Apodictic 3.8 Model System Card

Deterministic Pre Commit Verification & Symbolic Privacy Gateway

<= 1.4 ms	< 2.5 ms	< 38 ms	0 Bytes
SIMD PII Masking	Z3 5.4.1 Proving	Local Undo SLA	PII in Cloud Prompts
Rust SYM_* gateway	QF_LRA / QF_LIA / Optimize	Postgres WAL & Odoo RPC	Mode A offline / Mode B proxy

01 Model Scope, Architecture & Intended Use

Apodictic-3.8 is not a generative language model. It is a deterministic pre-commit execution firewall placed between autonomous AI agents (Claude, GPT, Gemini, or local Qwen2.5-Coder / DeepSeek weights) and production enterprise ledgers including Odoo v18, PostgreSQL 17, NetSuite, and SAP S/4HANA.

Inputs & Interception Layer

Parses PostgreSQL 3.0 wire frames, JSON-RPC 2.0 Odoo envelopes, and MCP tool calls before state mutation commits.

Formal Proving Core (Z3 5.4.1)

Evaluates double-entry balance parity, cash floor solvency, compound VAT/WHT tax laws, and separation of duties.

CEGIS Local AST Distillation

Compiles verified patterns from 900,000+ Rasmi statutory documents into <2ms local Python ASTs at $0.00 runtime token cost.

Isolation & Air-Gapped Enclave

Executes untrusted tool scripts inside seccomp-bpf container / Firecracker boundaries (24 syscalls allowed, default-deny egress).

02 Honest Technical Boundaries & Failure Modes

To prevent marketing overclaims, Apodictic explicitly separates what is mathematically guaranteed inside our local boundary from external side effects that require human approval.

Local Undo vs. Irreversible Wires

Sub-38ms Odoo reversal and sub-25ms WAL rollback revert local DB mutations only. Irreversible bank wires stay behind human approval + 2-phase Outbox.

Specification Completeness

Z3 proves satisfaction against codified policies. It cannot detect off-ledger social engineering unless encoded in ontology/whitelist rules.

Gateway PII Boundary

SYM_* masking governs proxied LLM traffic. Unproxied third-party webhooks remain outside masking scope unless running offline Mode A.

256-Bit SHA-256 WORM Ledger

Full-width 256-bit SHA-256 Previous-Invoice-Hash links paired with secp256r1 ECDSA signatures replace all legacy short digests.

03 Verification Suites & Reproducible Evidence

- Rust Systems Workspace (noesis_infra): 55 crates compiled & unit-tested via cargo test --workspace.
- Python Enforcement Engine: 49 unittest specs + 5 PG 3.0 wire tests + adversarial injection suite.
- TypeScript & Next.js Gateway: 19/19 Vitest API gateway checks executing live Z3 5.4.1 proofs.
- 9 Standalone Secret Gists: Inspectable architecture, multi-ERP workflows, and live Odoo 18 + ETA v1.0 pipeline.