

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



FMC00084

Configuration

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

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The RA SMA male to TNC male cable using LMR-195 coax, part number FMC00084, 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-195 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00084 SMA male to TNC male cable assembly operates to 4 GHz. The right angle SMA interface on the LMR-195 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		4	GHz
VSWR			1.4:1	
Velocity of Propagation		80		%
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		7.6 [24.93]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]
Jacket Spark			3,000	Vrms

Specifications by Frequency

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

FMC00084



Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	4000	MHz	
FMC00084	Custom Lengths Available	Insertion Loss (Typ.)	0.03	0.06	0.08	0.12	0.24	dB/ft	
			0.12	0.19	0.27	0.39	0.79	dB/m	
FMC00084-12	12 inch	Insertion Loss (Typ.)	0.34	0.36	0.39	0.42	0.54	dB	0.08
FMC00084-24	24 inch	Insertion Loss (Typ.)	0.37	0.42	0.47	0.54	0.78	dB	0.103
FMC00084-36	36 inch	Insertion Loss (Typ.)	0.41	0.48	0.55	0.65	1.02	dB	0.125
FMC00084-48	48 inch	Insertion Loss (Typ.)	0.44	0.53	0.63	0.77	1.26	dB	0.147
FMC00084-60	60 inch	Insertion Loss (Typ.)	0.47	0.59	0.71	0.88	1.5	dB	0.169

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: 0.08 pounds
 Additional Weight per Inch: 0.00184 pounds

Mechanical Specifications

Cable Assembly

Weight 0.08 lbs [36.29 g]

Cable

Cable Type LMR-195
 Impedance 50 Ohms
 Inner Conductor Type Solid
 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 PE, 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 0.2 lbs-ft [0.27 N-m]
 Flat Plate Crush 15 lbs/in [0.27 Kg/mm]
 Tensile Strength 40 lbs [18.14 Kg]

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

FMC00084



Connectors

Description	Connector 1	Connector 2
Type	SMA Male Right Angle	TNC Male
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Nickel
Body Plating Specification	3 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Gold	Brass, Nickel
Coupling Nut Plating Specification	3 µin minimum	100 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:

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



FMC00084

Typical Performance Data

How to Order

Part Number Configuration:

FMC00084

- xx

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMC00084-12 = 12 inches long cable
FMC00084-100cm = 100 cm long cable

Low Loss RA SMA Male to TNC Male Cable LMR-195 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-195 Coax FMC00084](https://www.fairviewmicrowave.com/low-loss-ra-sma-male-to-tnc-male-cable-lmr-195-coax-fmc00084-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-ra-sma-male-to-tnc-male-cable-lmr-195-coax-fmc00084-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

FMC00084 CAD Drawing
Low Loss RA SMA Male to TNC Male Cable LMR-195 Coax

