

Re: RGB to sync on green

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2005-02/1062.html>

From: martin griffith (martingriffith_at_yahoo.co.uk)

Date: 02/04/05

Date: Fri, 04 Feb 2005 18:05:27 +0100

On Fri, 04 Feb 2005 15:53:33 +0000, in sci.electronics.design Malcolm Reeves <mreeves@fullcircuit.com> wrote:

>Hi,

>

>I'm looking at various new TVs etc. and it seems like the TV will take
>component/RGB and the DVR etc can output RGB (component on some but
>not all). However, scart rgb uses the composite for the sync and the
>TV expects sync on green. So I can either buy a hugely expensive
>converter or knock my own up.

>

>So I think all I need is a LM1881 to get the sync from the composite.
>Since the LM1881 is high input impedance and I'm not using the
>composite then a lash up should not feed back significant noise to the
>RGB lines. The LM1881 sync output is rail so it could be 5 or 12V. I
>only need 0.3V so a 1K2 or 3K for 12V from sync output to G should
>give me the right sync. The high impedance will attenuate any noise
>on signal as well as not disturbing the impedance.

>

>Sounds too simple – am I missing something?

Havent done this for years, but FWIW

it should work, but video impedances are 75R, and the 1881 can only manage a couple of mA, so buffer with a inverter (74UC04 I think)and you might be able to get away with capacitively coupling to the G sig, there are too many funnies to be predictable. You could generate a –ve sync with a transisto current source with the correct current into 75R. You may need to put a subcarrier LC trap to get rid of the burst, since the LPF in the data sheet sucks and you will probably get a picture shift, since the H phase will have a time difference between the composite

martin

Serious error.

All shortcuts have disappeared.

Screen. Mind. Both are blank.