

# Amphenol



Commercial Avionics, Airframe & Systems

## AMPHENOL

is one of the largest manufacturers of interconnect products in the world. The Company designs, manufactures and markets electrical, electronic and fiber optic connectors, coaxial and flat-ribbon cable, and interconnect systems. Amphenol has long been the accepted leader in providing quality connectors and interconnect systems to the Military and Aerospace markets.

**From Airframe to Cable Harnessing, Cabin Service Systems, In Flight Entertainment to Fuel tanks, Power Generation, Engines and landing gears, to avionics, and flight controls boxes...**

Amphenol systems attachments and interconnect systems solutions bring systems together to power Very Light Jets, Business or Regional Jets as well as Large Commercial Aircraft.

Each one of these products is qualified to international standards as well as per specifications issued by major customers in the field of Commercial Aviation.

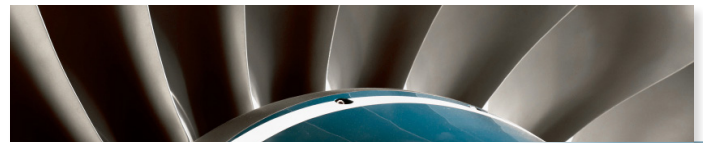
As a global company, Amphenol provides the same service and product quality worldwide and can support its customers' offset or localization programs where and when needed.



**IN-FLIGHT ENTERTAINMENT / CABIN LIGHTING/ GALLEYS**



**AVIONICS SYSTEMS / FLIGHT CONTROL UNITS & ACTUATION**



**ENGINE, NACELLES & CONTROLS**



**LANDING GEARS / FUEL TANKS**



**AIRFRAME / POWER / EWIS**



- ▶ Materials
- ▶ Fiber optics
- ▶ High frequency
- ▶ Modularity



- ▶ Systems
- ▶ Lightweight
- ▶ Quick install



- ▶ Power
- ▶ Power distribution
- ▶ High voltage
- ▶ Hermetic connectors

- ▶ Filter solutions
- ▶ Media converters
- ▶ Cable harnesses



- ▶ Systems attachments
- ▶ Contacts
- ▶ Backshells
- ▶ Flex + Rigid flex
- ▶ PCB/PWB





# ► IN-FLIGHT ENTERTAINMENT ► CABIN LIGHTING ► GALLEYS



## OCTONET™



► High speed Multi Gb Ethernet or simply double quad solution. Fits within standard size 8 cavity of D38999, EN4165, ARINC, EN3545.

## RJ FIELD



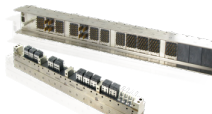
► The easiest and most efficient means of turning a standard RJ 45 type Ethernet connector into a harsh environment interconnect solution. Offering environmental sealing as well as EMI shielding.

## RNJ & RNJ LP



► Rack & Panel D38999 derivative with realignment capability designed for harsh environment: Shock, vibrations, EMI. Low Profile version is ARINC panel mount compatible.

## MODUL'R™



► Modular board level interconnect solution. Backplane & direct blade to harness configuration. High Speed, Fiber.

## RUGGED USB KEYS



► Rugged RJ45 Ethernet, USB, Firewire (IEEE1394), RJ11 and the MTRJ and LC fiber optic interfaces. Available in Mil-DTL-38999 Series III or Mil-C-26482 and SIM / EN4165.

## 38999 SERIES/EN3645



► Amphenol offers the largest range of MIL DTL 38999 connectors as well as the EN3645 version. Numerous insert configurations available for Power, Signal, High frequency, High speed copper (Coax, Quadradx, Octonet™) or Fiber optics (physical contact or lensed). Stand-off version.

## ABS2216



► Composite backshell for composite EN 3645 series. Straight, 45 and 90° angled as well as EMI capability.

## ARINC 801



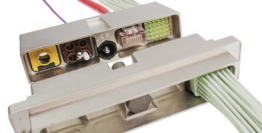
► The most commonly used and leading standard for Fiber Optics physical contacts. Connector inserts available for 38999 as well as EN4165 and ARINC series.

## ARINC 600



► Recognized standard rack and panel connector avionics designs. High contact density, low mating forces, high speed technology.

## EN4165/SIM MODULAR SERIES 2



► Rectangular, Modular series. 2, 4 and multiple bays. Custom designs. Signal, Power & Fiber inserts. Multiple arrangements: from 1 Size 8 to 30 size 23 contacts.

## 1900SIM MODULAR CONNECTOR



► Legacy form factor of EN3545 and modularity of SIM.

## ASR



► Small size Rectangular multi pins, snap locking, metalized composite shell. From 10 to 45 SAE39029 contacts.

## CONTACTS



► Coax, Quadradx, Twinax, µCom, Split Pair Octonet.

## SIM/EN4165 MONOMODULE



► Rectangular, Modular, Single Module & Push Pull locking. Signal, Power & Fiber insert arrangements. From 1 Size 8 to 30 size 23 contacts. Arinc 809 compliant.

## SIM-SPLICE



## CSC™



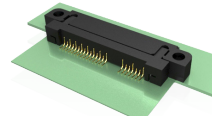
► Cabin Systems Connector, a USB and RJ45 alternative with Com Air environment performances and latching capabilities. Insulation displacement contacts for quick harness termination.

## MT-38999 FIBER OPTICS



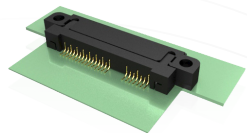
► Specific inserts for Mil STD 38999 circular connector for MT (Mechanical Transfer) fiber optics inserts. Butt joint or lensed version. MT/MTP/MPO solutions available.

## R-SATA COMBO PRSM



► Rugged SATA style connector which supports SATA 3.0 protocol and delivers 6.25 Gbps data rates & beyond.

## R-SATA COMBO PRSM



► Rugged SATA style connector which supports SATA 3.0 protocol and delivers 6.25 Gbps data rates & beyond.

## LC26500



► Legacy IFE Power & Data box interconnect.

## ARINC 810 / APeX



► The Next generation galley connector. Espresso machine, Trash compactor, oven, etc... Rectangular and Modular, Power, Signal and High speed copper or fiber solutions.

## HIGH SPEED LRM



► Line Replaceable Module, Modular configuration and insert arrangements. B3 (Bunch) contact system, Staggered Grid and arrangement patterns. Superior vibration performance.

## APeX CIRCULAR



► The Legacy Circular galley connector. Power and Signal for oven, compactors, coffee makers.

## PEGASUS



► The Metalized version of the Luminus series. Provides shell to shell electrical continuity and EMI shielding. 1/4 turn bayonet locking. IP67. Multi colors for coding. SAE39029 contacts.

## SJS LUMINUS



► Robust, Compact, Circular, secure coupling and sealing. Ideal for Cabin LED lighting interconnect applications.

## 3357, 3559 SERIES LIGHTING CONNECTORS



► The Quick install small form factor, high density connector for cabin lighting units. 3 pin snap on tool-less mounting on structure. IP67, aircraft standard / EVIS qualified. EN4165 inserts based Modular version available.

## MIL, NSA, ASNE JUNCTION



► Amphenol offers the largest range of Junctions from the MIL81714 series to the NSA/ASNE the highest density of the 1755 series.





# ▶ AVIONICS SYSTEMS ▶ FLIGHT CONTROL UNITS & ACTUATION



▶ EN  
▶ NA  
▶ CO

## SMASH



▶ Surface Mount Rectangular Amphenol Socapex Hi-density, conform to SEM-E form factor (Line Replaceable Module). From 1 to 3 bays with 150 signals per bay (Chevron Grid), Differential Signal and Optical Termini.

## 38999 SERIES/EN3645



▶ Amphenol offers the largest range of MIL DTL 38999 connectors as well as the EN3645 version. Numerous insert configurations available for Power, Signal, High frequency, High speed copper (Coax, Quadrax, Octonet™) or Fiber optics (physical contact or lensed). Stand-off version.

## R39



▶ Blind mate low profile rectangular geometry leads to Avionics box size reduction while delivering the same familiar benefits of D38999 series.

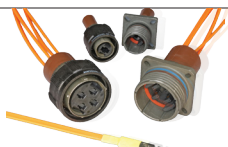
## ARINC 600 FILTERED ARINC 404



▶ EMI & EMP Rectangular Interconnect offers superior performance and lower overall cost over board level filter.

▶ Rectangular interconnect that meets Mil-DTL-81659. Up to 4 cavities that accommodate standard to high speed contact technology.

## MT-38999 FIBER OPTICS



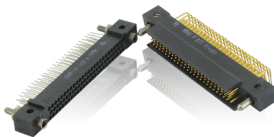
▶ Specific inserts for Mil STD 38999 circular connector for MT (Mechanical Transfer) fiber optics inserts. Butt joint or lensed version. MT/MP/MPO solutions available.

## SV COAX



▶ RF, N, TNC rugged and reliable RF connectors and cable assemblies for Satcom IFE (Ku and Ka band).

## HDAS



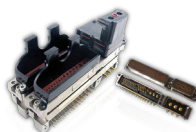
▶ Board Level robust and simple design. High density & performance. 6 times starclip contact technology.

## MULTI MODULAR ARINC



▶ The ARINC style contacts and inserts combined into a smaller form factor and Modular design.

## BOARD LEVEL POWER



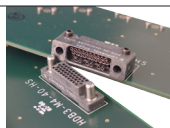
▶ Mixed layout contacts arrangements for Secondary power distribution. High Speed, crimp, 90° PC tail & bussed contacts.

## SIM/EN4165



▶ Rectangular, Modular series. 2, 4 and multiple bays. Custom designs. Signal, Power & Fiber inserts. Multiple arrangements: from 1 Size 8 to 30 size 23 contacts.

## HDB3



▶ Brush connectors, higher density contact pattern and lower mated height than standard rectangular connectors. 6.25 Gbps via 100 ohm matched impedance differential pairs.

## PWB, BACKPLANE, FLEX & RIGID FLEX



▶ Up to 40 layers backplanes custom designed. Flex circuits can be folded to save space and weight versus wire harnesses. Rigid Flex can be alternative to terminal blocks for repeatability, weight saving and quick install.

## CONTACTS



▶ Coax, Quadrax, Twinax, μCom, Split Pair Power, Octonet.

## EN2997



▶ Engine zone connectors series. Environmental miniature connectors. Aluminum or Stainless steel shells. Temperature up to 260°C.

## CIRCULAR SERIES & STAND OFF



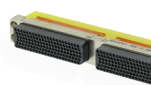
▶ Environmental cylindrical I/O connectors for PC Board attachment (PC Tails with many lengths, Compliant pin contacts, Flex circuitry for jumper...). Stand-off for easy board fixing.

## CABLE HARNESSES CAPABILITIES



▶ Amphenol, both in Europe and the USA, manufactures a number of Cable Harnesses such as this one for Auxiliary Power Unit.

## SMASH



▶ Blind mate multi modular interconnects, with proven ARINC style

## BACKSHELLS FOR



▶ A comprehensive range of materials for D38999 / EN3645 and other

## DUAL



▶ New coupling mechanism for High vibration. Mates with Star

Technology  
Technologies





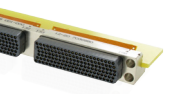
**ENGINE  
ACCELLES  
CONTROLS**



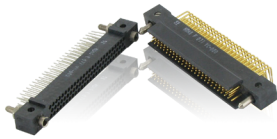
**▶ LANDING GEAR  
▶ FUEL TANKS**

**ASH**

**HDAS**



connector featuring removable backshell for easy contact design.



▶ Board Level robust and simple design. High density & performance. 6 times starclip contact technology.

**R MIL-DTL-38999**

**38999 SERIES + POWER**



metal and composite backshells for circular connectors series.



▶ Power Safe design for user's protection. Different insert arrangements. Hermetic versions available.

**OK™**

**BULKHEAD**



for superior performance under standard D38999 series III.



▶ Mates to standard D38999 Series III plug connectors. Improved leak rate versions. Filtering, thermocouple, high speed, fiber & standard 38999 insert patterns.

**BACKSHELLS**

**ABS2216**



▶ A comprehensive range of metal and composite backshells for D38999 / EN3645 and other circular connectors series.



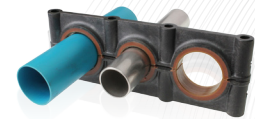
▶ Composite backshell for composite EN 3645 series. Straight, 45 and 90° angled as well as EMI capability.

**DUALOK™**

**HYDRAULIC PIPE CLAMPS**



▶ New coupling mechanism for superior performance under High vibrations. Mates with Standard D38999 series III.



▶ High performance. Multiple diameter mix configurations available. Overmolded silicone rubber acting as shock and vibration absorber between hydraulic conduits and airframe.

**P CLA**

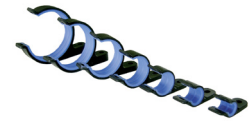
▶ High performance for cable assembly and other high resistant to a

**HYDRAULIC CONDUITS CLAMPS**

**FUEL RESISTANT CABLE CLAMPS**



▶ Hydraulic pipe clamps / supports : modular with metal hardware fixings or monoblock light weight all composite material. Unique shock and vibration reducing silicone rubber cushion.



▶ High performance, all composite, cable clamps designed to withstand full time immersion into fuel tank.

**Quick install**

**High Speed**

**Fiber Optics**

**Innovation**

**Materials**

**Space Saving**

**Weight Saving**

**Assembly**

**High D**



R



► AIRFRAME  
► POWER  
► EWIS

**ABS2286**



Power connector exposed to harsh environment including gear mounted.

**MPS / OMEGA CLAMPS**



Performance all Composite light weight clamps as well as conduit clamping into wheel well harsh environment zones. Standard material is resistant to fuel exposure.

**BACKSHELLS**



► A comprehensive range of metal and composite backshells for D38999 / EN3645 and other circular connectors series.

**ABS2216**



► Composite backshell for composite EN 3645 series. Straight, 45 and 90° angled as well as EMI capability.

**38999 SERIES + POWER**



► Power Safe design for user's protection. Different insert arrangements. Hermetic versions available.

**2M SERIES**



► Mil-spec performance for harsh environmental conditions. Cat 5e, Push-Pull or Thread versions. 16.51mm max external diameter.

**DUALOK™**



► New coupling mechanism for superior performance under High vibration. Mates with Standard D38999 series III.

**CONTACTS**



► Coax, Quad, Twinax, µCom, Split Pair Power, TNC.

**CC5516/ABS2195 CABLE CLAMPS**



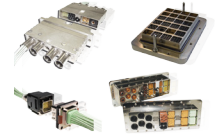
► High grade composite drop-in replacement to traditional metal clamps. Significant weight saving. Overmolded silicone rubber band for efficient wire protection. No loose parts. ADB031 & FAR25853 compliant. 37 sizes for Ø3 to 60 mm diameter.

**TERMINAL BLOCK ASSEMBLIES**



► Power distribution from bus bars to wire lugs. High voltage, high temperature performances. Modular design. Monoblock construction.

**SIM/EN4165**



► Rectangular, Modular series. 2, 4 and multiple bays. Custom designs. Signal, Power & Fiber inserts. Multiple arrangements: from 1 Size 8 to 30 size 23 contacts.

**CC/ABS1339 LIGHT CABLE CLAMPS**



► No performance compromised, weight optimized version of the popular ABS1339 series.

**HVDC POWER SERIES**



► High Voltage solution for APU. Use Radsok™ hyperboloid contacts.

**HERMETICS/BULKHEAD**



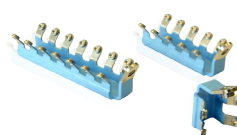
► MIL DTL 38999 or EN2997 series. Pressurized to un-pressurized feedthrough and/or Sensors and actuators interconnection. Embedded Filtered version available, saving real estate on the equipment power board.

**SYSTEMS ATTACHMENTS**



► Extensive range of rugged & light weight harnesses & conduits attachments. Modular design for easy and quick installation.

**BUS BAR**



► Bespoke design. High Voltage From power generator to terminal blocks. 100/150/200 Amp @ 1500 V. Temperature -40°C to +150°C.

**1900SIM MODULAR CONNECTOR**



► Legacy form factor of EN3545 and modularity of SIM. Offering stackability and modularity for high density, high performance. EWIS interconnection. Tested to the most stringent Com Air requirements.

**PWB, BACKPLANE, FLEX & RIGID FLEX**



► Up to 40 layers backplanes custom designed. Flex circuits can be folded to save space and weight versus wire harnesses. Rigid Flex can be alternative to terminal blocks for repeatability, weight saving and quick install.

**HYDRAULIC PIPE CLAMPS**



► High performance, Multiple diameter mix configurations available. Overmolded silicone rubber acting as shock and vibration absorber between hydraulic conduits and airframe.

**5015 REAR RELEASE**



► Legacy Specification. Qualified. Primary power distribution systems through bulkhead.

ng



Density

Density

# Amphenol in the world

## Amphenol Sales contacts in Europe

### Amphenol Socapex

948, promenade de l'Arve BP29  
74311 Thyez Cedex - France  
Phone: +33 (0)1 49 05 30 00

### Amphenol Air LB

2 rue Clément Ader, ZAC de WE  
08110 Carignan - France  
Phone: +33 (0)1 49 05 30 00

### Amphenol AIR LB GmbH

Am Kleinbahnhof 4  
66740 Saarlouis - Germany  
Phone: +49 6831 981 00

### Amphenol LIMITED

Thanet Way, Whitstable  
Kent, CT53JF - United Kingdom  
Phone: +44 1227 773 200

### Amphenol INVOTEC

Invotec Circuits Tamworth Limited  
Hedging Lane, Dosthill,  
Tamworth, B77 5HH - United Kingdom

### Amphenol ITALY

Via Barbaiana n.5  
20020 Lainate - Milano - Italy  
Phone: +39 293 254 214

### Amphenol IBERICA

Edificio Burgosol, Oficina nr 55 - Comunidad  
de Madrid, 35-bis Las Rozas (Madrid) - Spain  
Phone: +34 91 640 73 06

### Amphenol NORDIC

Phone: +46 702 129 200 (Mil/Aero)  
+46 76-790 95 60 (Industrial)

### Amphenol IONIX

Greenfold Way -Leigh  
Lancashire, WN7 3XJ - United Kingdom  
Phone: +44 1942 685200

### Amphenol AUSTRIA & CEE

Wiener Gasse 68  
2380 Perchtoldsdorf  
Phone: +43 699 10396071

### Amphenol POLAND

Lwowska 8/16 ,  
53-516 Wrocław - Poland  
Phone: +48 513017157

### Amphenol SWITZERLAND & SOUTH CENTER

Switzerland, Slovenia, Serbia, Montenegro,  
Yugoslavia, Greece, Bulgaria  
948, promenade de l'Arve BP29  
74311 Thyez Cedex - France  
Phone: +33 (0)4 50 89 28 40

### Amphenol BENELUX

Zadkinestraat 26  
Almere, 1328 NN - The Netherlands  
Phone: +31 651 296835

## Amphenol Sales contacts in Asia

### Amphenol DAESHIN

558 SongNae-Dong SoSa-Gu, Bucheon-city, Kyunggi-Do  
Korea 420-130  
Phone: +81-32 610 3830/3845

### Amphenol EAST ASIA LTD.

No.72, Bendemeer Road,  
#03-32/33, Luzerne  
Singapore 339941  
Phone: +65 6294 2128

### Amphenol INTERCONNECT INDIA PRIVATE LIMITED

105 Bhosari Industrial Area - Pune 411 026 - India  
Phone: +91 20 3068 8304

### Amphenol PCD CO. LTD

Building 21, 1st Liao Keng Industrial Zone, Shi Yan Street  
Bao An District, Shenzhen 518108  
China  
Phone: +86 755 8173 8000/8286

### Amphenol JAPAN

471-1, Deba, Ritto-City, Shiga 520 3041 - Japan  
Phone: +81 77 553 8501

## Amphenol Sales contacts in North America

### Amphenol PCD

72 Cherry Hill Drive - Beverly, MA. 01915 - USA  
Phone: +1 978 624 3400

### Amphenol FIBER SYSTEMS INT.

1300 Central Expwy N, Suite 100  
Allen, TX 75013 - USA  
Phone: +1 214 547 2400

### Amphenol AEROSPACE OPERATIONS

40-60 Delaware street - Sidney, NY 13838-1395 - USA  
Phone: +1 607 563 5011

### Amphenol PRINTED CIRCUIT BOARD TECHNOLOGY

91 Northeastern Boulevard  
Nashua, New Hampshire 03062 - USA  
Phone: +1 603 324 4500

### Amphenol CANADA CORPORATION

605 Milner avenue - M1B 5X6 - Toronto, Ontario - Canada  
Phone: +1 416 291 4401

### SV MICROWAVE

2400 Centrepark West Dr.  
West Palm Beach, FL 33409 - USA  
Phone: +1 561 840 1800

### Amphenol AMPHENOL ADVANCED SENSORS

967 Windfall Road  
St. Mary's, PA 15857-3333 - USA  
Phone: +1 814 834 9140

### TIMES MICROWAVE SYSTEMS

358 Hall Avenue  
Wallingford, CT 06492 - USA  
Phone: +1 800 867 2629

### Amphenol GRIFFITH ENTERPRISES

6000 E Coury Drive  
Cottonwood, AZ 86326-9202 - USA  
Phone: +1 928 634 3685

### Amphenol NEXUSTECHNOLOGIES, INC

50 Sunnyside Ave., Stamford,  
CT 06902 - USA  
Phone: +1 203-327-7300

### Amphenol BORISCH TECHNOLOGIES

4511 East Paris  
Grand Rapids, MI 49512 -USA  
Phone: +1 616 554 9820

## Amphenol Sales contacts in Other Areas

### Amphenol ARGENTINA

Av. Callao 930 2do piso Oficina B "Plaza" C1023 - AAP  
Buenos Aires - Argentina  
Phone: +54 11 4815 6886

### Amphenol AUSTRALIA PTY LIMITED

2 Fiveways Blvd., Keysborough - Melbourne  
Victoria 3173- Australia  
Phone: +61 3 8796 8888

### Amphenol DO BRAZIL

Rua Diogo Moreira, 132, 20 andar, rooms 2001-2-3  
CEP: 05423-010 Sao Paulo SP - Brazil  
Phone: +55 11 3815 1003

### Bar-Tec Ltd., ISRAEL

3 Hagavish Street, Kfir-Barkan Bldg. East Industrial  
Zone - Kfar-Sava, 44102 - Israel  
Phone: +972 9 764 4100

### Amphenol MEXICO

Prolongacion Reforma 61-6 B2  
Col Paseo de las Lomas - C.P. 013130 - Mexico  
Phone: +52 55 5258 9984

### Amphenol RUSSIA

Yaroslavskaja Street 8,  
129164 Moscow - Russia  
Phone: +7 495 937 6341

### Amphenol AFRICA

30 Impala Rd,  
Sandton 2146 - South Africa  
Phone: +27 82 410 5179

### Amphenol TURKEY

Sun Plaza 15 Kat: 15 Maslak Hah. Bilim  
Sok. No.5  
Sisli/Istanbul, 34398 - Turkey  
Phone: +90 212 367 92 19

**GICAT**  
MEMBER



The information given in this document are as a guideline only. We reserve the right to modify our products in any way we deem necessary. Any duplication is prohibited, unless approved in writing.

[www.amphenol.com](http://www.amphenol.com)