

# 14 Pin DIP 5 Tap Low Profile TTL Compatible Active Delay Lines EP82XX-HL & EP82XX-HL-RC

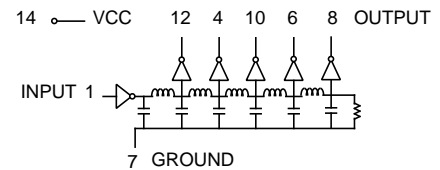
Add "-RC" after part number for RoHS Compliant

PCA Part Number	Tap Delays ( $\pm 5\%$ or $\pm 2nS$ )	Total Delay ( $\pm 5\%$ or $\pm 2nS$ )	PCA Part Number	Tap Delays ( $\pm 5\%$ or $\pm 2nS$ )	Total Delay ( $\pm 5\%$ or $\pm 2nS$ )
EP8200-HL(-RC)	5, 10, 15, 20	25	EP8204-HL(-RC)	40, 80, 120, 160	200
EP8213-HL(-RC)	6, 12, 18, 24	30	EP8221-HL(-RC)	45, 90, 135, 180	225
EP8214-HL(-RC)	7, 14, 21, 28	35	EP8205-HL(-RC)	50, 100, 150, 200	250
EP8215-HL(-RC)	8, 16, 24, 32	40	EP8206-HL(-RC)	60, 120, 180, 240	300
EP8216-HL(-RC)	9, 18, 27, 36	45	EP8207-HL(-RC)	70, 140, 210, 280	350
EP8201-HL(-RC)	10, 20, 30, 40	50	EP8208-HL(-RC)	80, 160, 240, 320	400
EP8211-HL(-RC)	12, 24, 36, 48	60	EP8218-HL(-RC)	84, 168, 252, 336	420
EP8217-HL(-RC)	15, 30, 45, 60	75	EP8222-HL(-RC)	88, 176, 264, 352	440
EP8202-HL(-RC)	20, 40, 60, 80	100	EP8209-HL(-RC)	90, 180, 270, 360	450
EP8219-HL(-RC)	25, 50, 75, 100	125	EP8223-HL(-RC)	94, 188, 282, 376	470
EP8203-HL(-RC)	30, 60, 90, 120	150	EP8210-HL(-RC)	100, 200, 300, 400	500
EP8220-HL(-RC)	35, 70, 105, 140	175			

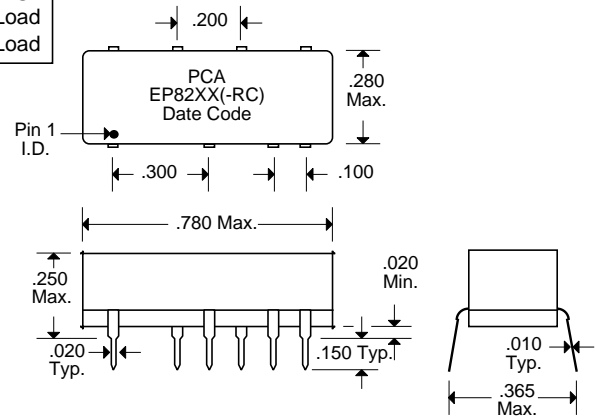
† Whichever is greater. Delay times referenced from input to leading and trailing edges at 25°C, 5.0V, with no load.

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 to 2.4 Volts)		4	nS
		T <sub>d</sub> > 500 nS		5	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
P <sub>W</sub> *	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 :	EP82XX-HL	EP82XX-HL-RC
1. Lead Finish	SnPb	Hot Tin Dip (Sn)
2. Peak Solder Rating (Wave Solder Process Only)	260°C	260°C
3. Weight	1.5 grams	1.5 grams
4. Packaging Information	(Tube) 27 pieces/tube	27 pieces/tube

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