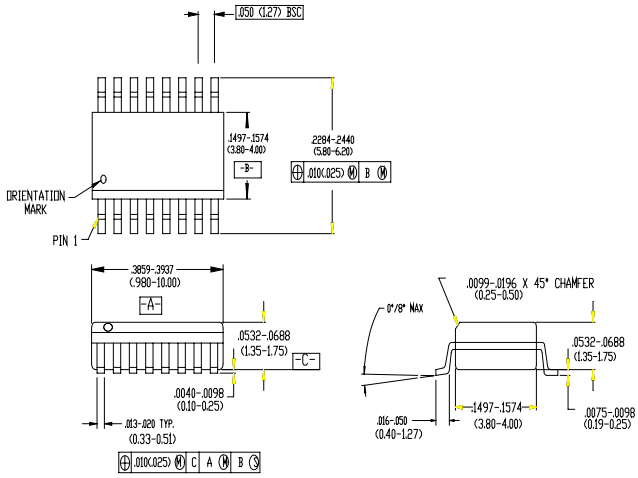
Four Way SMT Power Splitter/Combiner
1700 - 2000 MHz

Features

- Low Cost
- Small Size and Low Profile
- Industry Standard SOIC-16 SMT Plastic Package
- Excellent Repeatability (Lot-to-Lot Variation)
- Typical Isolation: 23dB
- Typical Amplitude Balance: 0.8dB
- Typical Insertion Loss: 1.4dB

SOIC16



Description

M/A-COM's DS54-0006 is an IC-based monolithic power splitter/combiner in a low cost SOIC-16 plastic package. This device is ideally suited for applications where PCB real estate is at a premium and standard packaging for automated assembly and low cost are critical. Typical applications include infrastructure, portables, and peripheral devices (PCMCIA cards) for wireless standards such as PCS, PCN, DECT, PHS, and DCS-1800. Available in Tape and Reel.

The DS54-0006 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

Absolute Maximum Ratings[1]

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.

Ordering Information

Part Number	SOIC-16 Package
DS54-0006	Lead Plastic Package
DS54-0006-TR	Tape and Reel

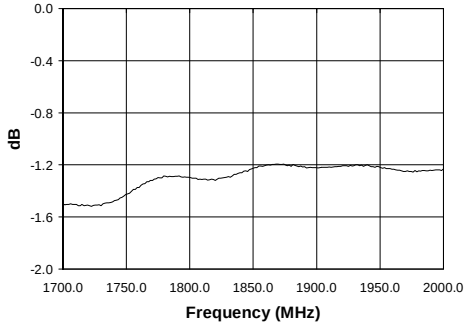
Typical Electrical Specifications[1], T_A = +25°C

Parameter		Units	Min	Typ	Max
Insertion Loss		dB	—	1.4	1.7
Isolation	1700 - 2000	dB	18	23	—
VSWR Output		—	—	1.2 : 1	1.7 : 1
Input	1700 - 1880	—	—	1.6 : 1	2.0 : 1
Input	1880 - 2000	—	—	1.4 : 1	1.7 : 1
Amplitude Balance		dB	—	0.8	1.3
Phase Balance		Degrees	—	5	10

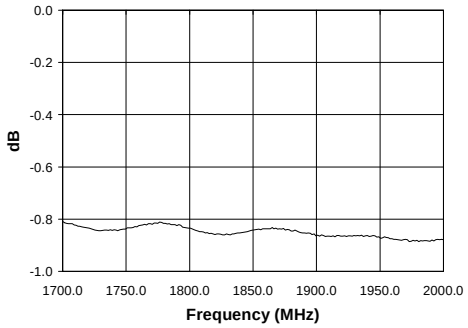
1. All specifications apply with a 50-Ohm source and load impedance.

Typical Performance @ 25°C

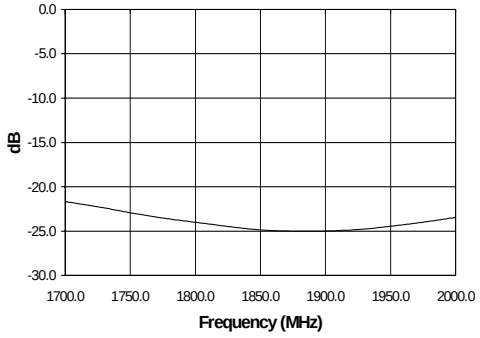
Insertion Loss



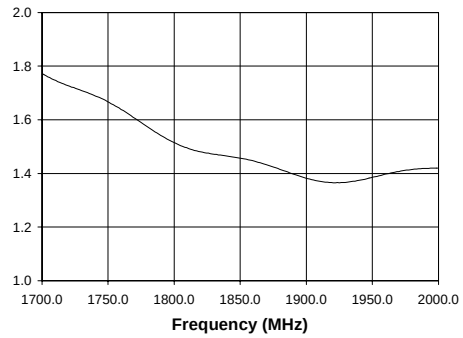
Amplitude Balance



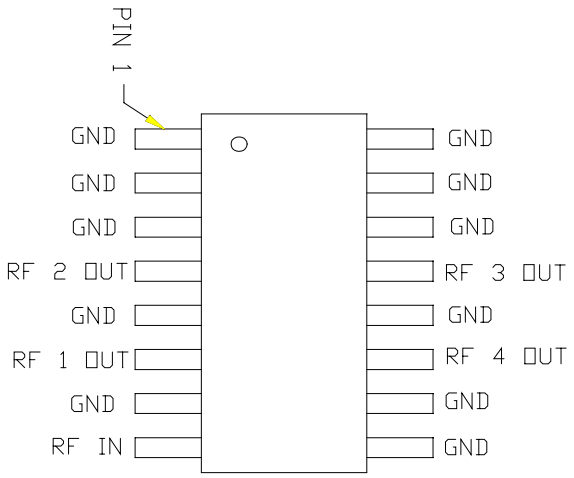
Isolation



I/P VSWR



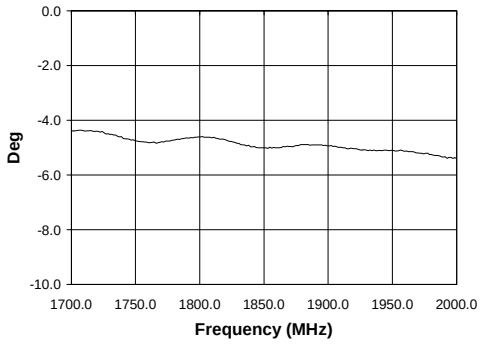
Functional Diagram



All unused pins must be RF and DC grounded.

Typical Performance @ 25°C

Phase Balance



O/P VSWR