RugFreeCoins Audit

ThunderADA Token Audit

Smart Contract Security Audit

August 25, 2021

Contents

Audit details

Audited project

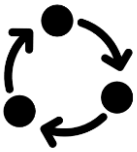
ThunderADA Token

Contract Address

0x0A7bB2bddA1c0eA02d98a7b048f4bF809F40277b

Client contact

ThunderADA Token Team



Blockchain

Binance smart chain

Project website

https://thunderada.app/

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 disclaimer below – please make sure to read it in full.

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Background

Rugfreecoins was commissioned by ThunderADA to perform an audit of the smart contract.

https://bscscan.com/token/0x0A7bB2bddA1c0eA02d98a7b048f4bF809F40277b

The focus of this audit is to verify that the smart contract is secure, resilient and working according to the specifications.

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

About the project

ThunderBNB is a token built on the Binance Smart Chain. Each transaction, purchase incur a 18% fee, and sales incur a 27% fee. The ThunderADA Token launched on 21st August 2021 on PancakeSwap.

The first token of its type to provide its users with double reflection rewards, at a ratio of 80% given in a token which will provide immediate benefits to the user short term, and 20% provided in a token specifically built to provide profit for long term investors.

- **80% ADA distribution.**
- **20% THOREUM distribution.**

Features

- The **reward** system is what ThunderADA's entire marketing strategy is based around, especially in the early stages of the life of the coin. The notion of 'passive income' can be leveraged in ThunderADA's marketing approach and facilitate the next steps in the development and growth of the community. The fee of 10% from every trade will be divided to distribute 8% of ADA and 2% of THOREUM everyone hour among every holder proportional to how many tokens each individual holds.

- The **sustainability fee of 4% marketing fee when buying and selling** is what allows ThunderADA to hold the aforementioned promise. Tokens will be swapped into BNBs and will be sent to a marketing wallet per transaction. This way, ThunderADA will have enough funds to promote the coin and spend for future development without selling tokens as the traditional way.

- The 2% fee is used to buy back & burn ThunderBNB, which is affiliated with the ThunderADA token.

- 2% auto liquidity pool and buy back & burn ThunderADA. Based on volume & liquidity analysis, 2% of every transaction is transformed either into liquidity for Pancakeswap or into ThunderADA automatic Buyback & burn fund. Once the system detects a sale, it will automatically buy back a certain value of tokens and burn. It's automatic and helps create either a higher price floor for stability or pump the price and rarify token.

- Anti-dump: Sales are restricted to less than 0.1% of the total supply. Buys have a 0.5% limitation. So only big buys and never see a big dump.

- Anti-bot Exploit: The Buyback and Burn will only cover the same sell value under a certain threshold. So massive bot-triggered micro-sells will not dry out the buyback fund.

Tokenomics

18% fee when buying

- 8% of trade goes to holders' pockets in ADA.
- 2% of trade goes to holders' pockets in THOREUM.
- 4% of trade will be allocated for marketing.
- 2% of trade will be allocated to buyback and burn ThunderBNB.
- 2% of trade will be allocated for liquidity pool or buyback and burn ThunderADA.

27% fee when selling

- 12% of trade goes to holders’ pockets in BNB.
- 3% of trade goes to holders’ pockets in THOREUM.
- 6% of trade will be allocated for marketing.
- 3% of trade will be allocated to buyback and burn ThunderBNB.
- 3% of trade will be allocated for liquidity pool or buyback and burn ThunderADA.

Roadmap

Phase 1

- ❖ Website Launch
- ❖ +40k Telegram Members
- ❖ Presale Launch & Liquidity locked
- ❖ Launch on PancakeSwap
- ❖ $5M Marketcap
- ❖ Coingecko listing
- ❖ Blockfolio Application
- ❖ Influencer marketing push
- ❖ Poocoin and other big website banner ads
- ❖ Meme contests

Phase 2

- ❖ +10k followers in Twitter
- ❖ 10,000 holders
- ❖ Partnership with influencer Youtube, Twitter, & TikTok
- ❖ ThunderADA Dashboard (earnings tracking)
- ❖ CoinmarketCap listing
- ❖ Massive Marketing
- ❖ $25M Market Cap
- ❖ $50M Market Cap

Phase 3

- ❖ $100M Market Cap
- ❖ ThunderADASwap
- ❖ ThunderADA Merch Shop
- ❖ Marketing: ThunderADA goes to mainstream
- ❖ Listing on CEX
- ❖ $500M MarketCap
- ❖ Charity donation
- ❖ Research donation
- ❖ More to be announced

Target market and the concept

Target market

- Anyone who's interested in Crypto space with long term investment plans.
- Anyone who's ready to earn a passive income in ADA or THOREUM by holding tokens.
- Anyone who's interested in trading tokens.
- All ADA or THOREUM and fans out there.
- Anyone who's interested in taking part with the future plans of the project.
- Anyone who's interested in making financial transactions with any other party using ThunderADA as the currency.

Core concept

The reward system

10% of each transaction when buying and 15% when selling gets converted to ADA and THOREUM in the power of 80/20 and is split amongst all holders. The rewards are sent to holders that have at least 200,000 ThunderADA tokens, holders will be eligible to receive tokens everyone hour and rewards are proportional to how many tokens each individual holds.

ADA - 80% for now and mid-term:

ADA is now about $2.5 but expected to be $5 at the end of this year and potential to $12.5 (x5) in mid-term as ADA is the native token of the Cardano platform which is a rival of Ethereum with much better technological advantage.

8% of transaction tax in ADA make sure that ThunderADA holders benefit immediately from the big rewards coming from every transaction, and this can be equal to 40% when ADA price x5 in the near future.

THOREUM - 20% for long-term future:

Thoreum is expected to be the next Safemoon 2.0 with many innovative features that is the first in the crypto world, such as Thor Thunder to buy back & burn with 3700+ BNB fund & increasing ~100 BNB every day, or Thunder Boost to earn staking rewards while still getting reflection rewards, etc. With a hyper deflationary nature, Thoreum price is expected to be x100 in this year and next.

2% of transaction tax for a token like Thoreum is like a long-term investment and it can be equal to 200% in the long-term future.

Sustainable mechanism

The **fee of 4% marketing when buying and 6% when selling** is what allows ThunderADA to promote the token and use funds to further development of the platform. Tokens will be swapped into BNB and will be sent to a marketing wallet per transaction. This way, ThunderADA will have access to the funds without selling tokens as the traditional way, which will enable them to consume funds without hurting the project.

The liquidity fee of 3%, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

The 2% buy back & burn ThunderCake is to promote the affiliated token of ThunderADA, which will enable ThunderADA to be more popular and be strong in terms of marketing as ThunderBNB success will directly affect the ThunderADA and vice versa.

2% auto liquidity pool and buy back & burn ThunderADA

Based on volume & liquidity analysis, 2% of every transaction is transformed either into liquidity for Pancakeswap or into ThunderADA automatic Buyback & burn fund. Liquidity pool is the redistribution mechanism that ensures the trading pool always has sufficient liquidity. Once the system detects a sale, it will automatically buy back a certain value of tokens and burn. It’s automatic and helps create either a higher price floor for stability or pump the price and rarify token.

Potential to grow with score points

1.	Project efficiency	9/10
2.	Project uniqueness	9/10
3	Information quality	9/10
4	Service quality	9/10
5	System quality	8/10
6	Impact on the community	9/10
7	Impact on the business	9/10
8	Preparing for the future	8/10
Total Points		**8.75/10**

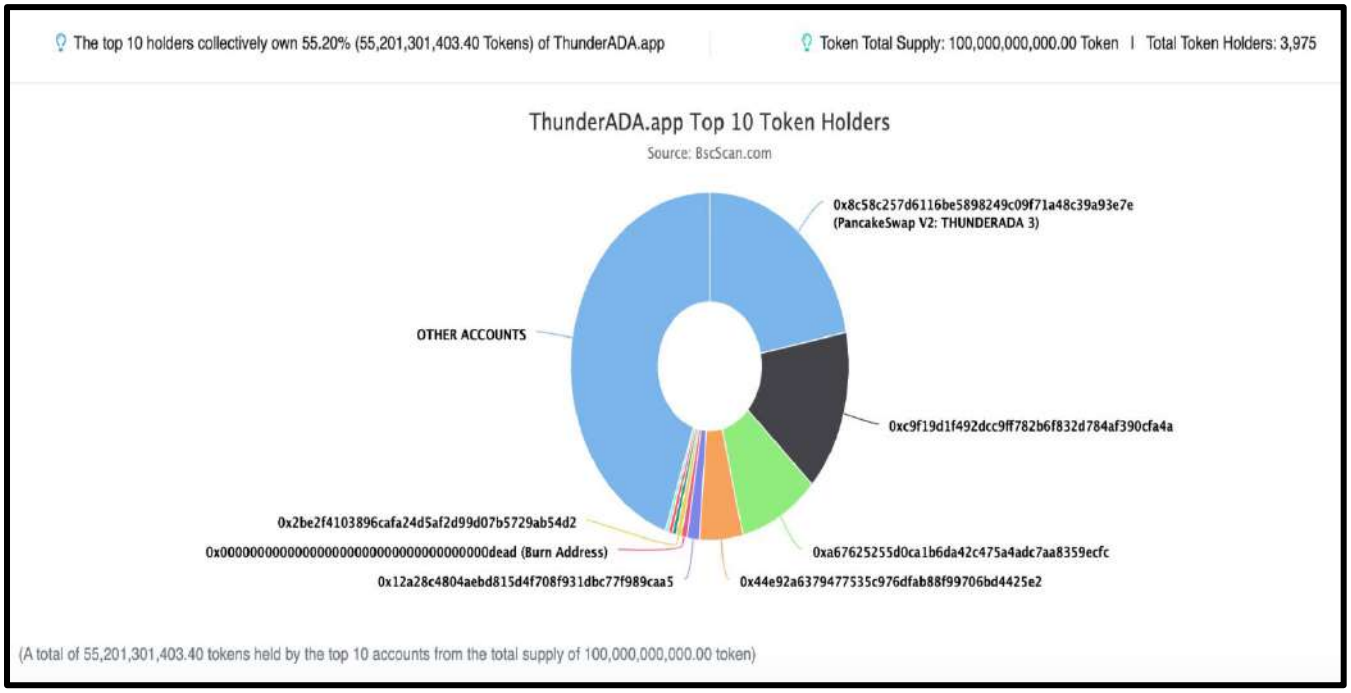
Contract details

Token contract details for 25th August 2021

Contract name	ThunderADA.app
Contract address	0x0A7bB2bddA1c0eA02d98a7b048f4bF809F40277b
Token supply	100,000,000,000
Token ticker	THUNDERADA
Decimals	18
Token holders	3,974
Transaction count	23,947
Top 100% holders dominance	67.56%
Marketing wallet	0xa67625255d0ca1b6da42c475a4adc7aa8359ecfc
Team wallet	0xc9f19d1f492dcc9ff782b6f832d784af390cfa4a
ThunderBNB burn address	0xb9654a42f0f5dcdef5617debf8bd048e33f180e7
Contract deployer address	0x8cA23deA974781c94D961950230FB1Ffdb61bB60
Contract's current owner address	0x8ca23dea974781c94d961950230fb1ffdb61bb60

Top token holders

Top 10 Token Holders

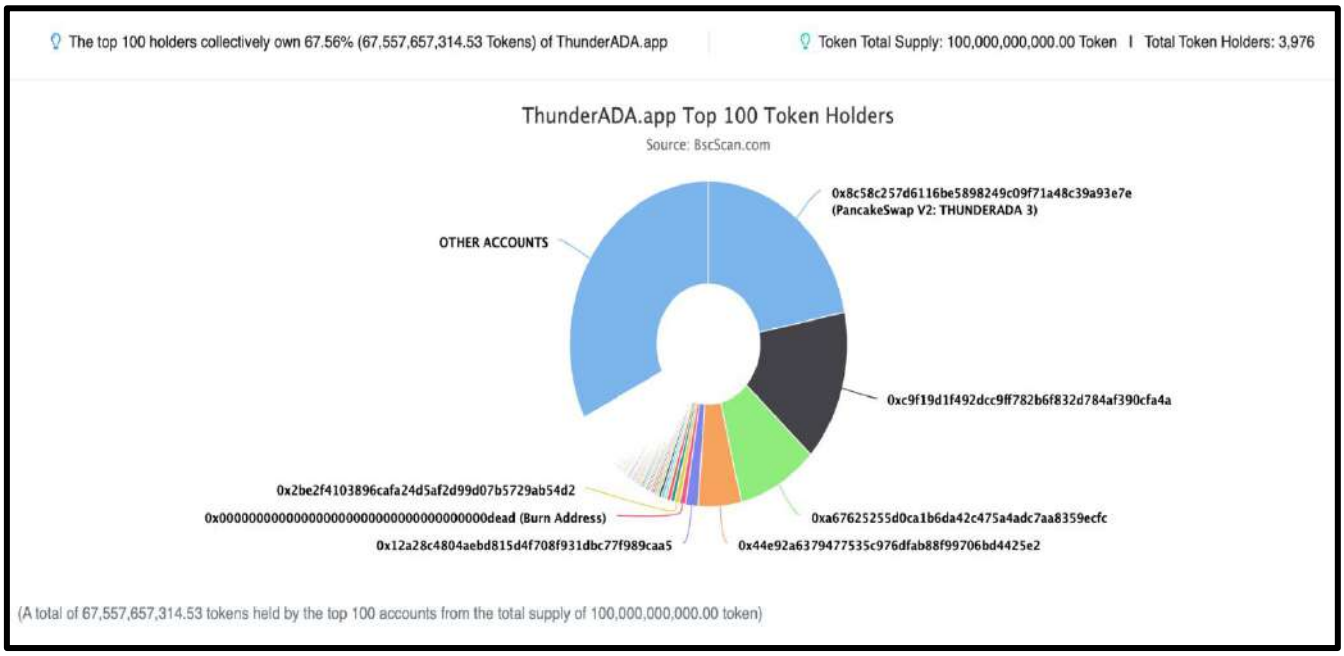


Rank	Address	Quantity (Token)	Percentage
1	PancakeSwap V2: THUNDERADA 3	21,881,136,961.970554170019786071	21.8811%
2	0xc9f19d1f492dcc9ff782b6f832d784af390cfa4a	15,000,000,000	15.0000%
3	0xa67625255d0ca1b6da42c475a4adc7aa8359ecfc	9,300,000,000	9.3000%
4	0x44e92a6379477535c976dfab88f99706bd4425e2	5,000,000,000	5.0000%
5	0x12a28c4804aebd815d4f708f931dbc77f989caa5	1,473,090,000	1.4731%
6	Burn Address	663,954,238.779074188552065207	0.6640%
7	0x2be2f4103896cafa24d5af2d99d07b5729ab54d2	600,000,000	0.6000%
8	0x2a8d9d2d47c2fa97a05eb11154acf8b92c6f250b	479,273,468.204132202927826578	0.4793%
9	0xa2626863308aec25d6afd4e5c88cfe2206db3df9	452,773,072.866376870071465119	0.4528%
10	0xb8c82acb0c084c1b285efbe50de32f6aaffc1d17	351,073,661.575	0.3511%

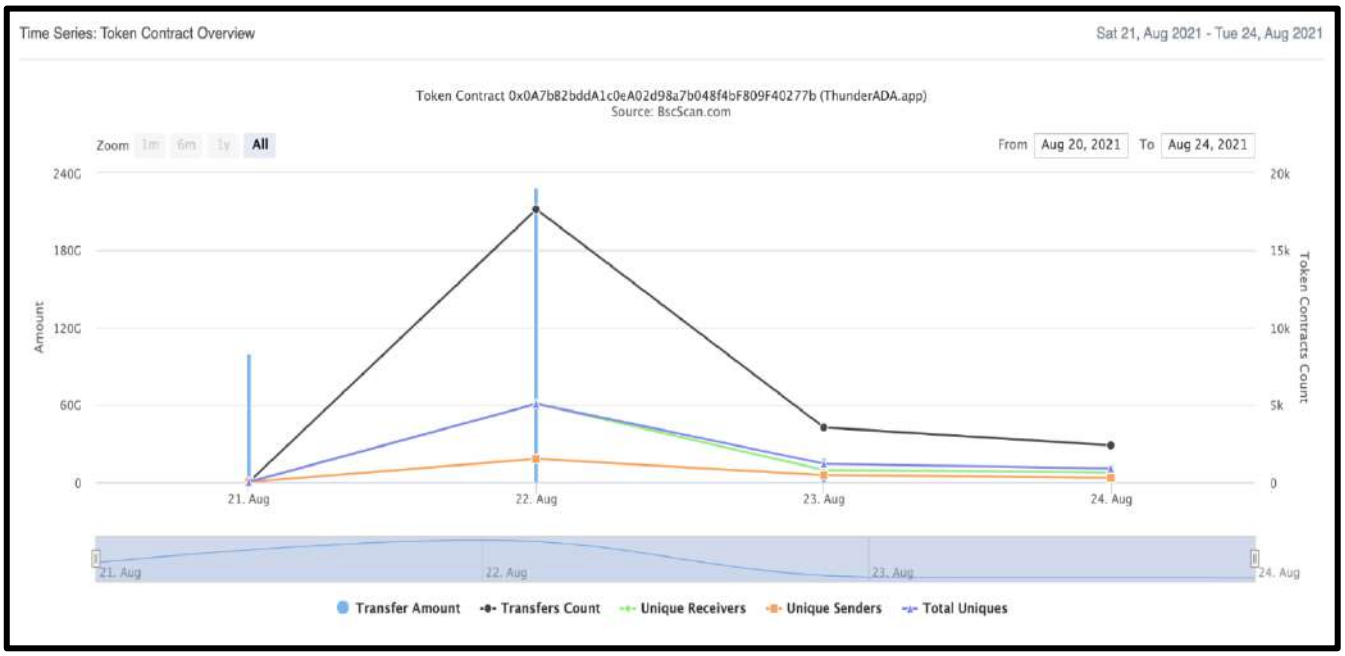
Token distribution

Tokens are distributed as follows:

Top 100 Token Holders



Contract interaction details



Contract code function details

No	Category	Item	Result
1	Coding conventions	BRC20 Token standards	pass
		compile errors	pass
		Compiler version security	pass
		visibility specifiers	pass
		Gas consumption	pass
		SafeMath features	pass
		Fallback usage	pass
		tx.origin usage	pass
		deprecated items	pass
		Redundant code	pass
		Overriding variables	pass
2	Function call audit	Authorization of function call	pass
		Low level function (call/delegate call) security	pass
		Returned value security	pass
		Selfdestruct function security	pass
3	Business security	Access control of owners	informational
		Business logics	pass
		Business implementations	pass
4	Integer overflow/underflow		pass
5	Reentrancy		pass
6	Exceptional reachable state		pass
7	Transaction ordering dependence		pass
8	Block properties dependence		pass
9	Pseudo random number generator (PRNG)		pass
10	DoS (Denial of Service)		pass
11	Token vesting implementation		pass
12	Fake deposit		pass
13	Event security		pass

Contract description table

Below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions and implementations with its visibility and mutability.

Contract	Type	Bases		
L	Function Name	Visibility	Mutability	Modifiers
Context	**Implementation**			
L	_msgSender	Internal 🔒		
L	_msgData	Internal 🔒		
Ownable	**Implementation**	**Context**		
L		Public ❗	🔘	NO❗
L	owner	Public ❗		NO❗
L	renounceOwnership	Public ❗	🔘	onlyOwner
L	transferOwnership	Public ❗	🔘	onlyOwner
L	lock	Public ❗	🔘	onlyOwner
IERC20	**Interface**			
L	totalSupply	External ❗		NO❗
L	balanceOf	External ❗		NO❗
L	transfer	External ❗	🔘	NO❗
L	allowance	External ❗		NO❗
L	approve	External ❗	🔘	NO❗
L	transferFrom	External ❗	🔘	NO❗
ERC20	**Implementation**	**Context, IERC20**		
L		Public ❗	🔘	NO❗
L	name	Public ❗		NO❗

└	symbol	Public ❗		NO❗
└	decimals	Public ❗		NO❗
└	totalSupply	Public ❗		NO❗
└	balanceOf	Public ❗		NO❗
└	transfer	Public ❗	🔘	NO❗
└	allowance	Public ❗		NO❗
└	approve	Public ❗	🔘	NO❗
└	transferFrom	Public ❗	🔘	NO❗
└	increaseAllowance	Public ❗	🔘	NO❗
└	decreaseAllowance	Public ❗	🔘	NO❗
└	_transfer	Internal 🔒	🔘	
└	_mint	Internal 🔒	🔘	
└	_burn	Internal 🔒	🔘	
└	_approve	Internal 🔒	🔘	
└	_setupDecimals	Internal 🔒	🔘	
└	_beforeTokenTransfer	Internal 🔒	🔘	
IDividendPayingToken	**Interface**			
└	dividendOf	External ❗		NO❗
└	withdrawDividend	External ❗	🔘	NO❗
IDividendPayingTokenOptional	**Interface**			
└	withdrawableDividendOf	External ❗		NO❗
└	withdrawnDividendOf	External ❗		NO❗
└	accumulativeDividendOf	External ❗		NO❗
DividendPayingToken	**Implementation**	**ERC20, IDividendPayingToken, IDividendPayingTokenOptional**		

L		Public ❗	🔘	ERC20
L		External ❗	💷	NO❗
L	distributeDividends	Public ❗	🔘	NO❗
L	withdrawDividend	Public ❗	🔘	NO❗
L	setOnlyCaller	External ❗	🔘	NO❗
L	setDividendTokenAddress	External ❗	🔘	NO❗
L	setMinTokenBeforeSendDividend	External ❗	🔘	NO❗
L	_withdrawDividendOfUser	Internal 🔒	🔘	
L	dividendOf	Public ❗		NO❗
L	withdrawableDividendOf	Public ❗		NO❗
L	withdrawnDividendOf	Public ❗		NO❗
L	accumulativeDividendOf	Public ❗		NO❗
L	_transfer	Internal 🔒	🔘	
L	_mint	Internal 🔒	🔘	
L	_burn	Internal 🔒	🔘	
L	_setBalance	Internal 🔒	🔘	
IUniswapV2Factory	**Interface**			
L	feeTo	External ❗		NO❗
L	feeToSetter	External ❗		NO❗
L	getPair	External ❗		NO❗
L	allPairs	External ❗		NO❗
L	allPairsLength	External ❗		NO❗
L	createPair	External ❗	🔘	NO❗
L	setFeeTo	External ❗	🔘	NO❗
L	setFeeToSetter	External ❗	🔘	NO❗
IUniswapV2Pair	**Interface**			

L	name	External ❗		NO❗
L	symbol	External ❗		NO❗
L	decimals	External ❗		NO❗
L	totalSupply	External ❗		NO❗
L	balanceOf	External ❗		NO❗
L	allowance	External ❗		NO❗
L	approve	External ❗	🔘	NO❗
L	transfer	External ❗	🔘	NO❗
L	transferFrom	External ❗	🔘	NO❗
L	DOMAIN_SEPARATOR	External ❗		NO❗
L	PERMIT_TYPEHASH	External ❗		NO❗
L	nonces	External ❗		NO❗
L	permit	External ❗	🔘	NO❗
L	MINIMUM_LIQUIDITY	External ❗		NO❗
L	factory	External ❗		NO❗
L	token0	External ❗		NO❗
L	token1	External ❗		NO❗
L	getReserves	External ❗		NO❗
L	price0CumulativeLast	External ❗		NO❗
L	price1CumulativeLast	External ❗		NO❗
L	kLast	External ❗		NO❗
L	mint	External ❗	🔘	NO❗
L	burn	External ❗	🔘	NO❗
L	swap	External ❗	🔘	NO❗
L	skim	External ❗	🔘	NO❗
L	sync	External ❗	🔘	NO❗
L	initialize	External ❗	🔘	NO❗

IUniswapV2Router01	Interface			
L	factory	External ❗		NO❗
L	WETH	External ❗		NO❗
L	addLiquidity	External ❗	🛑	NO❗
L	addLiquidityETH	External ❗	💷	NO❗
L	removeLiquidity	External ❗	🛑	NO❗
L	removeLiquidityETH	External ❗	🛑	NO❗
L	removeLiquidityWithPermit	External ❗	🛑	NO❗
L	removeLiquidityETHWithPermit	External ❗	🛑	NO❗
L	swapExactTokensForTokens	External ❗	🛑	NO❗
L	swapTokensForExactTokens	External ❗	🛑	NO❗
L	swapExactETHForTokens	External ❗	💷	NO❗
L	swapTokensForExactETH	External ❗	🛑	NO❗
L	swapExactTokensForETH	External ❗	🛑	NO❗
L	swapETHForExactTokens	External ❗	💷	NO❗
L	quote	External ❗		NO❗
L	getAmountOut	External ❗		NO❗
L	getAmountIn	External ❗		NO❗
L	getAmountsOut	External ❗		NO❗
L	getAmountsIn	External ❗		NO❗
IUniswapV2Router02	**Interface**	**IUniswapV2Router01**		
L	removeLiquidityETHSupportingFeeOnTransferTokens	External ❗	🛑	NO❗
L	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External ❗	🛑	NO❗
L	swapExactTokensForTokensSupportingFeeOnTransferTokens	External ❗	🛑	NO❗
L	swapExactETHForTokensSupporting	External ❗	💷	NO❗

	FeeOnTransferTokens			
└	swapExactTokensForETHSupportingFeeOnTransferTokens	External ❗	🔘	NO❗
IterableMapping	**Library**			
└	get	Public ❗		NO❗
└	getIndexOfKey	Public ❗		NO❗
└	getKeyAtIndex	Public ❗		NO❗
└	size	Public ❗		NO❗
└	set	Public ❗	🔘	NO❗
└	remove	Public ❗	🔘	NO❗
SafeMath	**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 🔒		
SafeMathInt	**Library**			
└	mul	Internal 🔒		

L	div	Internal 🔒		
L	sub	Internal 🔒		
L	add	Internal 🔒		
L	toUint256Safe	Internal 🔒		
SafeMathUint	**Library**			
L	toInt256Safe	Internal 🔒		
ThunderAda	**Implementation**	**ERC20, Ownable**		
L		Public ❗	🛑	ERC20
L		External ❗	💸	NO❗
L	prepareForPartnerOrExchangeListing	External ❗	🛑	onlyOwner
L	setMaxBuyTransaction	External ❗	🛑	onlyOwner
L	setMaxSellTransaction	External ❗	🛑	onlyOwner
L	updateA80DividendToken	External ❗	🛑	onlyOwner
L	updateB20DividendToken	External ❗	🛑	onlyOwner
L	updateMinA80BeforeSendDividend	External ❗	🛑	onlyOwner
L	updateMinB20BeforeSendDividend	External ❗	🛑	onlyOwner
L	getMinA80BeforeSendDividend	External ❗		NO❗
L	getMinB20BeforeSendDividend	External ❗		NO❗
L	setSendA80InTx	External ❗	🛑	onlyOwner
L	setSendB20InTx	External ❗	🛑	onlyOwner
L	setA80DividendPriority	External ❗	🛑	onlyOwner
L	updateBurnThunderCakeAddress	External ❗	🛑	onlyOwner
L	updateTeamWallet	External ❗	🛑	onlyOwner
L	updateMarketingWallet	External ❗	🛑	onlyOwner
L	setToBurnThunderBnbFee	External ❗	🛑	onlyOwner
L	setMaxWalletToken	External ❗	🛑	onlyOwner

L	setSwapTokensAtAmount	External		onlyOwner
L	setSellTransactionMultiplier	External		onlyOwner
L	afterPreSale	External		onlyOwner
L	setTradingIsEnabled	External		onlyOwner
L	setBuyBackMode	External		onlyOwner
L	setMinimumBalanceRequired	Public		onlyOwner
L	setMinimumSellOrderAmount	Public		onlyOwner
L	setBuyBackUpperLimit	External		onlyOwner
L	_updateTotalFee	Internal		
L	setBuyBackAndLiquifyEnabled	External		onlyOwner
L	setA80DividendEnabled	External		onlyOwner
L	setB20DividendEnabled	External		onlyOwner
L	setMarketingEnabled	External		onlyOwner
L	updateA80DividendTracker	External		onlyOwner
L	updateB20DividendTracker	External		onlyOwner
L	updateA80DividendRewardFee	External		onlyOwner
L	updateB20DividendRewardFee	External		onlyOwner
L	updateMarketingFee	External		onlyOwner
L	updateBuyBackAndLiquidityFee	External		onlyOwner
L	updateUniswapV2Router	External		onlyOwner
L	excludeFromFees	Public		onlyOwner
L	excludeFromDividend	Public		onlyOwner
L	setAutomatedMarketMakerPair	Public		onlyOwner
L	_setAutomatedMarketMakerPair	Private		onlyOwner
L	updateGasForProcessing	External		onlyOwner
L	updateMinimumBalanceForDividends	External		onlyOwner
L	updateClaimWait	External		onlyOwner
L	getA80ClaimWait	External		NO

L	getB20ClaimWait	External ❗		NO❗
L	getTotalA80DividendsDistributed	External ❗		NO❗
L	getTotalB20DividendsDistributed	External ❗		NO❗
L	getIsExcludedFromFees	Public ❗		NO❗
L	withdrawableA80DividendOf	External ❗		NO❗
L	withdrawableB20DividendOf	External ❗		NO❗
L	a80DividendTokenBalanceOf	External ❗		NO❗
L	b20DividendTokenBalanceOf	External ❗		NO❗
L	getAccountA80DividendsInfo	External ❗		NO❗
L	getAccountB20DividendsInfo	External ❗		NO❗
L	getAccountA80DividendsInfoAtIndex	External ❗		NO❗
L	getAccountB20DividendsInfoAtIndex	External ❗		NO❗
L	processDividendTracker	External ❗	🔘	onlyOwner
L	rand	Internal 🔒		
L	claim	External ❗	🔘	NO❗
L	getLastA80DividendProcessedIndex	External ❗		NO❗
L	getLastB20DividendProcessedIndex	External ❗		NO❗
L	getNumberOfA80DividendTokenHolders	External ❗		NO❗
L	getNumberOfB20DividendTokenHolders	External ❗		NO❗
L	_transfer	Internal 🔒	🔘	
L	swapAndLiquify	Private 🔐	🔘	
L	addLiquidity	Private 🔐	🔘	
L	useBnbToBurnThunderBnb	Private 🔐	🔘	
L	buyBackThunderBnbAndBurn	Private 🔐	🔘	
L	buyBackAndBurn	Private 🔐	🔘	
L	manualBuyBackAndBurn	Public ❗	🔘	onlyOwner
L	swapTokensForBNB	Private 🔐	🔘	

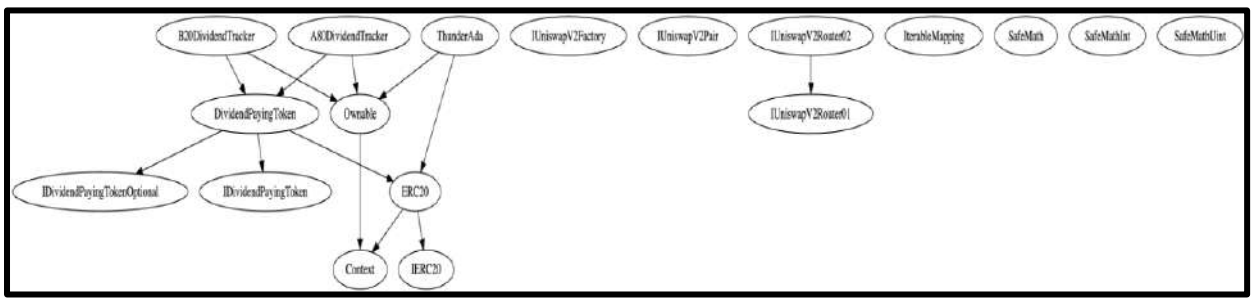
L	swapTokensForDividendToken	Private		
L	swapAndSendA80Dividends	Private		
L	swapAndSendB20Dividends	Private		
L	transferToWallet	Private		
A80DividendTracker	**Implementation**	**DividendPayingToken, Ownable**		
L		Public		DividendPayingToken
L	_transfer	Internal		
L	withdrawDividend	Public		NO
L	setDividendTokenAddress	External		onlyOwner
L	updateMinimumTokenBalanceForDividends	External		onlyOwner
L	excludeFromDividends	External		onlyOwner
L	updateClaimWait	External		onlyOwner
L	getLastProcessedIndex	External		NO
L	getNumberOfTokenHolders	External		NO
L	getAccount	Public		NO
L	getAccountAtIndex	Public		NO
L	canAutoClaim	Private		
L	setBalance	External		onlyOwner
L	process	Public		NO
L	processAccount	Public		onlyOwner
B20DividendTracker	**Implementation**	**DividendPayingToken, Ownable**		
L		Public		DividendPayingToken
L	_transfer	Internal		
L	withdrawDividend	Public		NO
L	setDividendTokenAddress	External		onlyOwner

L	updateMinimumTokenBalanceForDividends	External ❗	🛑	onlyOwner
L	excludeFromDividends	External ❗	🛑	onlyOwner
L	updateClaimWait	External ❗	🛑	onlyOwner
L	getLastProcessedIndex	External ❗		NO❗
L	getNumberOfTokenHolders	External ❗		NO❗
L	getAccount	Public ❗		NO❗
L	getAccountAtIndex	Public ❗		NO❗
L	canAutoClaim	Private 🔐		
L	setBalance	External ❗	🛑	onlyOwner
L	process	Public ❗	🛑	NO❗
L	processAccount	Public ❗	🛑	onlyOwner

Legend

Symbol	Meaning
🛑	**Function can modify state**
💵	**Function is payable**

Inheritance Hierarchy



Security issue checking status

❖ **High severity issues**

- **No high severity issues found.**

❖ **Medium severity issues**

- **No medium severity issues found.**

❖ **Low severity issues**

- **No low severity issues found.**

❖ **Informational**

- **The owner can enable and disable trading any time.**

```
ftrace | funcSig
function setTradingIsEnabled(bool _enabled) external onlyOwner {
    tradingIsEnabled = _enabled;
}
```

- **The owner can increase the sell fee without any limitation.**

```
ftrace | funcSig
function setSellTransactionMultiplier(uint256 _multiplier)
    external
    onlyOwner
{
    sellFeeIncreaseFactor = _multiplier;
}
```

Owner privileges

- The owner can change max buy and sell transaction amount.

```
ftrace | funcSig
function setMaxBuyTransaction(uint256 _maxTxn⬆) external onlyOwner {
    maxBuyTransactionAmount = _maxTxn⬆ * (10**18);
}

ftrace | funcSig
function setMaxSellTransaction(uint256 _maxTxn⬆) external onlyOwner {
    maxSellTransactionAmount = _maxTxn⬆ * (10**18);
}
```

- The owner can change dividend tokens.

```
ftrace | funcSig
function updateA80DividendToken(address _newContract⬆) external onlyOwner {
    a80DividendToken = _newContract⬆;
    a80DividendTracker.setDividendTokenAddress(_newContract⬆);
}

ftrace | funcSig
function updateB20DividendToken(address _newContract⬆) external onlyOwner {
    b20DividendToken = _newContract⬆;
    b20DividendTracker.setDividendTokenAddress(_newContract⬆);
}
```

- The owner can change the minimum dividend amount that can be sent.

```
function updateMinA80BeforeSendDividend(uint256 _newAmount⬆)
    external
    onlyOwner
{
    a80DividendTracker.setMinTokenBeforeSendDividend(_newAmount⬆);
}

ftrace | funcSig
function updateMinB20BeforeSendDividend(uint256 _newAmount⬆)
    external
    onlyOwner
{
    b20DividendTracker.setMinTokenBeforeSendDividend(_newAmount⬆);
}
```

❖ The owner can enable/disable dividend sending.

```
ftrace | funcSig
function setSendA80InTx(bool _newStatus⬆) external onlyOwner {
    sendA80InTx = _newStatus⬆;
}

ftrace | funcSig
function setSendB20InTx(bool _newStatus⬆) external onlyOwner {
    sendB20InTx = _newStatus⬆;
}
```

❖ The owner can change max BNB sending percentage as dividends.

```
ftrace | funcSig
function setA80DividendPriority(uint256 _newAmount⬆) external onlyOwner {
    require(_newAmount⬆ >= 0 && _newAmount⬆ <= 100, "Error amount");
    a80DividendPriority = _newAmount⬆;
}
```

❖ The owner can change the ThunderBNB address.

```
ftrace | funcSig
function updateBurnThunderCakeAddress(address _newAddress⬆)
    external
    onlyOwner
{
    toBurnThunderBnbAddress = _newAddress⬆;
}
```

❖ The owner can change the Team wallet address.

```
ftrace | funcSig
function updateTeamWallet(address _newWallet⬆) external onlyOwner {
    excludeFromFees(_newWallet⬆, true);
    teamWallet = _newWallet⬆;
}
```

❖ The owner can change the marketing wallet address.

```
ftrace | funcSig
function updateMarketingWallet(address _newWallet⬆) external onlyOwner {
    excludeFromFees(_newWallet⬆, true);
    marketingWallet = _newWallet⬆;
}
```

❖ The owner can change ThunderBNB burn fee maximum up to 25%.

```
ftrace | funcSig
function setToBurnThunderBnbFee(uint256 newFee⬆) external onlyOwner {
    require(newFee⬆ <= MAX_FEE_RATE, "wrong");
    toBurnThunderBnbFee = newFee⬆;
    _updateTotalFee();
}
```

❖ The owner can change max wallet token amount (the maximum token amount a wallet can hold)

```
ftrace | funcSig
function setMaxWalletToken(uint256 _maxToken⬆) external onlyOwner {
    maxWalletToken = _maxToken⬆ * (10**18);
}
```

❖ The owner can change the swap token amount.

```
ftrace | funcSig
function setSwapTokensAtAmount(uint256 _swapAmount⬆) external onlyOwner {
    swapTokensAtAmount = _swapAmount⬆ * (10**18);
}
```

❖ The owner can enable and disable trading.

```
ftrace | funcSig
function setTradingIsEnabled(bool _enabled⬆) external onlyOwner {
    tradingIsEnabled = _enabled⬆;
}
```

❖ The owner can change the minimum required BNB balance for buy back.

```
ftrace | funcSig
function setMinimumBalanceRequired(uint256 _newAmount⬆) public onlyOwner {
    require(_newAmount⬆ >= 0, "newAmount error");
    minimumBalanceRequired = _newAmount⬆;
}
```

❖ The owner can change the minimum sell token amount to buy back.

```
ftrace | funcSig
function setMinimumSellOrderAmount(uint256 _newAmount⬆) public onlyOwner {
    require(_newAmount⬆ > 0, "newAmount error");
    minimumSellOrderAmount = _newAmount⬆;
}
```

❖ The owner can change the buy back upper limit.

```
ftrace | funcSig
function setBuyBackUpperLimit(uint256 buyBackLimit⬆) external onlyOwner {
    require(buyBackLimit⬆ > 0, "buyBackLimit error");
    buyBackUpperLimit = buyBackLimit⬆;
}
```

❖ The owner can change all fees maximum up to 25%.

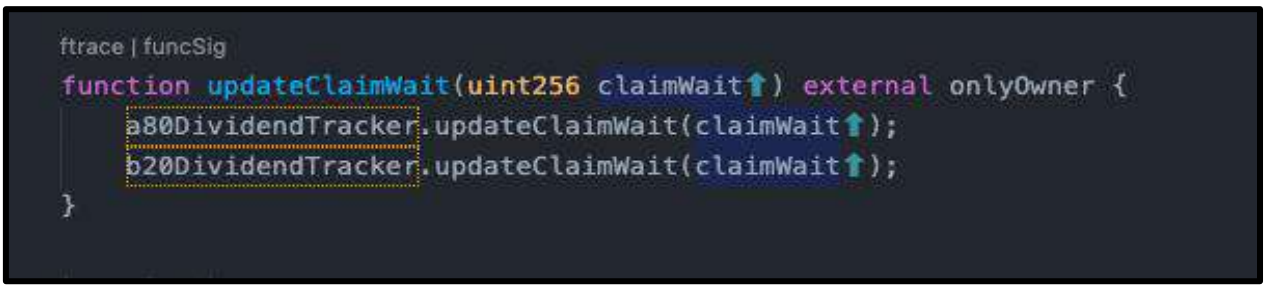
```
ftrace | funcSig
function updateA80DividendRewardFee(uint8 newFee⬆) external onlyOwner {
    require(newFee⬆ <= MAX_FEE_RATE, "wrong");
    a80DividendRewardsFee = newFee⬆;
    _updateTotalFee();
}

ftrace | funcSig
function updateB20DividendRewardFee(uint8 newFee⬆) external onlyOwner {
    require(newFee⬆ <= MAX_FEE_RATE, "wrong");
    b20DividendRewardsFee = newFee⬆;
    _updateTotalFee();
}

ftrace | funcSig
function updateMarketingFee(uint8 newFee⬆) external onlyOwner {
    require(newFee⬆ <= MAX_FEE_RATE, "wrong");
    marketingFee = newFee⬆;
    _updateTotalFee();
}

ftrace | funcSig
function updateBuyBackAndLiquidityFee(uint8 newFee⬆) external onlyOwner {
    require(newFee⬆ <= MAX_FEE_RATE, "wrong");
    buyBackAndLiquidityFee = newFee⬆;
    _updateTotalFee();
}
```

❖ The owner can change v2 router address.

```
ftrace | funcSig
function updateUniswapV2Router(address newAddress⬆) external onlyOwner {
    uniswapV2Router = IUniswapV2Router02(newAddress⬆);
}
```

❖ The owner can exclude wallet from fees and dividends.

❖ The owner can change the claim wait.



❖ The owner can manually process dividends.

```
ftrace | funcSig
function processDividendTracker(uint256 gas⬆) external onlyOwner {
    (
        uint256 aIterations,
        uint256 aClaims,
        uint256 aLastProcessedIndex
    ) = a80DividendTracker.process(gas⬆);
    emit ProcessedA80DividendTracker(
        aIterations,
        aClaims,
        aLastProcessedIndex,
        false,
        gas⬆,
        tx.origin
    );

    (
        uint256 bIterations,
        uint256 bClaims,
        uint256 bLastProcessedIndex
    ) = b20DividendTracker.process(gas⬆);
    emit ProcessedB20DividendTracker(
        bIterations,
        bClaims,
        bLastProcessedIndex,
        false,
        gas⬆,
        tx.origin
    );
}
```

❖ The owner can manually trigger the buy back function.

```
ftrace | funcSig
function manualBuyBackAndBurn(uint256 _amount⬆) public onlyOwner {
    uint256 balance = address(this).balance;
    require(buyBackAndLiquifyEnabled, "not enabled");
    require(
        balance >= minimumBalanceRequired.add(_amount⬆),
        "amount is too big"
    );

    if (!swapping) {
        buyBackAndBurn(_amount⬆);
    }
}
```

Audit conclusion

While conducting the audit of the smart contract, it was observed that there is nothing alarming with the code and it only contains informational concerns.