

Low Loss SMA Male to SMA Female Bulkhead Cable LMR-100 Coax

FMCA10039



Configuration

- Connector 1: SMA Male
- Connector 2: SMA Female Bulkhead
- 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

The SMA male to SMA female bulkhead cable using LMR-100 coax, part number FMCA10039, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a male to female gender configuration with 50 ohm flexible LMR-100A coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA10039 SMA male to SMA female cable assembly operates to 3 GHz. Our RF cable assembly with SMA bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. The double shielding of this Fairview 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 RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. 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	
FMCA10039	Custom Lengths Available	Insertion Loss (Typ.)	0.06	0.12	0.17	0.24	0.43	dB/ft	
			0.21	0.38	0.55	0.79	1.42	dB/m	
FMCA10039-24	24 Inch	Insertion Loss (Typ.)	0.48	0.58	0.68	0.83	1.22	dB	0.035
FMCA10039-36	36 Inch	Insertion Loss (Typ.)	0.55	0.7	0.85	1.07	1.65	dB	0.044
FMCA10039-48	48 Inch	Insertion Loss (Typ.)	0.61	0.81	1.01	1.31	2.08	dB	0.053
FMCA10039-100CM	100 CM	Insertion Loss (Typ.)	0.56	0.73	0.9	1.14	1.77	dB	0.047
FMCA10039-200CM	200 CM	Insertion Loss (Typ.)	0.77	1.11	1.44	1.93	3.19	dB	0.076

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:	0.25 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.026 pounds
Additional Weight per Inch:	0.07833 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.026 lbs [11.79 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	SMA Female Bulkhead
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification	15 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Gold
Outer Conductor Plating Specification		3 µin minimum
Body Material and Plating	Brass, Nickel	
Body Plating Specification	200 µin minimum	
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	200 µin minimum	

Environmental Specifications

Operating Range Temperature -20 to +80 deg C

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

Plotted and Other Data

Notes:

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Typical Performance Data

How to Order

Part Number Configuration:

FMCA10039

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

Example: FMCA10039-12 = 12 inches long cable
FMCA10039-100cm = 100 cm long cable

Low Loss SMA Male to SMA Female Bulkhead Cable LMR-100 Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss SMA Male to SMA Female Bulkhead Cable LMR-100 Coax FMCA10039](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-sma-female-bulkhead-cable-lmr-100-coax-fmca10039-p.aspx>

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FMCA10039 CAD Drawing
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