



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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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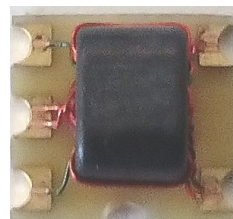
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

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Features

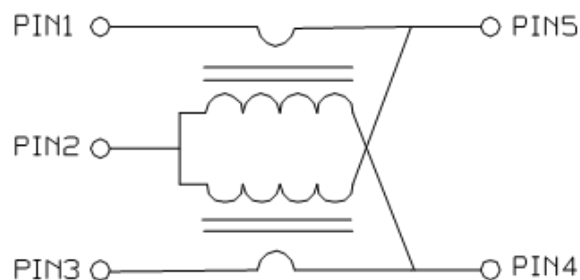
- 16 dB Coupling Ratio
- Surface Mount
- Available on Tape and Reel
- Excellent Temperature Stability
- RoHS Compliant and lead free
- 260°C Reflow Compatible



Description

The MACP-011038 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-011038	900 piece reel
MACP-011038-TB	Sample Test Board

Pin Configuration

Pin No.	Function
1	Input
2	Ground
3	Coupled
4	Isolated
5	Output

16 dB Coupler
5 - 1225 MHz

Rev. V2

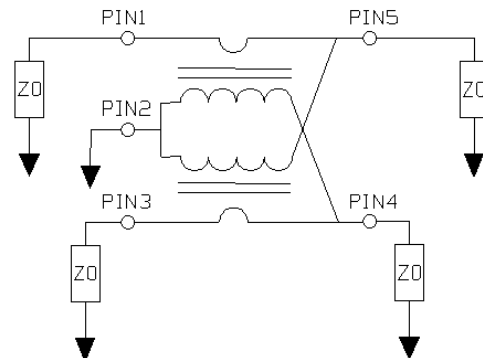
Electrical Specifications: Freq. = 5 - 1225 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$

Parameter	Conditions	Units	Min.	Typ.	Max.
Coupling Ratio	—	dB	—	16	-
Coupling (Pin 1- Pin 3)	5 - 1225 MHz	dB	16.5	16.0	15.5
Main Line Loss (Pin 1- Pin 5)	5 - 1000MHz 1000 - 1225 MHz	dB	—	0.7 0.9	0.8 1.0
Isolation (Pin 1- Pin 4)	5 - 1225 MHz	dB	30	33	—
Input Return Loss (Pin 1)	5 - 1000 MHz 1000 - 1225 MHz	dB	19 18	21 20	—
Output Return Loss (Pin 5)	5 - 1000 MHz 1000 - 1225 MHz	dB	18 16	20 18	—
Coupling Return Loss (Pin 3)	5 - 1000 MHz 1000 - 1225 MHz	dB	18 16	20 18	—

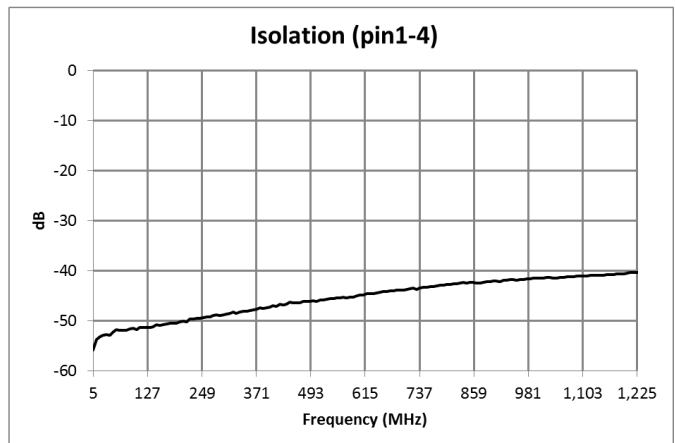
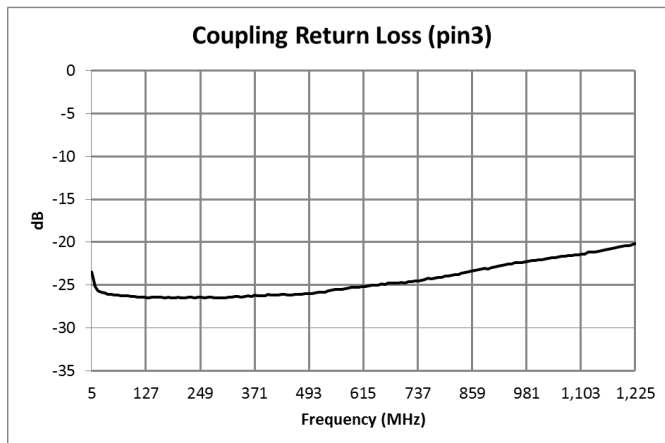
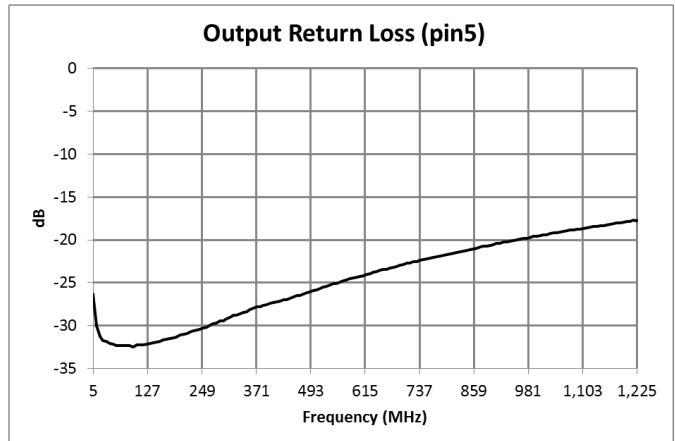
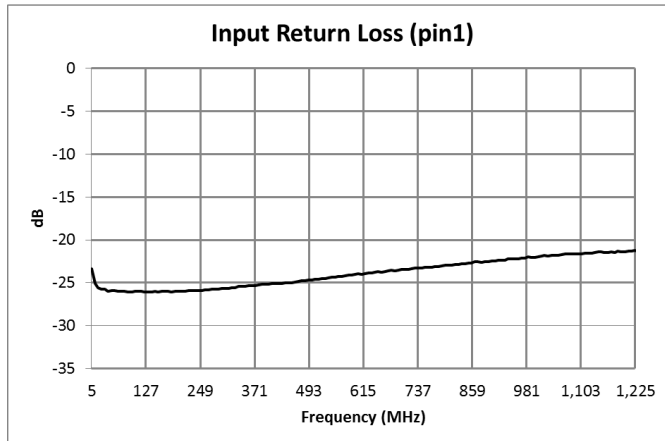
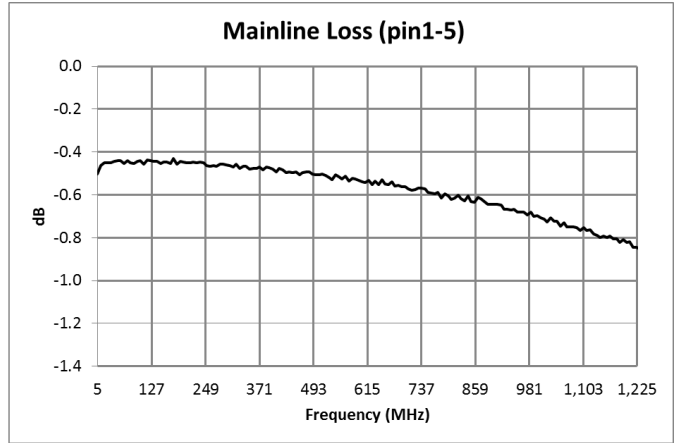
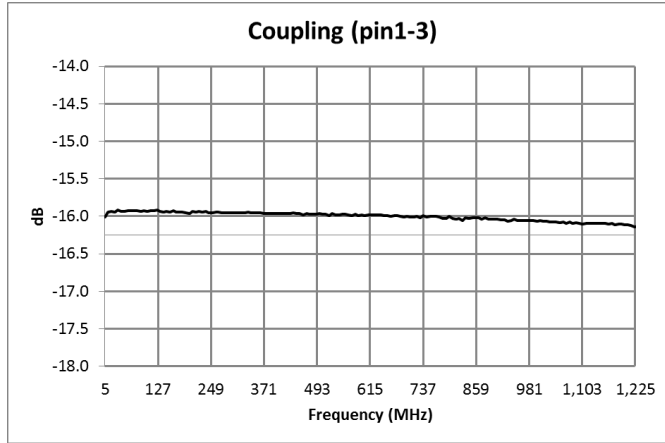
Absolute Maximum Ratings

Parameter	Absolute Maximum
Input Power	1.5 W
DC Current	500 mA
Operating Temperature	-40°C to $+85^\circ\text{C}$

Application Schematic

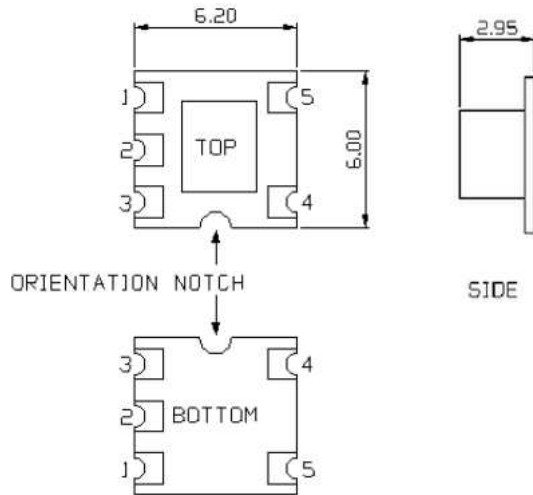


Typical Performance Curves¹

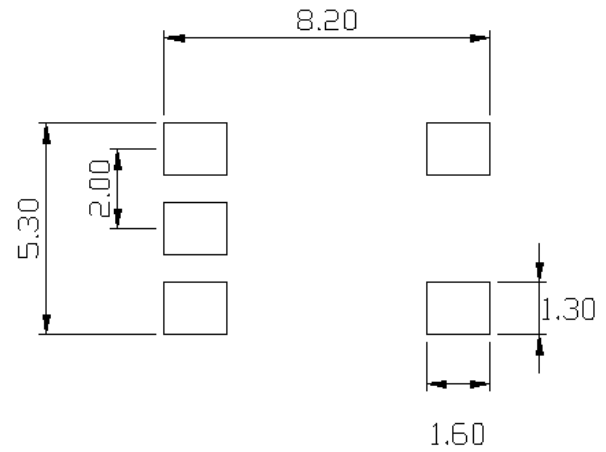


1. Full temperature plots available on request.

Outline Drawing

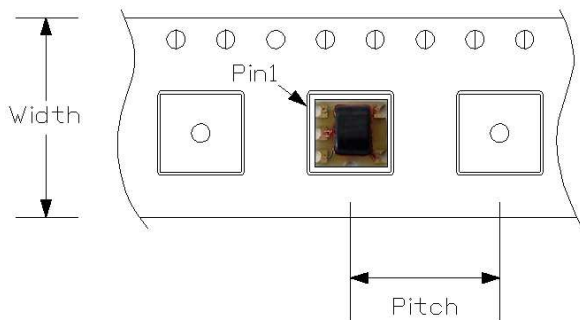


PCB Layout



1. Dimensions in mm.
2. Tolerance: ± 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 μm gold over 3 to 6 μm 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	-	F59
Reference Application Note ANI-019 for orientation		

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