

# Coupler, 17.5 dB

## 5 - 1218 MHz



MACP-011029

Rev. V2

### Features

- Surface Mount Technology
- 17.5 dB Coupler
- 260°C Reflow Compatible
- RoHS Compliant & Lead Free
- Available on Tape & Reel

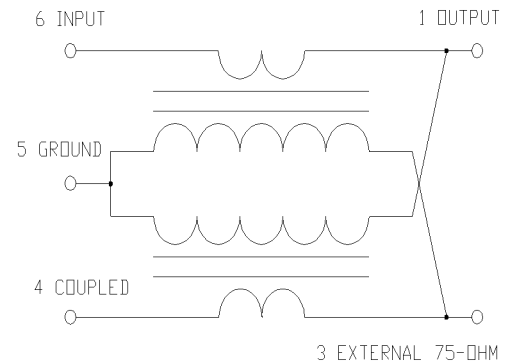
### Applications

- CATV

### Description

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

### Functional Schematic



### Pin Configuration

Pin #	Function	Pin #	Function
1	Output	4	Coupled
2	Not Connected	5	Ground
3	External 75 Ohm	6	Input

### Electrical Specifications: Freq. = 5 - 1218 MHz, T<sub>A</sub> = 25°C, Z<sub>0</sub> = 75 Ω, P<sub>in</sub> = 0 dBm

Parameter	Conditions	Units	Min.	Typ.	Max.
Coupling (pin 6-4)	5 - 1218 MHz	dB	-18	17.5	-17
Main Line Loss (pin 6-1), (pin 4-3)	5 - 870 MHz 870 - 1002 MHz 1002 - 1218 MHz	dB	—	0.5 0.6 0.8	0.65 0.75 0.85
Input Return Loss (pin 6)	5 - 870 MHz 870 - 1002 MHz 1002 - 1218 MHz	dB	20 20 20	24 23 22	—
Output Return Loss (pin 1)	5 - 870 MHz 870 - 1002 MHz 1002 - 1218 MHz	dB	20 20 18	22 23 20	—
Coupled Return Loss (pin 4)	5 - 870 MHz 870 - 1002 MHz 1002 - 1218 MHz	dB	20 20 18	24 23 20	—
Directivity	5 - 870 MHz 870 - 1002 MHz 1002 - 1218 MHz	dB	13 12 11	15 14 13	—

### Ordering Information

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

### Recommended Maximum Ratings

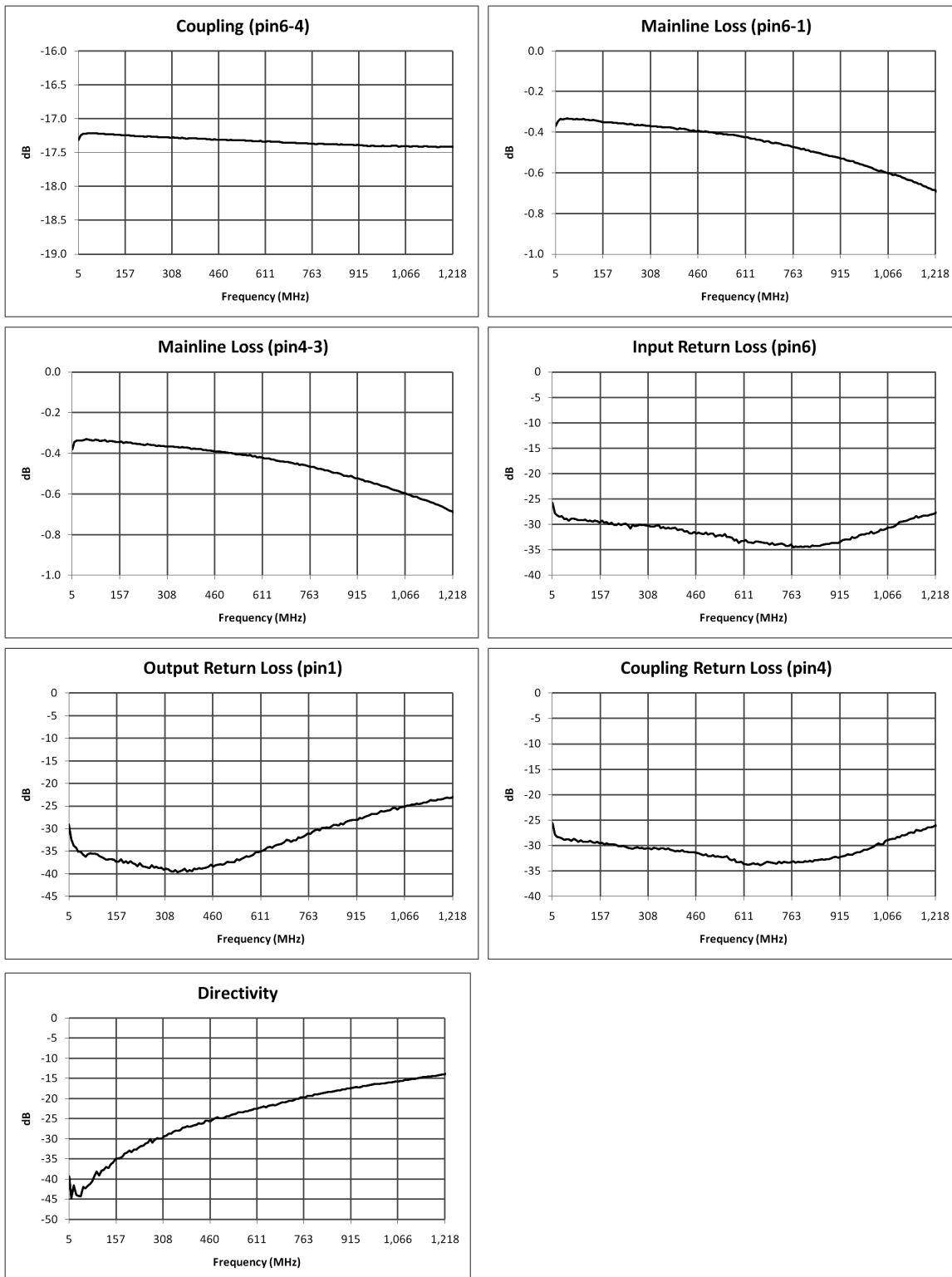
Parameter	Rating
Input Power	0.5 W
DC Current	500 mA
Operating Temperature	-40°C to +85°C

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## Typical Performance Curves

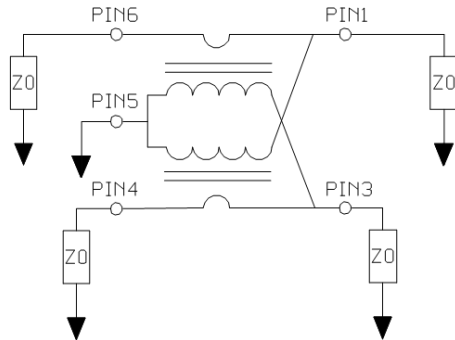


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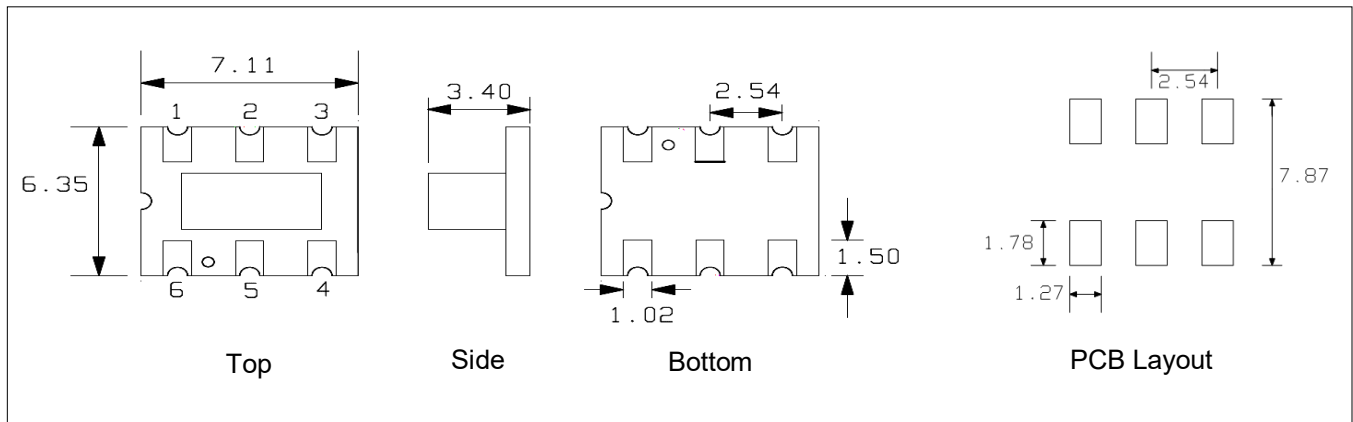


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## Application Schematic

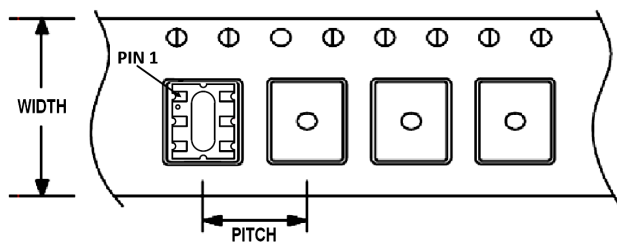


## Outline Drawing



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  $\mu\text{m}$  gold over 3 to 6  $\mu\text{m}$  nickel

## Carrier Tape Orientation



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16
Pitch	mm	12
Orientation	-	F15
Reference Application Note ANI-019 for orientation		

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