SK4-1834035540-KFKF-R1

Advanced

SP4T PIN Switch with TTL Driver, 18 to 40.0 GHz

Description:

Model SK4-1834035540-KFKF-R1 PIN diode based, single pole, four throw (SP4T) reflective switch with a TTL driver that operates between 18 and 40 GHz. This model offers a small form factor by integrating the switch and driver into a common housing and achieves a low insertion loss by minimizing high loss transmission. The SP4T switch offers 40 dB port-to-port isolation with a switching speed of up to 100 nanoseconds. The switch has female K connectors for all RF ports and solder pins for TTL control.

Features:

- Full Ka Coverage
- High Isolation
- Compact Size

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18 GHz		40.0 GHz
Insertion Loss		5.5 dB	
Return Loss		-14.0 dB	
Isolation		40 dB	
Maximum Input RF Power		+20 dBm	+23 dBm
Bias Voltage		±5 V_{DC}	
Bias Current		80 mA	
Control		TTL	
Switching Speed		100 nS	
Specification Temperature		+25 °C	
Operation Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Input Port	K(F)
Output Port	K(F)
Bias	Solder Pins
Logic Input	Solder Pins
Case Material	Aluminum
Finish	Gold Plated
Weight	2.5 Oz
Size	1.58” (L) X 1.40” (W) X 0.75” (H)
Outline	K4-RC

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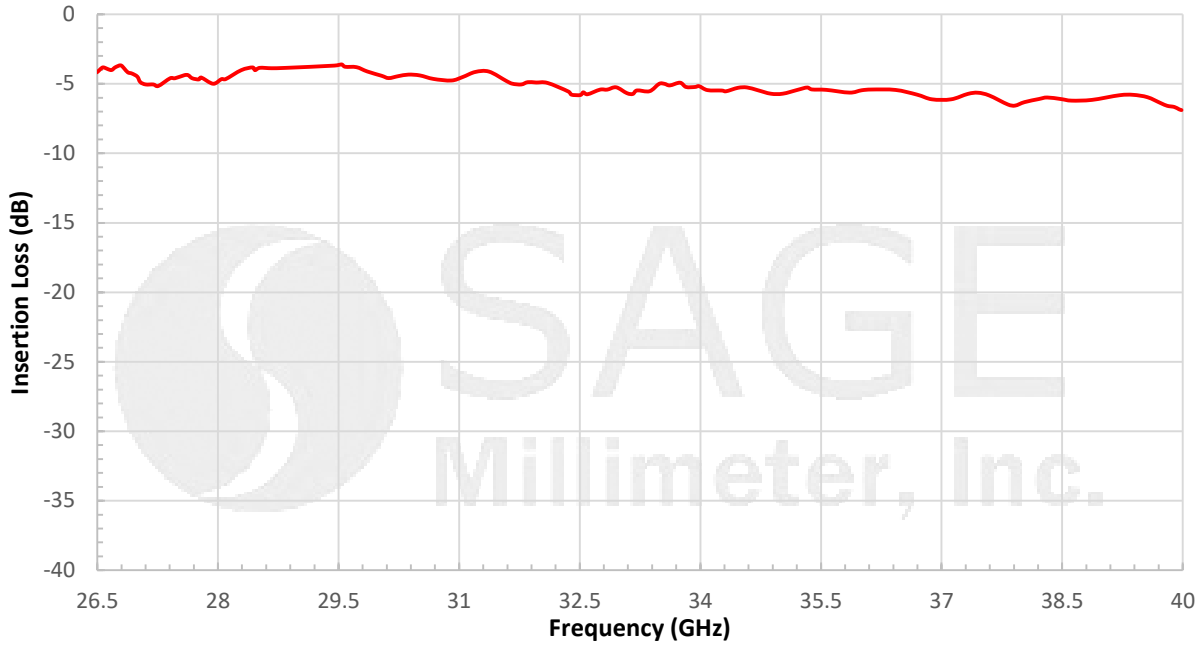
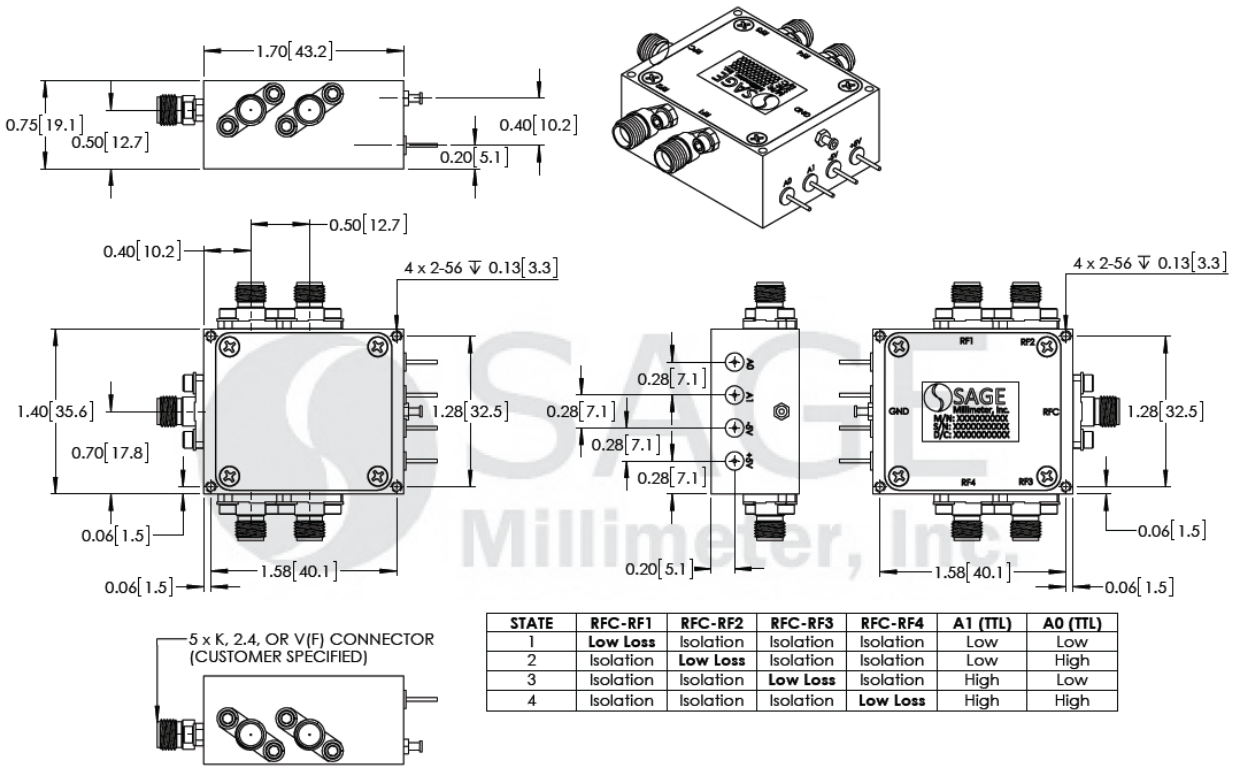
Typical Insertion Loss vs. Frequency



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



STATE	RFC-RF1	RFC-RF2	RFC-RF3	RFC-RF4	A1 (TTL)	A0 (TTL)
1	**Low Loss**	Isolation	Isolation	Isolation	Low	Low
2	Isolation	**Low Loss**	Isolation	Isolation	Low	High
3	Isolation	Isolation	**Low Loss**	Isolation	High	Low
4	Isolation	Isolation	Isolation	**Low Loss**	High	High

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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.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

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.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.