## MACP-009943-CH07F0



**Broadband CATV 17 dB Directional Coupler** 5 to 1000 MHz

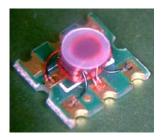
Rev. V2

#### **Features**

- Surface Mount
- Typical Coupling +17dB
- 260°C Reflow Compatible
- RoHS\* Compliant, lead free
- Available on Tape and Reel
- All wires are welded to the substrate

### **Description**

M/A-COM Technology Solutions MACP-009943-CH07F0 is a 17dB broadband Coupler in a low cost, surface mount package. It offers low loss, good Isolation, good input/output matching and exceptional coupling repeatability. Ideally suited for high volume CATV/Broadband applications.

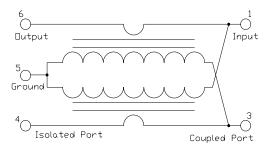


### **Pin Configuration**

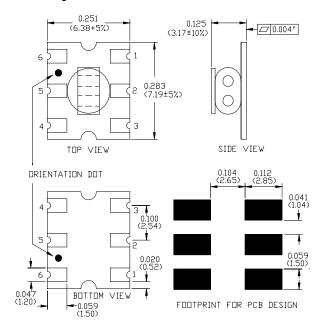
Function			
Input			
Not Used (short to ground)			
Coupled			
Isolated (external 75 Ohms termination)			
Ground			
Output			

Note: Reference Application Note M513 for reel size information.

#### **Schematic**



### Case Style: SM-55A



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

### **Ordering Information**

Part number	Description		
MACP-009943-CH07F0	900 piece reel		
MABA-009943-CH07TB	Customer Test Board		

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

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- North America Tel: 800.366.2266 Europe Tel: +353.21.244.6400
- India Tel: +91.80.43537383
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Rev. V2

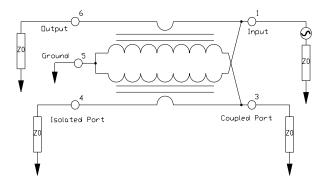
## Electrical Specifications: $T_A = 25$ °C, 0dBm, $Z_0 = 75\Omega$ , $P_{in} = 0$ dBm

Parameter	Test Conditions	Units	Min	Тур	Max
Coupling	5 - 860 MHz 860 - 1000 MHz	dB dB	-	17.2 17.0	±0.7 ±0.8
Main Line Loss	5 - 860 MHz 860 - 1000 MHz	dB dB	-	0.6 0.8	1.0 1.2
Coupling Flatness	5 - 1000 MHz	dB	-	-	1.0
Directivity	5 - 50 MHz 50 - 500 MHz 500 - 1000 MHz	dB dB dB	30 12 5	40 20 12	-
Input Return Loss	5 - 50 MHz 50 - 500 MHz 500 - 1000 MHz	dB dB dB	24 24 20	28 28 25	- - -
Output Return Loss	5 - 50 MHz 50 - 500 MHz 500 - 1000 MHz	dB dB dB	20 20 20	25 25 23	- - -
Coupling Return Loss	5 - 50 MHz 50 - 500 MHz 500 - 1000 MHz	dB dB dB	20 20 18	25 25 23	

## **Recommended Maximum Ratings**

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

## **Application Circuit**



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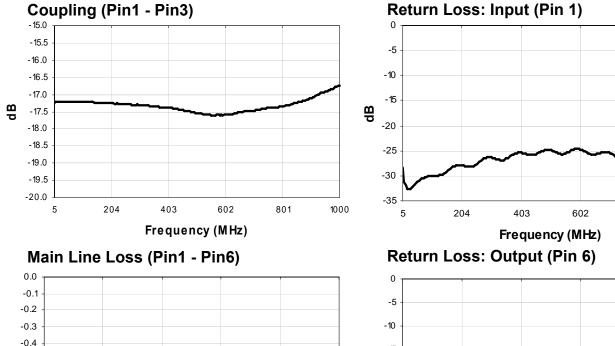


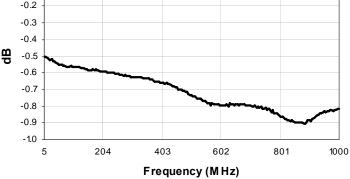
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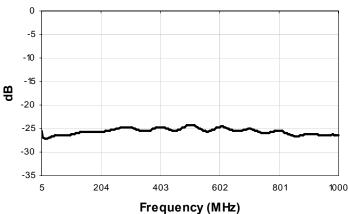
Rev. V2

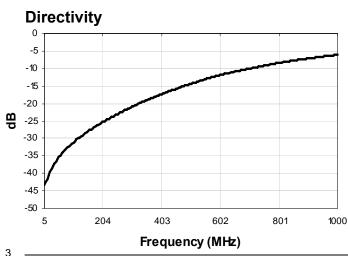
1000

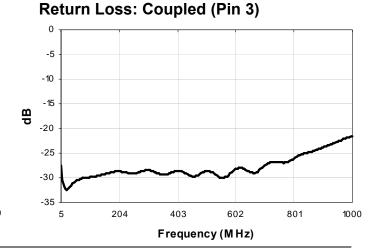
## Typical Performance Curves: $T_A = 25$ °C, 0dBm, $Z_0 = 75\Omega$ , $P_{in} = 0$ dBm











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