

Re: talking to CTK 571 synthesizer

Source:

<http://newsgroups.derkeiler.com/Archive/Comp/comp.sys.ibm.pc.hardware.misc/2007-11/msg00010.html>

- *From:* Allan Adler <ara@xxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* 08 Nov 2007 08:21:57 -0500
-

Allan Adler <ara@xxxxxxxxxxxxxxxxxxxxxxxx> writes:

Arno Wagner writes:

The game port can be used for MIDI. It is really two devices in one connector: A joystick port, that has no connection to MIDI and a MIDI port. However the joystick port controller is not the game port controller, as there is no such thing. I guess that often people will call the joystick controller the "gameport controller".

I think I'm starting to understand what is going on. Some pins of the connector connect to the UART. Those are the pins that are relevant to MIDI. The other pins are just for the joystick functions. Memory location 201h pertains to the latter and those relevant to MIDI are elsewhere.

I just now did a google search for joystick port circuit and found an article by Michael A. Covington <http://www.ai.uga.edu/mc/JOYSTICK.pdf> which includes a circuit diagram for joystick ports, experiments one can do with joystick ports (e.g. measuring temperature, voltage, etc.) and some supporting programs.

I printed out and read the article. He seems to be talking about actual joysticks built into an old IBM PC. It's irrelevant to the present discussion.

Regarding the distinction between the joystick port and a UART, I did a little reading in *The Undocumented PC* and in *PC Hardware in a Nutshell*. In both, necessary details about MIDI get lost in the shuffle. In the former, UARTs are only discussed in the context of serial ports and especially modems. In the latter, MIDI is mentioned as something you can do with a joystick port but there is not a word about the need for a breakout box if you do it that way.

Re: talking to CTK 571 synthesizer

I'm informed that the UARTs used in the serial ports can't be used for MIDI.

Maybe instead of immediately connecting the game port to the synthesizer,
I should instead get it to talk to a solderless breadboard, where I can conveniently connect pins 12 and 15 to test equipment.

Good idea.

Thanks. But I'm not sure about the detail about supporting 10 mA, for the reason I mentioned above.

I connected the PC to the synthesizer via the game port to MIDI cable. There are no menacing 60 cycle hums. I'm hoping that this means no serious damage will be done if I just try to do this without a breakout box, even though it might not work in case the output pin can't support 10 mA. So far, no music.

By looking at /proc/isapnp from the RedHat 7.3 Linux partition, I found out that the sound card is made by Avance Logic and I'm now to initialize the PnP device. In setup, I told it that PnP OS was not installed, which resulted in a message about successful updating of ESCD. Next, I'll install a file AWCONFIG.EXE from ALS110.ZIP from <http://www.mpoli.fi/files/hardware/SOUND/OTHER/index.html> on the FREEDOS partition and see if that helps. This is the result of good advice on a MIDI group.

I'm advised that initializing the PnP sound card is not something I would normally want to do in assembly language. That is probably correct, but I'd like to know how it is done. Maybe it is possible to scavenge from AWCONFIG.EXE the part that actually does the initialization (if that file works) and use it in the boot sector of the floppy I'm trying to create. I wouldn't know where to find that part of AWCONFIG.EXE, but maybe there is source code available somewhere. I googled awconfig source code but it appears there a lot of programs named awconfig.

--

Ignorantly,

Allan Adler <ara@xxxxxxxxxxxxxxxxxxxx>

* Disclaimer: I am a guest and *not* a member of the MIT CSAIL. My actions and * comments do not reflect in any way on MIT. Also, I am nowhere near Boston.

.