SW-114-PIN

SP4T RF Switch, 10 - 2000 MHz

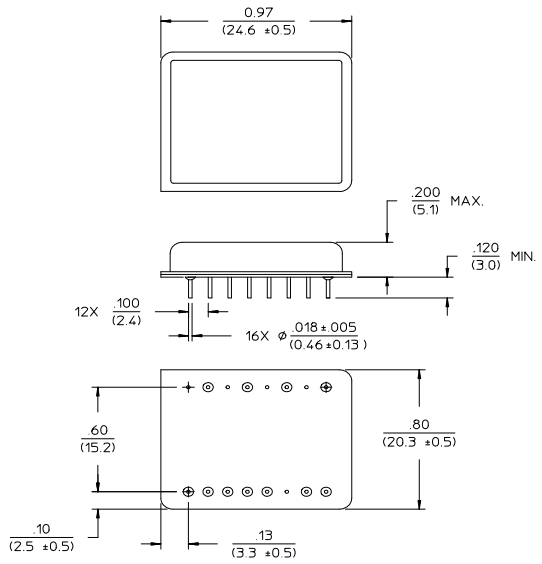
Rev. V3

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.

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588
Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

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.

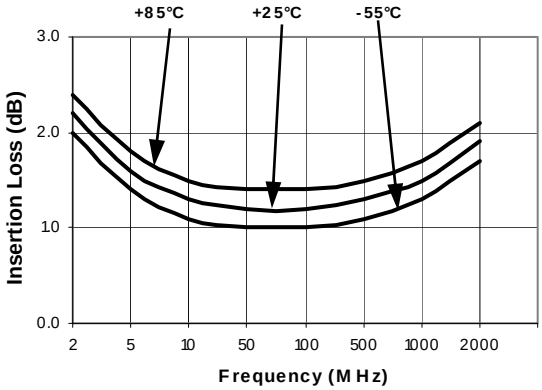
ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588
Visit www.macomtech.com for additional data sheets and product information.

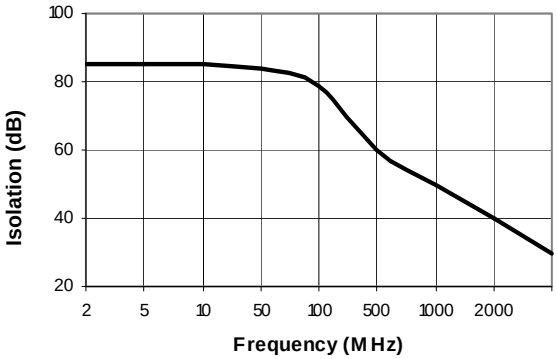
M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

Typical Performance Curves

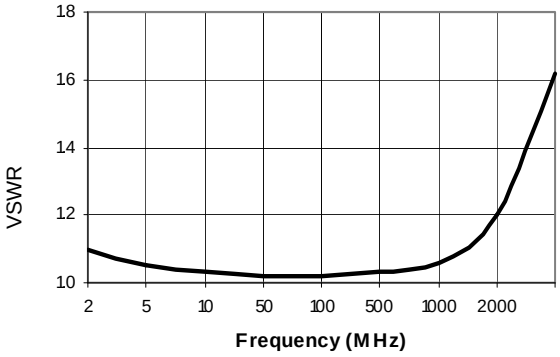
Insertion Loss



Isolation



VSWR



ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588
Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.