

Low Loss SMA Male to RP SMA Plug Cable LMR-240 Coax

FMC00054

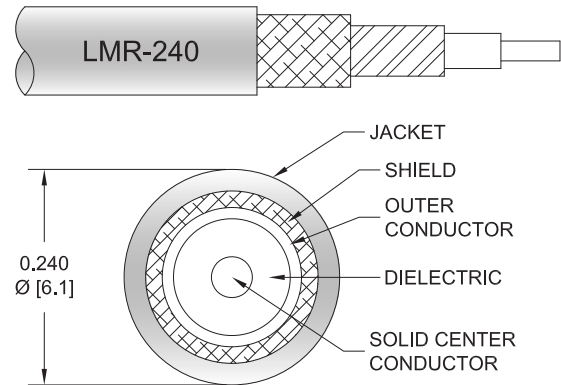


Configuration

- Connector 1: SMA Male
- Connector 2: SMA Plug Reverse Polarity
- Cable Type: LMR-240
- Coax Flex Type: Flexible

Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use

Description

The SMA male to RP SMA plug cable using LMR-240 coax, part number FMC00054, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to reverse polarity SMA cable assembly has a male to plug gender configuration with 50 ohm flexible LMR-240 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00054 SMA male to reverse polarity SMA 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		84		%
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		3.89 [12.76]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			5,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	250	500	1000	2500	5800	MHz	
FMC00054	Custom Lengths Available	Insertion Loss (Typ.)	0.04	0.06	0.079	0.129	0.204	dB/ft	
			0.13	0.19	0.26	0.43	0.67	dB/m	
FMC00054-12	12 inch	Insertion Loss (Typ.)	0.24	0.26	0.28	0.33	0.41	dB	0.063
FMC00054-24	24 inch	Insertion Loss (Typ.)	0.28	0.31	0.36	0.46	0.61	dB	0.096
FMC00054-36	36 inch	Insertion Loss (Typ.)	0.32	0.37	0.44	0.59	0.82	dB	0.129
FMC00054-48	48 inch	Insertion Loss (Typ.)	0.36	0.42	0.52	0.72	1.02	dB	0.162
FMC00054-60	60 inch	Insertion Loss (Typ.)	0.4	0.48	0.6	0.85	1.22	dB	0.195

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:	0.063 pounds
Additional Weight per Inch:	0.00275 pounds

Mechanical Specifications

Cable Assembly

Weight	0.063 lbs [28.58 g]
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Cable

Cable Type	LMR-240
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
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 Plug Reverse Polarity
Specification	MIL-STD-348A	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	50 µin minimum	
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Gold
Body Plating Specification	3 µin minimum	
Coupling Nut Material and Plating	Brass, Gold	Brass, Gold
Coupling Nut Plating Specification	3 µin minimum	
Hex Size	5/16 inch	5/16 inch
Torque		5 in-lbs 0.57 Nm

Environmental Specifications

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

Plotted and Other Data

Notes:

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FMC00054

Typical Performance Data

How to Order

Part Number Configuration:

FMC00054

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

Length

Base Number

Example: FMC00054-12 = 12 inches long cable
FMC00054-100cm = 100 cm long cable

Low Loss SMA Male to RP SMA Plug Cable LMR-240 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 RP SMA Plug Cable LMR-240 Coax FMC00054](https://www.fairviewmicrowave.com/low-loss-sma-male-to-rp-sma-plug-cable-lmr-240-coax-fmc00054-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-rp-sma-plug-cable-lmr-240-coax-fmc00054-p.aspx>

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FMC00054 CAD Drawing
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