MACP-008311-CE0370

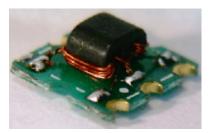
14 dB Coupler/5-1000 MHz **ROHS** Compliant

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 Technology Solutions 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			

Ordering Information

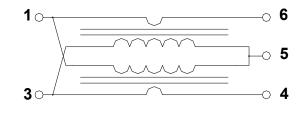
1

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

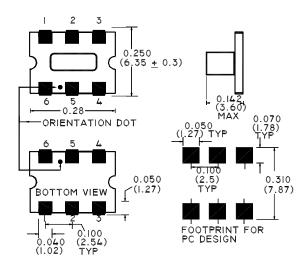
Note: Reference Application Note M513 for reel size information.

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

Schematic



Case Style: SM-55



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

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Rev V1A

prototype measurements. Commitment to develop is not guaranteed. 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 ailable M/A-COM Technology Solution Incread its affiliates reserve the right to make Commitment to produce in volume is not quara (s) or information contained herein without notice. bro he

MACP-008311-CE0370



14 dB Coupler/5-1000 MHz ROHS Compliant

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

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

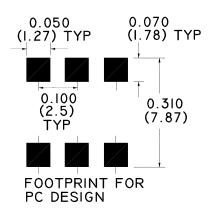
Absolute Maximum Ratings ^{1,2}

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.

 M/A-COM does not recommend sustained operation near these survivability limits.

Recommended PCB Configuration



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MACP-008311-CE0370

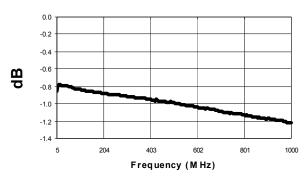


14 dB Coupler/5-1000 MHz ROHS Compliant

Rev V1A

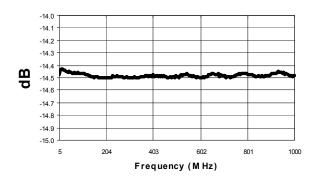
Typical Performance Curves: $T_A = 25^{\circ}C$, $Z_0 = 75\Omega^{-1}$



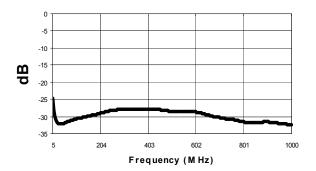


Input Return Loss 0 -5 - 10 - 15 đB -20 -25 -30 -35 204 403 602 801 1000 5 Frequency (MHz)

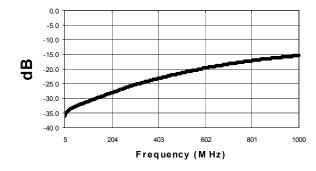
Coupling



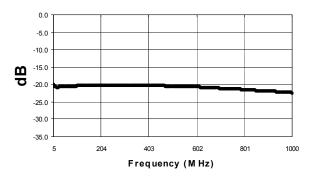
Output Return Loss



Directivity



Coupled Port Return Loss



3

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