



Low Cost Five-Way GMIC SMT Power Divider 824 - 896 MHz



Features

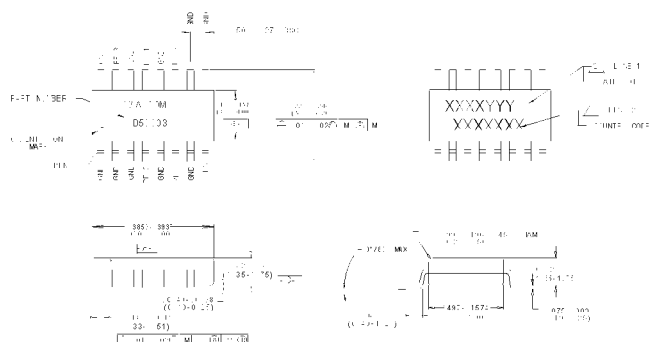
- Small Size, Low Profile
- Superior Repeatability (Lot-to-Lot Variation)
- Industry Standard SOIC-16 SMT Plastic Package
- Typical Isolation: 26 dB
- Typical Insertion Loss: 0.7 dB
- Low Cost
- 1 Watt Power Handling

Description

M/A-COM's DS55-0004 is an IC-based monolithic power divider using M/A-COM's GMIC technology in low cost SOIC-16 Plastic Packages. This 5-way power divider is ideally suited for applications where PCB real estate is at a premium and part count reduction and cost are critical. Typical applications include base station switching networks and other cellular equipment, including subscriber units. Available in tape and reel.

The DS55-0004 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

SOIC-16



Ordering Information

Part Number	Package
DS55-0004	SOIC-16 Lead Plastic Package
DS55-0004-TR	Forward Tape and Reel ¹
DS55-0004-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

Parameters	Units	Min.	Typ.	Max.
Insertion Loss Above 7.0 dB	dB	—	0.7	1.2
Isolation	dB	21	26	—
VSWR Input	—	—	1.4:1	1.6:1
Output	—	—	1.2:1	1.5:1
Amplitude Balance	dB	—	0.2	0.5
Phase Balance	°	—	5	8

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

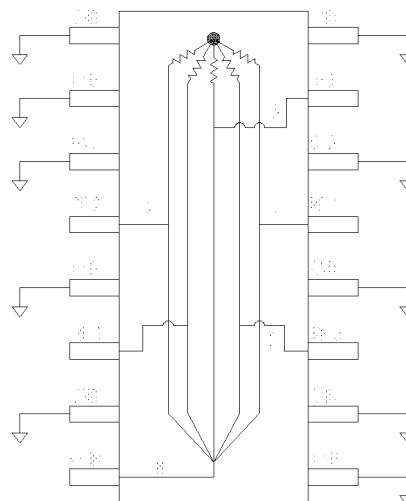
Absolute Maximum Ratings¹

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

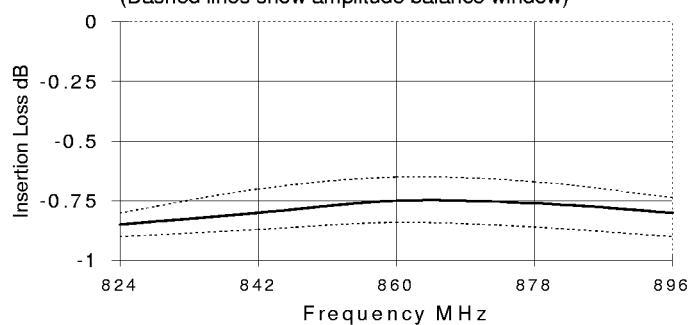


Pins labeled as ground should be DC and RF grounded.

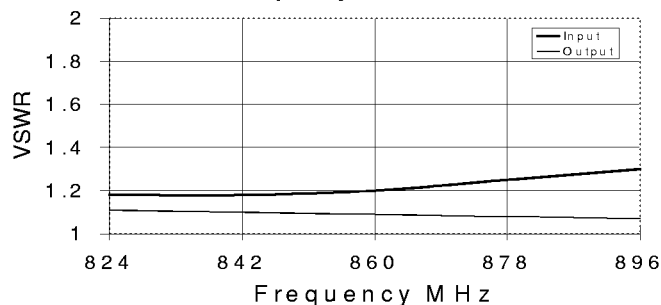
Typical Performance @ +25°C

Insertion Loss vs. Frequency

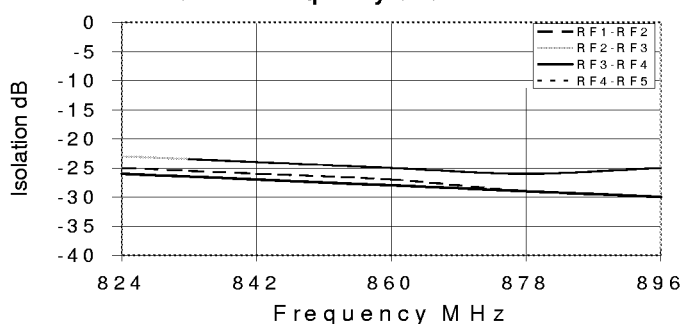
(Dashed lines show amplitude balance window)



VSWR vs. Frequency

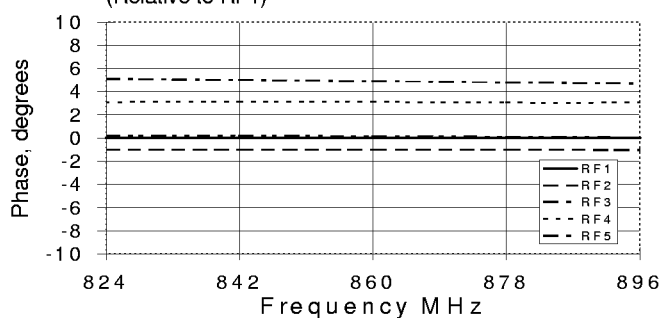


Isolation vs. Frequency



Phase Balance vs. Frequency

(Relative to RF1)



V1.00