

1.85mm Male to 1.85mm Male Low Loss Test Cable Using PE-TC142A Coax



PE3C100081

Configuration

- Connector 1: 1.85mm Male
- Connector 2: 1.85mm Male
- Cable Type: PE-TC142A
- Coax Flex Type: Flexible

Features

- Max Frequency 67 GHz
- 77% Phase Velocity
- Double Shielded
- Ruggedized Aramid yarn Jacket
- Excellent Phase and Loss Stability with Flexure
- Low Loss Performance

Applications

- General Purpose
- Test & Measurement
- Laboratory Use
- VNA Test Port Extenders
- Semiconductor Probe Testing
- Precise Bench-Top Testing
- Lab and Production Testing

Description

Pasternack's PE3C100081 1.85mm male to 1.85mm male cable using PE-TC142A 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 male gender configuration with 50 ohm flexible PE-TC142A coax. The PE3C100081 1.85mm male to 1.85mm male cable assembly operates to 67 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness.

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		67	GHz
VSWR			1.5:1	
Velocity of Propagation		77		%
Phase Stability with Flexure		19		Degrees
Loss Stability with Flexure		0.1		dB

Specifications by Frequency

1.85mm Male to 1.85mm Male Low Loss
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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency		5000	10000	20000	40000	
PE3C100081	Custom Lengths Available	Insertion Loss (Typ.)	0.456	0.655	0.98	1.439	1.925	dB/ft	
			1.5	2.15	3.22	4.73	6.32	dB/m	
PE3C100081-12	12 In	Insertion Loss (Typ.)	0.68	0.98	1.43	2.08	2.75	dB	0.416
PE3C100081-24	24 In	Insertion Loss (Typ.)	1.14	1.63	2.41	3.52	4.67	dB	0.432
PE3C100081-36	36 In	Insertion Loss (Typ.)	1.6	2.29	3.39	4.95	6.6	dB	0.448
PE3C100081-100CM	100 CM	Insertion Loss (Typ.)	1.72	2.47	3.67	5.36	7.14	dB	0.452
PE3C100081-150CM	150 CM	Insertion Loss (Typ.)	2.47	3.54	5.28	7.72	10.3	dB	0.478

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

- Loss due to Connector 1: 0.05*SQRT(FGHz) dB
- Loss due to Connector 2: 0.05*SQRT(FGHz) dB
- Base Weight: 0.416 pounds
- Additional Weight per Inch: 0.00133 pounds

Mechanical Specifications

Cable Assembly

- Width/Diameter: 0.5 in [12.7 mm]
- Weight: 0.416 lbs [188.69 g]

Cable

- Cable Type: PE-TC142A
- Impedance: 50 Ohms
- Inner Conductor Type: Stranded
- Inner Conductor Material and Plating: Copper, Silver
- Dielectric Type: PTFE
- Number of Shields: 2
- Shield Layer 1: Silver Plated Copper
- Shield Layer 2: Silver Plated Copper Braid
- Jacket Material: Ruggedized Aramid yarn
- Jacket Diameter: 0.141 in [3.58 mm]
- Repeated Minimum Bend Radius: 0.98 in [24.89 mm]

Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	Polystyrene	Polystyrene
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

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Environmental Specifications

Operating Range Temperature -40 to +85 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data

How to Order

Part Number Configuration: **PE3C100081 - xx uu**

PE3C100081: Base Number
 - xx: Length
 uu: Unit of Measure:
 cm = Centimeters
 <blank> = Inches

Example: PE3C100081-12 = 12 inches long cable
 PE3C100081-100cm = 100 cm long cable

1.85mm Male to 1.85mm Male Low Loss Test Cable Using PE-TC142A Coax 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 Male Low Loss Test Cable Using PE-TC142A Coax PE3C100081](#)

URL: <https://www.pasternack.com/1.85mm-male-to-1.85mm-male-low-loss-test-cable-using-pe-tc142a-pe3c100081-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Pasternack Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE3C100081 CAD Drawing

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