

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

FMSW6214 is a Single Pole Single Throw (SPST) Absorptive PIN Diode Switch that operates from 0.5 GHz to 40 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Outstanding performance includes 5.5 dB max insertion loss, 80 dB typ isolation and 100 ns 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 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 2.92mm connectors.



**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	0.5		40	GHz
Impedance		50		Ohms
VSWR			2.5:1	
Insertion Loss			5.5	dB
Isolation	55			dB
Switching Time			100	ns
Input Power (CW)			0.1	Watts
Survival Power			1	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-5		Vdc
Current @ 5 Vdc		20		mA
Current @ -5 Vdc		66		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]
Weight	0.058 lbs [26.31 g]
Design	Absorptive, SPST
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 COND. B
Shock	MIL-STD-202F, METHOD 213B COND. B
Vibration	MIL-STD-202F, METHOD 204D COND. B

**Features:**

- SPST Absorptive Switch
- 0.5 GHz to 40.0 GHz
- High Speed Switching
- Insertion Loss 5.5 dB max
- Isolation 80 dB typ
- Power Input 20 dBm CW max
- Field Replaceable Connectors

**Applications:**

- Test & Measurement
- Military Communication
- Commercial Communication

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Altitude  
 Temperature Cycling  
 ESD Sensitivity

MIL-STD-202F, METHOD 105C COND. B  
 MIL-STD-202F, METHOD 107D COND. A  
 ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.



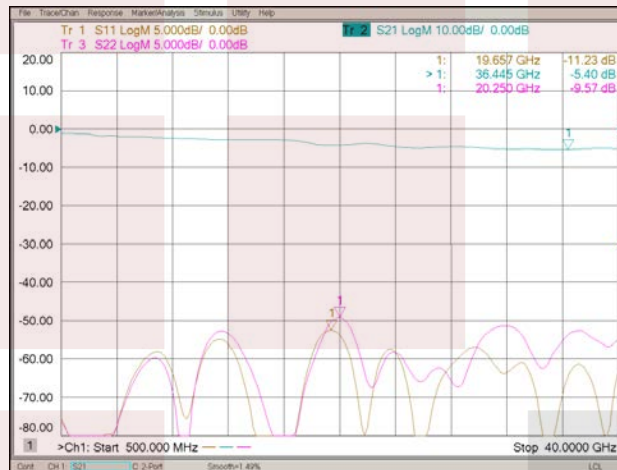
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)  
 REACH Compliant 12/17/2015

**Plotted and Other Data**

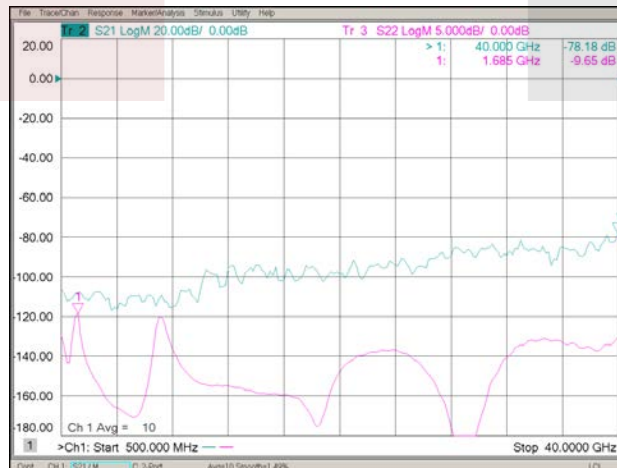
Notes:

**Typical Performance Data**

(J1 – J2) Insertion Loss and Return Loss



(J1 – J2) Isolation and Termination Return Loss



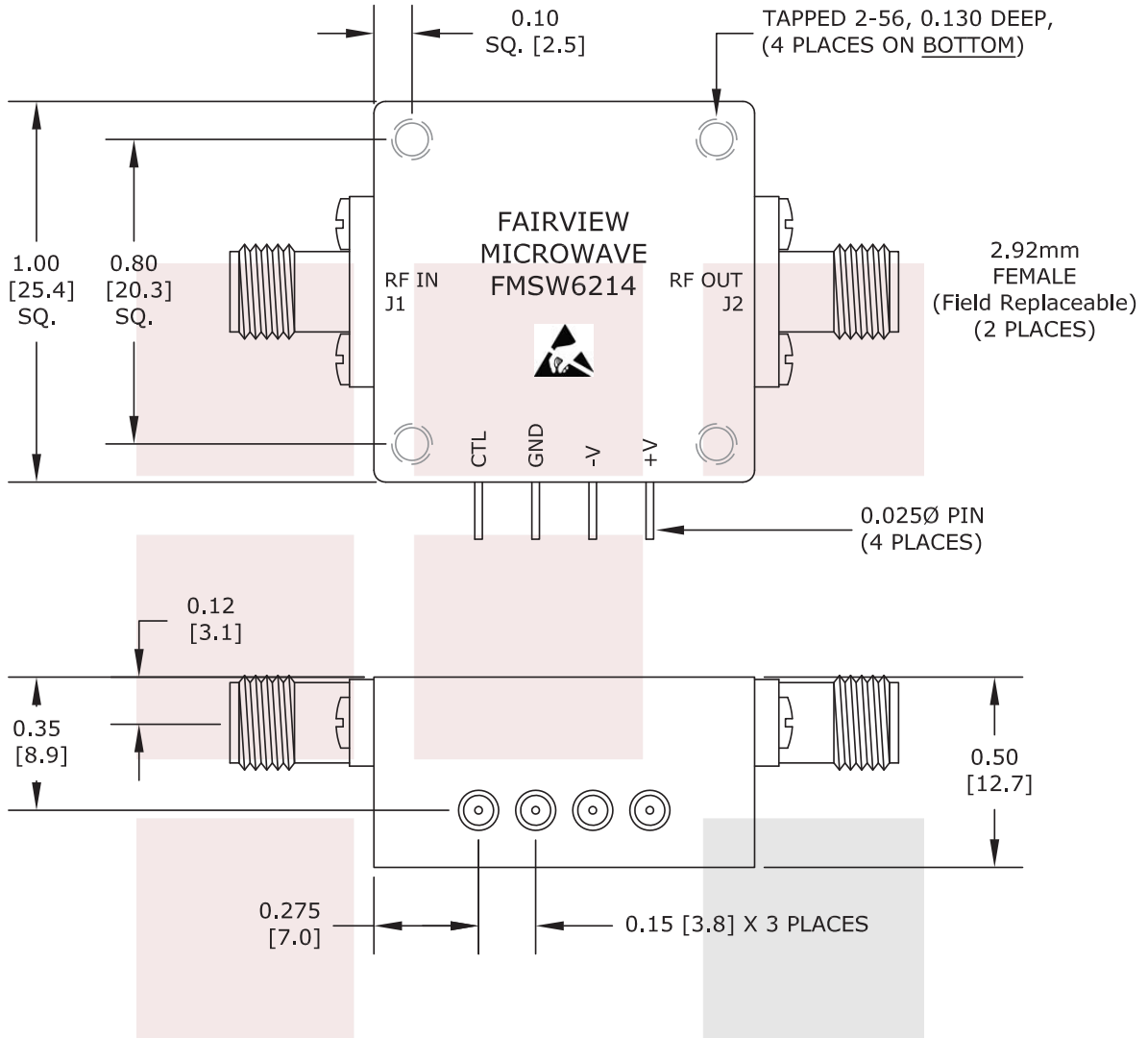
Field Replaceable 2.92mm SPST PIN Diode Switch Absorptive From 500 MHz to 40 GHz Rated at +20 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave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

For additional information on this product, please click the following link: [Field Replaceable 2.92mm SPST PIN Diode Switch Absorptive From 500 MHz to 40 GHz Rated at +20 dBm FMSW6214](#)

URL: <http://www.fairviewmicrowave.com/2.92mm-spst-pin-diode-switch-absorptive-40-ghz-20-dbm-fmsw6214-p.aspx>

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

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

<b>FAIRVIEW MICROWAVE INC.</b>		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].			
ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		DWG NO <b>FMSW6214</b>		CAGE CODE <b>3FKR5</b>	
TITLE Field Replaceable 2.92mm SPST PIN Diode Switch Absorptive From 500 MHz to 40 GHz Rated at +20 dBm		CAD FILE 041916	SHEET	SCALE N/A	SIZE A 2233