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SAYISAL TASARIM (BM222) LAB
ÖDEV-6 RAPORU

HAZIRLAYAN:

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2x1 Mux Modülü Kodu:

C:/intelFPGA/18.1/work/mux2x1.v (/shifter_tb/s1/m7/m3) - Default

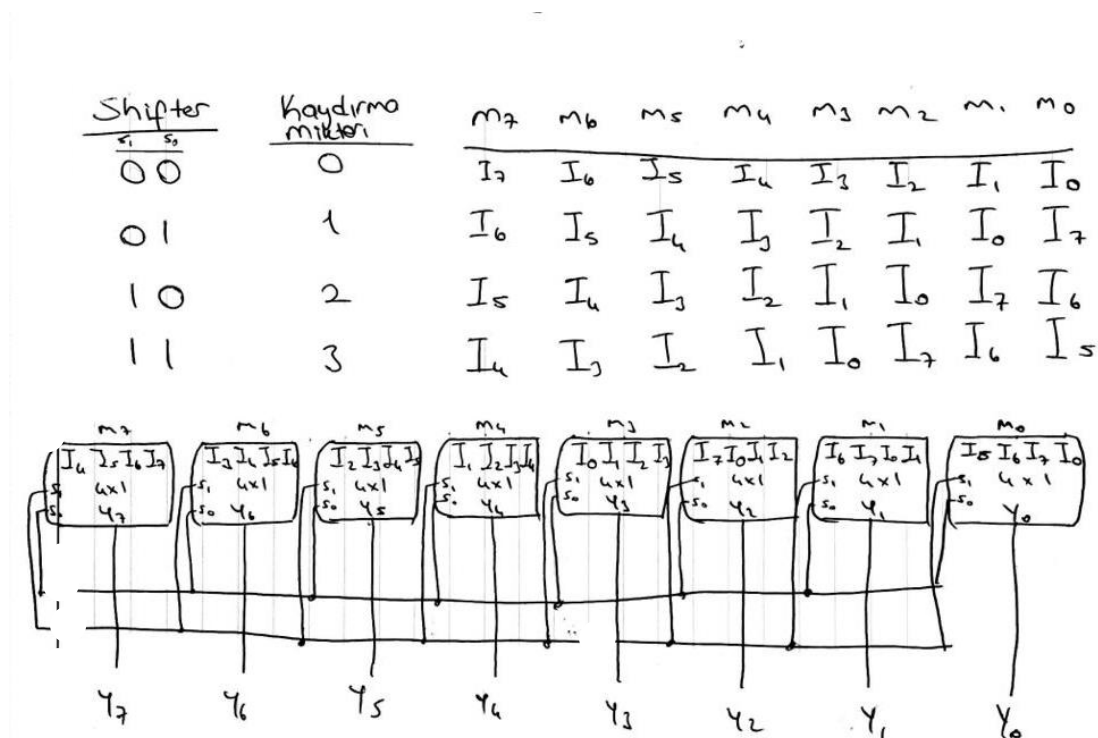
```
Ln#  
1 module mux2x1(I,s,Y);  
2   input [1:0] I;  
3   input s;  
4   output Y;  
5   assign Y = s ? I[1] : I[0];  
6 endmodule
```

4x1 Mux Modülü Kodu:

C:/intelFPGA/18.1/work/mux4x1.v (/shifter_tb/s1/m7) - Default

```
Ln#  
1 module mux4x1(I,s,Y);  
2   input [3:0] I;  
3   input [1:0] s;  
4   output Y;  
5  
6   wire a,b;  
7   mux2x1 m1(I[1:0], s[0],a);  
8   mux2x1 m2(I[3:2], s[0],b);  
9   mux2x1 m3({b,a},s[1],Y);  
10  
11 endmodule
```

8 bitlik Kaydırıcı Devre Tasarımı:



8 bitlik Kaydırıcı Devre Modül Kodu:

```
C:/intelFPGA/18.1/work/shifter.v (/shifter_tb/s1) - Default
Ln#
1  module shifter (shift,I,Y);
2      input [1:0] shift;
3      input [7:0] I;
4      output [7:0] Y;
5
6      mux4x1 m0 ({I[5],I[6],I[7],I[0]}, shift, Y[0]);
7      mux4x1 m1 ({I[6],I[7],I[0],I[1]}, shift, Y[1]);
8      mux4x1 m2 ({I[7],I[0],I[1],I[2]}, shift, Y[2]);
9      mux4x1 m3 ({I[0],I[1],I[2],I[3]}, shift, Y[3]);
10     mux4x1 m4 ({I[1],I[2],I[3],I[4]}, shift, Y[4]);
11     mux4x1 m5 ({I[2],I[3],I[4],I[5]}, shift, Y[5]);
12     mux4x1 m6 ({I[3],I[4],I[5],I[6]}, shift, Y[6]);
13     mux4x1 m7 ({I[4],I[5],I[6],I[7]}, shift, Y[7]);
14
15     endmodule
```

Simülasyon görüntüsü:

Wave - Default					
		Msgs			
+ /shifter_tb/shift + /shifter_tb/I + /shifter_tb/Y	11 01010011 10011010		01	10	11
			01101010	10010110	01010011
			11010100	01011010	10011010