

## Low Loss RP SMA Plug to RP SMA Plug Cable LMR-400-UF Coax with LF Solder



### FMCA100249

#### Configuration

- Connector 1: SMA Plug Reverse Polarity
- Connector 2: SMA Plug Reverse Polarity
- Cable Type: LMR-400-UF
- Coax Flex Type: Flexible

#### Features

- Max Frequency 8 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Double Shielded
- TPE Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

The RP SMA plug to RP SMA plug cable using LMR-400-UF coax, part number FMCA100249, from Fairview Microwave is in-stock and ships same day. This Fairview reverse polarity SMA to reverse polarity SMA cable assembly has a plug to plug gender configuration with 50 ohm flexible LMR-400-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100249 reverse polarity SMA plug to reverse polarity SMA plug cable assembly operates to 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		8	GHz
VSWR			1.4:1	
Velocity of Propagation		85		%
RF Shielding	90			dB
Group Delay		1.2 [3.94]		ns/ft [ns/m]
Capacitance		23.9 [78.41]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		1.07 [3.51]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.65 [5.41]		Ohms/1000ft [Ohms/Km]
Jacket Spark			8,000	Vrms

#### Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	500	1000	2000	4000	8000	MHz	
FMCA100249	Custom Lengths Available	Insertion Loss (Typ.)	0.035	0.05	0.072	0.094	0.13	dB/ft	
			0.12	0.17	0.24	0.31	0.43	dB/m	
FMCA100249-12	12 inch	Insertion Loss (Typ.)	0.24	0.25	0.28	0.3	0.33	dB	0.227
FMCA100249-24	24 inch	Insertion Loss (Typ.)	0.27	0.3	0.35	0.39	0.46	dB	0.314
FMCA100249-36	36 inch	Insertion Loss (Typ.)	0.31	0.35	0.42	0.49	0.59	dB	0.401
FMCA100249-60	60 inch	Insertion Loss (Typ.)	0.38	0.45	0.56	0.67	0.85	dB	0.575
FMCA100249-300	300 inch	Insertion Loss (Typ.)	1.08	1.45	2	2.55	3.45	dB	2.315

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:	0.227 pounds
Additional Weight per Inch:	0.00725 pounds

### Mechanical Specifications

#### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.227 lbs [102.97 g]

#### Cable

Cable Type	LMR-400-UF
Impedance	50 Ohms
Inner Conductor Type	Stranded
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	TPE, Black
Jacket Diameter	0.405 in [10.29 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]
Repeated Minimum Bend Radius	4 in [101.6 mm]
Bending Moment	0.38 lbs-ft [0.52 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Plug Reverse Polarity	SMA Plug Reverse Polarity
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Gold
Coupling Nut Material and Plating	Brass, Gold	Brass, Gold
Hex Size	5/16 inch	5/16 inch
Torque	3 in-lbs 0.34 Nm	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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### FMCA100249

#### Typical Performance Data

#### How to Order

Part Number Configuration: **FMCA100249**    **- xx**    **uu**

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

Length

Base Number

Example: FMCA100249-12 = 12 inches long cable  
FMCA100249-100cm = 100 cm long cable

Low Loss RP SMA Plug to RP SMA Plug Cable LMR-400-UF Coax with LF Solder 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 RP SMA Plug to RP SMA Plug Cable LMR-400-UF Coax with LF Solder FMCA100249](#)

URL: <https://www.fairviewmicrowave.com/low-loss-rp-sma-plug-to-rp-sma-plug-cable-lmr-400-uf-coax-with-lf-solder-fm-ca100249-p.aspx>

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