

SKS-5037533030-1515-R1

Rev. 1.0

SPST PIN Switch with TTL Drive, V Band, Reflective

Description:

Model SKS-5037533030-1515-R1 is a PIN diode based, single pole, single throw (SPST) switch with a TTL driver that covers 50 to 75 GHz. This model offers a low insertion loss of 2.0 dB with a minimum isolation of 25 dB. The SPST switch has a WR-15 waveguide with UG-385/U flanges at the RF input and output and an SMA(F) connector for TTL control. The SPST switch can be modified for various operational frequencies under different model numbers.



Features:

- Low Insertion Loss
- High Isolation
- Fast Control Speed

Applications:

- Radar Systems
- Communication Systems
- Testing Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	50 GHz		75 GHz
Insertion Loss		2.0 dB	3.0 dB
Isolation	25 dB	30 dB	
Power Handling		+20 dBm	+23 dBm
Bias Voltage		$\pm 5 V_{DC}$	
Bias Current		10 mA	
Control Signal		TTL	
Switching Speed		100 ns	
Specification Temperature		+25 °C	
Operating Temperature	-25 °C		+65 °C

Mechanical Specifications:

Item	Specification
RF Ports	WR-15 Waveguide with UG-385/U Flange
Bias Ports	Feed Through Pins
TTL Control Port	SMA(F)
Case Material	Aluminum
Finish	Gold Plated
Weight	1.2 Oz
Insertion Length	1.2 Inches
Outline	KS-RV

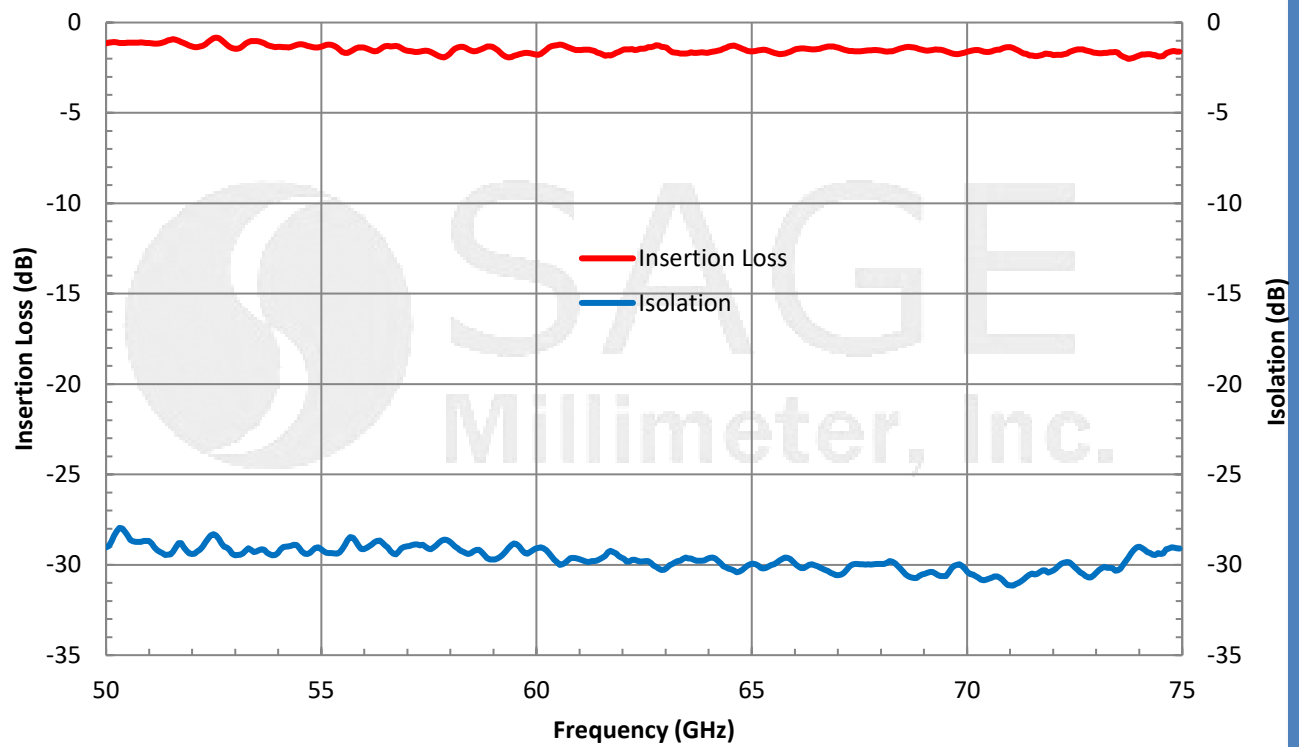


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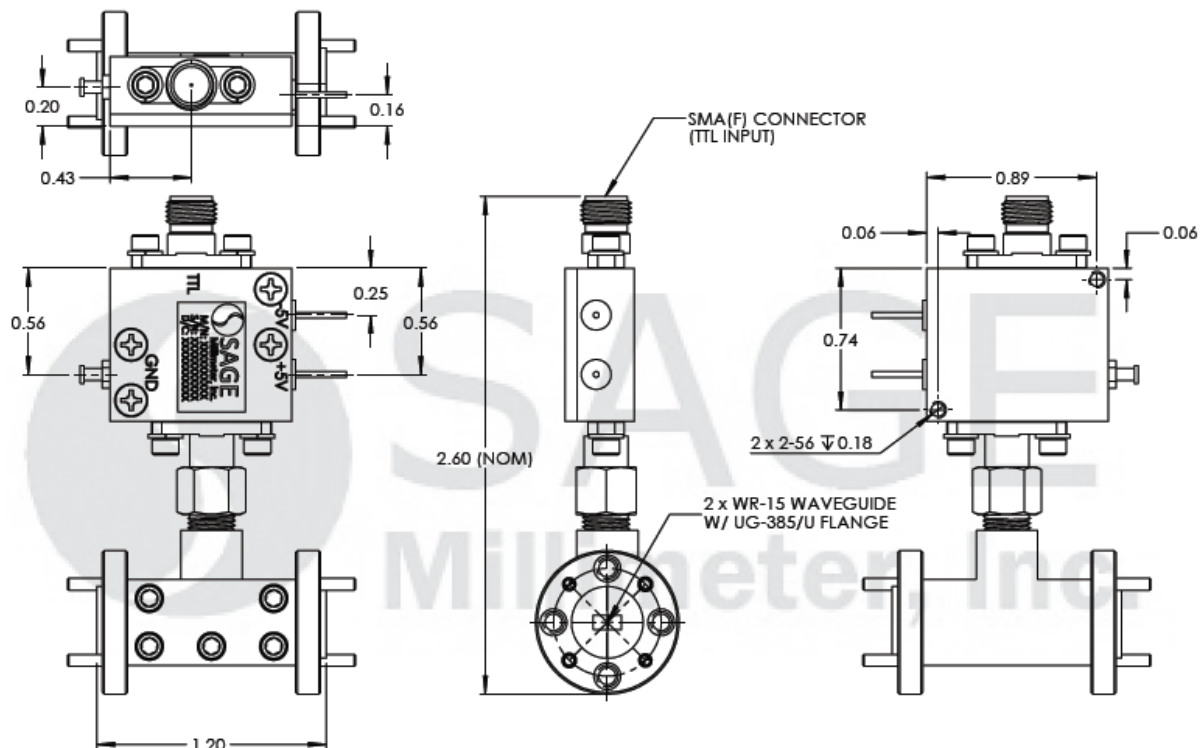
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Typical Insertion Loss and Isolation vs. Frequency



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



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Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit slightly.
- 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 switch is a static sensitive device. Always follow ESD rules when working with the switch.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

