Digital System Design

Module 4 - SEQUENTIAL LOGIC CIRCUITS

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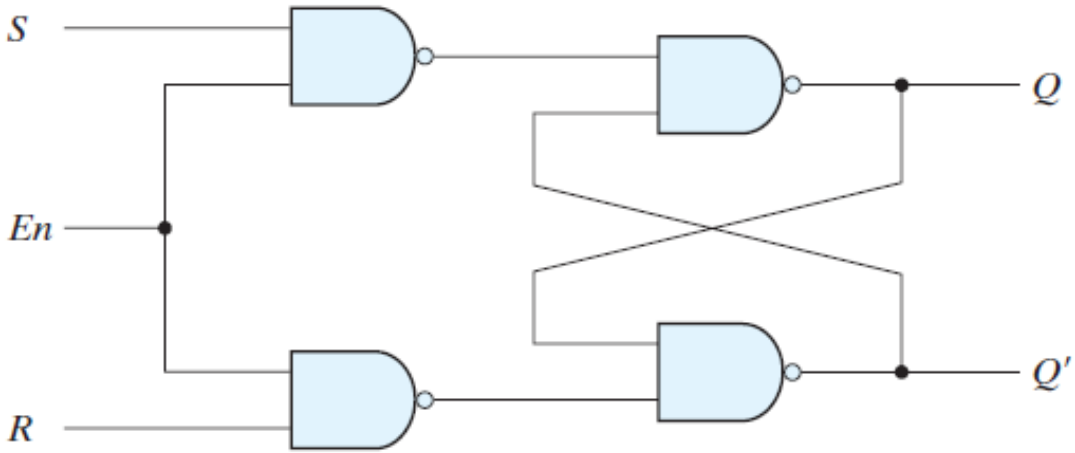
SR Latch



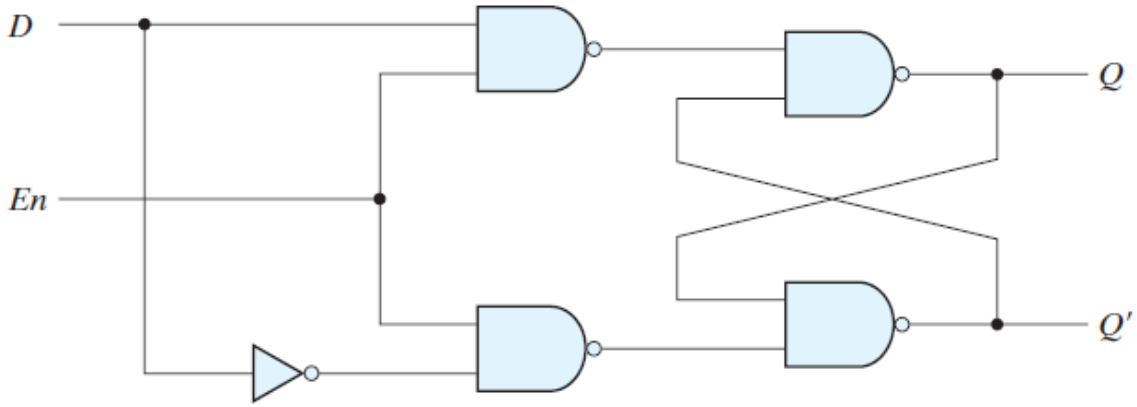
(a) Logic diagram

En	*S*	*R*	Next state of *Q*
0	X	X	No change
1	0	0	No change
1	0	1	$Q = 0$; reset state
1	1	0	$Q = 1$; set state
1	1	1	Indeterminate

(b) Function table

SR latch with control input

D Latch (Transparent Latch)



(a) Logic diagram

En	*D*	Next state of *Q*
0	X	No change
1	0	$Q = 0$; reset state
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(b) Function table