



E-Series 75 Ohm Coupler 5 - 1000 MHz

Features

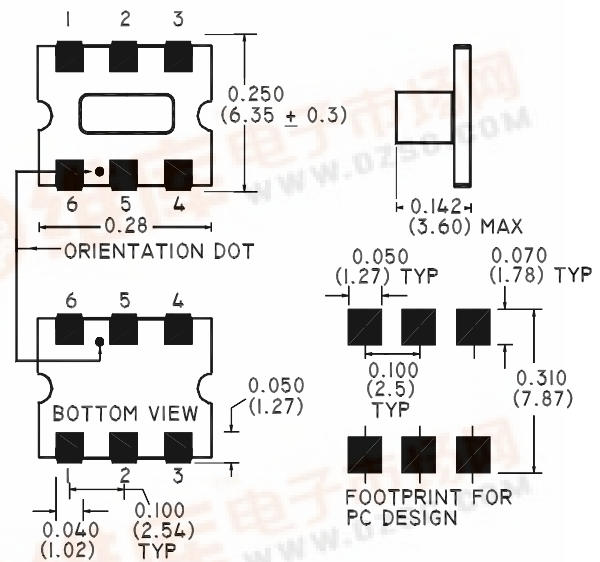
- Coupling 7dB Typical
- Surface Mount
- Low Profile
- Tape and Reel Packaging available



SM-55 Package

Description

M/A-COM's ELDC-7 is a high performance 75 Ohm Coupler, in a SM-55 low cost, surface mount package. The ELDC-7 is designed for use in high volume CATV applications. Typical applications include Set-top Boxes, Network Interface Units, Broadband Amplifiers and Headend equipment.



Electrical Specifications @25°C, Z₀ = 75 Ohms

| Frequency Range | 5 - 1000 MHz | Units | Nominal | Typical | Minimum | Maximum |
|---------------------|----------------|-------|---------|---------|---------|---------|
| Mainline Loss | 5 - 500 MHz | dB | — | 2.1 | — | 2.4 |
| | 500 - 870 MHz | dB | — | 2.2 | — | 2.6 |
| | 870 - 1000 MHz | dB | — | 2.5 | — | 2.9 |
| Coupling | 5 - 870 MHz | dB | 7.0 | — | — | ± 0.7 |
| | 870 - 1000 MHz | dB | 7.0 | — | — | ± 1.1 |
| Coupling Flatness | 5 - 1000 MHz | dB | — | — | — | 1.0 |
| Directivity | 5 - 870 MHz | dB | — | 16 | 14 | — |
| | 870 - 1000 MHz | dB | — | 15 | 12 | — |
| Input Return Loss | 5 - 1000 MHz | dB | — | 16 | 14 | — |
| Output Return Loss | 5 - 500 MHz | dB | — | 30 | 19 | — |
| | 500 - 1000 MHz | dB | — | 30 | 25 | — |
| Coupled Return Loss | 5 - 1000 MHz | dB | — | 16 | 14 | — |



Operating Characteristics

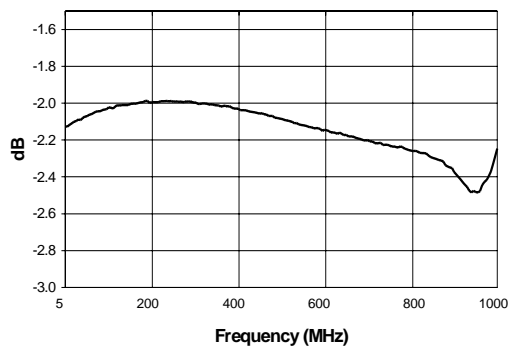
| Function | Pin No. |
|------------------|---------|
| Input | 6 |
| Output | 1 |
| Coupled | 4 |
| External 75 Ohms | 3 |
| Ground | 5 |
| Not Connected | 2 |

Absolute Maximum Ratings

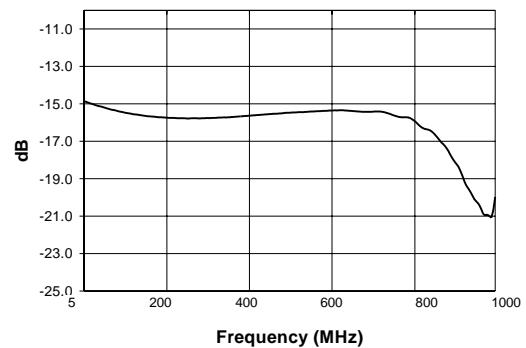
| Parameter | Absolute Maximum |
|-------------------------------|------------------|
| RF Power | 250 mW |
| DC Current | 30 mA |
| Pin Temperature (10 sec) | 260°C |
| Operating/Storage Temperature | -40°C to +85°C |

Typical Performance @ 25°C

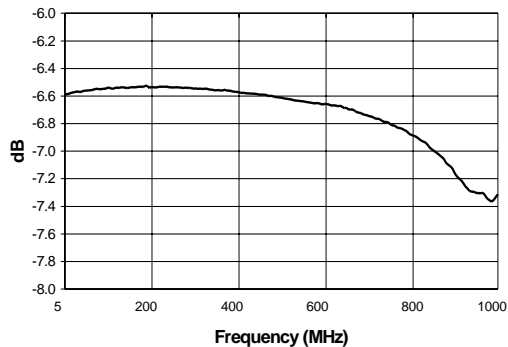
Mainline Loss



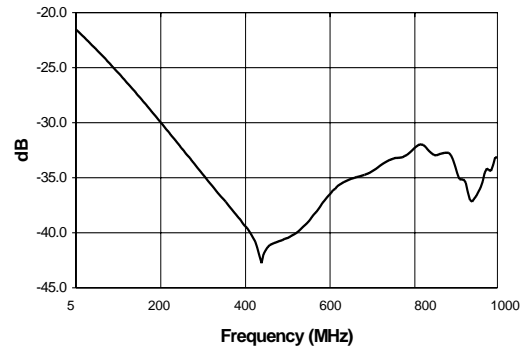
Input Return Loss



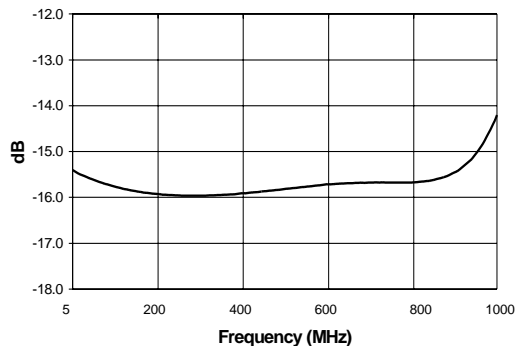
Coupling



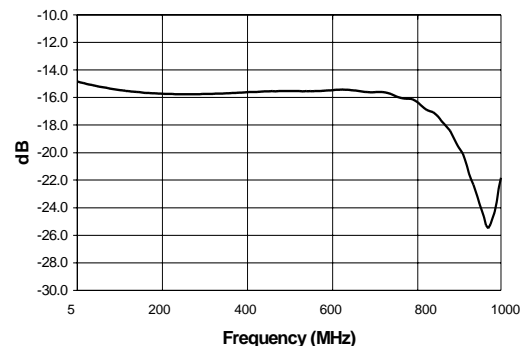
Output Return Loss



Directivity



Coupled Port Return Loss



S 1348 D