SKD-4535533030-VFVF-R3

U Band SPDT PIN Switch with TTL Driver, Reflective

Description:

Model SKD-4535533030-VFVF-R3 is a U band reflective PIN diode based, single pole, double throw (SPDT) switch with a TTL driver that operates between 45 and 55 GHz. This model offers a typical insertion loss of 3.0 dB and 30 dB port-to-port isolation with a typical switching speed of 100 nanoseconds. The switch has female V connectors for all RF ports and solder pins for DC bias and TTL control.

Features:

- High Isolation
- Compact Size
- Fast Control Speed

Applications:

- 5G Systems
- Radar Systems
- Communication Systems
- Automatic Test Set
- Switching Network

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	45 GHz		55 GHz
Insertion Loss		3.0 dB	
Return Loss		10 dB	
Isolation		30 dB	
Operational RF Input Power			+20 dBm
Damage RF Input Power			+27 dBm
Bias Voltage		±5 V_{DC}	
Bias Current		50/50 mA	
Control		TTL	
Switching Speed		100 ns	
Specification Temperature		+25 °C	
Operation Temperature	-45 °C		+85 °C

Mechanical Specifications:

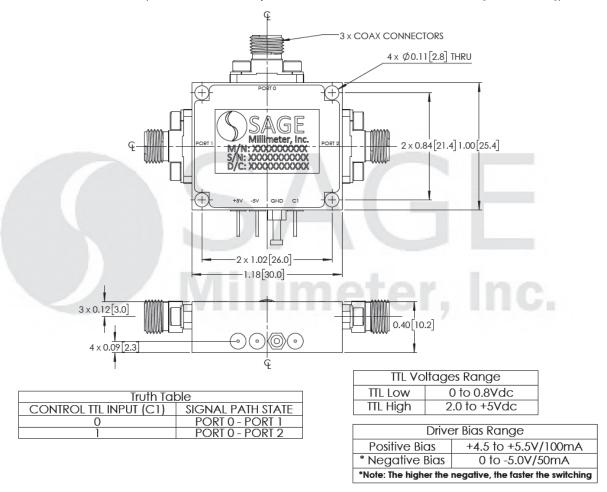| Item	Specification
Input Port	V(F)
Output Port	V(F)
Bias	Solder Pins
Logic Input	Solder Pins
Case Material	Aluminum
Finish	Gold Plated
Weight	1.06 Oz
Size	1.18" (L) X 1.00" (W) X 0.40" (H)
Outline	KD-RC-Z1

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

Truth Table	
CONTROL TTL INPUT (C1)	SIGNAL PATH STATE
0	PORT 0 - PORT 1
1	PORT 0 - PORT 2

TTL Voltages Range	
TTL Low	0 to 0.8Vdc
TTL High	2.0 to +5Vdc

Driver Bias Range	
Positive Bias	+4.5 to +5.5V/100mA
* Negative Bias	0 to -5.0V/50mA
*Note: The higher the negative, the faster the switching	

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.
- Proper torque, 8.0 ± 0.4 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

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