

# CD521 Series TTL Digital Delay Module, 14 PIN, 5 TAP

T-47-113

- TTL input and outputs
- Leading & Trailing Edge Accuracies
- Precise and stable delays
- Reliable hybrid construction
- No external components required
- Fan out 10TTL loads/tap, 20TTL loads/package
- Operating temperature 0° to 70°C
- Storage temperature -55° to +125°C



High Performance For Pulse Widths  
To 20% Of Total Delay  
14 PIN DIP

**Electrical Characteristics:**

VIH (High level input voltage)	2.0 to 5.0V
IIH (High level input current)	50 $\mu$ A Max.
VIL (Low level input voltage)	0.8 V Max.
IIL (Low level input current)	-2 ma Max.
VOH (High level output voltage)	2.5 V Min.
VOL (Low level output voltage)	0.5 V Max.
VCC (Supply voltage)	5.0 V $\pm$ 0.25 V DC
ICC (Supply current)	75 ma Max.

**Mechanical Specifications:**

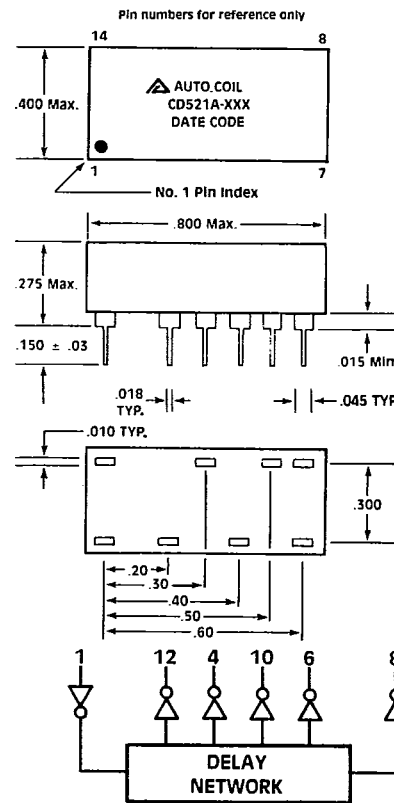
Case: Epoxy filled D.A.P.  
Leads: Alloy 42 or equiv.  
solder coated  
Marking: White epoxy ink

**Also Available:**

Intermediate delays  
Non-symmetrical tap delays  
Tighter delay tolerances  
Non-tapped modules  
Military versions  
AS, LS & advanced low  
power Schottky versions

Input & test conditions are not limiting parameters. All digital delay modules can be operated at conditions other than specified. Since accuracies may be slightly affected, we suggest that the module be evaluated under specific operating conditions.

Specifications subject to change without notice.



Nominal Delays (in NS)  $\pm$  2 NS or 5% Whichever Is Greater

Automatic Coil Part Number	PIN 12	PIN 4	PIN 10	PIN 6	PIN 8
CD521A-101	5	10	15	20	25
CD521A-102	6	12	18	24	30
CD521A-103	7	14	21	28	35
CD521A-104	8	16	24	32	40
CD521A-105	9	18	27	36	45
CD521A-106	10	20	30	40	50
CD521A-107	15	30	45	60	75
CD521A-108	20	40	60	80	100
CD521A-109	25	50	75	100	125
CD521A-110	30	60	90	120	150
CD521A-111	40	80	120	160	200
CD521A-112	50	100	150	200	250
CD521A-113	60	120	180	240	300
CD521A-114	70	140	210	280	350
CD521A-115	80	160	240	320	400
CD521A-116	90	180	270	360	450
CD521A-117	100	200	300	400	500

Output rise times (TPLH) 4.0 NS max. (0.75 to 2.4 V level).

GND 7  
Vcc 14

**Test Conditions:**

- 1) All measurements are made @ 25°C
- 2) VCC is maintained @ 5.0 VDC
- 3) All measurements are made with no loads on outputs
- 4) Delays are measured @ 1.5V level

**Input Conditions:**

- 1) Pulse amplitude: 3.20V
- 2) Input rise time 3.0 NS (10 to 90%)
- 3) Pulse width 2 x total delay
- 4) Duty cycle < 25%