



## **SMA PIN Diode Switch SPDT From** 4 GHz to 8 GHz Rated at +20 dBm

FMSW6238 is a Single Pole Double Throw (SPDT) Absorptive PIN Diode Switch that operates from 4 GHz to 8 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Outstanding performance includes < 1.9 dB insertion loss, > 70 dB isolation, and < 100 nsec switching speed. The design incorporates TTL compatible driver circuitry for accurate logic control. Operational temperature range is -40°C to +85°C and dual voltage controls of +5 DC and -15 DC are required. The rugged package is designed to meet a series of MIL-STD-202F environmental conditions including humidity, shock, vibration, and temperature cycle. Package interfaces include solder terminals and female SMA connectors.



Description	Min	Тур	Max	Units	
Frequency Range	4		8	GHz	
Impedance		50		Ohms	
Insertion Loss			1.9	dB	
Isolation	70			dB	
Switching Time			100	ns	
Input Power (CW)			0.1	Watts	
Survival Power			1	Watts	
Positive Operating Voltage		5		V	
Negative Operating Volta	age	-15		V	
Current @ 5 V		100		mA	
Current @ -15 V		100		mA	
Operating Temperature	-40		+85	deg C	

### **Mechanical Specifications**

Length 1 in [25.4 mm] Width 1 in [25.4 mm] Height 0.4 in [10.16 mm] Weight 0.0662 lbs [30.03 g]

Finish Blue

Configuration

Connectorized Module Package Type SPDT, Absorptive Design **RF** Connector SMA Female Pin

**Control Connector** 

# **Environmental Specifications**

**Temperature** 

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

Humidity MIL-STD-202F, Method 103B, Condi-

tion B

Shock MIL-STD-202F, Method 213B, Condi-

tion B

Vibration MIL-STD-202F, Method 204D, Condi-

tion B



#### Features:

- SPDT Absortive Switch
- 4.0 GHz to 8.0 GHz
- Insertion Loss 1.9 dB max
- Isolation 70 dB min
- Power Input 20 dBm CW max
- Field Replaceable Connectors

## Applications:

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

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Altitude Temperature Cycling ESD Sensitivity MIL-STD-202F, Method 105C, Condition B
MIL-STD-202F, Method 107D, Condition A
ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.



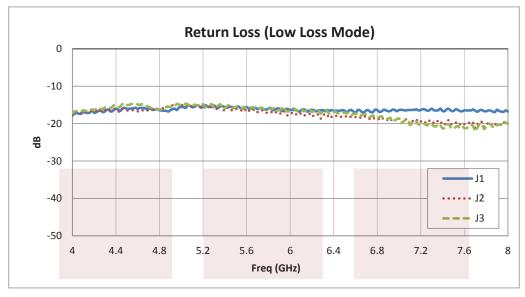
**Compliance Certifications** (visit www.FairviewMicrowave.com for current document) REACH Compliant 12/17/2015

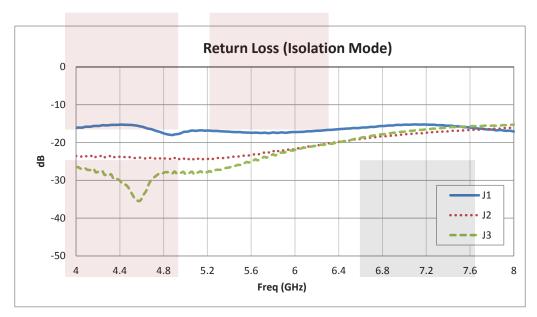
Plotted and Other Data Notes:	a	





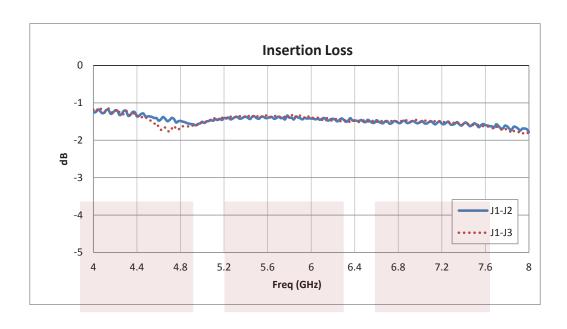
### **Typical Performance Data**

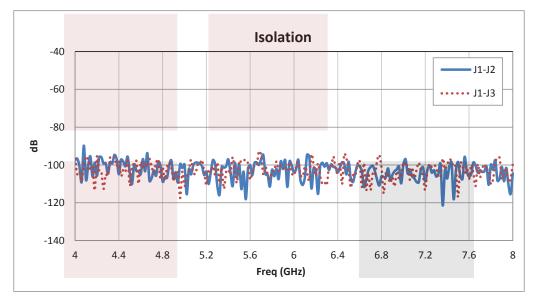












SMA PIN Diode Switch SPDT From 4 GHz to 8 GHz Rated at +20 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

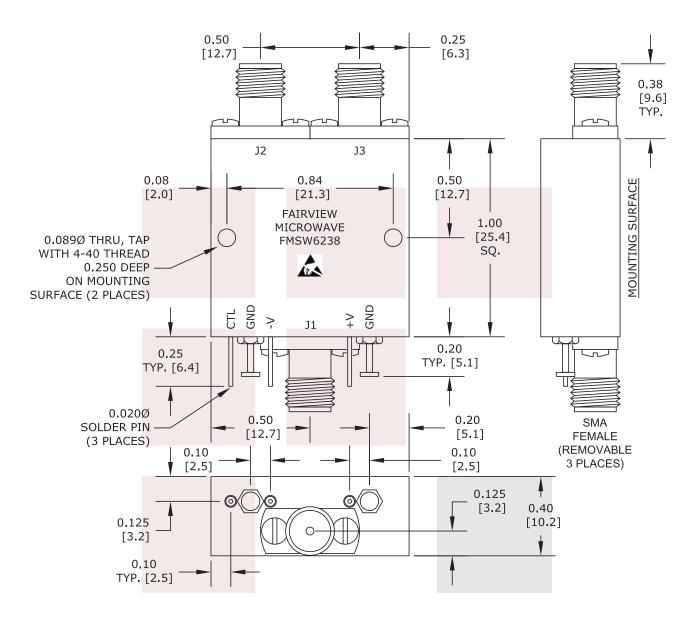
For additional information on this product, please click the following link: SMA PIN Diode Switch SPDT From 4 GHz to 8 GHz Rated at +20 dBm FMSW6238

URL: http://www.fairviewmicrowave.com/sma-pin-diode-switch-spdt-4-8-ghz-rated-20-dbm-fmsw6238-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.







LOGIC TABLE			
CTL	J1-J2	J1-J3	
0	ON	OFF	
1	OFF	ON	

ALL DIMENSIONS ARE IN INCHES. TOLERANCES: X.XX ±0.020 X.XXX ±0.010

\* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.

FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM	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].					
SMA PIN Diode Switch SPDT From 4 GHz to 8 GHz Rated at +20 dBm	DWG NO FMSW6238			CAGE CODE 3FKR5		
	CAD FILE 030816	SHEET	SCAL	E N/A	SIZE A	2233