SK4-0524435060-KFKF-A3

SP4T PIN Switch with TTL Driver, 0.5 to 44 GHz, Absorptive

SK4-0524435060-KFKF-A3 is an absorptive PIN diode based, single pole, four throw (SP4T) switch with a TTL driver that operates between 500 MHz and 44 GHz. This model offers a typical insertion loss of 5 dB and 60 dB port-to-port isolation with a switching speed no slower than 100 nanoseconds. The switch has female K connectors for all RF ports and solder pins for DC bias and TTL control.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	0.5 GHz		44 GHz
Insertion Loss		5.0 dB	
Return Loss		10 dB	
Isolation	45 dB	60 dB	
Operation RF Input Power			+20 dBm
Damage RF Input Power			+27 dBm
Bias Voltage		±5 V_{DC}	
Bias Current		100/50 mA	
Control		TTL	
Switching Speed		100 ns	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Input Port	K(F)
Output Port	K(F)
Bias	Solder Pins
Logic Input	Solder Pins
Case Material	Brass
Finish	Gold Plated
Weight	1.8 Oz
Outline	K4-AC-Z1

ECCN

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FEATURES

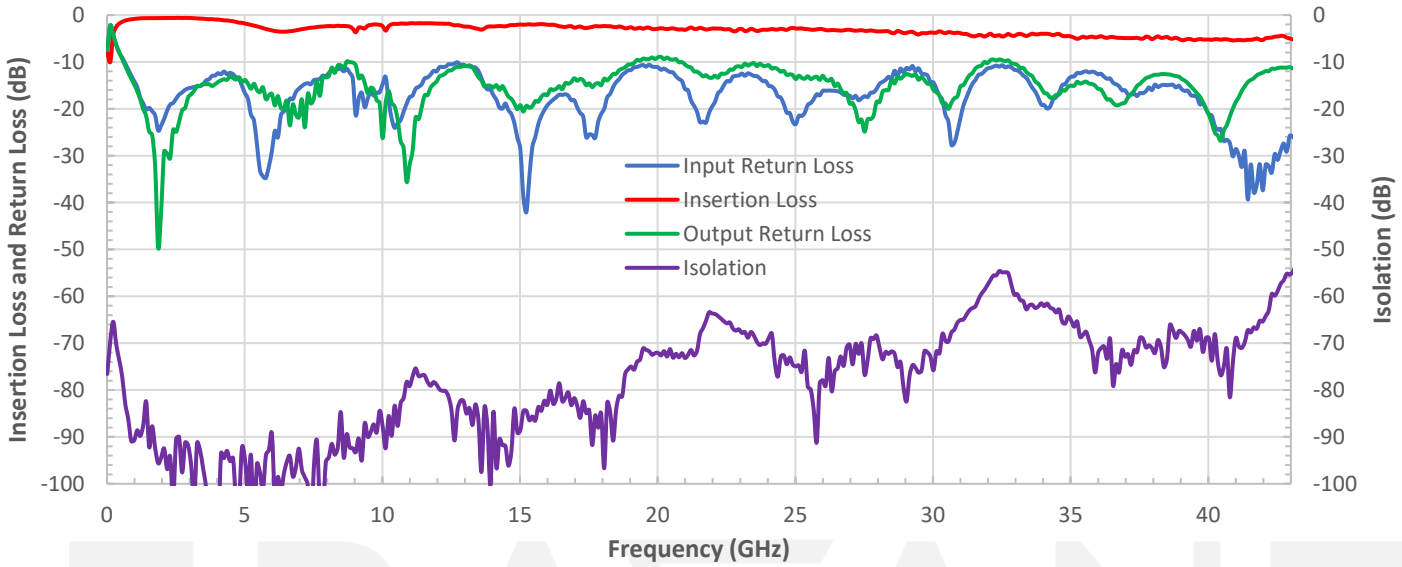
- Ultrabroad Bandwidth
- High Isolation
- Compact Size
- Fast Control Speed

APPLICATIONS

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

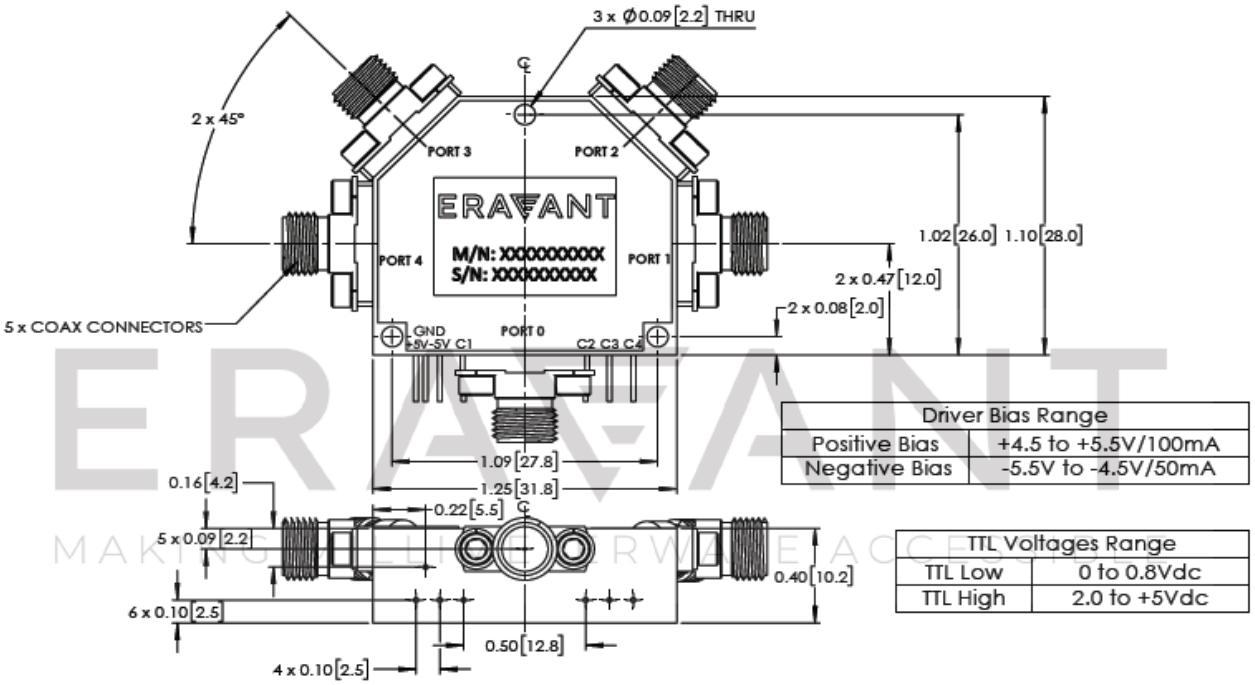
SUPPLEMENTAL DETAILS

Typical Performance vs. Frequency



Note: The insertion loss, isolation and return loss between other ports are similar to the above plots.

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



Driver Bias Range	
Positive Bias	+4.5 to +5.5V/100mA
Negative Bias	-5.5V to -4.5V/50mA

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

Truth Table				
Control TTL Input				Signal Path State
C4	C3	C2	C1	
1	1	1	0	Port 0-Port 1
1	1	0	1	Port 0-Port 2
1	0	1	1	Port 0-Port 3
0	1	1	1	Port 0-Port 4

NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- 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 of the switch will damage the device.
- The switch is a static sensitive device. Always follow ESD rules when working with the switch.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.

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