

SMA SP4T PIN Diode Switch Absorptive
From 5 MHz to 3 GHz Rated at +30 dBm

The FMSW2037 is a single pole four throw (SP4T) terminated PIN diode switch that operates over the frequency range of 5 MHz to 3000 MHz. The 50 ohm design supports TTL control logic and is rated up to 1 watt average RF input power. Typical performance includes 2.5 dB insertion loss and greater than 60 dB isolation. Switching speed is 10 microseconds with 1.5:1 typical VSWR and an operating voltage of +24 Vdc with 150 mA nominal current. The rugged package design supports SMA 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		3	GHz
Impedance		50		Ohms
VSWR		1.3:1	1.5:1	
Insertion Loss		2.5	3.5	dB
Insertion Loss Repeatability			0.05	dB
Switching Time			10	µs
Input Power (CW)			1	Watts
Positive Operating Voltage		24		Vdc
Current @ 24 Vdc		150		mA
Operating Temperature	0		+70	deg C

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.005 to 1	1 to 2	2 to 3			GHz
Isolation, Min	80	70	60			dB

Mechanical Specifications

Design
 RF Connector

Absorptive, SP4T
 SMA 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:

- SP4T PIN Diode Switch
- Terminated
- 5 to 3000 MHz Bandwidth
- Insertion loss: 2.5 dB max
- Isolation: 60 dB min
- 50 Ohms
- Switching Speed: 10 microseconds
- DC voltage: +24 Vdc
- SMA female connectors
- TTL Control Logic

Applications:

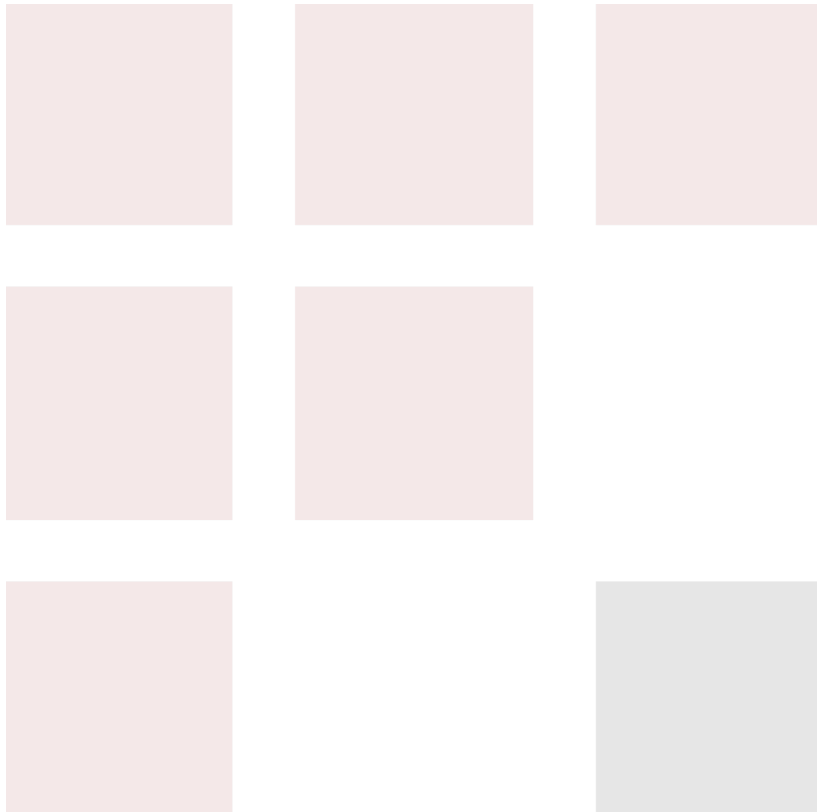
- Electronic Warfare
- Test & Measurement
- Military and Wireless Communications Systems
- Military & Space
- Radar

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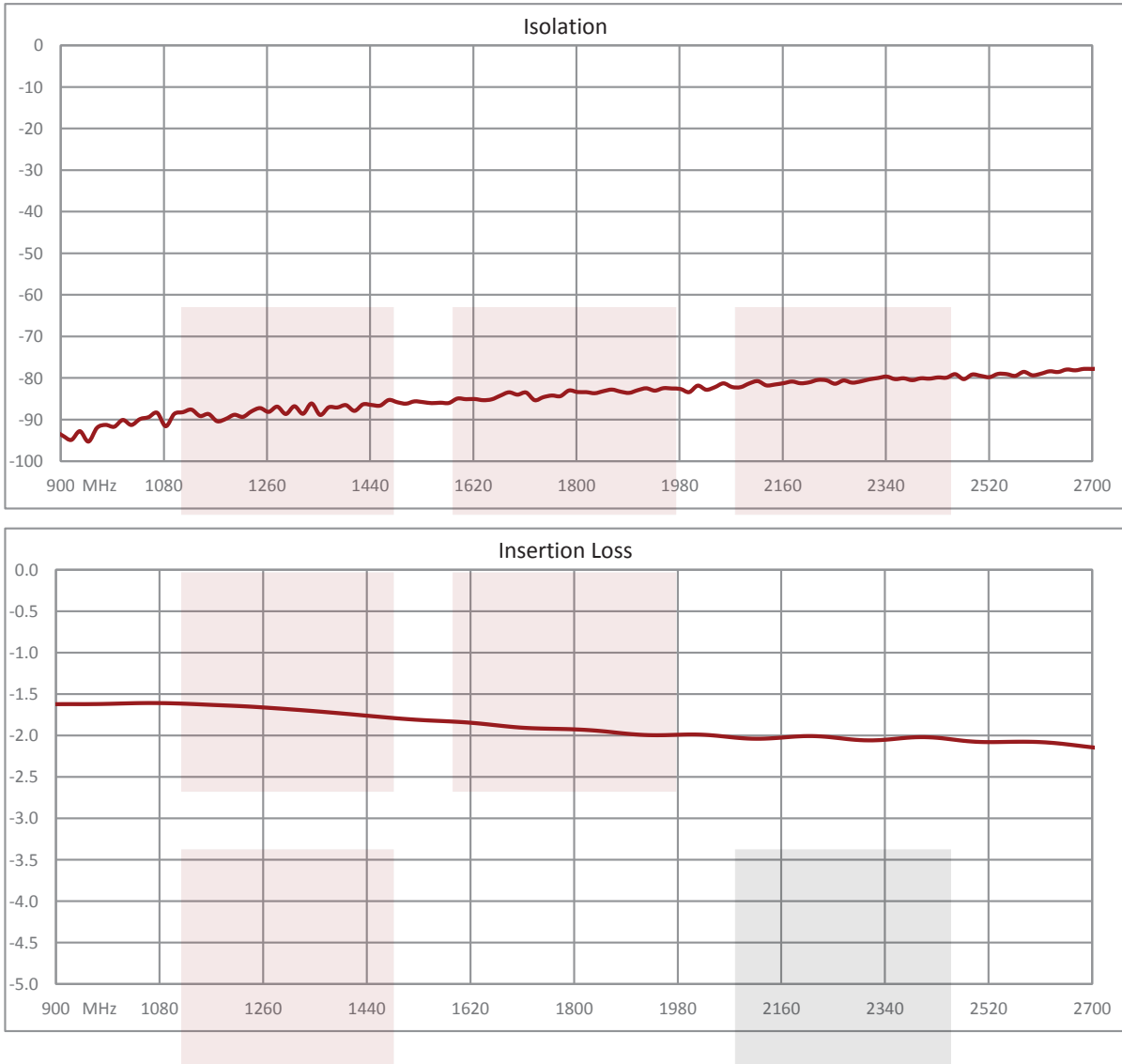
Compliance Certifications (see [product page](#) for current document)

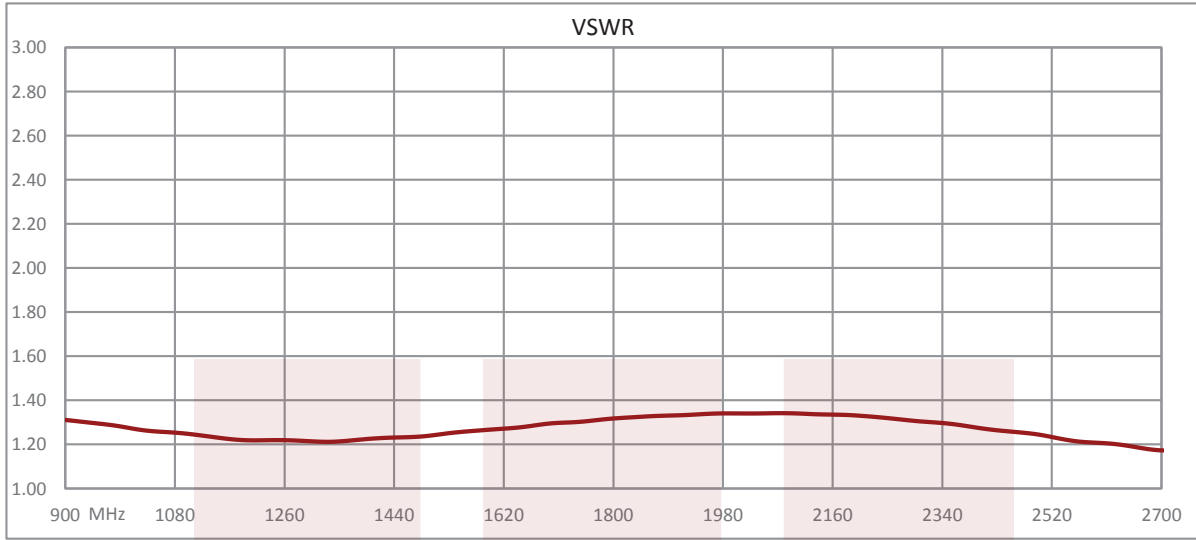
Plotted and Other Data

Notes:



Typical Performance Data



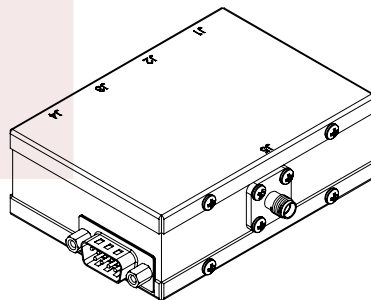
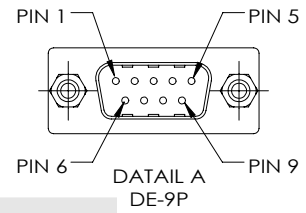
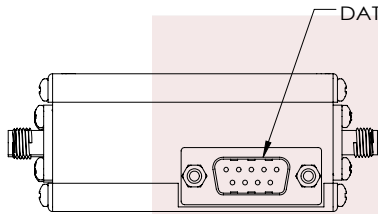
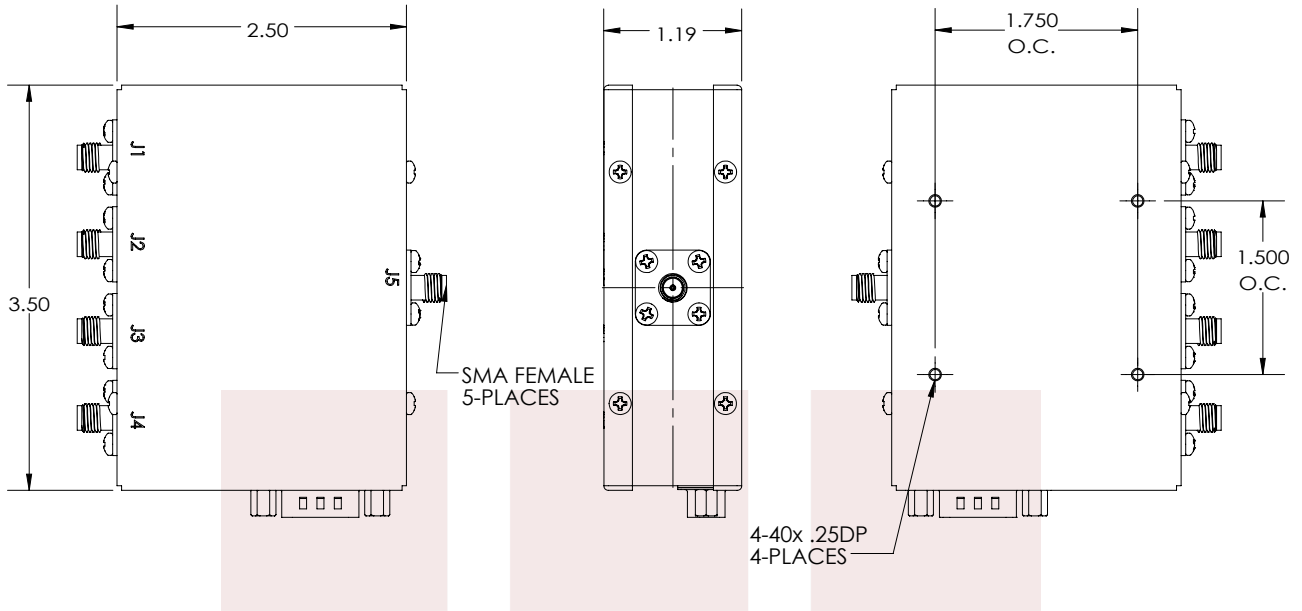


SMA SP4T PIN Diode Switch Absorptive From 5 MHz to 3 GHz Rated at +30 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA SP4T PIN Diode Switch Absorptive From 5 MHz to 3 GHz Rated at +30 dBm FMSW2037](#)

URL: <https://www.fairviewmicrowave.com/sma-sp4t-pin-diode-switch-absorptive-3-ghz-30-dbm-fmsw2037-p.aspx>

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

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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

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].		
TITLE SMA SP4T PIN Diode Switch Absorptive From 5 MHz to 3 GHz Rated at +30 dBm	DWG NO FMSW2037	CAGE CODE 3FKR5		
	CAD FILE 052617	SHEET	SCALE N/A	SIZE A CN 0157