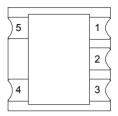


Power Divider, 2-Way 180° Splitter (also a 1:2 flux coupled balun) 5 - 1200 MHz

Rev. V4

Features

- 2-way
- 180° Phase Between Outputs
- Surface Mount Package
- Tape & Reel Packaging
- RoHS* Compliant & 260°C Reflow Compatible



Top View

Description

The MAPD-009492-C2W180 is a 2-way 180° power divider in a SM-164 surface mount package.

Ideally suited for high volume broadband CATV applications.

Pin Configuration

Pin#	Function	Pin#	Function
1,2	Ground	4	Output 2
3	Input	5	Output 1

Electrical Specifications: Freq. = 5 - 1200 MHz, $T_A = 25$ °C, $Z_0 = 75 \Omega$, $P_{IN} = 0 \text{ dBm}$

Parameter	Frequency Test Conditions (MHz)	Units	Min.	Тур.	Max.
Insertion Loss 1 Pin 5 - 3	5 - 200 200 - 870 870 - 1200	dB	_	0.7 1.3 2.7	1.0 2.5 4.5
Insertion Loss 2 Pin 4 - 3	5 - 50 50 - 870 870 - 1000 1000 - 1200	dB	_	0.6 0.6 0.0 -0.3	1.2 0.9 0.5 0.2
Amplitude Balance (Nominal 0 dB)	5 - 500 500 - 870 870 - 1000 1000 - 1200	dB	_	0.2 1.3 2.4 3.4	±1.0 ±2.5 ±3.5 ±5.0
Phase Balance (Nominal 180°)	5 - 200 200 - 870 870 - 1000 1000 - 1200	0	_	0.1 1.3 4.0 11.0	±3 ±9 ±13 ±20
Input Return Loss Pin 3	5 - 870 870 - 1000 1000 - 1200	dB	18 17 12	24 22 18	_

Ordering Information

Part Number	Package	
MAPD-009492-C2W180	2000 piece reel	
MAPD-009492-C2W1TB	customer test board	

^{*} Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum	
RF Power	50 mW	
Peak IF Current	40 mA	
Operating Temperature	-40°C to +105°C	
Storage Temperature	-40°C to +85°C	

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

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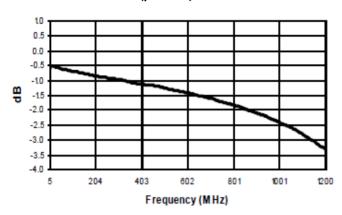


Power Divider, 2-Way 180° Splitter (also a 1:2 flux coupled balun) 5 - 1200 MHz

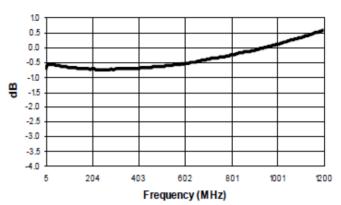
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Typical Performance Curves

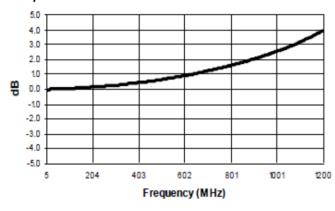
Insertion Loss Port 1 (pin 5 - 3)



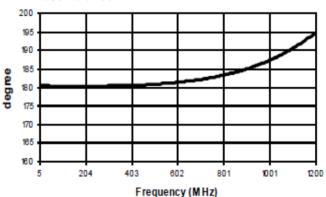
Insertion Loss Port 2 (pin 4 - 3)



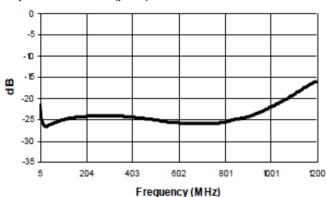
Amplitude Balance



Phase Balance



Input Return Loss (pin 3)

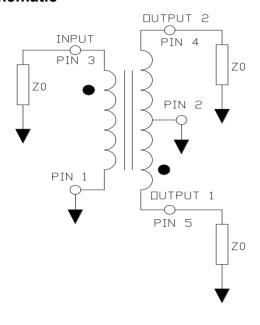




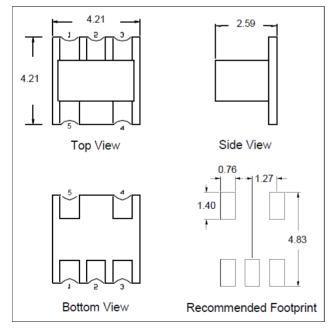
Power Divider, 2-Way 180° Splitter (also a 1:2 flux coupled balun) 5 - 1200 MHz

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Schematic



Outline (SM-164)



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	4.5		
Во	mm	4.5		
Ko	mm	2.73		
Orientation	-	F5		
Reference Application Note ANI-019 for orientation				

- 1. Dimensions in mm.
- 2. Tolerance: ±0.2 mm unless otherwise noted.
- 3. Model number and lot code printed on reel.
- 4. Plating finish: ENIG on both sides, 0.05 to 0.1 μm gold over 3 to 6 μm nickel



Power Divider, 2-Way 180° Splitter (also a 1:2 flux coupled balun) 5 - 1200 MHz

Rev. V4

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