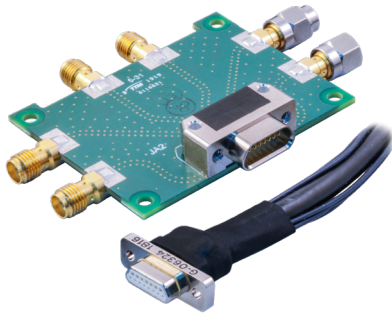


The miniature high-speed connector with mil-spec pedigree connector and contact packaging

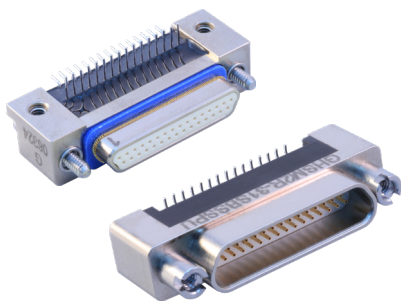
INTRODUCTION



Micro-D High-Speed configurations include wired assemblies and straight or 90° PCB-mount connectors. Insert arrangements feature 1 Amp Nanominiature TwistPin contacts. All designs have been tested for today's popular high-speed protocols.

EMI SHIELDING AND ENVIRONMENTAL SEALING

Plug connectors feature a gold-plated stainless steel ground spring for EMI protection, and a silicone gasket for environmental sealing.



Straight and right-angle printed circuit board connectors

INTRODUCTION TO THE SERIES

The High-Speed Micro-D achieves its high-speed signal integrity and high data rate performance through innovative modifications to the standard Micro connector insert, principally in the use of an ultra-low dielectric insulation material, but in addition, with the use of Nano TwistPin contacts, exactly spaced and isolated to eliminate cross-talk and maintain impedance levels through the connector mating interface.

Available in both prewired factory cordsets—with hybrid shielded twisted pair (STP) and standard hookup wire cabling—as well as PCB configurations, the High-Speed Micro-D utilizes #28 gauge wire and is rated at 1 amp per contact (instead of the usual 3 amp rating found in standard Micro connectors).

Like other next-generation rectangulars from Glenair, the High-Speed Micro-D incorporates an auxiliary EMI ground spring on the plug, further enhancing the signal integrity of this ultra-small form-factor connector. In fact, the High-Speed Micro-D's size is perhaps its most important advantage as it is now arguably the smallest and lightest aerospace-grade high-speed interconnect.

The downselect process begins with the identification of the target high-speed protocol (see tables, opposite page). Each insert arrangement in the series is purpose-designed to meet the particular requirements of today's most popular high-speed datalink protocols. Prewired pigtail assemblies utilize shielded twisted pair cabling for the high-speed data pairs, and #28 gauge hookup wire for power and low-speed signal requirements. Ground wire terminations are also indicated for each insert arrangement. Consult Glenair Design & Installation of High-Speed Micro-D PCB Connectors Application Note for board layout and termination requirements.

MATERIALS AND FINISHES

- Connector Shell: Aluminum Alloy 6061
- Insulator: Polyphenylene Sulfide (PPS)
- Flange Seal: Fluorosilicone Rubber, Blue
- Pin Contact: Copper Alloy, Gold over Nickel Plating
- Socket Contact: Copper Alloy, Gold over Nickel Plating
- Ground Spring: Stainless Steel, Gold Plated
- Hardware: 300 Series Stainless Steel, Passivated
- Encapsulants: Hysol EE4215 and Stycast 2850FT/Catalyst 11

PERFORMANCE SPECIFICATIONS

- Current Rating: 1 Amp*
- DWV: 600 Vac Sea Level
- Insulation Resistance:
 - Differential signal and discrete wires - 5000 Megohms Min. (500 VDC)
 - Differential signal drain wires only - 500 Megohms Min. (500 VDC)
- Contact Resistance: 80 Milliohms Maximum
- Operating Temperature: -55°C To 150°C
- Mating Force: 7 Ounces X # of Contacts
- Durability: 500 Mating Cycles

*See Glenair Test Report GT-20-786 for temperature rise vs. current performance