

## FMCA1049-12 DATA SHEET

# RA N Male to RA N Male Cable FM141FLEX Coax in 12 Inch with LF Solder

The RA type N male to RA type N male 12 inch cable using FM141FLEX coax, part number FMCA1049-12, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N cable assembly has a male to male gender configuration with 50 ohm flexible FM141FLEX coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1049-12 type N male to type N male cable assembly operates to 18 GHz. The right angle type N interfaces on the FM141FLEX 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. Our new series of flexible cables use high performance FM141FLEX coax and are terminated with a new low profile connector design. These high performance flexible cables are an ideal choice for many applications including inrack RF devices where tight bends and continual flexure might be required. Our FM141FLEX is a flexible coax alternative to semi-rigid coax and has a solid PTFE resulting in a 69.5% phase velocity. This series features a smooth wall formed by the braid-over-sprial-ribbon design and has similar performance to a solid wall RG402 semi-rigid RG402 cable.

These FM141FLEX cables are similar to our existing SCA1814 cables. The heavier duty SCA1814 test cables have similar electrical performance, but include a heavy duty strain relief mechanism and extra booting material as well as a thick wall SMA connector to increase the ruggedness of the SCA1814 cables for use in more demanding test environments.

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	Тур	Max	Units	
Frequency Range	DC		18	GHz	
VSWR			1.35:1		
Return Loss			16.54	dB	
Velocity of Propagation		69.5		%	
RF Shielding	90			dB	
Group Delay		1.47 [4.82	ns/ft [ns/m]		
Capacitance		29.4 [96.46	pF/ft [pF/m]		
Operating Voltage (AC)			1,000	Vrms	

#### **Performance by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	3	6	12	18		GHz
Insertion Loss (Max.)	0.41	0.6	0.89	1.12		dB



## **Configuration:**

- N Male Right Angle
- N Male Right Angle
- FM141FLEX

## **Features:**

- Max Frequency 18 GHz
- Shielding Effectivity > 90 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles
- Typical N Type VSWR 1.28:1 to 18 GHz Shielding effectivity > 90dB

One time minimum bend radius: 0.4 inch

## **Applications:**

- General Purpose
- Laboratory Use
- High Performance RF equipment interconnect
- Flexible in cabinet or in the rack requirements
- Inside the box RF routing
- General purpose lighter duty lab use

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VSWR (Max.)	1.12:1	1.2:1	1.25:1	1.35:1	
Power Handling (Max	a.) 215	150	105	88	W

## **Mechanical Specifications**

**Cable Assembly** 

Length\* 12 in [304.8 mm] Weight 0.2075 lbs [94.12 g]

**Cable** 

Cable Type FM141FLEX Impedance 50 Ohms Inner Conductor Type Solid

Inner Conductor Material and Plating Copper Clad Steel, Silver

Dielectric Type PTFE Number of Shields 2

Shield Layer 1
Shield Layer 2
Outer Conductor Material and Plating

Jacket Material

One Time Minimum Bend Radius Repeated Minimum Bend Radius Silver Plated Copper Tape Silver Plated Copper Braid Silver Plated Copper Tape FEP

0.163 in [4.14 mm]

0.39 in [9.91 mm] 1.57 in [39.88 mm]

#### **Connectors**

Jacket Diameter

Description	Connector 1	Connector 2
Туре	N Male	N Male
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	500
Contact Material & Plating	Brass, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Material & Platin	ng Brass, Nickel	Brass, Nickel
Hex Size	3/4 Inch	3/4 Inch

## **Environmental Specifications**

**Temperature** 

Operating Range -40 to +150 deg C

**Compliance Certifications** (see product page for current document)

## **Plotted and Other Data**

Notes:

• Values at 25°C, sea level.

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## **How to Order**

Part Number Configuration:	FMCA1049	-	XX	uu	
					cm = Centimeters <black> = Inches</black>
			'		Length

Example: FMCA1049-12 = 12 inches long cable FMCA1049-100cm = 100 cm long cable

RA N Male to RA N Male Cable FM141FLEX Coax in 12 Inch with LF Solder 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 N Male to RA N Male Cable FM141FLEX Coax in 12 Inch with LF Solder FMCA1049-12

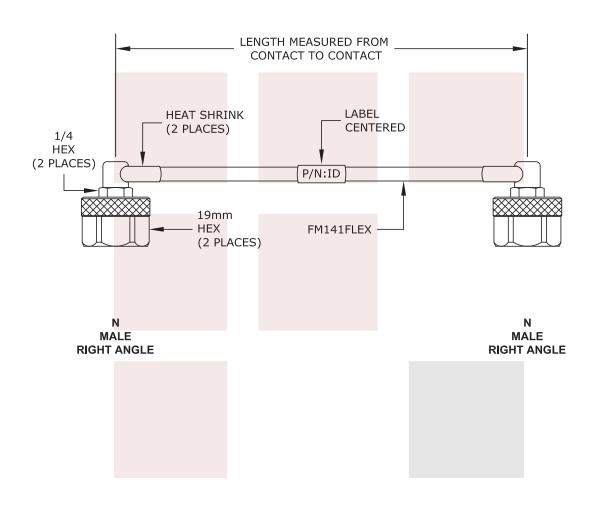
URL: https://www.fairviewmicrowave.com/ra-n-male-ra-n-male-cable-fm141flex-coax-fmca1049-12-p.aspx

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.

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RA N Male to RA N Male Cable FM141FLEX Coax in 12	DWG NO FMCA1049			CAGE CODE 3FKR5		
Inch with LF Solder	CAD FILE 032715	SHEET	SCALE	≣ N/A	SIZE A	150