

E-Series RF 1:4 Flux Coupled Step-up Transformer

2.0 – 800 MHz

MABAES0010
V2

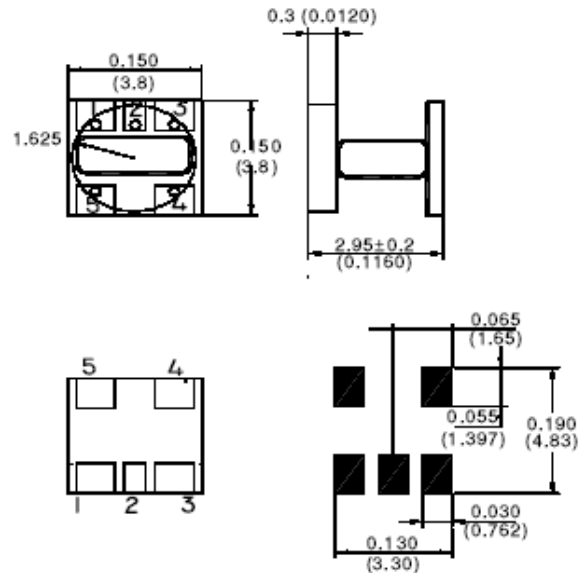
Features

- 1:4 Impedance Ratio
- Surface Mount
- CT on Secondary
- Tape and reel packaging available

Description

M/A-COM's MABAES0010 is a 1:4 RF Flux Coupled step-up transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.

SM-119 Package



Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$ ¹

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	2.0 - 800	MHz	—	—	—
Insertion Loss	$F_L - f_U$	10 - 100	dB	—	—	2.0
		5 - 600	dB	—	—	2.2
		2 - 800	dB	—	—	3.0
Amplitude Unbalance	—	10 - 100	dB	—	—	0.25
		2 - 800	dB	—	—	1.3
Phase Imbalance	—	10 - 500	Degrees	—	—	3.0
		2 - 800	Degrees	—	—	10.0

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
DC Power	250 mW
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

1. Operation of this device above any one of these parameters may cause permanent damage.

Ordering Information

Part Number	Package
MABAES0010	Tape and Reel (2000 piece Reel)

¹ **ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
 • **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.

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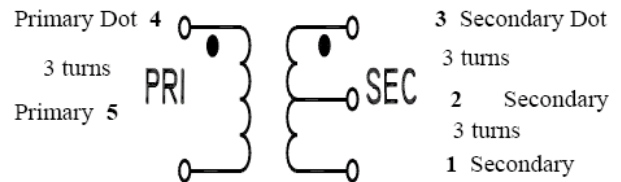
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Pin Configuration

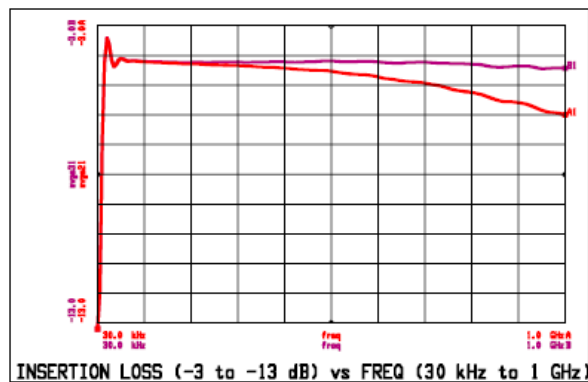
Pin No.	Function
1	Secondary
2	Secondary CT
3	Secondary Dot
4	Primary Dot
5	Primary

Schematic

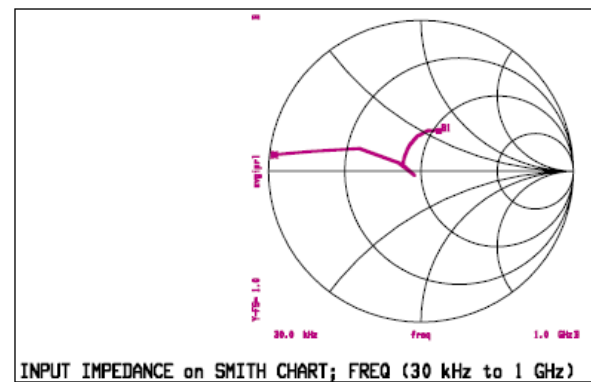


Typical Performance Curves

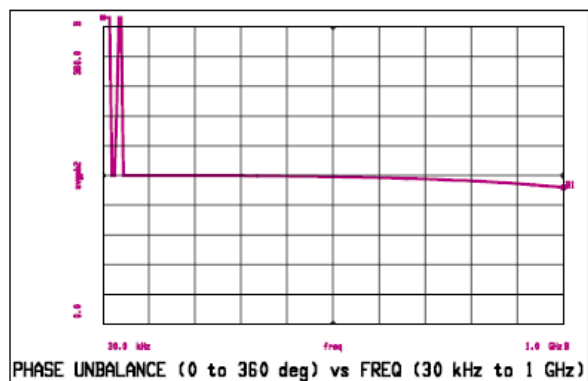
Insertion Loss



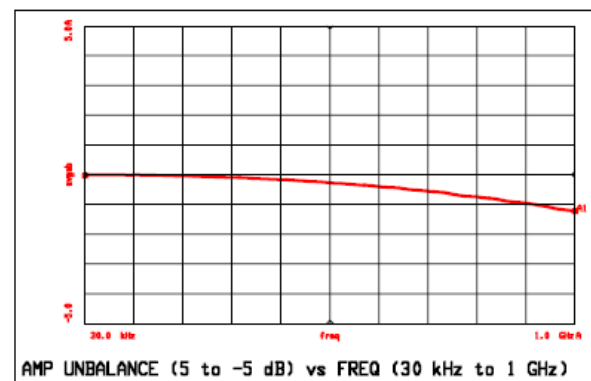
Input Impedance



Phase Unbalance



Amplitude Unbalance



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.

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