

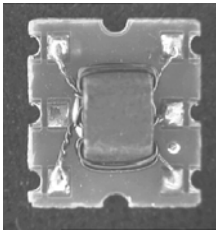
# E-Series 75 Ohm Coupler

## 5 - 1000 MHz



### Features

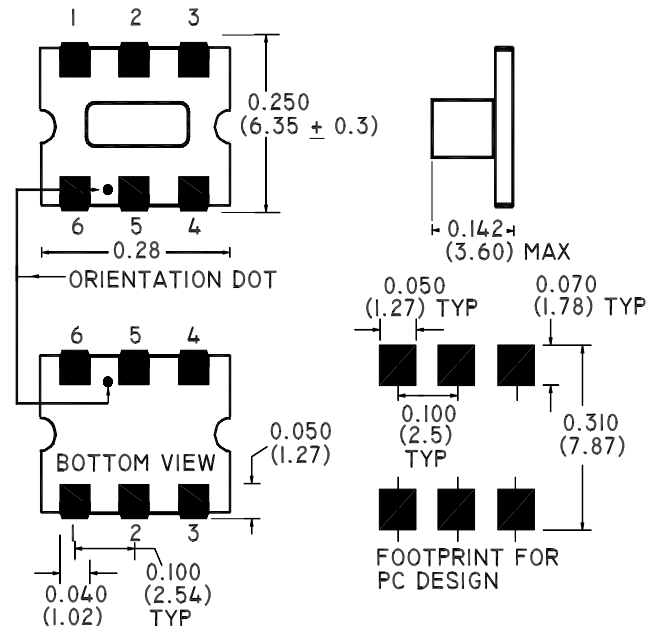
- Coupling 8db Typical
- Surface Mount
- Low Profile
- Tape and Reel Packaging available



### Description

M/A-COM's ELDC-8X1 is a high performance 75 Ohm Coupler, in a SM-55 low cost, surface mount package. The ELDC-8 is designed for use in high volume CATV applications. Typical applications include Set-top Boxes, Network Interface Units, Line Amplifiers and Headend equipment.

### SM-55 Package



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

Frequency Range	5 - 1000 MHz	Units	Nominal	Typical	Minimum	Maximum
Mainline Loss	5 - 870 MHz	dB	—	1.9	—	2.1
	870 - 1000 MHz	dB	—	2.1	—	2.3
Coupling	5 - 870 MHz	dB	8.5	—	—	± 0.5
	870 - 1000 MHz	dB	7.9	—	—	± 0.5
Coupling Flatness		dB	—	—	—	0.9
Directivity	5 - 870 MHz	dB	—	14.5	12.5	—
	870 - 1000 MHz	dB	—	13.5	11.5	—
Input Return Loss	5 - 50 MHz	dB	—	19.0	18.0	—
	50 - 870 MHz	dB	—	19.5	17.5	—
	870 - 1000 MHz	dB	—	22.0	18.5	—
Output Return Loss	5 - 50 MHz	dB	—	27.0	25.5	—
	50 - 870 MHz	dB	—	28.0	24.5	—
	870 - 1000 MHz	dB	—	28.5	24.0	—
Coupled Return Loss	5 - 50 MHz	dB	—	18.0	16.5	—
	50 - 870 MHz	dB	—	18.5	17.0	—
	870 - 1000 MHz	dB	—	23.0	19.0	—

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**Operating Characteristics**

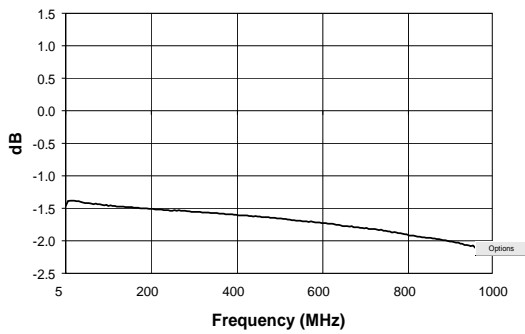
Function	Pin No.
Input	6
Output	1
Coupled	4
External 75 Ohms	3
Ground	5
Not Connected	2

**Absolute Maximum Ratings**

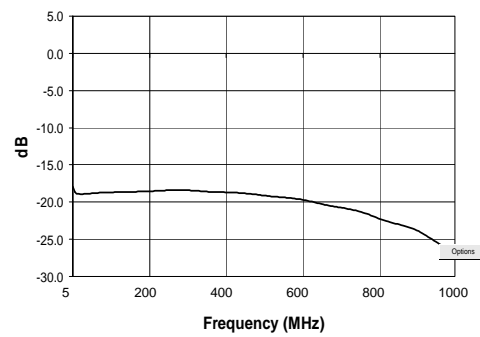
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Pin Temperature (10 sec)	260°C
Operating/Storage Temperature	-40°C to +85°C

**Typical Performance @ 25°C**

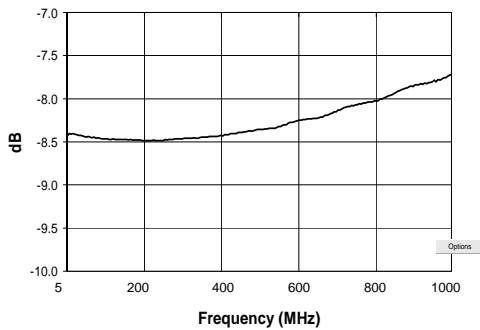
**Insertion Loss**



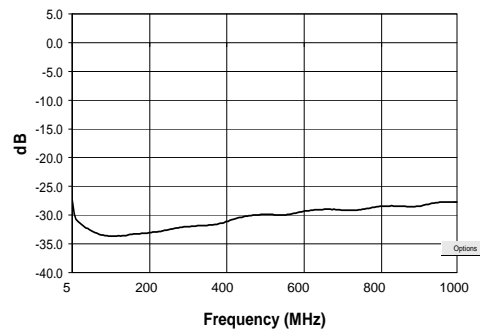
**Coupled Port Return Loss**



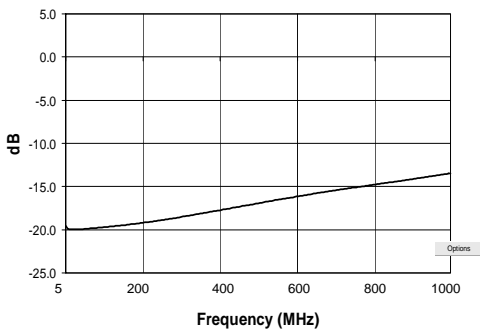
**Coupling**



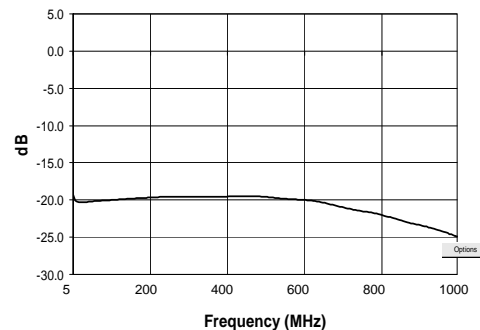
**Output Return Loss**



**Directivity**



**Input Return Loss**



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