

Multiport SMPX Coax Cable Assemblies

Flexible 047, Breakout to SMPX(F) | Precision 1.00 mm & 1.85 mm

Cable Configurations

Connector	SMPX (F)
	SMPX (F)
	1.00 mm Female
Breakout Options	1.00 Male
	1.85 mm Female
	1.85 mm Male
Type of Cable	047 Flexible

SMPX (F) Connector Materials

Description	Material	Finish
Ground Bodies	Brass	Gold Plated
Signal Body	Beryllium Copper	Gold Plated
Enclosure	Aluminum	Anodized

SPC Solid PTFE Helically Wrapped Shield Braided Shield FEP Jacket



Mechanical Specifications

Shield Diameter	0.047 inch (1.19 mm)
	Static: 2.5 x Jacket Diameter
Minimum Bending Radius	Dynamic: 5 x Jacket Diameter

Environmental Specifications

Operating Temperature Range	-45 to +100 °C
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Features:

- Blind Mate
- Easy Installation
- Field Replaceable
- Customizable

Multiport Offering:

- 1x2
- 1x4
- 1x8
- 2x8
- 1x16
- 1x32



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Breakout to Precision 1.00 mm

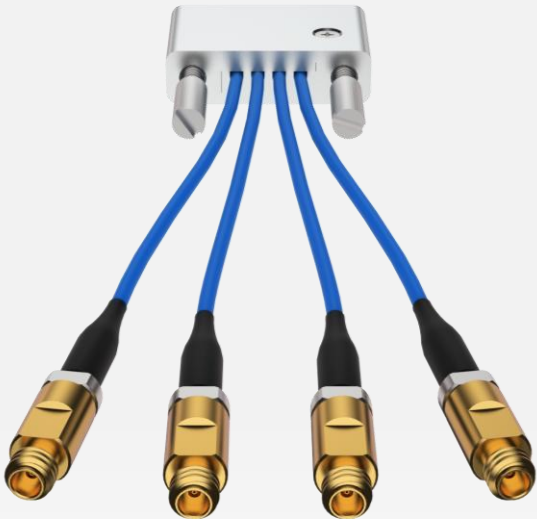
Precision Connector Materials

Description	Material	Finish
Center Pin	Beryllium Copper	Gold Plated
Connector Body	Stainless Steel	Gold Plated

Electrical Specifications

Impedance	50 Ohms
Frequency Range	DC to 110 GHz
V.S.W.R	1.4
Velocity of Propagation	70%

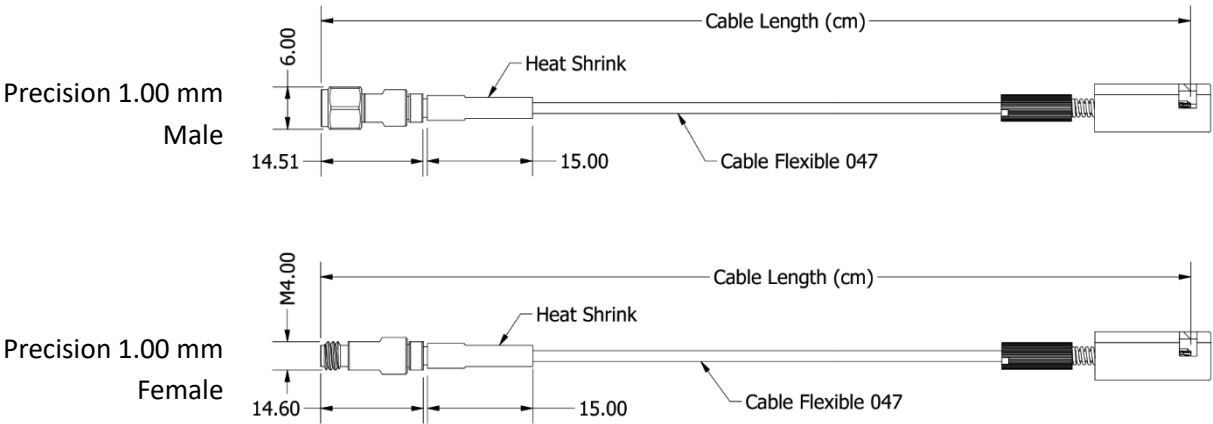
Cable Length	Measured Insertion Loss			
	26 GHz	53 GHz	67 GHz	110 GHz
7.5 cm	-0.8 dB	-1.3 dB	-1.6 dB	-2.3 dB
15 cm	-1.33 dB	-2.24 dB	-2.6 dB	-4 dB
25 cm	-1.97 dB	-3.14 dB	-3.74 dB	-5.6 dB
30 cm	-2.4 dB	-3.86 dB	-4.72 dB	-6.5 dB
45 cm	-3.56 dB	-5.47 dB	-6.6 dB	-9.43 dB
60 cm	-4.6 dB	-7.11 dB	-8.4 dB	-12.68 dB
80 cm	-5.51 dB	-9.07 dB	-10.92 dB	-16.6 dB
100 cm	-7.33 dB	-12.89 dB	-13.93 dB	-20.6 dB
120 cm	-8.75 dB	-15.4 dB	-16.6 dB	-24.6 dB



Interface Handling: Electrical performance assumes clean, dry, and undamaged connector interfaces

Protect unmated interfaces with clean caps during shipment and storage; caps provide contamination and mechanical protection only and do not guarantee an IP rating

Inspect and clean interfaces before mating



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Breakout to Precision 1.85 mm

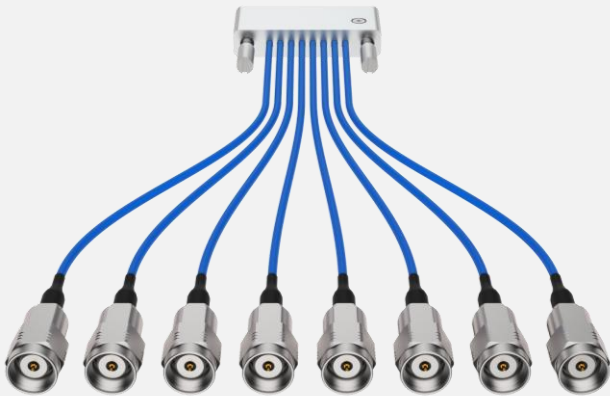
Precision Connector Materials

Description	Material	Finish
Center Pin	Beryllium Copper	Gold Plated
Connector Body	Stainless Steel	Gold Plated

Electrical Specifications

Impedance	50 Ohms
Frequency Range	DC to 67 GHz
V.S.W.R	1.4
Velocity of Propagation	70%

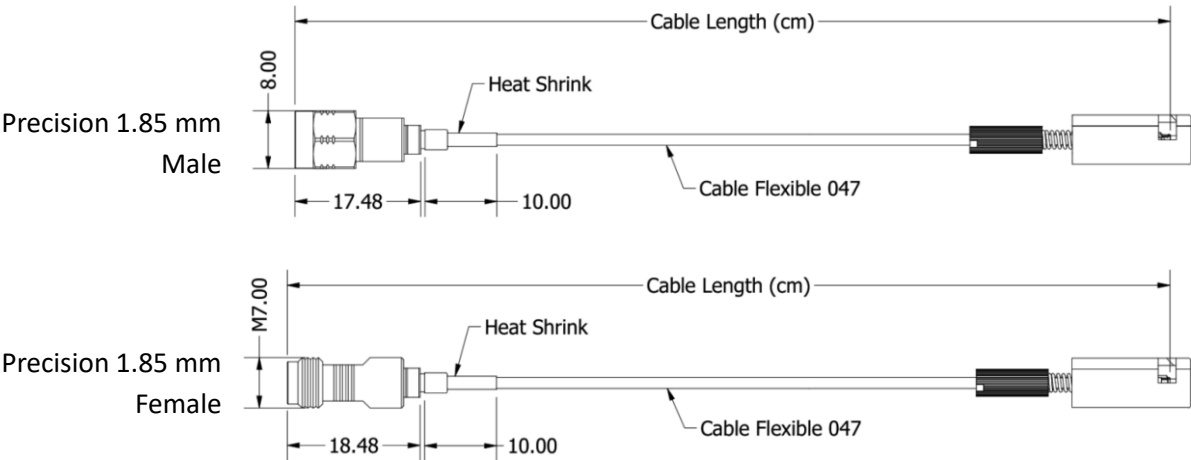
Measured Insertion Loss				
Cable Length	12.5 GHz	26 GHz	53 GHz	67 GHz
7.5 cm	-0.78 dB	-1.1 dB	-1.58 dB	-1.91 dB
15 cm	-0.93 dB	-1.42 dB	-2.3 dB	-2.8 dB
25 cm	-1.13 dB	-1.84 dB	-3.25 dB	-3.98 dB
30 cm	-1.6 dB	-2.42 dB	-3.77 dB	-4.6 dB
45 cm	-2.4 dB	-3.57 dB	-5.51 dB	-6.6 dB
60 cm	-3.15 dB	-4.7 dB	-7.3 dB	-8.7 dB
80 cm	-3.83 dB	-5.75 dB	-8.67 dB	-10.6 dB
100 cm	-3.95 dB	-6.15 dB	-10.55 dB	-12.83 dB
120 cm	-6.67 dB	-10.1 dB	-17.7 dB	-16.8 dB



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Breakout to SMPX (F)

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Signal Body	Beryllium Copper	Gold Plated

Electrical Specifications

Impedance	50 Ohms
Frequency Range	DC to 110 GHz
V.S.W.R	1.4
Velocity of Propagation	70%

Measured Insertion Loss

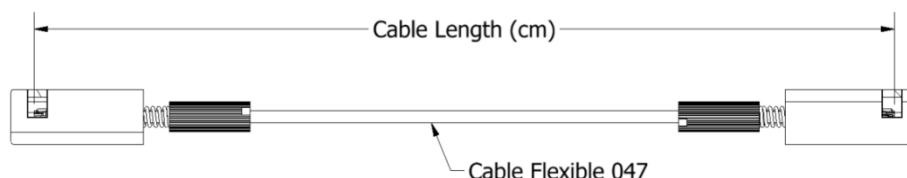
Cable Length	26 GHz	53 GHz	67 GHz	110 GHz
7.5 cm	-0.92 dB	-1.79 dB	-2.4 dB	-2.7 dB
15 cm	-1.44 dB	-2.53 dB	-3.2 dB	-4 dB
25 cm	-1.98 dB	-3.51 dB	-4.3 dB	-5.7 dB
30 cm	-2.48 dB	-4 dB	-4.8 dB	-6.6 dB
45 cm	-3.52 dB	-5.47 dB	-6.4 dB	-9.2 dB
60 cm	-4.56 dB	-6.94 dB	-8 dB	-11.8 dB
80 cm	-6.52 dB	-8.9 dB	-10.13 dB	-15.26 dB
100 cm	-8.16 dB	-10.86 dB	-12.26 dB	-18.73 dB
120 cm	-9.77 dB	-12.82 dB	-14.4 dB	-22.2 dB



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Inspect and clean interfaces before mating



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Ganged Cable Assemblies

SMPX 1x2



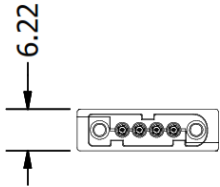
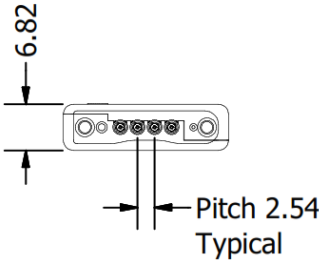
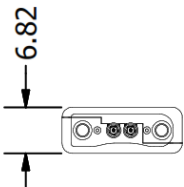
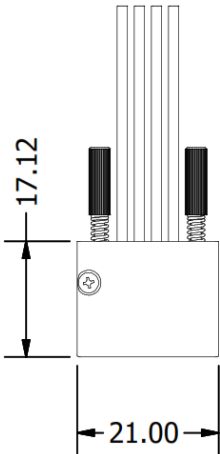
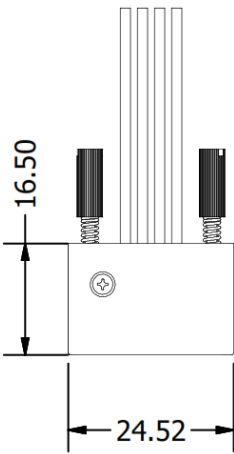
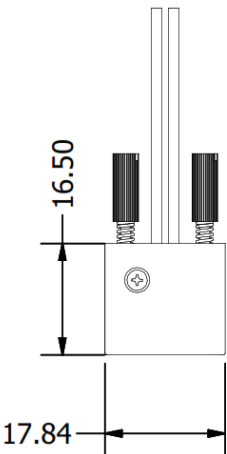
SMPX 1x4



SMPX 1x4 TRP



*Compact
Form Factor*



Multiport SMPX Coax Cable Assemblies

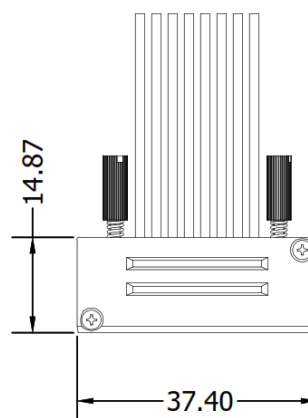
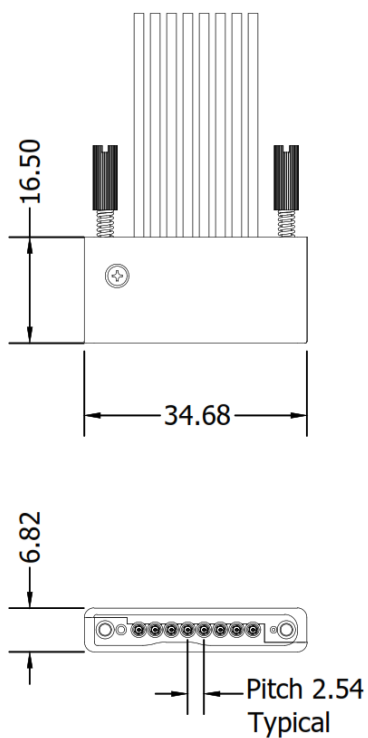
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Ganged Cable Assemblies

SMPX 1x8



SMPX 2x8



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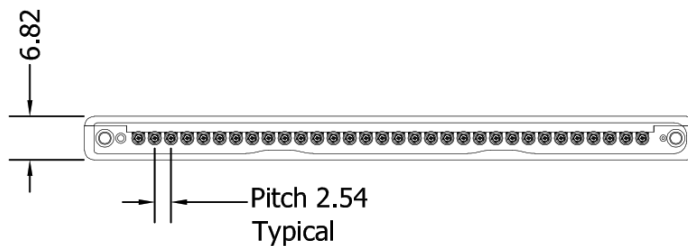
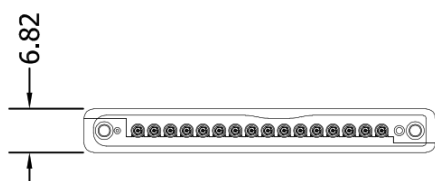
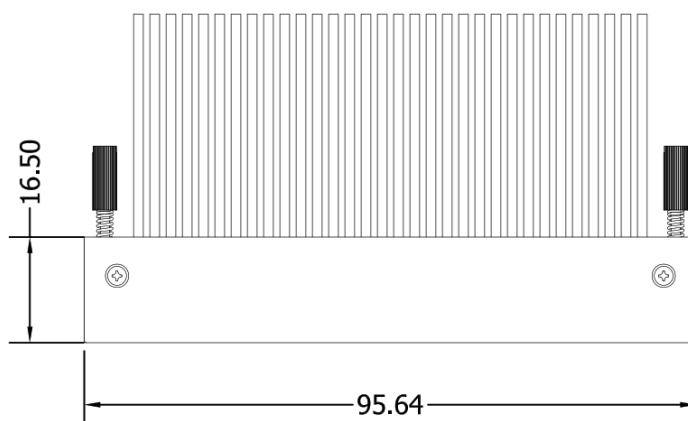
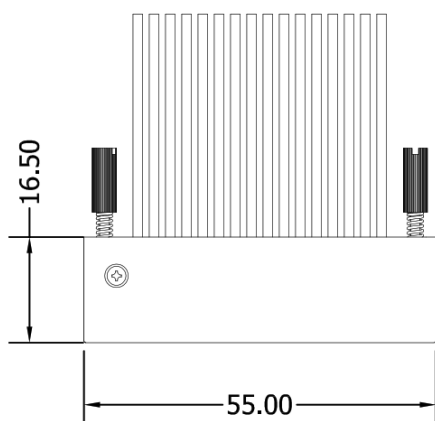
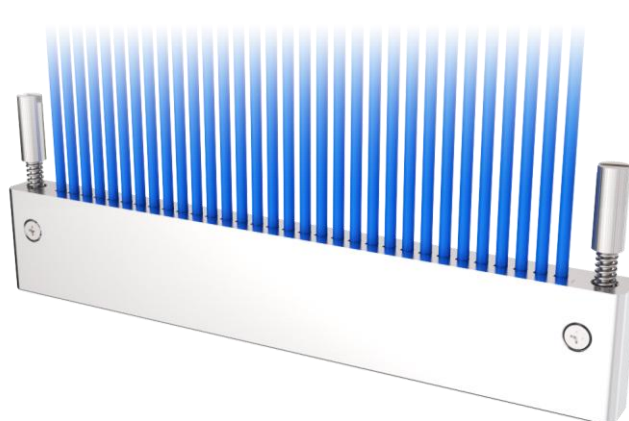
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Ganged Cable Assemblies

SMPX 1x16



SMPX 1x32



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How to Order

SMPX (F) to Precision 1.00 mm or 1.85 mm Breakout

Customer Part Number:

MLCC-SMPXBFC~~XXX~~-F047~~ZZ~~-~~YYYY~~ST-~~U~~

Ports	XXX	Length	ZZ	Connector	YYYY	Phase Match	U
1x2	12	7.5 cm	075	1.00 Male	100M	≤ 0.3 ps	03
1x4	14	15 cm	15	1.00 Female	100F	≤ 1.0 ps	null
1x4 TRP	14TRP00	30 cm	30	1.85 Male	185M		
1x8	18	45 cm	45	1.85 Female	185F		
2x8	28HF00	60 cm	60				
1x16	116	Custom Lengths					
1x32	132	Available					

SMPX (F) to SMPX (F) Breakout

Customer Part Number:

MLCC-SMPXBFC~~XXX~~-F047~~ZZ~~-SMPXBFC~~YYY~~-~~U~~

Side 1 Ports	XXX	Length	ZZ	Side 2 Ports	YYY	Phase Match	U
1x2	12	7.5 cm	075	1x2	12	≤ 0.3 ps	03
1x4	14	15 cm	15	1x4	14	≤ 1.0 ps	null
1x4 TRP	14TRP00	30 cm	30	1x4 TRP	14TRP00		
1x8	18	45 cm	45	1x8	18		
2x8	28HF00	60 cm	60	2x8	28HF00		
1x16	116	Custom Lengths		1x16	116		
1x32	132	Available		1x32	132		

Example:

PN: MLCC-SMPXBFC18-F04715-100MST-03

Description: Coax Cable Assembly, 1X8 SMPX Blind-Mate (F) to 1.00 mm (M), Flexible 047, 15 cm, phase matched to +/-0.15 ps

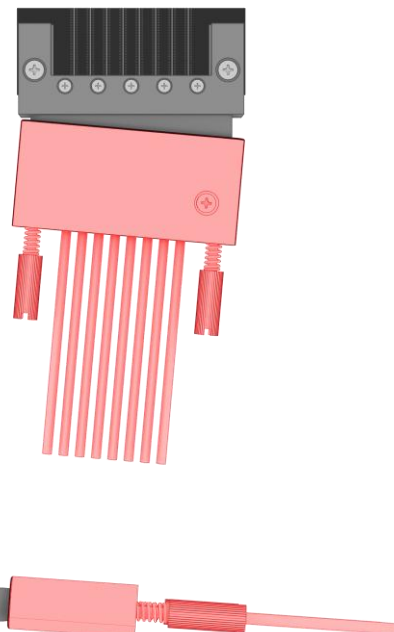
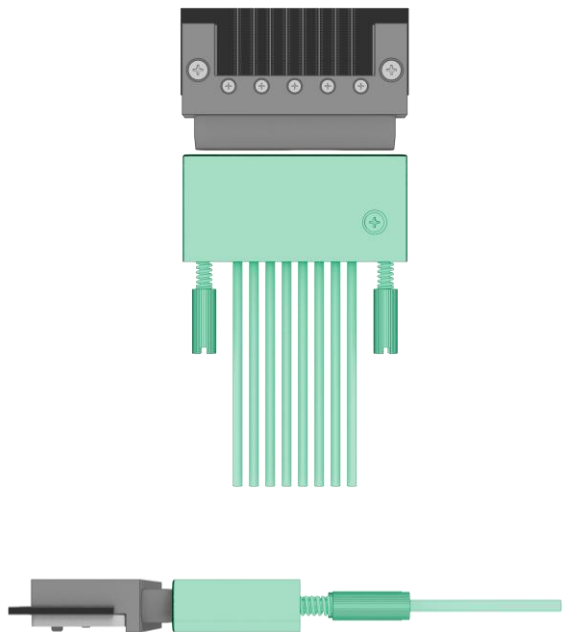
Note: For custom routing configurations, reach out to sales@multilaneinc.com

Multiport SMPX Coax Cable Assemblies

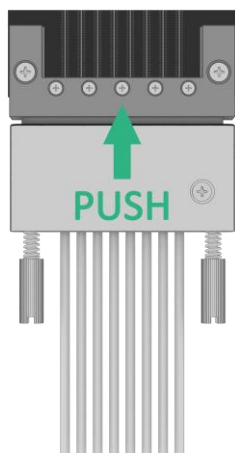
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Mating Instructions

1. Ensure a straight alignment between the cable assembly and the connector

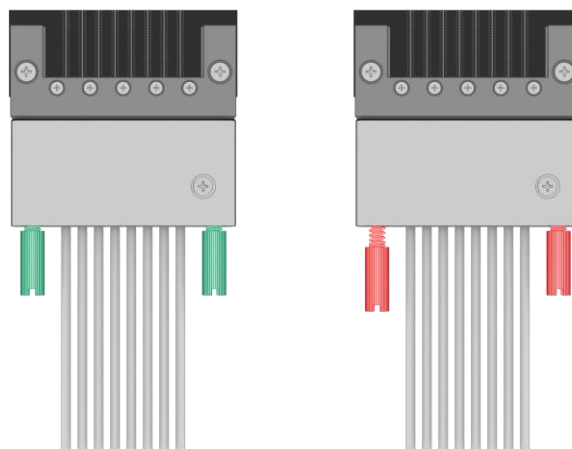


2. Push the cable assembly toward the male connector before tightening the screws



3. Tighten the two captive thumb screws evenly and in parallel using a torque screwdriver with an ideal torque of **0.5 in-lb (5.65 cN.m)**

Do not fully tighten one side before the other



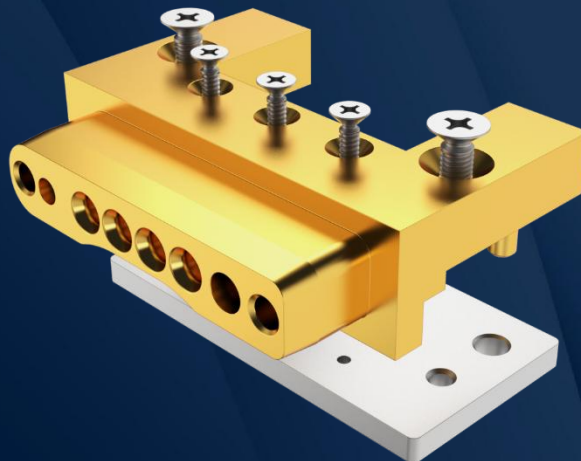
Explore the SMPX Ecosystem

SMPX Vertical Mount Connectors



[Click Here](#) for Technical Datasheet

SMPX Edge Launch Connectors



[Click Here](#) for Technical Datasheet



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