

Electronics

## 75 Ohm Coupler 5-1000 MHz

## RoHS Compliant

MACP-008764-CH0370 V1

MACCM

#### 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**

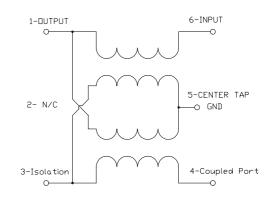
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Part Number	Package			
MACP-008764-CH0370	900			
MACP-008764-CH03TB	Customer Test Board			

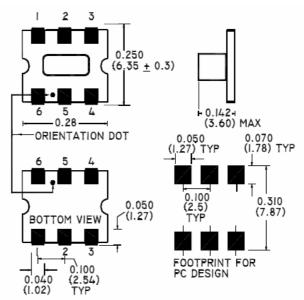
Note: Reference Application Note M513 for reel size information.

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

## Schematic



### Case Style: SM-55



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

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- 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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## 75 Ohm Coupler 5-1000 MHz

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

Frequency Range 50 - 1000 MHz	Test Conditions	Nominal	Units	Min.	Тур.	Max.
Main Line Loss	5-860MHz	-	dB	-	0.5	1.0
	860-1000MHz	-	dB	-	0.6	1.2
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	-

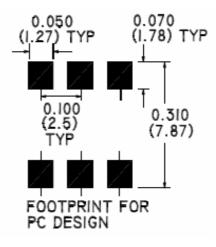
## Absolute Maximum Ratings <sup>1,2</sup>

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.

2. M/A-COM does not recommend sustained operation near these survivability limits.

#### **Recommended PCB Configuration**



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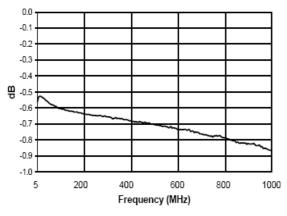
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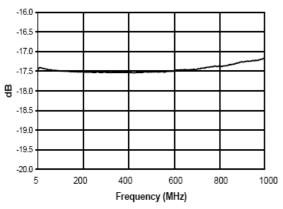
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## Typical Performance Curves: $T_A = 25^{\circ}C$ , $Z_0 = 75\Omega^{-1}$

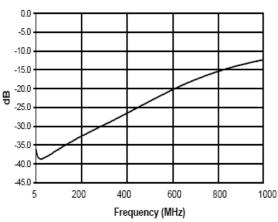






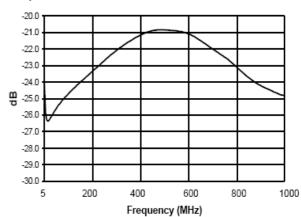




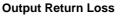


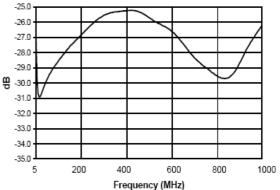
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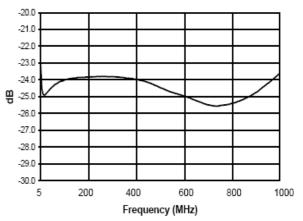


#### Input Return Loss









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