SKD-4036033535-1919-R1-M

SPDT PIN Switch with TTL Driver, 40 to 60 GHz, Reflective

SKD-4036033535-1919-R1-M is a PIN diode MMIC based, single pole, double throw (SPDT) switch with a TTL driver that operates from 40 to 60 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 35 dB nominal at its center frequency. The SPDT switch features WR-19 waveguides and standard UG-383/U-M anti-cocking flanges at the input and outputs and a female SMA connector for TTL control.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	40 GHz		60 GHz
Insertion Loss		3.5 dB	
Isolation		40 dB	
Power Handling			+23 dBm
Bias Voltage		±5 V_{DC}	
Bias Current		10 mA	
Switching Speed		100 ns	
Specification Temperature		+25°C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Input Port	WR-19 Waveguide with UG-383/U-M Anti-Cocking Flange
Output Ports	WR-19 Waveguide with UG-383/U-M Anti-Cocking Flange
Bias Ports	Feed Through Pins
TTL Control	SMA (F)
Case Material	Aluminum
Finish	Gold Plated
Size	0.90” (L) X 0.90” (W) X 0.50” (H)
Outline	KD-RU-A

ECCN

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FEATURES

- Low Insertion Loss
- High Isolation

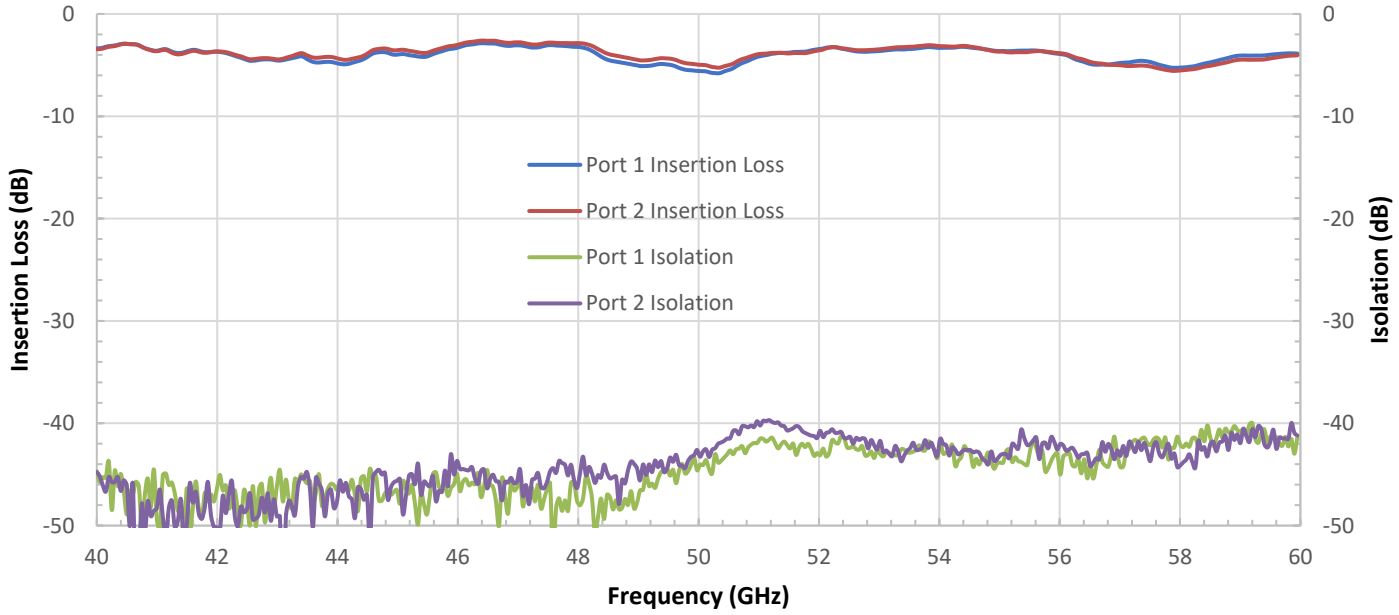
APPLICATIONS

- IEEE 802.11ad, WiGig
- Radar Systems
- Communication Systems
- Sensors

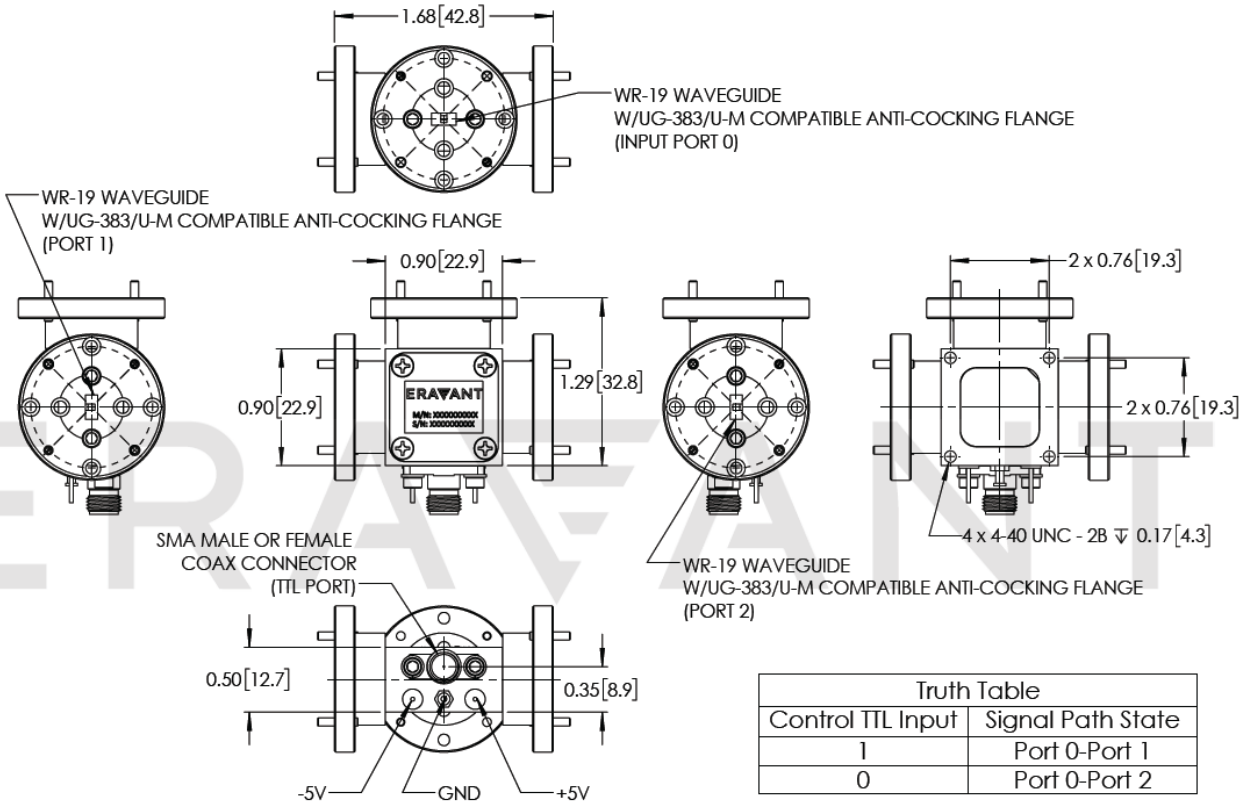
SUPPLEMENTAL DETAILS

Insertion Loss and Isolation vs. Frequency

RF: -20 dBm



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



Truth Table	
Control TTL Input	Signal Path State
1	Port 0-Port 1
0	Port 0-Port 2

NOTE:

- Other mechanical configurations are available under different model numbers.
- Eravant reserves the right to change the information presented without notice.
- The switch employs Eravant's trademarked and patent pending technology, the **Uni-Guide™,** as its waveguide interfaces. The orientation of the input and the output waveguides can be specified through corresponding model numbers. For example, the model number for a vertical input waveguide and horizontal output waveguide configuration would be **SKD-4036033535-1919H-R1-M** instead of the default **SKD-4036033535-1919-R1-M** which indicates vertical orientation for both input and output.
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CAUTION:

- Exceeding absolute maximum ratings of the switch will damage the device.
- The switch is a static sensitive device. Always follow ESD rules when working with the switches.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.

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