

RoHS Compliant



MACP-008249-CH09B0 V1

17dB Directional Coupler 5-120 MHz

Features

- Surface Mount
- 17dB Coupler
- RoHS* Compliant
- RoHS version of MACPCT0017
- Available on Tape and Reel. Reel quantity 2000

Description

M/A-COM's MACP-008249-CH09B0 is a 17dB directional coupler in a low cost, surface mount package. Ideally suited for high volume CATV applications. A 75W external resistor is required on the isolation port with this product. Typical applications include set-top boxes, network interface units, cable amplifiers and headend equipment.



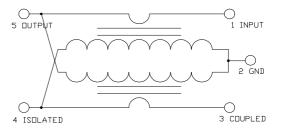
Pin Configuration

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

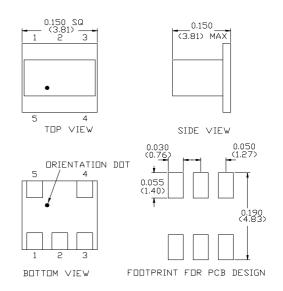
Ordering Information

Part Number	Package
MACP-008249-CH09B0	2000
MACP-008249-CH09TB	Customer Test Board

Note: Reference Application Note M513 for reel size information.



Case Style: SM-155



Dimensions in inches [mm] Tolerance: $.xx \pm .02$, $.xxx \pm .010$

Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

Schematic

^{*} Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

North America Tel: 800.366.2266 / Fax: 978.366.2266

[•] Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300

[•] Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298



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Electrical Specifications: $T_A = 25^{\circ}C$, $Z_0 = 75W^1$

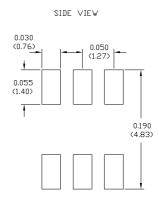
Frequency Range 50 - 1000 MHz	Test Conditions	Nominal	Units	Min.	Тур.	Max.
Coupling	5 – 120MHz	_	dB	-17.0	-17.3	-17.5
Main Line Loss	5 – 120MHz	_	dB	-0.5	-0.4	-
Isolation	5 – 120MHz	_	dB	-	-45	-35
Return Loss	5 – 120MHz	_	dB	-	-26	-20

Absolute Maximum Ratings 1,2

Parameter	Absolute Maximum		
RF Power	1 mW		
Internal Load Dissipation	30mA		
Operating Temperature	-40°C to +80°C		
Storage Temperature	-40°C to +85°C		

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM does not recommend sustained operation near these survivability limits.

Recommended PCB Configuration



FOOTPRINT FOR PCB DESIGN

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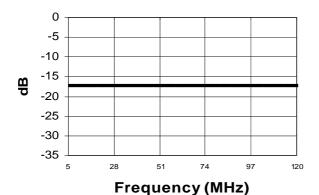


MACP-008249-CH09B0

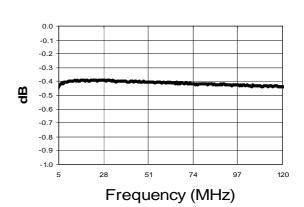
17dB Directional Coupler 5-120 MHz

Typical Performance Curves: $T_A = 25^{\circ}C$, $Z_0 = 75W^1$

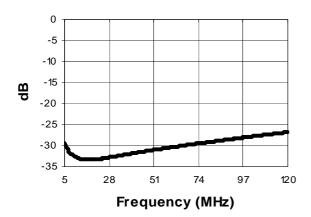
Coupling



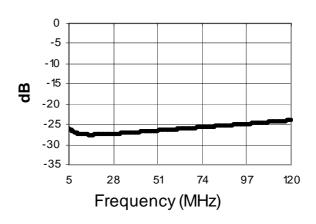
Main Line Loss



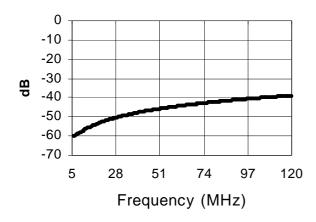
Isolation Return Loss



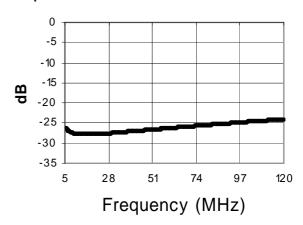
Coupling Return Loss



Isolation



Input Return Loss



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