

BUILD-TO-PRINT

FIBER OPTIC

CABLE HARNESS DESIGNER'S GUIDE

A

In addition to our wide range of catalog (ASAP) Fiber Optic Cable Assemblies, Glenair offers turnkey, build-to-print fiber optic harnesses and box assemblies. To get started, fill out this designer's guide, then contact your local Glenair Sales office or the Factory at 818-247-6000. Glenair offers the fastest turnaround because we make and stock all the component parts, and have one of the largest and most experienced assembly facilities in the business. Ask for a tour!

Originator: _____

Phone Number: _____

Title of Assembly _____

Project/Program _____

Application Specifications

Working Environment

- Shipboard
- Airframe
- Avionics
- Secure Communications
- Ground Support/Soldier System
- Armored Vehicle
- Rail/Mass Transit
- Space
- Missile Defense
- Telecommunications
- Industrial
- Downhole or Surface Use
- Other

Cable Installation

- Outdoor
- Indoor
- Internal-to-Equipment

Temperature Requirements

Operating: - °C= _____ + °C= _____

Storage: - °C= _____ + °C= _____

Optical Fiber Requirements

Singlemode

Number of fibers _____

Fiber Size

- 9/125 μm
- Other

Test wavelength

- 1310 nm
- 1550 nm

Acceptable optical dB insertion loss

- Less than .5 dB
- Less than 1.0 dB

Acceptable optical return loss (backreflection)

- Not applicable
- _____ dB

Multimode

Number of fibers _____

Fiber Size

- 50/125 μm
- 62.5/125 μm
- 100/140 μm
- Other

Test wavelength

- 850 nm
- 1300 nm

Acceptable optical dB insertion loss

- Less than .5 dB
- Less than 1.0 dB

Cable Harness Construction

Assembly Length Requirements

- Less than 10 Meters
- 10 to 150 Meters
- More than 150 Meters

Cable Type

- Buffered
- Simplex
- Distribution
- Breakout

Basic Harness/Assembly Description

- Open Wire Harness
- Repairable/Jacketed
- Overmolded (MIL-M-24041 Materials)
- Metal/Fabric Overbraided
- Conduit

Alternative Wire Protection Media

- High Flexibility Convuluted Tubing
- EMI/EMP Metal-Core Conduit
- Molded Shrink Boots
- Junction Boxes and Cable Bays

Strain relief

- Not Applicable
- Light Duty
- Medium Duty
- Heavy Duty
- Gorilla Proof

Level of Environmental Protection

- Not Applicable
- Moisture Resistance
- Full Water Immersion
- Chemical/Caustic Fluid Resistance
- Extreme Corrosion Resistance
- Intense Atomic Radiation

Special Considerations

- RoHS Compliant Materials
- Extreme Temperature Tolerance
- UL94-VO Flammability
- UV Resistance
- Field Repairability
- Crush/Abrasion Resistance
- Weight Reduction
- Size or Shape Restraints as Specified:

List the non-Glenair connectors used in this project, including connector interface designators, if known:

List jacket/sheath or other wire/fiber protection materials such as conduit, including material type and brand:

Fiber Optic Termination Assembly

Connector

- Jam Nut or Square Flange or Plug
- Pin Skt Genderless Contact Qty _____

MIL-DTL-38999 Series III Type _____

Glenair High Density (GHD) _____

Series 80 Mighty Mouse _____

Eye-Beam™ _____

Glenair Front Release (GFR) _____

MIL-PRF-64266 (NGCON) Type _____

GFOCA _____

MIL-PRF-28876 _____

Termini Part No. _____

Dust Cover: Yes No

Fiber Optic Breakout Assembly

A Connector

- Jam Nut or Square Flange or Plug
- Pin Skt Genderless Contact Qty _____

MIL-DTL-38999 Series III Type _____

GHD _____

Series 80 Mighty Mouse _____

Eye-Beam™ _____

Glenair Front Release (GFR) _____

MIL-PRF-64266 (NGCON) Type _____

GFOCA _____

MIL-PRF-28876 _____

Termini Part No. _____

Dust Cover: Yes No

B Connector

ST Connector _____

FC Connector _____

SC Connector _____

SMA Connector _____

LC Connector _____

Other _____