

**SPDT Latching Electro-Mechanical Relay
 Switch From DC to 26.5 GHz, 20 Watts
 with Self Cut Off, Diodes, SMA**

The FMSW6098 is an SPDT Electromechanical Relay Switch that operates over a wide frequency band from DC to 26.5 GHz and has a rating of 20 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 and suppression diodes. The switch exhibits exceptional electrical performance specified from 0.2 dB max for insertion loss and 80 dB min for isolation, and guaranteed over -25°C to +85°C. The assembly requires an operating voltage of +12Vdc and is certified as RoHS compliant. External connectors include solder terminals and SMA female connectors.



Electrical Specifications

Switch Type	SPDT, Reflective
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Self Cut Off, Diodes
Polarity	Positive Common

Features:

- Single Pole Double Throw Relay Switch
- DC to 26.5 GHz Frequency Range
- 1M Cycle Operating Life Min
- Latching Actuator
- Self Cut Off, Suppression Diodes
- Insertion Loss 0.5 dB max
- Isolation 50 dB min
- 20 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications:

- Test & Measurement
- Communications System
- Instrumentation

Description	Min	Typ	Max	Units
Frequency Range	DC		26.5	GHz
Impedance		50		Ohms
Operating Voltage		12		Volts
Actuating Current @ 12 Volts		200		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	50			dB
Input Power (CW) (at 26.5 GHz)			20	Watts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 4	4 - 8	8 - 12	12 - 18	18 - 26.5	GHz
VSWR, Max	1.25:1	1.25:1	1.3:1	1.35:1	1.5:1	
Insertion Loss, Max	0.2	0.25	0.3	0.4	0.5	dB
Isolation, Min	80	75	70	60	50	dB

Mechanical Specifications

Size	
Length	1.83 in [46.48 mm]
Width/Diameter	1.27 in [32.26 mm]
Height	0.5 in [12.7 mm]
Weight	0.139 lbs [63.05 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	20 ms Max

Fairview Microwave
 1130 Junction Dr. #100
 Allen, TX 75013
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Connectors

RF Connector Type	SMA 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	-25 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-3928

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

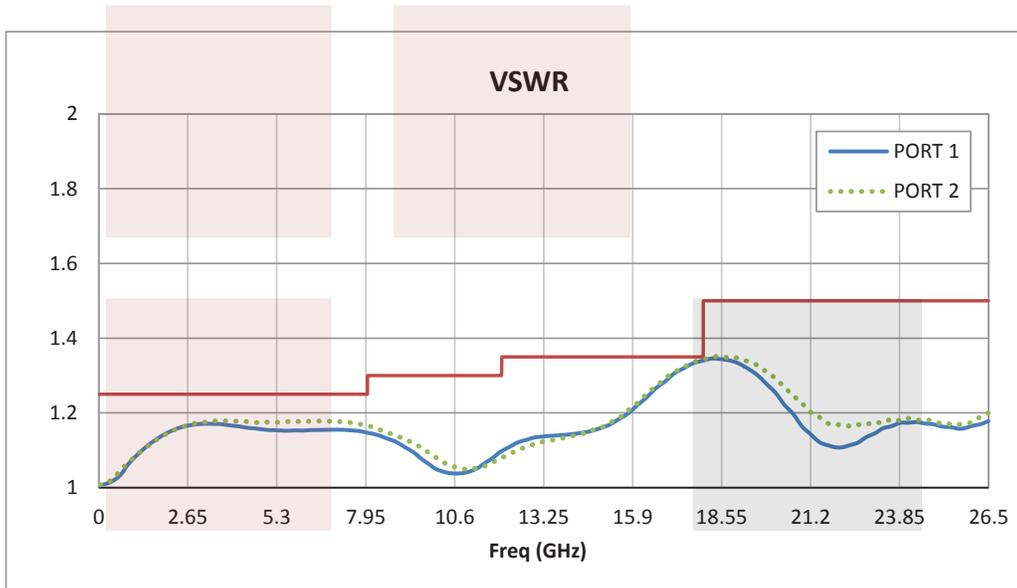
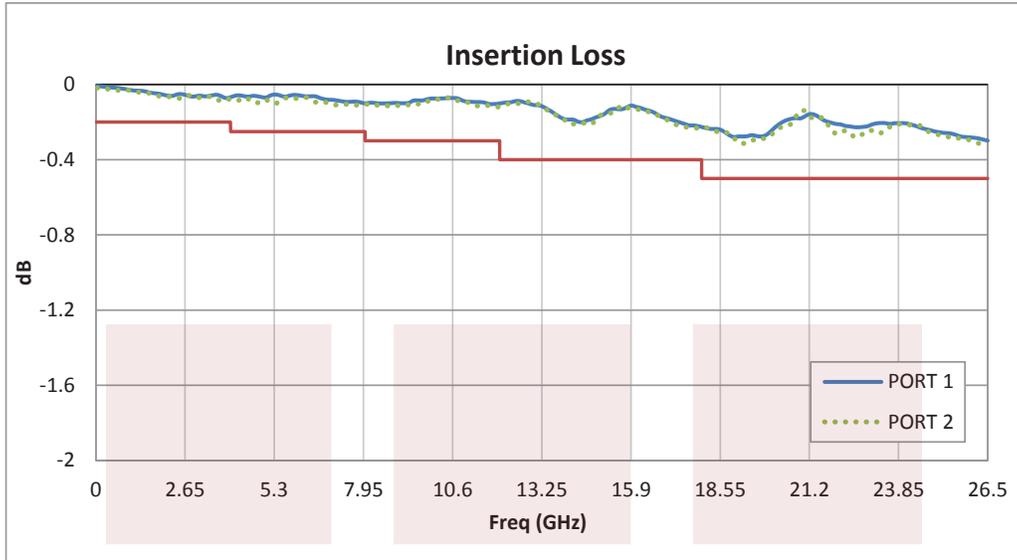
RoHS Compliant

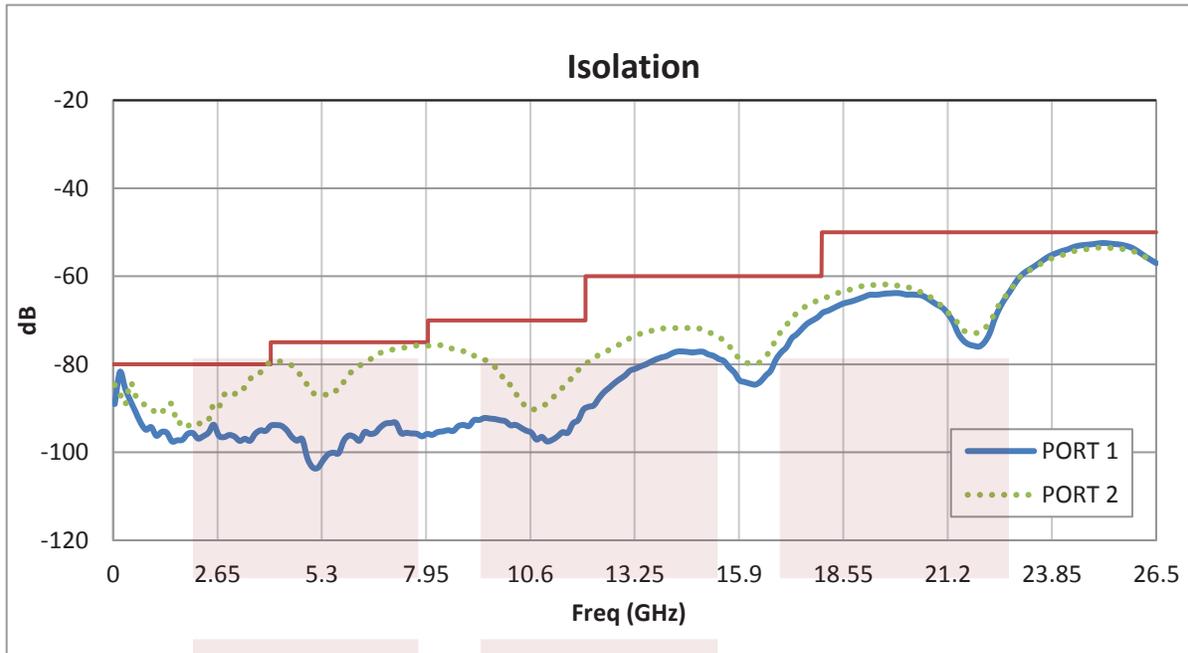
Plotted and Other Data

Notes:



Typical Performance Data



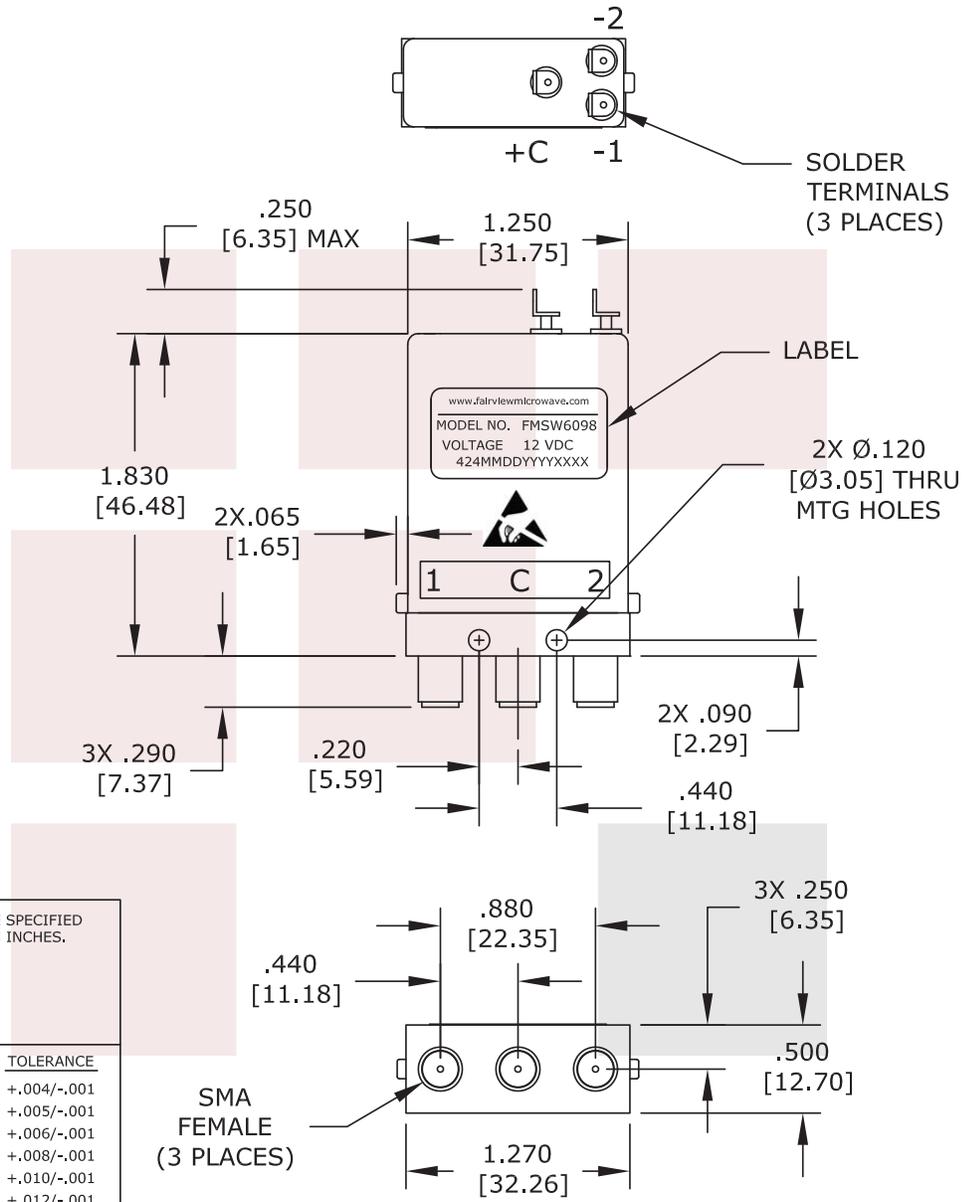


SPDT Latching Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts with Self Cut Off, Diodes, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SPDT Latching Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts with Self Cut Off, Diodes, SMA FMSW6098](#)

URL: <http://www.fairviewmicrowave.com/spdt-latching-electro-mechanical-relay-switch-self-cut-off-fmsw6098-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



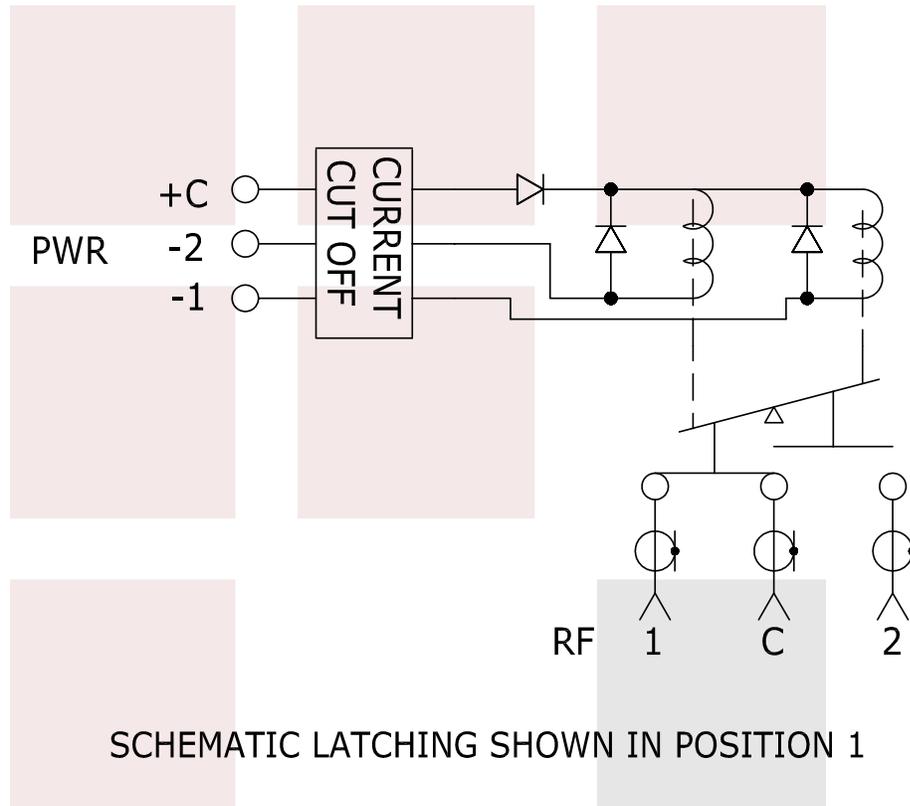
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:

HOLE DIAMETER	TOLERANCE
.0135 TO .125	+.004/-0.001
.126 TO .250	+.005/-0.001
.251 TO .500	+.006/-0.001
.501 TO .750	+.008/-0.001
.751 TO 1.000	+.010/-0.001
1.001 TO 2.000	+.012/-0.001

DECIMALS ANGLES
.XX ± .03 ± 1°
.XXX ± .010

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

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TITLE	DWG NO	CAGE CODE		
SPDT Latching Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts with Self Cut Off, Diodes, SMA	FMSW6098	3FKR5		
CAD FILE	SHEET	SCALE	SIZE	
030915		N/A	A	200



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