

## H3-MABA-008354-CF4A40

5-200MHz 75Ω 4:1 Balun

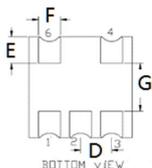
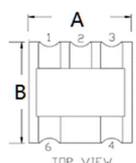
### APPLICATIONS

• Ideally suitable for CATV broadband applications.

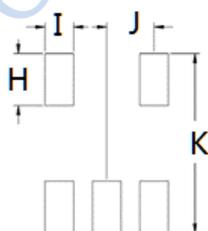
### FEATURES

- Surface mount
- Impedance ratio: 4:1
- Excellent performance under DC bias current, also when current flows is imbalanced through outputs
- RoHS compliant and Pb free
- Available on tape and reel

### DIMENSIONS



### Land Pattern



|      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|
| A    | B    | C    | D    | H    | I    | J    |
| 4.21 | 4.21 | 2.25 | 1.27 | 1.40 | 0.76 | 1.27 |
| E    | F    | G    |      | K    |      |      |
| 1.11 | 0.90 | 2.00 |      | 4.83 |      |      |

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, Z <sub>0</sub> (P1 / P2 / P3) |                |      | 75 / 9.375/ 9.375 |      | Ohm  |
| Insertion Loss                                | 5-35MHz        |      | 0.8               | 1.1  | dB   |
|   | 35-85MHz       |      | 1.1               | 1.6  | dB   |
|   | 85-200MHz      |      | 2.2               | 3.6  | dB   |
| Phase Balance                                 | 5-85MHz        |      | 2.0               | 4.0  | Deg  |
|   | 85-200MHz      |      | 4.0               | 5.0  | Deg  |
| Amplitude Balance                             | 5-85MHz        |      | 0.2               | 0.4  | dB   |
|   | 85-200MHz      |      | 0.4               | 0.8  | dB   |
| Input Return Loss (pin6)                      | 5-35MHz        | 15.0 | 19.0              |      | dB   |
|   | 35-85MHz       | 10.0 | 13.0              |      | dB   |
|   | 85-200MHz      | 5.0  | 8.0               |      | dB   |

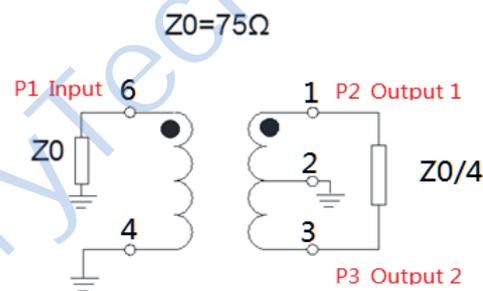
### FUNCTIONAL SCHEMATIC



### PIN CONFIGURATION

| Pin No. | Function                |
|---------|-------------------------|
| 1       | Secondary Dot (output1) |
| 2       | Center tap (ground)     |
| 3       | Secondary (output2)     |
| 4       | Primary (ground)        |
| 5       | Not used(ground)        |
| 6       | Primary Dot (input)     |

### APPLICATION & TEST CIRCUIT

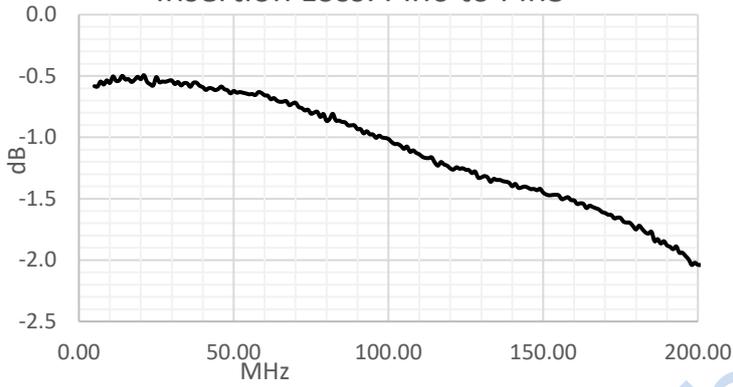


### ABSOLUTE MAXIMUM RATINGS

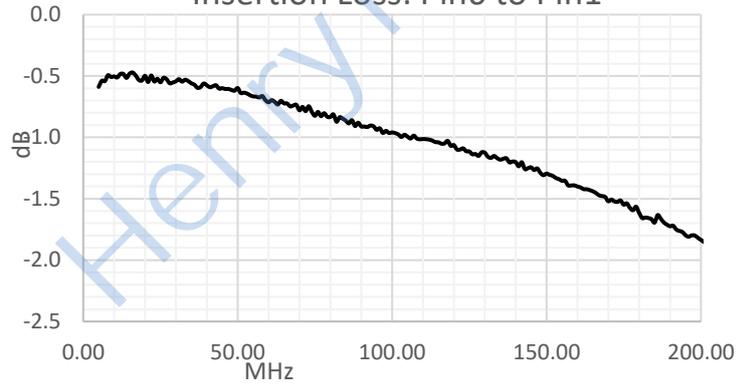
| Parameter                   | Value       |
|-----------------------------|-------------|
| Input RF Power              | 1W Max      |
| DC current                  | 250mA Max   |
| Operating Temperature Range | -40 to 85°C |
| Storage Temperature Range   | -40 to 85°C |

## TEST CURVE

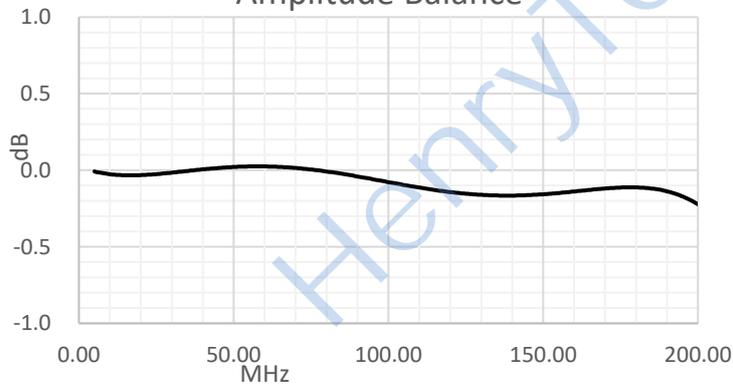
Insertion Loss: Pin6 to Pin3



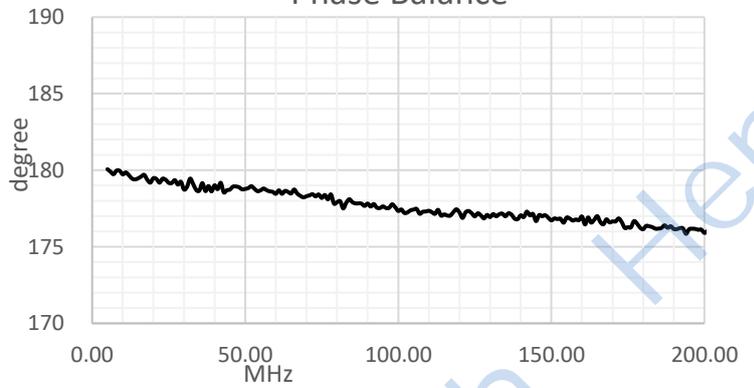
Insertion Loss: Pin6 to Pin1



Amplitude Balance



Phase Balance



Output Return Loss

