

MAPD-009492-C2W180

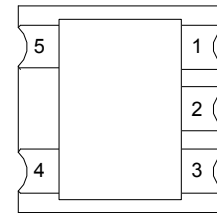
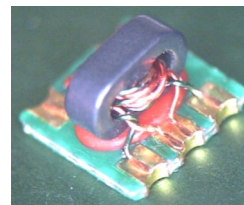


Power Divider, 2-Way 180° Splitter (also a 1:2 flux coupled balun)
5 - 1200 MHz

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, Z₀ = 75 Ω, P_{IN} = 0 dBm

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

Ordering Information

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

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

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

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

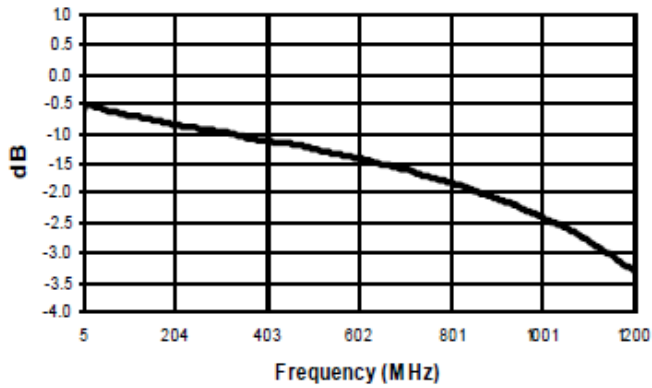
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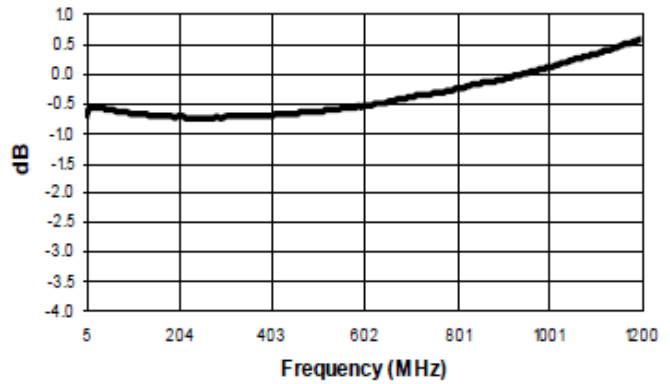
DS-MAPD-009492-C2W180

Typical Performance Curves

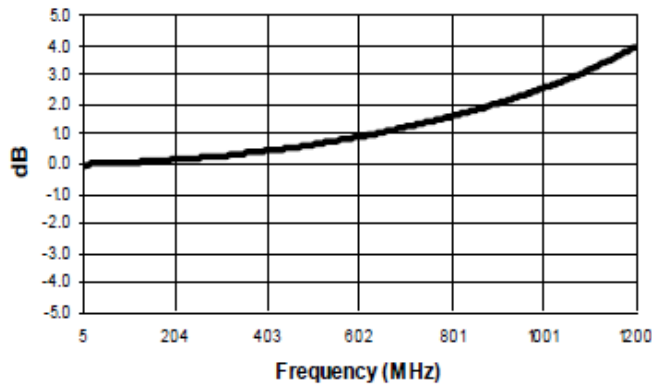
Insertion Loss Port 1 (pin 5 - 3)



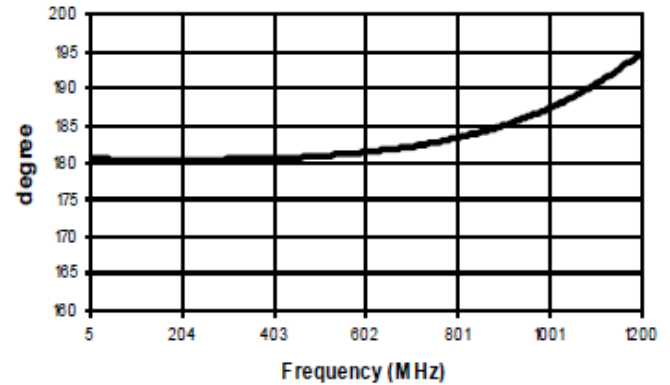
Insertion Loss Port 2 (pin 4 - 3)



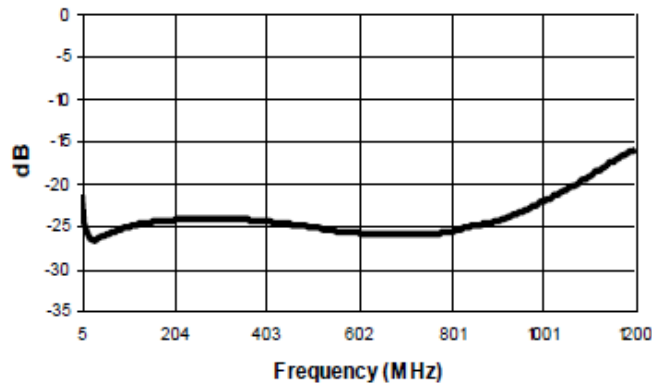
Amplitude Balance



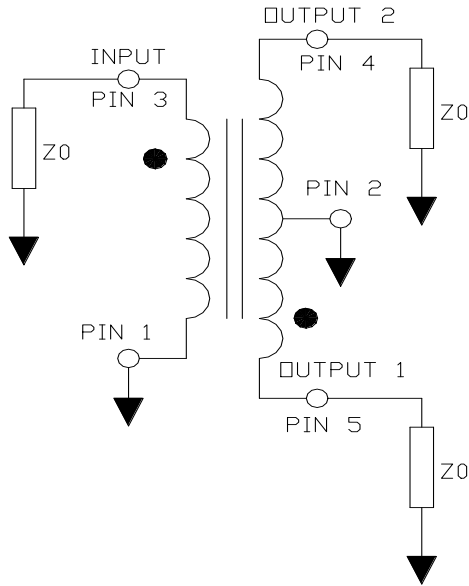
Phase Balance



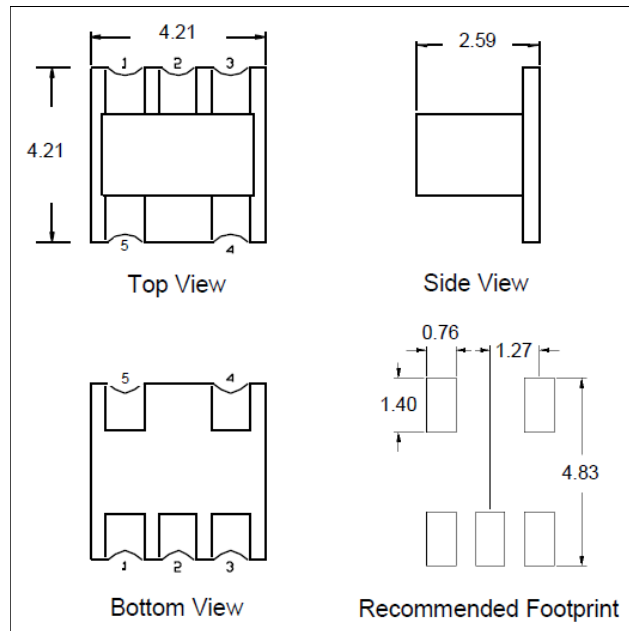
Input Return Loss (pin 3)



Schematic



Outline (SM-164)



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

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

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