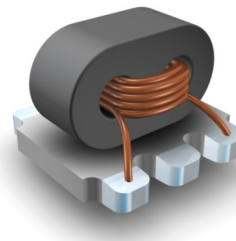
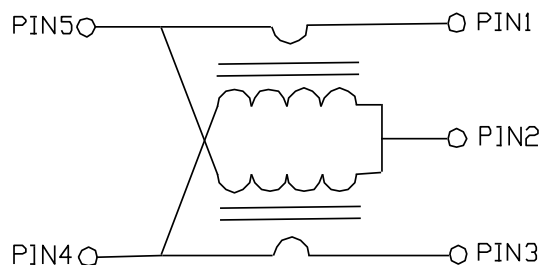


## Features

- 17dB Coupler
- Surface mount
- Available on tape and reel
- 260°C reflow compatible
- RoHS Compliant and Pb free
- Excellent temperature stability



## Schematic



## Pin Configuration

| Pin No. | Function               |
|---------|------------------------|
| 1       | Coupled                |
| 2       | Ground                 |
| 3       | Input                  |
| 4       | Output                 |
| 5       | Isolated, External 75Ω |

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

| Parameter                        | Conditions        | Units    | Min | Typ  | Max        |
|----------------------------------|-------------------|----------|-----|------|------------|
| Frequency Range                  | —                 | MHz      | 40  | —    | 1002       |
| Impedance                        | —                 | $\Omega$ | -   | 75   | -          |
| Coupling<br>(Pin3 to pin1)       | 40MHz<br>1002 MHz | dB       | -   | 17.3 | $\pm 0.25$ |
| Main Line Loss<br>(pin3 to pin4) | 40 - 1002 MHz     | dB       | -   | 0.60 | 0.9        |
| Input Return Loss<br>(pin3)      | 40 - 1002 MHz     | dB       | 18  | 24   | -          |
| Output Return Loss<br>(pin4)     | 40 - 1002 MHz     | dB       | 18  | 26   | -          |
| Coupled Return Loss<br>(pin1)    | 40 - 1002 MHz     | dB       | 18  | 26   | -          |
| Directivity                      | 40 - 1002 MHz     | dB       | 8.5 | 18   | -          |

## Ordering Information

| Part Number        | Description               |
|--------------------|---------------------------|
| MACP-010718-CG09E0 | Tape & Reel               |
| MACP-010718-CG09TB | Customer Evaluation Board |

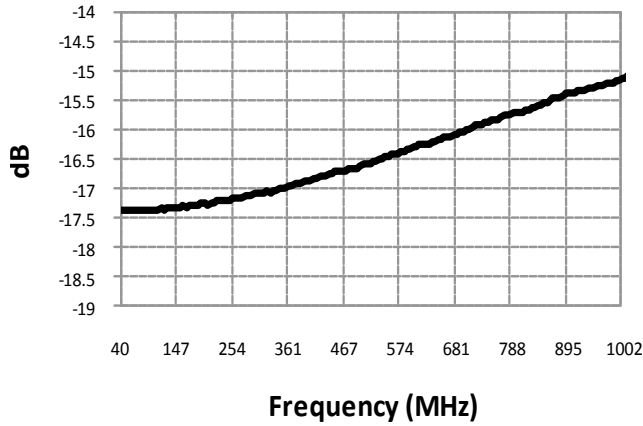
## Recommended Maximum Ratings

| Parameter             | Ratings         |
|-----------------------|-----------------|
| Input Power           | 250 mW          |
| DC Current            | 200 mA          |
| Operating Temperature | -40°C to +85°C  |
| Storage Temperature   | -55°C to +125°C |

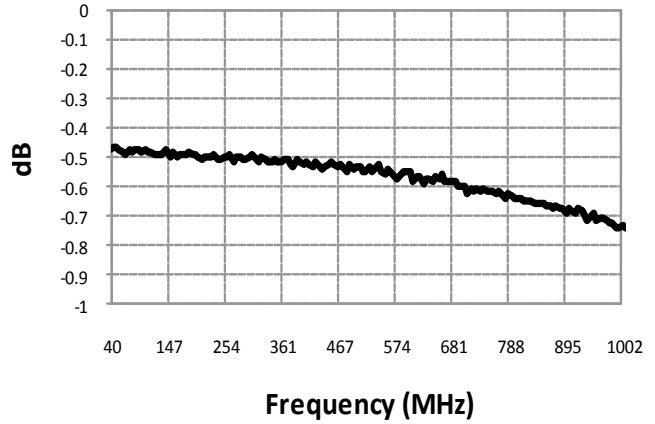
**Coupler, 17dB  
40 - 1002 MHz**

Rev. V3

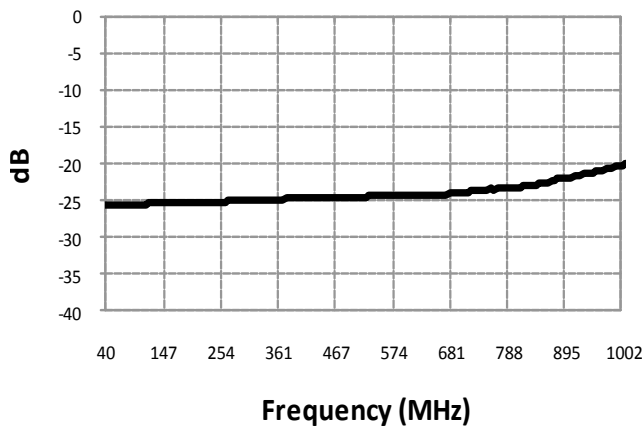
**Coupling: (pin3 to pin1)**



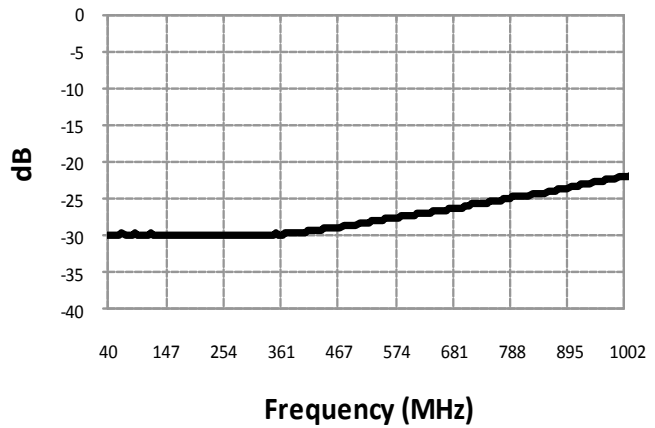
**Main Line Loss: (pin3 to pin4)**



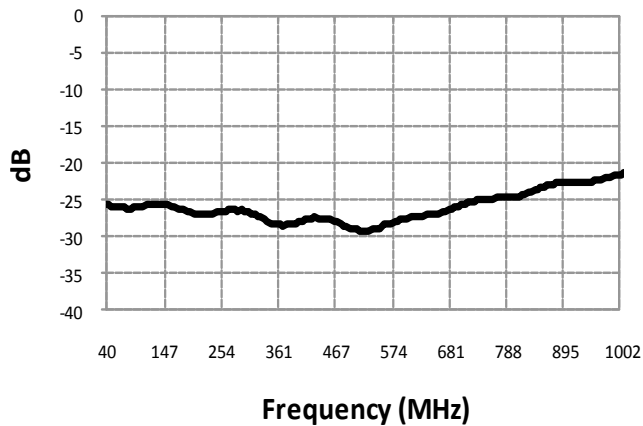
**Return Loss: Input (pin3)**



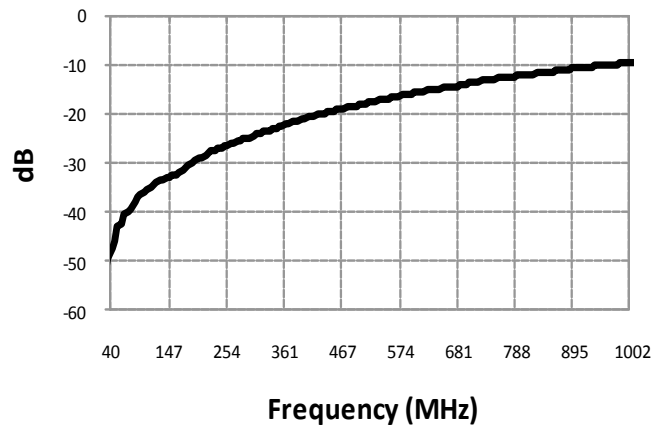
**Return Loss: Output (pin4)**



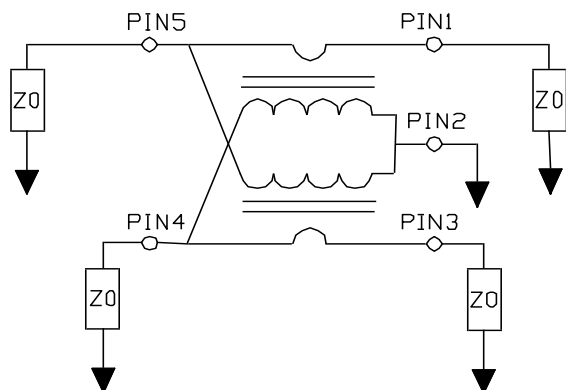
**Return Loss: Coupled (pin1)**



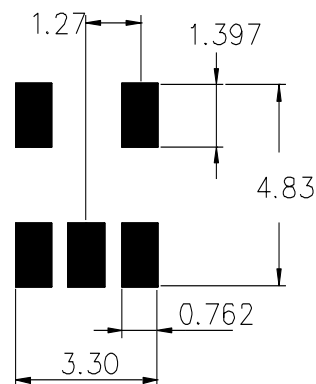
**Directivity:**



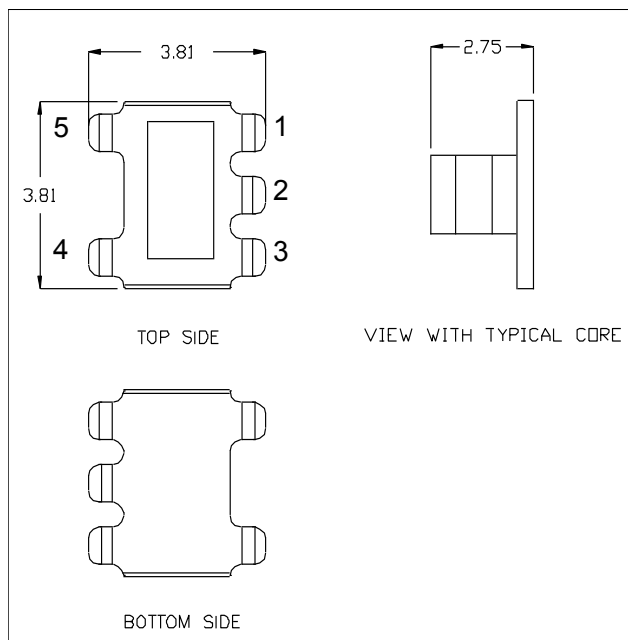
## Application Circuit



## Recommended Footprint



## Outline Drawing



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: ENIG on both sides, 0.05 to 0.1  $\mu$ m gold over 3 to 6  $\mu$ m nickel

## Tape & Reel Information

| Parameter  | Units | Value |
|--|-------|-------|
| Qty per reel                                       | -     | 2000  |
| Reel Size  | mm    | 330   |
| Tape Width   | mm    | 12.00 |
| Pitch  | mm    | 8.00  |
| Ao   | mm    | 4.00  |
| Bo   | mm    | 4.30  |
| Ko   | mm    | 2.90  |
| Orientation  | -     | F5    |
| Reference Application Note ANI-019 for orientation |       |       |

M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.