Micro Twinax / Quadrax Connectors

Mechanical & Environmental Specifications

Temperature Rating	-55˚C to + 125˚C
Corrosion	MIL-STD-202 Method 101 Test Condition B
Shock	MIL-STD-202 Method 213 Test Condition B
Vibration	MIL-STD-202 Method 204 Test Condition B
Thermal Shock	MIL-STD-202 Method 107 Test Condition B
Durability	500 mate/unmate cycles min.
Coupling Nut Torque (threaded) Recommended	2.3 in-lbs min.
Mating Torque (threaded)	2.5 in-lbs
Engagement / Disengagement Force (Quick Disconnect)	3 lbs max / 3 to 5 lbs

Electrical Specifications

Dielectric Withstanding Voltage	250 VDC max
Insulation Resistance	5,000 MegaOhms min
Contact Current Rating	3.0 Amps D.C. max.
Data Rates	>1 Gbps
Differential Pair Cable Impedance	150 Ohm ± 15 Ohm 100 Ohm ± 10 Ohms
Signal to Shield Cable Impedance	75 Ohm ± 10 Ohm 50 Ohm ± 7 Ohms

Material & Finishes

Body	Brass per ASTM-B16, BeCu per ASTM-B196 Nickel per SAE-AMS-QQ-N-290 Gold per ASTM-B488
Insulators	PTFE per ASTM-D1710 Ultem per ASTM-D5205
Contacts	BeCu per ASTM-B196 Gold per ASTM-B488

Features & Benefits

Micro Twinax vailable in threaded, quick disconnect, SMA and Micro-D size packages

25% smaller in diameter than SMA coaxial connectors

Controlled impedance with tight PCB footprint spacing.

Smiths Interconnect's Micro Twinax NDL line features matched impedance miniaturized connectors that provide the user with controlled impedance and tight PCB footprint spacing.

The NDL Micro Twinax Series is offered in threaded and quick disconnect styles and are 25% smaller in diameter than SMA coaxial connectors. The quick disconnect version has a diameter of .250" max and the threaded version has .250" Hex coupling nut.

Micro Quadrax connectors are designed for differential pair matched impedance applications utilizing quadrax cable consisting of four wires where the diagonal pair of conductors forms a differential twinax pair. These connectors maintain the signal to shield impedance throughout the mated connector pair (quad configuration applications exceeding 1 Gbps) and are available in threaded versions including straight and right angle PCB mount configurations.

Micro Twinax and Quadrax connectors have a low impedance ground shield and are ideal for High-Speed Ethernet (100 and 1000 Base-T), Fibre Channel (>1 Gbps), IEEE 1394 Firewire, USB, DVI and Infiniband applications with 100 or 150 Ohm differential pair impedance.