

N SPDT High Power PIN Diode Switch From 960 MHz to 1300 MHz Rated at 200 Watts

The FMSW8005 is a Single Pole Double Throw (SPDT) High Power PIN Diode Switch that operates over the frequency range of 960 MHz to 1300 MHz. The 50 ohm reflective design supports TTL control logic and is rated for cold switching up to 200 watts average power and 1000 watts peak power (35 usec pulse width). Impressive typical performance includes 0.5 dB insertion loss, 46 dB isolation, 6 microsecond switching speed, and 1.2:1 VSWR. Operating voltages are +15Vdc @ 250 mA nominal and +5 Vdc @ 40 mA nominal. The rugged Mil Grade package design supports N type female connectors, and solder pins for DC and TTL control logic. The operational temperature range is -20°C to +70°C.



Electrical Specifications

TTL Control

Off/Isolation: 0 to 0.8 V COM to J1
On/Low Loss: 2 to 5 V COM to J2

Description	Min	Typ	Max	Units
Frequency Range	0.96		1.3	GHz
Impedance		50		Ohms
VSWR		1.2:1	1.3:1	
Insertion Loss		0.5	0.75	dB
Isolation	40	46		dB
Switching Time*		6	10	us
Input Power (Peak) 35 usec pulse width			1	kWatts
Positive Operating Voltage		15		Vdc
Positive Operating Voltage 2		5		Vdc
Current @ 15 Vdc		250		mA
Current @ 5 Vdc		40		mA
Operating Temperature	-20		+70	deg C

Electrical Specification Notes:

*Switching Speed: 50% TTL to 10% or 90% RF

Description	Min	Typ	Max	Units
Average Power (Cold Switch)			200	Watts

Mechanical Specifications

Weight	0.7 lbs [317.51 g]
Design	SPDT
RF Connector	N Female
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-20 to +70 deg C
Storage Range	-55 to +85 deg C

Features:

- Single Pole Double Throw (SPDT) High Power PIN Diode Switch
- Frequency Range 960 MHz to 1300 MHz
- Reflective Design
- TTL Control Logic
- Cold Switching up to 200 Watts Average Power and 1000 Watts Peak Power
- Insertion Loss 0.5 dB typ
- Isolation 46 dB typ
- VSWR 1.2:1 typ
- Switching Speed 6 microseconds typ
- Operating Voltages +15 Vdc @ 250 mA and +5 Vdc @ 40 mA typ
- 50 Ohm Design
- -20°C to +70°C Operating Temperature
- N-Type Female Connectors
- Solder Pins for DC and TTL Control
- Rugged Mil Grade Package Design

Applications:

- Military & Commercial Communication Systems
- Microwave Radio Systems
- Radar Systems
- Test & Measurement
- Research & Development
- RF Wideband Front Ends

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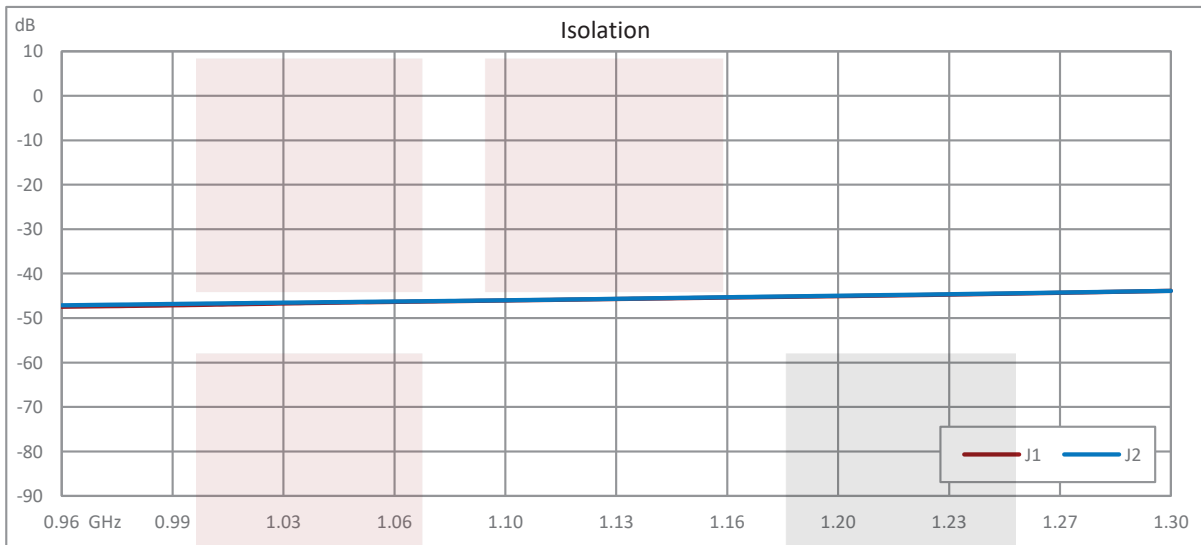
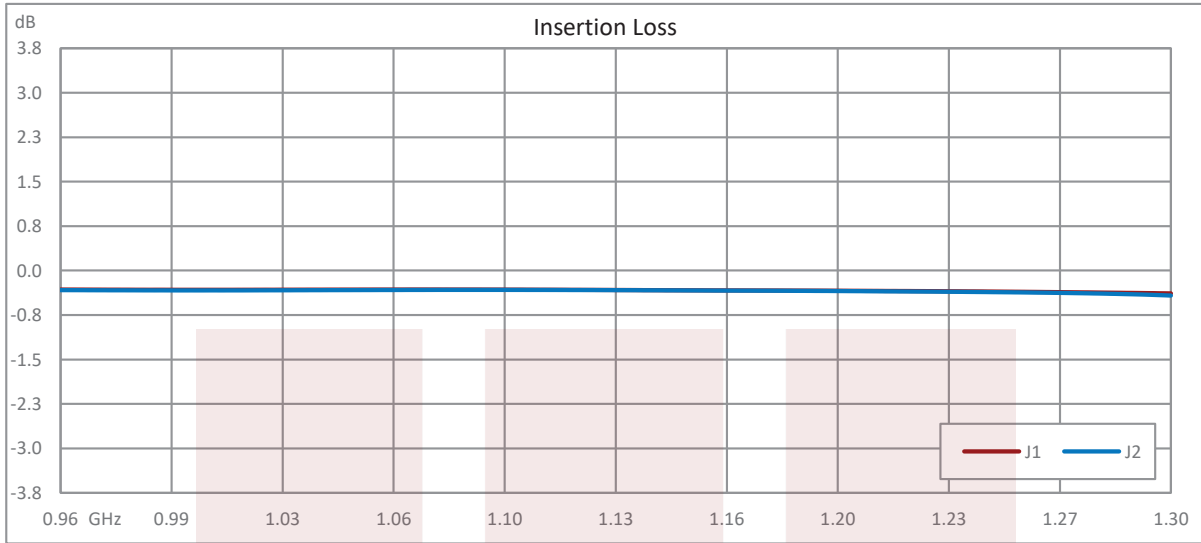
Compliance Certifications (see [product page](#) for current document)

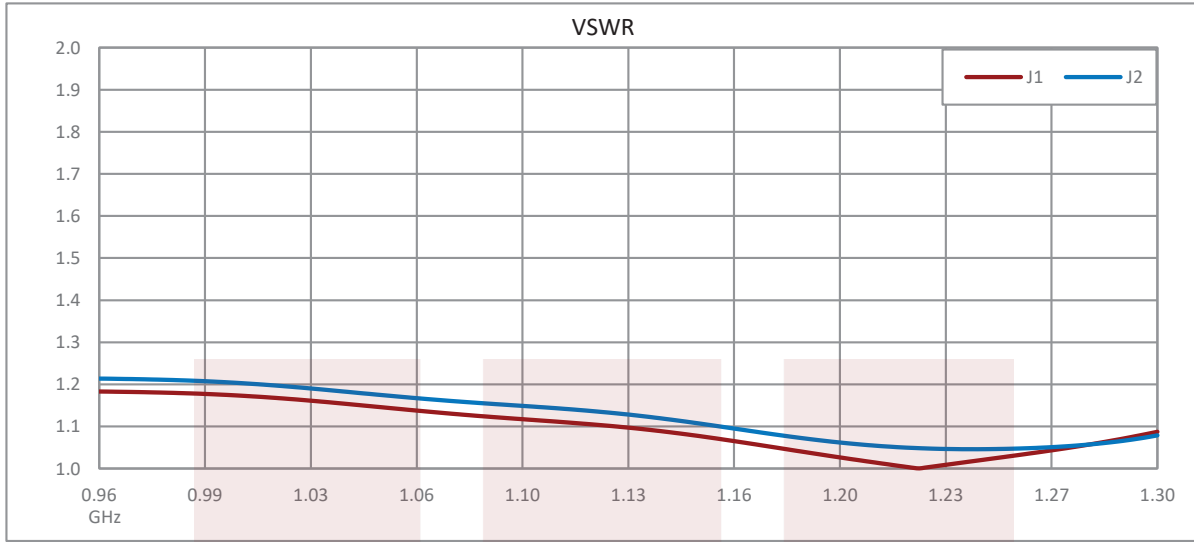
Plotted and Other Data

Notes:



Typical Performance Data



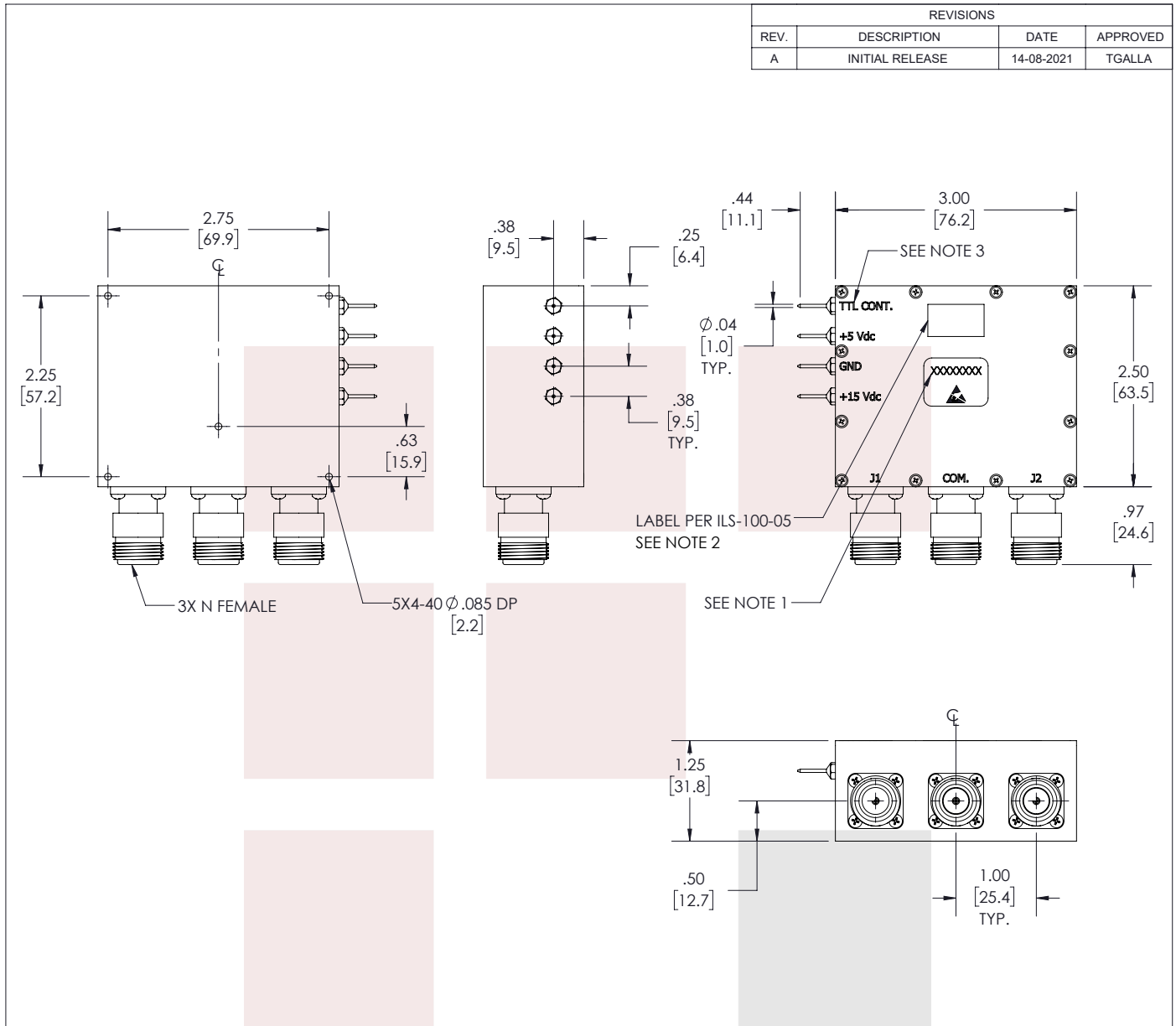


N SPDT High Power PIN Diode Switch From 960 MHz to 1300 MHz Rated at 200 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [N SPDT High Power PIN Diode Switch From 960 MHz to 1300 MHz Rated at 200 Watts FMSW8005](https://www.fairviewmicrowave.com/n-spdt-high-power-pin-diode-switch-from-960-mhz-to-1300-mhz-rated-at-200-watts-fmsw8005)

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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.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	14-08-2021	TGALLA

NOTES:

- SERIAL NUMBER AND DATE CODE ARE COMBINED. EX: 202008280001.
- LABEL PER ILS-100-05. FOR INTERNAL REFERENCE ONLY. LABEL LOCATION SHOULD BE SAME AS SHOWN.
- TTL LOW= COMMON TO J1, TTL HIGH= COMMON TO J2

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<p>Fairview Microwave an INFINIT[®] brand</p>	UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS		THIRD-ANGLE PROJECTION 	
	TOLERANCES: .X = ±.2 [5.08] FRACTIONS ± 1/32 .XX = ±.02 [.51] ANGLES ± 1° .XXX = ±.005 [.13]		CABLE LENGTH (L) TOLERANCES: L ≤ 12 [305] = +1 [25] / -0 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 300 [7620] < L = +5%L / -0	
TITLE N SPDT High Power PIN Diode Switch From 960 MHz to 1300 MHz Rated at 200 Watts		ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.		SHEET 1 OF 1 SCALE N/A
SIZE A	CAGE CODE 3FKR5	DRAWN BY MVEERAPPAN	ITEM NO. FMSW8005	REV A

T-Rev.D