

Security Assessment: Spark Starter TOKEN

February 11, 2025

- Audit Status: **Pass**
- Audit Edition: **Advance**
































Risk Analysis

Classifications of Manual Risk Results

| Classification | Description |
|--|----------------------------------|
|  Critical | Danger or Potential Problems. |
|  High | Be Careful or Fail test. |
|  Medium | Pass, Not-Detected or Safe Item. |
|  Low | Function Detected |

Manual Code Review Risk Results

| Contract Privilege | Description |
|--|--------------|
|  Buy Tax | 0% |
|  Sale Tax | 0% |
|  Cannot Buy | Pass |
|  Cannot Sale | Pass |
|  Max Tax | 4% |
|  Modify Tax | Yes |
|  Fee Check | Pass |
|  Is Honeypot? | Not Detected |
|  Trading Cooldown | Not-Detected |
|  Can Pause Trade? | Pass |
|  Pause Transfer? | Not-Detected |
|  Max Tx? | Pass |
|  Is Anti Whale? | Not-Detected |
|  Is Anti Bot? | Not-Detected |

| Contract Privilege | Description |
|--|--------------|
|  Is Blacklist? | Not-Detected |
|  Blacklist Check | Pass |
|  is Whitelist? | Detected |
|  Can Mint? | Pass |
|  Is Proxy? | Not Detected |
|  Can Take Ownership? | Not Detected |
|  Hidden Owner? | Not-Detected |
|  Owner | No |
|  Self Destruct? | Not Detected |
|  External Call? | Not-Detected |
|  Other? | Not Detected |
|  Holders | 1 |
|  Auditor Confidence | Medium |
|  KYC Present | Yes |
|  KYC URL | |

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.

| SolidID | File Sha-1 | FileName |
|-------------------------------|---|------------------|
| SparkStarter | 1bccbe4d2c4e1e82e9762cfa430896b587518c35 | SparkStarter.sol |
| SparkStarter Parameter | Result | .sol |
| SparkStarter Address | | .sol |
| SparkStarter Name | Spark Starter | .sol |
| SparkStarter Token Tracker | Spark Starter (Spark) | .sol |
| SparkStarter Decimals | 18 | .sol |
| Supply | | |
| Platform | ETHEREUM | |
| compiler | v0.8.25+commit.b61c2a91 | |
| Contract Name | SparkStarter | |
| Optimization | Yes with 200 runs | |
| LicenseType | MIT | |
| Language | Solidity | |
| Codebase | https://etherscan.io/address/#code | |
| Payment Tx | Corporate | |

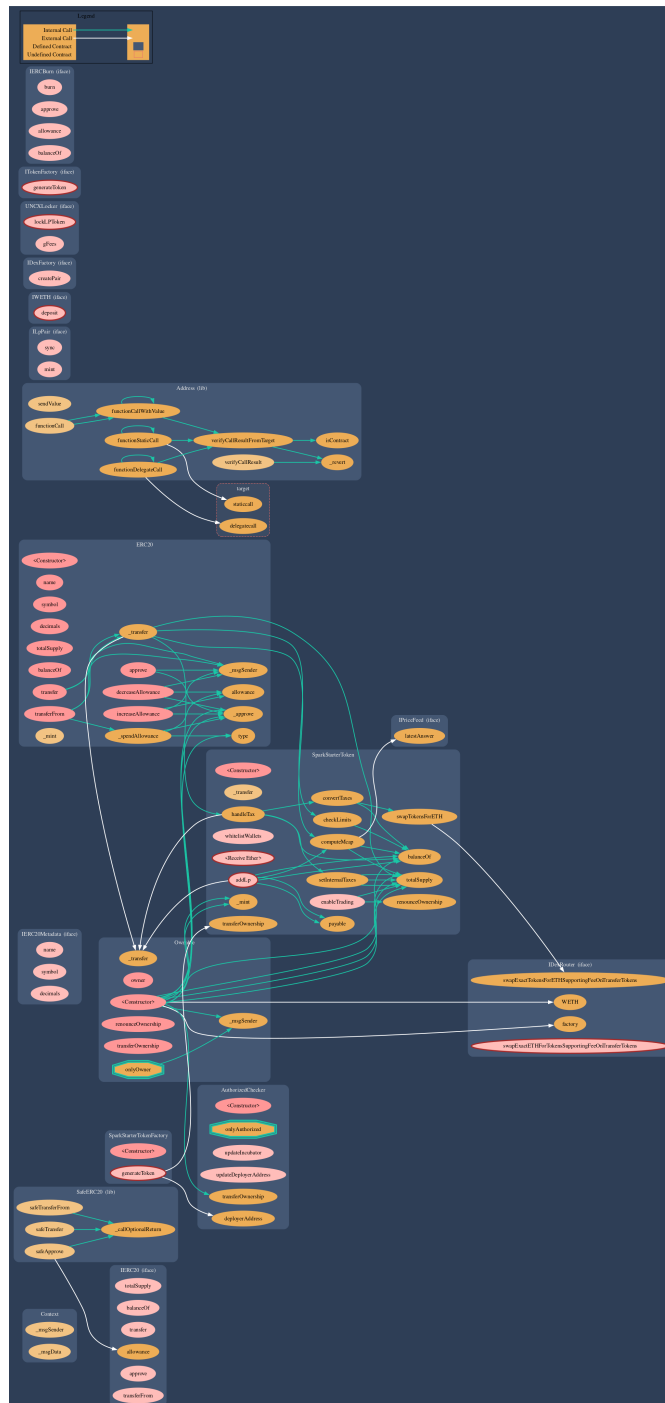
MainNet Contract was Not Assessed

TestNet Contract was Not Assessed

Solidity Code Provided

Call Graph

The contract for Spark Starter has the following call graph structure.





Privileged Functions (onlyOwner)

Please Note if the contract is Renounced none of this functions can be executed.

| Function Name | Parameters | Visibility |
|-------------------------|------------------|------------|
| renounceOwnership | | Public |
| transferOwnership | address newOwner | Public |
| enableTrading | | External |
| whitelistWallets | | External |
| addLp | | External |
| updateIncubator | | External |
| updateDeployerAddresses | | External |

Spark-03 | Lack of Input Validation.

| Category | Severity | Location | Status |
|---------------|---|---|--|
| Volatile Code |  Low | SparkStarter.sol: L: 403 C: 12, L: 941 C: 12, L: 976 C: 12, L: 1107 C: 12, L: 1112 C: 12, L: 1116 C: 12 |  Detected |

Description

The given input is missing the check for the non-zero address.

The given input is missing the check for the onlyOwners need to be revisited for require..



Remediation

We advise the client to add the check for the passed-in values to prevent unexpected errors as below:

```
...
require(receiver != address(0), "Receiver is the zero address");
...
...
require(value X limitation, "Your not able to do this function");
...
```

We also recommend customer to review the following function that is missing a required validation. onlyOwners need to be revisited for require..

Spark-05 | Missing Event Emission.

| Category | Severity | Location | Status |
|---------------|---|---|--|
| Volatile Code |  Low | SparkStarter.sol: L: 926 C: 12, L: 941 C: 12, L: 976 C: 12, L: 1107 C: 12, L: 1112 C: 12, L: 1116 C: 12 |  Detected |



Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes. The linked code does not create an event for the transfer.

Remediation

Emit an event for critical parameter changes. It is recommended emitting events for the sensitive functions that are controlled by centralization roles.

Spark-09 | Third Party Dependencies.

| Category | Severity | Location | Status |
|---------------|--|-----------------------------|--|
| Volatile Code |  High | SparkStarter.sol: L: 0 C: 0 |  Detected |

Description

The contract is serving as the underlying entity to interact with third party protocols. The scope of the audit treats 3rd party entities as black boxes and assume their functional correctness. However, in the real world, 3rd parties can be compromised and this may lead to lost or stolen assets. In addition, upgrades of 3rd parties can possibly create severe impacts, such as increasing fees of 3rd parties, migrating to new LP pools, etc.



Remediation

We understand that the business logic of Spark Starter requires interaction with , etc. We encourage the team to constantly monitor the statuses of 3rd parties to mitigate the side effects when unexpected activities are observed.

Project Action

Update Library to latest version.

Spark-18 | Stop Transactions by using Enable Trade.

| Category | Severity | Location | Status |
|---------------|--|----------------------------|--|
| Logical Issue |  Critical | SparkStarter.sol: L: C: 14 |  Detected |

Description



Enable Trade is present on the following contract and when combined with Exclude from fees it can be considered a whitelist process, this will allow anyone to trade before others and can represent an issue for the holders.

Remediation

We recommend the project owner to carefully review this function and avoid problems when performing both actions.

Project Action

Spark-19 | Centralization Privileges of.

| Category | Severity | Location | Status |
|----------|--|------------------------------|--|
| |  Medium | SparkStarter.sol: L: 0 C: 14 |  Detected |

Description

Centralized Privileges are found on the following functions.






Remediation

Inheriting from Ownable and calling its constructor on yours ensures that the address deploying your contract is registered as the owner. The onlyOwner modifier makes a function revert if not called by the address registered as the owner.






Project Action

Technical Findings Summary

Classification of Risk

| Severity | Description |
|---|--|
|  Critical | Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks. |
|  High | Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project. |
|  Medium | Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform |
|  Low | Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions. |
|  Informational | Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code. |

Findings

| Severity | Found | Pending | Resolved |
|---|-------|---------|----------|
|  Critical | 1 | 1 | 0 |
|  High | 0 | 1 | 0 |
|  Medium | 1 | 1 | 0 |
|  Low | 3 | 2 | 0 |
|  Informational | 0 | 0 | 0 |
| Total | 5 | 5 | 0 |

Social Media Checks

| Social Media | URL | Result |
|--------------|---|--------|
| Twitter | https://x.com/sparkstarter_io | Pass |
| Other | https://whop.com/sparkstarter/ | Pass |
| Website | https://sparkstarter.com/ | Pass |
| Telegram | https://t.me/sparkstarterdeployments | Pass |

We recommend to have 3 or more social media sources including a completed working websites.

Social Media Information Notes:

Auditor Notes: undefined

Project Owner Notes:



Assessment Results

Score Results

| Review | Score |
|---------------------|--------|
| Overall Score | 86/100 |
| Auditor Score | 85/100 |
| Review by Section | Score |
| Manual Scan Score | 31 |
| Auto Scan Score | 37 |
| Advance Check Score | 18 |

The Following Score System Has been Added to this page to help understand the value of the audit, the maximum score is 100, however to attain that value the project must pass and provide all the data needed for the assessment. Our Passing Score has been changed to 84 Points for a higher standard, if a project does not attain 85% is an automatic failure. Read our notes and final assessment below.

Audit Passed



Assessment Results

Important Notes:

- Contract Structure: Uses multiple interfaces and libraries for modularity. Inherits from ERC20, Ownable, and uses SafeERC20.␣
- Owner Controls: Owner can enable trading, whitelist wallets, and add liquidity. Ownership is renounced after enabling trading, reducing centralization risk.␣
- Dynamic Taxation: Taxes adjust based on time since launch; ensure logic is correct to prevent misuse.␣
- Whitelist Mechanism: Initial whitelist for trading; ensure proper management to prevent unauthorized access.␣
- Liquidity Management: Liquidity is added via addLp function; relies on external locker for locking.␣
- Allowance Management: Implements increaseAllowance and decreaseAllowance to mitigate race conditions.␣
- External Dependencies: Uses UNCXLocker, IPriceFeed, and other interfaces; ensure these are trusted.␣
- Gas Optimization: Consider reviewing for potential gas optimizations, especially in loops and frequent operations.␣
- Security Best Practices: Follows many best practices, but external calls and ETH handling require careful review.␣
- Testing and Verification: Ensure thorough testing, especially around dynamic tax changes and liquidity functions.

Auditor Score =85
Audit Passed



Appendix

Finding Categories

Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that act against the nature of decentralization, such as explicit ownership or specialized access roles in combination with a mechanism to relocate funds.

Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimal EVM opcodes resulting in a reduction on the total gas cost of a transaction.

Logical Issue

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on how `block.timestamp` works.

Control Flow

Control Flow findings concern the access control imposed on functions, such as owner-only functions being invoke-able by anyone under certain circumstances.

Volatile Code

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that may result in a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to make the codebase more legible and, as a result, easily maintainable.

Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different requirements on the input variables than a setter function.

Coding Best Practices

ERC 20 Coding Standards are a set of rules that each developer should follow to ensure the code meets a set of criteria and is readable by all the developers.

Disclaimer

Assure Defi has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocacy for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

All information provided in this report does not constitute financial or investment advice, nor should it be used to signal that any persons reading this report should invest their funds without sufficient individual due diligence, regardless of the findings presented. Information is provided 'as is, and Assure Defi is under no covenant to audited completeness, accuracy, or solidity of the contracts. In no event will Assure Defi or its partners, employees, agents, or parties related to the provision of this audit report be liable to any parties for, or lack thereof, decisions or actions with regards to the information provided in this audit report.

The assessment services provided by Assure Defi are subject to dependencies and are under continuing development. You agree that your access or use, including but not limited to any services, reports, and materials, will be at your sole risk on an as-is, where-is, and as-available basis. Cryptographic tokens are emergent technologies with high levels of technical risk and uncertainty. The assessment reports could include false positives, negatives, and unpredictable results. The services may access, and depend upon, multiple layers of third parties.

