

17 dB Coupler  
5 - 1000 MHz

Rev. V3

## Features

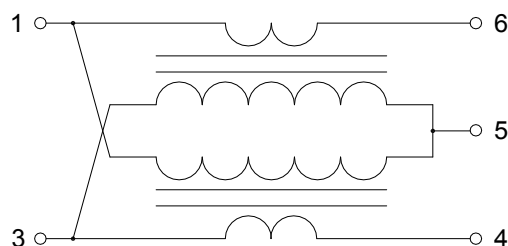
- 17 dB Coupler
- Surface Mount Package
- Available on Tape and Reel
- 260° Reflow Compatible
- RoHS Compliant version of ESDC-17-3-75

## Description

The MACP-007486 is a 17 dB coupler in a surface mount package. Ideally suited for CATV broadband applications.



## Functional Schematic



## Pin Configuration

Pin #	Function	Pin #	Function
1	Output	4	Coupled
2	Not Connected	5	Ground
3	External 75 $\Omega$	6	Input

**Electrical Specifications:** Freq. = 5 - 1000 MHz,  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75 \Omega$ ,  $P_{IN} = 0 \text{ dBm}$

Parameter	Freq. Test Conditions (MHz)	Units	Min.	Typ.	Max.
Coupling	5 - 1000	dB	16	17	—
Coupling Flatness	5 - 1000	dB	—	—	0.8
Main Line Loss	5 - 50 50 - 500 500 - 1000	dB	—	0.6 0.6 0.7	1.3 1.1 1.2
Directivity	5 - 50 50 - 500 500 - 1000	dB	18 12 8	22 21 15	—
Input Return Loss	5 - 1000	dB	15	20	—
Output Return Loss	5 - 1000	dB	15	20	—
Coupling Return Loss	5 - 1000	dB	15	20	—

## Ordering Information

Part Number	Package
MACP-007486-CH0010	900 piece reel
MACP-007486-CH00TB	customer test board

## Recommended Maximum Ratings

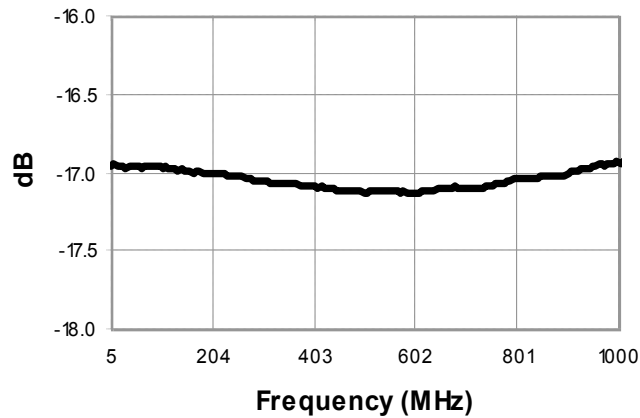
Parameter	Units
Input Power	250 mW
DC Current	30 mA
Operating & Storage Temperature	-20°C to +85°C

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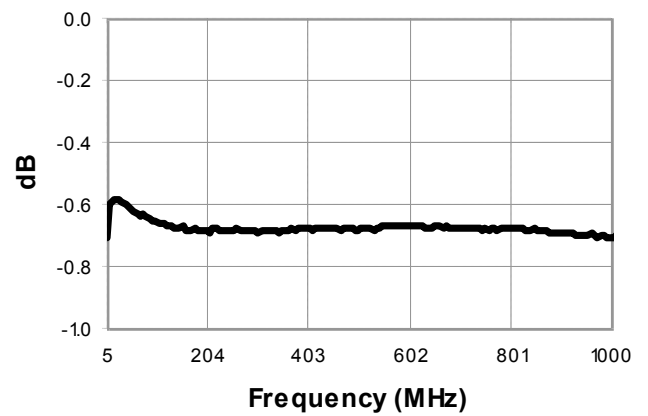
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## Typical Performance Curves

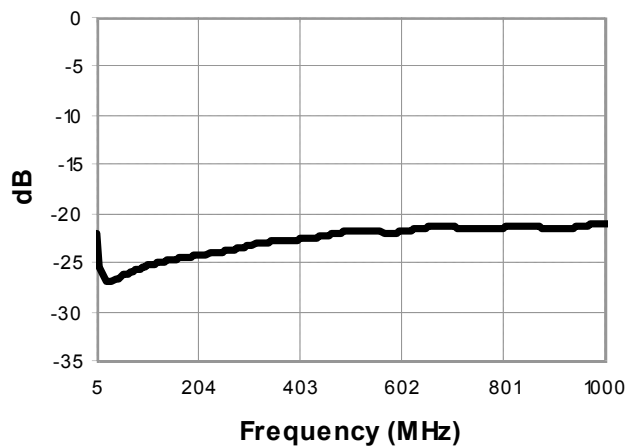
**Coupling (pin 6 to pin 4)**



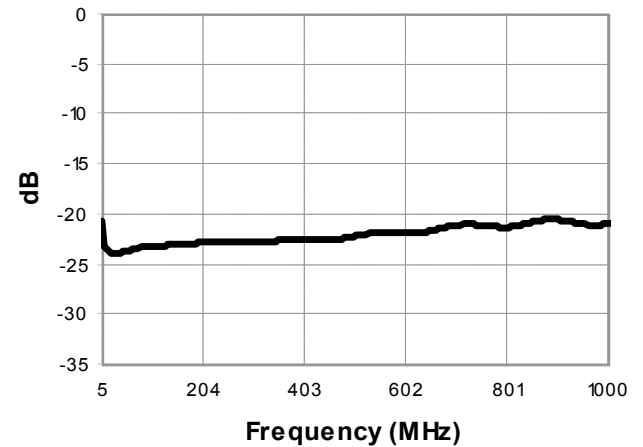
**Main Line Loss (pin 6 to pin 1)**



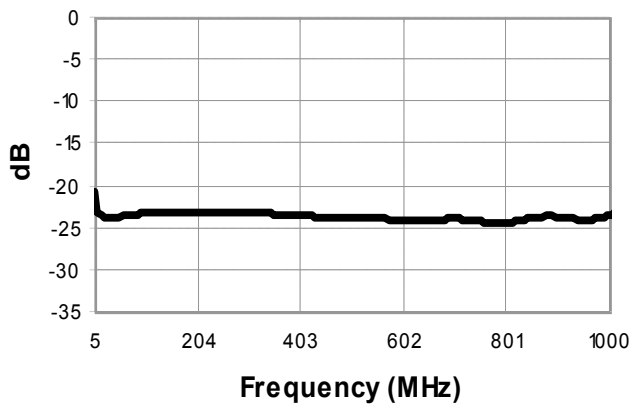
**Return Loss Input (pin 6)**



**Return Loss Output (pin 1)**



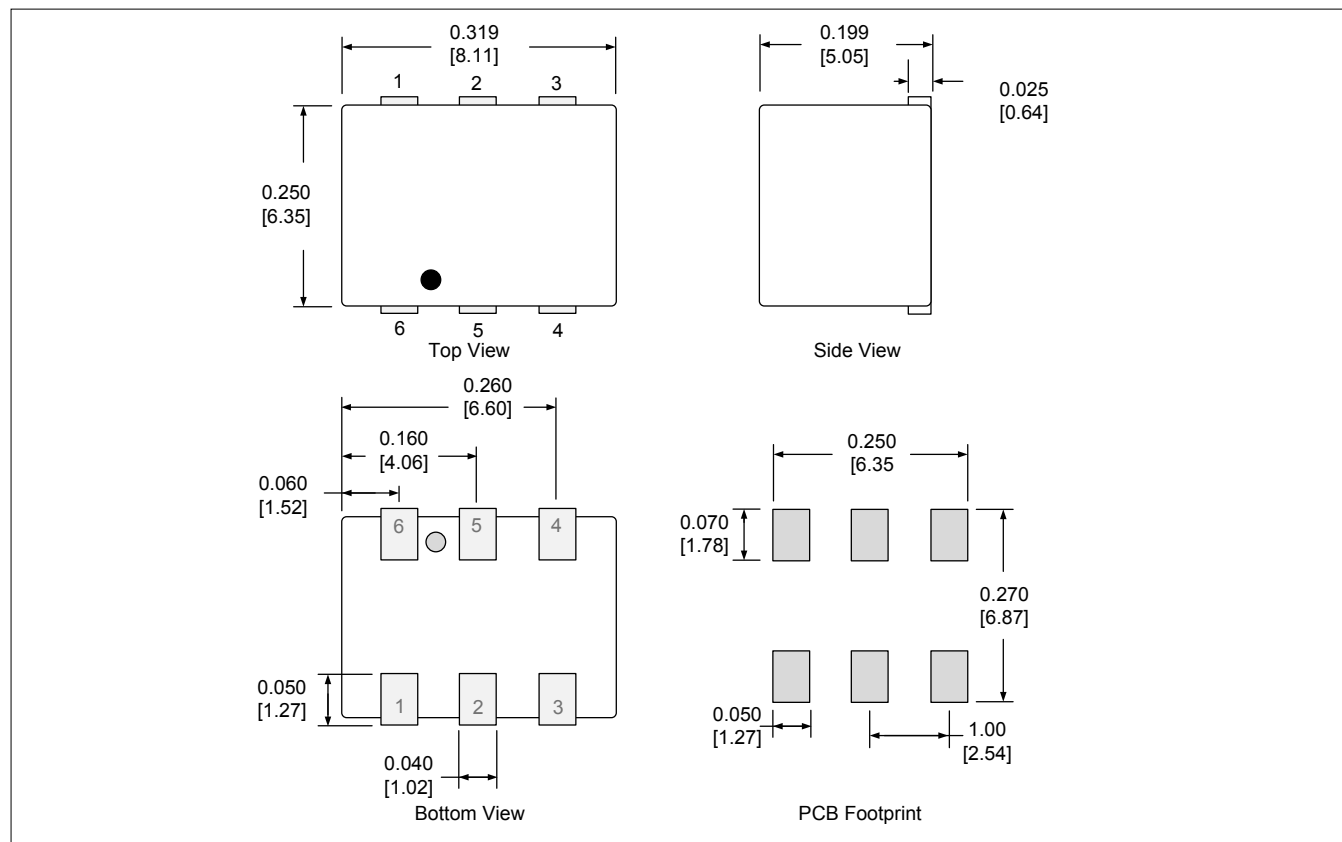
**Return Loss Coupling (pin 4)**



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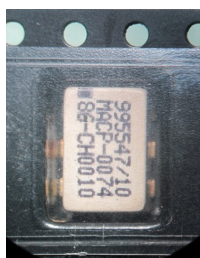
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## Outline Drawing (SM-1) & PCB Footprint



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

## Component Package Orientation



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Ao	mm	6.60
Bo	mm	7.30
Ko	mm	4.90
Orientation	-	F15
Reference Application Note ANI-019 for orientation		

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