

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



### FMC00139

#### Configuration

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

#### Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

The SMA male to type N female cable using LMR-195 coax, part number FMC00139, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to type N cable assembly has a male to female 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 FMC00139 SMA male to type N female cable assembly operates to 5.8 GHz. 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      |              | 5.8     | 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 SMA Male to N Female Cable LMR-195 Coax



### FMC00139

| Part Number | Length                   | Description           | F1   | F2   | F3    | F4   | F5    | Units | Weight (lbs) |
|-------------|--------------------------|-----------------------|------|------|-------|------|-------|-------|--------------|
|             |                          | Frequency             | 250  | 500  | 1000  | 2500 | 5800  | MHz   |              |
| FMC00139    | Custom Lengths Available | Insertion Loss (Typ.) | 0.06 | 0.08 | 0.116 | 0.19 | 0.299 | dB/ft |              |
|             |                          |                       | 0.19 | 0.27 | 0.39  | 0.63 | 0.99  | dB/m  |              |
| FMC00139-12 | 12 inch                  | Insertion Loss (Typ.) | 0.26 | 0.29 | 0.32  | 0.39 | 0.5   | dB    | 0.112        |
| FMC00139-24 | 24 inch                  | Insertion Loss (Typ.) | 0.32 | 0.37 | 0.44  | 0.58 | 0.8   | dB    | 0.135        |
| FMC00139-36 | 36 inch                  | Insertion Loss (Typ.) | 0.38 | 0.45 | 0.55  | 0.77 | 1.1   | dB    | 0.157        |
| FMC00139-48 | 48 inch                  | Insertion Loss (Typ.) | 0.43 | 0.53 | 0.67  | 0.96 | 1.4   | dB    | 0.179        |
| FMC00139-60 | 60 inch                  | Insertion Loss (Typ.) | 0.49 | 0.61 | 0.78  | 1.15 | 1.7   | dB    | 0.201        |

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:    | 0.1 dB         |
| Base Weight:                | 0.112 pounds   |
| Additional Weight per Inch: | 0.00184 pounds |

## Mechanical Specifications

### Cable Assembly

|        |                    |
|--------|--------------------|
| Weight | 0.112 lbs [50.8 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 SMA Male to N Female Cable LMR-195 Coax



**FMC00139**

### Connectors

| Description                          | Connector 1                | Connector 2   |
|--------------------------------------|----------------------------|---------------|
| Type                                 | SMA Male                   | N Female      |
| Impedance                            | 50 Ohms                    | 50 Ohms       |
| Configuration                        | Straight                   | Straight      |
| Contact Material and Plating         | Brass, Gold                | Brass, Silver |
| Contact Plating Specification        | ASTM B488                  | QQ-S-365      |
| Dielectric Type                      | PTFE                       | PTFE          |
| Outer Conductor Material and Plating |                            | Brass, Nickel |
| Body Material and Plating            | Passivated Stainless Steel | Brass, Nickel |
| Body Plating Specification           |                            | QQ-N-290      |
| Coupling Nut Material and Plating    | Passivated Stainless Steel |               |
| Hex Size                             | 5/16 Inch                  |               |

### Environmental Specifications

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

### Plotted and Other Data

Notes:

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



### FMC00139

#### Typical Performance Data

#### How to Order

Part Number Configuration: **FMC00139 - xx uu**

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

Length  
Base Number

Example: FMC00139-12 = 12 inches long cable  
FMC00139-100cm = 100 cm long cable

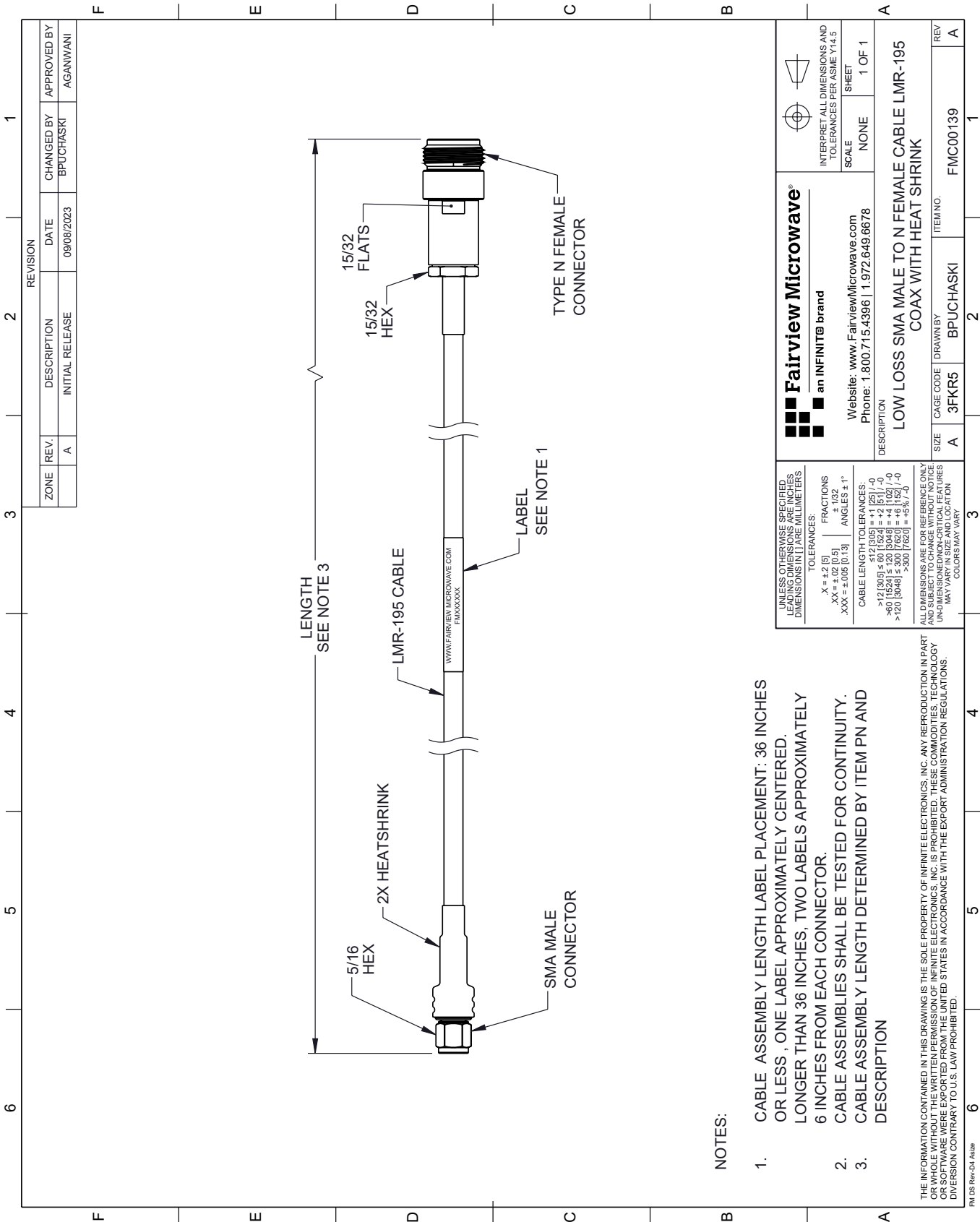
Low Loss SMA Male to N Female Cable LMR-195 Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss SMA Male to N Female Cable LMR-195 Coax FMC00139](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-n-female-cable-lmr-195-coax-fmc00139-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.

FMC00139 CAD Drawing
Low Loss SMA Male to N Female Cable LMR-195 Coax



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

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVISION CONTRARY TO U.S. LAW PROHIBITED.

FM DS Rev-D4 A424e