# Low Cost Eight-way GMIC Power Splitter/Combiner, 824 - 960 MHz

**DS58-0001**
**V1**

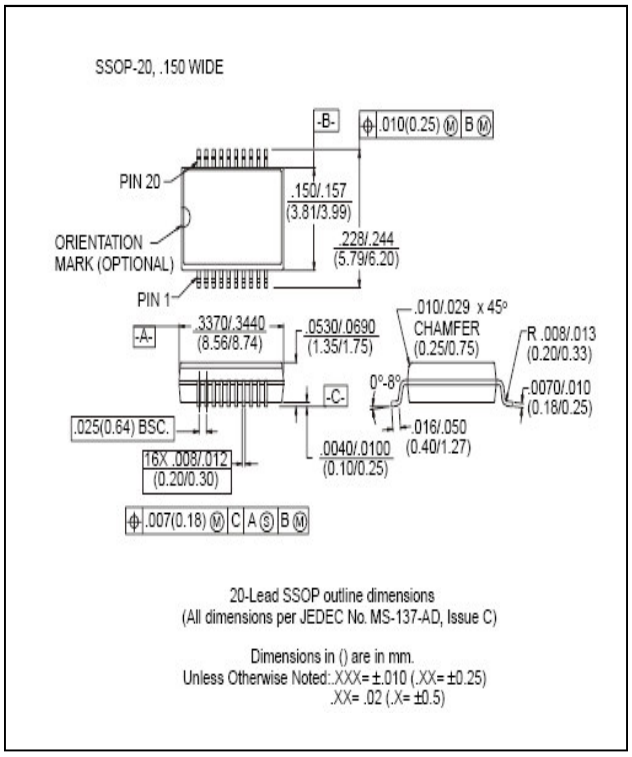
## Features

- Small Size, Low Profile
- Superior Repeatability ( Lot-to-Lot Varation)
- 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 SSOP-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




## Electrical Specifications[1]: $T_A$ = 25 °C

| Parameter | Frequency | Units | Min | Typ | Max |
|---|---|---|---|---|---|
| Insertion Loss "above 6.0 dB theoretical loss" | 824 - 960 MHz | dB | — | 1.5 | 2.0 |
| Isolation | 824 - 960 MHz | dB | 20 | 30 | — |
| VSWR | 824 - 960 MHz | Ratio | — | 1.7:1 | 2.0:1 |
| Amplitude Balance | 824 - 960 MHz | dB | — | 0.4 | 0.8 |
| Phase Balance | 824 - 960 MHz | deg | — | 5 | 10 |

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

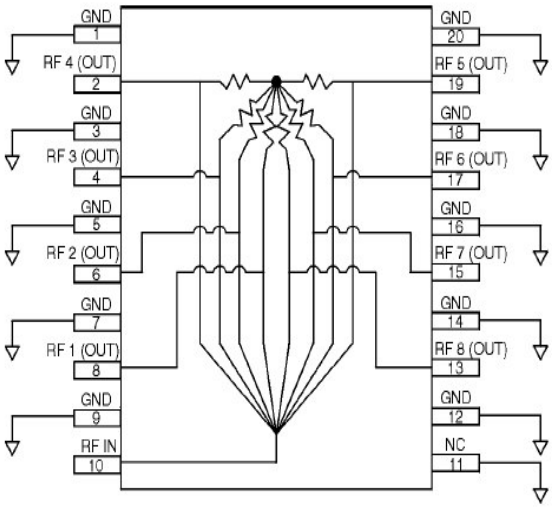





- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit www.macom.com for additional data sheets and product information.

## Functional Diagram




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

Pins

## Ordering Information

| Part Number | Package |
|---|---|
| DS58-0001 | QSOP 20- Lead Plastic Package |
| DS58-0001-TR | Forward Tape and Reel |
| DS58-001 RTR | Reverse Tape and Reel |

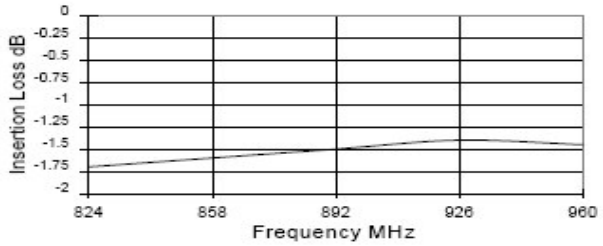
## Absolute Maximum Ratings[3]

| Parameter | Absolute Maximum |
|---|---|
| Input Power [4] | 1W CW |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -65°C to +150°C |

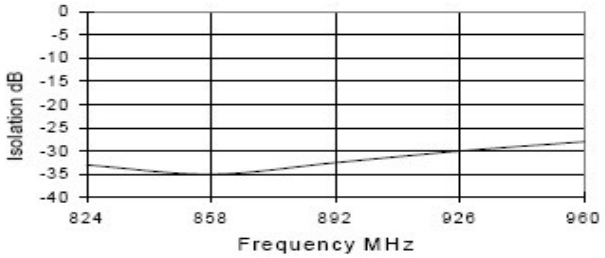
3. Operation of this device above any one of these parameters may cause permanent damage.
4. With internal load dissipation of 0.125W maximum.

## Typical Performance Curves

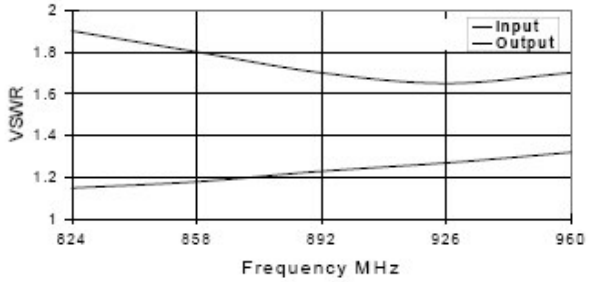
**Insertion Loss vs. Frequency**
(Dashed lines show amplitude balance window)




**Isolation vs. Frequency**




**VSWR vs. Frequency**









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