



GaAs SP4T Switch 5-2000 MHz

SW-262

- Low Insertion Loss, 1.0 dB Typical
- Fast Switching Speed, 20 ns Typical
- Ultra Low DC Power Consumption, 0.3mA Typical
- Integral TTL (SW-262) or CMOS (SW-265) Driver

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

| | | |
|-----------------|------------|------------|
| Frequency Range | 5-2000 MHz | 5-2000 MHz |
| Insertion Loss | 5-2000 MHz | 2.0 dB Max |
| | 5-1000 MHz | 1.4 dB Max |
| | 5- 500 MHz | 1.2 dB Max |
| VSWR | 5-2000 MHz | 2.5:1 Max |
| | 5-1000 MHz | 1.5:1 Max |
| | 5- 500 MHz | 1.3:1 Max |
| Isolation | 5-2000 MHz | 35 dB Min |
| | 5-1000 MHz | 37 dB Min |
| | 5- 500 MHz | 42 dB Min |

Operating Characteristics

| | |
|---|-----------------|
| Impedance | 50 Ohms Nominal |
| Switching Characteristics | (TTL) |
| t _{RISE} , t _{FALL} | 7 ns |
| t _{ON} , t _{OFF} (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 | IP ₂ | IP ₃ | |
|------------------|-----------------|-----------------|---------|
| 500-2000 MHz | +68 | +46 | dBm Typ |
| 50 MHz | +60 | +40 | dBm Typ |

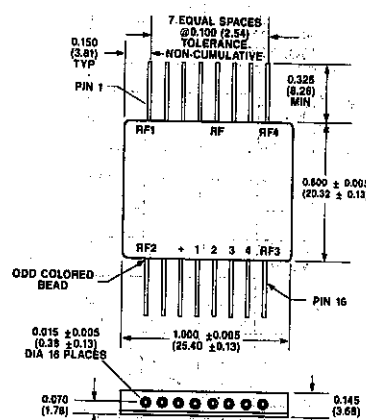
Bias Power

| | |
|--------|-------------------------------|
| SW-262 | +5VDC @ 0.30 mA Typ, 1 mA Max |
|--------|-------------------------------|

Environmental

See Appendix for MIL-STD-883 screening option.

FP-17

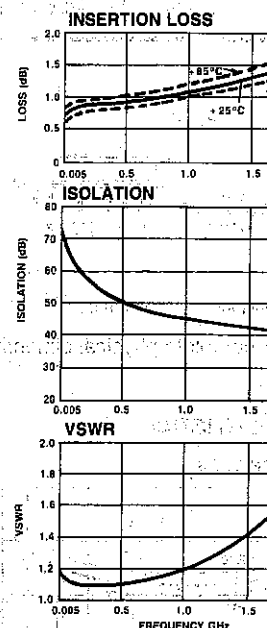


Dimensions in () are in mm.

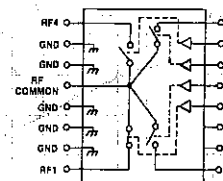
See Appendix for complete physical dimensions.

GaAs SP4T Switch

Typical Performance



Schematic



Truth Table

| Control Input | | | | Condition | |
|----------------------------|------|------|------|--------------|-----|
| *1 = Logic High | | | | RF Common To | |
| TTL (SW-262)/CMOS (SW-265) | | | | | |
| CTL1 | CTL2 | CTL3 | CTL4 | RF1 | RF2 |
| 0 | 0 | 0 | 0 | ON | OFF |
| 0 | 1 | 0 | 0 | OFF | ON |
| 0 | 0 | 1 | 0 | OFF | OFF |
| 0 | 0 | 0 | 1 | OFF | OFF |

Ordering Information

| Model No. | Package |
|------------|----------|
| SW-262 PIN | Flatpack |

Specifications Subject to Change Without Notice.

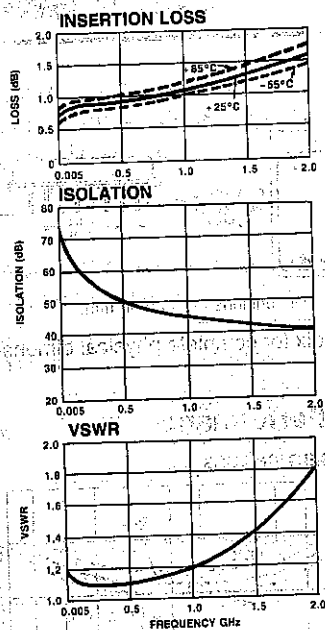
M/A-COM Inc. 1011 Pawtucket Boulevard, Lowell, MA 01853 USA

Telephone: 800-366-2260

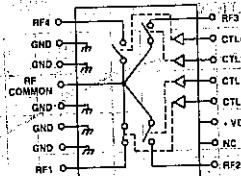
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Typical Performance



Schematic



Truth Table

| Control Input | | | | Condition of Switch | | | |
|----------------|------|------|------|---------------------------|-----|-----|-----|
| 1 = Logic High | | | | 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 |

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