

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



FMCA100251

Configuration

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

Features

- Max Frequency 8 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- TPE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The RA SMA male to TNC male cable using LMR-240-UF coax, part number FMCA100251, 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 FMCA100251 SMA male to TNC male cable assembly operates to 8 GHz. The right angle SMA 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		8	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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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	500	1000	2000	4000	8000	MHz	
FMCA100251	Custom Lengths Available	Insertion Loss (Typ.)	0.066	0.096	0.138	0.155	0.244	dB/ft	
			0.22	0.32	0.46	0.51	0.81	dB/m	
FMCA100251-12	12 inch	Insertion Loss (Typ.)	0.37	0.4	0.44	0.46	0.55	dB	0.106
FMCA100251-24	24 inch	Insertion Loss (Typ.)	0.44	0.5	0.58	0.61	0.79	dB	0.139
FMCA100251-36	36 inch	Insertion Loss (Typ.)	0.5	0.59	0.72	0.77	1.04	dB	0.171
FMCA100251-60	60 inch	Insertion Loss (Typ.)	0.63	0.78	0.99	1.08	1.52	dB	0.235
FMCA100251-300	300 inch	Insertion Loss (Typ.)	1.95	2.7	3.75	4.18	6.4	dB	0.875

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:	0.2 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.106 pounds
Additional Weight per Inch:	0.00267 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.106 lbs [48.08 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 Right Angle	TNC Male
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Straight
Mating Cycles		500
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 µin minimum	50 µinch
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Gold	Brass, Tri-Metal
Body Plating Specification	3 µin minimum	80 µinch
Coupling Nut Material and Plating	Brass, Gold	Brass, Tri-Metal
Coupling Nut Plating Specification	3 µin minimum	80 µinch
Hex Size	5/16 inch	
Torque	3 in-lbs 0.34 Nm	8 in-lbs 0.9 Nm

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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FMCA100251

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100251** **- xx** **uu**

Unit of Measure:
cm = Centimeters
<blank> = Inches

Length

Base Number

Example: FMCA100251-12 = 12 inches long cable
FMCA100251-100cm = 100 cm long cable

Low Loss RA SMA Male to 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 RA SMA Male to TNC Male Cable LMR-240-UF Coax FMCA100251](https://www.fairviewmicrowave.com/low-loss-ra-sma-male-to-tnc-male-cable-lmr-240-uf-coax-fmca100251-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-ra-sma-male-to-tnc-male-cable-lmr-240-uf-coax-fmca100251-p.aspx>

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