



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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MACP-010507-CH0160

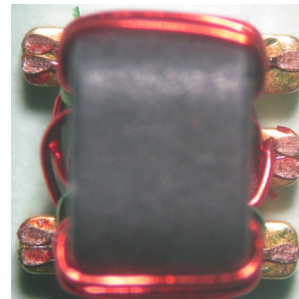


17dB Coupler
5 – 300 MHz

Rev. V2

Features

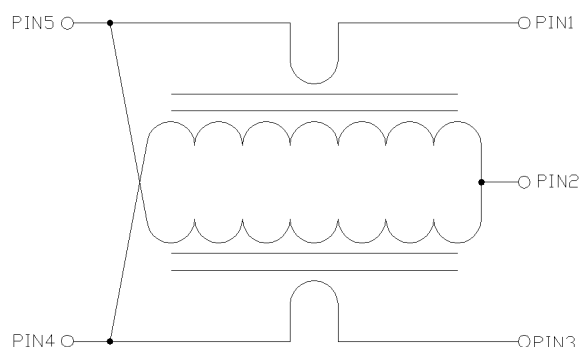
- 17dB Coupling ratio
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Can be used on 50Ω and 75Ω systems
- Suitable for all CATV, Broadband and FTTX applications.



Description

MACOM's MACP-010507-CH0160 is a 17dB Coupler in a low cost surface mount package. Ideally suited for CATV Broadband applications.

Functional Schematic



Ordering Information

Part Number	Package
MACP-010507-CH0160	Tape & Reel
MACP-010507-CH01TB	Customer test board

Pin Configuration

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

MACP-010507-CH0160



17dB Coupler
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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		300
Impedance		Ω		75	
Coupling Ratio		dB		17	
Coupling (Pin5-4)	5 - 120 MHz	dB	16.0	17	18.0
	120 - 300 MHz	dB	16.5	17	17.5
Coupling Flatness	5 - 120 MHz	dB	-	-	0.4
	120 - 300 MHz	dB	-	-	0.2
Main Line Loss (Pin5-1)	5 - 120 MHz	dB	-	0.4	0.8
	120 - 300 MHz	dB	-	0.4	0.5
Directivity	5 - 120 MHz	dB	16.0	19	-
	120 - 300 MHz	dB	12.5	19	-
Input Return Loss (Pin5)	5 - 120 MHz	dB	20	31	-
	120 - 300 MHz	dB	20	31	-
Output Return Loss (Pin1)	5 - 120 MHz	dB	20	27	-
	120 - 300 MHz	dB	20	27	-
Coupling Return Loss (Pin4)	5 - 120 MHz	dB	20	31	-
	120 - 300 MHz	dB	20	31	-

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input RF Power	W		0.5
DC Current	mA		500
Operating Temperature Range	$^\circ\text{C}$	-40	+85

Full temperature plots available on request

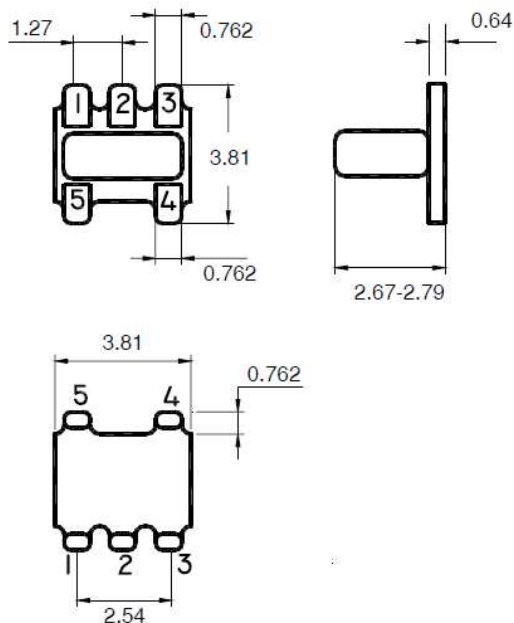
MACP-010507-CH0160



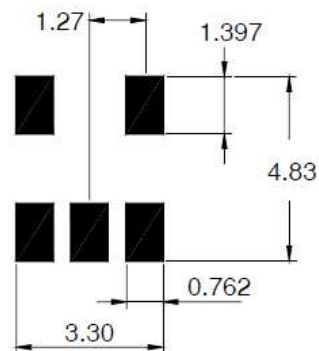
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Outline Drawing

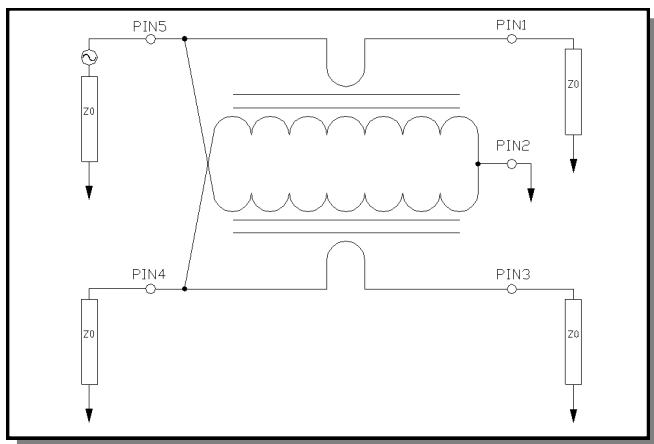


PCB Layout



1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating (CuSn6) Lead finish SAC-305.

Application Circuit



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.00
Bo	mm	4.00
Ko	mm	2.90
Orientation	-	F5
Reference Application Note ANI-019 for orientation		

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Typical Performance Curves

