1.85mm Male to 1.85mm Female 70GHz Phase & Amplitude Stable Cable Assembly

PECN3TC0900

Configuration

- Connector 1: 1.85mm Male
- Connector 2: 1.85mm Female
- Coax Flex Type: Flexible

Features

- Max Frequency 70 GHz
- Shielding Effectivity > 90 dB
- 74% Phase Velocity
- Double Shielded
- Designed for use as VNA test port extenders
- Highly flexible armored cable construction
- 1.40:1 VSWR to 67 GHz
- Excellent amplitude and phase stability with flexure
- Non-conductive protective Nomex outer sleeve
- Each serialized assembly comes with test data
- In-stock and ready to ship same-day

Applications

- General Purpose
- Laboratory Use
- Vector Network analyzer test port extenders
- Semiconductor probe testing
- Precise bench-top testing
- Lab and production testing

Description

Pasternack's PECN3TC0900 1.85mm male to 1.85mm female cable using coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack 1.85mm to 1.85mm cable assembly has a male to female gender configuration with 50 ohm flexible coax. The PECN3TC0900 1.85mm male to 1.85mm female cable assembly operates to 70 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB. Pasternack high performance high flex VNA test cables are designed to provide customers repeatable and accurate VNA measurements. These Test cables have excellent electrical properties including low Insertion Loss, low VSWR and phase stability of +/- 8¡ã with flexure. The braided stainless steel armoring provides a rugged, but flexible cable with a life exceeding 100,000 flex cycles. The rugged connectors provide up to 5,000 mating cycles when attached with proper care. The flexibility of these cables makes it easier and safer to test your Device Under Test (DUT).? When used with the appropriate calibration kit, these test cables effectively extend the test port of the VNA allowing for accurate measurements of devices that cannot be directly connected to a network analyzer test port.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		70	GHz
VSWR			1.4:1	

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Velocity of Propagation		74		%
RF Shielding	90			dB
Group Delay		1.37 [4.49]		ns/ft [ns/m]
Operating Voltage (AC)			170	Vrms
Input Power (Average)			20	Watts
Phase Stability with Flexure		12		Degrees
Amplitude Stability with Flexure		0.15		dB

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	5	10	20	40	70	GHz
Insertion Loss (Max.)	0.51	0.73	1.06	1.54	2.11	dB/ft
	1.67	2.4	3.48	5.05	6.92	dB/m
Power Handling (Max.)					20	Watts

Electrical Specification Notes:
Values at 25¡ãC, sea level.

Mechanical Specifications

Cable Assembly

Width/Diameter	0 in [0 mm]

Cable

Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	2
Jacket Diameter	0.185 in [4.7 mm]
One Time Minimum Bend Radius	0.91 in [23.11 mm]
Repeated Minimum Bend Radius	1.85 in [46.99 mm]

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Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Female
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PEEK&PEI	PEEK&PEI
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Torque	8 in-lbs 0.9 Nm	8 in-lbs 0.9 Nm

Environmental Specifications

Operating Range Temperature	-40 to +85 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:
Values at 25¡ãC, sea level.

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PECN3TC0900

Typical Performance Data

How to Order

Part Number Configuration: **PECN3TC0900 - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- PECN3TC0900 — Base Number

Example: PECN3TC0900-12 = 12 inches long cable
PECN3TC0900-100cm = 100 cm long cable

1.85mm Male to 1.85mm Female 70GHz Phase & Amplitude Stable Cable Assembly from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 1.85mm Male to 1.85mm Female 70GHz Phase & Amplitude Stable Cable Assembly PECN3TC0900

URL: https://www.pasternack.com/1.85mm-male-1.85mm-female-vna-cable-cable-assembly-pecn3tc0900-p.aspx

PECN3TC0900 CAD Drawing

1.85mm Male to 1.85mm Female 70GHz Phase & Amplitude Stable Cable Assembly