



Absorptive SPDT PIN Diode Switch Operating from 100 MHz to 67 GHz Up to 0.5 Watts (+27 dBm) and 1.85mm

PIN Diode Switches Technical Data Sheet

PE71S2050

Features

- SPDT Absorptive Switch
- 0.1 GHz to 67 GHz
- Insertion Loss 10.5 dB max
- Isolation 40 dB min
- Power Input +27 dBm CW max

Applications

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

Description

The PE71S2050 is a Single Pole Double Throw (SPDT) Absorptive PIN Diode Switch that operates over a wide frequency band from 0.1 to 67 GHz. J1 and J2 ports are terminated in 50 ohms when switched in the isolation (off) state. Electrical performance includes max. insertion loss of 10.5 dB, min. return loss of 7 dB, min. isolation of 40 dB, and max. switching speed of 150 nsec. TTL-compatible driver circuitry is included for accurate logic control. The design requires dual voltage controls of +5 Vdc and -5 Vdc, with an operational temperature range of -30°C to +60°C. External connectors include solder terminals, 1.85mm female connectors and an SMA female connector.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.1		67	GHz
Impedance		50		Ohms
Insertion Loss			10.5	dB
Isolation	40			dB
Switching Time			100	ns
Input Power (CW)			0.5	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-5		Vdc
Current @ 5 Vdc		20		mA
Current @ -5 Vdc		20		mA
Operating Temperature	-30		+60	deg C

Electrical Specification Notes:
Specified switching time includes TTL driver delay.

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 100 MHz to 67 GHz Up to 0.5 Watts \(+27 dBm\) and 1.85mm PE71S2050](#)



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Mechanical Specifications

Size

Length	1.2 in [30.48 mm]
Width	1 in [25.4 mm]
Height	0.5 in [12.7 mm]
Design	Absorptive, SPDT
RF Connector	1.85mm Female
TTL Control Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-30 to +60 deg C
ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle only in ESD Workstation.

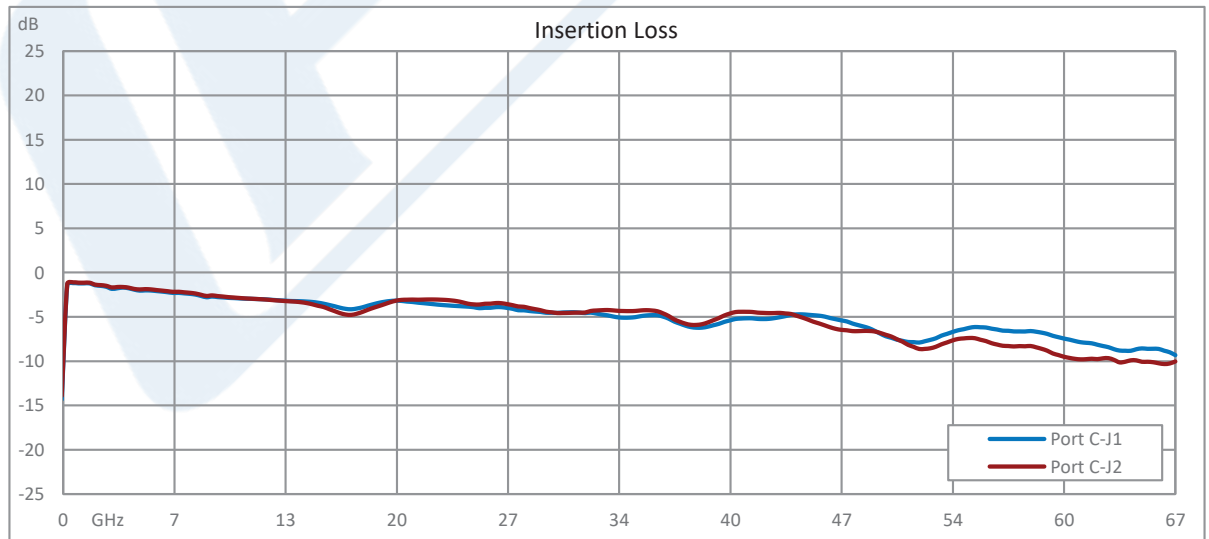


Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



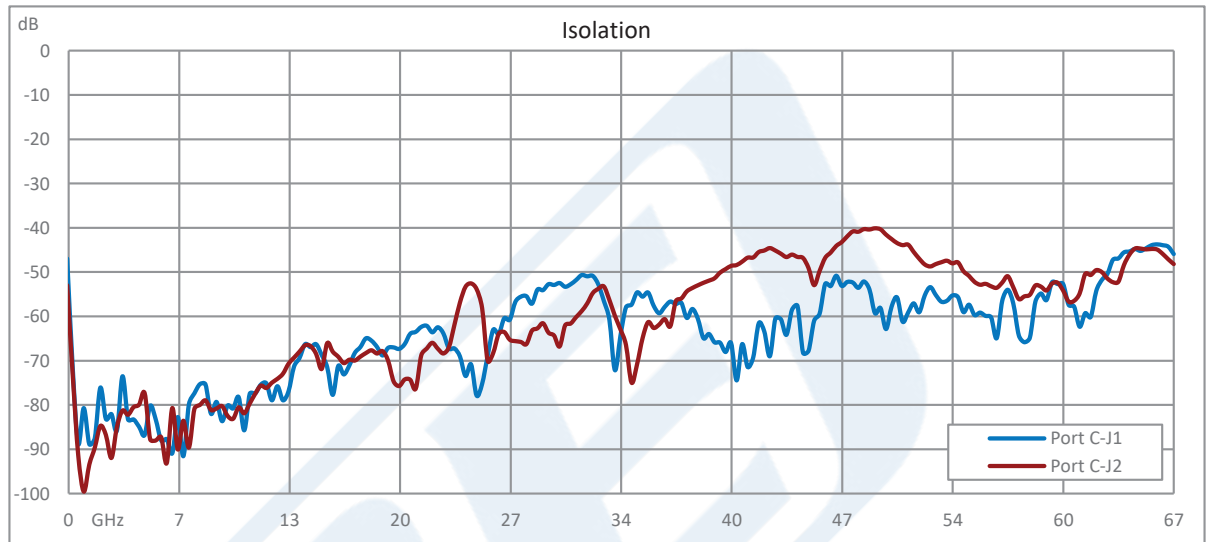
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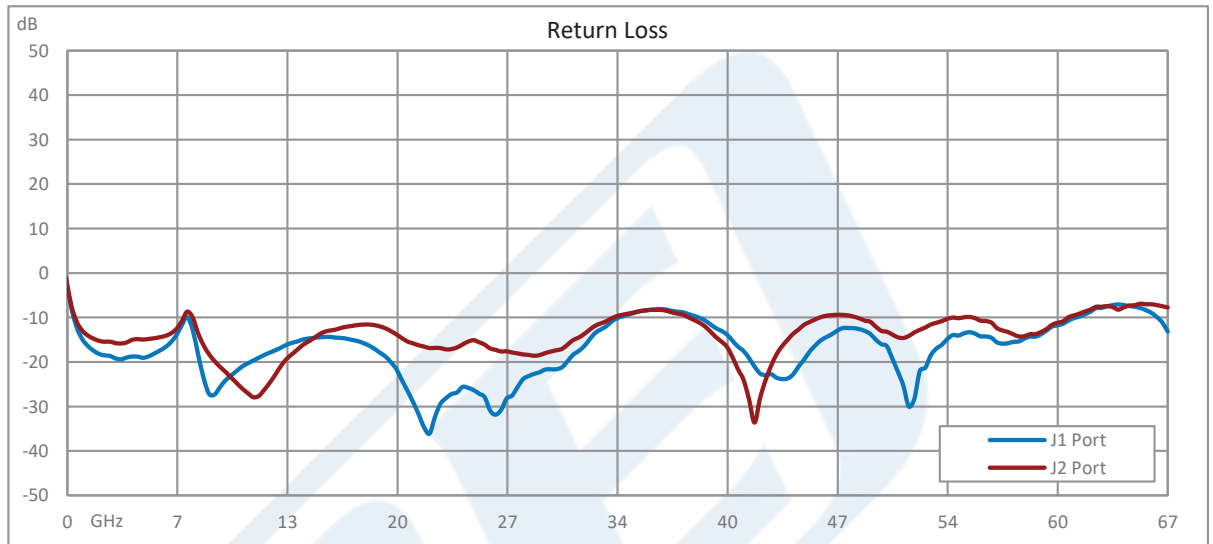
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Absorptive SPDT PIN Diode Switch Operating from 100 MHz to 67 GHz Up to 0.5 Watts (+27 dBm) and 1.85mm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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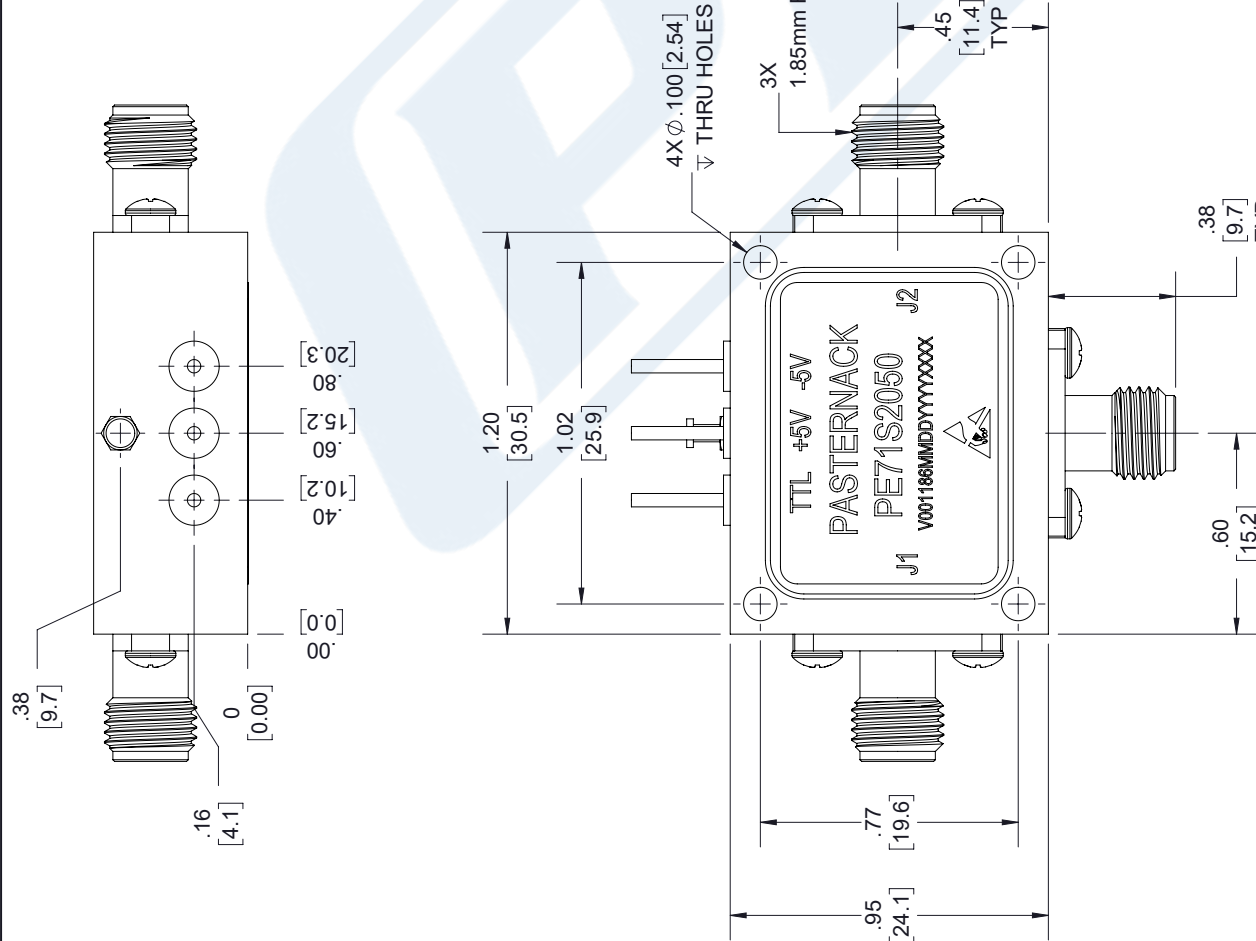
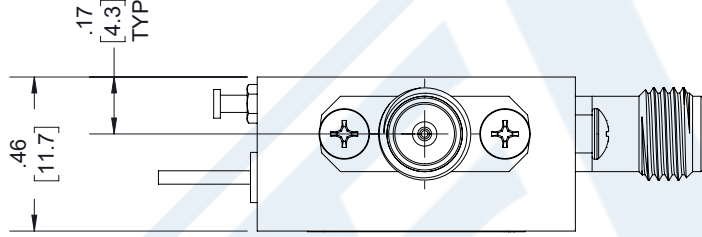
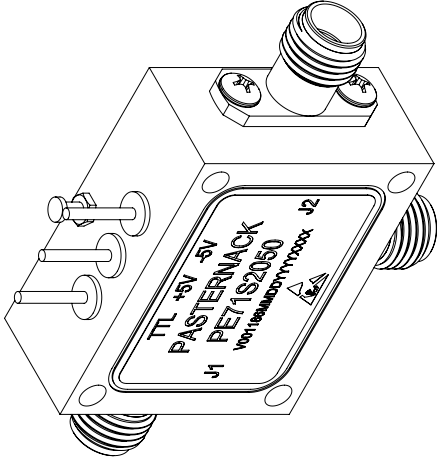
URL: <https://www.pasternack.com/absorptive-spdt-pin-diode-switch-67-ghz-27-dbm-1.85mm-pe71s2050-p.aspx>

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PE71S2050 CAD Drawing

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REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11/04/19	T.GALLA



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
 .X = ±.2 [5.08] FRACTIONS ± 1/32
 .XX = ±.02 [.51] ANGLES ± 1°
 .XXX = ±.005 [.13] CABLE LENGTH (L) TOLERANCES:
 L ≤ 12 [305] = +1 [25] / -0
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
 300 [7620] < L = +5% / L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

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an INFINITE brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1
SCALE N/A

SIZE	CAGE CODE	DRAWN BY	PART NUMBER
A	53919	KDANG	PE71S2050

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