Commercial Aerospace EWIS Technology
Signature Interconnect Solutions for Commercial Aircraft
SERIES 806 MIL-AERO

NEXT-GENERATION SMALL FORM-FACTOR AEROSPACE-GRADE CONNECTOR

SERIES 806 MIL-AERO ULTRAMINIATURE CIRCULAR
Series 806 Mil-Aero

Next-generation high-density connector for demanding aerospace applications

- Signal/sensor interconnect for both pressurized and non-pressurized airframe applications or suitable applications
- Meets 38999HD performance benchmarks (altitude immersion, vibration and shock, mating durability, temperature and voltage)
- Replaces legacy large form-factor connector series (38999, 5015, 26482)
Series 806 Upgraded Environmental, Electrical, and Mechanical Performance

- Integrated anti-decoupling technology
- High-density 20HD and 22HD
- Durable mechanical insert retention
- Radial seals
- Triple-ripple grommet seals
- 200 C temp rating
Series 791 Ultraminiature Rectangular

The Scoop-Proof High Performance Environmental Connector for Signal, Power, RF, and Datalinks

1. New Dual Lobe Shell
2. Recessed Pins (scoop proof)
3. Larger Screw Sizes
4. Protected Ground Spring
5. Panel O-ring
6. Integral Band Platform
Series 791 Ultraminiature Rectangular

Styles, Options
12 shell sizes, 37 arrangements
Plugs have socket contacts
Receptacles have pin contacts
Series 792

The next-generation mil-aero rectangular for high-speed datalink applications

- Next-generation rear-release blind-mate rectangular
- Insert arrangements for 1 – 9 El Ochito® contacts, combo inserts accommodate #23 signal and/or power contacts
- Polarization key and ground spring options available
- Dual-lobe, scoop-proof interface
Series 20 Super-Twin

High Performance • Miniaturized • Modular

- Reduced size AND WEIGHT
- Lightweight composite or aluminum shell
- Integral backshell
- Modular inserts support a wide variety of short, 39029 Series II type contacts
- Polarization – both shell and inserts
- Center jackscrew – self-locking hardware
- Meets the highest performance requirements for rack-and-panel modular systems
Series 20 Super-Twin Plug and Receptacle Shell

Summary

- Lightweight composite or aluminum
- Integrated 45° and 90° strain relief options
- Clamshell design for easy entry
- Tight tolerance tongue and groove for superior EMC
- Industry standard strain-relief and cable shield termination
- Extremely low bonding resistance
- Polarized shell
- Self-locking hardware
- Drop-in replacement for legacy connectors
- Slots sized for fully populated inserts
Series 20 Super-Twin Insert Arrangements
With Size #23, #20HD, #12, #16 and #8 Contact Cavities
The “Better Than QPL” D38999 Series from Glenair

1500 Mating Cycle Environmental
High-Speed Environmental
High-Pressure Pin and Socket Hermetic
Ruggedized RJ45 and USB
High-Vibration IAW Bell Helicopter and Boeing
Special PCB Standoff Series
Connector Saver Go-Betweens
Hermetic and Environmental Feed-Thrus
Tight Tolerance Fiber Optic
EMI/RFI Filters and TVS Diode EMP Connectors
Advanced-performance D38999 environmental connectors

- Extended durability contacts and high-vibration coupling technology: 1500 mating cycles, IAW Boeing wingtip, engine, and landing gear specs
- Qualified high-vibration to Bell 299-100-B29
- Integrated band porch
- Extensive PC tail offerings
- Ground spring equipped plug
- Standard 1560 arrangements plus HD and shielded contact inserts
- IP68 sealing standard
High-vibration D38999 environmental 233-205 and 6
The Lightweight Hermetic Challenge

Full hermetic sealing ($10^{-7}$) in a lightweight connector shell package, with low contact resistance AND mission-critical durability

- Glass-to-metal seal furnace temperatures are too high for lightweight aluminum and low-resistance copper contacts
- Conventional epoxy potting lacks sealing strength and mission-critical durability
CODE RED Features and Benefits

- Hermetic Seal > $1 \times 10^{-7}$
- Light weight, corrosion resistant materials
- Low-resistance copper alloy contacts
- Extreme temperature tolerance
- Available zero residual magnetism designs

- Meets NASA outgassing
- Turnkey, drop-in replacement for glass-seal hermetics
- Can be used in various product families and shell geometries
CODE RED Weight Savings: MIL-DTL-38999

<table>
<thead>
<tr>
<th>Shell Size -Config.</th>
<th>Glass Sealed</th>
<th>CODE RED</th>
<th>Weight Δ</th>
<th>% Weight Reduction</th>
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<tr>
<td></td>
<td>Weight (grams)</td>
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<tr>
<td>11-98</td>
<td>35.2</td>
<td>18.6</td>
<td>16.6</td>
<td>47%</td>
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<tr>
<td>13-35</td>
<td>48.2</td>
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<tr>
<td>15-97</td>
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<tr>
<td>21-11</td>
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<td>62.6</td>
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<tr>
<td>23-21</td>
<td>95.8</td>
<td>69.0</td>
<td>26.8</td>
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<tr>
<td>25-08</td>
<td>153.7*</td>
<td>88.2</td>
<td>65.5</td>
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Material Specific Gravity

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<tr>
<th>Material</th>
<th>Specific Gravity</th>
<th>Density (lb/in³)</th>
<th>% Heavier than Composite</th>
<th>% Heavier than Aluminum</th>
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<tr>
<td>Composite</td>
<td>1.27-1.51</td>
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<tr>
<td>Aluminum</td>
<td>2.55-2.80</td>
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<td>Stainless Steel</td>
<td>7.70-7.73</td>
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<td>65%</td>
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</table>
NEW ArmorLite™ CF 103-126

Stainless Steel over Copper Microfilament EMI Shield

- high-temperature -80°C to 300°C
- Corrosion / harsh environment resistant
- 1000 hour salt spray testing completed
- 70% reduced weight vs. standard braid
- Superb electrical resistance and shielding performance
300°C ThermaRex Wire

961-047

- 24 to 8 AWG
- Special high-temp copper alloy
- Twisted shielded pairs using ArmorLite CF (960-2371)
- 300°C continuous service – qualification completed
- 10 colors of insulation
- Permanent laser marking
300°C ThermaRex Conduit

Polymer-Core

- High-temperature, light weight flexible polymer-core conduit
- All standard colors: Black, clear, orange, blue, yellow
- Qualification complete
- 300°C continuous service
- Available with high-temperature braid shield and/or jacket
300°C ThermaRex HT Connector

- Continuous service to 300°C
- Built D38999 and EN2997
- 806 and Series 79 soon
- Hermetics up to 350°C
- Testing completed:
  - Vibe at 300°C
  - 1000 hours cycling 260°C to 300°C
- Crown-ring contacts
- PC-tails available
600°C ThermaRex UHT Connector

- Testing completed up to 600°C
- Working on version with flexible wires
EMI/RFI Filter Pressure Transducers

Reduced size and weight for mission-critical applications

- Sealed, welded construction thin film packaging
- Stainless steel diaphragm suitable for all applications
- Extended operating temperature up to 150°C
- High reliability and accuracy ±1% F.S.
- Integral filter elements for EMI protection
- Ultra small form-factor—up to 20% shorter overall length compared to standard solutions
- Qualification per DO-160 pending
Glenair Pressure Sensor

For the Harshest Environments …

- Stainless steel diaphragm
- suitable for all applications
- Extended operating temperature of +150°C
- High accuracy of ±1.0% F.S.
Glenair Pressure Sensor

230 grams

60 grams

32 grams
PowerLoad™ Connectors

Backup and integrated drive generator connectors for both high voltage and high current applications

- High-vibe, high-temp design for the broad range of aircraft power distribution applications
- Low-resistance contact delivers lower temperature rise under load
- Removable wire sealing grommet and wire separator allow for easy rear release of contacts and improved sealing of tape-wrapped wire
PowerLoad™ Connectors

Backup and integrated drive generator connectors for both high voltage and high current applications

- Three tooled insert arrangements
  - Six size #8 contacts
  - Three size #2 contacts
  - Three size #1/0 contacts
- High contact density cavity isolation insert prevents arcing between contacts
- 200°C operating temperature (aluminum) and 230°C (passivated stainless steel)
PowerLoad™: Contact Mating Interface

- One-piece glass-reinforced PEEK insulator with contact cavity isolation
PowerLoad™: Cable Management

- Removable wire sealing grommet and wire organizer for improved tape-wrapped wire sealing and ease of contact removal
PowerLoad™: Size #2 AWG contact system

- Design optimizes contact-to-wire termination step and weight reduction in power distribution cable
PowerLoad™: Configurations

Cable, panel mount, and bulkhead designs; stainless steel and plated aluminum
GateLink Pro: High-Speed Data Uplink Connector

Proven commercial airframe performance

Environmentally sealed breakaway connector
GateLink Pro: High-Speed Data Uplink Connector

Environmentally-sealed breakaway design

- Durable pogo pin contact system rated to tens of thousands mating cycles
- Sealed receptacle available with ProSeal spring-action protective cover
- Straight or right-angle AutoShrink wire protection boots
- Rugged overmolded plug
Ochito® High-Density 4-Pair Contact

The 10G Ethernet Size 8 contact with patented data pair isolation technology now for both for AWG#26 and AWG#24

- Market leader for Mil-Aero high-speed Ethernet
- 4 differential contact pairs, 90/100Ohm Impedance
- Patented cross-talk isolation technology
- Snap-in, rear release
- Integrated removal tool
- Repairable contact
- Compatible with most current data protocols
Construction

Type 1 Socket Contact

Type II Socket Contact
**Rectangular Connector Packages**

**Sr. 791 MicroCrimp**
- Next Generation rear-release rectangular connector
- Up to 4 El Ochito contacts
- Scoop proof interface
- Straight and right-angle PC tails
- Environmentally and EMI sealed
- Guide-pins for blind mate

**Sr. 792 MicroCrimp**
- Mini Rack-and-Panel
- Rear-release rectangular connector
- Scoop proof interface
- Environmentally and EMI sealed
- Guide-pins for blind mate

**Sr. 28 HiPer-D**
- Standard M24308 interface dimensions
- Rugged 6061 aluminum shell
- Grounded metal insert
- 2-5 El Ochito contacts
- Straight PC tail
- EMI protected
Circular Connector Packages

Sr. 88 SuperFly
- Ultra-small
- Lightweight
- IP67
- Push-Pull or thread coupling
- Right-angle PCB option

Sr. 801 Mighty Mouse
- Double-Start mating thread
- 10 Insert configurations
- High-performance miniature connector
- Compatible with D38999 contacts

Sr. 805 Mighty Mouse
- Triple-start mating thread
- Compatible with D38999 contacts

Sr. 23 SuperNine
- MIL-DTL-38999 Series III
- High-vibration/temperature performance
- Compatible with M85049 accessories
## Data Protocol Support

### 1GbE/10GbE
- Straight upgrade for Quadrax solutions to higher-speed Ethernet applications
- Compliant with ARINC 664

### USB 3.1 Gen 1
- Low-dielectric material for 90 Ohm impedance on SuperSpeed USB pairs
- 24AWG wire for power pairs
- Fully compliant with USB 3.1 gen. 1 specification

### HDMI/DisplayPort/SATA
- 100 ±15 Ohm Board-to-cable and cable-to-cable (50ps 10/90 rise time).
- Suitable for high-resolution displays and peripheral drives
- May require additional discrete contacts

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**Ochito “White”**

1000BASE-T, 10GBASE-T

**Ochito “Blue”**

SuperSpeed USB

**Ochito “Red”**

HDMI, DisplayPort, SATA
SuperFly Datalink

The ultraminiature 10GbE and SuperSpeed USB connector for harsh environments

- Ultra-small size
- Shielded octaxial contacts—up to 5 Gbps
- 10Gb Ethernet and SuperSpeed USB
- Environmentally sealed
- Aerospace-grade performance
SuperFly Datalink

The ultraminiature 10GbE and SuperSpeed USB connector for harsh environments

Connector configurations

- Quick disconnect
- Threaded coupling
- Straight PC tails
- Right-angle PC tails
SuperFly Datalink: Exploded View

The ultraminiature 10GbE and SuperSpeed USB connector for harsh environments

Available SAE-AS6070 qualified cables for SuperSpeed USB and 100 Ohm Cat6A Ethernet
SpliceSaver: for Faster, Lower-Cost EWIS Wire Splicing

Two-piece quick snap version
SpliceSaver: for Faster, Lower-Cost EWIS Wire Splicing

Single-piece version
SpliceSaver: for Faster, Lower-Cost EWIS Wire Splicing

Spiralock threaded version
SpliceSaver: Mechanical Features

Saves significant time and labor over manual DO150 type splicing

- Key and keyway engage before contacts as well as allowing for alternate keying options
- Threaded version utilizes Spiralock threads and composite coupling nut
- Snap together can be positively locked with central banding groove and Nano band, also allowing both shields to be terminated in one operation.
- All three versions feature CompAction grommet and ferrule to better seal tape wrapped wire (Altitude Immersion beyond 50K feet)
- Banding area for shield termination on all versions.
- Materials: OD Cad over aluminum (NF), Nickel plated brass (BM). Others available upon request.
- The size 8 splice offers insert arrangements of 3x20, 4x22 or 7x22
- Bussing and other arrangements to follow (1x16)
SpliceSaver: Special bussed version (tuning fork)
Dummy Contact Sealing Plugs (DCSP)

For reliable sealing of unused contact cavities — without the use of electrical contacts
Dummy Contact Sealing Plugs (DCSP)

**Significant weight and cost savings**

- Powerful tool in Electrical Wire Interconnect System weight reduction
- Eliminates use of expensive electrical contacts for sealing-only applications
- Leverages connector contact clip for secure retention of the sealing plug—no possibility of FOD
- Easy-to-install single piece design
- Visible quality control / confirmation of cavity fill from back of connector
- EWIS compliant test report available, ref. GT 15-106
## Dummy Contact Sealing Plug (DCSP) ordering

<table>
<thead>
<tr>
<th>Connector Series</th>
<th>23</th>
<th>22</th>
<th>20</th>
<th>16</th>
<th>12</th>
<th>8</th>
<th>8 w/ Boot</th>
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<tbody>
<tr>
<td>D38999 Series II</td>
<td>680-116-23</td>
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<td>EN4165</td>
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<tr>
<td>Series 800–805</td>
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<tr>
<td>Mighty Mouse</td>
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<td>ARINC 600</td>
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<td>Series 806</td>
<td>680-120-22HD</td>
<td>680-120-20HD</td>
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<tr>
<td>Mighty Mouse Mil-Aero</td>
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</table>

**Note:** The table shows the Crimp Removable Contact Cavity Size for different connector series and sizes. The colors correspond to different sizes and boot options.
ProSeal Spring-Action Protective Covers

Circular, with self-aligning pressure seal, dust and water jet resistant
ProSeal Spring-Action Protective Covers

Rectangular, with self-aligning pressure seal, dust and water jet resistant
ProSeal Spring-Action Protective Covers

Threaded-closure seal, full environmental
ProSeal Spring-Action Protective Covers

Supported connector series

- MIL-DTL-38999 Series I, II, III
- MIL-DTL-26482, IPT
- Mighty Mouse Series 801, 804, and 805
- MIL-DTL-5015 (Glenair Series ITS)
- Industry-standard rectangulars: M24308, Micro-D
- Glenair high-performance series rectangulars: HiPer-D and Series 790
- SuperSeal field RJ45/USB and other specials
ProSeal Spring-Action Protective Covers

Circular, self-aligning seal style in action
ProSeal Spring-Action Protective Covers

Rectangular, self-aligning seal style in action
Swing-Arm: Lightweight Composite Strain Relief

Three-in-one straight, 45° and 90° design for SKU reduction
Lightweight EMI/RFI Swing-Arm in Action
Swing-Arm Series 620-084

Drop-in follower-equipped Swing-Arm strain reliefs

- Option A – Standard mouth, saddle bar strain relief
- Option B – Wide mouth (for larger cable diameters), saddle bar strain relief
- Option C – Swing-Arm FLEX
Swing-Arm FLEX “Option C”

- Straight, 45°, and 90° configurable backshell: 3 part numbers in one!
- Fast, easy termination of both individual and overall EMI/RFI shields
- Further weight reduction with no saddle bars or hardware
- No excessive tape use on bundle
- Rapid assembly
- Band, lacing cord or tie wrap may be used
- Accommodates wide range of cable bundle diameters
Swing-Arm FLEX “Option C”

The Smaller, lighter, faster Swing-Arm option for customer termination of EMI/RFI shielding

- Slotted drop-in band follower allows for fast and easy staging and termination of individual wire shields
- Band termination of strain relief arms relies on proven Band-Master technology
Autoshrink: How It Works

Memory-action material stretched over a removable core

- Position Autoshrink over termination or repair
- Remove collapsible support core
Autoshrink™ Applications

- Duralectric™ cable and conduit jacket repair
- Wire organization
- Insulation of splices or lugs
- Mechanical protection on clamp locations
# Four Autoshrink Material Types

All with durable split-resistant performance and sealing

<table>
<thead>
<tr>
<th>Autoshrink™ D</th>
<th>General-Purpose, High UV-Resistance, LSZH</th>
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<tbody>
<tr>
<td>• Service temperature range: -65°C to 225°C</td>
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<tr>
<td>• Fire resistant and Low smoke-zero halogen (LSZH)</td>
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<tr>
<td>• General-purpose resistance to common aerospace, military and industrial fluids</td>
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<table>
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<th>Autoshrink™ F</th>
<th>Advanced Fluid / Solvent Resistance</th>
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<td>• Service temperature range: -65°C to 200°C</td>
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<tr>
<td>• Fire resistant and suitable for immersion in jet fuel, diesel, lubricants, and solvents</td>
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<th>Autoshrink™ T</th>
<th>Extreme Temperature Tolerance, LSZH</th>
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<td>• Fire resistant and low smoke-zero halogen (LSZH)</td>
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<tr>
<td>• Resistant to common aerospace, military and industrial fluids</td>
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<th>Autoshrink™ S</th>
<th>Underwater Sealing, LSZH</th>
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<td>• Service temperature range: -40°C to 100°C</td>
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<tr>
<td>• Low smoke-zero halogen (LSZH)</td>
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<tr>
<td>• Resistant to common industrial and environmental fluids</td>
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</table>
Autoshrink Advantages vs. Heat Shrink

- Better UV performance in outdoor applications
- Reliable, IP68 sealing
- Flexible and crack resistant compared to rigid heat shrink materials
- Fast installation – No heat gun!
- Sealing with or without adhesive
- -65°C to 225°C (300°C for Autoshrink T)
- All the performance of Duralectric™
Autoshrink vs 3M and TE

- Autoshrink™ already qualified and installed
- Autoshrink™ adhesive (779-005) available for additional sealing
- 3000 VAC rating
- Multiple colors for easy identification
- Mil-Aero molded boot shapes

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<tr>
<th>Table II - AutoShrink Color Option</th>
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<td>7</td>
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<tr>
<td>8</td>
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<tr>
<td>9</td>
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</tbody>
</table>
Autoshrink™ D Availability

- Tubes, 3" to 12" lengths (777-004)
  - Use on .35 to 3.85 OD inch cables/conduits
- Duralectric™ adhesive (779-005)
- Straight, 45°, and 90° molded boots (777-005)
- Transitions and other shapes
- (Almost) any shape we have tooled for Heat Shrink Boots
TurboFlex™ Ultra-Flexible High Power Cable

- Extremely flexible
- Jacketed with Glenair Duralectric™
- 16 AWG to 450 MCM
- -60° to +260° C
- Abrasion resistant
- Standard and custom colors available
TurboFlex™
Ultra flexible rope-lay construction

- Many small, flexible strands
- M22759/11-8 = 133 x 29 AWG
- TurboFlex 8 AWG = 665 x 36 AWG
- Special twisting
- Silicone-based Duralectric™ jacket
Microfilament EMI/RFI Shielding

Average 70+% lighter than standard metal EMI/RFI braid

- Expandable, flexible, high-strength, lightweight, conductive, microfilament material
- Provides abrasion resistance and EMI shielding at a fraction of the weight of standard metallic braid
- Maintains metallic core conductivity in event of plating damage during assembly or maintenance
Performance advantages

- Shields from 80dB to 40dB in 100Khz @ 1Ghz
- Excellent optical braid coverage – min. 85-90%
- Excellent tensile strength @ -80°C to +200°C
- High flexure strength / flexibility
- Available with nickel or silver plating
- Meets limits of 1.0% max outgas test IAW ASTM-595-90 and 0.10% max. CVCM
- Meets lightning strike ANSVEIA-364-75 specification at 3Kva, 6Kva & 10Kva thru 25Kva wave form 5B
- Excellent abrasion and FAR burn resistance
Long runs of shielded, overbraided EWIS harnesses require periodic grounding of entire assembly

ArmorLite large form-factor grounding HSTs
Long runs of shielded, overbraided EWIS harnesses require periodic grounding of entire assembly

Lightweight ArmorLite ground straps
Surface plating provides an inadequate ground when mounting connectors to composite panels

Ground plane adapter plate
MasterWrap™

Lightweight, side-entry cable wrap with ArmorLITE technology

- Lightweight, side entry, conductive EMI/RFI cable wrap for use in harness applications – from long runs, to spot coverage and repairs
- The faster, easier-to-apply cable covering for EMI/RFI shielding and abrasion protection applications
MasterWrap™ ArmorLite

Technology Advantages

- **Saves weight:** 70% material weight reduction compared QQ-B-575 / A-A-59569 nickel copper
- **Simplifies Installation:** Replaces harder-to-install tubular EMI/RFI sleeving
- **Saves Time:** Fast and easy side-entry installation and removal
- **Improves EMI/RFI shielding:** Reduces windowing and coverage gaps
- **Improves Performance:** Delivers superior flexibility, durability and reparability
MasterWrap™ ArmorLite

Technical Overview

- Microfilament stainless steel core, conductive nickel plating
- Interwoven PEEK spring members
- Woven mesh with built-in twist action
MasterWrap™ EMI Performance
No compromise compared to tubular braided product

Braided vs. Woven Armorlite ($Z_T$)

- Transfer Impedance (mΩ/m)
- Frequency (MHz)

- Armorlite Braid
- MasterWrap
New MasterWrap Nomex

For spot mechanical coverage and repair of wire harnesses

- Abrasion protection
- Thermal protection
- Easy installation
- Color options for identification and labeling
Saving Assembly Time and Labor:
Split-Shells for Easy Access
Piggyback Boot Connector Adapters

The no-guess-work, faster, smarter shrink boot

- Partially-recovered shrink boot, pre-attached to composite or metal shell connector adapter
- Reliable, first-time-every-time performance
- Up to 50% reduction in hand-labor and time
Piggyback Boot Installation
As easy as 1, 2, 3

1. Stage piggyback boot adapter on wires for later use and terminate wires to connector
2. Attach piggyback boot adapter to connector
3. Complete final recovery of shrink boot around wires
Piggyback Boot Connector Adapters

Environmental plus EMI/RFI shielding

Piggyback Boot with drop-in banding porch

Piggyback Boot with integrated shield sock

Band-in-a-Can Piggyback Boot
Banding Backshell with Drop-In Shield Termination Follower

For overall and individual wire shield termination

- Composite thermoplastic construction
- Non-conductive, non-plated coupling nut (ground path through interlocking teeth from follower to body)
- Straight, 45°, and 90° configurations with Micro and Nano band shield termination
Firewall and Pressure Boundary Feed-Thrus

- High-grade engineering thermoplastic or machined metal
- Six pressure-boundary feed-thru layouts with accommodation for 1 – 6 cables
- O-ring sealed panel and box mounting interface
- Conductive and non-conductive finish options
Firewall and Pressure Boundary Feed-Thrus In Action: Qualification Testing
Firewall and Pressure Boundary Feed-Thrus In Action
Special-Purpose Connector Devices for Commercial Aerospace Applications

Shorting connectors and grounding connectors
Self-Locking and Other Special-Purpose Protective Covers

Self-Locking

USB

High-Pressure
Glenair Advanced “Dogbone” Terminal Blocks
(versus AS27212)
“Dogbone” Terminal Block: Advanced Concept

- Protective barrier between energized circuits for enhanced safety during installation/repair
- “Dogbone” feature provides longer creep path across surface (over 1/8") – enhancing performance in contaminated environments.
- Uniform wall thickness eliminates sinks and voids
- PPS body with Duralectric covers
Innovative “Dogbone” Terminal Hoods

**Duralectric elastomer**

- Hoods can be removed one-by-one to prevent accidental shorting
- Duralectric silicone elastomer provides superior dielectric strength, mechanical properties and chemical resistance
- Color options for multi-phase power
- Multiple routing options and sizes
Innovative Terminal Hoods

Cross-section

Thick x-section interferes with nut and stud. Tension on elastomer retains hood. Reinforced area prevent punctures.

Hood material hooks under terminal surface
Double Entry Terminal Hood

Cross-section

Reinforced zone
Why Conduit Wire Protection Technology?

An alternative to jacketed cable assemblies with unique application advantages

- Superior EMI shielding effectiveness
- Superior crush resistance
- Superior strike resistance
- Superior flexural modulus
- On-site installation / repair flexibility
Best Application Environments for Wire Protection Conduit: Mil/Commercial Aerospace

- Strike resistant for use in braking systems
- High flexibility for use in landing gear
- High temperature tolerant for adjacency to engines and propulsion exhaust
ThermaRex Convoluted Conduit

- Glenair formulated fluoroplastic compound
- Helical Form – compatible with Hat Trick user Installable Adapters
- Mechanical properties improve with heat aging
- 300°C continuous operating temperature
ThermaRex High-temperature-Tolerant Flexible Polymer-Core Conduit

- Qualification Testing Complete (GT-17-261 available)
- Dimensions and bend radius per SAE-AS81914/9
- Low temp flex at -54°C, 1,000 cycles
- 300°C aging for 500 Hours
- 300°C heat shock
- 12 kV DWV minimum
- Vertical Burn FAR 25.853 Compliant
- All standard colors: Black, clear, orange, blue, yellow
- Available with high-temperature braid shield and/or jacket
ThermaRex High-temperature-Tolerant Flexible Polymer-Core Conduit

- Samples available on our 120-100, 121-101 and 121-102 drawings
  - Material Code ‘R’
- High Temperature shielding overbraid
  - Nickel 200
  - Stainless Steel
- High Temperature Jacket
  - PTFE impregnated Fiberglass
  - Duralectric (225°C)
Commercial Aerospace EWIS Technology
Signature Interconnect Solutions for Commercial Aircraft