

SPDT Failsafe DC to 18 GHz Terminated Electro-Mechanical Relay Switch, up to 240W, 28V, SMA

The SEMS-4058-SPDT-SMA is a Terminated SPDT Electromechanical Relay Switch that operates from DC to 18 GHz and can handle up to 240 Watts of CW input power in a Break Before Make condition. The design features a Failsafe Actuator with Terminations and is rated for 2M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min, with +28 Vdc operating voltage. Performance is guaranteed over -40°C to +85°C and the switch assembly is RoHS and REACH compliant. The package interface uses solder terminals and SMA Female connectors.

Electrical Specifications

Switch Type SPDT, Terminated
Actuator Type Failsafe
Switching Sequence Break before Make

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Set Current @ 28 Volts		204		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW)			100	Watts
Switching Time			10	ms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 3	3 - 8	8 - 12.4	12.4 - 18		GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1		
Insertion Loss, Max	0.2	0.3	0.4	0.5		dB
Isolation, Min	80	70	60	60		dB
Power In, Max (CW)	240	150	120	100		Watts

Electrical Specification Notes:
Average Power and Actuating Current values at 25°C.

Mechanical Specifications

Size
Length 2.19 in [55.63 mm]
Width/Diameter 1.87 in [47.5 mm]
Height 0.56 in [14.22 mm]
Weight 0.246 lbs [111.58 g]
Package Type Connectorized
Operating Life 2,000,000 Cycles



Features:

- Single Pole Double Throw Terminated Relay Switch
- DC to 18 GHz Frequency Range
- 2M Cycle Operating Life Min
- 100 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 0.5 dB Max
- VSWR 1.5:1 Max
- Failsafe Actuator

Applications:

- General Purpose High Performance Relay Switch
- Military Communications
- Communications Systems
- Test & Measurement

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Connectors

RF Connector Type	SMA Female
RF Connector Specification	MIL C 39012
Control Connector	Solder Pin

Mechanical Specification Notes:
Solder Pins: 250°C max/30sec.

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +85 deg C

Construction	Splashproof
Shock	MIL-STD-202, Method 213B, Cond.C
Vibration	MIL-STD-202, Method 204D, Cond.D

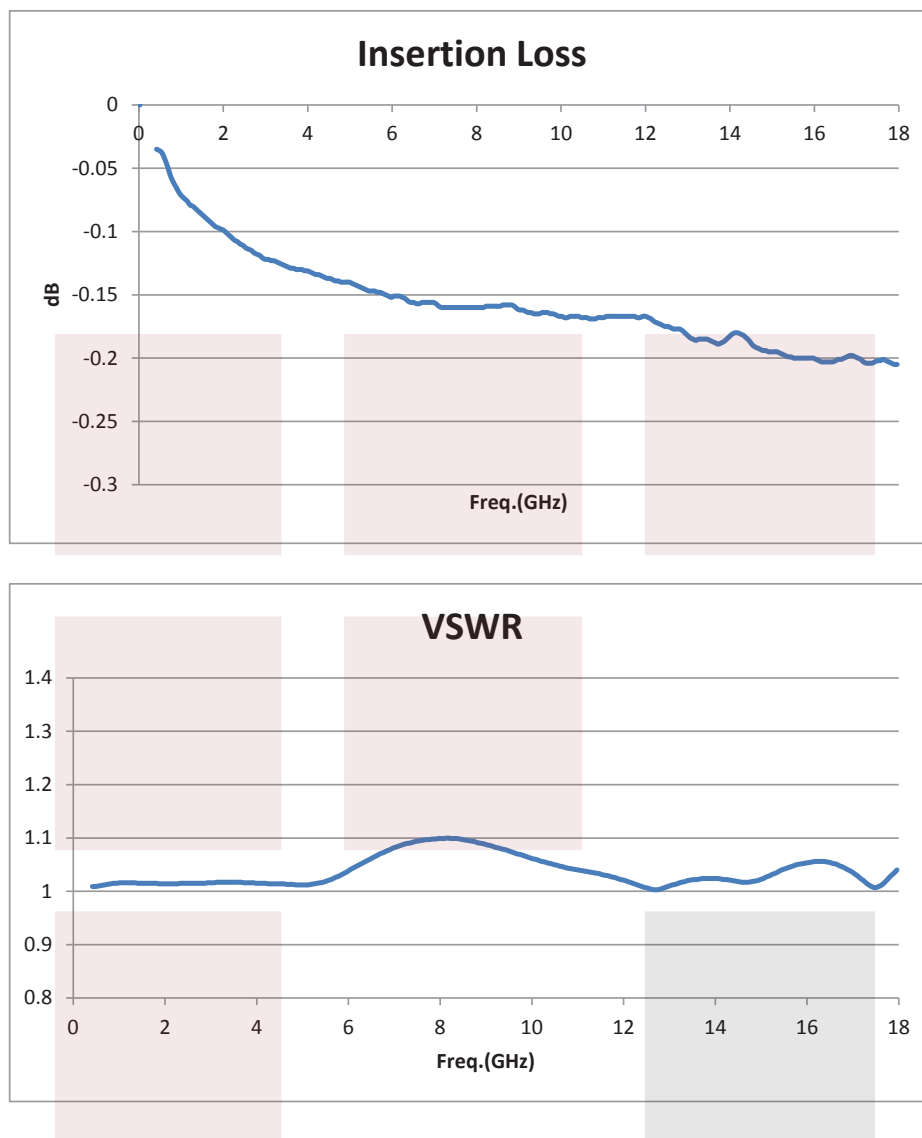
Environmental Specification Notes:
Environmental specifications are guaranteed but not tested.

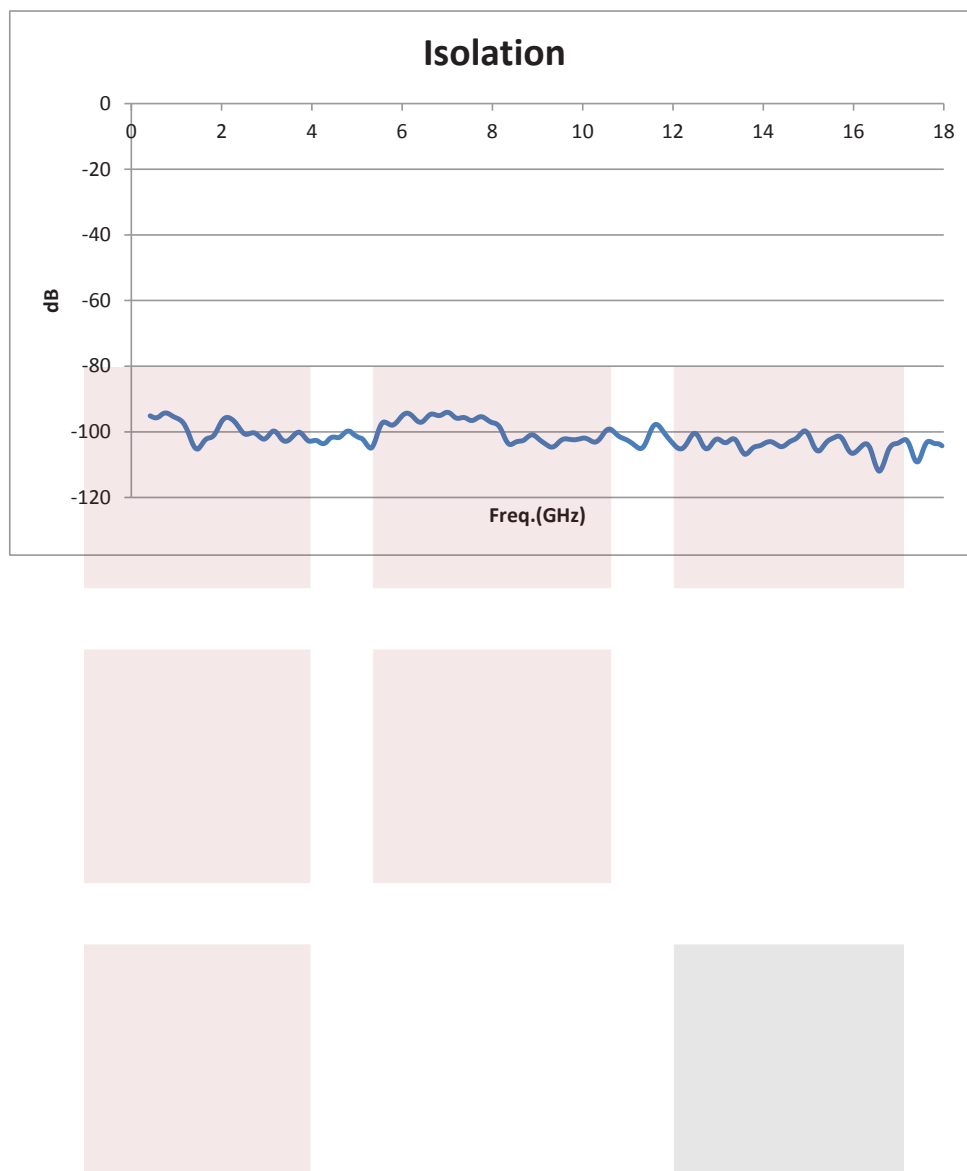
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

- Notes:
- Values shown are typical at 25°C.

Typical Performance Data



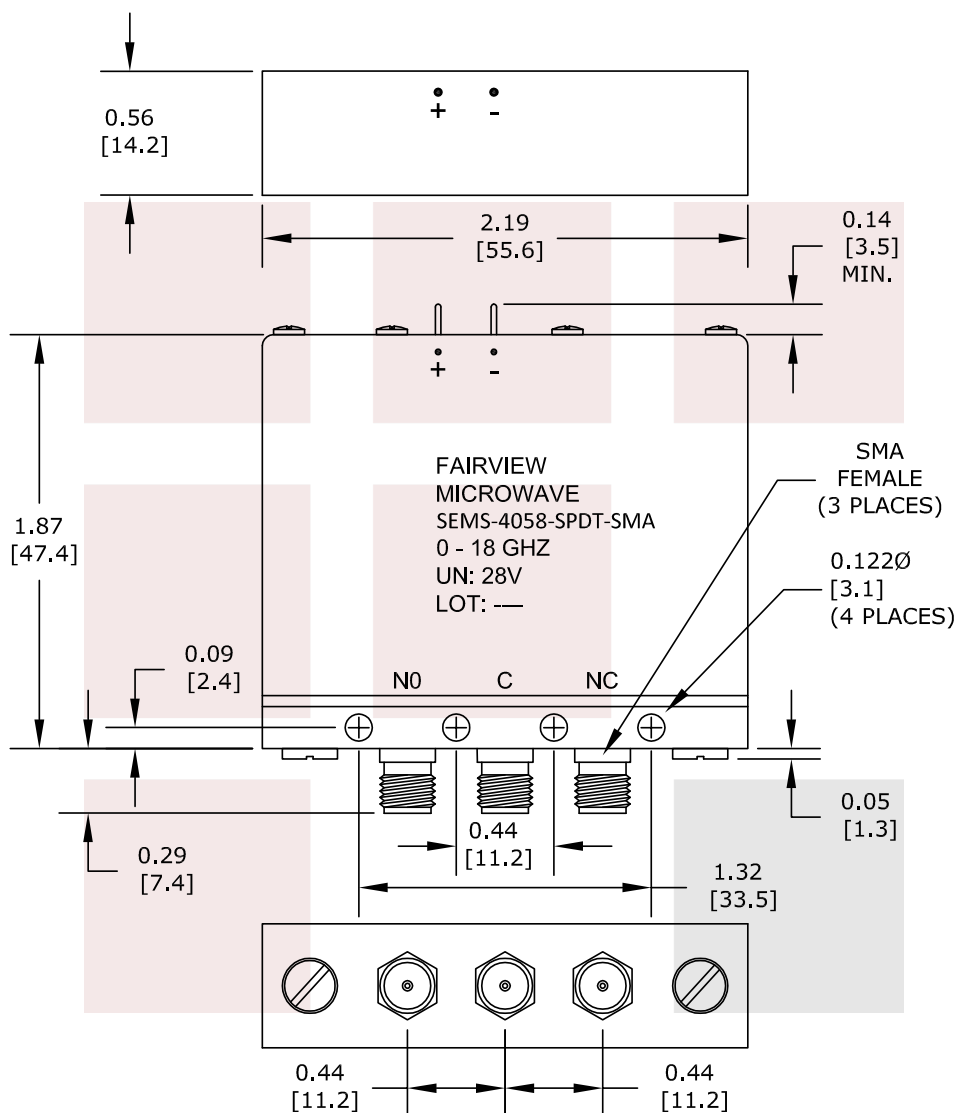


SPDT Failsafe DC to 18 GHz Terminated Electro-Mechanical Relay Switch, up to 240W, 28V, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SPDT Failsafe DC to 18 GHz Terminated Electro-Mechanical Relay Switch, up to 240W, 28V, SMA SEMS-4058-SPDT-SMA](https://www.fairviewmicrowave.com/spdt-failsafe-electro-mechanical-relay-switch-sems-4058-spdt-sma-p.aspx)

URL: <https://www.fairviewmicrowave.com/spdt-failsafe-electro-mechanical-relay-switch-sems-4058-spdt-sma-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.



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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

SPDT Failsafe DC to 18 GHz Terminated Electro-Mechanical Relay Switch, up to 240W, 28V, SMA

DWG NO

SEMS-4058-SPDT-SMA

CAGE CODE

3FKR5

CAD FILE

082815

SHEET

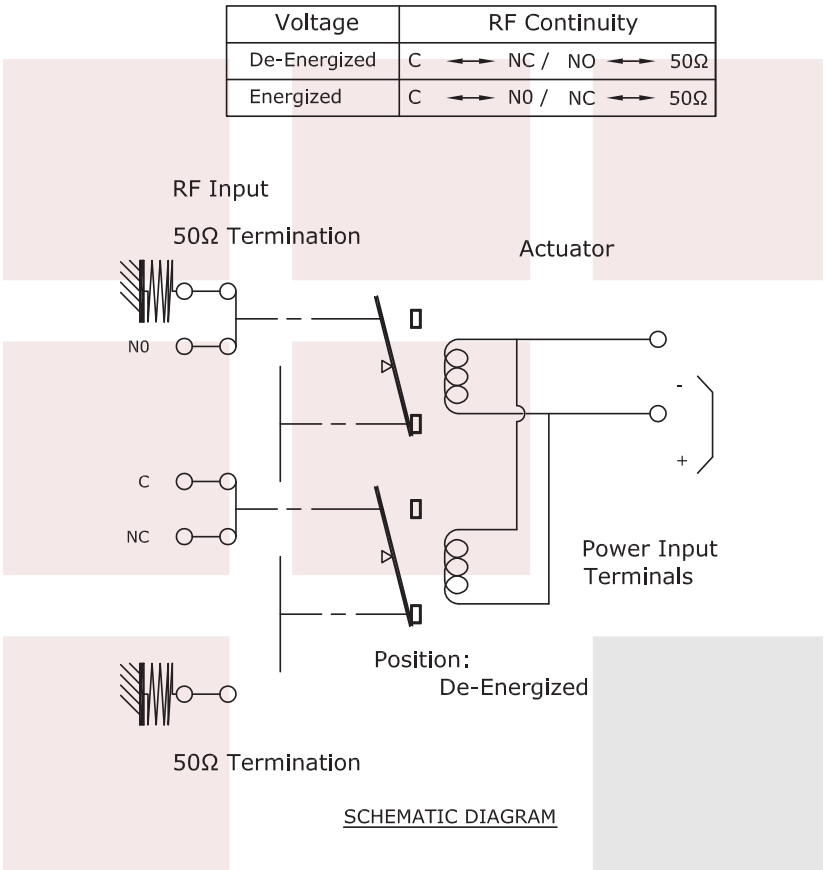
SCALE

N/A

SIZE

A

150



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		CAD FILE 092914	SHEET	SCALE N/A	SIZE A 150