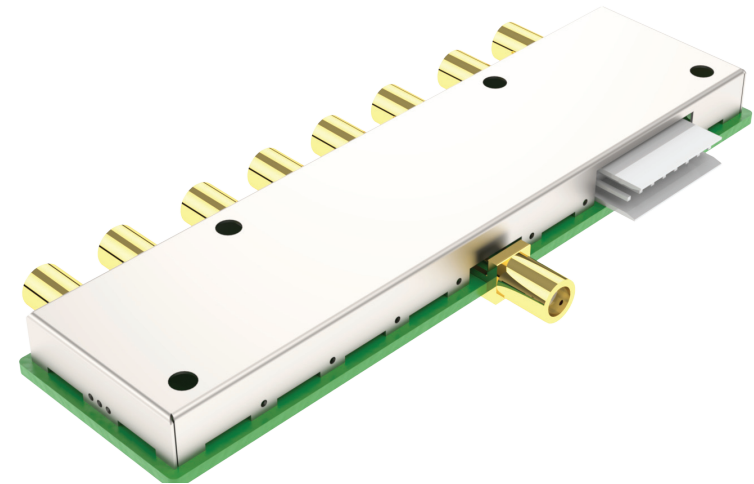


# 8GHz SP8T RF Switch I/O Controlled

RFS-1969

- Broad frequency range (DC to 8GHz) - great performance over whole frequency range
- Low insertion loss - critical for systems that require low overall noise figure
- High isolation - reduces system measurement uncertainties
- High repeatability - Improved measurement accuracy: no random errors
- Operating life - no mechanical stress; long operating life reduces cost per cycle
- Internal terminations - no resonance in unused lines; 50 ohm load termination



## APPLICATIONS

High performance RF switch for applications which require long operating life without risking RF performance, such as high volume testing.

## RF CONNECTORS

SMA (f)

## CONTROL INTERFACE

Supply and I/O

HE14 8PIN

| Pin | Signal  |
|-----|---------|
| 1   | +12 VDC |
| 2   | NC      |
| 3   | NC      |
| 4   | CTRL1   |
| 5   | CTRL2   |
| 6   | CTRL3   |
| 7   | CTRL4   |
| 8   | GND     |

## CONTACT INFO

sales@bluelec.com

## RF AND DC SPECIFICATIONS

|                           |            |        |
|---------------------------|------------|--------|
| Operating frequency       | DC - 8 GHz |        |
| Impedance                 | 50 ohm     |        |
| Insertion loss (typ.)     | 1 GHz      | 1.1 dB |
|                           | 3 GHz      | 1.5 dB |
|                           | 6 GHz      | 2.3 dB |
|                           | 8 GHz      | 3.3 dB |
| Return loss (typ.)        | 1 GHz      | 20 dB  |
|                           | 3 GHz      | 18 dB  |
|                           | 6 GHz      | 15 dB  |
|                           | 8 GHz      | 12 dB  |
| Isolation (typ.)          | 1 GHz      | 50 dB  |
|                           | 3 GHz      | 40 dB  |
|                           | 6 GHz      | 35 dB  |
|                           | 8 GHz      | 30 dB  |
| Input power (RF)          | 1          | W (CW) |
| Supply voltage            | 5 to 12    | V      |
| Supply current max (+12V) | 10         | mA     |
| Switching time            | <25        | µs     |

## MECHANICAL SPECIFICATIONS

|            |  |  |
|------------|--|--|
| Dimensions | 49.05 x 110 x 10.3 mm<br>(1.93" x 4.33" x 0.41") |  |
| Weight     | 46 g (1.62 oz)                                   |  |

## ENVIRONMENTAL SPECIFICATIONS

|                       |                |  |
|-----------------------|----------------|--|
| Operating temperature | 0-50 °C        |  |
| Storage temperature   | -20 ... +70 °C |  |
| Relative humidity     | 95 % at +40 °C |  |

# BLUELEC

Part of JOT Automation

## CONTROL TABLE

| I/O   |       |       |       | COM to |     |     |     |     |     |     |     |
|-------|-------|-------|-------|--------|-----|-----|-----|-----|-----|-----|-----|
| CTRL1 | CTRL2 | CTRL3 | CTRL4 | RF1    | RF2 | RF3 | RF4 | RF5 | RF6 | RF7 | RF8 |
| 0 V   | 0 V   | 0 V   | 0 V   | ON     | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| 0 V   | 0 V   | 12V   | 0 V   | OFF    | ON  | OFF | OFF | OFF | OFF | OFF | OFF |
| 0 V   | 12 V  | 0 V   | 0 V   | OFF    | OFF | ON  | OFF | OFF | OFF | OFF | OFF |
| 0 V   | 12 V  | 12 V  | 0 V   | OFF    | OFF | OFF | ON  | OFF | OFF | OFF | OFF |
| 12 V  | 0 V   | 0 V   | 0 V   | OFF    | OFF | OFF | OFF | ON  | OFF | OFF | OFF |
| 12 V  | 0 V   | 12 V  | 0 V   | OFF    | OFF | OFF | OFF | OFF | ON  | OFF | OFF |
| 12 V  | 12 V  | 0 V   | 0 V   | OFF    | OFF | OFF | OFF | OFF | OFF | ON  | OFF |
| 12 V  | 12 V  | 12 V  | 0 V   | OFF    | OFF | OFF | OFF | OFF | OFF | OFF | ON  |
| 0 V   | 0 V   | 0 V   | 12 V  | OFF    | OFF | OFF | OFF | OFF | OFF | OFF | OFF |

