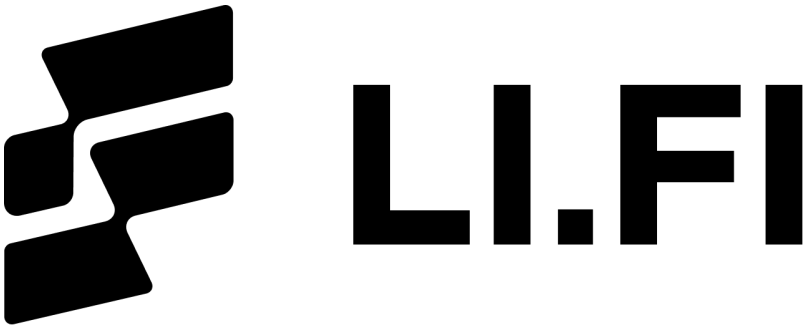

LI.FI Security Review

LiFiDEXAggregator(v1.12.0)

Security Researcher

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Report prepared by: Sujith Somraaj

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1 About Researcher

Sujith Somraaj is a distinguished security researcher and protocol engineer with over eight years of comprehensive experience in the Web3 ecosystem.

In addition to working as a Security researcher at Spearbit, Sujith is also the security researcher and advisor for leading bridge protocol LI.FI and also is a former founding engineer and current CISO at Superform, a yield aggregator with over $170M in TVL.

Sujith has experience working with protocols / funds including Layerzero, Edge Capital, Berachain, Optimism, Ondo, Sonic, Monad, Blast, ZkSync, Decent, Drips, SuperSushi Samurai, DistrictOne, Omni-X, Centrifuge, Superform-V2, Tea.xyz, Paintswap, Bitcorn, Sweep n' Flip, Byzantine Finance, Variational Finance, Satsbridge, Rova, Horizen, Earthfast and Angles

Learn more about Sujith on sujithsomraaj.xyz or on cantina.xyz

2 Disclaimer

Note that this security audit is not designed to replace functional tests required before any software release, and does not give any warranties on finding all possible security issues of that given smart contract(s) or blockchain software. i.e., the evaluation result does not guarantee against a hack (or) the non existence of any further findings of security issues. As one audit-based assessment cannot be considered comprehensive, I always recommend proceeding with several audits and a public bug bounty program to ensure the security of smart contract(s). Lastly, the security audit is not an investment advice.

This review is done independently by the reviewer and is not entitled to any of the security agencies the researcher worked / may work with.

3 Scope

- src/Periphery/LiFiDEXAggregator(v1.12.0)
- src/Interfaces/IKatanaV3AggregateRouter(v1.0.0),src/Interfaces/IKatanaV3Governance(v1.0.0)
- src/Interfaces/IKatanaV3Pool(v1.0.0),src/Libraries/LibAsset.sol(v2.1.0)

4 Risk classification

Severity level	**Impact: High**	**Impact: Medium**	**Impact: Low**
Likelihood: high	Critical	High	Medium
Likelihood: medium	High	Medium	Low
Likelihood: low	Medium	Low	Low

4.1 Impact

High leads to a loss of a significant portion (>10%) of assets in the protocol, or significant harm to a majority of users.

Medium global losses <10% or losses to only a subset of users, but still unacceptable.

Low losses will be annoying but bearable — applies to things like griefing attacks that can be easily repaired or even gas inefficiencies.

4.2 Likelihood

High almost certain to happen, easy to perform, or not easy but highly incentivized

Medium only conditionally possible or incentivized, but still relatively likely

Low requires stars to align, or little-to-no incentive

4.3 Action required for severity levels

Critical Must fix as soon as possible (if already deployed)

High Must fix (before deployment if not already deployed)

Medium Should fix

Low Could fix

5 Executive Summary

Over the course of 2 hours in total, LI.FI engaged with the researcher to audit the contracts described in section 3 of this document ("scope").

In this period of time a total of 1 issues were found. This review focussed only on the changes made from the previous version, not the code on its entirety.

Project Summary	
Project Name	LI.FI
Repository	lifinance/contracts
Commit	da57cb5
Audit Timeline	July 28, 2025
Methods	Manual Review
Documentation	Medium-High
Test Coverage	Medium-High

Issues Found	
Critical Risk	0
High Risk	0
Medium Risk	0
Low Risk	0
Gas Optimizations	1
Informational	0
Total Issues	**1**

6 Findings

6.1 Gas Optimization

6.1.1 Avoid calling token0 and token1

Context: LiFiDEXAggregator.sol#L898-L899

Description: The `swapKatanaV3()` function queries both token0 and token1 regardless of the swap direction. This is redundant and consume more gas than necessary. Instead the function can call either one on demand.

Recommendation: Consider updating the function as follows:

```
// get pool info for constructing the path
- address token0 = IKatanaV3Pool(pool).token0();
- address token1 = IKatanaV3Pool(pool).token1();
   uint24 fee = IKatanaV3Pool(pool).fee();

// determine tokenOut based on swap direction
- address tokenOut = direction ? token1 : token0;
+ address tokenOut = direction ? IKatanaV3Pool(pool).token1() : IKatanaV3Pool(pool).token0();;
```

LI.FI: Fixed in 3e7f0d0

Researcher: Verified fix