

# MACP-009011-C80370

**E-Series 75 Ohm 8 dB Coupler**  
**5 - 1200 MHz**

**M/A-COM Products**  
**Revision : V2**

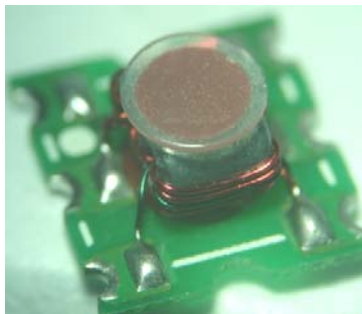
## Features

- Coupling 8dB Typical
- Surface Mount
- Low Profile
- Available on Tape and Reel
- Excellent Temperature Stability

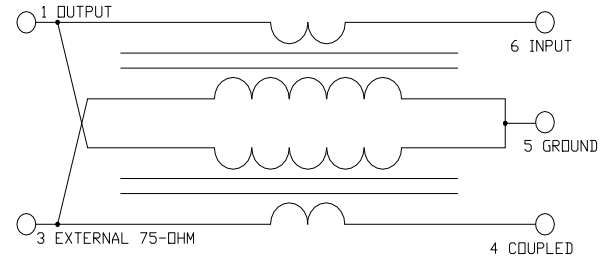
## Description

M/A-COM's MACP-009011-C80370 is a high performance 75 Ohm Coupler, in a SM-55A low cost, surface mount package.

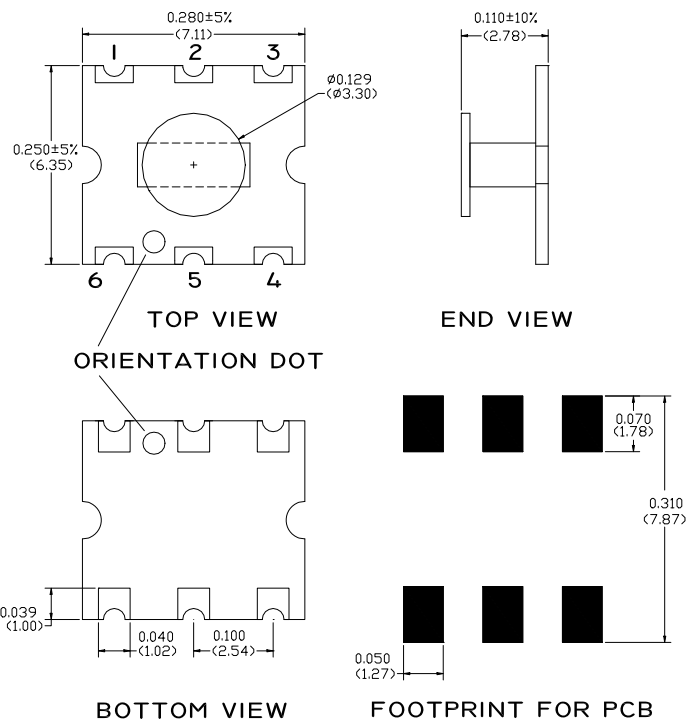
The MACP-009011-C80370 is designed for use in high volume CATV applications. Typical applications include set-top boxes, Network Interface Units, Broadband Amplifiers and head-end equipment.



## Schematic



## Case Style SM-55A



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

## Pin Configuration

| Function                   | Pin Number |
|----------------------------|------------|
| Output                     | 1          |
| Not Connected              | 2          |
| Isolation, external 75-Ohm | 3          |
| Coupled                    | 4          |
| Ground                     | 5          |
| Input                      | 6          |

## Ordering Information

| Part Number        | Function            |
|--------------------|---------------------|
| MACP-009011-C80370 | 900 parts per reel  |
| MACP-009011-C803TB | Customer test board |

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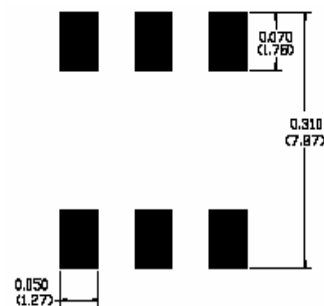
**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$**

| Parameter             | Frequency     | Units | Min. | Typ. | Max  |
|-----------------------|---------------|-------|------|------|------|
| Frequency Range       | 5-1200 MHz    |       |      |      |      |
| Mainline Loss *       | 5-870 MHz     | dB    | 2.0  | 1.5  | —    |
|                       | 870-1002 MHz  | dB    | 2.3  | 1.85 | —    |
|                       | 1002-1200 MHz | dB    | 2.6  | 2.1  | —    |
| Coupling *            | 5-1002 MHz    | dB    | 8.5  | 8.3  | 7.5  |
|                       | 1002-1200 MHz | dB    | 8.7  | 8.0  | 7.3  |
| Coupling flatness     | 5-1200 MHz    | dB    | —    | 0.5  | 0.8  |
| Directivity           | 5-870 MHz     | dB    | —    | 17.5 | 11   |
|                       | 870-1200 MHz  | dB    | —    | 12.8 | 9    |
| Return Loss Input     | 5-50 MHz      | dB    | —    | 18.8 | 17.0 |
|                       | 50-1200MHz    | dB    | —    | 18.7 | 16.5 |
| Return Loss Output    | 5-50 MHz      | dB    | —    | 31.3 | 23   |
|                       | 50-870 MHz    | dB    | —    | 33.5 | 20   |
|                       | 870-1200 MHz  | dB    | —    | 32.0 | 20   |
| Return Loss Coupled * | 5-1200 MHz    | dB    | —    | 18.5 | 16   |

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

| Parameter             | Absolute Maximum  |
|-----------------------|-------------------|
| RF Power              | 250mW             |
| DC Current            | 30mA              |
| Operating Temperature | -20° C to + 85° C |
| Storage Temperature   | -20° C to + 85° C |

## Recommended PCB Configuration



**FOOTPRINT FOR PCB**

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

\* Monitored in production test/tune

**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

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**Typical Performance:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$**

