



## SPST PIN Switch with TTL Driver, 25 to 30 GHz, Absorptive

### Description:

**Model SKS-2533034060-KFKF-A1** is an absorptive PIN diode based, single pole, single throw (SPST) switch with a TTL driver that operates from 25 to 30 GHz. The switch requires a separate -5 V and +5 V biasing in addition to the TTL control. This model has an insertion loss of 4 dB typical and provides 60 dB of isolation with 15 dB return loss at both RF ports. The SPST switch features female K connectors for all RF ports and a female SMA connector for TTL control of the driver. The switch can be modified for various operational frequencies under different model numbers.



### Features:

- Non-Reflective
- Low Insertion Loss
- Very High Isolation

### Applications:

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

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	25 GHz		30 GHz
Insertion Loss		4 dB	
Isolation		60 dB	
Return Loss "OFF" State (Isolated)	10 dB	15 dB	
Return Loss "ON" State (Through)	9 dB	12 dB	
Power Handling			+23 dBm
Bias Voltage		$\pm 5 V_{DC}$	
Bias Current		20 mA	
Switching Speed		100 nS	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

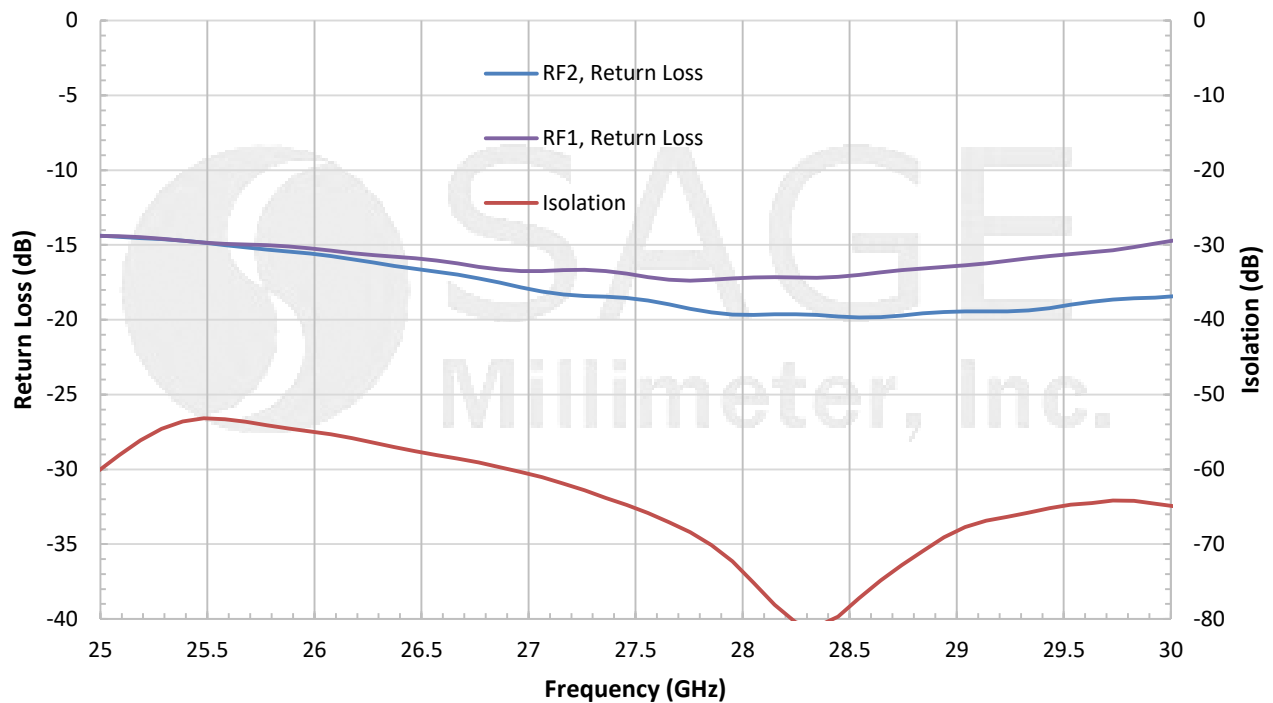
Item	Specification
RF Ports	K(F)
TTL Control	SMA (F)
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.4" (L) X 1.2" (W) X 0.5" (H)
Outline	KS-AC-3



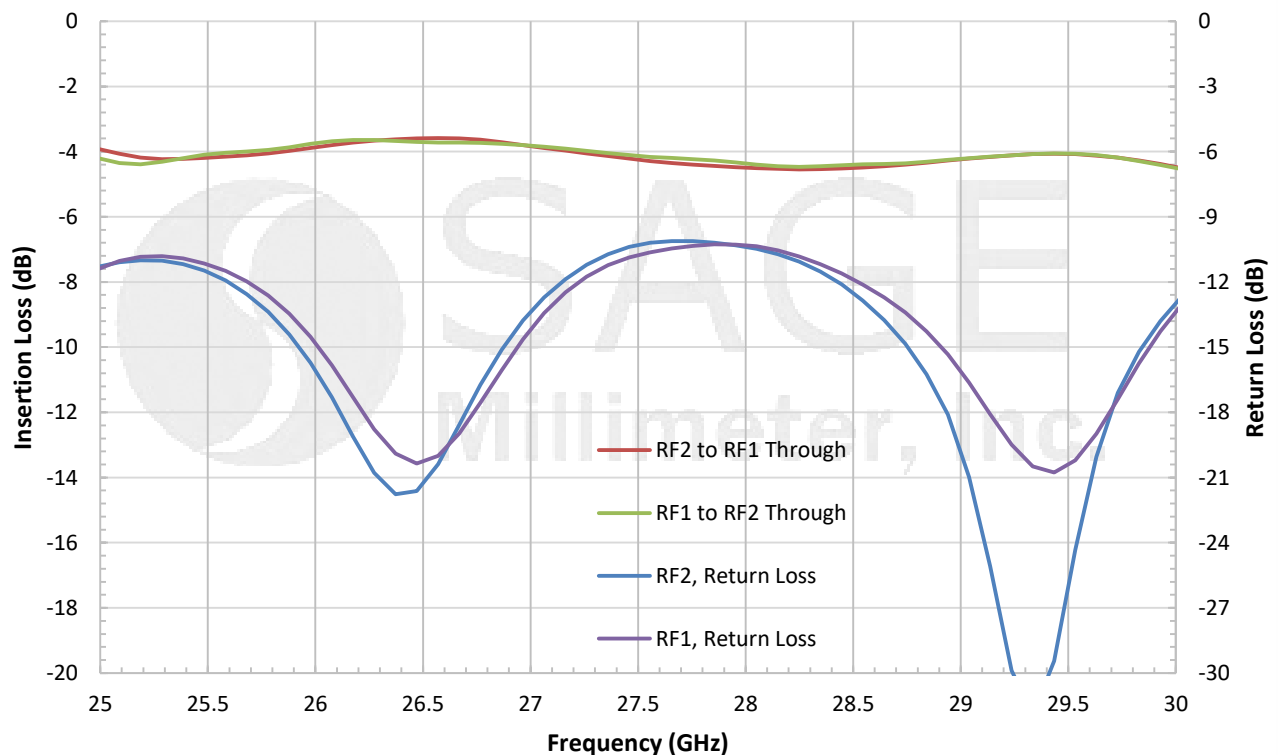


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### Switch "OFF" State Performance vs. Frequency



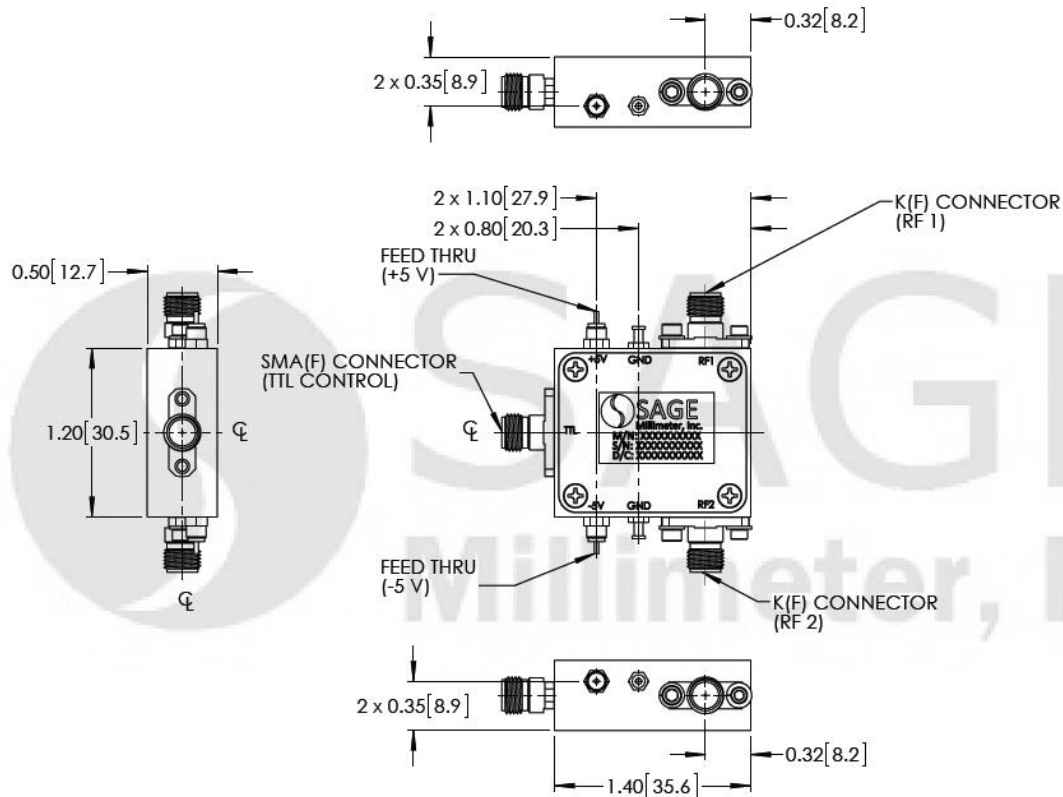
### Switch "ON" State Performance vs. Frequency





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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 switch is a static sensitive device. Always follow ESD rules when working with the switch.
- Proper torque,  $8.0 \pm 0.15$  inch-pounds ( $0.92 \pm 0.05$  Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

