SN74HC4851N IC digital analog demultiplexer/multiplexer



Produktkode: 551aa
Tilgjengelighet: 3
Weight: 0.00kg
Custom Field 5 (Location): AB2

Pris: kr. 75,00

Kort beskrivelse

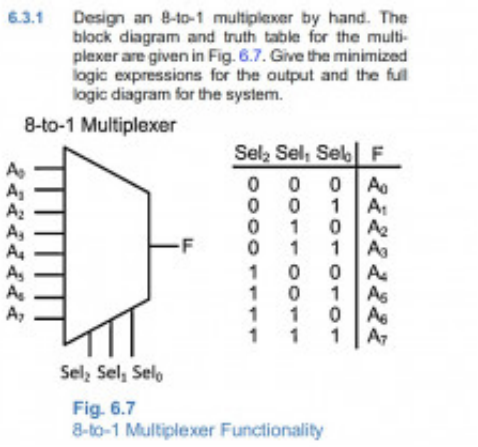
SN74HC4851N IC digital analog demultiplexer/multiplexer Inputs8 DIP16

Beskrivelse

Manual Vær oppmerksiom på at Enalbe-inngangen (E) er invertert!

Produktgalleri





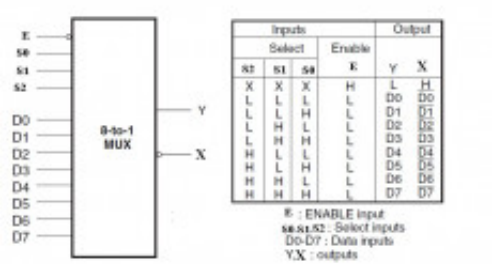
6.3.1 Design an 8-to-1 multiplexer by hand. The block diagram and truth table for the multiplexer are given in Fig. 6.7. Give the minimized logic expressions for the output and the full logic diagram for the system.

8-to-1 Multiplexer

A_0 A_1 A_2 A_3 A_4 A_5 A_6 A_7 — F — Sel_2 Sel_1 Sel_0

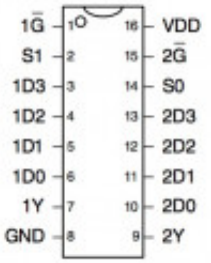
Sel_2	Sel_1	Sel_0	F
0	0	0	A_0
0	0	1	A_1
0	1	0	A_2
0	1	1	A_3
1	0	0	A_4
1	0	1	A_5
1	1	0	A_6
1	1	1	A_7

Fig. 6.7
8-to-1 Multiplexer Functionality



Inputs				Output	
Select			Enable		
S2	S1	S0	E	Y	X
X	X	X	H	L	H
L	L	L	L	D0	D0
L	L	H	L	D1	D1
L	H	L	L	D2	D2
L	H	H	L	D3	D3
H	L	L	L	D4	D4
H	L	H	L	D5	D5
H	H	L	L	D6	D6
H	H	H	L	D7	D7

E : ENABLE input
S0,S1,S2 : Select inputs
D0-D7 : Data inputs
Y,X : outputs



74153 4 :1 Mux

Two 4:1 Multiplexers
$D_{3:0}$: data
$S_{1:0}$: select
Y: output
Gb: enable

```
always @(1Gb, S, 1D)
  if (1Gb) 1Y = 0;
  else     1Y = 1D[S];
always @(2Gb, S, 2D)
  if (2Gb) 2Y = 0;
  else     2Y = 2D[S];
```

