



**TechRate**  
AUDIT COMPANY

# Smart Contract Security Audit

TechRate

November, 2021

# Audit Details



Audited project

**BATMAN**



Deployer address

**0xf2737058c34f46588c0190c54c3a681081d1869e**



Client contacts:

**BATMAN team**



Blockchain

**Ethereum**



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 BATMAN to perform an audit of smart contracts:

<https://etherscan.io/address/0x8b2ca226f78a8f35e97e944a5468af85c0a6c616#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 08.11.2021

Contract name	BATMAN
Contract address	0x8b2ca226f78a8F35e97e944a5468AF85c0a6C616
Total supply	75,000,000,000
Token ticker	BATMAN
Decimals	9
Token holders	802
Transactions count	1,954
Top 100 holders dominance	76.96%
Contract deployer address	0xf2737058c34f46588c0190c54c3a681081d1869e
Contract's current owner address	0x00

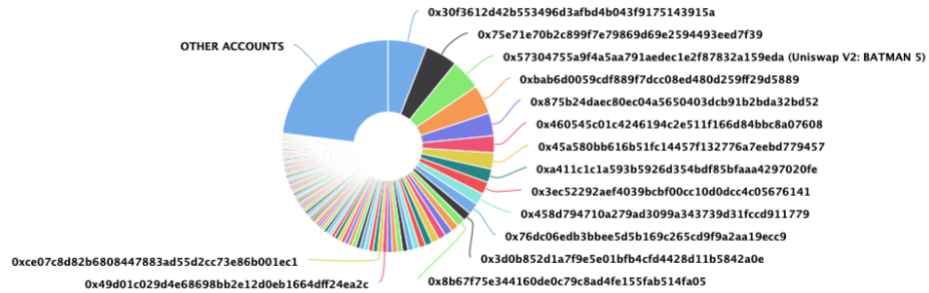
# BATMAN Token Distribution

The top 100 holders collectively own 76.96% (57,723,504,183.70 Tokens) of BATMAN

Token Total Supply: 75,000,000,000.00 Token | Total Token Holders: 802

## BATMAN Top 100 Token Holders

Source: Etherscan.io



(A total of 57,723,504,183.70 tokens held by the top 100 accounts from the total supply of 75,000,000,000.00 token)

# BATMAN Contract Interaction Details

Time Series: Token Contract Overview


Fri 5, Nov 2021 - Sun 7, Nov 2021

Token Contract 0x8b2ca226f78a8f35e97e944a5468af85c0a6c616 (BATMAN)  
Source: Etherscan.io





# BATMAN Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	<a href="#">0x30f3612d42b553496d3afb4b043f9175143915a</a>	4,467,355,354.240435413	5.9565%
2	<a href="#">0x75e71e70b2c899f7e79869d69e2594493eed7f39</a>	3,688,229,592.176997545	4.9176%
3	 Uniswap V2: BATMAN 5	3,491,367,022.565868723	4.6552%
4	<a href="#">0xbab6d0059cdf889f7dcc08ed480d259ff29d5889</a>	3,324,966,594.117838516	4.4333%
5	<a href="#">0x875b24daec80ec04a5650403dcb91b2bda32bd52</a>	2,593,499,058.780946147	3.4580%
6	<a href="#">0x460545c01c4246194c2e511f166d84bbc8a07608</a>	1,937,230,363.280564662	2.5830%
7	<a href="#">0x45a580bb616b51fc144571132776a7eed779457</a>	1,879,081,222.728600046	2.5054%
8	<a href="#">0xa411c1c1a593b5926d354bdf85bfaaa4297020fe</a>	1,530,176,370.342746467	2.0402%
9	<a href="#">0x3ec52292aef4039bcbf00cc10d0dcc4c05676141</a>	1,410,413,426.039206963	1.8806%
10	<a href="#">0x458d794710a279ad3099a343739d31fccd911779</a>	1,330,914,457.048693837	1.7746%

# Contract functions details

- + Context
  - [Int] \_msgSender
- + [Int] IERC20
  - [Ext] totalSupply
  - [Ext] balanceOf
  - [Ext] transfer #
  - [Ext] allowance
  - [Ext] approve #
  - [Ext] transferFrom #
- + [Lib] SafeMath
  - [Int] add
  - [Int] sub
  - [Int] sub
  - [Int] mul
  - [Int] div
  - [Int] div
- + Ownable (Context)
  - [Pub] <Constructor> #
  - [Pub] owner
  - [Pub] renounceOwnership #
    - modifiers: onlyOwner
- + [Int] IUniswapV2Factory
  - [Ext] createPair #
- + [Int] IUniswapV2Router02
  - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
  - [Ext] factory
  - [Ext] WETH
  - [Ext] addLiquidityETH (\$)
- + batman (Context, IERC20, Ownable)
  - [Pub] <Constructor> #
  - [Pub] name
  - [Pub] symbol
  - [Pub] decimals
  - [Pub] totalSupply
  - [Pub] balanceOf
  - [Pub] transfer #
  - [Pub] allowance
  - [Pub] approve #
  - [Pub] transferFrom #
  - [Ext] setCooldownEnabled #
    - modifiers: onlyOwner
  - [Prv] tokenFromReflection
  - [Prv] \_approve #
  - [Prv] \_transfer #
  - [Prv] swapTokensForEth #



- modifiers: lockTheSwap
- [Ext] liftMaxTx #
  - modifiers: onlyOwner
- [Prv] sendETHToFee #
- [Ext] openTrading #
  - modifiers: onlyOwner
- [Prv] \_tokenTransfer #
- [Prv] \_transferStandard #
- [Prv] \_takeTeam #
- [Prv] \_reflectFee #
- [Ext] <Fallback> (\$)
- [Ext] manualswap #
- [Ext] manualsend #
- [Prv] \_getValues
- [Prv] \_getTValues
- [Prv] \_getRValues
- [Prv] \_getRate
- [Prv] \_getCurrentSupply

(\$)= 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.	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

No low severity issues found.

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

- Owner can enable cooldown (user to user trading with time offset).

```
function setCooldownEnabled(bool onoff) external onlyOwner() {
    cooldownEnabled = onoff;
}
```

- Owner can open swap trading.

```
function openTrading() external onlyOwner() {
    require(!tradingOpen, "trading is already open");
    IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(0x7a250d5630B4cF539739dF2C5dAcb4c659F2488D);
    _uniswapV2Router = _uniswapV2Router;
    _approve(address(this), address(_uniswapV2Router), _tTotal);
    uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory()).createPair(address(this), _uniswapV2Router.WETH());
    uniswapV2Router.addLiquidityETH(value: address(this).balance)(address(this), balanceOf(address(this)), 0, 0, owner(), block.timestamp);
    swapEnabled = true;
    cooldownEnabled = true;
    _maxTxAmount = 7500000000 * 10**9;
    tradingOpen = true;
    IERC20(uniswapV2Pair).approve(address(_uniswapV2Router), type(uint).max);
}
```

- Owner can change max transaction amount.

```
function liftMaxTx() external onlyOwner{
    _maxTxAmount = _tTotal;
}
```

# Conclusion

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

Liquidity locking details are NOT provided by the team.

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## *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.*