



TechRate
AUDIT COMPANY

Smart Contract Security Audit

Audit Details



Audited project

Maka



Deployer address

0x4078b2228f80ca39116454de2e60103324e9434b



Client contacts:

Maka team



Blockchain

Binance Smart Chain



Project website:

<https://maka.finance/>

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 Maka to perform an audit of smart contracts:

<https://bscscan.com/address/0x75b429A3D699e6E711BDBC8C0d00cca6a6da4CfE#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

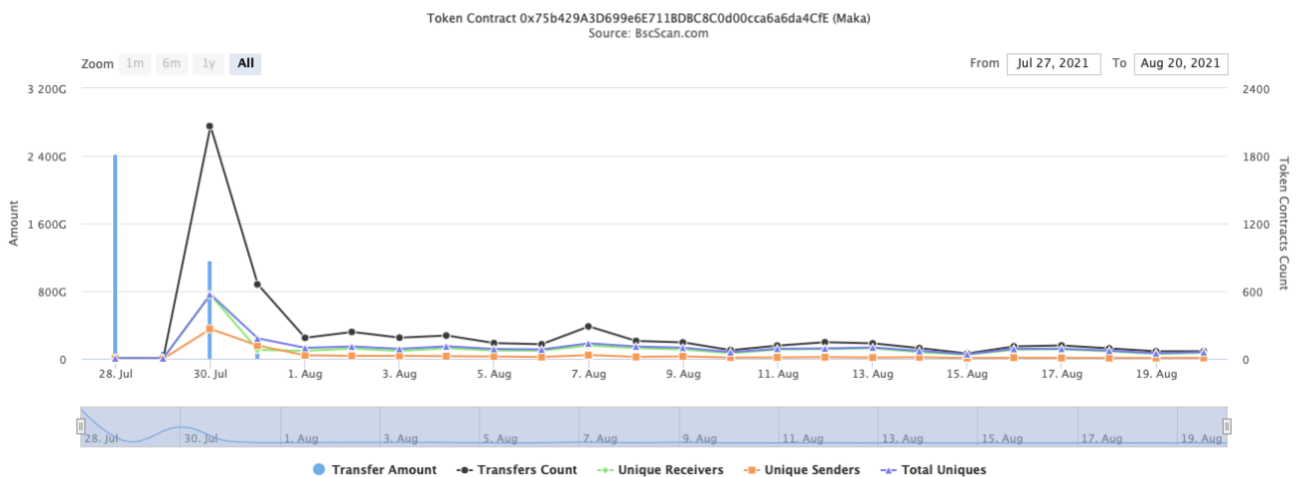
Token contract details for 21.08.2021

Contract name	Maka
Contract address	0x75b429A3D699e6E711BDBC8C0d00cca6a6da4CfE
Total supply	1,000,000,000,000
Token ticker	MAKA
Decimals	9
Token holders	312
Transactions count	5,493
Top 100 holders dominance	98.28%
Reward cycle period	86400
Global reward dampening %	6
Auto liquidity wallet	0x4078b2228f80ca39116454de2e60103324e9434b
Pancake V2 pair	0x7953d870e3d85704a089b8bac8cbdd2b944d17c6
Contract deployer address	0x4078b2228f80ca39116454de2e60103324e9434b
Contract's current owner address	0x4078b2228f80ca39116454de2e60103324e9434b






💡 Token Total Supply: 1,000,000,000,000.00 Token | Total Token Holders: 312

(A total of 982,794,226,921.69 tokens held by the top 100 accounts from the total supply of 1,000,000,000,000.00 token)

Wed 28, Jul 2021 - Fri 20, Aug 2021



Maka Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	Burn Address	300,005,513,792.777761381	30.0006%
2	 PancakeSwap V2: MAKA 8	143,009,950,240.148032878	14.3010%
3	0x78a5cae394b1707ce55b0c67788a0cf2427deb30	66,035,986,478.399612776	6.6036%
4	 0x3f4d6bf08cb7a003488ef082102c2e6418a4551e	62,755,999,999	6.2756%
5	 Maka Finance: MAKA Token	40,770,758,507.125103171	4.0771%
6	 0xbb75ae519f5d5d4389be505b40f32d1d25ae729e	32,315,470,725.999999714	3.2315%
7	0x72556b09a73d22067502f125110b168a16190b97	28,000,000,000	2.8000%
8	0x1e2d3969fb5f19fd3eec493eaf58dabd76ecd8c8	21,538,227,479.368062236	2.1538%
9	0x65dc60b5872d066144e451c4a1988874e62f40d4	18,555,275,292.600630047	1.8555%
10	 0x4a4f289196cdc54aaba35c864b961d44f503693d	18,210,074,025.000000013	1.8210%



Contract functions details

+ Context

- [Int] _msgSender
- [Int] _msgData

+ Ownable (Context)

- [Pub] <Constructor> #
- [Pub] owner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ [Int] IERC20Metadata (IERC20)

- [Ext] name
- [Ext] symbol
- [Ext] decimals

+ [Int] IPancakeRouter01

- [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] IPancakeRouter02 (IPancakeRouter01)

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

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

- + ReentrancyGuard
 - [Pub] <Constructor> #

- + MakaBase (Context, IERC20Metadata, Ownable, ReentrancyGuard)
 - [Pub] <Constructor> #
 - [Pub] presale #
 - modifiers: onlyOwner
 - [Pub] activate #
 - modifiers: onlyOwner
 - [Int] onActivated #
 - [Pub] balanceOf
 - [Pub] transfer #
 - [Pub] transferFrom #
 - [Pub] approve #
 - [Int] doTransfer #
 - [Int] onBeforeTransfer #
 - [Int] onTransfer #
 - [Prv] updateBalances #
 - [Prv] doApprove #
 - [Prv] calculateFeeRate
 - [Prv] executeSwapIfNeeded #
 - [Prv] executeSwap #
 - [Int] swapTokensForBNB #
 - [Int] swapBNBForTokens #
 - [Int] swapBNBForBUSD #
 - [Prv] isTransferLimited
 - [Prv] isSwapTransfer
 - [Int] isMarketTransfer
 - [Pub] amountUntilSwap
 - [Pub] increaseAllowance #
 - [Pub] decreaseAllowance #
 - [Pub] setPancakeSwapRouter #
 - modifiers: onlyOwner
 - [Int] onPancakeSwapRouterUpdated #
 - [Int] isPancakeSwapPair
 - [Pub] setFees #
 - modifiers: onlyOwner
 - [Pub] setTransactionLimit #
 - modifiers: onlyOwner
 - [Pub] transactionLimit
 - [Pub] setTokenSwapThreshold #
 - modifiers: onlyOwner
 - [Pub] tokenSwapThreshold
 - [Pub] name
 - [Pub] symbol

- [Pub] totalSupply
 - [Pub] decimals
 - [Pub] allowance
 - [Pub] pancakeSwapRouterAddress
 - [Pub] pancakeSwapPairAddress
 - [Pub] autoLiquidityWallet
 - [Pub] setAutoLiquidityWallet #
 - modifiers: onlyOwner
 - [Pub] totalFeesPooled
 - [Pub] totalBNBLiquidityAddedFromFees
 - [Pub] isSwapEnabled
 - [Pub] setSwapEnabled #
 - modifiers: onlyOwner
 - [Pub] isFeeEnabled
 - [Pub] setFeeEnabled #
 - modifiers: onlyOwner
 - [Pub] isExcludedFromFees
 - [Pub] setExcludedFromFees #
 - modifiers: onlyOwner
 - [Pub] activateBuying #
 - modifiers: onlyOwner
 - [Ext] <Fallback> (\$)
- + Maka (MakaBase)
- [Pub] <Constructor> #
 - modifiers: MakaBase
 - [Int] onActivated #
 - [Int] onBeforeTransfer #
 - [Int] onTransfer #
 - [Prv] processGradualBurn #
 - [Prv] updateAutoClaimQueue #
 - [Ext] claimReward #
 - modifiers: isHuman,nonReentrant
 - [Pub] claimReward #
 - [Prv] doClaimReward #
 - [Prv] claimBNB #
 - [Prv] claimMaka #
 - [Prv] claimBusd #
 - [Pub] processRewardClaimQueue #
 - [Ext] processRewardClaimQueueAndRefundGas #
 - [Pub] isRewardReady
 - [Pub] isIncludedInRewards
 - [Pub] calculateRewardCycleExtension
 - [Pub] calculateClaimRewards
 - [Pub] calculateBNBReward
 - [Int] onPancakeSwapRouterUpdated #
 - [Int] isMarketTransfer
 - [Prv] isBurnTransfer
 - [Pub] shouldBurn
 - [Ext] buyAndBurn #
 - modifiers: onlyOwner
 - [Prv] doBuyAndBurn #
 - [Pub] isContract
 - [Pub] totalAmountOfTokensHeld
 - [Pub] bnbRewardClaimed

- [Pub] bnbRewardClaimedAsBusd
- [Pub] bnbRewardClaimedAsMaka
- [Pub] totalBNBClaimed
- [Pub] totalBNBClaimedAsMaka
- [Pub] totalBNBClaimedAsBusd
- [Pub] rewardCyclePeriod
- [Pub] setRewardCyclePeriod #
 - modifiers: onlyOwner
- [Pub] setRewardCycleExtensionThreshold #
 - modifiers: onlyOwner
- [Pub] nextAvailableClaimDate
- [Pub] maxClaimAllowed
- [Pub] setMaxClaimAllowed #
 - modifiers: onlyOwner
- [Pub] minRewardBalance
- [Pub] setMinRewardBalance #
 - modifiers: onlyOwner
- [Pub] maxGasForAutoClaim
- [Pub] setMaxGasForAutoClaim #
 - modifiers: onlyOwner
- [Pub] isAutoClaimEnabled
- [Pub] setAutoClaimEnabled #
 - modifiers: onlyOwner
- [Pub] isExcludedFromRewards
- [Pub] setExcludedFromRewards #
 - modifiers: onlyOwner
- [Pub] globalRewardDampeningPercentage
- [Pub] setGlobalRewardDampeningPercentage #
 - modifiers: onlyOwner
- [Pub] approveClaim #
- [Pub] isClaimApproved
- [Pub] isRewardAsTokensEnabled
- [Pub] setRewardAsTokensEnabled #
 - modifiers: onlyOwner
- [Pub] gradualBurnMagnitude
- [Pub] setGradualBurnMagnitude #
 - modifiers: onlyOwner
- [Pub] gradualBurnTimespan
- [Pub] setGradualBurnTimespan #
 - modifiers: onlyOwner
- [Pub] minBnbPoolSizeBeforeBurn
- [Pub] setMinBnbPoolSizeBeforeBurn #
 - modifiers: onlyOwner
- [Pub] claimRewardAsBnbPercentage
- [Pub] claimRewardAsBusdPercentage
- [Pub] claimRewardAsMakaPercentage
- [Pub] setClaimRewardPercentage #
- [Pub] mainBnbPoolSize
- [Pub] setMainBnbPoolSize #
 - modifiers: onlyOwner
- [Pub] isInRewardClaimQueue
- [Pub] reimburseAfterMakaClaimFailure
- [Pub] setReimburseAfterMakaClaimFailure #
 - modifiers: onlyOwner
- [Pub] lastBurnDate

- [Pub] rewardClaimQueueLength
- [Pub] rewardClaimQueueIndex
- [Pub] isWhitelistedExternalProcessor
- [Pub] setWhitelistedExternalProcessor #
 - modifiers: onlyOwner
- [Pub] setSendWeiGasLimit #
 - modifiers: onlyOwner
- [Pub] setExcludeNonHumansFromRewards #
 - modifiers: onlyOwner

(\$) = 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.	Low issues
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.	Passed
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. Reentrancy

Issue:

- The function `claimReward()` marked `nonReentrant` but function `claimReward(address user)` is also accessible but not `nonReentrant`.

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

- Owner can run presale and activate presets.
- Owner can change Pancake router.
- Owner can change fees.
- Owner can change `_transactionLimit` and `_tokenSwapThreshold`.
- Owner can change auto liquidity wallet address.
- Owner can disable/enable swap and fees.
- Owner can activate buying.
- Owner can manually buy&burn.
- Owner can change `_rewardCyclePeriod` and `_rewardCycleExtensionThreshold`.
- Owner can change max claim allowed
- Owner can change min reward balance.
- Owner can exclude from the fees.
- Owner can change max gas for autoclaim.
- Owner can enable/disable autoclaim.
- Owner can exclude from rewards.
- Owner can change `_globalRewardDampeningPercentage`.
- Owner can change `_rewardAsTokensEnabled`.
- Owner can change `_gradualBurnMagnitude` and `_gradualBurnTimespan`.
- Owner can change min BNB pool before burn.
- Owner can change main BNB pool size.
- Owner can change `_reimburseAfterMakaClaimFailure`.
- Owner can add `_whitelistedExternalProcessors` addresses.
- Owner can change `_sendWeiGasLimit` value.
- Owner can change `_excludeNonHumansFromRewards` restriction.

Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope. The further transfers and operations with the funds raise are not related to this particular contract.

Liquidity locking details provided by the team:

https://dxsale.app/app/v2_9/dxlockview?id=1897&add=0&type=lpdefi&chain=BSC

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.