

## STQ-CW-2F2M038-F2

**2.4 mm NMD (F) to 2.4 mm (M) Ruggedized VNA Test Cable, Flexible, 38"**

**STQ-CW-2F2M038-F2** is a 38" long, cost effective, instrumentation grade, flexible, ruggedized coaxial cable with a 2.4 mm NMD female and a 2.4 mm male connector that covers the frequency range of DC to 50 GHz. The cable is especially designed and manufactured for VNA applications with greater than 10,000 connections. The typical amplitude and phase stabilities at 50 GHz are  $\pm 0.05$  dB and  $\pm 4^\circ$  at a bending radius of 4.9", 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. This model and other models, such as **STQ-CW-2F2F038-F2**, may form a VNA test cable pair for custom test set applications. Other connector type combinations and lengths are offered under different models.

**Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency Range	DC		50 GHz
Insertion Loss @ DC to 30 GHz		4.4 dB	
Insertion Loss @ 30 to 40 GHz		5.0 dB	
Insertion Loss @ 40 to 50 GHz		5.5 dB	
Return Loss		17.7 dB	
Phase Stability*		$\pm 4^\circ$	
Amplitude Stability*		$\pm 0.05$ dB	
Impedance		50 $\Omega$	
Breakdown Voltage			500 Volts
Radiation Shielding		90 dB	
Specification Temperature		+25 $^\circ\text{C}$	
Operating Temperature	-40 $^\circ\text{C}$		+85 $^\circ\text{C}$

\*When wrapped (360°) around a 4.9" (124.5 mm) radius mandrel.

**ECCN**

EAR99

**FEATURES**

- High Performance
- Ruggedized
- Flexible
- Stable and Reliable
- Greater than 10,000 Connections

**APPLICATIONS**

- Test Lab
- VNA

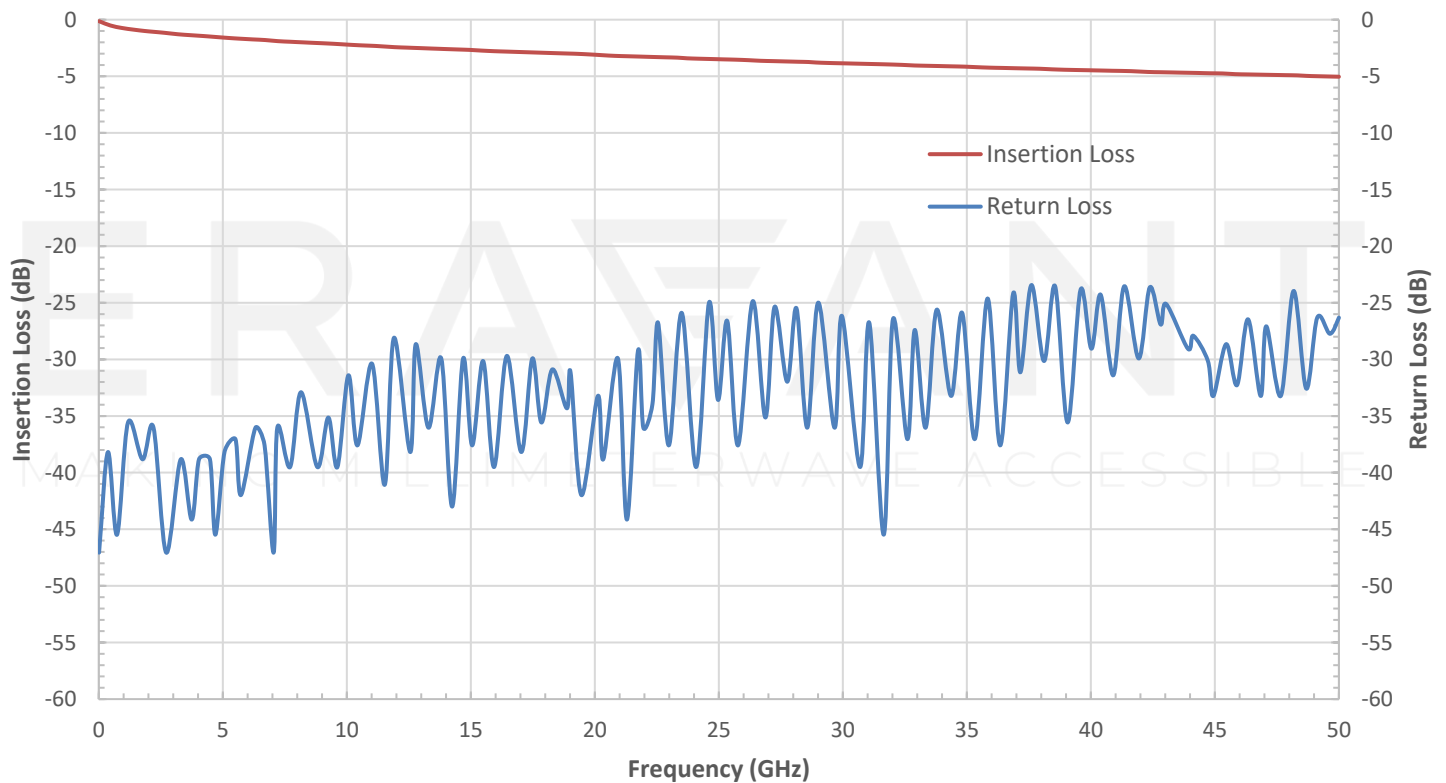
**SUPPLEMENTAL DETAILS**

## STQ-CW-2F2M038-F2

### Mechanical Specifications:

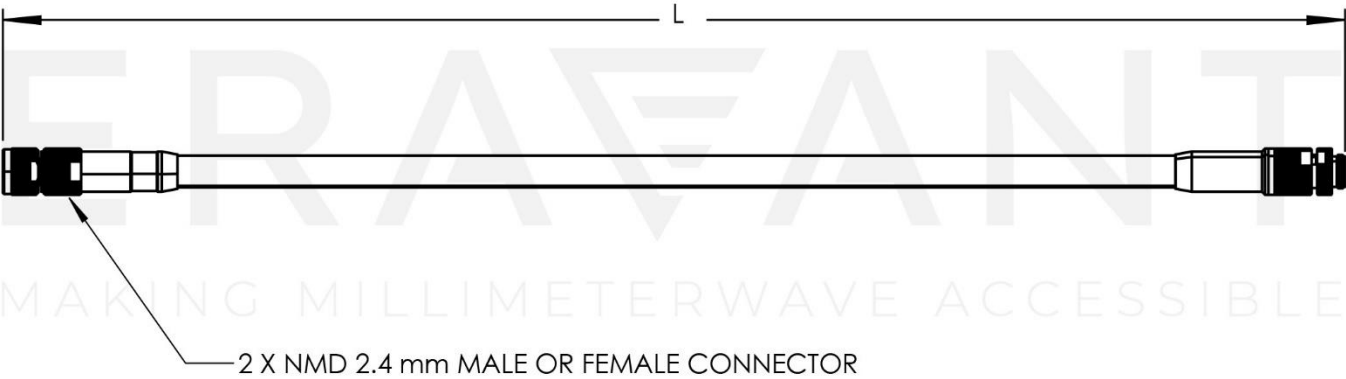
Item	Specification
Connectors 1	2.4 mm NMD Female
Connectors 2	2.4 mm Male
Minimum One-Time Bending Radius	2.5"
Minimum Repeated Bending Radius	4.9"
Connections	>10,000
Connector Contact Material	Beryllium Copper (BeCu)/ Gold Plating per MIL-G-45204
Connector Material	Passivated Stainless Steel
Cable Dielectric	ePTFE
Inner / Outer Cable Jacket Material	FEP / Stainless Steel Braid and Nylon
Cable Outer Diameter	0.560"
Length	38"
Outline	CW-N2N2-F10-V

### Typical Performance vs. Frequency



STQ-CW-2F2M038-F2

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



**NOTE:**

LENGTH "L" IS CUSTOMIZABLE

**NOTE:**

- 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.