

E-Series Coupler 5 to 1000 MHz

RELEASED

Rev. V2

Features

- Surface Mount
- Typical Coupling 13dB
- RoHS* Compliant, lead free
- RoHS version of EMDC-13-1-75
- 260°C Reflow Compatible
- Available on Tape and Reel



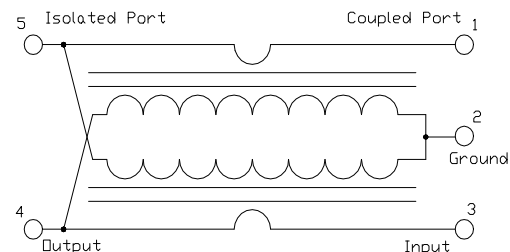
Electrical Specifications@ 25°C

Frequency Range 5 - 1000 MHz	Units	Nominal	Typical	Minimum	Maximum
Mainline Loss					
5 - 50 MHz	dB	—	1.5	—	2.2
50 - 500 MHz	dB	—	1.3	—	2.0
500 - 1000 MHz	dB	—	1.3	—	2.0
Coupling					
5 - 1000 MHz	dB	13 ± 1.1	—	—	—
Coupling Flatness	dB	—	—	—	0.9
Directivity					
5 - 50 MHz	dB	—	25	20	—
50 - 500 MHz	dB	—	20	15	—
500 - 1000 MHz	dB	—	13	7	—
Return Loss, all Ports					
5 - 1000 MHz	dB	—	14	8	—

Pin Configuration

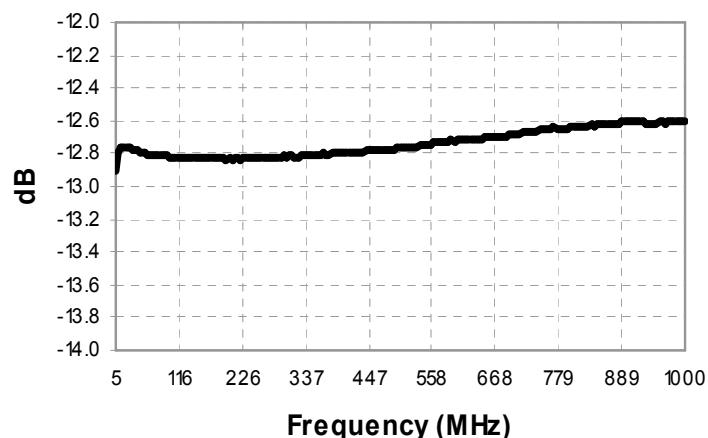
Pin No.	Function
1	Coupled
2	Ground
3	Input
4	Output
5	External 75 Ω

Schematic

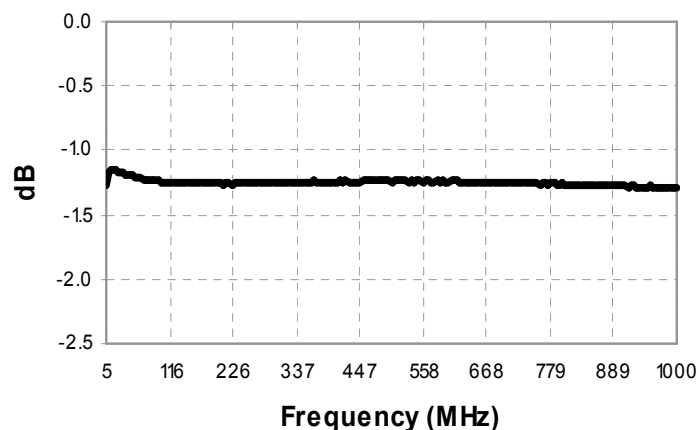


Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

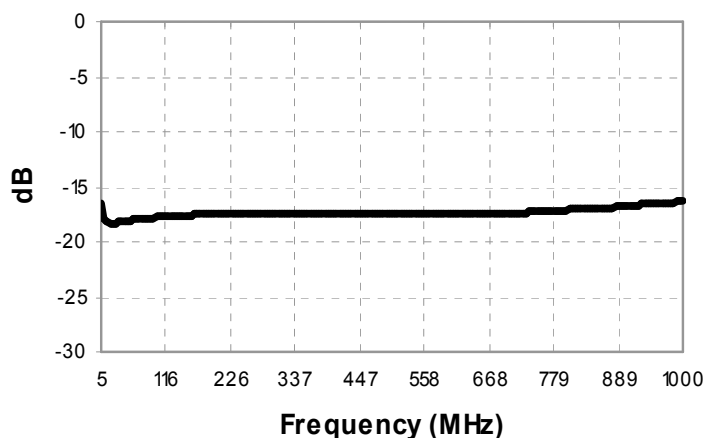
Coupling



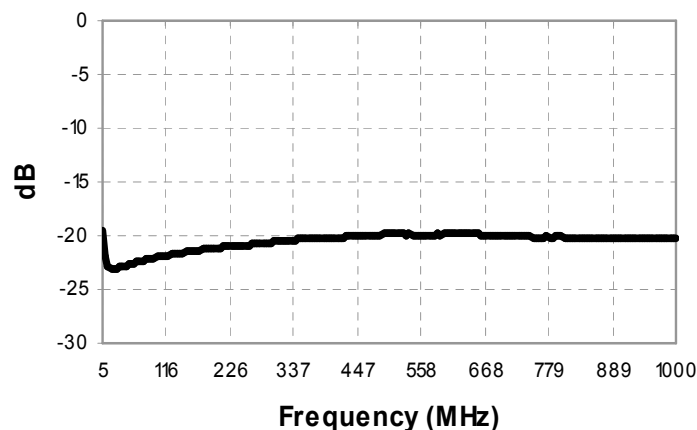
Main Line Loss



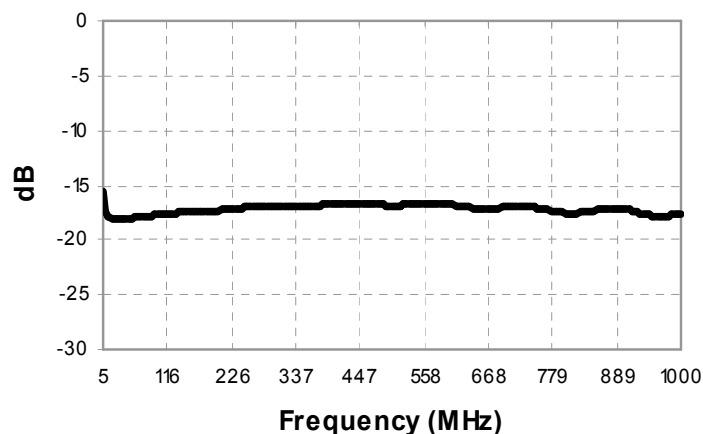
Return Loss: Input



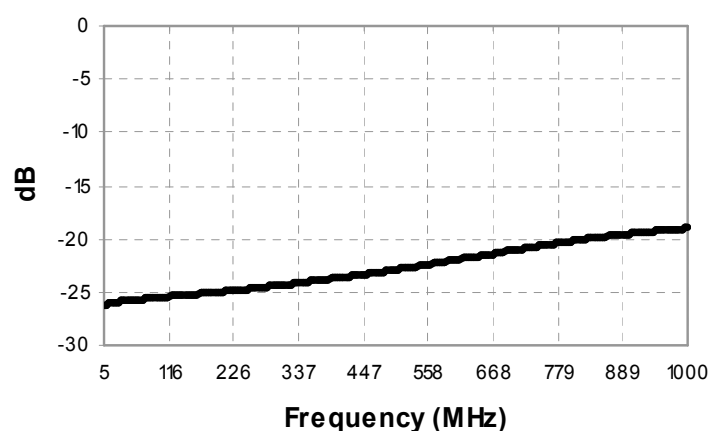
Return Loss: Output



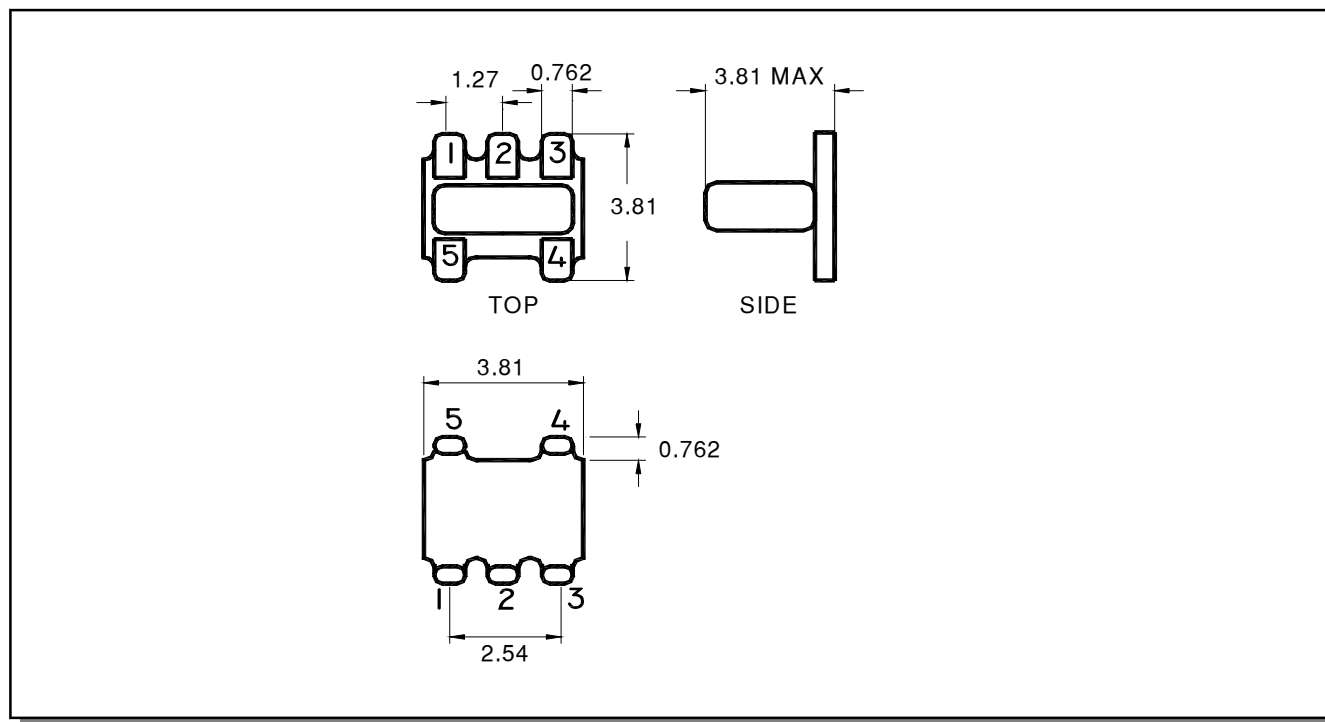
Return Loss: Coupled



Directivity

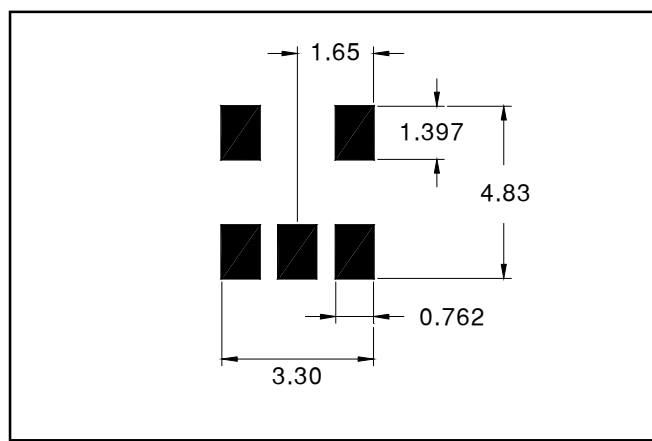


Outline Drawing



1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Termination plating is Au.

Recommended Footprint



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	4.00
Ko	mm	2.90
Orientation	-	F5
Reference Application Note ANI-019 for orientation		

Ordering Information

Part Number	Description
MACP-009736-CD0160	2000 piece reel
MACP-009736-CD01TB	Customer Test Board

Recommended Maximum Ratings

Parameter	Value
RF power	250mW
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

ECO History

Rev	Date	Description	By
V2	12 May 2010	Corrected the dimensions on case style drawing and changed to the new format	CB