



50 Ohm 2.92mm SP3T PIN Diode Switch Operating
From 500 MHz to 40 GHz Up To +20 dBm

TECHNICAL DATA SHEET

PE7171

Broadband SP3T (Single Pole Three Throw) PIN Diode Absorptive Switch with 2.92mm connectors and Operating Power of 100mW (20 dBm)

Pasternack line of Broadband Switches offers a couple of frequency ranges, which are 0.5 to 18 GHz and 0.5 to 40 GHz. They are available in various configurations from SPST (Single Pole Single Throw), single-pole-double-throw (SP2T), single-pole-three-throw (SP3T), single-pole-four-throw (SP4T) and single-pole-eight-throw (SP8T). Pasternack's Broadband Switches are PIN Diode Absorptive Switch designs capable of handling power levels to 100mW (20 dBm) at a switching speed of 100 ns (nanoseconds). This line of Absorptive PIN Diode Switches are designed with TTL logic controls.

- Designs with Operating Frequencies from 0.5 GHz up to 18 GHz or 40 GHz
- Available configurations are SPST, SP2T, SP3T, SP4T and SP8T
- SMA or 2.92mm connector
- Switching Speed of 100ns Maximum
- Power ratings of 20dBm
- TTL Control Logic diagram can be found on attached drawing

Configuration

RF Connector	2.92mm Female
Control Connector	Solder Pin
Design	Absorptive, SP3T

Electrical Specifications

Frequency Range, GHz	0.5 to 40
Impedance, Ohms	50
Maximum Input Power, dBm	+20
Maximum Input VSWR	2.5:1
Maximum Output VSWR	2.5:1
Maximum Insertion Loss, dB	6
Minimum Isolation, dB	100
Maximum Speed, ns	15
Power Supply 1, Volts	5
Power Supply 2, Volts	-5

Mechanical Specifications

Temperature

Operating Range, deg C	-40 to +85
Storage Range, deg C	-55 to +125

Size

Length, in [mm]	1 [25.4]
Width, in [mm]	1 [25.4]
Height, in [mm]	0.5 [12.7]
Housing Material and Plating	Aluminum, Paint

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 Ohm 2.92mm SP3T PIN Diode Switch Operating From 500 MHz to 40 GHz Up To +20 dBm PE7171](#)

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.



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

Plotted and Other Data
Notes:

Values at 25 °C, sea level

50 Ohm 2.92mm SP3T PIN Diode Switch Operating From 500 MHz to 40 GHz Up To +20 dBm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

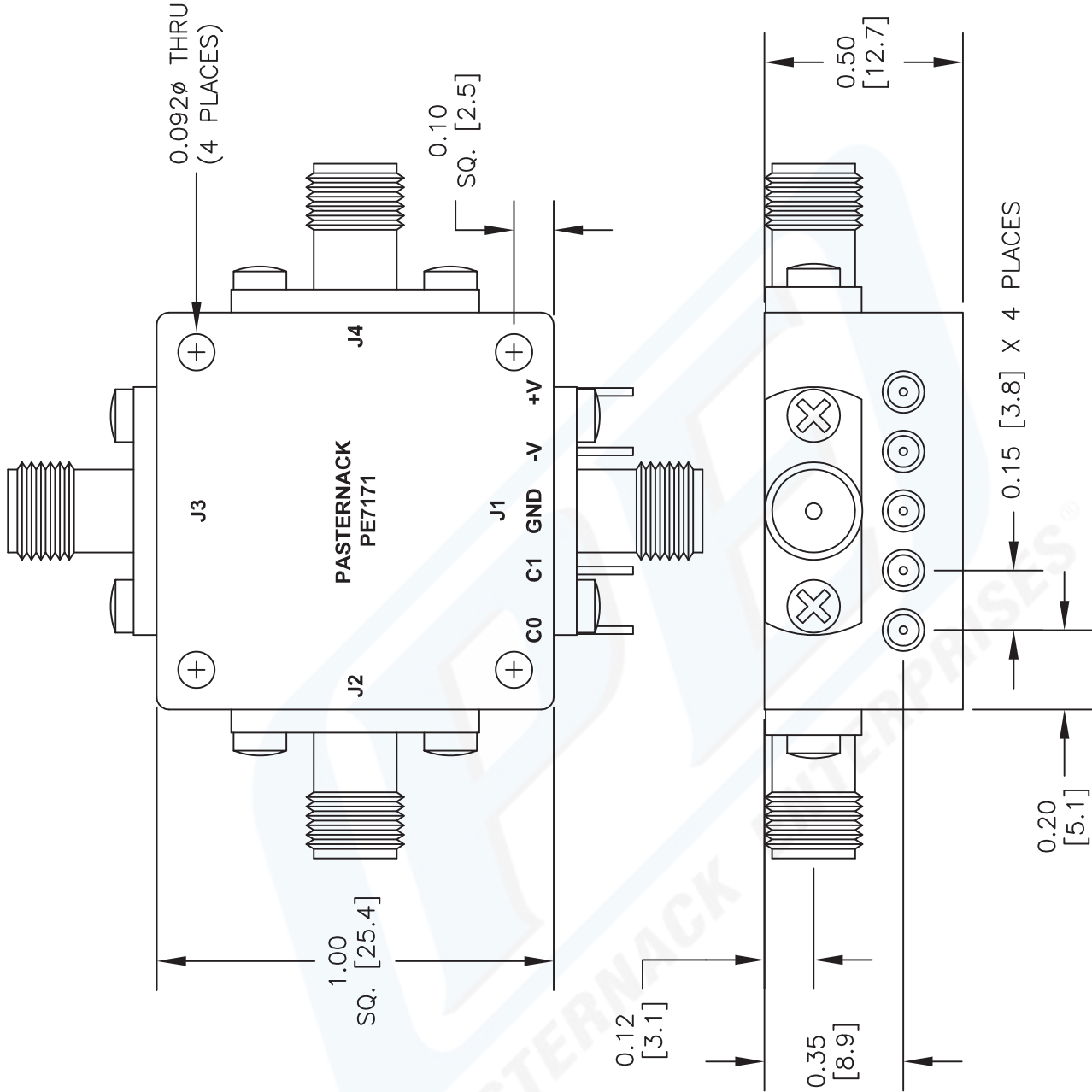
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PE7171 CAD Drawing

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TTL Logic Table

C0	C1	Low Loss
0	0	J1 - J2
0	1	J1 - J3
1	0	J1 - J4
1	1	All Isolated

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
PE7171

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CAD FILE 040213-A SCALE N/A SIZE A 2233

FSCM NO. 53919

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