

▶ ELECTRONICS

Connectors for Medical Devices

CONNECTORS FOR MEDICAL APPLICATIONS

Today's medical devices require increasing levels of functionality and flexibility. FCI brings its superior product performance and outstanding technical support to meet your needs in your next ultrasound, imaging, or analyzer application. FCI's experience in developing innovative high speed solutions makes us a perfect fit in today's medical equipment requiring higher bandwidth. Signal integrity excellence and high speed simulation provide the support you need to make your design a success. Additionally, FCI offers solutions for your next generation of miniaturization to make the most of your board space.

FCI offers more than connectors; we offer solutions, including Bus Bar power distribution systems custom high speed and power cable assemblies.

This guide covers FCI's broad range of products for medical equipment by application. Visit www.fciconnect.com/medical or contact your local FCI representative for more information about our capabilities that will make your next design a success.

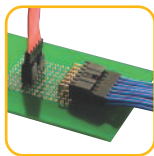
FCI - Your connection to innovation for your next medical design.

PATIENT MONITOR

As with most other medical devices, patient monitoring becomes more and more advanced; new technologies are being applied to improve patient safety. With developments like web based monitoring; touch-screen functionality and wireless technology, choosing the right components for your application is more important than ever.



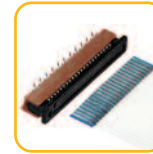
Conan® 1.0mm and Bergstak® 0.8mm Mezzanine Connectors



PV® 2.54mm and Minitek™ 2.0mm Crimp to Wire Systems



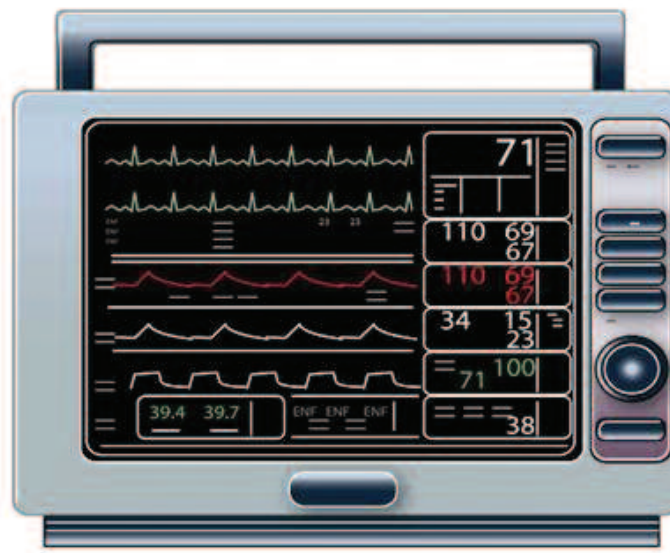
SATA



FFC-FPC Connectors



Clincher™ 2.54mm Flex Circuitry Connector



PCMCIA



Express Card™ Module and Card Connectors



MMC/SD Card Reader



Modular Jack



USB



D-Sub

ULTRASOUND

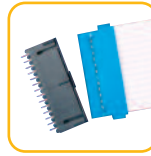
Traditionally, ultrasound systems have used standards based architectures like CompactPCI bus or VMEbus. But with backplane performance hitting the limitations of standard architectures, there is a clear need for connector technologies that offer higher performance and higher reliability at a reasonable cost. FCI's Airmax VS[®] high speed connector system offers up to 25Gbps data speeds, excellent signal integrity, and simplified board routing because it eliminates the need for interleaving metal shields. Cardedge technology, like FCI's PCI Express[™] or MicroTCA[™] range, is also a logical choice for these backpanel connections, combining high speed performance and reliability at low applied cost.



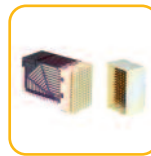
FFC-FPC Connectors



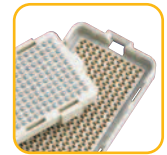
USB+Power



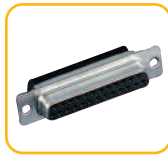
Clincher[™] 2.54mm Flex Circuitry Connector



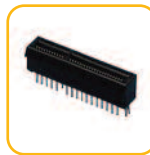
Airmax VS[®], Metral[®] and Millipacs[®] Compact PCI Backpanel Connectors



Meg-Array[®] BGA Mezzanine Connectors and Flex Assemblies



D-Sub



PCI Express[™] Card Edge Connectors



SATA



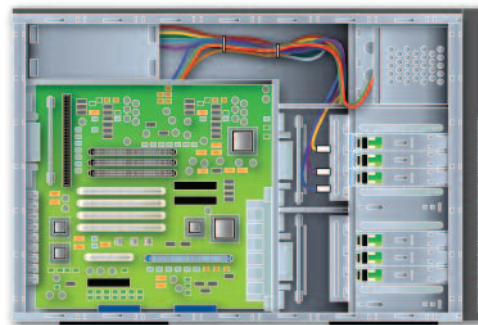
Metral[®] 2mm Backpanel Connectors



Quickie[™] and Minitek[™] Cable connectors



USB



PCMCIA



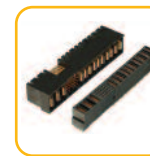
Modular Jack



DDRII



Sockets



PwrBlade[®] Power Distribution Connector System



Express Card[™] Module and Card Connectors

CT/MRI/IMAGING

Today's medical imaging devices are being designed to provide more accuracy and speed than ever before. The latest trend in attaining this goal is by incorporating multiple technologies in one system (i.e. MRI and PET). FCI offers the latest technology to support the leading edge of imaging technology such as our MEG-Array® high density board to board connector system. MEG-Array provides the features needed for MRI, CT, and other imaging applications to get closer to real time diagnosis. Used to terminate the photo diode within the scanner, MEG-Array's higher density to allow a greater number of slices, resulting in more accurate imaging. Additionally, MEG-Array delivers outstanding electrical performance, achieving data rates of up to 10 Gb/s. BGA termination affords greater flexibility in board layout, trace routing, and reduced PCB layer count. MEG-Array is also available in custom solutions mounted on flexible circuit material.

Meg-Array® BGA Mezzanine Connectors and Flex Assemblies

D-Sub

DIN 41612

MicroTCA™ Cardedge Connectors

DVI

USB / Mini USB

DDRII Memory Connectors

Bergstik® and Minitek™ Unshrouded Headers

Densishield High Speed I/O Connectors and Cable Assemblies

PCI Express™ Card Edge Connectors

Quickie™ and Minitek™ Cable connectors

Airmax VS®, Metral® and Millipacs® Compact PCI Backpanel Connectors

PwrBlade® Power Distribution Connector System

SATA

BOARD-TO-BOARD

ITEM NUMBERS

2.54mm BergStik® Unshrouded Headers

Straight	Single Row	77311	95293*
	Double Row	77313	95278*
Right-Angle	Single Row	77315	
	Double Row	77317	
Stacking	Single Row	54111	54112*
	Double Row	54111	54112*

2.54 Dubox™ PCB Receptacles

Straight	Single Row	76341	91601*
	Double Row	76342	89898*
Right-Angle	Single Row	89882	71607*
	Double Row	89883	71609*

2.54 Quickie® IDC System

Low-Profile Headers			
	Straight	75867	72454*
	Right-Angle	75869	
Eject Latch Headers			
	Straight	71918	
	Right-Angle	71922	
IDC Receptacles		71600	69830

2.00mm Minitek™ Unshrouded Headers

Straight	Double Row	57102	57202*
Right-Angle	Double Row	98423	
Stacking	Double Row	591X2	59202*

2.00mm Minitek™ PCB Receptacles

Straight	Double Row	63453	55510*
			55508*
			91596*

2.00mm Minitek™ Cable Connectors

89947	89361
-------	-------

1.00mm Floating Board to Board

Plug	BTFWXXP-3SSTE1LF*
Receptacle	BTFWXXR-3RSTE1LF*

PCI Express

Vertical	10018783
	10061913*

MEZZANINE

ITEM NUMBERS

1.00mm Conan® High Density Board Stacking

Receptacle	91931*
Header	91911*

0.80mm BergStak® High Density Board Stacking

Receptacle	61082*
Header	61083*

MEG-Array® BGA Board Stacking Connector

300 Position	
Plug	84500
Receptacle	84501

400 Position	
Plug	84740
Receptacle	74221

528 Position	
Plug	10022671
Receptacle	10026846

BACKPANEL

ITEM NUMBERS

Airmax VS® High-Speed Connector System

3 Pair	
Vertical Receptacle Backplane	
54 Position Vertical Receptacle	10043546-101LF
54 Position R/A Header	10039851-101LF
Vertical Header Backplane	
54 Position Vertical Header	10056101-1050011LF
54 Position R/A Receptacle	10053656-101LF

2.00mm Metral® Backpanel System

4Row Receptacle, Signal, Right Angle	89035-101LF
4Row Header, Signal, Straight	88951-105LF
4Row Receptacle, Power, Right Angle	89039-101LF
4Row Receptacle, Power, Straight	88960-102LF

2.00mm Millipacs Hard Metric Backpanel System

Type A	
Millipacs Header Straight:	HM2P07PDG1A1N9
Millipacs Receptacle Right-Angle:	HM2R01PA5108N9
Type B	
Millipacs Header Straight:	HM2P70PDE121N9
Millipacs Receptacle Right-Angle:	HM2R70PA5108N9

MicroTCA Card Edge Connectors

MicroTCA SMT Card Edge	10058835*
MicroTCA PressFit Card Edge	10058831

DIN 41612

Style B	
DIN Header Right-Angle	86092XX5113755ELF
DIN Receptacle Straight	86092XX6114755ELF
Style C	
DIN Header Right-Angle	86093XX7113755ELF
DIN Receptacle Straight	86093XX8114755V1LF

POWER

ITEM NUMBERS

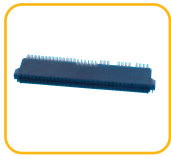
Pwrblade® Power Distribution System

Receptacle Straight Press-Fit	51666
Receptacle Right-Angle	51416
Header Straight	51952
Header Right-Angle	51415

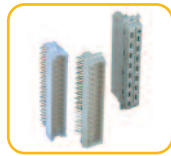
Power Cardedge

Right-Angle	10028886
Vertical	10046971
Straddle Mount	10034908

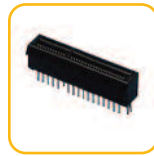
DEFIBRILLATOR



Power Card-edge



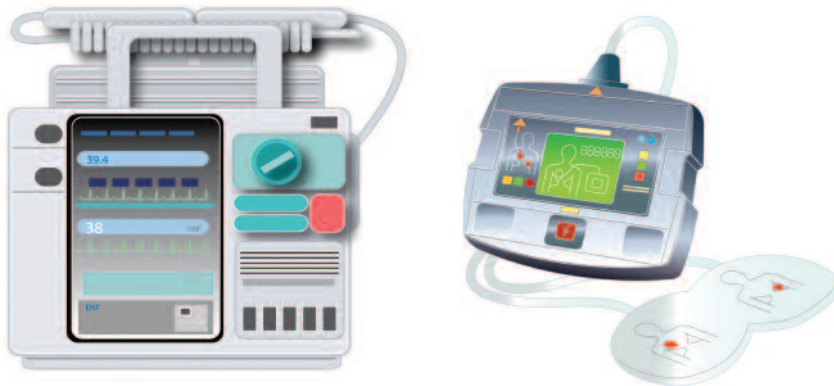
DIN 41612



PCI Express™ Card Edge Connectors



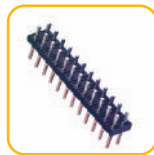
Conan® 1.0mm and Bergstak® 0.8mm Mezzanine Connectors



PCMCIA



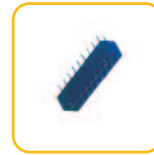
DDR II Memory Connectors



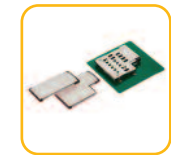
Bergstik® and Minitek™ Unshrouded Headers



FFC-FPC Connectors

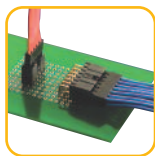


Dubox™ and Minitek™ PCB Receptacles



Express Card™ Host and Module System

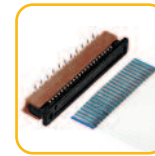
OTHER MEDICAL DEVICES



PV® 2.54mm and Minitek™ 2.0mm Crimp to Wire Systems



MMC/SD Card Reader



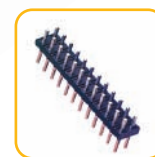
FFC-FPC Connectors



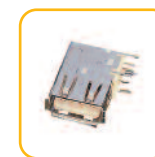
BTFW Floating Board to Board Connectors



Conan® 1.0mm and Bergstak® 0.8mm Mezzanine Connectors



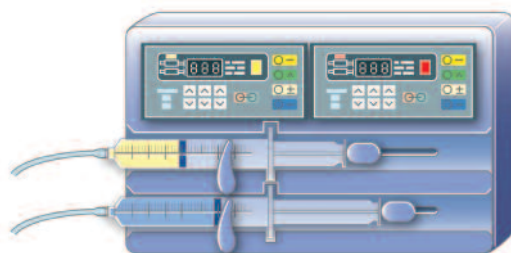
Bergstik® and Minitek™ Unshrouded Headers



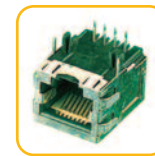
USB / Mini USB



Clincher™ 2.54mm Flex Circuitry Connector



Dubox™ and Minitek™ PCB Receptacles



Modular Jack

MEMORY

Flash Memory

	ITEM NUMBERS	
SD Card Headers		
Push-Push	10022711*	
	10033295*	
	10042841*	
Compact Flash Headers	10017963*	
	10017964*	
	10038393*	
Ejector (right)	10044080	
Ejector (left)	10044081	
Ejector (push)	10017964	

Smart Card

200K cycles	7361E05	7312E02
30K - 100K cycles	7334L26	

ExpressCard™ Host & Card Connector Systems

Host Connectors		
0.0mm standoff	10056265	
2.2mm standoff	10030584	
Universal Host Systems	10038774	

DDR

240 pos DDR2	10005639	10037402
200 pos DDR SO DIMM	59654	59355
240 pos DDR2 SO DIMM	10033853	10033854

Sockets

PLCC	54020	69802*
Mini PLCC		56484*

PCMCIA Card Headers

CardBus 3.3V	Single	71209*	74054*
PCMCIA 3.3V	Single	74423*	84648
	Double	61124*	
PCMCIA 5.0V	Single	74443*	92140
	Double	95562*	

PCMCIA Card Kit

PCMCIA Card Shield	57924	83818
PCMCIA Receptacle	10014744*	
CardBus Card Shield	10017657	
CardBus Receptacle	0014744*	

WIRE-TO-BOARD

ITEM NUMBERS

2.54mm Dubox™ Shrouded Headers

Straight Single Row 76384	
Double Row	76385
Right-Angle Single Row	76382
Right-Angle Double Row	76383

2.54mm Dubox™ CTW Housings

Single Row	65240
Double Row	65239

2.54mm Dubox™ CTW Terminal

76347

2.00mm Minitek™ CTW Headers

Straight Double Row	98414	98424*
Right-Angle Double Row	98464	

2.00mm Minitek™ CTW Housings

Double Row	90311
------------	-------

2.00mm Minitek™ CTW contact

77138

FLEX CABLE TO BOARD

0.50mm FFC-FPC Connectors

Right-Angle	ZIF	SFVxxR*
Straight	ZIF	62674*

1.00mm FFC-FPC Connectors

Right-Angle	ZIF	SLWxxR	SFWxxR*
Straight	ZIF	SLWxxS	SFWxxS*
Right-Angle	LIF	HLWxxR	HFVxxR*
Straight	LIF	HLWxxS	HFVxxS*

2.54mm Clincher™ Snap Shut Systems

Receptacles	66226
Headers	65801

2.54mm Duflex™ Contacts and Housings

Housings	Single Row	67013
	Double Row	66097
Contacts		76785

INPUT/OUTPUT

ITEM NUMBERS

USB Receptacles

Right-Angle	Type A	67520	67583*
Right-Angle	Type B	61729	
USB+Power		55917	57489
		10011029	

USB Plugs

Straight	Type A	74033	10033425*
Straight	Type B	61730	
USB+Power		74233	57496

D-Sub Receptacles

Straight	Screw Lock UNC	DxxS24A4GL00
	Insert M3	DxxS24A4GV00
Right-Angle	Screw Lock UNC	DxxS13E4GX00
	Insert M3	DxxS13E4GL00

D-Sub Headers

Straight	Screw Lock UNC	DxxS24A4GL00
	Insert M3	DxxS24A4GV00
Right-Angle	Screw Lock UNC	DxxP13E4GX00
	Insert M3	DxxP13E4GL00

Modular Jacks

Right-Angle	4 pos Cat 3	68897	73306*
	6 pos Cat 3	68898	73305*
	8 pos Cat 3	68899	73304*
	8 pos Cat 5	10034931	
Straight	4 pos Cat 3	69253	98431*
	6 pos Cat 3	69254	98432*
	8 pos Cat 3	69255	98435*

DVI

Right-Angle		10030970	10025074
		10025246	

Densishield

Receptacle	10044471
Plug	10054999

SATA

Right-Angle	Plug 7 pos	10035692	
Vertical	Plug 7 pos	10035690	10035691*
	Receptacle 7 pos	10025024	
Vertical	Device Headers	10052369*	
	Host Receptacles	10029065*	
Right-Angle	Host Receptacles	10029364*	

* Surface Mount Products

xx - number of positions

FCI: SETTING THE STANDARD FOR CONNECTORS

With operations in 30 countries, FCI is a leading manufacturer of connectors.

Our 13,500 employees are committed to providing customers with high-quality, innovative products for a wide range of consumer and industrial applications.