PCI Arbiter Feedback

On figure 2,

The transition condition from idle to state b is listed as “~req[1]”

Should be changed to: “ req[0] && ~req[1]”

The transition condition from idle to state c listed as “~req[2]”

Should be changed to: “ req[0] && req[1] && ~req[2]”

There are also similar problems on the other branches of the state diagram.

Minimum deduction: 3 points

On Fig. 4, if(rst) is not right. PCI reset signal should be low active.

Minimum deduction: 3 points

On Fig. 5,

At "a" state, your report shows:

if((frame && cnt ==16) || (trig && cnt ==8) || (irdy && trig && frame)

as condition to grant next device.

This does not support "hidden arbitration" which can grant other device once

the current device claims active low "frame" signal.

Deduction: 5 points.

The condition "(trig && cnt == 8)" does not mean "bus idle". So it can not be used

as condition to grant next device.

Deduction: 3 points.

In the testbench,

initial clk= 0;

always #10 clk = ~clk;

This means "clk" uses period of 20 ns, which results in clock frequency of 50 MHz,

and it is great than 33MHz PCI requirement.

Deduction: 3 points.

Your project 1 grade: 83.