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# MACP-009730-C60370



**E-Series 6dB Coupler** 5 to 1200 MHz

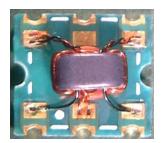
M/A-COM Products Rev. V1

#### **Features**

- Surface mount
- 6dB Coupler
- 260°C reflow compatible
- RoHS\* compliant, lead-free
- Available on tape and reel.

### **Description**

M/A Com's MACP-009730-C60370 is a 6dB coupler in a low cost, surface mount package. Excellent coupling flatness. Ideally suited for broadband CATV applications.

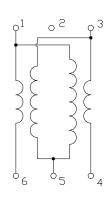


#### Pin configuration

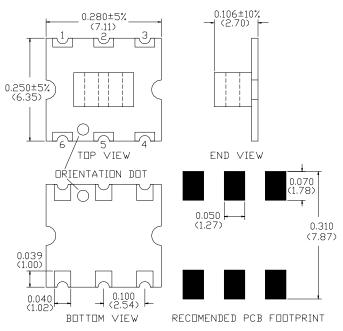
| Pin no. | Function                   |  |  |
|---------|----------------------------|--|--|
| 1       | Output                     |  |  |
| 2       | Ground (Not used)          |  |  |
| 3       | Isolated (75Ω termination) |  |  |
| 4       | Coupled                    |  |  |
| 5       | Ground                     |  |  |
| 6       | Input                      |  |  |

Note: Reference Application Note M513 for reel size information.

#### **Schematic**



### Case style: SM-55



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

#### Ordering information

| Part number        | Description         |  |  |
|--------------------|---------------------|--|--|
| MACP-009730-C60370 | 900 piece reel      |  |  |
| MACP-009730-C603TB | Customer Test Board |  |  |

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

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• China Tel: +86.21.2407.1588

Visit www.macomtech.com for additional data sheets and product information.

# MACP-009730-C60370



**E-Series 6dB Coupler** 5 to 1200 MHz

M/A-COM Products Rev. V1

### Electrical Specifications: $T_A = 25$ °C, 0dBm, $Z_0 = 75\Omega$ , $P_{in} = 0$ dBm

| Parameter            | Test Conditions                                                  | Units                | Min              | Тур                      | Max                      |
|----------------------|------------------------------------------------------------------|----------------------|------------------|--------------------------|--------------------------|
| Coupling             | 5 - 1200 MHz                                                     | dB                   | -                | 5.8                      | ±0.5                     |
| Main Line Loss       | 5 - 400 MHz<br>400 - 870 MHz<br>870 - 1000 MHz<br>1000 - 1200MHz | dB<br>dB<br>dB<br>dB | -<br>-<br>-      | 2.3<br>2.5<br>2.9<br>3.3 | 2.5<br>3.0<br>3.3<br>4.0 |
| Directivity          | 5 - 50 MHz<br>50 - 600 MHz<br>600 - 1000 MHz                     | dB<br>dB<br>dB       | 11<br>7.0<br>3.0 | 12<br>10<br>7.2          | -<br>-<br>-              |
| Input Return Loss    | 5 - 500MHz<br>500 - 1000 MHz                                     | dB<br>dB             | 15<br>11         | 17<br>17                 | -                        |
| Output Return Loss   | 5 - 500 MHz<br>500 - 1000 MHz                                    | dB<br>dB             | 19<br>13         | 23<br>18                 | -                        |
| Coupling Return Loss | 5 - 500 MHz<br>500 - 1000 MHz                                    | dB<br>dB             | 12<br>9.0        | 14<br>12                 | -                        |

## Absolute Maximum Ratings 1,2

| Parameter             | Absolute maximum |  |  |
|-----------------------|------------------|--|--|
| RF power              | 250mW            |  |  |
| DC current            | 30mA             |  |  |
| Operating Temperature | -40°C to +85°C   |  |  |
| Storage Temperature   | -40°C to +85°C   |  |  |

<sup>1.</sup> Exceeding any one or combination of these limits may cause permanent damage to this device.

<sup>2.</sup> M/A-COM does not recommend sustained operation near these survivability limits.

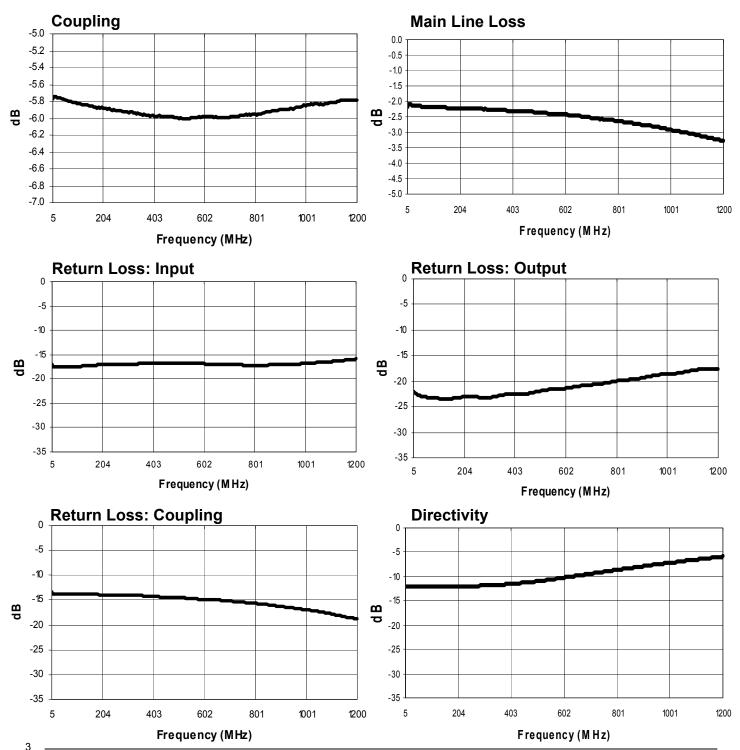
# MACP-009730-C60370



E-Series 6dB Coupler 5 to 1200 MHz

M/A-COM Products Rev. V1

### Typical Performance Curves: $T_A = 25$ °C, 0dBm, $Z_0 = 75\Omega$ , $P_{in} = 0$ dBm



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.

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 available.

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