



Transfer Electromechanical Relay Latching Switch
DC to 12.4 GHz, N, 160 Watts, 28V Control,
Indicators, TTL, Self Cut Off, Diodes

Electromechanical Relay Switches Technical Data Sheet

PE71S6181

Features

- Transfer 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 0.4 dB max
- Isolation 60 dB min
- 160 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation

Description

The PE71S6181 is a Transfer Electromechanical Relay Switch that operates from DC to 12.4 GHz and has a rating of 160 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 +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	Transfer, Reflective
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Indicators, TTL Logic, Self Cut Off, Diodes
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		28		Volts
Actuating Current @ 28 Volts		135		mA
VSWR			1.45:1	
Insertion Loss			0.4	dB
Isolation	60			dB
Input Power (CW) (at 12.4 GHz)			160	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, N, 160 Watts, 28V Control, Indicators, TTL, Self Cut Off, Diodes PE71S6181](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 8	8 to 12.4			GHz
VSWR, Max	1.2:1	1.3:1	1.45:1			
Insertion Loss, Max	0.2	0.3	0.4			dB
Isolation, Min	80	70	60			dB

Mechanical Specifications

Size

Length	2.06 in [52.32 mm]
Width/Diameter	2 in [50.8 mm]
Height	2 in [50.8 mm]
Weight	0.875 lbs [396.89 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	-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: [Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, N, 160 Watts, 28V Control, Indicators, TTL, Self Cut Off, Diodes PE71S6181](#)

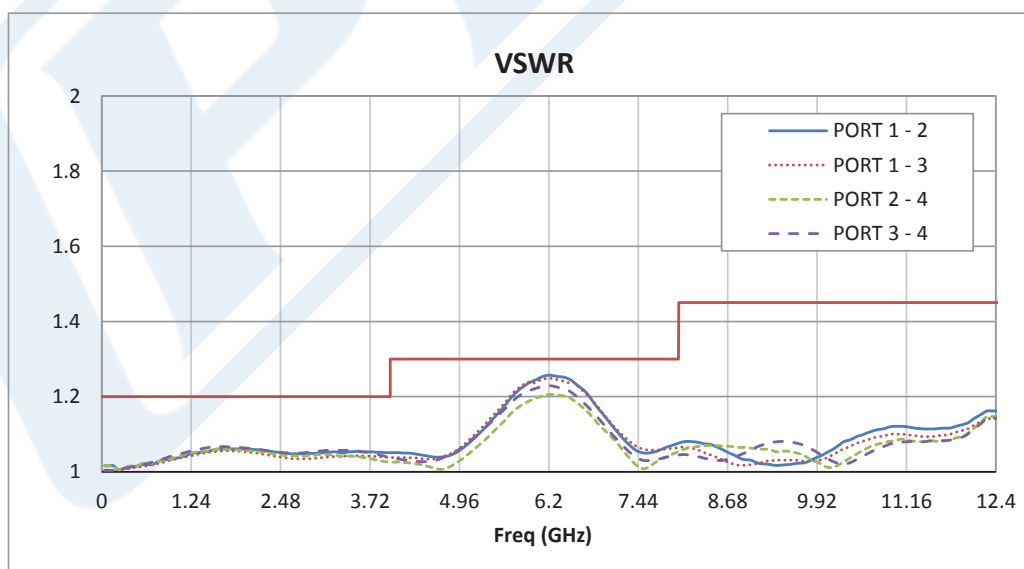
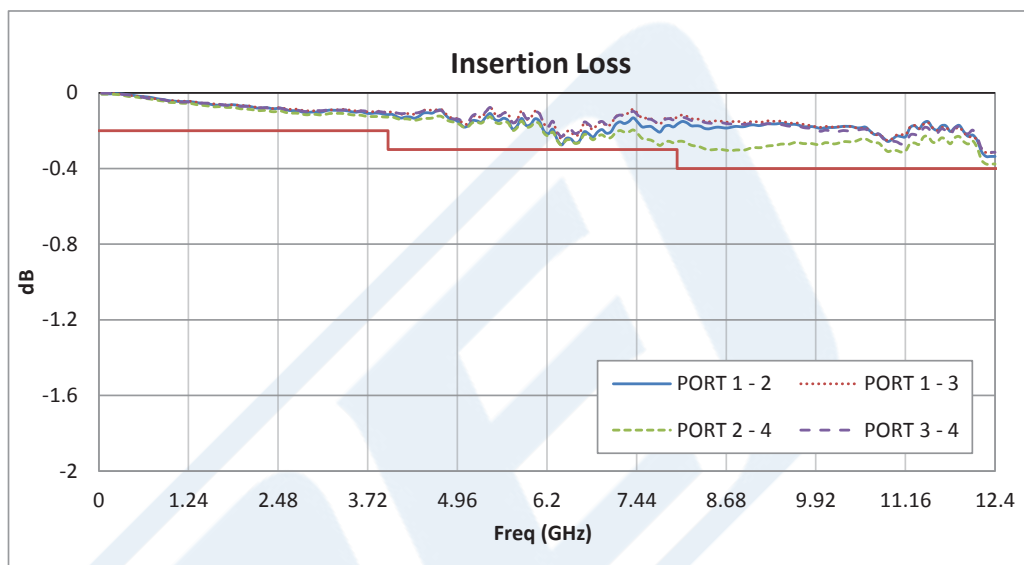


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Typical Performance Data



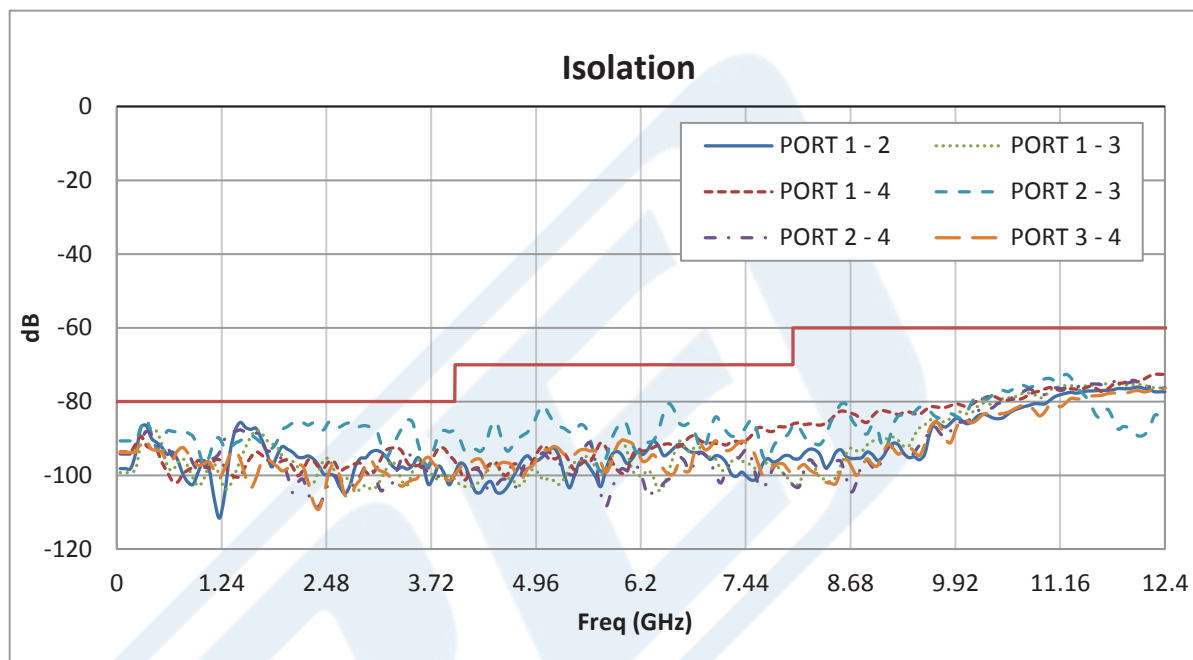
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Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, N, 160 Watts, 28V Control, Indicators, TTL, Self Cut Off, Diodes from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

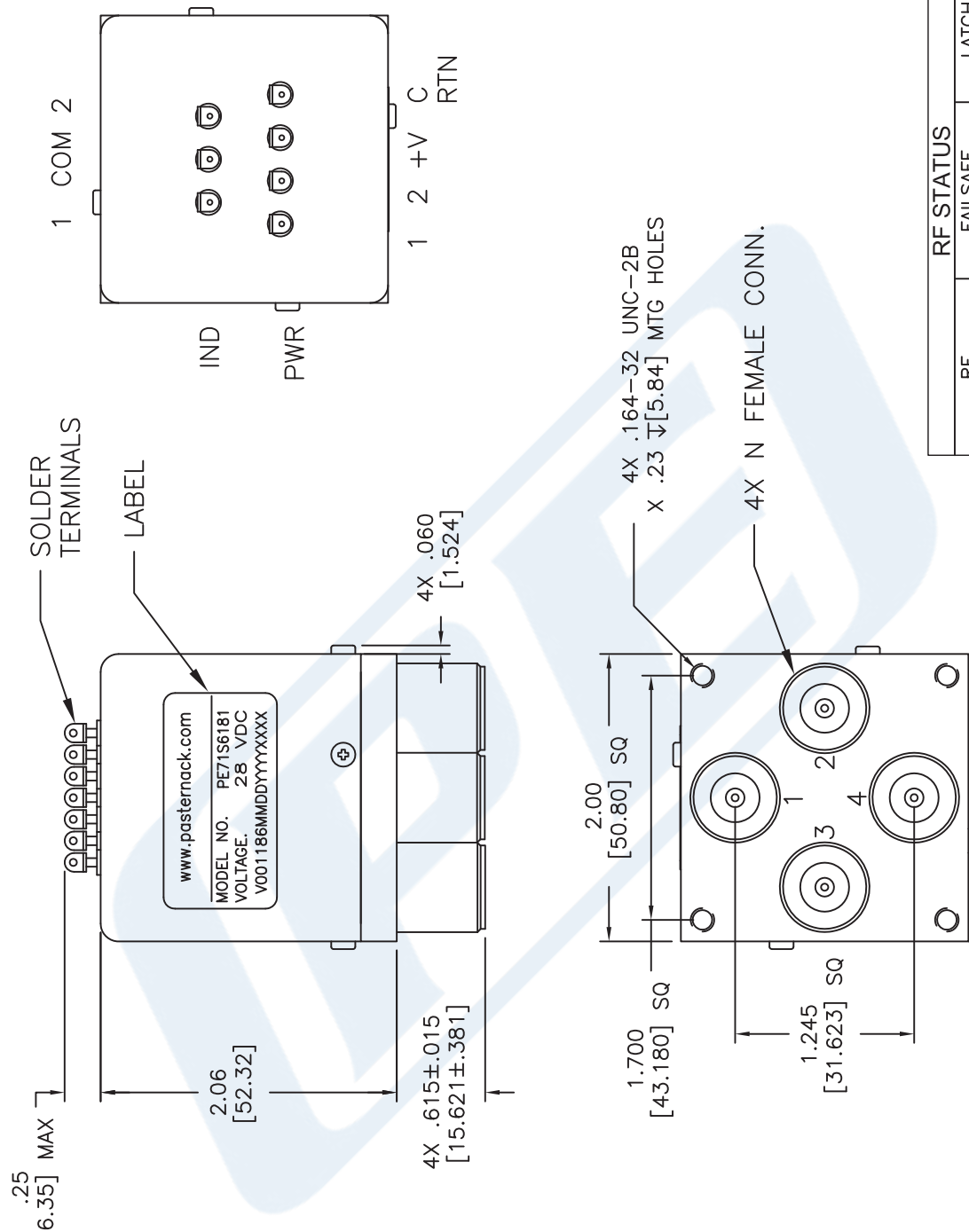
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE71S6181 CAD Drawing

Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, N,
160 Watts, 28V Control, Indicators, TTL, Self Cut Off, Diodes



RF STATUS			
RF	FAILSAFE	LATCHING	
1-3, 2-4	DE-ENERGIZED	POSITION 1	
1-2, 3-4	ENERGIZED	POSITION 2	

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

PE71S6181

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FSCM NO. 53919

CAD FILE 042715

SCALE N/A

SIZE A

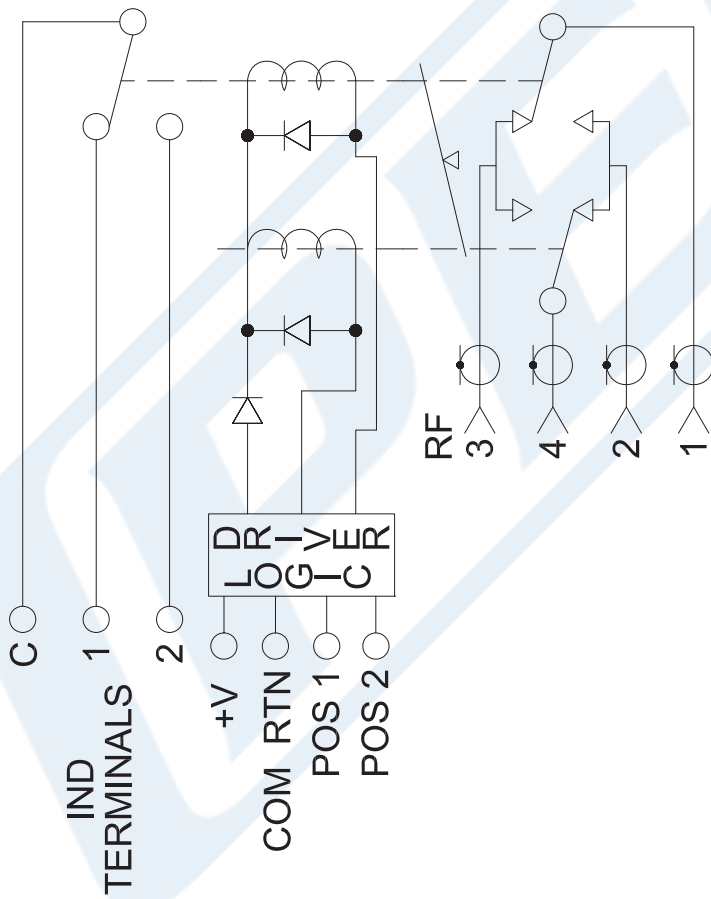
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		ANGLES ±1° FRACTIONS ±1/16
DECIMALS		
.XX ± .03 (0.76)		
.XXX ± .010 (0.254)		
HOLE DIAMETER	TOLERANCE	
.0135 TO .125 (0.343 TO 3.175)	+ .004 TO -.001 (+0.102 TO -0.025)	
.126 TO .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.

PE71S6181 CAD Drawing

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SCHEMATIC LATCHING SHOWN IN POSITION 1

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