

RA SMPS Female to SMA Male Cable FM-P047HF Coax

The RA SMPS female to SMA male cable using FM-P047HF coax, part number FMCA9970, from Fairview Microwave is in-stock and ships same day. This Fairview SMPS to SMA cable assembly has a female to male gender configuration with 50 ohm flexible FM-P047HF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA9970 SMPS female to SMA male cable assembly operates to 27 GHz. The right angle SMPS interface on the FM-P047HF 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	Min	Typ	Max	Units
Frequency Range	DC		27	GHz
VSWR			1.5:1	
Velocity of Propagation		70		%
RF Shielding	90			dB
Capacitance		29 [95.14]		pF/ft [pF/m]

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
FMCA9970	Custom Lengths Available	Insertion Loss (Typ.)	0.35	0.49	0.763	1.107	1.681	dB/ft	
			1.15	1.61	2.51	3.64	5.52	dB/m	
FMCA9970-6	6 inch	Insertion Loss (Typ.)	0.45	0.63	0.92	1.28	1.73	dB	0.015
FMCA9970-12	12 inch	Insertion Loss (Typ.)	0.62	0.88	1.31	1.83	2.57	dB	0.017
FMCA9970-18	18 inch	Insertion Loss (Typ.)	0.8	1.12	1.69	2.39	3.41	dB	0.019

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:	0.12*SQRT(FGHz) dB
Loss due to Connector 2:	0.05*SQRT(FGHz) dB
Base Weight:	0.017 pounds
Additional Weight per Inch:	0.00033 pounds

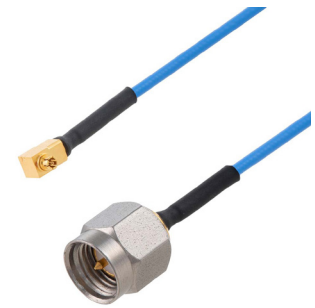
Mechanical Specifications

Cable Assembly

Weight 0.0144 lbs [6.53 g]

Cable

Cable Type	FM-P047HF
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	2
Shield Layer 1	Silver Plated Copper Tape
Shield Layer 2	Silver Plated Copper Braid



Configuration:

- SMPS Female Right Angle
- SMA Male
- FM-P047HF

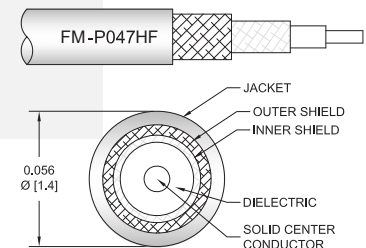
Features:

- Max Frequency 27 GHz
- Shielding Effectivity > 90 dB
- 70% Phase Velocity
- Double Shielded
- FEP Jacket

Applications:

- General Purpose
- Laboratory Use
- Scientific research
- High-reliability, high-density for aerospace & defense application
- Ground base station & communication systems, avionics, radar systems

Cable Diagram:



Fairview Microwave
 301 Leora Ln., Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Jacket Material FEP, Blue
 Jacket Diameter 0.06 in [1.52 mm]
 Repeated Minimum Bend Radius 0.1 in [2.54 mm]

Connectors

Description	Connector 1	Connector 2
Type	SMPS Female Push-on	SMA Male Threaded
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold over Nickel
Contact Plating Spec.	50 µin minimum	MIL-G-45204
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating	Beryllium Copper, Gold	
Outer Cond Plating Spec.	50 µin minimum	
Body Material & Plating	Beryllium Copper, Gold	Brass, Gold
Body Plating Spec.	30 µin minimum	MIL-G-45204
Coupling Nut Material & Plating		Passivated Stainless Steel
Coupling Nut Plating Spec.		ASTM-A380

Environmental Specifications

Temperature

Operating Range -55 to +100 deg C

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

Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMCA9970 - xx uu

cm = Centimeters
 <blank> = Inches
 Length

Example: FMCA9970-12 = 12 inches long cable
 FMCA9970-100cm = 100 cm long cable

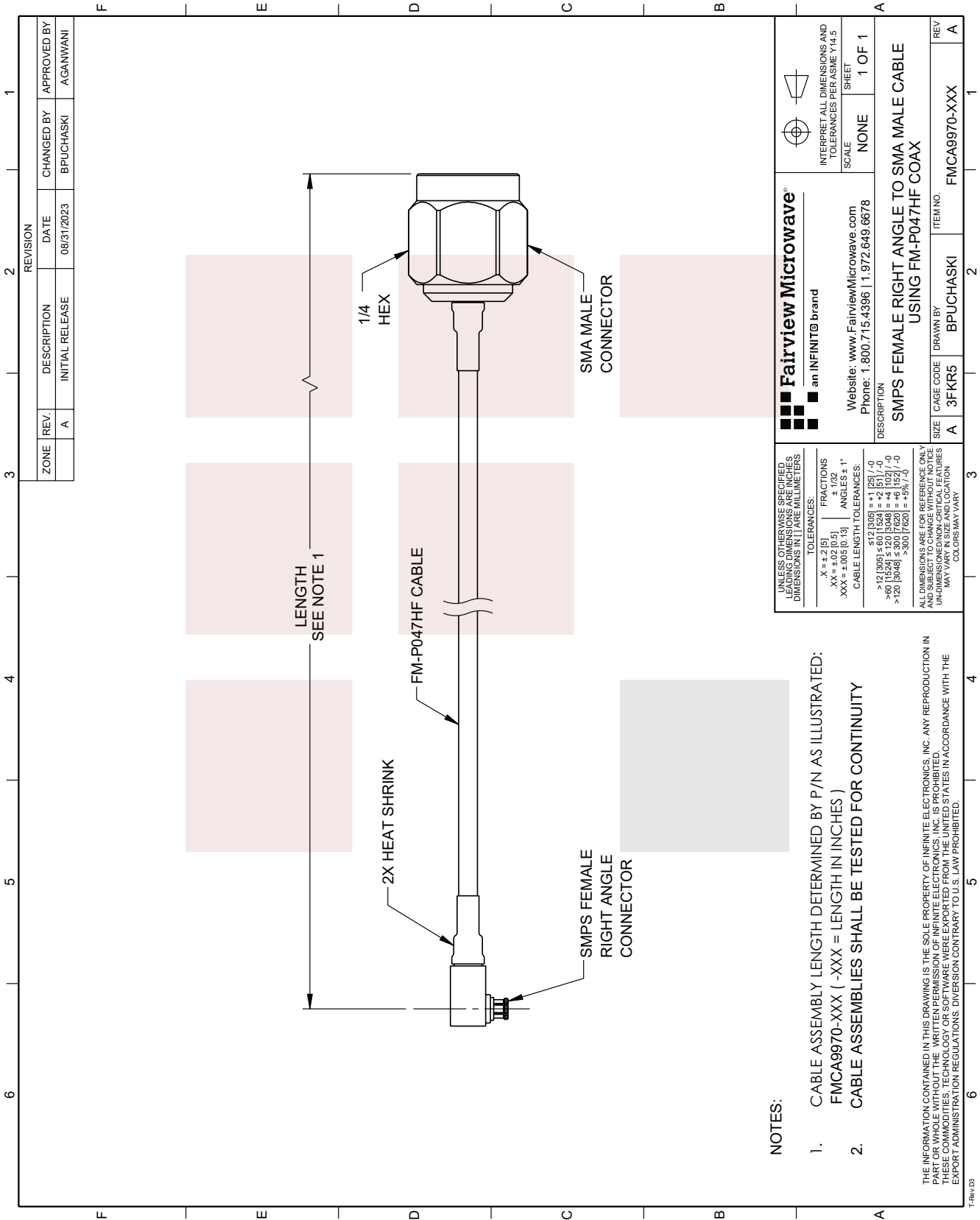
RA SMPS Female to SMA Male Cable FM-P047HF Coax from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [RA SMPS Female to SMA Male Cable FM-P047HF Coax FMCA9970](#)

URL: <https://www.fairviewmicrowave.com/ra-smps-female-to-sma-male-cable-fm-p047hf-coax-fmca9970-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.





Fairview Microwave an INFINIT [®] brand Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1	
UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [] ARE MILLIMETERS TOLERANCES: .X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13] FRACTIONS: ±.132 ANGLES ± 1° CABLE LENGTH TOLERANCES: >12 [305] ≤ 60 [1524] = ±.05 [1.27] / -0 >6 [152] ≤ 30 [762] = ±.03 [0.76] / -0 >120 [3048] ≤ 300 [7620] = ±.1 [2.5] / -0 >300 [7620] = ±.15 [3.81] / -0		DESCRIPTION: SMPS FEMALE RIGHT ANGLE TO SMA MALE CABLE USING FM-P047HF COAX	
SIZE: A CAGE CODE: 3FKR5	DRAWN BY: BPUCHASKI	ITEM NO.: FMCA9970-XXX	REV: A

NOTES:

- CABLE ASSEMBLY LENGTH DETERMINED BY P/N AS ILLUSTRATED:
FMCA9970-XXX (-XXX = LENGTH IN INCHES)
- CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY

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