

75 Ohm Coupler 5-1000 MHz

MACP-008764-CH0370
V1

Features

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

Description

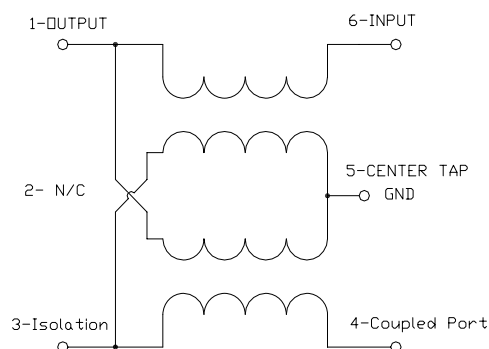
M/A-COM's MACP-008764-CH0370 is a high performance 75Ohm coupler in a low cost, surface mount package. Ideally suited for high volume CATV applications. Typical applications include set-top boxes, network interface units, cable amplifiers and headend equipment.



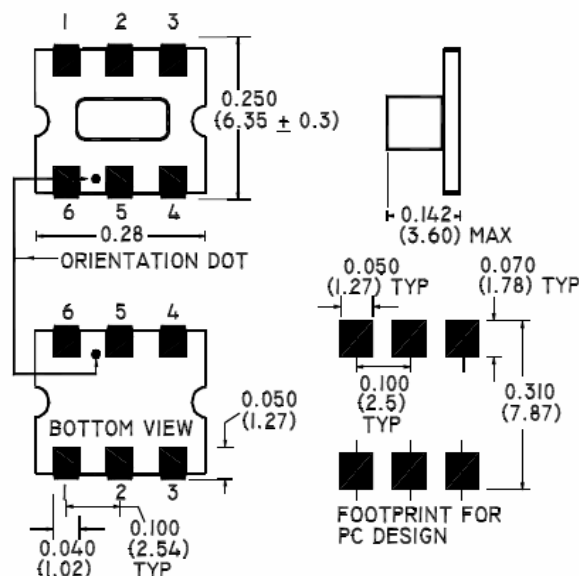
Pin Configuration

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

Schematic



Case Style: SM-55



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

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

Ordering Information

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.

**75 Ohm Coupler
5-1000 MHz**

**MACP-008764-CH0370
V1**

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

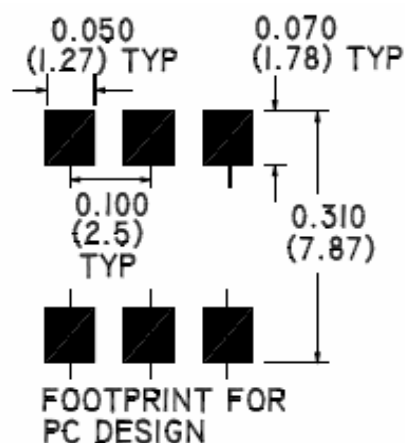
Frequency Range 50 - 1000 MHz	Test Conditions	Nominal	Units	Min.	Typ.	Max.
Main Line Loss	5-860MHz	-	dB	-	0.5	1.0
	860-1000MHz	-	dB	-	0.6	1.2
Coupling	5-860MHz	17.2	dB	-	-	± 0.7
	860-1000MHz	17.0	dB	-	-	± 0.8
Coupling Flatness			dB	-	-	1.0
Directivity	5-50	-	dB	30	40	-
	50-500	-	dB	16	22	-
	500-1000	-	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 ^{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

- 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

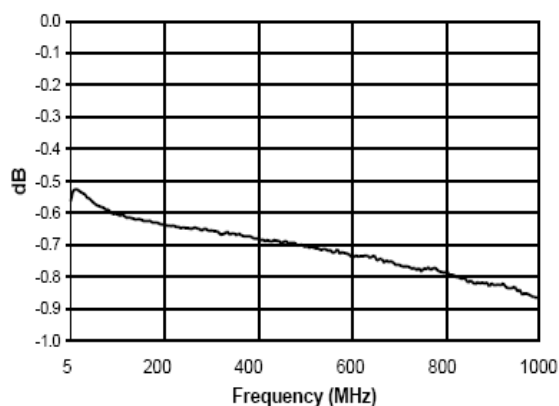


**75 Ohm Coupler
5-1000 MHz**

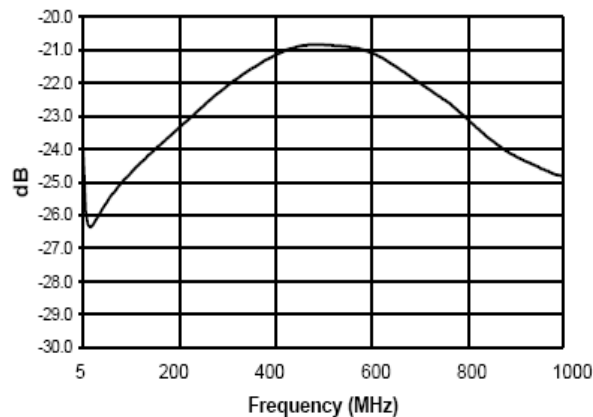
**MACP-008764-CH0370
V1**

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

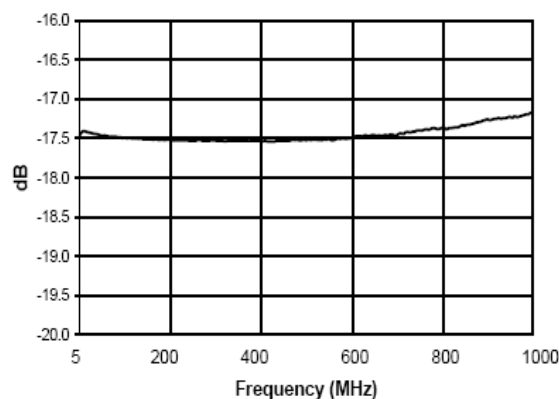
Main Line Loss



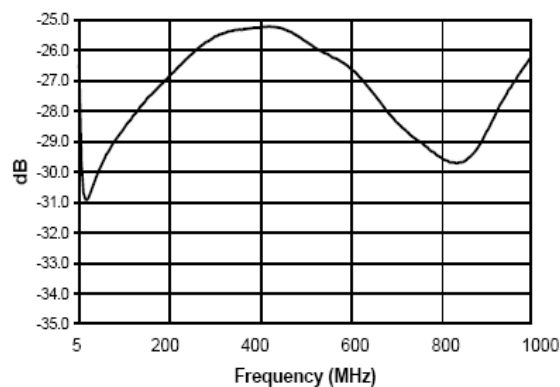
Input Return Loss



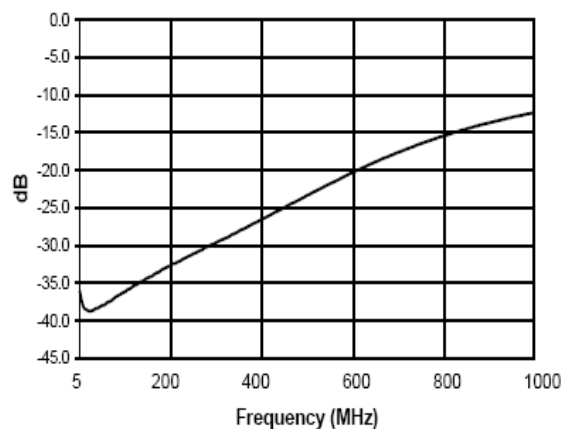
Coupling



Output Return Loss



Directivity



Coupled Port Return Loss

