

# WaveCatcher

*Thursday, 11 October 2018 10:00 (30 minutes)*

The WaveCatcher systems are a family of powerful and low cost digitizers. Their number of channels currently ranges between 2 and 64 (+8) channels. They all make use of the SAMLONG analog memory chips which permit sampling the input signal between 400 MS/s and 3.2 GS/s over 12 bits and with a signal bandwidth of 500 MHz. They can also be used for high precision time measurement between signals since their sampling time precision is better than 5 ps rms at 3.2GS/s.

There are 4 different types of systems:

- 2-channel, USB-powered handy module
- 8-channel (autonomous desktop), composed of a motherboard equipped with two 4-channel mezzanines
- 16-channel (6U board or autonomous desktop module)
- 64-channel (mini crate). This crate can actually house between 1 and 4 16-channel boards, thus providing 16, 32, 48 or 64 channels.

The systems are interfaced via USB and a secured version of Gbit UDP (copper or optical).

Software control of the WaveCatcher systems can be performed in two ways:

1. Via a high-level software library, available on Windows or Linux.
2. Via a dedicated powerful software running on Windows.

About one hundred WaveCatcher systems are already in use worldwide.

The CAEN company distributes equivalent products in the X743 family.

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