



SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 12V Control

Electromechanical Relay Switches Technical Data Sheet

PE71S6301

Features

- Single Pole Four Throw Terminated Relay Switch
- DC to 22 GHz Frequency Range
- 1M Cycle Min Operating Life
- Normally Open Actuator
- Insertion Loss 0.6 dB max
- Isolation 60 dB min
- 20 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation

Description

The PE71S6301 is a Single Pole Four Throw Terminated Electromechanical Relay Switch that operates from DC to 22 GHz and has a rating of 20 Watts input power (CW) in a Break Before Make condition. The design features a Normally Open Actuator with Internal Terminations and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.3 dB max and Isolation from 75 dB min, with +12 Vdc operating voltage. Performance is guaranteed over -25°C to +65°C and the switch assembly is RoHS compliant. The package interface uses solder terminals and SMA Female connectors.

Electrical Specifications

| | |
|--------------------|-------------------|
| Switch Type | SP4T, Absorptive |
| Actuator Type | Normally Open |
| Switching Sequence | Break Before Make |

| Description | Minimum | Typical | Maximum | Units |
|---------------------------------|---------|---------|---------|-------|
| Frequency Range | DC | | 22 | GHz |
| Impedance | | 50 | | Ohms |
| Operating Voltage | | 12 | | Volts |
| Actuating Current @ 12 Volts | | 380 | | mA |
| VSWR | | | 1.6:1 | |
| Insertion Loss | | | 0.6 | dB |
| Isolation | 60 | | | dB |
| Input Power (CW) (at 22 GHz) | | | 20 | Watts |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 12V Control PE71S6301](#)



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Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|---------------------|---------|--------|---------|----------|----------|-------|
| Frequency Range | DC to 4 | 4 to 8 | 8 to 12 | 12 to 18 | 18 to 22 | GHz |
| VSWR, Max | 1.2:1 | 1.3:1 | 1.4:1 | 1.5:1 | 1.6:1 | |
| Insertion Loss, Max | 0.3 | 0.35 | 0.4 | 0.5 | 0.6 | dB |
| Isolation, Min | 75 | 70 | 65 | 60 | 60 | dB |

Mechanical Specifications

Size

| | |
|---------------------------|----------------------|
| Length | 2.13 in [54.1 mm] |
| Width/Diameter | 2.13 in [54.1 mm] |
| Height | 2.08 in [52.83 mm] |
| Weight | 0.625 lbs [283.5 g] |
| Body Material and Plating | Aluminum |
| Package Type | Connectorized Module |
| Operating Life | 1,000,000 Cycles |
| Switching Time | 15 ms Max |

Connectors

| | |
|---|----------------------------|
| RF Connector Type | SMA Female |
| RF Connector Contact Material and Plating | Beryllium Copper, Gold |
| RF Connector Body Material and Plating | Passivated Stainless Steel |
| Control Connector | Solder Pin |

Environmental Specifications

Temperature

| | |
|-----------------|--|
| Operating Range | -25 to +65 deg C |
| ESD Sensitivity | ESD Sensitive Material. Transport material in Approved ESD bags. Handle in approved ESD Workstation. |



Environmental Specification Notes:
Designed to meet MIL-DTL-3928

Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant

Plotted and Other Data

Notes:

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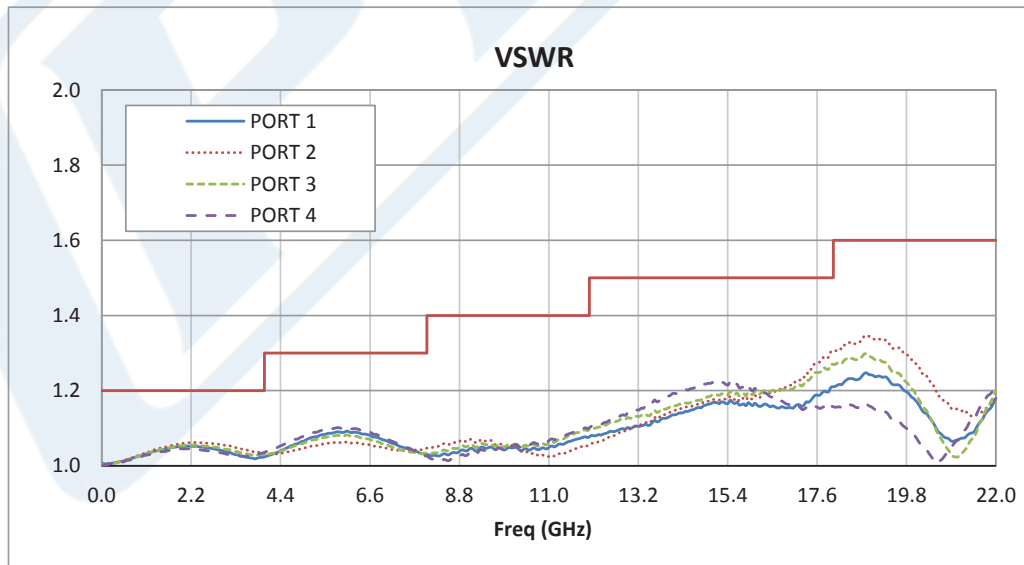
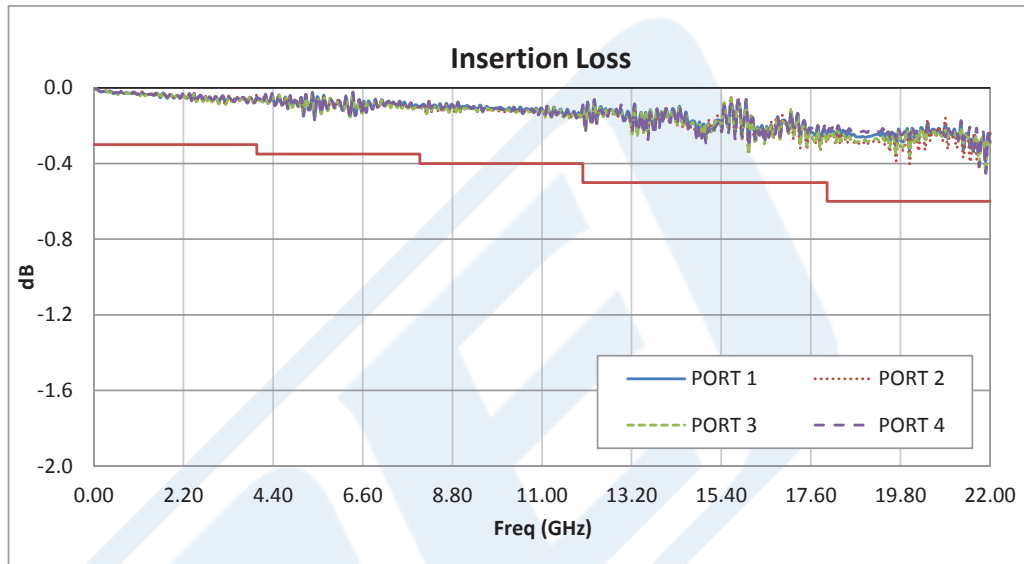


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Typical Performance Data



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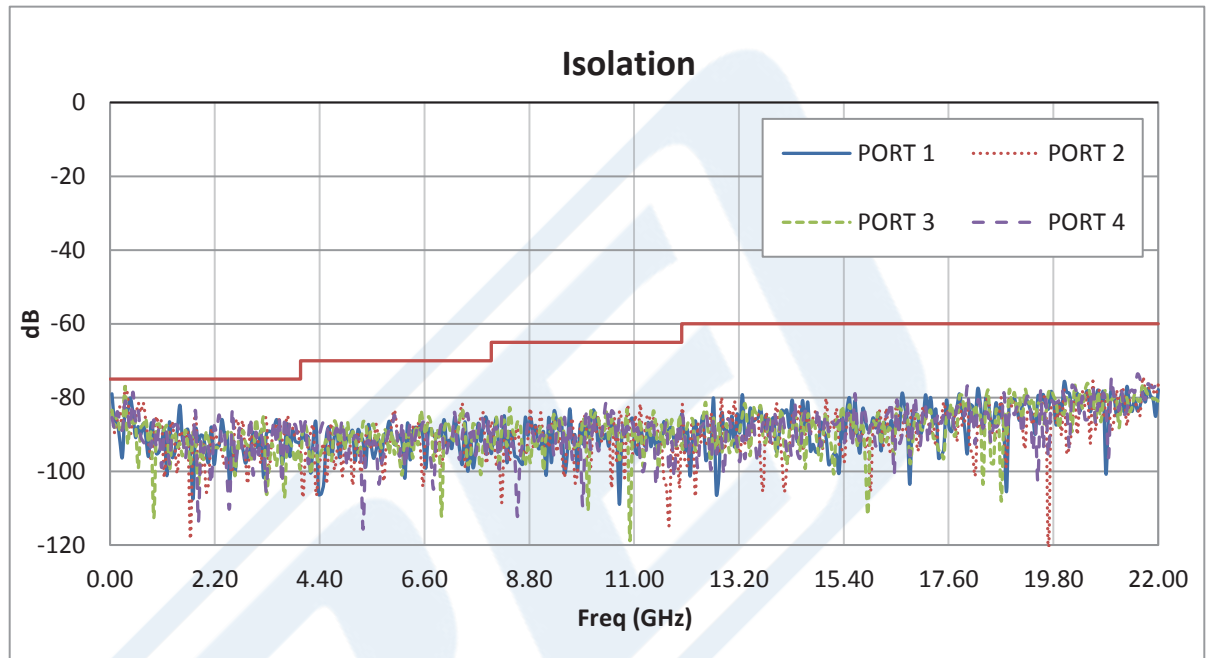




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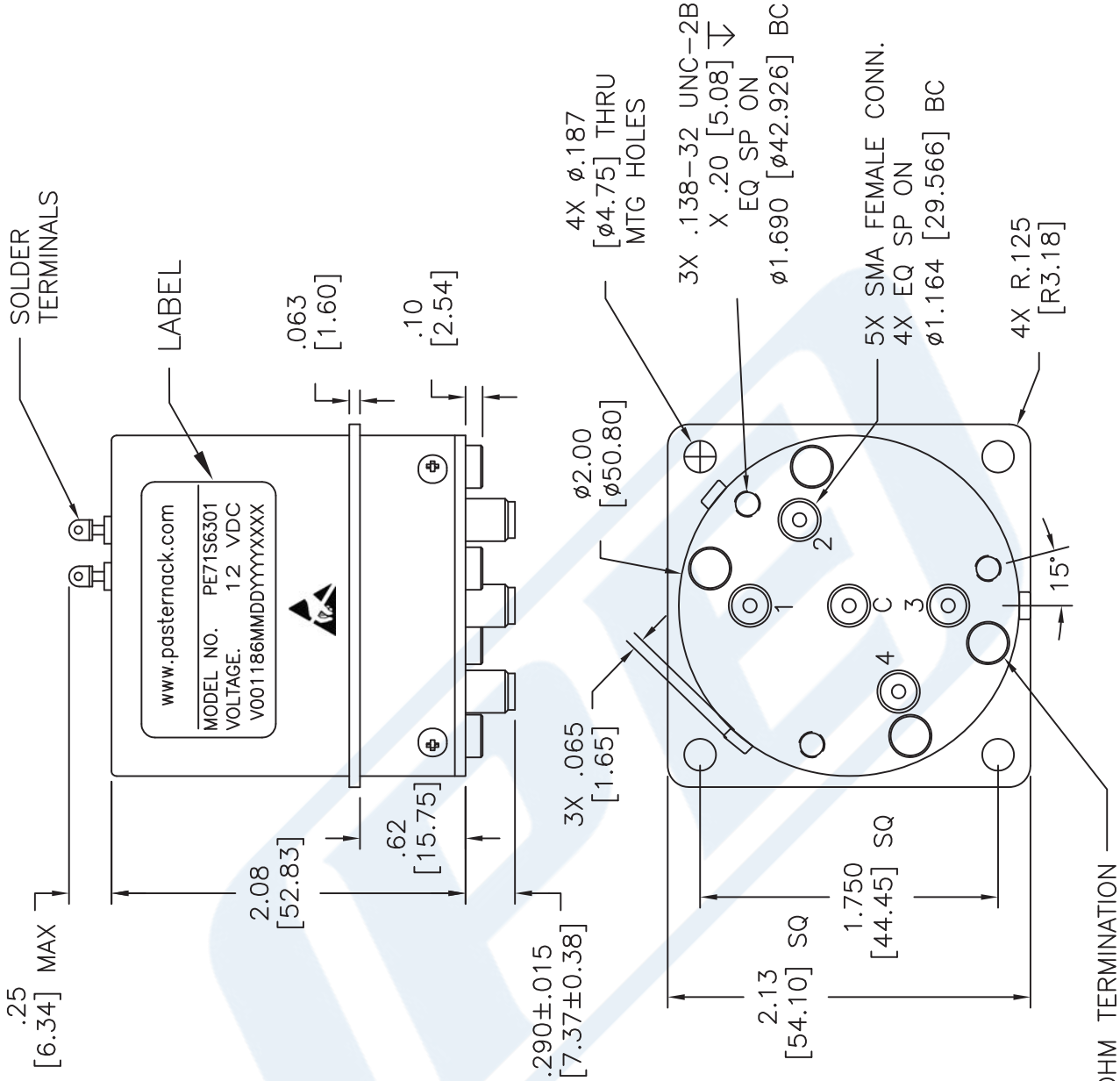
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 12V Control PE71S6301](http://www.pasternack.com/sma-sp4t-electromechanical-relay-switch-22-ghz-pe71s6301-p.aspx)

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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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE71S6301 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch
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| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: | | ANGLES | TOLERANCE |
|--|---------------------|--------|--------------------|
| DECIMALS | .XX ± .03 (0.76) | ±1° | FRACTIONS |
| HOLE DIAMETER | .XXX ± .010 (0.254) | | ±1/16 |
| .126 TO .250 | | | +0.005 TO -0.001 |
| (.3200 TO 6.350) | | | (+0.127 TO -0.025) |
| .251 TO .500 | | | +0.006 TO -0.001 |
| (6.375 TO 12.700) | | | (+0.152 TO -0.025) |
| .501 TO .750 | | | +0.008 TO -0.001 |
| (12.725 TO 19.050) | | | (+0.203 TO -0.025) |
| .751 TO 1.000 | | | +0.010 TO -0.001 |
| (19.075 TO 25.400) | | | (+0.254 TO -0.025) |
| 1.001 TO 2.000 | | | +0.012 TO -0.001 |
| (25.425 TO 50.800) | | | (+0.305 TO -0.025) |

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

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

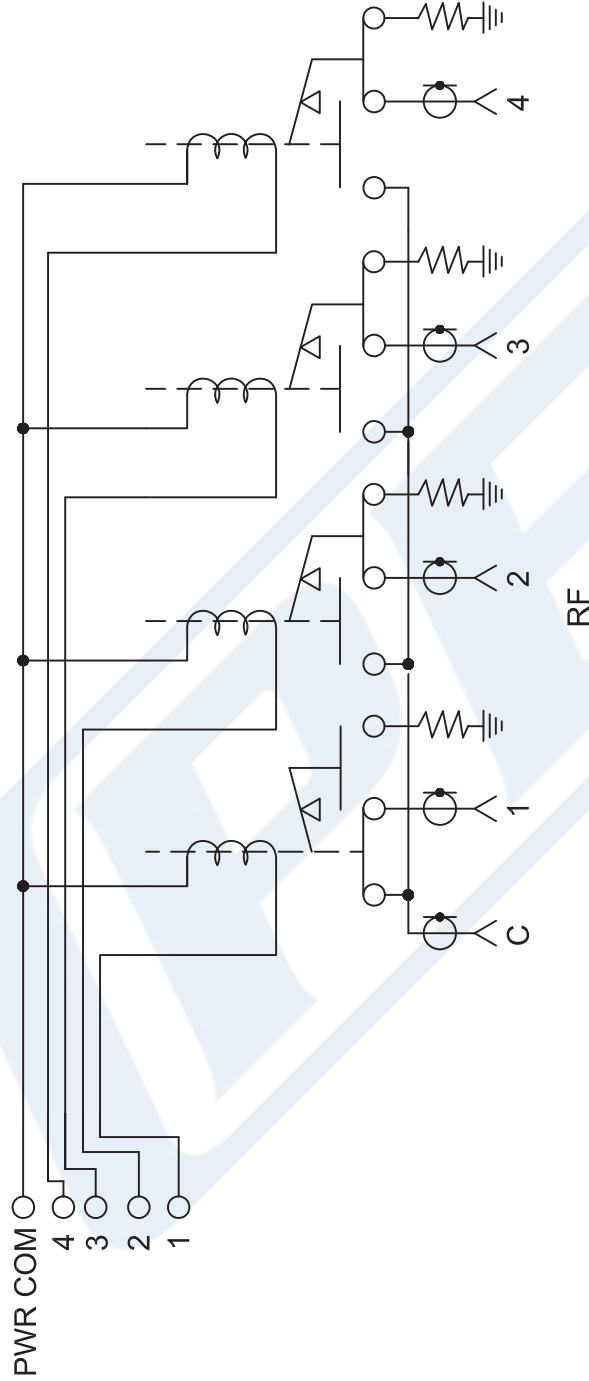
DWG TITLE
PE71S6301

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FSCM NO. 53919
CAD FILE 090115
SCALE N/A
SIZE A
2233

PE71S6301 CAD Drawing

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SCHEMATIC NORMALLY OPEN SHOWN IN DE-ENERGIZED POSITION

DWG TITLE

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