

## Non-Magnetic SMA Male to RA SMP Female Cable FM-SR047CU-NM Coax



### FMCA100389

#### Configuration

- Connector 1: SMA Male
- Connector 2: SMP Female Right Angle
- Cable Type: FM-SR047CU-NM
- Coax Flex Type: Semi-Rigid

#### Features

- Max Frequency 8 GHz
- Shielding Effectivity > 165 dB
- 69.5% Phase Velocity

#### Applications

- General Purpose
- Laboratory Use

#### Description

The SMA male to RA SMP female cable using FM-SR047CU-NM coax, part number FMCA100389, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMP cable assembly has a male to female gender configuration with 50 ohm semi-rigid FM-SR047CU-NM coax. Fairview Microwave's semi-rigid RF cable assemblies are ideal for high performance applications and can be formed, using proper tooling, to the routing pattern required. The FMCA100389 SMA male to SMP female cable assembly operates to 8 GHz. The right angle SMP interface on the FM-SR047CU-NM cable allows for easier connections in tight spaces.

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      |         | 8       | GHz   |
| VSWR                    |         |         | 1.7:1   |       |
| Velocity of Propagation |         | 69.5    |         | %     |
| RF Shielding            | 165     |         |         | dB    |

#### Specifications by Frequency

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| Part Number   | Length                   | Description           | F1   | F2   | F3   | F4   | F5   | Units | Weight (lbs) |
|---------------|--------------------------|-----------------------|------|------|------|------|------|-------|--------------|
|               |                          | Frequency             | 500  | 1000 | 2000 | 4000 | 8000 | MHz   |              |
| FMCA100389    | Custom Lengths Available | Insertion Loss (Typ.) | 0.24 | 0.34 | 0.45 | 0.67 | 1    | dB/ft |              |
|               |                          |                       | 0.79 | 1.12 | 1.48 | 2.2  | 3.29 | dB/m  |              |
| FMCA100389-6  | 6 in                     | Insertion Loss (Typ.) | 0.35 | 0.4  | 0.47 | 0.6  | 0.79 | dB    | 0.104        |
| FMCA100389-9  | 9 in                     | Insertion Loss (Typ.) | 0.41 | 0.49 | 0.58 | 0.77 | 1.04 | dB    | 0.105        |
| FMCA100389-12 | 12 in                    | Insertion Loss (Typ.) | 0.47 | 0.57 | 0.7  | 0.93 | 1.29 | dB    | 0.106        |
| FMCA100389-18 | 18 in                    | Insertion Loss (Typ.) | 0.59 | 0.74 | 0.92 | 1.27 | 1.79 | dB    | 0.109        |
| FMCA100389-24 | 24 in                    | Insertion Loss (Typ.) | 0.71 | 0.91 | 1.15 | 1.6  | 2.29 | dB    | 0.111        |

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: 0.2 dB  
 Loss due to Connector 2:  $0.03 \times \sqrt{\text{FGHz}}$  dB  
 Base Weight: 0.106 pounds  
 Additional Weight per Inch: 0.00034 pounds

### Mechanical Specifications

#### Cable Assembly

Width/Diameter: 0.5 in [12.7 mm]  
 Weight: 0.106 lbs [48.08 g]

#### Cable

Cable Type: FM-SR047CU-NM  
 Impedance: 50 Ohms  
 Inner Conductor Material and Plating: Copper, Silver  
 Dielectric Type: PTFE  
 Outer Conductor 1 Material and Plating: Copper  
 One Time Minimum Bend Radius: 0.05 in [1.27 mm]

### Connectors

| Description                       | Connector 1            | Connector 2                               |
|-----------------------------------|------------------------|-------------------------------------------|
| Type                              | SMA Male               | SMP Female Right Angle                    |
| Impedance                         | 50 Ohms                | 50 Ohms                                   |
| Configuration                     | Straight               | Right Angle                               |
| Mating Cycles                     | 500                    |                                           |
| Contact Material and Plating      | Beryllium Copper, Gold | Beryllium Copper, Gold over Copper        |
| Dielectric Type                   | PTFE                   |                                           |
| Body Material and Plating         | Beryllium Copper, Gold | Bronze, Copper-Tin-Zinc Alloy over Silver |
| Coupling Nut Material and Plating | Beryllium Copper, Gold |                                           |
| Torque                            | 7 in-lbs 0.79 Nm       |                                           |

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**FMCA100389**

### Environmental Specifications

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

### Plotted and Other Data

Notes:

### Typical Performance Data

### How to Order

Part Number Configuration:

**FMCA100389 - xx uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: FMCA100389-12 = 12 inches long cable  
FMCA100389-100cm = 100 cm long cable

Non-Magnetic SMA Male to RA SMP Female Cable FM-SR047CU-NM 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: [Non-Magnetic SMA Male to RA SMP Female Cable FM-SR047CU-NM Coax FMCA100389](#)

URL: <https://www.fairviewmicrowave.com/non-magnetic-sma-male-to-ra-smp-female-cable-fm-sr047cu-nm-coax-fm-ca100389>

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FMCA100389 CAD Drawing
Non-Magnetic SMA Male to RA SMP Female Cable FM-SR047CU-NM Coax

