



## **TECHNICAL DATA SHEET**

PE71S5004

Pasternack model PE71S5004 is a general purpose 6.0 GHz to 12.0 GHz single pole, four throw high isolation reflective switch. This switch offers 75 dB typical port-to-port isolation, and a typical insertion loss of 2.5 dB at room temperature. It has an excellent 40 ns typical switching speed, and independently TTL controlled.

#### **Features**

- · SP4T GaAs PIN Diode ReflectiveSwitch
- · 6 GHz to 12 GHz Frequency Range
- Insertion Loss: 2.5 db typical
- High Isolation: 75 dB typical
- VSWR: 1.5:1

- Fast Switching Speed: 40 nsec.
- · Integrated TTL Driver
- · Power Handling: +27 dBm
- Operating Temperature Range: -54 °C to 85°C

#### **Applications**

- · Electronic Warfare
- Radar
- · Test & Measurements
- Military & Space
- · Military Communication Systems
- GaAs MMIC-based

PIN Diode Switch

### **Electrical Specifications**

Description	Typical at 25 °C	-54 to +85 °C	Units	
Frequency Range	6 - 12	6 - 12	GHz	
Insertion Loss	2.5	3	dB	
Isolation	75	75 70		
VSWR	1.5:1	2:1		
Switching Speed	40	50	ns	
DC Bias at 5 VDC	70	80	mA	
DC Bias at -15 VDC	40	50	mA	
Control Input	TTL	TTL		
Power Handling	+27	+27	dBm	

#### **TTL Logic Table**

TRUTH TABLE						
AO	A1	A2	Е	POSITION		
1	0	0	1	J0-J1		
0	1	0	1	J0-J2		
0	0	1	1	J0-J3		
1	0	1	1	J0-J4		
X	Х	Χ	0	DISABLED		

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 75 dB High Isolation SP4T PIN Diode Switch 6 GHz to 12 GHz, 2.5 dB Insertion Loss with SMA PE71S5004

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451 Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered





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### **Absolute Maximum Rating**

Parameter	neter Rating	
Positive Voltage	+7	Volts
Negative Voltage	-14	Volts
RF input Power	+24	dBm
Operating Temperature	-54 to +85	°C
Storage Temperature	-55 to +100	°C



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

### **Mechanical Specifications**

### **Environmental Specifications By Design**

Temperature

Operating Range Humidity Shock Vibration Temperature Cycle -54 to +85 deg C Mil-STD-810 507.4 Mil-STD-810 method 504, 516.5 Mil-STD-810 514.6 Mil-STD-810 501.5, 502.5

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

Not RoHS Compliant

#### **Plotted and Other Data**

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

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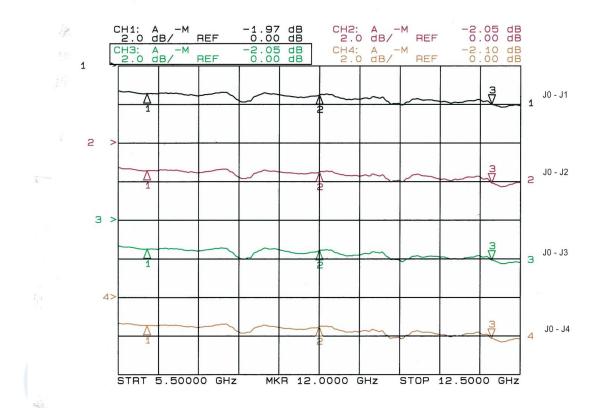




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#### **Power Data**



**Insertion Loss** 

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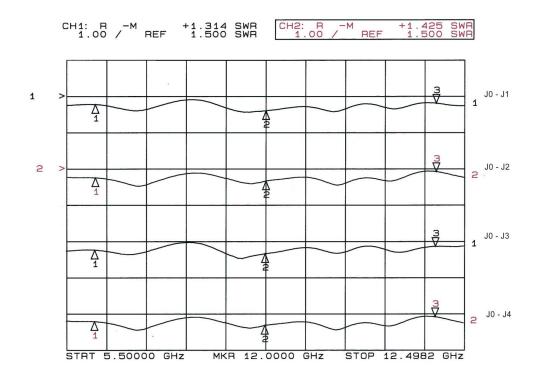
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**Insertion Loss** 

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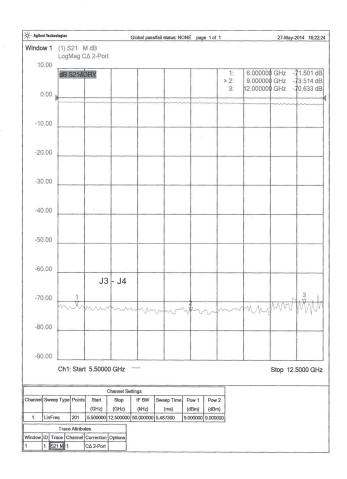
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Isolation J3 to J4

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75 dB High Isolation SP4T PIN Diode Switch 6 GHz to 12 GHz, 2.5 dB Insertion Loss with SMA 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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URL: http://www.pasternack.com/sp4t-high-isolation-pin-diode-switch-6-12-ghz-sma-pe71s5004-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.



## PE71S5004 CAD Drawing

75 dB High Isolation SP4T PIN Diode Switch 6 GHz to 12 GHz, 2.5 dB Insertion Loss with SMA

