

SD2IEC Notes

by Dieter & Christian Dombacher (2010-2012)

We purchased two SD2IEC boards and two adapter boards from nkcelectronics.com. After assembling the adapter boards we tested them on several C64 computers with several firmwares, external and C64 tape connector supplied power. It turned out, that only classic (damn slow) IEC operation was supported and none of the speeders worked. But I've also seen a similar board from nkcelectronics.com working with Jiffydos and FC3 fastloader. Continuing to work with the device it exhibited several more "features", which are best described as random. So we stepped into the details of software and hardware (Several implementations are readily found in the internet). We were impressed by the software and its features. On the other hand we were not really satisfied with the hardware. Why ? Because

- it lacked a Commodore compliant IEC bus. No drivers were implemented
- the nominal voltage for driving an SD Card is 3.3V

So we started to design a modified version of the Shadowwolf design incorporating the desired features. The ATMEL is again driven by 5V, which ensures proper voltage on the I/O channels. The resulting schematics are found on the following page. We ceased implementation of the board, because we switched to the 1541 Ultimate in stand alone mode for SD card access. In releasing it to the public we hope, that our schematics contribute to the quality of the SD2IEC interface.

Three microchips are found on the schematics. In order of their size (pincount) these are 1 x 7406, 1 x 74244, 1 x ATMETA644P. Except for the LED series resistors all parts are labeled. Choose them according to your LED specification. Also note, that the pull up resistors are marked by little crosses (typically 1K, we used 10K as our IEC bus already hosts several "typical" units such as the 1541 drive).

Have fun,

Dieter & Christian

