

# 2.4 mm (M) to 2.4 mm (M) Coaxial Cable, Flexible, Armored, Phase Stable, 48"

**STQ-CW-2M2M048-F2-PS** is a 48" long, flexible, phase stable, armored coaxial cable with 2.4 mm male connectors that cover the frequency range of DC to 50 GHz. The typical amplitude and phase stabilities at 50 GHz are  $\pm$  0.05 dB and  $\pm$  6° at a bending radius of 2.25", respectively. 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.



**Electrical Specifications:** 

Parameter	Minimum	Typical	Maximum
Frequency Range	DC		50 GHz
Insertion Loss @ 18 GHz		2.9 dB	
Insertion Loss @ 26.5 GHz		3.5 dB	
Insertion Loss @ 40 GHz		4.5 dB	
Insertion Loss @ 50 GHz		5.1 dB	
Return Loss		17.7 dB	
Phase Stability*		± 6°	
Amplitude Stability*		$\pm~0.05~\text{dB}$	
Impedance		50 Ω	
Radiation Shielding		100 dB	
Specification Temperature		+25 °C	
Operating Temperature	-55 °C		+125 °C

<sup>\*</sup>When cable is wrapped 360° around a 2.25" (57 mm) radius mandrel.

## **ECCN**

EAR99

## **FEATURES**

- High Performance
- Phase Stable
- Armored
- Flexible
- · Stable and Reliable

## **APPLICATIONS**

- Test Lab
- VNA
- Microwave Anechoic Chambers
- Antenna Ranges

#### SUPPLEMENTAL DETAILS

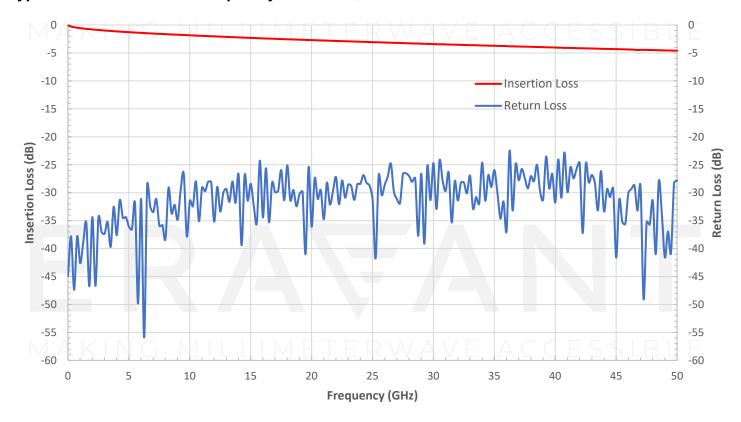




## **Mechanical Specifications:**

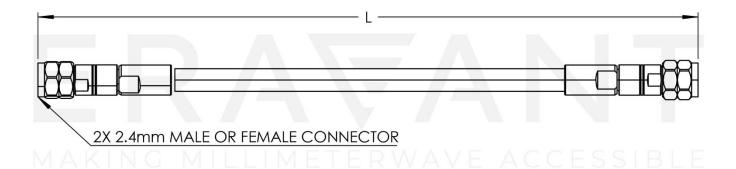
ltem	Specification
Connectors	2.4 mm Male
Connector Contact Material	Be-Cu / Gold Plating per MIL-G-45204
Connector Material	Passivated Stainless Steel
Connector Dielectric	PEI
Cable Dielectric	ePTFE
Inner / Outer Cable Jacket Material	Braided Strength Member / Braided Jacket
Cable Outer Diameter	0.210"
Length	48"
Minimum Bending Radius	1.0"
Outline	CW-22-F10-A-PS

# **Typical Performance vs. Frequency**





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



## NOTE:

LENGTH "L" IS CUSTOMIZABLE

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### 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.

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