



## 1.85 mm (M) to 1.85 mm (M) Coaxial Cable, Flexible, 6", Phase Matched

### Description:

**Model SCW-VMVM006-F1-PM** is a 6" long, flexible, phase matched coaxial cable with 1.85 (V) mm male connectors that cover the frequency range of DC to 67 GHz. The coaxial cable utilizes the highest quality test instrumentation grade cable 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      |          | 67 GHz    |
| Insertion Loss @ 18 GHz    |         | < 0.5 dB |           |
| Insertion Loss @ 30 GHz    |         | < 0.8 dB |           |
| Insertion Loss @ 40 GHz    |         | < 1.0 dB |           |
| Insertion Loss @ 67 GHz    |         | < 1.4 dB |           |
| Return Loss @ 67 GHz       |         | 17 dB    |           |
| Impedance                  |         | 50 Ω     |           |
| Phase Match (Unit to Unit) |         | ±10 °    |           |
| Breakdown Voltage          |         |          | 500 Volts |
| Radiation Shielding        |         | 100 dB   |           |
| Power Handling @ 67 GHz    |         |          | 8 W (CW)  |
| Specification Temperature  |         | +25 °C   |           |
| Operating Temperature      | -40 °C  |          | +85 °C    |

### Mechanical Specifications:

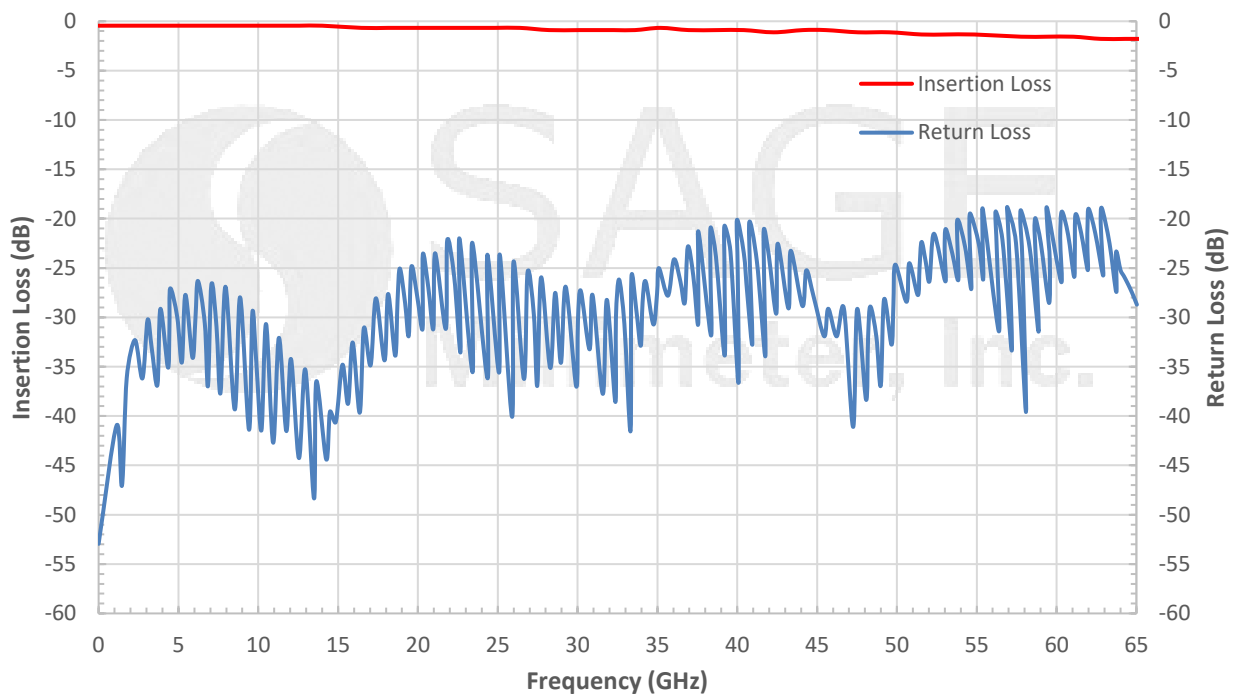
| Item  | Specification  |
|---|--|
| Connectors                                  | 1.85 mm Male   |
| Connector Contact Material/Plating          | Beryllium Copper (BeCu)/Gold Plating Per MIL-G-45204 |
| Connector / Cable Insulation Layer Material | Passivated Stainless Steel / PEEK/PEI                |
| Cable Jacket Material                       | PFA  |
| Cable Outer Diameter                        | 0.087"   |
| Length                                      | 6"   |
| Minimum Bending Radius                      | 0.197"   |
| Repeated Bending Radius                     | 0.867"   |
| Weight                                      | 0.7 Oz   |
| Outline                                     | CW-VV-F8   |



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

