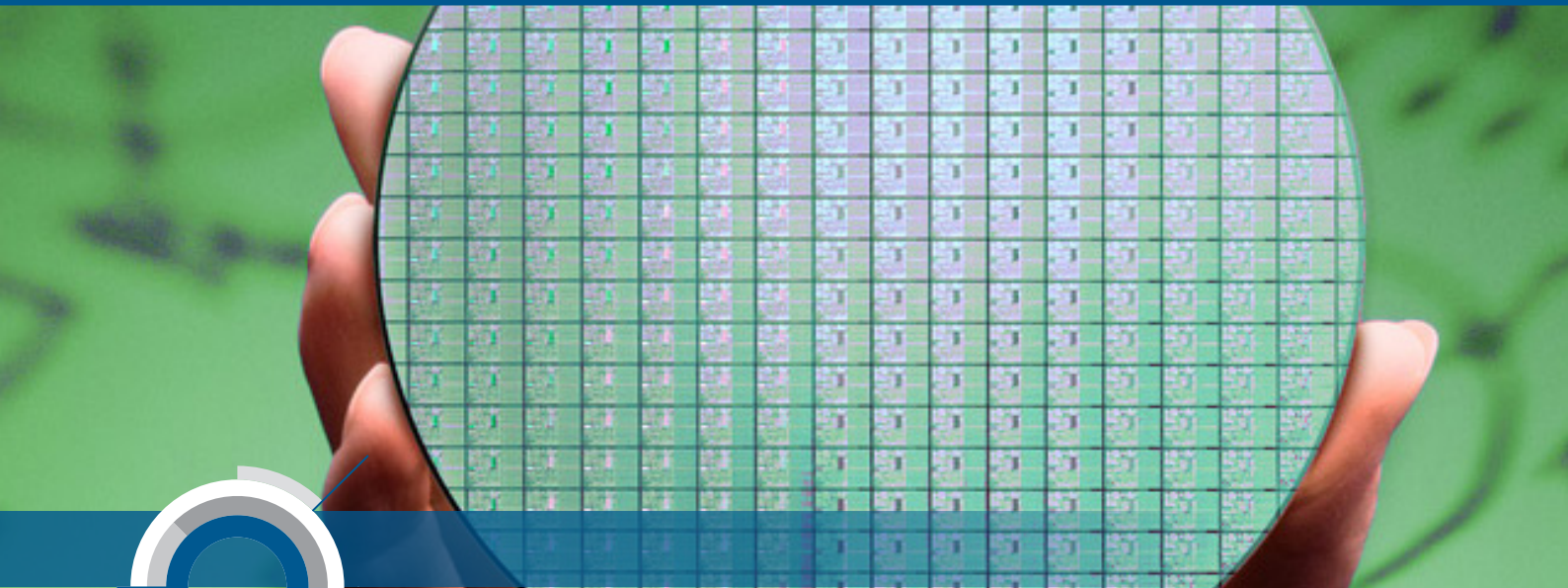


Dr. Westernacher & Partner GmbH -

Designing Innovative, High Quality Products with Unique Proprietary Characteristics



Dr. Westernacher & Partner GmbH - Your Partner and Service Provider for

- Custom micro electronics solutions for automotive, telecommunications, high-tech, industrial machinery and other industries
- Tailor-made software solutions and hybrid solutions for electro-mechanical systems
- Special services for the semiconductor industry

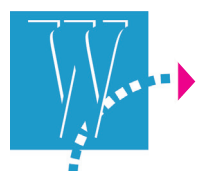


About Us

- More than 15 years of experience providing consulting and development services in electronics and software
- Located in Germany with two offices in the Stuttgart and Baden-Baden areas
- Our employees are engineers, qualified IT specialists, physicists, and business engineers
- Customer focus, full protection of the customer's know-how and absolute confidentiality are guaranteed

Our Services

- Your partner for designing innovative, high quality products with unique proprietary characteristics
- Cost effective development projects, trouble shooting and design, leveraging our own tools and licenses (Cadence, Altium Designer etc.)
- Development of electronic and software systems on behalf of our customers
- Covering peak capacities during research and development projects locally and at customer's site
- Comprehensive outsourced electronic and software development so you can concentrate on your core business

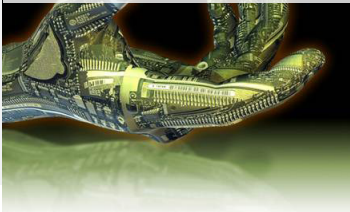


Dr. Westernacher & Partner GmbH -

Designing Innovative, High Quality Products with Unique Proprietary Characteristics

Services Portfolio - Electronics & Software

Consulting & Development



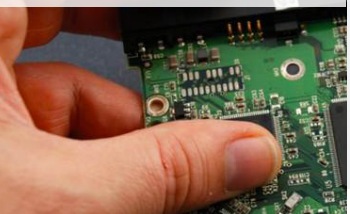
- Technical concepts, feasibility studies, prototyping
- Technical and economic optimization of circuits and systems
- Troubleshooting, testing strategies and fault analysis
- Spot consulting and expert advice
- Full-cycle development services, from idea generation to series production

Circuit Design



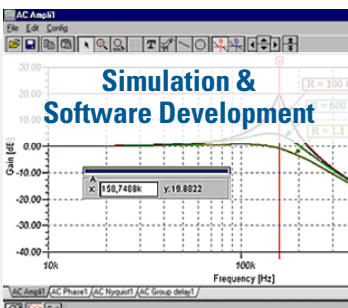
- Development of electronics for measurement, control and regulation technology
- Design of analog, digital and hybrid electronic systems
- Development of power electronics, motor control units, DC-DC converters, switched-mode power supplies (SMPS)
- Development of microcontroller applications and programmable logic circuits (PLD/FPGA)
- Custom-designed circuits, performance and test rigs

PCB Layout & Prototyping



- PCB design and prototyping of complex circuits and oversized multilayer boards
- Constraint driven layout, e.g. consideration of current density, impedance controlled routing
- EMC critical layouts with dedicated power & ground routing, shielded wires, continuous ground planes etc.
- Manual SMT assembly of PCB prototypes
- Support of product launch, testing and fault location of assembled PCB's

Simulation & Software Development



- Spice based circuit simulation for design validation
- Design centering, yield optimization for cost efficiency
- Fault analysis and verification of critical circuit parts
- Modeling of components
- Evaluation of new simulators (e.g. field-theoretical, thermal) on behalf of clients
- Implementations of microcontroller applications
- PLD design, Logic synthesis with VHDL
- Manual, automatic and LabVIEW-based methods of measuring

