SK8-0524036560-KFKF-A9

Advanced

SP8T PIN Switch with TTL Driver, Absorptive, 0.5 to 40 GHz, 3-Bit Control

Description:

Model SK8-0524036560-KFKF-A9 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 3-bit 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 Micro-D15 socket for bias 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		60 dB	
Return Loss	6 dB	7.5 dB	
Input RF Power			+23 dBm
Bias (Positive)	+4.75 V_{DC}	+5.00 V_{DC} / 350 mA	+5.25 V_{DC}
Bias (Negative)	-5.25 V_{DC}	-5.00 V_{DC} / 50 mA	-4.75 V_{DC}
Control	3-Bit TTL		
Switching Speed		100 ns	
Switch Type	Absorptive		
Specification Temperature		+25 °C	
Operating Temperature	-25 °C		+85 °C

Mechanical Specifications:

Item	Specification
RF Ports	K(F)
Bias & Control Interface	Micro-D15 Socket (Female)
Case Material	Aluminum
Finish	Gold Plated
Outline	K8-AC-Z3

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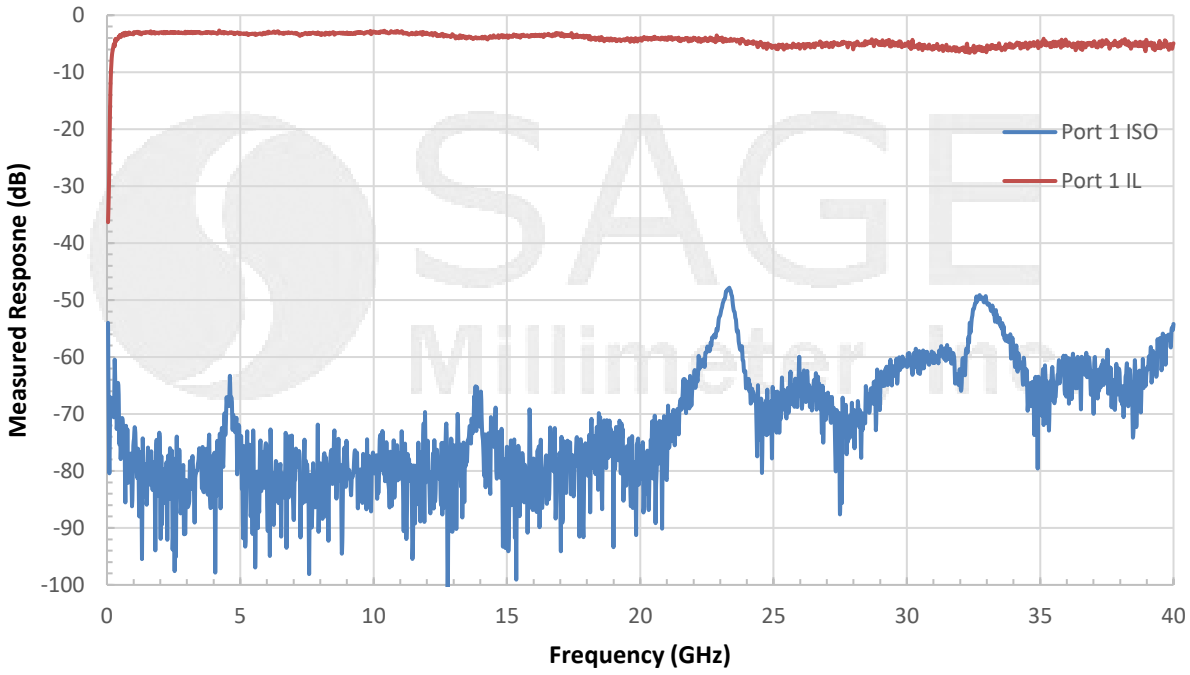
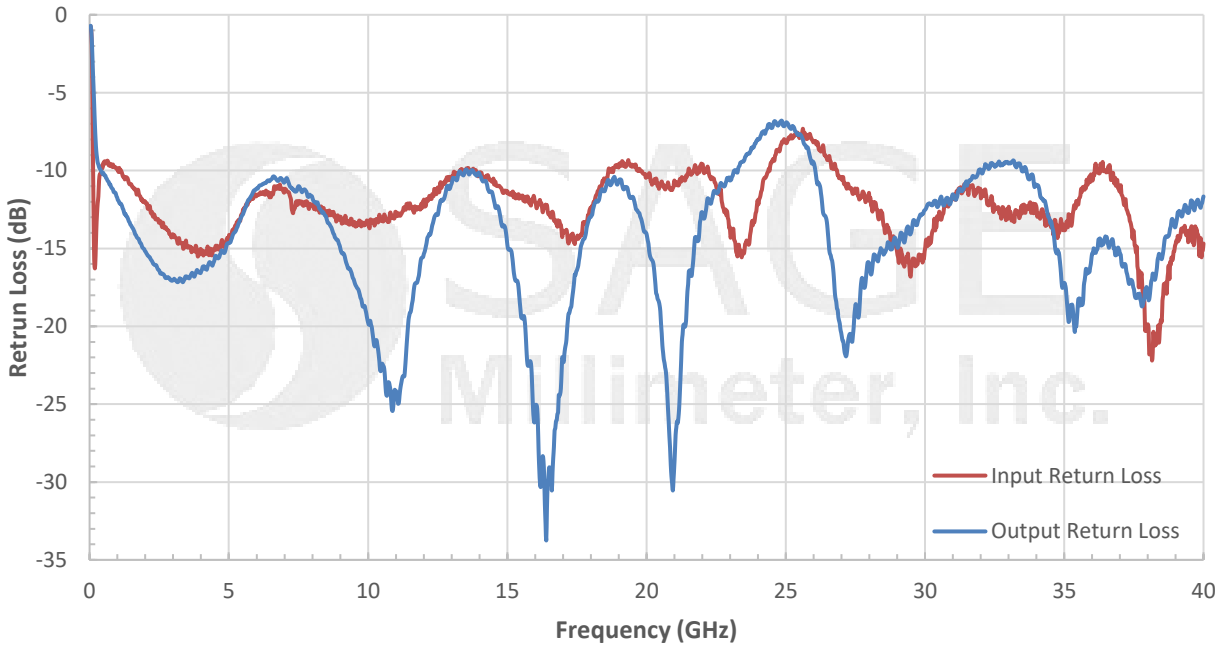
Typical Insertion Loss and Isolation vs. Frequency

Bias: +5 V_{DC}/~320 mA



Typical Retrun Loss vs. Frequency



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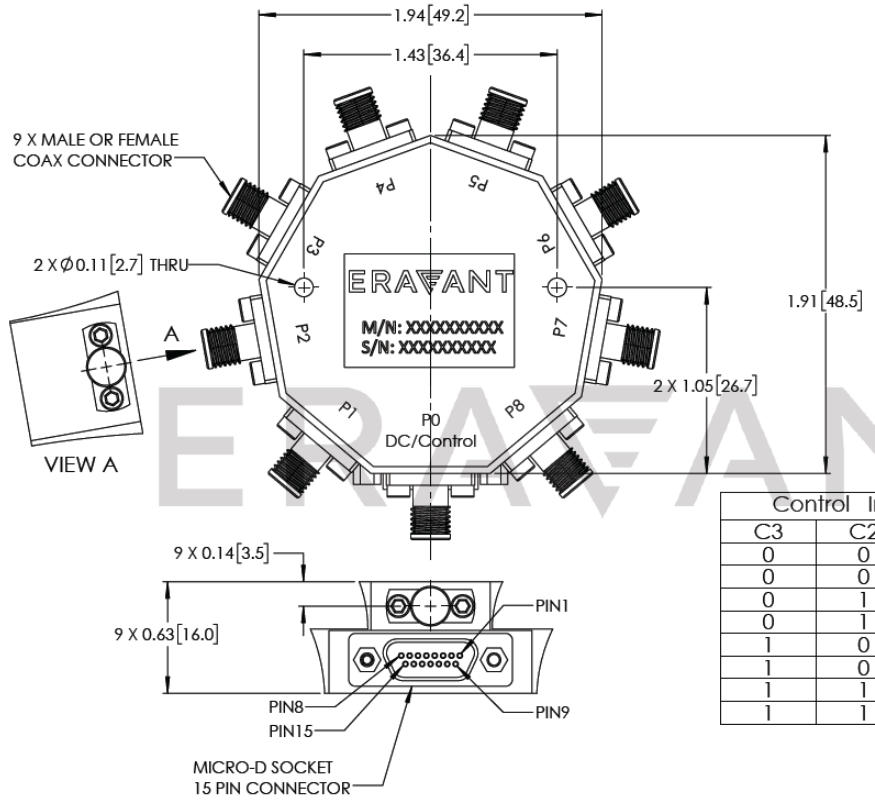
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



MicroD-15P-Female	
1	+5V
2	-5V
3	GND
4	C1
5	C2
6	C3
7	NC
8	NC
9	NC
10	NC
11	NC
12-15	NC

Control Input TTL			Signal Path State
C3	C2	C1	
0	0	0	P0-P1
0	0	1	P0-P2
0	1	0	P0-P3
0	1	1	P0-P4
1	0	0	P0-P5
1	0	1	P0-P6
1	1	0	P0-P7
1	1	1	P0-P8

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.
- TTL is commonly defined 0 to +0.8 Volt as “TTL Low” and +3.3 to +5.0 Volts as “TTL High”.
- Other mechanical configurations are available under different model numbers.
- Eravant reserves the right to change the information presented without notice.

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The control signal per the true table is needed all time to keep the switch under normal working condition. No control signal applied any time could cause excessive negative current, which may damage the switch.
- 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. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

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