



75 Ohm Coupler 5-1000 MHz

MACP-008764-CH0370 V1

Features

- Surface Mount
- 17dB Coupler
- RoHS* Compliant
- RoHS version of ELDC-17

Description

M/A-COM's MACP-008764-CH0370 is a high performance 750hm coupler in a low cost, surface mount package. Ideally suited for high volume CATV applications. Typical applications include set-top boxes, network interface units, cable amplifiers and headend equipment.



Pin Configuration

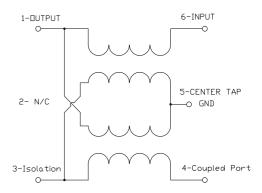
Pin No.	Function		
1	Output		
2	N/C		
3	External 75 Ohms		
4	Coupled		
5	Ground		
6	Input		

Ordering Information

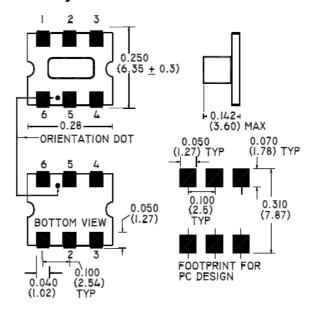
Part Number	Package			
MACP-008764-CH0370	900			
MACP-008764-CH03TB	Customer Test Board			

Note: Reference Application Note M513 for reel size information.

Schematic



Case Style: SM-55



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

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• North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400 • India Tel: +91.80.4155721 • China Tel: +86.21.2407.1588

Visit www.macomtech.com for additional data sheets and product information.

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





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Electrical Specifications: $T_A = 25$ °C, $Z_0 = 75\Omega^1$

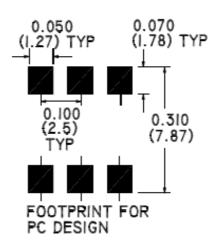
Frequency Range 50 - 1000 MHz	Test Conditions	Nominal	Units	Min.	Тур.	Max.
Main Line Long	5-860MHz		dB		0.5	1.0
Main Line Loss	860-1000MHz	_	dВ	-	0.5 0.6	1.0 1.2
		-		-	0.6	
Coupling	5-860MHz	17.2	dB	-	-	±0.7
	860-1000MHz	17.0	dB	-	-	±0.8
Coupling Flatness			dB	-	-	1.0
Directivity	5-50	_	dB	30	40	-
,	50-500	_	dB	16	22	-
	500-1000	-	dB	8	12	-
Input Return Loss	5-50	-	dB	20	25	-
	50-500	-	dB	20	23	-
	500-1000	-	dB	20	25	-
Output Return Loss	5-50	-	dB	20	29	-
	50-500	-	dB	23	26	-
	500-1000	-	dB	23	28	-
Coupled Return Loss	5-50	-	dB	20	25	-
	50-500	-	dB	20	24	-
	500-1000	-	dB	20	24	-

Absolute Maximum Ratings ^{1,2}

Parameter	Absolute Maximum			
RF Power	250 mW			
Internal Load Dissipation	30mA			
Operating Temperature	-40°C to +85°C			
Storage Temperature	-40°C to +85°C			

- 1. 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



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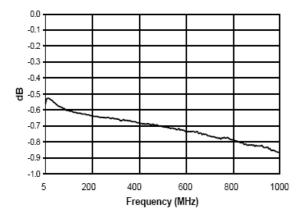




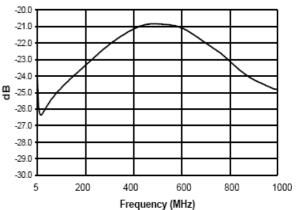
75 Ohm Coupler 5-1000 MHz MACP-008764-CH0370

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

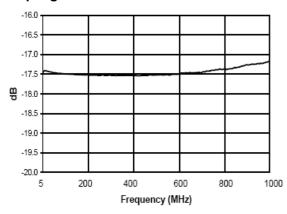
Main Line Loss



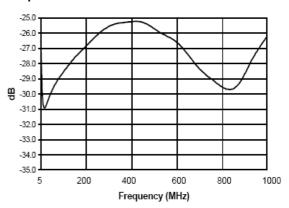
Input Return Loss



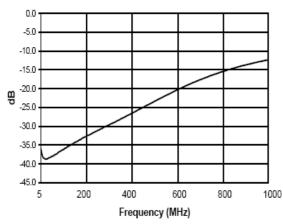
Coupling



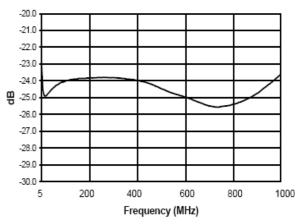
Output Return Loss



Directivity



Coupled Port Return Loss



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