Low Cost Four-Way SMT Power Splitter/Combiner, 824-960 MHz

Features

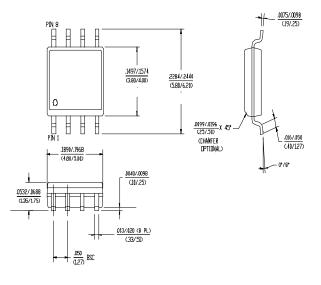
- Small Size and Low Profile •
- Industry Standard SOW-16 SMT Plastic Package •
- Excellent Repeatability (Lot-to-Lot Variation)
- Typical Isolation: 23 dB •
- Typical Amplitude Balance: 0.3 dB •
- Low Cost
- Typical Insertion Loss: 1.0dB

Description

M/A-COM's DS54-0001is 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 ¹
DS54-0001-RTR	Reverse Tape and Reel ¹

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

Typical Electrical Specifications¹, $T_A = +25$ °C

Parameter		Units	Min	Тур	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	e	dB	_	0.3	0.7
Phase Balance		0	_	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

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



Absolute Maximum Ratings¹

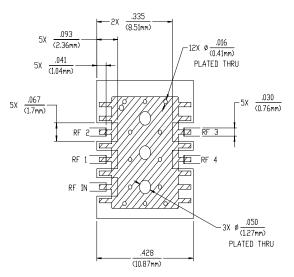
Parameter	Absolute Maximum		
Input Power ²	1 W CW		
Operating Temperature	-40°C to +85°C		
Storage Temperature	-65°C to +150°C		

1. Exceeding these limits may cause permanent damage.

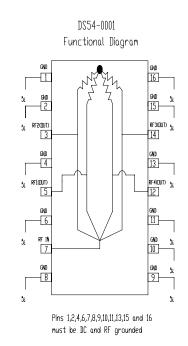
2. With Internal load dissipation of 0.125 W maximum.

Recommended PCB Configuration

(Dimensions in Inches)



Functional Diagram¹



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

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