

Product Features

P1dB's P1CA-29M29M-400PT-1M is a 50 Ohm precision test cable operating to 40 GHz. This high performance test cable provides excellent phase and amplitude stability during flexure. With 2.92mm stainless steel connectors, the assembly is 1 meter long and operates to 40 GHz. Typical VSWR up to 40 GHz is 1.25 (1.35 maximum). Typical insertion loss to 40 GHz for this 1 meter assembly is 3.6 dB.

Phase stability vs flexure (degrees) for the 1 meter assembly is +/- 4.95 typical (7.90 maximum).

Amplitude stability vs flexure (dB) for a 1 meter assembly is +/- 0.06 typical (0.15 maximum).

Velocity of propagation is 74 %.

The cable outer diameter is 0.400 inch (10.4mm) and features a braided jacket over extra braided strength and crush resistance layers.



Electrical Specification: T_{Ambient} = 25° C

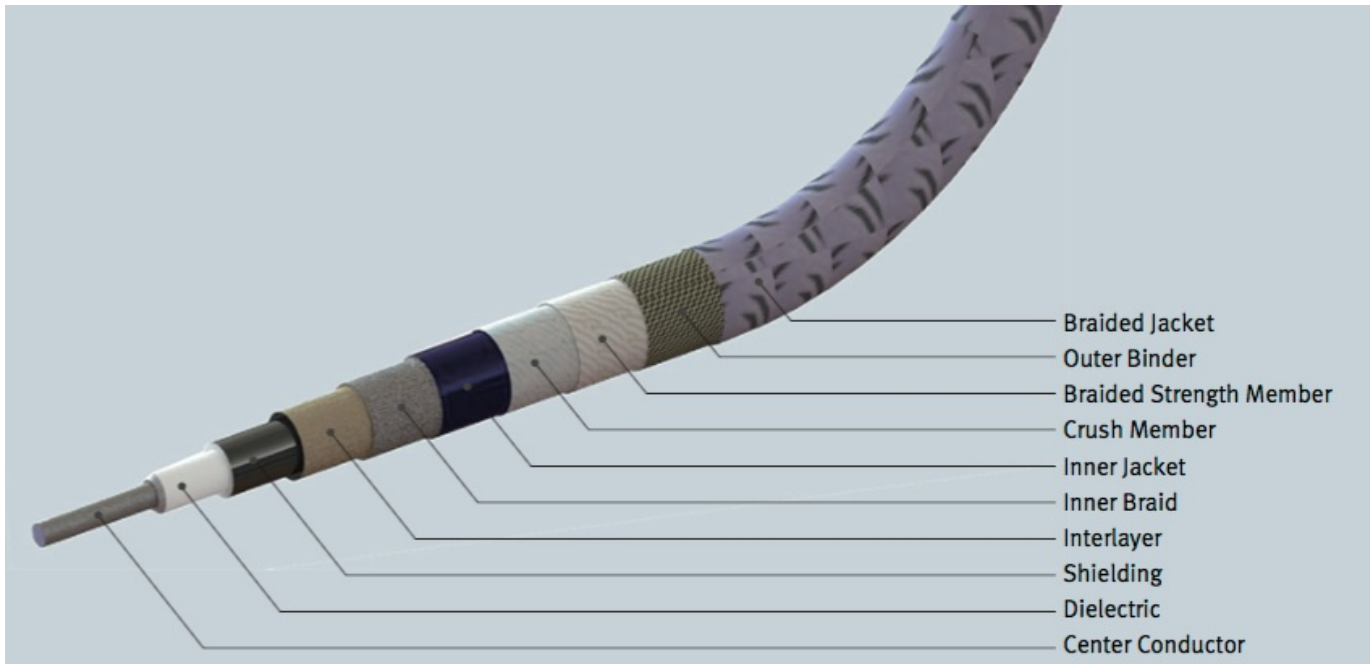
Parameter	Frequency Range	Units	Min	Typical	Max	Notes
Frequency Range		GHz	DC		40.0	

Mechanical And Environmental Specifications:

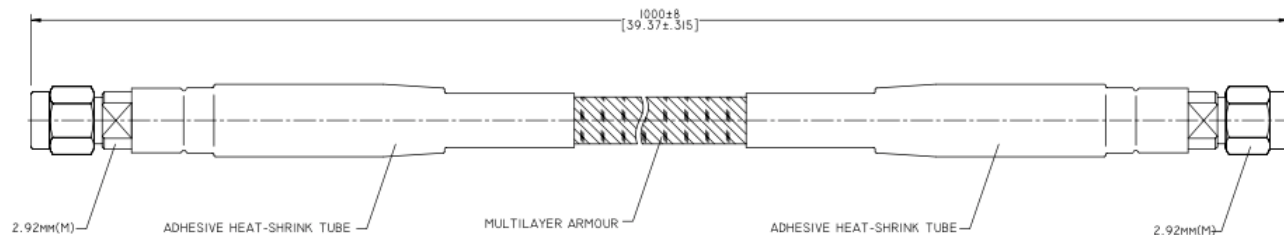
Parameter	Description	Notes
Connector 1	2.92mm Male	
Connector 2	2.92mm Male	
Coax Cable	Phase-Flex stable test cable	
Cable Type	400PT	
Coax Diameter	0.400	
RoHS Compliance	Yes	

Drawing

Precision test cable, 2.92mm Male to 2.92mm Male, 400PT Phase-Flex stable cable, 1 meter, operating to 40 GHz. Typical lead time is 4 weeks.



Graph



MATERIAL & FINISH:

- 1 CONNECTOR BODY: STAINLESS STEEL, PASSIVATED
- 2 CONNECTOR CENTER CONTACT: BERYLLIUM COPPER ALLOY, GOLD PLATED
- 3 OUTER JACKET: MULTILAYER ARMOUR

ELECTRICAL DATA:

- 1 IMPEDANCE: 50 OHMS
- 2 FREQUENCY RANGE: DC-40 GHz
- 3 VSWR: 1.25 TYP. / 1.35 MAX.
- 4 INSERTION LOSS: 3.7 DB TYP.
- 5 PHASE STABILITY: $\pm 4.95^\circ$ TYP. / $\pm 7.90^\circ$ MAX.
- 6 AMPLITUDE STABILITY: ± 0.06 DB TYP. / ± 0.15 DB MAX.

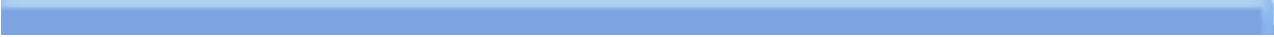
ENVIRONMENTAL DATA:

- 1 OPERATING TEMPERATURE: -55°C ~ $+125^\circ\text{C}$
- 2 STORAGE TEMPERATURE: -65°C ~ $+165^\circ\text{C}$
- 3 A0:2011/65/EU(RoHS) AND 2015/863/(RoHS): COMPLIANT
- 4 1999/45/EC(REACH): COMPLIANT
- 5 CRUSH RESISTANCE: > 100 KG

MECHANICAL DATA:

- 1 MAXIMUM OUTER DIAMETER: 10.4 MM
- 2 MINIMUM STATIC BEND RADIUS: 32 MM
- 3 MATING CYCLES: > 5000
- 4 RECOMMENDED TORQUE: 0.9 NM.

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Crush resistance >200 LB (100kg)

Flexure life cycles > 20,000