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WaveShark –a compact multifunctional multichannel high sampling rate recorder

Multichannel high speed recording systems had always required an ADC acquisition card, a personal computer, a dedicated software, a power supply and often additional external filters and preamplifiers. This implied huge and expensive instrumentation not well suited for field work.
WaveShark comes from a strong request to have a compact, lightweight and autonomous high speed multichannel recording system. To fulfill these requirements we have used one of the latest very low power 32 bit ARM® CORTEX® processor and designed a dedicated acquisition interface based on a simultaneous ADC able to convert 8 channels simultaneously at 500 kHz with 16 bit resolution. The analogic section uses high quality amplifiers and a power down supply to disconnect unused channels.
Four SD card slots allow a total max capacity of 256 Gbytes in FAT32 mode. The integrated firmware allows to program the recording system in continuous mode, triggered mode, or timer mode. An integrated GPS unit provides accurate timestamping and georeferencing of any recording.
A simple menu makes possible to change all the setting in few steps via a small low power LCD and X command buttons.
With accurate GPS timestamping it is possible to synchronize multiple units (in post processing).
A high speed USB interface allows users to connect directly to a laptop or tablet PC for easy setting or for real-time signal processing and display with the SeaPro software.

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