

E-Series RF 1:4 Flux Coupled Step-up Transformer 1 - 350 MHz

Rev. V2

Features

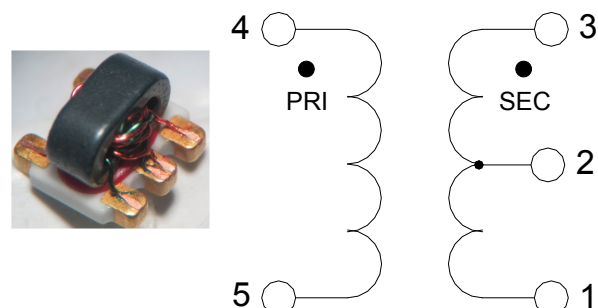
- 1:4 Impedance Ratio
- Surface Mount Package
- Centre Tap on Frequency
- Tape and Reel Packaging Available
- RoHS* Compliant & Lead Free

Description

The MABA-011020 is a RoHS compliant 1:4 RF flux coupled step-up transformer in a surface mount package.

Ideally suited for CATV application.

Schematic



Pin Configuration

Pin #	Function	Pin #	Function
1	Secondary	4	Primary Dot
2	Secondary CT	5	Primary
3	Secondary Dot		

Electrical Specifications: Freq. = 1 - 350 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 50\ \Omega$, $P_{IN} = 0\ \text{dBm}$

Parameter	Freq. Test Conditions (MHz)	Units	Min.	Typ.	Max.
Insertion Loss	5 - 100	dB	—	0.5	1.0
	2 - 300			0.9	2.0
	1 - 350			0.8	3.0
Amplitude Balance	5 - 100	dB	—	0.0	± 0.1
	1 - 350			0.0	± 0.5
Phase Balance	5 - 100	°	—	0.1	± 1.0
	1 - 350			0.2	± 5.0

Ordering Information

Parameter	Package
MABA-011020	2000 piece reel
MABA-011020-TB	customer evaluation board

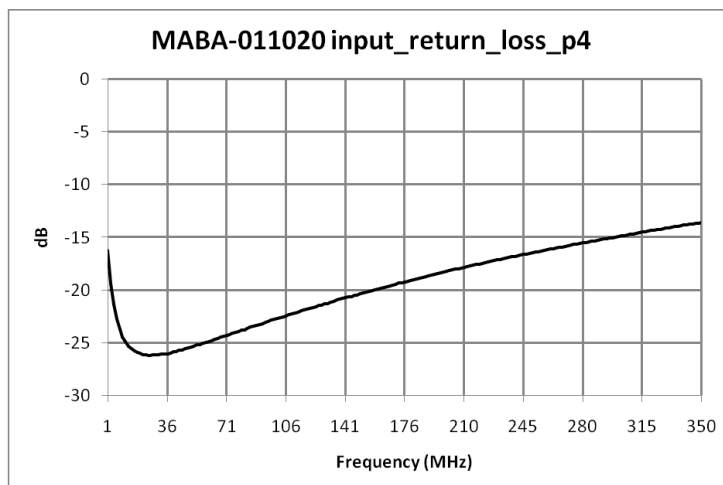
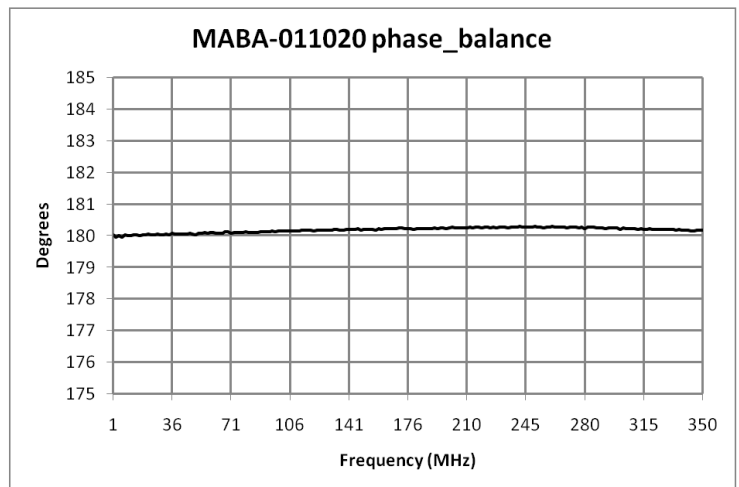
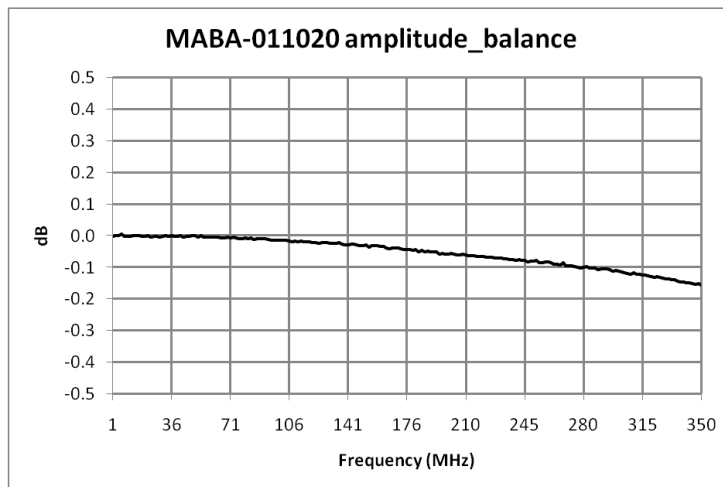
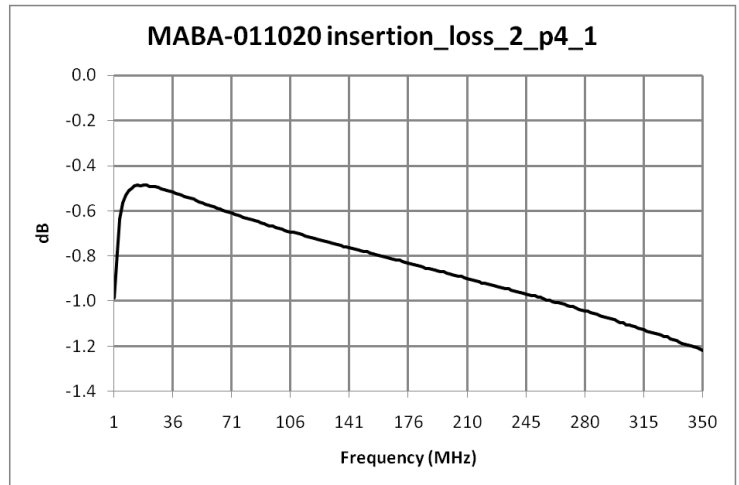
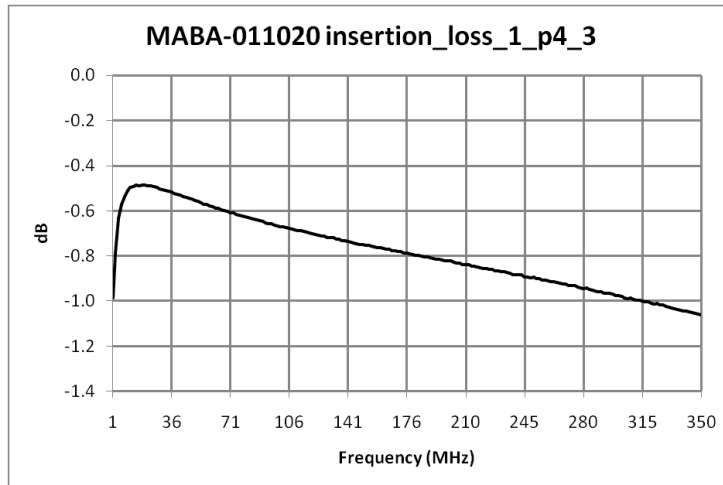
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to $+85^\circ\text{C}$

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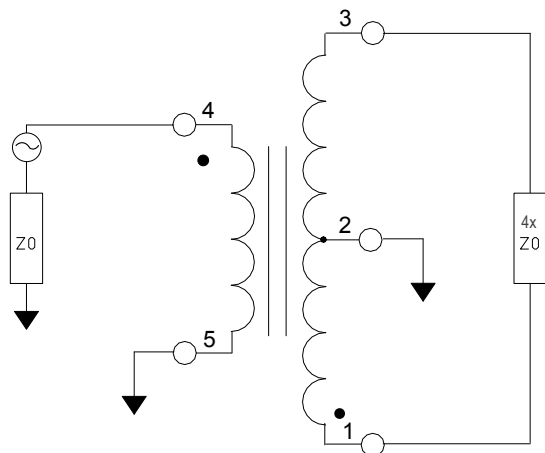
Typical Performance Curves



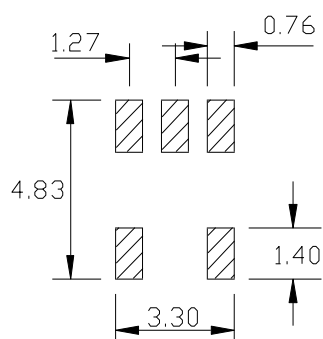
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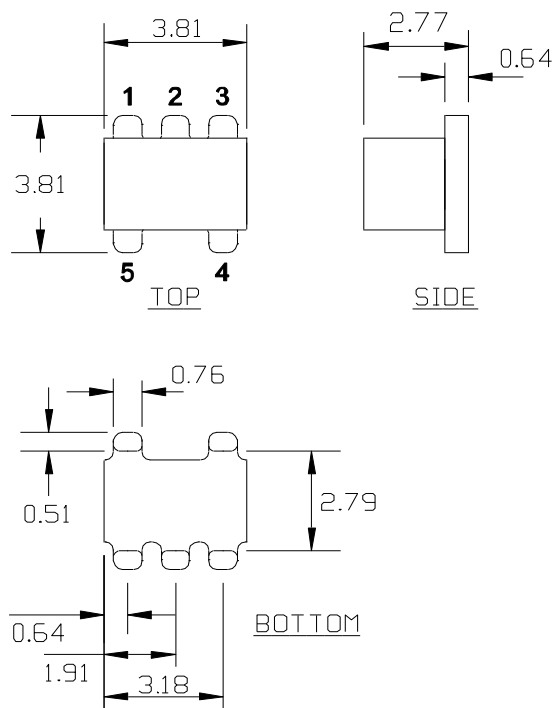
Application Circuit



Recommended Footprint

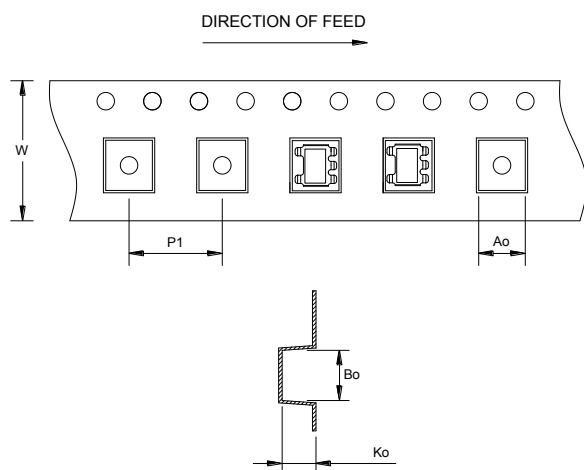


Outline Drawing



1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: Au

Tape & Reel Information



Dimensions

Item	Dimension (mm)
A ₀	4.00 $\pm$ 0.1
B ₀	4.00 $\pm$ 0.1
K ₀	2.90 $\pm$ 0.1
W	12.00 $\pm$ 0.3
P1	8.00 $\pm$ 0.1
Orientation	F5
Reference Application note ANI-019 for orientation	

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