

## Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder

**FMC00302/0001**



### Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: SSMC Plug
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

### Features

- Max Frequency 3 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

### Applications

- General Purpose
- Laboratory Use

### Description

The SMA female bulkhead to SSMC plug cable using LMR-100 coax, part number FMC00302/0001, 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 FMC00302/0001 SMA female to SSMC plug cable assembly operates to 3 GHz. 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                   | Minimum | Typical       | Maximum | Units                 |
|-------------------------------|---------|---------------|---------|-----------------------|
| Frequency Range               | DC      |               | 3       | GHz                   |
| VSWR                          |         |               | 1.4:1   |                       |
| 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]   |         | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor |         | 9.5 [31.17]   |         | Ohms/1000ft [Ohms/Km] |

## Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder

**FMC00302/0001**



### Electrical Specifications

| Description  | Minimum | Typical | Maximum | Units |
|--------------|---------|---------|---------|-------|
| Jacket Spark |         |         | 2,000   | Vrms  |

### Specifications by Frequency

| Part Number         | Length                   | Description           | F1   | F2   | F3    | F4   | F5    | Units | Weight (lbs) |
|---------------------|--------------------------|-----------------------|------|------|-------|------|-------|-------|--------------|
|                     |                          | Frequency             | 100  | 250  | 500   | 1000 | 3000  | MHz   |              |
| FMC00302/0001       | Custom Lengths Available | Insertion Loss (Typ.) | 0.07 | 0.12 | 0.165 | 0.24 | 0.434 | dB/ft |              |
|                     |                          |                       | 0.23 | 0.38 | 0.55  | 0.79 | 1.43  | dB/m  |              |
| FMC00302/0001-24    | 24 inch                  | Insertion Loss (Typ.) | 0.34 | 0.43 | 0.53  | 0.68 | 1.07  | dB    | 0.035        |
| FMC00302/0001-36    | 36 inch                  | Insertion Loss (Typ.) | 0.41 | 0.55 | 0.7   | 0.92 | 1.51  | dB    | 0.044        |
| FMC00302/0001-48    | 48 inch                  | Insertion Loss (Typ.) | 0.48 | 0.66 | 0.86  | 1.16 | 1.94  | dB    | 0.053        |
| FMC00302/0001-100CM | 100 CM                   | Insertion Loss (Typ.) | 0.43 | 0.58 | 0.75  | 0.99 | 1.63  | dB    | 0.047        |
| FMC00302/0001-200CM | 200 CM                   | Insertion Loss (Typ.) | 0.66 | 0.96 | 1.29  | 1.78 | 3.05  | dB    | 0.077        |

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:                | 0.026 pounds   |
| Additional Weight per Inch: | 0.00075 pounds |

### Mechanical Specifications

#### Cable Assembly

|        |                     |
|--------|---------------------|
| Weight | 0.026 lbs [11.79 g] |
|--------|---------------------|

#### 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]        |

## Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder

**FMC00302/0001**



### Connectors

| Description                           | Connector 1            | Connector 2            |
|---------------------------------------|------------------------|------------------------|
| Type                                  | SMA Female Bulkhead    | SSMC Plug              |
| Specification                         | MIL-STD-348A           |                        |
| Impedance                             | 50 Ohms                | 50 Ohms                |
| Configuration                         | Straight               | Straight               |
| Mating Cycles                         |                        | 500                    |
| Contact Material and Plating          | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Specification         | 50 µin minimum         |                        |
| Dielectric Type                       | PTFE                   | PTFE                   |
| Outer Conductor Material and Plating  | Brass, Gold            |                        |
| Outer Conductor Plating Specification | 3 µin minimum          |                        |
| Body Material and Plating             |                        | Beryllium Copper, Gold |
| Coupling Nut Material and Plating     |                        | Brass, Gold            |
| Hex Size                              | 5/16 inch              | 5/32 inch              |

### Environmental Specifications

Operating Range Temperature -20 to +80 deg C

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

### Plotted and Other Data

Notes:

## Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder



**FMC00302/0001**

### Typical Performance Data

### How to Order

Part Number Configuration: **FMC00302/0001**    **- xx**    **uu**

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

Length

Base Number

Example: FMC00302/0001-12 = 12 inches long cable  
FMC00302/0001-100cm = 100 cm long cable

Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder 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 Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder FMC00302/0001](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-female-bulkhead-to-ssmc-plug-cable-lmr-100-coax-with-lf-solder-fmc00302-0001-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.

FMC00302/0001 CAD Drawing
Low Loss SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax with LF Solder

