



# PASSIVE DELAY LINES, DIP PACKAGE

## SERIES P1410 - 14 PIN, 10-TAP

## SERIES P2420 - 24 PIN, 20-TAP



- Economical cost, prompt delivery!
- Wide variety of values, 10nS to 1000nS
- Precision-grade internal inductor elements ensure excellent stability
- Fast rise times
- Operating temperature: 0°C to 70°C

### OPTIONS

- Custom circuits available
- Non-standard delay or impedance values
- Tighter tolerance or temp. coefficient
- Internal resistor termination
- Faster rise times
- Military screening per MIL-D-83531

RCD Series P1410 and P2420 passive (analog) delay lines are a lumped constant design per applicable portions of MIL-D-23859. The series incorporates high performance inductors and multilayer capacitors in a molded DIP package ensuring stable transmission, low temperature coefficient, and excellent environmental performance.

### ELECTRICAL CHARACTERISTICS

Total Delay Tol.:  $\pm 5\%$  or  $\pm 2nS$  whichever is greater  
 Tap Delay Tol.:  $\pm 10\%$  or  $\pm 1nS$  whichever is greater  
 Temperature Coefficient: 100ppm/°C Max.  
 Dielectric Strength: 100VDC  
 Insulation Resistance: 1000MΩ Min.  
 Distortion:  $\pm 10\%$  Max.

### TEST CONDITIONS @25°C

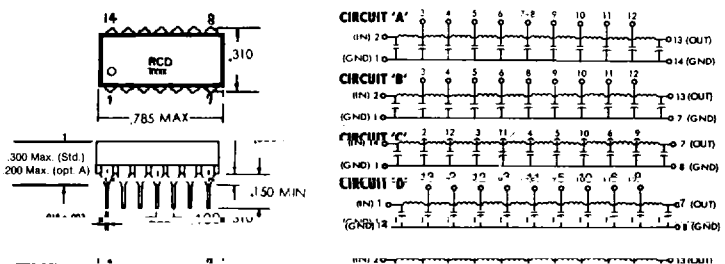
- 1) Input test pulse shall have an amplitude of 3.2V, rise time of 2nS, and pulse width of 3x total delay
- 2) Delay line to be terminated to within 1% of its characteristic impedance

### TYPE P1410 14-PIN 10 TAP

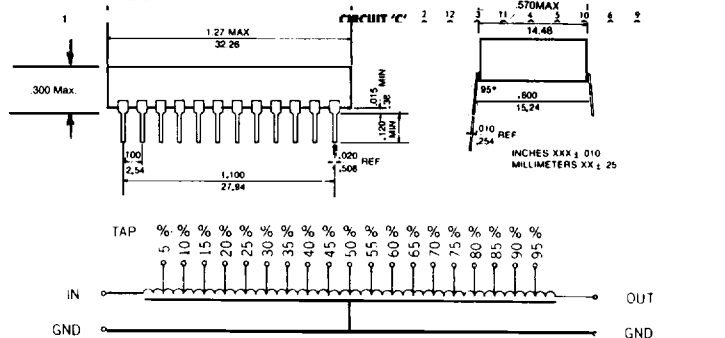
Total Delay (nSec)	Rise Time Max.† (nSec)	Delay per Tap (nSec)	Attenuation Max. (%)	Available Impedance Values ( $\pm 10\%$ )*
10	3.0	1	5	50Ω, 100Ω
20	4.5	2	5	50Ω, 100Ω, 200Ω
30	6.0	3	5	50Ω, 100Ω, 200Ω
40	7.0	4	5	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
50	8.5	5	7	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
75	12.5	7.5	7	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
100	17	10	7	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
120	20	12	8	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
150	25	15	8	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
180	30	18	8	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
200	34	20	8	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
220	37	22	8	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
250	42	25	8	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
300	50	30	10	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
375	62.5	37.5	10	50Ω, 100Ω, 200Ω, 300Ω, 500Ω
500	85	50	12	50Ω, 100Ω, 200Ω, 300Ω
600	100	60	15	50Ω, 100Ω, 200Ω, 300Ω
750	125	75	16	50Ω, 100Ω, 200Ω
1000	170	100	16	50Ω, 100Ω

† Faster rise times available!

### TYPE P1410



### TYPE P2420



### TYPE P2420 24-PIN 20 TAP

Total Delay (nSec)	Rise Time Max.† (nSec)	Delay per Tap (nSec)	Attenuation Max. (%)	Available Impedance Values ( $\pm 10\%$ )*
20	3	1	5	50Ω, 100Ω
40	4	2	8	50Ω, 100Ω, 200Ω
60	6	3	8	50Ω, 100Ω, 200Ω
80	8	4	8	50Ω, 100Ω, 200Ω
100	10	5	8	50Ω, 100Ω, 200Ω
200	20	10	8	50Ω, 100Ω, 200Ω
300	30	15	8	100Ω, 200Ω
400	40	20	8	100Ω, 200Ω
500	50	25	10	100Ω, 200Ω
600	60	30	10	100Ω, 200Ω
800	80	40	10	100Ω, 200Ω
1000	100	50	10	100Ω, 200Ω

\* 100Ω is the most common impedance value.

† Faster rise times available!

### P2420 STANDARD CIRCUITS

CIRCUIT	IN	TAP NUMBER																		OUT	GND	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			19
A	2	3	4	5	6	7	8	9	10	11	12	14	15	16	17	18	19	20	21	22	23	1,24
B	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	12
C	1	2	3	4	5	6	7	8	9	10	11	14	15	16	17	18	19	20	21	22	23	12,24
D	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	1,24

### HOW TO ORDER

