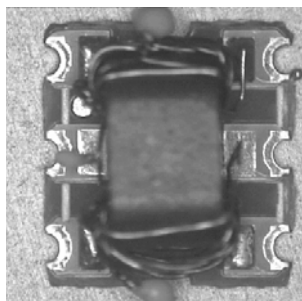


# E-Series RF 9:1 Transmission line Step-up Transformer 5 - 220 MHz



## Features

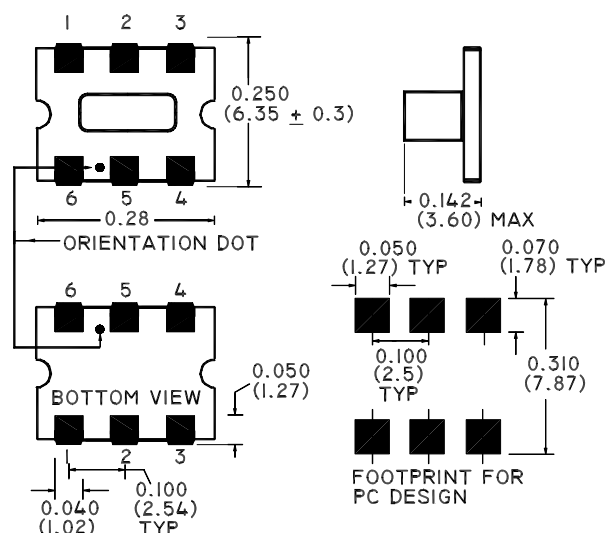
- Surface Mount
- 9:1 Impedance Ratio
- Available on Tape and Reel



## 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	dB	0.2	—	0.5
155-220 MHz	dB	0.8	—	1.0
Amplitude Imbalance 1				
5 - 55 MHz	dB	0.03	—	0.2
55 - 155 MHz	dB	0.04	—	0.3
155 - 220 MHz	dB	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	dB	0.8	—	1.0
55-100 MHz	dB	1.0	—	1.2
100-220 MHz	dB	1.4	—	1.8
Amplitude Imbalance 2				
5 - 55 MHz	dB	0.03	—	0.2
55 - 155 MHz	dB	0.04	—	0.3
155 - 220 MHz	dB	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	dB	10	8	—

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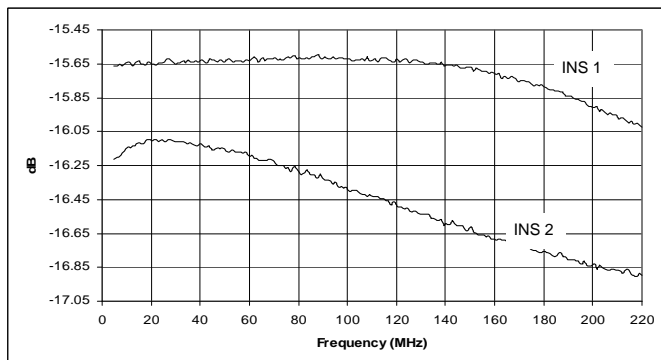
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## Absolute Maximum Ratings

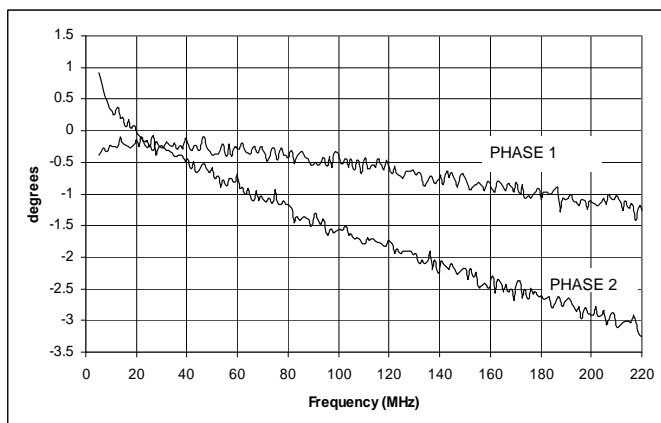
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-20°C to +85°C
Storage Temperature	-20°C to +85°C

## Typical Performance @ +25°C

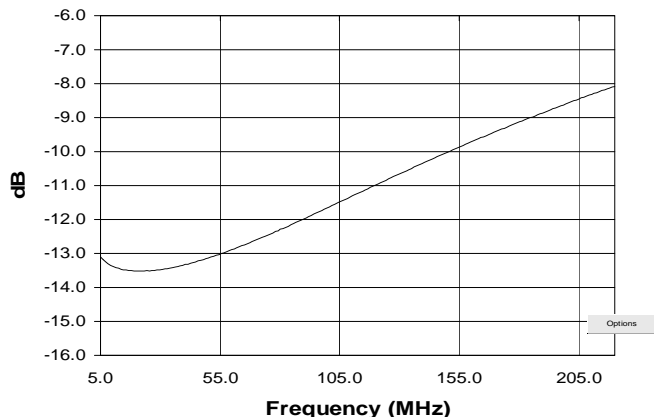
### Insertion Loss 1 & 2 (Reference Level -15.45dB)



### Phase Imbalance



### Input Return Loss

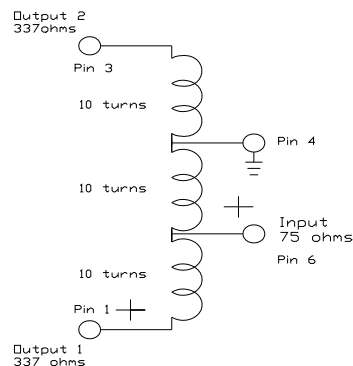


## Functional Configuration

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

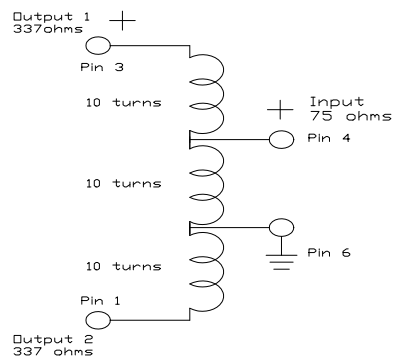
Note: Terminate unused output

### Schematic For Config 1

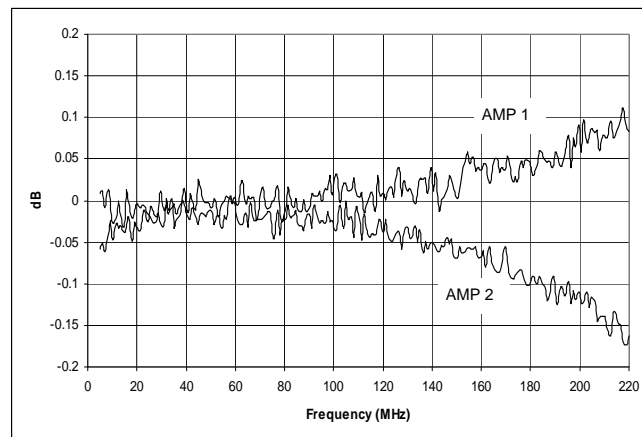


When Pin 4 is the I/P Pin 6 is ground  
And when Pin 6 is the I/P Pin 4 is ground.

### Schematic For Config 2



### Amplitude Imbalance



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