



SP8T PIN Switch with TTL Driver, Absorptive, 0.5 to 40 GHz

Description:

Model SK8-0524036550-KFKF-AD1 is an absorptive PIN diode based, single pole, eight throw switch with a TTL driver that operates between 0.5 and 40 GHz. The switch requires a separate -5 V and +5 V biasing in addition to the TTL control. This model offers a small form factor, typical 6.5 dB insertion loss, and 50 dB minimum isolation with a switching speed up to 50 nanoseconds. The switch has female K connectors for all RF ports and solder pins for bias port and TTL control.



Features:

- Low Insertion Loss
- High Isolation
- Absorptive
- TTL Controlled

Applications:

- Radar Systems
- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	0.5 GHz		40 GHz
Insertion Loss		6.5 dB	8.5 dB
Isolation	50 dB		
Return Loss		7 dB	6 dB
Input RF Power		+20 dBm	+23 dBm
Bias Voltage	-5 V _{DC}		+5 V _{DC}
Bias Current	30 mA		100 mA
Control		TTL	
Switching Speed		50 ns	
Switch Type		Absorptive	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

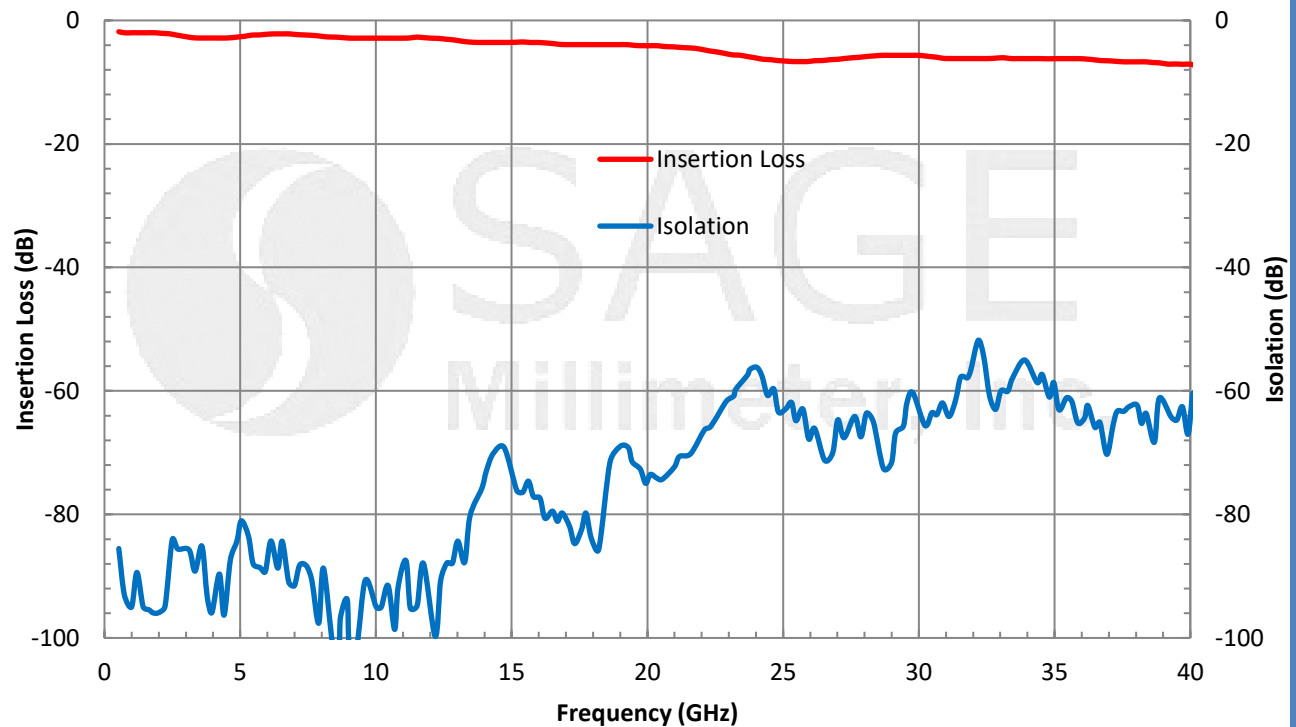
Item	Specification
RF Ports	K(F)
Bias Port	Solder Pins
Control Port	Solder Pins
Case Material	Aluminum
Finish	Gold Plated
Weight	3.52 Oz
Outline	K8-AC-D1



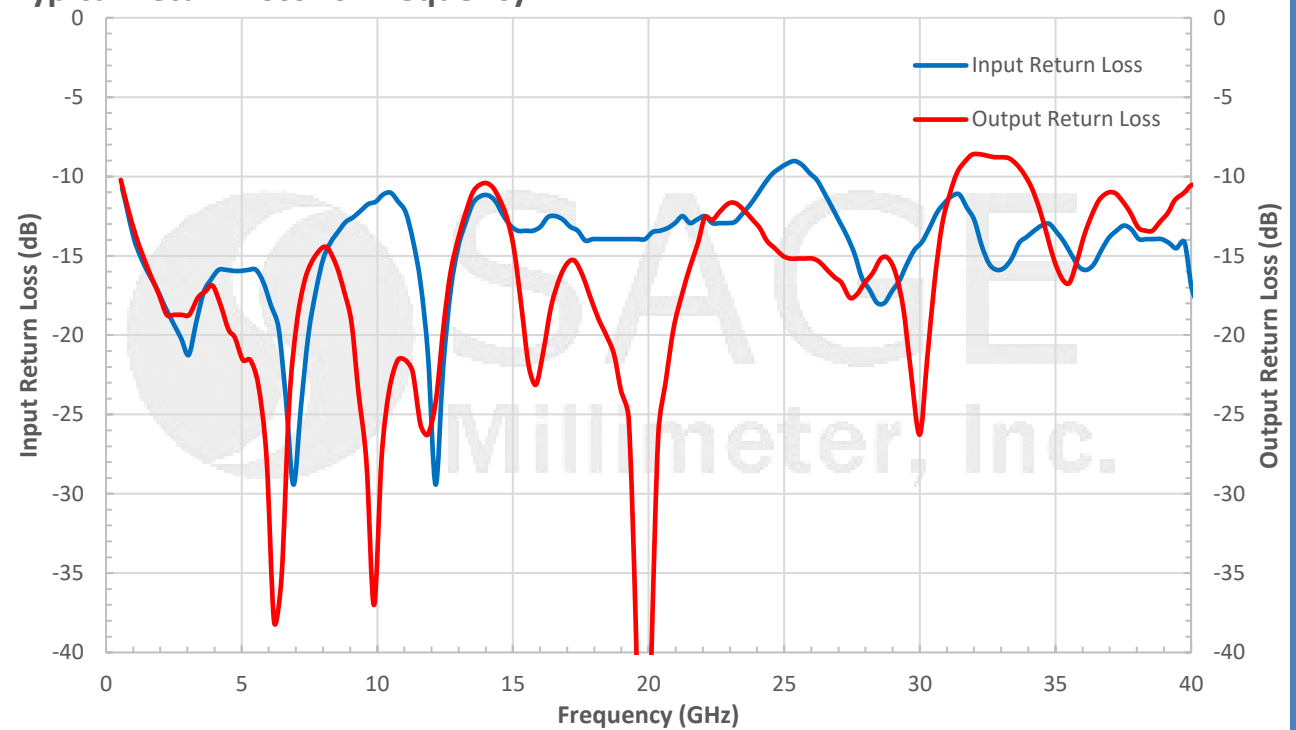


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Typical Insertion Loss and Isolation vs. Frequency



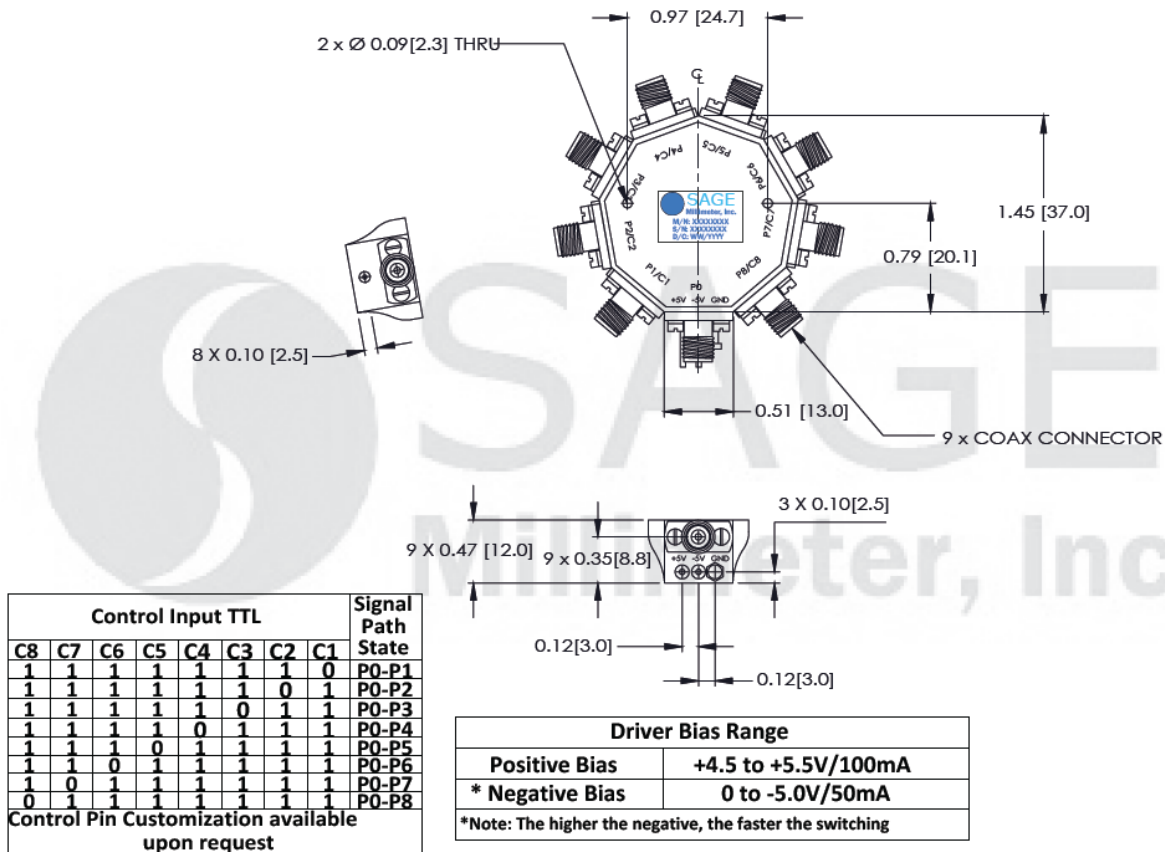
Typical Return Loss vs. Frequency





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



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 device is static sensitive. Always follow ESD rules when working with the device.
- Reversing polarity will destroy the device.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

