

Low Cost Four-Way SMT Power Splitter/Combiner

1200 - 1660 MHz

DS54-0003

V 2.00

Features

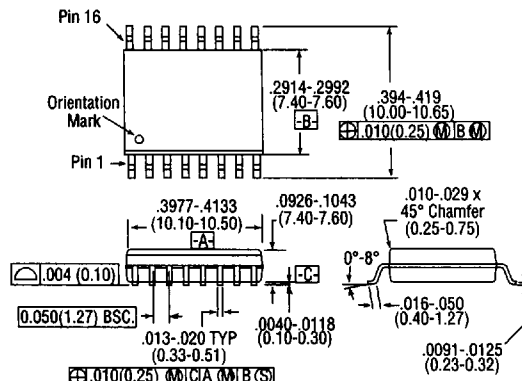
- Low Cost
- Small Size and Low Profile
- Industry Standard SOW-16 SMT Plastic Package
- Excellent Repeatability (Lot-to-Lot Variation)
- Typical Isolation: 23 dB
- Typical Amplitude Balance: 0.3 dB
- Typical Insertion Loss: 1.0 dB
- Commercial and Military GPS and LEO Frequency Coverage

Description

M/A-COM's DS54-0003 is an IC based monolithic power splitter/combiner in a low cost SOW-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 commercial and military GPS plus LEO applications. Available in tape and reel.

The DS54-0003 is fabricated using a passive-integrated circuit process. The process features full chip passivation for increased performance and reliability.

SOW-16



16-Lead SOP outline dimensions

Wide body (.300)

(All dimensions per JEDEC No. MS-013-AA, Issue C)

Dimensions in () are in mm.

Unless Otherwise Noted: .xxx = ± 0.010 (.xx = ± 0.25)
.xx = ± 0.02 (.x = ± 0.5)

Ordering Information

Part Number	Package
DS54-0003	SOW-16 Lead Plastic Package
DS54-0003-TR	Forward Tape and Reel*
DS54-0003-RTR	Reverse Tape and Reel*

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

Electrical Specifications¹, T_A = +25°C

Parameter	Units	Min.	Typ.	Max.
Insertion Loss	dB		1.0	1.2
Isolation	dB	18	23	
VSWR				
Input			1.2:1	1.4:1
Output			1.4:1	1.7:1
Amplitude Balance	dB		0.3	0.6
Phase Balance	°		2	5°

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

Specifications Subject to Change Without Notice.

M/A-COM, Inc.

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North America: Tel. (800) 366-2266
Fax (800) 618-8883

Asia/Pacific: Tel. +81 (03) 3226-1671
Fax +81 (03) 3226-1451

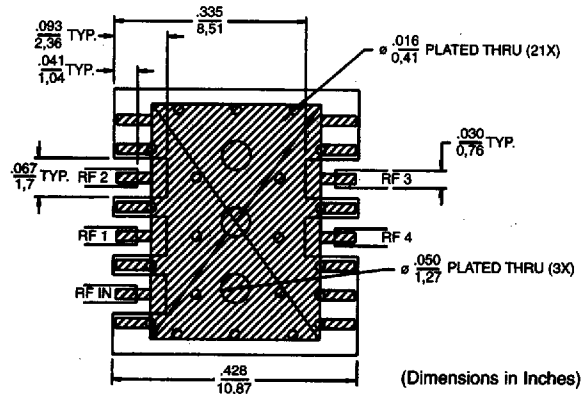
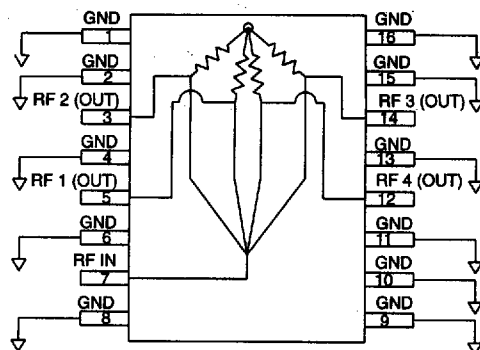
Europe: Tel. +44 (1344) 869 595
Fax +44 (1344) 300 020

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

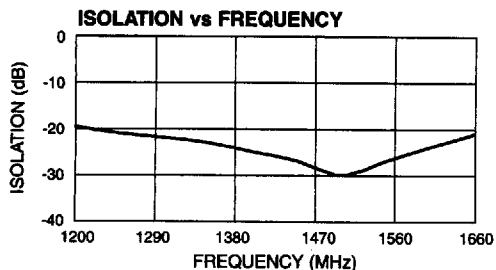
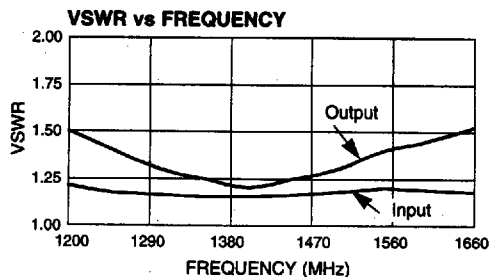
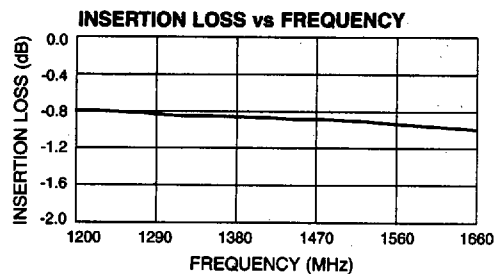
1. Exceeding these limits may cause permanent damage.
 2. With internal load dissipation of 0.125 W maximum.

Recommended PCB Configuration

Functional Diagram³

3. Pins 1, 2, 4, 6, 7, 8, 9, 10, 11, 13, 15 and 16 must be DC and RF grounded.

Typical Performance @ +25°C



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