

BNC Male to BNC Male Cable LMR-100 Coax in 48 Inch

The BNC male to BNC male 48 inch cable using LMR-100 coax, part number FMC00257-48, from Fairview Microwave is in-stock and ships same day. This Fairview BNC to BNC cable assembly has a male to male 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 FMC00257-48 BNC male to BNC male cable assembly operates to 5.8 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 | | 5.8 | 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] | | Ω /1000ft [Ω /Km] |
| DC Resistance Outer Conductor | | 9.5 [31.17] | | Ω /1000ft [Ω /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 (Typ.) | 0.66 | 0.86 | 1.16 | 1.79 | 2.76 | dB |

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Length* 48 in [121.92 cm]
 Diameter 0.571 in [14.5 mm]

Cable

Cable Type LMR-100A
 Impedance 50 Ohms



Configuration:

- BNC Male
- BNC Male
- LMR-100A

Features:

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

Applications:

- General Purpose
- Laboratory Use
- Antenna Installations
- Land Mobile Radio & Other Communication Systems
- Cellular & Wi-Fi Systems

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| | |
|--------------------------------------|------------------------|
| 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 | BNC Male | BNC Male |
| Specification | MIL-STD-348A | MIL-STD-348A |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material & Plating | Brass, Gold | Brass, Gold |
| Contact Plating Spec. | 50 µin minimum | 50 µin minimum |
| Dielectric Type | PTFE | PTFE |
| Body Material & Plating | Brass, Nickel | Brass, Nickel |
| Body Plating Spec. | 100 µin minimum | 100 µin minimum |
| Coupling Nut Material & Plating | Brass, Nickel | Brass, Nickel |
| Coupling Nut Plating Spec. | 100 µin minimum | 100 µin minimum |

Mechanical Specification Notes:

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

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)

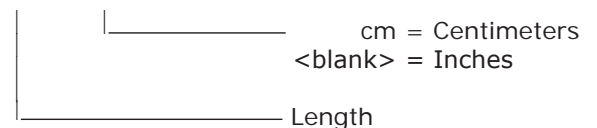
Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMC00257 - xx uu



Example: FMC00257-12 = 12 inches long cable
FMC00257-100cm = 100 cm long cable

BNC Male to BNC Male 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.

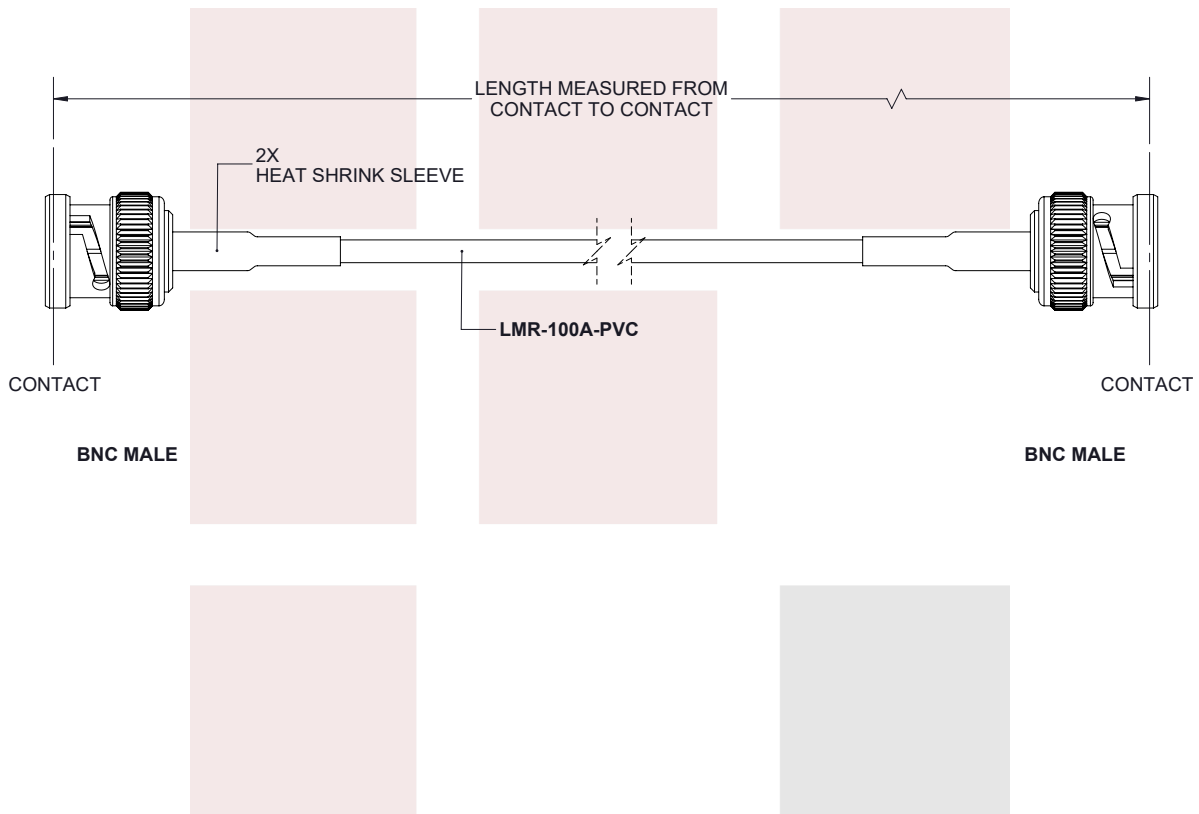
Click the following link to obtain additional part information: [BNC Male to BNC Male Cable LMR-100 Coax in 48 Inch FMC00257-48](https://www.fairviewmicrowave.com/bnc-male-bnc-male-cable-lmr100-coax-fmc00257-p.aspx)

URL: <https://www.fairviewmicrowave.com/bnc-male-bnc-male-cable-lmr100-coax-fmc00257-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 | 2/19/2020 | S.ELLIS |



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TITLE
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

| | | |
|--------------------|------------------|---|
| .X = ±.2 [5.08] | FRACTIONS ± 1/32 | L ≤ 12 [305] = +1 [25] / -0 |
| .XX = ±.02 [.51] | ANGLES ± 1° | 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 |
| .XXX = ±.005 [.13] | | 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 |
| | | 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 |
| | | 300 [7620] < L = +5%L / -0 |

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

| | | | | |
|-----------|--------------------|--------------------|----------------------|----------|
| SIZE A | CAGE CODE 3FKR5 | DRAWN BY K.DANG | ITEM NO. FMC00257 | REV A |
|-----------|--------------------|--------------------|----------------------|----------|

T-Rev.D