

RA SMPS Female to 1.85mm Male Cable FM-P047HF Coax

The RA SMPS female to 1.85mm male cable using FM-P047HF coax, part number FMCA9963, from Fairview Microwave is in-stock and ships same day. This Fairview SMPS to 1.85mm 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 FMCA9963 SMPS female to 1.85mm male cable assembly operates to 40 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		40	GHz
VSWR			1.41:1	
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	
FMCA9963	Custom Lengths Available	Insertion Loss (Typ.)	0.55	0.8	1.17	1.78	2.77	dB/ft	
			1.81	2.63	3.84	5.84	9.09	dB/m	
FMCA9963-6	6 inch	Insertion Loss (Typ.)	0.53	0.76	1.1	1.61	2.4	dB	0.011
FMCA9963-12	12 inch	Insertion Loss (Typ.)	0.81	1.16	1.68	2.5	3.79	dB	0.013
FMCA9963-18	18 inch	Insertion Loss (Typ.)	1.08	1.56	2.27	3.39	5.17	dB	0.015

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:	0.04*SQRT(FGHz) dB
Base Weight:	0.013 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
- 1.85mm Male
- FM-P047HF

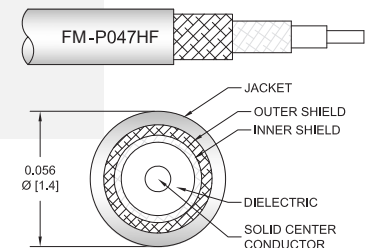
Features:

- Max Frequency 40 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:



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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	1.85mm Male Threaded
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold over Nickel
Contact Plating Spec.	50 µin minimum	50 µin minimum
Dielectric Type	PTFE	PEI
Outer Cond Material & Plating	Beryllium Copper, Gold	
Outer Cond Plating Spec.	50 µin minimum	
Body Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold over Nickel
Body Plating Spec.	30 µin minimum	50 µin minimum
Coupling Nut Material & Plating		Passivated Stainless Steel
Coupling Nut Plating Spec.		ASTM-A582

Environmental Specifications
Temperature

Operating Range -55 to +150 deg C

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

Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMCA9963 - xx uu

cm = Centimeters
 <blank> = Inches
 Length

Example: FMCA9963-12 = 12 inches long cable
 FMCA9963-100cm = 100 cm long cable

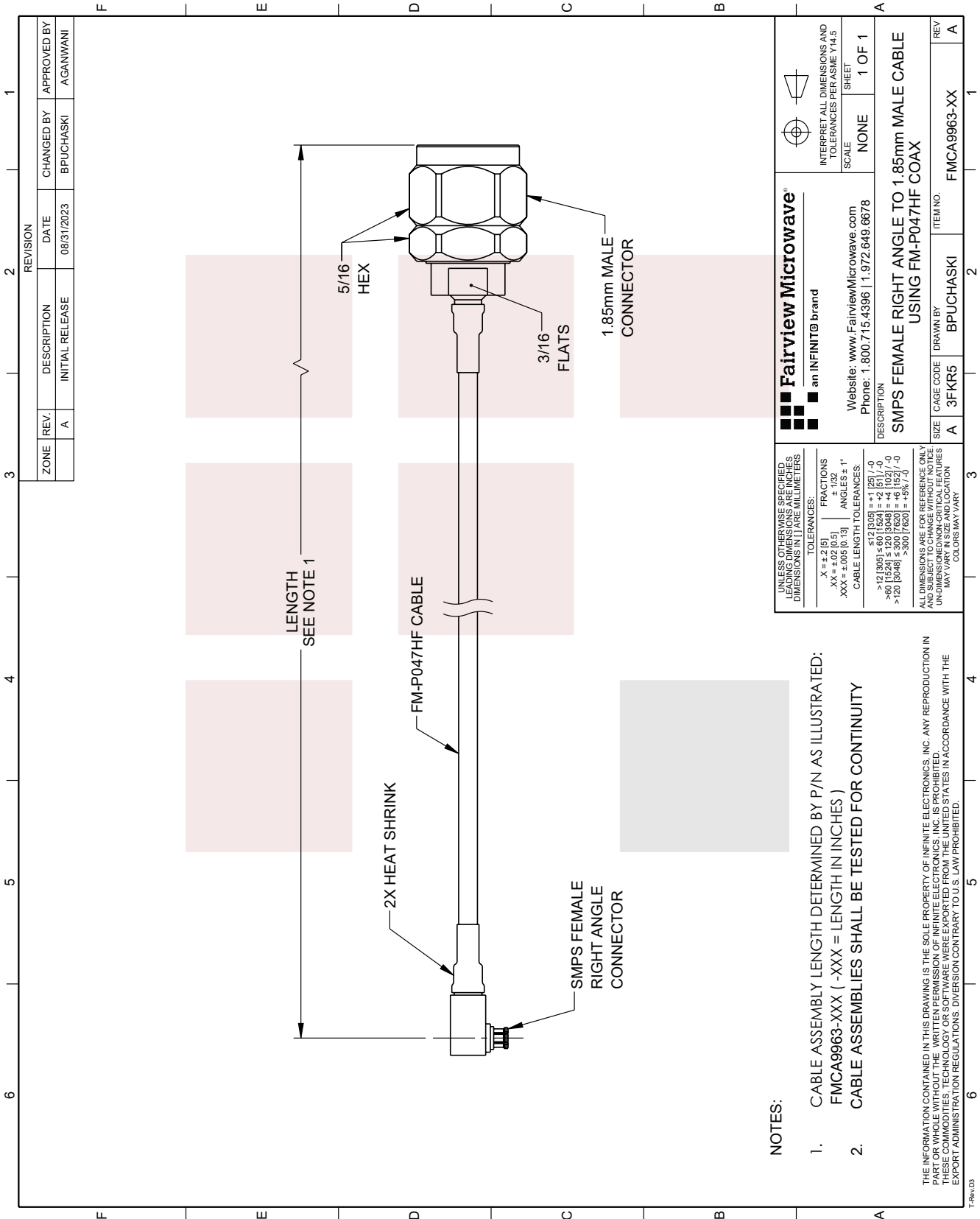
RA SMPS Female to 1.85mm Male Cable FM-P047HF Coax from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [RA SMPS Female to 1.85mm Male Cable FM-P047HF Coax FMCA9963](#)

URL: <https://www.fairviewmicrowave.com/ra-smps-female-to-1.85mm-male-cable-fm-p047hf-coax-fmca9963-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.





ZONE	REV.	DESCRIPTION	DATE	CHANGED BY	APPROVED BY
A	A	INITIAL RELEASE	08/31/2023	BPUCHASKI	AGANWANI

REVISION	DATE	CHANGED BY	APPROVED BY
1	08/31/2023	BPUCHASKI	AGANWANI

<p>Fairview Microwave an INFINIT[®] brand</p> <p>Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678</p>	<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>
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<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [] ARE IN MILLIMETERS</p> <p>FRACTIONS: X = ± 2/64, .XXX = ± 0.03, .0.13</p> <p>ANGLES ± 1°</p> <p>CABLE LENGTH TOLERANCES: >12 [305] ≤ 60 [1524] = ± 0.01 / 0 >60 [1524] ≤ 120 [3048] = ± 0.02 [0.51] / 0 >120 [3048] ≤ 300 [7620] = ± 0.03 [0.76] / 0 >300 [7620] = ± 0.04 [1.02] / 0</p> <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE. UNDIMENSIONED CRITICAL FEATURES MAY VARY. COLORS MAY VARY.</p>	<p>DESCRIPTION</p> <p>SMPS FEMALE RIGHT ANGLE TO 1.85mm MALE CABLE USING FM-P047HF COAX</p>
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<p>SIZE: A</p> <p>CAGE CODE: 3FKR5</p> <p>ITEM NO.: FMCA9963-XX</p>	<p>REV: A</p>
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NOTES:

- CABLE ASSEMBLY LENGTH DETERMINED BY P/N AS ILLUSTRATED:
FMCA9963-XXX (-XXX = LENGTH IN INCHES)
- CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY

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