

## 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

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| 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]

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### 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**

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

Length  
Base Number

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

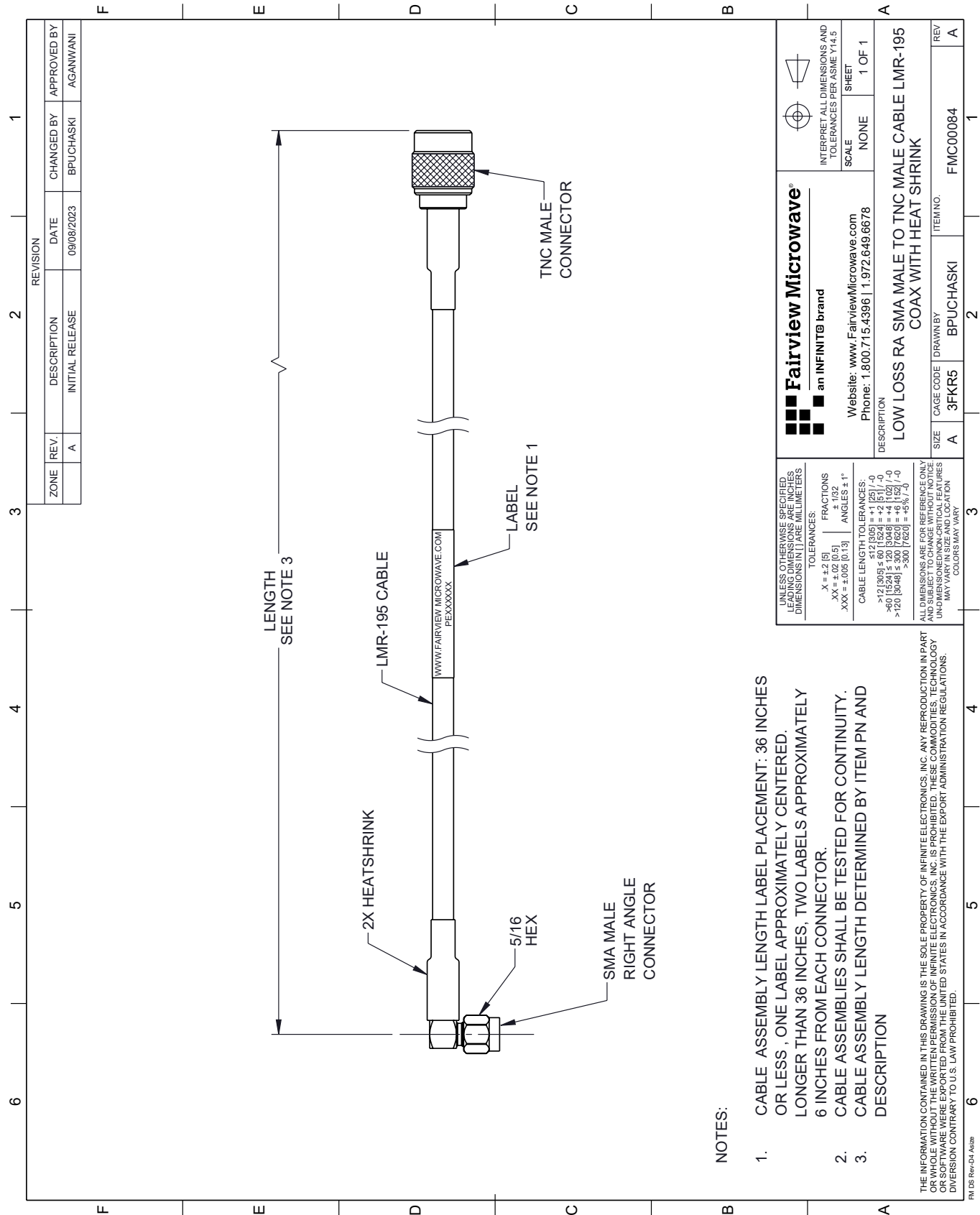
Low Loss RA SMA Male to TNC Male Cable LMR-195 Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

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>

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FMC00084 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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