



## 1 mm (M) to 1 mm (M) Coaxial Cable, Semi-Rigid, 3"

### Description:

**Model SCW-1M1M003-S1** is a 3" long, semi-rigid coaxial cable with 1 mm male connectors that cover the frequency range of DC to 110 GHz. The coaxial cable utilizes high performance material and a precision manufacturing process to guarantee superior microwave performance and mechanical durability. The impedance of the cable is 50 ohms and a capacitance of 95 pF/m. Other lengths are offered under different models.



### Features:

- High Return Loss
- Low Insertion Loss
- Semi-Rigid

### Applications:

- Test Lab
- Sub-assemblies
- System Integration

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	DC		110 GHz
Insertion Loss @ 110 GHz		1.8 dB	
Return Loss @ DC to 40 GHz		18 dB	
Return Loss @ 40 to 60 GHz		16 dB	
Return Loss @ 60 to 110 GHz		13 dB	
Impedance		50 Ω	
Power Handling @ 100 GHz			2 W (CW)
Capacitance		95 pF/m	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+100 °C

### Mechanical Specifications:

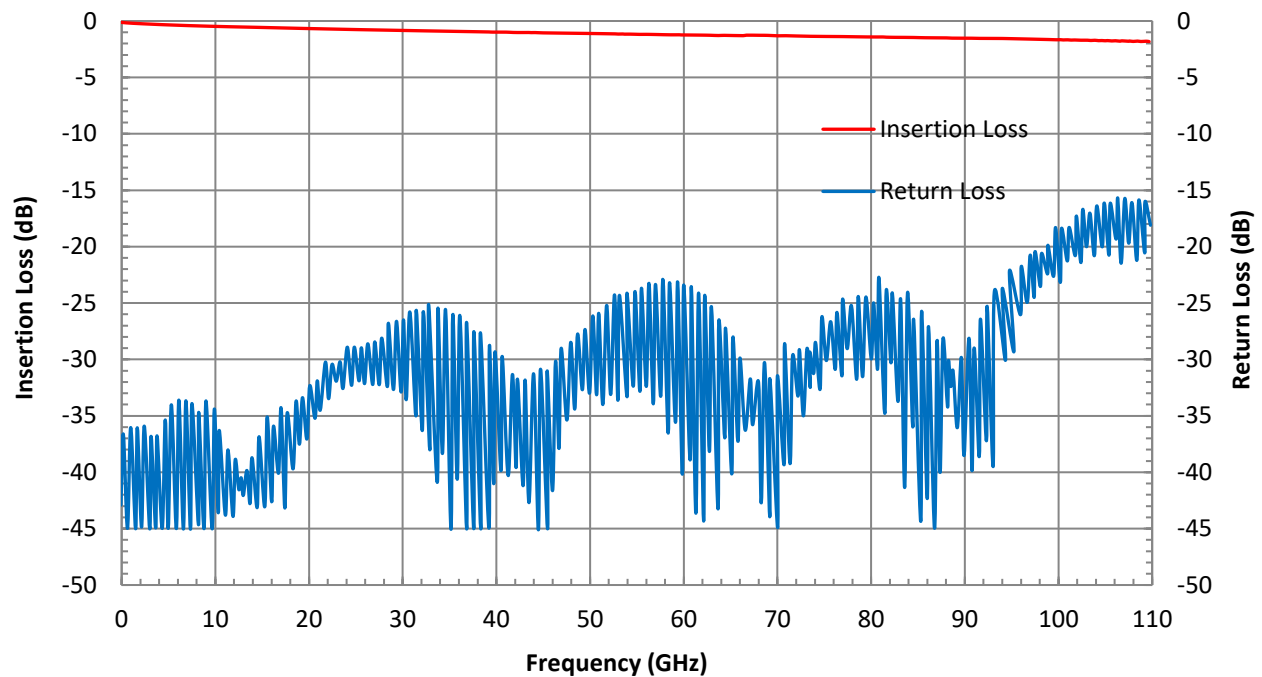
Item	Specification
Minimum Bending Radius	0.126"
Connectors	1 mm Male
Connector Material	Passivated Stainless Steel
Cable Inner Conductor Material	Copper, Silver Plated
Cable Insulator Material	PTFE
Cable Outer Conductor Material	Oxygen-free Copper
Cable Outer Diameter	0.047"
Length	3"
Weight	0.15 Oz
Outline	CW-11-S7



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### Typical Performance vs. Frequency



### Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)



#### Note:

- Length "L" can be customizable.
- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

#### Caution:

- Bending the cable sharply will either cause damage or degrade the performance of the cable.
- Proper torque,  $4.0 \pm 0.15$  inch-pounds ( $0.45 \pm 0.02$  Nm), should be used. **SAGE Millimeter torque wrench, model SCH-06004-S1, is highly recommended.**

