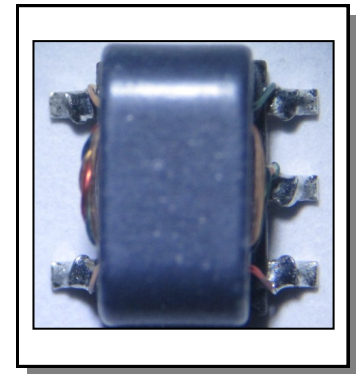


4:1 Step Down Transformer 5 - 200 MHz

V2

Features

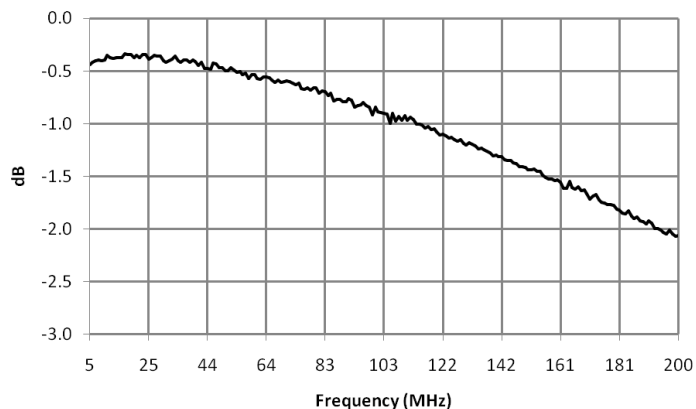
- Surface mount
- 4:1 step down transformer
- Excellent performance under DC bias current, even when current flows is imbalanced outputs
- 260°C reflow compatible
- RoHS Compliant, lead-free
- Available on tape & reel



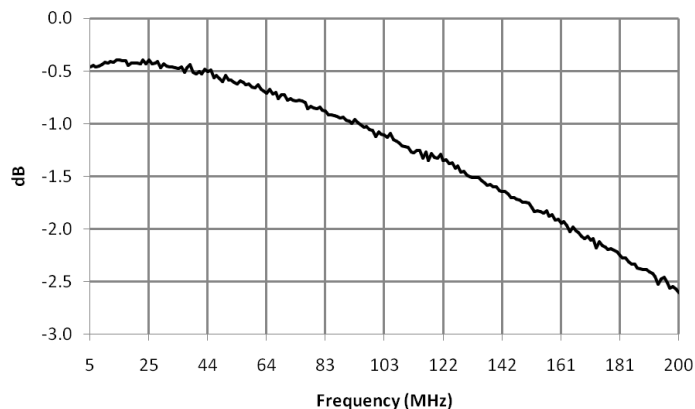
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		200
Impedance		Ω	-	75	-
Impedance Ratio			-	4:1	-
Insertion Loss 1 (pin6-pin1)	5 - 50 MHz	dB	-	0.3	0.8
	50 - 150 MHz	dB	-	0.8	2.2
	150 - 200 MHz	dB	-	1.7	3.1
Insertion Loss 2 (pin6-pin3)	5 - 50 MHz	dB	-	0.4	0.8
	50 - 150 MHz	dB	-	1.0	2.5
	150 - 200 MHz	dB	-	2.2	3.6
Amplitude Balance	5 - 50 MHz	dB	-	0.1	± 0.4
	50 - 150 MHz	dB	-	0.2	± 1.0
	150 - 200 MHz	dB	-	0.4	± 1.4
Phase Balance	5 - 50 MHz	$^\circ$	-	0.6	± 4
	50 - 200 MHz	$^\circ$	-	1.4	± 9
Input Return Loss (pin6)	5 - 25 MHz	dB	17	21	-
	25 - 50 MHz	dB	12	17	-
	50 - 150 MHz	dB	5	10	-
	150 - 200 MHz	dB	3	6	-

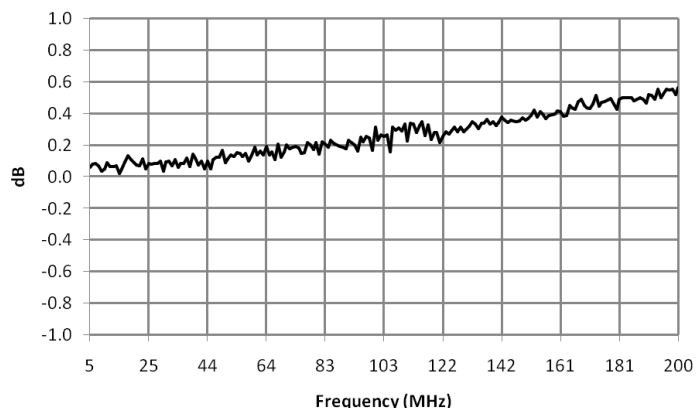
MABA-011048 insertion_loss_1_pin6_1



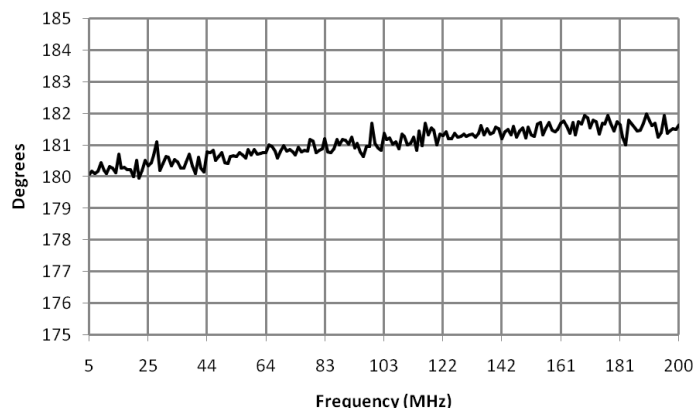
MABA-011048 insertion_loss_2_pin6_3



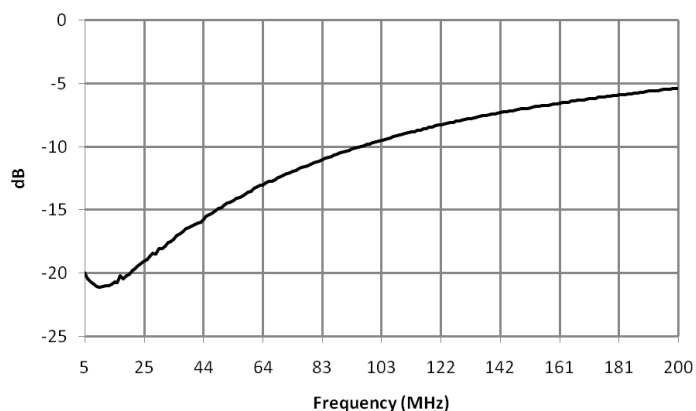
MABA-011048 amplitude_balance



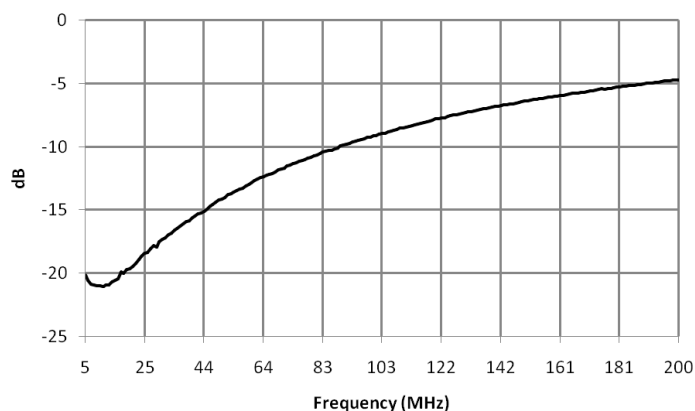
MABA-011048 phase_balance



MABA-011048 input_return_loss_pin6



MABA-011048 Sdd22

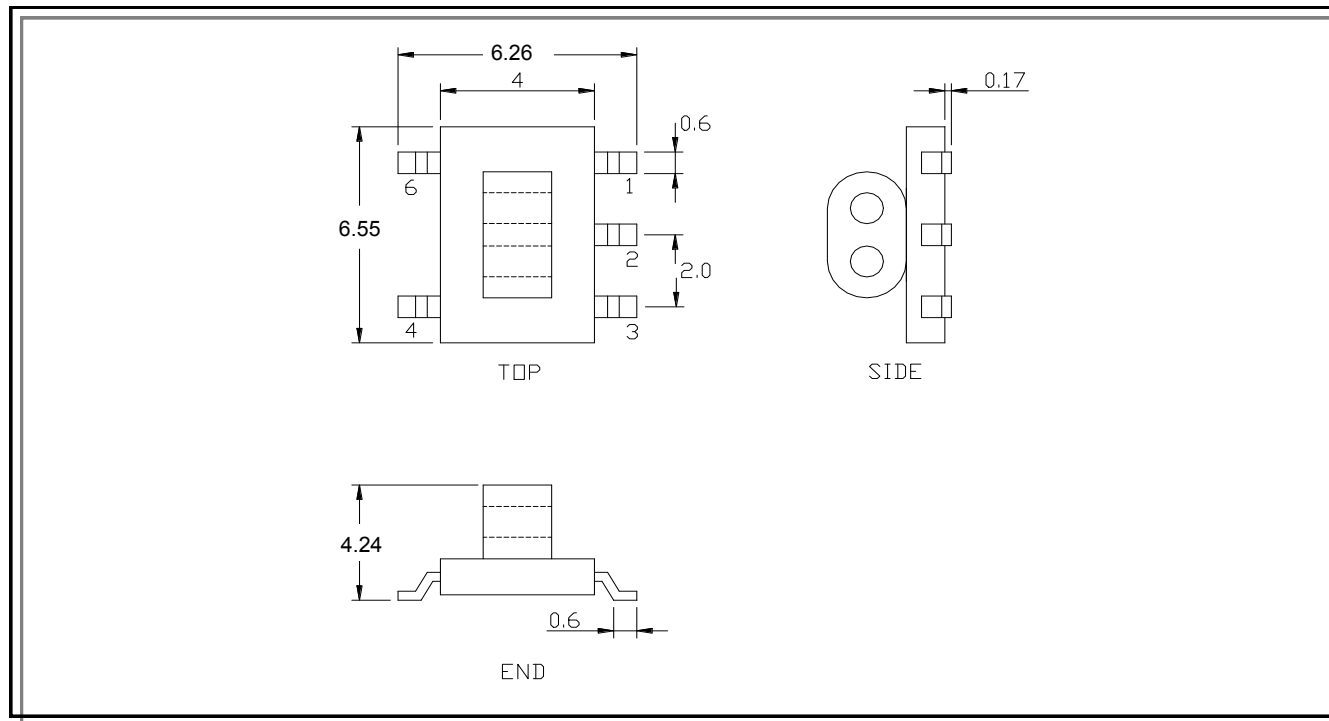


Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

4:1 Step Down Transformer 5 - 200 MHz

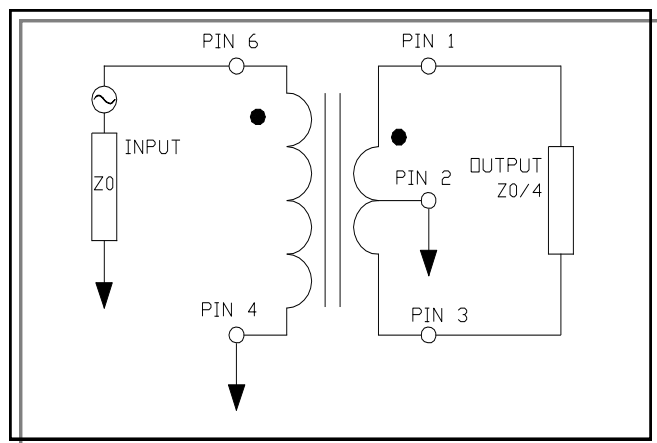
V2

Outline Drawing

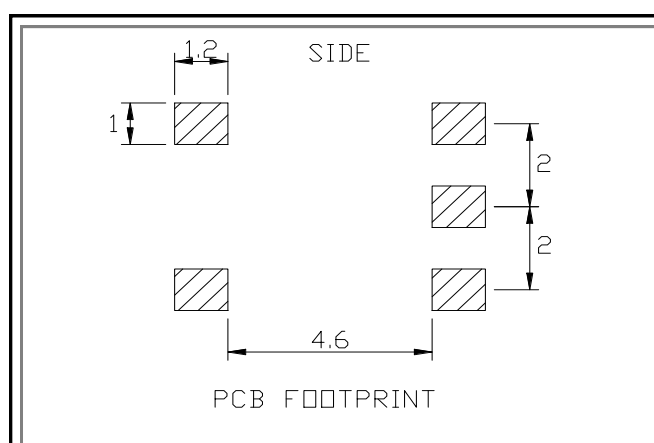


1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead Plating: CuSn6
5. Lead Finish: SAC-305

Recommended DC bias circuit



Recommended Footprint



4:1 Step Down Transformer 5 - 200 MHz

V2

Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Ao	mm	6.6
Bo	mm	7.3
Ko	mm	4.9
Orientation	-	F26
Reference Application Note ANI-019 for orientation		

Ordering Information

Part Number	Description
MABA-011048	Tape & Reel
MABA-011048-TB	Customer test board

Recommended Maximum Ratings

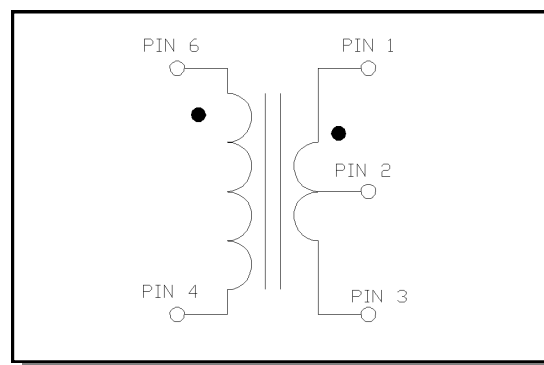
Parameter	Units	Min	Max
Input Power	W		1
Internal Load Dissipation	W		200
Tested up to DC bias current, will perform above this level	mA		900
Operating Temperature Range	°C	-40	+85

Full temperature plots available on request

Pin Configuration

Pin No.	Function
1	Secondary Dot (output1)
2	Ground (centre tape)
3	Secondary (output 2)
4	Primary (RF ground)
5	Ground (not used)
6	Primary Dot (input)

Schematic



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