

# MAPD-010038-C209C0



2 Way 0° Power Divider  
5 to 1000 MHz

Rev. V1

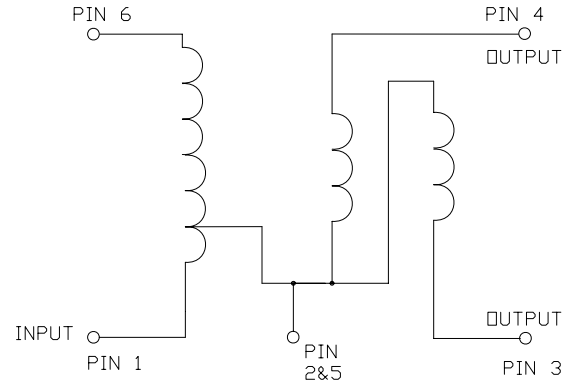
## Features

- Surface Mount
- 2 way 0 degree
- 260°C Reflow Compatible
- RoHS\* Compliant
- Available on Tape and Reel.

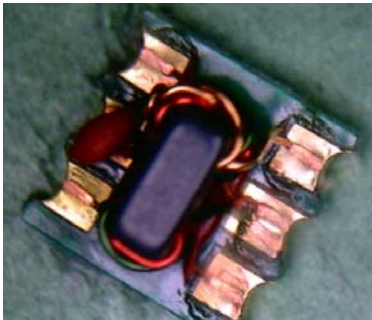
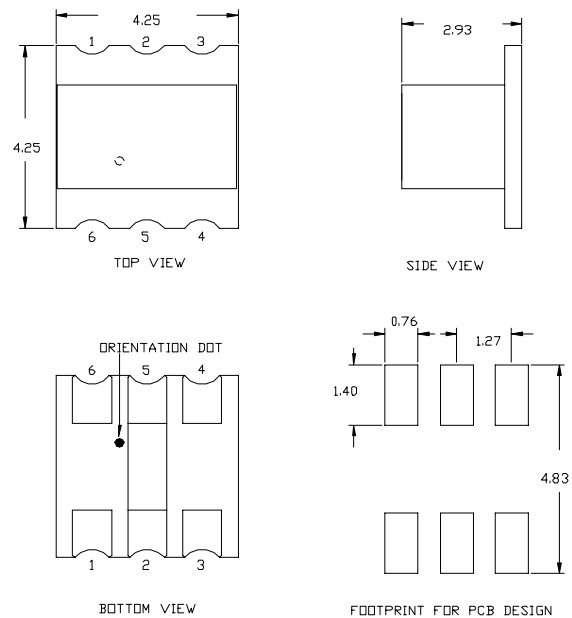
## Description

M/A-COM Technology Solutions MAPD-010038-C209C0 is a 2 way 0 degree RF power divider in a low cost, surface mount package. Ideally suited for high volume CATV/SAT applications.

## Schematic



## Case Style:



## Pin Configuration

Pin No.	Function
1	Input
2	External 0.5pF Capacitor
3	Output Port 1
4	Output Port 2
5	External 0.5pF Capacitor
6	Ground

Dimensions in mm Tolerance: .xx ± .1, .xxx ± .010, unless otherwise stated

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

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• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400  
• **India** Tel: +91.80.43537383 • **China** Tel: +86.21.2407.1588

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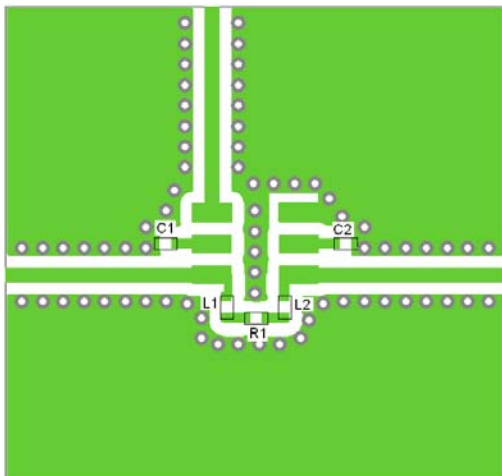
Electrical Specifications:  $T_A = 25^\circ\text{C}$ , 0dBm,  $Z_0 = 75\Omega$ ,  $P_{in} = 0\text{dBm}$

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss (Above 3dB)	5 - 50 MHz	dB	-	0.53	0.7
	50 - 500MHz	dB	-	0.55	0.8
	500 - 1000MHz	dB	-	0.65	1.0
Amplitude Balance	5 - 1000 MHz	dB	-	0.3	$\pm 0.6$
Phase Balance	5 - 1000 MHz	°	-	0.3	$\pm 4.0$
Input Return Loss	5 - 1000 MHz	dB	20	30	-
Output Return Loss	5 - 50 MHz	dB	17	23	-
	50 - 1000MHz	dB	20	27	-
Isolation (between outputs)	5 - 50 MHz	dB	24	40	-
	50 - 1000MHz	dB	30	38	-

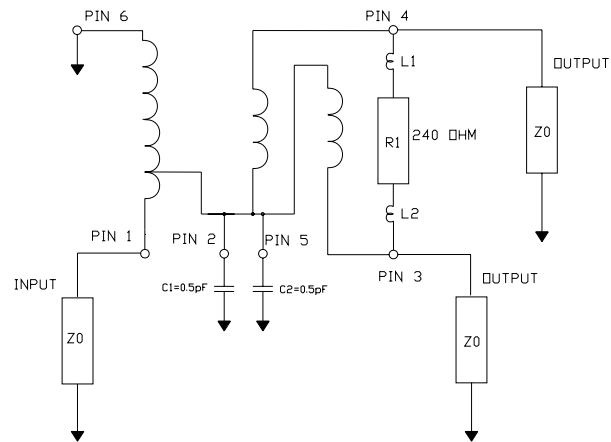
## Recommended Maximum Ratings

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

## Recommended PCB Configuration



## Application Circuit



Ref	Description	P/N	Vendor
R1	RES,0402	240Ω	ROHM
L1	IND,0402,TBD	8.2nH	COILCRAFT
L2	IND,0402,TBD	8.2nH	COILCRAFT
C1	CAP,0402	0.5pF	MURATA
C2	CAP,0402	0.5pF	MURATA

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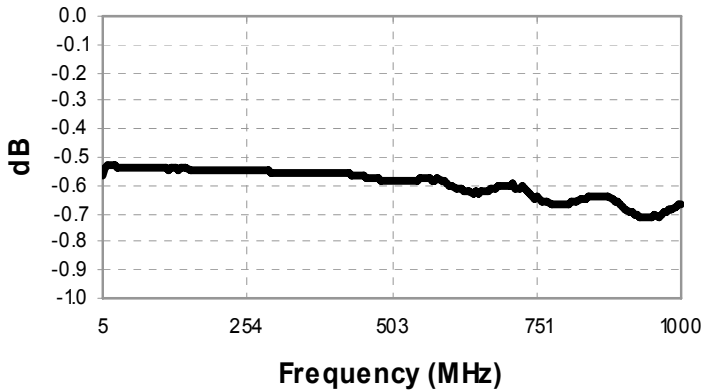
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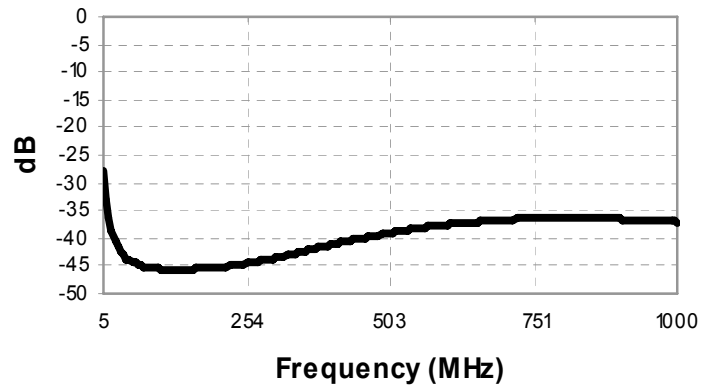
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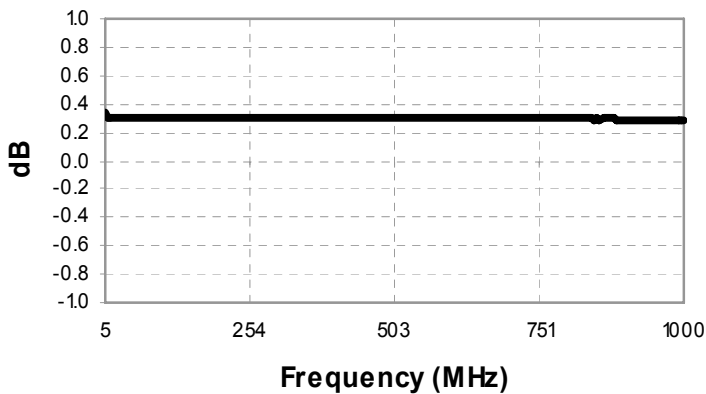
### Insertion Loss:



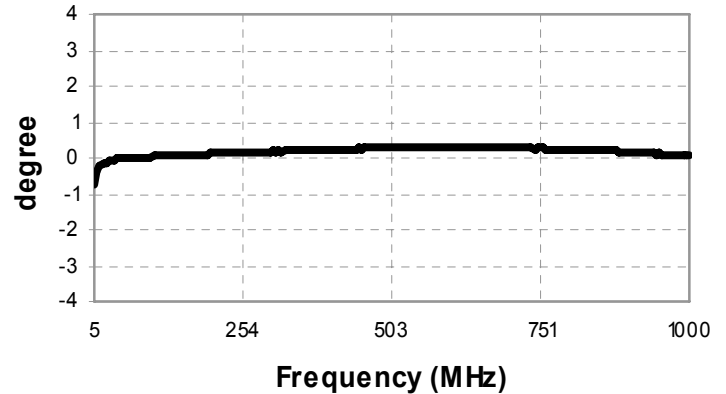
### Isolation:



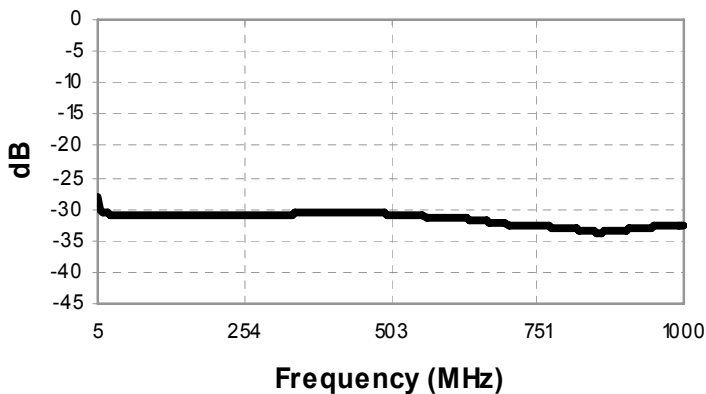
### Amplitude Balance:



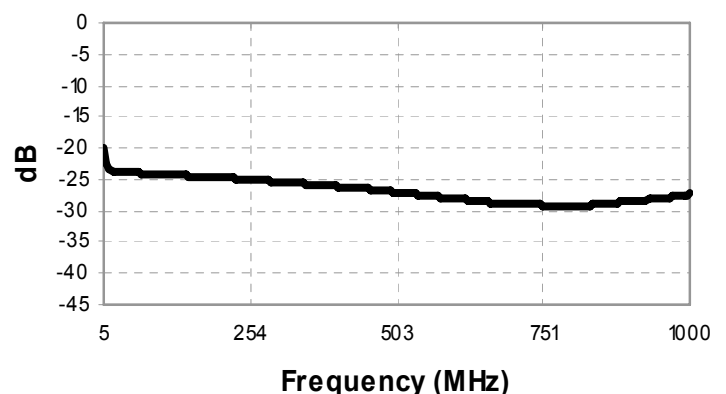
### Phase Balance:



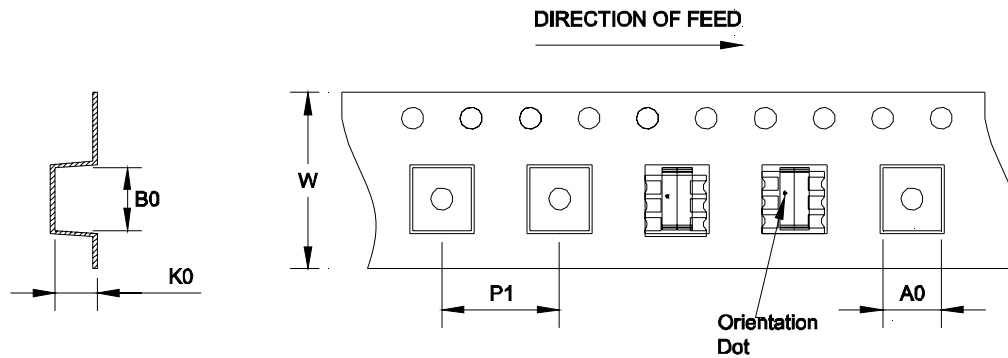
### Return Loss: Input



### Return Loss: Output



## Tape & Reel Information



Item	Dimension
Ao	4.55mm +/- 0.1mm
Bo	4.75mm +/- 0.1mm
Ko	3.10mm +/- 0.1mm
W	12.00mm +/- 0.3mm
P1	8.00mm +/- 0.1mm

## Ordering Information

Part number	Description
MABA-010038-C209C0	2000 piece reel
MABA-010038-C209TB	Customer Test Board