

SPDT Failsafe Electro-Mechanical Relay Switch
From DC to 26.5 GHz, 20 Watts, SMA

The FMSW6094 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 Failsafe Actuator with a break before make configuration. The switch exhibits exceptional electrical performance specified from 0.2 dB max for insertion loss and 80 dB min for isolation, and guaranteed over -55°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: Failsafe
Switching Sequence: Break Before Make

Description	Min	Typ	Max	Units
Frequency Range	DC		26.5	GHz
Impedance		50		Ohms
Operating Voltage		12		Volts
Actuating Current @ 12 Volts		300		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: 1.25 in [31.75 mm]
Width/Diameter: 1.27 in [32.26 mm]
Height: 0.5 in [12.7 mm]
Weight: 0.14 lbs [63.5 g]
Body Material and Plating: Aluminum
Package Type: Connectorized Module
Operating Life: 1,000,000 Cycles
Switching Time: 35 ms Max

Features:

- Single Pole Double Throw Relay Switch
- DC to 26.5 GHz Frequency Range
- 1M Cycle Operating Life Min
- Failsafe Actuator
- 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

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	-55 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)

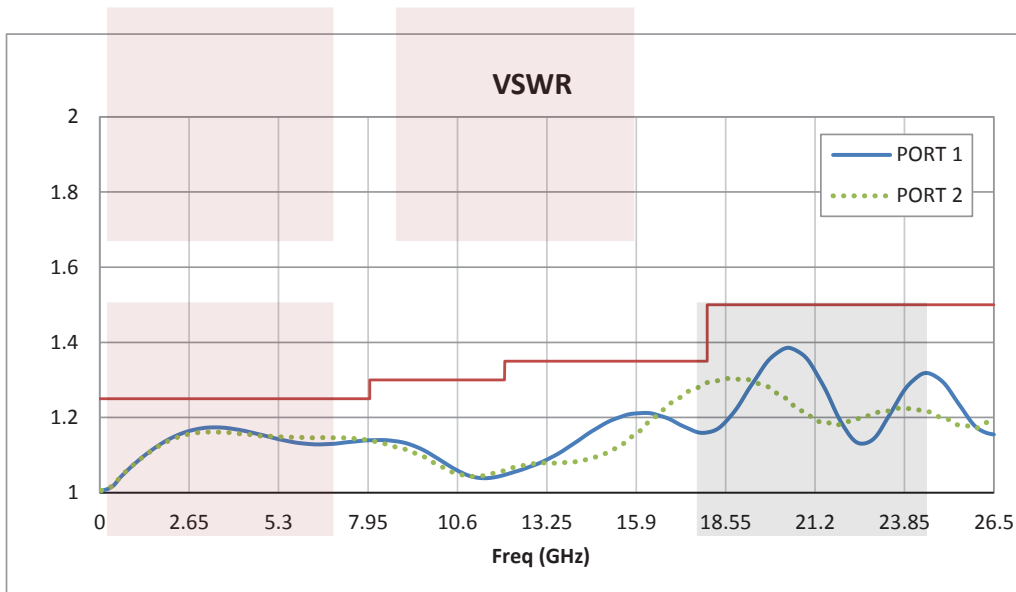
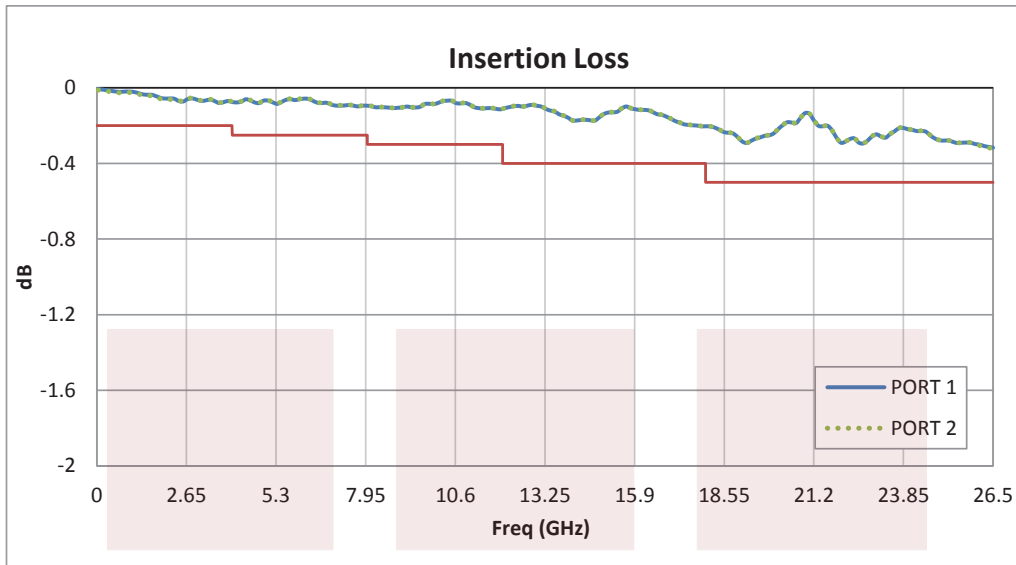
RoHS Compliant

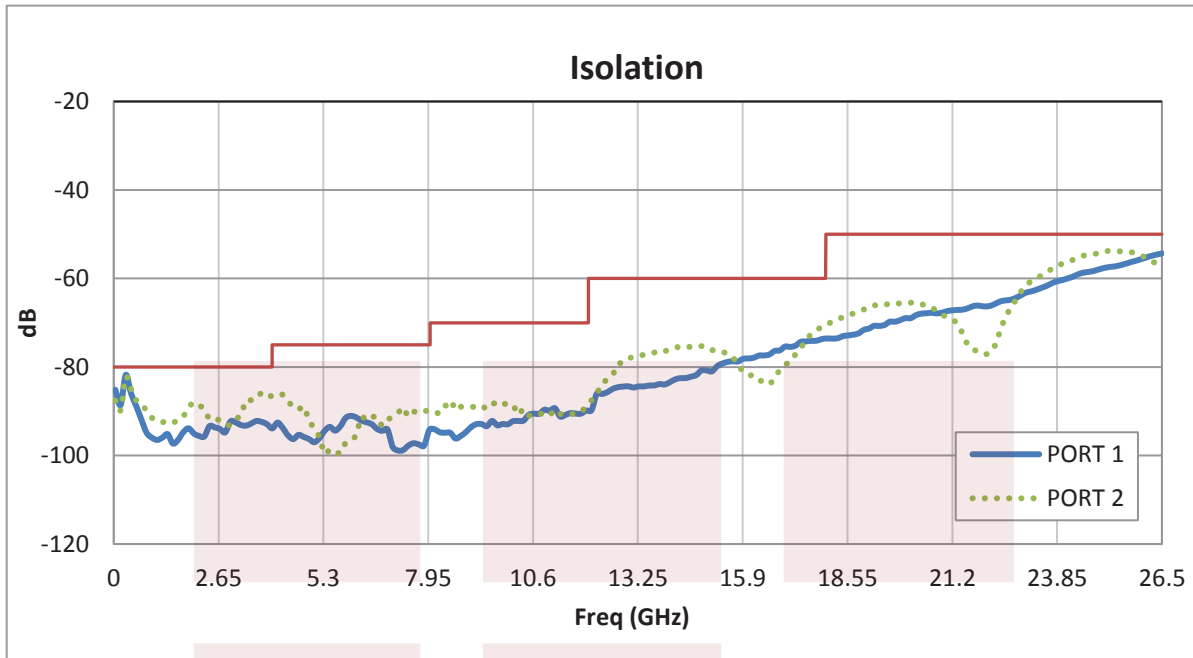
Plotted and Other Data

Notes:



Typical Performance Data



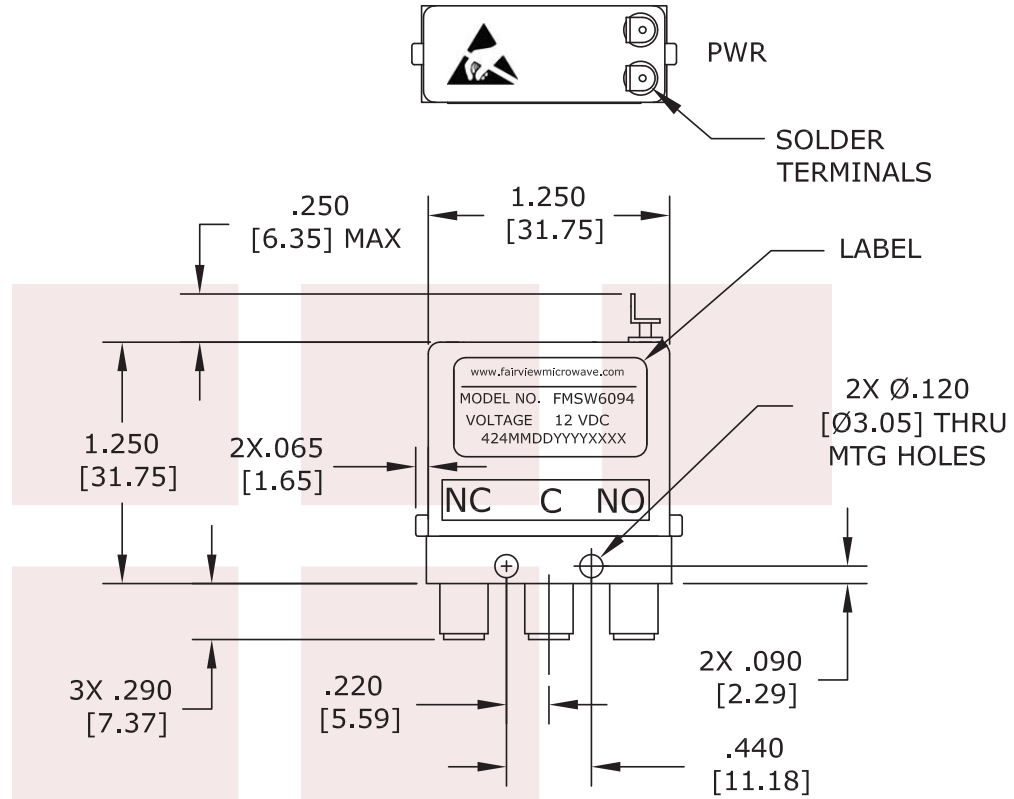


SPDT Failsafe Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SPDT Failsafe Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts, SMA FMSW6094](http://www.fairviewmicrowave.com/spdt-failsafe-electro-mechanical-relay-switch-fmsw6094-p.aspx)

URL: <http://www.fairviewmicrowave.com/spdt-failsafe-electro-mechanical-relay-switch-fmsw6094-p.aspx>

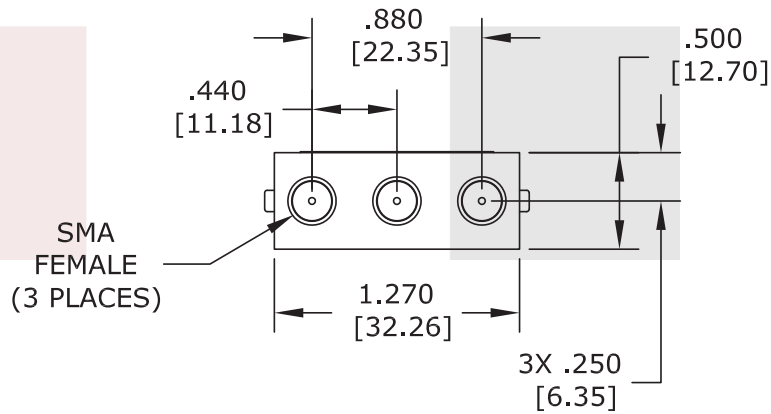
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to 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:

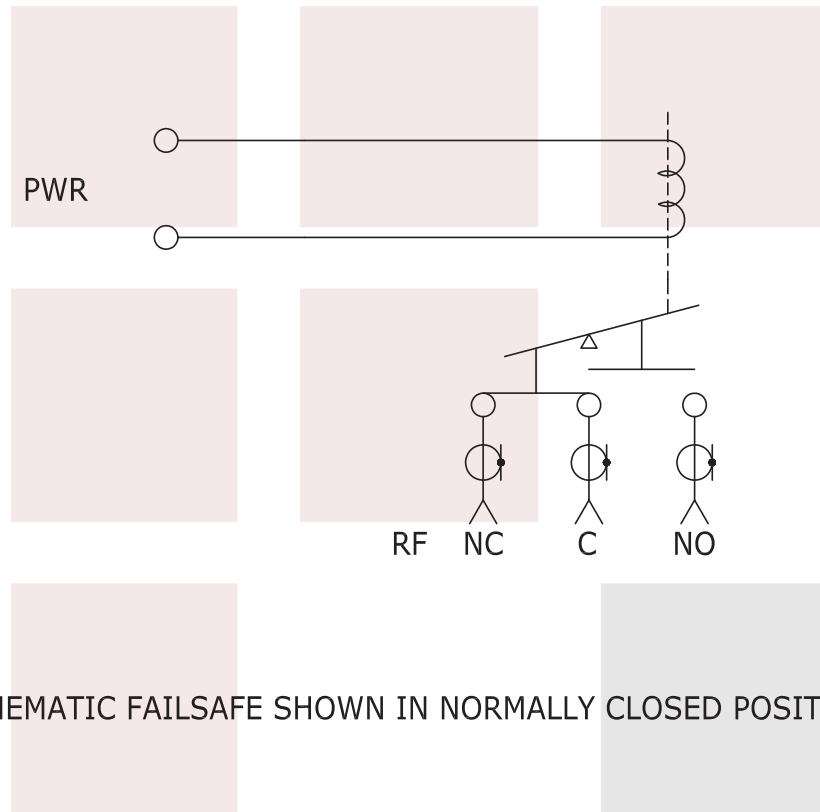
HOLE DIAMETER	TOLERANCE
.0135 TO .125	+.004/-0.001
.126 TO .250	+.005/-0.001
.251 TO .500	+.006/-0.001
.501 TO .750	+.008/-0.001
.751 TO 1.000	+.010/-0.001
1.001 TO 2.000	+.012/-0.001

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



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

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TITLE SPDT Failsafe Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts, SMA		DWG NO FMSW6094		CAGE CODE 3FKR5	
CAD FILE	030915	SHEET	SCALE	N/A	SIZE A 200



SCHEMATIC FAILSAFE SHOWN IN NORMALLY CLOSED POSITION

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