



1.0mm Male to 1.0mm Male Precision Cable  
12 Inch Length Using PE-TC110 Coax, RoHS

RF Cable Assemblies Technical Data Sheet

PE3TC1220-12

### Configuration

- Connector 1: 1.0mm Male
- Connector 2: 1.0mm Male
- Cable Type: PE-TC110

### Features

- Operating to 110 GHz
- Protective light duty cable armoring
- Precision 1.0mm stainless steel connectors
- 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

### Applications

- Vector Network Analyzer testing
- Semiconductor probe testing
- Automotive radar testing
- Military radar testing

### Description

Pasternack's 110 GHz high performance VNA test cables are designed for your precision testing needs requiring a coaxial cable using a 1.0mm connector interface. The coax is protected with a light armoring that helps protect the small diameter cable from being damaged and improves stability during flexure. These cables have excellent VSWR and insertion loss properties and are phase stable under flexure. Each cable assembly is 100% tested and each unit comes with serialized test data. These 1.0mm cables come standard in 6 inch and 12 inch lengths with Male to Male or Male to Female configurations and are available for same-day shipment.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		110	GHz
VSWR			1.5:1	
Group Delay		1.34 [4.4]		ns/ft [ns/m]
Capacitance		26.5 [86.94]		pF/ft [pF/m]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.0mm Male to 1.0mm Male Precision Cable 12 Inch Length Using PE-TC110 Coax, RoHS PE3TC1220-12](#)



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**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	50	67	110			GHz
Insertion Loss (Max.)	3.71	4.33	5.62			dB
VSWR (Max.)	1.3:1	1.4:1	1.5:1			

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

**Mechanical Specifications**

**Cable Assembly**

Length	12 in [304.8 mm]
Diameter	0.27 in [6.86 mm]
Weight	0.1 lbs [45.36 g]

**Cable**

Cable Type	PE-TC110
One Time Minimum Bend Radius	1 in [25.4 mm]

**Connectors**

Description	Connector 1	Connector 2
Type	1.0mm Male	1.0mm Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Torque	4 in-lbs [0.45 Nm]	4 in-lbs [0.45 Nm]
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

**Environmental Specifications**

**Temperature**

Operating Range	-65 to +125 deg C
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**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant	Yes
REACH Compliant	12/17/2015

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**Plotted and Other Data**

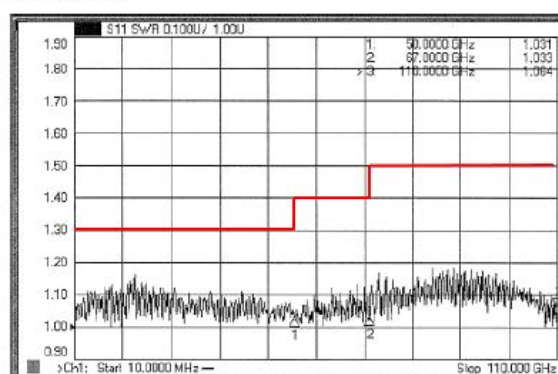
Notes:

- Values at 25°C, sea level.

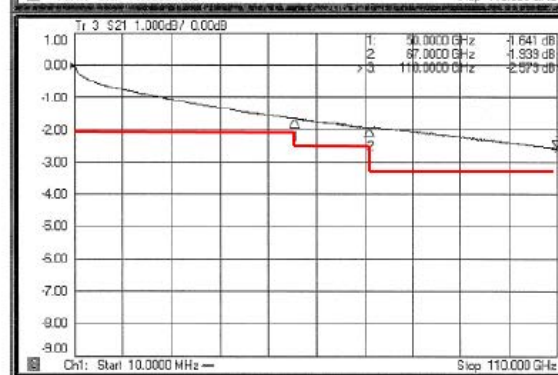
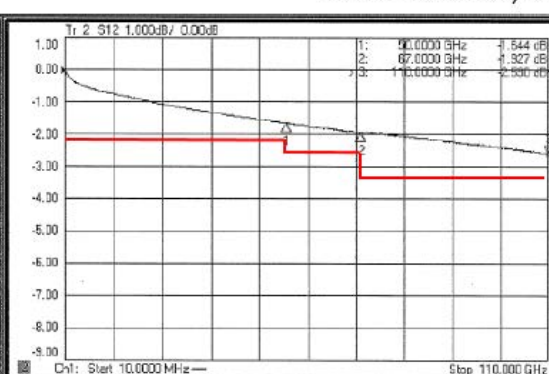
**Typical Performance Data**

PE3TC1220-6

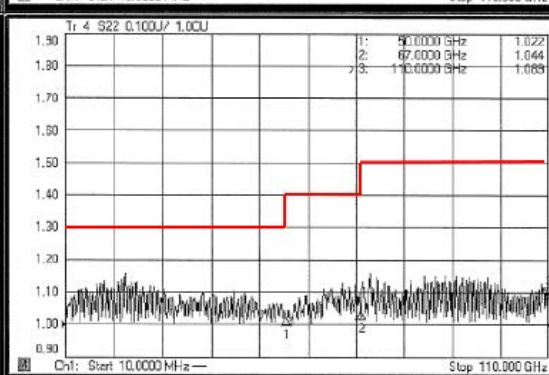
S11 VSWR



S12 Insertion Loss, dB



S21 Insertion Loss, dB



S22 VSWR

Frequency: DC to 110 GHz

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### How to Order

Part Number Configuration:

**PE3TC1220**

- **xx**

**uu**

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

Example: PE3TC1220-12 = 12 inches long cable  
PE3TC1220-100cm = 100 cm long cable

1.0mm Male to 1.0mm Male Precision Cable 12 Inch Length Using PE-TC110 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.

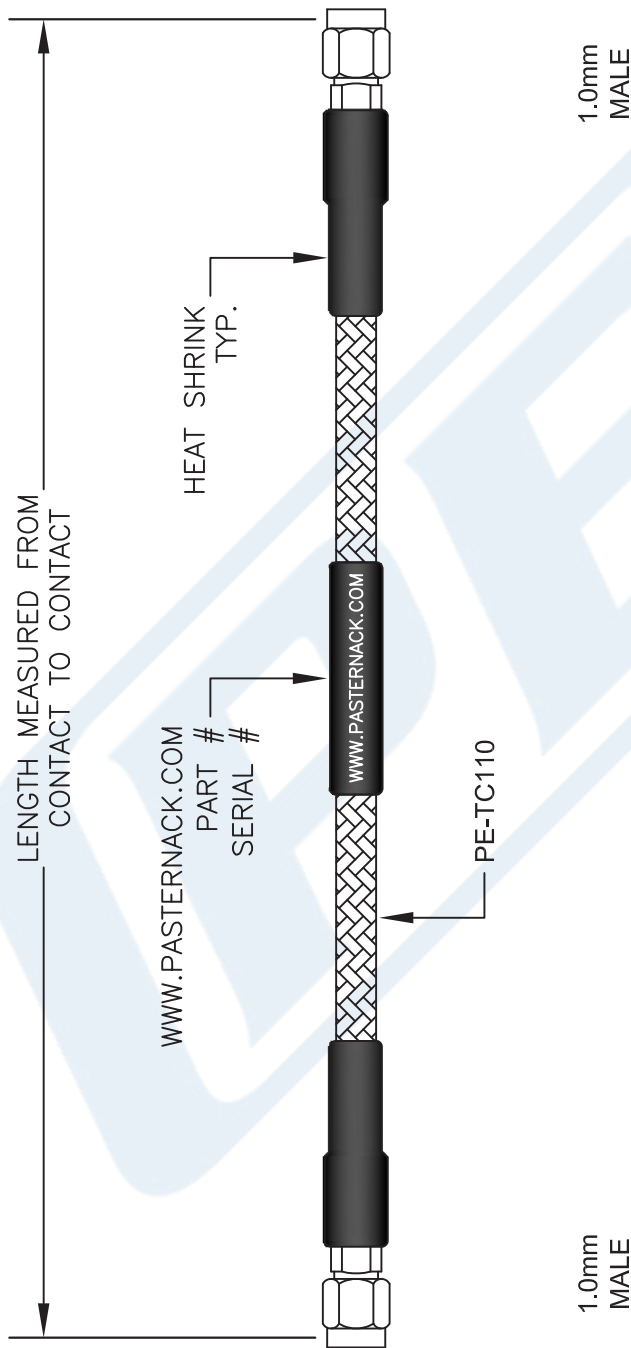
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.0mm Male to 1.0mm Male Precision Cable 12 Inch Length Using PE-TC110 Coax, RoHS PE3TC1220-12](http://www.pasternack.com/1.0mm-male-1.0mm-male-pe-tc100-cable-assembly-pe3tc1220-12-p.aspx)

URL: <http://www.pasternack.com/1.0mm-male-1.0mm-male-pe-tc100-cable-assembly-pe3tc1220-12-p.aspx>

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.

PE3TC1220-12 CAD Drawing

1.0mm Male to 1.0mm Male Precision Cable 12 Inch Length Using PE-TC110 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  $\pm 1.5\%$  OR  $3/8"$ , WHICHEVER IS GREATER.

DWG TITLE

PE3TC1220

FSCM NO. 53919

CAD FILE 031116

SCALE N/A

SIZE A

2233

**PE PASTERNAK®**  
THE ENGINEER'S RF SOURCE

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