



SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 28V Control, Indicators, TTL, Diodes

Electromechanical Relay Switches Technical Data Sheet

PE71S6129

Features

- Single Pole Four Throw Relay Switch
- DC to 22 GHz Frequency Range
- 1M Cycle Min Operating Life
- Normally Open Actuator
- TTL Logic Driver, Position Indicators, Suppression Diodes
- Insertion Loss 0.6 dB max
- Isolation 60 dB min
- 20 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation

Description

The PE71S6129 is a Single Pole Four Throw Electromechanical Relay Switch that operates from DC to 22 GHz and has a rating of 20 Watts input power (CW) in a Break Before Make condition. The design features a Normally Open Actuator with TTL Logic Driver, Position Indicators, Suppression Diodes and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.3 dB max and Isolation from 75 dB min, with +28 Vdc operating voltage. Performance is guaranteed over -55°C to +85°C and the switch assembly is RoHS compliant. The package interface uses solder terminals and SMA Female connectors.

Electrical Specifications

Switch Type	SP4T, Reflective
Actuator Type	Normally Open
Switching Sequence	Break Before Make
Actuator Options	Indicators, TTL Logic, Diodes
TTL Control	on: 2.4 to 5 Volts off: 0 to 0.8 Volts

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		22	GHz
Impedance		50		Ohms
Operating Voltage		28		Volts
Actuating Current @ 28 Volts		135		mA
VSWR			1.6:1	
Insertion Loss			0.6	dB
Isolation	60			dB
Input Power (CW) (at 22 GHz)			20	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 28V Control, Indicators, TTL, Diodes PE71S6129](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 8	8 to 12	12 to 18	18 to 22	GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1	1.6:1	
Insertion Loss, Max	0.3	0.35	0.4	0.5	0.6	dB
Isolation, Min	75	70	65	60	60	dB

Mechanical Specifications

Size

Length	2.75 in [69.85 mm]
Width/Diameter	1.75 in [44.45 mm]
Height	1.75 in [44.45 mm]

Weight	0.367 lbs [166.47 g]
Body Material and Plating	Aluminum
Package Type	Connectorized

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

Connectors

RF Connector Type	SMA 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	-55 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-DTL-3928

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

Plotted and Other Data

Notes:

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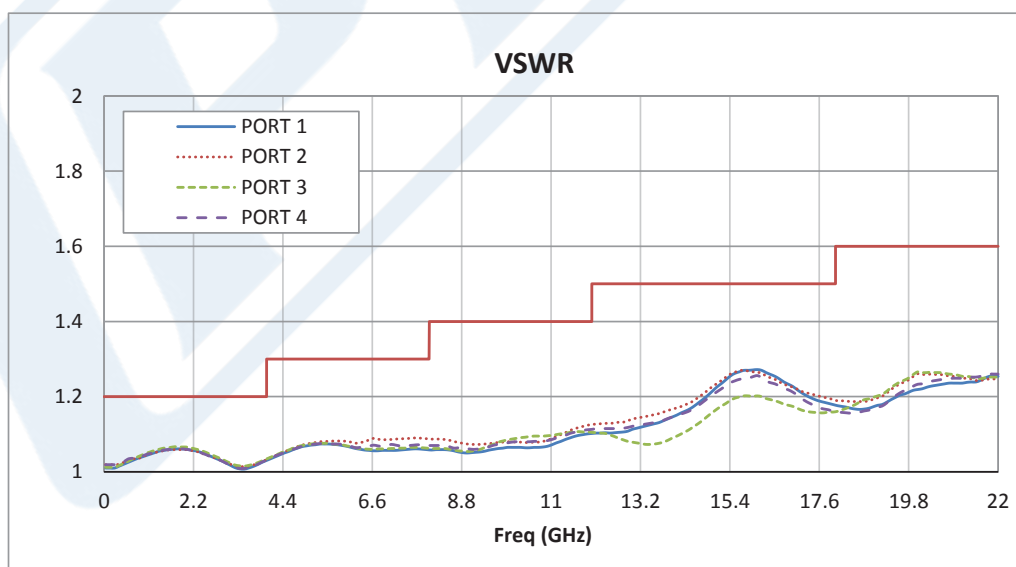
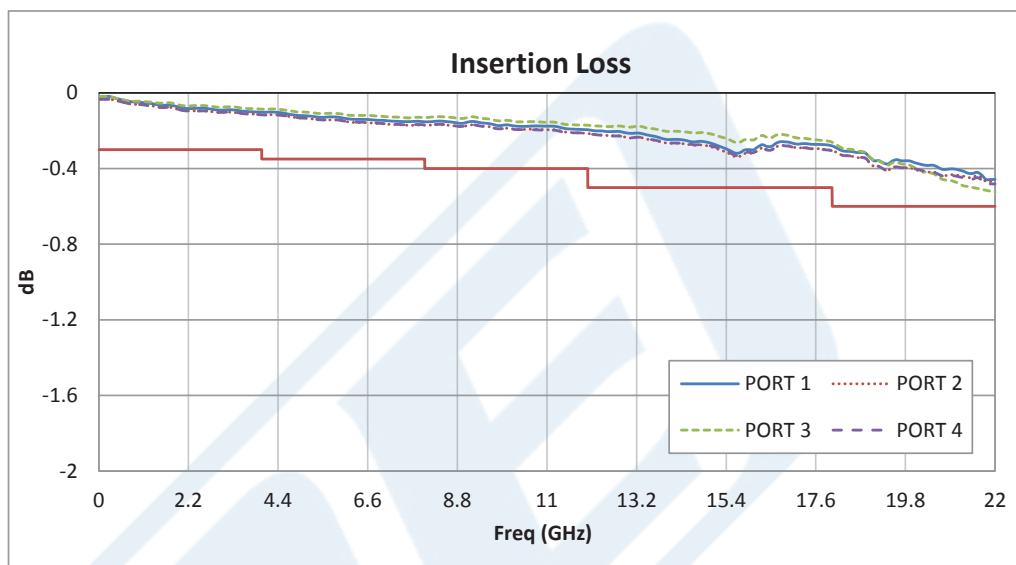


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Typical Performance Data



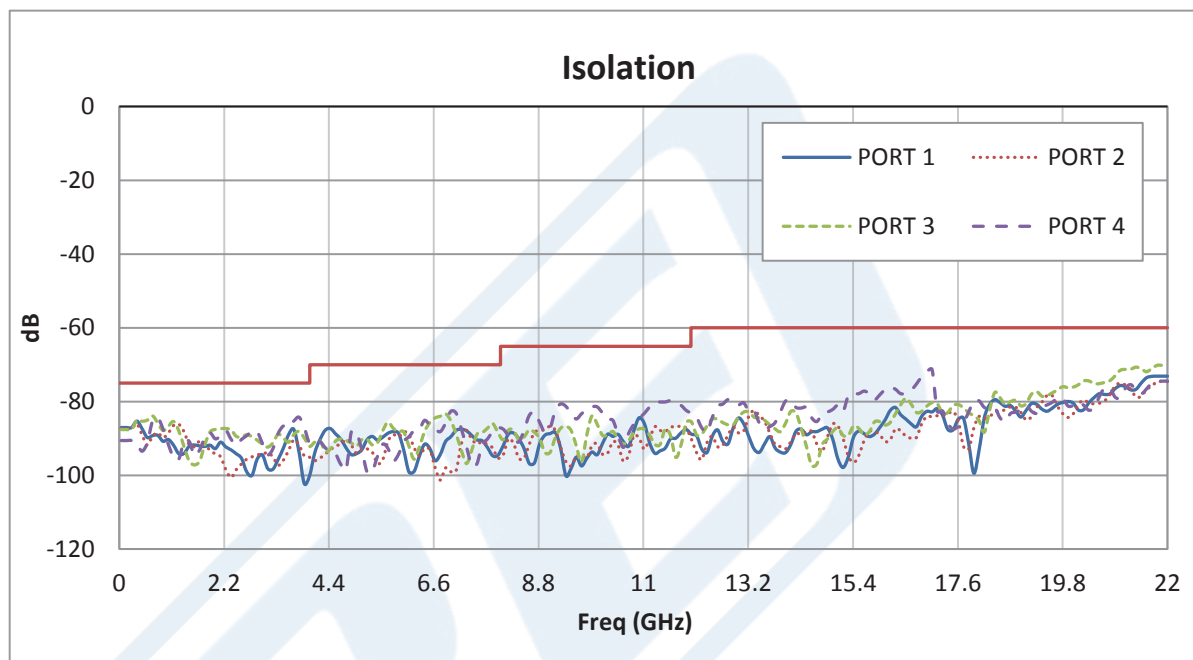
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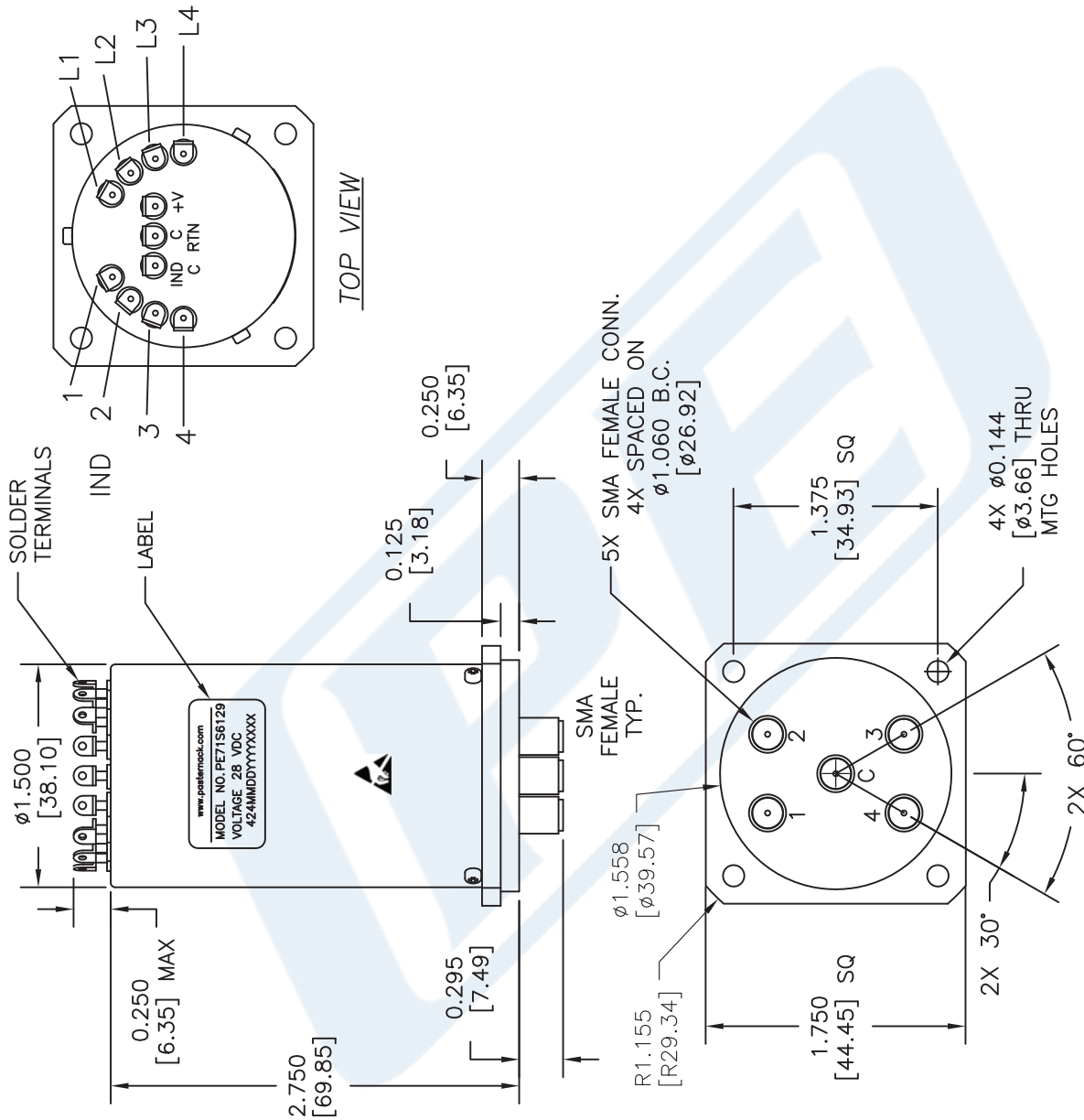
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PE71S6129 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz,
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UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:

DECIMALS ANGLES FRACTIONS
.XX ±.03 ± 1° ± 1/16
.XXX ±.010

HOLE DIAMETER	TOLERANCE
.0135 TO .125	+ .004/- .001
.126 TO .250	+ .005/- .001
.251 TO .500	+ .006/- .001
.501 TO .750	+ .008/- .001
.751 TO 1.000	+ .010/- .001
1.001 TO 2.000	+ .012/- .001

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

PE PASTERNAK®
THE ENGINEER'S RF SOURCE

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DWG TITLE

PE71S6129

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 031115

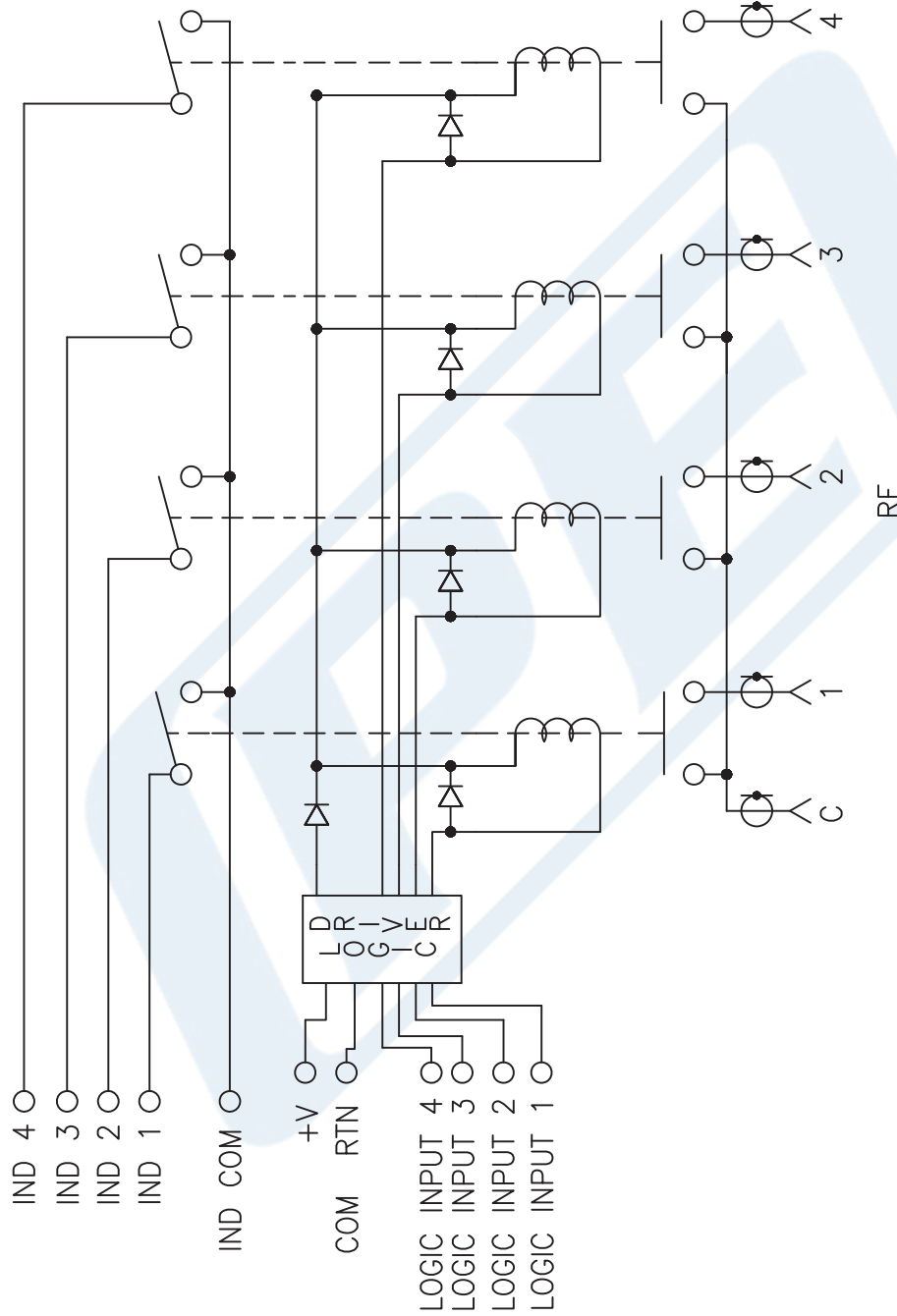
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SIZE A

200

PE71S6129 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz,
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SCHEMATIC NORMALLY OPEN SHOWN IN DE-ENERGIZED POSITION

DWG TITLE

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FSCM NO. 53919

CAD FILE 030615

SCALE N/A

SIZE A

200