

# Matched SP4T RF Switch

## 20 - 1500 MHz

**SW-164**

V2.00

### Features

- Internally Terminated
- Integral TTL Driver
- Low Loss - 0.9 dB Typical

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

Frequency Range	20-1500 MHz	
<b>Insertion Loss</b>	20-1500 MHz	2.0 dB Max
	20-1000 MHz	1.5 dB Max
	30-500 MHz	1.2 dB Max
<b>VSWR (All States)</b>	20-1500 MHz	1.80:1 Max
	20-1000 MHz	1.50:1 Max
	30-500 MHz	1.25:1 Max
<b>Isolation</b>	20-1500 MHz	35 dB Min
	20-1000 MHz	40 dB Min
	20-500 MHz	50 dB Min

### Operating Characteristics

<b>Impedance</b>	50 Ohms Nominal	
<b>Switching Characteristics</b>		
t <sub>ON</sub>	3.0 μS Typ	
t <sub>OFF</sub>	1.5 μS Typ	
Transients (In-Band)	40 mV Typ	
<b>Input Power</b>	20-1500 MHz	+ 5 dBm Typ
<b>for 1 dB Compression</b>	50-1500 MHz	+ 15 dBm Typ
<b>Intermodulation Intercept Point (for two-tone input power up to + 5 dBm)</b>		
Second Order	(20-1500 MHz)	+ 55 dBm Typ
	(50-1500 MHz)	+ 70 dBm Typ
Third Order	(20-1500 MHz)	+ 25 dBm Typ
	(50-1500 MHz)	+ 40 dBm Typ
<b>Bias Power</b>	+ 9 to + 15 VDC @ 50 mA Max	
	- 5 VDC ± 5% @ 25 mA Max	
	(550 mW Typical)	

### Environmental

MIL-STD-883 screening available.

\*All specifications apply when operated with bias voltages of +12 VDC and -5 VDC (±5%) and 50 ohm impedance at all RF ports

### Ordering Information

<b>Model Number</b>	SW-164 PIN	<b>Package</b>	Dual Inline
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### Truth Table

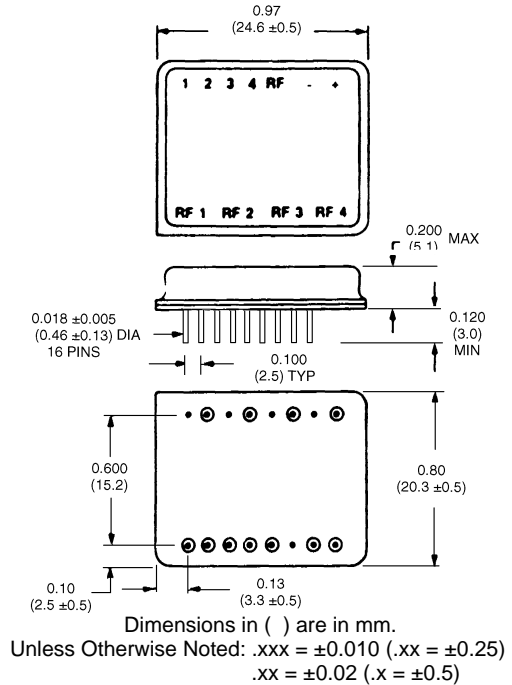
TTL CONTROL INPUTS				CONDITION OF SWITCH			
"1" = TTL LOGIC HIGH				RF COMMON TO EACH RF PORT			
1	2	3	4	RF1	RF2	RF3	RF4
1	0	0	0	ON	OFF	OFF	OFF
0	1	0	0	OFF	ON	OFF	OFF
0	0	1	0	OFF	OFF	ON	OFF
0	0	0	1	OFF	OFF	OFF	ON

Specifications Subject to Change Without Notice.

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### DI-2



### Typical Performance

