



SPDT Electromechanical Relay Latching Switch DC to 12.4 GHz,  
N, 50 Watts, 12V Control, Indicators, TTL, Diodes, Self Cut Off

## Electromechanical Relay Switches Technical Data Sheet

PE71S6156

### Features

- Single Pole Double Throw Relay Switch
- DC to 12.4 GHz Frequency Range
- 1M Cycle Min Operating Life
- Latching Actuator
- Self Cut Off, TTL Logic Driver, Position Indicators, Suppression Diodes
- Insertion Loss 0.5 dB max
- Isolation 60 dB min
- 50 Watts Avg Power Max
- Switching Sequence Break Before Make

### Applications

- Test & Measurement
- Communications System
- Instrumentation

### Description

The PE71S6156 is a Single Pole Double Throw Electromechanical Relay Switch that operates from DC to 12.4 GHz and has a rating of 50 Watts input power (CW) in a Break Before Make condition. The design features a Latching Actuator with Self Cut Off circuitry, TTL Logic Driver, Position Indicators, Suppression Diodes and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min, with +12 Vdc operating voltage and performance is guaranteed over -55°C to +85°C. The package interface uses solder terminals and N Female connectors.

### Electrical Specifications

Switch Type	SPDT, Reflective
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Indicators, TTL Logic, Diodes, Self Cut Off
TTL Control	on: 2.4 to 5 Volts off: 0 to 0.8 Volts

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		12.4	GHz
Impedance		50		Ohms
Operating Voltage		12		Volts
Actuating Current @ 12 Volts		200		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW) (at 12.4 GHz)			50	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Latching Switch DC to 12.4 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes, Self Cut Off PE71S6156](#)



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### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 2	2 to 4	4 to 12.4			GHz
VSWR, Max	1.15:1	1.2:1	1.5:1			
Insertion Loss, Max	0.2	0.25	0.5			dB
Isolation, Min	80	80	60			dB

### Mechanical Specifications

#### Size

Length	2.2 in [55.88 mm]
Width/Diameter	2.46 in [62.48 mm]
Height	0.9 in [22.86 mm]
Weight	0.53 lbs [240.4 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	20 ms Max

#### Connectors

RF Connector Type	N 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)

Not RoHS Compliant

### Plotted and Other Data

Notes:

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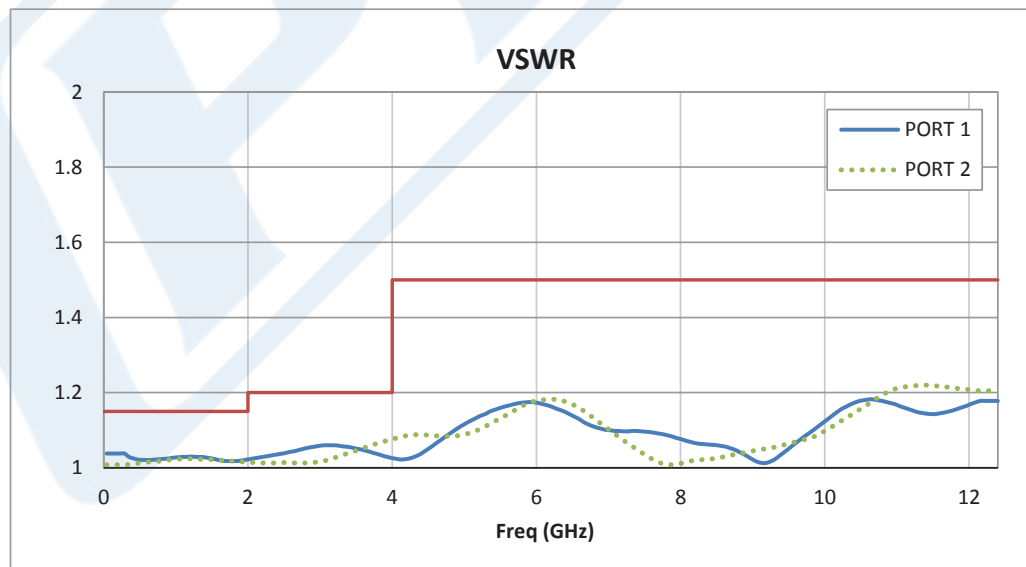
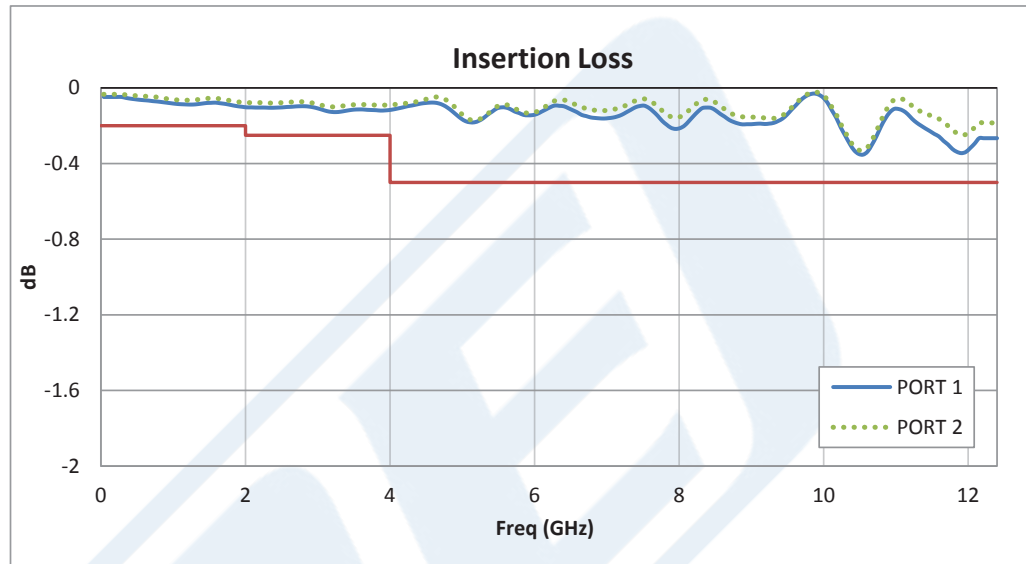


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Electromechanical Relay Switches Technical Data

PE71S6156

Typical Performance Data



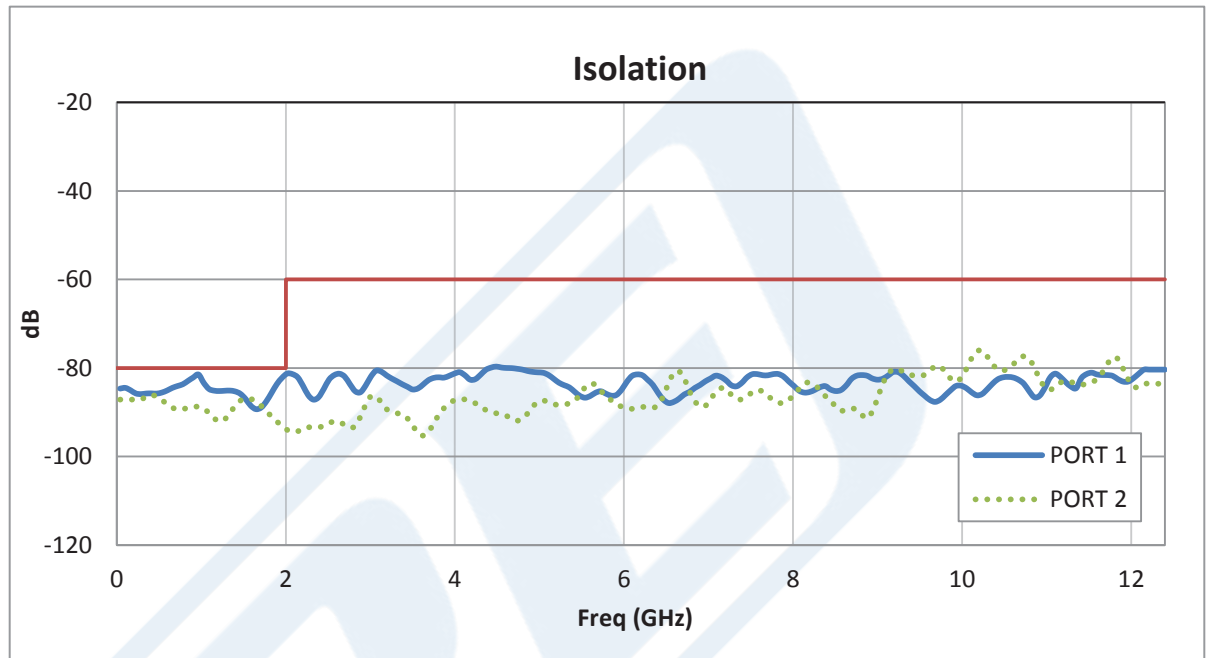
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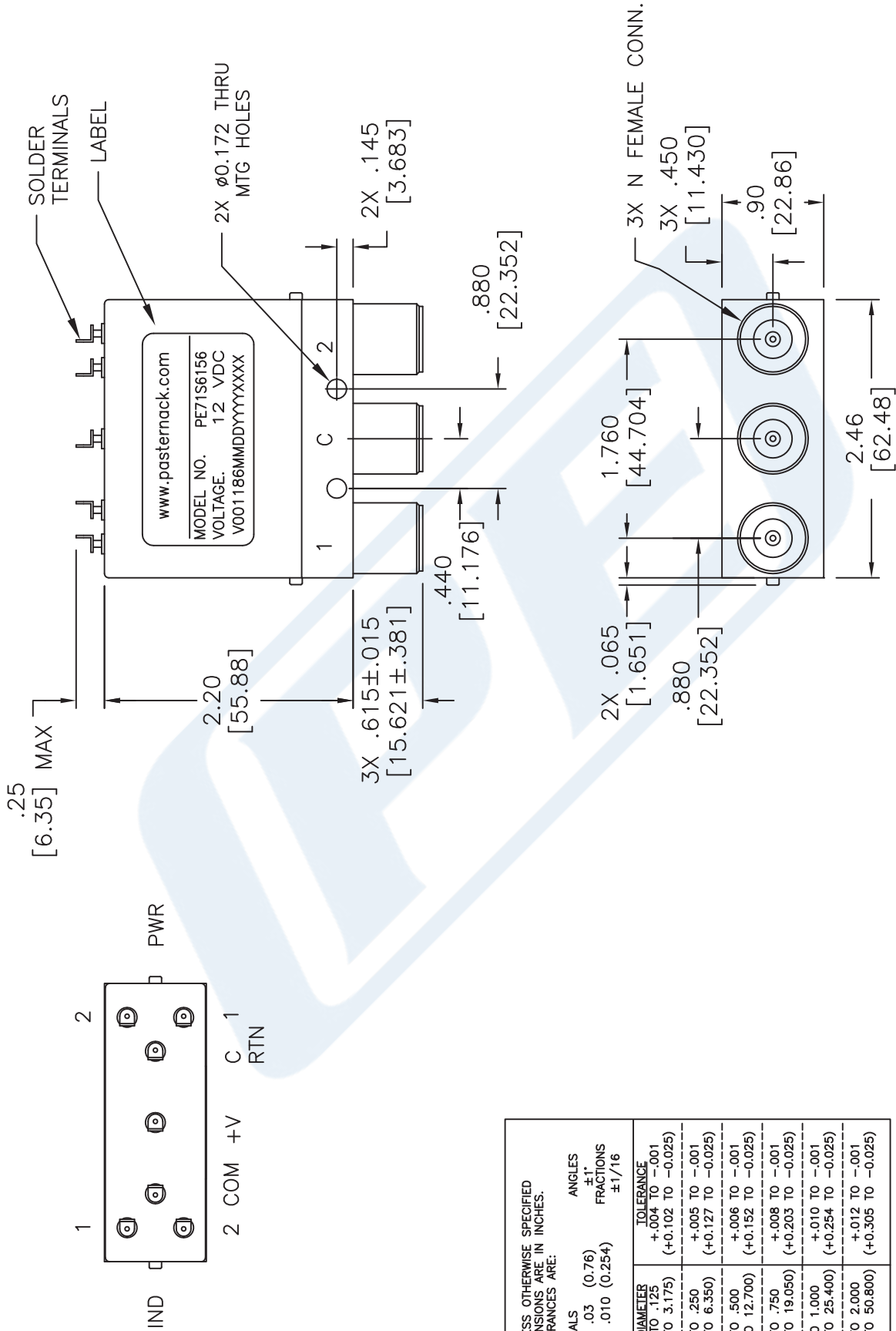
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# PE71S6156 CAD Drawing

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		ANGLES ±1°	
DECIMALS	(0.76)	FRACTIONS	±1/16
.XX ± .03	(0.76)		
.XXX ± .010	(0.254)		
HOLE DIAMETER	TOLERANCE		
.0135 TO .125 (0.343 TO 3.175)	+ .004 TO -.001 (+0.102 TO -0.025)		
.126 TO .250 (3.200 TO 6.350)	+ .005 TO -.001 (+0.127 TO -0.025)		
.251 TO .500 (6.375 TO 12.700)	+ .006 TO -.001 (+0.152 TO -0.025)		
.501 TO .750 (12.725 TO 19.050)	+ .008 TO -.001 (+0.203 TO -0.025)		
.751 TO 1.000 (19.075 TO 25.400)	+ .010 TO -.001 (+0.254 TO -0.025)		
1.001 TO 2.000 (25.425 TO 50.800)	+ .012 TO -.001 (+0.305 TO -0.025)		

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

DWG TITLE

**PE71S6156**

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].

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FSCM NO. 53919

CAD FILE 051315

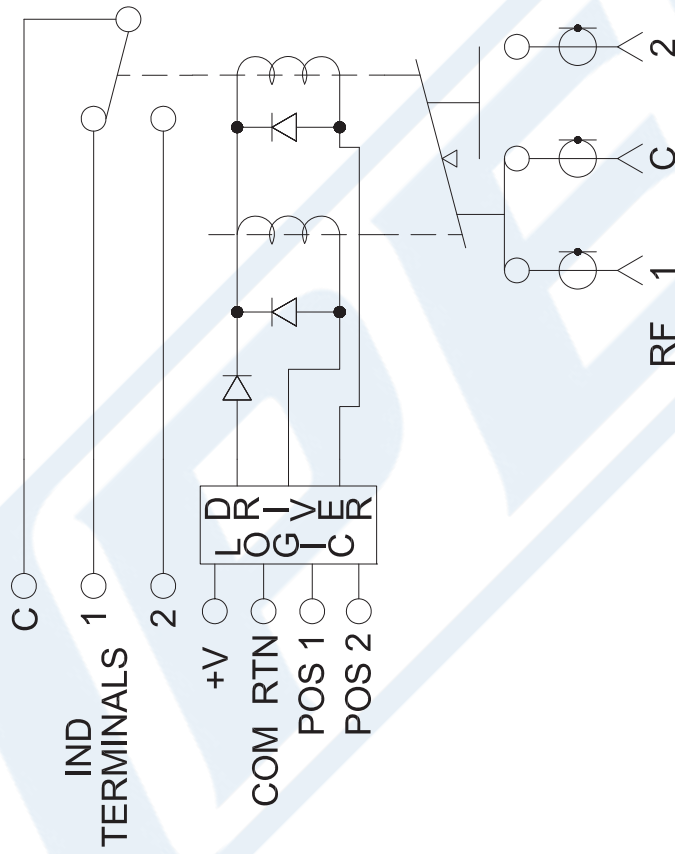
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