



Low Cost Two-Way SMT Power Divider 1510-1660 MHz



Features

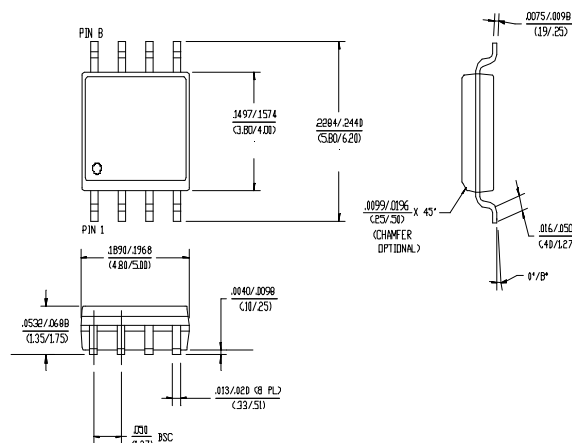
- Small Size and Low Profile
- Industry Standard SOIC-8 SMT Plastic Package
- Excellent Amplitude and Phase Balance
- Superior Repeatability
- Typical Insertion Loss 0.4 dB
- Typical Isolation 20 dB
- 1 Watt Power Handling
- Frequency Coverage for GPS and LEO Programs

Description

M/A-COM's DS52-0004 is an IC-based monolithic power divider in a low cost SOIC-8 plastic package. This 2-way power divider is ideally suited for applications where small size, low insertion loss, superior phase/amplitude tracking and low cost are required. Typical applications include base station switching networks and other communication applications where size and PCB real estate are a premium. Available in tape and reel.

The DS52-0004 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

SOIC-8



Ordering Information

Part Number	Package
DS52-0004	SOIC-8 Lead Plastic Package
DS52-0004-TR	Forward Tape and Reel ¹
DS52-0004-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	Typ	Max
Insertion Loss Above 3.0dB	dB	—	0.4	0.6
Isolation	dB	15	20	—
VSWR Input RL	—	—	1.3:1	1.5:1
VSWR Output RL	—	—	1.4:1	1.6:1
Amplitude Balance	dB	—	0.1	0.2
Phase Balance	°	—	1.0	3.0

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



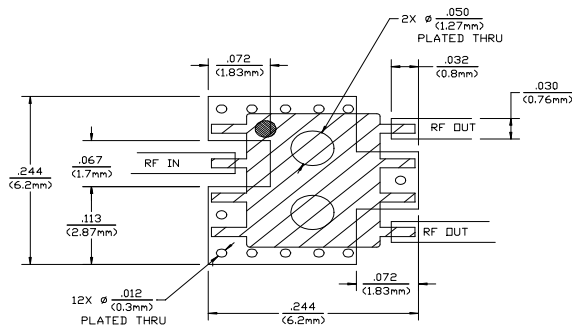
Absolute Maximum Ratings¹

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

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

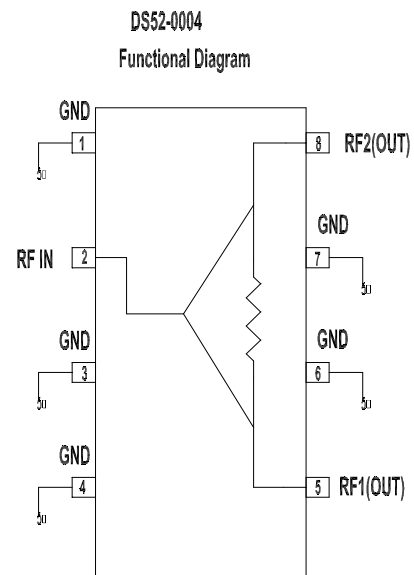
Recommended PCB Configuration

(Dimensions in Inches)



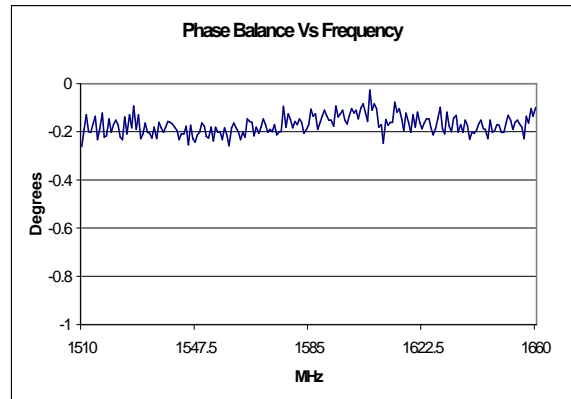
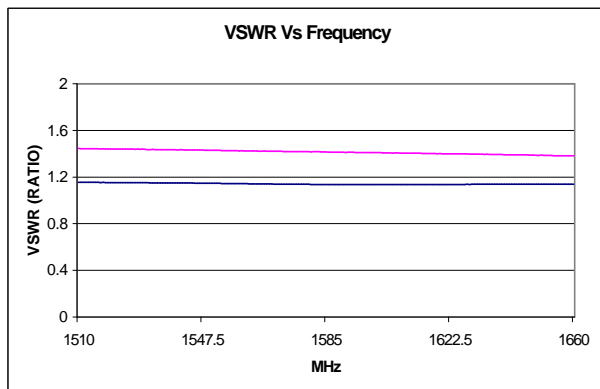
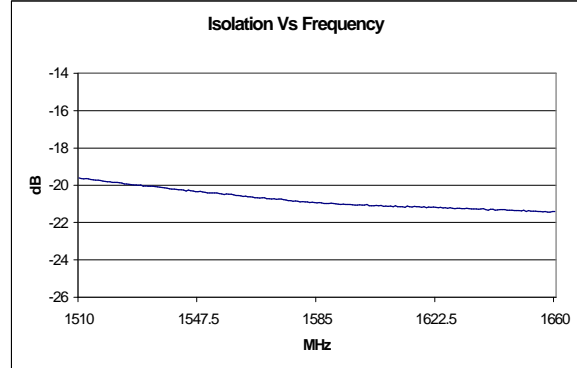
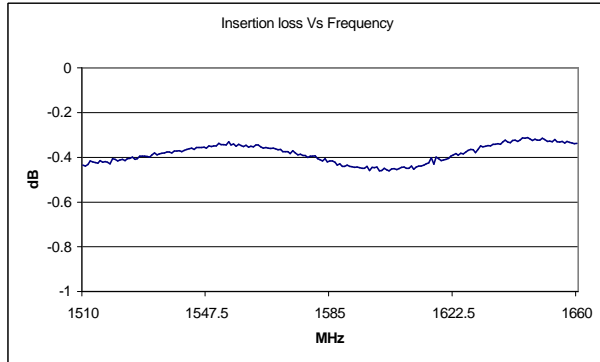
DS52-0001 PCB LAYOUT (SDIC-8 CASE)
SCALE: 1X
CIRCUIT MATERIAL: FR-4, .016 THICK
ALL RF PORTS ARE 50 OHMS

Functional Diagram³



Pins 1, 3, 4, 6 and 7 must be DC and RF grounded

Typical Performance @ +25°C



S 1561B VER 3



M/A-COM Division of AMP Incorporated ■ North America: Tel. (800) 366-2266, Fax (800) 618-8883 ■ Asia/Pacific: Tel.+85 2 2111 8088, Fax +85 2 2111 8087 ■ Europe: Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020

www.macom.com

AMP and Connecting at a Higher Level are trademarks.
Specifications subject to change without notice.

