# SCW-SMSM048-F1-A-PM

Rev. 1.0

## SMA (M) to SMA (M) Coaxial Cable, Flexible, Armored, 48”, Phase Matched

### Description:



Customizable Length

**Model SCW-SMSM048-F1-A-PM** is a 48” long, flexible, phase matched armored 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 | | < 0.8 dB | |
| Insertion Loss @ 6 GHz | | < 1.2 dB | |
| Insertion Loss @ 12 GHz | | < 1.6 dB | |
| Insertion Loss @ 18 GHz | | < 1.9 dB | |
| Insertion Loss @ 26.5 GHz | | < 2.4 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 | 48” |
| Minimum Bending Radius | 0.79” |
| Weight | 1.0 Oz |
| Outline | CW-SS-F8-A |

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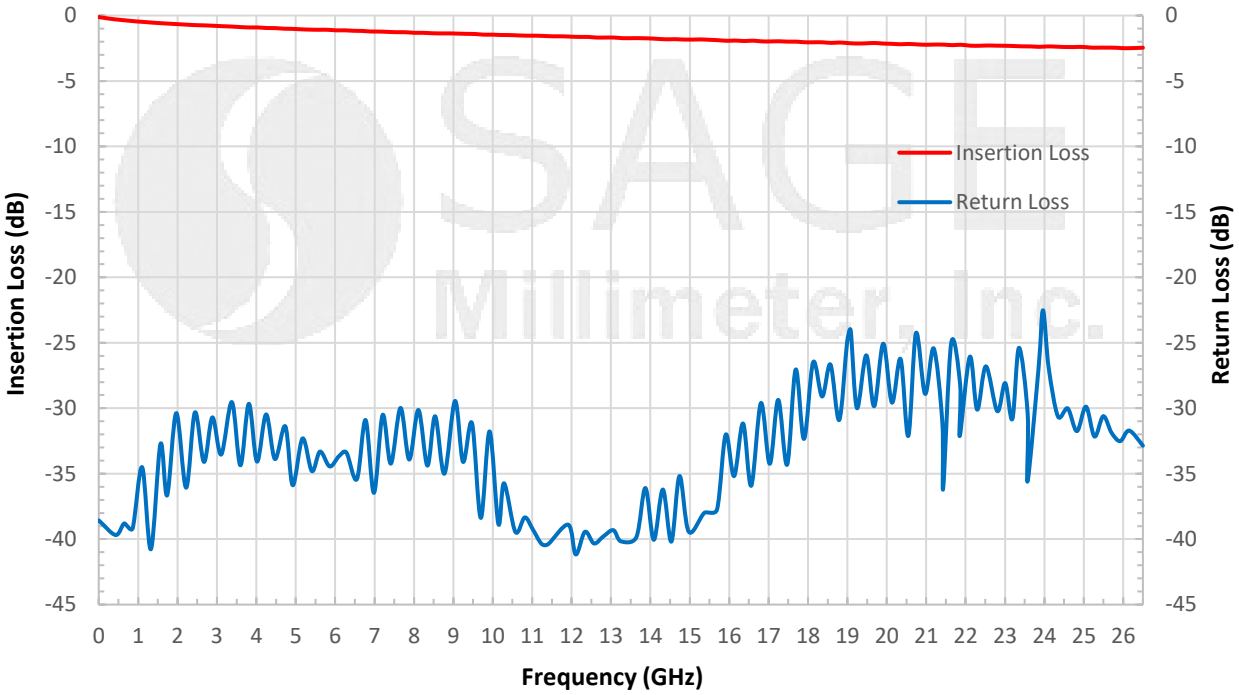
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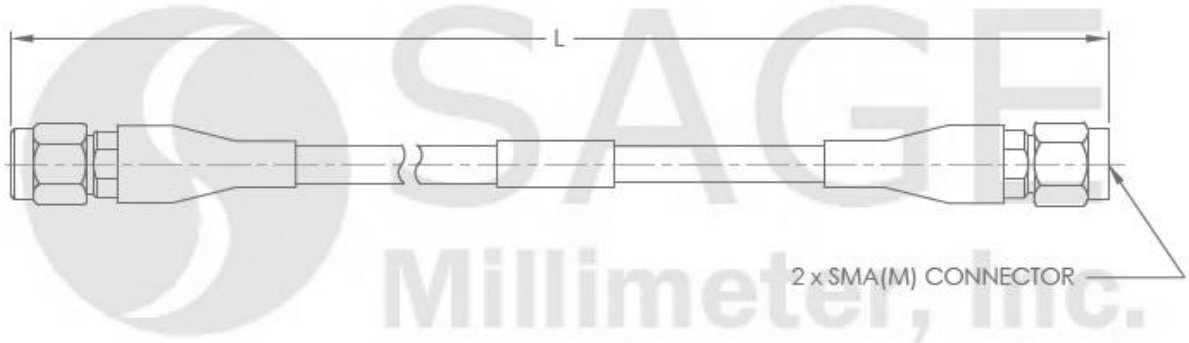
SAGE Millimeter, Inc.

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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 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-U2, is highly recommended.**

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