



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

### RF Cable Assemblies Technical Data Sheet

PE3W04200

#### 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 SMC plug to SMA male 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 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 Using LMR-100 Coax PE3W04200](#)



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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.) | 0.11 | 0.16 | 0.24 | 0.4  | 0.43 | dB/ft |
|                       | 0.36 | 0.52 | 0.79 | 1.31 | 1.41 | dB/m  |

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated to be 0.2dB connector loss.

#### Mechanical Specifications

##### Cable Assembly

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  
 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                               | 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 Using LMR-100 Coax PE3W04200](#)

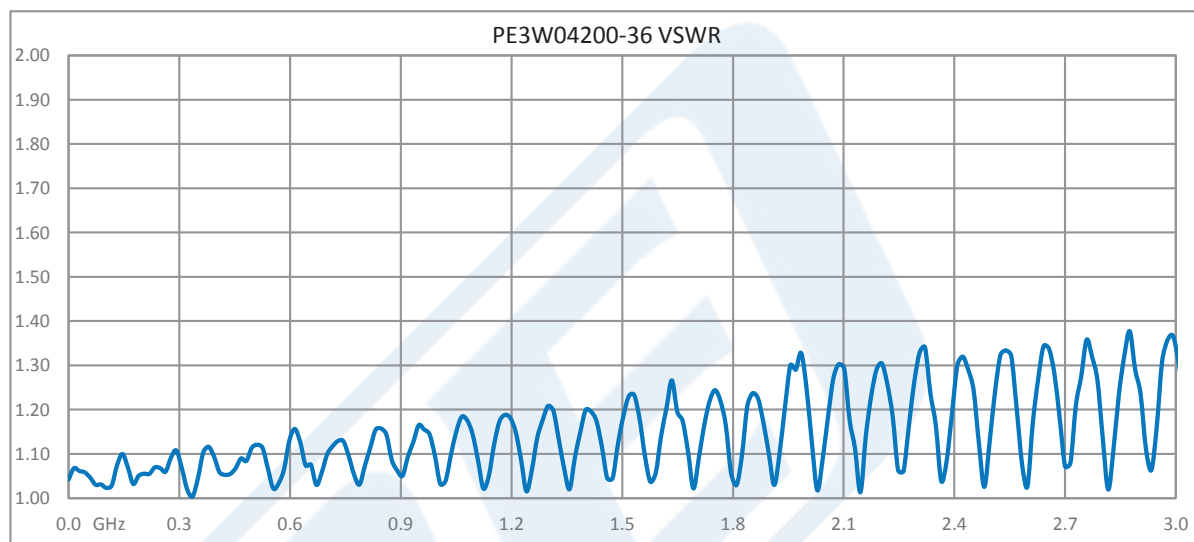


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#### Typical Performance Data



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PE3W04200

#### 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

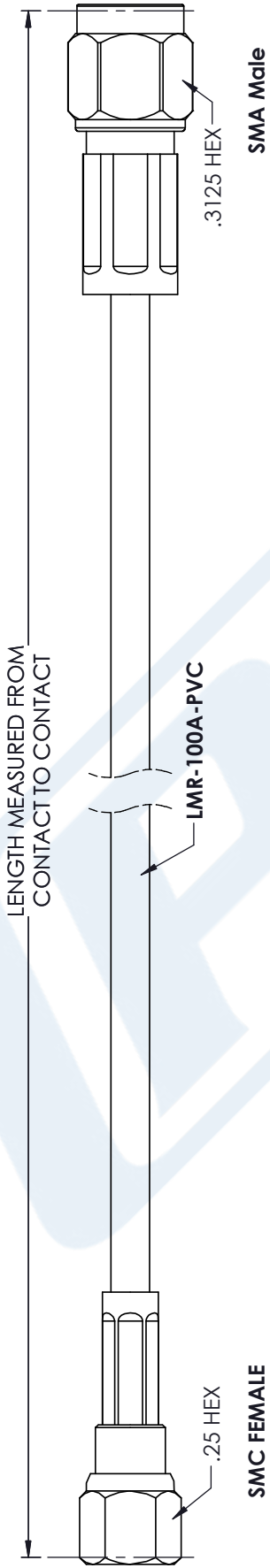
SMC Plug to SMA Male Low Loss Cable Using LMR-100 Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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 Using LMR-100 Coax PE3W04200](#)

URL: <https://www.pasternack.com/smc-plug-sma-male-lmr100-cable-assembly-pe3w04200-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.

PE3W04200 CAD Drawing  
SMC Plug to SMA Male Low Loss Cable 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

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].

CAGE CODE 53919

CAD FILE 09/26/18

SCALE N/A

SIZE A

CN2379