SKD-5031146025-1F1F-R1-M

SPDT Solid State Switch with TTL Driver, 50 to 110 GHz, Reflective

SKD-5031146025-1F1F-R1-M is a MMIC based, solid state single pole, double throw (SPDT), reflective type switch with a TTL driver that operates between 50 and 110 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 circuit loss transmission losses. The SPDT switch offers 25 dB port-to-port isolation with a typical switching speed of 100 nanoseconds. The input and output connectors of the switch are 1.0 mm female. Other connector options, such as WR-10 waveguide, is offered under model number of **SKD-7531143530-1010-R1-M**.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	50 GHz		110 GHz
Insertion Loss		6 dB	
Return Loss		10 dB	
Isolation		25 dB	
RF Input Power			+30 dBm
Bias Voltage		±5 V_{DC}	
Bias Current		10 mA	
Control		TTL	
Switching Speed		100 ns	
Specification Temperature		+25°C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Input Port	1.0 mm Female
Output Ports	1.0 mm Female
DC Bias	Solder Pins
TTL Control	SMA (F)
Case Material	Aluminum
Finish	Gold Plated
Weight	0.6 Oz
Size	0.90” (L) X 0.90” (W) X 0.40” (H)
Outline	KD-RC-2

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FEATURES

- Broad Band Coverage
- High Isolation
- 1 mm Coax Interface

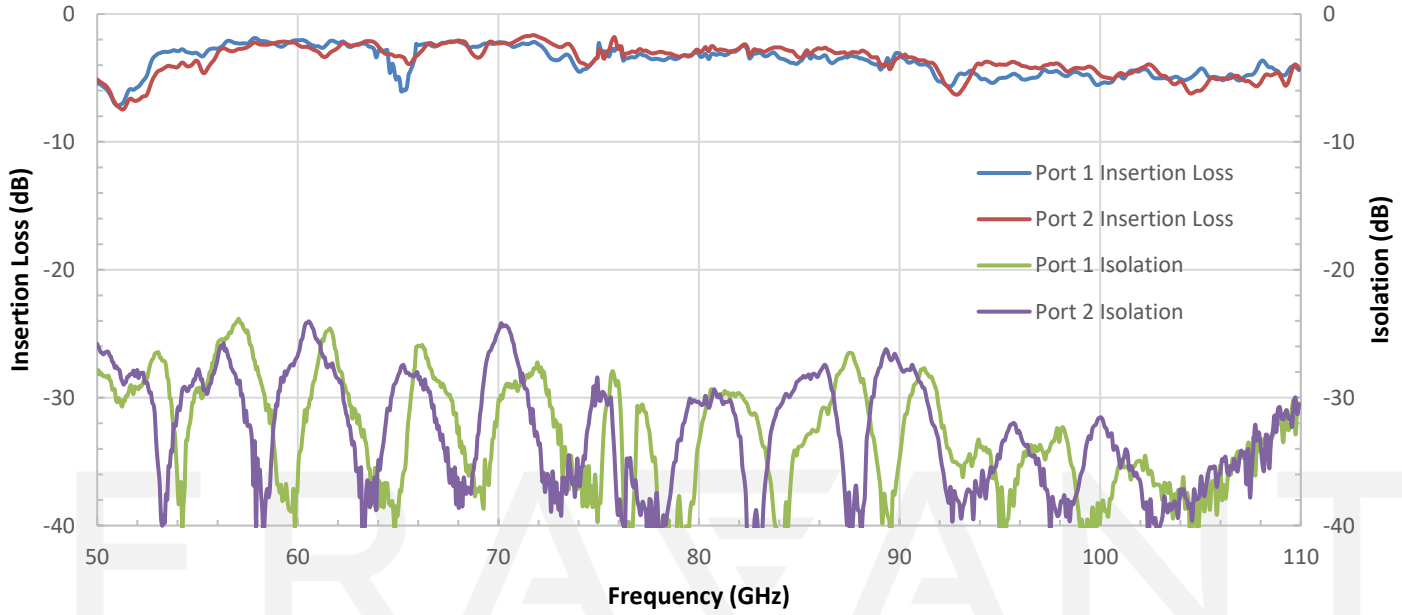
APPLICATIONS

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

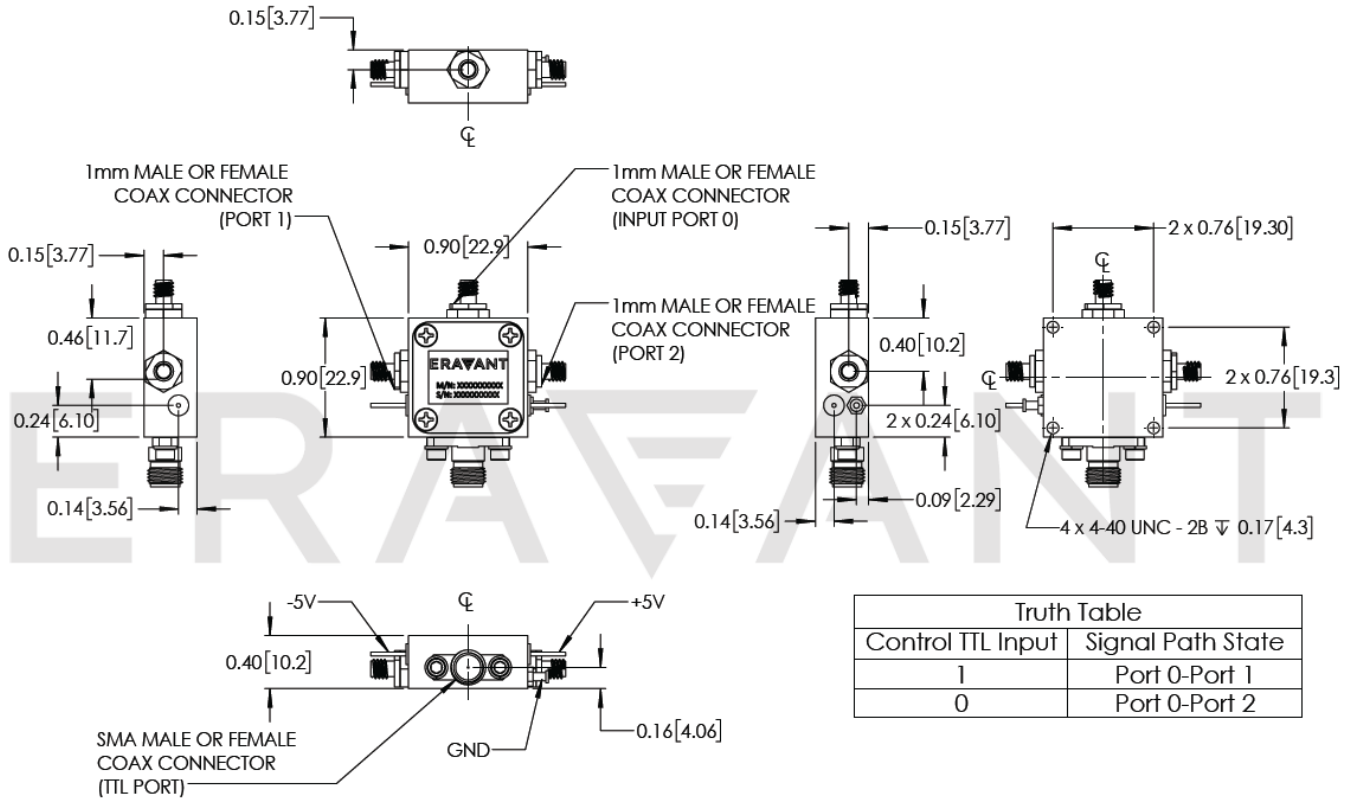
SUPPLEMENTAL DETAILS

Insertion Loss and Isolation vs. Frequency

Bias: +/-5 V_{DC}/13 mA



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



Truth Table	
Control TTL Input	Signal Path State
1	Port 0-Port 1
0	Port 0-Port 2

NOTE:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 ˚C case temperature.
- 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 switches.
- 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.

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