

## SPDT PIN Switch with TTL Driver, 75 to 100 GHz, Reflective

**SKD-7531143530-1010-R1-M-WP** is a reflective PIN diode based, single pole, double throw (SPDT) switch with a TTL driver that operates from 75 to 100 GHz. The SPDT switch requires a separate -5 V and +5 V biasing in addition to the TTL control. This model has an insertion loss of 3.5 dB typical and an isolation of 30 dB nominal at its center frequency. The SPDT switch features WR-10 waveguides with UG-387/U-M anti-cocking flanges at the RF input and output and a female SMA connector for TTL control on the driver.



## Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	75 GHz		100 GHz
Insertion Loss		3.5 dB	
Isolation	25 dB	30 dB	
Maximum Input Power			+30 dBm
Control Signal		TTL	
Switching Speed		100 ns	
Bias Voltage		$\pm 5 V_{DC}$	
Bias Current		10 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

## Mechanical Specifications:

Item	Specification
Input Port	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
Output Ports	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
Bias Ports	Feed Through Pins
TTL Control	SMA (F)
Case Material	Aluminum
Finish	Gold Plated
Weight	0.8 Oz
Size	1.10" (L) X 1.00" (W) X 0.83" (H)
Outline	KD-RWM-A-2

## ECCN

EAR99

## FEATURES

- Low Insertion Loss
- High Isolation

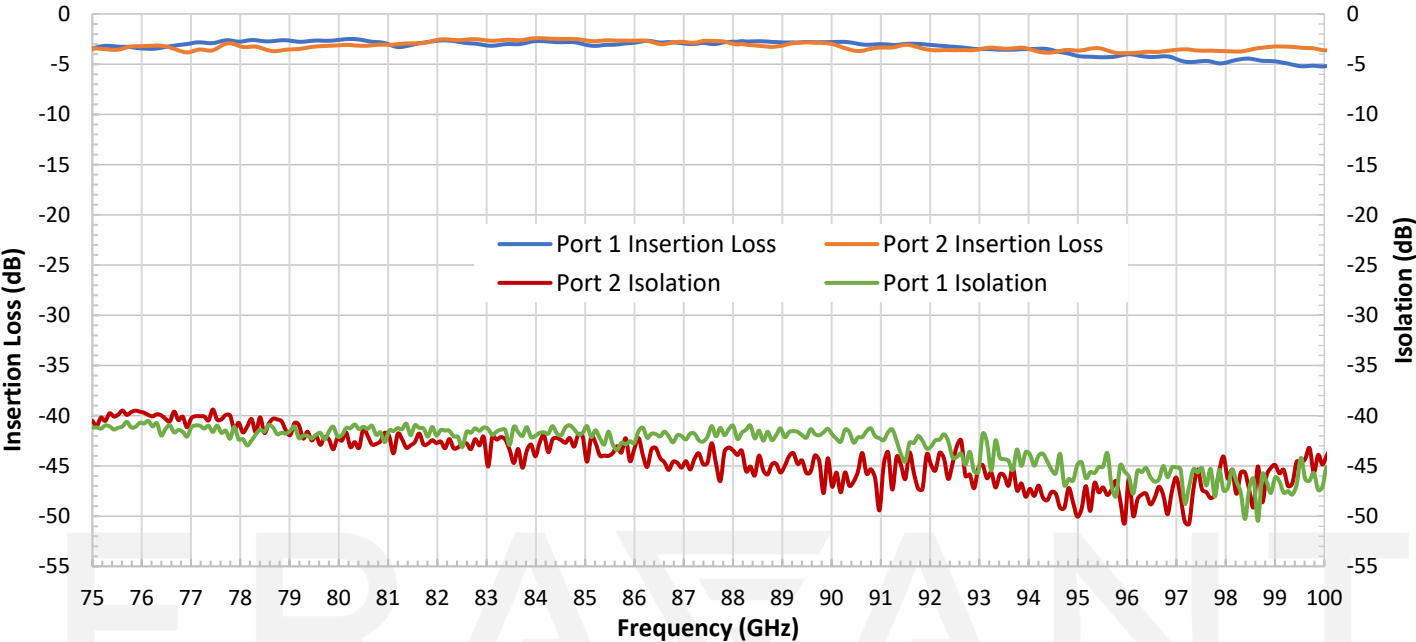
## APPLICATIONS

- Radar Systems
- Communication Systems
- Sensors

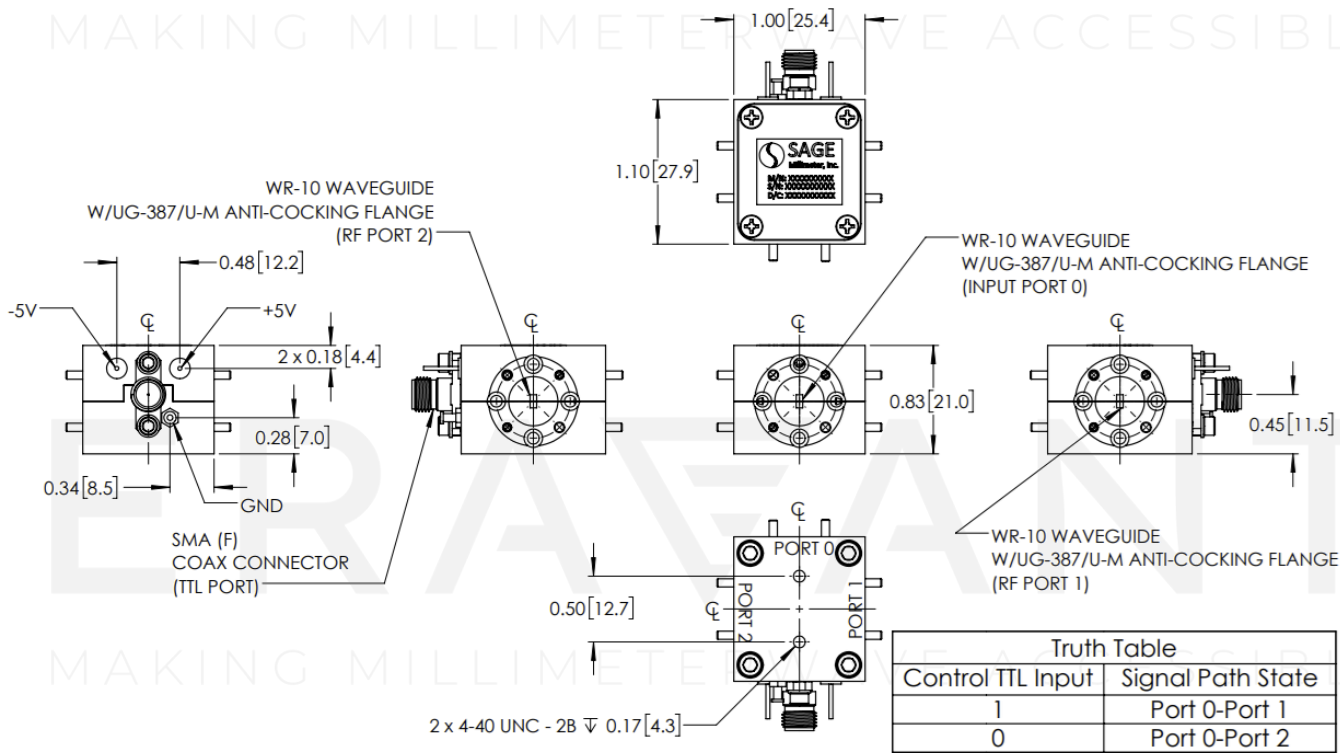
## SUPPLEMENTAL DETAILS



Measured Performance vs. Frequency



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



**NOTE:**

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- 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.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors 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**

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