

RA TNC Male to RA TNC 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			1.5:1	
Return Loss	13.98			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
Frequency	3 GHz	6 GHz	12 GHz	18 GHz	
Insertion Loss	0.65 dB/ft [2.13 dB/m]	0.95 dB/ft [3.12 dB/m]	1.35 dB/ft [4.43 dB/m]	1.65 dB/ft [5.41 dB/m]	dB/m
VSWR	1.3:1	1.35:1	1.45:1	1.5:1	
Power Handling	215 W	150 W	105 W	88 W	

Mechanical Specifications

Cable Assembly

Connection Type In-Series
 One Time Minimum Bend Radius 0.4 in [10.16 mm]
 Repeated Minimum Bend Radius 1.58 in [40.13 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



Configuration:

- TNC Male Right Angle
- TNC Male Right Angle
- 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

Fairview Microwave
 1130 Junction Dr. #100
 Allen, TX 75013
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

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]

Connectors

Description	Connector 1	Connector 2
Type	TNC Male Right Angle	TNC Male Right Angle
Impedance	50 Ohms	50 Ohms
Connection Method	Standard	Standard
Mating Cycles	500	500
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
Coupling Nut Material & Plating	Brass, Nickel	Brass, Nickel
Hex Size	9/16 Inch	9/16 Inch
Body Material & Plating	Brass, Nickel	Brass, Nickel

Environmental Specifications

Temperature

Operating Range -40 to +150 deg C

Compliance Certifications (visit www.FairviewMicrowave.com for current document)

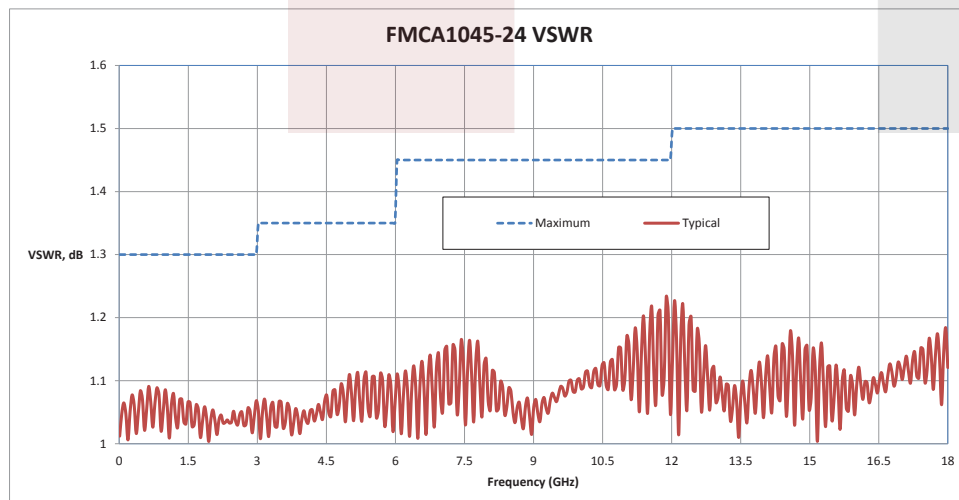
RoHS Compliant Yes

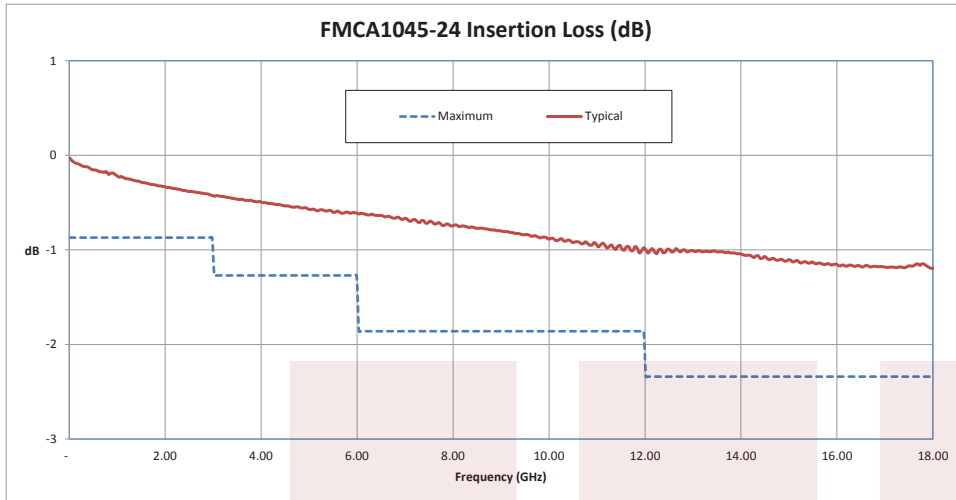
Plotted and Other Data

Notes:

- Values at +25 °C, sea level

Typical Performance Data





How to Order

Part Number Configuration:

FMCA1045 - xx uu

cm = Centimeters
 <blank> = Inches
 Length

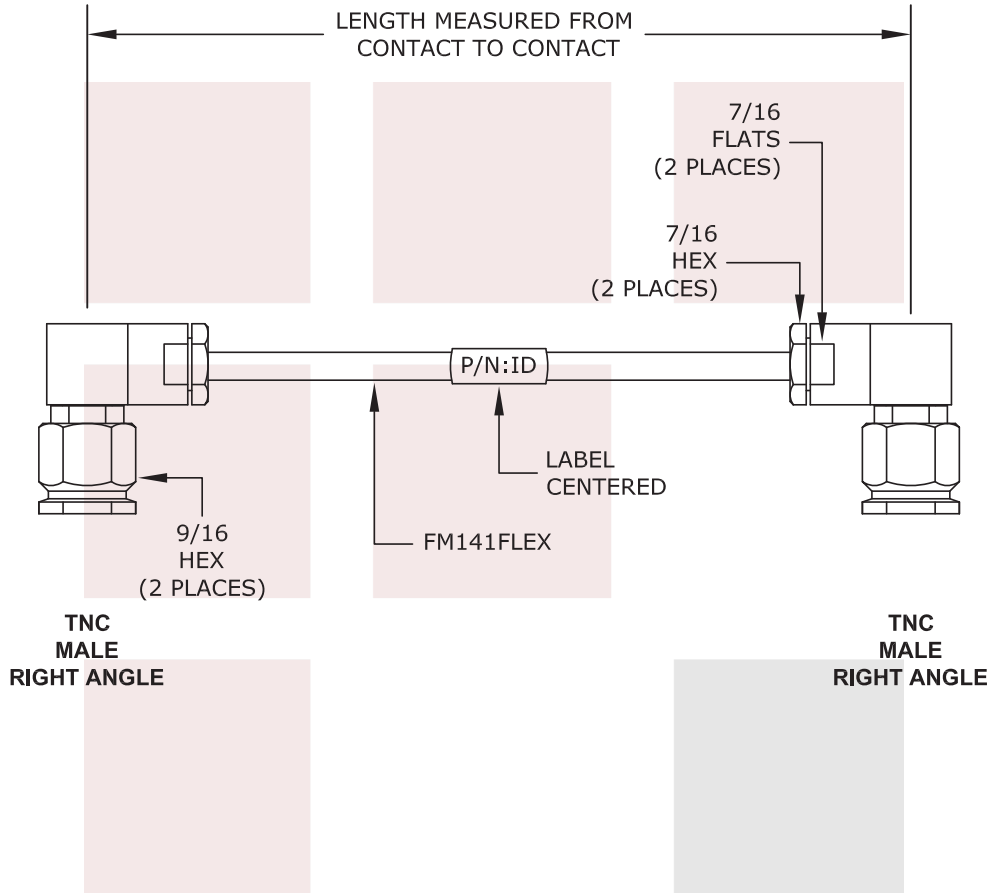
Example: FMCA1045-12 = 12 inches long cable
 FMCA1045-100cm = 100 cm long cable

RA TNC Male to RA TNC 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: [RA TNC Male to RA TNC Male Cable FM141FLEX Coax and RoHS Compliant FMCA1045](#)

URL: <http://www.fairviewmicrowave.com/ra-tnc-male-ra-tnc-male-cable-fm141flex-coax-fmca1045-p.aspx>

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TITLE RA TNC Male to RA TNC Male Cable FM141FLEX Coax and RoHS Compliant		DWG NO FMCA1045		CAGE CODE 3FKR5	
CAD FILE	041515	SHEET	SCALE	N/A	SIZE A 2233