

## SPDT Electromechanical Relay Failsafe Switch DC to 40 GHz, 2M Lifecycles, 2.92mm, 10 Watts, 28V, Indicators, TTL, Diodes, Solder Pins

The FMSW6479 is a Single Pole Double Throw (SP2T) electromechanical relay switch that operates across a wide frequency range from DC to 40 GHz and can handle up to 10W of average power in a break before make condition. The 50 Ohm design is rated for 2 million lifecycles and features a Failsafe Actuator. Additional features include TTL control logic, suppression diodes which limit voltage spikes or reverse current, and indicators to monitor the switch position. Impressive typical performance includes 0.4 dB insertion loss and isolation greater than 85 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 2.92mm female connectors and solder terminal pins for DC command control functions. 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	SPDT
Actuator Type	Failsafe
Actuator Options	Indicators, TTL Logic
TTL Control	on: 2.4 to 5.5 Volts off: 0 to 0.8 Volts

Description	Min	Typ	Max	Units
Frequency Range	DC		40	GHz
Operating Voltage		+28		Volts
Actuating Current @ +28 Volts			90	mA
VSWR		1.3:1	1.5:1	
Insertion Loss		0.4	0.7	dB
Isolation	60	85		dB
Input Power (CW) (at 40 GHz)			10	Watts

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 6	6 - 12.4	12.4 - 18	18 - 26.5	26.5 - 40	GHz
VSWR, Max	1.15:1	1.35:1	1.4:1	1.4:1	1.5:1	
Insertion Loss, Max	0.2	0.3	0.4	0.5	0.7	dB
Isolation, Min	85	80	80	75	60	dB

### Mechanical Specifications

<b>Size</b>	
Length	2.05 in [52.07 mm]
Width/Diameter	1.5 in [38.1 mm]
Height	0.52 in [13.21 mm]
Weight	0.4 lbs [181.44 g]



### Features:

- Single Pole Double Throw (SP2T) Electromechanical Relay Switch
- DC to 40 GHz Frequency Range
- Failsafe Actuator
- TTL Logic Control
- Suppression Diodes
- Indicators
- 2M Lifecycle Rating
- Insertion Loss 0.4 dB typ
- Isolation > 85 dB typ
- VSWR as low as 1.15:1 max
- +28 Volt DC Bias
- Solder Terminal Pins for DC Command Control
- 2.92mm Female Connectors
- -25°C to +65°C Operating Temperature
- Up to 10 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

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**Connectors**

RF Connector Type                      2.92mm Female

**Environmental Specifications**

**Temperature**

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

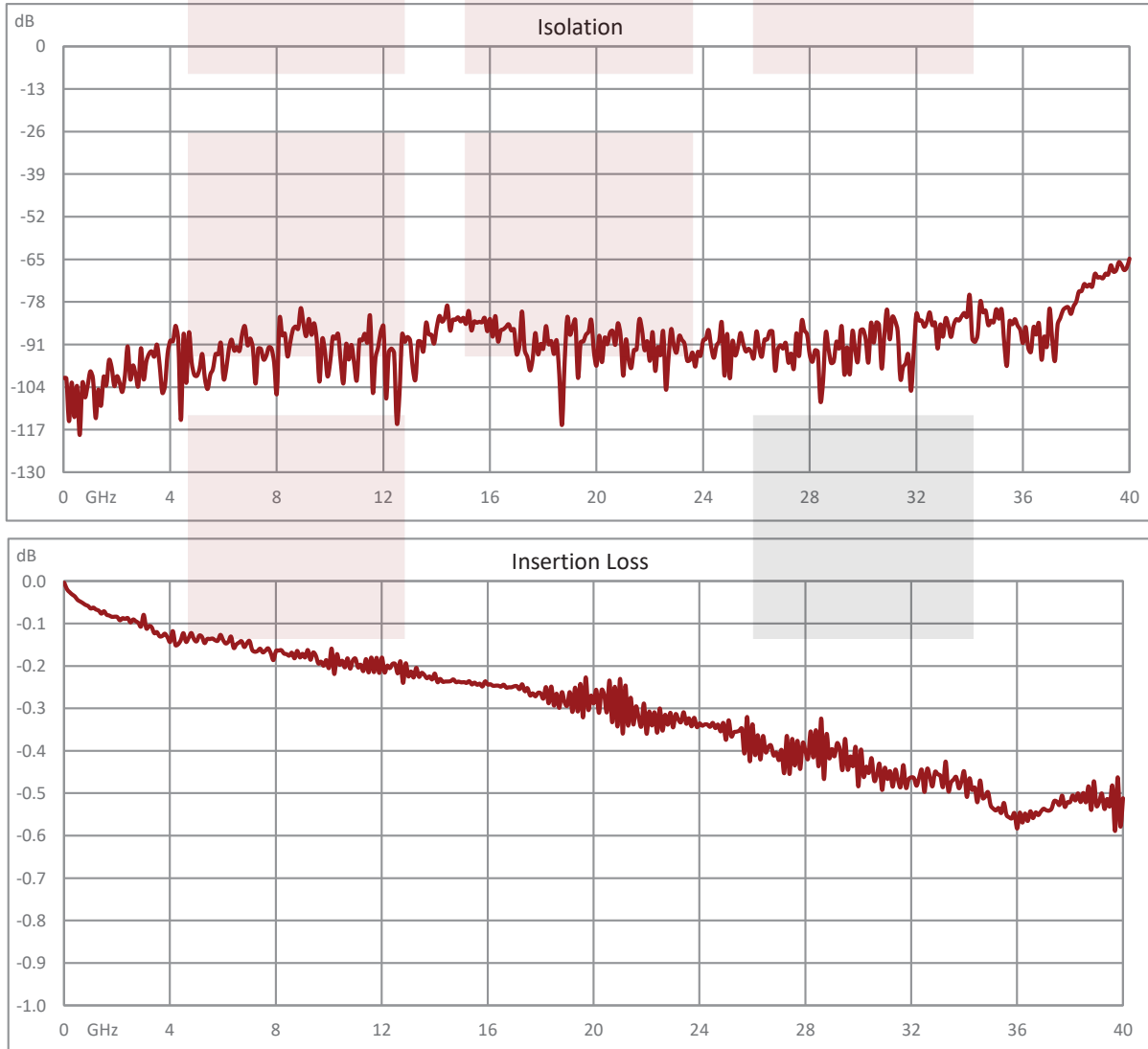
Shock                                      MIL-STD-202 Method 213, Condition D, 500G (non oper)  
Vibration                                MIL-STD-202 Method 204, Condition D, 10G RMS (non oper)

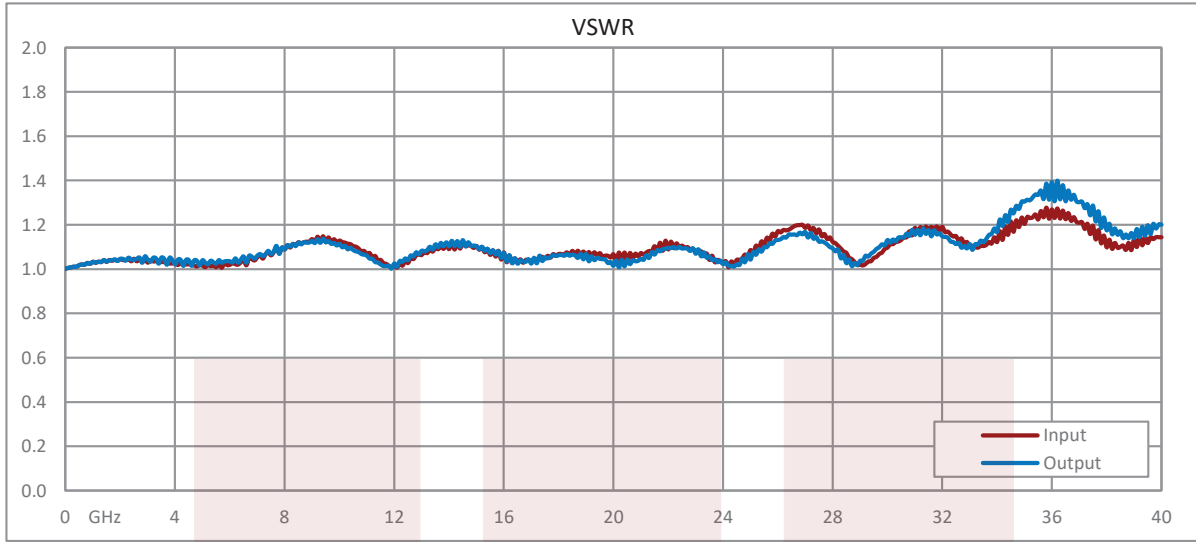
**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

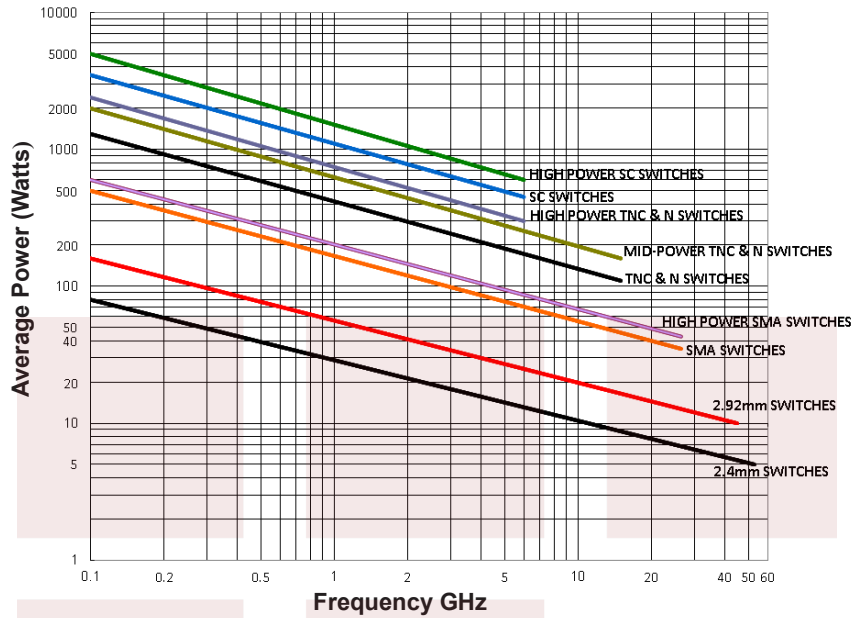
Notes:

**Typical Performance Data**





**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

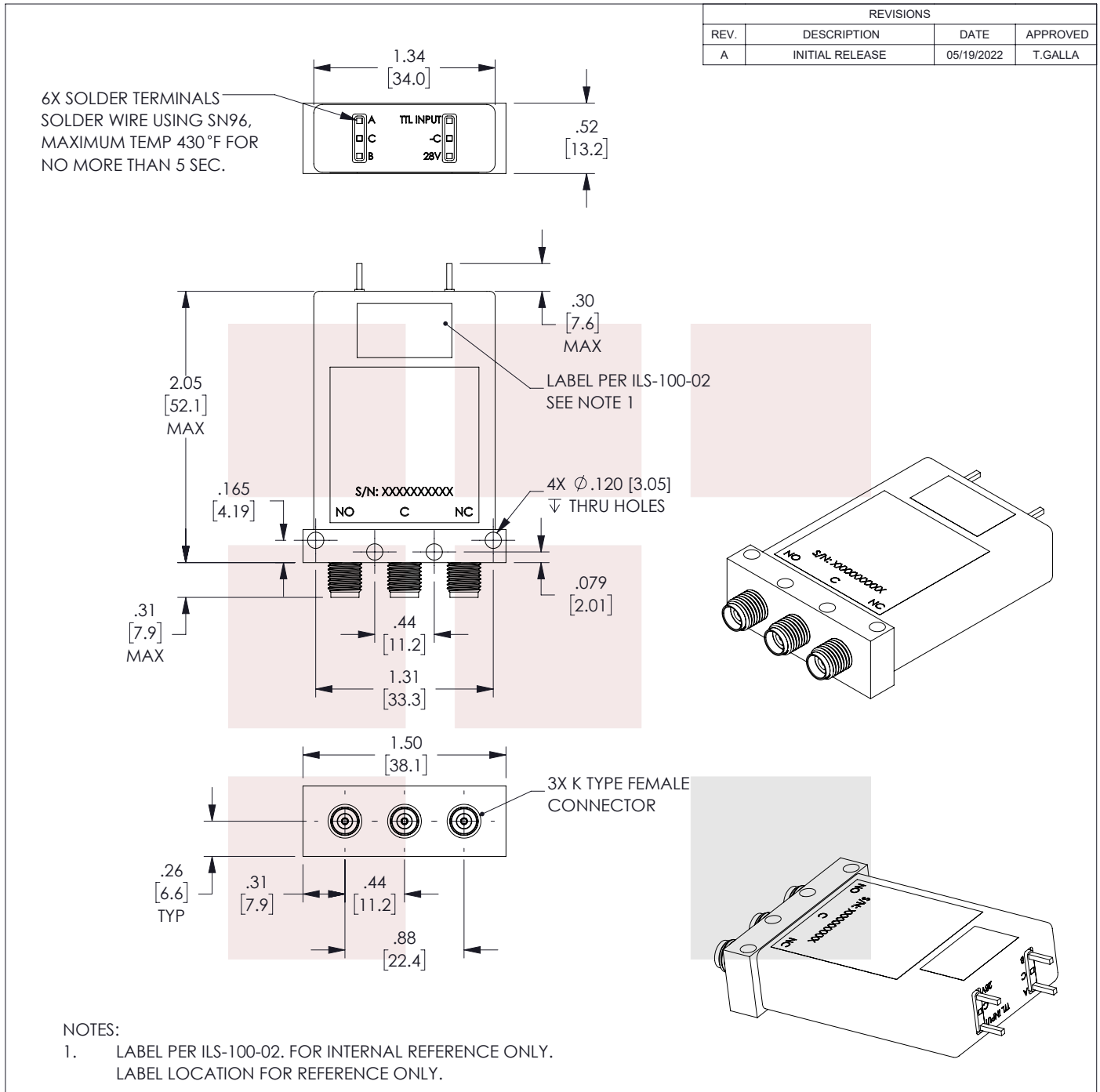
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For additional information on this product, please click the following link: [SPDT Electromechanical Relay Failsafe Switch DC to 40 GHz, 2M Lifecycles, 2.92mm, 10 Watts, 28V, Indicators, TTL, Diodes, Solder Pins FMSW6479](#)



URL: <https://www.fairviewmicrowave.com/spdt-failsafe-40-ghz-electro-mechanical-relay-switch-indicators-10w-28v-2.92mm-fmsw6479-p.aspx>

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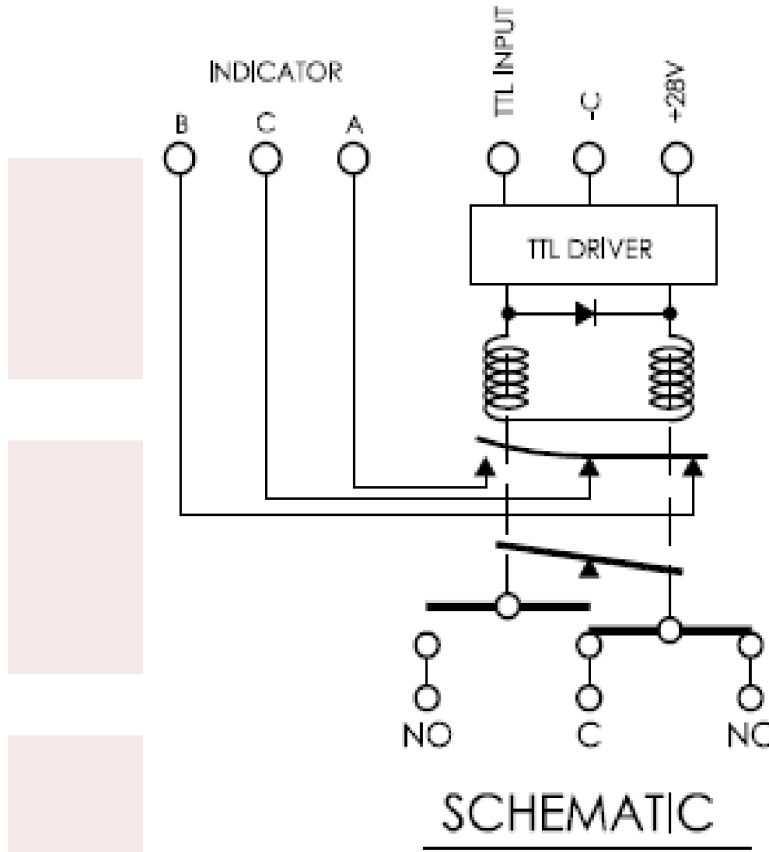




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	.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0	SCALE N/A
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TITLE

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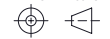
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60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SCALE

N/A

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