



Hardware

Software

Qualification testing

EMC

Prototype manufacturing

Series production

Company profile

wildmoser
electronic

Professional expertise,
experience and the
highest level of quality.

Since 1991.





f.l.t.r.: Herbert Schwaibberger | Michael Trapp | Stefan Wildmoser | Andreas Reitmeier | Reiner Möbius

wildmoser

electronic

Who we are and what we do

WILDMOSER electronic

Founded in 1991, Wildmoser electronic develops reliable hardware and software solutions, cost-optimised control units, electronic modules and devices for nationally and internationally renowned technology companies in the automotive sector, automation and testing, and many other industries including medical devices and consumer electronics. Our customers provide the initial ideas that we then develop into flexible solutions to support their innovation process.

We apply a collaborative approach, working hand in hand with our customers as development partners. We are a single-source provider of development services, with more than 40 employees and annual revenues of over six million euros. We operate our own facilities for qualification testing, EMC testing, prototype manufacturing and series production. The benefit of carrying out all decisive stages of each project in-house is that we can guarantee our customers a development process that is both time- and cost-efficient.

It also enables us to stay abreast of technological progress, thus substantiating the claim that Wildmoser electronic is a full-service provider offering top quality, expertise, experience and an intimate understanding of industry requirements.

Our services at a glance



Wildmoser electronic develops cost-optimised electronic control units for applications in the automotive sector and other industries.

HARDWARE

The development of cost-optimised electronic modules and devices is the challenge that Wildmoser electronic accepts on the part of its customers anew every day. Whatever the application – be it an automotive control unit or a new medical device – the initial idea for the hardware component is provided by the customer. The corresponding, efficient solution for the electronic circuits is delivered by the experienced design engineers at Wildmoser electronic, based on their intimate knowledge of industry requirements.

Our services range from conceptual modelling to the final, fully documented prototype, passing through all intermediate stages such as circuit design and EMC-compatible layout, taking into account any mechanical design constraints. All circuits are built using the latest generation of active and passive components. We employ all industry-standard brands of microcontrollers, digital circuits, analogue signal processors and power electronics. To verify circuit and layout design, we use professional electronic design automation (EDA) tools and highly efficient test and measurement tools, also for circuit simulation and signal integrity simulation. It goes without saying that we also compile a full set of data and documents that you will need for the production of the new electronic components or devices.

Wildmoser electronic creates optimised solutions by developing hardware-adapted software.

SOFTWARE

Optimised electronic solutions are obtained by developing hardware adapted software rather than using standard software. Wildmoser electronic meets this objective by working hand in hand with its customers at all stages of the development process, from analysis of the requirement specifications and on through the design process, up to implementation. Our interdisciplinary development teams start by studying your requirements in a detailed walk-through. They then apply systematic software design methods to develop product-adapted software solutions that fit these requirements as well as being scalable, reusable and fault-tolerant. Our basic software engineering process fulfils automotive SPICE requirements, but can be customised to meet other standards on request. In parallel, in order to facilitate future enhancements to our control devices, Wildmoser electronic also develops associated data visualisation and analysis tools in the form of apps for Windows, Android or iOS. Many customers have chosen Wildmoser electronic as their long-term software development partner because we use state-of-the-art technologies and produce consistently reliable results.

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In-house qualification testing underscores the efficiency of Wildmoser electronic's development processes.

QUALIFICATION TESTING

The qualification of prototypes is one of the core competencies of Wildmoser electronic. This is an area of central importance to our work, because by performing such tests in-house we can be sure of offering our customers the most time- and cost-efficient development process. This makes perfect sense when you consider that 60 percent of any well-organised development process consists of testing. By carrying out standard test procedures and various environmental simulations on our own premises, we can take immediate measures in response to the test results, thus saving valuable time.

To comply with the increasingly strict testing standards as regards scope and inclusivity, our laboratories are equipped with the latest generation of advanced test and measurement instruments. In special cases, Wildmoser electronic develops and builds customised test equipment and tools. This includes configuring the test setup, designing the necessary test circuits, and coding the necessary software. Customers who wish to continue using the same test setup are provided with full documentation, including operating instructions and test protocol templates.

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Two EMC labs for testing the electromagnetic compatibility of electronic components

EMC

All electronic devices destined for the consumer market have to comply with electromagnetic compatibility (EMC) regulations, whatever their application – be it in the automotive sector, industrial automation, or in the production of consumer products or advanced medical devices. Wildmoser electronic therefore devotes much of its attention to this aspect of design and fabrication. The company has two EMC chambers in which it tests radio frequency (RF) emission and immunity of prototypes. The lab is staffed by highly experienced employees with in-depth specialised knowledge who make use of ultra-modern EMC test equipment to carry out a diversity of tests: conducted emission at the artificial network, radiated emission and immunity with antennas, stripline method, capacitive voltage measurements, bulk current injection (BCI), immunity to portable transmitters with tuned monopole and broadband dipole antennas and immunity to magnetic fields with Helmholtz coils.

The advantage of an in-house EMC test facility is that it eliminates the timeconsuming and costly process of coordinating activities with external service providers. Moreover, the direct proximity of the EMC lab to the qualification testing, hardware and software development departments facilitates collaboration, thus enhancing the efficiency of work on EMC interference suppression.



EQUIPMENT IN OUR EMC LABORATORIES:

- S-Line test cell (manufacturer: Rohde & Schwarz)
- 2 semi-anechoic chambers lined with hybrid absorber materials

Antennas:

- rod antenna
- biconical antennas
- trilob broadband antenna
- logarithmic-periodic antennas
- horn antennas
- mobile communication antennas
- Helmholtz coil
- stripline
- coupling clamps for bulk current injection (BCI) testing

RF power amplifiers:

- frequency range 10 kHz–100 MHz, 150 W
- frequency range 10 kHz–400 MHz, 220 W
- frequency range 80–1000 MHz, 500 W
- frequency range 80–1000 MHz, 1200 W
- frequency range 0,8–4,2 GHz, 50 W
- frequency range 0,8–3,2 GHz, 220 W

We test for compliance with the following standards and directives:

- CISPR25
- Automotive EMC Directive
- ISO 11452-2, -4, -5, -8, and -9
- Proprietary standards of nearly all well-known vehicle manufacturers (e.g. BMW GS, VW TL, Mercedes-Benz MBN engineering standards ...)



Wildmoser electronic maximises efficiency by offering all development services in-house, including prototype and short-run manufacturing.

PROTOTYPE MANUFACTURING

Prototype manufacturing is another stage of development that Wildmoser electronic prefers to keep in-house. The precise functional models and prototypes we produce for development projects cover everything from the populated circuit board to the device packaging. Our laboratories are equipped with state-of-the-art automated component placement systems, mask printers, soldering stations, a 3D printer, a flying probe test system and an AOI (automated optical inspection) system. This enables us to respond rapidly and flexibly to technological progress and modified requirements, thus guaranteeing our customers a development process that is both time and cost-efficient.

On request, Wildmoser electronic will also develop and manufacture any necessary systems for functional and end-of-line testing. In addition to the services we offer for development projects, our manufacturing facility has the capacity to handle short runs of up to 10,000 units.

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Quality costs money – but the cost of non- quality is much higher.

OUR VALUES

The engineers at Wildmoser electronic are motivated and driven by our customers' success. We help create innovative products by investing our best efforts into the development of cost-optimised, application-oriented control units, electronic devices and customised software solutions.

When collaborating with customers, we give utmost priority to nurturing partnership and trust. Doing so enables us to fully focus on the customer's development objectives, based on our understanding of industry requirements, expertise, and absolute dedication to the job. We make no concessions when it comes to quality because we are firm believers in the adage that Quality costs money but lack of quality costs much more.

OUR HISTORY

Wildmoser electronic was created in September 1991 by Stefan Wildmoser, with the support of co-founders Reiner Möbius, Herbert Schwainberger and Andreas Reitmeier, who remain the pillars of this SME.

Together, this team of electronic design engineers built up a company that today operates as a full-service provider of all-in-one hardware and software solutions. The services offered by Wildmoser electronic cover every stage of the development process, from the design specification to developing the software components, qualification testing, and prototype and short-run manufacturing.

The company set up its first EMC test lab in Puchheim near Munich in 2003. The prototype manufacturing facility was inaugurated in mid-2005. Quality costs money – but the cost of nonquality is much higher.

The young company soon ran out of space for its expanding activities, and purchased its present premises in Puchheim in 2008. A second semi-anechoic chamber was added in 2012 to expand the company's in-house qualification testing capacity.

The company's revenues and workforce have grown steadily in line with its German and international customer base. In 2001, Wildmoser electronic employed just ten engineers, computer scientists and technicians, and generated annual revenues of over one million euros. Only four years later, the workforce had grown to 20 employees, and revenues passed the two-million-euro mark in 2006.

With currently more than 40 employees working for Wildmoser electronic recent annual revenues have increased to over six million euros.

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EMS – directly from the developer

SERIES PRODUCTION

We provide a broad range of technologies, many years of experience as well as direct access to our in-house development. Whether it be high volume single-variant batches, low volume multi-variant batches or individual modules, our multi-purpose facility has been specifically designed to streamline any type of production request.

With the goal of offering you the most economical, flexible, high-quality solution, our network of partners and suppliers are readily available in order for us to ensure we are providing you with an optimal production process.



SERIES PRODUCTION – EQUIPMENT

- High-mix pick-and-place machines
- High-speed 3D automatic optical inspection systems (AOI)
- SMD stencil printing system with automatic solder paste inspection
- Vapor-phase reflow soldering systems
- Automatic selective soldering system
- In-Circuit tester
- Flying-Probe tester
- End-of-Line tester
- Automatic incoming goods scanner
- SMD-Tower automated buffer storage units for deployment near the production line
- Automatic vertical lift modules for warehouse management



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