Open hardware and software 400 MSPS USB Digitizer with COTS

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The problem

Low cost digitizers:

- 8-bit resolution
- 400 to 800 MSPS, ideally 800.
- Current cost USD$600 per channel.
8-bit resolution.
400 MSPS.
External reference clock for sampling.
PPS for synchronizing time stamps.
Prioritize keeping correct timing.
Prototype

- Use USB3.0 in bulk mode.
- Cypress FX3 for PC-digitizer communications.
- AD9434 for testing.
- Spartan-6 for level conversion, synchronization and matching bus width.
• Works with sustainable 400Mbytes/sec on 8-year-old laptop with i7-4770.
• Short wires works for fast prototype.
• Current works is to synchronizing data from different machines.
Thanks

https://github.com/jmjaureguig/usb3-digitizer.git

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