

16 dB Coupler 5 - 1225 MHz

Rev. V2

Features

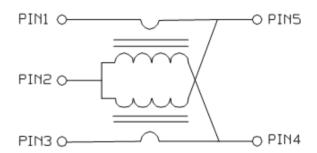
- 16 dB Coupling Ratio
- Surface Mount
- · Available on Tape and Reel
- Excellent Temperature Stability
- RoHS Compliant and lead free
- 260°C Reflow Compatible



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		

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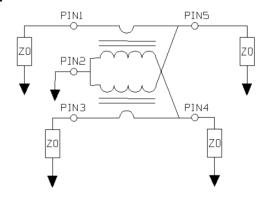
Electrical Specifications: Freq. = 5 - 1225 MHz, T_A = 25°C, Z_0 = 75 Ω , P_{in} = 0 dBm

Parameter	Conditions	Units	Min.	Тур.	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°C

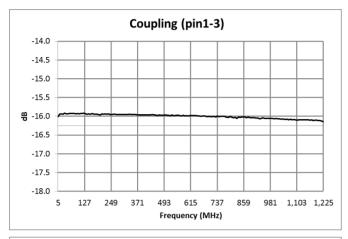
Application Schematic

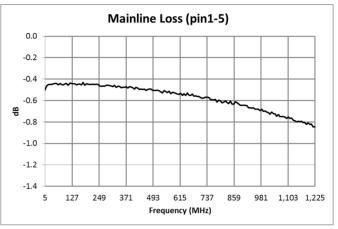


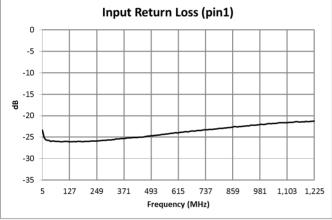


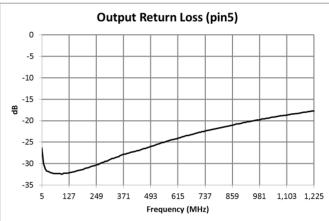
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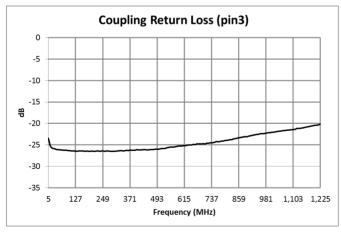
Typical Performance Curves¹

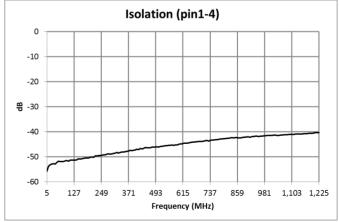












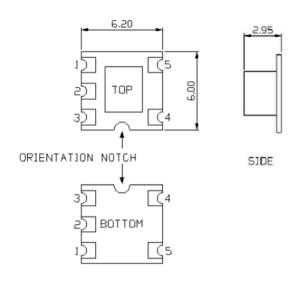
1. Full temperature plots available on request.



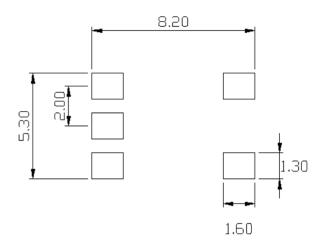
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Outline Drawing

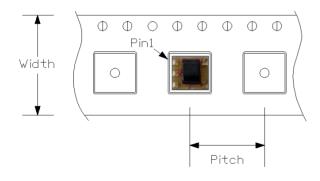


PCB Layout



- 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
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Reference Application Note ANI-019 for orientation

MACP-011038



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