

```
module Test_Problem2(en,a,y);
input en;
input[7:0]a;
output[2:0]y;
reg[2:0]y;
always@(a,en)
begin
case(a)

      8'bxxx1xxxx: y=4;
      8'bx1x0xxxx: y=6;
      8'bx010xxxx: y=5;
      8'b1000xxxx: y=7;
      8'b0000xxx1: y=0;
      8'b0000x1x0: y=2;
      8'b0000x010: y=1;
      8'b00001000: y=3;

endcase
end
endmodule
```

Quartus II - c:/altera/81/quartus/Test\_Problem1 - Test\_Problem1 - [Compilation Report - Flow Summary]

File Edit View Project Assignments Processing Tools Window Help

Project Name: Test\_Problem1.v

Compilation Report - Flow Summary

Test\_Problem1.vwf

Simulation Report - Simulation Waveforms

Entity: FLEX10

mpila  
Lega  
Flow  
Flow  
Flow  
Flow  
Flow  
Flow  
Flow  
Anal  
Fitter  
Asse  
Timi

Flow Summary

Flow Status	Successful - Thu Apr 07 09:34:45 2022
Quartus II Version	8.1 Build 163 10/28/2008 SJ Web Edition
Revision Name	Test_Problem1
Top-level Entity Name	Test_Problem1
Family	FLEX10KE
Met timing requirements	Yes
Total logic elements	3 / 1,728 (< 1 %)
Total pins	4 / 102 (4 %)
Total memory bits	0 / 24,576 (0 %)
Total PLLs	0
Device	EPF10K30ETC144-1
Timing Models	Final

Tasks: Flow: Corr

Type	Message
Info	Simulation partitioned into 1 sub-simulations
Info	Simulation coverage is 83.33 %
Info	Number of transitions in simulation is 670
Info	Quartus II Simulator was successful. 0 errors, 0 warnings

System (14) Processing (9) Extra Info Info (9) Warning Critical Warning Error Suppressed Flag

Message: 0 of 16 Location: Locate

Ready

ENG US 9:36 AM 4/7/2022

28°C Haze

ENG US

9:36 AM 4/7/2022

File Edit View Project Assignments Processing Tools Window Help

Project Name: Test\_Problem2.v

Compilation Report - Flow Summary

Test\_Problem2.vwf

Simulation Report - Simulation Waveforms

Entity: FLEX10K

Simulation mode: Functional

Master Time Bar: 25.575 ns

Pointer: 0 ps

Interval: -25.58 ns

Start:

End:

0 ps 40.0 ns 80.0 ns 120.0 ns 160.0 ns 200.0 ns 240.0 ns 280.0 ns 320.0 ns 360.0 ns 400.0 ns 440.0 ns

25.575 ns

0

1

2

3

4

5

6

7

8

9

10

11

12

13

a

a[7]

a[6]

a[5]

a[4]

a[3]

a[2]

a[1]

a[0]

en

y

y[2]

y[1]

y[0]

A

A

A

A

A

A

A

A

A

A

A

A

A

A

Tasks: Cor

Flow: Cor

Type Message

Info: Simulation partitioned into 1 sub-simulations

Info: Simulation coverage is 0.00 %

Info: Number of transitions in simulation is 791

System (25)

Processing (9)

Extra Info

Info (9)

Warning

Critical Warning

Error

Suppressed

Flag

Message: 0 of 16

Location:

For Help, press F1

28°C Haze

Windows Taskbar Icons

Idle NUM

9:59 AM 4/7/2022

```
module Test_Problem1(Clock, Resten, w, z);
```

```
input Clock, Resten, w;
```

```
output reg z;
```

```
reg [2:1]y,Y;
```

```
parameter S0=2'b00, S1=2'b01, S2=2'b10;
```

```
always @(w, y)
```

```
begin
```

```
case (y)
```

```
    S0: if(w)
```

```
    begin
```

```
        Y=S0;
```

```
        z=0;
```

```
    end
```

```
    else
```

```
    begin
```

```
        Y=S1;
```

```
        z=0;
```

```
    end
```

```
    S1: if(w)
```

```
    begin
```

```
        Y=S2;
```

```
        z=0;
```

```
    end
```

```
    else
```

```
    begin
```

```
        Y=S1;
```

```
        z=0;
```

```
    end
```

```
    S2: if(w)
```

```
    begin
```

```
        Y=S0;
```

```
        z=0;
```

```
    end
```

```
    else
```

```
    begin
```

```
        Y=S1;
```

```
        z=1;
```

```
    end
```

```
endcase
```

```
end
```

```
always @(negedge Resten, posedge Clock)
```

```
if (Resten==0) y<=S0;
```

```
else y<=Y;
```

endmodule

Quartus II - c:/altera/81/quartus/Test\_Problem1 - Test\_Problem1 - [Compilation Report - Flow Summary]

File Edit View Project Assignments Processing Tools Window Help

Test\_Problem1.v Compilation Report - Flow Summary Test\_Problem1.vwf Simulation Report - Simulation Waveforms

Entity  
FLEX10K  
Test

mpila  
Lega  
Flow  
Flow  
Flow  
Flow  
Flow  
Flow  
Anal  
Fitter  
Asse  
Timi

Flow Summary

Flow Status	Successful - Thu Apr 07 09:34:45 2022
Quartus II Version	8.1 Build 163 10/28/2008 SJ Web Edition
Revision Name	Test_Problem1
Top-level Entity Name	Test_Problem1
Family	FLEX10KE
Met timing requirements	Yes
Total logic elements	3 / 1,728 (< 1 %)
Total pins	4 / 102 (4 %)
Total memory bits	0 / 24,576 (0 %)
Total PLLs	0
Device	EPF10K30ETC144-1
Timing Models	Final

Tasks  
Flow: Com

Type Message

- Info: tco from clock "Clock" to destination pin "z" through register "y.32" is 6.900 ns
- Info: Longest tpd from source pin "w" to destination pin "z" is 7.100 ns
- Info: th for register "y.51" (data pin = "w", clock pin = "Clock") is -0.100 ns
- Info: Quartus II Classic Timing Analyzer was successful. 0 errors, 1 warning
- Info: Quartus II Full Compilation was successful. 0 errors, 1 warning

System (3) Processing (41) Extra Info Info (40) Warning (1) Critical Warning Error Suppressed (1) Flag /

Message: 0 of 133 Location: Locate

Ready 28°C Haze

ENG US 9:34 AM 4/7/2022

