



## SMA Female to SMA Male Right Angle Low Loss Cable Using LMR-100 Coax

### RF Cable Assemblies Technical Data Sheet

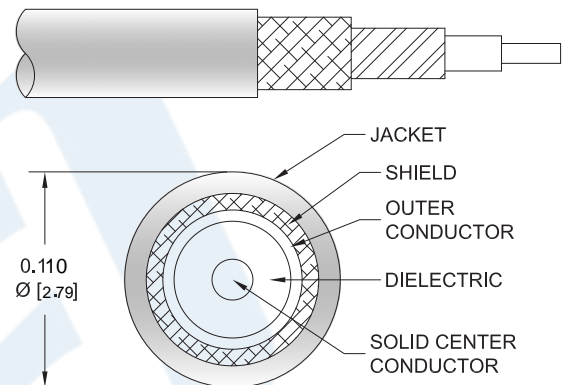
PE3W10002

#### Configuration

- Connector 1: SMA Female
- Connector 2: SMA Male Right Angle
- Cable Type: LMR-100A

#### Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W10002 SMA female to SMA male right angle cable using LMR-100 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 female to male gender configuration with 50 ohm flexible LMR-100A coax. The PE3W10002 SMA female to SMA male cable assembly operates to 5.8 GHz. The right angle SMA interface on the LMR-100A cable allows for easier connections in tight spaces. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 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: [SMA Female to SMA Male Right Angle Low Loss Cable Using LMR-100 Coax PE3W10002](#)



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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.45:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft [ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		9.5 [31.17]		$\Omega$ /1000ft [ $\Omega$ /Km]
Jacket Spark			2,000	Vrms

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.12	0.17	0.24	0.4	0.64	dB/ft
	0.39	0.56	0.79	1.31	2.1	dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB for the straight connector and 0.2 dB for the right angle connector.

#### Mechanical Specifications

##### Cable Assembly

Diameter 0.689 in [17.5 mm]

##### Cable

Cable Type LMR-100A  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper Clad Steel  
 Dielectric Type PE  
 Number of Shields 2  
 Shield Layer 1 Aluminum Tape  
 Shield Layer 2 Tinned Copper Braid  
 Jacket Material PVC, Black  
 Jacket Diameter 0.11 in [2.79 mm]

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One Time Minimum Bend Radius	0.25 in [6.35 mm]
Repeated Minimum Bend Radius	1 in [25.4 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	15 lbs [6.8 Kg]

**Connectors**

Description	Connector 1	Connector 2
Type	SMA Female	SMA Male Right Angle
Specification	MIL-STD-348A	
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	50µ in. minimum	
Dielectric Type	Teflon	Teflon
Outer Conductor Material and Plating	Brass, Gold	
Outer Conductor Plating Specification	3µ in. minimum	
Body Material and Plating	Brass, Gold	Brass, Gold
Body Plating Specification	3µ in. minimum	
Coupling Nut Material and Plating		Brass, Gold
Hex Size		5/16 in
Torque		5 in-lbs [0.57 Nm]

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

**Plotted and Other Data**

Notes:

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PE3W10002

**How to Order**

Part Number Configuration:

**PE3W10002**

- **xx**

**uu**

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

Example: PE3W10002-12 = 12 inches long cable  
PE3W10002-100cm = 100 cm long cable

SMA Female to SMA Male Right Angle Low Loss Cable Using LMR-100 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: [SMA Female to SMA Male Right Angle Low Loss Cable Using LMR-100 Coax PE3W10002](https://www.pasternack.com/sma-female-sma-male-lmr100-cable-assembly-pe3w10002-p.aspx)

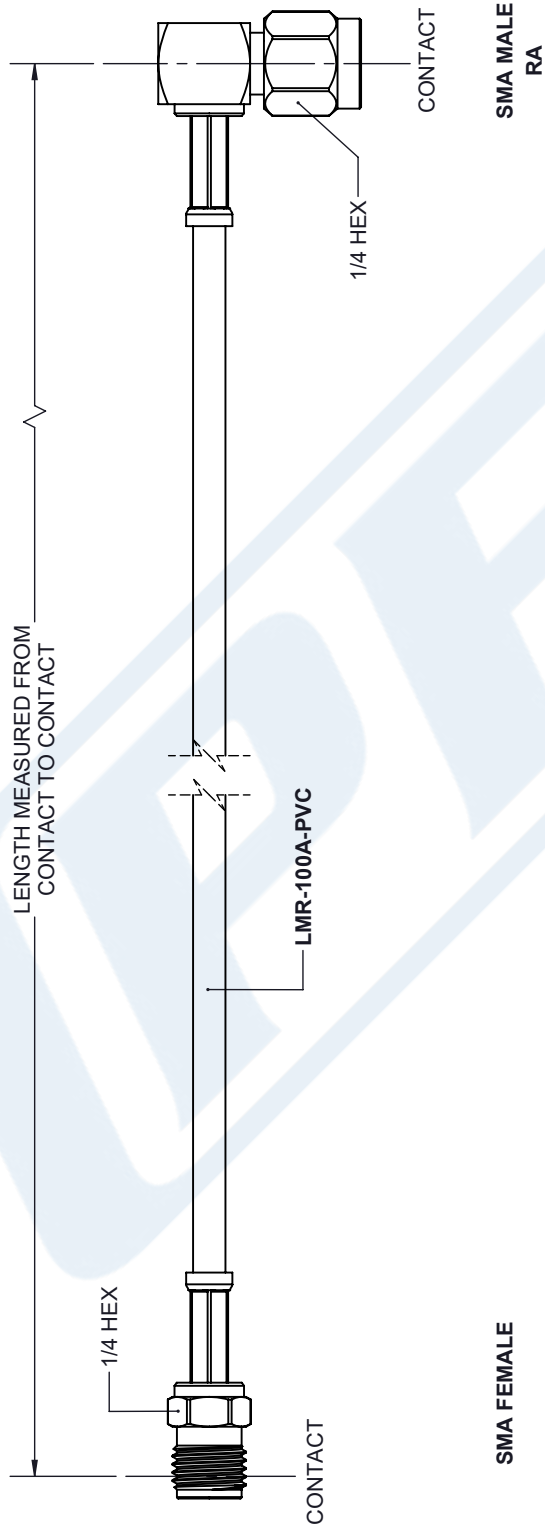
URL: <https://www.pasternack.com/sma-female-sma-male-lmr100-cable-assembly-pe3w10002-p.aspx>

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# PE3W10002 CAD Drawing

SMA Female to SMA Male Right Angle Low Loss Cable Using LMR-100 Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10/15/2020	S. ELLIS



<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>.X = ±.2 [ .508]    FRACTIONS ± 1/32</p> <p>.XX = ±.02 [ .51]    ANGLES ± 1°</p> <p>.XXX = ±.005 [ .13]</p> <p>CABLE LENGTH (L), TOLERANCES:</p> <p>L ≤ 12 [305] = +1 [25] / -0</p> <p>12 [305] &lt; L ≤ 60 [1524] = +2 [51] / -0</p> <p>60 [1524] &lt; L ≤ 120 [3048] = +4 [102] / -0</p> <p>120 [3048] &lt; L ≤ 300 [7620] = +6 [152] / -0</p> <p>300 [7620] &lt; L = +5% / -0</p> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</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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<p>SIZE A</p>	<p>CAGE CODE 53919</p>	<p>DRAWN BY K.DANG</p>	<p>ITEM NO. PE3W10002</p>

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