

# P1DB50-24M24M-24

Precision test cable, 2.4mm male to 2.4mm male, Phase-Flex stable cable, 24 inch. Frequency DC to 50 GHz. VSWR 1.25 max. Insertion loss 2.6 dB max DC to 50 GHz. Armored flexible cable with extra durable injection molded boots at each connector.

## Product Features

P1DB50-24M24M-24 is an ultra-stable RF test cable with excellent phase and amplitude stability when the cable is flexed.

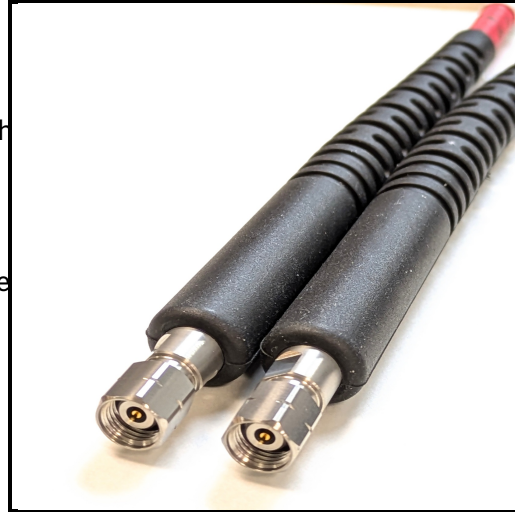
Frequency is DC to 50 GHz with a 1.25 max VSWR. The connectors are precision 2.4 mm male, passivated stainless steel.

Phase stability is +/- 5 deg max and amplitude stability is +/- .05 dB max.

Max Insertion Loss for this 24 inch long assembly is 2.62 dB, DC to 50 GHz.

The cable diameter is 6 mm (0.24 Inch) and is armored with durable injection molded boots attaching the connectors.

Video showing phase and amplitude stability performance during cable flex:



## Cable dynamic testing

### Electrical Specification: $T_{\text{Ambient}} = 25^{\circ}\text{C}$

Parameter	Frequency Range	Units	Min	Typical	Max	Notes
Frequency Range		GHz	DC		50.0 GHz	

### Mechanical And Environmental Specifications:

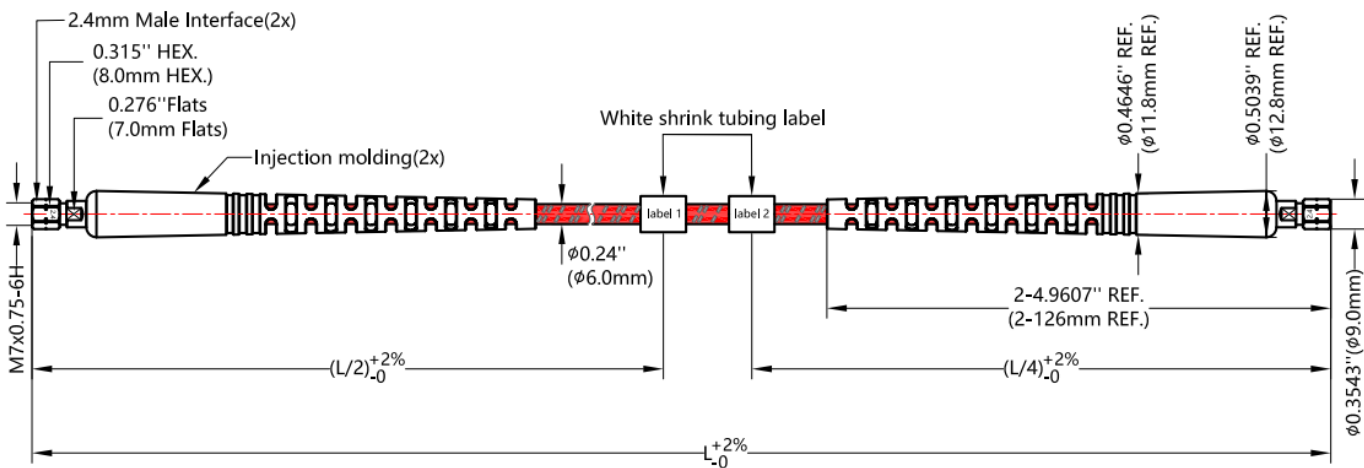
Parameter	Description	Notes
Connector 1	2.4mm Male	
Connector 2	2.4mm Male	
Coax Cable	Phase-Flex stable test cable	

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Parameter	Description	Notes
Coax Diameter	0.24	
Length	24.0	
RoHS Compliance	Yes	

## Drawing

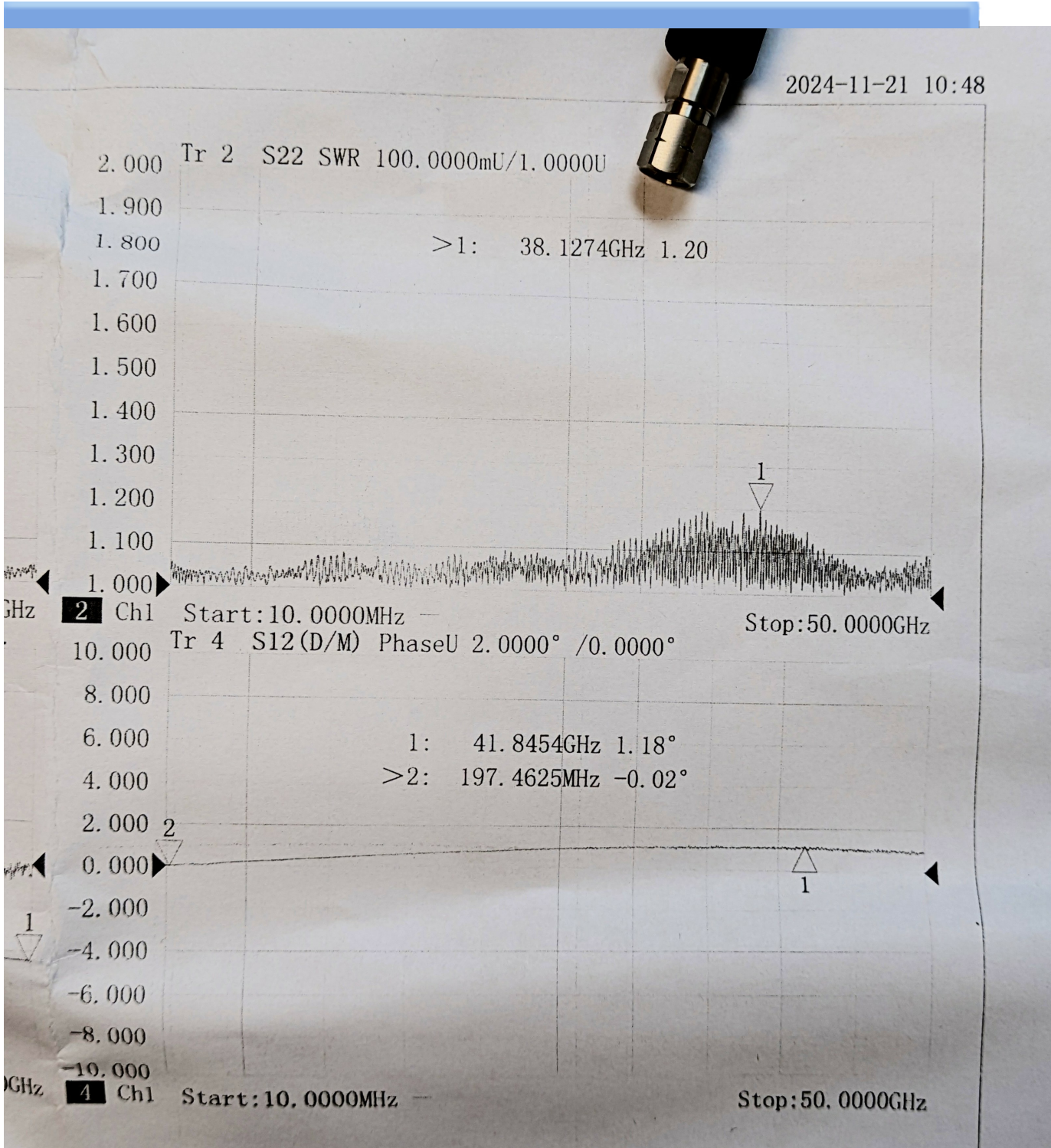


## Graph

Piece Parts	Materials	Plating	Impedance	50±2 Ω
Coupling nut	Stainless steel	Passivation	Frequency range	DC ~ 50GHz
Body	Stainless steel	Passivation	Voltage rating	335V(rms)
Contact Pin	Be-Cu	Gold	Dielectric withstanding voltage	750V(DC)
Insulator	PEEK	Natural	Insulation resistance	3000MΩ
Cable	P1DB50, Armored low loss phase stable cable (Red+Gray)		Insertion Loss	$(0.0834 * L(IN) + (0.06 * \sqrt{F(GHz)})) * 1.08$ dB Max.
			VSWR	1.25 Max.
			Phase stability*	±5° Max. (Based on manufacturer test method)
			Amplitude stability*	±0.05dB Max. (Based on manufacturer test method)

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## Product Notes

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Frequency DC to 50 GHz. VSWR 1.25 max. Insertion loss 2.6 dB max DC to 50 GHz. Armored flexible cable with extra durable injection molded boots at each connector.

Crush resistance >200 IB (100kg)

Flexure life cycles > 20,000

Mating cycles >5,000

Min bend radius 1.18 inch (30 mm)

Operating temp -40 to +125 C.

Compare to Gore Phase-Flex & Maury StabilityPlus test cables.