MAPD-009918-C209C0

2-Way 0˚ Power Divider
5 - 1000 MHz

Rev. V4

Features

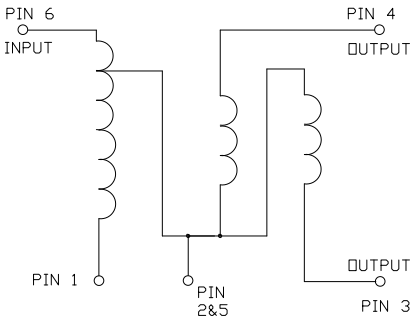
- Surface Mount
- 2-Way 0°
- RoHS Compliant and 260º Reflow Compatible
- Available on tape and reel
- Pb Free



Description

The MAPD-009918-C209C0 is a 2-way 0 degree RF power divider in a low cost surface mount package. Ideally suited for CATV/VSAT applications.

Functional Schematic



Ordering Information

Part Number	Package
MAPD-009918-C209C0	2000 piece reel
MAPD-009918-C209TB	customer test board

Pin Configuration

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

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

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss (Above 3 dB)	5 - 50 MHz 50 - 500 MHz 500 - 1000 MHz	dB	—	0.53 0.57 0.72	0.7 0.8 1.0
Amplitude Balance	5 - 1000 MHz	dB	—	0.3	0.6
Phase Balance	5 - 1000 MHz	deg.	—	0.9	4.0
Input Return Loss	5 - 1000 MHz	dB	20	29	—
Output Return Loss	5 - 50 MHz 50 - 1000 MHz	dB	18 20	23 29	—
Isolation (between outputs)	5 - 50 MHz 50 - 1000 MHz	dB	26 30	40 38	—

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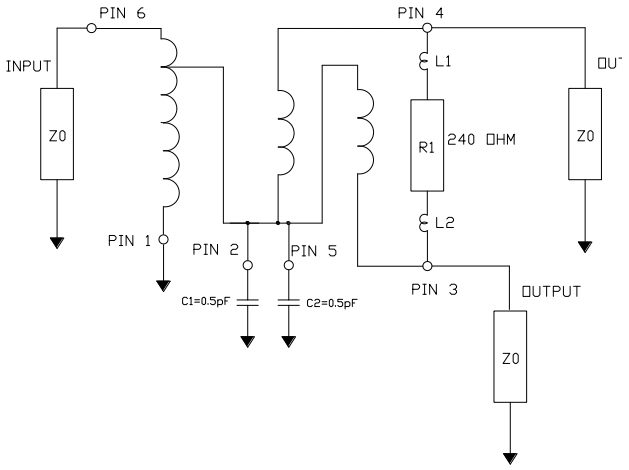
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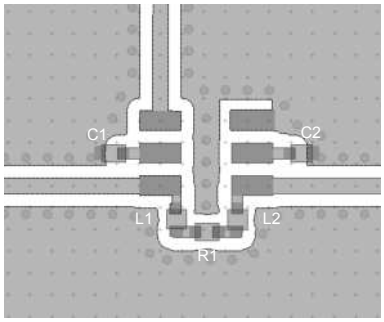
Recommended Maximum Ratings

Parameter	Absolute Maximum
Input Power	1 W
Internal Load Dissipation	125 mW
Operating Temperature	-40°C to +85°C

Application Circuit



Recommended PCB Configuration



Parts List

Part	Value	Case Style	Vendor
R1	240 Ω	0402	ROHM
L1, L2	8.2 nH	0402	COILCRAFT
C1, C2	0.5 pF	0402	MURATA

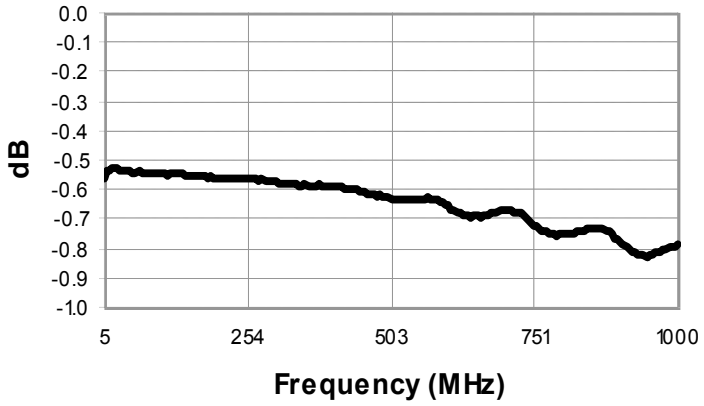
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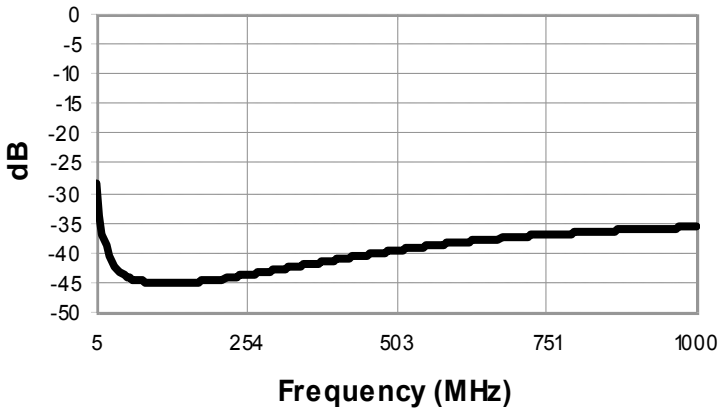
2-Way 0˚ Power Divider
5 - 1000 MHz

Typical Performance Curves

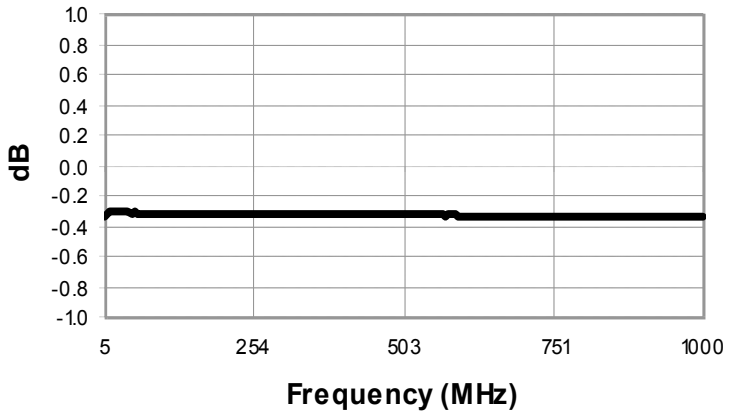
Insertion Loss:



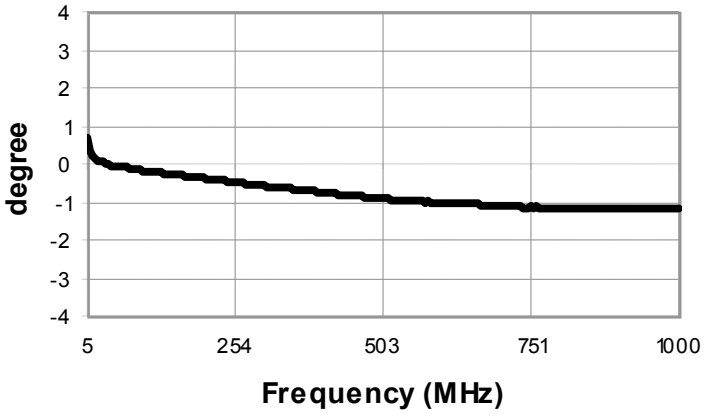
Isolation:



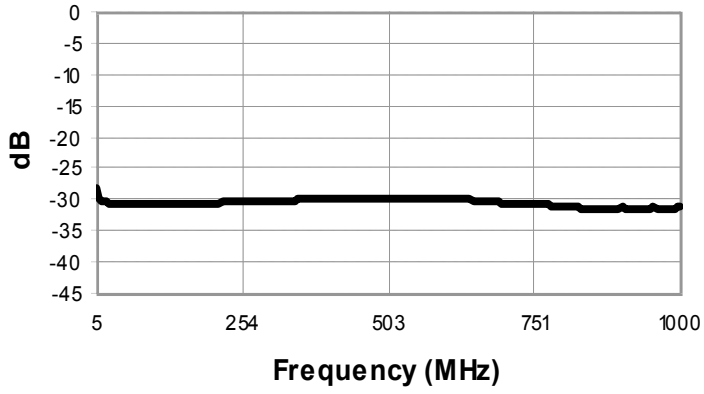
Amplitude Balance:



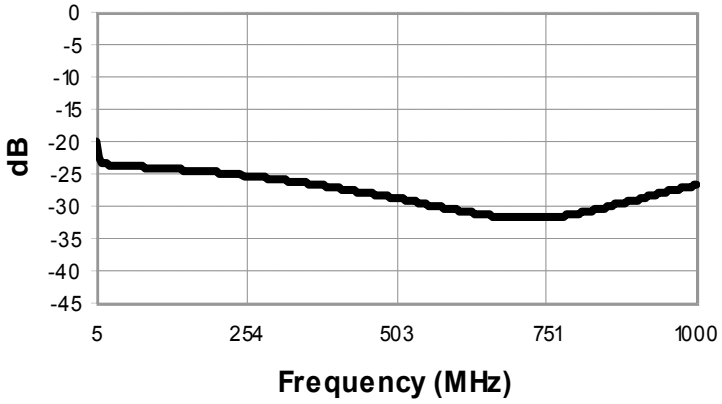
Phase Balance:



Return Loss: Input



Return Loss: Output

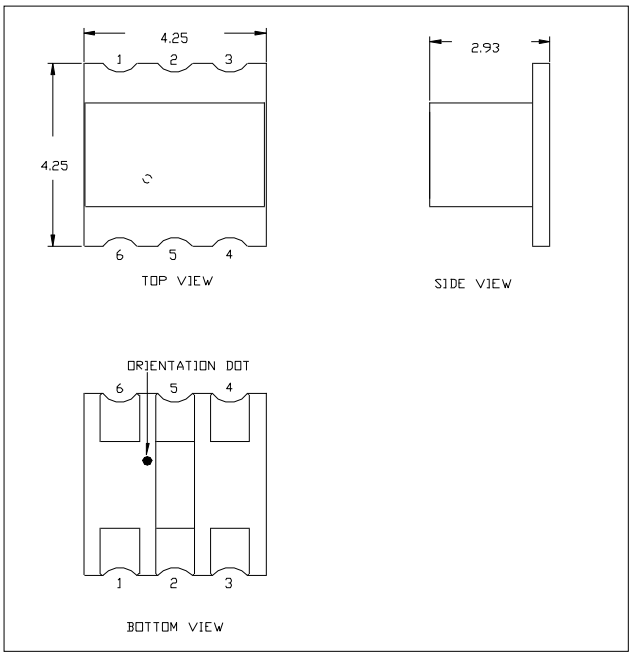


Full temperature plots available on request

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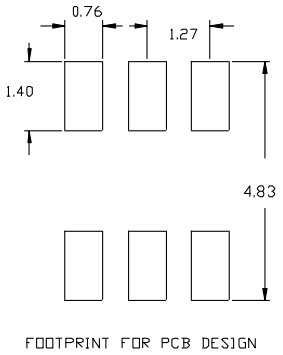
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Outline Drawing[1,2,3,4]



1. Dimensions in mm.
2. Tolerance: ±0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating: ENIG.

PCB Layout



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.55
Bo	mm	4.75
Ko	mm	3.10
Orientation	-	F31
Reference Application Note ANI-019 for orientation		

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