



SP6T Electromechanical Relay Latching Switch, DC
to 6 GHz, up to 80W, 28V Global Reset, SMA

Electromechanical Relay Switches Technical Data Sheet

PE71S6086

Features

- Single Pole Six Throw Relay Switch
- DC to 6 GHz Frequency Range
- 10M Cycle Min (25M Typ) Operating Life
- 70 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 0.3 dB Max
- VSWR 1.3:1 Max

Applications

- High Performance Relay Switch
- Military Communications
- Communications Systems
- Test & Measurement

Description

The PE71S6086 is a Single Pole Six Throw Electromechanical Relay Switch that operates from DC to 6 GHz and can handle up to 80 Watts of CW input power in a Break Before Make condition. The design features a Latching Actuator with Global Reset circuitry and is rated for 10M Life Cycles (25M typical) for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min, with +28 Vdc operating voltage. Performance is guaranteed over -40°C to +85°C and the switch assembly is RoHS and REACH compliant. The package interface uses solder terminals and SMA Female connectors.

Electrical Specifications

Switch Type	SP6T
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	Global Reset
Polarity	Positive Common

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
Impedance		50		Ohms
Operating Voltage	21	28	30	Volts
Actuating Current @ 28 Volts		98		mA
VSWR			1.3:1	
Insertion Loss			0.3	dB
Isolation	70			dB
Coil Resistance		285		Ohms
Input Power (CW)			70	Watts
Switching Time			10	ms Max

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 Latching Switch, DC to 6 GHz, up to 80W, 28V Global Reset, SMA PE71S6086](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3	3 to 6				GHz
VSWR, Max	1.2:1	1.3:1				
Insertion Loss, Max	0.2	0.3				dB
Isolation, Min	80	70				dB
Input Power, Max (CW)	80	70				Watts

Electrical Specification Notes:
Average Power and Actuating Current values at 25°C.

Mechanical Specifications

Size

Length	1.45 in [36.83 mm]
Width/Diameter	1.327 in [33.71 mm]
Height	1.327 in [33.71 mm]
Weight	0.23 lbs [104.33 g]
Package Type	Connectorized
Operating Life	10,000,000 Cycles

Connectors

RF Connector Type	SMA Female
Control Connector	Solder Pin

Mechanical Specification Notes:
Solder Pins: 250°C max/30sec.
Specified operating life is minimum. Typical operating life is 25M cycles.

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +85 deg C

Shock	MIL-STD-202, Method 213B, Cond. C
Sine Vibration	MIL-STD-202, Method 204D, Cond. D
Random Vibration	MIL-STD-202, Method 214A, Profile I, Cond. F

Environmental Specification Notes:
Environmental specifications are guaranteed but not tested.

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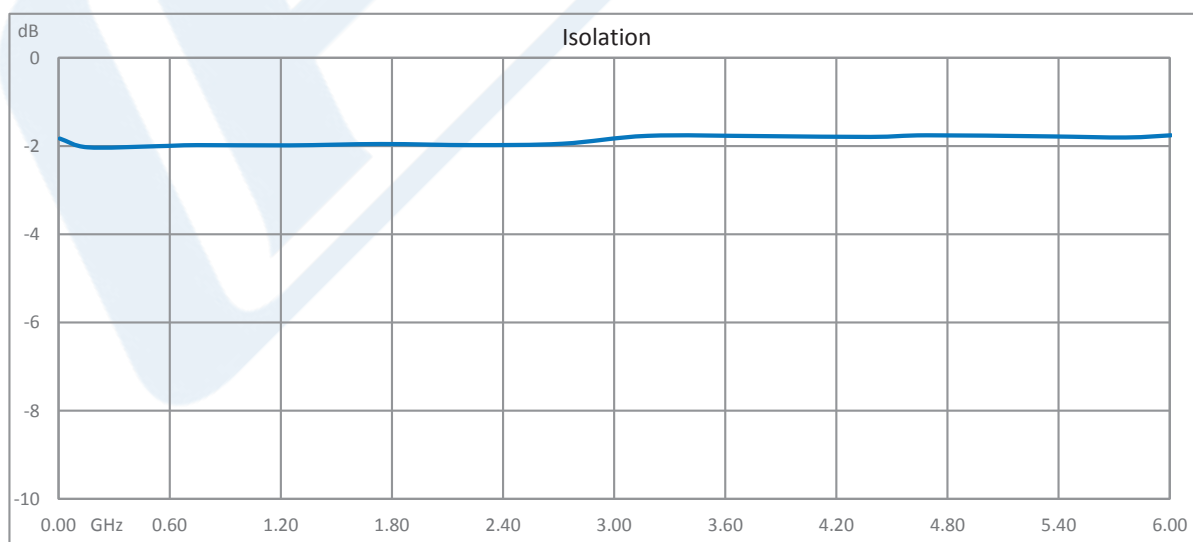
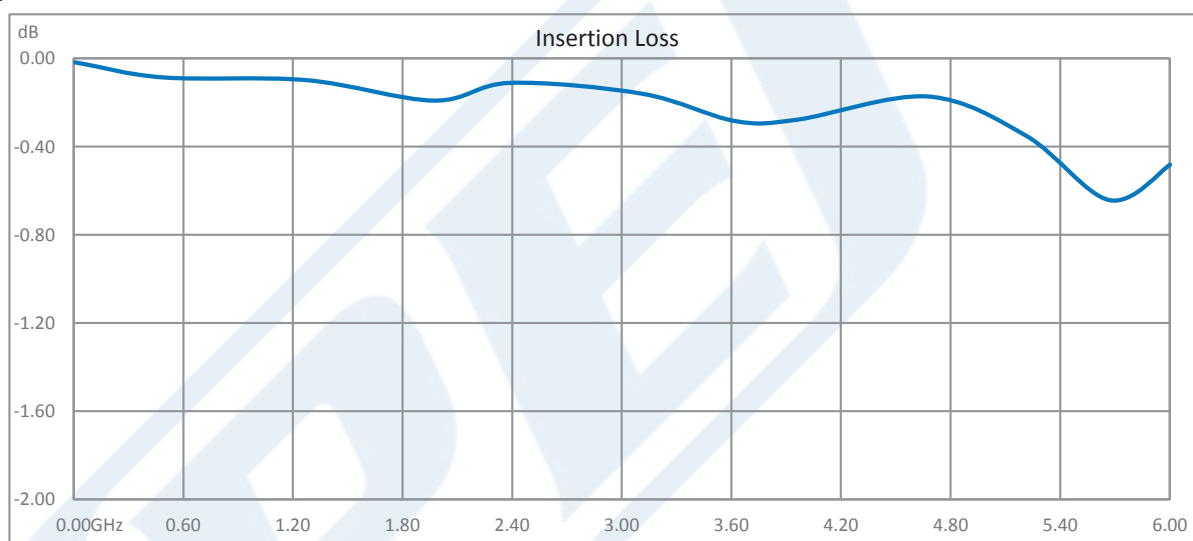
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values shown are typical at 25°C.

Typical Performance Data



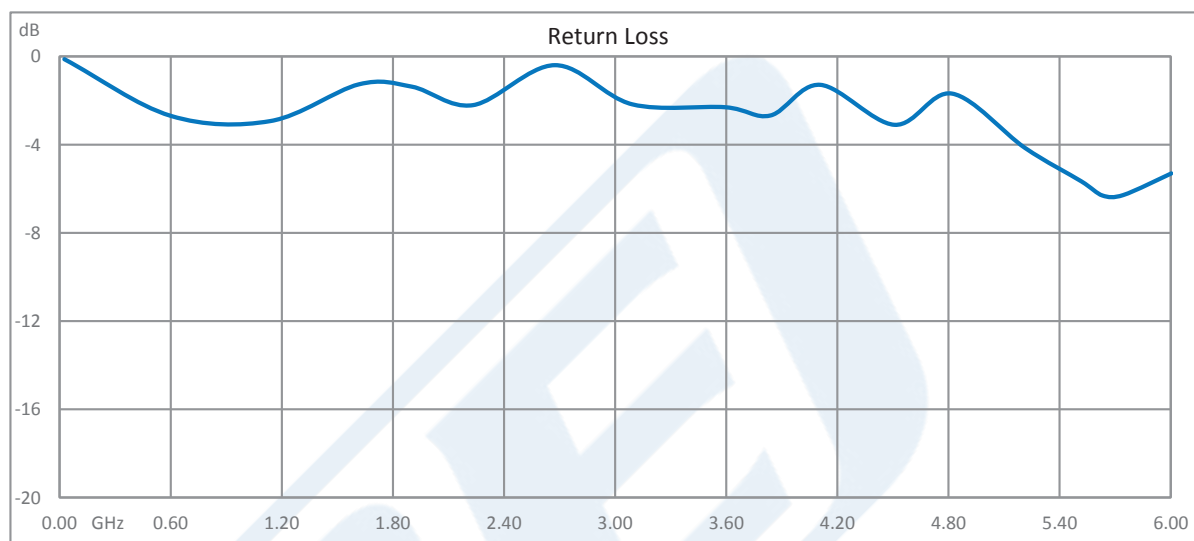
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SP6T Electromechanical Relay Latching Switch, DC to 6 GHz, up to 80W, 28V Global Reset, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

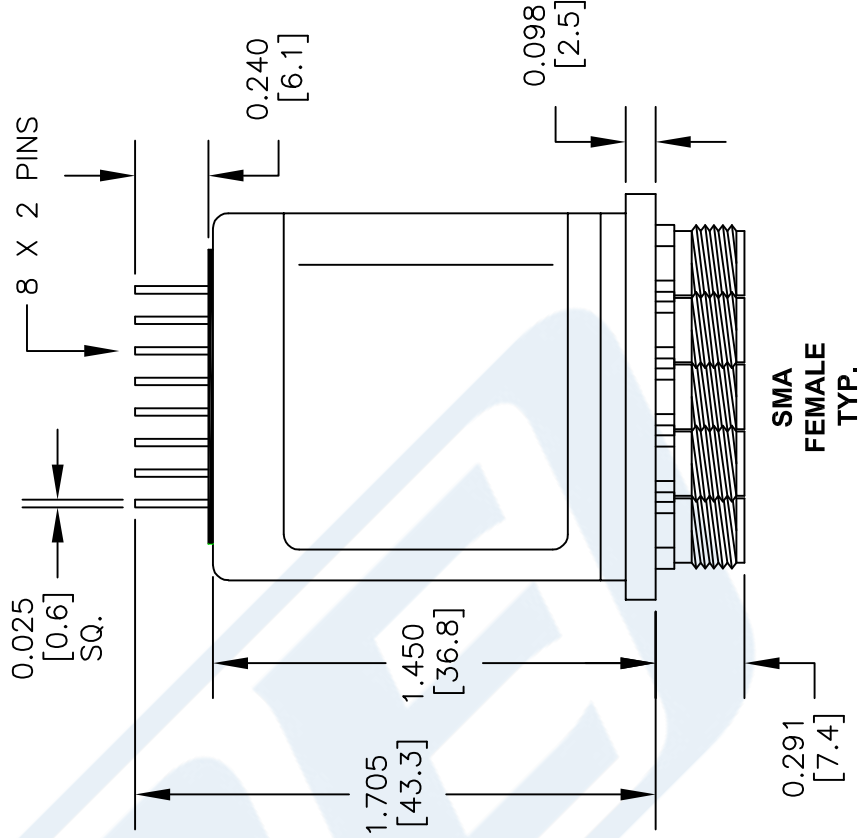
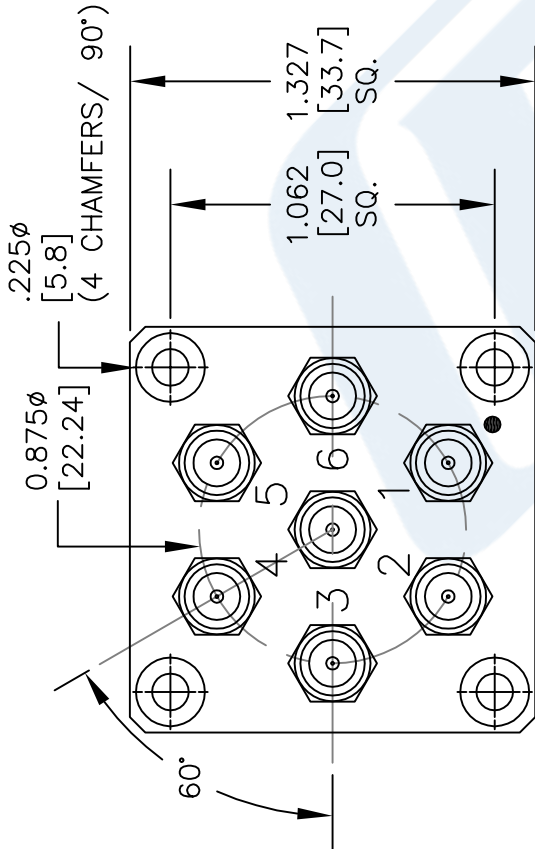
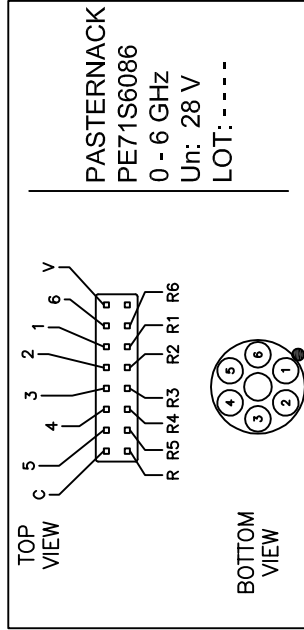
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP6T Electromechanical Relay Latching Switch, DC to 6 GHz, up to 80W, 28V Global Reset, SMA PE71S6086](https://www.pasternack.com/sma-sp6t-electromechanical-relay-switch-6-ghz-latching-pe71s6086-p.aspx)

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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.

PE71S6086 CAD Drawing

SP6T Electromechanical Relay Latching Switch, DC to
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DWG TITLE

PE71S6086

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].

PE PASTERNAK
THE ENGINEER'S RF SOURCE

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FSCM NO. 53919

SCALE N/A

SIZE A

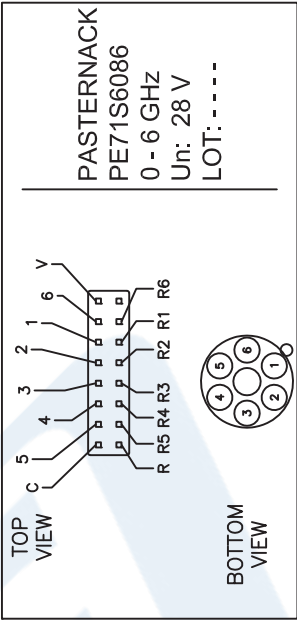
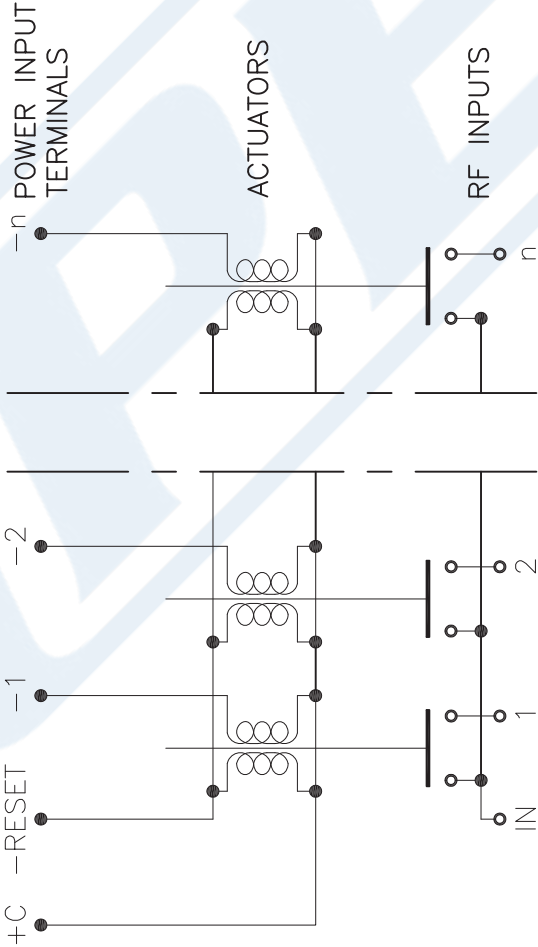
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PE71S6086 CAD Drawing

SP6T Electromechanical Relay Latching Switch, DC to 6 GHz, up to 80W, 28V Global Reset, SMA

PIN	Indicator
C	+C
V	NC
1	-1
2	-2
3	-3
4	-4
5	-5
6	-6
R	-RESET
R1	NC
R2	NC
R3	NC
R4	NC
R5	NC
R6	NC

SCHEMATIC DIAGRAM



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CAD FILE 120214

SCALE N/A

SIZE A

150