



# BACKPLANE CONNECTORS



Up to 12.5Gb/s Up to 5Gb/s

Amphenol FCI (AFCI)'s backplane connectors addresses the increasing demand for higher network bandwidths and data transfer rates with high bandwidth capabilities ranging from 5Gb/s (Metral® High Speed) up to 56Gb/s (ExaMAX®). Providing high speed and scalability, it is ideal for applications in networking, communications, data equipment, industrial and instrumentation such as supercomputers, control and medical equipment.

AFCI's backplane connectors have a wide range of card pitch and connector sizes. They have the highest connector density compared to other similar products in the market. Superior signal integrity performance via impedance control and low crosstalk is delivered while eliminating insertion loss resonances. Simple modular designs enable engineers and designers to quickly populate new designs with standard modules, while the connectors' consistent form factor allows forward and backward compatibility between AFCI's backplane connector families. This innovative design allows the same building modules to be used for many generations of equipment which ensures minimizing design investment for upgrades or new systems.

AFCI's range of backplane connectors includes ExaMAX®, ExaMAX® VS, AirMax VSe®, AirMax VS2®, AirMax VS®, ZipLine®, DIN 41612, HPC, Metral®, Millipacs®, Xcede® and Xcede® HD.

Most AFCI's backplane connectors are compliant to OIF CEI-25G-LR, IEC 917, IEC 1101, IEC 61076-4-101, IEC 61076-4-104, IEC 60950, and UL 1950 requirements.

mechanical packaging

### High Speed Backplane High Speed Coplanar High Speed Card Edge AirMax VSe® (up to 25Gb/s); ExaMAX® AirMax VSe® (up to 25Gb/s); ExaMAX® AirMax VS® (up to 25Gb/s); ExaMAX® MicroTCA Card Edge (up to 12.5Gb/s) (up to 56Gb/s); ExaMAX® VS (up to (up to 56Gb/s) Direct-Mate Orthogonal (up Meets MicroTCA PICMG specification 25Gb/s); Xcede® HD (Up to 25Gb/s); to 56Gb/s); ExaMAX® Midplane · Permits mating of 2 boards in the same and standards ZipLine® (up to 12.5Gb/s) Orthogonal (up to 56Gb/s) Press-fit connector per MicroTCA ExaMAX® features beam-on-beam Provides capability to support 16 One base card can mate to many I/O specification contact interface differential pair crossovers in a single cards to cost effectively offer different AirMax VSe® features World's first system I/O options innovation in Shieldless High Speed · Reduces electrical length between Connectors switch chips and I/O transceivers · Improves signal integrity performance 2.00mm Backplane 2.54mm Backplane DIN 41612; High Pin Count (HPC) • ExaMEZZ® (up to 56Gb/s); AirMax VS® Metral® High Speed (up to 10 Gb/s); Mechanical Guidance Modules; (up to 12.5Gb/s) Millipacs® (up to 10Gb/s) Power Connector Modules; Metral® · DIN 41612 conforms to DIN 41612 and Accessories: Millipacs® Accessories • Including TwinMezz®, GIG-Array®, MEG-· Metral® offers modular Board-IEC 603-2 specifications • Enhances the usability and flexibility of to-Board or Cable-to-Board Array® and Infinx® HPC Backplane enables 3 and 4 row interconnection system designed in connector systems · High density and high speed (ranging daughter cards to the backplane accordance with IEC 61076-4-101 and from 10Gb/s to 56Gb/s) · Accessory products required for Telcordia GR-1217-CORE

Millipacs® Hard Metric offers modular Board-to-Board or Cable-to-Board designed in accordance with IEC 61076-

4-101 and IEC 917

· Press-fit or Ball Grid Array (BGA)





## **POWER SOLUTIONS**



Above 70Amp Up to 70Amp Up to 15Amp Up to 5Amp

### Other Power Solutions

Busbar **Power Cables** 

AFCI's broad range of power connectors and power distribution assemblies features innovative and cost-effective solutions. Featuring some of the highest current carrying capacities in the industry ranging from 7A (Power Card Edge) up to 300A (BarKlip®). It is ideal for data communications equipment such as servers, storage systems, routers and switches and industrial applications including solar, electric vehicles, energy storage, industrial control and embedded computing.

Addressing the increasing demand for higher-density packaging of electronic power distribution equipment, AFCI's power connectors are produced in a wide range of standard and customizable power/signal configurations for connections between circuit boards, cables and busbars. This ensures the overall density resulting in less system size, weight and overall assembly cost.

Extensive research and development has resulted in new power connectors with less electrical resistance and better heat dissipation compared to competing designs from alternative suppliers.

AFCI's power connectors are designed and tested in accordance with industry standards such as IEC 61076-4-104 and IEC 60950, EIA 364-1000, and are recognized and/or certified by UL and CSA.

1-Piece Card Edge

- PCE® (up to 7A); HPCE® (up to 30A)
- · Low profile designs
- · High linear current density and low power loss

### 2-Piece Board-to-Board



- HCI® (up to 113A); PwrBlade® (up to 40A); PwrBlade ULTRA® (up to 75A); PwrBlade+™ (up to 63A); PwrLoPro® (up to 70A); HPCE® (up to 30A)
- · Right angle, vertical and straddle mount versions available
- Configurable power and signal mix for PwrBlade® family

### Low Power I/O



- Minitek® Pwr 3.0 & 4.2 (up to 9A); Minitek® Pwr Hybrid 3.0 & 4.2 (up to 9A); Minitek® Pwr High Current Connector 3.0 & 4.2 (up to 13.5A); Mini PV (up to 3A); Jumbo PV (up to 7A)
- · Right angle, vertical versions available
- · Wire-To-Wire and Wire-To-Board applications

### Medium & High Power I/C



- Perma-Tap™ Power Cable (up to 40A); Pwr TwinBlade® (up to 100A); PwrProfile® (up to 20A); PwrProfile+® (up to 34A); HPCE® (up to 30A); PwrBlade® (up to 40A); PwrBlade+™ (up to 63A); BarKlip® (up to 300A)
- Cable-To-Board application
- · Wire size ranges from 26AWG to 2AWG Medium & High Power

### **Busbar Connectors**



- BarGuide™ (up to 250A); BarKlip® (up
- · Low resistance and quick connections
- · PCB-To-Busbar connections

### **Busbar Power Distribution**



- · Busbar for Industrial and Instrumentation
- · Simplify power distribution
- · Minimize power loss

### **Low Power Connector**



- PCE® (up to 7A); Metral® Power (up to 3A); PCB Terminal Blocks (up to 20A)
- Minimize power consumption
- · Specific for low power applications





- AirMax VS® Power (up to 30A); HPCE® (up to 30A); D-Sub Power (up to 40A); DIN Rail Terminal Blocks (up to 850A); PCB Terminal Blocks (up to 50A); PwrBlade® (up to 40A); PwrBlade ULTRA® (up to 75A); PwrBlade+™ (up to 63A); HCI<sup>®</sup> (up to 113A); BarGuide<sup>™</sup> (up to 250A); PwrMAX® Ortho (up to 100A)
- · Suitable for high power applications
- · Excellent performance in harsh environments



# **BOARD-TO-BOARD CONNECTORS**



Pitch
3.00mm
2.54mm
2.00mm
1.27mm
1.00mm
0.80mm
0.50mm

AFCI's board-to-board connector systems feature contact pitch ranging from 0.5mm to 3.0mm. The comprehensive family of modular, rugged pin and receptacle interconnects are used in board-to-board applications. They are suitable for data communications equipment, industrial & instrumentation market, car multimedia applications, wireless infrastructure, servers and external storage systems.

The connectors are available in low-profile form factor and supports different stack heights. They are also available in multiple contact position options and have the lowest coplanarity at 0.1mm, offering high connector densities.

The connectors' modular systems enable increased mechanical design and flexibility, and compatibility with other connector families. They have polarized mating geometry to prevent mis-mating with PCB header, while the friction lock feature secures retention force. Exclusive Rib-Cage® multi-point receptacle contacts for optimal reliability in high vibration and shock-prone applications. The connector systems feature excellent signal integrity performance of 56Gb/s per differential pair in mezzanine applications. Independent SMT contact such as Universal Contact provides electrical connection between a device and PCB.

AFCI's diverse portfolio of board-to-board connectors includes 2.54mm contact-pitch products such as Dubox®, PV®, BergStik®, Quickie® as well as Minitek® connectors with a contact pitch of 2.00mm. Other leading series include Minitek127®, which has a 1.27mm pitch as well as 1.25mm and 1.2mm pitch for wire-to-board connections. Selective and duplex plating and different plating variations are offered for the product families.

### 0.80mm Pitch 0.50mm Pitch 1.00mm Pitch 1.27mm Pitch Minitek127°; PHEC Series; Rib-Cage° BergStak® 0.5mm; MezzoStak® BergStak® 0.8mm BTFW Series; Conan® • BergStak® 0.5mm offers 10 to 60 · Minitek127® offers an extensive 40 to 200 positions in 20 position · Designed for high density and high positions in 10 position increments and increments and 5mm to 20mm stack reliability applications modular range of connectors 3mm to 6mm stack height in 0.5mm height in 1mm increments · BTFW Series features floating PHEC Series has robust housing design increments Compliant with PCIe 4.0 allowance that permits self-alignment • Rib-Cage® provides cost-effective • MezzoStak® has a hermaphroditic during mating optimal precision and reliability design that provides precise mating interface **Universal Contacts** 2.00mm Pitch 2.54mm Pitch 3.00mm Pitch Minitek® 2.00mm BergStik®; PV®, Dubox®; EconoStik™ RotaConnect® Rotatable BTB Universal Contacts • Minitek® 2.00mm connector system is · Hermaphroditic "mates to itself" design · Surface mount, through hole and press · Incorporates pre-load and anti-lift fully intermateable fit versions available enables multiple mating angles features • 0.76μm, 0.36μm, 0.25μm, 0.025μm gold Hold-down and locating peg options Wide variety of headers, receptacles. Connects with components in any plating options for headers cable connectors and wire connectors available direction and configuration



# WIRE-TO-BOARD CONNECTORS



PV® Crimp connects discrete wire to PCB

connectors for Pin-In-Paste processes

• Quickie® IDC offers Cable-to-Board

 Latch-N-Lok™ Crimp is a shielded latching i/o connector system

AFCI offers a wide variety of wire-to-board connector systems feature contact pitch ranging from 1.2mm to 4.2mm. The comprehensive family of modular, rugged pin and receptacle interconnects are used in wire-to-board applications and is suitable for data communications equipment, industrial & instrumentation market, car multimedia applications, wireless infrastructure, servers, and external storage systems. The connectors are available in low-profile form factor and multiple contact position options to offer high connector densities.

The connectors' modular systems enable increased mechanical design and flexibility, and compatibility with other connector families. They have polarized mating geometry to prevent mismating with PCB header, while the friction lock feature secures retention force. The connectors also have exclusive Rib-Cage® multi-point receptacle contacts for optimal reliability in high vibration and shock-prone applications.

AFCI's diverse portfolio of wire-to-board connectors includes 2.54mm contact-pitch products such as PV® and Quickie® Connectors compatible with automotive lighting standards are also offered in 1.50mm or 1.27mm pitch.

Independent Surface-mount technology (SMT) contact such as Griplet® provides highly reliable connection where direct connection between individual wires and PCB are required.

Minitek® Pwr 4.2mm	28 to 16 AWG
Minitek® Pwr 3.0mm	30 to 20 AWG
BergStik® 2.54mm	20 to 18 AWG
Dubox® 2.54mm	30 to 20 AWG
PV® 2.54mm	30 to 20 AWG

Right angle, vertical versions available

· Wire-To-Wire and Wire-To-Board

applications

Minitek® 2.00mm	30 to 26 AWG
Minitek® 1.50mm	28 to 24 AWG
Minitek MicroSpace™ 1.5mm	up to 22 AWG
1.27mm Wire-to-Board	up to 22 AWG
Minitek127® 1 27mm	30 AWG

Right angle, vertical versions available

· Wire-To-Wire and Wire-To-Board

applications

Minitek MicroSpace™ 1.27mm	up to 22 AWG
1.25mm Wire-to-Board	32 to 28 AWG
1.2mm Wire-to-Board	32 to 28 AWG
Griplet® Miniature IDC	36 to 20 AWG

### 1.50mm Pitch 1.20mm Pitch 1.25mm Pitch 1.27mm Pitch 1.20mm Wire-To-Board 1.25mm Wire-To-Board Minitek MicroSpace™ 1.27mm; Minitek MicroSpace™ 1.5mm; Minitek® Minitek127<sup>o</sup> 1.50mm · Low profile with mated height of · Conforms to EU Industry Safety 2.50mm Standard Minitek MicroSpace™ 1.27mm reduces Connector density reduces PCB PCB footprint by 50% and is LV214footprint by 50% · Compact design with pin count • Terminals, crimp housings and PCB Severity 2 compatible headers in vertical, right angle, surface • LV214-Severity 2 compatible availability for 3, 4 and 6 pin counts Minitek127® is ideal for all types of mount and through hole configurations Wire-To-Board and Cable-To-Board applications 2.54mm Pitch Griplet Miniature IDC Connector 3.00mm Pitch 4.20mm Pitch Minitek® Pwr 3.0: Minitek® Pwr Minitek® Pwr 4.2: Minitek® Pwr PV® Crimp; Quickie® IDC; Latch-N- Griplet<sup>®</sup> Hybrid 3.0; Minitek® Pwr High Current Lok™ Crimp Hybrid 4.2: Minitek® Pwr High Current Accommodates multiple wire sizes from Connector 3.0; RotaConnect® WTB Connector 4.2

32AWG to 20AWG

anywhere on the PCB

Unique design allows allocation

# **STORAGE & SERVER SYSTEM CONNECTORS**



Storage Memory Module Sockets Card Edge

AFCI offers a wide range of connectors to support industry-standard interfaces such as Serial Attached SCSI (SAS), Serial ATA (SATA) or SCA-2 (Single Connect Attachment-2), between hard disk drives/solid state drives (HDD/SSD) and backplanes or drive carrier boards for applications in servers and storage system.

AFCI's latest range of SAS connectors supports high speed serial storage interfaces up to 12Gb/s data and is designed to comply with SAS 3.0 and SFF-8680 specifications in mating interface, performance and signal integrity. The new SFF-8639 connectors support SATA, SAS, or PCle interfaces which enable PCle-based SSDs to achieve up to 32Gb/s data transfers with four lanes of PCle Express® 3.0.

AFCI's vertical card edge connectors enable all generations of PCI Express® signaling and is designed to support 2.5Gb/s (Gen1), 5.0Gb/s (Gen2), and 8.0Gb/s (Gen3) per differential signal pair.

The PCIe M.2 connector is designed to support PCI Express 3.0, USB 3.0, and SATA 3.0 applications and reduces PCB board space with its compact form factor and low connector height.

AFCI's memory module sockets conform to the JEDEC industry standards for DIMM (Dual In-line Memory Modules). AFCI's newest DDR4 DIMM sockets accept memory modules that conform to JEDEC MO-309. The sockets facilitate convenient memory expansion in servers, workstations, desktop PCs, and embedded applications in communications and industrial equipment.

SAS	SAS PCIe	SATA	SCA-2
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12G/6G SAS     Storage Drive Interface     Superior 12G SAS signal integrity performance     Conforms to SFF8482 and SFF8680	<ul> <li>12G/6G SAS PCIe</li> <li>Storage Drive Interface</li> <li>Enables high speed SAS HDD interfaces well as PCIe devices</li> <li>Conforms to SFF8482, SFF8639 and SFF8680</li> </ul>	SATA     Designed for hot plugging and blind mating of HDD     Conforms to SFF8482	12G SCA-2 Receptacle; 8G SCA-2 Header & Receptacle     Improves PCB footprint which results in improved performance     12G SCA-2 Receptacle conforms to SFF8680
PCIe Card Edge	M.2	DDR4/3/2	Compression Connector
			000000000
PCIe Gen 1/2/3 Comes in 1.0mm pitch PCIe Gen 3 vertical card edge connectors supports higher bandwidth versions	PCIE M.2 Reduces PCB footprint Supports higher data rates (PCI Express 3.0, USB 3.0 & SATA 3.0)  PCIE M.2  Reduces PCB footprint	<ul> <li>DDR2; DDR3; DDR4 Memory Module Socket</li> <li>Slim latch design optimizes airflow and reduces board space</li> <li>DDR4 offers special housing and ultra low profile design options</li> <li>Conforms to JEDEC MO-309/224 and JEDEC 80-007 standards</li> </ul>	Compression Connector     Independent single piece connector used together with flexible circuit or PCB     Available in single or double row contact





# INPUT/OUTPUT CONNECTORS



### **Product Type**

USB

Modular Jack

D-Sub

**HDMI** 

Memory & Media Card

Outdoor I/O

High Speed I/O

AFCI Proprietary I/O

AFCI's diverse portfolio of Input/Output connector solution provide high density and high speed interfaces for interconnect technologies used in networking, data communications, storage, memory and complementary products for power distribution, industrial and instrumentation applications, and consumer electronics.

The range of I/O solutions include High Speed, Outdoor, Backplane, Signal Wire-to-Board, D-Subminiature, USB, HDMI connectors, Modular Jacks, Memory & Media card sockets and connectors are in full compliance to applicable industry standards such as SFF, IEEE802.3, Infiniband, SAS, PCIe, USB, PCMCIA, HDMI, DIN 41652 and MIL-C-24308.

AFCI's versatile I/O connectors are available in a wide range of connector configurations and come in single or stacked multiports. The highly reliable connectors feature 360° shielding and ensures mating cycle capability ranging from 100 to 200,000 cycles. The connector supports a wide range of signaling densities and protocols ranging from 100Mb/s per channel up to and including 25 to 28Gb/s and 40Gb/s per channel requirements. It supports aggregate cable assembly bandwidths from 10Gb/s up to 400Gb/s.

AFCI's newest OCTIS™ Outdoor I/O for outdoor telecom, industrial and harsh environment meets multiple industry standard interfaces like SFP/SFP+, Signal, PoE (Power over Ethernet), Power, Hybrid of Signal & Power and RJ45, features high speed signal and power, lightning protection, EMI shielding and ease to installation.

# High Speed I/O

### SFP+: OSFP+: Mini-SAS: Mini-SAS HD **Connector and Cage**

- SFP+ interconnect meets SFF-8431 requirements
- QSFP+ interconnect meets IEEE802.3ba, IEEE802.3bj, Infiniband QDR, FDR and **EDR** specifications
- Mini–SAS HD solutions meets the SAS 2.1. SAS 3.0. SFF-8643 and SFF-8644 requirements



Outdoor I/O

OCTIS™ Outdoor I/O System

- Features high speed signal and power. lighting protection, EMI shielding and ease of installation for outdoor, industrial and harsh environments
- SFP/SFP+, RJ45, Signal, Power, Hybrid (Combo) connector interface available



Backplane I/O

- ExaMAX® I/O: AirMax VS® Cable: Metral®; Metral® HDXS Cable; Sofix® Shielded Cable; Millipacs® Cable; DIN
- Millipacs® shielded and non-shielded cable connectors are designed in accordance with IEC 917 and IEC 61076-
- Metral® HDXS is designed in accordance with IEC 61076-4-104

Signal Wire-To-Board



- Dubox®: Minitek®
- Minitek® 2.00mm connector system is fully intermateable
- Dubox® is available in surface mount, through hole and press fit versions

OCTIS™ is a trademark of Radiall **D-Subminiature** 



Modular Jack

USB



- D-Sub Standard; D-Sub High Density; D-Sub Power; D-Sub Cable Connector and D-Sub Accessories
- Comprehensive range of robust and reliable connectors for wide variety of applications
- Offered in large number of mounting options



- PCMCIA™; Smart Card; and Flash Memory Products
- PCMCIA™ short body design helps achieve excellent signal transmission
- Smart card connectors includes SIM/ SAM or full size card connectors
- Flash memory products are shock proof and able to withstand vibrations



• RJ45; RJ11

IDC Cable

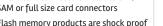
- RJ45 and RJ11 modular jack support Cat 3 (16Mb/s) and Cat 5 (100Mb/s) performance category
- Modular jacks are offered as a horizontal or vertical solution with 4,6,8 positions







- USB 3.1 Type C; USB 3.0 & USB 2.0; Micro USB 3.0 & 2.0; Mini USB 2.0; Power USB
- USB 3.1 Type C meets USB 3.1 specification and supports SuperSpeed
- Micro USB 3.0 and USB 3.0 is fully backwards compatible
- USB connectors are offered in various configurations and terminations



# **CABLE ASSEMBLIES**



Product Type

Backplane

High Speed I/O

Crimp-To-Wire

I/O

IDC

Power

Outdoor I/O

AFCI Proprietary I/O

AFCI's cable assembly offerings are designed to support both electrical and optical high speed signal transmissions across an extensive range of applications across global industries. The diverse range of cable assembly include Backplane, High Speed I/O, Crimp-to-Wire Solution, Insulation Displacement Contact (IDC) Solution, Power Cables and Outdoor I/O. They are designed to conform to industry standards such as Infiniband, Ethernet, FibreChannel, IEEE, SAS, OIF and other industry protocols including SFP+, QSFP+, CXP, Mini- SAS, Mini-SAS HD passive copper cables. Customized, professional-grade cable assemblies are also supported by AFCI's flexible manufacturing capabilities from design to production.

The high performance cable assembly portfolio feature cables used in external (outside the box), internal (inside the box). All cables are engineered to deliver superior signal integrity performance covering signaling speeds up to 40Gb/s per channel requirements.

AFCI's newest OCTIS™ Outdoor I/O features high speed signal and power, lightning protection, EMI shielding and ease to installation and conform to various industry standards.

# Backplane I/O High Speed I/O Crimp-To-Wire I/O Solution

- ExaMAX® I/O; AirMax VS® Cable; Metral® and Metral® HDXS Cable; Sofix® Shielded Cable; Millipacs® Cable: DIN IDC Cable
- ExaMAX® I/O signal integrity performance meets 25G and 40G per channel requirements
- AirMax VS® Cable is capable of differential signal transmission from 2.5Gb/s per channel up to 10Gb/s per channel
- DensiShield<sup>o</sup> Cable; QSFP+ Copper Cable; SFP+ Copper Cable; Mini-SAS; Mini-SAS HD Copper Cable
- QSFP+ Copper Cable is a high density cabling interconnect system capable of delivering aggregate data bandwidths of 40Gb/s, 56Gb/s and 112Gb/s
- SFP+ Copper Cable is a high density cabling interconnect system capable of delivering channel bandwidths of 10Gb/s and 25Gb/s
- Dubox<sup>®</sup>; Minitek<sup>®</sup> 2.00mm, Minitek<sup>®</sup> 1.50mm, Minitek<sup>®</sup> Pwr 3.0; Minitek<sup>®</sup> Pwr 4.2; PV<sup>®</sup> Crimp; 1.25mm Wireto-Board; 1.20mm Wire-to-Board; Minitek MicroSpace™ 1.27/1.5mm
- Dubox® has surface mount, through hole and press fit versions available
- Minitek® Pwr 3.0 and Minitek® Pwr 4.2 are designed for Wire-To-Wire and Wire-To-Board applications
- 1.20mm Wire-To-Board has a low profile with mated height of 2.50mm
- Latch-N-Lok™ Crimp; D-Sub Cable;
   CAT 6A SFTP Patch Cable
- Latch-N-Lok™ Crimp is a shielded latching i/o connector system
- D-Sub Cable provides excellent performance in harsh environment conditions
- CAT 6A SFTP Patch Cable supports up to 10Gb/s data transmission in accordance with IEEE802.3an standard

# IDC Solutions

- Minitek® 2.00mm; Minitek127®; Quickie® IDC
- Minitek® 2.00mm connector system is fully intermateable
- Minitek127® offers different plating options and up to 100 positions



- HPCE® (up to 30A); Perma-Tap™ Power Cable (up to 40A); PwrBlade+™ (up to 63A); Pwr TwinBlade® (up to 100A); PwrProfile® (up to 20A); PwrProfile+® (up to 34A)
- PwrBlade+™ comes in configurable power and signal mix
- Pwr TwinBlade® has new sensing contacts to ensure proper mating



Outdoor I/O

- OCTIS™ Outdoor I/O System
- Features high speed signal and power, lighting protection, EMI shielding and ease of installation for outdoor, industrial and harsh environments
- SFP/SFP+, RJ45, Signal, Power, Hybrid (Combo) connector interface available

OCTIS™ is a trademark of Radiall



# OPTICAL INTERCONNECT



### Standards

SFP+ Transceivers & AOC SCFF Transceiver QSFP/QSFP+ Transceiver & AOC **OBT Transceiver & Cable** Mini-SAS HD AOC CXP AOC **Optical Couplers** 

Fiber Optic Cable Assemblies

AFCI's high speed optical interconnect solutions feature high performance optical transceivers, Active Optical Cables (AOC), optical couplers and passive optical cable assemblies. They deliver the highest bandwidth/port and highest hardware faceplate port density for emerging data center and high performance computing application needs.

These product offerings are suitable for data and telecommunications applications that include servers, switches, routers, optical transport and wireless infrastructure hardware. The optical transceiver offerings are fully compliant to various high speed industry application standards ranging from 10Gb/s Ethernet, 2, 4, 8 and 10Gb/s FibreChannel, Infiniband QDR & FDR and various IEEE 802.3 specifications including IEEE 802.3ba (40Gb/s) and IEEE 802.3bj (100Gb/s).

The range of optical interconnects includes XFP, SFP+ and SCFF transceivers as well as AOC offerings that include SFP+, QSFP+, CXP, Mini-SAS HD and related splitter cables. Passive optical cable assemblies include SC, ST, LC, MTRJ and MPO based terminations, break out cable assemblies as well as both single mode and multi-mode optical coupler configurations.

AFCI's optical transceivers and cable assemblies are capable of delivering aggregate data bandwidths ranging from 10Gb/s up to 150Gb/s and support signal transmission distances up to 10km.

The optical transceivers and AOCs feature industry standard interfaces, low power consumption, rugged diecast connector ends and multiple cable exit/boot options.

# SFP+ AOC & Transceiver · SFP+ Transceiver (SR/LR/LRM) (up to 10Gb/s); SFP+ Active Optical Cable SFP+ transceivers meets SFF-8431, SFF-8432, SFF-8472, 10G Ethernet and

- Fibre Channel, 1200-MX-SN-I, and RoHS 6/6 requirements
- SFP+ AOC is capable of transmitting data up to 19Gb/s and supporting signal transmission at distances between 1m



**OSFP+ AOC** 

- QSFP+ Active Optical Cable (up to 10Gb/s and 14Gb/s per channel); QSFP+ Splitter Cable Assembly (up to 25Gb/s
- Capable of delivering aggregate data bandwidths up to 40Gb/s and 56Gb/s
- Meets SFF-8436, 40GBASE-SR4, Infiniband SDR, DDR, QDR, FDR specifications

### **CXP AOC**



- CXP Active Optical Cable
- Capable of delivering aggregate data bandwidths up to 120Gb/s and 150Gb/s
- Meets SFF-8642, Infiniband SDR, DDR, QDR specifications

## Mini-SAS HD AOC



- · Mini-SAS HD Active Optical Cable
- Low power consumption of 0.8W
- Meets SFF-8643, SAS 2.1 and SAS 3.0 requirements

### **On-Board Transceiver**

### **Optical Coupler**

### **Fiber Cable Assemblies**

### **Fiber Optic Cable Assemblies**



- Leap® On-Board Transceiver (up to 300Gb/s)
- Capable of aggregated data bandwidths up to 300Gb/s (12 channels at 25Gb/s)
- Meets 100GBASE-SR4, Infiniband EDR, PCIe Gen 4, SAS 4.0
- MT ferrule (2x12) fiber optical interface
- · Various heatsink options available

- Canstar® Tap Coupler: Canstar® Splitter; Star Coupler
- Designed for data acquisition, test and measurement, data distribution
- 1x1 and 2x2 single mode and multimode couplers configurations



- · Ribbon and Multiple Fiber Cable Assemblies (MPO, MT, MXC)
- · NX12 fiber cable assemblies based on MPO and MXC connector standard
- Meets Telcordia GR-326-CORE specifications



- Standard Patch Cords (SC/LC/ST/FC)
- · Simplex and duplex cable assemblies including SC/LC/ST/FC
- · Single mode and Multimode fiber
- Meets Telcordia GR-326-CORE specifications

# **TERMINAL BLOCKS**



PCB Terminal Blocks Din Rail Terminal Blocks

AFCI's Terminal Blocks include the Printed Circuit Board (PCB) and DIN Rail version. Available in various pluggable and fixed configurations, this technology incorporates various pitch-sizes and wire sizes for signal and power solutions.

The suite of PCB Terminal Blocks is available in a wide range of connection technologies including the Wire Protector, Rising Clamp, Screw Pluggable, Spring Clamp Pluggable and Spring Clamp Systems. These proven technologies ensure long-lasting and reliable connections to meet the most demanding applications in industrial, instrumentation and communication environments.

A distinctive feature of the PCB Terminal Blocks is the small footprint available in pitch sizes between 2mm up to 20mm. They can handle currents ranging up to 125A and soldering temperatures up to 250°C. Accessories are available as an option.

The suite of modular DIN Rail terminal blocks are designed based on Screw Clamp, Spring Clamp, Universal, Pluggable and Power connection technologies using standardized accessories to improve wire installation time and reduces inventory cost.

The DIN Rail terminal blocks can be used in a wide variety of applications such as control cabinets for machinery and plant construction, energy technology, and building installation. DIN Rail Terminal Blocks supports conductor sizes from 2.50mm<sup>2</sup> to 95mm<sup>2</sup> and current rating up to 850A.

		PCB Termi	nal Blocks		
Wire Protector System	Rising Clamp System	Screw Pluggable System	Spring Clamp Pluggable System	Spring Clamp System	Barrier Terminal Blocks
STREETS STREETS					ALCO PARTY OF THE
• 2.50mm to 19.00mm pitch; 2–24 positions	• 2.54mm to 19.00mm pitch; 2–48 positions	• 3.50mm to 15.00mm pitch; 2–24 positions	• 3.50mm to 15.00mm pitch; 2–48 positions	• 2.50mm to 20.00mm pitch; 2–48 positions	• 7.62mm to 16.00mm pitch; 2–30 positions
• Current rating up to 30A; 26-22AWG	• Current rating up to 125A; 30–18AWG	• Current rating up to 125A; 30–20AWG	• Current rating up to 125A; 30–20AWG	• Current rating up to 76A; 22-6AWG	• Current rating up to 20A; 22-6AWG
		DIN Rail Terr	minal Blocks		
Screw Terminal Blocks	Spring Clamp	Pluggable Terminal Blocks	Universal Terminal Blocks	Power Terminal Blocks	Interface Modules
	Chiche Acide (St. A)			har lar	
<ul> <li>Conductor sizes from 2.50mm² to 95.00mm²</li> <li>Current rating up to 232A</li> </ul>	Conductor sizes from 2.50mm² to 10.00mm²     Current rating up to 57A	Conductor sizes from 2.50mm² to 10.00mm²     Current rating up to 24A	Conductor sizes from 2.50mm² to 4.00mm²     Current rating up to 25A	Conductor sizes from 2.50mm² to 240.00mm²     Current rating up to 850A	Enables additional electronic components into a rail-mounted printed board assembly





# **FLEX CONNECTORS**



Pitch
0.20mm
0.21mm
0.30mm
0.40mm
0.50mm
1.00mm
2.54mm

AFCI's range of flex connectors feature the most innovative and complete range of products in the industry. They are ideal for applications in data communications equipment such as switches, routers, servers and consumer electronics which includes mobile phones, wearable devices and car multimedia applications.

Available in front flip, back flip, or slider configurations with Low Insertion Force (LIF) or Zero Insertion Force (ZIF) models, the connectors are available in heights of 5.30mm down to 0.70mm. It features top and bottom contact options, vertical and right angle orientations, surface mount and through hole terminations. Contact pitches range from 2.54mm down to 0.20mm.

Flex connectors now provides an option of an FFC/FPC connector below 1mm in height. These features combine to insure your application has the highest connection quality possible.

AFCI's flex connectors have an insulation resistance of 50M and can withstand soldering temperatures up to 240°C. The housings are end-to-end stackable. Additional features include robust cable locking, passive latching, anti-reverse and anti-mismatch. Halogen-free options are also available.



PROD	UCT CATEGORIES								MARK	ETS &	APP	LICA	TIONS							
				I	DATA		(	СОММ	UNICATIO	)N	INST	NDUST RUMEI & MED	RIAL, NTATION ICAL	CONSUMER				AUTOMOTIV		
	BACKPLANE CONNECTORS  High Speed Packplane	Rack Moun+ c.	Blade Server	Storage Service	Storage Driver	Printers	Switches/Routers	Wireless P.	Wireless Technology	Business & Retail Equipment	Industrial Control	Instrumentation	Lighting	Home Entertainment Equipment	Mobile Devices	Mobile/ Smart Phones	Vehicle Telem	Electric Vehicle	Lighting	
	High Speed Backplane																			
	AirMax VS® (up to 12.5Gb/s)		•	•				•		•	•	•								
	AirMax VS2® (up to 20Gb/s)	•	•	•			•	•	•	•	•	•								
	AirMax VSe® (up to 25Gb/s)	•	•	•			•	•	•	•	•	•								
	ExaMAX® (up to 56Gb/s)	•	•	•			•		•	•	•	•								
NEW	ExaMAX® VS (up to 25Gb/s)	•	•	•			•		•	•	•	•								
	Xcede® & Xcede® HD (up to 25Gb/s)	•	•	•			•	•	•	•	•	•								
	ZipLine® (up to 12.5Gb/s)										•	•								
	High Speed Coplanar																			
	AirMax VS® (up to 12.5Gb/s)	•		•	•		•	•		•		•								
	AirMax VS2® (up to 20Gb/s)	•	•	•	•		•	•	•	•	•	•								
	AirMax VSe® (up to 25Gb/s)	•	•	•	•		•		•	•		•								
NEW	ExaMAX® Coplanar (up to 56Gb/s)	•	•	•	•		•		•	•	•									
	ZipLine® (up to 12.5Gb/s)		•				•				•									
	High Speed Orthogonal																			
	AirMax VS® (up to 12.5Gb/s)			•			•	•				•								
NEW	ExaMAX® Direct-Mate Orthogonal (up to 56Gb/s)																			
	ExaMAX® Midplane Orthogonal (up to 56Gb/s)						•	•	•	•		•								
	ZipLine® (up to 12.5Gb/s)						•		•	•	•	•								
	High Speed Card Edge																			
	MicroTCA		•		•		•		•			•								
	High Speed Mezzanine																			
	AirMax VS® (up to 12.5Gb/s)						•	•	•	•		•								
NEW	ExaMEZZ® (up to 56Gb/s)	•		•			•	•		•		•								
	GIG-Array® (up to 10Gb/s)			•			•	•		•		•								
	InfinX™ (up to 25Gb/s)			•	•		•		•	•		•								
	MEG-Array® (up to 25Gb/s)	•	•	•	•		•	•	•	•	•	•								
	TwinMezz® (up to 12.5Gb/s)		•		•		•		•	•	•	•								
	ZipLine® (up to 12.5Gb/s)		•	•			•		•	•	•	•								
	2.00mm Backplane																			
	Metral® (up to 5Gb/s)	•		•						•	•	•								
	Metral® High Speed (up to 10Gb/s)	•		•			•	•	•	•	•	•								
	Millipacs® Hard Metric (up to 5Gb/s)	•	•	•	•		•	•	•	•	•	•								
NEW	Millipacs® High Speed (up to 10Gb/s)		•	•			•	•	•	•	•	•								
	2.54mm Backplane																			
	DIN 41612		•				•				•									
	High Pin Count (HPC)	•	•	•			•	•	•	•	•	•								
	Accessories																			
	Mechanical Guidance Modules			•				•		•	•	•								
	Metral® Accessories	•	•	•				•		•	•	•								
	Millipacs® Accessories	•	•	•	•		•	•	•	•	•	•								
	Power Connector Modules	•	•	•			•	•	•	•	•	•								
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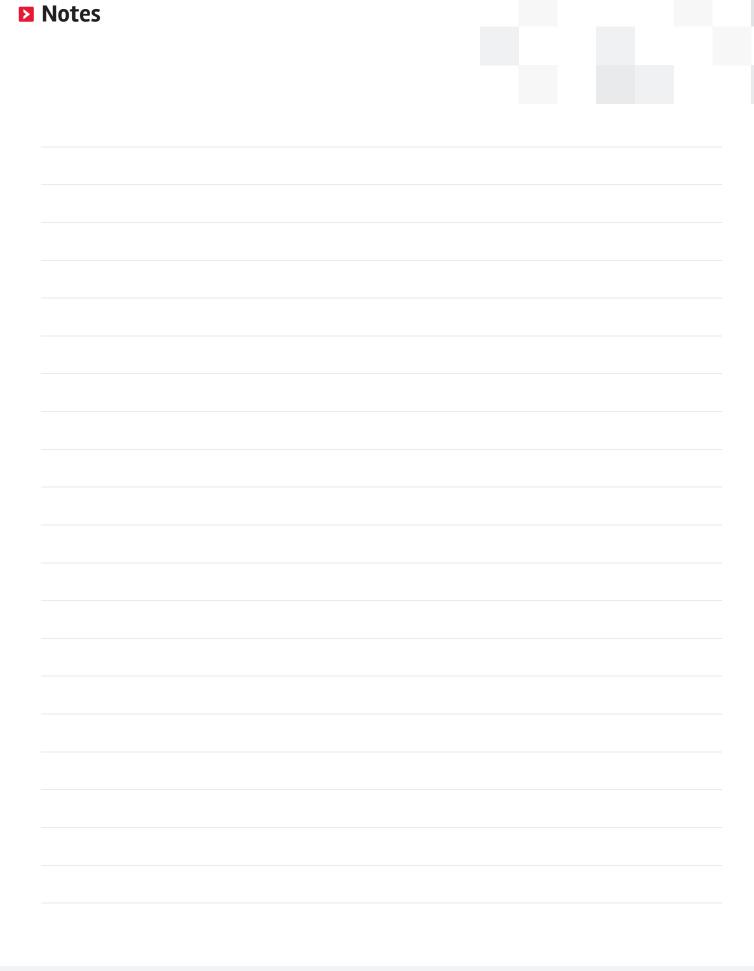
PROD	UCT CATEGORIES								MARK	ETS	& APP	LICAT	IONS						
				[	DATA		d	ОММ	UNICATIO	ON	INST	NDUSTR RUMEN & MEDIO	IAL, TATION AL	ı	CON	SUMER		AUTO	MOTIVE
	POWER SOLUTIONS 1-Piece Card Edge	Rack Mount c.	Blade Server	Storage Serve	Storage Drives	Printer <sub>S</sub>	Switches/Routers Accese / T	Wireless B	Wireless Technology Premises Equip	Business & Retail				Home Entertainment	Mobile Device	Mobile/ Smart Phone:	Vehicle Telemant	Electric Vehicle	Lighting
	HPCE® High Power Card Edge (up to 30A)	•	•	•			•	•		•	•	•							
	PCE Power Card Edge (up to 7A)  2-Piece Card Edge  HCI® (up to 113A)  HPCE® High Power Card Edge (up to 30A)	•	•	•			•	•			•	•							
NEM	PwrBlade ULTRA® (up to 75A)							•											
	PwrBlade+™ (up to 63A)  PwrBlade® (up to 40A)  Pwr LoPro® (up to 70A)  Low Power I/O	•	•	•			•	•			•	•							
	D-Sub Power (up to 40A)	•	•	•	•		•	•	•			•		•					
	Jumbo PV (up to 7A)	•	•	•	•		•				•	•		•			•		
	Mini PV (up to 3A)		•	•			•			L	•	•					•		
	Minitek® Pwr 3.0 (up to 5A)	•	•	•				•				•							
	Minitek® Pwr 4.2 (up to 9A) Minitek® Pwr High Current Connector 3.0 (up to 12.5A)	•	•	•	•			•	•	•	•	•	•	•					
	Minitek® Pwr High Current Connector 4.2 (up to 13.5A)	•			•				•	•	•	•							
	Minitek® Pwr Hybrid 3.0 (up to 5A)	•			•				•	•	•	•							
NEW	Minitek® Pwr Hybrid 4.2 (up to 9A)	•			•				•	•	•	•							
	Sofix® Power	•	•	•	•		•			L		•							
	USB+ Power		•				•												
AUTIM	Medium & High Power I/O			•			•	•			•							•	
NEW	BarKlip® (up to 300A) HPCE® High Power Card Edge (up to 30A)		•					•											
NEM	Perma-Tap™ Power Cable (up to 40A)				•														
	PwrBlade+™ (up to 63A)	•	•					•				•							
IVLIV	PwrBlade® (up to 40A)		•					•											
	Pwr Profile+® (up to 34A)		•					•											
	Pwr Profile® (up to 20A)		•	•				•			•	•							
NEW	Pwr TwinBlade® (up to 100A)	•	•	•			•	•			•	•							
	Busbar Connector																		
	BarGuide™ (up to 250A) BarKlip® (up to 300A)	•	•	•			•	•			•	•						•	
	Busbar Power Distribution							_											
	Busbars	•	•	•				•			•	•						•	
	Low Power Connector																		
	Metral® Power (up to 3A) PCB Terminal Blocks (up to 20A)	•																	
	PCE Power Card Edge (up to 7A)																		
	Medium & High Power Connector																		
	AirMax VS® Power (up to 30A)	•	•	•	•			•		•		•							
NEW	BarGuide™ (up to 250A)		•	•					Ħ	Ť	•							•	
	BarKlip® (up to 300A)	•	•	•				•				•						•	
	D-Sub Power (up to 40A)	•	•	•	•		•	•	•			•		•					
NEW	DIN Rail Terminal Blocks (up to 850A)						•	•	•	•	•	•	•						
	HCI® (up to 113A)	•	•	•			•	•			•	•							
	HPCE® High Power Card Edge (up to 30A)	•	•	•			•	•		•	•	•							
	PCB Terminal Blocks (up to 50A)						•	•	•	•	•	•							
NEW	PwrBlade ULTRA® (up to 75A)	•	•	•	•		•	•	•	•	•	•							
	PwrBlade+™ (up to 63A)	•	•	•			•	•			•	•							
	PwrBlade® (up to 40A)	•	•	•			•	•			•	•							
NEW	PwrMAX® Ortho (up to 100A)	•	•	•			•	•			•							•	

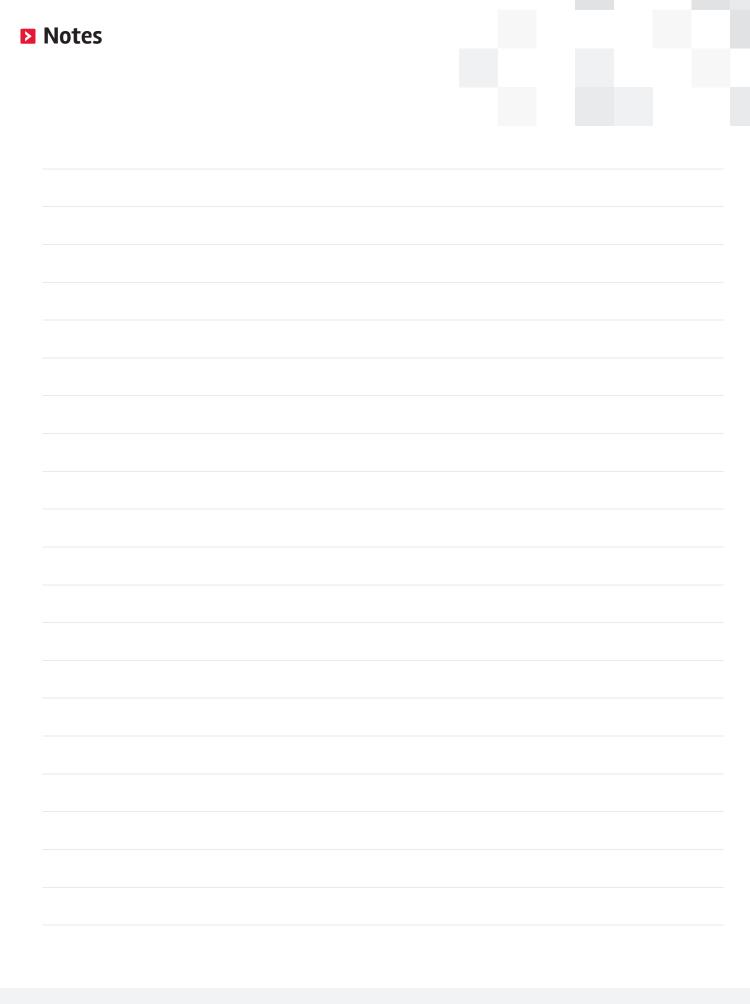
PROD	UCT CATEGORIES	_							MARI	KETS									
				ı	DATA		0	ОММ	UNICAT	ION	INS	INDUST TRUME & MED	RIAL, NTATION ICAL	1	CO	NSUMER		AUTO	MOTIVE
	BOARD-TO-BOARD CONNECTORS  0.50mm Pitch	Rack Mount com	Blade Server	Storage Serve	Storage h.:	Printers	Switches/Routers	Wireless P.	Wireless Technology	Business & P. C. Business	Equipment Industrial Co	Equipment Instrumentation	Lighting	Home Entertainm	Mobile P	Mobile/ Smart ph.	Vehiclor	Electric Vehicls	Lighting
BIE IAI						•									•				
NEW	BergStak® MezzoStak®																		
	0.80mm Pitch																		
	BergStak®																		
	1.00mm Pitch																		
	BTFW Series Floating BTB														•				
	Conan®										•	•			•				
	1.27mm Pitch																		
	Minitek127®					•		•		•	•	•					•		
	Phec Series									•	•	•			•		•		
	Rib-Cage®									•	•	•					•		
	2.00mm Pitch																		
	Minitek® 2.00mm						•	•		•	•	•					•		
	2.54mm Pitch																		
	BergStik <sup>®</sup>						•	•	•	•	•	•	•				•		
	Dubox®					•	•	•	•	•	•	•					•		
	EconoStik™					•	•	•	•	•	•	•	•				•		
	PV®							•	•		•	•							
	3.00mm Pitch																		
	RotaConnect® Rotatable BTB										•	•							
	Universal Contacts																		
	Universal Contacts Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch								•		•	•	•		•	•	•		
VEW	Universal Contacts						•	•	•		•	•			•		•		
NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire					•	•	•	•	•		•	•		•				•
	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®							•	•		0				•				•
NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire Minitek127®  1.50mm Pitch						•	•		•		•	•		•				
NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire						•	•		•					•		•		
NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch						•	•		•							•		
NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek*127°  1.50mm Pitch  Minitek* 01.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp		•		•		•	•									•		
NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch		•	•	-		•	•		•	0				•		•		
NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)		•	•	-		•	•		•							•		
NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 3.0 (also		•		•		•	•				•		•			•		
NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 3.0 (also suitable for Wire-	•	•		•		•			•		•		•			•		
NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 3.0 (also suitable for Wire-to-Wire application)  RotaConnect® WTB	•	•		•		•					•		•			•		
NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 3.0 (also suitable for Wire-to-Wire application)  RotaConnect® WTB  4.20mm Pitch	•	•		•		•				•	•		•			•		
NEW NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.25mm Pitch  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 3.0 (also suitable for Wire-to-Wire application)  RotaConnect® WTB  4.20mm Pitch  Minitek® Pwr 4.2 (also suitable for Wire-to-Wire application)	•	•		•		•				•	•		•			•		
NEW NEW NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.25mm Pitch  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 3.0 (also suitable for Wire-to-Wire application)  RotaConnect® WTB  4.20mm Pitch  Minitek® Pwr 4.2 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 4.2 (also	•	•		•		•				•	•		•			•		
NEW NEW NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.20mm pitch WTB  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr 4.2 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 4.2 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 4.2 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 4.2 (also suitable for Wire-to-Wire application)	•	•		•		•		•	•	•	•		•			•		
NEW NEW NEW NEW NEW	Universal Contacts  WIRE-TO-BOARD CONNECTORS  1.20mm Pitch  1.25mm Pitch  1.25mm Pitch  1.25mm pitch WTB  1.27mm Pitch  Minitek MicroSpace™ 1.27mm Crimp-To-Wire  Minitek127®  1.50mm Pitch  Minitek® 1.5mm  Minitek MicroSpace™ 1.5mm Crimp-To-Wire  2.54mm Pitch  Latch-n-Lok™ Crimp  PV® Crimp  Quickie® IDC  3.00mm Pitch  Minitek® Pwr 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 3.0 (also suitable for Wire-to-Wire application)  Minitek® Pwr Hybrid 3.0 (also suitable for Wire-to-Wire application)  RotaConnect® WTB  4.20mm Pitch  Minitek® Pwr 4.2 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 4.2 (also suitable for Wire-to-Wire application)  Minitek® Pwr High Current Connector 4.2 (also suitable for Wire-to-Wire application)	•	•		•		•		•		•	•		•			•		

PROD	JCT CATEGORIES	_							MARK	ETS 8										
					DATA			сомм	IUNICATIO	ON	IN:	IND STRU & A	USTRI. MENT MEDIC/	AL, ATION AL		CONS	SUMER		AUTOM	IOTIVE
	STORAGE & SERVER SYSTEM CONNECTORS	Rack Mount Com	Blade Server	Storage co	Storage P	Printers	Switches/Router	cess/Transmission release	Wireless Technology	Business & Retail	ulpment Justrial C	Equipment	anstrumentation & Medical	Lighting	Home Entertainment Equipment	Mobile Devices	Mobile/ Smart Phones	Vehicle Telematics	Electric Vehicle	Lighting
	Storage & Server Connectors	Æ	ä	ž	ž	Ē	NS &	Z Z	ΣĘ	<u> </u>	T Ĕ	<u>п</u>	8	:≝	운 교	ž	<sub>o</sub> №	Ve	Ĭ	3°
	Compression Connector				•															
	Serial-ATA (SATA)	•	•	•	•															
NEW	Serial-Attached SCSI (SAS)	•	•	•	•															
	Serial-Attached SCSI (SAS)/ PCIe (SFF8639)	•	•	•	•															
	Single Connect Attachment-2 (SCA-2)	•	•	•	•															
	Card Edge Connectors																			
	MicroTCA	•	•	•	•			•	•	•	•									
	PCIe® Gen 3	•	•	•				•	•	•	•				•					
NEW	PCIe® M.2	•	•	•							•				•					
	Memory Module Sockets																			
	DDR3	•	•	•			•	•												
NEW	DDR4	•	•	•		•	•	•				-								
	SO-DIMM					•	•	•				- (								
	INPUT/OUTPUT CONNECTORS  AFCI Proprietary I/O																			
	Mini-SAS HD Connector and Cage (up to 6, 12 &																			
	14Gb/s)	•	•	•	•		•	•	•											
	Mini-SAS/ SATA Connector and Cage (up to 6Gb/s	•					•													
	per channel)			•			_													
	QSFP+ Connector and Cage (up to 5, 10, 14 &	•	•	•			•	•	•											
	28Gb/s per channel) SFP+ Connector and Cage (up to 10Gb/s)	•									•	+								
	D-Subminiature											'   '								
	D-Sub Accessories						•													
	D–Sub Cable Connector																			
	D-Sub Economy Range Board Mount																			
NEM	D-Sub Filtered																			
IVEVV	D-Sub High Density Board Mount																			
	D-Sub High Performance Board Mount																			
	D-Sub MicroTCA																			
	D-Sub Pin-in-paste																			
	D-Sub Power Board Mount									•	•									
	D-Sub Press-fit									•	•									
	D-Sub Standard Board Mount Cable									•										
	D-Sub Waterproof									•										
	Memory & Media Card																			
	Flash Memory Products (Compact Flash™ & SD™)					•									•	•	•			
	PCMCIA™					•		-		•	•	, ,			•	•				
NEW	Smart Card- SIM/SAM					•					•				•	•		•		
14274	Modular Jack																			
NEW		•													•					
14274	RJ 45	•		•			•	•	•	•					•					
NEW	CAT 6A SFTP Patch Cable	•	•	•				•		•										
	Outdoor I/O																			
NFW	OCTIS™ Outdoor I/O System										•			•				•		
	USB																			
	Micro USB 2.0				•					•	•					•		•		
NFW	Micro USB 3.0				•					•	•					•		•		
14274	Mini USB 2.0				•	•			•	•	•				•	•	Ť	•		
	Power USB				•	•			•	•	•					•		•		
	USB 2.0				•						•					•		•		
	USB 3.0				•					•	•				•	•		•		
NFW	USB 3.1 Type C (Gen 1 & 2)	•	•	•	•	•				•	•				•	•	•	•	•	
	Others		_		_										-	-		-		
	Industrial Mini I/O									•	•	) (								
	PLCC				•				•	•	•		•	•		•				

PRODI	JCT CATEGORIES								MARKE	TS &									
					DATA		(	СОММ	UNICATION	N	IN INSTR &	DUSTR UMEN MEDIC	IAL, TATION AL		CON	SUMER		AUTON	MOTIVE
	CABLE ASSEMBLIES Backplane I/O	Rack Mount con	Blade Servo	Storage com	Storage Drive	Printers	Switches/Routers	Wireless P.	Wireless Technology Premises Equipment	Business & Retail Equipment	Industrial Control	Instrumentation & Medical	Lighting	Home Entertainment Equipment	Mobile Devices	Mobile/ Smart Phones	Vehicle Telematic.	Electric Vehicle	Lighting
	AirMax VS® I/O (up to 12.5Gb/s)	•		•			•	•			•	•							
								•											
	AirMax VS2® I/O (up to 20Gb/s)																		
	AirMax VSe® I/O (up to 25Gb/s)																		
AUTIM	DIN 41612 (up to 5Gb/s)	•					•	•				•							
	ExaMAX® I/O (up to 40Gb/s)	•	•				_	•											
NEW	Metral® HDXS Cable (up to 5Gb/s)																		
	Millipacs® Cable (up to 5Gb/s)																		
	High Speed I/O																		
	CXP Copper (up to 14Gb/s per channel)	•																	
	Densi-Shield® I/O (up to 2.5Gb/s per channel)	•		•				_											
	Mini-SAS HD Copper (up to 14Gb/s per channel)	•	•					•	•										
	Mini-SAS/ SATA Copper (up to 6Gb/s per channel)	•		•															
	QSFP+ Copper (up to 28Gb/s per channel)	•	•	•				•			•								
NEW	SFP+ Copper (up to 25Gb/s per channel)		•	•					•		•								
	Crimp-to-Wire Solution																		
	1.20mm pitch WTB																•		
	1.25mm pitch WTB							•			•	•					•		
	Dubox®					•		•	•	•	•	•	_				•		
	Minitek MicroSpace™ 1.27mm Crimp-To-Wire									_			•				•		
	Minitek® 1.50mm					•	•	•		•	•	•							
NEW	Minitek MicroSpace™ 1.5mm Crimp-To-Wire							_		_	_		•				•		•
	Minitek® 2.00mm		_		_			•		•	•	•	_						
	Minitek® Pwr 3.0 (for Wire-to-Wire application)	•	•	•				•		•	•		•	•					
	Minitek® Pwr 4.2 (for Wire-to-Wire application)	•	•	•	•			•	•	•	•		•	•					
	PV® Crimp	•		•							•	•		•			•		
	I/O Solution	_								_									
NEW	CAT 6A SFTP Patch Cable	•	•	•				•		•	•	•							
	D-Sub Cable Connector									•	•	•							
	Latch-n-Lok™ Crimp										•								
	IDC Solution																		
	Minitek127®							•			•						•		
	Minitek® 2.00mm		•			•		•			•								
	Quickie® IDC	•	•	•	•						•	•							
	Power Cables																		
	HPCE® High Power Card Edge (up to 30A)		•	•				•			•	•							
NEW	PwrBlade+™ (up to 63A)	•		•				•			•	•							
	PwrBlade® (up to 40A)		•	•				•			•	•							
	Pwr Profile+® (up to 34A)		•	•				•				•							
	Pwr Profile® (up to 20A)		•	•				•				•							
NEW	Pwr TwinBlade® (up to 100A)		•	•				•				•							
	Sofix® Power (up to 10A)			•															
	Outdoor I/O							_											
NEW	OCTIS™ Outdoor I/O System									•	•	•							

		MARKETS & APPLICATIONS																		
			DATA					COMMUNICATION			INDUSTRIAL, INSTRUMENTATION & MEDICAL				CONSUMER			AUTOMOTIVE		
	OPTICAL INTERCONNECT	Rack Mount com	Blade Server	Storage Server	Storage Drive	Printers	Switches/Routers Accese 172	Wireless Basson	Wireless Technology Premises Equipment	Business & Retail	Industrial Control	Instrument & Medical	Lighting	Home Entertainment Equipment	Mobile Devices	Mobile/ Smart Phones	Vehicle Telematics	Electric Vehicle	Lighting	
	Active Optical Cables (AOCs)		_		•	_		_				= 10			_		-	_	=	
	CXP AOCs (up to 10 & 12.5Gb/s per channel)	•		•			•													
	CXP/ QSFP+ Splitter Cables	•	•	•			•													
	Mini-SAS HD AOCs	•	•	•	•															
	QSFP+ AOCs (up to 10 & 14Gb/s per channel)	•	•	•			•	•												
NEW	SFP+ AOCs (up to 10Gb/s)	•	•	•				•		•										
	Optical Transceivers																			
NEW	Leap® On-Board Transceiver	•	•	•			•		•											
	SCFF	•	•	•																
NEW	SFP+ SR, LR, LRM	•	•	•			•	•												
NEW	Ultra Low Power SFP+ SR Transceiver (up to 10Gb/s)	•	•	•			•	•	•	•										
	Optical Couplers																			
	Canstar® Splitters and Couplers	•		•																
	Canstar® Tap Coupler	•		•																
	Fiber Optic Cable Assemblies																			
	Adaptors	•	•	•																
	LC	•	•	•			•	•												
	MPO	•	•	•			•													
	MTRJ	•		•			•													
	MU	•	•	•			•													
	SC	•	•	•																
	ST		•																	
NEW	TERMINAL BLOCKS  DIN Rail Terminal Blocks									•	•	•	•							
NEW	DIN Rail Terminal Blocks- Interface Module										•	•					•			
	PCB Terminal Blocks						•	•	•	•	•	•	•							
	FLEX CONNECTORS																			
	0.20mm pitch (XL-D)					•			•	•	•	•		•	•	•	•			
	0.21mm pitch (HFMK)					•			•	•	•	•		•	•		•			
NEW	0.30mm pitch (High Speed FPC, YLL-D, YLL-U)								•	•	•	•		•	•	•	•			
NEW	0.40mm pitch (SFGL)					•			•	•	•	•		•	•	•	•			
	0.50mm pitch (OPU-D, OPU-U, SFVE; SFVL-D, SFVL-U, SFV-R, SFV-S, VHC, VLH, VLL, VLP)					•			•	•	•	•		•	•	•	•			
	1.00mm pitch (SFW-S, HFW-S, SFW-R, HFW-R, SLW-R, SLW-S, HLW-R, HLW-S)					•			•	•	•	•		•	•		•			
	2.54mm pitch Clincher™					•			•	•	•	•		•			•	•		
	2.54mm pitch Duflex™										•						•			





# **Amphenol FCi**

FCIPDTPFAPP031