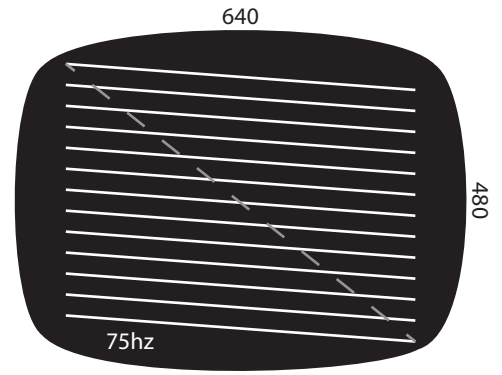# BLANKREG v1.0

BLANKREG is a simple VGA horizontal and vertical sync signal generator. Simply apply 5v to the supply pin (PIN 8) and the necessary sync signals for 640x480 VGA with a 75 hertz refresh rate are generated. Horizontal Sync is produced on PIN 6 and Vertical Sync is produced on PIN 2.

Attach PIN 2 of BLANKREG to PIN 14 of a VGA connector and PIN 6 of BLANKREG to PIN 13 of a VGA connector and the attached display will think a 640x480 75hz display signal is present. Now you can inject your own signals into the VGA RED (VGA PIN1), GREEN (VGA PIN 2), and BLUE (VGA PIN 3) channel pins to experiment with your VGA display. (Pins 6,7,8,9,10, and 5 of the VGA connector must be connected to GROUND. PIN 4 of BLANKREG can be used for these GROUND connections.)

BEWARE: VGA RED, GREEN and BLUE signals should be between zero volts and 0.7 volts. It is your responsibility to ensure that your any signals you feed into VGA PINS 1, 2, and 3 are within this specification. Many VGA displays are very forgiving of the voltages fed into their color pins, others are not. It is up to you to know your display and what it is capable of. THIS IS AN EXPERIMENTER'S INTEGRATED CIRCUIT. YOUR ARE SOLELY RESPONSIBLE FOR ANY DAMAGE CAUSED TO ANY EQUIPMENT ATTACHED TO BLANKREG. PROCEED AT YOUR OWN RISK.
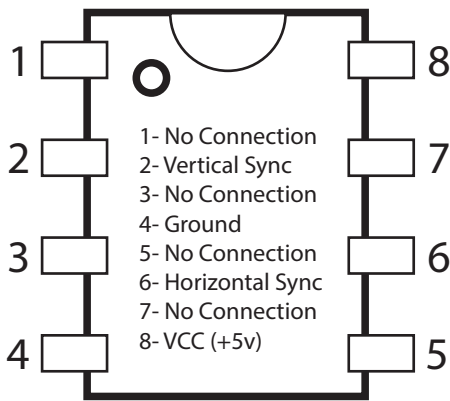
640
480
75hz

1- No Connection
2- Vertical Sync
3- No Connection
4- Ground
5- No Connection
6- Horizontal Sync
7- No Connection
8- VCC (+5v)

figure 1

RED GREEN BLUE GND

1 2 3 4 5
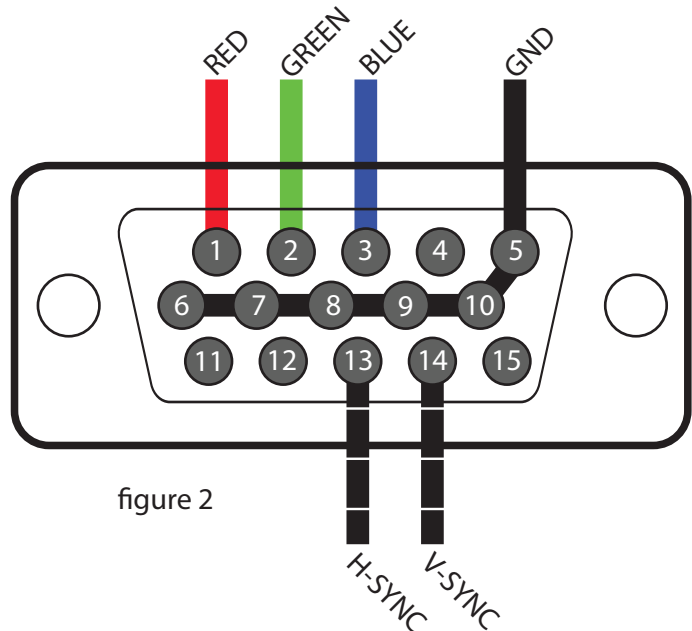6 7 8 9 10
11 12 13 14 15

H-SYNC V-SYNC

figure 2

SOME TIPS:
● Use a cheap VGA to HDMI converter and feed BLANKREG signals its VGA IN port. Attach the HDMI output to a computer monitor. If you royally screw up, all you've done is killed a cheap VGA to HDMI converter and not a precious VGA display
● Try feeding the output of function/sweep generators into the color pins; sometimes you can get funky stuff

640x480/75hz