

## 8 dB Coupler 40 - 1250 MHz

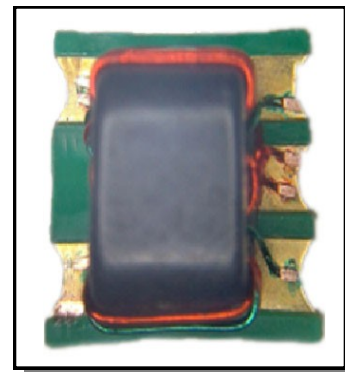
Rev. V2

### Features

- Surface mount
- 8dB Coupler
- 260°C reflow compatible
- RoHS Compliant, lead-free
- Available on tape and reel

### Description

MACOM's MACP-011015 is a 8dB coupler in a low cost, surface mount package. Ideally suited for broadband CATV applications.

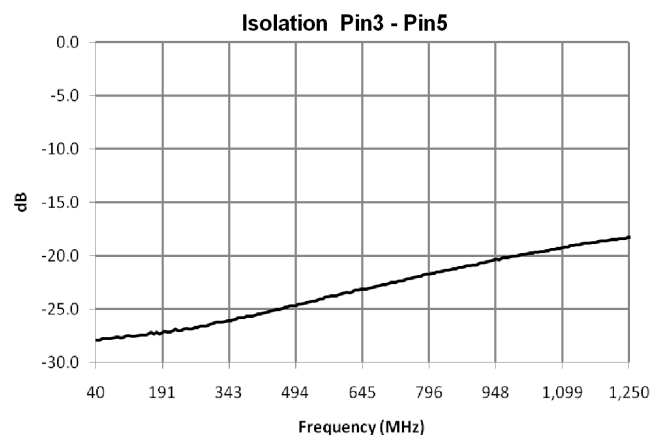
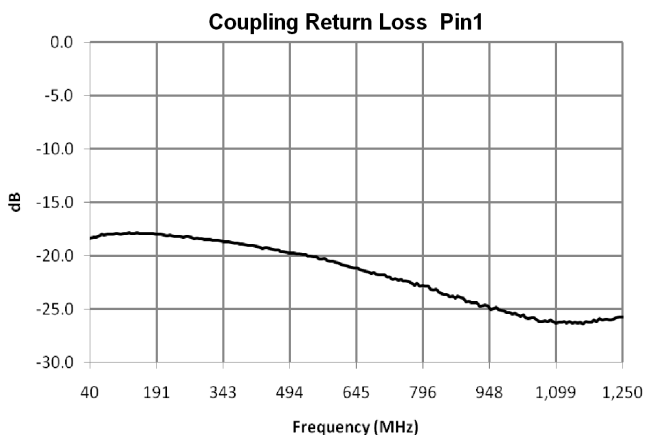
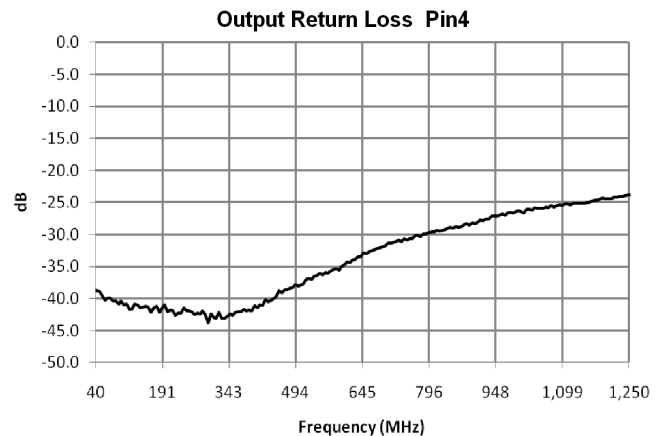
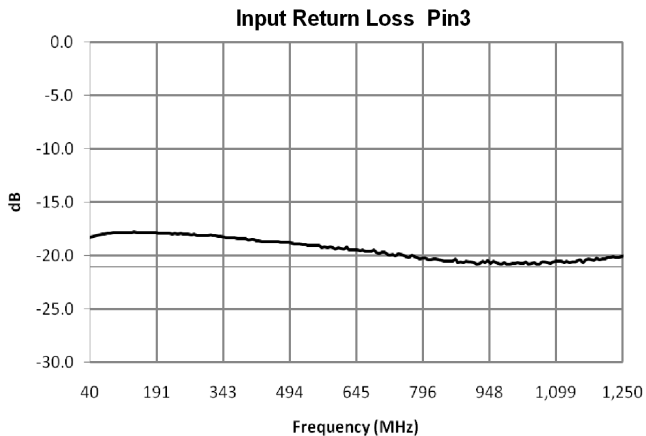
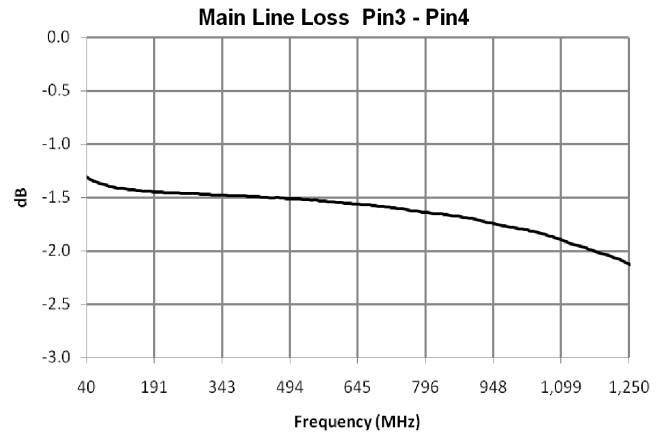
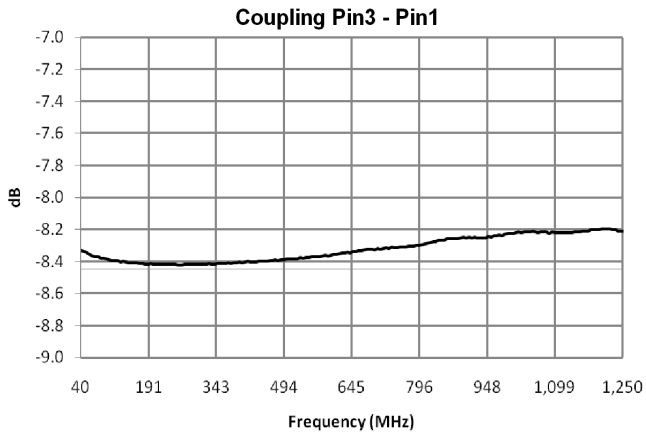


**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	40		1250
Impedance		$\Omega$	-	75	-
Coupling (Pin3 - Pin1)	40 - 1250 MHz		7.5	8	8.5
Main Line Loss (Pin3 - Pin4)	40 - 870 MHz 870- 1250 MHz	dB dB	- -	1.5 1.9	1.9 2.3
Input Return Loss (Pin3)	40 - 1250 MHz	dB	17	19	-
Output Return Loss (Pin4)	40 - 1250 MHz	dB	18	30	- - -
Coupled Return Loss (Pin1)	40 - 1250 MHz	dB	17	20	- -
Isolation (Pin3-Pin5))	40 - 500 MHz 500 - 1250 MHz	dB dB	23 16.5	27 21	- -
Directivity	40 - 500 MHz 500 - 1250 MHz	dB dB	15 8	18 12	- -

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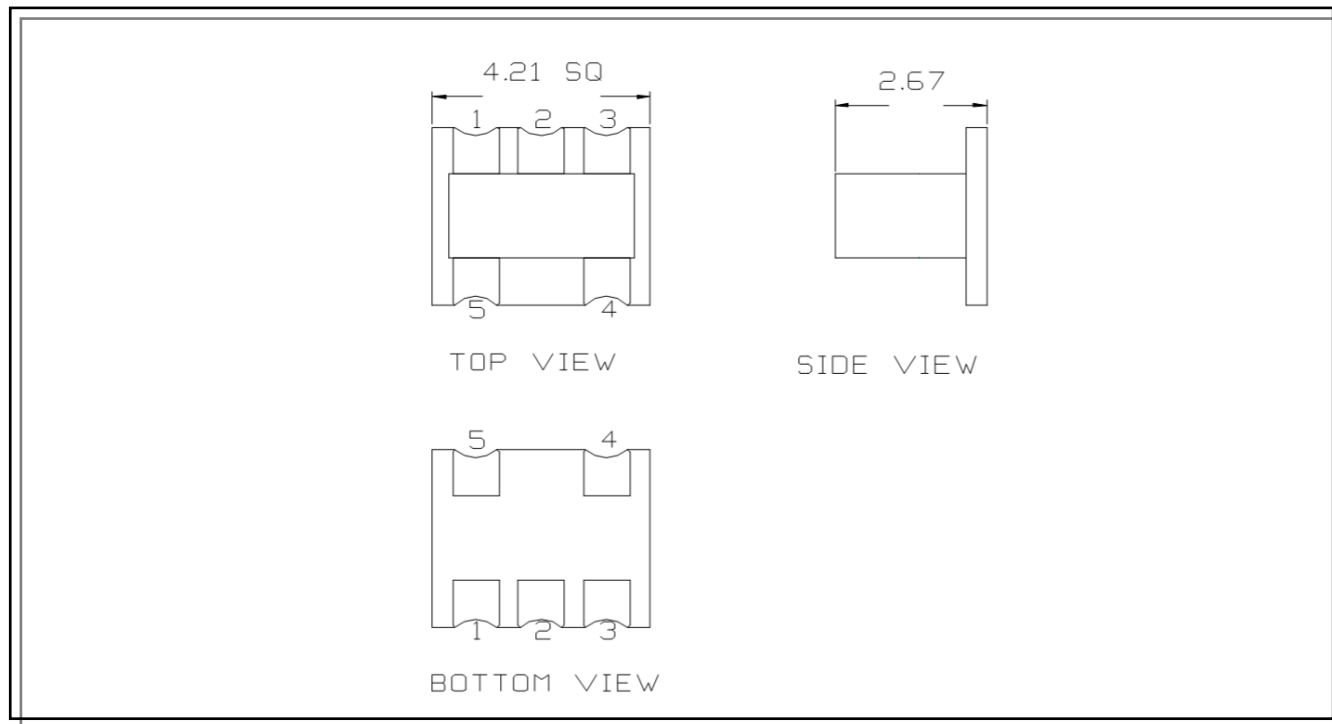


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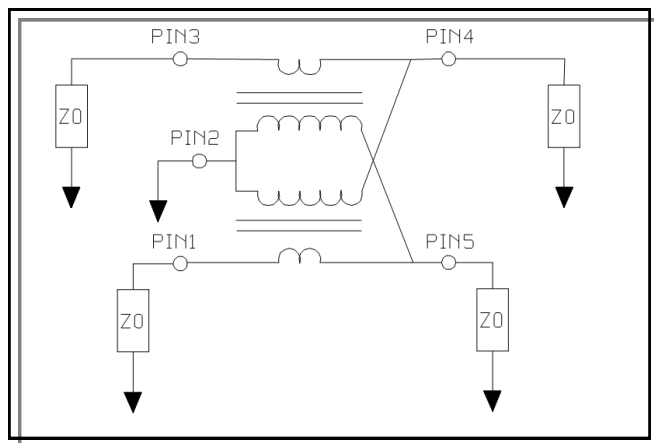
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### Outline Drawing

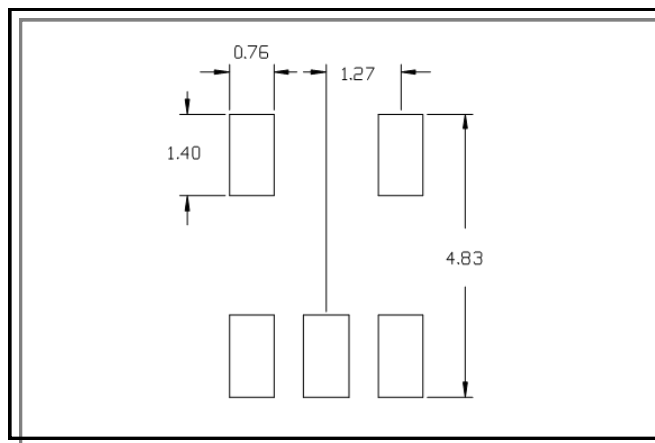


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$  mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: Electroless nickel immersion gold (ENIG)

### Application Circuit



### Recommended Footprint



**8 dB Coupler**  
**40 - 1250 MHz**

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## 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	4.50
Bo	mm	4.50
Ko	mm	3.2
Orientation	-	F31
Reference Application Note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MACP-011015	Tape & Reel
MACP-011015-TB	Customer Test Board

## Recommended Maximum Ratings

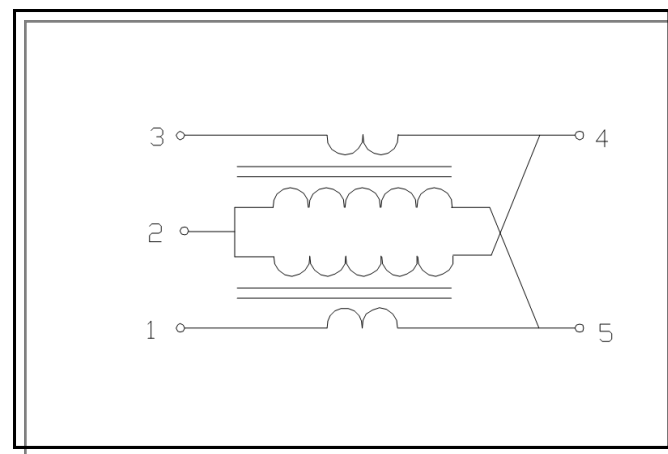
Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		30
Operating Temperature Range	°C	-40	+85

Full temperature plots available on request

## Pin Configuration

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

## Schematic



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