



# RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

## RFSP3TA0208GUSB

### USB Absorptive Coaxial SP3T Switch 2 – 8GHz



Please refer to the outline drawing



#### Features

- Wide Band Operation 2-8GHz
- USB Controlled and Powered.
- Low Insertion Loss and High Isolation
- Customization available upon request
- Control SW included.

#### Typical Applications

- Test and Measurement
- Aerospace and military applications

Electrical Specifications, TA = +25 °C, USB Powered

| Description                            | PN: RFSP3TA0208GUSB              |       |     |        |
|----------------------------------------|----------------------------------|-------|-----|--------|
|                                        | SP3T Absorptive Switch           |       |     |        |
|                                        | Low Power Cold Switching         |       |     |        |
| Parameters                             | Min                              | Typ.  | Max | Units  |
| Frequency Range                        | 2-8                              |       |     | GHz    |
| Insertion Loss                         |                                  |       | 2.2 | dB     |
| Insertion Loss Temperature Coefficient |                                  | 0.003 |     | dB/°C  |
| Isolation                              | 60                               |       |     | dB     |
| Input VSWR                             |                                  |       |     | : 1    |
| Output VSWR                            |                                  |       |     | : 1    |
| RF Input power (CW)                    |                                  |       | 1   | W      |
| DC Power Dissipation                   |                                  |       |     | W      |
| 0.1dB Compression Point (P 0.1dB)      |                                  |       |     | dBm    |
| IIP3                                   |                                  |       |     | dBm    |
| Weight                                 |                                  |       |     | ounces |
| Impedance                              | 50                               |       |     | Ω      |
| Bias Current                           |                                  |       |     | mA     |
| Control Interface                      | USB 2.0 (Control Cable Included) |       |     |        |
| Switching Speed                        | 50ns                             |       |     |        |
| Input / Output Connectors              | SMA-Female                       |       |     |        |
| Finish                                 | Nickel Plated                    |       |     |        |
| Material                               | Aluminum                         |       |     |        |

USB Absorptive Coaxial Single Pole Three Throw Switch 2 – 8GHz



### Absolute Maximum Ratings

|                |        |
|----------------|--------|
| RF Input Power | +30dBm |
|----------------|--------|

### Ordering Information

|                 |       |                              |
|-----------------|-------|------------------------------|
| Part No.        | ECCN  | Description                  |
| RFSP3TA0208GUSB | EAR99 | SP3T 2-8GHz PIN Diode Switch |

### Environmental Specifications and Test Standards

| Parameter                        | Standard      | Description                                                                                                                                                                                                     |
|----------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operational Temperature          | MIL-STD-39016 | -20°C~+75°C (Case Temperature)                                                                                                                                                                                  |
| Storage Temperature              |               | -40°C~+85°C                                                                                                                                                                                                     |
| Thermal Shock                    |               | 1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)                                                                                                                                                                       |
| Random Vibration                 |               | Acceleration Spectral Density 6 (m/s)<br>Total 92.6 RMS                                                                                                                                                         |
| Electrical & Temperature Burn In |               | Temperature +85°C for 72 Hours                                                                                                                                                                                  |
| Shock                            |               | 1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s<br>2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s<br>3. Total 18 times (6 directions, 3 repetitions per direction). |
| Altitude                         | MIL-STD-883   | Standard: 30,000 Ft (Epoxy Sealed Controlled Environment)<br>Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)                                                                                             |
| Hermetically Sealed (Optional)   |               | MIL-STD-883 (For Hermetically Sealed Units)                                                                                                                                                                     |



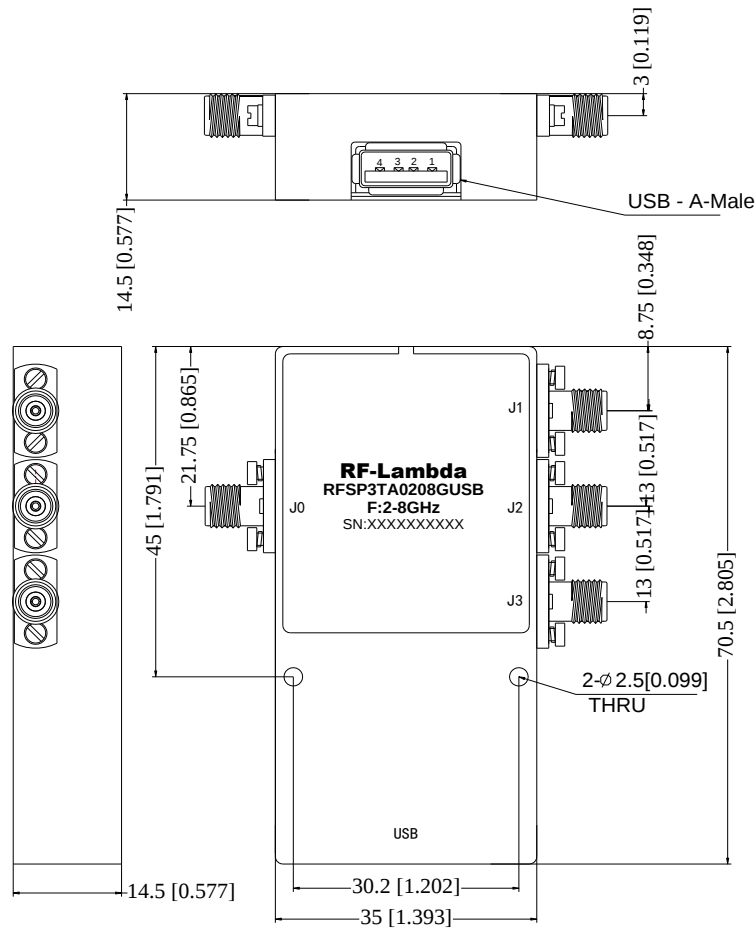
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### Outline Drawing:

All Dimensions in mm [inches]



USB Absorptive Coaxial Single Pole Throw Switch 2 – 8GHz



Figure 1 (USB Control Panel)





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