#### Coupler, 10dB 5 MHz - 1200 MHz

#### Features

- 10dB coupling ratio
- Surface mount
- Available on tape and reel
- ♦ 260°C reflow compatible
- RoHS Compliant and Pb free
- Excellent temperature stability
- $\blacklozenge$  Can be used on 50 and 75 systems
- Suitable for all CATV, Broadband and FTTx applications.



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

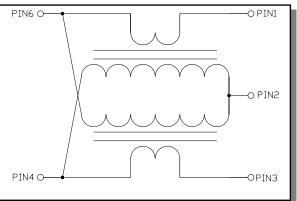
Parameter	Conditions	Units	Min	Тур	Max
Frequency Range		MHz	5		1200
Impedance		Ω		75	
Coupling Ratio		dB		10	
Coupling (Pin 3 to 1)	5 - 1200 MHz	dB	-	10.0	±0.5
Main Line Loss (Pin 3 to 4)	5 - 500 MHz 500 - 1200 MHz	dB dB		1.1 1.3	1.2 1.6
Isolation (Pin 3 to 6)	5 - 1000 MHz 1000 - 1200 MHz	dB dB	20 18	22 21	
Return Loss: Input (Pin 3)	5 - 1200 MHz	dB	17	27	-
Return Loss: Coupling (Pin 1)	5 - 1200 MHz	dB	17	26	-
Return Loss: Output (Pin 4)	5 - 1000 MHz 1000 - 1200MHz	dB dB	20 17	23 20	

### **Pin Configuration**

1

Pin No.	Function	
1	Coupled	
2	Ground	
3	Input	
4	Output	
5	Not Connected (ground)	
6	Isolated	

#### Schematic



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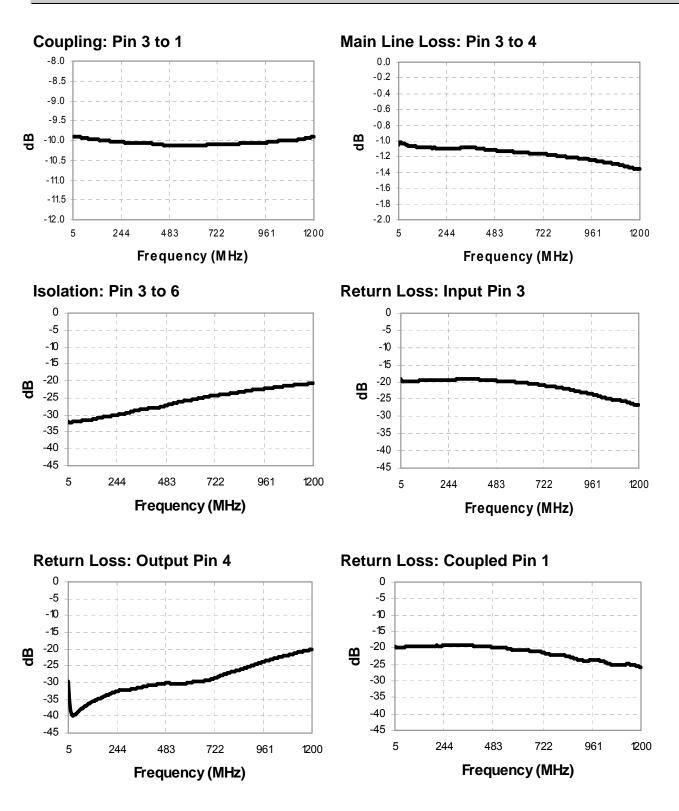


Rev. V1



#### Coupler, 10dB 5 MHz - 1200 MHz

Rev. V1



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

2

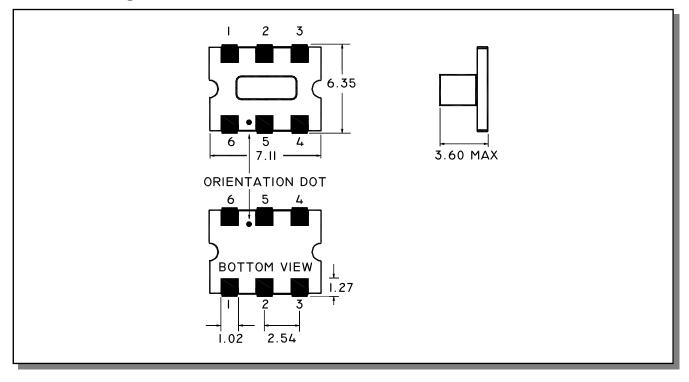
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#### Coupler, 10dB 5 MHz - 1200 MHz

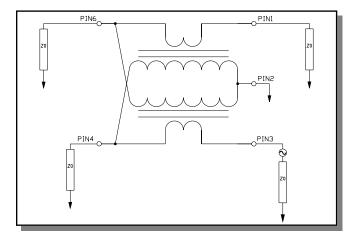
#### **Outline Drawing**



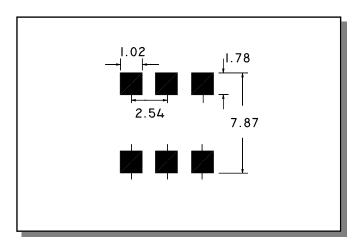
- 1. Dimensions in mm.
- 2. Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code printed on reel.
- 4. Plating Finish: ENIG gold on Nickel

### **Application Circuit**

3



#### **Recommended Footprint**



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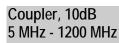
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#### **Tape & Reel Information**

Parameter	Units	Value	
Qty per reel	-	900	
Reel size	mm	330	
Tape width (W)	mm	16.0	
Pitch (P <sub>1</sub> )	mm	12.0	
A <sub>0</sub>	mm	6.7	
B <sub>0</sub>	mm	7.4	
K <sub>0</sub>	mm	3.1	
Orientation	-	F15	
Reference Application Note ANI-019 for orientation			

### **Ordering Information**

Part Number	Description
MACP -010414-CA0370	Tape & Reel
MACP -010414-CA03TB	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

Temperature data available on request

### **ECO History**

Rev	Date	Description	ECO
V1	18 Aug 2010	Released	20101117

<sup>4</sup> 

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