Fairview Microwave
RF COMPONENTS ON DEMAND. Done!

FMSW6270
DATA SHEET

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.

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

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

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

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Temperature Cycling	MIL-STD-202F, Method 107D, Condition A
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:

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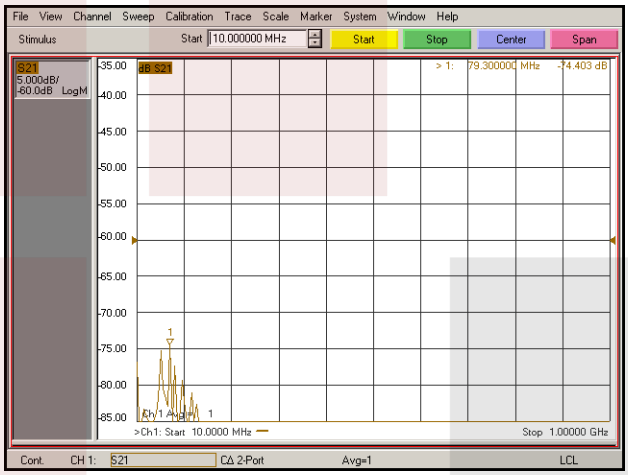
Typical Performance Data

(J1 – J2) Insertion Loss and Return Loss

(J1 – J2) Isolation



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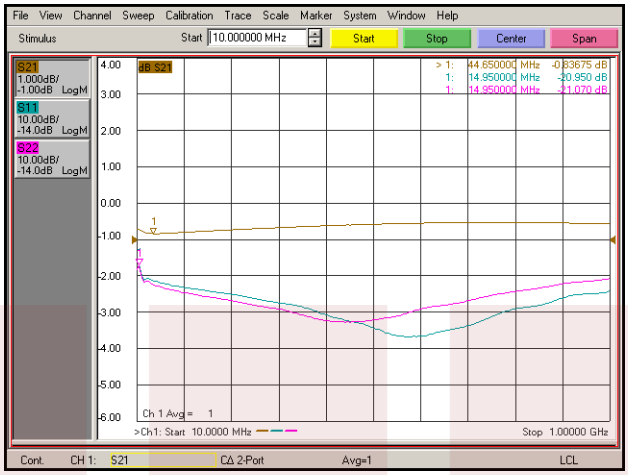
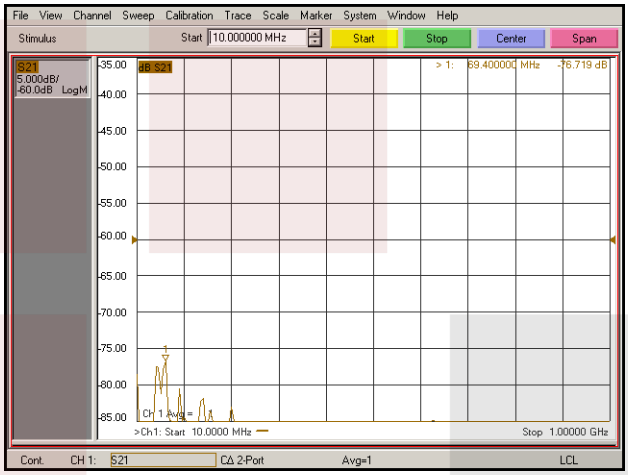
(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation



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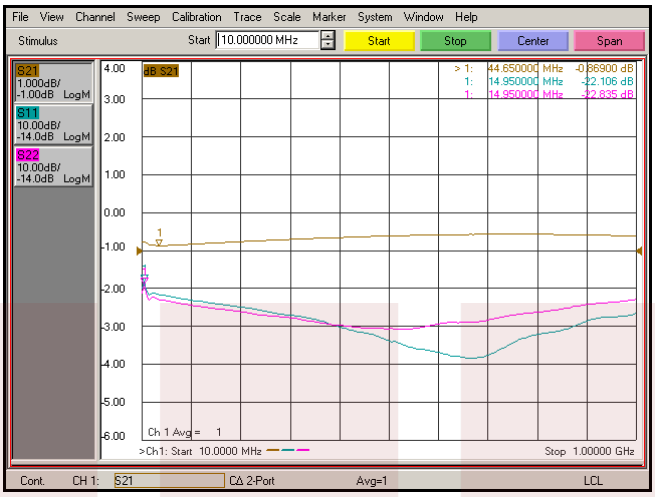
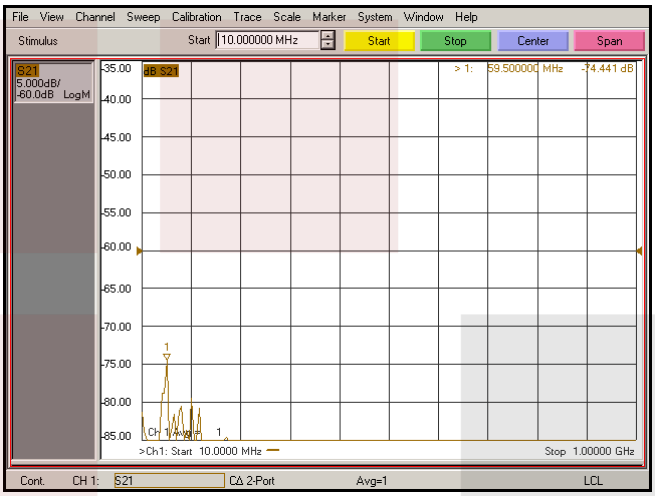
(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation



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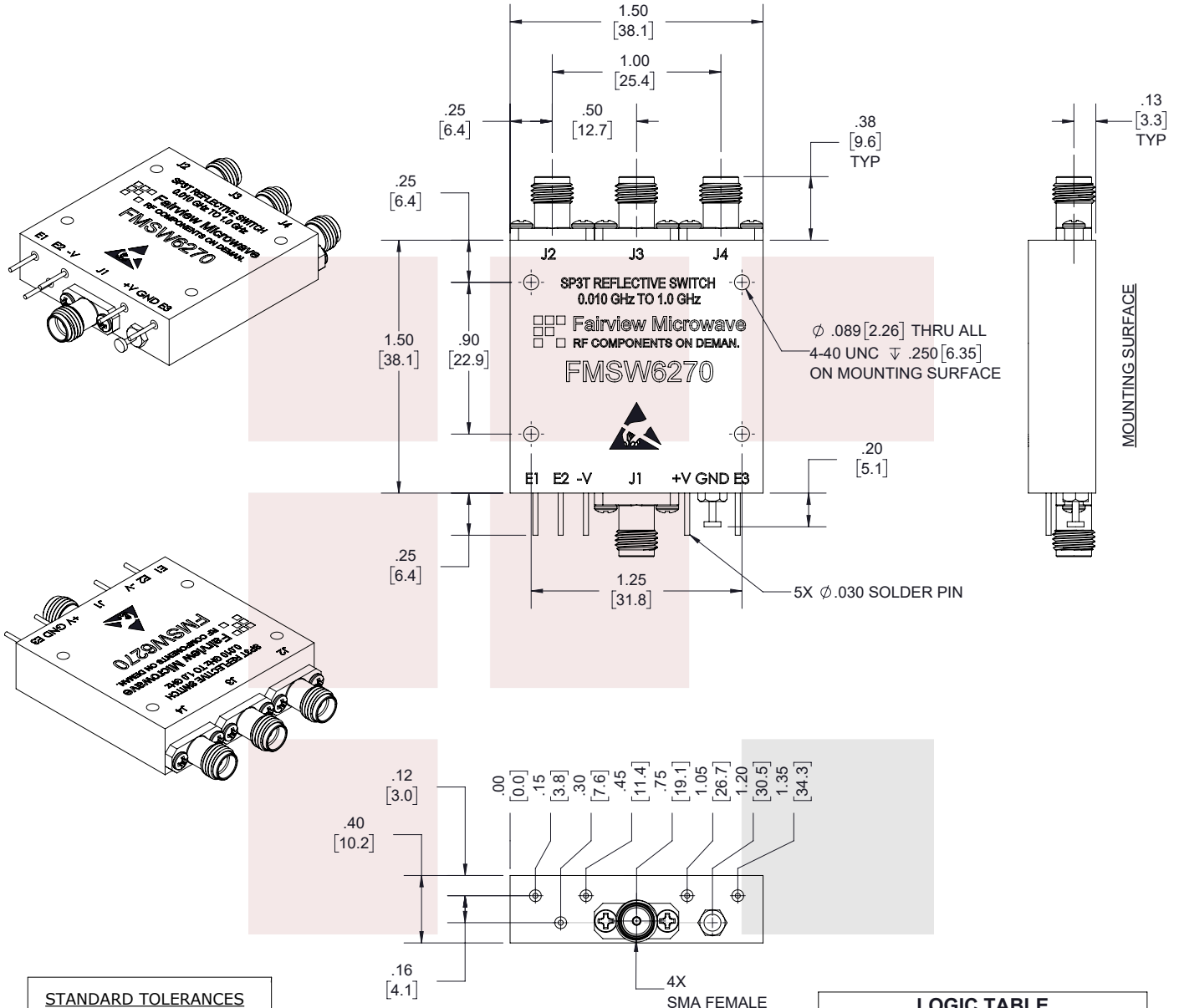
Field Replaceable SMA SP3T PIN Diode Switch From 10 MHz to 1,000 MHz Rated at +20 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF 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: https://www.fairviewmicrowave.com/sma-sp3t-pin-diode-switch-1000-mhz-20-dbm-fmsw6270-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 ±0.02
.XXX ±0.010

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

LOGIC TABLE			
E1	E2	E3	FUNCTION
0	1	1	J1-J2 "LOW LOSS"
1	0	1	J1-J3 "LOW LOSS"
1	1	0	J1-J4 "LOW LOSS"

Fairview Microwave RF COMPONENTS ON DEMAND. Done!

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

DWG NO	CAGE CODE
FMSW6270	3FKR5

CAD FILE 04/02/18	SHEET 1 OF 1	SCALE N/A	SIZE A	7361

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