

DP3T Latching DC to 18 GHz Electro-Mechanical Relay Switch, Indicators, up to 90W, 28V, SMA

The FMSW6405 is a Double Pole Three Throw (DP3T) electromechanical relay switch that operates across a wide frequency range of DC to 18 GHz and can handle up to 90 Watts of CW input power in a break before make condition. The design features a Latching actuator with 1W Indicators, and is rated for 5M life cycles for high reliability operation. Insertion loss is specified as low as 0.15 dB maximum and Isolation up to 85 dB minimum. Operating voltage is +28 V and performance is guaranteed over -25°C to +70°C. The rugged and compact package assembly supports SMA Female connectors and solder pins. The model is guaranteed to meet MIL-STD-202 environmental test conditions for shock and random vibration.



Electrical Specifications

Switch Type	DP3T
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	Indicators
Indicator Rating	1 Watt / 32 Volts / 125 mA

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	26	28	30	Volts
Actuating Set Current @ 28 Volts		90		mA
VSWR		1.2:1	1.4:1	
Insertion Loss		0.15	0.35	dB
Isolation	65	85		dB
Input Power (CW)			60	Watts
Switching Time			20	ms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 6	6 - 12	12 - 18			GHz
VSWR, Max	1.2:1	1.3:1	1.4:1			
Insertion Loss, Max	0.15	0.25	0.35			dB
Isolation, Min	85	70	65			dB
Power In, Typ (CW)	90	75	60			Watts

Mechanical Specifications

Size	
Body Material and Plating	Aluminum
Package Type	Connectorized
Operating Life	5,000,000 Cycles

Features:

- Double Pole Three Throw
- DC to 18 GHz Frequency Range
- Isolation greater than 85 dB typical
- 5M Cycle Min Operating Life
- +28 Volt DC
- 90 Watt average Power
- Latching Actuator
- 1 Watt Indicators
- -25 to +70°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 Pins 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

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Connectors

RF Connector Type	SMA Female
RF Connector Contact Material & Plating	Beryllium Copper, Gold
RF Connector Body Material & Plating	Aluminum, Nickel
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-25 to +70 deg C
Storage Range	-55 to +100 deg C

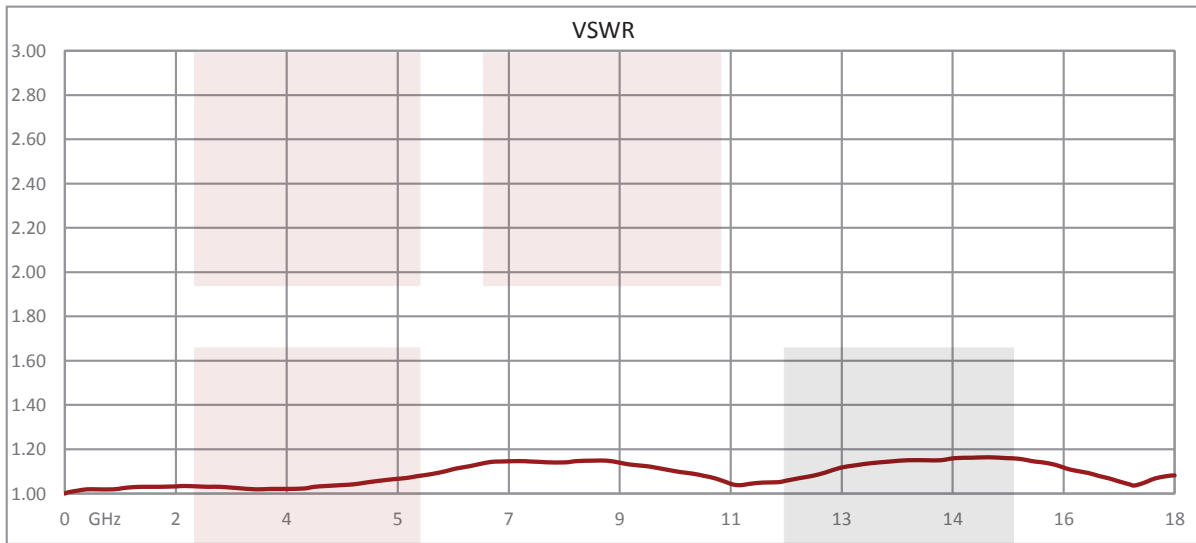
Shock	MIL-STD-202 Method 213, Cond. D 500G Non Operating
Vibration	MIL-STD-202 Method 214, Cond. D 10G RMS Non Operating

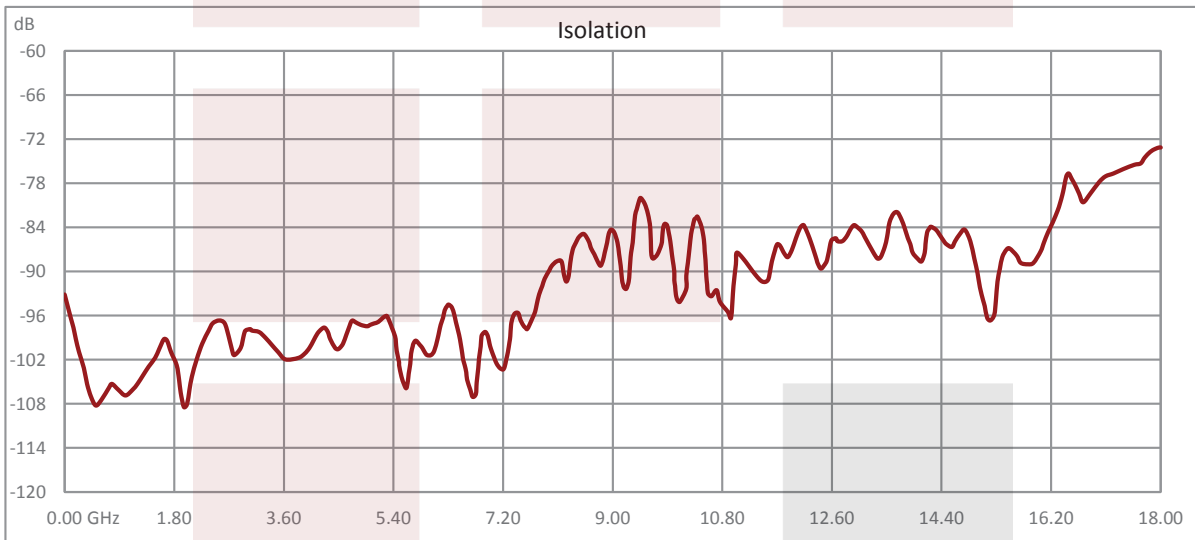
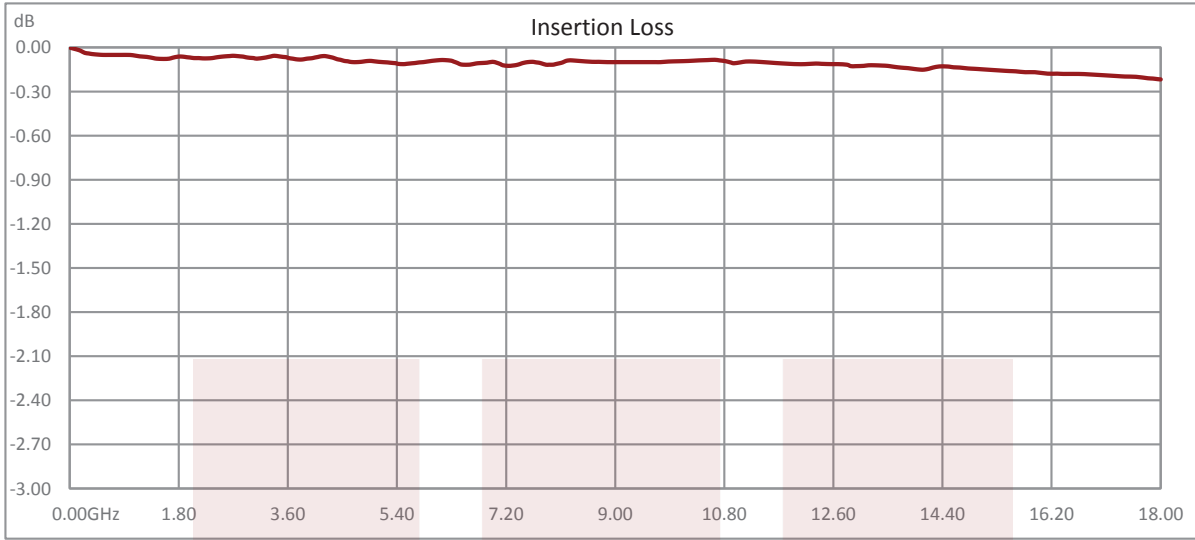
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

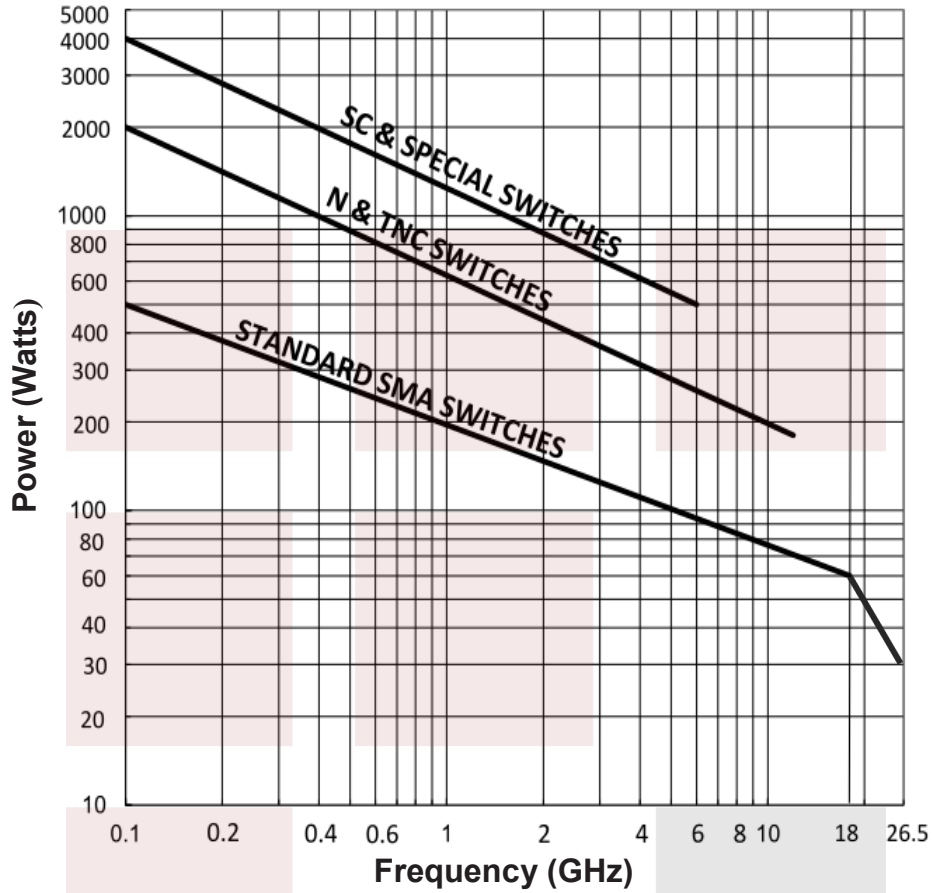
Notes:

Typical Performance Data





Power Handling vs. Frequency & Connector Type



Environmental and Test Conditions:

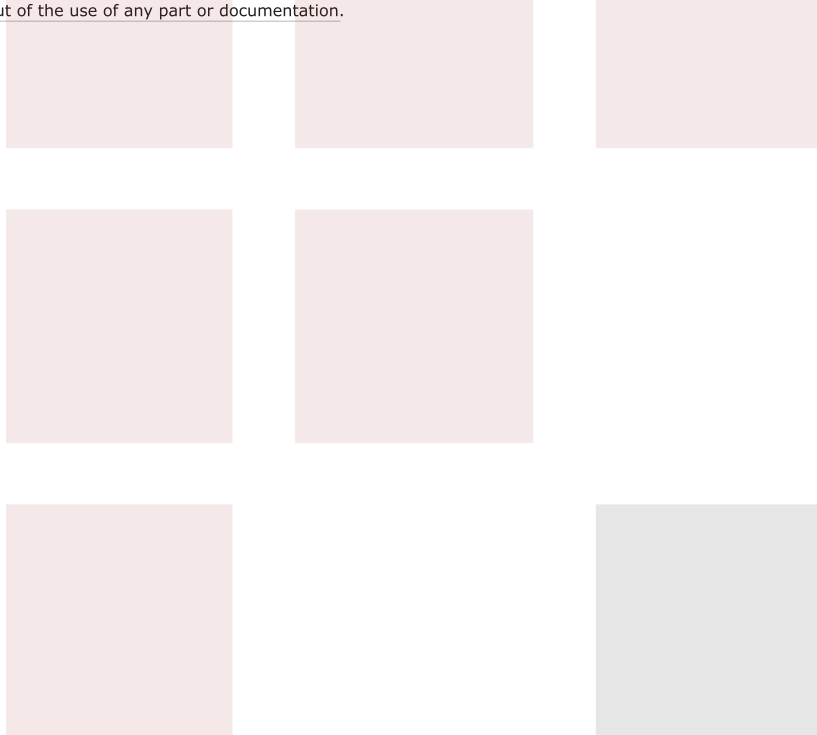
- Ambient temperature of 25°C or less
- Altitude: Sea Level
- Load VSWR: 1.20:1 max.
- Cold Switching

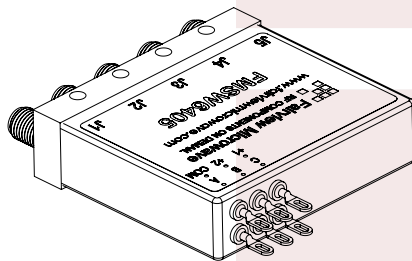
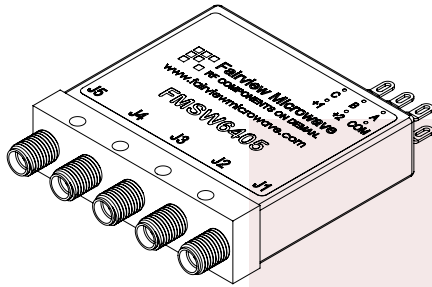
DP3T Latching DC to 18 GHz Electro-Mechanical Relay Switch, Indicators, up to 90W, 28V, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [DP3T Latching DC to 18 GHz Electro-Mechanical Relay Switch, Indicators, up to 90W, 28V, SMA FMSW6405](#)

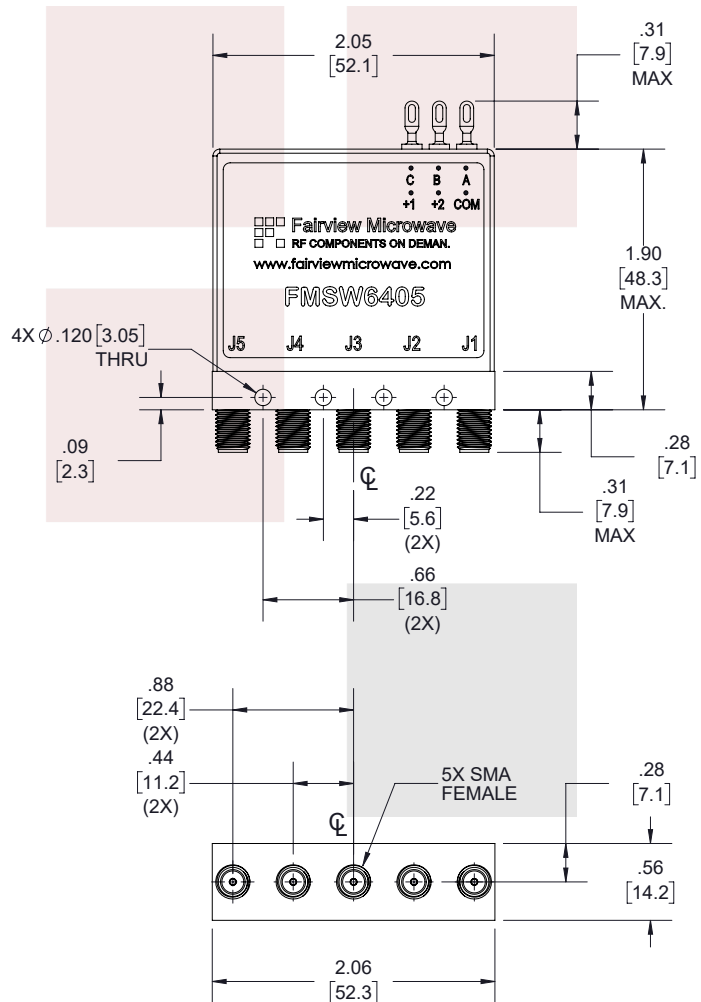
URL: <https://www.fairviewmicrowave.com/dp3t-latching-18-ghz-electro-mechanical-relay-switch-indicators-60w-28v-sma-fmsw6405-p.aspx>

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6X SOLDER WIRE TO D.C. TERMINALS
FOR ALL RoHS SWITCH
WE WILL USE SN96,
MAXIMUM TEMP 430 °C FOR
NO MORE THAN 5 SEC.



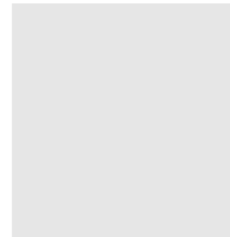
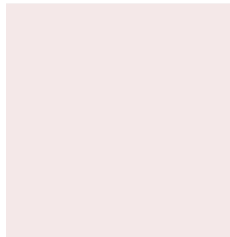
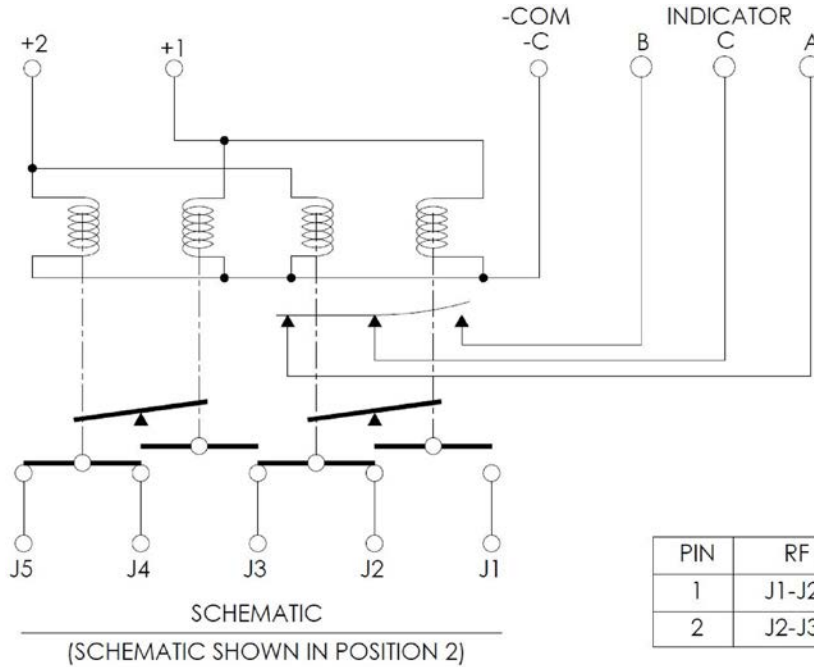
STANDARD TOLERANCES

.X ±0.2
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES

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].

TITLE	DWG NO	CAGE CODE	
DP3T Latching DC to 18 GHz Electro-Mechanical Relay Switch, Indicators, up to 90W, 28V, SMA	FMSW6405	3FKR5	
	CAD FILE	SHEET	SCALE
09/24/19	1 OF 2	N/A	SIZE A
			7361



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- .X ±0.2
- .XX ±0.01
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