tyco Electronics

M/A-COM

SP4T RF Switch, 10 - 2000 MHz

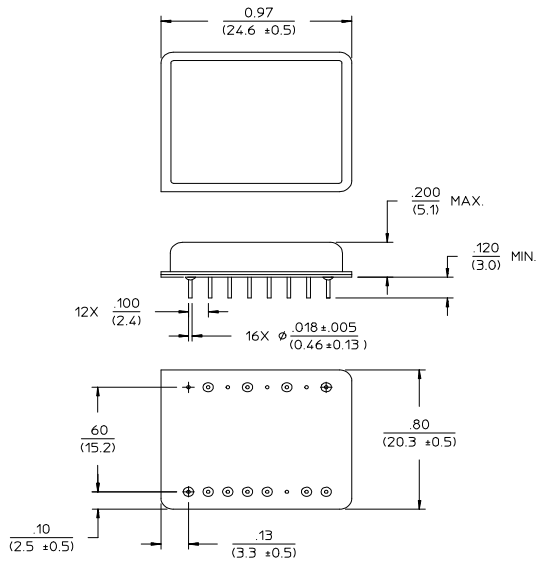
SW-114-PIN V3

Features

- Ultra Broadband
- High Isolation: 60 dB Typical
- Integral TTL Driver
- Hermetic Package
- 50 Ohm Nominal Impedance
- MIL-STD-883 Screening Available

Description

Functional Block Diagram



Dimensions in () are in mm
Unless Otherwise Noted: .XXX = ±0.010 (.XX = ±0.25)
.XX = ±0.02 (.X = ±0.5)
WEIGHT (APPROX): 0.28 OUNCES 8 GRAMS

Ordering Information

Part Number	Package
SW-114-PIN	DI-2

Note: Reference Application Note M513 for reel size information.
Note: Die quantity varies.

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

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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Electrical Specifications: T_A = -55°C to +85°C [1]

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	—	10 - 2000 MHz 10 - 1000 MHz 10 - 500 MHz	dB dB dB	— — —	— — —	2.8 2.1 1.8
VSWR	—	10 - 2000 MHz 10 - 1000 MHz	Ratio Ratio	— —	— —	1.8:1 1.2:1
Isolation	—	10 - 2000 MHz 10 - 1000 MHz 10 - 500 MHz	dB dB dB	35 45 60	— — —	— — —
Ton Toff Transients	 In-band	— — —	µS µS mV	— — —	2.0 1.0 40	— — —
1 dB Compression	Input Power	—	dBm	—	+13	—
IP_2	For two tone input power up to +5 dBm	—	dBm	—	+60	—
IP_3	For two tone input power up to +5 dBm	—	dBm	—	+30	—
Bias Power	+9 to +15 VDC @ 50 mA Max -5 VDC ± 5% @ 35 mA Max	—	mW	—	550	—

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

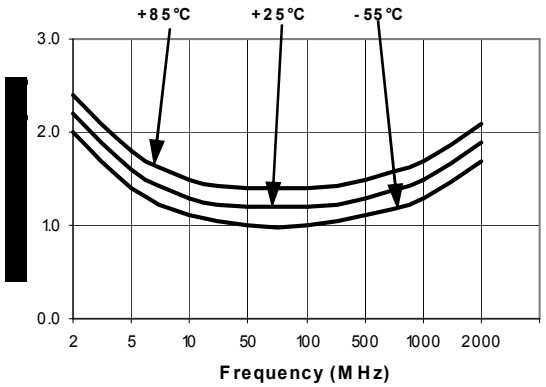
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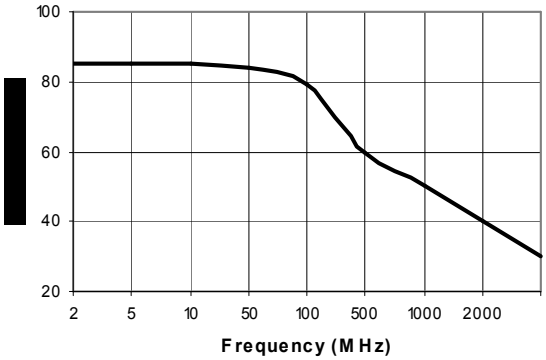
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Typical Performance Curves

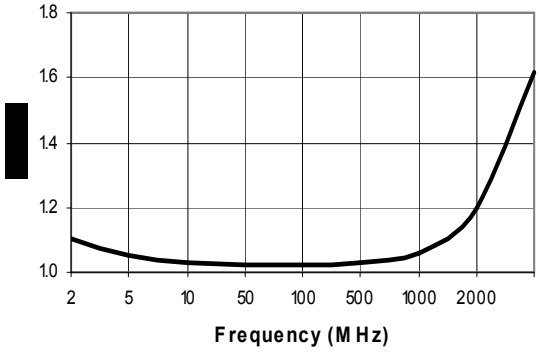
Insertion Loss



Isolation



VSWR



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