

End-to-End

Automotive Test Equipment & Qualification

Development. Testing. Validation. We are an all-in-one provider.

Discover AERA

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The Reality

Testing is getting increasingly Complex



Growing OEM Test Requirements and Test Depths



Increasingly Complex ECUs & Test Setups



Tight Timelines with Growing Variant Diversity



Test Automation Demands Time, Resources and Focus



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AERA

One Partner. End-to-End Responsibility.

+ Project Management

+ Engineering

+ Test & Automation

+ OEM Expertise



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+ Project Management

Central Project Responsibility

We coordinate all involved disciplines – from technical specification to test execution. Interfaces between development, laboratory, test equipment and OEM are centrally managed. Clear responsibilities reduce coordination effort and minimize project risks.

+ Test & Automation

Reproducible Test Execution

Our automation platform synchronizes test subjects, test equipment and climate profiles. Tests are systematically monitored, measurement data is completely captured and documented. This produces reliable results with high repeatability – even in complex long-term tests in an accredited environment.

+ Engineering

Integrated System Development

Test equipment, interfaces, software and automation can be planned and implemented as an integrated system. Instead of individual devices, a structured, reproducible solution is created. Changes can be integrated in a controlled manner, reusability is increased and scalability is enabled.

+ OEM Expertise

Experience with OEM Requirements

Through many years of experience in the automotive sector, we know the requirements of OEMs and Tier-1 suppliers in detail. Test plans, standard specifications and documentation requirements are considered from the start. This reduces rework and shortens release processes.



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Our Services

“We assume responsibility and can manage OEM coordination...”

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Automotive Testing, Equipment & Qualification – Scalable

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Test Equipment-Development



Development of modular, custom-designed test systems

Test Planning & Automation



Design, development and implementation of reproducible test sequences

Test Execution in Our Own Laboratory (ISO 17025)



Climate, EMC, Electrical, Chemical, and Mechanical Testing

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Modular Test Equipment – Developed for Automotive Systems

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Automotive Video Interface Expertise

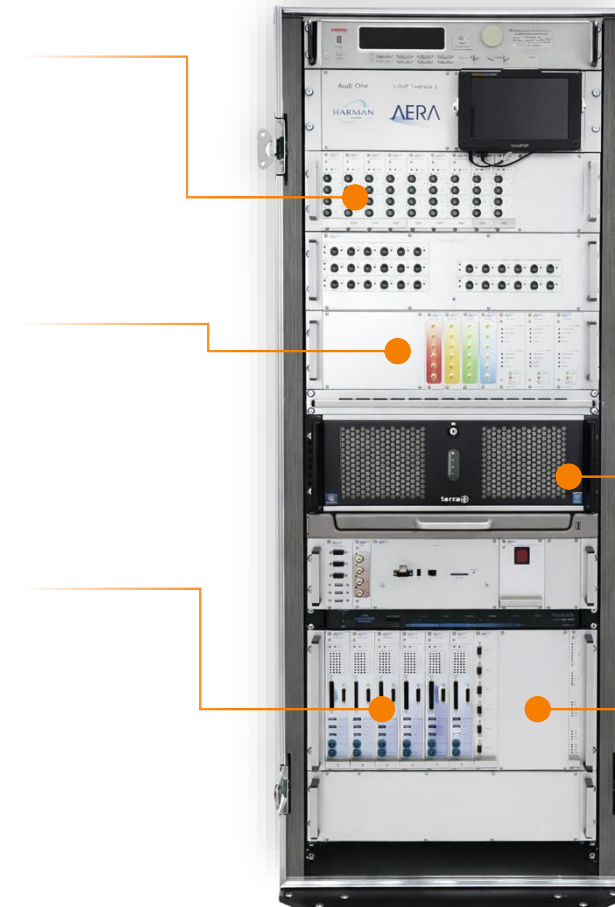
[Learn More](#)

RF Development & Signal Routing

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In-House Interface & PCB Development

[Learn More](#)



Integration of Proven Industrial Components

[Learn More](#)

Modular 19" System Architecture

[Learn More](#)



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Automotive Video Interface Expertise

Modern infotainment systems place high demands on video transmission and signal quality. We have deep expertise in technologies such as GMSL, APIX and FPD-Link. Converter PCBs and signal paths are designed precisely for each system architecture. This enables reliable integration of even complex or new video interfaces into test environments.



In-House Interface & PCB Development

Specific requirements or new interfaces for which no suitable solutions yet exist are developed in-house. This includes custom interface boards, signal adapters and converters. Development, layout and commissioning are integrated into the overall system – fast, precise and exactly matched to project requirements.

**Automotive Video
Interface Expertise**

**In-House Interface &
PCB Development**

RF Development &
Signal Routing

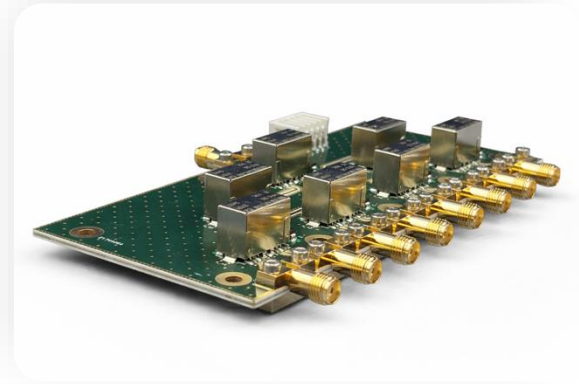
Integration of Proven
Industrial Components

Modular 19" System
Architecture



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RF Development & Signal Routing

For demanding test environments, we develop custom RF solutions for signal distribution and conditioning. This includes splitting, switching, DC bias injection and clean routing of high-frequency signals. Whether GPS, DAB, LTE or other high-speed interfaces – we ensure low-loss, interference-free routing tailored to each test environment.



Integration of Proven Industrial Components

Where proven and reliable solutions exist on the market, we deliberately use high-quality industrial components. Measurement instruments, switches, power supplies or industrial computers are specifically selected and integrated into our system architecture. This combines stability and availability with maximum flexibility – without costly new development.

Automotive Video
Interface Expertise

In-House Interface &
PCB Development

**RF Development &
Signal Routing**

**Integration of Proven
Industrial Components**

Modular 19" System
Architecture



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Modular 19" System Architecture

Our test systems are based on modularly encapsulated 19" rack carriers. Individual functional units can be systematically integrated, replaced or expanded. This enables scalability across project boundaries, simplifies maintenance and repair while increasing component reusability. Instead of project-specific one-off setups, a robust, service-friendly system platform is created.



Automotive Video
Interface Expertise

In-House Interface &
PCB Development

RF Development &
Signal Routing

Integration of Proven
Industrial Components

**Modular 19" System
Architecture**

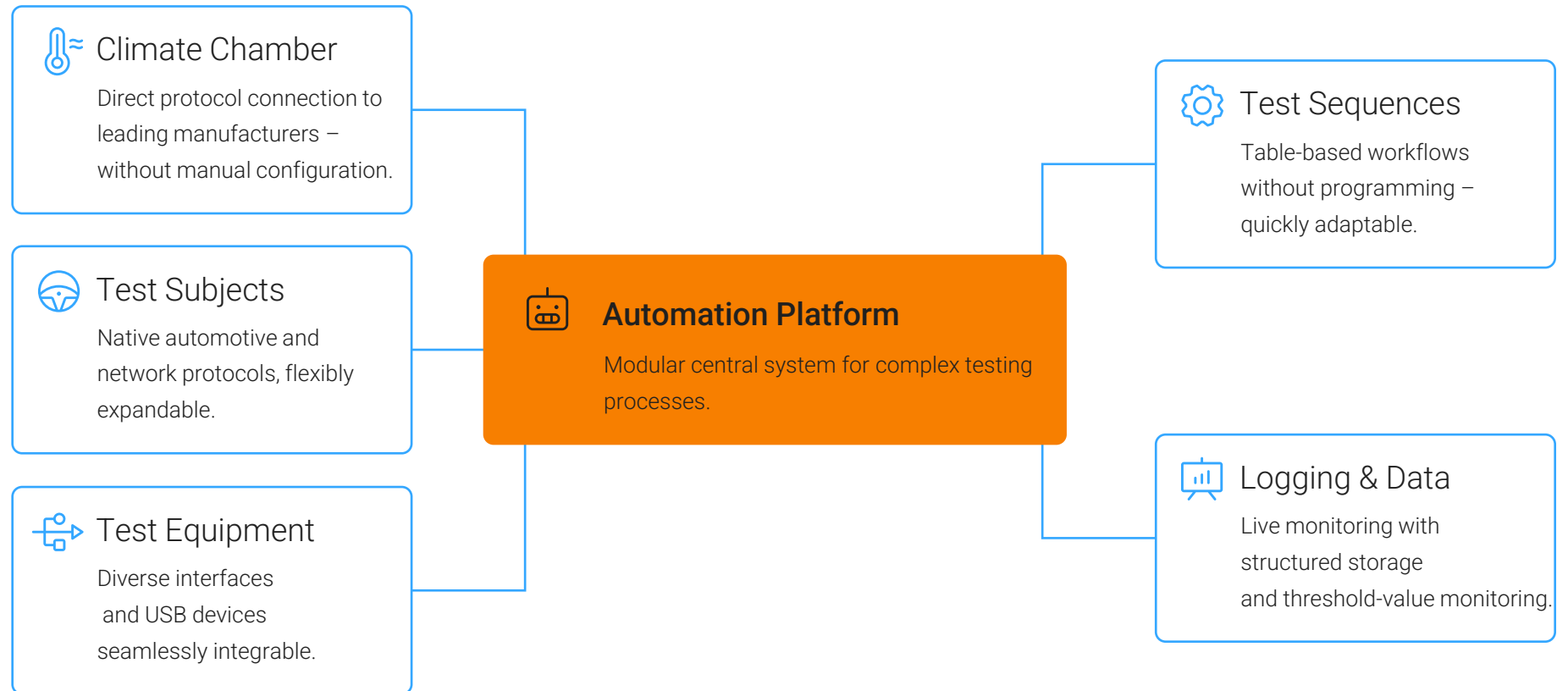


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Test Automation

Making Complexity Manageable



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Environmental Lab

Test Execution at Our Qualification Center

With 25 climate chambers – including salt spray and thermal shock systems – plus a modern EMC chamber, we offer mechanical, electrical and chemical testing at the highest level. As an ISO 17025 accredited test laboratory, we handle project management, execution and documentation from a single source, testing according to all relevant basic and OEM standards (incl. LV124/148, CISPR, EN, ISO, VW, TL, GS, GMW).

+ Climate

+ Mechanical

+ Chemical

+ Electrical

+ EMC

+ Accredited



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Climate Testing & Thermal Shock

Our laboratory features more than 25 climate chambers with volumes from 50 l to 1,000 l. Temperature and humidity tests from -70 °C to +180 °C are possible, as are rapid gradients of up to 15 K/min. Thermal shock chambers are also available for highly dynamic temperature cycling tests.



Mechanical Testing & Shaker

Using two electrodynamic shakers, we perform vibration tests in all axes. Combined with climate chambers, testing under temperature influence is also possible. Our internal prototype manufacturing develops custom shaker fixtures to replicate real vehicle installation conditions.

Climate

Mechanical

Chemical

Electrical

EMC

Accredited



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Chemical Resistance & Corrosion Tests

We test components for resistance to various chemical agents. Additionally, a salt spray chamber is available for corrosion tests. All tests are performed in compliance with standards and are fully documented.



Electrical Testing & On-Board Network Simulation

Our fully equipped electrical test station enables the entire range of electrical tests in the automotive environment. High-speed power supplies allow realistic on-board network simulations and dynamic voltage profiles.

Climate

Mechanical

Chemical

Electrical

EMC

Accredited



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EMC & Shielded Chamber

Our EMC and shielded chamber enables standard-compliant testing for emissions and immunity. This includes ESD, burst and RF tests among others. With development-accompanying EMC analyses, we can support early project phases.

Climate

Mechanical

Chemical

Electrical

EMC

Accredited



Accredited Laboratory to ISO 17025

Tests are performed in conformity with standards and transparently documented.

Below is a brief overview of relevant standards and norms:

EN 60068-2 Series | EN 61000-4 Series | LV124 / LV148
CISPR 11 / 16 / 25 | ISO 11452-2 Series | VW80000
TL81000 | GS95002 | GMW3172



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Typical Project Models

Individually Combinable, Scalable & Adaptable

We handle Testing & Qualification completely.

You define – we manage.

You test yourself – we deliver the system.

Equipment

- Planning & Development of Custom Test Systems
- Deployment in Own or External Laboratory

Execution

- Tests According to Client Specifications
- Support & Supervision by Experienced Lab Experts

Full Responsibility

- Project Management & Execution
- Test Plan Coordination with OEM on Client's Behalf
- Test Equipment Development or Provision
- Accredited Test Reports



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More Than Testing

Development Services with System Expertise

Development from Prototype to Series Product

[Learn More](#)

Electronics & Embedded Software from One Source

[Learn More](#)



Pure Software Services (Desktop, Web & Mobile)

[Learn More](#)

Support for Resource Bottlenecks or Full Projects

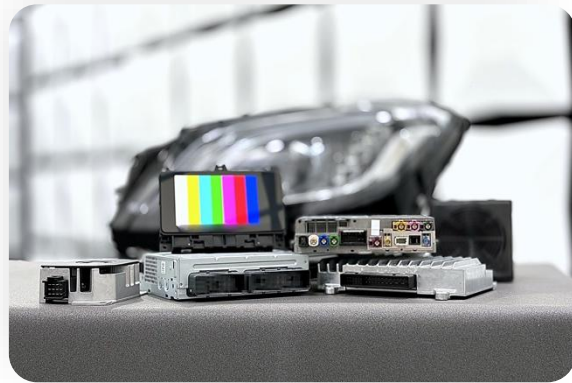
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Development from Prototype to Series

We develop both specialized development and interface PCBs as well as complete series products for automotive and industrial applications. We accompany the entire development process, from prototype through small series to production readiness. Experience from Testing and Qualification is incorporated into the design. We organize manufacturing and assembly – even in the smallest quantities.

Development from Prototype to Series Product



Electronics & Embedded Software

Our embedded development covers Bare-Metal, RTOS and Embedded-Linux applications. Driver development, interface integration and communication protocols are implemented in a structured way. Through automated build and test processes ensure high software quality – even in safety-critical and time-critical applications.

Electronics & Embedded Software from One Source

Pure Software Services
(Desktop, Web & Mobile)

Support for Resource
Bottlenecks or Full Projects



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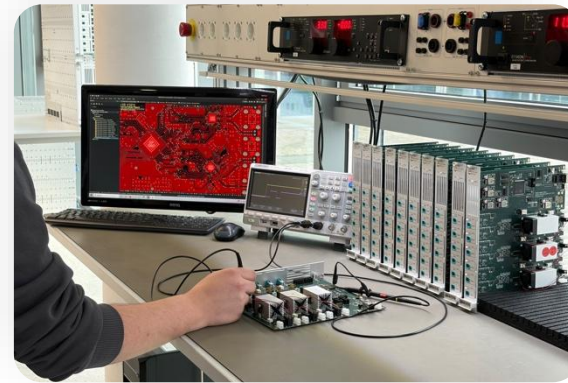


Pure Software Services

In addition to embedded projects, we also deliver pure software solutions – from desktop applications to web-based tools. Whether internal engineering tools, automation software or custom applications: we support flexibly and project-oriented, even within existing system landscapes.

Development from Prototype to Series Product

Electronics & Embedded Software from One Source



Support for Resource Bottlenecks or Full Projects

We take on complete development projects and provide targeted support for resource bottlenecks. Individual work packages can be integrated just as well as full project management. Structured processes and automotive experience ensure transparent workflows and predictable results.

Pure Software Services (Desktop, Web & Mobile)

Support for Resource Bottlenecks or Full Projects



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AERA

Numbers that Speak for Themselves

150+

Completed Projects per Year

30+

Qualified Employees

35+

Years of Engineering Experience

ISO 17025 Accredited Environmental Laboratory

ASPICE Level 2 Structured Development Processes



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Companies That are Trusting Us



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Let's Talk!

Are You Ready for Your Next Testing or Development Project?

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Get in Touch



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