

TNC Male to TNC Female Bulkhead Cable FM141FLEX Coax

The TNC male to TNC female bulkhead cable using FM141FLEX coax, part number FMCA1046, from Fairview Microwave is in-stock and ships same day. This Fairview TNC to TNC cable assembly has a male to female 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 FMCA1046 TNC male to TNC female cable assembly operates to 18 GHz. Our RF cable assembly with TNC bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. 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 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.

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		18	GHz
VSWR			1.45:1	
Return Loss			14.72	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.)	0.5	0.75	1.08	1.35		dB/ft
	1.64	2.46	3.54	4.43		dB/m



Configuration:

- TNC Male
- TNC Female Bulkhead
- FM141FLEX

Features:

- Max Frequency 18 GHz
- Shielding Effectivity > 90 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles
- Typical TNC VSWR 1.33:1 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.)	1.2:1	1.3:1	1.35:1	1.45:1	
Power Handling (Max.)	215	150	105	88	W

Mechanical Specifications

Cable Assembly

Length* 0 in [0 mm]

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	Silver Plated Copper Tape
Shield Layer 2	Silver Plated Copper Braid
Outer Conductor 1 Material and Plating	Silver Plated Copper Tape
Outer Conductor 2 Material and Plating	Silver Plated Copper Braid
Jacket Material	FEP
Jacket Diameter	0.163 in [4.14 mm]
One Time Minimum Bend Radius	0.4 in [10.16 mm]
Repeated Minimum Bend Radius	1.58 in [40.13 mm]

Connectors

Description	Connector 1	Connector 2
Type	TNC Male	TNC Female
Mount Method		Bulkhead
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	500
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Material & Plating	Brass, Nickel	
Hex Size	9/16 Inch	11/16 Inch
Seal Gasket Material		Silicon

Environmental Specifications

Temperature

Operating Range -40 to +150 deg C

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

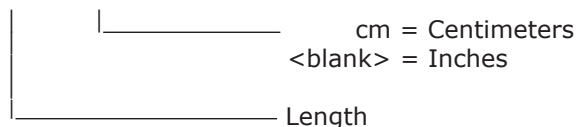
Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMCA1046 - xx uu



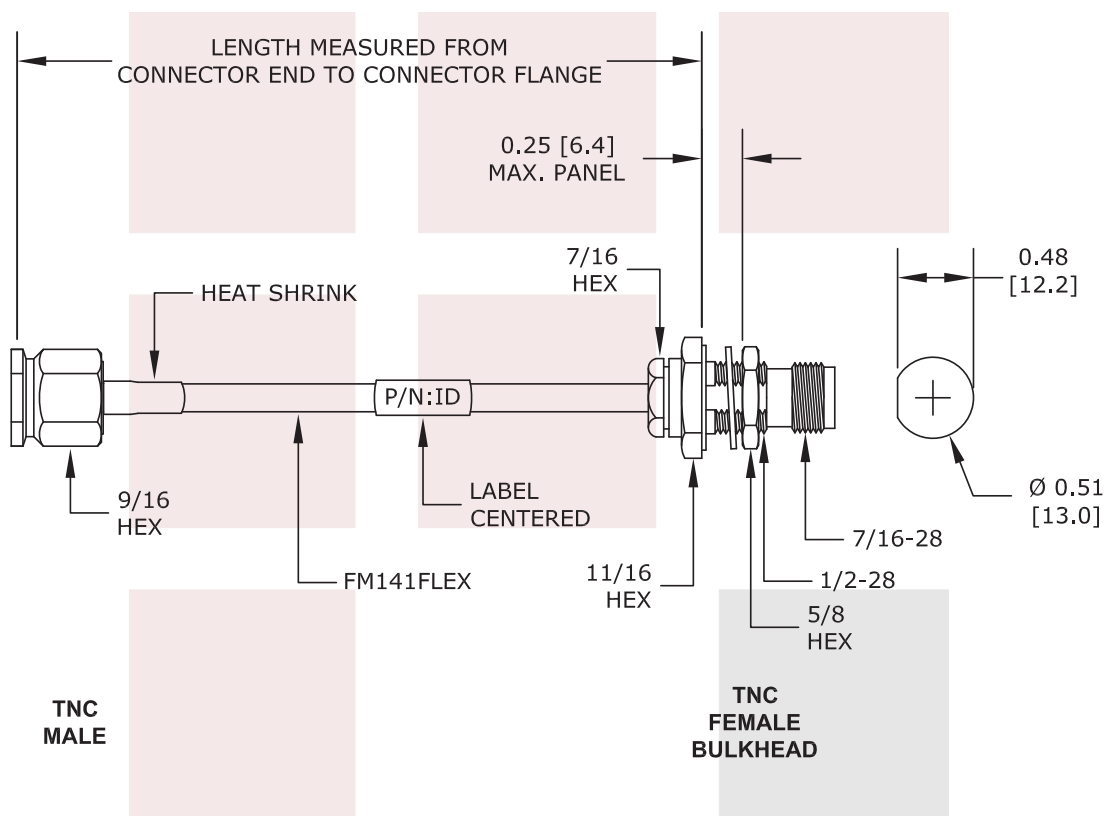
Example: FMCA1046-12 = 12 inches long cable
FMCA1046-100cm = 100 cm long cable

TNC Male to TNC Female Bulkhead Cable FM141FLEX Coax 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: [TNC Male to TNC Female Bulkhead Cable FM141FLEX Coax FMCA1046](#)

URL: <https://www.fairviewmicrowave.com/tnc-male-tnc-female-cable-fm141flex-coax-fmca1046-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 TNC Male to TNC Female Bulkhead Cable FM141FLEX Coax		DWG NO FMCA1046		CAGE CODE 3FKR5	
CAD FILE	041515	SHEET	SCALE	N/A	SIZE A 2233