

PRODUCT OVERVIEW

Solutions for Industrial Measurement and Automation



PC BOARDS

Interference-free PC boards for harsh industrial environments



Broad range of PC-based solutions for industrial measurement and automation – from digital and analog I/O or multifunction boards to serial interfaces, multifunction counter and motion control boards. ADDI-DATA offers highly interference-free PC boards, which are equipped with numerous protective circuits – for a safe and reliable use in your application. Free drivers for standard operating systems are supplied along with programming samples.

HIGH IMMUNITY

- Optical isolation from 500 V to 1000 V
- Separation between analog and digital signals
- Protection against short-circuits, overtemperature, overvoltage
- Filters for inputs and outputs
- Industry-standard SUB-D connectors

Made for the industry

Digital boards, 24 V / 5 V

- Digital inputs
- Digital outputs
- Digital I/O
- Relay boards
- TTL

Counter

- FPGA multifunction counter boards

Analog boards

- Analog inputs, 12- or 16-bit
- Analog outputs, 12-, 14- or 16-bit
- Temperature measurement
- Pressure measurement
- Length measurement (transducers)
- Noise and vibration measurement

Serial interfaces

- 1- to 8-port serial interfaces, RS232, RS422, RS485, 20 mA CL

Motion Control

- Intelligent boards
- For servo or stepper motors

Accessories

- Relay boards, terminal panels
- Connection cables

For different platforms

- PCI Express
- PCI
- CompactPCI
- PC/104-PLUS

Free drivers



ETHERNET TECHNOLOGY

ARM[®]9
Technology



DatabaseConnect

Intelligent Ethernet systems: For use close to the measuring point



The intelligent Ethernet systems of the MSX-E series are especially suited for measurement, control and regulation tasks directly at the measuring point. In order to cope with daily stresses and strains such as current peaks, vibrations, dirt or extreme temperatures, the systems are mounted in robust metal housings and comply with the degree of protection IP 65/IP 40.

They can be used in the extended temperature range of $-40\text{ }^{\circ}\text{C}$ / $+85\text{ }^{\circ}\text{C}$ and are equipped with numerous protective circuits. The systems can be freely cascaded and synchronised in the μs range.

Available functionalities

- Digital I/O: MSX-E1516
- Multifunction counter, TTL, RS422: MSX-E1701
- Multifunction counter (sin/cos): MSX-E17x1
- Analog input: MSX-E3011
- Analog output and function generator: MSX-E3511
- Temperature measurement: MSX-E3211
- Acquisition of dynamic signals, 8 SE/diff. inputs, 24-bit, simultaneous: MSX-E3601
- Dynamic length measurement, 24-bit, simultaneous, LVDT, half-bridge, VLDT: MSX-E3711
- Length measurement, 24-bit, LVDT, half-bridge, VLDT: MSX-E3701/MSX-E3700



New!

Database interface software

DatabaseConnect

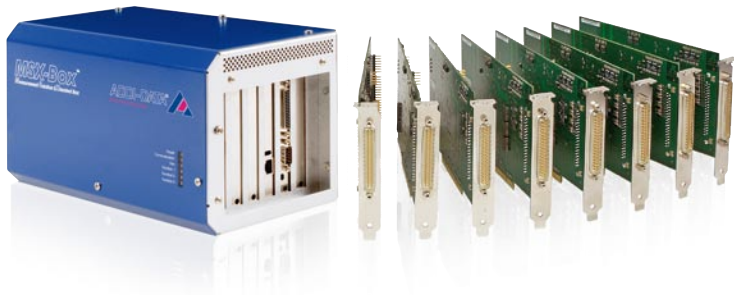
- Measurement data stored in databases
- Ease of use: No programming needed
- Based on the latest technology (XML, SOAP, etc.)
- Data transfer via standard Ethernet
- Raw data converted into real values
- Filtering of measurement values

INTELLIGENCE INSIDE

- **ARM[®]9 technology:**
Intelligent systems
 - **Linux Embedded:**
For programming applications
 - **Web server:** Easy system configuration and monitoring as well as CSV file export (e.g. to MS Excel)
 - **SOAP command server** (web services, WSDL): For easy use, e.g. with .NET and LabVIEW[™]
 - **Data server** (TCP/IP or UDP socket): Standard communication modes
 - **Event server:** For transferring events
 - **NTP client:** For setting the system time
 - **Database interface software**
DatabaseConnect
- For PLC users:**
- **Autostart**
 - **UDP command server and UDP MODBUS server:** For PLC connection

PAC SYSTEMS

Distributed data acquisition and control in real time



The MSX-Box is an open and transparent Programmable Automation Controller system (PAC). It has been specially developed for industrial measurement, control and automation applications in real time. In addition to the previous versions for PCI boards, a version for CompactPCI boards is now available, the MSX-Box-CPCI.

With the MSX-Box, you can enhance your real-time measurement and control applications: You will be working with a system that can be adapted to your needs. Even complex controls can be easily developed with the tools supplied. To limit the acquisition costs for series of MSX-Boxes, the Linux operating system has been chosen and all development tools are supplied free of charge.

Thanks to the ADDI-DATA supply philosophy, the products are available for a long time. In this way, you secure your investment in the long term.

Find out today how to realise your applications of tomorrow: www.msx-box.com.

The concept

- Based on reliable standard technologies like PCI backplane or CompactPCI backplane
- Non-proprietary system: Standard I/O PCI boards or CompactPCI boards from other producers can be used.
- Full machine time only for your application
- **Save time:** Linux operating system with RTAI extension – no update obligations
- **Optimise your system:** Free access to the software down to the kernel source code for extensive adaptations of your measuring system
- From the prototype to serial equipment without software licence costs
- Real-time development tools without additional costs
- **Investment security:** Long-term availability of the products thanks to the ADDI-DATA supply philosophy

OPEN SOURCE INSIDE

- Based on the Debian distribution
- Integrated Eclipse development environment
- Debugging via GDB / KGDB (user and kernel mode)
- Compiling with Mipsel-linux-gcc 2.95 and 3.3 possible
- Calculation und visualisation package Scilab © INRIA-ENPC



BESPOKE SOLUTIONS

Services for special demands



From the standard product to complete product development:
We'll find the right solution for you!

In measurement, control and automation applications, standard components are normally used. But there are some requirements which cannot be satisfied with standard components. The question for you is whether product adaptations or new developments can be dealt with in-house. Time pressure or resource planning must be factored into this process.

If in-house implementation is impossible, you will need a reliable partner who can offer you the precise solution as part of his service. Just ask us! We will be glad to help you, from the most minor adaptation to new product development.

Technical experts

From the very beginning, ADDI-DATA has been developing high-quality solutions for PC-based or distributed applications. 25 years of experience and expertise speak for themselves.

With professional project management

We carry out adaptations to project templates or individual developments in a focused and efficient way – and of course comply strictly with the DIN EN ISO 9001:2008 standard. That applies not only to the internal processes of ADDI-DATA, but also to the project implementation with you.



Advice needed?

Then just call us at
Tel: +49 7229 1847-120
or send an e-mail to:
info@addi-data.com.

Examples



Adapting existing hardware:
Specific signal type such as 12 V instead of 24 V, enhancement of low pass filter, etc.



Firmware to supplement existing hardware: Digital filter, calculation of average values, data processing, etc.



Adaptation of software:
Drivers for specific operating systems, adaptation of examples for integration into an existing application, etc.



Complete product development: Interference-free PC boards, distributed solutions, complete systems, etc.

DEDICATED ACCESSORIES

Absolutely interference-free

A peripheral hardware must be as reliable and interference-free as a PC board or Ethernet system used for measuring.

This is why ADDI-DATA offers a broad range of dedicated accessories for PC boards and Ethernet systems suited for use in harsh industrial environments.

Whether screw terminal panels, relay output boards or connection cables – our accessories all have the same high safety and EMC standards as the PC boards and Ethernet systems.



- **Industry-standard SUB-D connectors:**
robust und interference-free
- **Protection against EM fields:** The shield of the cable is connected to the metallised hood of the SUB-D connector. The connection between housing and shield creates an earthing on both sides, which is essential for the protection against EM fields.
- **High noise immunity:** More protection through adapted pin assignment of the cables. The way the cable leads are twisted in pairs corresponds to the pin assignment of the boards.

SERVICE FAX +49 7229 1847 222

Please send me information about the following products:

- Interference-free PC boards
- Intelligent Ethernet systems
- Real-time PAC system MSX-Box
- Bespoke solutions

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Name, title

Department

Street

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E-mail

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