



SPDT Failsafe DC to 26.5 GHz Electro-Mechanical Relay Switch, Up To 90W, 28V, 2M Lifecycles, SMA

Electromechanical Relay Switches Technical Data Sheet

PE71S6421

Features

- Single Pole Double Throw Electromechanical Relay Switch
- DC to 26.5 GHz Frequency Range
- Failsafe Actuator
- 2M Lifecycle Rating
- Insertion Loss 0.35 dB typ
- Isolation > 80 dB typ
- VSWR 1.4:1 typ
- Terminal Solder Pins for DC Control
- +28 Volt DC Bias
- SMA Female Connectors
- -25°C to +65°C Operating Temperature
- Up to 90 Watt Average Power Handling
- 50 Ohm Design
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request
- Rugged Design meets Mil-STD-202 Test Conditions

Applications

- Aerospace & Defense
- Test & Measurement
- Microwave Radio Systems
- Military & Commercial Communication Systems
- Research & Development
- SATCOM
- Wireless Communications
- Enterprise
- IoT

Description

The PE71S6421 is a Single Pole Double Throw (SPDT) electromechanical relay switch that operates across a wide frequency range of DC to 26.5 GHz and can handle up to 90 Watts of CW input power in a break before make condition. The 50 Ohm design features a Failsafe Actuator and is rated for 2 million lifecycles. Impressive typical performance includes 0.35 dB insertion loss and isolation greater than 80 dB. This switch requires +28Vdc bias voltage and operates over a temperature range of -25°C to +65°C. The rugged and compact package assembly supports SMA female connectors and terminal solder pins for DC control. And for highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for shock and random vibration.

Electrical Specifications

Switch Type SPDT
 Actuator Type Failsafe
 Switching Sequence Break before Make

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		26.5	GHz
Impedance		50		Ohms
Operating Voltage	26	28	30	Volts
Actuating Set Current @ 28 Volts At +20°C			90	mA
VSWR		1.4:1	1.7:1	
Insertion Loss		0.35	0.6	dB
Isolation	50	80		dB
Input Power (CW)			90	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Failsafe DC to 26.5 GHz Electro-Mechanical Relay Switch, Up To 90W, 28V, 2M Lifecycles, SMA PE71S6421](#)



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Switching Time	20	ms Max
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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 6	6 to 12	12 to 18	18 to 26.5		GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.7:1		
Insertion Loss, Max	0.15	0.25	0.35	0.6		dB
Isolation, Min	80	70	60	50		dB

Mechanical Specifications

Size

Body Material and Plating	Aluminum
Package Type	Connectorized
Operating Life	2,000,000 Cycles

Connectors

RF Connector Type	SMA Female
Control Connector	Solder Terminals

Environmental Specifications

Temperature

Operating Range	-25 to +65 deg C
Storage Range	-55 to +100 deg C

Humidity	Moisture Resistance
Shock	MIL-STD-202 Method 213, Cond. D 500G Non Operating
Vibration	MIL-STD-202 Method 204, Cond. D 10G RMS Non Operating

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

Plotted and Other Data

Notes:

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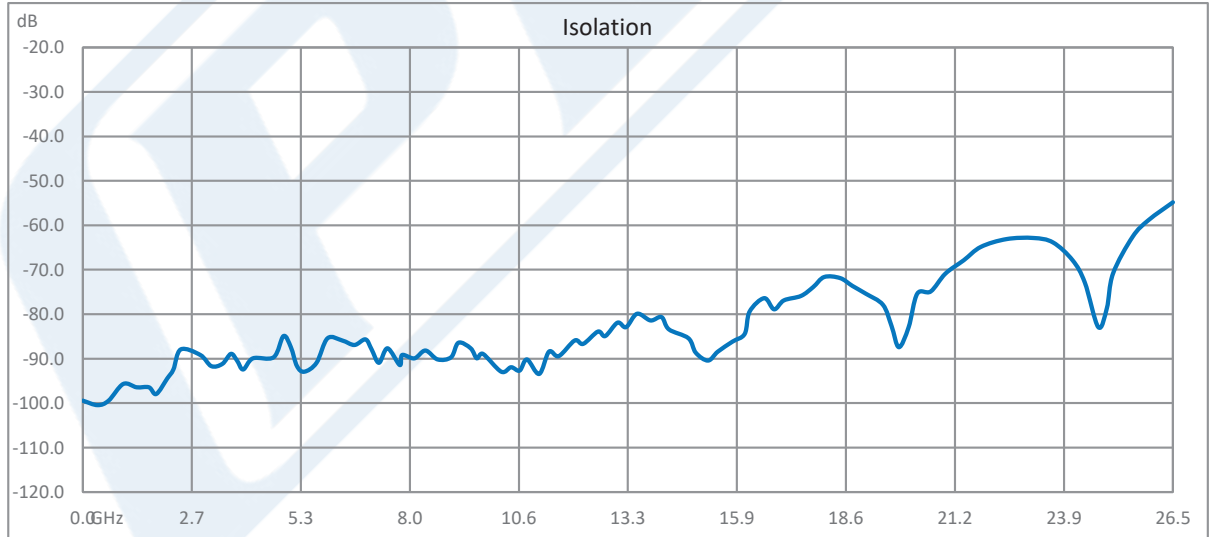
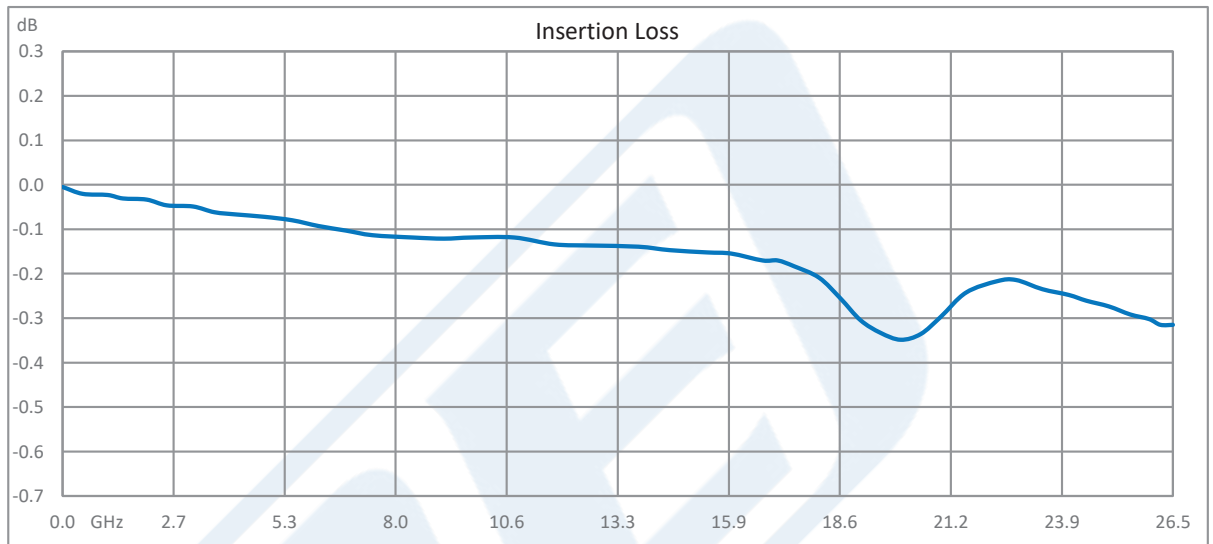


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Typical Performance Data



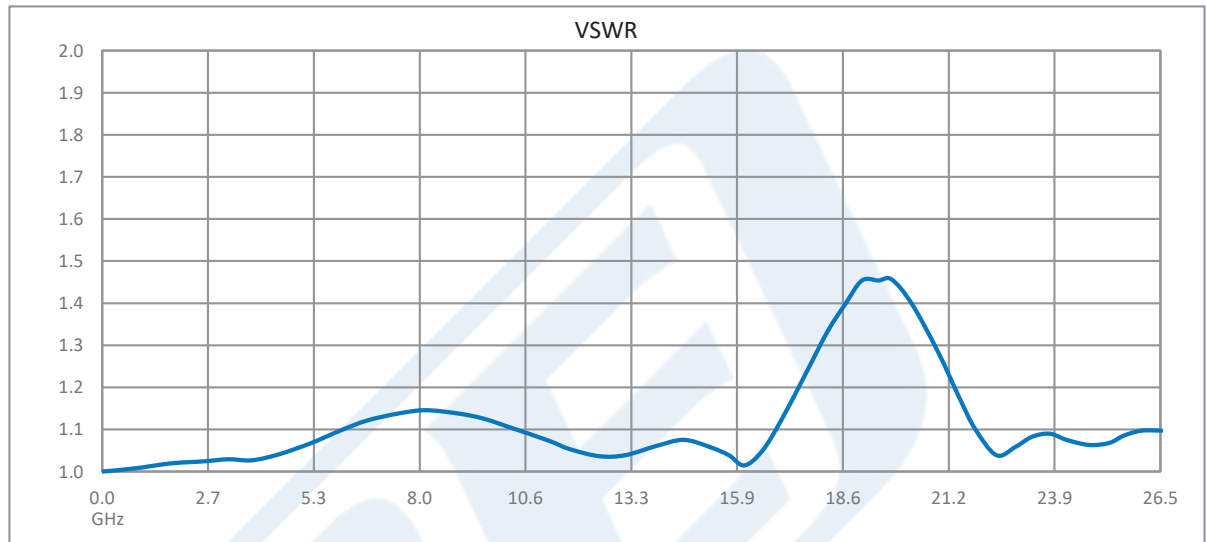
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SPDT Failsafe DC to 26.5 GHz Electro-Mechanical Relay Switch, Up To 90W, 28V, 2M Lifecycles, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% 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: [SPDT Failsafe DC to 26.5 GHz Electro-Mechanical Relay Switch, Up To 90W, 28V, 2M Lifecycles, SMA PE71S6421](https://www.pasternack.com/spdt-failsafe-dc-to-26.5-ghz-electro-mechanical-relay-switch-up-to-90w-28v-2m-lifecycles-sma-pe71s6421)

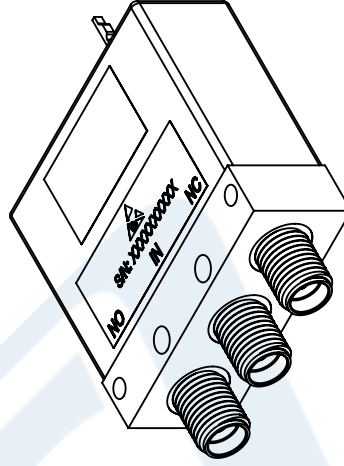
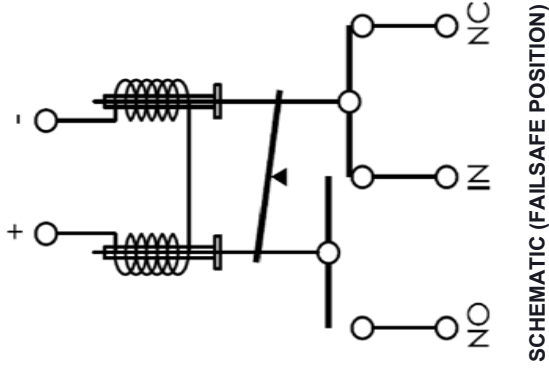
URL: <https://www.pasternack.com/spdt-electromechanical-relay-failsafe-switch-26.5-ghz-90w-28v-sma-pe71s6421-p.aspx>

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PE71S6421 CAD Drawing

SPDT Failsafe DC to 26.5 GHz Electro-Mechanical Relay
Switch, Up To 90W, 28V, 2M Lifecycles, SMA

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11/12/2020	T. GALLA



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an INFINITO brand

Pasternack Enterprises, Inc.
P.O. Box 16759, Irvine, CA 92623.
Phone: 1.949.261.1920 | 1.866.727.8376
Fax: 1.949.261.7451
Website: www.pasternack.com
E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES, DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:

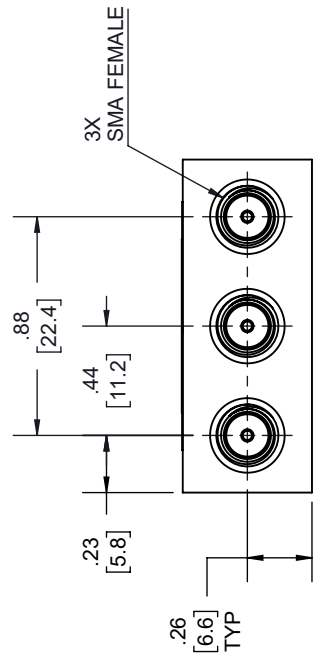
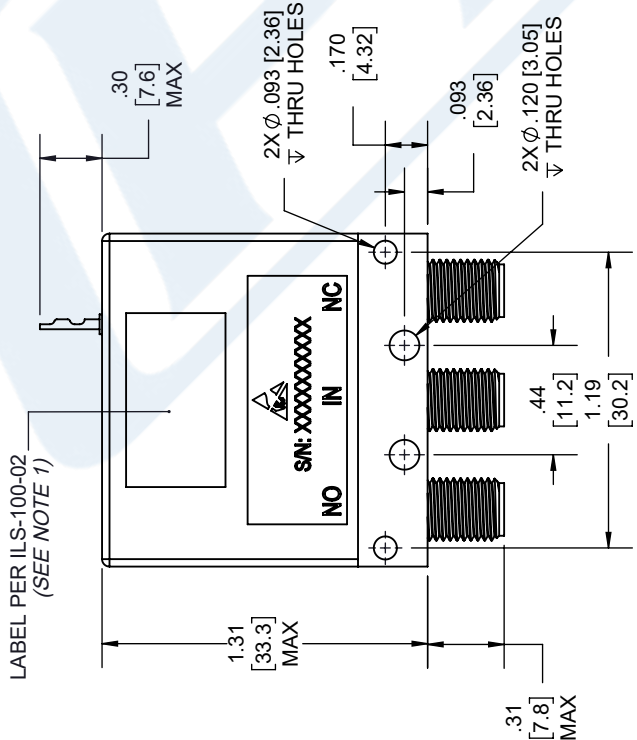
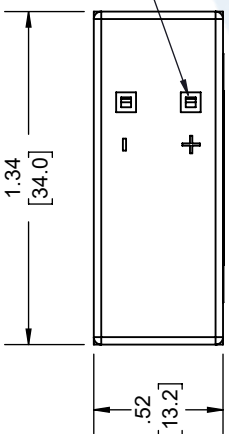
X = ±.2	[5.08]	FRACTIONS
.XX = +.02	[.51]	±.132
.XXX = +.005	[.13]	ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12	[305]	= +1 [25] / -0
12 [305] < L ≤ 60	[1524]	= +2 [51] / -0
60 [1524] < L ≤ 120	[3048]	= +4 [102] / -0
120 [3048] < L ≤ 300	[7620]	= +6 [152] / -0
300 [7620] < L		= +5% / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

2X SOLDER TERMINALS,
SOLDER WIRE USING SN63
MAXIMUM TEMP 210°C FOR
NO MORE THAN 5 SEC.



NOTES:
1. LABEL PER ILS-100-02. FOR INTERNAL REFERENCE ONLY.
LABEL LOCATION FOR REFERENCE ONLY.

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