

## RA SMA Male to TNC Male Cable LMR-200-FR Coax with Heat Shrink

The RA SMA male to TNC male cable using LMR-200-FR coax, part number FMC00533, 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-200-FR coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00533 SMA male to TNC male cable assembly operates to 5.8 GHz. The right angle SMA interface on the LMR-200-FR 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	Min	Typ	Max	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
RF Shielding	90			dB
Group Delay		1.22 [4]		ns/ft [ns/m]
Capacitance		24.5 [80.38]		pF/ft [pF/m]
Inductance		0.061 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		5.36 [17.59]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		4.9 [16.08]		$\Omega$ /1000ft [ $\Omega$ /Km]
Dielectric Withstanding Voltage (DC)			1,000	Vdc
Jacket Spark			3,000	Vrms
Input Power (Peak)			2.5	KWatts

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.05	0.07	0.1	0.17	0.26	dB/ft
	0.16	0.23	0.33	0.56	0.85	dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated 0.15 dB for the right angle connector and  $0.1 \cdot \sqrt{\text{FGHz}}$  dB for the straight connector.

### Mechanical Specifications

#### Cable Assembly



### Configuration:

- SMA Male Right Angle
- TNC Male
- LMR-200-FR

### Features:

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 83% Phase Velocity
- Double Shielded
- FRPE Jacket
- Fire Rated Coax

### Applications:

- General Purpose
- Laboratory Use

Fairview Microwave  
 301 Leora Ln., Suite 100  
 Lewisville, TX 75056  
 Tel: 1-800-715-4396 / (972) 649-6678  
 Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Cable**

Cable Type	LMR-200-FR
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	FRPE, 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	2 lbs-ft [2.71 N-m]
Flat Plate Crush	15 lbs/in [0.27 Kg/mm]
Tensile Strength	40 lbs [18.14 Kg]

**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	TNC Male
Specification		MIL-STD-348
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Spec.	50 $\mu$ in. minimum	
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating	Brass, Gold	Brass, Tri-Metal
Body Material & Plating	Brass, Gold	Brass, Tri-Metal
Body Plating Spec.	3 $\mu$ in. minimum	
Coupling Nut Material & Plating		Brass, Tri-Metal
Hex Size	5/16 inch	5/8 Inch
Torque	4 in-lbs 0.45 Nm	

**Environmental Specifications**
**Temperature**

Operating Range	-40 to +85 deg C
Storage Range	-70 to +85 deg C

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

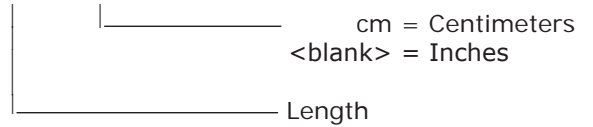
**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMC00533 - xx uu**



Example: FMC00533-12 = 12 inches long cable  
FMC00533-100cm = 100 cm long cable

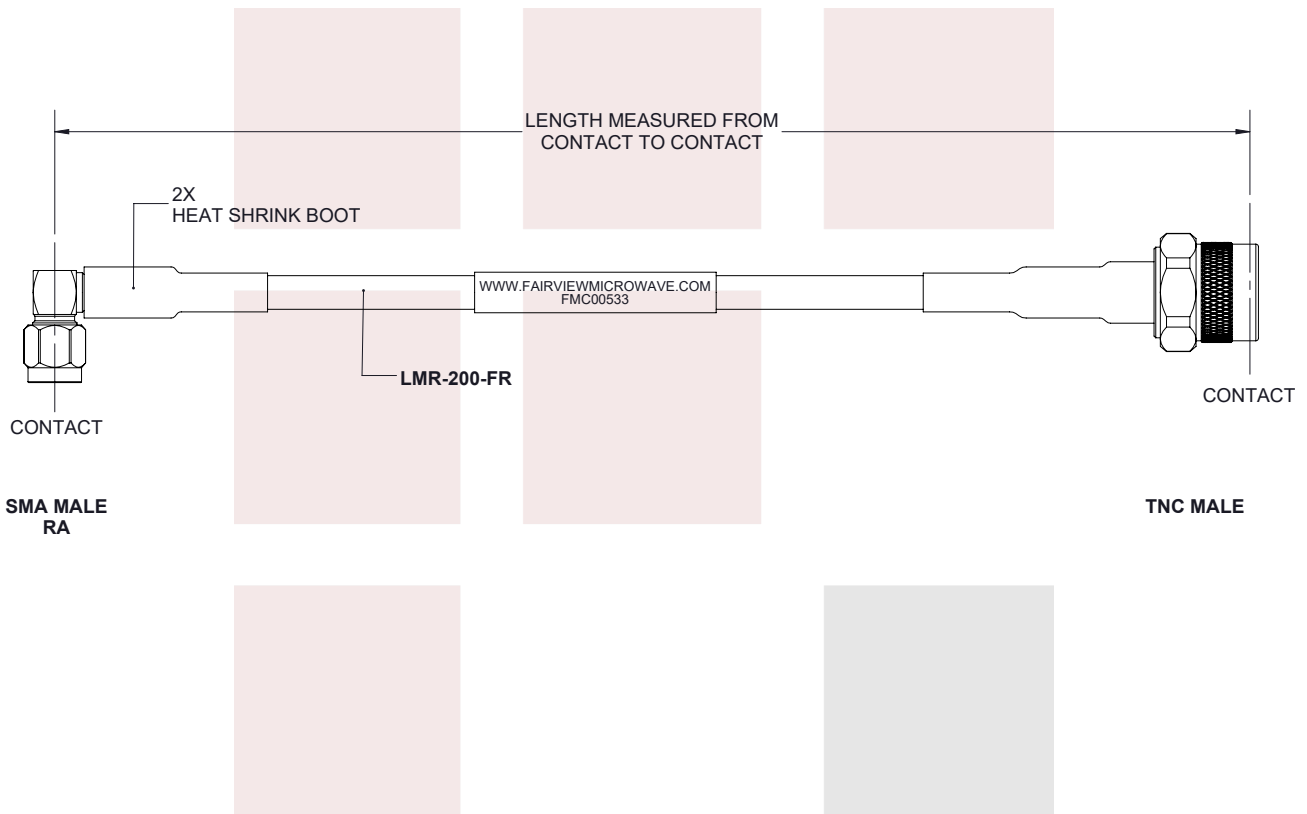
RA SMA Male to TNC Male Cable LMR-200-FR Coax with Heat Shrink from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [RA SMA Male to TNC Male Cable LMR-200-FR Coax with Heat Shrink FMC00533](#)

URL: <https://www.fairviewmicrowave.com/ra-sma-male-tnc-male-cable-lmr200fr-coax-fmc00533-p.aspx>

The information contained in 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 any liability arising out of the use of any part or documentation.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/16/2021	S.ELLIS



**NOTES:**

- CABLES 36" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 36" HAVE 2 LABELS, ONE AT EACH END 6.0" FROM THE END OF THE CONNECTOR.

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<p><b>Fairview Microwave</b> an INFINIT<sup>®</sup> brand</p>	UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS		THIRD-ANGLE PROJECTION 	
	TOLERANCES:      CABLE LENGTH (L) TOLERANCES:		THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.	
TITLE	.X = ±.2 [ .508 ]    FRACTIONS    L ≤ 12 [ 305 ] = +1 [ 25 ] / -0	± 1/32	12 [ 305 ] < L ≤ 60 [ 1524 ] = +2 [ 51 ] / -0	SHEET 1 OF 1
RA SMA Male to TNC Male Cable LMR-200-FR Coax with Heat Shrink	.XX = ±.02 [ .51 ]	ANGLES ± 1°	60 [ 1524 ] < L ≤ 120 [ 3048 ] = +4 [ 102 ] / -0	SCALE N/A
	.XXX = ±.005 [ .13 ]		120 [ 3048 ] < L ≤ 300 [ 7620 ] = +6 [ 152 ] / -0	
			300 [ 7620 ] < L = +5%L / -0	
	ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.			
SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMC00533	REV A

T-Rev.D