

**MACPES0045** 

V2

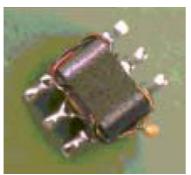
### 2 Way 0° Power Divider 40-1000MHz

#### Features

- Surface Mount
- 2 Way 0 degree
- Available on tape & reel
- Excellent isolation

#### Description

M/A-COM's MACPES0045 is 2 way 0 degree power divider in a low cost, surface mount package. Ideally suited for high volume CATV & VSAT applications. Two 0603 1pf capacitors and one 160 Ohm resistor are required with this part.



#### **Pin Configuration**

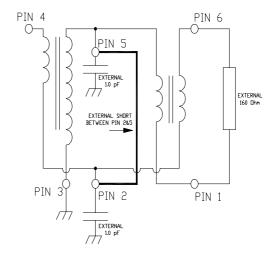
Pin No.	Function		
1	Output 1		
3	Ground		
4	Input		
2&5	2 x External shunt 1pf Cap, short pin 2 & 5 together.		
6	Output 2		

#### **Ordering Information**

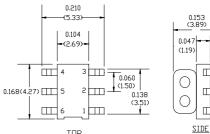
Part Number	Package		
MACPES0045	2000 piece reel		

Note: Reference Application Note M513 for reel size information.

#### Schematic



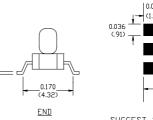
#### Case Style: SM-150

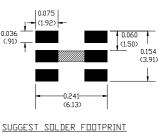




0.008

.(20)





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

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• China Tel: +86.21.2407.1588

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### MACPES0045 V2

### 2 Way 0° Power Divider 40-1000MHz

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

Parameter	Test Conditions	Units	Min	Тур	Max
Insertion Loss (Above 3dB)	40 - 700 MHz 700 - 850 MHz 850 - 870 MHz 870 - 1000 MHz	dB dB dB dB dB		0.3 0.5 0.9 1.0	0.8 1.0 1.2 1.4
Isolation	40 - 1000 MHz	dB	18	25	-
Amplitude Unbalance	40 - 1000 MHz	dB	-	0.2	0.5
Phase Unbalance	40 - 1000 MHz	0	-	0.5 <sup>0</sup>	5 <sup>0</sup>
Input Return Loss	40 - 700 MHz 700 - 1000 MHz	dB dB	-	25 18	15 12
Output Return Loss 1	40 - 440 MHz 440 - 700 MHz 700 - 1000 MHz	dB dB dB		20 16 13	15 12 10
Output Return Loss 2	40 - 440 MHz 440 - 700 MHz 700 - 1000 MHz	dB dB dB		16 18 14	13 15 11

Note: Specification subject to change without notice

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

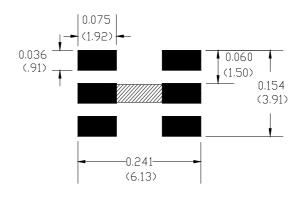
Parameter	Absolute Maximum			
RF Power	1 Watt			
Internal Load Dissipation	0.125 Watt			
Storage Temperature	-40°C to +85°C			
Operating Temperature	-40°C to +80°C			

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.

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### **Recommended PCB Configuration**



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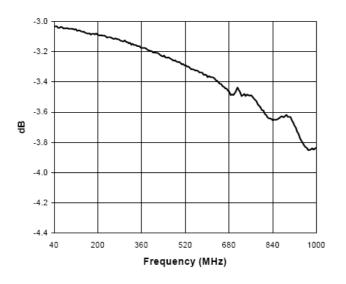


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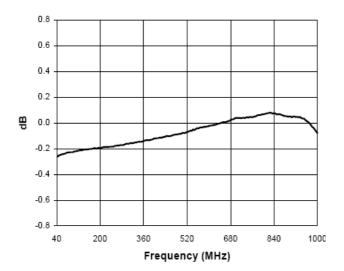
### 2 Way 0° Power Divider 40-1000MHz

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

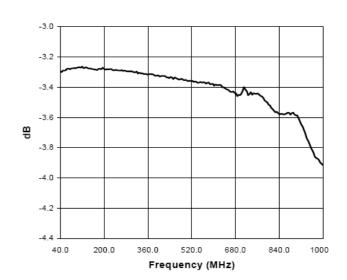
#### **Insertion Loss Port 1**



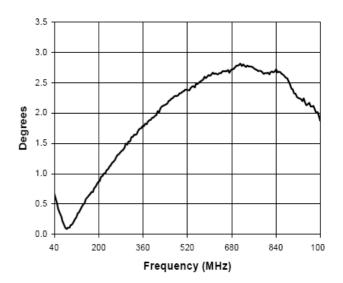
#### **Amplitude Unbalance**



#### Insertion Loss Port 2



## Phase Unbalance



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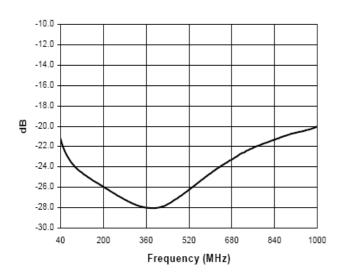


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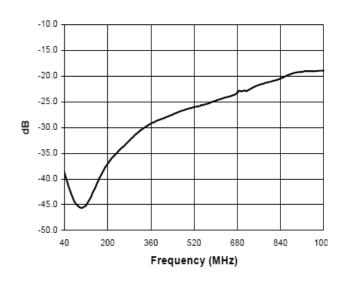
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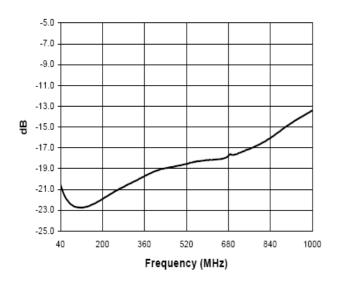
#### Isolation



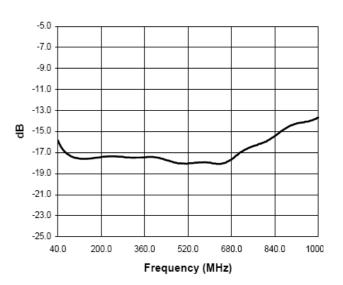
#### Input Return Loss



#### **Output Return Loss 1**



#### **Output Return Loss 2**



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