PASTERNACK®
THE ENGINEER'S RF SOURCE

1.85mm Male to 1.85mm Female Precision Cable Using High Flex VNA Test Coax

RF Cable Assemblies Technical Data Sheet PE3TC0900

Configuration

- Connector 1: 1.85mm Male
- Connector 2: 1.85mm Female
- Cable Type: PE-VNA-HF

Features

- Max Frequency 70 GHz
- Shielding Effectivity > 100 dB
- 78% Phase Velocity
- Triple Shielded
- Designed for use as VNA test port extenders
- Highly flexible armored cable construction
- 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 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° 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.

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 Precision Cable Using High Flex VNA Test Coax PE3TC0900

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		70	GHz
VSWR			1.4:1	
Velocity of Propagation		78		%
RF Shielding	100			dB
Group Delay		1.34 [4.4]		ns/ft [ns/m]
Capacitance		25.9 [84.97]		pF/ft [pF/m]
Input Power (Average)			18	Watts
Phase Stability with Flexure		±8		Degrees

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	5	10	20	40	70	GHz
Insertion Loss (Max.)	0.48	0.68	1	1.45	1.95	dB/ft
	1.57	2.23	3.28	4.76	6.4	dB/m
Power Handling (Max.)					18	W

Electrical Specification Notes:
Values at 25°C, sea level.

Mechanical Specifications

Cable Assembly

Weight	0.101 lbs [45.81 g]

Cable

Cable Type	PE-VNA-HF
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper Tape
Shield Layer 2	Silver Plated Copper Braid
Shield Layer 3	Silver Plated Copper Braid
Jacket Diameter	0.27 in [6.86 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]

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Flat Plate Crush	317 lbs/in [5.66 Kg/mm]

Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	ULTEM	ULTEM
Outer Conductor Material and Plating		Passivated Stainless Steel
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	
Torque	8 in-lbs [0.9 Nm]	

Mechanical Specification Notes:
*All cable assemblies have a length tolerance of 1.5% or ± 3/8", whichever is greater.

Environmental Specifications

Temperature

Operating Range	-65 to +125 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:
- Values at 25°C, sea level.

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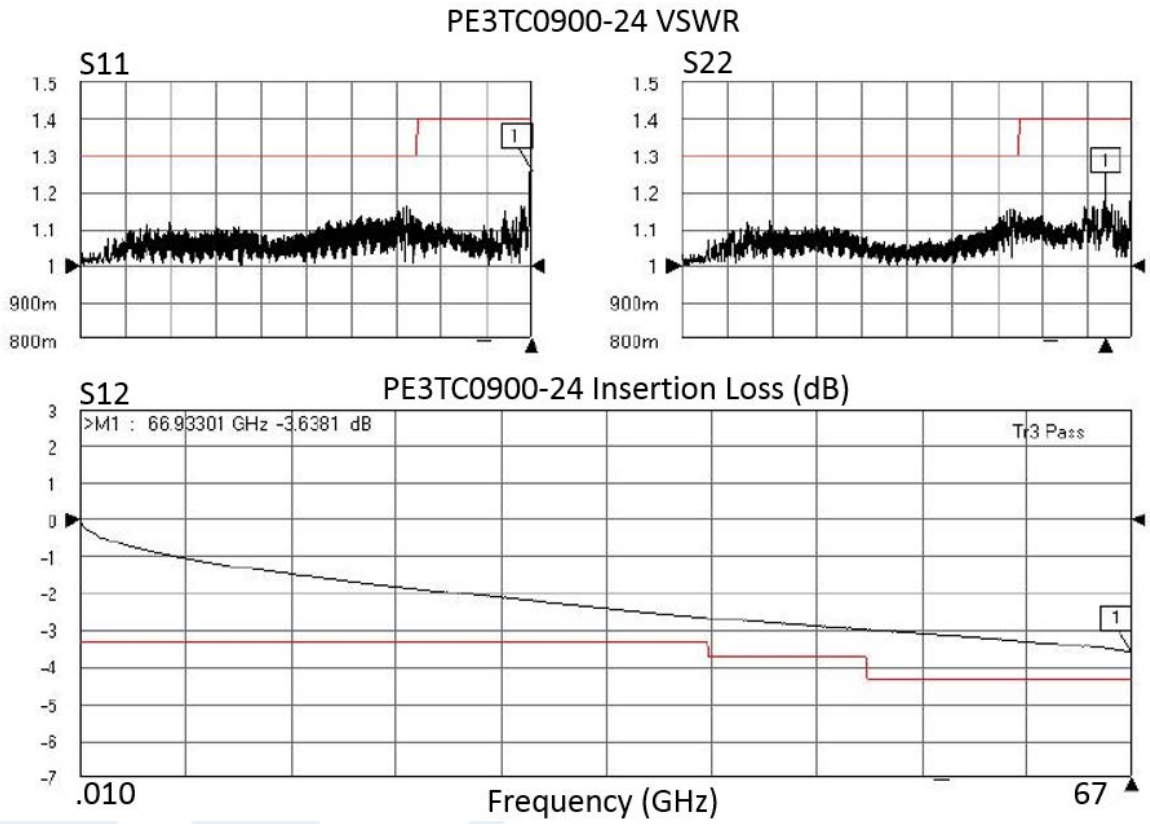
Typical Performance Data



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How to Order

Part Number Configuration: **PE3TC0900 - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- PE3TC0900 — Base Number

Example: PE3TC0900-12 = 12 inches long cable
PE3TC0900-100cm = 100 cm long cable

1.85mm Male to 1.85mm Female Precision Cable Using High Flex VNA Test 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 Precision Cable Using High Flex VNA Test Coax PE3TC0900

URL: https://www.pasternack.com/1.85mm-male-1.85mm-female-vna-cable-cable-assembly-pe3tc0900-p.aspx

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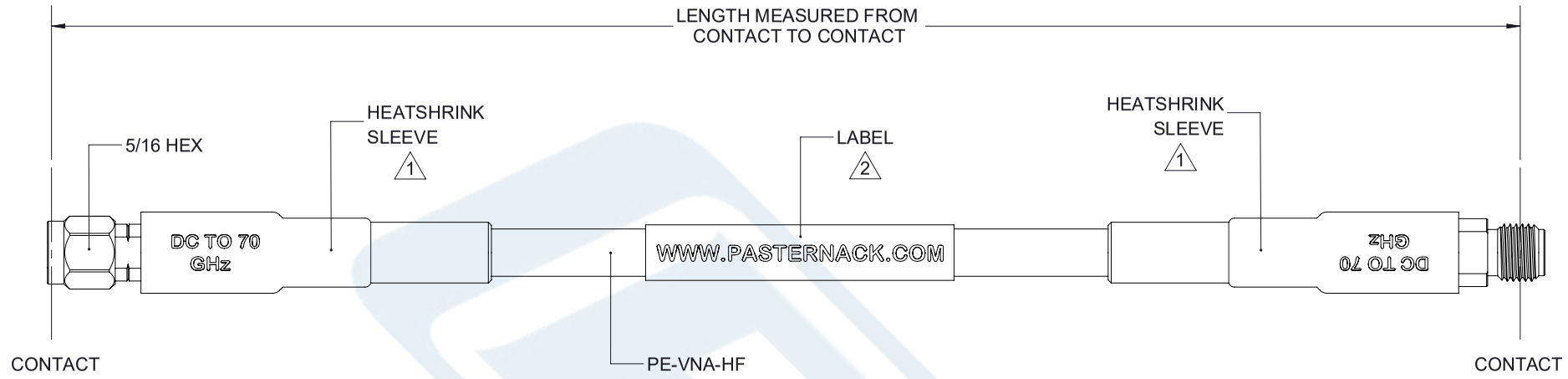
PE3TC0900 CAD Drawing

1.85mm Male to 1.85mm Female Precision Cable Using High Flex VNA Test Coax



1.85mm
MALE

1.85mm
FEMALE

NOTES:
1. DOUBLE LAYER HEAT SHRINK, BLUE OVER BLACK.
2. LABEL:
   - WWW.PASTERNACK.COM
   - PART #
   - SERIAL #

STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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DWG TITLE
PE3TC0900

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

CAGE CODE 53919	CAD FILE 08/10/18	SCALE N/A	SIZE A	7361