

MACP-010718-CG09E0

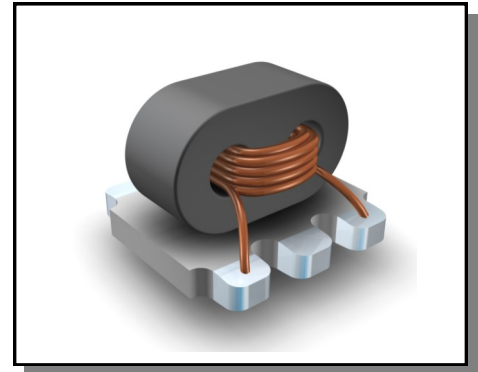


Coupler, 17dB
40 MHz - 1002 MHz

Rev. V2

Features

- ◆ 17dB Coupler
- ◆ Surface mount
- ◆ Available on tape and reel
- ◆ 260°C reflow compatible
- ◆ RoHS Compliant and Pb free
- ◆ Excellent temperature stability



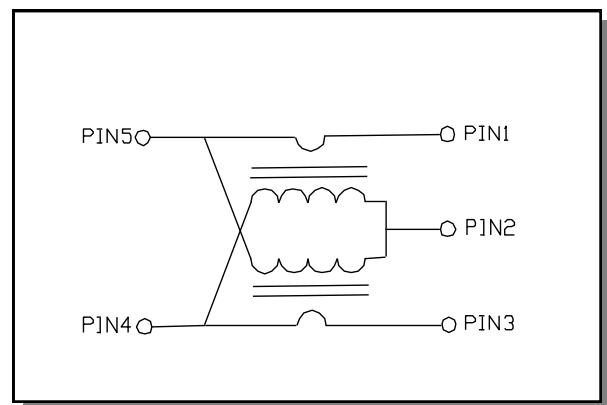
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	40		1002
Impedance		Ω	-	75	
Coupling (Pin3 to pin1)	40MHz	dB	-	17.3	± 0.25
	1002 MHz	dB	-	15.2	± 0.50
Main Line Loss (pin3 to pin4)	40 - 1002 MHz	dB	-	0.60	0.9
Input Return Loss (pin3)	40 - 1002 MHz	dB	18	24	-
Output Return Loss (pin4)	40 - 1002 MHz	dB	18	26	-
Coupled Return Loss (pin1)	40 - 1002 MHz	dB	18	26	-
Directivity	40 - 1002 MHz	dB	8.5	18	-

Pin Configuration

Pin No.	Function
1	Coupled
2	Ground
3	Input
4	Output
5	Isolated, External 75 Ω

Schematic



1

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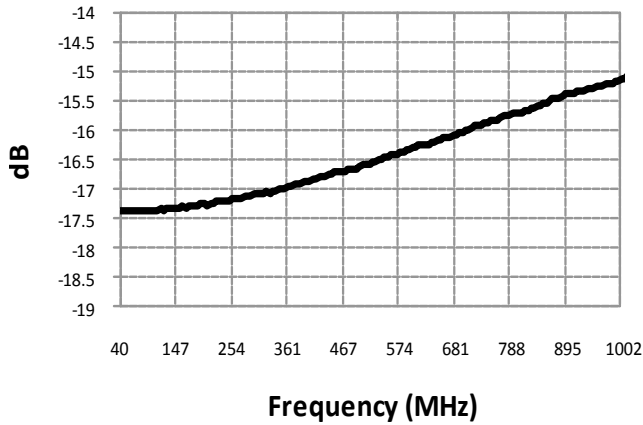
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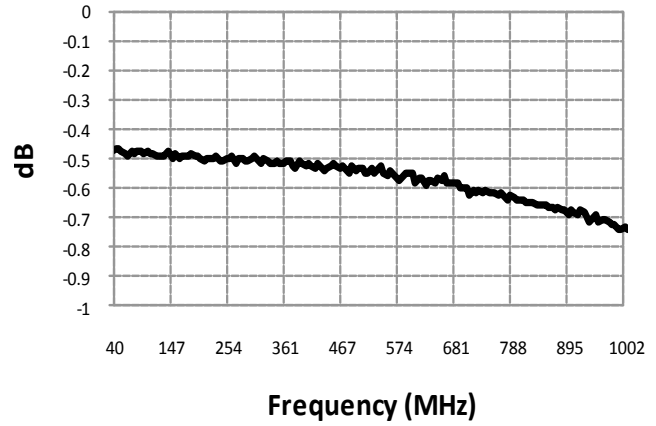
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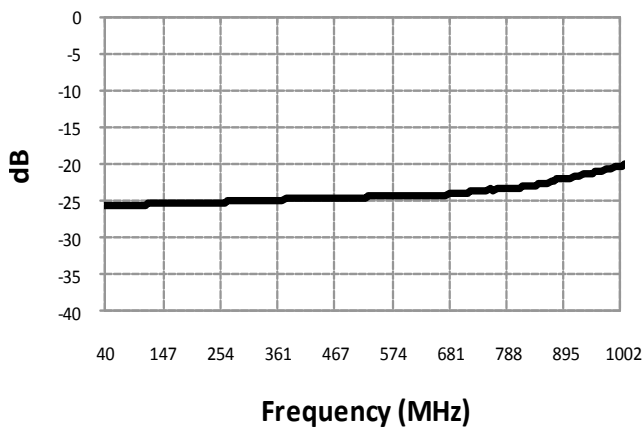
Coupling: (pin3 to pin1)



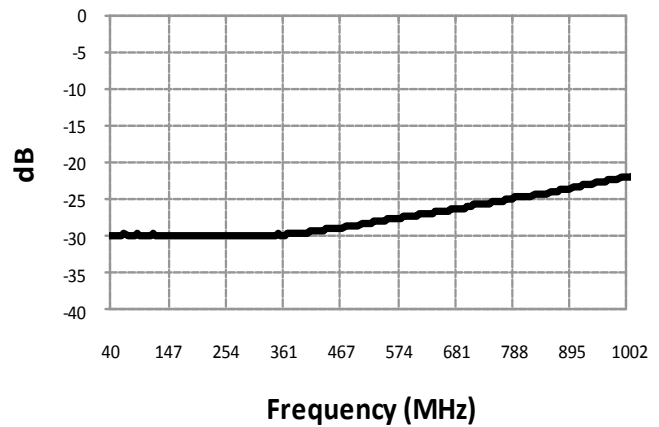
Main Line Loss: (pin3 to pin4)



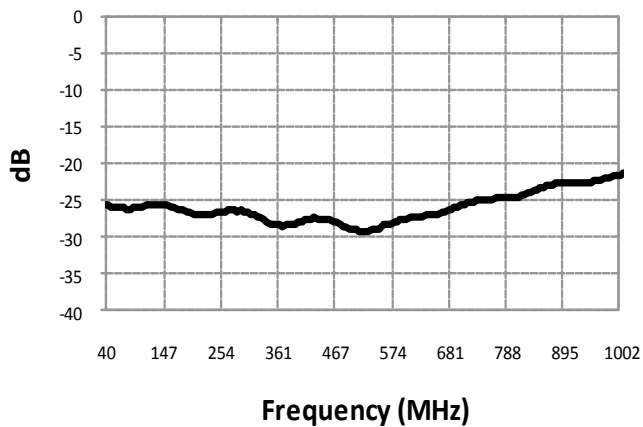
Return Loss: Input (pin3)



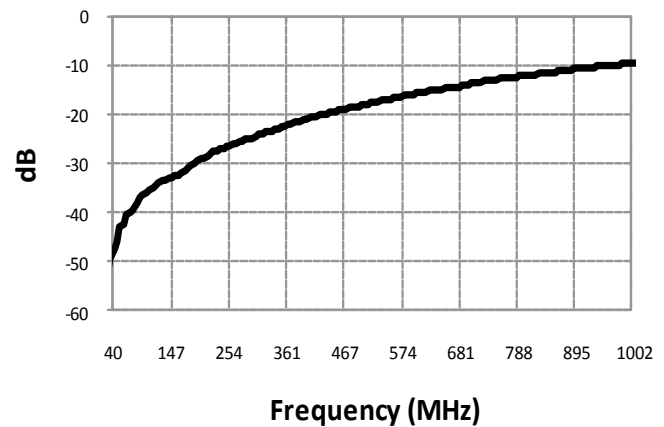
Return Loss: Output (pin4)



Return Loss: Coupled (pin1)



Directivity:



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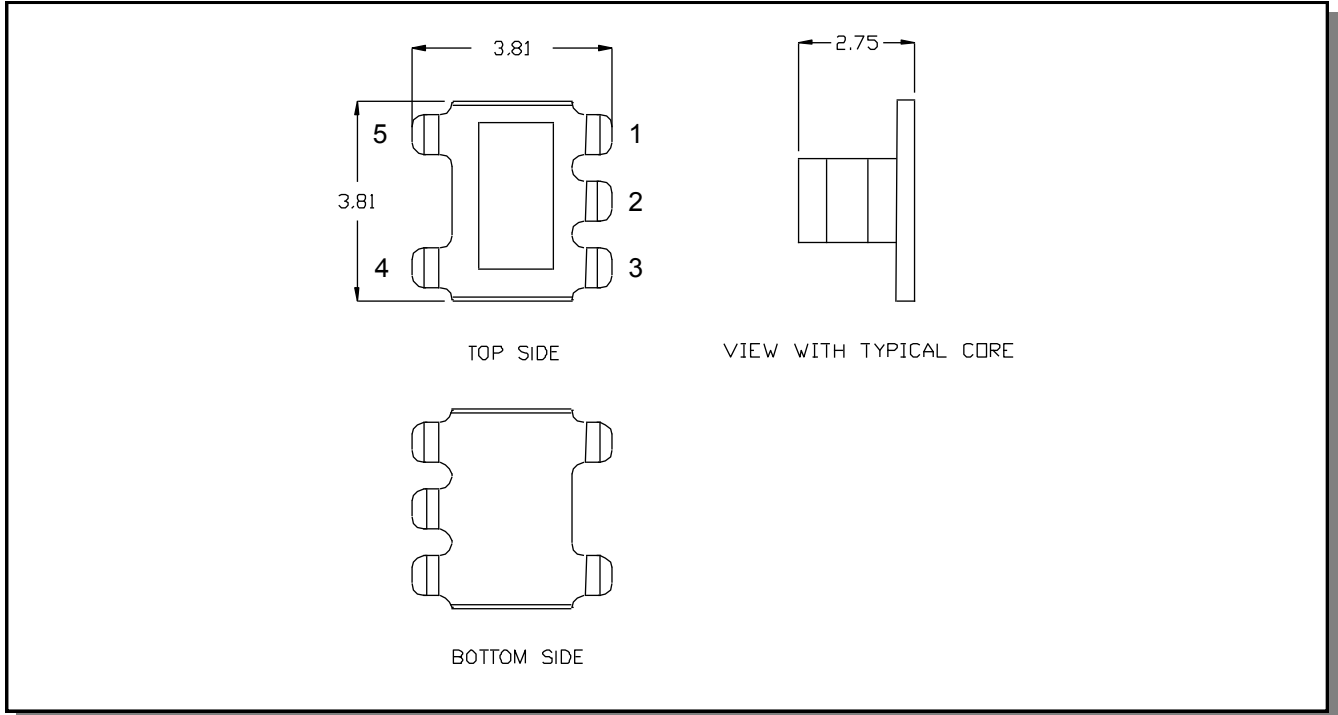
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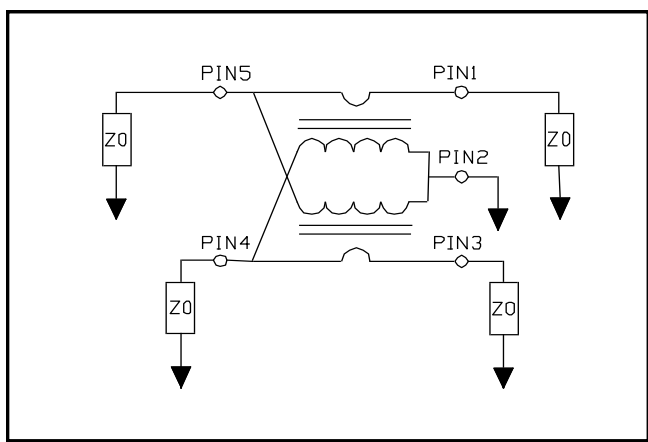
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Outline Drawing

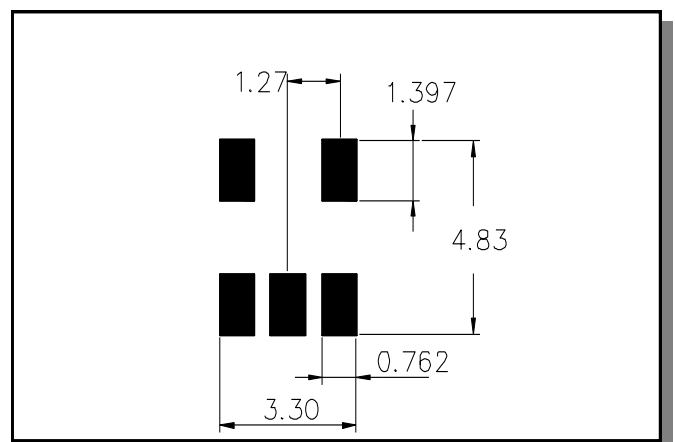


1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: ENIG on both sides, 0.05 to 0.1 μ m gold over 3 to 6 μ m nickel

Application Circuit



Recommended Footprint



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Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.00
Bo	mm	4.30
Ko	mm	2.90
Orientation	-	F5

Reference Application Note ANI-019 for orientation

Ordering Information

Part Number	Description
MACP-010718-CG09E0	Tape & Reel
MACP-010718-CG09TB	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

Full temperature plots available on request

ECO History

Rev	Date	Description	ECN NO.
V1	24/05/11	Created datasheet	CO-001030

4

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