



SMA Female to SMA Female Using Flexible RG316 Coax Cable

RF Cable Assemblies Technical Data Sheet

MTCA00039

Configuration

- Connector 1: SMA Female
- Connector 2: SMA Female
- Cable Type: RG316

Features

- Max Frequency 3 GHz
- 69% Phase Velocity
- FEP Jacket
- 100 Mating Cycles

Applications

- General Purpose
- Laboratory Use

Description

MilesTek's MTCA00039 coaxial cable assembly is a SMA female to SMA female using flexible RG316 coax cable. MilesTek cables are built using high quality materials and are tested to insure these assemblies meet all performance specifications. Coaxial cable assemblies are stocked in standard lengths and will ship same day. Custom lengths of this cable assembly are also available upon request. These assemblies are part of MilesTek's extensive portfolio of products that are in stock and ship same day.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.4:1	
Velocity of Propagation		69		%
Operating Voltage (AC)			250	Vrms
Dielectric Withstanding Voltage (AC)			750	Vrms
Jacket Spark			2,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.05	0.1	0.4	1	3	GHz
Insertion Loss (Typ.)	0.075	0.11	0.21	0.38	0.58	dB/ft
	0.25	0.36	0.69	1.25	1.9	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female to SMA Female Using Flexible RG316 Coax Cable MTCA00039](#)



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Mechanical Specifications

Cable Assembly

Diameter 0.312 in [7.92 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]

Connectors

Description	Connector 1	Connector 2
Type	SMA Female	SMA Female
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Mating Cycles	100	100
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Nickel	Brass, Nickel
Body Material and Plating	Brass, Nickel	Brass, Nickel

Environmental Specifications

Temperature

Operating Range -55 to +165 deg C

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

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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MTCA00039

How to Order

Part Number Configuration:

MTCA00039

- **xx**

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Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: MTCA00039-12 = 12 inches long cable
MTCA00039-100cm = 100 cm long cable

Our offering, used primarily in military, R&D and production applications, consists of a comprehensive line of MIL-STD-1553B data bus couplers, harnesses and cable assemblies, connectors and connector termination systems. MilesTek also offers expertise in manufacturing custom cable assemblies and harnesses.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female to SMA Female Using Flexible RG316 Coax Cable MTCA00039](https://www.milestek.com/SMA-Female-SMA-Female-MTRG316U-MTCA00039-p.aspx)

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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. MilesTek reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. MilesTek does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and MilesTek does not assume any liability arising out of the use of any part or documentation.

MTCA00039 CAD Drawing

SMA Female to SMA Female Using Flexible RG316 Coax Cable

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	09/20/2019
		APPROVED SELLIS

2X SMA FEMALE

MTRG316/U

2X SHRINK TUBE
BLACK

LENGTH
(CONTACT TO CONTACT)

<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>X = ±.2 [5.08] FRACTIONS ± 1/32</p> <p>XX = ±.02 [.51] ANGLES ± 1°</p> <p>XXX = ±.005 [.13]</p> <p>OVERALL CABLE LENGTH (L) TOLERANCES:</p> <p>L ≤ 12 [305] = +.1 [25] / -0</p> <p>12 [305] < L ≤ 60 [1524] = +.2 [51] / -0</p> <p>60 [1524] < L ≤ 120 [3048] = +.4 [102] / -0</p> <p>120 [3048] < L ≤ 300 [7620] = +.6 [152] / -0</p> <p>300 [7620] < L = +.9% L / -0</p> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	<p>Milestek an INFINITE brand</p> <p>301 Leora Ln., Suite 100, Lewisville, TX 75056 Phone: 1.940.484.9400 1.866.524.1553 Fax: 1.972.394.7913 www.milestek.com e-mail: Customerfirst@milestek.com</p> <p>SIZE [CAGE CODE] DRAWN BY [PART NUMBER] A 4Z977 DFRISIELLO MTC00039</p> <p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF MILESTEK CORPORATION. ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p> <p>REV A</p>
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