Micro-D GSWM
SpaceWire Cable Assembly
in Back-to-Back or Single Ended Wire Configurations

Cost Saving, Easy Integration and High-Performance for Flight and Lab Grade Data Transmission.

The success of any space mission begins with reliable data transmission and Glenair SpaceWire cables, built to meet the strict standards set forth by ECSS-E-ST-50-12C Rev. 1, make this a reality. Our SpaceWire cables offer bidirectional, high speed data transmission rates up to 400 Mbits/s while significantly reducing cross talk, skew, and signal attenuation. By incorporating a serial, point-to-point cable, with low voltage differential signaling (LVDS) reduced costs are realized through an easily integrated data transmission cable. These features allow SpaceWire cables to be incorporated across various satellite programs without the expense of costly design customization.

Single-Ended or Double-Ended–These easy-to-order cable assemblies eliminate the need for expensive assembly labor. 100% tested and ready for use.

High Performance Insulation–Expanded polytetrafluoroethylene (EPTFE) allows for the support of LVDS technology to significantly reduce data loss while allowing for the implementation of standard hardware protocols, thus eliminating the need for design customizations while reducing costs.

How To Order SpaceWire Cable Assembly

Sample Part Number	GSWM	2	L	-9	GP	-6	F	B	-16	S	-A	G
Product Series	**GSWM** Glenair SpaceWire Micro-D											
Shell Plating	**2** - Electroless Nickel **5** - Gold											
Insulator Material	**L** - LCP											
Shell Size	**9**											
Connector Type	**P** - Single-Ended Pin (Plug) **S** - Single-Ended Socket (Receptacle) **GP** - Pin (Plug) Connector Both Ends **GS** - Socket (Receptacle) Both Ends											
Wire Gauge	**6** - 26 AWG **8** - 28 AWG **0** - 30 AWG (30 AWG–Lab Only)											
Cable Type	**F** - Flight Grade **L** - Lab Grade											
Termination Option	**B** - Backshell											
Cable Length In Inches	**16** - 16 inches (12 inches minimum)											
Hardware	**S** - Male Slotted Jackscrew **P** - Female Jackpost											
Wiring Schedule Type	**-A** - as per ECSS-E-ST-50-12C Rev 1 figure 5-4 **-AL** - as per ECSS-E-ST-50-12C Rev 1 figure 5-5											
Ground Spring Option	**N** - No Ground Spring **G** - Ground Spring Installed											

Notes:

1. Assembly to be identified with Glenair's name, part number, date code, and pin 1 identification as space permits
2. Performance data per MIL-DTL-83513
3. Interface dimensions per MIL-DTL-83513

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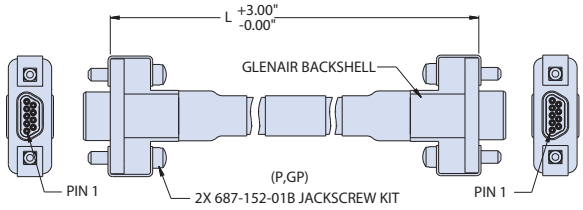
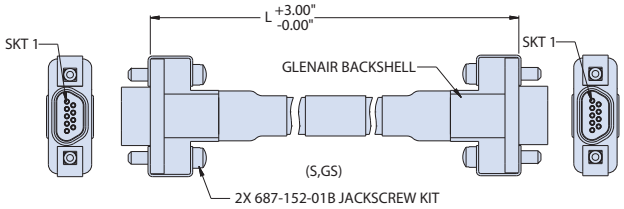
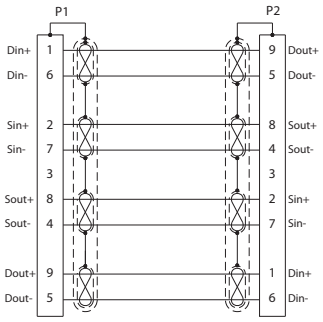
B

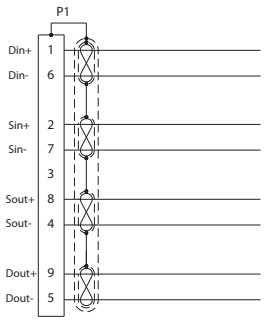




BACK TO BACK WIRING
CABLE ASSY TYPE **-A**
ECSS-E-ST-50-12C REV 1, FIGURE 5-4

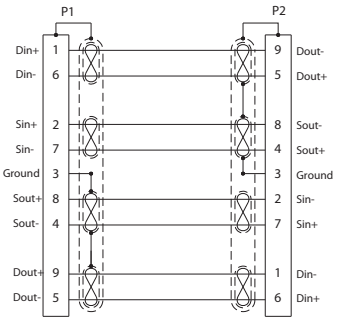


SINGLE ENDED WIRING
CABLE ASSY TYPE **-A**
ECSS-E-ST-50-12C REV 1, FIGURE 5-4

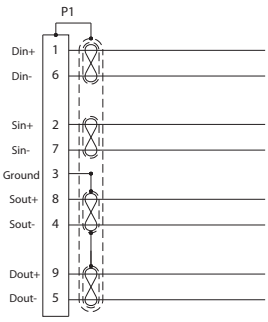


NOTE: Inner shields are tied to one another and connector shell.

BACK TO BACK WIRING
CABLE ASSY TYPE **-AL**
ECSS-E-ST-50-12C REV 1, FIGURE 5-5



SINGLE ENDED WIRING
CABLE ASSY TYPE **-AL**
ECSS-E-ST-50-12C REV 1, FIGURE 5-5



NOTE: Inner shields of Din and Sin pairs are Isolated from one another.
Inner shileds of Sout and Dout are connected and tied to pin 3.

Notes:

1. Flight grade (cable Type F) assemblies to be screened IAW NASA EEE-INST-002, Table 2. Level 1 with 100% thermal vacuum outgassing (24 hours/+125°C/10^{-6} torr). Reference Glenair Mod Code 429C.
2. Operating temperature -55°C to +125°C.
3. Electrical performance:
   Dielectric withstanding voltage: 600 VAC.
   Insulation resistance: 5000 megohms @500 VDC.
4. Assembly to be identified with Glenair's name, part number, date code, and pin 1 identification as space permits

Materials/finish:

- Shells/backshells - aluminum alloy/electroless nickel.
- Insulators - high grade rigid dielectric/N.A.
- Contacts - copper alloy, gold plated.
- Hardware - stainless steel/passivated.