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

Features

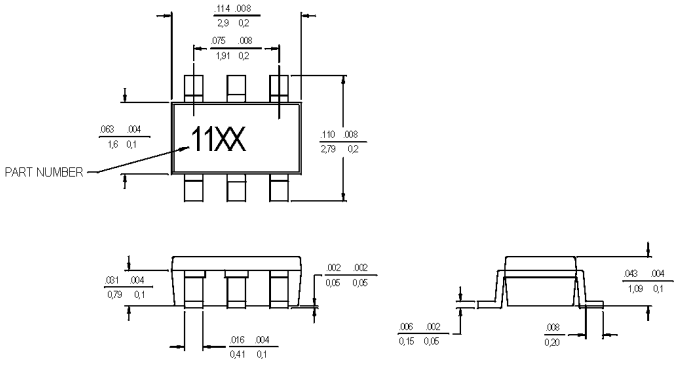
- Small Size and Low Profile
- Industry Standard SOT-26 SMT Plastic Package
- Typical Insertion Loss: 0.6 dB
- Typical Isolation: 18 dB
- 1 Watt Power Handling

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[1]
DS52-0010-RTR	Reverse Tape and Reel[1]

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

Typical Electrical Specifications[1], T_A= +25ºC

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.

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

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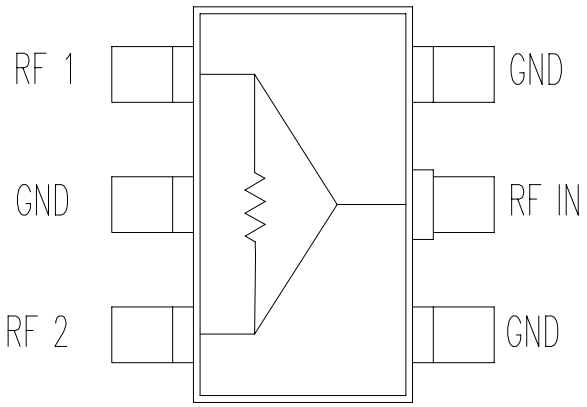
Absolute Maximum Ratings[1]

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

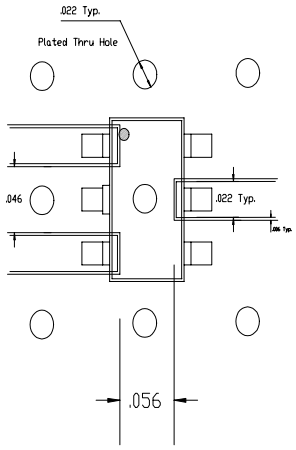
1. Exceeding these limits may cause permanent damage.
2. With internal load dissipation of 0.125 W maximum.

Functional Diagram



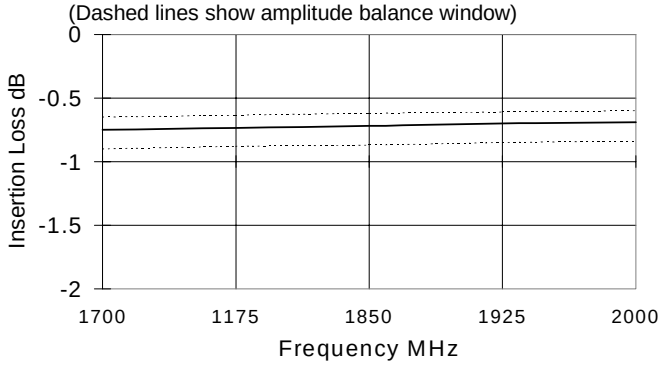
Pins labeled as ground should be DC and RF grounded.

Recommended PIN Configuration

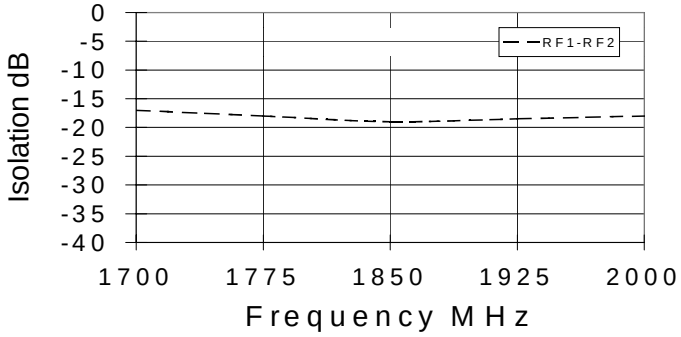


Typical Performance @ +25°C

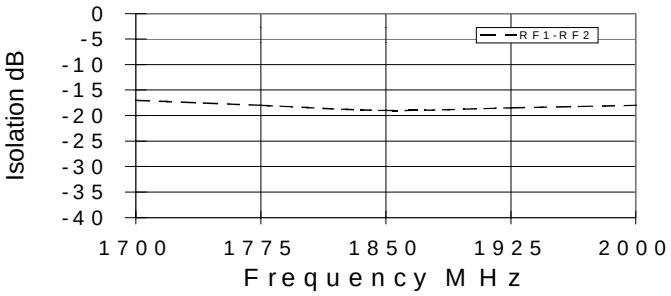
Insertion Loss vs. Frequency
(Dashed lines show amplitude balance window)



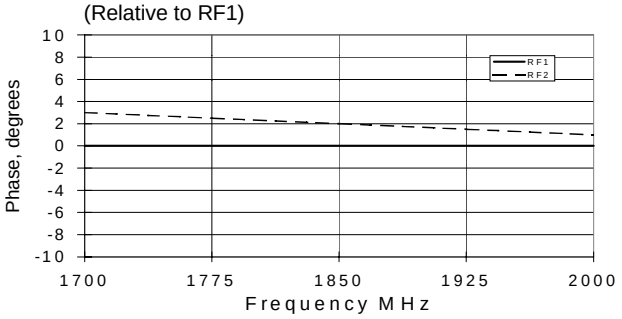
VSWR vs. Frequency



Isolation vs. Frequency



Phase Balance vs. Frequency
(Relative to RF1)



V1.00