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

Operating Characteristics

Impedance		50 Ohms Nominal
Switching Characteristics		
t_{ON}		3.0 μS Typ
t_{OFF}		1.5 μS Typ
Transients (In-Band)		40 mV Typ
Input Power for 1 dB Compression	20-1500 MHz	+5 dBm Typ
	50-1500 MHz	+15 dBm Typ
Intermodulation Intercept Point (for two-tone input power up to +5 dBm)		
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
Bias Power		+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

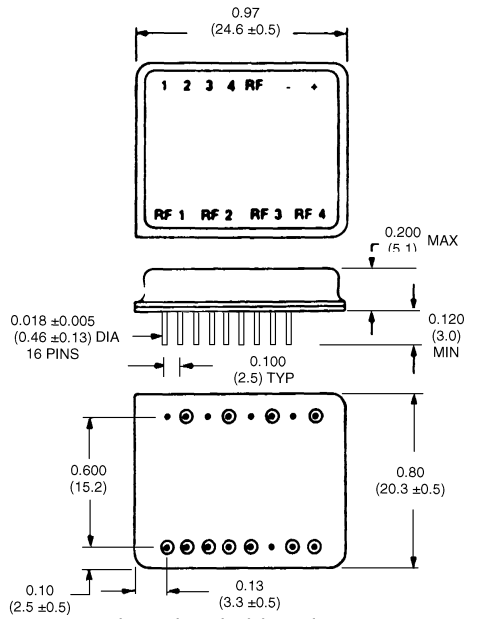
Ordering Information

Model Number	Package
SW-164 PIN	Dual Inline

Truth Table

TTL CONTROL INPUTS "1" = TTL LOGIC HIGH				CONDITION OF SWITCH 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

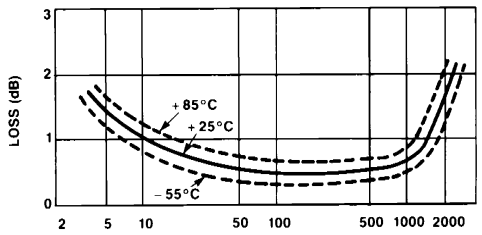
DI-2



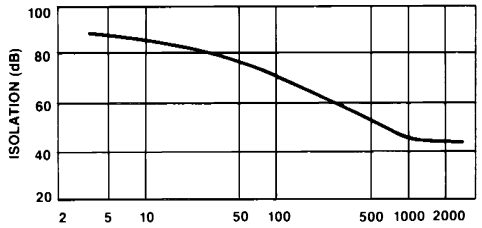
Dimensions in ( ) are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)

Typical Performance

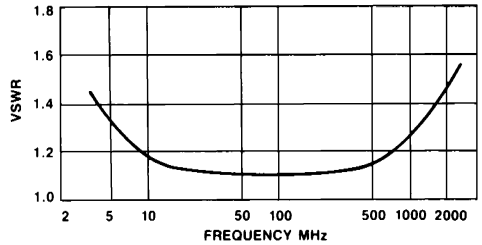
INSERTION LOSS



ISOLATION



VSWR



Specifications Subject to Change Without Notice.

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