



SP6T Electromechanical Relay Normally Open
Switch DC to 10 GHz, N, 50 Watts, 28V Control

Electromechanical Relay Switches Technical Data Sheet

PE71S6187

Features

- Single Pole Six Throw Relay Switch
- DC to 10 GHz Frequency Range
- 1M Cycle Min Operating Life
- Normally Open Actuator
- Insertion Loss 0.6 dB max
- Isolation 60 dB min
- 50 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation

Description

The PE71S6187 is a Single Pole Six Throw Electromechanical Relay Switch that operates from DC to 10 GHz and has a rating of 50 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 0.25 dB max and Isolation from 80 dB min, with +28 Vdc operating voltage and performance is guaranteed over -25°C to +65°C. The package interface uses solder terminals and N Female connectors.

Electrical Specifications

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		10	GHz
Impedance		50		Ohms
Operating Voltage		28		Volts
Actuating Current @ 28 Volts		150		mA
VSWR			1.6:1	
Insertion Loss			0.6	dB
Isolation	60			dB
Input Power (CW) (at 10 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: [SP6T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 28V Control PE71S6187](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 8	8 to 10			GHz
VSWR, Max	1.25:1	1.4:1	1.6:1			
Insertion Loss, Max	0.25	0.4	0.6			dB
Isolation, Min	80	70	60			dB

Mechanical Specifications

Size

Length	2.3 in [58.42 mm]
Width/Diameter	2.47 in [62.74 mm]
Height	2.47 in [62.74 mm]
Weight	1.156 lbs [524.35 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	50 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	-25 to +65 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)

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 10 GHz, N, 50 Watts, 28V Control PE71S6187](#)

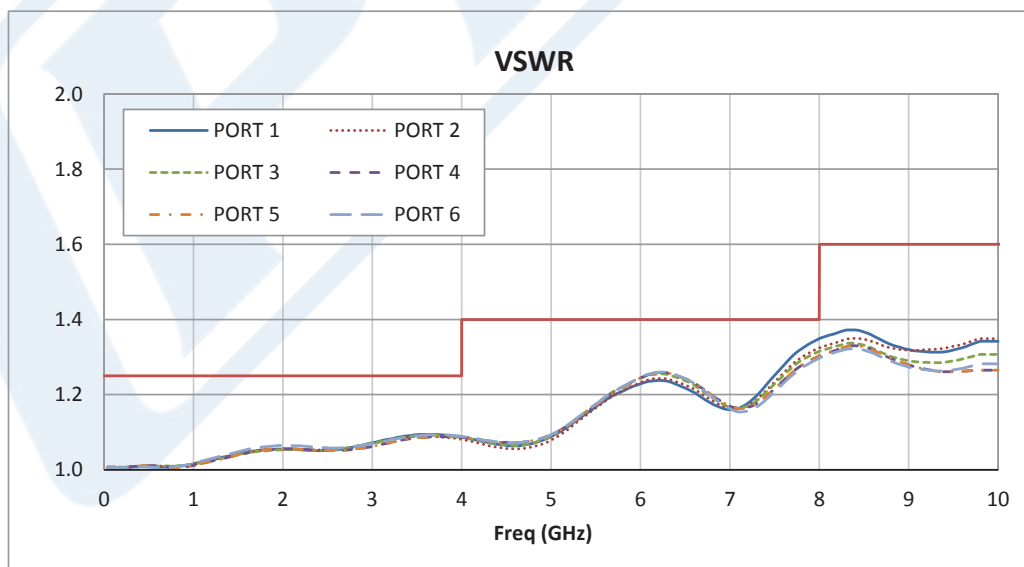
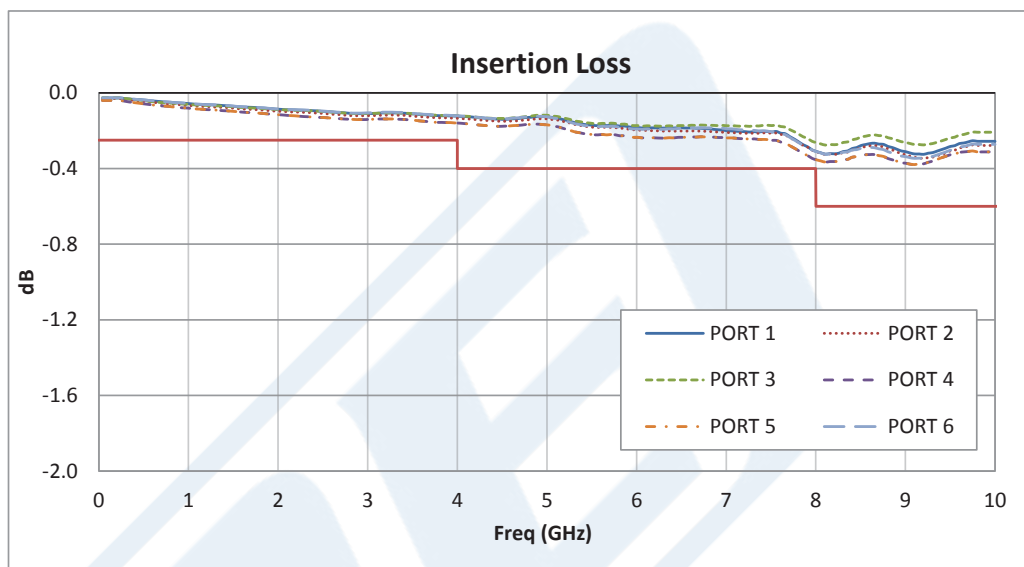


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Typical Performance Data



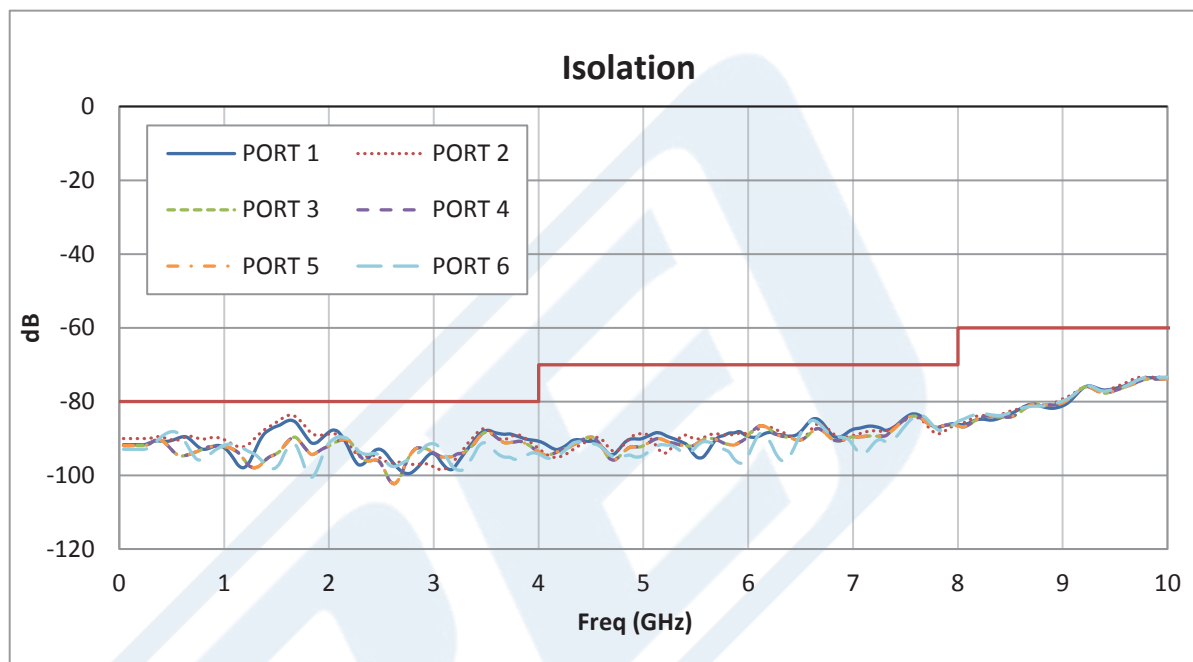
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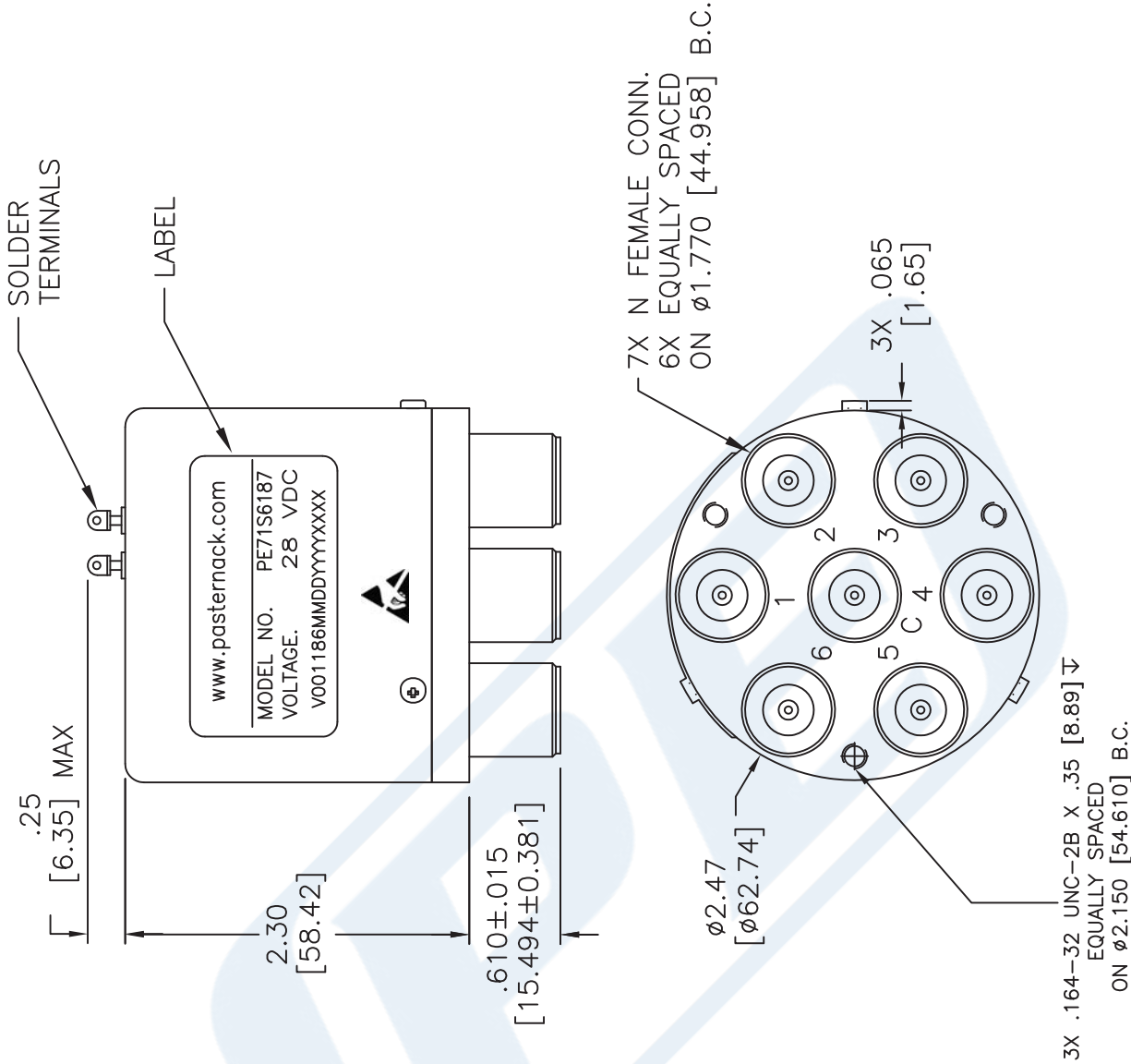
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP6T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 28V Control PE71S6187](http://www.pasternack.com/n-sp6t-electromechanical-relay-switch-10-ghz-normally-open-pe71s6187-p.aspx)

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PE71S6187 CAD Drawing

SP6T Electromechanical Relay Normally Open Switch
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		ANGLES ±1° FRACTIONS ±1/16
DECIMALS		
.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.

PE PASTERNAK®
THE ENGINEER'S RF SOURCE

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DWG TITLE

PE71S6187

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 060815

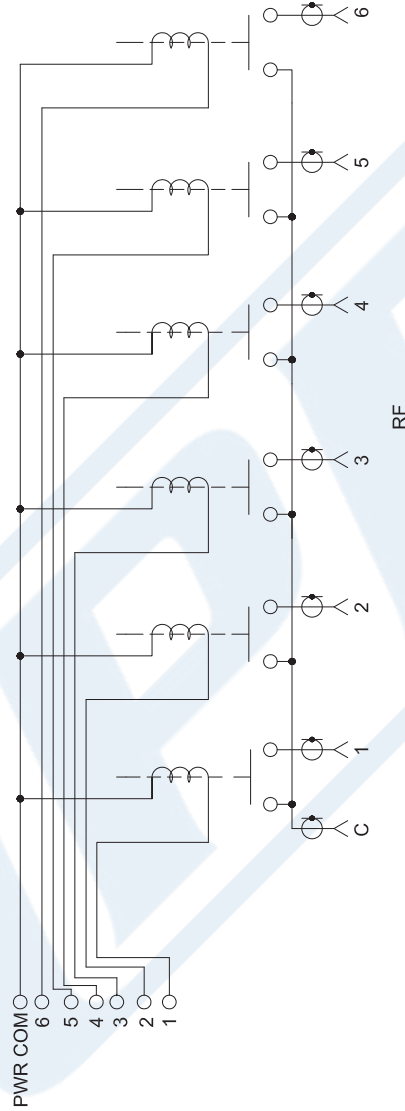
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SIZE A

2233

PE71S6187 CAD Drawing

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SCHEMATIC NORMALLY OPEN SHOWN IN DE-ENERGIZED POSITION

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CAD FILE

060815

SCALE N/A

SIZE A

2233

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