# SW-207-PIN

#### GaAs SPDT Switch, 5 - 3000 MHz

#### Features

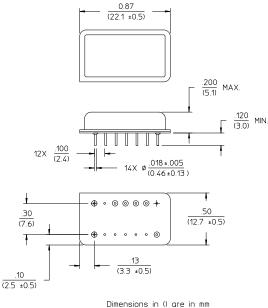
- Low Insertion Loss: 1.0 dB Typical
- Fast Switching Speed
- Low DC Power Consumption
- Integral TTL
- 50 Ohm Nominal Impedance
- MIL-STD-883 Screening Available

#### Description



Rev. V3

#### **Functional Block Diagram**



 $\begin{array}{c} \mbox{Dimensions in () are in mm} \\ \mbox{Unless Otherwise Noted}. XXX = \pm 0.010 (XX = \pm 0.25) \\ XX = \pm 0.02 (X = \pm 0.5) \\ \mbox{WEIGHT} (APPROX): 0.14 OUNCES 4 GRAMS \end{array}$ 

#### **Ordering Information**

Part Number	Package		
SW-207-PIN	DI-1		

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

#### **Truth Table**

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

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

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# Technology Solutions

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Rev. V3

## Electrical Specifications: $T_A = -55^{\circ}C$ to $+85^{\circ}C^{-1}$

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss	_	5 - 3000 MHz 5 - 2000 MHz 5 - 1000 MHz	dB dB dB			2.3 1.4 1.0
VSWR	_	5 - 3000 MHz 5 - 2000 MHz 5 - 1000 MHz	Ratio Ratio Ratio			2.5:1 1.7:1 1.5:1
Isolation	_	5 - 3000 MHz 5 - 2000 MHz 5 - 1000 MHz	dB dB dB	18 28 38		
Trise, Tfall Ton, Toff Transients	50% CTL to 90/10% RF In-band		nS nS mV		7 20 70	
1 dB Compression	Input Power	0.5 - 3 GHz 0.05 GHz	dBm dBm		+27 +21	_
IP <sub>2</sub>	For two tone input power up to +13 dBm	0.5 - 3 GHz 0.05 GHz	dBm dBm		+68 +60	_
IP <sub>3</sub>	For two tone input power up to +13 dBm	0.5 - 3 GHz 0.05 GHz	dBm dBm		+27 +21	
Bias Power	+5 VDC		mA		—	1

1. All specifications apply when operated with bias voltages of +5 VDC and 50 ohm impedance at all RF ports.

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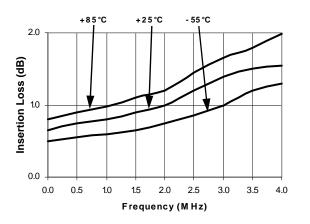
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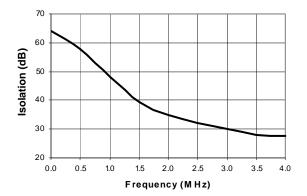
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#### **Typical Performance Curves**

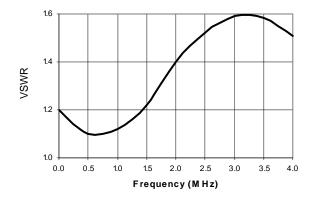
#### Insertion Loss



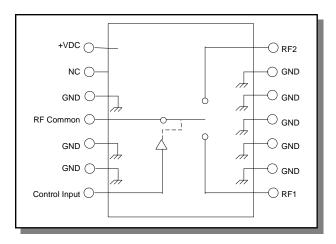
Isolation



#### VSWR



#### **Schematic**



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