LI.FI Security Review

FeeCollector.sol(v1.0.1), GasZipPeriphery(v.1.0.1), LiFiDEXAggregator(v1.5.1), LiFuelFeeCollector(v1.0.2), Permit2Proxy(v1.0.2), Receiver(v2.0.3), ReceiverAcrossV3(v1.0.3), ReceiverStargateV2(v1.0.1), RelayerCelerIM(v2.0.1), TokenWrapper(v1.0.1), LibAsset(v1.0.2), GasZipFacet(v2.0.1)

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1 About Researcher

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

In addition to working as an external auditor/security researcher with LI.FI, Sujith is a protocol engineer and security researcher at Superform and Spearbit.

Learn more about Sujith on sujithsomraaj.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/FeeCollector.sol(v1.0.1)
- src/Periphery/GasZipPeriphery.sol(v1.0.1)
- src/Periphery/LiFiDEXAggregator.sol(v1.5.1)
- src/Periphery/LiFuelFeeCollector.sol(v1.0.2)
- src/Periphery/Permit2Proxy.sol(v1.0.2)
- src/Periphery/Receiver.sol(v2.0.3)
- src/Periphery/ReceiverAcrossV3.sol(v1.0.3)
- src/Periphery/ReceiverStargateV2.sol(v1.0.1)
- src/Periphery/RelayerCelerIM.sol(v2.0.1)
- src/Periphery/TokenWrapper.sol(v1.0.1)
- src/Libraries/LibAsset.sol(v1.0.2)
- src/Facets/GasZipFacet.sol(v2.0.1)

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 1 days in total, LI.FI engaged with the researcher to audit the contracts described in section 3 of this document ("scope").

This review audits the changes made in 12 files for PR-912. The modifications include using SafeTransferLib library (from Solady) for all native token transfers, replacing safeApprove with forceApprove and several cosmetic updates.

In this period of 1 hour a total of 0 issues were found.

Project Summary				
Project Name	LI.FI			
Repository	lifinance/contracts			
Commit Hashes	e4f27b0c4f572e5c64ca132dc2e496a3fe6c7c1d(PR-912)			
Type of Project				
Audit Timeline	Jan 09, 2025			
Methods	Manual Review			

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

6 Findings