

Low Loss SMA Male to TNC Female Cable LMR-400-UF Coax



FMCA100258

Configuration

- Connector 1: SMA Male
- Connector 2: TNC Female
- Cable Type: LMR-400-UF
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Double Shielded
- TPE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The SMA male to TNC female cable using LMR-400-UF coax, part number FMCA100258, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC cable assembly has a male to female gender configuration with 50 ohm flexible LMR-400-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100258 SMA male to TNC female cable assembly operates to 6 GHz. 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		85		%
RF Shielding	90			dB
Group Delay		1.2 [3.94]		ns/ft [ns/m]
Capacitance		23.9 [78.41]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		1.07 [3.51]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.65 [5.41]		Ohms/1000ft [Ohms/Km]
Jacket Spark			8,000	Vrms

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	250	500	1000	2500	6000	MHz	
FMCA100258	Custom Lengths Available	Insertion Loss (Typ.)	0.023	0.035	0.05	0.081	0.112	dB/ft	
			0.08	0.12	0.17	0.27	0.37	dB/m	
FMCA100258-12	12 inch	Insertion Loss (Typ.)	0.33	0.34	0.35	0.39	0.42	dB	0.657
FMCA100258-24	24 inch	Insertion Loss (Typ.)	0.35	0.37	0.4	0.47	0.53	dB	0.744
FMCA100258-36	36 inch	Insertion Loss (Typ.)	0.37	0.41	0.45	0.55	0.64	dB	0.831
FMCA100258-60	48 inch	Insertion Loss (Typ.)	0.42	0.48	0.55	0.71	0.86	dB	1.005
FMCA100258-300	60 inch	Insertion Loss (Typ.)	0.88	1.18	1.55	2.33	3.1	dB	2.745

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:	0.657 pounds
Additional Weight per Inch:	0.00725 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.657 lbs [298.01 g]

Cable

Cable Type	LMR-400-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	0.405 in [10.29 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]
Repeated Minimum Bend Radius	4 in [101.6 mm]
Bending Moment	0.38 lbs-ft [0.52 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	TNC Female
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles		500
Contact Material and Plating	Brass, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Nickel
Coupling Nut Material and Plating	Brass, Gold	
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:

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FMCA100258

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100258** **- xx** **uu**

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

Length

Base Number

Example: FMCA100258-12 = 12 inches long cable
FMCA100258-100cm = 100 cm long cable

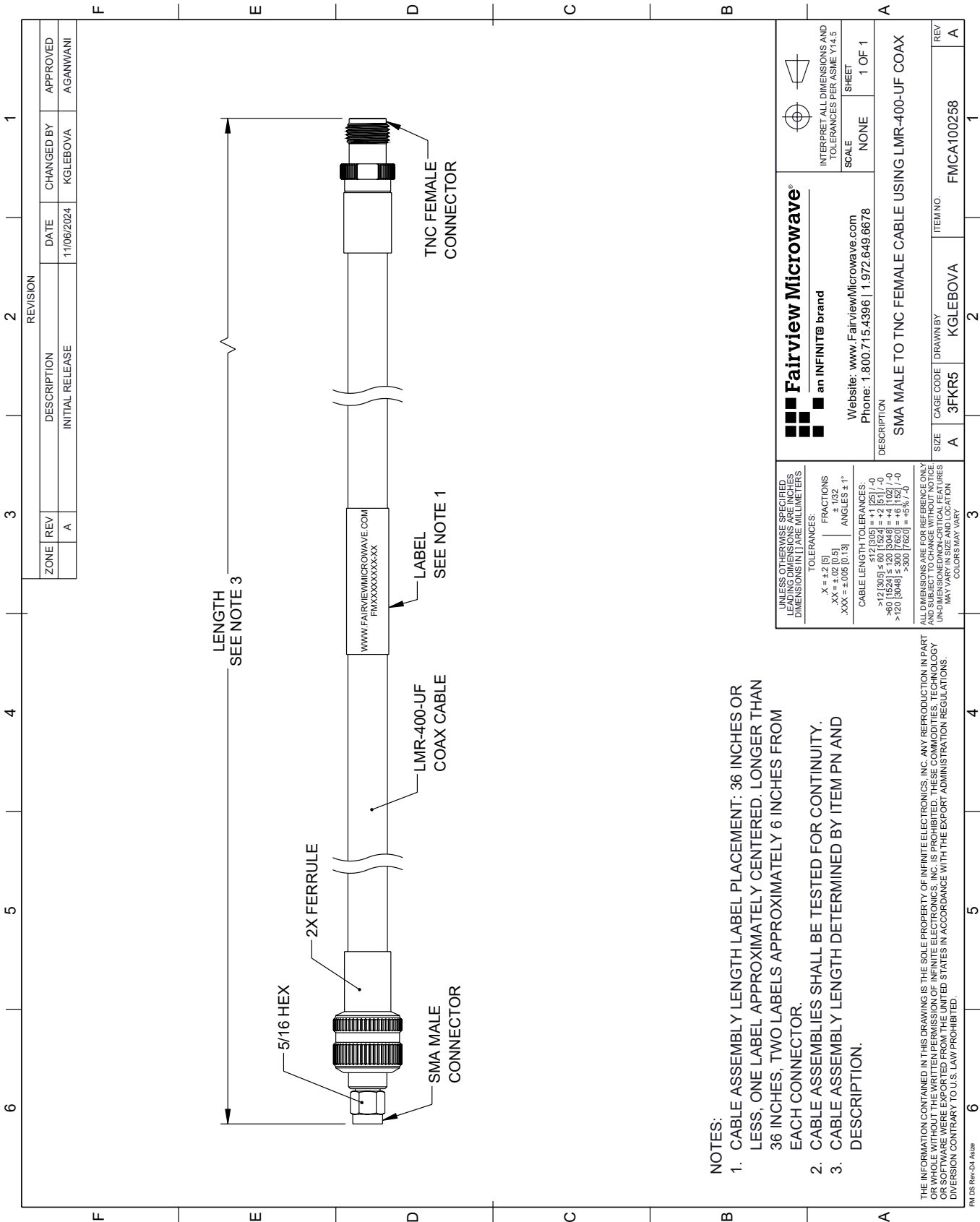
Low Loss SMA Male to TNC Female Cable LMR-400-UF Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss SMA Male to TNC Female Cable LMR-400-UF Coax FMCA100258](https://www.fairviewmicrowave.com/low-loss-sma-male-to-tnc-female-cable-lmr-400-uf-coax-fmca100258-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-tnc-female-cable-lmr-400-uf-coax-fmca100258-p.aspx>

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FMCA100258 CAD Drawing
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- NOTES:
1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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