



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	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B
Temperature Cycling	MIL-STD-202F, Method 107D, Condition A
ESD Sensitivity	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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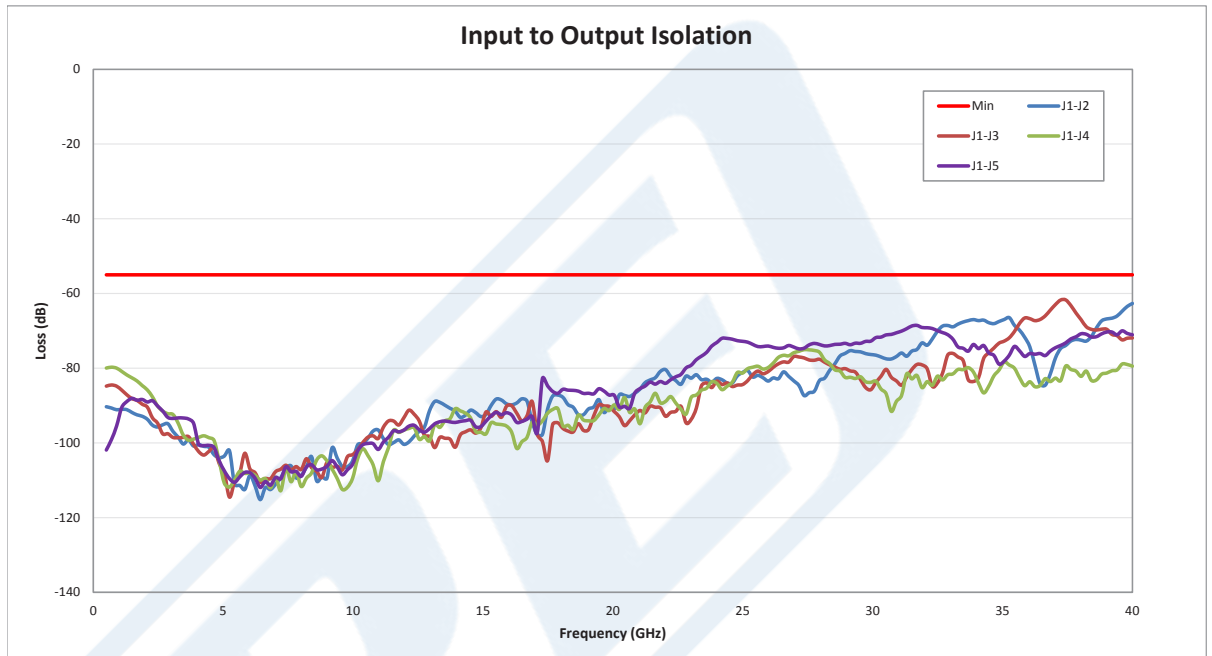


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Typical Performance Data



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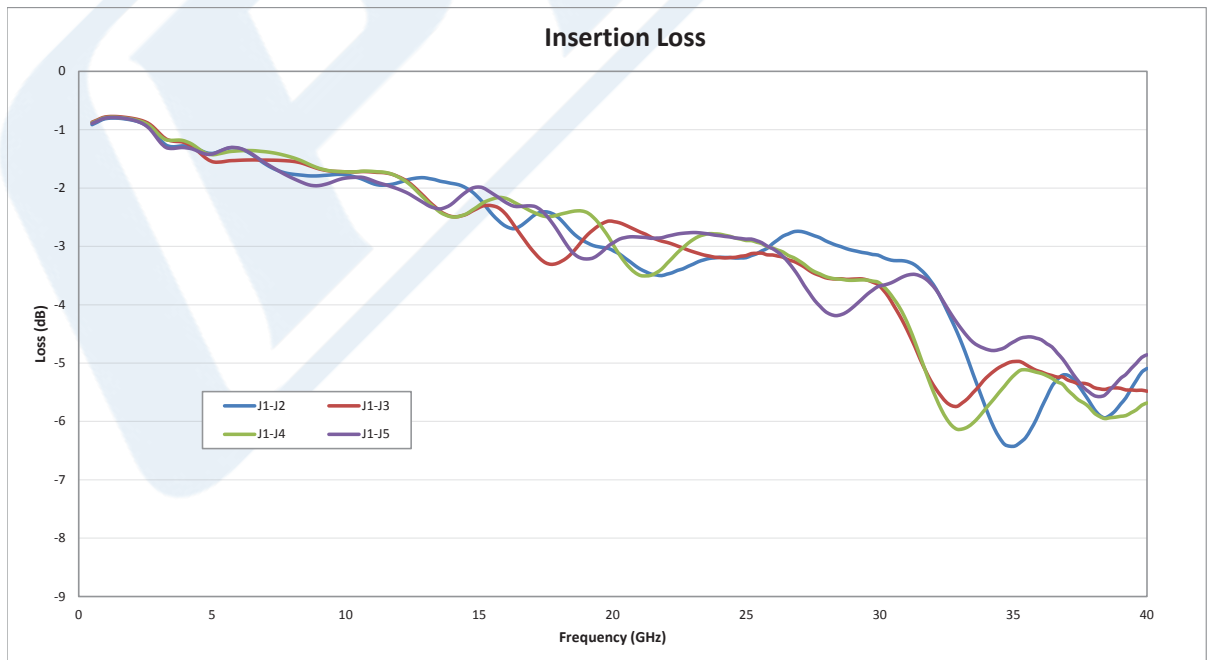
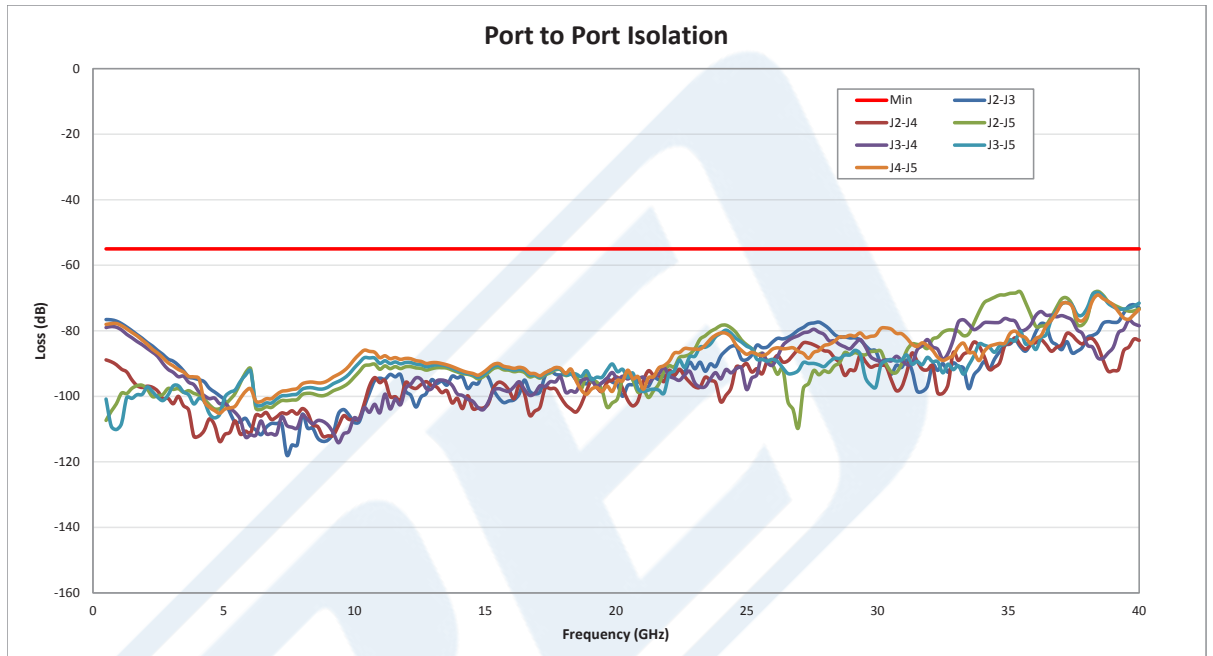




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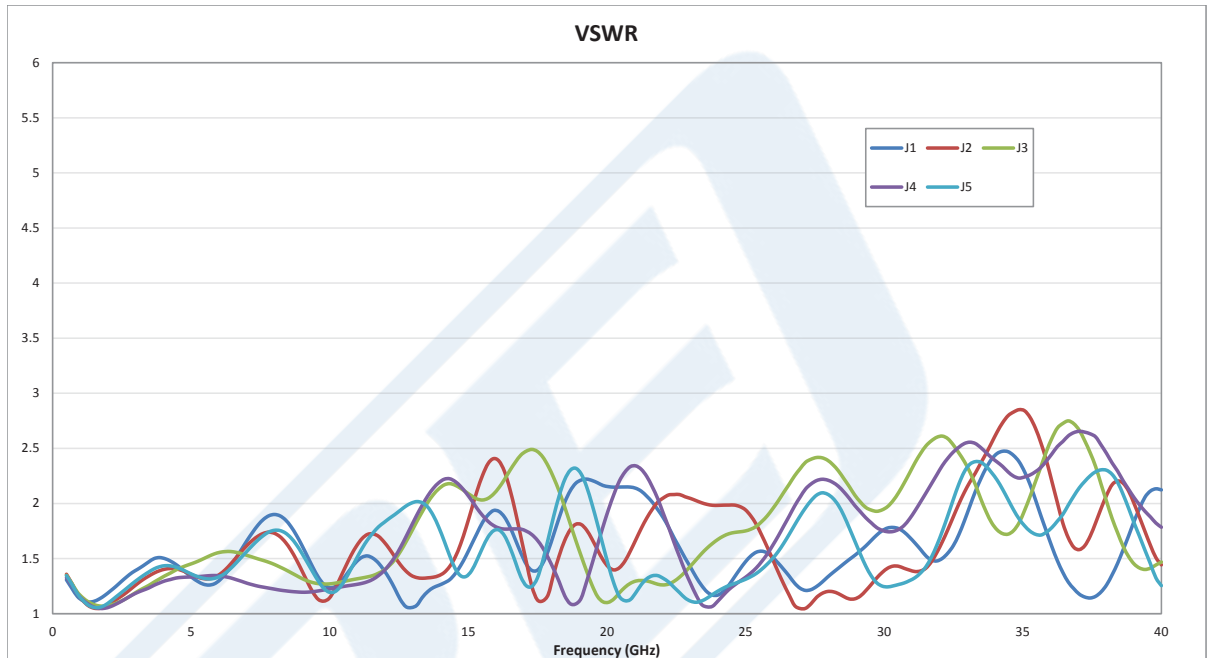




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SP4T PIN Diode Switch Operating From 500 MHz to 40 GHz Up to 0.1 Watts (+20 dBm) and Field Replaceable 2.92mm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain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

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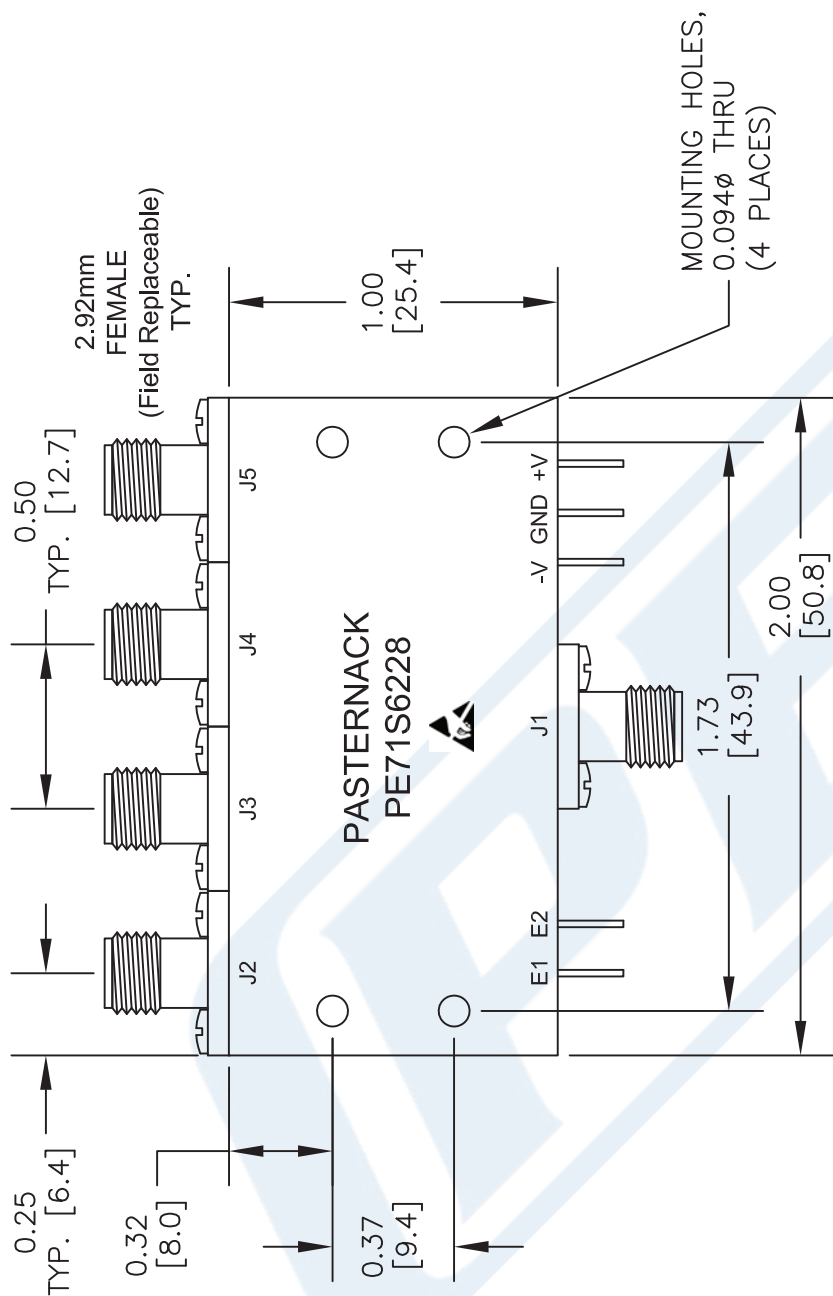
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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



PE71S6228 CAD Drawing

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



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].

FSCM NO. 53919

CAD FILE 040416

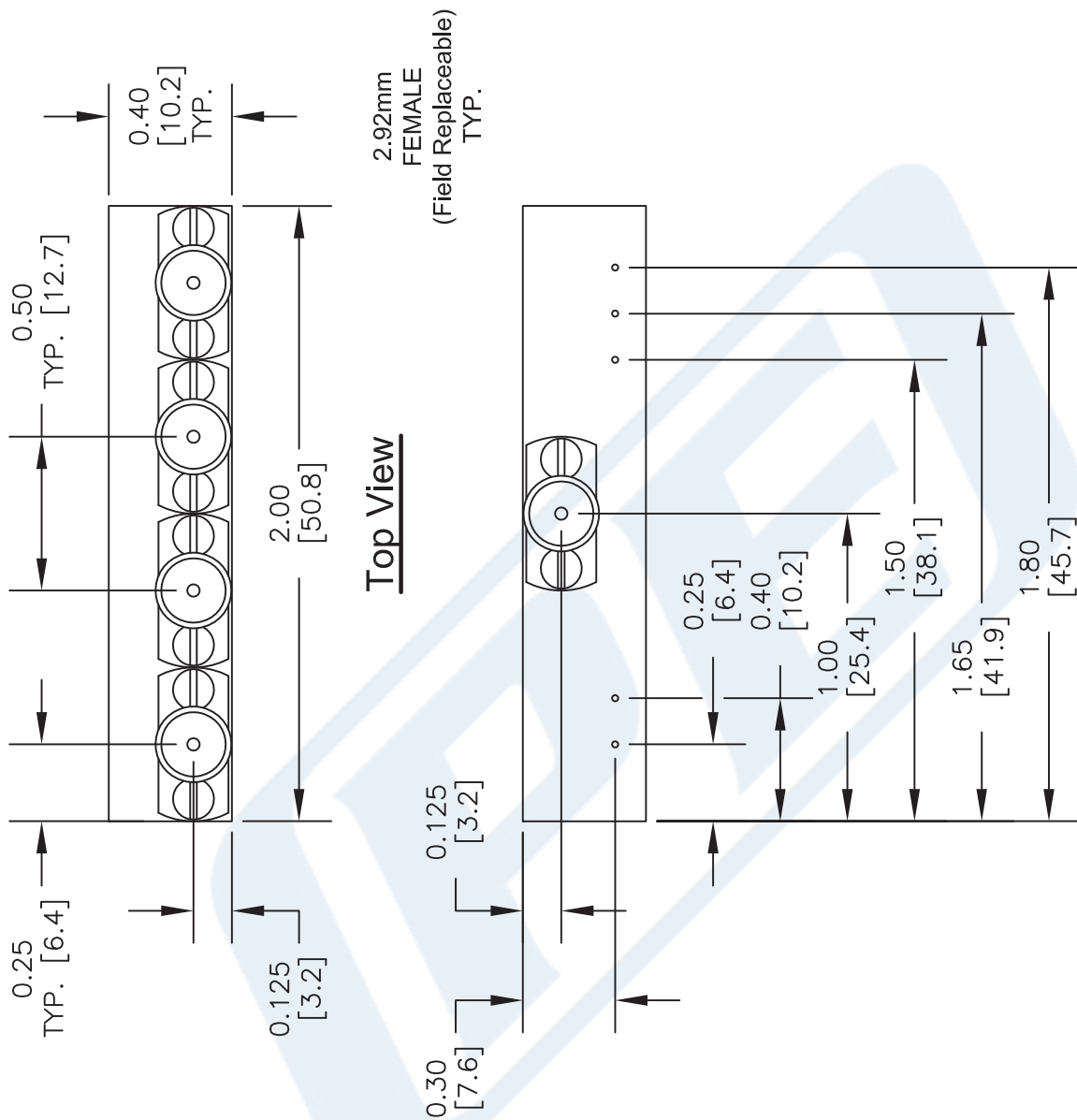
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SIZE A

2233

PE71S6228 CAD Drawing

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2.92mm
FEMALE
(Field Replaceable)
TYP.

Top View

Bottom View

2 BIT DECODER LOGIC TABLE		FUNCTION
E1	E2	
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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