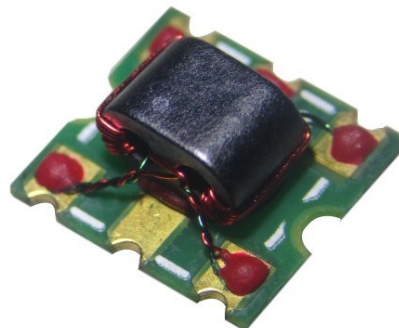


## Features

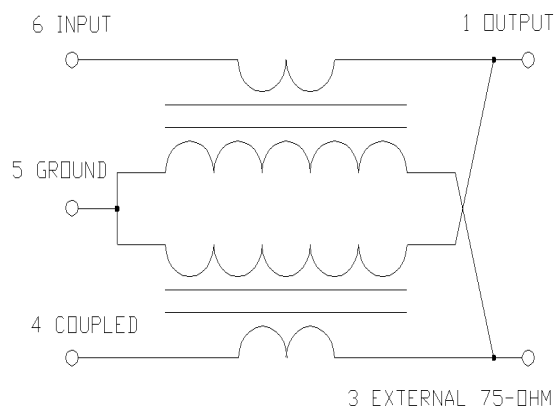
- Surface mount
- 17.5dB Coupler
- 260°C reflow compatible
- RoHS compliant and lead free
- Available on tape and reel

## Description

The MACP-011029 is a 17.5dB coupler in a low cost, surface mount package. Ideally suited for broadband CATV applications.



## Functional Schematic



## Ordering Information

Part Number	Package
MACP-011029	Tape & Reel
MACP-011029-TB	Customer Test Board

## Pin Configuration

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

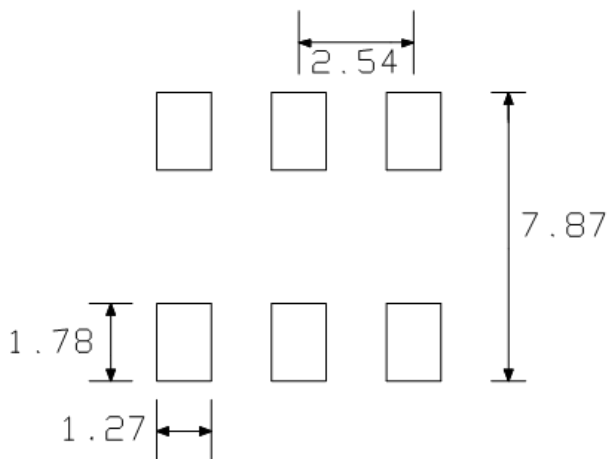
**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75 \Omega$ ,  $P_{in} = 0 \text{ dBm}$**

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		1,218
Impedance		$\Omega$	-	75	
Coupling (pin6-4)	5 - 1218 MHz	dB	-18	17.5	-17
Main Line Loss (pin6-1), (pin4-3)	5 - 870 MHz	dB	-	0.5	0.65
	870 - 1002 MHz	dB	-	0.6	0.75
	1002 - 1218 MHz	dB	-	0.8	0.85
Input Return Loss (pin6)	5 - 870 MHz	dB	20	24	-
	870 - 1002 MHz	dB	20	23	-
	1002 - 1218 MHz	dB	20	22	-
Output Return Loss (pin1)	5 - 870 MHz	dB	20	22	-
	870 - 1002 MHz	dB	20	23	-
	1002 - 1218 MHz	dB	18	20	-
Coupled Return Loss (pin4)	5 - 870 MHz	dB	20	24	-
	870 - 1002 MHz	dB	20	23	-
	1002 - 1218 MHz	dB	18	20	-
Directivity	5 - 870 MHz	dB	13	15	-
	870 - 1002 MHz	dB	12	14	-
	1002 - 1218 MHz	dB	11	13	-

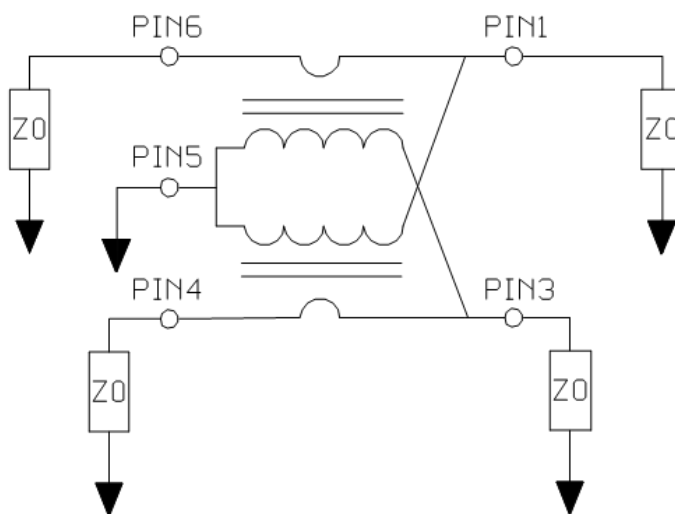
## Recommended Maximum Ratings

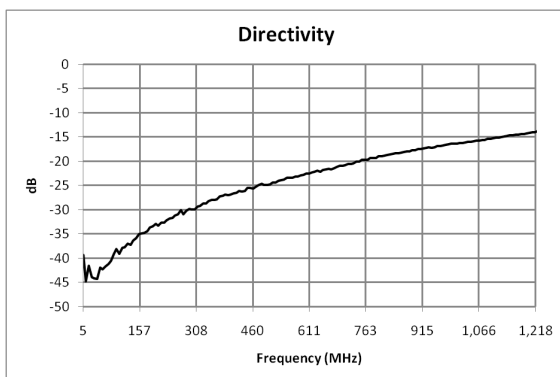
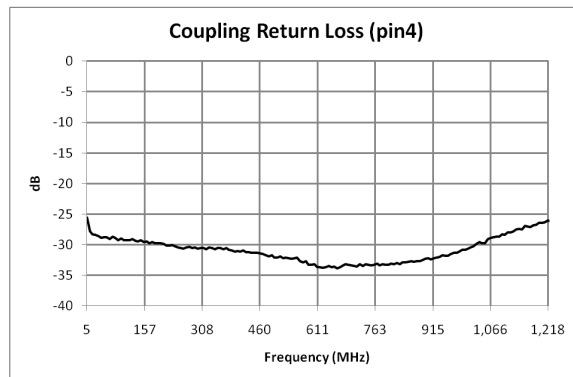
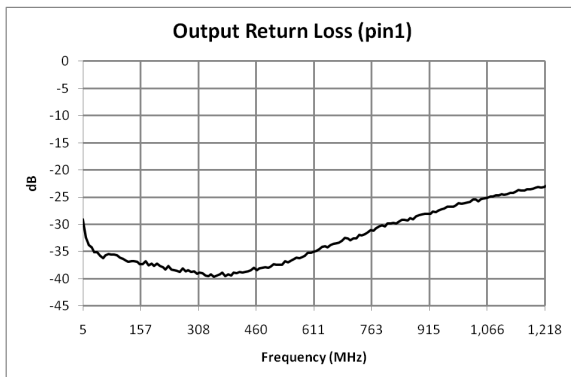
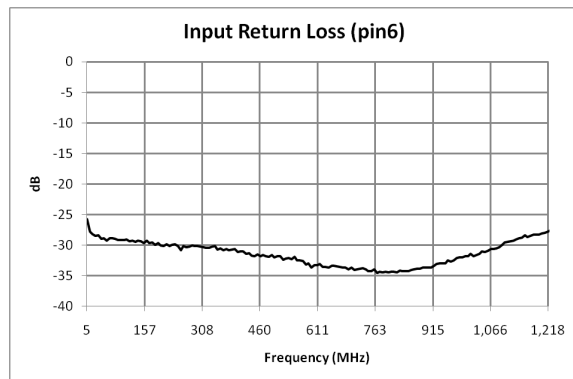
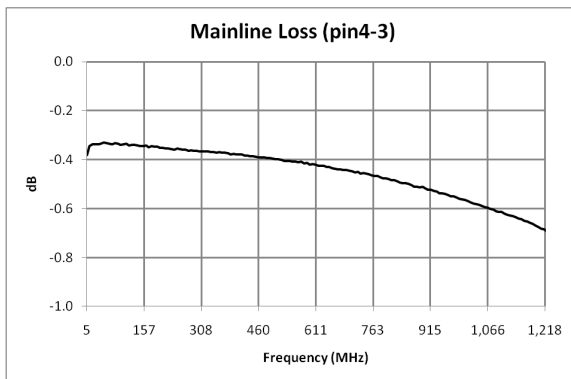
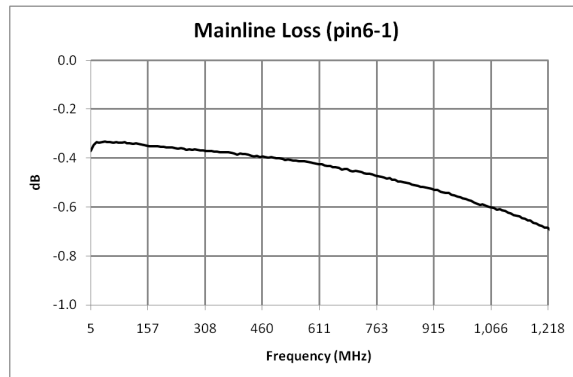
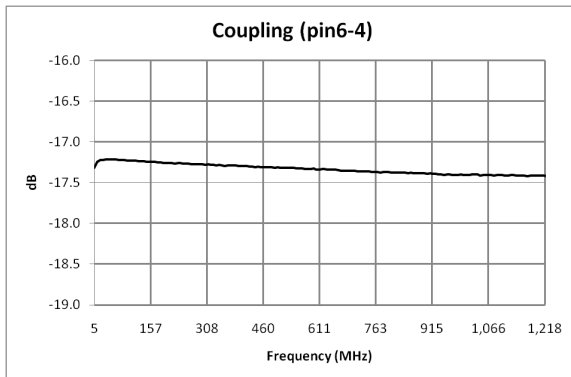
Parameter	Units	Min	Max
Input Power	W		0.5
DC Current	mA		500
Operating Temperature Range	$^\circ\text{C}$	-40	+85

## PCB Layout

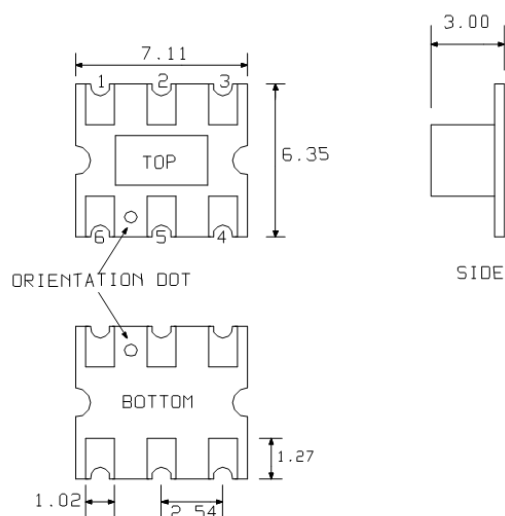


## Application Schematic





## Outline Drawing

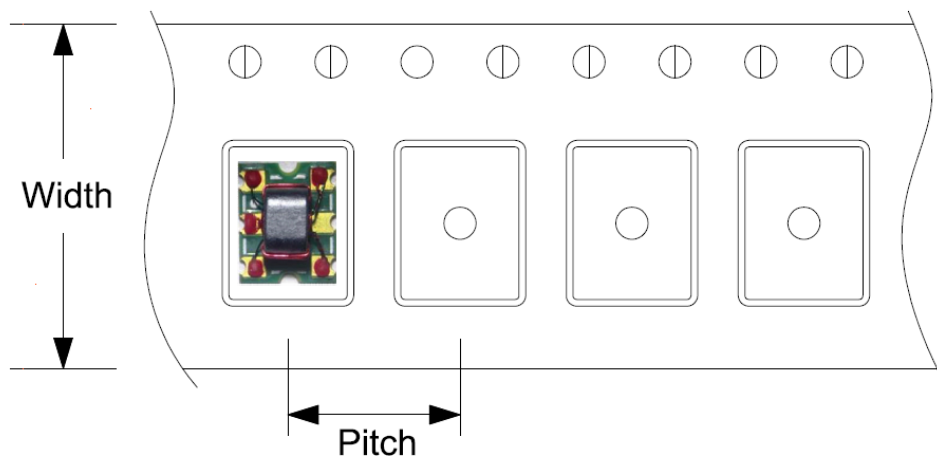


## Tape & Reel Information

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

1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1  $\mu$ m gold over 3 to 6  $\mu$ m nickel

## Carrier Tape Orientation



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