



PE-TC151 Series Phase Stable Test Cable SMA  
Male to SMA Male to 18 GHz ,RoHS

RF Cable Assemblies Technical Data Sheet

PE3TC0301

### Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: PE-TC151

### Features

- Max Frequency 18 GHz
- Shielding Effectivity > 90 dB
- 70% Phase Velocity
- Triple Shielded
- Polyurethane Jacket
- Phase and Amplitude stability with flexure
- Small Diameter Lighter weight lower profile for high density test applications
- Phase change with flexure +/-5° to 18 GHz
- Excellent for multi-port test equipment
- Very flexible and durable cable with a min bend radius of 0.75 inches
- Excellent VSWR and Insertion Loss
- Extra strain relief for extended connector body with booting enhance stability and longevity
- Each Serialized assembly come with matching Test data
- 5,000 mating cycles when properly mated
- IN STOCK and ready to ship

### Applications

- General Purpose
- Laboratory Use
- Automated RF Test Stations
- General Purpose Lab Testing
- High Connection Density Lab and Production testing

### Description

Pasternack's high performance PE-TC151 series Test Cables are designed to allow customers to perform repeatable accurate measurements. Because these cables are phase stable under flexure, +/- 5° at 18 GHz, they are an excellent option for testing where movement will occur during testing. The PE-TC151 test cables have low Insertion Loss and low VSWR in addition to having excellent phase stability properties. The rugged design provides for up to 5,000 matings cycles with proper care. The smaller diameter coax allows for high flexibility, lower profile and a lighter weight test cable. The PE-TC151 series test cables are an excellent choice for use in precision high density test environments

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to SMA Male Phase Stable Precision Cable Using .90 Coax , LF Solder PE3TC0301](#)



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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR			1.3:1	
Velocity of Propagation		70		%
RF Shielding	90			dB
Capacitance		28.8 [94.49]		pF/ft [pF/m]
Phase Stability with Flexure		5		Degrees

**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	6	12	18			GHz
Insertion Loss (Max.)	0.44	0.66	0.85			dB/ft
	1.44	2.17	2.79			dB/m
Power Handling (Max.)	55	29	20			W

**Mechanical Specifications**

**Cable Assembly**

**Cable**

Cable Type	PE-TC151
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	Polyurethane
Jacket Diameter	0.151 in [3.84 mm]
One Time Minimum Bend Radius	0.75 in [19.05 mm]

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**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
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.

**Environmental Specifications**

**Temperature**

Operating Range -65 to +90 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:

**PE3TC0301**

- **xx**

**uu**

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

Example: PE3TC0301-12 = 12 inches long cable  
PE3TC0301-100cm = 100 cm long cable

PE-TC151 Series Phase Stable Test Cable SMA Male to SMA Male to 18 GHz ,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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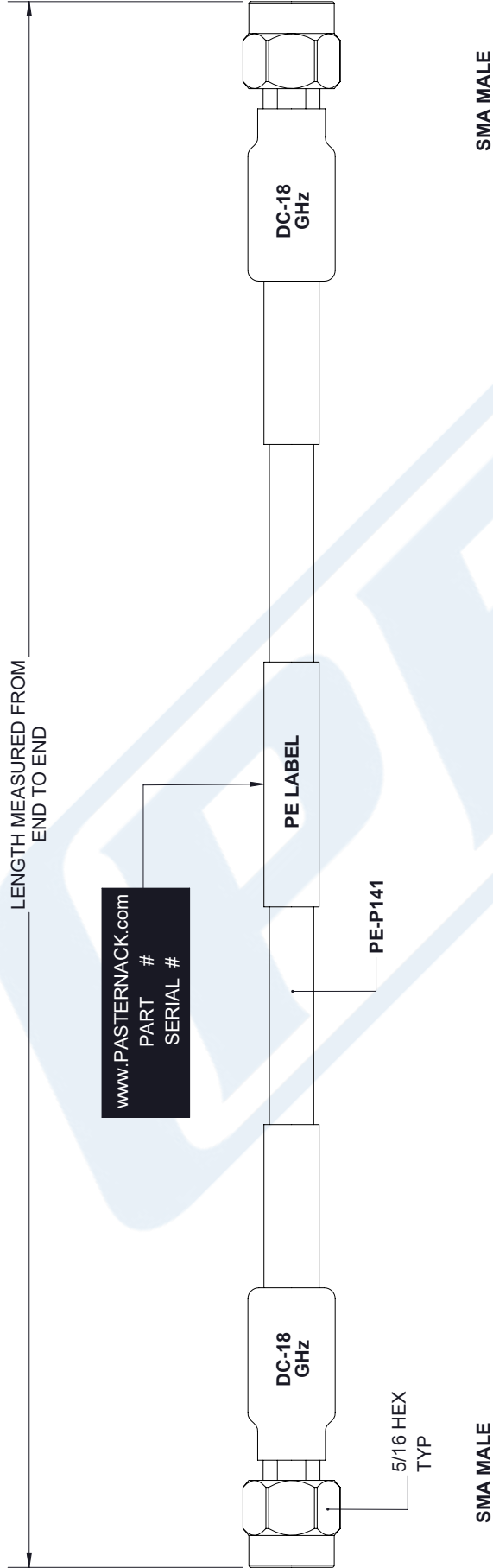
URL: <https://www.pasternack.com/sma-male-sma-male-.90-cable-assembly-pe3tc0301-p.aspx>

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# PE3TC0301 CAD Drawing

PE-TC151 Series Phase Stable Test Cable SMA Male to SMA Male to 18 GHz ,RoHS

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1.1	PCR PE3TC0301 20190612	06/20/19	S.ELLIS



<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table border="0"> <tr> <td>X±.2</td> <td>[5.08]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX±.01</td> <td>[.25]</td> <td>±.132</td> </tr> <tr> <td>.XXX±.005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> <p>THIRD-ANGLE PROJECTION</p>	X±.2	[5.08]	FRACTIONS	.XX±.01	[.25]	±.132	.XXX±.005	[.13]	ANGLES ± 1°	<p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p>	
	X±.2	[5.08]	FRACTIONS								
.XX±.01	[.25]	±.132									
.XXX±.005	[.13]	ANGLES ± 1°									
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