



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.

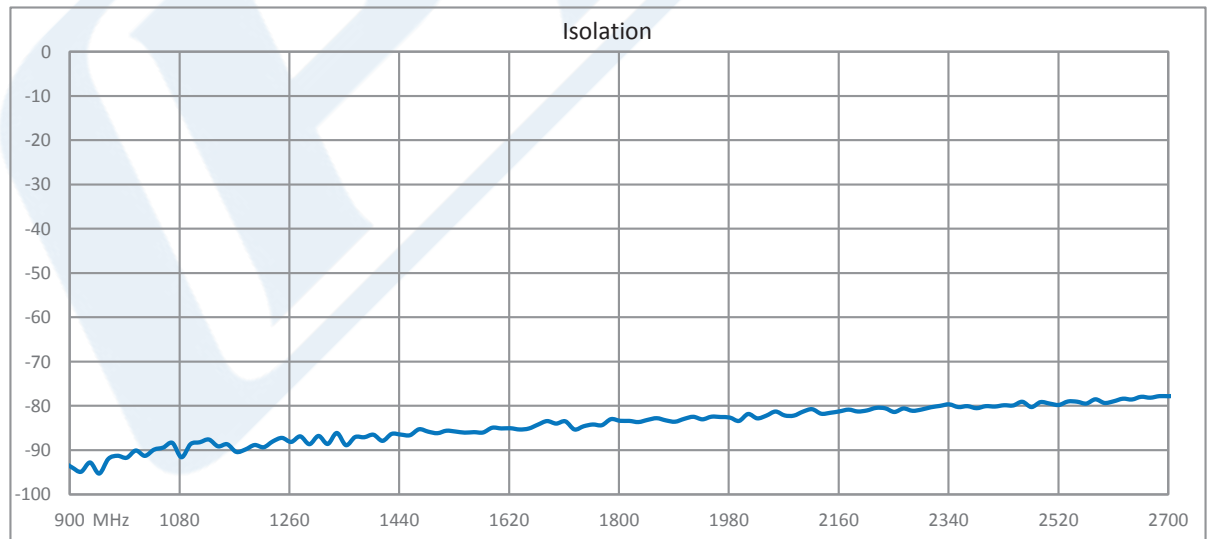


Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



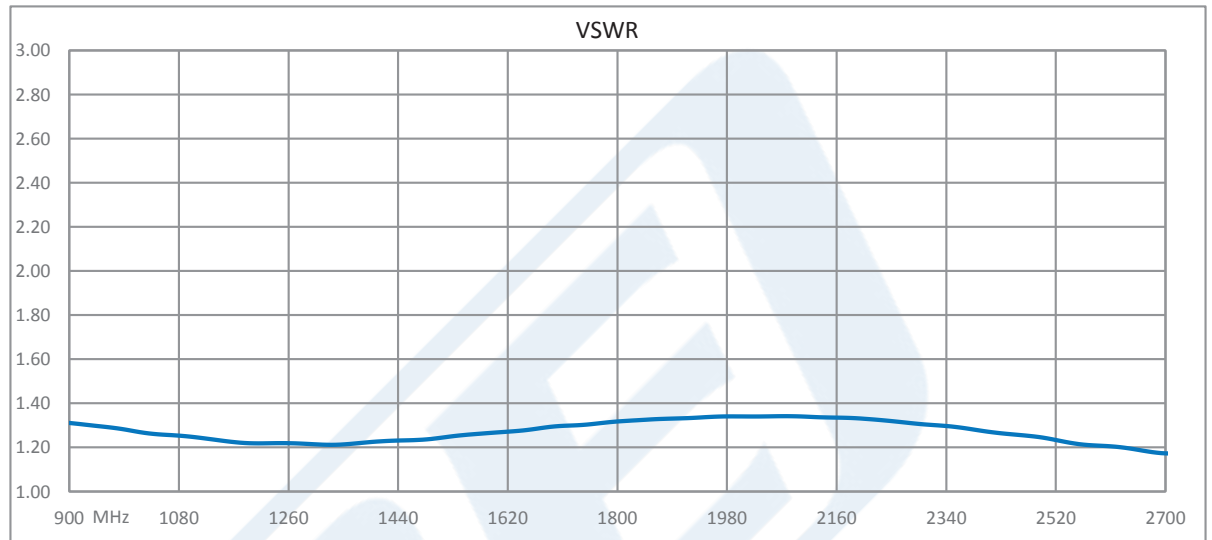
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Absorptive SP4T PIN Diode Switch Operating From 5 MHz to 3 GHz Up to 1 Watt (+30 dBm) and SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability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

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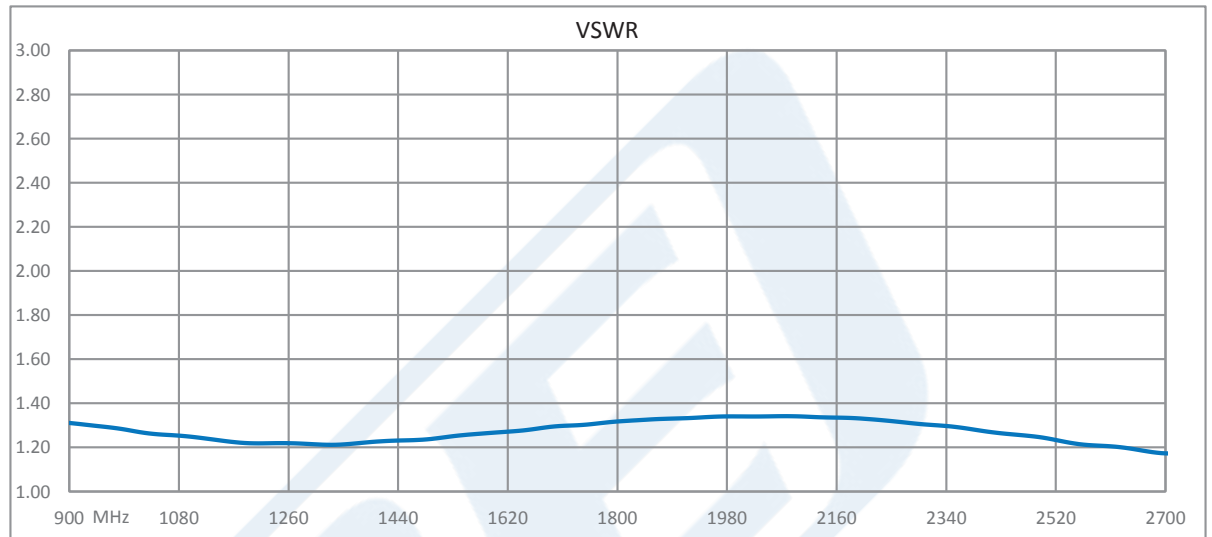
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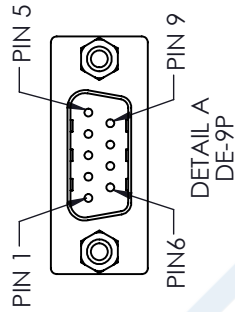
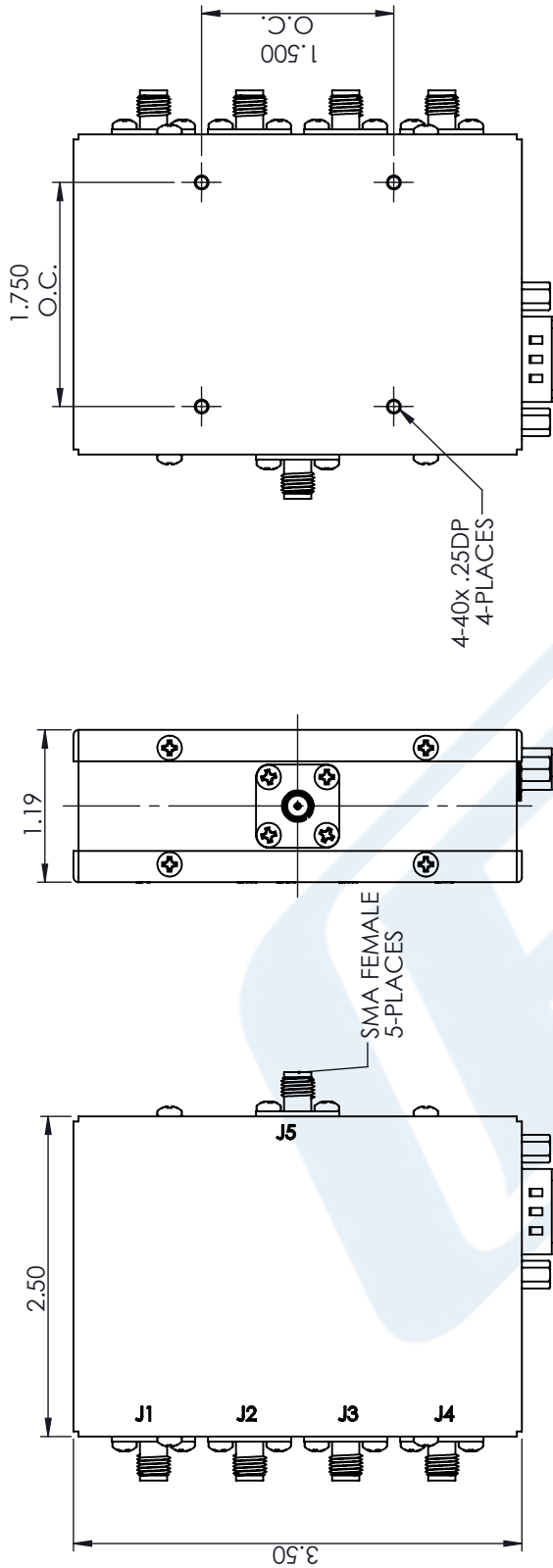
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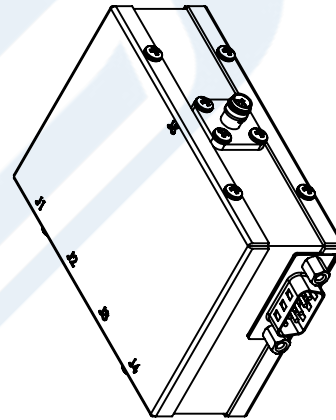
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PE71S2037 CAD Drawing

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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®
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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