

GAMBLING COMMISSION (GREAT BRITAIN)

INDEPENDENT GAME TESTING SUMMARY REPORT

FOR

NG ENTERTAINMENT LTD. CASINO PUNKS, HTML5-DESKTOP; HTML5-MOBILE, 1.0

CONFIDENTIAL CERTIFICATE NUMBER: E2212099NTGGBRM

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SECTION 1. GENERAL INFORMATION

License Holder:	NG Entertainment Ltd. 97 Windsor Street Sliema SLM 1853 Malta
Game Name:	Casino Punks
Game ID:	Integer: 35
Game Type:	Casino Slot
Platform Type:	HTML5-Desktop; HTML5-Mobile
Platform Version:	1.0
Platform Supplier:	NG Entertainment Ltd. 97 Windsor Street Sliema SLM 1853 Malta
Channels Tested:	Desktop: Windows 10, Google Chrome Browser, Version 104.0.5112.81 (Official Build) (64-bit)) Mobile: MediaPad T5 - AGS2-L09; S/N - VQTBB19219200493; Android Version 8.0.0; Google Chrome Version 99.0.4844.73
Scope of Testing:	Remote Gambling and Software Technical Standards ("RTS") – February 2021, limited to RTS 7A, RTS 7B, RTS 7C, RTS 7E, RTS 9B.b and RTS 9B.d (and pre-release assessable elements of RTS 3A, RTS 3B, RTS 3C, and RTS 5A).
Certification Type:	Initial pre-release testing
Sampling Used for Retesting:	N/A
Test House:	eCOGRA Limited 2/F Berkeley Square House Berkeley Square London W1J 6 BD United Kingdom
Test House Accreditation:	A UKAS accredited testing laboratory No. 4656 ISO/IEC 17025:2017, issued by the United Kingdom Accreditation Service
Test Engineers:	Sumeshan Padayachee; Gift Sebonyane; Stephen Coombe



Test Supervisor:	Sumeshan Padayachee
Request for Report:	02 September 2022
Certificate Date:	19 September 2022
Certificate Number:	e2212099NTGGBRM
Result of Testing:	Compliant (Refer to Test Results under Schedule 1)

I hereby certify that the abovementioned game complies with the applicable requirements of RTS 7A, RTS 7B, RTS 7C, RTS 7E, RTS 9B.b and 9B.d (and pre-release assessable elements of RTS 3A, RTS 3B, RTS 3C, and RTS 5A) of the Gambling Commission's Remote Gambling and Software Technical Standards – February 2021, as described in Section 6 of this report. In addition, we have verified that the game under certification does not contain the option to purchase direct access to any features.

Bradley Khoury Chief Technical Officer eCOGRA



SECTION 2. INTRODUCTION

eCOGRA has been appointed by NG Entertainment Ltd. to evaluate and certify the following Slot game for compliance with the relevant Remote Gambling and Software Technical Standards – February 2021, and to highlight any exceptions identified during testing.

Casino Punks (1.0)

This certification report highlights our key findings as a result of the evaluation conducted on HTML5-Desktop; HTML5-Mobile, 1.0, which is the pre-production environment which is essentially the same as the live environment. The testing was conducted on the aforementioned platform established at NG Entertainment Ltd. during the period 02 September 2022 to 19 September 2022.

Please note that this is an initial certification conducted over Casino Punks HTML5-Desktop; HTML5-Mobile and therefore this game certificate does not supersede any previous certifications.



SECTION 3. GAME DESCRIPTION

Casino Punks (1.0)

Game Description:

Casino Punks is played with 5 fixed paylines, consisting of Punk free spins, #WAGMI Multiplier Chart and a gamble feature.

Further details regarding the betting characteristics, features and detailed game rules can be found in the game instructions which can be provided upon request.



SECTION 4. PERCENTAGE RETURN TO PLAYER ('RTP')

Game Name	Theoretical RTP %	eCOGRA RTP % Recalculation
	5 Base: 94.20%	Base 5: 94.09%
Casino Punks	7 Base: 94.30%	Base 7: 94.40%
	9 Base: 94.35%	Base 9: 94.43%
	12 Base: 94.40%	Base 12: 94.39%

The Theoretical RTP percentage indicated in the table above is extracted from the game documentation as provided by NG Entertainment Ltd. eCOGRA recalculated the RTP percentage by performing additional independent mathematical calculations on the output of simulation game data.



SECTION 5. SOFTWARE DETAILS

The scope of the game evaluation and certification applies solely to the critical game files, game versions and associated hashes provided in the tables below:

Game Files

File Name / Identifier	Version	Version	Binary SHA#1 Hash
	Date	Number	
line_wins_handler.inc.php	2020/01/20	1.0	4265BFE2ACF6549D2A8C2708DDCCC26E6657D396
ConfigurationCP.txt	2022/09/01	1.0	0F40C50CC673D1A694A669095FDB1B40FE7BCF32

Random Number Generator

File Name / Identifier	Version Date	Version Number	Binary SHA#1 Hash
rng.lib.php	2019/06/21	php 7	850D4C84879E52C8A3F4752488A3634869052196



SECTION 6. REVIEW FINDINGS

The key findings of our evaluation of the game for compliance with the relevant sections of the Remote Gambling and Software Technical Standards – February 2021, are as follows:

RTS Requirement Assessed	Related RTS Requirements Assessed	Testing Applied	Assessment	Comments
RTS 7 – Generation of random outcomes				
(Aim: To ensure that games and other virtual events	operate fairly)			
RTS requirement 7A	Not applicable.	Refer to "1. Tests	Compliant	Refer to GLI RNG report:
Random number generation and game results		Performed" under		413/19/001/UK/RTS/02
must be 'acceptably random'. Acceptably random		"Schedule 1 –		
here means that it is possible to demonstrate to a		Game Testing"		
high degree of confidence that the output of the		below.		
RNG, game, lottery and virtual event outcomes are				
random, through, for example, statistical analysis				
using generally accepted tests and methods of				
analysis. Adaptive behaviour (i.e. a compensated				
game) is not permitted.				
Where lotteries use the outcome of other events				
external to the lottery, to determine the result of				
the lottery (for example, using numbers from the				
National Lottery) the outcome must be				
unpredictable and externally verifiable.				



		1		
RTS requirement 7B	RTS requirement 3A	Refer to "1. Tests	Compliant	The scope of testing for the
As far as is reasonably possible, games and events	An explanation of the applicable rules must be	Performed" under		"Related RTS Requirements"
must be implemented fairly and in accordance	easily available to the customer before they	"Schedule 1 –		did not include how game
with the rules and prevailing payouts, where	commit to gamble. The content including	Game Testing"		rules are made available to
applicable, as they are described to the customer.	artwork and text must be accurate, and	below.		players (rules easily
	sufficient to explain all of the applicable rules			accessible via hyperlinks
	and how to participate. All reasonable steps			etc). eCOGRA has performed
	must be taken to ensure that the content is			a review of the game display
	understandable			and content of player facing
				rules to ensure that they
	RTS requirement 3B			accord with the maths and
	Where relevant, as the game or event			enable players to verify
	progresses, information that may reasonably			game outcomes.
	be expected to enable the customer to			
	understand the current state must be			
	displayed.			
	RTS requirement 3C			
	For each virtual event, game (including bingo),			
	or lottery, information that may reasonably be			
	expected to enable the customer to make an			
	informed decision about his or her chances of			
	winning must be easily available before the			
	customer commits to gamble. Information			
	must include:			
	i. a description of the way the			
	game works and the way in			



	which winners are determined and prizes allocated;ii.house edge (or margin);iii.the return to player (RTP) percentage; oriv.the probability (likelihood) of winning events occurring.RTS requirement 5AAll reasonable steps should be taken to ensure that gambles are accepted, processed and			
	settled in accordance with the operator's published terms and rules, and the rules of the			
	specific game, event, or bet.			
<u>RTS requirement 7C</u> Game designs or features that may reasonably be expected to mislead the customer about the likelihood of particular results occurring are not permitted, including substituting losing events with near-miss losing events and simulations of real devices that do not simulate the real probabilities of the device.	Not applicable.	Refer to "1. Tests Performed" under "Schedule 1 – Game Testing" below.	Compliant	Refer to Schedule 1.



RTS requirement 7E	RTS requirement 5A	Refer to "1. Tests	Compliant	Refer to Schedule 1.
Except in the case of subscription lotteries, the	All reasonable steps should be taken to	Performed" under		
system clearly and accurately display the result of	ensure that gambles are accepted, processed	"Schedule 1 –		
the game or event and the customer's gamble. The	and settled in accordance with the operator's	Game Testing"		
result must be displayed for a length of time that	published terms and rules, and the rules of	below.		
may reasonably be expected to be sufficient for the	the specific game, event, or bet.			
customer to understand the result of the game or				
event in the context of their gamble.				

RTS 9 – Progressive jackpot systems (Aim: To ensure that progressive jackpot systems ope	erate fairly)			
<u>RTS requirement 9B.b</u> Where a customer contributes to a jackpot pool, that customer should be eligible to win the jackpot whilst they are playing that game. The chances of winning a jackpot should increase in correlation with the amount contributed.	RTS implementation guidance 7C f. Where a customer contributes to a jackpot pool, that customer should be eligible to win the jackpot whilst they are playing that game, in accordance with the game and jackpot rules.	Refer to "1. Tests Performed" under "Schedule 1 – Game Testing" below.	Not Applicable	This game does not consist of a jackpot feature.
RTS requirement 9B.d The gambling system shall ensure that a winning customer is notified of a jackpot win immediately after it is triggered and that other participating customers are adequately notified of the jackpots reset value.	Not applicable.	Refer to "1. Tests Performed" under "Schedule 1 – Game Testing" below.	Not Applicable	This game does not consist of a jackpot feature.



Feature Buy-Ins				
It shall not be possible for a player to directly access	RTS requirement 14A	Refer to "1. Tests	Compliant	The game under certification
a game feature by placing an additional wager	Gambling products must not actively	Performed" under		does not contain the option
outside of the normal course of play.	encourage customers to chase their losses,	"Schedule 1 –		to purchase direct access to
	increase their stake or increase the amount	Game Testing"		any features. Where the
	they have decided to gamble, or continue to	below.		game contains a feature that
	gamble after they have indicated that they			may be activated by an
	wish to stop.			additional wager that is
				made with winnings from
	RTS requirement 3A			the current game round (e.g.
	An explanation of the applicable rules must be			a gamble feature), this is
	easily available to the customer before they			deemed acceptable.
	commit to gamble. The content including			
	artwork and text must be accurate, and			
	sufficient to explain all of the applicable rules			
	and how to participate. All reasonable steps			
	must be taken to ensure that the content is			
	understandable			



SCHEDULE 1. GAME TESTING

1. TESTS PERFORMED

Game design testing has included verification of the game mathematics, game artwork, the theoretical RTP and player-facing game rules. Software testing has included evaluation and verification of the software implementation of the game design aspects tested. The game software testing has been conducted on HTML5-Desktop; HTML5-Mobile, 1.0, on a pre-production environment which is reflective of the live environment, with verification procedures conducted over games rules and the actual RTP, using methods of simulation, emulation and manual testing, and verification of the scaling and mapping used to convert raw RNG output to game outcomes.

The game evaluation included the following tests, amongst others:

- Verification procedures over sufficiency and appropriateness of the client's internal testing conducted over the game under certification;
- Review of game documentation;
- Review of the mapping of the random inputs to game outcomes in accordance with prevailing probabilities and pay tables;
- Evaluation of the pertinent modules of the game source code for mapping of rules and RNG calling;
- Evaluation of game accounting in accordance with game pay tables;
- Inspection of game interface including artwork and graphics, and clear and correct presentation of the game rules;
- Comprehensive operational and functional client-side tests over the game mechanics to ensure that game pay tables, game rules and help files are correctly implemented in the operation of the game;
- Testing of rare outcomes through emulation to ensure that game pay outs, top prizes and jackpot features (if applicable) operate correctly;
- Review of the game design and game mathematics that determine the theoretical RTP%;
- A check on whether it is possible to place a wager outside of the base game and ordinary course of play; and if this wager directly activates a game feature outside of the ordinary course of play.
- Independent mathematical calculations of RTP% utilising complete, accurate and valid simulated game data output, to verify the theoretical RTP% as per the game mathematics documentation; and
- Game simulation (output) testing to ensure the game outcomes are randomly generated; and the actual RTP is within an acceptable range of the expected RTP.

The RNG utilised in evaluating the game output and games rules has been sufficiently and appropriately tested, in a separately issued test house summary report. Please refer to GLI RNG report 413/19/001/UK/RTS/02



2. TEST RESULTS

Numerous tests were performed to ensure the game operates in compliance with the applicable requirements of RTS 7A, RTS 7B, RTS 7C, RTS 7E, RTS 9B.b and 9B.d (and the pre-release assessable elements of RTS 3A, RTS 3B, RTS 3C and RTS 5A) of the Gambling Commission's Remote Gambling and Software Technical Standards – February 2021, including an evaluation and verification of the software implementation of the game artwork, theoretical RTP and maths. Based on the testing conducted, the game is assessed as compliant with the applicable requirements of RTS 7A, RTS 7B, RTS 7C, RTS 7E, RTS 9B.b and RTS 9B.d (and pre-release assessable elements of RTS 3A, RTS 3A, RTS 3A, RTS 3B, RTS 3C and RTS 7A, RTS 7B, RTS 7C, RTS 7E, RTS 9B.b and RTS 9B.d (and pre-release assessable elements of RTS 3A, RTS 3B, RTS 3C and RTS 5A) of the Gambling Commission's Remote Gambling and Software Technical Standards – February 2021. In addition, we have verified that the game under certification does not contain the option to purchase direct access to any features.