SKS-7531142520-1010-R1

Rev. 1.0

SPST PIN Switch with TTL Drive, 75 to 110 GHz, Reflective

Description:

Model SKS-7531142520-1010-R1 is a PIN diode based, single pole, single throw (SPST) switch with a TTL driver that covers 75 to 110 GHz. This model offers a low insertion loss of 2.5 dB with a typical isolation of 15 dB. The SPST switch has a WR-10 waveguide with UG-387/U-M 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
RF Frequency	75 GHz		110 GHz
Insertion Loss		2.5 dB	
Isolation		15 dB	
Power Handling		+20 dBm	+23 dBm
Bias Voltage		±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-10 Waveguide with UG-387/U-M 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’’
Outline	KS-RW

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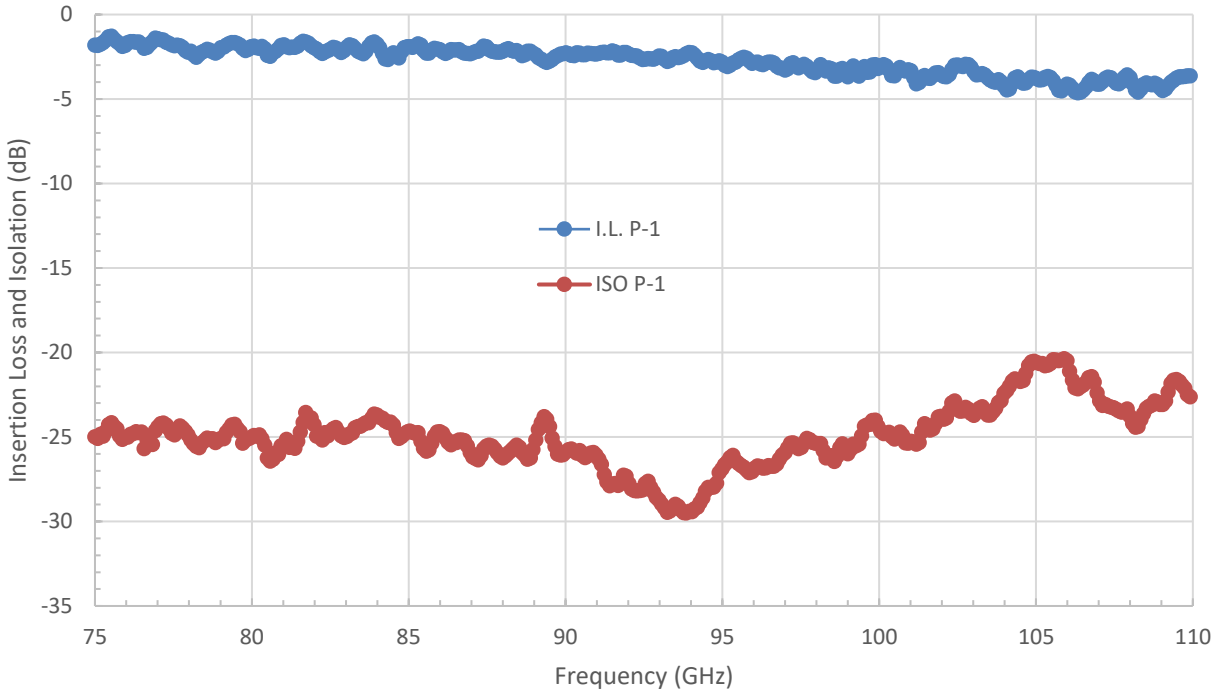
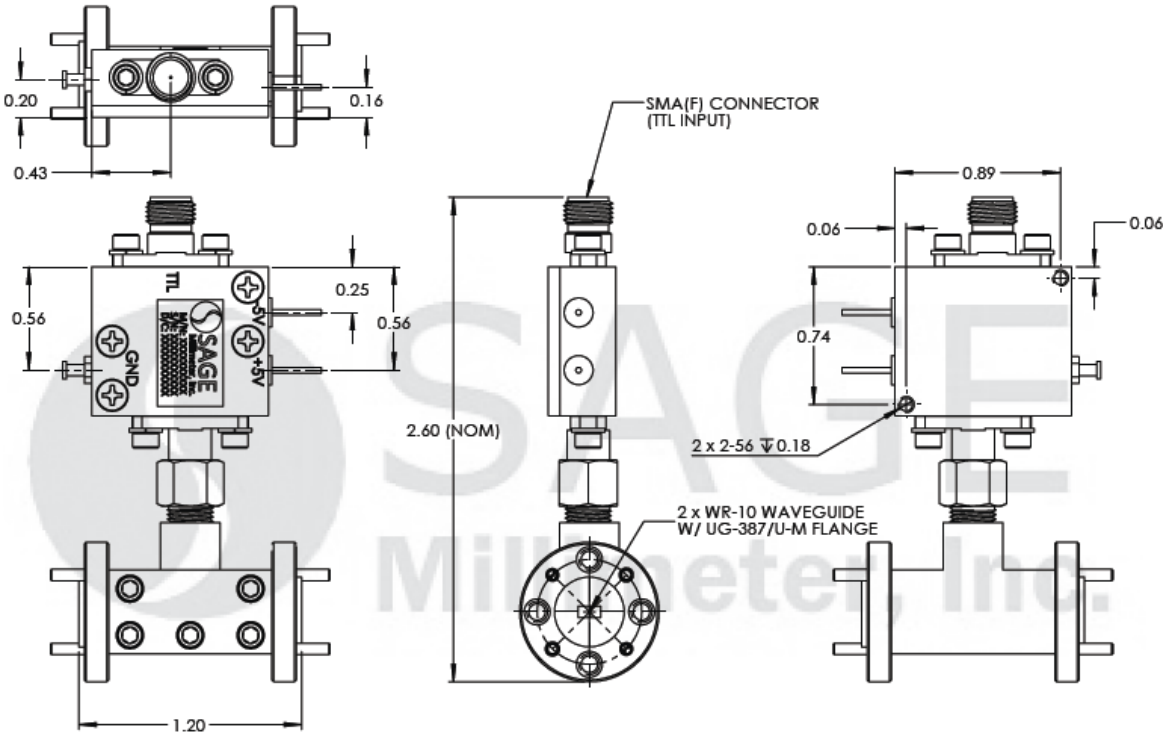
Typical Insertion Loss and Isolation vs. Frequency



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.**

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