### 2.4 mm (M) to 2.4 mm (M) Coaxial Cable, Semi-Flexible, 12", Phase Matched

**SCW-2M2M012-E2-PM** is a 12" long, semi-flexible, phase matched coaxial cable with 2.4 mm male connectors that cover the frequency range of DC to 50 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      |                  | 50 GHz    |
| Insertion Loss @ 18 GHz    |         | 1.3 dB           |           |
| Insertion Loss @ 26.5 GHz  |         | 1.6 dB           |           |
| Insertion Loss @ 40 GHz    |         | 2.0 dB           |           |
| Insertion Loss @ 50 GHz    |         | 2.3 dB           |           |
| Return Loss @ 50 GHz       |         | 17.7 dB          |           |
| Impedance                  |         | 50 Ω             |           |
| Phase Match (Unit to Unit) |         | $\pm 25^{\circ}$ |           |
| Breakdown Voltage          |         |                  | 1500 VRMS |
| Radiation Shielding        |         | 100 dB           |           |
| Velocity Factor            |         | 70%              |           |
| Power Handling @ 50 GHz    |         |                  | 15 W (CW) |
| Specification Temperature  |         | +25 °C           |           |
| Operating Temperature      | -40 °C  |                  | +85 °C    |

### **Mechanical Specifications:**

| Item                    | Specification                        |
|-------------------------|--------------------------------------|
| Minimum Bending Radius  | 0.25"                                |
| Repeated Bending Radius | 0.787" (< 50 bends)                  |
| Connectors              | 2.4 mm Male                          |
| Connector Material      | Passivated Stainless Steel           |
| Outer Conductor         | Copper, Tin plated, Tin soaked braid |
| Cable Dielectric        | PTFE                                 |
| Cable Outer Diameter    | 0.086"                               |
| Length                  | 12"                                  |
| Outline                 | CW-22-E10                            |

1/3

www.eravant.com | 424-757-0168 | support@eravant.com Copyright © 2023 by Eravant

### ECCN

EAR99

### FEATURES

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

### APPLICATIONS

- Test Lab
- Sub-assemblies
- System Integration

### SUPPLEMENTAL DETAILS



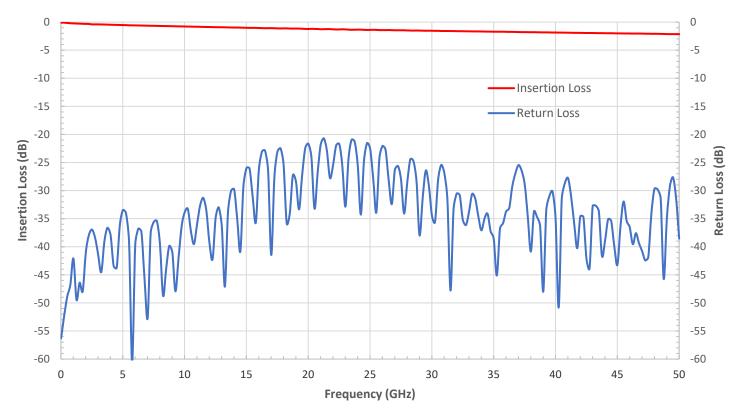
## **ERAVANT**



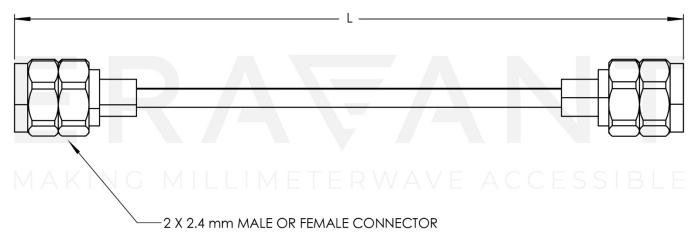
### SCW-2M2M012-E2-PM

ERA₩ANT

### Typical Performance vs. Frequency



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



### NOTE:

### LENGTH "L" IS CUSTOMIZABLE

# ERA₩ANT

### 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 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model <u>SCH-08008-S1</u> is highly recommended.

