SK64-05250326048-2F2F-A2

SP64T PIN Switch with TTL Driver, Absorptive, 0.5 to 50 GHz, 6-Bit Control

SK64-05250326048-2F2F-A2 is an absorptive PIN diode based, single pole, sixty-four throw switch with a TTL driver that operates between 0.5 and 50 GHz. The switch requires a separate -5 V and +5 V biasing in addition to the 6-Bit TTL control. This model offers in-line 64 output ports, typical 26 dB insertion loss, and 48 dB typical isolation with a maximum switching speed of 100 nanoseconds. The switch has 2.4 mm female connectors for all RF ports and Micro-D15 Female connector for bias and TTL control.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	0.5 GHz		50 GHz
Insertion Loss @0.5-30 GHz		22 dB	
Insertion Loss @30-50 GHz		26 dB	
Isolation @ 0.5-30 GHz	45 dB	50 dB	
Isolation @ 30-50 GHz	43 dB	48 dB	
Return Loss		8 dB	
RF Input Power			+20 dBm
Bias (Positive)	+4.75 V_{DC}	+5.00 V_{DC}/3000 mA	+5.25 V_{DC}
Bias (Negative)	-5.25 V_{DC}	-5.00 V_{DC}/60 mA	-4.75 V_{DC}
Control		5-Bit TTL	
TTL High	+2.0 V_{DC}		+5.0 V_{DC}
TTL Low	0 V_{DC}		+0.8 V_{DC}
Switching Speed			100 ns
Switch Type		Absorptive	
Specification Temperature		+25 °C	
Operating Temperature	-25 °C		+85 °C

Mechanical Specifications:

Item	Specification
RF Ports	2.4 mm Female
Bias & Control Port	Micro-D15 Female
Case Material	Aluminum
Finish	Gold Plated
Outline	K64-AC-D15-Z1

ECCN

EAR99

FEATURES

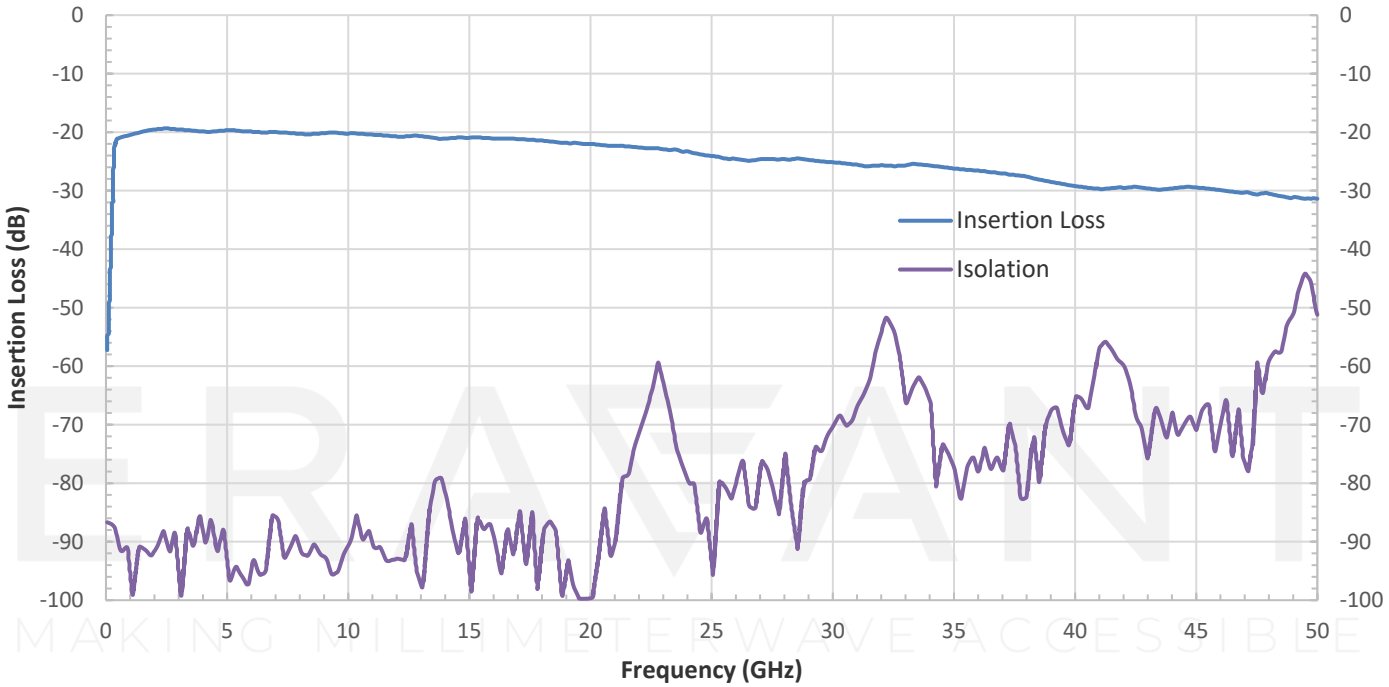
- Low Insertion Loss
- High Isolation
- Absorptive
- TTL Controlled

APPLICATIONS

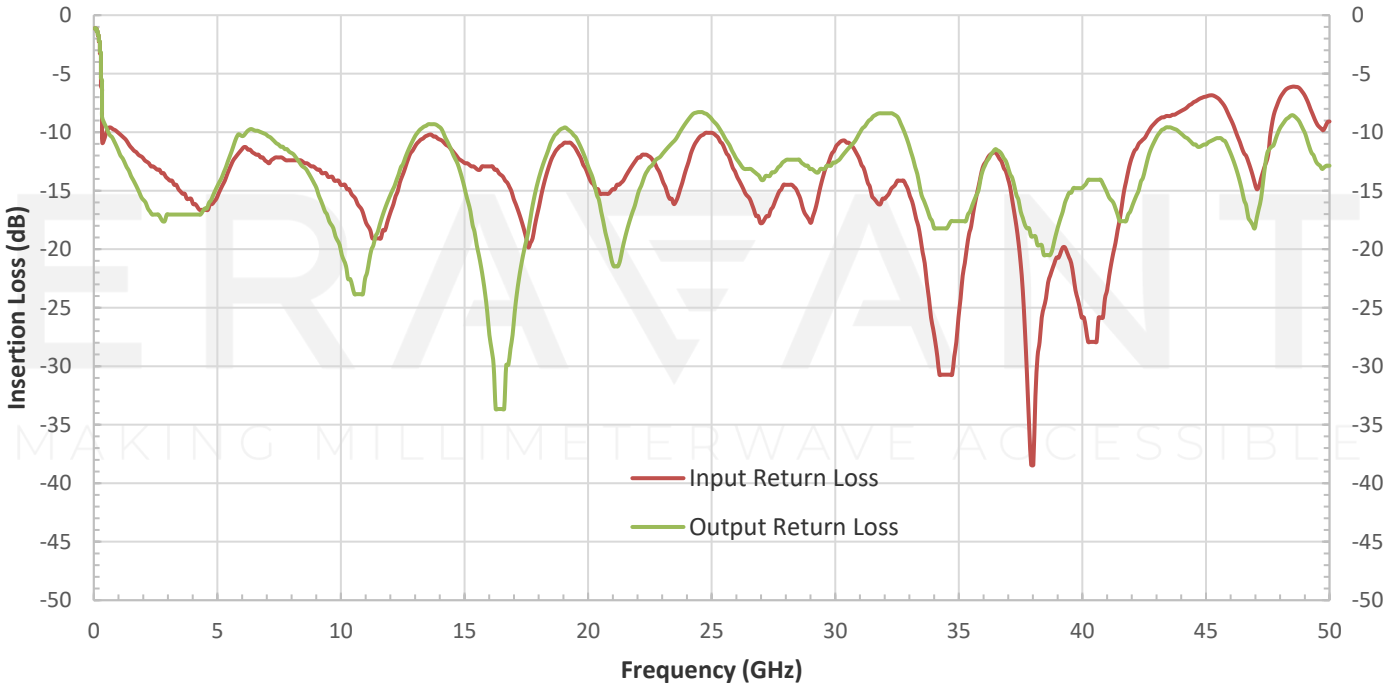
- Automatic Test Equipment
- Switching Network

SUPPLEMENTAL DETAILS

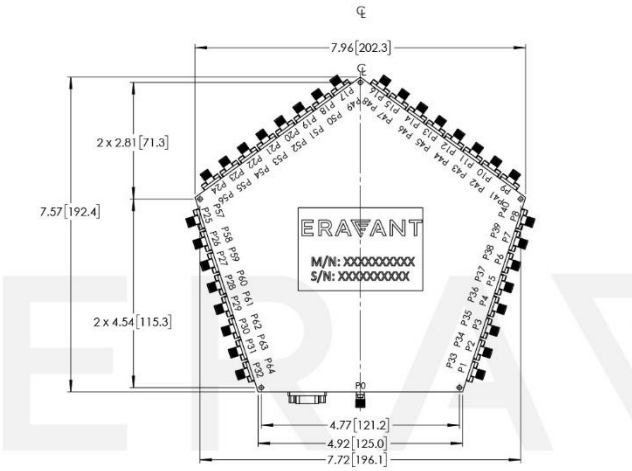
Typical Performance vs. Frequency

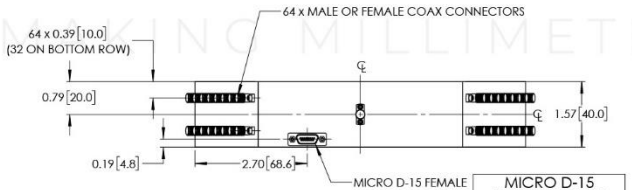


Typical Performance vs. Frequency



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





MICRO D-15 FEMALE DEFINE	
1	C1
2	C2
3	C3
4	C4
5	C5
6	C6
7	+5V
8	+5V
9	+5V
10	-5V
11	-5V
12	-5V
13	GND
14	GND
15	GND

TRUTH TABLE													
TTL CONTROL INPUT						SIGNAL PATH STATE	TTL CONTROL INPUT						SIGNAL PATH STATE
C6	C5	C4	C3	C2	C1		C6	C5	C4	C3	C2	C1	
0	0	0	0	0	0	P0 - P1	1	0	0	0	0	0	P0 - P33
0	0	0	0	0	1	P0 - P2	1	0	0	0	0	1	P0 - P34
0	0	0	0	1	0	P0 - P3	1	0	0	0	1	0	P0 - P35
0	0	0	0	1	1	P0 - P4	1	0	0	0	1	1	P0 - P36
0	0	0	1	0	0	P0 - P5	1	0	0	1	0	0	P0 - P37
0	0	0	1	0	1	P0 - P6	1	0	0	1	0	1	P0 - P38
0	0	0	1	1	0	P0 - P7	1	0	0	1	1	0	P0 - P39
0	0	0	1	1	1	P0 - P8	1	0	0	1	1	1	P0 - P40
0	0	1	0	0	0	P0 - P9	1	0	1	0	0	0	P0 - P41
0	0	1	0	0	1	P0 - P10	1	0	1	0	0	1	P0 - P42
0	0	1	0	1	0	P0 - P11	1	0	1	0	1	0	P0 - P43
0	0	1	0	1	1	P0 - P12	1	0	1	0	1	1	P0 - P44
0	0	1	1	0	0	P0 - P13	1	0	1	1	0	0	P0 - P45
0	0	1	1	0	1	P0 - P14	1	0	1	1	0	1	P0 - P46
0	0	1	1	1	0	P0 - P15	1	0	1	1	1	0	P0 - P47
0	0	1	1	1	1	P0 - P16	1	0	1	1	1	1	P0 - P48
0	1	0	0	0	0	P0 - P17	1	1	0	0	0	0	P0 - P49
0	1	0	0	0	1	P0 - P18	1	1	0	0	0	1	P0 - P50
0	1	0	0	1	0	P0 - P19	1	1	0	0	1	0	P0 - P51
0	1	0	0	1	1	P0 - P20	1	1	0	0	1	1	P0 - P52
0	1	0	1	0	0	P0 - P21	1	1	0	1	0	0	P0 - P53
0	1	0	1	0	1	P0 - P22	1	1	0	1	0	1	P0 - P54
0	1	0	1	1	0	P0 - P23	1	1	0	1	1	0	P0 - P55
0	1	0	1	1	1	P0 - P24	1	1	0	1	1	1	P0 - P56
0	1	1	0	0	0	P0 - P25	1	1	1	0	0	0	P0 - P57
0	1	1	0	0	1	P0 - P26	1	1	1	0	0	1	P0 - P58
0	1	1	0	1	0	P0 - P27	1	1	1	0	1	0	P0 - P59
0	1	1	0	1	1	P0 - P28	1	1	1	0	1	1	P0 - P60
0	1	1	1	0	0	P0 - P29	1	1	1	1	0	0	P0 - P61
0	1	1	1	0	1	P0 - P30	1	1	1	1	0	1	P0 - P62
0	1	1	1	1	0	P0 - P31	1	1	1	1	1	0	P0 - P63
0	1	1	1	1	1	P0 - P32	1	1	1	1	1	1	P0 - P64

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 shown will damage the device.
- The switch is static sensitive device. Always follow ESD rules when working with the switch.
- Reversing polarity will destroy the device.
- 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.