



Absorptive SP4T PIN Diode Switch Operating From
5 MHz to 3 GHz Up to 1 Watt (+30 dBm) and SMA

PIN Diode Switches Technical Data Sheet

PE71S2037

Features

- SP4T PIN Diode Switch
- Terminated
- 5 to 3000 MHz Bandwidth
- Insertion loss: 2.5 dB max
- Isolation: 60 dB min
- 50 Ohms
- Switching Speed: 10 microseconds
- DC voltage: +24 Vdc
- SMA female connectors
- TTL Control Logic

Applications

- Electronic Warfare
- Test & Measurement
- Military and Wireless Communications Systems
- Military & Space
- Radar

Description

The PE71S2037 is a single pole four throw (SP4T) terminated PIN diode switch that operates over the frequency range of 5 MHz to 3000 MHz. The 50 ohm design supports TTL control logic and is rated up to 1 watt average RF input power. Typical performance includes 2.5 dB insertion loss and greater than 60 dB isolation. Switching speed is 10 microseconds with 1.5:1 typical VSWR and an operating voltage of +24 Vdc with 150 mA nominal current. The rugged package design supports SMA Female RF input/output connectors. The Switch design is highly reliable with an operational temperature of 0°C to +70°C.

Electrical Specifications

TTL Control

Off/Isolation: "0" 0 to 0.8 V
On/Low Loss: "1" 2 to 5 V

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.005		3	GHz
Impedance		50		Ohms
VSWR		1.3:1	1.5:1	
Insertion Loss		2.5	3.5	dB
Insertion Loss Repeatability			0.05	dB
Switching Time			10	μs
Input Power (CW)			1	Watts
Positive Operating Voltage		24		Vdc
Current @ 24 Vdc		150		mA
Operating Temperature	0		+70	deg C

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.005 to 1	1 to 2	2 to 3			GHz
Isolation, Min	80	70	60			dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Absorptive SP4T PIN Diode Switch Operating From 5 MHz to 3 GHz Up to 1 Watt \(+30 dBm\) and SMA PE71S2037](#)



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Mechanical Specifications

Size

Design
RF Connector

Absorptive, SP4T
SMA Female

Environmental Specifications

Temperature

Operating Range
Storage Range

0 to +70 deg C
-55 to +90 deg C

ESD Sensitivity

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

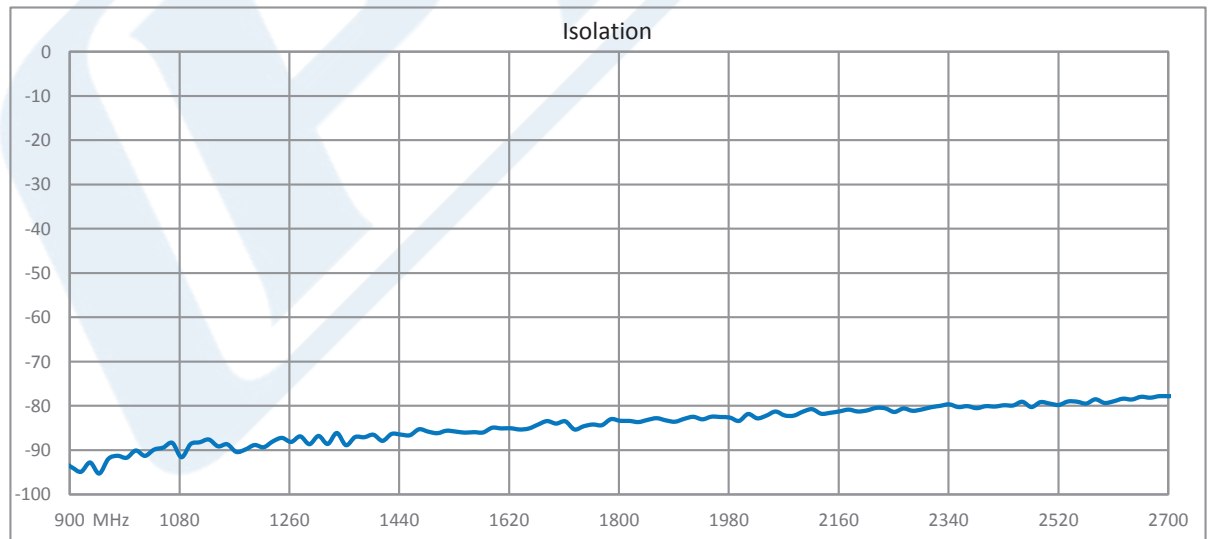


Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



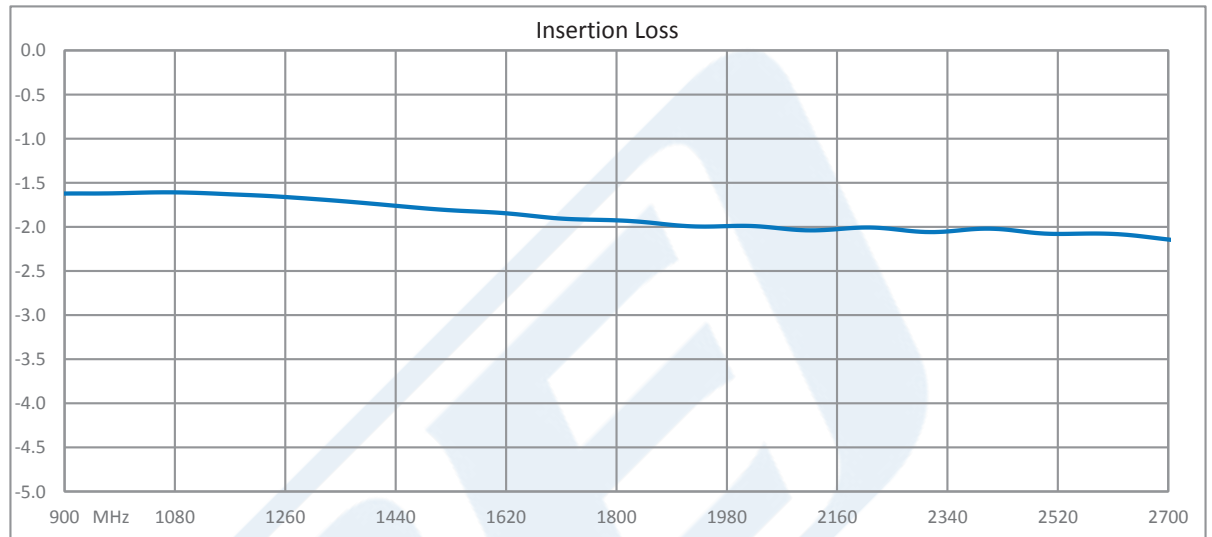
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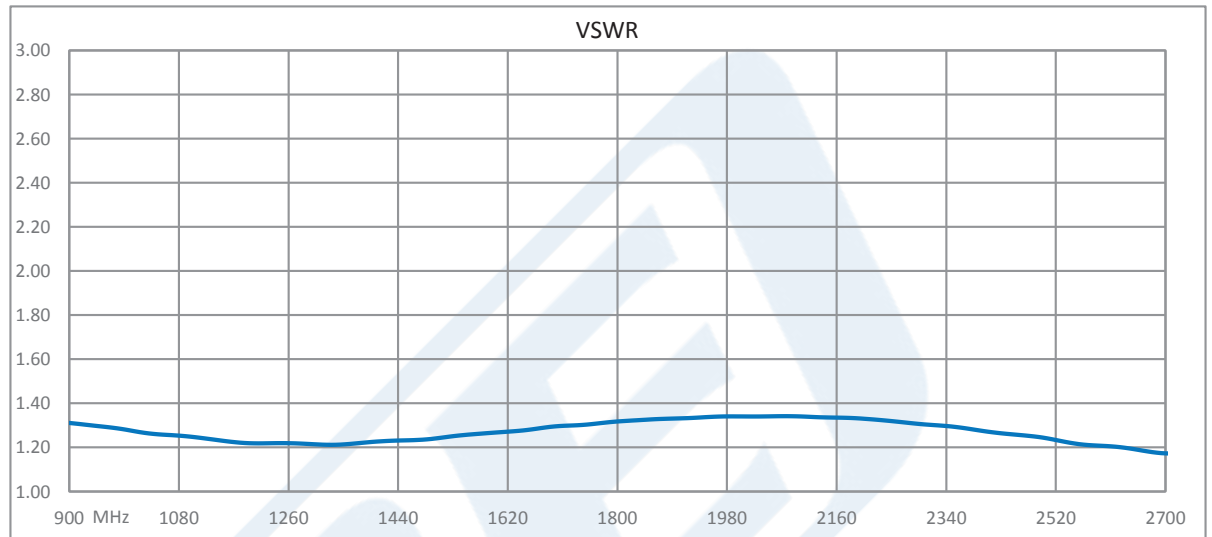
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Absorptive SP4T PIN Diode Switch Operating From 5 MHz to 3 GHz Up to 1 Watt (+30 dBm) and SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

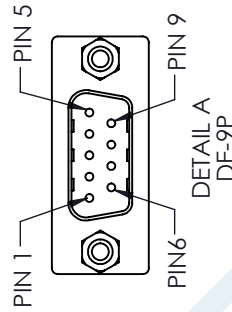
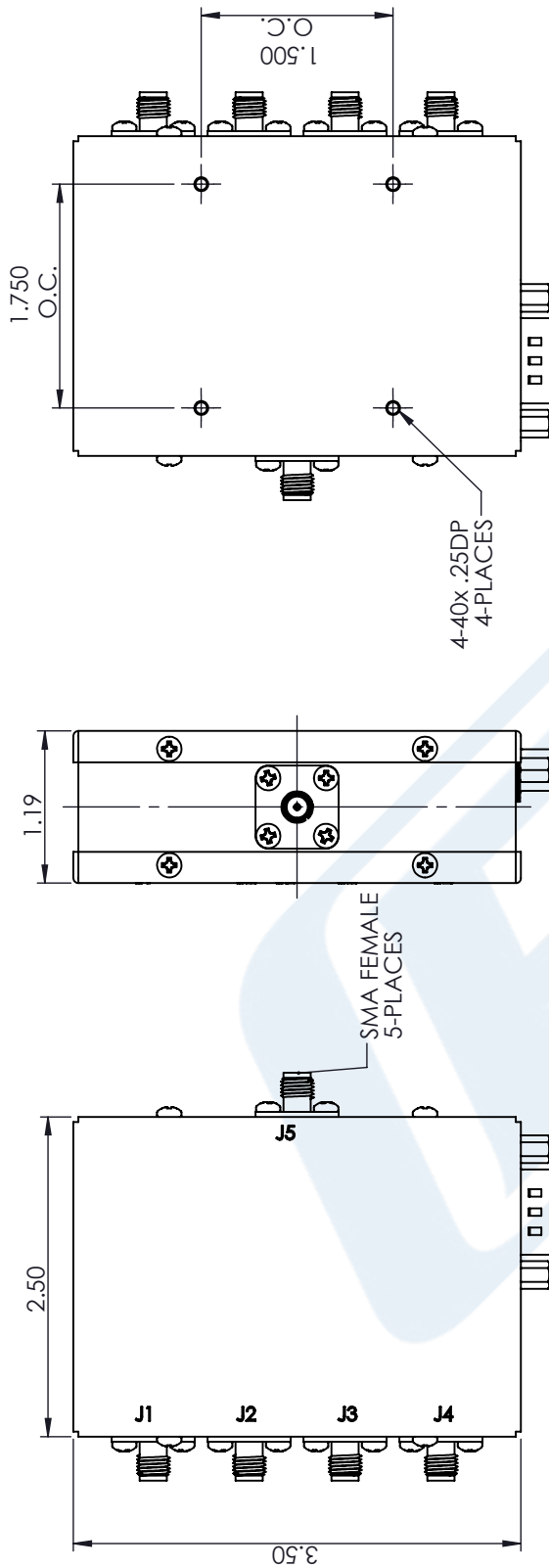
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URL: <https://www.pasternack.com/absorptive-sp4t-pin-diode-switch-3-ghz-30-dbm-sma-pe71s2037-p.aspx>

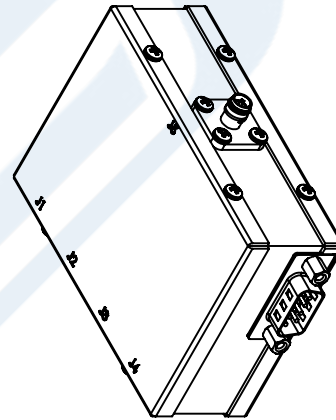
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such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

PE71S2037 CAD Drawing

Absorptive SP4T PIN Diode Switch Operating From 5 MHz
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PIN	FUNCTION
1	TTL CONT. 1
2	TTL CONT. 2
3	TTL CONT. 3
4	TTL CONT. 4
5	NO CONNECTION
6	NO CONNECTION
7	+5 Vdc
8	+ Vdc
9	GROUND



STANDARD TOLERANCES
.X ±0.2
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES

PE PASTERNAK®
THE ENGINEER'S RF SOURCE

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DWG TITLE
PE71S2037

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].

CAGE CODE 53919

CAD FILE 052617

SCALE N/A

SIZE A

CN 0157