

## SMA Female to SMA Female Cable FM-SR086TB Coax in 48 Inch

The SMA female to SMA female 48 inch cable using FM-SR086TB coax, part number FMCA2099-48, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a female to female gender configuration with 50 ohm formable FM-SR086TB coax. Fairview Microwave's formable RF cable assemblies provide an alternative to costly pre-formed semi-rigid assemblies since they are hand formable. The FMCA2099-48 SMA female to SMA female cable assembly operates to 18 GHz.

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  |            | 18    | GHz          |
| VSWR                    |     |            | 1.4:1 |              |
| Velocity of Propagation |     | 69.5       |       | %            |
| Capacitance             |     | 29 [95.14] |       | pF/ft [pF/m] |

### Performance by Frequency

| Description           | F1  | F2   | F3   | F4   | F5   | Units |
|-----------------------|-----|------|------|------|------|-------|
| Frequency             | 1   | 2    | 4.5  | 9    | 18   | GHz   |
| Insertion Loss (Typ.) | 1.1 | 1.42 | 2.23 | 3.24 | 4.69 | 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 0.25 in [6.35 mm]

#### Cable

Cable Type FM-SR086TB  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper Clad Steel, Silver  
 Dielectric Type PTFE  
 Outer Conductor Material and Plating Tinned Copper Composite Braid



### Configuration:

- SMA Female
- SMA Female
- FM-SR086TB

### Features:

- Max Frequency 18 GHz
- 69.5% Phase Velocity
- Dimensionally and electrically the same as standard, solid outer conductor semi-rigid coax
- Cable may be formed by hand and does not require special tools to bend
- May be formed more than once without damaging the outer conductor
- High RF Shielding >100 dB
- 100% Hi-pot and continuity tested
- 100% VSWR tested to max frequency of assembly
- Standard and custom lengths ship the same day

### Applications:

- General Purpose
- Laboratory Use

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**Connectors**

| Description                | Connector 1           | Connector 2           |
|----------------------------|-----------------------|-----------------------|
| Type                       | SMA Female            | SMA Female            |
| Impedance                  | 50 Ohms               | 50 Ohms               |
| Contact Material & Plating | Gold                  | Gold                  |
| Dielectric Type            | PTFE                  | PTFE                  |
| Body Material & Plating    | Stainless Steel, Gold | Stainless Steel, Gold |

Mechanical Specification Notes:

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

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

**Plotted and Other Data**

Notes:

- Values at 25°C, sea level.

**How to Order**

Part Number Configuration:

**FMCA2099 - xx uu**

cm = Centimeters  
<blank> = Inches  
Length

Example: FMCA2099-12 = 12 inches long cable  
FMCA2099-100cm = 100 cm long cable

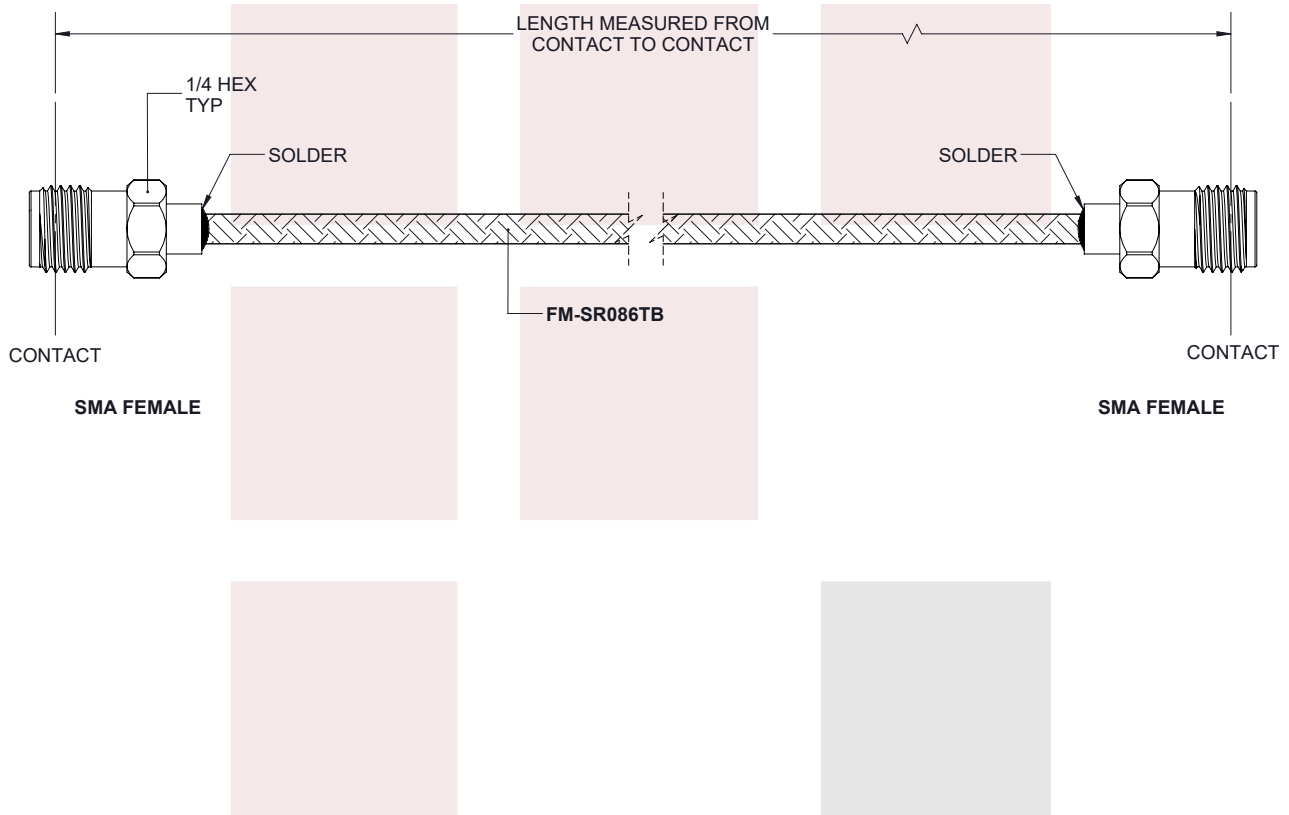
SMA Female to SMA Female Cable FM-SR086TB Coax in 48 Inch from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [SMA Female to SMA Female Cable FM-SR086TB Coax in 48 Inch FMCA2099-48](#)

URL: <https://www.fairviewmicrowave.com/sma-female-sma-female-cable-fm-sr086tb-coax-fmca2099-48-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 |
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TITLE  
SMA Female to SMA Female Cable FM-SR086TB Coax in 48 Inch

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

| TOLERANCES:          |                  | CABLE LENGTH (L) TOLERANCES:                |  |
|----------------------|------------------|---|--|
| .X = ±.2 [ .508 ]    | FRACTIONS ± 1/32 | L ≤ 12 [305] = +1 [25] / -0                 |  |
| .XX = ±.02 [ .51 ]   |                  | 12 [305] < L ≤ 60 [1524] = +2 [51] / -0     |  |
| .XXX = ±.005 [ .13 ] | ANGLES ± 1°      | 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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|           |                    |                    |                         |          |
|-----------|--------------------|--------------------|-------------------------|----------|
| SIZE<br>A | CAGE CODE<br>3FKR5 | DRAWN BY<br>K.DANG | PART NUMBER<br>FMCA2099 | REV<br>A |
|-----------|--------------------|--------------------|-------------------------|----------|

SHEET 1 OF 1  
SCALE N/A

T-Rev.D