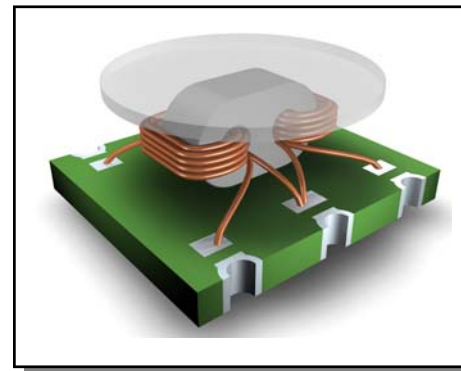


Features

- ◆ 1:2 impedance ratio
- ◆ Transmission line Transformer
- ◆ Surface mount
- ◆ Available on tape and reel
- ◆ 260°C reflow compatible
- ◆ RoHS Compliant and Pb free
- ◆ Excellent temperature stability
- ◆ Can be used on 50Ω and 75Ω systems



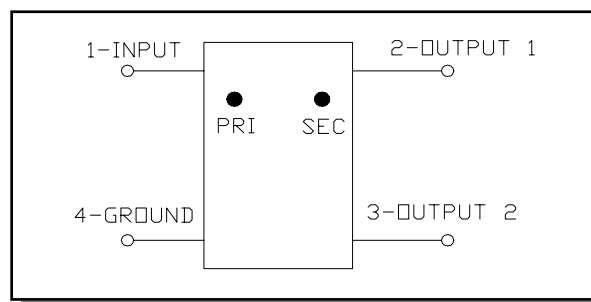
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

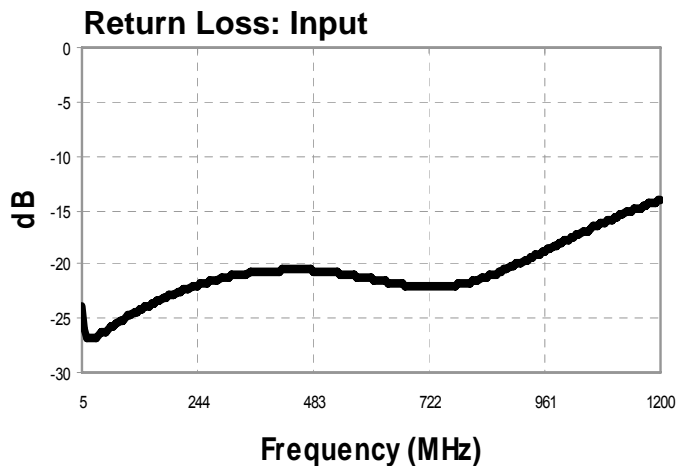
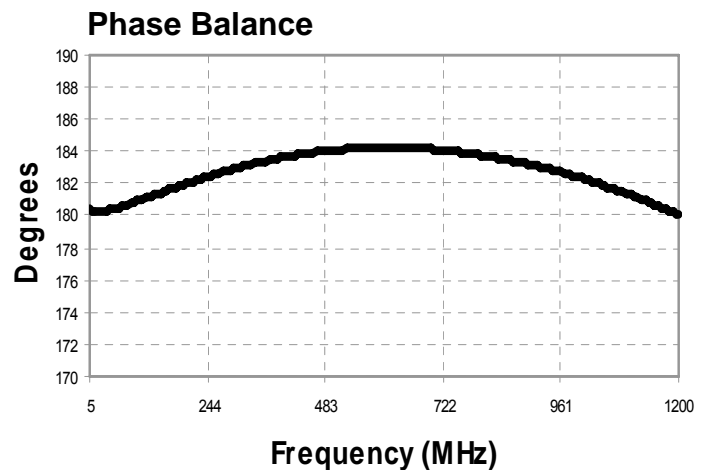
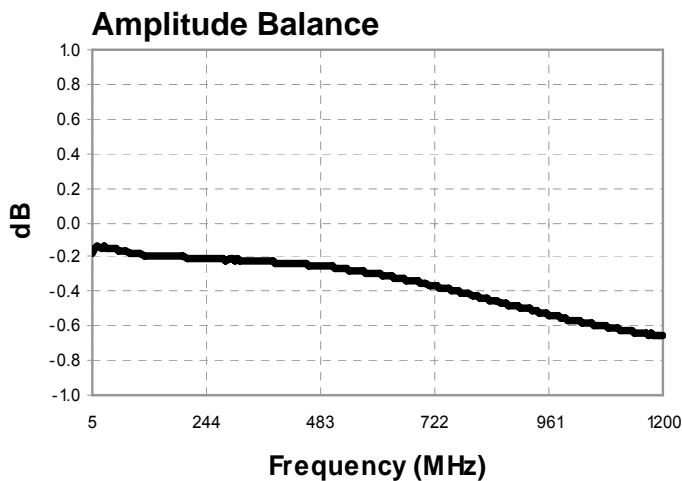
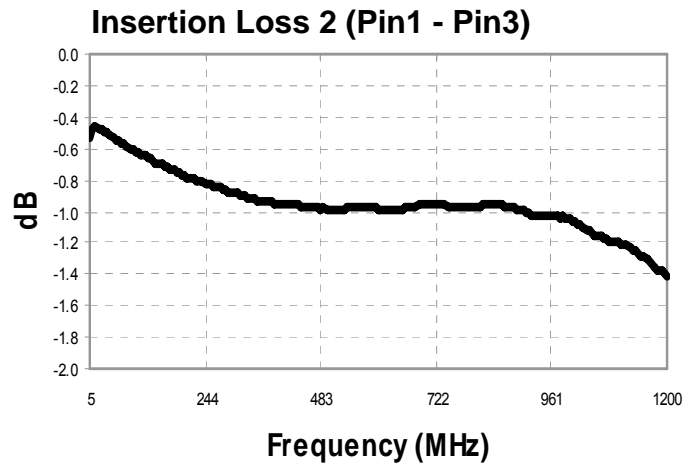
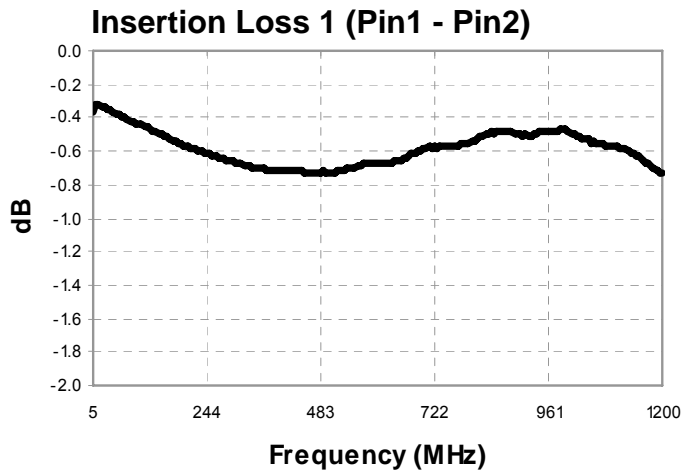
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		1200
Impedance		Ω		75	
Impedance Ratio				1:2	
Insertion Loss 1 (Pin 1 to pin 2)	5 - 50 MHz	dB	-	0.35	0.50
	50 - 1000 MHz	dB	-	0.60	1.10
	1000 -1200 MHz	dB	-	0.60	1.40
Insertion Loss 2 (Pin 1 to pin 3)	5 - 50 MHz	dB	-	0.5	0.70
	50 - 1000 MHz	dB	-	0.9	1.50
	1000 -1200 MHz	dB	-	1.8	2.20
Amplitude Balance	5 - 50 MHz	dB	-	± 0.10	± 0.40
	50 - 1000 MHz	dB	-	± 0.30	± 1.50
	1000 - 1200 MHz	dB	-	± 0.60	± 1.80
Phase Balance	5 - 50 MHz	$^\circ$	-	± 0.2	± 1.50
	50 - 1200 MHz	$^\circ$	-	± 3.0	± 7.00
Input Return Loss (Pin 1)	5 - 50 MHz	dB	22	25	-
	50 - 1000 MHz	dB	14	22	-
	1000 - 1200 MHz	dB	8	17	-

Pin Configuration

Pin No.	Function
1	Input (PRI dot)
2	Output 1 (SEC dot)
3	Output 2 (SEC)
4	Ground (PRI)

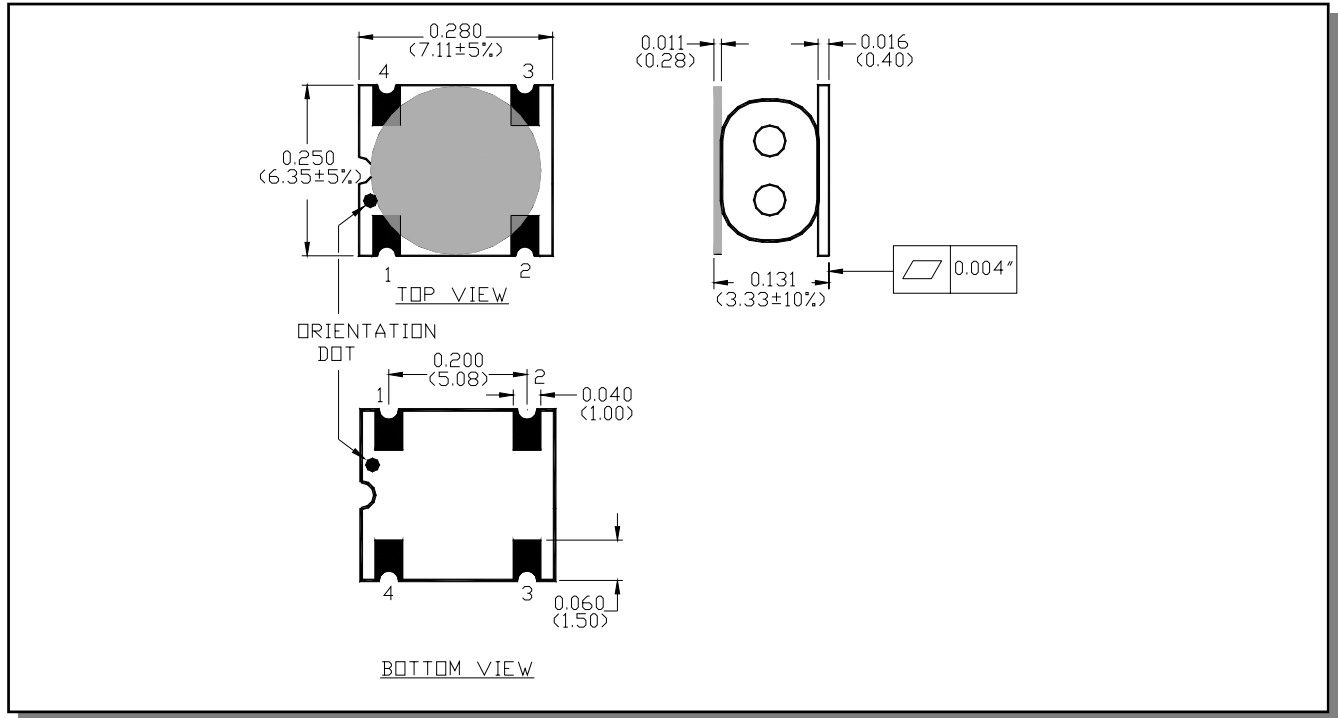
Schematic





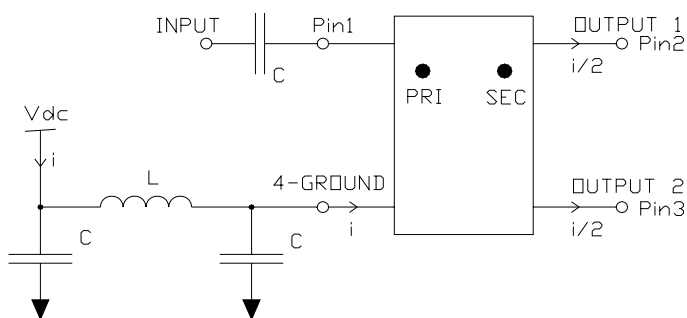
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Outline Drawing



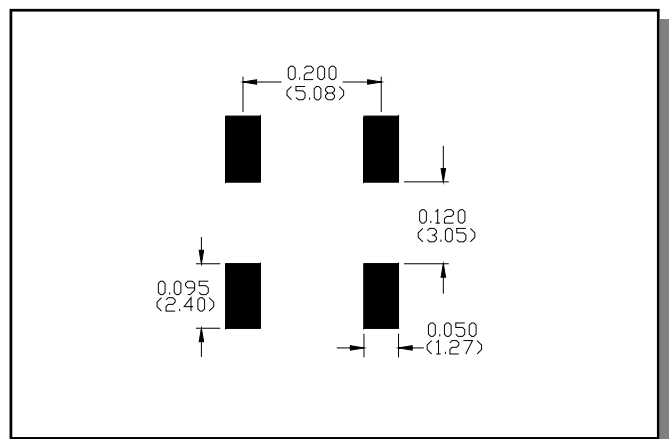
1. Dimensions in mm.
2. Tolerance: ±0.2mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1 μm gold over 3 to 6 μm nickel

Recommended DC bias circuit



Cap/Ind	5-50MHz	50-1200MHz
C	100nF	10nF
L	10μH	1μH

Recommended Footprint



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Ao	mm	6.70
Bo	mm	7.50
Ko	mm	3.60
Orientation	-	F33
Reference Application Note ANI-019 for orientation		

Ordering Information

Part Number	Description
MABA-007681-CT2010	Tape & Reel
MABA-007681-CT20TB	Customer Evaluation Board

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		600
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

ECO History

Rev	Date	Description	ECO
V1	30 Jan 2008	Created datasheet	20074250
V2	11 Jan 2011	Change DC current specification from 30 to 600mA	20102299

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[MACOM:](#)

[MABA-007681-CT2010](#)