



# Low Cost Eight-Way GMIC SMT Power Divider 824 - 960 MHz



## Features

- Small Size, Low Profile
- Superior Repeatability ( Lot-to-Lot Variation)
- Industry Standard QSOP-20 SMT Plastic Package
- Typical Isolation: 30 dB
- Typical Insertion Loss: 1.5 dB
- Low Cost
- 1 Watt Power Handling

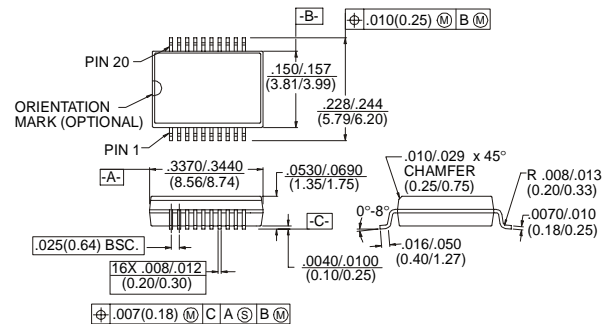
## Description

M/A-COM's DS58-0001 is an IC-based monolithic power divider in low cost QSOP-20 Plastic Packages. This 8-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 DS58-0001 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

## SSOP-20

SSOP-20, .150 WIDE



20-Lead SSOP outline dimensions  
(All dimensions per JEDEC No. MS-137-AD, Issue C)

Dimensions in ( ) are in mm.  
Unless Otherwise Noted: .XXX = ±0.10 (.XX = ±0.25)  
.XX = .02 (.X = ±0.5)

## Ordering Information

Part Number	Package
DS58-0001	QSOP 20-Lead Plastic Package
DS58-0001-TR	Forward Tape and Reel <sup>1</sup>
DS58-0001-RTR	Reverse Tape and Reel <sup>1</sup>

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

## Typical Electrical Specifications<sup>1</sup>, T<sub>A</sub> = +25°C

Parameters	Units	Min.	Typ.	Max.
Insertion Loss Above 9.0 dB	dB	—	1.5	2.0
Isolation	dB	20	30	—
VSWR	—	—	1.7:1	2.0:1
Amplitude Balance	dB	—	0.4	0.8
Phase Balance	°	—	5	10

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

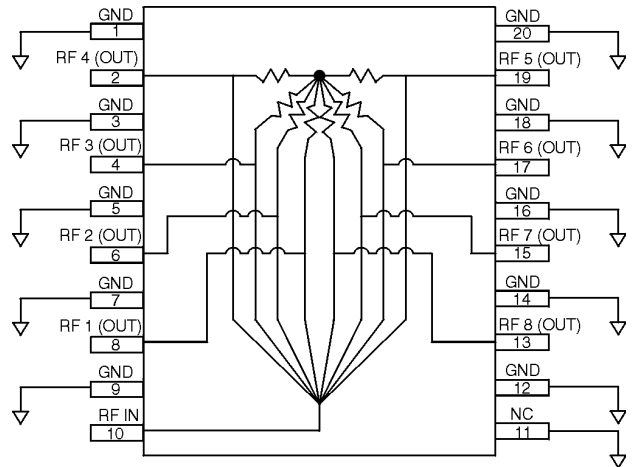


### Absolute Maximum Ratings<sup>1</sup>

Parameter	Absolute Maximum
Input Power <sup>2</sup>	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



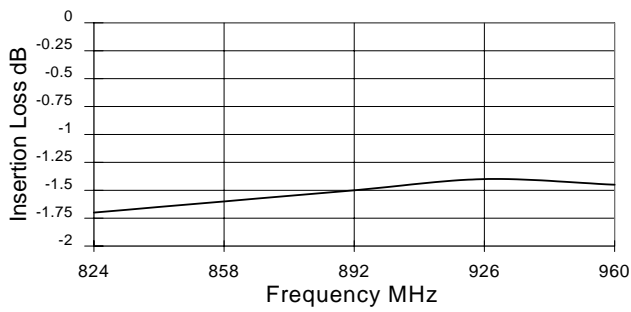
PINS 1,3,5,7,9,12,14,16,18 AND 20 SHOULD BE DC AND RF GROUNDED.

Pins

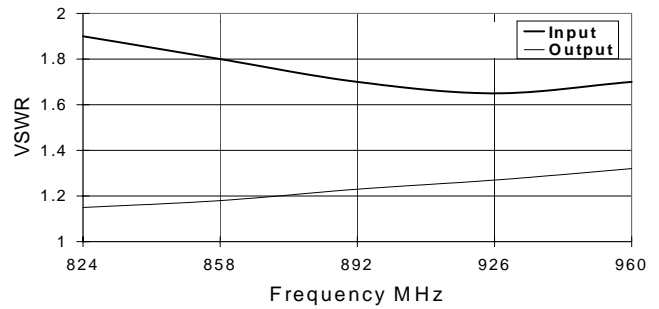
### Typical Performance @ +25°C

#### Insertion Loss vs. Frequency

(Dashed lines show amplitude balance window)



#### VSWR vs. Frequency



#### Isolation vs. Frequency

