

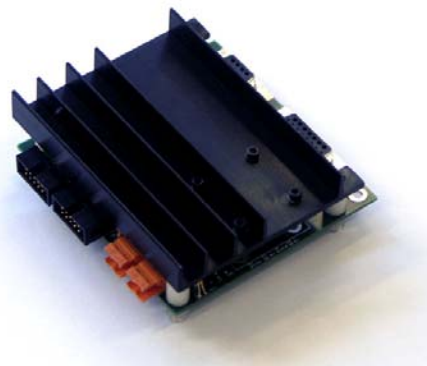


# DACQ200 for Tunable Diode Laser Absorption Spectroscopy

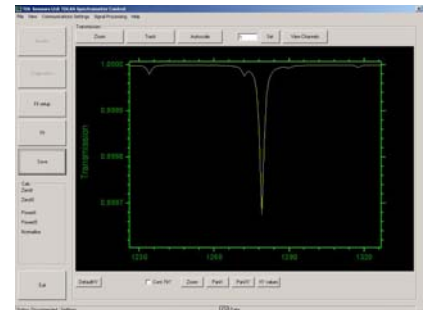
## DACQ200 for Tunable Diode Laser Absorption Spectroscopy and optical gas sensors

The **DACQ200** from TDL Sensors Ltd is a control and data acquisition board specifically designed for tunable diode laser absorption spectroscopy. It is suitable for use in sensitive gas measurements in University and Industrial R&D laboratories.

Laser control & data acquisition



Windows control and acquisition software is supplied with every DACQ200



Gas Sensors based upon Tunable Diode Laser Absorption Spectroscopy offer:

- Measurements are free from interference by other gases
- Fast response time (> 1 ms)
- Very low maintenance
- Negligible drift

## DACQ200 Features

- 1kHz laser scan rate
- Two 16-bit, 1MS/s ADCs
- Eight 10-bit ADC inputs
- 16-bit DAC programmable ramp generator
- On-board averaging of scans
- 16-bit DAC control of laser temperature set point
- On-board Peltier temperature controller
- Digital I/O
- Serial communication (RS232, TTL)
- Single supply (+5VDC) operation

## Applications

- Tunable diode laser absorption spectroscopy<sup>1</sup>
- Cavity enhanced absorption spectroscopy<sup>2</sup>
- Wavelength modulation absorption spectroscopy

# Specifications

## DACQ200 board

Parameter	
Scan rate	1kHz
Ramp generator	16-bit, 0 – 2.5V output range
ADCs	Two 16-bit 1MS/s (0 – 2.5V input range), additional 10-bit, 8 channel multiplexed ADC
Laser temperature control	Up to 2A Peltier supply with 16-bit programmable set point
Output	Serial communication either to a PC or embedded processor
Footprint	PC/104
Power	+5 VDC @2.5A

## References

1. Applied Physics B (2007) DOI:10.1007/s00340-007-2620-z
2. Applied Physics B 85 (2006) 413 - 420

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