DL-DAQ-503 Technical Specification

Rugged Miniature Dynamic Data Acquisition System

Rugged miniature dynamic data acquisition system for narrow installation spaces and high-shock environments, supporting IEPE, charge, and strain modules, up to 16 channels per system, up to 96 synchronized channels across six systems, USB communication, 32 GB storage, 128 kHz per-channel sampling, online and offline acquisition, and TEDS sensor support.

System Category	DL-DAQ
Signal Type	Rugged dynamic DAQ
Measurement Range	IEPE, charge, and strain module inputs
Sampling / Response	Up to 128 kHz per channel
Communication	USB with online and offline acquisition
Protection / Enclosure	Rugged aluminum enclosure
Power Supply	Battery or 10-30 VDC
Installation	Compact embedded or vehicle-mounted installation

Key Features

- Compact rugged structure supports constrained and high-shock installation environments.
- Modular inputs support IEPE, charge, and strain measurement.
- Online and offline acquisition support field tests without continuous computer connection.
- Technical basis may reference IEEE P1451.1 for smart transducer interface concepts.

Typical Use Cases

- Vehicle, aerospace, weapon, shipborne, and compact equipment dynamic testing.
- Field tests requiring rugged, lightweight, high-sampling dynamic acquisition.

Deployment Notes

- Confirm module type, shock conditions, channel count, sampling rate, storage duration, and power mode.
- Plan USB hub expansion and synchronized multi-system operation when channel count exceeds one unit.
- Remove original typical customer cases and purchase records from public materials.

Technical Highlights and Standards

- 16 channels per system
- Up to 96 synchronized channels
- 128 kHz per channel
- IEPE / charge / strain modules

- 32 GB storage
- IEEE P1451.1 reference

Branding, supplier names, phone numbers, email addresses, physical addresses, logos, customer lists, prices, and original supplier model identifiers have been intentionally excluded from this public specification.