

MABA-011073



1:1 Flux Coupled Transformer
1 - 100 MHz

Rev. V1

Features

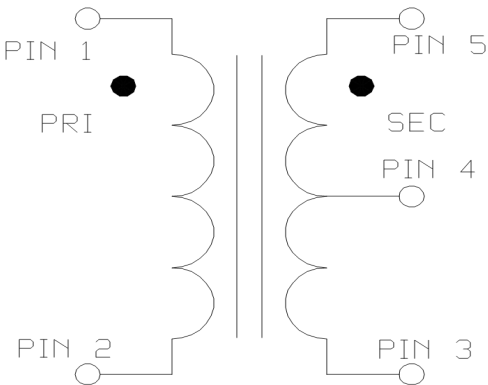
- Surface Mount
- 1:1 impedance
- Available on Tape and Reel
- RoHS Compliant and Lead free
- 260°C Reflow Compatible
- Excellent temperature stability

Description

1:1 flux coupled transformer in a low cost surface mount package.
Ideally suited for all CATV Broadband and FTTx applications.



Functional Schematic



Ordering Information

Part Number	Package
MABA-011073	Tape & Reel
MABA-011073-TB	Customer test Board

Pin Configuration

Pin No.	Function
1	Primary Dot (input)
2	Primary (ground)
3	Secondary (output2)
4	Ground
5	Secondary (output1)

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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\ \Omega$, $P_{in} = 0\text{dBm}$

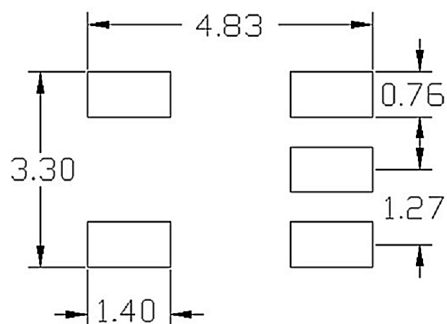
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range	-	MHz	1	-	100
Impedance	-	Ω	-	75	-
Impedance Ratio	-	-	-	1:1	-
Insertion Loss 1 (Pin 1-5)	1 - 50 MHz	dB	-	0.2	0.4
	50 - 100 MHz	dB	-	0.3	0.6
Insertion Loss 2 (Pin 1-3)	1 - 50 MHz	dB	-	0.2	0.4
	50 - 100 MHz	dB	-	0.3	0.5
Amplitude Balance	1 - 100 MHz	dB	-	0.01	± 0.2
Phase Balance (ref value 180°)	1 - 100 MHz	$^\circ$	-	0.6	± 3.0
Input Return Loss Pin 1	1 - 50 MHz	dB	20	28	-
	50 - 100 MHz	dB	15	21	-

Recommended Maximum Ratings

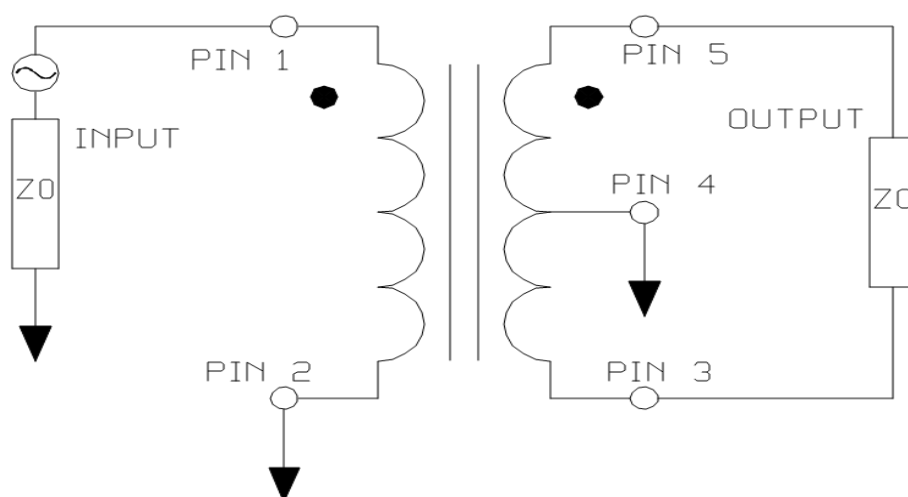
Parameter	Units	Min	Max
Input RF Power	mW	-	2000
DC Current	mA	-	1500
Operating Temperature Range	$^\circ\text{C}$	-40	+125

Full temperature plots available on request

PCB Layout



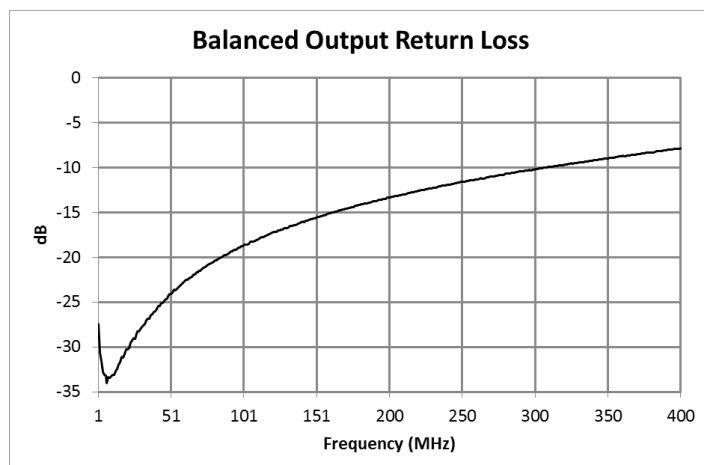
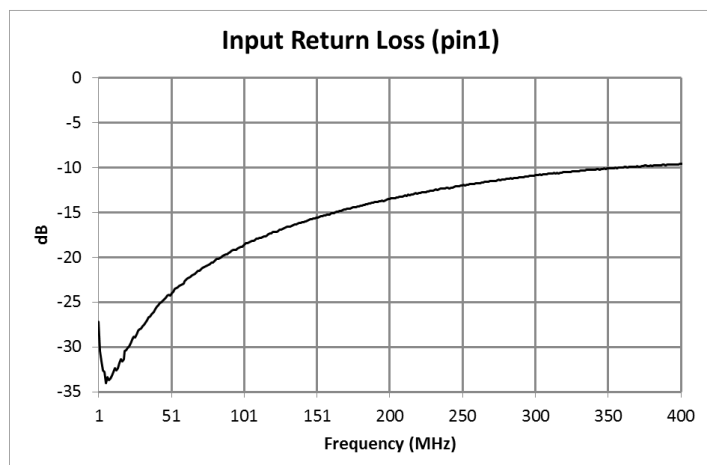
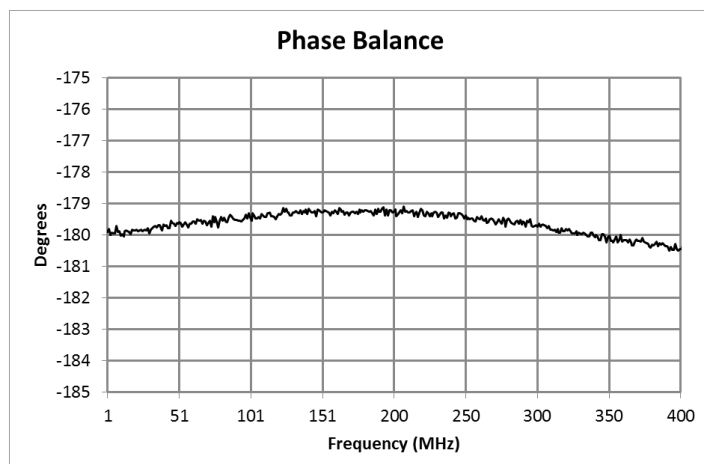
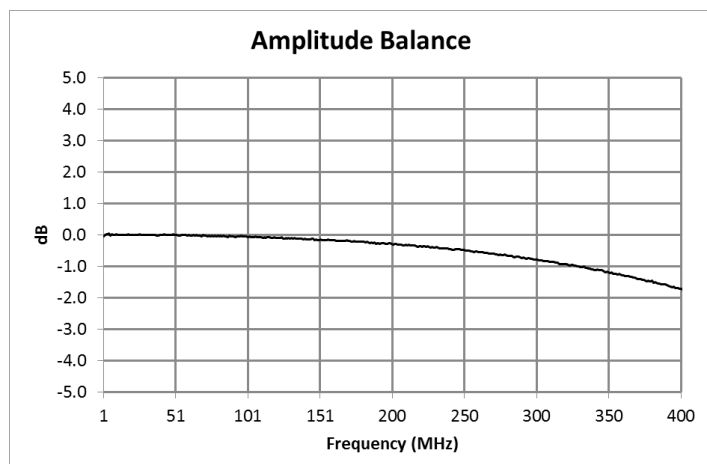
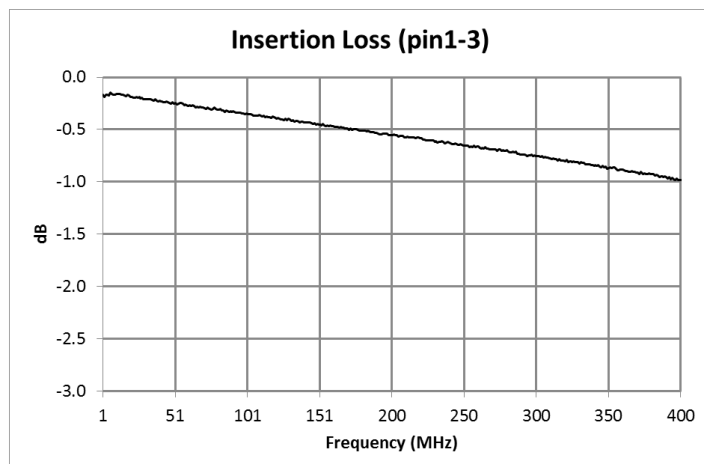
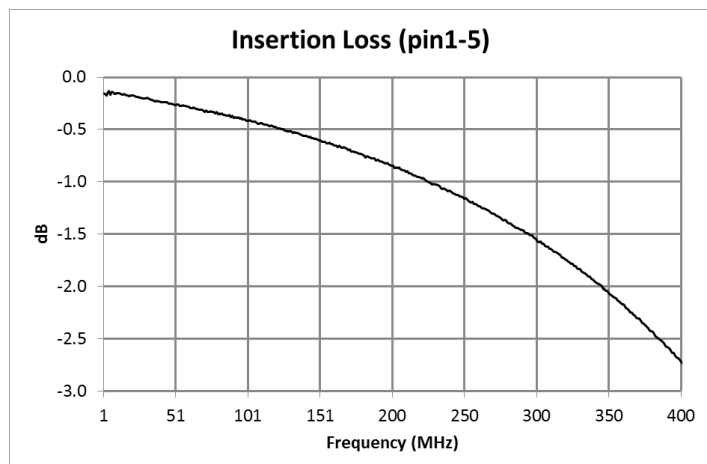
Application Schematic



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Typical Performance Curves



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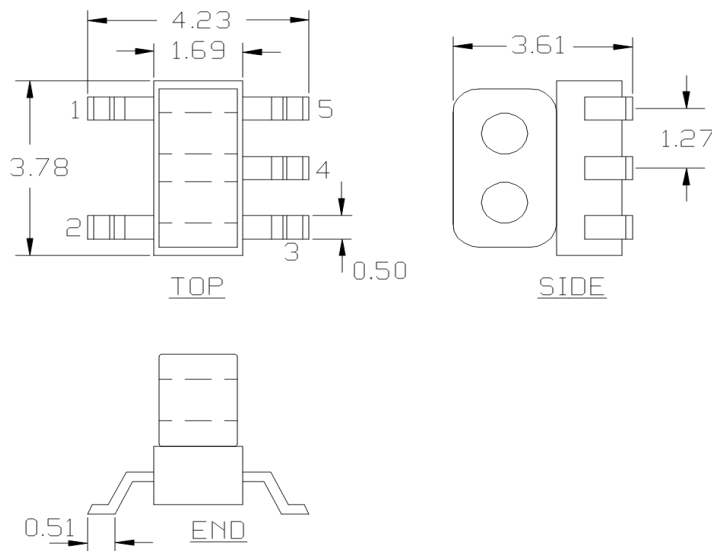
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Outline Drawing

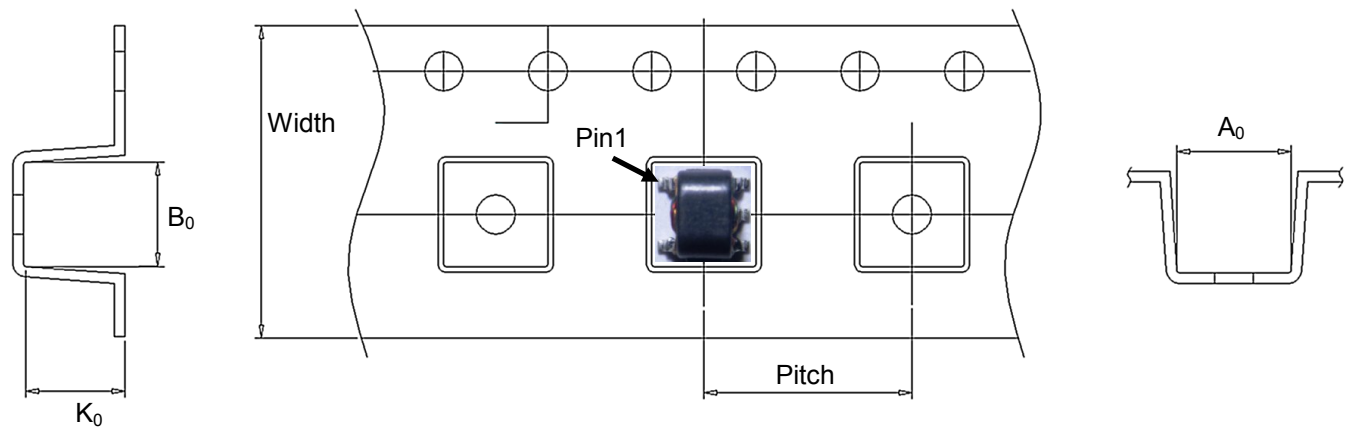


Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	8.00
Orientation	-	F26
Reference App Note ANI-019 for orientation		

1. Dimensions in mm.
2. Tolerance: $\pm 0.2\text{mm}$ unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating: (CuSn6) Lead finish SAC-305

Carrier Tape Orientation



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