



SMC Plug to SMA Male Low Loss Cable  
50 CM Length Using LMR-100 Coax

RF Cable Assemblies Technical Data Sheet

PE3W04200-50CM

### Configuration

- Connector 1: SMC Plug
- Connector 2: SMA Male
- Cable Type: LMR-100A

### Features

- Max Frequency 3 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket



### Applications

- General Purpose
- Laboratory Use

### Description

Pasternack's PE3W04200-50CM SMC plug to SMA male 50 cm 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 SMC to SMA cable assembly has a plug to male gender configuration with 50 ohm flexible LMR-100A coax. The PE3W04200-50CM SMC plug to SMA male cable assembly operates to 3 GHz. 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: [SMC Plug to SMA Male Low Loss Cable 50 CM Length Using LMR-100 Coax PE3W04200-50CM](#)



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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.55:1	
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]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ω/1000ft [Ω/Km]
Jacket Spark			2,000	Vrms

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	3	GHz
Insertion Loss (Max.)	0.38	0.46	0.59	0.85	0.91	dB

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.2dB of connector loss.

#### Mechanical Specifications

##### Cable Assembly

Length*	19.69 in [500.13 mm]
Diameter	0.312 in [7.92 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

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Jacket Material	PVC, Black
Jacket Diameter	0.11 in [2.79 mm]
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	SMC Plug	SMA Male
Specification	MIL-STD-348A	
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Nickel	Stainless Steel
Body Plating Specification	100 µin minimum	
Coupling Nut Material and Plating	Brass, Nickel	Stainless Steel
Coupling Nut Plating Specification	100 µin minimum	
Hex Size	1/4 inch	

#### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

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

#### Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMC Plug to SMA Male Low Loss Cable 50 CM Length Using LMR-100 Coax PE3W04200-50CM](#)

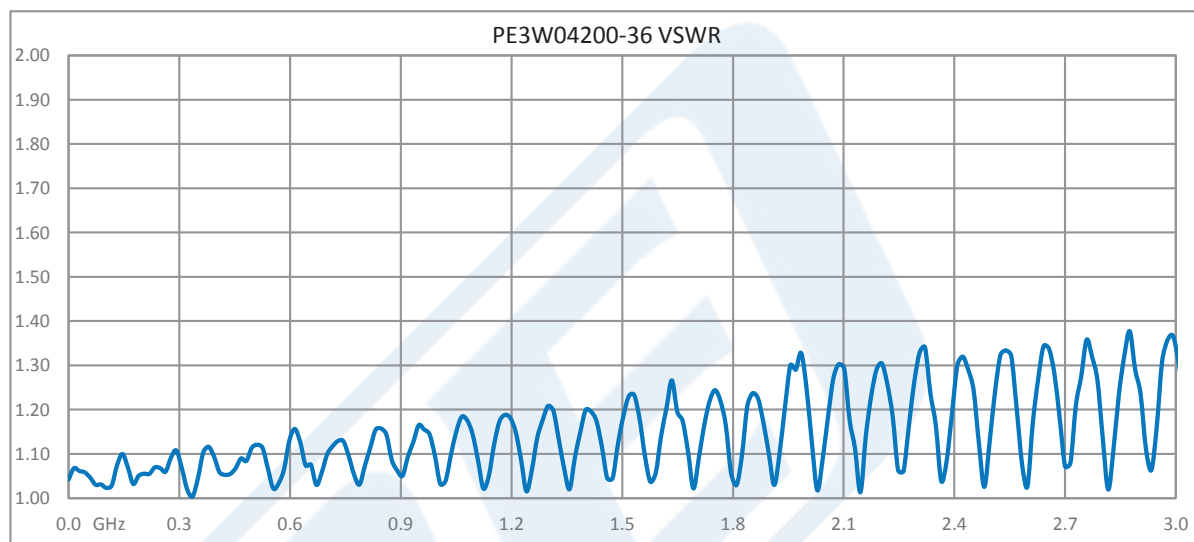


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Typical Performance Data



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## SMC Plug to SMA Male Low Loss Cable 50 CM Length Using LMR-100 Coax

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#### How to Order

Part Number Configuration:

**PE3W04200**

- **xx**

**uu**

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

Example: PE3W04200-12 = 12 inches long cable  
PE3W04200-100cm = 100 cm long cable

SMC Plug to SMA Male Low Loss Cable 50 CM Length 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.

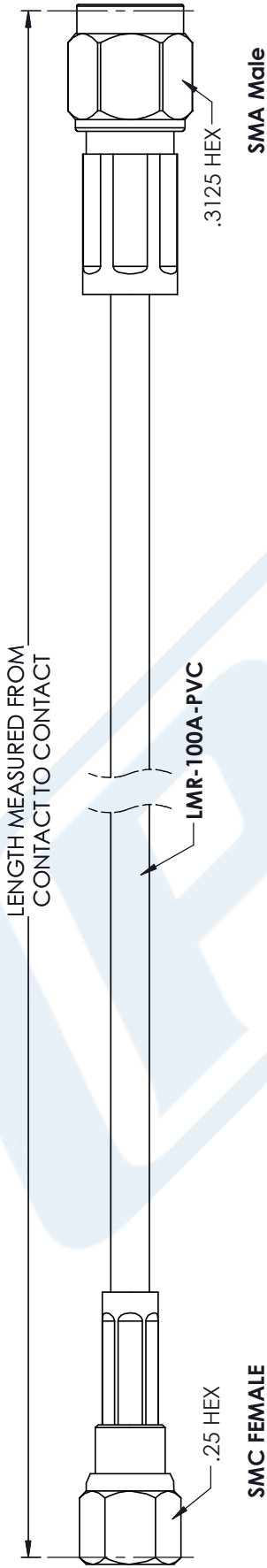
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMC Plug to SMA Male Low Loss Cable 50 CM Length Using LMR-100 Coax PE3W04200-50CM](https://www.pasternack.com/smc-plug-sma-male-lmr100-cable-assembly-pe3w04200-50cm-p.aspx)

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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.

PE3W04200-50CM CAD Drawing

SMC Plug to SMA Male Low Loss Cable 50 CM Length Using LMR-100 Coax



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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DWG TITLE	PE3W04200
CAGE CODE	53919

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].	CAD FILE	09/26/18	SCALE	N/A	SIZE	A	CN2379
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