

GaAs SP4T Switch

5 - 2000 MHz

SW-255

V3.00

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

Guaranteed Specifications* (From -55°C to +85°C)

Frequency Range	5-2000 MHz	
Insertion Loss	5-2000 MHz	2.1 dB Max
	5-1000 MHz	1.6 dB Max
	5-500 MHz	1.4 dB Max
VSWR	5-2000 MHz	2.3:1 Max
	5-1000 MHz	1.8:1 Max
	5-500 MHz	1.3:1 Max
Isolation	5-2000 MHz	35 dB Min
	5-1000 MHz	36 dB Min
	5-500 MHz	42 dB Min

Operating Characteristics

Impedance	50 Ohms Nominal	
Switching Characteristics	(TTL)	
Trise, Tfall	7 ns	
Ton, Toff (50% CTL to 90/10% RF)	20 ns	
Transients (In-Band)	80 mV	
Input Power for 1 dB Compression		
500-2000 MHz	+27 dBm Typ	
50 MHz	+21 dBm Typ	
Intermodulation Intercept Point (for two-tone input power up to +13 dBm)		
Intercept Points	IP2	
500-2000 MHz	+68	dBm Typ
50 MHz	+60	dBm Typ
Bias Power	+5 VDC @ 0.30 mA Typ, 1 mA Max	

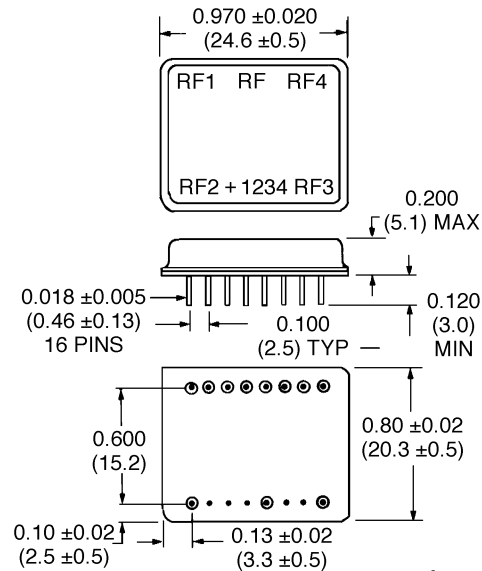
Environmental
MIL-STD-883 screening available.

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

Truth Table

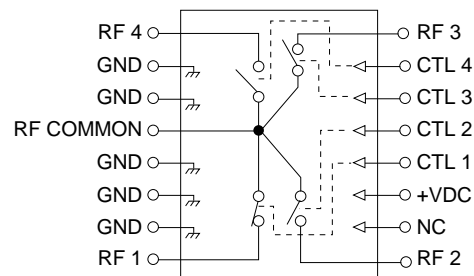
Control Input				Condition of Switch			
"1" = Logic High TTL(SW-255)				RF Common To Each RF Port			
CTL1	CTL2	CTL3	CTL4	RF1	RF2	RF3	RF4
1	0	0	0	ON	OFF	OFF	OFF
0	1	0	0	OFF	ON	OFF	OFF
0	0	1	0	OFF	OFF	ON	OFF
0	0	0	1	OFF	OFF	OFF	ON

DI-5



Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)
WEIGHT (APPROX.): 0.26 OUNCES 73 GRAMS

Schematic



Ordering Information

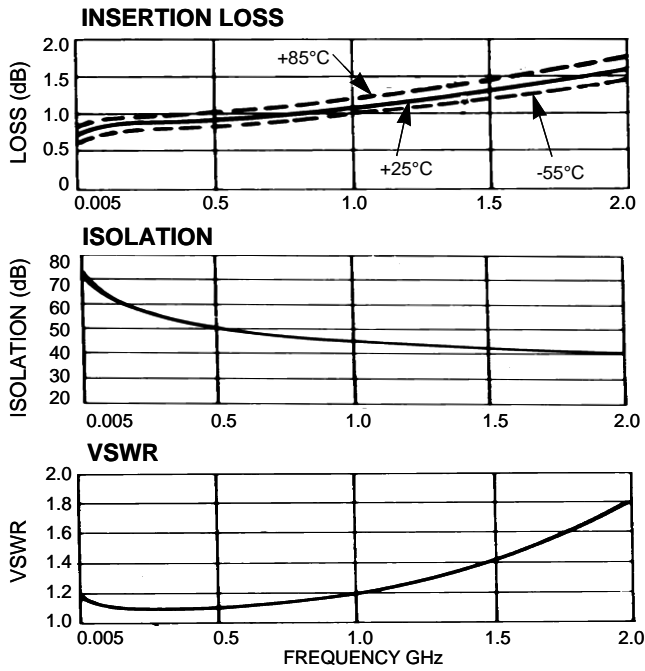
Model No.	Package
SW-255 PIN	Dual Inline

Specifications Subject to Change Without Notice.

M/A-COM, Inc.

North America: Tel. (800) 366-2266 Fax (800) 618-8883 ■ Asia/Pacific: Tel. +81 (03) 3226-1671 Fax +81 (03) 3226-1451 ■ Europe: Tel. +44 (1344) 869 595 Fax +44 (1344) 300 020

Typical Performance



Specifications Subject to Change Without Notice.