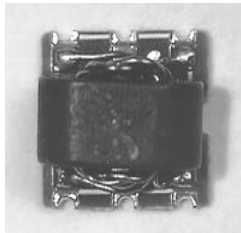


# E-Series 75 Ohm Coupler 5 - 870 MHz

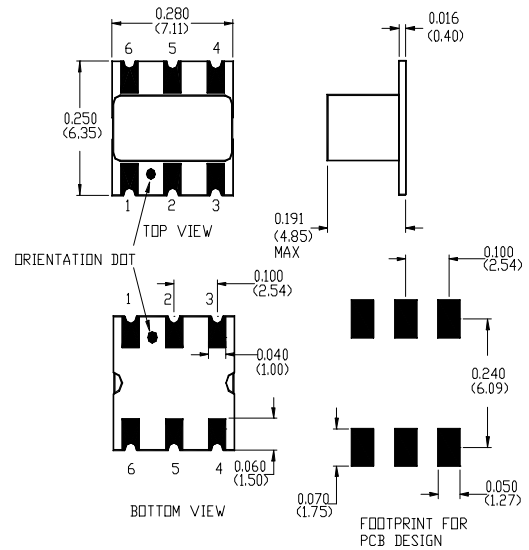


## Features

- Low Intermod Distortion
- Coupling 10db Typical
- Surface Mount
- Tape and Reel Packaging available



## SM-132 Package



## Description

M/A-COM's MACPES0004 is a high performance 75 Ohm Coupler, in a SM-132 low cost, surface mount package. The MACPES0004 is specifically designed for extremely low intermod distortion in CATV applications. **The MACPES0004 required the use of a 6+/-5%uH shunt inductor and a series 1500+/-5% pF capacitor on the input and a 3300+/-5% pF series capacitor on the output to meet the performance characteristics below.**

## Electrical Specifications @25°C

Frequency Range	5 - 870 MHz	Units	Nominal	Typical	Minimum	Maximum
Mainline Loss	5 - 450 MHz	dB	—	1.1	—	1.3
	450-870 MHz	dB	—	1.3	—	1.6
Coupling	5 - 870 MHz	dB	10.2	—	—	± 0.5
Coupling Flatness		dB	—	—	—	1.0
Isolation	5 - 450 MHz	dB	—	35	25	—
	450-870MHz	dB	—	28	18	—
Input Return Loss	5 - 870 MHz	dB	—	24	18	—
Output Return Loss	5 - 870 MHz	dB	—	26	20	—
Coupled Return Loss	5 - 870 MHz	dB	—	21	17	—

Please Note that the photograph above indicates package shape only, unit may be wired differently.

Rev V1

29-MAR-04



M/A-COM n North America: Tel. (800) 366-2266, Fax (800) 618-8883 n Asia/Pacific: Tel.+85 2 2111 8088, Fax +85 2 2111 8087 n Europe: Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020

www.macom.com

Specifications subject to change without notice.

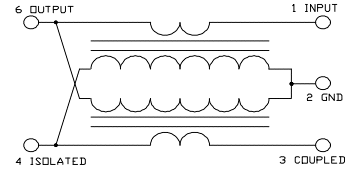
Operating Characteristics

Function	Pin No.
Input	6
Output	1
Coupled	4
Ground	5
Not Connected	2
External 75 Ohms	3

Absolute Maximum Ratings

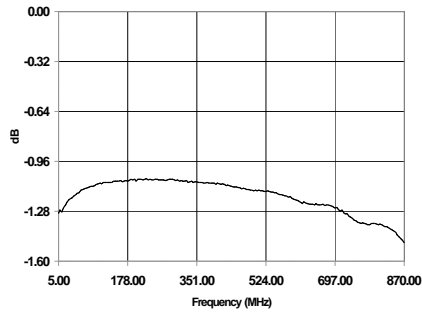
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating/Storage Temperature	-40°C to +85°C

Schematic

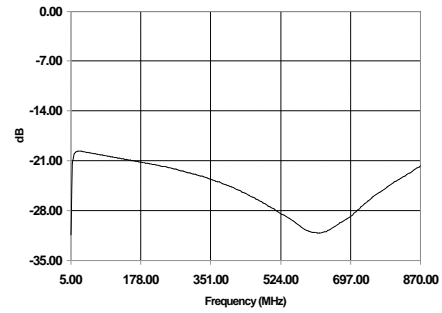


Typical Performance @ 25°C

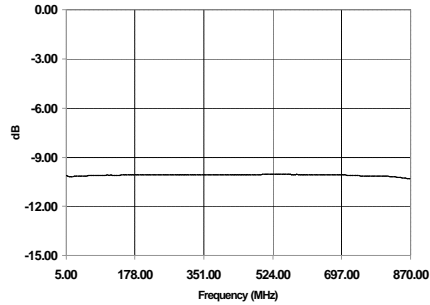
Insertion Loss



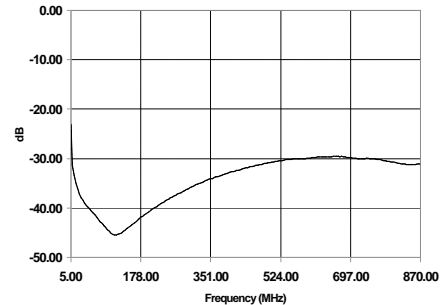
Input Return Loss



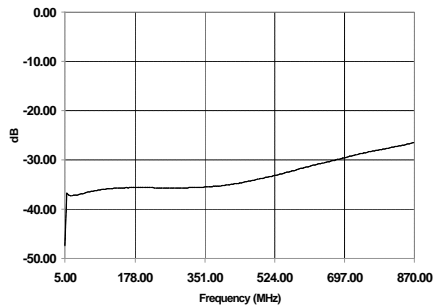
Coupling



Output Return Loss



Isolation



Coupled Port Return Loss

