



Absorptive SP4T PIN Diode Switch Operating From 4 GHz to 8 GHz Up to +20 dBm and Field Replaceable SMA

PIN Diode Switches Technical Data Sheet

PE71S6252

Features

- SP4T Absorptive Switch
- 4.0 GHz to 8.0 GHz
- Insertion Loss 2.2 dB max
- Isolation 70 dB min
- Power Input 20 dBm CW max
- Field Replaceable Connectors

Applications

- Test & Measurement
- Military Communication
- Commercial Communication
- Wireless Communications
- SATCOM
- Military Electronic Systems
- RF Test Stations

Description

The PE71S6252 is a Single Pole Four Throw (SP4T) Absorptive PIN Diode Switch that operates from 4 GHz to 8 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Outstanding performance includes 2.2 dB max insertion loss, 70 dB min isolation, and 100 nsec max switching speed. The design incorporates TTL compatible driver circuitry for accurate logic control. Operational temperature range is -40°C to +85°C and dual voltage controls of +5 DC and -15 DC are required. The rugged package is designed to meet a series of MIL-STD-202F environmental conditions including humidity, shock, vibration, and temperature cycle. Package interfaces include solder terminals and female SMA connectors.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	4		8	GHz
Impedance		50		Ohms
Insertion Loss			2.2	dB
Isolation	70			dB
Switching Time			100	ns
Input Power (CW)			0.1	Watts
Survival Power			1	Watts
Positive Operating Voltage		5		V
Negative Operating Voltage		-15		V
Operating Temperature	-40		+85	deg C

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 4 GHz to 8 GHz Up to +20 dBm and Field Replaceable SMA PE71S6252](#)



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Mechanical Specifications

Size

Length	1.25 in [31.75 mm]
Width	1.25 in [31.75 mm]
Height	0.4 in [10.16 mm]
Weight	0.07 lbs [31.75 g]
Finish	Blue Paint

Configuration

Design	Absorptive, SP4T
RF Connector	SMA Female
RF Connector Option	Field Replaceable
TTL Control Connector	Solder Pin

Environmental Specifications

Temperature

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

Humidity

MIL-STD-202F, Method 103B, Condition B

MIL-STD-202F, Method 213B, Condition B

MIL-STD-202F, Method 204D, Condition B

MIL-STD-202F, Method 105C, Condition B

MIL-STD-202F, Method 107D, Condition A

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



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

Not RoHS Compliant

REACH Compliant

12/17/2015

Plotted and Other Data

Notes:

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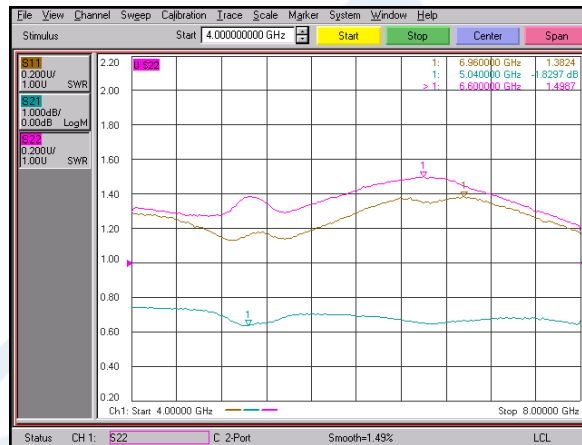
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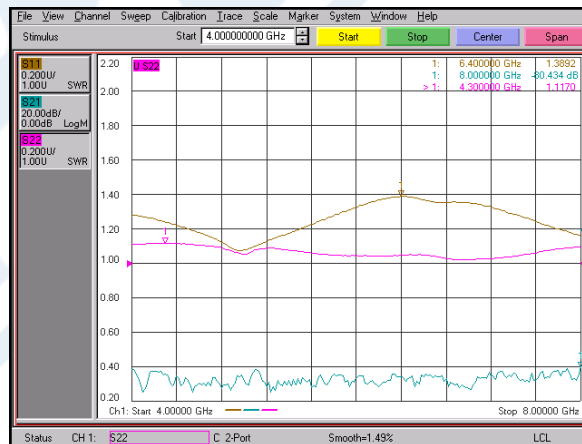
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Typical Performance Data

(J1 – J2) Insertion Loss and Return Loss



(J1 – J2) Isolation and Termination Return Loss



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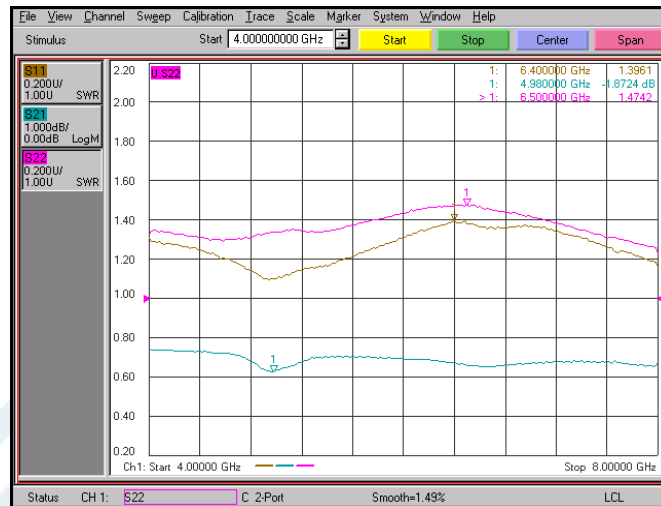


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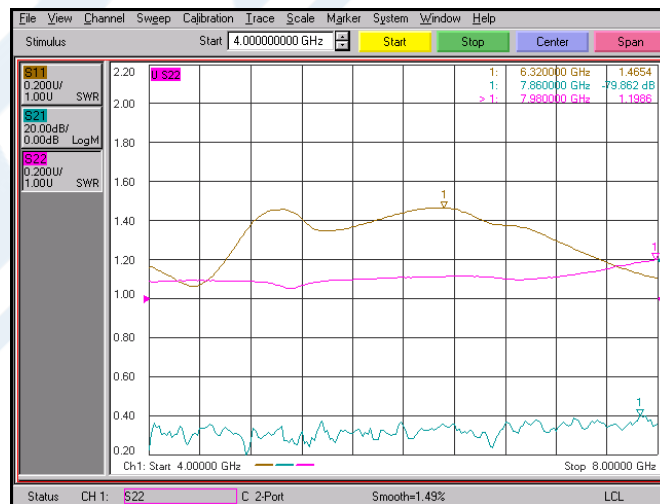
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(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation and Termination Return Loss



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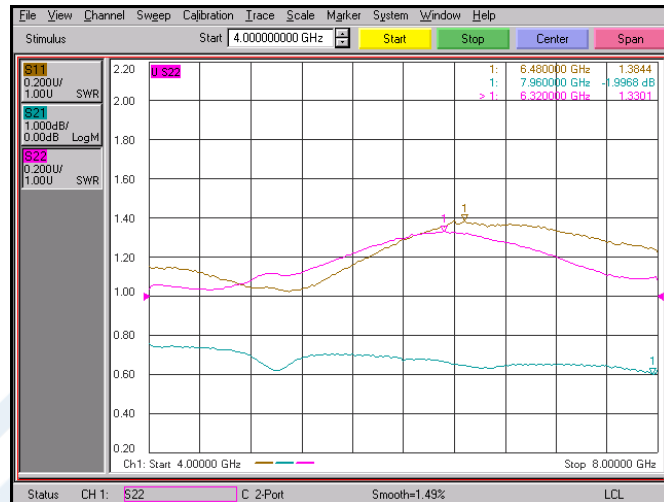


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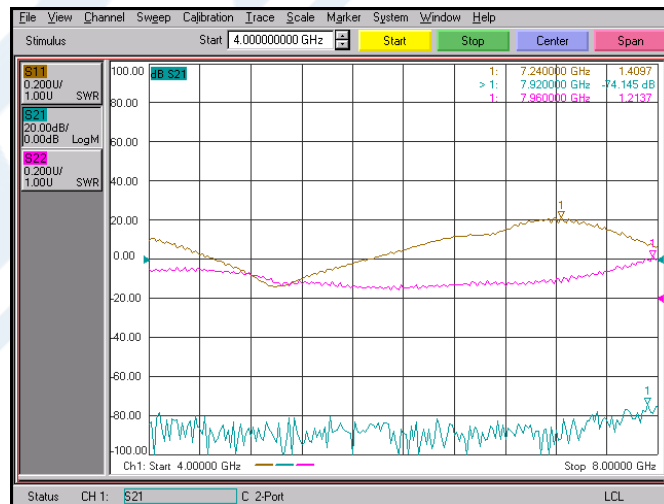
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(J1 – J4) Insertion Loss and Return Loss



(J1 – J4) Isolation and Termination Return Loss



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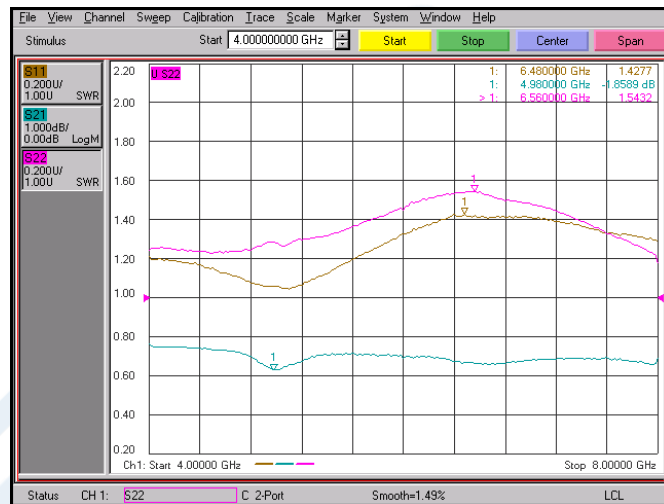


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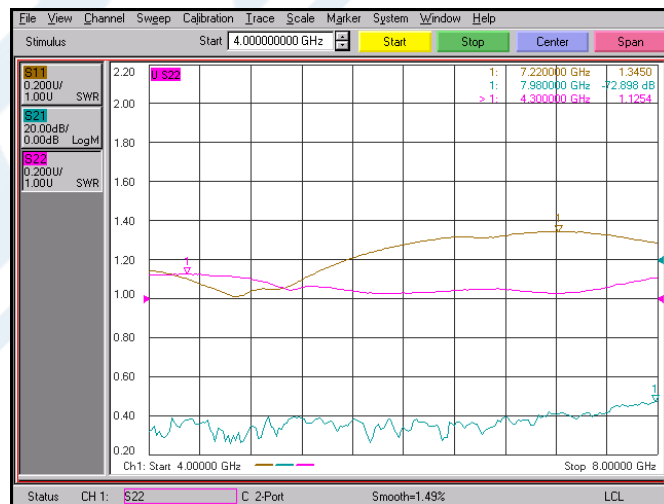
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(J1 – J5) Insertion Loss and Return Loss



(J1 – J5) Isolation and Termination Return Loss



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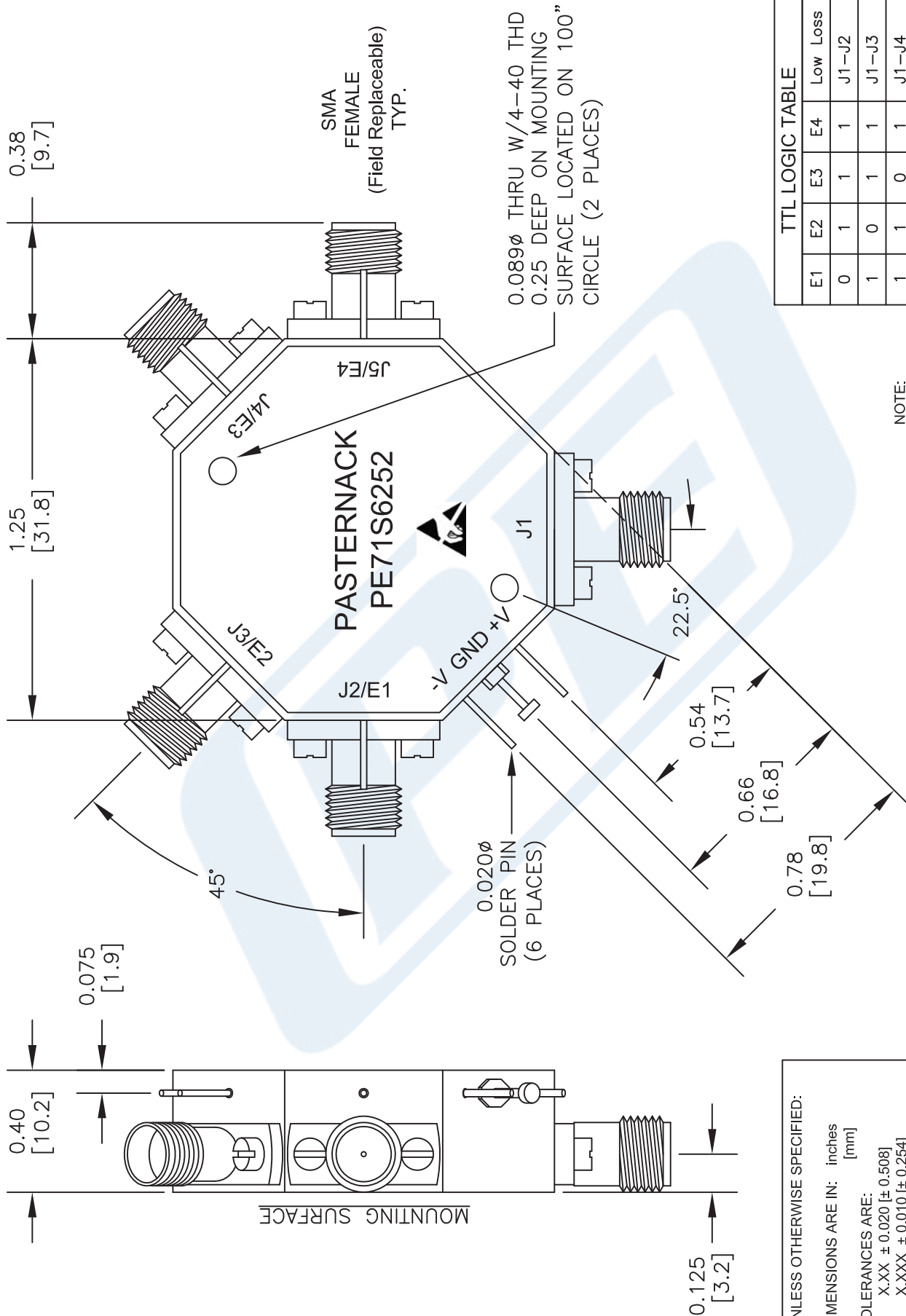
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PE71S6252 CAD Drawing

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TTL LOGIC TABLE					
E1	E2	E3	E4	Low	Loss
0	1	1	1	1	J1-J2
1	0	1	1	1	J1-J3
1	1	0	1	1	J1-J4
1	1	1	0	1	J1-J5

NOTE:
0 = LOW LOSS
1 = ISOLATION

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

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Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | Fax: (949) 261-7451
Website: www.pasternack.com | E-Mail: sales@pasternack.com

FSCM NO. 53919

CAD FILE 041516

SCALE N/A

SIZE A

2233