

**17dB Broadband CATV, Coupler
5-1200MHz**

**MACP-007741-CG09E0
V1**

Features

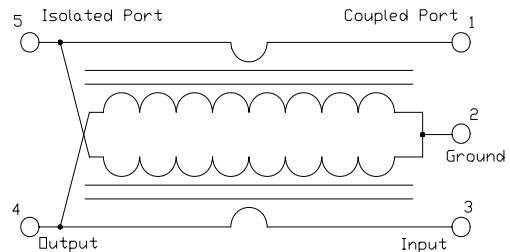
- Surface Mount
- Typical Coupling 17dB
- RoHS* Compliant
- RoHS version of EMDC-17-1-75
- 260°C Reflow Compatible
- Available on Tape and Reel, reel qty. 2000

Description

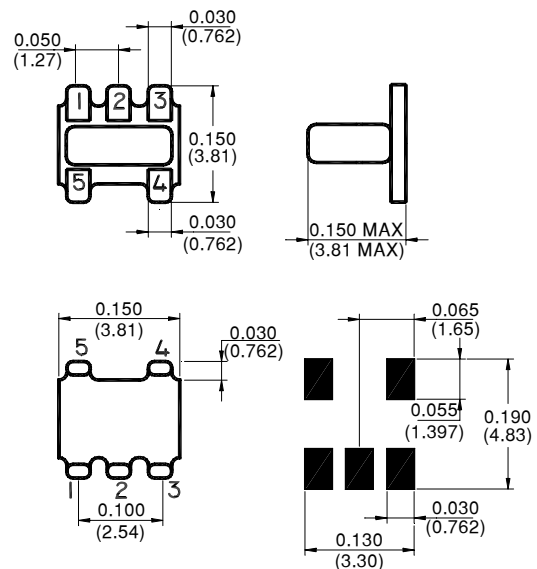
M/A-COM's MACP-007741-CG09E0 is a high performance 75 Ohm Coupler, in a SM-22 low cost, surface mount package. The MACP-007741-CG09E0 is designed for use in high volume CATV applications. Typical applications include Set-top Boxes, Network Interface Units, Broadband Amplifiers and Headend equipment.



Schematic



Case Style: SM-22



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

Pin Configuration

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

Note: Reference Application Note **M513** for reel size information.

Ordering Information

Part Number	Package
MACP-007741-CG09E0	2000 piece reel
MACP-007741-CG09TB	Customer Test Board

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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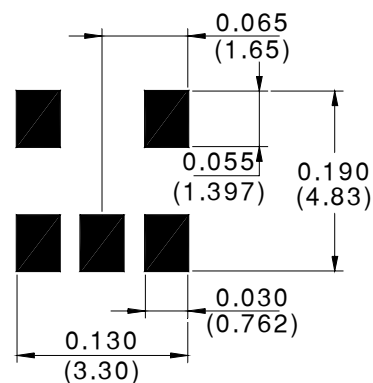
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

Parameter	Frequency	Units	Min	Typ	Max
Mainline Loss	5 - 500 MHz	dB	-	0.5	0.9
	500 - 1000 MHz	dB	-	0.8	1.6
	1000 - 1200MHz	dB	-	1.5	2.8
Coupling	5 - 1200 MHz	dB	-	17	± 1.5
Coupling Flatness	5 - 1200 MHz	dB	-	-	± 1.0
Directivity	5 - 50 MHz	dB	25	35	-
	50 - 500 MHz	dB	7	15	-
	500 - 1200MHz	dB	5	12	-
Return Loss	5 - 50 MHz	dB	23	27	-
	50 - 500MHz	dB	15	21	-
	500 - 1000MHz	dB	9	16	-
	1000 - 1200MHz	dB	7	15	-

Recommended PCB Configuration

Absolute Maximum Ratings ^{1,2}

Parameter	Absolute Maximum
Max Input Power	250mW
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C



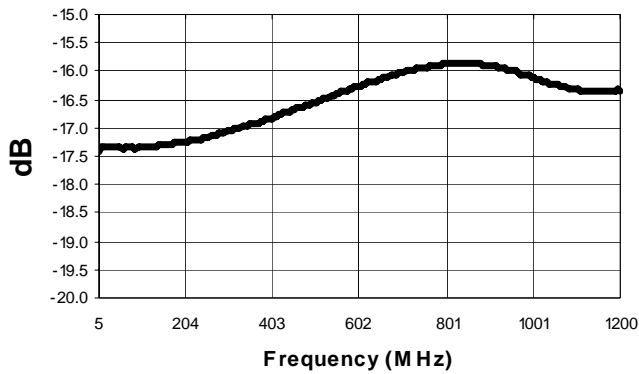
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

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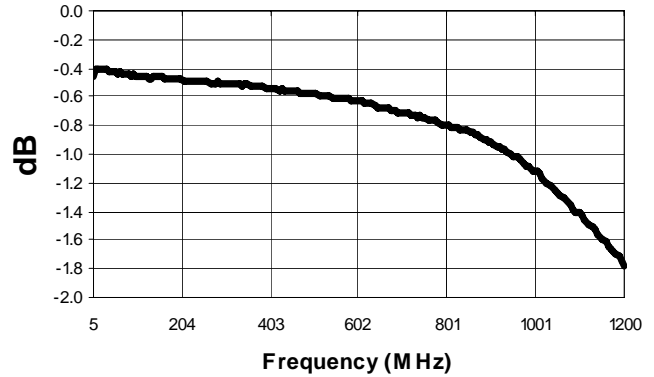
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Typical Performance Curves $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$

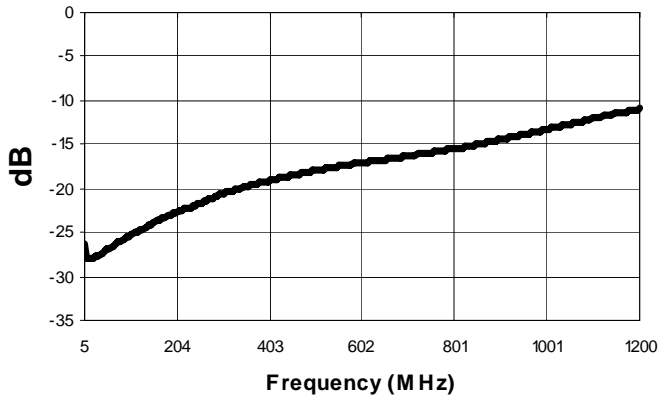
Coupling



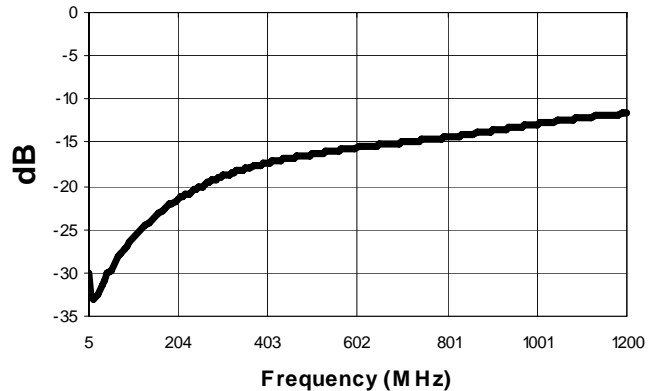
Main Line Loss



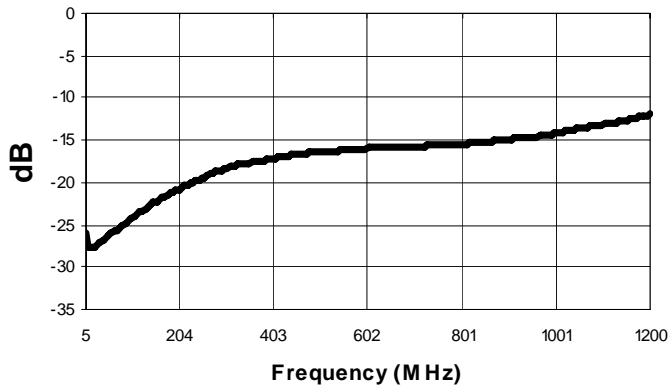
Input Return Loss



Output Return Loss



Coupled Return Loss



Directivity

