



## SMA (M) to SMA (M) Coaxial Cable, Flexible, Lab Grade, 40", Phase Matched

### Description:

**Model SCW-SMSM040-F1-A-PM** is a 40" long, flexible, lab grade, phase matched coaxial cable with SMA male connectors that cover the frequency range of DC to 26.5 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
- Flexible and Durable

### Applications:

- Test Lab
- Sub-assemblies

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	DC		26.5 GHz
Insertion Loss @ 3 GHz		< 0.7 dB	
Insertion Loss @ 6 GHz		< 1.0 dB	
Insertion Loss @ 12 GHz		< 1.4 dB	
Insertion Loss @ 18 GHz		< 1.6 dB	
Insertion Loss @ 26.5 GHz		< 2.1 dB	
Return Loss @ 26.5 GHz		20 dB	
Impedance		50 Ω	
Phase Match (Unit to Unit)		±10 °	
Breakdown Voltage			1000 Volts
Radiation Shielding		90 dB	
Power Handling @ 26.5 GHz			105 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

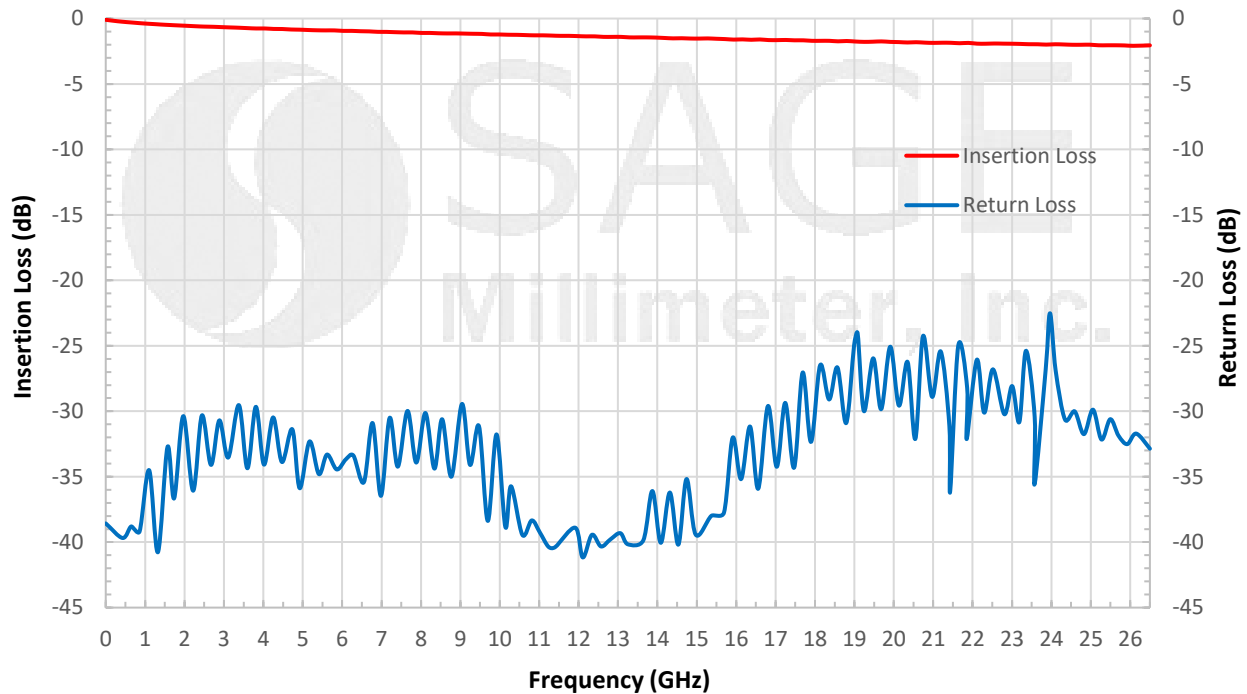
Item	Specification
Connectors	SMA Male
Connector Contact Material/Plating	Brass/Gold Plating Per MIL-G-45204
Connector / Cable Insulation Layer Material	Passivated Stainless Steel / PTFE
Cable Jacket Material	FEP
Cable Outer Diameter	0.181"
Length	40"
Minimum Bending Radius	0.79"
Weight	1.0 Oz
Outline	CW-SS-F8-A



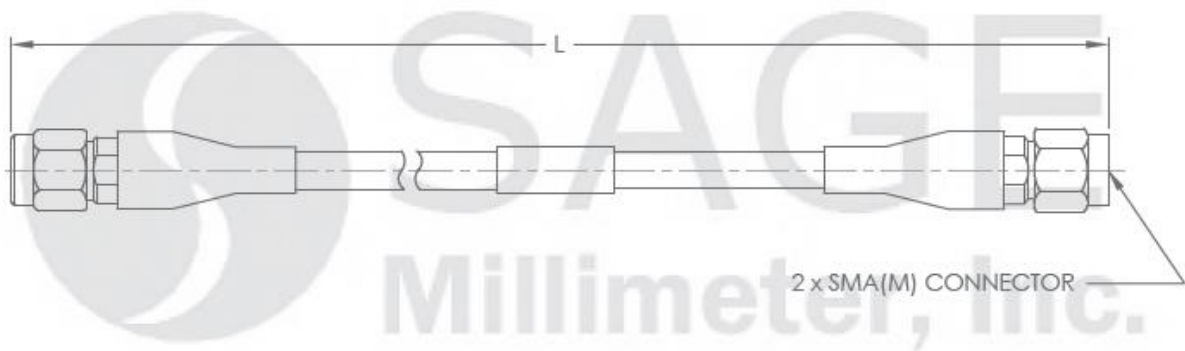


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### Typical Insertion Loss & Return Loss vs. Frequency



### 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,  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

