

**SMA (M) to SMA (M) Coaxial Cable, Semi-Flexible, 18", Phase Matched**

**SCW-SMSM018-E2-PM** is a 18" long, semi-flexible, phase matched coaxial cable with SMA male connectors that cover the frequency range of DC to 26.5 GHz. The coaxial cable, which is hand formable, 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.

**Electrical Specifications:**

| Parameter                  | Minimum              | Typical              | Maximum              |
|----------------------------|----------------------|----------------------|----------------------|
| Frequency Range            | 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    |                      | < 1.9 dB             |                      |
| Insertion Loss @ 26.5 GHz  |                      | < 2.3 dB             |                      |
| Return Loss @ 26.5 GHz     |                      | 19 dB                |                      |
| Impedance                  |                      | 50 $\Omega$          |                      |
| Phase Match (Unit to Unit) |                      | $\pm 13^\circ$       |                      |
| Breakdown Voltage          |                      |                      | 1500 VRMS            |
| Radiation Shielding        |                      | 100 dB               |                      |
| Velocity Factor            |                      | 70%                  |                      |
| Power Handling @ 26.5 GHz  |                      |                      | 31 W (CW)            |
| Specification Temperature  |                      | +25 $^\circ\text{C}$ |                      |
| Operating Temperature      | -40 $^\circ\text{C}$ |                      | +85 $^\circ\text{C}$ |

**Mechanical Specifications:**

| Item                    | Specification                        |
|-------------------------|--------------------------------------|
| Minimum Bending Radius  | 0.25"                                |
| Repeated Bending Radius | 0.787" (for less than 50 bendings)   |
| Connectors              | SMA Male                             |
| Connector Material      | Passivated Stainless Steel           |
| Outer Conductor         | Copper, Tin plated, Tin soaked braid |
| Cable Dielectric        | PTFE                                 |
| Cable Outer Diameter    | 0.086"                               |
| Length                  | 18"                                  |
| Outline                 | CW-SS-E10                            |

**ECCN**

EAR99

**FEATURES**

- High Return Loss
- Low Insertion Loss
- Semi-Flexible
- Hand-Formable

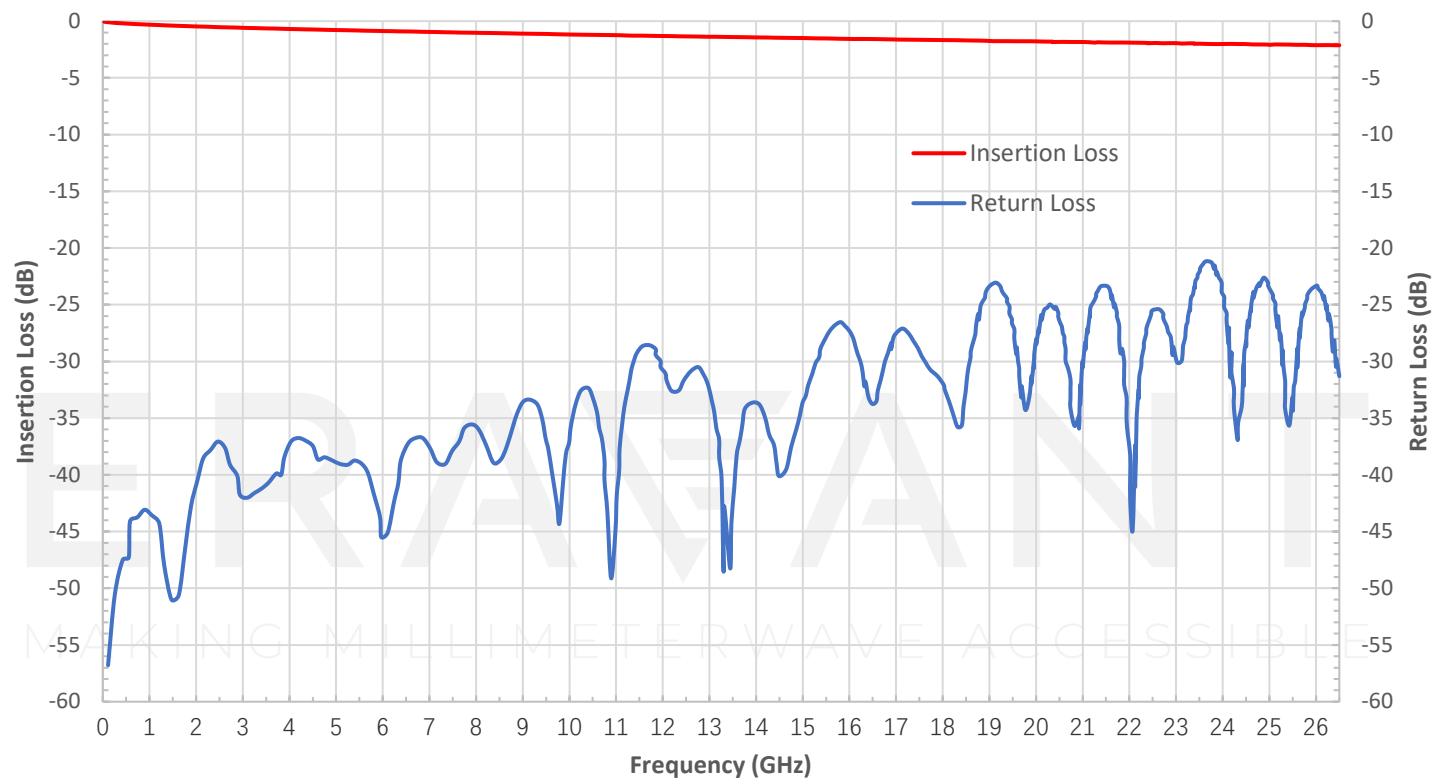
**APPLICATIONS**

- Test Lab
- Sub-assemblies
- System Integration

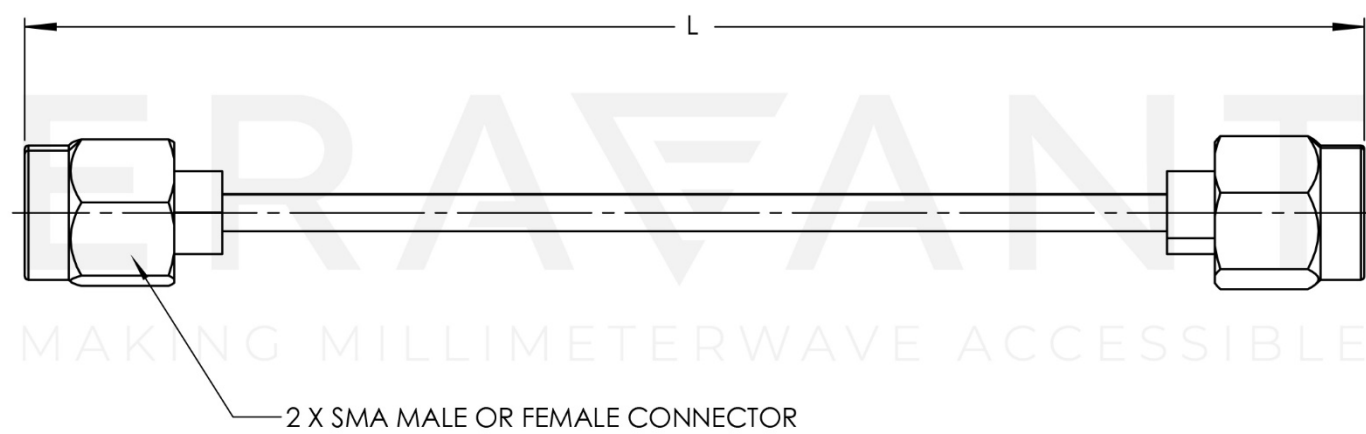
**SUPPLEMENTAL DETAILS**

SCW-SMSM018-E2-PM

Typical Performance vs. Frequency



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

LENGTH "L" IS CUSTOMIZABLE

**NOTE:**

- Length “L” can be customizable.
- All data presented is collected from a sample lot. Actual data may vary slightly from unit to unit.
- All testing is performed under +25 °C case temperature.
- Eravant 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 should be applied:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench model SCH-08008-S1 is highly recommended.

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