

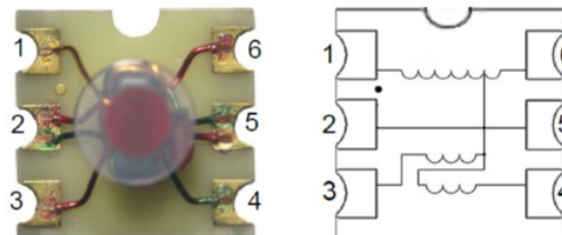
## 2-Way 0° Power Divider 5 - 1225 MHz

Rev. V2

### Features

- 2 Way 0 Degree Power Divider
- Surface Mount Package
- Available on Tape and Reel
- RoHS Compliant and Pb Free
- 260°C Reflow Compatible
- Excellent Temperature Stability
- Suitable for all CATV, Broadband and FTTX applications

### Functional Schematic



### Description

The MAPD-011052 is a 2 way 0 degree power divider in a low cost surface mount package.

**Electrical Specifications:** Freq. = 5 - 1225 MHz,  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\ \Omega$ ,  $P_{IN} = 0\ \text{dBm}$

Parameter	Conditions	Units	Min.	Typ.	Max.
Power Split	5 - 1225 MHz	dB	—	3	—
Insertion Loss 1 (pin 6 - pin 3)	5 - 1000 MHz 1000 - 1225 MHz	dB	—	0.6 0.9	0.85 1.10
Insertion Loss 2 (pin 6- pin 4)	5 - 1000 MHz 1000 - 1225 MHz	dB	—	0.8 1.0	1.1 1.25
Amplitude Balance	5 - 1000 MHz 1000 - 1225MHz	dB	—	0.3 0.2	$\pm 0.6$ $\pm 0.4$
Phase Balance	5 - 1000 MHz 1000 - 1225MHz	°	—	7.0 9.0	$\pm 9.0$ $\pm 11$
Input Return Loss (pin 6)	5 - 1000 MHz 1000 - 1225 MHz	dB	17 17	19 21	—
Output Return Loss 1 (pin 3)	5 - 1000 MHz 1000 - 1225 MHz	dB	16 14	18 16	—
Output Return Loss 2 (pin 4)	5 - 1000 MHz 1000 - 1225 MHz	dB	15.0 11.5	18 14	—
Isolation (pin 3 - pin 4)	5 - 1000 MHz 1000 - 1225 MHz	dB	27 27	32 30	—

### Ordering Information

Part Number	Description
MAPD-011052	900 piece reel
MAPD-011052-TB	sample board

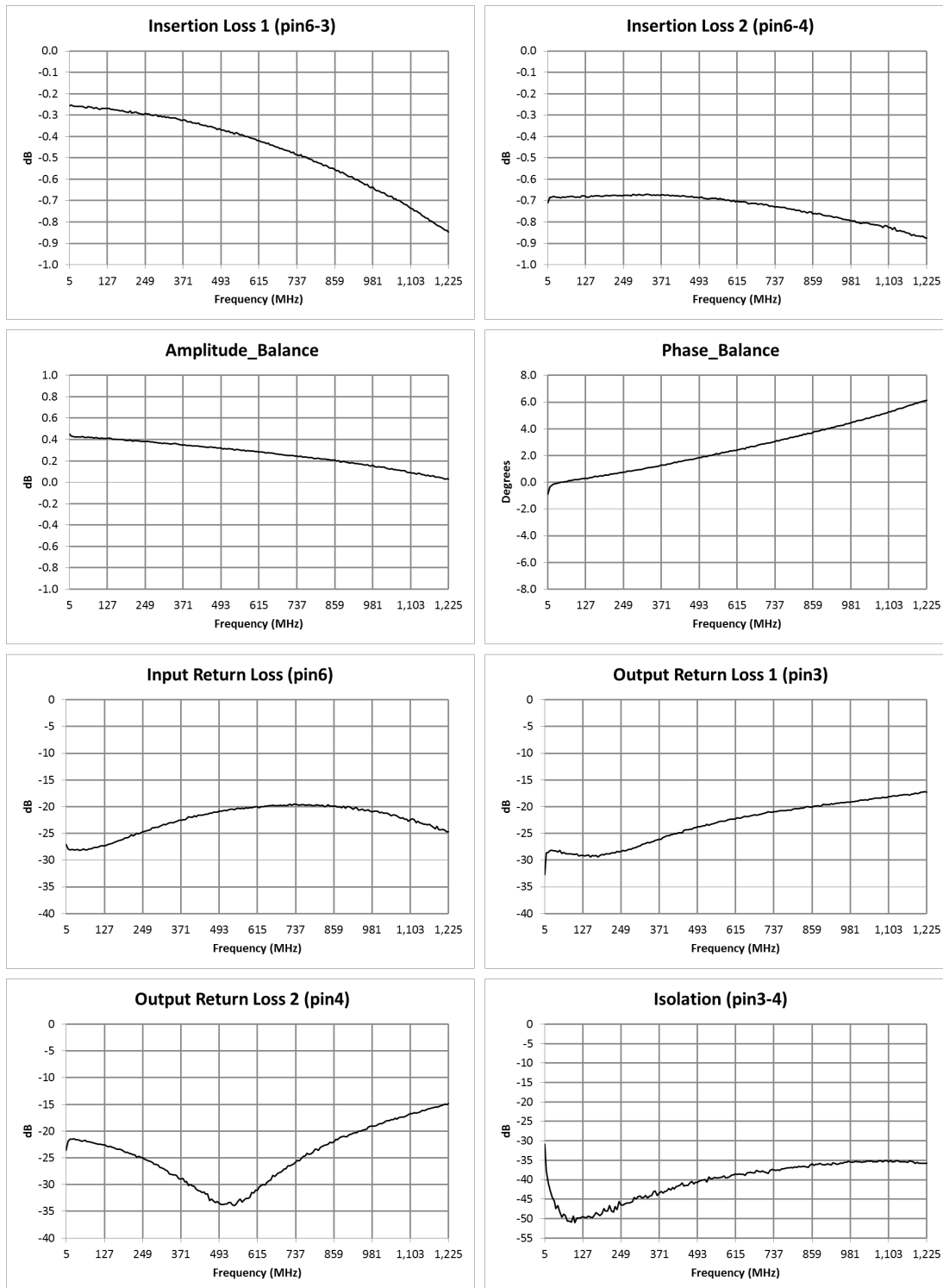
### Absolute Maximum Ratings

Parameter	Absolute Maximum
Input RF Power	500 mW
DC Current	500 mA
Operating Temperature	-40°C to +85°C

## 2-Way 0° Power Divider 5 - 1225 MHz

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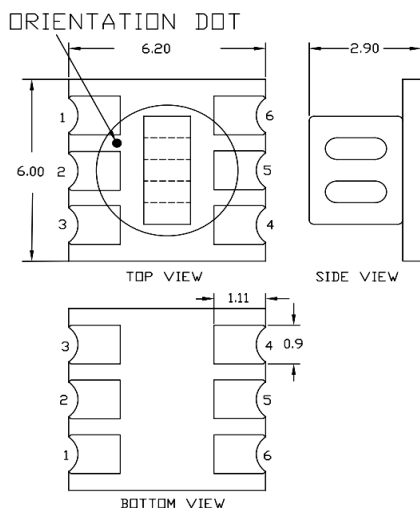
Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\ \Omega$ ,  $P_{IN} = 0\ \text{dBm}$



## 2-Way 0° Power Divider 5 - 1225 MHz

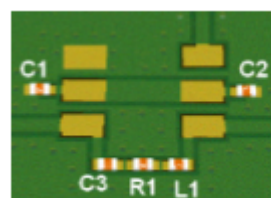
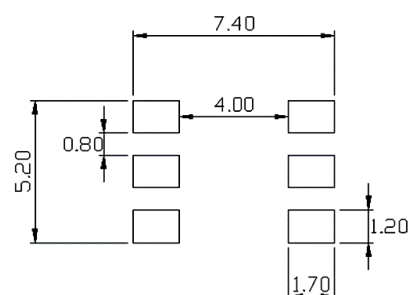
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### Outline Drawing<sup>1,2,3,4</sup>



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

### Recommended Board Layout/Footprint<sup>5</sup>



5. Recommended PCB layout shown above uses 1.6 mm FR4. Grounded coplanar wave guide, transmission line width 0.70 mm and gap 0.57 mm.

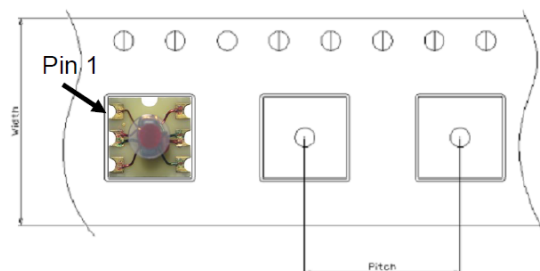
### Pin Configuration

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

### Parts List

Part	Value	Case Style
C1, C2	0.5 pF	0402
C3	220 pF	0402
L1	9.1 nH	0402
R1	270 $\Omega$	0402

### Carrier Tape Orientation



### Tape & Reel Information

Parameter	Units	Value
Qty per reel	—	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Orientation	—	F45
Reference Application Note ANI-019 for orientation		

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