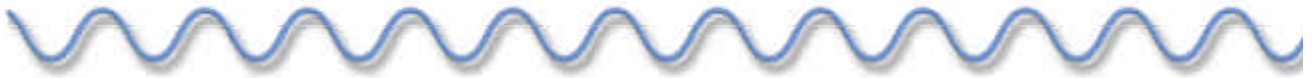


# 17dB Directional Coupler

## 5-120 MHz



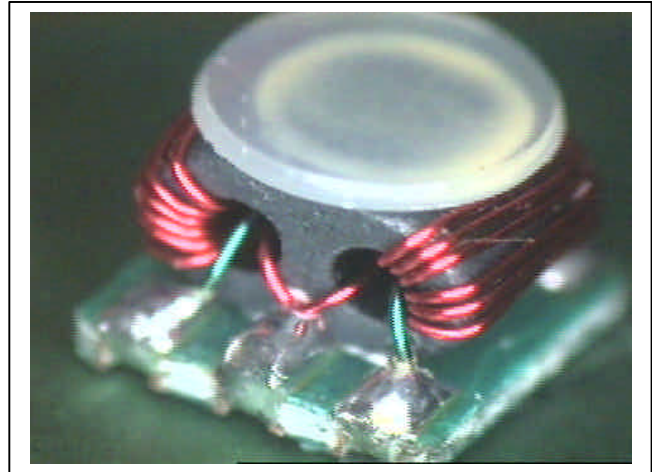
MACPCT0017

### Features

- Coupling 17dB typical
- Surface mount
- Tape and Reel Packaging available

### Description

M/A-COM's MACPCT0017 is a 17dB directional coupler in a low cost, surface mount package. Ideally suited for high volume CATV applications. A 75ohm external resistor is required on the isolation port with this product. Typical applications include set-top boxes, network interface units cable amplifiers and headend equipment.



### Electrical Specifications @ 25°C, 75 ohm

| Parameter                    | Test Conditions | Units | Min.  | Typ.  | Max.  |
|------------------------------|-----------------|-------|-------|-------|-------|
| Frequency Range: 5 - 120 MHz |                 |       |       |       |       |
| Coupling                     | 5 - 120 MHz     | dB    | -17.0 | -17.3 | -17.5 |
| Main line loss               | 5 - 120 MHz     | dB    | -0.5  | -0.4  | —     |
| Isolation                    | 5 - 120 MHz     | dB    | —     | -45   | -35   |
| Return Loss                  | 5 - 120 MHz     | dB    | —     | -26   | -20   |

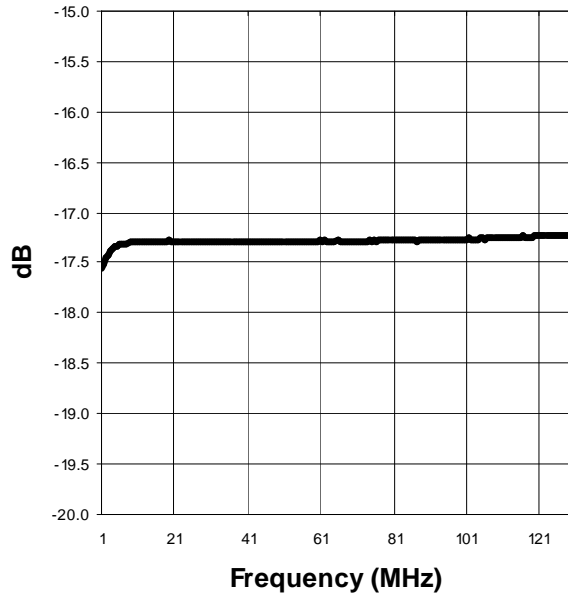
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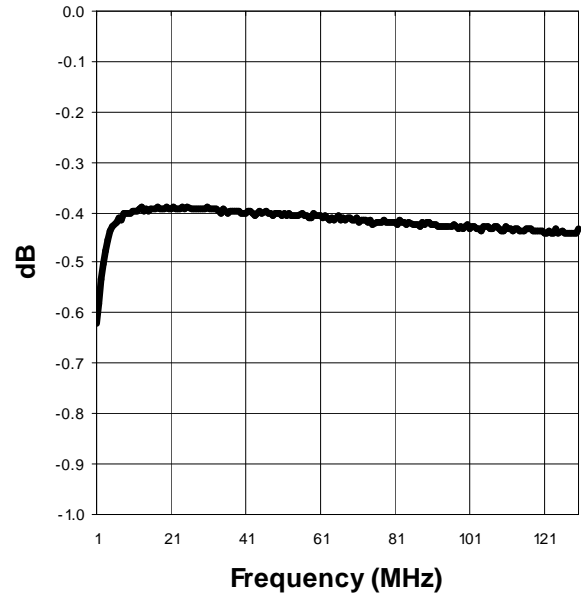
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- Asia/Pacific: Tel.+ 81-44-844-8296, Fax+81-44-844-8298
- Europe: Tel. +44(1908) 574 200, Fax +44(1908) 574 300

**Typical Performance @ +25° C**

**Coupling**



**Main line loss**



**Absolute Maximum Ratings**

|                               | Absolute Maximum |
|-------------------------------|------------------|
| RF Power                      | 250 mW           |
| DC Current                    | 30 mA            |
| Operating/Storage Temperature | -40° C to +85° C |

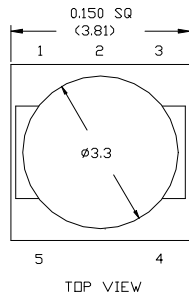
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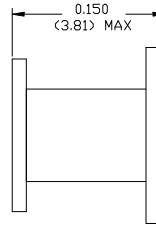
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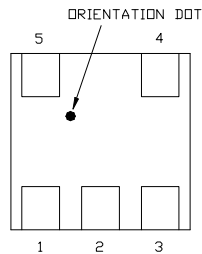
**SM-155 Case Style**



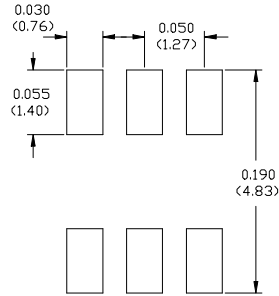
TOP VIEW



SIDE VIEW

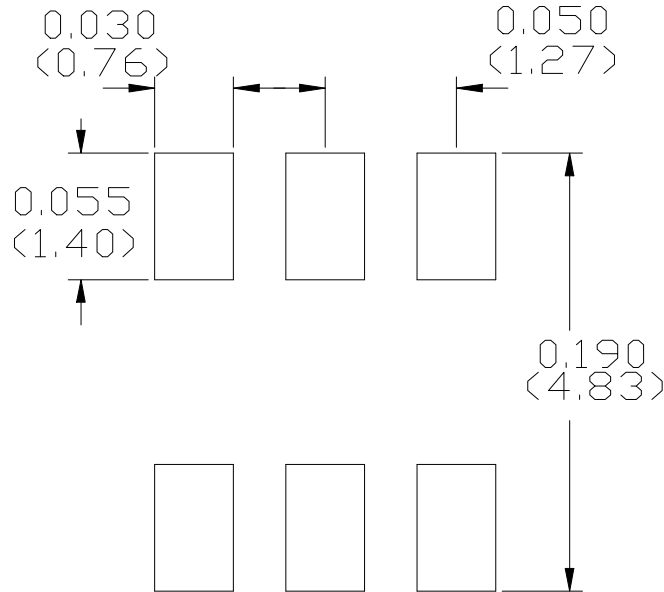


BOTTOM VIEW



FOOTPRINT FOR PCB DESIGN

**Suggested footprint**



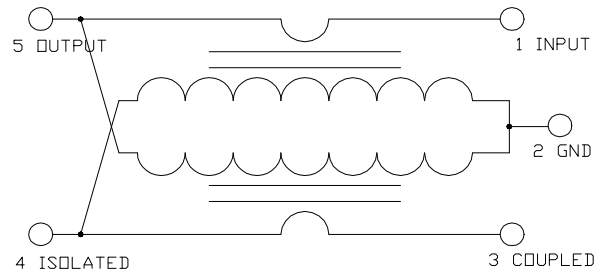
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## Functional Schematic



## Pin Configuration

| Function                 | Pin No. |
|--------------------------|---------|
| Input                    | 1       |
| Coupled                  | 3       |
| Output                   | 5       |
| Isolation (external 75Ω) | 4       |
| Ground                   | 2       |

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