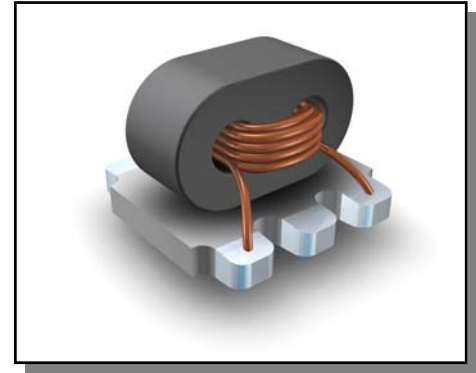


Coupler, 17dB
5 MHz - 120 MHz

Rev. V1

Features

- ◆ 17dB Coupling ratio
- ◆ Surface mount
- ◆ Available on tape and reel
- ◆ 260°C reflow compatible
- ◆ RoHS Compliant and Pb free
- ◆ Excellent temperature stability
- ◆ Can be used on 50Ω and 75Ω systems
- ◆ Suitable for all CATV, Broadband and FTTx applications.



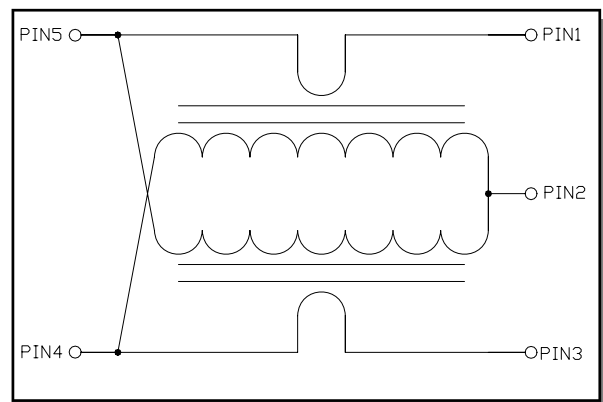
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		120
Impedance		Ω		75	
Coupling Ratio		dB		17	
Coupling	5 - 120 MHz	dB	-	17	± 1.0
Coupling Flatness	5 - 120 MHz	dB	-	-	± 0.4
Main Line Loss	5 - 120 MHz	dB	-	0.45	0.8
Directivity	5 - 120 MHz	dB	16	21	-
Input Return Loss	5 - 120 MHz	dB	20	25	-
Output Return Loss	5 - 120 MHz	dB	20	23	-
Coupling Return Loss	5 - 120 MHz	dB	20	25	-

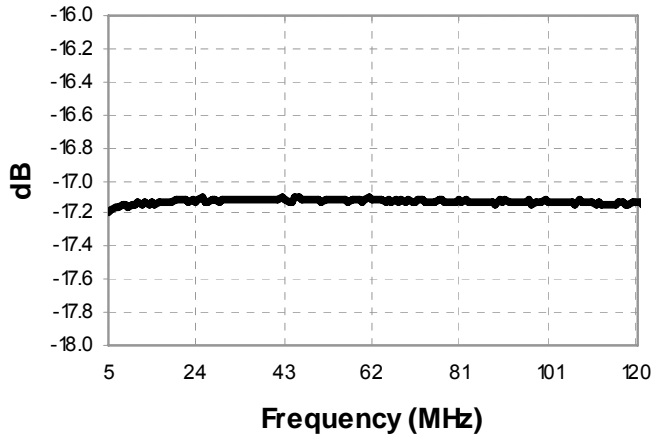
Pin Configuration

Pin No.	Function
1	Output
2	Ground
3	Isolated
4	Coupled
5	Input

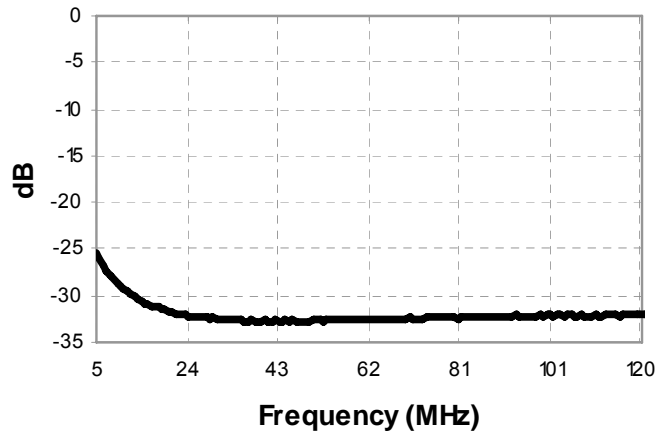
Schematic



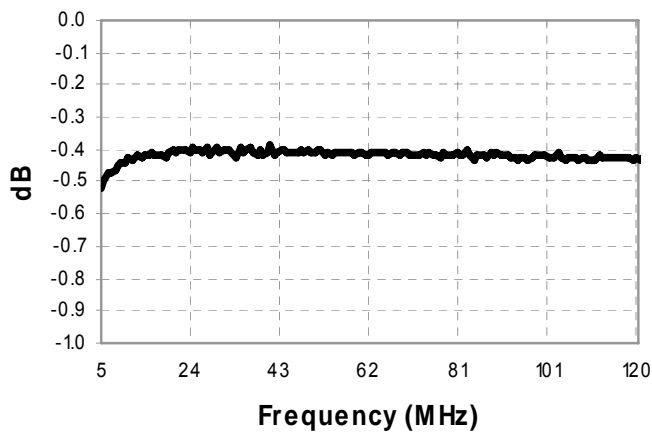
Coupling: (pin5 - pin4)



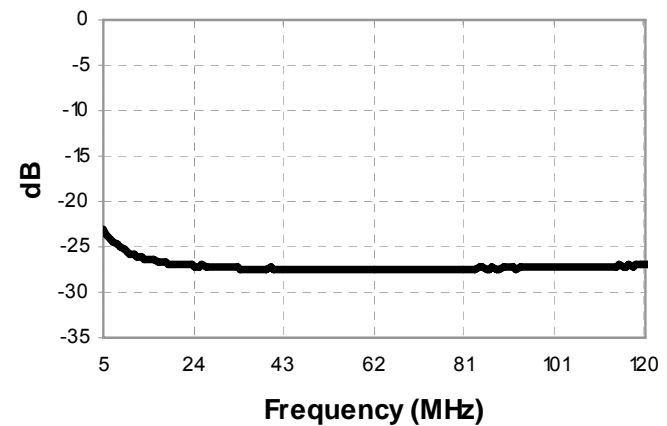
Return Loss: Input (pin5)



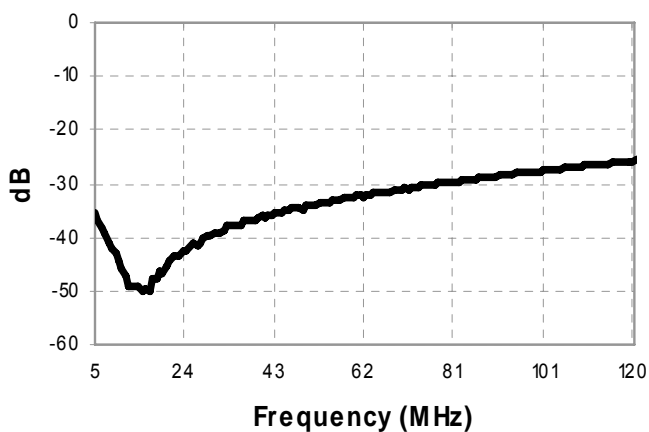
Main Line Loss: (pin5 - pin1)



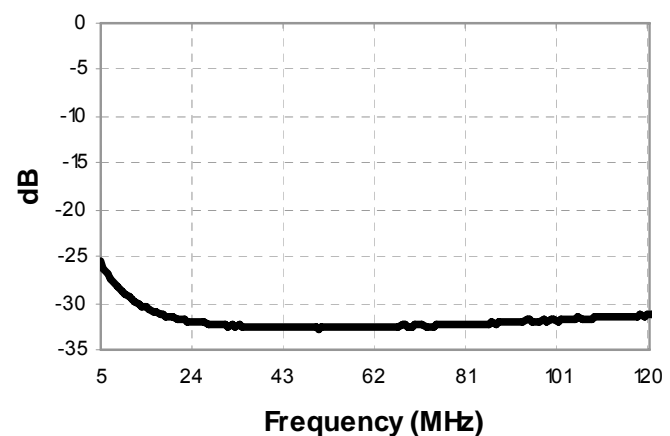
Return Loss: Output (pin1)



Directivity:

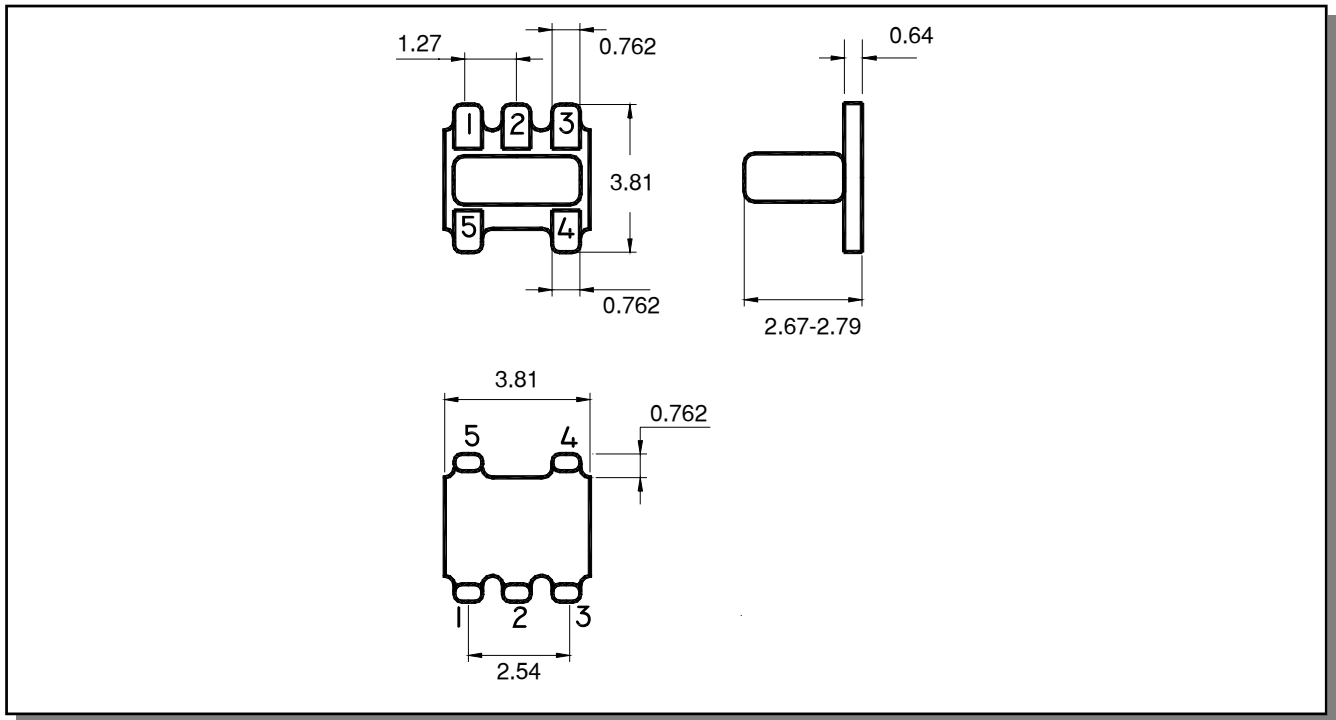


Return Loss: Coupling (pin4)



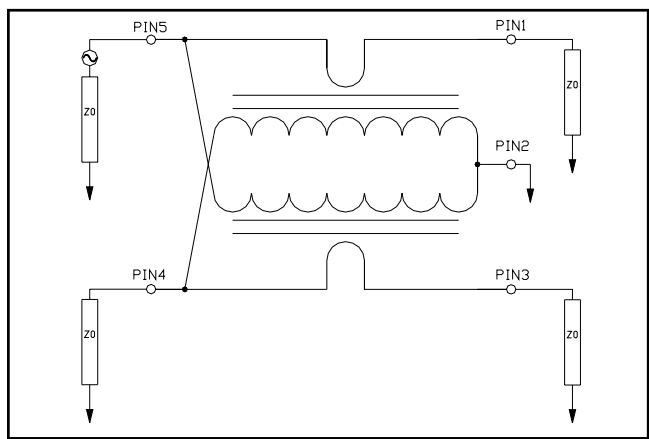
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Outline Drawing

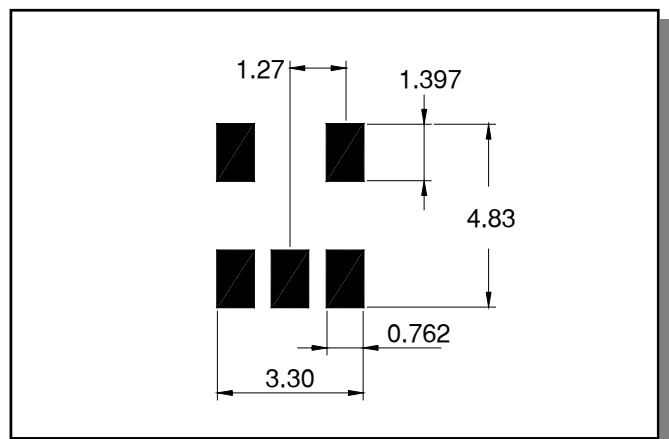


1. Dimensions in mm.
2. Tolerance: $\pm 0.2\text{mm}$ unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1 μm gold over 3 to 6 μm nickel

Application Circuit



Recommended Footprint



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.0
Pitch (P ₁)	mm	8.0
A ₀	mm	4.0
B ₀	mm	4.0
K ₀	mm	2.9
Orientation	-	F5
Reference Application note ANI-019 for orientation		

Ordering Information

Part Number	Description
MACP-010507-CH0160	Tape & Reel
MACP-010507-CH01TB	Customer Evaluation Board

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		30
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

Temperature data available on request

ECO History

Rev	Date	Description	ECO
V1	26 Oct 2010	Released	20101749