multiLane

SMPM Multiport Connectors & Cable Assemblies

Solutions Accommodating Design Density Limitations

Test & Measurement | Telecommunications | High Speed Digital

HIGH PERFORMANCE SOLUTIONS FOR HIGH DENSITY APPLICATIONS

Covering a frequency range up to 60 GHz per channel while maintaining a consistent impedance profile with low insertion and return loss, our Sub-Miniature Push-On Micro connectors are excellent for high frequency applications where design density limitations matter

Features & Benefits

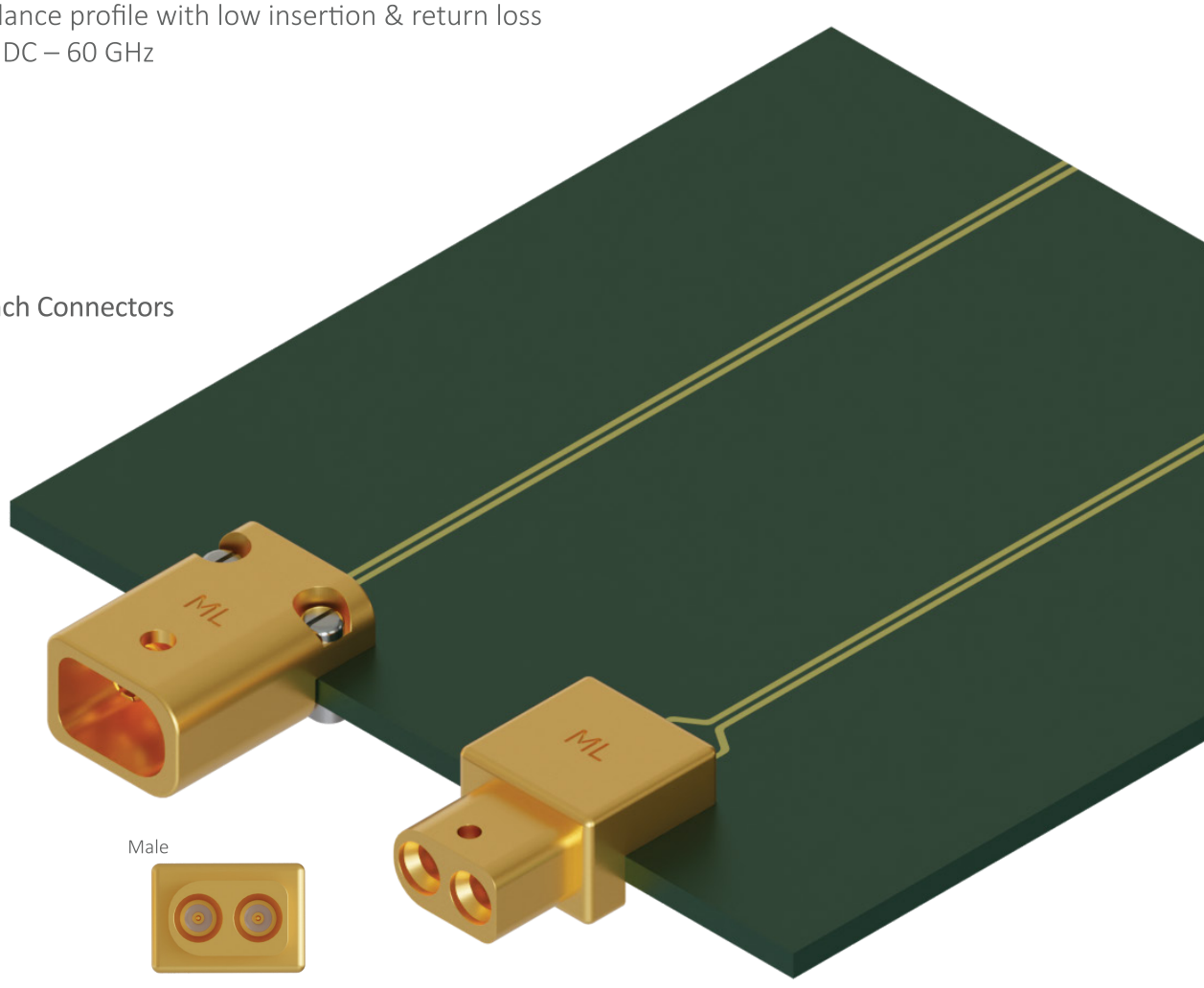
Solderless design
Facilitates maintenance flexibility ensuring a faster assembly and yield time.

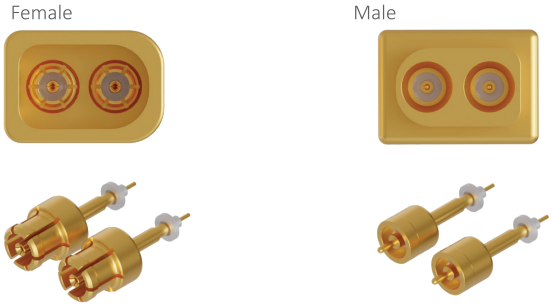
Two inter-mating connector interfaces
A gang of 2 conductive pins in a single compact form factor.
Male & Female connectors mate directly without any intermediary.
Offered in edge mount configuration.
Male connector offered with both standard detents: smooth bore or full detent

Footprints can be optimized to application specific PCB stack ups
Test boards available for purchase

Excellent for high frequency applications
Consistent impedance profile with low insertion & return loss
Frequency range DC – 60 GHz

SMPM Edge Launch Connectors





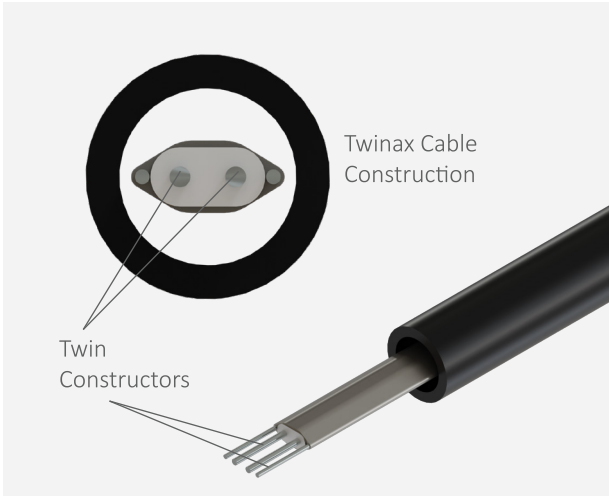
Versatility Ensured With Our Twinax Cable Assembly Line

Twinax cables transmit a single signal in differential pairs with very low skew, ensuring extra protection from environmental factors.

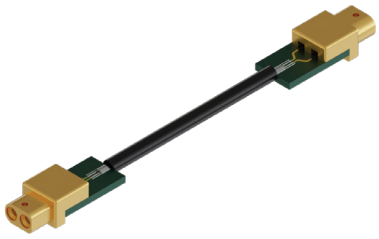
Our line of twinax SMPS cable assemblies answers the three most prominent industry trends: cost effectiveness, high density design, and high data rate requirements.

Our SMPS twinax cable assemblies are fully capable of 112Gb/s & 224Gb/s data rates.

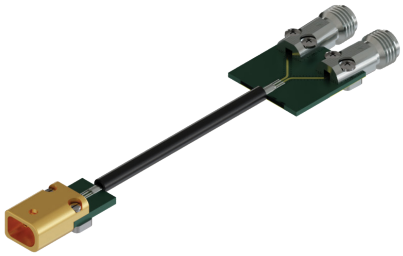
Our standard offering includes the following cable configurations with customization offered upon request:



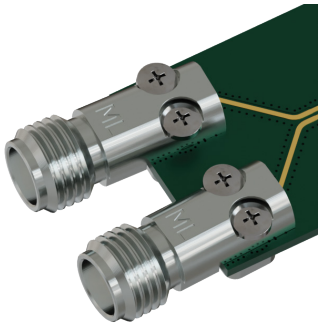
SMPM to Standard Precision RF Connectors Cable Assemblies



Male SMPM to Standard Precision Connectors

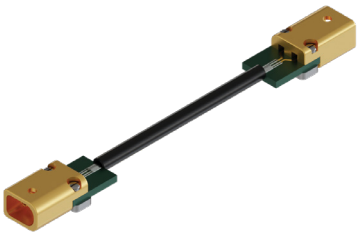


Female SMPM to Standard Precision Connectors

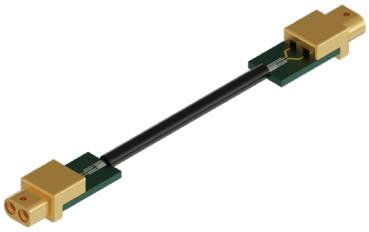


1.85 mm or 2.92 mm MultiLane's signature EMI precision connectors on opposite end

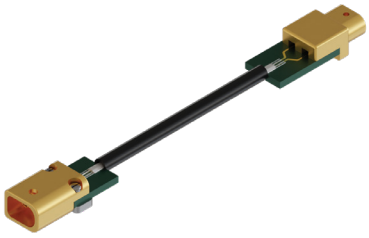
SMPM to SMPM Cable Assemblies



Female SMPM to Female SMPM



Male SMPM to Male SMPM



Female SMPM to Male SMPM

Compact Interconnects For Maximum System Design Versatility

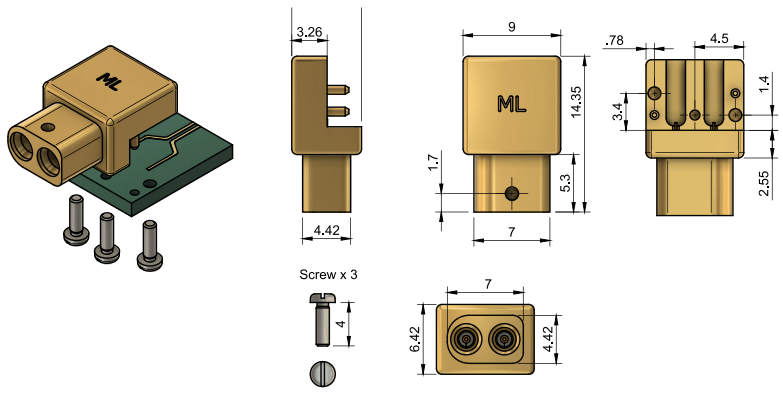
Material & Environmental Specifications

Materials	Connectors Body	Brass
	Center Contact	Gold Plated BeCu
	Insulators	PCTFE
	Protective Shells	Aluminum
	Twinax Cable Tubing	Nylon
	Precision Rf Board Mount Connectors	Stainless steel body with BeCu Center Contact
Working Temperature Range		-65°C to +165°C

Mechanical Specifications

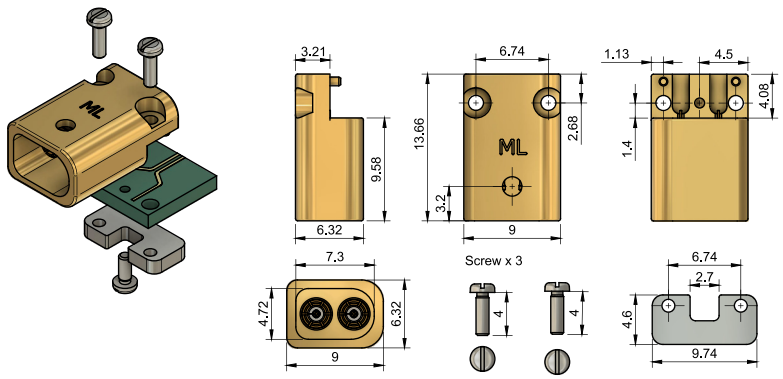
Configurations	Mating Forces per channel		Typical Mating Cycles
	Engage	Disengage	
Female to Male Smooth Bore Connector	1.5 lbs	1.0 lbs	> 1000 cycles

Male SMPM Board Mount Connector

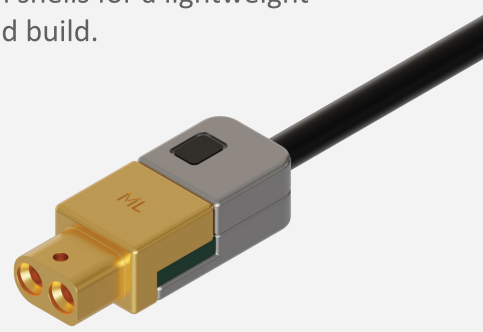


Twinax cable length can go from .15 m to 1.00 m

Female SMPM Board Mount Connector



Aluminum shells for a lightweight ruggedized build.



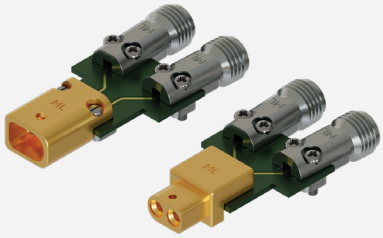
Signal Integrity Prioritized

We recognize one of industry's biggest challenges: consolidating a PCB stack up with the appropriate connector. From connector selection all the way to specific footprint optimization, MultiLane's facilities and expertise allow us to tailor our connectors to your specific applications.

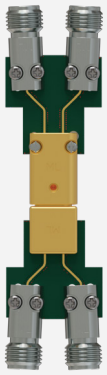
We Can Provide You With:

- Custom evaluation boards
- 3D & SI simulation files provided for your own testing and design
- Quick turnaround designs: Design, prototyping and simulation all done in house

SMPM Test Boards Available



General Electrical Specifications	Mated SMPM Board Mount Connectors (112 Gb/s)
Nominal Impedance	50 ohms
Frequency Range	DC - 65 GHz
Insertion Loss	< - 0.25 dB to 65 GHz
Return Loss	≥ 26 dB @ DC to 26.5 GHz ≥ 17 dB @ 26.5 GHz to 50 GHz ≥ 14 dB @ 50 GHz to 65 GHz
Insulation Resistance	5,000 megohms
DWV (at sea level)	250 VRMS typical
RF Leakage	> 100 dB



Cable Assemblies Signal Integrity Performance	SMPM Twinax Cable Assemblies (112 Gb/s)
	
Nominal Impedance	50 Ohm
Frequency Range	Up to 50 GHz
Insertion Loss	- 13 dB max up to 26.5 GHz
Return Loss	10 dB up to 50 GHz max
Shield Effectivenes	> 80 dB

multilaneinc.com