



Energy Storage Systems

From Residential to Commercial energy storage systems, Amphenol provides a wide variety of interconnect solutions for energy storage systems.

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.

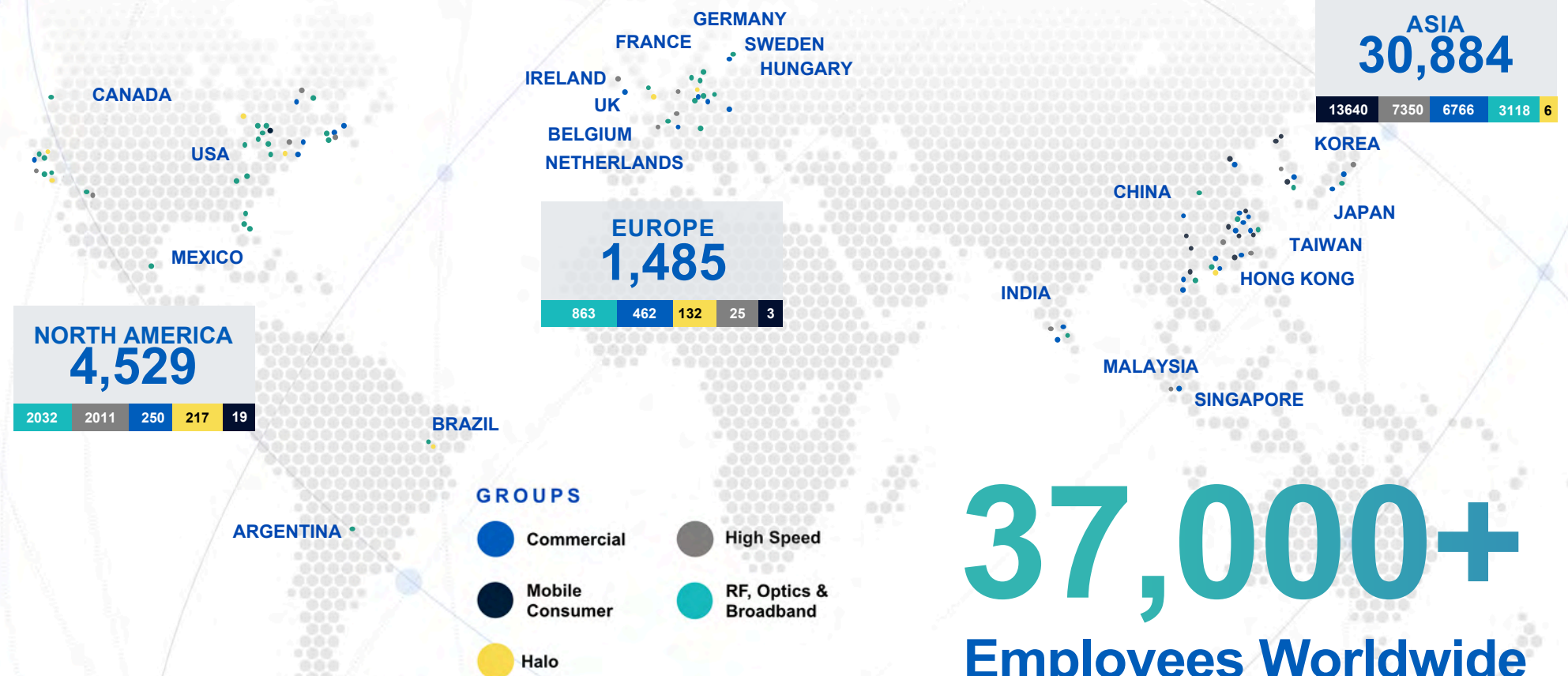
Amphenol Corporation is one of the world's largest designers and manufacturers of electrical, electronic and fiber optic connectors and interconnect systems, antennas, sensors and sensor-based products and coaxial and high-speed specialty cable.

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.

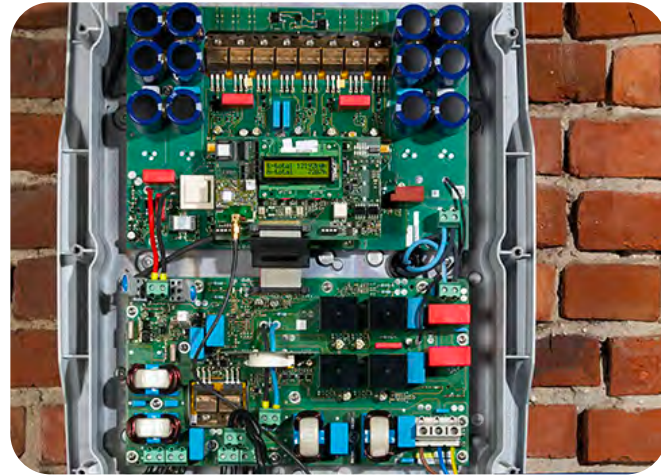
Strong Global Presence

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



AC-DC Inverters

The AC/DC Inverters or PCS (Power Conditioning Systems) work in conjunction with battery units for the smooth functioning of the Energy Storage System. Amphenol's enhanced power connectors and cable solutions are ideal for use in these systems.

Battery Storage System

Amphenol offers compact, flexible high performing connectors that support Battery Storage systems within an Energy Storage System (ESS.)



Battery Management System

Battery Storage, the key component of an Energy Storage System (ESS), is often equipped with a Battery Management System (BMS). From medium power wire-to-board connectors to board-to-board and card edge connectors, Amphenol has an extensive array of compact, reliable solutions that support BMS operation inside an ESS.

ESS Controllers

An ESS Controller is used for efficient management of the battery modules in an Energy Storage System and manages charging, discharging of battery modules in addition to monitoring and controlling the environment temperature inside the ESS. It works alongside the BMS to collect and process data like voltage, current and fuse status. Through a CAN bus, these units maintain communication between battery racks and power conversion units of the ESS. Check out Amphenol's innovative connector solutions supporting ESS Controllers.

Energy Storage System



EnergyKlip™ EK160

- Rated up to 160A per contact
- IP67 seal available
- Robust latching system



EnergyKlip™ EK350

- Rated up to 350A per contact
- IP67 seal
- Robust latching system



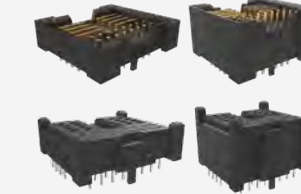
IPC-M50 Connector

- Rated up to 50A per 6AWG contact (UL rated currents up to 120A)
- Rated up to 10,000 mating cycles
- UL tested and approved when cross-mated with competitive connectors



IPC-M350 Connector

- Rated up to 500A per 350MCM (185mm²) contact
- Rated up to 10,000 mating cycles
- UL tested and approved when cross-mated with competitive connectors



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



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



PwrBlade® Mini Board-to-Board

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



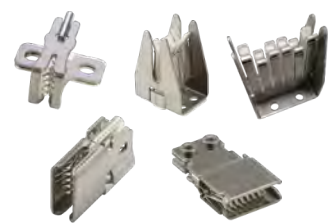
PwrBlade+® I/O

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



Minitek® Pwr Connector and Cable Assembly

- Wire-to-wire and wire-to-board solutions
- Current rating from 5A to 25A
- Available in pitch sizes of 3.00mm, 4.20mm, and 5.70mm



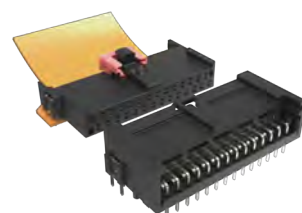
BarKlip® XP Series

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



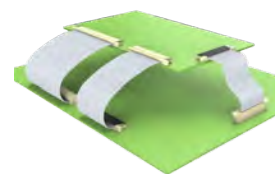
MicroSpace™ / MicroSpaceXS™ 1.27mm

- Compact, robust and versatile.
- LV214 severity-2 / 3, USCAR-T2V2 compatible.
- 4A per contact, TPA, CPA features.



FlexLock™ 3.20mm / 2.54mm

- FPC system for easy assembly
- USCAR-T2V2, LV-214 S3 compliant.
- 2A per contact, TPA, CPA features.



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



FFC/FPC Connectors

- From 0.21mm to 2.0mm pitch with various heights ranging from 0.5mm to 6.25mm.
- Easy to operate and high vibration-proof performance
- Automotive grade versions compliant with USCAR2 and LV214 are available
- FFC cable can be supported as a whole solution
- Autolock option available



FlexFast™ Flex to Board Connector Solution

- Small size and low height flex to board connection solution.
- 0.45mm/0.75mm/0.9mm/1.5mm/1.8mm pitch. Pin counts from 12~100pin
- Automotive grade compliant to USCAR2 and LV214
- Designed for BMS, battery pack, Inverter+DCDC applications



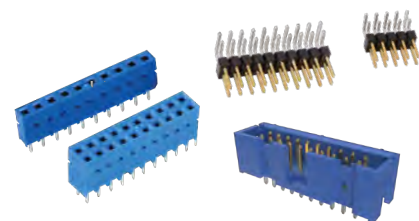
WireLock® 1.80mm

- Robust, low mating force.
- USCAR-T2V2, LV-214 S3 compliant.
- 2A per contact, TPA, CPA features



ComboStak® 0.80mm / 0.50mm

- Hybrid and medium Power solution.
- 0.8A / 0.5A signal, 20A / 25A power.
- Signal speed up to 12Gb/s / 20Gb/s.



Modular Systems 2.54mm/2.00mm

- Dubox®, Quickie®, BergStik®, PV® 2.54mm, Minitek® 2.00mm.
- Industry proven connector system.
- Board to Board, Wire/Cable to Board.



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

- 0.50mm pitch connector with 4 independent power pins
- Supports 5A current per power pin and high-speed data rates up to 16Gb/s
- Various stacking heights from 8mm to 30mm with large floating allowance
- USCAR-2 T3V2 qualified



Single Pair Ethernet

- Next gen ruggedized interface
- IEC 63171-6, PoDL
- IP20 & IP67 connectors & cables
- Industrial Ethernet to the sensor and actuator level
- Multidrop Solutions



Ruggedized

- Ruggedized, IP67 sealed
- Connectors & cables
- RJ, USB, USB-C, D-Sub, HDMI
- MRD Circular latching
- FLH rectangular latching
- Industrial, commercial, lighting



Conan® Lite 1.00mm

- Secure, Reliable connector.
- Audible "click" to ensure perfect mating.
- Speed up to 8Gb/s.



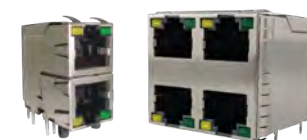
ComboLock® 1.00mm / 3.00mm

- Compact, hybrid wire-to-board connector.
- Active Positive Latching.
- 1.5A signal, 10A power.



BergStak® 0.80mm

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



RJ / Modular Jacks

- 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



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



D-Sub Connectors & Cables

- SMT Standard Connectors
- Slimline SMT Connectors
- High Current Connectors & Cables
- Accessories (Hoods, Backshells)
- Customized Connectors & Cables

RF



AUTOMATE Mini-FAKRA

The AUTOMATE Mini-FAKRA connector series is a space-conscious, high-performance interface capable of supporting data transfer rates up to 20 Gbps. Ideal for compute modules, wire harnesses and camera applications. Custom sealed solutions and various cable assembly configurations available.



TNC

Weatherproof threaded 50 ohm interface ensures connector will not de-couple in vibration-intense applications. Expansive product line includes designs for most industry-standard coaxial cable types. Durable construction for harsh environments.



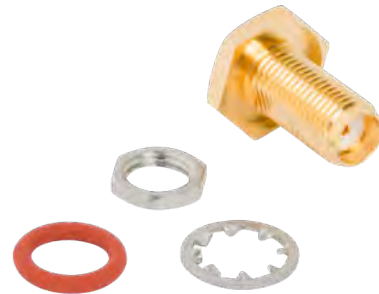
FAKRA

Color-coded and mechanically keyed for easy installation and to prevent mismatching, the FAKRA interface is available in IP67 and non-IP67 PCB and cable-mount configurations designed to perform up to 6 GHz. Commonly used in compute modules, wire harnesses and camera applications.



Internal Antennas

FPC and PCB RF antennas designed for use inside of a connected device. These antennas are commonly terminated to wireless modules featuring AMC or compatible ultraminiautre connectors.



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.



External Antennas

Mounted to the outside of a device by means of an RF connector, external antennas are engineered for indoor and outdoor use with robust designs available for harsher environments.

Amphenol provides a range of high power connectors and many more advanced interconnects for ESS.



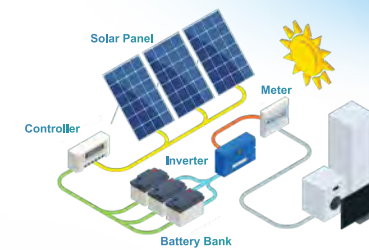
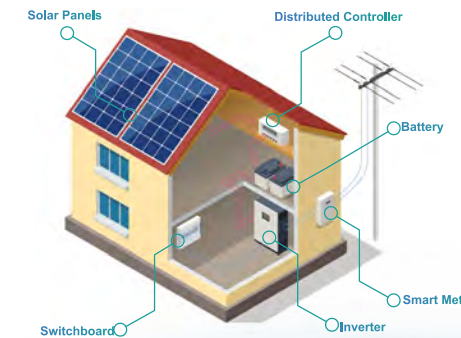
High Power Density with Small Footprint



Hassle-free design for Field installation



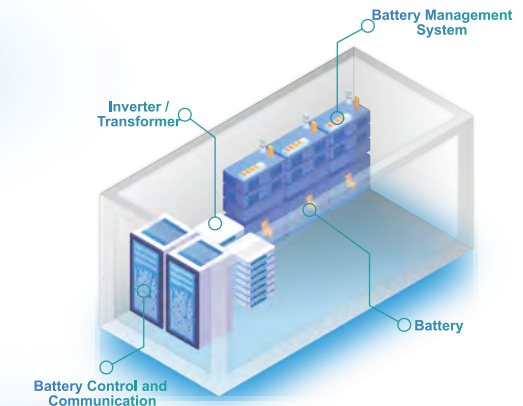
High Reliability in rugged and harsh conditions



Residential ESS



Commercial ESS



EV charging

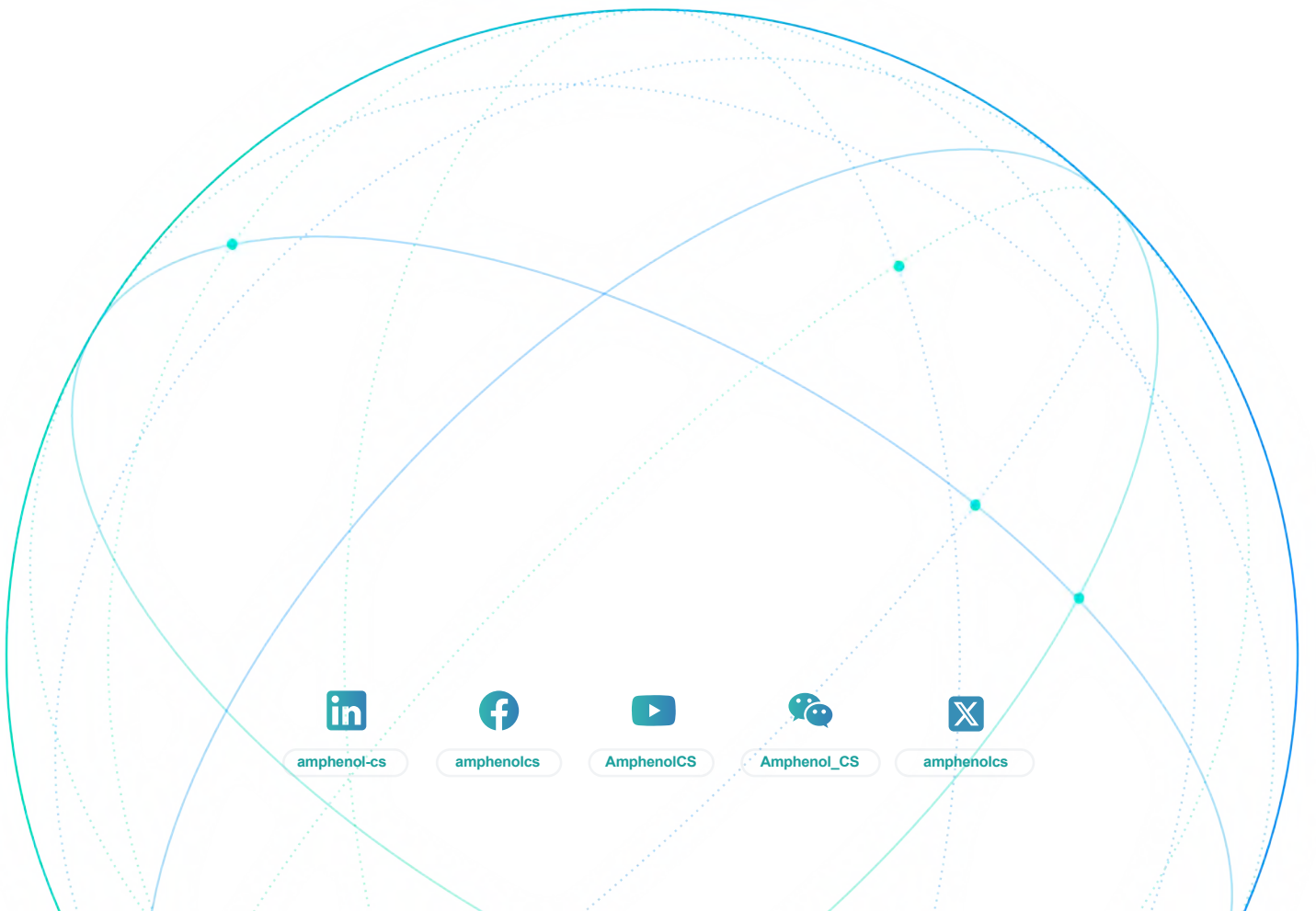


24 by 5 online technical support, chat now at www.amphenol-cs.com

Amphenol

COMMUNICATIONS SOLUTIONS

amphenol-cs.com



[amphenol-cs](#)



[amphenolcs](#)



[AmphenolCS](#)



[Amphenol_CS](#)



[amphenolcs](#)