Product & Service Portfolio

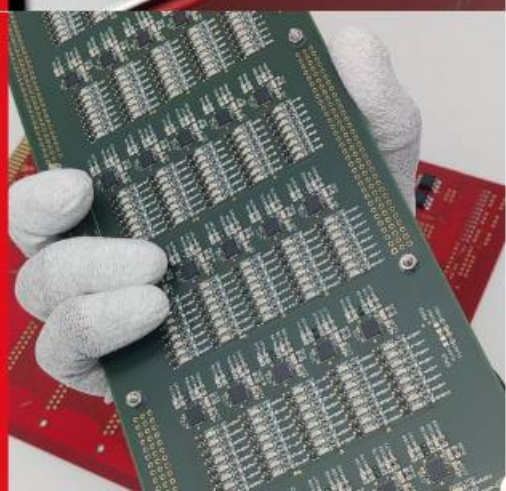
Villach · Austria

FROM IDEA TO IMPLEMENTATION

Engineering and Manufacturing Solutions for the Semiconductor Industry







SEMICORE

SEMICORE

Villach · Austria



SUPPLYING VALUE TO
THE SEMICONDUCTOR INDUSTRY

SEMICORE AT A GLANCE

Semicore – Technology from Villach

Semicore GmbH, headquartered in Villach, Austria, stands for innovation and precision in the semiconductor and electronics industry. Based in one of Europe's leading technology hubs, we develop solutions that make modern electronic systems more efficient and powerful.

Our focus is on quality, reliability, and close collaboration with our partners. With deep technical expertise and a clear vision for the future, Semicore is dedicated to turning innovative ideas into successful technologies.

MECHANICAL ENGINEERING & DESIGN

Wafer Handling & Transport Systems 10

Precision Micromechanical Manufacturing 11

Profile System Construction 12

Chuck Systems 13

Custom-Shaped Heat Sinks 14

Custom-Made Parts 15

ELECTRICAL ENGINEERING & DESIGN

Custom Equipment Systems 18

Industrial Control Systems 19

Live Testing Systems 20

Cable Assembling 21

PCB DESIGN & ASSEMBLING

PCB Layout & Design 24

SMD - Assembling 25

THT - Assembling 26

AOI - Automated Optical Inspection 27

NEW DEVELOPMENTS

(SPECIAL / NON-STANDARD PRODUCTS)

SEMICORE is your trusted partner for new developments – from the initial idea through to successful implementation. We support our customers throughout the technical realization process, ensure compliance with all relevant standards and guidelines, and prepare structured development tracking protocols and specification documents as the foundation for reliable project execution.

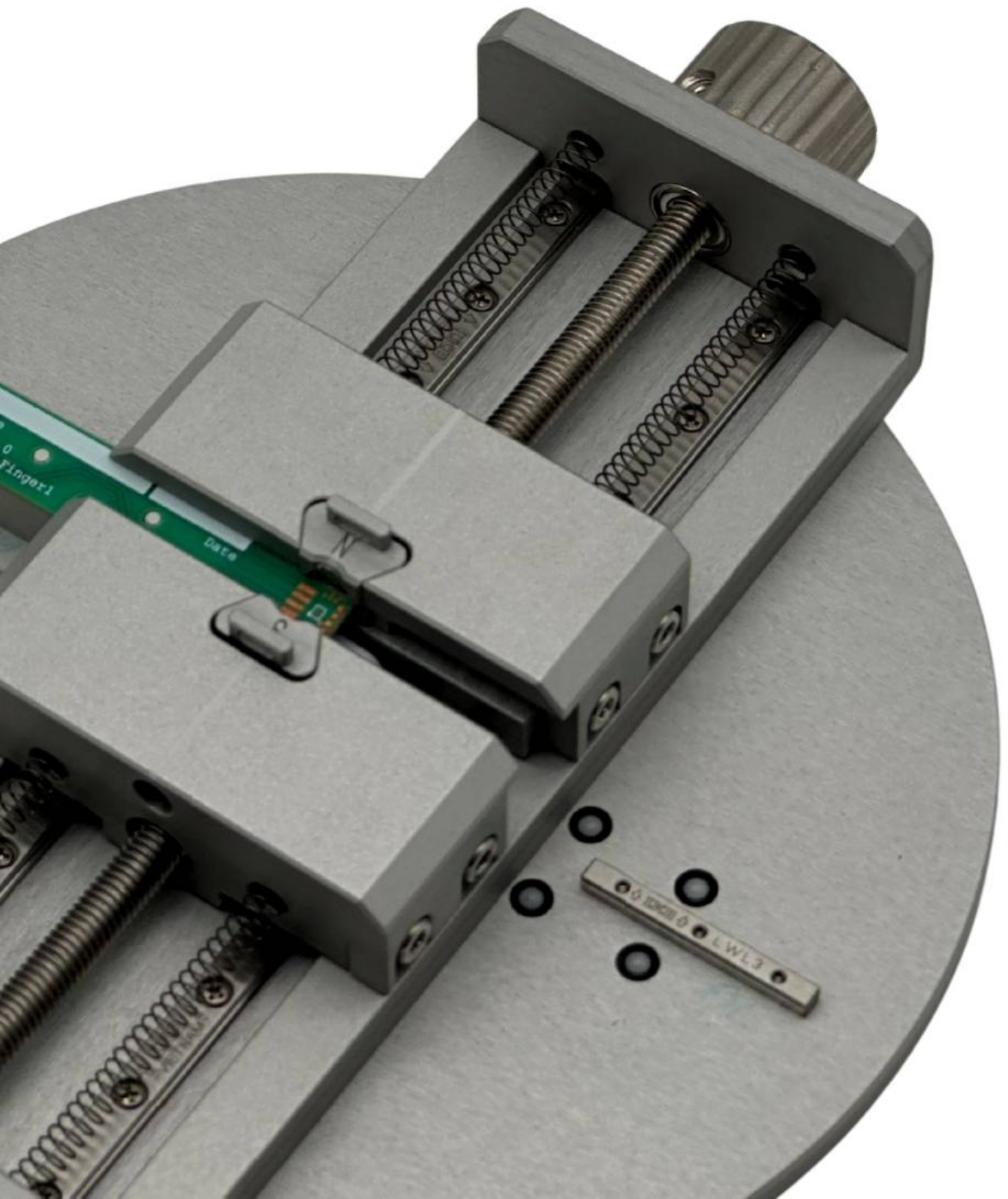
At the same time, we actively drive forward our own in-house developments. Through continuous market analysis and research, we identify emerging trends and technological opportunities to deliver innovative, future-oriented solutions.

CONTACT PERSON

Ing. David Singer
david.singer@semicore.eu

FROM IDEA TO IMPLEMENTATION

Engineering and
Manufacturing Solutions for
the Semiconductor Industry





ME&D

MECHANICAL ENGINEERING & DESIGN

CONTACT PERSON

Manuel Müller
manuel.mueller@semicore.eu

In the Mechanical Engineering & Design division, Semicore develops and manufactures high-precision mechanical components, assemblies, and custom machinery.

All solutions are customer-specific and optimized for cleanroom compatibility, precision, and surface quality.



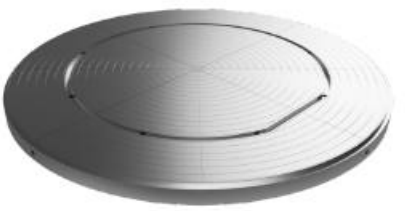
Wafer Handling & Transport Systems



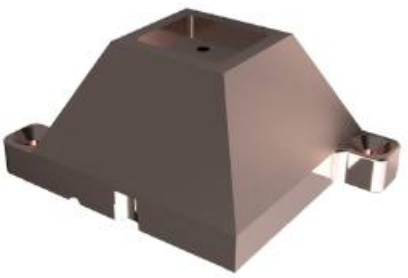
Precision Micromechanical Manufacturing



Profile System Construction



Chuck Systems



Custom-Shaped Heat Sinks



Custom-Made Parts

WAFER HANDLING & TRANSPORT SYSTEMS

SEMICORE develops and manufactures precision wafer handling and transport systems for sensitive semiconductor and high-tech applications.

Our solutions are designed for high repeatability, low-particle production, and reliable, process-stable motion sequences. From individual modules to complete system integration, we deliver customer-specific concepts that integrate seamlessly into existing production environments.





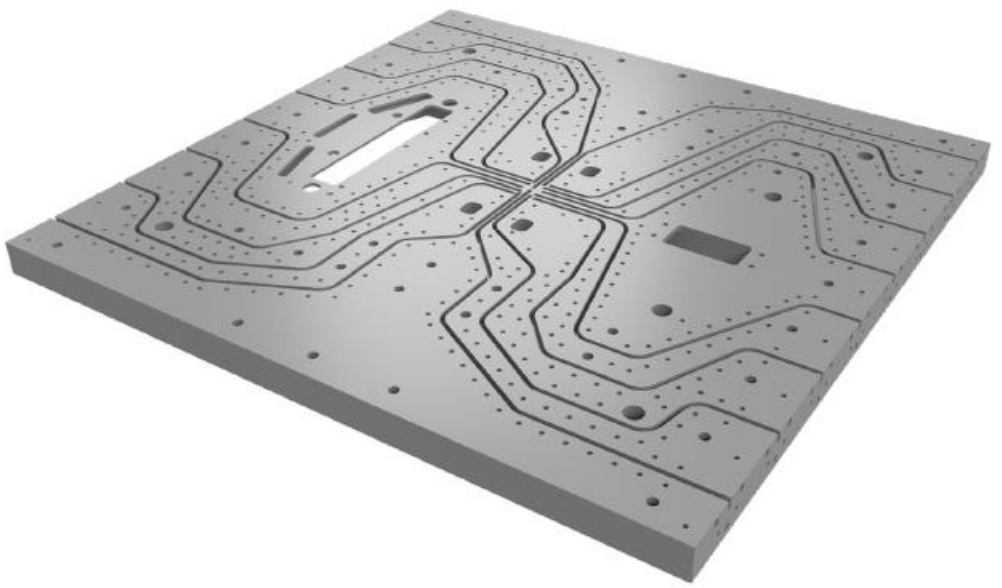


We bring your product to life — built precisely to your requirements, from a wide range of high-quality materials that we can refine with technical coatings.

From the first prototype to series production!

PRECISION MICROMECHANICAL MANUFACTURING

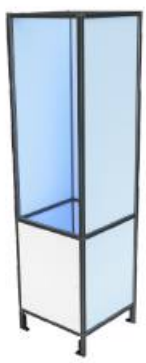
In the field of precision micromechanical manufacturing, SEMICORE develops and engineers complex components with the tightest tolerances and superior surface quality. Advanced manufacturing technologies, controlled processes, and consistent quality assurance ensure reproducible results for applications in semiconductor, RFQ (Radio Frequency Quadrupole), sensor, and medical technology.



SEMICORE

PROFILE SYSTEM CONSTRUCTION

SEMICORE develops and manufactures modular profile systems for individual machine and equipment concepts. The systems are characterized by high stability, flexible adaptability, and short lead times. From simple frames to complex constructions, we offer cost-effective solutions for prototypes, small series, and custom equipment.

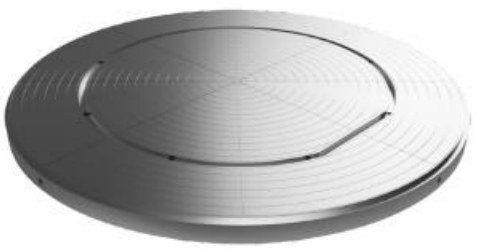




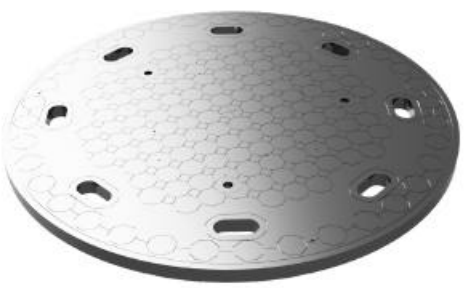


CHUCK SYSTEMS

Our custom chuck systems enable the precise fixation and positioning of sensitive substrates and wafers. With optimized surfaces, exact plane parallelism, and reliable holding force, they ensure stable and reproducible process conditions in demanding applications.We also offer modifications, adaptations, and custom solutions for existing systems.

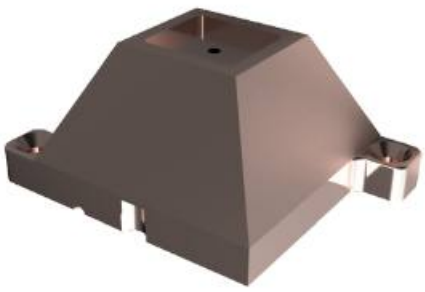




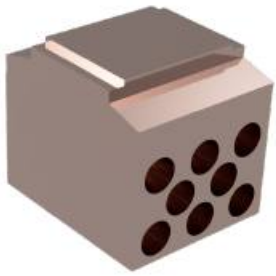


CUSTOM-SHAPED HEAT SINKS

SEMICORE develops and manufactures custom-shaped heat sinks for thermally demanding applications. With tailored geometries, suitable materials, and precise manufacturing, we achieve efficient heat dissipation in a compact design. Each solution is precisely matched to the customer's installation environment and performance requirements.

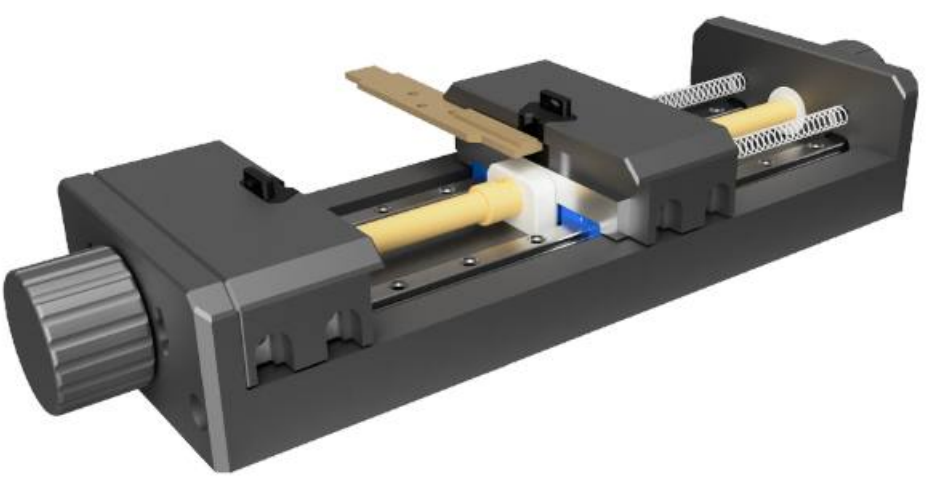






CUSTOM EQUIPMENT SYSTEMS

We manufacture precision mechanical parts exactly to customer specifications – from single pieces to series production. Thanks to advanced machining technologies, flexible manufacturing structures, and rigorous quality controls, we produce components with high dimensional accuracy and reliable reproducibility for a wide range of high-tech applications.





EE&D

ELECTRICAL ENGINEERING & DESIGN

CONTACT PERSON

Kevin Steinacher
kevin.steinacher@semicore.eu

The Electrical Engineering & Design division covers the development, assembly, and wiring of complex electrical and electronic systems.

Our focus is on individual solutions, including for high-power and high-voltage applications.



Custom Equipment Systems



Industrial Control Systems



Live Testing Systems



Cable Assemblies

CUSTOM EQUIPMENT SYSTEMS

SEMICORE develops and delivers complete equipment systems, precisely tailored to our customers' requirements. From the concept phase through electrical and mechanical engineering to commissioning, we create custom solutions for demanding production and testing processes. Throughout the entire process, we place particular emphasis on reliability, ease of service, and seamless integration into existing system infrastructures.



SEMICORE

INDUSTRIAL CONTROL SYSTEMS

We plan and build custom control solutions for machines and equipment in high-tech environments. Our services include circuit diagram design, control cabinet construction, programming, and on-site commissioning. Each control system is tailored specifically to our customers' requirements and processes.





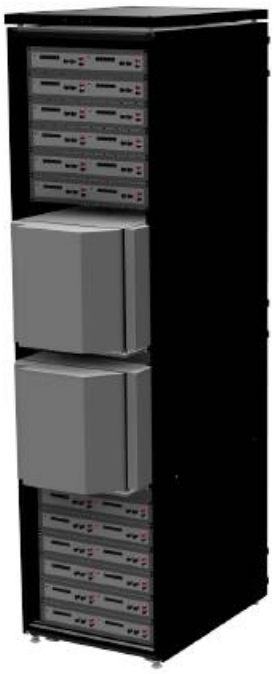




LIVE TESTING SYSTEMS

SEMICORE develops and delivers custom live testing systems for functional, load, and endurance testing under real operating conditions. Our systems enable the precise monitoring and evaluation of electrical, mechanical, and thermal parameters during live operation.

With reproducible test sequences, structured data acquisition, and reliable control, we support our customers in product validation, quality assurance, and process optimization – from development through to series release.









CABLE ASSEMBLING

SEMICORE offers a wide range of custom cable assemblies for diverse industrial applications. Our portfolio includes high-frequency and high-current cables, specially shielded lines, and precision measurement cables.

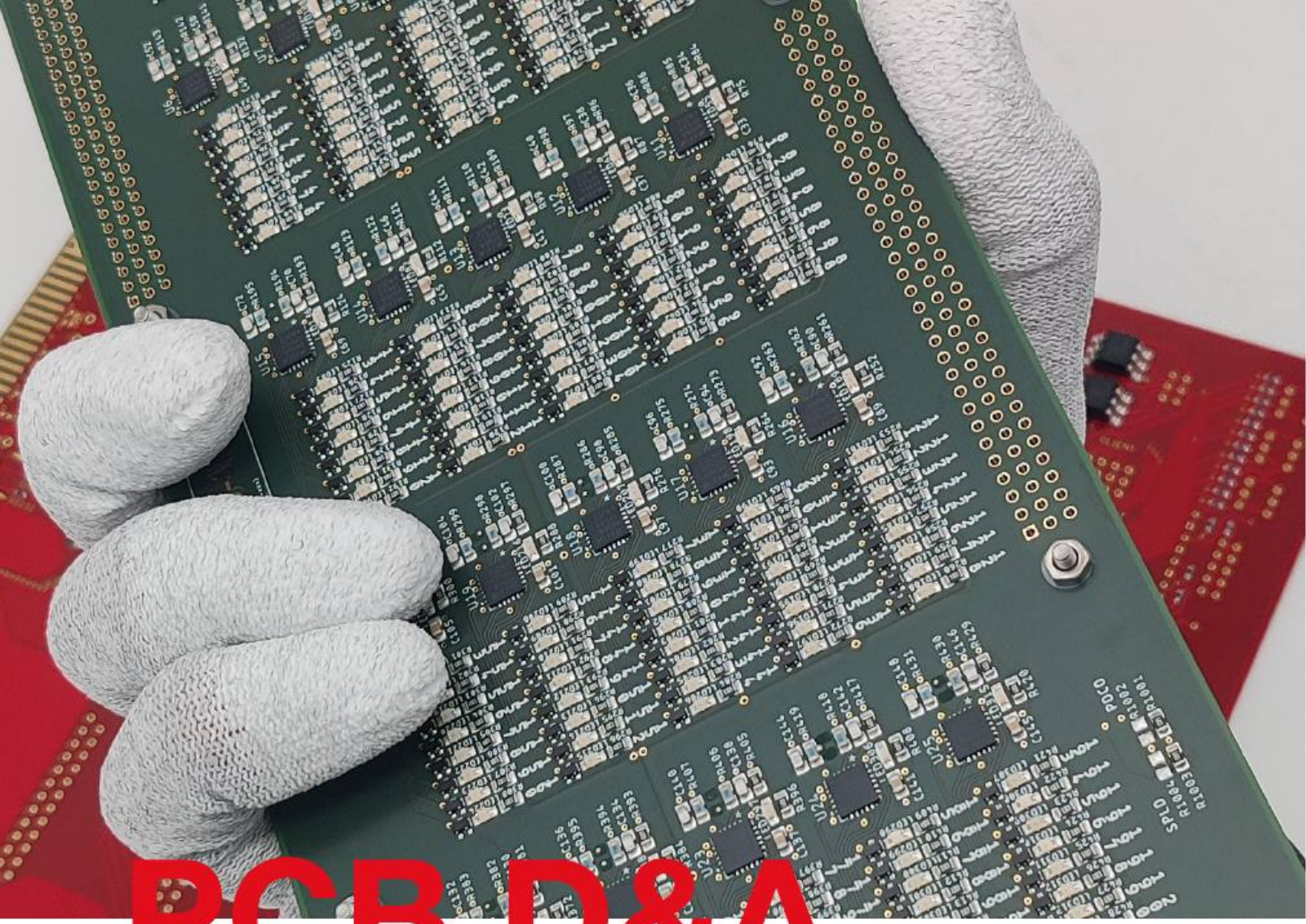
All assemblies are tailored exactly to individual customer requirements – for maximum operational safety, reliability, and seamless integration into existing systems.











PCB D&A

PCB DESIGN & ASSEMBLING

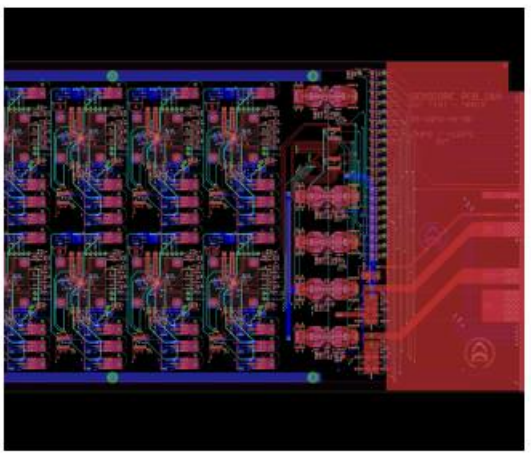
SEMICORE covers the entire PCB process – from circuit diagram design and single- and multilayer layout to assembly.

Depending on requirements, assembly is carried out by machine, by hand, or as a combination of both. Quality assurance is performed using 2D and 3D AOI.

CONTACT PERSON

PCB-Design & Layout:
Harald Schusser
harald.schusser@semicore.eu

PCB-Assembling:
Ing. Bernd Petutschnig
bernd.petutschnig@semicore.eu



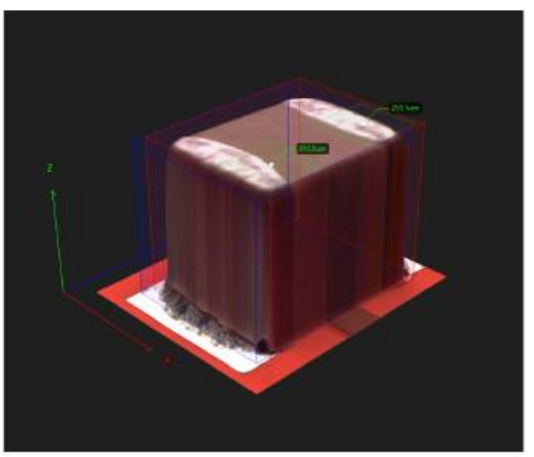
PCB Layout & Design



SMD - Assembling



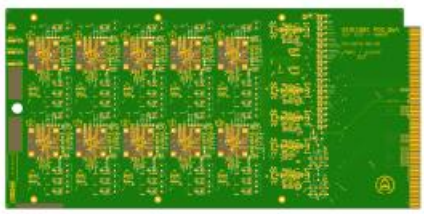
THT - Assembling

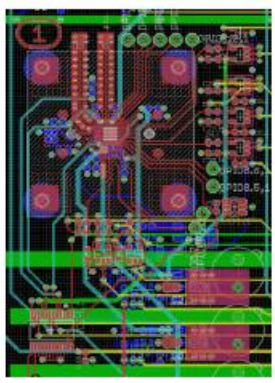


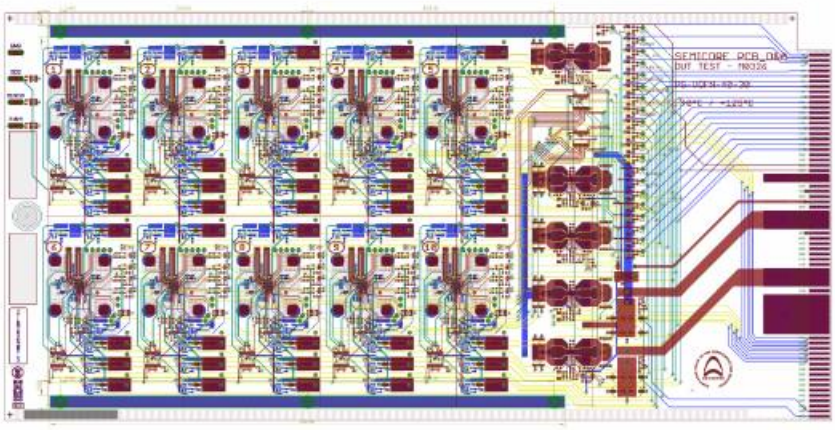
Automated
Optical Inspection

PCB
LAYOUT & DESIGN

Semicore develops complex and sophisticated PCB layouts for applications in the semiconductor and electronics industry. From circuit development to series-ready PCBs, we support our customers with many years of experience and state-of-the-art design tools.



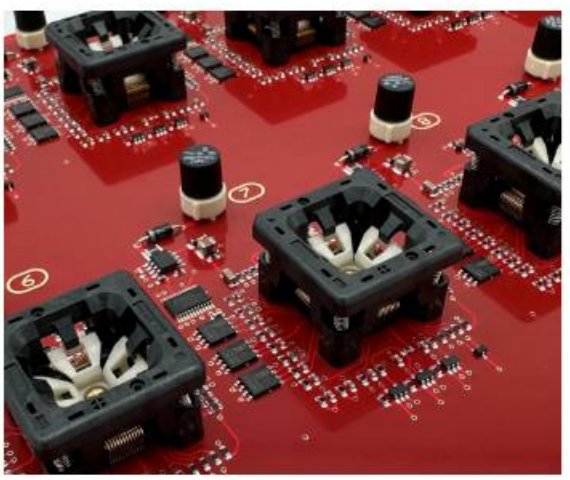


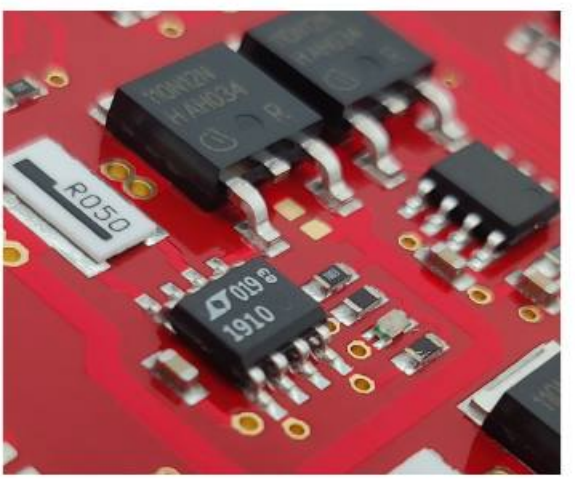


SMD ASSEMBLING

SEMICORE offers automated SMD assembly for electronic assemblies using state-of-the-art manufacturing technologies. Through automated processes and rigorous quality controls, we ensure reliable and reproducible production – even for complex PCBs.

Our solutions enable compact designs, high packing densities, and maximum efficiency for industrial and technologically demanding applications.

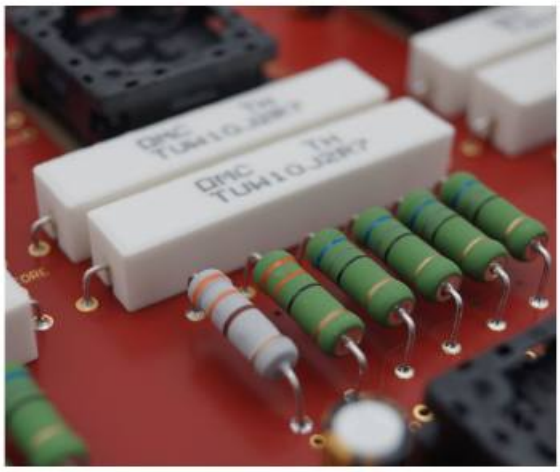




THT ASSEMBLING

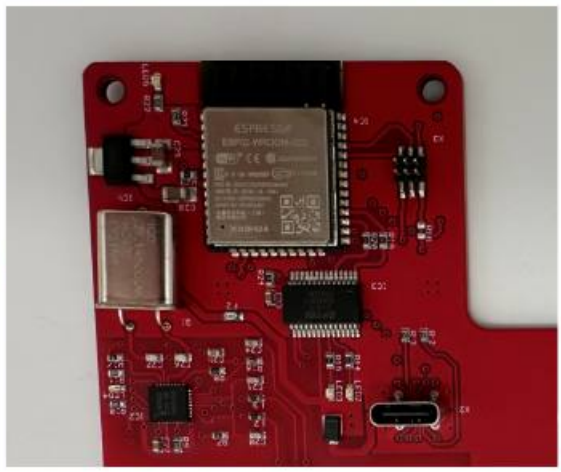
For applications with high mechanical demands or special components, SEMICORE offers professional THT (Through-Hole Technology) assembly. Our IPC-certified specialists ensure precise mounting and reliable solder joints.

The combination of advanced manufacturing and meticulous craftsmanship results in durable, robust assemblies – ideal for industrial electronics and demanding application areas.





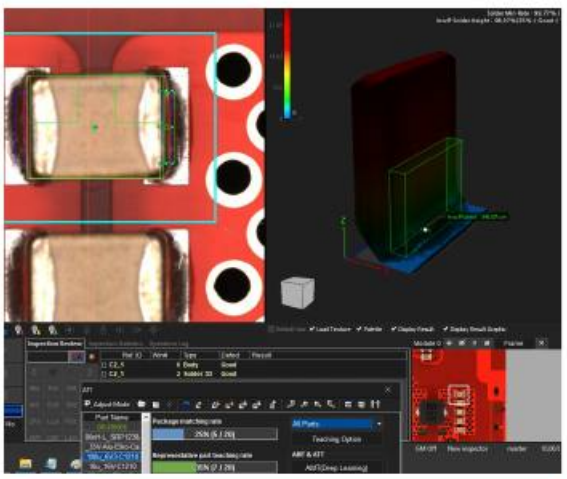


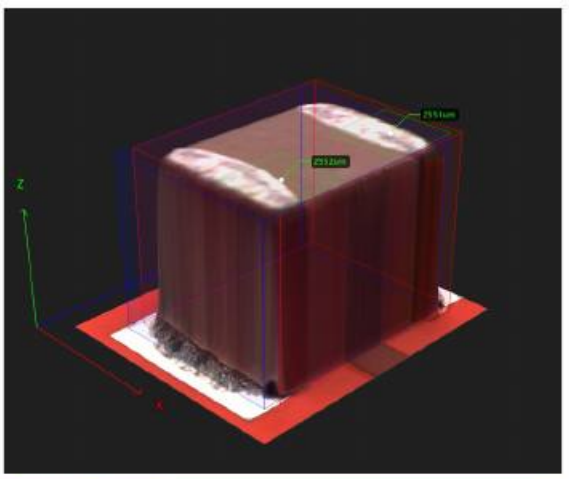


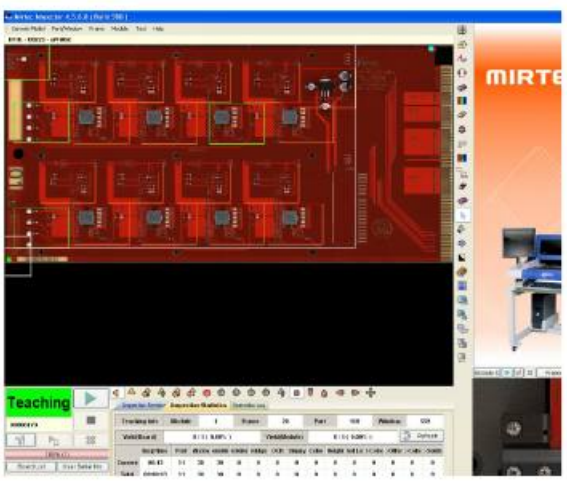
AUTOMATED OPTICAL INSPECTION

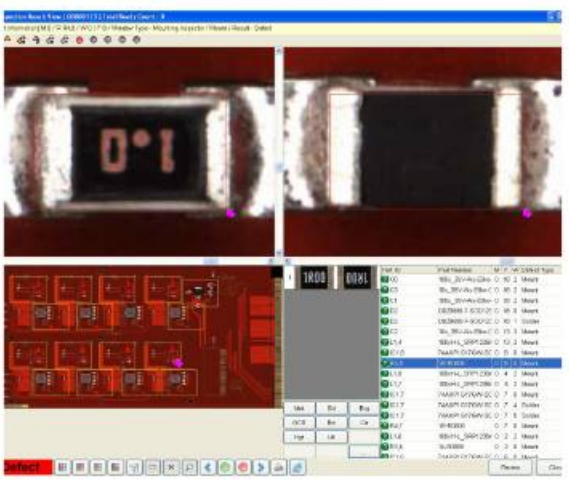
At SEMICORE, 100% of our PCBs undergo AOI inspection (Automated Optical Inspection). Using high-resolution 2D and 3D optical inspection systems, component positions, solder joints, and potential manufacturing deviations are automatically checked.

This fully automated inspection process enables early defect detection, minimizes production errors, and ensures that every assembly meets our high quality standards. This guarantees reliable and consistently high quality for every single PCB we manufacture.











DEPLOYED WORLDWIDE

Our solutions are in demand internationally and operate in numerous high-tech production environments around the globe.

SEMICORE supplies customers across Europe, Asia, and the Americas, providing them with precision mechanical components, custom solutions, and reliable service.

Our key export markets include Austria, Germany, Switzerland, the United Kingdom, Czech Republic, Slovakia, Hungary, Serbia, and North Macedonia, as well as Malaysia, Japan, Singapore, Thailand, and the USA.

Thanks to our international project experience, flexible manufacturing structures, and short response times, we ensure that customers worldwide can rely on consistently high quality, on-time delivery, and dedicated technical support.

WE ARE SALES PARTNERS

As an authorized sales partner of internationally renowned manufacturers, SEMICORE offers high-quality pneumatic components for demanding industrial applications. In cooperation with Koganei (Japan) and Clippard (USA), we provide reliable solutions for precise control, dosing, and motion tasks.

By combining proven brand-name products with our technical consulting expertise, customers receive optimally matched components for their specific requirements – from individual parts to complete system solutions.

KOGANEI

Koganei
Japan

Clippard

Clippard
USA

ISO CERTIFICATIONS

Our company operates in accordance with internationally recognized standards and is certified to ISO 9001 for quality management and ISO 14001 for environmental management.

These certifications confirm structured, transparent processes, consistent quality assurance, and the responsible use of resources. This ensures that our products and services meet the highest standards of precision, reliability, and sustainability.

CONTACT

SEMICORE Entwicklung und Service GmbH
Tiroler Straße 80
A-9500 Villach, Austria

T +43 (0)4242 34490
E office@semicore.eu

www.semicore.at

SEMICORE

SUPPLYING VALUE TO THE SEMICONDUCTOR INDUSTRY

Edition: April / 2026