2 Way 0° Power Divider 5 - 1218 MHz



MAPD-010274-C209C0

Rev. V6

Features

- Surface Mount Technology
- 2 Way 0°
- RoHS* Compliant
- Available on Tape & Reel

Applications

- ISM
- · Wired Broadband

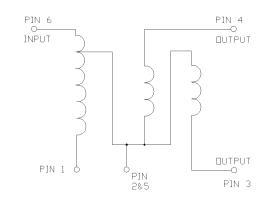
Description

The MAPD-010274-C209C0 is a 2 way 0 degree RF power divider in a surface mount package. Ideally suited for high volume CATV/VSAT applications.

Ordering Information

| Part number | Description | |
|--------------------|---------------------|--|
| MAPD-010274-C209C0 | 2000 piece reel | |
| MAPD-010274-C209TB | Customer Test Board | |

Schematic



Pin Configuration

| Pin# | Function | | |
|------|---------------------------|--|--|
| 1 | Ground | | |
| 2, 5 | External 0.5 pF Capacitor | | |
| 3 | Output Port 2 | | |
| 4 | Output Port 1 | | |
| 6 | Input | | |



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Electrical Specifications: T_A = +25°C, P_{IN} = 0 dBm, Z_0 = 75 Ω

| Parameter | Test Conditions | Units | Min. | Тур. | Max. |
|-------------------------------------|--|-------|----------------|----------------------|----------------------|
| Insertion Loss 1 (Pin6-Pin4) | 5 - 500 MHz 500 - 1000 MHz 1000 - 1218 MHz | dB | _ | 0.15 0.25 0.65 | 0.3 0.7 0.9 |
| Insertion Loss 2 (Pin6-Pin3) | 5 - 500 MHz 500 - 1000 MHz 1000 - 1218 MHz | dB | _ | 0.45 0.65 1.1 | 0.6 1.1 1.5 |
| Amplitude Balance | 5 - 500 MHz 500 - 1000 MHz 1000 - 1218 MHz | dB | _ | 0.20 0.28 0.35 | ±0.4 ±0.5 ±0.7 |
| Phase Balance | 5 - 500 MHz 500 - 1000 MHz 1000 - 1218 MHz | o | _ | 0.5 0.65 0.55 | ±2 ±3 ±4 |
| Input Return Loss | 5 - 500 MHz 500 - 1000 MHz 1000 - 1218 MHz | dB | 20 19 15 | 40 30 14 | _ |
| Output Return Loss 1 (Pin1-Pin4) | 5 - 500 MHz 500 - 1000 MHz 1000 - 1218 MHz | dB | 20 18 15 | 29 33 19 | _ |
| Output Return Loss 2 (Pin2-Pin3) | 5 - 500 MHz 500 - 1000 MHz 1000 - 1218 MHz | dB | 20 16 13 | 33 21 16 | _ |
| Isolation (between outputs) | 5 - 500 MHz 500 - 1000 MHz 1000 - 1218 MHz | dB | 20 16 15 | 24 20 18 | _ |

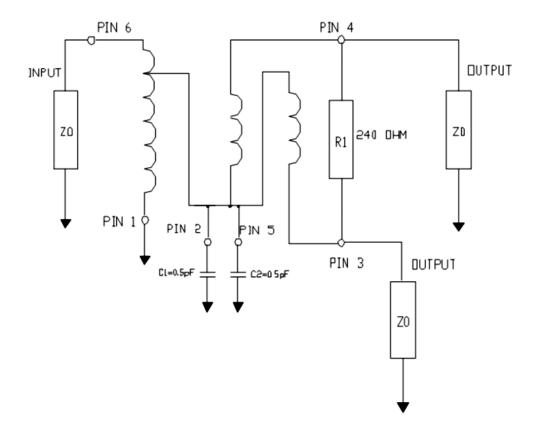
Recommended Maximum Ratings

| Parameter | Value |
|---------------------------|-----------------|
| Input power | 1 W |
| Internal Load Dissipation | 0.125 W |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -55°C to +100°C |



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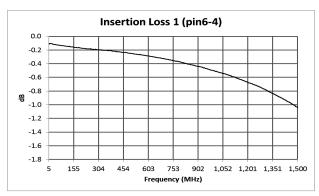
Application Schematic

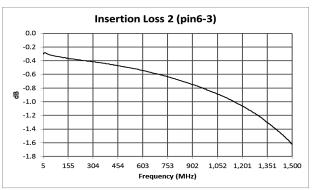


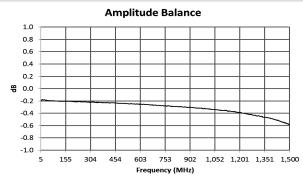


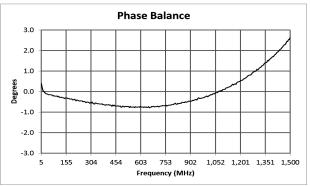
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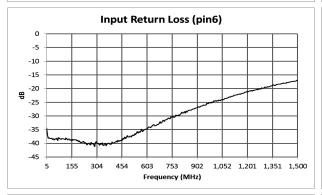
Electrical Specifications: $T_A = +25^{\circ}C$, $P_{IN} = 0$ dBm, $Z_0 = 75 \Omega$

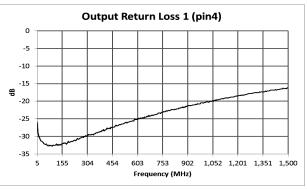


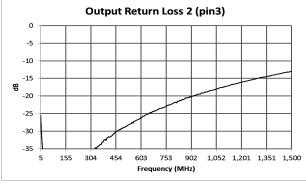


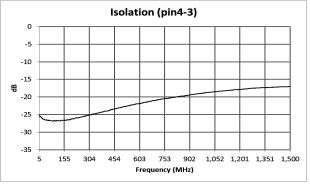










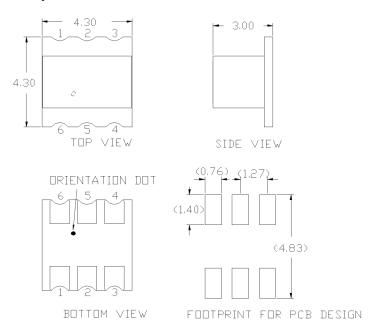


• Full temperature plots are available on request



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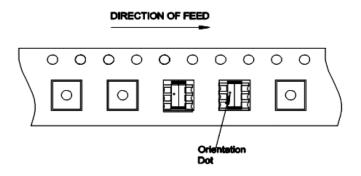
Component Dimensions



Dimensions in mm.

Tolerance: .xx ± 0.2 unless otherwise stated.

Carrier Tape Orientation



Tape & Reel Information

| Parameter | Units | Value | | |
|--|-------|-------|--|--|
| Qty Per Reel | - | 2000 | | |
| Reel Size | mm | 330 | | |
| Tape Width | mm | 12.00 | | |
| Pitch | mm | 8.00 | | |
| Orientation | - | F18 | | |
| Reference Application Note ANI-019 for orientation | | | | |

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