

Low Loss TNC Female Bulkhead to RA SMA Male Cable LMR-195-UF Coax

FMCA100275



Configuration

- Connector 1: TNC Female Bulkhead
- Connector 2: SMA Male Right Angle
- Cable Type: LMR-195-UF
- Coax Flex Type: Flexible

Features

- Max Frequency 4 MHz
- Shielding Effectivity > 90 dB
- 74% Phase Velocity
- Double Shielded
- TPE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The TNC female bulkhead to RA SMA male cable using LMR-195-UF coax, part number FMCA100275, from Fairview Microwave is in-stock and ships same day. This Fairview TNC to SMA cable assembly has a female to male gender configuration with 50 ohm flexible LMR-195-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100275 TNC female to SMA male cable assembly operates to 4 MHz. The right angle SMA interface on the LMR-195-UF cable allows for easier connections in tight spaces. Our RF cable assembly with TNC bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. 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		4	GHz
VSWR			1.4:1	
Velocity of Propagation		74		%
RF Shielding	90			dB
Group Delay		1.27 [4.17]		ns/ft [ns/m]
Capacitance		25.4 [83.33]		pF/ft [pF/m]
Inductance		0.064 [0.21]		uH/ft [uH/m]
DC Resistance Inner Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]
Operating Voltage (AC)			500	Vrms

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			3,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	4000	MHz	
FMCA100275	Custom Lengths Available	Insertion Loss (Typ.)	0.042	0.068	0.097	0.132	0.285	dB/ft	
			0.14	0.23	0.32	0.44	0.94	dB/m	
FMCA100275-12	12 Inch	Insertion Loss (Typ.)	0.35	0.37	0.4	0.44	0.59	dB	0.07
FMCA100275-24	24 Inch	Insertion Loss (Typ.)	0.39	0.44	0.5	0.57	0.87	dB	0.091
FMCA100275-36	36 Inch	Insertion Loss (Typ.)	0.43	0.51	0.6	0.7	1.16	dB	0.112
FMCA100275-60	60 Inch	Insertion Loss (Typ.)	0.51	0.64	0.79	0.96	1.73	dB	0.154
FMCA100275-300	300 Inch	Insertion Loss (Typ.)	1.35	2	2.73	3.6	7.43	dB	0.574

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:	0.07 pounds
Additional Weight per Inch:	0.00175 pounds

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

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.07 lbs [31.75 g]

Cable

Cable Type	LMR-195-UF
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper
Dielectric Type	Foam PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper
Jacket Material	TPE, Black
Jacket Diameter	0.195 in [4.95 mm]
One Time Minimum Bend Radius	0.5 in [12.7 mm]
Repeated Minimum Bend Radius	2 in [50.8 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	40 lbs [18.14 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	TNC Female Bulkhead	SMA Male Right Angle
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		100 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:
Values at 25°C, sea level.

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FMCA100275

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100275** **- xx** **uu**

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

Length

Base Number

Example: FMCA100275-12 = 12 inches long cable
FMCA100275-100cm = 100 cm long cable

Low Loss TNC Female Bulkhead to RA SMA Male Cable LMR-195-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 Female Bulkhead to RA SMA Male Cable LMR-195-UF Coax FMCA100275](#)

URL: <https://www.fairviewmicrowave.com/low-loss-tnc-female-bulkhead-to-ra-sma-male-cable-lmr-195-uf-coax-fm-ca100275-p.aspx>

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FMCA100275 CAD Drawing
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