

## SP6T Latching DC to 40 GHz Terminated Electro-Mechanical Relay Switch, Self Cut Off, Indicators, Reset, 3W, 28V, 2.92mm

The FMSW6322 is a Single Pole Six Throw (SP6T) 50 Ohm Terminated RF Coaxial Relay Switch that operates from DC to 40 GHz and can handle up to 3 Watts of CW input power at 40 GHz, in a Break Before Make condition. The design features a Latching Actuator with indicators, and is rated for 1M Life Cycles. Insertion Loss is specified from 0.2 dB typ and Isolation from 70 dB min at 6 GHz, with +28 Vdc operating voltage. Performance is guaranteed over -35°C to +85°C. The package interface uses solder terminals and 2.92 mm female connectors.

### Electrical Specifications

|                    |                                 |
|--------------------|---------------------------------|
| Switch Type        | SP6T, Terminated                |
| Actuator Type      | Latching                        |
| Switching Sequence | Break Before Make               |
| Actuator Options   | Self Cut Off, Indicators, Reset |
| Polarity           | Positive Common                 |

| Description                  | Min | Typ | Max | Units |
|------------------------------|-----|-----|-----|-------|
| Frequency Range              | DC  |     | 40  | GHz   |
| Impedance                    |     | 50  |     | Ohms  |
| Operating Voltage            | 24  | 28  | 30  | Volts |
| Actuating Current @ 28 Volts |     | 200 |     | mA    |
| Input Power (CW)<br>(40 GHz) |     |     | 3   | Watts |
| Switching Time               |     |     | 15  | ms    |

### Performance by Frequency

| Description         | F1     | F2     | F3      | F4        | F5        | Units |
|---------------------|--------|--------|---------|-----------|-----------|-------|
| Frequency Range     | DC - 6 | 6 - 12 | 12 - 18 | 18 - 26.5 | 26.5 - 40 | GHz   |
| VSWR, Max           | 1.3:1  | 1.4:1  | 1.5:1   | 1.7:1     | 2:1       |       |
| Insertion Loss, Typ | 0.2    | 0.45   | 0.55    | 0.7       | 1         | dB    |
| Isolation, Min      | 70     | 60     | 60      | 55        | 50        | dB    |

### Mechanical Specifications

|                           |                       |
|---------------------------|-----------------------|
| Size                      |                       |
| Length                    | 2.25 in [57.15 mm]    |
| Width/Diameter            | 2.25 in [57.15 mm]    |
| Height                    | 2.38 in [60.45 mm]    |
| Weight                    | 0.5745 lbs [260.59 g] |
| Body Material and Plating | Aluminum, Chem Film   |
| Package Type              | Connectorized         |
| Operating Life            | 1,000,000 Cycles      |

### Connectors

|                                         |                            |
|-----------------------------------------|----------------------------|
| RF Connector Type                       | 2.92mm Female              |
| RF Connector Contact Material & Plating | Copper, Gold               |
| RF Connector Body Material & Plating    | Passivated Stainless Steel |
| Control Connector                       | Solder Pin                 |



### Features:

- SP6T
- DC to 40 GHz
- 2.92mm Female
- +28 Volt
- Break Before Make
- Latching Actuator
- Self Cut Off
- Indicator Circuitry
- Terminated
- Reset

### Applications:

- Test & Measurement
- Communications System
- Instrumentation
- Military Communications
- Automatic Communication
- Test Sets
- Sub-System Testing

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## Environmental Specifications

### Temperature

Operating Range

ESD Sensitivity

-35 to +85 deg C

ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.

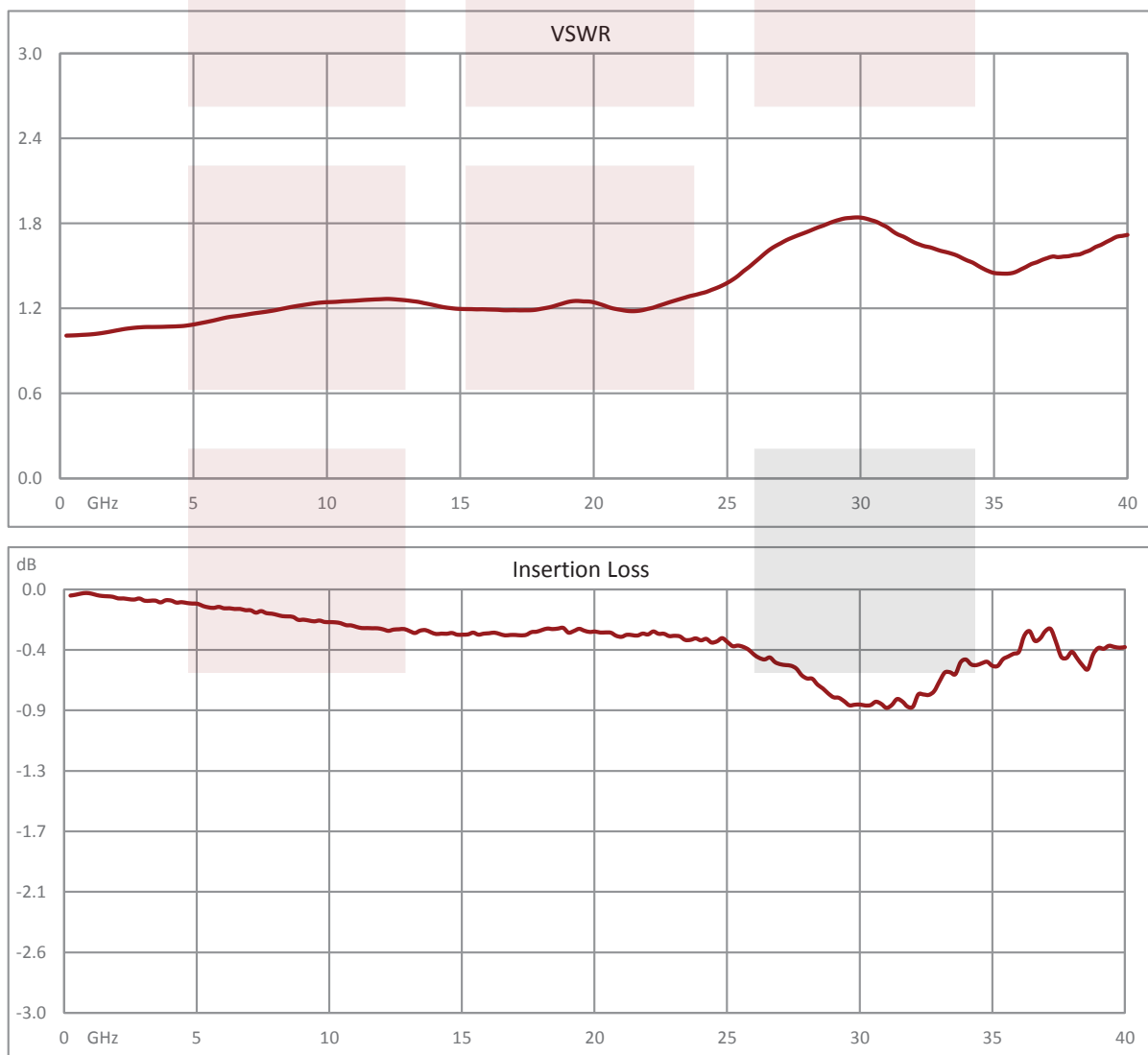


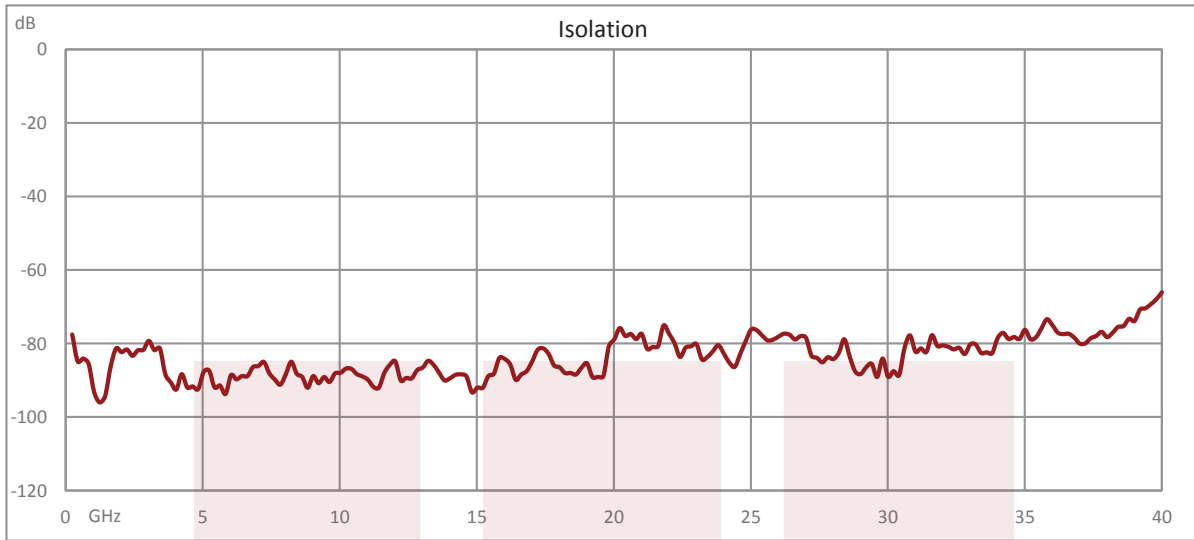
## Compliance Certifications (see [product page](#) for current document)

## Plotted and Other Data

Notes:

### Typical Performance Data



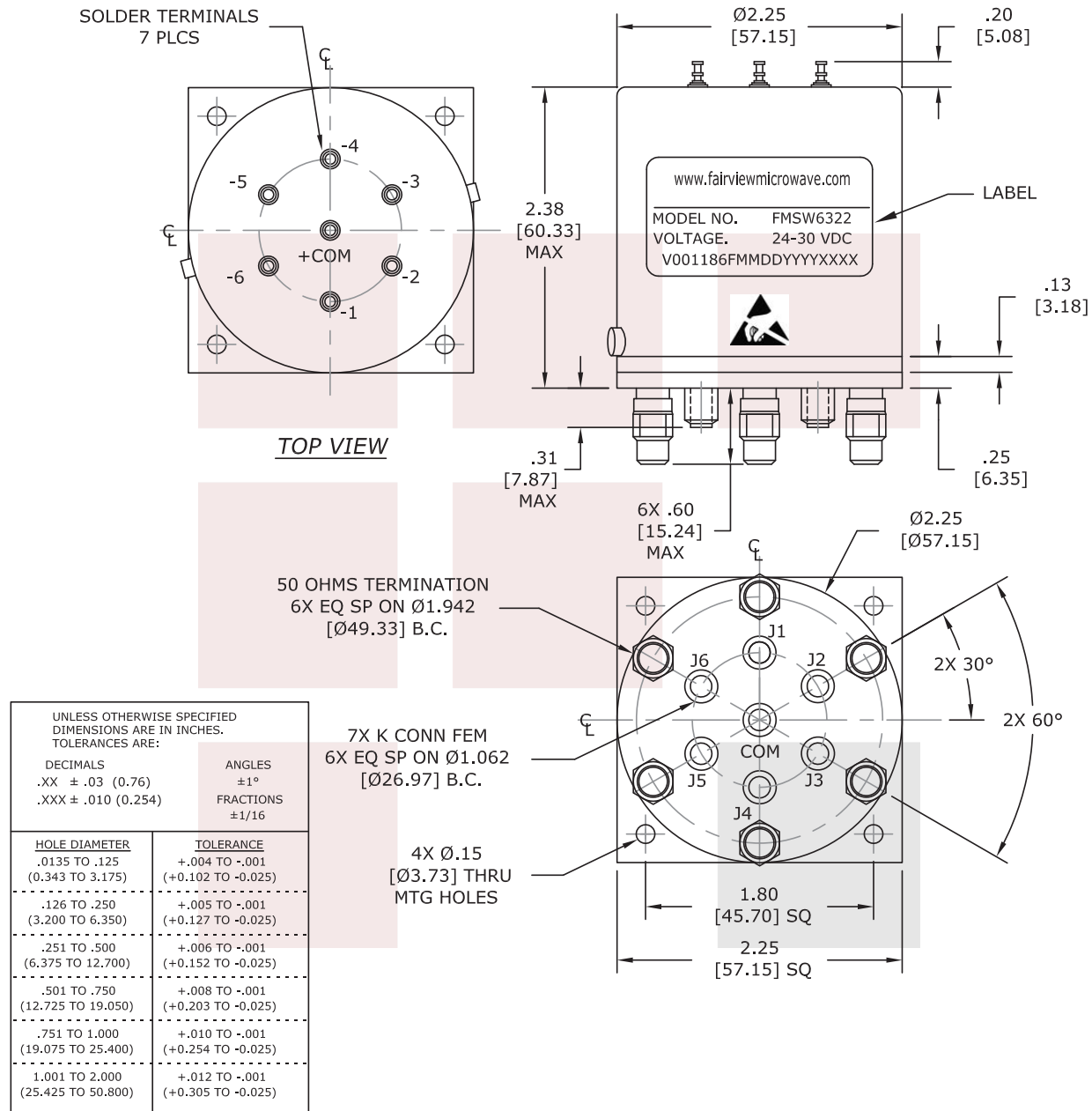


SP6T Latching DC to 40 GHz Terminated Electro-Mechanical Relay Switch, Self Cut Off, Indicators, Reset, 3W, 28V, 2.92mm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SP6T Latching DC to 40 GHz Terminated Electro-Mechanical Relay Switch, Self Cut Off, Indicators, Reset, 3W, 28V, 2.92mm FMSW6322](https://www.fairviewmicrowave.com/sp6t-latching-dc-to-40-gHz-terminated-electro-mechanical-relay-switch-self-cut-off-indicators-reset-3w-28v-2.92mm-fmsw6322)

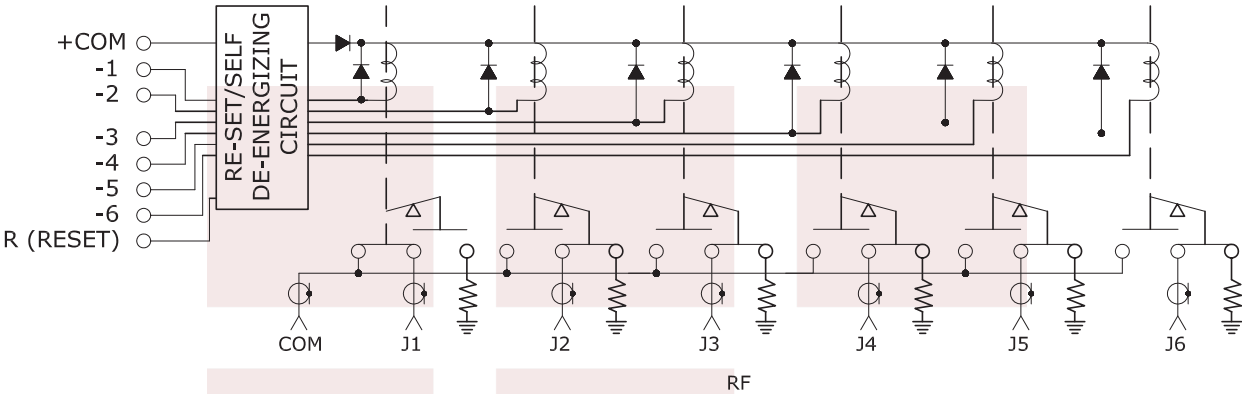
URL: <https://www.fairviewmicrowave.com/sp6t-latching-electromechanical-relay-switch-indicators-terminated-reset-fm-sw6322-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



\* THESE DIMENSIONS AND TOLERANCES  
SUPERSEDE NOTE #1 ON TITLE BLOCK.

|                                                                                                                         |        |       |  |  |                                                                                                                                                                                     |     |           |   |      |
|-------------------------------------------------------------------------------------------------------------------------|--------|-------|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|---|------|
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| TITLE                                                                                                                   |        |       |  |  | DWG NO                                                                                                                                                                              |     | CAGE CODE |   |      |
| SP6T Latching DC to 40 GHz Terminated Electro-Mechanical Relay Switch, Self Cut Off, Indicators, Reset, 3W, 28V, 2.92mm |        |       |  |  | FMSW6322                                                                                                                                                                            |     | 3FKR5     |   |      |
| CAD FILE                                                                                                                | 101916 | SHEET |  |  | SCALE                                                                                                                                                                               | N/A | SIZE      | A | 2233 |



SCHEMATIC LATCHING SHOWN IN POSITION 1

|                                                                                                                                                     |                                       |                                                                                                                                                                                                                        |                                 |                              |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------|-----------------------------|
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|                                                                                                                                                     | <div>CAD FILE</div> <div>101916</div> | <div>SHEET</div> <div></div>                                                                                                                                                                                           | <div>SCALE</div> <div>N/A</div> | <div>SIZE</div> <div>A</div> | <div></div> <div>2233</div> |