

Low Loss SMA Male to SMA Male Cable LMR-100 Coax

FMCA10030



Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

Applications

- General Purpose
- Laboratory Use

Description

The SMA male to SMA male cable using LMR-100 coax, part number FMCA10030, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA 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 FMCA10030 SMA male to SMA male cable assembly operates to 6 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 | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|---------------|---------|-----------------------|
| Frequency Range | DC | | 6 | 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] |
| Jacket Spark | | | 2,000 | Vrms |

Specifications by Frequency

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| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|-----------------|--------------------------|-----------------------|-------|-------|------|-------|-------|-------|--------------|
| | | Frequency | 250 | 500 | 1000 | 2500 | 6000 | MHz | |
| FMCA10030 | Custom Lengths Available | Insertion Loss (Typ.) | 0.115 | 0.165 | 0.24 | 0.398 | 0.641 | dB/ft | |
| | | | 0.38 | 0.55 | 0.79 | 1.31 | 2.11 | dB/m | |
| FMCA10030-24 | 24 Inch | Insertion Loss (Typ.) | 0.58 | 0.68 | 0.83 | 1.15 | 1.64 | dB | 0.033 |
| FMCA10030-36 | 36 Inch | Insertion Loss (Typ.) | 0.7 | 0.85 | 1.07 | 1.55 | 2.28 | dB | 0.042 |
| FMCA10030-48 | 48 Inch | Insertion Loss (Typ.) | 0.81 | 1.01 | 1.31 | 1.95 | 2.92 | dB | 0.051 |
| FMCA10030-100CM | 100 CM | Insertion Loss (Typ.) | 0.73 | 0.9 | 1.14 | 1.66 | 2.46 | dB | 0.045 |
| FMCA10030-200CM | 200 CM | Insertion Loss (Typ.) | 1.11 | 1.44 | 1.93 | 2.97 | 4.56 | dB | 0.074 |

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: 0.25 dB
 Loss due to Connector 2: 0.1 dB
 Base Weight: 0.024 pounds
 Additional Weight per Inch: 0.07833 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.024 lbs [10.89 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]

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Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------------|----------------|------------------|
| Type | SMA Male | SMA Male |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Contact Material and Plating | Brass, Gold | Brass, Gold |
| Contact Plating Specification | 50 µin minimum | 15 µin minimum |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Brass, Gold | Brass, Nickel |
| Body Plating Specification | 3 µin minimum | 200 µin minimum |
| Coupling Nut Material and Plating | Brass, Gold | Brass, Nickel |
| Coupling Nut Plating Specification | 3 µin minimum | 200 µin minimum |
| Hex Size | 5/16 in | |
| Torque | | 7 in-lbs 0.79 Nm |

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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FMCA10030



Typical Performance Data

How to Order

Part Number Configuration:

FMCA10030

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Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMCA10030-12 = 12 inches long cable
FMCA10030-100cm = 100 cm long cable

Low Loss SMA Male to SMA Male Cable LMR-100 Coax 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 Male to SMA Male Cable LMR-100 Coax FMCA10030](https://www.fairviewmicrowave.com/low-loss-sma-male-to-sma-male-cable-lmr-100-coax-fmca10030-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-sma-male-cable-lmr-100-coax-fmca10030-p.aspx>

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FMCA10030 CAD Drawing
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