

MSB

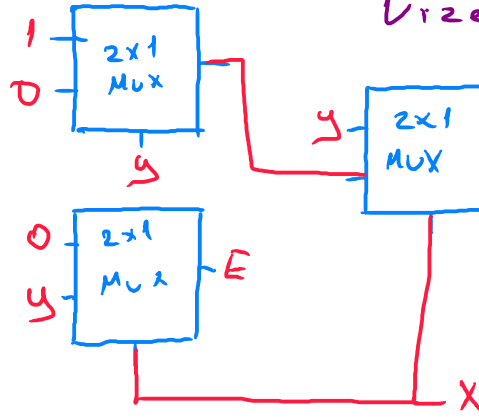
Ş.T.

x	y	T	E
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

3 tane 2x1 mux

kullanarak yarı top-
layıcıyı gerçekleştiririz.

x
y
→ 0
→ 1



Örnek finalde
2 tip sonuçlar
gelebilir

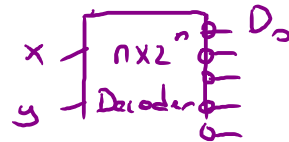
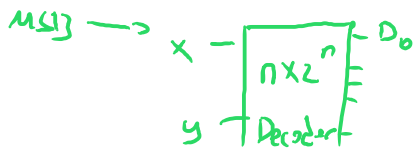
A) kod çözücü (Decoder)

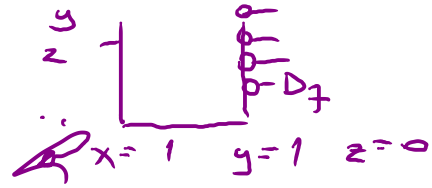
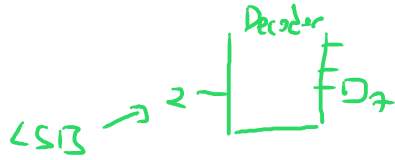
n bitlik girişimiz var 1 girişli atlıf
ediyor.

n=3

x	y	z	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
0	0	0	0	0	0	0	0	0	0	1
1	1	0	0	1	0	0	0	0	0	0

Tümleyen çıkışı





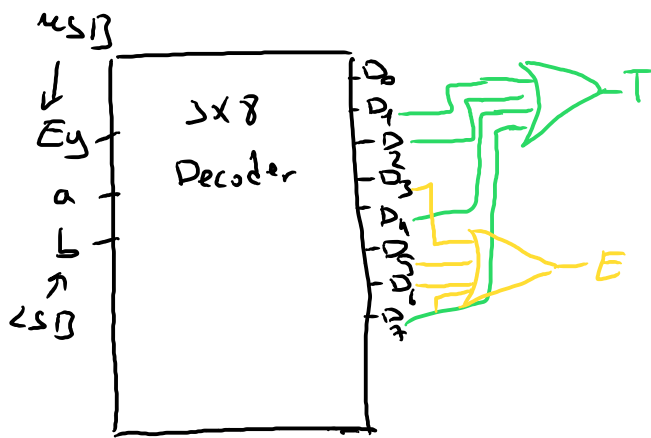
$$D_0=1 \dots D_6=0 \dots D_7=1$$

T.T. kod gözeticü ile tasarlan.

a	b	E _y	T	E
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

$$T(E_y, a, b) = \sum(1, 2, 4, 7)$$

$$E(E_y, a, b) = \sum(3, 5, 6, 7)$$



5) Kodlayıcılar (Encoder)



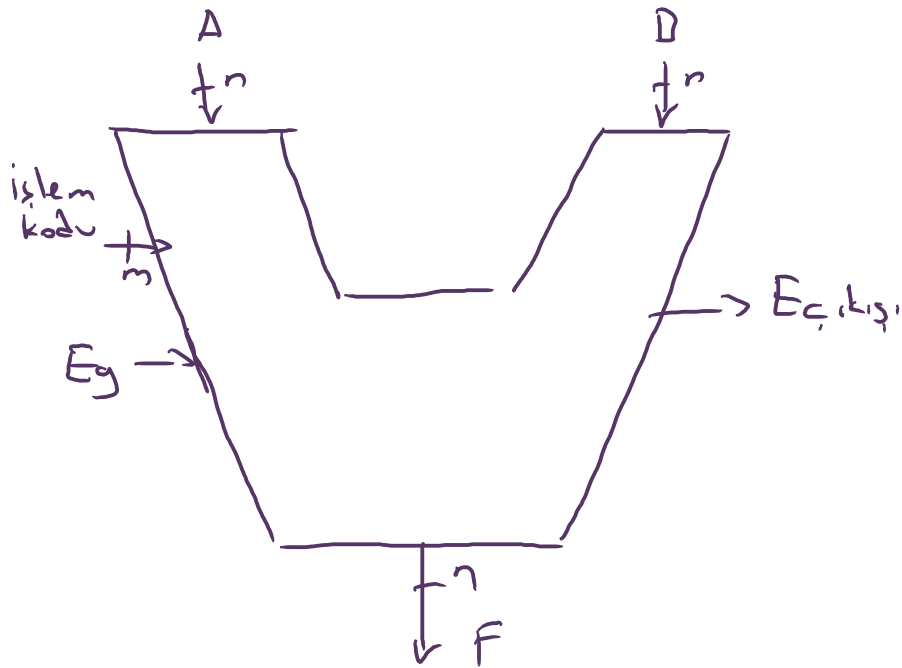
MSB	Girişler	LSB	Çıkışlar
	I ₃ I ₂ I ₁ I ₀		D ₁ D ₂ Ready

$\Sigma_{i=1}^n$ - \rightarrow Ready

$\emptyset \rightarrow$ önemsi 2

0	0	0	0	\emptyset	\emptyset	0
0	0	0	1	0	0	1
0	0	1	\emptyset	0	1	1
0	1	\emptyset	\emptyset	1	0	1
1	\emptyset	\emptyset	\emptyset	1	1	1

6) ALU (Aritmetik Logic Unit)



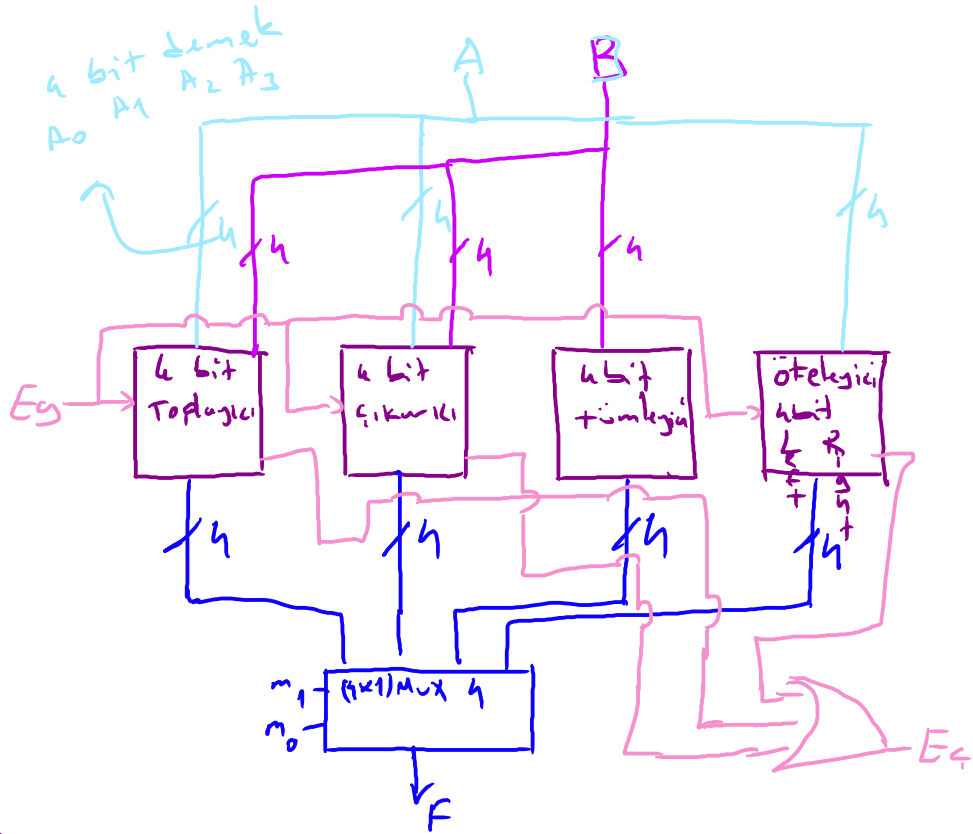
20 bit 2 giriş

② $\rightarrow E_g, E_c$

① sonuç

④ işlem sayısı

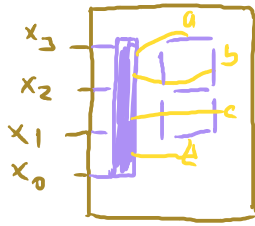
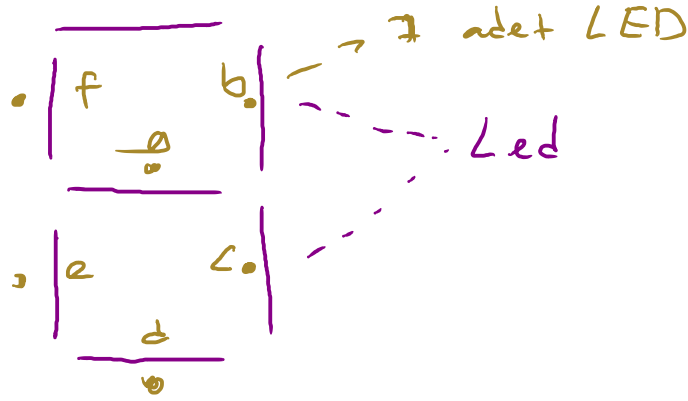
m_1	m_0	işlem	Açıklama
0	0	$F = A + B$	$A + B$
0	1	$F = A - B$	$A - B$
1	0	$F = \overline{B}$	B'nin tümleyeni
1	1	$F = A_{1sö}$	A 1bit sağa ötelenir ↳ sağa ötelenir.



7-Segment Display

• a

7 adet LED



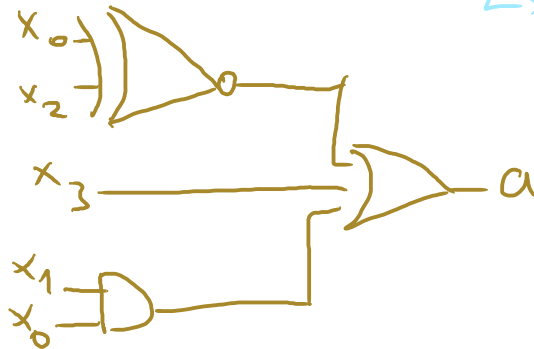
x_3	x_2	x_1	x_0	a	b	c	d	e	f	g
0	0	0	0	1	1	1	1	1	1	0
0	0	0	1	0	1	1	0	0	0	0
0	1	1	1	1	1	1	0	0	0	0
1	0	0	0	1	1	1	1	1	1	1
1	0	0	1	1	1	1	0	0	1	1
1	0	1	0	0	0	0	0	0	0	0

a için

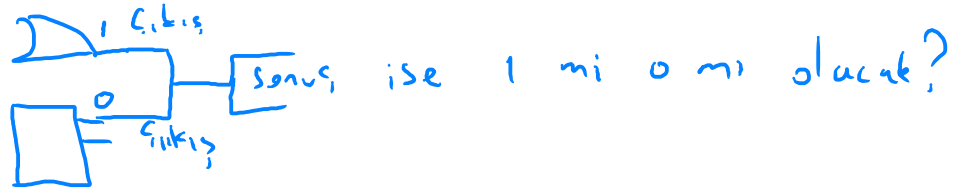
$x_1 x_0$	00	01	11	10
$x_3 x_2$	00	1	0	1
01	0	0	1	1
11	0	0	0	0
10	1	1	0	0

$x_1 x_0$
 $x_2 x_0$
 x_3
 $x_2' x_0'$

$$a = x_3 + x_2 x_0 + x_2' x_0' + x_1 x_0$$



Not: Çıkışlar birbirine bağlanmaz.

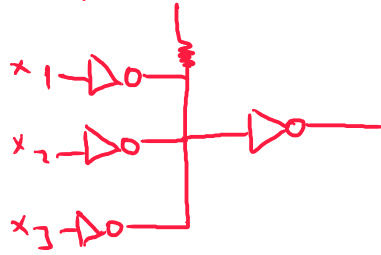


Bu sonucu Bufferlar Gözer.

Tri state

Üç durum

② Açık kolektörlü yapılar



Bölüm 8'den devam
ediyoruz kitaptan artık yazmıyorum

