

## SPDT Failsafe Electro-Mechanical Relay Switch From DC to 18 GHz, 35 Watts, SMA

The SR18-SMA1 is a SPDT Electromechanical Relay Switch that operates over a wide frequency band from DC to 18 GHz with up to 85 Watts of input power (CW) handling capability. Rated for 1M Life Cycles, 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 from 80 dB min for isolation, and is guaranteed over -40 deg C to +85 deg C. The assembly requires an operating DC voltage of +20 Vdc and is certified as RoHS and REACH compliant. External connectors include solder terminals and SMA female connectors.

### Electrical Specifications

Switch Type	SPDT, Reflective
Actuator Type	Failsafe
Switching Sequence	Break before Make
Pickup Voltage	20 Volts
Dropout Voltage	2 Volts

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	24	28	32	Volts
Actuating Current @ 28 Volts			114	mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW)			35	Watts

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 8	8 to 12.4	12.4 to 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, Typ (CW)	85	55	45	35		Watts

### Mechanical Specifications

<b>Size</b>	
Length	1.34 in [34.04 mm]
Width/Diameter	1.88 in [47.75 mm]
Height	0.5 in [12.7 mm]
Weight	0.0625 lbs [28.35 g]
Body Material and Plating	Aluminum, Black Anodized
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	15 ms Max



### Features:

- SPDT Switch
- DC to 18 GHz Operating Frequency Range
- 1 M Cycles min
- Failsafe Switch
- Switching Sequence Break Before Make

### Applications:

- Test & Measurement
- Instrumentation

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**Connectors**

RF Connector Type	SMA Female
RF Connector Contact Material & Plating	Beryllium Copper, Gold
RF Connector Body Material and Plating	Passivated Stainless Steel
Control Connector	Solder Terminals

Mechanical Specification Notes:

RF Connector mating requirements per MIL-C-39012

**Environmental Specifications**

**Temperature**

Operating Range	-40 to +85 deg C
Storage Range	-55 to +100 deg C

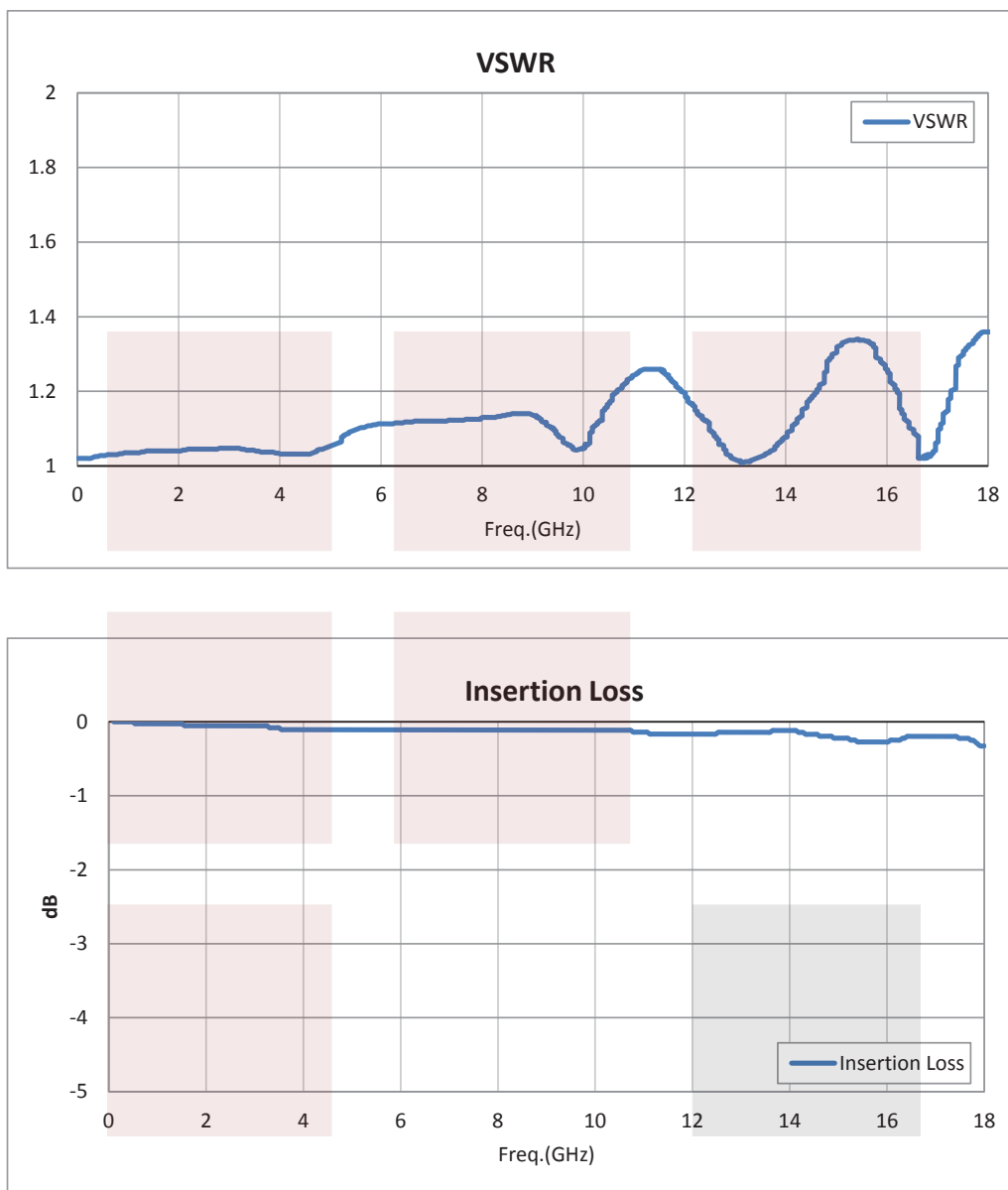
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant	
REACH Compliant	12/17/2014

**Plotted and Other Data**

Notes:

**Typical Performance Data**



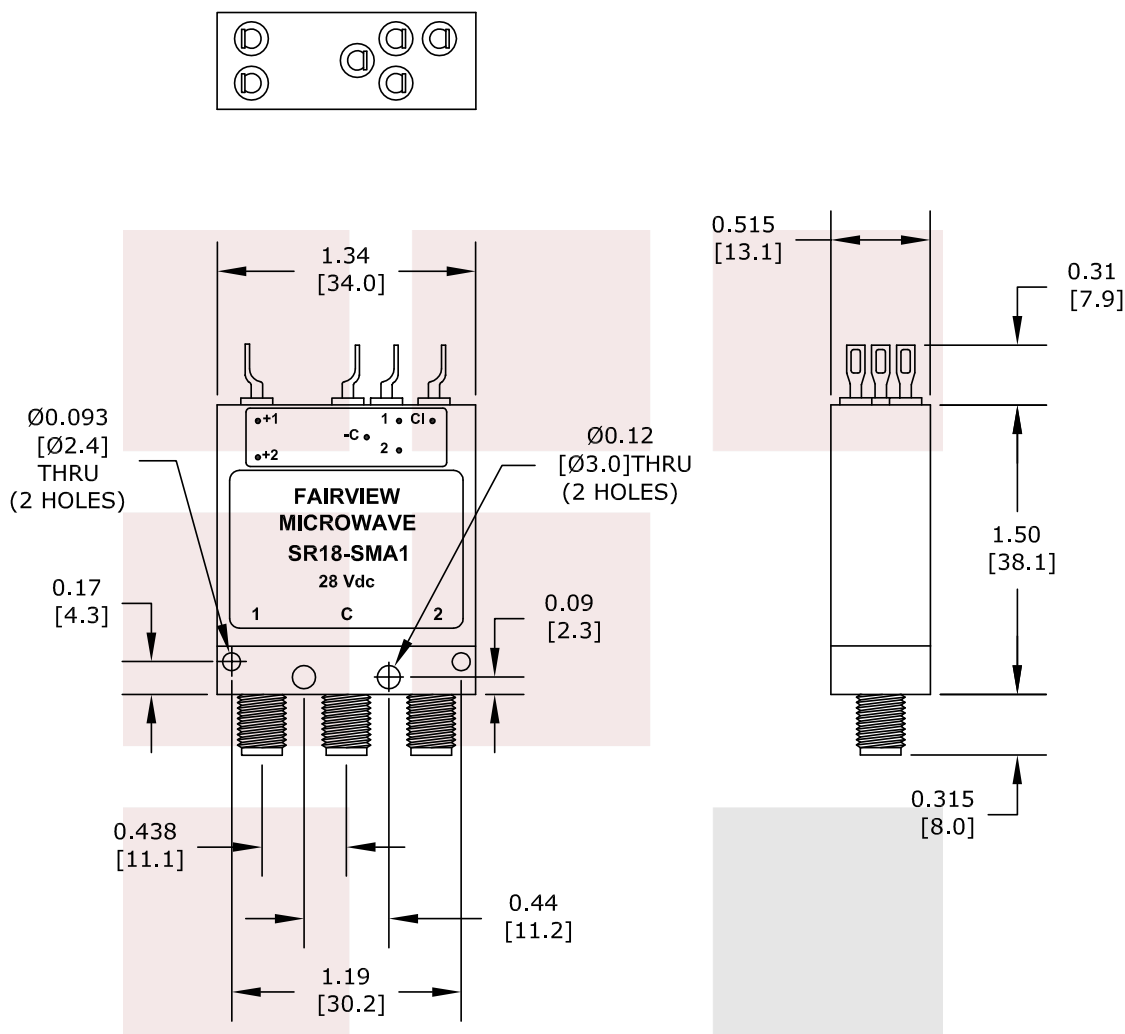
SPDT Failsafe Electro-Mechanical Relay Switch From DC to 18 GHz, 35 Watts, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SPDT Failsafe Electro-Mechanical Relay Switch From DC to 18 GHz, 35 Watts, SMA SR18-SMA1](#)

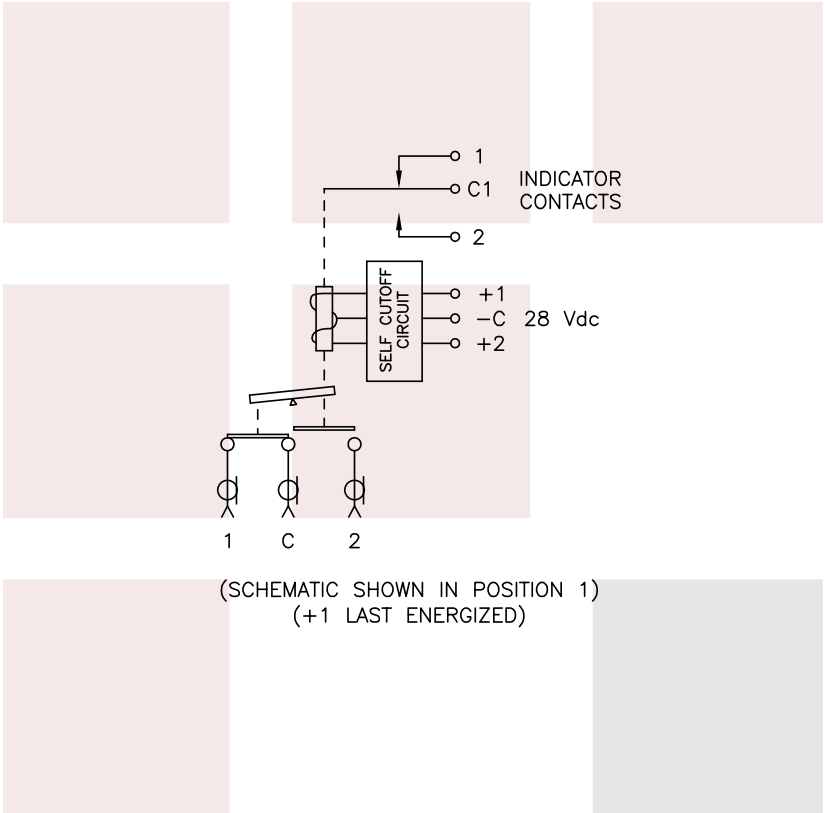
URL: <http://www.fairviewmicrowave.com/spdt-failsafe-electro-mechanical-relay-switch-sr18-sma1-p.aspx>

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CAD FILE	090815	SHEET	SCALE	N/A	SIZE A 150



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