

**SPST RF Switch,  
10 - 1000 MHz**

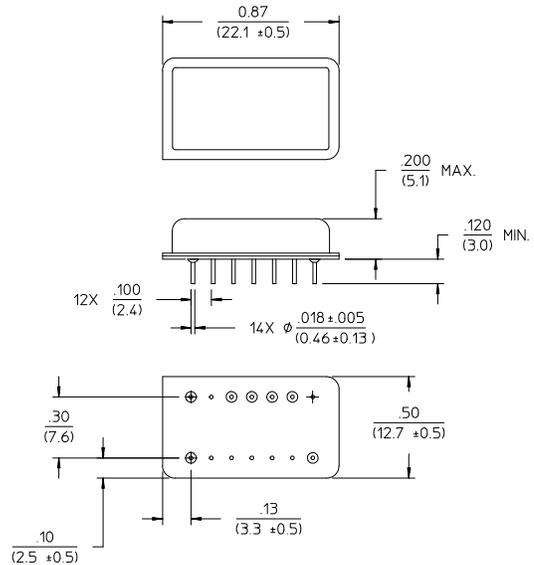
**SW-121-PIN  
V3**

**Features**

- Low Loss: 0.5 dB Typical
- High Isolation: 60 dB Typical
- Integral TTL Driver
- Hermetic Package
- 50 Ohm Nominal Impedance
- MIL-STD-883 Screening Available

**Description**

**Functional Block Diagram**



Dimensions in () are in mm  
Unless Otherwise Noted: .XXX = +0.010 (XX = +0.25)  
.XX = +0.02 (X = ±0.5)  
WEIGHT (APPROX): 0.14 OUNCES 4 GRAMS

**Ordering Information**

Part Number	Package
SW-121-PIN	DI-1

Note: Reference Application Note M513 for reel size information.  
Note: Die quantity varies.

**Truth Table**

TTL Control Input "1" = TTL Logic High	Condition of Switch
	RF1 to RF2
0	Off
1	On

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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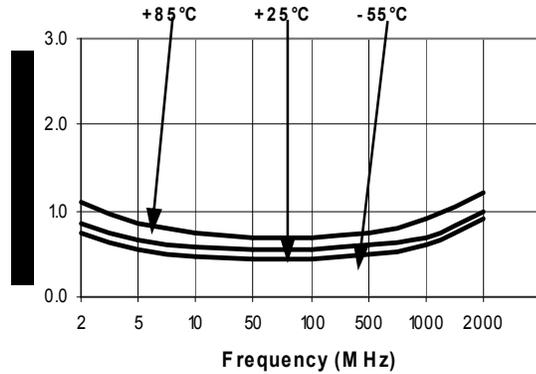
**Electrical Specifications:  $T_A = -55^\circ\text{C}$  to  $+85^\circ\text{C}$  <sup>1</sup>**

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	—	10 - 1000 MHz 10 - 500 MHz	dB dB	— —	— —	1.0 0.8
VSWR	—	10 - 1000 MHz 10 - 500 MHz	Ratio Ratio	— —	— —	1.25:1 1.2:1
Isolation	—	10 - 1000 MHz 10 - 500 MHz 10 - 100 MHz	dB dB dB	40 50 60	— — —	— — —
Ton Toff Transients	In-band	— — —	$\mu\text{S}$ $\mu\text{S}$ mV	— — —	2.0 1.0 40	— — —
1 dB Compression	Input Power	—	dBm	—	+13	—
IP <sub>2</sub>	For two tone input power up to +5 dBm	—	dBm	—	+60	—
IP <sub>3</sub>	For two tone input power up to +5 dBm	—	dBm	—	+30	—
Bias Power	+9 to +15 VDC @ 35 mA Max -5 VDC $\pm$ 5% @ 35 mA Max	—	mW	—	450	—

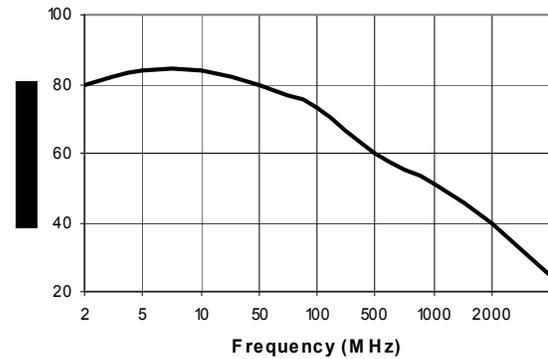
1. All specifications apply when operated with bias voltages of +12 VDC and -5 VDC ( $\pm$  5%) and 50 ohm impedance at all RF ports.

**Typical Performance Curves**

*Insertion Loss*



*Isolation*



*VSWR*

