



Absorptive SPDT PIN Diode Switch Operating From 12 GHz to 18 GHz Up to +20 dBm and Field Replaceable SMA

PIN Diode Switches Technical Data Sheet

PE71S6240

Features

- SPDT Absorptive Switch
- 12.0 GHz to 18.0 GHz
- High Speed Switching
- Insertion Loss 3.5 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 PE71S6240 is a Single Pole Double Throw (SPDT) Absorptive PIN Diode Switch that operates from 12 GHz to 18 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Outstanding performance includes 3.5 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	12		18	GHz
Impedance		50		Ohms
VSWR			2:1	
Insertion Loss			3.5	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
Current @ 5 V		100		mA
Current @ -15 V		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: [Absorptive SPDT PIN Diode Switch Operating From 12 GHz to 18 GHz Up to +20 dBm and Field Replaceable SMA PE71S6240](#)



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Mechanical Specifications

Size

Length	1 in [25.4 mm]
Width	1 in [25.4 mm]
Height	0.4 in [10.16 mm]
Weight	0.05 lbs [22.68 g]
Finish	Blue Paint

Configuration

Design	Absorptive, SPDT
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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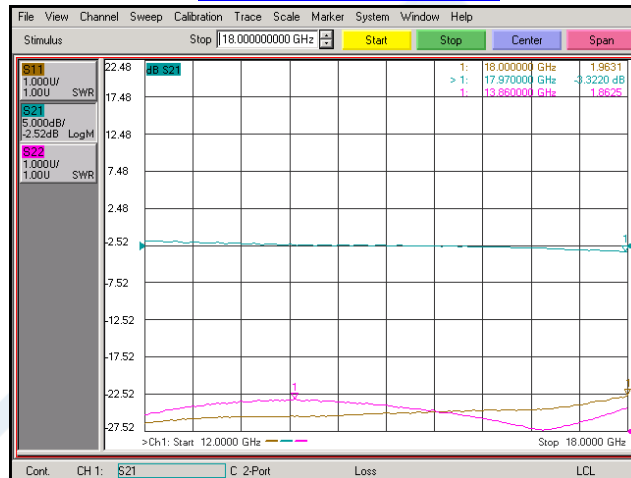
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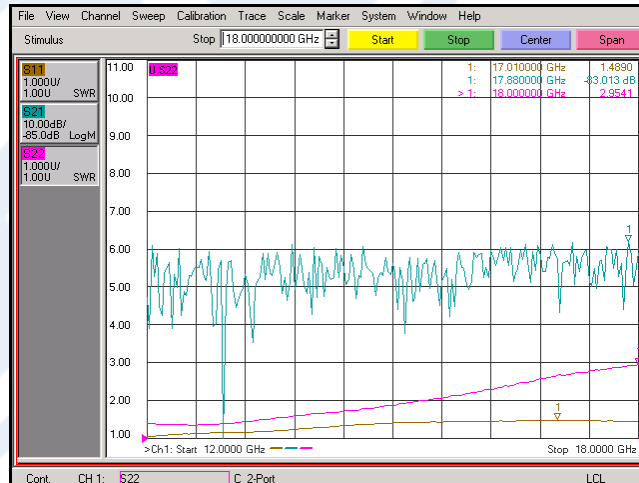
PE71S6240

Typical Performance Data

(J1 – J2) Insertion Loss and Return Loss



(J1 – J2) Isolation and Termination Return Loss



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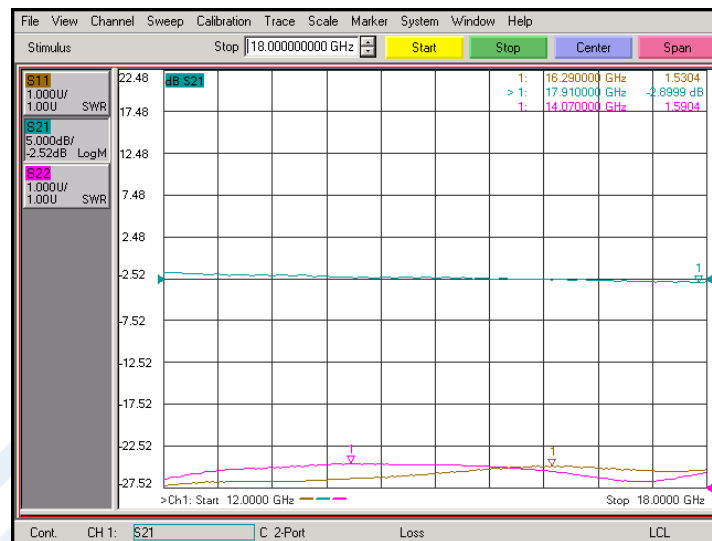


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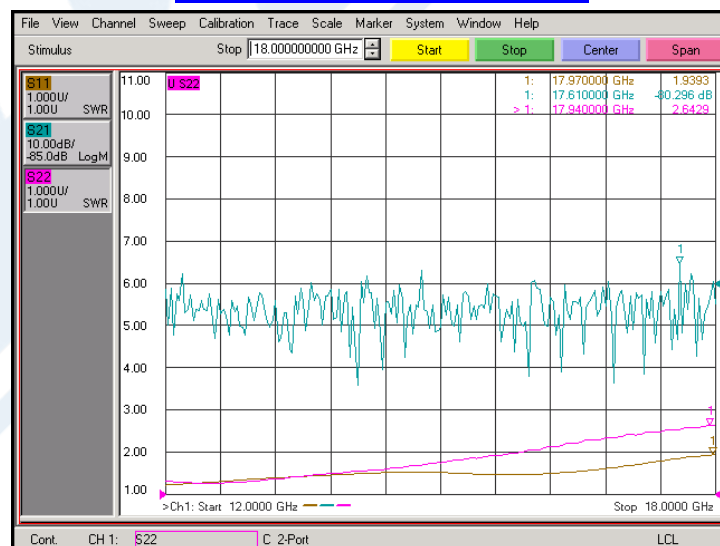
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(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation and Termination Return Loss

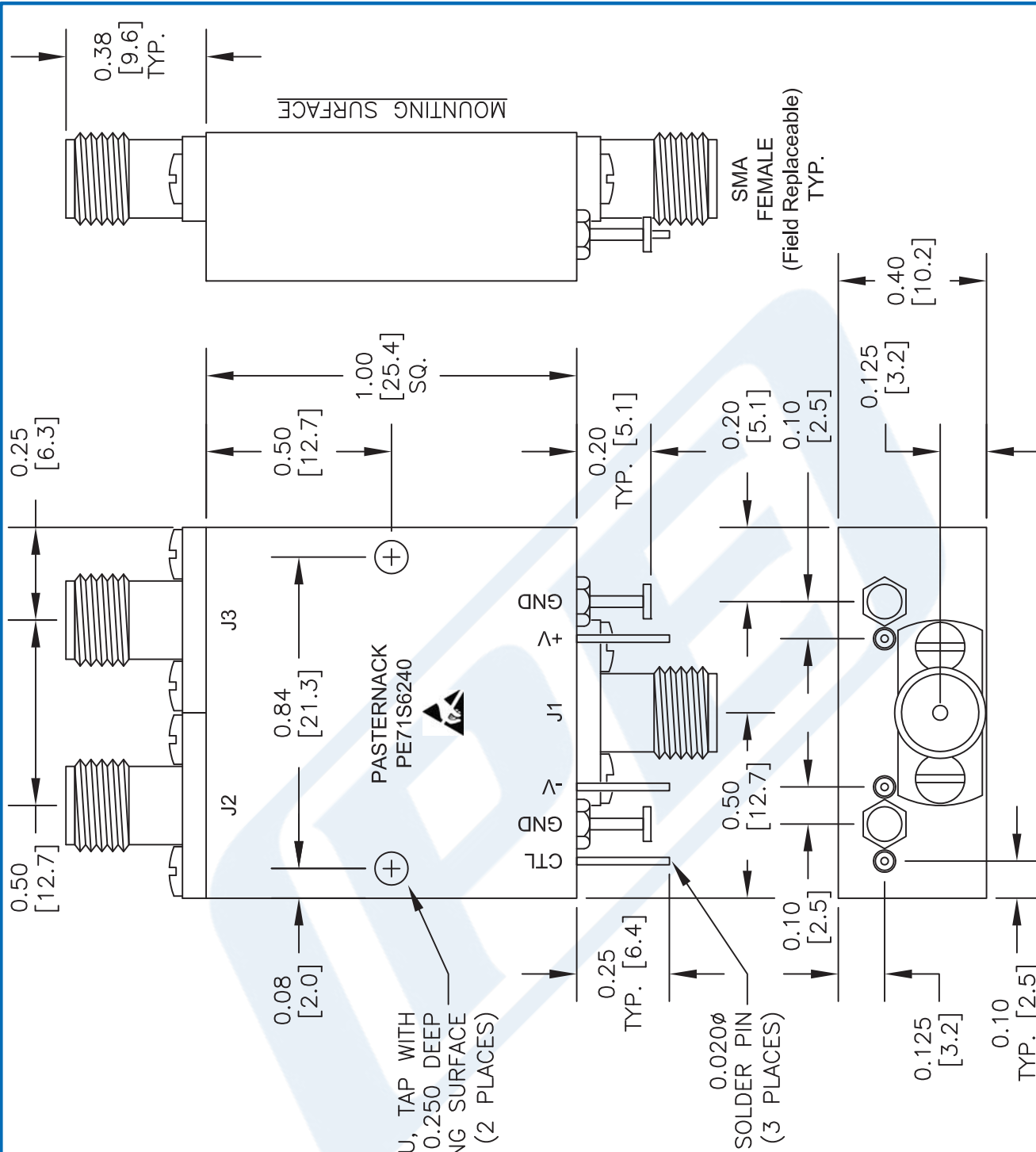


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PE71S6240 CAD Drawing

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LOGIC TABLE			
CTL	J1-J2	J1-J3	
0	ON	OFF	
1	OFF	ON	

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

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

PE PASTERNAK
THE ENGINEER'S RF SOURCE

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

DWG TITLE

PE71S6240

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 033016

SCALE N/A

SIZE A

2233