
VGA clock with USB interface

Posted by Mat - 2006/08/03 18:25

This thread discusses the Content article: VGA clock with USB interface

Thanks Dario for the new article!!

Mat

Re:VGA clock with USB interface

Posted by dariog - 2006/08/09 09:24

Coming soon: doubled resolution, now we can have up to 64 x 32 pixels (and possibly 64x64...) and the ability to change clock-color on the fly (i.e. no longer hard-coded)
Some code optimization too..

Re:VGA clock with USB interface

Posted by dariog - 2006/10/10 09:19

OK, here it goes the new firmware release.

The prototype is now up and running since august, and works rather fine. The self-running clock was a bit late (losing 3 minutes in an hour) so the divider has been corrected and now is more precise; Main software on the PC updates the VGA clock from the atomic clock on the internet (time.iem.it) once in an hour, so it never goes too wrong; USB interface seems to work correctly (on a Windows 2000 server), though, on a warm reboot, at times the USB is not found and you have to replug it (annoying, although quite rare). A FIX for this rather typical problem must be found!

Besides, we've got software-customizable display color on-the-fly (just send a particular packet to USB) between Red-Green-Blue.

And we have doubled resolution, i.e. 64x32 pixels (actually, it's 4-times compared to earlier version). It can be chosen at compile time. Be aware of some increased flickering!

http://www.piccoder.co.uk/components/com_joomlaboard/uploaded/files/vgaclock.zip

Post edited by: dariog, at: 2006/10/10 09:19

Re:VGA clock with USB interface

Posted by dariog - 2006/10/26 23:32

Found something similar on the net:

<http://www.circuitdb.com/show.php?cid=69>

<http://www.rickard.gunee.com/projects/video/pic/howto.php>

<http://www.micro-examples.com/public/microex-navig/doc/089-pic-pal-tv>
(thx to Marcio from Microchip Forum)

http://yusoft.kulichki.com/english/pic/my_proj.htm
(thx to DougT from Microchip Forum)

Post edited by: dariog, at: 2007/01/29 19:33

Post edited by: dariog, at: 2007/02/20 21:32

Re:VGA clock with USB interface

Posted by dariog - 2006/11/15 22:58

...and made my version.

TV bar generator, capable of some 64x48 pixel (4:3 ratio), with 4 grey levels.

Uses a 18F2550 overclocked at 50.302 MHz (12 times Chroma frequency, in order to be able, maybe one day, to have some PAL features, i.e. colors!)

A simple R-2R is used as a simple DAC to have the 3 levels needed for this video signal.

C code with some mixed assembly; signal is generated in interrupt.

Uses: TV linearity tester...

Base for games, Images displaying (with a SD connected).

Theoretical upgrades: reaching for 16 grey levels is feasible, yet it would consume almost all of the RAM (on this PIC): depending on the use and the other peripherals needed, one can switch to another PIC.

8 levels i.e. 3 bit is of course impracticable due to opcode oddity in handling 3 bits a time!

Higher horizontal resolution could probably be achieved, and so vertical: once again, the limit is the available RAM.

http://www.piccoder.co.uk/components/com_joomlaboard/uploaded/images/tv_grey4.jpg

Post edited by: dariog, at: 2006/11/15 22:59

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Re:VGA clock with USB interface

Posted by azhar - 2008/02/19 06:50

dariog wrote:

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<http://www.micro-examples.com/public/microex-navig/doc/089-pic-pal-tv>
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Post edited by: dariog, at: 2007/01/29 19:33

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Re:VGA clock with USB interface

Posted by Jonathan - 2008/04/30 03:29

The EUSART could be useful for e.g. text overlays, as seen in Linus Akesson's Craft demo. You might need to add a few resistors though.

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Re:VGA clock with USB interface

Posted by roger - 2008/05/02 04:35

hello

i am very interested in this project. the link is dead for the updated firmware.

can someone please email it to me at : tecfacet @yahoo.com. (remove space) from email address.

thank you,

roger

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