



MISSION-CRITICAL
INTERCONNECT
SOLUTIONS



Glenair
SIGNATURE SERIES

Commercial Aerospace Interconnect Technology

For Airliners, Business Jets, Rotorcraft, and eVTOL

JANUARY 2025



MIL-STAR
HIGH-PERFORMANCE HOOKUP WIRE AND CABLE

SpeedLine
High-Speed Protocol Cables

BLUMARK RF
COAX CABLES

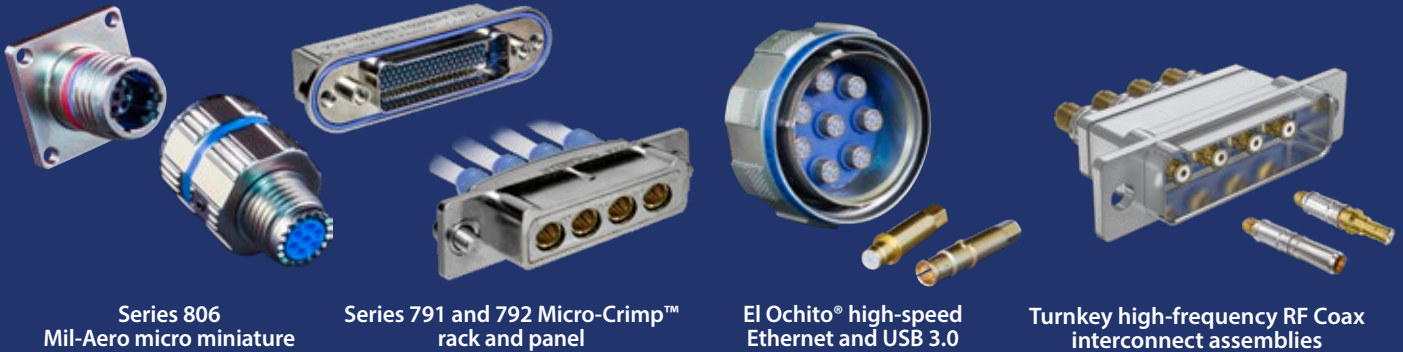
turboflex
THE ULTRA FLEXIBLE RUGGED POWER CABLE

In-house manufactured
wire and cable

Commercial Aerospace Interconnect Technology

For Airlines, Business Jets, Rotorcraft, and eVTOL

SMALL FORM-FACTOR, HIGH-PERFORMANCE MICRO MINIATURE CONNECTORS



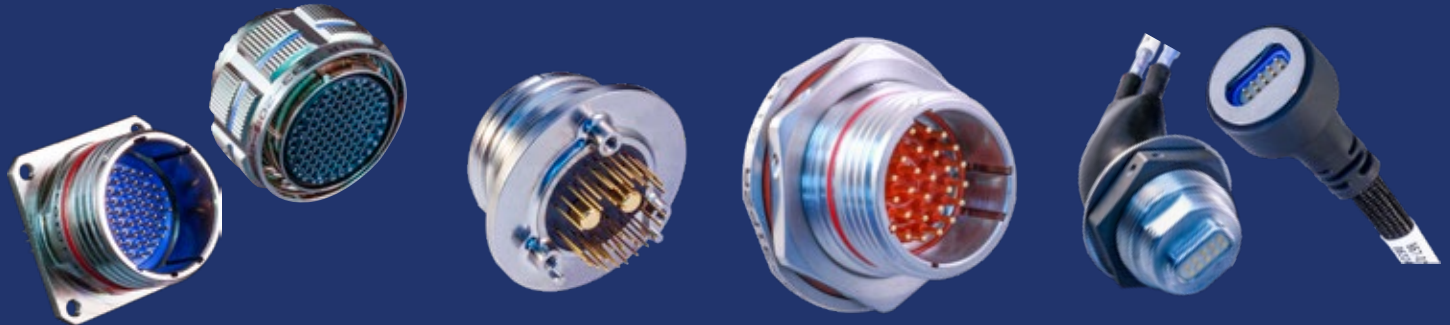
Series 806
Mil-Aero micro miniature

Series 791 and 792 Micro-Crimp™
rack and panel

El Ochito® high-speed
Ethernet and USB 3.0

Turnkey high-frequency RF Coax
interconnect assemblies

HARSH ENVIRONMENTAL AEROSPACE CONNECTORS



SuperNine® "better than QPL"
MIL-DTL-38999 Series III

CODE RED™
lightweight hermetic

ThermaRex™ HT
high-temperature connector

GateLink Pro™ high-speed
data uplink connector

POWER DISTRIBUTION CONNECTORS



PowerLoad™
power distribution connectors

PowerTrip™ high-density ground test
connectors and cables

PowerPlay™ MIL-DTL-38999 Series III type
high-voltage, high-vibration

SPECIAL-PURPOSE AEROSPACE CONNECTORS AND CONTACTS



Sr. 80 Mighty Mouse sensor connectors with QDC or threaded coupling



SpliceSaver™ time- and labor-saving wire splice replacement



Duper-DCSP™ Dummy Contact Sealing Plugs

ADVANCED-PERFORMANCE CONNECTOR ACCESSORIES AND WIRE MANAGEMENT SOLUTIONS



ProSeal™ spring-action protective covers



Swing-Arm™ and Swing-Arm FLEX™ strain relief clamps



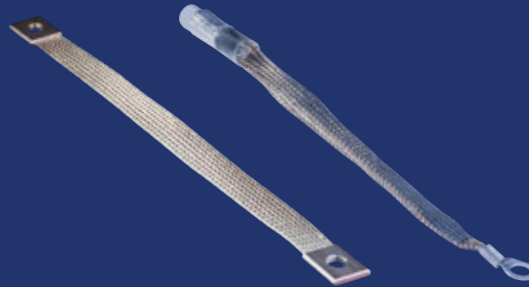
Autoshrink™ cold-action tubing and boots



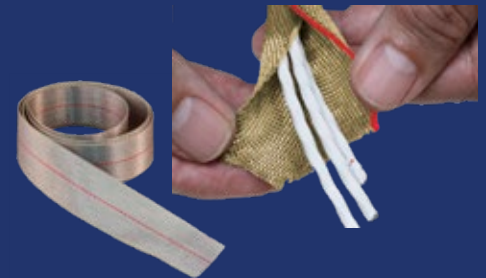
TurboFlex® ultra-flexible power cables



PwrLine HV™ power feed-line system for aircraft power distribution applications



Lightweight, flexible ground straps and HSTs



ArmorLite™ shielding / MasterWrap™ side-entry shielding



Problem-solving circular and rectangular connector accessories



Band-Master ATS® advanced shield termination system



Turnkey, lightweight polymer- and metal-core conduit wire protection systems

TURNKEY
COMMERCIAL
AEROSPACE WIRE AND
CABLE INTERCONNECT
ASSEMBLIES



Aerospace-Grade Wire
Harnesses and Complex
Multibranch Cable Assemblies
Built with Glenair Signature
Wire and Multiconductor Cable



MIL-STAR
HIGH-PERFORMANCE HOOKUP WIRE AND CABLE

AEROSPACE-GRADE
SuperFlex
PCB/FLEX CIRCUIT ASSEMBLIES

SpeedLine
High-Speed Protocol Cables

BLUMARK **RF**
COAX CABLES

FIBER KING
FIBER OPTIC CABLES

turboflex
THE ULTRA FLEXIBLE RUGGED POWER CABLE

Glenair is laser-focused on supplying airliner, business jet, rotorcraft, and eVTOL customers with harsh-environment interconnect assemblies built from Glenair MIL-STAR™, SuperFlex™, BluMark RF™, SpeedLine™, TurboFlex®, and FiberKing™ wire and cable.



Supplied in bulk—any length, with no minimum order quantity—or in fully-integrated and connectorized assemblies, Glenair wire and cable brands are optimized for the highest performance in mil-aero / defense applications.

**FAST DELIVERY AND
QUALITY SINCE 1956**

- 3.5 million square feet factory capacity
- Mission-critical sea, air, land, and space interconnect product focus
- Vertically-integrated, all key processes controlled in-house
- Massive inventory of material, component parts, and finished goods
- Glenair worldwide QMS: AS9100D SAE / ISO 9001 certified, and customer-audited

AEROSPACE-GRADE

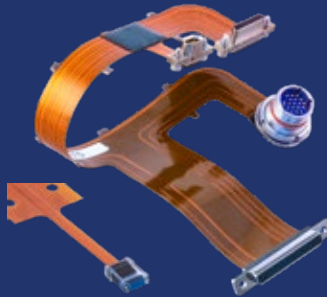
Mission-critical wire harnesses and interconnect assemblies: built in-house with 100% Glenair wire, cable, contacts, and connectors



HIGH-SPEED, HIGH-FREQUENCY, HIGH-POWER · ELECTRICAL, OPTICAL, RF, AND FLEX



MIL-STAR™ “better-than-QPL” wire interconnect assemblies



SuperFlex™ integrated PCB flex, rigid flex, and optical flex assemblies



SpeedLine™ high-speed protocol datalink assemblies



BluMark RF™ high-frequency, low-loss coax assemblies



FiberKing™ harsh-environment and inside-the-box optical assemblies



TurboFlex® high power, high flexibility cable assemblies

SPECIALTY ENVIRONMENTAL ASSEMBLIES BUILT WITH GLENAIR SIGNATURE WIRE AND CABLE

In addition to conventional land, sea, air, and space interconnect assemblies with overbraiding and overmolding, Glenair is able to supply all of our signature wire and cable brands in specialty harness designs optimized for ultra-harsh environments including high-pressure subsea, high-heat and cryogenics, and space.



High-pressure subsea (Mil-qualified and commercial Oil & Gas industry) 10K PSI electrical and optical cable assemblies



Ultra High Temperature and Cryogenic (ThermaRex™) wired cable assemblies



Space-grade EMI shielded and open-wire bundle assemblies built in ISO 8 and ISO 6 clean rooms

MIL-STAR™

GS22759 AEROSPACE-GRADE WIRE



MIL-STAR High-Performance Hookup Wire and Cable Glenair has branded its GS22759 high-temperature aerospace-grade wire, and GS27500 multi-conductor cables for aerospace applications, under the MIL-STAR brand. These discrete wires and cables are built in accordance with SAE specifications with a "GS" leadoff in place of both the base specification and the part number for individual slash sheets.

MIL-STAR is a high-performance, better-than-QPL discrete wire and cable specification unique to Glenair. The brand covers both protected (inside-the-box) hookup wire, high-durability open-loom wiring, and multi-conductor shielded and jacketed M27500-type cable.

M22759 single-ended hook-up wires are the industry standard for inside-the-box mil-aero environments and are optimized for size, weight, high-temperature resistance, and low flame propagation. The hundred-plus variants of AS22759 are organized by conductor material and plating, insulation type, wire gage, and single- or dual-wall.

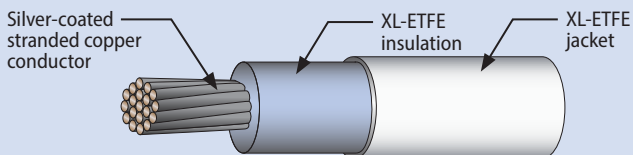
MIL-STAR™ 22759 OPEN WIRE LOOM AND (PROTECTED) HOOKUP WIRES

AS22759 high-temp single-conductor 600V military and aerospace-grade wire, standard and crosslinked, lightweight single-wall and rugged dual-wall configurations.

CROSSLINKED (XL) ETFE SAMPLES

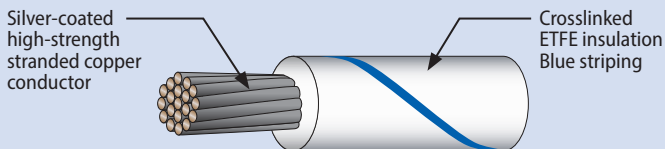
GS22759-43-22-9

- Silver-coated copper core, std. weight dual wall XL-ETFE insulation/jacket. High-temp, radiation- and fire-resistant.



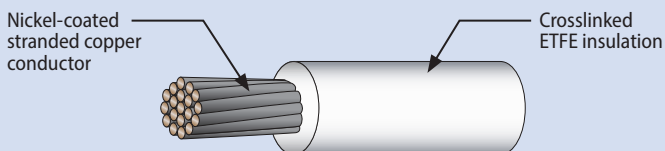
GS22759-33-24-96

- Silver-coated copper core with XL-ETFE insulation (blue striping). High-temp, low flammability.



GS22759-45-12-9 (Light weight)

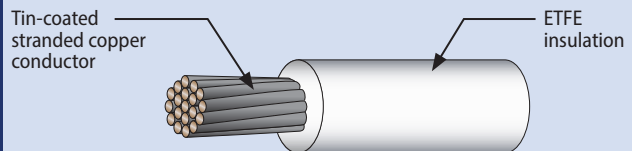
- Nickel coated copper core with XL-ETFE insulation. High-temp (200°C), fire and chemical resistant.



CONVENTIONAL FLUOROPOLYMER SAMPLES

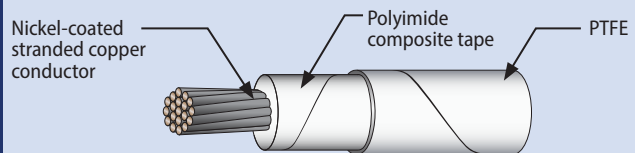
GS22759-16-8-9

- Tin-coated copper core with extruded ETFE insulation. Radiation-resistant and temperature tolerant to 150°C.



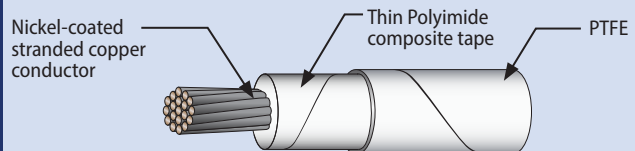
GS22759-87-20-9 (Standard weight)

- Nickel-coated copper, PTFE/Polyimide tape-wrapped. High-temp (260°C), fire and chemical-resistant, low smoke.



GS22759-92-20-9 (Light weight)

- Nickel-coated copper, PTFE/thin-wall Polyimide tape-wrapped. High-temp (260°C), fire/chem-resistant, low smoke.



Hookup Wire for Aerospace-Grade Harness Assemblies

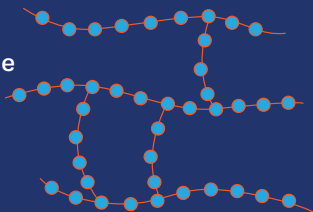
Better-than-QPL performance • QPL-grade batch testing and documentation

MIL-STAR™ Order Number	Conductor	Plating	Insulation	Insulation Weight	Available Wire Sizes	Temperature Rating
SAE AS22759/16-19, ETFE						
GS22759-16	Copper	Tin	ETFE	Medium	24, 22, 20, 18, 16, 14, 12, 10, 8	150°C
GS22759-17	High-Strength Copper Alloy	Silver	ETFE	Medium	26, 24, 22, 20	150°C
GS22759-18	Copper	Tin	ETFE	Light	24, 22, 20, 18, 16, 14, 12, 10	150°C
GS22759-19	High-Strength Copper Alloy	Silver	ETFE	Light	26, 24, 22, 20	150°C
SAE AS22759/32-35, XL-ETFE						
GS22759-32	Copper	Tin	XL-ETFE	Light	30, 28, 26, 24, 22, 20, 18, 16, 14, 12	150°C
GS22759-33	High-Strength Copper Alloy	Silver	XL-ETFE	Light	30, 28, 26, 24, 22, 20	200°C
GS22759-34	Copper	Tin	XL-ETFE	Normal (Dual Wall)	24, 22, 20, 18, 16, 14, 12, 10, 8	150°C
GS22759-35	High-Strength Copper Alloy	Silver	XL-ETFE	Normal (Dual Wall)	26, 24, 22, 20	200°C
SAE AS22759/41-46, XL-ETFE						
GS22759-41	Copper	Nickel	XL-ETFE	Normal (Dual Wall)	26, 24, 22, 20, 18, 16, 14, 12, 10, 8	200°C
GS22759-42	High-Strength Copper Alloy	Nickel	XL-ETFE	Normal (Dual Wall)	26, 24, 22, 20	200°C
GS22759-43	Copper	Silver	XL-ETFE	Normal (Dual Wall)	26, 24, 22, 20, 18, 16, 14, 12, 10, 8	200°C
GS22759-44	Copper	Silver	XL-ETFE	Light	28, 26, 24, 22, 20, 18, 16, 14, 12	200°C
GS22759-45	Copper	Nickel	XL-ETFE	Light	28, 26, 24, 22, 20, 18, 16, 14, 12	200°C
GS22759-46	High-Strength Copper Alloy	Nickel	XL-ETFE	Light	28, 26, 24, 22, 20	200°C

CROSS-LINKED ETFE INSULATION

Cross-linked insulation (XL) and standard insulation are two types of dielectric materials used in wire and cable manufacturing. Cross-linking provides the following advantages:

- Improved thermal stability
- Chemical / solvent resistance
- Increased mechanical strength
- Laser-markable
- Longer service life



RED PLAGUE MITIGATION

Glenair MIL-STAR™ high-temperature hookup wire and cable may be supplied in special 80 microinch silver-plated copper Mod Code configurations (1304A or 1304B) to combat Red Plague corrosion, a pernicious form of copper oxidation that results in the formation of red cuprous oxide (Cu_2O) and black cupric oxide (CuO). Red Plague corrosion can continue indefinitely, consuming conductor material and causing electrical system failures.

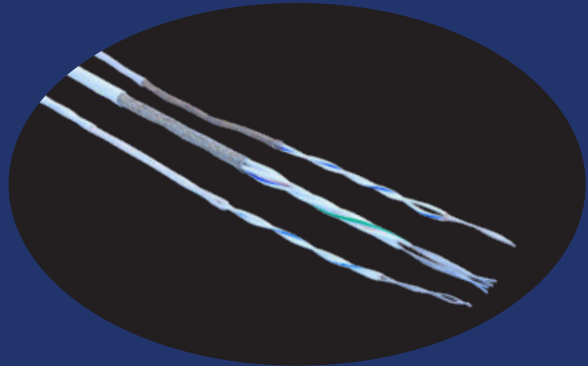
Mod Code 1304B

RED PLAGUE MITIGATION

MIL • STAR™

GS27500 MULTI-CONDUCTOR CABLE

Glenair MIL-STAR multi-conductor 27500 type cables are built from in-house manufactured GS22759 hookup wire, available with industry qualification as well as Glenair GS signature part numbering. GS27500 constructions for shielded and unshielded cable are:



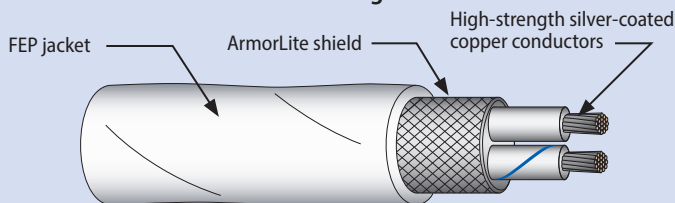
Made and tested IAW ANSI/NEMA WC 27500
1-15 22759 primary hook-up wires
Insulation types including crosslinked ETFE
Industry-standard and Glenair signature shielding materials
Standard and signature jacket compounds

MIL-STAR™ 27500 MULTI-CONDUCTOR CABLES

ANSI/NEMA WC 27500 and Glenair signature multi-conductor cables. Each series supports M22759-16 thru -46 wire types with wire count, gauge, shield, and jacket options as allowed.

968-001-24SC2AR09

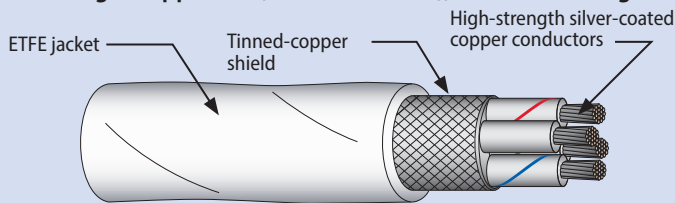
- 27500 type with ArmorLite or AmberStrand lightweight microfilament braided shielding



MIL-STAR GS27500 cables may be specified with signature braided shielding including ArmorLite, ArmorLite CF, and AmberStrand. The ability to supply 27500 type cable in accordance with the ANSI/NEMA standard but optimized for SWaP with lighter weight ArmorLite and AmberStrand shielding is a unique Glenair-only capability.

GS27500-22TF4T14

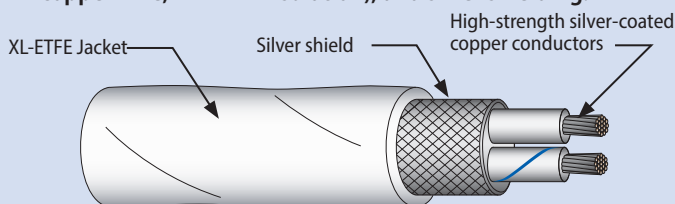
- 27500 type with GS22759-17 wire (silver-plated high-strength copper wire, ETFE insulation), and TC shielding.



This configuration of multi-conductor GS27500 cable is built with GS22759 dash 17 inner wires: silver-plated high-strength copper wire with ETFE insulation. The cable is equipped with an overall tinned-copper EMI/RFI shield and standard fluoropolymer ETFE outer jacket. The superior mechanical properties of high-strength conductors contribute to the overall safety, reliability, and mechanical strength of the cable.

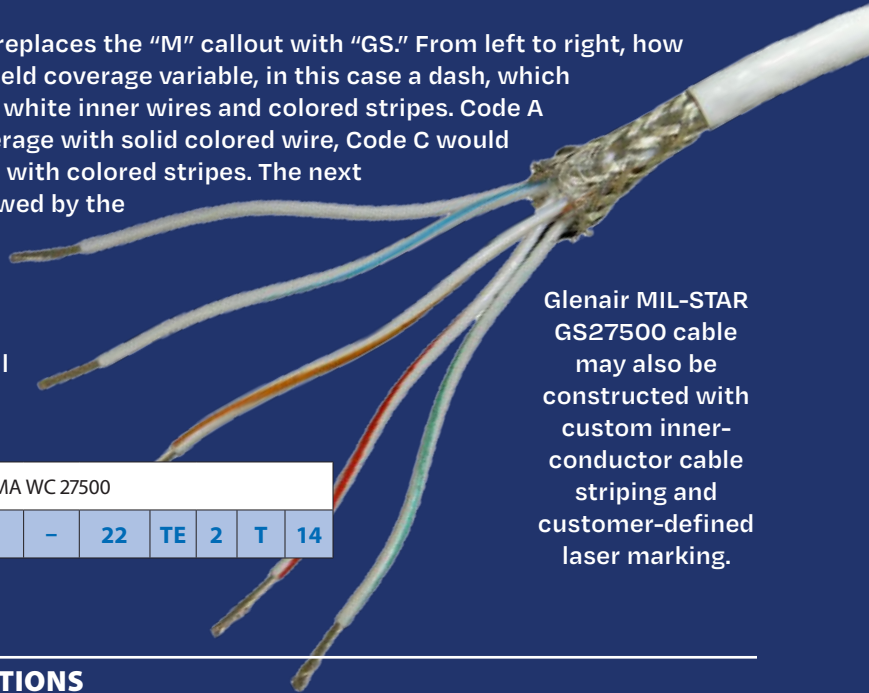
GS27500-24SC2S23

- 27500 type with GS22759-33 wire (silver-plated high-strength copper wire, XL-ETFE insulation), and silver shielding.



This cross-linked configuration of multi-conductor GS27500 cable is built with GS22759 type dash 33 inner wires: silver-plated high-strength copper wire with cross-linked XL-ETFE insulation. Cable is equipped with an overall silver-plated EMI/RFI shield and cross-linked XL-ETFE outer jacket. This multi-conductor 27500 type cable delivers far superior thermal stability, enhanced chemical resistance, mechanical strength, and electrical properties compared to non-crosslinked versions.

MIL-STAR GS27500 cable part numbering replaces the “M” callout with “GS.” From left to right, how to order variables begin with the color code and shield coverage variable, in this case a dash, which indicates default 85% overall shield coverage, with white inner wires and colored stripes. Code A used in this position would denote 85% shield coverage with solid colored wire, Code C would denote 90% shield coverage with white inner wires with colored stripes. The next variable, 22 in our example, is conductor size, followed by the base wire specification (TE) indicating GS22759-16 wire is to be used in this cable buildup. Final variables include the number of inner wire conductors (2), type of overall shielding (T, for Tinned Copper), and finally jacketing material (14, indicating extruded ETFE in white).



Glenair MIL-STAR GS27500 cable may also be constructed with custom inner-conductor cable striping and customer-defined laser marking.

Multi-conductor M27500 type IAW ANSI/NEMA WC 27500

MIL-STAR Cable Sample Part Number	GS27500	-	22	TE	2	T	14
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BETTER-THAN-QPL MIL-STAR SHIELDING OPTIONS

Glenair signature braided cable shield solutions include single and double layers of metal-clad composite microfilament AmberStrand®, microfilament nickel-clad stainless steel ArmorLite™, and ArmorLite™ CF corrosion-resistant.

MIL-STAR GS27500 SHIELDING OPTIONS

Single Shield Code	Double Shield Code	Shield Description
AM	AS	AmberStrand®, Round
AR	AL	ArmorLite™, Round
AC	AF	ArmorLite™ CF, Round
U	U	Unshielded

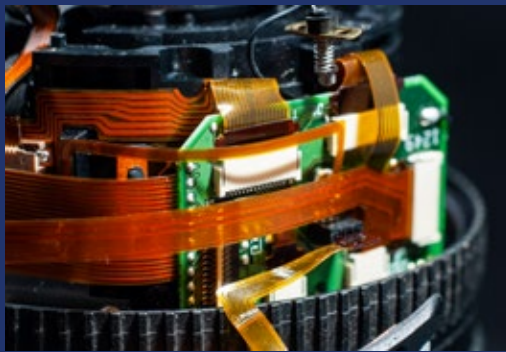
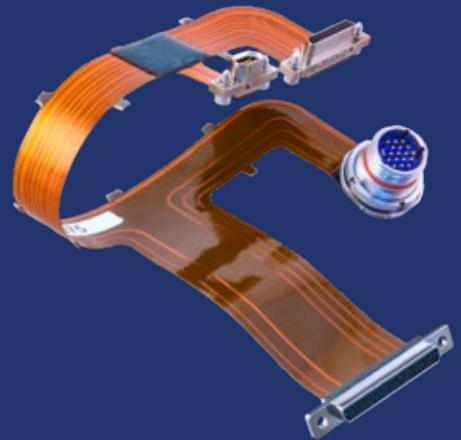


AEROSPACE-GRADE

SuperFlex™

PCB/FLEX CIRCUIT ASSEMBLIES

Turnkey connectorized flex, rigid flex, and rigid pcb assemblies incorporating Glenair's broad range of innovative small form-factor circular and rectangular PC-tail connector solutions for optimized ease-of-assembly and SWaP



Flex circuits—metallic layers of traces, usually copper, bonded to a dielectric layer, like polyimide—are used to interconnect embedded electronic packages, displays, backplanes, and other PCB components. Flex and rigid-flex circuits are frequently superior to conventional wiring as they can be easily routed in three dimensions, are lighter and smaller than discrete wires, and

offer virtually unlimited flex cycles in articulated applications. Flex and rigid-flex circuits are commonly deployed within avionic LRUs and other complex electronic systems, as well as between articulating components, such as disk drive, robotic arms, and other electro-mechanical devices.

Compared with conventional wiring, compact flexible printed circuit assemblies reduce system complexity and assembly time as well as enhance reliability. Due to their low mass and high circuit density, flex circuit assemblies are less susceptible to impact and vibration damage than conventional wire harness assemblies, making them an ideal choice in missile and other reduced form-factor applications.

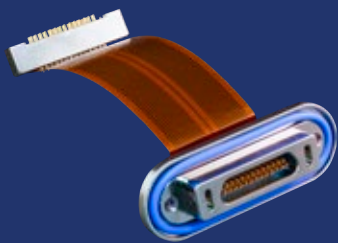
CERTIFIED STANDARDS OF WORKMANSHIP



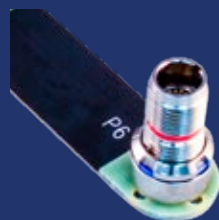
IPC 6012/6013 Class I, II, III, Types 1-4 Certified Production

Glenair recommends commercial customers specify IPC-6012/6013 standards of workmanship, which are fully supported by Glenair. Military customers may alternatively cite specifications IAW MIL-PRF-31032.

GLENAIR SIGNATURE PC-TAIL CONNECTOR TYPES AVAILABLE IN TURNKEY FLEX ASSEMBLIES



Series MWD Micro-D and spring-contact AlphaLink



Series 88 SuperFly

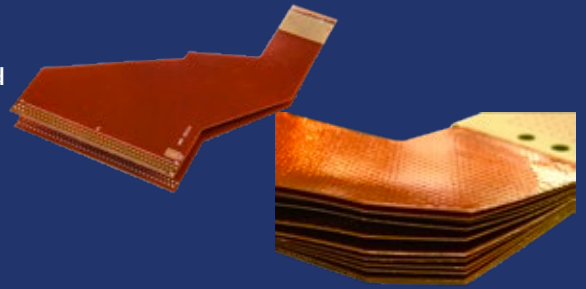


Series 79 Micro-Crimp



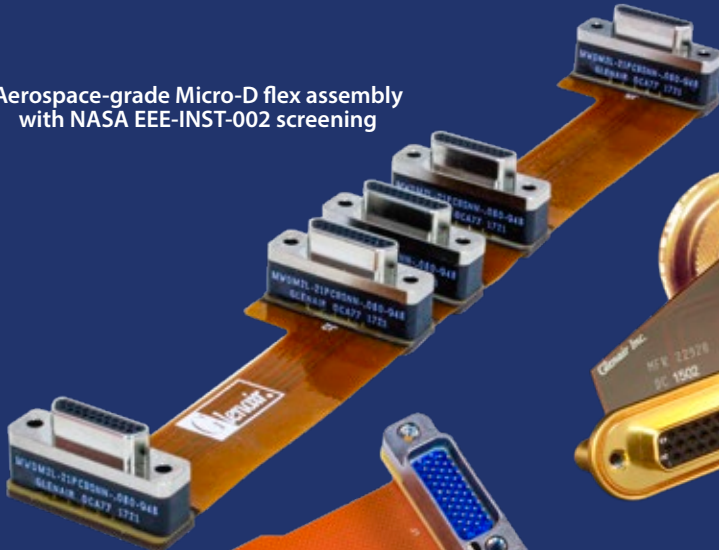
SuperNine MIL-DTL-38999 type flex with board connector

Glenair SuperFlex turnkey connectorized flex, rigid flex, and rigid PCB assemblies begin with our signature flex circuit fabrication and innovation. All SuperFlex assemblies are optimized with ground planes and shields, strain relief features, mounting points for improved resistance to vibration and shock, and are available in multi-layer and double-sided configurations. All terminations backpotted for compliance with conformal coating processes. Optical and electrical solutions available. Special long-length assemblies up to 12 feet.



MULTIBRANCH SUPERFLEX ASSEMBLIES WITH GLENAIR SIGNATURE CONNECTORS

Aerospace-grade Micro-D flex assembly with NASA EEE-INST-002 screening



High-shock matched-impedance Mighty Mouse assembly with flex circuit



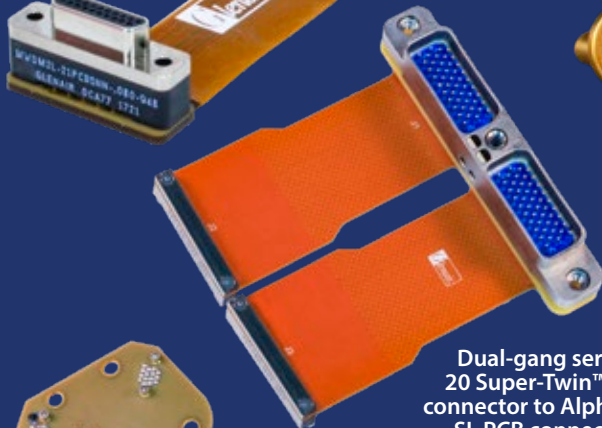
Aerospace-grade Series 28 HiPer-D to Series 80 Mighty Mouse I/O jumper: a tight space-constrained rectangular-to-circular solution



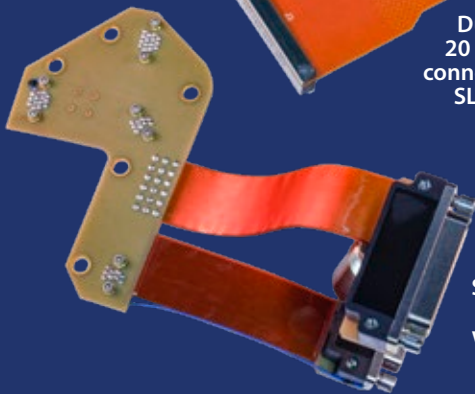
Hybrid flex/rigid flex multibranch Micro-D and Series 23 SuperNine flex assembly with discrete RF circuits



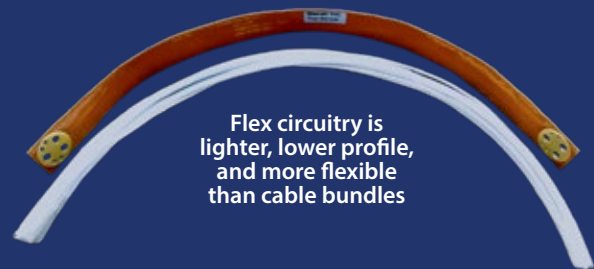
Dual-gang series 20 Super-Twin™ I/O connector to AlphaLink SL PCB connector



Stacked Micro-D I/O connectors with flex jumper to rigid PCB assembly



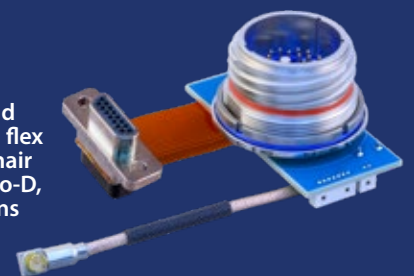
Flex circuitry is lighter, lower profile, and more flexible than cable bundles



Special "Fairway-Flex" long-length HiPer-D assembly with clock-spring design element



High vibration and shock resistant rigid flex assembly with Glenair Mighty Mouse, Micro-D, and RF connections



SpeedLine™

High-Speed Protocol Cables

Glenair supplies a wide range of high-speed shielded twisted pair cabling for use with El Ochito®, VersaLink™, SpeedMaster™, and other of our shielded high-speed connector and contact technologies. High flexibility and high-density reduced-weight cable designs are a specialty. Glenair offers turnkey Cat 8 Ethernet, SuperSpeed USB 3.0, HDMI, SATA, and other solutions for today's most mission-critical application platforms.

Glenair SpeedLine cables are optimized for signal integrity, weight savings, flexibility, and durability. In addition, these aerospace and space-grade cables have been optimized for ease of termination and across-the-board compatibility with our broad range of high-speed contact modules and connectors.



SpeedLine™ high-speed cable assemblies such as this VersaLink cordset for DisplayPort 2.0 and USB 4 are supplied as turnkey tested solutions, ready for immediate use.

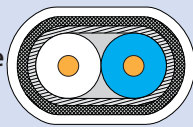
- Cat 8 Ethernet, SuperSpeed USB 3.0, HDMI, SATA, and other solutions for mission-critical applications
- Individual foil shielding around each data pair for reduced crosstalk and attenuation
- Up to 200°C high-temperature-rated cable
- Skydrol resistant, RoHS compliant versions
- Ethernet versions meet ANSI/TIA 568-C.2 Category 6A requirement up to 262 feet/80 meters
- Low-skew SuperSpeed USB data pairs have individual braided shields
- LSZH jacketing options including Duralectric Light and polyurethane



SpeedLine™ high-speed protocol cables: shielded differential data-pair cables for high-datarate Ethernet, USB, SATA, PCIe, DisplayPort, and HDMI protocols

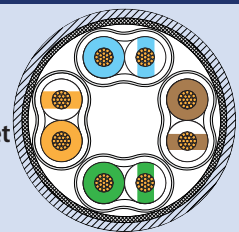
963-069-26

- 100 Ohm #26 AWG flat pair shielded cable for use with VersaLink™ connectors
- Performance up to 18 GHz
- -65 to +200 °C rated operating temperature
- FEP jacket, FEP insulation
- Dual shields: Aluminized Kapton tape and #44 AWG silver-plated copper



963-066-24

- 100 Ohm #24 AWG 4-pair shielded cable for use with El Ochito contacts
- Performance up to 10 Gigabit Ethernet
- -65 to +200 °C rated operating temperature
- FEP jacket, FEP insulation with PTFE tape wrap
- Outer shield: #40 AWG silver-plated copper



Glenair signature SpeedLine high-speed protocol cables are designed for direct application and use with VersaLink™, SpeedMaster™, El Ochito®, and other of our lightweight, small form-factor high-speed protocol connectors.

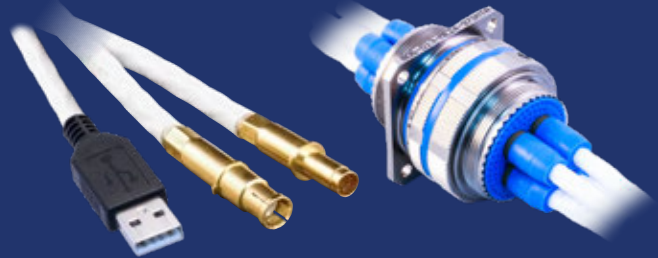
Glenair Signature SpeedLine™ Cables, Shielded Contacts, and Connectors: a complete ecosystem of interconnect technologies for high-speed protocol applications in rugged aerospace-grade systems

Glenair supplies a complete ecosystem of military/aerospace-grade interconnect technology in support of every popular high-speed protocol. Downselect typically begins with protocol identification in accordance with application data rate requirements and standards. For each high-speed protocol, Glenair can supply an exactly-designed, tested, and qualified SpeedLine™ differential data cable, shielded high-speed contact insert, and a signature range of ruggedized, environmentally-sealed connector housings.

SPEEDLINE HIGH-SPEED DATA CABLE ASSEMBLIES



Glenair SpeedLine high-speed cable assemblies for VersaLink™ include factory-terminated pigtails and double-ended jumpers as well as turnkey Series 806 Mil-Aero and Series 794 Micro-Crimp high-density solutions



Glenair SpeedLine high-speed cable assemblies for El Ochito® include single- and double-ended jumpers, commercial protocol connector jumpers, and integrated Series 806 Mil-Aero, SuperNine®, and Series 792 Micro-Crimp

SPEEDLINE-COMPATIBLE HIGH-SPEED DIFFERENTIAL-PAIR SHIELDED CONTACTS



Size #8 differential twinax contacts

Size #8 quadrax contacts

Size #8 El Ochito octaxial

Size #8 SpeedMaster octaxial

VersaLink differential twinax

SPEEDLINE COMPATIBLE GLENAIR SIGNATURE HIGH-SPEED CONNECTORS



Series 806 Mil-Aero high-speed El Ochito micro miniature

SuperNine El Ochito assembly with Swing-Arm clamp and cable alignment grommet

SpeedMaster™ modular 10G+ Ethernet (shown in SuperNine® packaging)

Series 792 Micro-Crimp precision-machined high-speed El Ochito

BLUMARK RF

COAX CABLES



**COMING SOON:
VITA 67.3 RF ASSEMBLIES**

Fully-customizable SMPM and SMPs assemblies: connectors, shells, cables, and accessories

Glenair is one of just a few interconnect manufacturers that can supply turnkey RF transmission line assemblies—fully connectorized and ready for immediate use—built 100% in-house with Glenair component parts. Glenair high-frequency RF assemblies are typically used in line-replaceable units and chassis that are part of an RF data transmission chain. The rugged, environmental construction of Glenair multi-port RF connector shells and contacts, combined with our high-reliability BluMark RF coax cables, makes these turnkey transmission line solutions ideal for mission-critical and commercial aerospace applications with exacting size, weight, and frequency requirements.

BLUMARK RF

COAX CABLES

GLENAIR TURNKEY RF ASSEMBLIES ARE BUILT WITH AEROSPACE-GRADE 50 OHM LOW-LOSS COAX CABLES



Size 047
40 GHz



Size 086
40 GHz



Size 130
40 GHz



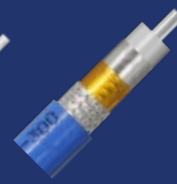
Size 160
40 GHz



Size 200
26.5 GHz



Size 235
26.5 GHz



Size 300
18 GHz

Double-Shielded • Low phase-change Fluoropolymer Dielectric • FEP Jacket

Triple-Shielded • Low-Loss PTFE Tape-Wrapped Dielectric • FEP Jacket

TURNKEY RF and Microwave Transmission Assemblies



With Glenair signature multi-port connectors, low-loss cables, and high-frequency contacts

BLUMARK RF™ COAX CABLES

BluMark RF 50 Ohm Coax Cables are available in seven size categories. These high-frequency, low-loss, flexible cables are suitable for radar and other aerospace applications as well as laboratory test equipment. Jacket options include FEP and radiation-resistant space-grade ETFE. Triple-shielded high-performance cables have expanded PTFE dielectric core for low loss up to 40 GHz. Application selection is based on compatibility with a particular RF / microwave connector type and size, as well as flexibility, EMI screening, weight considerations, temperature tolerance, and altitude.

962-032-200



- 50 ohm size 200 (.204" diameter, .051" conductor) 26.5 GHz max. frequency low-attenuation cable
- -55 to +200 °C rated operating temperature
- FEP jacket, expanded PTFE dielectric, solid SPC center conductor
- Triple-shielded: Tape/foil/braid shield layers with >90 dB shield effectiveness

962-032-160



- 50 ohm size 160 (.161" diameter, .036" conductor) 40 GHz max. frequency low-attenuation cable
- -55 to +200 °C rated operating temperature
- FEP jacket, expanded PTFE dielectric, solid SPC center conductor
- Triple-shielded: Tape/foil/braid shield layers with >95 dB shield effectiveness

962-032-130



- 50 ohm size 130 (.131" diameter, .029" conductor) 40 GHz max. frequency low-attenuation cable
- -55 to +200 °C rated operating temperature
- FEP jacket, expanded PTFE dielectric, solid SPC center conductor
- Triple-shielded: Tape/foil/braid shield layers with >90 dB shield effectiveness

962-025-086



- 50 ohm size 086 (.104" diameter, .020" conductor) 40 GHz max. frequency low-attenuation cable
- -65 to +165 °C rated operating temperature
- FEP jacket, LPCF dielectric, solid SPC center conductor
- Double-shielded: Tape/braid shield layers

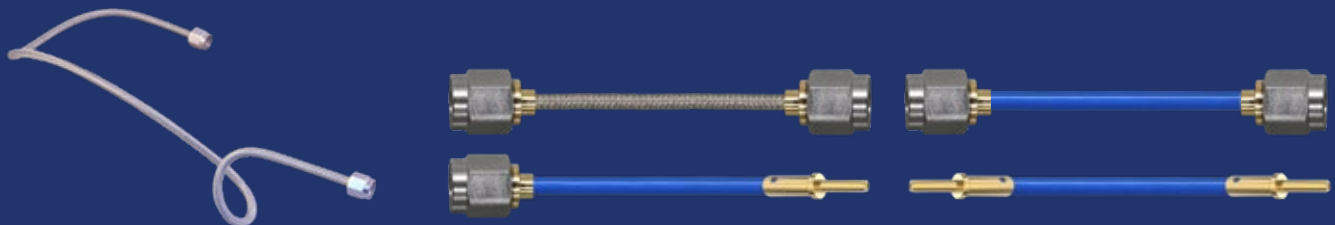
962-025-047



- 50 ohm size 047 (.056" diameter, .011" conductor) 70 GHz max. frequency low-attenuation cable
- -65 to +165 °C rated operating temperature
- FEP jacket, LPCF dielectric, solid SPC center conductor
- Double-shielded: Tape/braid shield layers

50 OHM COAX RF JUMPERS

Series GRF02 50 Ohm Coax Cable "Jumpers" are COTS, cut-to-length cable assemblies with pre-installed connectors at both ends. Turnkey RF jumpers offer excellent flexibility with a bend radius of 6mm or 1/4 in.



FIBER KING

FIBER OPTIC CABLES



Turnkey Optical Flex circuit assembly with rugged MT ferrule terminations

Glenair is the worldwide leader in harsh-environment aerospace-grade fiber optic interconnect assemblies. We manufacture every element in-house, from low-loss simplex, duplex, and multi-line fiber optic cables, to precision termini, military and aerospace-grade connectors, backshells, and tools. Glenair FiberKing fiber optic cables are optimized for reliable, durable performance in military and commercial aviation, space, harsh-environment oil and gas, and multi-termination (MT ribbon) assemblies.

FIBERKING FIBER OPTIC CABLES

- Lightweight, tight bend-radius fiber optic cable for 10Gb+ avionic networks
- Vibration, radiation, and temperature-resistant space-grade F/O designs
- Ultra harsh-environment (high-pressure, high-temp, water-blocking) oil & gas industry fiber optic cable assemblies
- Ruggedized fiber optic ribbon cable for multi-fiber termination (MT) applications

TURNKEY Fiber Optic Cables and Harnesses



For rugged mission-critical applications

THE FIBERKING MIL-AERO (MA) ECOSYSTEM

The FiberKing Mil-Aero (MA) Ecosystem is a complete flight-grade fiber optic interconnect solution for demanding military and commercial aerospace applications. This complete 10Gb+ low-loss fiber optic solution includes single- and multimode stepped and graded-index cables in simplex, duplex, and multi-line configurations. Glenair SuperNine and Glenair Front Release (GFR) fiber optic connectors are Glenair's signature offerings for high-speed, high datarate avionic networks. Cables and connectors are qualified to strict aviation industry standards for vibration, shock, moisture, and LSZH, and are rated to maximum optical loss (dB / km) at 850 nm \leq 5.0 and at 1300 nm \leq 3.0. Multimode cables are OM4 graded-index. Singlemode cables are OS1 stepped-index.



Hybrid optical / electrical assembly for weight reduction in a high-speed datalink application



Harsh environment overmolded MIL-DTL-38999 Series III type composite



High-density Next-Generation (NGCON) fiber optic harness assembly



Cable reels and field-deployment technologies for both Glenair GFOCA and Eye-Beam™ GMA fiber optic systems



Specialized MT ribbon fiber low-profile molded breakout capabilities



GFOCA I/O-to-board assembly with overbraiding for mechanical protection



Inside-the-box MIL-DTL-38999 type I/O connector to board cable harness

turboflex

THE ULTRA FLEXIBLE RUGGED POWER CABLE



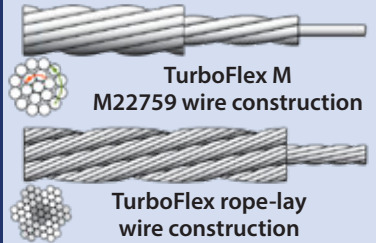
TURNKEY
turboflex
Flexible Cable Assemblies

TurboFlex is an ultra-flexible and rugged power cable solution—ideal for high-voltage electrical distribution and propulsion applications such as battery plant-to-inverter-to-electric motor cables for eVTOL aircraft. Constructed from rope-lay configuration copper or aluminum wire and jacketed with Glenair signature Duraelectric insulation, TurboFlex cables are optimized for use in an ecosystem of Glenair signature contact and connector technologies. Turnkey connectorized or lugged cable assemblies – fully tested and ready for immediate use – provide reliable high-temperature tolerant performance up to 4500 VAC.

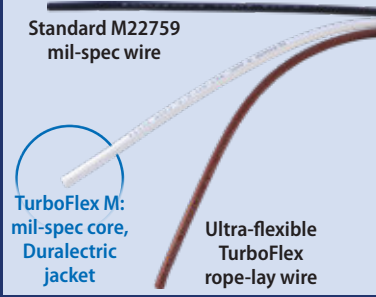


◀ Duraelectric™ is the high-performance TurboFlex® jacketing material. Different compounding formulas are optimized for weight savings, radiation resistance, ultra low temperatures, conductivity, and immersion in chemical or caustic fuels. Available in a broad range of colors including safety orange.

STANDARD TURBOFLEX R VS. TURBOFLEX M



TurboFlex cables are jacketed with Duraelectric insulation, which contributes significantly to the flexibility of the product. Available wire cores include rope-lay (standard) for maximum flexibility, and M22759 wire (TurboFlex M) with the flight-heritage of a mil-spec core and a slightly larger bend radius, but far superior flexibility compared to standard M22759 wire.



Technical overview

TURBOFLEX CABLE APPLICATION EXAMPLE



This multibranch TurboFlex power and data interconnect assembly for a ruggedized defense application demonstrates the remarkable flexibility and minimal bend radius of large form-factor (up to 450 MCM) TurboFlex cable. Example shown features UV- and chemical-resistant Duraelectric jacketing in FED-STD 595C Safety Orange.

ABOUT TURBOFLEX WITH DURALECTRIC™ D JACKETING

Duraelectric™ D is a Glenair Signature elastomeric material used in wire insulation, cable and conduit jacketing, overmolding, and shrink boots. Glenair TurboFlex high-flexibility power distribution cables are supplied with Duraelectric jacketing in different wall thicknesses, as well as “tell-tale” dual-layering.

TurboFlex core conductors are available in three aerospace-grade material and temperature configurations:

- T = Tin/Copper (-60° – +150°C),
- S = Silver/Copper (-60° – +200°C)
- N = Nickel/Copper (-60° – +200°C)

A signature configuration of TurboFlex is available with high-temperature shielding and lightweight aluminum conductors.

DURALECTRIC™ D PHYSICAL PROPERTIES		
Property	Typical Result	Test Method
Hardness, Shore A	60	ASTM D2240
Tensile Strength, psi	1100	ASTM D412
Elongation, %	500	ASTM D412
Tear Strength, Die B, ppi	150	ASTM D624
Low Temperature Impact at -65°C	Pass/No Cracks	ASTM D2137
Accelerated UV/Sunlight Resistance, 53 yr. Equiv. Exposure	Pass/Excellent	IEC 60068-2-5
Ozone Resistance	Pass/No Cracks	ASTM D1149
Zero Halogen	Pass	IEC 754-1

DURALECTRIC™ D ELECTRICAL PROPERTIES		
Property	Typical Result	Test Method
Dielectric Strength, kV/mm	19	ASTM D419
Comparative Tracking Index, VAC	> 600	ASTM D3638

DURALECTRIC™ D FIRE RESISTANCE PROPERTIES	
Property	Typical Result
Flammability	
Oxygen Index, %	45
FAR 25.853, 12 Second Vertical	Pass
FAR 25.853, 60 Degree	Pass
FAR 27.1365 b,c	Pass
BSS7230 Method F2	Pass
IEC60614-1	Pass
EN60695-2-12, 850°C Glow-Wire	Pass
UL1685 FT4/IEEE1202	Pass
Smoke Density	
BSS7238	Pass
NES 711	Pass
EN 60695-2-11	Pass
UL1685 FT4/IEEE1202	Pass
Combustion Toxicity	
BSS7239	Pass
NES 713	Pass
SMP800 C	Pass

GENERAL DURALECTRIC D PERFORMANCE SUMMARY

- Service Temperature Range: -65°C to +200°C
- Fire Resistant and Low Smoke-Zero Halogen (LSZH)
- RoHS materials
- Resistant to common aerospace, military and industrial fluids
- UV resistant



LIGHTWEIGHT
AVIONICS,
FLIGHT DECK,
ACTUATOR AND
SENSOR CONNECTORS

SERIES
806
MIL-AERO

Series 806 Mil-
Aero: Advanced
performance, reduced
size and weight



Two mating styles available:
Triple-start stub ACME and
bayonet-lock

Innovative design meets key performance benchmarks for harsh vibration, shock, and environmental settings—as well as high-altitude, unpressurized aircraft zones with aggressive voltage ratings and altitude immersion standards.

SIZE AND WEIGHT SAVING SOLUTIONS: CATALOG OR CUSTOM



High-availability catalog solutions plus custom designs such as this unique Quadrax implementation

- Next-generation small form factor aerospace-grade circular connector
- Designed for harsh application environments including SWAMP-zone sensors, flight navigation electronics, and flight deck avionics
- Integrated anti-decoupling technology
- High density 20HD, 22HD, RF, power, and high-speed contact arrangements
- Hermetic and filter versions
- +200°C temperature rating

Series 806 Mil-Aero Ultraminature Circular Connectors



For harsh aerospace applications IAW MIL-DTL-38999

SERIES 806 MIL-AERO: FEATURES / SPECIFICATIONS

- **Supported wire sizes:**
#20HD contacts
20–24 AWG
#22HD contacts
22–28AWG
- **Dielectric withstanding voltage**
#20HD layouts:
1800 VAC
#22HD layouts: 1300 VAC
- **Reduced pitch triple-start modified anti-decoupling stub ACME mating threads**
- **“Triple ripple” wire sealing grommet (75,000 ft. rated)**
- **Integral Nano Band shield termination platform**
- **EMI shielding effectiveness per D38999M para. 4.5.28 (65 dB min. leakage attenuation @ 10GHz)**
- **10,000 amp indirect lightning strike**
- **MIL-S-901 Grade A high impact shock**

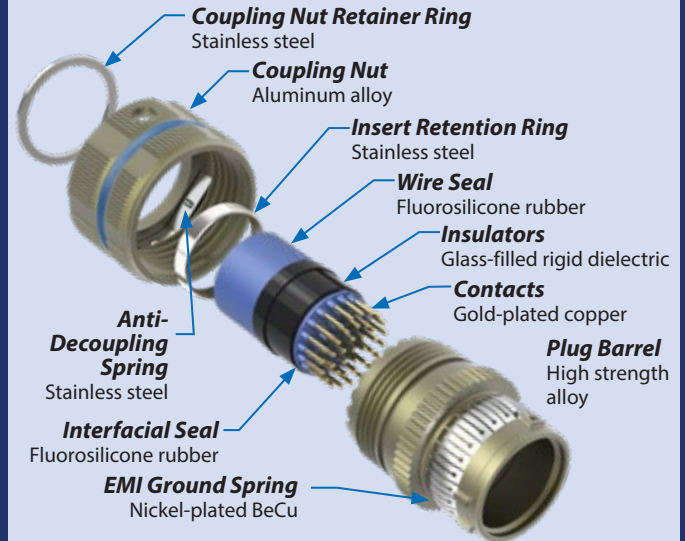


AVAILABLE LIGHTWEIGHT ALUMINUM “CODE RED” HERMETICS

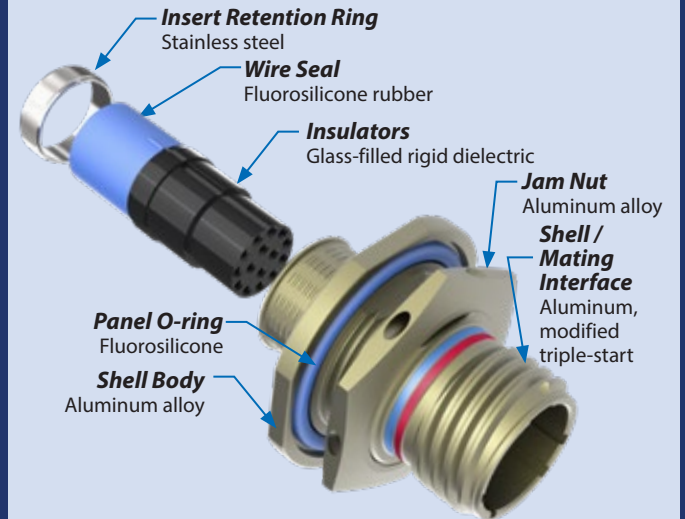
CODE RED is a lightweight encapsulant sealing and assembly process with 50% package-weight savings compared to glass-to-metal seal Kovar/stainless steel solutions. Non-outgassing CODE RED (IAW NASA/ESA) provides durable hermetic sealing with 1×10^{-7} leak rate performance. Gold-plated copper contacts deliver outstanding low-resistance current carrying capacity.



SERIES 806 MIL-AERO PLUG

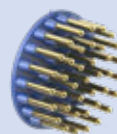


SERIES 806 MIL-AERO RECEPTACLE



SMALLER AND LIGHTER WITH EQUAL D38999 PERFORMANCE?

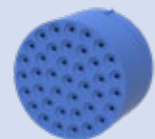
High-Density Layouts
Twice as many contacts in a smaller package



“Top Hat” Insulator
High voltage rating, foolproof alignment



Triple Ripple Wire Seal
Reliable 75,000 ft. altitude immersion



LIGHTWEIGHT
AVIONICS,
FLIGHT DECK,
ACTUATOR AND
SENSOR CONNECTORS

 **SuperNine**®

The advanced-performance MIL-DTL-38999
Series I, II, III, and IV type connectors



Wide range of signature PC
tail standoff designs, all with
superior sealing and resistance to
vibration and shock

SuperNine® is a "Better-than-QPL" MIL-DTL-38999 Series I, II, III, and IV connector family with outstanding durability, sealing, ease of shield termination, PC tail configurations, environmental and hermetic classes, connector savers, as well as off-the-shelf EMI/EMP filter connectors and more—all with Glenair's legendary service, support, and product availability.

SUPERNINE SERIES I AND SERIES II BAYONET-LOCK CONNECTORS



SuperNine Series I (scoop-proof) and Series II (low-profile) bayonet-lock connectors (available now in Class G space-grade)

SERIES 23

SuperNine MIL-DTL-38999 Series I, II, III, and IV



Advanced performance mil-aero / defense connectors

SUPERNINE MIL-DTL-38999 SERIES III QPL COMPOSITE CLASSES J AND M

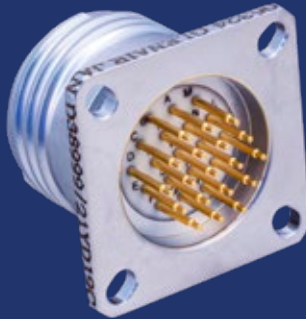


- DLA-qualified composite classes J (Cad / O.D.) and M (Electroless Nickel)
- QPL and Glenair signature series
- Available integrated banding porch with 50% weight savings
- D38999/26 plug and D38999/20 wall-mount receptacle
- 100% molded composite (not machined) for superior strength and durability
- 30% glass-filled PEEK
- 20% weight savings versus standard metal connector

ADVANCED-PERFORMANCE SUPERNINE PLUGS AND RECEPTACLES



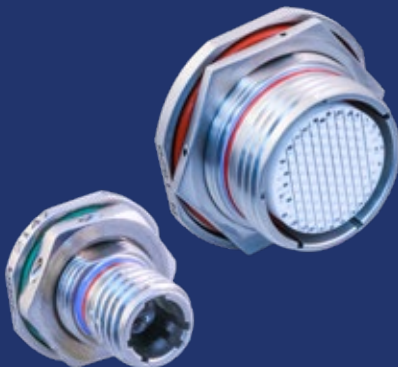
Anti-decoupling, high vibration ratcheting coupling nut IAW Bell Helicopter 299-100-B29 vibration testing



Glass-to-metal sealed and lightweight CODE RED encapsulant sealing hermetic-class connectors



SuperNine PowerPlay high-voltage connectors with temperature-tolerant Crown Ring contacts



High-temperature and cryogenic ThermoRex solutions

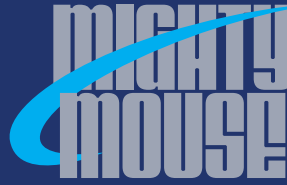


High-speed El Ocho Octaxial solutions for 10Gb Ethernet, USB 3.0 and SATA



High-frequency RF and hybrid RF/signal configurations

LIGHTWEIGHT
AVIONICS,
FLIGHT DECK,
ACTUATOR AND
SENSOR CONNECTORS



Mighty Mouse micro
miniature connector series
for optimized SWaP

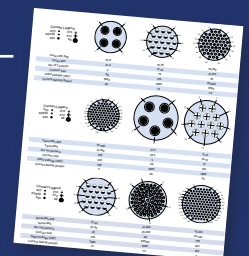


Mighty Mouse vs. 38999: less than half the size and weight.

Mighty Mouse Connectors: Reducing the Size and Weight of Electrical Wire Interconnect Systems Since 1997

- 8 coupling styles and 67 contact arrangements from 1 – 130 contacts
- MIL-DTL-38999 caliber performance
- Size #23, #22, #20, #20HD, #16, #12, #8 signal, power, RF, and high-speed contacts
- Discrete connectors and turnkey cable assemblies

FULL RANGE OF SUPPORTED CONTACTS, 67 CONTACT ARRANGEMENTS



67 arrangements,
from 1–130 contacts

SERIES 80 MICRO MINIATURE Mighty Mouse Connectors and Cables



Awesome performance, itty-bitty package

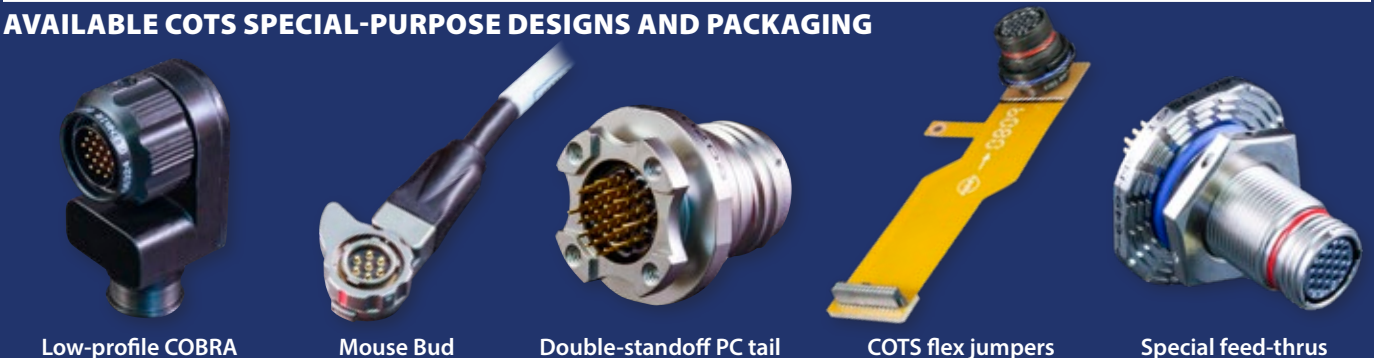
CHOOSE FROM 8 DIFFERENT COUPLING DESIGNS



AVAILABLE MIGHTY MOUSE CONNECTOR CLASSES



AVAILABLE COTS SPECIAL-PURPOSE DESIGNS AND PACKAGING



NEXT-GENERATION
MICRO
MINIATURE
RECTANGULAR
CONNECTORS



High-density, crimp-contact, power and signal connectors with precision-machined micro miniature packaging

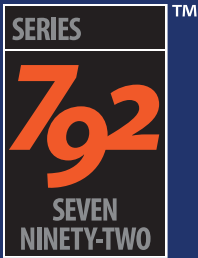


Polarized / keyed shells prevent mis-mating and allow designers to specify identical layouts side-by-side without risk of circuit damage

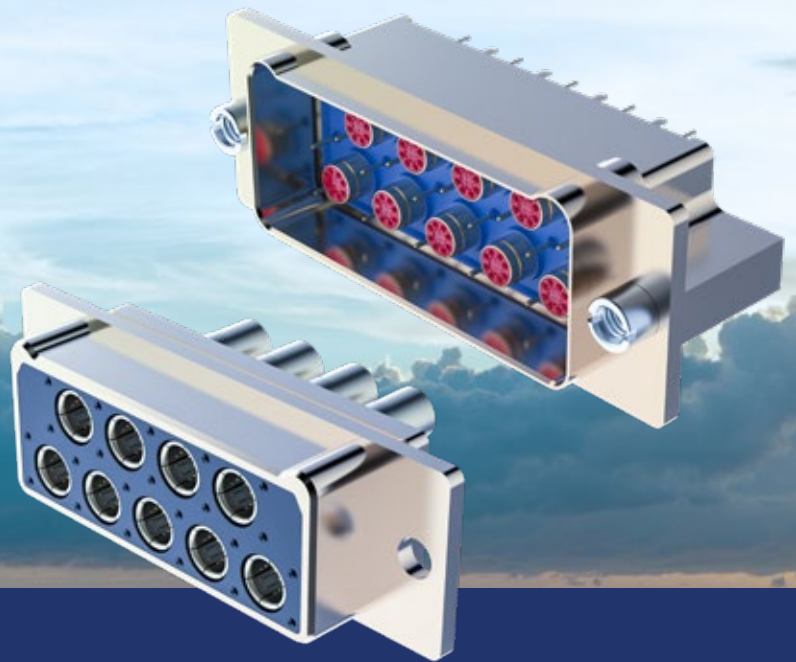
Sometimes the simplest ideas are the best ideas. The Series 791 is a simple idea. Let's create a brand new class of connector—the ultraminiature rectangular. Let's combine the versatility of the Series 790 Micro-D connector with the rugged features of our popular HiPer-D M24308 connector. Let's add a unique dual lobe shell and recess the pins to eliminate the possibility of scooping damage. Then let's add high speed datalink capability. Originally designed for NASA's Orion project, the Series 791, with all its special features, is well-suited for general aerospace use as well. The Series 791's small size and blind mate capability make it a perfect choice for LRU electronic modules. Other applications include radars, communication equipment, avionic systems, power distribution units, instrumentation, and other applications that require a smaller, higher performance interconnect in standard I/O or rack-and-panel configurations.



- Next-generation small form factor aerospace-grade rectangular connector
- Scoop-proof recessed pin contacts
- 37 arrangements, 12 shell sizes for the ultimate in versatility
- Rugged aluminum alloy dual-lobe shell
- Environmental
- EMI shielded
- Blind mating



High-speed El Ochito[®] variants of Glenair Signature micro miniature crimp-contact rectangular connectors



El Ochito[®]



The Series 792 connector brings high-speed datalink capability to the Glenair Series 79 rectangular connector family. Size 8 cavities accept standard Quadrax and El Ochito datalink contacts. The 792's small size and blind-mate capability makes it a perfect choice for radars, communications gear, satellite downlink equipment, exoatmospheric vehicles, avionics, and instrumentation.

Board mount versions feature straight and right angle terminals.

The Series 792 is an aerospace-grade ultraminiature rectangular connector for high-speed datalinks including 10Gb Ethernet, USB 3.0, and HDMI. The Series 792 features precision-machined (not stamped!) aluminum alloy shells with dual lobes for robust polarization. The 100% scoop-proof interface protects contacts from damage. An integrated ground spring reduces susceptibility to electromagnetic interference. Hybrid layouts with discrete size #23 signal or power contacts add additional versatility.

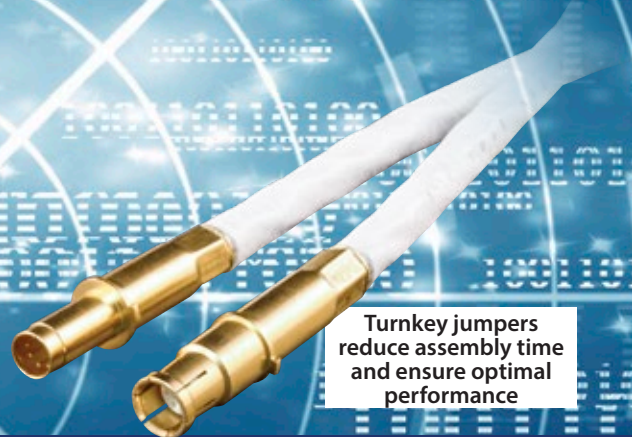
- High-speed Ethernet, USB 3.0, HDMI
- Printed circuit board and cable connectors
- Scoop-proof interface
- 12 arrangements, 6 shell sizes for the ultimate in versatility
- Rugged aluminum alloy dual-lobe polarized shells
- Environmentally sealed
- Integrated EMI shielding and grounding
- Blind mating

COMPATIBLE WITH

SpeedLine
High-Speed Protocol Cables

El Ochito®

High-speed octaxial contacts/connectors for Ethernet, SuperSpeed USB and multi-Gb datalinks



Turnkey jumpers reduce assembly time and ensure optimal performance

High speed, harsh environment El Ochito® octaxial connectors, contacts, and turnkey jumpers save size and weight in aircraft avionics, weapons systems, satellites, and communications gear.

- 10GbE, SuperSpeed USB, and multi-gigabit shielded pairs
- Universal drop-in for keyed size #8 connector cavities
- Data-pair isolation for optimal signal integrity
- Crimp or threaded shield termination contact types
- Snap-in, rear release
- Environmentally sealed
- Aerospace-grade cable assemblies and jumpers
- 50% cable / contact reduction compared to Quadrax



El Ochito® White

10G Ethernet
1000BASE-T
10GBASE-T
10Gbps / 100 Ohms



El Ochito® Blue

SuperSpeed
USB 3.0
Aerospace-grade
5Gbps / 90 Ohms



El Ochito® Red

HDMI
SATA
DisplayPort
5Gbps / 100 Ohms

El Ochito®: The Ultimate Shielded High-Speed Data Contact / Connector



High-speed Ethernet · SuperSpeed USB 3.0 · HDMI

EL OCHITO® OCTAXIAL CONTACT CONNECTOR PACKAGING



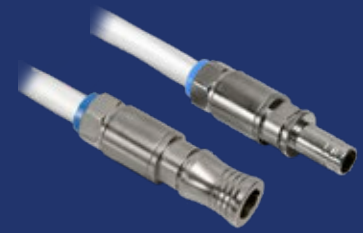
Series 792 miniature rectangular



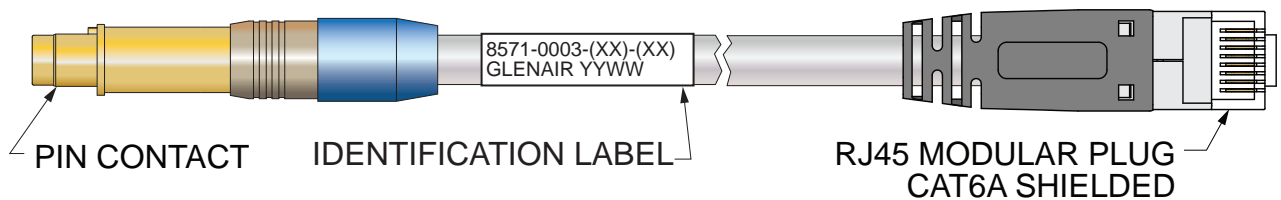
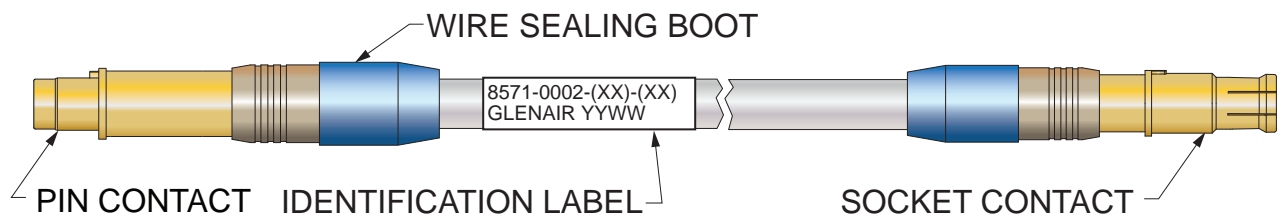
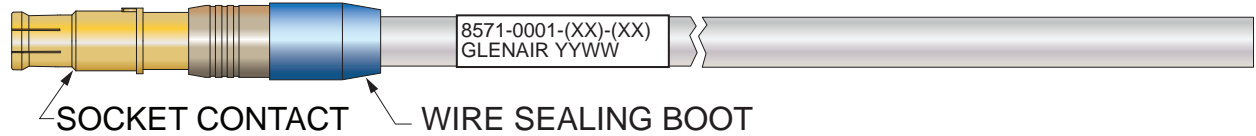
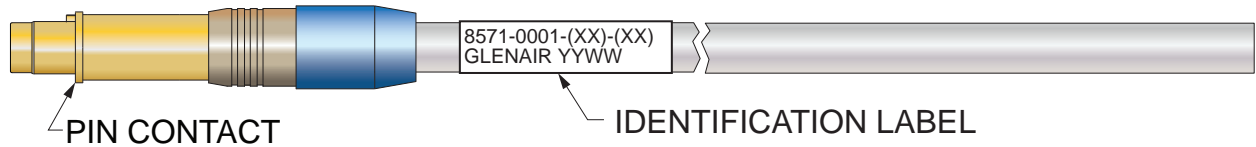
806 Mil-Aero Micro miniature



SuperNine advanced performance "fly-by-wire"



SuperFly® Datalink with El Ochito® contacts



MISSION-CRITICAL
HIGH-FREQUENCY
RF INTERCONNECT
ASSEMBLIES

RF

Flight-Grade RF, Microwave,
and mmWave Connector
Assemblies and Discrete
RF Contacts and Connectors



RF and microwave turnkey
cable assemblies with
Glenair Signature connectors,
contacts, and cables

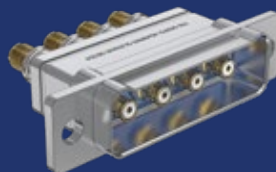
GLENAIR SIGNATURE MULTI-PIN CONNECTORS FOR RF / MICROWAVE APPLICATIONS



Series 23 SuperNine RF multi-port connectors advanced-performance MIL-DTL-38999 Series III type connectors with superior shielding, sealing, and high-vibration performance. Unibody ground plane and insert arrangements per MIL-STD-1560.



Series 806 RF Mil-Aero multi-port connectors micro-miniature connectors with advanced electrical, mechanical, and environmental performance. Unibody ground plane and RF contact insert arrangements.



Series 795 RF high-density, multi-port connectors dual-lobe scoop-proof high-density rectangular series. One-piece connector shell provides a common unibody ground plane that eliminates radiation through the connector.



Series GMMD modular Micro-D Coax connectors supplied in SMT PCB receptacles and prewired plug assemblies. Supports up to 16 lines of 50-Ohm coax as well as 75-Ohm and mixed arrangements.

FLIGHT-GRADE

RF / Microwave Assemblies with Glenair Signature Connectors, Contacts, and Cables



for mission-critical RF applications

50 AND 75 OHM COAX CONTACTS FOR USE IN MULTIPIN AEROSPACE-GRADE CONNECTORS



Size #16 coaxial contacts



Size #12 coaxial contacts

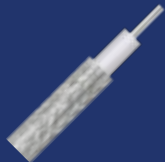


Size #8 coaxial and concentric twinax contacts



26.5 GHz G-Link RF contacts with integral female SMA adapter for easy cable attachment

BLUMARK RF COAX CABLES 50 OHM LOW-LOSS COAX CABLES



Size 047
26.5 GHz
hand-formable
tin-soaked braid



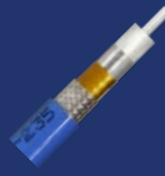
Size 086
40 GHz
FEP or
ETFE jacket



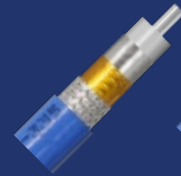
Size 160
18 and 40 GHz,
with FEP or
ETFE jacket,
Low Phase Change



Size 200
26.5 GHz
FEP or
ETFE jacket
triple shield



Size 235
18 GHz,
FEP or
ETFE jacket
triple shield



Size 300
18 GHz,
FEP jacket
triple shield



Size 450
10 GHz,
FEP jacket
triple shield

50 OHM COAX JUMPER ASSEMBLIES WITH LOW-LOSS CABLE AND PRECISION-GRADE CONNECTORS



SMA
086 cable,
tinned-copper braid
DC-26.5 GHz



SMA
141 cable,
tinned-copper braid
DC-26.5 GHz



N-SMA
141 cable,
tinned-copper braid
DC-18 GHz



N-N
141 cable,
tinned-copper braid
DC-18 GHz

RF CONNECTOR ADAPTERS AND PROTECTIVE COVERS, PRECISION-GRADE



TNC-SMA
adapters



N-SMA
adapters



SMA-SMA
adapters



SMP-SMA
adapters



2.92-SMA
adapters



Protective covers
for RF connectors

HERMETIC SEALING
LIGHTWEIGHT
ALUMINUM SHELL
AND COPPER
CONTACTS



Best-of-Class Hermetic-
Seal Connector Designs:
Glass-Sealed and
Lightweight Encapsulant



Resolve gas, moisture, and particle ingress problems with conventional glass-sealed hermetic or advanced CODE RED lightweight encapsulant-sealed designs.



Glenair offers conventional back-potted receptacle connectors, lightweight hermetic encapsulant connectors, as well as glass-to-metal seal hermetic solutions to cover the full range of application sealing requirements.

ALL SOLUTIONS DELIVER

- Superior pressure resistance to 32,000+ PSI
- Higher resistance to extreme operating temperatures to 260°+ C
- Superior mechanical strength
- No material breakdown or aging over time
- Helium leak rate $<1 \times 10^{-7}$ cc/sec to 1×10^{-10}

CODE RED

LIGHTWEIGHT ENCAPSULANT HERMETIC SEALING

Lightweight hermetic encapsulant sealing solution with 1×10^{-7} leak rate performance. Available today in Mighty Mouse 806 Mil-Aero, M24308/9 D-Sub and D38999/23.



Aluminum shell CODE RED hermetic connectors and copper contacts reduce weight and improve electrical performance compared to heavier-duty glass-to-metal seal hermetic solutions.

ADVANCED PERFORMANCE Glass-Sealed and Encapsulant Hermetic Connectors

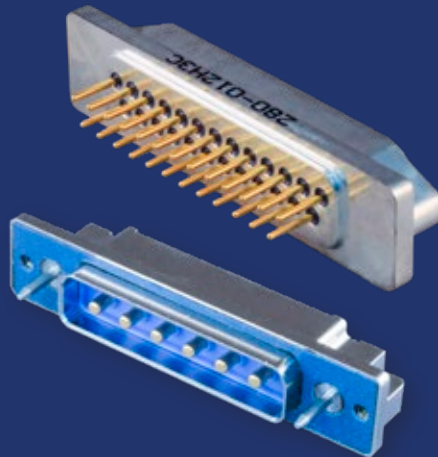


Thousands of same-day-availability part numbers

UNIQUE HERMETIC OFFERINGS AND CATALOG (COTS) SOLUTIONS



Coax, Triax, Quadrax and hybrid-contact layouts



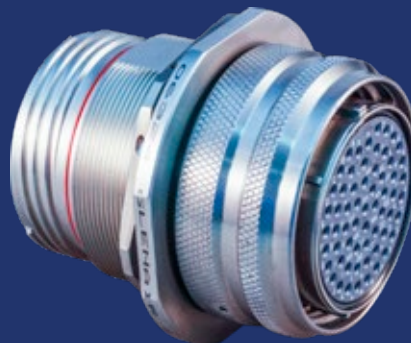
Rectangular hermetics including Series 28 HiPer-D and Series 79



E1 Ochito high-speed octaxial contacts in a lightweight CODE-RED sealed bulkhead feed-thru



Triax hermetic



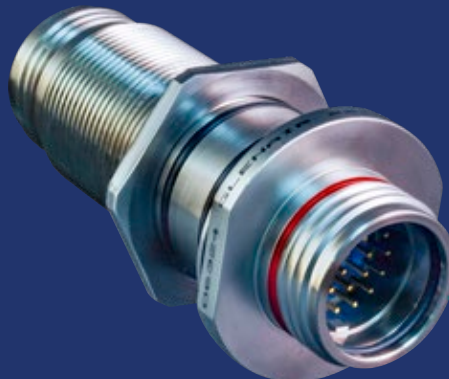
Hermetic Sav-Con feed-thrus and gender changers



Dual-flange PC tail hermetic



Hermetic with crimp-removable contacts



Hermetic bulkhead penetrators



Hermetic receptacles with integrated band porch

EMI/EMP
FILTER
RECEPTACLES
AEROSPACE-
GRADE



EMI/RFI Filter Connectors
and EMP Suppression:
Planar Array Power, Signal,
and TVS Solutions



All diode-equipped
EMP inserts and planar
array EMI filter inserts
produced in-house

Planar filter array and TVS diode connectors diodes in standard catalog as well as build-to-order configurations

- Planar, multilayer ceramic capacitive filters, with and without transient voltage suppression diodes
- Space-grade plating and outgassing processing
- C and Pi electrical configurations
- PC tail, crimp or solder cup termination
- 35 – 240,000 pF capacitance
- Fast and reliable diode burn-in and test services
- Turnkey in-house manufacturing of all filter connector elements and processes

Table I: Capacitor Array Code / Capacitance Range

Class	Pi - Circuit (pF)	C - Circuit (pF)
X	160,000 - 240,000	80,000 - 120,000
Y	80,000 - 120,000	40,000 - 60,000
Z	60,000 - 90,000	30,000 - 45,000
A	38,000 - 56,000	19,000 - 28,000
B	32,000 - 45,000	16,000 - 22,500
C	18,000 - 33,000	9,000 - 16,500
D	8,000 - 12,000	4,000 - 6,000
E	3,300 - 5,000	1,650 - 2,500
F	800 - 1,300	400 - 650
G	400 - 600	200 - 300
J	70-120	35-60



Planar filter arrays and TVS diodes may also be incorporated into rectangular connector packaging such as the Micro-D and Series 79 Micro-Crimp devices shown here.

AEROSPACE-GRADE EMI/EMP Filter connectors



Innovative designs · total vertical integration



Extended-shell
PC-tail cylindrical filter
with threaded standoff



Special-purpose
filter connector cable
adapter (Sav-Con®)



Custom reduced-length
sidecar filter connector design



Series 80 Mighty Mouse
PC-tail filter receptacle



Series 80 Mighty Mouse
solder-cup filter receptacle
with integrated banding porch



MIL-DTL-38999 type
crimp-contact termination
filter receptacle



MIL-DTL-38999 Series
III type EMP TVS diode-
equipped filter connector



MIL-DTL-83723 type filter
connector, gold-plated for atomic
oxygen corrosion resistance



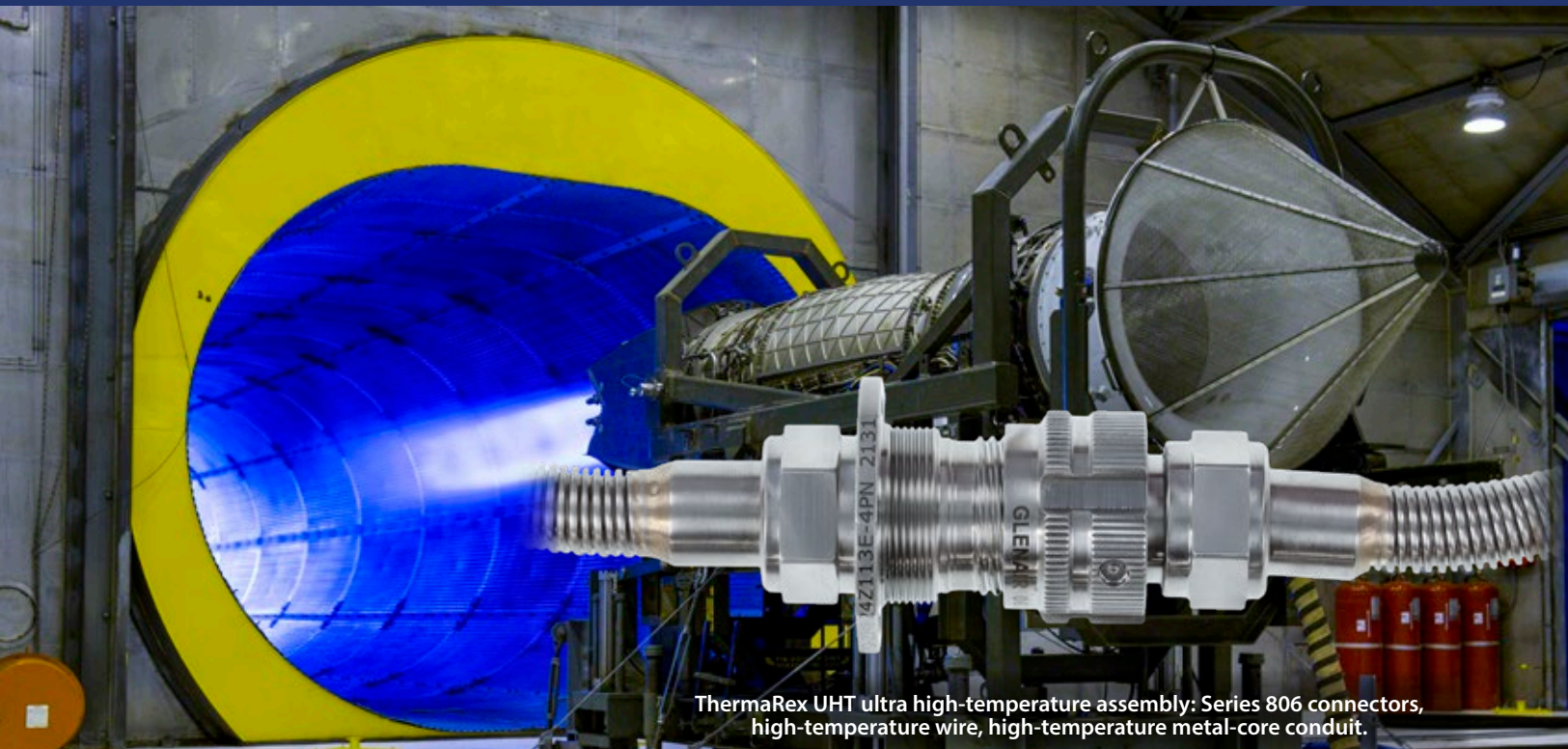
Quick-disconnect circular with
solder-free contact filter array

EXTREME -
TEMPERATURE
INTERCONNECT
ECOSYSTEMS

ThermaRex™

CRYO • HIGH TEMP • ULTRA HIGH-TEMP

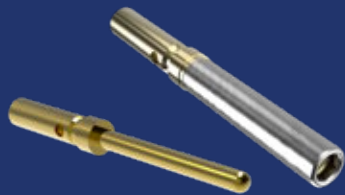
Cryogenic and high-temperature tolerant connectors, cables, and conduit systems



ThermaRex UHT ultra high-temperature assembly: Series 806 connectors, high-temperature wire, high-temperature metal-core conduit.

Sensor devices in aerospace engine applications are increasingly exposed to higher temperature operating environments. Rugged sensors in FADEC equipment—an extreme high temperature environment—are also exposed to temperature extremes well beyond the capabilities of conventional interconnect devices. Glenair ThermaRex interconnect solutions are designed to survive and excel in high continuous operating temperature application environments up to 600°C.

HIGH-TEMPERATURE TOLERANT CROWN RING CONTACTS: ThermaRex™ HT SERIES



Glenair Signature Crown Ring contact series

provides reduced contact resistance, superior conductivity, and higher temperature-tolerance than conventional AS39029 contacts.

- Superior conductivity performance compared to beryllium copper contacts, across full temperature range
- Up to 60% lower contact resistance than AS39029 contacts (normalized, less wire)
- Contact bodies made from high-temperature and stress-relaxation-resisting non-Beryllium Copper material
- Stainless steel Crown Ring
 - Provides socket forces without stress relaxation at High-Temperatures
 - Moves socket spring function from socket body to ring, allowing use of high-conductivity copper
- Gold over nickel plating
 - Thicker plating than industry standards for reduced contact fretting and higher temperature endurance
 - Gold over nickel is “gold standard” for high-reliability aerospace contacts
- Crimp versions use standard industry tooling, including crimp die/locator and insertion/extraction tools (2AWG Crown Ring contacts require custom tooling)

HIGH-TEMPERATURE TOLERANT ThermaRex Interconnect Solutions



High-temperature, Ultra high-temperature, and cryogenic

The ThermaRex product family includes connectors, cables, and wire protection conduit systems organized into three temperature ranges: ThermaRex HT (high-temperature), ThermaRex UHT (ultra high-temperature), and ThermaRex Cryo.

300°C ThermaRex HT Connector



- Service rating up to 300°C
- Vibration-resistant threaded coupling
- High-temperature ceramic insulators and silicone seals
- Durable stainless steel construction
- Available in Series 806, SuperNine®, or Series 79 rectangular
- Utilizes Glenair Crown Ring contacts

600°C ThermaRex UHT Connector



- 300°C to 600°C service range
- Vibration-resistant threaded coupling
- Specialized contacts, laser welds, and metal seals
- Utilizes ultra-high temperature flexible ceramic-insulated cable
- Ideal for nuclear and other extreme temperature applications

-195°C ThermaRex CRYO Environmental and Hermetic Connectors



Environmental



Hermetic

- Environmental-class service rating down to -195°C
- Vibe and shock at D38999 level, immersed in LN2
- Cryogenic temperature-resistant Duralectric K grommet and interfacial seals
- Cold temperature-resistant thermoplastic dielectric insulator
- Hermetic-class service rating -195°C to +200°C
- Series 806 micro-miniature high-density packaging
- Corrosion-resistant stainless steel shell construction
- Glass-to-metal hermetic seal leak rate $<1 \times 10^{-7}$ cc He / sec @ 1 ATM

Complementary ThermaRex Ecosystem Technologies



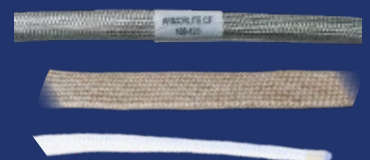
High- and low-temperature hookup wire and shielded twisted pair



High-temperature polymer-core wire protection conduit



Flexible stainless steel metal-core jacketed conduit



Three classes of HT and UHT flexible braided shielding

SPECIAL PURPOSE
AIRPORT
TERMINAL-TO-
AIRCRAFT DATA
UPLINKS

GateLink Pro™

GateLink Pro™ High-Speed Data Uplink Connector



Environmentally-sealed breakaway design for high- speed data transfer between terminal gate and aircraft

GateLink Pro™ connectors are exactly designed to meet the needs of airport terminal-to-aircraft data uplinks. The IP68 sealed receptacle connector on the aircraft is designed for low profile environmental performance (available ProSeal™ protective cover adds additional environmental protection). Plug connectors are ruggedized for rough handling with pogo pin contacts and retention springs recessed deep into the plug to prevent damage. Designed for fast and reliable high-speed Ethernet data transfer up to 1Gb / second. Turnkey overmolded cable assemblies as well as discrete connectors and environmental shrink boots are available.



- 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 or rugged overmolded plug assemblies for reliable environmental protection

IP68 SEALED GateLink Pro™



High-speed data uplink connector

GATELINK PRO APPLICATIONS AND SOLUTIONS

Wired datalink interconnect access to the aircraft from the airline terminal gate supports various information domains and data types including aircraft traffic control, airline information services, passenger entertainment, weather, and so on. Airline operating center applications (flight plans, schedules, advisories) are quickly and reliably uploaded to the aircraft during turnarounds at the gate. Mechanical and environmental damage to the datalink interface is a common problem solved by GateLink Pro.



Overmolded environmental plugs and hybrid GateLink Pro to RJ45 cable sets



IP68 sealed receptacle with integrated ProSeal™ protective cover and Autoshrink™ environmental sealing / strain relief boot.



Mated GateLink Pro™ plug and receptacle cordsets with shielded twisted pair cabling. Plug side features environmental overmolding, receptacles side utilizes strain relief boot

GATELINK PRO SPECIFICATIONS

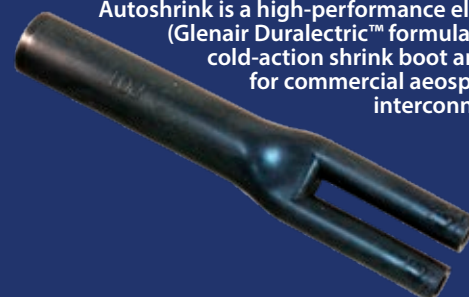


Voltage rating	500 VAC
Current rating	5 amps
Contact resistance	20 milliohms maximum
Plug-to-receptacle ground resistance	<5 milliohm
Maximum wire size	#24 AWG
Insulation resistance	5000 megohms min.
Water immersion	MIL-STD-810 Method 512, one meter for one hour
Durability	2000 mating cycles (receptacle)
Corrosion resistance	1000 hours
Sine vibration	EIA-364-28 condition IV, 20g peak
Random vibration	EIA-364-28 condition V letter H, 29g rms
Shock	EIA-364-27 condition D, 300g peak
EMI shielding effectiveness	40 dB minimum to 10 GHz

GATELINK PRO AVAILABLE ACCESSORIES



Anti-vibration and shock spring-action solution • Self-aligning environmental seals



Autoshrink is a high-performance elastomeric material (Glenair Duralectric™ formula polymer GPS67) cold-action shrink boot and jacket solution for commercial aerospace electrical wire interconnect systems

AEROSPACE - GRADE
POWER
DISTRIBUTION
CONNECTORS AND
CABLES

**POWER
LOAD™**

Advanced power connector
design for higher voltage,
higher altitude, and higher
frequency applications



The aircraft industry's most advanced power distribution interconnect

Electrical power generation technology in aircraft has evolved to meet modern requirements for higher power and lighter weight systems. Growing electrical power needs on commercial aircraft—particularly for backup generator applications—have caused major changes in power system architectures to accommodate peak-load stress factors in electrical wire interconnect (EWIS) cabling.

- **PowerLoad™, the high-vibration, high-temperature interconnect optimized for higher-voltage, higher-altitude, and higher-frequency**
- **TurboFlex®, the Glenair signature high-flexibility power cable solution jacketed with rugged Duraelectric insulation. Available wire cores include rope-lay (standard) for maximum flexibility, and M22759 wire (TurboFlex M) with the flight-heritage of a mil-spec core and slightly larger bend radius.**
- **Crown Ring crimp, bus bar, and lug style contacts, optimized for high current carrying, high temperature performance.**

A GLENAIR SIGNATURE SOLUTION: CONNECTORS, CONTACTS, CABLES, ACCESSORIES, AND ASSEMBLIES

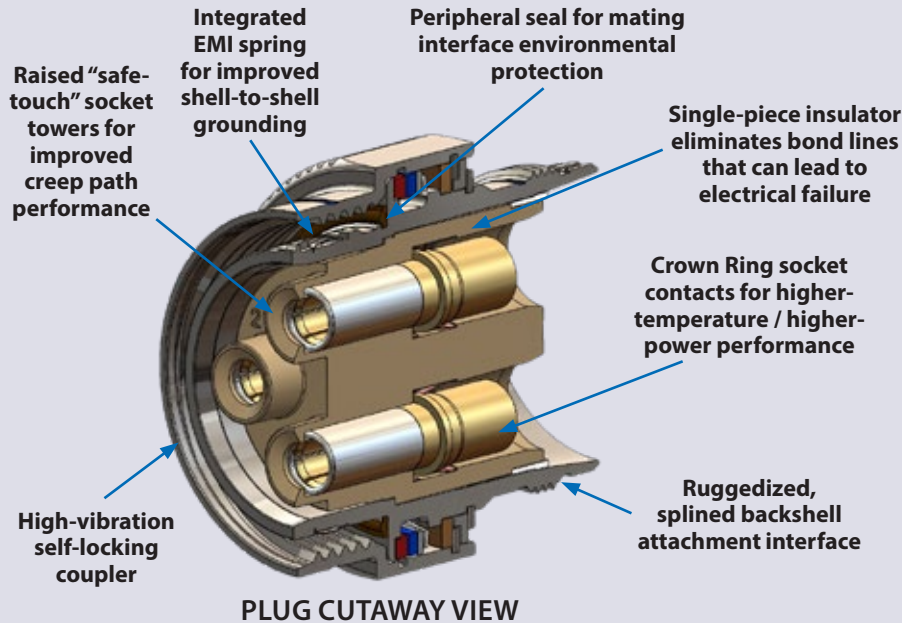
- **For applications up to 2000 VAC / 1500 Hz and higher, and from 150 – 800 Amps.**
- **230°C maximum operating temperature connectors (stainless steel bodies and shells)**
- **TurboFlex® rope lay power cables optimized for PowerLoad™ connectors, from 8 AWG to 4/0**
- **Ultra-flexible configurations with ruggedized Duraelectric or FEP jacketing: single-wall hookup wire or dual-wall jacketed interconnect cabling**
- **High-temperature Crown Ring contact technology**
- **Heavy-duty accessory interface**

HIGH PERFORMANCE PowerLoad™ Series



for backup generators and other
high power demand applications

POWERLOAD™: KEY CONNECTOR AND CONTACT DESIGN FEATURES



GLENAIR SIGNATURE CROWN RING CONTACTS



- Crimp, bus bar, and lug wire termination
- Precision-machined high conductivity copper alloy
- Up to 60% lower contact resistance than equivalent AS39029 contacts
- Higher operating temperature resistance compared to other specialized high-power contacts
- Gold-plated for enhanced high-vibration durability

TURBOFLEX® ULTRA FLEXIBLE / RUGGED POWER CABLES WITH DURALECTRIC OR FEP JACKETING

TurboFlex, Glenair high-flexibility power cabling has been optimized for use with PowerLoad connectors, and is supplied with either industry-standard FEP or Glenair signature Duralectric jacketing material, which is optimized for fluid immersion, caustic chemical exposure, temperature extremes, and UV radiation. Both materials are available in a broad range of colors including safety orange.



Available with cable gauge selections from 8 AWG to 4/0, to provide suitable margins for DWV, frequency derating, and peak-load performance.

Abrasion Resistance	Good
Wear Resistance	Good
Flame Resistance	Excellent
Sunlight Resistance	Excellent
Flex Resistance	Excellent

TURBOFLEX® WITH DURALECTRIC™ JACKETING: ENVIRONMENTAL PERFORMANCE

Temperature rating: -60°C to 200°C
 Halogen free per IEC 60614-1
 Accelerated weathering and simulated solar radiation at ground level per IEC 60068-2-5; 56 Days exposure, suitable for greater than 50 years of service in direct sunlight
 Flame resistant per IEC 60614-1
 Flame resistant per UL 1685, section 12 (FT4/IEEE120), vertical-tray fire-propagation and smoke release test
 Flame resistant per FAR 25.853 (A) amendment 25-116, appendix F part I (A) (1) (i), 60 second vertical burn test
 Limiting oxygen index of 45 per ISO 4589-2:1999
 Low smoke per NES 711, smoke density of 11.75
 Smoke density class F1 per NF F 16-101 IAW DIN EN 60695-2-11:2011

Low smoke toxicity per NES 713, tested value of 1.9
 Fungus rating of 0 per MIL-STD-810g method 508.5, Does not support fungal growth
 ASTM D624, die B tear strength, 150 pounds per inch minimum on jacket material
 Low outgassing per ASTM e595 after post curing, TML .06%, CVCM .006%, WVR .02%
 Resistant to fluids per MIL-STD-810F, method 504
 JP-8 per MIL-DTL-83133 (NATO type 34)
 MIL-H-5606 hydraulic fluid
 MIL-PRF-23699 lubricating oil
 MIL-C-85570 cleaner
 TT-I-735 Isopropyl alcohol
 AMS 1432 potassium acetate deicing/anti-icing fluid
 MIL-C-87252 coolant
 Amerex AFF fire extinguishing foam

THE POWER
CONNECTOR FOR
DEMANDING
APPLICATIONS



**POWER
TRIP™**

Series 970 PowerTrip high-density reduced size and weight power connectors for demanding harsh-environment applications



TURNKEY
turboflex
Flexible Cable Assemblies



Lightweight plug with ratcheting coupling nut and low-resistance LouverBand contacts



Keyed receptacle with superior sealing and EMI shielding



Splined backshell interface for improved backshell attachment, strain relief, and EMI shielding.

The Series 970 PowerTrip™ offers improved performance compared to industrial-grade power connectors including higher density, superior resistance to vibration and shock, lower resistance, and more. Designed explicitly for aerospace-grade power interconnect applications, PowerTrip is fully compatible with Glenair TurboFlex power cables.

- Fast, easy mating with triple-start ACME thread: 360° turn for full mating
- Reduced size and weight compared to conventional industrial and/or aerospace solutions
- LouverBand sockets for improved current ratings; up to 2000 mating cycles
- Ratcheting coupling nut for secure mating and high vibration resistance
- Operating temperature -65° C to +200° C
- Hermetic and EMI filter options available

High-density, high-performance power connectors

SERIES 970 POWERTRIP™ CONNECTOR STYLES



Plug
970-001



Square Flange
Receptacles
970-003



Jam Nut Receptacles
970-004



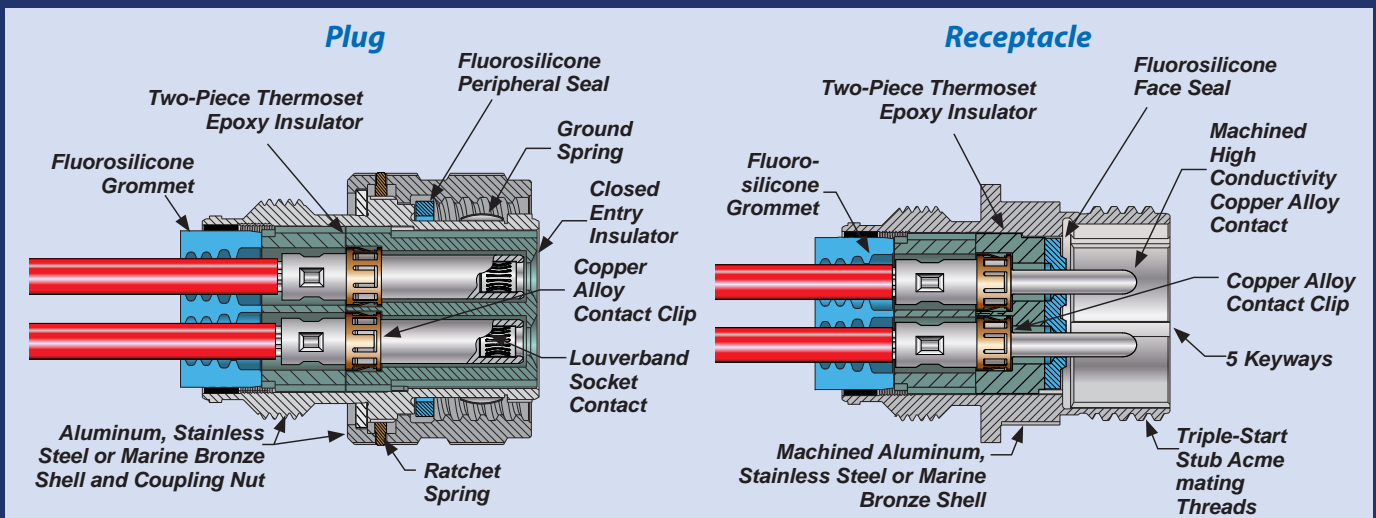
Cable Receptacles
970-005



Feed-Thru Bulkhead
970-006

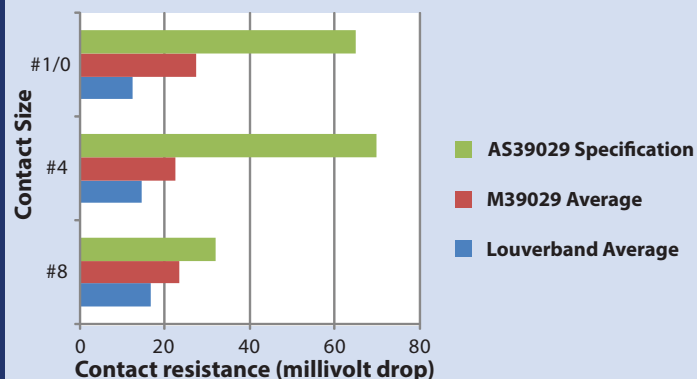


Hermetic Feed-Thru
Bulkhead
970-007



Series 970 PowerTrip™ Specifications	
Current Rating	Up to 225 A.
Dielectric Withstanding Voltage	2000 VAC
Insulation Resistance	5000 megohms minimum
Operating Temperature	-65° C. to +200° C.
Shock	300 g.
Vibration	37 g.
Shielding Effectiveness	65 dB minimum from 1GHz to 10GHz.
Durability	2000 mating cycles

CONTACT RESISTANCE AFTER 1000 MATING CYCLES



ABOUT THE POWERTRIP™ CONTACT SYSTEM

Series 970 contacts are precision-machined using high conductivity copper alloy. A stamped and formed spring ("LouverBand") is installed into the socket contact. The spring is made from 6 mil copper alloy. Testing has demonstrated that this contact system outperforms conventional industrial and aerospace-grade contact systems. The LouverBand spring provides many points of electrical contact with the mating pin, as opposed to a few "high spots" on a conventional four-finger contact as shown in the figure below. The size #8 PowerTrip socket contact has a total of 18 louvers. The #4 has 27 louvers, and the #1/0 has 42 louvers. The LouverBand design offers lower voltage drop for reduced joule heating. In addition to its electrical advantages, the LouverBand also is mechanically superior to conventional four-finger contacts. The LouverBand spring has consistent, stable normal force, even when subjected to thousands of mating cycles and temperature extremes.



Conventional contact on the left, LouverBand contact on the right

LouverBand socket contact cutaway

ELECTRICAL POWER
PROPULSION SYSTEM
CONNECTORS,
CABLES, AND
ACCESSORIES

PowerPlay™

A complete ecosystem of lightweight vibration- and shock-resistant connectors, contacts, and cables



PowerPlay is a high-power, single-pole and multi-pole connector series—with four different circular and rectangular packaging options: SuperNine Series III triple-start, SuperNine Series I bayonet, Series 806 micro-miniature, and Micro-Crimp precision rectangular. The connector series combines Glenair signature raised tower insert architecture, Crown Ring contacts, and TurboFlex cable compatibility into the interconnect industry's most innovative power solution. PowerPlay's high-conductivity Crown Ring contact and dielectric insert technology delivers 5,000 VAC dielectric withstanding voltage. Raised safe-touch socket tower and available safe-touch pin meets industry protection requirements for high power distribution applications.

- 5000 VAC dielectric withstanding voltage
- High current, low-resistance, and superior vibration performance
- Safe-touch finger-proofing
- Integrated band platform cable shield termination
- Compatible with TurboFlex high-flexibility cable
- Support for bus-bar and other wire terminations
- Multi-pin arrangements for size 8 and 4 AWG contacts. Single-pole arrangements for 2, 1/0, 2/0, and 4/0 contacts. Options for 20 AWG interlock contacts on all sizes

SERIES 973

PowerPlay™ High-Power Connectors and Cables



Rugged, life-of-system durability

POWERPLAY SIGNATURE HIGH-POWER CONNECTOR SELECTION GUIDE



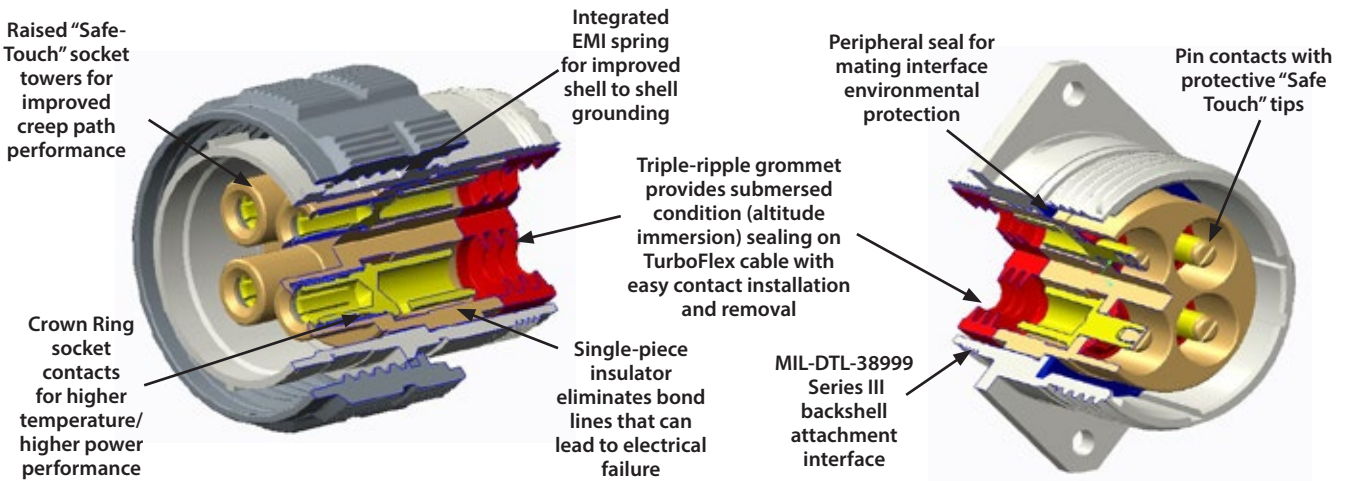
SuperNine Series III PowerPlay Triple-Start

SuperNine Series I PowerPlay Bayonet

Series 806 Mil-Aero PowerPlay High Density

Micro-Crimp PowerPlay Rectangular

PowerPlay™: KEY CONNECTOR AND CONTACT DESIGN FEATURES, PLUG AND RECEPTACLE CUTAWAY VIEWS



GLENAIR SIGNATURE CROWN RING CONTACTS



- High vibration-resistant, high-conductivity gold-plated copper alloy. Socket contact adds stainless steel Crown Ring; pin contact adds thermoplastic finger-safe tip
- Up to 60% lower contact resistance than equivalent AS39029 contacts
- High operating temperature resistance compared to other specialized high-power contacts

TURBOFLEX® ULTRA FLEXIBLE / RUGGED POWER CABLES WITH DURALECTRIC JACKETING

TurboFlex high-flexibility power cabling is optimized for use with PowerPlay connectors and is supplied with Glenair signature Duralectric jacketing material for rugged fluid immersion, caustic chemical exposure, temperature extremes, and UV radiation. Duralectric is available in a broad range of colors including safety orange. Two cable core constructions are supplied: TurboFlex M with AS22759-type conductors, and TurboFlex R with ultra-flexible rope-lay conductors.



Available with cable gauge selections from 8 AWG to 4/0, to provide suitable margins for DWV, frequency derating, and peak-load electrical performance.

DURALECTRIC JACKETING

Abrasion Resistance	Good
Wear Resistance	Good
Flame Resistance	Excellent
Sunlight Resistance	Excellent
Flex Resistance	Excellent

CRIMP CONTACT
TOOLS ONLY
HEAT-GUN-FREE
PROCESS



Crimp wire termination
solution saves time and
labor over manual
D0150 splicing



Glenair SpliceSaver™ reduces manual wire splice and terminal block operations

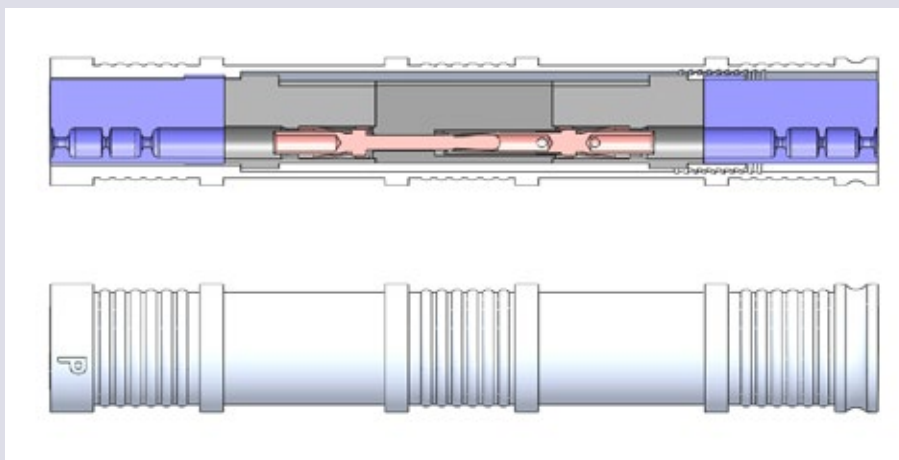
SpliceSaver™ is an innovative interconnect technology developed by Glenair for use in aircraft wiring operations that rely on heat shrink splicing of aircraft signal, sensor, and data transmission wiring. Single-piece SpliceSaver designs allow remote harness assembly facilities to pre-terminate each line with a crimp-and-poke contact. During aircraft wire harness installation, cabling is routed to interconnection points and the contact-equipped wires are quickly and easily installed into the lightweight single-piece SpliceSaver connector. A special bussed version is also available. All SpliceSaver styles feature integrated banding platforms for the termination of EMI shielding utilizing qualified banding technology—one-piece design features three platforms for termination at both ends and in the center. Compared to legacy terminal blocks and wire splice technology, SpliceSaver offers faster, cleaner, and more reliable routing and termination of discrete wiring.

- **Lightweight construction**
- **Two configurations: single-piece or threaded**
- **Crimp contact technology: rear release / rear removal**
- **Three to nineteen circuits per unit**
- **Environmentally sealed**
- **Full-mate indicator**
- **Replaces labor-intensive terminal blocks and splices**

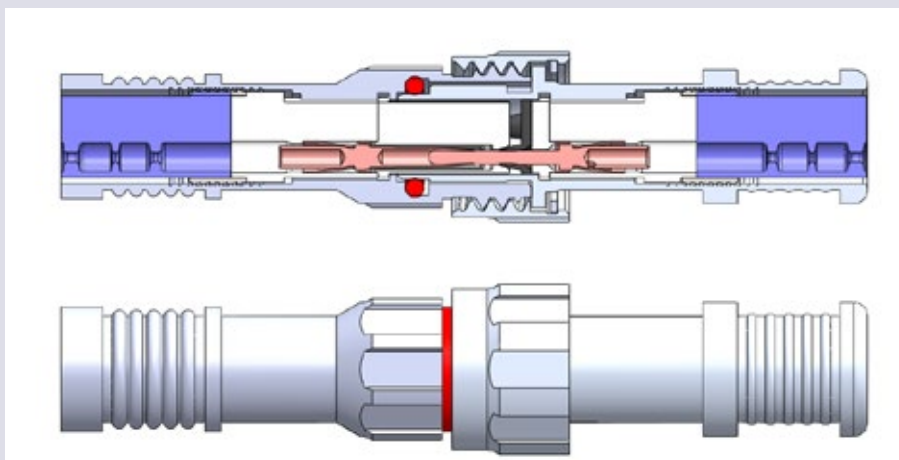
TIME SAVING · LABOR SAVING · WEIGHT SAVING
SpliceSaver™ Fast and reliable replacement
 for wire splice and terminal block technologies



SPLICESAVER AVAILABLE CONFIGURATIONS—FEATURES AND SPECIFICATIONS



Single-Piece



Threaded



Finished assembly



- Keys and keyways
- Metallic coupling nut
- Altitude Immersion to 75,000 feet
- Banding area for shield termination on all versions.
- The size 6 splice offers insert arrangements of 3x20, 4x22 or 7x22

SpliceSaver™ Specifications

Altitude immersion:
75,000 ft.

DWV rating at altitude:
>800 V

Dielectric Withstanding Voltage Ratings:
22AWG = 5 amps/contact
20AWG = 7.5 amps/contact

Material and finish options
(for compatibility with available EMI/RFI braid materials):
Cadmium-plated aluminum
Nickel-plated aluminum
Nickel-plated brass

SpliceSaver™ Weight Analysis

Receptacle connector:
1.6 grams including contacts and seals

Plug connector:
1.66 grams including contacts and seals

Total connector mass:
5.66 grams (all contact locations installed)

Accessories: Add the variable mass of two or three nano bands trimmed to length of grooves in the split sleeve

POWER FEEDER LINE
TECHNOLOGY
FOR COMMERCIAL
AIRCRAFT

PWRLINE HV™

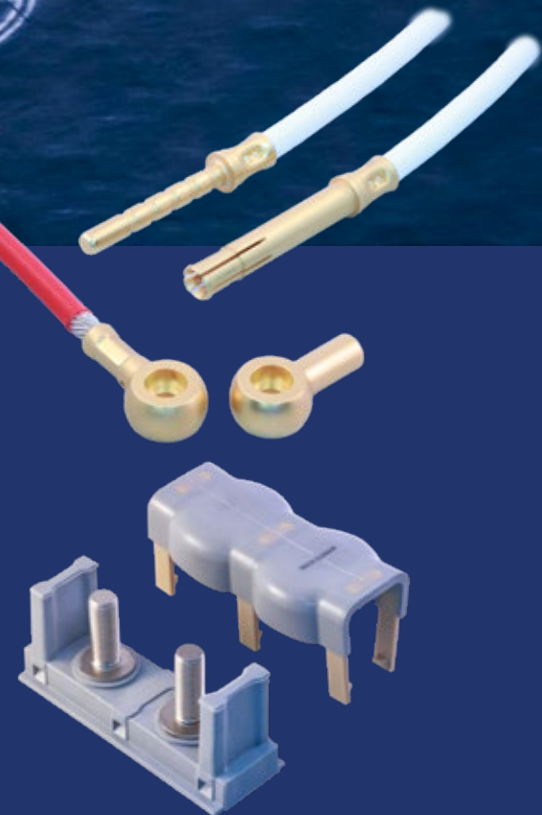
High-current power feeder system and
current return network for metal and
composite fuselage aircraft applications



Unique power feeder system eliminates power line routing and termination issues

For aircraft electrical applications that require discrete routing of 3-phase and DC power lines, Glenair has developed the PwrLine HV. PwrLine HV replaces conventional terminal strips and terminal lugs with a solution that eliminates the issues associated with routing large gauge cables. The PwrLine HV uses a crimp contact system that can accommodate tolerancing variations that routinely occur with large cables. Routing power feeders through the 3-D spatial environment routinely creates installation and terminal lug orientation issues. PwrLine eliminates these problems with its unique rotatable pin / socket architecture and unique in-line insulation packaging.

PwrLine HV is a complete power feeder and current return network system that includes contacts, cables, holding fixtures, mountable connector packages, as well as high-voltage terminal blocks and lugs for reduction of partial discharge and corona. Lightweight, high-durability Duraelectric terminal blocks, hoods, and cable jackets deliver outstanding environmental and insulation performance.



PwrLine HV: a complete power feeder ecosystem with matched, compatible components

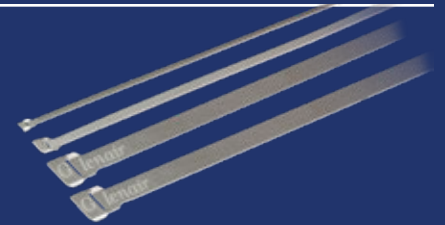
HIGH-CURRENT / HIGH-VOLTAGE PwrLine HV Power Feeder System



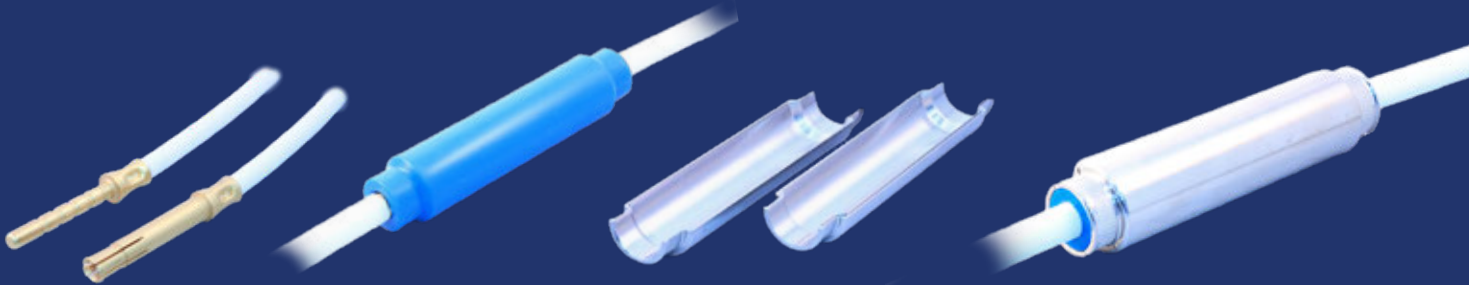
for aircraft electrical power distribution systems

PWRLINE HV POWER FEEDER SYSTEM COMPONENTS

- Resolves cable lug misalignment issues
- Eliminates twisted cable (rotational) problems during assembly
- Integrated / compatible power line feeder system used in combination with PowerLoad and other power distribution system connectors



PwrLine HV power feeder system uses Band-Master ATS® termination bands

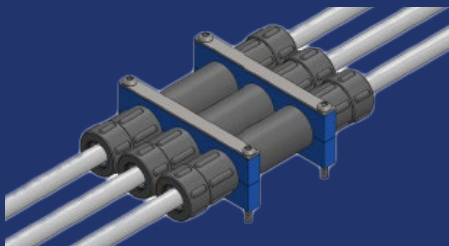


High-current power feeder contact and cable system

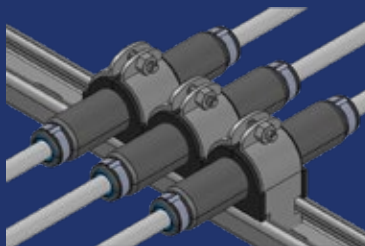
Mated contact pair inside self-vulcanizing Duraelectric insulator

Lightweight outer composite split shell with shield banding platforms

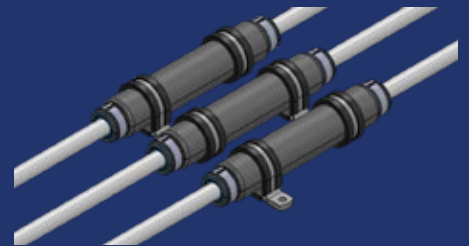
Assembled and ready for shield band termination with Band-Master ATS® bands



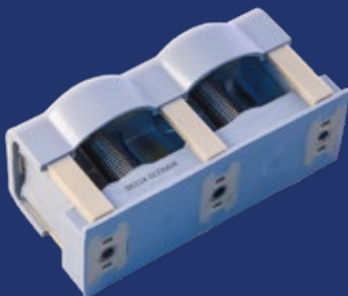
Schematic illustration with line block mounting hardware...



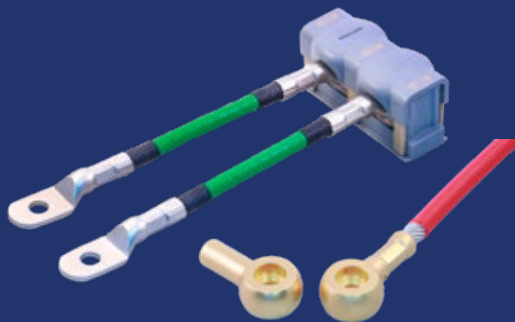
...strut clamp mounting hardware...



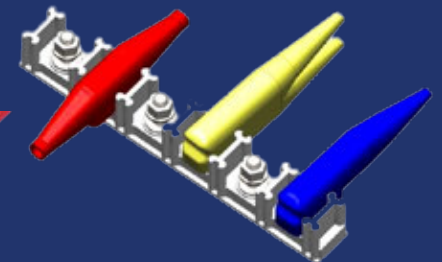
... and P-clamp mounting hardware



Multiple designs of high-voltage terminal blocks with accommodation for PwrLine HV lugs and/or standard lugs



Conventional and PwrLine HV terminal lugs



Color-coded terminal lug hoods made from high-performance Duraelectric material

POWER FEEDER LINE
TECHNOLOGY
FOR COMMERCIAL
AIRCRAFT

PWRLINE HV™

Current Return Network for protection
against electromagnetic interference
propagated in aircraft power lines



The PwrLine™ Current Return Network revises traditional approaches to grounding systems on commercial aircraft.

The Glenair Current Return Network grounding solution uses a contact system and Band-Master ATS® grounding technology to simplify routing and termination processes and guarantee a stable electrical interface. Power contacts feature a rotatable pin / socket construction to eliminate twisted cable during assembly. The Duraelectric™ overmolded T fixture and Autoshrink™ boots, easily installed over the fixture's integral boot platforms, provide a durable environmental seal. The design is scalable for lightning strikes and fault currents.

The Current Return Network system employs "plug and play" connections and calibrated banding, eliminating the need for washers and torque wrenches, and waiving inspection requirements. The network's optimized TurboFlex™ wire and 16 mil insulated copper conductor provide both outstanding environmental protection and extreme flexibility.

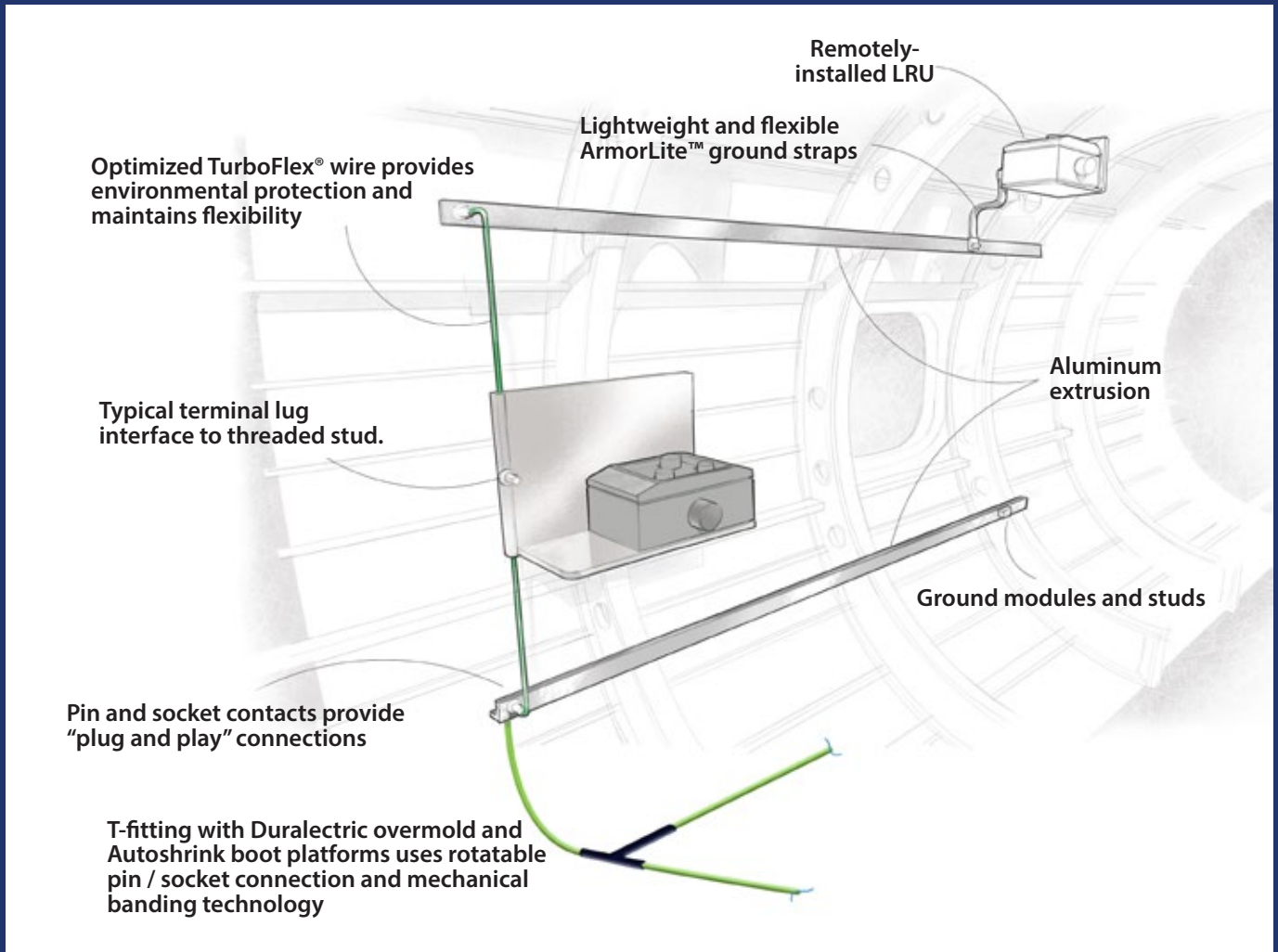
- Replaces the traditional terminal lug / terminal strip solution
- Resolves cable lug misalignment issues
- Eliminates twisted cable (rotational) problems during assembly
- Integrated / compatible power line feeder system used in combination with PwrLine HV power distribution system
- Tested to 15kA waveform 5B

HIGH-CURRENT / HIGH-VOLTAGE PwrLine HV™ Ground (Current) Return Network

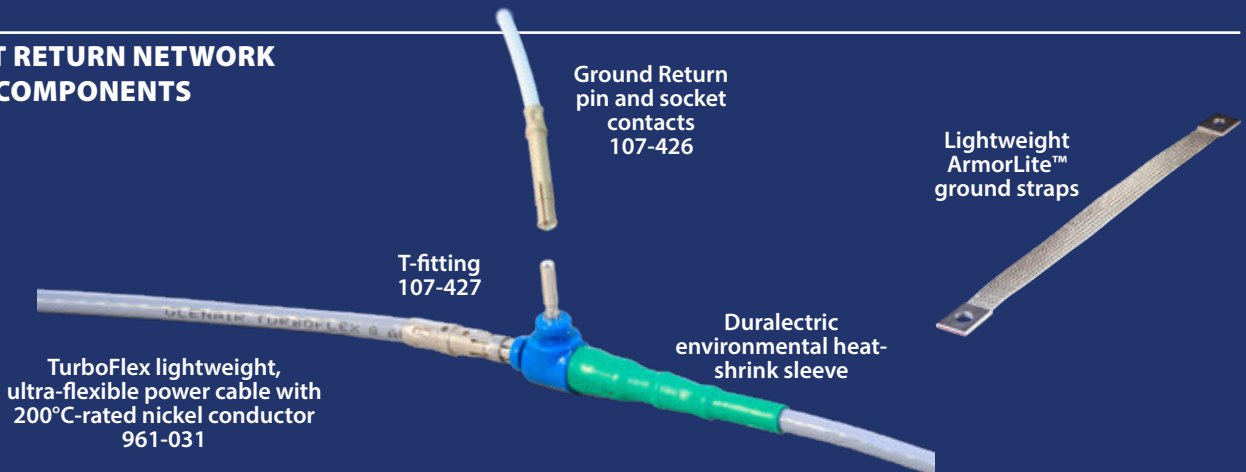


for aircraft electrical power distribution systems

CURRENT RETURN NETWORK SYSTEM ILLUSTRATION



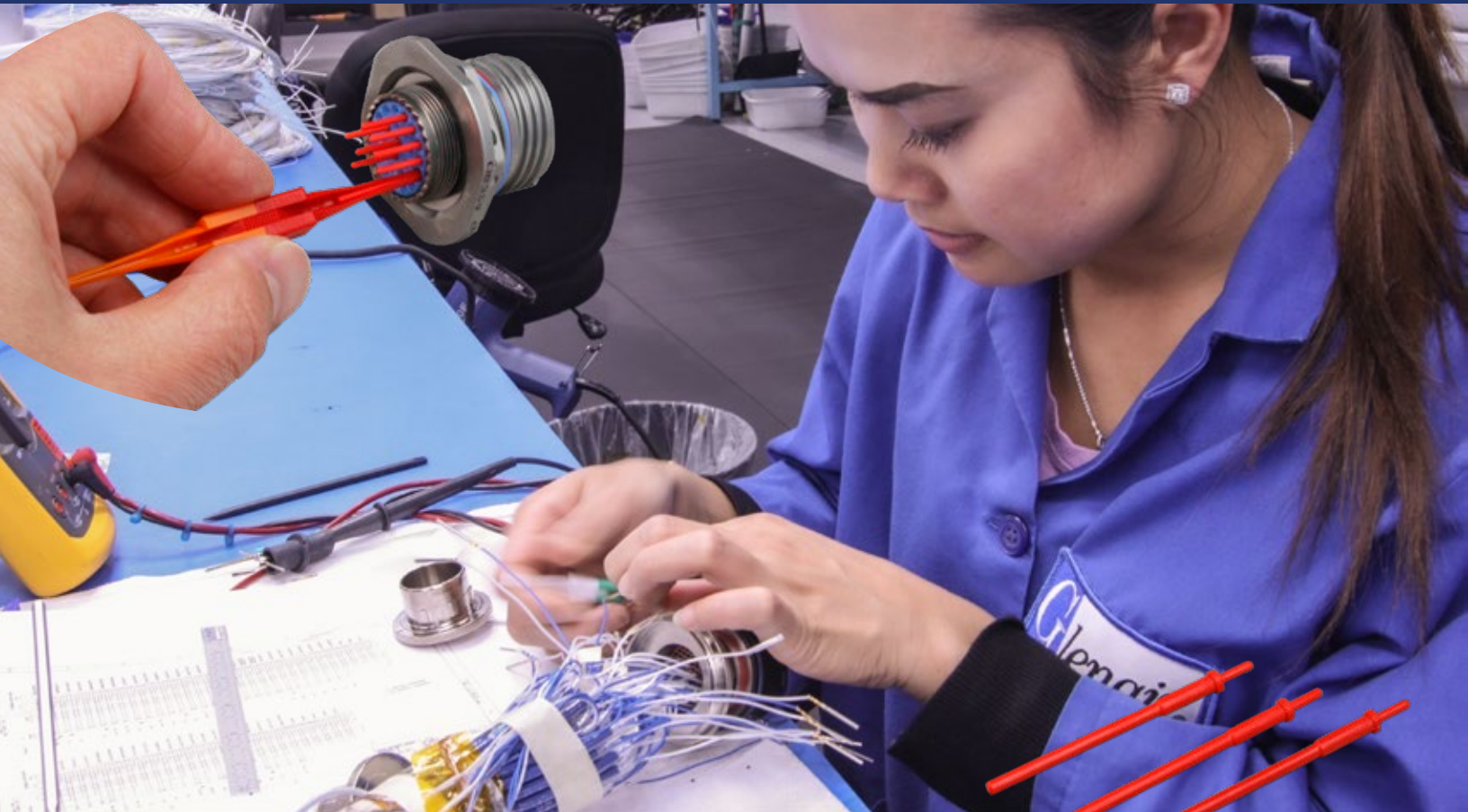
CURRENT RETURN NETWORK SYSTEM COMPONENTS



REDUCE WEIGHT
AND COST WITH
DUPER-DCSP
DUMMY CONTACT
SEALING PLUGS



Innovative One-Piece
Weight, Cost, and Labor-
Saving Dummy Contact
Sealing Plugs



Glenair long-length Duper-DCSP sealing plugs reduce the cost and complexity of sealing unused contact cavities

The use of color-coded M27488 type plastic sealing plugs in unused contact cavities is a requirement in all environmental interconnect applications (IAW NA01-1A-505-1, WP 007 00 or 020 00). Conventional sealing plugs, combined with the connector grommet seal, provide reliable dust and moisture ingress protection. But common contact sealing plugs still require that a properly-sized electrical contact be first inserted into the cavity, followed by the plastic plug. Glenair innovative Dummy Contact Sealing Plugs (Duper-DCSP) eliminate the need to use expensive electrical contacts as part of the sealing regimen. Fast and easy-to-install, these longer form-factor Dummy Contact Sealing Plugs are a one-piece solution to contact cavity sealing that results in significant weight reduction, material cost, and assembly labor. Available in Size #22 to Size #8, for connector series D38999, EN4165, Series 800 Mighty Mouse, EN4644 and Arinc 600, Glenair Duper-DCSP Dummy Contact Sealing Plugs reduce weight as much as 90% compared to conventional contact/sealing plug configurations.

- 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 FOD
- Easy-to-install single piece design
- Visible quality control / confirmation of cavity fill from back of connector
- EWIS compliant test report GT 15-106 available

DUPER-DCSP Dummy Contact Sealing Plugs (DCSP)



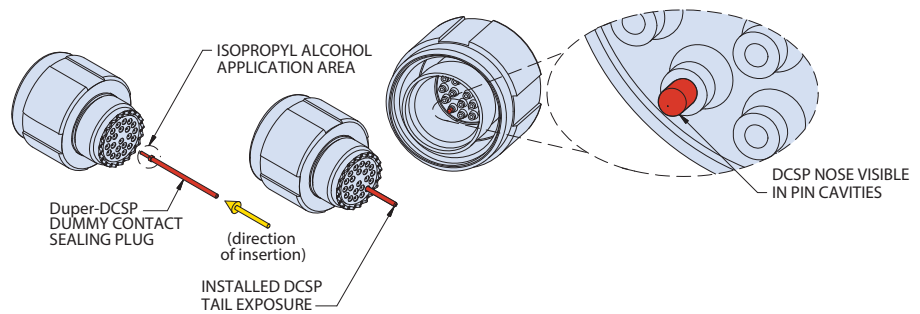
for reliable single-step sealing
of unused contact cavities

CONNECTOR SERIES / SIZE / COLOR CODE / PART NUMBER SELECTION								
Connector Series	Crimp Removable Contact Cavity Size							
	23	22HD	22	20HD	20	16	12	8
HiPer-D / M24308			680-116-22		680-150-20			680-150-8
D38999 / EN4165	680-116-23				680-116-20			680-116-8
Series 800-805 Mighty Mouse				680-120-20HD		680-116-16	680-116-12	
Series 806 Mil-Aero		680-120-22HD						680-120-8
Series 79 Micro-Crimp	680-116-23							
EPX								
ARINC 600			680-117-22		680-117-20			680-117-8

Intended for use in corresponding pin and socket cavities

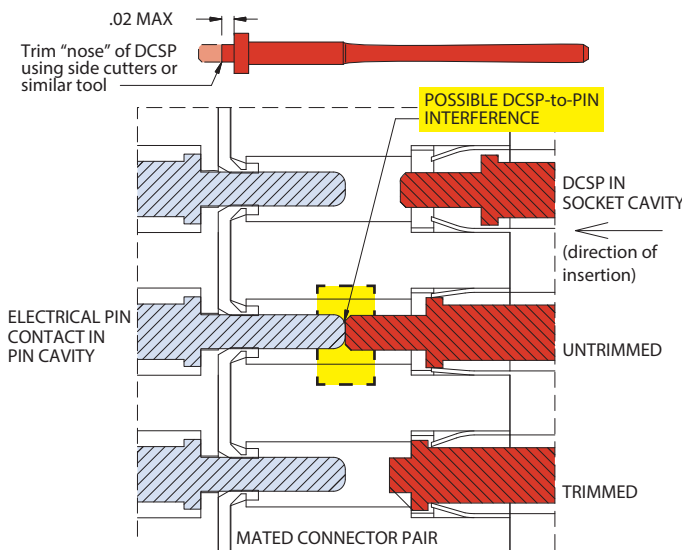
INSTALLATION OF DUPER-DCSP DUMMY CONTACT SEALING PLUGS

1. Use isopropyl alcohol to lubricate Dummy Contact (recommended).
2. Insert Dummy Contact Sealing Plug into unused contact cavities using contact insertion tool, needle nose pliers, or by hand (space permitting).
3. Push Dummy Contact into cavity until flange locks into contact retention clip.
4. Confirm full retention of DCSP in clip by lightly pulling the exposed end.

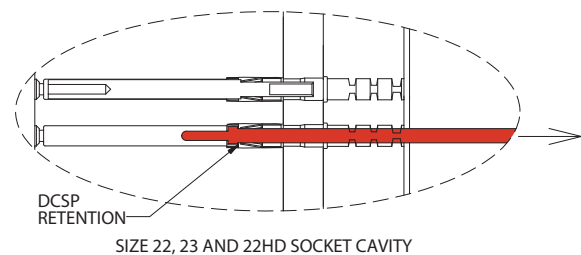


IMPORTANT APPLICATION NOTE REGARDING THE USE OF DCSPs IN SOCKET CAVITY WITH AN ELECTRICAL CONTACT IN THE PIN CAVITY (not applicable to D38999 Series I, III, and IV connectors)

Dummy contacts may be used in vacant pin and socket contact cavities with complete mating compatibility. Likewise, the use of a DCSP in a vacant pin cavity is compatible when an electrical socket contact is installed. However, if a DCSP is used in a socket cavity and an electrical pin contact is installed in the mating cavity, the DCSP nose must be trimmed to allow for adequate clearance. Alternatively, DCSPs may be supplied by the factory in this trimmed configuration with Mod Code 1419.



Size #22, #23, or #22HD DCSP in Socket Cavity
Insert DCSPs of these sizes into the cavity far enough to engage the retention clip, then pull back against the clip to maximize tail exposure.



DCSP Mated to Shielded Contacts
Consult Glenair for DCSPs for use with shielded high-speed contacts as special configuration or procedures may be necessary.



Duper DCSPs are color-coded
IAW contact size

HEAT GUN FREE
MOLDED SHAPES
AND COLD-
SHRINK TUBING

AUTOSHRINK™

Fast and easy cold-action shrink boot and tubing solutions for wire and cable protection



Designed for rugged weathering, UV and ozone-resistant performance, Glenair Autoshrink is the one-piece easy-action shrink boot and tubing solution. Quickly attach shrink boots, splice insulation, or repair Glenair Duraelectric formula jacketing. Straight, 45° and 90° angle lipped shrink boots lock into boot groove on adapters to keep out environmental debris. Universal-design Autoshrink tubing delivers reliable and durable sealing as well as mechanical protection for cable-end terminations in harsh military and industrial applications. Built from Glenair Duraelectric formula material, Autoshrink is fully hydrophobic and resistant to caustic chemicals and solvents. Easy-action spiral hold-out and large cold shrink ratio makes for fast installation and durable, split-resistant performance.

- **Straight, 45° and 90° angle-lipped shrink boots and shrink tubing**
- **Fast and easy installation**
- **Four high-performance material types**
- **Fire-resistance in all material types**
- **Reliable IP68 sealing**
- **3000 VAC rated**
- **Multiple color options**
- **Service temperature range: -65°C to 300°C**
- **Ideal for repair of cables and conduit with Duraelectric jacketing**
- **Extreme UV / sunlight resistance**
- **Integrated ground strap versions available**



Mil-Aero / Industrial fluid-resistant lipped shrink boots

Fast and easy repair of Duraelectric-jacketed cables

Utilize for termination of lugs on new installations

Cold-Action Shrink Boots and Tubing



Four material types for high UV plus LSZH, fluid resistance, temperature tolerance, and submersible use

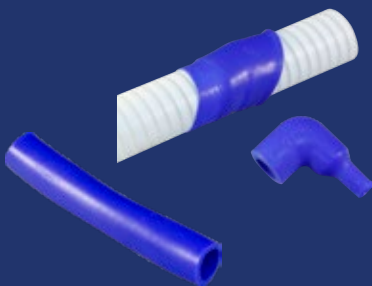
AUTOSHRINK D UV-RESISTANT / LSZH SHRINK BOOTS AND TUBING



Autoshrink D is a high-performance elastomeric material (Glenair Duraelectric™ formula polymer GPS67) cold-action shrink boot and jacket solution for general-purpose use in military and commercial aerospace electrical wire interconnect systems and other harsh wire protection, sealing, and repair applications.

- Service temperature range: -65°C to 225°C
- Fire resistant and Low smoke-zero halogen (LSZH)
- General-purpose resistance to common aerospace, military and industrial fluids
- Tubing available with integrated ArmorLite ground strap

AUTOSHRINK F ADVANCED FLUID RESISTANT SHRINK BOOTS AND TUBING



Autoshrink F is a high-performance elastomeric material (Glenair Duraelectric™ formula polymer GPS125) cold-action shrink boot and jacket solution for application-specific use in military and commercial aerospace electrical wire interconnect systems and other harsh wire protection, sealing, and repair applications. Autoshrink F is highly resistant to aircraft industry jet fuels, oils, solvents, and cleaners.

- Service temperature range: -65°C to 200°C
- Fire resistant and suitable for immersion in jet fuel, diesel, lubricants, and solvents

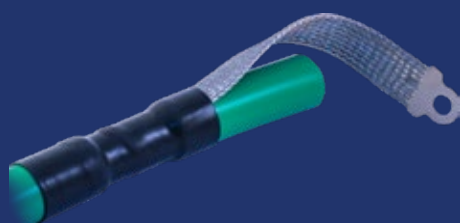
AUTOSHRINK T HIGH-TEMPERATURE-TOLERANT SHRINK BOOTS AND TUBING



Autoshrink T is a high-performance rubber material (Glenair ThermaRex formula GPS139) cold-action shrink boot and jacket solution for use in high-temperature applications in military and commercial aerospace electrical wire interconnect systems and other harsh-environment wire protection, sealing, and repair applications.

- Service temperature range: -65°C to 300°C
- Fire resistant and low smoke-zero halogen (LSZH)
- Resistant to common aerospace, military and industrial fluids

PROCESS-AND-LABOR-SAVING SPECIAL CONFIGURATIONS FOR EWIS APPLICATIONS



Autoshrink with integrated braided ground strap



2-to-1 Autoshrink cold-shrink transition boot



Autoshrink piggyback boot with integrated shield braid sock

SERIES 107
**FLEXIBLE
 BRAIDED STRAPS**
 GROUNDS, BONDS,
 AND BUSBARS

**Flexible braided straps for airframe
 grounding, ESD bonding, and busbar power
 distribution applications**

From ultra low-resistance ESD bonds to large form-factor power distribution busbars—Glenair does it all

Glenair flexible braided straps are critical components in harsh sea, air, and space environments. They are used to establish reliable ground path connections, dissipate lightning strike energy, and prevent the build-up of electrostatic discharge. Special large form-factor straps are also employed in busbar applications for electrical power distribution up to 1000 Amps.

Glenair supplies a complete range of lugged flexible braided bonding, grounding, and power distribution solutions with lightweight ArmorLite microfilament material as well as low-resistance plated copper. In addition to high-availability catalog designs, we are also able to supply custom solutions in virtually any form factor, wire gauge, amperage, resistance, and mounting-lug configuration. Straps may also be supplied with and without insulation jacketing in wire rope (jumper) and flat profiles. Mil-qualified (QPL) straps are available for both topside and submarine applications.



PRODUCT LINE OFFERINGS

- Durable, low-resistance ground straps with highly conductive or dissipative performance
- Lightweight, low-resistance flexible bond straps for ESD dissipation
- Heavy-duty variants for low-voltage, high-current power distribution busbar applications
- Glenair signature and qualified military standard designs



Ultra flexible, lightweight ArmorLite microfilament ground straps and bonds

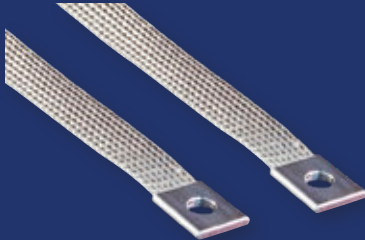
Flat and round cross-section straps, plus wire rope jumpers

Flexible thermal strap for heat dissipation applications

Harsh-environment insulation and jacketing available for enhanced user safety and short-circuit prevention

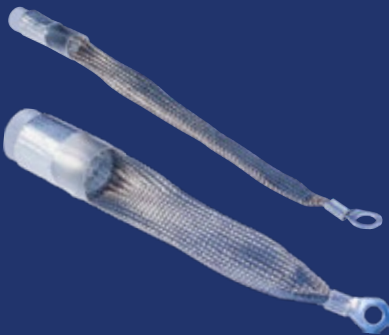
Lightweight, general, and heavy-duty

LIGHTWEIGHT ARMORLITE™ MICROFILAMENT GROUND STRAPS



- Ultra lightweight metal-clad stainless steel braid material
- Low-profile lug design and assembly
- Available in seven widths and any length
- Low electrical resistance and high temperature tolerance
- High conductivity-to-weight / material-cross-section ratio
- Corrosion resistant materials for life-of-system durability
- Bend cycle durability up to 250,000 cycles per EN4199-001

LARGE-DIAMETER, LIGHTWEIGHT ARMORLITE™ EWIS GROUNDING HSTS



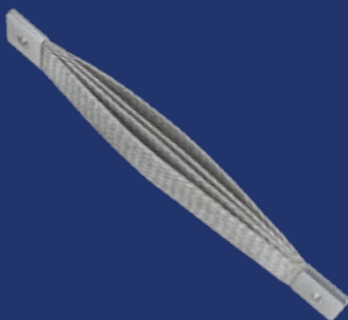
- Oversized heat shrink termination sleeves for grounding of long-run overbraided EWIS harnesses
- Manufactured in-house by Glenair (made in America)
- Fabricated from lightweight, highly flexible ArmorLite™ microfilament EMI/RFI braid material
- Weight reduction up to 70% lighter compared to legacy NiCu A-A-59569 / QQB575 materials

GROUND PLANE ADAPTER PLATE FOR USE WITH COMPOSITE THERMOPLASTIC PANELS



- Resolves connector-to-panel grounding issues in composite fuselage aircraft
- Copper material with Electroless Nickel plating
- Available for all popular aerospace connectors with straight and 90° ground attachments

HIGH-CURRENT AC AND DC FLEXIBLE BUSBARS AND SHUNTS



- Single, double, triple, and quadruple layer configurations for current ratings up to 615 Amps, and special 5–10 layer braided busbars with current ratings up to 1055 Amps
- Flat braided form-factor with improved current-carrying capability compared to round cables with the same cross-sectional area
- 30 AWG soft-drawn copper-core with available plating options including tin, nickel, and silver
- Stainless steel material busbars for high heat dissipation applications
- Heavy-duty, high-conductivity lugs with single, double, and quadruple bolt hole patterns

SHIELDING
SOLUTIONS FOR
ELECTROMAGNETIC
COMPATIBILITY

ARMORLITE™

Microfilament nickel-clad expandable
stainless steel EMI/RFI braided shielding



ArmorLite™ is an expandable, flexible, high-strength, conductive stainless-steel microfilament braid material designed for use as EMI/RFI shielding in high-performance wire interconnect systems. ArmorLite™ is packaged in a wide range of formats including bulk expandable shielding, mesh tape, and factory overbraiding.

- Ultra-lightweight EMI/RFI braided sleeving for EMC and lightning strike applications
- Best performing metallic braid during lightning tests (IAW ANSI/EIA-364-75-1997 Waveform 5B)
- Microfilament stainless steel: 70% lighter than NiCu A-A-59569/QQB575
- Outstanding EMI/RFI shielding and conductivity
- ArmorLite™ CF with enhanced corrosion protection
- Superior flexibility and “windowing” resistance: 90 to 95% optical coverage
- 70,000 psi (min.) tensile strength



LIGHTWEIGHT, FLEXIBLE ArmorLite™ Microfilament Braid for EMI/RFI Shielding Applications



Lightweight · non-windowing · corrosion-resistant

ARMORLITE™ SHIELDING SOLUTIONS AND PACKAGING



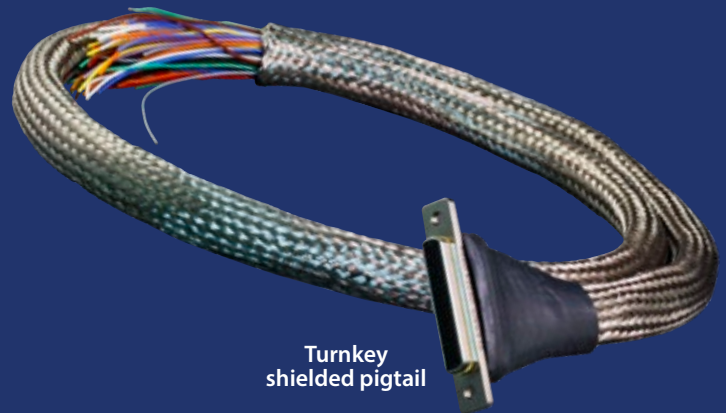
Factory overbraided



Mesh tape

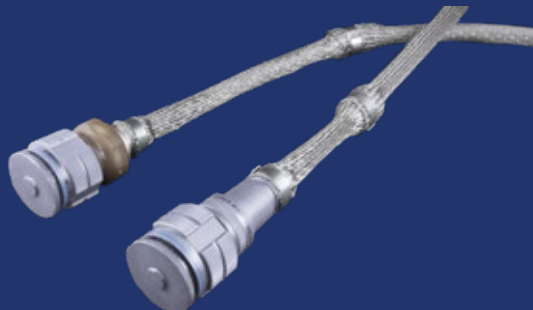


Integrated shield sock



Turnkey shielded pigtail

ALSO AVAILABLE FOR ADDITIONAL WEIGHT SAVINGS: AMBERSTRAND METAL-CLAD COMPOSITE BRAIDED SHIELDING



Braid Dia.	AmberStrand® 100% vs. nickel-coated copper		
	AmberStrand® 100% 103-026	Nickel-Copper 100-003	% Weight Savings/ Foot
.062	.6	1.9	68%
.125	1.0	4.8	79%
.250	1.8	16.1	88%
.375	2.3	18.5	87%
.500	3.7	22.3	83%
.625	4.4	27.7	84%
.750	5.2	34.3	85%
1.000	8.0	35.0	77%

Braid Dia.	AmberStrand® 75% vs. nickel-coated copper		
	AmberStrand® 75/25% NiCu 103-027	Nickel-Copper 100-003	% Weight Savings/ Foot
.062	.9	1.9	52%
.125	1.5	4.8	68%
.250	2.4	16.1	85%
.375	3.9	18.5	79%
.500	5.4	22.3	76%
.625	6.4	27.7	77%
.750	7.2	34.3	79%
1.000	11.0	35.0	69%



CONDUCTIVE AND
NON-CONDUCTIVE
SIDE-ENTRY
SHIELDING



Flexible, lightweight
wraparound EMI/RFI wire
shielding and abrasion
protection material



Tubular braided sleeving meets the broad range of EMC shielding and mechanical protection requirements of aircraft harness assemblies. But the need to apply shielding materials over already-installed aircraft wire and cable bundles requires new technology. Legacy self-wrapping cable braid has long been available for EMI/RFI applications and abrasion protection, albeit with poor performance due to its heavy weight, inflexibility, and “windowing,” which results in poor shielding performance.

MasterWrap™, a lightweight, easy-to-install, side-entry, self-wrapping shielding solution—available in conductive ArmorLite™ and now in abrasion-resistant Nomex®—solves these problems and more. MasterWrap is ideally suited for both long-run wire harness protection as well as spot coverage and maintenance of EWIS cable applications—all with outstanding weight reduction and ease-of-assembly. MasterWrap ArmorLite and MasterWrap Nomex® are qualified for use at major aircraft manufacturers for long cable runs, spot coverage, and repairs.

Material design provides uniform surface with limited interference to structures and clamps. Reduces kinking and windowing compared to full metal braid solutions for excellent shielding performance



Interwoven with high-temperature PEEK composite thermoplastic spring members ensure up to 95% optical / mechanical coverage

MASTERWRAP ARMORLITE

- Up to 70% weight reduction
- 500 hour salt spray corrosion resistance
- 50,000 cycle 90°–120° bend flex tested
- Temperature tolerant from -65°C to 200°C

MASTERWRAP NOMEMX®

- Soft, abrasion resistant unbonded Nomex® yarn
- -60° to +240°C temperature range
- 90,000 PSI yield tensile strength
- Excellent chemical resistance; will not melt

NEW MASTERWRAP™ WITH NOMEX® MasterWrap™ Nomex® flexible, lightweight wraparound abrasion / thermal protection



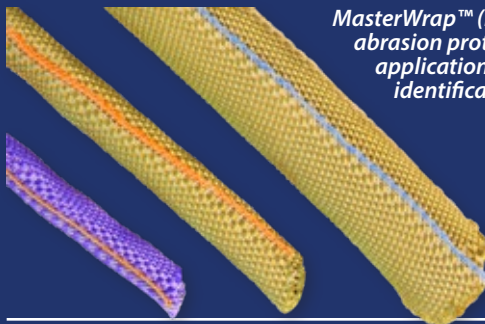
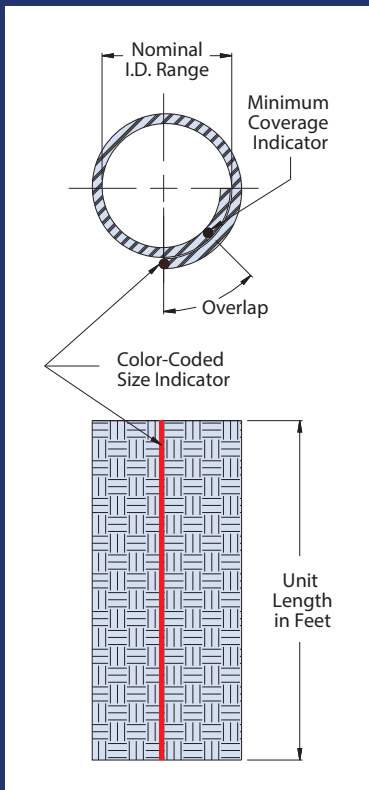
for spot mechanical coverage and repair of wire harnesses

MASTERWRAP (NOMEX®): DIMENSIONAL INFORMATION • HOW TO ORDER



How To Order			
Sample Part Number	103-095	-024	GY
Basic No.	MasterWrap™ (Nomex®) material		
Dash No.	See Table I		
Color option	W = White R = Red GN = Green GY = Gray TN = Desert Tan OR = Orange Omit = for standard Black		

Table I								
Dash No	Nominal I.D. (Ref.)		Ref. Wire Bundle Range Nominal		Approx. Weight Grams/Ft.	Min. Pull Strength (lbs)	Size Indicator color code	Quantity feet/spool
	In.	mm	In.	mm				
004	.125	3.2	.093 .170	2.4 4.3	1.8	39	Black	50-500
008	.250	6.4	.170 .300	4.3 7.6	2.3	75	Brown	50-400
012	.375	9.5	.300 .406	7.6 10.3	3.2	94	Red	50-300
016	.500	12.7	.406 .520	10.3 13.2	3.7	116	Orange	50-250
020	.625	15.9	.520 .675	13.2 17.2	5.0	158	Yellow	50-200
024	.750	19.1	.675 .825	17.2 21.0	6.0	193	Green	50-100
032	1.000	25.4	.825 1.100	21.0 27.9	7.3	237	Blue	50-100
040	1.250	31.8	.938 1.312	23.8 38.3	10.0	TBD	Violet	50-75
048	1.500	38.1	1.187 1.590	30.1 40.4	11.0	TBD	Gray	50
064	2.000	50.8	1.812 2.090	33.0 53.1	12.2	TBD	White	50



MasterWrap™ (Nomex®) is the ideal solution for mechanical abrasion protection of wire bundle harnessing in aircraft applications. Available color selections allow for easy identification and labeling of wire circuitry.

NOTES

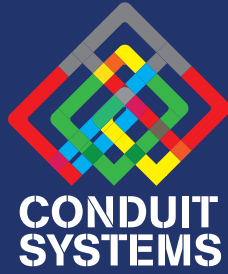
Product ordered in 1 foot increments, packaged in boxed spools. See Table I. Lengths of 1-49 feet will be packaged in individual polybags.

Materials:

Woven mesh - high temperature DuPont™ Nomex®; Monofilament - PEEK; Overlap tracer - high temperature DuPont™ Nomex® thread

DuPont™ and Nomex® are trademarks or registered trademarks of E.I. duPont de Nemours and Company.

AEROSPACE - GRADE
CONDUIT WIRE-
PROTECTION
ASSEMBLIES



Conduit components and
wired assemblies with proven
aerospace performance



Ultra-flexible
polymer-core point-
to-point fiber optic
conduit assembly

All of the metal-core conduit and polymer-core convoluted tubing systems we fabricate at Glenair may be wired and assembled at our factory with tamper-proof crimp ring or solder terminations according to customer requirements. Reduced size and weight factory terminated conduit assemblies offer the utmost in environmental ruggedness, reliability and durability. Certified factory assemblers and calibrated tooling guarantee reliable long-term performance. Glenair's expertise in wired conduit systems extends from simple point-to-point jumpers to complex multibranch assemblies as well as turnkey integrated systems and LRUs with flexible conduit interconnect cabling.

TURNKEY FACTORY-TERMINATED CONDUIT ASSEMBLIES



Complex multibranch aircraft electrical
wire conduit assembly with high-
temperature polymer-core conduit

Lightweight multibranch wire protection
conduit assembly with high-temperature
polymer-core convoluted tubing

Crush-resistant commercial aerospace
metal-core conduit assembly

RUGGED Conduit Wire Protection Systems



Flexible, impact resistant alternatives to lighter-duty jacketed cable assemblies

COMPLEX, MULTIBRANCH ASSEMBLIES WITH INNOVATIVE LIGHTWEIGHT POLYMER-CORE WIRE PROTECTION CONDUITS

Lightweight, halogen-free PEEK wire conduit assembly



Turnkey integrated box assembly and wired polymer-core interconnect system

PEEK, PFA, ETFE, Siltem polymer core and Glenair signature high-temperature polymer core conduit solutions and user-installable fittings



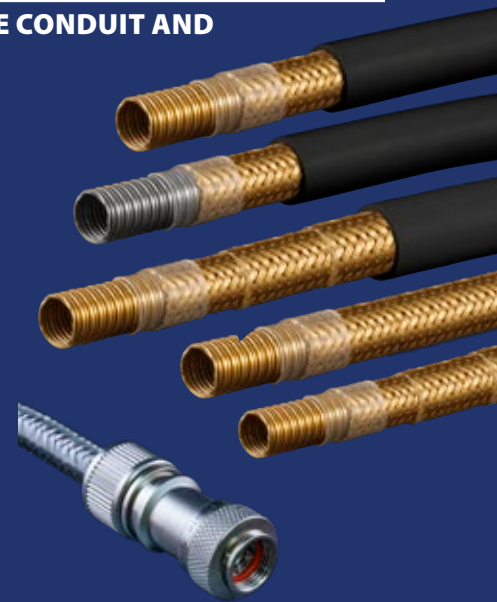
COMPLEX, MULTIBRANCH ASSEMBLIES WITH HEAVY-DUTY METAL-CORE CONDUIT AND OVERBRAIDING WIRE PROTECTION MATERIALS



Turnkey wheel well impact-resistant metal-core conduit assembly



Metal-core conduit wire protection aircraft brake assembly



Brass, SST, or nickel-iron metal-core conduit material types with innovative microfilament and drawn filament braiding. Factory terminated or for use with user-installable fittings.

FOOLPROOF
SPRING-ACTION
DESIGN



IP67 and IP56 rated
for mission-critical
aerospace applications



High-performance aerospace applications employ protective covers to seal unmated receptacles from sand, dust, and moisture ingress, as well as other forms of environmental and mechanical damage. ProSeal protective covers are mounted directly to panels and electronic equipment housings to enhance the reliability and consistent use of connector covers. Spring-action equipped ProSeal covers are available for every military QPL and Glenair signature connector series, and are supplied in a broad range of designs to meet every application requirement.

- Anti-vibration and shock spring-action solution
- IP67 (dust / immersion) and IP56 (dust / water jet) ingress protected designs
- Self-aligning environmental seals
- Lock in open position or automatic closure
- Compatible with a broad range of military standard and commercial connectors including D38999 Series I, II, III, Mighty Mouse Series 801, 804, 805, and 806, MIL-DTL-24308 and more



IP67 AND IP56 RATED ProSeal Spring-Action Protective Covers



for mission-critical aerospace applications

ROBUST ENVIRONMENTAL SEALING



Self-aligning gimbal-action
face seal



Anti-vibration and shock
spring-action performance



Full environmental
threaded / twist-lock seal

RUGGED MECHANICAL PERFORMANCE



Dual-action mechanism: cover locks in open
position and holds tight in closed position



ProSeal cover shares connector
mounting holes and hardware



Jam nut and wall mount configurations
available in all styles

VERSATILITY OF DESIGN



Suitable for all circular designs including
commercial USB / RJ45 interfaces



Rectangular connector designs with
convenient thumb tabs



Low-profile non-locking designs for use
with recessed quick-disconnect connectors

LIGHTWEIGHT
STRAIN-RELIEF
AND WIRE
PROTECTION
TECHNOLOGY

SWING ARM®

3-in-1 lightweight composite clamp with
optional drop-in braid termination follower

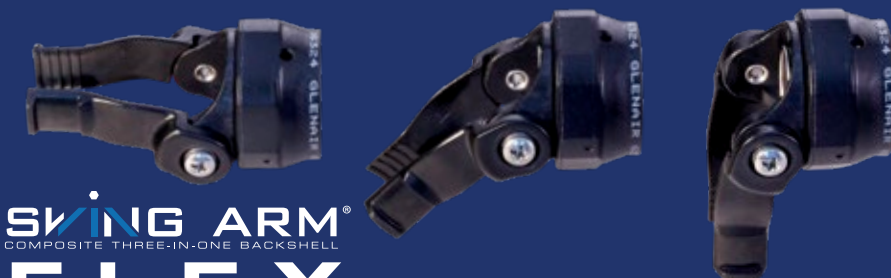


Now available
in stainless steel
for rugged harsh
environments
including high
temperature

Glenair's composite Swing-Arm® is a lightweight and corrosion-free cable clamp with cable shield termination options for a wide range of EWIS applications. This innovative articulating strain relief has become the standard shield termination device for weight reduction in both military and commercial airframe applications. Made from temperature-tolerant composite thermoplastic, rugged Swing-Arm® clamps offer easy installation, long-term performance, and outstanding weight and SKU reduction. Performance tested to stringent AS85049 mechanical and electrical standards and available for all commonly-specified mil-standard and commercial cylindrical connectors including MIL-DTL-38999, SuperNine, and Series 806 Mil-Aero.

Introducing Swing-Arm FLEX®, Glenair Next- Generation Composite Swing-Arm® Strain Relief

- Significant weight reduction: no saddle bars or hardware
- Rapid assembly: cable self-centers on bundle, little or no wrapping tape required
- Braid sock and drop-in band termination follower versions for EMI/RFI applications
- Internal conductive ground path



SWING ARM®
COMPOSITE THREE-IN-ONE BACKSHELL
FLEX

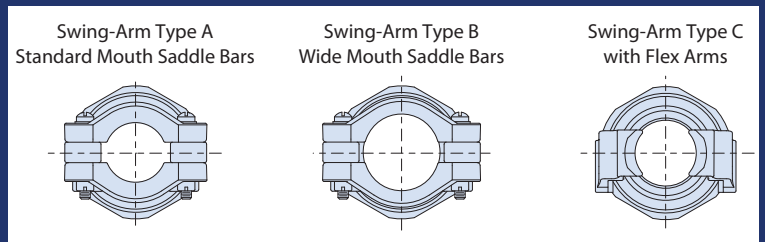
User-configurable straight, 45°, and 90° cable routing

SWING-ARM 3-IN-1 LIGHTWEIGHT Composite thermoplastic strain-relief and EMI/RFI shield termination device



THREE STYLES OF SWING-ARM STRAIN RELIEF CLAMPS

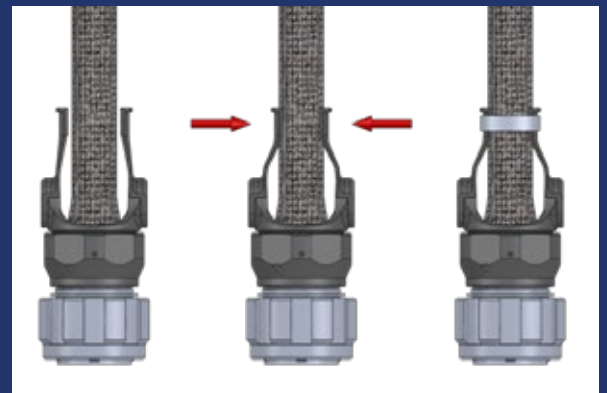
- Style A - standard mouth, rigid saddle bars
- Style B - wide mouth (for larger cable diameters), rigid saddle bars
- Style C Swing-Arm FLEX - no saddle bars, self-centering round cable strain relief



SWING-ARM VERSATILITY: FROM SIMPLE CABLE STRAIN RELIEF TO EMI/RFI SHIELD TERMINATION



Fast and reliable termination of individual wire and overall EMI cable shielding with industry-standard Band-Master ATS® tools and straps. New slim profile bands eliminate sharp strap cutoff for improved safety.



DROP-IN FOLLOWER FOR DIRECT TERMINATION OF OVERALL OR INDIVIDUAL WIRE SHIELDING

Two drop-in-follower designs, solid and slotted are available for all Swing-Arm styles (A, B, and C).



SWING-ARM AND SWING-ARM FLEX WITH OPTIONAL INTEGRATED SHIELD SOCK

For fast and reliable EMI/RFI shield termination of individual wire and overall cable shielding



SWING-ARM SHIELD SOCK TERMINATION OPTIONS, STANDARD SPLIT RING OR STARSHIELD STAR



Termination of shield sock to cable shield with split support ring



Termination of shield sock to individual wire shields with auxiliary "flex shield" HST and StarShield™ Star



INNOVATIVE
CIRCULAR
CONNECTOR
BACKSHELLS



Circular backshell and
accessory designs for
weight reduction, life-
of-aircraft durability, and
optimal reliability



Innovative solutions to EWIS environmental sealing, wire management, strain relief, and EMC shield termination

Glenair is the go-to design partner for innovative solutions to electrical wire interconnect system (EWIS) problems in airframe applications. Our backshell and connector accessory design engineers are responsible for more problem-solving innovation in our industry than every other connector accessory supplier combined. Take our extensive composite thermoplastic connector accessory series, for example. Glenair can supply the lightest weight solution for all EWIS cable routing, shield termination, environmental sealing, and cable strain relief applications—all in conductively-plated engineering thermoplastic.



Composite thermoplastic backshells and strain reliefs reduce weight and improve durability

GLENAIR: MASTERS OF THE BACKSHELL UNIVERSE

- High-performance circular connector accessories for every environmental, mechanical and electromagnetic shielding requirements
- Tens of thousands of innovative part numbers in inventory ready for same-day shipment
- Fast turnaround on made-to-order accessories, typically only two to three weeks
- Constant, relentless backshell innovation

NEW INNOVATIONS IN Circular Backshells and Accessories



Unique, problem-solving backshells and connector accessories for aerospace applications

HIGH-TEMP, LIGHTWEIGHT COMPOSITE THERMOPLASTIC ACCESSORIES



Split-shell and snap-lock banding backshells

Dummy stowage shorting plugs and receptacles

Piggyback boot Band-in-a-Can

Drop-in EMI/RFI shield termination configurations

PRESSURE BOUNDARY, FIREWALL, AND SPLIT-SHELL FEED-THRU



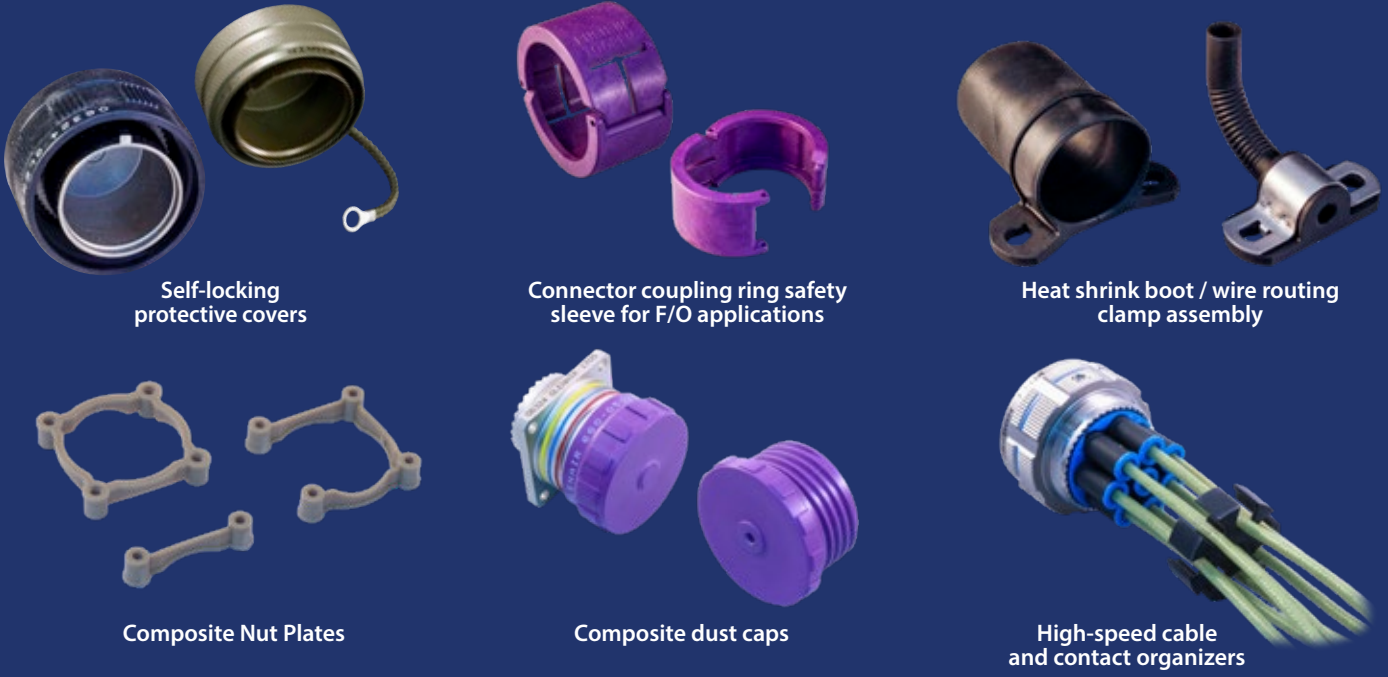
Pressure boundary composite feed-thru

Firewall pressure boundary feed-thru

EMI/RFI split-shell metal feed-thru

- High-grade engineering thermoplastic or machined metal
- Six pressure-boundary feed-thru layouts with accommodation for 1 – 6 cables
- Split-shell jam nut versions with EMI/RFI shield termination porch
- O-ring sealed panel and box mounting interface

INNOVATIVE NEW EWIS TECHNOLOGIES



Self-locking protective covers

Connector coupling ring safety sleeve for F/O applications

Heat shrink boot / wire routing clamp assembly

Composite Nut Plates

Composite dust caps

High-speed cable and contact organizers

INNOVATIVE
RECTANGULAR
CONNECTOR
BACKSHELLS



Rectangular backshell
and accessory designs
for weight reduction, life-
of-aircraft durability, and
optimal reliability



Proven-performance backshells and accessories for rectangular connectors

Glenair offers more tested and tooled rectangular interconnect products—including the world's broadest range of rectangular backshells—than any other supplier in the industry. Simply put, from the smallest Micro-D subminiature to the largest ARINC 600, Glenair has an unparalleled range of solutions. Need something light and corrosion free? Glenair is the industry leader in tooled composite thermoplastic connector accessories.



QWIKSNAP™

Glenair has developed an extensive range of lightweight Split-Shell backshells that completely eliminate assembly hardware in rectangular backshells. The Glenair QwikSnap™ series utilizes innovative composite spring latch technology to reduce weight, FOD, and accelerate assembly.

- All forms of environmental, mechanical and EMC backshells
- Straight, 45° and 90° cable routing
- High-temp composite thermoplastic and metal shell versions
- To fit all current and legacy rectangular connectors
- Innovative split-shell versions for easy access to wire terminations
- Equally large range of protective covers and caps
- Thousands of part numbers in stock and ready for immediate shipment

METAL AND COMPOSITE Rectangular Backshells And Accessories



The world's largest *tooled* selection

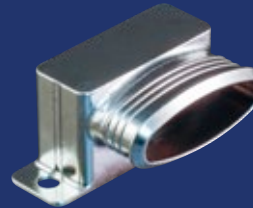
MICRO-D AND NANOMINIATURE BACKSHELLS AND CONNECTOR ACCESSORIES



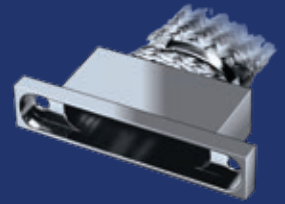
Composite Micro-D banding backshell



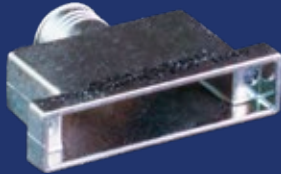
Plastic caps and covers for safe connector shipment and storage



Micro-D backshell with elliptical banding platform



Metal Micro-D banding backshell



Split-shell backshell



Environmental protective covers for Micro-D connectors



Conductive rubber covers

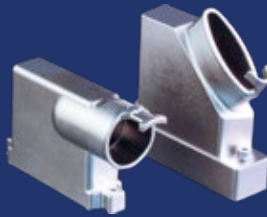
M24308 D-SUB SOLUTIONS: HIGH PERFORMANCE, RUGGEDIZED D-SUBMINIATURE PRODUCTS



Meta-Loc™ quick-lock / quick-release backshell



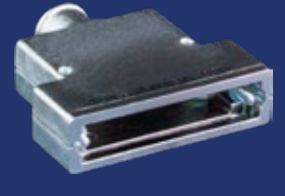
Split-shell M24308 composite backshell



Composite D-subminiature backshells



Flex-D Composite M24308 Backshell



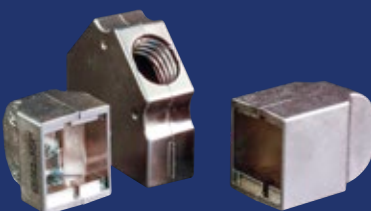
M24308 EMI/RFI backshell

LARGER FORM FACTOR RECTANGULAR BACKSHELLS

EPX® and EPXB® are registered trademarks of Radial



Composite EMI/RFI banding backshell for EPXB® connectors



Composite EN4165 fiber optic/electrical backshells



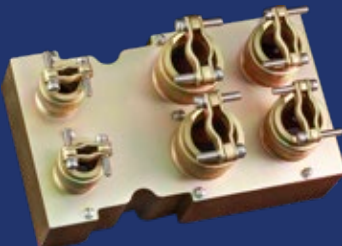
Backshells for EPX® series connectors



ARINC series backshells



Composite airframe banding backshell



ARINC series backshell with individual wire bundle strain relief



MIL-C-81659



Special Quadrax connector backshell

360° SHIELD
TERMINATION
THE HANDS-
DOWN INDUSTRY
STANDARD

Band-Master ATS®

Light Weight • High-Tension • Low-Resistance
Shield Termination Bands and Tools

Industry Advisory RE: Shield Termination Bands and Tools

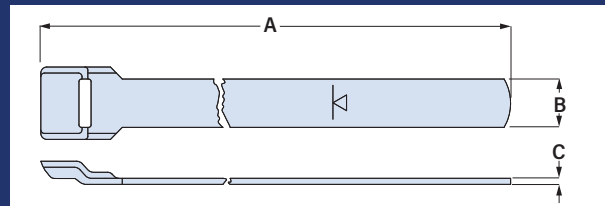
Precision bands and tools are exactly dimensioned and calibrated for repeatable, reliable performance. But like many such equipment pairings, the products ONLY deliver 100% compatibility when used in tandem. The proliferation of counterfeit band straps, sold with Glenair part numbers but manufactured offshore is a troubling industry development. Tie-Dex® II banding tools supplied by Glenair will not function properly with any other make of band than those supplied by Glenair. Likewise, Glenair Band-Master ATS® bands are not engineered to work in any tool other than the hand-operated and bench-mount series manufactured by Band-IT® IDEX. To that end, this industry advisory is intended as formal notification that the improper mixing of non-compatible band straps and tooling will void any warranty offered by Glenair, and in our experience, will absolutely lead to tool damage and sub-standard shield terminations. Should you have any question about this notification, please do not hesitate to contact Glenair at bandittools@glenair.com.

Band-Master ATS® System Overview



Band-Master ATS® EMI shield termination system instruction manuals and calibration details: www.glenair.com/bandmaster

For rapid and reliable termination of cable braid shielding to connectors and adapters. Made in America from 304 series passivated stainless steel. Easy installation with hand tool or high-production bench-mounted pneumatic tool. Recommended bands supplied in four width configurations: *Nano* (.075" width, smallest overall size); *Slim Standard* (.24" width, lightest standard band weight); *Micro Slim* (.12" width, lightest micro band weight); and *Micro-Max* (.12" width, 60% higher tensile strength). All Glenair Band-Master bands available pre-coiled.



High Volume Pneumatic Tool

Recommended Pneumatic Banding Tool Part Numbers

Micro-Max	Micro-Max pneumatic banding tool with counter	601-130
Micro Slim	Micro Slim pneumatic banding tool with counter	601-123
Nano	Nano pneumatic banding tool with counter	601-118
Slim Standard	Slim Standard pneumatic banding tool with counter	601-110

MADE IN AMERICA

Band-Master ATS® Shield Termination System



Industry-Leading • Guaranteed Quality • Reliable Performance

Recommended Highest-Performance Sizes and Styles



Micro-Max: 601-129 Band-Master ATS® Micro-Max with Counter for use with high-tension, low-resistivity Micro-Max Bands

Designed for use with high-tension Micro-Max .120" width clamping bands. Micro-Max is designed for shield termination requirements to a higher tension range from 100-180 lbs. resulting in lower-resistivity shield termination. Calibrate at 132 ± 3 lbs. for most shield terminations.



Micro Slim: 601-122 Band-Master ATS® Micro Slim with Counter for use with lightweight, reduced-thickness Micro Slim Bands

Micro Slim bands are narrower width and are better at conforming to irregular platform shapes (elliptical platforms) and individual braid buildup (pig tails). Designed for Micro Slim .120" width clamping bands in a tension range from 60 to 90 lbs. Calibrate at 82 lbs. ±3 lbs. for most terminations.



Nano: 601-108 Band-Master ATS® Nano with Counter. The industry's narrowest width, smallest size, and lightest weight shield termination band system

Nano bands are the industry's narrowest width, smallest size, and lightest weight shield termination bands. Designed for use with Nano .075" width clamping bands in a tension range from 25 to 90 lbs. Calibrate at 50 lbs. ± 3 lbs. for most shield terminations.



Slim Standard: 601-109 Band-Master ATS® Slim Standard with Counter for use with lightweight, reduced-thickness Slim Standard Bands

Slim Standard bands are 50% lighter and 50% lower-profile than standard bands and maintain similar performance. Slim Standard bands are better at conforming to irregular platform shapes (elliptical platforms) and individual braid buildup (pig tails). Tension range is 30 – 80 lbs. Calibrate at 100 lbs. ± 3 lbs of linear pull.



Glenair Band-Master ATS® system tools and bands have been made in America in partnership with Band-IT® IDEX for over four decades and are the trusted, reliable solution for aerospace-grade cable shield termination.

Recommended Band Part Numbers

Size	A		B		C		Part Number Pre-coiled	Hand Tool Part Number		
	Length in	Fits up to Dia. mm	Width in	Thickness mm	Width mm	Thickness mm				
Micro-Max	8	203	.88	22.4	.12	3.0	.015	0.4	601-701	601-129
	14	356	1.88	47.7	.12	3.0	.015	0.4	601-703	
Micro Slim	8	203	.88	22.4	.12	3.0	.01	0.3	601-601	601-122
	14	356	1.88	47.7	.12	3.0	.01	0.3	601-603	
Nano	6	152	.60	15.2	.075	1.9	.009	0.9	601-501	601-108
	9	229	.94	23.9	.075	1.9	.009	0.9	601-505	
	14	356	1.80	45.7	.075	1.9	.009	0.9	601-509	
Slim Standard	9	228	.94	23.9	.24	6.1	.01	0.3	601-571	601-109
	14	355	1.80	45.7	.24	6.1	.01	0.3	601-573	

GLENAIR GLENDALE:
Complete vertical integration
of manufacturing resources—
at home in Southern California
since 1956

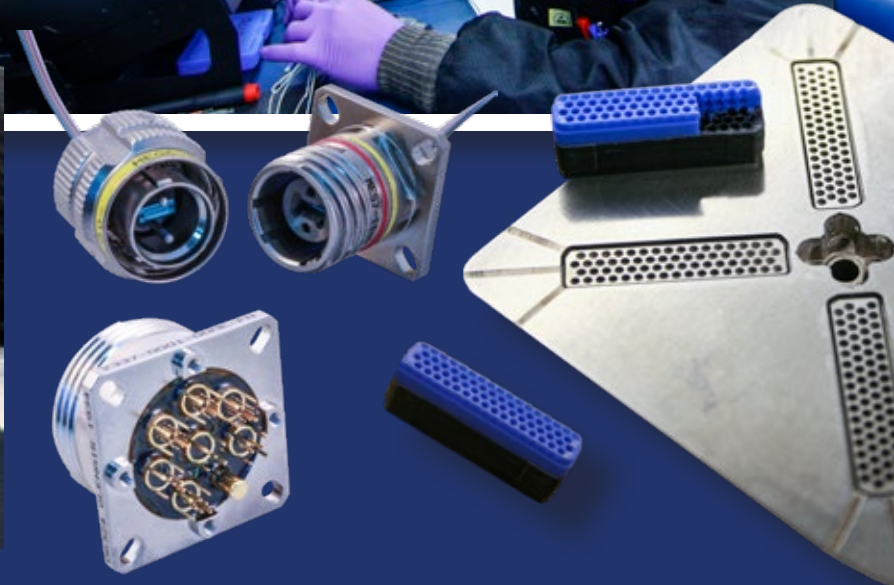


Glenair operates the largest high-reliability interconnect manufacturing operation in the United States, allowing us to fully support our broad range of land, sea, air, and space customers.





Glenair SoCal's most important asset: highly technical staff, fully empowered with all the right facilities and operation resources.





MISSION-CRITICAL INTERCONNECT SOLUTIONS



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