

POWER ELECTRONICS

SERVICE PORTFOLIO

Multidisciplinary competencies

As a leading research center and **pioneer in electronic-based systems**, Silicon Austria Labs provides the industry with access to top-tier R&D infrastructure and research services, giving them a decisive competitive advantage – both domestically and internationally.

In **power electronics** we offer services along the entire power electronics value chain – starting from the design and characterization of components up to the complete system design, including packaging, control software and EMC optimization. We are happy to support you in reaching high power density, efficiency, and reliability with your products. Within our lab facilities we can perform measurements and tests up to 1500 V and 200 kW.

For details click [here](#).



Prototyping

- Detailed modelling of active and passive components
- Multi-domain and coupled simulations for power electronic systems
- High density and optimal system design and integration
- Rapid prototyping workflows and code generation for different control platforms



Characterization

- Static parameter characterization of power devices
- Dynamic parameter characterization of power devices
- Characterization of passive components



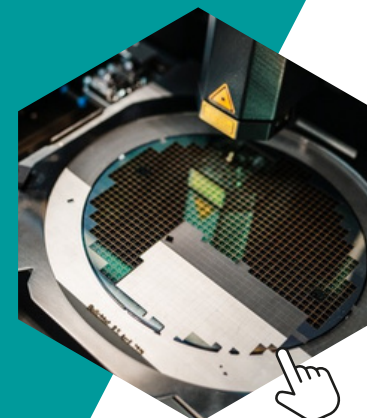
Measurement & Testing

- Efficiency, Power factor/THD measurements
- Power Hardware in the Loop testing
- Thermal and calorimetric measurements



Electromagnetic Compatibility

- Conducted & Radiated Emission measurements
- Bulk Current Injection tests
- Vector Network & Impedance Analysis with De-Embedding
- Simulation and model creation considering EMC



Heterogeneous Integration

- Packaging (Discrete, module and system)
- Interconnects, Micro assembly technologies
- Wafer bonding and debonding
- Backend processing, etc.

