

**tyco** / Electronics

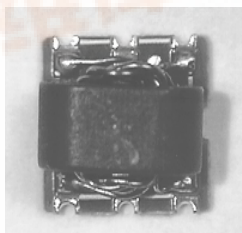
## E-Series 75 Ohm Coupler 5 - 870 MHz

**M/A-COM**

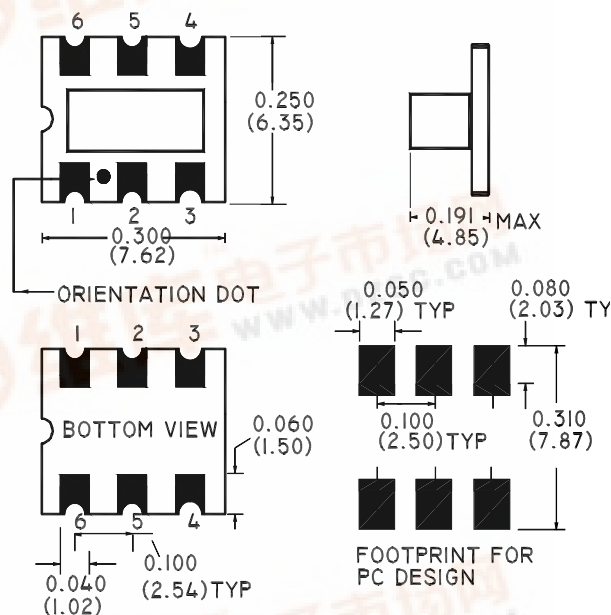
**M/A-COM**  
RF & Microwave Products

### Features

- Low Intermod Distortion
- Coupling 12db Typical
- Surface Mount
- Tape and Reel Packaging available



SM - 115



### Description

M/A-COM's ELDC-12LI is a high performance 75 Ohm Coupler, in a SM-115 low cost, surface mount package. The ELDC-12LI is specifically designed for extremely low intermod distortion in CATV applications.

### Electrical Specifications @25°C

| Frequency Range 5 - 870 MHz      | Units | Nominal | Typical | Minimum | Maximum |
|----------------------------------|-------|---------|---------|---------|---------|
| Mainline Loss 5 - 870 MHz        | dB    | —       | 1.8     | —       | 2.2     |
| Coupling 5 - 870 MHz             | dB    | 12.4    | —       | —       | ± 0.5   |
| Coupling Flatness                | dB    | —       | —       | —       | 1.0     |
| Isolation 5 - 870 MHz            | dB    | —       | 28      | 23      | —       |
| Input Return Loss 5 - 500 MHz    | dB    | —       | 30      | 25      | —       |
| 500 - 670 MHz                    | dB    | —       | 25      | 20      | —       |
| 670 - 870 MHz                    | dB    | —       | 18      | 13      | —       |
| Output Return Loss 5 - 550 MHz   | dB    | —       | 26      | 20      | —       |
| 550 - 750 MHz                    | dB    | —       | 20      | 15      | —       |
| 750 - 870 MHz                    | dB    | —       | 16      | 12      | —       |
| Coupled Return Loss 40 - 600 MHz | dB    | —       | 25      | 20      | —       |
| 600 - 870 MHz                    | dB    | —       | 20      | 15      | —       |

Please Note that the photograph above indicates package shape only, unit may be wired differently.

## Operating Characteristics

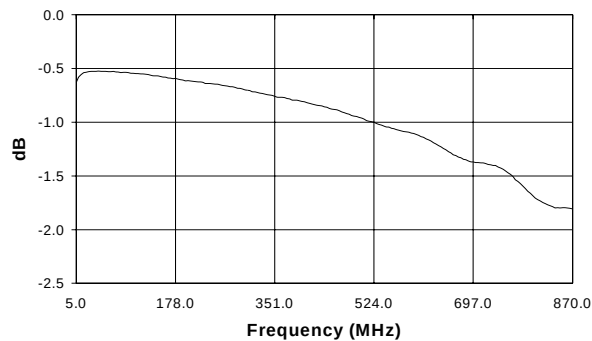
| Function         | Pin No. |
|------------------|---------|
| Input            | 6       |
| Output           | 1       |
| Coupled          | 4       |
| Ground           | 2       |
| Not Connected    | 5       |
| External 75 Ohms | 3       |

## Absolute Maximum Ratings

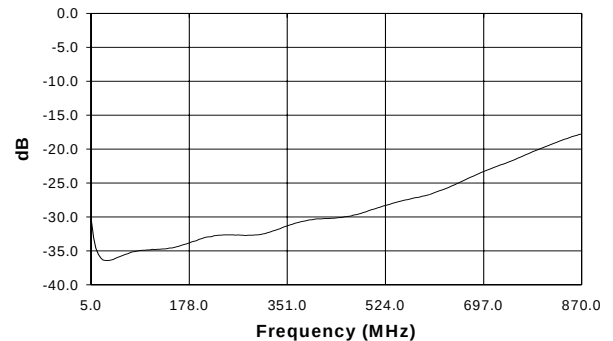
| Parameter                     | Absolute Maximum |
|-------------------------------|------------------|
| RF Power                      | 250 mW           |
| DC Current                    | 30 mA            |
| Pin Temperature (10 sec)      | 260°C            |
| Operating/Storage Temperature | -40°C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

## Typical Performance @ 25°C

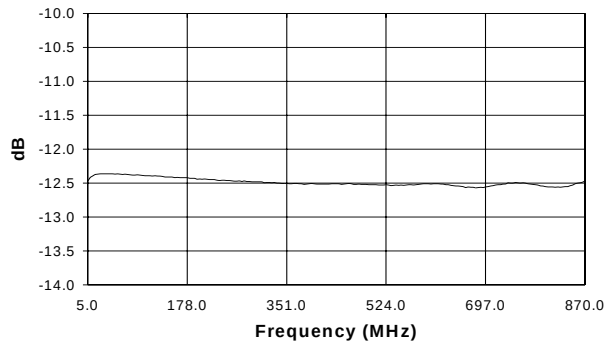
### Mainline Loss



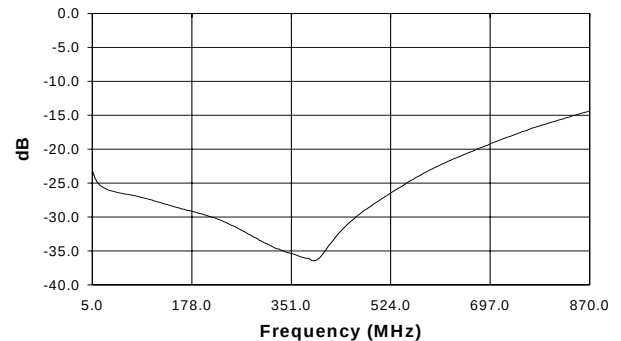
### Input Return Loss



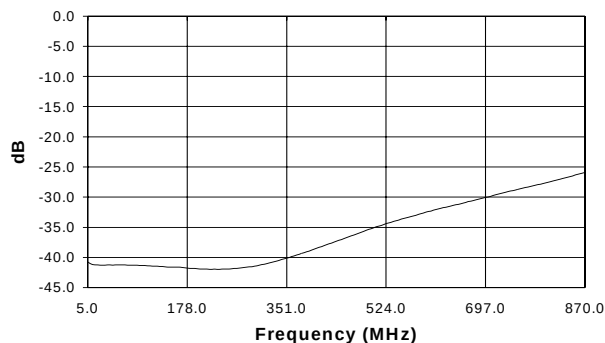
### Coupling



### Output Return Loss



### Isolation



### Coupled Port Return Loss

