



Low Cost Two-Way SMT Power Divider 1700 - 1900 MHz

Features

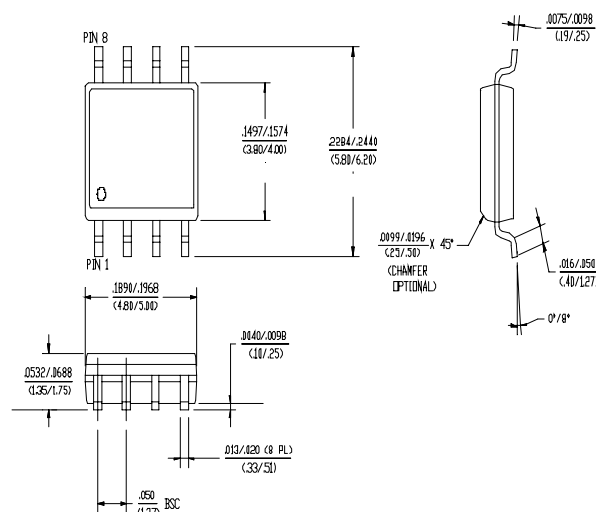
- Small Size and Low Profile
- Industry Standard SOIC-8 SMT Plastic Package
- Superior Repeatability
- Excellent Amplitude Balance: 0.05 dB Typical
- Excellent Insertion Loss: 0.3 dB Typical
- Low Cost
- DCS-1800 Frequency Coverage

Description

M/A-COM's DS52-0005 is an IC-based monolithic power divider in a low cost SOIC-8 plastic package. This 2-way power splitter is ideally suited for applications where small size, low profile and low cost, without sacrificing performance are required. Typical applications include base station, portables and PCMCIA cards for DCS-1800 European applications. Available in tape and reel.

The DS52-0005 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
DS52-0005	SOIC-8 Lead Plastic Package
DS52-0005-TR	Forward Tape and Reel ¹
DS52-0005-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	—	0.3	0.5
Isolation	dB	15	20	—
VSWR	—	—	1.3:1	1.5:1
Amplitude Balance	dB	—	0.1	0.15
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

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

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Absolute Maximum Ratings¹

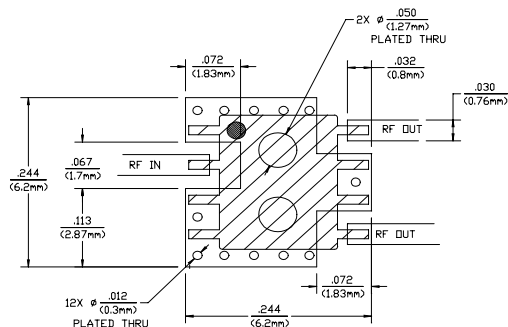
Parameter	Absolute Maximum
Input Power ²	1 W CW
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

1. Exceeding these limits may cause permanent damage.

2. With Internal load dissipation of 0.125 W maximum.

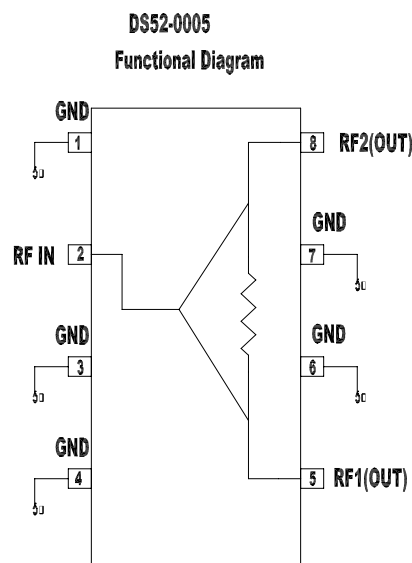
Recommended PCB Configuration

(Dimensions in Inches)



DS52-0005 PCB LAYOUT (SOIC-8 CASE)
SCALE: 1X
CIRCUIT MATERIAL: FR-4, .016 THICK
ALL RF PORTS ARE 50 OHMS

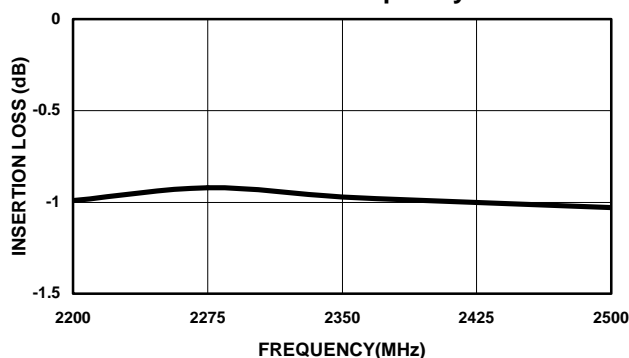
Functional Diagram



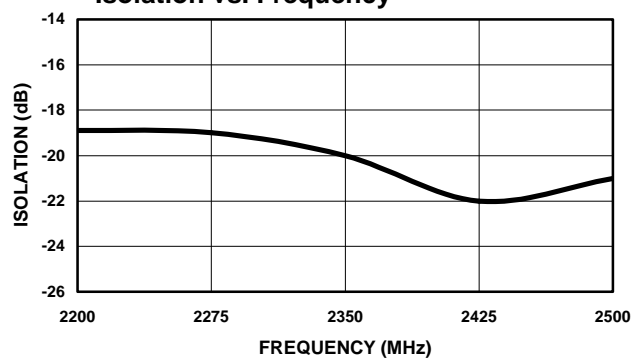
Pins 1, 3, 4, 6 and 7 must be DC and RF grounded

Typical Performance @ +25°C

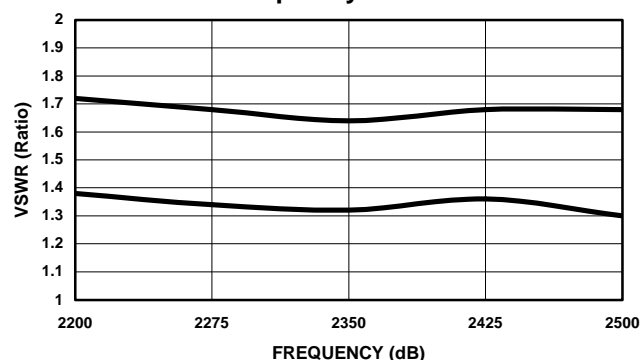
Insertions Loss vs. Frequency



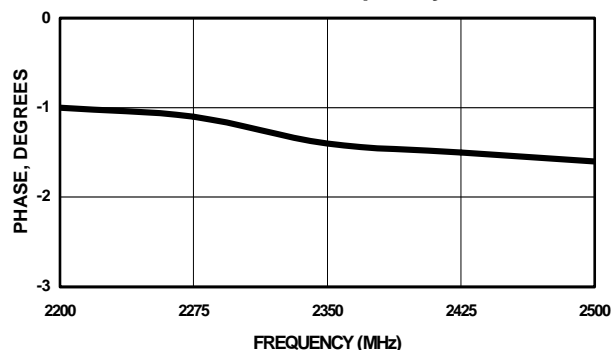
Isolation vs. Frequency



VSWR vs. Frequency



Phase Balance vs. Frequency Relative to RF1



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