

hytek**HY5001****5- TAP DIGITAL DELAY LINE
(Hi-Rel Package)****FEATURES**

- TTL SCHOTTKY BUFFERED INPUTS AND OUTPUTS
- HERMETICALLY SEALED METAL PACKAGE
- LOW PROFILE 14-PIN DIP
- HIGH MTBF
- CUSTOMS ALSO AVAILABLE

SPECIFICATIONS**INPUT TEST CONDITIONS:**

- SUPPLY VOLTAGE (V_{cc})
- PULSE VOLTAGE
- RISE TIME
- PULSE WIDTH
- DUTY CYCLE

5.0 V_{cc}
 Logic 1 = 3.3 Volts
 Logic 0 = 0.0 Volts
 3.0 nSec max.
 2.5 x max. delay
 50% max.

DRIVE CAPABILITIES:

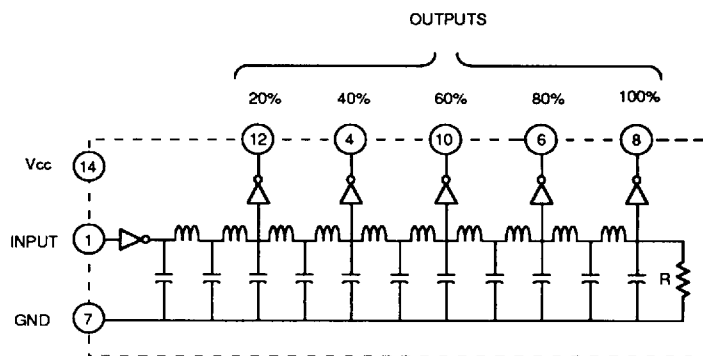
- LOGIC 0
- LOGIC 1

10 TTL Schottky loads/tap max.
 20 TTL Schottky loads/unit max. (20 mA max.)
 20 TTL Schottky loads/tap and unit max. (-1 mA max.)

OPERATING CHARACTERISTICS:

- OUTPUT RISE TIME (t_{ro})
- TOTAL DELAY TOLERANCE
- SUPPLY CURRENT
- SUPPLY VOLTAGE (V_{cc})
- LOGIC 1 INPUT CURRENT
- LOGIC 0 INPUT CURRENT
- LOGIC 1 OUTPUT VOLTAGE
- LOGIC 0 OUTPUT VOLTAGE
- LOGIC 1 INPUT VOLTAGE
- LOGIC 0 INPUT VOLTAGE
- SHORT CIRCUIT OUTPUT CURRENT
- OPERATING TEMPERATURE
- STORAGE TEMPERATURE
- HERMETICITY

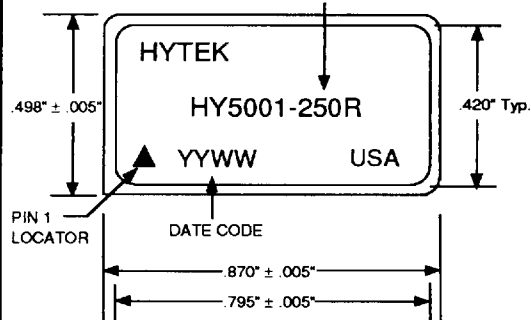
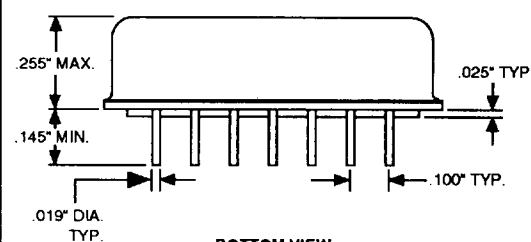
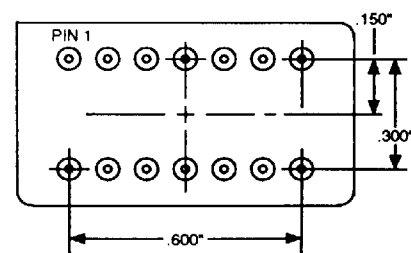
4 nSec. max. (measured from 0.75V to 2.4V)
 ± 2 nSec. or $\pm 5\%$ whichever is greater.
 65 mA max., 45mA typical
 4.75 to 5.25 V_{cc}
 50 μA @ $V_{cc} = 5.25$ V and $V_{IH} = 2.7$ V
 -2 mA max. @ $V_{cc} = 5.25$ V and $V_{IL} = 0.5$ V
 2.7V min., 3.4 V typical
 0.5V max.
 2V min. TO 5.25V max.
 0.8 V max.
 -40 mA min. to -100 mA max.
 $V_{cc} = 5.25$ V, one output shorted for max. 1 Sec. duration
 0° C to 70° C
 (optional -55° C to +125° C)
 -55° C to 150° C
 leak rate $< 10^{-6}$ ATM. CC/S

PIN DESIGNATIONS**PACKAGE DIMENSIONS**

(FOR REFERENCE ONLY)

TOP VIEW

PART NO.

**SIDE VIEW****BOTTOM VIEW**

Specifications Subject to Change Without Notice.

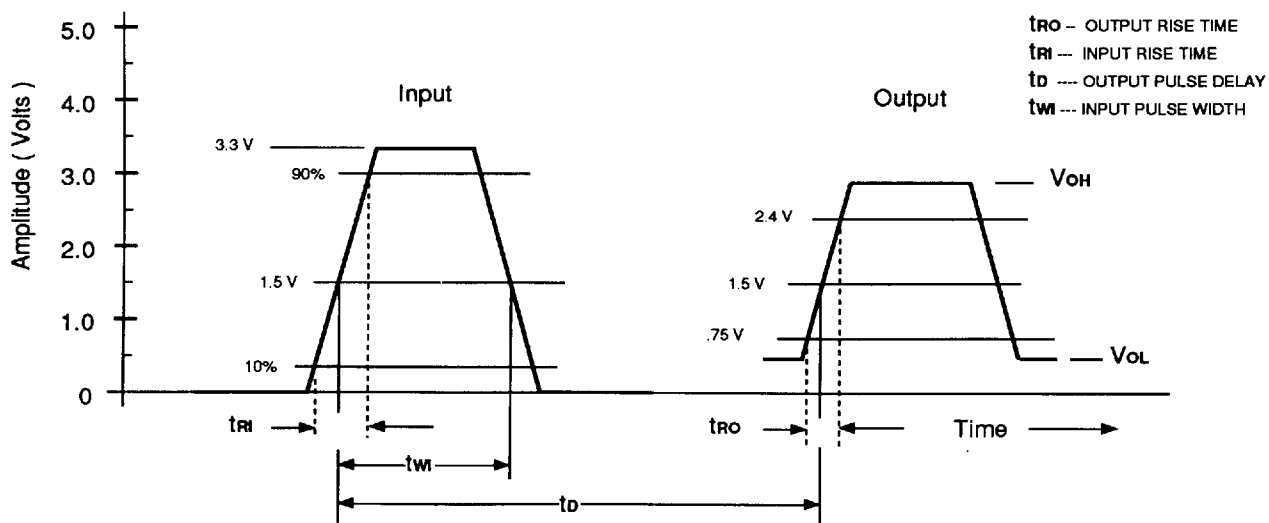
HY5001**DELAYED OUTPUT CHARACTERISTICS**

Hytek Part No.*	Delays at 25° C in nSeconds (t ₀) †				
	TAP NUMBER				
	1	2	3	4	5
HY5001-025	5.0 ±2 nS	10.0 ±2 nS	15.0 ±2 nS	20.0 ±2 nS	25.0 ±2 nS
HY5001-030	6.0 ±2 nS	12.0 ±2 nS	18.0 ±2 nS	24.0 ±2 nS	30.0 ±2 nS
HY5001-035	7.0 ±2 nS	14.0 ±2 nS	21.0 ±2 nS	28.0 ±2 nS	35.0 ±2 nS
HY5001-040	8.0 ±2 nS	16.0 ±2 nS	24.0 ±2 nS	32.0 ±5%	40.0 ±2 nS
HY5001-045	9.0 ±2 nS	18.0 ±2 nS	27.0 ±2 nS	36.0 ±2 nS	45.0 ±5%
HY5001-050	10.0 ±2 nS	20.0 ±2 nS	30.0 ±2 nS	40.0 ±2 nS	50.0 ±5%
HY5001-075	15.0 ±2 nS	30.0 ±2 nS	45.0 ±5%	60.0 ±5%	75.0 ±5%
HY5001-100	20.0 ±2 nS	40.0 ±2 nS	60.0 ±5%	80.0 ±5%	100.0 ±5%
HY5001-150	30.0 ±2 nS	60.0 ±5%	90.0 ±5%	120.0 ±5%	150.0 ±5%
HY5001-200	40.0 ±2 nS	80.0 ±5%	120.0 ±5%	160.0 ±5%	200.0 ±5%
HY5001-250	50.0 ±5%	100.0 ±5%	150.0 ±5%	200.0 ±5%	250.0 ±5%
HY5001-500	100.0 ±5%	200.0 ±5%	300.0 ±5%	400.0 ±5%	500.0 ±5%

* Suffix designates:

R = Standard 0° C to + 70° C operation

M = Standard -55° C to + 125° C operation

† Delay tolerances for "R" product are ± 2 nSec. or 5% whichever is greater over the operating temperature range.
Delay tolerances for "M" product are ± 3 nSec. or 8% whichever is greater over the operating temperature range.**REFERENCE WAVEFORMS**

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