

## STQ-CW-1F1M020-S2

## 1.0 mm (F) to 1.0 mm (M) VNA Test Cable, 20"

**STQ-CW-1F1M020-S2** is a 20" long, instrumentation grade, armored coaxial cable with a 1.0 mm female and a 1.0 mm male connector that covers the frequency range of DC to 110 GHz. The cable is especially designed and manufactured for VNA applications. 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 connector type combinations and lengths are offered under different models.



## Electrical Specifications:

| Parameter                   | Minimum        | Typical        | Maximum        |
|-----------------------------|----------------|----------------|----------------|
| Frequency Range             | DC             |                | 110 GHz        |
| Insertion Loss @ 110 GHz    |                | 7.2 dB         |                |
| Return Loss @ DC to 40 GHz  |                | 18 dB          |                |
| Return Loss @ 40 to 60 GHz  | 16 dB          | 17 dB          |                |
| Return Loss @ 60 to 110 GHz | 16 dB          | 17 dB          |                |
| Phase Stability             |                | $\pm 2^\circ$  |                |
| Amplitude Stability         |                | $\pm 0.05$ dB  |                |
| Impedance                   |                | 50 $\Omega$    |                |
| Specification Temperature   |                | +25 $^\circ$ C |                |
| Operating Temperature       | -40 $^\circ$ C |                | +85 $^\circ$ C |

## Mechanical Specifications:

| Item                            | Specification                      |
|---------------------------------|------------------------------------|
| Connectors 1                    | 1.0 mm Female                      |
| Connectors 2                    | 1.0 mm Male                        |
| Minimum One-Time Bending Radius | 1"                                 |
| Connector Contact Material      | BeCu, Gold Plating per MIL-G-45204 |
| Connector Material              | Passivated Stainless Steel         |
| Cable Dielectric                | LD PTFE                            |
| Outer Cable Jacket Material     | Stainless Steel Braid and PTFE     |
| Cable Outer Diameter            | 0.185"                             |
| Length                          | 20"                                |
| Outline                         | CW-11-S10-V                        |

## ECCN

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## FEATURES

- High Performance
- Armored
- Stable and Reliable

## APPLICATIONS

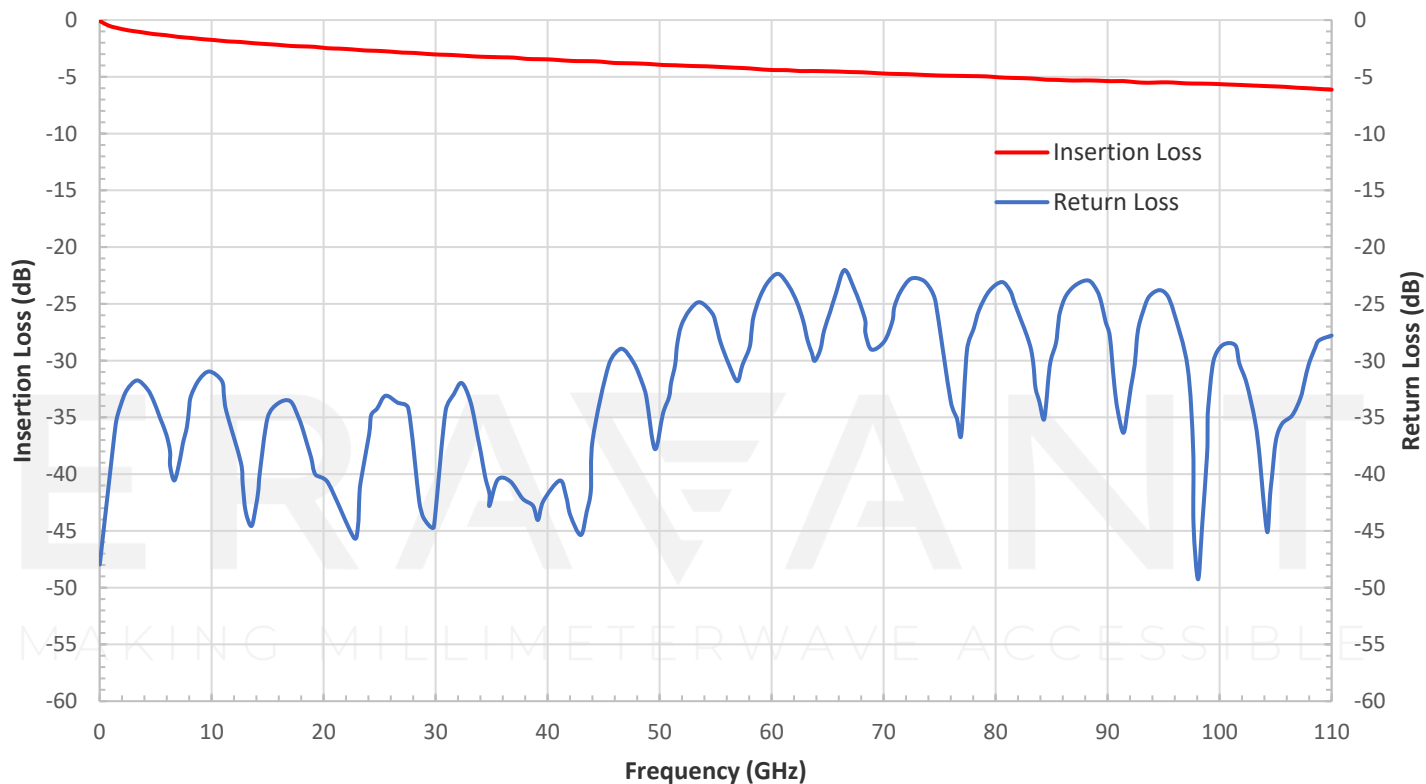
- Test Lab
- VNA

## SUPPLEMENTAL DETAILS

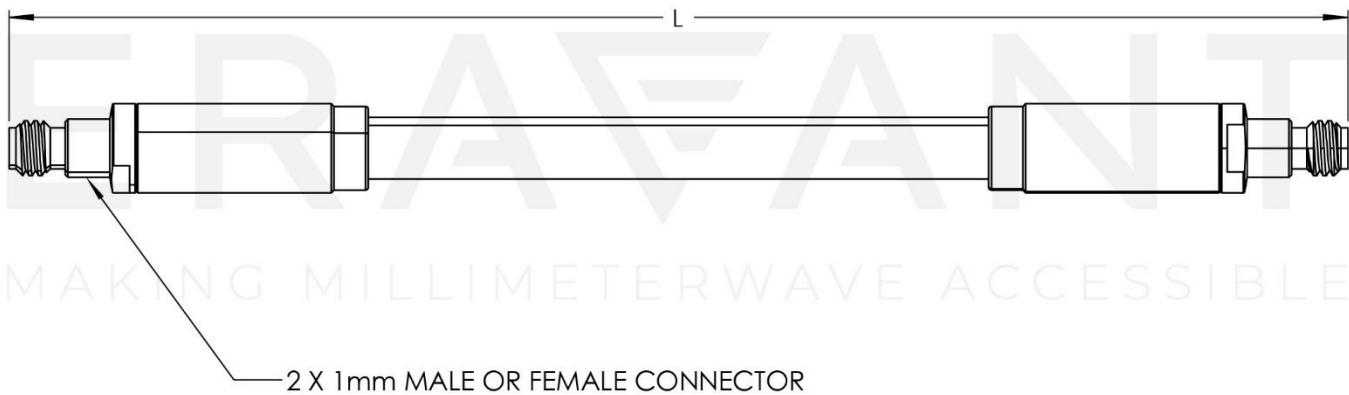


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Typical Performance vs. Frequency



**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:  $4.0 \pm 0.15$  inch-pounds ( $0.45 \pm 0.02$  Nm). Torque wrench model SCH-06004-S1 is highly recommended.

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