B.C.E. ELECTRONICS

Amphenol

CONNECTING PEOPLE + TECHNOLOGY.

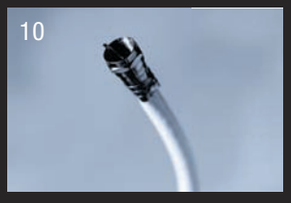


PRODUCT OVERVIEW

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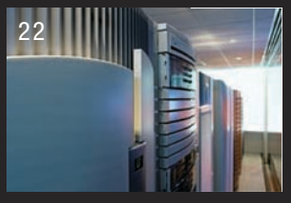
AUTOMOTIVE



BROADBAND



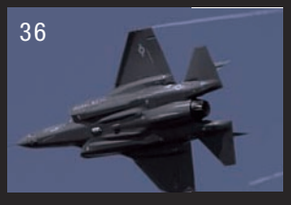
INDUSTRIAL



INFORMATION TECHNOLOGY



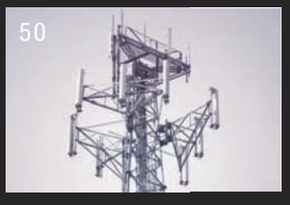
MEDICAL



MILITARY & AEROSPACE



MOBILE DEVICES



MOBILE NETWORKS

Expanding Global Presence

Amphenol Corporation is one of the world's largest interconnect manufacturers. Founded in 1932, Amphenol designs, manufactures, and markets electrical, electronic, and fiber optic connectors, interconnect systems, and coaxial and specialty cables.

Amphenol products are engineered and manufactured in the Americas, Europe, Asia, and Africa and sold by a worldwide sales and marketing organization. Amphenol has a diversified presence as a leader in high growth areas of the interconnect industry and provides solutions for customers in the automotive, broadband, industrial, information technology and data communications, military and aerospace, mobile devices, and mobile networks markets.



AMERICAS
UNITED STATES
CANADA
MEXICO
BRAZIL
ARGENTINA

EUROPE
FRANCE
GERMANY
UNITED KINGDOM
IRELAND
THE NETHERLANDS
CZECH REPUBLIC
ESTONIA
SLOVAKIA
SWEDEN
RUSSIA
TURKEY
FINLAND
ITALY
SPAIN
AUSTRIA

MIDDLE EAST & AFRICA
TUNISIA
SOUTH AFRICA
UNITED ARAB EMIRATES
ISRAEL

ASIA & PACIFIC
CHINA
HONG KONG
INDIA
JAPAN
KOREA
MALAYSIA
TAIWAN
AUSTRALIA
SINGAPORE
VIETNAM

Competitive Strength Through Market Diversification



PRODUCTS

Automotive

Amphenol is a leading supplier of advanced interconnect systems for automotive safety devices and expanding onboard electronics in automobiles. These applications include entertainment, communication, navigation, and telematics modules, as well as engine control, sensors, actuators, and auxiliary motors. In addition, Amphenol has developed leading solutions for hybrid-electric vehicles and drive systems and is working with leading global customers to proliferate these advanced interconnect products into next-generation automobiles.



India is taking dramatic steps to offset increased pollution levels and traffic congestion, including strongly promoting the adoption of hybrid-electric vehicles. Amphenol's highly-engineered products for hybrid vehicles are part of that solution. Our local engineers worked together with Tata Motors to develop innovative, high-power interconnect systems for India's first hybrid-electric bus.

Automotive

Amphenol Industrial Operations
United States

Amphenol RF
United States

Amphenol Adronics, Inc.
United States

Amphenol Technical Products International
Canada

Amphenol Filec, S.A.S.
France

Konfektion E Elektronik GmbH
Germany

Amphenol Tuchel Electronics GmbH
Germany

Amphenol Limited
United Kingdom

Amphenol RF Asia
China

Amphenol Technology (Shenzhen) Co. Ltd.
China

Amphenol Tuchel Electronics - China
China

Amphenol Mobile Consumer Products Group
Hong Kong

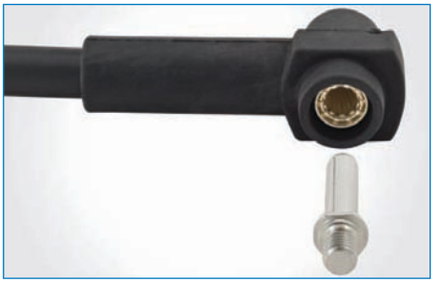




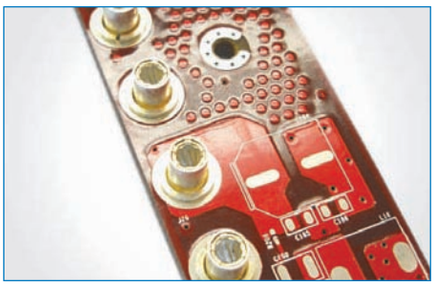
High-Power Automotive RADSOK® Connectors and Cable Assemblies The RADSOK® product family includes four contact sizes and standard housings for "wire to wire" as well as "wire to board/lead-frame" connections. Many features such as TPA, CPA, water protection, and coding are implemented in the housings which can be adapted for customized solutions. RADSOK® is approved by vehicle manufacturers and already used in mass production.



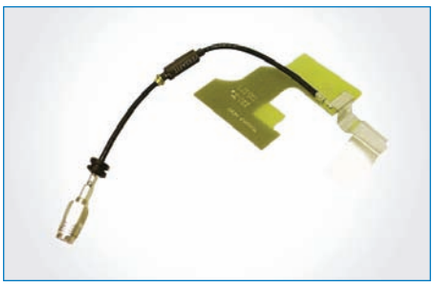
activePinLock RADSOK® Housings Amphenol's activePinLock connector interface has a high power RADSOK® contact with a unique locking mechanism in a functional and attractive plastic housing. This interface allows for quick and easy mating and unmating. Reliability is greatly enhanced due to audible and tactile locking action which assures the operator the connector is properly mated.



Overmolded RADSOK® Cable Assemblies Amphenol has developed a unique overmolded RADSOK® cable assembly system for high-power automotive applications. Our cable assemblies feature an environmentally sealed connection system. This new design creates a more robust system and can broaden the scope of applications for RADSOK® technology in harsh environment applications.



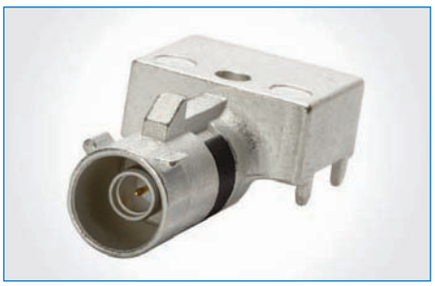
RADSOK® PCB Series The RADSOK® Advantage brings more power to the board with three high-amperage products: PowerBlok,™ RADSERT,™ and PGY.™ RADSOK® solutions offer many options for high-current single-point connections to printed circuit boards. The compact footprint can supply up to 120 Amps to the board; preserving surface area and providing more flexibility in board design. RADSOK® PCB products are designed to eliminate the need for additional wires and/or special crimp tools.



Car Kit Coupling Antenna Amphenol's car kit coupling antenna is used to enable the seamless integration of mobile devices within automobiles. This car kit has been ALT tested with iDen Band of 806 Mhz – 941 Mhz. Amphenol will work with the customer to design specialized antennas to meet the needs of new car designs.



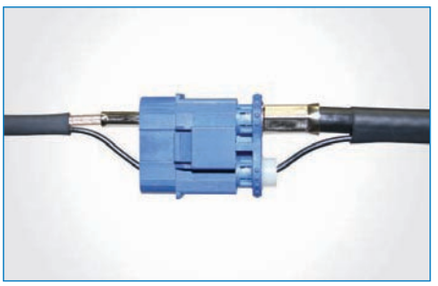
RF Antenna Amphenol's antennas for automotive applications are widely used in navigation and cellular communications systems. We have a range of active GPS antennas or Quad Band GSM antennas. These GPS antennas are magnetic or glue mounted with an SMA connector lead out. Our GPS range operates from 824Mhz – 960Mhz/1575Mhz/1710-1990Mhz.



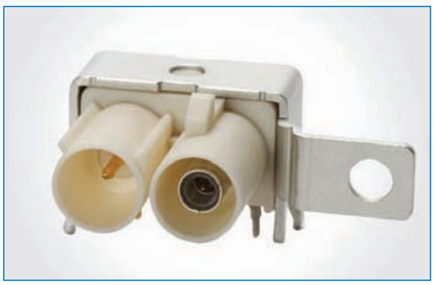
Single Position PCB FAKRA Amphenol's single position PCB FAKRA is an edge mount "pin in paste" connector featuring all-metal construction. This connector's all-metal construction makes for a far more robust connector which passes all USCAR and FAKRA standards.



High-Density Dual-Position FAKRA The German and American automotive industries have standardized a high-performing, cost-effective RF connector based on the FAKRA and USCAR standards for automotive telematics. This connector utilizes a standard metal SMB connector embedded within a plastic housing that features multiple color codes for easy identification. FAKRA connectors are designed to perform up to 4GHz and meet the particular mechanical and environmental requirements of the automobile industry.



Hybrid Dual-Position FAKRA Amphenol's Hybrid Dual-Position FAKRA connectors contain one RF port and one DC power port. This connector is used for applications where both RF and power is needed such as amplified antennas for telematics systems. This version differs from the high-density hybrid dual-position FAKRA connector due to its larger case size.



Hybrid High-Density Dual-Position FAKRA Amphenol's Hybrid High-Density Dual-Position FAKRA connectors contain one RF port and one DC power port. This connector is used for applications where both RF and power is needed such as amplified antennas for telematics systems. This high-density hybrid connector is perfect for applications requiring a small connector package.



Triple-Position FAKRA Amphenol's triple-position FAKRA allows three RF connectors to be placed in a very small package. This connector has a small package size which is perfect for applications where the connector has to pass through small holes in the car's body. This connector may be used in-line or to connect directly to devices such as roof mounted automotive antennas.



Mini-UHF Mini-UHF is a miniature version of the UHF connectors that were developed for use in the radio industry. Mini-UHF connectors are used as coaxial interconnects in cell phones, automotive systems, and similar applications where size, weight, and cost are critical. Mini-UHF connectors terminate to RG-58, RG-58A, RG-58B, RG-58C, and Belden 9258 cables. Crimp-type cable plugs and jacks as well as panel and PCB receptacles are available.



MCX The MCX series is a great option where weight and physical space are limited. The MCX provides broadband capability though 6 GHz in a snap-on connector design. A range of connectors are available, including printed circuit board and cable connectors. Typical applications include automotive, wireless LAN, broadband, and wireless infrastructure markets. MCX connectors conform to the European CECC 22000 spec.



IP The Industrial Plastic (IP) range of miniature bayonet locking connectors has both 62IP non-removable solder contacts and 162IP removable crimp contacts. These are fully interchangeable with Amphenol's 62 Series connectors and accessories. The shells, panel nuts, coupling nuts, and accessories are molded from Thermoplastic. This gives a smooth, low-luster black finish that, once molded, does not require any plating or further processes.



Safety Restraint Systems - Connectors and Cable Assemblies Amphenol's safety restraint systems product family consists of the well established 10mm interface and the 11mm solutions AK1 and AK2. Different versions are available with latch, pushbutton, and reversed locking legs. The filter elements are coil, mono-block, and multi-material ferrite.



TNB (Buckle connector) Electrical Harness Amphenol has a long history of products designed specifically for automotive safety systems. Amphenol developed a connector for Seat Belt Detection approved by RENAULT and used by many other Tier-1 automobile manufacturers.



Automotive Cable Assemblies for Data Communication Amphenol has the cable assembly solutions you need to transfer data within a vehicle. Whether it is high-speed data systems, LVDS (low-voltage differential signaling) systems, navigation systems or park distance control systems we will partner with you to develop the solution you need.



Defrosting Glass Electrical Harness Amphenol will work with customers to determine the perfect solution for their defrosting glass harness needs. Based on customers' specifications, we will design and overmold connectors. Our defrosting glass harnesses are produced for major automobile manufacturers throughout the world.



Engine Control, Cooling, Shock Absorber, and Exhaust Cable Asssemblies Engine cooling, suspension, and exhaust systems are becoming more intelligent each year. To help customers cope with new components Amphenol creates robust and intelligent cable assemblies for all aspects of cooling, suspension, and exhaust systems.



Airbag Electrical Harness Amphenol will work with the customer to design and build airbag electrical harnesses designed for specific needs. Based on the customers' specifications, we will source and assemble airbag connectors with other components such as terminals, housings, clips, tubes, and tape to assure a quality end-product.



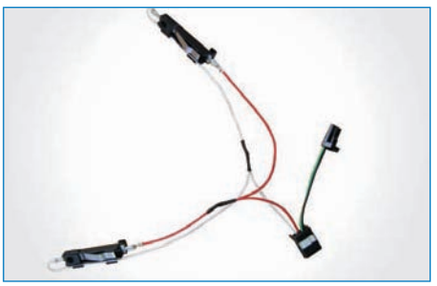
Lighting Electrical Harness Amphenol will work with the customer to produce specialized electrical harnesses for vehicle lighting. We will source the necessary parts such as connectors, terminals, housings, clips, tubes, and tape to build the right solution for the customer at the right price. Typically these harnesses are used for headlight applications.



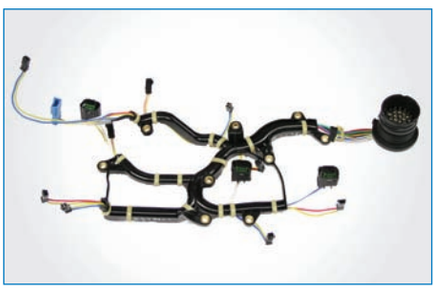
Overmolded Harsh Environment Wiring Harness Amphenol's overmolded harsh environment wiring harnesses are designed for both high and low-temperature applications. Whether it's a connector backshell, grommet, splice joint, or mounting point, we're able to overmold the wiring harness you need. Our assemblies are impervious to high-vibration, high-abrasion, moisture, oil, and corrosive elements. Typical applications include mining and agricultural equipment.



Sensor Electrical Harness Amphenol will work with customers to determine the perfect solution for their power steering electrical harness needs. Based on customers' specifications, we will design and overmold connectors. Such sensor and electric power steering harnesses are produced for automobile manufacturers throughout the world.



Steering Wheel Electrical Harness Amphenol will work with the customer to create a solution for today's increasingly complex steering wheels. Based on the customer's specifications, we will design the harness and overmold the connectors to create a complete solution. We have the capabilities to create harnesses with airbag and speed limit functions built-in.



Wiring Harness for Gearbox Transmissions and Diesel Engines These harsh environment wire harness and cable assemblies are able to withstand high-temperatures while undergoing high-vibration, high-abrasion, and high-humidity. Solutions are available for sealing requirements, chemical resistance, and custom harness securing through innovative overmolding processes and proven designs.



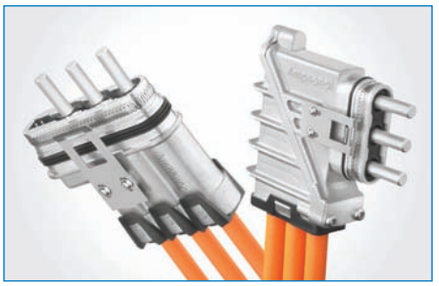
Custom Box Builds Amphenol has vast experience in value-add box builds for our customers worldwide. We will work with your engineers to create the complete assemblies that your business requires. We can source and integrate your specific circuits into a complete solution along with our connectors and cables.



Fuse Box Design The high power systems in electric vehicles creates unique challenges for vehicle fuses. The power handling specifications encountered are far higher than normally seen in automobiles. We can not only create high power interconnects with integrated fuses but we can create turnkey fuse boxes to spec.



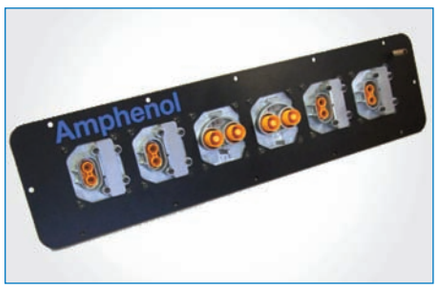
HV Connectors and Harnesses Amphenol has leveraged its extensive background in power connectors and harnesses to create a line of high voltage interconnects for the automotive market for use in next generation hybrid and electric vehicles. These solutions use Amphenol's proven RADSOK® contact and can be integrated into application specific harnesses.



Transmission Interconnect Amphenol's rugged crash test worthy transmission housing connector is designed to bring power to electric motors within transmission housings. It uses Amphenol's proven RADSOK® contacts which allow for far more power in a smaller package. This interconnect is specifically designed for the harsh environment found beneath the car.



ECTA Automotive High-Voltage Connectors Amphenol's ECTA connectors, receptacles, and harnesses are designed for use in battery systems, generators, electric motors, power distribution, electronic air conditioning, oil pumps, service plugs, and diagnostic plugs. Featuring a quick connecting push-pull mechanism, the ECTA is an ideal solution for next generation hybrid and electric vehicles.



Modular Power Distribution Unit Amphenol's modular power distribution unit is designed to distribute power to vehicle electronics using our proven high power connector interfaces. These modular units can easily be customized for a given vehicle application to fit packaging needs. Modules can integrate fuses as needed.



350A / 1000V Rated GT Style Utilizing our unique high power RADSOK® contact, Amphenol has leveraged our long history as leaders in high power industrial interconnects to design a GT style circular connector for high power vehicle applications. Suitable for harsh environments our high power circular connectors come in a variety of sizes to suit your needs. The connectors can be designed with a variety of insert arrangements and either screw or reverse bayonet coupling.



Bi-Metallic Busbars Amphenol has developed extensive expertise in solving a central issue experienced by all manufacturers of high energy storage systems – a cost effective production process for bonding dissimilar metals together. Through years of R&D, Amphenol can provide you with the turn-key parts you need for interconnecting battery cells.



Bi-Metallic Welding With today's modern battery systems the need to combine dissimilar metals together creates significant hurdles to robust battery module and pack design. Our engineers have years of experience studying and designing welding techniques for bonding dissimilar metals. Our techniques are designed for use with high-volume automated production systems.



High Voltage Cable Assemblies Amphenol has the capabilities to create custom solutions for all your high voltage and high current needs common in many hybrid and electrical car applications.



Manual Service Disconnect with/without Fuse Amphenol's standard fused and non-fused manual service disconnects can be configured to meet your packaging requirements. Our manual service disconnect with fuse packages a specially designed high power fuse in a very compact package. Safety systems include last-mate, first-break, touch-proof contacts, as well as a convenient nylon handle for removing the unit. Our manual service disconnect without fuse includes a safety circuit to ensure that power is never going through the unit when disconnecting. For added safety, touch-proof contacts are included.



Module-to-Module Interconnects Our long standing leadership in designing high-current interconnects for harsh environments makes us the logical choice for interconnecting the high power modules that form battery packs. Using modular designs and our proven-superior RADSOK® insert, we can design the space-saving interconnect solution you are looking for.



Pack-to-Car Interconnects Amphenol has the high power interconnects needed for connecting a battery pack to the automobile's electrical system. These interconnects are extremely robust and integrate necessary last-mate, first-break safety systems to ensure safe connecting and disconnecting. You can select an off-the-shelf design or our engineers can work with you to create the customized interconnect you require.



Smart Card Systems Amphenol has a long history of creating smart card systems for a multitude of applications. Amphenol's smart card systems are tailor-made for integration into EV charge stations for customer identification and payment. We also have unique expertise in RF solutions needed for contactless payment systems.



IEC 62196-2 Plug and Receptacle The IEC 62196-2 is a three-phase AC charging plug capable of low current DC and single-phase AC vehicle charging which allows for maximum flexibility for future charging and battery technologies. Only available in areas where three-phase electricity is residentially available (includes most of Europe).



SAE J1772 Level II Plug and Receptacle The SAE J1772 Level II is the new standard interface for single phase AC charging in North America and Japan. Level I (16A) and Level II (30 – 70A) versions are available. Amphenol has lead the way in development of this standard and is ready to support OEMs as their plug-in vehicles go from prototype to serial production.



SAE J1772 Level III Plug and Receptacle The Level III plug and receptacle is a DC fast charging, high current charge interface capable of 550A. Amphenol is at the forefront of design and development of the SAE J1772 Level III/DC standard and has been central in SAE's efforts to standardize this product.



Micro-Vehicle Charge Connector Designed specifically for use on small urban electric vehicles, this connector provides users with a very quick and easy mating interface for high current quick charging. This connector is designed for high mating cycles and has a very user-friendly low level of insertion force. This connector features a variety of pin layouts to accommodate between 60 and 400 A.



Travel Charge Cord Set Amphenol's expertise in the electric vehicle market allows us to cost effectively produce rugged travel charge cord assemblies. These assemblies allow the PHEV or EV owner to plug their car into standard wall outlets while on the go where a dedicated charge station may not be available.



Charge Station Amphenol produces all of the components needed in today's charge stations; from the charge cable assembly, smart card system or contact-less payment method, to the RF connectors and antennas. We can also do complete box builds integrating your specific boards and software to deliver a turn-key solution to you.

PRODUCTS

Broadband Communications

Amphenol is a world leader in broadband cable television communication products with industry-leading engineering, design, and manufacturing expertise. Amphenol offers a broad range of coaxial cable products to service the growing broadband market, from customer premises cables and interconnect devices to distribution cable and fiber optic components. Amphenol also has diverse interconnect products deployed on a wide range of broadband equipment from sophisticated head-end equipment to digital set-top boxes, high-speed cable modems, and DBS interface devices. Amphenol leads the way in broadband communications.



From the central office through to the set-top box, Amphenol's high performance cable and interconnect products are a key enabler of high-definition video, high-speed internet and cable-based telephony. Our products enable our customers to deliver sharp video, clear voice, and the highest bandwidth internet connection to homes around the world.

Broadband Communications

Times Fiber Communications, Inc.
United States

Amphenol Cables on Demand
United States

Amphenol Fiber Optic Products
United States

Amphenol RF
United States

Amphenol Tuchel Electronics GmbH
Germany

Amphenol AssembleTech (Xiamen) Co., Ltd.
China

Amphenol East Asia Elect. Tech. Shenzhen Co., Ltd.
China

Amphenol RF Asia
China

Amphenol TFC (Changzhou) Communications Equipment Co., Ltd.
China

Amphenol Tuchel Electronics - China
China

Amphenol East Asia Limited-Taiwan
Taiwan

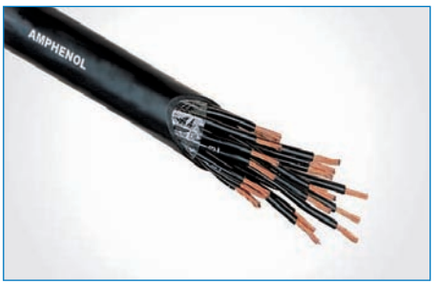




CATV Drop and Specialty Cables Amphenol's drop and specialty cables for the CATV market range from 59, 6, and 11 series cables used daily in the field to the unique specialty cables used in head-end equipment and other devices that require the unique features and touch that only Amphenol can deliver. Our mini coaxial product line offers many space-saving and performance-enhancing options needed in today's ever-growing markets.



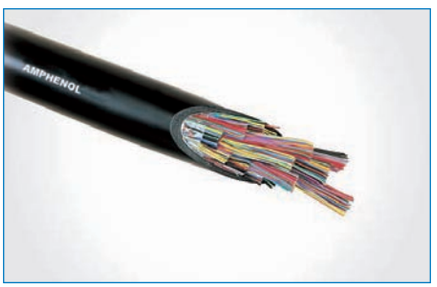
Coaxial and Multi-coaxial Cables for Telecommunications Applications Amphenol is one of the premier manufacturers in Latin America for coaxial cables for the telecommunications industries. Our product profile provides designs for specialized applications needing single coaxial and multi-coaxial cables in various sizes, combinations, and specifications for telecommunications as well as the radio, video, TV, and information industries.



Control and Instrumentation Cables Amphenol's factories in South Korea and Brazil specialize in numerous types of wire and cables used for applications beyond CATV. Our high-quality control and instrumentation control cables are used worldwide for numerous applications and device interconnects.



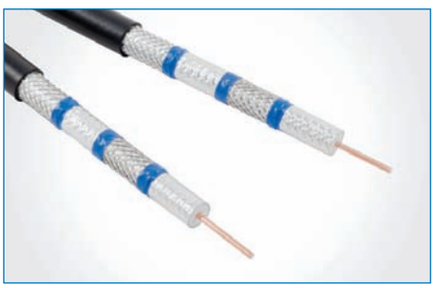
Semiflex Trunk & Distribution Cable Amphenol's low-D.C. loop resistance of T10 and TX10 cable results in lower installation and annual power costs. These cables are ideal for urban and coastal environments, feeder or underground applications, and are resistant to extensive mechanical abuse and rodent attack. These cables have a specified 1 Ghz bandwidth for all rebuilds, upgrades, or new plants, and allows a system to handle future demands.



Telephony Cables Amphenol's superior telephony cables come in indoor, outdoor, burial, and interconnect varieties in use by telecom operators throughout Brazil and around the world. Requirements for assemblies using our telephony cables can be handled in house with Amphenol connectors from various divisions around the world.



ThinLine Amphenol's ThinLine Semiflex is our newest development in hardline coaxial cables. Available in the 0.396", 0.540", 0.715" and 0.860" sizes at impedances of 50 Ω and 75 Ω, the seamless outer conductor provides superior flexibility and bending characteristics. Our unique process of triple bonding amongst all the components of the hardline coaxial cable provides for the cleanest coreability and preparation for connectorization.



TX15 Flexible Feeder Cable Amphenol's TX15 Flexible Feeder Cable has the low signal loss of a hardline cable with the high mechanical flexibility of a drop cable. TX15 cables are perfect for multiple dwelling units and any other settings requiring tight bends and severe turns.



Fiber Optic Feed-Thru Assemblies Amphenol's fiber optic feed-thru assemblies were developed to provide a means of connecting optical transport cables to optical processing equipment. Dielectric and armored optical cable styles are available for connecting 1 to 24 terminated fibers through either a stainless steel or polymer 5/8"-24 threaded housing. The unique sealing design protects without the need of an external sealing heat shrink.



Bundled Cable CATV head-end upgrade projects often require re-routing dozens of coaxial cables within the head-end to equipment 50 feet away or more. To help reduce some of the labor intensive costs involved in these projects, Amphenol has developed a series of head-end cable "bundles" that can group a number of cables within a common PVC jacket. This product reduces the number of cable "pulls", thereby reducing time and cost.



HD BNC HD BNC delivers true 75 ohm performance in a footprint 51% smaller than traditional BNC connectors, allowing four times the density. Engineered to enhance electrical and mechanical performance, the HD BNC connector features the trusted, push and turn interface of traditional BNC, providing tactile feedback and a positive lock for quick and guaranteed mating.



HDMI and Mini HDMI Amphenol creates high-quality HDMI and Mini HDMI cables for today's high definition media. Our HDMI and Mini HDMI cables use Amphenol connectors and can be customized to meet your specific needs. Special configurations may include customized coloring, customized connector configurations, and customized angles.



HDTV Products Amphenol offers a full line of HDTV and A/V cables for home theater applications and a variety of other solutions serving the broadband telecommunications marketplace.



QuickConnect Jumpers Amphenol's QuickConnect connector system is a permanently fixed overmolded coaxial cable assembly for broadband applications. This unique assembly is ideal for broadband self-install kits due to its ergonomic hexagonal shape which is easily gripped and properly tightened without using tools. Since the hexagonal overmolded plastic is permanently fixed to the connector it does not pose a potential choking hazard.



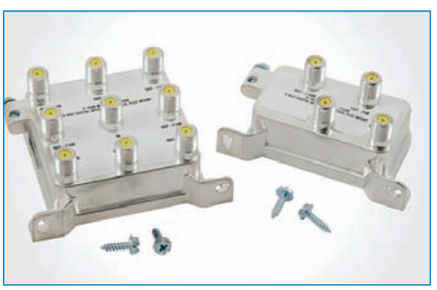
Telecom Cable Assemblies Amphenol's telecom cable assemblies are widespread in the Brazilian market and recognized for their superior quality. These assemblies are utilized by companies such as Alcatel, NEC, ZTE, and Huawei, and various other original equipment manufacturers in the country of Brazil.



Window Jumper Amphenol's Window Jumper is a 12" flat cable assembly designed to allow the easy installation of cable or satellite television or Internet service without having to drill through walls. The cable assembly is extremely durable and was designed to withstand at least 50,000 window opening/closing cycles. It is also resistant to temperature fluctuations from -40° to 80° C and salt spray.



CATV Hardline / Semi-flex Connectors Amphenol offers a full line of CATV Hardline / Semiflex connectors to meet the demanding requirements of HFC broadband infrastructures of CATV multiple system operators and telephone companies worldwide. Our 3-piece connector design ensures high-quality performance, easy maintenance, and durability in the global marketplace.



CATV Splitters, Amplifiers, Couplers, Enclosures, and Premise Hardware Amphenol offers a full line of CATV splitters, amplifiers, couplers, enclosures, and premise hardware to meet all cable installers needs. These products are designed for indoor and outdoor applications. Splitters and couplers are available for mounting in both vertical or horizontal positions and vary in size from 2 to 16 ports.



CMTS Interconnects Amphenol's CMTS cable harnesses cover either internal or external assemblies for Cable Modem Terminations Systems. The external harnesses typically use bundled 75 Ohm cable. Internal cable assemblies typically run no longer than 18", but due to the dense nature of the chassis, special consideration has to be given to the size and flexibility of the cable.



Gangmate Interconnects Amphenol offers two configurations of Gangmate Interconnect: Board-to-board and Input/Output. Board-to-board allows multiple RF connections to be made between two fixed PC boards. Input/Output allows the connection between external cable connectors and Internal PCB connectors. Applications include CMTS, Internet, and telecommunications.



HDMI Connectors Amphenol's HDMI connectors provide an interface between any compatible digital audio/video source and a compatible digital audio and/or video monitor. These connectors support standard, enhanced, or high-definition video, plus multi-channel digital audio on a single cable.



MCX The MCX series is a great option where weight and physical space are limited. The MCX provides broadband capability though 6 GHz in a snap-on connector design. A range of connectors are available, including printed circuit board and cable connectors. Typical applications include automotive, wireless LAN, broadband, and wireless infrastructure markets. MCX connectors conform to the European CECC 22000 spec.



QuickConnect II Amphenol is pleased to announce our newest field-installable compression connector. This connector features an ergonomic integral molded design that cannot be removed. With its hexagonal shape, users can easily attain a high level of torque without the use of a tightening tool. With its narrow design, QuickConnect II is ideal for use in confined spaces such as set-top box rear backplanes.



Smart Card Connector Smart Card Connectors are integral components of a smart card reader or terminal, and provide electrical contact to the smart card's pads. The connector is not a standalone peripheral device. An additional interface circuit is necessary to be able to read and write to the smart card whether a smart card is a memory only or a microprocessor card.



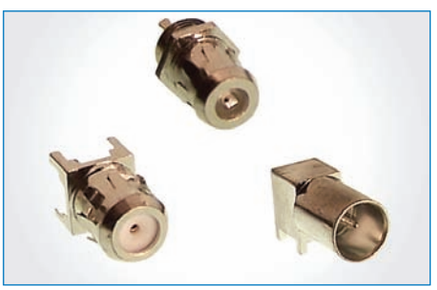
Fiber Optic Interconnect Products Amphenol is a premier manufacturer of optical interconnect products. Amphenol offers a complete line of products, including fiber management systems, attenuators, jumpers, couplers, and outdoor cable assemblies, which are designed to meet the most rigorous industry standards.



SMB Developed in the 1960s, this sub miniature interface has snap-on coupling. Amphenol's SMB connectors conform to the requirements of MIL-C-39012, and the interface is in compliance with MIL-STD-348. Available in 50 Ω and 75 Ω, the SMB provides broadband capability through 10 GHz with a snap-on connector design and utilizes die cast components in non-critical areas to provide a low-cost solution.



Type F Amphenol knows that low-performance F receptacles could not be used in high-speed cable modems and customer interface units (CIUs). The industry has challenged connector manufacturers to develop high-performance connectors featuring -30 dB return loss at 1 Ghz – Amphenol has met this challenge. Our high-performance F-connectors comply with a 3/8-32 thread specification. Primary applications are for cable television (CATV), set-top boxes, and cable modems.



Type G Our Type G connector is a slide-on alternative to the Type F with 15A continuous current rating. The Type G complies with the MIL-STD 202 specification for vibration, shock, thermal shock, moisture resistance, and salt spray. The Type G has an impedance of 75 Ω — ideal for CATV applications. The Type G line consists of Bulkhead Mount Jack Receptacles and PCB Mount Jack Receptacles.

PRODUCTS

Industrial

Amphenol is a technology leader in the design, manufacture, and supply of high-performance interconnect systems for a broad range of industrial applications, including medical equipment, factory automation, heavy equipment, instrumentation, motion control, rail mass transportation, alternative energy, and natural resource exploration. Amphenol's core competencies include application specific industrial interconnect solutions utilizing integrated assemblies with flexible printed circuits as well as high-power interconnects requiring a high degree of engineering and system integration. Our innovative solutions facilitate the increasing demands of embedded computing and power distribution.



IMAGE PROVIDED COURTESY OF BARCO

When U2 unveiled the biggest LED screen ever used in concert touring during their 360° Tour, we had front row seats. Amphenol's high performance custom cable assemblies were selected to help create the world's first transferable 360° LED screen with over 500,000 pixels of video.

Industrial

Amphenol Industrial Operations
United States

Amphenol Alden Products
United States

Amphenol Fiber Systems International
United States

Amphenol Interconnect Products Corporation
United States

Amphenol PCD, Inc.
United States

Amphenol Sine Systems Corporation
United States

Amphenol Steward Enterprises
United States

Amphenol TCS
United States

Amphenol Australia Pty Ltd.
Australia

Amphenol Air LB S.A.S.
France

Amphenol Socapex S.A.S.
France

Amphenol Tuchel Electronics GmbH
Germany

Amphenol Interconnect India
India

Amphenol Limited
United Kingdom

Amphenol Technology (Shenzhen) Co. Ltd.
China

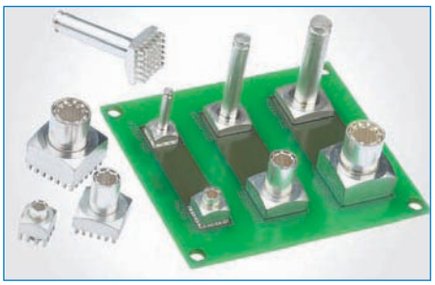
Amphenol Tuchel Electronics - China
China

Guangzhou Amphenol Electronics Communications, Co., Ltd.
China

Amphenol DaeShin Elect and Precision Co., Ltd.
Korea

Amphenol LTW Technology Co., Ltd.
Taiwan





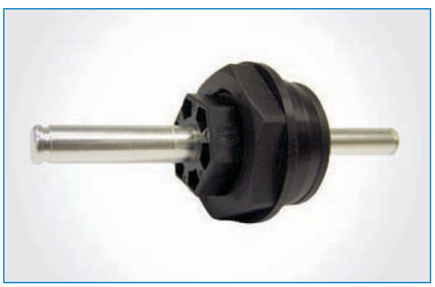
RADSOK® RADSOK's® hyperbolic contact geometry offers many advantages, such as contact coverage of up to 65% and absorption of vibration, as well as a superior durability of the contact element. Amperage capacities of above 300A are achieved while still allowing for a high number of mating cycles.



GroundImate With the new GroundImate series, Amphenol is able to replace the now used PE connections, made up of ring terminals in electrical cabinets, with pluggable contacts. By using the well-known and field-proven RADSOK® technology in combination with the clickfit locking device, a high-current carrying capacity is achieved. Owing to different locking parameters, it is possible to connect GroundImate contacts with pins or threads.



Power Bus - Sur-Lok & Hi-Lok Amphenol now features the Sur-Lok compression lug and Hi-Lok semi-permanent high-amperage connector. Sur-Lok is a field-crimpable contact assembly featuring RADSOK® technology. Hi-Lok was invented in response to customer demand for a tool-less but semi-permanent high-amperage connector. Often used as a replacement to the traditional threaded post and ring terminal.



Wall Bushing Connector This new patented power feed-through solution is designed for easy assembly even in difficult to access areas. Based on RADSOK® technology, the wall bushing connector enjoys high current capacity, low mating forces, and a high number of mating cycles. Designed for cabin applications on commercial vehicles, this connector shows its reliability at high vibrations in rough environments.



Power-Link/Armor-Link The Power-Link/Armor-Link series cable offers a highly reliable and cost effective cable solution for the solar market. Tin-plated copper insulated by a high-temperature cross-linked polymer jacket provides you with maximum performance and durability. Armor-Link offers an extra protective layer to protect the cable from damages caused by rodents and other pests.



Helios H4 The H4 comes from the innovative family of Amphenol's Helios solar products. Quick and easy snap-lock mating and reliable crimp terminations make this an ideal solution for field installation. The long-term UV and ozone resistance, as well as the low-resistance self-cleaning contact grid, distinguish the H4 as the most efficient and durable solar connector option. The H4 is fully intermateable with industry standards.



Solar Junction Boxes The Amphoton line of junction box assemblies are produced exclusively for solar modules. With 13 box models and endless pole/diode configurations paired with our Power-Link or Armor-Link cables and Helios H4 connectors, we can meet any need for both crystalline silicone and thin-film applications.



5015 Amphenol's 5015 Series is a rugged, versatile, and environmental resistant connector with proven electrical capability. 5015 series connectors are medium to heavy-weight cylindrical connectors with 5 shell styles, 19 shell sizes, and 5 service classes. The 5015 offers 286 contact arrangements from 1 to 104 circuits. It is available in solder or crimp contacts, threaded coupling, coaxial and thermocouple contacts, and RoHS compliant versions.



97 Amphenol's 97 Series is the lowest-cost cylindrical interconnect solution in the proven 5015 family connector style. An extremely versatile connector family, the 97 Series offers six shell options, 128 different contact arrangements, 1 to 52 circuits, one of the largest selections of insert patterns on the connector market, and crimp, solder, thermocouple, and PCB (100 suffix) contacts.



ACA-B The ACA-B is designed for commercial and industrial environments requiring a rugged bayonet style connector for heavy duty power and signal applications. A comprehensive selection of insert arrangements and accessory hardware configurations is featured to accommodate heavy-duty commercial wire and cable. ACA-B is manufactured in accordance with MIL-C-5015 and VG95234. The insulators are made of high-quality polychloroprene material and withstand temperatures of –55˚ C to +125˚ C.



PT These miniature cylindrical connectors offer twice the number of contacts in half the size of a standard connector. These miniature bayonet connectors are available in several series, each with varying design characteristics and customer options to meet cost considerations and provide maximum design flexibility. There are two styles within the family that are MS approved and qualified to MIL-C-26482 Series 1, as well as several proprietary styles.



Amphe-Power The Amphe-Power® series consists of three of the time-tested and reliable families of Amphenol Industrial Connectors, all of which are MIL-5015 style, medium to heavy-duty cylindricals. This series, enhanced with RADSOK® sockets, can now handle up to 50% higher amperages. Current Amphe-Power® product lines support from 50A to 1000A continuous-duty.



P-Lok The P-Lok connector is a rapid mate multi-pin push-pull connector engineered to provide reliable yet convenient electrical connections for a wide variety of industrial and commercial applications. P-Lok features the same electrical characteristics as MIL-C-5015 connectors.



GT The GT Interconnect Family is a high-performance, high-power, rugged, and sealed connector with reverse bayonet coupling. Originally designed for use by the military, the GT has become the preferred connector for mass transit. The heavy duty GT connector is also widely used in commercial, geophysical, aerospace, ground support, and shipboard applications.



Vortex GT The Vortex GT is a GT shell type connector with reverse bayonet coupling RADSOK® technology, designed specifically for delivering high-power from source to load. The plug contact is an 18mm crimp type RADSOK® socket combined with an 8mm RADSOK® pin. The receptacle contact is an 8mm screw type RADSOK® pin combined with an 8mm RADSOK® socket. Uses include electrical generators, fuel cells, load banks, and charging systems.



Amphe-Lite™ The Amphe-Lite™ connector series is designed for signal, power, RF, or fiber optic interconnect requirements in harsh environments. The Amphe-Lite™ series offers the highest performance capabilities for severe environment applications, yet is cost-effective enough for general-duty and non-environmental applications.



Amphe-EX™ Amphenol, the worldwide leader in explosion-proof and hazardous-environment interconnects, introduces a new, miniature, explosion-proof threaded connector specifically designed to allow a signal to pass through Zone rated areas using coax, fiber optic, or standard copper cables. The new Amphe-EX™ is complimentary to Amphenol's industry-proven Star-Line EX.™ In addition, the rugged Amphe-EX™ connectors are ATEX and IECex approved for Zone 1-rated applications.



ADG & ADGC Amphenol's ADG Series connectors are used principally in rail mass transit and heavy industry applications. Their main characteristic is the fast and precise coupling of the receptacle and plug connectors. Three bayonet ramps on the receptacle allow for the fast and perfect mating with only a one quarter turn of the coupling nut. They withstand exposure to moisture, oil, and vibration.



RMT Inter-Car Jumpers Inter-car Jumpers from Amphenol provide electrical connections between all types of rail vehicles and can be supplied for low-voltage and signals, high-voltage, 3-phase, and fiber optic systems. These jumpers are designed to suit a variety of insert arrangements, different currents and voltages, and many different cable sizes and types.



AMHTC Amphenol's AMHTC Series (Amphenol High-Tension Connectors) is primarily used for railway vehicle-installable power distribution systems. They offer the ultimate in safety and reliability under the most severe operating conditions. AMHTC is available in two standard varieties, which allow complete hook up through the standard daisy chain principle.



Ecolmate Ecolmate is a circular connector featuring easy operation, reduced dimensions, and a more robust design to withstand harsh conditions. The connector's primary applications are factory automation, machining, and medical. The series comprises a large selection of housings and shapes, as well as models with screw, solder, and crimp termination.



C16-3 The C16-3 circular connector series is designed to meet the high-performance requirements of harsh-environment industrial applications. The range includes versions with screw and crimp terminations. A selection of crimp contacts for hand crimp tools and for crimp machines enables a reliable termination resulting in qualitative, technical, and economic advantages. A broad selection of housing styles are available.



C091 The C091 connector series is used in automation, test and measurement, medical, sensors, and telecommunications. Their proven design and performance make these connectors a recognized industry standard. They are available with a screw or bayonet locking system. Receptacles are available for front or back-panel mounting and offer a variety of connection possibilities.



ECTA 133 / ECTA 544 The ECTA 133 is ideally suited to industrial applications due to its rugged design, convenient push-pull operation, wide range of contact sizes, and high contact density. ECTA 544 series plastic circular connectors are used for industrial applications such as: robotics, laboratory test equipment, transportation, and tool interconnection. The ECTA 133 & ECTA 544 are designed, produced, and certified according to EN 61984.



A Type The A-type XLR chassis receptacles have been designed and manufactured with the Original Equipment Manufacturer's needs in mind. The compact shell design offers significant space savings over the traditional "D" type shell providing a higher connector density.



AC Series C The AC Series C type chassis receptacles feature two connectors in one space saving housing. A combined XLR female receptacle together with a 6.35mm (1/4") phone jack give the designer more flexibility ensuring premium board space is saved. Various configurations are available in either stereo or mono layouts with vertical/horizontal printed circuit board or solder contacts.



AX Series The revolutionary AX series of XLR connectors introduce an exciting contemporary look and feel to the professional audio interconnect market. They are designed to complement modern audio architecture and truly "fit" within their environment. An impressive list of features guarantees pure sound performance in the most demanding applications providing unrivalled value.



Luminus Luminus is a compact, configurable interconnect with an easy, secure coupling mechanism and tough polyamide housing. The product is ideal for today's sophisticated commercial, military and industrial vehicle interior environments in which full-spectrum, adjustable, and LED lighting creates a more comfortable or productive atmosphere. Its small footprint allows for quick and efficient assembly.



M-Series Amphenol's waterproof sensor connectors and cable assemblies were designed for use in a variety of environments such as factory automation, outdoor wireless, and architectural lighting. A vast range of M8, M10.5, and M12 connectors and cable assemblies are available with sealing levels of IP65 to IP68.



M23 M40 Series Our MotionGrade™ M23 and M40 connector systems, featuring our FlexGrip™ backshell system and RockSolid™ contacts, are designed to excel in performance and reliability in demanding environments. This series is ideally suited for advanced servo drive encoder feedback applications, packaging, robotic, printing, machine tool, medical, and automation environments where control signal transmission or power are required in a robust and compact delivery system.



AT and AHD Series The AT and AHD Series™ connectors were designed as a high-performance, cost-effective solution within heavy equipment, agricultural, automotive, military, alternative energy and other demanding interconnect architectures. Both series of connectors are compatible with existing standard products industry-wide, and are ideal for any situation where either controlled and/or uncontrolled environmental conditions exist.



RT360 RT360 industrial circular connectors are multi-way connectors available in 6 shell sizes and 22 insert arrangements with a variety of wire gauge options. They were designed to be intermateable with other industry standard connectors, such as the Souriau TRIM TRIO UTG and UTP industrial connector families and the Cannon Trident series. RT360 connectors are currently available in RT-16AWG, RT-20AWG and RTHP versions.



Barracuda The Barracuda range of environmental IP68 sealed connectors is specifically designed for harsh applications where water, dust, oil, or spray is present. These molded connectors are interchangeable with the equivalent Bulgin standard Buccaneer range of connectors, which feature enhanced ergonomics and ruggedized moldings. The Barracuda bodies are molded from glass filled nylon and all have the same outside diameter of 38mm at the largest point.



Marine Amphenol is a leader in the marine electronics market offering waterproof housing integration and standard NMEA 2000 cable assemblies. Our products are commonly found in a variety of marine applications as embedded communication links between radios, GPS systems, antennas, boat motors, and fish and depth finders.



Pulse-Net® Industrial Ethernet Pulse-Net® is a ruggedized Ethernet connector that offers the convenience and functionality of a standard RJ45 connector plus push & click, Pulse-Lok® mating action for positive confirmation of engagement, industry standard components and termination tools, and multiple termination options.



Pulse-Lok® Auto Coupling Connectors Amphenol offers a variety of small, robust metal and plastic circular connectors featuring Pulse-Lok, an auto latching connector system that provides audible, visible and tactile confirmation that the connector is mated properly. Sealed IPx7, this connector is found in applications as diverse as LED lighting, mobile communications and agricultural equipment.



LED LED customized waterproof cable assemblies are integral components of any outdoor LED architectural, stage and street lighting, or panel display. Amphenol manufactures waterproof IP66 to IP68 circular, hybrid (power + signal), and D-sub connectors and cable assemblies to meet any LED display need. LED chips are embedded in waterproof cable assemblies using a unique low-pressure injection process.



Neptune The Neptune connector series is designed to perform in demanding environments such as oil and gas exploration and modular power generation equipment. Neptune's aluminum hardware is both lightweight and rugged resulting in a connecter that is 50% of the size and weight of competitive products. The use of the RADSOK® contact system allows for more amperage and voltage through a smaller connector.



Power Mount Amphenol's Power Mount series combines RADSOK® contact technology with our industry tested TMPC contact design to form a new range of power connectors. Designed to meet the rugged requirements of the oil and gas exploration market, the Power Mount provides increased amperages in a single pin connector. The molded flange is available in AC/DC color codes to protect the user from cross mating in the field.



Optron Hybrid Connectors Amphenol's Optron connectors are a complete line of circular hybrid connectors designed and qualified to MIL-PRF-28876, Rev. E. They are precision machined and designed to provide superior optical performance in extreme environmental conditions. The Quickloc backshell also allows easy access to maintain or reconfigure termini without altering the captivated aramid fiber.



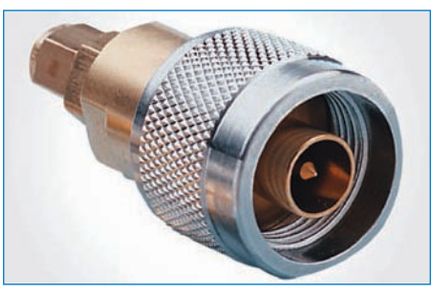
DeepSight In response to the growing need for fiber optic monitoring systems in oil wells, Amphenol has developed the DeepSight fiber optic connector for use in down-hole applications. DeepSight has the ability to withstand the high pressure, temperatures, and corrosive fluids found in down-hole environments. These connectors are precision-machined and designed to provide superior optical performance in extreme conditions.



Star-Line™/Star-Line™ EX The Amphenol Star-Line™ series connectors are heavy duty environmentally sealed plugs and receptacles used in all types of industrial and aerospace applications. These compact environmental connectors provide outstanding performance in complex ground support cable networks, process control systems, and instrumentation systems. The Star-Line EX® Series is a hybrid form of the parent Starline® product line. Typical uses include: petrochemical refineries, land, and offshore drilling systems.



PRLC The PRLC series uses MIL-C-38999 Series III construction with a Tri-Start mating mechanism, an excellent anti-vibration coupling. The connector has a generic construction throughout, all housed within a shell size 13. Typical applications for PRLC include: oil and gas exploration, and mass transit. The shell material is nickel, aluminum, bronze for marine and mass transit applications and stainless steel for oil field and mining applications.



Precision RF APC stands for Amphenol Precision Connector and was developed by Amphenol and Hewlett-Packard engineers. The APC is the first instrument-grade coaxial connector series to achieve repeatable TE11 mode resonance-free signal transmission from DC - 50 GHz with a minimum return loss of 26 dB. These 50 connectors are designed for test and measurement equipment where reliable performance is critical for repeated connect/disconnect cycles.



Cable Glands Amphenol, the worldwide leader in explosion-proof and hazardous environment interconnects, introduces our broad range of explosion-proof and industrial cable glands. The new Cable Gland product line is designed to perform in the most demanding environments. Amphenol's complete line of EX Zone 1 and 2 rated cable glands offers our customers great flexibility.



PowerBOSS / PowerBOSSlite / ControlBOSS The Advantage Line™ PowerBOSS,™ PowerBOSSlite,™ and ControlBOSS™ hybrid interconnect systems provide power, control, and communication connectivity on a plug and play basis. The development of modular, crush-resistant, factory-molded connectors has eliminated the need for hardwired or traditional conduit installations.



Mini/Micros/Power Distribution Our factory automation patchcords and cordsets were developed in response to the need of a robust, streamlined and scalable product for use in all robotic and material handling systems such as conveyors, sorting, automated storage and retrieval, packaging, overhead transport and palletizing.



ArmorLite™ Protected Cables Amphenol's ArmorLite™ protected cables are a cost-effective solution to expensive conventional armored cables. For many years, seismic exploration companies have looked for a solution to keep seismic crews working in conditions where small animal bites have shut them down. Seismic crews using cables protected with ArmorLite™ have seen production in these areas improve tremendously.



Geophone Strings & Products Amphenol provides a wide range of vibration measurement devices called Geophones. Geophones are sophisticated measuring devices and are based on a coil suspended by springs in a magnetic field, within a steel case. The seismic industry today demands tight tolerances to meet the exacting standards of a modern seismic survey. Amphenol's geophones are a cost-effective solution backed by a 3-year warranty.



Geophysical Connectors Amphenol's geophysical connectors are used in land seismic, transition zone, marine, and down-hole markets. Our capabilities include: land, marsh, and marine geophone, hydrophone, and array connectors; gender and polarity pocket adapters; battery and specialty overmolded connectors; and cable overmolding.



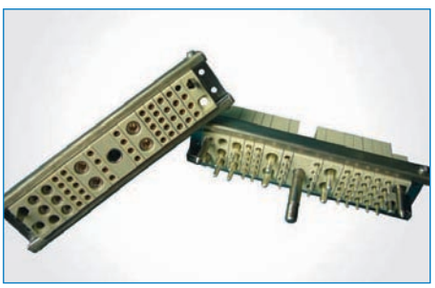
Telemetry Seismic Cables Amphenol is an independent designer and manufacturer of telemetry seismic cables used with a wide range of seismic data acquisition systems such as I/O, Sercel, Aram, and Fairfield. We specialize in engineering products that perform globally in all climates and conditions such as land (arctic & desert), transition, and marine environments.



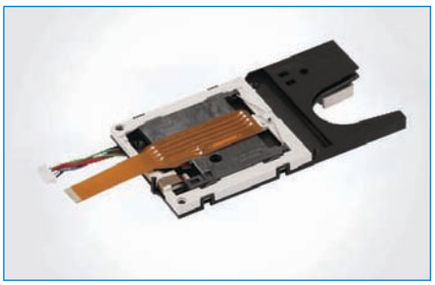
C146 Heavy Duty Connectors The C146 series offers a large range of heavy duty rectangular connectors designed for applications in harsh industrial environments. Inserts for power or signal transmissions are available as well as a modular connector system to combine both in one connector. The robust metal housing offers excellent EMC ratings and can withstand salt spray common in offshore applications.



ePower The ePower 400A connector series is designed for the demanding requirements of hybrid/electric vehicle and utility truck electrical systems operating at 800vdc to 1000vdc with a 300 to 500A rating. The product incorporates the patented RADSOK® technology for higher amperage, lower T-rise, less resistance and mating forces. The connector series offers 2, 3, or 4 contacts.



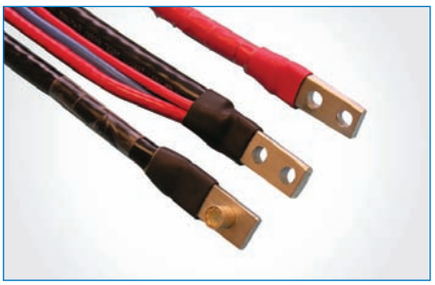
MRC Connector The MRC connector is a modular rectangular connector, and consists of a rugged aluminum frame, plastic modules with many insert arrangements, and crimping contacts for high current (power) and low current (signal). MRC has a self-lockable system specially designed for RMT applications with high vibration.



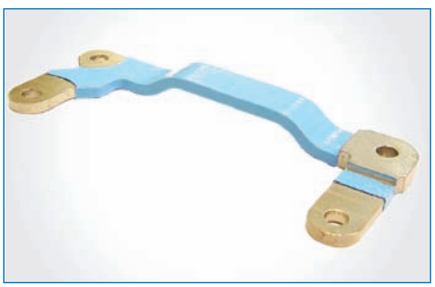
Smart Card Connectors Smart card connectors are integral components of a smart card reader or terminal, and provide electrical contact to the smart card's pads. Amphenol provides smart card connectors for use in a variety of applications such as set top boxes, payment terminals, vending machines, and automotive applications.



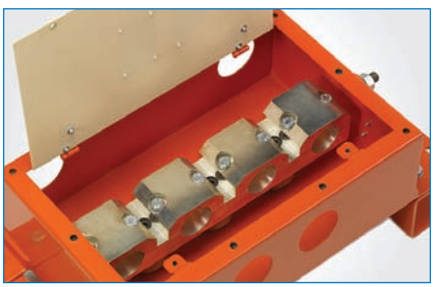
High-Voltage Cable Assemblies Amphenol offers a wide variety of standard high-voltage connectors rated from 1KV to 75KVDC. High-voltage, detachable feed throughs are also available for imaging (X-Ray) and LASER therapy applications. These miniature high-voltage interconnects allow the designer to greatly reduce the size and complexity of oil-filled power supplies and X-Ray tubes. Custom hybrid, high-voltage connectors are also available for applications like defibrillation and electro surgery.



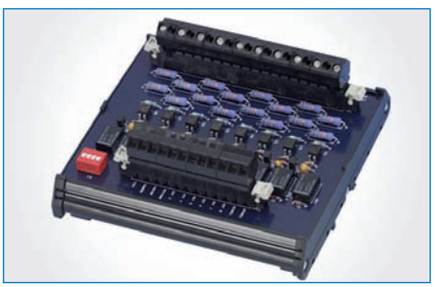
POWERLUG Amphenol's POWERLUG cable termination is formed from contiguous copper stranding, eliminating the crimp joint of standard ring terminals. This significantly increases cable termination reliability while reducing the MV drop inherent within a crimp joint. Closer spacing is allowed as the joint diameter does not exceed the diameter of the terminated cable. Available in standard or custom POWERLUG configurations.



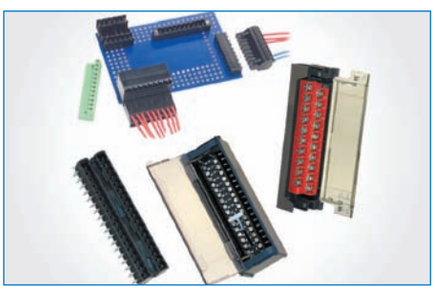
Bus Bar - Power Distribution Amphenol's bus bars provide a means of power distribution between power generator boxes, terminal blocks, and smaller terminal block interconnects. Bus bars are available in various standard sizes and shapes as well as in custom designs. Bus bars present high mechanical resistance and are resistant to high temperatures.



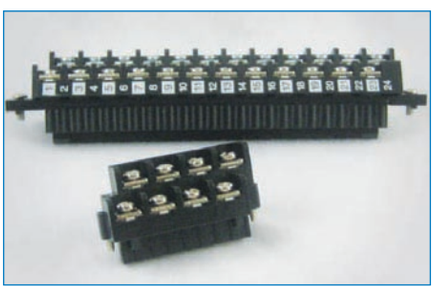
RMT Junction Boxes Amphenol has designed a wide range of termination boxes allowing customers to terminate different types and sizes of cables on the underside and within rail vehicles. These termination boxes are designed to meet very harsh environmental conditions encountered in the rail mass transit market including: high-voltage bus line boxes, traction motor connection boxes, shore supply connection boxes, DC supply connection boxes, and TPWs connection boxes.



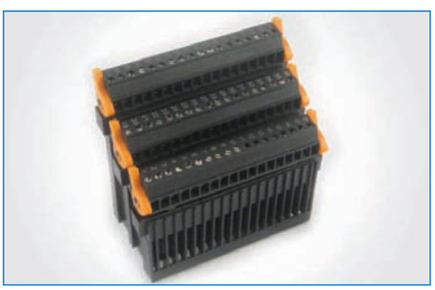
DIN Terminal Blocks & Interface Modules Modular DIN rail-mount "inside the box" wire-to-wire terminal blocks come in screw clamp, spring clamp, and bolt wire attachment configurations. Standard and application-specific DIN rail-mount "inside the box" wiring transition and signal conditioning interface modules for systems integration, supplement DIN terminal blocks to reduce installed cost and enclosure size, while increasing wiring reliability.



PCB Terminal Blocks Amphenol's PCB terminal blocks offer a broad range of standard and application-specific fixed and pluggable I/O for wire-to-board. Available in screw clamp, cage clamp, and spring clamp wire attachment in numerous pitches and are UL, CSA, and TUV approved.



FlexiPlug® Hybrid Pluggable Block Amphenol's FlexiPlug® combines U.S.-style standard screwdriver barrier-block wire terminations with a European-style pluggable block nose, and will mate with most standard headers. Screw/pressure-plate terminations enclosed in a tri-barrier configuration accept either a #2 Philips-head or a 1/4" flat screwdriver and will accommodate up to two 12 AWG wires or ring-/fork-tongue terminals.



Custom Terminal Blocks From complete wiring management enclosures to slight variations on existing designs, Amphenol has all of your custom terminal block needs covered. We are happy to tailor any I/O block to your specific application whether it be performance criteria or just a distinctive appearance. Since we offer a broad range of both standard products and standard options, we are often able to customize even smaller projects without delay or expense.

PRODUCTS

Information Technology and Data Communication

Amphenol is a global provider of interconnect solutions to designers and manufacturers of Internet-enabling systems. Amphenol's range of offerings in backplane interconnect systems, cable assembly, connector products, and electrical and optical cable span applications in servers, storage systems, optical and copper networking equipment, modems, hubs, routers, switches, media display systems, and internet appliances. With our design creativity, simulation and testing capability, and cost effectiveness, Amphenol leads the way in interconnect development for internet equipment, infrastructure, enterprise networks, and appliances. Whether industry standard or application-specific designs are required, Amphenol provides customers with products that enable performance at the leading edge of next-generation, high-speed technology.

Information Technology and Data Communication

Amphenol TCS
United States

Amphenol Cables on Demand
United States

Amphenol Commercial Products - North America
United States

Amphenol Fiber Optic Products
United States

Amphenol InterCon Systems
United States

Amphenol Interconnect Products Corporation
United States

Amphenol Printed Circuits, Inc.
United States

Amphenol RF
United States

Spectra Strip
United States

Amphenol Canada Corporation
Canada

Amphenol TAT Technologies
Canada

Amphenol Tuchel Electronics GmbH
Germany

Amphenol AssembleTech (Xiamen) Co., Ltd.
China

Amphenol CNT (Xi'an) Technology Co., Ltd.
China

Amphenol East Asia Elect. Tech. Shenzhen Co., Ltd.
China

Amphenol RF Asia
China

Amphenol Tuchel Electronics - China
China

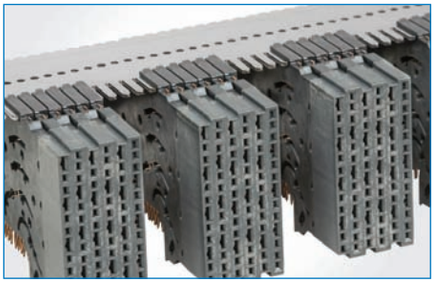
Amphenol East Asia Limited-Taiwan
Taiwan

Amphenol Omniconnect India Private Limited
India

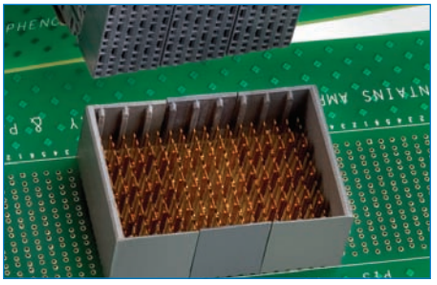


The new mobile internet revolution is creating once unimaginable challenges for operators and equipment makers of the underlying data and telecommunications networks. Amphenol is helping to drive the solution to these problems with our industry-leading high-speed / high-bandwidth interconnect products. Our 25 Gb/s XCede connector family was the first backplane connector to enable these new levels of speed, and our engineers are developing new solutions every day to further enable this data revolution.

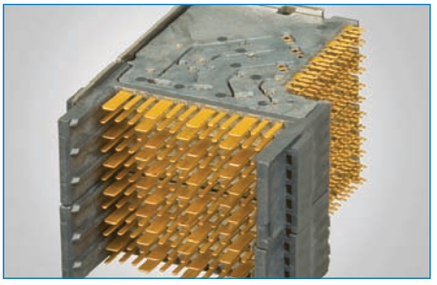




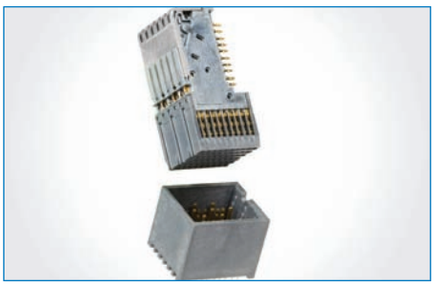
XCede® Designed for 20+ Gbps performance, Amphenol's XCede® connector platform enables the future data rate requirements of datacom, telecom, storage, and wireless equipment. Offering a linear density of 82 differential pairs per inch, the XCede product family meets the true high-density needs of architectures with multiple front or rear fabric slots and blade systems with cooling straight through the backplane. XCede meets the IEEE 802.3ap v3.2 10GBASE-KR standard with margin.



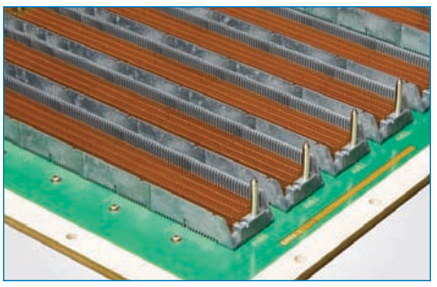
XCede® Stacker The XCede® Stacker enables parallel board-to-board designs with the same high levels of performance and reliability as the XCede backplane system. XCede Stacker is available in a 4-Pair configuration with stacking heights from 15mm to 44mm. Modular construction and guidance options allow optimized connector lengths for each application.



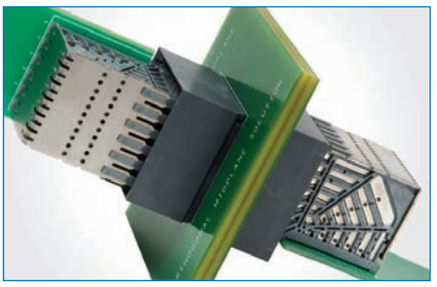
XCede® Right Angle Male The XCede® right angle male connector is a derivative of the XCede® family which enables co-planar board-to-board or board-to-cable high-speed interconnection. With 20+ Gbps performance, the XCede® right angle male mates with standard right angle female daughter card connectors, and is available in 85 and 100 ohm impedance.



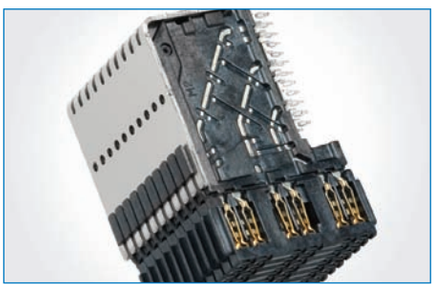
XCede® HD Amphenol's XCede HD is compliant with the Hard Metric Form Factor Requirements detailed in EN 61076-4-101:2001, and features a 36% increase in density as well as enhanced electrical performance design features. This allows the product to be more suitable for tighter card pitches and upgrades to existing chassis designs.



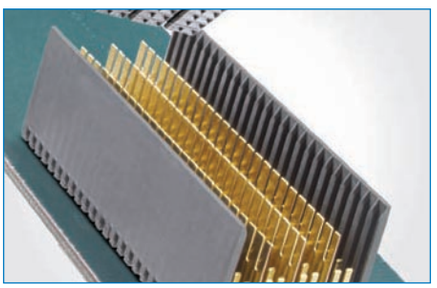
Backplanes & Daughter Cards Amphenol's capabilities are among the world's broadest and most advanced, delivering consistent quality and high-bandwidth systems and mission-critical applications for more than 30 years. Proven engineering and manufacturing expertise eliminates printed circuit (flexible or rigid) design obstacles.



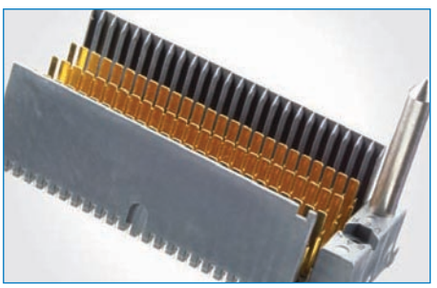
Crossbow™ The Crossbow™ connector system is the first differential connector truly optimized for orthogonal midplane applications. Crossbow is designed so the differential pairs on each side of the midplane share vias, allowing designers to take full advantage of the benefits associated with orthogonal midplane architectures. With 20+ Gbps performance, Crossbow meets the IEEE 802.3ap v3.2 10GBASE-KR standard with margin, ensuring compliance with future 10 Gbps specifications.



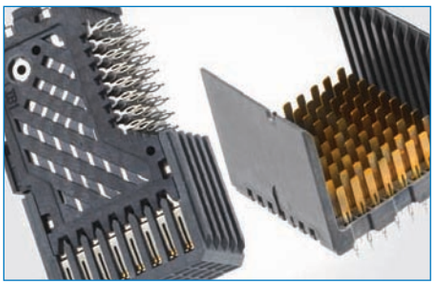
eHSD® Amphenol's eHSD® connector is a shielded, high-density, high-speed press-fit connector system optimized for differential pair architectures. eHSD is designed to support up to 10 Gbps backplane designs. eHSD is fully backwards compatible with VHDM-HSD delivering as much as 10 dB lower crosstalk. A modular design allows all the features and functionality required in a system to be integrated in a single robust connector.



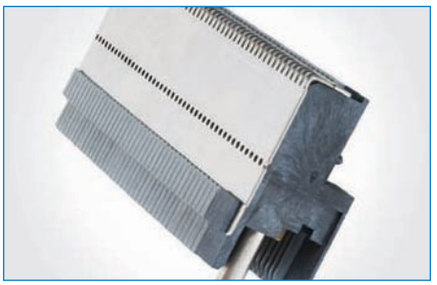
GbX® Amphenol's GbX® connector is a high-density optimized differential connector offering a choice of density configurations. GbX provides increased density, exceptional impedance matching, and low crosstalk. GbX delivers data rates of 5 Gbps and is ideal for 4 x 3.125 XAUI links. The GbX connector provides up to 69 pairs per linear inch (5-Pair configuration) with a choice of configurations (2-, 3-, 4-, and 5-Pair) for higher application flexibility.



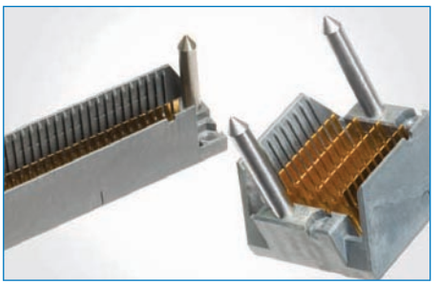
GbX® E-Series Amphenol's GbX® E-Series backplane module is a highly optimized differential connector with a choice of density configurations for application flexibility. The backplane module shares the same footprint as standard GbX, providing a drop-in replacement that allows designers to easily scale existing backplane platforms up to 6.25 Gbps data rates without costly redesign.



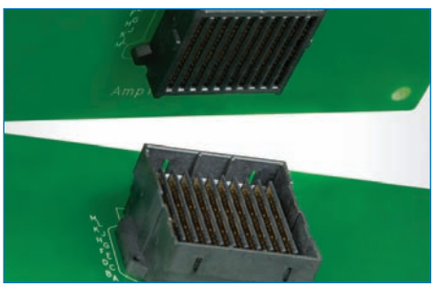
GbX® L-Series Building on the strength of the GbX® product family, the GbX L-Series connector provides additional flexibility with a cost-performance optimized solution. With the ability to combine GbX and GbX L-Series on the same card edge, designers can achieve specific performance needs with a mix of high- and low-speed connections. Ideal for TTL sense and control and other low-speed data lines.



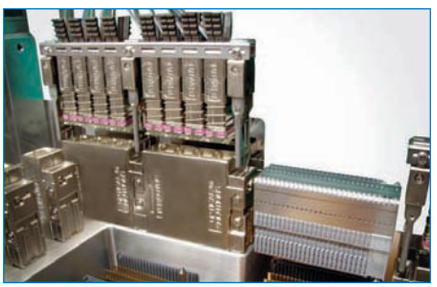
GbX® Right Angle Male Amphenol's GbX® Right Angle Male (RAM) enables co-planar board-to-board or board-to-cable high-speed interconnections. Currently available in 2-Pair configurations (27 differential pairs per linear inch), with two different heights (standard RAM and extended RAM). A high-speed differential and L-Series version are also available.



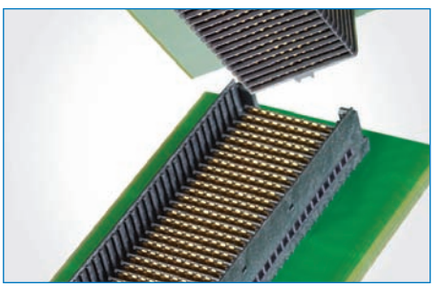
GbX® U-Series Upgrade to enhanced electrical performance by changing the backplane half only. The GbX® U-Series backplane module incorporates a new footprint and backplane housing designed for lower crosstalk and easily scales to data rates up to 10 Gbps. All generations of GbX® daughtercard connectors are compatible with the GbX U-Series.



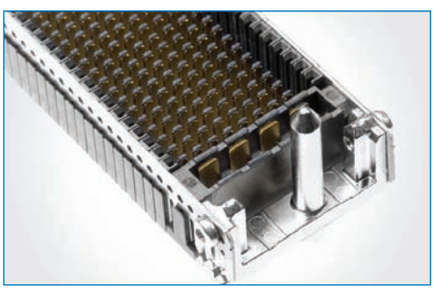
InfinX™ Amphenol is developing the next generation of high speed mezzanine surface mount connectors. InfinX™ is optimized for differential signaling and utilizes patented "dampening resonance" technology. The connector is capable of supporting data rates up to 25+ Gbps, and is offered in 4 and 6 pair versions in stack heights from 10 to 38 mm.



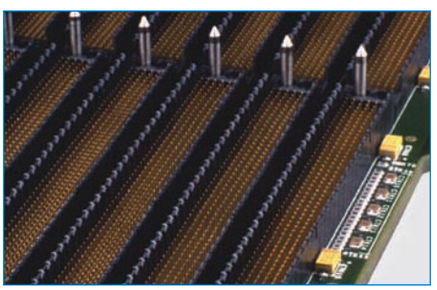
HD-Optyx™ HD-Optyx™ is a blindmate, fiber optic connector, designed for applications where flexibility and card edge density are paramount. The innovative modular architecture facilitates efficient layout solutions and provides a wide array of possibilities during design-ins or system upgrades. Common components may be readily configured for custom applications, eliminating the need for costly tooling and lost time-to-market. The platform combines reliable performance with ferrule protection in one compact, robust package.



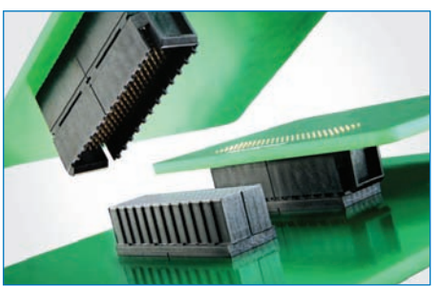
NeXLev® Amphenol's NeXLev® high-density parallel board connector is capable of handling data rates up to 12.5 Gbps, providing a robust solution for your increasing bandwidth demands in mezzanine applications. The connector can be routed to support single-ended or differential architectures and offers 20 stacking heights from 10-33mm. NeXLev uniquely applies BGA attachment technology, widely accepted for its high reliability, making it robust both during manufacturing and in the field.



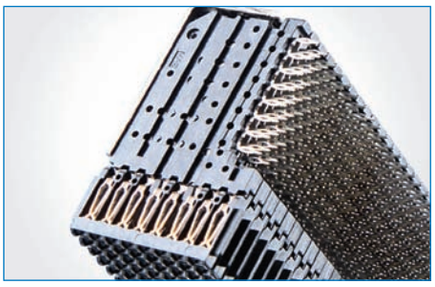
Ventura® The Ventura® platform can deliver data at 6.25 Gbps per signal — the fastest single-ended connector available — and reach speeds of 12 Gbps when driven differentially. With a density of up to 178 pins/inch, Ventura offers the most pins per inch of any connector on the market. Utilizing surface-mount technology to minimize via effects, Ventura is designed for high-performance applications.



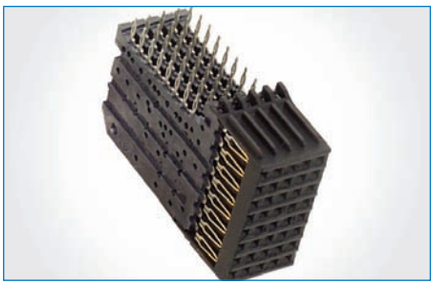
HDM® / HDM PLUS® Amphenol's High-Density Metric (HDM®) and High-Density Metric Plus (HDM PLUS®) connector family is designed for applications that demand a combination of high signal pin density plus high-speed signal integrity. Amphenol's HDM connector family has been chosen for demanding applications in many of the high-performance servers that support the Internet, as well as other telecom and datacom applications.



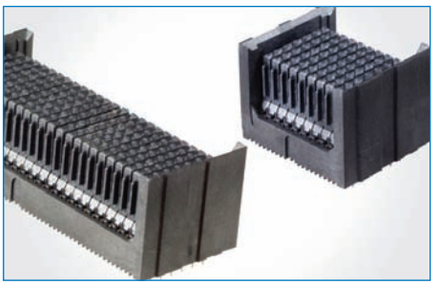
HDM Stacker The HDM Stacker connector optimizes card functionality in a limited space. It can be used in parallel board packaging, mezzanine cards, parallel backplanes, and bridgeboard applications. The connector is available in 72-pin and 144-pin signal modules in soldertail or press-fit configurations. Stacking heights range from 15mm to 32mm.



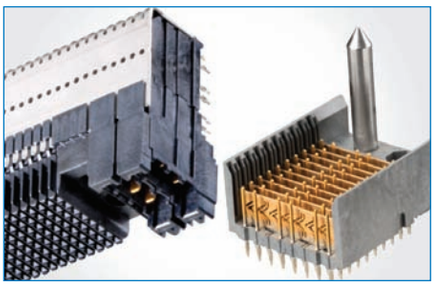
VHDM® The VHDM® connector platform is the industry standard for high-speed backplane applications, with measured performance to 3.125 Gbps and billions of pins installed worldwide. VHDM is available in 6- and 8-Row configurations providing 76 - 101 real signals per linear inch. Stripline shielding allows 100% of the pins to be used for signals.



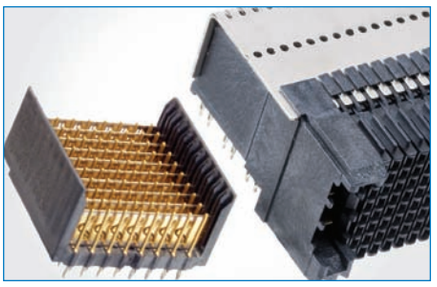
VHDM® L-Series Building on the strength of the VHDM® product family, the VHDM L-Series connector provides additional flexibility with a cost-performance optimized solution. With the ability to co-locate any combination of VHDM, VHD M-HSD,™ or VHDM L-Series on the same connector, designers can achieve specific performance needs with a mix of high- and low-speed connections. Ideal for TTL sense and control and other low-speed data lines.



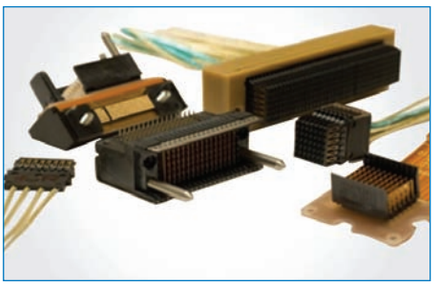
VHDM® Stacker Amphenol's VHDM® Stacker allows the design of parallel board-to-board connections with the high-speed, high-density performance of standard VHDM. The connector utilizes press-fit compliant pins which can be routed single-ended or differentially. Zero and 15 column modules are available with stacking heights from 18mm and up. The VHDM Stacker delivers data rates of 3.125 Gbps with 76-101 real signals per linear inch.



VHDM-HSD™ The VHDM-HSD™ connector is a shielded, high-density, high-speed press-fit connector system optimized for differential pair architectures. A modular design allows all the features and functionality required in a system to be integrated in a single robust connector. VHDM-HSD delivers data rates up to 5 Gbps, scalable to 10 Gbps with backwards-compatible eHSD® connector. Available in 5-, 6-, and 8-Row versions.



VHDM® H-Series VHDM® H-Series uses an 0.018" (.045mm) PCB hole for improved routability, which can eliminate costly layers in the printed circuit board, reduce impedance discontinuities, and improve the ability to back-drill, reducing via stub effects. Additional shield-compliant pins on the daughtercard wafer improve signal integrity. VHDM H-Series is backwards compatible and can be designed into the same slot as standard VHDM, enabling data rates up to 6.25 Gbps.



VHDM® Cable Assemblies Amphenol's VHDM® Cable and Flex Assemblies are the cable solution complement to Amphenol's broad VHDM backplane product family. The VHDM backplane system is a 3.125 Gbpsecond capable connector system on a 2 mm x 2.25 mm grid. Crosstalk is held to less than 5% through the connector.



Aptera™ The Aptera™ connector's low-profile design addresses difficult packaging challenges by balancing high-speed interconnect with the need to conserve board space and maximize airflow. Ideal for the space constraints of high-speed memory and card edge applications, Aptera's low-profile construction reduces minimum slot pitch between daughtercards to 10mm (.39").



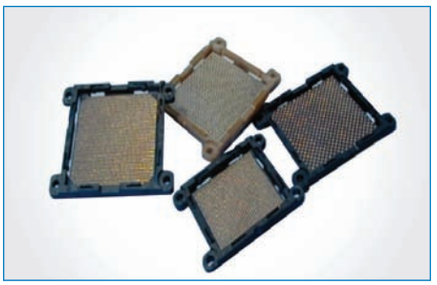
Aptera Stacker™ Amphenol's Aptera™ Stacker provides a mezzanine solution with the same electrical performance as standard Aptera. The connector is available in 40mm board-to-board stack heights, which mate to the standard Aptera backplane modules.



AirMax VS® The AirMax VS® connector utilizes edge-coupling technology to improve electrical impedance control with optimized stagger to minimize signal crosstalk. This innovative combination delivers a cost-effective interconnect for multi-gigabits/s applications. To leapfrog traditional complex Stripline designs, the AirMax VS solution utilizes "Virtual Shields," which eliminate costly metal interleaves between columns. **AirMax VS is a registered trademark of FCI.



C-Byte™ Compression Connector Amphenol has developed the patented C-Byte™ flex compression connector system, to substantially increase interconnection speed, reduce cost and eliminate the soldering of mating connectors to circuit boards. The C-Byte™ flex compression system combines high-signal integrity, solderless connector termination, and low cost in versatile board mating configurations.



cLGA® Socket Connector Amphenol's cLGA® land grid array socket system brings conventional connector-material construction to a high-performance, low-cost socket design. The cLGA® socket is fully qualified under the EIA-540BOAE and Telcordia GR-1217-CORE specifications. The cLGA product is available in standard .050" and 1 millimeter centerline configurations. A wide array of socket sizes and styles is available.



cStack™ Amphenol's cStack™ flex circuit assemblies combine low-cost termination with high-speed, impedance-controlled interconnection performance. The patented cStack™ stacking connector used to terminate these assemblies provides high signal integrity interconnection technology, because of the connector's low (.048 inch) profile between flex and board. Flex circuitry for all cStack™ flex assemblies can be electrically and mechanically customized to exactly fit system specifications.



Harsh Environment D-Sub: MDB Series Amphenol's rugged D-Subs provide a cost-effective option for harsh environments. These environmentally sealed D-subs utilize high-performance thermoplastic inserts and metal die cast shells and are supplied with screw machine contacts. These connectors are available in both standard and high-density versions and a variety of termination styles.



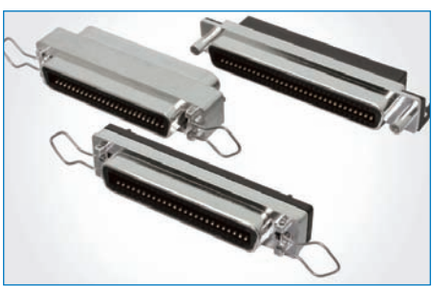
Harsh Environment RJ45: MRJ Series Amphenol's complete range of rugged RJ45 connectors provides an ideal solution for network data transfer in harsh and demanding environments. This family of connectors meets military shock and vibration requirements and are rated for IP67.



Harsh Environment USB: MUSB Series Amphenol's complete range of rugged USB connectors are offered in single and stacked versions with rugged features that provide the ideal solution to data transfer in harsh or demanding environments. This family of connectors meets military shock and vibration requirements and are rated for IP67.



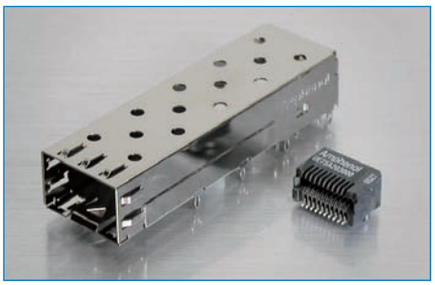
E-SATA Receptacle Amphenol's high-performance external SATA receptacle has evolved from internal or inside-the-box SATA interface technology. External SATA brings the same performance and features of external storage solutions such as USB 2.0 and Firewire (IEEE 1394) to the SATA interface.



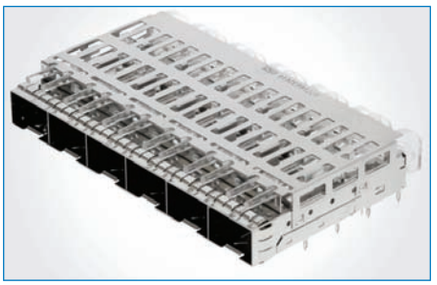
Filtered Connectors Amphenol's FCC57 series of filtered micro-ribbon connectors provides a very cost-effective solution to combat EMI. The family of connectors is the telephone industry's standard for multiple line connections. Available in 36, 50, and 64 sizes with a variety of termination styles, including: male/female, right angle PCB, vertical, press-fit, and solder cup.



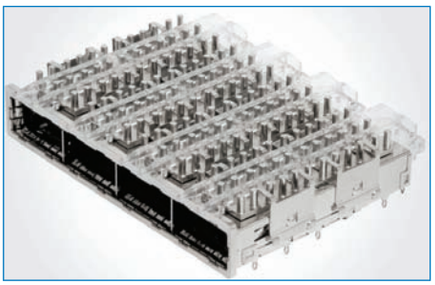
FPC Amphenol Flexprint connectors (C007 series) accommodate 0.3 mm thick flexprint cable with different contact configurations and pitch sizes. The double-sided, pre-stressed contact shape guarantees secure contact between the flexprint circuit and the connector, and allows insertion of the flexprint cable in either upward or downward direction.



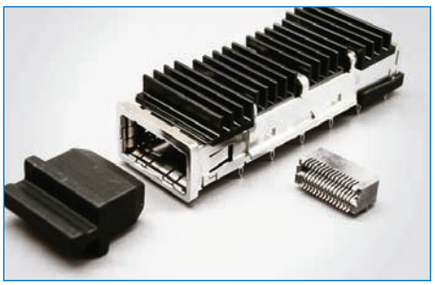
SFP Connectors and Cages Amphenol's extensive offering of SFP 1xN cages, SMT connectors, and 2xN press-fit stacked combos cover virtually every standard configuration as well as many custom designs, and are compliant with governing MSAs and standards. 1xN and stacked cages are available with light pipes, heat sinks, and a variety of cage footprints in both press-fit and solder tails designs.



ExpressPort™ SFP+ Connectors and Cages Amphenol's ExpressPort™ SFP+ series provides the next level of performance in the SFP family, supporting data rates from 10 to 16 Gbps per channel, in both 1xN and 2xN stacked configurations. ExpressPort™ SFP+ cages are available with a variety of options including heat sinks, light pipes and EMI grounding/sealing features (spring fingers or elastomeric gaskets).



QSFP / ExpressPort™ QSFP+ Connectors and Cages QSFP cages feature through panel or behind the panel EMI sealing features, as well as light pipes and a variety of heat sink options to satisfy any thermal management requirement. The connectors are available as standard surface mount QSFP or ExpressPort™ QSFP+ versions, which offer higher data rates and increased bandwidth, reduced cross talk and resonance cancellation.



XFP Connectors and Cages Our robust XFP connectors and cages are available in a single port configuration with a variety of standard heat sink options, EMI cage grounding features, and data rate capabilities to 10 Gbps. These press-fit cages and surface mount connectors can be mounted "belly to belly" on a PCB to provide a stacked configuration on the panel.



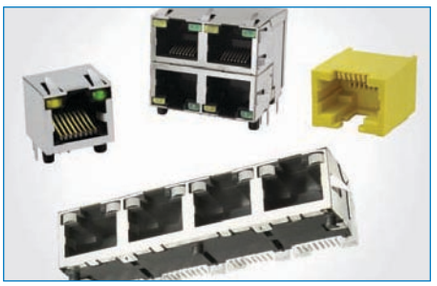
Mini-SAS I/O Connectors and Cages Amphenol's Mini-SAS I/O connectors and cages provide 4 data channels per port functioning at a data rate of up to 6 Gbps per channel, and are widely used in storage system applications (1.1,2.0, and 2.1 standards). Available in 1, 2, or 4 port configurations, our Mini-SAS cages feature a variety of EMI grounding and sealing features.



Mini-SAS HD I/O Integrated Combo Our Mini-SAS High-Density connector system contains a cage and two row stacked connector in a single press-fit package, providing 4 data channels per port, at 12 Gbps per channel. The combo features integrated heat sinks, and can be used with copper passive, active, or optical cabling systems. Applications include HBA servers, storage devices, switches, and rack-mounted computers.



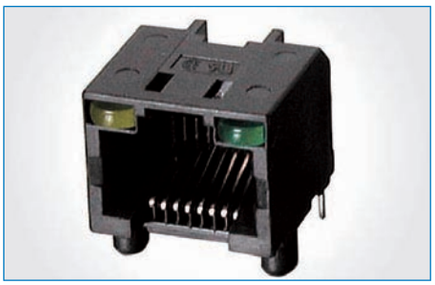
Infinity Connectors The Infinity series of receptacles is compliant with SFF-8470 specifications, and is available in both 4x and 12x configurations. Lanyard latching mating styles are available for use with CX4 and InfiniBand applications, as well as Screwlock mating styles for use with SAS, Fibre Channel and 10Gb Ethernet applications.



Standard Modular Jacks Amphenol offers an extensive variety of modular jacks suitable for many applications with varying performance requirements. Optional features include color keying, shielding and LEDs. RJ11/45 types are available in single, multiport and stacked configurations. Select series have filtering capabilities for superior EMC performance using a high resistivity ferrite block.



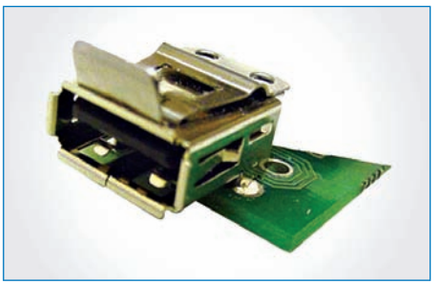
SlimDrawer Connectors Part of the CoolPower® product family, SlimDrawer connectors are blindmateable, and combine robust, high-performance reliability with cost effective features critical in today's applications. Connectors can be easily configured to accommodate a variety of mixed power and signal arrangements. Power contact options include high-current CoolBand or RADSOK® technology for maximum performance.



RJ11/45 Amphenol offers high-speed (over 1 Gbps) RJ45 with integrated magnetics. These connectors provide a full spectrum of data speed for RJ45: from 10Mbps to beyond 1 Gbps. Our RJ45 connectors can integrate LEDs into the connector package for easy port identification.



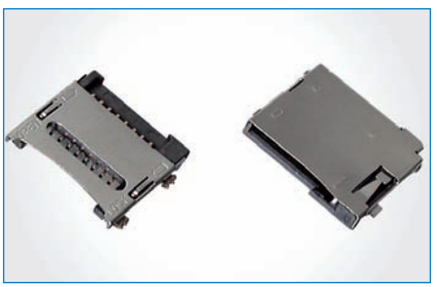
SCA2 (Single Connector Attachment) Amphenol's SCA2 is a type of connector used for internal SCSI cabling systems. "Hot-swapping" allows seamless replacement of failed RAID drives, which greatly simplifies system maintenance procedures. SCA2 features a single plug configuration carrying signal, power, and jumpers together.



USB with Positive Locking: LUSB Series Amphenol's USB, Series A with a unique latching mechanism has been developed to address major concerns of unintentional interruption of data transmission. This patented, unique latching mechanism must be intentionally raised in order to remove the plug. An accidental pull on the cable up to 22 lbs force will not separate the connectors.



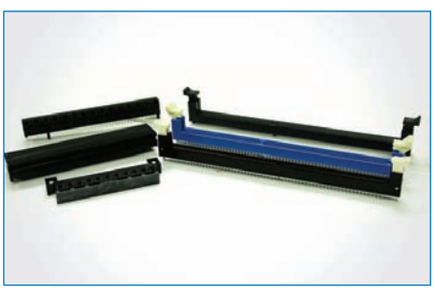
MDR Amphenol's MDR is a high-density shielded I/O connector with a broad range of board-mount, wire-mount, and cabling components. Ribbon contact is on a grid, which provides a small footprint connector, creating a reliable system for repetitive plugging and unplugging in I/O applications.



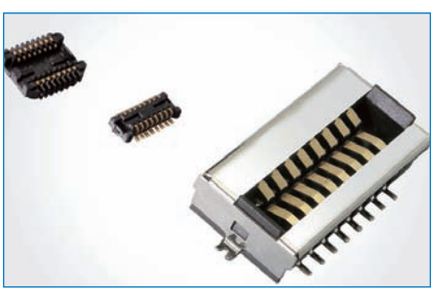
Memory Card Sockets Amphenol offers a full range of flash memory connectors (including SD, Mini-SD, Micro-SD, xD, CF1 & 2) with numerous features such as low-profile design, normal or reverse mounting, manual or push-push insert style, and a locking feature to prevent the card from dropping out. Available in SMT, straddle mount, or through-hole termination.



Smart Card Connector Smart Card Connectors are integral components of a smart card reader or terminal, and provide electrical contact to the smart card's pads. The connector is not a standalone peripheral device. An additional interface circuit is necessary to be able to read and write to the smart card whether a smart card is a memory only or a microprocessor card.



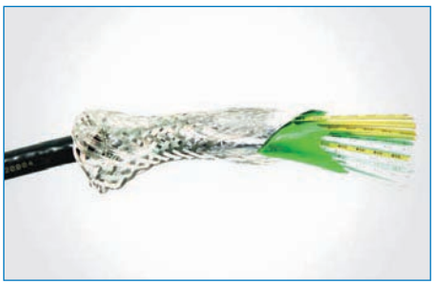
DDR3 Amphenol's DDR3 connectors are designed to accept most industry standard DDR memory types such as DIMM or VLP DIMM. The sockets allow convenient memory expansion in servers, workstations, and desktop computers. The DDR3 is engineered per JEDEC MO-269 spec and complies with SO-007 spec.



BTB Board-to-board connectors are available in plug-socket pairs with pin counts ranging from 8 to 50. Spring-type board-to-board connectors are robust and suitable for use in applications where vibration is common, such as application in a car audio system.



EXD Skewclear® Cable Amphenol's EXD (Extended Distance) cable has been developed to improve basic attenuation in high-data-rate twinaxial copper cables and totally eliminate high-frequency resonances (suckouts) that can severely affect harmonic signal content in these systems. Our EXD cable offers a 10%-20% attenuation improvement, and resonance elimination up to 20GHz.



EXF Skewclear® Cable Amphenol's new family of EXF (Extended Frequency) Skewclear® cable is designed for high-frequency applications such as InfiniBand, PCI Express, 10 / 40 Gb Ethernet, and SAS. Constructed with flexible low diameter foam PE, EXF Skewclear® exhibits improved bandwidth over traditional Skewclear® cables.



Internal Flat Multilane SAS Flat Multilane SAS / PCIe is a new product offering designed to offer a planar packaging option inside crowded storage drive bays. Constructed with either 30 or 32 AWG 100 ohm Skewclear® pairs and "side drain" technology, these options are thin, flexible, and are available in custom high-flex life options.



Optical QSFP Ribbon Amphenol supports a complete family of optical ribbon cables supporting QSFP and CXP applications. Cables are available in plenum, riser, or halogen free constructions with single or multimode fiber.



DisplayPort Cables and Dongles Amphenol provides a full range of DisplayPort cable assemblies and dongles including DP-DVL-SL, DP-DVI-DL, DP-HDMI, DP-VGA, and DP-LVDS. DisplayPort enables greater integration on both sides of the interface and consolidates internal and external connection methods to reduce device complexity and the cost of digital displays.



USB The Amphenol series of USB receptacles, plugs, and cable assemblies is a complete system of interconnection technology designed in accordance with Universal Serial Bus Specifications. In addition to normal USB Type A and B, Amphenol supplies compact Mini-USB and Micro-USB connectors and cable assemblies.



CX4 / CX4 Active Amphenol's CX4 high-speed active assemblies are ultra-high-performance, cost-effective I/O solutions for gigabit speed applications in data and switched fabric I/O, switches, routers, and computer clusters. Amphenol's assemblies exceed CX4 standard requirements and have been qualified to perform at 5Gb or Double Data Rate (DDR) Infiniband and 10GBASE-CX4. Our active assemblies are cost-effective and provide lower EMI when compared to media converters.



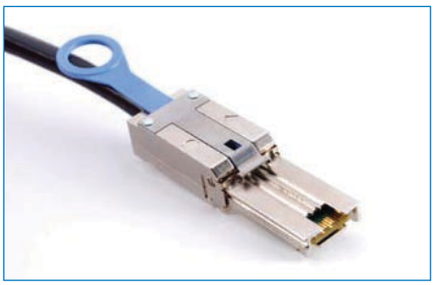
InfiniBand (4x & 12x) Amphenol's Infiniband (4x & 12x) high-speed assemblies are an ultra-high-performance, cost-effective solution for gigabit-speed applications in data and switched fabric I/O, switches, routers, data storage arrays, and computer clusters. Available in 4 or 12 channels, Amphenol's high-speed assemblies meet and exceed Infiniband standards and requirements and have been tested to work at Double Data Rate (DDR).



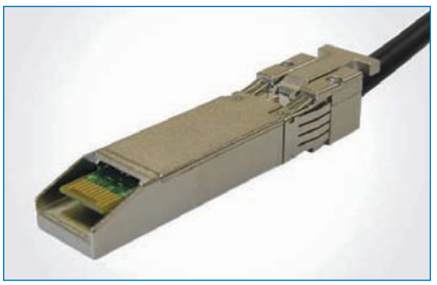
SATA Connectors & Cables Amphenol offers a complete range of standard and customized Serial ATA (SATA) cable assemblies. SATA provides much higher-speed data transfer than the traditional Parallel ATA standard. SATA cables are also much smaller than that of PATA and provide better airflow within the device box, lowering manufacturing and maintenance costs.



SAS Cables & Connectors Amphenol's High-Speed Serial Attached SCSI (SAS) Assemblies are ultra-high-performance, cost-effective solutions for high-speed serial buses supporting SAS architectures. Our High-Speed SAS Assemblies meet or exceed SAS-2 standards and requirements.



Mini SAS Cable Assemblies Amphenol offers a full range of mini-SAS interconnect systems for both connector and cable assemblies. Our offering includes conversion cables to legacy SFF-8484 4x SAS interfaces and break-out cables to individual SATA or SAS drives. The cable assemblies provide 100 ohm differential impedance with tight skew control and low crosstalk. Multiple cable lengths are offered standard, as well as customized lengths upon request.



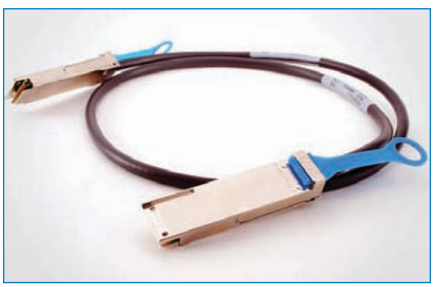
SFP / SFP+ Cable Assemblies Amphenol's SFP+ cable assemblies are high-performance, cost-effective I/O solutions for 10Gb Ethernet and 10G Fibre Channel applications. SFP+ copper modules allow hardware manufacturers to achieve high port density, configurability, and utilization at a very low cost and reduced power budget. Amphenol's high-speed cable assemblies meet and exceed Gigabit Ethernet and Fibre Channel industry standard requirements for performance and reliability.



SFP with Limiting Amps An Amphenol-developed solution, SFP with Limiting Amps allows systems to transparently accept copper in place of optical modules. This solution offers a significant cost reduction and is available in lengths up to 20m. The design also uses approximately half the power, reducing ongoing energy costs. This copper solution maintains Tx Disable and LOS.



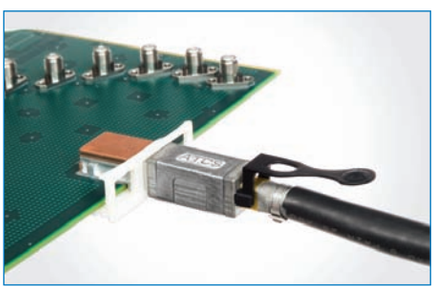
QSFP/QSFP+ Cable Assemblies Amphenol's QSFP copper cable assemblies are a high-performance, cost-effective interconnect solution supporting Ethernet, Fibre Channel, Infiniband, SAS, and SONET/SDH applications. QSFP copper modules provide a high-density, high-bandwidth solution at very low cost and reduced power budget. Amphenol's high-speed cable assemblies meet and exceed industry standards for performance and reliability.



QSFP/QSFP+ Active (Linear & Limiting Amplifier available) QSFP with linear or limiting amps allows systems to transparently accept copper in place of optical modules. This solution offers a significant cost reduction versus optical transceivers or active optical cables and is available in lengths up to 15m. It is designed with a squelch feature for chatter free operation.



QSFP Direct Attached Active Optical Cables Amphenol QSFP DACs are a high-performance, low-power consumption, long-reach interconnect solution supporting InfiniBand, 40 Gigabit Ethernet, and Fibre Channel. QSFP AOCs provide a high-density, high-bandwidth solution while exceeding industry standards for performance and reliability using Silicon CMOS Photonics Technology.



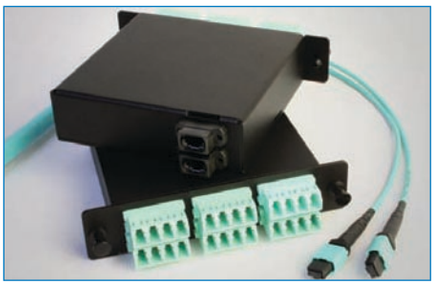
XCede® Cable Assemblies Amphenol has developed XCede® high-speed cable assemblies. Amphenol now offers the flexibility of a stackable wafer system, allowing for infinite custom connection options, including power, guidance, and multiple differential pair offerings in both VHDM® and XCede® product families. XCede® cables support a 10Gb serial data rate in multi-aggressor configurations.



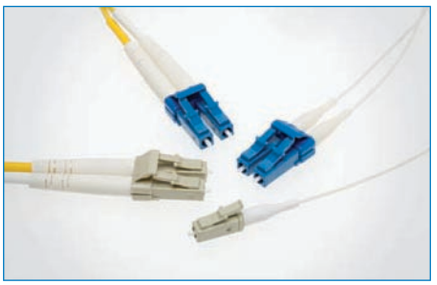
DVI to LVDS Cable Assembly Amphenol's DVI to LVDS cable assembly is just one example of the customized cable assemblies we can produce for our customers. We have the capabilities to create the custom cable assemblies required by your business. We specialize in creating complex yet cost effective solutions and can easily handle high-mix high-volume product assortments.



DC Jack Whereas most DC jacks are used for power input, Amphenol's unique looking barrel connector was designed for use as a DC output jack. Available in both through-hole or SMT mounting options, Amphenol's family of DC jacks enjoy significant technical advantages over competing products for EMI and RFI resolving.



Multi-Fiber Cable Assemblies and Modules Amphenol has a variety of multi-fiber products suited for high-density 10G and beyond speeds. MPO cassettes provide a modular and easily expandable solution for ease of growth in the data center environment. Comprised of a high-density MPO connection on the back and LC or SC adapters on the front, the cassettes can quickly configure to any installation environment.



LC Cable Assemblies Amphenol's fiber optic LC small form factor connector cable assemblies provide high-density connections for a variety of telecommunications applications. Amphenol utilizes TIA 604-10, IEC 614754-20 compliant connectors for assemblies. Connectors are available in 900um, 2mm, or 3mm, short or standard length options, and simplex and duplex configurations.



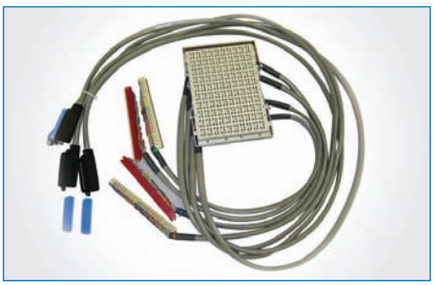
Fiber Optic Cable Assemblies Amphenol is a premier manufacturer of optical interconnect products. Amphenol cable assemblies are offered in a variety of standard configurations utilizing LC, SC, FC, and ST in both single mode and multimode versions. Multiple cable constructions and custom cable options are available. Amphenol assemblies are designed to meet the most stringent industry standards.



Battery Harness These cables form an alarm harness in an Uninterruptible Power Supply system. The specially designed D-sub assemblies are tested water-tight at a depth of 3 meters (10 feet). This ensures reliable signal interconnect performance under the severe conditions typically encountered in outside cabinets. Individual assemblies permit substantial variation in length, configuration, and form factor for completed harnesses.



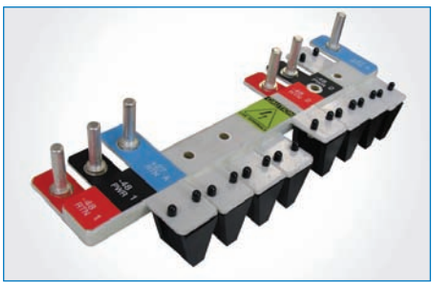
Signal/Power Cable These ruggedized power and signal cable sets have been bolstered with additional metal and nylon braid to significantly increase mechanical strength and add life under extreme usage conditions. Also featured are water-resistant molded inline switches that can be manufactured with any switch form available. The military strain-relieved connectors coupled with environmentally-sealed action buttons and robust cables makes for a very rugged product.



Surge Supressor Cable This 100-pair assembly serves to protect telecom cabinets from electrical surges caused by lightning strikes. The panel is loaded with individual surge protectors for each and every line. The variable length cables can be terminated with every common interconnect known to the telecom industry. Amphenol has developed an advanced development program for this assembly that can improve the form factor and provide cost reduction.



Backplane Power Amphenol's backplane power series is designed to package high-power availability in a small form factor with customized options. This new range has many unique features to meet or exceed existing competitive products in power density.



Bus Bar Amphenol has expansive capabilities in producing customized bus bar solutions. Amphenol bus bars improve system reliability and power system life by replacing unreliable cabling and wiring harnesses. In addition, Amphenol's custom bus bars allow for denser packaging and are individually engineered to fit a customer's application while minimizing space-taking wiring harnesses and cables — allowing increased airflow.



System Integration Amphenol has over 10 years' experience building complex systems and sub-systems. We combine unparalleled engineering with industry-leading connectors, high-technology printed circuit board and backplane assembly expertise, and systems integration services to deliver total solutions. Technology-focused vertical integration means technology leadership where it matters and focused program management to speed your system to market with the highest possible quality at the lowest possible cost.

PRODUCTS

Medical

From critical components to complete electronic packages, Amphenol delivers custom and standard medical interconnect solutions. Combining unmatched product breadth, engineering expertise, and global manufacturing, Amphenol provides interconnect solutions where, when, and how its customers need them. In applications ranging from patient monitoring and imaging to therapy delivery, Amphenol Medical Solutions empower leading edge medical devices. Amphenol Medical Solutions is the transformative power of connectivity.



Once reserved for use in X-ray tubes and heart defibrillation, the application of high energy to new medical technology has expanded dramatically. Amphenol provides connectors, cable assemblies, and complete turnkey solutions capable of handling the demands of high energy pulsed DC for a wide variety of power and energy requirements. “High Energy” does not just define the way Amphenol Medical Solutions responds to its customers, but it also defines the interconnect solution we provide.

Medical

Amphenol Medical Solutions
www.amphenolmedicalsolutions.com

Amphenol Alden Products
United States

Amphenol Commercial Products - North America
United States

Amphenol Fiber Optic Products
United States

Amphenol Industrial Operations
United States

Amphenol InterCon Systems
United States

Amphenol RF
United States

Amphenol TCS
United States

Amphenol Tuchel Electronics GmbH
Germany

Amphenol Alden Products
China

Guangzhou Amphenol Sincere Flex Circuits Co., Ltd.
China





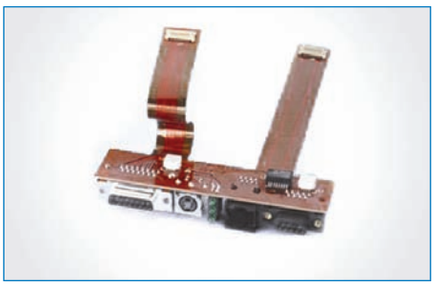
Custom Electronic Devices Amphenol offers complete design, development, and manufacturing services for producing medical Hand Pieces, Electrode Paddles, and other Electronic Accessories. From "Art to Part," Amphenol can participate at all levels from a custom molded, plastic housing (with integral connections) to a fully functional, turnkey solution. Intelligent cable assemblies are also available.



Medical Cabled Products The demanding operating room environment can test the quality and toughness of a connector/cable assembly like none other. From precision power tools to catheters and probes, these instruments must be able to endure repeated use, mechanical stress, and sterilization. Amphenol's Pulse-Lok® line of auto-coupling connectors and integrated overmolded cable assemblies is engineered to withstand the unique challenges of this demanding environment.



Circular Connectors It is rare to see a medical electronic device without one or more circular connectors. These connectors must be intuitive to use, attractive to the eye, and highly reliable. They can be industry standard or customer specific. They can be plastic or metal and they can incorporate copper, fiber, coax and or fluids or gases. Amphenol has what it takes to meet any circular connector requirement.



Flex Circuits Amphenol's product offering includes Type I through Type V Flex Circuits (single-sided, double-sided, multi-layer, and rigid-flex). Additionally, we offer sculptured and power flex, as well as bus bars. Our state-of-the-art manufacturing facility builds product to IPC-6013 (Class I, II, and III) standards and is ISO 9001:2001 and ISO 14001 certified. Our services include applications assistance, and full in-house design, manufacture, assembly, and test of custom Flex Circuits and Flex Circuit assemblies.



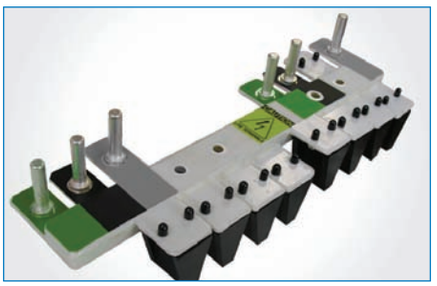
High-Density As the functionality of today's electronic devices becomes ever more complex, the electronic content inside the devices is placing a greater demand on the circuit capacity of the interconnect system outside the devices. Amphenol is meeting these challenges and leading the way with high density connectors, flex circuits, and high speed cables. Examples include products like the Pulse-Lok® with up to 144 contact positions in a housing measuring 1" in diameter. At the board level, cStack™ connectors provide up to 127 lines per linear board inch (5 rows on 1 mm).



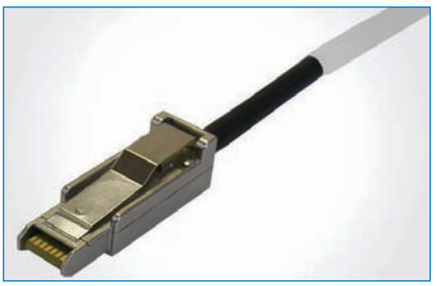
High-Voltage Cable Assemblies Amphenol offers a wide variety of standard high-voltage connectors rated from 1KV to 75KVDC. High-voltage, detachable feed throughs are also available for imaging (X-Ray) and LASER therapy applications. These miniature high-voltage interconnects allow the designer to greatly reduce the size and complexity of oil-filled power supplies and X-Ray tubes. Custom hybrid, high-voltage connectors are also available for applications like defibrillation and electro surgery.



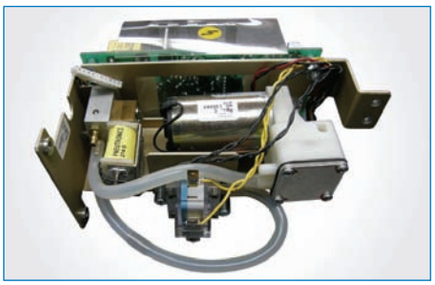
Hybrid – Custom Connectors Today's applications often require mixed media and embedded intelligence to enable multi-functions and prevent misuse. To facilitate cable management, many functions are combined into a single condensed connector and cable assembly. Amphenol's solutions range from standard modular connectors that are easily configured to meet specific application requirements to custom connectors and cable assemblies. We can combine signal, high-voltage, high-current, RF, light, pneumatics, and fluids into a single connector package to your specifications.



High-Power When it comes to choosing a suitable power connection for your application, Amphenol has the expertise to design a solution that best fits your needs. Features of our Power Distribution Bus Bars include utilization of single- or multiple-layer conductors and significantly less EMI than wiring harnesses. Customized to voltage, current, space restrictions. Available laminated and powder coated. Eliminates complex wiring and reduces heat emissions.



High-Speed Cable Assemblies Amphenol's high-performance interconnects are capable of transferring data with optimization, speed, integrity, and reliability. Products include shielding with low-loss, crosstalk & EMI, high data rate (bandwidth), and low-skew. High-density & efficient space utilization is addressed by these products. Ergonomic user interface is utilized. Types of cables include: Fibre Channel and Gb Ethernet, HSSDC2, SFP, SFP+, Optical: OM3, Transceiver Module and Infiniband, SAS, and CX4.



Build-to-Print Box Build Amphenol manufacturers cable assemblies, wire harnesses, patient monitoring cables, and box build applications to customer specifications. Our custom engineered solutions address high-mix, low- to mid-volume applications that encompass high value components. Our cable assemblies consist of multi-conductor, discrete wire and molded products. We offer signal and power harnesses for inside the box. And our box build portfolio includes pneumatic pump assemblies, power sources, mechanical sub assemblies, and patient monitoring assemblies.



Micro-Miniature Termination, Thermocouples, and Cable Assemblies Expertise in wire management and fine wire termination to connectors, flex circuits, and circuit boards allows us to meet shifting medical marketplace demands. We terminate coax and micro-miniature ribbon cables using wires as small as 46 AWG (.0015) on .0045 centerlines, and offer welded termination of 44 AWG and larger type t, k, or e thermocouple cables. Amphenol's process and design capabilities allow for micro-termination (35 – 44 aWg) with superior reliability. By standardizing equipment, we have successfully developed redundant capability in China, to offer customers a lower cost solution where required.



Brush Contact Connectors Multiple strands of high-tensile-strength wire bundled together to form brush-like contacts provides low mating force, extended service life, and stable electrical performance. Brush contacts provides superior electrical characteristics: redundant current paths, minimized constrictive resistance, uniform current densities stable time/life contact resistance gas tight and electrical contact site integrity, and 20,000 cycles of mating and unmating.



RockSolid Connections With traditional contact system design, failure is inevitable when confronted with continuous frequency vibration, temperature cycling, environmental fluctuations, and corrosion. With a little forward thinking and design, we offer RockSolid, which is a novel hyperbolic contact solution. Some features include immunity to shock and vibration, low contact resistance, low insertion and extraction forces, and longer contact life.



RADSOK® Amphenol can upgrade many core connectors and offer custom connector solutions by adding our patented RADSOK® contact. RADSOK® is a RADial SOcKet that was developed from a flat, stamped grid, twisted into a hyperbolic geometry to form a socket contact with unique characteristics. The hyperbolic grid maintains more current by having a greater conductive surface area. Unique features of RADSOK include high reliability, low-voltage drop, high cycle durability and low insertion force.



RFID Connectors Amphenol has combined the state-of-the-art technology of Radio Frequency Identification (RFID) with their industry-leading Pulse-Lok®, SMA and ST connectors. This combination provides our customers with the ability to secure and control their high-power laser delivery systems in a safe manner. The RFID integrated connector allows the OEM to protect their product by securely programming individual serialization and critical data through the read/write capability of the transponder tag.



RF – Coax Non-magnetic coaxial connectors are used for carrying 50 Ω RF signals within the magnetic field of MRI equipment where a high signal-to-noise ratio (SNR) is required. These connectors are manufactured under strict quality procedures throughout the entire production process to ensure that each connector will not produce image artifacts during MRI scans. All products are 100% tested for magnetism prior to shipping and are available in the following interfaces: SMB, MCX, and MMCX. Applications include RF ablation and wireless patient monitoring.



Non-Magnetic Connectors A range of connectors including RF, Coax, Amphelite® and Pulse-Lok® are now offered in non-magnetic versions to meet the unique needs of MRI and other applications in which magnetic interference poses a challenge. Manufactured using durable, corrosion-resistant non-magnetic composite materials, these connectors will not produce image artifacts in MRI scans and are made for years of use in medical environments.



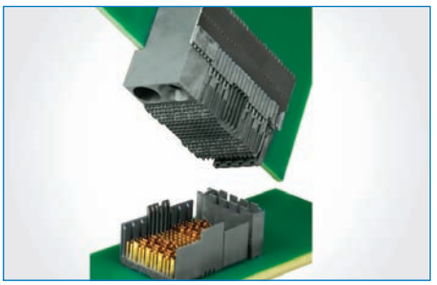
Wireless Monitoring Wireless patient monitoring allows hospitals to monitor patients' vitals without being tethered to their beds. This technology is possible by installing access-points throughout hospitals, which connect to a centralized monitoring station. These access-points are connected via long CAT-5 (data) and 75 Ohm (coax) cable assemblies. Amphenol combined the data/coax into a single fireproof "jacket" that can be installed in a single cable "pull" rather than two individual "pulls."



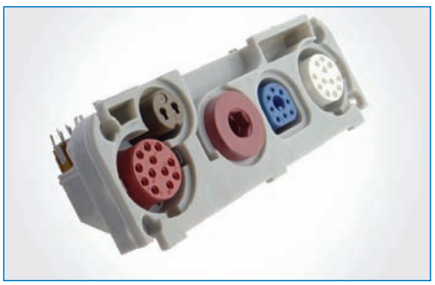
Board Level & Standard I/O Amphenol's wide range of board level components and I/O connectors include high-speed interconnects, modular jacks, D-subs, USB, and ribbon connectors designed to meet the demands of today's most sophisticated devices. Customizable and standard shielded and filtered products are available for applications in which EMI must be mitigated to maintain maximum signal integrity.



cStack Amphenol's cStack high-speed solderless interconnect solution provides limitless flexibility for board-to-board mezzanine applications and board-to-board stackable and coplanar applications when terminated to a flex circuit. 1mm – 5mm housing heights provide a solution for any application where space is tight and speed and reliability are required. cStack provides a low-cost, high-speed board-to-board solution for imaging systems and diagnostic systems as well as hand-held devices.



Mezzanine / Backplane Connectors Amphenol's broad range of high-speed and high-density backplane and mezzanine product families allow design engineers to achieve their performance and reliability targets. Amphenol's XCede® connector platform is designed to enable 20+Gbs performance for future data rate requirements. Our experienced team of engineers and online design tools enable key early backplane design and system design decisions.



Custom Connector Blocks Amphenol is dedicated to the development of new products, designed specifically for the medical market. Our broad knowledge base and know-how from many years of experience enables us to offer creative and well thought-out interconnect solutions. Early involvement between Amphenol and our customers guarantees a high degree of quality for newly developed products and a shorter time to market.



Fiber Optics Amphenol's broad product offering includes fiber management systems, cable assemblies, adapters, attenuators, couplers and wavelength division multiplexers for use in virtually any fiber optic application. The SMA FiberGrip® Connector is a simple to use, epoxyless, fiber optic interconnect solution for markets where high-power delivery is required. This two-piece connector is designed as a safe and cost-effective product that allows for efficient ease of use during termination. The connector is available with custom optical fiber hole sizes and ferrule tip configurations. Other standards available including SC, LC, FC, ST, LX.5.



Filtered D-Subs Amphenol's stress isolated filter D-sub product line combines filter elements in a connector, forming one neat, compact interconnect device that can filter unwanted radiated or conducted EMI. This same filter connector will also protect the system from external EMI/RFI noise. Available in all termination styles, both male and female, with high-voltage capabilities and a wide range of filter capacitance values, these compact filter connectors fit standard non-filtered connector footprints.



Power Cables Amphenol offers connecting leads with highly flexible 4 or 6 mm^2 wires and feature plugs with hyperbolic RADSOK® high current contacts insulated for potential equalization according to din 42801. Connector lead cables are equipped with bended plugs and / or customized terminations with assembled or overmolded insulation. Mated parts are available as nickel-plated single pins in four lengths, or equipped receptacles.



Performance-Engineered Cable Assemblies After identifying a cable construction that meets the application's performance criteria, we enhance it by integrating the following: overmolded backshells that seal out the environment and offer enhanced strain, flex, and impulse relief; enhanced material selection and matching techniques for optimal environmental and mechanical performance (flex relief to cable jacket); encapsulated circuits for imbedded cable intelligence; filter and shields for RF immunity; hybrid connector technology to consolidate many cables into one or Electrical / Hydro-Pneumatic / RF / High Current / High Voltage / Fiber Optics.



Miniature Push On Connectors An alternative to conventional threads or bayonet style connectors, Amphenol's Pulse-Lok® connectors provide an automatic latch with audible, visual, and tactile feedback when the connector is fully mated. Simply push the connector into its mating socket and the self latching coupler springs into position. To disconnect, a simple quarter turn of the coupler cams the plug out of its mate making Pulse-Lok® one of the most intuitive and easy to use medical connectors on the market.

PRODUCTS

Military & Aerospace

Amphenol is the world leader in the design, manufacture, and supply of high-performance interconnect systems for military and commercial aerospace harsh environment applications. Amphenol provides an unparalleled product breadth, from military specification connectors to customized high-speed board level interconnects; from flexible to rigid printed circuit boards; from backplane systems to completely integrated assemblies. Key markets supported are avionics, radar, communications, ordnance, missiles, engines, ground vehicles and tanks, space, and all levels of aviation. Amphenol is a technology innovator that designs to meet customers' needs from program inception.





Amphenol knows the meaning of the term "battle tested." With decades of expertise in harsh environment interconnects for land, sea, and space, Amphenol was a natural partner to support a broad range of ruggedized, high-performance connector and cable assembly requirements for a leading manufacturer of military vehicles. The new MRAP All-Terrain Vehicle (M-ATV) is designed to safely transport troops to and from their mission no matter how treacherous the terrain or conditions.

Military & Aerospace

Amphenol Aerospace Operations
United States

Amphenol Backplane Systems
United States

Amphenol Borisch Technology
United States

Amphenol Commercial Aerospace
United States

Amphenol Fiber Systems International
United States

Amphenol InterCon Systems
United States

Amphenol PCD, Inc.
United States

Amphenol Printed Circuits, Inc.
United States

Amphenol Nexus Technology
United States

Amphenol Times Microwave Inc.
United States

SV Microwave, Inc.
United States

Amphenol Limited
United Kingdom

Amphenol Canada Corporation
Canada

Amphenol Air LB S.A.S.
France

Amphenol Sefee
France

Amphenol Socapex S.A.S.
France

Amphenol Interconnect India
India

Amphenol PCD (Shenzhen) Co., Ltd.
China

Amphenol RF Asia
China

Guangzhou Amphenol Sincere
Flex Circuits Co. Ltd.
China

Amphenol Interconnect South Africa (Pty) Ltd.
South Africa





1760 Weapons Release The 1760 Weapons Release connector is a low-profile version MIL-STD-1760 connector and overmolded cable system for aircraft interconnection applications such as munitions and weapon rack stores. With a lower, flatter design, this is an ideal connector for tight-fitting aircraft and ordinance applications.



83538 Weapons Release The 83538 Weapons Release Connector was designed for use on aircraft that carry rail launch missiles such as AMRAAM. With buffer plug and missile receptacles, the connector is designed for blindmating of stores on rail launch applications. Used on F-18, B- 52, B-2, and SRAM II programs. The 83538 meets the applicable specifications of MIL-STD-1760 Stores Management.



MIL-DTL-38999 Series I LJT, Series II JT The LJT Series I has a longer shell to provide 100% scoop-proof protection for recessed pins. The JT Series II connector has a low-profile shell for maximum weight and space savings. Both series incorporate three point bayonet mating/unmating and five-key/keyway polarization. The LJT and the JT series feature crimp termination and rear-release contacts.



MIL-DTL-38999 Series III TV Tri-Start Amphenol MIL-DTL-38999 Series III connectors offer the highest performance capabilities for general duty and severe environment applications. Completely mates and self-locks in a 360-degree turn of the coupling nut (no lockwire needed). Five key/keyway polarization eliminates mismating and universal mounting holes for front or rear mounting aid in blindmating. Available options include PC Tail, Hermetic, Filter, Fail Safe Lanyard Release, Clutch-Lok (vibration resistant), Flex, Fiber Optics, and High-Speed Contacts.



MIL-DTL-38999 with MT (Multi-terminal) Ferrule Termini Amphenol's CF38999 series provides an ideal connector solution for MIL-PRF-29504 termini for the military and aerospace markets. Perfect for single or multi-mode applications, CF38999 connectors are designed to meet or exceed 38999 requirements, with features such as precision-aligned inserts, ideal for increased optical performance. Amphenol is also qualified to meet JSF/F35 specifications for both optical termini and connectors.



38999 High-Density Amphenol has developed a full range of high-density inserts to fit in MIL-DTL-38999 shells or derived products. These inserts allow a contact density increase of 45% versus a standard MIL-DTL-38999 connector equipped with size 22D contacts. These high-density inserts can accept MIL-Spec crimp contacts, as well as contacts with PC tails. These inserts are compatible with all the derived product ranges.



HF38999 High-Frequency Contacts Amphenol now offers DC to 40 GHz Size 8, DC to 60 GHz Size 12, and DC to 65 GHz Size 16 coaxial contacts for the D38999 housing and standard inserts. These contacts can be terminated to many cable types depending on the application. By using standard interfaces that are based on MIL-STD-348 and can be installed in any D38999 size 8, 12, or 16 insert, Amphenol has transformed the circular connector industry.



38999 PowerSafe Amphenol's PowerSafe connector is directly derived from the MIL-DTL-38999 Series III. The connector series can accommodate power platforms from 13 to 100A per contact and is equipped with "First Mate Last Break" contacts connected to the shell. The grounded FMLB contact will stay in the right position even if the insulator of the connector is destroyed by fire.



MIL-Spec Circulars Amphenol offers many other MIL-Spec connectors to fit your needs both in military and commercial applications including: MIL-DTL-27599 Series I, II Solder, Pyle MIL-DTL-26500, Matrix MIL-DTL-5015, Matrix MIL-DTL-26482 Series II, Matrix MIL-DTL-83723, Series III, and Pyle MIL-DTL-83723 Series III.



Hermetic/Sealed Connectors Amphenol's Hermetic connectors are designed for environmental moisture sealing with fused compression glass sealed inserts. Available in all the basic cylindrical connector families: MIL-DTL-38999, MIL-C-26482, MIL-C-83723, MIL-C-5015. Hermetic connectors are also available in rectangular rack and panel connectors. Connector mating is accomplished in the normal fashion of the connector series.



Durmalon Plating Durmalon plating finish meets 500 hours of salt spray and maintains excellent conductivity making it a perfect replacement to OD CAD finishes. This finish is qualified to the MIL-DTL-38999 Class T finish and is RoHS compliant.



Amphenol Press Fit Connectors Amphenol manufactures a complete series of MIL-DTL-38999 Series I, II, and III connectors with Press Fit compliant pin contacts for solderless mounting on printed circuit boards. Both pin and socket contacts are available in any MIL-DTL-38999 series I, II, or III insert pattern having contact size 16, 20, or 22D. Press Fit connectors allow for simplified board assembly while eliminating problems inherent in soldering connectors to boards.



EMI/EMP Filter Products Amphenol's EMI/EMP protection connectors offer the versatility of standard connectors, but with EMI/EMP protection that filters unwanted frequencies for sensitive circuits. By housing EMI/EMP devices internally, you can eliminate costly and bulky exterior discrete protection devices. Available in many sizes, styles, and arrangements, Amphenol filter connectors are inter-mountable and inter-mateable with standard MIL-spec connectors.



Specialty EMI Filter Connectors Amphenol specializes in EMI filter connectors in standard and custom configurations. Tube or planar capacitor technologies are used with a patented solderless design to offer capacitor stress-isolated features. This enables these connectors to give superior performance, even in high-thermal and physical shock environments, custom rectangular filter connectors are available. In addition to standard interfaces such as ARINC, D-Sub, and Micro-D.



Increased Vibration Cylindrical Amphenol has developed a number of MIL-DTL-38999 Series III type connectors ideal for applications where increased vibration performance is critical. Our high vibration plugs mate with standard Series III receptacles, and are available in both QPL and non-QPL versions. Shell material options include stainless steel, aluminum, and stainless steel / composite hybrid.



RNJ Low-Profile RNJ Low-Profile rack and panel connectors are designed to connect electrical devices between a moving unit (rack) and a fixed unit (panel). The locking of the mating pair is ensured by a mechanical device on the rack. The RNJLP design allows a short distance between the two panels. This is a big benefit for systems where space is an issue.



Zero-G Astronaut Handle-Operated Connectors The Zero-G Astronaut connector is a high-performance environmental MIL-DTL-38999 Series III type connector designed for use in a manned spacecraft environment. The connector meets qualifications of MIL-DTL-38999 and is listed on NASA specification SSQ-21635. The unique lever-operated engaging system was developed to allow the EVA-suited astronaut to mate and unmate the connector in zero gravity.



High Speed 10G Base-T Contacts and Connectors Amphenol offers a high performance interconnect solution for CAT6A type cable. The new Quadrax contact features a higher bandwidth than standard CAT5E contacts with enhanced crosstalk performance due to compatibility with shielded twisted pair of cables. Quadrax can be used for a variety of system protocols including 1000/10G Base-T Ethernet, PCI Express, HDMI 1.3, and DVI.



62BG/62IN 62GB/62IN series connectors are general-purpose, environment-resistant, miniature circular connectors with three-point bayonet coupling and five-key polarization. Designed to meet the requirements of MIL-C-26482 Series I solder type, these connectors are widely used in military and industrial applications.



HTC Amphenol's HTC connector range has been engineered to exceed the MIL-DTL-87323 performance requirements for the latest generation of airplane engines. The connectors feature a new, robust anti-decoupling mechanism and new insert designs and materials. These connectors are specially designed to meet Rolls-Royce's latest ESC15 & ESC16 KV Class high-frequency vibration specification as well as European EN2997 & SBAC ESC10 specifications.



Bulldog This IP68 sealed RoHS compliant connector range has been specifically developed for harsh environment vehicle applications. The Bulldog series is designed to utilize standard MIL-C specification insert arrangements within a rugged and non-reflective shell design. The utilization of standard insert arrangements ensures the connector's suitability for power, signal, and data applications.



Terrapin Intended for harsh environment applications and used extensively in soldier communications, Amphenol's Terrapin is a miniature series of circular push-pull connectors. Within a rugged shell design, Terrapin offers superior EMC performance and high environmental sealing to IP68. Resilient in severe battlefield situations, the RoHS compliant black-silver plating is both low-luster and corrosion resistant.



MIL-DTL-55116 Audio Connectors These waterproof, polarized, 5 and 6 contact electrical connectors are designed for use in audio frequency circuits at 60 volts maximum potential and 0.5 amperes maximum current. The plugs and receptacles come in both crimp and solder versions. Shielding and filter options are available. A miniaturized version of the M55116 connectors – 50% the size of the standard connector – is also available.



Luminus Luminus is a compact, configurable interconnect with an easy, secure coupling mechanism and tough polyamide housing. The product is ideal for today's sophisticated commercial, military, and industrial vehicle interior environments in which full-spectrum, adjustable, and LED lighting creates a more comfortable and productive atmosphere. Its small footprint and aircraft-grade cable-mount accessories allow for fast and efficient assembly.



Military Fiber Optic Amphenol's fiber optic termini and connectors provide reliable transfer of data signals for communication systems in many applications: military aircraft, ground vehicles, commercial aircraft, radar, missiles, battlefield equipment, medical equipment, and test equipment.



28876 M28876 multi-channel fiber optic connectors and backshells are the U.S. Navy standard for mission-critical shipboard applications. These connectors are designed to provide superior optical performance in severe environmental and mechanical operating conditions. Our industry-leading backshells feature the robust, yet simple to use Quickloc cable captivation system. Angled physical contact (APC), custom materials, and custom-plated connectors are also available.



NGConn The MIL-PRF-64266-compliant fiber optic connectors (Next-Generation Connector-"NGConn") combine the best features of industry-standard D38999 (Series III) and M28876 connectors. Designed specifically for both avionics and shipboard fiber optic applications, these innovative connectors include genderless contacts and high-density packaging and are available in a wide variety of materials, shell sizes, insert patterns, and plating finishes.



HMAtwo HMAtwo Series is a hermaphroditic fiber optic lens connector that facilitates the interconnection of multiple identical fiber optic cable assemblies (daisy chaining). This eliminates the need for polarizing assemblies and in-line adapters. Lens technology is less vulnerable to contaminants than the traditional physical contact technology. The Connector is available in 1 to 4-way configurations for multi-mode fibers, dual-wavelength 850/1300nm.



TFOCA-II 4-Channel Amphenol's TFOCA-II® fiber optic connector series is ideal for military tactical applications as well as other environmentally harsh conditions. The hermaphroditic design allows for simple concatenation and the removable insert cap facilitates easy connector maintenance. Designed and patented by Amphenol, the TFOCA-II® is the required connector for the U.S. Army WIN-T (Warfighter Information Network Tactical) program.



CTOS SM Fiber Optic Amphenol's CTOS SM and CTOL SM is a unique expanded beam single-mode fiber optic connector. These connectors are used in diverse applications such as battlefield, UAV, oil & gas, railway, and broadcast. To make deployment easier, we developed a Compact Carrier Deployable System. This is the lightest and most compact solution available on the market.



ARINC 801 Termini Insert for 38999 Series III Connector Amphenol now offers multi-channel cylindrical connectors that comply with the ARINC specification. This connector is available in straight-plug and wall-mount receptacle, using the ARINC 801 ceramic termini. ARINC 801 connector features include precision ARINC 801 fiber optic termini (typical multi-mode insertion loss is less than 0.15 dB), removable alignment sleeve insert for easy cleaning of fiber optic termini, and three stages of alignment: shell-to-shell keys, guide pins, and ceramic alignment sleeves.



MFM Series The simplex MFM fiber optic range has been specifically designed to operate in harsh environments. The rugged, anti-vibration, corrosion resistant design ensures high environmental and optical performance in a variety of applications in the air, on land, or above / below sea.



Backshells for Circular Connectors Amphenol provides a complete range of backshells for all circular connectors. These backshells are QPL certified to the AS85049 standard and any variants of the same could be supported in short lead-time. We will work with you to create exactly the variety of backshell you need.



Rugged IP Switch Amphenol Ethernet switches are designed to provide a robust interconnect solution in extreme conditions. They are built using high-performance electronic components, rugged Ethernet and power supply connectors such as RJField TV, and heavy duty packaging. Amphenol's switches resist vibrations, temperature, oil, and water.



RJ Field & USB Field Range Using Amphenol's field bus connector range for harsh environment Ethernet applications, you can transform all standard existing RJ45 or USB cord sets into an environmental connector without the use of tools or the need for a cable operation. Reinforced USB memory keys are also available in different capacities.



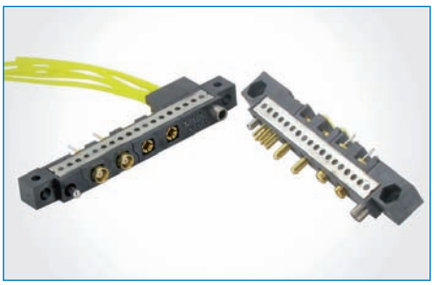
MIL-Power Heavy-Duty Connectors Originally designed for use by the military, Amphenol's heavy-duty connectors have become widely used in aerospace, ground support, and shipboard applications. Some features include quick positive coupling, waterproof-IP67 rated, no lockwiring required, high shock and vibration capabilities, and are available in both crimp and solder terminations.



Rectangular Amphenol has long been the leader in providing high-performance rectangular connectors and systems. Our rectangular connectors feature many contact varieties including low-mating force brush contacts. The brush contact has proven durability and long contact life with up to 100,000 mating cycles. Hybrid low-mating force connectors can be designed with combinations of brush and coax, twinax, power contacts, and fiber optic termini.



Brush Contacts The brush contact is made up of multiple strands of high-tensile wire that are bundled together. A reduction in mating/un-mating force of 70% to 90% is achieved over conventional contacts. The brush contact has proven low-resistance, durability, and long contact life. Hybrid low-mating force connectors can be designed with combinations of brush and coax, twinax, power contacts, and fiber optic termini.



HiLinx With our newly QPL certified HiLinx family, we offer engineers a modular solution allowing the mixing of all types of signals: low-level, power, fiber optics, coaxial lines, and differential pairs, while retaining compatibility with the well-known M55302 standard. This system of stainless steel skirts, fittings, and stackable modules, brings flexibility where compromises are not allowed.



R39 and R393 Connector Series The R39 and R393 rectangular connectors provide high performance in the severe environmental demands of military specifications while delivering the same reliable and familiar benefits found in the MIL-DTL-38999 Series. This low profile translates into a smaller space-saving footprint, and the new rectangular orientation provides a variety of installation options.



HDB3 High-Density Rectangular This new connector series incorporates a higher-density contact pattern and lower mated height. HDB3 utilizes the high-performance brush contact system for reliability in harsh environments. The mounting hardware, keys, and guide pins have been combined to occupy less board space.



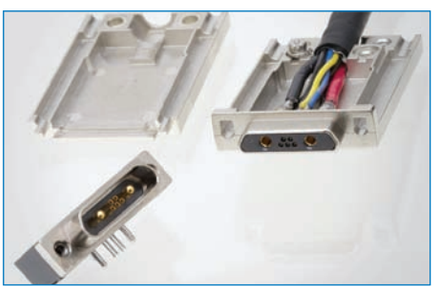
Filter D-sub and Specialty D-sub Connectors Amphenol's Filter D-sub connectors contain integrated EMI filtering, using Amphenol's stress-isolated filter designs. Our connectors are available in all D-sub arrangements including customized insert and shell configurations. These connectors are also offered with IP67 moisture sealing performance and meet or exceed requirements of MIL-DTL-24308.



Ruggedized, Non-Floating Brush Rack and Panel Connector Series This connector series utilizes Amphenol's durable and reliable B3 contact system in a rugged, non-floating rack and panel connector. Included in this series are digital and power/digital "hybrid" insert arrangements. The hybrid series utilizes Amphenol's high-performance RADSOK® power contacts along with Amphenol's proven B3 contact.



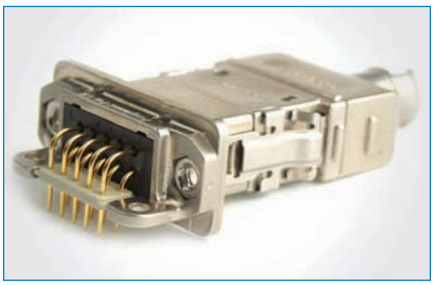
83733 Connectors, Filter and non-Filter Amphenol's R58 Series is a harsh environment rectangular connector designed to exceed the requirements of MIL-DTL-83733. This connector is well suited for hostile military and commercial avionics environments where shielding effectiveness and corrosion resistance is mandatory. This series is available both filtered and non-filtered. Filtering is achieved using stress isolated capacitor technology. Applications include blindmate, cable to cable, and cable to box connections in military avionics, targeting PODS and wing pylons.



Micro-D Connectors Filtered and non-filtered Micro-D connectors are designed to meet MIL-DTL-83513 requirements and are excellent for applications where space and weight are at a premium. Integrated EMI Filtering offers further system space savings with superior EMI performance. Customized shell configurations are available including those with integrated, one-piece backshells.



ARINC & Filter ARINC Style Rack & Panel Connectors
Amphenol's ARINC products are rack & panel, blindmate, rugged connectors designed for commercial and military avionics systems. These connectors are available in standard and custom configurations with a mix of contact types including: power, signal, RF, and fiber optics. Customized ARINC products can fit into any size or shape of electronics box while integrated EMI and/or EMP filtering offers weight and space savings.



ASR Connectors Amphenol's ASR connector is a new concept and design for a compact and easy to use interconnect where space and weight-saving is a prime requirement. The ASR series features a snap-locking mechanism, making connecting and disconnecting easy. The ASR series is perfectly suited for in-seat systems, cabin service systems, and in-flight entertainment systems.



GIGASTAK The GIGASTAK is designed with the same modular format as the standard LRM product. This design flexibility allows for the use of standard off the shelf components in a custom configuration to meet specific application needs. The GIGASTAK 6.25 Gbps high-speed inserts can be combined with low-speed digital, power, coax, and/or fiber optic termini. Features include vibration resistance, ESD protection, robust structural support, and design flexibility.



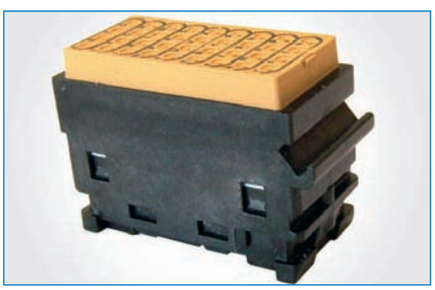
UHD Interconnect Amphenol's UHD interconnect is a high-reliability packaging solution for airborne, space, shipboard, and ground-based applications. The UHD connector is presently used in all of these environments and meets the requirements of EIA spec IS-753, DESC spec #89065, and IEEE spec 1101.1 to 1101.9.



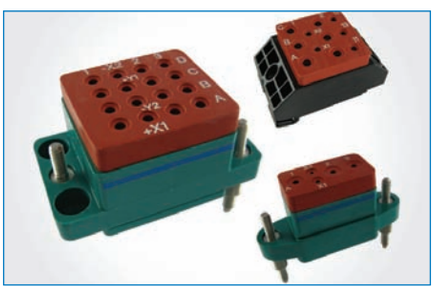
VIPER Interconnect Viper from Amphenol is a high-density interconnect platform. Featuring: 70 single-ended signals per linear inch, 56 differential pairs per linear inch, and signal integrity to 10 Gbps. Viper is available in standard 3U and 6U configurations and is ruggedized for Avionic Ground and Naval Applications.



NAFI Interconnect Amphenol's NAFI daughter card and backplane connectors are another board level interconnect solution. They provide a wide range of medium contact density patterns and meet MIL-C-28754 standards. Daughter card termination is through-hole, using nickel/gold solder-plated contacts. The mating interface is a blade contact that can be either parallel or perpendicular to the daughter card.



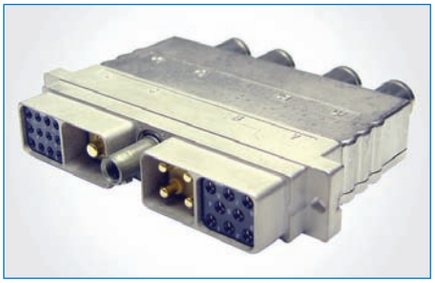
1767 PA Modules The 1767 PA module is an innovative junction module based on the classic 1750 module. The PA's "Positive Locking" wiring technology offers a 100% guarantee of properly locked contacts in the cavity. 1767 PA modules are available from 8 contacts size 12 up to 36 contacts size 22, and are produced in hybrid and grounding versions.



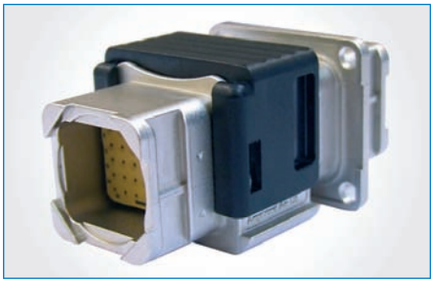
Relay Socket Amphenol offers the industry's broadest range of pluggable bases for electro-mechanical relays in MIL-PRF-12883, European, and custom configurations. Environmentally sealed for harsh environment applications, these rugged relay sockets will accept standard crimp contacts to MIL-C-39029. High-temperature and aircraft fluid-resistant, these sockets come in many varieties including track-mount, panel-mount, and quick-mount snap-in styles.



Junction Module MIL-T-81714 Series I and II and 1765 modules are available in a broad range of standard and custom electronic packages. Diodes, resistors, and other components can be securely packaged within the sealed housings to provide improved system efficiency and density. Track-mounted terminal junction modules are available in a variety of standard sizes from AWG12 through AWG26 with a broad selection of bussing variations.



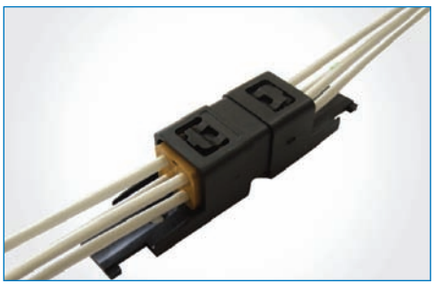
SIM Modular Series 2 Amphenol's SIM connectors are modular, multi-contact, and multi-functional rectangular connectors. Qualified according to the EN4165 spec., they come in metallic or composite versions, shielded or not, and feature clicker nuts or rack & panel plugs. SIM connectors can be a standard or flange-mount receptacle that can be assembled side by side on a panel providing unparalleled contact density.



SIM Monomodule Push Pull These rectangular connectors are modular, mulit-contact, multi-functional mono-module connectors, for in-flight entertainment and cabin system applications. These light-weight composite products are available in shielded or non-shielded versions. They present a very compact design with a push-pull locking system for blindmating and 7 keying positions.



SIM Module High-Density The #23 High-Density SIM module is an exclusive Amphenol innovation. Based on standard EN4165 SIM modules, the HD modules have thirty size 23 contacts (BACC47) - an increase of more than 50% over #22 modules. HD SIM Modules are available with or without peripheral sealing and are fully compatible with all SIM connector series.



SIM Splice This modular composite splice provides a reliable and simple connection between two SIM modules. Available with or without cable clamp and/or flange, the SIM splice can be fixed on/under a structure or feed-through. It can be fitted with the complete range of SIM modules.



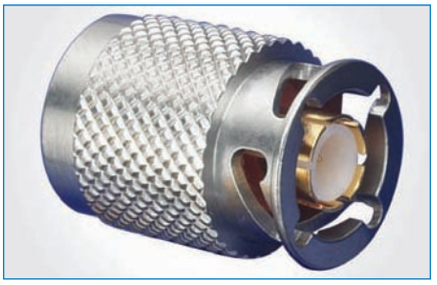
SJS In-Line Junctions Amphenol's SJS family of environmentally-sealed in-line junction splices are developed to bring higher reliability, improved installation ease, and greater flexibility to wiring applications. These in-line junctions consist of compact, cylindrical plug and receptacle housings which lock firmly together with a straight push, and unlock with either a simple "twist and pull" (single contact) or "squeeze and pull" (triple contact) motion.



Contacts Amphenol has a very wide range of contacts for both MIL-Spec and many specialty military/commercial connector applications which include the International Space Station, fighter aircraft, battlefield communication networks, and military ground vehicles. Contacts include signal, power, thermocouple, PCB, wire-wrap, coax, triax, twinax, fiber optic, differential pair, and other quadrax.



Resistive Devices Amphenol manufactures a complete line of standard and custom-designed terminations and attenuators, including QPL and high-relability versions. Terminations are designed to absorb all incident power with minimal reflection, while effectively terminating the line or port impedance. Flange-mount designs are available along with high-power versions to 50 watts. We offer a variety of connector configurations including SMA, blindmate, and ZMA.



ZMA Connectors and Components The ZMA connector is a bayonet coupling connector. The unique design of this connector provides a high coupling force, which is ideal for extreme vibration applications where insufficient room is available for spring-loaded blindmate panels. This connector is designed with electrical performance of 18 GHz, overlapping PTFE dielectrics, and rugged stainless steel body construction appropriate for military applications.



Blindmate RF Connectors and Components Blindmate connectors are commonly used in rack-and-panel, module-to-module, and module-to-motherboard applications. Blindmate connectors are also commonly found in applications as varied as satellites, radar and sensor equipment, avionics, missile systems, military electronics, electronic countermeasure systems, and navigation and air traffic control, as well as automated test equipment.



PhaseTrack Based on the unique, thermally stable proprietary TF5 dielectric material, PhaseTrack cable represents the most significant breakthrough in coaxial cable technology in decades. TF5, the most stable dielectric material available, almost completely eliminates the rapid and wildly varying changes of phase with temperature characteristic of other high performance expanded PTFE dielectric flexible RF and microwave coaxial cable assemblies.



MILTECH Amphenol produces sealed, flexible RF and microwave transmission line assemblies optimized for military environments. These cables exhibit an extremely long life in the rigorous environments found in airborne, shipboard, and ground based applications. MILTECH cables are hermetically sealed and incorporate intermediate sections compatible with an assortment of connector systems.



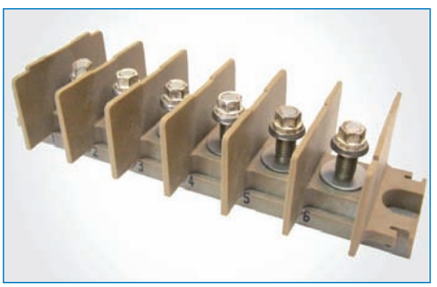
SFT SFT high performance microwave cables are rugged and flexible making them ideal for interconnect applications from inside LRUs to system interconnects and antenna feeders in military and commercial systems. The wide range of available connectors cover many interface types and frequency ranges.



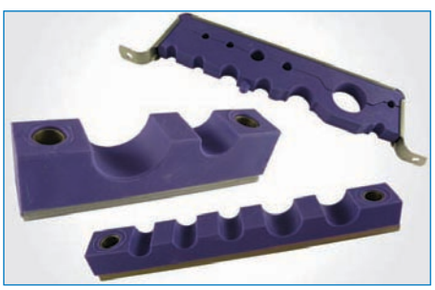
Flexible Circuits For over 30 years, Amphenol's capabilities are among the world's broadest and most advanced, delivering consistent quality and high-bandwidth systems for mission critical applications. Proven engineering and manufacturing expertise eliminates printed circuit (flexible or rigid) design obstacles.



Rigid Flex Assembly Amphenol's Rigid Flex capabilities are among the best in the world. Mission-critical applications such as this example are among our standard offerings. The part pictured above is in service in many different fixed-wing fighter aircraft. This part has 16-layers with blind and buried via's assembled with six unique filter connectors on which we perform thermal cycling and level-two testing.



Monoblock assemblies Designed for power distribution purposes, these monoblock assemblies are made of terminal junction blocks for copper and/or aluminum cable connections. Monoblock assemblies are available with individual or shunted terminals (from 1 to 12) of different diameters. The protective cover fixing, as well as the terminal assembly's fixing on the structure, is secured by pillar bolts.



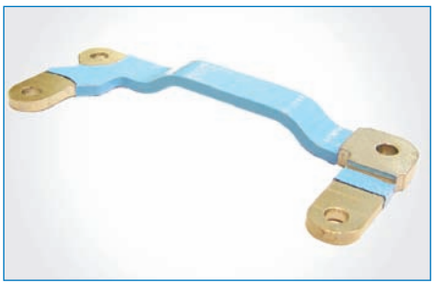
Fairlead Leveraging its 30 + years experience in Clamp Block Technology, Amphenol produces high-quality, low-cost fairlead blocks and prides itself on timely and accurate delivery. Designed for use in airframe, fuel tank, and engine applications, our blocks are offered in multiple materials and can also be customized to help meet specific customer requirements.



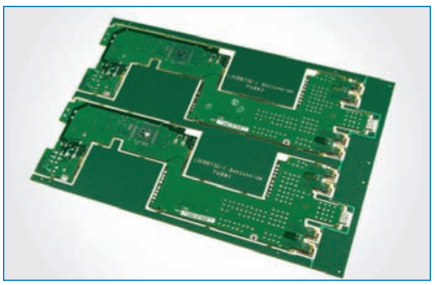
P-Clamp The P-clamp is the first fully composite wire and tubing clamp for airframe applications. High-performance P-Clamps and Omega Clamps were specifically designed for Boeing's 787 Dreamliner. Constructed of PEEK polymer, these high-performance clamps are as strong as stainless steel and are completely non-conductive and non-corrosive. Proprietary overmolding technology bonds the cushioning material directly to the plastic, removing the possibility of cushion wear-out.



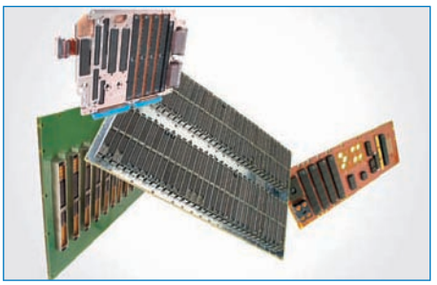
PEEK Stand-off Designed with PEEK polymer, a durable, lightweight, chemical-resistant material, our high-performance standoffs are designed to replace traditional aluminum standoffs that are heavier and less cost-effective. They come in two standard configurations – straight and right angle.



Bus Bar - Power Distribution Amphenol's bus bars provide a means of power distribution between power generator boxes, terminal blocks, and smaller terminal block interconnects. Bus bars are available in various standard sizes and shapes as well as in custom designs. Bus bars present high mechanical resistance and are resistant to high temperatures.



Daughter Cards Daughter Cards are at the heart of many state of the art electronics systems. Amphenol's Daughter Cards are precisely crafted solutions for the most demanding applications. Pictured above is an 18 layer Daughter Card. It features three sequential laminations for blind and buried via's and via-fill with a dozen 100 differential pairs meeting stringent electrical test requirements.



Backplanes Amphenol Backplanes are required to perform in the most demanding environments, such as commercial airliners, Army helicopters, Navy and Air Force fighters, C4I electronics, missiles, ground vehicles, and Navy warships. Our Backplanes are used on programs such as the F-35 Joint Strike Fighter, F-22 Raptor, F-18 Super Hornet, Theater High-Altitude Air Defense Radar, AH-64 Apache, RAH-66 Comanche, and AEGIS radars used on U.S. Navy warships.



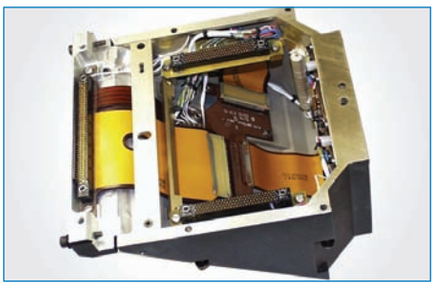
ATC Series Connectors Amphenol's ATC Series of connectors and cable assemblies are designed to interface with the AN/PRC-117G and AN/PRC-152 military radio 32 pin data connectors. These connectors are available as field installable connector kits and as factory assembled molded cable assemblies. The ATC Series of connectors are engineered for use in harsh environment applications and feature a rugged, watertight two piece metal shell design.



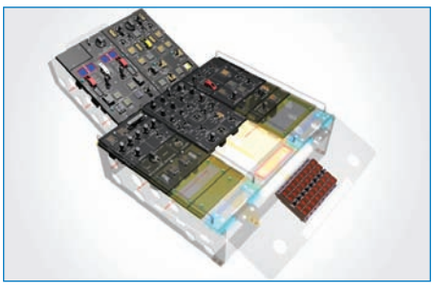
Display Ruggedization Amphenol designs and manufactures a large range of displays that are rugged enough to operate in the extreme environments found in military and aerospace applications. Touch screen input, sunlight readability, and boot kick resistance are a few of the available options.



Line Replaceable Units Amphenol is vertically integrated to produce complex electro-mechanical assemblies which include displays, wiring harnesses, CCAs and mechanicals. In-house testing and environmental screening capabilities provide flexibility and help to ensure product quality. Amphenol also adds value by providing engineered solutions to improve functionality, manufacturability, and to remove obsolescence.



Electronic Packaging The Integrated System Solutions Group at Amphenol provides system-level electronic packaging solutions for the design, fabrication, and assembly of connectors, PWBs, flexis, cable harnesses, and chassis. Amphenol provides a systematic and professional approach to build-to-print or in-house design of board-to-box and box-to-box interconnection solutions for military and commercial avionic LRUs.



Value Added Solutions This equipment, located on the cockpit ceiling, allows the crew to manage and to watch many critical helicopter functions. Due to the functional purpose of this equipment, several OHCP configurations are defined to fit different helicopter configurations. Currently there are more than 20 standard configurations.



Value Added Solutions Amphenol tackles problems such as PWB routing, signal integrity, mechanical robustness, and thermal reliability concurrently rather than independently. Solving complex packaging challenges depends on making sure that environmental, mechanical, and electrical factors are all addressed at the system-level. By taking this system-level perspective and focusing on these factors, we are able to meet your program's most challenging packaging requirements.

PRODUCTS

Mobile Devices

Amphenol provides a broad range of components with presence on more than 50% of the world's mobile devices produced each year. Amphenol designs and manufactures the full range of electro-mechanical interconnect products and antennas found in mobile phones and other mobile devices. The broad product offering includes antennas, RF switches/plugs, navigation keys/side keys, microphone/speaker/vibra connectors, LCD connectors, board-to-board connectors, SIM/MMC/SD sockets, battery connectors, input-output system connectors, charger connectors, and electromechanical hinges. Our capability for high-volume production of these technically demanding, miniaturized products, combined with our speed of new product introduction, is a critical factor for our success in this market.

Mobile Devices

Amphenol Mobile Consumer Products Group
Hong Kong

Amphenol InterCon Systems
United States

Amphenol Mechconect, Inc.
United States

Amphenol RF
United States

Amphenol T&M Antennas, Inc.
United States

Amphenol Tuchel Electronics GmbH
Germany

Amphenol RF Asia
China

Amphenol Shouh Min Industry Company
China

Amphenol (Tianjin) Electronics Co., Ltd.
China

Amphenol Tuchel Electronics - China
China

Hangzhou Amphenol Phoenix
China

Shanghai Amphenol Airwave
China

Amphenol Korea Air Electronics
Korea

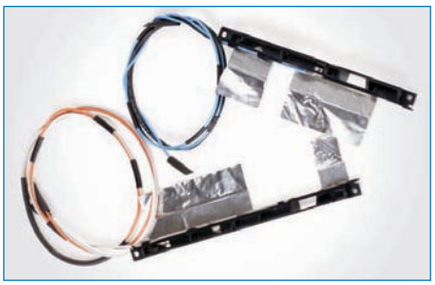
Amphenol Phoenix Co. Ltd.
Korea

Amphenol East Asia Limited-Taiwan
Taiwan

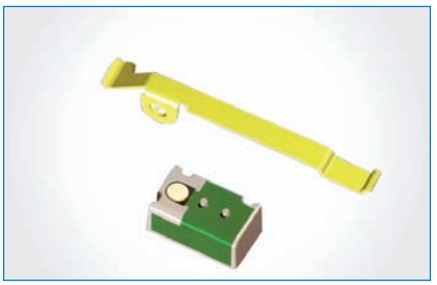


Although you may not see them when you pick up your smart phone, touch screen tablet or e-book reader, Amphenol products are more than likely inside. Our wide range of miniaturized interconnects, cables, flex circuits, hinges, and antennas has enabled the proliferation of wireless devices, helping give people access to information virtually everywhere in the world. Customers have selected our products on more than 50% of the world's mobile devices.

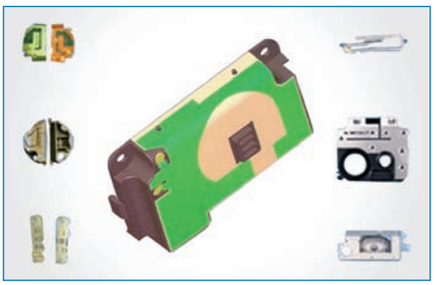




Mobile Computing Antennas Mobile computing antennas from Amphenol are high-performance, highly integrated antenna modules for laptops, tablets, and other mobile computing devices. The antennas are mounted along the edge of the device and optimized to cover up to 10 frequency bands in one unit. The antennas can be configured as multiple antenna modules with several coaxial feeder cables or as a single feed unit with one cable.



Mobile Phone Bluetooth Antennas With the increasing advancement in technology, Amphenol recognizes that a Bluetooth antenna is now a requirement in a vast array of mobile products. Amphenol's Bluetooth/WiFi antennas are all RoHS-complaint and ALT-tested for handsets with 2.4GHz ISM. The antennas can be produced with flexfoil with a plastic carrier or a metal stamping.



Mobile Phone Internal Antennas Amphenol's internal antennas are customized for optimal handset performance. Amphenol has designed internal antennas for clamshell, bar, and slider platforms from single band up to six operating bands. Our antenna design and manufacturing experience will enable optimal performance and cost efficiency. We have designed antennas for 2G and 3G mobile systems, WiFi, WiMAX, and mobile broadcasting devices.



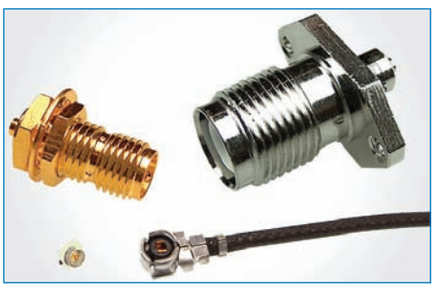
PC Card Antennas Amphenol's series of miniature data card and USB dongle antennas for 3G, 3.5G and 4G applications provide the performance to power high-speed mobile internet connectivity. With volumes less than 1.5cc and a customizable geometry these multiband antennas are easily integrated into miniature data cards. The data card antennas are often combined with diversity antennas in the card to further improve the reception and data rate.



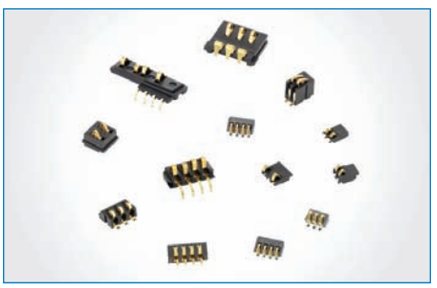
Two-Shot Antennas Amphenol's cost efficient large volume two-shot molding technology provides opportunities for using the full 3D surface of a device for the antenna. With the full 3D volume used, two-shot antennas out-perform 2D antennas assuring a better overall connection.



LDS Antennas Laser Direct Structuring (LDS) is a new and exciting technology leading to vast opportunities in innovative antenna design. The laser activation technology produces thinner lines and smaller features than previously made possible by other molded interconnect device processes without compromising consistency and repeatability. Surface mounting components on LDS antennas is also possible.



AMC Amphenol's 50 Ω AMC cable assemblies are ideal for space-constrained board-to-board connections in small devices. Their snap-on interface performs superbly under shock and vibration conditions, making them ideal for wireless handheld devices. The AMC series has a low profile (2.5 mm off the board) and offers an extremely small board footprint (3 mm x 3 mm). This series is compatible with the U.FL interface.



Battery Connectors Amphenol's comprehensive offering of battery connectors for mobile phones come in single and multi-contact versions with straight and right angle mountings. They are available in a variety of pitches and heights to meet different phone and battery pad requirements. They feature stamp and form beryllium contacts with additional solder tags for high reliability and conductivity.



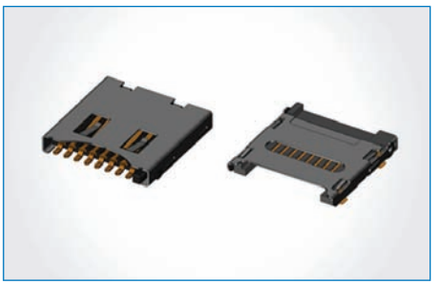
I/O System Compression Amphenol's wide range of compression-style I/O system connectors is widely used in mobile phone applications. I/O system connectors with integrated data, audio, DC jack, battery, and microphone contacts (4-in-1 connector) simplify phone design. Additional metal clips are included for secure mating.



I/O System Shielded Amphenol's full range of standard I/O connectors is designed for the latest mobile phone application technologies. Our comprehensive offering includes 2 to 26 pin shielded sockets, with fine pitch (.5mm) integrated with battery contacts and DC charging. High-reliability insert molding housings provide a miniature, low-profile and lightweight configuration. Designed with blindmating and locking features, the connectors are highly durable and able to withstand a high number of mating cycles.



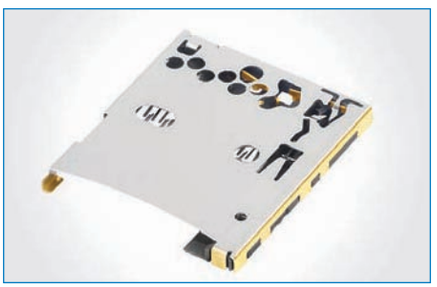
Internal PCB Connectors Amphenol's Internal PCB Connectors consist of interconnects that are soldered onto PCBs for different applications. Clips, pads, spring-loaded contacts, and battery connectors are designed for use in mobile phones but can also be used in many other types of electronic equipment.



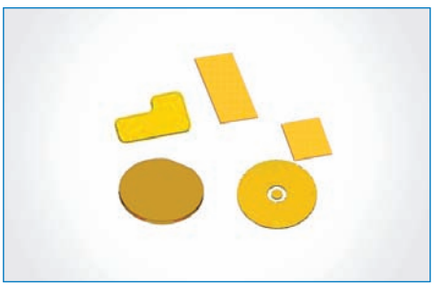
Mobile Phone Memory Card Connectors The trend to thinner and lighter phones has led to new memory card formats including Micro-SD and MMCmicro. Different handling mechanisms include push-pull, push-push, and hinge-type SMD solderable. They can be packed in tape & reel and are pick & place capable.



Micro Coax Harness Amphenol is one of the leading providers of MCX cable solutions on the market. The current market demands a more integrated connectivity solution, including integrated hinge/MCX cable assemblies. Our Micro Coax Cable assembly is designed for high-speed transmission, high EMI shielding, and a very small bundle diameter for optimal spacing in tight applications.



Micro-SD Connector Amphenol produces a wide variety of micro-SD and mini-SD memory card connectors. These connectors are available in hinged and non-hinged varieties as well as in a push-push version. They are typically used in a wide range of portable electronic devices including mobile phones, smart phones, PDAs, MP3 players, GPS devices and video game systems.



Contact Pads (Press-on Contacts) Amphenol's contact pads are used in contact areas and as spacers on PCBs. Durable plating includes a diffusion barrier. The contact pads connect with low resistance over the product's lifetime for use in sensitive connections of antennas, microphones, and carbon PCBs. They are available in a wide variety of shapes and sizes. Thickness: scalable ≥ 0.1 mm. Contact Pads are suitable for automatic assembly processes: pick & place, tape & reel and SMT solderable.



Mini-UHF Mini-UHF is a miniature version of the UHF connectors that were developed for use in the radio industry. Mini-UHF connectors are used as coaxial interconnects in cell phones, automotive systems, and similar applications where size, weight, and cost are critical. Mini-UHF connectors terminate to RG-58, RG-58A, RG-58B, RG-58C, and Belden 9258 cables. Crimp-type cable plugs and jacks are available, as well as panel and PCB receptacles.



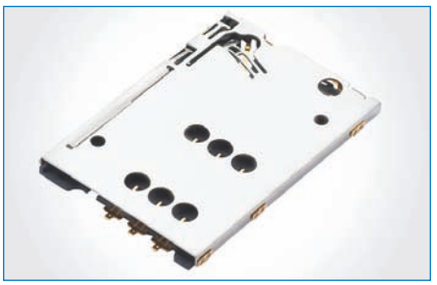
RF Switches Amphenol's full range of RF switches come in straight and right angle mountings as well as miniature, low-profile, and lightweight versions for different phone design requirements. Our full mechanical switches provide high reliability for wireless terminal testing and connection to external car antennas of up to 5Ghz.



SIM Card Connectors Amphenol's extensive range of SIM card connectors is available in five types: wing connectors, bridge block connectors, SIM block connectors, ultra flat SIM card connectors, and bioplast SIM card connectors. They are available in 6 or 8 contact versions, with or without locating pegs for board stability, and are suitable for automatic assembly processes. Many are available with detection switches that allow your device to know if a SIM card is present.



SIMLOCK® Amphenol's SIMLOCK® was designed for SIM/SAM card applications. The SIMLOCK features dimensions only slightly larger than the SIM card. The closed system with integrated card guidance assures reliable contacting of the SIM card, meeting critical card tolerances as per GSM 11.11. The polarization notch does not allow incorrect card positioning. Suitable for automatic assembly processes: pick & place, tape & reel packaging, and SMT solderable.



Push-Push SIM Connector Amphenol developed this low profile generation of connecting solutions to meet the mobile market's dimensional requirements for space saving designs. The push-push features include a SIM card ejector mechanism that is activated by pushing the card, and an integrated delay switch for "card hot swap" functionality.



Mini UICC (Micro SIM) Connectors Amphenol's series of mini UICC connectors is designed to accept micro SIM cards for optimized printed wiring board area consumption. The mini UICC connector series features prevention of improper micro SIM card insertion or SIM card slide out. Different card handling possibilities include push-pull types, push lift / cover hinged types, bridge block or drawer versions.



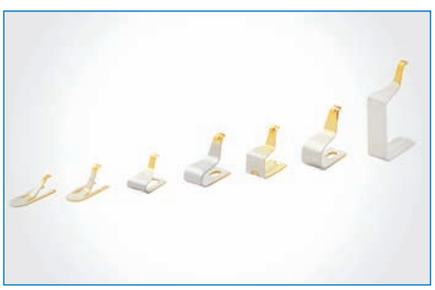
Sliding Hinges Amphenol's sliding hinges come in a wide variety of designs for your customized applications. Hinges can be created to match the dimensions of your application and will withstand open/close min. 150,000 cycles.



Barrel (Cam) Hinges Amphenol's barrel hinges come in a wide variety of sizes designed for your customized applications. Hinges can be created to match the dimensions of your application and can withstand open/close min. 100,000 cycles.



Rotating (Swivel) Hinges Amphenol produces customized rotating hinges to meet the stringent demands of our customers. Rotating hinges come in a variety of materials and are small and lightweight. They can open in various arcs depending upon customer requirements. Extremely durable, our rotating hinges can withstand 100,000 cycles.



Spring Clips Amphenol's spring clips are very versatile and can be used in many applications including: antennas, metal housing connections, grounding connections, shielding connections, ESD & EMC connections, and LSD connectors. They can incorporate a deflection stop to avoid permanent deformation of the clip. Scalable height for platform use. Spring Clips are suitable for automatic assembly processes: pick & place, tape & reel packaging and SMT solderable.



Accessories Amphenol provides a wide range of mobile phone accessories, RF test cables, signal test cables, charger cables, data transfer cables, and battery pad contacts. This complete range of products offers design solutions tailored to the latest phone design requirements.



Touch Panel Lenses, IMD Covers & Sheet Lenses Amphenol has developed the capabilities to create application-specific mobile phone touch panel lenses, IMD covers and sheet lenses to fit your precise needs. We will work with you to create the attractive design your new mobile phone needs in order to be successful in the marketplace.

PRODUCTS

Mobile Networks

Amphenol is a leading global interconnect solutions provider to the wireless infrastructure market, including applications such as cellular base stations, radio links, mobile switches, wireless routers, cellsite antenna systems, combiners, transceivers, filters, and amplifiers. Amphenol offers a wide product portfolio for every wireless standard and generation radio technology including 3G, 3.5G, 4G, WiMAX, LTE, and future IP-based solutions. The product range includes RF, low-frequency, power and fiber optic connectors and cable assemblies, antennas, backplane interconnect systems, power distribution systems, and installation accessories.



As one of the few companies capable of supporting the entire antenna and interconnect requirements of a cellular infrastructure system, Amphenol has helped bring mobile technologies to Africa. Our relationships with both equipment makers and mobile operators on the continent, combined with our growing manufacturing presence in Africa, position us strongly to participate in the world's fastest growing wireless market.

Mobile Networks

Amphenol RF
United States

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United States

Amphenol Connex Corporation
United States

Amphenol Fiber Optic Products
United States

Amphenol Interconnect Products Corporation
United States

Amphenol TCS
United States

Amphenol Times Microwave Inc.
United States

SV Microwave, Inc.
United States

Times Fiber Communications, Inc.
United States

Jaybeam Ltd.
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Amphenol ConneXus AEOU
Estonia

Amphenol Socapex S.A.S.
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Jaybeam Wireless S.A.S.
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Amphenol Tuchel Electronics GmbH
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Amphenol Omniconnect India Private Limited
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Amphenol ConneXus AB
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Amphenol RF Asia
China

Amphenol TFC (Changzhou) Communications Equipment Co., Ltd.
China

Amphenol Tuchel Electronics - China
China

Guangzhou Amphenol Electronics Communications Co., Ltd.
China

Changzhou Amphenol Fuyang Communication Equip Co., Ltd
China





LMR® Cable LMR® cables are high performance coaxial communications cables designed for use in virtually all wireless system applications. The cables are more flexible than corrugated cables and exhibit much lower loss than traditional RG cables. Additional LMR® products include high performance connectors in popular interfaces, prep tools, installation tools, and accessories.



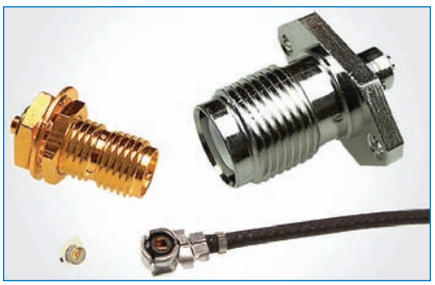
LMR® EZ Style Connectors Amphenol is the leader in providing high quality EZ style connectors. These non-solder type connectors use silver or gold plated beryllium-copper spring contacts for optimal cable contact and offer considerable time savings, increased performance and more reliability than traditional solder-pin connectors. Many of our EZ connectors are also now available in an "X" version (no braid trim required).



1.0/2.3 The compact design of the 1.0/2.3 series permits dense connector packing. They are ideally suited to applications where space saving is critical. Versions are available with threaded coupling mechanisms, which provide positive mating, or a unique push-pull coupling system, which allows quick installation. Amphenol 1.0/2.3 coaxial connectors are 50 units operating from DC-10 GHz. Common applications are amplifiers, base stations, routers, and switching equipment.



7/16 The 7/16 series is named for the metric dimensions of the connector interface: 7mm OD of inner contact, 16 mm ID of outer contact. 7/16 connectors are designed for use in communications systems with power levels of 100 watts per channel. These connectors are typically used in antennas, satellite communications, and base stations.



AMC Amphenol's 50 AMC cable assemblies are ideal for space-constrained board-to-board connections in small devices. Their snap-on interface performs superbly under shock and vibration conditions, making them ideal for wireless handheld devices. The AMC series has a low profile (2.5 mm off the board) and offers an extremely small board footprint (3 mm x 3 mm). This series is compatible with the U.FL interface.



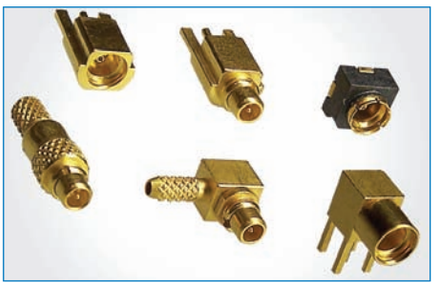
BNC Developed in the late 1940s as a miniature version of the Type C connector, BNC stands for Bayonet Neill Concelman and is named after Amphenol engineer Carl Concelman. The BNC product line is a miniature quick-connect RF connector. It features two bayonet lugs on the female connector. BNCs are ideally suited for termination on miniature and subminiature coaxial cable, including RG-58, 59, RG-179, and RG-316.



Lightning Arrestors Amphenol offers a variety of surge and lightning protection products to meet your needs. These unique surge protection devices address applications throughout the entire useful RF frequency range from DC with capability up to 6 GHz. Products available serve the needs of the cellular carrier market as well as land mobile radio, wireless broadband, SCADA and many other markets.



MCX The MCX series is a great option where weight and physical space are limited. The MCX provides broadband capability though 6 GHz in a snap-on connector design. A range of connectors are available, including printed circuit board and cable connectors. Typical applications include automotive, wireless LAN, broadband, and wireless infrastructure markets. MCX connectors conform to the European CECC 22000 spec.



MMCX MMCX (also called MicroMate™) is a micro-miniature connector series with a snap-lock mechanism allowing for 360-degree rotation. MMCX connectors conform to the European CECC 22000 specification. The MicroMate family of products is a 6 GHz 50 Ω interconnect. A range of connectors are available, including surface mount, edge card, and cable connectors. Common applications include broadband, instrumentation, and telecommunications.



QMA The QMA is a quick-disconnect version of the SMA connector. The electrical performance of the QMA includes low-loss RF performance up to 18 GHz. The QMA connector offers the same high-power handling capability as the SMA connector it is based on. This gives the series significant advantages over other quick-disconnect connectors. Amphenol is a member of the Quick Lock Formula® Alliance.



QN Amphenol's QN connector is a quick-disconnect version of the N connector with similar internal construction, which enables fast and easy mating in tight spaces. The snap-on interface makes the QN connector 10 times faster than a threaded connector. The QN line is perfect for indoor and outdoor applications, including base stations and cable assemblies.



SMA SMA is an acronym for sub-miniature version A and was developed in the 1960s. It uses a threaded interface. 50 Ω SMA connectors are semi-precision, subminiature units that provide excellent electrical performance from DC to 18 GHz. These high-performance connectors are compact in size and mechanically have outstanding durability. SMA connectors are used in phase array radar, test equipment, ILS landing systems, and other instrumentation.



Type N The Type N connector was developed to satisfy the need for a durable, weatherproof, medium-size RF connector with consistent performance through 18 GHz. There are two families of Type N connectors: Standard N (coaxial cable) and Corrugated N (helical and annular cable). Their primary applications are the termination of medium to miniature size coaxial cable, including RG-8, RG-58, RG-141, and RG-225.



AISG Connector (C091 Outdoor Connectors) Amphenol produces circular connectors conforming to AISG (Antenna Interface Standards Group) requirements. Tightness, temperature resistance, salt mist resistance, and UV-resistance are only a few of the important criteria an AISG connector must fulfill. Our successful realization of the AISG market requirements has made us the worldwide market leader for multipolar circular connectors and assembled wires.



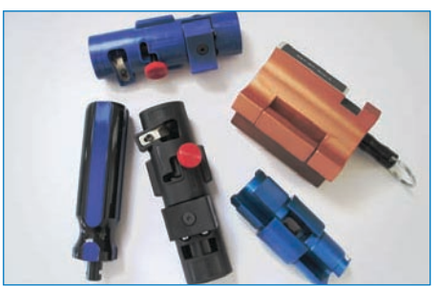
AISG Jumper (C091 Outdoor Cable Assemblies) Amphenol provides C091D cable assemblies conforming to the AISG 2.0 specification for wireless infrastructure applications including tower mounted devices such as remote radio heads. Based upon the proven long term reliability of its AISG products, Amphenol now has a major share in the AISG market. The Ecolmate plastic connector program is in use as a power supply system for indoor and outdoor devices such as WCDMA and WiMAX RRH's.



Jumper Cables Amphenol's jumper cables are designed for mobile networks. They typically come in shorter length jumpers and longer versions. The shorter runs are typically used at the tower-top, connecting the antenna to a tower-mounted device such as an amplifier (TMA). Longer feeders are used to run between that TMA and the base station on the ground. These assemblies handle large amounts of power at high frequency.



D-Sub WCDMA Cable Assembly Amphenol's D-Sub WCDMA cable assembly is just one example of the customized cable assemblies we can produce for our customers. We have the capabilities to create the custom cable assemblies required by your business. We specialize in creating complex yet cost-effective solutions and can easily handle high-mix high-volume product assortments.



LMR® Cable Installation Tools Amphenol offers a complete line of rugged, specially designed custom cable prep tools. These tools are designed to eliminate or minimize many of the mechanical and electrical variables that play a part in the connector attachment process. In addition to providing much desired control in the field connector attachmnet process, they offer a considerable time savings and are much safer to use than traditional cable prepping methods.



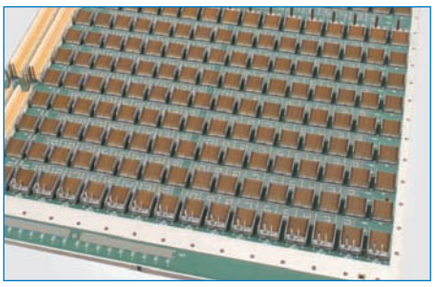
PT/LC Cable Assemblies The PT/LC leverages the proven MIL-Spec 264862 metal housing connector design to provide an environmentally sealed and mechanically protected duplex LC interface. PT/LC connectors are designed to perform in the toughest environments, making them exceptionally suited for outdoor applications such as WiMAX, LTE, and Backhaul. Multiple receptacle configurations are available to fit most applications.



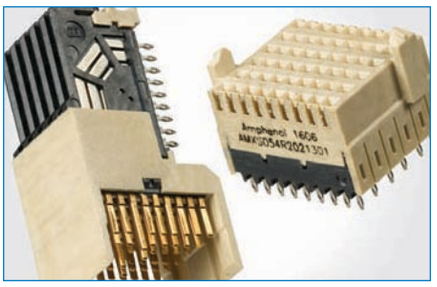
PT/MPO Cable Assemblies The PT/MPO leverages the proven MIL-Spec 264862 metal housing connector design to provide an environmentally sealed and mechanically protected multi fiber MPO-style interface. The bayonet style connector system is quick to deploy, requiring only ¼ turn to lock in place. The PT/MPO connectors are exceptionally well suited for WiMAX, LTE and Backhaul applications.



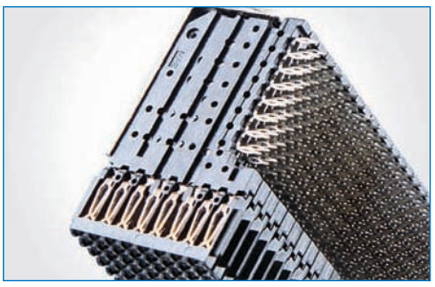
AARC Cable Assemblies The AARC plug and receptacle assemblies combine the reliability of the threaded N-Style connector housing with the ability to connect either 2 or 4 optical fibers in an outdoor environment. Compatible with the ODC® system, the AARC assemblies provide a dust and water sealed interface suitable for connection to outdoor mounted RRH or similar equipment used in WiMAX, LTE and Backhaul technologies.



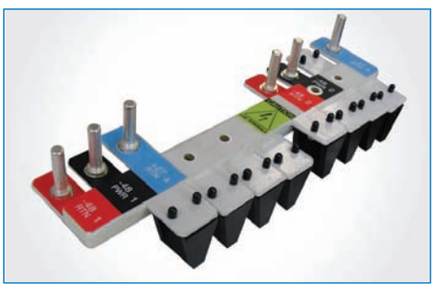
Backplane Assembly Amphenol's design and applications engineering experts apply knowledge gained from thousands of successful backplane designs to your project delivering an integrated backplane system with superior signal channel performance at an optimized cost. We routinely manufacture backplane systems with data rates up to and beyond 20 Gbps with field-proven mechanical reliability.



AirMax VS® The AirMax VS® connector utilizes edge-coupling technology to improve electrical impedance control with optimized stagger to minimize signal crosstalk. This innovative combination delivers a cost-effective interconnect for multi-gigabits/s applications. To leap frog traditional complex Stripline designs, the AirMax VS solution utilizes "Virtual Shields" which eliminate costly metal interleaves between columns. **AirMax VS is a registered trademark of FCI.



VHDM® The VHDM® connector platform is the industry standard for high-speed backplane applications, with measured performance to 3.125 Gbps and billions of pins installed worldwide. VHDM is available in 6 and 8-row configurations providing 76 - 101 real signals per linear inch. Stripline shielding allows 100% of the pins to be used for signals.



Bus Bar - Power Distribution Amphenol has expansive capabilities in producing customized bus bar solutions. Amphenol bus bars improve system reliability and power system life by replacing unreliable cabling and wiring harnesses. In addition, Amphenol's custom bus bars allow for denser packaging and are individually engineered to fit a customer's application while minimizing space-taking wiring harnesses and cables — allowing increased airflow.



Omni-Directional Panel Antennas with Fixed Electrical Downtilt Amphenol offers dual polarized, log periodic dipole, BCD, and vertically polarized directional panel antennas. The unique all mechanical design and patented slotted dipole element of our dual polarized antennas ensures excellent overall performance. Our log periodic dipole antennas feature more active elements than the industry standard. Our BCD antenna is a robust omni-directional antenna ideal for rural coverage or low-capacity applications. Our comprehensive selection of vertically polarized directional panel antennas are light-weight and low-profile and offer upper side lobe suppression and quick horizontal roll-off.



Dual-Polarized Antennas with Adjustable Electrical Downtilt The FlexTilt™ series is a line of antennas featuring adjustable electrical downtilt for both manual and remote applications. FlexTilt™ antenna designs are based on Amphenol's exclusive 3T Technology,™ incorporating phase shifters with a 100% mechanical design. A minimal number of moving parts and the use of quality components enhances reliability. Antennas are available in single and dual band.

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Amphenol Connex Corporation
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SV Microwave Components Group, Inc.
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Jaybeam Ltd.
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C&S Antennas, Inc.
720 21st Street Drive SE
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Jaybeam Wireless S.A.S. France
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Times Fiber Commmunications Inc.
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U-JIN Cable Industrial Co. Ltd.
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Spectra Strip
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