

## SMA SPDT PIN Diode Switch from 50 MHz to 1.5 GHz Rated at 4 Watts

The FMSW2048 is a Single Pole Double Throw (SPDT) PIN Diode Switch that operates over a wide frequency band from 50 to 1500 MHz. Electrical performance includes max insertion loss of 1.4 dB, min isolation of 50 dB, and max switching speed of 1.5  $\mu$ s. The design requires voltage controls of +5 Vdc, with an operational temperature range of -40°C to +85°C. External connectors include solder terminals and Field Replaceable SMA female connectors. Conforms to MIL-STD for Shock, Vibration, Altitude, and Humidity.

### Electrical Specifications

TTL Control Logic

Off/Isolation: "0"  
On/Low Loss: "1"

Description	Min	Typ	Max	Units
Frequency Range	0.05		1.5	GHz
Impedance		50		Ohms
VSWR		1.2:1	1.5:1	
Insertion Loss			1	dB
Isolation		60		dB
Switching Time		1.5	2	us
Input Power (CW)			4	Watts
Current		1		mA
Operating Temperature	-40		+85	deg C

### Mechanical Specifications

Length	1.25 in [31.75 mm]
Width	1.25 in [31.75 mm]
Height	0.563 in [14.3 mm]
Weight	0.1001 lbs [45.4 g]
Design	Reflective, SPDT
RF Connector	SMA Female
Control Connector	Solder Pin

### Environmental Specifications

#### Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C

Humidity	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

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

### Plotted and Other Data

Notes:



### Features:

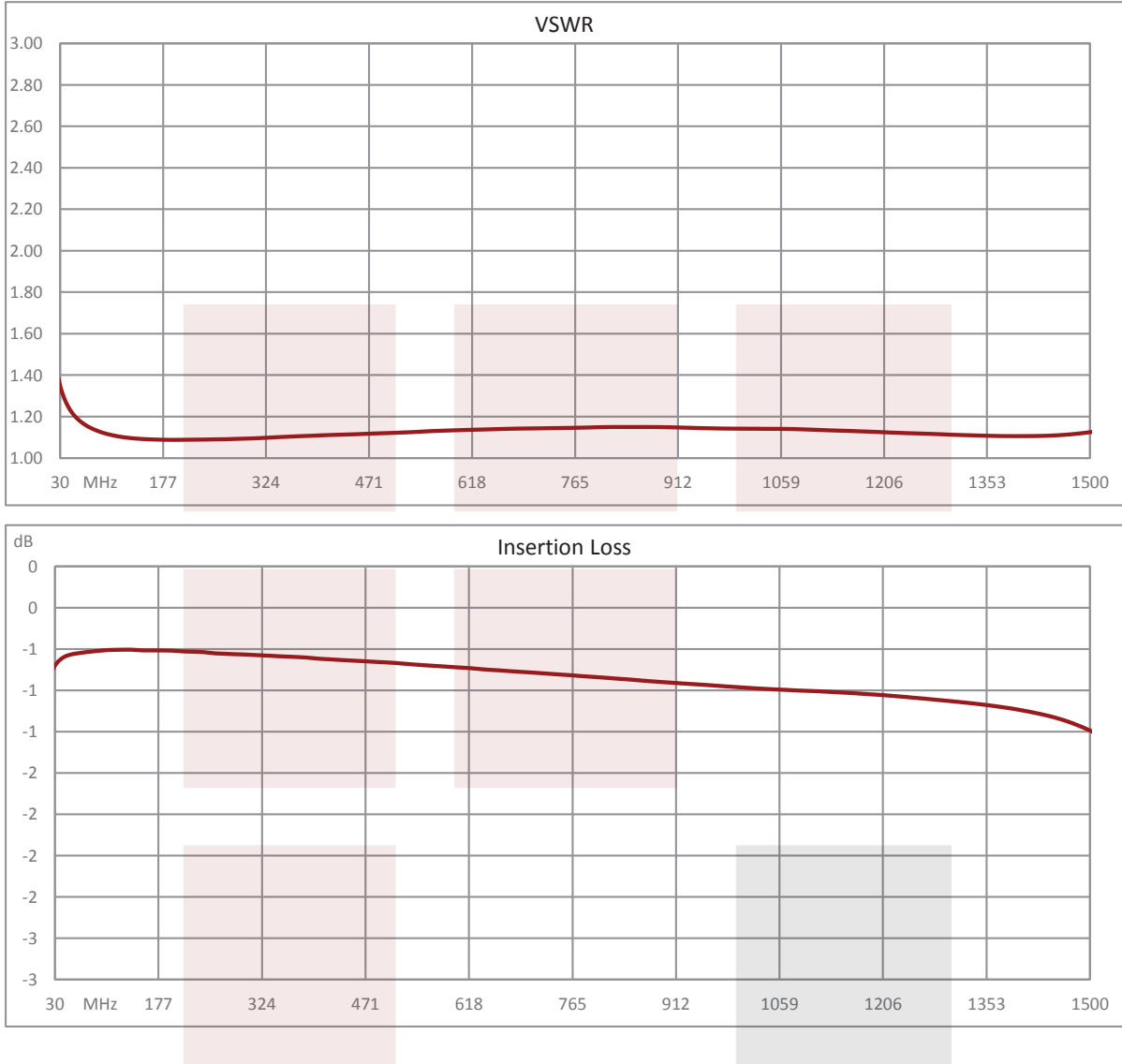
- SPDT Reflective Switch
- 50 MHz to 1500 MHz
- Insertion Loss 1.4 dB max
- Isolation 50 dB
- Power Input +36 dBm CW max
- Switching Time: 1.5  $\mu$ s
- Field replaceable SMA connectors
- Mil Spec Compliant

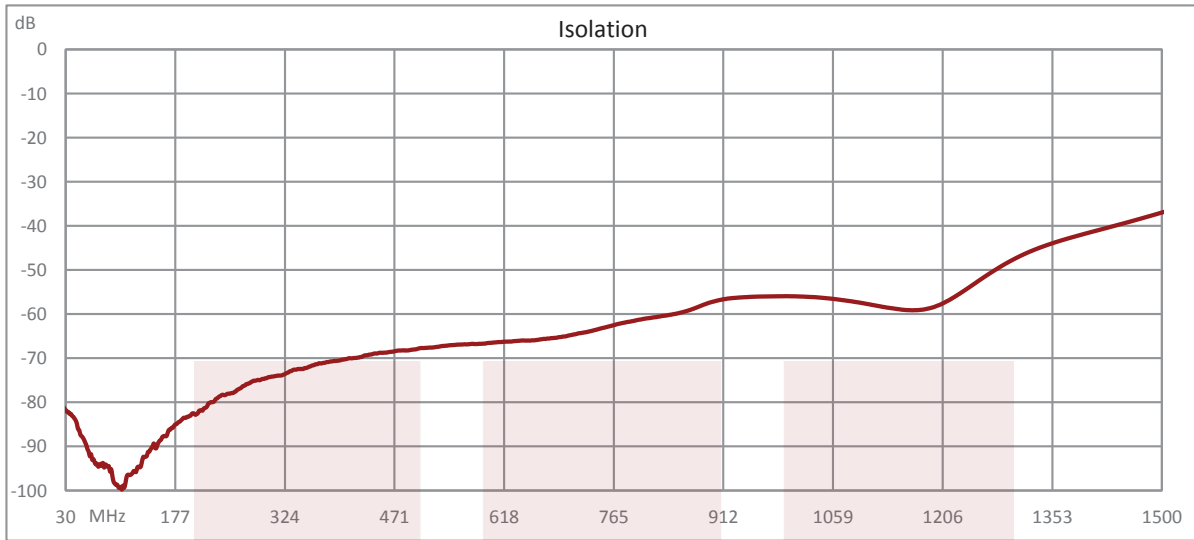
### Applications:

- Test & Measurement
- Military Communication
- Commercial Communication
- Wireless Communications
- SATCOM
- Military Electronic Systems
- RF Test Stations

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**Typical Performance Data**



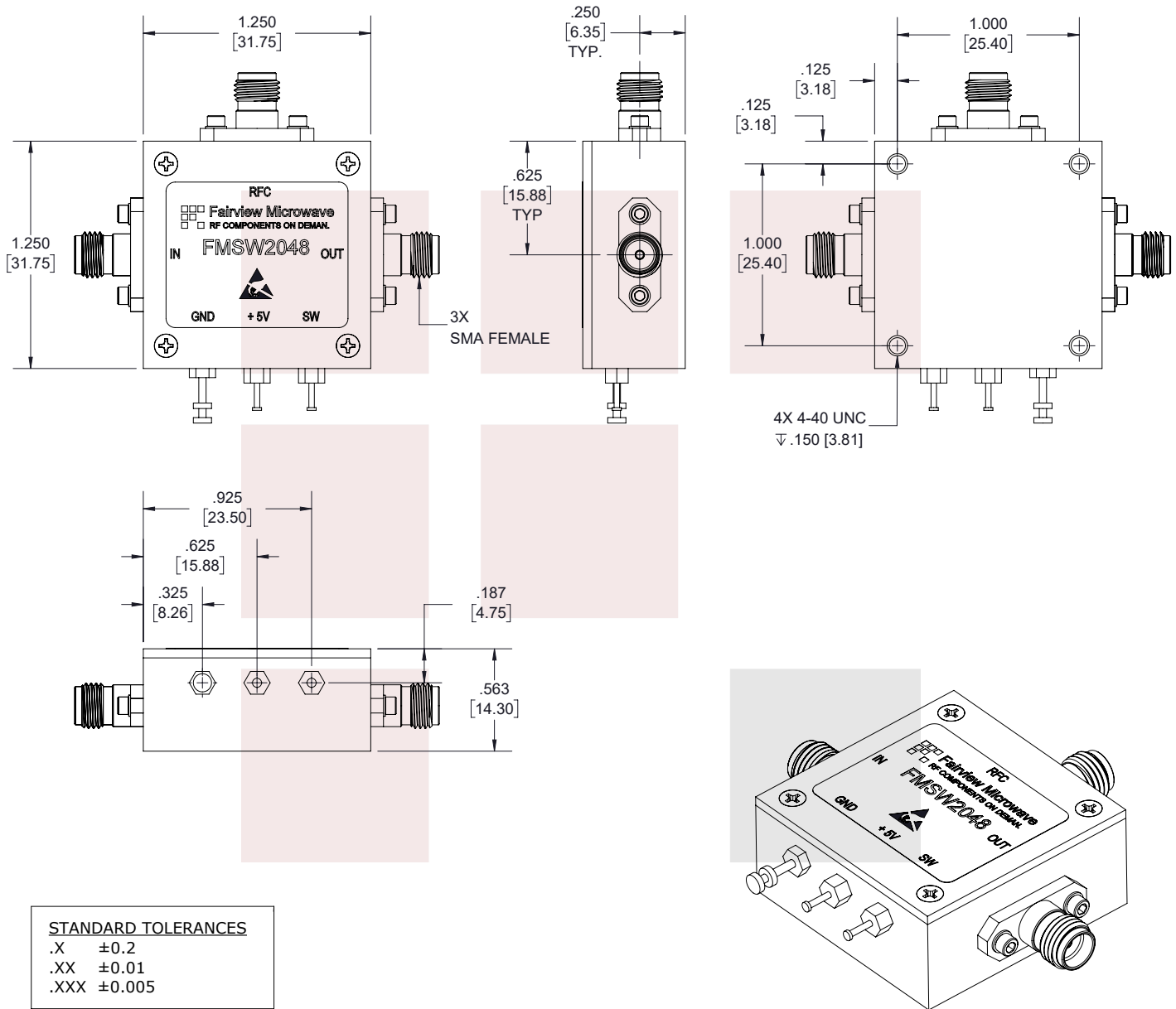


SMA SPDT PIN Diode Switch from 50 MHz to 1.5 GHz Rated at 4 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA SPDT PIN Diode Switch from 50 MHz to 1.5 GHz Rated at 4 Watts FMSW2048](https://www.fairviewmicrowave.com/sma-spdt-pin-diode-switch-1.5-ghz-4-watts-fmsw2048-p.aspx)


URL: <https://www.fairviewmicrowave.com/sma-spdt-pin-diode-switch-1.5-ghz-4-watts-fmsw2048-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

	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 SMA SPDT PIN Diode Switch from 50 MHz to 1.5 GHz Rated at 4 Watts		DWG NO FMSW2048		CAGE CODE 3FKR5			
CAD FILE	06/29/18	SHEET	1 OF 1	SCALE	N/A	SIZE	A	7361