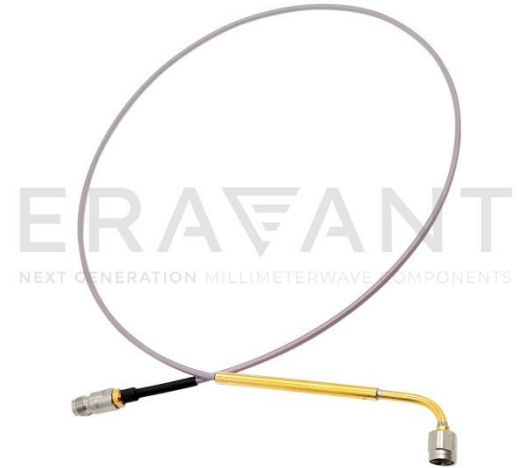


## SCP-VFVM036-F1-83

### 1.85 mm (F) to 1.85 mm (M) Probe Coaxial Cable, Flexible, 36"

**SCP-VFVM036-F1-83** is a 36" long, flexible, probe coaxial cable with a 1.85 mm (V) female connector and a 1.85 mm (V) male connector that covers the frequency range of DC to 67 GHz. The cable is especially designed and manufactured for probe station applications with metal tubing on DUT side. It can improve shielding effectiveness and enhance probe station performance. The typical amplitude and phase stabilities at 67 GHz are  $\pm 0.1$  dB and  $\pm 5^\circ$ . 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		67 GHz
Insertion Loss @ 18 GHz		< 3.2 dB	
Insertion Loss @ 30 GHz		< 4.3 dB	
Insertion Loss @ 40 GHz		< 4.8 dB	
Insertion Loss @ 67 GHz		< 6.4 dB	
Return Loss @ 67 GHz		14 dB	
Impedance		50 $\Omega$	
Phase Stability		$\pm 5^\circ$	
Amplitude Stability		$\pm 0.1$ dB	
Breakdown Voltage			500 Volts
Shielding Effectiveness	90 dB	100 dB	
Power Handling @ 67 GHz			8 W (CW)
Specification Temperature		+25 $^\circ\text{C}$	
Operating Temperature	-55 $^\circ\text{C}$		+125 $^\circ\text{C}$

#### ECCN

EAR99

#### FEATURES

- Instrumentation Grade
- Metal Tubing on DUT side
- ePTFE Dielectric
- High Phase Stability
- High Amplitude Stability
- High Return Loss
- Low Insertion Loss

#### APPLICATIONS

- Probe Stations

#### SUPPLEMENTAL DETAILS

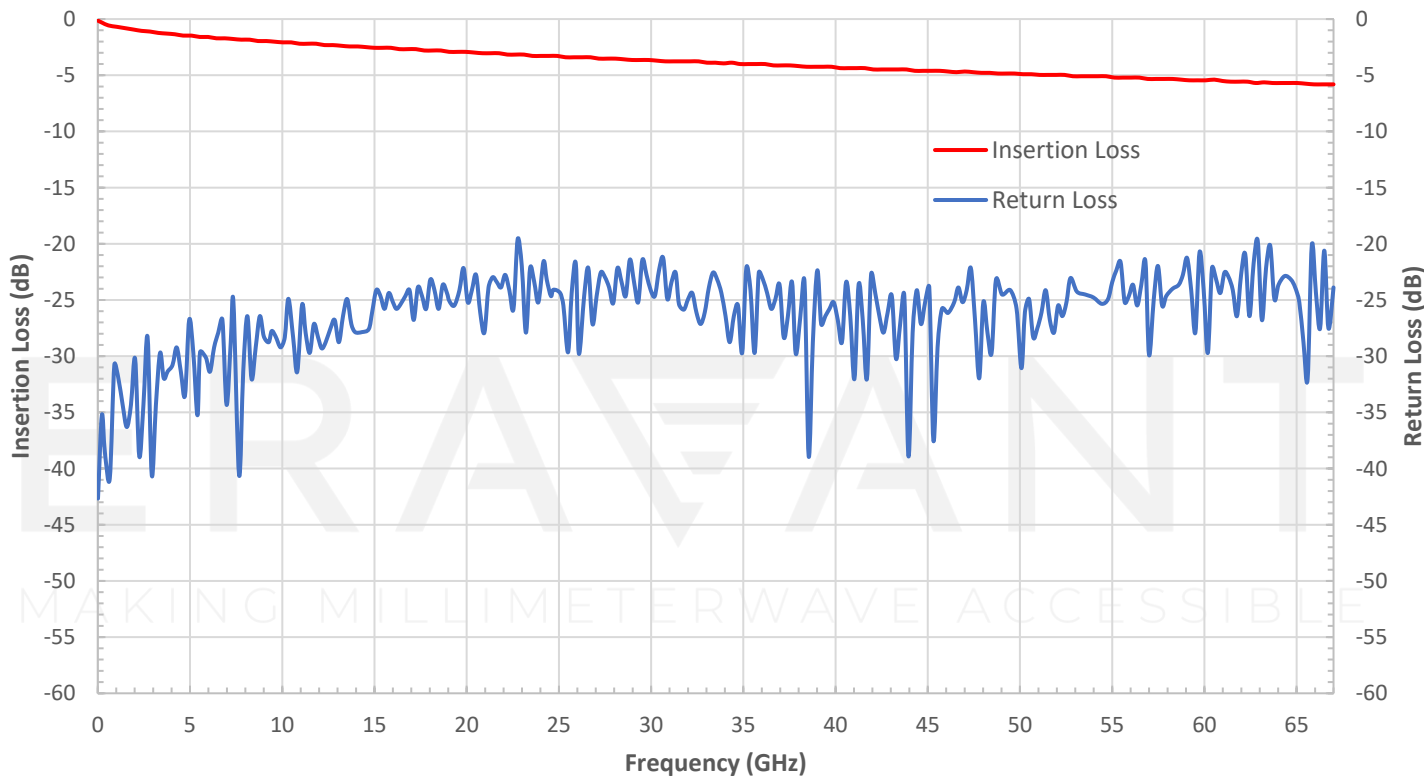


SCP-VFVM036-F1-83

Mechanical Specifications:

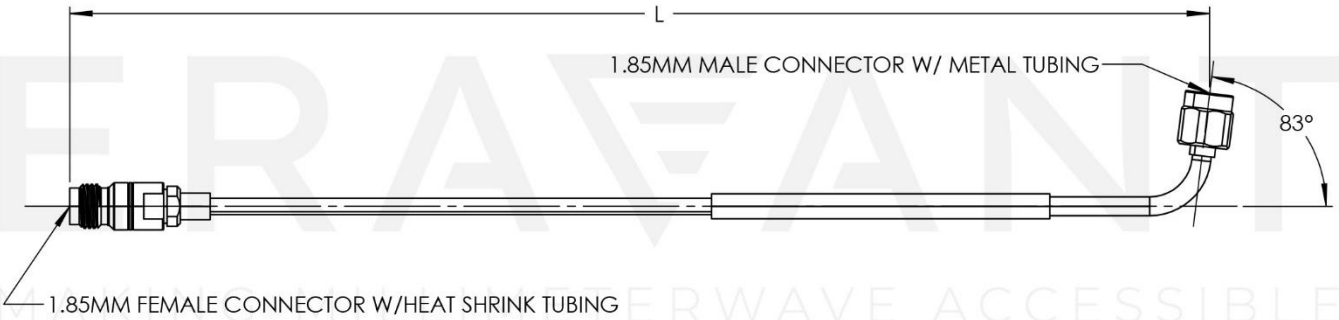
Item	Specification
Connector 1	1.85 mm Female
Connector 2	1.85 mm Male with Metal Tubing, 83° angle
Connector Contact Material	Be-Cu / Gold Plating per MIL-G-45204
Connector Material	Passivated Stainless Steel
Connector Dielectric	PEI
Cable Dielectric	ePTFE
Cable Jacket Material	Grey FEP
Cable Outer Diameter	0.085"
Length	36"
Minimum Bending Radius	0.5"
Weight	1.3 Oz
Outline	CP-VVR-F1-R1-83

Typical Performance vs. Frequency



## SCP-VFVM036-F1-83

**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:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench model SCH-08008-S1 is highly recommended.