

SPDT Latching Electro-Mechanical Relay Switch From DC to 40 GHz, 10 Watts with Indicators, TTL, Self Cut Off, Diodes, 2.92mm

The FMSW6109 is an SPDT Electromechanical Relay Switch that operates over a wide frequency band from DC to 40 GHz and has a rating of 10 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, 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. The assembly requires an operating voltage of +28Vdc. External connectors include solder terminals and 2.92mm female connectors.

Electrical Specifications

Switch Type	SPDT, Reflective
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Indicators, TTL Logic, Self Cut Off, 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	24	28	30	Volts
Actuating Current @ 28 Volts			100	mA
VSWR			1.9:1	
Insertion Loss			0.8	dB
Isolation	55			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	12 - 18	18 - 26.5	26.5 - 40	GHz
VSWR, Max	1.2:1	1.4:1	1.5:1	1.7:1	1.9:1	
Insertion Loss, Max	0.2	0.4	0.5	0.7	0.8	dB
Isolation, Min	70	60	60	55	55	dB



Features:

- Single Pole Double Throw 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 0.8 dB max
- Isolation 55 dB min
- 10 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications:

- Test & Measurement
- Communications System
- Instrumentation
- Suitable for Aircraft

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Mechanical Specifications

Size

Length	1.92 in [48.77 mm]
Width/Diameter	1.5 in [38.1 mm]
Height	0.52 in [13.21 mm]
Weight	0.13 lbs [58.97 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	15 ms Max

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 Pin

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-E-5400 and MIL-S-3928

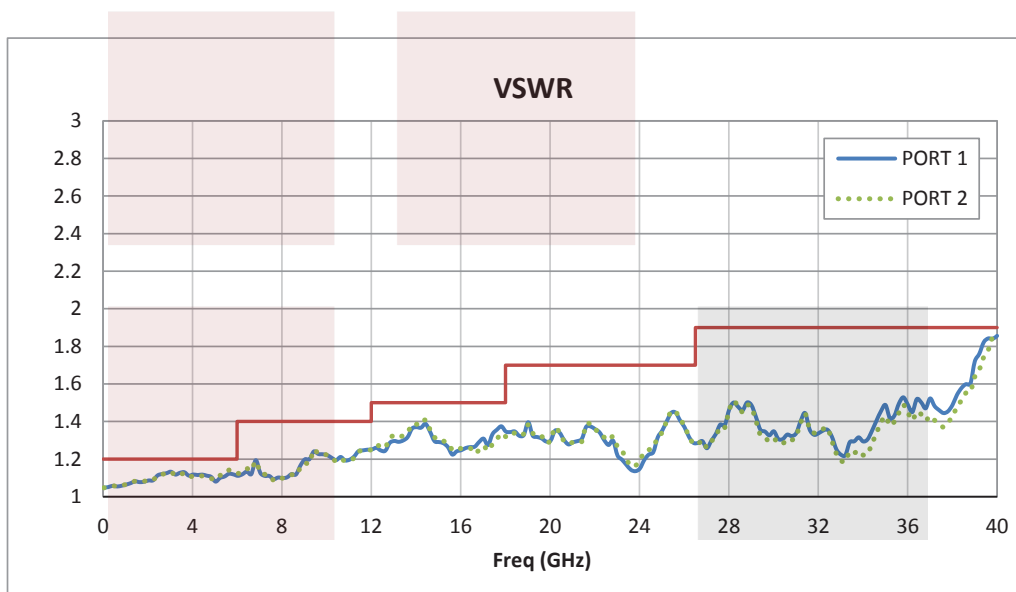
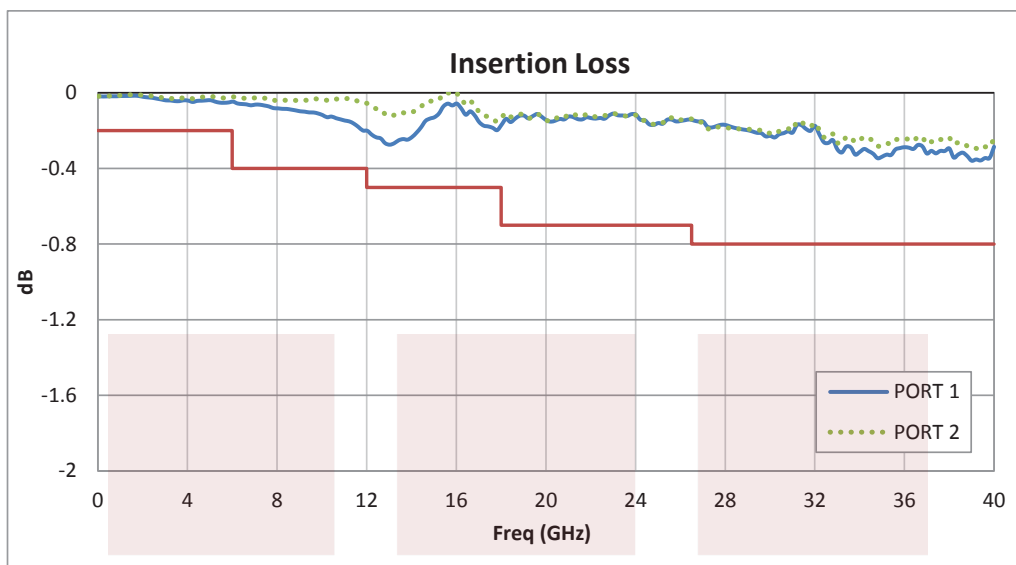
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

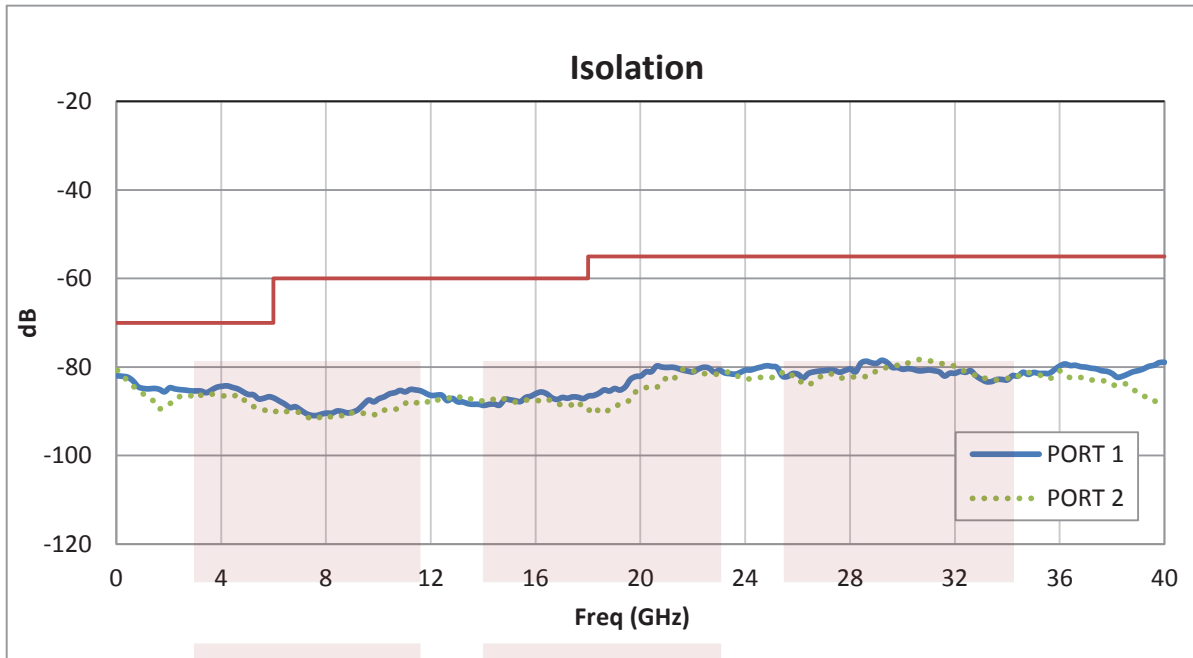
Not RoHS Compliant

Plotted and Other Data

Notes:

Typical Performance Data



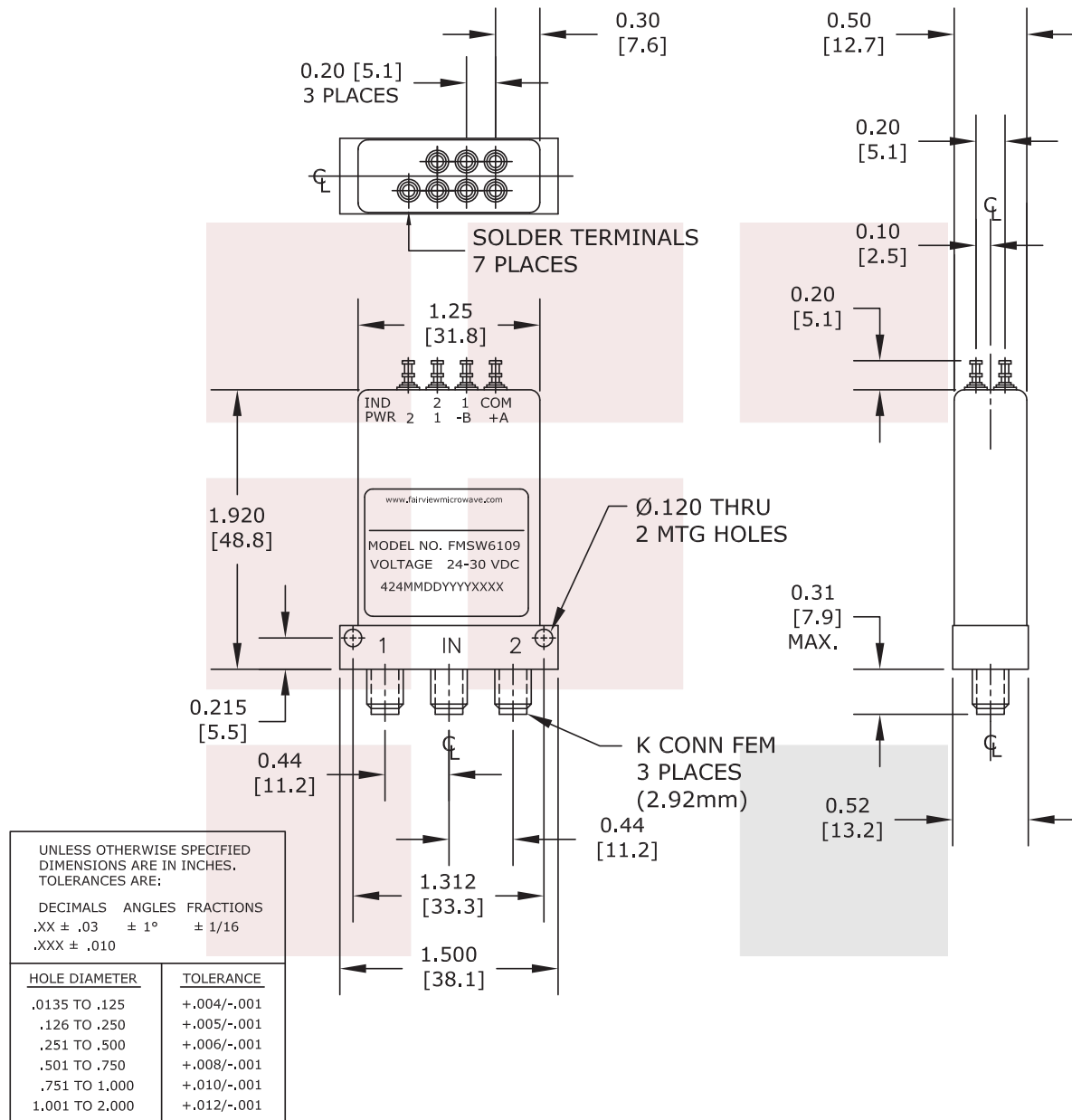


SPDT Latching Electro-Mechanical Relay Switch From DC to 40 GHz, 10 Watts with Indicators, TTL, Self Cut Off, Diodes, 2.92mm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SPDT Latching Electro-Mechanical Relay Switch From DC to 40 GHz, 10 Watts with Indicators, TTL, Self Cut Off, Diodes, 2.92mm FMSW6109](http://www.fairviewmicrowave.com/spdt-latching-electro-mechanical-relay-switch-indicators-ttl-self-cut-off-fm-sw6109-p.aspx)

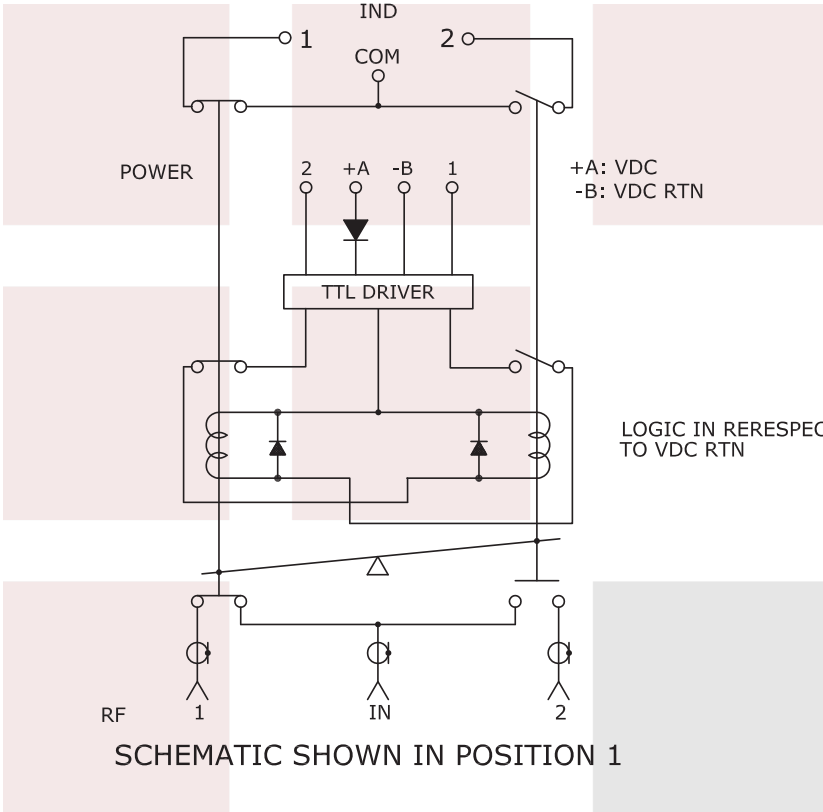
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SUPERSEDE NOTE #1 ON TITLE BLOCK.

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CAD FILE	021715	SHEET	SCALE	N/A	SIZE A 200



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