

# M/A-COM Low Cost Four-Way SMT Power Splitter/Combiner, 824-960 MHz

## Features

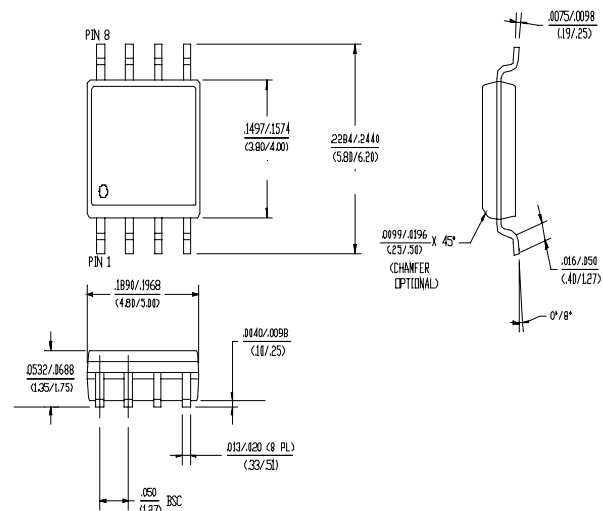
- Small Size and Low Profile
- Industry Standard SOW-16 SMT Plastic Package
- Excellent Repeatability (Lot-to-Lot Variation)
- Typical Isolation: 23 dB
- Typical Amplitude Balance: 0.3 dB
- Low Cost
- Typical Insertion Loss: 1.0dB

## Description

M/A-COM's DS54-0001 is an IC-based monolithic power splitter/combiner in a low cost SOW-16 plastic package. This device is ideally suited for applications where PCB real estate is at a premium and standard packaging for automated assembly and low cost are critical. Typical applications include infrastructure, portables and peripheral devices (PCMCIA cards) for wireless standards such as GSM, AMPS, CDPD, RAM and ARDIS. Available in tape and reel.

The DS54-0001 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

## SOW-16



## Ordering Information

Part Number	Package
DS54-0001	SOW-16 Lead Plastic Package
DS54-0001-TR	Forward Tape and Reel <sup>1</sup>
DS54-0001-RTR	Reverse Tape and Reel <sup>1</sup>

1. If specific reel size is required, consult factory for part number assignment.

## Typical Electrical Specifications<sup>1</sup>, T<sub>A</sub> = +25°C

Parameter	Units	Min	Typ	Max
Insertion Loss Above 6.0dB	dB	—	1.0	1.2
Isolation	dB	18	23	—
VSWR Input	—	—	1.2:1	1.4:1
VSWR Output	—	—	1.4:1	1.75:1
Amplitude Balance	dB	—	0.3	0.7
Phase Balance	°	—	2	4

1. All specifications apply with a 50-Ohm source and load impedance.

Specifications subject to change without notice.

■ **North America:** Tel. (800) 366-2266, Fax (800) 618-8883  
 ■ **Asia/Pacific:** Tel.+81-44-844-8296, Fax +81-44-844-8298  
 ■ **Europe:** Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020

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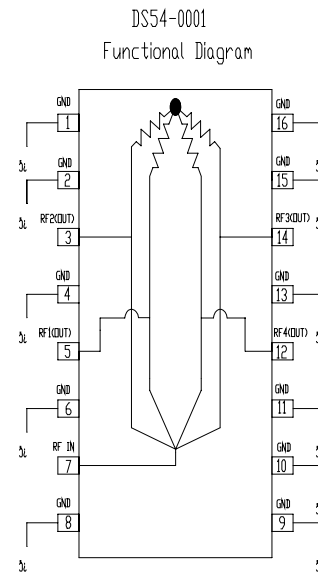
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**Absolute Maximum Ratings<sup>1</sup>**

Parameter	Absolute Maximum
Input Power <sup>2</sup>	1 W CW
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

1. Exceeding these limits may cause permanent damage.
2. With Internal load dissipation of 0.125 W maximum.

**Functional Diagram<sup>1</sup>**

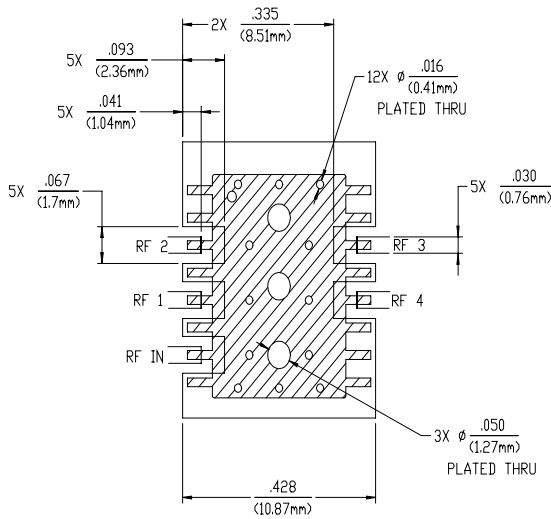


Pins 1,2,4,6,7,8,9,10,11,13,15 and 16 must be DC and RF grounded

1. Pins 1, 2, 4, 6, 7, 8, 9, 10, 11, 13, 15 and 16 must be RF and DC grounded.

**Recommended PCB Configuration**

(Dimensions in Inches)



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