

SMA Male to TNC Female Cable RG-316 Coax



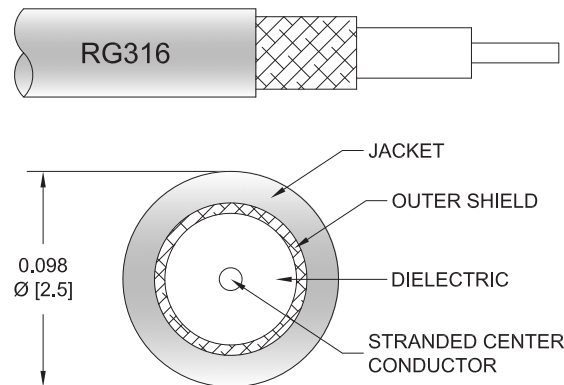
FMCA10073

Configuration

- Connector 1: SMA Male
- Connector 2: TNC Female
- Cable Type: RG-316
- Coax Flex Type: Flexible

Features

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



Applications

- General Purpose
- Laboratory Use

Description

The SMA male to TNC female cable using RG-316 coax, part number FMCA10073, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC cable assembly has a male to female 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 FMCA10073 SMA male to TNC 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 | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|--------------|---------|-----------------------|
| Frequency Range | DC | | 3 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 69 | | % |
| Capacitance | | 29.4 [96.46] | | pF/ft [pF/m] |
| DC Resistance Inner Conductor | | 8.41 [27.59] | | Ohms/1000ft [Ohms/Km] |
| Jacket Spark | | | 2,000 | Vrms |

Specifications by Frequency

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| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|--------------|--------------------------|-----------------------|-----------|------|------|------|------|-------|--------------|
| | | | Frequency | 100 | 250 | 500 | 1000 | 3000 | |
| FMCA10073 | Custom Lengths Available | Insertion Loss (Typ.) | 0.11 | 0.16 | 0.24 | 0.38 | 0.58 | dB/ft | |
| | | | 0.37 | 0.53 | 0.79 | 1.25 | 1.91 | dB/m | |
| FMCA10073-12 | 12 Inch | Insertion Loss (Typ.) | 0.46 | 0.51 | 0.59 | 0.73 | 0.93 | dB | 0.03 |
| FMCA10073-24 | 24 Inch | Insertion Loss (Typ.) | 0.57 | 0.67 | 0.83 | 1.11 | 1.51 | dB | 0.04 |
| FMCA10073-36 | 36 Inch | Insertion Loss (Typ.) | 0.68 | 0.83 | 1.07 | 1.49 | 2.09 | dB | 0.05 |
| FMCA10073-48 | 48 Inch | Insertion Loss (Typ.) | 0.79 | 0.99 | 1.31 | 1.87 | 2.67 | dB | 0.06 |
| FMCA10073-72 | 72 Inch | Insertion Loss (Typ.) | 1.01 | 1.31 | 1.78 | 2.63 | 3.83 | dB | 0.08 |

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1: 0.25 dB
 Loss due to Connector 2: 0.1 dB
 Base Weight: 0.03 pounds
 Additional Weight per Inch: 0.32917 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.03 lbs [13.61 g]

Cable

Cable Type RG-316
 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]

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Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------------|-----------------|-----------------|
| Type | SMA Male | TNC Female |
| Specification | | MIL-STD-348 |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Contact Material and Plating | Brass, Gold | Brass, Gold |
| Contact Plating Specification | 15 µin minimum | 30 µin minimum |
| Dielectric Type | PTFE | PTFE |
| Outer Conductor Material and Plating | | Brass, Nickel |
| Outer Conductor Plating Specification | | 100 µin minimum |
| Body Material and Plating | Brass, Nickel | Brass, Nickel |
| Body Plating Specification | 200 µin minimum | 100 µin minimum |
| Coupling Nut Material and Plating | Brass, Nickel | |
| Coupling Nut Plating Specification | 200 µin minimum | |

Environmental Specifications

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

Plotted and Other Data

Notes:

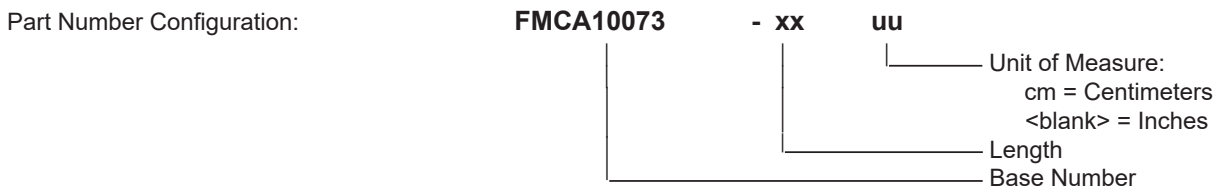
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Typical Performance Data

How to Order



Example: FMCA10073-12 = 12 inches long cable
FMCA10073-100cm = 100 cm long cable

SMA Male to TNC Female Cable RG-316 Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

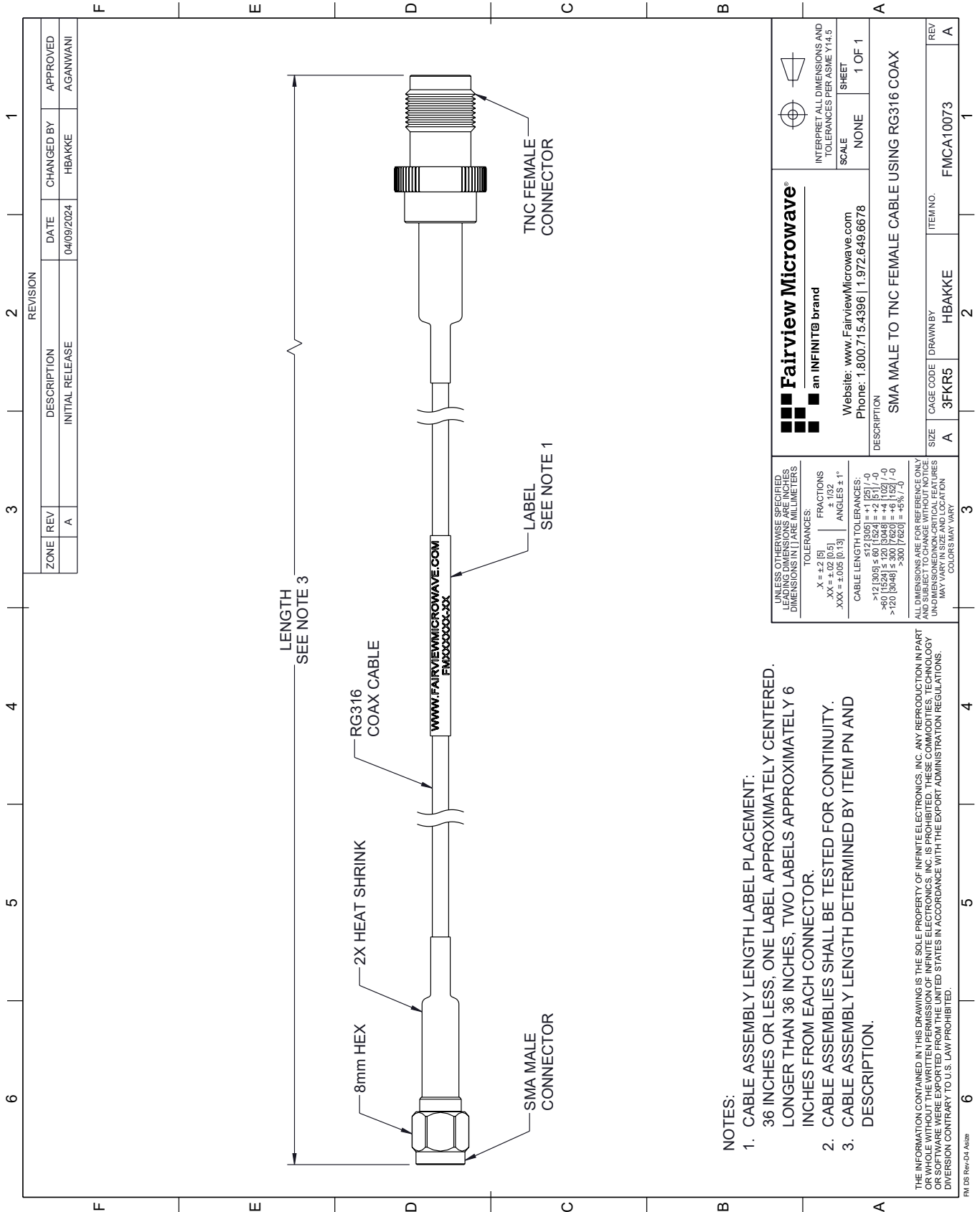
For additional information on this product, please click the following link: [SMA Male to TNC Female Cable RG-316 Coax FMCA10073](#)

URL: <https://www.fairviewmicrowave.com/sma-male-to-tnc-female-cable-rg-316-coax-fmca10073-p.aspx>

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FMCA10073 CAD Drawing

SMA Male to TNC Female Cable RG-316 Coax



| REVISION | | DATE | CHANGED BY | APPROVED |
|-----------------|-----|------------|------------|----------|
| ZONE | REV | | | |
| | A | 04/09/2024 | HBAKKE | AGANWANI |
| DESCRIPTION | | | | |
| INITIAL RELEASE | | | | |

| | | | |
|--|-----------|---|--|
| Fairview Microwave® an INFINIT® brand | | Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678 | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1 |
| DESCRIPTION: SMA MALE TO TNC FEMALE CABLE USING RG316 COAX | | | |
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
| A | 3FKR5 | HBAKKE | FMCA10073 |

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS.

TOLERANCES:
 .X = ±.2 (5) | FRACTIONS ± 1/32
 .XX = ±.02 (0.5) | ANGLES ± 1°
 .XXX = ±.005 (0.13)

CABLE LENGTH TOLERANCES:
 >12 (305) ≤ 60 (1524) = ±.1 (25) / -0
 >60 (1524) ≤ 120 (3048) = ±.4 (102) / -0
 >120 (3048) ≤ 300 (7620) = ±.6 (15) / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

- NOTES:
- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
 - CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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