

MAPD-009673-C2DA40



2 Way 0° Power Divider
5 to 1000 MHz

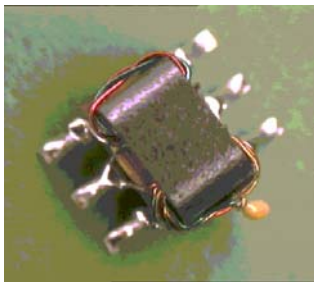
M/A-COM Products
Released, Rev. V2

Features

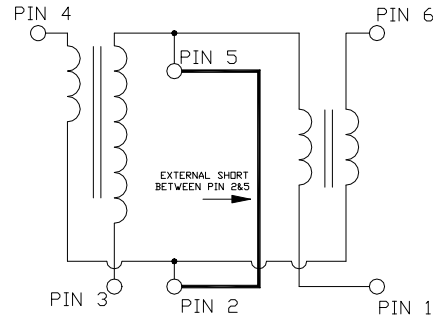
- Surface mount.
- 2 Way 0 degree.
- 260°C reflow compatible.
- RoHS* compliant.
- Available on tape and reel.
- Recommended for Pb free process.

Description

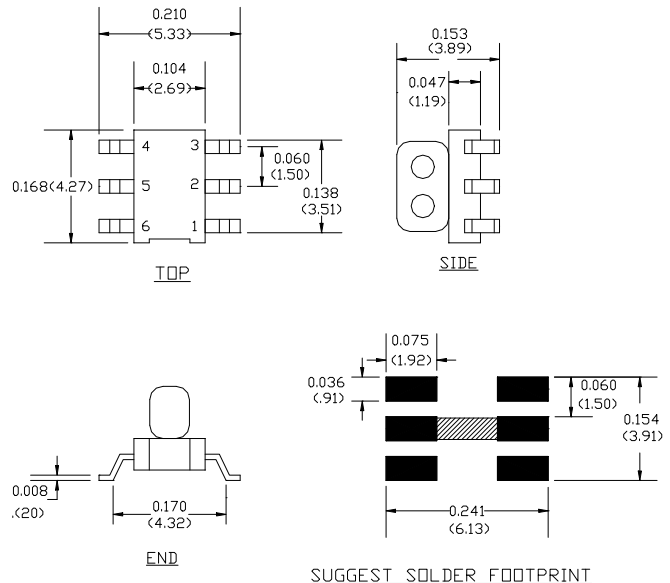
M/A Com's MAPD-009673-C2DA40 is a 2 way 0 degree RF power divider in a low cost, surface mount package. Ideally suited for high volume CATV & VSAT applications. Two 0603 1pF capacitors and one 200Ω resistor are required with this part.



Schematic with off-chip components



Case style: SM-150



Pin configuration

| Pin no. | Function |
|---------|----------------------------------|
| 1 | Output 1 |
| 2 | External 1pF Capacitor to ground |
| 3 | Ground |
| 4 | Input |
| 5 | External 1pF Capacitor to ground |
| 6 | Output 2 |

Unless otherwise stated dimensions are in inches [mm]
Tolerance: .xx ± .02, .xxx ± .010

Note: Pins 2 and 5 need to be connected together on the PCB as shown above.

Ordering information

| Part number | Description |
|--------------------|--------------------|
| MAPD-009673-C2DA40 | Reel quantity 2000 |

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

Note: Reference Application Note **M513** for reel size information.

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
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• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
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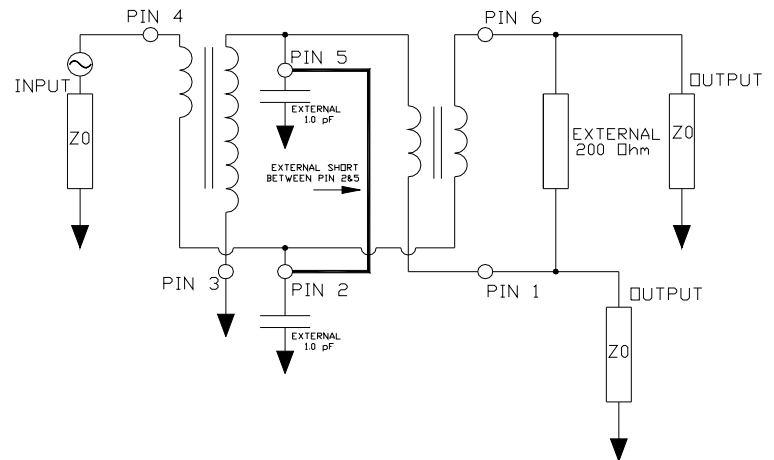
Electrical specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

| Parameter | Frequency | Units | Min | Typ | Max |
|-----------------------------|----------------|----------|-----|-----|-----------|
| Insertion Loss (Above 3dB) | 5 - 400 MHz | dB | - | 0.3 | 0.5 |
| | 400 - 820 MHz | dB | - | 0.5 | 1.1 |
| | 820 - 1000 MHz | dB | - | 1.1 | 2.2 |
| Amplitude Unbalance | 5 - 400 MHz | dB | - | 0.2 | ± 0.5 |
| | 400 - 820 MHz | dB | - | 0.2 | ± 0.3 |
| | 820 - 1000 MHz | dB | - | 0.4 | ± 0.9 |
| Phase Unbalance | 5 - 400 MHz | $^\circ$ | - | 0.5 | ± 4 |
| | 400 - 820 MHz | $^\circ$ | - | 1.0 | ± 4 |
| | 820 - 1000 MHz | $^\circ$ | - | 1.5 | ± 6 |
| Return Loss: Input | 5 - 400 MHz | dB | 23 | 35 | - |
| | 400 - 820 MHz | dB | 16 | 22 | - |
| | 820 - 1000 MHz | dB | 17 | 24 | - |
| Isolation (between outputs) | 5 - 400 MHz | dB | 18 | 35 | - |
| | 400 - 820 MHz | dB | 20 | 32 | - |
| | 820 - 1000 MHz | dB | 14 | 20 | - |

Recommended maximum ratings

| Parameter | Value |
|---------------------------|--|
| Input power | 1W |
| Internal Load Dissipation | 0.125W |
| Operating temperature | -40°C to $+80^\circ\text{C}$ |
| Storage temperature | -40°C to $+85^\circ\text{C}$ |

Application Circuit

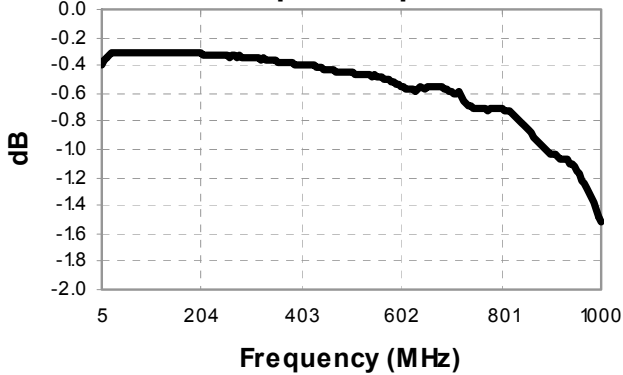


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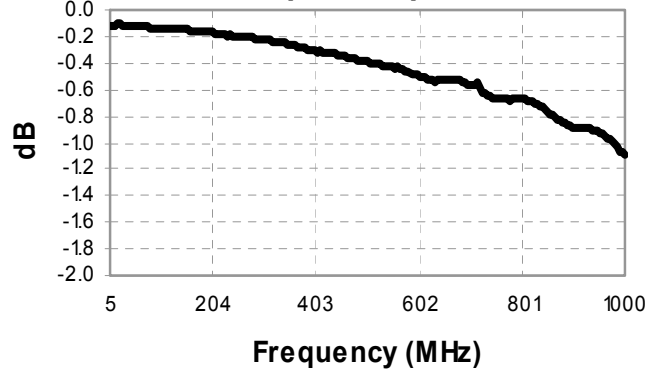
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Typical performance curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

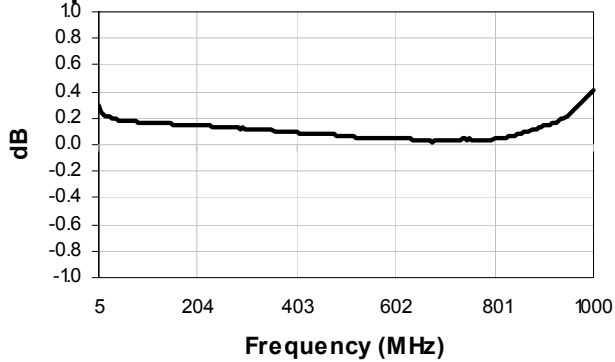
Insertion loss 1: pin 4 to pin 1



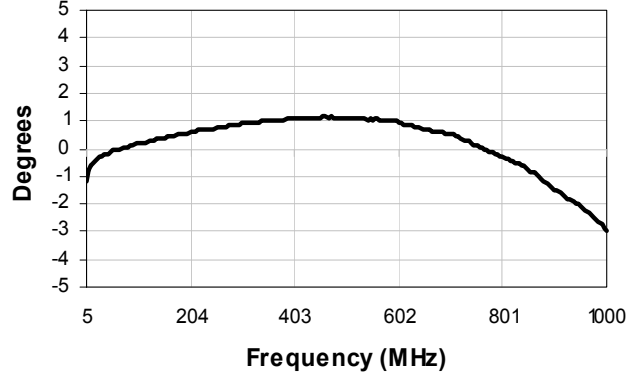
Insertion loss 2: pin 4 to pin 6



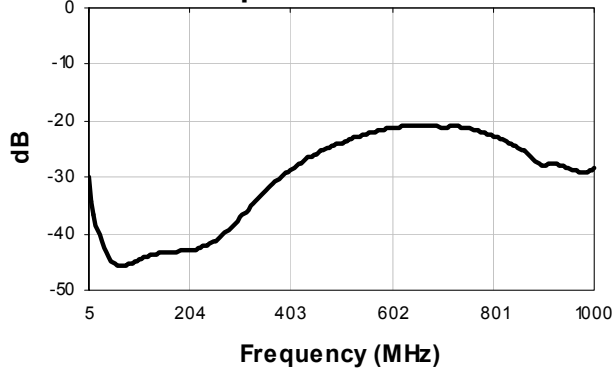
Amplitude balance



Phase balance



Return loss: Input



Isolation

