

## 1:4 Transmission Line Transformer 30 - 2500 MHz

Rev. V2

### Features

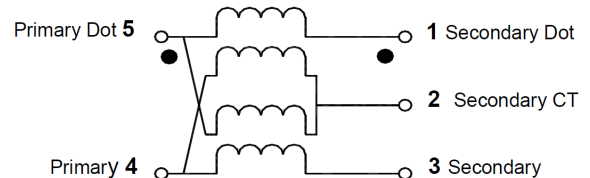
- Surface Mount Package
- 1:4 Impedance
- Wide Frequency Range
- RoHS Compliant, Lead Free
- Available on Tape and Reel



### Description

The MABA-010012-ES4302 is a RoHS compliant 1:4 RF transmission line step-up transformer in a surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.

### Schematic



### Pin Configuration

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

### Electrical Specifications: Freq. = 30 - 2500 MHz, T<sub>A</sub> = 25°C, Z<sub>0</sub> = 50 Ω, P<sub>IN</sub> = 0 dBm

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss	30 - 150 MHz	dB	—	2.0	3.0
	150 - 1000 MHz			1.0	2.0
	1000 - 2000 MHz			2.5	3.0
	2000 - 2500 MHz			2.0	4.0
Amplitude Balance	30 - 150 MHz	dB	—	0.3	0.5
	1000 - 2000 MHz			0.8	1.5
	2000 - 2500 MHz			1.0	2.0
Phase Balance	30 - 150 MHz	°	—	1	2
	1000 - 2000 MHz			5	8
	2000 - 2500 MHz			8	13

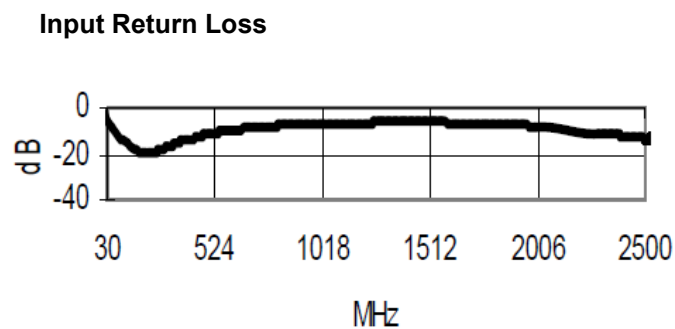
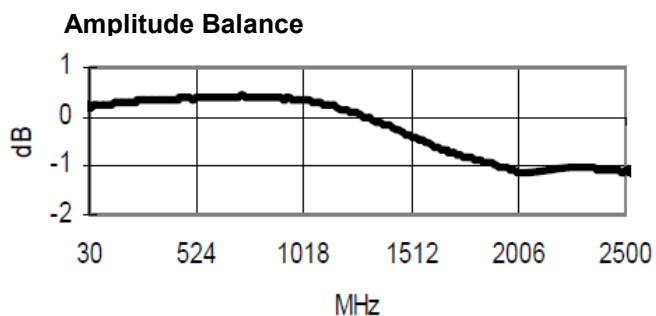
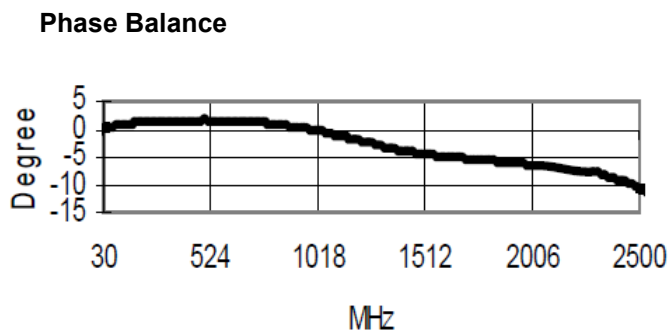
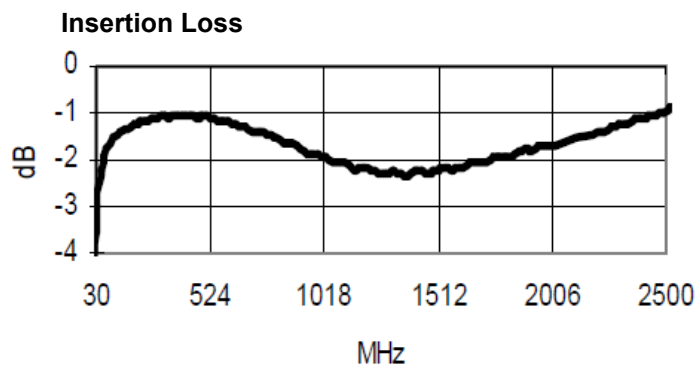
### Ordering Information

Parameter	Package
MABA-010012-ES4302	2000 piece reel

### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	50 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

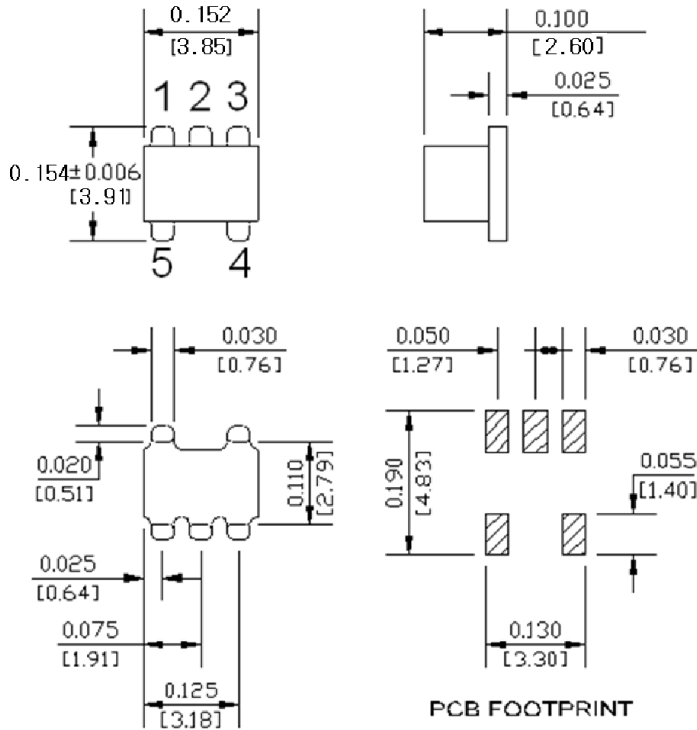
Typical Performance:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50 \Omega$ ,  $P_{IN} = 0 \text{ dBm}$



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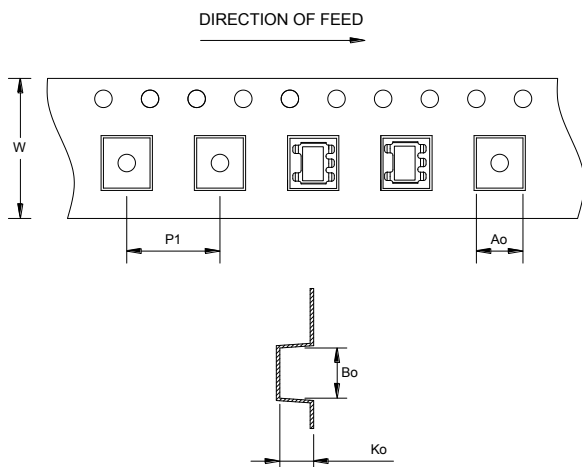
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### Case Style SM-22



Dimensions are inches (millimeters)  $\pm 0.015$  (0.38) unless otherwise specified.  
Drawing not to scale.

### Tape & Reel Information



### Dimensions

Item	Dimension (mm)
A <sub>o</sub>	4.00 +/-0.1
B <sub>o</sub>	4.30 +/-0.1
K <sub>o</sub>	2.90 +/-0.1
W	12.00 +/-0.3
P1	8.00 +/-0.1