



Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, N, 50 Watts, 28V Control, Self Cut Off, Diodes

Electromechanical Relay Switches Technical Data Sheet

PE71S6171

Features

- Transfer Relay Switch
- DC to 12.4 GHz Frequency Range
- 1M Cycle Min Operating Life
- Latching Actuator
- Self Cut Off, Suppression Diodes
- Insertion Loss 0.4 dB max
- Isolation 60 dB min
- 50 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation

Description

The PE71S6171 is a Transfer Electromechanical Relay Switch that operates from DC to 12.4 GHz and has a rating of 50 Watts input power (CW) in a Break Before Make condition. The design features a Latching Actuator with Self Cut Off circuitry, Suppression Diodes and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min, with +28 Vdc operating voltage and performance is guaranteed over -25°C to +65°C. The package interface uses solder terminals and N Female connectors.

Electrical Specifications

| | |
|--------------------|----------------------|
| Switch Type | Transfer, Reflective |
| Actuator Type | Latching |
| Switching Sequence | Break Before Make |
| Actuator Options | Self Cut Off, Diodes |

| Description | Minimum | Typical | Maximum | Units |
|-----------------------------------|---------|---------|---------|-------|
| Frequency Range | DC | | 12.4 | GHz |
| Impedance | | 50 | | Ohms |
| Operating Voltage | | 28 | | Volts |
| Actuating Current @ 28 Volts | | 135 | | mA |
| VSWR | | | 1.45:1 | |
| Insertion Loss | | | 0.4 | dB |
| Isolation | 60 | | | dB |
| Input Power (CW) (at 12.4 GHz) | | | 50 | Watts |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, N, 50 Watts, 28V Control, Self Cut Off, Diodes PE71S6171](#)



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Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|---------------------|---------|--------|-----------|----|----|-------|
| Frequency Range | DC to 4 | 4 to 8 | 8 to 12.4 | | | GHz |
| VSWR, Max | 1.2:1 | 1.3:1 | 1.45:1 | | | |
| Insertion Loss, Max | 0.2 | 0.3 | 0.4 | | | dB |
| Isolation, Min | 80 | 70 | 60 | | | dB |

Mechanical Specifications

Size

| | |
|---------------------------|----------------------|
| Length | 2.06 in [52.32 mm] |
| Width/Diameter | 2 in [50.8 mm] |
| Height | 2 in [50.8 mm] |
| Weight | 0.875 lbs [396.89 g] |
| Body Material and Plating | Aluminum |
| Package Type | Connectorized Module |
| Operating Life | 1,000,000 Cycles |
| Switching Time | 20 ms Max |

Connectors

| | |
|---|----------------------------|
| RF Connector Type | N 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)

Not RoHS Compliant

Plotted and Other Data

Notes:

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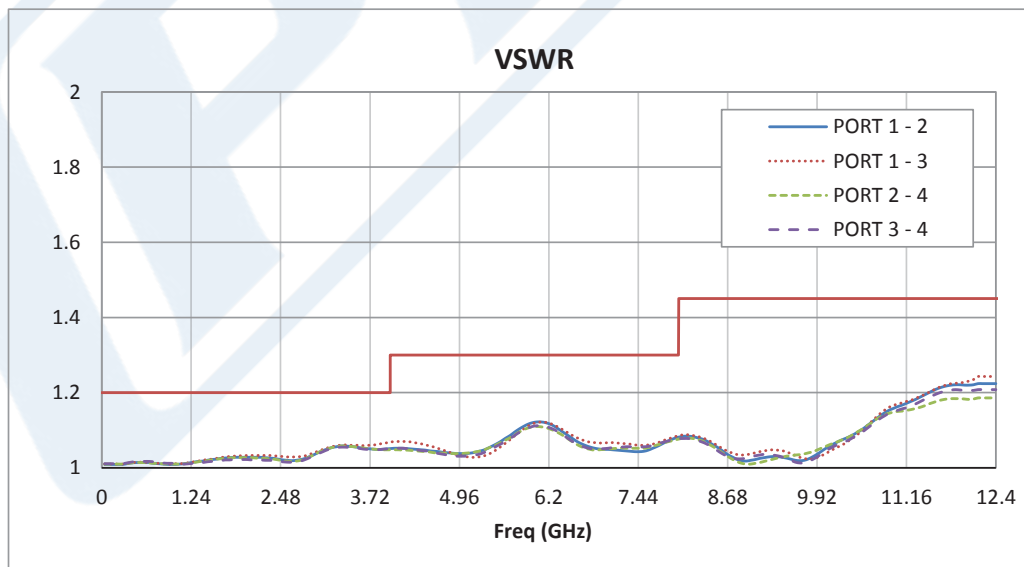
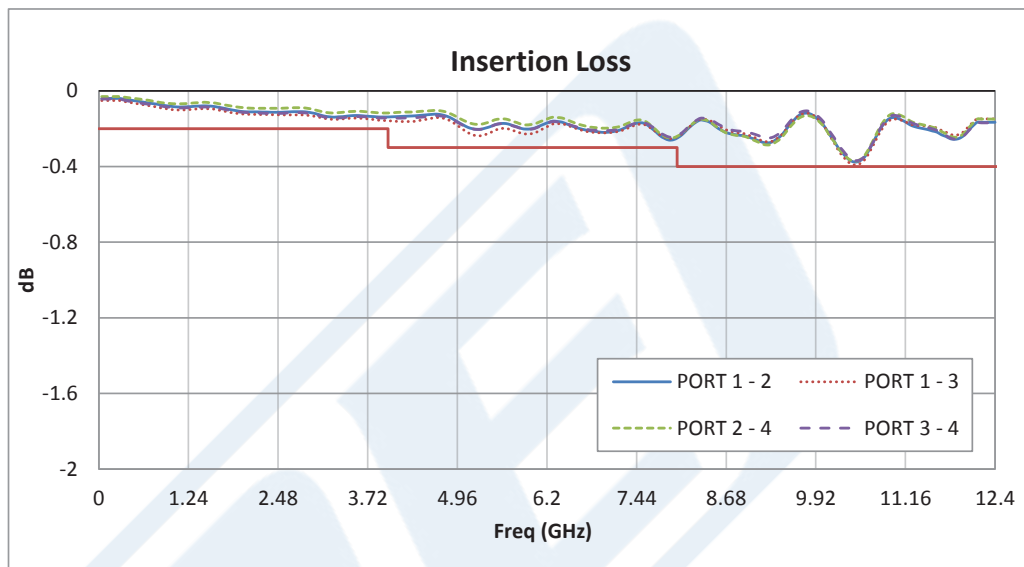


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Typical Performance Data



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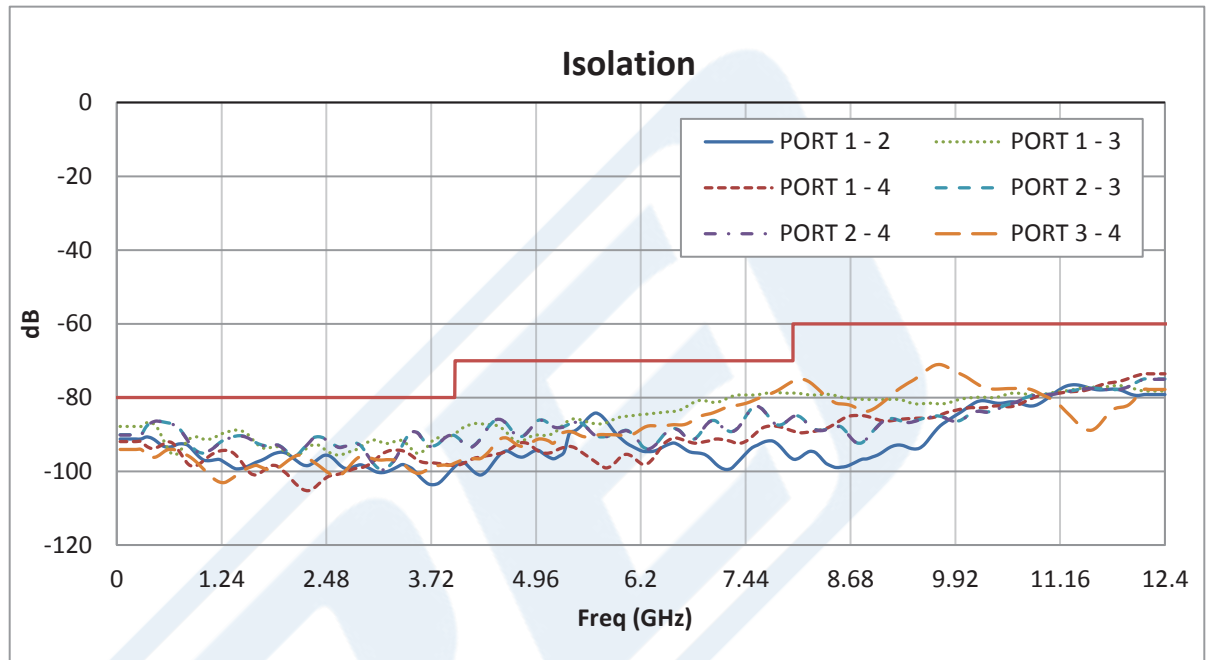




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Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, N, 50 Watts, 28V Control, Self Cut Off, Diodes from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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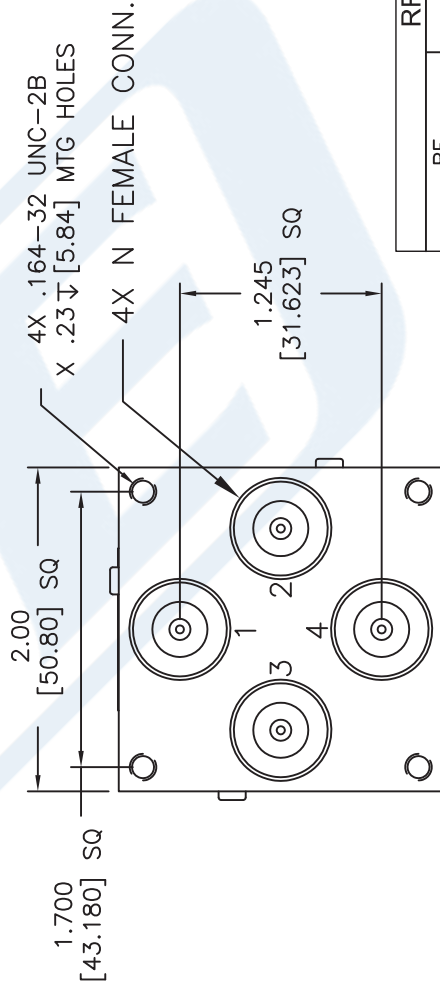
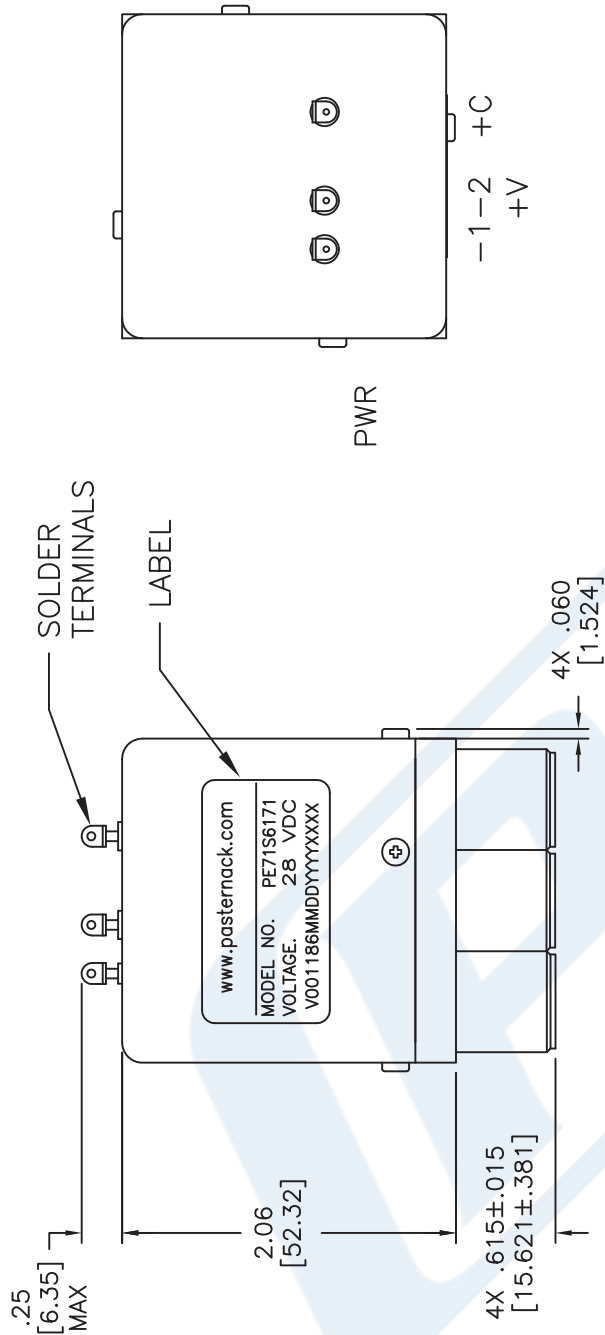
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.



PE71S6171 CAD Drawing

Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz,
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| RF STATUS | |
|-----------|--------------|
| RF | FALSAFE |
| 1-3, 2-4 | DE-ENERGIZED |
| 1-2, 3-4 | ENERGIZED |
| | LATCHING |
| | POSITION 1 |
| | POSITION 2 |

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
PE71S6171

FSCM NO. 53919

CAD FILE 042715

SCALE N/A

SIZE A

2233

| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: | |
|--|--------------------|
| DECIMALS | ANGLES |
| .XX ± .03 (0.76) | ±1° |
| .XXX ± .010 (0.254) | FRACTIONS |
| | ±1/16 |
| HOLE DIAMETER | TOLERANCE |
| .0135 TO .125 | + .004 TO -.001 |
| (0.343 TO 3.175) | (+0.102 TO -0.025) |
| .126 TO .250 | + .005 TO -.001 |
| (3.200 TO 6.350) | (+0.127 TO -0.025) |
| .251 TO .500 | + .006 TO -.001 |
| (6.375 TO 12.700) | (+0.152 TO -0.025) |
| .501 TO .750 | + .008 TO -.001 |
| (12.725 TO 19.050) | (+0.203 TO -0.025) |
| .751 TO 1.000 | + .010 TO -.001 |
| (19.075 TO 25.400) | (+0.254 TO -0.025) |
| 1.001 TO 2.000 | + .012 TO -.001 |
| (25.425 TO 50.800) | (+0.305 TO -0.025) |

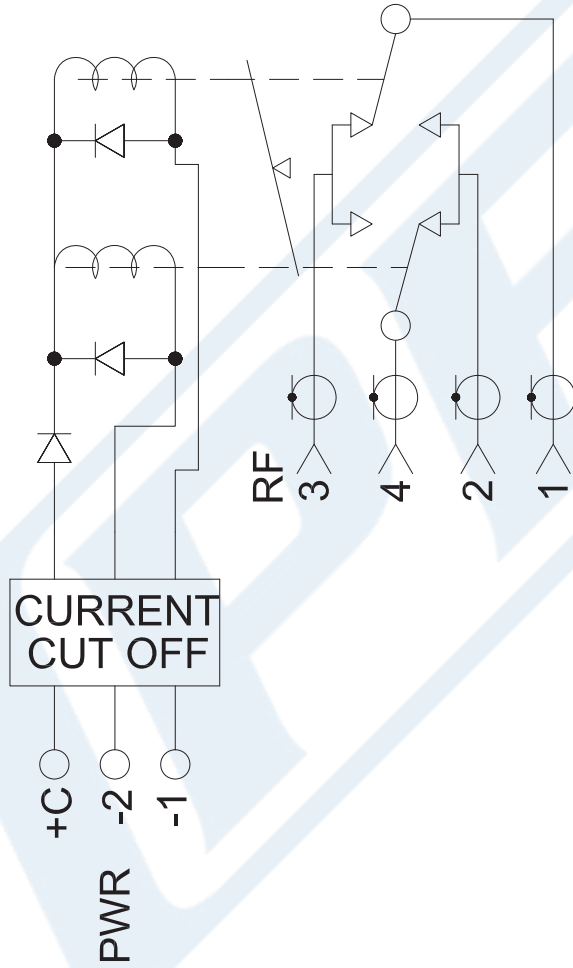
* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.

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PE71S6171 CAD Drawing

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SCHEMATIC LATCHING SHOWN IN POSITION 1

DWG TITLE

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