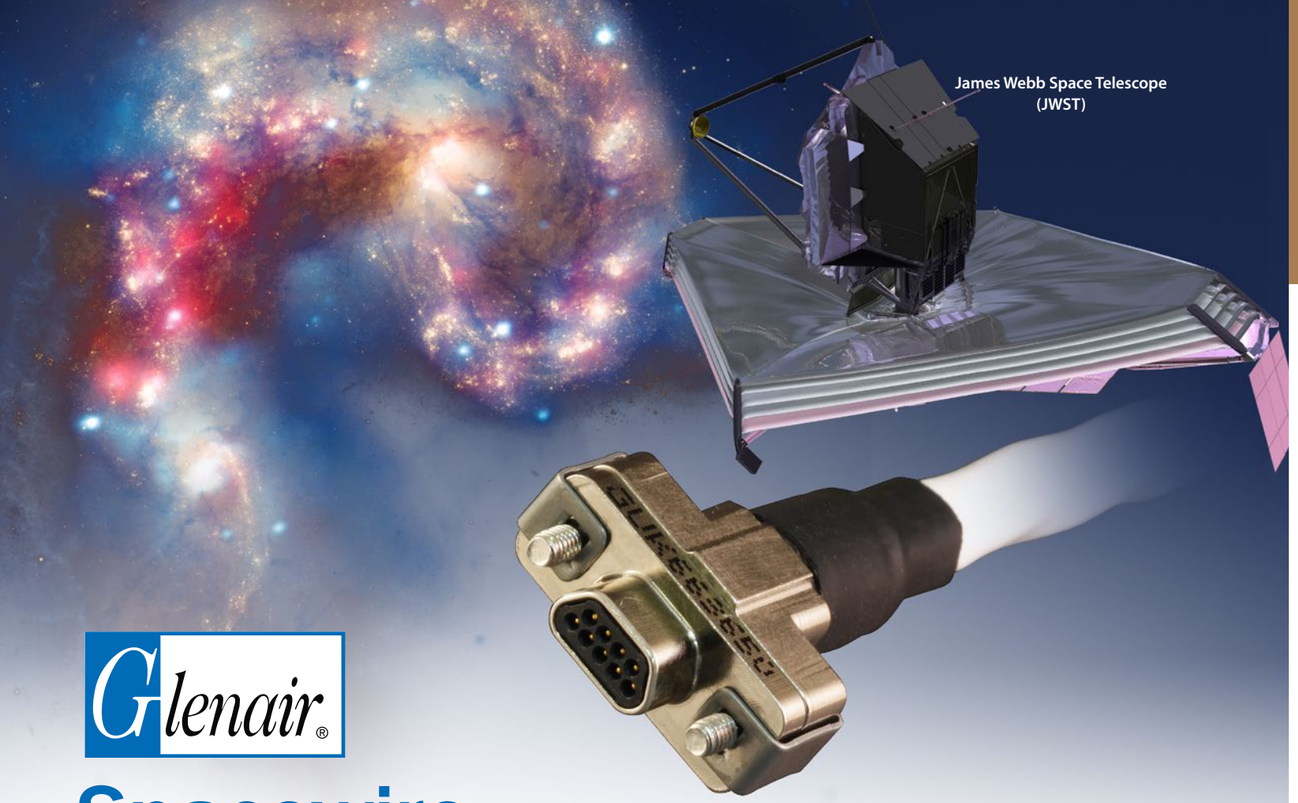


Spacewire

Reduced Cost of Ownership, Easy Integration, and High-Performance for Flight and Lab Grade Cable Assemblies.

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, 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.

Spacewire: The Space Industry Data Transmission Standard

Glenair Spacewire assemblies begin with a high performance cable built with expanded polytetraflouroethylene (ePTFE) insulation. This material allows for low-loss transmission of LVDS signals maximizing data-rates while allowing for the implementation of standard hardware protocols, thus eliminating the need for design customization and long lead time cable projects.

TYPICAL USES INCLUDE

- EGSE applications
- Radar sensor systems
- Hi-resolution camera equipment
- Sensor, mass-memory unit, and telemetry subsystem interconnections

APPROVED FOR USE BY:

- ESA
- NASA
- JAXA
- RKA

CONNECTOR/CABLE

- Laboratory and Space Grade Versions Available
- Qualified MIL-DTL-83513 Micro-D Connector
- Gold Plated Copper Alloy TwistPin Contacts
- Basic Cable, 4 Twisted Pair Cables and a Ground
- Epoxy Resin Potting
- EMI Banding Backshell

PERFORMANCE

- 3 Amps
- Temperature Tolerance -200°C to +180°C
- 100 Ω Impedance Shielded Signal Pair
- Very Low Skew, Signal Attenuation and Cross Talk
- 65dB Minimum Attenuation Shielding Effectiveness
- Low Magnetic Permeability IAW EIA-364-54

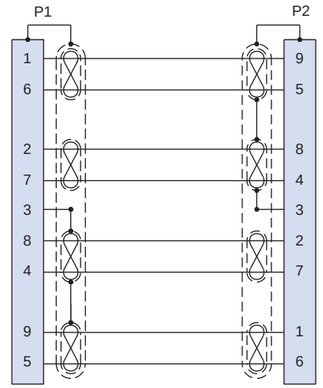
NOTES:

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 - 200°C to +180°C. Reference Glenair Mod Code 428.
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, Cage Code and Date Code or ESCC Component Part Marking Standards.

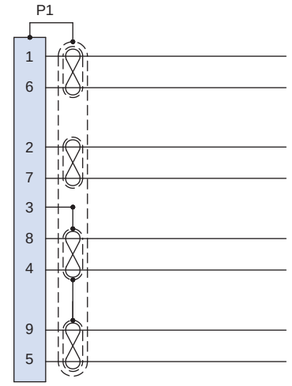
MATERIALS/FINISH:

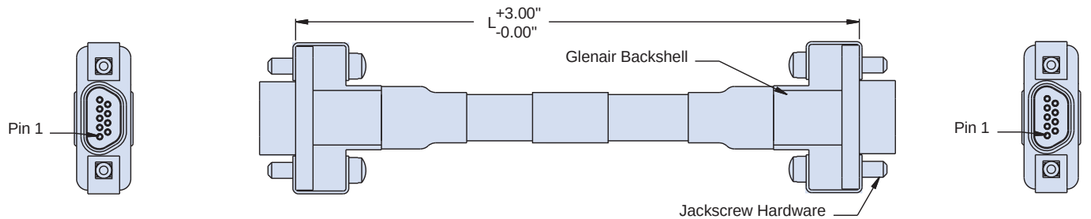
- Shells/backshells - aluminum alloy/electroless nickel.
- Insulators - high grade rigid dielectric/N.A.
- Contacts - copper alloy, gold plated.
- Hardware - stainless steel/passivated.

Back To Back Wiring
Diagram (GP)



Single Ended Wiring
Diagram (P)





How To Order Spacewire*

Sample Part Number	GSWM	2	L	-9	GP	-6	F	B	-16	S
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) **GP**–Pin (Plug) Connector 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									

*Use Mod Code 428 for high-temp version and Mod Code 429C for NASA thermal outgassing

