

Re: High speed ADC with USB interface

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<adc> wrote in message news:41f4bb86\$0\$2672\$afc38c87@news.optusnet.com.au...

- > *My apologies!.. Although I said ADC, what actually I mean an ADC board,*
- > *not necessary single chip.*
- >
- > *My corrected question is;*
- >
- > *I'm looking for 12-16bit ADC Board with 4MHz sampling rate capable of*
- > *storing 4K samples, with USB interface to transfer data to a PC.*
- >
- >

A 12-16 bit ADC with 4 Mhz sampling rate requires a minimum throughput of 48 Mb/s, and a maximum of 64 Mb/s. This means you must have a Hi-Speed USB 2.0 IC, which is capable of the theoretical maximum of 480 Mb/s.

One candidate is SMSC's GT3200. It has a 16-bit parallel interface, thus it is possible to interface it with any modern microprocessor. For the ADC unit, I'd look at Analog Device's ADC selection matrix. They have at least a 16-bit 65 MSPS (Million samples per second) device and a 16-bit 3 MSPS device. If your sampling rate of 4 Mhz is absolute, the 65 MSPS is the nearest suitable 16-bit one. The interface is parallel, thus it would be directly compatible with the GT3200.

If a lower sampling accuracy is enough, AD also offers a 12-bit and 14-bit 10 MSPS devices, both with parallel interface. The upper 4(2) bits of the USB unit could be used for signalling, if necessary.

I have only experience with the AD's ADC units, and they've been positive experiences. Dunno about the GT3200, but you could try checking them out.

-Antti Keskinen