

## Snap-On RA MMBX Plug to SMA Male Cable RG316-DS Coax in 6 Inch

Fairview Microwave's MMBX cable assemblies are part of our full line of RF interconnects available for same-day shipping. These MMBX cable assemblies are designed for test applications or connection of your MMBX system components. With a high frequency range up to 3 GHz, this family of MMBX cables can also be used to connect your panels to PCB's with between series options like MMBX-to-SMA, MMBX-to-N or MMBX-to-TNC assemblies. There are hundreds of possible cable assembly configurations to choose from, all available same day.

This MMBX cable assembly datasheet PDF contains specifications, CAD drawing and dimensions that are shown below. Fairview Microwave not only has many MMBX cable assembly options, but also a wide selection of RF, microwave and millimeter wave cable assemblies which allows RF designers to customize their configurations to whatever is required. Whether the need is to provide an I/O for a board design or simply create a custom cable assembly configuration, Fairview Microwave has the right cable assemblies for the job. Fairview can also expertly build your custom RF cable assemblies for you and ship same day.

### Electrical Specifications

| Description             | Min | Typ          | Max   | Units        |
|-------------------------|-----|--------------|-------|--------------|
| Frequency Range         | DC  |              | 3     | GHz          |
| VSWR                    |     |              | 1.4:1 |              |
| Return Loss             |     | -15.56       |       | dB           |
| Insertion Loss          |     |              | 0.44  | dB           |
| Velocity of Propagation |     | 70           |       | %            |
| Capacitance             |     | 29.4 [96.46] |       | pF/ft [pF/m] |

### Performance by Frequency

| Description           | F1   | F2   | F3  | F4   | F5   | Units |
|-----------------------|------|------|-----|------|------|-------|
| Frequency             | 0.1  | 0.25 | 0.5 | 1    | 3    | GHz   |
| Insertion Loss (Max.) | 0.24 | 0.27 | 0.3 | 0.34 | 0.44 | dB    |

### Mechanical Specifications

#### Cable Assembly

|          |                 |
|----------|-----------------|
| Length*  | 6 in [152.4 mm] |
| Diameter | 0.315 in [8 mm] |

#### Cable

|                                      |                            |
|--------------------------------------|----------------------------|
| Cable Type                           | RG316-DS                   |
| Impedance                            | 50 Ohms                    |
| Inner Conductor Type                 | Stranded                   |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver  |
| Dielectric Type                      | PTFE                       |
| Number of Shields                    | 2                          |
| Shield Layer 1                       | Silver Plated Copper Braid |
| Shield Layer 2                       | Silver Plated Copper Braid |
| Jacket Material                      | FEP, Tan                   |



### Configuration:

- Snap-On MMBX Plug Right Angle
- SMA Male
- RG316-DS

### Features:

- Max Frequency 3 GHz
- 70% Phase Velocity
- Double Shielded
- FEP Jacket
- Snap-On mating
- Low Profile Right Angle Configurations
- SMA Bulkhead, N Bulkhead and TNC Bulkhead Between-Series Configurations

### Applications:

- General Purpose
- Laboratory Use
- PCB Testing
- Low Profile MMBX Cable Jumpers
- PCB-to-Panel Connection

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Jacket Diameter 0.114 in [2.9 mm]  
Repeated Minimum Bend Radius 0.6 in [15.24 mm]

**Connectors**

| Description                     | Connector 1            | Connector 2      |
|---------------------------------|------------------------|------------------|
| Type                            | MMBX Plug              | SMA Male         |
| Specification                   |                        | MIL-STD-348A     |
| Impedance                       | 50 Ohms                | 50 Ohms          |
| Connection Method               | Snap-On                |                  |
| Mating Cycles                   | 100                    |                  |
| Contact Material & Plating      | Beryllium Copper, Gold | Brass, Gold      |
| Contact Plating Spec.           |                        | 30 µin minimum   |
| Dielectric Type                 | PTFE                   | PTFE             |
| Outer Cond Material & Plating   | Brass, Gold            |                  |
| Body Material & Plating         | Brass, Gold            | Brass, Nickel    |
| Body Plating Spec.              |                        | 100 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 +155 deg C

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

**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMCA1454 - xx uu**

cm = Centimeters  
<blank> = Inches

Length

Example: FMCA1454-12 = 12 inches long cable  
FMCA1454-100cm = 100 cm long cable

Snap-On RA MMBX Plug to SMA Male Cable RG316-DS Coax in 6 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.

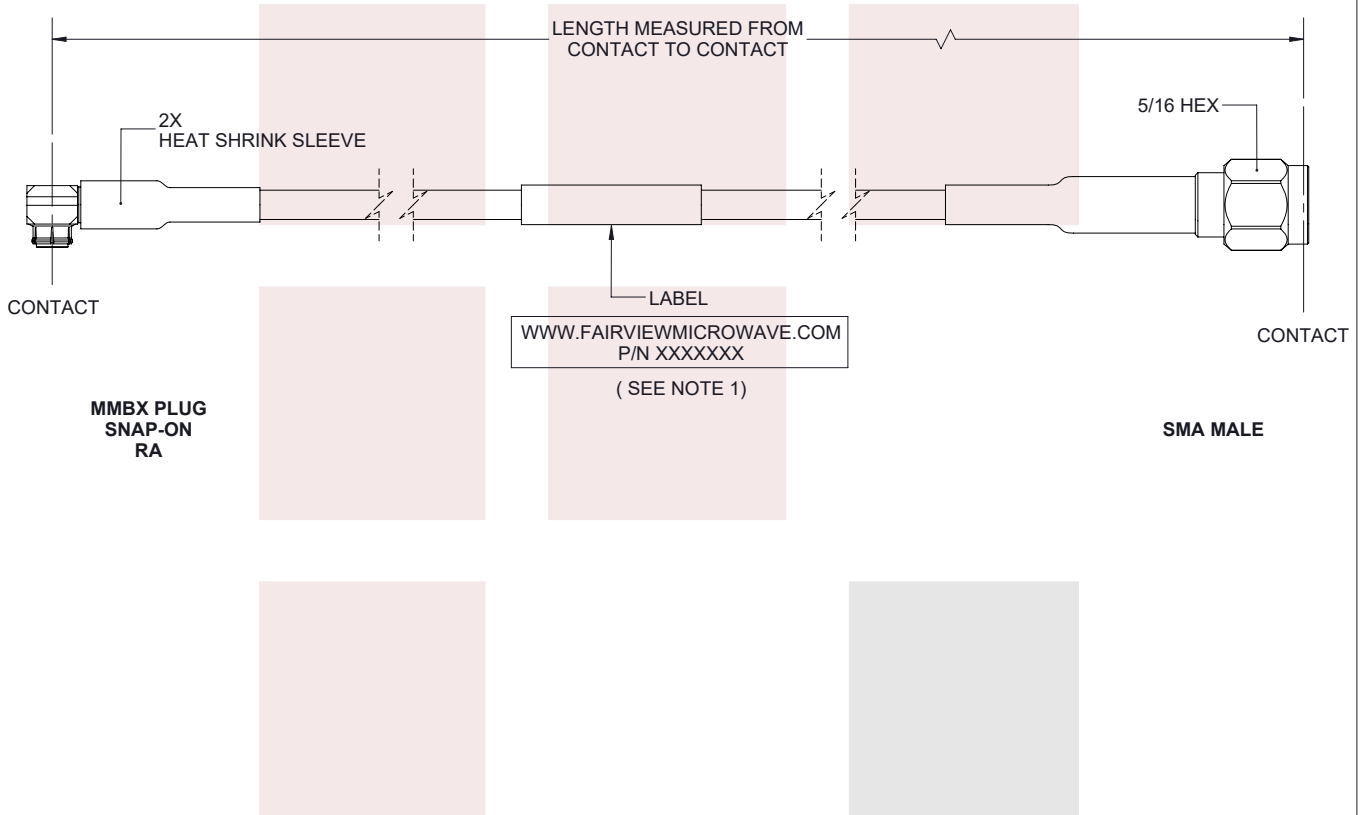
Click the following link to obtain additional part information: [Snap-On RA MMBX Plug to SMA Male Cable RG316-DS Coax in 6 Inch FMCA1454-6](#)

URL: <https://www.fairviewmicrowave.com/ra-mmbx-plug-sma-male-cable-rg316-coax-fmca1454-6-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 | 5/8/2020 | S.ELLIS  |



**NOTES:**

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

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TITLE  
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Coax in 6 Inch

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

| TOLERANCES:           |                  | CABLE LENGTH (L) TOLERANCES:                      |  |
|-----------------------|------------------|---|--|
| X = ± 2 [ .08 ]       | FRACTIONS ± 1/32 | L ≤ 12 [ 305 ] = +1 [ 25 ] / -0                   |  |
| .XX = ± .02 [ .51 ]   | ANGLES ± 1°      | 12 [ 305 ] < L ≤ 60 [ 1524 ] = +2 [ 51 ] / -0     |  |
| .XXX = ± .005 [ .13 ] |                  | 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<br>A | CAGE CODE<br>3FKR5 | DRAWN BY<br>K.DANG | ITEM NO.<br>FMCA1454 | REV<br>A |
|-----------|--------------------|--------------------|----------------------|----------|

T-Rev.D