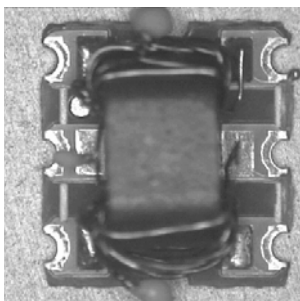


# E-Series RF 9:1 Transmission line Step-up Transformer 5 - 220 MHz



## Features

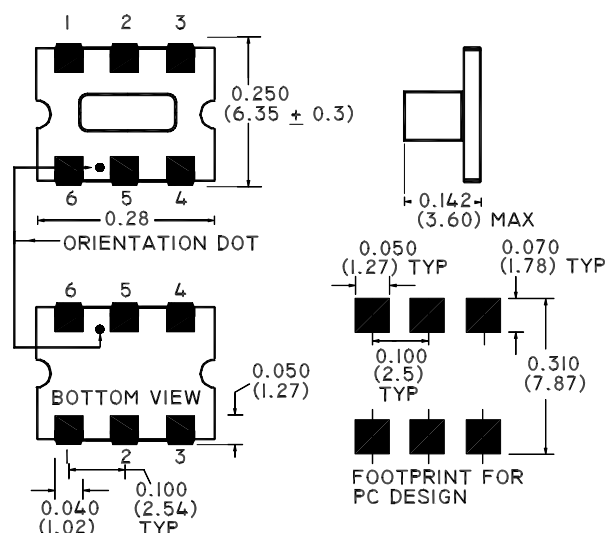
- Surface Mount
- 9:1 Impedance Ratio
- Available on Tape and Reel



## Description

M/A-COM's MABAES0022 is a 9:1 RF transmission line transformer in a low cost, surface mount package. Impedance 75 Ohms to 337 Ohms.

## SM-55 Package



## Electrical Specifications @25°C

Parameter	Units	Typical	Minimum	Maximum
Frequency Range 5-220	MHz	—	—	—
Insertion Loss 1 {From Pin 6 to 1 & From Pin 4 to 3} (Short Connections)	5 - 155 MHz	0.2	—	0.5
	155-220 MHz	0.8	—	1.0
Amplitude Imbalance 1	5 - 55 MHz	0.03	—	0.2
	55 -155 MHz	0.04	—	0.3
	155 -220 MHz	0.14	—	0.5
Phase Imbalance 1	5-55 MHz	0.5	—	1.0
	55 -155 MHz	1.1	—	2.0
	155 -220 MHz	1.5	—	2.5
Insertion Loss 2 {From Pin 6 to 3 & From Pin 4 to 1} (Cross connections)	5 - 55 MHz	0.8	—	1.0
	55-100 MHz	1.0	—	1.2
	100-220 MHz	1.4	—	1.8
Amplitude Imbalance 2	5 - 55 MHz	0.03	—	0.2
	55 -155 MHz	0.04	—	0.3
	155 -220 MHz	0.14	—	0.5
Phase Imbalance 2	5-55 MHz	1.0	—	2.0
	55 -100 MHz	1.4	—	3.0
	100 -220 MHz	2.5	—	4.0
Input Return Loss	5-220 MHz	10	8	—

S 1617 G

**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](http://www.macomtech.com) for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make

V1.

1

Functional Configuration

Absolute Maximum Ratings

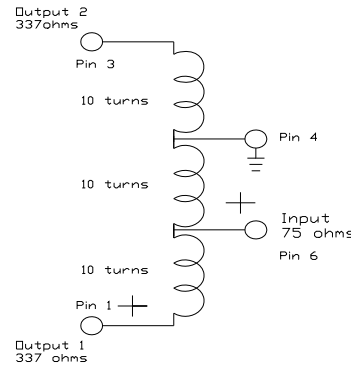
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-20°C to +85°C
Storage Temperature	-20°C to +85°C

Function	Config 1 Pin No.	Config 2 Pin No.
Input	6	4
Output 1	1	3
Output 2	3	1
Ground	4	6
Not Connected	2,5	2,5

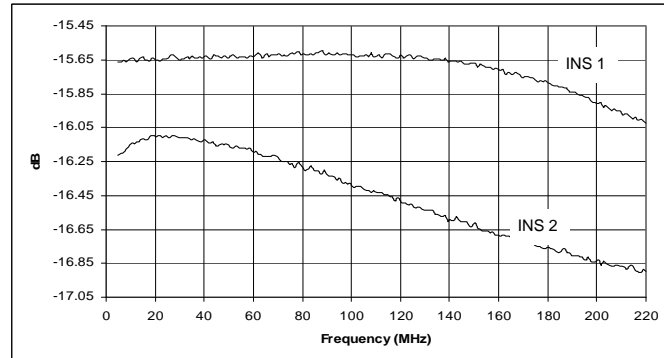
Note: Terminate unused output  
Schematic For Config 1

Typical Performance @ +25°C

Insertion Loss 1 & 2 (Reference Level -15.45dB)

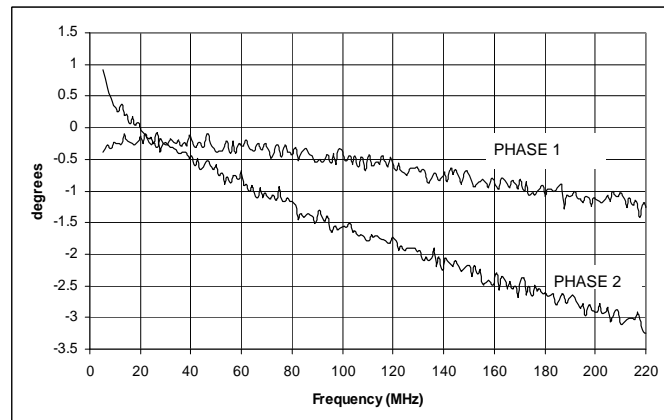
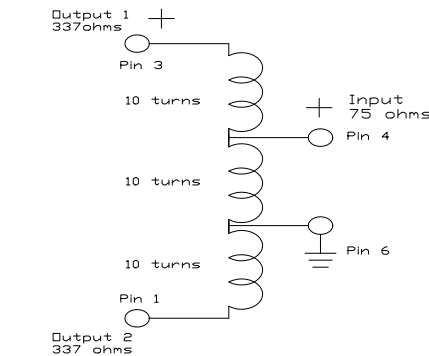


When Pin 4 is the I/P Pin 6 is ground  
And when Pin 6 is the I/P Pin 4 is ground.



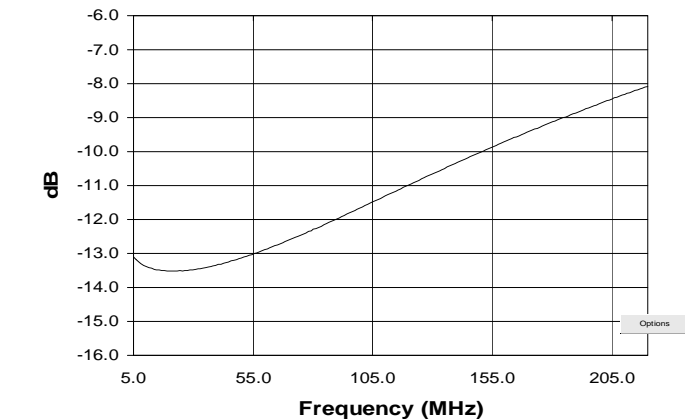
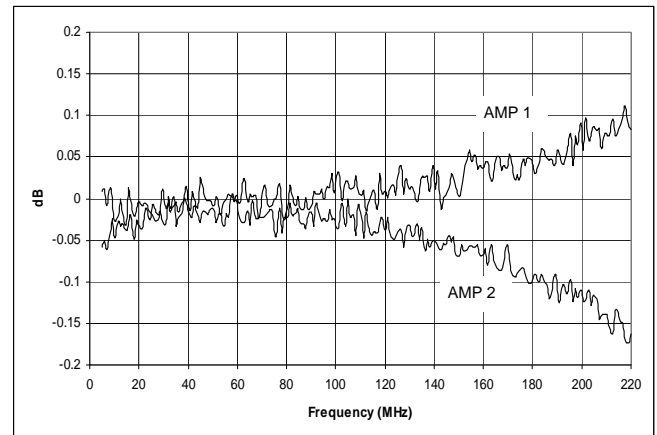
Schematic For Config 2

Phase Imbalance



Amplitude Imbalance

Input Return Loss



S 1617 G

**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](http://www.macomtech.com) for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make