



## SMB Plug Right Angle to SMB Plug Right Angle Using Flexible RG174 Coax Cable

### RF Cable Assemblies Technical Data Sheet

MTCA00123

#### Configuration

- Connector 1: SMB Plug Right Angle
- Connector 2: SMB Plug Right Angle
- Cable Type: RG174

#### Features

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

#### Applications

- General Purpose
- Laboratory Use

#### Description

MilesTek's MTCA00123 coaxial cable assembly is a SMB plug right angle to SMB plug right angle 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             |         | 30.8 [101.05] |         | 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<br>dB/m |
|                       | 0.28  | 0.62 | 1.05  |    |    |               |

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.2 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 Right Angle to SMB Plug Right Angle Using Flexible RG174 Coax Cable MTCA00123](#)



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#### Mechanical Specifications

##### Cable Assembly

|          |                    |
|----------|--------------------|
| Diameter | 0.256 in [6.5 mm]  |
| Weight   | 0.022 lbs [9.98 g] |

##### Cable

|                                      |                     |
|--------------------------------------|---------------------|
| Cable Type                           | RG174               |
| Impedance                            | 50 Ohms             |
| Inner Conductor Type                 | Stranded            |
| Inner Conductor Material and Plating | Copper Clad Steel   |
| Dielectric Type                      | PE (LD)             |
| Number of Shields                    | 1                   |
| Shield Layer 1                       | Tinned Copper Braid |
| Jacket Material                      | PVC, Black          |
| Jacket Diameter                      | 0.1 in [2.54 mm]    |

#### Connectors

| Description                   | Connector 1            | Connector 2            |
|-------------------------------|------------------------|------------------------|
| Type                          | SMB Plug Right Angle   | SMB Plug Right Angle   |
| Specification                 | MIL-STD-348A           | MIL-STD-348A           |
| Impedance                     | 50 Ohms                | 50 Ohms                |
| Contact Material and Plating  | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | 30 $\mu$ in. minimum   | 30 $\mu$ in. minimum   |
| Dielectric Type               | Teflon                 | Teflon                 |
| Body Material and Plating     | Brass, Nickel          | Brass, Nickel          |
| Body Plating Specification    | 100 $\mu$ in. minimum  | 100 $\mu$ in. minimum  |

#### 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 Right Angle to SMB Plug Right Angle Using Flexible RG174 Coax Cable

### RF Cable Assemblies Technical Data Sheet

MTCA00123

#### How to Order

Part Number Configuration:

**MTCA00123**

- **xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: MTCA00123-12 = 12 inches long cable  
MTCA00123-100cm = 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 Right Angle to SMB Plug Right Angle Using Flexible RG174 Coax Cable MTCA00123](https://www.milestek.com/SMB-Plug-SMB-Plug-MTRG174AU-MTCA00123-p.aspx)

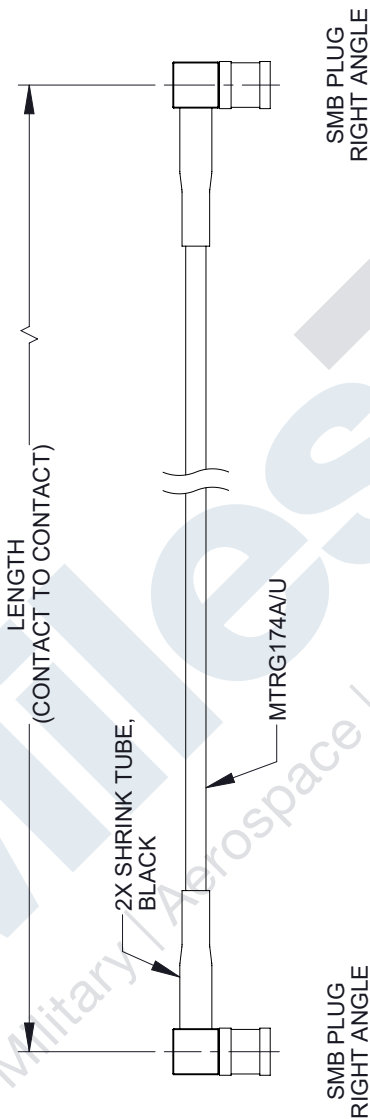
URL: <https://www.milestek.com/SMB-Plug-SMB-Plug-MTRG174AU-MTCA00123-p.aspx>

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# MTCA00123 CAD Drawing

SMB Plug Right Angle to SMB Plug Right Angle Using Flexible RG174 Coax Cable

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



|   |   |
|---|---|
| <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>X = ±.2 [ .08]      FRACTIONS ±.152</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] &lt; L ≤ 60 [1524] = +2 [51] / -0</p> <p>60 [1524] &lt; L ≤ 120 [3048] = +4 [102] / -0</p> <p>120 [3048] &lt; L ≤ 300 [7620] = +6 [152] / -0</p> <p>300 [7620] &lt; L = +5%L / -0</p> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</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> |
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