

**N Female Bulkhead to N Male Cable FM141FLEX Coax and RoHS Compliant**

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 in-rack 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-spiral-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.

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
VSWR			1.4:1	
Return Loss	-15.56			dB
Velocity of Propagation		69.5		%
RF Shielding	90			dB
Group Delay		1.44 [4.72]		ns/ft [ns/m]
Capacitance		29.4 [96.46]		pF/ft [pF/m]
Operating Voltage (AC)			335	Vrms

**Performance by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	3	6	12	18		GHz
Insertion Loss (Max.)	0.45	0.65	0.95	1.19		dB/ft
	[1.48	[2.13	[3.12	[3.9		dB/m]
VSWR (Max.)	1.18:1	1.25:1	1.3:1	1.4:1		
Power Handling (Max.)	215	150	105	88		W

Electrical Specification Notes:  
 Insertion Loss Max is based on cable and does not include connector loss

**Mechanical Specifications**

**Cable Assembly**

One Time Minimum Bend Radius 0.39 in [9.91 mm]  
 Repeated Minimum Bend Radius 1.57 in [39.88 mm]

**Cable**

Cable Type FM141FLEX  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper Clad Steel, Silver  
 Dielectric Type PTFE



**Configuration:**

- N Female Bulkhead
- N Male
- FM141FLEX

**Features:**

- Design operates to 18 GHz
- Shielding effectivity > 90dB
- One time minimum bend radius: 0.24 inch

**Applications:**

- 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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Number of Shields 2  
 Shield Layer 1 Silver Plated Copper Tape  
 Shield Layer 2 Silver Plated Copper Braid  
 Jacket Material FEP  
 Jacket Diameter 0.163 in [4.14 mm]

**Connectors**

Description	Connector 1	Connector 2
Type	N Female Bulkhead	N Male
Impedance	50 Ohms	50 Ohms
Connection Method	Standard	Standard
Mating Cycles	500	500
Contact Material & Plating	Beryllium Copper, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Coupling Nut Material & Plating	Brass, Nickel	Brass, Nickel
Hex Size		3/4 Inch
Body Material & Plating	Brass, Nickel	Brass, Nickel

**Environmental Specifications**

**Temperature**

Operating Range -40 to +150 deg C

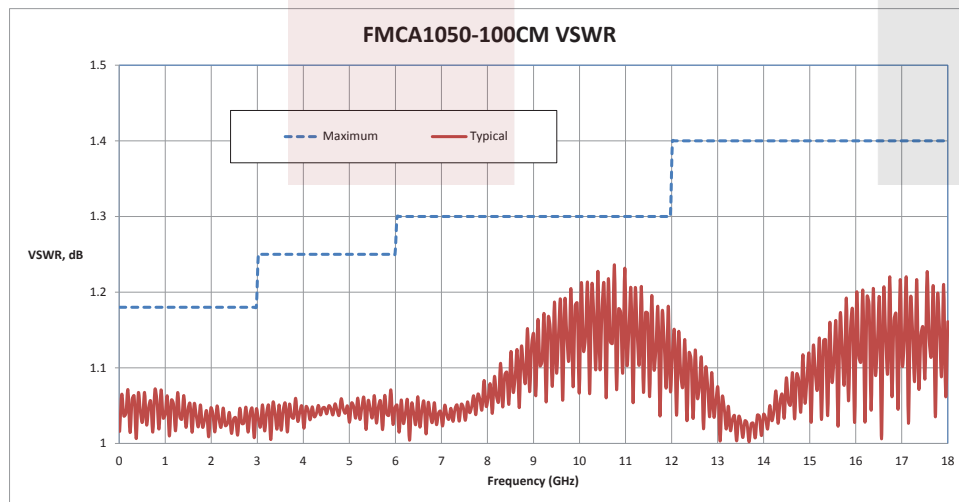
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

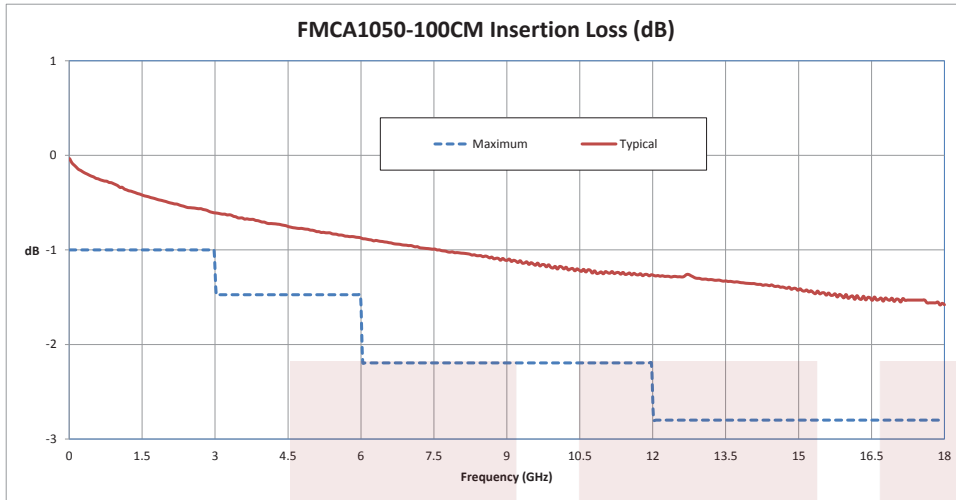
RoHS Compliant Yes

**Plotted and Other Data**

Notes:

**Typical Performance Data**





**How to Order**

Part Number Configuration:

**FMCA1050 - xx uu**

cm = Centimeters  
 <blank> = Inches  
 Length

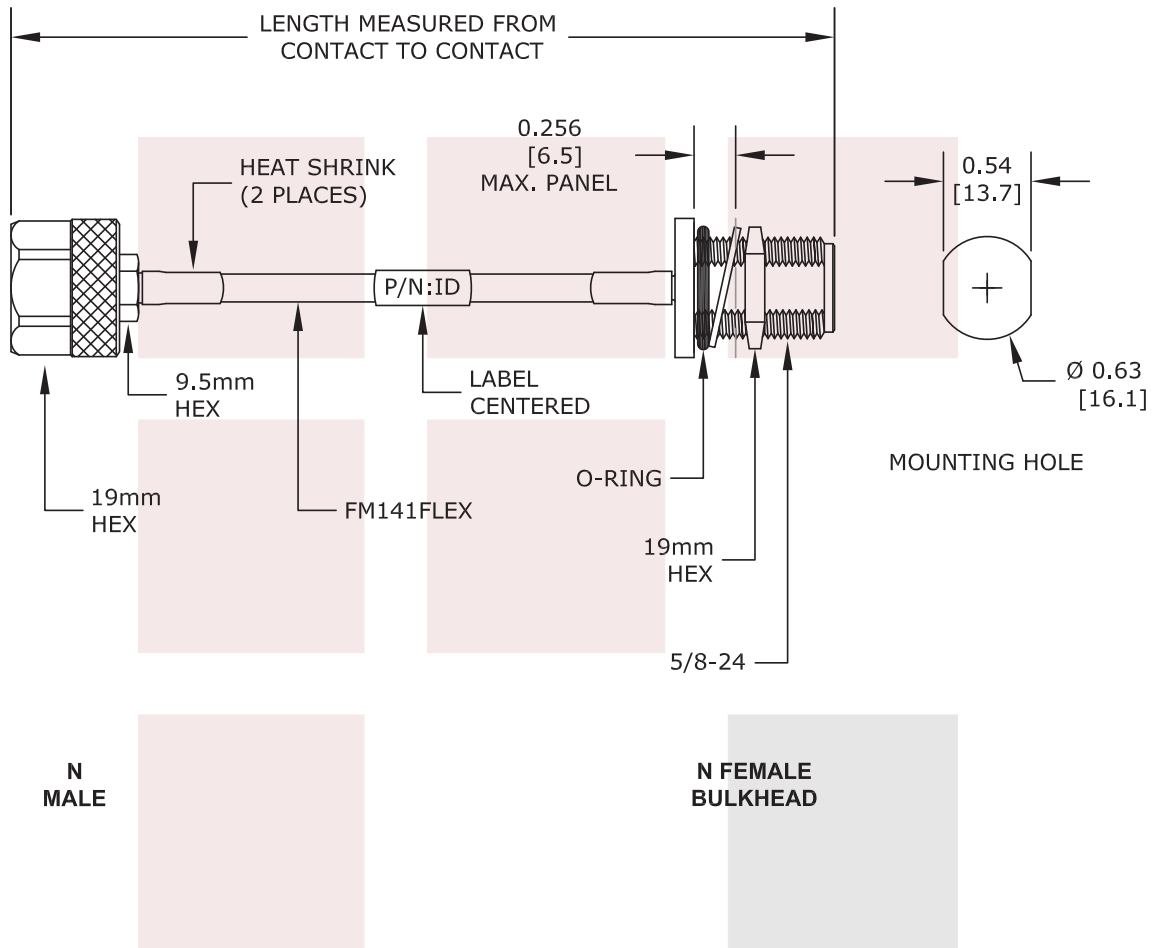
Example: FMCA1050-12 = 12 inches long cable  
 FMCA1050-100cm = 100 cm long cable

N Female Bulkhead to N Male Cable FM141FLEX Coax and RoHS Compliant from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [N Female Bulkhead to N Male Cable FM141FLEX Coax and RoHS Compliant FMCA1050](#)

URL: <http://www.fairviewmicrowave.com/n-female-n-male-cable-fm141flex-coax-fmca1050-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 N Female Bulkhead to N Male Cable FM141FLEX Coax and RoHS Compliant		DWG NO FMCA1050		CAGE CODE 3FKR5	
CAD FILE	032715	SHEET	SCALE	N/A	SIZE A 200