

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



PE3C100078

Configuration

- Connector 1: 2.4mm Male
- Connector 2: 2.4mm Male
- 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 PE3C100078 2.4mm male to 2.4mm male 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 male to male gender configuration with 50 ohm flexible PE-TC177A coax. The PE3C100078 2.4mm male to 2.4mm male 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	
PE3C100078	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	
PE3C100078-12	12 In	Insertion Loss (Typ.)	0.39	0.55	0.79	1.14	1.89	dB	0.422
PE3C100078-24	24 In	Insertion Loss (Typ.)	0.61	0.88	1.27	1.82	3.07	dB	0.444
PE3C100078-36	36 In	Insertion Loss (Typ.)	0.84	1.21	1.74	2.51	4.25	dB	0.466
PE3C100078-100CM	100 CM	Insertion Loss (Typ.)	0.9	1.3	1.87	2.7	4.58	dB	0.421
PE3C100078-150CM	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 Male	2.4mm 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 +100 deg C

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

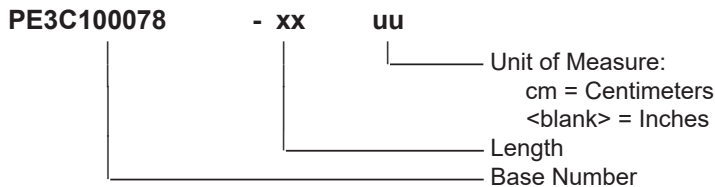
Plotted and Other Data

Notes:

Typical Performance Data

How to Order

Part Number Configuration:



Example: PE3C100078-12 = 12 inches long cable
PE3C100078-100cm = 100 cm long cable

2.4mm Male to 2.4mm Male 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.

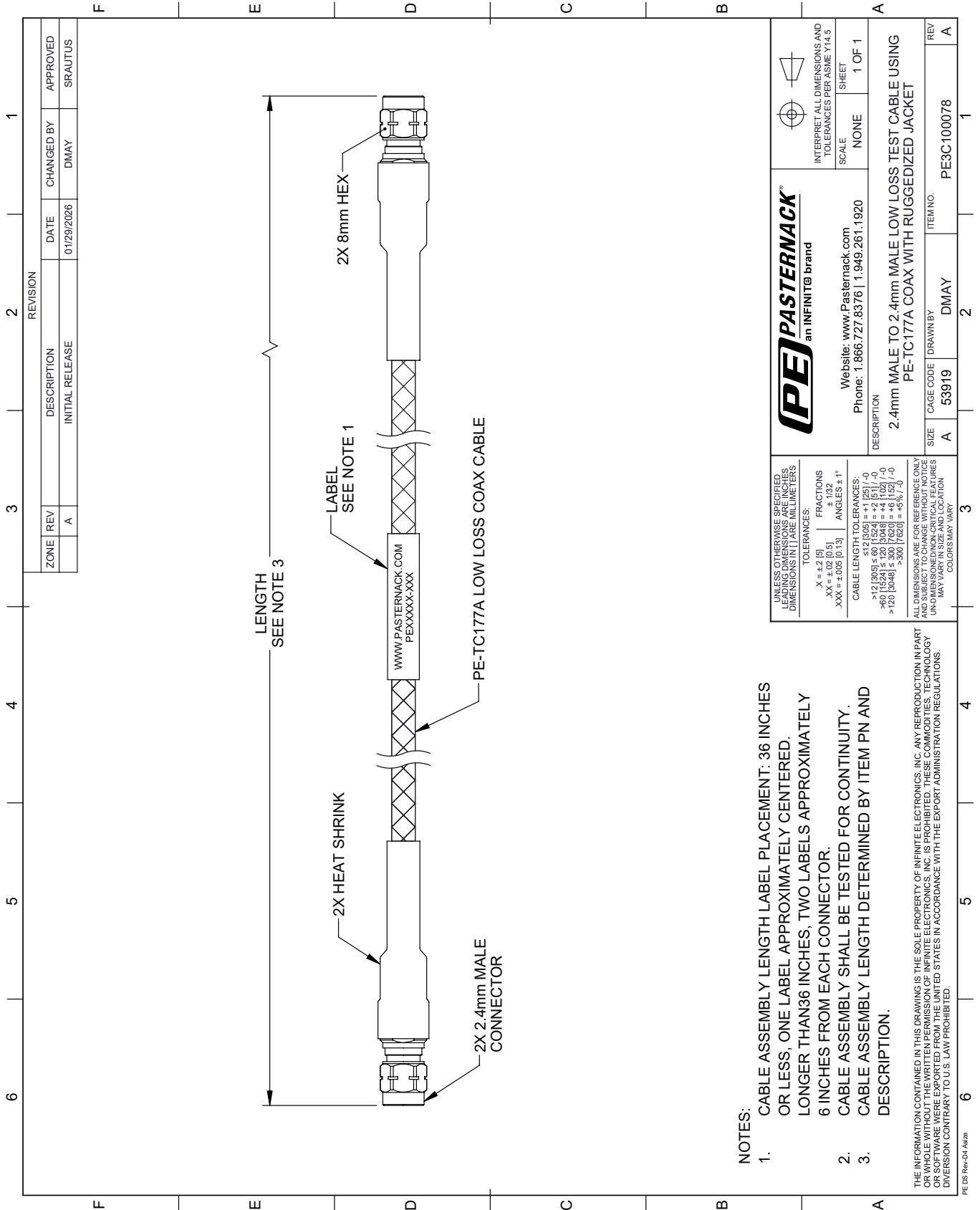
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4mm Male to 2.4mm Male Low Loss Test Cable Using PE-TC177A Coax PE3C100078](#)

URL: <https://www.pasternack.com/2.4mm-male-to-2.4mm-male-low-loss-test-cable-using-pe-tc177a-pe3c100078-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.



PE3C100078 CAD Drawing

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NOTES:

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

			
Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		SCALE: NONE SHEET: 1 OF 1	INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
DESCRIPTION 2.4mm MALE TO 2.4mm MALE LOW LOSS TEST CABLE USING PE-TC177A COAX WITH RUGGEDIZED JACKET			
SIZE: A	CAGE CODE: 53919	DRAWN BY: DMAY	ITEM NO.: PE3C100078