OPTIMIZED FOR USE WITH

MIL-STAR™

HIGH-PERFORMANCE HOOKUP WIRE AND CABLE

MICRO-D SpaceWire

Micro-D SpaceWire cable assemblies for IEEE 1355 space network applications

Typical applications include Physical layer SpaceWire routers such as this one aboard the James Webb Space Telescope (NASA)

Flight- and lab-grade SpaceWire qualified Micro-D cable assemblies for IEEE 1355 space network node interconnection of routers, switches, recorders, transceivers, and other physical layer devices

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
- CSA
- TRL9

SPACEWIRE CABLE DESCRIPTION

- **Laboratory and space-grade versions available**
- **Qualified MIL-DTL-83513 Micro-D connectors**
- **Gold-plated copper alloy TwistPin contacts**
- **Glenair MIL-STAR GS27500 cable, 4 twisted pairs with auxiliary ground wire**
- **Epoxy resin potting**
- **Fully-shrouded EMI banding backshell**
- **In-stock, same-day shipment availability**

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POINT-TO-POINT AND SINGLE-ENDED

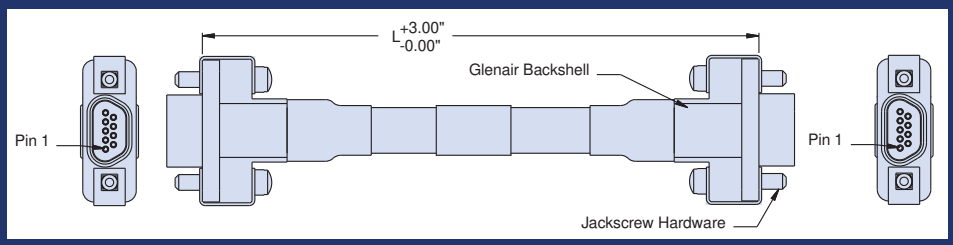
Micro-D SpaceWire Cable Assemblies

Turnkey laboratory and flight-grade Micro-D cable assemblies

TECHNICAL READINESS LEVEL 9 MICRO-D SPACEWIRE ASSEMBLIES

TRL 9

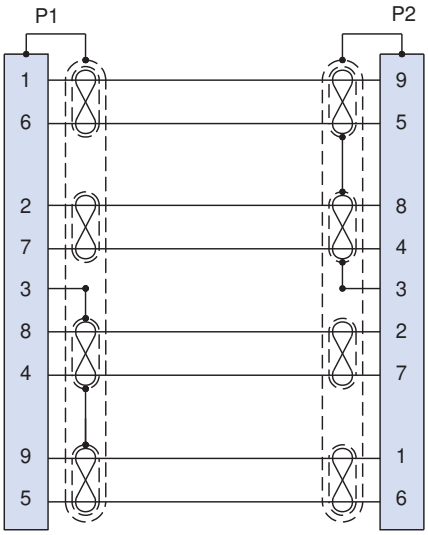
SPACE GRADE
NASA·CSA
ESA·JAXA
SCREENED



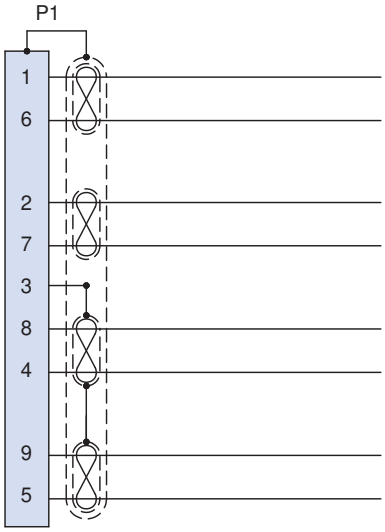
PERFORMANCE

- 3 Amps
- Temperature tolerance -200° to 180° C
- 100 Ω impedance shielded signal pair
- Very low skew, signal attenuation and crosstalk
- 65dB minimum attenuation shielding effectiveness
- Low magnetic permeability IAW EIA-364-54
- Dielectric withstanding voltage: 600 VAC
- Insulation resistance: 5000 megohms @500 VDC

Back To Back Wiring
Diagram (GP)



Single Ended Wiring
Diagram (P)



MATERIALS / FINISHES

- Connector shells and EMI backshells: aluminum alloy/electroless nickel
- Insulators: high grade rigid dielectric
- High vibration and shock resistant TwistPin Contacts: copper alloy, gold plated
- Hardware: passivated stainless steel

SINGLE- AND DOUBLE-ENDED ASSEMBLIES (FLIGHT GRADE TYPE F ASSEMBLIES SCREENED IAW NASA EEE-INST-002, TABLE 2)

Easy-to-Order
Single- and double-ended SpaceWire cable assemblies eliminate assembly time and labor. 100% tested and ready for use in laboratory and flight (Type F) applications.

High Performance MIL-STAR Cable
Expanded polytetrafluoroethylene (E-PTFE) allows for the support of LVDS technology to significantly reduce data loss while allowing for the implementation of standard hardware protocols.