2.4mm Female to 2.4mm Female Low Loss Test Cable Using PE-TC177A Coax

PE3C100080

Configuration

- Connector 1: 2.4mm Female
- Connector 2: 2.4mm Female
- Cable Type: PE-TC177A
- Coax Flex Type: Flexible

Features

- Max Frequency 50 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 PE3C100080 2.4mm female to 2.4mm female cable using PE-TC177A 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 2.4mm to 2.4mm cable assembly has a female to female gender configuration with 50 ohm flexible PE-TC177A coax. The PE3C100080 2.4mm female to 2.4mm female cable assembly operates to 50 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		50	GHz
VSWR			1.45:1	
Velocity of Propagation		77		%
Phase Stability with Flexure		15		Degrees
Loss Stability with Flexure		0.1		dB

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	2500	5000	10000	20000	50000	MHz	
PE3C100080	Custom Lengths Available	Insertion Loss (Typ.)	0.224	0.326	0.473	0.686	1.178	dB/ft	
			0.74	1.07	1.56	2.26	3.87	dB/m	
PE3C100080-12	12 In	Insertion Loss (Typ.)	0.39	0.55	0.79	1.14	1.89	dB	0.422
PE3C100080-24	24 In	Insertion Loss (Typ.)	0.61	0.88	1.27	1.82	3.07	dB	0.444
PE3C100080-36	36 In	Insertion Loss (Typ.)	0.84	1.21	1.74	2.51	4.25	dB	0.466
PE3C100080-100CM	100 CM	Insertion Loss (Typ.)	0.9	1.3	1.87	2.7	4.58	dB	0.421
PE3C100080-150CM	150 CM	Insertion Loss (Typ.)	1.27	1.83	2.65	3.83	6.51	dB	0.508

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:	0.422	pounds
Additional Weight per Inch:	0.00183	pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.422 lbs [191.42 g]

Cable

Cable Type	PE-TC177A
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	0.177 in [4.5 mm]
Repeated Minimum Bend Radius	0.98 in [24.89 mm]

Connectors

Description	Connector 1	Connector 2
Type	2.4mm Female	2.4mm Female
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	Polystyrene	Polystyrene
Outer Conductor Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

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Environmental Specifications

Operating Range Temperature	-40 to +100 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Typical Performance Data

How to Order

Part Number Configuration: **PE3C100080 - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- PE3C100080 — Base Number

Example: PE3C100080-12 = 12 inches long cable
PE3C100080-100cm = 100 cm long cable

2.4mm Female to 2.4mm Female Low Loss Test Cable Using PE-TC177A 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: 2.4mm Female to 2.4mm Female Low Loss Test Cable Using PE-TC177A Coax PE3C100080

URL: https://www.pasternack.com/2.4mm-female-to-2.4mm-female-low-loss-test-cable-using-pe-tc177a-pe3c100080-p.aspx

PE3C100080 CAD Drawing

2.4mm Female to 2.4mm Female Low Loss Test Cable Using PE-TC177A Coax