



## SMA Male to QD SMA Male Precision Cable 12 Inch Length Using PE-P141 Coax , LF Solder

### RF Cable Assemblies Technical Data Sheet

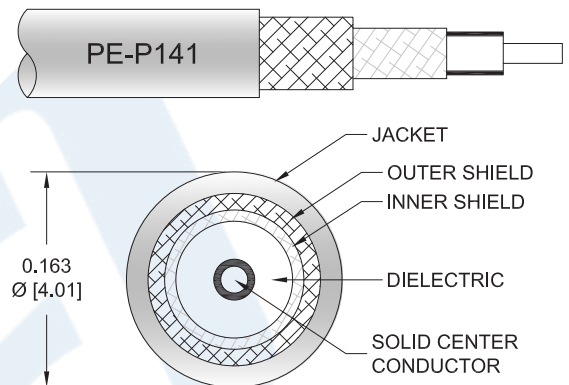
PE312-12

#### Configuration

- Connector 1: SMA Male
- Connector 2: QDSMA Male
- Cable Type: PE-P141

#### Features

- Max Frequency 18 GHz
- 70% Phase Velocity
- Triple Shielded
- FEP Jacket
- 500 Mating Cycles
- 160 series, PE-P141 Spiral Strip flexible coax



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE312-12 SMA male to SMA male QD 12 inch cable using PE-P141 coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack SMA to SMA cable assembly has a male to male gender configuration with 50 ohm flexible PE-P141 coax. The PE312-12 SMA male to SMA male cable assembly operates to 18 GHz. The triple shielding of this Pasternack cable assembly provides excellent shielding effectiveness.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

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 QD SMA Male Precision Cable 12 Inch Length Using PE-P141 Coax , LF Solder PE312-12](#)



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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR			1.33:1	
Return Loss			17	dB
Velocity of Propagation		70		%
Dielectric Withstanding Voltage (AC)			1,000	Vrms

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	2	6	8	18		GHz
Insertion Loss (Typ.)	0.17	0.42	0.48	0.76		dB
VSWR (Max.)	1.09:1	1.12:1	1.12:1	1.33:1		
Return Loss (Max.)	27	25	25	17		dB

#### Electrical Specification Notes:

Insertion loss does not include the loss of the connectors.

Insertion loss is estimated as  $0.05 \times \sqrt{f(\text{GHz})}$  dB per connector.

Short lengths up to 24" long may exhibit VSWR measurements up to 9% higher.

Amplitude variation not to exceed 10% in a coiled vs uncoiled, a coil is defined as a 4% loop.

#### Mechanical Specifications

##### Cable Assembly

Length*	12 in [304.8 mm]
Diameter	0.17 in [4.32 mm]
Weight	0.051 lbs [23.13 g]

##### Cable

Cable Type	PE-P141
Impedance	50 Ohms
Dielectric Type	PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper Tape
Shield Layer 2	Mylar Tape
Shield Layer 3	Silver Plated Copper Braid
Jacket Material	FEP, Blue
Jacket Diameter	0.163 in [4.14 mm]

One Time Minimum Bend Radius	1 in [25.4 mm]
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**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Specification	MIL-STD-348	
Impedance	50 Ohms	50 Ohms
Connection Method		QD
Mating Cycles	500	500
Contact Material and Plating	Gold	Gold
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Gold
Body Material and Plating	Gold	Gold
Coupling Nut Material and Plating	Passivated Stainless Steel	
Hex Size	5/16 in.	
Torque	8 in-lbs [0.9 Nm]	

**Environmental Specifications**

**Temperature**

Operating Range -55 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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**How to Order**

Part Number Configuration:

PE312 - xx uu

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

Example: PE312-12 = 12 inches long cable  
PE312-100cm = 100 cm long cable

SMA Male to QD SMA Male Precision Cable 12 Inch Length Using PE-P141 Coax , LF Solder 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.

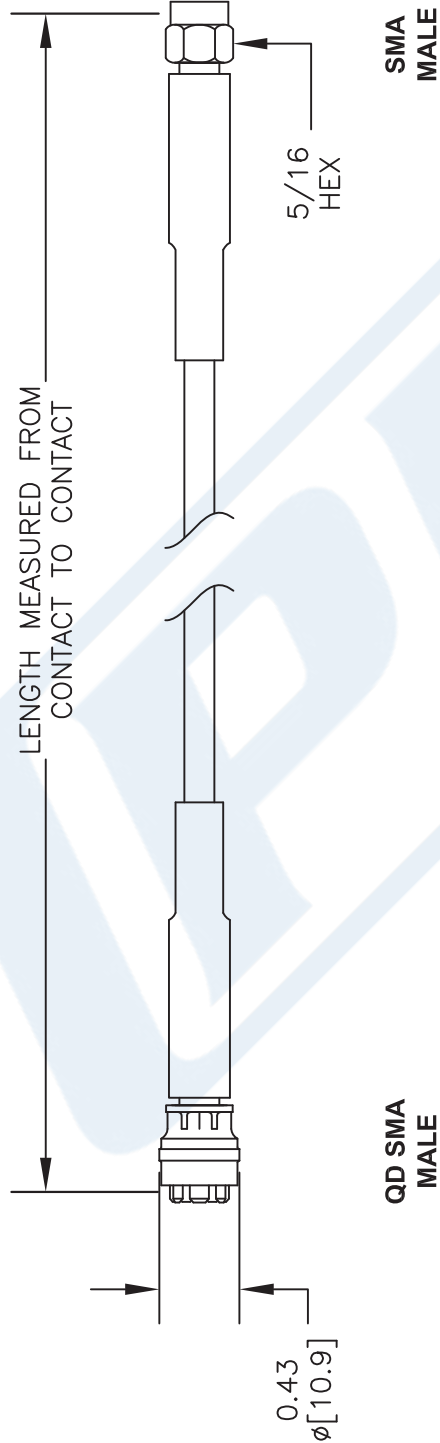
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URL: <https://www.pasternack.com/sma-male-sma-male-300-series-cable-assembly-pe312-12-p.aspx>

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.

# PE312-12 CAD Drawing

SMA Male to QD SMA Male Precision Cable 12 Inch Length Using PE-P141 Coax , LF Solder



How To Order		Part # Ext.	Length In Inches	Part # Ext.	Length In Centimeters
<b>Part Number Configuration</b> PE3 [zzz] [yy] - [xx] [uu] 00 - 99999 LF = RoHS Compliant < Blank > = Standard Note: LF applies only to RF cables		-12	12"	-25CM	25Cm
Examples PE3000LF-100 PE3000-100 PE3000LF-100CM PE3000-100CM		-24	24"	-50CM	50Cm
CM = Centimeters < Blank > = Inches Length		-36	36"	-75CM	75Cm
		-48	48"	-100CM	100Cm
		-60	60"	-125CM	125Cm
		-XX	Custom Length	-XXCM	Custom Length

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 ± 1.5% OR 3/8", WHICHEVER IS GREATER.

DWG TITLE  
**PE312**

**PE PASTERNAK®**  
 Pasternack Enterprises, Inc.  
 P.O. Box 16759 | Irvine | CA | 92623  
 Phone: (949) 261-1920 | Fax: (949) 261-7451  
 Website: www.pasternack.com | E-Mail: sales@pasternack.com

FSCM NO. 53919

CAD FILE 101111

SCALE N/A

SIZE A

2233