

**2.92mm PIN Diode Switch SPST From  
 2 GHz to 40 GHz Rated at +30 dBm**

The FMSW2020 is an SPST ABSORPTIVE PIN DIODE SWITCH that operates over a wide frequency band from 2 to 40 GHz. Port 2 is terminated in 50 ohms when switched in the isolation (off) state. Electrical performance includes max. insertion loss of 5dB, max return loss of -5dB, min. isolation of 30dB, and max. switching speed of 150nsec. TTL-compatible driver circuitry is included for accurate logic control. The design requires dual voltage controls of +5 Vdc and -5 Vdc, with an operational temperature range of -30°C to +60°C. External connectors include solder terminals and 2.92mm female connectors.



**Electrical Specifications**

TTL Control Logic

Off/Isolation: 0  
 On/Low Loss: 1

Description	Min	Typ	Max	Units
Frequency Range	2		40	GHz
Impedance		50		Ohms
Return Loss			-5	dB
Insertion Loss			5	dB
Isolation	30			dB
Switching Time			150	ns
Input Power (CW)			1	Watts
Positive Operating Voltage		5		V
Negative Operating Voltage		-5		V
Operating Temperature	-30		+60	deg C

Electrical Specification Notes:  
 Specified switching time includes TTL driver delay.

**Mechanical Specifications**

Length	1.2 in [30.48 mm]
Width	1.2 in [30.48 mm]
Height	0.6 in [15.24 mm]
Package Type	Connectorized Module
Design	SPST, Absorptive
RF Connector	2.92mm Female
Control Connector	Pin

**Environmental Specifications**

**Temperature**

Operating Range	-30 to +60 deg C
ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle only in ESD Workstation.



**Features:**

- SPST Absorptive Switch
- 2 GHz to 40 GHz
- Insertion Loss 5 dB max
- Isolation 30 dB min
- Power Input +30 dBm CW max

**Applications:**

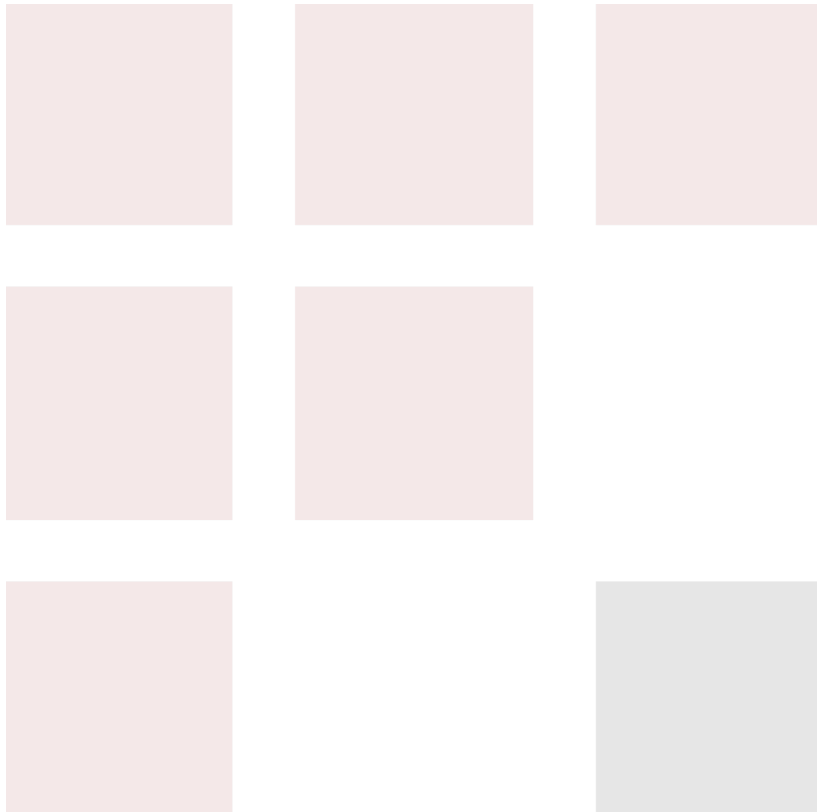
- Test & Measurement
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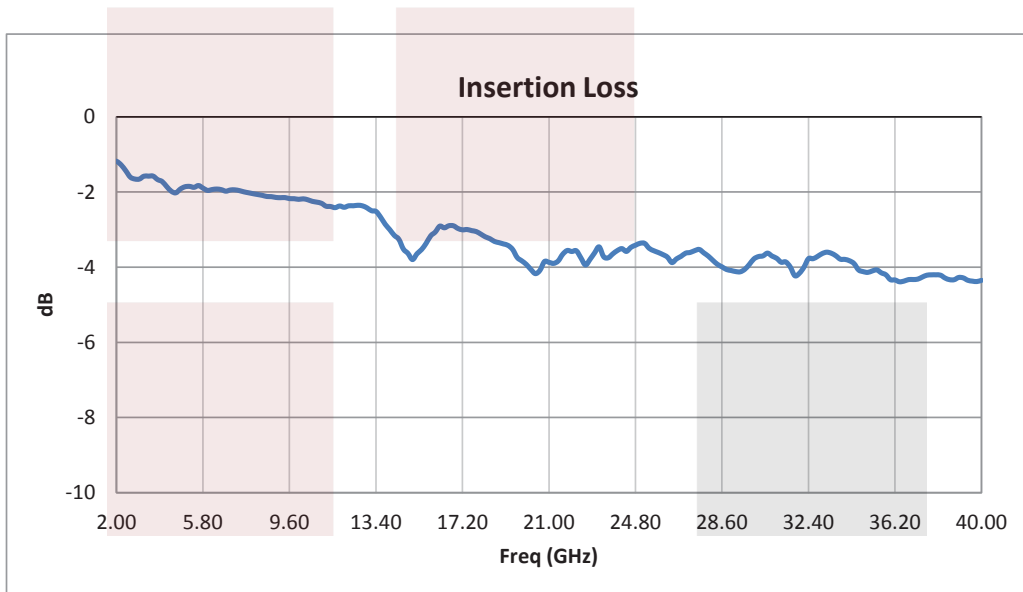
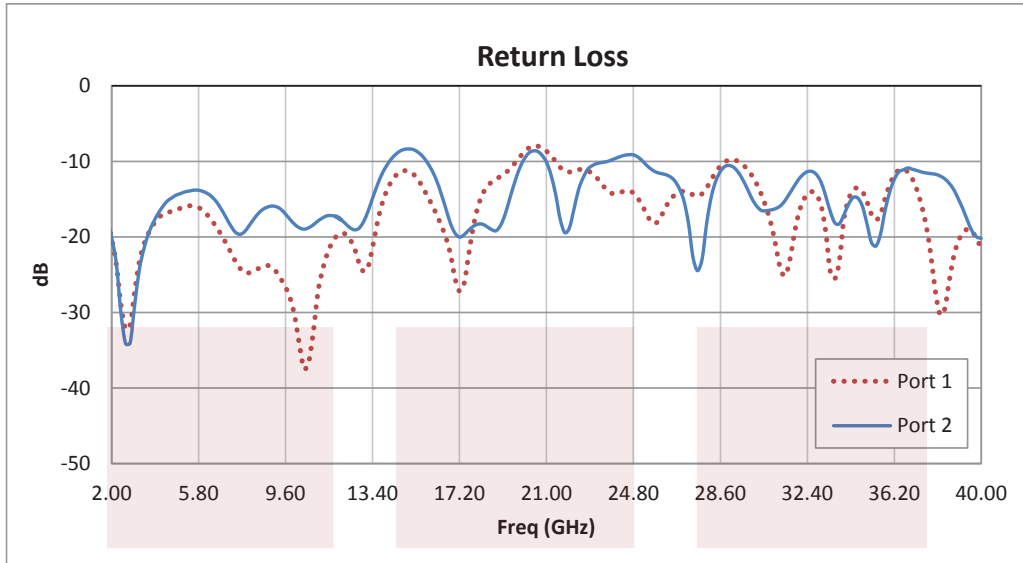
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

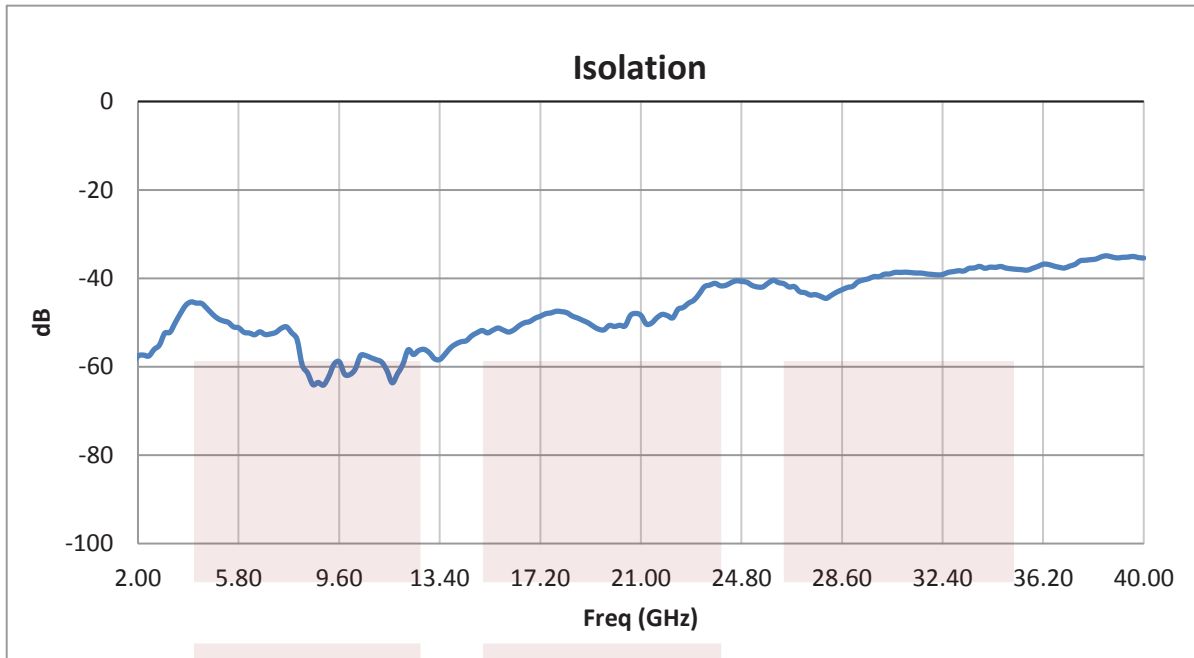
**Plotted and Other Data**

Notes:



**Typical Performance Data**



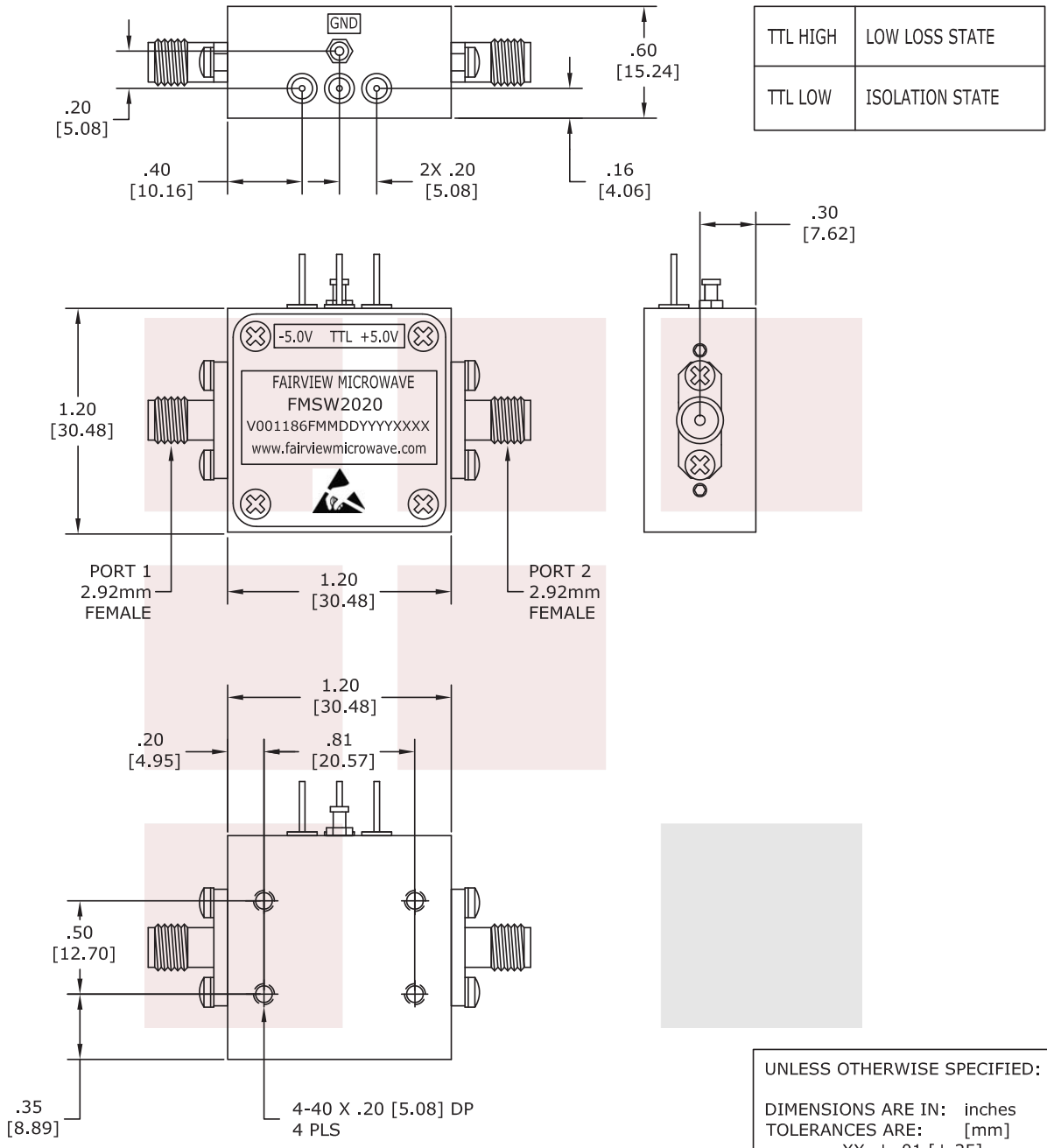


2.92mm PIN Diode Switch SPST From 2 GHz to 40 GHz Rated at +30 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [2.92mm PIN Diode Switch SPST From 2 GHz to 40 GHz Rated at +30 dBm FMSW2020](http://www.fairviewmicrowave.com/2.92mm-pin-diode-switch-spst-2-40-ghz-rated-30-dbm-fmsw2020-p.aspx)

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TTL HIGH	LOW LOSS STATE
TTL LOW	ISOLATION STATE

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN: inches  
TOLERANCES ARE: [mm]  
.XX ± .01 [±.25]  
.XXX ± .001 [±.025]

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

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TITLE 2.92mm PIN Diode Switch SPST From 2 GHz to 40 GHz Rated at +30 dBm		DWG NO <b>FMSW2020</b>	CAGE CODE <b>3FKR5</b>	
CAD FILE	091715	SHEET	SCALE	N/A
			SIZE	A
				2233