

**Field Replaceable SMA SP3T PIN Diode Switch
 From 10 MHz to 1,000 MHz Rated at +20 dBm**

FMSW6270 is a Single Pole Triple Throw (SP3T) Reflective PIN Diode Switch that operates from 0.01 GHz to 1 GHz. Performance includes 1.0 dB typ insertion loss, 60 dB min isolation, and 200 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	10		1,000	MHz
Impedance		50		Ohms
Insertion Loss		1		dB
Isolation	60			dB
Switching Time			200	ns
Input Power (CW)			0.1	Watts
Survival Power			1	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-15		Vdc
Current @ 5 Vdc		150		mA
Current @ -15 Vdc		75		mA
Operating Temperature	-55		+85	deg C

Features:

- SP3T Reflective Switch
- 0.01 GHz to 1.0 GHz
- Insertion Loss 1.0 dB typ
- Isolation 60 dB min
- Power Input 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	1.5 in [38.1 mm]
Width	1.5 in [38.1 mm]
Height	0.4 in [10.16 mm]
Weight	0.1138 lbs [51.62 g]
Finish	Blue Paint

Configuration

Design	Reflective, SP3T
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

Fairview Microwave
 1130 Junction Dr. #100
 Allen, TX 75013
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

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

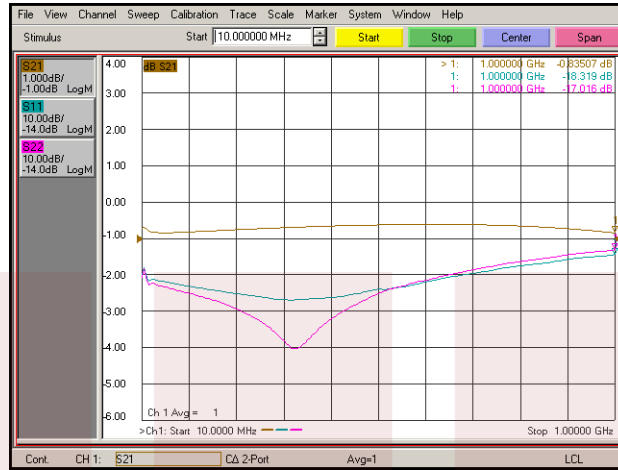
Plotted and Other Data

Notes:

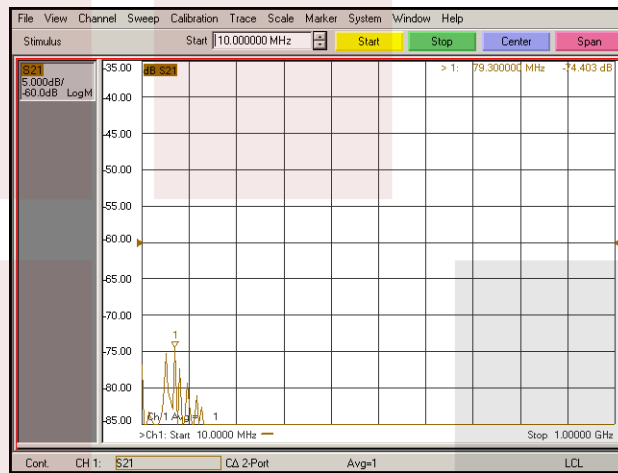


Typical Performance Data

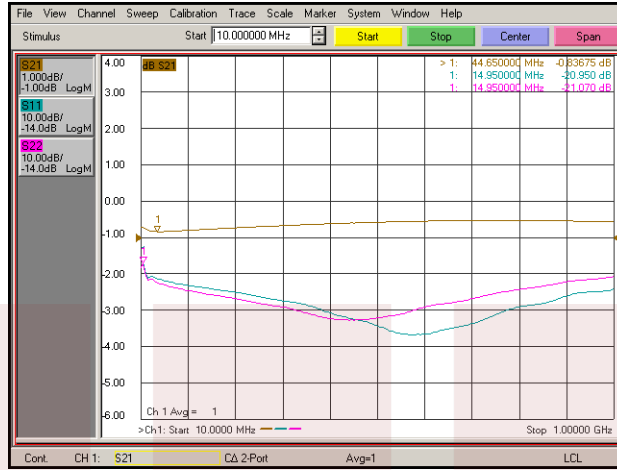
(J1 – J2) Insertion Loss and Return Loss



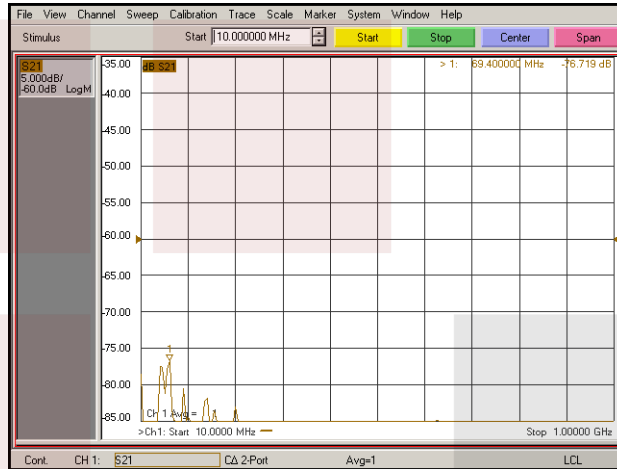
(J1 – J2) Isolation



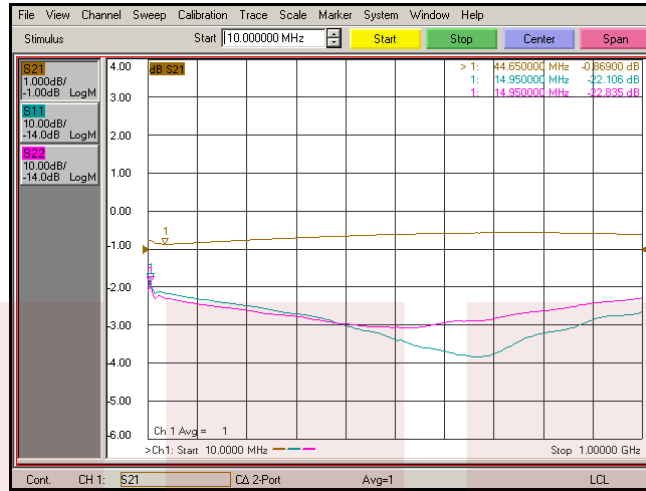
(J1 – J3) Insertion Loss and Return Loss



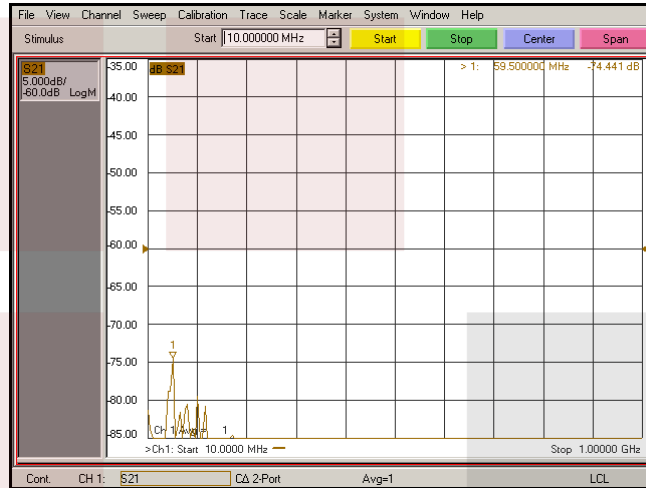
(J1 – J3) Isolation



(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation

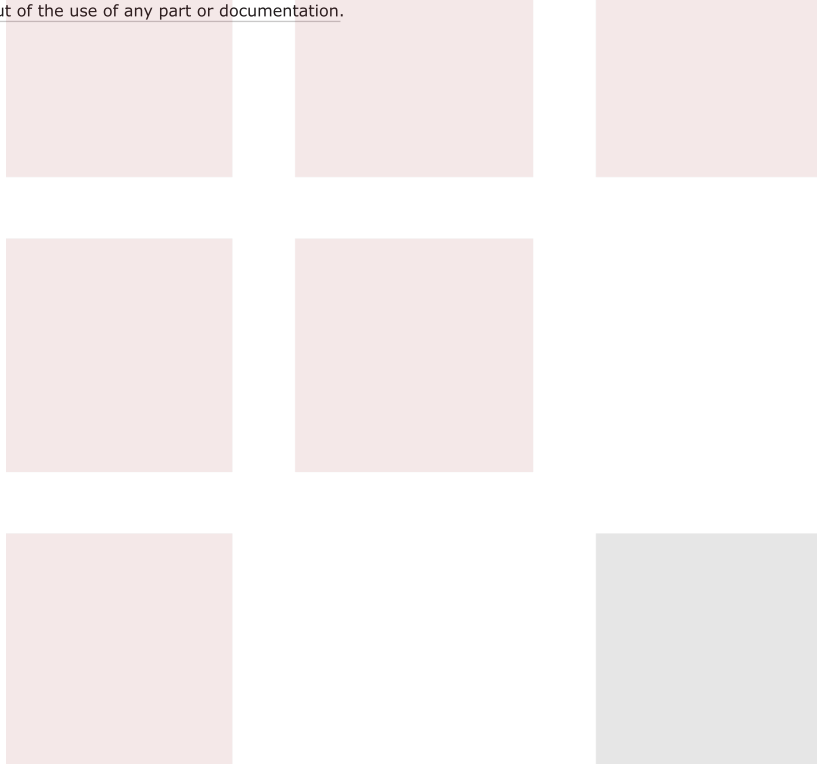


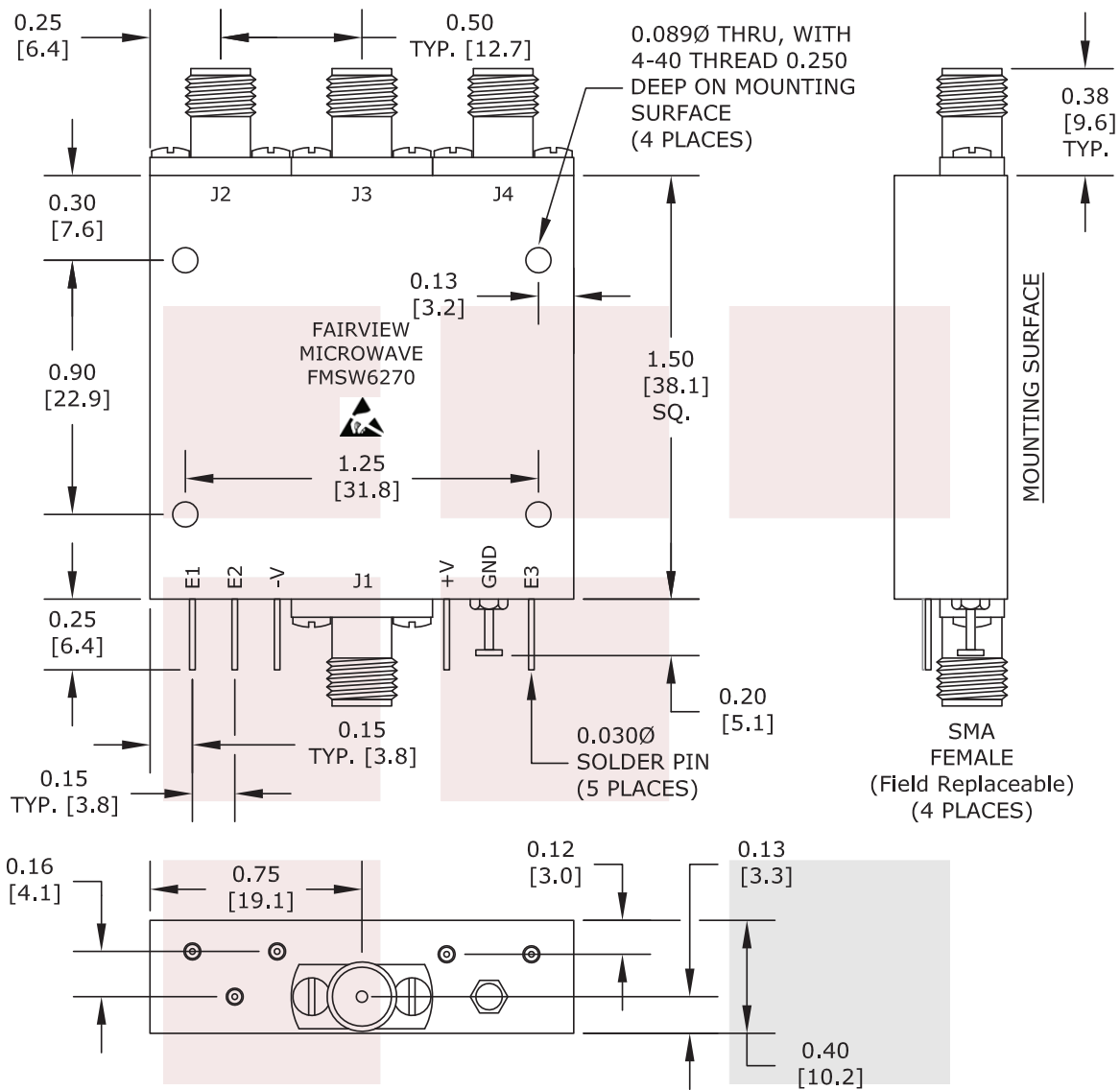
Field Replaceable SMA SP3T PIN Diode Switch From 10 MHz to 1,000 MHz Rated at +20 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Field Replaceable SMA SP3T PIN Diode Switch From 10 MHz to 1,000 MHz Rated at +20 dBm FMSW6270](#)

URL: <http://www.fairviewmicrowave.com/sma-sp3t-pin-diode-switch-1000-mhz-20-dbm-fmsw6270-p.aspx>

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3 BIT TTL LOGIC TABLE			
E1	E2	E3	FUNCTION
0	1	1	J1-J2 LOW LOSS
1	0	0	J1-J3 LOW LOSS
1	1	0	J1-J4 LOW LOSS

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

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

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TITLE Field Replaceable SMA SP3T PIN Diode Switch From 10 MHz to 1,000 MHz Rated at +20 dBm		DWG NO FMSW6270		CAGE CODE 3FKR5	
CAD FILE	041916	SHEET	SCALE	N/A	SIZE A 2233