# ELECTRONICS





# INDUSTRY EXPERTISE IN AUTOMATION AND ELECTRONICS

HEITEC is a highly innovative provider of automation and electronics solutions for a wide range of industries. Our experience ranges from defining system architecture and developing and implementing individual components to manufacturing and integrating entire systems – all for the entire lifecycle of systems. Coordinated processes guarantee excellent quality and provide the flexibility to adapt rapidly when new application requirements call for it.

Our experienced employees have in-depth technical knowledge in their fields and understand the industry-specific requirements. Our development and production processes are coordinated with these requirements – audited and certified.

Our solutions minimize your development and production risks and can be applied to your product at low cost and on time. We look after your products throughout their entire lifecycle.

We strive to offer you the best system solution every time, one that will give you a lasting competitive edge. Everything comes with the same quality objective – whether it's for a "simple" board or for a more complex system comprising hardware, software and casing technology.



## COMPETENCE AND KNOW-HOW





Customized System Solutions



Design and Manufacturing







Chassis Technology



Industry Expertise



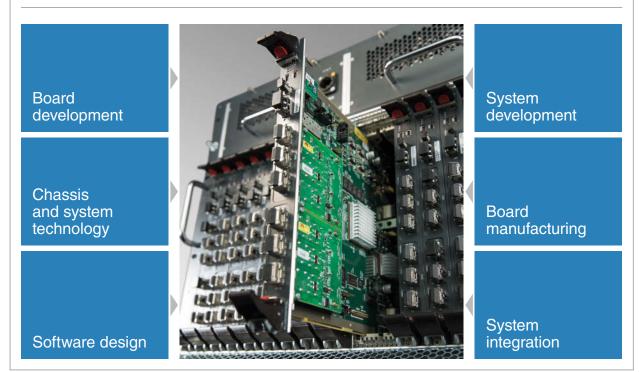


When HEITEC puts your ideas into practice, we draw on proven solutions based on 40 years of knowledge and experience. This experience is your guarantee of high productivity right from the very start. We will swiftly make a team available with the necessary expertise.

You benefit in many different ways, since by choosing us as a partner you can greatly reduce the technical and commercial risks that innovations and new developments normally involve. What you get:

- The experts and the tools you need to make your project a success
- Shorter project run times
- Assured quality of your design
- Additional financial flexibility

### System solutions



# We help you achieve the ideal system solutions:

- System development, such as support for defining architectures and splitting up functions
- Board development, such as circuit diagram development and layout
- Software design from firmware through to application level
- Casing and system technology with a broad portfolio of standard chassis components and platforms, as well as customer-specific solutions
- Module and system manufacturing
- Integrating the system platform and -solution

We can undertake complete projects or offer individual project packages to suit our customers' own business models.

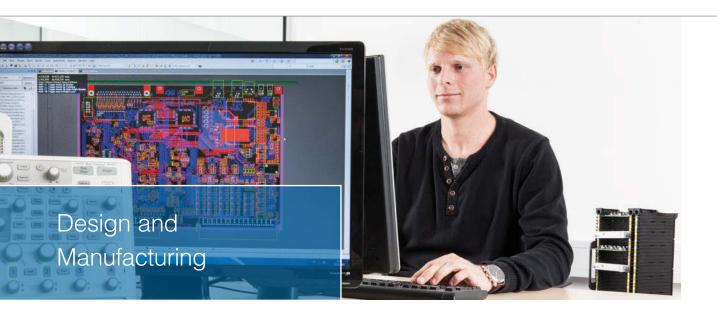
#### We provide support across all phases of product creation and life cycle, from the initial idea through to the finished product:

Our comprehensive portfolio helps you achieve your system solution more swiftly, cost effectively, flexibly and safely. We know what works and what doesn't, thanks to our many years of experience gathered from many projects with differing levels of added value in a range of demanding industries and for many different target applications. We have a comprehensive library of proven hardware, software and mechanical building blocks that we can draw on for every solution we create. Our comprehensive product catalog of casing technology components and platforms – based on Rittal's former electronic packaging product portfolio – enables us to offer chassis and system solutions for the most demanding applications swiftly and reliably.

#### From idea to product: Competence in tailor made solutions Product Development, **Registration and** Series Postdefinition construction, validation manufacturing manufacturing prototyping services UL, FCC Architecture concepts > EMC testing Module Hardware design Mechanics and Climate testing Casing incl. EMC and heat dissipation Electrical safety analyses Validation Long-term supply ments and other specifications engineering

#### Use of building blocks:

- > Library elements (software, mechanics and electronics)
- > Wealth of experience from prior projects
- Chassis technology components and system platforms



## Design

We develop only products and systems for our customers. You decide, based on your business model, how much of our portfolio of solutions you would like to draw on. And we guarantee that all products and solutions are developed, inspected, tested and manufactured to maximum quality levels under certified conditions.

Our nearshore design centers mean we can offer you cost advantages in developing your products and/or solutions.

## Manufacturing

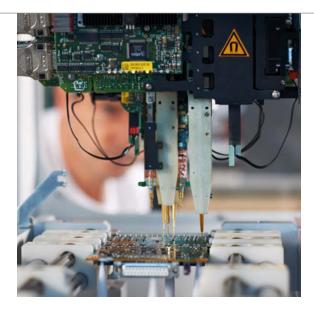
We use state-of-the-art, environmentally friendly manufacturing and soldering methods to manufacture modules and components for our customers on our own SMT lines. Extensive testing and inspection procedures ensure consistent quality.

The spectrum ranges from the smallest PCB in discrete microcontroller, -system or -chip design with application and communication software on an FPGA to systems for assembly in DIN rail format, industrial PCs in a wide range of formats, and complex, highavailability systems.

Depending on the project requirements in each individual case, we combine our technological skills with our industry-specific expertise to develop the right solutions.

## **Electronics Design**

- > Embedded systems/board design ( $\mu C/\mu P$ , DSP, SoC, CoM/Carrier board)
- Modular, scalable control units (IPC, high availability, I/O's)
- Industry 4.0/IoT Intelligent actuator/sensor technology (wireless, wired)
- High speed data transfer (100G EtherNet, DDR3, Optical links ...)
- Complex FPGA designs (ALTERA, XILINX, LATTICE, ...)
- Industrial interfaces
  (CAN, CANopen, PROFIBUS, PROFINET, EtherCAT, EtherNet, ...)
- Analog technology/power electronics
  (power supply, measurement and test technology, ...)
- LED technology (ageing, color temperature control, heat dissipation, ...)
- Chassis and system technology (power supply, heat dissipation, SMC, backplane, 19" or customer-specific)
- Industry standards for computing and telecommunications (AdvancedTCA, CompactPCI, PCIe, ...)
- HMI/user interfaces/M2M
  (GUI touch/multitouch, MQTT, ...)
- High speed backplane technologies (xTCA, CPCI, VME/VPX)
- System management/System contro
- Heat managemer
- High availability (HA)
- Chassis design and construction







#### Electronics manufacturing

#### We manufacture for you ...

#### ... with proven materials management

- > Procurement of all components and materials
- Longevity management
- Component traceability

#### ... using state-of-the-art manufacturing plant

- Screen printing system
- Automatic SMD configuration systems
- Vapor phase soldering systems
- Reflow soldering systems
- Selective and wave soldering systems
- Gluers
- > ESD-protected work stations for manual configuration

#### ... for all technologies

- › SMT
- > THT, mixed configuration
- › BGA, µBGA
- Fine pitch
- Lead-free (RoHS)
- Lead-coate

#### ... using the latest testing systems

- Automatic visual inspection
- Flying probe test
- Boundary scan test
- Functional testing
- Climate testing
- High-voltage test
- Critical load test (destructive testing)

#### ... using certified processes

Materials procurement, manufacturing, testing, packaging in accordance with

- > DIN EN ISO 9001
- › DIN EN ISO 13485
- KTA guidelii
- › NSQ 100

#### ... including comprehensive customer care

- Professional packing
- International dispatch
- Full export procedure
- After-sales service
- Repair servic
- Obsolescence management



HEITEC's comprehensive portfolio of standard products and individual solutions gives you professional chassis technology – we "package" your electronics to suit your applications, every time.

Since early 2010, HEITEC has taken over the complete electronics packaging product portfolio of Rittal in a multi-stage process. We are constantly expanding this broad spectrum of chassis components, subracks, desktop and system enclosures as well as system platforms. We also offer individual adaptations to these products, in addition to special, customer-specific developments.

Selecting the right chassis technology is the basis for an efficient end product. Our skills lie in our many years of experience covering everything from mechanical design to ensuring electromagnetic compatibility and effective heat dissipation concepts for highly complex systems.

If you would prefer to take responsibility for the bulk of the system integration process yourself, you can order individual components, pre-assembled components or system enclosures from us to suit your requirements. If you prefer pre-integrated and fully integrated solutions, incorporating your own hardware and software if needed, we can provide a complete service through to a customer-specific system solution.

## From components through to the complete system



## FROM COMPONENT THROUGH TO INDIVIDUAL SYSTEM SOLUTION





SYSTEM SOLUTION	Ready-to-use, fully integrated with hardware and software
PRE-INTEGRATED SYSTEMS	Part-integration of active modules and/or software
SYSTEM PLATFORMS	Chassis incl. ventilation/cooling, power supply, backplane
CHASSIS	Subracks, instrument cases, system enclosures, industrial PC chassis
COMPONENTS	Individual components and accessories, e.g. handles, front plates,
	EMC components
	PRE-INTEGRATED SYSTEMS SYSTEM PLATFORMS CHASSIS



Our customers come from many different, demanding industries, all with a wide range of applications. Industry specialists in our teams help us understand your specific requirements and regulations, and reflect them in our solutions.

Our skills in developing and manufacturing the appropriate components and systems are confirmed by a range of certificates.

## Certification, Standards, Guidelines

- › ISO 9001
- > EN ISO 13485
- › EN ISO 14971
- › EN 60601
- › EN 62304
- > DO-160, DO-178, DO-254
- › NSQ 100
  - › EN 50155
  - > EISI

- Industrial Control
- Machine control systems
- Control systems
- Monitoring systems
- > Integration in accordance with Industry 4.0
- Visualization systems
- Intelligent sensor/actuator technology

## Energy

- Power station process control technology
- Energy recovery
- Power distribution systems
- Monitoring systems
- Energy storage systems
- Charging systems





## Information and Communication

- Switching systems
- Management systems
- Testing systems
- Data transfer
- Data storage
- Server systems

## Aerospace Industry

- Measurement and test systems
- Cabin equipment
- Communication systems
- Control systems
- Monitoring systems
- Simulators

## Medical

- Diagnostic systems
- Analysis devices
- Therapeutic devices
- Large medical devices
- Laboratory equipment
- Visualization systems

## Transportation

- Railway systems
- Automotive
- Shipping
- Process control technology
- Monitoring systems
- Toll gate systems









## Our global sales network – always close at hand.



See our website for contact details of our sales partners.

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