

## FMCA1487-24 DATA SHEET

# SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax in 24 Inch

Fairview Microwave's SSMC cable assemblies are part of our full line of RF interconnects available for same-day shipping. These SSMC cable assemblies are designed for test applications or connection of your SSMC system components. With a high frequency range up to 12.4 GHz, this family of SSMC cables can also be used to connect your data acquisition system or SSMC connections on your A/D converters. There are hundreds of possible cable assembly configurations to choose from, all available same day.

This SSMC cable assembly datasheet PDF contains specifications, CAD drawing and dimensions that are shown below. Fairview Microwave not only has many SSMC cable assembly options, but also a wide selection of RF, microwave and millimeter wave cable assemblies which allows RF designers to customize their configurations to whatever is required. Whether the need is to provide low loss SSMC I/O for digital receivers or simply create a custom cable assembly configuration, Fairview Microwave has the right cable assemblies for the job. Fairview can also expertly build your custom RF cable assemblies for you and ship same day.

## **Electrical Specifications**

| Description                   | Min     | Т             | ур       | Max             | ι     | Jnits      |
|-------------------------------|---------|---------------|----------|-----------------|-------|------------|
| 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/f  | t [ns/m]   |
| Capacitance                   |         | 30.8 [101.05] |          | pF/ft [pF/m]    |       |            |
| Inductance                    |         | 0.077         | ' [0.25] |                 | uH/f  | t [uH/m]   |
| DC Resistance Inner Conductor |         | 81 [265.75]   |          | Ω/1000ft [Ω/Km] |       |            |
| DC Resistance Outer Cor       | nductor | 9.5 [         | 31.17]   |                 | Ω/100 | Oft [Ω/Km] |
| Jacket Spark                  |         |               |          | 2,000           | \     | /rms       |
|                               |         |               |          |                 |       |            |

## **Performance by Frequency**

| Description           | F1   | F2   | F3   | F4  | F5   | Units |
|-----------------------|------|------|------|-----|------|-------|
| Frequency             | 0.25 | 0.5  | 1    | 2.5 | 5.8  | GHz   |
| Insertion Loss (Typ.) | 0.44 | 0.54 | 0.68 | 1   | 1.49 | dB    |

## **Mechanical Specifications**

## **Cable Assembly**

Length\* 24 in [609.6 mm]
Diameter 0.312 in [7.92 mm]

## Cable

Cable Type
Impedance
Inner Conductor Type
Inner Conductor Material and Plating
Dielectric Type

LMR-100A 50 Ohms Solid Copper Clad Steel PE



## **Configuration:**

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

## **Features:**

- Reliable threaded SSMC cable connection
- Max. Operating Frequency of 5.8
   GHz
- Small form factor (SSMC connection is 50% smaller than SMA)
- In stock and ready to ship

## **Applications:**

- Software Defined Radio (SDR)
- Data acquisition systems with SSMC connections
- Digital Wideband Receivers
- · SSMC patch panels
- A/D Conversion

Fairview Microwave 1130 Junction Dr. #100 Allen, TX 75013

Tel: 1-800-715-4396 / (972) 649-6678

Fax: (972) 649-6689 www.fairviewmicrowave.com sales@fairviewmicrowave.com





Number of Shields

Shield Layer 1 Aluminum Tape Shield Layer 2 Tinned Copper Braid Jacket Material

2

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          |     |  |  |
|-----------------------------|----------------------|------------------------|-----|--|--|
| Туре                        | SMA Female           | e SSMC Plug            |     |  |  |
| Mount Method                | Bulkhead             |                        |     |  |  |
| Specification               | MIL-STD-348          | 3                      |     |  |  |
| Impedance                   | 50 Ohms              | 50 Ohms                |     |  |  |
| Mating Cycles               |                      | 500                    |     |  |  |
| Contact Material & Plating  | Gold                 | Beryllium Copper, Gold |     |  |  |
| Contact Plating Spec.       | MIL-G-45204          | MIL-G-45204            |     |  |  |
| Dielectric Type             |                      | Teflon                 |     |  |  |
| Body Material & Plating     | Brass, Nickel        | Beryllium Copper, Go   | old |  |  |
| Body Plating Spec.          | QQ-N-290             | MIL-G-45204            |     |  |  |
| Coupling Nut Material & Pla | ating                | Beryllium Copper, Gold |     |  |  |
| Coupling Nut Plating Spec.  |                      | MIL-G-45206            |     |  |  |
| Torque                      | 1.75 in-lbs [0.2 Nm] |                        |     |  |  |
|                             |                      |                        |     |  |  |

## Mechanical Specification Notes:

**Compliance Certifications** (see product page for current document)

#### **Plotted and Other Data**

Notes:

#### **How to Order**

FMCA1487 - xx Part Number Configuration: uu cm = Centimeters <br/>
<br/>
dlank> = Inches - Length

Example: FMCA1487-12 = 12 inches long cable

FMCA1487-100cm = 100 cm long cable

<sup>\*</sup>All cable assemblies have a length tolerance of 1.5% or ± 3/8", whichever is greater.





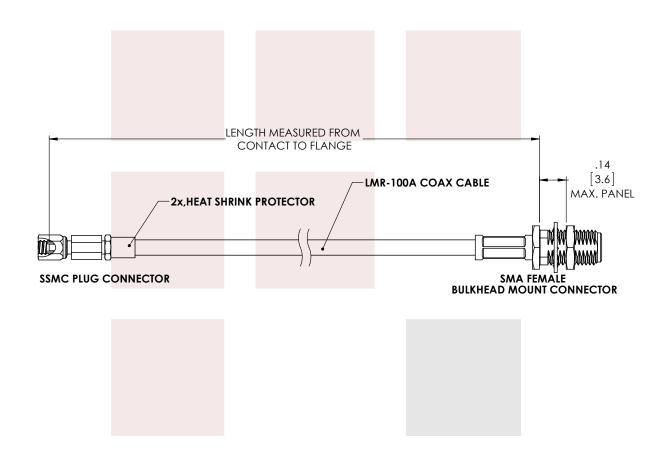
SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax in 24 Inch from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: SMA Female Bulkhead to SSMC Plug Cable LMR-100 Coax in 24 Inch FMCA1487-24

URL: https://www.fairviewmicrowave.com/sma-female-ssmc-plug-cable-Imr100-coax-fmca1487-24-p.aspx







STANDARD TOLERANCES

.X ±0.2 .XX ±0.01 .XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

| FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM | NOTES:  1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  3. DIMENSIONS ARE IN INCHES [mm]. |  |      |                 |        |        |
|---|---|--|------|-----------------|--------|--------|
| SMA Female Bulkhead to SSMC Plug Cable LMR-100                    | DWG NO FMCA1487   |  |      | CAGE CODE 3FKR5 |        |        |
| Coax in 24 Inch   | CAD FILE 11/06/2017 SHEET SC.   |  | SCAL | E N/A           | SIZE A | CN2245 |