



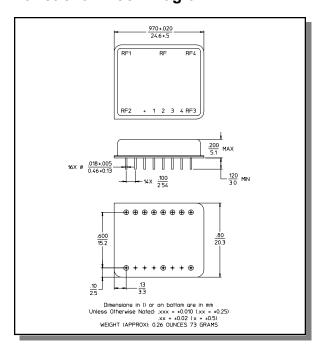
## GaAs SP4T Switch, 5 - 2000 MHz

SW-255-PIN V4

#### **Features**

- Low Insertion Loss, 1.0 dB Typical
- Fast Switching Speed, 20 nS Typical
- Ultra Low DC Power Consumption, 0.3 mA Typical
- Integral TTL Driver
- 50 Ohm Nominal Impedance
- MIL-STD-883 screening available

## **Functional Block Diagram**



## **Ordering Information**

Part Number	Package
SW-255-PIN	DI-5

Note: Reference Application Note M513 for reel size

information.

information.

Note: Die quantity varies.

### **Truth Table**

Control Input			Condition of Switch				
"1" = Logic High			RF Common to Each RF Port				
CTL 1	CTL 2	CTL 3	CTL 4	RF1	RF2	RF3	RF4
1	0	0	0	ON	OFF	OFF	OFF
0	1	0	0	OFF	ON	OFF	OFF
0	0	1	0	OFF	OFF	ON	OFF
0	0	0	1	OFF	OFF	OFF	ON

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

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Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298





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

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss	_	5 - 2000 MHz 5 - 1000 MHz 5 - 500 MHz	dB dB dB	2.1 1.6 1.4	=	_ _ _
VSWR	_	5 - 2000 MHz 5 - 1000 MHz 5 - 500 MHz	Ratio Ratio Ratio			2.3:1 1.8:1 1.4:1
Isolation	_	5 - 2000 MHz 5 - 1000 MHz 5 - 500 MHz	dB dB dB	35 36 42		
Trise, Tfall Ton, Toff Transients	50% CTL to 90/10% RF In-band		nS nS mV		7 20 80	
1 dB Compression	Input Power	500 - 2000 MHz 50 MHz	dBm dBm	_	+27 +21	_
IP <sub>2</sub>	For two tone input power up to +13 dBm	500 - 2000 MHz 50 MHz	dBm dBm	_	+68 +60	_
Bias Power	+5 VDC @ 0.30 mA Typ	_	mA	_	_	1

<sup>1.</sup> All specifications apply when operated with bias voltages of +5 VDC and 50 ohm impedance at all RF Ports.

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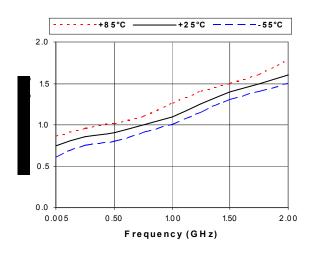


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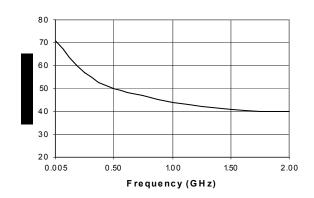
SW-255-PIN

## **Typical Performance Curves**

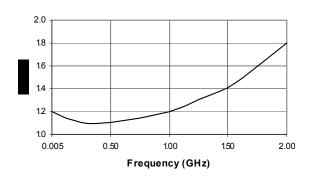
#### **Insertion Loss**



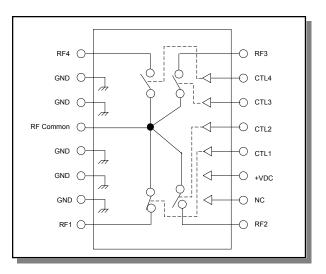
#### Isolation



#### **VSWR**



### **Schematic**



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