

**8 dB Coupler, 75 Ω
5 - 1000 MHz**

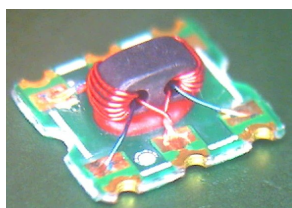
Rev. V2

Features

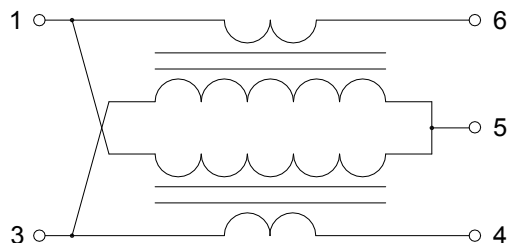
- 8 dB Coupler
- Surface Mount Package
- RoHS Compliant & Lead-Free
- Available on Tape & Reel

Description

The MACP-009404-C80370 is a high performance 75 Ω coupler in a surface mount package. Ideally suited for high volume CATV 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, $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{IN} = 0 \text{ dBm}$

Parameter	Freq. Test Conditions (MHz)	Units	Min.	Typ.	Max.
Coupling	5 - 870	dB	—	7.9	± 0.6
	870 - 1000			7.9	± 0.8
Coupling Flatness	5 - 1000	dB	—	—	0.9
Main Line Loss	5 - 870	dB	—	1.5	2.3
	870 - 1000			2.1	2.6
Directivity	5 - 870	dB	—	17	11
	870 - 1000			13	10
Input Return Loss	5 - 50	dB	17	18	—
	50 - 870		16	18	
	870 - 1000		16	20	
Output Return Loss	5 - 50	dB	24	22	—
	50 - 870		20	34	
	870 - 1000		18	24	
Coupling Return Loss	5 - 50	dB	16	19	—
	50 - 870		16	20	
	870 - 1000		16	20	

Ordering Information

Part Number	Package
MACP-009404-C80370	900 piece reel
MACP-009404-C803TB	customer test board

Recommended Maximum Ratings

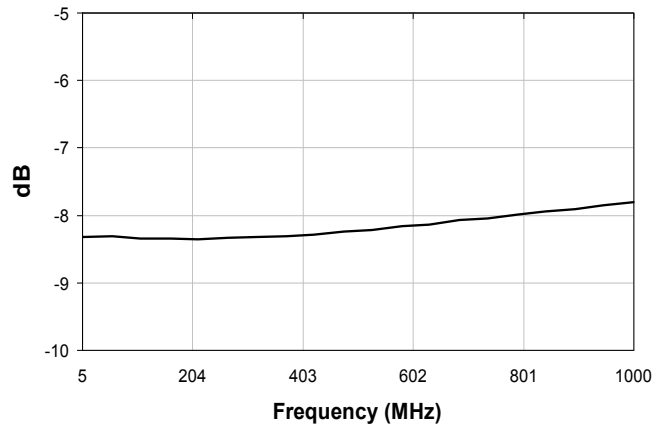
Parameter	Units
Input Power	250 mW
DC Current	30 mA
Operating & Storage Temperature	-40°C to +85°C

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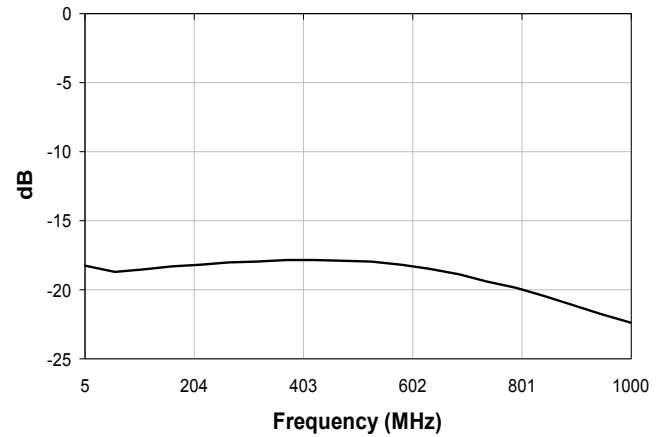
Rev. V2

Typical Performance Curves

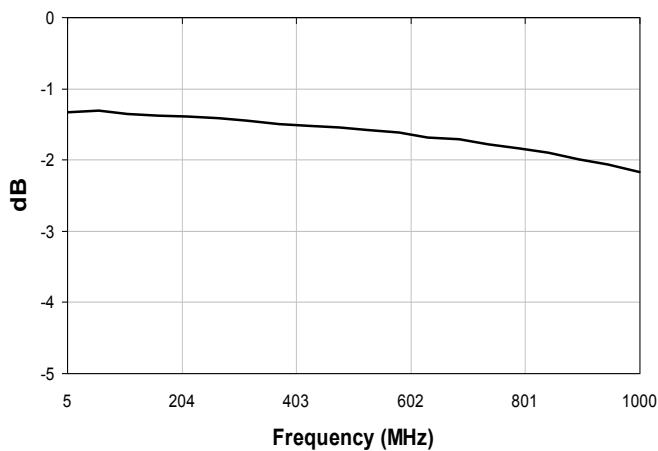
Coupling



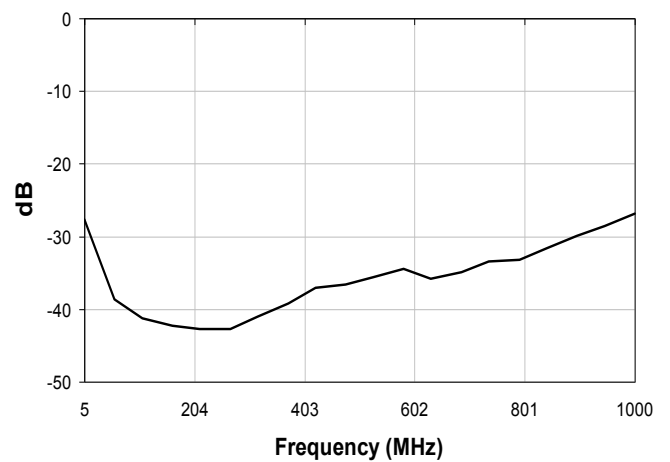
Input Return Loss



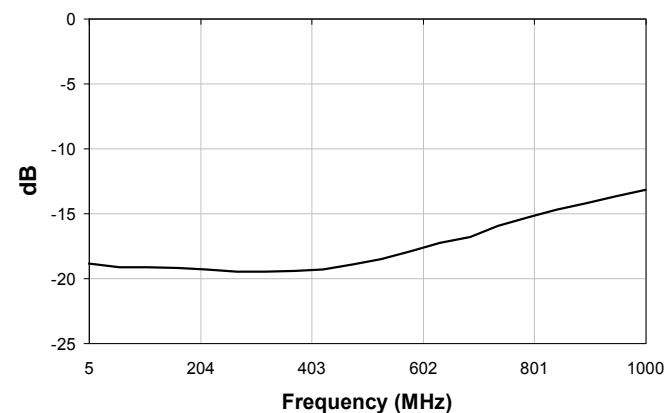
Main Line Loss



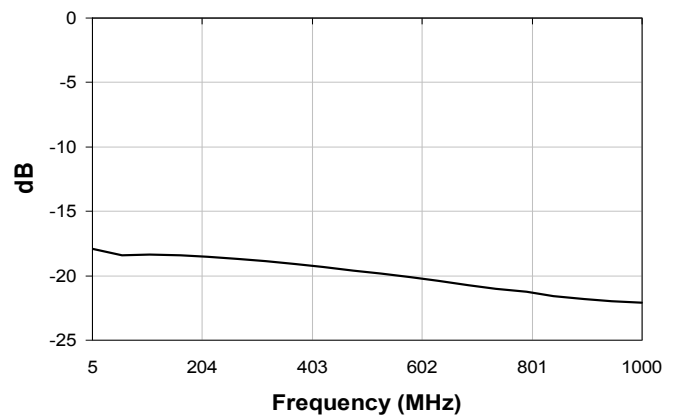
Output Return Loss



Directivity



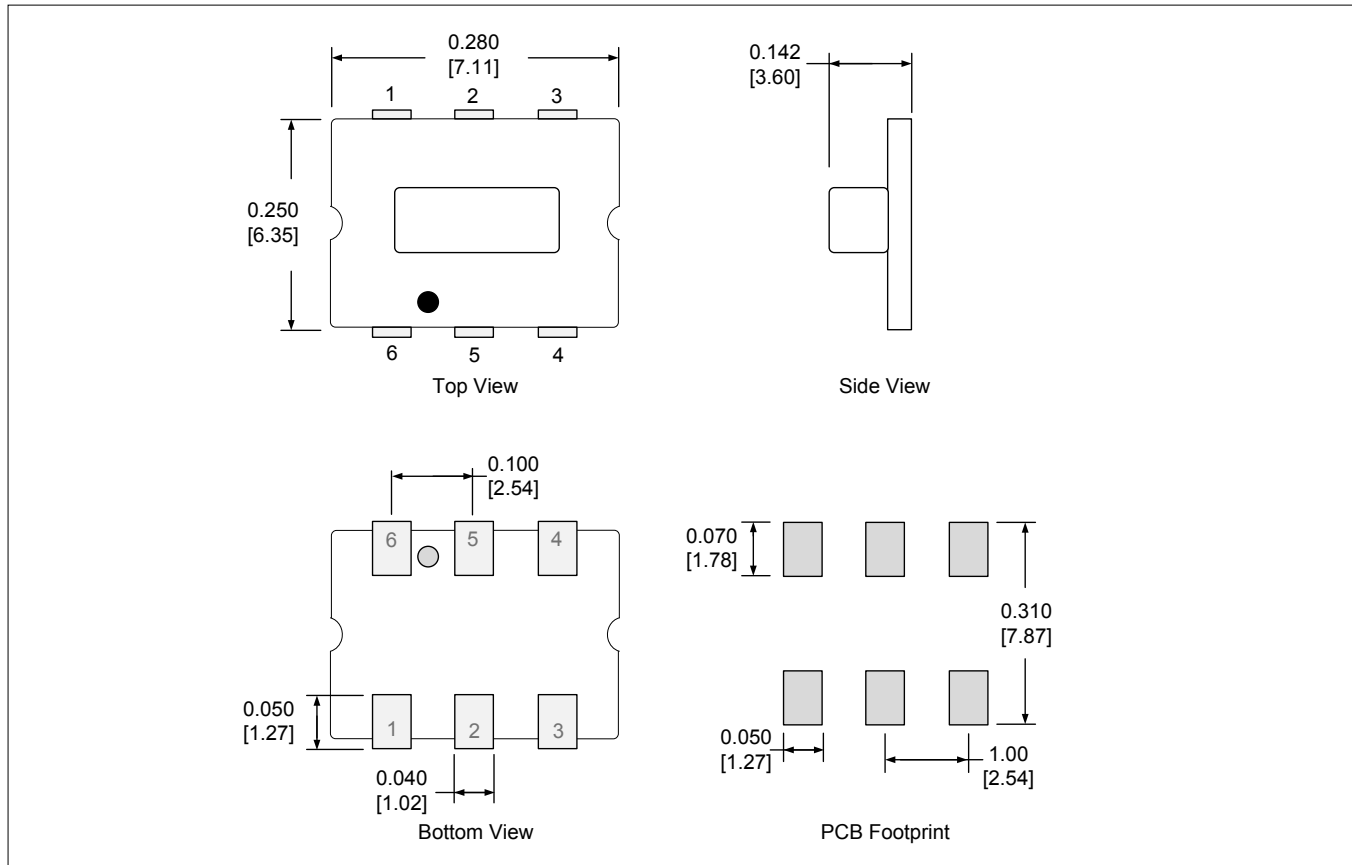
Coupled Port Return Loss



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Rev. V2

Outline Drawing (SM-55) & PCB Footprint



Dimensions in inches [mm] Tolerance: .xx $\pm$.02, .xxx $\pm$.010

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