

# MAPD-011007

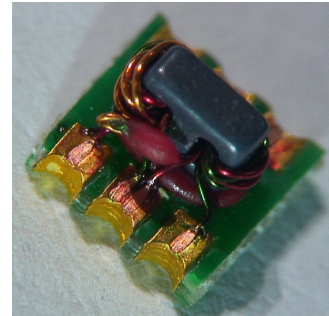


2 way 0° Power Divider  
5 MHz - 2150 MHz

Rev. V2

## Features

- 2 way 0 degree
- Surface mount
- Available on tape and reel
- 260°C reflow compatible
- RoHS Compliant and Pb free
- Suitable for all CATV, Broadband and FTTx applications.



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

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		2150
Impedance		$\Omega$		75	
Power split		dB	-	3	
Insertion Loss 1 (pin6 - pin4)	5 - 1002 MHz	dB	-	0.3	0.7
	1003 - 1600 MHz	dB	-	0.6	1.2
	1600 - 2150 MHz	dB	-	1.0	2.0
Insertion Loss 2 (pin6 - pin3)	5 - 1002 MHz	dB	-	0.6	1.0
	1003 - 1600 MHz	dB	-	1.0	1.6
	1600 - 2150 MHz	dB	-	1.5	3.2
Amplitude Balance	5 - 1002 MHz	dB	-	0.3	$\pm 0.6$
	1003 - 1600 MHz	dB	-	0.3	$\pm 0.8$
	1600 - 2150 MHz	dB	-	0.5	$\pm 1.5$
Phase Balance	5 - 1002 MHz	degree	-	0.8	$\pm 4$
	1003 - 1600 MHz	degree	-	1.0	$\pm 6$
	1600 - 2150 MHz	degree	-	0.2	$\pm 7$
Input Return Loss (pin6)	5 - 1002 MHz	dB	20	39	-
	1003 - 1600 MHz	dB	14	22	-
	1600 - 2150 MHz	dB	11	18	-
Output Return Loss (pin4)	5 - 1002 MHz	dB	17	28	-
	1003 - 1600 MHz	dB	13	18	-
	1600 - 2150 MHz	dB	9	14	-
Output Return Loss (pin3)	5 - 1002 MHz	dB	20	40	-
	1003 - 1600 MHz	dB	15	22	-
	1600 - 2150 MHz	dB	12	18	-
Isolation (pin4-pin3)	5 - 9 MHz	dB	24	30	-
	10 - 65 MHz	dB	30	42	-
	66 - 870 MHz	dB	26	34	-
	871 - 1002 MHz	dB	24	31	-
	1003 - 1600 MHz	dB	22	31	-
	1600 - 2150 MHz	dB	15	24	-

**NOTE:** Intermodulation distortions per 'ANSI/SCTE 1452008' -95dBc Min. & not tested in production

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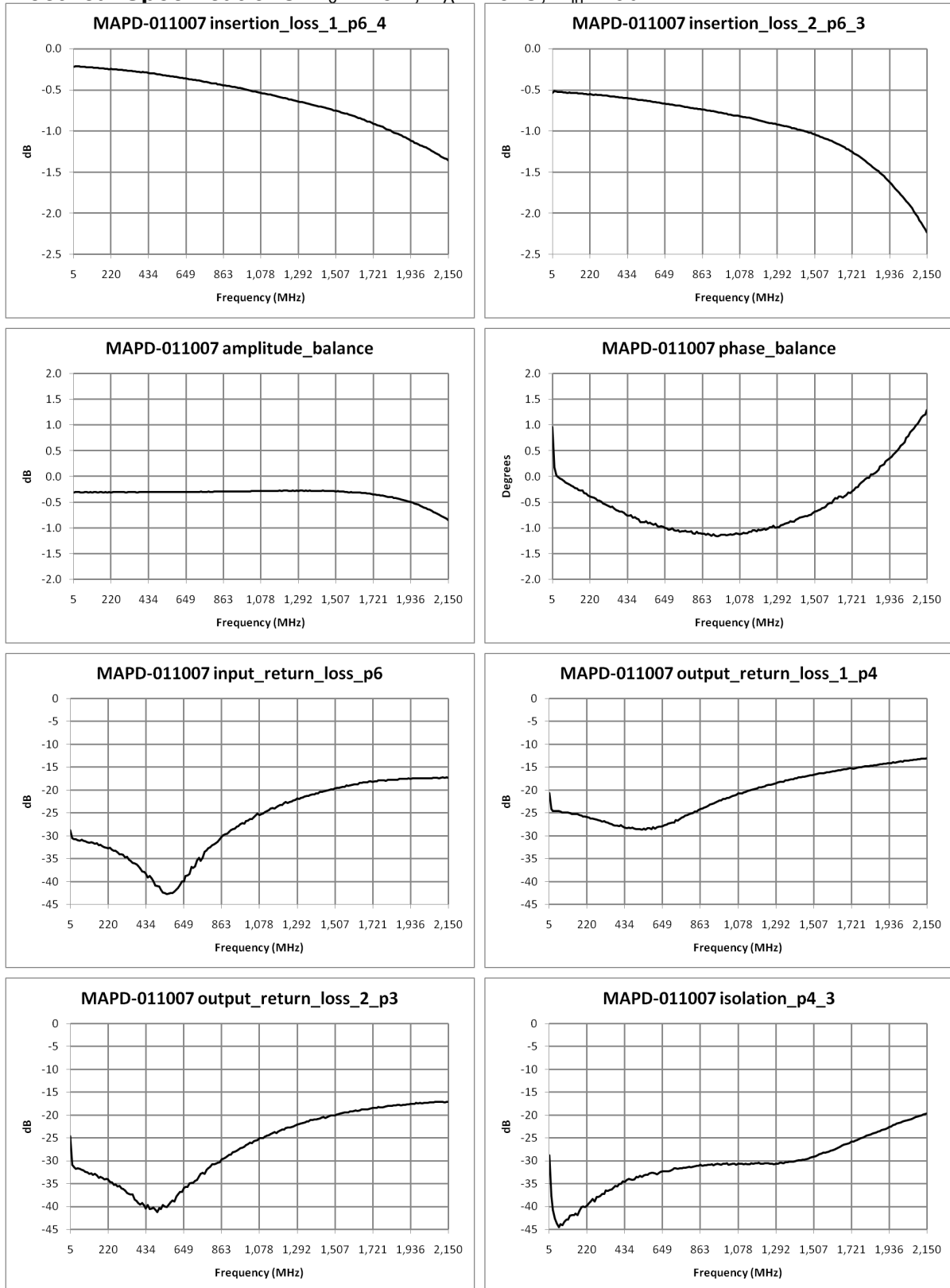
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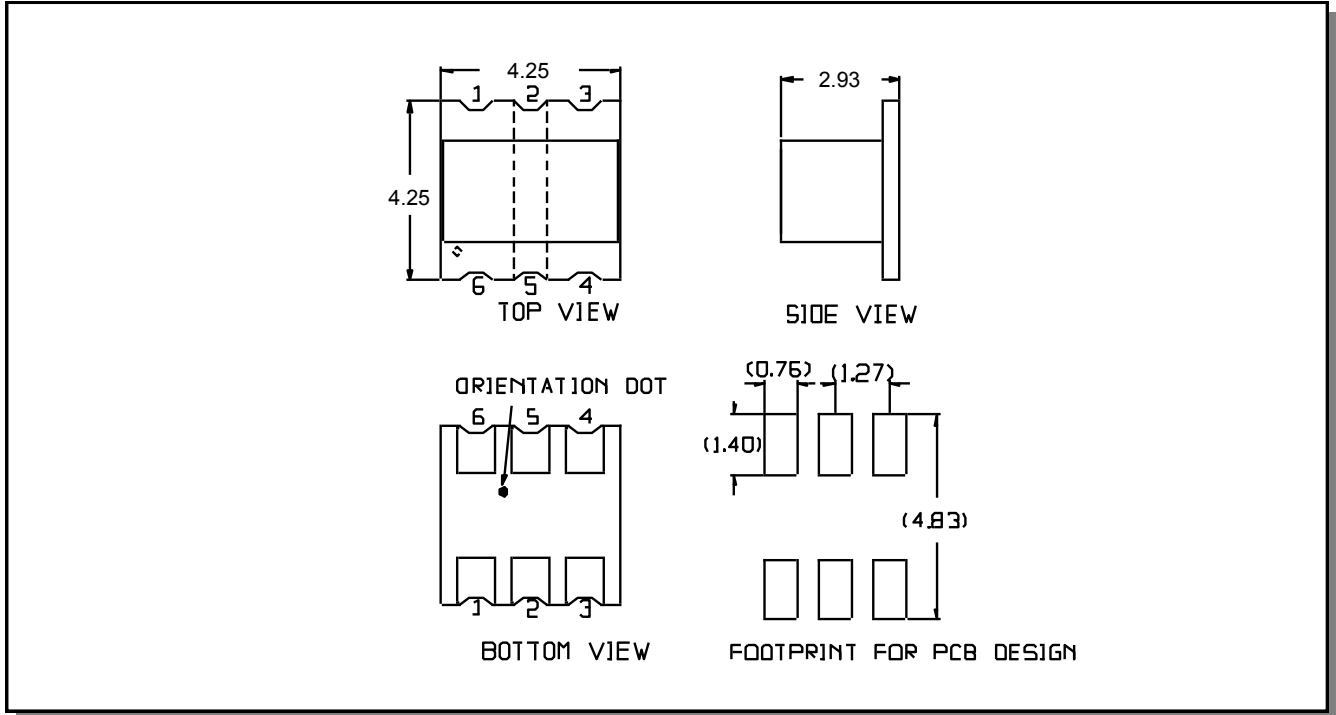
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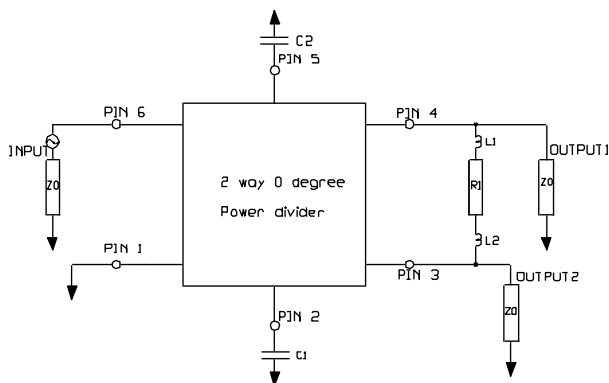
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## Outline Drawing

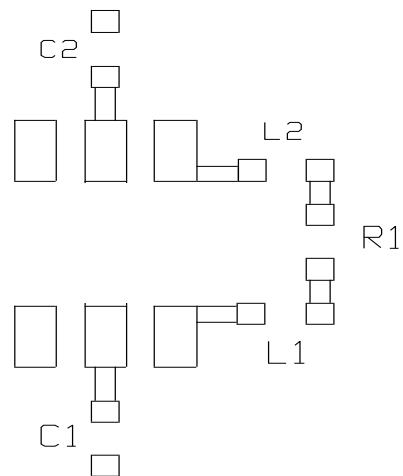


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1  $\mu$ m gold over 3 to 6  $\mu$ m nickel

## Application Circuit



## Recommended Layout



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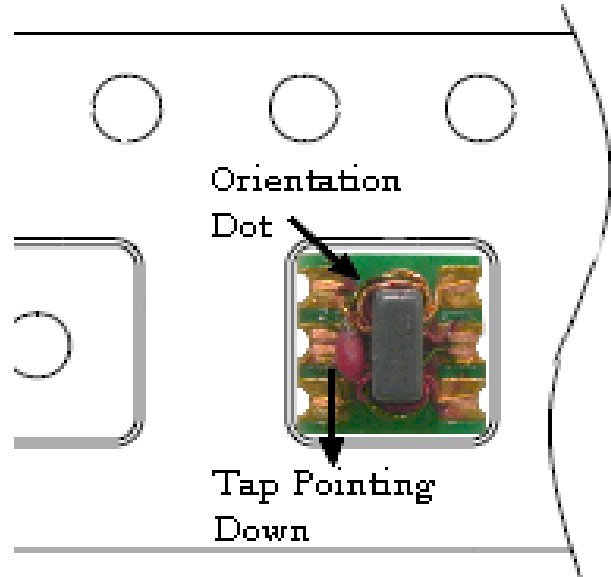


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## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P <sub>1</sub> )	mm	8.00
A <sub>0</sub>	mm	4.50
B <sub>0</sub>	mm	4.50
K <sub>0</sub>	mm	3.20
Orientation	-	F18
Reference Application note ANI-019 for orientation		



## Ordering Information

Part Number	Description
MAPD-011007	Tape & Reel
MAPD-011007-TB	Customer test board

## Component BOM

Ref	Description	Value
R1	Resistor, 0402	240Ω
L1	Inductor, 0402	8.2nH
L2	Inductor, 0402	8.2nH
C1	Capacitor, 0402	0.5pF
C2	Capacitor, 0402	0.5pF

## Recommended Maximum Ratings

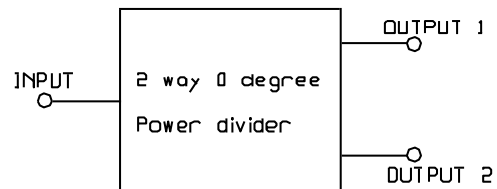
Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		30
Operating Temperature Range	°C	-40	+85

Temperature data available on request

## Pin Configuration

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

## Schematic



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