SECURITY & CRYPTOGRAPHY

OmniRT + Monolithic 3D FeFET Universal Memory System v5.0.0-AXI Engineering

Standalone integrated engineering system combining differential FeFET universal-memory/CIM architecture, ECC/program-verify control, scrub/MBIST/BISR/remap/wear telemetry, AXI4-Lite + Wishbone software integration, bare-metal driver and OmniRT runtime policy/model surfaces.

IP-4327 · Source / reference evidence · Software / verification IP

Function and architecture

• Standalone integrated engineering system combining differential FeFET universal-memory/CIM architecture, ECC/program-verify control, scrub/MBIST/BISR/remap/wear telemetry, AXI4-Lite + Wishbone software integration, bare-metal driver and OmniRT runtime policy/model surfaces.

Integration summary

OmniRT + Monolithic 3D FeFET Universal Memory System v5.0.0-AXI Engineering provides the documented memory / cim / runtime / cross-layer system ip responsibility: Standalone integrated engineering system combining differential FeFET universal-memory/CIM architecture, ECC/program-verify control, scrub/MBIST/BISR/remap/wear telemetry, AXI4-Lite + Wishbone software integration, bare-metal driver and OmniRT runtime policy/model surfaces. Evaluate the exact OMNIRT-FEFET-REL-001 implementation and confirm its integration contract before using it inside the target design.

Technical record

Canonical identity	IP-4327
Native implementation identity	OMNIRT-FEFET-REL-001
Documented responsibility	Standalone integrated engineering system combining differential FeFET universal-memory/CIM architecture, ECC/program-verify control, scrub/MBIST/BISR/remap/wear telemetry, AXI4-Lite + Wishbone software integration, bare-metal driver and OmniRT runtime policy/model surfaces.
Recorded evidence class	Source / reference 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

local software/model/C/process-contract evidence PASS; runner-blocker evidence retained; no foundry/silicon proof.

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-P2 / SOURCE-BACKED CROSS-LAYER ENGINEERING BUILD + EXECUTED LOCAL SOFTWARE/MODEL EVIDENCE; HDL/FORMAL/SYNTHESIS/PHYSICAL/DEVICE/SILICON GATES 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.

Contact: patrick@garmolabs.com | Product path: /ip/omnirt-monolithic-3d-fefet-universal-memory-system-v5-0-0-axi-engineering-ip-4327