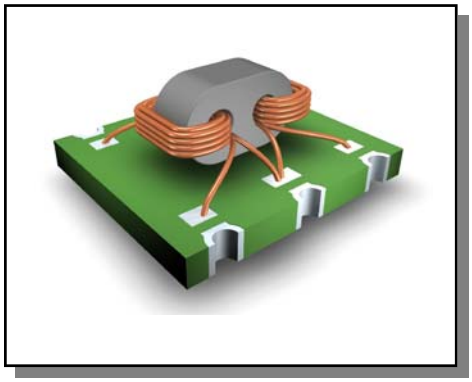
MACP-010381-C70880

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



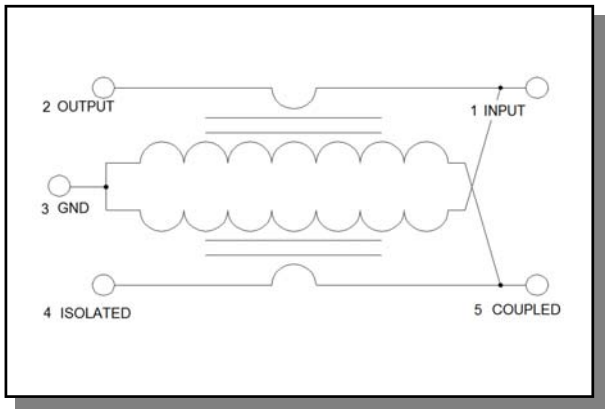
Electrical Specifications: Z_0 = 75Ω, T_A = 25°C, P_{in} = 0dBm

Parameter	Conditions	Units	Min	Typ	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

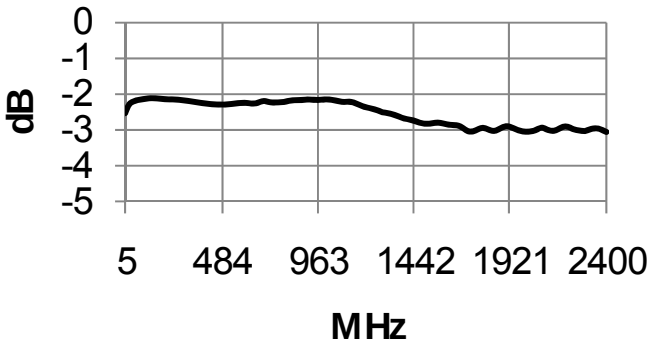
Pin No.	Function
1	Input
2	Output
3	Ground
4	Isolated (external 75Ω)
5	Coupled

Schematic

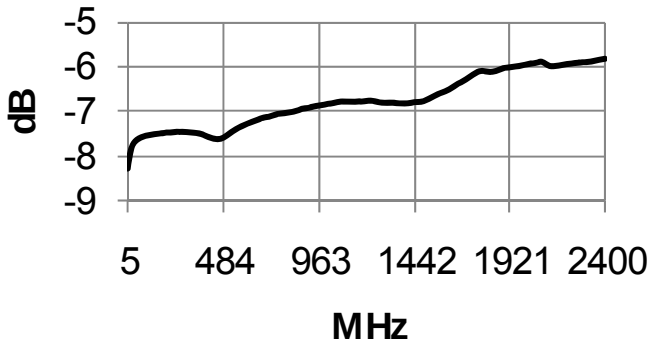


• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
• **India** Tel: +91.80.43537383 • **China** Tel: +86.21.2407.1588
Visit www.macomtech.com for additional data sheets and product information.

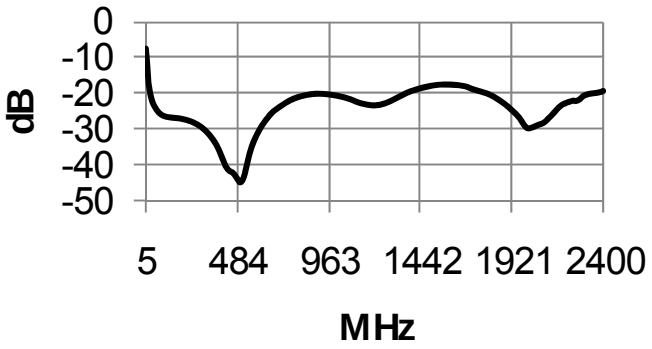
Main Line Loss: (Pin1 - Pin2)



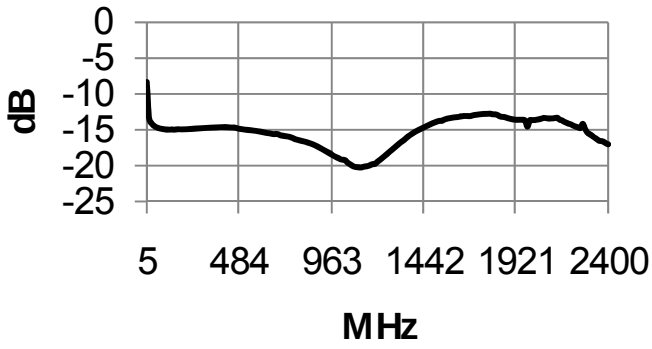
Coupling: (Pin1 - Pin5)



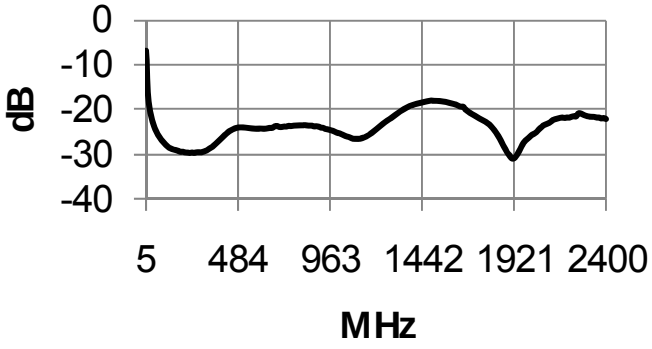
Return Loss: Input (Pin1)



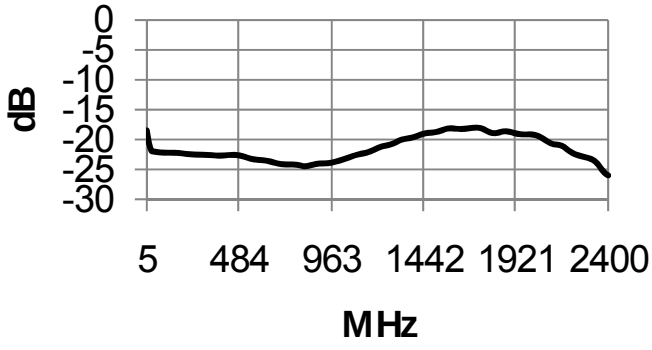
Return Loss: Output (Pin2)



Return Loss: Coupled (Pin5)



Isolation (Pin1 - Pin4)



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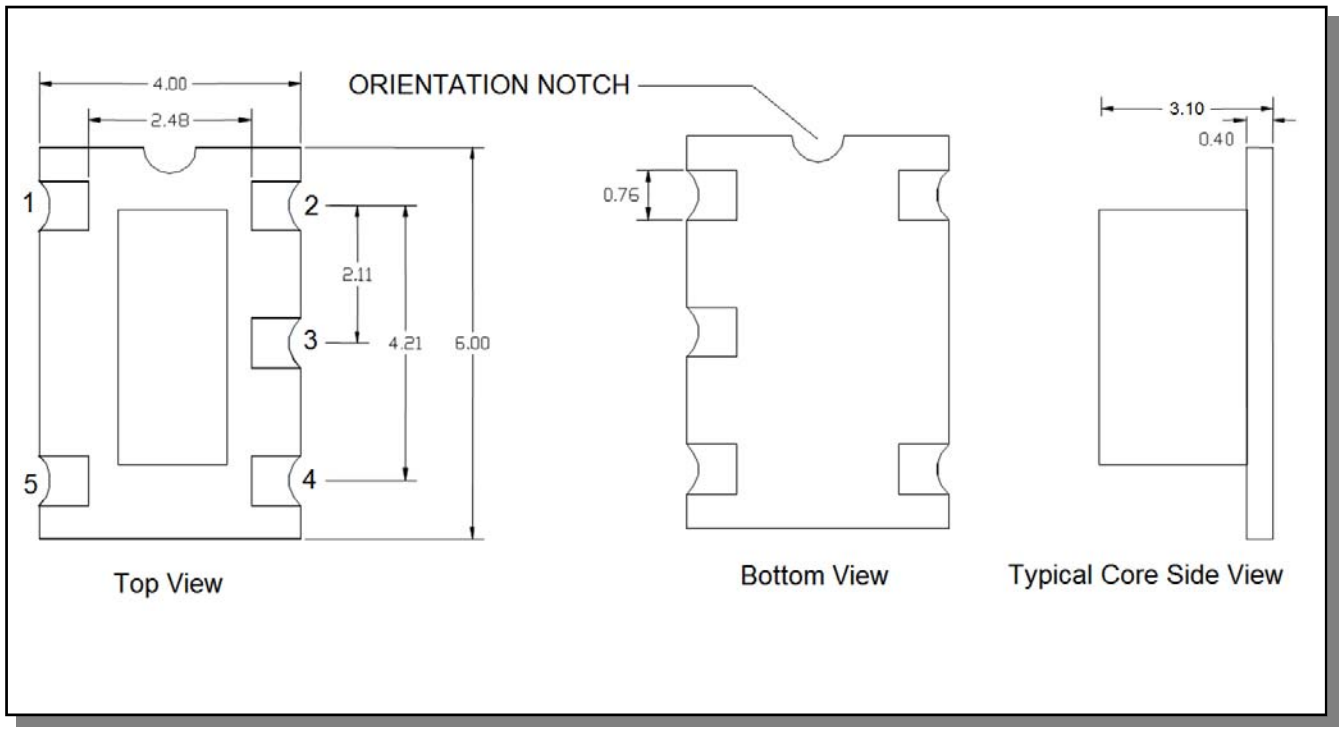
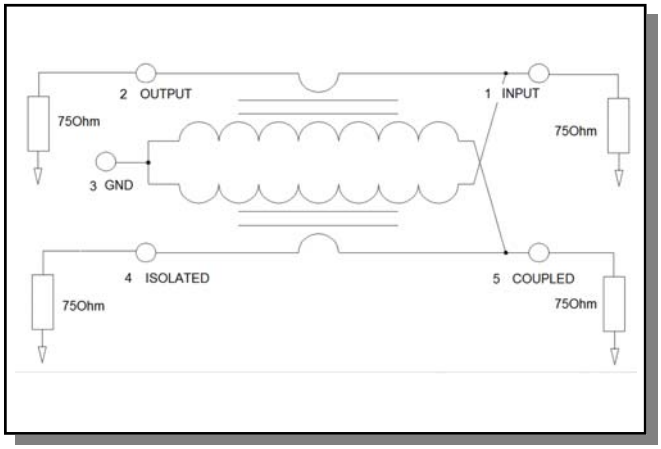
Outline Drawing

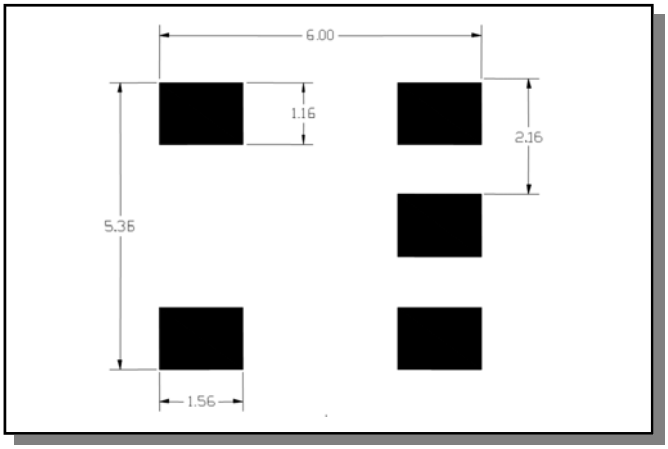


1. Dimensions in mm.
2. Tolerance: ±0.2mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1 µm gold over 3 to 6 µm nickel

Application Circuit



Recommended Footprint



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	16.0
Pitch (P_1)	mm	8.0
A_0	mm	4.3
B_0	mm	6.3
K_0	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	ºC	-40	+85
Storage Temperature Range	ºC	-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