



## Ka Band SP4T PIN Switch with TTL Driver, Absorptive

### Description:

**Model SK4-2734035060-KFKF-A3** is a Ka band absorptive PIN diode based, single pole, four throw (SP4T) switch with a TTL driver that operates between 26.5 and 40 GHz. This model offers a typical insertion loss of 5 dB and 60 dB port-to-port isolation with a typical switching speed of 100 nanoseconds. The switch has female K connectors for all RF ports and solder pins for DC bias and TTL control.



### Features:

- Full Band Operation
- High Isolation
- Compact Size
- Fast Control Speed

### Applications:

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

### Electrical Specifications:

| Parameter                  | Minimum  | Typical        | Maximum  |
|----------------------------|----------|----------------|----------|
| Frequency                  | 26.5 GHz |                | 40.0 GHz |
| Insertion Loss             |          | 5.0 dB         |          |
| Return Loss                |          | 10 dB          |          |
| Isolation                  |          | 60 dB          |          |
| Operational RF Input Power |          |                | +20 dBm  |
| Damage RF Input Power      |          |                | +27 dBm  |
| Bias Voltage               |          | $\pm 5 V_{DC}$ |          |
| Bias Current               |          | 100/50 mA      |          |
| Control                    |          | TTL            |          |
| Switching Speed            |          | 100 ns         |          |
| Specification Temperature  |          | +25 °C         |          |
| Operation Temperature      | 0 °C     |                | +50 °C   |

### Mechanical Specifications:

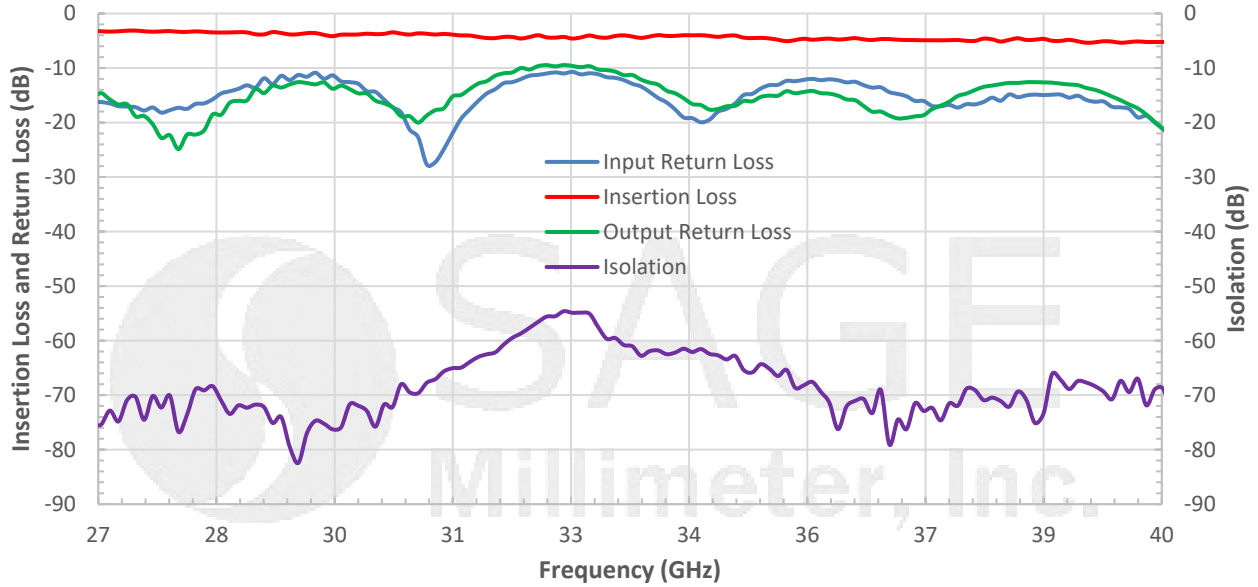
| Item          | Specification |
|---------------|---------------|
| Input Port    | K(F)          |
| Output Port   | K(F)          |
| Bias          | Solder Pins   |
| Logic Input   | Solder Pins   |
| Case Material | Brass         |
| Finish        | Gold Plated   |
| Weight        | 1.8 Oz    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





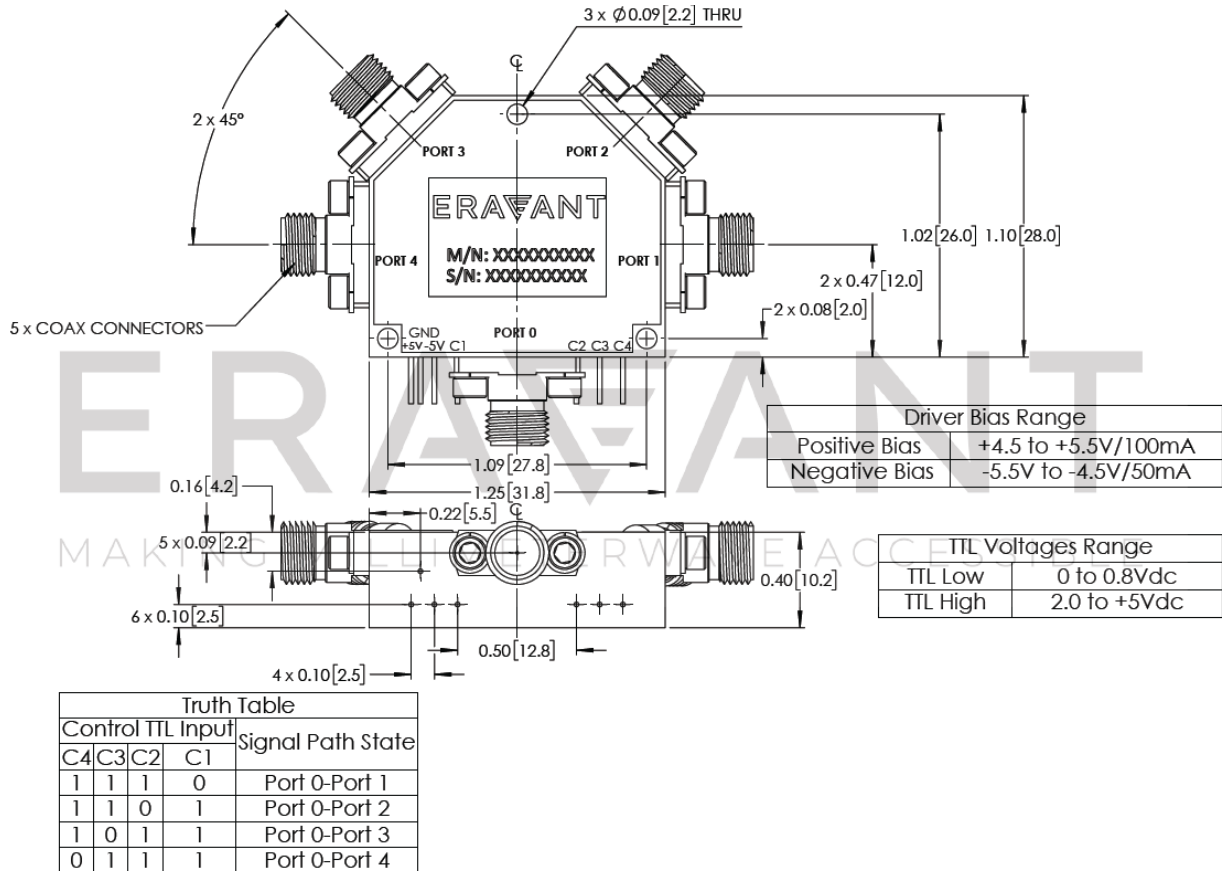
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### Typical Performance vs. Frequency



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

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





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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.
- 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.
- Proper torque,  $8.0 \pm 0.15$  inch-pounds ( $0.92 \pm 0.05$  Nm), should be applied. **Torque wrench, model SCH-08008-S1, is highly recommended.**

