



SMA Male to SMA Male Using Flexible RG316 Coax Cable

RF Cable Assemblies Technical Data Sheet

MTCA00033

Configuration

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

Features

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

Applications

- General Purpose
- Laboratory Use

Description

MilesTek's MTCA00033 coaxial cable assembly is a SMA male to SMA male 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		%
Capacitance		29.4 [96.46]		pF/ft [pF/m]
DC Resistance Inner Conductor		8.41 [27.59]		Ω/1000ft [Ω/Km]
Operating Voltage (AC)			335	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 Male to SMA Male Using Flexible RG316 Coax Cable MTCA00033](#)



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Mechanical Specifications

Cable Assembly

Diameter	0.315 in [8 mm]
Weight	0.024 lbs [10.89 g]

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 Male	SMA Male
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	100 µin minimum	100 µin minimum
Hex Size	5/16 inch	5/16 inch
Torque	3 in-lbs [0.34 Nm]	3 in-lbs [0.34 Nm]

Environmental Specifications

Temperature

Operating Range	-55 to +165 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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MTCA00033

How to Order

Part Number Configuration:

MTCA00033

- xx

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Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: MTCA00033-12 = 12 inches long cable
MTCA00033-100cm = 100 cm long cable

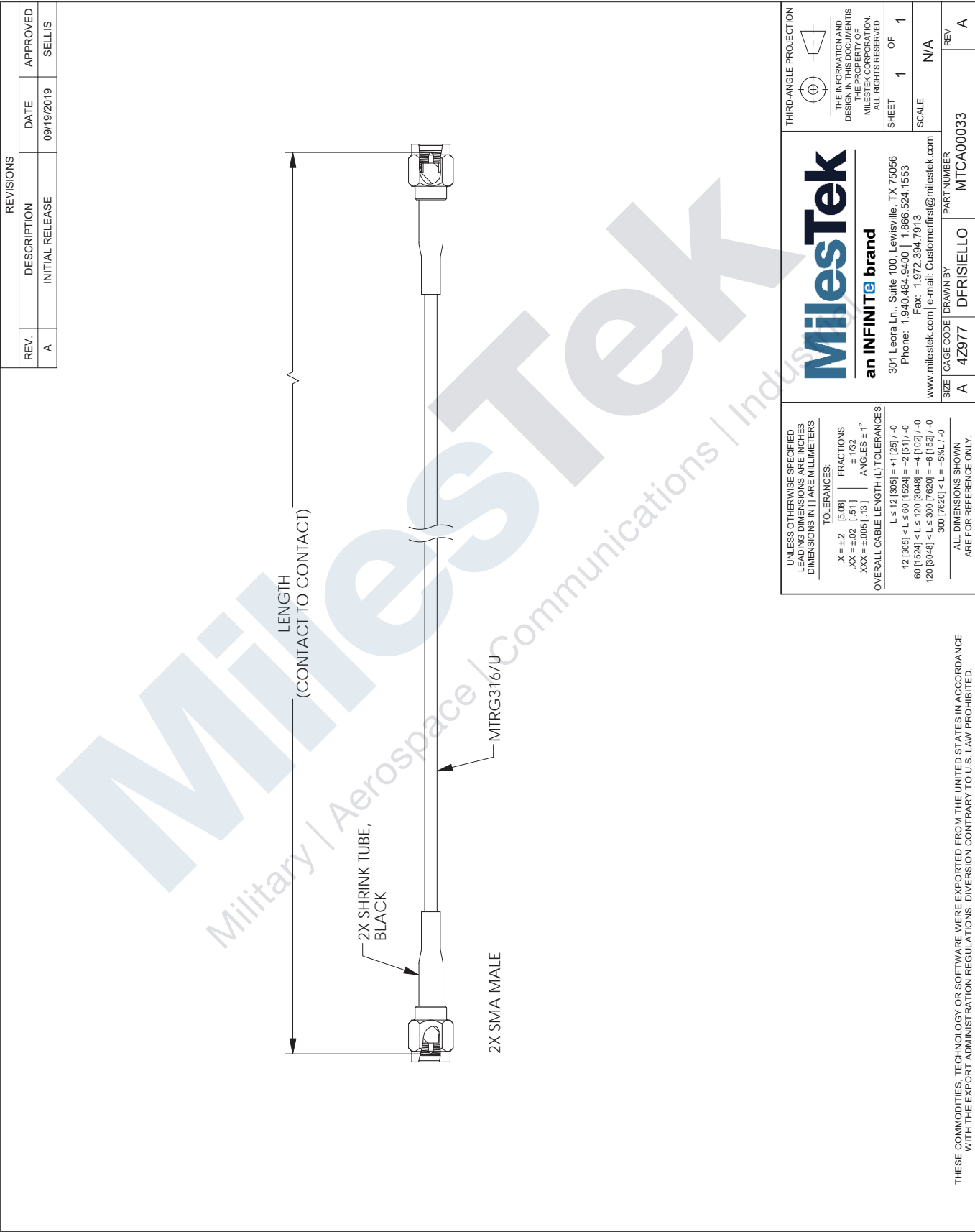
Our offering, used primarily in military, R&D and production applications, consists of a comprehensive line of MIL-STD-1553B data bus couplers, harnesses and cable assemblies, connectors and connector termination systems. MilesTek also offers expertise in manufacturing custom cable assemblies and harnesses.

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URL: <https://www.milestek.com/SMA-Male-SMA-Male-MTRG316U-MTCA00033-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. 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.

MTCA00033 CAD Drawing
SMA Male to SMA Male Using Flexible RG316 Coax Cable



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