

## 10-32 Male to SMC Plug Cable RG-316 Coax in 48 inch length

The 10-32 male to SMC plug 48 inch cable using RG-316 coax, part number FMC1018315-48, from Fairview Microwave is in-stock and ships same day. This Fairview 10-32 to SMC cable assembly has a male to plug gender configuration with 50 ohm flexible RG-316 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC1018315-48 10-32 male to SMC plug cable assembly operates to 2 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  |              | 2     | GHz             |
| VSWR                                 |     |              | 1.5:1 |                 |
| Velocity of Propagation              |     | 70           |       | %               |
| Capacitance                          |     | 32 [104.99]  |       | pF/ft [pF/m]    |
| DC Resistance Inner Conductor        |     | 8.41 [27.59] |       | Ω/1000ft [Ω/Km] |
| Operating Voltage (AC)               |     |              | 1,200 | Vrms            |
| Dielectric Withstanding Voltage (AC) |     |              | 2,000 | Vrms            |
| Jacket Spark                         |     |              | 2,000 | Vrms            |

### Performance by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.05 | 0.1  | 0.25 | 0.5  | 2    | GHz   |
| Insertion Loss (Typ.) | 0.35 | 0.51 | 0.74 | 1.28 | 2.21 | 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\*SQRT(FGHz) dB per connector.

### Mechanical Specifications

#### Cable Assembly

|         |                   |
|---------|-------------------|
| Length* | 48 in [121.92 cm] |
| Weight  | 0.015 lbs [6.8 g] |

#### Cable

|                                      |                           |
|--------------------------------------|---------------------------|
| Cable Type                           | RG-316                    |
| Impedance                            | 50 Ohms                   |
| Inner Conductor Type                 | Solid                     |
| Inner Conductor Material and Plating | Copper, Silver            |
| Dielectric Type                      | PTFE                      |
| Number of Shields                    | 1                         |
| Shield Layer 1                       | Silver Plated Copper Tape |



### Configuration:

- 10-32 Male
- SMC Plug
- RG-316

### Features:

- Max Frequency 2 GHz
- 70% Phase Velocity
- FEP Jacket

### Applications:

- General Purpose
- Laboratory Use

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Shield Layer 2  
 Jacket Material  
 Jacket Diameter

Silver Plated Copper Braid  
 FEP, Black  
 0.098 in [2.49 mm]

## Connectors

| Description                | Connector 1   | Connector 2            |
|----------------------------|---------------|------------------------|
| Type                       | 10-32 Male    | SMC Plug               |
| Impedance                  | 50 Ohms       | 50 Ohms                |
| Contact Material & Plating | Brass, Gold   | Beryllium Copper, Gold |
| Contact Plating Spec.      | MIL-G-45204   | 50μ in. minimum        |
| Dielectric Type            | Teflon        | Teflon                 |
| Body Material & Plating    | Brass, Nickel | Brass, Gold            |
| Body Plating Spec.         |               | 3μ in. minimum         |
| Hex Size                   |               | 1/4 inch               |

## 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:

**FMC1018315 - xx uu**

cm = Centimeters  
 <blank> = Inches  
 Length

Example: FMC1018315-12 = 12 inches long cable  
 FMC1018315-100cm = 100 cm long cable

10-32 Male to SMC Plug Cable RG-316 Coax in 48 inch length 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.

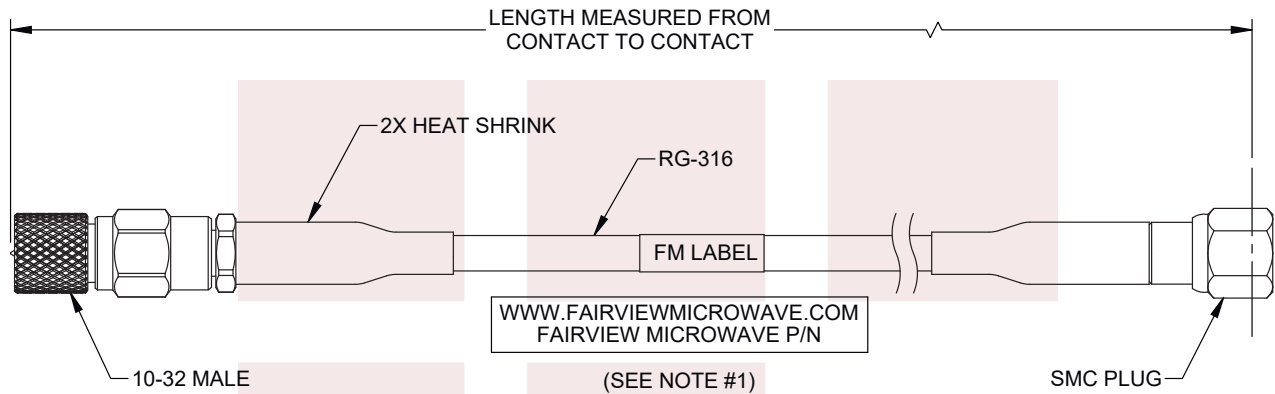
Click the following link to obtain additional part information: [10-32 Male to SMC Plug Cable RG-316 Coax in 48 inch length FMC1018315-48](https://www.fairviewmicrowave.com/10-32-male-to-smc-plug-cable-rg-316-coax-in-48-inch-fmc1018315-48-p.aspx)

URL: <https://www.fairviewmicrowave.com/10-32-male-to-smc-plug-cable-rg-316-coax-in-48-inch-fmc1018315-48-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 | 11/11/2021 | SRAUTUS  |



- 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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|                                                                   |  |                                                                                                       |  |                                                                                                                            |  |
|-------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------|--|
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| <p>TITLE</p>                                                      |  | <p>TOLERANCES:</p>                                                                                    |  | <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.</p> |  |
| <p>10-32 Male to SMC Plug Cable RG-316 Coax in 48 inch length</p> |  | <p>CABLE LENGTH (L) TOLERANCES:</p>                                                                   |  | <p>SHEET 1 OF 1</p>                                                                                                        |  |
| <p>SIZE A</p>                                                     |  | <p>CAGE CODE 3FKR5</p>                                                                                |  | <p>SCALE N/A</p>                                                                                                           |  |
| <p>DRAWN BY DMAY</p>                                              |  | <p>ITEM NO. FMC1018315</p>                                                                            |  | <p>REV A</p>                                                                                                               |  |

T-Rev.D