

## SMA Female Bulkhead to RA SSMC Plug Cable LMR-100 Coax in 50 cm

The SMA female bulkhead to RA SSMC plug 50 cm cable using LMR-100 coax, part number FMCA2151-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SSMC cable assembly has a female to plug gender configuration with 50 ohm flexible LMR-100A coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA2151-50CM SMA female to SSMC plug cable assembly operates to 5.8 GHz. The right angle SSMC interface on the LMR-100A cable allows for easier connections in tight spaces. Our RF cable assembly with SMA bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. 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                          |     |               | 1.6:1 |                                  |
| Velocity of Propagation       |     | 66            |       | %                                |
| RF Shielding                  | 90  |               |       | dB                               |
| Group Delay                   |     | 1.54 [5.05]   |       | ns/ft [ns/m]                     |
| Capacitance                   |     | 30.8 [101.05] |       | pF/ft [pF/m]                     |
| Inductance                    |     | 0.077 [0.25]  |       | uH/ft [uH/m]                     |
| DC Resistance Inner Conductor |     | 81 [265.75]   |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor |     | 9.5 [31.17]   |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| Jacket Spark                  |     |               | 2,000 | Vrms                             |

### Performance by Frequency

| Description           | F1   | F2   | F3  | F4   | F5   | Units |
|-----------------------|------|------|-----|------|------|-------|
| Frequency             | 0.25 | 0.5  | 1   | 2.5  | 5.8  | GHz   |
| Insertion Loss (Max.) | 0.48 | 0.53 | 0.6 | 0.96 | 1.35 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. Insertion Loss is estimated as 0.1 dB for the SMA Female connector and 0.2 dB for the SSMC Male connector.

### Mechanical Specifications

#### Cable Assembly

|          |                      |
|----------|----------------------|
| Length*  | 19.68 in [499.87 mm] |
| Diameter | 0.312 in [7.92 mm]   |



### Configuration:

- SMA Female Bulkhead
- SSMC Plug Right Angle
- LMR-100A

### Features:

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

### Applications:

- General Purpose
- Laboratory Use

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**Cable**

|                                      |                     |
|--------------------------------------|---------------------|
| Cable Type                           | LMR-100A            |
| Impedance                            | 50 Ohms             |
| Inner Conductor Type                 | Solid               |
| Inner Conductor Material and Plating | Copper Clad Steel   |
| Dielectric Type                      | PE                  |
| Number of Shields                    | 2                   |
| Shield Layer 1                       | Aluminum Tape       |
| Shield Layer 2                       | Tinned Copper Braid |
| Jacket Material                      | PVC, Black          |
| Jacket Diameter                      | 0.11 in [2.79 mm]   |

|                              |                        |
|------------------------------|------------------------|
| One Time Minimum Bend Radius | 0.25 in [6.35 mm]      |
| Repeated Minimum Bend Radius | 1 in [25.4 mm]         |
| Bending Moment               | 0.1 lbs-ft [0.14 N-m]  |
| Flat Plate Crush             | 10 lbs/in [0.18 Kg/mm] |
| Tensile Strength             | 15 lbs [6.8 Kg]        |

**Connectors**

| Description                     | Connector 1            | Connector 2            |
|---------------------------------|------------------------|------------------------|
| Type                            | SMA Female             | SSMC Plug              |
| Mount Method                    | Bulkhead               |                        |
| Specification                   | MIL-STD-348            |                        |
| Impedance                       | 50 Ohms                | 50 Ohms                |
| Mating Cycles                   |                        | 500                    |
| Contact Material & Plating      | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Spec.           |                        | MIL-G-45204            |
| Dielectric Type                 |                        | Teflon                 |
| Outer Cond Material & Plating   | Brass, Nickel          |                        |
| Body Material & Plating         | Brass, Nickel          | Brass, Gold            |
| Body Plating Spec.              |                        | MIL-G-45204            |
| Coupling Nut Material & Plating |                        | Beryllium Copper, Gold |
| Coupling Nut Plating Spec.      |                        | MIL-G-45204            |
| Torque                          |                        | 1.75 in-lbs 0.2 Nm     |

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

**Plotted and Other Data**

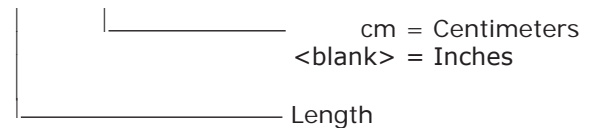
Notes:

- Values at 25°C, sea level.

**How to Order**

Part Number Configuration:

**FMCA2151 - xx uu**



Example: FMCA2151-12 = 12 inches long cable  
 FMCA2151-100cm = 100 cm long cable

SMA Female Bulkhead to RA SSMC Plug Cable LMR-100 Coax in 50 cm from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

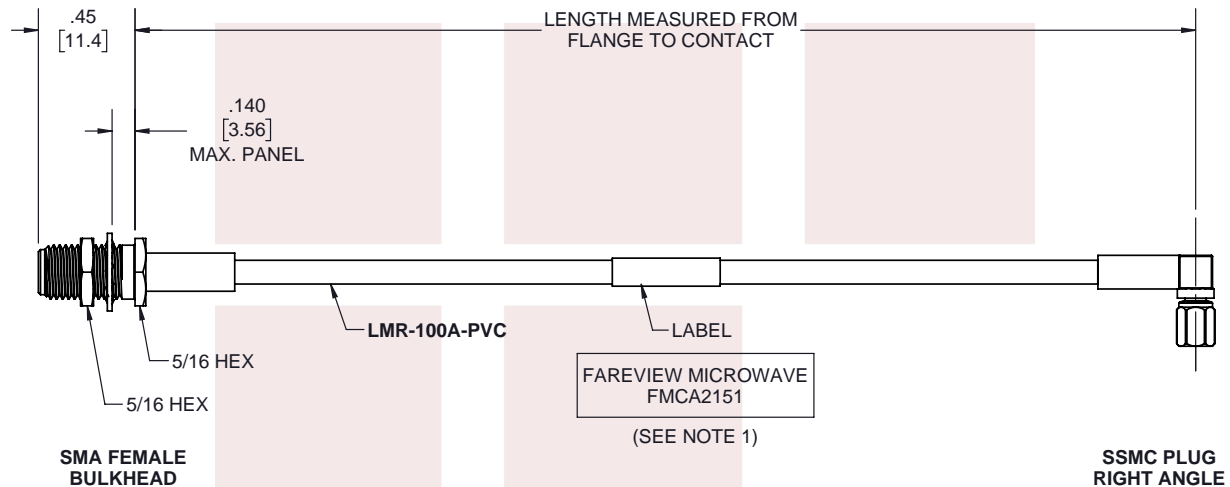
Click the following link to obtain additional part information: [SMA Female Bulkhead to RA SSMC Plug Cable LMR-100 Coax in 50 cm FMCA2151-50CM](#)

URL: <https://www.fairviewmicrowave.com/sma-female-ra-ssmc-plug-cable-lmr100-coax-fmca2151-50cm-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 | 09/16/20 | SELLIS   |



**NOTES:**

1. 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><br/>an INFINIT<sup>®</sup> brand</p>                             | UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES<br>DIMENSIONS IN [ ] ARE MILLIMETERS |   | THIRD-ANGLE PROJECTION<br>   |   |  |
|   | TOLERANCES:   |   | CABLE LENGTH (L) TOLERANCES: |   |  |
| .X = ±.2 [5.08] FRACTIONS ± 1/32<br>.XX = ±.02 [.51] ± 1/32<br>.XXX = ±.005 [.13] ANGLES ± 1° |   | L ≤ 12 [305] = +1 [25] / -0<br>12 [305] < L ≤ 60 [1524] = +2 [51] / -0<br>60 [1524] < L ≤ 120 [3048] = +4 [102] / -0<br>120 [3048] < L ≤ 300 [7620] = +6 [152] / -0<br>300 [7620] < L = +5%L / -0 |                              | THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED. |  |
| TITLE<br>SMA Female Bulkhead to RA SSMC Plug Cable LMR-100 Coax in 50 cm                      |   | ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.  |                              | SHEET 1 OF 1<br>SCALE N/A   |  |
| SIZE<br>A   | CAGE CODE<br>3FKR5  | DRAWN BY<br>BPUCHASKI   | ITEM NO.<br>FMCA2151         | REV<br>A  |  |

T-Rev.D