



TechRate
AUDIT COMPANY

Smart Contract Security Audit

Audit Details



Audited project

Kink Coin



Deployer address

0x22fb3D49676f02400e755daBa60Ec7bC58f8f1F9



Client contacts:

Kink Coin team



Blockchain

Binance Smart Chain



Project website:

Not provided

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

TechRate was commissioned by Kink Coin to perform an audit of smart contracts:

<https://bscscan.com/address/0xDb5BE2d2760a7A9cEaDF0ea3D09baB3f937117A4#code>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contracts Details

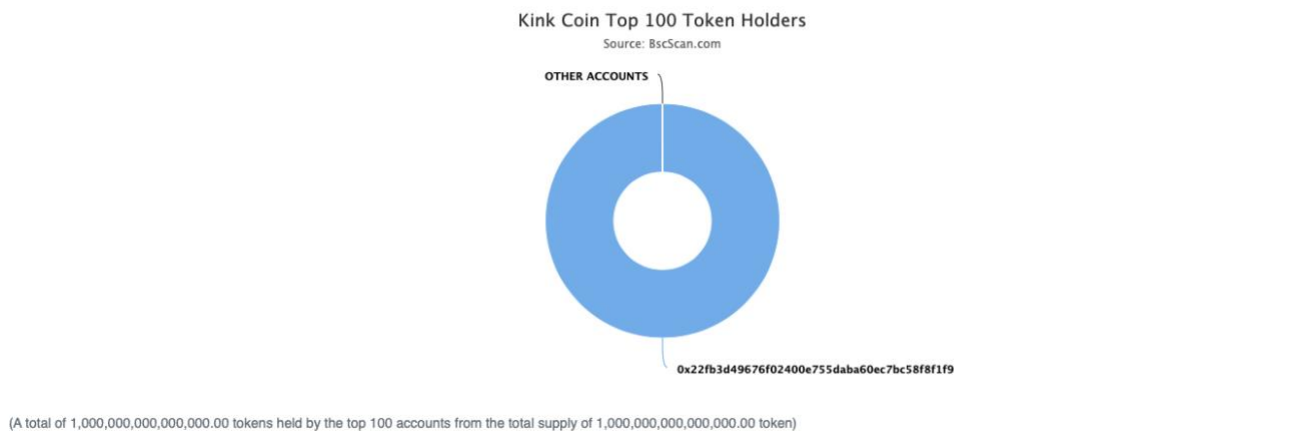
Token contract details for 28.07.2021

Contract name	Kink Coin
Contract address	0xDB5BE2d2760a7A9cEaDF0ea3D09baB3f937117A4
Total supply	1,000,000,000,000,000
Token ticker	KINK
Decimals	9
Token holders	1
Transactions count	1
Top 100 holders dominance	100.00%
Circulating supply	1000000000000000000000000
Has liquidity been added	false
Total fee	700
LP pair	0xad8a9a9a74aafa5e8ca049003a9bc3f4dbe03fe6
Contract deployer address	0x22fb3D49676f02400e755daBa60Ec7bC58f8f1F9
Contract's current owner address	0x22fb3d49676f02400e755daba60ec7bc58f8f1f9

Kink Coin Token Distribution

The top 100 holders collectively own 100.00% (1,000,000,000,000.00 Tokens) of Kink Coin

Token Total Supply: 1,000,000,000,000.00 Token | Total Token Holders: 1



Kink Coin Contract Interaction Details

Time Series: Token Contract Overview

Sat 24, Jul 2021 - Sat 24, Jul 2021



Kink Coin Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	0x22fb3d49676f02400e755daba60ec7bc58f8f1f9	1,000,000,000,000,000	100.0000%



Contract functions details

+ Context

- [Int] _msgSender
- [Int] _msgData

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ [Lib] SafeMath

- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div
- [Int] mod
- [Int] mod

+ [Lib] Address

- [Int] isContract
- [Int] sendValue #
- [Int] functionCall #
- [Int] functionCall #
- [Int] functionCallWithValue #
- [Int] functionCallWithValue #
- [Prv] _functionCallWithValue #

+ [Int] IUniswapV2Factory

- [Ext] feeTo
- [Ext] feeToSetter
- [Ext] getPair
- [Ext] allPairs
- [Ext] allPairsLength
- [Ext] createPair #
- [Ext] setFeeTo #
- [Ext] setFeeToSetter #

+ [Int] IUniswapV2Pair

- [Ext] name
- [Ext] symbol
- [Ext] decimals
- [Ext] totalSupply
- [Ext] balanceOf

- [Ext] allowance
- [Ext] approve #
- [Ext] transfer #
- [Ext] transferFrom #
- [Ext] DOMAIN_SEPARATOR
- [Ext] PERMIT_TYPEHASH
- [Ext] nonces
- [Ext] permit #
- [Ext] MINIMUM_LIQUIDITY
- [Ext] factory
- [Ext] token0
- [Ext] token1
- [Ext] getReserves
- [Ext] price0CumulativeLast
- [Ext] price1CumulativeLast
- [Ext] kLast
- [Ext] mint #
- [Ext] burn #
- [Ext] swap #
- [Ext] skim #
- [Ext] sync #
- [Ext] initialize #

+ [Int] IUniswapV2Router01

- [Ext] factory
- [Ext] WETH
- [Ext] addLiquidity #
- [Ext] addLiquidityETH (\$)
- [Ext] removeLiquidity #
- [Ext] removeLiquidityETH #
- [Ext] removeLiquidityWithPermit #
- [Ext] removeLiquidityETHWithPermit #
- [Ext] swapExactTokensForTokens #
- [Ext] swapTokensForExactTokens #
- [Ext] swapExactETHForTokens (\$)
- [Ext] swapTokensForExactETH #
- [Ext] swapExactTokensForETH #
- [Ext] swapETHForExactTokens (\$)
- [Ext] quote
- [Ext] getAmountOut
- [Ext] getAmountIn
- [Ext] getAmountsOut
- [Ext] getAmountsIn

+ [Int] IUniswapV2Router02 (IUniswapV2Router01)

- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

+ [Int] Cashier

- [Ext] setToken #
- [Ext] whomst
- [Ext] setReflectionCriteria #

- [Ext] setShare #
- [Ext] deposit (\$)
- [Ext] process #
- [Ext] giveMeWelfarePlease #
- [Ext] getTotalDistributed
- + Ownable (Context)
 - [Pub] <Constructor> #
 - [Pub] owner
 - [Pub] renounceOwnership #
 - modifiers: onlyOwner
 - [Pub] transferOwnership #
 - modifiers: onlyOwner
- + KinkCoin (IERC20, Ownable)
 - [Pub] <Constructor> #
 - [Ext] <Fallback> (\$)
 - [Ext] totalSupply
 - [Ext] decimals
 - [Ext] symbol
 - [Ext] name
 - [Ext] getOwner
 - [Pub] balanceOf
 - [Ext] allowance
 - [Pub] approve #
 - [Pub] approveMax #
 - [Prv] _approve #
 - [Ext] transfer #
 - [Ext] transferFrom #
 - [Pub] isSniper
 - [Ext] removeSniper #
 - modifiers: onlyOwner
 - [Ext] setSniperProtectionEnabled #
 - modifiers: onlyOwner
 - [Pub] setDividendExcluded #
 - modifiers: onlyOwner
 - [Pub] setExcludeFromFees #
 - modifiers: onlyOwner
 - [Ext] setTaxes #
 - modifiers: onlyOwner
 - [Ext] setMarketingWallet #
 - modifiers: onlyOwner
 - [Ext] setLiquidityWallet #
 - modifiers: onlyOwner
 - [Ext] setSwapBackSettings #
 - modifiers: onlyOwner
 - [Ext] setSwapThreshold #
 - modifiers: onlyOwner
 - [Ext] setTargetLiquidity #
 - modifiers: onlyOwner
 - [Ext] setReflectionCriteria #
 - modifiers: onlyOwner
 - [Ext] setReflectorSettings #
 - modifiers: onlyOwner
 - [Ext] setSwapAmount #

- modifiers: onlyOwner
- [Pub] getCirculatingSupply
- [Pub] getLiquidityBacking
- [Pub] isOverLiquified
- [Ext] giveMeWelfarePlease #
- [Ext] getTotalReflected
- [Ext] excludePresaleAddresses #
 - modifiers: onlyOwner
- [Prv] _hasLimits
- [Int] _transfer #
- [Int] _finalizeTransfer #
- [Int] shouldSwapBack
- [Int] processTokenReflect #
- [Int] _basicTransfer #
- [Int] shouldTakeFee
- [Pub] getTotalFee
- [Int] takeTaxes #
- [Int] swapBack #
 - modifiers: swapping
- [Prv] _checkLiquidityAdd #

(\$) = payable function

= non-constant function

Issues Checking Status

Issue description	Checking status
1. Compiler errors.	Passed
2. Race conditions and Reentrancy. Cross-function race conditions.	Passed
3. Possible delays in data delivery.	Passed
4. Oracle calls.	Passed
5. Front running.	Passed
6. Timestamp dependence.	Passed
7. Integer Overflow and Underflow.	Passed
8. DoS with Revert.	Passed
9. DoS with block gas limit.	Passed
10. Methods execution permissions.	Passed
11. Economy model of the contract.	Passed
12. The impact of the exchange rate on the logic.	Passed
13. Private user data leaks.	Passed
14. Malicious Event log.	Passed
15. Scoping and Declarations.	Passed
16. Uninitialized storage pointers.	Passed
17. Arithmetic accuracy.	Low issues
18. Design Logic.	Passed
19. Cross-function race conditions.	Passed
20. Safe Open Zeppelin contracts implementation and usage.	Passed
21. Fallback function security.	Passed

Security Issues

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

✓ Low Severity Issues

1. Safe math

Issue:

- Solidity version acceptable for the contract is “ $\geq 0.6.0 < 0.9.0$ ”, if Solidity version would be lower than 0.8.0, then code blocks without safe math could fail (if there will be inappropriate values).

Recommendation:

Fix solidity version from actual value, not the old one.

Notes:

- swapBack function distributes reflection and marketing fee and adds liquidity.
- If dynamic liquidity fee will equal to zero, liquidity fee part goes to marketing.
- reflector(Cashier) provided only as interface, so actual working of its functions is not audited.
- Liquidity adds to liquidity wallet.

Owner privileges (In the period when the owner is not renounced)

- Owner can remove sniper.
- Owner can enable and disable sniper protection.
- Owner can exclude and include in dividends.
- Owner can exclude from the fees.
- Owner can change the fees.
- Owner can change marketing and liquidity wallets.
- Owner can change swap back settings.
- Owner can change target liquidity.
- Owner can change reflection criteria.
- Owner can change reflector GAS amount.
- Owner can change the maximum transaction amount.
- Owner can change swap amount.
- Owner can add addresses in multiple excludes.

Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details NOT provided by the team.

TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.



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