



# DIGITAL DELAY LINES

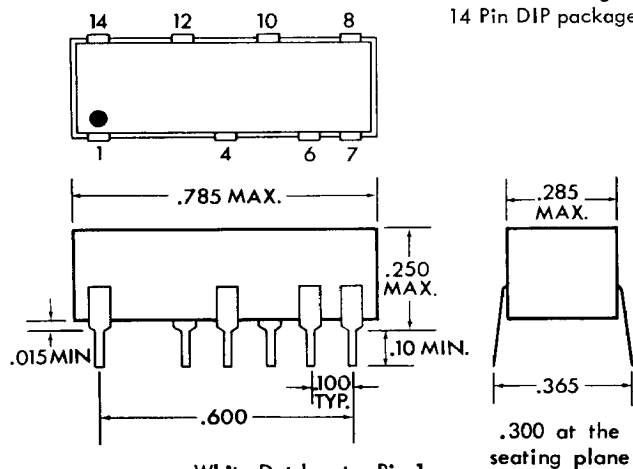
## HIGH SPEED CMOS

### 5 TAPS • 14 PIN PACKAGE

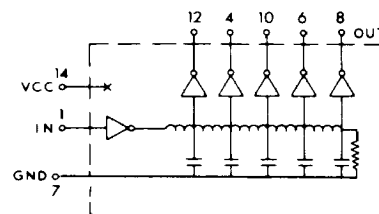
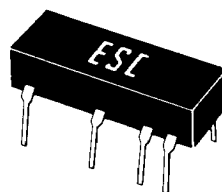
#### SERIES 14CMTD

This series of digital hybrid delay lines are contained in a 14 Pin DIP package using High Speed CMOS series circuits.

**NOTE • NEW!**  
FAX NO. 201-947-0406



White Dot locates Pin 1



Intermediate delay values available upon request.

| Model No. | Delay (ns) | Delay/Tap (ns) |
|-----------|------------|----------------|
| 14CMTD32  | 32         | *5             |
| 14CMTD36  | 36         | *6             |
| 14CMTD40  | 40         | *7             |
| 14CMTD44  | 44         | *8             |
| 14CMTD48  | 48         | *9             |
| 14CMTD52  | 52         | *10            |
| 14CMTD60  | 60         | 12             |
| 14CMTD75  | 75         | 15             |
| 14CMTD100 | 100        | 20             |
| 14CMTD125 | 125        | 25             |
| 14CMTD150 | 150        | 30             |
| 14CMTD175 | 175        | 35             |
| 14CMTD200 | 200        | 40             |
| 14CMTD250 | 250        | 50             |
| 14CMTD300 | 300        | 60             |
| 14CMTD350 | 350        | 70             |
| 14CMTD400 | 400        | 80             |
| 14CMTD420 | 420        | 84             |
| 14CMTD440 | 440        | 88             |
| 14CMTD450 | 450        | 90             |
| 14CMTD500 | 500        | 100            |

| DC PARAMETERS   |                                                | LIMITS         |          |
|-----------------|------------------------------------------------|----------------|----------|
|                 |                                                | Min.           | Max.     |
| V <sub>oh</sub> | V <sub>cc</sub> =min<br>I <sub>oh</sub> =4.0mA | 4.0V           | -        |
| V <sub>ol</sub> | V <sub>cc</sub> =min<br>I <sub>ol</sub> =4.0mA | -              | .3V      |
| V <sub>ih</sub> | V <sub>cc</sub> =min-max                       | 2.0V           | -        |
| V <sub>il</sub> | V <sub>cc</sub> =min-max                       | -              | .8V      |
| I <sub>L</sub>  | V <sub>cc</sub> =max                           | -              | +/-1.0μA |
| I <sub>cc</sub> | V <sub>cc</sub> =max<br>outputs low            | -              | 15mA     |
| max load        | V <sub>cc</sub> =max<br>V <sub>oh</sub> =4.0V  | 10 LSTTL Loads |          |

#### SPECIFICATIONS:

- Supply voltage: 5.0VDC ±10%
- Delay tolerances: ±2ns or ±5% wig
- Rise Time: 5ns max
- Minimum Pulse Width: 40% of Total Delay
- Maximum Duty Cycle: 50%
- Five equally spaced taps
- \*\* ● Operating temp. range: 0°C to +70°C
- Terminals: Electro tin plated alloy 42  
.020w x .010th

#### TEST CONDITIONS:

- V<sub>cc</sub>=5.0VDC, Temp. 25° ±5°C
- Time delay measured at the 1.5V level
- Rise time measured from .75V to 2.4V
- Input test pulse:
  - Pulse voltage: 3.0V
  - Pulse rise time: 2ns
  - Pulse width: 1.5 x max T<sub>d</sub>
  - Pulse spacing: 5 x max T<sub>d</sub>

\* Residual Delay first tap -12ns, following taps are referenced to pin 12 (first tap).

\*\* Also available for -55°C to +125°C operation. The dimensions will change to .82L X .40W X .36H.

Specify Series 14CMTC when ordering.

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