

### **Description:**

**Model SCV-000653402505-VFVF-U3** is a bias tee that operates from 30 kHz to 65 GHz. The bias tee offers 4.0 dB typical insertion loss and 8 dB typical return loss. The bias tee can handle up to  $+25 \, V_{DC}$  bias voltage and 500 mA current. The RF ports are equipped with 1.85 mm V(F) connectors. Other connector types are available under different model numbers.



#### **Features:**

- High Voltage
- High Current Capacity
- Low Insertion Loss

# **Applications:**

- Test Lab
- Sub-assemblies
- System Integrations

## **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency	30 kHz		65 GHz
Insertion Loss		4.0 dB	
Return Loss		8 dB	
Isolation		25 dB	
DC Voltage			+25 V <sub>DC</sub>
DC Current			500 mA
Power Handling			1 W (CW)
Specification Temperature	A A	+25 °C	4 79
Operating Temperature	0 °C		+50 °C

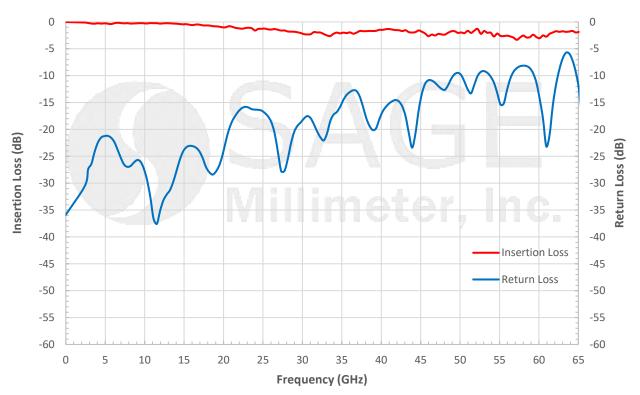
# **Mechanical Specifications:**

Item	Parameter
Input Port	1.85 mm Female
Output Port	1.85 mm Female
DC Port	SMA Female
Case Material	Aluminum
Finish	Black Paint
Outline	CV-V-S2

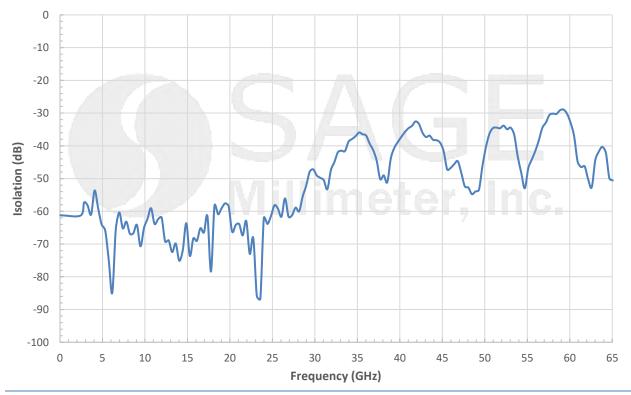
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# 1.85 mm Bias Tee, 30 kHz to 65 GHz

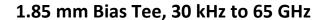
### **Typical Performance vs. Frequency**



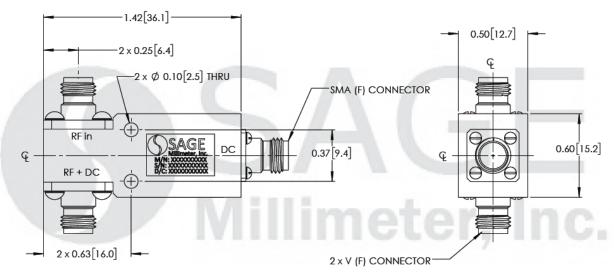
# **Typical Isolation vs. Frequency**



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



#### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 °C case temperature.
- Other mechanical configurations are available under different model numbers.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

#### Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- Any foreign objects in the bias tee will cause performance degradation and possible device damage.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter** torque wrench, model SCH-08008-U3, is highly recommended.



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