

12 dB Coupler 5 - 1225 MHz

V2

Features

- Surface mount
- 12dB Coupler
- 260°C reflow compatible
- RoHS Compliant, lead-free
- Available on tape and reel

Description

M/A-Com's MACP-011010 is a 12dB coupler in a low cost, surface mount package. Ideally suited for broadband CATV applications.

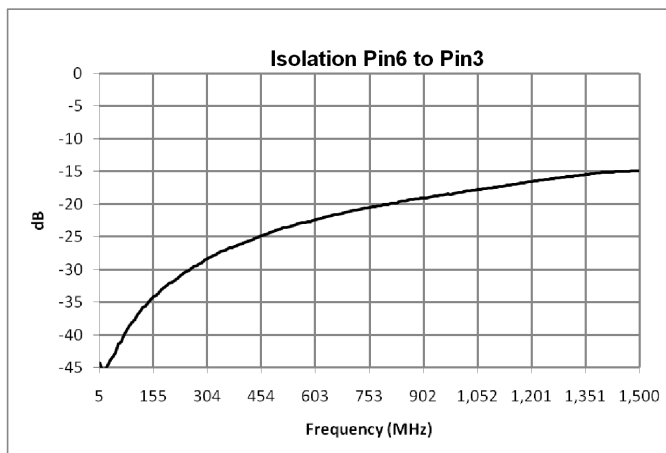
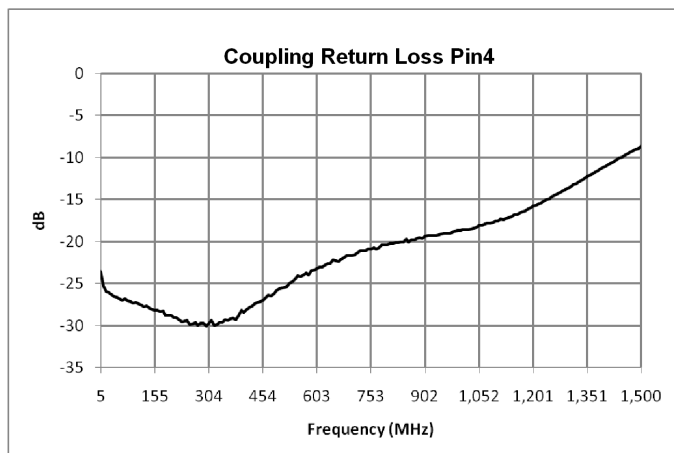
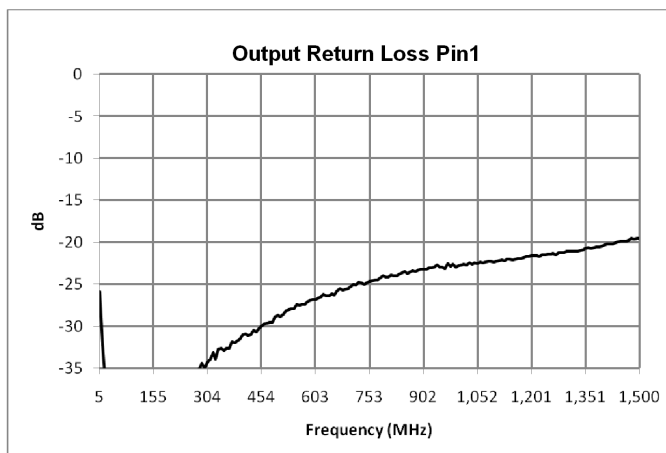
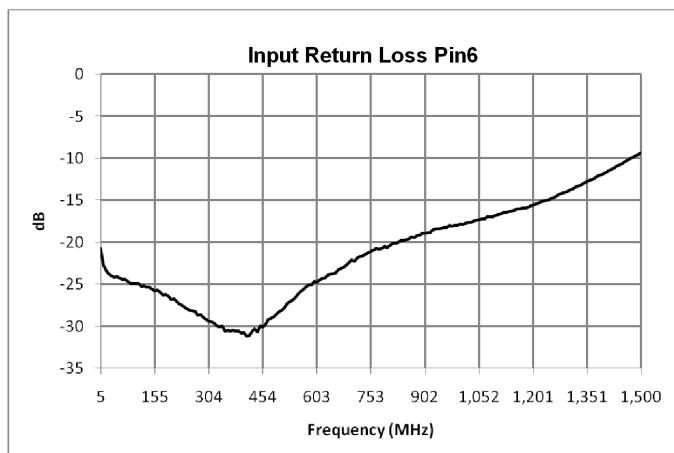
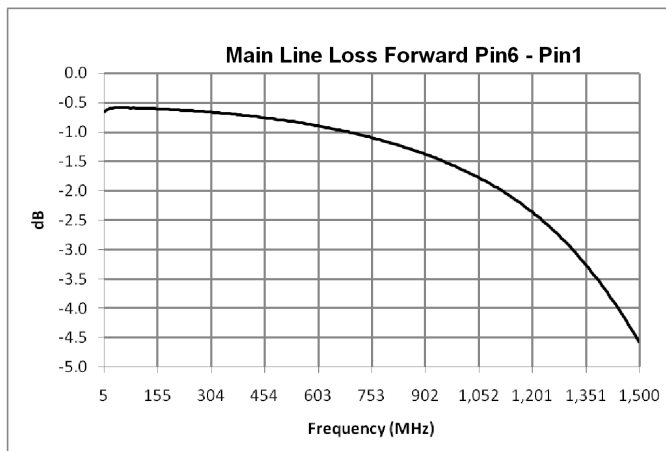
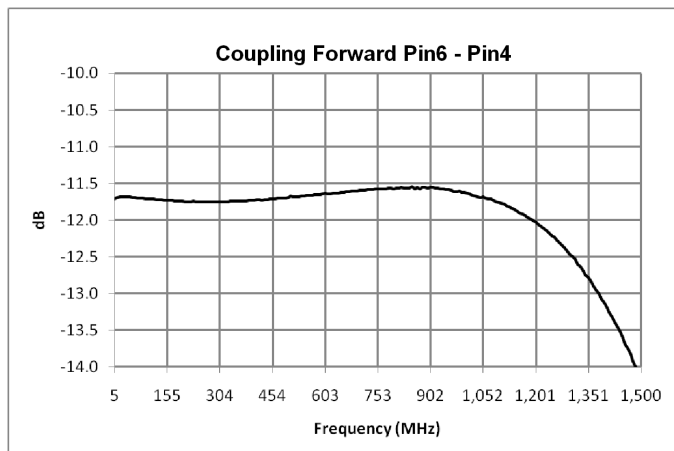


Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		1225
Impedance		Ω	-	75	
Coupling (pin6-4)	5 - 500 MHz	dB	11.4	11.7	12.0
	501 - 750 MHz	dB	11.1	11.6	12.0
	751 - 900 MHz	dB	11.1	11.6	12.1
	901 - 1140 MHz	dB	11.1	11.6	12.6
	1141 - 1225 MHz	dB	11.1	11.9	13.0
Main Line Loss (pin6-1)	5 - 46 MHz	dB	-	0.6	0.9
	47 - 870 MHz	dB	-	0.7	1.5
	871 - 1140 MHz	dB	-	1.6	2.7
	1141 - 1225 MHz	dB	-	2.2	3.0
Coupling Flatness	5 - 1225 MHz	dB	-	-	1.0
Input Return Loss (pin6)	5 - 46 MHz	dB	19	24	-
	47 - 450 MHz	dB	23	28	-
	451 - 600 MHz	dB	21	27	-
	601 - 900 MHz	dB	16	21	-
	901 - 1225 MHz	dB	12	17	-
Output Return Loss (pin1)	5 - 450 MHz	dB	22	37	-
	451 - 900 MHz	dB	18	25	-
	901 - 1,000MHz	dB	17	23	-
	1001 - 1225 MHz	dB	16	22	-
Coupled Return Loss (pin4)	5 - 46 MHz	dB	20	26	-
	47 - 300 MHz	dB	25	28	-
	301 - 450MHz	dB	22	29	-
	451 - 850 MHz	dB	17	22	-
	851 - 970 MHz	dB	14	19	-
	971 - 1225 MHz	dB	11	18	-

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V2

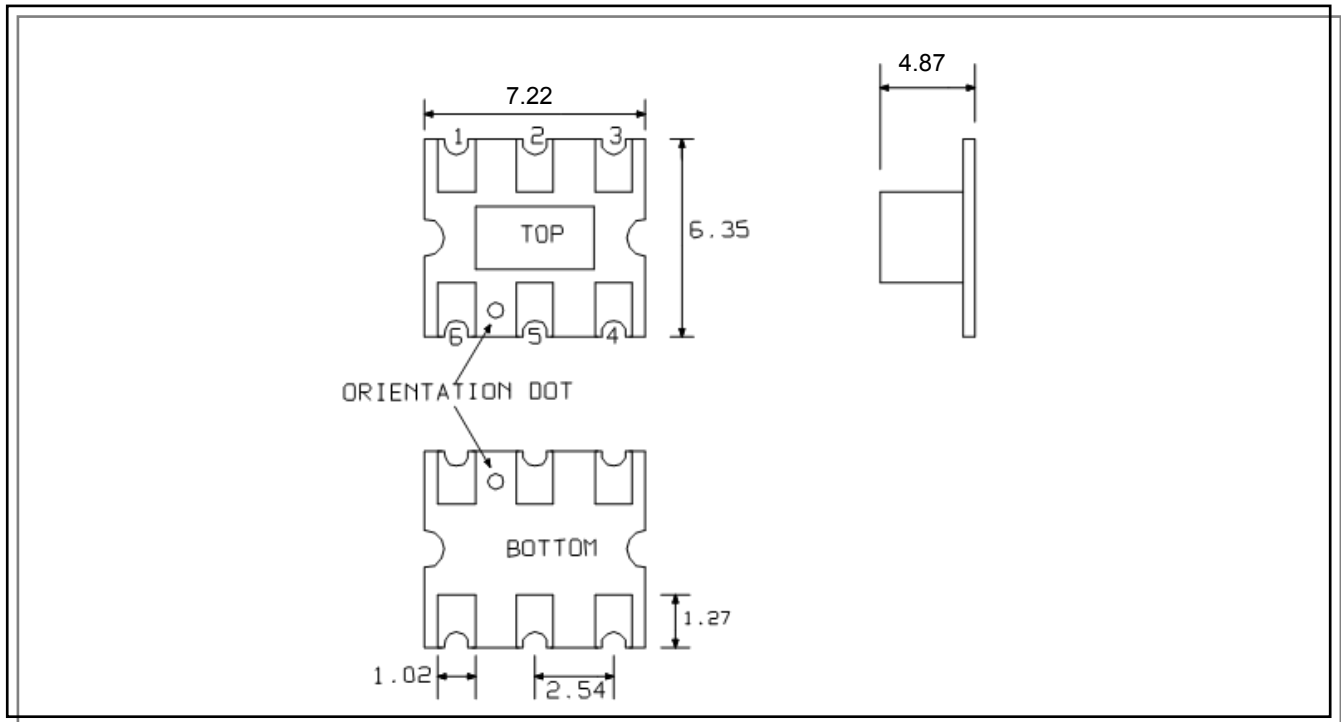


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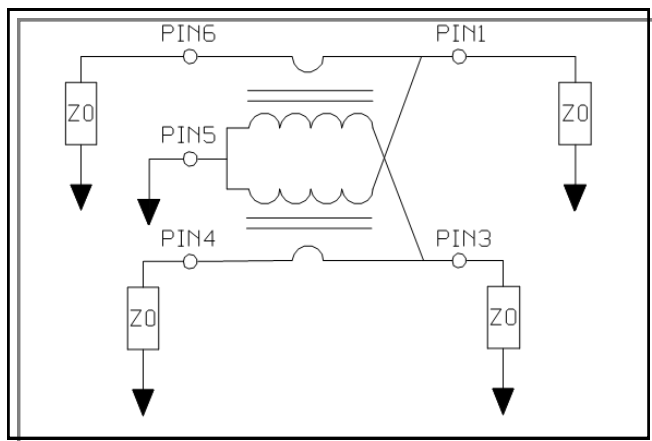
V2

Outline Drawing

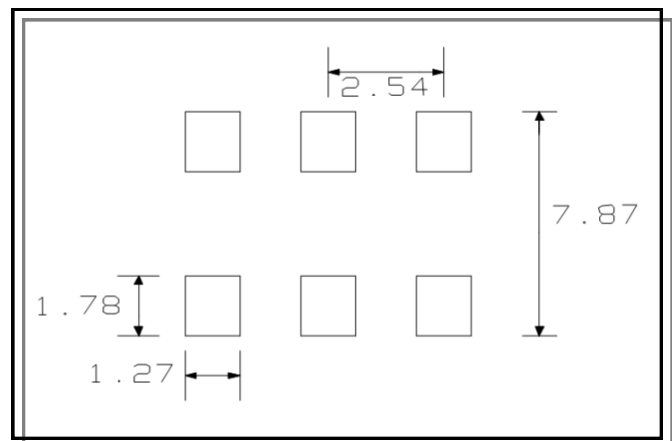


1. Dimensions in mm.
2. Tolerance: $\pm 0.2\text{mm}$ unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: Electroless nickel immersion gold (ENIG)

Application Circuit



Recommended Footprint



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Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Ao	mm	6.80
Bo	mm	7.60
Ko	mm	5.30
Orientation	-	F15
Reference Application Note ANI-019 for orientation		

Ordering Information

Part Number	Description
MACP-011010	Tape & Reel
MACP-011010-TB	Customer Test Board

Recommended Maximum Ratings

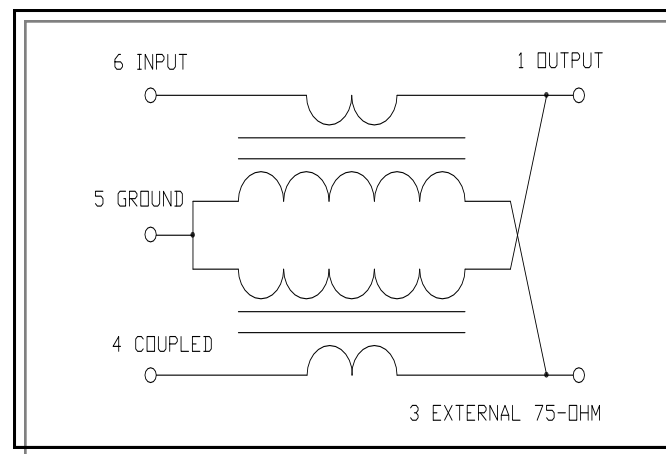
Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		30
Operating Temperature Range	°C	-40	+85

Full temperature plots available on request

Pin Configuration

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

Schematic



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