

## **CABIN**

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## LIGHTING & PSU



## SJS - Luminus Series - BACC63

Circular bayonet connectors for power supply of various cabin systems.

- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple keying positions; Visual markings
- Multiple configurations & accessories
- Rugged Polyamide Housings; 500 mating cycles
- Blind-Mate connection
- D160, MIL-T-81714, FAR25 Compliance



## 3357 - ABS1019

Push-Pull connectors for Lighting Systems & Passenger Service Units.

- Ease of installation
- No tools required snaps directly onto structure
- One size for either 3, 6, or 9 contacts where required



#### Lumière™ / EN 4531-101

Fiber Optics interconnect for communications, IFE & C, On-Board Networking, & Lighting Systems.

- Hermaphroditic style allows one contact type
- Standard 2.5mm ST type ferrule interface allows the use of standard termination procedures & readily available tools
- Simple access to optical termini facilitates cleaning
- Options available for single mode & multi-mode fiber
- Pull-proof option allows the use of the terminus in a connector without a backshell
- Supports both tight or loose structured cable



### **EN 4165 High Density MT Series**

Fiber Optics interconnect for high speed / bandwidth communications.

- Custom designed insert accommodates MT ferrule-type based & standard MTP/MPO multi-fiber connectors
- MTP/MPO directly plugs/locks into SIM/EN 4165 compatible insert; easily removed for repair
- From 12 to 48 fibers; Multi-mode and Single mode type
- P (male) insert fitted with interfacial compression seal; will accept the MTP/MPO equipped with guiding pins
- Both P and S inserts have molded pre-alignment tabs for prepositioning during mating of connectors



#### SIM2B - ARINC 809 - EN 4165

Push-Pull modular connector for IFE & C, Cabin Service Systems, & Lighting Systems.

- High Performance
- More than 20 different inserts to choose from
- Butt joint & expanded beam optical contacts
- Fixing accessories
- Multiple colors
- Flight caps & 3-pin quick install seat leg disconnect shell readily available
- EN4165-024 & 25 certification pending



**Optical Termini** 



En 4165/SIM/ARINC 809 compliant inserts for ARINC 801 butt joint Fiber Optics contacts.

- Insert can accept up to 6 standard ARINC 801 contacts
- Insert defined by EN4830 specs; Qualification pending
- Note: ARINC 801 and Amphelux™ contacts are conforming to EN4639-10 spec; Multi-mode and Single mode capable
- Guiding pins for alignment prior to mating into sleeve holder
- Only 1 insert, gender is defined by which side is fitted with sleeve holder; Interfacial, extended sealing grommet and peripheral seal for harsh environment performances



## **Pegasus Series**

Same convenience & weight savings of the Luminus Series, with the added benefit of EMI shielding & protection from ambient noise transients.

- Electroless Copper & Nickel plating
- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple sizes & accessories
- Scoop-Proof



1720 - ABS0364 Series

Push-Pull connectors for power supply; power supply for legacy Lighting Systems.

- Push-Pull connectors with 3-pin clip on fixing and a strain relief cable clamp (straight or 90°)
- Socket can be easily attached to the 3-point mounting system to mounting wall
- Plug & Socket coupled by means of 3-point locking
- Two versions: 10 & 26 contacts, size 20
- Plug & Socket sealed by a molded-grommet



## Cabin Systems Connector: CSC™

Quick Install, Slide & Lock for Power, Signal, Bus Bar, Gb Ethernet, USB 2.0 capable.

- Low Cost, Compact, Lightweight
- EWIS & RoHS compliant
- Secure positive locking feature
- Quick termination process
- Meets smoke, toxicity & flammability requirements
- High reliability; Hot swap-able
- Shell-to-Shell Shielding



SIM2S - EN 4165 Series

In-Seat Modular & Flexible Wiring; Quick install interconnect, splicing.

- Quick install interconnect and splicing
- Most of EN 4165 inserts can be used with SIM2S
- Simple, lightweight, small form factor
- Can be fixed onto the structure or simply tie-wrapped to the wires bundle



#### 3559 - ABS1152 - EN 4165 - BACC65

Modular Push-Pull connector for Lighting Systems & Passenger Service Units.

- Quick install onto structure by means of a 3-pin spring loaded locking mechanism fitted to the receptacle shell
- No screws, no riveting
- Clip on strain relief cable clamp (straight or 90°)
- All composite, lightweight design



#### **Luminus Series With Wire/Cable**

Circular bayonet connectors for power supply of various cabin systems.

- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple keying positions; Visual markings
- Multiple configurations & accessories
- Rugged Polyamide Housings; 500 mating cycles
- Blind-Mate connection
- D160, MIL-T-81714, FAR25 Compliance
- Overmold Cable Assemblies available



## **ABS1339 Clamps**

Provide routing, support & fixing for cable harnesses of various diameters.

- High-Grade composite material for mechanical strength
- ABD031 / FAR25853 compliant
- Fully tested to extreme vibration & shock
- Ease of installation
- Accommodates several different diameters
- Impressive weight savings ratio vs. metal versions
- Also available in light version for weight savings up to 18%



## **Environmentally-Sealed D SUB Series**

Legacy airframe interconnect; IFE & C; Galleys & PSU's.

- Standard & high density QPL crimp versions
- Straight & right angle PC tail options available
- Available with environmental sealed grommet
- Solder version can be supplied
- Durability: 500 mating cycles



## **ABS2195 / CC5516 Clamps**

Provide routing, support & fixing for cable harnesses of various diameters.

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- Weight saved up to 60% compared to metallic NSA5516 clamps



## **GALLEY**



## **Circular Galley Connectors**

Designed specifically for legacy & new generation galley systems; meets MIL-STD-1344 & EN 2591 test standards.

- Highly reliable & easy to use
- Interchangeable & intermateable with other pre-existing equipment in the field
- Crimp termination connection system with 3, Power (10 AWG) & 3 Control (16 AWG)
- Blind-Mate connection
- Configurable to PCB contacts; plating options available



## **ARINC 810 Galley Connector/EN 4644**

Rack & Panel connector for galley power supply – Coffee maker, Oven, Compactor, etc.

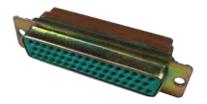
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- Overmold Technology
- Blind-Mate connection
- Intuitive & ergonomic



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#### **RNJ Connector: MIL-DTL-38999 Compliant**

Rack & Panel circular connectors; Power & Data connection for galley units.

- EMI Shielding
- Shells are grounding before contact mating
- Lightweight space saving design
- Durability: 500 cycles
- Olive drab cadmium over nickel plating on aluminum shell
- 8 Shell sizes from 11 to 25
- Temperature range: -65 C + 175 C
- Insulation resistance> 5000 Mohms at ambient under 500 Vcc





#### 38999 PowerSafe

PowerSafe connectors are designed to transmit high-power with voltages over 500V.

- Focus both on user safety and 38999 Series IV performance
- One earth contact linked to the shell (first mate/last break)
- One pilot contact (last mate/first break) to be used as relay of power break before disconnecting mated pair
- Qualification in progress according to the most stringent standards
- User safety: DIN EN-61984 (VDE 0627)
- Product standard: VG96944



## **Temperature Sensors**

Precision glass and epoxy NTC sensors with excellent temperature capabilities.

- Harsh environment temperature sensors
- High temperature
- Circuit protection and over temperature protection
- Cryogenic measurement
- Custom probe assemblies



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- Ease of installation
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- Also available in light version for weight savings up to 18%



## ABS2195 / CC5516 Clamps

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## IN-FLIGHT ENTERTAINMENT & CONNECTIVITY



#### SIM2B - ARINC 809 - EN 4165

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- High Performance
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- Fixing accessories
- Multiple colors
- Flight caps & 3-pin quick install seat leg disconnect shell readily available
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## **Pegasus Series**

Same convenience & weight savings of the Luminus Series, with the added benefit of EMI shielding & protection from ambient noise transients.

- Electroless Copper & Nickel plating
- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple sizes & accessories
- Scoop-Proof



### **High Speed Coaxial Transmission**

High Speed Coaxial Transmission connectors & cables for cabin wireless systems.

- Pin and socket contacts for multi-pin connectors
- Sizes 1, 8, 12 & 16
- Industry Standard Interfaces (TNC, N, BNC, SMA) along with cable assemblies



## **Environmentally-Sealed D SUB Series**

Legacy airframe interconnect; IFE & C; Galleys & PSU's.

- Standard & high density QPL crimp versions
- Straight & right angle PC tail options available
- Available with environmental sealed grommet
- Solder version can be supplied
- Durability: 500 mating cycles



## Cabin Systems Connector: CSC™

Quick Install, Slide & Lock for Power, Signal, Bus Bar, Gb Ethernet, USB 2.0 capable.

- Low Cost, Compact, Lightweight
- EWIS & RoHS compliant
- Secure positive locking feature
- Quick termination process
- Meets smoke, toxicity & flammability requirements
- High reliability; Hot swap-able
- Shell-to-Shell Shielding



#### 1900 Series

Rectangular connectors that meet EN 3545 AECMA Standard; made of thermoplastic.

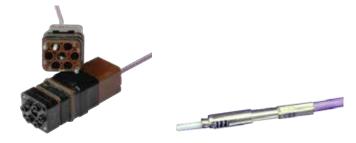
- Two connector types: sealed grommets on the conductor unsealed grommets on the conductor
- Contacts fully EN 3155 compliant
- Multiple contact types available (crimp, straight/right angle PCB, solder cups, quadrax, etc)
- 36 keying combinations



#### **ASR Series**

Rectangular Composite Push-Pull Connection for IFE & C video displays, seat actuators, & lighting.

- All-in-one design & locking tabs allows for easy "mate & lock"
- Interfacial & rear grommet sealing to Mil-Spec Standards
- Many configurations available
- High-performing SAE 39029 Series crimp contacts are standard
- D-Shaped Design: Enables simple polarization
- Also available with coax contacts.



# EN 4165 / EN 4830\* Inserts for ARINC 801 Optical Termini

En 4165/SIM/ARINC 809 compliant inserts for ARINC 801 butt joint Fiber Optics contacts.

- Insert can accept up to 6 standard ARINC 801 contacts
- Insert defined by EN4830 specs; Qualification pending
- Note: ARINC 801 and Amphelux™ contacts are conforming to EN4639-10 spec; Multi-mode and Single mode capable
- Guiding pins for alignment prior to mating into sleeve holder
- Only 1 insert, gender is defined by which side is fitted with sleeve holder; Interfacial, extended sealing grommet and peripheral seal for harsh environment performances



#### MRC, Multi-Media

USB 2.0 & 3.0 - Gbe - HDMI for rugged interface for portable devices, quick disconnect systems / interfaces.

- Current Rating: 2.5 amps max per contact
- Protocols supported: Gigabit Ethernet, USB 2.0/3.0,10 Gigabit Ethernet, & HDMI
- Durability: 2000 mating cycles
- Unmating Force: 15 lb. min



#### **SimPlus**

Amphenol uses existing SIM technology and applies it to make custom designs per specific customer requirement.

- Custom per customer requirements
- Modular, multi-functional rectangular connector
- Consists of shells and modules, which together create an integrated solution
- Supports advanced signal and power requirements in a small space
- Flexibility and simplicity



### **EN 4165 High Density MT Series**

Fiber Optics interconnect for high speed / bandwidth communications.

- Custom designed insert accommodates MT ferrule-type based & standard MTP/MPO multi-fiber connectors
- MTP/MPO directly plugs/locks into SIM/EN 4165 compatible insert; easily removed for repair
- From 12 to 48 fibers; Multi-mode and Single mode type
- P (male) insert fitted with interfacial compression seal; will accept the MTP/MPO equipped with guiding pins
- Both P and S inserts have molded pre-alignment tabs for prepositioning during mating of connectors



#### **ABS2216 Composite Backshells**

Composite Backshells for MIL-DTL-38999 Series III; EN 3645 connectors & Amphenol TV/CTV connectors.

- Performances meet or exceed specification ABS2216
- Lightweight
- Quick & easy installation
- Handling temperature from -65°C to 200°C
- Anti-decoupling system to withstand shocks & vibrations in harsh environments



#### **Over-Braided Cable Assemblies**

Over-Braided Cable Assemblies is just one of the many different cable types supported by our Cable Division. Various harsh environment adapters & accessories are supported as well.

- Braiding material improves EMI performance
- Stainless Steel, Tinned Copper, & Aluminum
- · Nylon, Nomex for cable jacketing



## **AlumaLight**

Commercial Aerospace Backshell; exceeds performance & functionality of Mil-Standards.

- More durable vs composites
- Enhanced EMI performance
- Strength & durability
- Reliability
- Lightweight



#### **Quick Install Solutions**

Seat disconnect for IFE & C Systems.

- Quick install solutions for ARINC Standard interface
- Custom shell for tool-less installation into the seat



### **Environmental Backshell**

Ensure cable sealing & environmental protection by means of high quality sealing grommet & grommet follower.

- Very good strain relief for heavy-cabling
- Good for in-door applications
- 6ft water sealing



## Size 16 Expanded Beam: LuxBeam™

Optical contacts for multiple series of connectors: DTL38999 / EN 3645 / 3545 / 4165.

- Fit into regular size 16 contact cavity as per SAE39029
- High optical performance
- Compatible with many existing inserts arrangements of MIL-DTL 38999, & EN 4165 Series II & III



#### Micro D

Offers proven MIL-DTL-83513 qualified performance and reliability in rectangular and strip line micro connectors.

- Rectangular interconnect with reduced space & weight
- Meets & exceeds Mil-DTL-83513 requirements
- High Density contact arrangements up to 152-ways



#### **Media Converters & transceivers**

Effortlessly converts electrical systems to fiber optics (longer distances, EMI/RFI immunity, lighter weight) with minimal or no system design/redesign.

- AFSI 10, 20 and 40Gb transceivers
- Copper to fiber transition in a rugged package
- Harsh environment transceivers support extended temperature range and military vibration/shock requirements
- Supports single mode or multi-mode operation
- Keeping the fiber outside the enclosure means simpler integration
- Interface with ARINC, EN and TFOCA interconnects



#### **Star Quadrax-1st Generation**

- Offer several advantages for high data transfer rates, low power consumption, and excellent EMI compatibility
- Four strategically spaced inner contacts form two 100, 110, or 150
  Ohm matched impedance differential pairs
- Outer contact has rugged wall section for durability
- Available in size 8 crimp termination style and size 8 PC tails
- Bandwidth up to 1.25 GHz
- Supports up to 3.125 Gbps per pair



## Split-Pair Quadrax-2nd Generation

- Overall higher bandwidth than standard CAT5E quadrax, supports up to 6.5 Gb/s per pair
- Enhanced crosstalk performance (compared to standard quadrax) due to compatibility with shield twisted pair of cables
- Can be used for a variety of high speed applications beyond current quadrax design
- Four strategically spaced inner contacts form two 100 Ohm matched impedance differential pairs
- Can be installed into existing quadrax contact connector cavities



### Space ST

A Fiber Optic MIL-STD-83522 style connector and strain relief boot compliant to NASAEEE-INST-002 material guidelines for space applications.

- · Stainless steel construction
- Single and Multi-mode
- · Salt spray and fungus resistant
- Isolated cable strain relief
- Suited for super PC or Ultra PC finish
- Supports 900µm, 2mm and 3mm cables
- Metal dust cap and 90° boot options



### **ABS1339 Clamps**

Provide routing, support & fixing for cable harnesses of various diameters.

- High-Grade composite material for mechanical strength
- ABD031 / FAR25853 compliant
- Fully tested to extreme vibration & shock
- Ease of installation
- Accommodates several different diameters
- Impressive weight savings ratio vs. metal versions
- Also available in light version for weight savings up to 18%



## ABS2195 / CC5516 Clamps

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D38999 III, MT Ferrule

High fiber density in a relatively small circular connector package with all the advantages of the MIL-DTL-38999, Series III connector.

- Three levels of alignment provide for precision fiber-to-fiber interface: Shell-to-shell with keying to allow for alternate positions
- Insert plug to insert receptacle; MT contact guide pins
- Compatible with 12-fiber, 24-fiber, or 48-fiber MT ferrules in multimode PC, single mode PC, and single mode APC configurations
- Two arrangements are available, shell size 11 with one ferrule, and shell size 21 with four ferrules
- Up to 48 fiber channels in a size 11 shell; Up to 192 fiber channels in a size 11 shell



#### SJS - Luminus Series - BACC63

Circular bayonet connectors for power supply of various cabin systems.

- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple keying positions; Visual markings
- Multiple configurations & accessories
- Rugged Polyamide Housings; 500 mating cycles
- Blind-Mate connection
- D160, MIL-T-81714, FAR25 Compliance



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- Scoop-Proof



# **CWAP Connector: 4 quadrax 38999 Connector**

- Derived from MIL-DTL-38999/EN3645 standard
- Dedicated stand-off size 19 receptacle with 4 PC TAILS quadrax
- Plug shell size 19 with anti-decoupling device
- Available in Nickel finish
- Crimp quadrax contacts on plug size can accommodate a wide range of wire



## DATA UPLOAD & DATA POWER



## **High Speed Coaxial Transmission**

High Speed Coaxial Transmission connectors & cables for cabin wireless systems.

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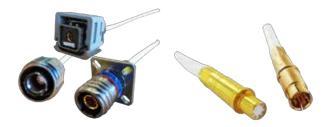






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# OCTONET™: High Speed Ethernet for DTL38999, EN 3645, EN 3545, EN 4165

- Multi Gigabit OCTONET™ Double Quad size 8 contact
- High Speed Ethernet capability with only 1 contact
- Smaller size shell, single cavity connector can be used



#### 26500 Series

Dependable, rugged, medium-sized Mil-Spec connectors available with threaded or bayonet couplings for military & aerospace/aviation applications.

- Environmentally-resistant for use in harsh environments
- Corrosion resistance
- Superior strength
- Meets high-vibration requirements



## MRC, Multi-Media

USB 2.0 & 3.0 - Gbe - HDMI for rugged interface for portable devices, quick disconnect systems / interfaces.

- Current Rating: 2.5 amps max per contact
- Protocols supported: Gigabit Ethernet, USB 2.0/3.0,10 Gigabit Ethernet, & HDMI
- Durability: 2000 mating cycles
- Unmating Force: 15 lb. min



## **SEATING**



## **26500 Series**

Dependable, rugged, medium-sized Mil-Spec connectors available with threaded or bayonet couplings for military & aerospace/aviation applications.

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- Ease of installation
- Accommodates several different diameters
- Impressive weight savings ratio vs. metal versions
- Also available in light version for weight savings up to 18%



## **Stringer Clips**

Made to fix on an aircraft's airframe; help secure & manage cable harnesses as they run throughout the aircraft.

- Lightweight & easy to install
- Multiple types
- FAR25-853 compliance
- Multiple colors available
- Material available: Nylon 6/6 (PA), Ultem (PEI), PEEK
- No loose parts (reduction of FOD)







# ARINC 800 / 16-02 High Speed & Power Inserts for Seat Leg Disconnect

Quick install solutions for ARINC Standard interface & Custom Shell for tool-less installation into the seat.

- Power and High Speed Ethernet data for IFE seat-to-seat interconnect
- Inserts are Fully compliant and intermateable with ARINC800 / 16-02 specification
- EN 4165/1RINC809/SIM compatible
- Amphenol offers a one-piece design connector receptacle shell for tooless and quick installation thanks to 3-pin clip-on feature



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- Flight caps & 3-pin quick install seat leg disconnect shell readily available
- EN415-024 & 25 certification pending



## AIR MANAGEMENT SYSTEMS



## Composite 38999 PC tails

Circular connectors with PC Tail contacts for solder mounting on printed circuit boards.

- Lightweight, compact, high density and high reliability cylindrical
- Operating voltage to 900 VAC (RMS) at sea level
- Environmentally resistant
- Solder or crimp rear release contacts in mating plug
- Series I (LJT) Bayonet coupling
- Series II (JT) Bayonet coupling



## **ARINC 810 Galley Connector/EN 4644**

Rack & Panel connector for galley power supply – Coffee maker, Oven, Compactor, etc.

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- Overmold Technology
- Blind-Mate connection
- Intuitive & ergonomic



#### **ABS1842**

ABS1842 is a system that helps drain water condensation from the aircraft.

- Drainage bracket
- Lightweight composite
- Bonded on structure, with adhesive pre-positioning
- Available in 3 sizes
- Operating temperature from -55°C to +120°C
- Conform to ABD 031 and FAR 25853





## Sensing Technology for Environmental Monitoring

Temperature, Humidity and CO2 sensors and transmitters for optimizing cabin comfort.

- Temperature sensors
- Humidity sensors
- CO2 air quality sensors
- Dust sensor for air quality



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- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple keying positions; Visual markings
- Multiple configurations & accessories
- Rugged Polyamide Housings; 500 mating cycles
- Blind-Mate connection
- D160, MIL-T-81714, FAR25 Compliance



## CONTROLS, ANTENNA & RADAR



## R27 6-Bay custom design

Robust, rectangular connector designed to meet or surpass all requirements of MIL-DTL-83527 specification & EN 3682 European Standard.

- Enhanced environmental sealing
- Robust & durable shells
- EMI shielding spring
- Interchangeable insert patterns with ARINC 600 models
- Available in both filtered & non-filtered



## D38999 Fiber Optic Cable Assemblies

Fiber Optics interconnect solutions for On-Board Communications, On-Board Networking & Radar.

- Aluminum, Stainless Steel, Class K Firewall Tri-Start
- Qualified to MIL-DTL-38999
- Qualified to BACC63DB & BACC63DC specifications
- EMI shielding; Contact protection
- Moisture resistance; Corrosion resistance
- Vibration/shock; Firewall capability
- Lock-wiring eliminated; Quick coupling
- Inventory support commonality



#### Modul'R Series

Modular, Board-Level connector for Data/Communications & Commercial Aerospace.

- Extensive modular interface for many types of contacts: Highspeed differential, low-level signal, press-fit, power/high-power, & Fiber Optics
- Line-replaceable module for on-line maintenance
- Robust interface (vibrations, shocks, EMI/EMP)



# ARINC 600 Size 2 with size 1 Coax to SMA Adapters

ARINC 600 Standard interconnects for transponders.

- Intermateable with existing plugs
- Lightweight & Low Cost
- High-precision stamped & formed, selectively-plated, size 22 contacts
- Available in PC tail (press-fit compliant tail coming soon)
- Over-molded wafer inserts
- Rear-removable contacts in rows of 10
- Interchangeable inserts with existing shells
- Equivalent electrical performance of conventional design
- RoHS compliant



#### M29504 / 4 & / 5 Termini for EN 4165

Mil-Spec Fiber Optic contacts for circular connectors.

- Laser-marked TICC codes
- Precision ferrule alignment with captivated split zirconia sleeves
- Wide configuration selection; Superior optical performance
- Custom sizes available (commercial-off-the-shelf only)
- Integrated environmental seal on each terminus
- Precision, "press fit" terminus design
- Each terminus individually packaged & labeled for ease of identification, storage & use



## **Quadrax to Fiber Optics Conversion**

Contacts for IFE & C, Cockpit Displays & On-Board Networking.

- Single product to convert from copper to fiber & from fiber to copper concurrently
- Built around a rugged & high technology readiness level
- Easily adapts M39029 quadrax to Fiber Optic
- Increase data rates and eliminate RFI/EMI without connector redesign
- Removable alignment sleeve retainer facilitates cleaning
- Supports single-mode, multi-mode and PC/APC ARINC 801 termini



## LuxBeam<sup>™</sup>- Lensed Contacts for EN 3645 & EN 4165

Fiber Optics interconnect for High Speed / Bandwidth Communications, On-Board-Networking & IFE & C.

- High optical performance
- Compatible with many existing inserts arrangements of MIL-DTL 38999, & EN 4165 Series II & III



#### Stand-Off for MIL-DTL 38999 Series

Quick install solutions on printed circuit boards.

- Quick install MIL-DTL-38999 Series with straight PCB soldering contacts
- Fitted with stand-off accessory for instant & precise positioning prior to soldering
- Composite version available







### ARINC 801 / FS801 / Connectors & Termini

Fiber Optics interconnect for communications, On-Board Networking & Radar.

- ARINC 801 is the standard for Butt Joint Fiber Optic contacts
- MIL-STD 38999, EN 4165, ARINC 600 connectors can be combined with "Amphelux" - the ARINC 801 made by Amphenol



#### **Quick Junction Modules**

Low Frequency Signal Distribution: signal distribution in range of 0 – 100 Khz.

- SAE-AS81714 & MIL-T-81714 approved
- AS39029/22 socket type contacts
- Integral Bus Bar; Integral contacts
- Split Socket Design
- Class D Module System; Electronic Systems
- Class 3B Silicone Sealant
- Ultrasonic Bonding & Proprietary Epoxy



## NSA937901 / MIL-T-81714 / ASNE0599 / NSA936830

Quick Junction Modules & Splices for Distribution of Signal & Power.

- SAE-AS81714 & MIL-T-81714 approved
- AS39029/22 socket type contacts
- Integral Bus Bar; Integral contacts
- Split Socket Design
- Class D Module System; Electronic Systems
- Class 3B Silicone Sealant
- Ultrasonic Bonding + Proprietary Epoxy



#### **ARINC 404 Filter Connector**

ARINC Standard interconnects; filtering interconnect solution for On-Board Avionics, Network, & Radar.

- Rack & panel connector
- Available in five shell styles; up to four insert cavities
- Accommodate signal & power: size 12, 16, 20, & 22
- Coaxial contacts: size 5 & 9
- Non-Environmental & Environmental seal connectors offered



#### Mil DTL 38999 Series

Filter Connectors EMC & EMP protection for sensitive circuits.

- Aluminum, Stainless Steel, Class K Firewall Tri-Start
- Qualified to MIL-DTL-38999
- Qualified to BACC63DB & BACC63DC specifications
- EMI shielding; Contact protection
- Moisture resistance; Corrosion resistance
- Vibration/shock; Firewall capability
- Lock-wiring eliminated; Quick coupling
- Inventory support commonality





## Dualok™- High Performance Plug Compatible with 38999 Receptacles

Dualok is an enhanced anti-decoupling mechanism that can be used on virtually any cylindrical plug connector and backshell.

- Extreme vibration capabilities at wide temperature range
- Better shell-to-shell conductivity
- Lightweight hybrid composite/metal design



## ARINC 600 Series Copper, Fiber, Quadrax, Press Fit versions

Rectangular connector for Cockpit Controls, Antenna & Radar.

- Low insertion force contacts
- Environmental & non-environmental versions
- Front removable keying posts
- Field replaceable inserts for size 22 & power contacts
- Up to 800 size 22 contact positions in one connector
- Crimp, Coaxial, Power, Printed Circuit, & Wire Wrap contacts
- Waveguide connections
- Dualok



#### Vita 66 + MT Series

High-Density, Board-Level Solutions, High-Density Fiber Optics MT ferrules.

- Standardized microwave interconnect
- Floating contacts for excellent performance
- Available in 3U (4 position) & 6U (8 position) formats



#### **Media Converters**

Effortlessly converts electrical systems to fiber optics (longer distances, EMI/RFI immunity, lighter weight) with minimal or no system design/redesign.

- AFSI 10, 20 and 40Gb transceivers
- Copper to fiber transition in a rugged package
- Harsh environment transceivers support extended temperature range and military vibration/shock requirements
- Supports single mode or multi-mode operation
- Keeping the fiber outside the enclosure means simpler integration
- Interface with ARINC, EN and TFOCA interconnects



# Dualok™ - High Performance Plug Compatible w/ 38999 Receptacles TNC & Type N Contacts

Solid coupling & metal-to-metal bottoming RF for Air Data Links (ADS-B), VHF Radio, Radar, Altimeter.

- DC to 18 GHz
- SV combined Dualok features into Standard TNC & Type N males
- Mates directly to Standard TNC or Type N
- 5000 min mating cycles



### **Temperature Sensors and Heaters**

Precision NTC temperature sensors and PTC heaters.

- Self-regulating heaters
- Angle of attack sensors
- Speed sensors
- Deicing control sensors
- Instrument panel LCD heaters
- Solar sensors
- Harsh environment temperature sensors



#### Star Quadrax-1st Generation

- Offer several advantages for high data transfer rates, low power consumption, and excellent EMI compatibility
- Four strategically spaced inner contacts form two 100, 110, or 150
  Ohm matched impedance differential pairs
- Outer contact has rugged wall section for durability
- Available in size 8 crimp termination style and size 8 PC tails
- Bandwidth up to 1.25 GHz
- Supports up to 3.125 Gbps per pair



## **Split-Pair Quadrax-2nd Generation**

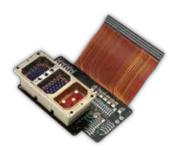
- Overall higher bandwidth than standard CAT5E quadrax, supports up to 6.5 Gb/s per pair
- Enhanced crosstalk performance (compared to standard quadrax) due to compatibility with shield twisted pair of cables
- Can be used for a variety of high speed applications beyond current quadrax design
- Four strategically spaced inner contacts form two 100 Ohm matched impedance differential pairs
- Can be installed into existing quadrax contact connector cavities



## Flex & Rigid flex circuits Multiple layers: 36+ flex, up to 60+ rigid

Flex & Rigid flex circuits; High Speed & Power backplanes, cable harness conversion.

- Replace bulky & heavy wire harness with slim & lightweight Flex
- Custom design & format for quick install & easy routing
- Rigid & rigid flex with power & data to optimize wiring of switch/ routing box



## Added-Value Solutions: Customized Assemblies

Amphenol has diverse capabilities to design and manufacture various Value-Add Solutions.

- Flex & Cable Assembly
- PC Board
- Overmold Cable Harnessing
- Bus Bar
- Hermetic Assembly



#### **Coaxial Connectors for Antenna**

High Speed data transmission for Wireless Access, Flight Communications, & Radar.

- Contacts interconnect coaxial cable used for antenna to router cable
- In-flight Satellite Communications & On-Board wireless communication



## Quick Junction Modules: 1100 Series & 1750 Series

Distribution modules type 1750 provide high density wiring with modular connections; Removable distribution modules type 1100 are mounted on rails by sliding them inside a metal dissymmetrical rail.

- Signal or low current distribution
- European standards approved
- Suited for EN 3155 male contacts sizes 10 to 22
- Available in component carrier versions
- Stackable on rail (1100 series) or clip-in versions (1750 series)
- Metallic or composite rails
- Sealed connection



### D38999 III, MT Ferrule

High fiber density in a relatively small circular connector package with all the advantages of the MIL-DTL-38999, Series III connector.

- Three levels of alignment provide for precision fiber-to-fiber interface: Shell-to-shell with keying to allow for alternate positions
- Insert plug to insert receptacle; MT contact guide pins
- Compatible with 12-fiber, 24-fiber, or 48-fiber MT ferrules in multimode PC, single mode PC, and single mode APC configurations
- Two arrangements are available, shell size 11 with one ferrule, and shell size 21 with four ferrules
- Up to 48 fiber channels in a size 11 shell; Up to 192 fiber channels in a size 11 shell



## **SJS - Luminus Series - BACC63**

Circular bayonet connectors for power supply of various cabin systems.

- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple keying positions; Visual markings
- Multiple configurations & accessories
- Rugged Polyamide Housings; 500 mating cycles
- Blind-Mate connection
- D160, MIL-T-81714, FAR25 Compliance



## **Pegasus Series**

Same convenience & weight savings of the Luminus Series, with the added benefit of EMI shielding & protection from ambient noise transients.

- Electroless Copper & Nickel plating
- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple sizes & accessories
- Scoop-Proof



## DISPLAYS, DISTRIBUTION, ACTUATION & SENSORS



#### **CTF Quad**

Uses standard quadrax receptacle connectors and inserts; is fiber to copper and copper to fiber media conversion in quadrax form factor pins for standard D38999 quadrax insert arrangements; Industry standard rugged transmitters and receivers -40°C to +85°C.

- Quadrax form factor embedded fiber optic transmitters and receivers
- Replace any quadrax pin in receptacle and configure with media conversion copper to fiber and fiber to copper
- Fiber interface: Industry standard 1.25mm fiber optic ferrules (LC & ARINC-801)
- Copper interface: Speed support from DC to 10 Gbps in both transmitter and receiver



## **Power Feeder Separator**

Provide a constant spacing between the power feeder. Allows six degree rotation on the power feeder bundle and doesn't fight against the natural flow of the cable.

- Angled design aids flow of power feeder cables
- Snap-In design makes the product easy to use and install
- Lightweight and durable
- Adapts to other Amphenol Pcd products: Omega & P-Clamps



## SIM - EN 4165, Signal, Fiber, Quadrax

Rectangular, Modular Interconnect Systems for cockpit displays & control boxes.

- Modular multi-functional, multi-pin rectangular connector
- Metallic or composite
- Shielded & non-shielded versions
- Qualified to the EN 4165 specification
- Custom configuration to reduce size



#### ASNE0247 / M12883 & Quick Install Series

Relay Sockets Mil & Commercial Aircrafts Power & Data boxes.

- Socket Construction & Installation
- Low install cost
- No loose hardware
- Lightweight



#### SIM - EN 4165

Rectangular, Modular Interconnect Systems for cockpit displays & control boxes.

- Modular multi-functional, multi-pin rectangular connector
- Metallic or composite
- Shielded & non-shielded versions
- Qualified to the EN 4165 specification
- Plugs are available in Standard or Rack-&-Panel versions
- Standard two & four module configurations available



### Star Quadrax-1st Generation

- Offer several advantages for high data transfer rates, low power consumption, and excellent EMI compatibility
- Four strategically spaced inner contacts form two 100, 110, or 150
  Ohm matched impedance differential pairs
- Outer contact has rugged wall section for durability
- Available in size 8 crimp termination style and size 8 PC tails
- Bandwidth up to 1.25 GHz
- Supports up to 3.125 Gbps per pair



### **Split-Pair Quadrax-2nd Generation**

- Overall higher bandwidth than standard CAT5E quadrax, supports up to 6.5 Gb/s per pair
- Enhanced crosstalk performance (compared to standard quadrax) due to compatibility with shield twisted pair of cables
- Can be used for a variety of high speed applications beyond current quadrax design
- Four strategically spaced inner contacts form two 100 Ohm matched impedance differential pairs
- Can be installed into existing quadrax contact connector cavities



### ARINC 810 Galley Connector/EN4644

Rack & Panel connector for galley power supply – Coffee maker, Oven, Compactor, etc.

- Intermateable & Interchangeable with other pre-existing equipment in the field
- Overmold Technology
- Blind-Mate connection
- Intuitive & ergonomic



## D38999 III, MT Ferrule

High fiber density in a relatively small circular connector package with all the advantages of the MIL-DTL-38999, Series III connector.

- Three levels of alignment provide for precision fiber-to-fiber interface: Shell-to-shell with keying to allow for alternate positions
- Insert plug to insert receptacle; MT contact guide pins
- Compatible with 12-fiber, 24-fiber, or 48-fiber MT ferrules in multimode PC, single mode PC, and single mode APC configurations
- Two arrangements are available, shell size 11 with one ferrule, and shell size 21 with four ferrules
- Up to 48 fiber channels in a size 11 shell; Up to 192 fiber channels in a size 11 shell





#### 2M Series™ size 23 contacts

High Density, small form factor, Multiple arrangements, Shell sizes, DUALOK™, PCB version.

- 71% in weight savings compared to MIL-DTL-38999
- 52% smaller than MIL-DTL-38999
- Broad family with many styles & options
- Designed for high-reliability aerospace/defense/C4I applications
- For use in harshest environments





## Dualok™- High Performance Plug Compatible with 38999 Receptacles

Dualok is an enhanced anti-decoupling mechanism that can be used on virtually any cylindrical plug connector and backshell.

- Extreme vibration capabilities at wide temperature range
- Better shell-to-shell conductivity
- Lightweight hybrid composite/metal design



## **Dualok™ Plug with Hermetic Receptacle**

Solid coupling & metal-to-metal bottoming; Sensor, & actuators subject to extreme levels of vibrations.

- Extreme vibration capabilities combined with improved sealing
- Better shell-to-shell conductivity offering superior electrical performance
- 40% weight savings with hybrid coupling style (metal/composite)



#### SJS - Luminus Series - BACC63 W/ Sensors

Circular bayonet connectors for power supply of various cabin systems.

- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple keying positions; Visual markings
- Multiple configurations & accessories
- Rugged Polyamide Housings; 500 mating cycles
- Blind-Mate connection
- D160, MIL-T-81714, FAR25 Compliance



#### **Pegasus Series**

Same convenience & weight savings of the Luminus Series, with the added benefit of EMI shielding & protection from ambient noise transients.

- Electroless Copper & Nickel plating
- 1/4 turn bayonet style connection
- Interfacial & Triple-Barrier Seal
- Multiple sizes & accessories
- Scoop-Proof



## **Custom Modules**

Custom specified designs that use Amphenol's materials & manufacturing expertise.

- Standard or Stamped & Formed M39029 contacts
- Polymide nylon housings
- Silicone sealants
- UltraSonic bonding
- Proprietary epoxy
- Stainless steel retaining clips

