
Subject: Re: CB030, A 68030 SBC for hobbyists
Posted by [Yves-D.](#) on Wed, 08 Jul 2020 18:52:12 GMT
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@Plasmo

Just to let you know: another CB030 is alive, currently running the 16MB RAM test-routines.
I'm enjoying EhBasic for the moment :lol: , the CF-adapter is on order for putting the Linux port on it.

I've slightly overclocked the CPU with the 24.57MHz oscillator I had on hand.
I didn't check but remember reading that the RAM-refresh cycle is already tight with 60nS Rams at 24MHz. But it's stable so far in the RAM check.

I had a hard time getting some output from the serial port as I didn't notice the RTS/CTS pins from the USB-TTL-adapter being soldered to point T4 / T11.

It's visible your pictures, if you know where to look. :d

You could add a note for people using other USB-TTL-adapters that T11 must be connected to CTS and T4 to RTS.

On the logic analyser I saw the 68681 chip-select being busy and the chip responded with DTACK, i was pretty confident that the cb030 was up and running.

Just something with the output being wrong.

The Aha-moment came after reanalysing the annotated pictures and hardware handshake being mentioned in the BIOS notes. I only had GND,RX,TX connected - so that had to be it.

Thanks for your nice work being offered to the community

PS: the cb030 is sitting near my 68SEC000-Altoirola in Altoids tin-can-format, don't ask - someone had to do it :roll: , for footprint comparison

It's a 5V 12MHz 512kb Flash / 128k RAM board, using CMOS 68C681 and low power GAL - yielding around 50mA total current consumption. The GAL being responsible for 40mA alone.
It's quite amazing what they did at the end of the 68000 life-cycle.

I'll also try to construct a 3.3V variant of the same board: the 68SEC000 is 3.3V capable, I've got 3.3V RAM, Flash and GAL.

Then there's a specific Philips DUART (SC28L92) being 3.3/5V capable, 99% pin compatible (not 100%) and 99% software compatible - some changes are necessary

Kind regards,
Yves

File Attachments

1) [cb030-altoirola.jpg](#), downloaded 1001 times
