

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

**FMC00086**



### Configuration

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

### Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

### Applications

- General Purpose
- Laboratory Use

### Description

The SMA male to MMCX plug cable using LMR-100 coax, part number FMC00086, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to MMCX cable assembly has a male to plug 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 FMC00086 SMA male to MMCX plug cable assembly operates to 5.8 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		5.8	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	5800	MHz	
FMC00086	Custom Lengths Available	Insertion Loss (Typ.)	0.12	0.17	0.24	0.4	0.64	dB/ft	
			0.38	0.55	0.79	1.31	2.11	dB/m	
FMC00086-24	24 inch	Insertion Loss (Typ.)	0.43	0.53	0.68	1	1.49	dB	0.037
FMC00086-36	36 inch	Insertion Loss (Typ.)	0.55	0.7	0.92	1.4	2.13	dB	0.046
FMC00086-48	48 inch	Insertion Loss (Typ.)	0.66	0.86	1.16	1.8	2.77	dB	0.055
FMC00086-100CM	100 CM	Insertion Loss (Typ.)	0.58	0.75	0.99	1.51	2.31	dB	0.049
FMC00086-200CM	200 CM	Insertion Loss (Typ.)	0.96	1.29	1.78	2.82	4.41	dB	0.079

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: 0.028 pounds  
 Additional Weight per Inch: 0.00075 pounds

### Mechanical Specifications

#### Cable Assembly

Weight 0.028 lbs [12.7 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 Plug
Specification	MIL-STD-348A	BS EN 122340
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Gold
Body Plating Specification	100 µin minimum	3 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	100 µin minimum	
Hex Size	5/16 inch	
Torque	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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### Typical Performance Data

### How to Order

Part Number Configuration:

**FMC00086**

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Unit of Measure:  
cm = Centimeters  
<blank> = Inches

Length

Base Number

Example: FMC00086-12 = 12 inches long cable  
FMC00086-100cm = 100 cm long cable

Low Loss SMA Male to MMCX Plug 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 Plug Cable LMR-100 Coax FMC00086](https://www.fairviewmicrowave.com/low-loss-sma-male-to-mmcx-plug-cable-lmr-100-coax-fmc00086-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-mmcx-plug-cable-lmr-100-coax-fmc00086-p.aspx>

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FMC00086 CAD Drawing
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