# SCW-2M2M003-S1-PM

## 2.4 mm (M) to 2.4 mm (M) Coaxial Cable, Semi-Rigid, 3", Phase Matched

### **Description:**

**Model SCW-2M2M003-S1-PM** is a 3" long, semi-rigid, phase matched coaxial cable with 2.4 mm male connectors that cover the frequency range of DC to 50 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. Other lengths are offered under different models.

### **Features:**

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

### **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency	DC		50 GHz
Insertion Loss @ 18 GHz		0.3 dB	
Insertion Loss @ 26.5 GHz		0.4 dB	
Insertion Loss @ 40 GHz		0.5 dB	
Insertion Loss @ 50 GHz		0.8 dB	
Return Loss @ 50 GHz		17 dB	
Impedance		50 Ω	
Phase Match (Unit to Unit)		±10 °	
Breakdown Voltage			500 V
Radiation Shielding		120 dB	
Velocity Factor		70%	
Power Handling @ 50 GHz			15 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### **Mechanical Specifications:**

Item	Specification	
Minimum Bending Radius	0.126"	
Connectors	2.4 mm Male	
Connector Material	Passivated Stainless Steel	
Cable Conductor	Brass, Gold Plated	
Cable Insulators	PEEK/PEI	
Cable Outer Diameter	0.087"	
Length	3"	
Weight	0.3 Oz	
Outline	CW-22-S8	



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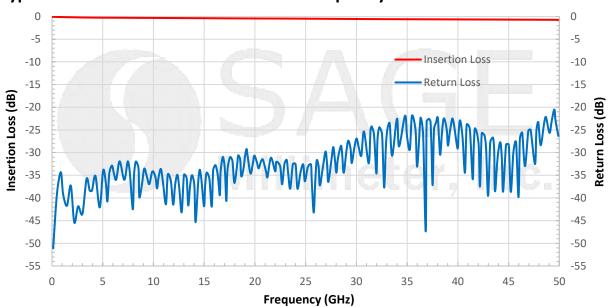


## **Applications:**

- Test Lab
- Sub-assemblies
- System Integration

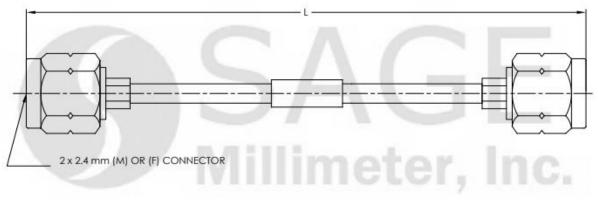
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### **Typical Insertion Loss & Return Loss vs. Frequency**

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



Note:

#### Note:

- 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, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. SAGE Millimeter torque wrench, model SCH-08008-U3, is highly recommended.



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Length "L" is customizable