

Re: keypad controller implementation(FPGA)

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2005-05/msg04467.html>

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 - *Date:* Mon, 30 May 2005 18:43:32 GMT
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On Sun, 29 May 2005 22:07:40 -0700, praveen.kantharajapura wrote:

> Hi all,
>
> I want to implement a 6x6 keypad decoder in FPGA,i have got a reference
> design for that, but the limitation with this reference design is that it
> scans for only one key pressed at a time.It dosen't have the capabality
> of scanning for multiple keys at the same time.
>
> Can anybody help me out on this , how to go about this(any reference
> design)

I think you can't do it with plain combinatorial logic. I'm also not familiar with FPGAs, but if EACH key is isolated with a diode, you can do it by scanning:

Activate column 1.
Interrogate rows, record which keys are pressed.
Deactivate column 1, activate column 2.
Interrogate rows, record which keys are pressed.
Deactivate column 2, activate column 3...

And so on. This is called "N-Key Rollover." I've done this with a 6502; it was great fun! :-) (if you scan fast enough, you can even catch what `_order_` the keys got pressed!) :-)

Cheers!
Rich

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- *References:*
 - ◆ [***keypad controller implementation\(FPGA\)***](#)
 - ◇ *From:* praveen . kantharajapura
 - Prev by Date: [***Re: ISOLATING 4-20mA INPUT SIGNAL USING IL300 Linear Optocoupler***](#)
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