



## VNA Ruggedized Test Cable 2.92mm Male to 2.92mm Male 40GHz, RoHS

### RF Cable Assemblies Technical Data Sheet

PE3VNA4001

#### Configuration

- Connector 1: 2.92mm Male
- Connector 2: 2.92mm Male
- Cable Type: PE-VNA-R

#### Features

- Max Frequency 40 GHz
- Shielding Effectivity > 90 dB
- 70% Phase Velocity
- Triple Shielded
- PET Jacket
- Designed for use as VNA Test Port extenders
- Excellent VSWR and Insertion Loss
- Stainless Steel Armoring provides crush resistance
- Non Conductive protective outer sleeve
- Torsion resistant connector heads
- Rugged connector interface with machined strain relief collar
- Excellent Amplitude and Phase stability with flexure
- Each Serialized assembly comes with test data
- In stock and ready to ship

#### Applications

- General Purpose
- Laboratory Use
- Vector Network Analyzer Test port extenders
- Precise Bench top testing
- Lab and Production testing

#### Description

Pasternack ruggedized VNA Test Cables are designed to provide customers with repeatable accurate VNA measurements. These Test cables have excellent electrical properties including low Insertion Loss, low VSWR and phase stability of +/- 5° with flexure. Torsion resistant connector heads are directly attached to stainless steel conduit style armoring providing a rugged design for up to 5,000 mattings cycles with proper care. The cable armoring enhances amplitude and phase stability by preventing stress due to over bending while maintaining the flexibility required for testing in a lab environment. 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: [VNA Ruggedized Test Cable 2.92mm Male to 2.92mm Male 40GHz, RoHS PE3VNA4001](#)



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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
VSWR			1.38:1	
Velocity of Propagation		70		%
RF Shielding	90			dB
Capacitance		26.8 [87.93]		pF/ft [pF/m]
Phase Stability with Flexure		5		Degrees

**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	18	26	40			GHz
Insertion Loss (Max.)	0.52	0.64	0.83			dB/ft
	1.71	2.1	2.72			dB/m
VSWR (Max.)	1.38:1	1.38:1	1.38:1			
Power Handling (Max.)			42			W

**Mechanical Specifications**

**Cable Assembly**

Weight 0.254 lbs [115.21 g]

**Cable**

Cable Type PE-VNA-R  
 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 Braid  
 Shield Layer 2 Silver Plated Copper Tape  
 Shield Layer 3 Silver Plated Copper Braid  
 Jacket Material PET  
 Jacket Diameter 0.43 in [10.92 mm]

One Time Minimum Bend Radius 3 in [76.2 mm]

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**Connectors**

Description	Connector 1	Connector 2
Type	2.92mm Male	2.92mm Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	Noryl	Noryl
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

**Mechanical Specification Notes:**

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8$ ", whichever is greater.

Crush Resistance: 1,050 lbs.//Jacket Material is a PET weave over a spiral stainless steel sheath

**Environmental Specifications**

**Temperature**

Operating Range +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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**How to Order**

Part Number Configuration:

**PE3VNA4001**

- **xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: PE3VNA4001-12 = 12 inches long cable  
PE3VNA4001-100cm = 100 cm long cable

VNA Ruggedized Test Cable 2.92mm Male to 2.92mm Male 40GHz, RoHS 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.

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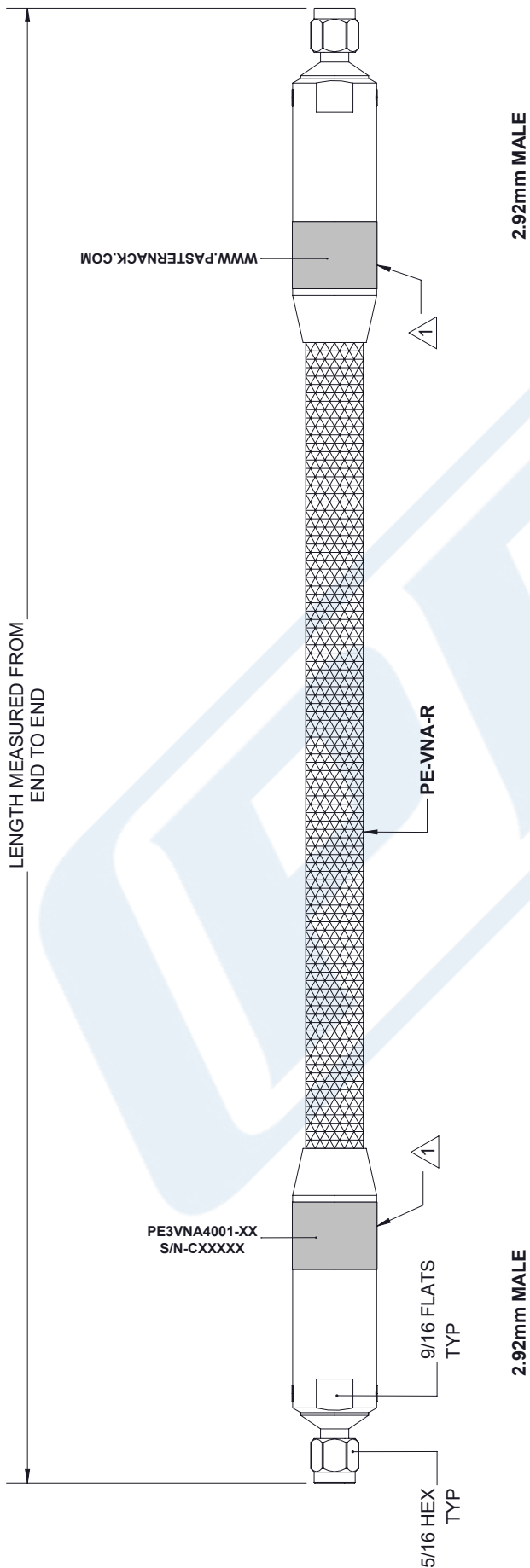
URL: <https://www.pasternack.com/2.92mm-male-2.92mm-male-vna-cable-cable-assembly-pe3vna4001-p.aspx>

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# PE3VNA4001 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	03/26/19	S. ELLIS



**NOTES:**

1. BLACK LETTERS ON SILVER LABEL.

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
X±.2 [5.08]	±.132
.XX±.01 [.25]	ANGLES ± 1°
.XXX±.005 [.13]	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	
THIRD-ANGLE PROJECTION	

**PE PASTERNAK**  
an INFINITO brand

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SIZE: A CAGE: 53919 DRAWN BY: K.DANG PART NUMBER: PE3VNA4001 REV: A

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SHEET 1	OF 1
SCALE	N/A

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