

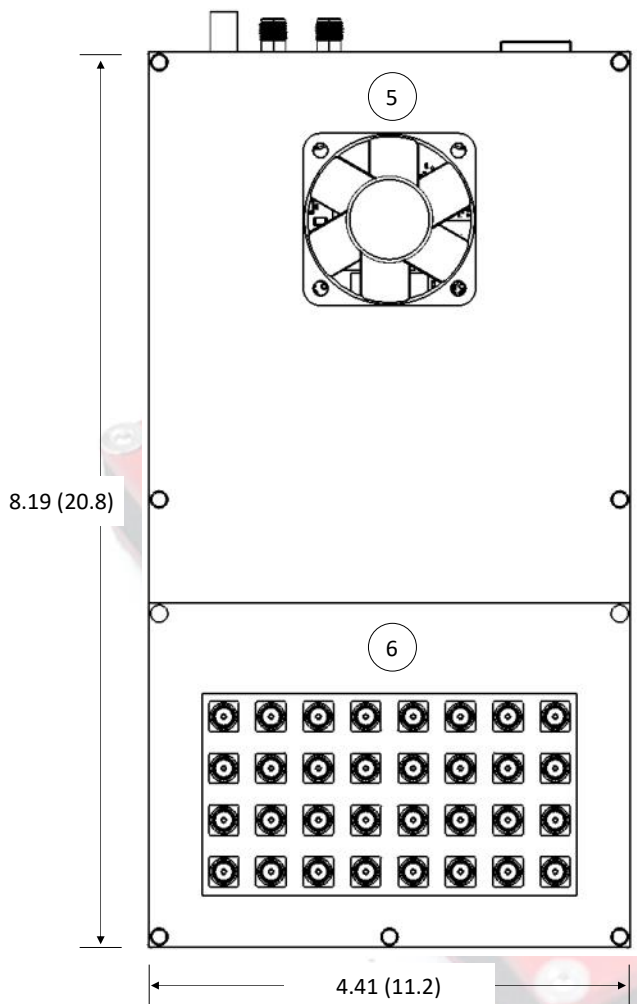


Compact High Sampling and Frame Rate Data Acquisition (DAQ) Unit with 32 Parallel Channels

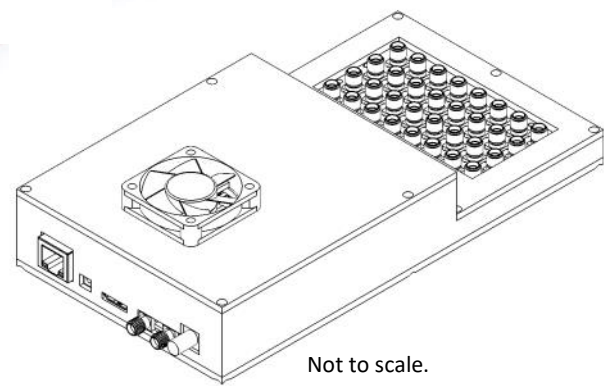
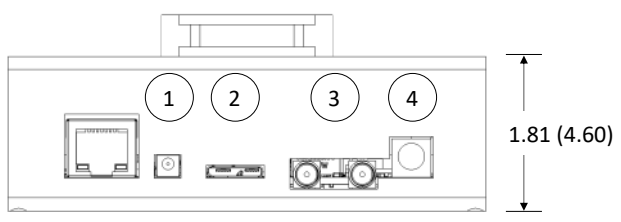


- Compact housing and SMA for easy instrument integration
- Very fast data transmission with up to 6000 fps or 100,000 data points per frame per channel
- Data streaming is limited by USB3 data bandwidth. Higher data rates or bursts can be buffered using 1GB DDR memory buffer.
- Integrated amplifier chips with digitally controlled gain
- +40 dB Gain from compact 2 x 25 mm preamps per channel
- Optical and electrical trigger inputs
- Open SDK and access to raw data provided by DAQ software

| | | | | |
|-----------------|---|-------------------|--|---|
| Channels | Channels per ADC ⁽¹⁾ | 32 | | |
| | Preamp Boards | 1 | | |
| | Channels per Preamp Board | 32 | (1) All channels fully parallel (simultaneous data acquisition without multiplexing) | |
| ADC | Programmable Gain ⁽¹⁾ | -4 to 54 dB | (2) +40dB with included preamplifier | |
| | Bandwidth @ -3 dB ⁽²⁾ | 16 kHz to Nyquist | (3) Low Pass programmable filters available | |
| | Sampling Rate & Resolution ⁽³⁾ | | 77 MSPS @ 12-bit | (4) Selectable by INI file settings |
| | | | 65 MSPS @ 14-bit | (5) 6000Hz sustained with 1000 points 12-bit (limited by USB3 data bandwidth) |
| | Max Trigger / Frame Rate ⁽⁴⁾ | | 6000 Hz / fps | (6) Per frame per channel @ 65Hz trigger 12-bit (higher acquired during bursts) |
| Preamp | Max Points ⁽⁵⁾ | 100,000 | (7) Measured with 50Ω load (actual gain depends on probe capacitance) | |
| | Amplification ⁽⁶⁾ | 40 dB | (8) Customizable up to 1MΩ (HiZ is the best to minimize noise at high frequencies) | |
| | Input Impedance ⁽⁷⁾ | 39 kΩ | (9) Measured using signal generator and oscilloscope with 50Ω input | |
| | Output Impedance | 50 Ω | | |
| | Bandwidth @ -6 dB ⁽⁸⁾ | 40 kHz to 35 MHz | | |



1. 12VDC 2.5A (power supply included)
2. USB 3.0 port for high data transmission to end-user or PhotoSound provided computer
3. Programmable electrical trigger input and output (isolated SMA connectors)
4. Optical trigger input for connecting 2 mm patch fiber allows precise triggering from the end-user's pulsed laser
5. Silent operation cooling fan and heatsink mounted directly on ADC
6. Industry standard SMA input connectors for third-party probe.



All dimensions approximate in inches (cm).

Not to scale.

| Computer* (optional) | Software |
|--|--|
| 4+ generation Core i7 Processor Nvidia Graphics Card for CUDA only 16+ GB DDR4 Memory 500+ GB PCIe Solid-State Drive Windows 10 64-bit | Windows 7/10 64-bit drivers Standalone DAQ Application Software Development Kit (LabView) TDMS data output |

* End-user or PhotoSound provided

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