



**ATM ComputerSysteme GmbH —
your systems partner.**

KNDS

Delivering consistently high standards — from the idea to the design to the finished system.

We are a system manufacturer with a focus on technology, developing hardware & software solutions designed to work in perfect harmony with one another.

A holistic approach

We look beyond just the technology that each project involves. Instead, we provide support for projects every step of the way – from the initial idea, to development & integration, all the way through to series production. We assist every stage in the life cycle of your project:

- Consulting & studies
- Analysis & testing
- Conceptualisation & project mgmt.
- Development & design
- Series production
- Integration
- Function tests
- Training & support
- Maintenance & obsolescence mgmt.

For more than 35 years now, we have ranked among the leading system manufacturers in Germany's security & defence industry. We are part of the Krauss-Maffei

No task too difficult

Our solutions are based on proven standards & procedural models – or we can work in line with the standards that you request.

- On-board electrical systems acc. to VG96916
- Radiation shielding nat. zone model (1–3)
- EMC acc. to MIL-STD-461
- Environmental tests acc. to MIL-STD-810
- Procedures acc. to MIL-STD 2167A, 498
- Electrical equipment acc. to DIN 60945
- Electrical equipment acc. to IAEC 10
- Functional safety acc. to DIN 61508
- Software development acc. to V-Modell XT
- Software development acc. to DO 178
- NATO standard AQAP-2110/2210
- DIN EN ISO 9001:2015
- DIN EN ISO 14001:2015
- DIN EN ISO 50001:2018

Wegmann Group, which is a member of the German-French defence technology group KNDS – the market leader in Europe for highly protected wheeled & tracked vehicles.

Quality: our driving force

We continually aim to use the very best technology for the application in question & uphold the quality standards that apply. We make use of quality management measures in all of our activities, methods, processes and resources:

- Close collaboration with primarily audited suppliers
- Quality level monitoring at every stage of purchasing, development & production
- Qualification as part of development
- Tests in our in-house laboratories
- Application of customer-specific standards
- Evidence that the required standards have been adhered to at all times



Product engineering — from circuitry to layout to design.

Our engineers carry out their development, design and qualification work on the basis of current industrial and military quality standards, applying them to everything

from the concept to the circuitry and layout, all the way through to the finished hardware. Everything is done in-house at our headquarters in Constance. The

many years of experience and in-depth expertise we have accumulated enable us to create the very best solutions, durable products, and satisfied customers.

Circuit development

- Development of analogue & digital circuits
- Transient protection for compliance with on-board electrical system specifications
- EMC filter circuits
- High-speed circuits such as PCIe, USB 3.0, Gigabit Ethernet, DisplayPort & DVI/HDMI

FPGA development

- Video processing (video overlay, scaling, picture-in-picture, etc.)
- Hardware programming based on VHDL & AHDL
- Graphics programming
- Use of the latest FGPA & SoC model from XILINX, Altera, etc.

Equipment development

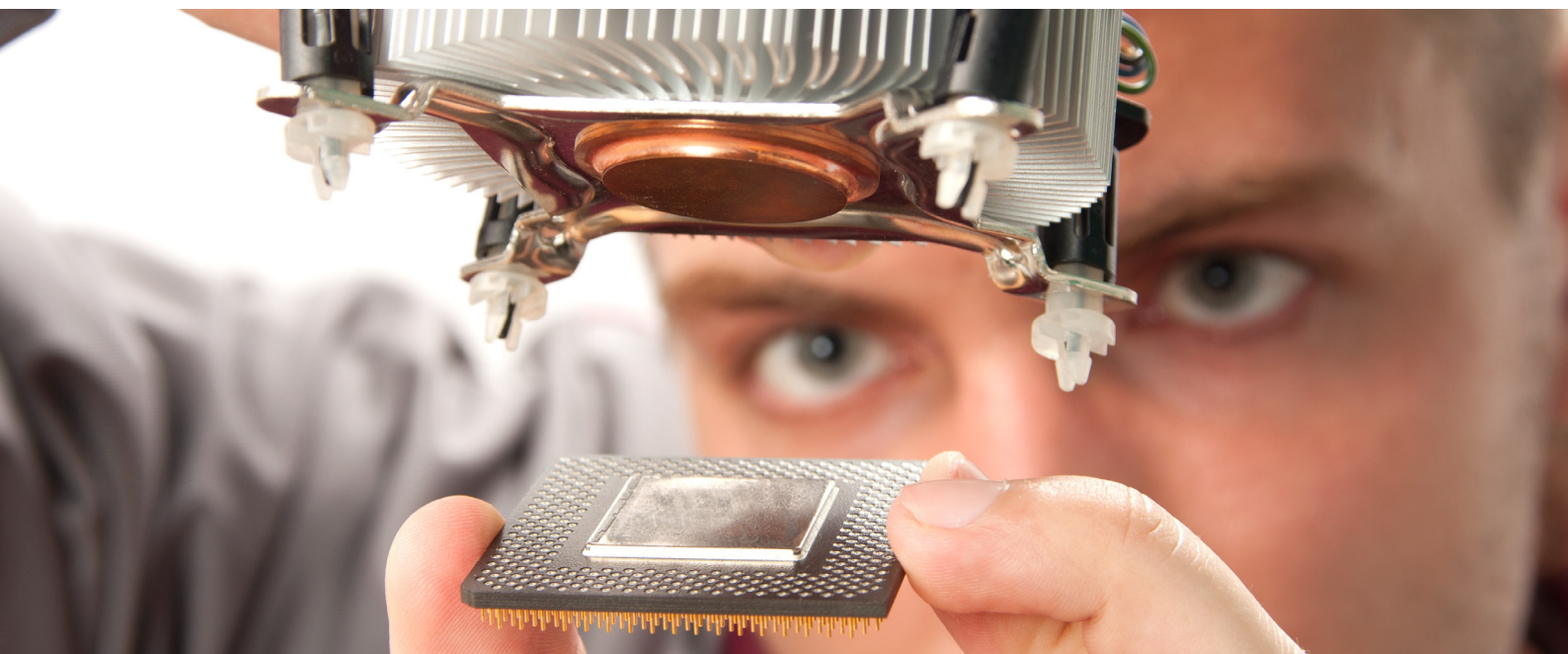
- Vehicle computers & servers
- Communication servers & routers
- 1, 2 & 4 RU computer systems
- Panel PCs
- Display technology incl. video processing
- Operator units with safety function
- Power supplies & battery chargers
- Ethernet switches, keyboards & other peripheral components, cables

Layouts

- Highly complex high-speed designs with the latest technology
- EMC-compliant design with multi-layer circuit boards & flex-rigid technology
- Board layout created, then drawing set made available to order

Design/Mechanics

- Development & design of complex housings & mechanical components in 2D and 3D CAD tools
- Cables with high-speed & EMC requirements in line with all common MIL standards
- Optimisation of electronic devices with regard to heat dissipation also taking into account the installation conditions in the vehicle
- Design developed up to the point of a drawing set that is available to order, plus assembly instructions



System engineering — from application to routing to the final system.

You can only make the most of fast, efficient hardware if you have the right software to go with it. We program applications and protocols on the basis

of standardised procedural models and formalised development methods. We also ensure that functions work in harmony with the features of your

hardware. The synergies that arise out of our work provide the ideal technological basis for a sound future.

Communication systems

- MANET function with IP Multi-Topology Routing, incorporating natively non-IP-capable command and control tools
- Virtually parallel transmission of voice & data
- IT security up to VS-NfD with proactive & reactive components
- Tools for network planning, network management & network monitoring
- Web-based management interface with user/role concept
- Scalable architecture in software & hardware

Test systems

- Diagnostic platforms test command & control equipment in military vehicles
- Function monitoring: Identification & reporting of operational readiness while in use
- Function testing: Offline testing of operational readiness using specialist testing resources
- Fault localisation: Enables testing of IT components using testing software & resources

Specialist software

- System conceptualisation & design based on analysis of customer requirements
- Operating systems
- On-board support packages
- Customised software solutions, based in particular on specific procedural models
- Planning & execution of system tests in the field



**Perfection is our mission in every area —
from quality control to production to the entire life cycle.**

We provide every aspect of your project with support – from development and production to qualification and comprehensive testing, all the way through to life cycle management

and exchange processes. More than two thirds of our employees are involved in the development work that is carried out directly at our HQ. This helps us to

ensure not only that we are able to carry out planning and design in close proximity to our customers, but also that our system solutions meet high standards of quality.

Qualification

- In-house qualification
- Tests in our in-house laboratories: temperature, shock, vibration, etc.
- In-house radiation testing laboratory (antional. zone model 1-3 & SDIP-27 Level A-C)
- Internal quality assurance
- Endurance testing in own laboratories
- Internal incoming goods inspection
- Internal outgoing goods inspection
- In-house quality assurance office for the Bundeswehr

Function tests

- Defined scenarios for field tests
- Operations planning, execution & evaluation

Procurement

Project-specific procurement, as well as procurement as part of a framework contract with the contracting authority

Production

- Construction of prototypes
- Preparation for series production
- Internal production
- Small & large-scale production

Life cycle management

- Life cycle cost analyses
- MTBF calculations in line with MIL-HDBK
- Calculation of spare part stock
- Assistance for maintenance stages
- Support for online system monitoring (MES1)

- Support for offline system testing (MES2)
- Workshop repair (MES4) in line with maintenance framework contracts
- Technical & logistics support in line with technical & logistics support contracts
- Software support in line with software support contracts
- Provision of reference systems
- Internal materials management, incl. in-house storage
- Obsolescence management
- Assurance of long-term availability for components
- Guaranteed availability of system solutions & spare parts
- Amendments made using form, fit & function processes



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