

## SMA Male to SMA Male Low Loss Cable Using LMR-LW240 Coax



### PE3C8638

#### Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: LMR-LW240
- Coax Flex Type: Flexible

#### Features

- Max Frequency 8 GHz
- Shielding Effectivity > 90 dB
- 83% Phase Velocity
- Double Shielded
- PE Jacket
- 500 Mating Cycles

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C8638 SMA male to SMA male cable using LMR-LW240 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 SMA cable assembly has a male to male gender configuration with 50 ohm flexible LMR-LW240 coax. The PE3C8638 SMA male to SMA male cable assembly operates to 8 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		8	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
RF Shielding	90			dB
Group Delay		1.21 [3.97]		ns/ft [ns/m]
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		14.4 [47.24]		Ohms/1000ft [Ohms/Km]
Operating Voltage (AC)			333	Vrms

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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Dielectric Withstanding Voltage (AC)			1,000	Vrms
Jacket Spark			5,000	Vrms

#### Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3C8638	Custom Lengths Available	Insertion Loss (Typ.)	0.056	0.08	0.115	0.117	0.163	dB/ft	
			0.19	0.27	0.38	0.39	0.54	dB/m	
PE3C8638-12	12 inch	Insertion Loss (Typ.)	0.26	0.28	0.32	0.32	0.37	dB	0.051
PE3C8638-24	24 inch	Insertion Loss (Typ.)	0.32	0.36	0.43	0.44	0.53	dB	0.077
PE3C8638-36	36 inch	Insertion Loss (Typ.)	0.37	0.44	0.55	0.56	0.69	dB	0.102
PE3C8638-48	48 inch	Insertion Loss (Typ.)	0.43	0.52	0.66	0.67	0.86	dB	0.127
PE3C8638-60	60 inch	Insertion Loss (Typ.)	0.48	0.6	0.78	0.79	1.02	dB	0.152

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:	0.1 dB
Base Weight:	0.051 pounds
Additional Weight per Inch:	0.00209 pounds

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.051 lbs [23.13 g]

##### Cable

Cable Type	LMR-LW240
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	Foam PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Aluminum
Jacket Material	PE, Black
Jacket Diameter	0.24 in [6.1 mm]
One Time Minimum Bend Radius	0.75 in [19.05 mm]
Repeated Minimum Bend Radius	2.5 in [63.5 mm]
Bending Moment	0.25 lbs-ft [0.34 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

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**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Brass, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Gold
Coupling Nut Material and Plating	Brass, Gold	Brass, Gold
Hex Size	5/16 inch	5/16 inch
Torque	3 in-lbs 0.34 Nm	3 in-lbs 0.34 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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### PE3C8638

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**PE3C8638**

**- xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3C8638-12 = 12 inches long cable  
PE3C8638-100cm = 100 cm long cable

SMA Male to SMA Male Low Loss Cable Using LMR-LW240 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 SMA Male Low Loss Cable Using LMR-LW240 Coax PE3C8638](#)

URL: <https://www.pasternack.com/sma-male-to-sma-male-low-loss-cable-using-lmr-lw240-pe3c8638-p.aspx>

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# PE3C8638 CAD Drawing

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