



16dB 75 Ohm Coupler 5-862MHz EMDC-16-11-75 V4

Features

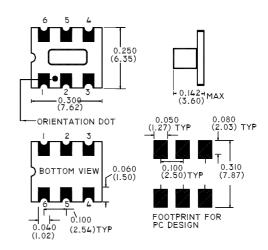
- Surface Mount
- · Coupling 16dB typical
- 260°C Reflow Compatible
- Available on Tape and Reel. Reel quantity 900

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

[•] North America Tel: 800.366.2266 / Fax: 978.366.2266

[•] **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300

[•] Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298





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EMDC-16-11-75 V4

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

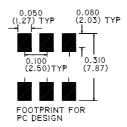
| Parameter | Frequency | Units | Min | Тур | Max |
|---------------------|---------------------------------|----------------|-------------|------------------|----------------------|
| Mainline Loss | 5 - 862 MHz | dB | - | 1.05 | 1.25 |
| Coupling | 5 - 44 MHz 45 MHz 862 MHz | dB dB dB | - - - | 16 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 |

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

Recommended PCB Configuration



[•] Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300

[•] Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298



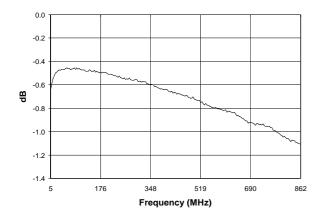


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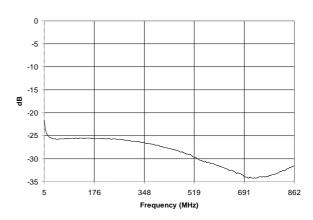
EMDC-16-11-75 V4

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

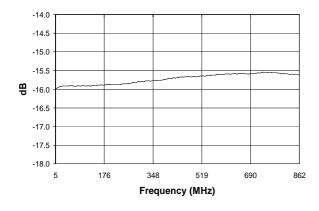
Mainline Loss



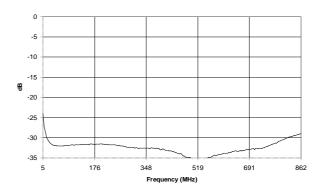
Input Return Loss



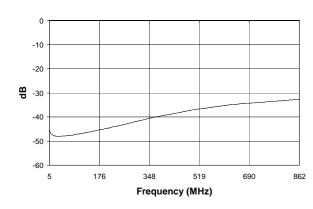
Coupling



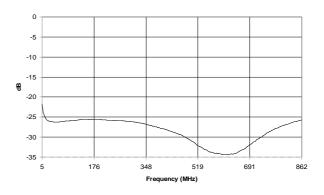
Output Return Loss



Isolation



Coupled Port Return Loss



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