

# MABA-007569-ETK42T



## E-Series RF 1:4 Transmission Line Step-up Transformer 2-1000 MHz

M/A-COM Products  
Rev. V2

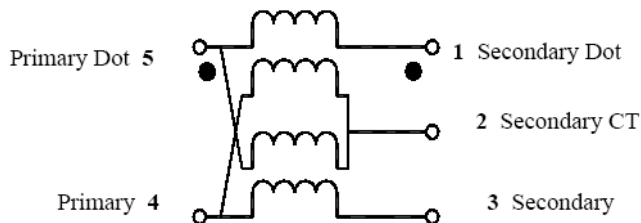
### Features

- Surface mount
- Wide frequency range
- 1:4 impedance
- CT on Secondary
- Lead Free
- RoHS\* Compliant and is 260°C reflow compatible.
- Available on Tape and Reel, reel quantity 2000

### Description

M/A-COM's MABA-007569-ETK42T is a RoHS compliant 1:4 RF transmission line transformer in a low cost, surface mount package. The windings of the MABA-007569-ETK4-2T are welded to the package substrate for improved reliability and to eliminate lead content. Ideally suited for high volume cellular and wireless application. Parts are packaged in tape & reel.

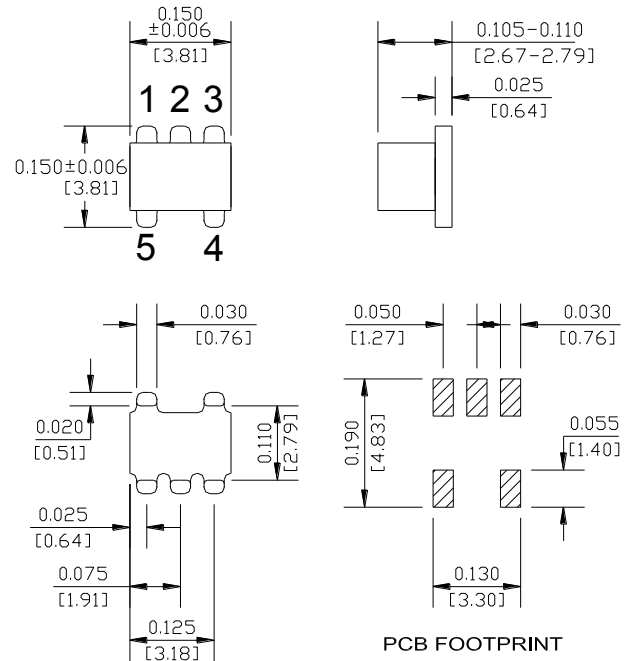
### Schematic



### Pin Configuration

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

### SM-22 package



### Ordering Information

Part Number	Package
MABA-007569-ETK4-2T	2000 piece reel

Note: Reference Application Note M513 for reel size information.

### Absolute Maximum Ratings<sup>1,2</sup>

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

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.

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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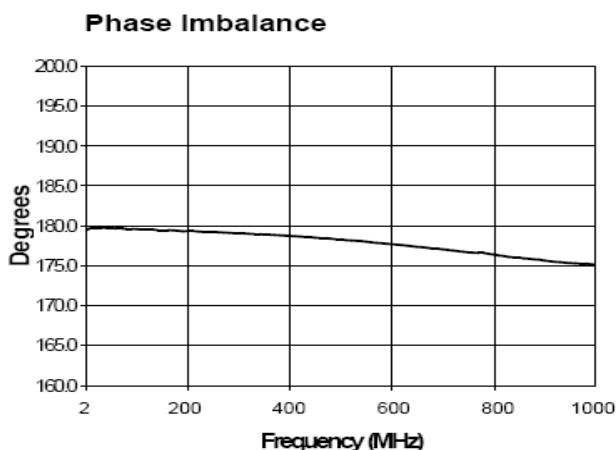
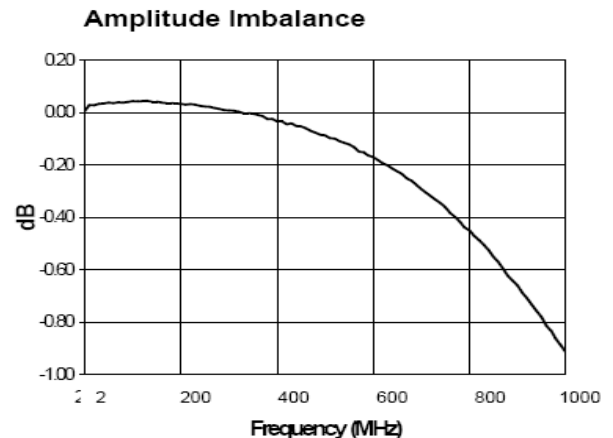
## E-Series RF 1:4 Transmission Line Step-up Transformer 2-1000 MHz

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Rev. V2

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

Parameter	Test Conditions	Test Conditions	Units	Min	Typ	Max
RF Frequency	-	2.0 - 1000	MHz	-	-	-
Insertion Loss	-	5.0 - 250	dB	-	0.32	1.0
		3.0 - 500	dB	-	-	2.0
		2.5 - 700	dB	-	-	3.0
		2.0 - 1000	dB	-	-	4.0
Amplitude Unbalance	-	2.0 - 300	dB	-	-	0.3
		300 - 1000				2.0
Phase Unbalance	-	2.0 - 300	Degrees	-	-	5
		300 - 1000				20

## Typical Performance Curves



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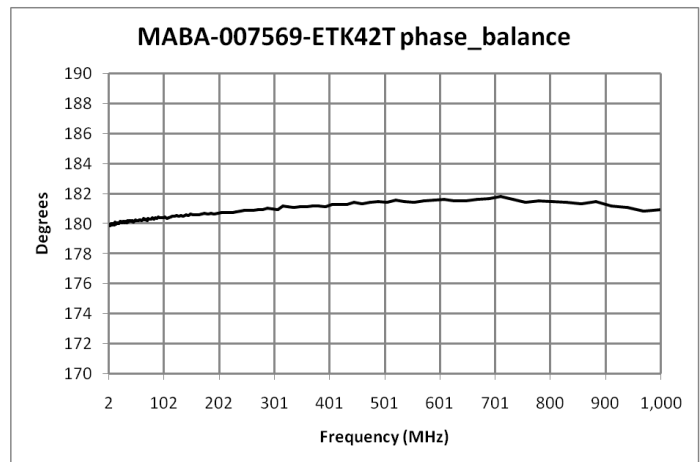
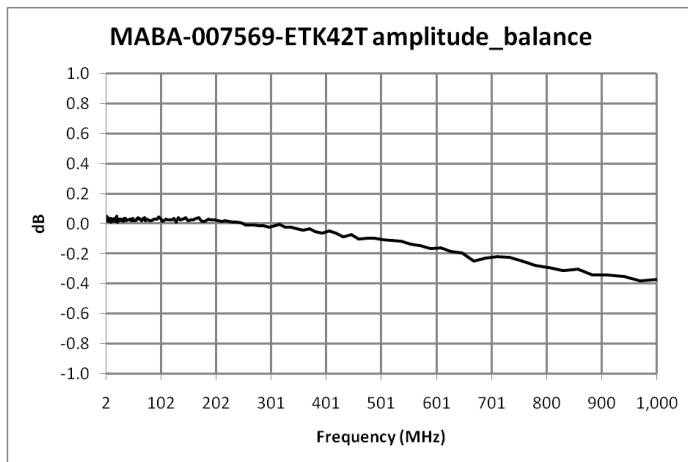
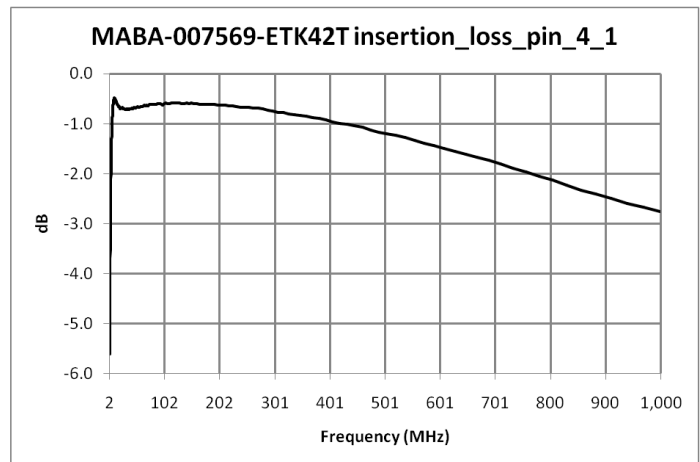
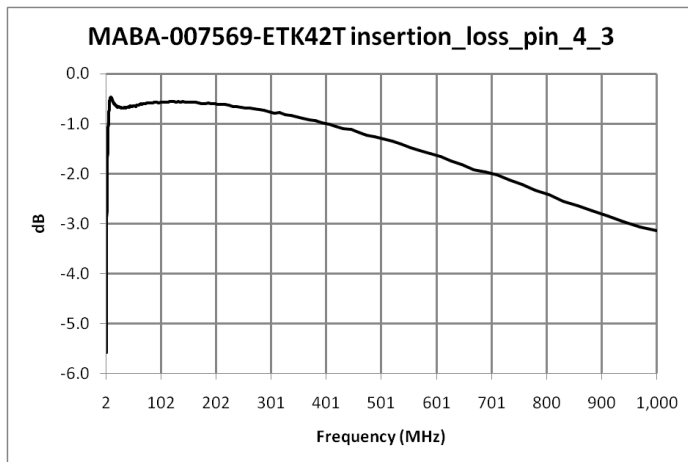
## E-Series RF 1:4 Transmission Line Step-up Transformer 2-1000 MHz

M/A-COM Products  
Rev. V2

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

Parameter	Test Conditions	Test Conditions	Units	Min	Typ	Max
RF Frequency	-	2.0 - 1000	MHz	-	-	-
Insertion Loss	-	8 - 250	dB	-	-	1.0
		5 - 500	dB	-	-	2.0
		4 - 700	dB	-	-	3.0
		700 - 1000	dB	-	-	4.5
Amplitude Unbalance	-	2.0 - 300	dB	-	-	0.3
		300 - 1000	dB	-	-	2.0
Phase Unbalance	-	2.0 - 300	Degrees	-	-	5
		300 - 1000	Degrees	-	-	20

### Typical Performance Curves



3

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## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P <sub>1</sub> )	mm	8.00
A <sub>0</sub>	mm	4.0
B <sub>0</sub>	mm	4.3
K <sub>0</sub>	mm	2.9
Orientation	-	F5
Reference Application note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABA-007569-ETK42T	Tape & Reel

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85

Temperature data available on request

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