

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

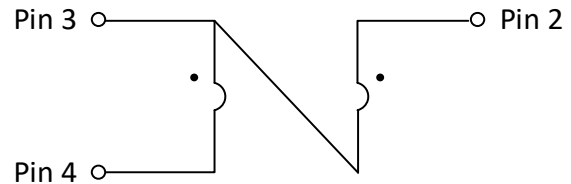
Applications

- CATV

Description

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

Functional Schematic



Pin Configuration³

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

Electrical Specifications: Freq. = 5 - 2400 MHz, T_A = +25°C, P_{IN} = 0 dBm, Z₀ = 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^{1,2}

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^{5,6}

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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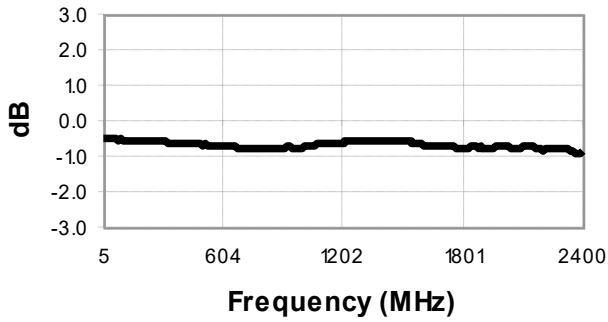


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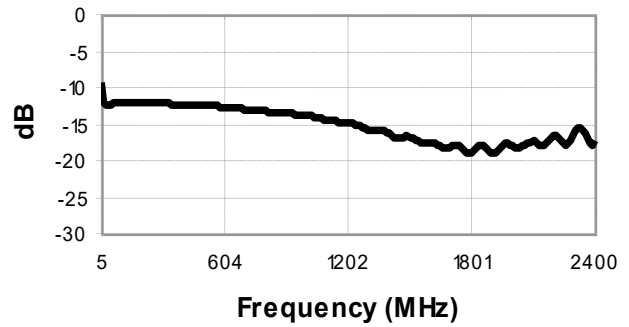
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Typical Performance Curves⁵

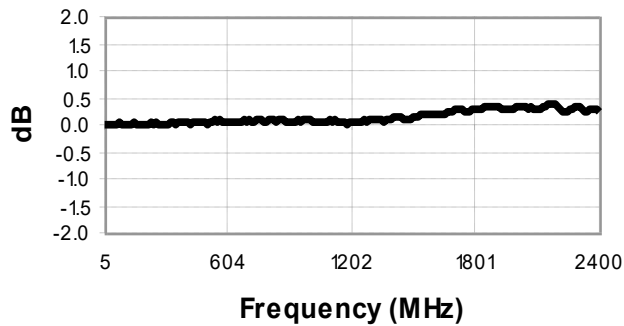
Insertion Loss:



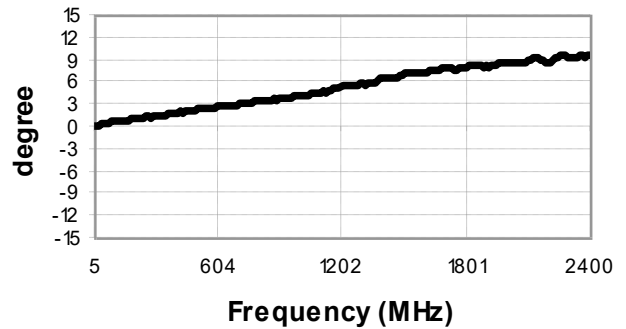
Isolation:



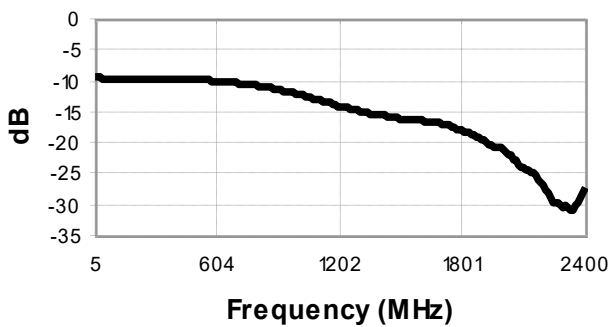
Amplitude Balance:



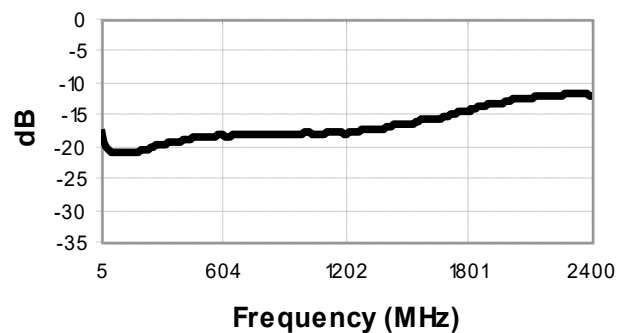
Phase Balance:



Return Loss: Input



Return Loss: Output



5. Full temperature plots available on request.

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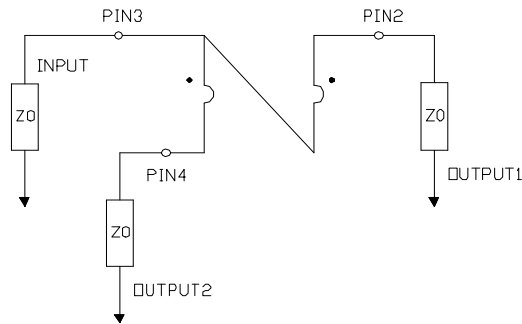
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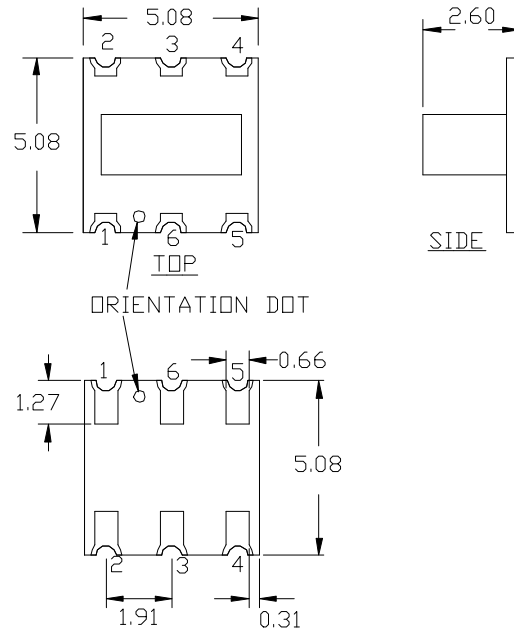
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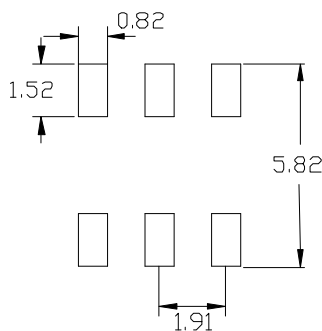
Application Schematic



Outline Drawing^{8,9,10,11}



Recommended Footprint⁶



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: ± 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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