

## Low Loss SMA Male to BNC Male Cable LMR-240-UF Coax in 48 Inch

The SMA male to BNC male 48 inch cable using LMR-240-UF coax, part number FMC00498-48, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to BNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00498-48 SMA male to BNC male cable assembly operates to 4 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                          | Min | Typ          | Max   | Units                            |
|--------------------------------------|-----|--------------|-------|----------------------------------|
| Frequency Range                      | DC  |              | 4     | GHz                              |
| VSWR                                 |     |              | 1.4:1 |                                  |
| Velocity of Propagation              |     | 84           |       | %                                |
| RF Shielding                         | 90  |              |       | dB                               |
| Group Delay                          |     | 1.21 [3.97]  |       | ns/ft [ns/m]                     |
| Capacitance                          |     | 24.2 [79.4]  |       | pF/ft [pF/m]                     |
| Inductance                           |     | 0.06 [0.2]   |       | uH/ft [uH/m]                     |
| DC Resistance Inner Conductor        |     | 4.28 [14.04] |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor        |     | 3.89 [12.76] |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| Operating Voltage (DC)               |     |              | 1,000 | Vdc                              |
| Dielectric Withstanding Voltage (DC) |     |              | 1,500 | Vdc                              |
| Jacket Spark                         |     |              | 5,000 | Vrms                             |
| Input Power (Peak)                   |     |              | 5.6   | KWatts                           |

### Performance by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.1  | 0.25 | 0.5  | 1    | 4    | GHz   |
| Insertion Loss (Typ.) | 0.25 | 0.34 | 0.44 | 0.59 | 1.09 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated 0.1 dB for the straight connector and  $0.1 \cdot \sqrt{\text{FGHz}}$  dB for the straight connector.

### Mechanical Specifications

#### Cable Assembly

|          |                    |
|----------|--------------------|
| Length*  | 48 in [121.92 cm]  |
| Diameter | 0.58 in [14.73 mm] |



### Configuration:

- SMA Male
- BNC Male
- LMR-240-UF

### Features:

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- TPE Jacket

### Applications:

- General Purpose
- Laboratory Use

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**Cable**

|                                      |                        |
|--------------------------------------|------------------------|
| Cable Type                           | LMR-240-UF             |
| Impedance                            | 50 Ohms                |
| Inner Conductor Type                 | Stranded               |
| 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                      | TPE, Black             |
| Jacket Diameter                      | 0.24 in [6.1 mm]       |
| One Time Minimum Bend Radius         | 0.75 in [19.05 mm]     |
| Repeated Minimum Bend Radius         | 2.5 in [63.5 mm]       |
| Bending Moment                       | 0.13 lbs-ft [0.18 N-m] |
| Flat Plate Crush                     | 13 lbs/in [0.23 Kg/mm] |
| Tensile Strength                     | 80 lbs [36.29 Kg]      |

**Connectors**

| Description                     | Connector 1                      | Connector 2      |
|---------------------------------|----------------------------------|------------------|
| Type                            | SMA Male                         | BNC Male         |
| Specification                   | MIL-STD-348                      |                  |
| Impedance                       | 50 Ohms                          | 50 Ohms          |
| Contact Material & Plating      | Beryllium Copper, Gold           | Brass, Gold      |
| Contact Plating Spec.           | ASTM B488                        |                  |
| Dielectric Type                 | PTFE                             | PTFE             |
| Outer Cond Material & Plating   | Passivated Stainless Steel, Gold | Brass, Tri-Metal |
| Body Material & Plating         | Passivated Stainless Steel, Gold | Brass, Tri-Metal |
| Body Plating Spec.              | SAE-AMS-2700                     |                  |
| Coupling Nut Material & Plating | Passivated Stainless Steel       |                  |
| Coupling Nut Plating Spec.      | SAE-AMS-2700                     |                  |

**Environmental Specifications**
**Temperature**

|                 |                  |
|-----------------|------------------|
| Operating Range | -40 to +85 deg C |
| Storage Range   | +70 to +85 deg C |

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

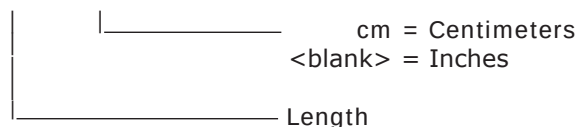
**Plotted and Other Data**

Notes:

## How to Order

Part Number Configuration:

**FMC00498 - xx uu**



Example: FMC00498-12 = 12 inches long cable  
FMC00498-100cm = 100 cm long cable

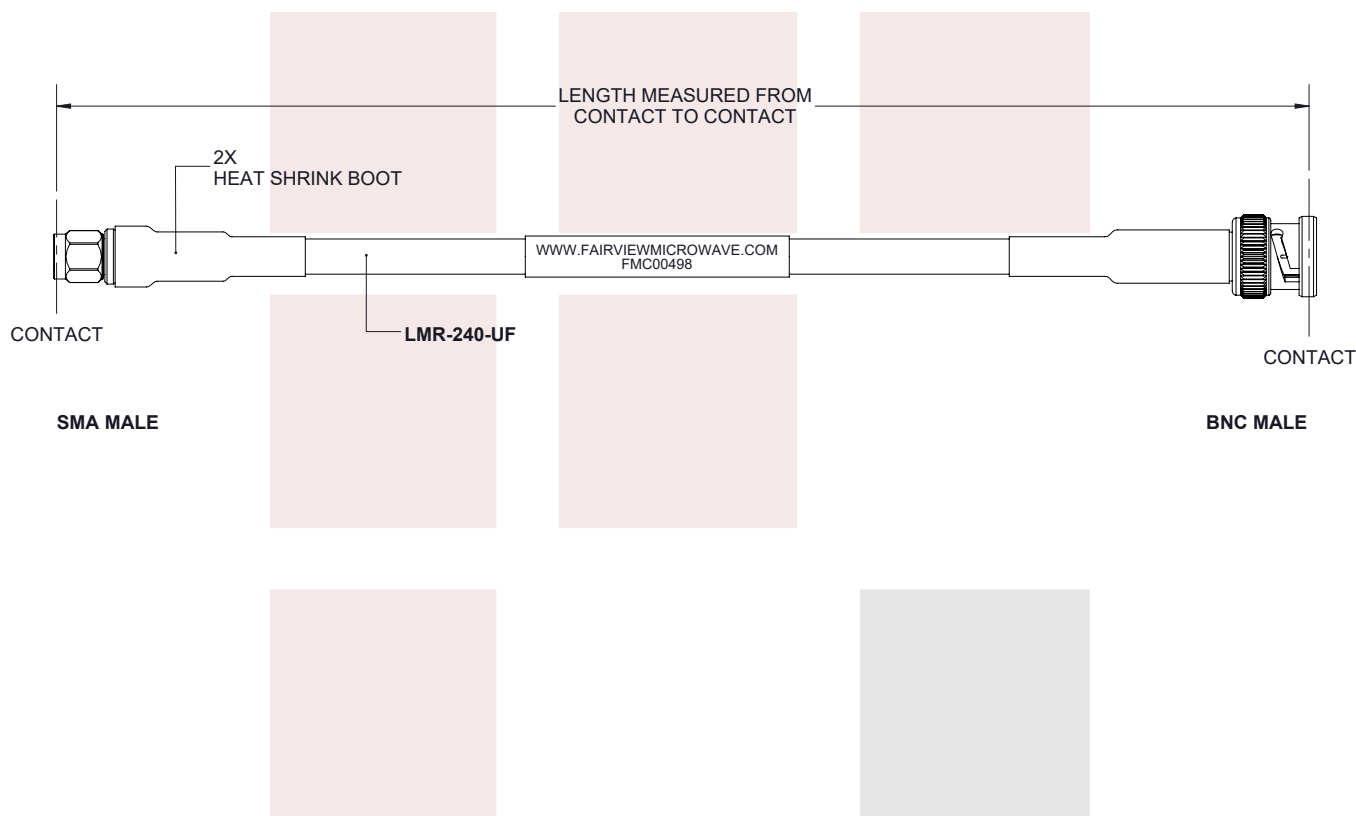
Low Loss SMA Male to BNC Male Cable LMR-240-UF Coax in 48 Inch from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Low Loss SMA Male to BNC Male Cable LMR-240-UF Coax in 48 Inch FMC00498-48](https://www.fairviewmicrowave.com/sma-male-bnc-male-cable-lmr240uf-coax-fmc00498-48-p.aspx)

URL: <https://www.fairviewmicrowave.com/sma-male-bnc-male-cable-lmr240uf-coax-fmc00498-48-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.

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 4/16/2021 | S.ELLIS  |



**NOTES:**

- 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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|---------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------|--|
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| <p>Low Loss SMA Male to BNC Male Cable LMR-240-UF<br/>Coax in 48 Inch</p> |  | <p>CABLE LENGTH (L) TOLERANCES:</p>                                                                   |  | <p>SHEET 1 OF 1</p>                                                                                                        |  |
| <p>SIZE A</p>                                                             |  | <p>CAGE CODE 3FKR5</p>                                                                                |  | <p>SCALE N/A</p>                                                                                                           |  |
| <p>DRAWN BY K.DANG</p>                                                    |  | <p>ITEM NO. FMC00498</p>                                                                              |  | <p>REV A</p>                                                                                                               |  |

T-Rev.D