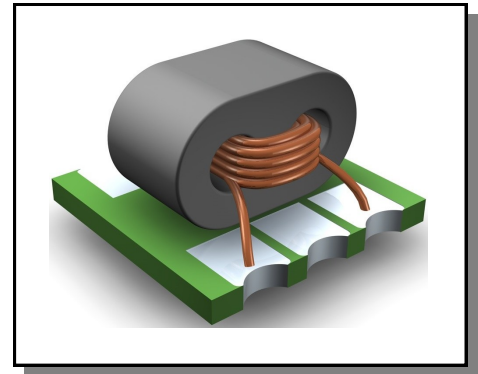


1:1.78 Step up flux coupled Transformer 5 MHz - 200 MHz

Rev. V3

Features

- ◆ 1:1.78 step up flux coupled transformer
- ◆ Surface mount
- ◆ Separate secondary coils allowing separate bias
- ◆ feed into balanced amplifiers
- ◆ 260°C reflow compatible
- ◆ RoHS Compliant and Pb free
- ◆ Excellent temperature stability
- ◆ Can be used on 50Ω and 75Ω systems
- ◆ Suitable for all CATV, Broadband and FTTx applications.



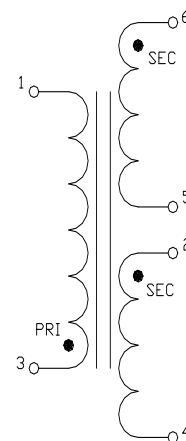
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 80 MHz	dB	-	0.35	0.5
	80-200 MHz	dB	-	0.48	1.0
Amplitude Balance	5 - 100 MHz	dB	-	0.02	± 0.2
	100 - 200 MHz	dB	-	0.14	± 0.5
Phase Balance	5 - 50 MHz	°	-	0.50	± 3
	50 - 100 MHz	°	-	1.95	± 5
	100 - 200 MHz	°	-	4.15	± 10
Input Return Loss	5 - 100 MHz	dB	22	25.9	-
	100 - 200 MHz	dB	16	18.4	-

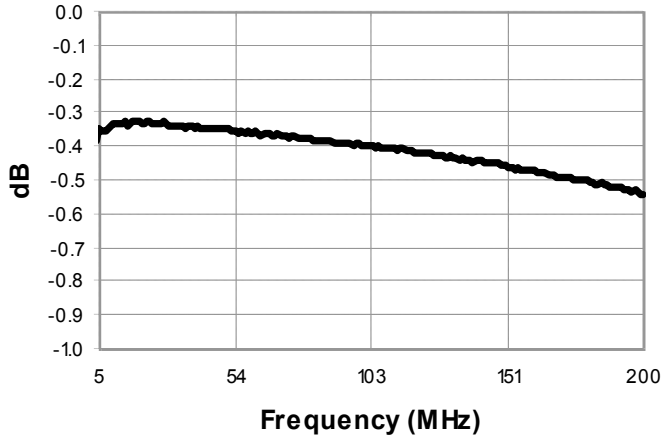
Pin Configuration

Pin No.	Function
1	Primary (ground)
2	Secondary ground 2
3	Primary Dot (input)
4	Secondary (output 2)
5	Secondary ground 1
6	Secondary Dot (output 1)

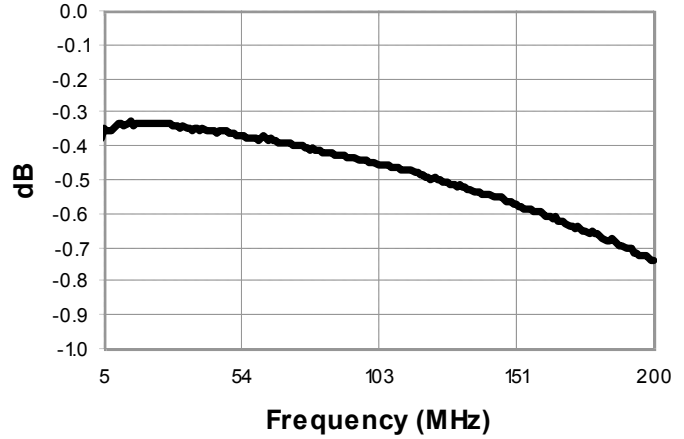
Schematic



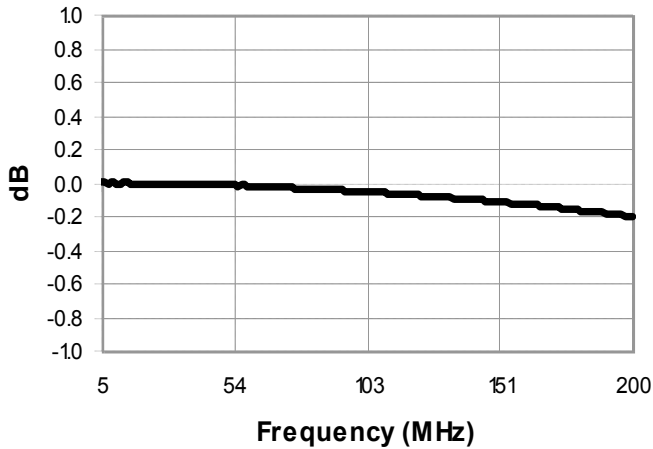
Insertion Loss: (pin3 - pin6)



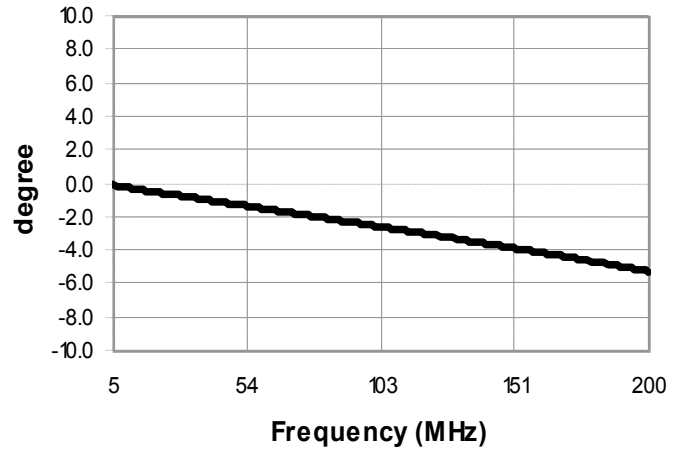
Insertion Loss: (pin3 - pin4)



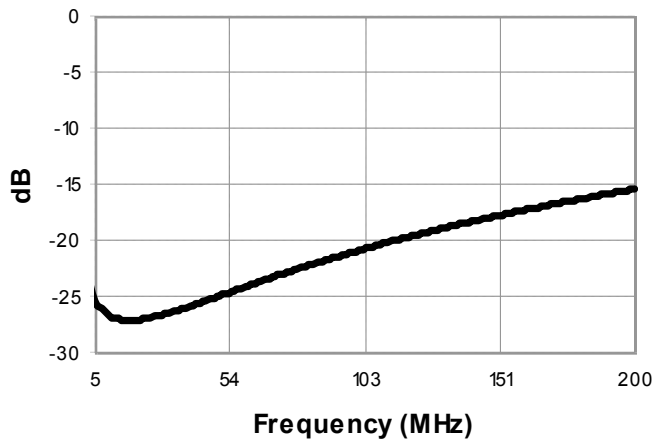
Amplitude Balance



Phase Balance



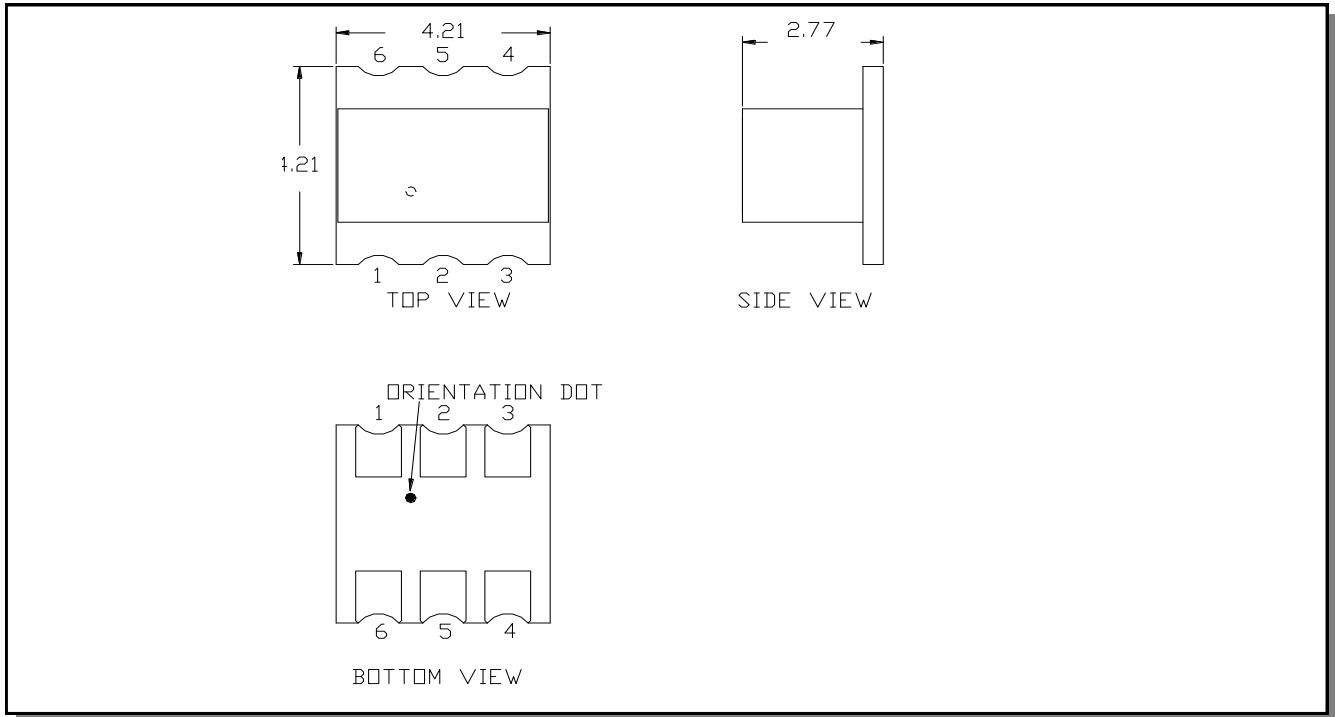
Return Loss: Input (pin3)



1:1.78 Step up flux coupled Transformer 5 MHz - 200 MHz

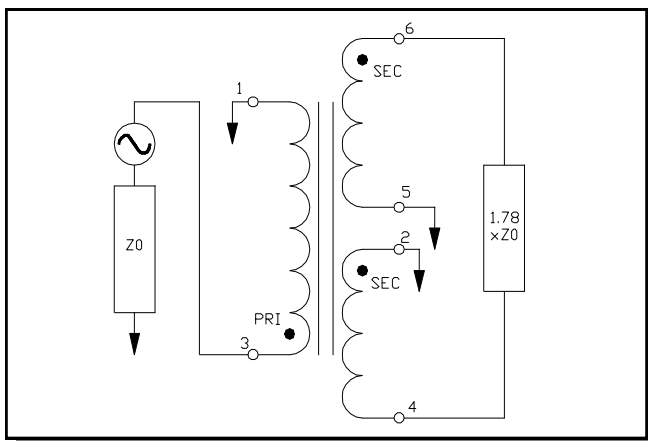
Rev. V3

Outline Drawing

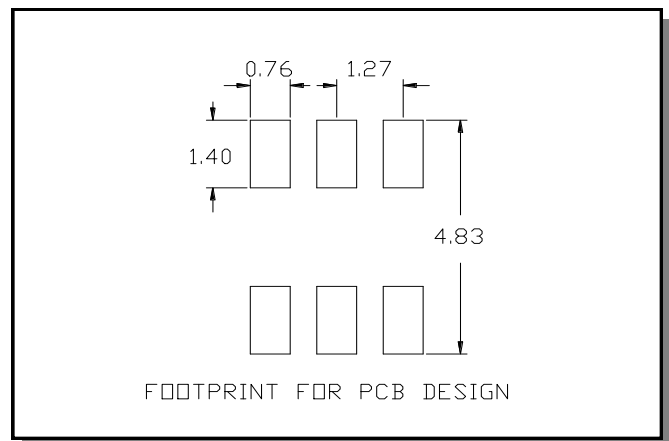


1. Dimensions in mm.
2. Tolerance: $\pm 0.2\text{mm}$ unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: Electroless nickel immersion Gold 3 - 5 microns nickel 0.05 - 0.15 microns gold.

Application Circuit



Recommended Footprint



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.0
Pitch (P ₁)	mm	8.0
A ₀	mm	4.55
B ₀	mm	4.75
K ₀	mm	3.1
Orientation	-	F6
Reference Application note ANI-019 for orientation		

Ordering Information

Part Number	Description
MABA-008482-CF1A40	Tape & Reel
MABA-008482-CF1ATB	Customer Evaluation Board

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		30
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

Temperature data available on request

ECO History

Rev	Date	Description	ECO
V1	8 Nov 2006	New release	20062512
V2	24 Oct 2007	Updated format, changed start freq to 5MHz	20071943
V3	2 Nov 2010	Increased operating temperature to +85 deg C	20101799

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