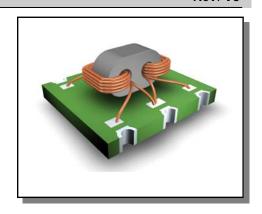


Coupler, 7dB 5 MHz - 2400 MHz

Rev. V3

#### **Features**

- Coupling 7dB Typical
- Surface mount
- low profile
- 260°C reflow compatible
- Excellent Return Loss
- Available on Tape & Reel
- · RoHS compliant, lead free



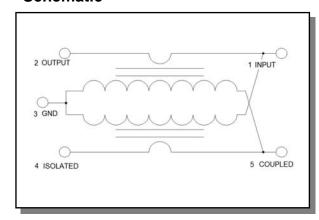
# **Electrical Specifications:** $Z_0 = 75\Omega$ , $T_A = 25^{\circ}C$ , $P_{in} = 0 dBm$

Parameter	Conditions	Units	Min	Тур	Max
Frequency Range		MHz	5		2400
Impedance		Ω		75	
Main Line Loss	5 - 1500 MHz 1500 - 2400 MHz	dB dB	-	2.3 3.0	3.0 4.5
Coupling	5 - 50 MHz 50 - 2400 MHz	dB	- 5.5	7 7	9 8.5
Coupling Flatness	-	dB	-	-	2.5
Isolation	5 - 2400 MHz	dB	15	21	-
Input Return Loss	5 - 2400 MHz	dB	5	20	-
Output Return Loss	5 - 2400 MHz	dB	5	15	-
Coupling Return Loss	5 - 2400 MHz	dB	5	13	-

# **Pin Configuration**

Pin No.	Function	
1	Input	
2	Output	
3	Ground	
4	Isolated (external 75Ω)	
5	Coupled	

#### **Schematic**



ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology

**PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

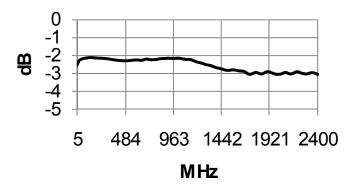
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 India Tel: +91.80.43537383
 China Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.



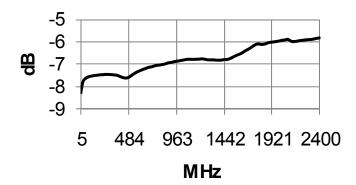
Coupler, 7dB 5 MHz - 2400 MHz

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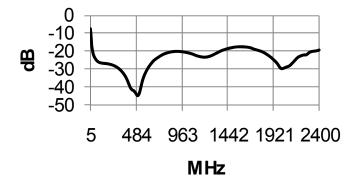
## Main Line Loss: (Pin1 - Pin2)



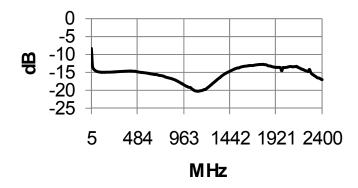
## Coupling: (Pin1 - Pin5)



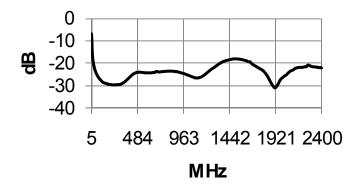
#### **Return Loss: Input (Pin1)**



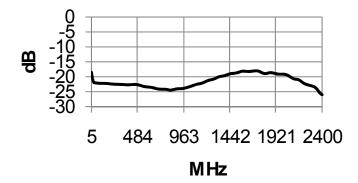
#### **Return Loss: Output (Pin2)**



## **Return Loss: Coupled (Pin5)**



#### **Isolation (Pin1 - Pin4)**



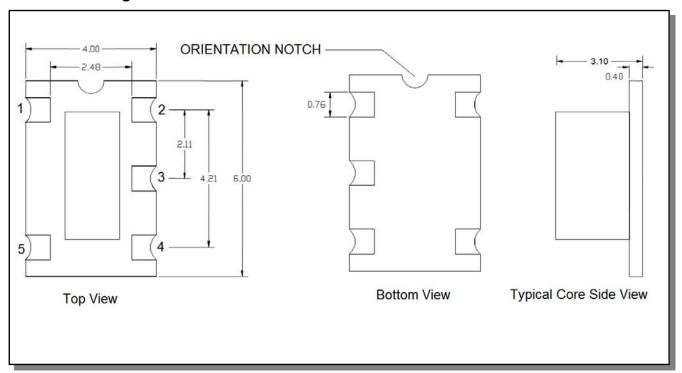
Electrical Specifications:  $Z_0 = 75\Omega$ ,  $T_A = 25$ °C,  $P_{in} = 0$ dBm



Coupler, 7dB 5 MHz - 2400 MHz

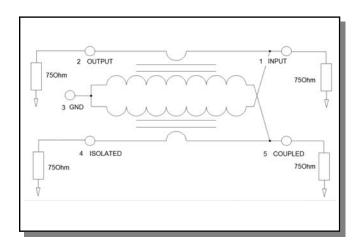
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#### **Outline Drawing**

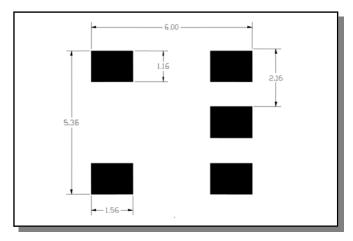


- Dimensions in mm.
- 2. Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code printed on reel.
- Plating finish: ENIG on both sides, 0.05 to 0.1 µm gold over 3 to 6 µm nickel

## **Application Circuit**



## **Recommended Footprint**



Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed. • North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400 • India Tel: +91.80.43537383 • China Tel: +86.21.2407.1588 Visit www.macomtech.com for additional data sheets and product information.



Coupler, 7dB 5 MHz - 2400 MHz

Rev. V3

## **Tape & Reel Information**

Parameter	Units	Value	
Qty per reel	-	2000	
Reel size	mm	330	
Tape width (W)	mm	16.0	
Pitch (P <sub>1</sub> )	mm	8.0	
A <sub>0</sub>	mm	4.3	
B <sub>0</sub>	mm	6.3	
K <sub>0</sub>	mm	3.2	
Orientation	-	F45	
Reference Application note ANI-019 for orientation			

## **Ordering Information**

Part Number	Description
MACP -010381-C70880	Tape & Reel
MACP -010381-C708TB	Customer Evaluation Board

# **Recommended Maximum Ratings**

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

Temperature data available on request

# **ECO History**

Rev	Date	Description	ECO
V1	2010-8-17	New Release	20101102
V2	2010-9-27	Add a height specification to the Outline Drawing on the Data Sheet	20101543
V3	2010-10-26	Update with New pins configuration and spec	20101741

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