



## SPST PIN Switch with TTL Drive, E Band, Reflective

### Description:

**Model SKS-6039033030-1212-R1** is a PIN diode based, single pole, single throw (SPST) switch with a TTL driver that covers 60 to 90 GHz. This model offers a low insertion loss and a typical isolation of 25 dB across the full E-Band frequency range. However, from 65 to 80 GHz, the switch offers a maximum insertion loss of 3 dB and a minimum isolation of 30 dB. The SPST switch has a WR-12 waveguide with UG-387/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	60 GHz		90 GHz
Insertion Loss		3.0 dB	4.0 dB
Isolation	20 dB	25 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	-40 °C		+85 °C

### Mechanical Specifications:

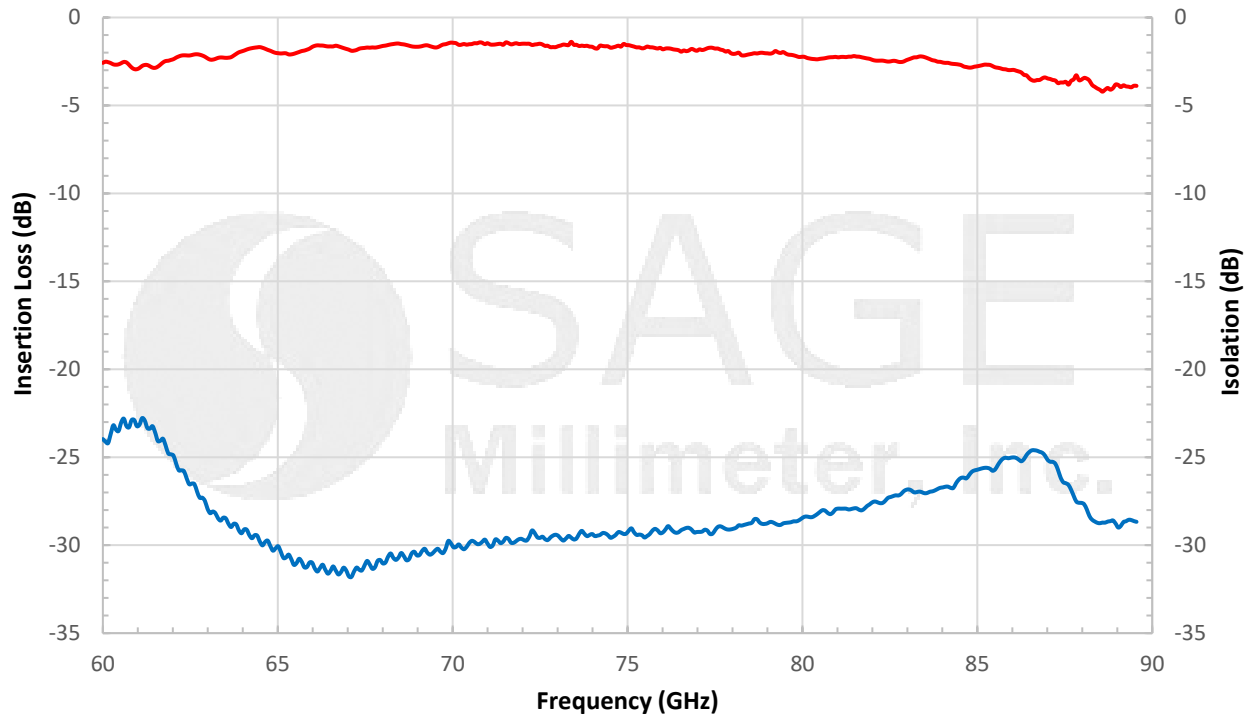
Item	Specification
RF Ports	WR-12 Waveguide with UG-387/U Flange
Bias Ports	Feed Through Pins
TTL Control Port	SMA(F)
Case Material	Aluminum
Finish	Gold Plated
Weight	1.2 Oz
Insertion Length	1.20"
Outline	KS-RE



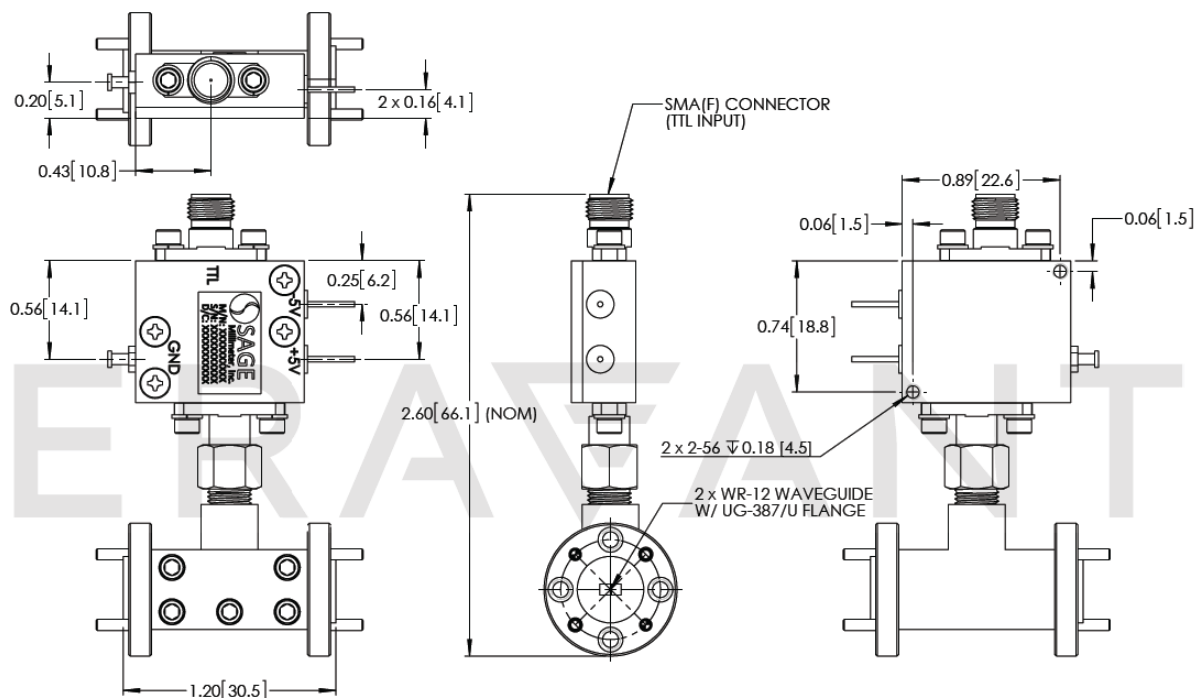


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### Insertion Loss and Isolation vs. Frequency



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





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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.
- Eravant 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,  $8.0 \pm 0.15$  inch-pounds ( $0.92 \pm 0.05$  Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

