

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

**FMCA100255**



### Configuration

- Connector 1: TNC Male
- Connector 2: SMA Male Right Angle
- 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 TNC male to RA SMA male cable using LMR-240-UF coax, part number FMCA100255, from Fairview Microwave is in-stock and ships same day. This Fairview TNC to SMA 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 FMCA100255 TNC male to SMA 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	
FMCA100255	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	
FMCA100255-12	12 inch	Insertion Loss (Typ.)	0.37	0.4	0.44	0.46	0.55	dB	0.087
FMCA100255-24	24 inch	Insertion Loss (Typ.)	0.44	0.5	0.58	0.61	0.79	dB	0.12
FMCA100255-36	36 inch	Insertion Loss (Typ.)	0.5	0.59	0.72	0.77	1.04	dB	0.152
FMCA100255-60	60 inch	Insertion Loss (Typ.)	0.63	0.78	0.99	1.08	1.52	dB	0.216
FMCA100255-300	300 inch	Insertion Loss (Typ.)	1.95	2.7	3.75	4.18	6.4	dB	0.856

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:	0.087 pounds
Additional Weight per Inch:	0.00267 pounds

### Mechanical Specifications

#### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.087 lbs [39.46 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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Cable LMR-240-UF Coax

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Connectors

Description	Connector 1	Connector 2
Type	TNC Male	SMA Male Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification		50 µin minimum
Dielectric Type	POM	PTFE
Body Material and Plating	Brass, Nickel	Brass, Gold
Body Plating Specification		3 µin minimum
Coupling Nut Material and Plating		Brass, Gold
Coupling Nut Plating Specification		3 µin minimum
Hex Size		5/16 inch
Torque		3 in-lbs 0.34 Nm

Environmental Specifications

Operating Range Temperature-40 to +85 deg C

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

Plotted and Other Data

Notes:

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

**FMCA100255**



### Typical Performance Data

### How to Order

Part Number Configuration:

**FMCA100255**

**- xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMCA100255-12 = 12 inches long cable  
FMCA100255-100cm = 100 cm long cable

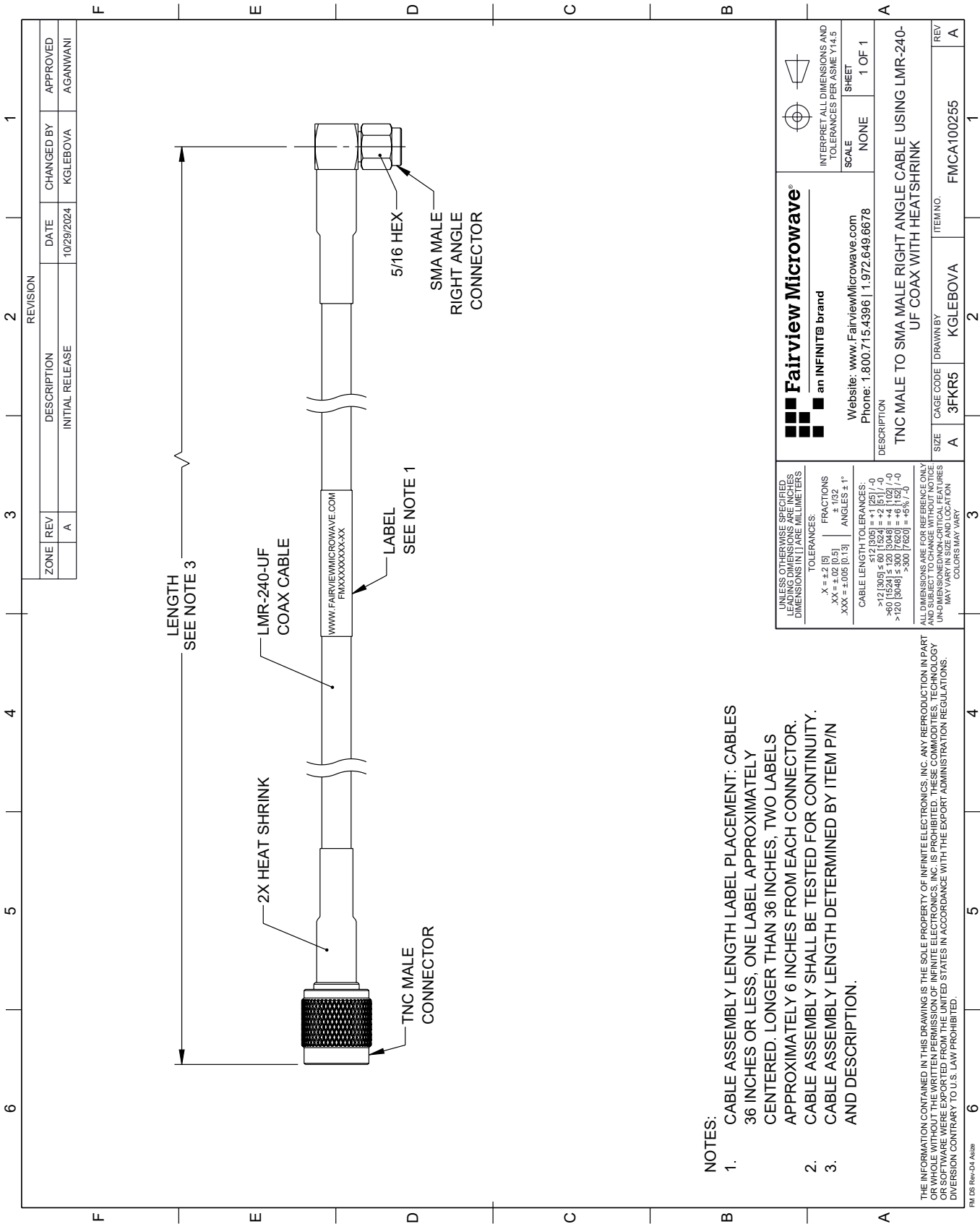
Low Loss TNC Male to RA SMA Male Cable LMR-240-UF Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss TNC Male to RA SMA Male Cable LMR-240-UF Coax FMCA100255](https://www.fairviewmicrowave.com/low-loss-tnc-male-to-ra-sma-male-cable-lmr-240-uf-coax-fmca100255-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-tnc-male-to-ra-sma-male-cable-lmr-240-uf-coax-fmca100255-p.aspx>

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FMCA100255 CAD Drawing
Low Loss TNC Male to RA SMA Male Cable LMR-240-UF Coax



- NOTES:
- 1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: CABLES 36 INCHES OR LESS; ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
  - 2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
  - 3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM P/N AND DESCRIPTION.

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.		Fairview Microwave® an INFINITI® brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
TOLERANCES:		Website: www.FairviewMicrowave.com Phone: 1.800.715.4396   1.972.649.6678		SCALE NONE	
X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		FRACTIONS ± 1/32 ANGLES ± 1°		SHEET 1 OF 1	
CABLE LENGTH TOLERANCES:		DESCRIPTION TNC MALE TO SMA MALE RIGHT ANGLE CABLE USING LMR-240-UF COAX WITH HEATSHRINK			
>12 [305] ≤ 60 [1524] = ±.125 [-.0]		SIZE A		REV A	
>60 [1524] ≤ 120 [3048] = ±.102 [-.0]		CAGE CODE 3FKR5		ITEM NO. FMCA100255	
>120 [3048] ≤ 300 [7620] = ±.063 [-.0]		DRAWN BY KGLEBOVA			
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS. COLORS MAY VARY.					

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