

# 2-Way Splitter Transformer

## 5 - 2400 MHz



MABA-010277

Rev. V3

### Features

- Excellent Temperature Stability
- Surface Mount Technology
- 260°C Reflow Compatible
- RoHS\* Compliant
- Available on Tape & Reel

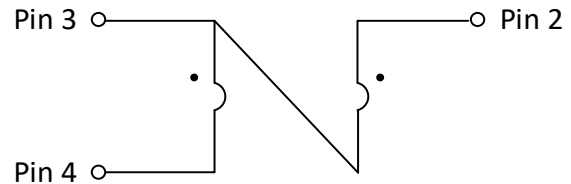
### Applications

- CATV

### Description

The MABA-010277 features excellent temperature stability in a surface mount package.

### Functional Schematic



### Pin Configuration<sup>3</sup>

Pin #	Function	Pin #	Function
1, 5, 6	No Connection	3	Input
2	Output 1	4	Output 2

### Electrical Specifications: Freq. = 5 - 2400 MHz, T<sub>A</sub> = +25°C, P<sub>IN</sub> = 0 dBm, Z<sub>0</sub> = 75 Ω

Parameter	Units	Min.	Typ.	Max.
Power Split	dB	—	3	—
Insertion Loss	dB	—	0.7	1.5
Isolation	dB	7	14	—
Input Return Loss	dB	9	14	—
Output Return Loss	dB	10	17	—
Amplitude Balance	dB	—	0.2	0.8
Phase Balance	Deg.	—	5	12

### Ordering Information<sup>1,2</sup>

Part Number	Package
MABA-010277-CT1880	2000 piece reel
MABA-010277-CT18TB	sample board

1. Reference Application Note M513 for reel size information.
2. All sample boards include x loose parts.

### Absolute Maximum Ratings<sup>5,6</sup>

Parameter	Absolute Maximum
Input Power	250 mW
DC Current	200 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

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

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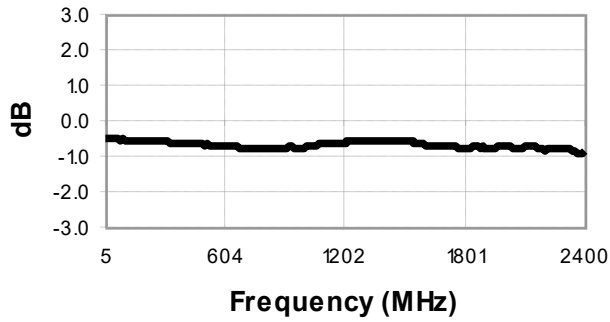


MABA-010277

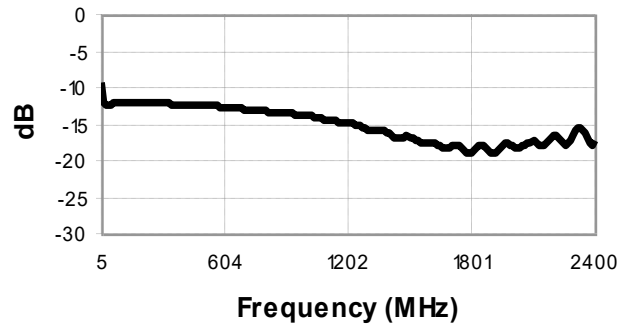
Rev. V3

## Typical Performance Curves<sup>5</sup>

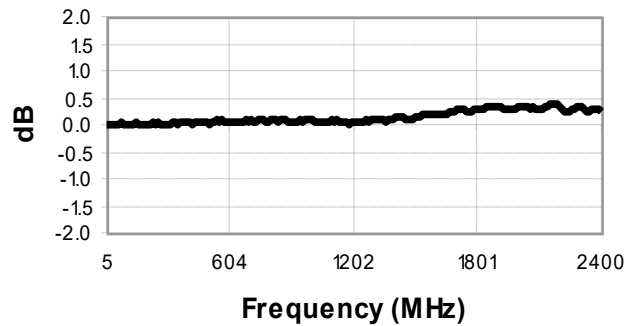
**Insertion Loss:**



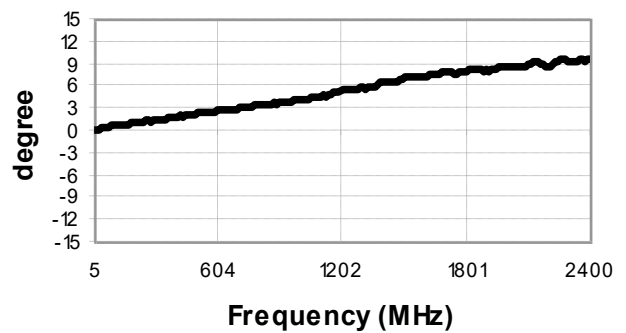
**Isolation:**



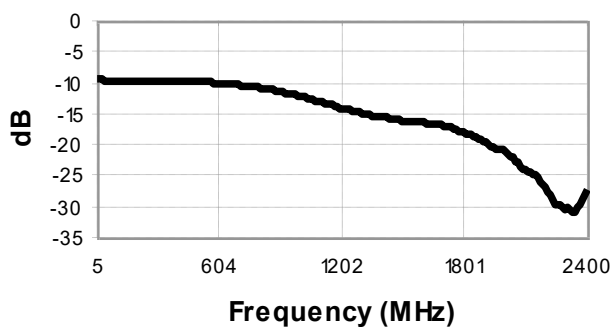
**Amplitude Balance:**



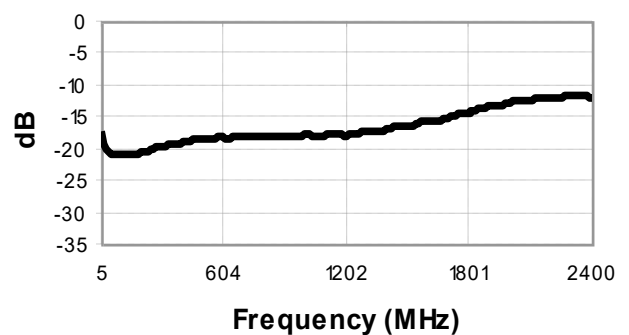
**Phase Balance:**



**Return Loss: Input**



**Return Loss: Output**



5. Full temperature plots available on request.

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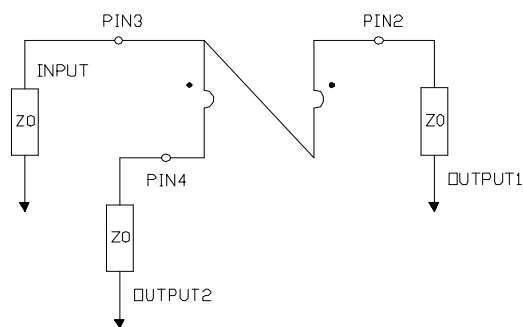
## 5 - 2400 MHz



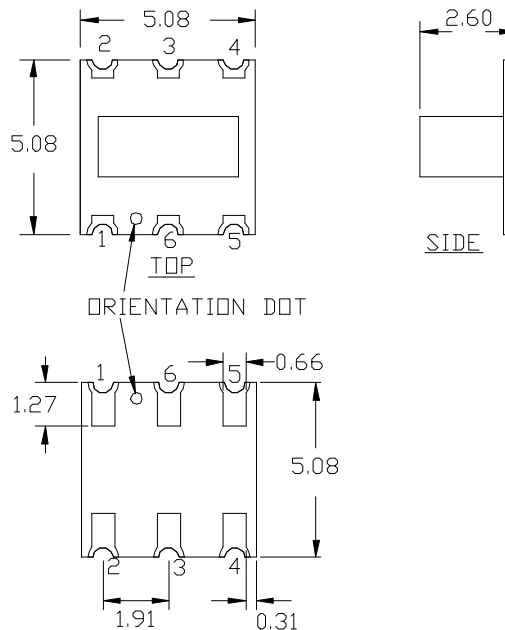
MABA-010277

Rev. V3

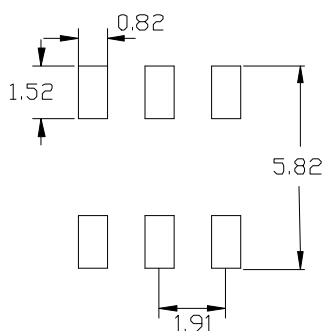
### Application Schematic



### Outline Drawing<sup>8,9,10,11</sup>



### Recommended Footprint<sup>6</sup>



6. 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.

8. Dimensions in mm.  
 9. Tolerance:  $\pm 0.2$  mm unless otherwise noted.  
 10. Model number and lot code are printed on the reel.  
 11. Plating finish: ENIG.

### Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Orientation	-	F2
Reference Application Note ANI-019 for orientation		

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