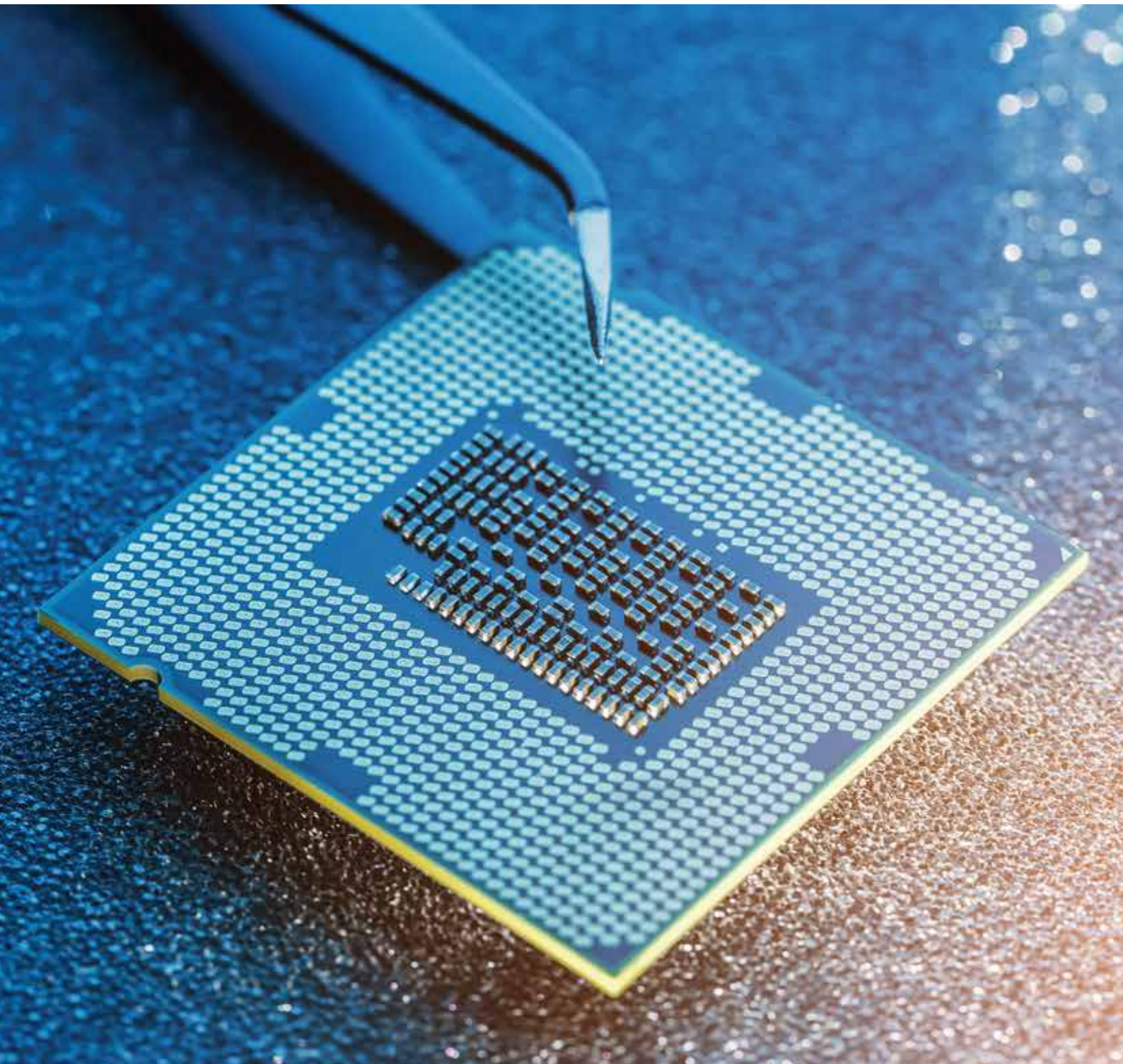


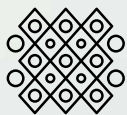
Step into the future of semiconductor innovation with **HCLTech's semiconductor services**

Fabless | OEM | IDM | Fab | OSAT



With over two and a half decades of experience, HCLTech is a leader in semiconductor solutions and services. Our deep engineering expertise and strategic alliances with top global OEMs, Fabs and chip companies equip us to address industry challenges seamlessly.

Services offered



Silicon design and validation (pre and post)



Test engineering and silicon productization



OEM and ODM support for silicon



Software enablement (Platform software, drivers)



Equipment and product engineering



Value engineering



Product sustenance



Manufacturing engineering



Digital offerings

AI/ML, Analytics, DevOps, Predictive and Preventive maintenance, Industry 4.0, PLM on cloud, Cybersecurity, Sustainability, Digital twin



Specialized Fab/OSAT services

Yield analytics and management, Industry 4.0

Our holistic approach provides end-to-end solutions tailored to semiconductor manufacturers, equipment suppliers and fabless companies.



27+ Years' experience

In the semiconductor domain



8 Of the top 10

Semiconductor OEMs leverage our services



14 Of the top 15

IDMs and Fabless companies trust us



8000+ Engineers

Driving R&D breakthroughs



Approved design partner

For Intel, Samsung, TSMC, and GF with access to the latest and advanced process nodes (N2, 18A)



Leader in Zinnov Zones Digital Engineering and ER&D Services - Semiconductor Ratings 2024

Empowering tomorrow's silicon with our VLSI solutions

Our semiconductor chip offerings

Turnkey silicon

Full ASIC services/platform

Specs to Parts

BRD to Parts

Architecture to
Parts

Netlist to Parts

Specs to Platform

Professional services/COT



Silicon engineering

- Spec to GDSII services
- Silicon IP as a service
- Mixed signal circuit design and verification
- VLSI physical design
- Design enablement and foundation Ips development
- Turnkey silicon
- Turnkey system design
- Post silicon validation and software enablement
- Smart Fab
- ATMP and Lab as a service



Digital engineering

- Consulting
- 5G
- AI/ML and GenAI
- Cloud engineering
- Data engineering
- Industry 4.0
- Software product engineering
- Clean tech
- Quality engineering



Core engineering

- Device engineering
- New product development
- Professional services
- Security engineering
- Hardware design services
- Manufacturing and Supply chain
- Systems engineering
- Verification and validation
- Sustaining engineering
- Technical support

Accelerators

IP market place

IP partnerships with curated IP providers offering high-quality silicon-proven IPs. Access to over 5,000+ IP titles from Tier 1 to Tier 3 providers

SoC platform

Customizable silicon platforms with fully integrated and verified with industry standard Ips. Flexible options for integrating customer proprietary IPs. Unique platforms addressing requirements from industrial markets to data center market

Cloud EDA

Advanced Cloud EDA architectures for hybrid compute and cloud migration. Ensuring state-of-the-art cyber-secured compute repositories/secure chambers. Allowing customers to migrate between on-prem and cloud, taking advantage of pay per use licensing and bursting jobs on demand

Ideation

GenAI-assisted chip design developer

HCLTech's groundbreaking GenAI-powered tool designed to transform the chip design process, enabling up to 50% faster design efficiency and significantly accelerated time-to-market. With nearly 80% of a designer's time spent on understanding complex design specifications, the tool eliminates this bottleneck by directly reading and comprehending VLSI design documents.

Pioneering growth and innovation in semiconductor equipment

Our semiconductor equipment offerings

Digital services



Software product engineering

Software modernization, Cloud, Containerization, AR/VR/XR



Data engineering and AI

Data engineering, AI/ML/ Data analytics, GenAI Copilots/ Chatbots



Smart manufacturing

Digital twins, IoT/ sensors, Robotics, Computer vision, Real-time analytics/ dashboards



Cybersecurity

Semi standards S2, S8, SECS/GEM



Sustainability

Life cycle assessment, Decarbonization services, Sustainable sourcing and optimization

Core services



Product engineering

Subsystem/ Equip. design, Equip. SW, Product testing, Simulator development, Test fixture, PCB design, Control and Power electronics



Computational engineering and Modeling

Thermal/Electrostatic/Structural analysis/Simulations



After market services

Sustenance, Obsolescence, Field service Re-engineering, Technology migration, Modernization, VAVE



Technical publication

Structured documentation (DITA), 3D PDF



Systems engineering

Reliability (Mech/Elec/SW), Process simulation



System integration

MES, PLM, Variable config. SAP CPQ



Standards compliance

Semi standards S2, S8, SECS/GEM



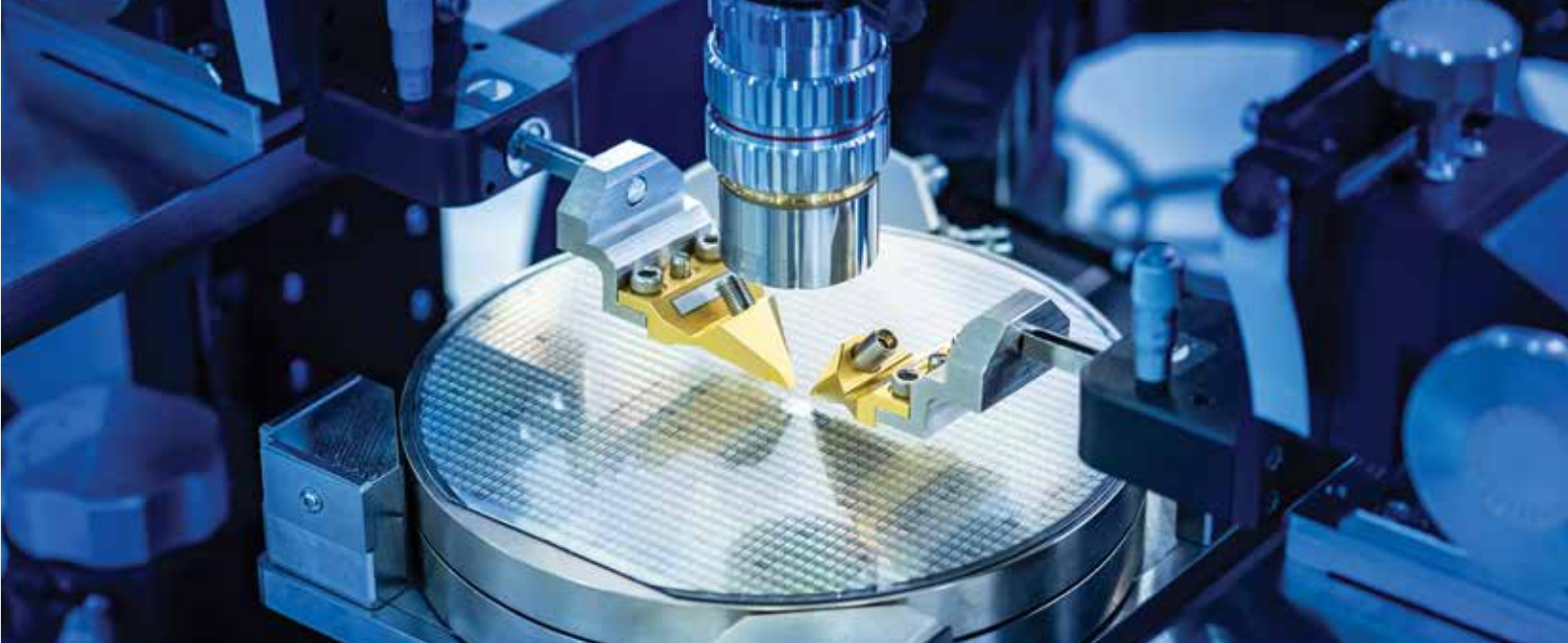
Supply chain management

Supplier evaluation/Capacity, Demand planning, Inventory management, Supplier quality, Buyer support



Post silicon validation

Test prog. conversion, Development, Load board, Test optimization, Characterization



Our expertise across process equipment



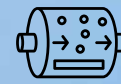
Lithography



Etching



Ion implanter



Deposition



Inspection



Metrology



Advanced packaging



ATE

Accelerators

HCLTech SIMQUALIFY

Enables integration and validation of 200 mm and 300 mm factory automation standards

GenAI-based chatbot framework

GenAI-based framework to accelerate the creation of chatbots to gain actionable insights from information and knowledge within an organization

Semiconductor cybersecurity E187 assessment framework

600+ prioritized rules covering OS hardening, network security, endpoint protection and security monitoring to generate a scorecard to assess E187 compliance readiness

AI Force

AI Force revolutionizes software development and sustenance by accelerating all stages of the SDLC, from requirements and design to coding, review, testing and assessing the impact of a change request. This boosts productivity and accelerates time to market. Experience seamless efficiency and superior code quality with AI-driven innovation

Ideation

Semiconductor equipment software log analysis

A GenAI-powered solution to accelerate root cause analysis of issues in semiconductor equipment from unstructured log files

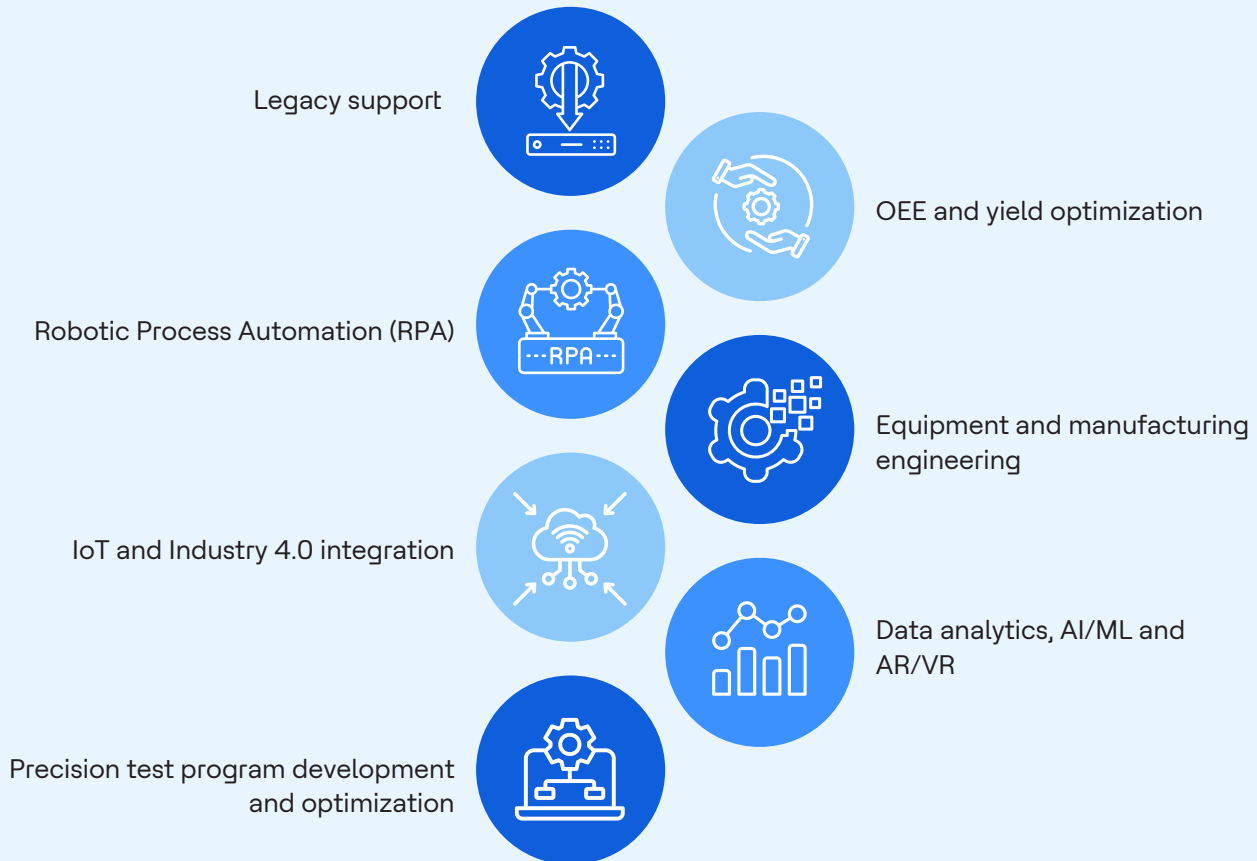
EU Cyber Resilience Act - Readiness assessment framework for semiconductor equipment

An assessment framework is being developed to help semiconductor equipment manufacturers achieve compliance with the EU's Cyber Resilience Act. Prepare for robust security standards and regulatory adherence with ease.

Innovative Fab solutions for enhanced yield, automation and security

We provide comprehensive industrial automation and optimization solutions with a strong emphasis on cybersecurity. Our expertise includes MES, FA, process engineering, PDK development, process control (APC and SPC) and supply chain administration, along with secure remote connectivity and cloud migration.

Key services



Our holistic approach enhances operational efficiency and product quality.

World-class infrastructure



Investments

- Lab investments across 10+ labs
- Labs across India and five global locations
- 10K and 1K class clean rooms
- Silicon qualification labs - JEDEC 22 and AEC-Q100
- ISO/IEC 17025 accredited labs



Labs

- Zebu emulation lab
- Silicon ATE tester lab
- Silicon validation lab
- Qualification lab
- RF/Millimeter wave lab
- High speed lab 55G EE/ 100G Optical
- Semi software qualification lab
- Semi tester lab
- Handler lab

Expanding collaboration



HCLTech wins
Intel's 2024
EPIC Outstanding
Supplier Award

The logo for Arm, consisting of the word "arm" in a lowercase, blue, sans-serif font.

HCLTech and Arm
collaborate on custom
silicon chips optimized for
AI workloads

The logo for Samsung Foundry, with "Samsung" in a bold, black, sans-serif font and "Foundry" in a larger, bold, black, sans-serif font below it.

HCLTech has officially
joined Samsung
Foundry's Virtual Design
Partner (VDP) program

The logo for CAST, with the word "CAST" in a bold, red, sans-serif font.

HCLTech and CAST
expand partnership for
custom chips

Scan to contact us



Accelerate your semiconductor innovations at scale by partnering with us.
Reach us at hclsemi@hcltech.com

HCLTech | Supercharging Progress™

HCLTech is a global technology company, home to more than 226,600 people across 60 countries, delivering industry-leading capabilities centered around digital, engineering, cloud and AI, powered by a broad portfolio of technology services and products. We work with clients across all major verticals, providing industry solutions for Financial Services, Manufacturing, Life Sciences and Healthcare, Technology and Services, Telecom and Media, Retail and CPG, and Public Services. Consolidated revenues as of 12 months ending September 2025 totaled \$14.2 billion. To learn how we can supercharge progress for you, visit hcltech.com.

hcltech.com

