

1:2.56 Impedance Ratio, Centre Tapped Transformer 5 - 300 MHz

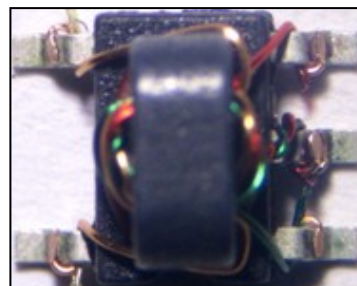
Rev. V2

Features

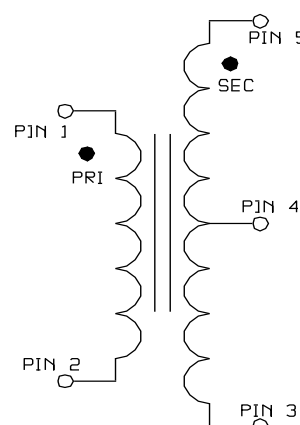
- Surface mount
- 1:2.56 Impedance ratio
- 260°C Reflow Compatible
- RoHS compliant and Pb free
- Available on tape and reel

Description

MABA-007902-CF38A0 is a 1:2.56 RF flux coupled step up transformer in a low cost surface mount package. Ideally suited for CATV Broadband applications.



Functional Schematic



Ordering Information

Part Number	Package
MABA-007902-CF38A0	Tape & Reel
MABA-007902-CF38TB	Customer test board

Pin Configuration

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

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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	5	—	300
Impedance	—	Ω	—	75	—
Impedance Ratio	—	—	—	1:2.56	—
Insertion Loss (Pin1 - Pin3)	5 - 85 MHz 85 - 300 MHz	dB	—	0.5 0.5	0.9 1.0
Insertion Loss (Pin1 - Pin5)	5 - 85 MHz 85 - 300 MHz	dB	—	0.5 0.7	0.9 1.0
Amplitude Balance	5 - 85 MHz 85 - 300 MHz	dB	—	0.03 0.2	0.1 0.5
Phase Balance	5 - 85 MHz 85 - 300 MHz	$^\circ$	—	0.07 0.3	1.0 4.0
Input Return Loss (Pin1)	5 - 85 MHz 85 - 300 MHz	dB	19 20	25 24	—

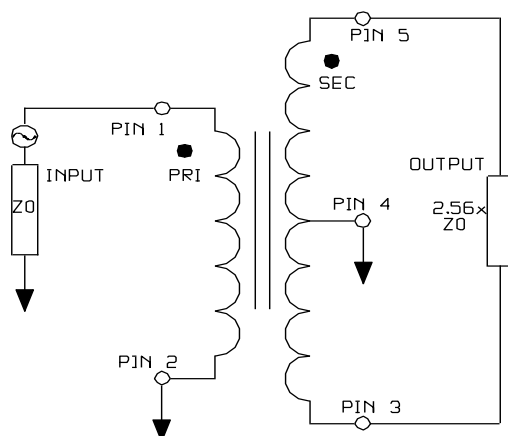
Recommended Maximum Ratings

Parameter	Rating
Input RF Power	500 mW
DC Current	500 mA
Operating Temperature Range	-40°C to $+85^\circ\text{C}$

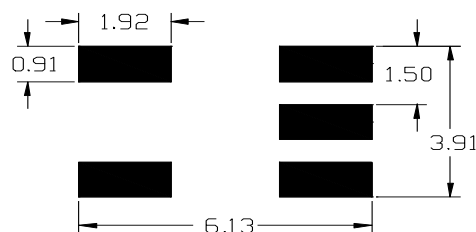
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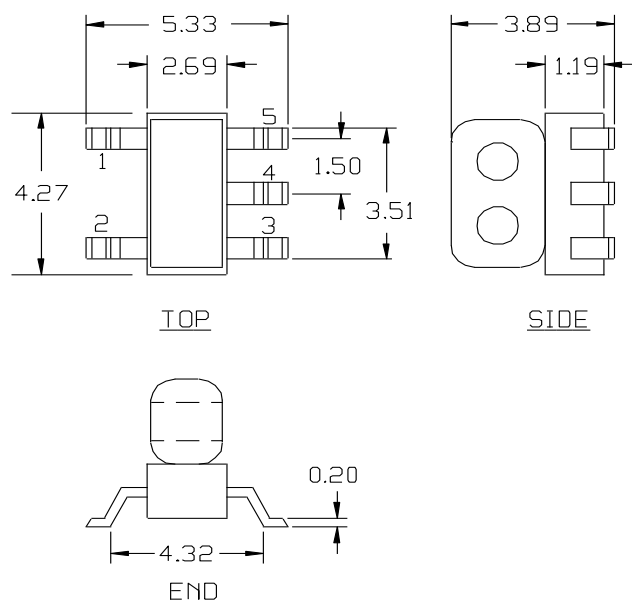
Application Circuit



PCB Layout



Outline Drawing

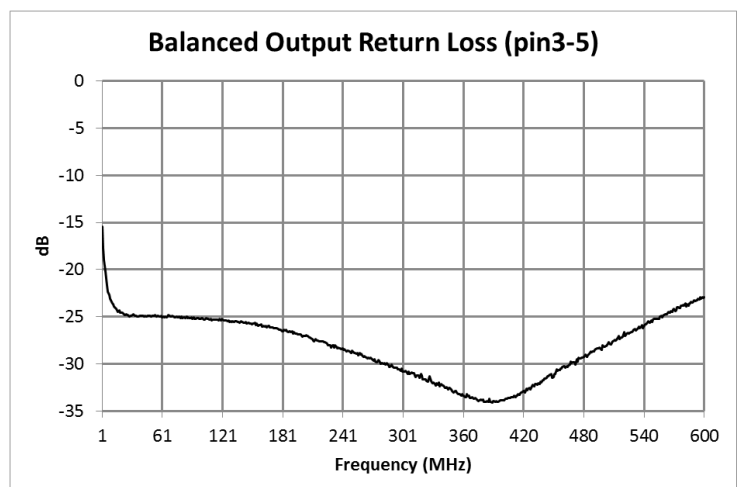
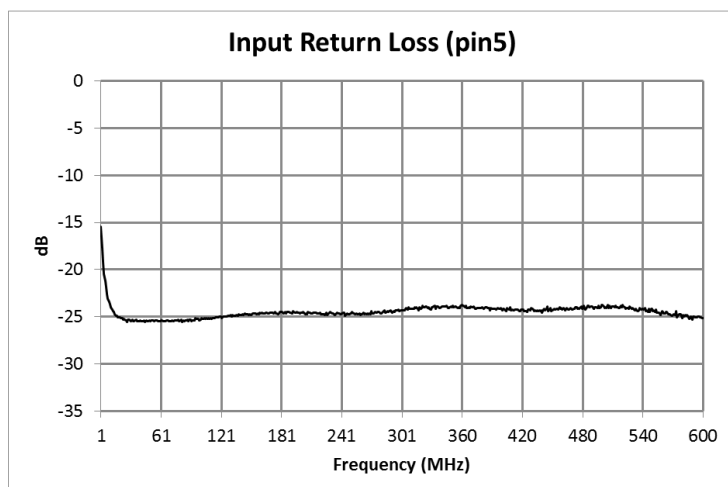
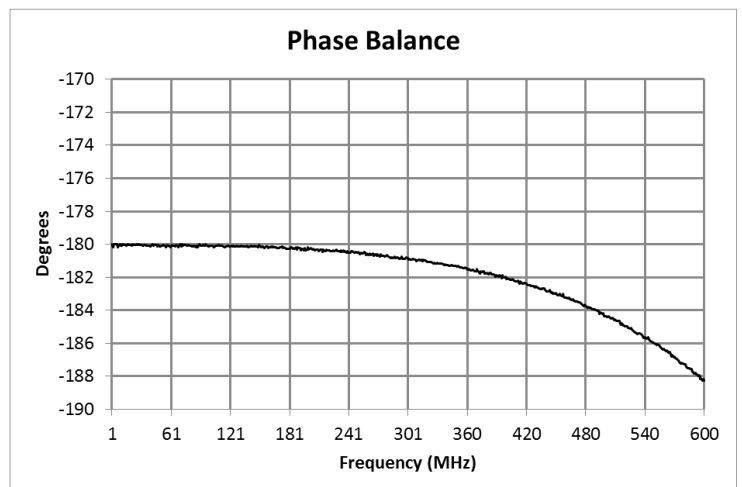
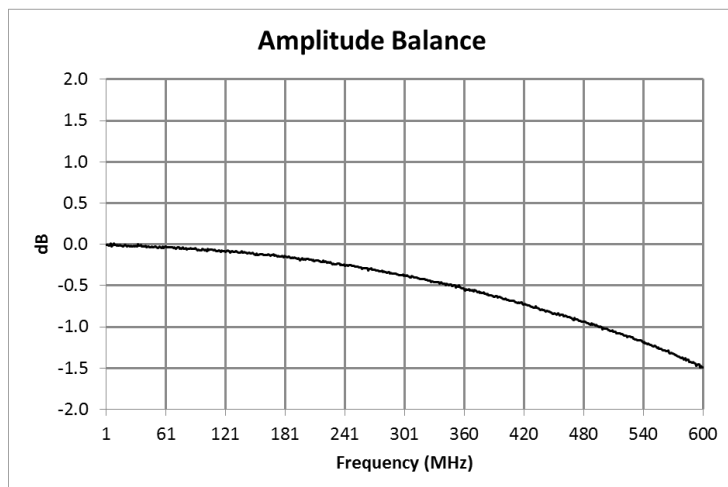
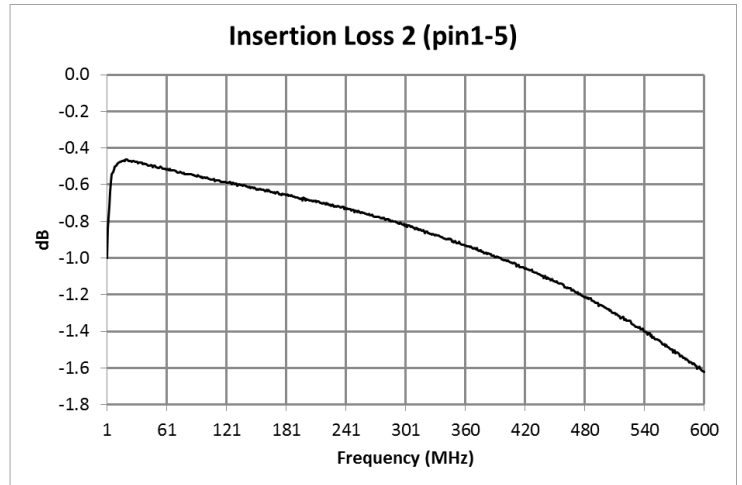
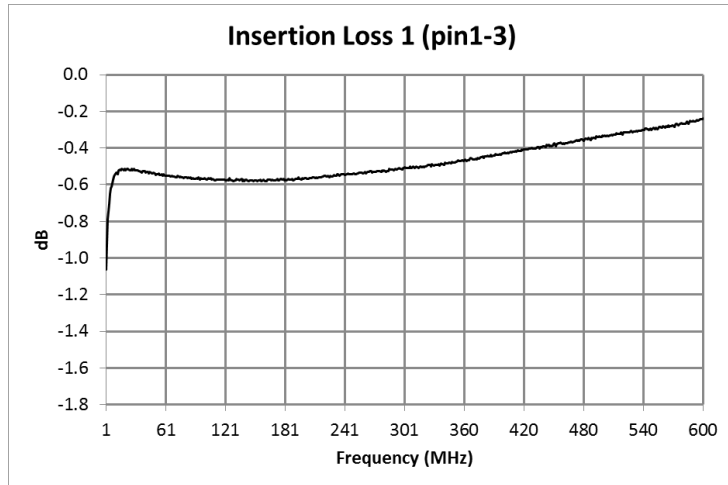


Tape & Reel Information

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	6.1
B ₀	mm	4.6
K ₀	mm	4.0
Orientation	-	F26
Reference Application note ANI-019 for orientation		

1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating (CuSn6)

Typical Performance Curves



4 Full temperature plots available on request

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