

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

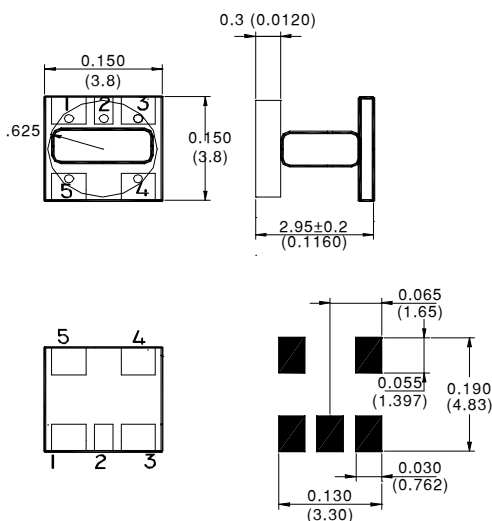


Features

- Surface Mount
- 1:4 Impedance Ratio
- CT on Secondary
- Available on Tape & Reel



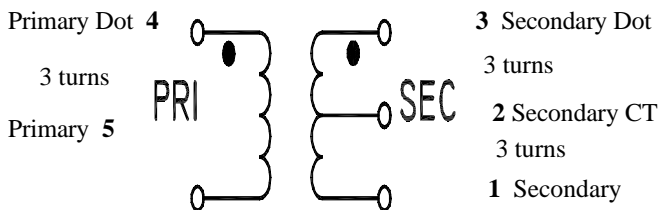
SM-119 Package



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.

Schematic



Electrical Specifications @25°C

Parameter	Units	Nominal	Maximum	Mean (x)	Sigma (σ)
Frequency Range 2.0 - 800	MHz	—	—	—	—
Insertion Loss (f _L - f _U)					
10 - 100 MHz	dB	—	2.0	—	—
5.0 - 600 MHz	dB	—	2.2	1.21	0.032
2.0 - 800 MHz	dB	—	3.0	—	—
Amplitude Unbalance					
10 - 100 MHz	dB	—	0.25	—	—
2.0 - 800 MHz	dB	—	1.3	—	—
Phase Unbalance					
10 - 500 MHz	Degrees	—	3.0	—	—
2.0 - 800 MHz	Degrees	—	10	—	—

Note: Mean and Sigma calculated from average loss at @ 105 MHz.

Please Note that the photograph above indicates typical package only, not actual unit.

V1.00 S 1516A



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Absolute Maximum Ratings

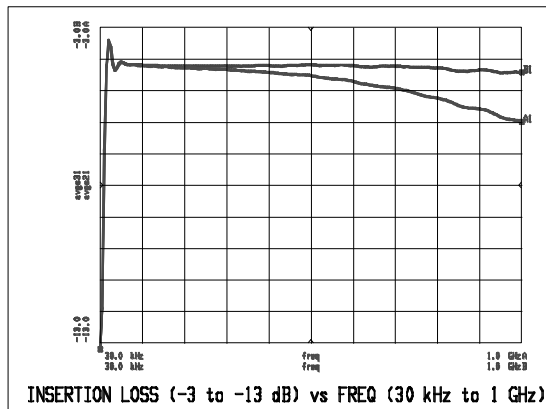
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-20°C to +85°C
Storage Temperature	-20°C to +85°C

Functional Configuration

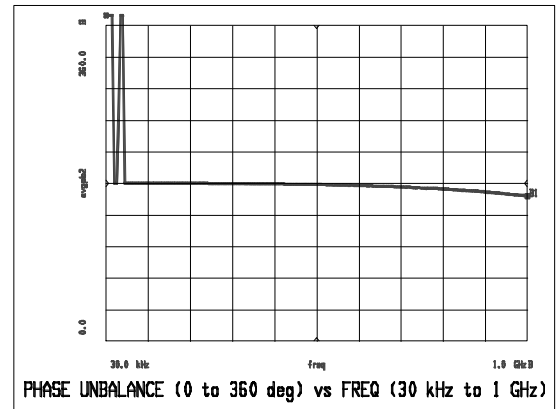
Function	Pin No.
Secondary	1
Secondary CT	2
Secondary Dot	3
Primary Dot	4
Primary	5

Typical Performance Over Extended Bandwidth (30kHz - 1.0GHz)

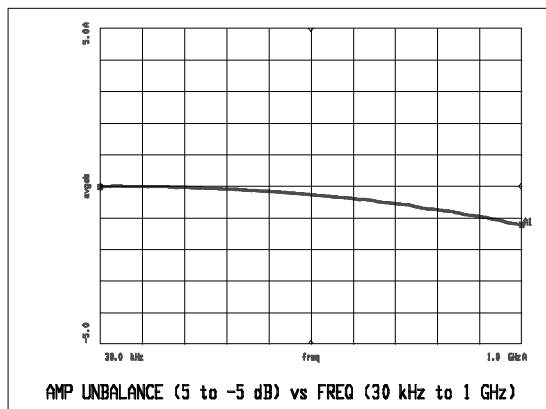
Insertion Loss



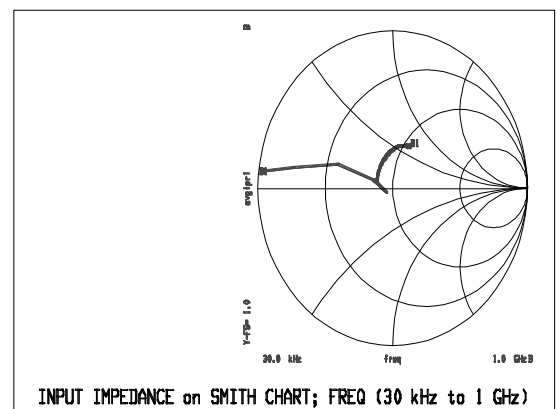
Phase Unbalance



Amplitude Unbalance



Input Impedance



Note: All measurements performed on Hewlett Packard 8753D Network Analyzer (201 sample points, linear scale) in a 50 ohm coplanar waveguide environment. Tables created using MDS software.