

## Features

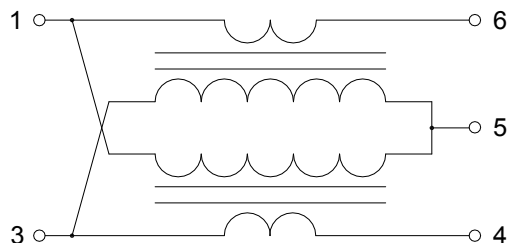
- 10.5 dB Coupler
- Surface Mount Package
- Available on Tape and Reel
- 260° Reflow Compatible
- RoHS Compliant version of ESDC-10-5-75

## Description

The MACP-007490 is a 10.5 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 Ω	6	Input

## Electrical Specifications: Freq. = 5 - 1000 MHz, T<sub>A</sub> = 25°C, Z<sub>0</sub> = 75 Ω, P<sub>IN</sub> = 0 dBm

Parameter	Freq. Test Conditions (MHz)	Units	Min.	Typ.	Max.
Coupling	5 - 1000	dB	9.5	10.5	11.5
Coupling Flatness	5 - 1000	dB	—	—	1.2
Main Line Loss	5 - 50	dB	—	1.2	1.6
	50 - 500			1.3	1.5
	500 - 1000			1.4	1.7
Directivity	5 - 50	dB	18	22	—
	50 - 500		15	20	
	500 - 1000		7	14	
Input Return Loss	5 - 1000	dB	14	17	—
Output Return Loss	5 - 1000	dB	18	23	—
Coupling Return Loss	5 - 1000	dB	14	17	—

## Ordering Information

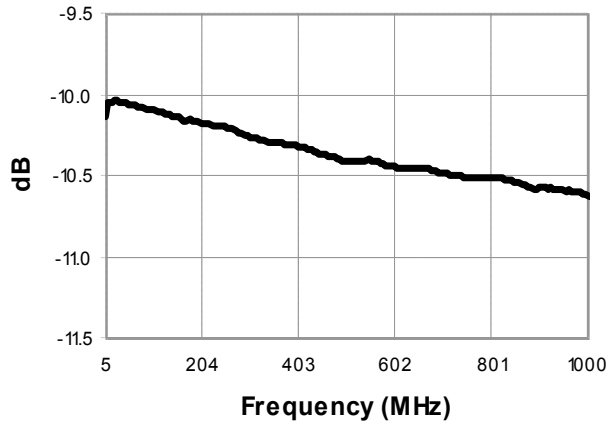
Part Number	Package
MACP-007490-CA0010	900 piece reel
MACP-007490-CA00TB	customer test board

## Recommended Maximum Ratings

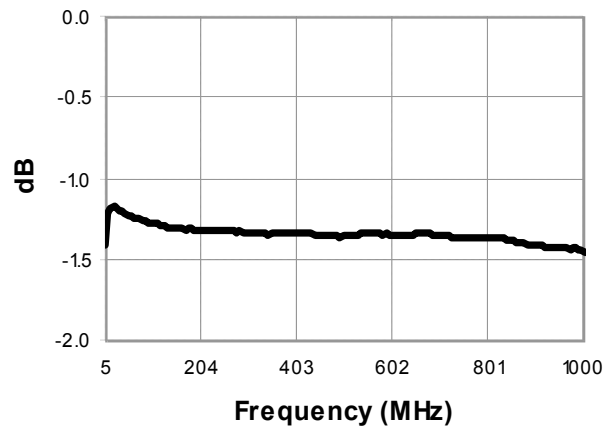
Parameter	Units
Input Power	250 mW
DC Current	30 mA
Operating & Storage Temperature	-20°C to +85°C

## Typical Performance Curves

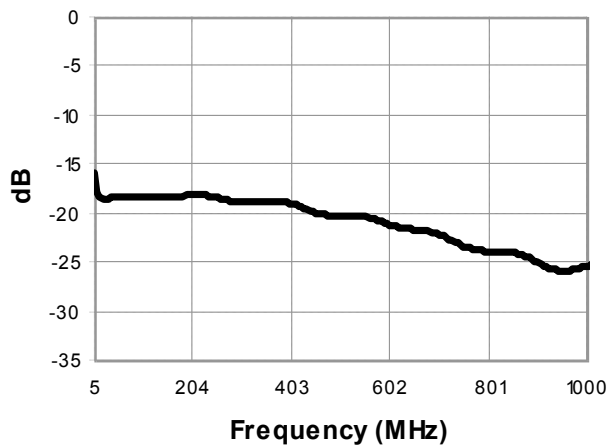
**Coupling (pin 6 to pin 4)**



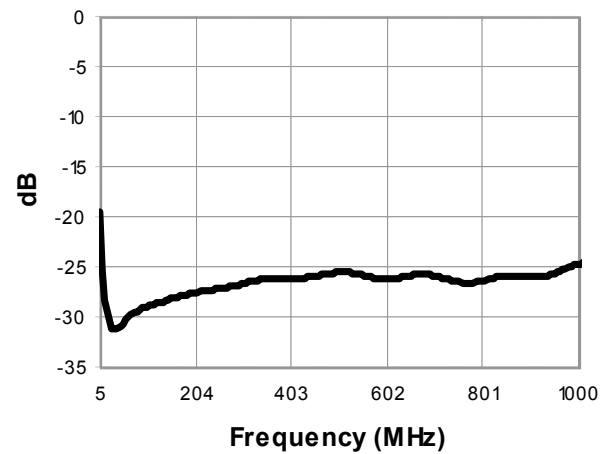
**Main Line Loss (pin 6 to pin 1)**



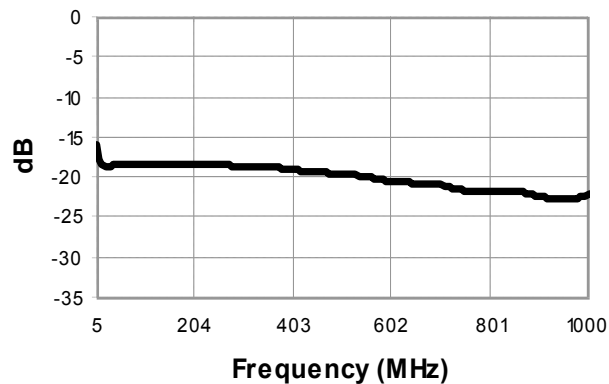
**Return Loss Input (pin 6)**



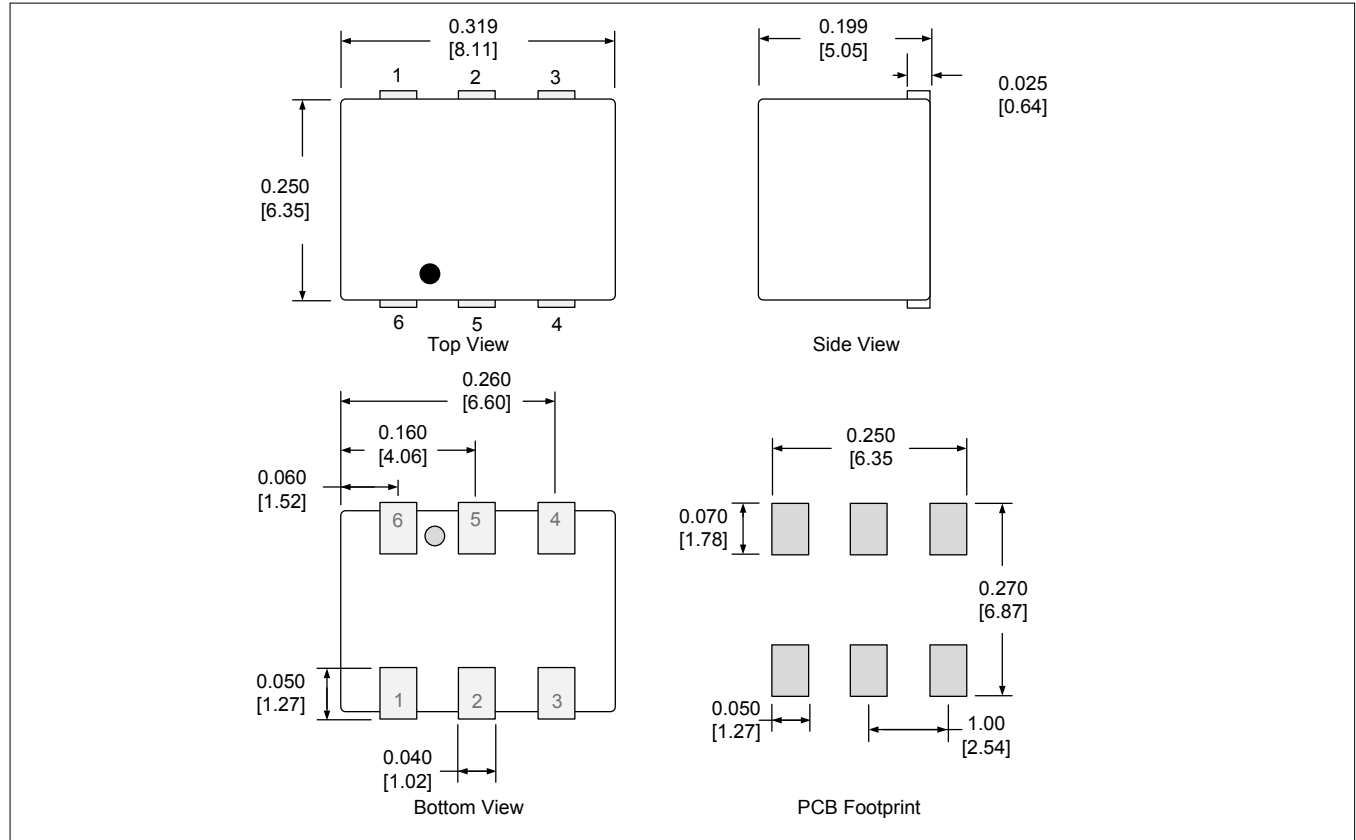
**Return Loss Output (pin 1)**



**Return Loss Coupling (pin 4)**

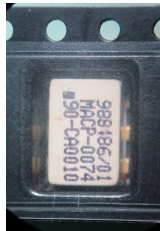


## Outline Drawing (SM-1) & PCB Footprint



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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