



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

Electromechanical Relay Switches Technical Data Sheet

PE71S6127

**Features**

- Single Pole Four Throw Relay Switch
- DC to 22 GHz Frequency Range
- 1M Cycle Min Operating Life
- Normally Open Actuator
- 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 PE71S6127 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 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

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 PE71S6127](#)





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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 1.75 in [44.45 mm]  
Width/Diameter 1.75 in [44.45 mm]  
Height 1.75 in [44.45 mm]

Weight 0.307 lbs [139.25 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 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](http://www.Pasternack.com) for current document)

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: [SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 28V Control PE71S6127](#)

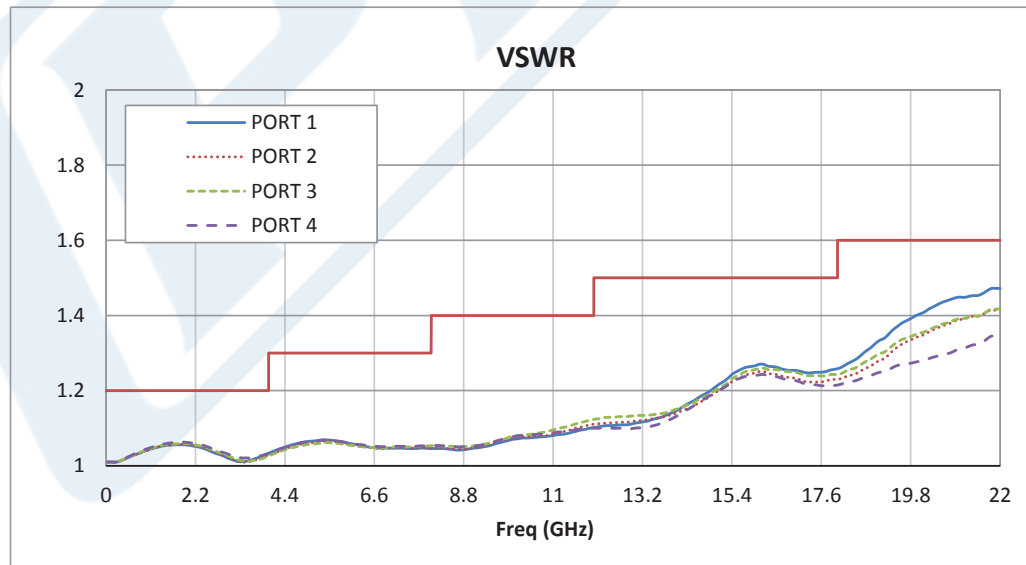
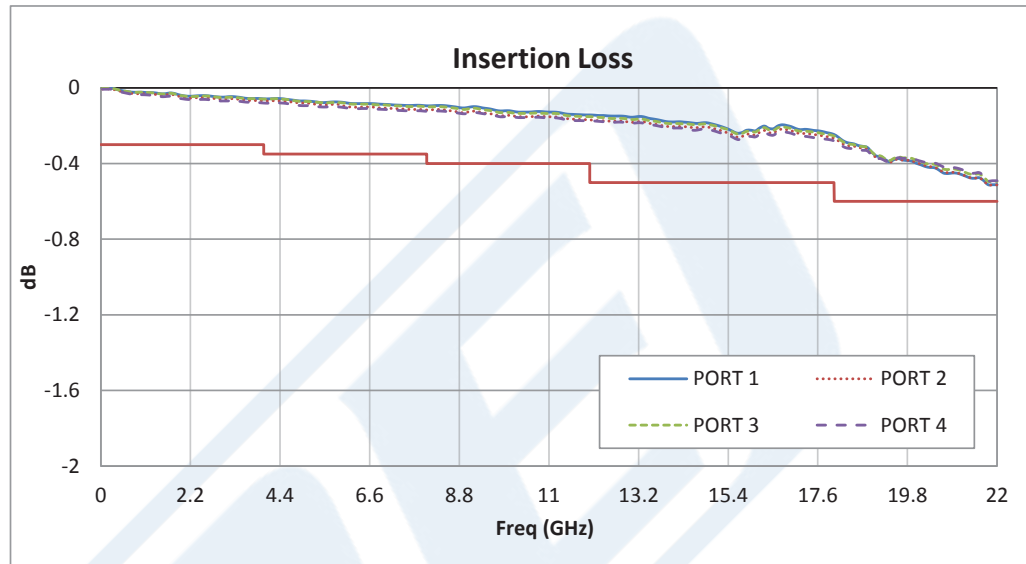


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Typical Performance Data



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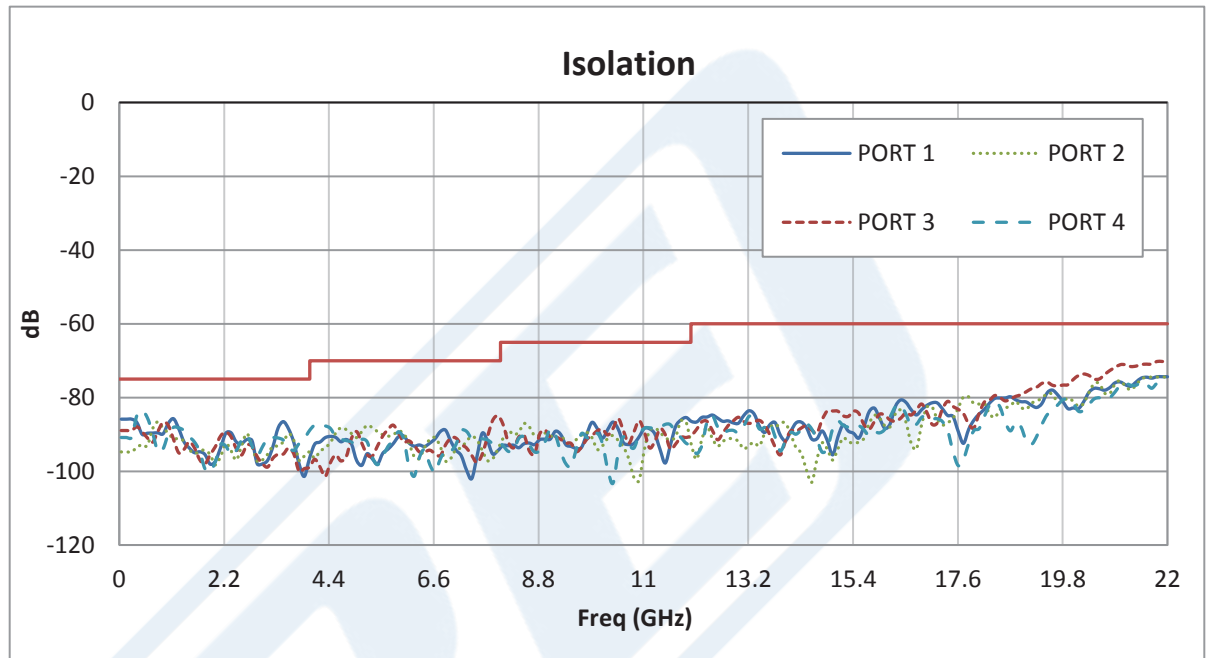




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Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 28V Control PE71S6127](http://www.pasternack.com/sma-sp4t-electromechanical-relay-switch-22-ghz-normally-open-pe71s6127-p.aspx)

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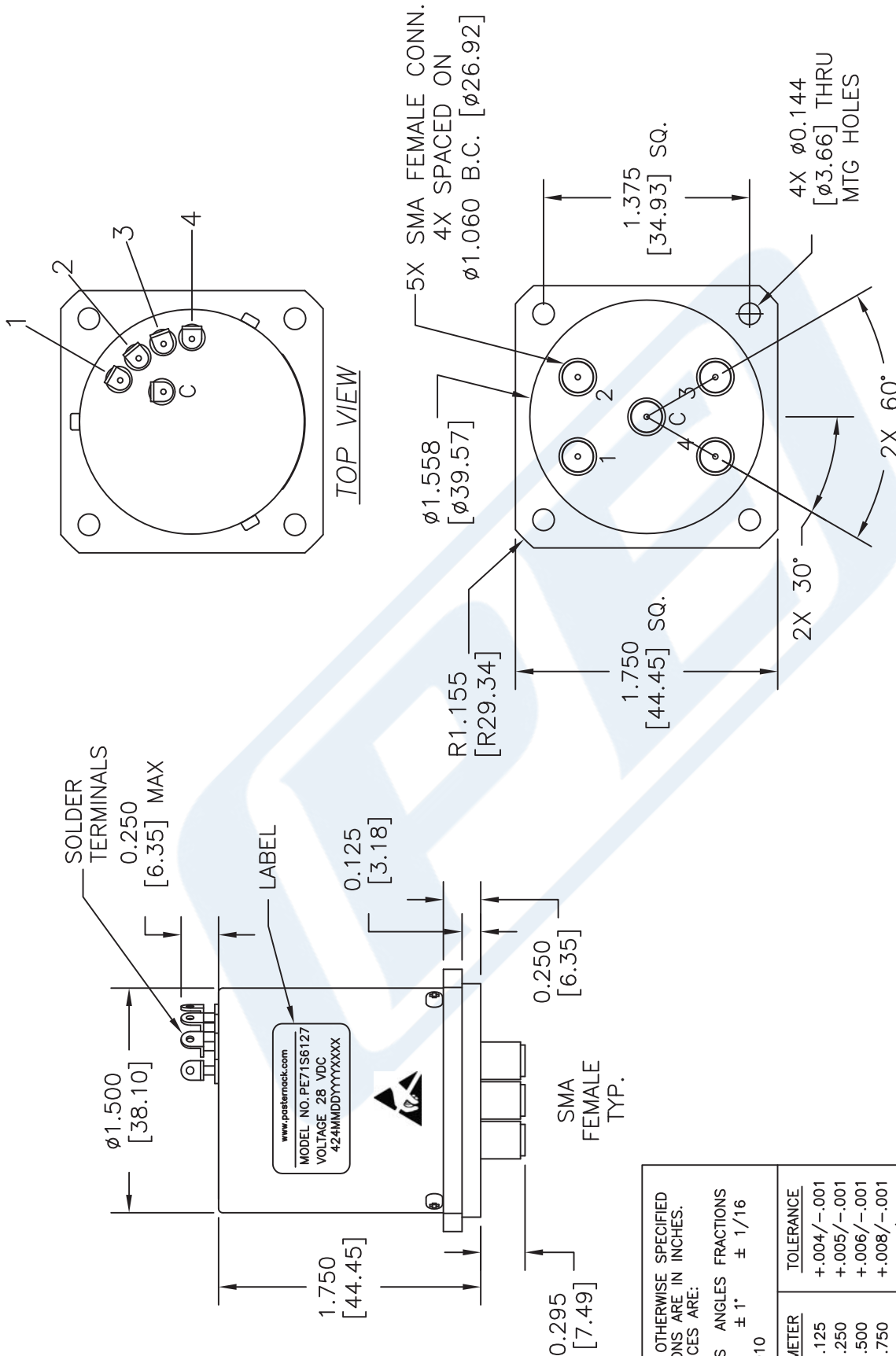
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# PE71S6127 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch

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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].

DWG TITLE  
**PE71S6127**

FSCM NO. 53919

CAD FILE 030615

SCALE N/A

SIZE A

200

**PE PASTERNAK**  
THE ENGINEER'S RF SOURCE

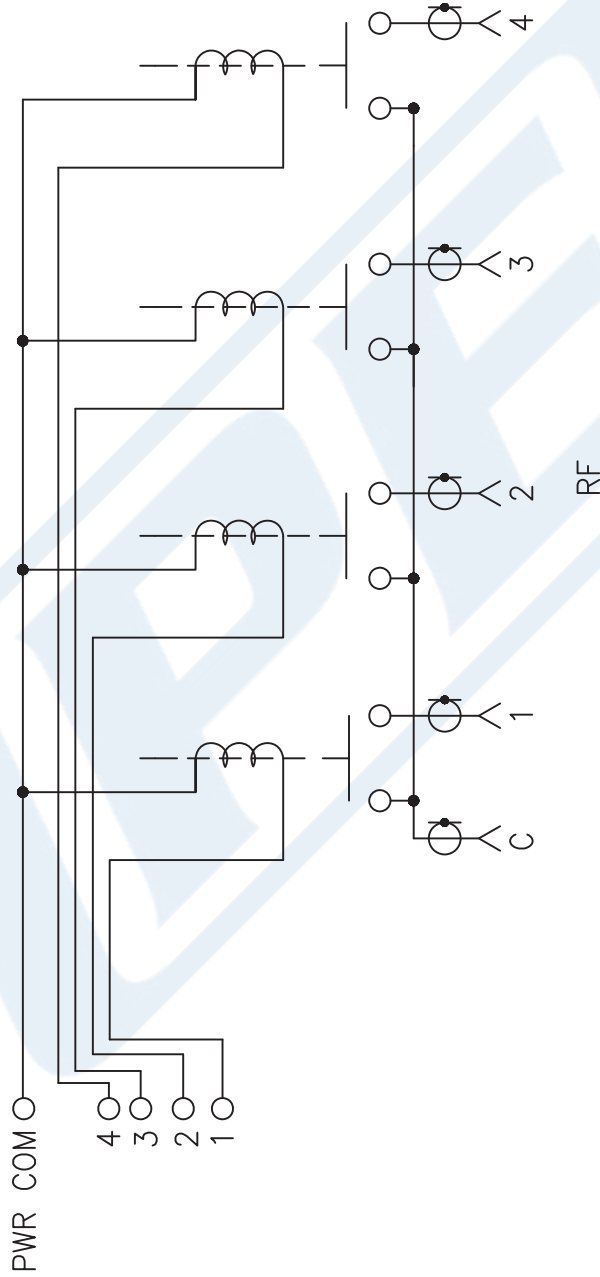
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\* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.

# PE71S6127 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch  
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SCHEMATIC NORMALLY OPEN SHOWN IN DE-ENERGIZED POSITION

DWG TITLE

**PE71S6127**

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