

## RA SMA Male to RA SMA Male Cable FM086FLEX Coax

The RA SMA male to RA SMA male cable using FM086FLEX coax, part number FMCA1041, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a male to male gender configuration with 50 ohm flexible FM086FLEX coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1041 SMA male to SMA male cable assembly operates to 27 GHz. The right angle SMA interfaces on the FM086FLEX 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 FM086FLEX coax and are terminated with a new low profile connector design. These high performance flexible cables are an ideal choice for many applications including in-rack RF devices where tight bends and continual flexure might be required. Our FM086FLEX 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-spiral-ribbon design and has similar performance to a solid wall RG405 semi-rigid RG405 cable.

These FM086FLEX 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	Typ	Max	Units
Frequency Range	DC		27	GHz
VSWR			1.4:1	
Return Loss			15.56	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)			250	Vrms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	3	6	12	18	27	GHz
Insertion Loss (Max.)	0.6	0.85	1.22	1.53	1.87	dB/ft
	1.97	2.79	4	5.02	6.14	dB/m



### Configuration:

- SMA Male Right Angle
- SMA Male Right Angle
- FM086FLEX

### Features:

- Max Frequency 27 GHz
- Shielding Effectivity > 90 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles
- Low Profile Right Angle SMA Design operates to 27 GHz  
Typical Right Angle SMA VSWR less than 1.22:1 to 27 GHz  
Shielding effectivity > 90dB  
One time minimum bend radius: 0.24 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.)	1.08:1	1.12:1	1.2:1	1.3:1	1.4:1	
Power Handling (Max.)	81	50	40	33	26	W

## Mechanical Specifications

### Cable Assembly

Length\* 0 in [0 mm]

### Cable

Cable Type FM086FLEX  
 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 Silver Plated Copper Tape  
 Shield Layer 2 Silver Plated Copper Braid  
 Jacket Material FEP  
 Jacket Diameter 0.104 in [2.64 mm]

One Time Minimum Bend Radius 0.23 in [5.84 mm]  
 Repeated Minimum Bend Radius 0.78 in [19.81 mm]

### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	500
Contact Material & Plating	Brass, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Body Material & Plating	Stainless Steel, Gold	Stainless Steel, Gold
Coupling Nut Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel
Hex Size	5/16 Inch	5/16 Inch

## Environmental Specifications

### Temperature

Operating Range -40 to +150 deg C

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

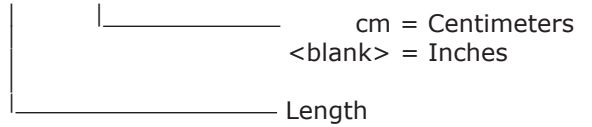
## Plotted and Other Data

Notes:

**How to Order**

Part Number Configuration:

**FMCA1041 - xx uu**



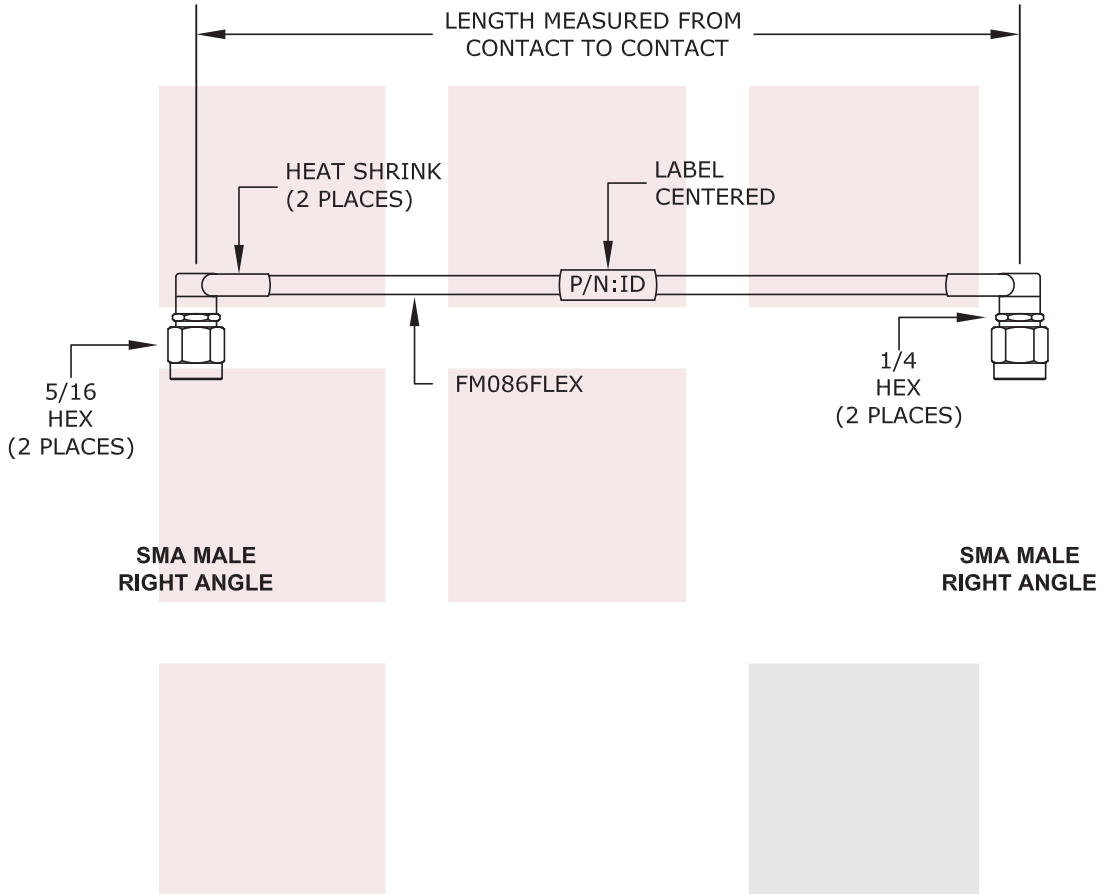
Example: FMCA1041-12 = 12 inches long cable  
FMCA1041-100cm = 100 cm long cable

RA SMA Male to RA SMA Male Cable FM086FLEX 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 SMA Male to RA SMA Male Cable FM086FLEX Coax FMCA1041](#)

URL: <https://www.fairviewmicrowave.com/ra-sma-male-ra-sma-male-cable-fm086flex-coax-fmca1041-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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TITLE RA SMA Male to RA SMA Male Cable FM086FLEX Coax		DWG NO FMCA1041		CAGE CODE 3FKR5	
CAD FILE 032715		SHEET	SCALE N/A	SIZE A	150