

14 Pin DIL 5 Tap TTL Compatible Active Delay Lines

EP9810-XX & EP9810-XX-RC

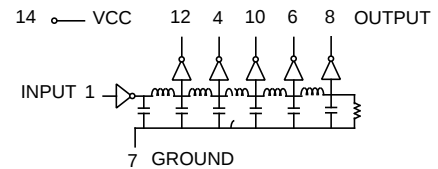
Add "-RC" after part number for RoHS Compliant

PCA Part Number	Tap Delays ($\pm 5\%$ or $\pm 2\text{nS}$)				Total Delay ($\pm 5\%$ or $\pm 2\text{nS}$)	PCA Part Number	Tap Delays ($\pm 5\%$ or $\pm 2\text{nS}$)				Total Delay ($\pm 5\%$ or $\pm 2\text{nS}$)
EP9810-25(-RC)	5	10	15	20	25	EP9810-400(-RC)	80	160	240	320	400
EP9810-30(-RC)	6	12	18	24	30	EP9810-420(-RC)	84	168	252	336	420
EP9810-35(-RC)	7	14	21	28	35	EP9810-440(-RC)	88	176	264	352	440
EP9810-40(-RC)	8	16	24	32	40	EP9810-450(-RC)	90	180	270	360	450
EP9810-45(-RC)	9	18	27	36	45	EP9810-470(-RC)	94	188	282	376	470
EP9810-50(-RC)	10	20	30	40	50	EP9810-500(-RC)	100	200	300	400	500
EP9810-60(-RC)	12	24	36	48	60	EP9810-550(-RC)	110	220	330	440	550
EP9810-75(-RC)	15	30	45	60	75	EP9810-600(-RC)	120	240	360	480	600
EP9810-100(-RC)	20	40	60	80	100	EP9810-650(-RC)	130	260	390	520	650
EP9810-125(-RC)	25	50	75	100	125	EP9810-700(-RC)	140	280	420	560	700
EP9810-150(-RC)	30	60	90	120	150	EP9810-750(-RC)	150	300	450	600	750
EP9810-175(-RC)	35	70	105	140	175	EP9810-800(-RC)	160	320	480	640	800
EP9810-200(-RC)	40	80	120	160	200	EP9810-850(-RC)	170	340	510	680	850
EP9810-225(-RC)	45	90	135	180	225	EP9810-900(-RC)	180	360	540	720	900
EP9810-250(-RC)	50	100	150	200	250	EP9810-950(-RC)	190	380	570	760	950
EP9810-300(-RC)	60	120	180	240	300	EP9810-1000(-RC)	200	400	600	800	1000
EP9810-350(-RC)	70	140	210	280	350						

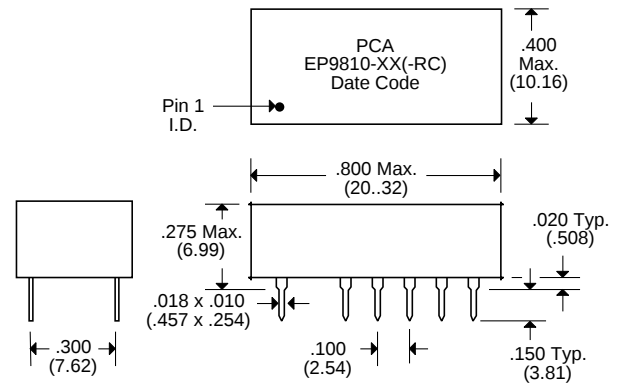
†Whichever is greater. • Delay times referenced from input to leading edges at 25°C, 5.0V, with no load.

DC Electrical Characteristics		Test Conditions	Min.	Max.	Unit
V_{OH}	High-Level Output Voltage	$V_{CC} = \text{min.}$ $V_{IL} = \text{max.}$ $I_{OH} = \text{max}$	2.7		V
V_{OL}	Low-Level Output Voltage	$V_{CC} = \text{min.}$ $V_{IH} = \text{min.}$ $I_{OL} = \text{max}$		0.5	V
V_{IK}	Input Clamp Voltage	$V_{CC} = \text{min.}$ $I_I = I_{IK}$		-1.2	V
I_{IH}	High-Level Input Current	$V_{CC} = \text{max.}$ $V_{IN} = 2.7\text{V}$		50	μA
		$V_{CC} = \text{max.}$ $V_{IN} = 5.25\text{V}$		1.0	mA
I_{IL}	Low-Level Input Current	$V_{CC} = \text{max.}$ $V_{IN} = 0.5\text{V}$		-2	mA
I_{OS}	Short Circuit Output Current	$V_{CC} = \text{max.}$ $V_{OUT} = 0.$	-40	-100	mA
		(One output at a time)			
I_{CCH}	High-Level Supply Current	$V_{CC} = \text{max.}$ $V_{IN} = \text{OPEN}$		75	mA
I_{CCL}	Low-Level Supply Current	$V_{CC} = \text{max.}$ $V_{IN} = 0$		75	mA
T_{RO}	Output Rise Time	$T_d \leq 500 \text{ nS}$ (0.75 to 2.4 Volts)		4	nS
		$T_d > 500 \text{ nS}$		5	nS
N_H	Fanout High-Level Output	$V_{CC} = \text{max.}$ $V_{OH} = 2.7\text{V}$		20 TTL Load	
N_L	Fanout Low-Level Output	$V_{CC} = \text{max.}$ $V_{OL} = 0.5\text{V}$		10 TTL Load	

Schematic



Package



Recommended Operating Conditions		Min.	Max.	Unit
V_{CC}	Supply Voltage	4.75	5.25	V
V_{IH}	High-Level Input Voltage	2.0		V
V_{IL}	Low-Level Input Voltage		0.8	V
I_{IK}	Input Clamp Current		-18	mA
I_{OH}	High-Level Output Current		-1.0	mA
I_{OL}	Low-Level Output Current		20	mA
P_W^*	Pulse Width of Total Delay	40		%
d^*	Duty Cycle		40	%
T_A	Operating Free-Air Temperature	0	+70	°C

*These two values are inter-dependent.

Input Pulse Test Conditions @ 25° C		Unit	
E_{IN}	Pulse Input Voltage	3.2	Volts
P_W	Pulse Width % of Total Delay	110	%
T_{RI}	Pulse Rise Time (0.75 - 2.4 Volts)	2.0	nS
PRR	Pulse Repetition Rate @ $T_d \leq 200 \text{ nS}$	1.0	MHz
	Pulse Repetition Rate @ $T_d > 200 \text{ nS}$	100	KHz
V_{CC}	Supply Voltage	5.0	Volts

Notes :		EP9810-XX	EP9810-XX-RC
1. Assembly Process (Solder Composition)	(Leadframe)	SnPb	Sn
	(Assembly Solder)	SnPb	SnPb (RoHS exemption 7a)
2. Peak Solder Rating (per JEDEC22-B102D)		225°C	260°C
3. Weight		TBD grams	TBD grams
4. Packaging Information (Tube)		25 pieces/tube	25 pieces/tube

Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$