NAMED KAL DATAFLOW/ACCELERATOR IMPLEMENTATION VARIANT

KAL-XD-700

A dataflow accelerator implementation bringing compute tiles, movement and local state together.



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

IP-007 · Qualified release · Release-specific physical views

Function and architecture

- Command-driven KAL dataflow fabric
- Compute tiles, DMA and network-on-chip movement
- Local memory and scratchpad organization
- Telemetry and controlled physical/verification collateral

Integration summary

Connect the KAL command/control surface to the host, bind DMA and NoC endpoints to the intended data paths, and integrate the documented local-memory and scratchpad requirements. Timing, memory views and physical boundaries must match the frozen KAL-XD-700 release; a derivative requires its own qualification.

Technical record

Canonical identity	IP-007
Responsibility	Named KAL dataflow/accelerator implementation variant
Documented building blocks	KAL dataflow fabric; compute tiles; DMA; NoC; command system; memory/scratchpad; telemetry; verification/physical collateral.
Delivery boundary	Release-specific physical views
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 R1.0 ledger records KAL-XD-700 signoff completion and a ChipIgnite package-ready release.

Pre-silicon release evidence; node changes and returned-silicon validation remain separate.

Canonical status: Historical named implementation/SKU from earlier engineering work

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.

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