

## Low Loss SMA Male to BNC Female Cable RG-316 Coax in 50 CM

The SMA male to BNC female 50 cm cable using RG-316 coax, part number FMC00280-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to BNC cable assembly has a male to female gender configuration with 50 ohm flexible RG316 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00280-50CM SMA male to BNC female cable assembly operates to 3 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  |              | 3     | GHz          |
| VSWR                    |     |              | 1.4:1 |              |
| Velocity of Propagation |     | 69           |       | %            |
| Capacitance             |     | 29.4 [96.46] |       | pF/ft [pF/m] |
| Operating Voltage (AC)  |     |              | 335   | Vrms         |
| Jacket Spark            |     |              | 2,000 | Vrms         |

### Performance by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.1  | 0.25 | 0.5  | 1    | 3    | GHz   |
| Insertion Loss (Typ.) | 0.38 | 0.46 | 0.59 | 0.82 | 1.15 | 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*  | 19.68 in [499.87 mm] |
| Diameter | 0.453 in [11.51 mm]  |

#### Cable

|                                      |                            |
|--------------------------------------|----------------------------|
| Cable Type                           | RG316                      |
| Impedance                            | 50 Ohms                    |
| Inner Conductor Type                 | Stranded                   |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver  |
| Dielectric Type                      | PTFE                       |
| Number of Shields                    | 1                          |
| Shield Layer 1                       | Silver Plated Copper Braid |
| Jacket Material                      | FEP, Tan                   |
| Jacket Diameter                      | 0.102 in [2.59 mm]         |



### Configuration:

- SMA Male
- BNC Female
- RG316

### Features:

- Max Frequency 3 GHz
- 69% Phase Velocity
- FEP Jacket

### Applications:

- General Purpose
- Laboratory Use

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## Connectors

| Description                     | Connector 1      | Connector 2     |
|---------------------------------|------------------|-----------------|
| Type                            | SMA Male         | BNC Female      |
| Specification                   | MIL-STD-348A     | MIL-STD-348A    |
| Impedance                       | 50 Ohms          | 50 Ohms         |
| Contact Material & Plating      | Brass, Gold      | Brass, Gold     |
| Contact Plating Spec.           | 50 µin minimum   | 30 µin minimum  |
| Dielectric Type                 | PTFE             | PTFE            |
| Body Material & Plating         | Brass, Nickel    | Brass, Nickel   |
| Body Plating Spec.              | 100 µin minimum  | 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 +200 deg C

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

## Plotted and Other Data

Notes:

## How to Order

Part Number Configuration:

**FMC00280 - xx uu**

cm = Centimeters  
 <blank> = Inches

Length

Example: FMC00280-12 = 12 inches long cable  
 FMC00280-100cm = 100 cm long cable

Low Loss SMA Male to BNC Female Cable RG-316 Coax in 50 CM 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.

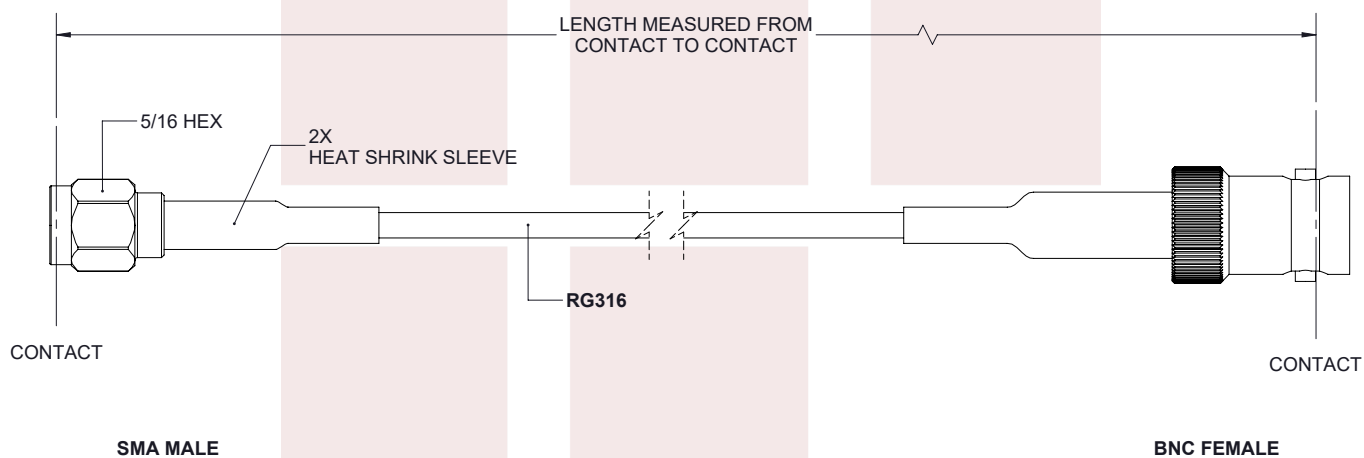
Click the following link to obtain additional part information: [Low Loss SMA Male to BNC Female Cable RG-316 Coax in 50 CM FMC00280-50CM](#)

URL: <https://www.fairviewmicrowave.com/sma-male-bnc-female-cable-rg316-coax-fmc00280-50cm-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 | 2/25/2020 | S.ELLIS  |



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|                                                                                    |                 |                                                                                                                                |                   |                                                                                                                                                                                                                                                              |  |
|------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p><b>Fairview Microwave</b><br/>an INFINITI® brand</p>                            |                 | <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES<br/>DIMENSIONS IN [ ] ARE MILLIMETERS</p>                          |                   | <p>THIRD-ANGLE PROJECTION</p>                                                                                                                                                                                                                                |  |
| <p>TITLE</p> <p>Low Loss SMA Male to BNC Female Cable RG-316<br/>Coax in 50 CM</p> |                 | <p>TOLERANCES:</p> <p>.X = ±.2 [ .51 ] FRACTIONS ± 1/32<br/>.XX = ±.02 [ .51 ] ± 1/32<br/>.XXX = ±.005 [ .13 ] ANGLES ± 1°</p> |                   | <p>CABLE LENGTH (L) TOLERANCES:</p> <p>L ≤ 12 [305] = +1 [25] / -0<br/>12 [305] &lt; L ≤ 60 [1524] = +2 [51] / -0<br/>60 [1524] &lt; L ≤ 120 [3048] = +4 [102] / -0<br/>120 [3048] &lt; L ≤ 300 [7620] = +6 [152] / -0<br/>300 [7620] &lt; L = +5%L / -0</p> |  |
| <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>                                |                 | <p>SHEET 1 OF 1</p>                                                                                                            |                   | <p>SCALE N/A</p>                                                                                                                                                                                                                                             |  |
| SIZE A                                                                             | CAGE CODE 3FKR5 | DRAWN BY K.DANG                                                                                                                | ITEM NO. FMC00280 | REV A                                                                                                                                                                                                                                                        |  |

T-Rev.D