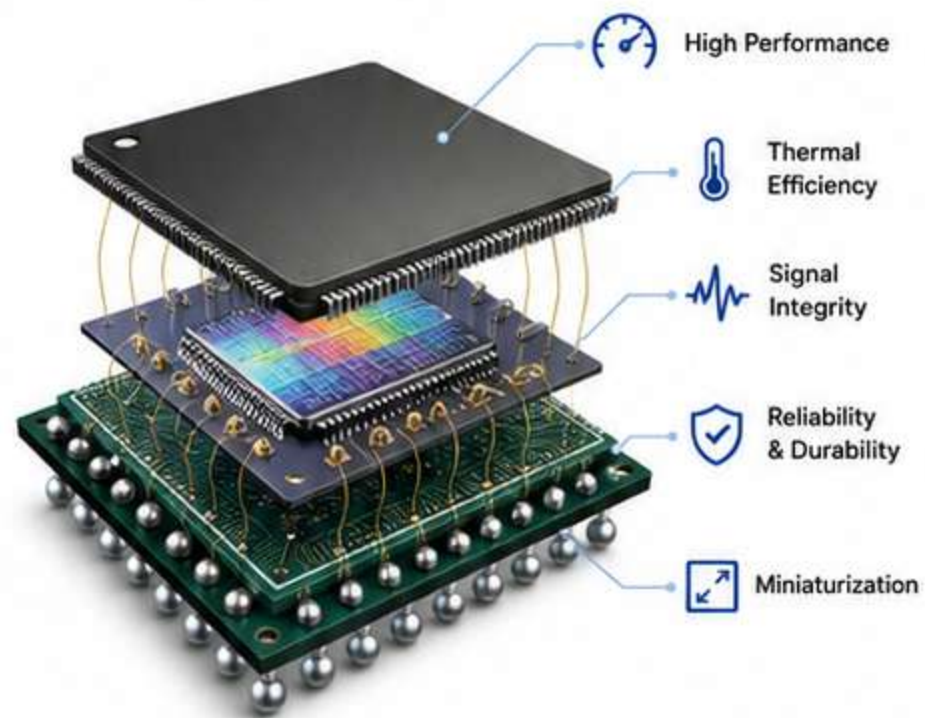




PACKAGE DESIGN ENGINEERING

Innovative Packaging Solutions
for Performance, Reliability & Miniaturization

At Alwyn, we deliver advanced Package Design Engineering services that ensure superior performance, thermal efficiency, signal integrity, and manufacturability for next-generation electronic products.



WHY CHOOSE ALWYN?

Our package design solutions minimize risk, reduce time-to-market, and optimize product performance through advanced engineering, simulation, and industry-best practices.



EXPERTISE

Skilled engineers with deep domain knowledge



RELIABILITY

Robust designs for long-term performance



FASTER TIME TO MARKET

Optimized process and efficient delivery



INNOVATION

Technology-driven packaging solutions

OUR CORE SERVICES



1. PACKAGE CONCEPT & ARCHITECTURE

- Conceptualization & Feasibility Study
- Technology Evaluation & Roadmapping
- Die / Package / System Co-Design
- Architecture Optimization



2. MECHANICAL DESIGN

- 2D/3D Package Modeling
- Detailed Mechanical Design
- Stack-up & Cross-section Design
- Tolerance & Manufacturability Analysis



3. THERMAL ANALYSIS

- Thermal Simulation
- Heat Dissipation Optimization
- Junction Temperature Estimation
- Thermal Management Solutions



4. SIGNAL & POWER INTEGRITY ANALYSIS

- Signal Integrity Simulation
- Power Integrity Analysis
- Parasitic Extraction
- High-Speed Performance Optimization



5. RELIABILITY ENGINEERING

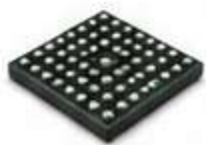
- Reliability Assessment
- Life Time Prediction
- Mechanical Stress Analysis
- Drop / Shock / Vibration Analysis



6. MANUFACTURING SUPPORT

- DFM / DFA Support
- Documentation & Drawings
- Prototype Support
- Vendor Collaboration

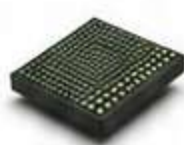
TYPES OF PACKAGES WE DESIGN



BGA / LGA



QFN / DFN



CSP / WLCSP



SIP / SIP-M



FC-BGA / FCBGA



PoP / 3D Packaging



Module Packaging

INDUSTRIES WE SERVE



Automotive



Aerospace & Defense



Telecom & Networking



Industrial Automation



Medical Devices



Consumer Electronics

ADVANCED TOOLS & TECHNOLOGIES

Ansys

SIEMENS

cadence

Mentor
A Siemens Business

SIMULIA



OUR COMMITMENT

We are committed to delivering high-quality, cost-effective, and reliable package design solutions that help our customers achieve product excellence and a competitive edge.

- ✓ Customer-Centric Approach
- ✓ Quality & Reliability First
- ✓ Confidentiality & IP Protection

- ✓ Global Delivery Model
- ✓ End-to-End Engineering Support
- ✓ Continuous Improvement

ENGINEERING PACKAGES THAT EMPOWER INNOVATION



www.alwynglobal.com