

## MMCX Plug to SMA Male Cable RG405 Type .086 Coax in 12 Inch

The MMCX plug to SMA male 12 inch cable using RG405 type .086 coax, part number FMCA2972-12, from Fairview Microwave is in-stock and ships same day. This Fairview MMCX to SMA cable assembly has a plug to male 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 FMCA2972-12 MMCX plug to SMA male cable assembly operates to 6 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   |              | 6     | 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             | 0.25 | 0.5  | 1    | 2.5  | 6    | GHz   |
| Insertion Loss (Typ.) | 0.26 | 0.31 | 0.42 | 0.52 | 0.75 | 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 0.1 dB per connector.

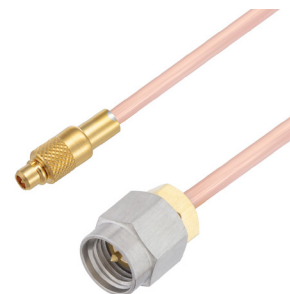
### Mechanical Specifications

#### Cable Assembly

|         |                     |
|---------|---------------------|
| Length* | 12 in [304.8 mm]    |
| Weight  | 0.024 lbs [10.89 g] |

#### Cable

|                                      |                           |
|--------------------------------------|---------------------------|
| Cable Type                           | FM-SR086CU-STR            |
| Impedance                            | 50 Ohms                   |
| Inner Conductor Type                 | Solid                     |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver |
| Dielectric Type                      | PTFE                      |
| Number of Shields                    | 1                         |
| Outer Conductor Material and Plating | Copper                    |
| Repeated Minimum Bend Radius         | 0.05 in [1.27 mm]         |



### Configuration:

- MMCX Plug
- SMA Male
- FM-SR086CU-STR

### Features:

- Max Frequency 6 GHz
- Shielding Effectivity > -110 dB
- 69.5% Phase Velocity

### Applications:

- General Purpose
- Laboratory Use

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## Connectors

| Description                     | Connector 1                | Connector 2             |
|---------------------------------|----------------------------|-------------------------|
| Type                            | MMCX Plug                  | SMA Male                |
| Impedance                       | 50 Ohms                    | 50 Ohms                 |
| Contact Material & Plating      | Brass, Gold                | Brass, Gold over Nickel |
| Dielectric Type                 | PTFE                       | PTFE                    |
| Body Material & Plating         | Brass, Gold                | Brass, Gold over Nickel |
| Coupling Nut Material & Plating | Passivated Stainless Steel |                         |
| Hex Size                        | 5/16 inch                  |                         |
| Torque                          | 8 in-lbs 0.9 Nm            |                         |

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

## Plotted and Other Data

Notes:

## How to Order

Part Number Configuration:

**FMCA2972 - xx uu**

cm = Centimeters  
 <blank> = Inches

Length

Example: FMCA2972-12 = 12 inches long cable  
 FMCA2972-100cm = 100 cm long cable

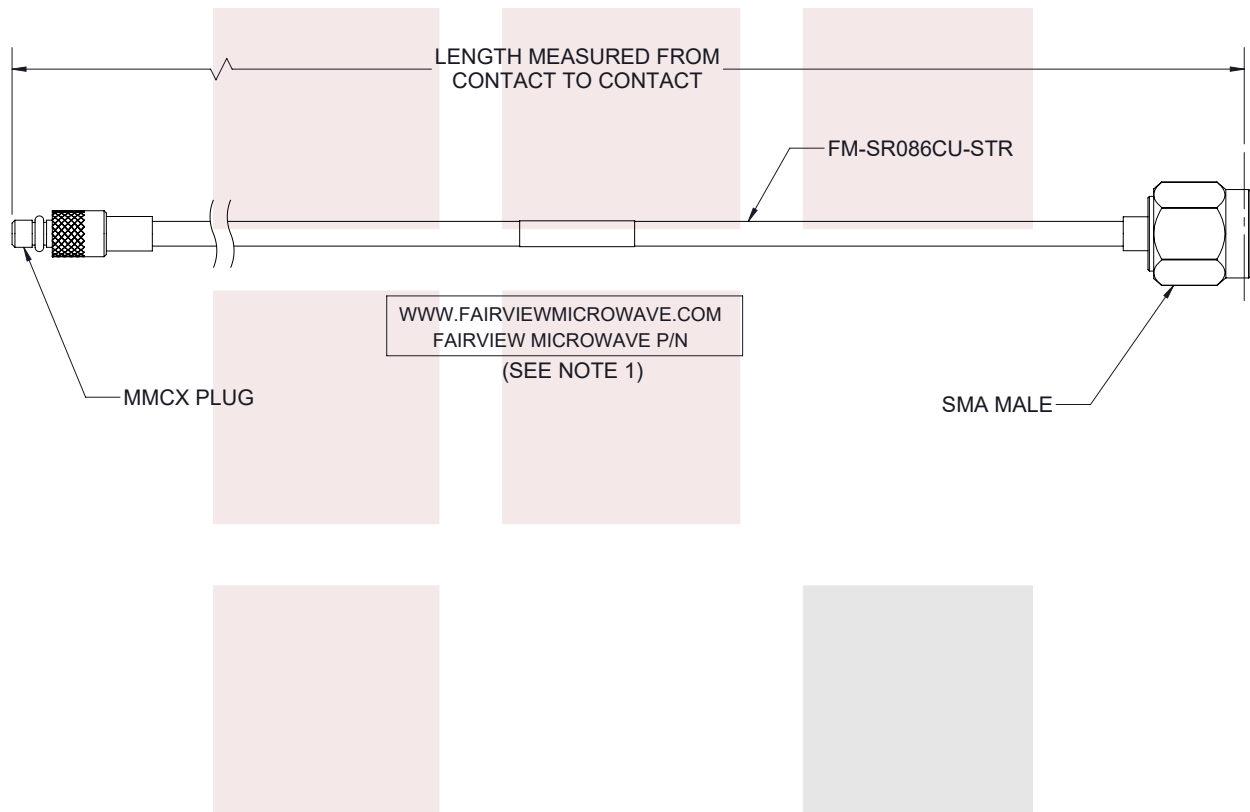
MMCX Plug to SMA Male Cable RG405 Type .086 Coax in 12 Inch from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [MMCX Plug to SMA Male Cable RG405 Type .086 Coax in 12 Inch FMCA2972-12](#)

URL: <https://www.fairviewmicrowave.com/mmcx-plug-to-sma-male-cable-rg405-type-.086-coax-fmca2972-12-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 | 07/25/2022 | 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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| <div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>Fairview Microwave</div><div><div></div><div>an INFINITe brand</div></div></div> |                 | <div>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES<br/>DIMENSIONS IN [ ] ARE MILLIMETERS</div> <div><div>TOLERANCES:</div><div>CABLE LENGTH (L) TOLERANCES:</div><div><div>.X = ±.2 [ .508]   FRACTIONS   L ≤ 12 [305] = +1 [25] / -0</div><div>.XX = ±.02 [ .51]   ± 1/32   12 [305] &lt; L ≤ 60 [1524] = +2 [51] / -0</div><div>.XXX = ±.005 [ .13]   ANGLES ± 1°   60 [1524] &lt; L ≤ 120 [3048] = +4 [102] / -0</div><div>120 [3048] &lt; L ≤ 300 [7620] = +6 [152] / -0</div><div>300 [7620] &lt; L = +5%L / -0</div></div></div> |                   |              |  | <div>THIRD-ANGLE PROJECTION</div> <div></div> <div>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.</div> |  |
| TITLE                                                                                                                                                                                                               |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |              |  |                                                                                                                                                                                                                                                                   |  |
| MMCX Plug to SMA Male Cable RG405 Type .086 Coax in 12 Inch                                                                                                                                                         |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |              |  |                                                                                                                                                                                                                                                                   |  |
|                                                                                                                                                                                                                     |                 | ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   | SHEET 1 OF 1 |  |                                                                                                                                                                                                                                                                   |  |
|                                                                                                                                                                                                                     |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   | SCALE N/A    |  |                                                                                                                                                                                                                                                                   |  |
| SIZE A                                                                                                                                                                                                              | CAGE CODE 3FKR5 | DRAWN BY PSRINIVAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ITEM NO. FMCA2972 | REV A        |  |                                                                                                                                                                                                                                                                   |  |

T-Rev.D