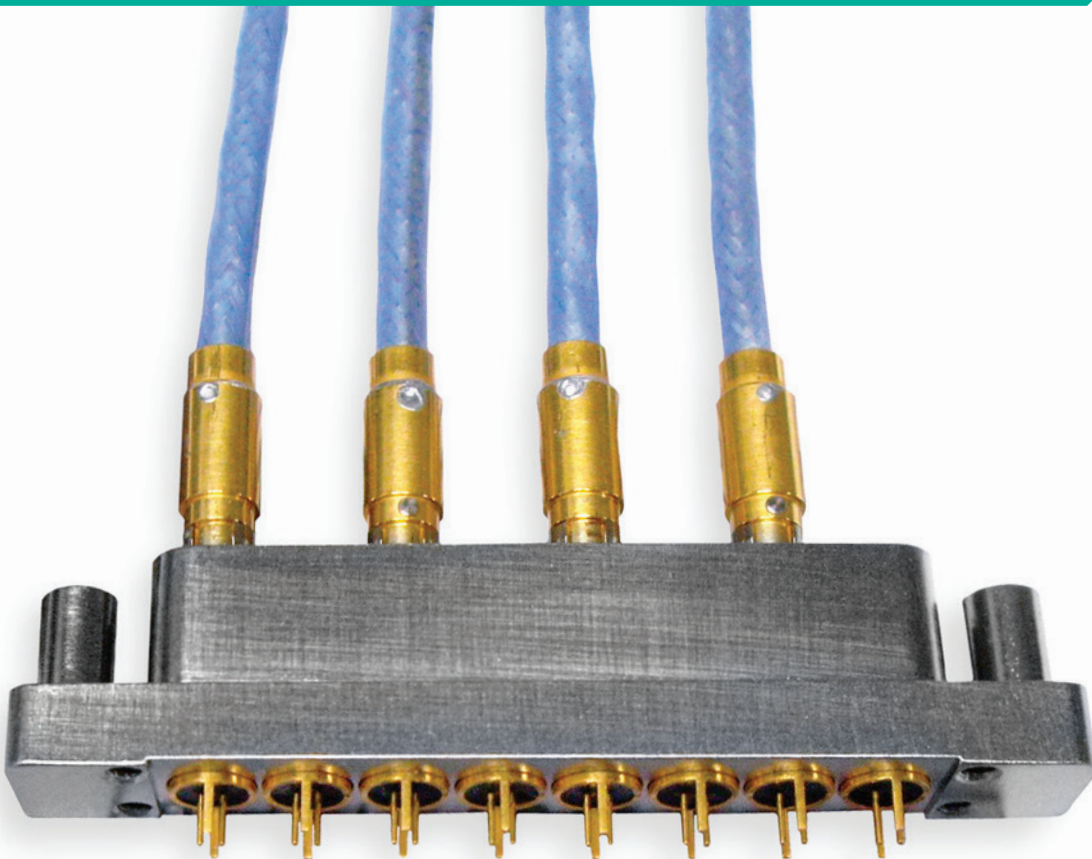


# Micro-D Twinax Connectors



# Micro-D Twinax



Smiths Interconnect offers a complete line of differential Twinax and Quadrx connectors, contacts, and cable assemblies for high speed Ethernet, FireWire, and Fiber Channel applications. Differential pair quadrx and twinax connectors and cable assemblies offer superior performance in high speed matched impedance data-on-demand applications. The signal to signal and signal to shield characteristic impedance is maintained throughout the connector pair. A true twinaxial connector interface ensures signal integrity while minimizing jitter and data rate errors.

## Testing Capabilities

Smiths Interconnect Quadrx and Twinax interconnects are characterized for testing eye pattern, jitter, skew, and insertion loss on differential pair 100 ohm high speed gigabit Ethernet applications with a wide variety of testing protocols. We utilize the Agilent E5071C 4 port network analyzer to measure the differential pair TDR impedance between Twinax connectors, cable assemblies, and quad cable Ethernet and Fiber Channel interconnect systems ensuring the most accurate acquired signal for high speed communications testing. The E5071C 4 port network analyzer is capable of highly accurate 100 ohm differential measurements up to 20 GHz and can measure eye diagrams up to 16 Gbps.

## Features

- Fiber Channel
- Ethernet: 10Base-T, 100Base-T, 1000Base-T
- FireWire: IEEE 1394a and 1394b
- USB, DVI, HDMI, and InfiniBand

## 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 minimum
Dielectric Withstand Voltage	250 VDC
Insulation Resistance	5.000 MΩ min.
Contact Current Rating	3.0 A D.C. max.
Bandwidth	Up to 3 GHz
Data Rates	Contacts designed to exceed 6 Gbps assembly dependent upon type and length of cable used
Differential Pair Cable Impedance	100 Ω +10 Ω
Signal to Shield Cable Impedance	5 Ω +7 Ω

## Materials and Finishes

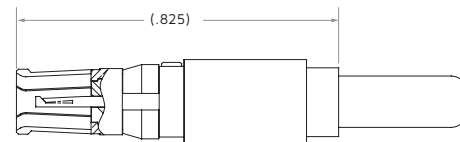
Shells & Inner Contacts	Brass per ASTM-B16, alloy UNS C3600, or BeCu per ASTM-B196, alloy UNS C17200, C17300 or leaded nickel copper, alloy UNS C19500, C19600. Gold plate per MIL-DTL-45204 Type II, Class 1
Insulators	PTFE per ASTM-D1710. Ultem per ASTM-D5205
Connector Plug/ Receptacle Shells	Aluminum per ASTM-B211/221, 6061-T6 electroless nickel plate per SAE AMS-C-26074 or cadmium plate per SAE AMS QQ-P-416

Smiths Interconnect's Micro-D Twinax Connectors (MDTX) offer twinax blind-mate assemblies fitted into a low-profile metalized Micro-D style shell. This series allows for modularity of PCB routing of high speed signaling capable of 100 ohm differential pair matched impedance for IEEE 1394b FireWire and gigabit Ethernet applications in a size 10 twinax contact. These connectors allow for maximum space utilization, ultra-miniature size, high vibration capability and are extremely light weight and modular with true signal integrity. Insert arrangements are available in 2, 4, 6 and 8 way twinax assemblies with mixed signal and power contacts available in hybrid layouts. Connectors are available with locking post mechanisms or blind mate features.

Please consult Smiths Interconnect for unique hybrid layouts and custom shell configurations.

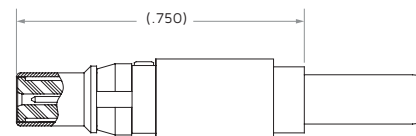
## SIZE 10 Twinax Socket Contact 100 Ohm for MDTX Cable Mount Plug

Part Number	Cable Type	Cable
018934-0002	Differential Twinax	540-1153-000
018934-0003	Flexible Twinax	540-1161-000
018934-0004	Differential Twinax	540-1167-000



## SIZE 10 Twinax Pin Contact 100 Ohm for MDTX Cable Mount Receptacle

Part Number	Cable Type	Cable
018834-0002	Differential Twinax	540-1153-000
018834-0003	Flexible Twinax	540-1161-000
018834-0004	Differential Twinax	540-1167-000

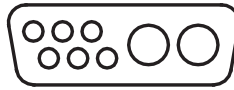


# Insert Arrangement

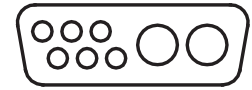
Shell Size 1



Shell Size 2



Custom



Shell Size 3

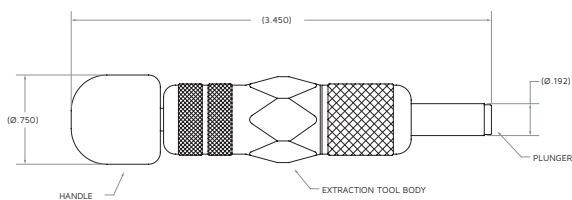
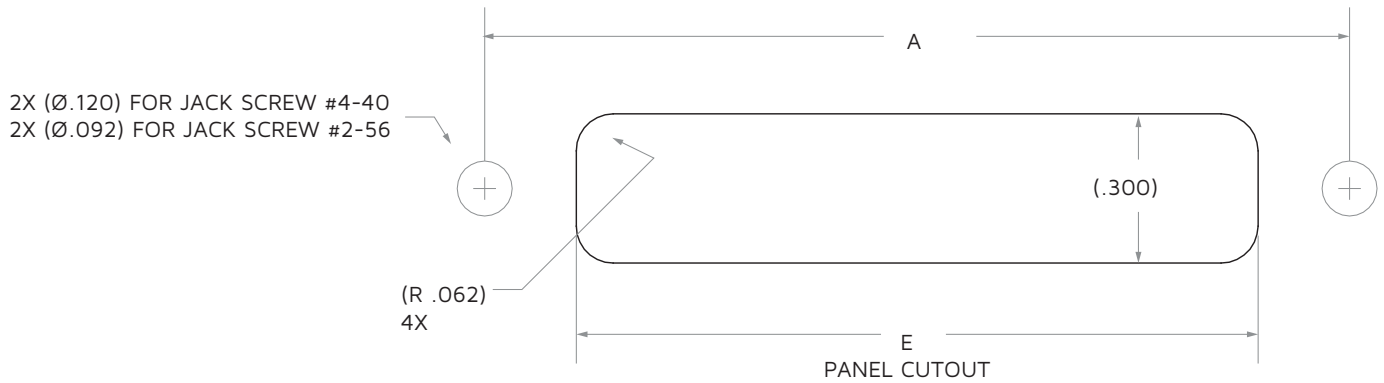


Shell Size 4



# Shell Dimensions

Shell Size	Contacts	A (in.)	B (in.)	C (in.)	D	E (in.)
1	2	0.845	1.070	0.600	#2-56	0.572
2	4	1.285	1.510	1.040	#2-56	1.012
3	6	1.765	2.040	1.480	#4-40	1.452
4	8	2.205	2.480	1.920	#4-40	1.892



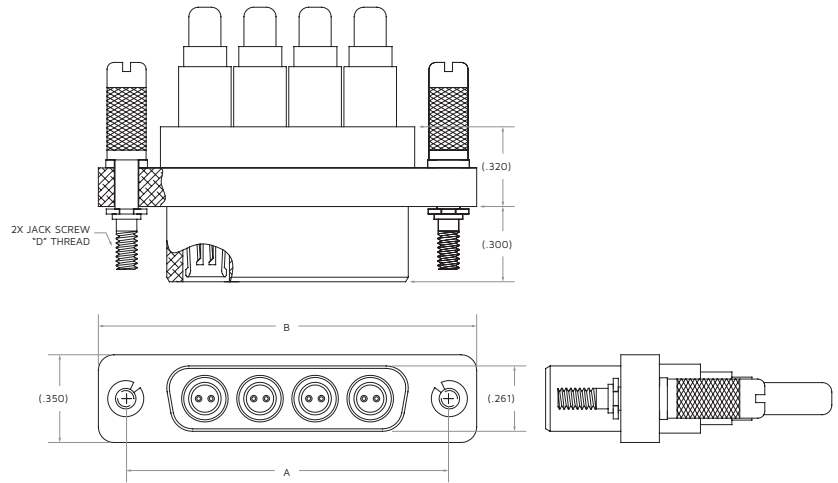
Removal tool SIR-035

Note: Removable Twinax contacts require removal tool SIR-035 (ordered separately).

# MDTX Cable Mount Plug

Part Number	Contacts
014034-0012	2
014034-0014	4
014034-0016	6
014034-0018	8

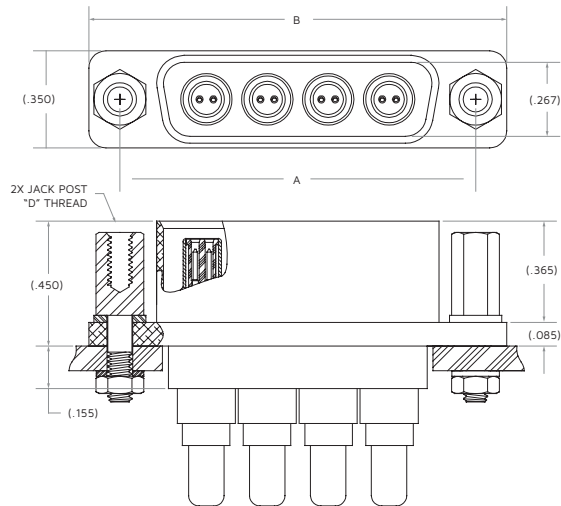
Cable mount Twinax contacts sold separately.



# MDTX Cable Mount Receptacle

Part Number	Contacts
014134-0012	2
014134-0014	4
014134-0016	6
014134-0018	8

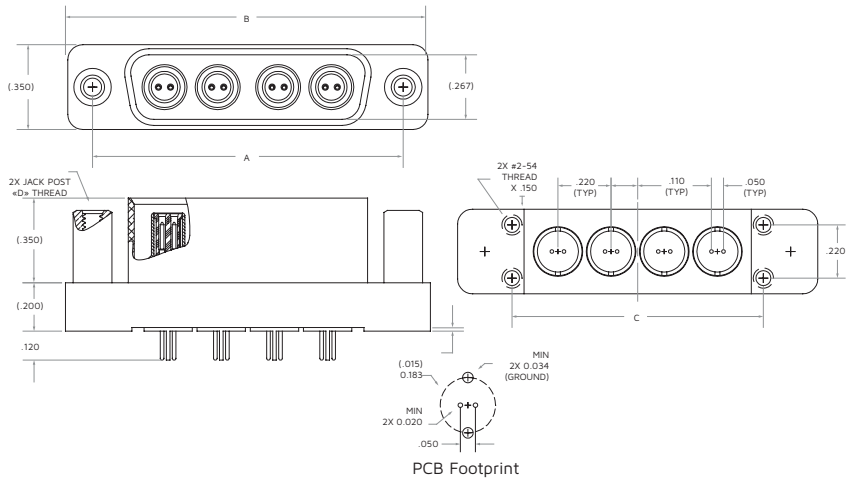
Cable mount Twinax contacts sold separately.



# MDTX Receptacle With Straight PC Tail Twinax Pin Contact

Part Number	Contacts
014117-0012	2
014117-0014	4
014117-0016	6
014117-0018	8

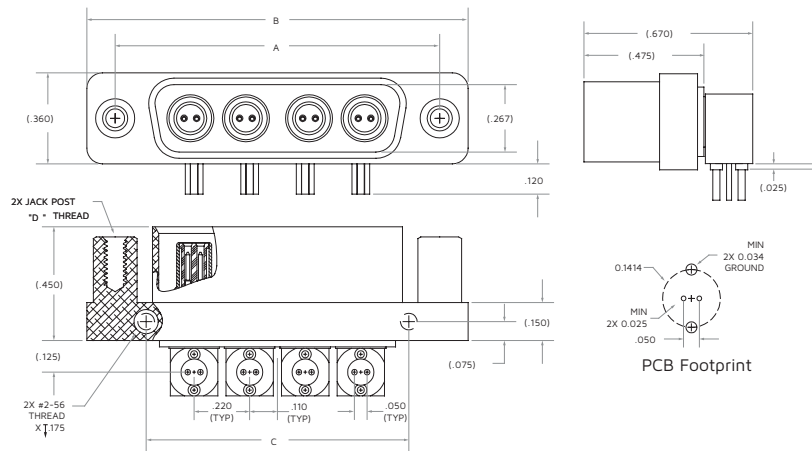
PC tail Twinax contacts included.



# MDTX Receptacle With R/A PC Tail Twinax Pin Contact

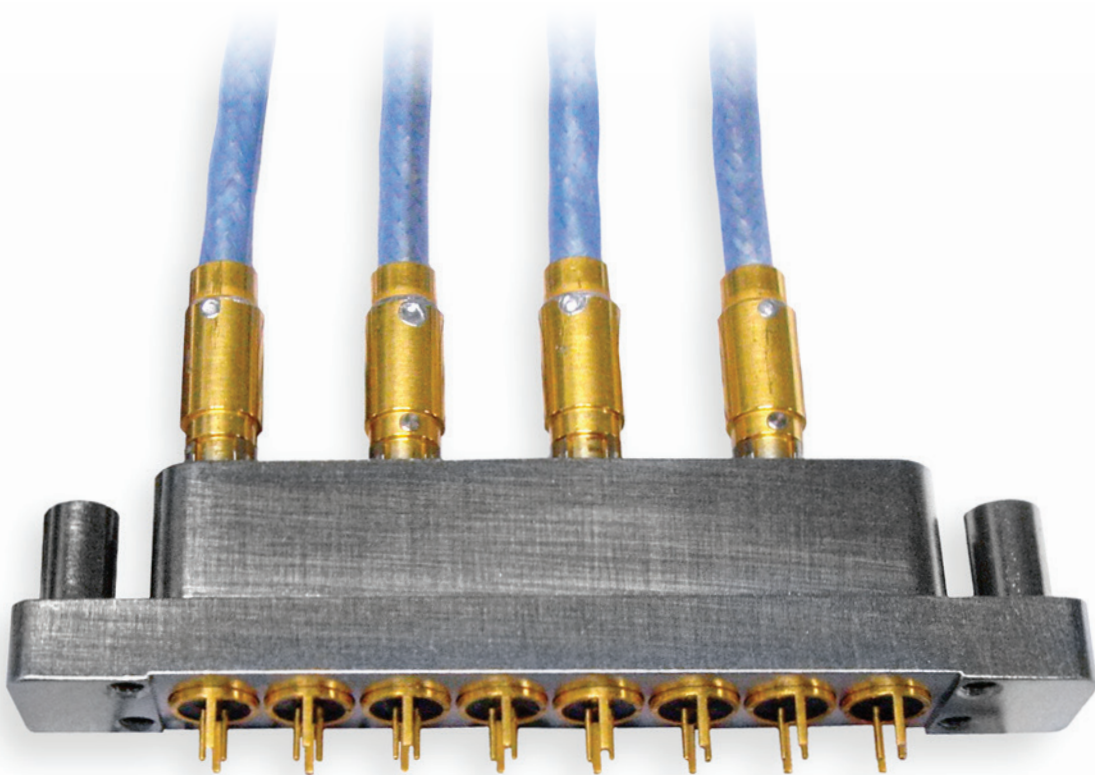
Part Number	Contacts
014117-1112	2
014117-1114	4
014117-1116	6
014117-1118	8

R/A PC tail Twinax contacts included.



## Ordering

Please, contact our Sales office or visit our website for quotations.



### Disclaimer

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