RedWave Labs

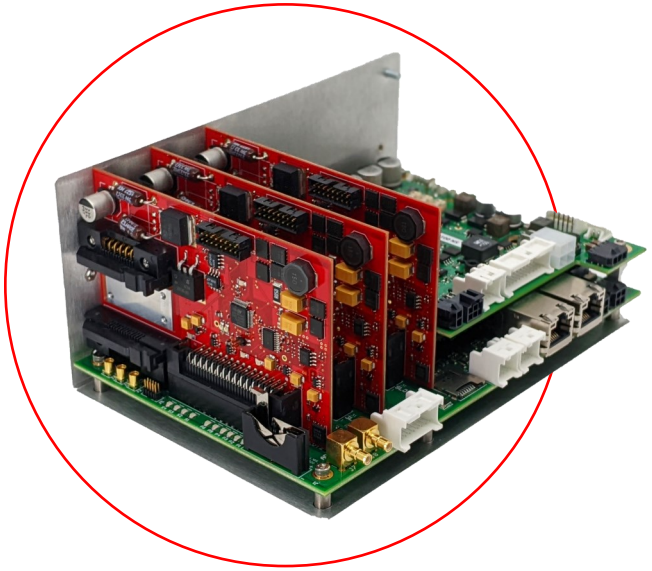
Universal platform for spectroscopic instruments

www.redwavelabs.com

Universal platform for spectroscopic instruments will cover all electronics requirements for power, data processing, signal acquisition and control, data storage and external communications.

- All necessary power rails are provided by backplane with integrated charging capabilities.
- Linux based Kontron CPU (COM Express) with additional high end FPGAs and MCUs allows to process all signals in real time and increase overall system refresh rate.
- All (or optional) plug-ins can be installed depending on the end user application. This allows additional cost and power saving.
- Multiple options for display, 2 Ethernet ports, 4 USB ports and multiple ADCs and DACs

All boards can have conformal coating for humidity protection.



Applications

Laser absorption spectroscopy such as atmospheric monitoring, industrial process control, biomedicine, combustion science, etc.
Laser, Precision Instrument, OEM applications

Full system has following parts:

1. Com Express Type 10 CPU. .
2. Backplane with dedicated FPGA with synchronous 2MS/s 16 bit DAC sand ADCs, 24 bit ADC with 1 kS/s. Integrated pressure controller with digital PID.
3. Full power management with integrated battery charger. 10-30 DC input voltage.
4. Multiple laser controller plug-in card to accommodate various pin-pout types: C155 NEL (C156 EagleYard).
5. Linux OS with full set of libraries and extensive examples.