Fairview Microwave
RF COMPONENTS ON DEMAND. Done!

FMSW6393
DATA SHEET

SPDT Latching DC to 18 GHz Electro-Mechanical Relay Switch, Self Cut Off, Indicators, up to 90W, 28V, SMA

The FMSW6393 is a Single Pole Double Throw (SPDT) electromechanical relay switch that operates across a wide frequency range of DC to 18 GHz and can handle up to 90 Watts of CW input power in a break before make condition. The design features a Latching actuator and is rated for 5M life cycles for high reliability operation. Impressive performance includes insertion loss less than 0.15 dB typical and isolation greater than 80 dB typical. The Latching Self Cut Off actuator includes Indicators and a +28 Vdc bias voltage, and operates over a temperature range of -25°C to +70°C. The rugged and compact package assembly supports SMA Female connectors and Solder Pins for DC Control. And for highly reliable operation, the model is guranteed to meet MIL-STD-202 environmental test conditions for shock and random vibration.

Electrical Specifications

Switch Type	SPDT
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	Self Cut Off, Indicators
Indicator Rating	1 Watts / 32 Volts / 125 mA

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	26	28	30	Volts
Actuating Current @ 28 Volts		90		mA
VSWR		1.2:1	1.4:1	
Insertion Loss		0.15	0.35	dB
Insertion Loss Repeatability				
Isolation	65	80		dB
Input Power (CW)			60	Watts
Switching Time			20	ms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 6	6 - 12	12 - 18			GHz
VSWR, Max	1.2:1	1.3:1	1.4:1			
Insertion Loss, Max	0.15	0.25	0.35			dB
Isolation, Min	80	75	65			dB
Power In, Typ (CW)	90	75	60			Watts

Mechanical Specifications

Size

Weight	0.117 lbs [53.07 g]
Package Type	Connectorized
Operating Life	5,000,000 Cycles

Features:

- Single Pole Double Throw
- DC to 18 GHz Frequency Range
- Isolation greater than 80 dB typical
- 5M Cycle Min Operating Life
- +28 Volt DC
- 90 Watt average Power
- Latching Actuator
- Self Cut Off
- 1 Watt Indicators
- -25 to +70°C Operating Temperature
- Insertion Loss as low as 0.15 dB Max
- VSWR as low as 1.2:1 max
- SMA Female RF connectors
- Solder Pins for DC Control
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request

Applications:

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

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Connectors

RF Connector Type	SMA Female
Control Connector	Solder Pin

Environmental Specifications

Temperature

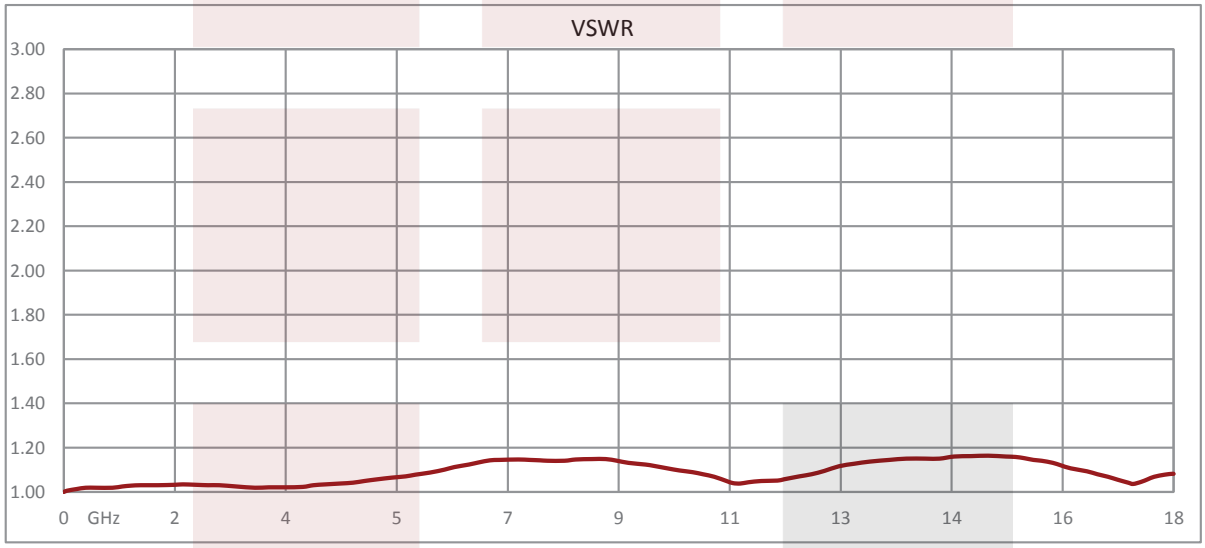
Operating Range	-25 to +70 deg C
Storage Range	-55 to +100 deg C
Shock	MIL-STD-202 Method 213, Cond. D 500G Non Operating
Vibration	MIL-STD-202 Method 214, Cond. D 10G RMS Non Operating

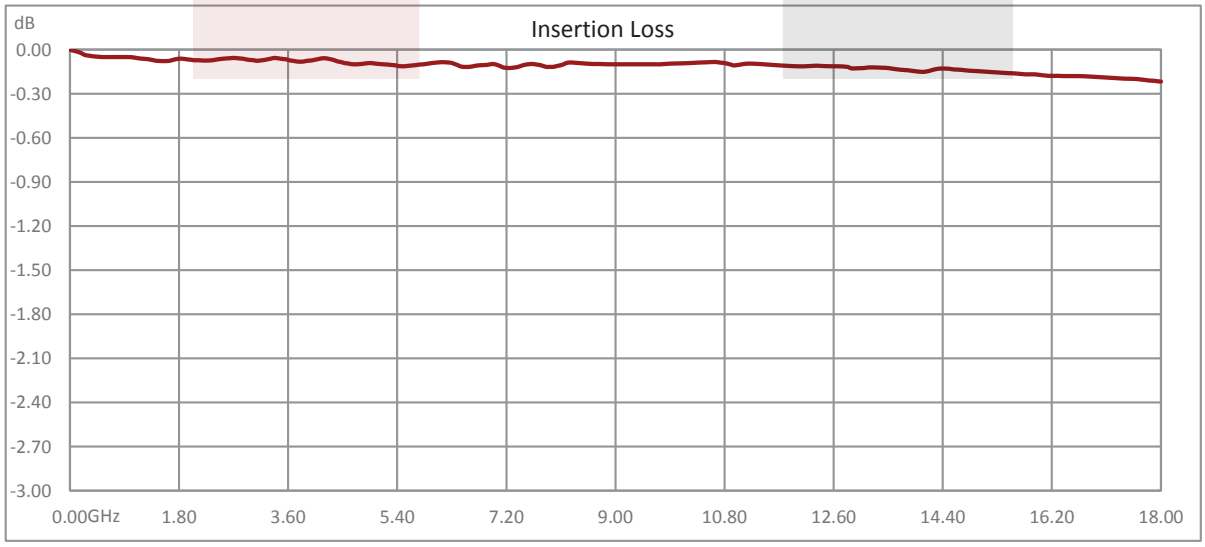
Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Typical Performance Data





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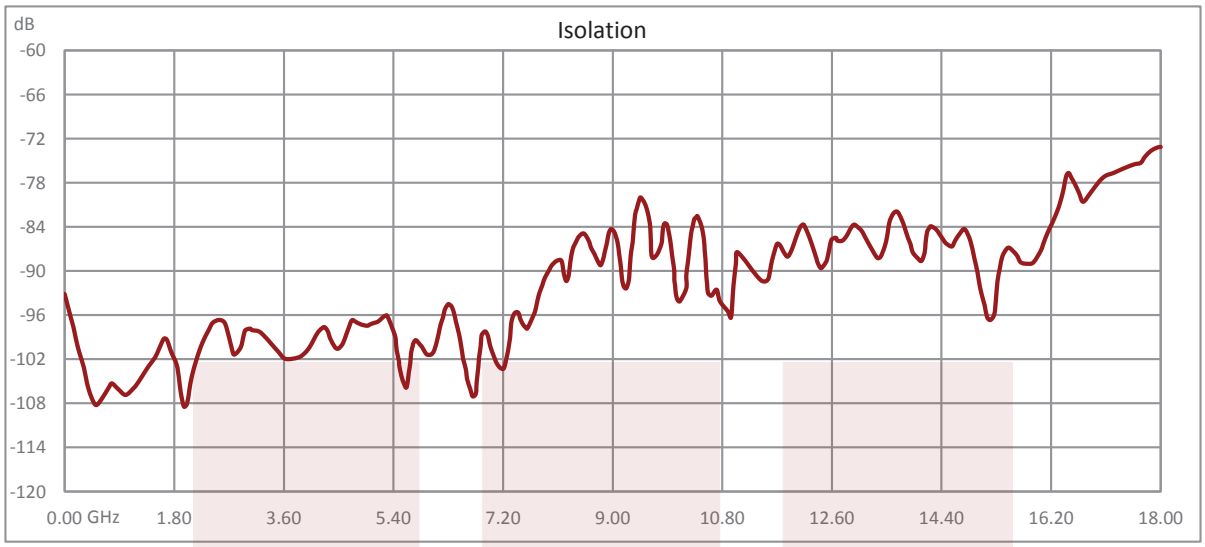
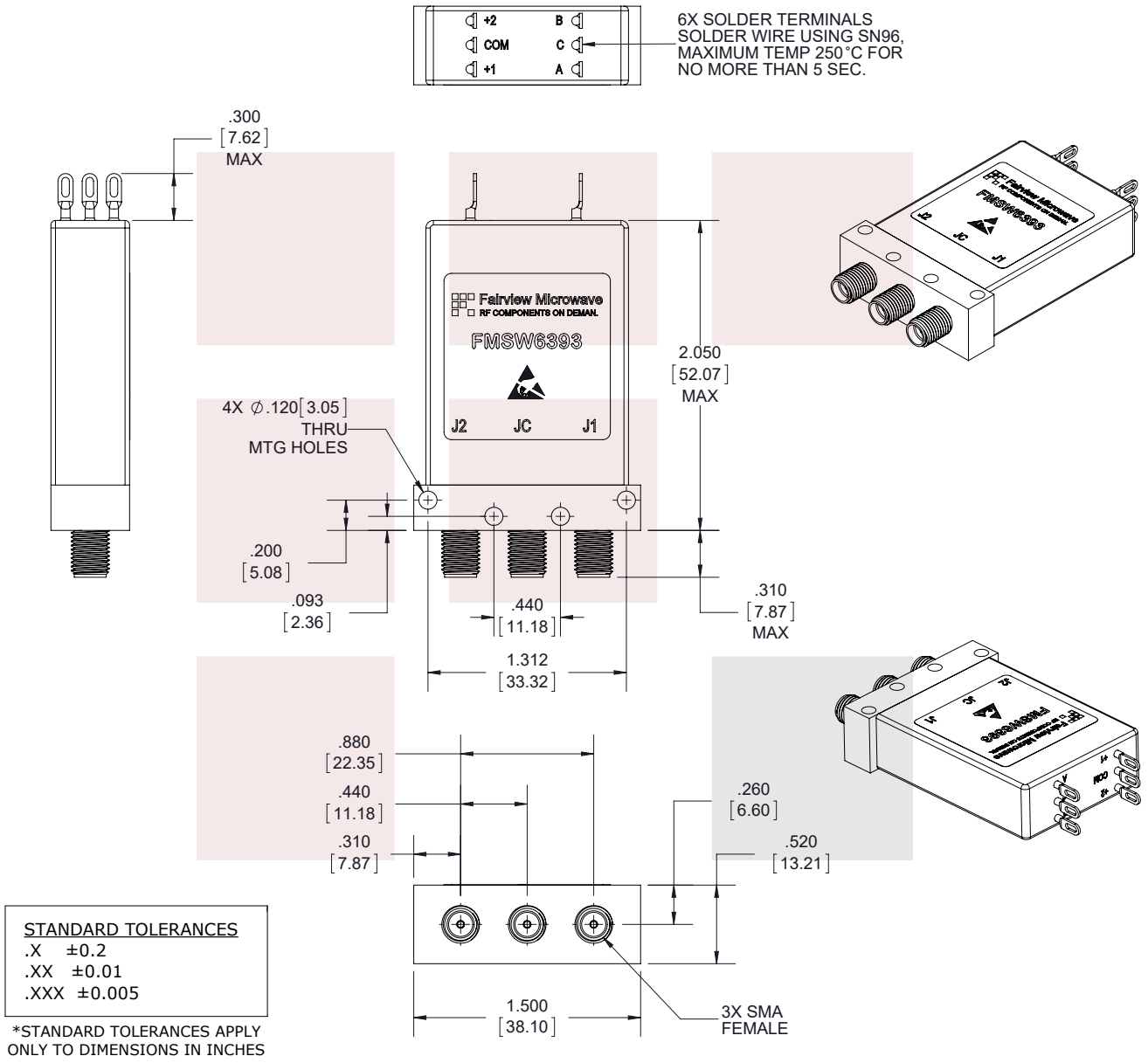


SPDT Latching DC to 18 GHz Electro-Mechanical Relay Switch, Self Cut Off, Indicators, up to 90W, 28V, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: SPDT Latching DC to 18 GHz Electro-Mechanical Relay Switch, Self Cut Off, Indicators, up to 90W, 28V, SMA FMSW6393

URL: https://www.fairviewmicrowave.com/spdt-latching-18-ghz-electro-mechanical-relay-switch-indicators-60w-28v-sma-fmsw6393-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.



STANDARD TOLERANCES
.X ±0.2
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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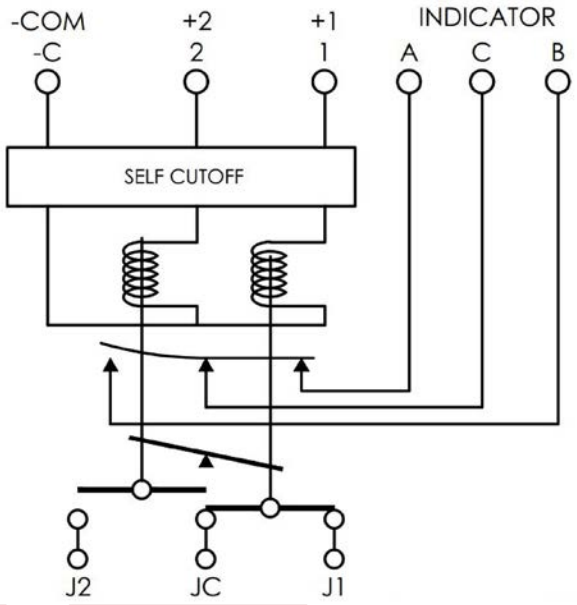

SCHEMATIC SHOWN IN LATCHING POSITION

	RF PATH	INDICATOR
POS1	J1-JC	A-C
POS2	J2-JC	B-C

STANDARD TOLERANCES
.X ±0.2
.XX ±0.01
.XXX ±0.005

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