



SPDT Electromechanical Relay Latching Switch,  
Terminated, DC to 18 GHz, up to 240W, 28V, TTL, SMA

## Electromechanical Relay Switches Technical Data Sheet

PE71S6063

### Features

- Single Pole Double Throw Terminated Relay Switch
- DC to 18 GHz Frequency Range
- 2M Cycle Min Operating Life
- 100 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 0.5 dB Max
- VSWR 1.5:1 Max

### Applications

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

### Description

The PE71S6063 is a Terminated SPDT Electromechanical Relay Switch that operates from DC to 18 GHz and can handle up to 240 Watts of CW input power in a Break Before Make condition. The design features a Latching Actuator with Terminations, TTL Logic and is rated for 2M 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. 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	SPDT, Terminated
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	TTL Logic
Polarity	Negative Common
TTL Control	on: 2.2 to 5.5 Volts off: 0 to 0.8 Volts
TTL Control Current	0.8 mA at 5.5 Volts 0.02 mA at 0.8 Volts

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Set Current @ 28 Volts		160		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW)			100	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: [SPDT Electromechanical Relay Latching Switch, Terminated, DC to 18 GHz, up to 240W, 28V, TTL, SMA PE71S6063](#)



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### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3	3 to 8	8 to 12.4	12.4 to 18		GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1		
Insertion Loss, Max	0.2	0.3	0.4	0.5		dB
Isolation, Min	80	70	60	60		dB
Input Power, Max (CW)	240	150	120	100		Watts

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

### Mechanical Specifications

#### Size

Length	2.19 in [55.63 mm]
Width/Diameter	1.87 in [47.5 mm]
Height	0.56 in [14.22 mm]
Weight	0.22 lbs [99.79 g]
Package Type	Connectorized
Operating Life	2,000,000 Cycles

#### Connectors

RF Connector Type	SMA Female
RF Connector Specification	MIL C 39012
Control Connector	Solder Pin

Mechanical Specification Notes:  
Solder Pins: 250°C max/30sec.

### Environmental Specifications

#### Temperature

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

Construction  
Shock

Splashproof  
MIL-STD-202, Method 213B, Cond.C

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Vibration  
ESD Sensitivity



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

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

### Plotted and Other Data

Notes:

- Values shown are typical at 25°C.

MIL-STD-202, Method 204D, Cond.D  
ESD Sensitive Material. Transport material in approved  
ESD bags. Handle in approved ESD Workstation.

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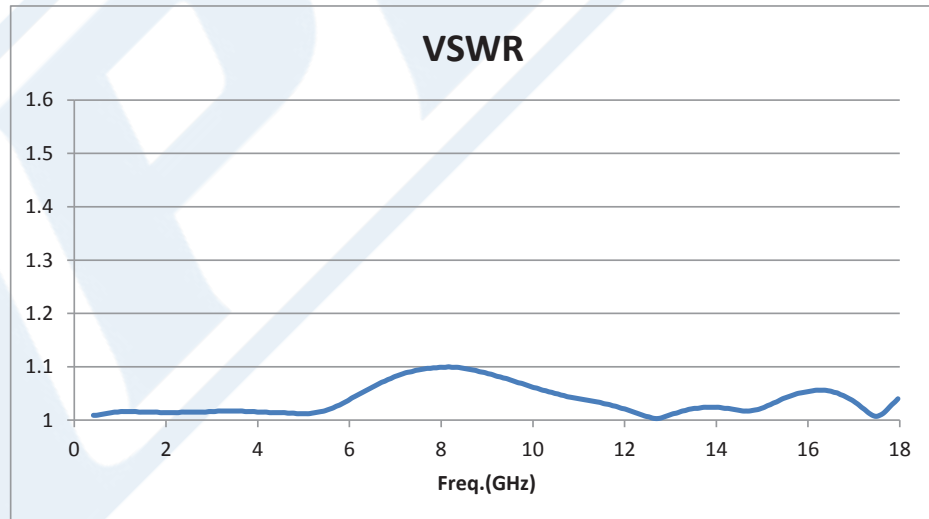
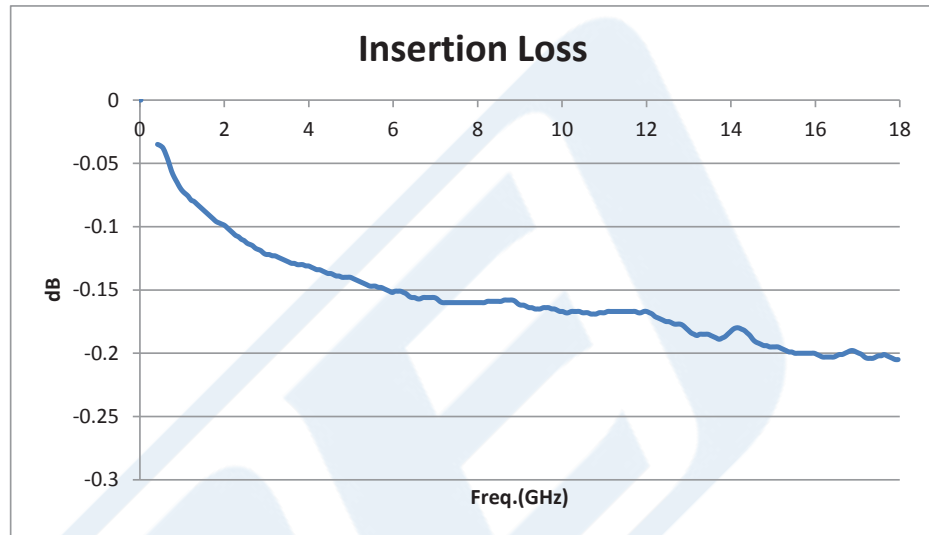


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Electromechanical Relay Switches Technical Data

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Typical Performance Data



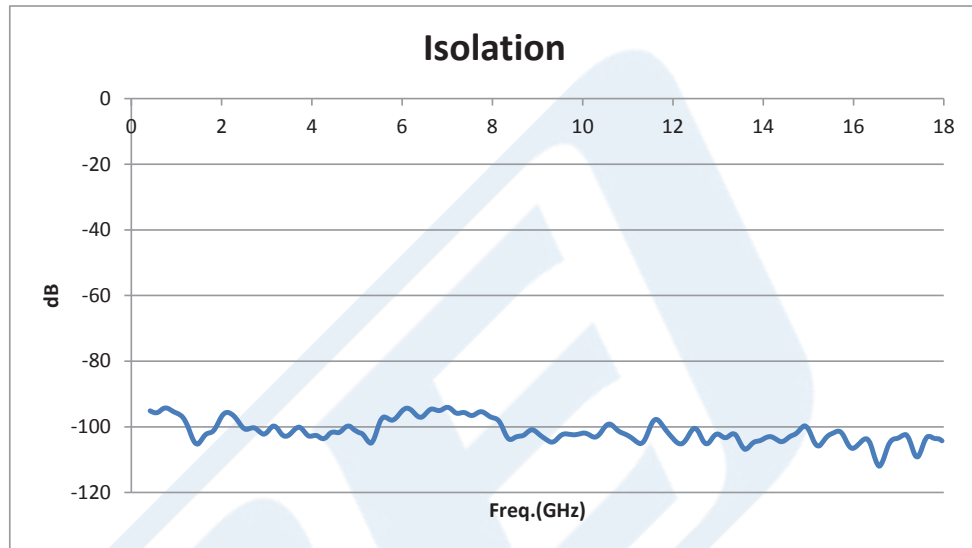
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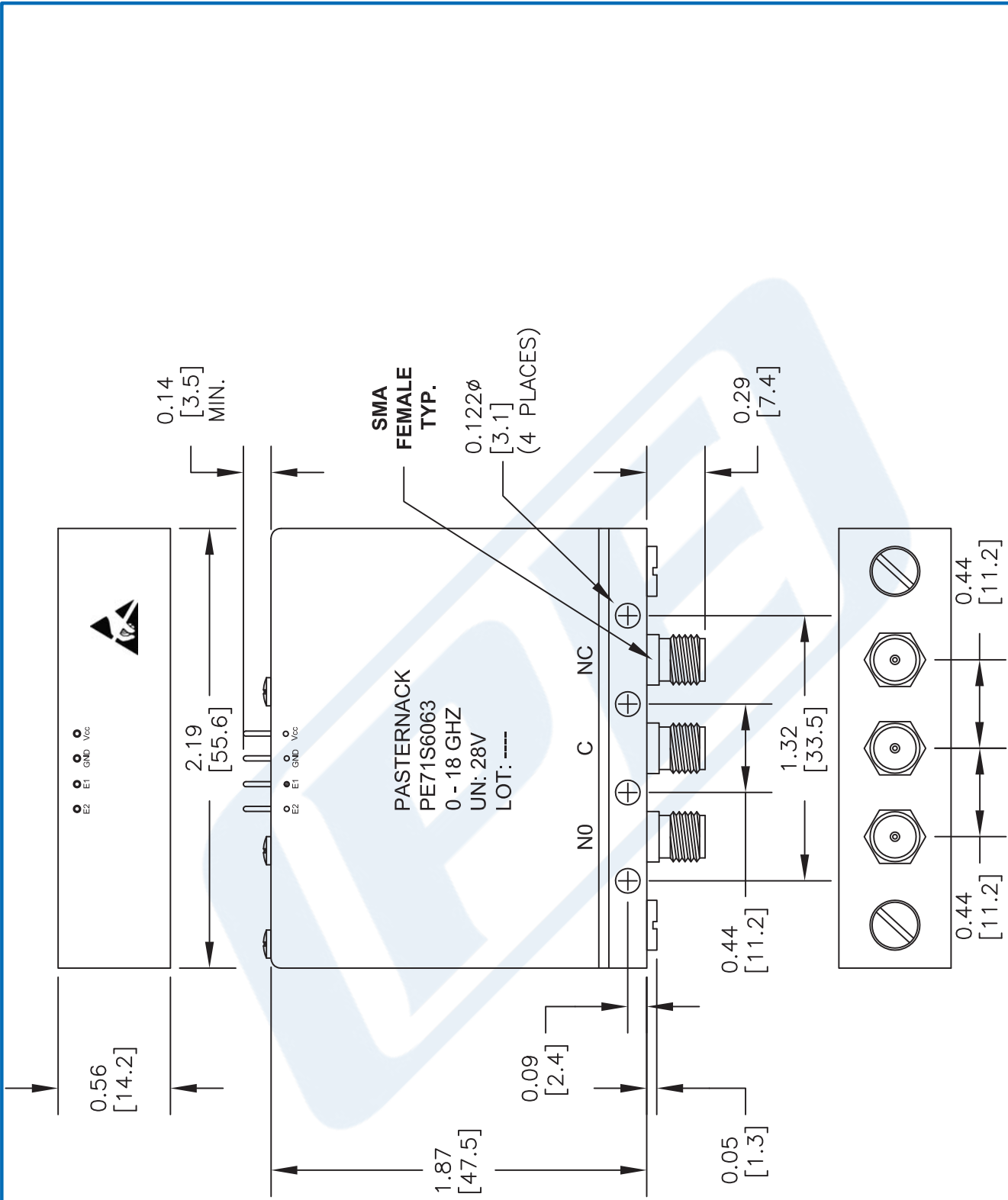
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# PE71S6063 CAD Drawing

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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  
**PE71S6063**

FSCM NO. 53919

CAD FILE 081514

SCALE N/A

SIZE A

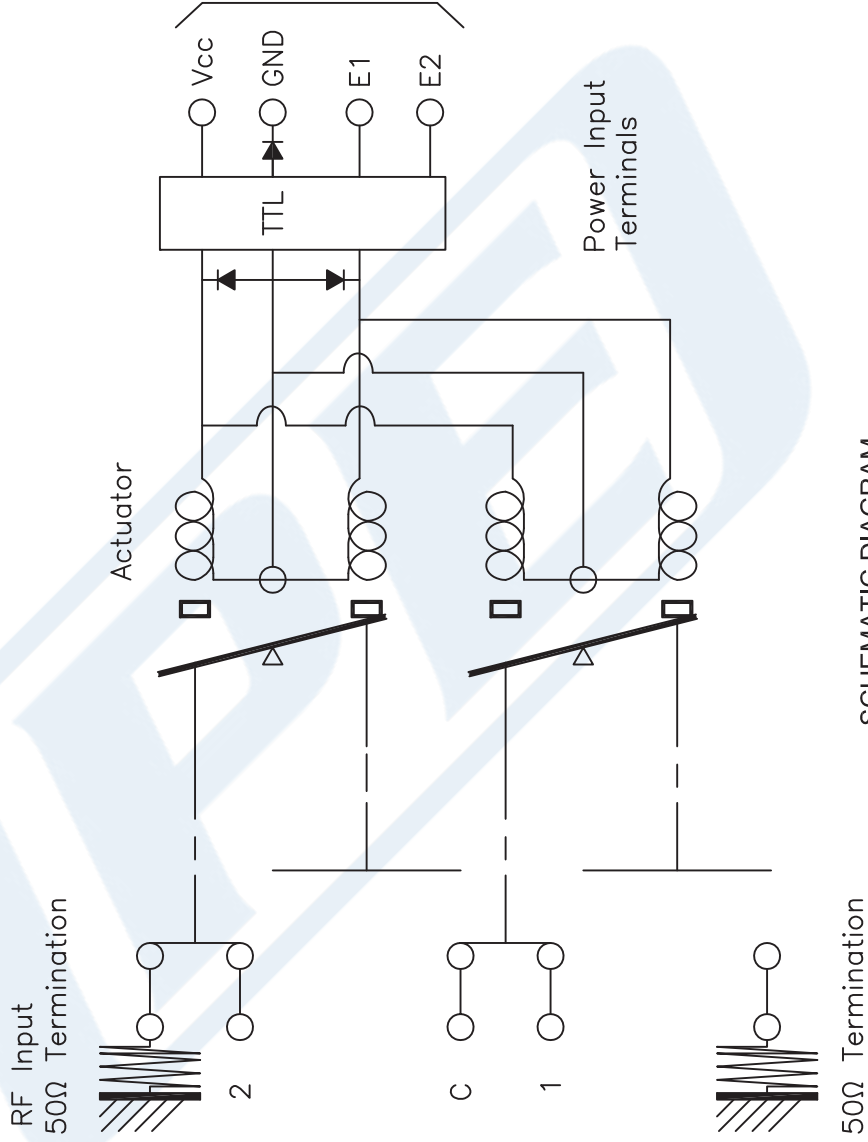
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# PE71S6063 CAD Drawing

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Voltage	RF Continuity
E1=1   E2=0	C ↔ 1 / 2 ↔ 50Ω
E1=0   E2=1	C ↔ 2 / 1 ↔ 50Ω
E1=0   E2=0	Memory
E1=1   E2=1	Forbidden



SCHEMATIC DIAGRAM

DWG TITLE

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