

Matched GaAs SP4T Switch 5-2000 MHz

SW-261/264

V 2.01

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 (SW-261) or CMOS (SW-264) 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	2.5:1 Max
	5-1000 MHz	1.8:1 Max
	5- 500 MHz	1.4:1 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	SW-261 (TTL)	SW-264 (CMOS)
Trise, Tfall	7 ns	20 ns Typ
Ton, Toff (50% CTL to 90/10%RF)	20 ns	40 ns Typ
Transients (In-Band)	80 mV	40 mV Typ

Input Power for 1 dB Compression

Model #'s	SW-261	SW-264	
500-2000 MHz	+27	+33	dBm Typ
50 MHz	+21	+26	dBm Typ

Intermodulation Intercept Point

(for two-tone Input power up to + 13 dBm)

Intercept Points	IP ₂	IP ₃	
500-2000 MHz	+68	+46	dBm Typ
50MHz	+60	+40	dBm Typ

Bias Power

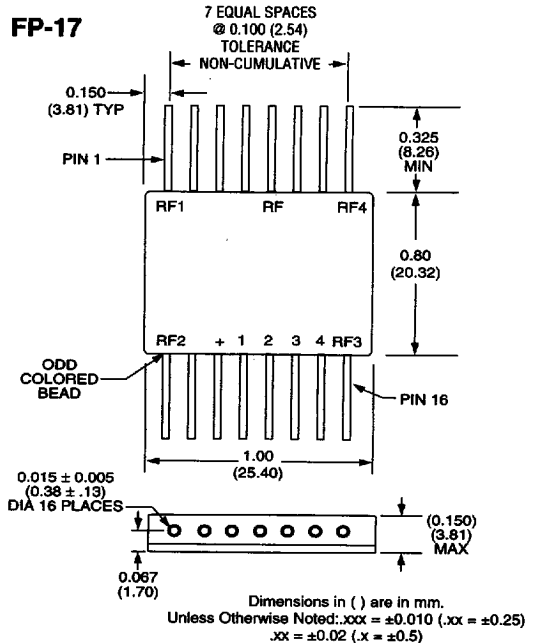
SW-261	+5 VDC @ 0.30 mA Typ, 1 mA Max		
SW-264	+5 to +8 VDC @ 0.30 to 0.60 mA Typ, 1 mA Max		

Environmental

See Appendix for MIL-STD-883 screening option.

- * All specifications apply when operated with bias voltages of +5 VDC (SW-261) or +8 VDC (SW-264) and 50 ohm impedance at all RF ports.

FP-17



Ordering Information

Model No.	Package
SW-261 PIN	Flatpack
SW-264 PIN	Flatpack

Specifications Subject to Change Without Notice.

15-114

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

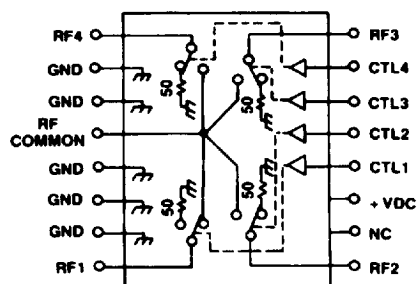
Europe: Tel. +44 (1344) 869 595
Fax +44 (1344) 300 020

5642205 0002475 230

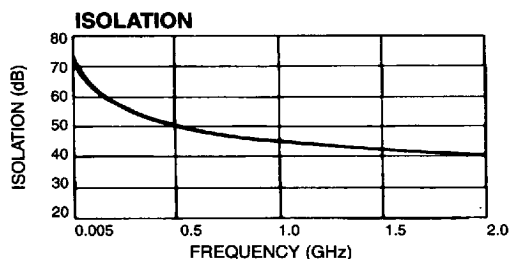
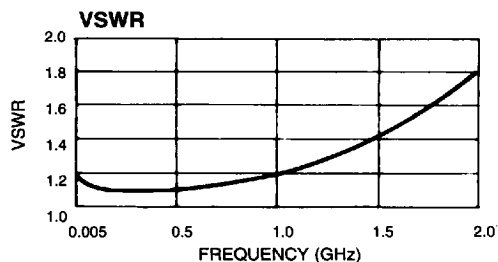
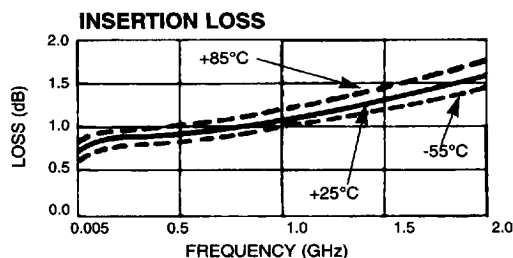
Truth Table

Control Input				Condition of Switch			
"1" = Logic High TTL(SW-261)/CMOS(SW-264)				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

Schematic



Typical Performance



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