MEMORY & COHERENCY

SONJE Production Multi-Bank Memory Controller Architecture

Defines a parameterized banked controller that routes MCD-like line operations to independent banks using the proven line-store contract.

IP-3904 · Executed digital evidence · RTL / reference evaluation

Function and architecture

• Defines a parameterized banked controller that routes MCD-like line operations to independent banks using the proven line-store contract.

Integration summary

SONJE Production Multi-Bank Memory Controller Architecture provides the documented memory controller architecture responsibility: Defines a parameterized banked controller that routes MCD-like line operations to independent banks using the proven line-store contract. Evaluate the exact SONJE-IP-028 implementation and confirm its integration contract before using it inside the target design.

Technical record

Canonical identity	IP-3904
Native implementation identity	SONJE-IP-028
Documented responsibility	Defines a parameterized banked controller that routes MCD-like line operations to independent banks using the proven line-store contract.
Recorded evidence class	Executed digital evidence
Interface and physical parameters	Bound to the selected source/configuration; not inferred from name or family.

Delivery and release binding

• Exact implementation and configuration manifest

• Documented interfaces and clock/reset contract

• Available reference or verification collateral

• Recorded physical views where authorized and applicable

• Integration acceptance criteria and unresolved gate list

Confirm for the selected release: Source/configuration identity, Interface and dependencies, Verification evidence, Process/library where applicable, Authorized package and acceptance criteria.

Evidence and qualification

Evidence retained in our records

Evidence shown is our record for this canonical implementation, not a fresh tool rerun. External foundry acceptance, silicon measurements, standards certification and unlisted interface/physical parameters are not inferred. Exact delivery and rights are agreed before licensing.

Canonical status: P1 / DISTINCT P64 FOUR-BANK RTL IMPLEMENTATION EXISTS; DIRECTED RTL + SYNTHESIS OBSERVED PASS; HARDENED MACRO/PROTOCOL CLOSURE OPEN

Evaluation and licensing

Evaluation: Review the exact recorded implementation and agreed test scope. Production: Named-design rights for the agreed qualified release. Custom work: Target integration, verification or physical qualification. Rights, pricing, support and acceptance criteria are agreed for the exact scope.

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