

SP4T Latching Electro-Mechanical Relay Switch From DC to 40 GHz, 3 Watts with Self Cut Off, TTL, Indicators, Diodes, 2.92mm

The FMSW6319 is an SP4T Terminated Electromechanical Relay Switch that operates over a wide frequency band from DC to 40 GHz and has a rating of 3 Watts input power (CW). Rated for 1M life cycles for high reliability operation, this design uses a Latching Actuator with a break before make configuration, internal terminations, self cut off circuitry, TTL logic driver, position indicators and suppression diodes. The switch exhibits exceptional electrical performance specified from 0.2 dB max for insertion loss and 70 dB min for isolation, and guaranteed over -35°C to +85°C with an operating voltage of +12Vdc. External connectors include solder terminals and 2.92mm female connectors.

Electrical Specifications

Switch Type	SP4T, Absorptive
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Self Cut Off, TTL Logic, Indicators, Diodes
TTL Control	on: 2.4 to 5 Volts off: 0 to 0.8 Volts

Description	Min	Typ	Max	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Operating Voltage	10.8	12	13.2	Volts
Actuating Current @ 12 Volts			480	mA
VSWR			2:1	
Insertion Loss			1	dB
Isolation	50			dB
Input Power (CW) (at 40 GHz)			3	Watts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 6	6 - 12	12 - 18	18 - 26.5	26.5 - 40	GHz
VSWR, Max	1.3:1	1.4:1	1.5:1	1.7:1	2:1	
Insertion Loss, Max	0.2	0.4	0.5	0.7	1	dB
Isolation, Min	70	60	60	55	50	dB

Mechanical Specifications

Size	
Length	2.25 in [57.15 mm]
Width/Diameter	2.25 in [57.15 mm]
Height	2.38 in [60.45 mm]
Body Material and Plating	Aluminum, Nickel
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	15 ms Max



Features:

- Single Pole Four Throw Terminated Relay Switch
- DC to 40 GHz Frequency Range
- 1M Cycle Operating Life Min
- Latching Actuator
- Self Cut Off, TTL Logic Driver, Position Indicators, Suppression Diodes
- Insertion Loss 1 dB max
- Isolation 50 dB min
- 3 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications:

- Test & Measurement
- Military Communication
- Commercial Communication
- Wireless Communications
- SATCOM
- Military Electronic Systems
- RF Test Stations

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Connectors

RF Connector Type	2.92mm Female
RF Connector Contact Material & Plating	Beryllium Copper, Gold
RF Connector Body Material & Plating	Passivated Stainless Steel
Control Connector	Solder Pins

Environmental Specifications

Temperature

Operating Range	-35 to +85 deg C
ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle in approved ESD Workstation.



Environmental Specification Notes:
 Designed to meet MIL-DTL-3930

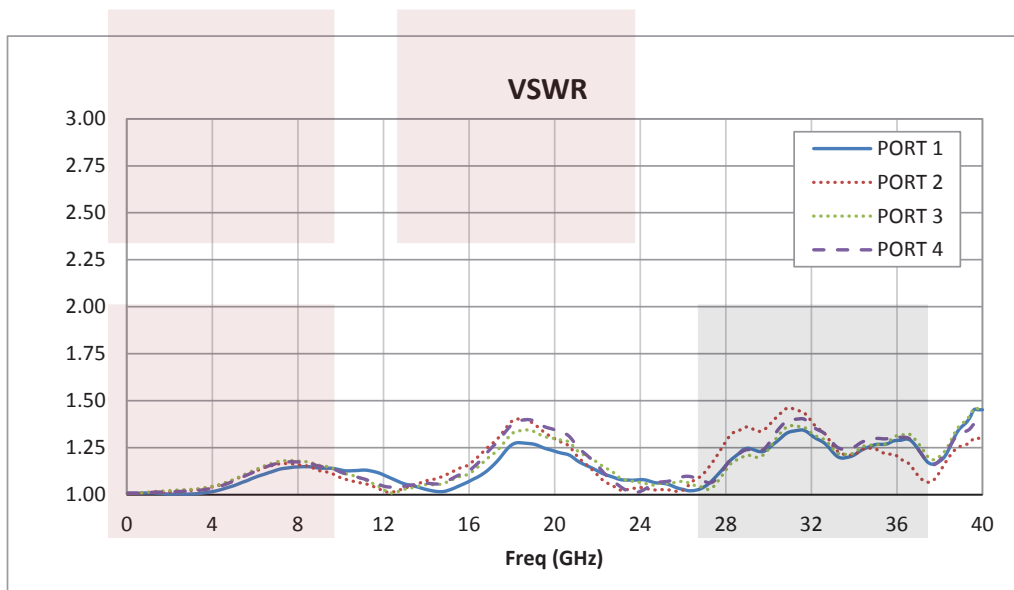
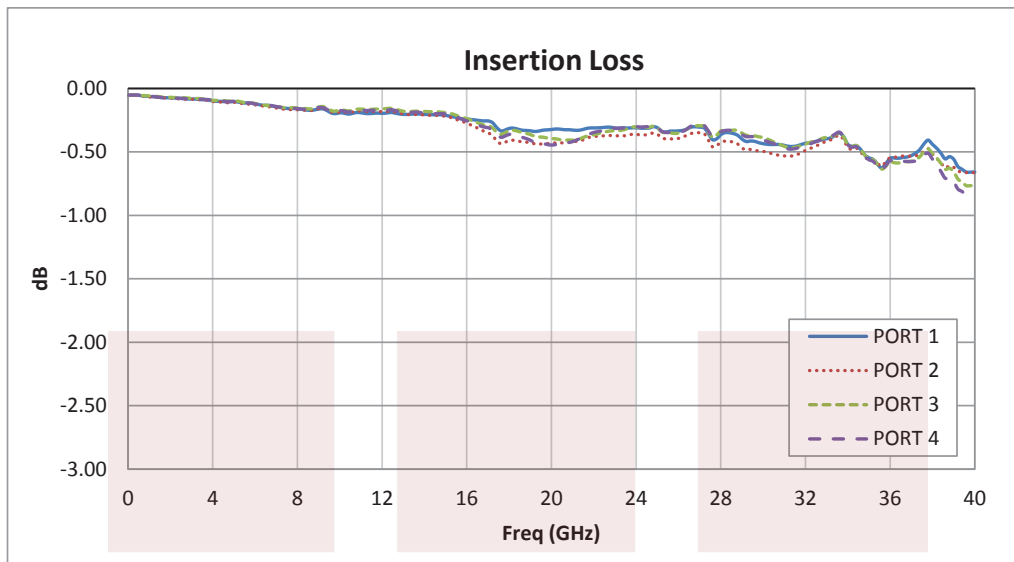
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

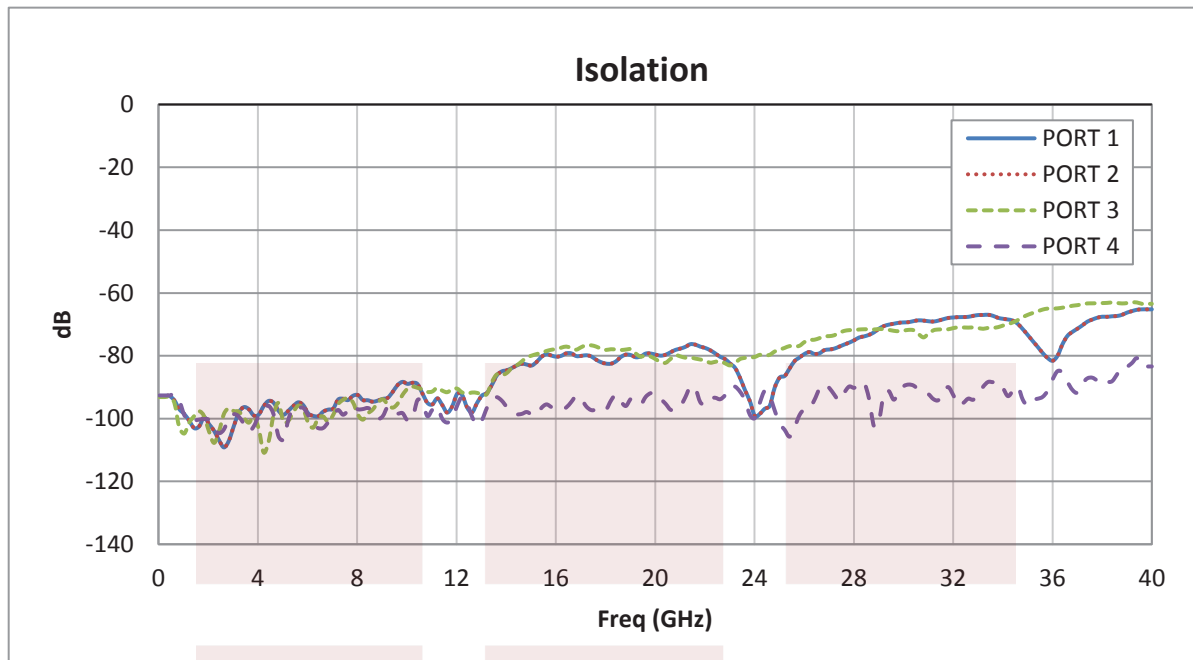
Not RoHS Compliant

Plotted and Other Data

Notes:

Typical Performance Data



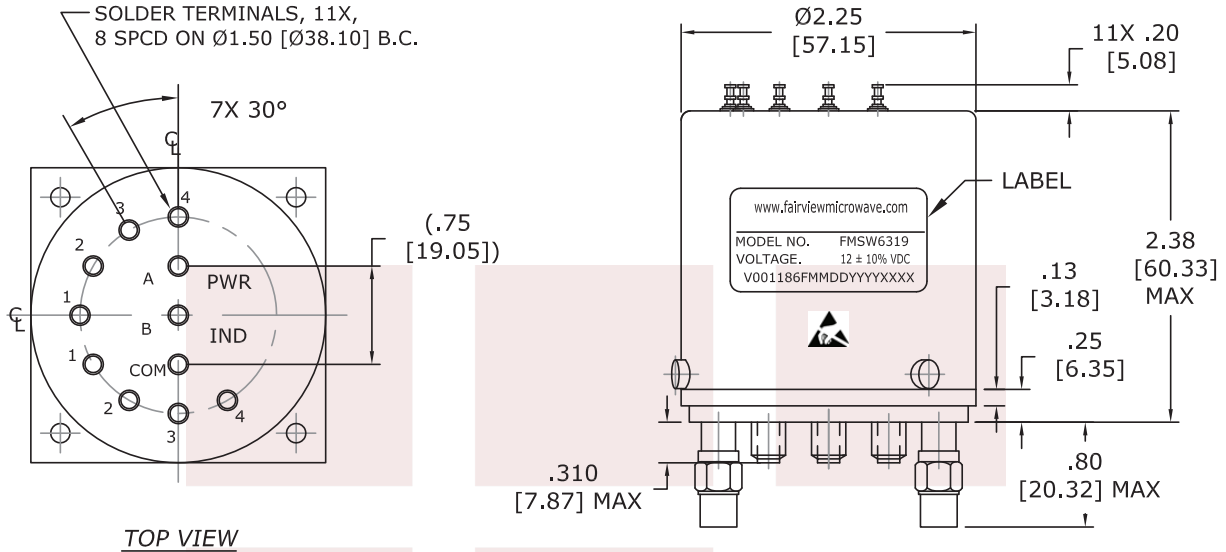


SP4T Latching Electro-Mechanical Relay Switch From DC to 40 GHz, 3 Watts with Self Cut Off, TTL, Indicators, Diodes, 2.92mm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SP4T Latching Electro-Mechanical Relay Switch From DC to 40 GHz, 3 Watts with Self Cut Off, TTL, Indicators, Diodes, 2.92mm FMSW6319](http://www.fairviewmicrowave.com/sp4t-latching-electro-mechanical-relay-switch-indicators-ttl-self-cut-off-diodes-fmsw6319-p.aspx)

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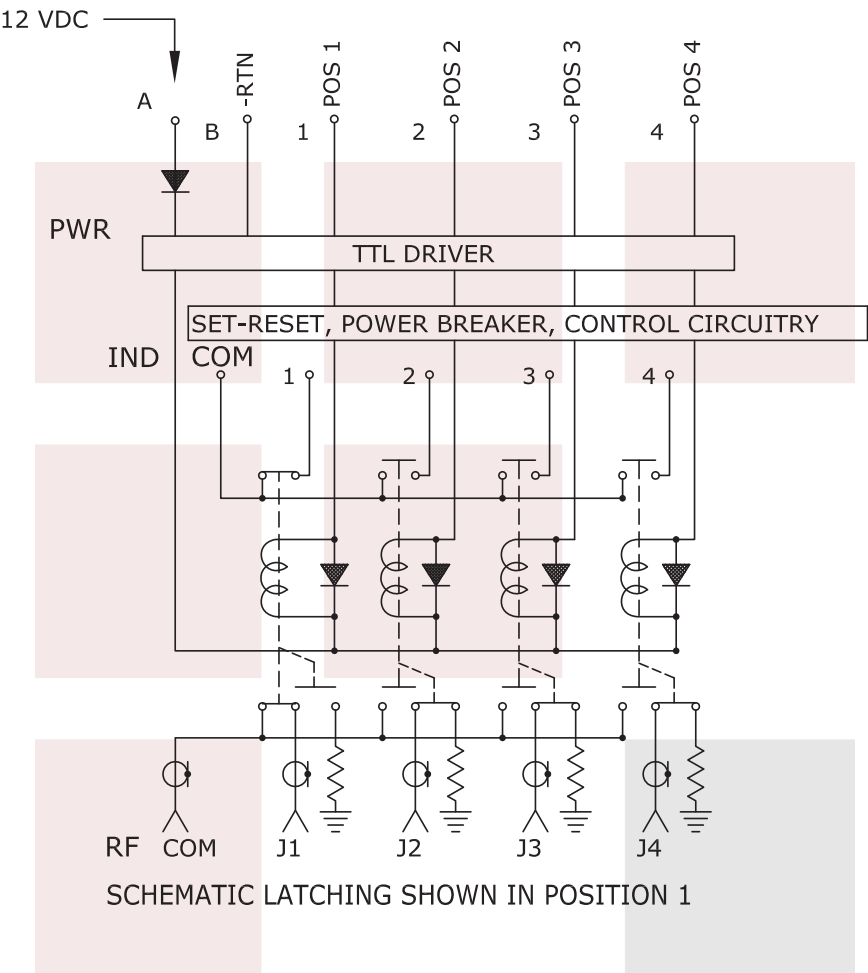
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:	
DECIMALS .XX ± .03 (0.76) .XXX ± .010 (0.254)	ANGLES ±1° FRACTIONS ±1/16
HOLE DIAMETER	TOLERANCE
.0135 TO .125 (0.343 TO 3.175)	+.004 TO -.001 (+0.102 TO -.025)
.126 TO .250 (3.200 TO 6.350)	+.005 TO -.001 (+0.127 TO -.025)
.251 TO .500 (6.375 TO 12.700)	+.006 TO -.001 (+0.152 TO -.025)
.501 TO .750 (12.725 TO 19.050)	+.008 TO -.001 (+0.203 TO -.025)
.751 TO 1.000 (19.075 TO 25.400)	+.010 TO -.001 (+0.254 TO -.025)
1.001 TO 2.000 (25.425 TO 50.800)	+.012 TO -.001 (+0.305 TO -.025)

* THESE DIMENSIONS AND TOLERANCES
SUPERSEDE NOTE #1 ON TITLE BLOCK.

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CAD FILE	122115	SHEET	SCALE	N/A	SIZE A 2233



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