



DAQ

INDUSTRIAL DATA ACQUISITION PLATFORM

Capture. Synchronize. Analyze.

High-performance desktop and rackmount systems engineered for real-time data acquisition, monitoring and analysis in mission-critical environments.



BUILT FOR
MISSION-CRITICAL
APPLICATIONS

- Aerospace & Defence
- Industrial Automation
- Transportation & Railway
- Research Laboratories
- Test & Measurement
- Energy & Utilities



MULTI-INTERFACE
DAQ



PRECISION
TIMING



REAL-TIME
PROCESSING



MODULAR
EXPANSION



ENTERPRISE
SECURITY

Nexibox DAQ

Industrial Data Acquisition Platform

High-Performance Industrial Data Acquisition Platform

Reliable | Scalable | Real-Time | Enterprise Ready

Desktop & Rackmount Data Acquisition Systems for Real-Time Test, Measurement & Mission-Critical Applications

The **NexiBox DAQ** Series is a high-performance industrial data acquisition platform engineered for mission-critical monitoring, testing, automation, and real-time data acquisition applications. Available in Desktop (DAQ D1) and Rackmount (DAQ R1) configurations, the platform delivers exceptional processing performance, modular expansion, and long-term reliability for demanding industrial environments.

Designed for continuous 24×7 operation, the DAQ platform supports high-speed multi-channel communication, precision time synchronization, advanced data recording, live visualization, and comprehensive analytics through the Integrated Data Acquisition Platform (IDAP).

With support for RS-422, MIL-STD-1553, IRIG-B synchronization, configurable dashboards, and secure remote monitoring, it is ideal for aerospace, defence, transportation, research laboratories, manufacturing, and industrial automation

Intelligent Industrial Data Acquisition Platform

The NexiBox DAQ Series combines industrial-grade computing, high-speed communication interfaces, and modular PCIe expansion to deliver a reliable platform for mission-critical data acquisition, monitoring, recording, and analysis. Available in Desktop (DAQ D1) and Rackmount (DAQ R1) configurations, it provides flexible deployment for diverse industrial environments.

Key Features

- Industrial-Grade PCIe Computing Platform
- Intel® Core™ i7 Multi-Core Performance
- Up to 128 GB DDR5 Memory
- 7× PCIe Expansion Slots
- 32× RS-422 Communication Channels
- Dual Redundant MIL-STD-1553 Interfaces
- IRIG-B Precision Time Synchronization
- Continuous 24×7 Industrial Operation

Platform Overview

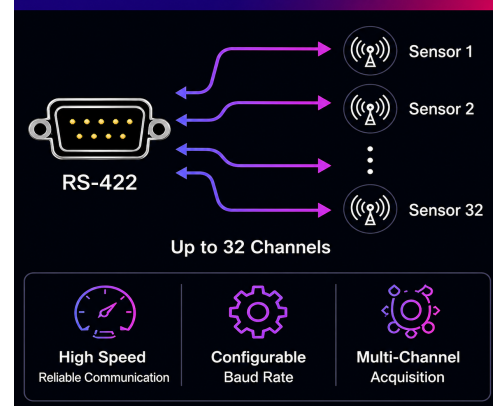
1. FRONT VIEW



2. INTERNAL EXPANSION



3. RS-422 COMMUNICATION



Integrated Data Acquisition Platform (IDAP)

The NexiBox DAQ Series includes the Integrated Data Acquisition Platform (IDAP), a powerful software environment designed for real-time monitoring, visualization, recording, playback, and analysis of mission-critical data. Supporting configurable dashboards, synchronized timestamping, communication monitoring, and secure remote access, IDAP provides a unified platform for industrial test and measurement applications.

- Real-Time Multi-Channel Data Acquisition
- Configurable LabVIEW Dashboards
- Live Data Visualization & Graphical Plotting
- Continuous & Event-Based Data Recording
- Timeline Playback & Historical Analysis
- Alarm & Event Management
- CSV, JSON, Excel & PDF Export
- Remote Monitoring over TCP/IP Networks

Ideal Applications



Technical Specifications

SYSTEM

Parameter	Specification
Model Name	NexiBox DAQ
System Type	Complete Integrated Data Acquisition Platform(IDAP)
Computing Platform	Industrial-grade PCIe-based Computing Platform
Processor	Intel® Core™ i7-14700 (Multi-Corex86)
Chipset	Intel® R680E
Memory	Up to 128 GB DDR5
Operating System	RTOS / Windows 11 (Latest)
System Storage	2 × 1 TB SSD (Operating System & Application Software)

EXPANSION & DATA ACQUISITION

Specification	Details
PCIe Expansion	Minimum 7 PCI Express Expansion Slots
RS-422 Interfaces	32 Independent Communication Channels
RS-422 Configuration	Configurable Baud Rate, Parity, Data Bits & Stop Bits
RS-422 Operation	Simultaneous Multi-Channel Data Acquisition
MIL-STD-1553	Dual Redundant Interfaces
MIL-STD-1553 Modes	Bus Controller (BC), Remote Terminal (RT), Bus Monitor (BM)
MIL-STD-1553 Functions	Decoding, Monitoring, Recording, Filtering & Timestamping
IRIG-B Interface	External Time Synchronization Input
Time Synchronization	Common Timestamp Across All Acquired Data

CONNECTIVITY

Specification	Details
Ethernet	2 × Gigabit / 2.5 Gigabit LAN
USB	6 × High-Speed USB (Including USB Type-C)
Serial Ports	2 × RS-232 / RS-422 / RS-485
Display Outputs	HDMI, DisplayPort & VGA
Audio	Mic-In & Line-Out

SOFTWARE PLATFORM

Specification	Details
DAQ Software	Integrated Data Acquisition Platform (IDAP)
Dashboard	Configurable LabVIEW-Based Dashboard
Python Environment	Supported
User Interface	GUI for Configuration, Monitoring & Diagnostics
APIs	External Application Integration Support

DATA MANAGEMENT

Specification	Details
Live Monitoring	Real-Time Communication & System Health Monitoring
Data Recording	Continuous, Scheduled & Event-Based
Data Playback	Timeline Navigation & Search
Data Export	CSV, JSON, Excel-Compatible & PDF
Event & Alarm Logging	Automatic Timestamped Logging
Device Health Monitoring	Hardware, Interface, Storage & Resource Monitoring

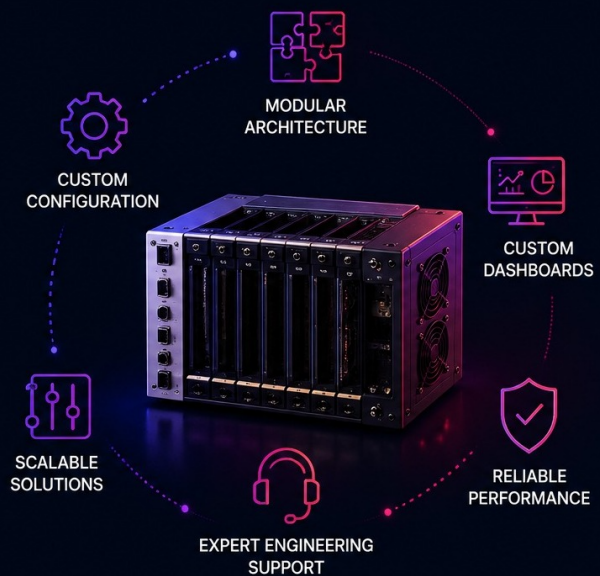
MANAGEMENT & SECURITY

Specification	Details
Configuration Management	Save, Restore, Import & Export
User Authentication	Role-Based Access Control
Internal Expansion	SATA, M.2, GPIO, USB Headers & SIM Support
TPM Security Module	Supported
Watchdog Timer	Supported

Security & Manageability	Physical & Environmental	Warranty & Support
Role-Based User Authentication	Industrial Desktop & Rackmount Platforms	Standard OEM Warranty
Configurable Access Privileges	Continuous 24×7 Operation	Driver & Firmware Updates
Secure Configuration Management	High-Reliability Industrial Design	Technical Support
Device Health Monitoring	Optimized Cooling Architecture	Deployment Assistance
Event & Alarm Logging	Expandable PCIe Chassis	Installation Guidance
TPM Security Module Support	Industrial-Grade Components	Configuration Support
Watchdog Timer Protection	Compact Footprint (D1)	Product Documentation
Remote TCP/IP Monitoring Support	Rack-Optimized Deployment (R1)	Enterprise Support Services

CUSTOMIZED. BUILT FOR YOU.

Every application is unique, and so are its requirements. NexiBox DAQ systems are designed with a modular architecture and can be customized to match your specific technical, operational and integration needs. From hardware configuration to software dashboards, we deliver solutions tailored to your mission.





ENGINEERED IN INDIA — ● — PROUDLY BUILT IN INDIA



NEXIBOX TECHNOLOGIES PRIVATE LIMITED

ISO **9001:2015** Certified Company | Recognized by **Startup India** |
MSME Registered | **ZED (Zero Defect Zero Effect)** Pledge Participant

Disclaimer

The information contained in this datasheet is provided for general informational purposes only and is believed to be accurate at the time of publication. Product specifications, features, configurations, availability, and pricing are subject to change without prior notice as part of NexiBox's continuous product improvement program.

NexiBox™ is a trademark of NexiBox Technologies. Trademark registration is under process. All other trademarks, brand names, and product names mentioned herein are the property of their respective owners and are used for identification purposes only.

© 2026 NexiBox Technologies. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means without the prior written permission of NexiBox Technologies.