SW-163-PIN

Matched SP3T RF Switch, 20 - 1500 MHz

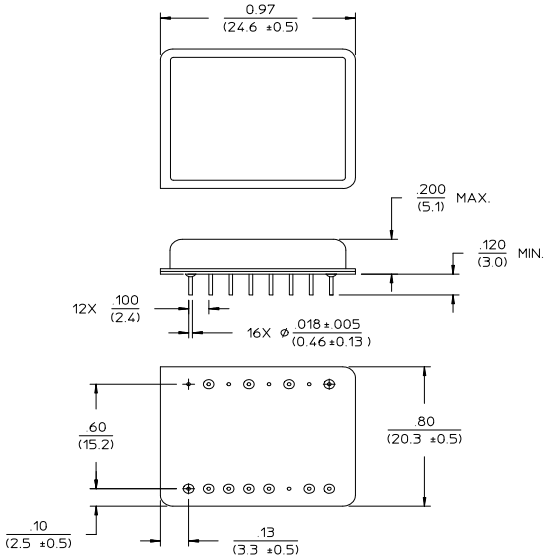
Rev. V3

Features

- Internally Terminated
- Integral TTL Driver
- Low Loss: 0.9 dB Typical
- 50 Ohm Nominal Impedance
- MIL-STD-883 Screening Available

Description

Functional Block Diagram



Ordering Information

Part Number	Package
SW-163-PIN	DI-1

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	RF1	RF2	RF3
1	0	0	On	Off	Off
0	1	0	Off	On	Off
0	0	1	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	—	20 - 1500 MHz 20 - 1000 MHz 30 - 500 MHz	dB dB dB	— — —	— — —	2.0 1.5 1.2
VSWR	All States	20 - 1500 MHz 20 - 1000 MHz 30 - 500 MHz	Ratio Ratio Ratio	— — —	— — —	1.80:1 1.50:1 1.25:1
Isolation	—	20 - 1500 MHz 20 - 1000 MHz 30 - 500 MHz	dB dB dB	35 40 50	— — —	— — —
Ton Toff Transients	 In-band	— — —	µS µS mV	— — —	3.0 1.5 40	— — —
1 dB Compression	Input Power	20 - 1500 MHz 50 - 1500 MHz	dBm dBm	— —	+5 +15	— —
IP_2	For two tone input power up to +5 dBm	20 - 1500 MHz 50 - 1500 MHz	dBm dBm	— —	+55 +70	— —
IP_3	For two tone input power up to +5 dBm	20 - 1500 MHz 50 - 1500 MHz	dBm dBm	— —	+25 +40	— —
Bias Power	+9 to +15 VDC @ 45 mA Max -5 VDC ± 5% @ 25 mA Max	—	mW	—	540	—

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

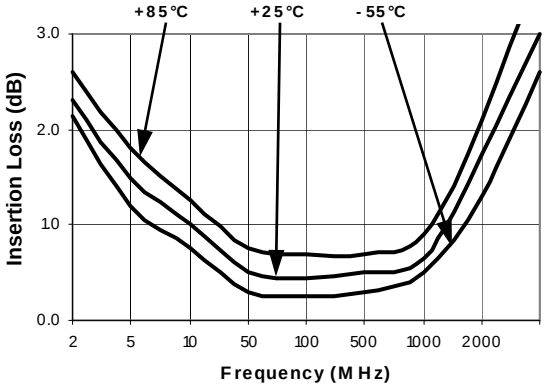
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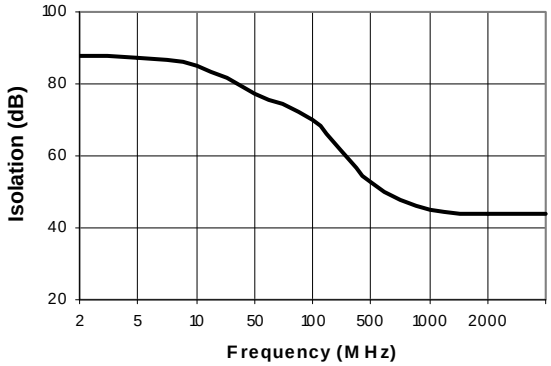
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Typical Performance Curves

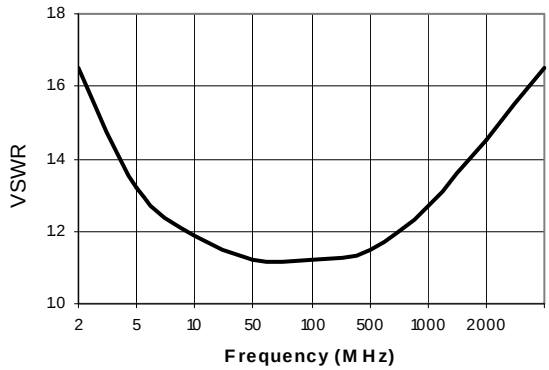
Insertion Loss



Isolation



VSWR



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