# **MAPD-011018**



# 2-Way 90° Power Splitter 5 - 250 MHz

Rev. V3

#### **Features**

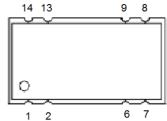
- 2-Way 90°
- Surface Mount Package
- Available on Tape & Reel
- 260°C Reflow Compatible
- · RoHS Compliant, Lead-Free
- Excellent Temperature Stability
- Suitable for all CATV, Broadband and FTTx Applications

#### **Description**

The MAPD-011018 is a 2 way 90° power splitter in a surface mount package. Ideally suited for all broadband CATV applications.

#### **Functional Block Diagram**





#### **Pin Configuration**

Pin#	Function	Pin#	Function
1	Input	7	Output 1(0°)
2 - 6, 9 - 14	Ground	8	Output 2(+90°)

#### Electrical Specifications: Freq. = 5 - 250 MHz, $T_A = 25^{\circ}$ C, $Z_0 = 75 \Omega$ , $P_{IN} = 0 \text{ dBm}$

Parameter	Test Frequency (MHz)	Units	Min	Тур	Max
Insertion Loss (pin 1 - pin 7)	5 - 85 85 - 250	dB	_	1.5 1.2	1.9 1.9
Insertion Loss (pin 1 - pin 8)	5 - 85 85 - 250	dB	_	1.16 1.02	1.4 3.5
Amplitude Balance	5 - 85 85 - 250	dB	_	0.4 0.2	±0.8 ±2.9
Phase Balance	5 - 85 85 - 100 100 - 250	o	_	90.0 94.3 101.8	±3 ±9 ±17
Input Return Loss (pin 1)	5 - 85 85 - 250	dB	9 9	10.3 11.1	_
Output Return Loss (pin 7)	5 - 85 85 - 250	dB	6 6	7.7 16.9	_
Output Return Loss (pin 8)	5 - 85 85 - 250	dB	14 4	16.2 20.5	_
Isolation (pin 7 - pin 8)	5 - 85 85 - 250	dB	15 10	19.4 17.9	_

#### **Ordering Information**

Part Number	Description	
MAPD-011018	400 piece reel	
MAPD-011018-TB	sample board	

#### **Absolute Maximum Ratings**

Parameter	Absolute Maximum	
Input RF Power	250 mW	
DC Current	200 mA	
Operating Temperature	-40°C to +85°C	

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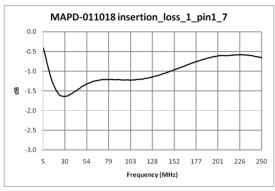
Visit <a href="https://www.macom.com">www.macom.com</a> for additional data sheets and product information.

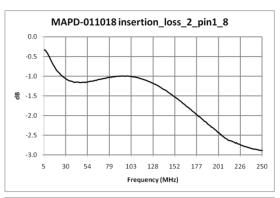


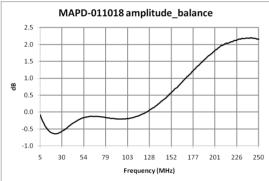
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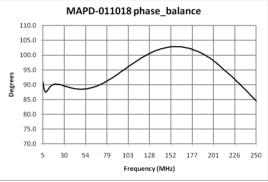
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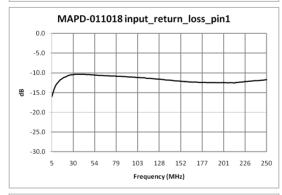
### Typical Performance Curves: $T_A = 25^{\circ}C$ , $Z_0 = 75 \Omega$ , $P_{IN} = 0 \text{ dBm}$

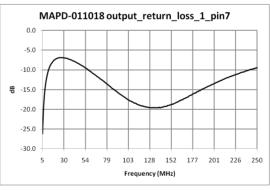


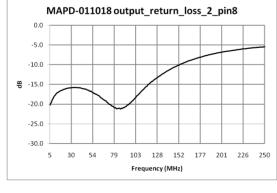


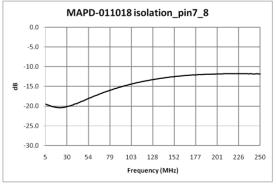










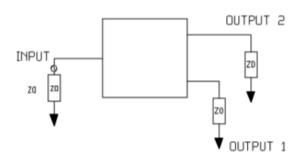




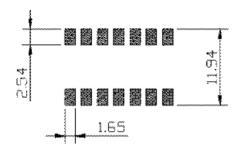
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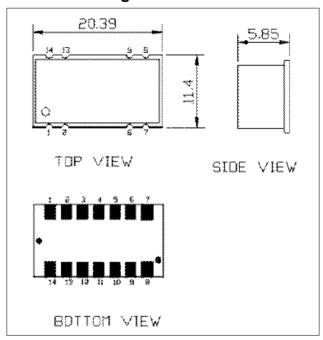
## **Application Schematic**



#### **Recommended Footprint**



#### **Outline Drawing**



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

#### **Tape & Reel Information**

Parameter	Units	Value	
Qty per reel	_	400	
Reel Size	mm	330	
Tape Width	mm	44	
Pitch	mm	20	
Ao	mm	21	
Во	mm	12	
Ko	mm	6.40	
Orientation	_	F30	
Reference Application Note ANI-019 for orientation			

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