SECURITY & TRUST

# Garmo-Side-Channel-Guard

Security — side-channel/fault-resistance execution wrapper

IP-2085 · Evaluation package · Evaluation / IP scope

## Function and architecture

- 3-share masked data protocol and freshness enforcement
- Randomized operation scheduling, dummy traffic and register precharge hooks
- Clock/voltage/glitch sensor integration and redundant result comparison

## Integration summary

Garmo-Side-Channel-Guard integration role: Security — side-channel/fault-resistance execution wrapper. Documented composition: 3-share masked data protocol and freshness enforcement; Randomized operation scheduling, dummy traffic and register precharge hooks; Clock/voltage/glitch sensor integration and redundant result comparison.

## Technical record

| | |
|---|---|
| **Canonical identity** | IP-2085 |
| **Responsibility** | Security — side-channel/fault-resistance execution wrapper |
| **Documented interface architecture** | protected crypto datapath wrapper, entropy input, power/clock monitors, tamper/fault outputs |
| **Documented building blocks** | 3-share masked data protocol and freshness enforcement; Randomized operation scheduling, dummy traffic and register precharge hooks; Clock/voltage/glitch sensor integration and redundant result comparison |
| **Delivery boundary** | Evaluation / IP scope |
| **Evidence scope** | Evaluation package |
| **Architecture targets · not measurements** | First/second-order masking support, temporal/fault redundancy, configurable performance overhead 10–60%. |

## Delivery and release binding

- Interface version and parameter set
- Clock/reset domains and integration constraints
- Companion memory, PHY and software requirements
- Verification collateral and acceptance criteria

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

## Evidence and qualification

Canonical technology and its architecture/integration role are recorded. The offered delivery is confirmed against the exact release before licensing.

No node-port, silicon-performance, standards certification or analog qualification is inherited from a related product.

Canonical status: P0 / REPRESENTATIVE ARCHITECTURE RTL — concrete integration specification and synthesizable RTL shell/representative datapath only; all frequency, throughput, power, area, jitter and standards-superiority figures remain architecture targets until the required evidence hierarchy closes.

## Evaluation and licensing

Evaluation: Evaluate an individual IP configuration. Production: Named-design production license. Custom work: Node binding or derivative integration. Rights, pricing, support and acceptance criteria are agreed for the exact scope.

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