



# Low Cost Two-Way GMIC SMT Power Divider 1700 – 2000 MHz



## Features

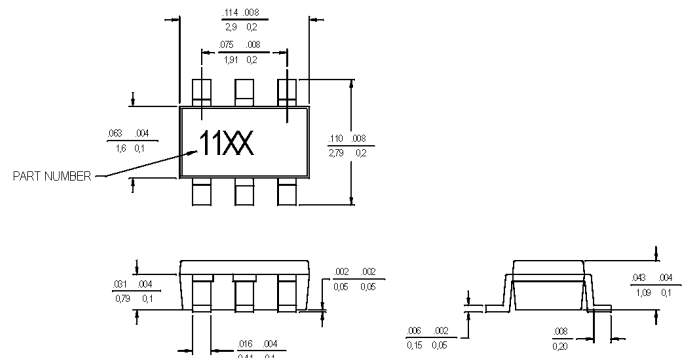
- Small Size and Low Profile
- Industry Standard SOT-26 SMT Plastic Package
- Typical Insertion Loss: 0.6 dB
- Typical Isolation: 18 dB
- 1 Watt Power Handling

## Description

M/A-COM's DS52-0010 is an IC-based monolithic power divider using M/A-COM's GMIC technology in a low cost SOT-26 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 personal communication systems and other communication applications where size and PCB real estate are at a premium. Available in tape and reel.

The DS52-0010 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

## SOT-26



## Ordering Information

Part Number	Package
DS52-0010	SOIC 8-Lead Plastic Package
DS52-0010-TR	Forward Tape and Reel <sup>1</sup>
DS52-0010-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

Parameters	Units	Min.	Typ.	Max.
Insertion Loss Above 3.0 dB	dB	—	0.6	0.9
Isolation	dB	15	18	—
VSWR Input	—	—	1.3:1	1.5:1
RF1, RF2 Outputs	—	—	1.2:1	1.4:1
Amplitude Balance	dB	—	0.1	0.25
Phase Balance	°	—	3	4

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

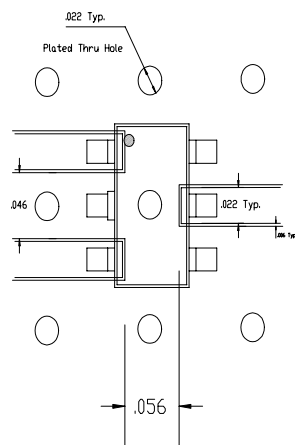
Absolute Maximum Ratings<sup>1</sup>

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

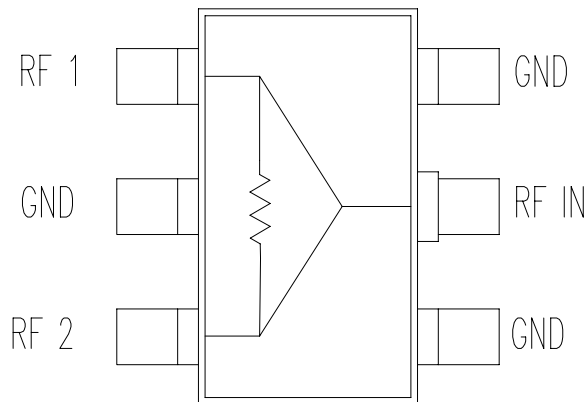
1. Exceeding these limits may cause permanent damage.

2. With internal load dissipation of 0.125 W maximum.

## Recommended PIN Configuration



## Functional Diagram

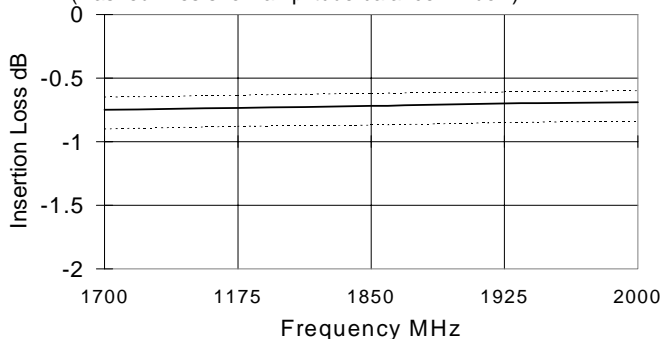


Pins labeled as ground should be DC and RF grounded.

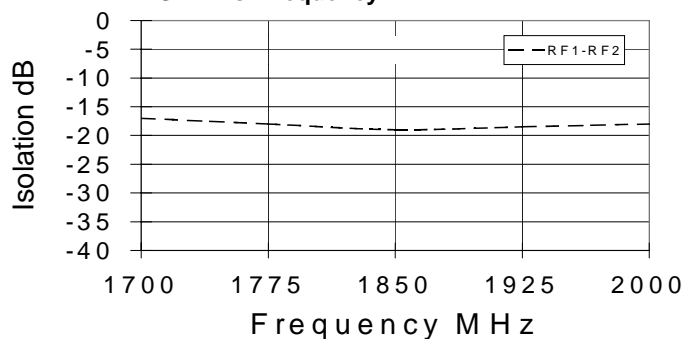
## Typical Performance @ +25°C

## Insertion Loss vs. Frequency

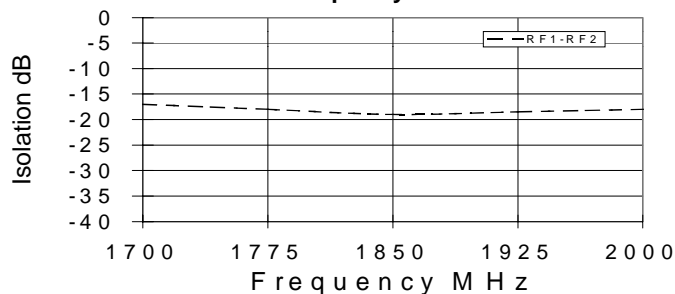
(Dashed lines show amplitude balance window)



## VSWR vs. Frequency

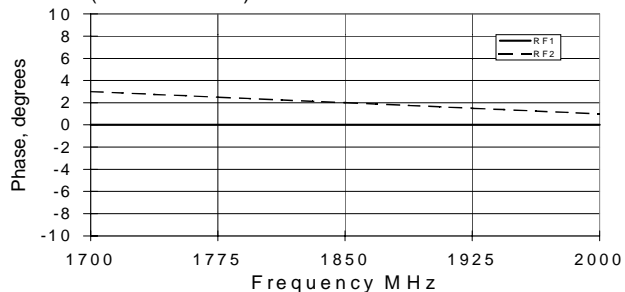


## Isolation vs. Frequency



## Phase Balance vs. Frequency

(Relative to RF1)



V1.00