

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

The SR18-SMA2 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 +9 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	9 Volts
Dropout Voltage	1.5 Volts

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	10	12	14	Volts
Actuating Current @ 12 Volts			190	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

Size	
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

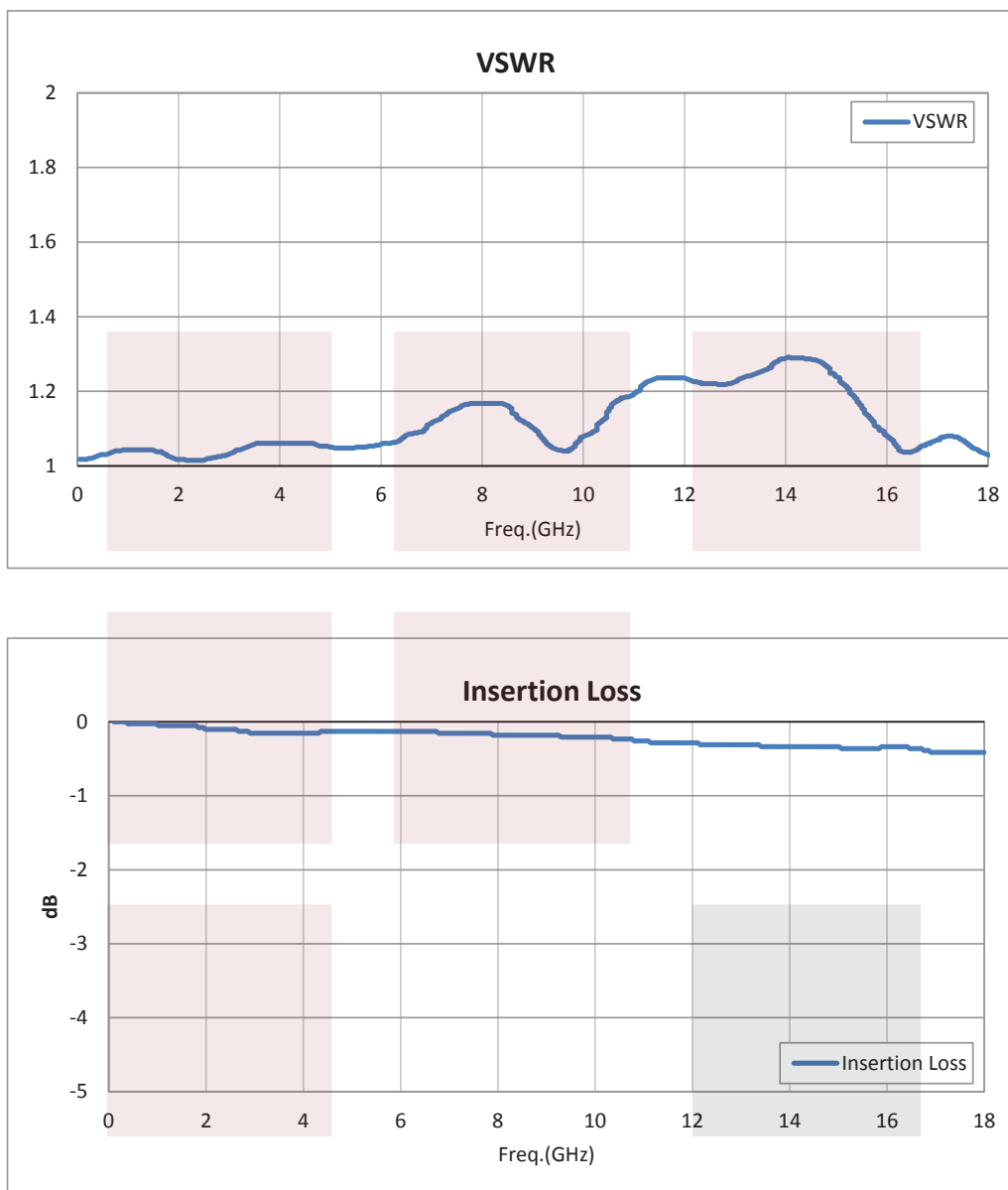
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant	
REACH Compliant	12/17/2014

Plotted and Other Data

Notes:

Typical Performance Data



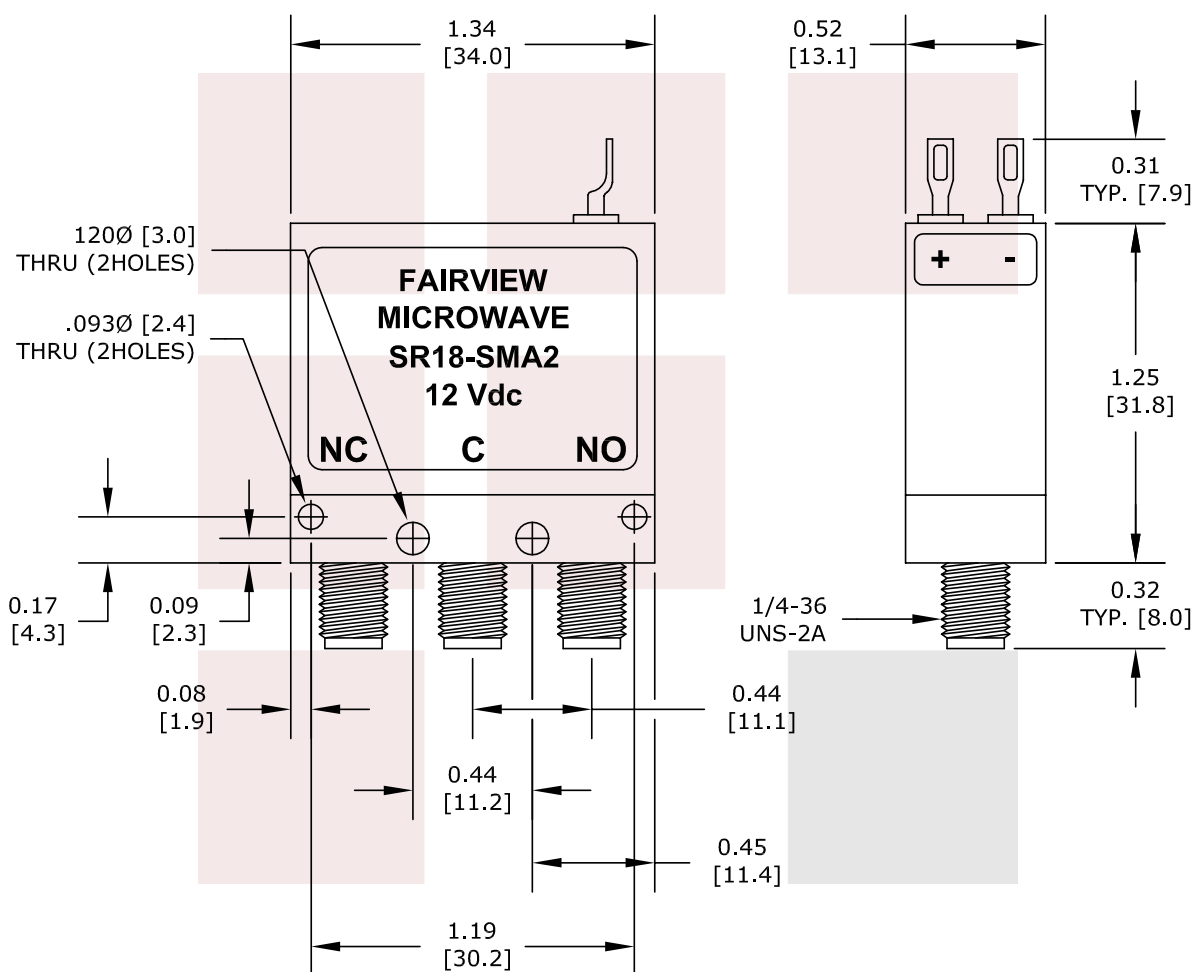
SPDT Failsafe Electro-Mechanical Relay Switch From DC to 18 GHz, 35 Watts, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

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-SMA2](#)

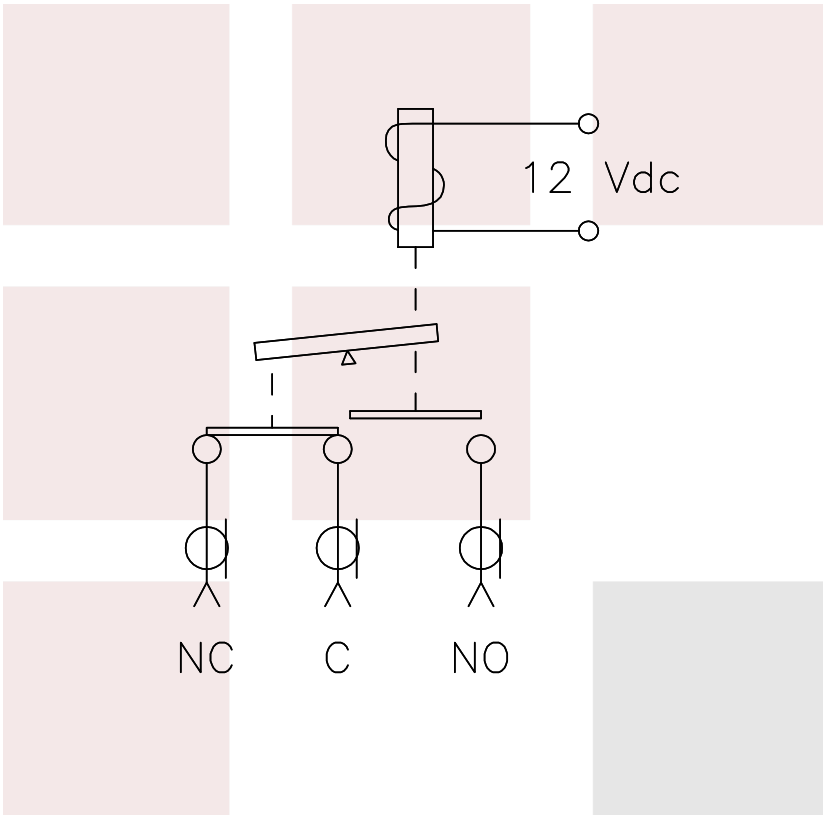
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TITLE SPDT Fail-safe Electro-Mechanical Relay Switch From DC to 18 GHz, 35 Watts, SMA		DWG NO SR18-SMA2		CAGE CODE 3FKR5	
CAD FILE	090815	SHEET	SCALE	N/A	SIZE A 150



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