

16dB 75 Ohm Coupler 5-862MHz

EMDC-16-11-75 V4

Features

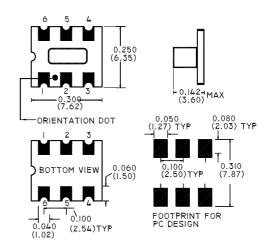
- Surface Mount
- · Coupling 16dB typical
- 260°C Reflow Compatible
- Available on Tape and Reel. Reel quantity 900

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

Function		
Input		
Ground		
Coupled		
Isolated, external 75 Ohms		
Not Connected		
Output		

Ordering Information

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

Note: Reference Application Note M513 for reel size information.

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specifications, simulated results, at usual prototype incodes.

PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering

• North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400

• India Tel: +91.80.4155721 • China Tel: +86.21.2407.1588

Visit www.macomtech.com for additional data sheets and product information.



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EMDC-16-11-75 **V4**

Electrical Specifications: $T_A = 25$ °C, $Z_0 = 75\Omega^1$

Parameter	Frequency	Units	Min	Тур	Max
Mainline Loss	5 - 862 MHz	dB	-	1.05	1.25
Coupling	5 - 44 MHz 45 MHz 862 MHz	dB dB dB		16 16 15.6	±0.5 ±0.2 ±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	-

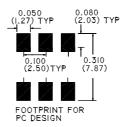
Absolute Maximum Ratings ^{1,2}

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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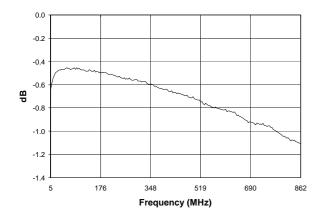


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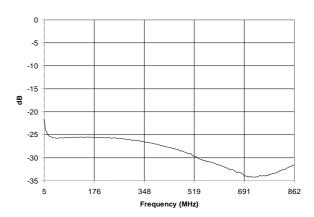
EMDC-16-11-75 V4

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

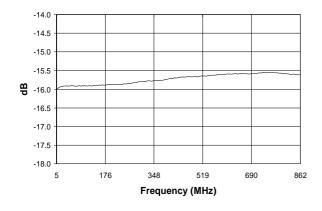
Mainline Loss



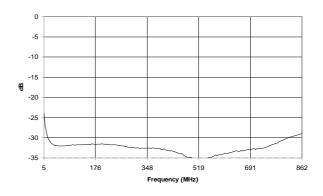
Input Return Loss



Coupling

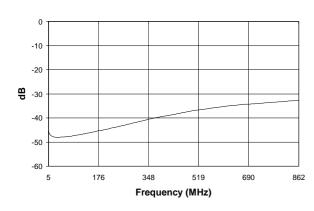


Output Return Loss

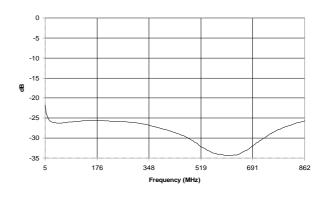


Isolation

3



Coupled Port Return Loss



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