



# Broadband CATV, Coupler 5-1000MHz

#### MACP-008125-CK07F0 V1

#### **Features**

- Surface Mount
- Typical Coupling 20dB
- RoHS\* Compliant
- RoHS version of ELDC-20.
- 260°C Reflow Compatible
- · Available on Tape and Reel.
- All wires are soldered to the substrate using HMP solder

## **Description**

M/A-COM's MACP-008125-CK07F0 is a high performance 75 Ohm Coupler, in a SM-55 low cost, surface mount package. The MACP-008125-CK07F0 is designed for use in high volume CATV applications. Typical applications include Set-top Boxes, Network Interface Units, Broadband Amplifiers and Headend equipment.

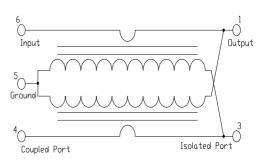


### **Pin Configuration**

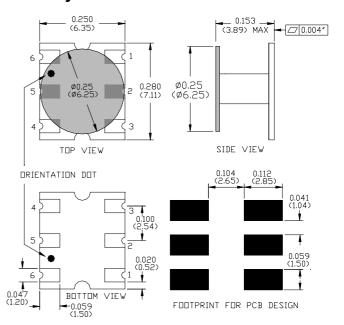
Pin No.	Function		
1	Output		
2	Ground, not connected		
3	Isolated (external 75 Ohms termination)		
4	Coupled		
5	Ground		
6	Input		

Note: Reference Application Note M513 for reel size information.

#### **Schematic**



## Case Style: SM-127



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

## **Ordering Information**

Part Number	Package		
MACP-008125-CK07F0	900 piece reel		
MACP-008125-CK07TB	Customer Test Board		

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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available.

<sup>•</sup> 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.





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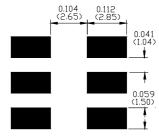
Electrical Specifications:  $T_A = 25^{\circ}C$ ,  $Z_0 = 75\Omega^{1}$ 

Parameter	Test Conditions	Units	Min	Тур	Max
Mainline Loss	5 - 50 MHz	dB	_	0.6	0.7
	50 - 870 MHz	dB	_	0.45	0.65
	870 - 1000 MHz	dB	_	0.6	0.7
Coupling	5 - 870 MHz	dB	_	20	± 0.8
	870 - 1000 MHz	dB	_	20	± 1.0
Coupling Flatness	5 - 1000 MHz	dB	_	_	± 0.5
Directivity	5 - 870 MHz	dB	10	14	_
	870 - 1000 MHz	dB	7	9	_
Input Return Loss	5 - 50 MHz	dB	20	22	_
	50 - 1000 MHz	dB	22	27	_
Output Return Loss	5 - 50 MHz	dB	20	22	_
	50 - 1000 MHz	dB	22	28	
Coupled Return Loss	5 - 50 MHz	dB	20	22	_
	50 - 1000 MHz	dB	20	27	_

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

Parameter	Absolute Maximum		
Max Input Power	250mW		
DC current	30mA		
Operating Temperature	-40°C to +85°C		
Storage Temperature	-55°C to +100°C		

## **Recommended PCB Configuration**



FOOTPRINT FOR PCB DESIGN

- 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.

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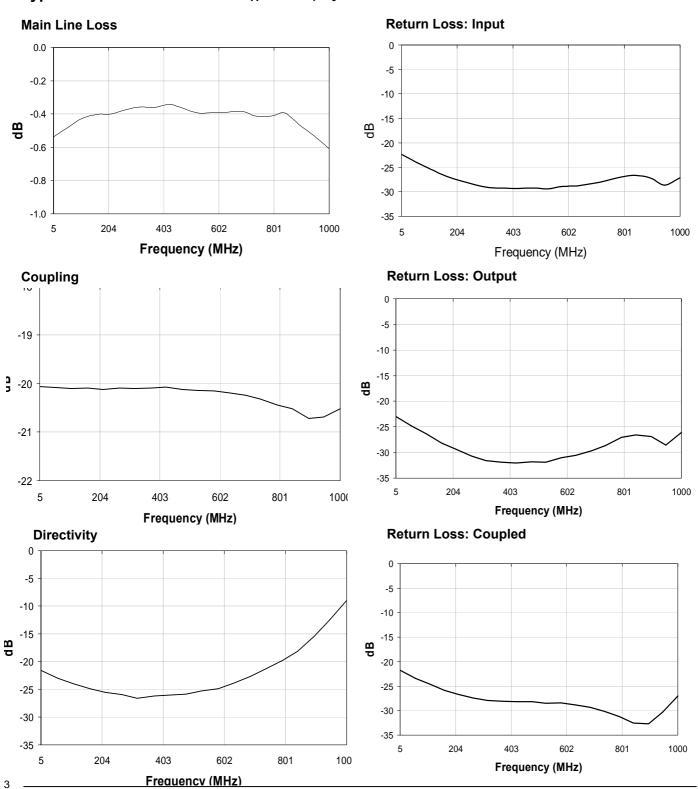




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## Typical Performance Curves $T_A = 25^{\circ}C$ , $Z_0 = 75\Omega$



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Commitment to produce in volume is not guaranteed.

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