

Field Replaceable SMA SP4T PIN Diode Switch
From 6 GHz to 12 GHz Rated at +20 dBm

FMSW6285 is a Single Pole Four Throw (SP4T) Reflective PIN Diode Switch that operates from 6 GHz to 18 GHz. Performance includes 2.5 dB typ insertion loss, 70 dB min isolation, and 50 nsec max switching speed. The design incorporates TTL compatible driver circuitry for accurate logic control. Operational temperature range is -55°C to +85°C and dual voltage controls of +5 VDC and -15 VDC are required. The rugged package is designed to meet a series of MIL-STD-202F environmental conditions including humidity, shock, vibration, and temperature cycle. Package interfaces include solder terminals and female SMA connectors.



Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	6		12	GHz
Impedance		50		Ohms
Insertion Loss		2.5		dB
Isolation	70			dB
Switching Time			50	ns
Input Power (CW)			0.1	Watts
Survival Power			1	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-15		Vdc
Current @ 5 Vdc		200		mA
Current @ -15 Vdc		75		mA
Operating Temperature	-55		+85	deg C

Features:

- SP4T Reflective Switch
- 6 GHz to 12 GHz GHz
- Insertion Loss 2.5 dB typ
- Isolation 70 dB min
- Input Power 20 dBm CW max
- Field Replaceable Connectors

Applications:

- Test & Measurement
- Military Communication
- Commercial Communication
- Wireless Communications
- SATCOM
- Military Electronic Systems
- RF Test Stations

Mechanical Specifications

Length	1.25 in [31.75 mm]
Width	1.25 in [31.75 mm]
Height	0.4 in [10.16 mm]
Weight	0.07 lbs [31.75 g]
Finish	Blue Paint

Configuration

Design	Reflective, SP4T
RF Connector	SMA Female
RF Connector Option	Field Replaceable
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-55 to +85 deg C
Storage Range	-65 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
Altitude	MIL-STD-202F, Method 105C, Condition B

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Temperature Cycling
ESD Sensitivity

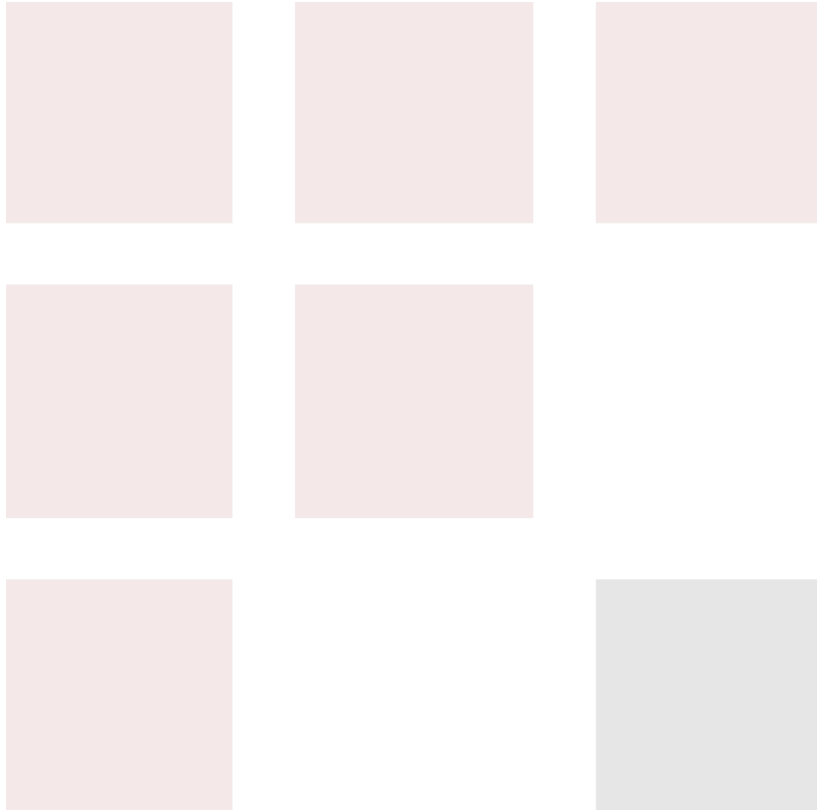
MIL-STD-202F, Method 107D, Condition A
ESD Sensitive Material, Transport material in Approved ESD bags. Handle only
in ESD Workstation.



Compliance Certifications (visit www.FairviewMicrowave.com for current document)
REACH Compliant 12/17/2015

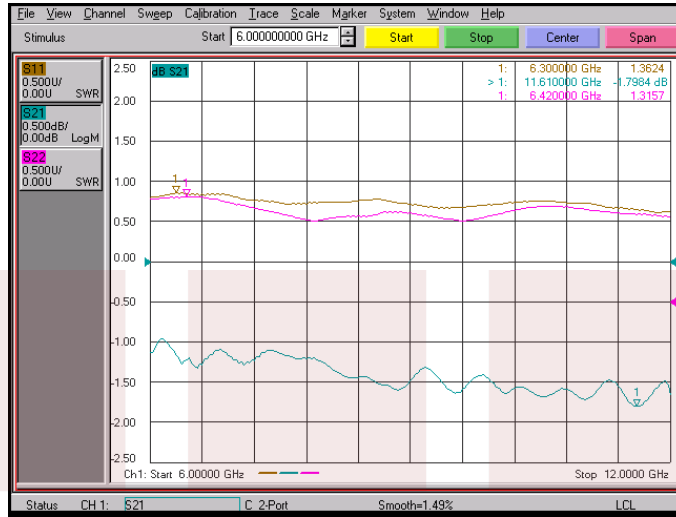
Plotted and Other Data

Notes:

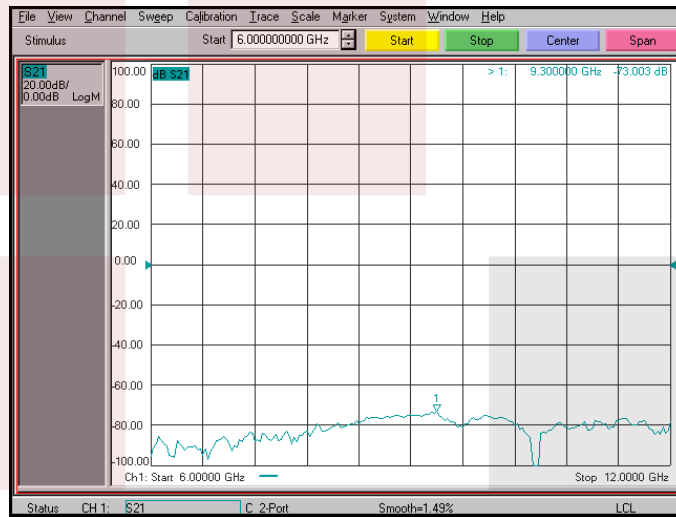


Typical Performance Data

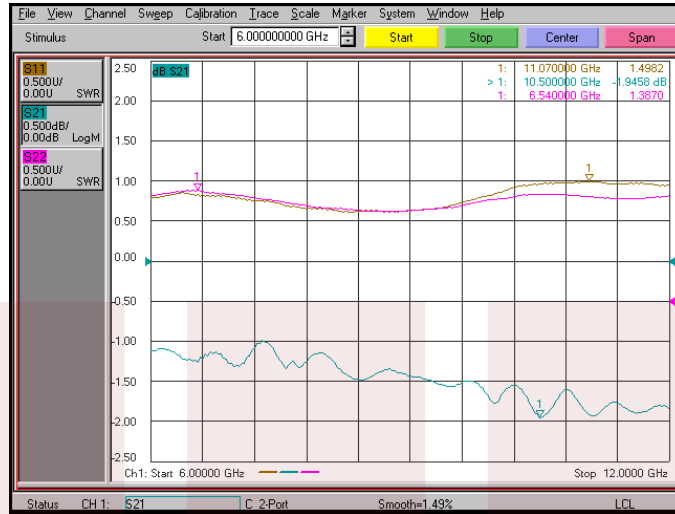
(J1 – J2) Insertion Loss and Return Loss



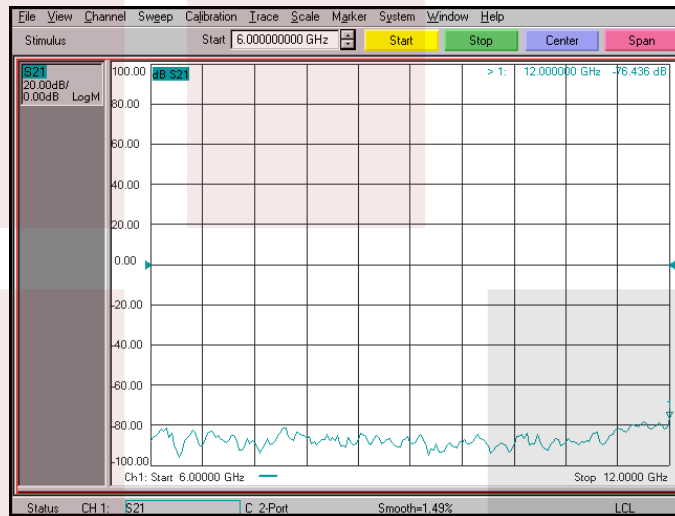
(J1 – J2) Isolation



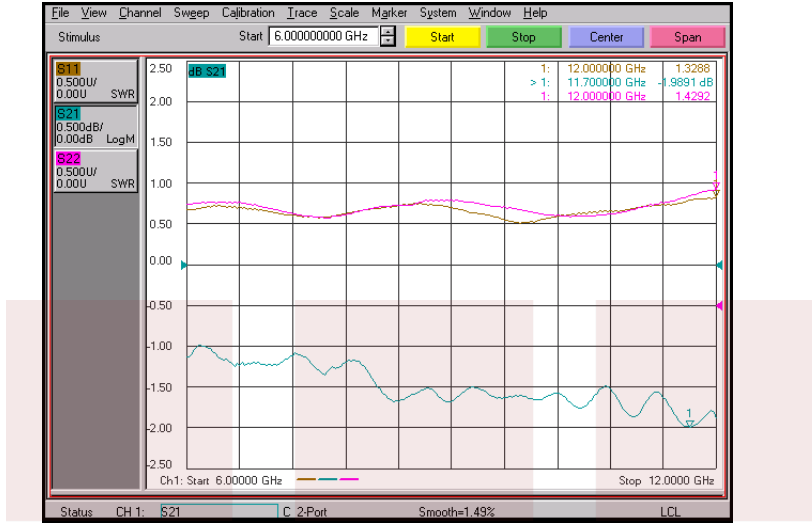
(J1 – J4) Insertion Loss and Return Loss



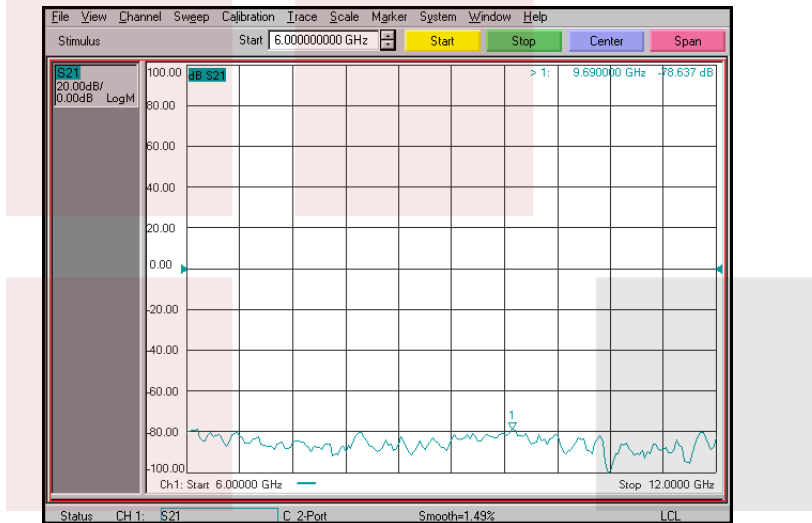
(J1 – J4) Isolation



(J1 – J5) Insertion Loss and Return Loss



(J1 – J5) Isolation

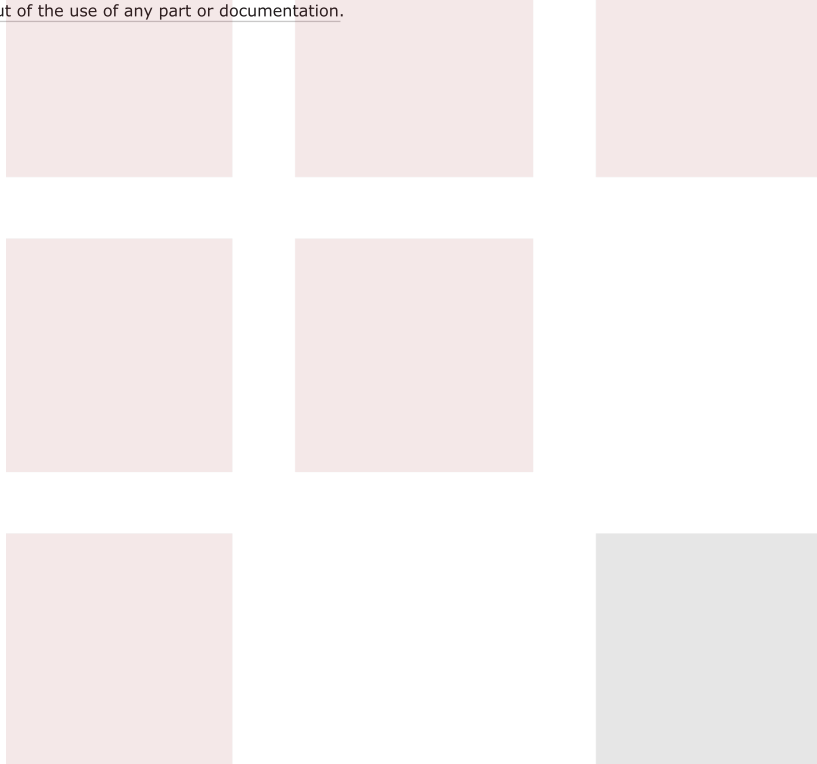


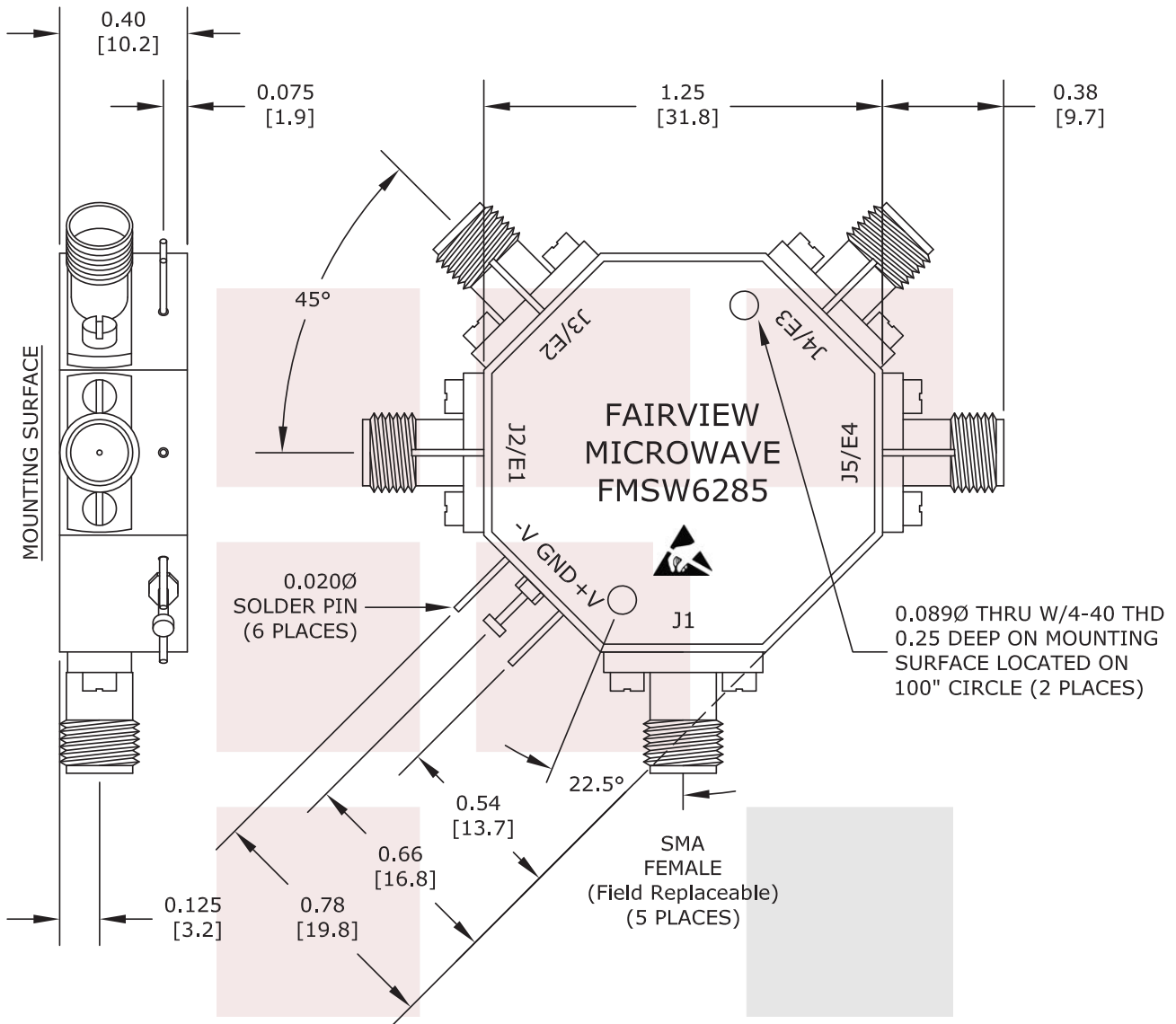
Field Replaceable SMA SP4T PIN Diode Switch From 6 GHz to 12 GHz Rated at +20 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Field Replaceable SMA SP4T PIN Diode Switch From 6 GHz to 12 GHz Rated at +20 dBm FMSW6285](#)

URL: <http://www.fairviewmicrowave.com/sma-sp4t-pin-diode-switch-12-ghz-20-dbm-fmsw6285-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.





UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN: inches [mm]
TOLERANCES ARE:
X.XX ± 0.020 [± 0.508]
X.XXX ± 0.010 [± 0.254]

TTL LOGIC TABLE				
E1	E2	E3	E4	Low Loss
0	1	1	1	J1-J2
1	0	1	1	J1-J3
1	1	0	1	J1-J4
1	1	1	0	J1-J5

NOTE:
0 = LOW LOSS
1 = ISOLATION

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

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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 SMA SP4T PIN Diode Switch From 6 GHz to 12 GHz Rated at +20 dBm

DWG NO	FMSW6285	CAGE CODE	3FKR5
CAD FILE	040116	SHEET	SCALE N/A SIZE A 2233