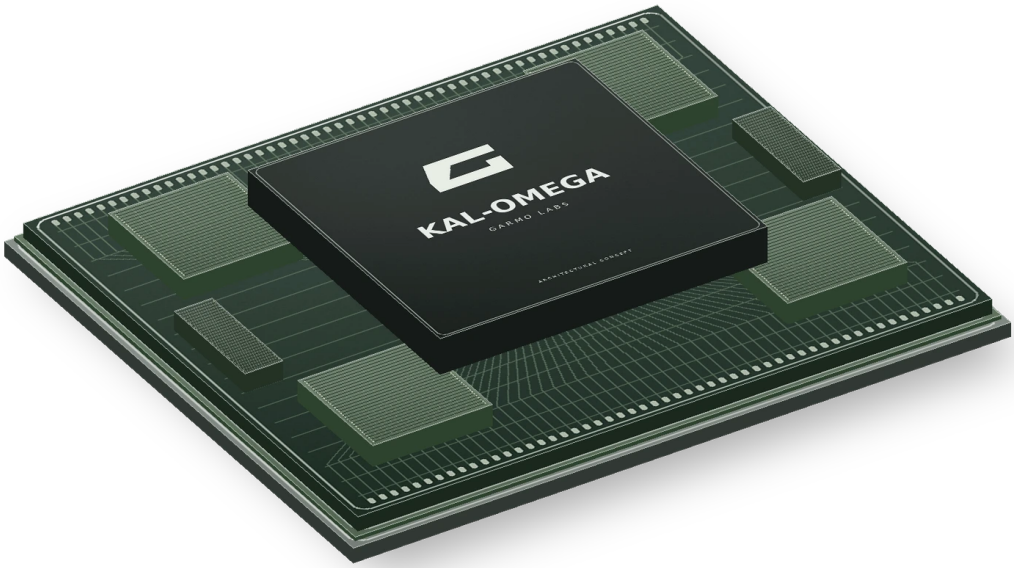
UNIVERSAL FABRIC PROCESSOR

KAL-OMEGA

A universal-fabric processor architecture bringing manycore engines, memory, scheduling and telemetry into one organized system.



Architectural concept. Not a die photograph, physical layout or measured device.

IP-034 · Qualified release · Architecture / RTL / physical views by scope

Function and architecture

- Manycore engines
- universal fabric
- memory
- scheduler

Integration summary

Bind the selected manycore engines and memory interfaces to the universal fabric, preserving scheduling and telemetry contracts. Use the implementation-specific node, clock, reset and physical views rather than assuming every family configuration shares one qualification.

Technical record

Canonical identity	IP-034
Responsibility	Universal fabric processor
Documented building blocks	Manycore engines; universal fabric; memory; scheduler; telemetry.
Delivery boundary	Architecture / RTL / physical views by scope
Evidence scope	Qualified release

Delivery and release binding

- Exact SoC/top and configuration
- Clock, reset, power and pad contract
- Memory, PHY and package dependencies
- Release-specific PVT and signoff views

Confirm for the selected release: Node/library binding, Clock/reset limits, Physical and protocol dependencies, Artifact hashes, Acceptance criteria.

Evidence and qualification

The later controlled R1.0 record includes KAL-OMEGA within the 55-SKU signoff estate. The release records physical/signoff evidence and frozen hashes; returned-silicon characterization is not claimed.

R1.0 signoff is exact-release evidence. New nodes, derivatives, packaging and measured silicon require their own qualification.

Canonical status: Historical roadmap/concept IP - included so prior family work is not omitted

Evaluation and licensing

Evaluation: Architecture and release evaluation. Production: Chip / SoC licensing program. Custom work: Custom silicon integration. Rights, pricing, support and acceptance criteria are agreed for the exact scope.

Contact: patrick@garmolabs.com | Product path: /silicon/kal-omega