

SMA Female to SMA Female Cable FM-P047 Coax



FMCA9976

Configuration

- Connector 1: SMA Female
- Connector 2: SMA Female
- Cable Type: FM-P047
- Coax Flex Type: Flexible

Features

- Max Frequency 18 GHz
- Shielding Effectivity > 90 dB
- 70% Phase Velocity
- Double Shielded
- FEP Jacket

Applications

- General Purpose
- Laboratory Use

Description

The SMA female to SMA female cable using FM-P047 coax, part number FMCA9976, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a female to female gender configuration with 50 ohm flexible FM-P047 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA9976 SMA female to SMA female cable assembly operates to 18 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		18	GHz
VSWR			1.4:1	
Velocity of Propagation		70		%
RF Shielding	90			dB
Capacitance		29 [95.14]		pF/ft [pF/m]

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	1000	2000	4500	9000	18000	MHz	
FMCA9976	Custom Lengths Available	Insertion Loss (Typ.)	0.34	0.48	0.745	1.102	1.652	dB/ft	
			1.1	1.59	2.45	3.62	5.42	dB/m	
FMCA9976-6	6 inch	Insertion Loss (Typ.)	0.37	0.45	0.58	0.76	1.03	dB	0.016
FMCA9976-12	12 inch	Insertion Loss (Typ.)	0.54	0.69	0.95	1.31	1.86	dB	0.017
FMCA9976-24	24 inch	Insertion Loss (Typ.)	0.87	1.17	1.69	2.41	3.51	dB	0.021
FMCA9976-36	36 inch	Insertion Loss (Typ.)	1.21	1.66	2.44	3.51	5.16	dB	0.025
FMCA9976-48	48 inch	Insertion Loss (Typ.)	1.54	2.14	3.18	4.61	6.81	dB	0.029

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:	0.017 pounds
Additional Weight per Inch:	0.00031 pounds

Mechanical Specifications

Cable Assembly

Weight	0.017 lbs [7.71 g]
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Cable

Cable Type	FM-P047
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	FEP
Number of Shields	2
Shield Layer 1	Silver Plated Copper Tape
Shield Layer 2	Silver Plated Copper Braid
Jacket Material	FEP, Blue
Jacket Diameter	0.056 in [1.42 mm]
One Time Minimum Bend Radius	0.2 in [5.08 mm]
Repeated Minimum Bend Radius	0.4 in [10.16 mm]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Female	SMA Female
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	MIL-G-45204	MIL-G-45204
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Gold
Body Plating Specification	MIL-G-45204	MIL-G-45204

Environmental Specifications

Operating Range Temperature-65 to +165 deg C

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

Plotted and Other Data

Notes:

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FMCA9976

Typical Performance Data

How to Order

Part Number Configuration:

FMCA9976

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

Length

Base Number

Example: FMCA9976-12 = 12 inches long cable
FMCA9976-100cm = 100 cm long cable

SMA Female to SMA Female Cable FM-P047 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: [SMA Female to SMA Female Cable FM-P047 Coax FMCA9976](#)

URL: <https://www.fairviewmicrowave.com/sma-female-to-sma-female-cable-fm-p047-coax-fmca9976-p.aspx>

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FMCA9976 CAD Drawing
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