

17.5dB Coupler 5 – 1225 MHz

Rev. V2

#### **Features**

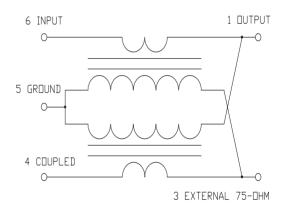
- 17.5dB coupler
- Surface mount
- 260° reflow compatible
- RoHS compliant and Pb free
- · Available on tape and reel

## **Description**

MACOM's MACP-011014 is a 17.5dB coupler in a low cost surface mount package. Ideally suited for CATV Broadband applications.



#### **Functional Schematic**



#### **Ordering Information**

Part Number	Package
MACP-011014	Tape & Reel
MACP-011014-TB	Customer test board

## **Pin Configuration**

Pin No.	Function	
1	Output	
2	Not Connected	
3	External 75 Ω	
4	Coupled	
5	Ground	
6	Input	



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

Parameter	Conditions	Units	Min	Тур	Max
Frequency Range		MHz	5		1225
Impedance	npedance		-	75	
Coupling (pin6-4)	5 - 1225 MHz	dB	17.0	17.5	18.0
Main Line Loss (pin6-1)	5 - 870 MHz 870 - 1000 MHz 1000 - 1225 MHz	dB dB dB	- - -	0.45 0.65 0.75	0.7 0.75 0.85
Input Return Loss (pin6)	5 - 870 MHz 870 - 1000 MHz 1000 - 1225 MHz	dB dB dB	23 22 20	30 34 30	- - -
Output Return Loss (pin1)			21 20	37 27	-
Coupled Return Loss 5 - 870 MHz (pin4) 870 - 1225 MHz		dB dB	22 22	30 32	-
Isolation (pin6-3)	5 - 870 MHz 870 - 1000 MHz 1000 - 1225 MHz	dB dB dB	33 30 28	47 36 34	

### **Recommended Maximum Ratings**

Parameter	Units	Min	Max
Input RF Power	W		0.5
DC Current	mA		500
Operating Temperature Range	°C	-40	+85

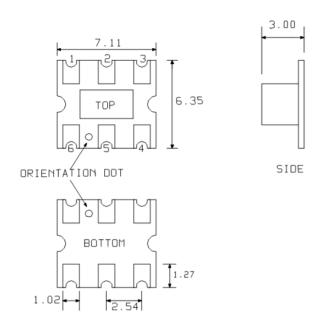
Full temperature plots available on request



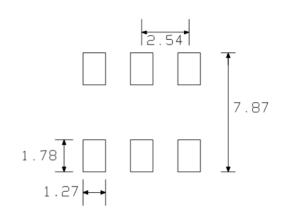
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## **Outline Drawing**

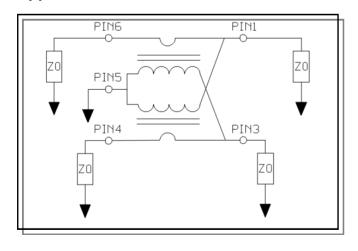


#### **PCB Layout**



- 1. Dimensions in mm.
- 2. Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code are printed on the reel.
- 4. Lead plating: ENIG.

## **Application Circuit**



# Tape & Reel Information

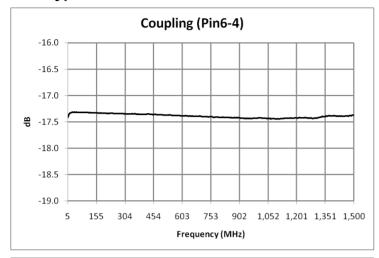
Parameter	Units	Value		
Qty per reel	-	900		
Reel Size	mm	330		
Tape Width	mm	16.00		
Pitch	mm	12.00		
Ao	mm	6.70		
Во	mm	7.40		
Ko	mm	3.10		
Orientation	-	F15		
Reference Application Note ANI-019 for orientation				

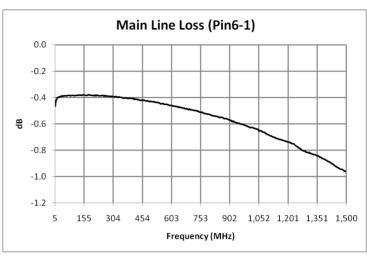
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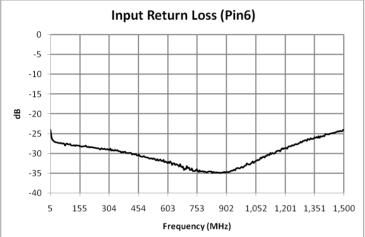


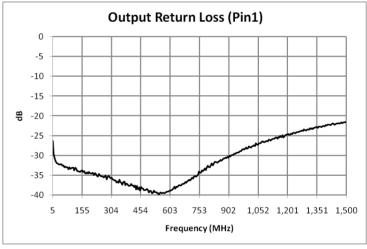
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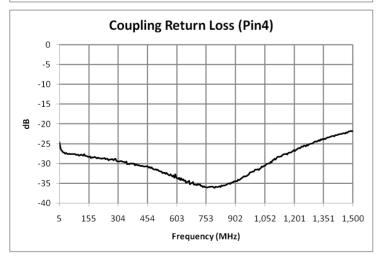
#### **Typical Performance Curves**

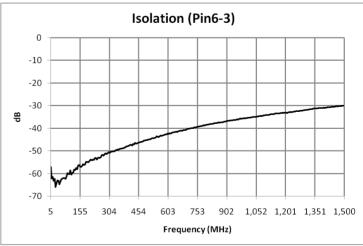












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