

## H3-MABA-011026

5-200MHz 75Ω 1:1 Balun

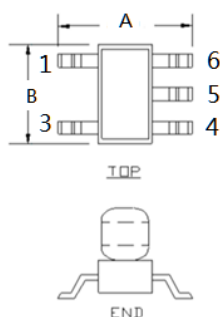
### APPLICATIONS

• Ideally suitable for CATV broadband applications.

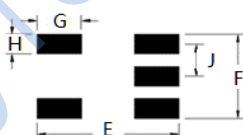
### FEATURES

- Surface mount
- Impedance ratio: 1:1
- Centre tap on secondary
- RoHS compliant and Pb free
- Available on tape and reel
- ideally suited for DOCSIS 3.0

### DIMENSIONS



### Land Pattern



|      |      |      |
|------|------|------|
| A    | B    | C    |
| 5.30 | 4.21 | 3.53 |
| D    |      |      |
| 1.50 |      |      |

|      |      |      |
|------|------|------|
| E    | F    | G    |
| 6.13 | 3.91 | 1.92 |
| H    | J    |      |
| 0.91 | 1.50 |      |

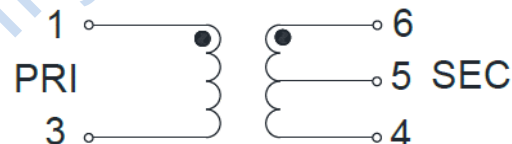
Unless otherwise stated dimensions are in mm

Tolerance: .xx ± 0.25, .xxx ± 0.05

### ELECTRICAL SPECIFICATIONS@25°C:

| Parameters (P#: ENA PORT)          | frequency band | Min. | Typ.            | Max. | Unit |
|------------------------------------|----------------|------|-----------------|------|------|
| Port Impedance, Z0 (P1 / P2 / P3)  |                |      | 75 / 37.5/ 37.5 |      | Ohm  |
| Insertion Loss                     | 5-60MHz        |      | 0.4             | 0.6  | dB   |
|                                    | 60-150MHz      |      | 0.5             | 0.7  | dB   |
|                                    | 150-200MHz     |      | 0.7             | 1.5  | dB   |
| Input Return Loss (Pin 1)          | 5-60MHz        | 20.0 | 28.0            |      | dB   |
|                                    | 60-200MHz      | 12.0 | 19.0            |      | dB   |
| Amplitude Balance                  | 5-60MHz        |      | 0.02            | 0.1  | dB   |
|                                    | 60-200MHz      |      | 0.25            | 0.5  | dB   |
| Phase Balance (ref value 180° Deg) | 5-60MHz        |      | 0.1             | 1.0  | Deg  |
|                                    | 60-200MHz      |      | 0.5             | 3.0  | Deg  |

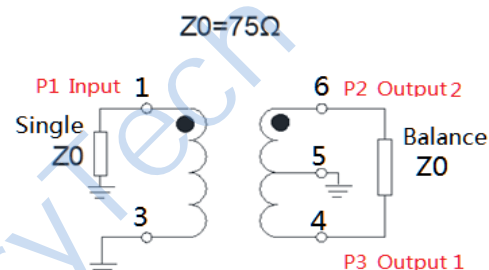
### FUNCTIONAL SCHEMATIC



### PIN CONFIGURATION

| Pin No. | Function                |
|---------|-------------------------|
| 1       | Primary Dot (input)     |
| 3       | Primary (ground)        |
| 4       | Secondary (Output1)     |
| 5       | Center Tap (Ground)     |
| 6       | Secondary Dot (Output2) |

### APPLICATION & TEST CIRCUIT



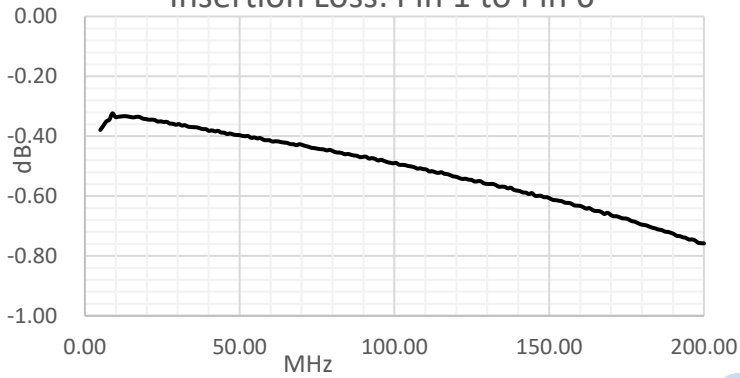
RF ports: P1/P2/P3

### ABSOLUTE MAXIMUM RATINGS

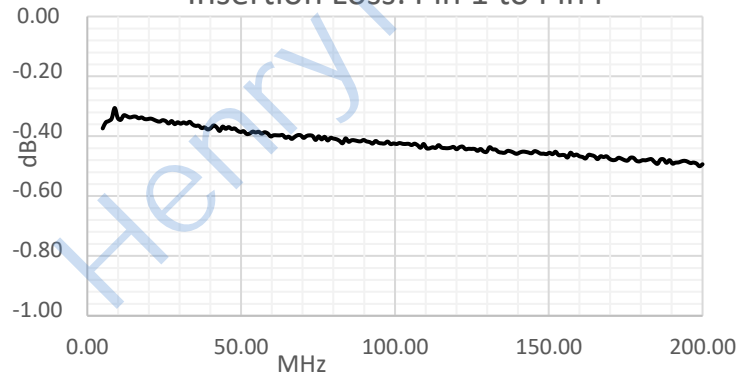
| Parameter                   | Value        |
|-----------------------------|--------------|
| Input RF Power(+28dBm)      | 631mW Max    |
| DC Current(tested at 5V)    | 600mA Max    |
| Operating Temperature Range | -40 to 105°C |

## TEST CURVE

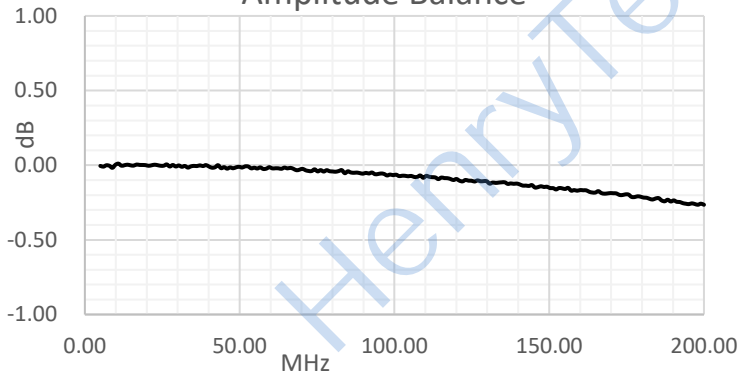
Insertion Loss: Pin 1 to Pin 6



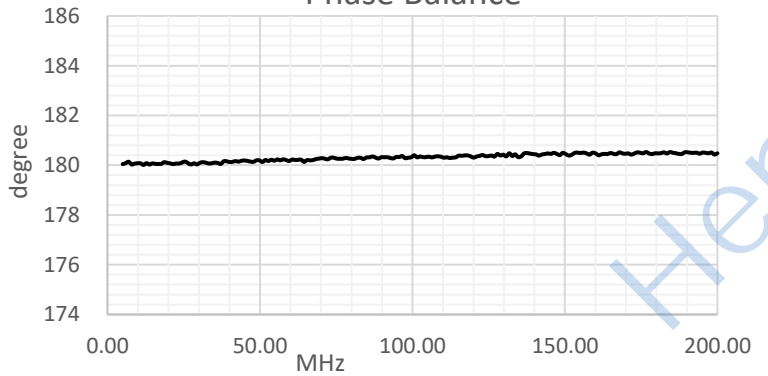
Insertion Loss: Pin 1 to Pin4



Amplitude Balance



Phase Balance



Input Return Loss: Pin 1

