

## RA SSMC Plug to RA SSMC Plug Cable FM-P047 Coax



### FMCA9975

#### Configuration

- Connector 1: SSMC Plug Right Angle
- Connector 2: SSMC Plug Right Angle
- Cable Type: FM-P047
- Coax Flex Type: Flexible

#### Features

- Max Frequency 12.4 GHz
- Shielding Effectivity > 90 dB
- 70% Phase Velocity
- Double Shielded
- FEP Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

The RA SSMC plug to RA SSMC plug cable using FM-P047 coax, part number FMCA9975, from Fairview Microwave is in-stock and ships same day. This Fairview SSMC to SSMC cable assembly has a plug to plug 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 FMCA9975 SSMC plug to SSMC plug cable assembly operates to 12.4 GHz. The right angle SSMC interfaces on the FM-P047 cable allow 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	Minimum	Typical	Maximum	Units
Frequency Range	DC		12.4	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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**FMCA9975**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	1000	2500	5000	10000	12400	
FMCA9975	Custom Lengths Available	Insertion Loss (Typ.)	0.34	0.54	0.786	1.169	1.327	dB/ft	
			1.1	1.77	2.58	3.84	4.36	dB/m	
FMCA9975-6	6 inch	Insertion Loss (Typ.)	0.77	0.87	1	1.19	1.27	dB	0.015
FMCA9975-12	12 inch	Insertion Loss (Typ.)	0.94	1.14	1.39	1.77	1.93	dB	0.016
FMCA9975-24	24 inch	Insertion Loss (Typ.)	1.27	1.68	2.18	2.94	3.26	dB	0.02
FMCA9975-36	36 inch	Insertion Loss (Typ.)	1.61	2.22	2.96	4.11	4.59	dB	0.024
FMCA9975-48	48 inch	Insertion Loss (Typ.)	1.94	2.76	3.75	5.28	5.91	dB	0.028

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: 0.3 dB  
 Loss due to Connector 2: 0.3 dB  
 Base Weight: 0.016 pounds  
 Additional Weight per Inch: 0.00031 pounds

**Mechanical Specifications**

**Cable Assembly**

Weight 0.016 lbs [7.26 g]

**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	SSMC Plug Right Angle	SSMC Plug Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Right Angle
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	MIL-G-45204	MIL-G-45204
Dielectric Type	Teflon	Teflon
Body Material and Plating	Brass, Gold	Brass, Gold
Body Plating Specification	MIL-G-45204	MIL-G-45204
Coupling Nut Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Coupling Nut Plating Specification	MIL-G-45204	MIL-G-45204

**Environmental Specifications**

Operating Range Temperature	-65 to +165 deg C
Shock	Method 213, Condition B, 75G @6ms @1/2 sine
Vibration	Method 204, Condition D (20G)
Salt Fog	Method 101, Condition B, 5% salt solution

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

**Plotted and Other Data**

Notes:

## RA SSMC Plug to RA SSMC Plug Cable FM-P047 Coax



### FMCA9975

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**FMCA9975**

**- xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: FMCA9975-12 = 12 inches long cable  
FMCA9975-100cm = 100 cm long cable

RA SSMC Plug to RA SSMC Plug 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.

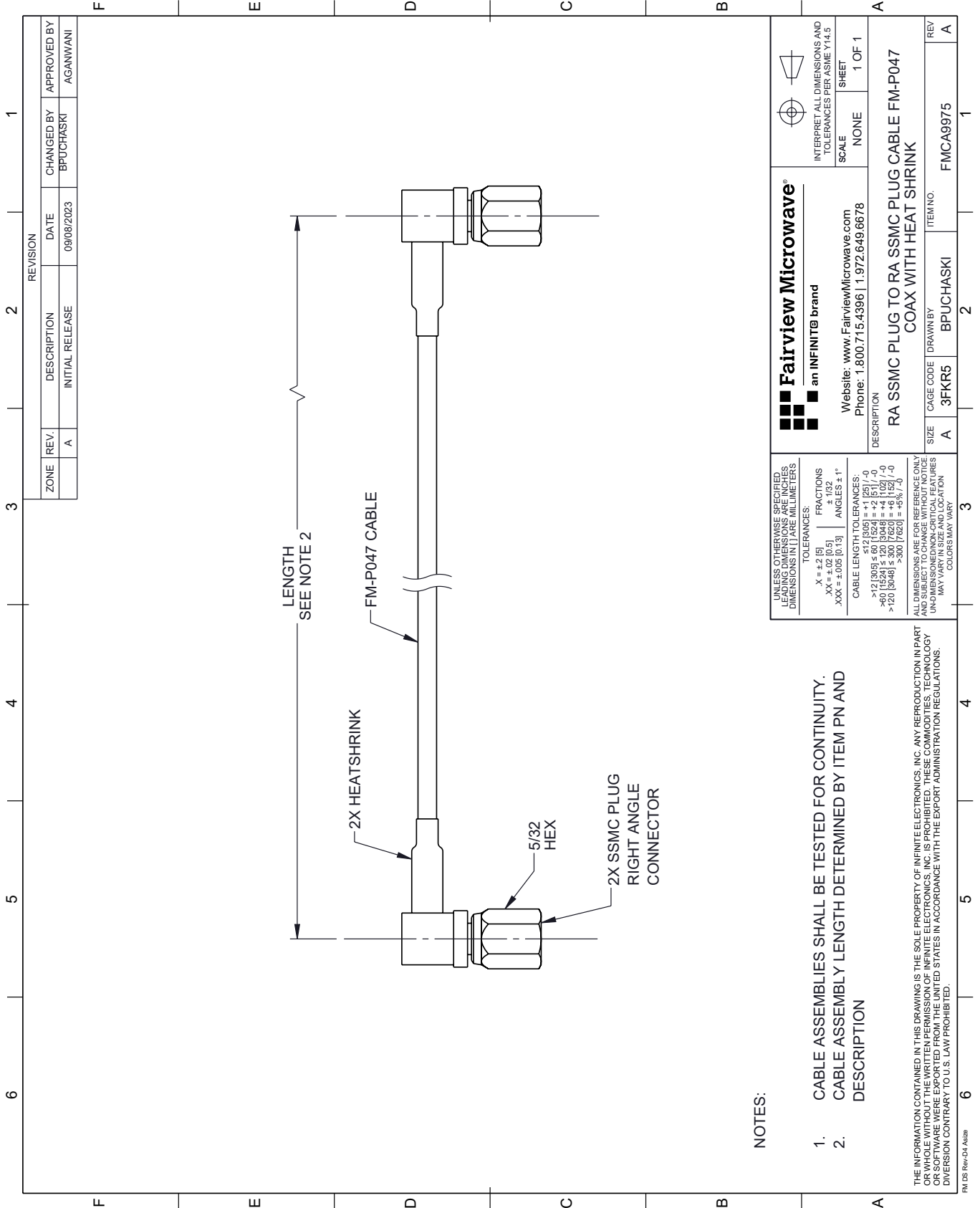
For additional information on this product, please click the following link: [RA SSMC Plug to RA SSMC Plug Cable FM-P047 Coax FMCA9975](#)

URL: <https://www.fairviewmicrowave.com/ra-ssmc-plug-to-ra-ssmc-plug-cable-fm-p047-coax-fmca9975-p.aspx>

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# FMCA9975 CAD Drawing

RA SSMC Plug to RA SSMC Plug Cable FM-P047 Coax



REVISION		DATE	CHANGED BY	APPROVED BY
ZONE	REV.	DESCRIPTION	INITIAL RELEASE	AGANWANI
	A		09/08/2023	BPUCHASKI

**NOTES:**

- CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
- CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION

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<p><b>Fairview Microwave®</b> an INFINIT® brand</p> <p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE SHEET: 1 OF 1</p>
<p>DESCRIPTION: RA SSMC PLUG TO RA SSMC PLUG CABLE FM-P047 COAX WITH HEAT SHRINK</p>		
SIZE: A	CAGE CODE: 3FKR5	ITEM NO.: FMCA9975
DRAWN BY: BPUCHASKI		REV: A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:  
 .X = ±.2 (5)      FRACTIONS ± 1/32  
 .XX = ±.02 (0.5)      ANGLES ± 1°  
 .XXX = ±.005 (0.13)

CABLE LENGTH TOLERANCES:  
 <12 (305) ±.005 = ±.02 (5) / -0  
 >12 (305) ≤ 60 (1524) = ±.02 (5) / -0  
 >60 (1524) ≤ 120 (3048) = ±.02 (5) / -0  
 >120 (3048) ≤ 300 (7620) = ±.03 (7.6)

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.