



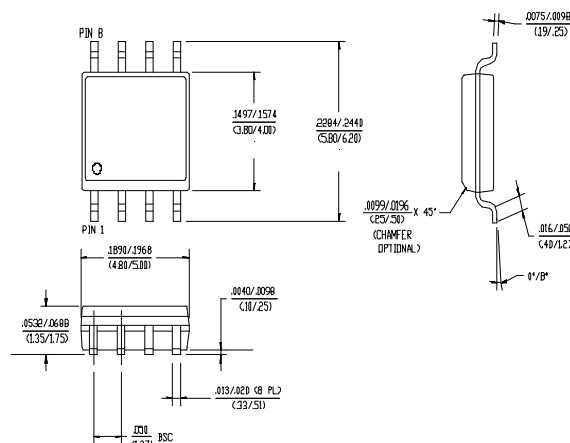
# Low Cost Two-Way SMT Power Divider 1510-1660 MHz



## 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

## SOIC-8



## 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.

## Ordering Information

Part Number	Package
DS52-0004	SOIC-8 Lead Plastic Package
DS52-0004-TR	Forward Tape and Reel <sup>1</sup>
DS52-0004-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 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.



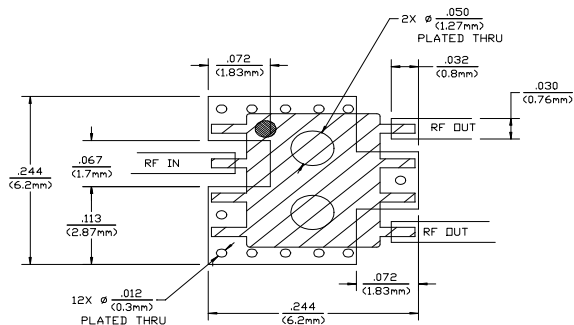
### Absolute Maximum Ratings<sup>1</sup>

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

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

### Recommended PCB Configuration

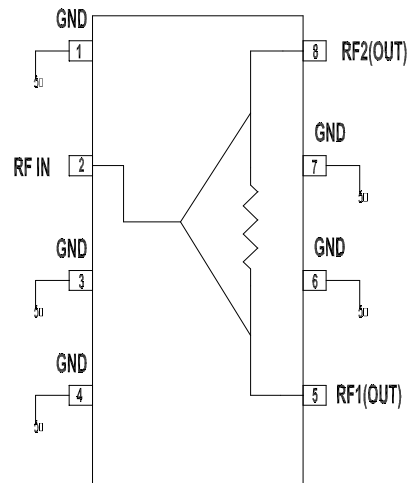
(Dimensions in Inches)



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

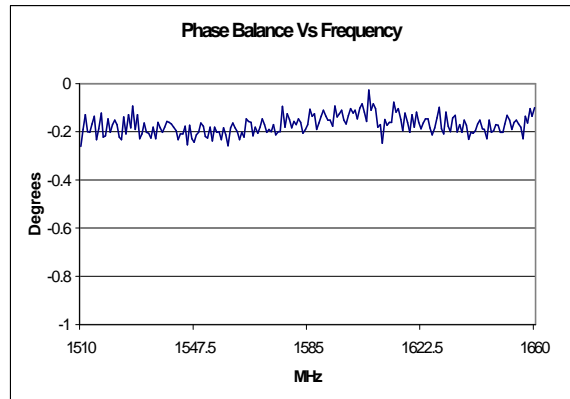
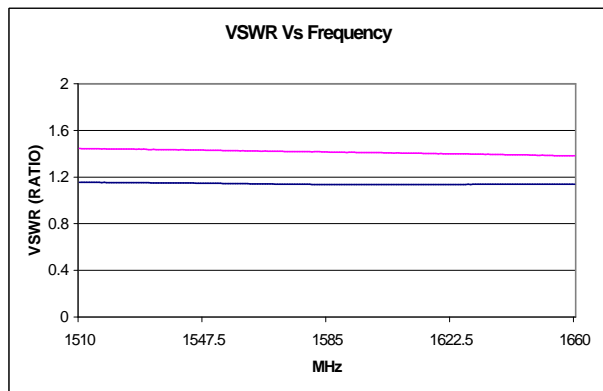
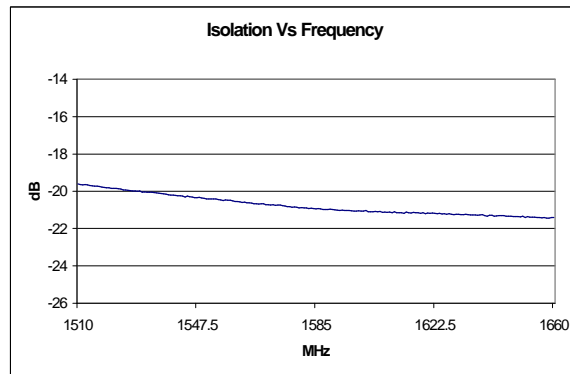
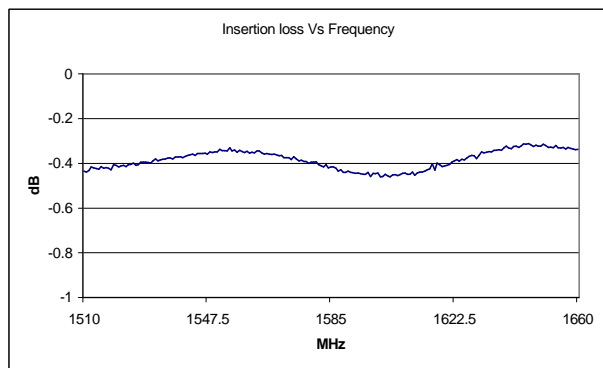
### Functional Diagram<sup>3</sup>

DS52-0004  
Functional Diagram



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

### Typical Performance @ +25°C



S 1561B VER 3



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