

Certification Report N1 Games Game Audit Report - Book of Cats
Megaways

Report Identification N1G-MT-230530-02-GC-R2

Certification Laboratory



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Report prepared for N1 Games Ltd
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Jurisdiction Malta Gaming Authority
Malta

Technical Standards used
for testing Remote Gaming Regulations, 20 April 2005,
Legal Notice 176 of 2004 of the Lotteries and other
Games Act (ACT XXIV OF 2001) as amended by
Legal Notices 110 of 2006, 270 and 426 of 2007, 90 of
2011 and 131 of 2016.

This report N1G-MT-230530-02-GC-R2 date 18 July 2023 supersedes the report N1G-MT-230530-02-GC-R1.

Revision of report is the result of certify additional RTPs of this game

Gaming Associates

1 Notations

1.1 Confidentiality

This document, all related documents, and methodologies embodied in this document and related documents (“the documents”) are the property of Gaming Associates Europe Limited (hereinafter referred to Gaming Associates or **ga**). Unauthorised copying and distribution of the documents, by any means, on any media is prohibited.

This document, its themes, and ideas are strictly confidential and may not be used in any manner other than its expressed purpose, without the written permission of the author. The documents are for the intended client named in this report, also referred to as “the client” or “client”, and the applicable gaming jurisdiction mentioned in this document.

The documents are copyright.

1.2 Disclaimer

ga has reported on what was discovered throughout the assessment period of the client’s game(s) related to the technical scope of testing as per applicable jurisdictional requirements. Results are based on the client’s submission of information material, access to the testing environment and applicable testing is performed within a finite period.

Inherently there are limitations in performing compliance testing within a laboratory environment and accordingly **ga** has undertaken its best endeavours to ensure a thorough assessment is performed and conclusion stated.

2 Administration

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2.2 Version

Version	Description	Date
V0.1	Initial draft – RIQB	2023-05-29
V0.2	Review and update - BPHU	2023-05-30
V1.0	Final Report to N1 Games	2023-05-30
V2.0	Add additional RTPs. Re-issue report - BPHU	2023-07-18

3 Executive Summary

3.1 Introduction

N1 Games Ltd (N1 Games) has requested Gaming Associates (**ga**) to test their game, Book of Cats Megaways against the compliance requirements of Malta.

ga has tested N1 Games's game Book of Cats Megaways against the Malta Gaming Authority (MGA) compliance requirements listed in Section 3.2 Scope of Testing. This report presents the results of testing performed by **ga** for the Book of Cats Megaways game. Hashes of the game are listed in Annex A: SHA-1 Hashes.

3.2 Scope of Testing

The scope of testing is to verify compliance against the following requirements of the Gaming Regulations, 20 April 2005, Legal Notice 176 of 2004 of the Lotteries and other Games Act (ACT XXIV OF 2001) as amended by Legal Notices 110 of 2006, 270 and 426 of 2007, 90 of 2011 and 131 of 2016:

♠ Third Schedule Regulation 25: Technical requirement for gaming system.

This compliance evaluation does not include evaluation of the Random Number Generator (RNG).

3.3 Testing Limitations Due to the Test Environment

Since Book of Cats Megaways has been tested in a test environment, the following MGA requirements could not be tested and need to be verified when the game is integrated with a gaming platform:

- ♠ 2. Both the gaming and financial transactions must be congruent and secure.
- ♠ 6 (b) - The gaming system must be able to display for each game the following information on the current page or on a page directly accessible from the current page via a hyperlink:-
(b) restrictions on play;
- ♠ 7. All financial reports produced by the gaming system must be congruent with gaming transaction reports and conversely: Provided that all such reports shall be readily and freely available to the Authority.
- ♠ 8. The gaming system must:- (a) be capable of producing monthly auditable and aggregate financial statements of gaming transactions, and (b) calculate accurately all taxation and other monies due to the Authority.
- ♠ 9. The gaming system must maintain information about all games played
- ♠ 10. The gaming system must maintain information about significant events as follows:-
(a) large wins;
(b) transfers of funds in excess of such amount as the Authority may from time to time direct by notice in writing to the operator;
(c) changes made by the operator to game parameters.

3.4 Test Summary

1. Game name: Book of Cats Megaways
2. Channels (game clients):
Desktop and Mobile browsers
3. Game version: 1.0
4. Versions of games that the game supersedes: None
5. Theoretical return to player (RTP):

**Pay Model 1:**

Main Game	90.06%
Buy Bonus Feature with regular free spins	90.15%
Buy Bonus Feature with the guaranteed high expanding symbol	90.11%
Chance x2 Feature	90.1%

Pay Model 2:

Main Game	92.07%
Buy Bonus Feature with regular free spins	92.15%
Buy Bonus Feature with the guaranteed high expanding symbol	92.14%
Chance x2 Feature	92.16%

Pay Model 3:

Main Game	94.23%
Buy Bonus Feature with regular free spins	94.19%
Buy Bonus Feature with the guaranteed high expanding symbol	94.17%
Chance x2 Feature	94.11%

Pay Model 4:

Main Game	96.14%
Buy Bonus Feature with regular free spins	96.17%
Buy Bonus Feature with the guaranteed high expanding symbol	96.15%
Chance x2 Feature	96.11%

Pay Model 5:

Main Game	96.95%
Buy Bonus Feature with regular free spins	97.07%
Buy Bonus Feature with the guaranteed high expanding symbol	97.11%
Chance x2 Feature	97.18%

6. Jackpot: No

3.5 Conclusions and Recommendations

N1 Games's game Book of Cats Megaways complies with the requirements of the the Remote Gaming Regulations, 20 April 2005. However, some requirements, identified in Section 3.3 of this report, need to be verified when the game is integrated with a gaming platform.

ga recommends N1 Games's game Book of Cats Megaways to be approved for integration with gaming platforms already approved by the MGA.

4 Test Results

This section summarises the results of the tests performed on N1 Games's game Book of Cats Megaways. The tables in the following sub-sections provide the compliance status of the game against MGA requirements listed in [1]. Different values used in the "System Compliance" column are described as follows:

Compliant: The game complies with the requirement.

Does Not Comply: The game does not comply with the requirement.

Acknowledged: The requirement is only a statement or information.

N/A: The requirement is not applicable to the game.

Out of scope: The requirement cannot be evaluated at this stage due to the current scope of testing or limitation of the test environment.

4.1 Third Schedule Regulation 25: Technical Requirement for Gaming System

Malta Requirements	System Compliance	GA Comments
Third Schedule		
Regulation 25: Technical requirement for gaming system		
1. The gaming system must:		
(a) faithfully follow the game rules published by the operator; and	Compliant	The game instructions are available and the game operates and interacts with the players in accordance with the game instructions.
(b) Provide over time no more than the expected house advantage to the operator.	Compliant	The game instructions are available and the game operates and interacts with the players in accordance with the game instructions.
2. Both the gaming and financial transactions must be congruent and secure.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Evaluation of financial transactions is out of scope.
3. The gaming system must satisfy the following criteria for randomness, following Schneier:-		
(a) the data must be randomly generated, passing appropriate statistical tests of randomness;	Compliant	RNG Report Ref: "RNG.MAL.N1G-OL.1002.01.01"
(b) the data must be unpredictable, i.e. it must be computationally infeasible to predict what the next number will be, given complete knowledge of the algorithm or hardware generating the sequence, and all previously generated numbers;	Compliant	RNG Report Ref: "RNG.MAL.N1G-OL.1002.01.01"
(c) the series cannot be reliably reproduced, i.e. if the sequence generator is activated again with the same input (as exactly as is reasonably possible) it will produce two completely unrelated random sequences.	Compliant	RNG Report Ref: "RNG.MAL.N1G-OL.1002.01.01"
4. The outcome of any game event, and the return to the player, must be independent of the CPU, memory, disk or other components used in the playing device used by the player.	Compliant	The outcomes of the game are independent of the computer or device used by the player.
5. The game or any game event outcome must not be affected by the effective bandwidth, link utilisation, bit error rate or other characteristic of the communication channel between the gaming system and the playing device used by the player.	Compliant	The outcomes of the game are not affected by the bandwidth, link utilisation, bit error rate, etc.
6. The gaming system must be able to display for each game the following information on the current page or on a page directly accessible from the current page via a hyperlink:-		
(a) the name of the game;	Compliant	The name of the game is displayed on the bet page.
(b) restrictions on play;	Out of scope	Could not be verified because the game has not been integrated with a gaming platform.
(c) instructions on how to play, including a pay-table for all prizes and special features;	Compliant	Instructions on how to play, including a pay table for all prizes and special features are provided.
(d) the player's current account balance;	Compliant	The player's current account balance is displayed.

Malta Requirements	System Compliance	GA Comments
(e) unit and total bets permitted;	Compliant	The unit bet and total bets are displayed on the bet page.
(f) The rules of the game.	Compliant	The rules of the game is accessible from the game.
7. All financial reports produced by the gaming system must be congruent with gaming transaction reports and conversely: Provided that all such reports shall be readily and freely available to the Authority.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Evaluation of game management / operational procedures and controls is out of scope.
8. The gaming system must:-		
(a) be capable of producing monthly auditable and aggregate financial statements of gaming transactions, and	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Evaluation of game management / operational procedures and controls is out of scope.
(b) Calculate accurately all taxation and other monies due to the Authority.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Evaluation of game management / operational procedures and controls is out of scope.
9. The gaming system must maintain information about all games played, including:-	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. This section relates to functionality of the backend and is, therefore, out of scope.
(a) the identity of the player;		
(b) the time the game began as recorded on the games server;		
(c) the balance on the player's account at the start of the game;		
(d) the stakes placed in the game (time stamped by the games server);		
(e) The game status (in progress, complete, etc.);		
(f) the result of the game (time stamped by the games server);		
(g) the time the game ended as recorded by the games server;		
(h) the amount won or lost by the player; and		
(i) The balance on the player's account at the end of the game.		
10. The gaming system must maintain information about significant events as follows:-	Out of scope	Could not be verified because the game has not been integrated with a gaming platform.
(a) large wins;		
(b) transfers of funds in excess of such amount as the Authority may from time to time direct by notice in writing to the operator;		
(c) Changes made by the operator to game parameters.		
11. Any variations to any of the requirements specified in this Schedule shall be submitted to the Authority for its approval by notice in writing.	Acknowledged	

4.2 Return to Player

The statistical return to player (RTP) for N1 Games's game Book of Cats Megaways are shown in the table below:

Pay Model 1:

Main Game	90.06%
Buy Bonus Feature with regular free spins	90.15%
Buy Bonus Feature with the guaranteed high expanding symbol	90.11%
Chance x2 Feature	90.10%

Pay Model 2:

Main Game	92.07%
Buy Bonus Feature with regular free spins	92.15%



Buy Bonus Feature with the guaranteed high expanding symbol	92.14%
Chance x2 Feature	92.16%

Pay Model 3:

Main Game	94.23%
Buy Bonus Feature with regular free spins	94.19%
Buy Bonus Feature with the guaranteed high expanding symbol	94.17%
Chance x2 Feature	94.11%

Pay Model 4:

Main Game	96.14%
Buy Bonus Feature with regular free spins	96.17%
Buy Bonus Feature with the guaranteed high expanding symbol	96.15%
Chance x2 Feature	96.11%

Pay Model 5:

Main Game	96.95%
Buy Bonus Feature with regular free spins	97.07%
Buy Bonus Feature with the guaranteed high expanding symbol	97.11%
Chance x2 Feature	97.18%

5 References

1. *Remote Gaming Regulations 2004, Legal Notice 176 of 2004 of the Lotteries and other Games Act (ACT XXIV OF 2001), 20 April 2005, as amended by Legal Notices 110 of 2006, 270 and 426 of 2007, 90 of 2011 and 131 of 2016.*
2. *RNG Certificate “RNG.MAL.N1G-OL.1002.01.01_Signed (4).pdf”, version 2.4, dated 23 March 2023.*
3. *Maths spread sheet “Book of Cats Megaways (1).pdf”, version 1.0, dated 03 November 2022.*

Annex A : SHA-1 Hashes

The following hashes of critical components for the product tested are recorded.

Name	Critical File Name	SHA-1 hashes
Book of Cats Megaways	BookOfCatsMegaways.json	15e3f7c3175375a542201024eccc0e4989116063
	game.rb	2e34de1106437e7552dc41e49f0669ee62ab824a
	generate_freespin_buy_screen.rb	02964b4bc8e2afcfa2e10c7bd9f3895fe8d78f0
	meta.rb	6aa43316e476ef3376046955bd8b740de35131ac
	slot.rb	ff5f2842ff20e608730ce64db4c7fe0177296baa

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