# **MABA-011030**

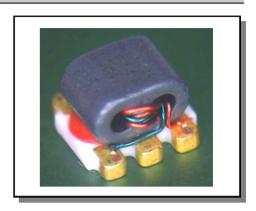


# Transformer, 1:1 Transmission Line 46MHz - 1002MHz

Rev. V2

#### **Features**

- Surface mount
- Wide Frequency Range
- 260°C reflow compatible
- RoHS\* compliant and lead free
- Available on Tape and Reel



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

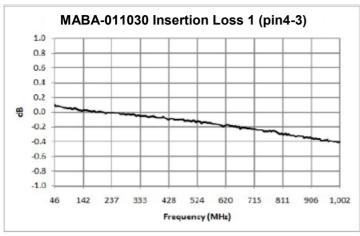
| Parameter                       | Conditions                   | Units    | Min          | Тур        | Max        |
|---------------------------------|------------------------------|----------|--------------|------------|------------|
| Frequency Range                 |                              | MHz      | 46           |            | 1002       |
| Impedance                       |                              | Ω        |              | 75         |            |
| Impedance Ratio                 |                              |          |              | 1:1        |            |
| Insertion Loss<br>(Pin4 - Pin3) | 46 - 1002MHz                 | dB       | -            | 0.1        | 0.6        |
| Insertion Loss<br>(Pin4 - Pin1) | 46 - 1002MHz                 | dB       | -            | 0.4        | 0.7        |
| Amplitude Balance               | 46 - 1002MHz                 | dB       | -0.8         | 0.3        | 0.8        |
| Phase Balance                   | 46 - 100MHz<br>100 - 1002MHz | 0        | -5.0<br>-2.5 | 2.4<br>1.2 | 5.0<br>2.5 |
| Input Return Loss<br>(Pin4)     | 46 - 300MHz<br>300 - 1002MHz | dB<br>dB | 25<br>17.5   | 42<br>30   | -          |

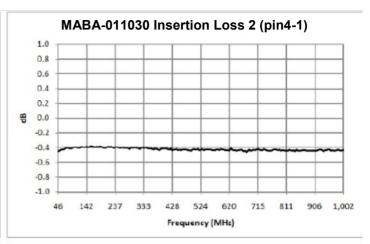


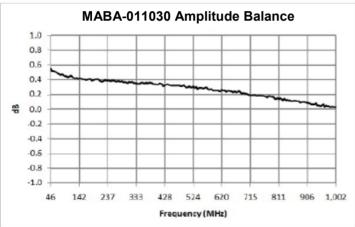
Transformer, 1:1 Transmission Line 46MHz - 1002MHz

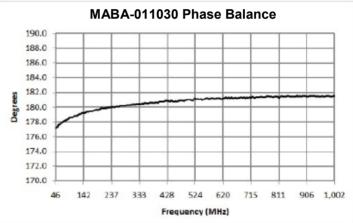
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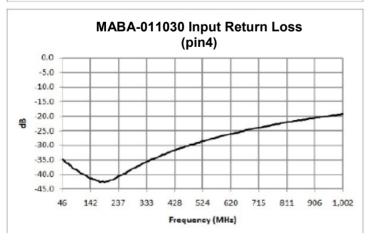
**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25$ °C,  $P_{in} = 0$ dBm









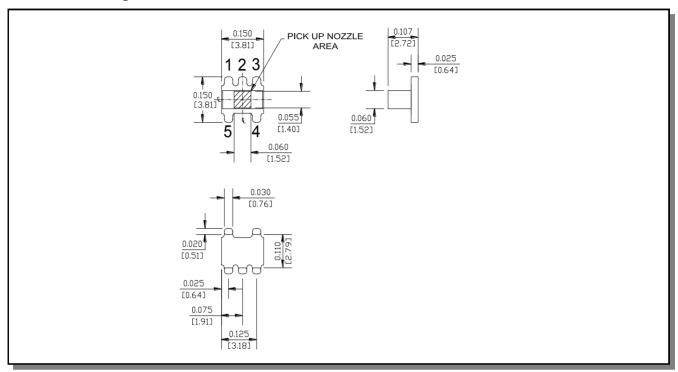




# Transformer, 1:1 Transmission Line 46MHz - 1002MHz

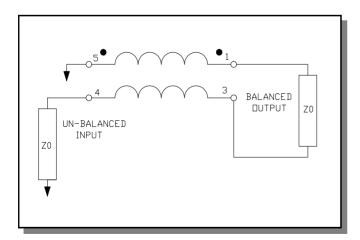
Rev. V2

#### **Outline Drawing**

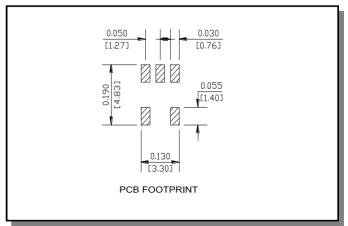


- 1. Dimensions in mm.
- 2. Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code printed on reel.
- 4. Plating finish: ENIG on both sides

### **Application Circuit**



#### **Recommended Footprint**





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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    | 4.05  |
| B <sub>0</sub>                                     | mm    | 4.30  |
| K <sub>0</sub>                                     | mm    | 3.45  |
| Orientation  | -     | F5    |
| Reference Application note ANI-019 for orientation |       |       |

#### **Ordering Information**

| Part Number | Description |  |  |
|-------------|-------------|--|--|
| MABA-011030 | Tape & Reel |  |  |
|             |             |  |  |

#### **Recommended Maximum Ratings**

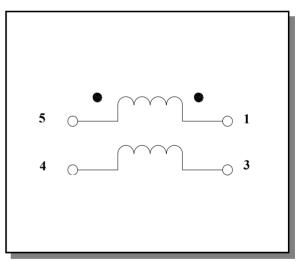
| Parameter                   | Units | Min | Max               |
|-----------------------------|-------|-----|-------------------|
| Input Power                 | mW    |     | +24dBm<br>(250mW) |
| DC Current (tested at 5V)   | mA    |     | 600               |
| Operating Temperature Range | °C    | -40 | +85               |

Temperature data available on request

### **Pin Configuration**

| Pin No. | Function                 |  |
|---------|--------------------------|--|
| 1       | Secondary Dot (Output 2) |  |
| 2       | Not Used (Ground)        |  |
| 3       | Secondary (Output 1)     |  |
| 4       | Primary (input)          |  |
| 5       | Primary Dot (ground)     |  |

#### **Schematic**



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