

1:1 Transformer with tap  
50-870MHz

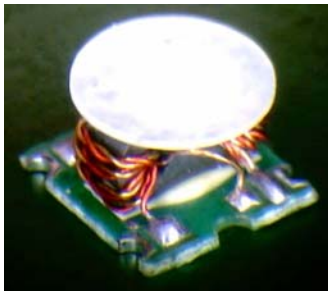
MABA-008184-CT1760  
V1

**Features**

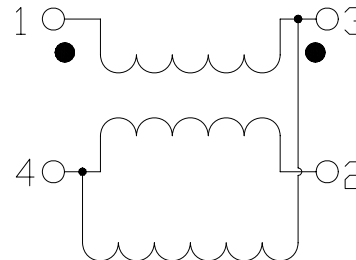
- Surface Mount
- 1:1 Impedance
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of ET1-1-75-3
- Available on Tape and Reel. Reel quantity 900

**Description**

M/A-COM's MABA-008184-CT1760 is a 1:1 Transformer with tap in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



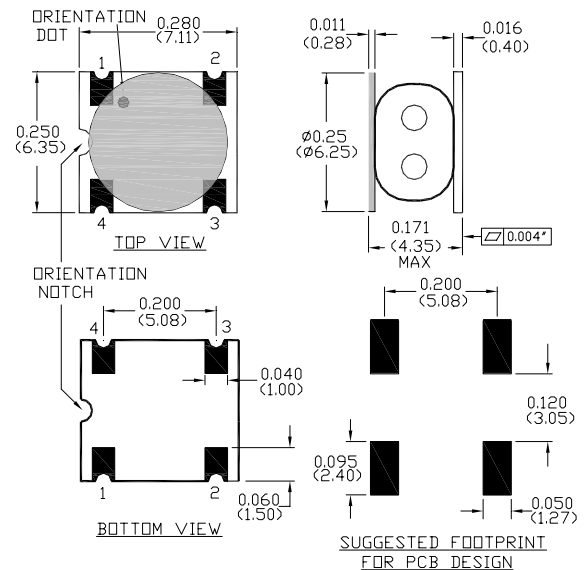
**Schematic**



**Pin Configuration**

Pin No.	Function
1	Input
2	Output Coupled Leg
3	Output Thru Leg
4	Ground

**Case Style: SM-118A**



**Ordering Information**

Part Number	Package
MABA-008184-CT1760	900
MABA-008184-CT17TB	Customer Test Board

Note: Reference Application Note **M513** for reel size information.

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

Note: SM-118-A incorporates the plastic disk & also has the dot removed from the bottom of the PCB

- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

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**Electrical Specifications:  $T_A = 25^\circ\text{C}$ , Power Level = 0dBm,  $Z_0 = 75\Omega$  <sup>1</sup>**

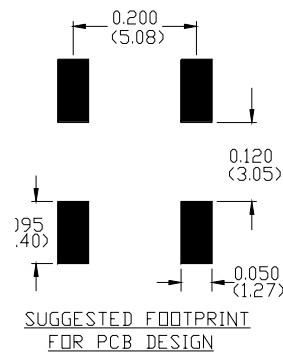
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss Pin 1 - 2 (Coupled)	50 MHz	dB	-	0.43	0.83
	870 MHz	dB	-	0.23	0.43
Insertion Loss Pin 1 - 3 (Thru)	50 MHz	dB	-	0.23	0.43
	870 MHz	dB	-	0.73	1.3
Amplitude Imbalance	50 MHz	dB	-0.6	0.2	0.6
	870 MHz	dB	-0.73	0.4	0.73
Phase Imbalance	50 - 870 MHz	°	-3.23	1.2	3.23
Input Return Loss Pin 4	50 - 870 MHz	dB	18	22	-

### Absolute Maximum Ratings <sup>1,2</sup>

Parameter	Absolute Maximum
RF Power	250mW
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

### Recommended PCB Configuration

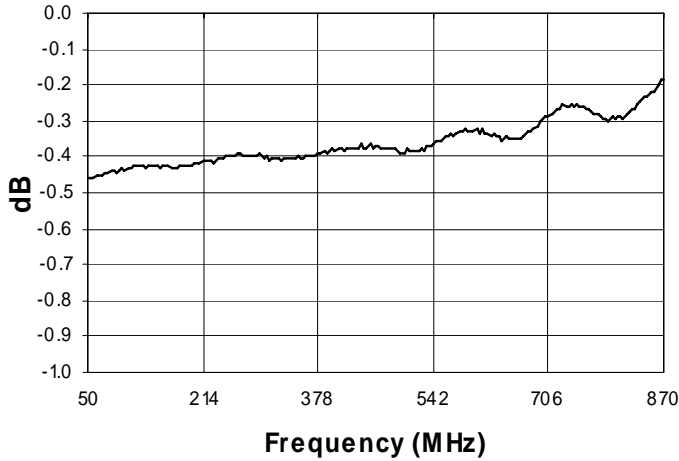


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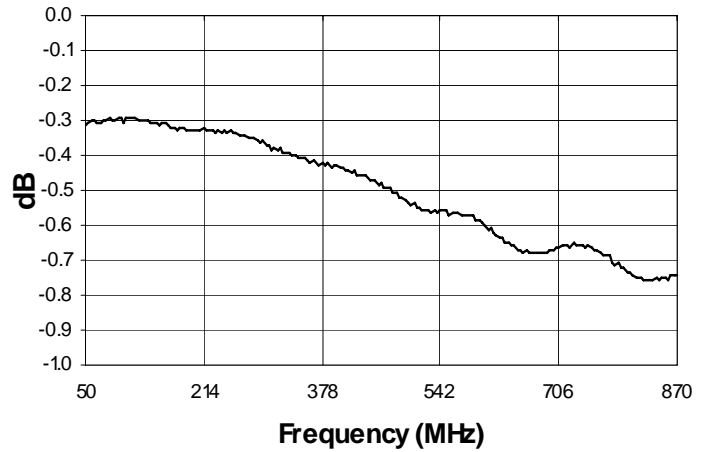
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Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$  <sup>1</sup>

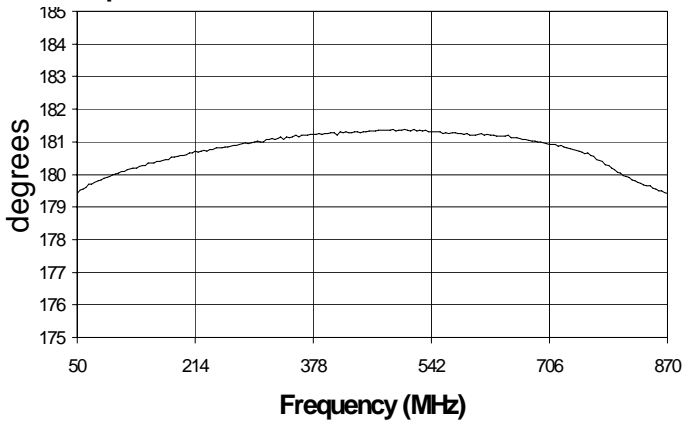
Insertion Loss Pin 1-2



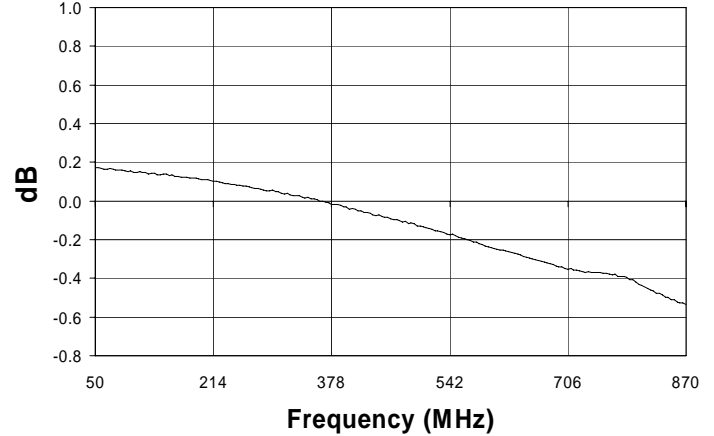
Insertion Loss Pin 1-3



Amplitude Imbalance



Phase Imbalance



Return Loss: Input

