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Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, 2M Lifecycles, N, 160 Watts, 28V, Self Cut Off, Diodes, Solder Pins

Electromechanical Relay Switches Technical Data Sheet PE71S6497

Features

- Transfer Electromechanical Relay Switch
- DC to 12 GHz Frequency Range
- Latching Self Cut-Off Actuator
- Suppression Diodes
- 2M Lifecycle Rating
- Insertion Loss 0.2 dB typ
- Isolation > 70 dB typ
- VSWR as low as 1.25:1 max
- +28 Volt DC Bias
- Solder Terminal Pins for DC Control
- N Type Female Connectors
- -25°C to +65°C Operating Temperature
- Up to 160 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 PE71S6497 is a Transfer electromechanical relay switch that operates across a wide frequency range from DC to 12 GHz and can handle up to 160W of average power in a break before make condition. The 50 Ohm design is rated for 2 million lifecycles and features a Latching Self Cut-Off Actuator that magnetically latches in place after the control voltage is removed. For power sensitive applications, this is the best actuator option. An additional feature includes suppression diodes which limit voltage spikes or reverse current. Impressive typical performance includes 0.2 dB insertion loss and isolation greater than 70 dB. This switch requires +28 Vdc bias voltage and operates over a temperature range of -25°C to +65°C. The rugged and compact package assembly supports N type female connectors and Solder Pins for all 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
Actuator Options	Self Cut Off
TTL Control	on: 2.4 to 5.5 Volts off: 0 to 0.8 Volts

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		12.4	GHz
Operating Voltage		+28		Volts
Actuating Set Current @ +28 Volts			250	mA
VSWR		1.3:1	1.7:1	
Insertion Loss		0.2	0.7	dB
Isolation	60	70		dB
Input Power (CW)			160	Watts

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 12.4 GHz, 2M Lifecycles, N, 160 Watts, 28V, Self Cut Off, Diodes, Solder Pins PE71S6497

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Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
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(at 12.4 GHz)

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]

Connectors

RF Connector Type	N Female

Environmental Specifications

Temperature

Operating Range	-25 to +65 deg C
Storage Range	-55 to +100 deg C
Shock	MIL-STD-202 Method 213, Condition D, 500G (non oper)
Vibration	MIL-STD-202 Method 204, Condition D, 10G RMS (non oper)

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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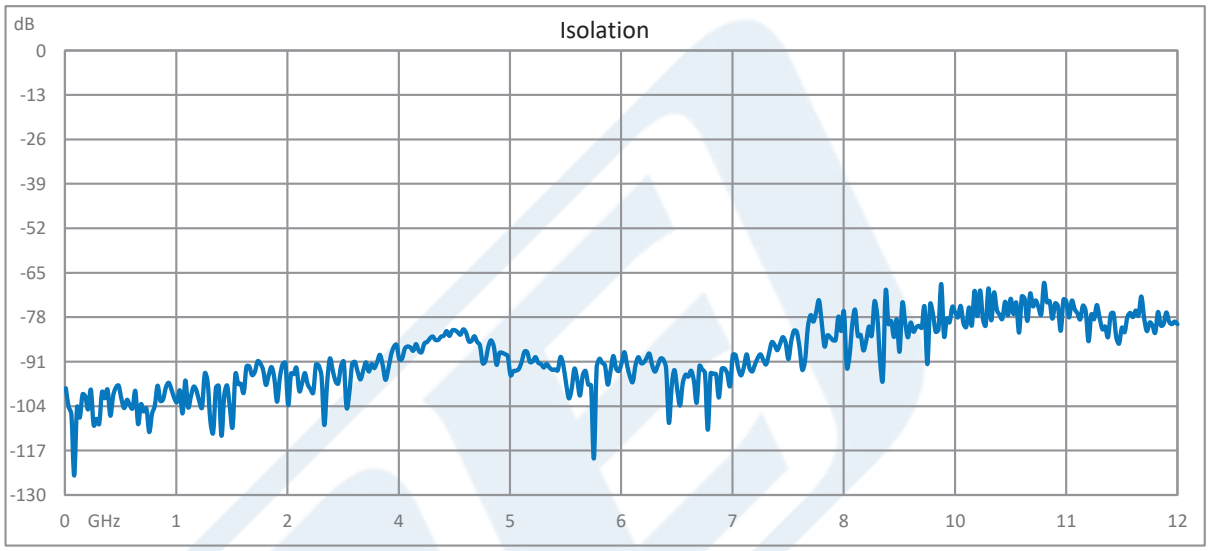
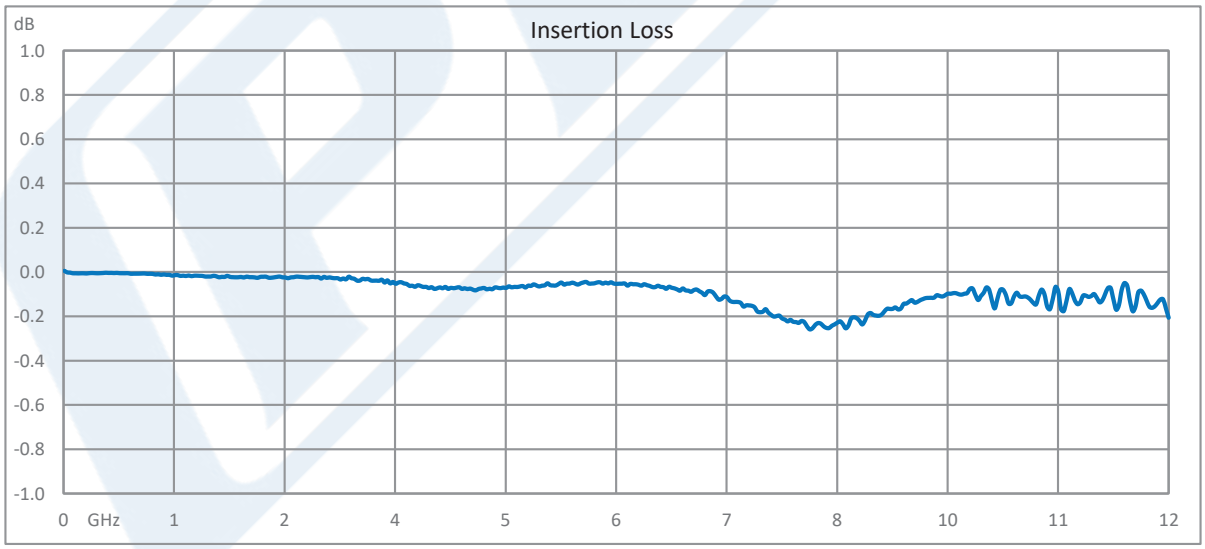
Typical Performance Data





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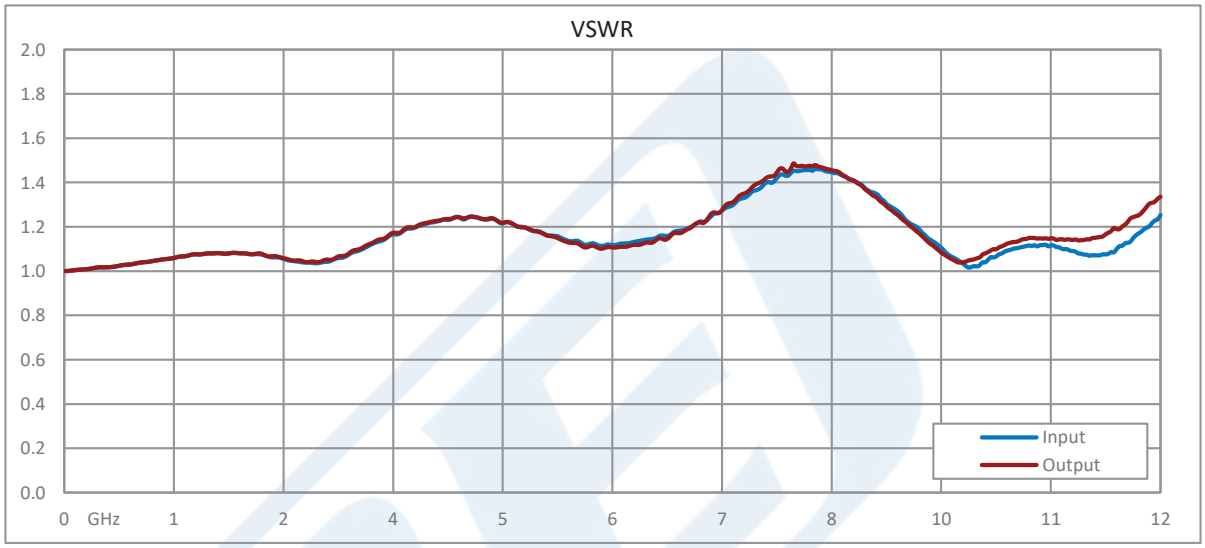

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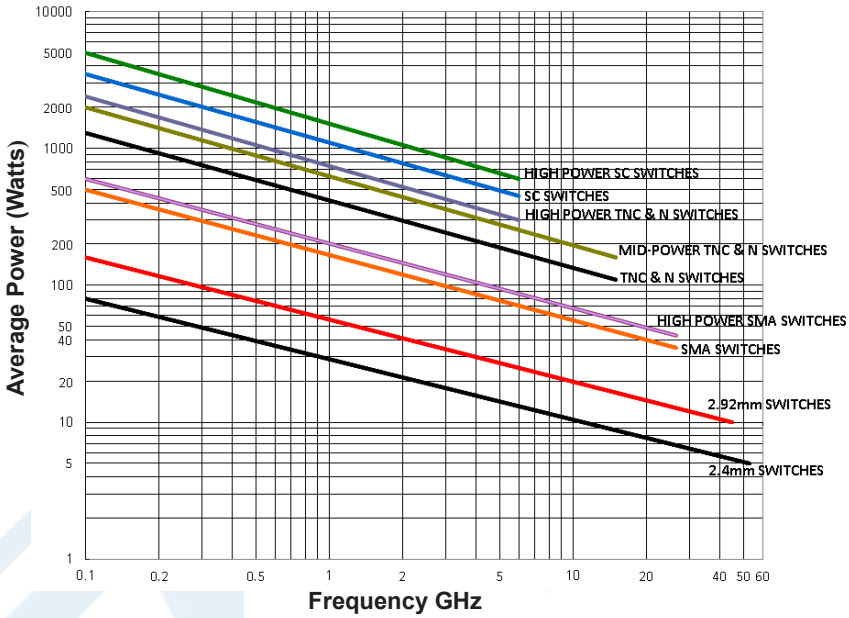
Power Handling vs. Frequency



Power Handling De-rating vs. Load VSWR

Power Handling Chart and Derating Curves based
on the following Test and Environmental Conditions:
Ambient temperature: 20-25°C
Altitude: Sea Level to 1,000 feet
Relative Humidity: 50-55%
Load VSWR: ≤ 1.20:1
Operation: Cold Switching

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URL: https://www.pasternack.com/transfer-electromechanical-relay-latching-switch-12.4-ghz-160w-28v-n-pe71s6497-p.aspx

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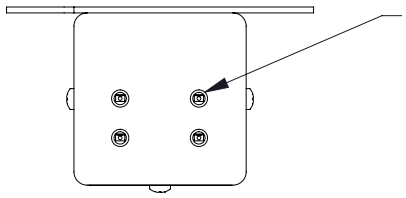
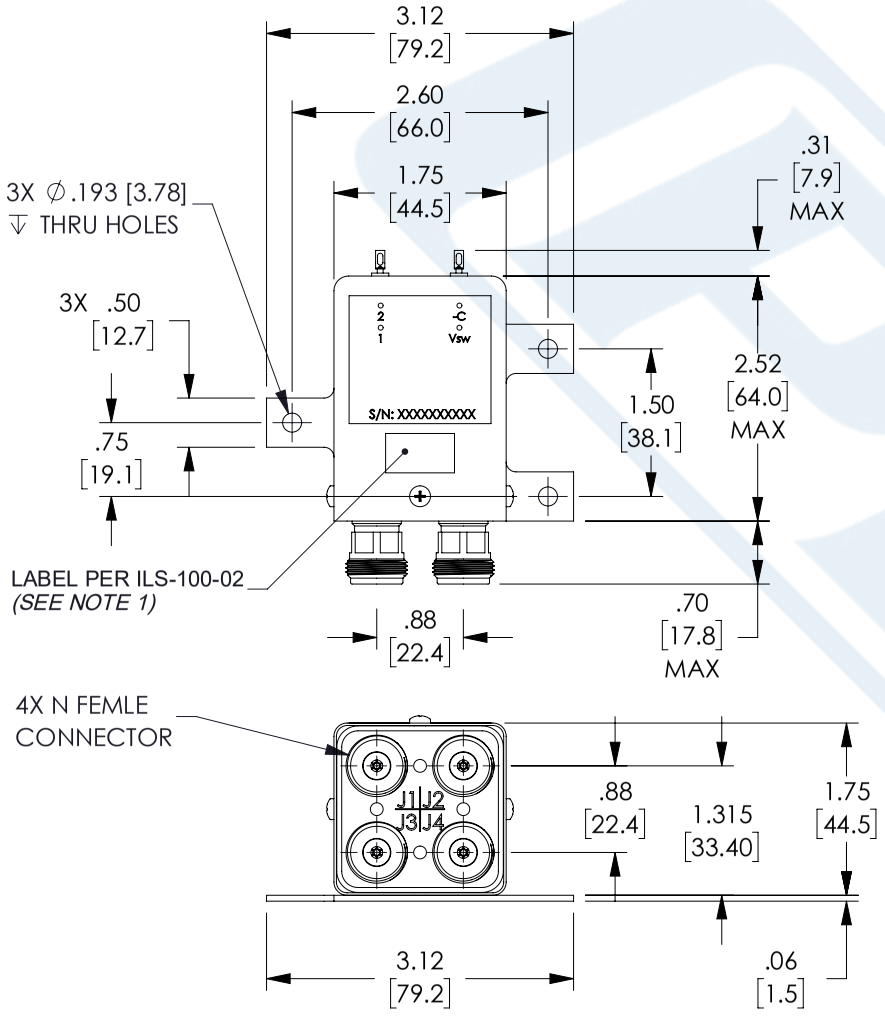
PE71S6497 CAD Drawing

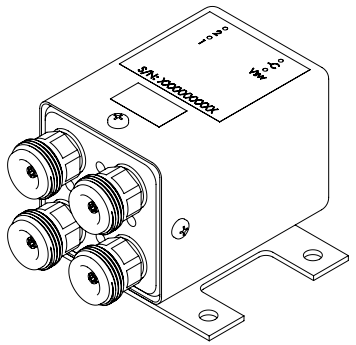
Transfer Electromechanical Relay Latching Switch DC to 12.4 GHz, 2M Lifecycles, N, 160 Watts, 28V, Self Cut Off, Diodes, Solder Pins

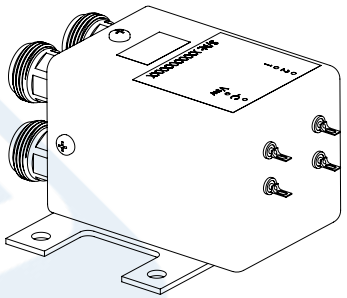
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	05/17/2022	T.GALLA



4X SOLDER TERMINALS,
SOLDER WIRE USING SN96,
MAXIMUM TEMP 250°C FOR
NO MORE THAN 5 SEC.







NOTES:

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

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

TOLERANCES:

.X = ± .2 [5.08] | FRACTIONS ± 1/32
.XX = ± .02 [.51] | ANGLES ± 1°
.XXX = ± .005 [.13]

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%L / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

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THIRD-ANGLE PROJECTION

SHEET 1 OF 2

SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	KGLEBOVA	PE71S6497	A

PE71S6497 CAD Drawing

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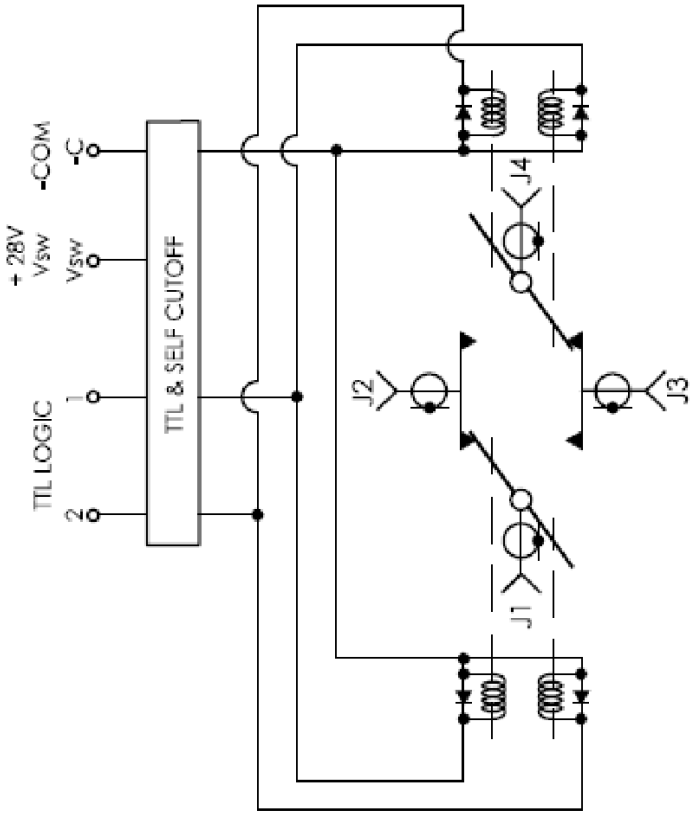
OPERATIONAL LOGIC TABLE		
TERMINALS		RF PORTS
1	2	
0	0	NO CHANGE
0	1	J1-J3, J2-J4
1	0	J1-J2, J3-J4
1	1	FORBIDDEN



SCHEMATIC

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SHEET 2 OF 2
SCALE N/A

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