

Low Loss SMA Male to MMCX Jack Cable LMR-100 Coax

FMCA10042



Configuration

- Connector 1: SMA Male
- Connector 2: MMCX Jack
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

Applications

- General Purpose
- Laboratory Use

Description

The SMA male to MMCX jack cable using LMR-100 coax, part number FMCA10042, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to MMCX cable assembly has a male to jack 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 FMCA10042 SMA male to MMCX jack cable assembly operates to 6 GHz. 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		6	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]
Jacket Spark			2,000	Vrms

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	250	500	1000	2500	6000	MHz	
FMCA10042	Custom Lengths Available	Insertion Loss (Typ.)	0.115	0.165	0.24	0.398	0.641	dB/ft	
			0.38	0.55	0.79	1.31	2.11	dB/m	
FMCA10042-24	24 Inch	Insertion Loss (Typ.)	0.58	0.68	0.83	1.15	1.64	dB	0.034
FMCA10042-36	36 Inch	Insertion Loss (Typ.)	0.7	0.85	1.07	1.55	2.28	dB	0.043
FMCA10042-48	48 Inch	Insertion Loss (Typ.)	0.81	1.01	1.31	1.95	2.92	dB	0.052
FMCA10042-100CM	100 CM	Insertion Loss (Typ.)	0.73	0.9	1.14	1.66	2.46	dB	0.046
FMCA10042-200CM	200 CM	Insertion Loss (Typ.)	1.11	1.44	1.93	2.97	4.56	dB	0.075

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:	0.025 pounds
Additional Weight per Inch:	0.07833 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.025 lbs [11.34 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	MMCX Jack
Specification		BS EN 122340
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification	15 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Gold
Body Plating Specification	200 µin minimum	3 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	200 µin minimum	

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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FMCA10042

Typical Performance Data

How to Order

Part Number Configuration:

FMCA10042

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Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMCA10042-12 = 12 inches long cable
FMCA10042-100cm = 100 cm long cable

Low Loss SMA Male to MMCX Jack 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 MMCX Jack Cable LMR-100 Coax FMCA10042](https://www.fairviewmicrowave.com/low-loss-sma-male-to-mmcx-jack-cable-lmr-100-coax-fmca10042-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-mmcx-jack-cable-lmr-100-coax-fmca10042-p.aspx>

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FMCA10042 CAD Drawing
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