

## BNC Male to SSMC Plug Cable LMR-100 Coax in 48 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 | Typ           | Max   | Units                            |
|-------------------------------|-----|---------------|-------|----------------------------------|
| Frequency Range               | DC  |               | 3     | GHz                              |
| VSWR                          |     |               | 1.5:1 |                                  |
| 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 | 3    | GHz   |
| Insertion Loss (Typ.) | 0.68 | 0.88 | 1.16 | 1.8 | 1.96 | dB    |

### Mechanical Specifications

#### Cable Assembly

|          |                    |
|----------|--------------------|
| Length*  | 48 in [121.92 cm]  |
| Diameter | 0.57 in [14.48 mm] |

#### Cable

|                                      |                   |
|--------------------------------------|-------------------|
| Cable Type                           | LMR-100A          |
| Impedance                            | 50 Ohms           |
| Inner Conductor Type                 | Solid             |
| Inner Conductor Material and Plating | Copper Clad Steel |
| Dielectric Type                      | PE                |



### Configuration:

- BNC Male
- SSMC Plug
- LMR-100A

### Features:

- Reliable threaded SSMC cable connection
- Max. Operating Frequency of 3 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

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|                              |                        |
|------------------------------|------------------------|
| 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                            | BNC Male        | SSMC Plug              |
| Specification                   | MIL-STD-348A    |                        |
| Impedance                       | 50 Ohms         | 50 Ohms                |
| Mating Cycles                   |                 | 500                    |
| Contact Material & Plating      | Brass, Gold     | Beryllium Copper, Gold |
| Contact Plating Spec.           | 50 µin minimum  | MIL-G-45204            |
| Dielectric Type                 | PTFE            | Teflon                 |
| Body Material & Plating         | Brass, Nickel   | Beryllium Copper, Gold |
| Body Plating Spec.              | 100 µin minimum | MIL-G-45204            |
| Coupling Nut Material & Plating | Brass, Nickel   | Beryllium Copper, Gold |
| Coupling Nut Plating Spec.      | 100 µin minimum | MIL-G-45206            |
| Torque                          |                 | 1.75 in-lbs [0.2 Nm]   |

### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

### Environmental Specifications

#### Temperature

Operating Range -40 to +85 deg C

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

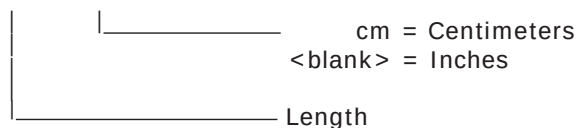
### Plotted and Other Data

Notes:

### How to Order

Part Number Configuration:

**FMCA1489 - xx uu**



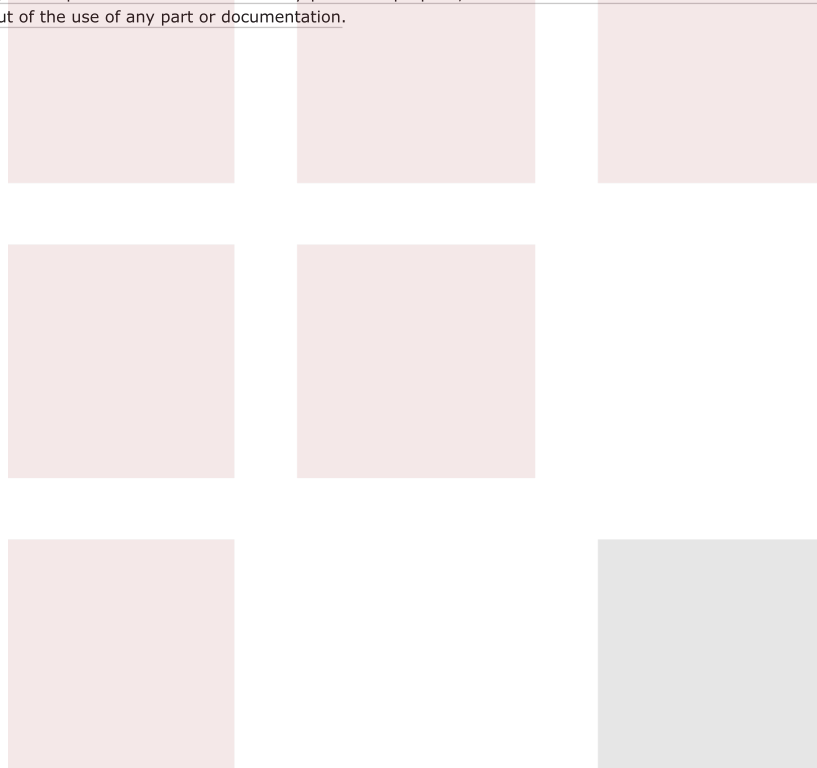
Example: FMCA1489-12 = 12 inches long cable  
FMCA1489-100cm = 100 cm long cable

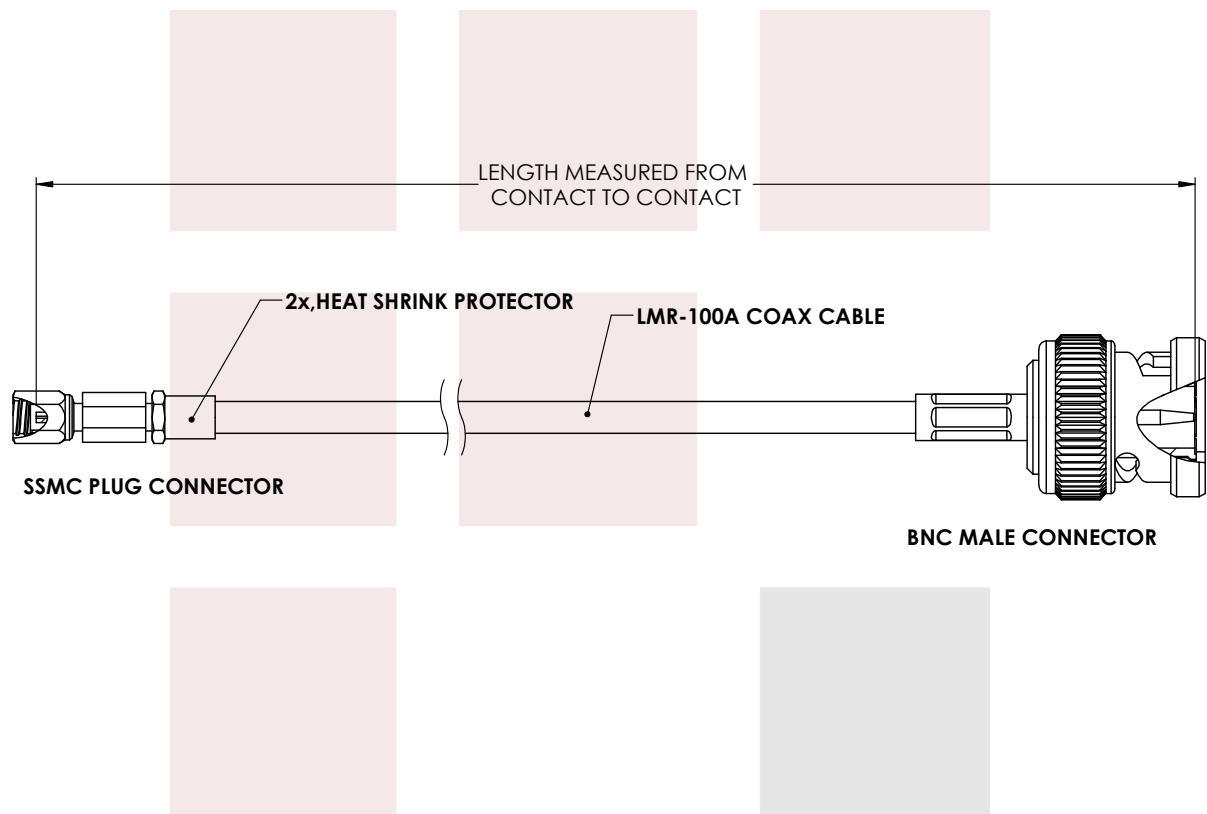
BNC Male to SSMC Plug Cable LMR-100 Coax in 48 Inch from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [BNC Male to SSMC Plug Cable LMR-100 Coax in 48 Inch FMCA1489-48](https://www.fairviewmicrowave.com/bnc-male-ssmc-plug-cable-lmr100-coax-fmca1489-48-p.aspx)

URL: <https://www.fairviewmicrowave.com/bnc-male-ssmc-plug-cable-lmr100-coax-fmca1489-48-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.





**STANDARD TOLERANCES**

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES

|                                                                             |                     |                                                                                                                                                                                     |                    |        |        |
|-----------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------|--------|
| <b>FAIRVIEW MICROWAVE INC.</b><br>ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM |                     | NOTES:<br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.<br>3. DIMENSIONS ARE IN INCHES [mm]. |                    |        |        |
| TITLE<br><br>BNC Male to SSMC Plug Cable LMR-100 Coax in 48 Inch            | DWG NO<br>FMCA1489  |                                                                                                                                                                                     | CAGE CODE<br>3FKR5 |        |        |
|                                                                             | CAD FILE 11/07/2017 | SHEET                                                                                                                                                                               | SCALE N/A          | SIZE A | CN2245 |