

1.85 mm (M) to 1.85 mm (M) Coaxial Cable, Semi-Rigid, 48", Phase Matched

Description:

Model SCW-VMVM048-S1-PM is a 48" long, semi-rigid, phase matched coaxial cable with 1.85 (V) mm male connectors that cover the frequency range of DC to 60 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

Applications:

- Test Lab
- Sub-assemblies
- System Integration

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|----------------------------|----------------------|----------------------|----------------------|
| Frequency | DC | | 60 GHz* |
| Insertion Loss @ 18 GHz | | 4.1 dB | |
| Insertion Loss @ 26.5 GHz | | 5.0 dB | |
| Insertion Loss @ 40 GHz | | 6.6 dB | |
| Insertion Loss @ 50 GHz | | 7.8 dB | |
| Insertion Loss @ 60 GHz | | 8.9 dB | |
| Return Loss @ 60 GHz | | 16 dB | |
| Impedance | | 50 Ω | |
| Phase Match (Unit to Unit) | | $\pm 10^\circ$ | |
| Breakdown Voltage | | | 500 V |
| Radiation Shielding | | 120 dB | |
| Velocity Factor | | 70% | |
| Power Handling @ 60 GHz | | | 10 W (CW) |
| Specification Temperature | | +25 $^\circ\text{C}$ | |
| Operating Temperature | -40 $^\circ\text{C}$ | | +85 $^\circ\text{C}$ |

*The highest operation frequency is 67 GHz.

Mechanical Specifications:

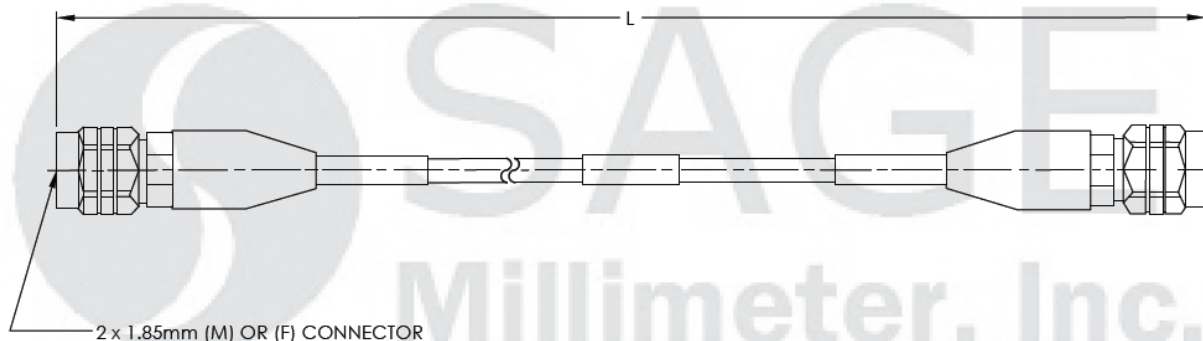
| Item | Specification |
|------------------------|----------------------------|
| Minimum Bending Radius | 0.126" |
| Connectors | 1.85 (V) mm Male |
| Connector Material | Passivated Stainless Steel |
| Cable Conductor | Brass, Gold Plated |
| Cable Insulators | PEEK/PEI |
| Cable Outer Diameter | 0.087" |
| Length | 48" |
| Outline | CW-VV-S8 |



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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-U3, is highly recommended.**

