Electrical Wire Interconnect Systems, Electronic Box Builds, and Integrated Assemblies
# Capability Overview

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In-House Manufacture Mission-Critical Connectors

Rectangular

- HiPer-D 24308 straight
- HiPer-D 24308 right angle
- HiPer-D Combo straight
- HiPer-D Combo right angle
- Series 79 Micro-Crimp
- MWDM Micro-D
- Series 89 Nanominiature
- AlphaLink
In-House Manufacture Mission-Critical Connectors

Circular

SuperNine COTS
SuperNine Special
MIL-DTL-38999 QPL Hermetic
Series 970 PowerTrip
Series 80 and 811 Mighty Mouse
Series 88 SuperFly
SuperSeal RJ45/USB
Nanominiature Circular
Wire Harness Design and Fabrication
Certified to Industry Standards
Solder/Crimp Termination
Complex Cable Assemblies: 3D Design and Assembly
Glenair

Cable Protection/Wire Management
Flex Alternative to Wiring

- Lower total installed cost
- Reduced size/weight
- Easier termination and installation of multiple connectors
- Wiring errors virtually eliminated
Why Choose Board or Flex Assemblies?

**Flex assembly vs. round wire assemblies**

1. Less weight and bulk
2. Virtually eliminates wiring errors
3. Total installed cost is less
4. Tightly assembled electronic packages
5. Dynamic (Flex in application)
6. Direct in 3 different axes
Glenair Flex Assembly Design Types

The Flex Assembly

The Rigid Board Assembly

The Rigid Flex Assembly
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Wired Command/Communications Modules
Innovative Cans for Component Consolidation
Small Connectorized Boxes
Copper-to-Fiber Transciever Assembly
Opto-Electronic Transceiver and Signal Aggregation Unit
Custom Enclosures for Integrated Circuits
Wired Enclosure Circuit Integration
Ethernet Media Converters (Copper-to-Fiber)

Small Form Factor media converter

Lightning-strike hardened media converter

Small form-factor inline media converter
Video Media Converters

Custom and competitor-compatible form factors
Mil-Aero Signal Aggregators

Wide range of custom designs for various applications
Enabling Technology: In-House Printed Circuit Board Design and Fabrication
Enabling Technology: Electrical and Optical PCBAs
Complete in-house design and fabrication
Enabling Technology: Precision Machining
Example: Complex Electronic Box Build with Glenair Machined Enclosure
Design and Modeling Expertise

- Customer Supplied 3-D file to determine “keep out areas”
- “Napkin Sketch” with rough idea of routing
- Customer Supplied 2-D DXF
Modeling and Rapid Prototyping

3-D SolidWorks modeling, “Paper Doll” physical mockups

- 3-D representation of flex assemblies using SolidWorks
- 3-D printed “Paper doll” outline mockups for physical assembly fit checks with copper clad Kapton to simulate actual flexibility
- Incorporation of customer-supplied wiring diagram and chassis information in laser-cut mechanical samples
SolidWorks 3-D Prototyping

“Virtual” connector modifications

- Customer-supplied Step file of box with panel cutouts
- Glenair-supplied 3-D model of connector flange modifications
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Example of Integrated Connector Machining / Packaging
Example of Highly Complex Integrated Assembly
Example of Wired EMP Chassis Integration
Example of IFE Assembly
Example of Wired Chassis
Example of Military / Defense Platforms
Examples of Wired Composite Enclosure Assemblies
Example of Wired Composite Enclosure Assembly
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Electrical, Environmental and Mechanical Testing and Qualification Capabilities

ISO 17025 approved, redundant capabilities in US, UK, and Italy

Types of products:
Connectors, Circuits, Resistors, Switches, Relays, Transformers, electrical Harnesses, Fiber Optics
Certified to Industry Standards
Testing and Inspection
Certified Clean Room Facilities

- Used for clean assemblies:
  - Lasers
  - Space and Satellite
- ISO Class 8 -100,000 PPM
- Currently 6 workstations
- ESD safe - multifunctional
Hydrostatic Test Lab

Subsea / marine interconnect testing facility
Filter Array Clean Room and Ceramic Lab

Fast turnaround on EMI/RFI filter connectors
Ruggedized Electronics and Photonics Lab
Electrical Wire Interconnect Systems, Electronic Box Builds, and Integrated Assemblies

The widest range of mission-critical interconnect technologies in the world