

Low Cost Six-Way Power Splitter/Combiner 1200 - 1660 MHz

DS56-0003

V2.00

Features

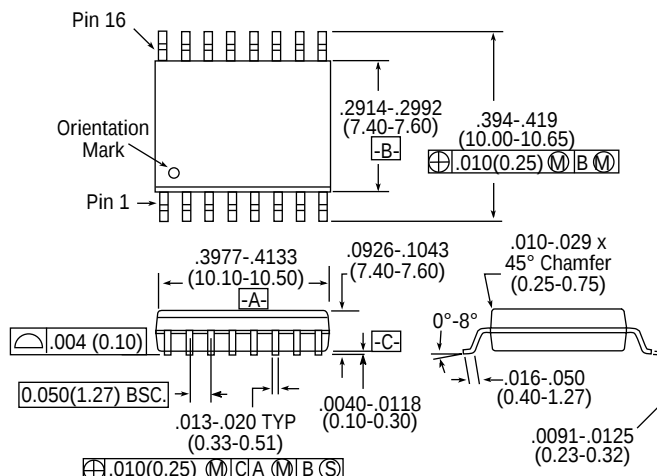
- Small Size and Low Profile
- Industry Standard SOW-16 SMT Plastic Package
- Superior Repeatability
- Insertion Loss: 1.1 dB Typical
- Isolation: 22 dB Typical
- Low Cost

Description

M/A-COM's DS56-0003 is an IC-based monolithic power splitter/combiner in a low cost SOW 16-lead plastic package. This 6-way power splitter/combiner is ideally suited for applications where small size, low profile and low cost, without sacrificing performance, are required. Typical applications include base stations, portables and PCMCIA cards for wireless standards such as JDC, GPS and LEOs. Available in tape and reel.

The DS56-0003 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
DS56-0003	SOW 16-Lead Plastic Package
DS56-0003-TR	Forward Tape & Reel*
DS56-0003-RTR	Reverse Tape & Reel*

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

Typical Electrical Specifications¹, T_A = +25°C

Parameter	Units	Min.	Typ.	Max.
Insertion Loss	dB		1.2	1.5
Isolation	dB	16	22	
VSWR			1.6:1	2.0:1
Amplitude Balance	dB		0.4	0.6
Phase Balance	°		10°	14°

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

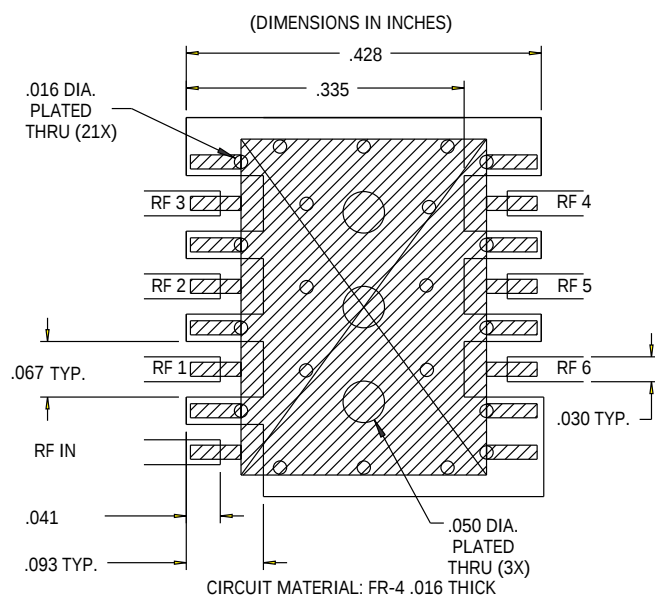
Absolute Maximum Ratings¹

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

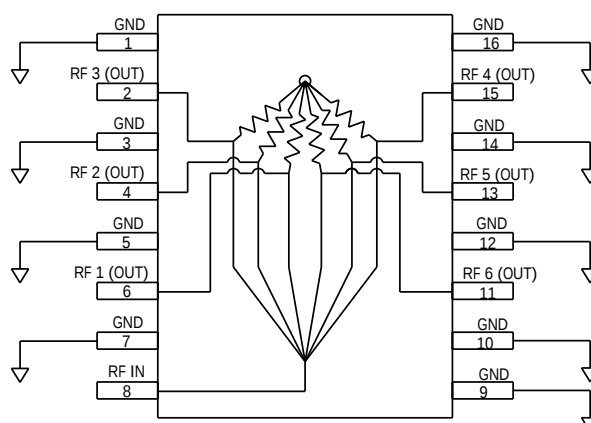
1. Exceeding these limits may cause permanent damage.

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2. With internal load dissipation of 0.125 W maximum.

Recommended PCB Configuration



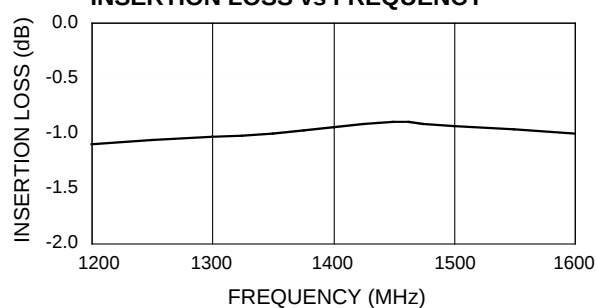
Functional Diagram 3



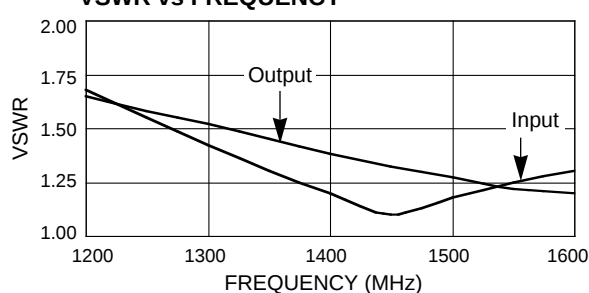
PINS 1,3,4,7,8,9,12,14, AND 16 MUST BE DC AND RF GROUNDED.

Typical Performance @ +25°C

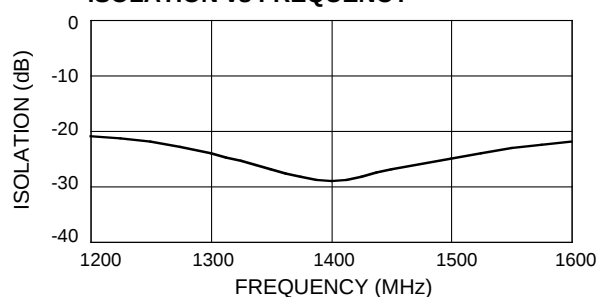
INSERTION LOSS vs FREQUENCY



VSWR vs FREQUENCY



ISOLATION vs FREQUENCY



This Preliminary Specifications Data Sheet Sheet Contains Typical Electrical Specifications Which May Change Prior to Final Introduction.