



SP4T PIN Diode Switch Operating From 500 MHz to 40 GHz
Up to 0.1 Watts (+20 dBm) and Field Replaceable 2.92mm

PIN Diode Switches Technical Data Sheet

PE71S6228

Features

- SP4T Reflective Switch
- 0.5 GHz to 40.0 GHz
- Insertion Loss 7.5 dB typ
- Isolation 55 dB min
- Power Input 20 dBm CW max
- Switching Speed 50 nsec max
- Field Replaceable Connectors

Applications

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

Description

The PE71S6228 is a Single Pole Four Throw (SP4T) Reflective PIN Diode Switch that operates from 0.5 to 40 GHz. Performance includes 7.5 dB typ insertion loss, 55 dB min Isolation, and 50 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 VDC and -5 VDC are required. The rugged package design is compact, features field replaceable female 2.92mm connectors, and is designed to meet MIL-STD 202F environmental test conditions which include humidity, shock, vibration, altitude, and temperature cycle.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.5		40	GHz
Impedance		50		Ohms
Insertion Loss		7.5		dB
Isolation	55			dB
Switching Time			50	ns
Input Power (CW)			0.1	Watts
Input Power (Peak) @ 1 us			1	Watts
Survival Power			1	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-5		Vdc
Current @ 5 Vdc		250		mA
Current @ -5 Vdc		100		mA
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: [SP4T PIN Diode Switch Operating From 500 MHz to 40 GHz Up to 0.1 Watts \(+20 dBm\) and Field Replaceable 2.92mm PE71S6228](#)



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Mechanical Specifications

Size

Length	2 in [50.8 mm]
Width	1 in [25.4 mm]
Height	0.4 in [10.16 mm]
Weight	0.104 lbs [47.17 g]
Finish	Blue Paint

Configuration

Design	Reflective, SP4T
RF Connector	2.92mm 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

Shock

Vibration

Altitude

Temperature Cycling

ESD Sensitivity

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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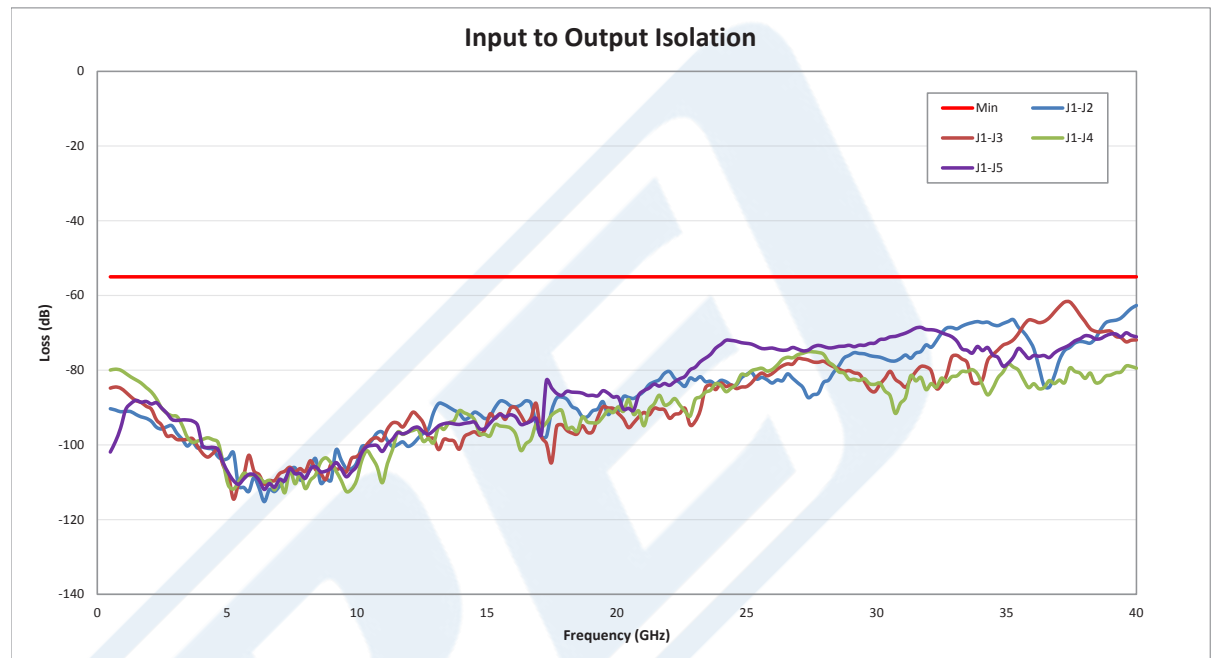


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Typical Performance Data



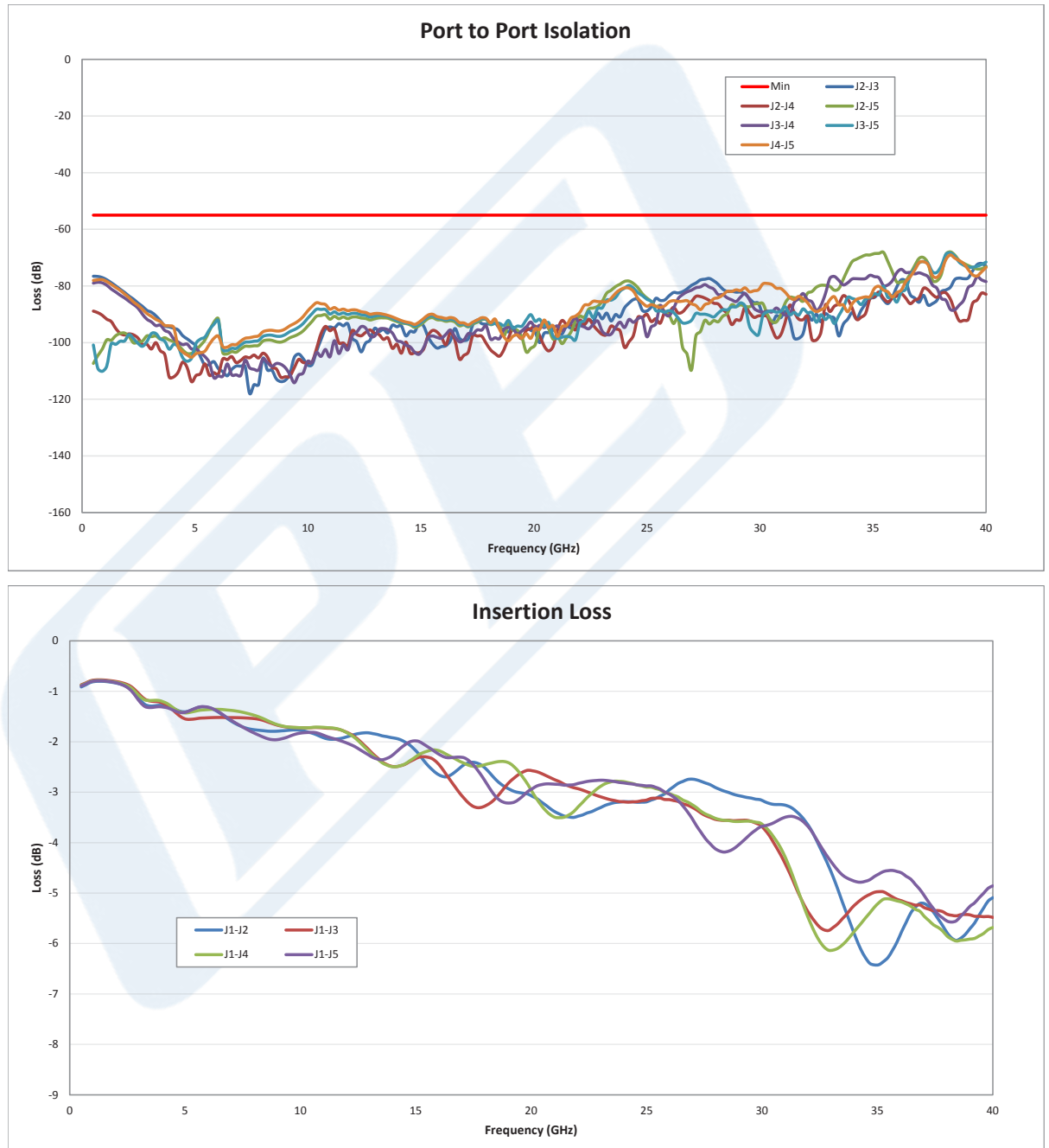
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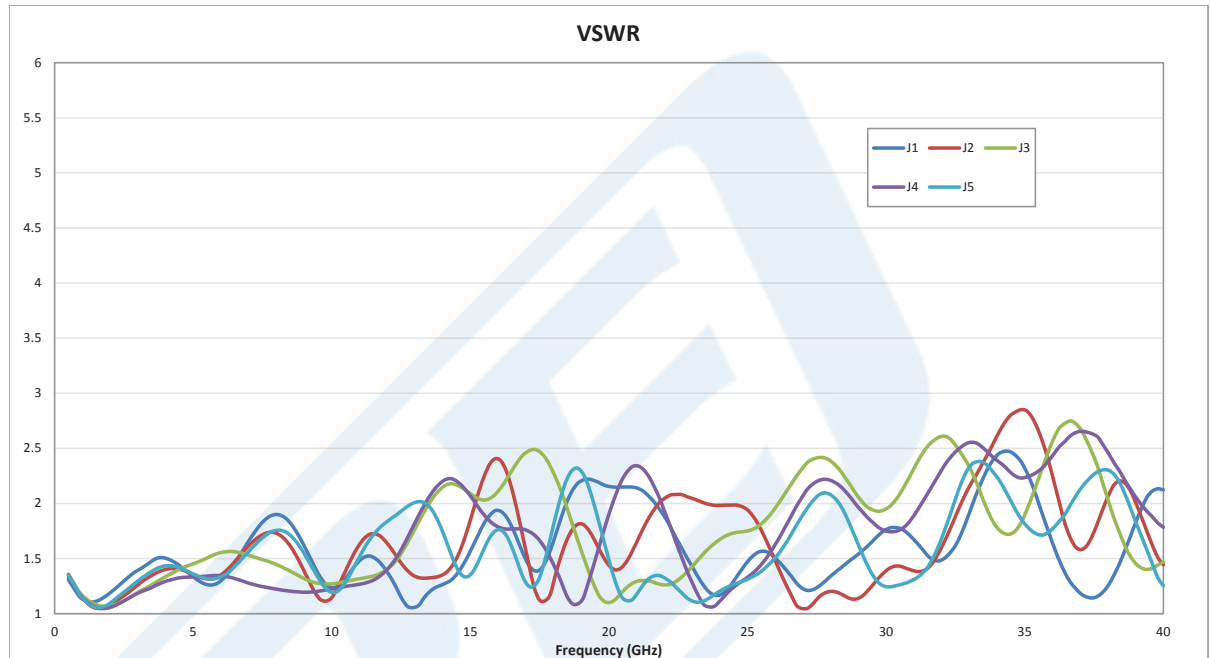
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SP4T PIN Diode Switch Operating From 500 MHz to 40 GHz Up to 0.1 Watts (+20 dBm) and Field Replaceable 2.92mm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

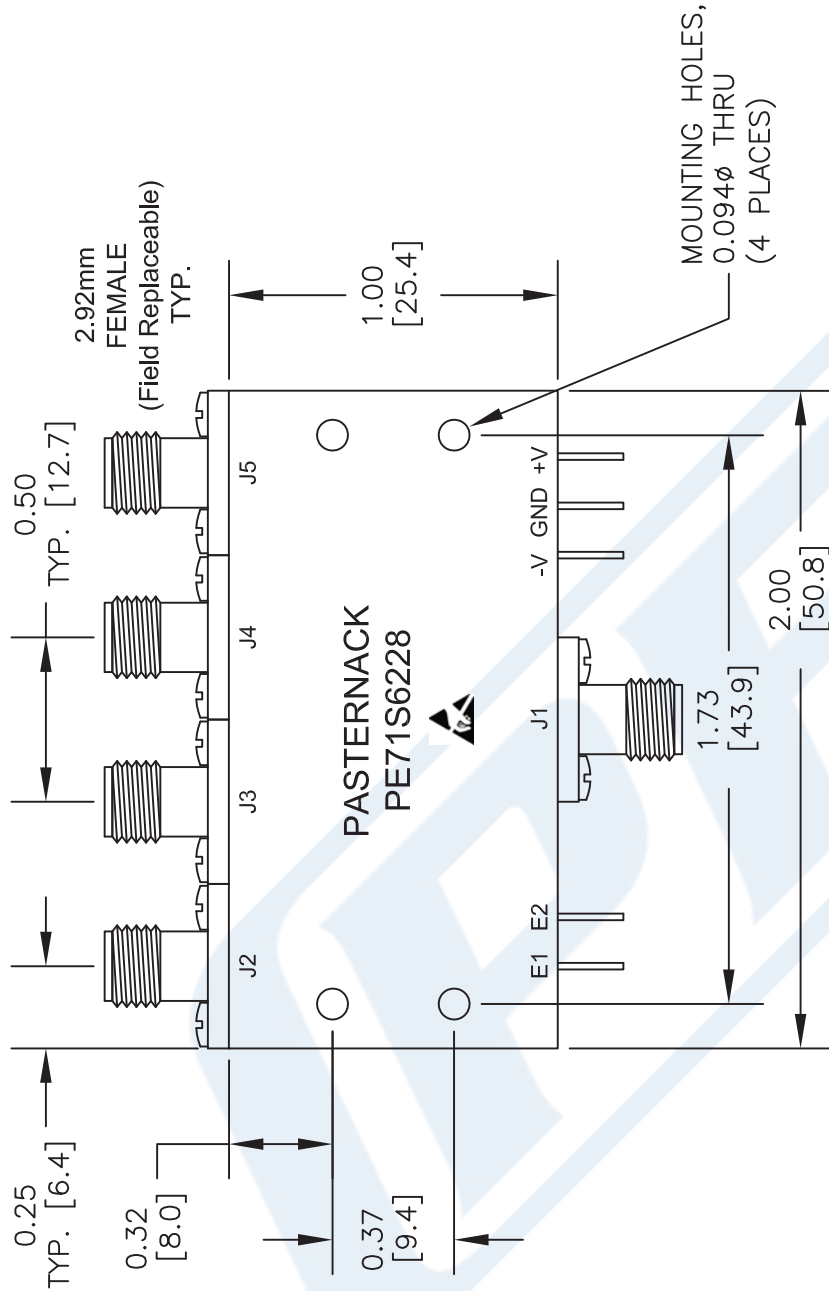
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PE71S6228 CAD Drawing

SP4T PIN Diode Switch Operating From 500 MHz to 40 GHz Up
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Front View

2 BIT DECODER LOGIC TABLE

E1	E2	FUNCTION
0	0	J1-J2 LOW LOSS
0	1	J1-J3 LOW LOSS
1	0	J1-J4 LOW LOSS
1	1	J1-J5 LOW LOSS

ALL DIMENSIONS ARE IN INCHES.
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

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



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DWG TITLE

PE71S6228

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].

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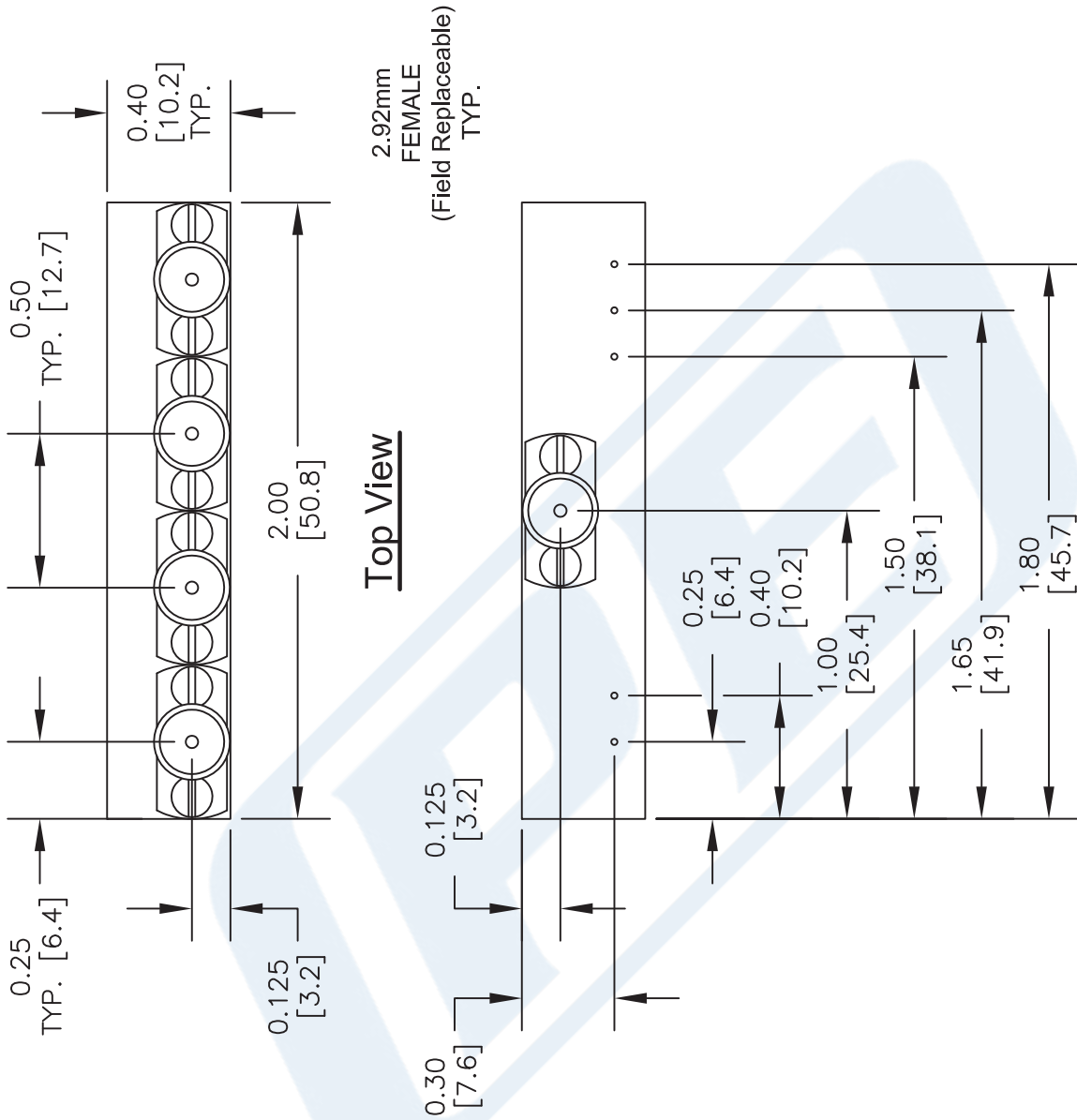
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SIZE A

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PE71S6228 CAD Drawing

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Top View

Bottom View

2 BIT DECODER LOGIC TABLE		
E1	E2	FUNCTION
0	0	J1-J2 LOW LOSS
0	1	J1-J3 LOW LOSS
1	0	J1-J4 LOW LOSS
1	1	J1-J5 LOW LOSS

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