



## SMB Plug to SMB Jack Using Flexible RG174 Coax Cable

### RF Cable Assemblies Technical Data Sheet

MTCA00122

#### Configuration

- Connector 1: SMB Plug
- Connector 2: SMB Jack
- Cable Type: RG174

#### Features

- Max Frequency 1 GHz
- 66% Phase Velocity
- PVC Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

MilesTek's MTCA00122 coaxial cable assembly is a SMB plug to SMB jack using flexible RG174 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		1,000	MHz
VSWR			1.4:1	
Velocity of Propagation		66		%
Capacitance		31.08 [101.97]		pF/ft [pF/m]

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	100	400	1,000			MHz
Insertion Loss (Typ.)	0.084	0.19	0.32			dB/ft
	0.28	0.62	1.05			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: [SMB Plug to SMB Jack Using Flexible RG174 Coax Cable MTCA00122](#)



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#### Mechanical Specifications

##### Cable Assembly

Diameter 0.256 in [6.5 mm]

##### Cable

Cable Type RG174  
 Impedance 50 Ohms  
 Inner Conductor Type Stranded  
 Inner Conductor Material and Plating Copper Clad Steel  
 Dielectric Type PE  
 Number of Shields 1  
 Shield Layer 1 Tinned Copper Braid  
 Jacket Material PVC, Black  
 Jacket Diameter 0.11 in [2.79 mm]

#### Connectors

Description	Connector 1	Connector 2
Type	SMB Plug	SMB Jack
Specification	MIL-STD-348A	
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, 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	
Coupling Nut Plating Specification	100 µin minimum	

#### Environmental Specifications

##### Temperature

Operating Range -40 to +80 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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## SMB Plug to SMB Jack Using Flexible RG174 Coax Cable

### RF Cable Assemblies Technical Data Sheet

MTCA00122

#### How to Order

Part Number Configuration:

**MTCA00122**

- **xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: MTCA00122-12 = 12 inches long cable  
MTCA00122-100cm = 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: [SMB Plug to SMB Jack Using Flexible RG174 Coax Cable MTCA00122](#)

URL: <https://www.milestek.com/SMB-Plug-SMB-Jack-MTRG174AU-MTCA00122-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.

# MTCA00122 CAD Drawing

## SMB Plug to SMB Jack Using Flexible RG174 Coax Cable

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	09/25/2019
		APPROVED
		SELLIS



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