



SPDT Electromechanical Relay Failsafe Switch, DC to 26.5 GHz, 90W, 28V, SMA

Electromechanical Relay Switches Technical Data Sheet

PE71S6419

Features

- Single Pole Double Throw
- DC to 26.5 GHz Frequency Range
- Isolation greater than 80 dB typical
- 2M Cycle Min Operating Life
- +28 Volt DC
- 90 Watt average Power
- Failsafe Actuator
- -25°C to +65°C Operating Temperature
- Insertion Loss as low as 0.15 dB Max
- VSWR as low as 1.2:1 max
- SMA Female RF connectors
- Solder Terminals for DC Control
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request

Applications

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

Description

The PE71S6419 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 design features a Failsafe actuator and is rated for 2M life cycles for high reliability operation. Impressive performance includes insertion loss less than 0.15 dB typical and isolation greater than 80 dB typical. This switch requires a +28Vdc control voltage and operates over a temperature range of -25°C to +65°C. The rugged and compact package assembly supports SMA Female connectors and solder terminals 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		90		mA
VSWR		1.2:1	1.7:1	
Insertion Loss		0.15	0.6	dB
Isolation	50	80		dB
Input Power (CW)			90	Watts
Switching Time			20	ms Max

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 Failsafe Switch, DC to 26.5 GHz, 90W, 28V, SMA PE71S6419](#)



SPDT Electromechanical Relay Failsafe Switch,
DC to 26.5 GHz, 90W, 28V, SMA

Electromechanical Relay Switches Technical Data

PE71S6419

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
Package Type

Aluminum
Connectorized

Operating Life

2,000,000 Cycles

Connectors

RF Connector Type
Control Connector

SMA Female
Solder Terminals

Environmental Specifications

Temperature

Operating Range
Storage Range

-25 to +65 deg C
-55 to +100 deg C

Humidity
Shock

Moisture Resistance
MIL-STD-202 Method 213, Cond. D 500G Non Operat-
ing

Vibration

MIL-STD-202 Method 214, Cond. D 10G RMS Non
Operating

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

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: [SPDT Electromechanical Relay Failsafe Switch, DC to 26.5 GHz, 90W, 28V, SMA PE71S6419](#)

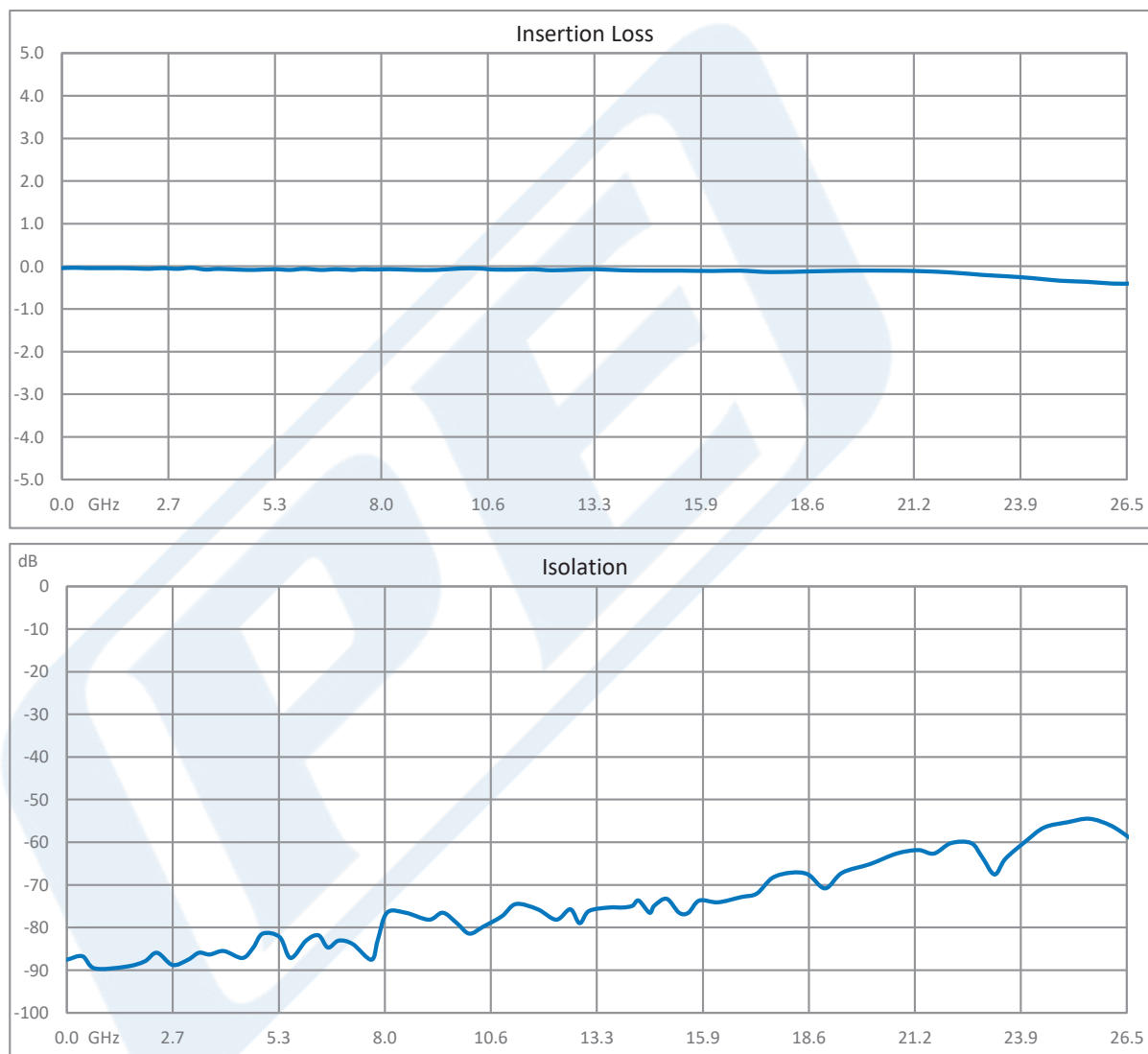


SPDT Electromechanical Relay Failsafe Switch,
DC to 26.5 GHz, 90W, 28V, SMA

Electromechanical Relay Switches Technical Data

PE71S6419

Typical Performance Data



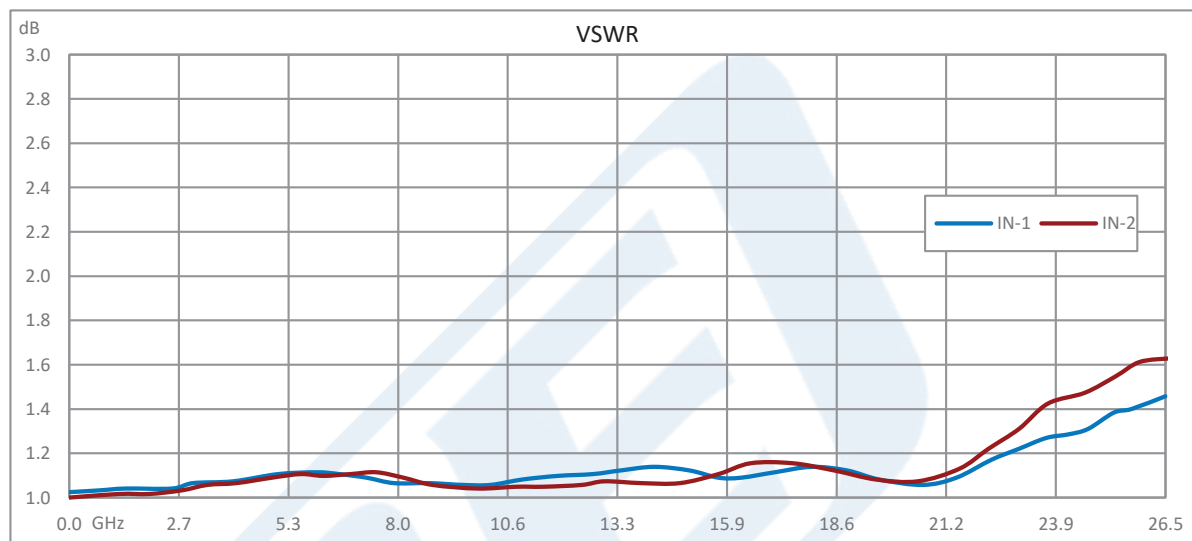
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Failsafe Switch, DC to 26.5 GHz, 90W, 28V, SMA PE71S6419](#)



SPDT Electromechanical Relay Failsafe Switch,
DC to 26.5 GHz, 90W, 28V, SMA

Electromechanical Relay Switches Technical Data

PE71S6419



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 Failsafe Switch, DC to 26.5 GHz, 90W, 28V, SMA PE71S6419](#)

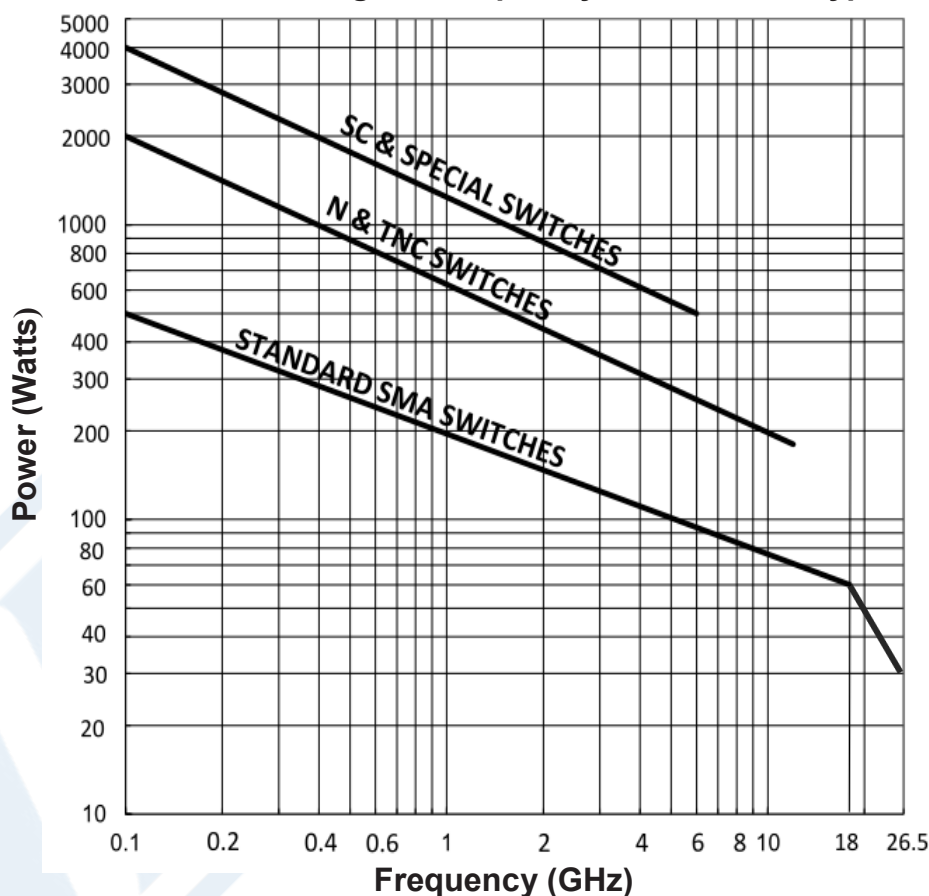


SPDT Electromechanical Relay Failsafe Switch,
DC to 26.5 GHz, 90W, 28V, SMA

Electromechanical Relay Switches Technical Data

PE71S6419

Power Handling vs. Frequency & Connector Type



Environmental and Test Conditions:

- Ambient temperature of 25°C or less
- Altitude: Sea Level
- Load VSWR: 1.20:1 max.
- Cold Switching

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 Failsafe Switch, DC to 26.5 GHz, 90W, 28V, SMA PE71S6419](#)



SPDT Electromechanical Relay Failsafe Switch,
DC to 26.5 GHz, 90W, 28V, SMA

Electromechanical Relay Switches Technical Data

PE71S6419

SPDT Electromechanical Relay Failsafe Switch, DC to 26.5 GHz, 90W, 28V, 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 Electromechanical Relay Failsafe Switch, DC to 26.5 GHz, 90W, 28V, SMA PE71S6419](https://www.pasternack.com/spdt-electromechanical-relay-failsafe-switch-26.5-ghz-90w-28v-sma-pe71s6419-p.aspx)

URL: <https://www.pasternack.com/spdt-electromechanical-relay-failsafe-switch-26.5-ghz-90w-28v-sma-pe71s6419-p.aspx>

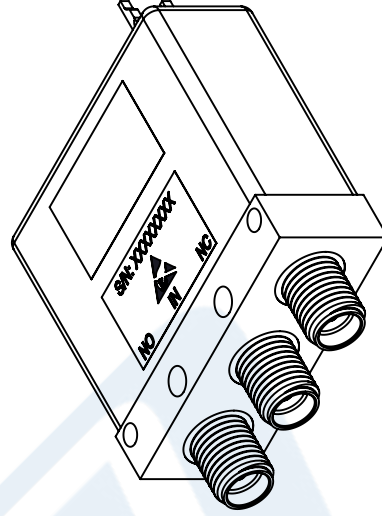
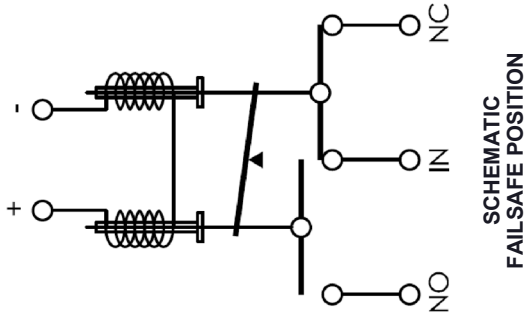
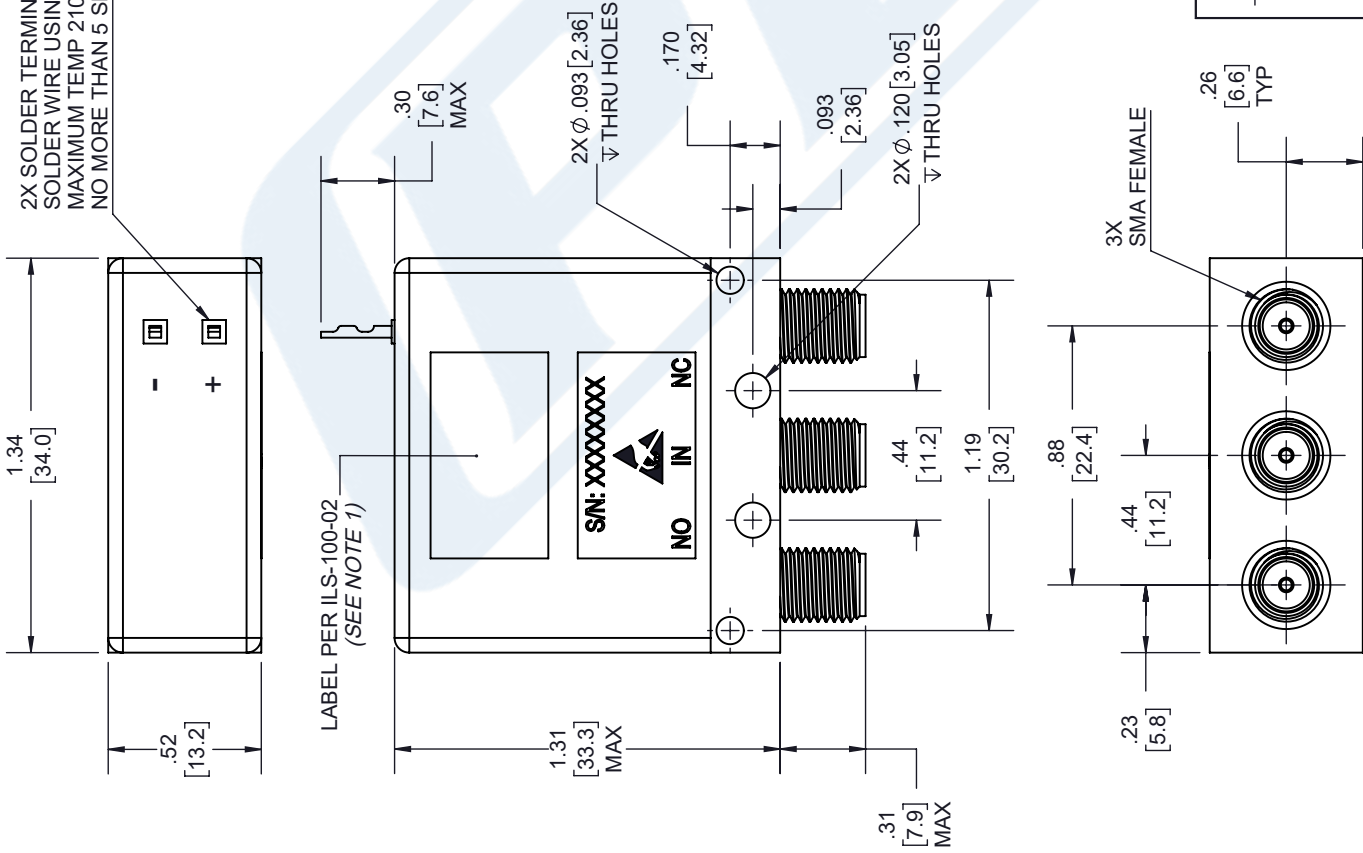
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such 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.

PE71S6419 CAD Drawing

SPDT Electromechanical Relay Failsafe Switch, DC to 26.5 GHz, 90W, 28V, SMA

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	9/25/2020	T.GALLA

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



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

TOLERANCES:
 .X = ± .2 [5.08]
 .XX = ± .02 [.51]
 .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.

PASTERNAK
an INFINITE 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

THE INFORMATION AND
DESIGN IN THIS DOCUMENT
IS THE PROPERTY OF
PASTERNAK CORPORATION
ALL RIGHTS RESERVED.

SHEET 1 OF 1

SCALE N/A

REV A

ITEM NO. PE71S6419

DRAWN BY K.DANG

CAGE CODE 53919

SIZE A

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

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.