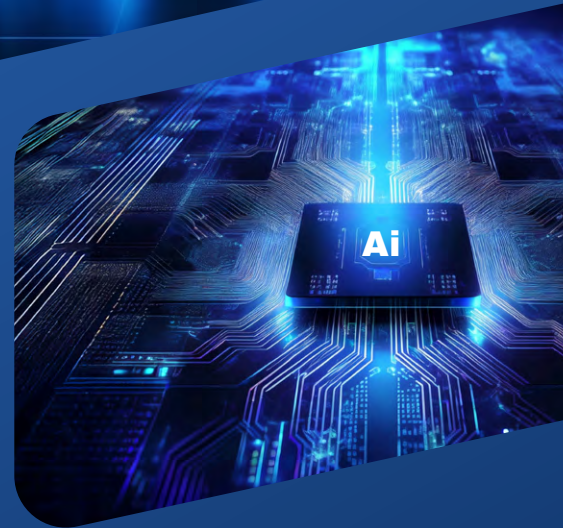


Amphenol

COMMUNICATIONS SOLUTIONS



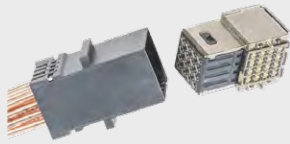
Product Overview

Explore Amphenol's Product Overview, featuring a comprehensive portfolio of connector solutions and cable assemblies engineered for diverse markets, from datacom, telecom, AI, and data centers to automotive, e-mobility, IIoT, robotics, medical, and renewable energy. With products spanning from wire-to-board, board-to-board, I/O, FFC/FPC, hybrid, customized solutions, to cable assemblies.

Amphenol combines engineering expertise with scalable manufacturing to deliver high-performance interconnects that support next-generation systems across applications. Amphenol products enable reliable signal integrity, power delivery, and mechanical performance. Each solution is developed to simplify system design and accelerate time-to-market worldwide.



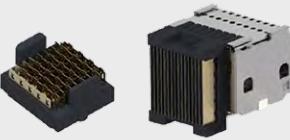
amphenol-cs.com



224 Gb/s

Paladin® HD 224 Gb/s Backplane Interconnect System

- Industry leading SI performance supporting 224 Gb/s data rates
- Hybrid board attach technology to enable broadside coupled PCB launch while maintaining density advantage
- Exceptional density to maximize signal count and minimize air flow restrictions
- Impedance control over 1.00 mm connector de-mate
- Backwards compatible with Paladin® HD 112G for a direct upgrade path



PCIe® Gen 7.0 & 8.0

ZettaMAX™ High-Speed Backplane Connector

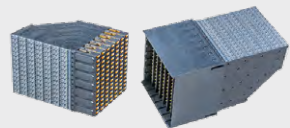
- Future-ready performance for AI, HPC, and hyperscale infrastructure supporting 300 Gb/s, PCIe® Gen 7/8
- 92 Ω version supports up to 300 Gb/s signaling for advanced data center applications
- 85 Ω version supports PCIe® Gen 7/ 8 for future AI and HPC workloads
- Support traditional backplane, mezzanine, coplanar, and cable configuration
- Reduced total cost of ownership via lower PCB complexity and high-density signal paths
- Low crosstalk and low insertion loss across ultra-high frequencies up to 75 GHz



56 Gb/s & 112 Gb/s

ExaMAX® / EXAMAX2® High-Speed Backplane Connectors

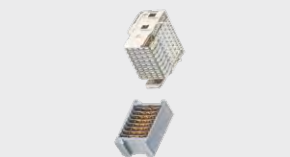
- Scalable platforms: ExaMAX® 56G, ExaMAX+® 56G PAM4, and EXAMAX2® 112G
- Mating-compatible design from ExaMAX® to EXAMAX2®
- 92 Ω and 85 Ω options for Ethernet and PCIe® available
- Ideal for high-density, high-performance systems
- Available in industry-standard packaging options: backplane, coplanar board, orthogonal midplane, orthogonal direct mate, mezzanine, and cable-to-board



112 Gb/s

Paladin® 112 Gb/s Backplane Connector

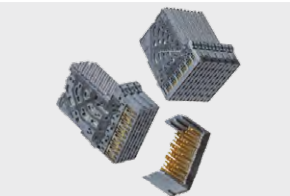
- Industry leading transmission-to-crosstalk performance
- Connector bandwidth beyond 40 GHz
- Impedance control over a 2 mm connector de-mate
- Discretely shielded and balanced differential pairs
- Broad product family that supports all system architectures with up to 49 different direct orthogonal configurations



PCIe® Gen 6

HD Express®

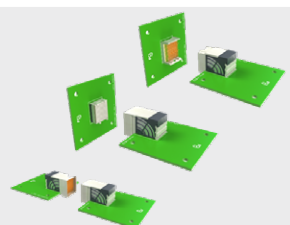
- High-density, high-performance interconnect system designed to meet and exceed PCIe® Gen 6 electrical and mechanical requirements for high-end 85 Ω architectures
- Ground structure on all 4 sides of the mating beams of each differential pair
- Single Wafer design utilizing traditional design elements
- 13.8 Mil Drill-Compliant pin with proven press-fit technology



56 Gb/s

XCede® HD Family

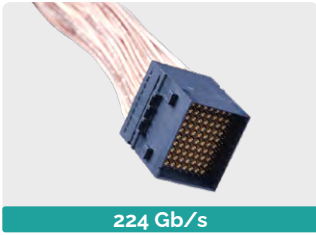
- Data Rates: XCede® HD 6 Gb/s to 20 Gb/s, XCede® HD Plus up to 28+ Gb/s, XCede® HD2 scalable to 56 Gb/s
- Differential pairs 28-84 per inch (11-33 differential pairs per cm)
- Supports backplane, co-planar, and midplane configurations
- Supports 85 Ω and 100 Ω impedance
- Modular construction with integrated power and guidance options
- Compliance with the Hard Metric form factor requirements outlined in EN 61076-4-101:2001



112 Gb/s

AirMax® Family

- Data Rates: AirMax VS® 12.5 Gb/s, AirMax VS2® 20 Gb/s and AirMax VSe® 25 Gb/s
- Solution package from one product family, including signal, power and mechanical guide system
- Power connectors up to 160 A/port are adopted by many industrial standards and applications
- Design flexibility for differential pairs, single-ended signal, power, or hybrid in one connector
- Reliable guide system enables a whole package solution of signal, power and mechanical guide function
- Mature and broad product offerings well acknowledged by market and many industry-standard and applications



Paladin® HD2 224 Gb/s Backplane Cable

- Industry-leading SI performance supporting up to 224 Gb/s data rates
- Supports a wide range of applications supporting wire sizes up to 26 AWG for maximum performance and as small as 32 AWG to maximize density
- Exceptional density to maximize signal count and minimize air flow restrictions
- Impedance control over 1.00 mm connector de-mate
- Backwards compatible with Paladin® HD 112 Gb/s for direct upgrade path



Paladin® 112 Gb/s Backplane Cable

- Extends the reach of passive copper for next generation real world system designs; complementary with direct orthogonal designs, intermatable with existing board mount connector designs
- Lowers overall system costs by reducing or eliminating the need for expensive active devices like retimers and high performance board materials
- Proven reliability of passive twin ax copper coupled with advanced wire attachment and 100% high speed test coverage provides peace of mind



EXAMAX2® 112 Gb/s Backplane Cable

- 112 G performance with backward compatibility to ExaMAX® and ExaMAX+®
- Durable, reliable and protected interface eliminates pin stubbing
- Supports both 85 Ω and 100 Ω systems
- Fully passive copper connector and cable performance to optimize system costs
- Addresses system tolerances, blind mating and proper keying



ExaMAX® 56 Gb/s Backplane Cable

- Capable of supporting 25 Gb/s data rates with a scalable migration path to 40 Gb/s
- Efficient 92 Ω design
- Hermaphroditic mating interface protects mating beams
- Superior SI performance due to minimized stub and impedance control; 40 % lower mating force
- Addresses I/O needs whether for inside the box or outside the box cabling applications
- Accommodates either planar or single differential pair cable construction across different AWG wire sizes



Next-Generation Data Center Solutions

Amphenol's data center solutions enable the infrastructure behind cloud, AI, and high-performance computing. Designed for speed, scalability, and reliability, our interconnect components support seamless connectivity in high-density, high-bandwidth data center architectures.

[Learn More](#)



200G / 400G / 800G / 1.6T

OSFP Cable Assemblies

- DACs, ACCs and AECs
- Cable sizes: 32 AWG to 25 AWG
- Integrated Heat sink (with and without flat top cover) and Riding heat sink options available
- Data Rates per lane: 25G, 56G, 112G and 224G
- 112G Passive cable lengths up to 2 meters and 112G active cable lengths up to 4 meters
- Comprehensive system integrated interconnect design for copper or optical based cable solutions



400G / 800G / 1.6T / 3.2T

OSFP-XD Copper Cables

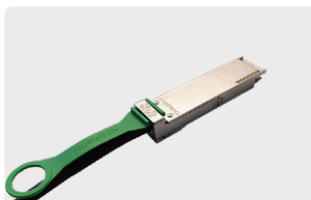
- DACs, ACCs, and AECs
- Cable sizes: 32AWG and 30AWG for optimal performance and flexibility
- Integrated Heat sink (with and without flat top cover) and Riding heat sink options available
- Protocols: PCIe Gen5/6 and Ethernet
- PCIe Gen5 up to 3m for passive and up to 7m for active DSP
- Engineered for both copper and optical-based cable solutions and optimized thermal management
- High-speed ethernet lengths: 112G data rate per lane up to 2 m passive, 3 m linear active and 5 m DSP / 224G up to 1 m passive, 2m linear active and 4 m DSP



PCIe® Gen 5

CDFP Cable Assemblies

- Supports up to a max of 2.5 meters for passive in 28 AWG PCIe® Gen 5 (Gen 6 coming soon)
- Exceeds 64 Gbps with optimized PCB and auto soldering
- Delivers a lower power budget and reduced port costs compared to optical solutions
- Fully compatible with different I/O connector brands in the industry



40G / 100G / 200G / 400G

QSFP Cable Assemblies

- Support requirements defined by IEEE, Infiniband, Fibre Channel, SAS, and custom solutions
- Data Rate: 10G NRZ / 25G NRZ / 56G PAM4 / 112G PAM4 / 224G coming soon
- Cable Sizes: 26 AWG - 32 AWG
- 112G Passive cable lengths up to 2 meters
- 112G Active cable lengths up to 4 meters
- Splitters available: QSFP-4x SFP, QSFP-2x QSFP, and QSFP-4x QSFP



200G / 400G / 800G

QSFP DD Cable Assemblies

- Addresses current and future market desired bandwidth port capability requirements
- Backwards mate compatible with QSFP receptacles
- Data Rate: 25G NRZ / 56G PAM4 / 112G PAM4
- Cable sizes: 25 AWG - 32 AWG
- 112G Passive cable lengths up to 2 meters | 112G Active cable lengths up to 4 meters
- Ultra-low-power Active Electrical Cable featuring Smart CDR SoC up to 3 meters at only 4.5 W per side



56G

SFP-DD DAC Cable Assemblies

- Offers twice the aggregate data rate as usually found in other 56G SFP products
- Low cross-talk and pair-to-pair with SkewClear® Pair Wire
- Delivers a lower power budget and reduced port costs compared to optical solutions
- Supports several types of form factors for passive solutions
- Fully compatible with Amphenol's 56G board connectors and cages as well as other competitive industry standard connector systems



10G / 25G / 50G / 100G

SFP Cable Assemblies

- 10G/25G/50G/100G Ethernet, Fibre Channel, InfiniBand & SONET multi- platform support
- Low cross-talk and pair to pair skew with Amphenol SkewClear® Twinax Wire
- Delivers a lower power budget and reduced port costs compared to optical solutions.
- Supports several lengths for both passive and active solutions.
- Fully compatible with Amphenol's SFP+/28/56/112 board connectors and cages as well as other competitive industry standard connector systems



12G / 24G SAS 3.0/4.0

Mini-SAS HD Cable Assemblies

- x4 and x8 configurations available for flexible system design
- Enjoy a reduced power budget and lower port cost compared to optical
- Supports up to a maximum of 5 meter (4.0) and 10 meter (3.0) lengths for passive cable
- Fully compatible with other competitive industry standard connector systems
- Mechanical profile is PCI Express® compatible and can be utilized in PCIe® architecture applications

Enabling scalable, high-performance interconnects for AI data centers and accelerator platforms.

[Learn More](#)

Amphenol delivers advanced signal and power connectivity engineered for the extreme bandwidth, density, and reliability demands of AI and machine learning systems.

Our portfolio spans high-performance interconnect solutions built to support modern AI compute and data center environments.

112G

Scan to explore Amphenol's 112G connectivity portfolio supporting today's high-performance data center and networking designs.

[Learn More](#)

224G

Discover next-generation 224G PAM4 interconnect technologies engineered for AI compute and advanced network architectures.

[Learn More](#)

448G

Learn how Amphenol is enabling future-ready 448G connectivity for ultra-high-bandwidth AI and data center platforms.

[Learn More](#)



32 Gb/s up to 96 Gb/s

Mini-SAS HD Active Optical Cable

- Fully compliant to SAS 3.0 (12 Gb/s) and SAS 4.0 (24 Gb/s) industry standards
- Support PCIe® Gen 3.0 (8 Gb/s) & Gen 4.0 (16 Gb/s) applications
- Operate up to 96 Gb/s aggregate bandwidth
- Transmission distance up to 100 m (mmF)
- 8 cores multimode loose fiber with a 3.0 mm round jacket
- Customized labeling and EEPROM memory map extensions



300 Gb/s

300 CXP2 Active Optical Cable

- Full duplex 12 channels transmissions
- Up to 300 Gb/s aggregate bandwidth
- Capable of transmitting data at rates up to 25.78 Gb/s per channel
- Support CDR on/off control for 10.31 Gb/s
- Power consumption per end: <6 W
- Support Ethernet, InfiniBand, CPRI data rates and PCIe® Gen 3.0 & 4.0



200 Gb/s

200G QSFP DD Active Optical Cable

- Twice the port density of QSFP28
- Data rate up to 25 Gb/s per lane
- 100 m over parallel multimode fiber
- Up to 200G aggregate bandwidth
- Programmable equalization, output swing, emphasis
- Optical connectivity enables length up to 100 m over a 3.0 mm round jacket



100 Gb/s

100G QSFP28 Active Optical Cable

- Capable of speeds up to 25 Gb/s or 28 Gb/s per channel
- Transmission distance up to 100 m (mmF)
- Compliant with QSFP28 MSA
- Hot pluggable cable connector interfaces
- Support 100G Ethernet and Infiniband EDR and 128 GFC Fibre Channel protocol
- Compact, lightweight and low power consumption



40 Gb/s

40 Gb/s QSFP+ Cable Assemblies

- Low power dissipation
- Up to 11.1 Gb/s Data rate per lane
- Includes Digital Diagnostics Monitoring Interface
- Electrically hot-pluggable
- Compliant with QSFP+ MSA and RoHS
- Available in lengths from 1 – 300 meters



25 Gb/s

25G SFP28 Active Optical Cable

- Low power, power dissipation
- Metal enclosure for lower EMI
- 2-wire interface with integrated digital diagnostic monitoring
- Electrically hot-pluggable
- Compliant with 25G Ethernet
- Available in lengths from 1 – 100 meters



10 Gb/s

10G SFP+ Active Optical Cable

- Low power, Power dissipation < 1.0 W per cable end
- Metal enclosure for lower EMI
- High Reliability 850 nm VCSEL technology
- Electrically hot-pluggable
- Compliant with 10G Ethernet
- Available in lengths from 1-100 meters



56G, 112G & 224G

QSFP-DD Connectors

- Enables 400G, 800G, 1.6 T aggregate bandwidth per port
- 8 lanes per port connector: 56G, 112G, & 224G per lane capability
- Double the bandwidth per port
- Backwards plug compatibility with QSFP
- Optimized density and cost-effective



28G, 56G, 112G & 224G

QSFP Connectors

- Enables up to 100G, 200G, 400G, 800G aggregate bandwidth per port
- Supports transmission speeds of up to 224G per lane
- Electrical interface employs 4 lanes that operate up to 224 Gb/s PAM4 modulation
- Stacked, ganged and belly-to-belly board connector and cage configurations



112G, PCIe Gen 5/6

OSFP-XD Connectors

- Supports passive, active copper and optical solutions
- OSFP-XD 112G is comprised of 120-position, 0.6 mm pitch connector built for use in high-speed serial applications
- Multiple connector and cage configurations
- MSA supported standard interface
- Each port supports up to 1.6 Tb/s in aggregate over a 16 x 112 Gb/s electrical interface configuration



56G, 112G & 224G

OSFP Connectors

- ExtremePort™ OSFP 224G Connectors - Operating at 224 Gb/s PAM4 for up to 1.6 Tb/s aggregate bandwidth
- ExtremePort™ OSFP 112G Connectors - Operating at 112 Gb/s PAM4 for up to 800 Gb/s aggregated bandwidth
- OSFP Connectors - Operating at 56 Gb/s PAM4 for up to 400 Gb/s aggregated bandwidth
- OSFP series with 8 channels per port
- Thermal management engineered into cage solution
- Supports passive, active copper and optical solutions products



10G, 28G, 56G and 112G

SFP Connectors

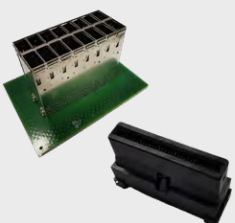
- Data rates up to 10G, 28G, 56G and 112G
- Full metal shield for grounding and advanced EMI reduction
- Riding heat sink technology for thermal management
- Ganged designs maximizes PCB area and ease of removal of module from port
- Supports Gigabit Ethernet, Fibre Channel, Infiniband and other communications standards



64 GT/s PCIe® Gen 4/5/6

CDFP Connectors

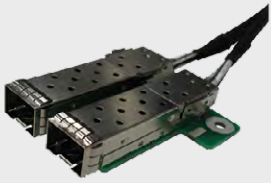
- High-speed, scalable, and cost-effective solution supporting PCIe® Gen 4, 5, and 6
- Supports x16 (120 positions) configuration
- Supports passive copper & active copper, and optical cabling solution
- Backwards compatible with PCIe® Gen 4 and 5 cabling
- Delivers twice the bandwidth density of PCIe® Gen 5 and four times the bandwidth density of PCIe® Gen 4



224G

VOSFP Connectors

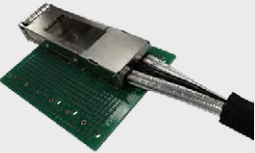
- High-speed, scalable, and cost-effective solution supporting 224G
- Supports 8x (60 positions) configuration
- Supports passive copper and active copper, and optical cabling solution



28G & 56G

SFP OverPass™ Assemblies

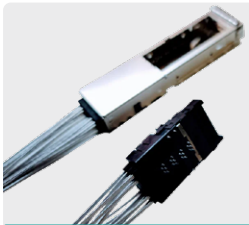
- Direct chip to IO port connection; multiple near chip IO connector options
- Full support of 28G and 56G signaling speeds
- Full SFP industry standard compatibility
- Direct wire attachment to connector contact and coupled with high performance differential pair cabling
- Fully engineered and tested cabling solution with straightforward assembly in systems



28G & 56G

QSFP OverPass™ Assemblies

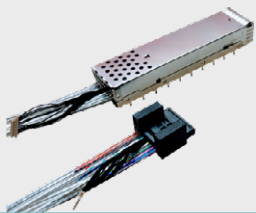
- Full QSFP industry standard compatibility
- Direct wire attachment to connector contact & robust shield termination
- Full support of 28G and 56G signaling speed
- Direct wire attachment to connector contact & robust shield termination coupled with high performance differential pair cabling
- Direct chip to IO port connection; accommodates straight and cross over wiring; custom IO mapping; heat sinks and light pipes



56G, 112G & 224G

QSFP DD OverPass™ Assemblies

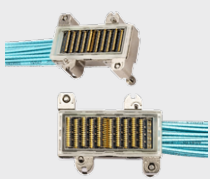
- Full support of 56G & 112G signaling speeds and anticipated 224G
- Superior signal integrity performance
- Lower loss interconnect from chip site to external port
- Direct wire attachment to connector contact & robust shield termination coupled with high performance differential pair cabling
- Direct chip to IO port connection; accommodates straight and cross over wiring; custom IO mapping; heat sinks and light pipes



56G, 112G & 224G

OSFP OverPass™ Assemblies

- Full support of 56G & 112G signaling speeds and anticipated 224G
- Lower loss interconnect from chip site to external port
- Direct chip to IO port connection; accommodates straight and cross over wiring; custom IO mapping; heat sinks and light pipes
- Direct wire attachment to connector contact & robust shield termination coupled with high performance differential pair cabling



56G, 112G & 224G

UltraPass™ OverPass™ Assemblies

- Delivering a simple, low-loss, direct link to pluggable modules or anywhere in the system
- Solutions available at 28G, 56G, 112G and 224G signaling speeds
- Multiple cable exit options including straight, right angle, and coplanar
- Construction options including double ended, Y, and breakout cables
- High speed, low profile and high density (bandwidth / mm2) near chip and on package solutions including micro



56G, 112G & 224G

micro-LinkOVER™ OverPass™ Assemblies

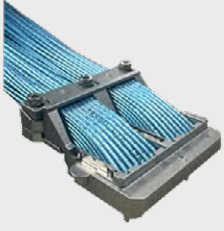
- Full support of 56G & 112G signaling speeds and anticipated 224G
- Superior signal integrity performance
- Lower loss interconnect from chip site to external port



56G, 112G & 224G

DensiLink® OverPass™ Assemblies

- Superior signal integrity performance
- Highest density (diff pair/ mm2) Near-chip/on-chip interface in the market
- 16 and 24 diff pair configurations, 32 diff pair in development
- Engineered and vertically integrated 8 channel assembly solutions for 56G, 112G and future 224G signaling systems



224G and 448G

XtremePass™ Co-Packaged Copper (CPC) Interconnects

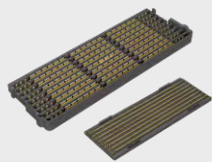
- Industry-leading SI performance
- Forward compatibility to 448 Gb/s
- Compression mating
- Conductive gasket for ground contact
- Custom hardware for efficient system integration

OverPass™ Shelf Architecture Built for Tomorrow's Bandwidth Demand

Amphenol's OverPass™ cable system offers a broad range of capabilities that allow our customers to efficiently transmit high-speed signals from near an ASIC to anywhere in their system.



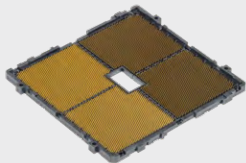
Learn More



224 Gb/s

Celerity™ High-Speed Mezzanine BGA Connector System

- Celerity™ 6 mm to 11 mm stack heights in flexible configurations with integrated power
- Celerity LP™ 4 mm to 5 mm stack heights in flexible configurations with integrated power
- Self-aligning/leveling for multiple connector use
- Hermaphroditic mating interface with robust alignment
- Optimized footprint for efficient routing



112 Gb/s

cLGA® Chip-to-Board Socket

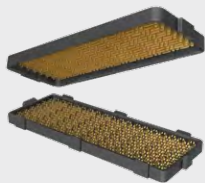
- Over 30 available contact designs for custom applications
- Gold over nickel-plated copper alloy contact springs
- Multiple pitches and heights can be achieved
- Custom molded frames for various applications
- Open pin field allows for single ended, differential pair or power configurations



112 Gb/s

cStack™ Compression-mount Mezzanine Interposer

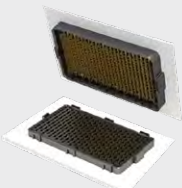
- Conserves space and maximizes airflow
- Allow FPC or BTB stacking
- Signal integrity data rates up to 112 Gb/s with future technology roadmap up to 224 Gb/s
- Dual compression contact technology is a proven reliable contact interface
- Low cost, high-speed board and flex stacking products are available in 5 to 100 position standard sizes in standard sizes in addition to custom and larger sizes



56 Gb/s

M-Series™ VR 56 Gb/s PAM4 BGA Mezzanine Connector

- High density, high-speed, dual-point contacts
- Self-aligning/leveling for multiple connector use
- 1.27 mm row to row pitch
- 56 Gb/s PAM4 and NRZ
- Stack Height: 4 mm
- Proven contact mating beam geometries with 2-pts of contact



112 Gb/s

M-Series™ 112 Gb/s PAM4 BGA Mezzanine Connector

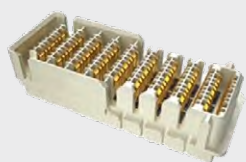
- High density, high speed, dual-point contacts
- Self-aligning/leveling for multiple connector use
- 1.6 mm column to column pitch
- 56 Gb/s NRZ and 112 Gb/s PAM4 performance
- Stack Heights: 4 mm & 5 mm
- Proven contact mating beam geometries with 2-point contact



32 Gb/s

MEG-Array® 32 Gb/s High Density BGA Connector

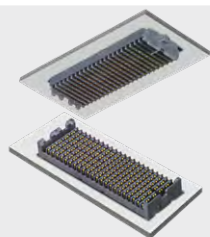
- Array Grid size: 1.27 mm x 1.27 mm
- Dual-point, long wipe contacts
- 17 billion+ lines shipped to customer satisfaction
- High density, high speed, discrete contact, array connector in the revolutionary BGA platform
- 32 Gb/s differential pair performance documented for 4 mm and 14 mm stack height
- Choice of six stack heights from 4 mm to 14 mm and choice of eight sizes from 81 to 528 positions



25 Gb/s to 56 Gb/s

ExaMEZZ® 56 Gb/s, Hermaphroditic BGA Mezzanine Connector

- 92 Ω nominal impedance
- Press-fit pin design
- Unique beam-on-beam interface
- Hermaphroditic mating interface protects mating beams
- Integrated power and an additional signal pin per column
- High-speed signal PCB hole: 0.36 mm and ground pin PCB hole: 0.5 mm



25 Gb/s

Chameleon® 25G+ High Density Open Pin-Field Array

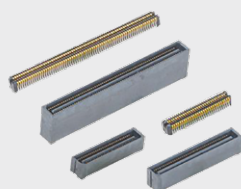
- High Pair Count 16-160 Differential Pairs and High Density (0.70 cm²/pr)
- Provides 2.5 A per contact for maximum power support
- Enables blind mating as needed for optimized mezzanine applications
- Offers differential pair, single ended and power configurations customized to match your design/system requirements
- Standard configurations for 6 and 10 mm stack heights for short lead time designs. Available upon request



56 Gb/s

Lynx™ QD 56 Gb/s PCIe® Gen 5 Differential Signaling Connector

- Conforms to PCIe® Gen 5 standard
- Optimized for differential pair signaling, configurable for open pin field
- Provides multiple design options for developers, including flex/cable options
- Robust mechanical strength and sustained signal integrity across all form factors
- Delivers fast time-to-market options for system design



25 Gb/s

Lynx™ 25 Gb/s Low Profile, High Density Open-Pin-Field Connector

- Pitch: 0.6 mm
- Open-pin field design
- 25 Gb/s at 4-7 mm; 12 Gb/s at 8-10 mm
- Double density with four rows in the space of two
- High-density product in a very compact footprint with an effective 0.3 mm pitch when compared to standard 2- Row connectors



25 Gb/s+ with up to 28 Gb/s

InfinX® 25 G+ High Density BGA Mezzanine Connector

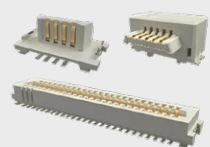
- Wide range of stack heights from 10 mm to 42 mm
- 85 Ω and 100 Ω impedance options
- Features Amphenol's unique "Blade in Ball" attachment technology
- Available in stack heights from 10 mm to 42 mm and in multiple module sizes
- Unmatched density, optimized for differential performance with low crosstalk and signal loss
- Minimizes effects of component tolerances and improves SMT board assembly yields



12.5 Gb/s

NeXLev® 12.5 Gb/s High Density BGA Mezzanine Connector

- Supports stack heights from 10 mm to 30 mm
- BGA attachment technology
- Open pin field design provides for differential pair, single-ended and power configurations
- Robust lead design with BGA attachment technology
- Facilitates modularity and system partitioning



1.0 mm

Conan® Lite 1.00 mm Connector

- A comprehensive solution for various applications
- Supports reliable and secure mating
- Audible "click" to ensure perfect mating
- Supports high speed data transmission
- Supports auto reflow process



Up to 5 Gb/s

Conan® 1.00 mm Connector

- New RA configuration in 4 pin counts
- RA has compact size of 8.5 mm depth and 5.3 mm height on PCB after mating
- Enables perpendicular stacking application
- Compatible with PCIe® Gen 2 high speed performance on selected stack heights
- Vertical housing and terminal profile guarantees support of up to 5 Gb/s



1.6T

1.6T OSFP Transceivers

- Supports 212.5 Gb/s data rate per channel
- Metal enclosure for lower EMI
- 2 wire interface with integrated digital diagnostic monitoring
- Electrically hot-pluggable
- Compliant with OSFP MSA and RoHS
- Standard MPO or LC optical receptacle



800 Gb/s

800 Gb/s OSFP Transceivers

- Low power dissipation for LPO based solution
- Support 106.25 Gb/s data rate per channel
- Digital Diagnostics Monitoring Interface
- Electrically hot-pluggable
- Compliant with OSFP MSA and RoHS
- Dual duplex MPO-12 or LC optical receptacle



400G

400G QSFP-DD SR8 Transceivers

- Low cost, low latency, low power <5 W (400G, typical 4.5 W)
- Mature COB technology
- Outstanding BER and high sensitivity
- Electrically hot-pluggable
- Supports 400 Gb/s data rate with each channel reaching up to 53.125 Gb/s



100 Gb/s

100 Gb/s QSFP28 Transceivers

- Low power, Power dissipation
- Up to 27.95 Gb/s data rate per lane
- Digital Diagnostics Monitoring Interface
- Electrically hot-pluggable
- Compliant with QSFP28 MSA and RoHS



40 Gb/s

40 Gb/s QSFP+ Transceiver

- Low power dissipation
- Up to 11.1 Gb/s data rate per lane
- Single 3.3 V power supply
- With Digital Diagnostics Monitoring Interface
- Electrically hot-pluggable
- Compliant with QSFP+ MSA and RoHS



64G

64G FC Transceivers

- Low power - 1.5 W
- Mature COB technology
- Outstanding BER and sensitivity
- Supports 57.8 Gb/s data rate
- Electrically hot-pluggable



40 Gb/s

40 Gb/s QSFP+ Transceiver

- Low power dissipation
- Up to 11.1 Gb/s data rate per lane
- With Digital Diagnostics Monitoring Interface
- Electrically hot-pluggable
- Compliant with QSFP+ MSA and RoHS



25G / 28G

25G/28G SFP28 Transceivers

- Metal enclosure, for lower EMI
- 2 wire interface with integrated Digital Diagnostic monitoring
- Case operating temperature range: -40 °C to +85 °C
- Low power dissipation



32G

32G FC Transceivers

- Low power with <1W
- Up to 28.05 Gb/s Data Links
- Maximum link length of 70 m links on OM3 or 100 m links on OM4 multimode fiber
- FC-PI-6 compliant
- Electrically hot-pluggable



10G

10G SFP+ Transceivers

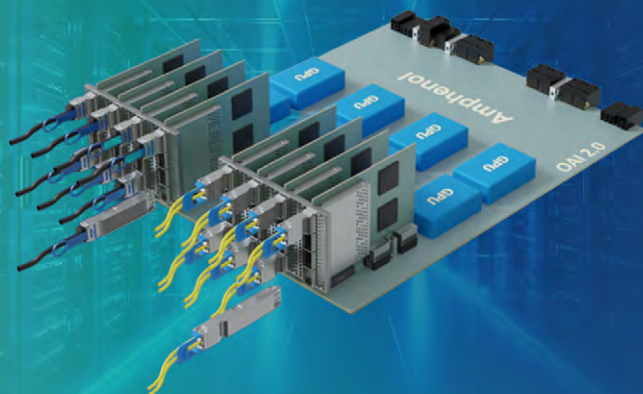
- Low power, power dissipation < 1.0 W per cable end
- Metal enclosure for lower EMI
- High Reliability 850 nm VCSEL technology
- Electrically hot-pluggable
- Compliant with 10G Ethernet



10G

10G XFP Transceiver

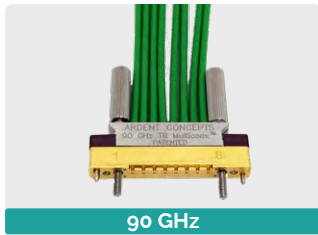
- Supports up to 11 Gb/s bit rates and 80 km transmission
- Metal enclosure, for lower EMI
- 2 wire interface with integrated Digital Diagnostic monitoring
- Case operating temperature range: 0 °C to +70 °C, -40 °C to +85 °C
- Low power dissipation



OAI 2.0 OSFP Shelf Architecture

Connect, cool and compute with innovative components built to power the next generation of open accelerator infrastructure for data centers.

[Learn More](#)



TR90 Multicoax™ Series Connector

- Available in 4, 8, and 16 channel configurations
- Exceptional signal integrity out to 90 GHz
- Industry standard 1.0 mm (W Band) connectors on cable end to mate to high frequency VNA/PNA
- No costly solder-down leave behinds required
- Dense footprint (2.54 mm pitch signal-to-signal) gets TR closer to device under test



TR70 Multicoax™ Series Connector

- Ideal for characterization and validation for high speed devices
- Designed to support NRZ and PAM4 signaling
- Supports wideband analysis
- Ideal for R&D, advanced validation, and emerging technologies

Typical Use Cases

- Characterization of devices used in 224G/448G systems
- Testing of I/O connectors and supporting devices like QSFP-DD and OSFP
- High speed optical device testing



TR40 Multicoax™ Series Connector

- Supports both fundamental and harmonic analysis without overdesign
- Strong performance for next generation wireless and high speed serial links
- Enables accurate margin testing and signal characterization
- Future ready bandwidth without the cost of ultra high frequency solutions

Typical Use Cases

- 5G and advanced wireless systems where fundamentals sit below 20 GHz but harmonics extend higher
- High speed digital and SerDes validation capturing eye diagrams and harmonic behavior
- Mixed signal test environments requiring flexibility across multiple frequency regimes



TR20 Multicoax™ Series Connector

- Excellent signal integrity for low to mid frequency RF systems
- Cost effective solution for dense test and interconnect requirements
- Ideal for long term production and validation environments
- Lower insertion loss and simpler system design for fundamental signals

Typical Use Cases:

- RF functional test for wireless and IoT devices operating below 10 GHz fundamental
- Aerospace and defense control and telemetry systems using fundamental clock and carrier frequencies
- High volume production test fixtures where reliability and repeatability outweigh extreme bandwidth



Substrate Launch Test Fixtures

- DC to 90 GHz+ connector provides direct solderless attach to top of substrate, bypassing lossy PCB trace to closely characterize silicon
- Right angle configuration allows heat sink or thermal head integration
- Compatible with Ardent Concepts' SK Series Sockets or soldered-down chips encouraging reuse of existing designs (or let Ardent design an all-in-one solderless development solution)
- High-density interface (2.54 mm pitch, signal to signal) reduces space consumption on substrate surface and replaces bulky, fragile surface mount SMP-style connectors
- Solderless connection to substrate allows reuse across devices and programs
- Advanced customization of SK Series socket allows for a single probe to be utilized on multiple substrate footprints, providing access to significantly more channels than discrete connectors



TR Cryo™ Multicoax Connector

- Noise floor XTALK through 20 GHz
- Solderless system eliminates cracking of cold solder joints
- Footprint compatible Hermetic Feedthrough and Attenuators
- Field replaceable compression mount interface
- Quick connection of multiple signals to PCB
- 80% space savings over SMPs
- High density gets TR closer to the DUT
- No more failing of snap-in connectors



EDSFF, OCP, Power Shelf and DirectAttached PCIe® CEM Cable Connectors

- PCIe® DirectAttached cable riser solution supports up to PCIe® Gen 6
- EDSFF cable connectors for E1 / E3 specifications
- OCP cable connectors for OCP NIC 3.0
- Power Shelf cable connectors for ORv3



Mini and Hyper Cool Edge for EDSFF/SFF-TA-1002 / SFF-TA-1037/ OCP/ GEN Z

- 0.60 mm pitch card edge connectors, meet PCIe® Gen 5/Gen 6/112G PAM4 specs, targeted for PCIe® Gen 7
- Designed to meet SFF TA 1002, SFF TA 1037, EDSFF E1/E3, OCP NIC 3.0 and Gen Z specifications
- Vertical, right angle, straddle mount and orthogonal options are available



Double & Single Density Mini Cool Edge

- Support AI Infrastructure, GPU, HPC, and high-density interconnections.
- Performs to PCIe® Gen6, Gen7, 112G, and 224G specs.
- BTB, WTB, and cable receptacles are available
- Support high speed, power, and sideband.



Titen™ 224G and PCIe® Gen 7 Connectors

- Stackable, scalable, high-speed and high-density mezzanine Board to Board connectors
- Performs to PCIe® Gen7 at 85 Ohm; Ethernet 224Gbps at 92 Ohm
- Options for board to cable connector to use the same board side connector with an additional outer frame
- Options to integrate sideband and low-power pins



PCIe® M.2 & Ultra Slim M.2

- 67 contacts on 0.50 mm pitch fully compliant with PCI-SIG PCIe® M.2 specification
- Meets PCIe® Gen 5 specs and targeted for PCIe® Gen 6
- Dual-stacked, Shielded versions are available
- Right angle, vertical and various connector heights and keying options



PCIe® CEM 7 Connectors

- 1.00 mm pitch card edge connectors
- X1, X4, X8, X16, X24, X32 standard links
- Extensive range includes vertical and straddle-mount with options for ridge/ridgeless, locked latch, side latch, blade hold down, open side wall, and more.



PCIe® Flip CEM, Slim CEM, Metal Cage CEM

- Flip CEM with "JJ" or "LL" contacts provides better SI routing and smaller footprint
- Standard PCIe® CEM footprint is 8.20 mm, Slim CEM is 6.00 mm, Flip CEM is 5.90 mm
- Metal cage CEM provides enhanced housing support



SOCAMM & LPCAMM CAMM2 Connectors

- Compress Mount Technology contacts provide lower height
- Provides faster transmission speed and higher bandwidth for memory
- Better airflow for improved thermal
- Flexibility of severability



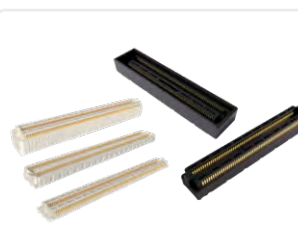
DDR5 SMT and SO-DIMM Memory Module Connectors

- Vertical Surface Mount, 288Pin/287pin to support different CPU platforms. Support UDIMM, RDIMM and MRDIMM options.
- Right-Angled Surface Mount DDR5 SODIMM with full height offerings, reverse or standard key options.



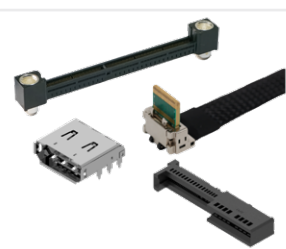
U.2 SFF8639 Gen 5/6

- SFF 8639 connectors, ideal for NVME U.2 SSD, also compatible with SATA/SAS form factor SSDs and HDDs
- 2 SAS lanes supporting up to 24G data rate and 4 PCIe® lanes supporting up to 64G (PSAS 6.0) data rates



PCIe® Gen 6 COM-HPC & MiniStak

- Up to PCIe® Gen6 64Gbs per channel
- COM-HPC: 400pos 0.635 mm supporting stack heights of 5 mm and 10 mm and provides CPU power support at 150 W
- MiniStak: 0.60 mm pitch 40pos to 400pos connectors withstanding 50G mechanical shock



Cool Edge Hybrid Connectors

- Slim Cool Edge: 0.65 mm pitch, Gen 6 64G PAM4 connectors
- Standard Cool Edge: 0.8 mm pitch connectors with EMI shielding for automotive and power applications
- Double Density Cool Edge: 0.8 mm pitch connectors with highly configurable wafer design for differential, single-ended, and power applications
- One-piece small form factor

Data Center



PwrBlade® ULTRA HD+ CTB and BTB

- Power rated up to 200 A per pin
- Low-profile configuration of 11.40 mm height above the board
- Highly configurable tooling design



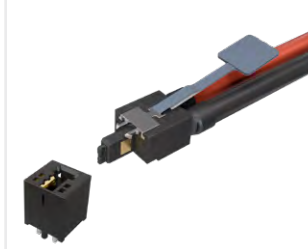
PwrBlade® MiniMezz

- Rated up to 50 A per high power contact, 25 A per low power contact
- Available in stack heights from 8.00 mm to 20.00 mm (tooled in 1.00 mm increments)
- ± 0.80 mm of gatherability for blind-mate applications



EnergyEdge™ XTreme

- Power ranging from 28 A to 42 A per contact
- Dual contact design delivers 3000 W at 12 V
- Straddle mount, right-angle, right-angle coplanar, and vertical options



PwrBlade® Micro

- Power ranging from 40 A to 100 A
- 8 AWG – 10 AWG wire terminations
- Straight-exit and 90-degree cable exit options



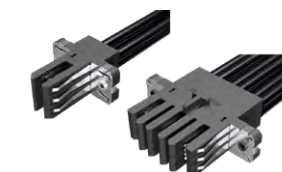
PwrBlade® Mini CTB and BTB

- Power ranging from 25 A to 45 A per pin
- Lowest-profile PwrBlade® connector (8.10 mm height above board)
- Highly configurable tooling design



OCP ORv3 Barklip®

- Power ranging from 100 – 5000 A per contact
- Designed to meet OCP ORv3 Power Distribution standards
- Supports 48 V Power Rack Architecture



HVDC Barklip® Series

- Power ranging from 65 to 300 A
- DC ± 400 V
- High-power HVDC connector



Barklip® Nano Series

- Power ranging from 150 A – 450 A per contact
- Fully Compliant with ORv3 IT Gear Connector Specification
- Sense pin contacts for mate last-first break capability



Barklip® XP Series

- Power ranging from 150 to 1000 A
- Solder or screw mount options
- Secondary chassis grounding contacts



Barklip® PCB-Mount Series

- Currents rated up to 450 A per contact
- 36 independent points of contact for high current carrying capability
- ± 3.50 mm of gatherability for blind mate applications



ORv3 AC Input Connectors and Cable Assemblies

- 7-Pin connector designed for Star, Delta, and single-phase connections
- Compatible with OCP ORv3 Power Shelf Universal Connector Specification
- Rated 20 A / 32 A / 60 A / 100 A / 200 A



OCP M-CRPS Connectors

- Rated up to 60 A per pin
- Wiring options of 8, 10, & 12 AWG
- Over-molded cable options available



CoolPower® HDF

- Power ranging from 75 A to 300 A
- Pin diameters from 3.00 mm to 11.00 mm
- Board-to-board, busbar-to-board, and busbar-to-busbar options



CoolPower® HD

- Wide power range of 100 A – 750 A per pin
- Pin diameters from 5.70 mm – 9.10 mm
- Flexible housing form-factor



HVDC Whips

- Power ranging from 60 to 250 A
- Rated up to 600 VAC/VDC
- High-Power rack to rack solution



CoolPower® SlimDrawer / Mini

- Power ranging from 35 A to 60 A
- CoolBand contact technology delivers maximum performance
- Optional sequential contact engagement (first mate / last break)

E-Mobility



EnergyKlip™ EK Series

- Power ranging from 160 A – 450 A per contact
- IP67 rated seal to ensure protection
- Flexible cable or flex busbar options



IPC-M Connectors

- Wide power range from 50 A – 350 A per contact
- Wire-to-wire and wire-to-board designs
- Touch-safe contacts



DuraEV™

- Provides continuous current of 70 A and withstands 10,000 mating cycles
- IP67 rated portable and fixed battery connectors for charging and discharging electric vehicles
- Robust and durable solution



DuraSWAP™ Swappable Battery Connectors

- IP67 rated swappable battery connector
- Provides continuous current of 100 A and withstands 10,000 mating cycles
- Connector mates in four different orientations



DuraSWAP™ Concentric

- IP67 rated to ensure protection
- Provides continuous current of 100A
- Rated for up to 10,000 mating cycles



Type-6 Charging Gun

- Fast and normal charging compatibility
- First mate-last break capability
- Drainage hole to prevent water retention



OCTIS™ Outdoor I/O

- Robust I/O solution for high reliability and performance
- Multiple versions: Optical, RJ45, Power, Signal, Hybrid
- Field-terminable connector series



CoolPower® EV

- Power rated up to 85 A per pin
- Configurable power and signal options
- Blind-mate integrated guides



Ve-NET™

- Developed according to USCAR-2 & LV214 specs
- Using shielded twisted pair cables to support MULTI-GIG high data transmission rate
- Supports Automotive Ethernet, LVDS, APIX3, and FPD-Link IV



ComboNET™

- Features a scalable and compact size integrating Ve-NET, power pins, and various interfaces. Ideal for automotive zonal control units
- Each submodule is interchangeable, providing flexibility and convenience
- USCAR-2 and LV214 compliant. Both sealed and unsealed versions are available



Mini Cool Edge IO® / Multi-Trak™

- Mini Cool Edge IO Series: Up to 128 Gb/s PAM4, PCIe® Gen 4/5/6/7 over 1.0 meter transmission distance. Cable/card insertion, dual applications are available
- Multi-Trak™ Series: Combines original PCIe® and Mini Cool Edge IO in one connector to provide both power (21 A) and high/low-speed signal



USB Type-C Connectors

- Performs to USB 4 and TBT5, and backward compatible to USB 2.0. Variety of center height options available. Module Type C supports TBT5 speed
- Waterproof range features unique LIM technology, performs up to IPX8. 24-pin and 16-pin versions available.
- Power only range supports up to 240 W (5 A/ 48 V) power supply



Mid Power / TopFlight™

- Wire to Board solutions in 3.0 mm and 4.2 mm pitch
- Current rating from 6.5 A to 20 A per pin
- TopFlight™: Engineered for use in OCP power distribution and management architecture, current rating up to 14 A per pin



SD/Micro SD Express Connectors

- PCIe® Gen3/4 x 1 lane, Gen4 x 2 lanes
- Push Push/ Push Pull types with card detect function
- Backward compatible with SD and micro SD card (UHS-I, UHS-II)



Mini HSbridge+

- Compliant with USCAR-30 USB and USCAR-2
- High data rate up to 10 Gb/s, current rating up to 5 A of power output
- Multiple volume and colour coding effectiveness compliant with automotive requirements



Ve-TERA™

- 48 V automotive power connector with 40 A, 60 A, and 90 A high current carrying capability
- USCAR-2, LV214, and IEC 60664-1 compliant
- Space saving, scoop proof, TPA and CPA features, sealed and unsealed options, exceed creepage and clearance values for pollution degree 2



ExtremePort™ Z-link / ExtremePort™ Swift

- Z-Link Series: Compliant with Gen-Z and OCP NIC Specifications. SFF-TA-1002/1020
- Swift Series: Ultra-low profile, 0.60 mm pitch connector with a mating height under 8.00 mm.
- Supports speeds up to PCIe® Gen 5/ Gen 6



Fan Connectors

- Blind Mate Interface Wire to Board connectors from 1.25 mm to 2.54 mm pitch with max current rating 5.5 A/pin. Designed for Server and Storage applications
- Card to Wire connectors in 2.44 mm and 2.54 mm pitch with current rating 4 A/pin designed for switch application



RJMG & Discrete Magnetics

- 10/100 T, 1 GBT (10/100/1000- BT), 2.5G, 5G, 10G, Power Over Ethernet (PoE, 15 W~150 W), integrated with surge protection
- Commercial 0~70 °C and industrial -40~85 °C & -40~105 °C
- Meets IEEE802.3ab and supports various Ethernet PHY



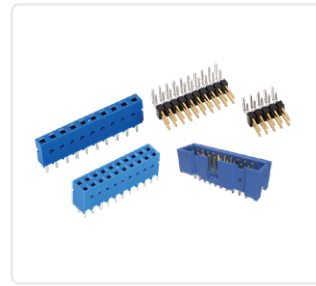
DisplayPort 2.1 Connectors

- Support DP80 (80/54 Gbps)/ DP40 (40 Gbps)
- VESA certificate
- High-performance signal integrity
- Board mount and cable solutions available



FitMate™

- 0.80 / 1.00 / 1.25 / 1.50 mm pitch
- Fine pitch, low profile design
- Single/double row, vertical/right angle, without (only single row) and with active latch
- Focus applications: Consumers, Portable equipment, IoT



Modular Systems

- 2.00 / 2.54 mm pitch
- Wire to Board, Wire to Wire, Board to Board, Flex to Board solutions
- Single, Double row, wide range of positions
- Focus applications: PLC, Servo Drive, Smart Meter



WireLock®

- 1.80 mm pitch
- Compact design, Highly vibration resistant, low mating force, TPA, CPA
- USCAR-2 V2 LV-214 S2 compliant, 2A contact
- Focus applications: BMS



MicroSpace™ / MicroSpaceXS™

- 1.27 mm pitch
- Crimp to Wire and Wire to Wire solutions
- LV214 S3, USCAR-T2V2 compatible, TPA, CPA
- Focus applications: ADAS, BMS, Lighting, Infotainment, Robotic



Industrial Backplane Connectors

- 2.00 mm Millipacs®, 2.00 mm Metral® 2.54 mm DIN 41612
- Features dual beam signal contacts for high reliable electrical performance
- Robust, feature-packed, compact connectors
- Focus applications: PLC, Servo Drive, Robots



HVLock®

- 4.50 mm pitch
- Single Row, 6 to 10 positions
- USCAR-2 LV-214 S2, Primary Lock, Reinforcement, CPA, 3A contact
- Focus applications: BMS



FlexLock™

- 2.54 / 3.20 mm pitch
- FPC-to-Board and Flex-to-Wire, easier assembly, less weight, lower cost, 2 A contact
- USCAR-T2V2 LV-214 S3 specifications, CPA
- Focus applications: Inverter, UPS, Energy Storage, BMS



BergStak®

- 0.40 mm pitch
- Wide range of stack heights and positions, Misalignment feature, Shock-absorbing ribs
- Speed up to 16 Gb/s, USCAR-2 V2 qualified
- Focus applications: Smart Meter, ADAS, Computer module



Minitex® Pwr and Cable Assembly

- 3.00, 4.20, 5.70 mm pitch
- Wire-to-wire, wire-to-board solutions, 5 A to 28 A contact
- Positive locking/Fully polarized/Scoop-proof housings
- Focus applications: Server & Storage, GPU, OCP, Open Rack v3 & Modular Hardware Systems (DCMHS)



USB Type C

- Wide range including Waterproof
- Connectors and cable assemblies
- Speed up to 40 Gb/s, up to 10,000 cycles
- Focus applications: Computer Module, Desktop, Laptop, Wearables, Smart meter



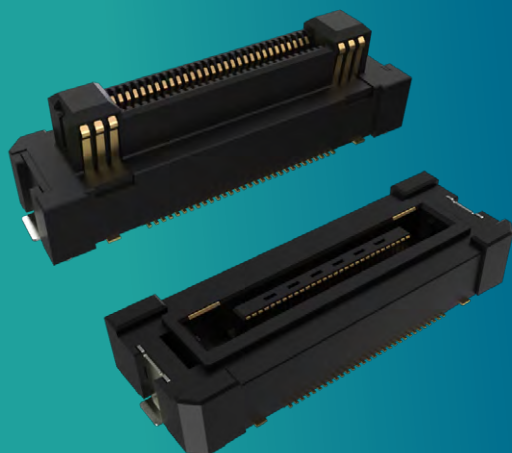
DensiStak™

- 0.80 mm x 1.25 mm pitch
- High Density up to 1034 pos, Dual-Beam Contact system,
- Speed up to 16 Gb/s, USCAR-2 compliant
- Focus applications: ADAS, Robotics



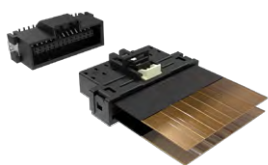
ComboStak® PowerStak®

- 0.50 / 2.00 mm pitch
- Hybrid and Medium Power solution
- Speed up to 20 Gb/s, 0.5 A signal 25 A power
- Focus applications: Robotics, GPU module, Computer module.



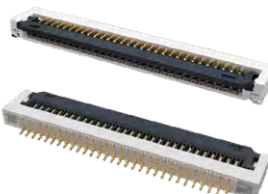
FloatCombo™ Floating Board-to-Board Connector System with Power Pin

- 0.50 mm pitch connector with 4 independent power pins
- Supports 5 A current per power pin and high-speed data rates up to 16 Gb/s
- Various stacking heights from 8.00 mm to 30.00 mm with large floating allowance
- USCAR-2 T3V2 qualified



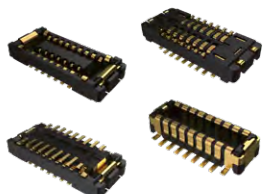
FlexFast™ Flex-to-Board Connector Solution

- Compact size and low-profile flex-to-board connection solution
- Available in pitch sizes of 0.65 mm, 1.00 mm, 1.80 mm, 2.00 mm, and 3.00 mm, with pin counts ranging from 12 to 80 pins, offering a complete product family for customer selection
- Automotive-grade compliant with USCAR-2 and LV 214 specs
- Designed for Battery Management Systems (BMS), battery packs, and inverter+DC-DC converter applications
- Capable of handling high-current applications while remaining lightweight for automotive use



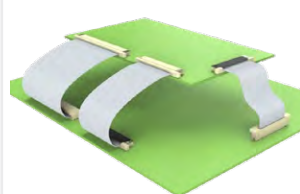
FFC/FPC Connectors

- From 0.21 mm to 2.00 mm pitch with various heights ranging from 0.50 mm to 6.25 mm
- Easy to operate and high vibration-proof performance
- Automotive grade versions compliant with USCAR-2 and LV 214 are available
- FFC cable can be supported as a whole solution
- Autolock option available



Micro Board-to-Board

- Low profile and fine pitch for high density applications
- High current rating (Up to 5 A)
- Chamfer connector design prevents mismatching



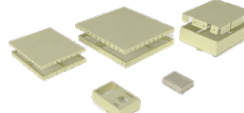
FFC Jumper

- Easy to operate
- Available in numerous circuit sizes (4 to 60)
- Both Type S (same-side) and Type O (opposite-side) available
- PET Insulation



Spring Contacts

- Wide variety of heights ranging from 1.00 mm to 20.00 mm are offered as standard products
- Space saving design, suitable for compact devices
- Formed by one-step stamping, easy to be assembled



EMC Shields

- Wide variety of profiles and sizes to accommodate mother/ daughter board configurations
- Option available for Two-Piece solution allowing convenient access to components
- Ideal for automated pick-and-place applications



Single Pair Ethernet Connectors & Cables

- Rugged single-pair interface
- IEC 63171-6, PoDL
- IP20 & IP67 connectors & cables
- Industrial Ethernet to the sensor and actuator level
- Support Multi-Drop applications



ix Industrial™ Ethernet Connectors & Cables

- Next-gen ruggedized interface
- IEC 61076-3-124, Cat6A, PoE++
- IP20 & IP67 connectors & cables
- ix Industrial™ Magnetics with integrated magnetics
- Utilized in factory, robotics, HMI applications



Harsh / Rugged

- Harsh / Rugged, IP67 sealed
- Connectors & cables
- RJ, USB, USB-C, D-Sub, HDMI
- MRD circular latching
- FLH rectangular latching
- Industrial, commercial, lighting



D-Sub Connectors & Cables

- SMT standard connectors
- Slimline SMT connectors
- High-current and signal connectors & cables
- Accessories (hoods, backshells)
- Customized connectors & cables



RJ / Modular Jacks & Modular Cable Assemblies

- Cat5, Cat5e, Cat6, Cat6A
- Single port, ganged, stacked multi-port, LEDs, shielded
- Vertical, right angle
- PoE++ capability
- Industrial, commercial, medical, consumer, military applications
- Cable Assemblies



Industrial RJ Plugs

- Ruggedized RJ plugs & cables
- IDC termination, field installable
- Metal latching, full metal construction
- Cat6A, fully shielded
- Multiple cable entry angle options
- Factory and other applications



Lighting Connectors & Cables

- Lighting connectors & cables
- NEMA/ANSI C136.41
- Zhaga Book 18 and Book 20
- LED indoor, outdoor, street lighting applications

Amphenol

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