
Subject: Re: Gryphon 68030
Posted by [will](#) on Sat, 11 Jun 2016 10:29:54 GMT
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Hi

Getting Linux booting may prove a pain if there is ROM at physical address 0; the kernel expects to be loaded here and expects the MMU disabled on boot.

The KISS-68030 gives us a solid 68K machine with MMU and DRAM already. Enhancements I would like to see in a future 68K board would be;

68040 or 68060 CPU at high clock speed Memory controller which makes use of the CPU's synchronous, pipeline and burst mode transfer features Support for DMA, primarily for ethernet and hard disk interfaces

I think the idea of exchanging GALs for a CPLD or FPGA is excellent. There is now a fully open-source toolchain for Lattice ICE40 FPGAs. I am told it is possible ("easy", some bravely claim!) to hand solder TQFP-144 packages so we could use a iCE40HX4K-TQ144, an inexpensive part with over 100 I/O pins. This, and the later 68K CPUs, would require the board to run on 3.3V.

It would be nice to have a keyboard and high-resolution video output although this could be on a peripheral board as I am very happy with a serial console.

W
