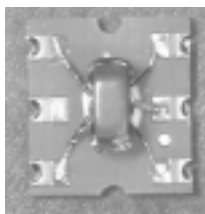




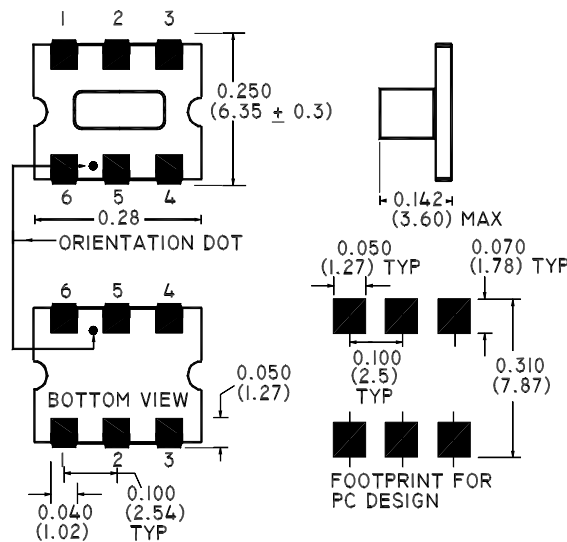
E-Series 75 Ohm Coupler 5 - 1000 MHz

Features

- Coupling 20dB Typical
- Surface Mount
- Low Profile
- Tape and Reel Packaging available



SM-55 Package



Description

M/A-COM's ELDC-20 is a high performance 75 Ohm Coupler, in a SM-55 low cost, surface mount package. The ELDC-20 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 - 50 MHz | dB | — | 0.6 | — | 0.7 |
| | 50 - 870 MHz | dB | — | 0.45 | — | 0.65 |
| | 870 - 1000 MHz | dB | — | 0.6 | — | 0.7 |
| Coupling | 5 - 870 MHz | dB | 20 | — | — | ± 0.8 |
| | 870 - 1000 MHz | dB | 20 | — | — | ± 1.0 |
| Coupling Flatness | | dB | — | — | — | ± 0.5 |
| Directivity | 5 - 870 MHz | dB | — | 14 | 10 | — |
| | 870 - 1000 MHz | dB | — | 9 | 7 | — |
| Input Return Loss | 5 - 50 MHz | dB | — | 22 | 20 | — |
| | 50 - 1000 MHz | dB | — | 27 | 22 | — |
| Output Return Loss | 5 - 50 MHz | dB | — | 22 | 20 | — |
| | 50 - 1000 MHz | dB | — | 28 | 22 | — |
| Coupled Return Loss | 5 - 50 MHz | dB | — | 22 | 20 | — |
| | 50 - 1000 MHz | dB | — | 27 | 20 | — |

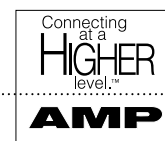
S 1344 F



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Specifications subject to change without notice.



Operating Characteristics

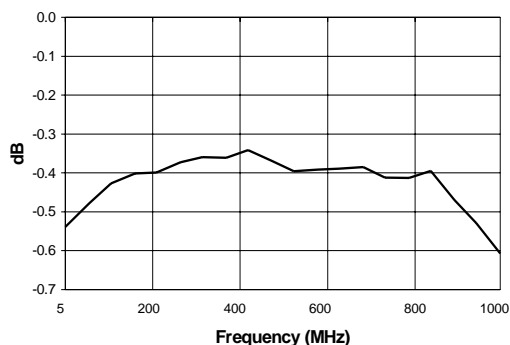
| Function | Pin No. |
|---------------|---------|
| Input | 6 |
| Output | 1 |
| Coupled | 4 |
| Isolated | 3 |
| Ground | 5 |
| Not Connected | 2 |

Absolute Maximum Ratings

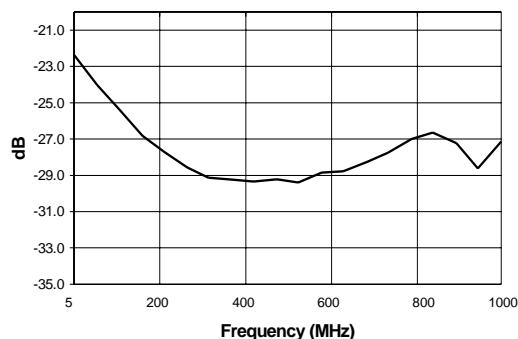
| Parameter | Absolute Maximum |
|-------------------------------|------------------|
| RF Power | 250 mW |
| DC Current | 30 mA |
| Pin Temperature (10 sec) | 260°C |
| Operating/Storage Temperature | -40°C to +85°C |

Typical Performance @ 25°C

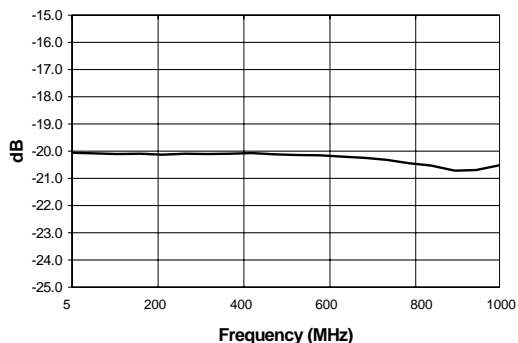
Mainline Loss



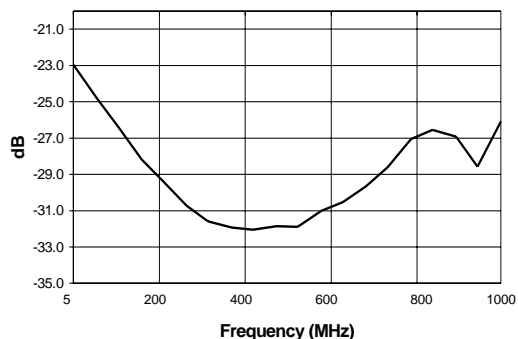
Input Return Loss



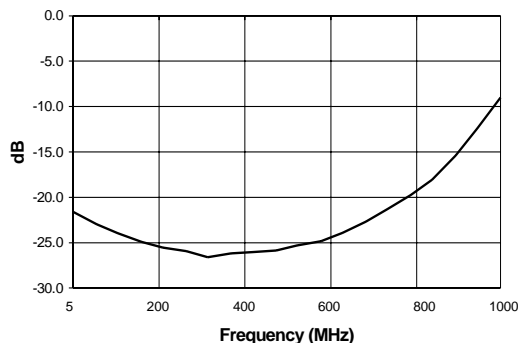
Coupling



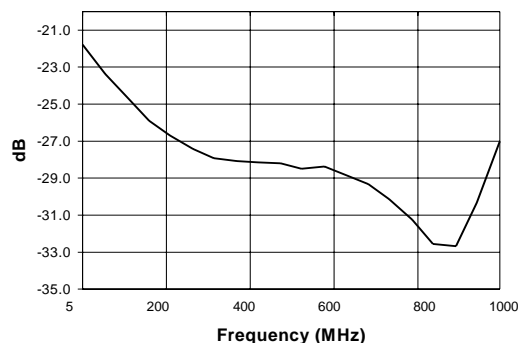
Output Return Loss



Directivity



Coupled Port Return Loss



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