



## SMC Plug to MCX Plug Low Loss Cable 36 Inch Length Using LMR-100 Coax

### RF Cable Assemblies Technical Data Sheet

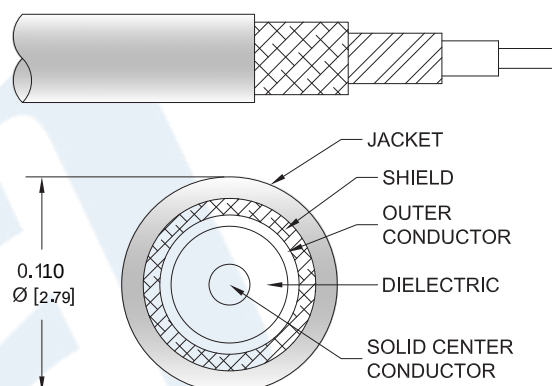
**PE3W04152-36**

#### Configuration

- Connector 1: SMC Plug
- Connector 2: MCX Plug
- 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 PE3W04152-36 SMC plug to MCX plug low loss 36 inch 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 MCX cable assembly has a plug to plug gender configuration with 50 ohm flexible LMR-100A coax. The PE3W04152-36 SMC plug to MCX plug 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 MCX Plug Low Loss Cable 36 Inch Length Using LMR-100 Coax PE3W04152-36](#)



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#### Electrical Specifications

| Description                   | Minimum | Typical       | Maximum | Units           |
|-------------------------------|---------|---------------|---------|-----------------|
| Frequency Range               | DC      |               | 3       | GHz             |
| VSWR                          |         |               | 1.5:1   |                 |
| 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             | 0.1  | 0.25 | 0.5  | 1    | 3    | GHz   |
| Insertion Loss (Max.) | 0.41 | 0.56 | 0.71 | 0.92 | 1.52 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1dB per connector

#### Mechanical Specifications

##### Cable Assembly

|          |                   |
|----------|-------------------|
| Length*  | 36 in [914.4 mm]  |
| Diameter | 0.25 in [6.35 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               | MCX Plug        |
| Specification                      | MIL-STD-348A           | CECC 22220      |
| Impedance                          | 50 Ohms                | 50 Ohms         |
| Contact Material and Plating       | Beryllium Copper, Gold | Brass, Gold     |
| Contact Plating Specification      | 30 µin minimum         | 30 µin minimum  |
| Dielectric Type                    | PTFE                   | PTFE            |
| Body Material and Plating          | Brass, Nickel          | Brass, Nickel   |
| Body Plating Specification         | 100 µin minimum        | 100 µin minimum |
| Coupling Nut Material and Plating  | Brass, Nickel          |                 |
| 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.

#### Environmental Specifications

##### Temperature

Operating Range

-40 to +85 deg C

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

#### Plotted and Other Data

Notes:

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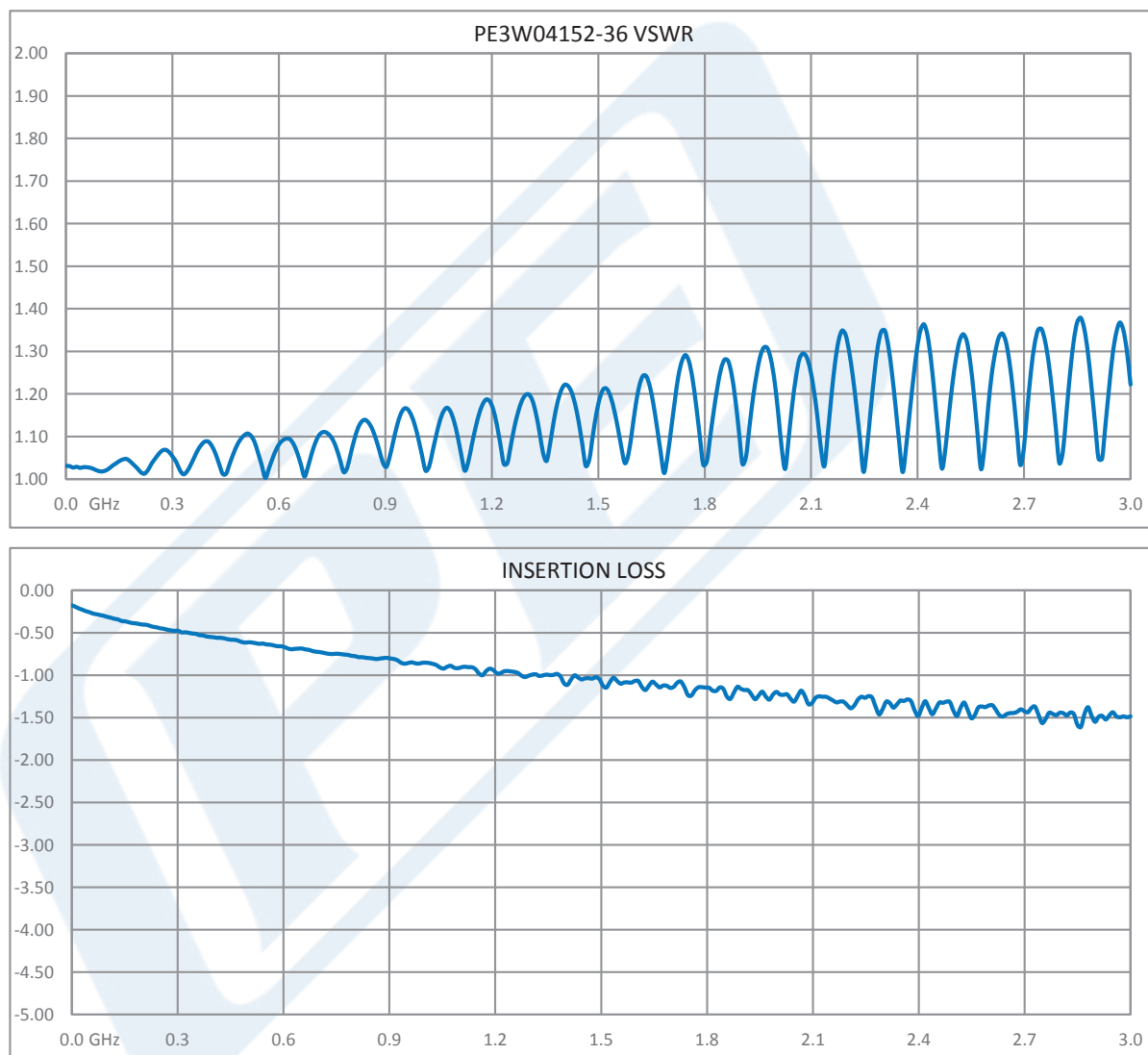


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**PE3W04152-36**

**Typical Performance Data**



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**RF Cable Assemblies Technical Data Sheet**

**PE3W04152-36**

**How to Order**

Part Number Configuration:

**PE3W04152**

- **xx**

**uu**

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

Example: PE3W04152-12 = 12 inches long cable  
PE3W04152-100cm = 100 cm long cable

SMC Plug to MCX Plug Low Loss Cable 36 Inch 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.

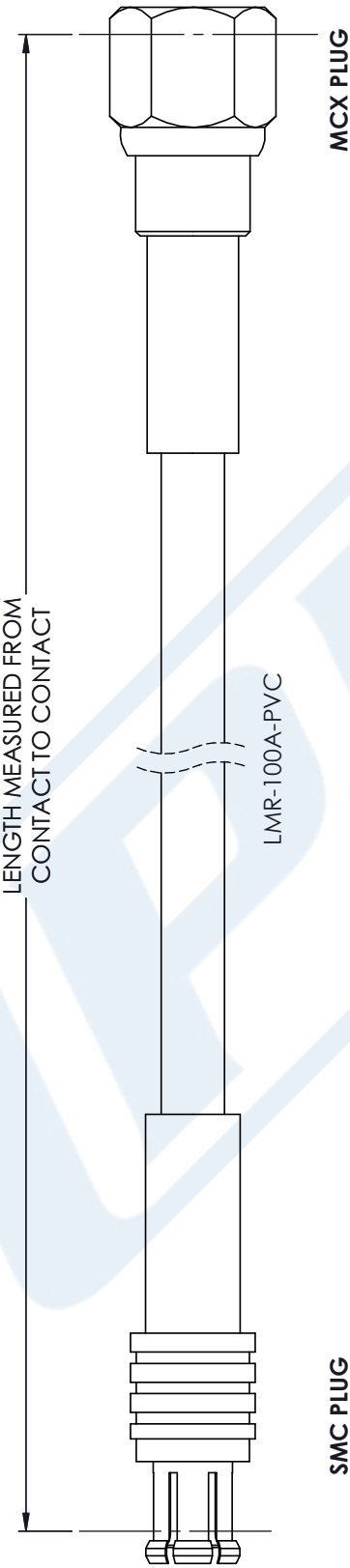
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMC Plug to MCX Plug Low Loss Cable 36 Inch Length Using LMR-100 Coax PE3W04152-36](https://www.pasternack.com/smc-plug-mcx-plug-lmr100-cable-assembly-pe3w04152-36-p.aspx)

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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.

PE3W04152-36 CAD Drawing

SMC Plug to MCX Plug Low Loss Cable 36 Inch Length Using LMR-100 Coax



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

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



**PASTERNAK®**  
THE ENGINEER'S RF SOURCE

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|           |           |
|-----------|-----------|
| DWG TITLE | PE3W04152 |
| CAGE CODE | 53919     |

|                                                                                                                                                                                     |          |          |       |     |      |   |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-------|-----|------|---|--------|
| NOTES:<br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.<br>3. DIMENSIONS ARE IN INCHES [mm]. | CAD FILE | 05/02/18 | SCALE | N/A | SIZE | A | CN2379 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-------|-----|------|---|--------|