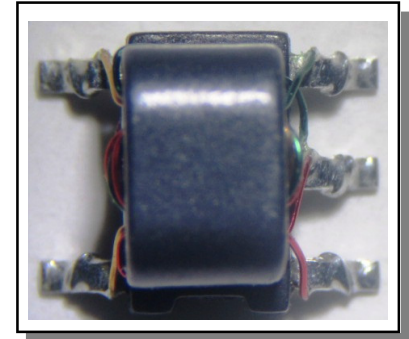


1:6 Transformer 1 - 300 MHz

V1

Features

- 1:6 impedance
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS Compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications



Description

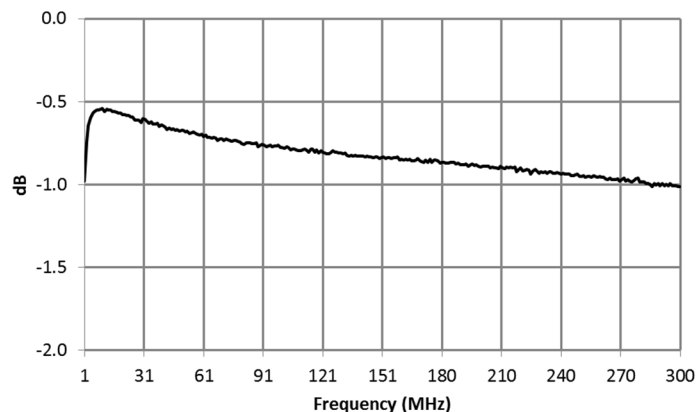
MACOM's MABA-011040 is a 1:6 Transformer. This Transformer is ideally suited for CATV and Broadband applications.

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	1		300
Impedance		Ω		50	
Impedance Ratio				1:6	
Insertion Loss 1 (Pin2 - Pin5)	1 - 5 MHz	dB	-	0.6	1.4
	5 - 150 MHz	dB	-	0.7	1.0
	150 - 300 MHz	dB	-	0.9	1.4
Insertion Loss 2 (Pin2 - Pin3)	1 - 5 MHz	dB	-	0.7	1.2
	5 - 150 MHz	dB	-	0.7	1.0
	150 - 300 MHz	dB	-	0.8	1.1
Amplitude Balance	1 - 300 MHz	dB	-	0.07	± 0.4
Phase Balance	1 - 150 MHz	$^{\circ}$	-	0.4	± 2.0
	150 - 300 MHz	$^{\circ}$	-	1.0	± 3.5
Input Return Loss (Pin2)	1 - 5 MHz	dB	13	24	-
	5 - 150 MHz	dB	20	29	-
	150 - 300 MHz	dB	15	24	-

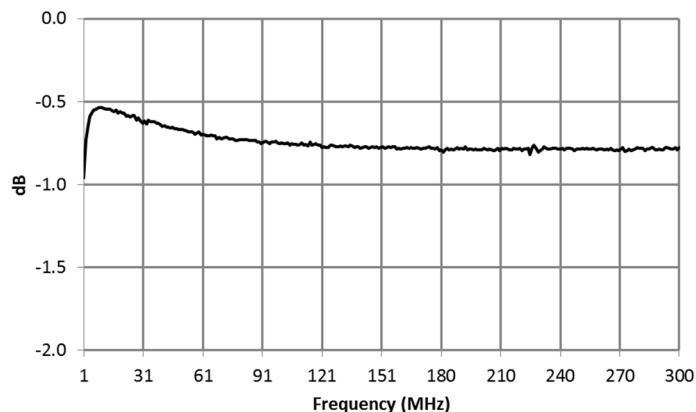
1:6 Transformer 1 - 300 MHz

V1

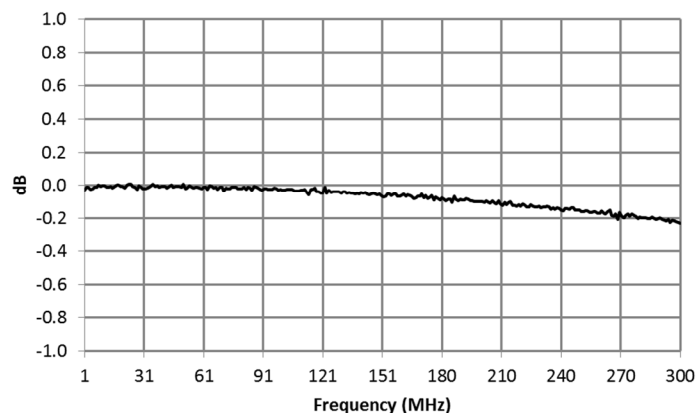
Insertion loss 1 (Pin2-5)



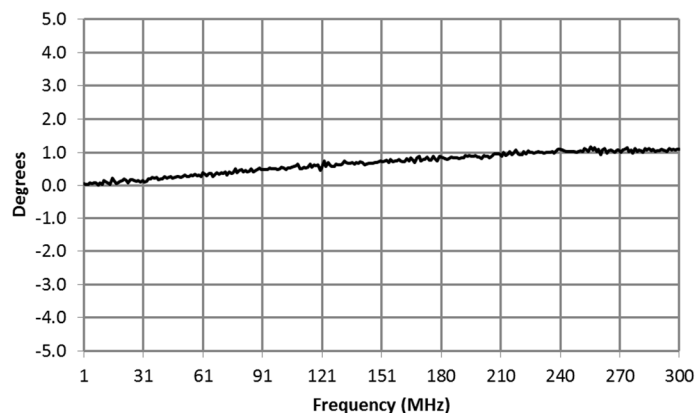
Insertion loss 2 (Pin2-3)



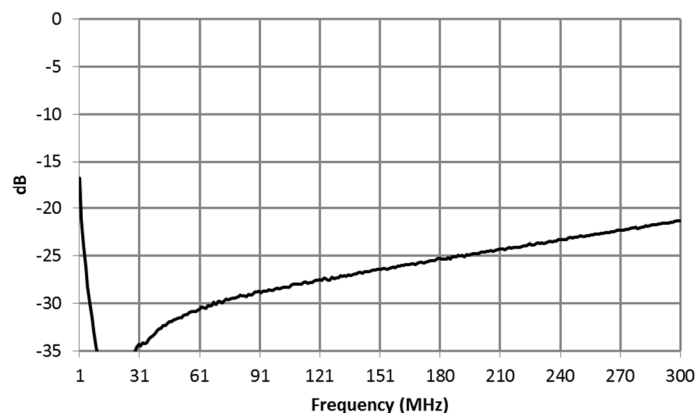
Amplitude balance



Phase balance

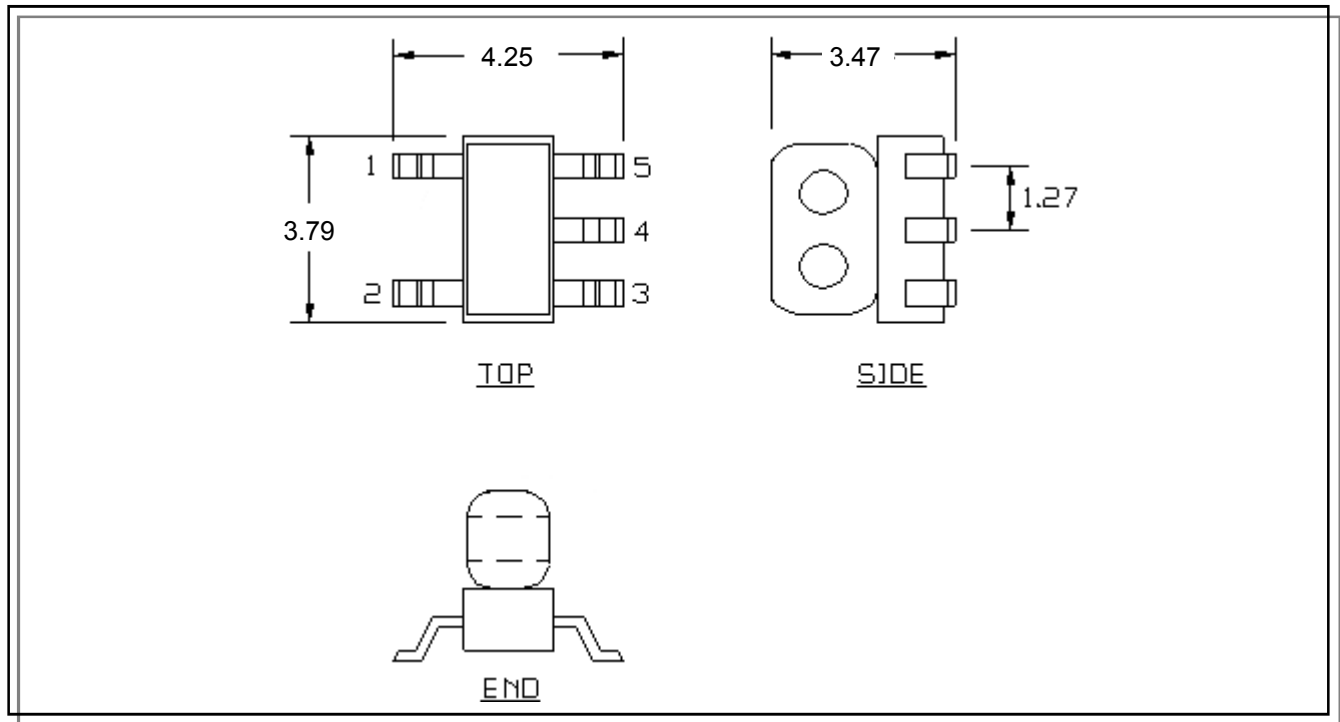


Input return loss (Pin2)



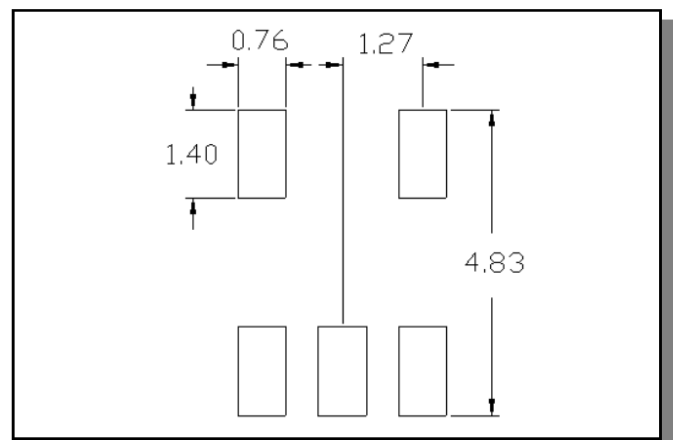
Electrical Specifications: $Z_0 = 50\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Outline Drawing



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) Lead finish SAC-305.

Recommended Footprint



1:6 Transformer
1 - 300 MHz

V1

Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.40
Bo	mm	4.00
Ko	mm	3.90
Orientation	-	F26
Reference Application Note ANI-019 for orientation		

Ordering Information

Part Number	Description
MABA-011040	Tape & Reel

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		500
DC Current	mA		500
Operating Temperature Range	°C	-40	+125

Full temperature plots available on request

Pin Configuration

Pin No.	Function
1	Ground
2	Input
3	Output 2
4	Ground
5	Output 1

Application circuit

