

## Low Loss SMA Male to RA TNC Male Cable LMR-240-UF Coax



### FMCA100216

#### Configuration

- Connector 1: SMA Male
- Connector 2: TNC Male Right Angle
- Cable Type: LMR-240-UF
- Coax Flex Type: Flexible

#### Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- TPE Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

The SMA male to RA TNC male cable using LMR-240-UF coax, part number FMCA100216, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100216 SMA male to TNC male cable assembly operates to 6 GHz. The right angle TNC interface on the LMR-240-UF cable allows for easier connections in tight spaces. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 dB.

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	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.4:1	
Velocity of Propagation		84		%
RF Shielding	90			dB
Group Delay		1.21 [3.97]		ns/ft [ns/m]
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		4.28 [14.04]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		3.89 [12.76]		Ohms/1000ft [Ohms/Km]

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**FMCA100216**

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Jacket Spark			5,000	Vrms

**Specifications by Frequency**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
FMCA100216	Custom Lengths Available	Insertion Loss (Typ.)	0.046	0.066	0.096	0.155	0.244	dB/ft	
			0.16	0.22	0.32	0.51	0.81	dB/m	
FMCA100216-12	12 Inch	Insertion Loss (Typ.)	0.35	0.37	0.4	0.46	0.55	dB	0.097
FMCA100216-24	24 Inch	Insertion Loss (Typ.)	0.4	0.44	0.5	0.61	0.79	dB	0.13
FMCA100216-36	36 Inch	Insertion Loss (Typ.)	0.44	0.5	0.59	0.77	1.04	dB	0.162
FMCA100216-60	60 Inch	Insertion Loss (Typ.)	0.53	0.63	0.78	1.08	1.52	dB	0.226
FMCA100216-300	300 Inch	Insertion Loss (Typ.)	1.45	1.95	2.7	4.18	6.4	dB	0.866

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1:	0.1 dB
Loss due to Connector 2:	0.2 dB
Base Weight:	0.097 pounds
Additional Weight per Inch:	0.00267 pounds

Electrical Specification Notes:  
Values at 25°C, sea level.

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter	0.5 in [12.7 mm]
Weight	0.097 lbs [44 g]

**Cable**

Cable Type	LMR-240-UF
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	TPE, Black
Jacket Diameter	0.24 in [6.1 mm]
One Time Minimum Bend Radius	0.75 in [19.05 mm]
Repeated Minimum Bend Radius	2.5 in [63.5 mm]
Bending Moment	0.13 lbs-ft [0.18 N-m]
Flat Plate Crush	13 lbs/in [0.23 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

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**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	TNC Male Right Angle
Specification	MIL-STD-348A	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	50 μin minimum	
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Nickel
Body Plating Specification	3 μin minimum	
Coupling Nut Material and Plating	Brass, Gold	Brass, Nickel
Coupling Nut Plating Specification	3 μin minimum	
Hex Size	5/16 inch	

**Environmental Specifications**

Operating Range Temperature -40 to +85 deg C

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

**Plotted and Other Data**

Notes:  
Values at 25°C, sea level.

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**Typical Performance Data**

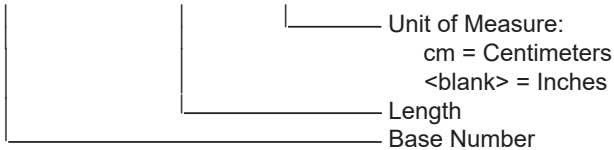
**How to Order**

Part Number Configuration:

**FMCA100216**

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Example: FMCA100216-12 = 12 inches long cable  
FMCA100216-100cm = 100 cm long cable

Low Loss SMA Male to RA TNC Male Cable LMR-240-UF Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss SMA Male to RA TNC Male Cable LMR-240-UF Coax FMCA100216](https://www.fairviewmicrowave.com/low-loss-sma-male-to-ra-tnc-male-cable-lmr-240-uf-coax-fmca100216)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-ra-tnc-male-cable-lmr-240-uf-coax-fmca100216-p.aspx>

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