

## STQ-CW-2F2F025-F2-EG

## NMD 2.4 mm (F) to 2.4 mm (F) Economy VNA Test Cable, Flexible, 25"

**STQ-CW-2F2F025-F2-EG** is a 25" long, cost effective, instrumentation grade, flexible, armored coaxial cable with a NMD 2.4 mm female and a 2.4 mm female connector that covers the frequency range of DC to 50 GHz. The cable is especially designed and manufactured for VNA applications. The typical amplitude and phase stabilities at 50 GHz are  $\pm 0.05$  dB and  $\pm 3^\circ$  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-2F2M025-F2-EG**, 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		3.0 dB	
Insertion Loss @ 30 to 40 GHz		3.5 dB	
Insertion Loss @ 40 to 50 GHz		3.8 dB	
Return Loss		17.7 dB	
Phase Stability*		$\pm 3^\circ$	
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
- Economy Armored
- Flexible
- Stable and Reliable

## APPLICATIONS

- Test Lab
- VNA

## SUPPLEMENTAL DETAILS



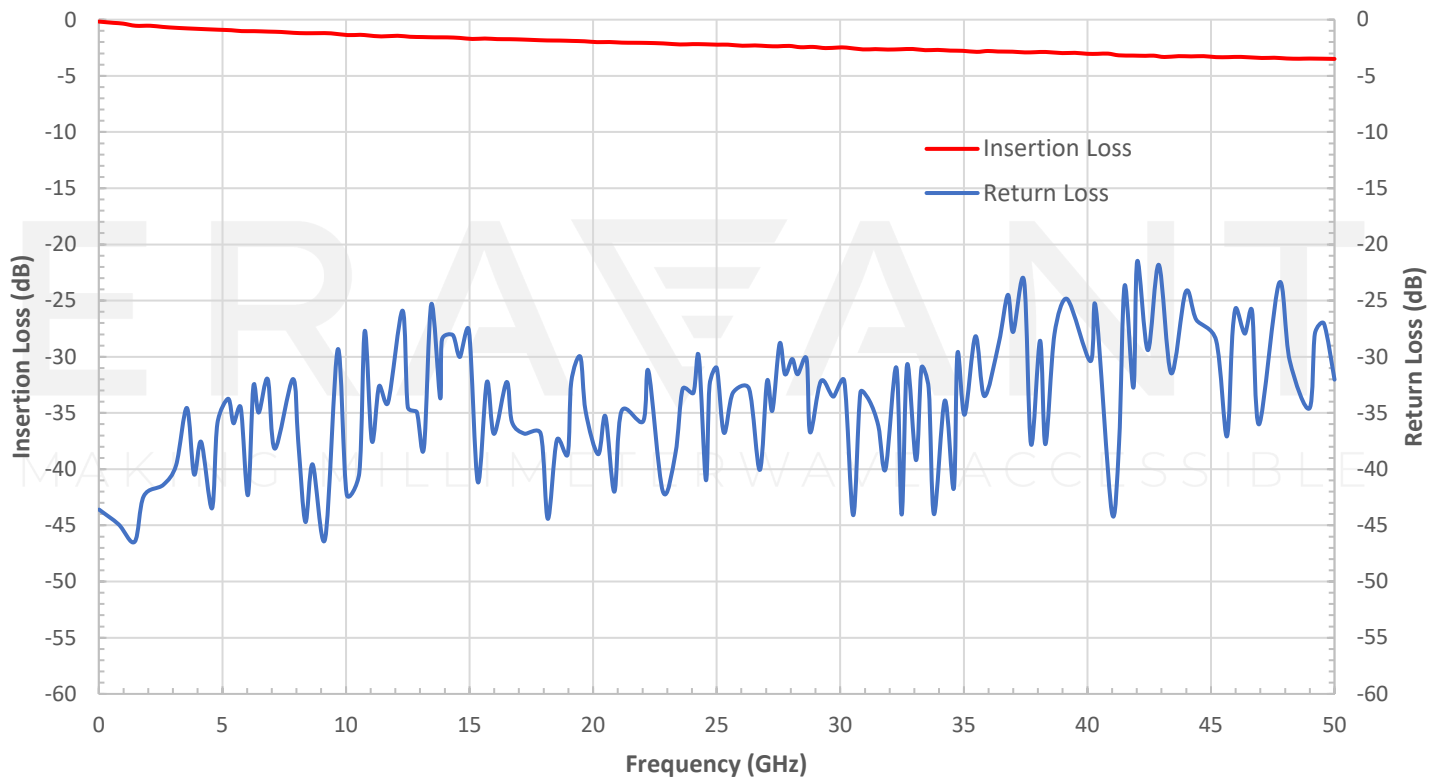
## STQ-CW-2F2F025-F2-EG

## Mechanical Specifications:

Item	Specification
Connectors 1	NMD 2.4 mm Female
Connectors 2	2.4 mm Female
Minimum Bending Radius	1.125"
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	Stainless Steel Braid and PTFE
Cable Outer Diameter	0.199"
Length	25"
Outline	CW-N22-F10-EG-V

MAKING MILLIMETERWAVE ACCESSIBLE

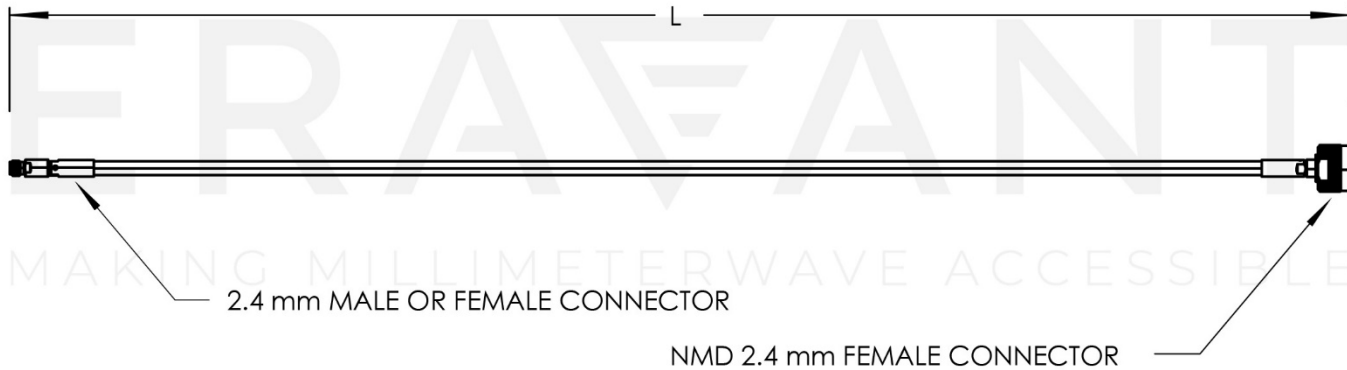
## Typical Performance vs. Frequency



STQ-CW-2F2F025-F2-EG

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.