

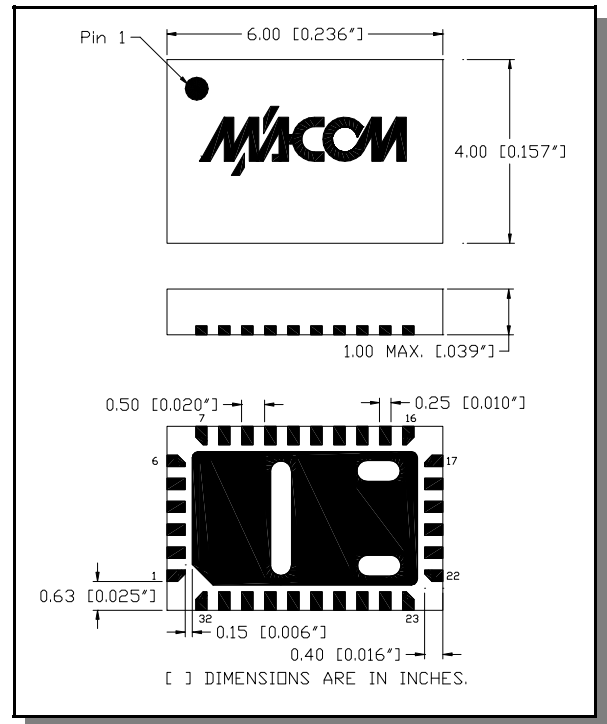
Features

- Operates DC - 4 GHz on Single Supply
- ASIC TTL / CMOS Driver
- Leadless 4 x 6 mm Chip Scale Plastic Package
- Low DC Power Consumption
- 50 Ohm Nominal Impedance
- Test Boards are Available
- Tape and Reel are Available

Description

M/A-COM's SW90-0002 is a SPDT absorptive pHEMT switch with integral TTL driver. This device is in an MLP plastic surface mount package. This switch offers excellent broadband performance and repeatability from DC to 4 GHz, while maintaining low DC power dissipation. The SW90-0002 is ideally suited for wireless infrastructure applications.

CSP-1

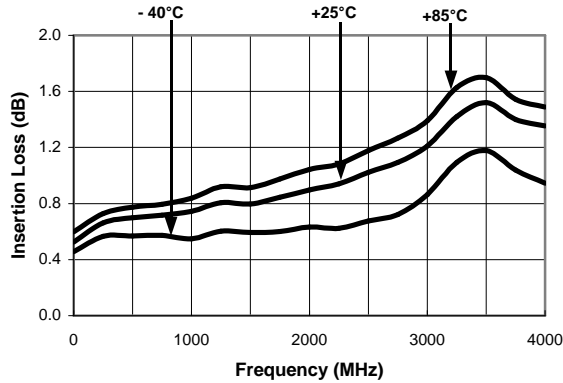


Electrical Specifications: $T_A = 25^\circ\text{C}$

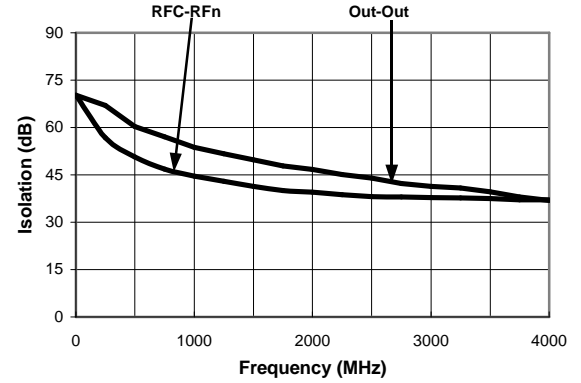
Parameter	Test Conditions	Frequency	Units	Min.	Typ.	Max.
Insertion Loss	RFC—RF1,RF2 (Logic per truth table)	DC - 4.0 GHz	dB	—	—	1.8
Isolation	RF1—RF2 (All Logic "0")	DC - 4.0 GHz	dB	30	—	—
VSWR	On (RFC,RF1, RF2) (Logic per truth table)	DC - 4.0 GHz	Ratio	—	—	2.0:1
VSWR	Off (RF1, RF2) (Logic per truth table)	DC - 4.0 GHz	Ratio	—	—	1.8:1
1 dB Compression	— —	50 MHz	dBm	—	18	—
		0.5 - 4.0 GHz	dBm	—	29	—
Input IP_3	Two-tone inputs up to +5 dBm	50 MHz	dBm	—	36	—
		0.5 - 4.0 GHz	dBm	—	46	—
Switching Speed	Ton (50% Control to 10% RF)		nS	—	31	—
	Toff (50% Control to 90% RF)		nS	—	19	—
	Trise (10% to 90% RF)		nS	—	6	—
	Tfall (90% to 10% RF)		nS	—	2	—
Vcc	—	—	V	4.5	5.0	5.5
Logic "0"	Sink Current is 20 μA max.	—	V	0.0	—	0.8
Logic "1"	Source Current is 20 μA max.	—	V	2.0	—	5.0
Icc	Vcc min to max, Logic "0" or "1"	—	mA	—	5	8

Typical Performance Curves

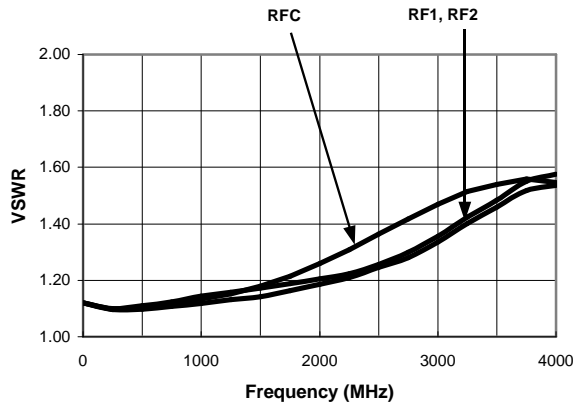
Insertion Loss vs. Frequency



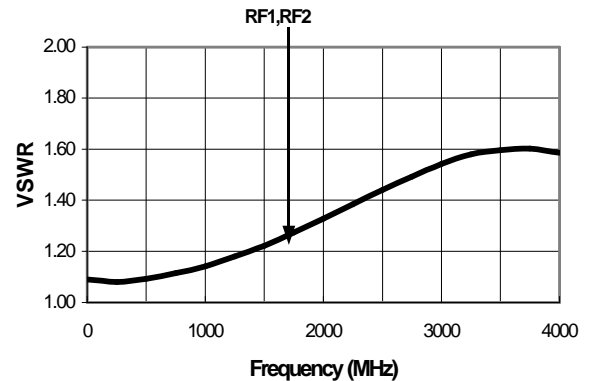
Isolation (dB) vs. Frequency



On VSWR vs. Frequency



VSWR (Terminations) vs. Frequency



Ordering Information

Part Number	Package
SW90-0002	Bulk Packaging
SW90-0002TR	Tape and Reel (1K Reel)
SW90-0002-TB	Units Mounted on Test Board

Specifications subject to change without notice.

- North America: Tel. (800) 366-2266
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- Europe: Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020

Visit www.macom.com for additional data sheets and product information.