

# 14 Pin DIP High Precision Single Output TTL Compatible Active Delay Lines

## EPA500-XX & EPA500-XX-RC

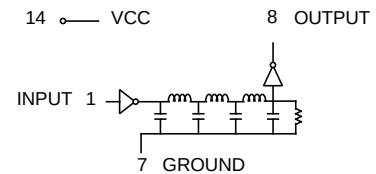
Add "-RC" after part number for RoHS Compliant

PCA Part Number	Time Delays (nS)	PCA Part Number	Time Delays (nS)	PCA Part Number	Time Delays (nS)
EPA500-5(-RC)	5 ± 1	EPA500-23(-RC)	23 ± 1	EPA500-125(-RC)	125 ± 4
EPA500-6(-RC)	6 ± 1	EPA500-24(-RC)	24 ± 1	EPA500-150(-RC)	150 ± 4.5
EPA500-7(-RC)	7 ± 1	EPA500-25(-RC)	25 ± 1	EPA500-175(-RC)	175 ± 5
EPA500-8(-RC)	8 ± 1	EPA500-30(-RC)	30 ± 1.5	EPA500-200(-RC)	200 ± 6
EPA500-9(-RC)	9 ± 1	EPA500-35(-RC)	35 ± 1.5	EPA500-225(-RC)	225 ± 7
EPA500-10(-RC)	10 ± 1	EPA500-40(-RC)	40 ± 1.5	EPA500-250(-RC)	250 ± 8
EPA500-11(-RC)	11 ± 1	EPA500-45(-RC)	45 ± 2	EPA500-275(-RC)	275 ± 9
EPA500-12(-RC)	12 ± 1	EPA500-50(-RC)	50 ± 2	EPA500-300(-RC)	300 ± 10
EPA500-13(-RC)	13 ± 1	EPA500-55(-RC)	55 ± 2	EPA500-350(-RC)	350 ± 11
EPA500-14(-RC)	14 ± 1	EPA500-60(-RC)	60 ± 2	EPA500-400(-RC)	400 ± 12
EPA500-15(-RC)	15 ± 1	EPA500-65(-RC)	65 ± 2.5	EPA500-450(-RC)	450 ± 14
EPA500-16(-RC)	16 ± 1	EPA500-70(-RC)	70 ± 2.5	EPA500-500(-RC)	500 ± 15
EPA500-17(-RC)	17 ± 1	EPA500-75(-RC)	75 ± 2.5	EPA500-600(-RC)	600 ± 18
EPA500-18(-RC)	18 ± 1	EPA500-80(-RC)	80 ± 2.5	EPA500-700(-RC)	700 ± 20
EPA500-19(-RC)	19 ± 1	EPA500-85(-RC)	85 ± 3	EPA500-800(-RC)	800 ± 22
EPA500-20(-RC)	20 ± 1	EPA500-90(-RC)	90 ± 3	EPA500-900(-RC)	900 ± 24
EPA500-21(-RC)	21 ± 1	EPA500-95(-RC)	95 ± 3	EPA500-1000(-RC)	1000 ± 26
EPA500-22(-RC)	22 ± 1	EPA500-100(-RC)	100 ± 3		

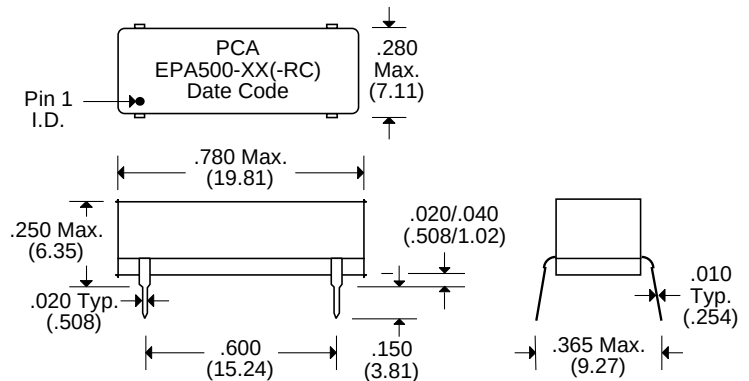
Delay times referenced from input to leading and trailing edges at 25°C, 5.0V, with no load.

DC Electrical Characteristics		Test Conditions	Min.	Max.	Unit
Parameter					
V <sub>OH</sub>	High-Level Output Voltage	V <sub>CC</sub> = min. V <sub>IL</sub> = max. I <sub>OH</sub> = max	2.7		V
V <sub>OL</sub>	Low-Level Output Voltage	V <sub>CC</sub> = min. V <sub>IH</sub> = min. I <sub>OL</sub> = max		0.5	V
V <sub>IK</sub>	Input Clamp Voltage	V <sub>CC</sub> = min. I <sub>I</sub> = I <sub>IK</sub>		-1.2	V
I <sub>IH</sub>	High-Level Input Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 2.7V		50	µA
		V <sub>CC</sub> = max. V <sub>IN</sub> = 5.25V		1.0	mA
I <sub>IL</sub>	Low-Level Input Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 0.5V		-2	mA
I <sub>OS</sub>	Short Circuit Output Current	V <sub>CC</sub> = max. V <sub>OUT</sub> = 0.	-40	-100	mA
		(One output at a time)			
I <sub>CCH</sub>	High-Level Supply Current	V <sub>CC</sub> = max. V <sub>IN</sub> = OPEN		75	mA
I <sub>CCL</sub>	Low-Level Supply Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 0		75	mA
T <sub>RO</sub>	Output Rise Time	T <sub>d</sub> ≤ 500 nS (0.75 - 2.4 Volts)		4	nS
N <sub>H</sub>	Fanout High-Level Output	V <sub>CC</sub> = max. V <sub>OH</sub> = 2.7V		20 TTL Load	
N <sub>L</sub>	Fanout Low-Level Output	V <sub>CC</sub> = max. V <sub>OL</sub> = 0.5V		10 TTL Load	

### Schematic



### Package



Recommended Operating Conditions		Min.	Max.	Unit
V <sub>CC</sub>	Supply Voltage	4.75	5.25	V
V <sub>IH</sub>	High-Level Input Voltage	2.0		V
V <sub>IL</sub>	Low-Level Input Voltage		0.8	V
I <sub>IK</sub>	Input Clamp Current		-18	mA
I <sub>OH</sub>	High-Level Output Current		-1.0	mA
I <sub>OL</sub>	Low-Level Output Current		20	mA
PW*	Pulse Width of Total Delay	40		%
d*	Duty Cycle		40	%
T <sub>A</sub>	Operating Free-Air Temperature	0	+70	°C

\*These two values are inter-dependent.

Input Pulse Test Conditions @ 25° C		Unit	
E <sub>IN</sub>	Pulse Input Voltage	3.2	Volts
P <sub>W</sub>	Pulse Width % of Total Delay	110	%
T <sub>RI</sub>	Pulse Rise Time (0.75 - 2.4 Volts)	2.0	nS
P <sub>RR</sub>	Pulse Repetition Rate @ T <sub>d</sub> ≤ 200 nS	1.0	MHz
	Pulse Repetition Rate @ T <sub>d</sub> > 200 nS	100	KHz
V <sub>CC</sub>	Supply Voltage	5.0	Volts

Notes :	EPA500-XX	EPA500-XX-RC
1. Lead Finish	SnPb	Hot Tin Dip (Sn) †
2. Peak Temperature Rating	225°C	245°C
3. Moisture Sensitive Levels	MSL = 3 (168 Hours, ≤30°C/60%RH)	MSL = 4 (72 Hours, ≤30°C/60%RH)
4. Weight	TBD grams	TBD grams
5. Packaging Information (Tube)	TBD pieces/tube	TBD pieces/tube

† Lead Material : Matte Tin with Ni Barrier

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25