

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

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 Reflective Switch
- 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

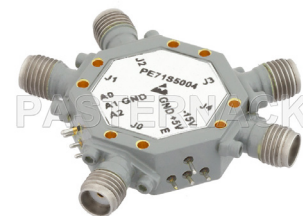
Electrical Specifications

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	70	dB
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				
A0	A1	A2	E	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	X	X	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](#)



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Absolute Maximum Rating

Parameter	Rating	Units
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

-54 to +85 deg C

Humidity

Mil-STD-810 507.4

Shock

Mil-STD-810 method 504, 516.5

Vibration

Mil-STD-810 514.6

Temperature Cycle

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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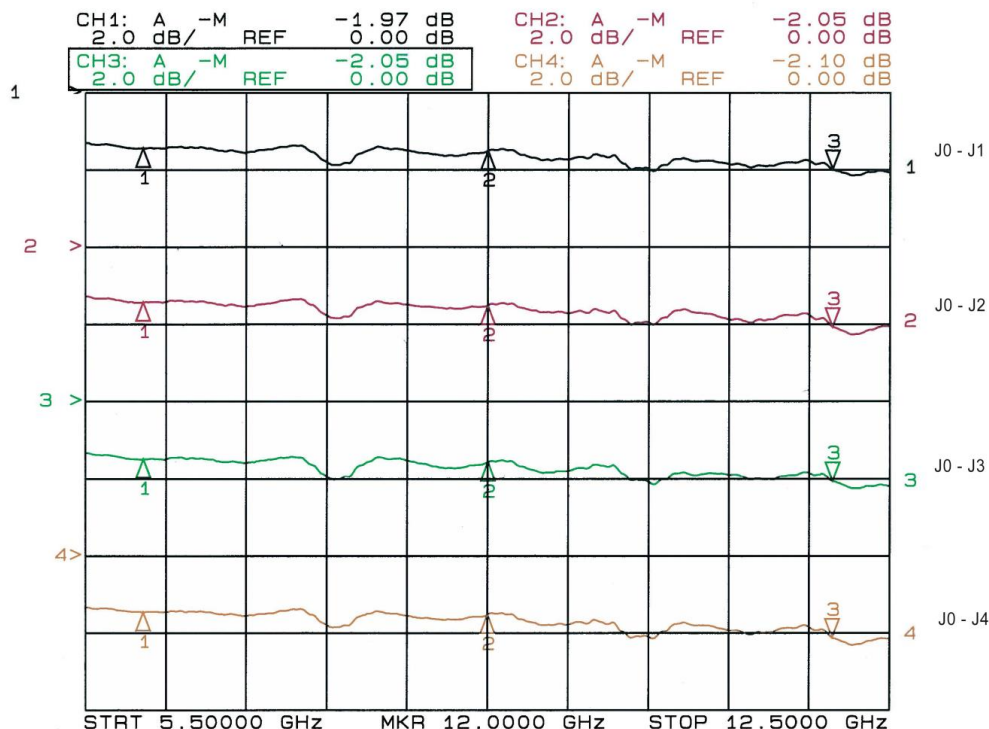


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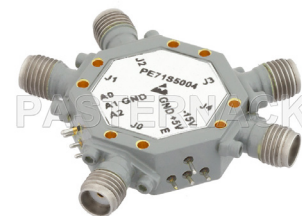
PE71S5004

Power Data



Insertion Loss

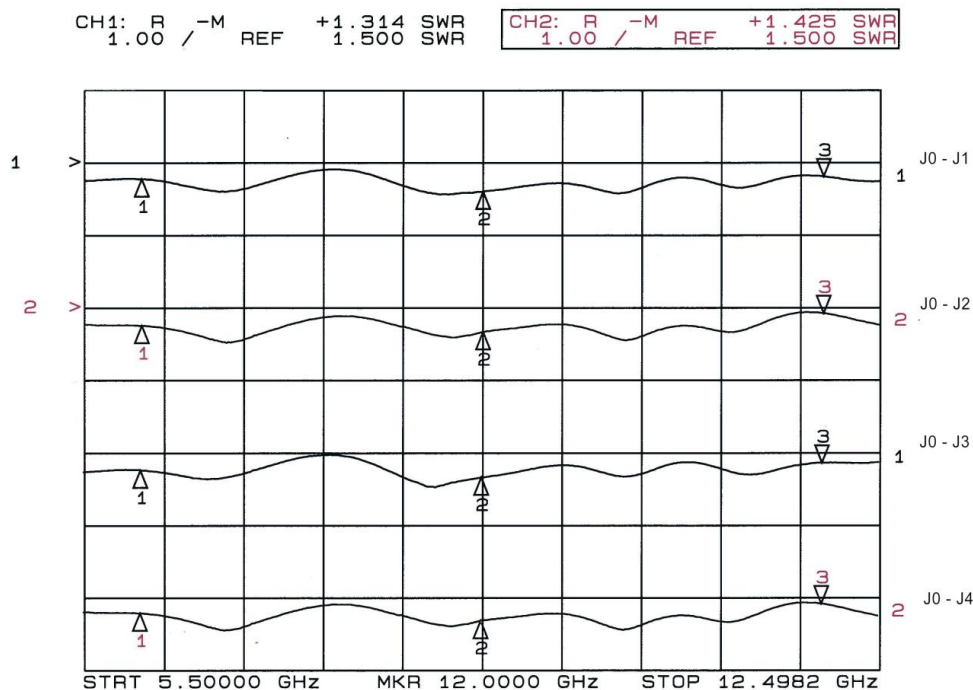
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Insertion Loss

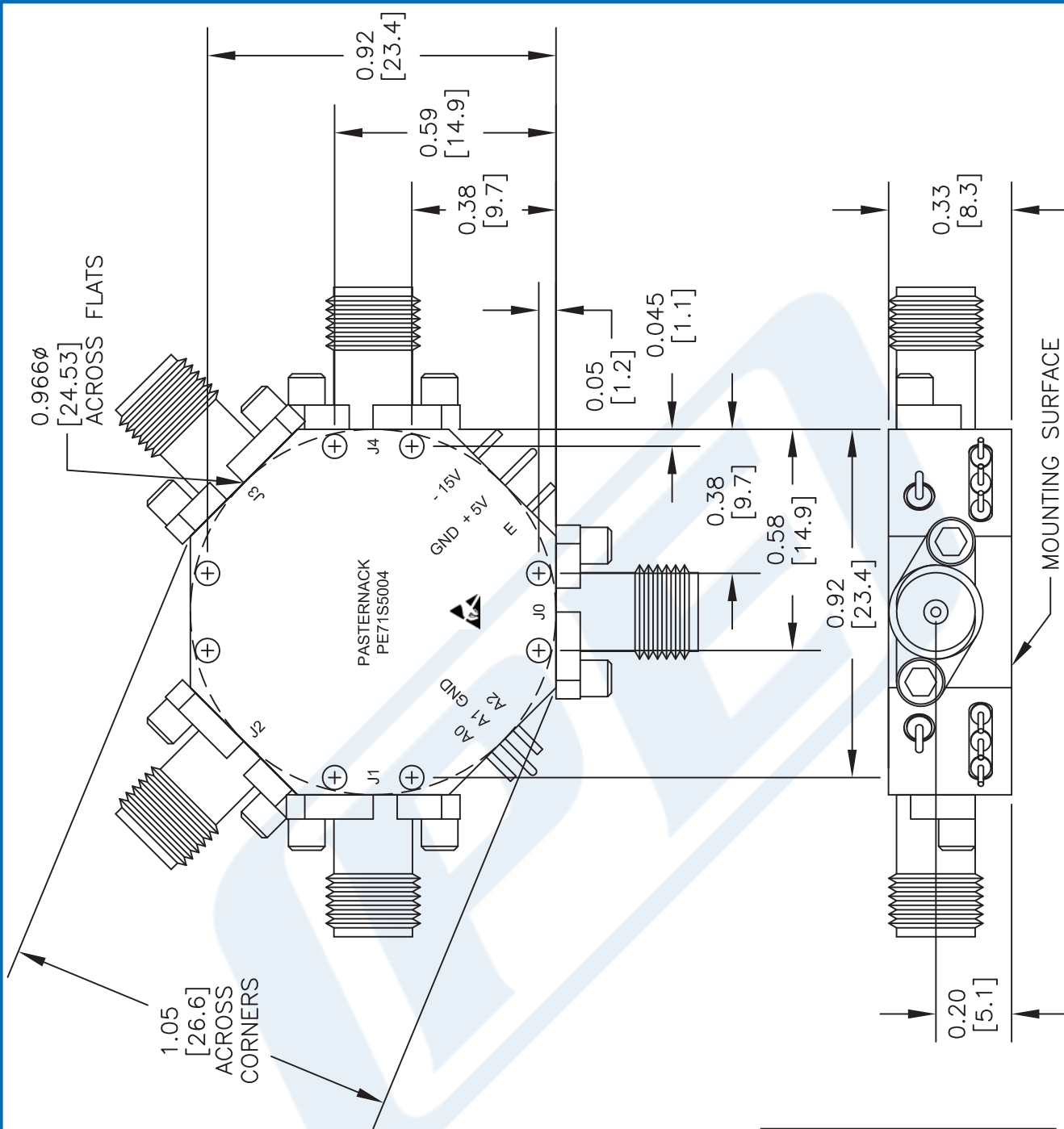
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PE71S5004 CAD Drawing

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X	X	X	0	DISABLED

DWG TITLE

PE71S5004

- 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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FSCM NO. 53919

CAD FILE 080414

SCALE N/A

SIZE A

2233