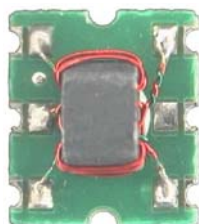


## Features

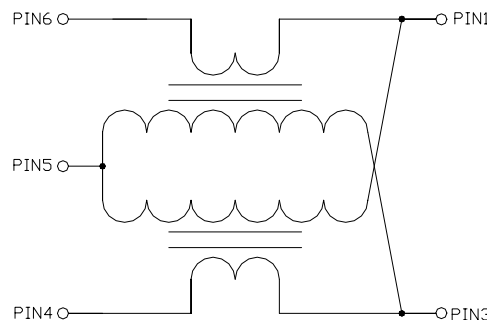
- Coupling 10dB Typical
- Surface mount
- low profile
- 260°C reflow compatible
- Excellent Return Loss
- Available on Tape & Reel

## Description

M/ACom Technology Solutions ELDC-10 is a high performance 75 Ohm Coupler, in a low cost, surface mount package. The ELDC-10 is designed for use in high volume CATV applications. Typical applications include Set top Boxes, Network Interface Units, Line Amplifiers and Head end equipment.



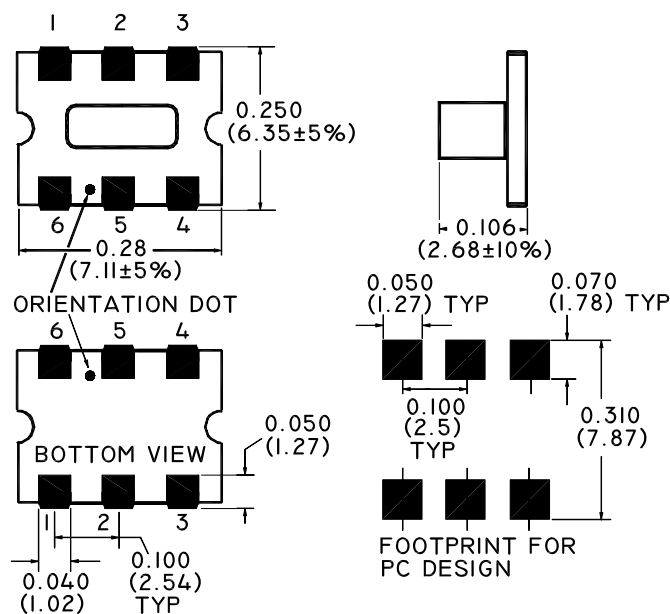
## Schematic



## Pin Configuration

Pin no.	Function
1	Output
2	Not connected
3	Isolated
4	Coupled
5	Ground
6	Input

## Component dimensions



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010, unless otherwise stated

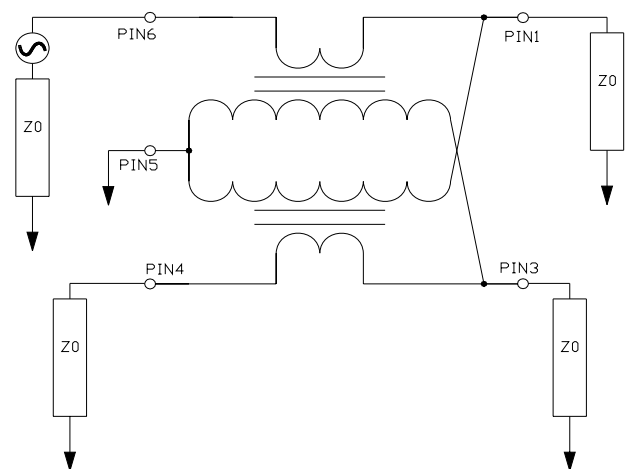
**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $0\text{dBm}$ ,  $Z_0 = 75\Omega$ ,  $P_{in} = 0\text{dBm}$**

Parameter	Frequency	Units	Min	Typ	Max
Main Line Loss	5 - 500 MHz	dB	-	0.9	1.3
	500 - 870 MHz	dB	-	1.0	1.5
Coupling	5 - 870 MHz	dB	-	10	$\pm 0.5$
Coupling Flatness	-	dB	-	-	1.0
Directivity	5 - 500 MHz	dB	23	20	-
	500 - 870 MHz	dB	21	17	-
Input Return Loss	5 - 870 MHz	dB	20	18	-
Output Return Loss	5 - 870 MHz	dB	20	18	-
Coupling Return Loss	5 - 870 MHz	dB	20	18	-

## Recommended Maximum Ratings

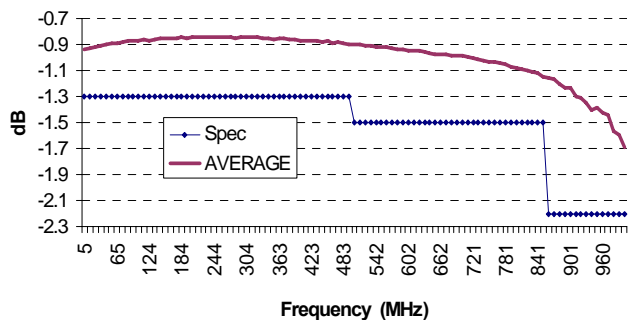
Parameter	Value
Input power	At least 250mW
DC current	At least 30mA
Operating Temperature	$-40^\circ\text{C}$ to $+70^\circ\text{C}$
Storage Temperature	$-55^\circ\text{C}$ to $+100^\circ\text{C}$

## Application Circuit

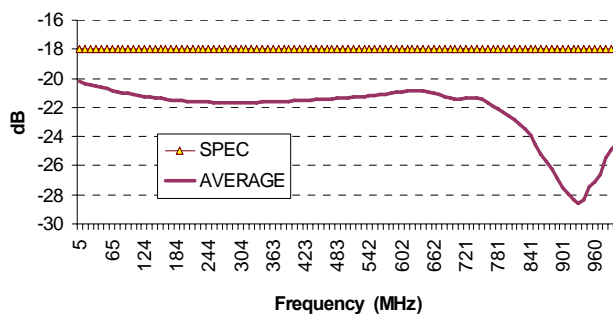


Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $0\text{dBm}$ ,  $Z_0 = 75\Omega$ ,  $P_{in} = 0\text{dBm}$

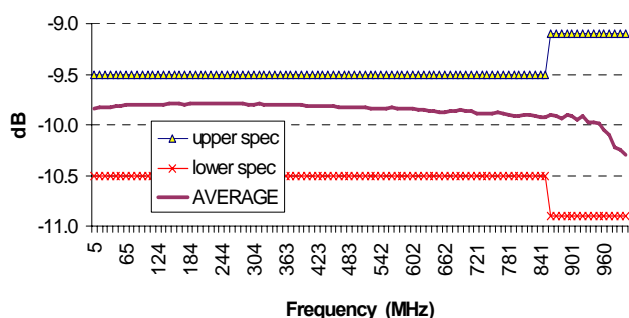
### Main Line Loss:



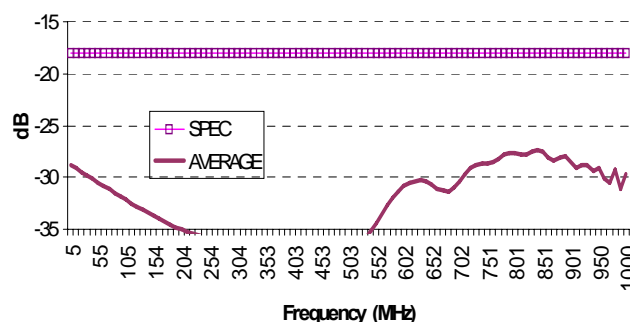
### Input Return Loss



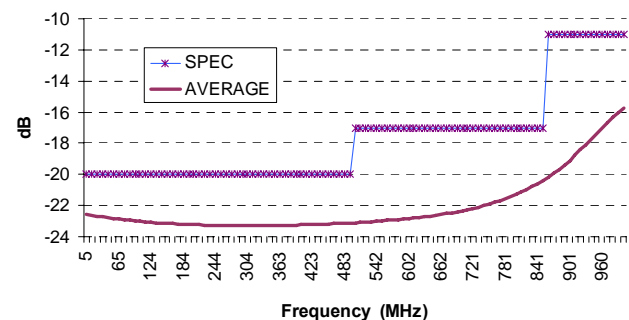
### Coupling



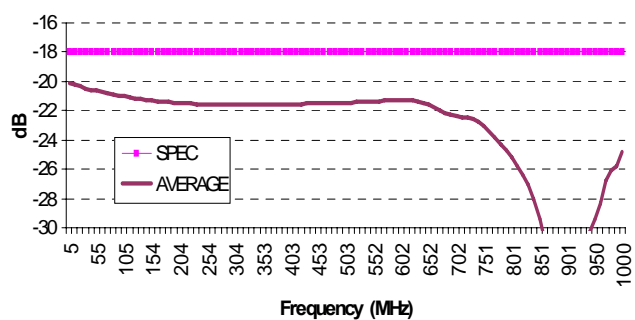
### Output Return Loss



### Directivity



### Coupled Return Loss



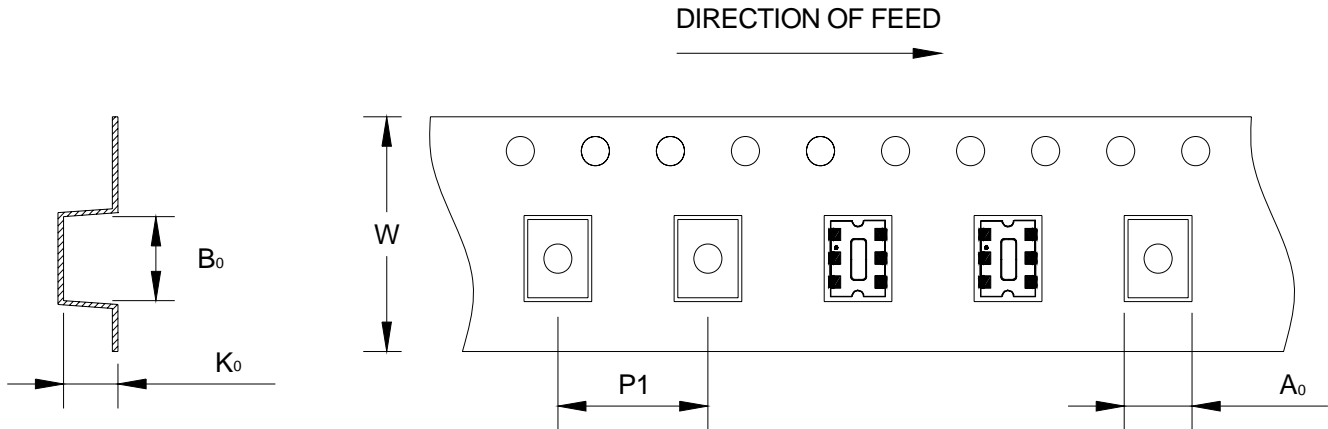
# ELDC-10



Coupler, 10dB  
5 to 870 MHz

Rev. V1

## Tape & Reel Information



Item	Dimension
Ao	7.1mm +/- 0.1mm
Bo	8.1mm +/- 0.1mm
Ko	3.5mm +/- 0.1mm
W	16.0mm +/- 0.3mm
P1	12.00mm +/- 0.1mm

## Ordering Information

Part number	Description
ELDC-10	900 piece reel