

14 dB Coupler  
5-1000MHz

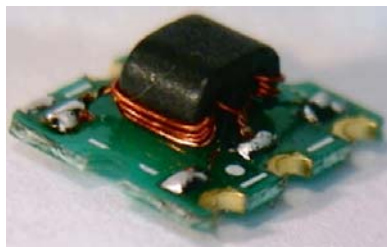
MACP-008311-CE0370  
V1

**Features**

- Surface Mount
- 14 dB Coupler
- RoHS\* Compliant
- RoHS version of ELDC-14
- Available on Tape and Reel. Reel quantity 900

**Description**

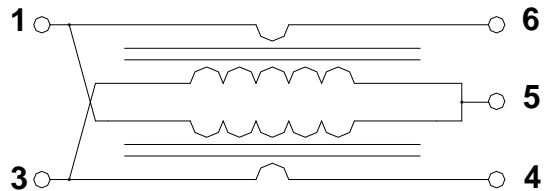
M/A-COM's MACP-008311-CE0370 is a high performance 75 Ohm Coupler, in an SM-55 low cost, surface mount package. The ELDC-14 is designed for use in high volume CATV applications. Typical applications include Set-top Boxes, Network Interface Units, Cable Amplifiers and Headend equipment.



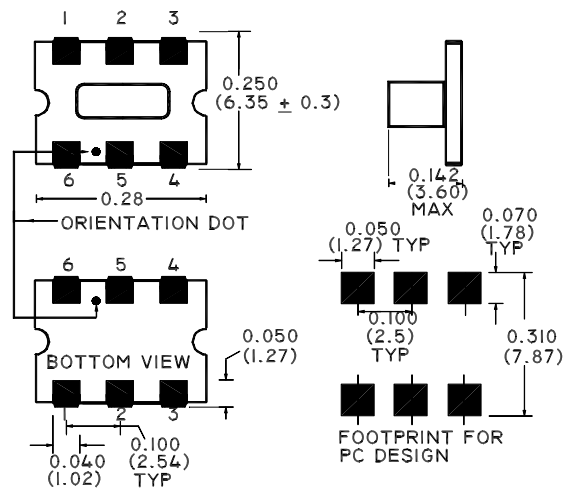
**Pin Configuration**

Pin No.	Function
1	Output
2	Not connected (ground)
3	External 75 Ohm
4	Coupled
5	Ground
6	Input

**Schematic**



**Case Style: SM-55**



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

**Ordering Information**

Part Number	Package
MACP-008311-CE0370	900 per reel
MACP-008311-CE03TB	Customer Test Board

Note: Reference Application Note **M513** for reel size information.

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

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

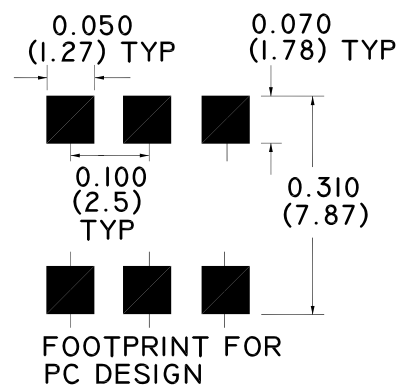
Parameter	Test Conditions	Units	Min	Typ	Max
Mainline Loss	5 - 870 MHz	dB	—	0.8	1.5
	870 - 1000 MHz	dB	—	1.0	1.8
Coupling	5 - 870 MHz	dB	—	14.3	$\pm 0.5$
	870 - 1000 MHz	dB	—	14.3	$\pm 0.7$
Coupling Flatness		dB	—	—	0.8
Directivity	5 - 870 MHz	dB	15	25	—
	870 - 1000 MHz	dB	13	20	—
Input Return Loss	5 - 870 MHz	dB	20	25	—
	870 - 1000 MHz	dB	18	23	—
Output Return Loss	5 - 870 MHz	dB	20	25	—
	870 - 1000 MHz	dB	20	25	—
Coupled Return Loss	5 - 870 MHz	dB	18	23	—
	870 - 1000 MHz	dB	18	23	—

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

Parameter	Absolute Maximum
RF Power	250 mW
DC current	30 mA
Pin Temperature (10 sec)	260°C
Operating/Storage Temperature	-40°C to +85°C

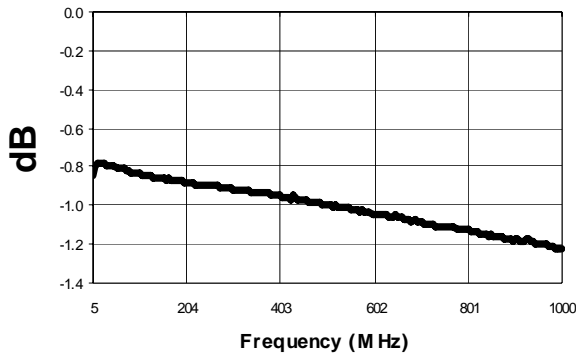
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

### Recommended PCB Configuration

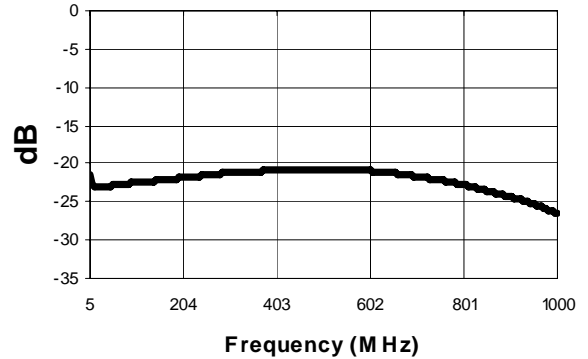


Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$  <sup>1</sup>

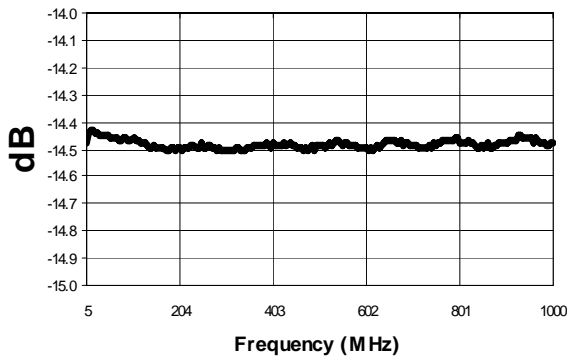
**Mainline Loss**



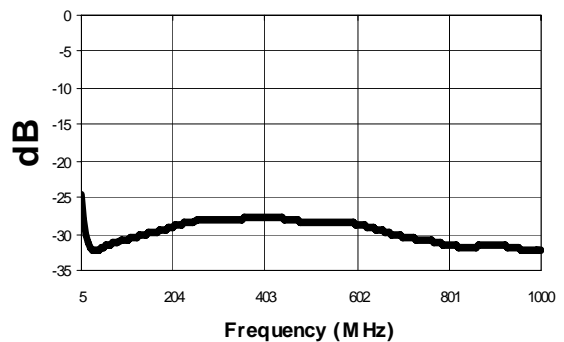
**Input Return Loss**



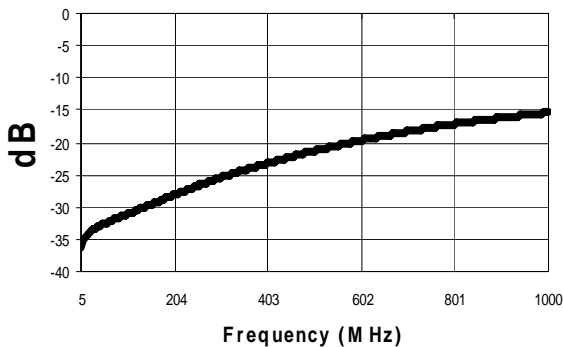
**Coupling**



**Output Return Loss**



**Directivity**



**Coupled Port Return Loss**

