

MABA-007569-ETK42T



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

M/A-COM Products
Rev. V2

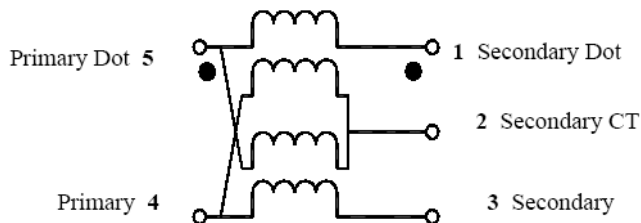
Features

- 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.

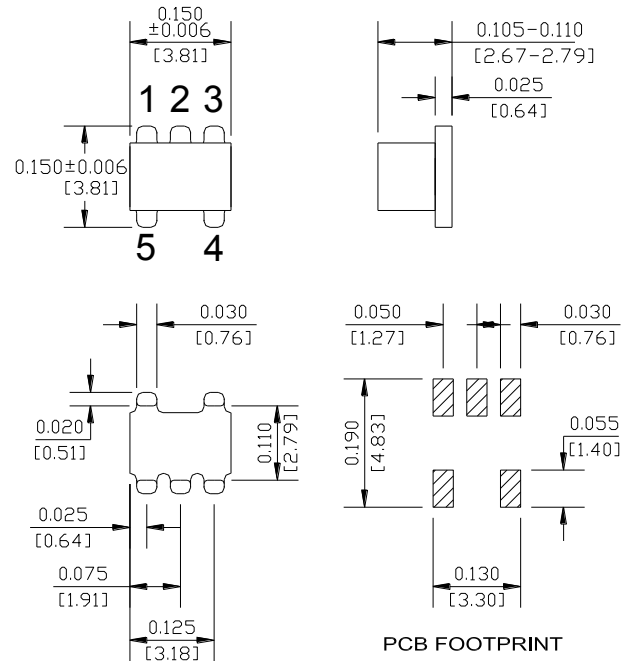
Schematic



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^{1,2}

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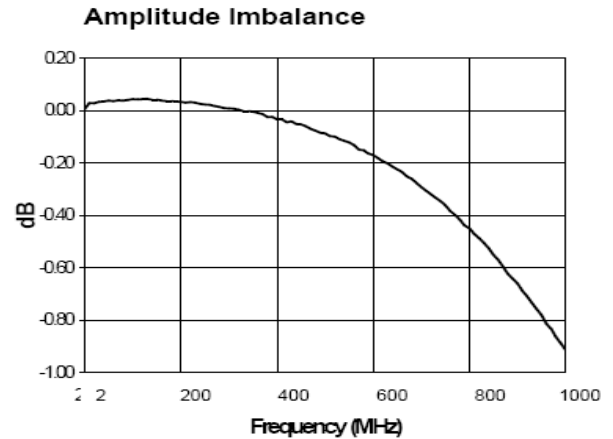
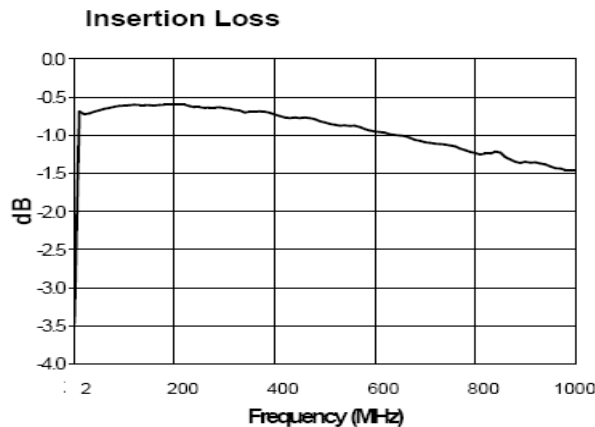
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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

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	dB	-	-	2.0
Phase Unbalance	-	2.0 - 300	Degrees	-	-	5
		300 - 1000	Degrees	-	-	20

Typical Performance Curves



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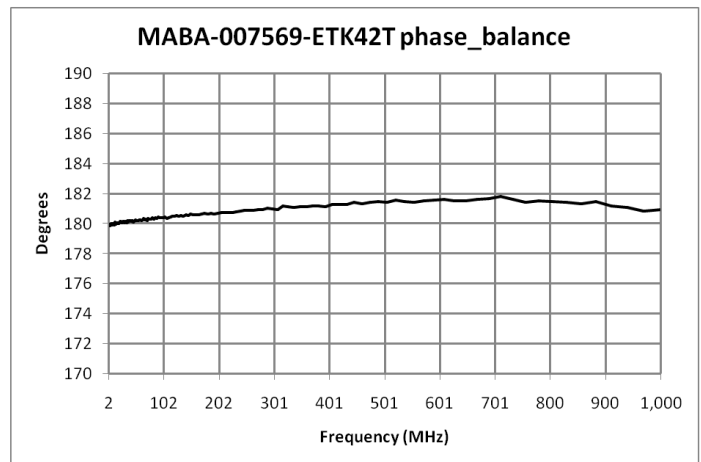
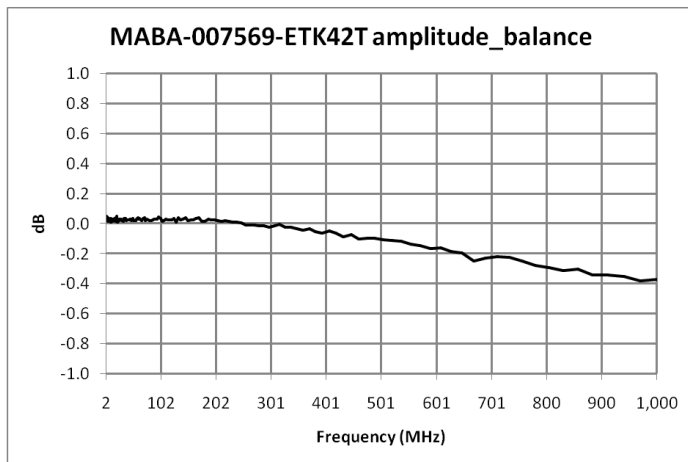
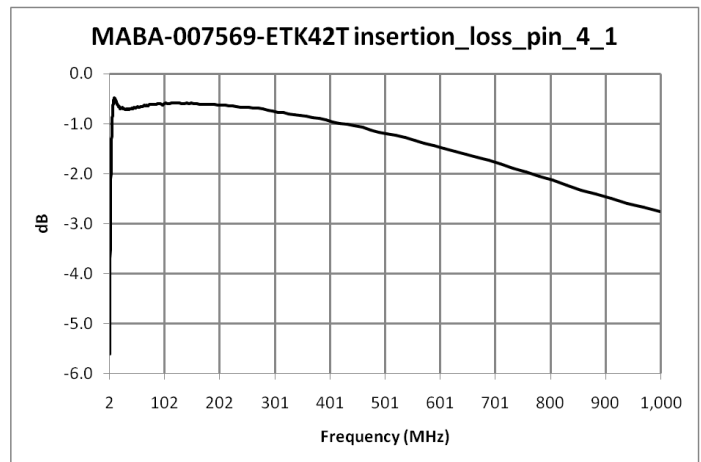
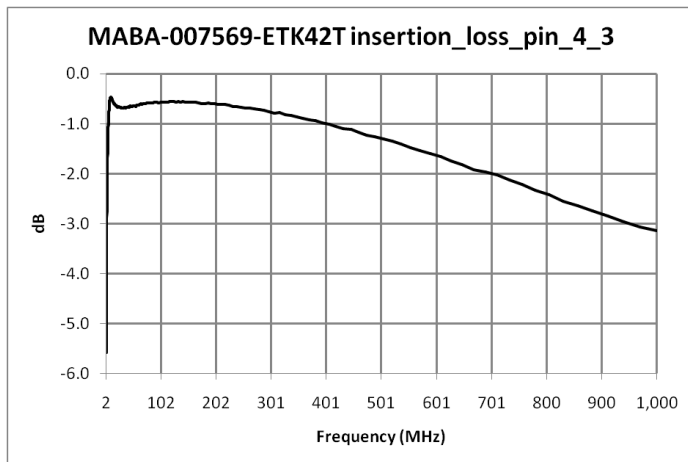
E-Series RF 1:4 Transmission Line Step-up Transformer 2-1000 MHz

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



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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 ₁)	mm	8.00
A ₀	mm	4.0
B ₀	mm	4.3
K ₀	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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