SSMC Plug to RA SSMC Plug Cable FM-P047 Coax

FMCA9984

Configuration

- Connector 1: SSMC Plug
- 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 SSMC plug to RA SSMC plug cable using FM-P047 coax, part number FMCA9984, 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 FMCA9984 SSMC plug to SSMC plug cable assembly operates to 12.4 GHz. The right angle SSMC interface on the FM-P047 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	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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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	1000	2500	5000	10000	12400	MHz	
FMCA9984	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	
FMCA9984-6	6 inch	Insertion Loss (Typ.)	0.77	0.87	1	1.19	1.27	dB	0.016
FMCA9984-12	12 inch	Insertion Loss (Typ.)	0.94	1.14	1.39	1.77	1.93	dB	0.017
FMCA9984-24	24 inch	Insertion Loss (Typ.)	1.27	1.68	2.18	2.94	3.26	dB	0.021
FMCA9984-36	36 inch	Insertion Loss (Typ.)	1.61	2.22	2.96	4.11	4.59	dB	0.025
FMCA9984-48	48 inch	Insertion Loss (Typ.)	1.94	2.76	3.75	5.28	5.91	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:	0.3	dB
Loss due to Connector 2:	0.3	dB
Base Weight:	0.017	pounds
Additional Weight per Inch:	0.00031	pounds

Mechanical Specifications

Cable Assembly
Weight   0.017 lbs [7.71 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	SSMC Plug Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Mating Cycles	500	
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	Beryllium Copper, 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
Torque	1.75 in-lbs 0.2 Nm	1.75 in-lbs 0.2 Nm

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)
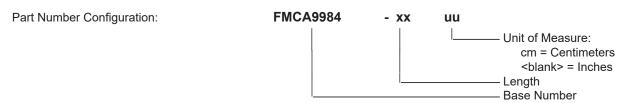
Plotted and Other Data

Notes:

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FMCA9984

Typical Performance Data

How to Order

Part Number Configuration: **FMCA9984**   - **xx**   **uu**

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

Example: FMCA9984-12 = 12 inches long cable
FMCA9984-100cm = 100 cm long cable

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: SSMC Plug to RA SSMC Plug Cable FM-P047 Coax FMCA9984

URL: https://www.fairviewmicrowave.com/ssmc-plug-to-ra-ssmc-plug-cable-fm-p047-coax-fmca9984-p.aspx

The information contained within 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 impliment 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 liability arising out of the use of any part or document.

FMCA9984 CAD Drawing

SSMC Plug to RA SSMC Plug Cable FM-P047 Coax

SSMC PLUG RIGHT ANGLE CONNECTOR

3/16 HEX

LENGTH SEE NOTE 2

FM-P047 CABLE

2X HEATSHRINK

3/16 HEX TYP

SSMC PLUG CONNECTOR

NOTES:

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

FM DS Rev-D4 Asize

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

UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

.X = ± .2 [5]	FRACTIONS
.XX = ± .02 [0.5]	± 1/32
.XXX = ± .005 [0.13]	ANGLES ± 1°

CABLE LENGTH TOLERANCES:
≤12 [305] = +1 [25] / -0
>12 [305] ≤ 60 [1524] = +2 [51] / -0
>60 [1524] ≤ 120 [3048] = +4 [102] / -0
>120 [3048] ≤ 300 [7620] = +6 [152] / -0
>300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE. UN-DIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION COLORS MAY VARY

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Phone: 1.800.715.4396 | 1.972.649.6678

DESCRIPTION

SSMC PLUG TO RA SSMC PLUG CABLE FM-P047 COAX WITH HEAT SHRINK

SIZE	CAGE CODE	DRAWN BY			
A	3FKR5	BPUCHASKI			

ITEM NO. FMCA9984

REV A

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE	SHEET
NONE	1 OF 1

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