FUNCTION TABLE

Operating Mode	Inputs						Outputs	
	CP	U/$\overline{D}$	$\overline{CEP}$	$\overline{CET}$	$\overline{PE}$	P_n	Q_n	$\overline{TC}$
Parallel Load	↑	X	X	X	l	l	L	(a)
	↑	X	X	X	l	h	H	(a)
Count Up	↑	h	l	l	h	X	Count Up	(a)
Count Down	↑	l	l	l	h	X	Count Down	(a)
Hold	↑	X	h	X	h	X	q_n	(a)
Do Nothing	↑	X	X	h	h	X	q_n	H

H = HIGH voltage level steady state
h = HIGH voltage level one set-up time prior to the LOW-to-HIGH clock transition
L = LOW voltage level steady state
l = LOW voltage level one set-up time prior to the LOW-to-HIGH clock transition
X = Don't care
q = Lower case letters indicate the state of the referenced output prior to the LOW-to-HIGH clock transition
↑ = LOW-to-HIGH clock transition
(a) = The $\overline{TC}$ is LOW when $\overline{CET}$ is LOW and the counter is at Terminal Count. Terminal Count Up is with all Q_n outputs HIGH and Terminal Count Down is with all Q_n outputs LOW.

DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE (Unless otherwise specified)

Symbol	Parameter		Limits Min	Limits Typ	Limits Max	Unit	Test Conditions	
V_{OH}	Output HIGH Voltage	74	2.5			V	I_{OH} = −1.0 mA	V_{CC} = 4.5 V
			2.7	3.4				V_{CC} = 4.75 V
V_{OL}	Output LOW Voltage	74		0.35	0.5	V	I_{OL} = 20 mA, V_{CC} = 4.5 V	
V_{IK}	Input Clamp Diode Voltage				−1.2	V	V_{CC} = MIN, I_{IN} = −18 mA	
I_{IH}	Input HIGH Current				100	μA	V_{CC} = MAX	V_{IN} = 7.0 V
					20			V_{IN} = 2.7 V
I_{IL}	Input LOW Current				−0.6	mA	V_{CC} = MAX, V_{IN} = 0.5 V	
I_{OS}	Output Short Circuit Current (Note 2)		−60		−150	mA	V_{CC} = MAX, V_{OUT} = 0 V	
I_{CC}	Total Supply Current (total)	I_{CCH}		93	120	mA	V_{CC} = MAX	(Note 3)
		I_{CCL}		98	125			(Note 4)

NOTES:
1. For conditions shown as MIN or MAX, use the appropriate value specified under guaranteed operating conditions for the applicable device type.
2. Not more than one output should be shorted at a time, nor for more than 1 second.
3. $\overline{PE}$ = $\overline{CET}$ = $\overline{CEP}$ = U/$\overline{D}$ = GND: P_n = 4.5 V: CP = ↑
4. $\overline{PE}$ = $\overline{CET}$ = $\overline{CEP}$ = U/$\overline{D}$ = GND: CP = ↑

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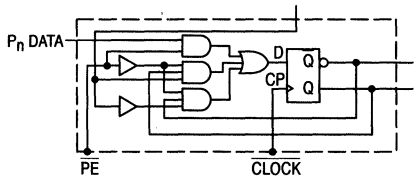
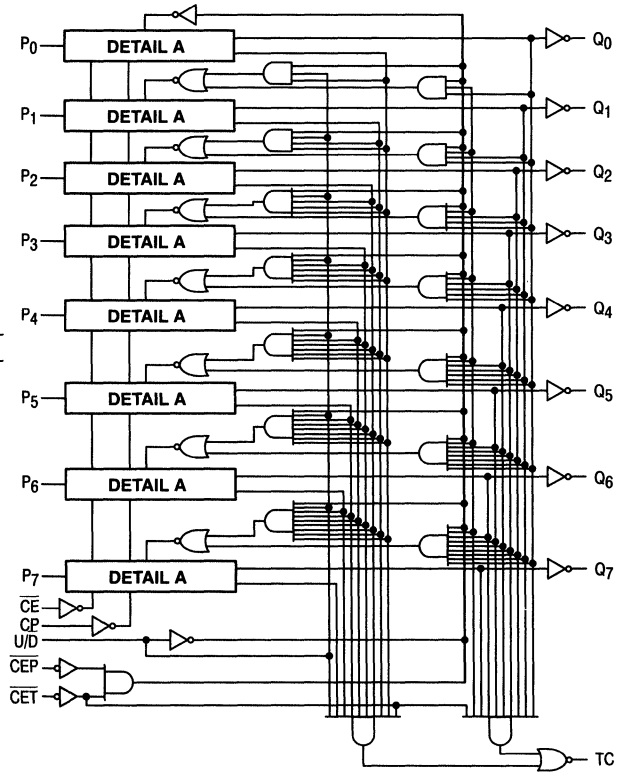
LOGIC DIAGRAM





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