## 2 Way $0^{\circ}$ Power Divider <br> 5-1000MHz

## Features

- Surface Mount
- 2 Way 0 degree
- $260^{\circ} \mathrm{C}$ Reflow Compatible
- RoHS* Compliant
- Available on Tape and Reel.


## Description

M/A-COM's MAPDCT0029 is 2 way 0 degree RF power divider in a low cost, surface mount package. A 160 Ohm resistor included on the component. Ideally suited for high volume CATV/Broadband applications.


## Ordering Information

| Part Number | Package |
| :---: | :---: |
| MAPDCT0029TR | 900 piece reel |

Reference Application Note M513 for reel size information.

Functional Block Diagram


Pin Configuration

| Pin No. | Function |
| :---: | :---: |
| 1 | Ground |
| 2 | Not connected (ground) |
| 3 | Output 2 |
| 4 | Output 1 |
| 5 | Not connected (ground) |
| 6 | Input |

## Absolute Maximum Ratings ${ }^{1,2}$

| Parameter | Absolute Maximum |
| :---: | :---: |
| Max Input Power | 1 W |
| DC current | 240 mA |
| Operating Temperature | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| Storage Temperature | $-55^{\circ} \mathrm{C}$ to $+100^{\circ} \mathrm{C}$ |

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

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Electrical Specifications: $\mathrm{T}_{\mathrm{A}}=\mathbf{2 5}{ }^{\circ} \mathrm{C}, \mathrm{Z}_{\mathbf{0}}=\mathbf{7 5} \Omega^{1}$

| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Insertion Loss | - | $5-500 \mathrm{MHz}$ | dB | - | 0.5 | 0.7 |
| Insertion Loss | - | $500-1000 \mathrm{MHz}$ | dB | - | 0.7 | 1.4 |
| Amplitude Unbalance (Nominal OdB) | - | $5-1000 \mathrm{MHz}$ | dB | - | $\pm 0.28$ | $\pm 0.55$ |
| Phase Unbalance (Nominal $0^{\circ}$ ) | - | $5-1000 \mathrm{MHz}$ | o | - | $\pm 1.0$ | $\pm 3.0$ |
| Return Loss: Input | - | $5-50 \mathrm{MHz}$ | dB | 24 | 35 | - |
| Return Loss: Input | - | $50-870 \mathrm{MHz}$ | dB | 14 | 26 | - |
| Return Loss: Input | - | 870-1000 MHz | dB | 11 | 16 | - |
| Return Loss: Output | - | $5-1000 \mathrm{MHz}$ | dB | 15 | 22.5 | - |
| Isolation (between outputs) | - | $5-50 \mathrm{MHz}$ | dB | 20 | 26 | - |
| Isolation (between outputs) | - | 50-870 MHz | dB | 14 | 22 | - |
| Isolation (between outputs) | - | 870-1000 MHz | dB | 12 | 15 | - |

Case Style: SM-55


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Typical Performance Curves: $\mathrm{T}_{\mathrm{A}}=\mathbf{2 5}{ }^{\circ} \mathrm{C}, \mathrm{Z}_{0}=75 \Omega^{1}$


## Return Loss: Input



3

Return Loss: Output


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