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Subject: C64 address decoding

Posted by [Michele](#) on Wed, 19 Jun 2013 13:55:30 GMT

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Hi, I'm experiencing an RTC for C64, I need an address to make it visible so need an address decoder maybe around \$D200-\$D300, but don't know how to calculate/make it.

In my C64 there is a dual sid with address decoder built in, it use a 74139 with the following connections:

G1 of 74139 to CS of SID  
A1 of 74139 to A8 of kernal  
B1 of 74139 to GND  
G2 of 74139 to CS of SID  
A2 of 74139 to A5 of kernal  
B2 of 74139 to GND

how to calculate the addresses that i will find at pins  
1Y0-1Y1-1Y2-1Y3-2Y0-2Y1-2Y2-2Y3 ?

thanks in advance

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Subject: Re: C64 address decoding

Posted by [Anton Treuenfels](#) on Wed, 19 Jun 2013 23:02:02 GMT

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"M1Ch3L3" <mailboxNOSPAM@piemmeweb.com> wrote in message  
news:51c1b838\$0\$12828\$5fc30a8@news.tiscali.it...

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>

You might have better luck asking this question at [www.6502.org](http://www.6502.org), in the "hardware" section.

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Subject: Re: C64 address decoding

Posted by [Clocky](#) on Wed, 19 Jun 2013 23:25:57 GMT

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M1Ch3L3 wrote:

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- >
- > how to calculate the addresses that i will find at pins
- > 1Y0-1Y1-1Y2-1Y3-2Y0-2Y1-2Y2-2Y3 ?
- >
- > thanks in advance
- >
- >

Do you know the addresses of the SID(s) (G1/G2) that the 74139 is addressing?

From that you should be able to figure out the logical addresses on the outputs as they are usually equally spaced, if that makes sense.

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Subject: Re: C64 address decoding

Posted by [Anonymous](#) on Fri, 21 Jun 2013 08:54:05 GMT

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Originally posted by: <silverdr

"M1Ch3L3" <[mailboxNOSPAM@piemmeweb.com](mailto:mailboxNOSPAM@piemmeweb.com)> wrote:

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> 1Y0-1Y1-1Y2-1Y3-2Y0-2Y1-2Y2-2Y3 ?  
>  
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To make a chip "visible", you need to generate \_cs/\_oe signals for the chip whenever address bus is driven to a predefined value. While you can of course process/watch all address lines and react whenever the range is of what you want your chip to be visible at, much easier approach in machines like the 64 is to find a chip which has its registers "mirrored" and use those mirrored addresses (In case of an RTC, I would go for one of the CIAs). In such case only a few lines have to be processed as the address for the main chip is already decoded by pla.

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SD!

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