



## 2.4mm Male to 2.4mm Female Precision Cable 48 Inch Length Using High Flex VNA Test Coax, RoHS

### RF Cable Assemblies Technical Data Sheet

PE3TC0600-48

#### Configuration

- Connector 1: 2.4mm Male
- Connector 2: 2.4mm Female
- Cable Type: PE-VNA-HF

#### Features

- Designed for use as VNA test port extenders
- Highly flexible armored cable construction
- 1.30:1 VSWR to 50 GHz
- 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

- 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 +/- 6° 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.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		50	GHz
VSWR			1.3:1	
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		6		Degrees

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 Female Precision Cable 48 Inch Length Using High Flex VNA Test Coax, RoHS PE3TC0600-48](#)



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#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	2.5	5	10	20	50	GHz
Insertion Loss (Max.)	1.8	2.32	3.12	4.4	7	dB
Power Handling (Max.)					18	Watts

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

#### Mechanical Specifications

##### Cable Assembly

Length 48 in [121.92 cm]

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

##### Connectors

Description	Connector 1	Connector 2
Type	2.4mm Male	2.4mm 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
Coupling Nut Material and Plating	Passivated Stainless Steel	
Torque	8 in-lbs [0.9 Nm]	
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

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**Environmental Specifications**

**Temperature**

Operating Range

-65 to +125 deg C

**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant  
REACH Compliant

Yes  
06/15/2015

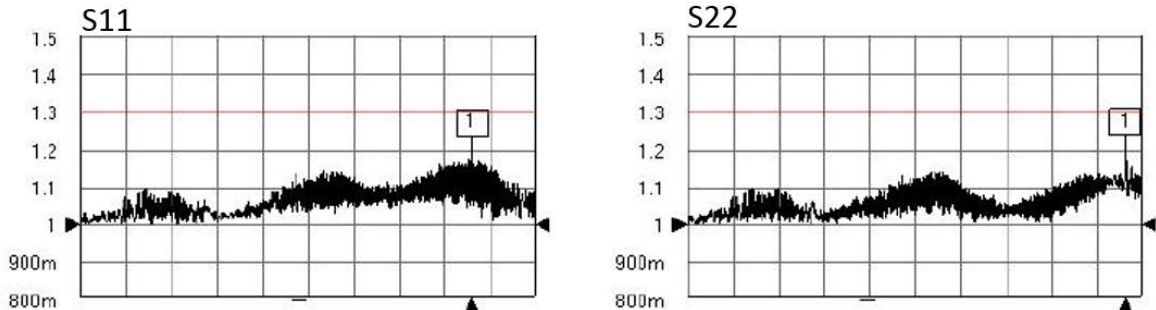
**Plotted and Other Data**

Notes:

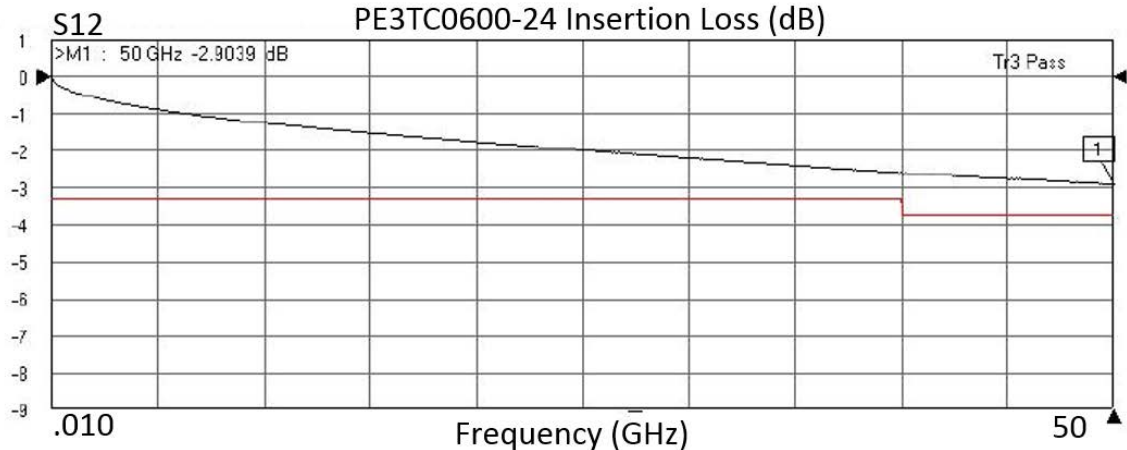
- Values at 25°C, sea level.

**Typical Performance Data**

PE3TC0600-24 VSWR



PE3TC0600-24 Insertion Loss (dB)



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#### How to Order

Part Number Configuration:

**PE3TC0600**

- **xx**

**uu**

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

Example: PE3TC0600-12 = 12 inches long cable  
PE3TC0600-100cm = 100 cm long cable

2.4mm Male to 2.4mm Female Precision Cable 48 Inch Length Using High Flex VNA Test Coax, RoHS from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

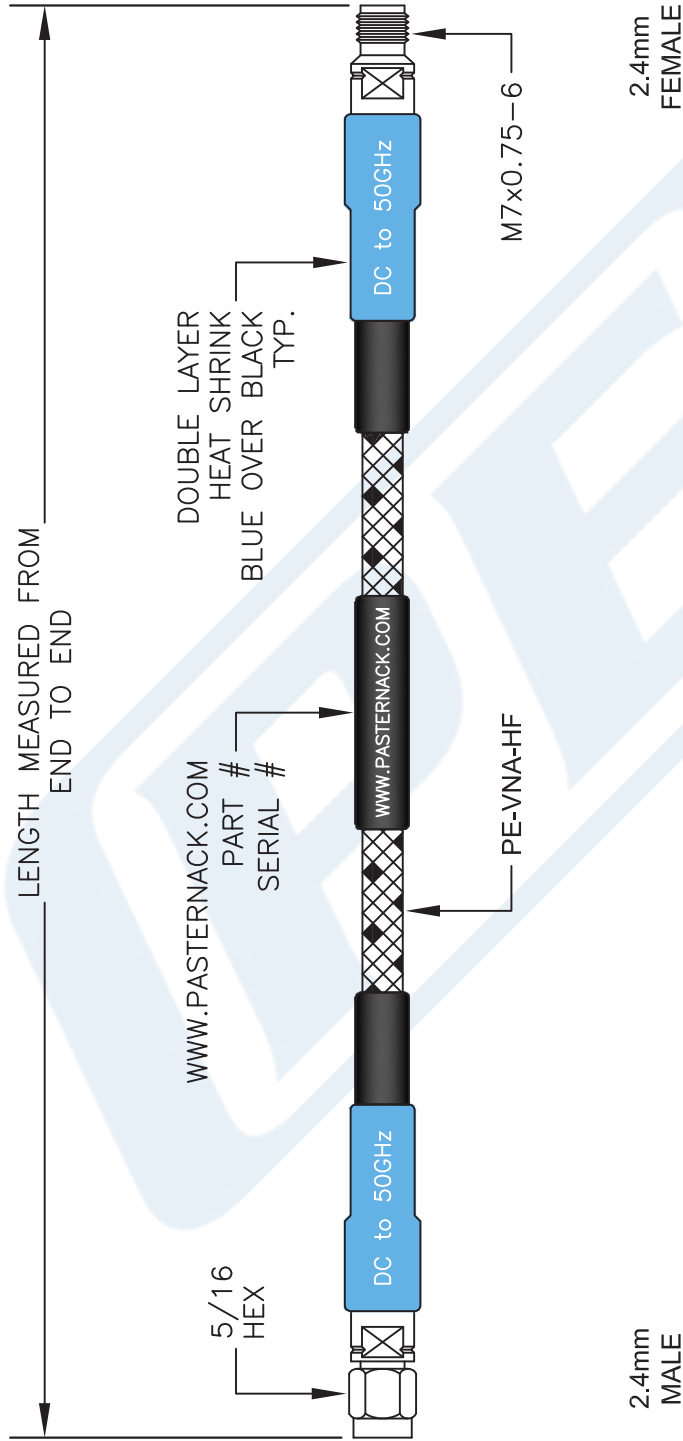
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4mm Male to 2.4mm Female Precision Cable 48 Inch Length Using High Flex VNA Test Coax, RoHS PE3TC0600-48](http://www.pasternack.com/2.4mm-male-2.4mm-female-vna-cable-cable-assembly-pe3tc0600-48-p.aspx)

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The information contained in 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 reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE3TC0600-48 CAD Drawing

2.4mm Male to 2.4mm Female Precision Cable 48 Inch  
Length Using High Flex VNA Test Coax, RoHS



- 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].
  4. LENGTH TOLERANCE IS  $\pm 2\%$

DWG TITLE  
**PE3TC0600**

**PE PASTERNAK**  
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FSCM NO. 53919

CAD FILE 100815

SCALE N/A

SIZE A

2233