

Sistemas Digitales

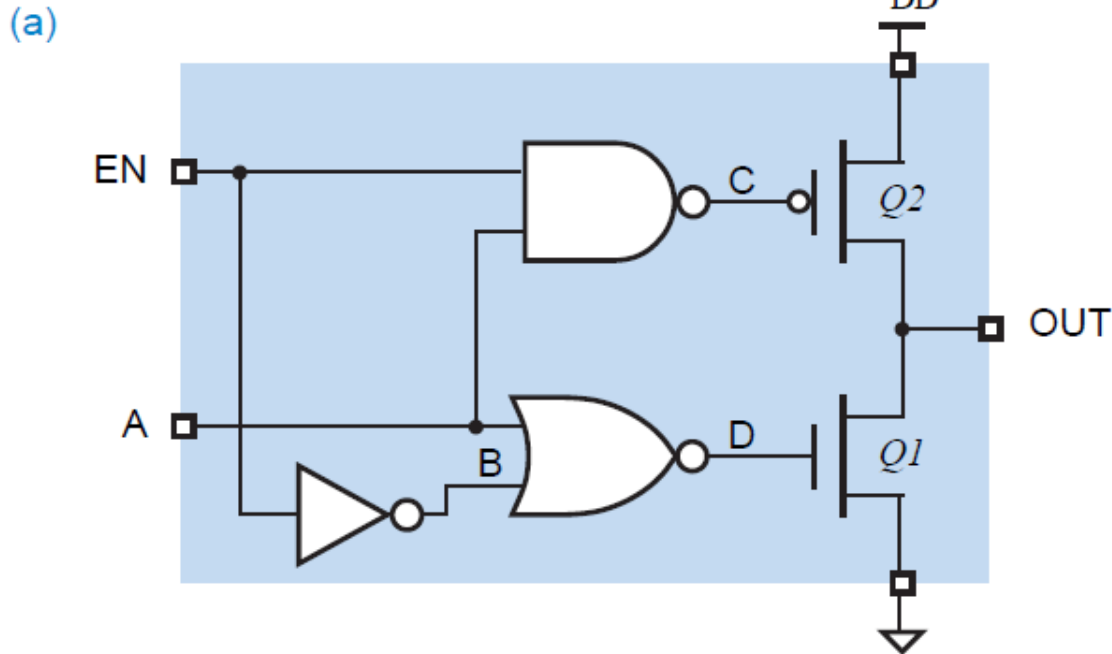
3 Edo / Multiplexores / Demultiplexores

Prof. Luis Araujo

Escuela de Ingeniería Eléctrica

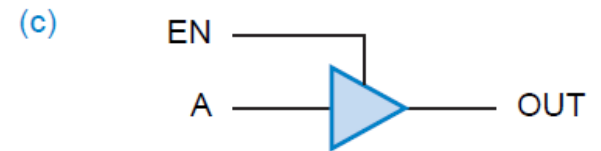


Buffer de Tres Estados

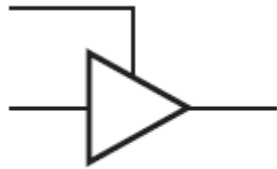


(b)

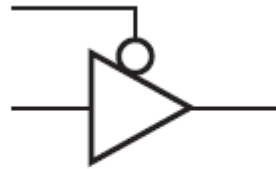
EN	A	B	C	D	$Q1$	$Q2$	OUT
L	L	H	H	L	off	off	Hi-Z
L	H	H	H	L	off	off	Hi-Z
H	L	L	H	H	on	off	L
H	H	L	L	L	off	on	H



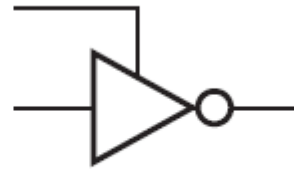
Buffer de Tres Estados



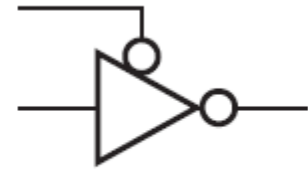
(a)



(b)



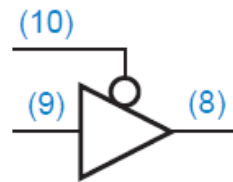
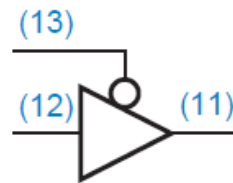
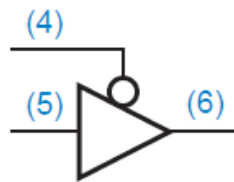
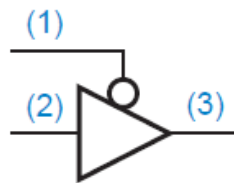
(c)



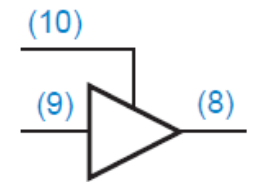
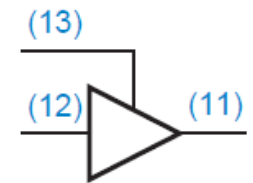
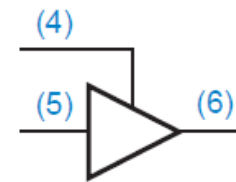
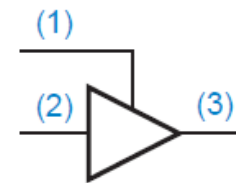
(d)

Comerciales

74x125

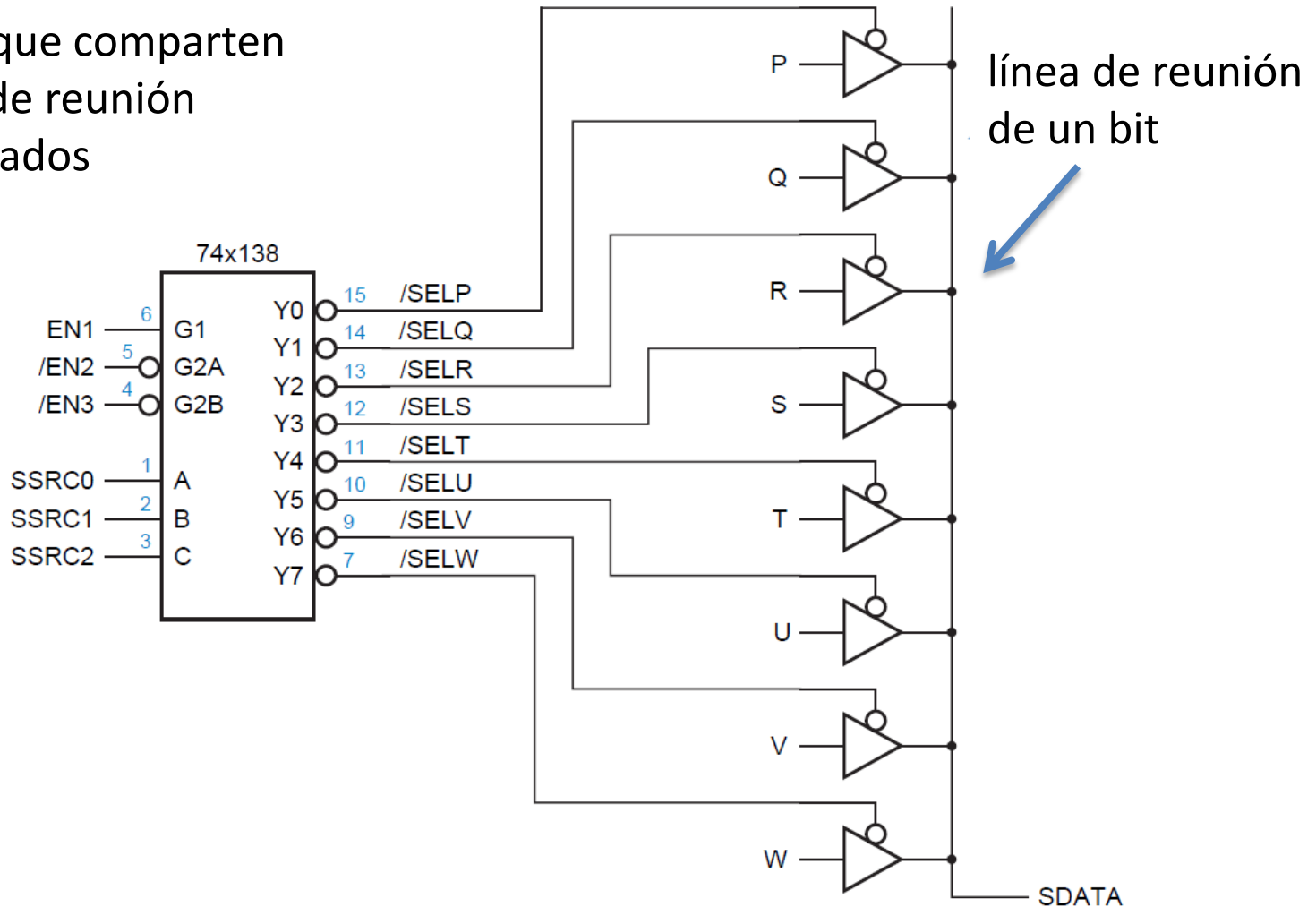


74x126

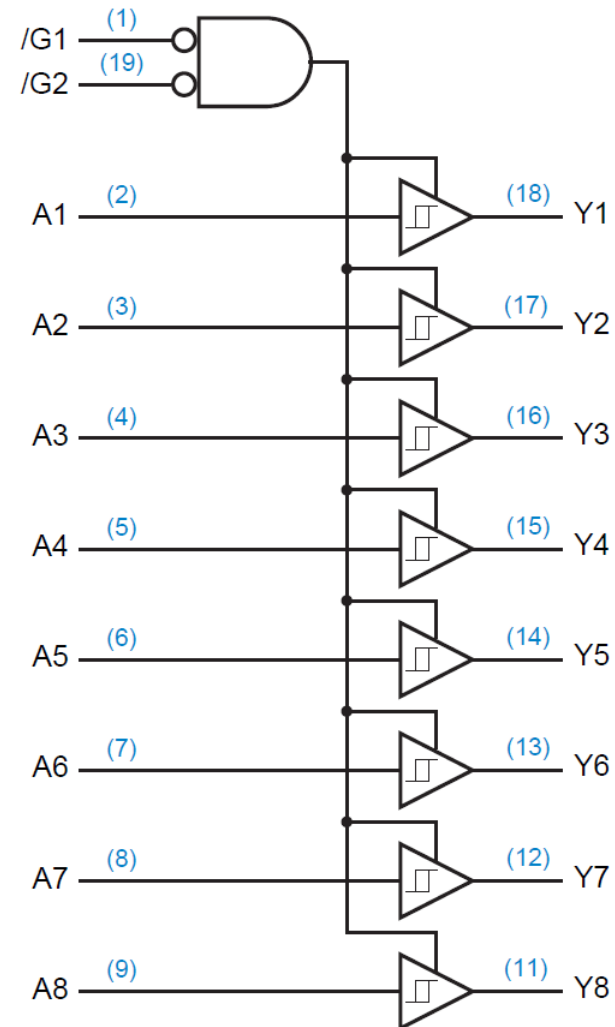
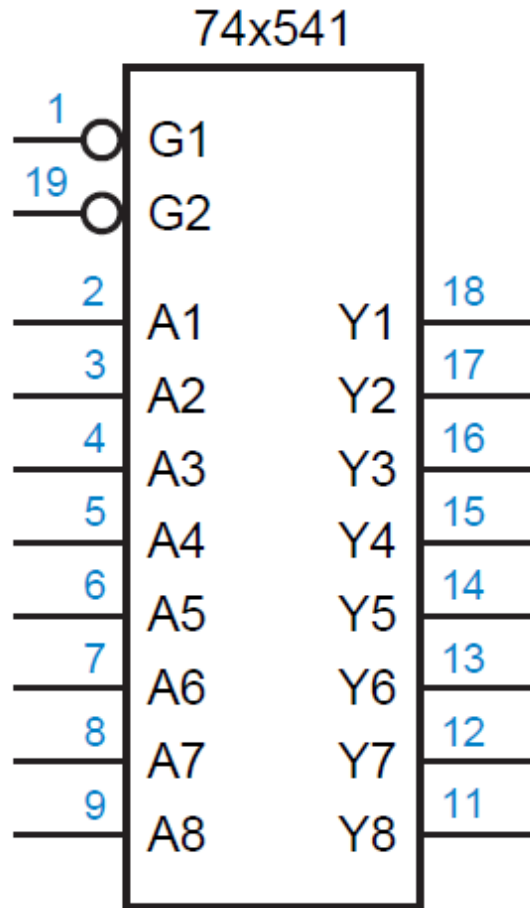


Buffer de Tres Estados

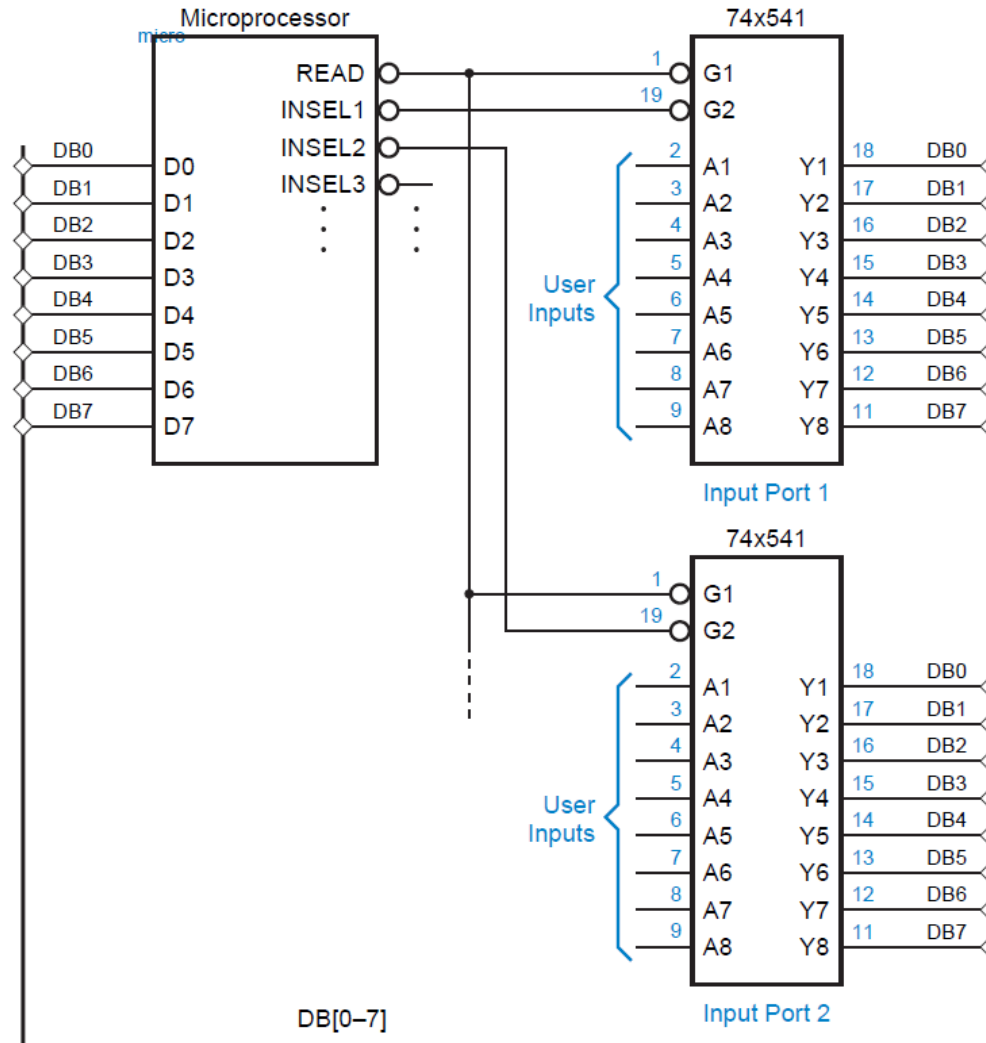
8 fuentes que comparten una línea de reunión de tres estados



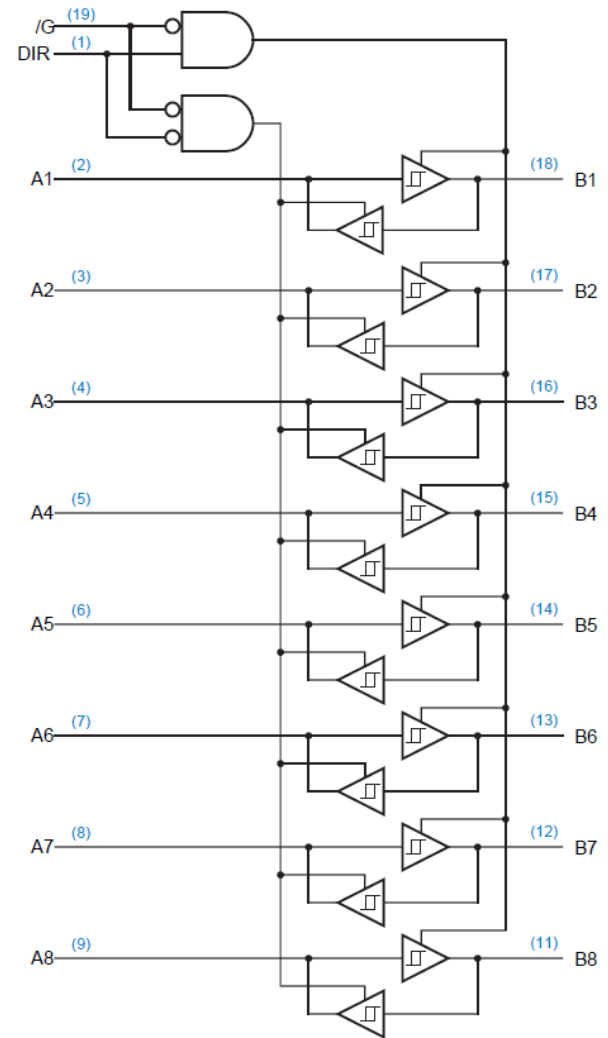
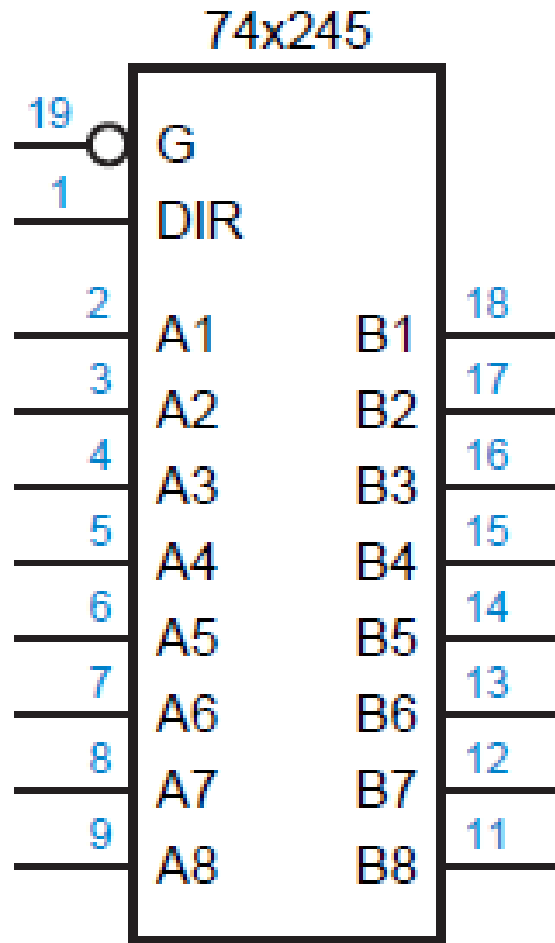
Buffer de Tres Estados



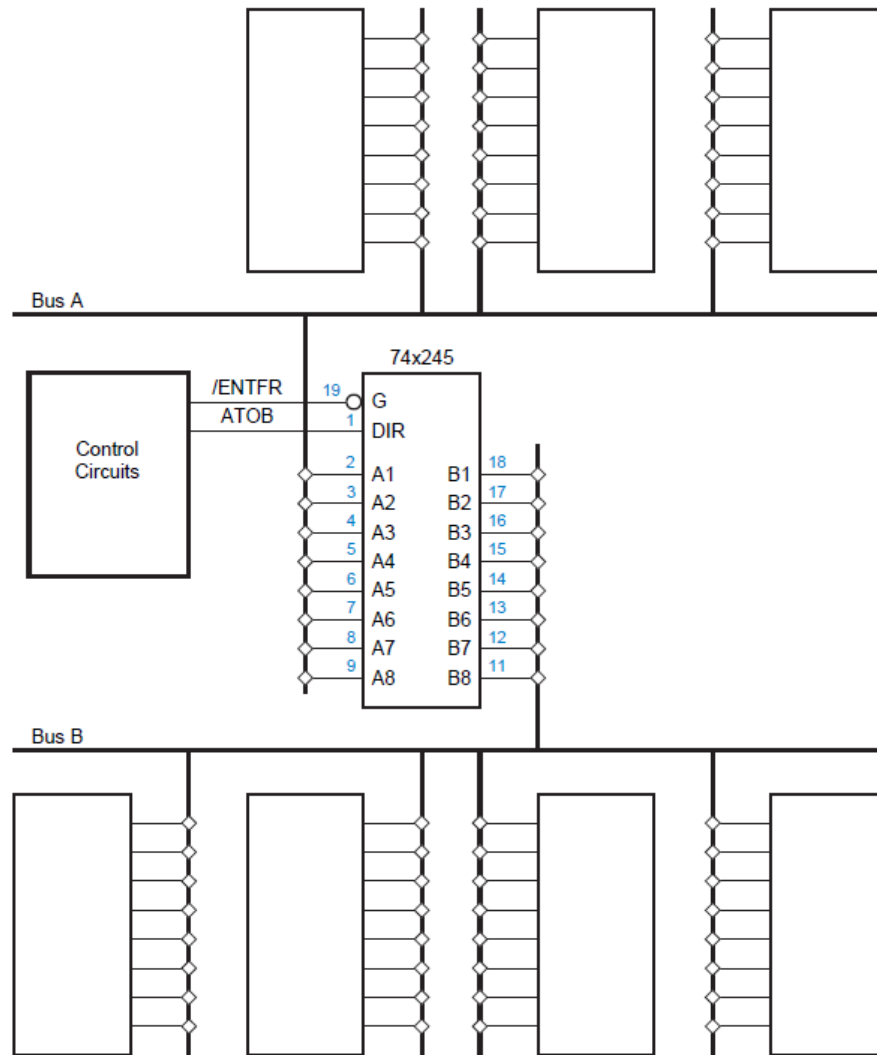
Buffer de Tres Estados



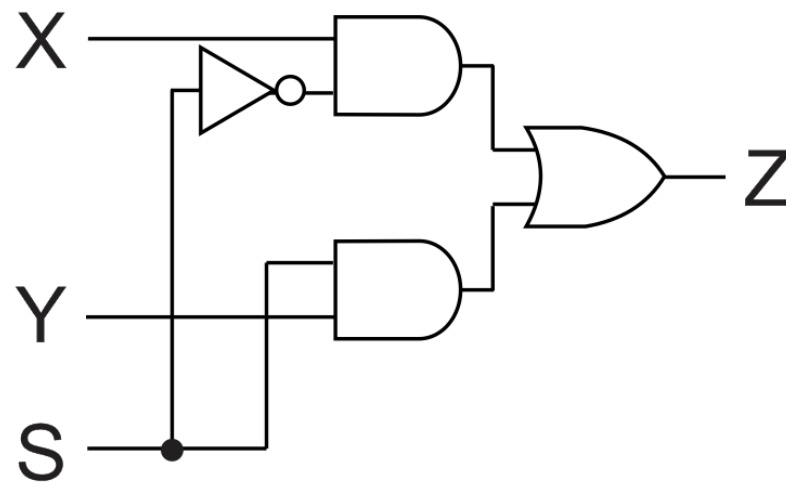
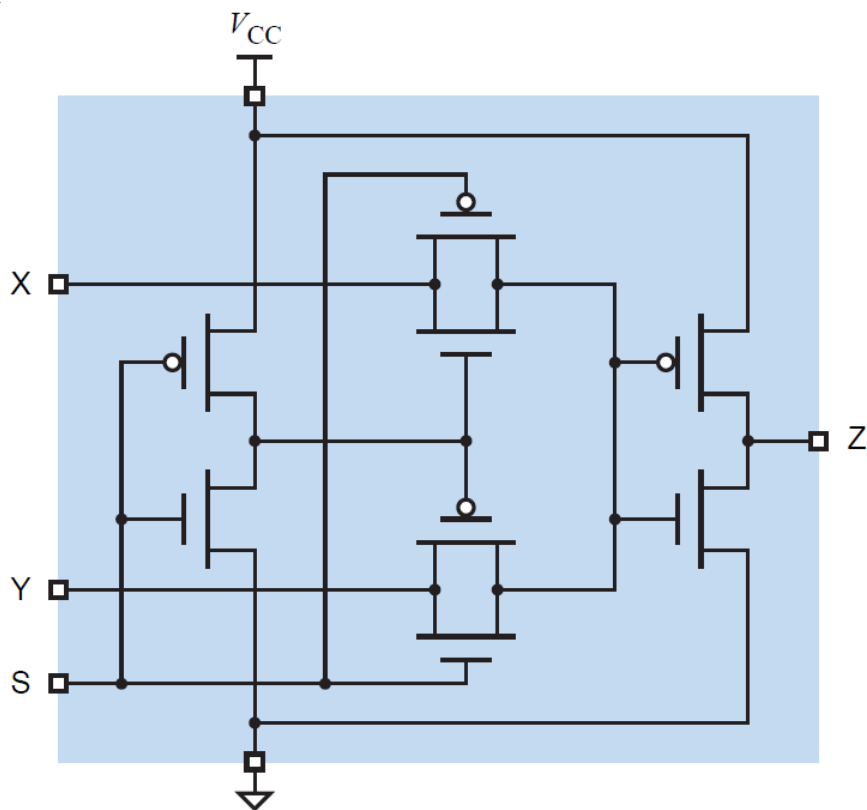
Buffer de Tres Estados



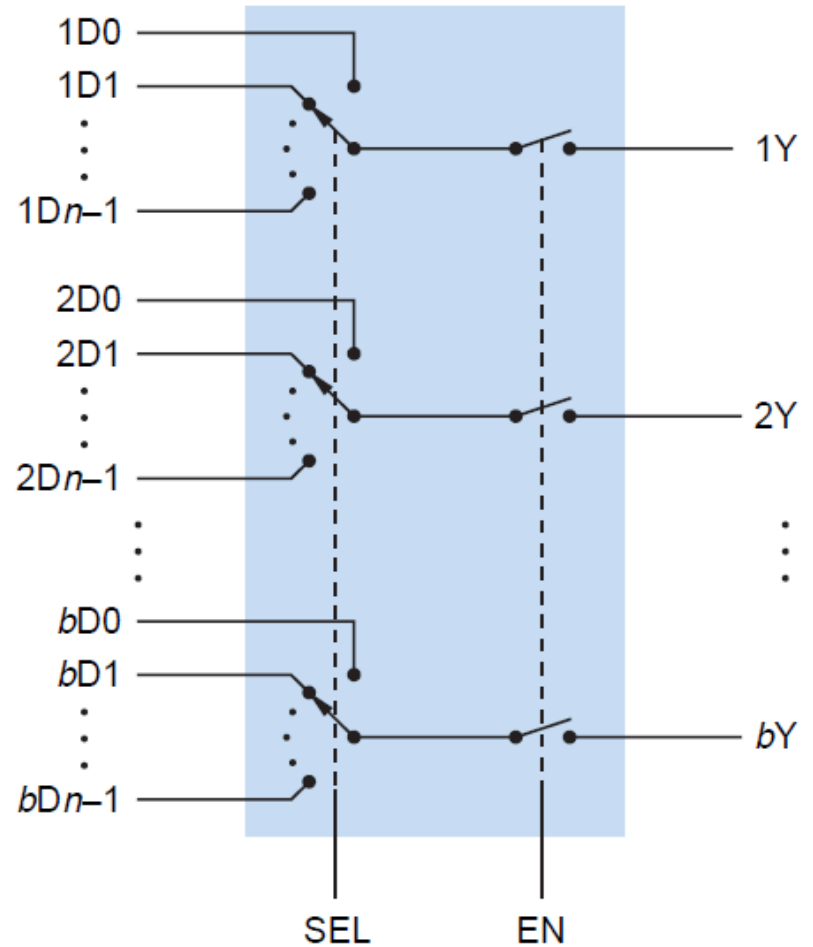
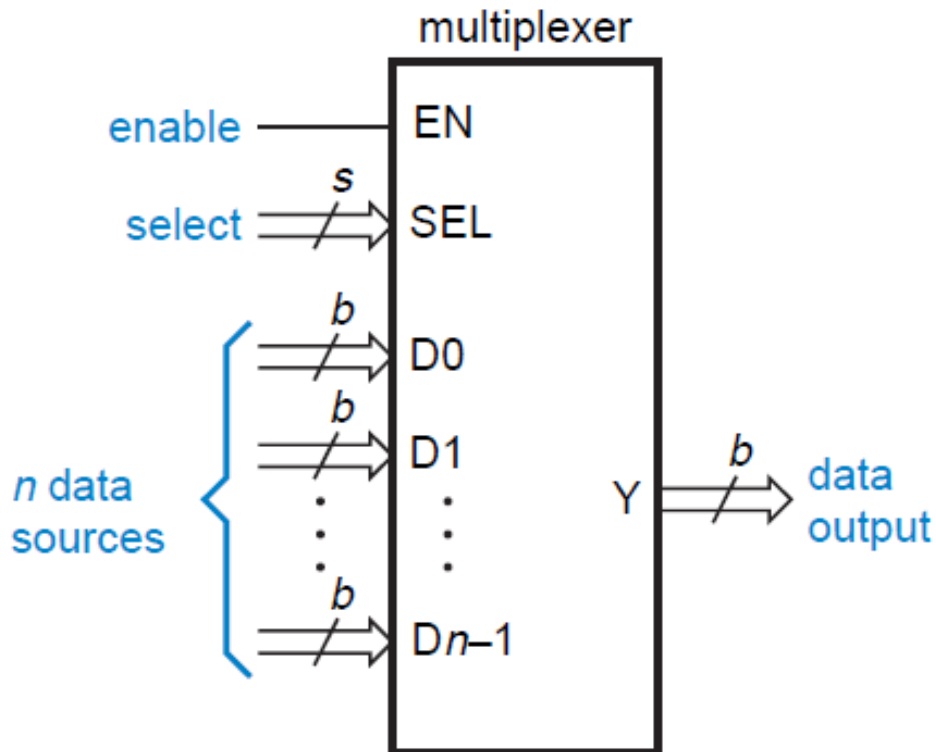
Buffer de Tres Estados



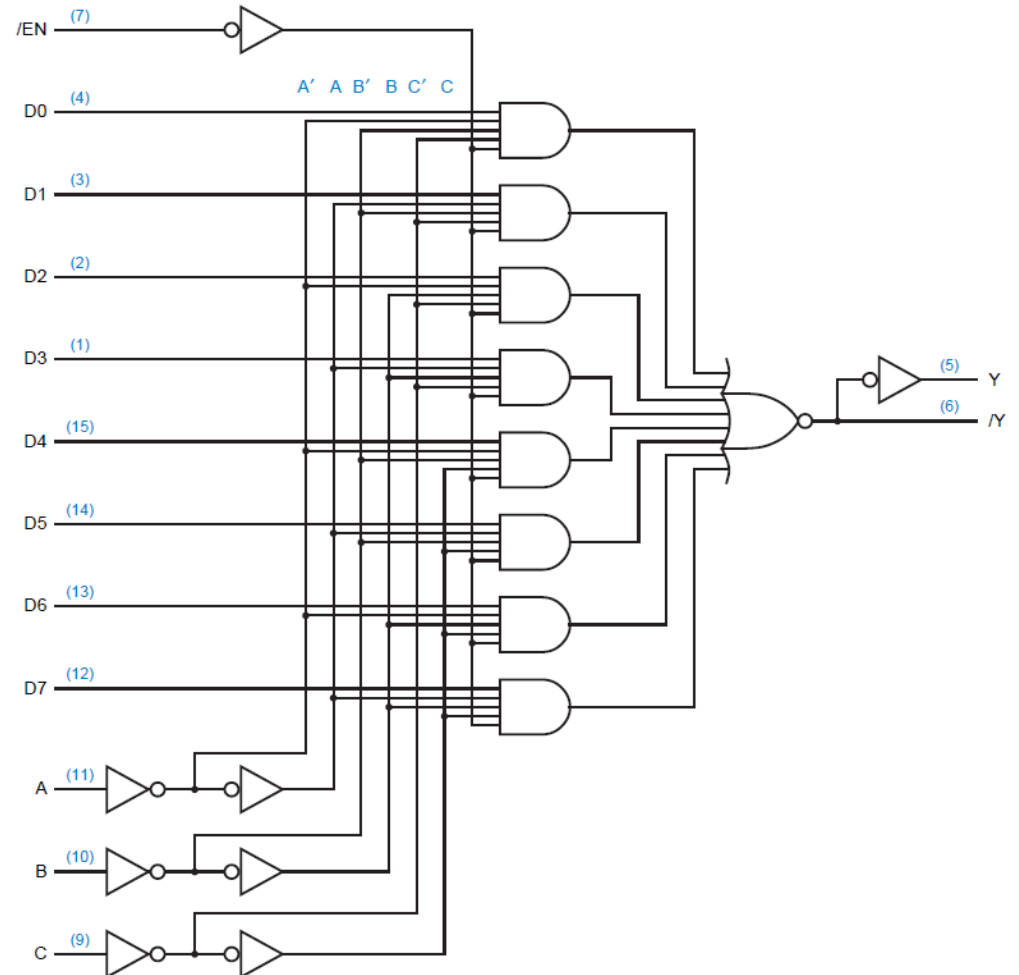
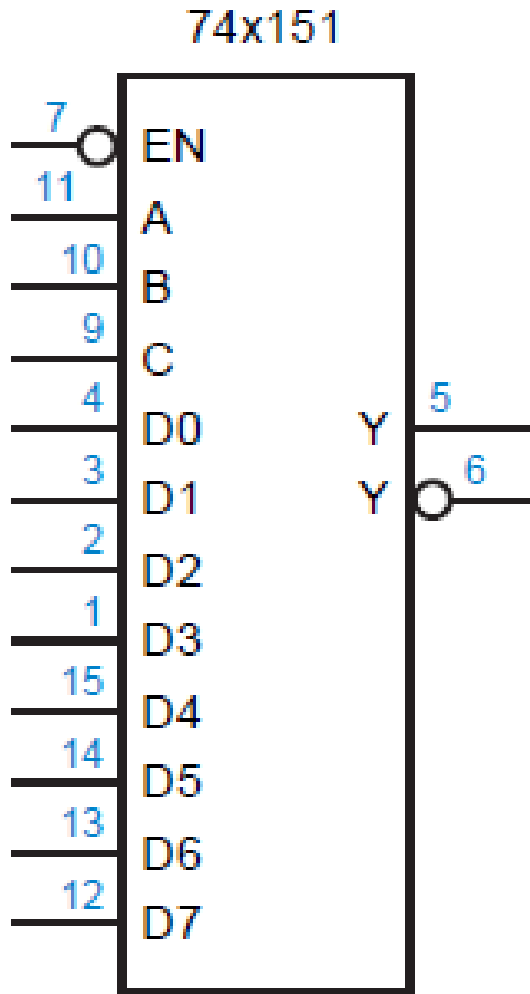
Multiplexores



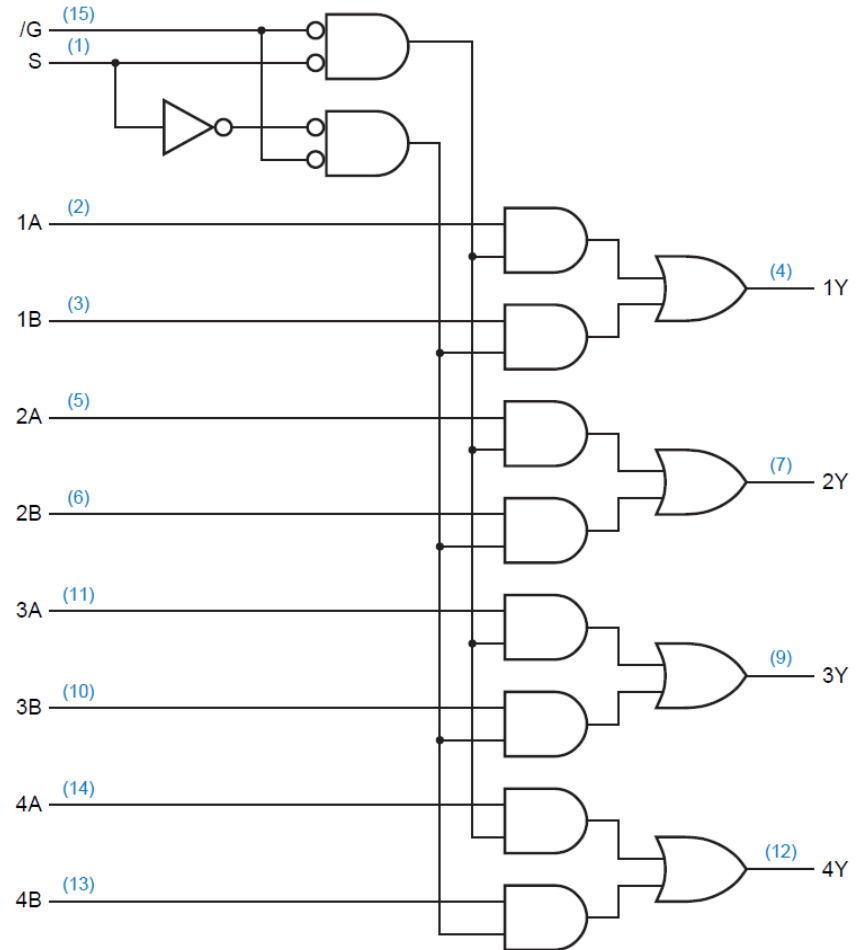
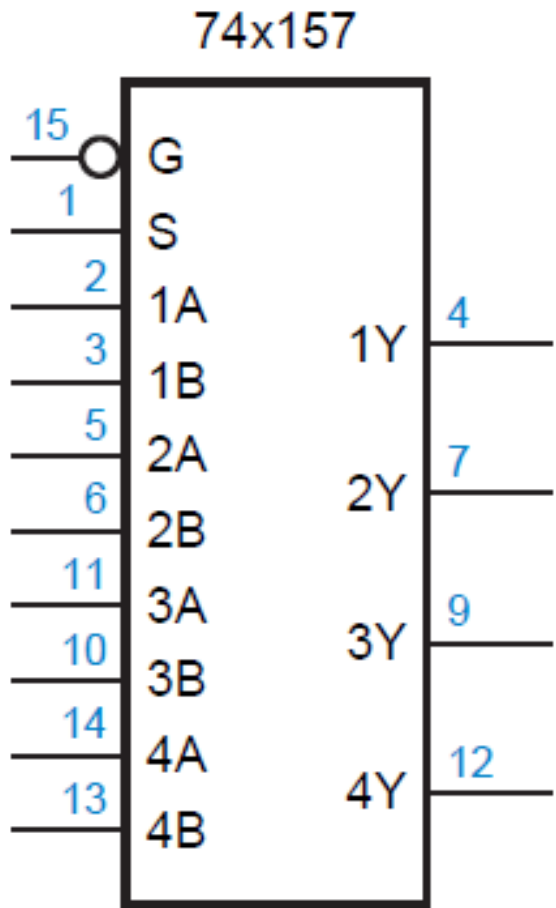
Multiplexores



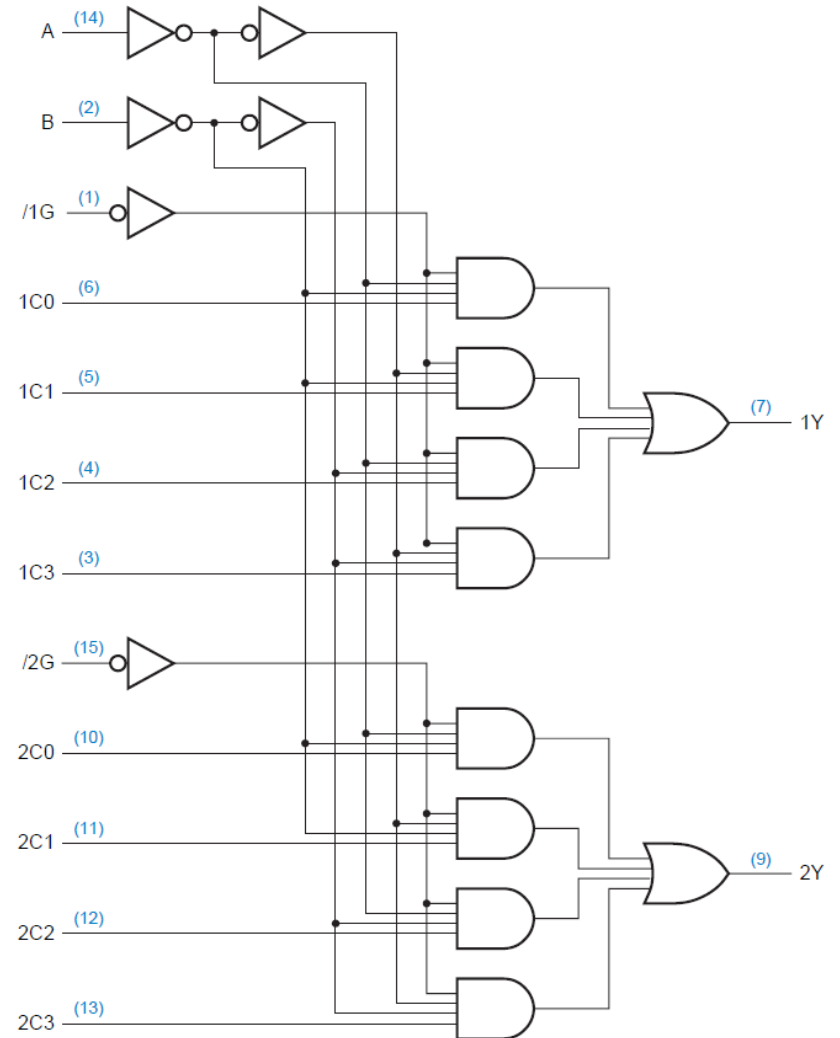
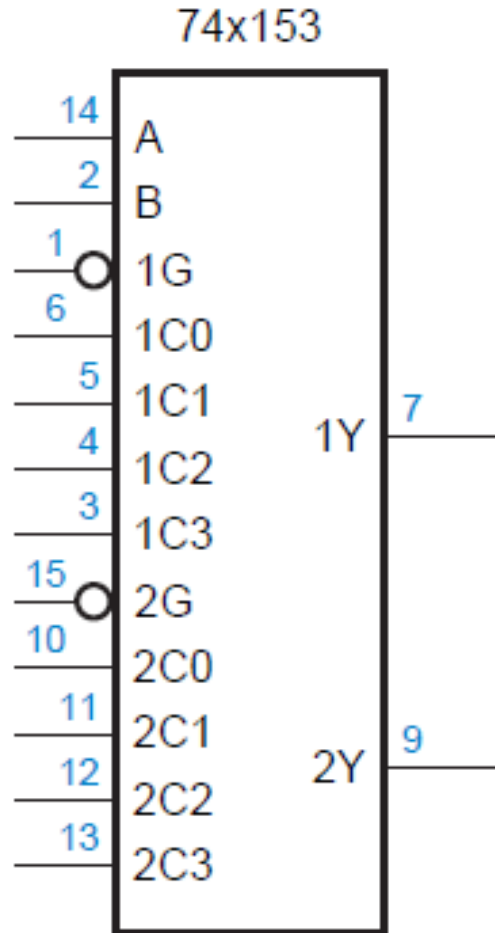
Multiplexores



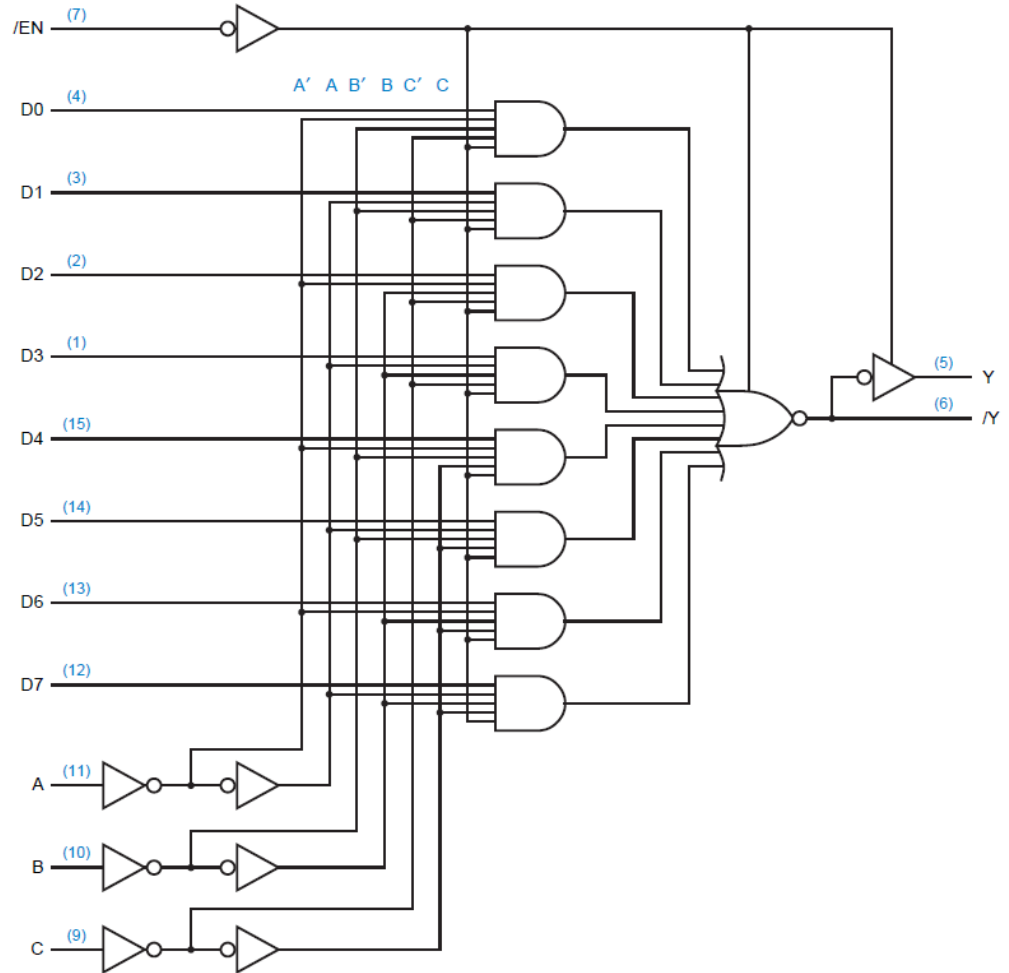
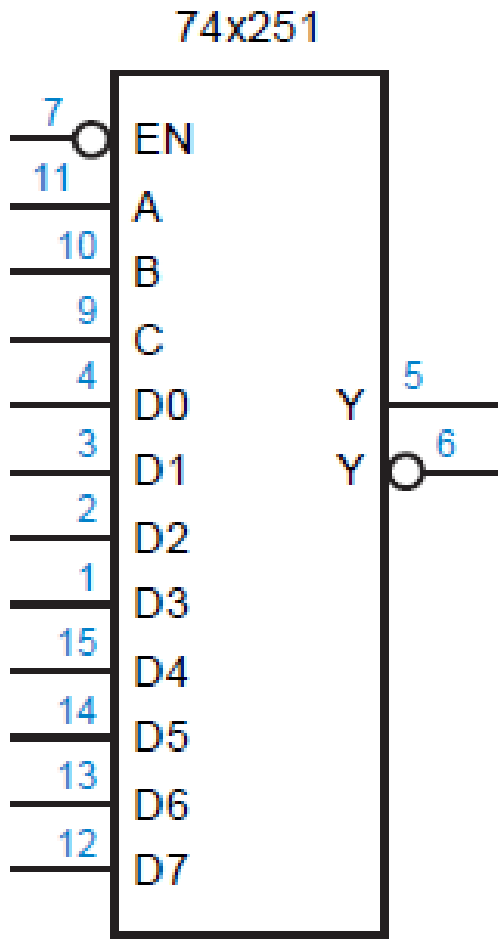
Multiplexores



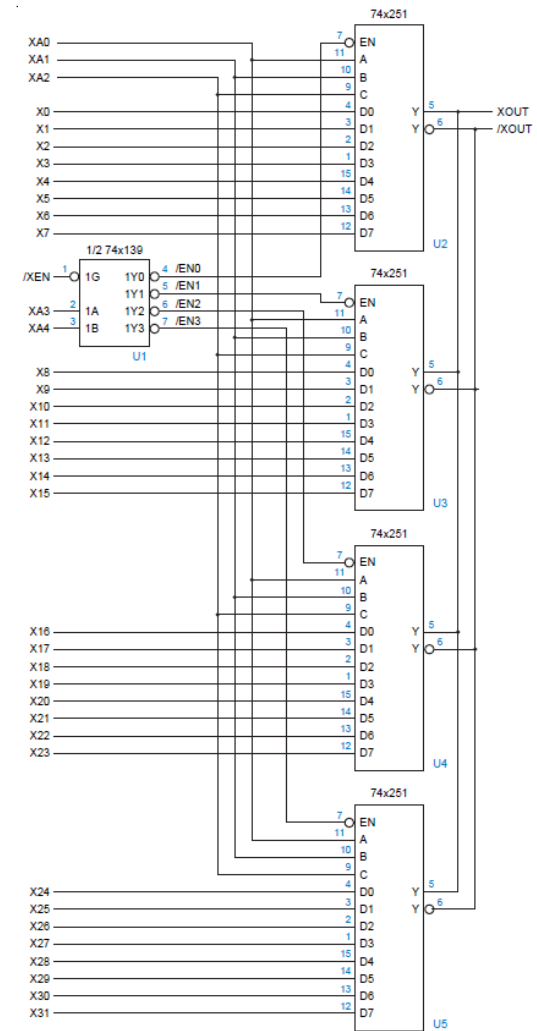
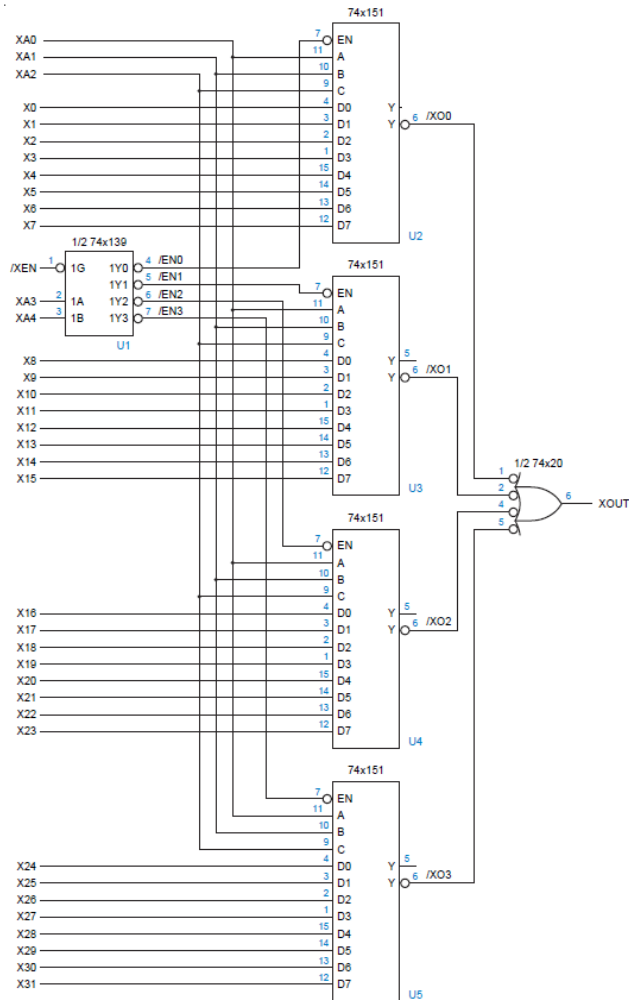
Multiplexores



Multiplexores

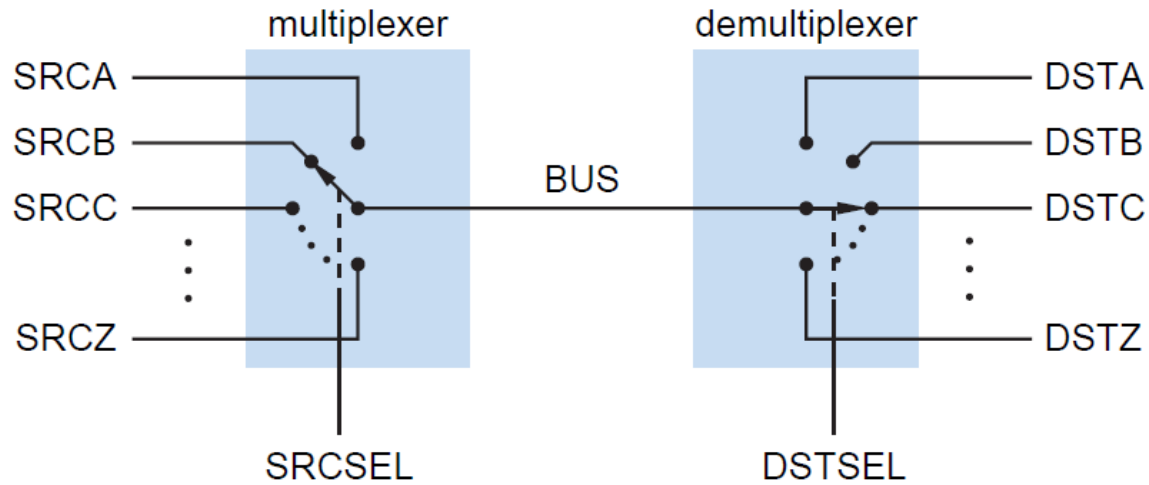


Expansión de Multiplexores

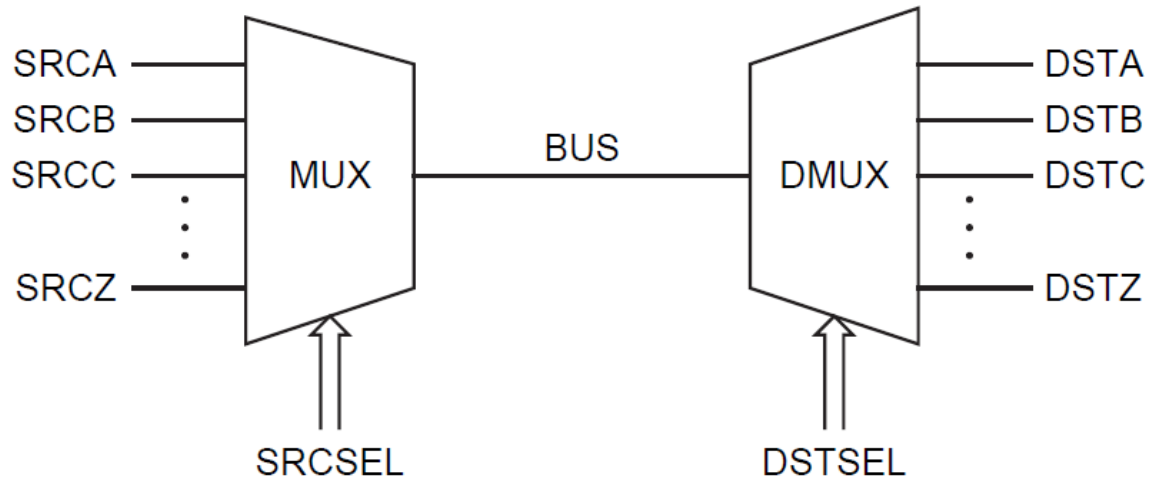


Demultiplexores

(a)

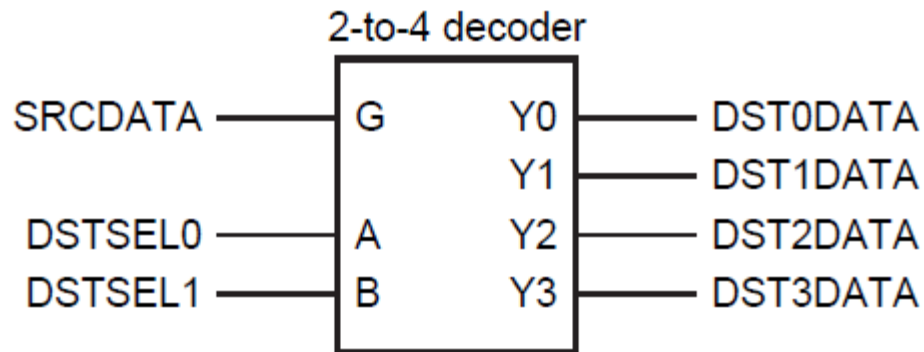


(b)

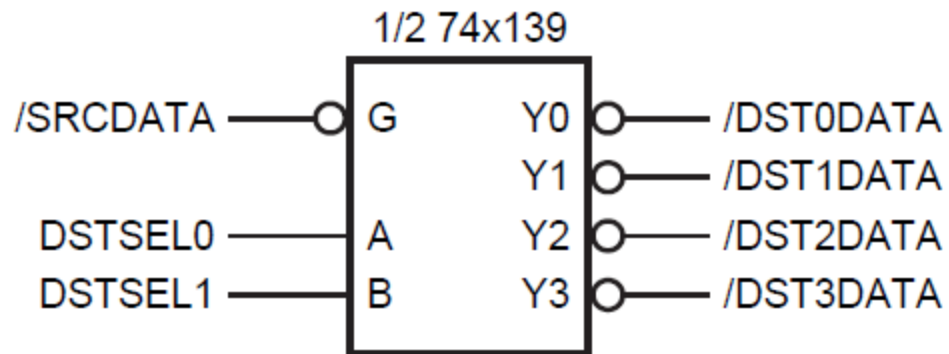


Demultiplexores

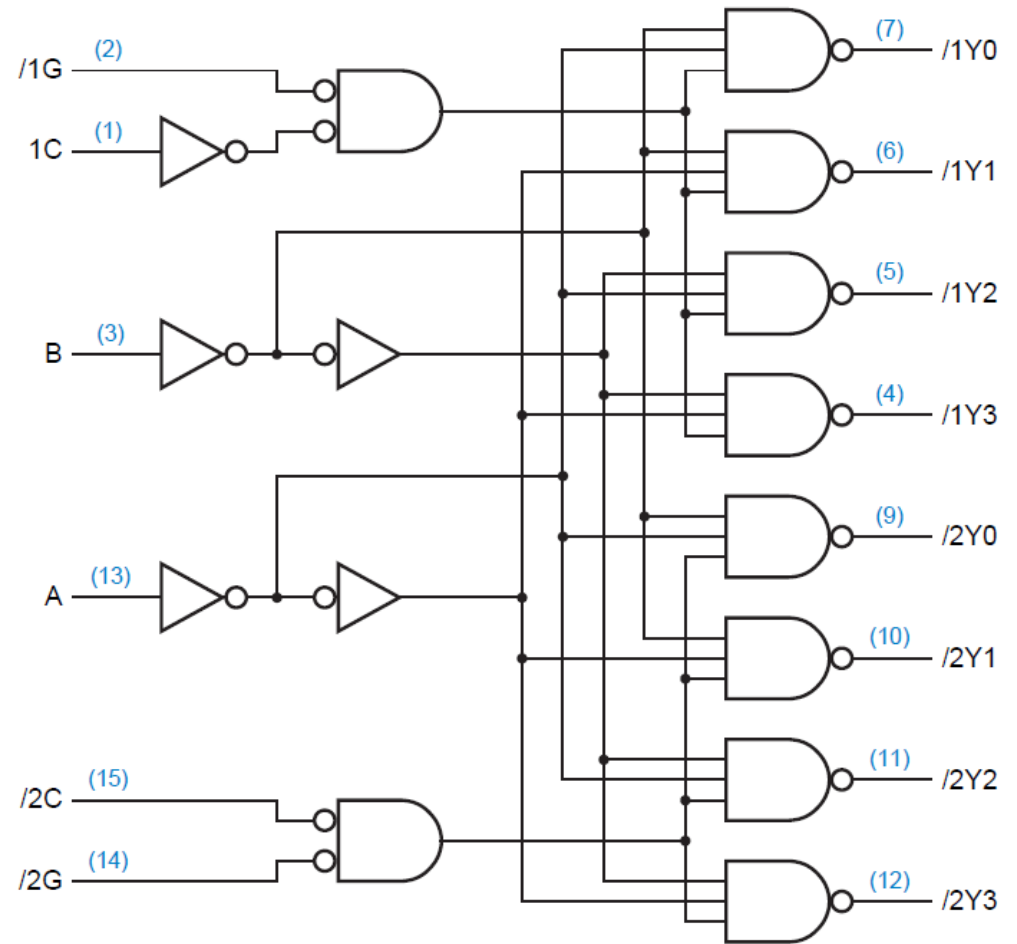
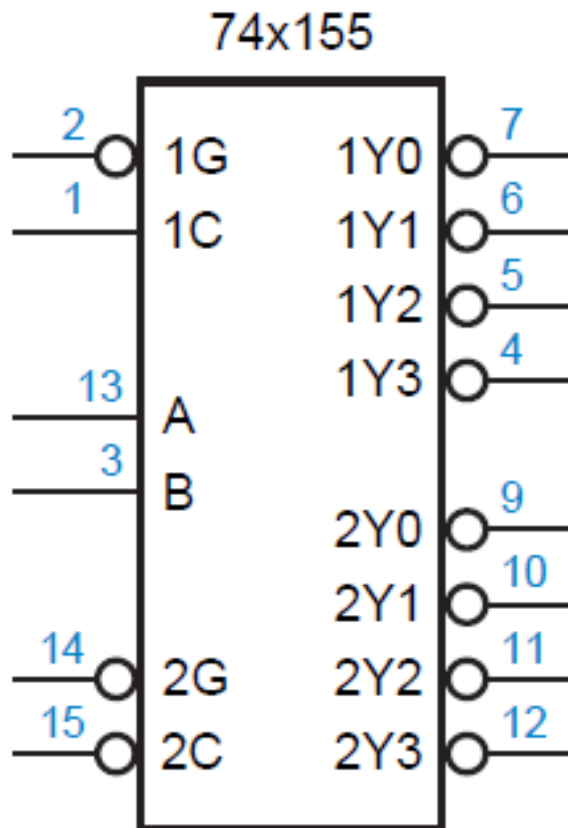
(a)



(b)

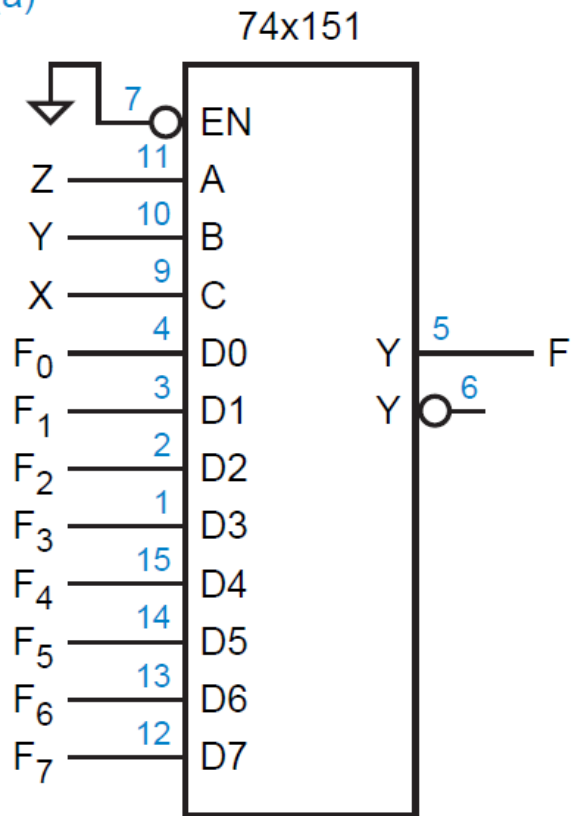


Demultiplexores

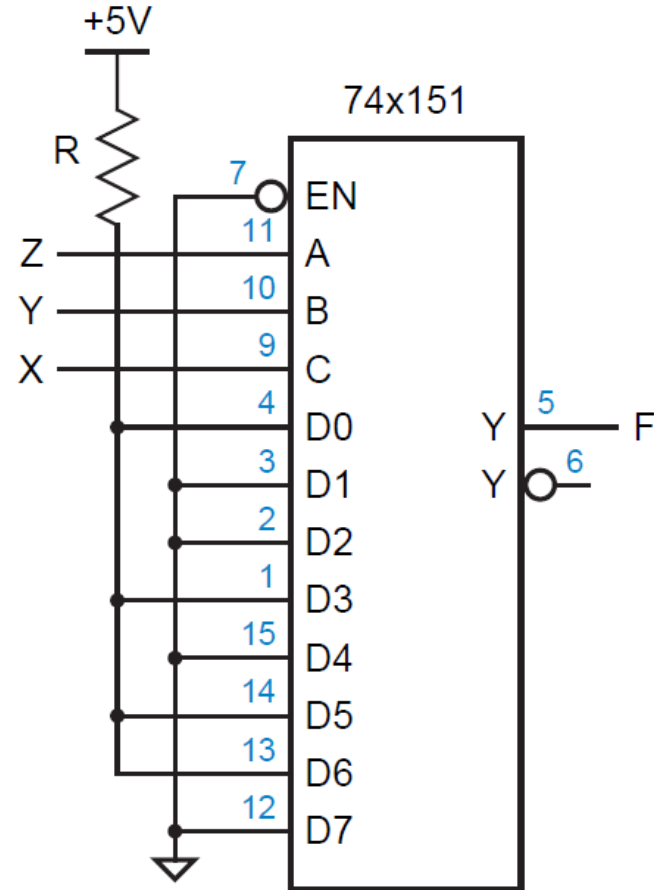


Funciones con Multiplexores

(a)



(b)



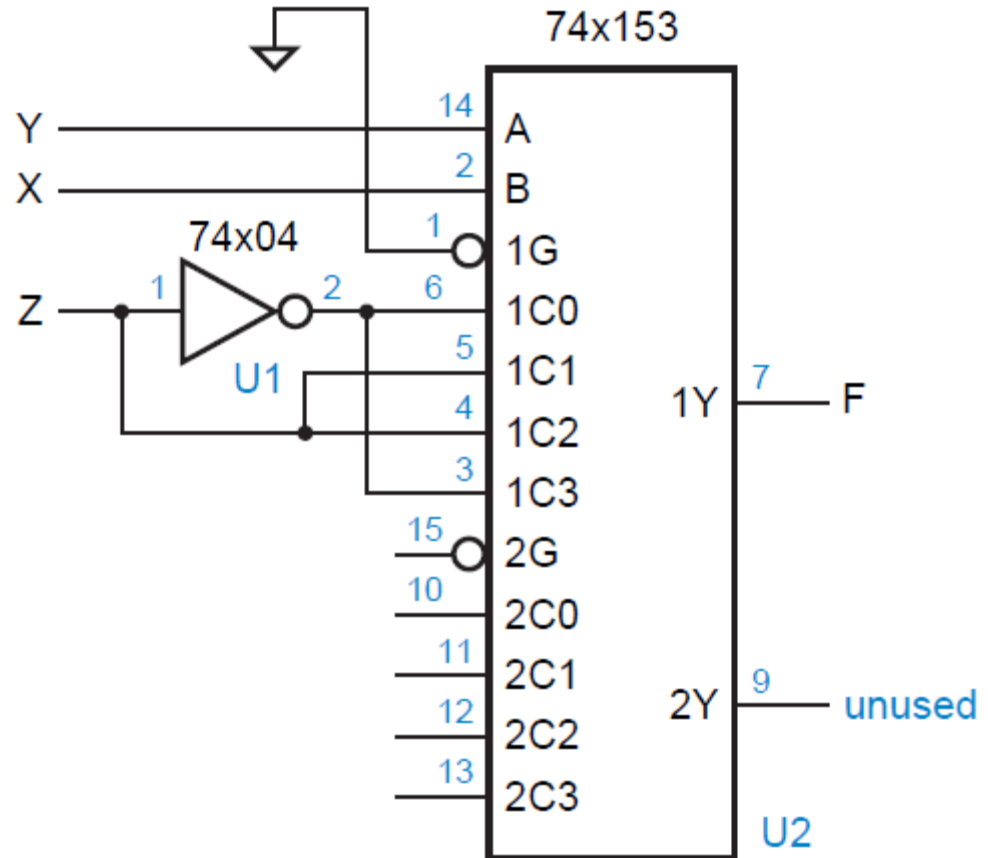
$$F = \sum_{X,Y,Z} (0,3,5,6)$$

Funciones con Multiplexores

$$F = \sum_{X,Y,Z} (0,3,5,6)$$

Row	X	Y	Z	F
0	0	0	0	1
1	0	0	1	0
2	0	1	0	0
3	0	1	1	1
4	1	0	0	0
5	1	0	1	1
6	1	1	0	1
7	1	1	1	0

} Z'
 } Z
 } Z
 } Z'



Funciones con Multiplexores

$$F = \sum_{N_3, N_2, N_1, N_0} (1, 2, 3, 5, 7, 11, 13)$$

Row	N_3	N_2	N_1	N_0	F
0	0	0	0	0	0
1	0	0	0	1	1
2	0	0	1	0	1
3	0	0	1	1	1
4	0	1	0	0	0
5	0	1	0	1	1
6	0	1	1	0	0
7	0	1	1	1	1
8	1	0	0	0	0
9	1	0	0	1	0
10	1	0	1	0	0
11	1	0	1	1	1
12	1	1	0	0	0
13	1	1	0	1	1
14	1	1	1	0	0
15	1	1	1	1	0

