

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

The FMSW2036 is a single pole double throw (SPDT) 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 50 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		50		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, SPDT
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:

- SPDT 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:

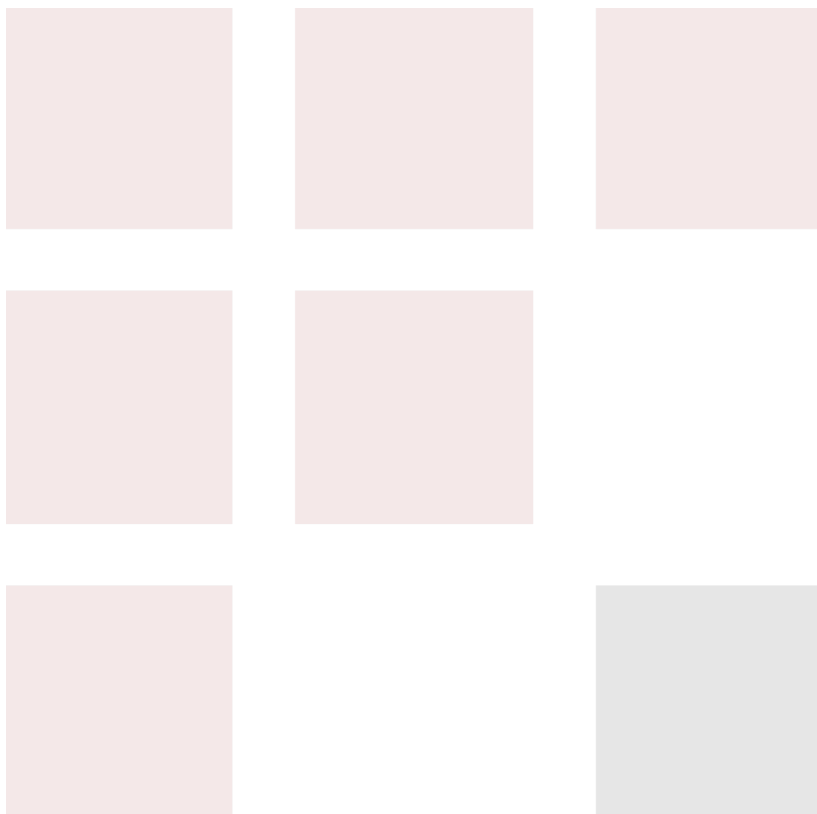
- Electronic Warfare
- Test & Measurement
- Military and Wireless Communications Systems
- Military & Space
- Radar

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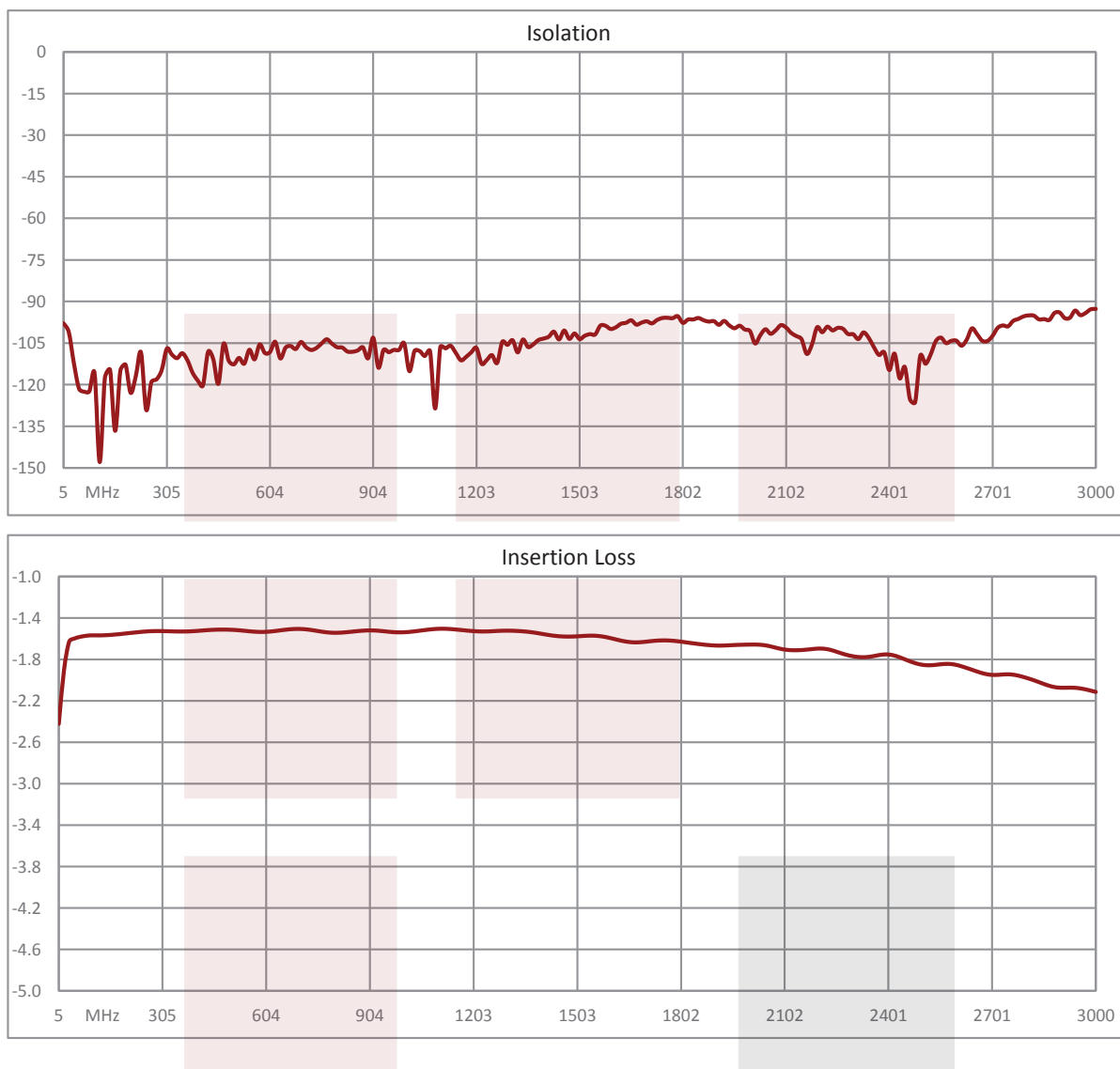
Compliance Certifications (see [product page](#) for current document)

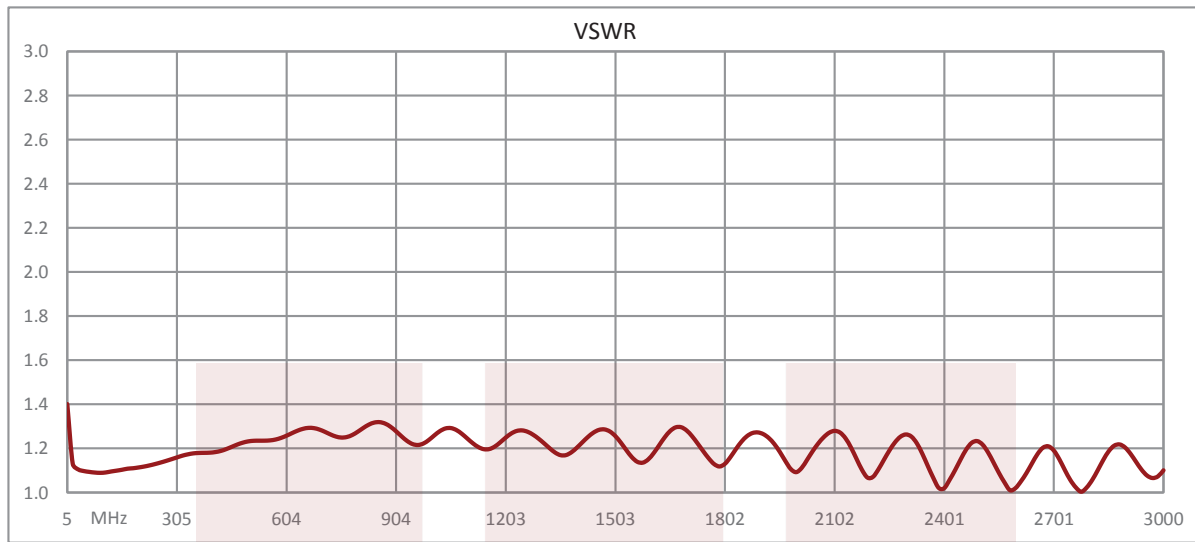
Plotted and Other Data

Notes:



Typical Performance Data



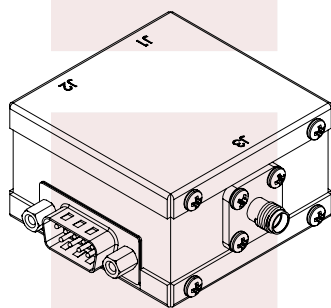
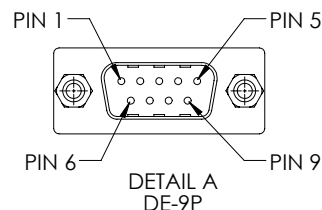
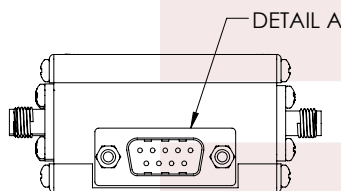
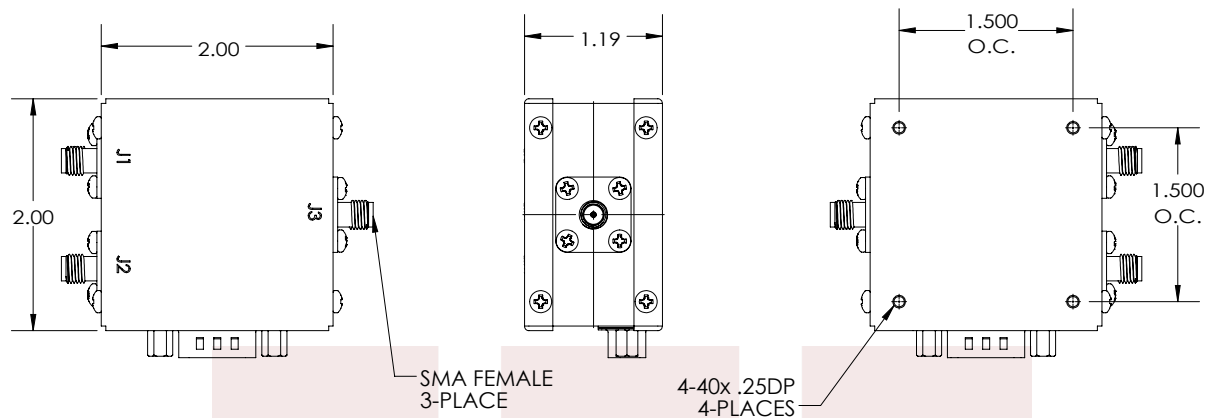


SMA SPDT PIN Diode Switch Absorptive From 5 MHz to 3 GHz Rated at +30 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA SPDT PIN Diode Switch Absorptive From 5 MHz to 3 GHz Rated at +30 dBm FMSW2036](#)

URL: <https://www.fairviewmicrowave.com/sma-spdt-pin-diode-switch-absorptive-3-ghz-30-dbm-fmsw2036-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

PIN	FUNCTION
1	TTL CONTROL 1
2	TTL CONTROL 2
3	NO CONNECTION
4	NO CONNECTION
5	NO CONNECTION
6	NO CONNECTION
7	+5 Vdc
8	+24 Vdc
9	GROUND

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

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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

FMSW2036

CAGE CODE

3FKR5

CAD FILE 052617

SHEET

SCALE N/A

SIZE A

CN 0157