## МАСРСТ0030

## МАСОМ

### Broadband CATV, 16 dB Coupler 5 - 1200 MHz

#### Features

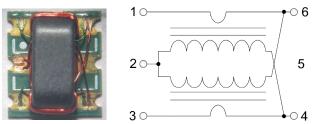
- Surface mount
- Typical coupling +16dB
- 260°C reflow compatible
- RoHS compliant and Pb free
- Available on tape and reel, reel quantity 1000

#### Description

The MACPCT0030 is a 16 dB broadband coupler in a surface mount package. It offers low loss, good isolation, good input/output matching and exceptional matching in return loss.

Ideally suited for high volume CATV/Broadband applications.

### Schematic



#### **Pin Configuration**

Pin #	Function	Pin #	Function
1	Input	4	Isolated (external 75 Ω
		_	termination)
2	Ground	5	N/C
3	Coupled	6	Output

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

Parameter	Frequency Test Conditions (MHz)	Units	Min	Тур	Мах
Coupling	5 - 40 40 - 1000 1000 - 1200	dB	_	15.8 16.4 16.8	16.0 17.5 18.5
Main Line Loss	5 - 1000 1000 - 1200	dB		1.0 1.2	1.25 1.60
Input Return Loss	5 - 40 40 - 1000 1000 - 1200	dB	20.0 24.0 22.0	23.0 27.0 28.0	_
Output Return Loss	5 - 40 40 - 1000 1000 - 1200	dB	20.0 25.0 20.0	23.7 29.8 24.1	
Isolation	5 - 1000 1000 - 1200	dB	25 23	29.0 27.0	
Coupling Return Loss	5 - 1000 1000 - 1200	dB	20.0 16.0	22.3 22.0	_

### Ordering Information<sup>1</sup>

Part Number	Package		
MACPCT0030	1000 piece reel		
MACP-007977-CT30TB	Test Board		

1. Reference Application Note M513 for reel size information.

### Absolute Maximum Ratings<sup>2,3</sup>

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

2. Exceeding any one or combination of these limits may cause permanent damage to this device.

 MACOM does not recommend sustained operation near these survivability limits.

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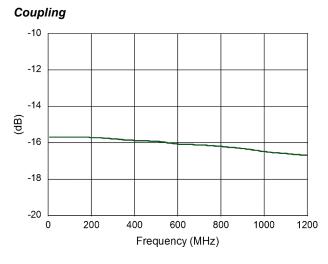
For further information and support please visit: <u>https://www.macom.com/support</u>

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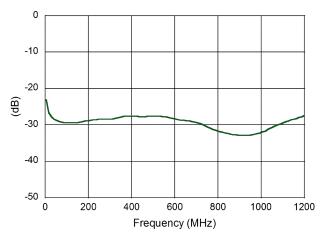
## **MACPCT0030**

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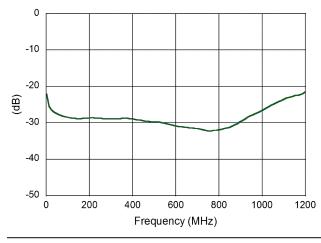
### Typical Performance Curves $T_A = 25^{\circ}C$ , $Z_0 = 75 \Omega$

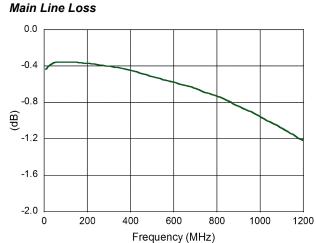


Input Return Loss



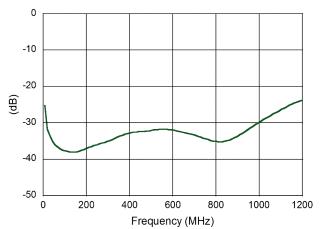


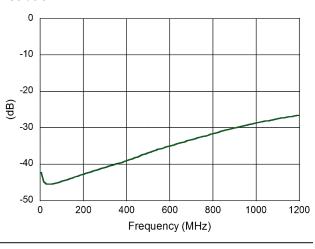




**Output Return Loss** 

Isolation





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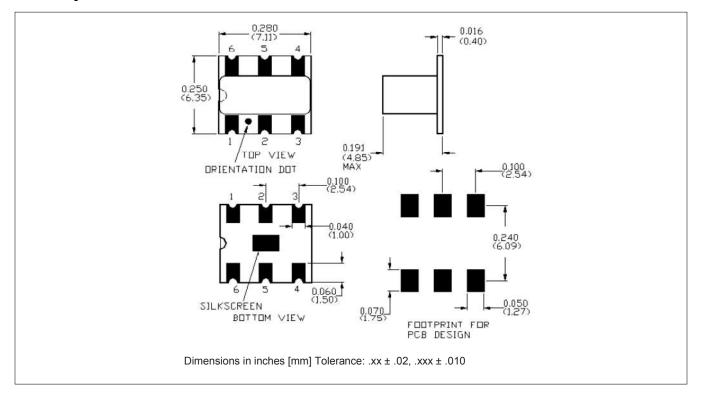
## **MACPCT0030**



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#### Case Style: SM-123



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## **MACPCT0030**

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