

## 75 Ohm F SPDT PIN Diode Switch Absorptive From 5 MHz to 2.15 GHz Rated at +20 dBm

The FMSW2043 is a single pole double throw (SPDT) terminated PIN diode switch that operates over the frequency range of 5 MHz to 2150 MHz. The 75 ohm design supports TTL control logic and is rated up to watt average RF input power. Typical performance includes 1.5 dB insertion loss and greater than 70 dB isolation. Switching speed is 40 microseconds with 1.4:1 typical VSWR and an operating voltage of +12 Vdc with 150 mA nominal current. The rugged package design supports F Female RF input/output connectors. The Switch design is highly reliable with an operational temperature of 0°C to +70°C.

### Electrical Specifications

TTL Control Logic

Off/Isolation: "0" 0 to 0.8 V  
On/Low Loss: "1" 2 to 5 V

Description	Min	Typ	Max	Units
Frequency Range	0.005		2.15	GHz
Impedance		75		Ohms
VSWR		1.25:1	1.4:1	
Insertion Loss		1.5	2.5	dB
Isolation	70	80		dB
Switching Time			100	μs
Input Power (CW)			0.1	Watts
Positive Operating Voltage		12		Vdc
Current @ 12 Vdc		150		mA
Operating Temperature	0		+70	deg C

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.005 to 0.1	0.1 to 2.15				GHz
Power (CW), Max	0.01	0.1				Watts

### Mechanical Specifications

Design  
RF Connector

Absorptive, SPDT  
F Female

### Environmental Specifications

#### Temperature

Operating Range  
Storage Range

0 to +70 deg C  
-55 to +90 deg C

ESD Sensitivity

ESD Sensitive Material. Transport material in Approved ESD bags. Handle only in ESD Workstation.



### Features:

- SPDT PIN Diode Switch
- Terminated
- 5 to 2150 MHz Bandwidth
- Insertion loss: 2.5 dB max
- Isolation: 70 dB min
- 50 Ohms
- Switching Speed: 10 microseconds
- DC voltage: +12 Vdc
- F type female connectors
- TTL Control Logic

### Applications:

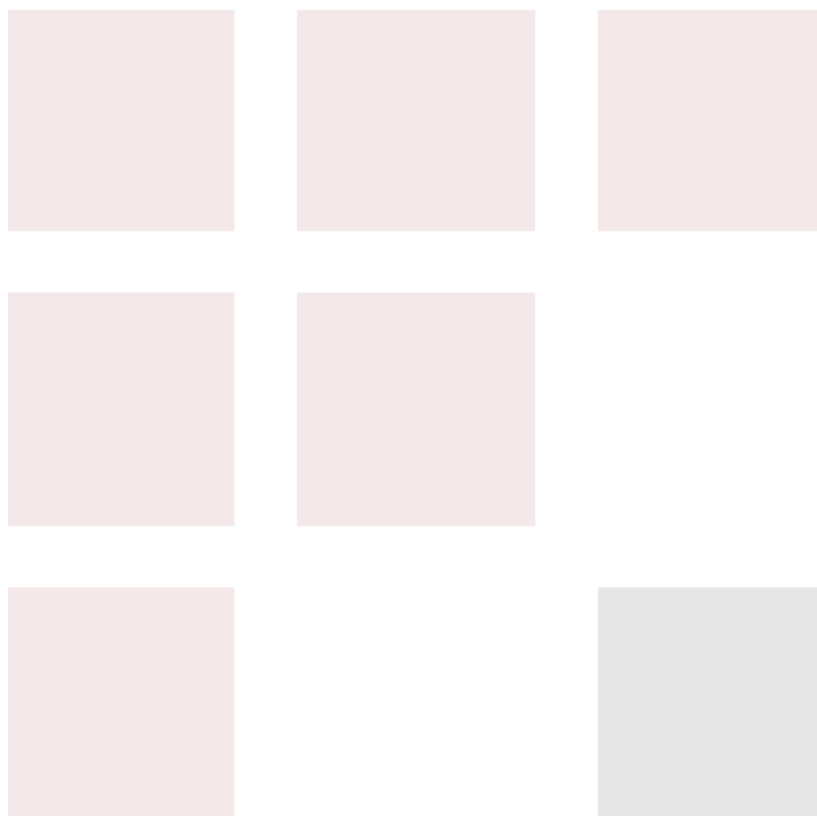
- Electronic Warfare
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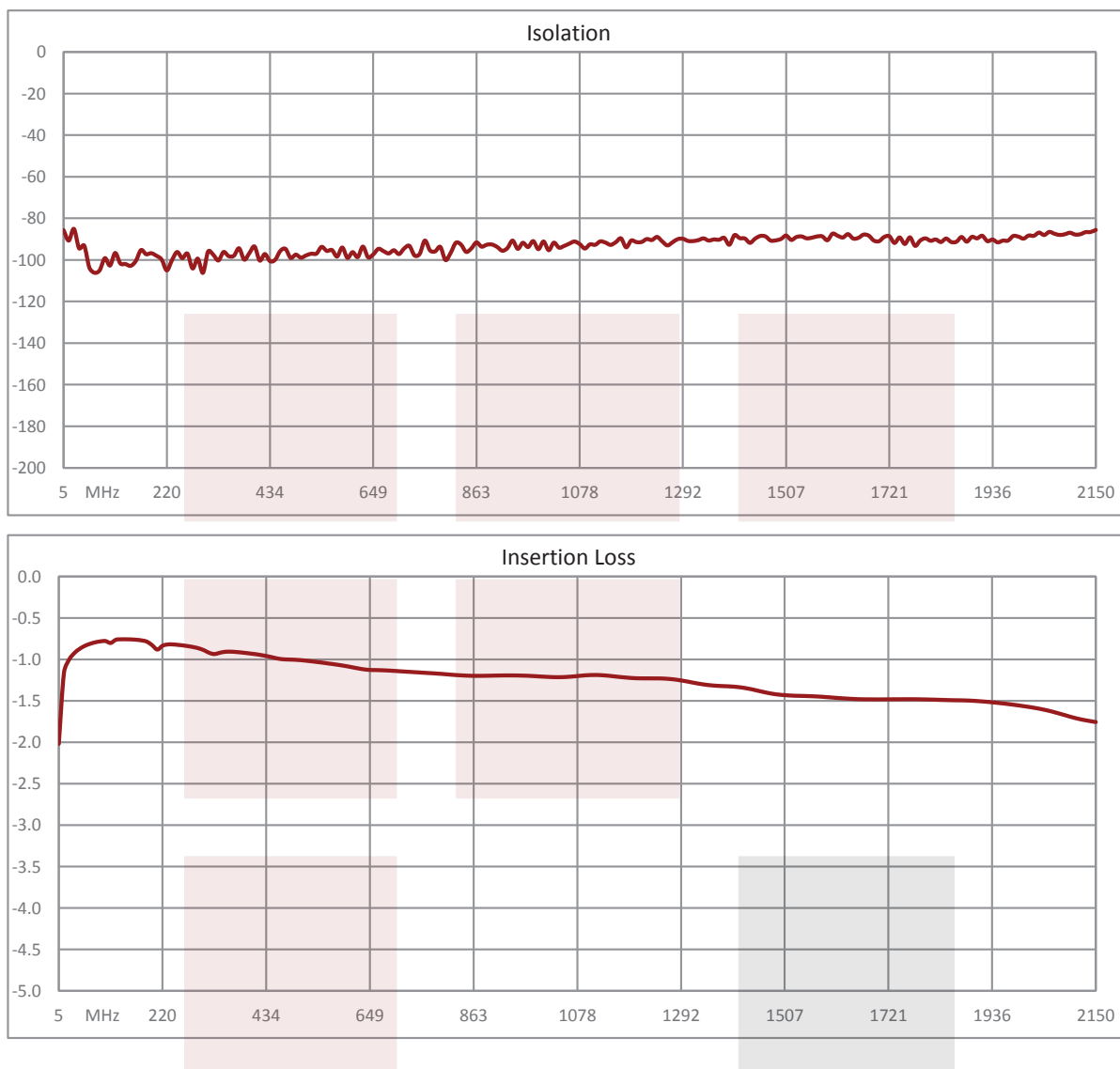
**Compliance Certifications** (see [product page](#) for current document)

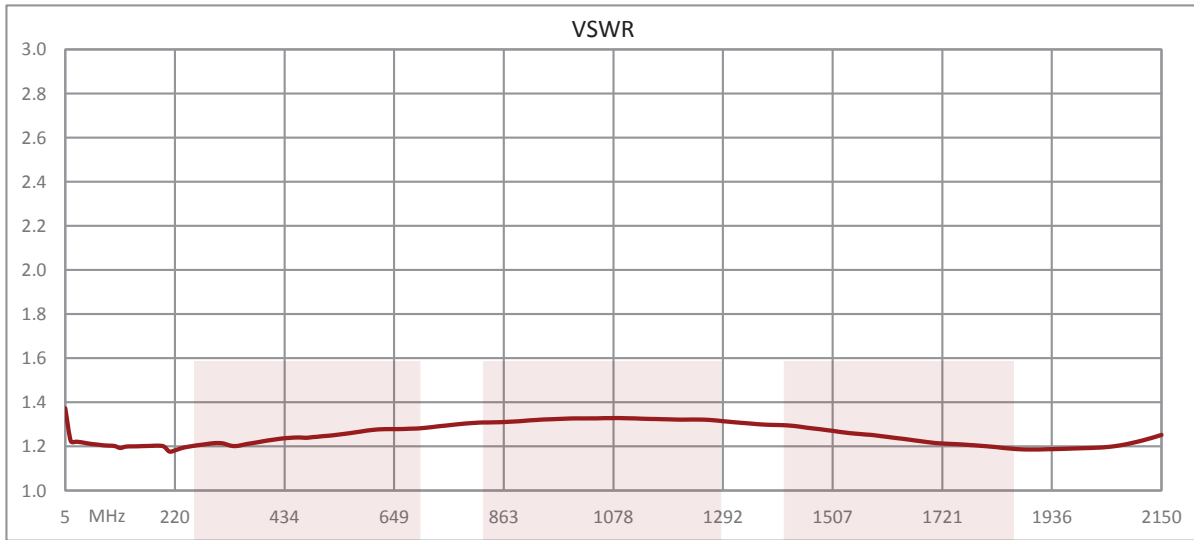
**Plotted and Other Data**

Notes:



**Typical Performance Data**



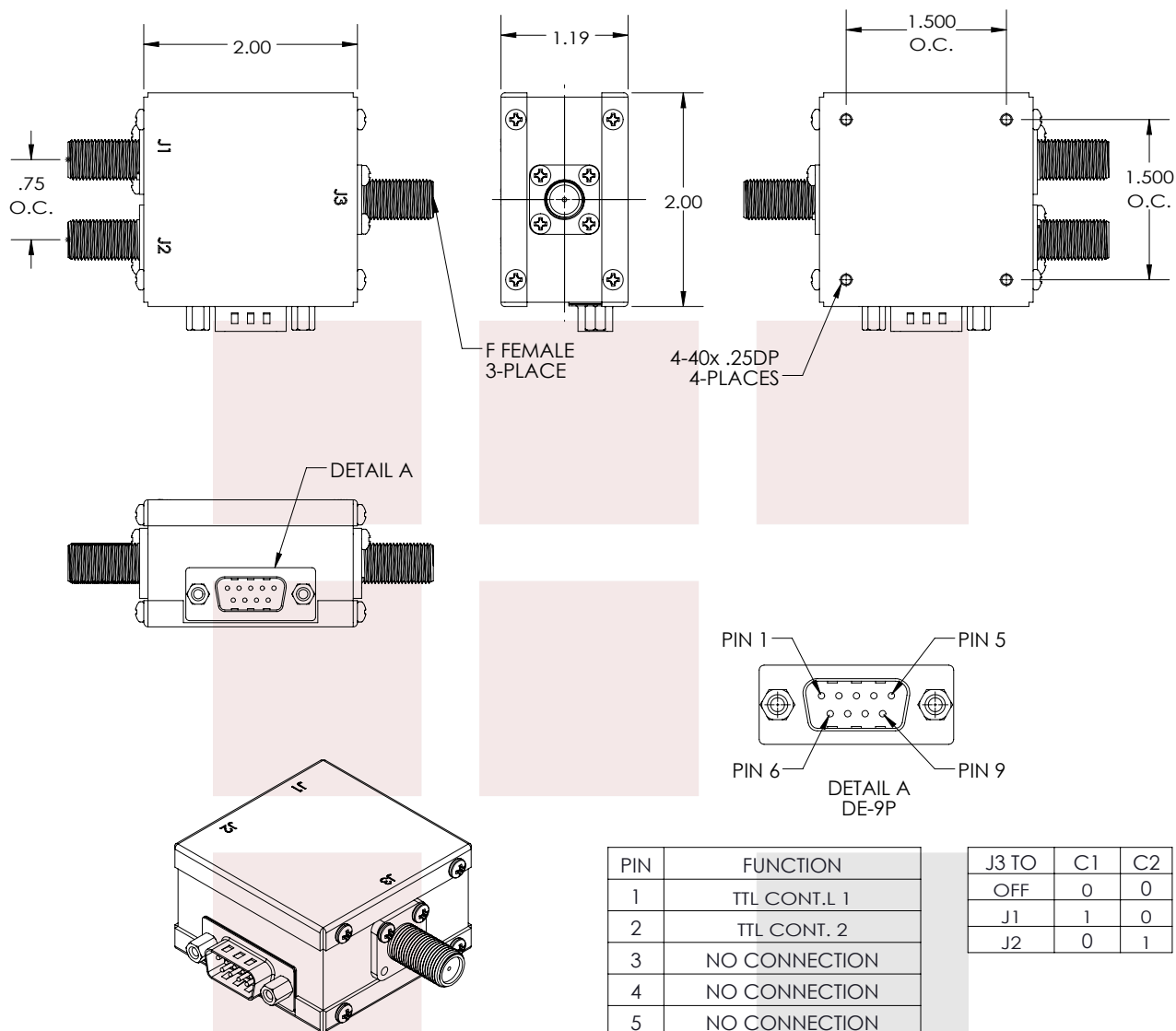


75 Ohm F SPDT PIN Diode Switch Absorptive From 5 MHz to 2.15 GHz Rated at +20 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [75 Ohm F SPDT PIN Diode Switch Absorptive From 5 MHz to 2.15 GHz Rated at +20 dBm FMSW2043](https://www.fairviewmicrowave.com/75-ohm-f-spdt-pin-diode-switch-absorptive-2.15-ghz-20-dbm-fmsw2043-p.aspx)

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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  $\pm 0.2$   
.XX  $\pm 0.01$   
.XXX  $\pm 0.005$

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES

PIN	FUNCTION
1	TTL CONT. L 1
2	TTL CONT. 2
3	NO CONNECTION
4	NO CONNECTION
5	NO CONNECTION
6	NO CONNECTION
7	NO CONNECTION
8	+12 Vdc
9	GROUND

J3 TO	C1	C2
OFF	0	0
J1	1	0
J2	0	1

**FAIRVIEW MICROWAVE INC.**

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TITLE

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**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].

DWG NO

FMSW2043

CAGE CODE

3FKR5

CAD FILE 052617

SHEET

SCALE N/A

SIZE A

CN 0157