

PandAl Token Smart Contract Audit Report



13 Feb 2023



TABLE OF CONTENTS

Audited Details

- Audited Project
- Blockchain
- Addresses
- Project Website
- Codebase

Summary

- Contract Summary
- Audit Findings Summary
- Vulnerabilities Summary

Conclusion

Audit Results

Smart Contract Analysis

- Detected Vulnerabilities

Disclaimer

About Us



AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain	
PandAl Token	PANDAI	Binance Smart Chain	

Addresses

Contract address 0x550d7984b7adfff88815e5528e12e322df6d3b9b	
Contract deployer address0xEe9Aa828fF4cBF294063168E78BEB7BcF441fEa1	

Project Website

https://pandai.io/

Codebase

https://bscscan.com/address/0x550d7984b7adfff88815e5528e12e322df6d3b9b#code



SUMMARY

We are PANDAI, the cutest AI meme token, making AI accessible for everyone. We're not just another simple meme coin, but will provide real utility and knowledge about AI. Pandas are Gonna Make It! (PAGMI) Don't know much or anything about AI but want to get into it? You've come to the right place. We will build a strong community that will share knowledge and AI tools–all to support and stay up-to-date with the booming AI crypto industry. PANDAI will provide access to some of the hottest tech to make your life easier. Some tools include improved language translations, automated imaging and music generation, intelligent voice assistant, and predictive analysis. And we'll be here to help you learn how to use them to the fullest. The AI industry is booming and it's impossible to know what will be used in AI in 6 months. What we thought possible in 6 months, AI is capable of achieving in 4 weeks. PANDAI use cases, presented in this tokenomics, are no exception. We can present only a temporary vision that will continuously evolve with AI developments and trends.

Contract Summary

Documentation Quality

PandAI Token provides a very good documentation with standard of solidity base code.

• The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

• Standard solidity basecode and rules are already followed by PandAI Token with the discovery of several low issues.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

• SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 10, 35, 120, 148, 536 and 570.



CONCLUSION

We have audited the PandAI Token project released on February 2023 to discover issues and identify potential security vulnerabilities in PandAI Token Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides satisfactory results with low-risk issues.

The issues found in the PandAI Token smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issue found is a floating pragma is set. The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.



AUDIT RESULT

Article	Category	Description	Result	
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	PASS	
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	PASS	
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	PASS	
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	ISSUE FOUND	
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	PASS	
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	PASS	
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	PASS	
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	ed PASS	
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	PASS	
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a failing assert statement.		
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	sed. PASS	
Delegate call to Untrusted Callee	SWC-112	Delegatecalls should only be allowed to trusted addresses.	sted PASS	



DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.		
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.		
Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	n should not be used for authorization. PASS	
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.		
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS	
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.		
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS	
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.		
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.		
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.		
Insufficient Gas Griefing	SWC-126	Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract.		
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS	



Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.		
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.		
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.		
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.		
Hash Collisions Variable	SWC-133	Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS	
Hardcoded gas amount	SWC-134	The transfer() and send() functions forward a fixed amount of 2300 gas.		
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	PASS	



SMART CONTRACT ANALYSIS

Started	Sunday Feb 12 2023 17:38:12 GMT+0000 (Coordinated Universal Time)		
Finished	Monday Feb 13 2023 15:14:06 GMT+0000 (Coordinated Universal Time)		
Mode	Standard		
Main Source File	PandAIToken.sol		

Detected Issues

ID	Title	Severity	Status
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged





LINE 10

Iow SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- PandAlToken.sol

```
9
10 pragma solidity ^0.8.0;
11
12 /**
13 * @dev Provides information about the current execution context, including the
14
```



LINE 35

Iow SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- PandAlToken.sol

```
34
35 pragma solidity ^0.8.0;
36
37 /**
38 * @dev Interface of the ERC20 standard as defined in the EIP.
39
```



LINE 120

Iow SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- PandAlToken.sol

Locations

119
120 pragma solidity ^0.8.0;
121
122 /**
123 * @dev Interface for the optional metadata functions from the ERC20 standard.
124



LINE 148

Iow SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- PandAlToken.sol

```
147
148 pragma solidity ^0.8.0;
149
150 /**
151 * @dev Implementation of the {IERC20} interface.
152
```





LINE 536

IOW SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- PandAlToken.sol

Locations

535
536 pragma solidity ^0.8.0;
537
538 /**
539 * @dev Extension of {ERC20} that allows token holders to destroy both their own
540



LINE 570

Iow SEVERITY

The current pragma Solidity directive is ""^0.8.9"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- PandAlToken.sol

```
569
570 pragma solidity ^0.8.9;
571
572 contract PandAIToken is ERC20, ERC20Burnable {
573
574
```



DISCLAIMER

This report is subject to the terms and conditions (including without limitation, description of services, confidentiality, disclaimer and limitation of liability) set forth in the Services Agreement, or the scope of services, and terms and conditions provided to you ("Customer" or the "Company") in connection with the Agreement. This report provided in connection with the Services set forth in the Agreement shall be used by the Company only to the extent permitted under the terms and conditions set forth in the Agreement. This report may not be transmitted, disclosed, referred to, or relied upon by any person for any purposes, nor may copies be delivered to any other person other than the Company, without Sysfixed's prior written consent in each instance.

This report is not, nor should be considered, an "endorsement" or "disapproval" of any particular project or team. This report is not, nor should be considered, an indication of the economics or value of any "product" or "asset" created by any team or project that contracts Sysfixed to perform a security assessment. This report does not provide any warranty or guarantee regarding the absolute bug-free nature of the technology analyzed, nor do they provide any indication of the technologies proprietors, business, business model, or legal compliance.

This is a limited report on our findings based on our analysis, in accordance with good industry practice as of 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.

This report should not be used in any way to make decisions around investment or involvement with any particular project. This report in no way provides investment advice, nor should be leveraged as investment advice of any sort. This report represents an extensive assessing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.

This report is provided for information purposes only and on a non-reliance basis and does not constitute investment advice. No one shall have any right to rely on the report or its contents, and Sysfixed and its affiliates (including holding companies, shareholders, subsidiaries, employees, directors, officers, and other representatives) (Sysfixed) owe no duty of care.





ABOUT US

Sysfixed is a blockchain security certification organization established in 2021 with the objective to provide smart contract security services and verify their correctness in blockchain-based protocols. Sysfixed automatically scans for security vulnerabilities in Ethereum and other EVM-based blockchain smart contracts. Sysfixed a comprehensive range of analysis techniques—including static analysis, dynamic analysis, and symbolic execution—can accurately detect security vulnerabilities to provide an in-depth analysis report. With a vibrant ecosystem of world-class integration partners that amplify developer productivity, Sysfixed can be utilized in all phases of your project's lifecycle. Our team of security experts is dedicated to the research and improvement of our tools and techniques used to fortify your code.