## VideoGamePerfection.com – Nintendo 64 RGB Bypass Amp Model 1.2a (retired January 2019)

The Nintendo 64 RGB Bypass Amp is a professionally made RGB amplifier for early model Nintendo 64 consoles. The part is ideal if you want to RGB modify your N64 console and you have determined that it is compatible with the "Basic" RGB amp mod, as discussed on RetroRGB's website here.

## Instructions for use

Please follow the installation guide as provided by RetroRGB.com <u>here</u>. The guide assumes some familiarity with the internals of the N64 console.

## **Key points:**

- 1. This amp has been configured for use with a SNES NTSC cable. Please use a properly wired RGB SCART cable designed for an NTSC Super Nintendo/Super Famicom console.
- 2. It is important that you isolate the back side of the RGB amp PCB with insulation tape and that you also isolate the two metal tabs on the N64 shielding that sit directly above the RGB amp PCB. It may be best to cut these metal tabs off if possible, as shown in the photo below, if not then the tab above the bottom of the RGB amp should be bent upwards and flat to allow access for the wires and the tab above the right side of the RGB amp should at the very least be covered with insulation tape.



- 3. R, G and B pads can be connected to the bottom side of C124, C125 and C126 respectively.
- 4. If you wish to use the buffered Csync on the RGB amp then you will need to solder bridge jumper "J3". If installing into a NUS-CPU-03 system, ensure that pin 3 of the MultiAV is freed

before starting the installation. You can do this by removing components from the N64 main board as follows:

- remove R14 and C22
- optionally remove also Q1, R1, R15 and R16

If installing into a NUS-CPU-04 system then the above components should not be present.

Once any necessary components are removed you can connect the CS pad of the RGB amp to the top pad of R16 or the via directly above.

- 5. If your device doesn't work well with the buffered Csync on the RGB amp then try solder bridging jumper "J2" to bypass C43.
- 6. This board has been configured with 75 ohm terminated Csync. If your device only accepts TTL Csync then the Csync buffer may not be compatible. If your SNES SCART cable has a resistor on the sync line you can safely remove it when this mod is installed.

If you need a new Csync cable to use with your modified console, you can use the <u>NTSC SNES</u> <u>PackAPunch cable available here.</u> Choose the "CSYNC TTL 2.5 Volt" option when configuring the cable. Since your console already outputs 75ohm sync you do NOT need a cable that is corrected for this, so the TTL cable is the right one.

- 7. Jumper "J1" is for the low pass filter.
  - Leave J1 open: internal filter of EACH channel is NOT bypassed (low pass filter is ON).
  - Close J1: internal filter of EACH channel is bypassed (low pass filter is OFF).

Please note these parts are intricate and require soldering skills to fit. We cannot provide technical support with fitting, if you require a professional fitting service see our <u>console mods section</u>. While we cannot offer technical support for DIY installations/parts, community based support for our mods is available in the <u>forum here</u>.

Based on an open source design by Borti4938. Interested in building your own? Check out the <u>Github page here</u>.