



## SMB Plug Right Angle to SMA Male Right Angle Cable Using RG316-DS Coax

### RF Cable Assemblies Technical Data Sheet

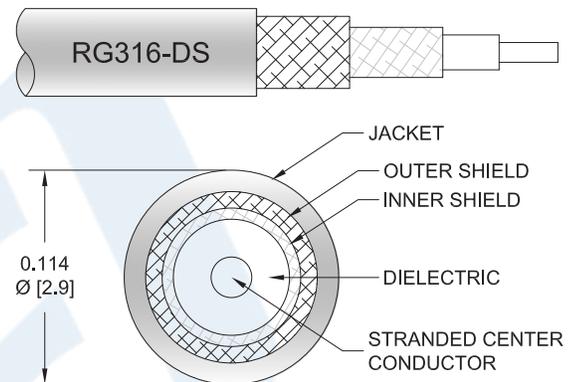
PE3W09947

#### Configuration

- Connector 1: SMB Plug Right Angle
- Connector 2: SMA Male Right Angle
- Cable Type: RG316-DS

#### Features

- Max Frequency 3 GHz
- Shielding Effectivity > 85 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W09947 SMB plug right angle to SMA male right angle cable using RG316-DS 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 SMB to SMA cable assembly has a plug to male gender configuration with 50 ohm flexible RG316-DS coax. The PE3W09947 SMB plug to SMA male cable assembly operates to 3 GHz. The right angle SMB and right angle SMA interfaces on the RG316-DS cable allow for easier connections in tight spaces. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 85 dB.

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: [SMB Plug Right Angle to SMA Male Right Angle Cable Using RG316-DS Coax PE3W09947](#)



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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.45:1	
Velocity of Propagation		69.5		%
RF Shielding	85			dB
Capacitance		28.96 [95.01]		pF/ft [pF/m]
DC Resistance Inner Conductor		83.82 [275]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		5.33 [17.49]		$\Omega$ /1000ft [ $\Omega$ /Km]

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Typ.)	0.12	0.15	0.2	0.3	0.55	dB/ft
	0.39	0.49	0.66	0.98	1.8	dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.2 dB per connector.

#### Mechanical Specifications

##### Cable Assembly

Diameter 0.312 in [7.92 mm]

##### Cable

Cable Type RG316-DS  
 Impedance 50 Ohms  
 Inner Conductor Type Stranded  
 Inner Conductor Material and Plating Copper Clad Steel, Silver  
 Dielectric Type PTFE  
 Number of Shields 2  
 Shield Layer 1 Silver Plated Copper Braid  
 Shield Layer 2 Silver Plated Copper Braid  
 Jacket Material FEP, Tan  
 Jacket Diameter 0.114 in [2.9 mm]

One Time Minimum Bend Radius 0.59 in [14.99 mm]

Repeated Minimum Bend Radius 1.57 in [39.88 mm]

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**Connectors**

Description	Connector 1	Connector 2
Type	SMB Plug Right Angle	SMA Male Right Angle
Specification	MIL-STD-348A	MIL-C-39012
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Gold
Contact Plating Specification	30μ in. minimum	MIL-G-45204
Dielectric Type	Teflon	Teflon
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100μ in. minimum	
Coupling Nut Material and Plating		Brass, Nickel
Hex Size		5/16 in.
Torque		5 in-lbs [0.57 Nm]

**Environmental Specifications**

**Temperature**

Operating Range -55 to +165 deg C

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

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## SMB Plug Right Angle to SMA Male Right Angle Cable Using RG316-DS Coax

### RF Cable Assemblies Technical Data Sheet

PE3W09947

#### How to Order

Part Number Configuration:

**PE3W09947**

- **xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3W09947-12 = 12 inches long cable  
PE3W09947-100cm = 100 cm long cable

SMB Plug Right Angle to SMA Male Right Angle Cable Using RG316-DS Coax 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMB Plug Right Angle to SMA Male Right Angle Cable Using RG316-DS Coax PE3W09947](#)

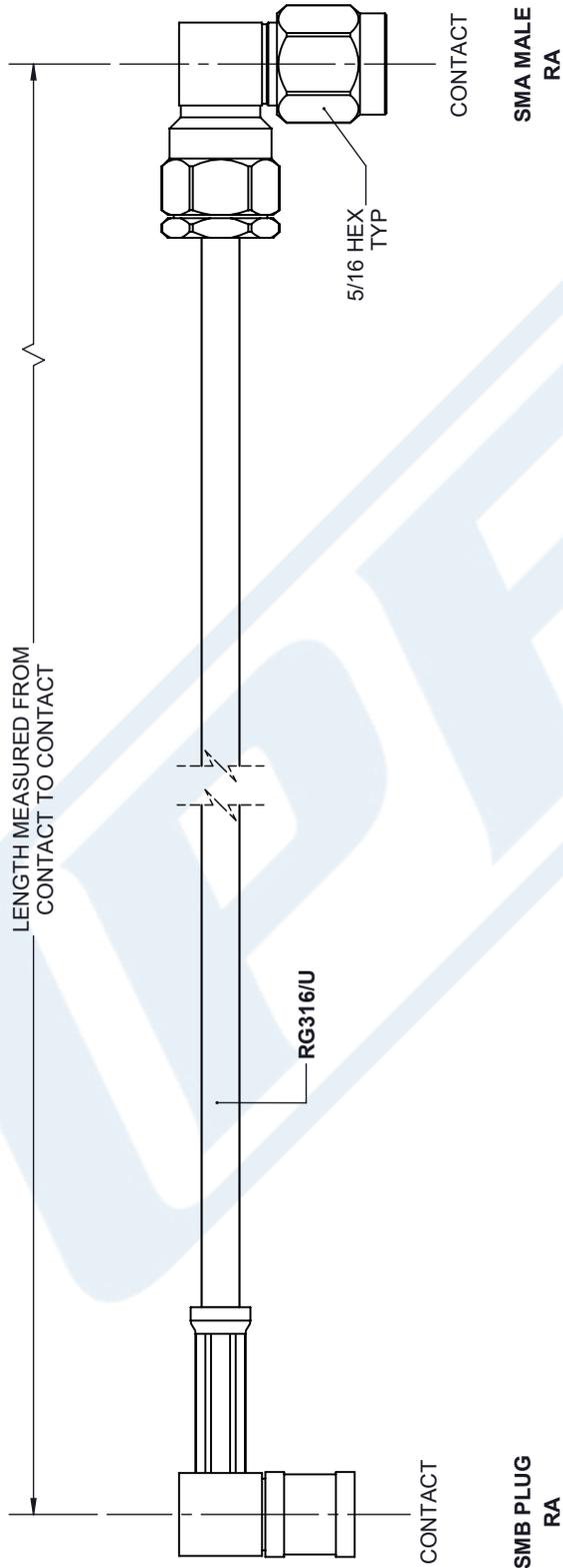
URL: <https://www.pasternack.com/smb-plug-sma-male-rg316-ds-cable-assembly-pe3w09947-p.aspx>

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.

# PE3W09947 CAD Drawing

SMB Plug Right Angle to SMA Male Right Angle Cable Using RG316-DS Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10/19/2020	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>[.008]</td> <td>FRACTIONS</td> <td>±.1/32</td> </tr> <tr> <td>.XX = ±.02</td> <td>[.51]</td> <td>ANGLES ± 1°</td> <td></td> </tr> <tr> <td>.XXX = ±.005</td> <td>[.13]</td> <td>CABLE LENGTH (L) TOLERANCES:</td> <td></td> </tr> <tr> <td></td> <td></td> <td>L ≤ 12 [305]</td> <td>±.1 [25] / -0</td> </tr> <tr> <td></td> <td></td> <td>12 [305] &lt; L ≤ 60 [1524]</td> <td>±.2 [51] / -0</td> </tr> <tr> <td></td> <td></td> <td>60 [1524] &lt; L ≤ 120 [3048]</td> <td>±.4 [102] / -0</td> </tr> <tr> <td></td> <td></td> <td>120 [3048] &lt; L ≤ 300 [7620]</td> <td>±.6 [152] / -0</td> </tr> <tr> <td></td> <td></td> <td>300 [7620] &lt; L</td> <td>±.5%L / -0</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	.X = ±.2	[.008]	FRACTIONS	±.1/32	.XX = ±.02	[.51]	ANGLES ± 1°		.XXX = ±.005	[.13]	CABLE LENGTH (L) TOLERANCES:				L ≤ 12 [305]	±.1 [25] / -0			12 [305] < L ≤ 60 [1524]	±.2 [51] / -0			60 [1524] < L ≤ 120 [3048]	±.4 [102] / -0			120 [3048] < L ≤ 300 [7620]	±.6 [152] / -0			300 [7620] < L	±.5%L / -0	<p><b>PE PASTERNAK</b> an INFINITE® brand</p> <p>Pasternack Enterprises, Inc. P. O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920   1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com</p>	<p>THIRD-ANGLE PROJECTION</p> <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>
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