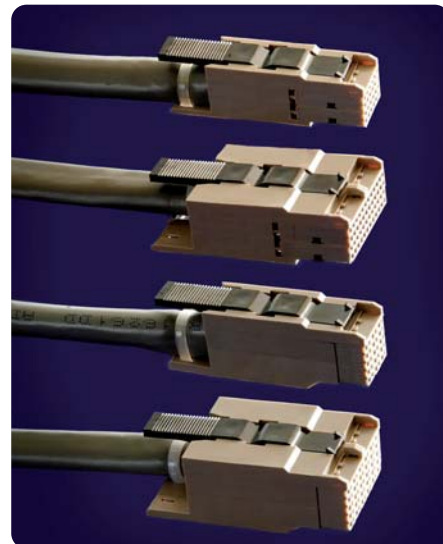
MAIN PRODUCTS

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

Right angle Metral® headers		
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.fciccom/metral
www.fci.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
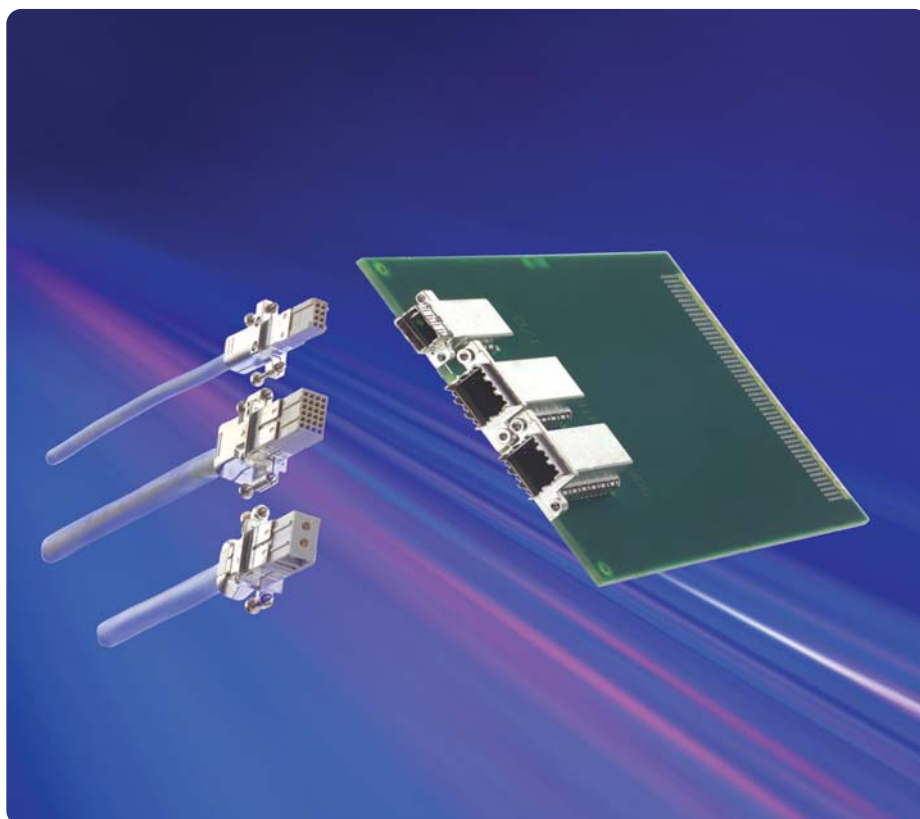
MAIN PRODUCTS		PART REFERENCES
2x4	Sofix Board Connector	72860
	Sofix Cable Connector 10/100 BaseT	72861
	Sofix Cable Connector 1000 BaseT	53389
4x6	Sofix Board Connector	72844
	Sofix Cable Connector Coax Twisted pair	HM1C16D2J110EBLF
	Sofix Cable Connector Coax Quad	72817

APPLICATIONS

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

Further information can be found at:
www.fci.com/sofix

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 / PART REFERENCES

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/ 10074342-001LF
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.fci.com/cableassembly

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 overmold cable assembly
- USB + power versions available

APPLICATIONS

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

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, Through hole Reversed Receptacle	74552
	S/D Right angle, SMT Receptacle	87583
	S/D Right angle, SMT Reversed Receptacle	74626
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

Further information can be found at:
www.fci.com/usb
www.fci.com/powersolutions
www.fci.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 1.3a compliance
- RoHS compliant
- Low impedance mismatch
- Straight version features additional grounding pins for enhanced EMI performance
- Backward compatible with DVI

MAIN PRODUCTS / PART REFERENCES

MAIN PRODUCTS	PART REFERENCES
Right angle, with or without flange	10029449
Straight	10078837

APPLICATIONS

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

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

MAGNETIC JACKS CONNECTORS

FEATURES & BENEFITS

- 10/100 or 1000 BaseT option
- With or without LED
- Spring fingers on shells for better EMI
- Tab up and tab down options
- Low profile design option
- Modular transformer design to decrease production output rate and reduce process cost
- RoHS compatible

APPLICATIONS

- Servers, Switching Hubs, Routers
- Set Top Box, Digital TV, LCD TV
- Printers
- Desktop and Notebook PC's

MAIN PRODUCTS   PART REFERENCES

Product Type	No. of Position	Tab Type	With LED	With Springs	Xfrm Performance	
1x1	12	Up	Yes	Yes	10/100	10084428
1x1	14	Up	Yes	Yes	1000	10084429
2x1	28	-	Yes	Yes	10/100	10084432
2x1	28	-	Yes	Yes	1000	10084433
2x1	20	-	No	Yes	10/100	10082590
1x1	8	Down	No	Yes	10/100	10085058
1x1	17	Up	Yes	Yes	10/100	10085073
1x1	17	Up	Yes	Yes	1000	10085074
1x1	10	Up	Yes	Yes	10/100	10085077
1x1	8	-	No	No	10/100	10085078
2x4	112	-	Yes	Yes	10/100	10085079
2x4	112	-	Yes	Yes	1000	10085080
2x6	168	-	Yes	Yes	10/100	10085081
2x6	168	-	Yes	Yes	1000	10085082

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
- ▶ Magnetic option
- ▶ 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.fci.com/modjacks

MAIN PRODUCTS

Single Port Cat3		Positions	Pegs	Part Series
Right angle	Through mount	4, 6, 8	Snap	87180 / 54601
		8, 10	Snap	54602
	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		87547/98435/87549 (keyed)

Multiport Cat3		Ports	Shield	Part Series
Right angle	Through Mount	4, 8	Yes	94910
		2, 4, 7, 8	No	94911
		2 (6P+6P)	No	10053565
		2 x4 (Stacked)	Yes	74633
Straight	Through Mount	3 (4P+4P+6P)	No	92266

Multiport Cat5		Ports	Shield	Part Series
Right angle	Though Mount	4, 8 (Filter)	Yes	95672
		4, 8	Yes	95678
		2, 4, 6, 8	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

Standard application

Signal	Right angled solder-to-board	Delta D
	Right angle press-fit	Delta D
	Right angle pin-in-paste	Delta D
	Straight solder-to-board	Delta D
	Straight press-fit	Delta D
	Straight pin-in-paste	Delta D
	High Density solder-to-board	Compact D
	High Density press-fit	Compact D
	High Density pin-in-paste	Compact D

Less Demanding application

	Right angled solder-to-board	Economy Range
	Straight solder-to-board	Economy Range

Demanding application

Full and mix power	Straight and Right angle solder-to-board and press-fit	DW series
	High Power I/O PCB connectors	µTCA®

Severe environment application

Signal	Right angle solder-to-board, Wire-wrap and Straight solder-to-board	DP series
	Right angle solder-to-board, Wire-wrap and Straight solder-to-board	DM series

µ**TCA**®

Further information can be found at:
www.fci.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

MAIN PRODUCTS · PART REFERENCES

Standard application

	Solder bucket	D series
	Crimp connectors and contacts	8656 series
	IDC flat cable connector	8657 series

Demanding application

Full and mix power	Solder bucket	DW series
	Crimp connectors and contacts	DW series
	High Power I/O Cable connectors	µTCA®

Demanding application

	Solder bucket	DP series

Accessories

Hoods	Plastic, metallized and metalic.	
Locking devices		

APPLICATIONS

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

µTCA®

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
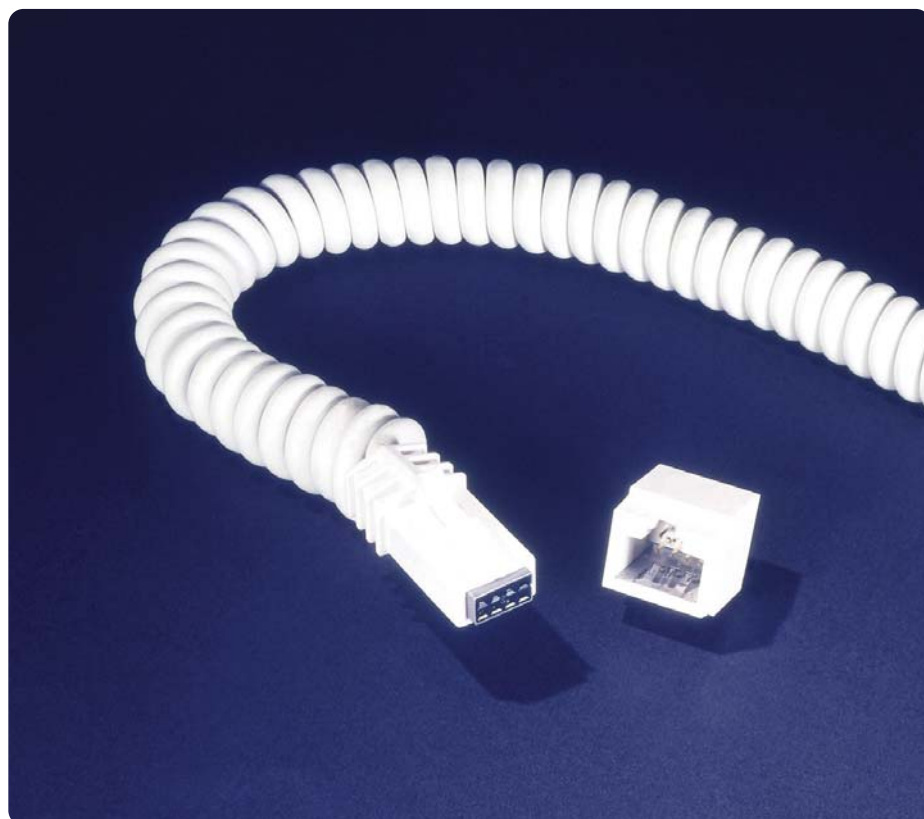
MAIN PRODUCTS — PART REFERENCES

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.fci.com/latchnlok

NOTES

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

	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	10033853 / 10033854
144 position	16b/32b SO-DIMM	10062086

Further information can be found at:
www.fci.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		
Trough mount and metal clip		10081530
Trough mount and plastic post		10081531
Very low profile (VLP) , through hole		
Trough 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.fci.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
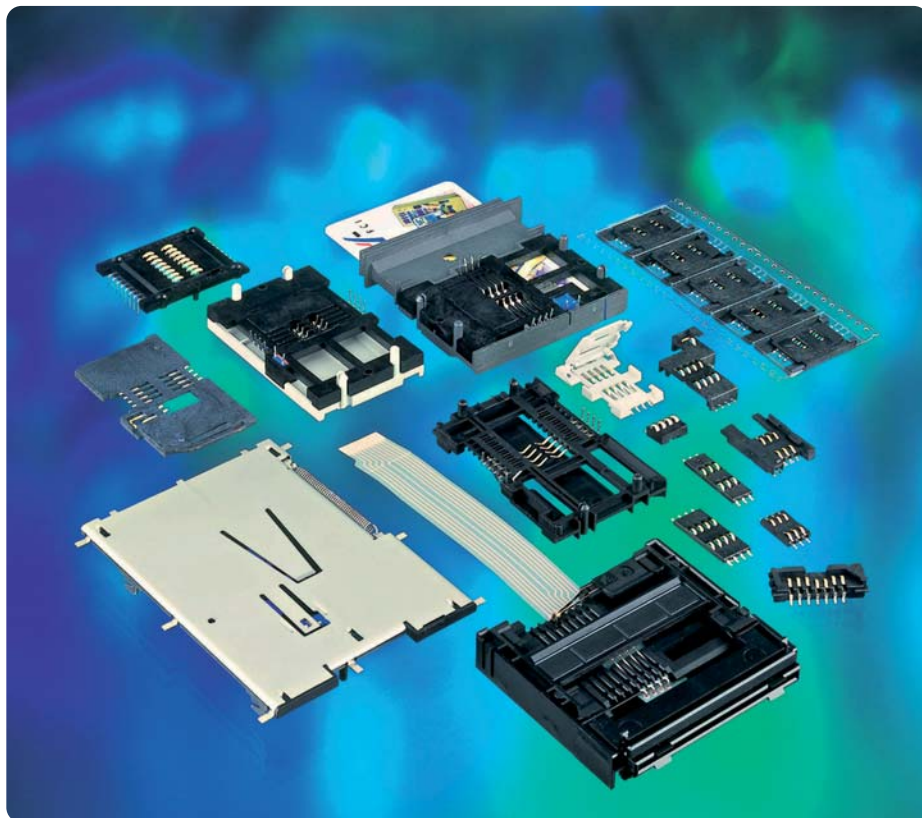
APPLICATIONS

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.fci.com/smartcards

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/L10 Series	100K	●		●			●			●
L26 Series High Performance	10K - 100K	●		●		+ Flex	●		●	
L26 Series	2.5K	●		●			●		●	
E Series	200K	●			●	+ Flex		●		●
P Series	100K	●			●	+ Flex	●		●	
C Series	100K	●		●			●		●	
Z Series	10K - 100K	●		Panel		●		●		
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

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.fci.com/pcmcia

MAIN PRODUCTS

PART REFERENCES

Type	F/G	Mounting	Voltage	Deck	Ejector	Remark
PCMCIA	61126	T/H or SMT	3.3V	Single	Yes	
	95620/94050	T/H or SMT	5.0V	Single/Double	Yes	
	84648	T/H or SMT	3.3V	Single	None	
	92789	T/H or SMT	5.0V	Single	None	
	92193/92194	T/H or SMT	5.0V	Single/Double	None	
	57991	T/H or SMT	3.3V	Double	Yes	
	84654	T/H or SMT	3.3V	Double	Yes	
	61125/61124	VTB	3.3V	Single/Double	Yes	Mating with 91931
	95547	VTB	5.0V	Single	Yes	Mating with 91931
	10003526	VTB	3.3V	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 or SMT	3.3V	Single	None	Short Body
	10074595	T/H or SMT	5.0V	Single	None	Short Body
	92150/90937	T/H or SMT	5.0V	Single	None	Short Body
	87536	T/H or SMT	5.0V	Single	None	Short Body
Card Bus I	71299/71240	VTB	3.3V	Single/Double	Yes	Mating with 73277
	52599	VTB	3.3V	Single	None	Mating with 73277
	72305/72306	VTB	3.3V	Single/Double	None	Mating with 73277

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

EXPRESSCARD™ SYSTEMS
EXPRESSCARD MODULE CARD KITS

FEATURES & BENEFITS

- 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 provide first-mate and last-disconnect in relation to signal contacts.
- Snap-together module design enables card assembly without requiring the use of adhesives or ultrasonic equipment
- Modules provide EMI/ESD contact areas, notches to facilitate optional security lock, and a finger grip ridge for manual module removal
- ExpressCard™ technology will replace PC Card and CardBus technology in desktop and notebook PCs
- RoHS compliant

APPLICATIONS

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

MAIN PRODUCTS   PART REFERENCES

Product Type	34 mm (close end)	54 mm (close end)	34 mm (open end)	54 mm (open end)
Module Connector P/N	10030570-2113LF	10030570-2113LF	10030570-2113LF	10030570-2113LF
Top Shield P/N	10030573-100LF	10030581-100LF	10030573-200LF	10030581-200LF
Bottom Shield P/N	10030574-2100LF	10030582-2100LF	10030574-0010LF	10030582-0010LF

Note: ExpressCard™ is a registered trademark of PCMCIA

Further information can be found at:
www.fci.com/expresscard

EXPRESSCARD™ SYSTEMS
EXPRESSCARD HOST SYSTEMS

FEATURES & BENEFITS

- 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
- Options available to support slot placement either above or below the host PCB
- "Card push" ejection mechanism eliminates need for push rods
- Available "grab and pull" version supports manual card removal with reduced mechanical complexity
- RoHS compliant

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
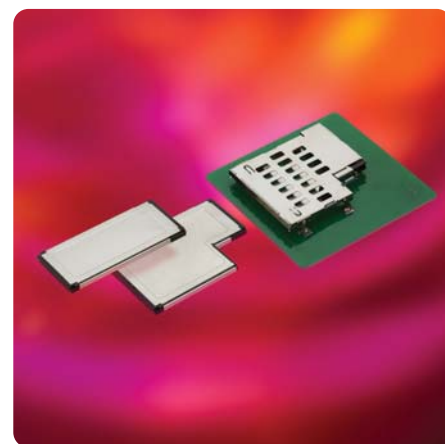
MAIN PRODUCTS   PART REFERENCES

Host Connector P/N	10056265-122ABTLF	10047129-118ABTLF	10055606-110ABTLF	10053826-100ABTLF	10055262-100BBTLF	10056422-122BBTLF
Host System (Card Push) P/N	10038774-22ALF	10047130-18ALF	10055607-10ALF	10053827-00ALF	10055263-00BLF	10056423-22BLF
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

Note: ExpressCard™ is a registered trademark of PCMCIA

Further information can be found at:
www.fci.com/expresscard

NOTES

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