

E-Series RF 2-Way 0° Power Divider 5-1000 MHz

Rev. V3

Features

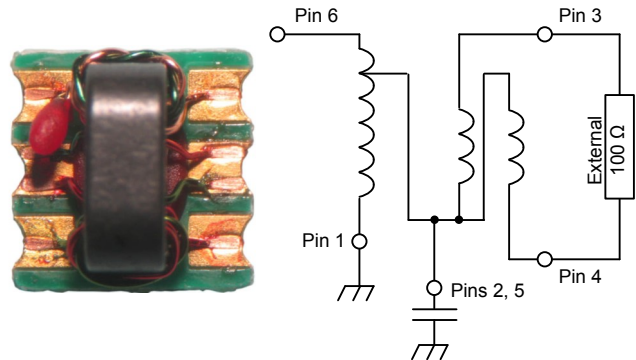
- 2-Way 0 Degree
- Surface Mount
- Tape and Reel Packaging Available
- 260°C Reflow Compatible
- RoHS Compliant
- Pb Free

Description

The MAPD-009278-5T1000 is a RoHS compliant 2-way 0 degree RF power divider in a low cost, surface mount package. Ideally suit for 50 Ω system. Two 1.5 pF capacitors and one 100 Ω resistor are required with this part.

The MAPD-009278-5T1000 is available in a SM-156 surface mount package and is designed to be utilized in both RoHS and standard reflow profiles. Parts are packaged in tape & reel.

Functional Schematic



Pin Configuration

| Pin No. | Function |
|---------|---------------------|
| 1 | Ground |
| 2, 5 | External 1.5 pF Cap |
| 3 | Output Port 1 |
| 4 | Output Port 2 |
| 6 | Input |

Electrical Specifications: RF Freq. = 5 - 1000 MHz, $T_A = +25^\circ\text{C}$, $Z_0 = 50 \Omega$, $P_{IN} = 0 \text{ dBm}$

| Parameter | Test Conditions | Units | Min. | Typ. | Max. |
|---------------------|-----------------|---------|------|------|------|
| Insertion Loss | Above 3dB | dB | — | — | 1.4 |
| Amplitude Imbalance | — | dB | — | — | ±0.6 |
| Phase Imbalance | — | Degrees | — | — | ±4 |
| Input Return Loss | — | dB | 16 | 19 | — |
| Output Return Loss | — | dB | 16 | 25 | — |
| Isolation | — | dB | 16 | 20 | — |

Ordering Information

| Part Number | Package |
|--------------------|-----------------|
| MAPD-009278-5T1000 | 2000 piece Reel |

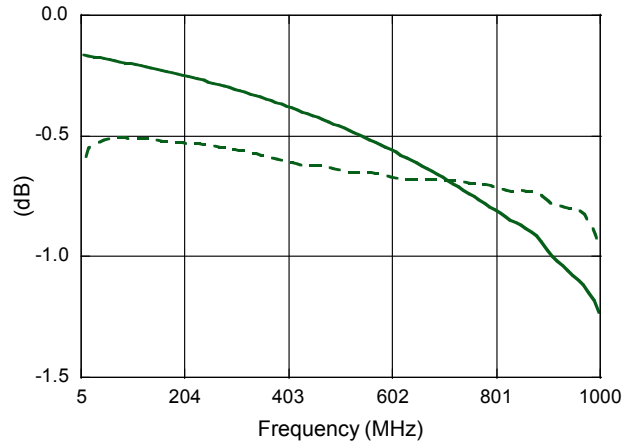
Absolute Maximum Ratings^{1,2}

| Parameter | Absolute Maximum |
|-----------------------|------------------|
| RF Power | 250 mW |
| DC Current | 240 mA |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -55°C to +125°C |

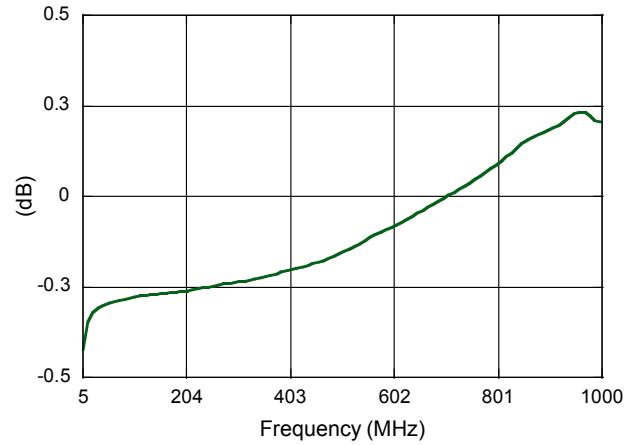
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

Typical Performance Curves

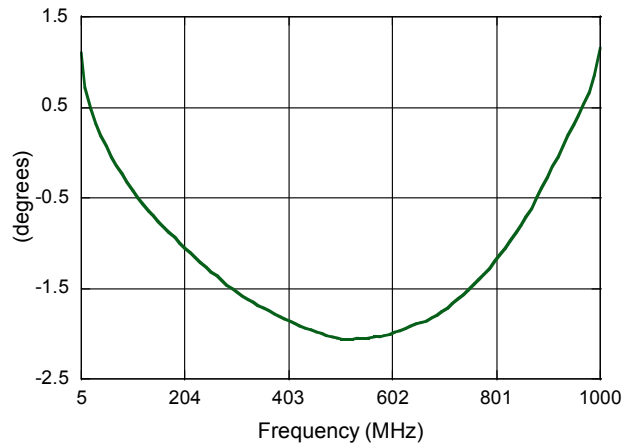
Insertion Loss



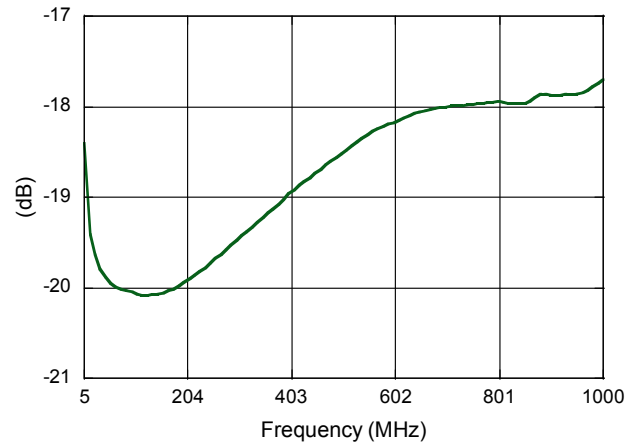
Amplitude Balance



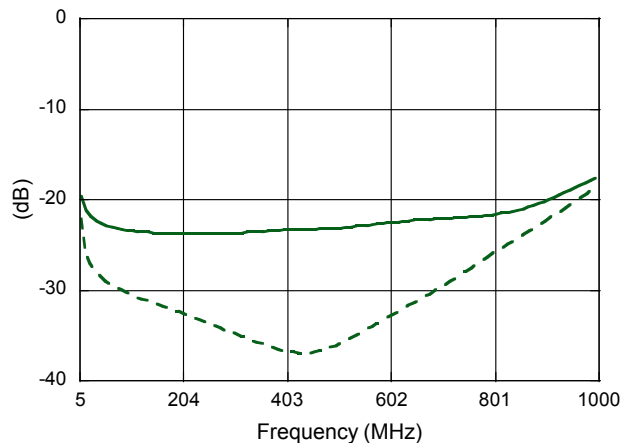
Phase Balance



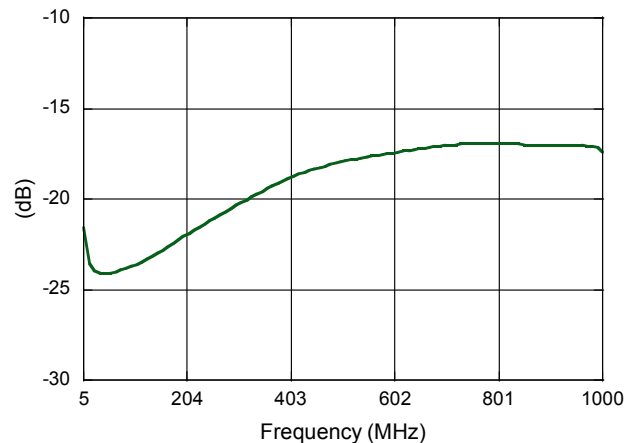
Input Return Loss



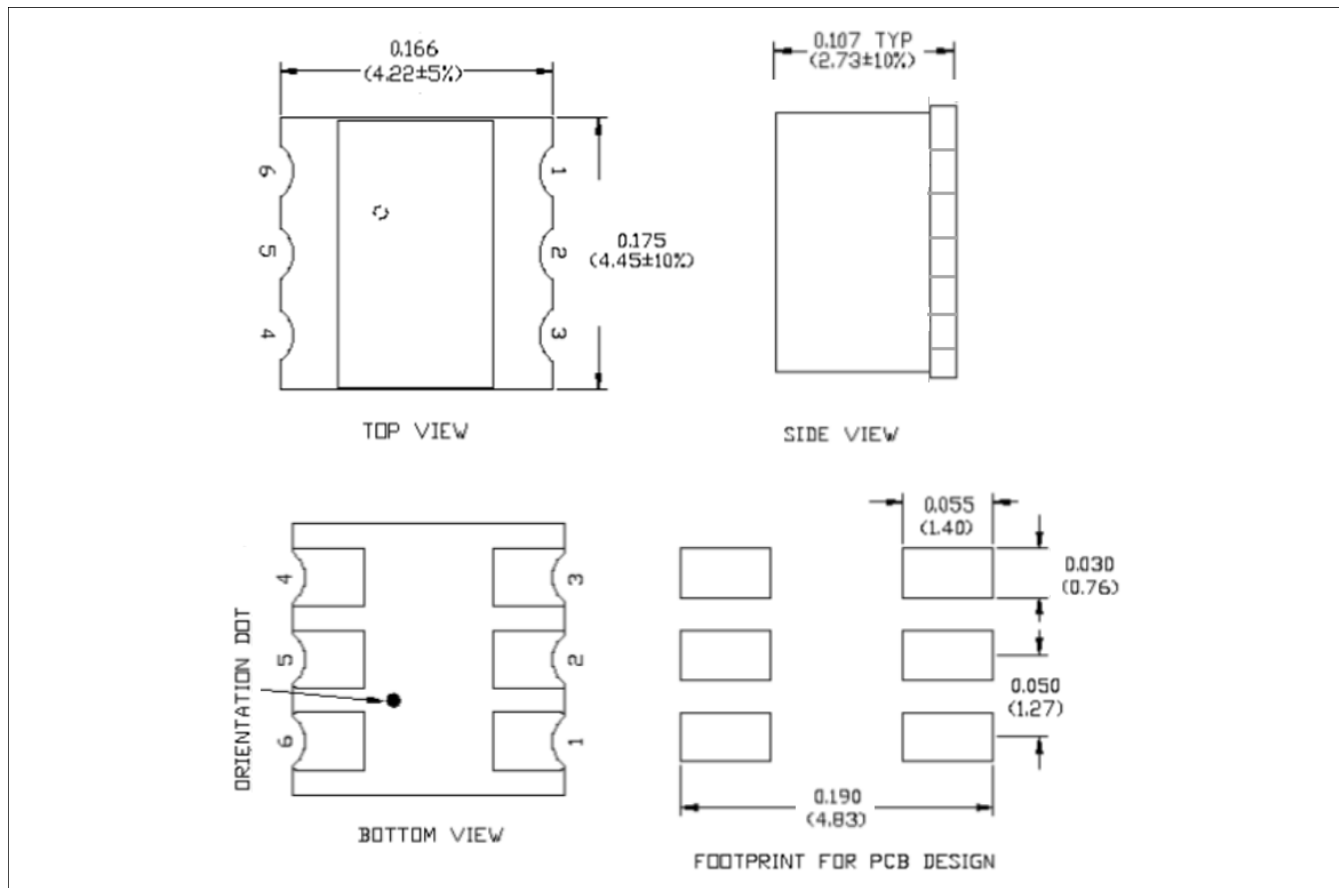
Output Return Loss



Isolation



Outline Drawing



Unless Otherwise specified dimensions in inches [mm]
Tolerance: x.xx ± 0.02, x.xxx ± 0.010

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