

## Low Loss SMA Male to RA N Male Cable LMR-195 Coax

**FMC00158**



### Configuration

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

### Features

- Max Frequency 1 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket

### Applications

- General Purpose
- Laboratory Use

### Description

The SMA male to RA type N male cable using LMR-195 coax, part number FMC00158, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to type N 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 FMC00158 SMA male to type N male cable assembly operates to 1 GHz. The right angle type N 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      |              | 1,000   | MHz                   |
| 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             | 50   | 100  | 250   | 500   | 1000  | MHz   |              |
| FMC00158    | Custom Lengths Available | Insertion Loss (Typ.) | 0.03 | 0.03 | 0.057 | 0.081 | 0.116 | dB/ft |              |
|             |                          |                       | 0.09 | 0.12 | 0.19  | 0.27  | 0.39  | dB/m  |              |
| FMC00158-12 | 12 inch                  | Insertion Loss (Typ.) | 0.33 | 0.34 | 0.36  | 0.39  | 0.42  | dB    | 0.171        |
| FMC00158-24 | 24 inch                  | Insertion Loss (Typ.) | 0.35 | 0.37 | 0.42  | 0.47  | 0.54  | dB    | 0.194        |
| FMC00158-36 | 36 inch                  | Insertion Loss (Typ.) | 0.38 | 0.41 | 0.48  | 0.55  | 0.65  | dB    | 0.216        |
| FMC00158-48 | 48 inch                  | Insertion Loss (Typ.) | 0.4  | 0.44 | 0.53  | 0.63  | 0.77  | dB    | 0.238        |
| FMC00158-60 | 60 inch                  | Insertion Loss (Typ.) | 0.43 | 0.47 | 0.59  | 0.71  | 0.88  | dB    | 0.26         |

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:                | 0.171 pounds   |
| Additional Weight per Inch: | 0.00184 pounds |

## Mechanical Specifications

### Cable Assembly

|        |                     |
|--------|---------------------|
| Weight | 0.171 lbs [77.56 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                   | N Male Right Angle |
| Specification                     |                            | MIL-STD-348A       |
| Impedance                         | 50 Ohms                    | 50 Ohms            |
| Configuration                     | Straight                   | Right Angle        |
| Contact Material and Plating      | Brass, Gold                | Brass, Gold        |
| Contact Plating Specification     | ASTM B488                  |                    |
| Dielectric Type                   | PTFE                       | Teflon             |
| Body Material and Plating         | Passivated Stainless Steel | Brass, Nickel      |
| Coupling Nut Material and Plating | Passivated Stainless Steel | Brass, Nickel      |
| Hex Size                          | 5/16 Inch                  |                    |

Environmental Specifications

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

Plotted and Other Data

Notes:

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### FMC00158

#### Typical Performance Data

#### How to Order

Part Number Configuration: **FMC00158**    **- xx**    **uu**

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

Length

Base Number

Example: FMC00158-12 = 12 inches long cable  
FMC00158-100cm = 100 cm long cable

Low Loss SMA Male to RA N 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 SMA Male to RA N Male Cable LMR-195 Coax FMC00158](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-ra-n-male-cable-lmr-195-coax-fmc00158-p.aspx>

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FMC00158 CAD Drawing
Low Loss SMA Male to RA N Male Cable LMR-195 Coax

