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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Features

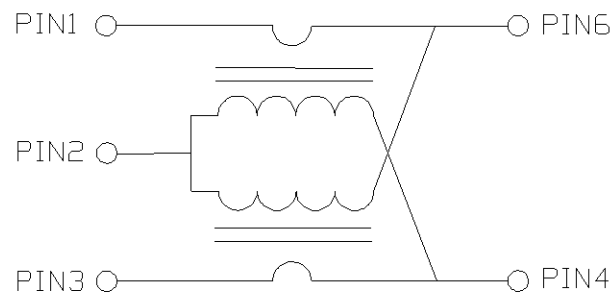
- 16 dB Coupling Ratio
- Surface Mount
- Available on Tape and Reel
- Excellent Temperature Stability
- RoHS Compliant and lead free
- 260°C Reflow Compatible



## Description

The MACP-011036 is a 16 dB coupler in a low cost, surface mount package. Ideally suited for broadband CATV applications.

## Functional Schematic



## Ordering Information

Part Number	Description
MACP-011036	900 piece reel
MACP-011036-TB	Sample Test Board

## Pin Configuration

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

## 16 dB Coupler 5 - 1225 MHz

Rev. V1

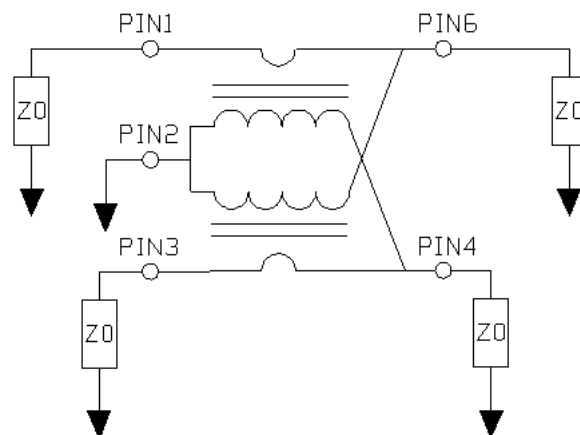
Electrical Specifications: Freq. = 5 - 1225 MHz,  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75 \Omega$ ,  $P_{in} = 0 \text{ dBm}$

Parameter	Conditions	Units	Min.	Typ.	Max.
Coupling Ratio	—	dB	—	16	—
Coupling (Pin 1- Pin 3)	5 - 1225 MHz	dB	16.7	16	15.7
Main Line Loss (Pin 1- Pin 6)	5 - 1000 MHz 1000 - 1225 MHz	dB	—	0.8 1.0	0.9 1.2
Isolation (Pin 1- Pin 4)	5 - 500 MHz 500 - 1225 MHz	dB	31 26	34 28	—
Input Return Loss (Pin 1)	5 - 500 MHz 500 - 1225 MHz	dB	20 16	22 18	—
Output Return Loss (Pin 6)	5 - 500 MHz 500 - 1225 MHz	dB	20 14	22 16	—
Coupling Return Loss (Pin 3)	5 - 500 MHz 500 - 1225 MHz	dB	20 14	22 16	—

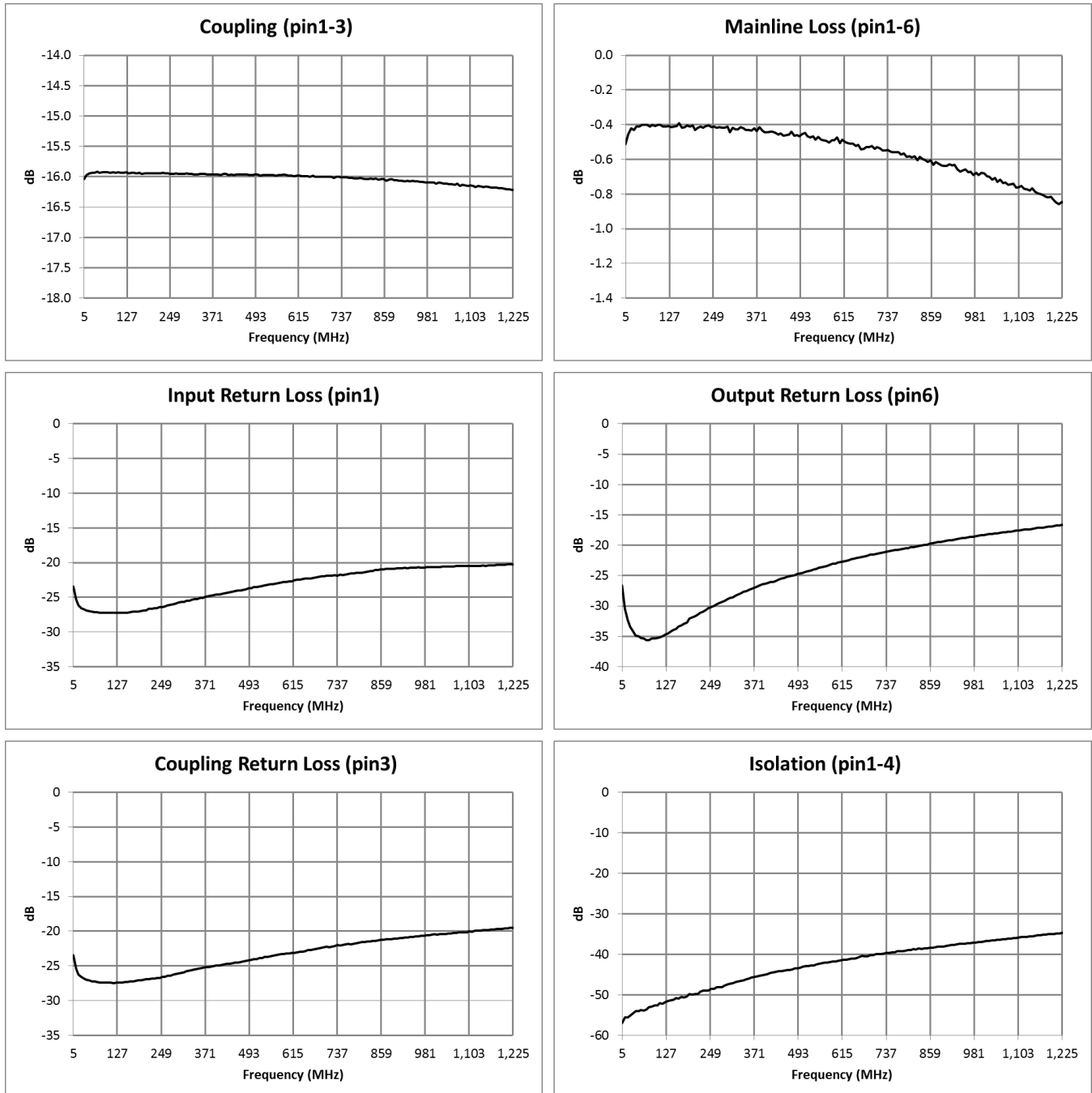
### Absolute Maximum Ratings

Parameter	Absolute Maximum
Input Power	0.5 W
DC Current	500 mA
Operating Temperature	$-40^\circ\text{C}$ to $+85^\circ\text{C}$

### Application Schematic



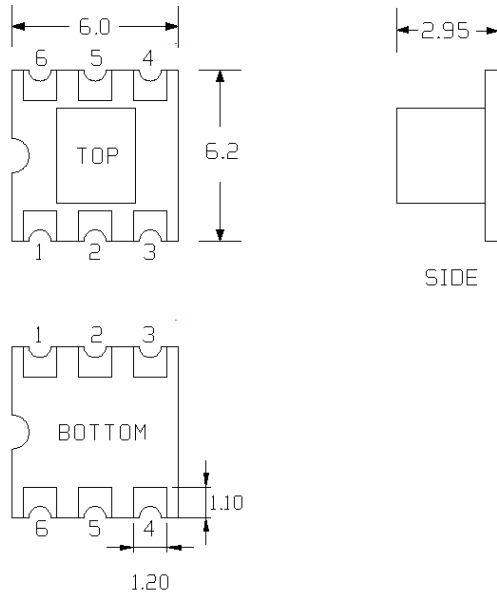
## Typical Performance Curves<sup>1</sup>



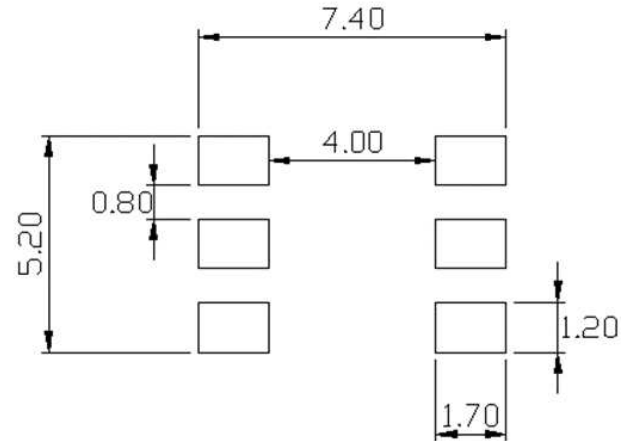
1. Full temperature plots available on request.



## Outline Drawing

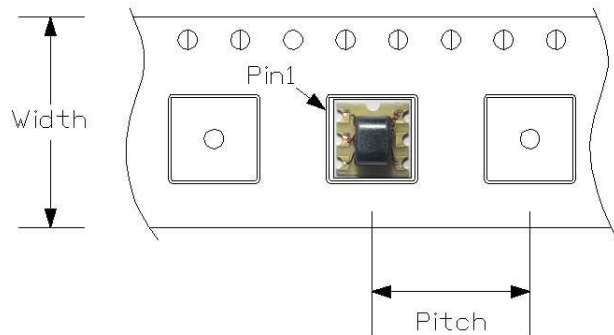


## PCB Layout



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  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	16.00
Pitch	mm	12.00
Orientation	-	F45
Reference Application Note ANI-019 for orientation		

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