

16dB 75 Ohm Coupler
5-862MHz

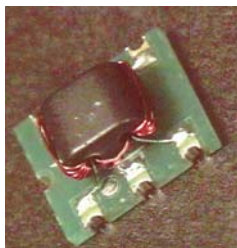
EMDC-16-11-75
V4

Features

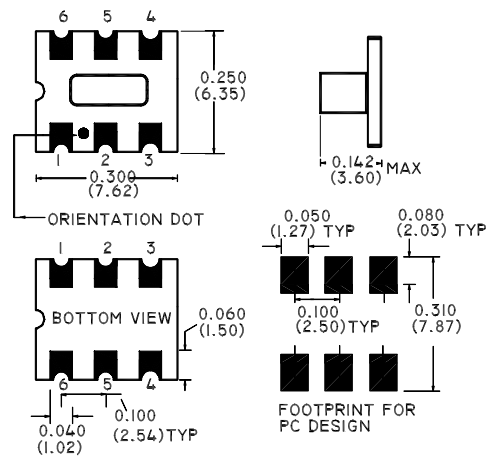
- Surface Mount
- Coupling 16dB typical
- 260°C Reflow Compatible
- Available on Tape and Reel. Reel quantity 900

Description

M/A-COM's EMDC-16-11-75 is a high performance 75 Ohm Coupler, in a SM-101 low cost, surface mount package. The EMDC-16-11-75 is designed for use in high volume CATV applications. Typical applications include Set-top Boxes, Network Interface Units, Broadband Amplifiers and Headend equipment.



Case Style: SM-101



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

Pin Configuration

Pin No.	Function
1	Input
2	Ground
3	Coupled
4	Isolated, external 75 Ohms
5	Not Connected
6	Output

Ordering Information

Part Number	Package
EMDC-16-11-75TR	900

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

* 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

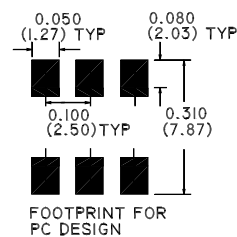
Parameter	Frequency	Units	Min	Typ	Max
Mainline Loss	5 - 862 MHz	dB	-	1.05	1.25
Coupling	5 - 44 MHz	dB	-	16	± 0.5
	45 MHz	dB	-	16	± 0.2
	862 MHz	dB	-	15.6	± 0.3
Coupling Flatness	5 - 862 MHz	dB	-	-	± 0.3
Isolation	5 - 862 MHz	dB	29	33	-
Input Return Loss	5 - 862 MHz	dB	18	25	-
Output Return Loss	5 - 862 MHz	dB	18	25	-
Coupled Return Loss	5 - 862 MHz	dB	18	25	-

Absolute Maximum Ratings ^{1,2}

Parameter	Absolute Maximum
RF Power	250 mW
DC current	30mA
Pin Temperature (10 sec)	260°C
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°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.

Recommended PCB Configuration

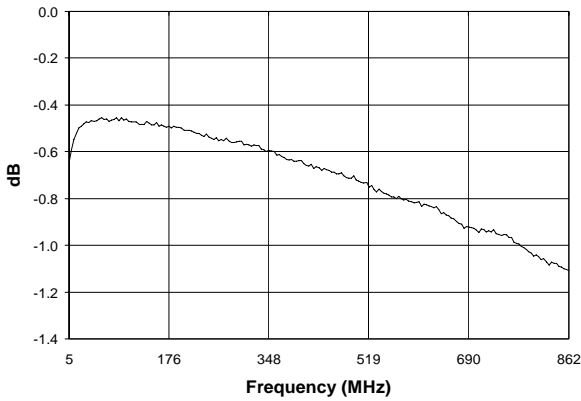


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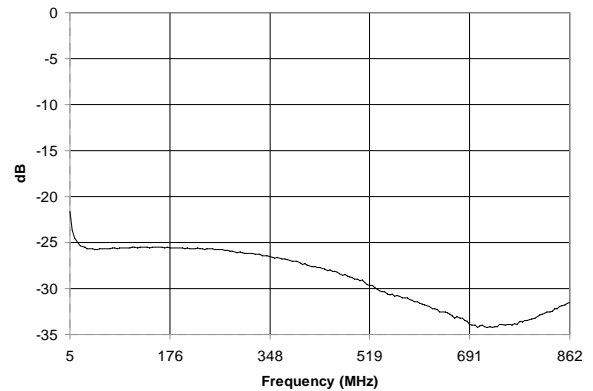
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

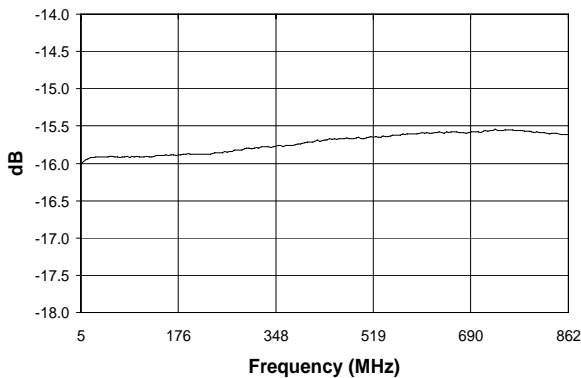
Mainline Loss



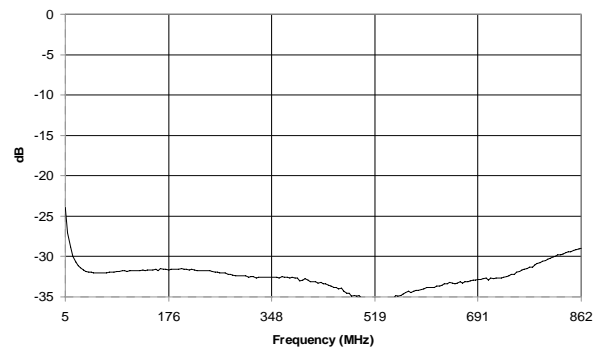
Input Return Loss



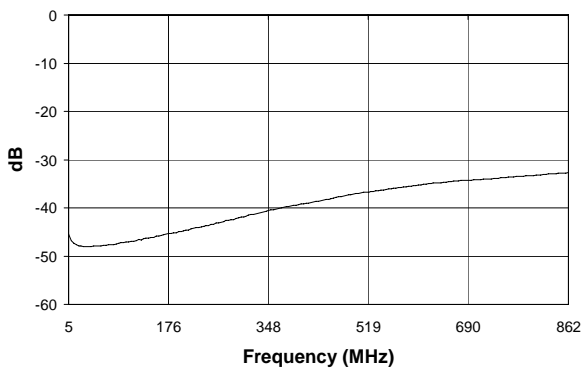
Coupling



Output Return Loss



Isolation



Coupled Port Return Loss

