

**TNC Male to TNC Female Bulkhead 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**

Frequency Range	DC to 18 GHz
Impedance	50 Ohms
Max VSWR	1.45:1
Max Return Loss	14.72 dB
Velocity of Propagation	69.5 %
Group Delay	1.44 ns/ft [4.72 ns/m]
RF Shielding	90 dB
Max Operating Voltage	335 Vrms

**Performance by Frequency**

Description	F1	F2	F3	F4	F5
Frequency	3 GHz	6 GHz	12 GHz	18 GHz	
VSWR	1.2:1	1.3:1	1.35:1	1.45:1	
Insertion Loss (dB/ft)	0.5	0.75	1.08	1.35	
	(dB/m)	1.64	2.46	3.54	4.43
Power Handling	215 W	150 W	105 W	88 W	

**Mechanical Specifications**

**Temperature**

Temperature Operating Range	-40 to +150 deg C
One Time Minimum Bend Radius	0.4 in [10.16 mm]
Repeated Minimum Bend Radius	1.58 in [40.13 mm]



**Configuration:**

- TNC Male
- TNC Female Bulkhead
- FM141FLEX

**Features:**

- Design operates to 18 GHz
- Shielding effectivity > 90dB
- One time minimum bend radius: 0.4 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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**Cable**

Description	Cable
Cable Type	FM141FLEX
Inner Conductor Type	Solid
Cable Inner Conductor	Copper Clad Steel, Silver
No of Shields	2
Cable Outer Conductor 1	Silver Plated Copper Tape
Cable Outer Conductor 2	Silver Plated Copper Braid
Dielectric Type	PTFE
Jacket Material	FEP
Jacket Diameter	0.163 in [4.14 mm]

**Connectors**

Description	Connector 1	Connector 2
Type	TNC Male	TNC Female Bulkhead
Configuration	Straight	Straight
Mount Method		Bulkhead
Seal Gasket Material		Silicon
Mating Cycles	500	500
Inner Conductor Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Coupling Nut Material & Plating	Brass, Nickel	
Hex Size	9/16 Inch	11/16 Inch
Body Material & Plating	Brass, Nickel	Brass, Nickel
Dielectric Type	PTFE	PTFE

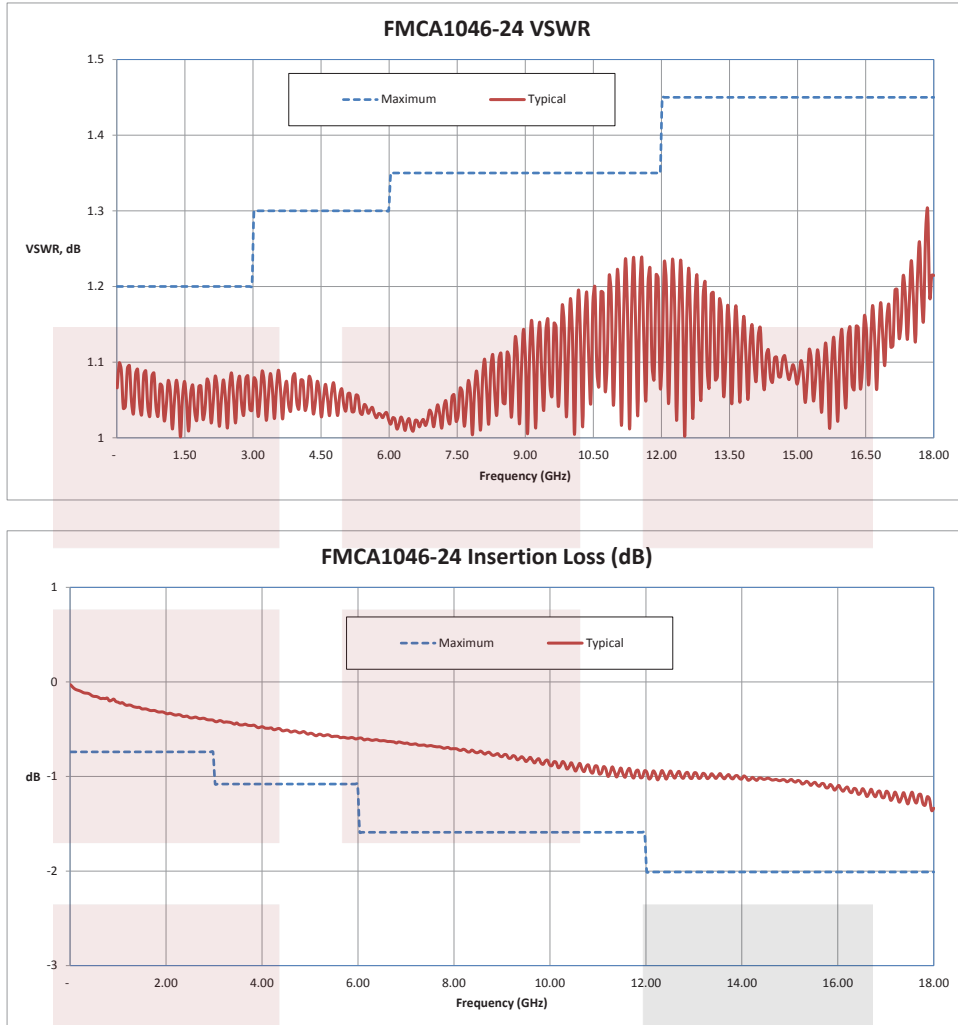
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant Yes

Notes:

- Values at +25 °C, sea level

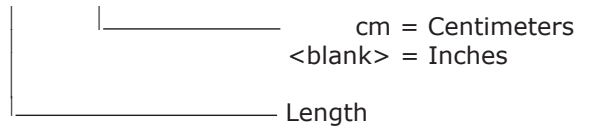
**Typical Performance Data**



**How to Order**

Part Number Configuration:

**FMCA1046 - xx uu**



Example: FMCA1046-12 = 12 inches long cable  
 FMCA1046-100cm = 100 cm long cable

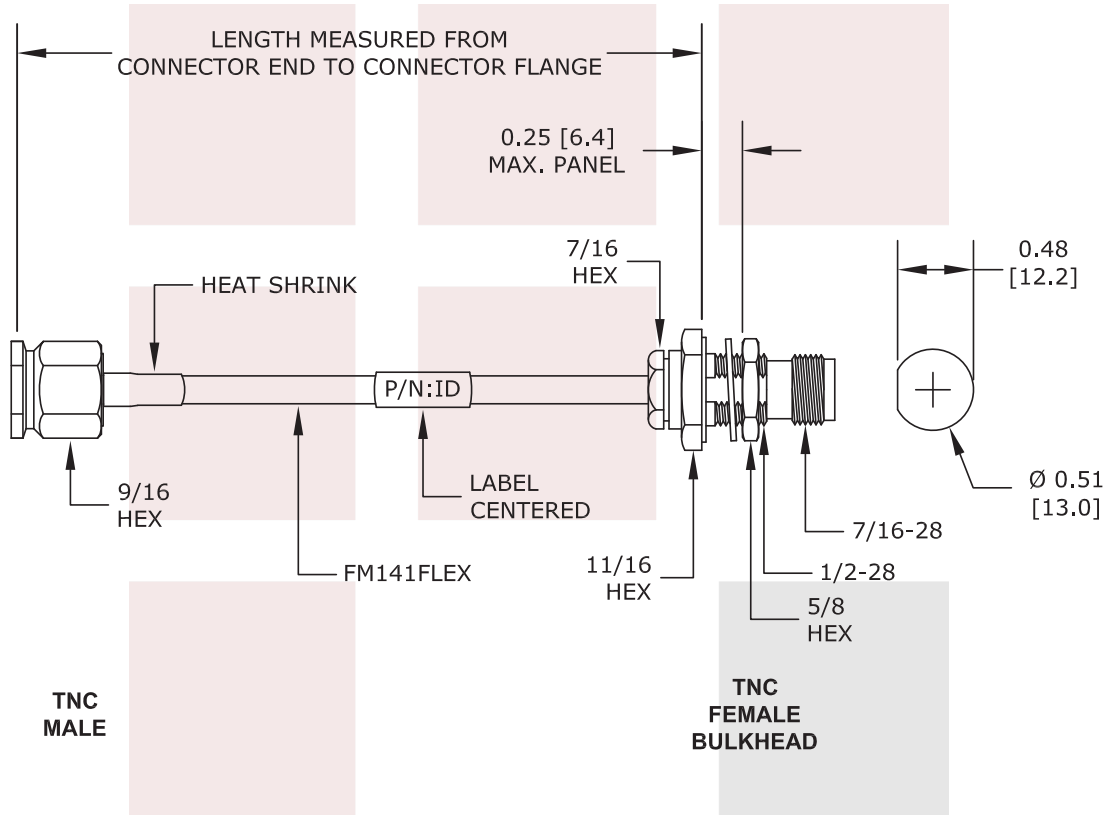
TNC Male to TNC Female Bulkhead Cable FM141FLEX Coax and RoHS Compliant from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [TNC Male to TNC Female Bulkhead Cable FM141FLEX Coax and RoHS Compliant FMCA1046](#)

URL: <http://www.fairviewmicrowave.com/tnc-male-tnc-female-cable-fm141flex-coax-fmca1046-p.aspx>

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TITLE TNC Male to TNC Female Bulkhead Cable FM141FLEX Coax and RoHS Compliant		DWG NO FMCA1046		CAGE CODE 3FKR5	
CAD FILE	041515	SHEET	SCALE	N/A	SIZE A 2233