SonoDAQ Pro
The Next-Gen Data Aquisition System

Introduction

SonoDAQ Pro is a modular DAQ system designed for acoustic and vibration testing. It integrates power management, clock synchronization, local storage, and network communication into a single platform. With flexible modules and network topologies, it can be configured for small desktop setups or expanded to large-scale distributed systems with thousands of channels.

SonoDAQ Pro simplifies test infrastructure by consolidating multiple devices into one system. In the lab, it supports Audio and NVH testing, while in the field, it offers long-duration recording with battery and local storage. Multiple units can be synchronized for simultaneous data acquisition, reducing setup complexity and maintenance costs, and enabling users to focus on testing and analysis.

Highlights

- **Modular Architecture**
  With a modular plug-in design, different input and output modules can be flexibly configured for specific test tasks, enabling easy system setup, upgrade, and maintenance while supporting both current and future needs.

- **High-Precision Synchronization for Data Consistency**
  Supports multi-device synchronization via PTP / GPS with nanosecond-level time alignment, meeting the stringent requirements for phase consistency and timing synchronization in acoustic, vibration, and NVH testing.

- **Large-Scale Distributed Expansion**
  Suitable for both low-channel-count desktop testing and large-scale distributed acquisition, it can be expanded through multi-device networking into a multi-chassis system with thousands of channels for complex testing.

- **High-Isolation Design for Complex Environments**
  With high isolation capability, the system helps minimize external interference, enhancing both system safety and measurement stability in complex electrical environments.

- **Edge computing capability**
  With edge computing, SonoDAQ performs data acquisition, real-time analysis, and intelligent decision-making directly at the device, enabling faster, smarter, and more efficient solutions.

Technical Specifications

Mainframe

Channel	1000+
Synchronization	PTP (IEEE 1588v2) / GPS
Expansion	Daisy-chain + Star topology
AI & Edge Computing	6TOPS NPU
Data Storage	256 GB microSD, Option to 2 TB
Isolation (Slot to Slot)	1000 V
Interface	USB-C / Ethernet / CAN FD / Wi-Fi

Power	DC / PoE++ / Battery
Calibration	Power-on self-calibration On-site calibration service
Sync. Accuracy (Device)	± 100 ns (stable network or GPS)
Firmware Update	OTA / Browser
Ambient temperature	-10 ℃ ~ 50 ℃
Cooling	Fanless
Vibration / Shock	EN 60068 - 2

Battery Module BAT Parameters

Output Voltage	10.8 V
Charging	USB-C / Host

Battery Capacity	73.44 Wh
Maximum Discharge Current	8.0 A

Order Information

Name	Model	Description
SonoDAQ Pro	CRY5820	High-precision, modular acoustic and vibration data acquisition system host
Analog Input Module IED	CRY5011	4-channel analog input module supporting IEPE power supply
Analog Output Module ADD	CRY5085	2-channel output module supporting signal output + Class D amplifier output + impedance measurement
Battery Module BAT	CRY5001	73.44 Wh Lithium Battery Module
Analog Output Module AOS	CRY5083	Amplifier drive, excitation control, active sound source, and standard voltage simulation scenarios
Analog Input Module LMQ	CRY5014	Supports LEMO, IEPE, Charge, and Voltage inputs, adaptable for pre/polarized microphones, accelerometers, and various voltage signal measurements.