



Cyberscope

# Audit Report

## **CuteMonia**

November 2023

Network    BSC

Address    0x164f1937b86B37FF1Cb805E8911494Dd3938793e

Audited by    © cyberscope

# Analysis

● Critical   ● Medium   ● Minor / Informative   ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

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## Review

Contract Name	DividendToken
Compiler Version	v0.8.16+commit.07a7930e
Optimization	200 runs
Explorer	<a href="https://bscscan.com/address/0x164f1937b86b37ff1cb805e8911494dd3938793e">https://bscscan.com/address/0x164f1937b86b37ff1cb805e8911494dd3938793e</a>
Address	0x164f1937b86b37ff1cb805e8911494dd3938793e
Network	BSC
Symbol	CuteMoon
Decimals	18
Total Supply	365,000,000,000,000

## Audit Updates

Initial Audit	14 Nov 2023
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## Source Files

Filename	SHA256
contracts/tokens/dividendToken/dividendToken/DividendToken.sol	a6562d7c561fbd01600e0d1315f1f651368e1c1bc65377a0954b72c5804d306d

## Findings Breakdown

Severity	Unresolved	Acknowledged	Resolved	Other
● Critical	0	0	0	0
● Medium	0	0	0	0
● Minor / Informative	0	0	0	0

# Functions Analysis

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
<b>SafeMath</b>	Library			
	tryAdd	Internal		
	trySub	Internal		
	tryMul	Internal		
	tryDiv	Internal		
	tryMod	Internal		
	add	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	mod	Internal		
	sub	Internal		
	div	Internal		
	mod	Internal		
<b>SafeMathInt</b>	Library			
	mul	Internal		
	div	Internal		

	sub	Internal		
	add	Internal		
	abs	Internal		
	toUint256Safe	Internal		
<b>SafeMathUint</b>	Library			
	toInt256Safe	Internal		
<b>Initializable</b>	Implementation			
<b>ContextUpgradeable</b>	Implementation	Initializable		
	__Context_init	Internal	✓	initializer
	__Context_init_unchained	Internal	✓	initializer
	_msgSender	Internal		
	_msgData	Internal		
<b>IERC20Upgradeable</b>	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-

<b>IERC20MetadataUpgradeable</b>	Interface	IERC20Upgradeable		
	name	External		-
	symbol	External		-
	decimals	External		-
<b>ERC20Upgradeable</b>	Implementation	Initializable, ContextUpgradeable, IERC20Upgradeable, IERC20MetadataUpgradeable		
	__ERC20_init	Internal	✓	initializer
	__ERC20_init_unchained	Internal	✓	initializer
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	_transfer	Internal	✓	



	_mint	Internal	✓	
	_burn	Internal	✓	
	_approve	Internal	✓	
	_beforeTokenTransfer	Internal	✓	
	_afterTokenTransfer	Internal	✓	
<b>OwnableUpgradable</b>	Implementation	Initializable, ContextUpgradable		
	__Ownable_init	Internal	✓	initializer
	__Ownable_init_unchained	Internal	✓	initializer
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_setOwner	Private	✓	
<b>DividendPayingTokenInterface</b>	Interface			
	dividendOf	External		-
	withdrawDividend	External	✓	-
<b>DividendPayingTokenOptionalInterface</b>	Interface			
	withdrawableDividendOf	External		-
	withdrawnDividendOf	External		-
	accumulativeDividendOf	External		-

<b>DividendPayingToken</b>	Implementation	ERC20Upgradable, OwnableUpgradable, DividendPayingTokenInterface, DividendPayingTokenOptionalInterface		
	__DividendPayingToken_init	Internal	✓	initializer
	distributeCAKEDividends	Public	✓	onlyOwner
	withdrawDividend	Public	✓	-
	_withdrawDividendOfUser	Internal	✓	
	dividendOf	Public		-
	withdrawableDividendOf	Public		-
	withdrawnDividendOf	Public		-
	accumulativeDividendOf	Public		-
	_transfer	Internal	✓	
	_mint	Internal	✓	
	_burn	Internal	✓	
	_setBalance	Internal	✓	
<b>IterableMapping</b>	Library			
	get	Public		-
	getIndexOfKey	Public		-
	getKeyAtIndex	Public		-
	size	Public		-

	set	Public	✓	-
	remove	Public	✓	-
<b>DividendTracker</b>	Implementation	OwnableUpgradeable, DividendPayingToken		
	initialize	External	✓	initializer
	_transfer	Internal		
	withdrawDividend	Public		-
	excludeFromDividends	External	✓	onlyOwner
	isExcludedFromDividends	Public		-
	updateClaimWait	External	✓	onlyOwner
	updateMinimumTokenBalanceForDividends	External	✓	onlyOwner
	getLastProcessedIndex	External		-
	getNumberOfTokenHolders	External		-
	getAccount	Public		-
	getAccountAtIndex	Public		-
	canAutoClaim	Private		
	setBalance	External	✓	onlyOwner
	process	Public	✓	-
	processAccount	Public	✓	onlyOwner
<b>IERC20</b>	Interface			
	totalSupply	External		-

	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
<b>IERC20Metadata</b>	Interface	IERC20		
	name	External		-
	symbol	External		-
	decimals	External		-
<b>Context</b>	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
<b>ERC20</b>	Implementation	Context, IERC20, IERC20Meta data		
		Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-

	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	_transfer	Internal	✓	
	_mint	Internal	✓	
	_burn	Internal	✓	
	_approve	Internal	✓	
<b>Ownable</b>	Implementation	Context		
		Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_setOwner	Private	✓	
<b>Clones</b>	Library			
	clone	Internal	✓	
<b>IUniswapV2Factory</b>	Interface			
	createPair	External	✓	-

	getPair	External		-
<b>IUniswapV2Router01</b>	Interface			
	factory	External		-
	WETH	External		-
	WETC	External		-
	WHT	External		-
	WROSE	External		-
	WAVAX	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	addLiquidityAVAX	External	Payable	-
	addLiquidityETC	External	Payable	-
	addLiquidityROSE	External	Payable	-
	removeLiquidity	External	✓	-
	removeLiquidityETH	External	✓	-
	removeLiquidityETHWithPermit	External	✓	-
	swapExactTokensForTokens	External	✓	-
	swapExactETHForTokens	External	Payable	-
	swapExactTokensForETH	External	✓	-
<b>IUniswapV2Router02</b>	Interface	IUniswapV2Router01		
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-

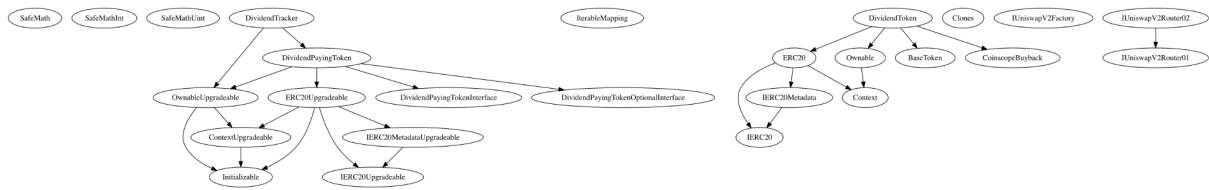
	swapExactTokensForETCSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForAVAXSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForROSESupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
<b>BaseToken</b>	Implementation			
<b>CoinscopeBuyback</b>	Implementation			
	coinscopeBuyback	Internal	✓	
<b>DividendToken</b>	Implementation	ERC20, Ownable, BaseToken, CoinscopeBuyback		
		Public	Payable	ERC20
	getNativeCurrency	Internal		
		External	Payable	-
	setSwapTokensAtAmount	External	✓	onlyOwner
	excludeFromFees	External	✓	onlyOwner
	includeInFees	External	✓	onlyOwner
	excludeMultipleAccountsFromFees	External	✓	onlyOwner
	setMarketingWallet	External	✓	onlyOwner
	setTokenRewardsFee	External	✓	onlyOwner
	setLiquidityFee	External	✓	onlyOwner

	setMarketingFee	External	✓	onlyOwner
	updateFees	Internal	✓	
	_setAutomatedMarketMakerPair	Private	✓	
	updateGasForProcessing	Public	✓	onlyOwner
	updateClaimWait	External	✓	onlyOwner
	getClaimWait	External		-
	updateMinimumTokenBalanceForDividends	External	✓	onlyOwner
	getMinimumTokenBalanceForDividends	External		-
	getTotalDividendsDistributed	External		-
	isExcludedFromFees	Public		-
	withdrawableDividendOf	Public		-
	dividendTokenBalanceOf	Public		-
	excludeFromDividends	External	✓	onlyOwner
	isExcludedFromDividends	Public		-
	getAccountDividendsInfo	External		-
	getAccountDividendsInfoAtIndex	External		-
	processDividendTracker	External	✓	-
	claim	External	✓	-
	getLastProcessedIndex	External		-
	getNumberOfDividendTokenHolders	External		-
	_transfer	Internal	✓	
	swap	Private	✓	lockTheSwap
	swapAndLiquify	Private	✓	

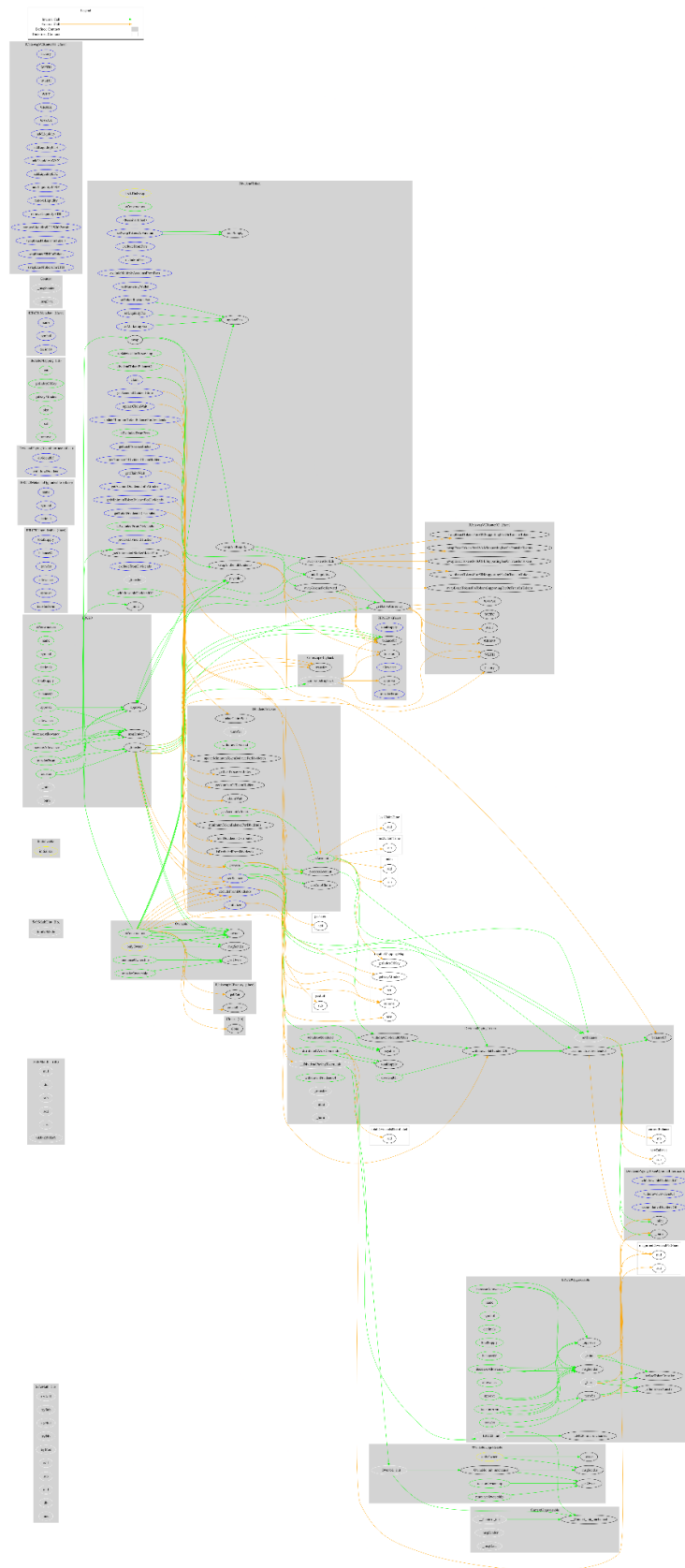


	swapTokensForEth	Private	✓	
	addLiquidity	Private	✓	
	swapTokensForReward	Private	✓	
	swapAndSendDividends	Private	✓	

# Inheritance Graph



# Flow Graph



## Summary

CuteMoonia contract implements a token mechanism. This audit investigates security issues, business logic concerns, and potential improvements. CuteMoonia is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler errors or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 20% fees.

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Cyberscope is a blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.



**The Cyberscope team**

<https://www.cyberscope.io>