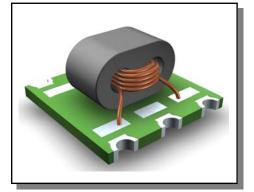
#### Coupler, 14dB 4 MHz - 862 MHz

#### Features

- ♦ 14dB Coupler
- Surface mount
- Available on tape and reel
- ◆ 260°C reflow compatible
- RoHS Compliant and Pb free
- Excellent temperature stability



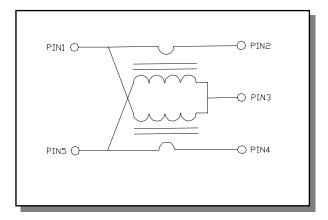
### **Electrical Specifications:** $Z_0 = 75\Omega$ , $T_A = 25^{\circ}C$ , $P_{in} = 0dBm$

Parameter	Conditions	Units	Min	Тур	Max
Frequency Range		MHz	4		862
Impedance		Ω	-	75	
Coupling	4 - 862 MHz	dB	-	14	±2.2
Main Line Loss	5 - 862 MHz	dB	-	0.95	1.2
Input Return Loss	4 - 862 MHz	dB	18	24	-
Output Return Loss	4 - 862 MHz	dB	18	21	-
Coupled Return Loss	4 - 862 MHz	dB	18	26	-
Isolation	4 - 862 MHz	dB	26	38	-

### **Pin Configuration**

Pin No.	Function	
1	Input	
2	Output	
3	Ground	
4	Isolated, External 75Ω	
5	Coupled	

### Schematic



1

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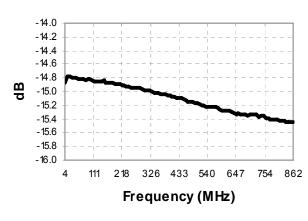
Rev. V2

### Coupler, 14dB 4 MHz - 862 MHz

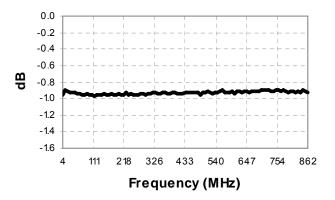
Coupling:



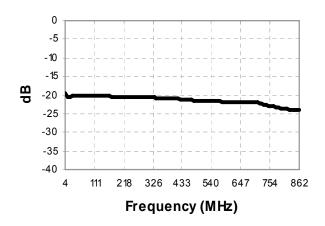
Rev. V2



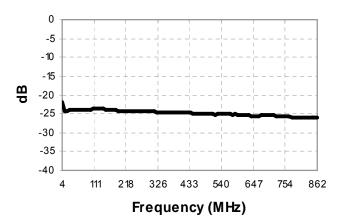
### Main Line Loss:



**Return Loss: Input** 

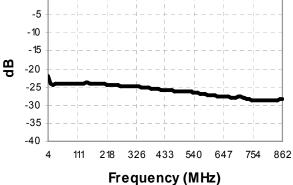






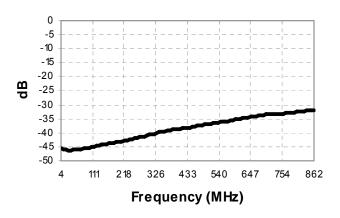
0 -5 - 10 - 15

**Return Loss: Coupled** 



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

### Isolation:



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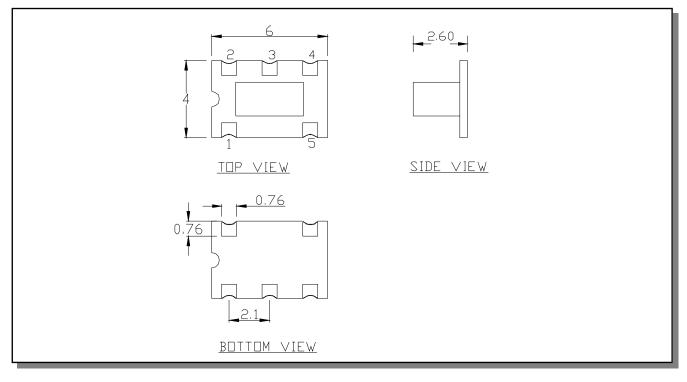
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<sup>2</sup> 

### Coupler, 14dB

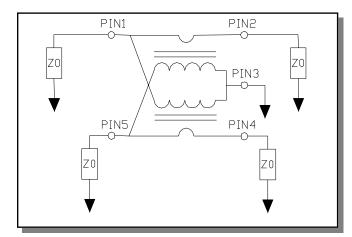
4 MHz - 862 MHz

### **Outline Drawing**

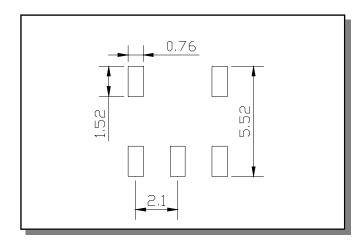


- 1. Dimensions in mm.
- 2. Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code are printed on the reel.
- 4. Finish: Electreless nickel immersion gold

### **Application Circuit**



### **Recommended Footprint**



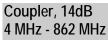
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### **Tape & Reel Information**

Parameter	Units	Value	
Qty per reel	-	2000	
Reel Size	mm	330	
Tape Width	mm	16.0	
Pitch	mm	8.0	
Ao	mm	4.3	
Во	mm	6.3	
Ко	mm	3.2	
Orientation	-	F45	
Reference Application Note ANI-019 for orientation			

### **Ordering Information**

Part Number	Description
MACP -010389-CE0880	Tape & Reel
MACP010389-CE08TB	Customer Evaluation Board

#### **Recommended Maximum Ratings**

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

Full temperature plots available on request

### **ECO History**

Rev	Date	Description	ECN NO.
V1	24 August, 2010	Created datasheet	20101182
V2	24 Sep 2010	Component outline drawing corrected	20101613

<sup>4</sup> 

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