

Field Replaceable 2.92mm SPDT PIN Diode Switch From 500 MHz to 40 GHz Rated at +20 dBm

FMSW6226 is a Single Pole Double Throw (SPDT) Reflective PIN Diode Switch that operates from 0.5 to 40 GHz. Performance includes 5.5 dB typ insertion loss, 55 dB min Isolation, and 50 nsec max 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 VDC and -5 VDC are required. The rugged package design is compact, features field replaceable female 2.92mm connectors, and is designed to meet MIL-STD 202F environmental test conditions which include humidity, shock, vibration, altitude, and temperature cycle.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	0.5		40	GHz
Impedance		50		Ohms
Insertion Loss		5.5		dB
Isolation	55			dB
Switching Time			50	ns
Input Power (CW)			0.1	Watts
Input Power (Peak) 1 us			30	Watts
Survival Power			1	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-5		Vdc
Current @ 5 Vdc		200		mA
Current @ -5 Vdc		100		mA
Operating Temperature	-40		+85	deg C

Mechanical Specifications

Length	1 in [25.4 mm]
Width	1 in [25.4 mm]
Height	0.5 in [12.7 mm]
Finish	Blue Paint

Configuration

Design	Reflective, SPDT
RF Connector	2.92mm Female
RF Connector Option	Field Replaceable
Control Connector	Solder Pin

Environmental Specifications

Temperature

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

Humidity	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B



Features:

- SPDT Reflective Switch
- 0.5 GHz to 40.0 GHz
- Insertion Loss 5.5 dB typ
- Isolation 55 dB min
- Power Input 20 dBm CW max
- Switching Speed 50 nsec max

Applications:

- Test & Measurement
- Military Communication
- Commercial Communication

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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

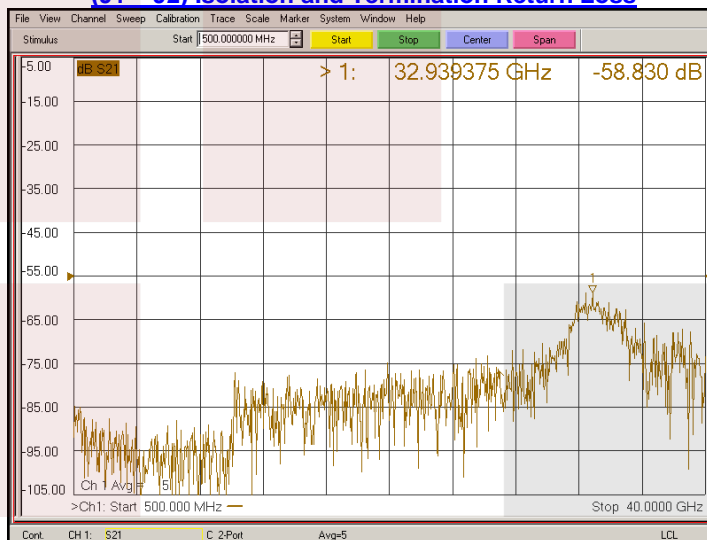
Notes:

Typical Performance Data

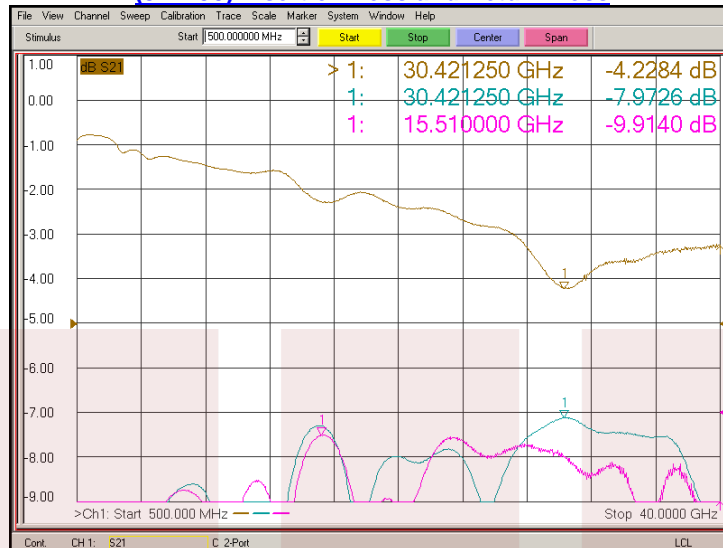
(J1 – J2) Insertion Loss and Return Loss



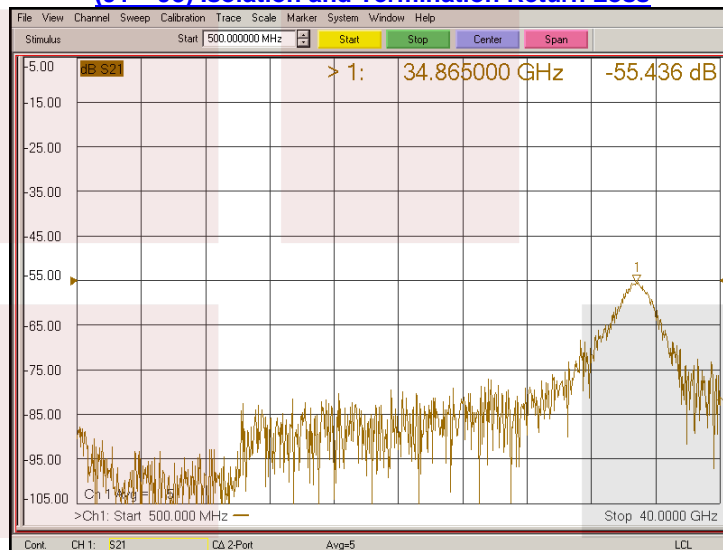
(J1 – J2) Isolation and Termination Return Loss



(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation and Termination Return Loss

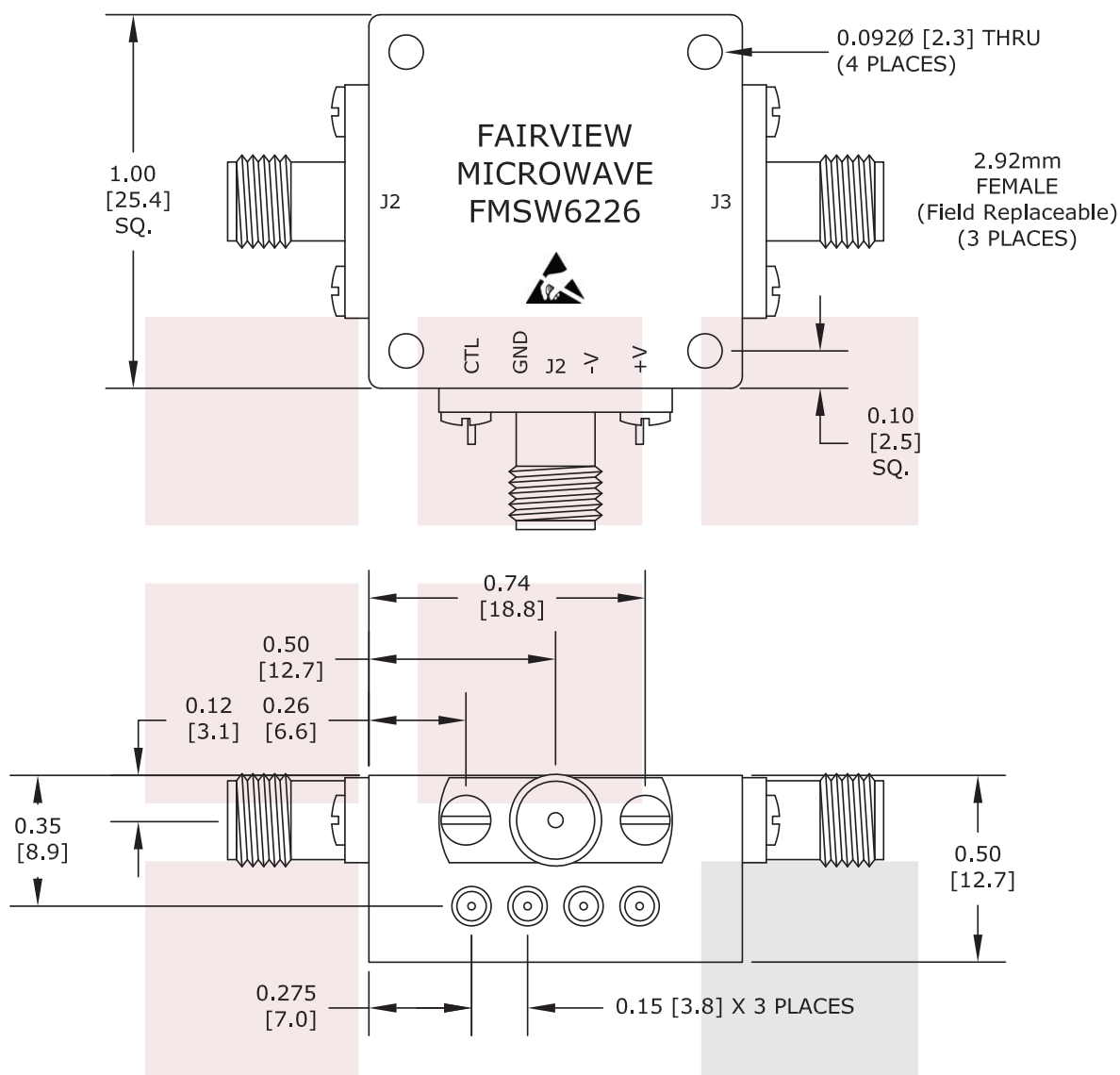


Field Replaceable 2.92mm SPDT PIN Diode Switch From 500 MHz to 40 GHz Rated at +20 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Field Replaceable 2.92mm SPDT PIN Diode Switch From 500 MHz to 40 GHz Rated at +20 dBm FMSW6226](https://www.fairviewmicrowave.com/2.92mm-spdt-pin-diode-switch-40-ghz-20-dbm-fmsw6226-p.aspx)

URL: <https://www.fairviewmicrowave.com/2.92mm-spdt-pin-diode-switch-40-ghz-20-dbm-fmsw6226-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.



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

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

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

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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].

TITLE

Field Replaceable 2.92mm SPDT PIN Diode Switch
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DWG NO

FMSW6226

CAGE CODE

3FKR5

CAD FILE

041916

SHEET

SCALE

N/A

SIZE

A

2233