

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



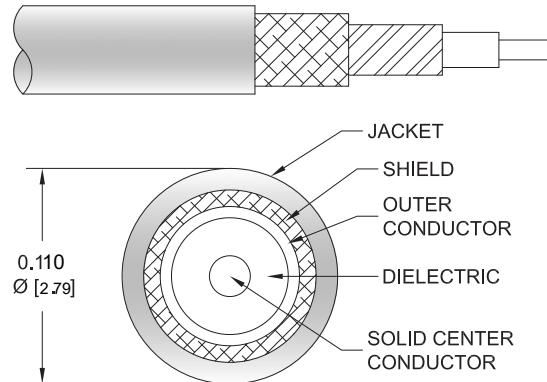
PE3C8181

Configuration

- Connector 1: SMA Male
- Connector 2: SSMC Plug
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

Features

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



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C8181 SMA male to SSMC plug 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 SSMC cable assembly has a male to plug gender configuration with 50 ohm flexible LMR-100A coax. The PE3C8181 SMA male to SSMC 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.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|---------------|---------|-----------------------|
| Frequency Range | DC | | 3 | GHz |
| VSWR | | | 1.4:1 | |
| 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] | | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor | | 9.5 [31.17] | | Ohms/1000ft [Ohms/Km] |

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



PE3C8181

Electrical Specifications

| Description | Minimum | Typical | | | | | Maximum | Units |
|--------------|---------|---------|--|--|--|-------|---------|-------|
| Jacket Spark | | | | | | 2,000 | | Vrms |

Specifications by Frequency

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|----------------|--------------------------|-----------------------|-------|-------|-------|------|-------|-------|--------------|
| | | Frequency | 100 | 250 | 500 | 1000 | 3000 | MHz | |
| PE3C8181 | Custom Lengths Available | Insertion Loss (Typ.) | 0.064 | 0.115 | 0.165 | 0.24 | 0.432 | dB/ft | |
| | | | 0.21 | 0.38 | 0.55 | 0.79 | 1.42 | dB/m | |
| PE3C8181-24 | 24 in | Insertion Loss (Typ.) | 0.53 | 0.63 | 0.73 | 0.88 | 1.27 | dB | 0.043 |
| PE3C8181-36 | 36 in | Insertion Loss (Typ.) | 0.6 | 0.75 | 0.9 | 1.12 | 1.7 | dB | 0.052 |
| PE3C8181-48 | 48 in | Insertion Loss (Typ.) | 0.66 | 0.86 | 1.06 | 1.36 | 2.13 | dB | 0.061 |
| PE3C8181-100CM | 100 CM | Insertion Loss (Typ.) | 0.61 | 0.78 | 0.95 | 1.19 | 1.82 | dB | 0.055 |
| PE3C8181-200CM | 200 CM | Insertion Loss (Typ.) | 0.82 | 1.16 | 1.49 | 1.98 | 3.24 | dB | 0.085 |

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

| | |
|-----------------------------|----------------|
| Loss due to Connector 1: | 0.1 dB |
| Loss due to Connector 2: | 0.3 dB |
| Base Weight: | 0.034 pounds |
| Additional Weight per Inch: | 0.00075 pounds |

Mechanical Specifications

Cable Assembly

| | |
|----------------|---------------------|
| Width/Diameter | 0.5 in [12.7 mm] |
| Weight | 0.034 lbs [15.42 g] |

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] |
| 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] |

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



PE3C8181

Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------------|------------------|------------------------|
| Type | SMA Male | SSMC Plug |
| Specification | MIL-STD-348A | |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Mating Cycles | | 500 |
| Contact Material and Plating | Brass, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | 50 µin minimum | MIL-G-45204 |
| Dielectric Type | PTFE | Teflon |
| Body Material and Plating | Brass, Nickel | Beryllium Copper, Gold |
| Body Plating Specification | 100 µin minimum | MIL-G-45204 |
| Coupling Nut Material and Plating | Brass, Nickel | Beryllium Copper, Gold |
| Coupling Nut Plating Specification | 100 µin minimum | MIL-G-45206 |
| Hex Size | 5/16 inch | |
| Torque | 3 in-lbs 0.34 Nm | 1.75 in-lbs 0.2 Nm |

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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

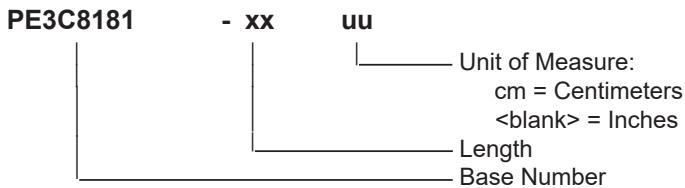


PE3C8181

Typical Performance Data

How to Order

Part Number Configuration:



Example: PE3C8181-12 = 12 inches long cable
PE3C8181-100cm = 100 cm long cable

SMA Male to SSMC Plug 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 Male to SSMC Plug Low Loss Cable Using LMR-100 Coax PE3C8181](#)

URL: <https://www.pasternack.com/sma-male-to-ssmc-plug-low-loss-cable-using-lmr-100-pe3c8181-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE3C8181 CAD Drawing

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

