

## RA SMA Male to SMA Female Bulkhead Cable RG405 Type .086 Coax in 12 Inch

The RA SMA male to SMA female bulkhead 12 inch cable using RG405 type .086 coax, part number FMCA2953-12, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a male to female gender configuration with 50 ohm semi-rigid FM-SR086CU-STR 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 FMCA2953-12 SMA male to SMA female cable assembly operates to 12.4 GHz. The right angle SMA interface on the FM-SR086CU-STR cable allows for easier connections in tight spaces. Our RF cable assembly with SMA bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

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   |              | 12.4  | GHz          |
| VSWR                    |      |              | 1.5:1 |              |
| Velocity of Propagation |      | 69.5         |       | %            |
| RF Shielding            | -110 |              |       | dB           |
| Capacitance             |      | 29.4 [96.46] |       | pF/ft [pF/m] |

### Performance by Frequency

| Description           | F1   | F2   | F3   | F4   | F5 | Units |
|-----------------------|------|------|------|------|----|-------|
| Frequency             | 1    | 2.5  | 5    | 12.4 |    | GHz   |
| Insertion Loss (Typ.) | 0.52 | 0.62 | 0.78 | 1.2  |    | 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 for the straight connector and 0.2 dB for the right angle connector.

### Mechanical Specifications

#### Cable Assembly

|         |                     |
|---------|---------------------|
| Length* | 12 in [304.8 mm]    |
| Weight  | 0.036 lbs [16.33 g] |

#### Cable

|                                      |                           |
|--------------------------------------|---------------------------|
| Cable Type                           | FM-SR086CU-STR            |
| Impedance                            | 50 Ohms                   |
| Inner Conductor Type                 | Solid                     |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver |



### Configuration:

- SMA Male Right Angle
- SMA Female Bulkhead
- FM-SR086CU-STR

### Features:

- Max Frequency 12.4 GHz
- Shielding Effectivity > -110 dB
- 69.5% Phase Velocity

### Applications:

- General Purpose
- Laboratory Use

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|                                      |                   |
|--------------------------------------|-------------------|
| Dielectric Type                      | PTFE              |
| Number of Shields                    | 1                 |
| Outer Conductor Material and Plating | Copper            |
| Repeated Minimum Bend Radius         | 0.05 in [1.27 mm] |

### Connectors

| Description                     | Connector 1           | Connector 2                        |
|---------------------------------|-----------------------|------------------------------------|
| Type                            | SMA Male              | SMA Female                         |
| Mount Method                    |                       | Bulkhead                           |
| Specification                   | MIL-STD-348A          |                                    |
| Impedance                       | 50 Ohms               | 50 Ohms                            |
| Contact Material & Plating      | Brass, Gold           | Beryllium Copper, Gold over Nickel |
| Contact Plating Spec.           | 50 µin minimum        |                                    |
| Dielectric Type                 | PTFE                  | PTFE                               |
| Body Material & Plating         | Stainless Steel, Gold | Brass, Gold over Nickel            |
| Body Plating Spec.              | 30 µin minimum        |                                    |
| Coupling Nut Material & Plating | Brass, Nickel         |                                    |
| Coupling Nut Plating Spec.      | 100 µin minimum       |                                    |
| Hex Size                        | 5/16 inch             |                                    |
| Torque                          | 3 in-lbs 0.34 Nm      |                                    |

### Environmental Specifications

#### Temperature

|                 |                   |
|-----------------|-------------------|
| Operating Range | -55 to +125 deg C |
|-----------------|-------------------|

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

### Plotted and Other Data

Notes:

### How to Order

Part Number Configuration:

**FMCA2953 - xx uu**

cm = Centimeters  
 <blank> = Inches  
 Length

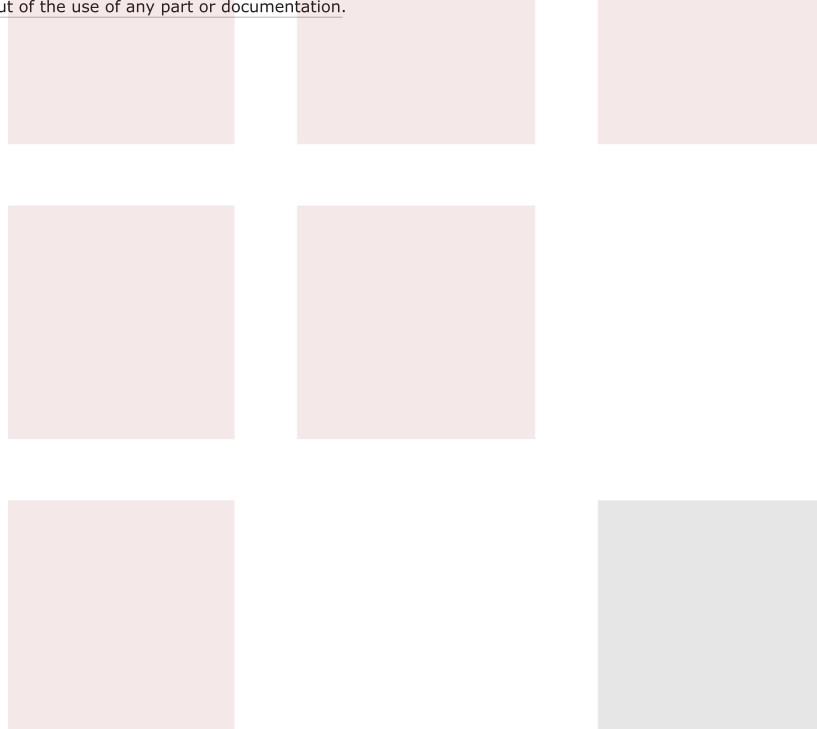
Example: FMCA2953-12 = 12 inches long cable  
 FMCA2953-100cm = 100 cm long cable

RA SMA Male to SMA Female Bulkhead Cable RG405 Type .086 Coax in 12 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.

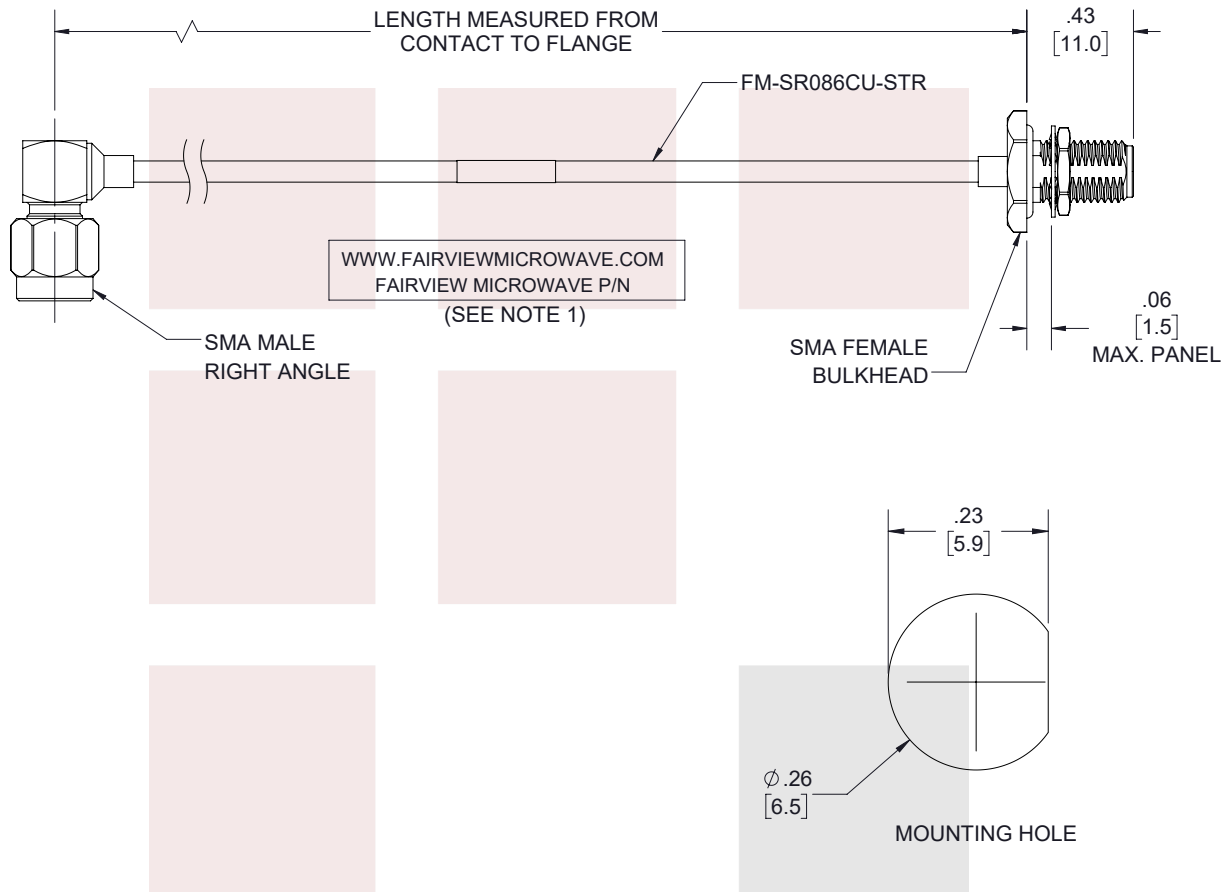
Click the following link to obtain additional part information: [RA SMA Male to SMA Female Bulkhead Cable RG405 Type .086 Coax in 12 Inch FMCA2953-12](https://www.fairviewmicrowave.com/ra-sma-male-to-sma-female-bulkhead-cable-rg405-type-.086-coax-fmca2953-12-p.aspx)

URL: <https://www.fairviewmicrowave.com/ra-sma-male-to-sma-female-bulkhead-cable-rg405-type-.086-coax-fmca2953-12-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 | 08/03/22 | AGANWANI |



**NOTES:**

1. CABLES 36" AND UNDER HAVE 1 LABEL CENTERED.  
CABLES OVER 36" HAVE 2 LABELS, ONE AT EACH END  
6.0" FROM THE FRONT OF THE CONNECTOR.

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TITLE

RA SMA Male to SMA Female Bulkhead Cable RG405  
Type .086 Coax in 12 Inch

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

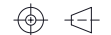
**TOLERANCES:**

.X = ±.2 [5.08] FRACTIONS  
.XX = ±.02 [.51] ± 1/32  
.XXX = ±.005 [.13] ANGLES ± 1°

**CABLE LENGTH (L) TOLERANCES:**

L ≤ 12 [305] = +1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
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 | CAGE CODE | DRAWN BY  | ITEM NO. | REV |
|------|-----------|-----------|----------|-----|
| A    | 3FKR5     | PSRINIVAS | FMCA2953 | A   |

T-Rev.D