



SYSTEMS INTEGRATOR

CASE STUDY: HIGH-END INDUCTION MODULES

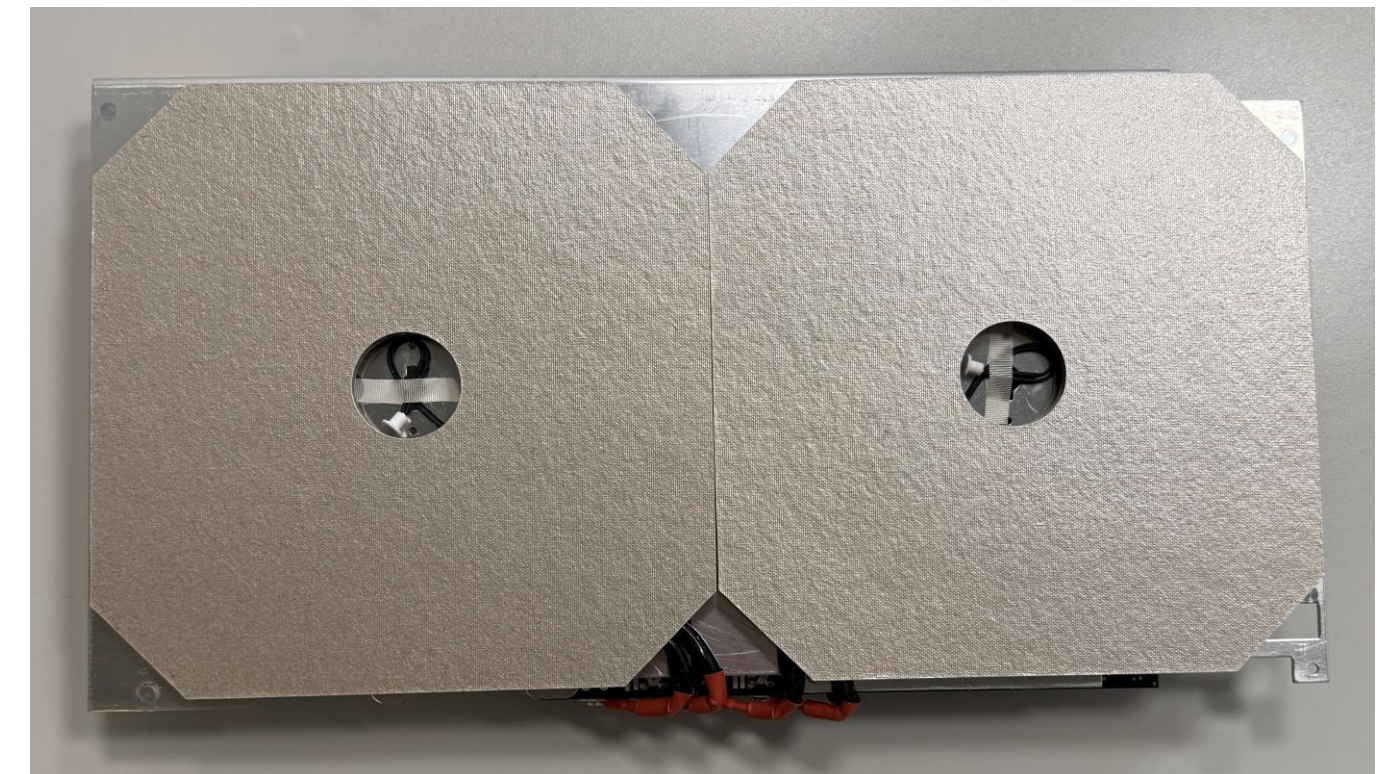
INTEGRATED THERMAL & ACOUSTIC PROTECTION

SGA & Odenwald Insulation Co-Engineered System Sovereignty

Solving the Core Challenges of Under-Stone Environments

Invisible and flush-mounted cooktops face extreme physical layout and environmental constraints. We supply the electronic brain directly coupled with its protective body:

- › Custom-molded high-performance thermal barriers applied directly during the box-build assembly process.
- › Guarantees full thermal isolation against intensive heat radiation from stone countertops.
- › Prevents critical thermal degradation of sensitive semiconductor junctions on the main PCBA.
- › Integrated non-woven/foam acoustic elements to damp active cooling fan noise.
- › Streamlined Supply Chain: 1 System = 1 Supplier = 1 Part Number.



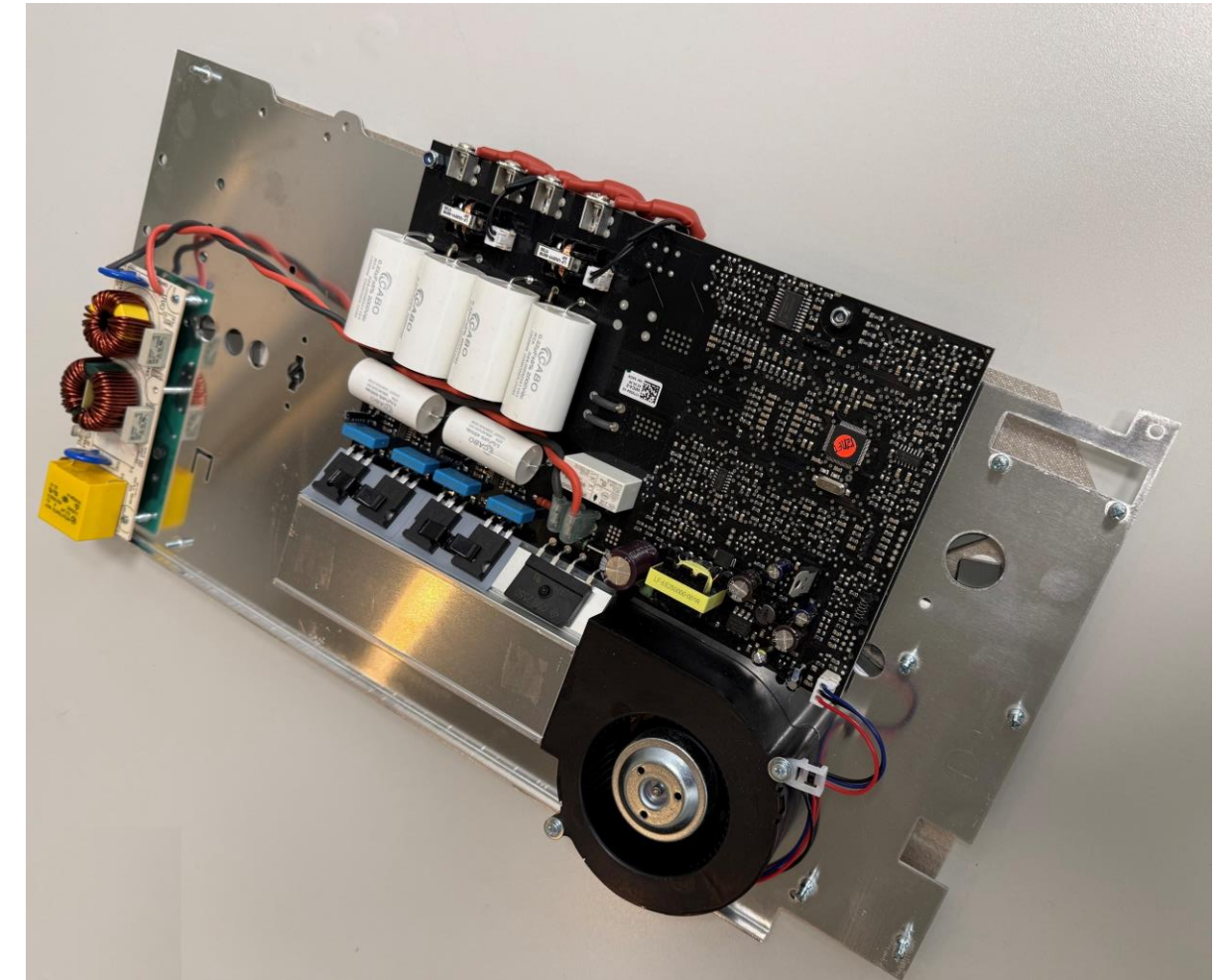
SGA HIGH-POWER BOX-BUILD CAPABILITIES

Industrial Engineering and Heavy Mechatronics Assembly

Full System Assembly Beyond Standard PCBA

Our manufacturing lines in Slovenia are specifically optimized for mechatronic products requiring complex structural integration alongside surface mount technology:

- › Integration of high-power components (heavy-duty capacitors, inductors, filtering coils).
- › Precision assembly of custom structural aluminum heatsinks for maximum heat dissipation.
- › In-line mounting of active cooling elements (high-reliability radial blowers).
- › Specialized manual and selective soldering lines to secure structural power connections.
- › 100% automated traceability with digital ERP tracking for every single component.



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Complete Box-Build System Integration for Premium Home Appliances

› 1. Turnkey Box-Build Assembly

- › Beyond standard PCBA: Complete assembly of high-power electronics, heavy-duty copper wiring, massive aluminum heatsinks, and active cooling systems (radial blowers).
- › Delivered as a fully integrated, ready-to-install system module.
- › Optimized European cost-footprint: Realizing high-labor box-build assemblies in Slovenia with a significant cost advantage over the DACH region – without supply chain risks.

› 2. Thermal & Acoustic Sovereignty

- › In partnership with sister company Odenwald Insulation, we integrate custom-molded thermal shields directly into the electronics module layout.
- › Delivered as a single, turnkey component under one single part number.
- › Prevents critical heat-transfer from the cooktop to sensitive under-counter spaces.
- › Custom acoustic dampening ensures whisper-quiet operation of active cooling units.

› 3. Zero-Defect Manufacturing (Made in EU)

- › Produced in **Slovenia** under strict automotive industry standard **IATF 16949**.
- › 100% End-of-Line (EOL) validation utilizing fully automated 3D AOI & X-ray analysis.
- › Guarantees an unmatched **2.0 PPM failure rate** for mission-critical power electronics.

2.0 PPM

**Reliability for
Home Appliances**

MADE IN EU

**Seamless
Nearshoring &
Optimized Cost
Footprint**



ARCHITECTING THE FUTURE TOGETHER

"In a world of components,
we provide the system."

Let's build the next generation together."



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