

## Transfer Electromechanical Relay Latching Switch, DC to 12 GHz, up to 200W, 28V, Self Cut Off, Diodes, N, 5M Lifecycles



### PE71S6635

#### Features

- Transfer Switch
- DC to 12 GHz Frequency Range
- Isolation greater than 60 dB minimum
- 5M Cycle Min Operating Life
- +28 Volt DC
- 200 Watt Average Power
- Latching Self Cut Off Actuator
- -25 to +65°C Operating Temperature
- Insertion Loss as low as 0.7 dB Max
- VSWR as low as 1.7:1 max
- N-Type Female RF connectors
- Solder Terminals for DC Control
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request

#### Applications

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

#### Description

The PE71S6635 is a Transfer electromechanical relay switch that operates across a wide frequency range of DC to 12 GHz and can handle up to 200 Watts of CW input power in a break before make condition. The 50 Ohm design is rated for 5M life cycles for high reliability operation and features a Latching Self Cut Off actuator, which maintains its position without continuous power, reducing power consumption and ensuring stable operation even during power loss. Additional features include suppression diodes which limit voltage spikes or reverse current. Impressive performance includes insertion loss less than 0.7 dB maximum and isolation greater than 60 dB minimum. The Latching actuator requires +28 Vdc 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 (TA = +25°C, DC Voltage = 28 Vdc)

Switch Type	Transfer
Actuator Type	Latching
Switching Sequence	Make Before Break
Actuator Options	Self Cut Off, Diodes

Description	Min	Typ	Max	Units
Frequency Range	DC		12	GHz
Impedance		50		Ohms
Operating Voltage		28		Volts
Actuating Current @ 28 Volts			250	mA
250mA max @ 28Vdc and 20°C				
VSWR			1.7:1	
Insertion Loss			0.7	
Isolation	60			dB

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Description	Min	Typ	Max	Units
Input Power (CW) (Average Power for Cold Switching (Reference RF Power Rating Table for Cold Switching))		200		Watts
Switching Time		20		ms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 1	1 to 4	4 to 12			GHz
VSWR, Max	1.25:1	1.3:1	1.7:1			
Insertion Loss, Max	0.2	0.3	0.7			dB
Isolation, Min	70	70	60			dB

### Mechanical Specifications

#### Size

Length	2.52 in [64.01 mm]
Width/Diameter	3.12 in [79.25 mm]
Height	1.75 in [44.45 mm]
Weight	0.1 lbs [45.36 g]
Finish	Electroless Nickel
Package Type	Connectorized
Operating Life	5,000,000 Cycles

#### Connectors

RF Connector Type	N Female
Control Connector	Solder Terminals

### Environmental Specifications

#### Temperature

Operating Range	-25 to +65 deg C
Shock	MIL-STD-202 Method 213, Condition D (500G Non Operating)
Vibration	MIL-STD-202 Method 214, Condition D (100G RMS Non Operating)

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

### Plotted and Other Data

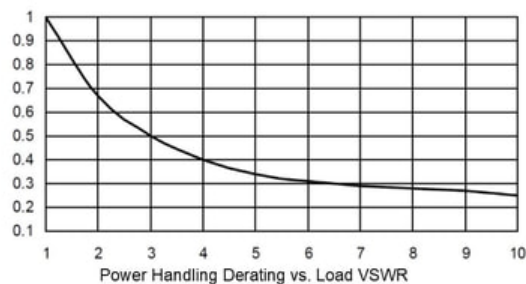
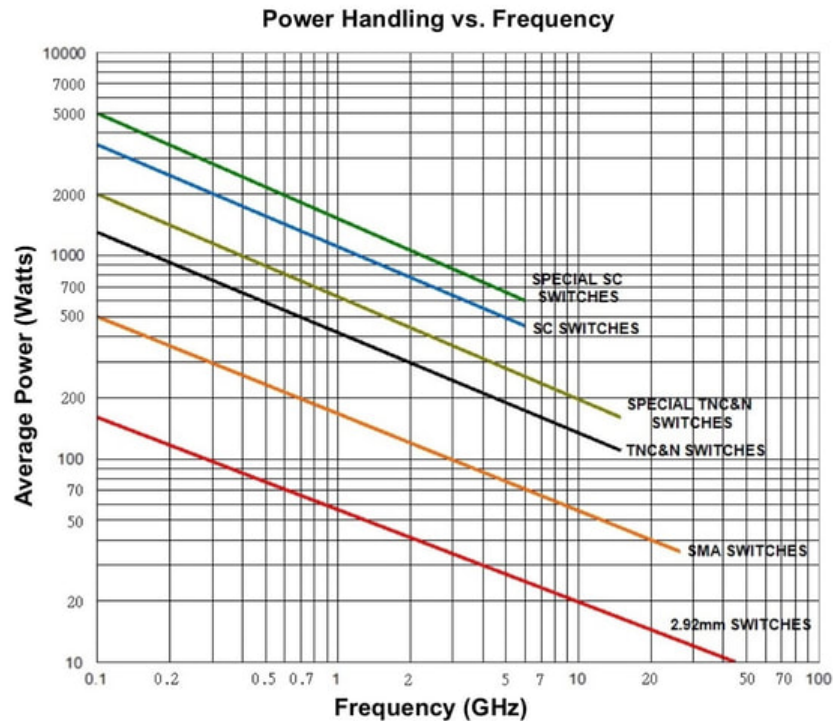
Notes:

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#### Typical Performance Data



Power handling chart and derating curves based on the following conditions:

- Ambient temperature: 40°C or less
- Altitude: Sea level
- Load VSWR: 1.20:1 Maximum
- Relative Humidity: 40-50%
- Cold switching: RF signal off

Note: specifications subject to change without notice

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Transfer Electromechanical Relay Latching Switch, DC to 12 GHz, up to 200W, 28V, Self Cut Off, Diodes, N, 5M Lifecycles 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: [Transfer Electromechanical Relay Latching Switch, DC to 12 GHz, up to 200W, 28V, Self Cut Off, Diodes, N, 5M Lifecycles PE71S6635](https://www.pasternack.com/transfer-electromechanical-relay-latching-switch-12-ghz-28v-diodes-n-pe71s6635-p.aspx)

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# PE71S6635 CAD Drawing

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