

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



### PE3C100082

#### Configuration

- Connector 1: 1.85mm Male
- Connector 2: 1.85mm Female
- 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 PE3C100082 1.85mm male to 1.85mm female 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 female gender configuration with 50 ohm flexible PE-TC142A coax. The PE3C100082 1.85mm male to 1.85mm female 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

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)			
			Frequency		5000		10000			20000		40000
PE3C100082	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				
PE3C100082-12	12 In	Insertion Loss (Typ.)	0.68	0.98	1.43	2.08	2.75	dB	0.416			
PE3C100082-24	24 In	Insertion Loss (Typ.)	1.14	1.63	2.41	3.52	4.67	dB	0.432			
PE3C100082-36	36 In	Insertion Loss (Typ.)	1.6	2.29	3.39	4.95	6.6	dB	0.448			
PE3C100082-100CM	100 CM	Insertion Loss (Typ.)	1.72	2.47	3.67	5.36	7.14	dB	0.452			
PE3C100082-150CM	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 Female
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	

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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: **PE3C100082 - xx uu**

PE3C100082: Base Number  
 - xx: Length  
 uu: Unit of Measure:  
 cm = Centimeters  
 <blank> = Inches

Example: PE3C100082-12 = 12 inches long cable  
 PE3C100082-100cm = 100 cm long cable

1.85mm Male to 1.85mm Female 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.

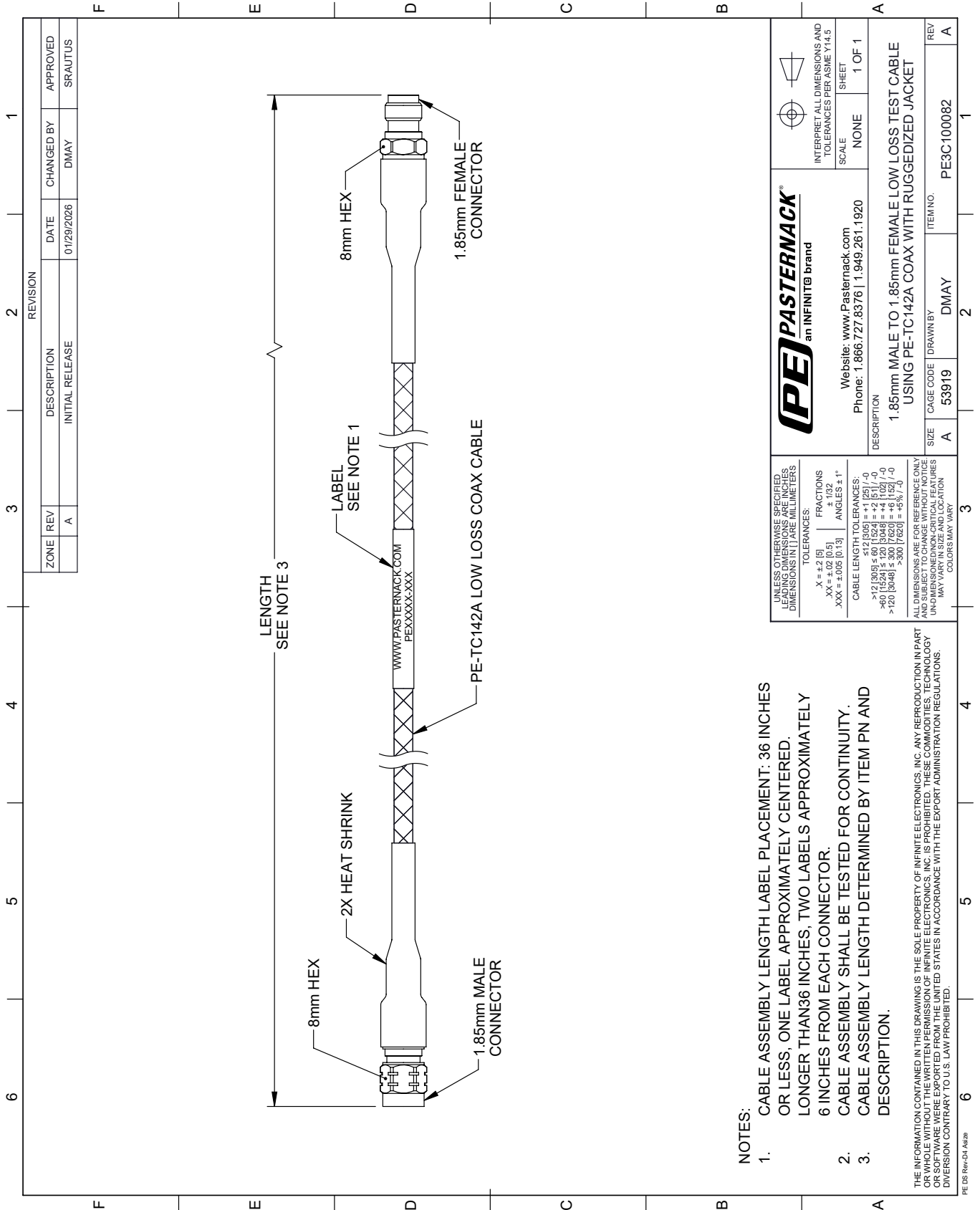
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.85mm Male to 1.85mm Female Low Loss Test Cable Using PE-TC142A Coax PE3C100082](#)

URL: <https://www.pasternack.com/1.85mm-male-to-1.85mm-female-low-loss-test-cable-using-pe-tc142a-pe3c100082-p.aspx>

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# PE3C100082 CAD Drawing

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



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	A	01/29/2026	DMAY	SRAUTUS
DESCRIPTION				
INITIAL RELEASE				

**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.

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND UNLEADING DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:  
 .X = ±.2 (5)  
 .XX = ±.02 (0.5)  
 .XXX = ±.005 (0.13)  
 FRACTIONS ± 1/32  
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:  
 <12 (305) ≤ 60 (1524) = ±.1 (25) / -0  
 >60 (1524) ≤ 120 (3048) = ±.4 (102) / -0  
 >120 (3048) ≤ 300 (7620) = ±.8 (20) / -0  
 >300 (7620) = ±.8 (20) / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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Website: [www.Pasternack.com](http://www.Pasternack.com)  
Phone: 1.866.727.8376 | 1.949.261.1920

SCALE: NONE  
SHEET: 1 OF 1

DESCRIPTION		1.85mm MALE TO 1.85mm FEMALE LOW LOSS TEST CABLE USING PE-TC142A COAX WITH RUGGEDIZED JACKET	
SIZE	A	CAGE CODE	53919
DRAWN BY	DMAY	ITEM NO.	PE3C100082
REV	A		