

# MAPD-011032

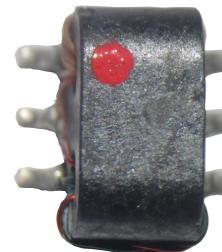


## 2 Way 0° Power Divider, Surge Compliant 5 - 1250 MHz

Rev. V1

### Features

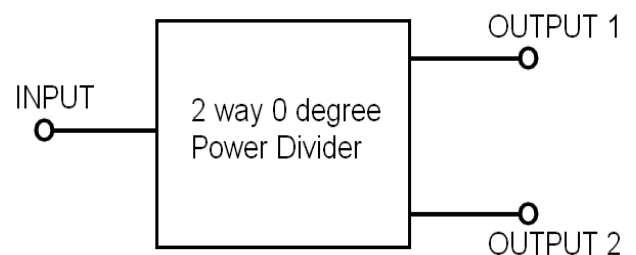
- Surface Mount
- 2 way 0 degree
- Suitable for all CATV, Broadband and FTTx applications.
- Available on Tape and Reel
- RoHS Compliant and Lead free
- 260°C Reflow Compatible
- Surge Compliant as per IEC 60728-4,4.8



### Description

This device is a 2 way 0 degree power divider in a low cost surface mount package. Ideally suited for all CATV Broadband and FTTx applications.

### Functional Schematic



### Ordering Information

Part Number	Package
MAPD-011032	Tape & Reel
MAPD-011032-TB	Customer test Board

### Pin Configuration

Pin No.	Function
1	Ground
2	Connect to Pin5 & isolate from ground
3	Output 1
4	Output 2
5	Connect to Pin2 & isolate from ground
6	Input

## 2 Way 0° Power Divider, Surge Compliant 5 - 1250 MHz

Rev. V1

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

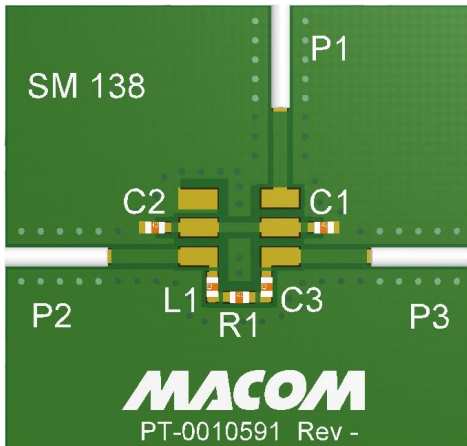
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range	-	MHz	5	-	1250
Impedance	-	$\Omega$	-	75	-
Power Split	-	-	-	3	-
Insertion Loss 1 (Pin 6-3)	5 - 600 MHz	dB	-	0.2	0.6
	600 - 1000 MHz	dB	-	0.6	1.1
	1000 - 1250 MHz	dB	-	1.0	1.6
Insertion Loss 2 (Pin 6-4)	5 - 600 MHz	dB	-	0.2	0.4
	600 - 1000 MHz	dB	-	0.4	0.7
	1000 - 1250 MHz	dB	-	0.6	1.1
Amplitude Balance	5 - 600 MHz	dB	-	0.01	$\pm 0.3$
	600 - 1250 MHz	dB	-	0.2	$\pm 0.7$
Phase Balance (ref value 0°)	5 - 1000 MHz	°	-	0.4	$\pm 3.0$
	1000 - 1250 MHz	°	-	0.7	$\pm 4.0$
Input Return Loss Pin 6	5 - 600 MHz	dB	19	31	-
	600 - 1250 MHz	dB	13	26	-
Output Return Loss 1 (Pin 3)	5 - 1250 MHz	dB	12	33	-
Output Return Loss 2 (Pin 4)	5 - 1000 MHz	dB	14	41	-
	1000 - 1250 MHz	dB	10	16	-
Isolation (Pin 3-4)	5 - 1250 MHz	dB	18	25	-

### Recommended Maximum Ratings

Parameter	Units	Min	Max
Input RF Power	W	-	0.5
DC Current	mA	-	500
Operating Temperature Range	°C	-40	+85

Full temperature plots available on request

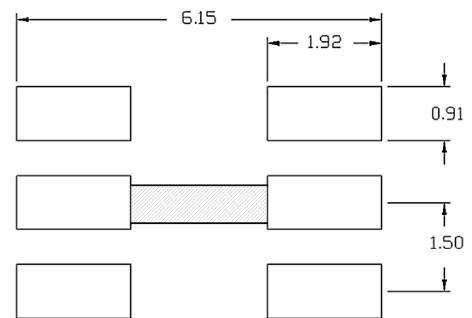
## PCB Layout



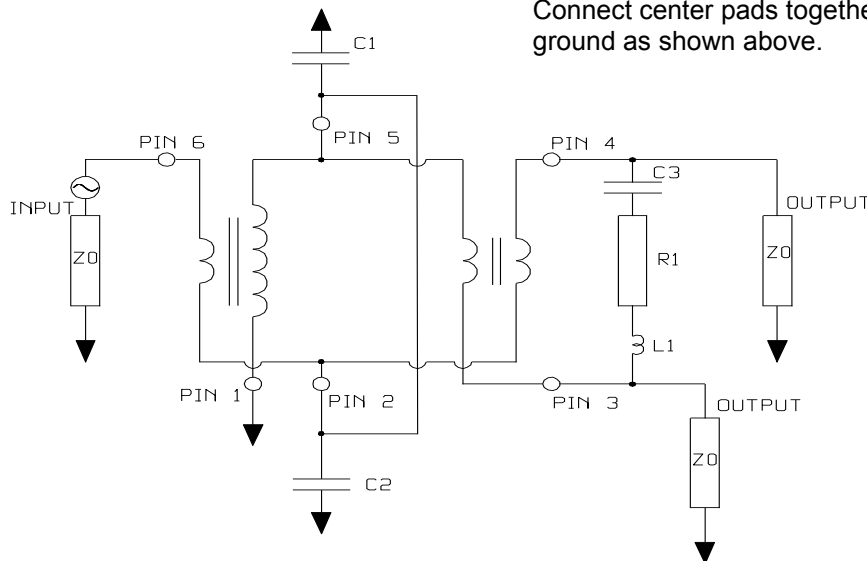
## Parts List

REF	DESCRIPTION	P/N
R1	RES,0402, ±1%	160 Ω
L1	IND,0402, ±5%	15 nH
C3	CAP,0402, ±5%	470 pF
C1	CAP,0402, ±5%	0.5 pF
C2	CAP,0402, ±5%	0.5 pF

## PCB land pattern dimensions

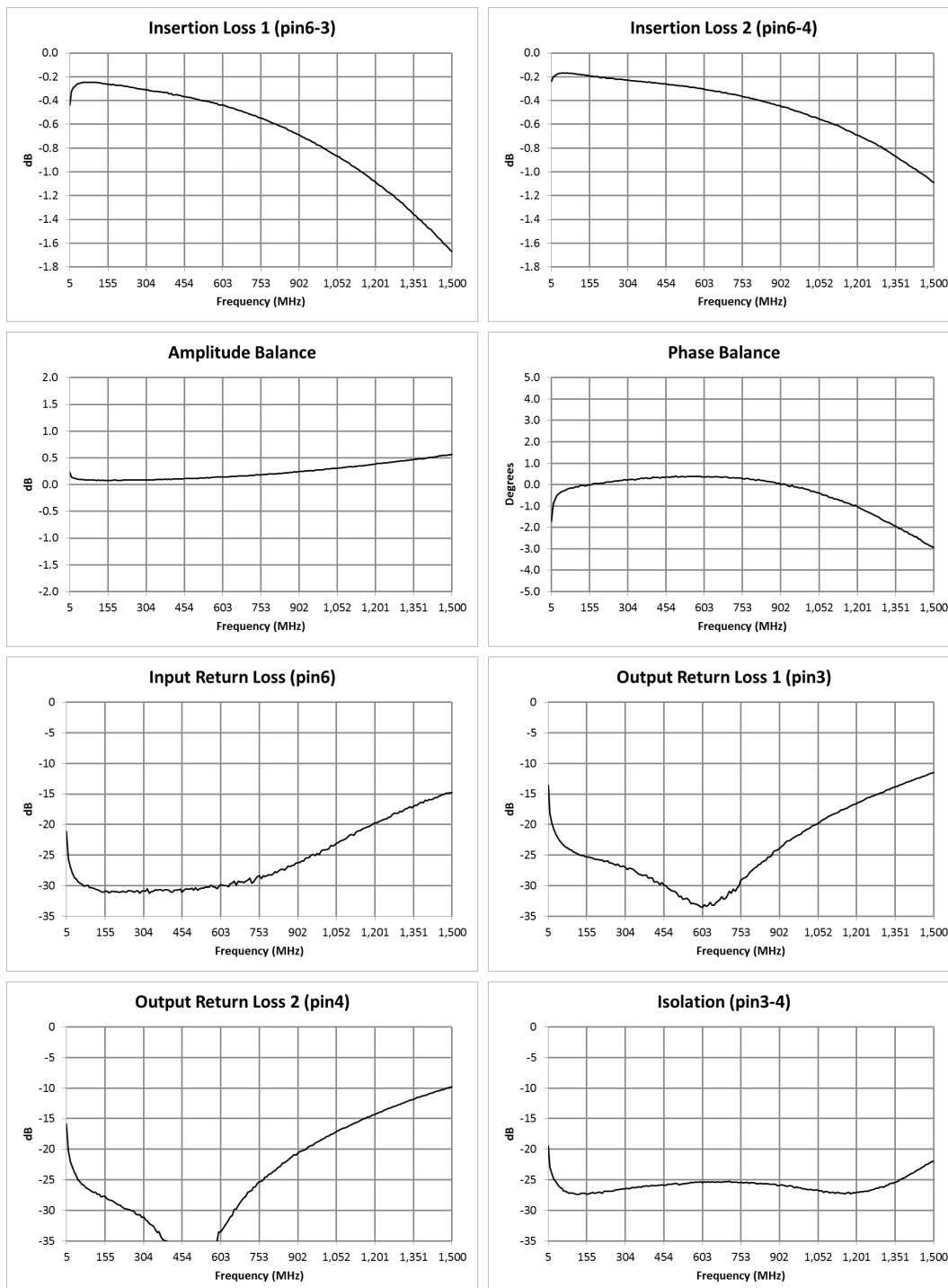


## Application circuit



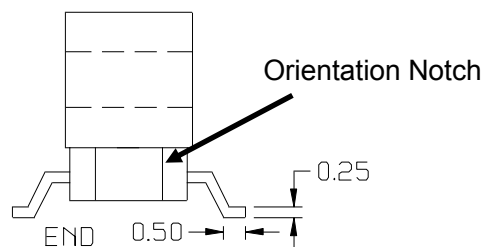
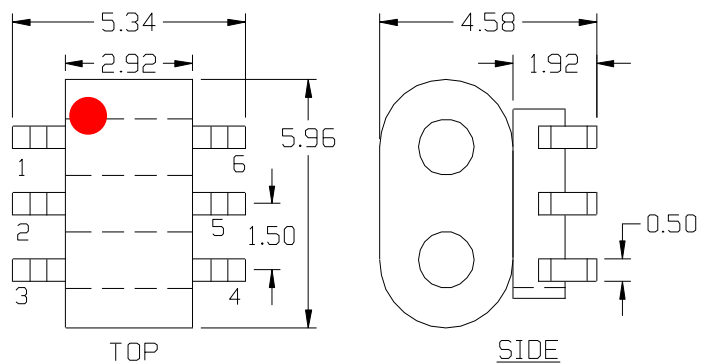
Connect center pads together and isolate them from ground as shown above.

### Typical Performance Curves



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## Outline Drawing

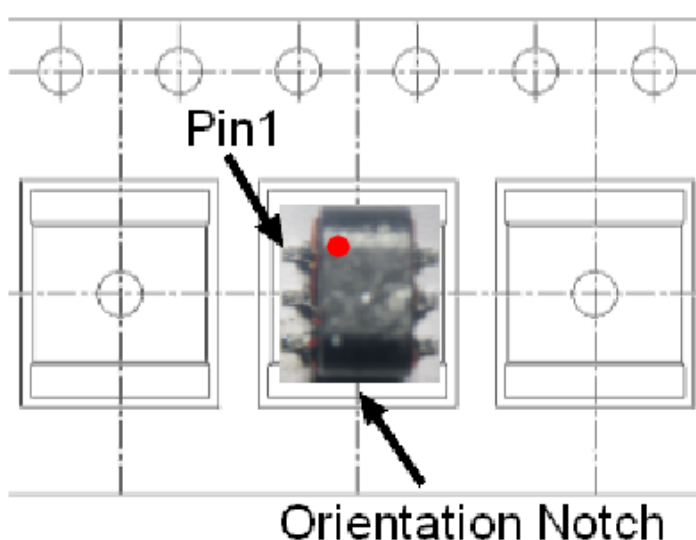


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating: (CuSn6) Lead finish SAC-305

## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	8.00
Orientation	-	F39
Reference App Note ANI-019 for orientation		

## Carrier Tape Orientation



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