

## RA SMA Male to RA SMA Male Cable RG402 Type .141 Coax in 48 Inch

The RA SMA male to RA SMA male 48 inch cable using RG402 type .141 coax, part number FMCA2820-48, 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 semi-rigid FM-SR141CU-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 FMCA2820-48 SMA male to SMA male cable assembly operates to 12.4 GHz. The right angle SMA interfaces on the FM-SR141CU-STR cable allow 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                          | Min | Typ         | Max   | Units        |
|--------------------------------------|-----|-------------|-------|--------------|
| Frequency Range                      | DC  |             | 12.4  | GHz          |
| VSWR                                 |     |             | 1.5:1 |              |
| Capacitance                          |     | 29.9 [98.1] |       | pF/ft [pF/m] |
| Dielectric Withstanding Voltage (AC) |     |             | 1,000 | Vrms         |

### Performance by Frequency

| Description           | F1   | F2  | F3   | F4   | F5 | Units |
|-----------------------|------|-----|------|------|----|-------|
| Frequency             | 1    | 2.5 | 5    | 12.4 |    | GHz   |
| Insertion Loss (Typ.) | 0.88 | 1.1 | 1.47 | 2.44 |    | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.2 dB per connector.

### Mechanical Specifications

#### Cable Assembly

|         |                     |
|---------|---------------------|
| Length* | 48 in [121.92 cm]   |
| Weight  | 0.158 lbs [71.67 g] |

#### Cable

|                                      |                           |
|--------------------------------------|---------------------------|
| Cable Type                           | FM-SR141CU-STR            |
| Impedance                            | 50 Ohms                   |
| Inner Conductor Type                 | Solid                     |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver |
| Dielectric Type                      | PTFE                      |
| Number of Shields                    | 1                         |
| Shield Layer 1                       | Copper                    |



### Configuration:

- SMA Male Right Angle
- SMA Male Right Angle
- FM-SR141CU-STR

### Features:

- Max Frequency 12.4 GHz

### Applications:

- General Purpose
- Laboratory Use

Fairview Microwave  
301 Leora Ln., Suite 100  
Lewisville, TX 75056  
Tel: 1-800-715-4396 / (972) 649-6678  
Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

## Connectors

| Description                     | Connector 1           | Connector 2           |
|---------------------------------|-----------------------|-----------------------|
| Type                            | SMA Male              | SMA Male              |
| Specification                   | MIL-STD-348A          | MIL-STD-348A          |
| Impedance                       | 50 Ohms               | 50 Ohms               |
| Contact Material & Plating      | Brass, Gold           | Brass, Gold           |
| Contact Plating Spec.           | 50μ in. minimum       | 50μ in. minimum       |
| Dielectric Type                 | Teflon                | Teflon                |
| Body Material & Plating         | Stainless Steel, Gold | Stainless Steel, Gold |
| Body Plating Spec.              | 30μ in. minimum       | 30μ in. minimum       |
| Coupling Nut Material & Plating | Brass, Nickel         | Brass, Nickel         |
| Coupling Nut Plating Spec.      | 100μ in. minimum      | 100μ in. minimum      |
| Hex Size                        | 5/16 in               | 5/16 in               |
| Torque                          | 5 in-lbs 0.57 Nm      | 5 in-lbs 0.57 Nm      |

**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:

**FMCA2820 - xx uu**

cm = Centimeters  
<blank> = Inches

Length

Example: FMCA2820-12 = 12 inches long cable  
FMCA2820-100cm = 100 cm long cable

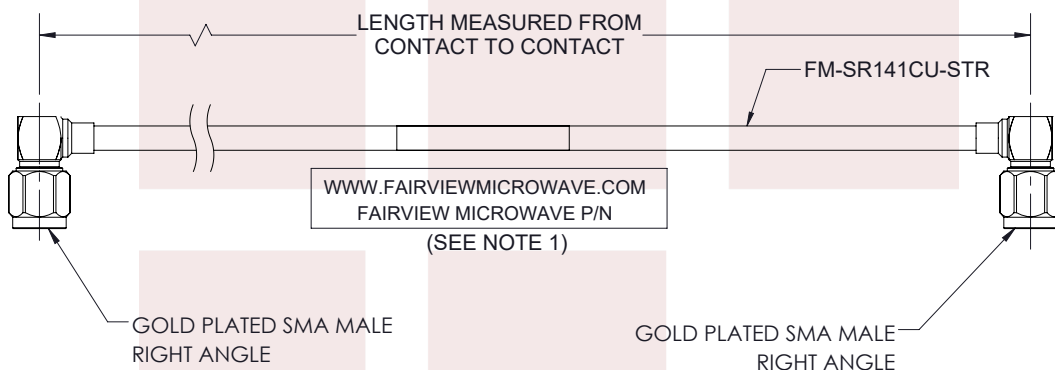
RA SMA Male to RA SMA Male Cable RG402 Type .141 Coax in 48 Inch from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [RA SMA Male to RA SMA Male Cable RG402 Type .141 Coax in 48 Inch FMCA2820-48](#)

URL: <https://www.fairviewmicrowave.com/ra-sma-male-to-ra-sma-male-cable-rg402-type-.141-coax-fmca2820-48-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 |
| A         | INITIAL RELEASE | 07/12/2022 | 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 RA SMA Male Cable RG402 Type .141  
Coax in 48 Inch

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

TOLERANCES:

.X = ±.2 [ .51] 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

SCALE

N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

| SIZE | CAGE CODE | DRAWN BY  | ITEM NO. | REV |
|------|-----------|-----------|----------|-----|
| A    | 3FKR5     | PSRINIVAS | FMCA2820 | A   |

T-Rev.D