

Low Loss SMA Male to RA MCX Plug Cable LMR-100 Coax

FMC00079



Configuration

- Connector 1: SMA Male
- Connector 2: MCX Plug Right Angle
- 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 RA MCX plug cable using LMR-100 coax, part number FMC00079, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to MCX 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 FMC00079 SMA male to MCX plug cable assembly operates to 3 GHz. The right angle MCX interface on the LMR-100A cable allows for easier connections in tight spaces. 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]
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		100	250	500	1000	
FMC00079	Custom Lengths Available	Insertion Loss (Typ.)	0.07	0.12	0.165	0.24	0.434	dB/ft	
			0.23	0.38	0.55	0.79	1.43	dB/m	
FMC00079-24	24 inch	Insertion Loss (Typ.)	0.44	0.53	0.63	0.78	1.17	dB	0.041
FMC00079-36	36 inch	Insertion Loss (Typ.)	0.51	0.65	0.8	1.02	1.61	dB	0.05
FMC00079-48	48 inch	Insertion Loss (Typ.)	0.58	0.76	0.96	1.26	2.04	dB	0.059
FMC00079-100CM	100 CM	Insertion Loss (Typ.)	0.53	0.68	0.85	1.09	1.73	dB	0.053
FMC00079-200CM	200 CM	Insertion Loss (Typ.)	0.76	1.06	1.39	1.88	3.15	dB	0.083

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:	0.2 dB
Base Weight:	0.032 pounds
Additional Weight per Inch:	0.00075 pounds

Mechanical Specifications

Cable Assembly

Weight 0.032 lbs [14.51 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	MCX Plug Right Angle
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
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 +60 deg C

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

Plotted and Other Data

Notes:

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FMC00079

Typical Performance Data

How to Order

Part Number Configuration:

FMC00079

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Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMC00079-12 = 12 inches long cable
FMC00079-100cm = 100 cm long cable

Low Loss SMA Male to RA MCX 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.

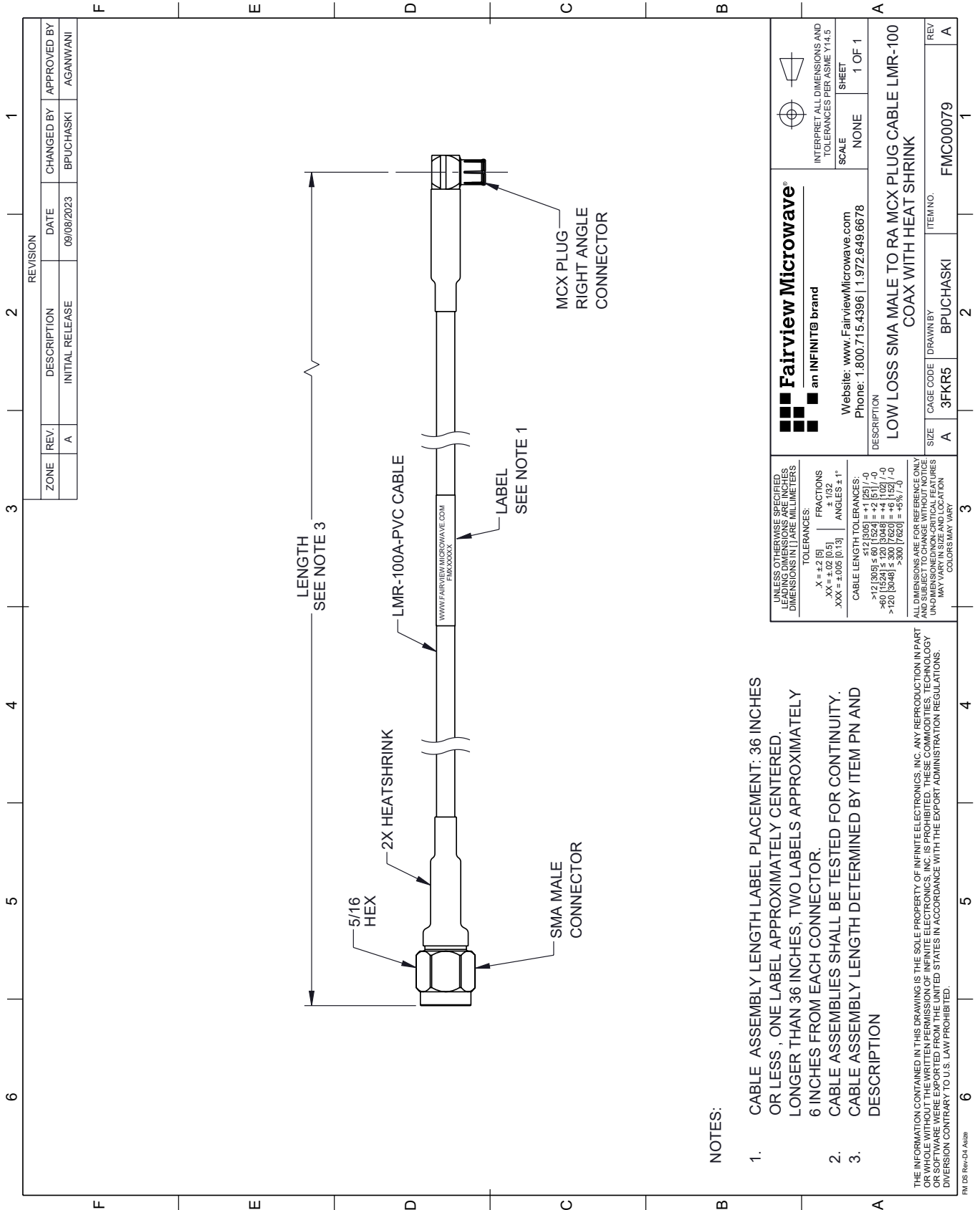
For additional information on this product, please click the following link: [Low Loss SMA Male to RA MCX Plug Cable LMR-100 Coax FMC00079](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-ra-mcx-plug-cable-lmr-100-coax-fmc00079-p.aspx>

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FMC00079 CAD Drawing

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NOTES:

1. CABLE ASSEMBLY LABEL LENGTH: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION

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FM DS Rev-D4 Alt2b

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ZONE	REV.	INITIAL RELEASE	BPUCHASKI	AGANWANI
	A	09/08/2023		

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLEANCES:
 .X = ±.2 [5]
 .XX = ±.02 [0.5]
 .XXX = ±.005 [0.13]

FRACTIONS: ± 1/32
 ANGLES: ± 1°

CABLE LENGTH TOLERANCES:
 <12 [305] ±.60 [15.24] = ±.2 [5] / -0
 >12 [305] ≤.60 [15.24] = ±.2 [5] / -0
 >60 [1524] ≤.120 [3048] = ±.4 [102] / -0
 >120 [3048] ≤.300 [7620] = ±.8 [203] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS/DIMENSIONS/CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

DESCRIPTION	SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
LOW LOSS SMA MALE TO RA MCX PLUG CABLE LMR-100 COAX WITH HEAT SHRINK	A	3FKR5	BPUCHASKI	FMC00079	A

