

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

### PE3C8181

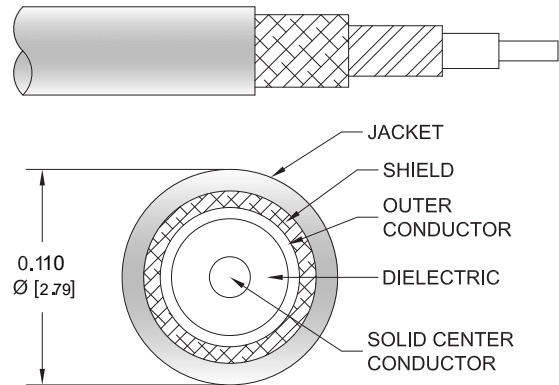


#### Configuration

- 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]

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#### 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]

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#### 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:

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### PE3C8181

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**PE3C8181**

**- xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

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>

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PE3C8181 CAD Drawing
SMA Male to SSMC Plug Low Loss Cable Using LMR-100 Coax

