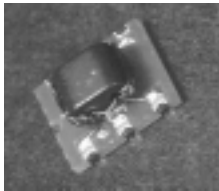




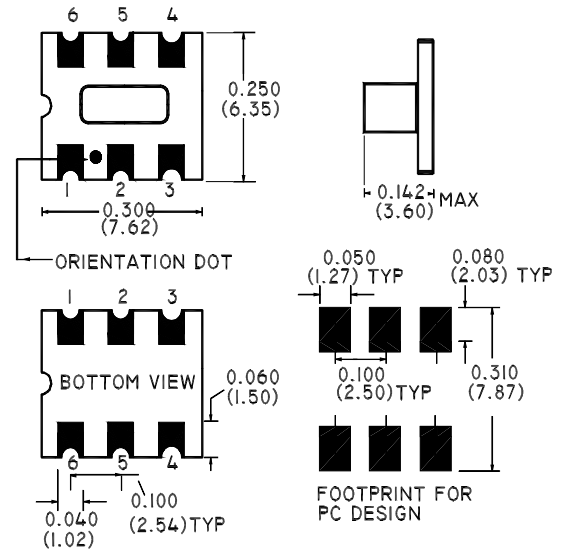
## E-Series 75 Ohm Coupler 5 - 862 MHz

### Features

- Coupling 16dB Typical
- Surface Mount
- Low Profile
- Tape and Reel Packaging available



### SM-101 Package



### Description

M/A-COM's EMDC-16-8-75 is a high performance 75 Ohm Coupler, in a SM-101 low cost, surface mount package. The EMDC-16-8-75 is designed for use in high volume CATV applications. Typical applications include Set-top Boxes, Network Interface Units, Broadband Amplifiers and Headend

### Electrical Specifications @25°C, Z<sub>0</sub> = 75 Ohms

| Frequency Range 5 - 862 MHz | Units       | Nominal | Typical | Minimum | Maximum |
|-----------------------------|-------------|---------|---------|---------|---------|
| Mainline Loss               | 5 - 862 MHz | —       | 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      | —       | 33      | 29      |
| Input Return Loss           | 5 - 862 MHz | dB      | —       | 25      | 18      |
| Output Return Loss          | 5 - 862 MHz | dB      | —       | 25      | 18      |
| Coupled Return Loss         | 5 - 862 MHz | dB      | —       | 25      | 18      |

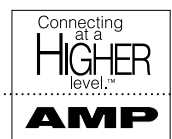
S 1432 D



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### Operating Characteristics

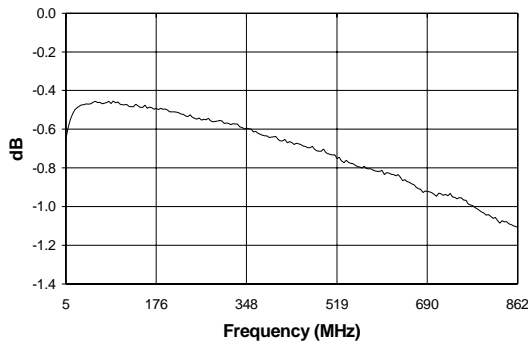
| Function         | Pin No. |
|------------------|---------|
| Input            | 1       |
| Output           | 6       |
| Coupled          | 3       |
| External 75 Ohms | 4       |
| Ground           | 2       |
| Not Connected    | 5       |

### Absolute Maximum Ratings

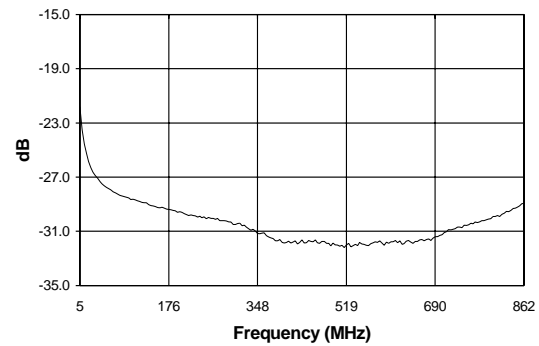
| Parameter                     | Absolute Maximum |
|-------------------------------|------------------|
| RF Power                      | 250 mW           |
| DC Current                    | 30 mA            |
| Pin Temperature (10 sec)      | 260°C            |
| Operating/Storage Temperature | -40°C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

### Typical Performance @ 25°C

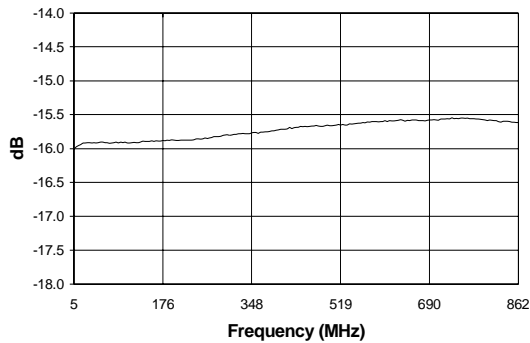
Mainline Loss



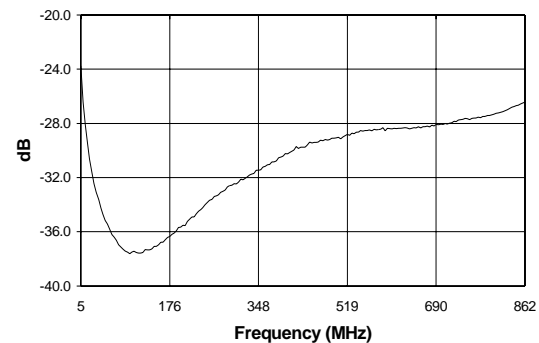
Input Return Loss



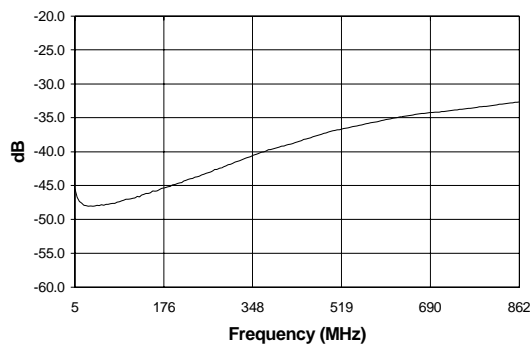
Coupling



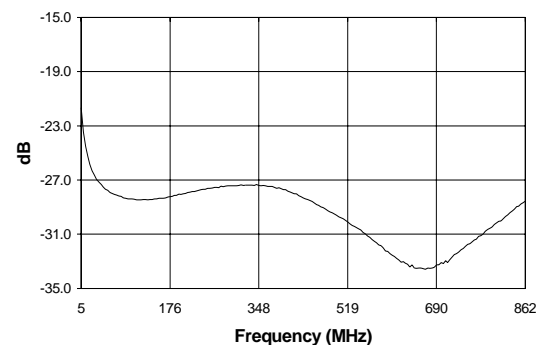
Output Return Loss



Isolation



Coupled Port Return Loss



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