



SP6T Electromechanical Relay Normally Open Switch
DC to 40 GHz, 2.92mm, 3 Watts, 12V Control

Electromechanical Relay Switches Technical Data Sheet

PE71S6142

Features

- Single Pole Six Throw Relay Switch
- DC to 40 GHz Frequency Range
- 1M Cycle Min Operating Life
- Normally Open Actuator
- Insertion Loss 0.9 dB max
- Isolation 50 dB min
- 3 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation
- Suitable for Aircraft

Description

The PE71S6142 is a Single Pole Six Throw Electromechanical Relay Switch that operates from DC to 40 GHz and has a rating of 3 Watts input power (CW) in a Break Before Make condition. The design features a Normally Open Actuator and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 70 dB min, with +12 Vdc operating voltage and performance is guaranteed over -35°C to +85°C. The package interface uses solder terminals and 2.92mm Female connectors.

Electrical Specifications

Switch Type	SP6T, Reflective
Actuator Type	Normally Open
Switching Sequence	Break Before Make
Polarity	Positive Common

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Operating Voltage	10.8	12	13.2	Volts
Actuating Current @ 12 Volts			200	mA
VSWR			2:1	
Insertion Loss			0.9	dB
Isolation	50			dB
Input Power (CW) (at 40 GHz)			3	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP6T Electromechanical Relay Normally Open Switch DC to 40 GHz, 2.92mm, 3 Watts, 12V Control PE71S6142](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 6	6 to 12	12 to 18	18 to 26.5	26.5 to 40	GHz
VSWR, Max	1.3:1	1.4:1	1.5:1	1.7:1	2:1	
Insertion Loss, Max	0.2	0.4	0.5	0.7	0.9	dB
Isolation, Min	70	60	60	55	50	dB

Mechanical Specifications

Size

Length	1.6 in [40.64 mm]
Width/Diameter	1.75 in [44.45 mm]
Height	1.75 in [44.45 mm]

Weight	0.253 lbs [114.76 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module

Operating Life	1,000,000 Cycles
Switching Time	15 ms Max

Connectors

RF Connector Type	2.92mm Female
RF Connector Contact Material and Plating	Beryllium Copper, Gold
RF Connector Body Material and Plating	Passivated Stainless Steel
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-35 to +85 deg C
ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle in approved ESD Workstation.



Environmental Specification Notes:
Designed to meet MIL-E-5400 and MIL-DTL-3928

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

Not RoHS Compliant

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP6T Electromechanical Relay Normally Open Switch DC to 40 GHz, 2.92mm, 3 Watts, 12V Control PE71S6142](#)

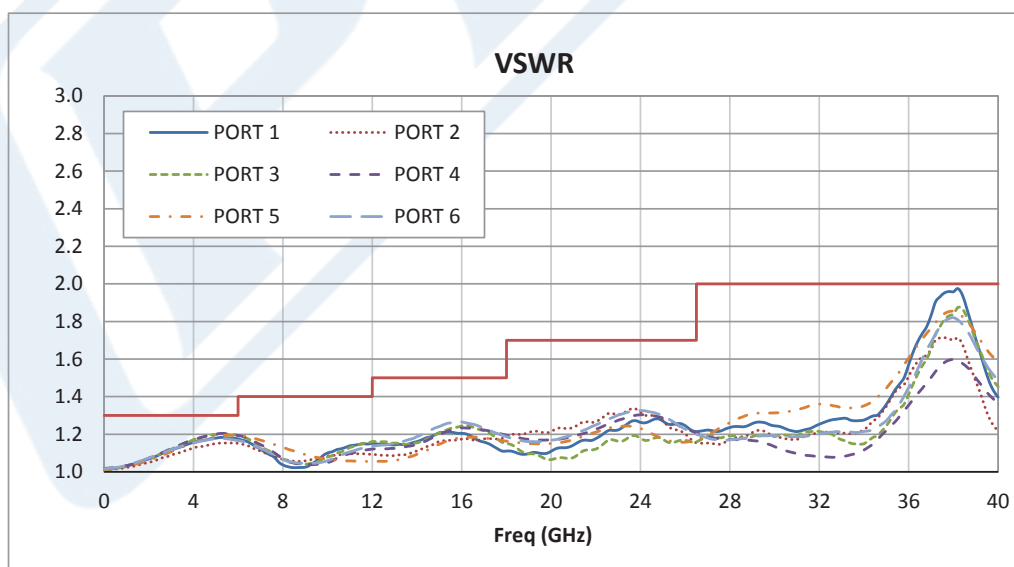
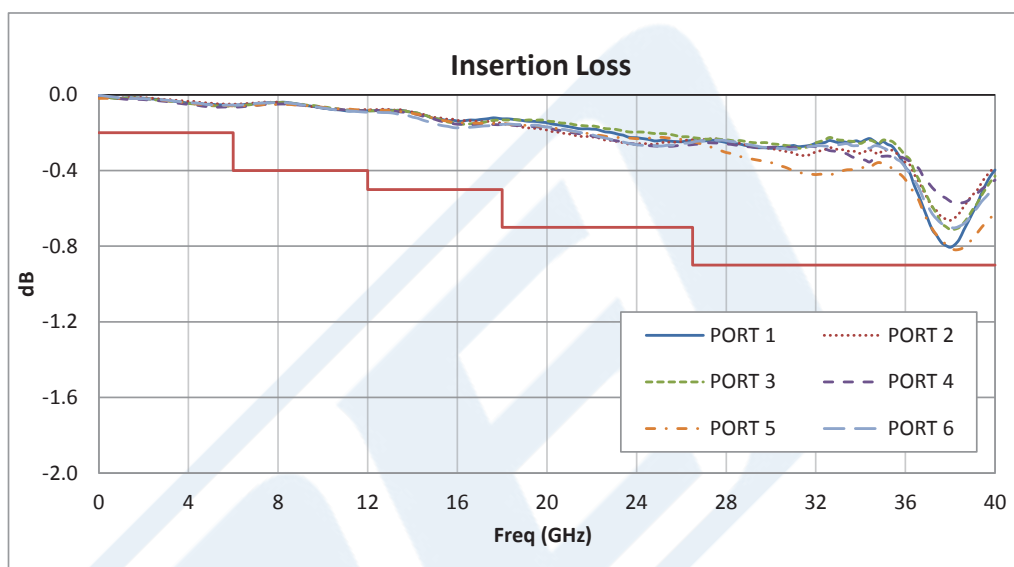


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Typical Performance Data



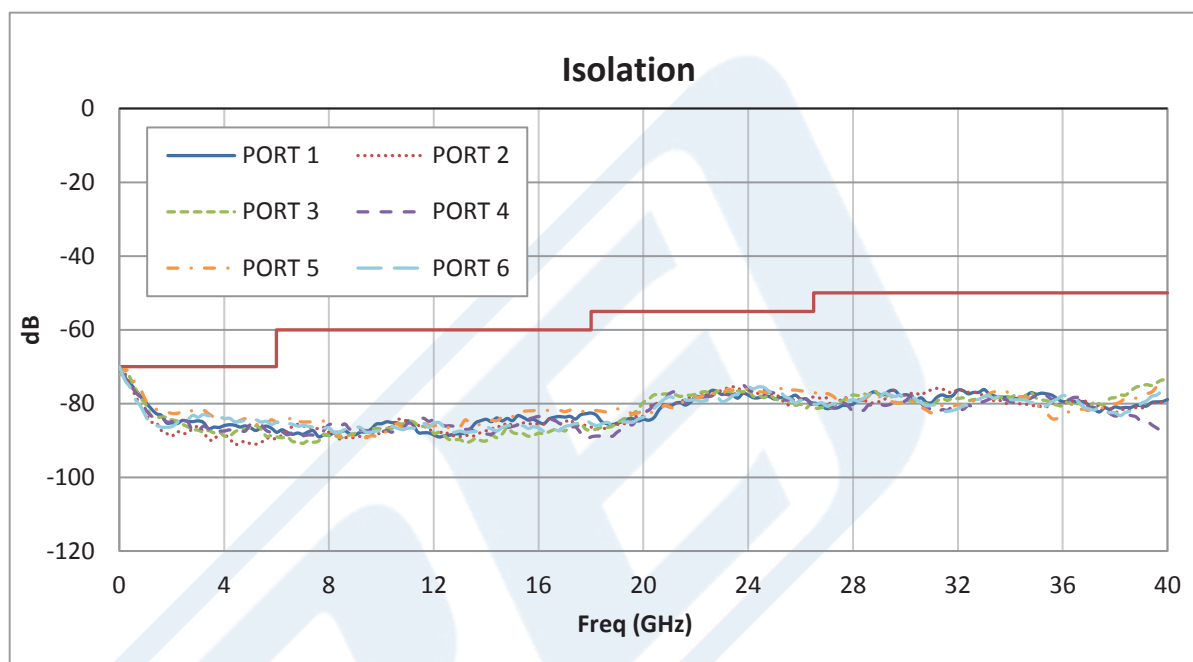
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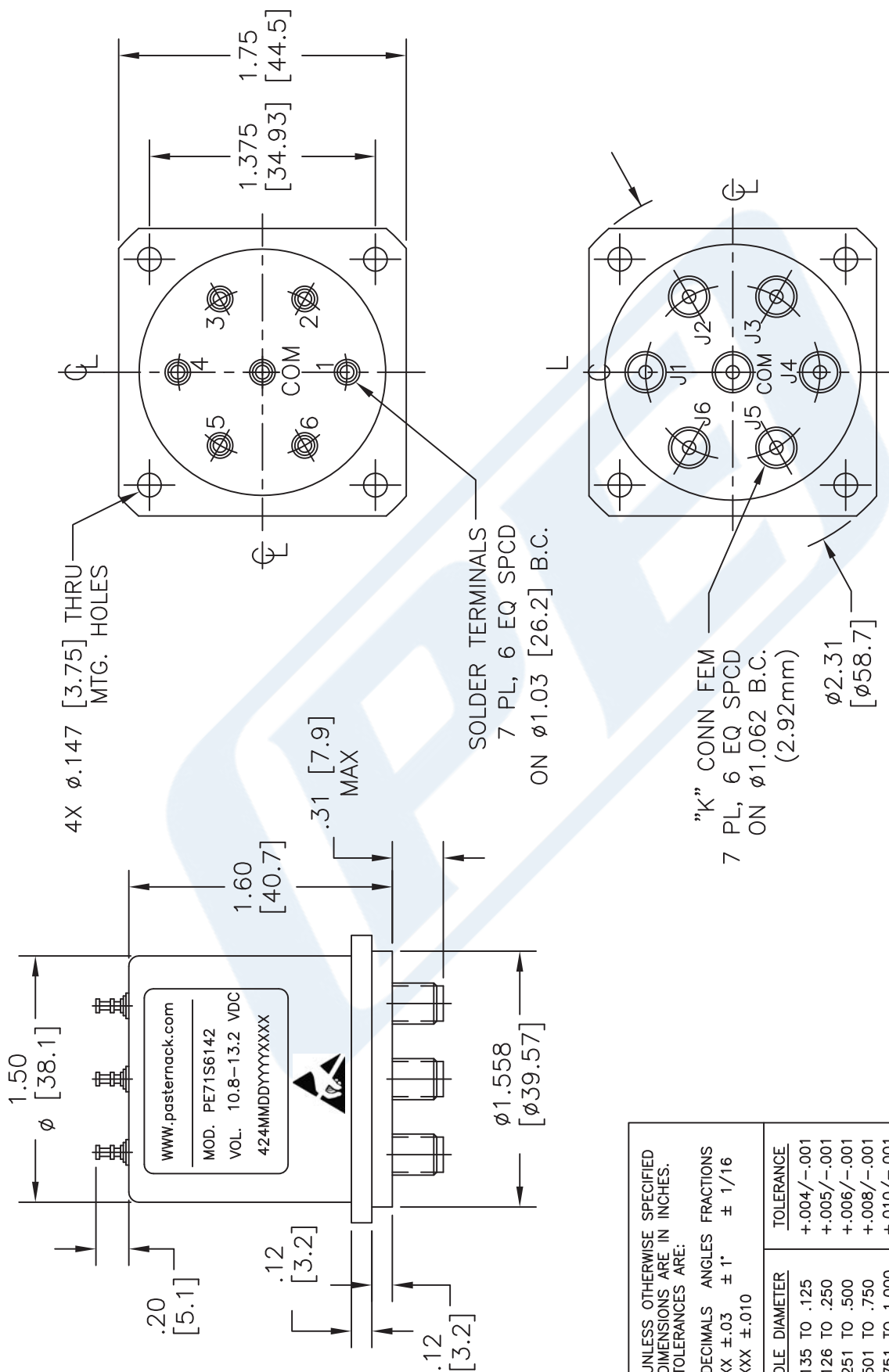
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Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP6T Electromechanical Relay Normally Open Switch DC to 40 GHz, 2.92mm, 3 Watts, 12V Control PE71S6142](http://www.pasternack.com/2.92mm-sp6t-electromechanical-relay-switch-40-ghz-normally-open-pe71s6142-p.aspx)

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS ANGLES FRACTIONS .XX ±.03 ± 1° ± 1/16 .XXX ±.010	<u>HOLE DIAMETER</u>	<u>TOLERANCE</u>
	.0135 TO .125 .126 TO .250 .251 TO .500 .501 TO .750 .751 TO 1.000 1.001 TO 2.000	+ .004 / - .001 + .005 / - .001 + .006 / - .001 + .008 / - .001 + .010 / - .001 + .012 / - .001

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

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DWG TITLE
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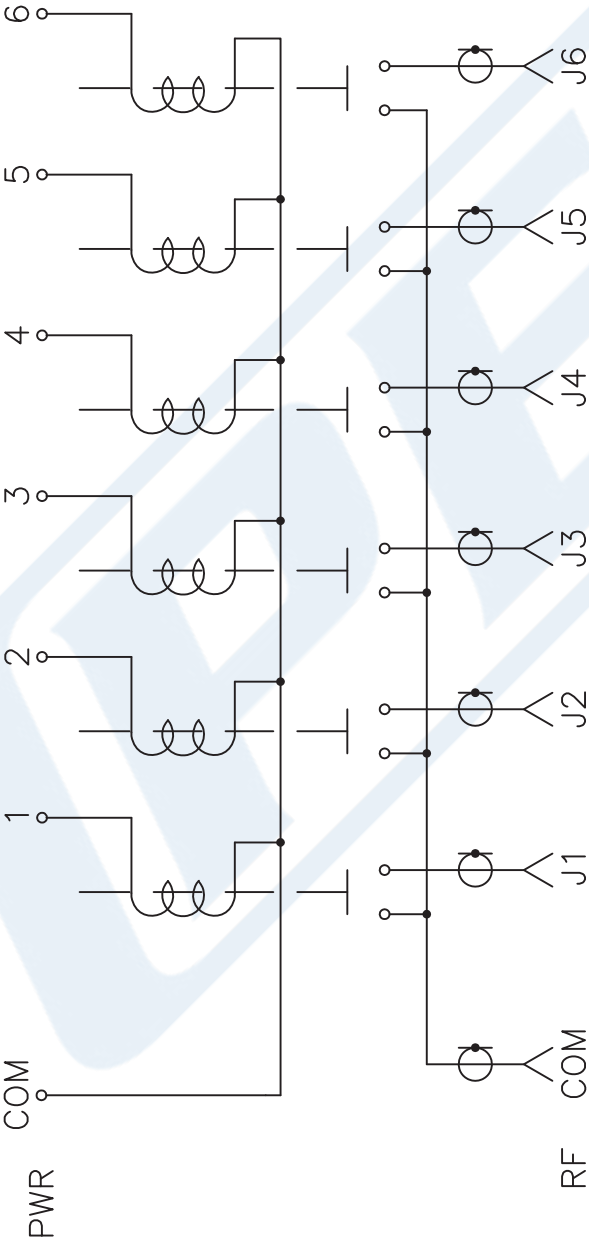
NOTES:

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2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES (mm).

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PE71S6142 CAD Drawing

SP6T Electromechanical Relay Normally Open Switch DC
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SCHEMATIC SHOWN IN DE-ENERGIZED POSITION

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