

SMA SPDT PIN Diode Switch From 20 MHz to 2.5 GHz Rated at 25 Watts

The FMSW2042 is a single pole double throw (SPDT) PIN diode switch that operates over the frequency range of 20 MHz to 2500 MHz. The 50 ohm design supports TTL control logic and is rated up to 25 watt average RF input power. Typical performance includes 1 dB insertion loss and greater than 35 dB isolation. Switching speed is 40 microseconds with 1.4:1 typical VSWR and an operating voltage of +15 Vdc with 80 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 V
On/Low Loss: "1"

Description	Min	Typ	Max	Units
Frequency Range	0.02		2.5	GHz
Impedance		50		Ohms
VSWR			1.4:1	
Insertion Loss		1		dB
Switching Time			10	μs
Input Power (CW)			25	Watts
Input Power (Peak) 1 μsec Pulse			200	Watts
Positive Operating Voltage		15		Vdc
Current @ 15 Vdc		80		mA
Operating Temperature	0		+70	deg C

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.02 to 1	1 to 2	2 to 2.5			GHz
Insertion Loss, Max	0.7	1	1.5			dB
Insertion Loss, Typ	0.3	0.5	1			dB
Isolation, Min	45	35	35			dB
Isolation, Typ	50	40	40			dB

Mechanical Specifications

Weight	0.5495 lbs [249.25 g]
Design	Reflective, SPDT
RF Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	0 to +70 deg C
Storage Range	-55 to +90 deg C



Features:

- SPDT PIN Diode Switch
- 20 to 2500 MHz Bandwidth
- Insertion loss: 1.5 dB max
- Isolation: 35 dB min
- 50 Ohms
- Switching Speed: 10 microseconds
- DC voltage: +15 Vdc
- SMA female connectors
- TTL Control Logic

Applications:

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

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ESD Sensitivity

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



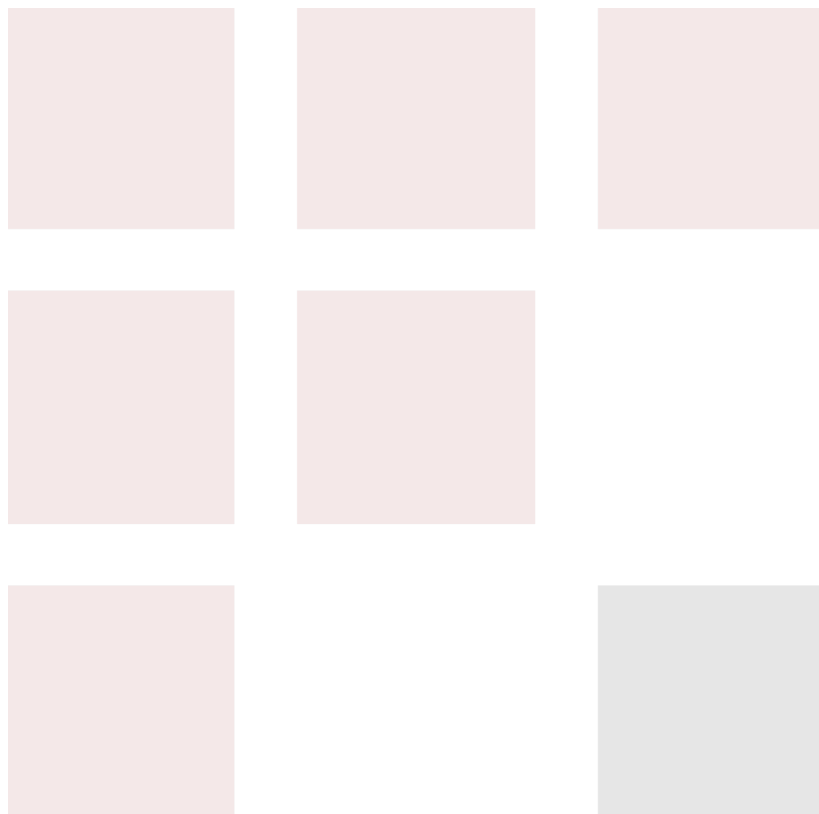
Compliance Certifications (see [product page](#) for current document)

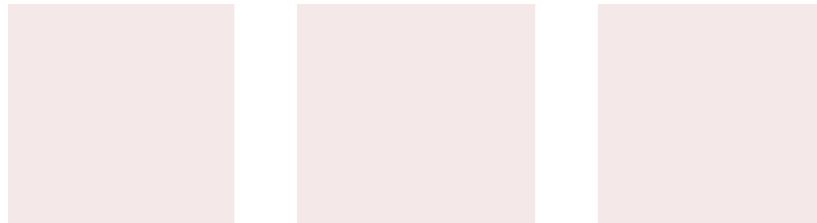
Plotted and Other Data

Notes:



Typical Performance Data





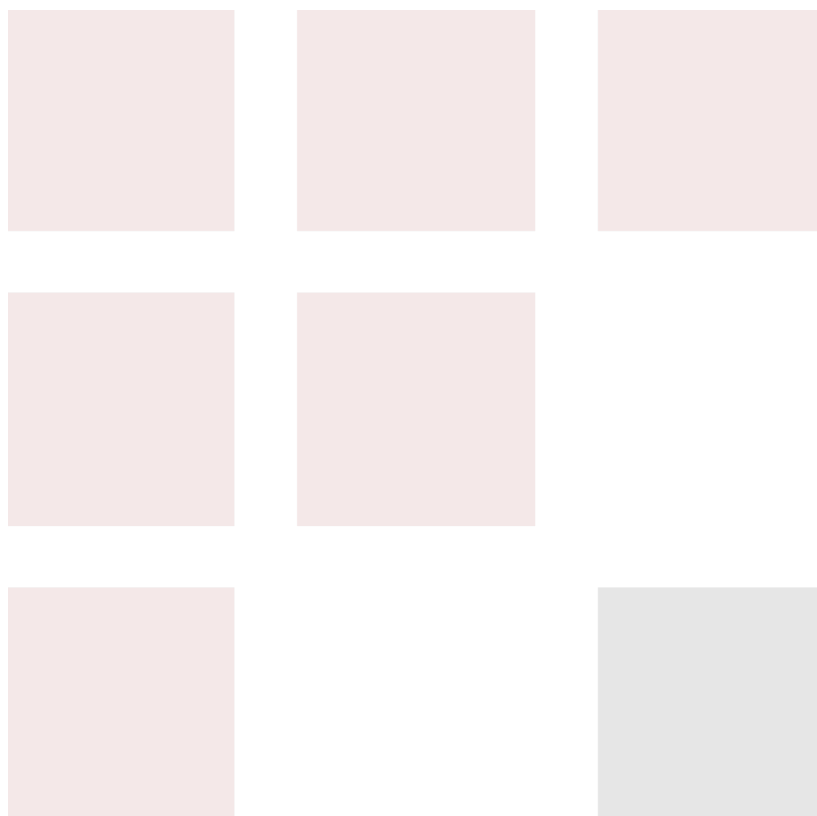
SMA SPDT PIN Diode Switch From 20 MHz to 2.5 GHz Rated at 25 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA SPDT PIN Diode Switch From 20 MHz to 2.5 GHz Rated at 25 Watts FMSW2042](#)

URL: <https://www.fairviewmicrowave.com/sma-spdt-pin-diode-switch-2.5-ghz-25-watts-fmsw2042-p.aspx>

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