

The background features a large, glowing blue silhouette of a human head in profile, facing right. The interior of the head is filled with a dense field of bright blue particles and light trails, suggesting neural activity or data processing. The letters 'AI' are prominently displayed in the center of the head, rendered in a large, glowing blue, sans-serif font. Surrounding the head are various white line-art icons: a car with a signal tower, a person with a speech bubble, a head with a brain chip, a computer monitor with a cloud icon, a smartphone with a Wi-Fi symbol, a shield with a globe, a bar chart with an eye, and a robotic arm. The entire scene is set against a dark blue background with faint circuit board patterns and glowing nodes connected by lines.

AI

AI / Machine Learning

Amphenol enables connectivity solutions with density, high performance and engineering expertise.

amphenol-cs.com



Amphenol Overview

Amphenol Communications Solutions (ACS), a division of Amphenol Corporation, is a world leader in interconnect solutions for Communications, Mobile Consumer Products, RF, Optics, Broadband and Commercial electronics markets.

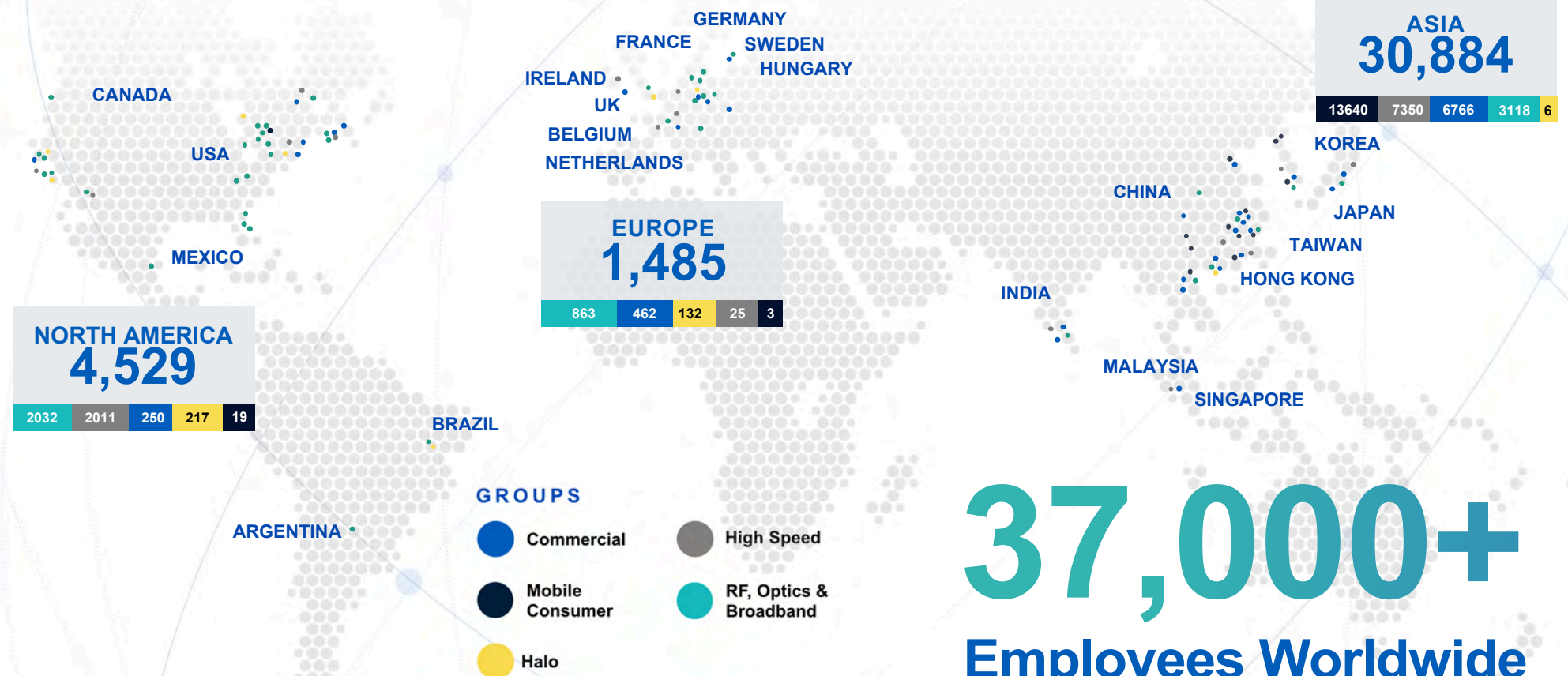
Amphenol Corporation is one of the world's largest designers and manufacturers of electrical, electronic and fiber optic connectors and interconnect systems, antennas, sensors and sensor-based products and coaxial and high-speed specialty cable.

ACS has an expansive global presence in research and development, manufacturing, and sales. We design and manufacture a wide range of innovative connectors as well as cable assemblies for diverse applications including server, storage, data center, mobile, RF, networking, industrial, business equipment and automotive.

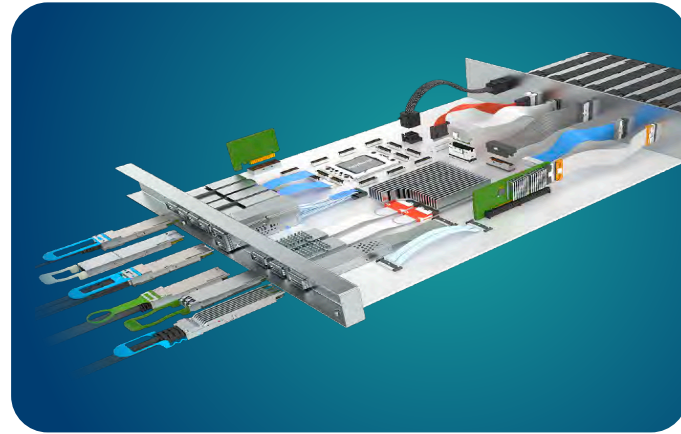
Strong Global Presence

We place heavy emphasis on R&D for both new product and technology development, focusing on the advancement of the next generation of high-speed interconnects and power distribution solutions as well as innovative manufacturing solutions.

- Our R&D centers worldwide have registered thousands of patents and licensing agreements, developing some of the world's first innovations in connectors such as Shield-less High-Speed Connectors, Ball-Grid-Array Attachments, economical Stamped High-Power Contacts and cost effective yet reliable plating processes.
- We relentlessly seek improvements of our products, increasing our solutions' overall cost effectiveness, precision and reliability. This ensures that we meet or even surpass the ever changing needs and expectations of market trends.



37,000+ Employees Worldwide



Integrated Signal Integrity Solutions

Amphenol provides reliable integrated signal integrity solutions across High-Speed IO, Backplane, and Mezzanine Connectors and Cables to meet the expansive goals of AI/ML. Adhering to PCIe® and DDR standards, high performance storage and memory connectors along with high-speed magnetic modular jacks and wire to board power connectors, are available for all your AI/ML applications.

OverPass™ Cable System

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. Reduce overall link signal loss and eliminate the need for expensive signal re-timers.



112G & 224G High Speed Connectivity Solutions

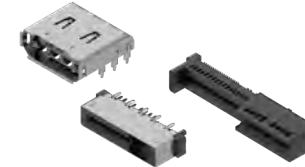
Amphenol understands how to provide connector solutions to enable the higher speeds of today. We have the tools and expertise to help our customers get there, electrically and mechanically – and every type of connector needed for 112G integration, with a seamless path to 224G.

Amphenol has connectivity solutions for every application that requires a connector. Paladin® HD and EXAMAX2® are used for mezzanine and traditional, cabled, and orthogonal backplane. Amphenol SFP, SFP DD, QSFP, QSFP DD, and OSFP connectors and cable are available for a wide range of applications. Our engineering teams collaborate with customers on 1000's of projects every year, so no matter what technical, operational, or commercial challenges you face, Amphenol can develop a solution for you.



EDSFF, OCP, Power Shelf and PCIe® DirectAttached® Cable Assemblies

- PCIe DirectAttached® cable riser solution supports up to PCIe®5.0 32Gb/s, eliminates PCB trace and Vias, improves insertion loss by 0.75db @16GHz at 0.5m cable length
- EDSFF cable assemblies for E1 / E3 specifications
- OCP cable assemblies for OCP NIC 3.0
- Power Shelf cable assemblies for ORv3



Standard Cool Edge

- Rated up to 350A per pin (10.3mm pin diameter)
- Flexible housing form-factor
- Straight-exit and 90-degree cable solution



PCIe® Flip CEM, Slim CEM, Metal Cage CEM

- Flip CEM with "JJ" contact or "LL" contact provides better support for card edge to save keep out area for routing as compared to standard PCIe® CEM contact of "JL".
- Standard PCIe® CEM footprint is 8.2mm, Slim CEM is 7.45mm, Flip CEM is 5.9mm
- Metal cage CEM provides enhanced housing support



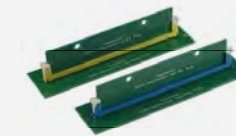
Mini and Hyper Cool Edge for EDSFF/ SFF-TA-1002 /SFF-TA-1037/ OCP/ GEN Z

- 0.60mm pitch connector, supports high speed from 32GT/s, PCIe® Gen 6 64GT/s, up to 112G PAM4
- 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



PCIe® M.2 Gen 5 and Gen 4

- 67 contacts on 0.50mm pitch fully compliant with PCI-SIG PCIe® M.2 specification
- Dual Stacked, Shielded versions are available
- Right angle, vertical and various connector heights and keying options offered



DDR5 SMT and SO-DIMM Memory module Connectors

- 287-terminal and 288-terminal SMT connectors designed to meet JEDEC SO-023, and the new SO-023D specification. U DIMM/R/LR Socket, Metal tab, Standard/ Narrow/ latch available.
- SO-DIMM: 262-position connectors in high-density design of 0.50mm pitch. JEDEC SO-016, SO-017, SO-019 compliant Available in 4.00mm, 8.00mm, 5.20mm and 9.20mm height, right angle and vertical orientation with SMT mechanical hold-downs.



Double Density Cool Edge for Ultra Compact Design

- 0.80mm pitch, power and signal hybrid connector
- Highly configurable wafer design for differential, single-ended and power options
- Supports high speed of up to 32GT/s (or 56GT/s PAM4) capability



PCIe® Gen 4/5/6

- X1, X4, X8, X16, X24, X32 standard links
- 1.00mm pitch, vertical and right angle with options for ridge, locked latch, side latch, blade hold down, open wall
- Extensive range include options for surface mount, through-hole solder, press-fit and straddle mount terminations and keying options offered



Compression, Board to Board Connectors and Interposer

- Provides a connection between either two PCB modules or one PCB and an electrical module
- Single-piece compression-type or two-piece board-to-board surface mount connectors

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PSAS, SAS and SATA Connectors

- SAS connectors (29-pins) support hot plugging and blind mating of HDDs/SSDs. 2 signal lanes support up to 24Gb data rate (SAS 4.0).
- PSAS connectors (68pins) support SAS HDD and NVME SSDs with 2 SAS lanes supporting up to 24G data rate and 4 PCIe® lanes supporting up to 32G (PSAS 5.0) data rates.



ExtremePort™ Z-Link

- Compliant with Gen-Z and OCP NIC specifications. SFF-TA-1002/1020 solution
- High speed of up to 56Gb/s PAM4
- Supports both cable and card edge applications



Fan Connectors

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



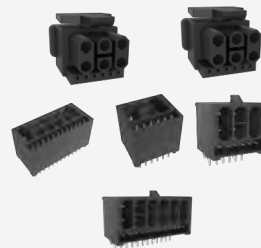
Mini Cool Edge IO

- Up to 64Gb/s PAM4, PCIe® Gen 4, PCIe® Gen 5, PCIe® Gen 6, over 1.0 meter transmission distance
- 0.60mm pitch connectors support both cable and card edge connections
- Options for 92Ω, 85Ω and 95Ω impedance and various pin number options - meeting PCIe®/NVMe/SAS/SFP(+)/QSFP specifications



ExtremePort™ Swift

- Ultra-low profile, 0.60mm pitch connector in 8X, 16X configurations. Mating height 8.38mm
- Designed for unshielded, internal I/O connectors
- With 85Ω impedance and meets PCIe® Gen 5 NRZ 32G specifications



Minitek® PICPwr OCP Connector Solutions

- 12V connector solution support Open Compute Project Power Distribution and Management architecture requirements
- Operating power and voltage 864W at 12VDC



Multi-Trak™

- Combines original PCIe® and Mini Cool Edge IO in one connector to provide both power (21A) and high/low-speed signal
- Up to 56Gb/s PAM4, PCIe® Gen 5, and target PCIe® Gen 6
- Options for 85Ω impedance and various pin number options - meeting PCIe®/NVMe/SAS/OCP DC-MHS/ SFF-TA-1033 specifications



RJMG

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



Minitek® Pwr CEM-5 PCIe® Connector System

- Rated current up to 9.5A per contact with all 12 power contacts and 4 Signal contacts
- New introduction CEM 5.0 PCI Express® 12VHPWR auxiliary hybrid connector and cable assembly support 600W GPU cards
- Positive locking on housing with low thumb latch operation



PwrBlade® ULTRA HD+

- Rated up to 100A per contact
- Next-generation PwrBlade® Connector
- Optimized guide design to reduce connector width



PwrBlade® Mini Board-to-Board

- Rated up to 45A per power contact
- Lowest-profile PwrBlade® connector (8.10mm height above board)
- No PCB overhang



BarKlip® BK450

- Currents rated up to 450A per contact
- 36 independent points of contact for high current carrying capability
- ±3.5mm of gatherability for blind mate applications



PwrBlade® MiniMezz

- Rated up to 50A per high power contact, 25A per low power contact
- Available in stack heights from 8mm to 20mm (tooled in 1mm increments)
- +/- 0.80mm of gatherability for blind-mate applications



48V BarKlip® BK300 IO

- Distributes up to 300A per contact
- Fully compliant with ORv3 IT Gear Power Input Specification
- New sense contact (Mate last- Break First)



BarKlip® XP Series

- Connectors Rated from 200A-1000A
- No housings to maximize power-density
- Mounts directly to PCB or busbar



PwrBlade® Mini Cable-to-Board

- Rated up to 25A per contact (50A per column)
- Built-in squeeze-to-release latches
- Latching CPA (connector position assurance) features



ORv3 AC Input Connectors and Cable Assemblies

- 7-Pin connector designed for Star, Delta, and single-phase connections
- Fully compliant with OCP ORv3 Power Shelf Universal Input Connector Specification
- Rated up to 32A per pin



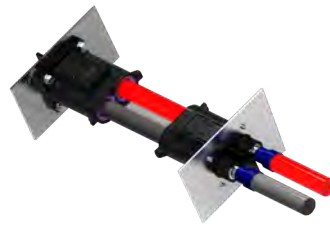
PwrBlade+® I/O

- Rated up to 50A per contact
- Power and signal contacts are highly configurable
- Wide wire size range available



OCP ORv3 BarKlip® BK500 IO

- Distributes up to 500A per contact between busbars, cables, and circuit boards
- Simple configurable plug-and-play solution
- Fully compliant with ORv3 Power Output Specifications



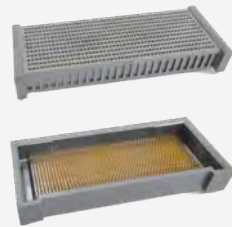
CoolPower® HD

- Rated up to 350A per pin (10.3mm pin diameter)
- Flexible housing form-factor
- Straight-exit and 90-degree cable solution



OCP ORv3 BarKlip® BK150 IO

- Distributes up to 150A per contact between busbars, cables, and circuit boards
- New sense contact (Mate last- Break First)
- Fully compliant with ORv3 IT Gear Power Input Specification



DensiStak™

- High density board to board.
- EMI Shielding, Blind-mating feature.
- Speed up to 16Gb/s.



48V BarKlip® BK600 IO

- Distributes up to 700A per contact
- Fully compliant with ORv3 Power Output Specification
- Mates with OCP ORv3 laminated busbar (6mm thick)



BergStak® 0.80mm

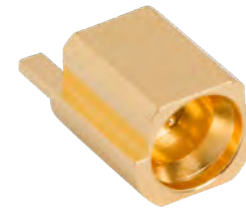
- High density applications.
- Wide range of positions and stack heights.
- Speed up to 16Gb/s.

RF



2.92 mm

The 2.92 mm interfaces offers low VSWR and excellent return and insertion loss, along with high power handling capabilities. This connector has the ability to mate with SMA, 3.5 mm and other K or 2.92 mm interconnects for additional versatility.



SMPM

Similar to the SMP interface, the SMPM conector series is a high-frequency RF interconnect designed to support applications up to 65 GHz. The product series is available as a board-to-board and cable-to-board solution in a variety of straight and right-angle configurations with surface, through-hole and end launch mounting options.



SMA

Versatile 50 ohm threaded connector series available in various PCB and cable-mount configurations provide lightweight, compact and vibration proof option. High-strength designs are ideal for harsh environments.



Conformable Cable Assemblies

Amphenol RF offers a broad variety of pre-configured cable assemblies on conformable cable types. These flexible cables feature all industry-standard RF connector interfaces in in-series and between-series options.



SMP

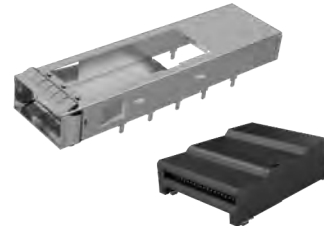
Versatile subminiature RF interface available in both push-on and snap-on mating styles that is commonly used in high frequency coaxial modules. Available in full, limited and smooth bore detent systems for board-to-board applications which utilize a floating bullet adapter which compensates for radial and axial misalignment.. Cable-to-board mated pairs are designed to accommodate a variety of smaller diameter cable types.

High Speed



EXAMAX2®

SUPPORTING 112G PAM4 PERFORMANCE
Maintains mating interface compatibility with previous ExaMAX® products to allow cost/performance flexibility. The mating interface and connector design is optimized to support the demanding electrical and mechanical requirements of 112G systems.



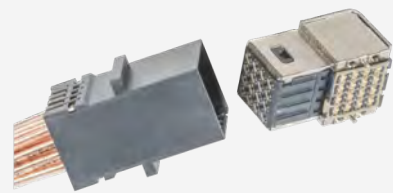
ExtremePort™ QSFP-DD 224G Connectors

ENABLES 400G, 800G & 1.6Tb AGGREGATE BANDWIDTH PER PORT
A 76 position, 0.8mm pitch connector built for use in high-speed serial applications. Each port supports up to 1.6Tb/s in aggregate over an 8 x 224Gb/s electrical interface. The cage and connector design provides backwards compatibility to all QSFP modules.



800G OSFP 2xDR4+ Transceivers

ELECTRICALLY HOT-PLUGGABLE AND SUPPORTS 106.25 Gb/s DATA RATE PER CHANNEL
Designed for use in 800G Ethernet links on up to 2km of single mode fiber. These transceivers are compliant with the OSFP MSA, IEEE802.3cu, OIFCFM1 and feature a single 3.3V power supply with an integrated Silicon photonics modular chip.



Paladin® HD2

INDUSTRY-LEADING DENSITY & PERFORMANCE – YOUR PATH TO 224Gb/s
Paladin® HD2 leverages the same board attach, twin-ax cable attach, and mating interface as Paladin® HD for backward compatibility, offering a direct upgrade path to 224Gb/s PAM4.



Paladin® HD

PROVIDES WORLD CLASS BANDWIDTH AND INDUSTRY-LEADING DENSITY AT 112Gb/s PERFORMANCE
Utilizes a balanced pair structure; built with individually assembled and discretely shielded differential pairs which have a revolutionary hybrid board attachment for maximized density. Backwards mate compatible with Paladin® HD2 family for a seamless upgrade path to 224Gb/s.



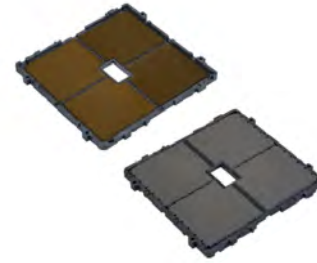
UltraPass™ OverPass™ Cable Assemblies

224G CONNECTION DIRECTLY FROM CHIP SITE TO EXTERNAL PORTS
UltraPass™ enables arrayed connector layouts for near-chip and on-package IO solutions, providing the highest differential pair count interconnect offering in the market. Up to 10X reduction in signal loss; addresses system thermal and mechanical needs.



OSFP Copper Cable Assemblies

A COMPREHENSIVE INTERCONNECT SYSTEM FOR COPPER OR OPTICAL BASED CABLE SOLUTIONS
Compatible with 25G/lane channel NRZ up to 112G/lane channel PAM4 signaling protocols that allow the cables to deliver aggregate bandwidths of 200G, 400G, and 800G per cable assembly. Available in both Passive and Active variants that addresses current and future bandwidth port capability requirements.



AMD SP5 (LGA6096) LGA CPU Socket

AN AMPHENOL PROPRIETARY SHUNTED CONTACT DESIGN

Provides superior impedance matching and signal integrity performance enhancing system performance at a lower overall cost.



OSFP-XD Copper Cable Assemblies

AN INTEGRATED INTERCONNECT DESIGN FOR COPPER OR OPTICALBASED CABLE SOLUTIONS
Compatible with PCIe® Gen 5 and in the future 112G/lane and 224G/lane channel signaling protocols that allow the cables to deliver aggregate bandwidths of 400G, 800G, and 1.6T per cable assembly.



High Speed Bulk Cables

SUPPORTS TRANSMISSION SPEEDS OF 10G, 28G, 56G, 112G, and 224G
High frequency SkewClear EXD cable technology offerings include multi-pair cables: 2, 4 and 8 pair construction in wire gages from 32 AWG to 26 AWG (34 AWG in development)



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