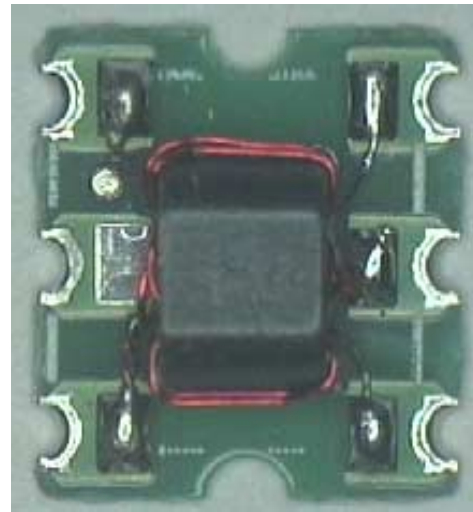


### Features

- SMT unit
- Coupling 8dB typical
- Available on tape & reel
- Excellent temperature stability

### Description

M/A-COM's MACPCT0014 is a low cost SMT 8dB directional coupler designed for high volume CATV Broadband applications. An external 50 ohm load is required on the isolated port. Typical applications include set-top boxes, network interface units, cable amplifiers and headend equipment.



### Electrical Specifications @ 25°C, Z<sub>0</sub> = 50 Ohm

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range: 50-870 MHz					
Coupling	50 - 870 MHz	dB	—	8.0	±0.5
Coupling Flatness	50 - 870 MHz	dB	—	—	1.0
Main Line Loss	50 - 500 MHz	dB	—	1.2	1.5
	500 – 870 MHz	dB	—	1.6	2.0
Isolation	50 - 200 MHz	dB	26	29	—
	200 – 870 MHz	dB	20	24	—
Input Return Loss	50 - 870 MHz	dB	17	19	—
Output Return Loss	50 - 500 MHz	dB	20	25	—
	500 – 870 MHz	dB	18	23	—
Coupled Port Return Loss	50 - 870 MHz	dB	16	18	—

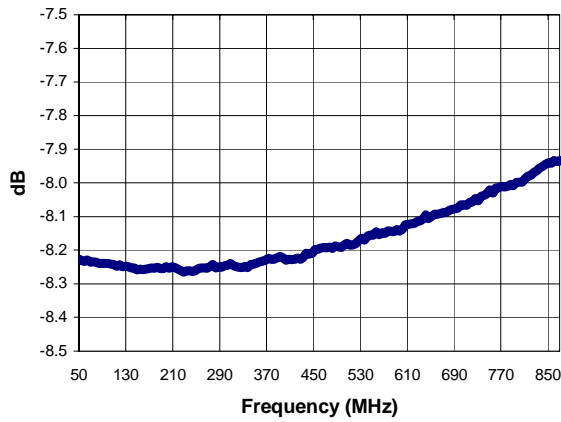
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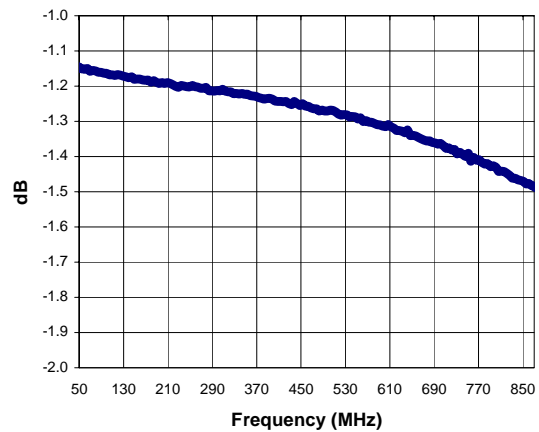
■ North America: Tel. (800) 366-266, Fax (800) 618-8883  
 ■ Asia/Pacific: Tel.+ 81-44-844-8296, Fax+81-44-844-8298  
 ■ Europe: Tel. +44(1908) 574 200, Fax +44(1908) 574 300

Typical Performance @ +25°C, 50 Ohm

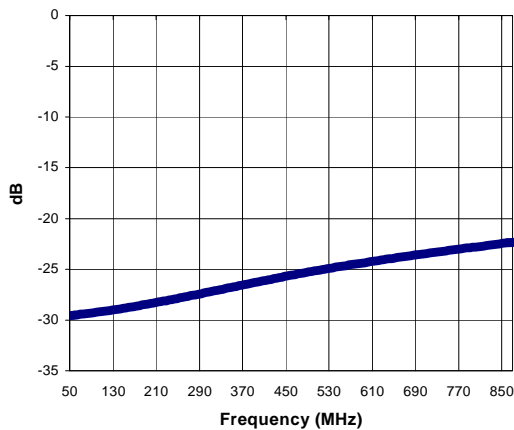
Coupling: pin 3-1



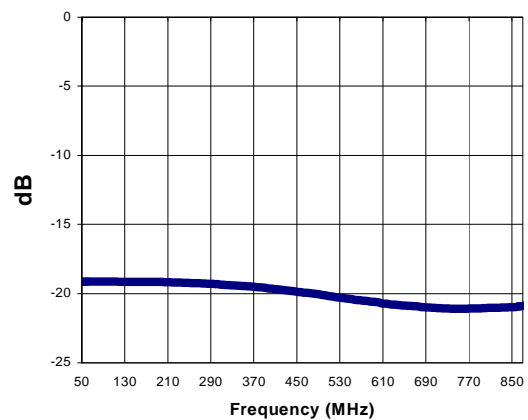
Main Line Loss: pin 6-1



Isolation



Return Loss: Input port



Absolute Maximum Ratings <sup>1</sup>

	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating/Storage Temperature	-20° C to +85° C

<sup>1</sup> Exceeding one or a combination of these settings may cause permanent damage to the unit

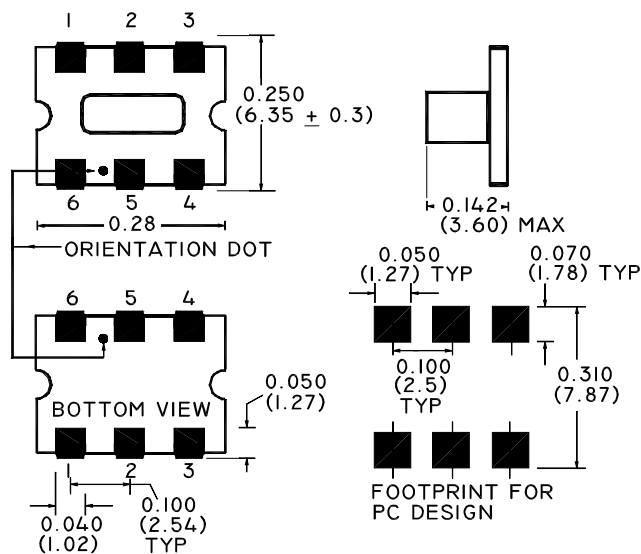
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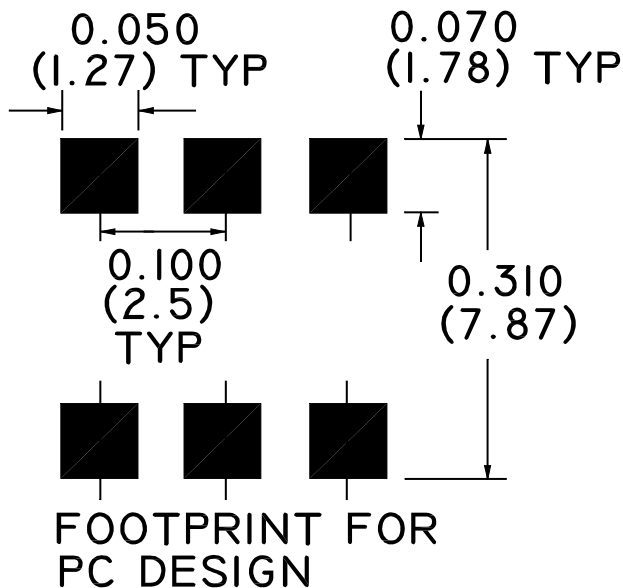
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**SM-55 Case Style**



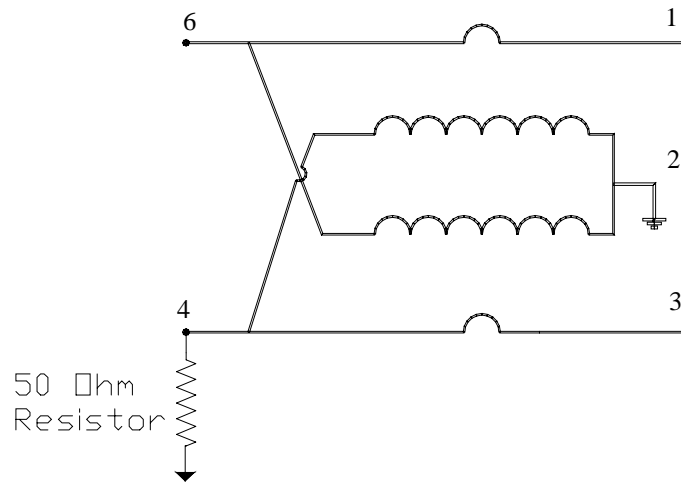
**Suggested Footprint**



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**Functional Schematic**



**Pin Configuration**

Function	Pin No.
Input	1
Coupled	3
Output	6
Isolated (external 50 Ohms)	4
Ground	2&5

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