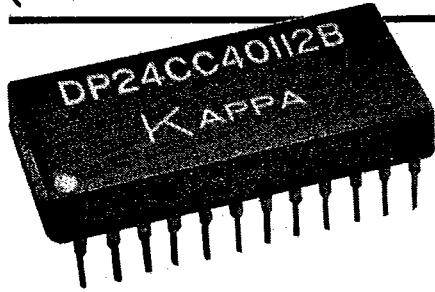


T-47-21

SERIES DP24C ANALOG 20-TAP

# 24-PIN DIP DELAY LINE

(available in full-MIL conformance as Series DP24M)



### ELECTRICAL SPECIFICATIONS

Total Delay: 20 to 2000 ns  
 Tap Delays: 5% increments standard  
 (other increments available upon request)  
 Rise-time: 10% maximum of total delay (see Table I)  
 Characteristic Impedance: 50 to 200 ohms ( $\pm 10\%$ )  
 Attenuation: 2dB max (see Table 1)  
 Distortion:  $\pm 10\%$  max  
 Temperature Coefficient of Delay: 100ppm/ $^{\circ}\text{C}$  max  
 Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$   
 Storage Temperature Range:  $-65^{\circ}\text{C}$  to  $+130^{\circ}\text{C}$   
 Insulation Resistance: 1000 megohms min @ 50VDC @  $25^{\circ}\text{C}$   
 Dielectric Strength: 50VDC

### MECHANICAL SPECIFICATIONS

Case Configuration: See FIGURE 2  
 Case Material: Molded Epoxy  
 Terminals: Flat, DIP-type (See FIGURE 2)  
 Terminal Material: Kovar or equivalent, tin-plated  
 Pin Connections: See TABLE II  
 Potting: 100% filled with a two-component epoxy  
 Marking: Includes manufacturer's name, part number and date code (See FIGURE 2)

TABLE I

| PART NUMBER | Td (ns) <sup>(1)</sup><br>( $\pm 5\%$ ) | Td/tap (ns) <sup>(2)</sup><br>( $\pm 5\%$ ) | Tr (ns)<br>(Max) | Zo (ohms)<br>( $\pm 10\%$ ) |
|-------------|---|---|------------------|-----------------------------|
| 20051       | 20                                      | 1   | 3                | 50                          |
| 40051       | 40                                      | 2   | 4                |                             |
| 60051       | 60                                      | 3   | 6                |                             |
| 80051       | 80                                      | 4   | 8                |                             |
| 10151       | 100                                     | 5   | 10               |                             |
| 20151       | 200                                     | 10  | 20               |                             |
| 20012       | 20                                      | 1   | 3                | 100                         |
| 40012       | 40                                      | 2   | 4                |                             |
| 60012       | 60                                      | 3   | 6                |                             |
| 80012       | 80                                      | 4   | 8                |                             |
| 10112       | 100                                     | 5   | 10               |                             |
| 20112       | 200                                     | 10  | 20               |                             |
| 30112       | 300                                     | 15  | 30               |                             |
| 40112       | 400                                     | 20  | 40               |                             |
| 50112       | 500                                     | 25  | 50               |                             |
| 60112       | 600                                     | 30  | 60               |                             |
| 80112       | 800                                     | 40  | 80               |                             |
| 10212       | 1000                                    | 50  | 100              |                             |
| 12212       | 1200                                    | 60  | 120              | 200                         |
| 15212       | 1500                                    | 75  | 150              |                             |
| 40022       | 40                                      | 2   | 4                |                             |
| 60022       | 60                                      | 3   | 6                |                             |
| 80022       | 80                                      | 4   | 8                |                             |
| 10122       | 100                                     | 5   | 10               |                             |
| 20122       | 200                                     | 10  | 20               |                             |
| 30122       | 300                                     | 15  | 30               |                             |
| 40122       | 400                                     | 20  | 40               |                             |
| 50122       | 500                                     | 25  | 50               |                             |
| 60122       | 600                                     | 30  | 60               |                             |
| 80122       | 800                                     | 40  | 80               |                             |
| 10222       | 1000                                    | 50  | 100              |                             |
| 12222       | 1200                                    | 60  | 120              |                             |
| 15222       | 1500                                    | 75  | 150              |                             |
| 20222       | 2000                                    | 100   | 200              |                             |

\*Notes: <sup>(1)</sup>Or  $\pm 2$  ns, whichever is greater. <sup>(2)</sup>Or  $\pm 1$  ns, whichever is greater, referenced from input.

TABLE II. PIN-NUMBER SEQUENCE\*

| CODE | TAP # | IN | 5% | 10% | 15% | 20% | 25% | 30% | 35% | 40% | 45% | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% | 95% | OUT    | GND |
|------|-------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| 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 |     |

\*Other pin sequences available upon request.

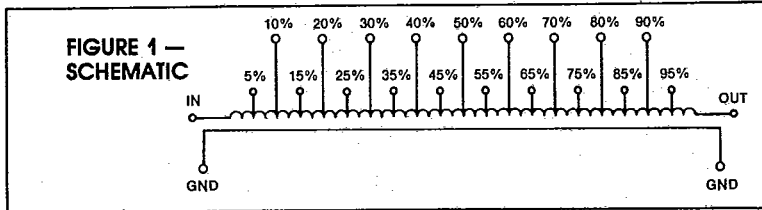
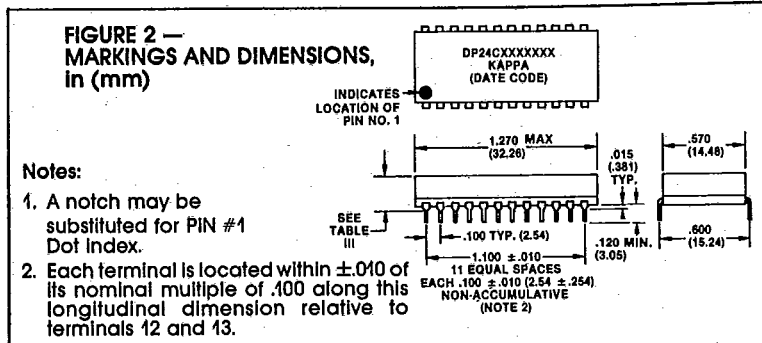


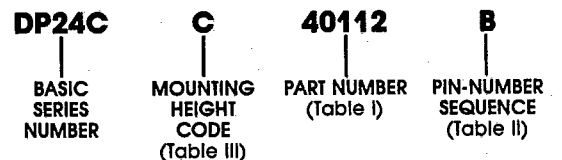
TABLE III. MOUNTING HEIGHT

| CODE | DIMENSION (MAX) |
|------|-----------------|
| B    | .250 (6.35)     |
| C    | .300 (7.62)     |



### HOW TO ORDER

- Select MOUNTING HEIGHT CODE from Table III.
  - Select PART NUMBER CODE from Table I.
  - Select PIN-NUMBER SEQUENCE CODE from Table II.
  - Construct the MODEL NUMBER. (See example below.)
- This example, Model DP24CB-40112B, identifies a 400 ns, 100-ohm line with 0.300" mounting height and the "B" pin-number sequence.



U.S.A. Factory Direct: 1443 Pinewood Street, Rahway, NJ 07065, Phone (201) 396-9400, Toll Free 800-223-0603, Telex: 130081, KAPPA RHWY  
 West Coast Office: 13455 Ventura Blvd. #220, Sherman Oaks, CA 91423, (818) 995-2401. West Coast Distributor: Phone (213) 283-2058.