

**Field Replaceable SMA SP3T PIN Diode Switch
 Absorptive From 1 GHz to 18 GHz Rated at +20 dBm**

FMSW6248 is a Single Pole Triple Throw (SP3T) Absorptive PIN Diode Switch that operates from 1 GHz to 18 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Outstanding performance includes 3.75 dB max insertion loss, 65 dB typ isolation, and 100 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 DC and -15 DC 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	1		18	GHz
Impedance		50		Ohms
VSWR			2:1	
Insertion Loss			3.75	dB
Isolation		65		dB
Rise Time			65	ns
Switching Time			100	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		100		mA
Operating Temperature	-40		+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	0.1108 lbs [50.26 g]
Finish	Blue Paint

Configuration

Design	Absorptive, SP3T
RF Connector	SMA 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

Features:

- SP3T Absorptive Switch
- 1.0 GHz to 18.0 GHz
- Insertion Loss 3.75 dB max
- Isolation 65 dB typ
- 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

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

Shock
Vibration
Altitude
Temperature Cycling
ESD Sensitivity

MIL-STD-202F, Method 213B, Condition B
MIL-STD-202F, Method 204D, Condition B
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.



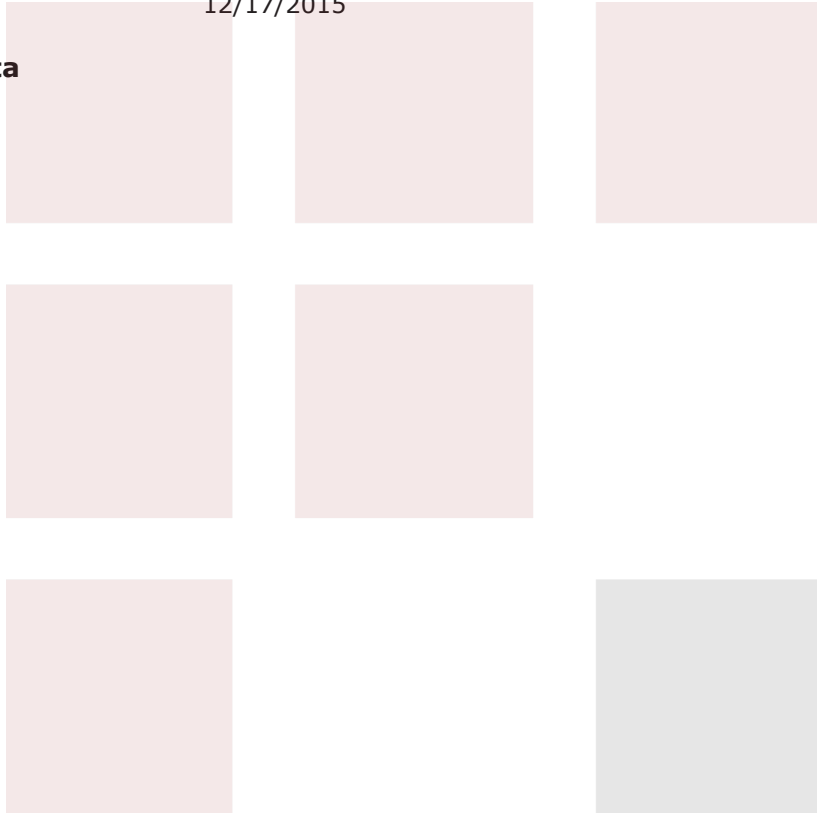
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

REACH Compliant

12/17/2015

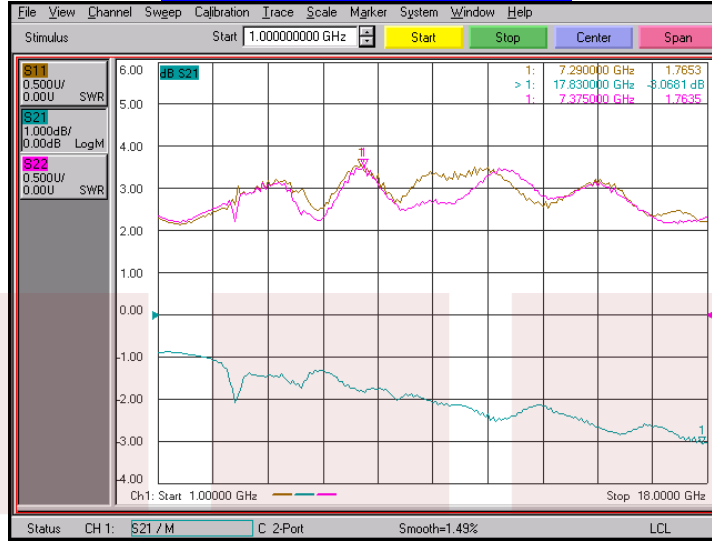
Plotted and Other Data

Notes:

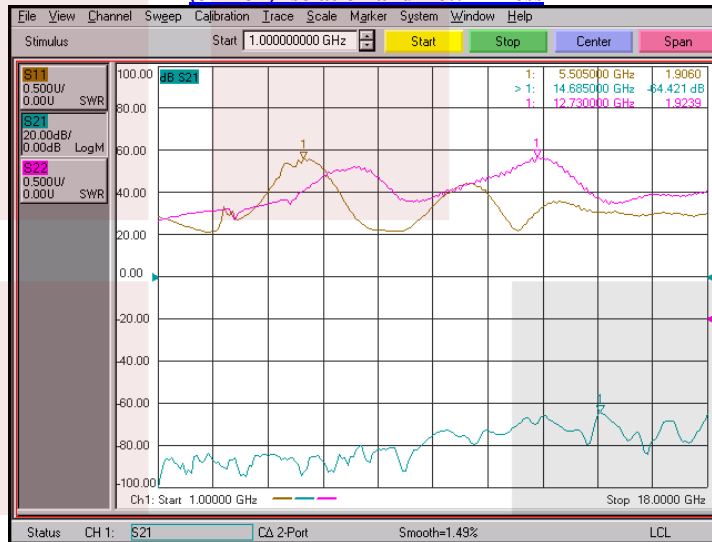


Typical Performance Data

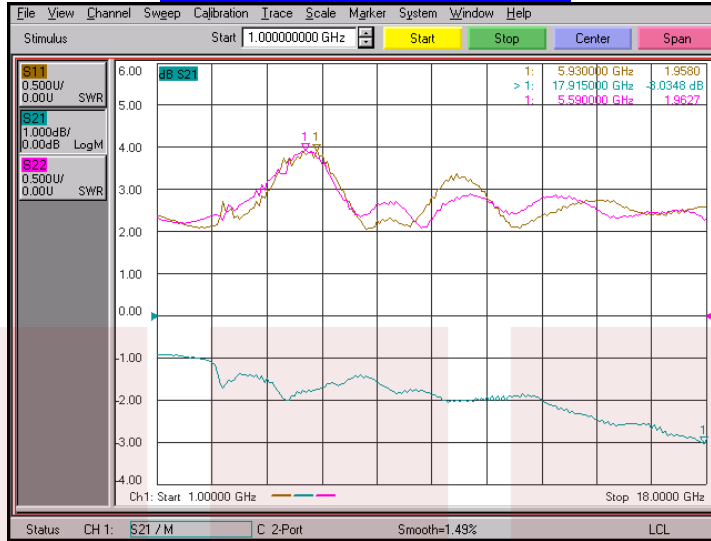
(J1 – J2) Insertion Loss and Return Loss



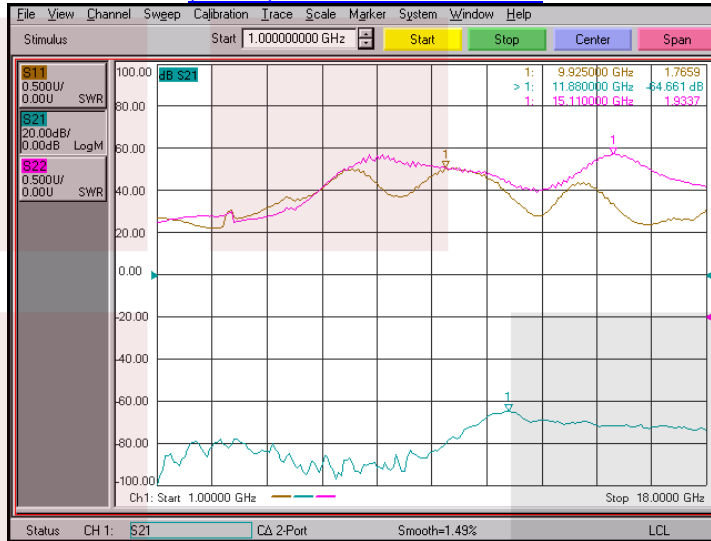
(J1 – J2) Isolation and Return Loss



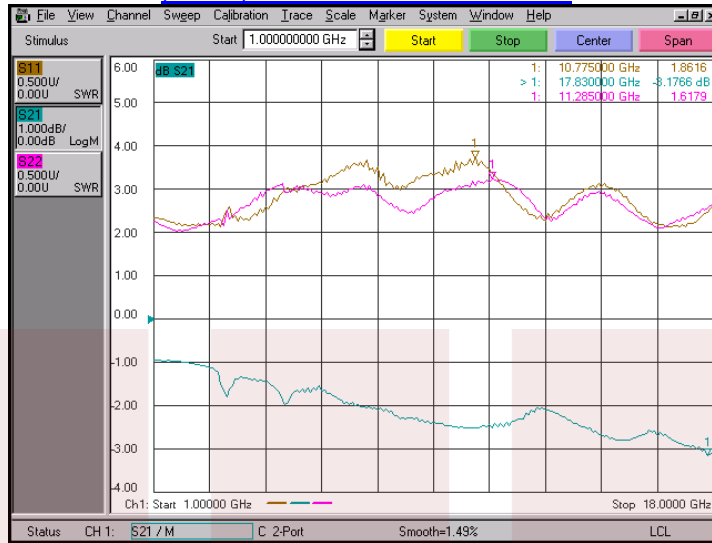
(J1 – J3) Insertion Loss and Return Loss



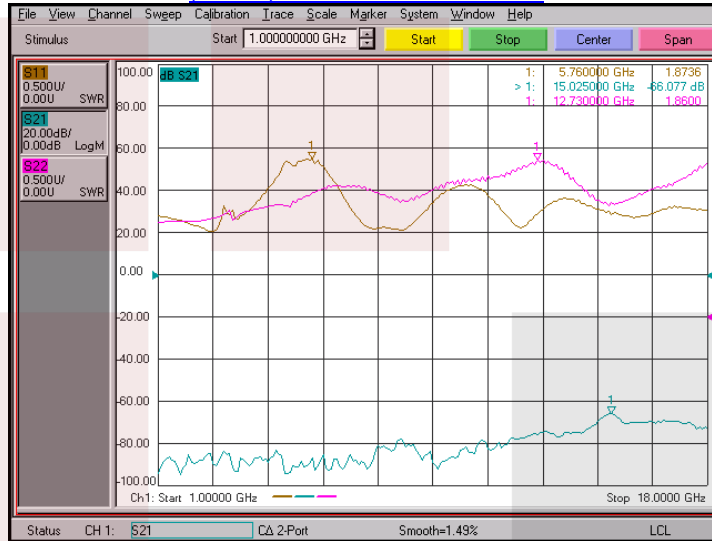
(J1 – J3) Isolation and Return Loss



(J1 – J4) Insertion Loss and Return Loss



(J1 – J4) Isolation and Return Loss

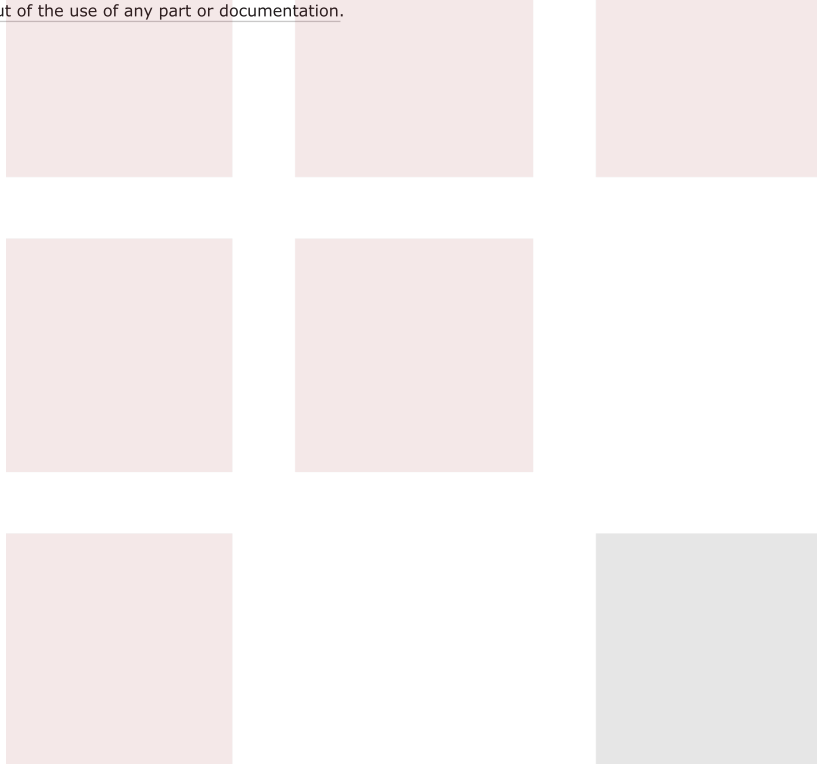


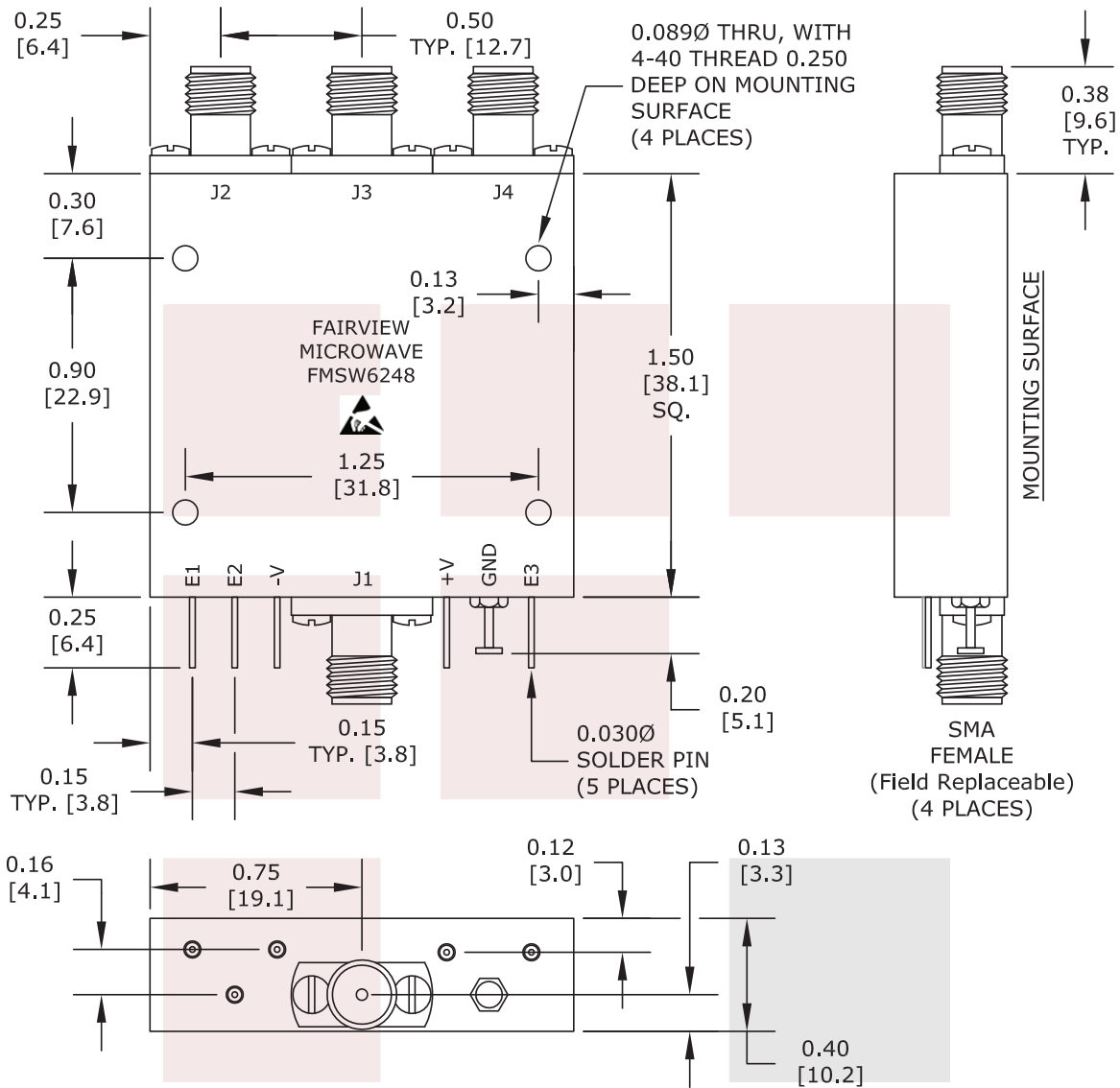
Field Replaceable SMA SP3T PIN Diode Switch Absorptive From 1 GHz to 18 GHz Rated at +20 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Field Replaceable SMA SP3T PIN Diode Switch Absorptive From 1 GHz to 18 GHz Rated at +20 dBm FMSW6248](#)

URL: <http://www.fairviewmicrowave.com/sma-sp3t-pin-diode-switch-absorptive-18-ghz-20-dbm-fmsw6248-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.





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.

FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		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 Absorptive From 1 GHz to 18 GHz Rated at +20 dBm		DWG NO FMSW6248		CAGE CODE 3FKR5	
CAD FILE	041516	SHEET	SCALE	N/A	SIZE A 2233