

This is a revised report of “PPL-CH-221128-01-GC-R1” issued on 28 November 2022. Updates are done into the game certification checklist “requirement number 1 comment” under the heading “Article 4 OMJ Casino games” and “section 3.5” in this game certification report. There are no changes in the game.

Certification Report: Pragmatic Play - Game - Spaceman

Report Identification: PPL-CH-221128-01-GC-R2

Certification Laboratory:



Supervisor: Usman Vaseer

Signature:

ISO/IEC 17025: UKAS accredited testing laboratory No. 9263

Dates of certification work: 10 November 2022 to 21 November 2022

Certification report date: 10 July 2023

Report prepared for: Pragmatic Play Ltd
Block E, Falcon House, Main Street,
Sliema - SLM 1544 Malta

Type of Product Crash Game

Type of Session Automated

Product Tested Spaceman

Product Version 1.62.3

Manufacturer Pragmatic Play Ltd
Block E, Falcon House, Main Street,
Sliema - SLM 1544 Malta

Software Provider Pragmatic Play Ltd
Block E, Falcon House, Main Street,
Sliema - SLM 1544 Malta

Jurisdiction Switzerland Online

Technical Standards used for Testing Certification Protocol based on Ordinance on Gambling (OJAR) 7 November 2018 Classified Compilation of Federal Legislation 935.511 and the Ordinance on Casinos (OMJ) 7 November 2018 Classified Compilation of Federal Legislation 935.511.1 (Version 1.1 – 01.10.2019)

Testing Result **Compliant** (subject to the Conditions of Evaluation section of this Report)



1. Administration

1.1 Contents

1. Administration	2
2. Software Product Details.....	3
2.1 Software Details	3
2.2 Compatibility Statements	4
2.3 Software Signature Verification.....	5
3. Game Evaluation	6
3.1 Description of Game.....	6
3.2 Testing Methodology	6
3.3 ISO 27001 Certification Details	6
3.4 Jurisdictional Requirements Verification.....	6
3.5 Comments.....	6
3.6 General Online Gaming Characteristics.....	6
3.7 Jackpots	6
3.8 Paytables.....	7
3.9 Max Win including all Features.....	7
3.10 Gaming Rules	7
4. Conditions of Evaluation.....	8
5. Statement of Compliance.....	9
End of document	9

1.2 Version

Version	Description	Date
V0.1	Initial draft – SKHA	2022-11-22
V0.2	Reviewed & Updated – WKAS	2022-11-23
V0.3	QA – UVAS	2022-11-24
V1.0	Final report to Pragmatic Play	2022-11-28
V1.1	Revised report to Pragmatic Play – Updates is done into the game certification checklist “requirement number 1 comment” and “section 3.5” in this game certification report under the heading “Article 4 OMJ Casino games”	2023-07-10



2. Software Product Details

2.1 Software Details

The following game is tested by Gaming Associates Europe Ltd (**ga**) in an environment containing the following components:

Game Name:	Spaceman
Game Type:	Crash Game
Channels (game clients):	HTML5: Desktop and Mobile
Game ID:	N/A
Game version:	1.62.3
Theoretical return to player:	95.50%
Actual RTP (calculated from simulated game results):	95.50%
Platform supplier:	Pragmatic Play Ltd
Platform name and version:	Pragmatic Play Ltd V1.0
Jackpot:	No

The following table provides details of gaming software components:

Software Name	Function	Size (Bytes)	SHA-1 Hashes
<i>SpaceManRNGObject.class</i>	<i>Game Server</i>	1.4 kB (1,370 bytes)	d060b63b5707666ce67386eb89e95c311bfa2ebf
<i>SpacemanSecondLevelRngConfiguration</i>	<i>Game Server</i>	N/A	868735fd0446e6f561c41aaa9328d1cfc8bf23d
<i>SpacemanFirstLevelRngConfiguration</i>	<i>Game Server</i>	N/A	8db017e2163384ef1a8aefceaccb72f4af5f8bc3
<i>ResultCodeVO.class</i>	<i>Game Server</i>	989 bytes	f7ff44c528a4c6f22a90e936cc299c497045d6b3
<i>BetCodeVO.class</i>	<i>Game Server</i>	1.5 kB (1,536 bytes)	1e0c535c5357f06538b84b936aa34670d86bb931

2.2 Compatibility Statements

Software RNG Name	Version	Compatibility Status
software RNG -dh-mg1-1.0.0.jar	2.0	Compatible with all Pragmatic Play games (Mega Sic Bo, Mega Roulette, Mega Wheel, and Sweet Bonanza Candyland etc.) running on the Pragmatic Play gaming server only. The RNG has been approved in report RN-330-PPL-21-01-567 dated 29 June 2021.



2.3 Software Signature Verification

A supervised build of the game software is performed with the customer before the start of the testing. SHA-1 hashes of the game software are calculated and recorded by the tester supervising the build. When the customer transfers the source code and executables to us, we calculate SHA-1 hashes again and compare with the recorded hashes to confirm that the files are same as the ones used for supervised build.

The customers use their operating system package to calculate SHA-1 hashes. We use a free application “HashMe” available from Microsoft website:

<https://www.microsoft.com/en-au/p/hashme/9wzdncrfjvh0?activetab=pivot:overviewtab>.

The game software in production environment by can be verified by comparing its hashes with the hashes recorded during testing and in Section 2.1 of this certification report. We or a representative of the regulator can check software signatures. The regulator can also check the game version using the information provided in Section 2.1.



3. Game Evaluation

3.1 Description of Game

Spaceman is an online multiplayer game of "Crash" type. It consists of a multiplier which grows from 1.00x up to a random, predetermined value, when it crashes.

Your objective is to cash out before the Crash occurs in order to win your bet multiplied by the current multiplier.

Please, kindly note that Spaceman is NOT a game of skill. Your choice has no impact on the game other than deciding when to cash out.

3.2 Testing Methodology

The following methods were used to evaluate the game for compliance with the requirements in the technical standards listed on the first page.

- Software and System Version Control;
- Submitted Documentation Review;
- Artwork and Game Rules Review;
- Source Code Review;
- Game Play Verification;
- Game Accounting;
- Simulation Testing, and
- Jurisdictional Requirements Verification.

3.3 ISO 27001 Certification Details

Name of Document	Details	Comments
Information Security Management Systems - ISO/IEC 27001: "Сертификат_Pragmatic Play_27001_en_pdf"	Reference number: 44 121 21 00 02 Issued by: Information Management Systems (IMS) Issue date: 29-03-2021 Validity: 28-03-2024	Pragmatic Play Ltd is ISO/IEC 27001:2013 certified.

3.4 Jurisdictional Requirements Verification

The game has been tested against the requirements of the applicable Technical Standards mentioned on the first page. Test results have been provided in the examination report submitted with this certification report.

3.5 Comments

This report has been prepared to provide results of testing of Pragmatic Play's game Spaceman.

This is a revised report of "PPL-CH-221128-01-GC-R1" issued on 28 November 2022. Updates are done into the game certification checklist "requirement number 1 comment" under the heading "Article 4 OMJ Casino games". There are no changes in the game.

3.6 General Online Gaming Characteristics

General online gaming characteristics	Answer	Settings or Remarks
Verified communication protocol(s)	➔	No communication protocols have been verified.

3.7 Jackpots



Jackpots	Answer	Settings or Remarks
A game with jackpot is available	No	Game is not linked to Jackpot
The jackpot may be managed by an internal and/or by an external jackpot system.	N/A	Game is not linked to Jackpot
Limitation of the jackpot is available	N/A	Game is not linked to Jackpot
Jackpot wins are added on the game's accounting	N/A	Game is not linked to Jackpot

3.8 Paytables

Paytable ID	Jurisdictional ID	Theoretical Payback	Max bet	Advertised top award at max bet
		[%]	[Credits]	[Credits]
Spaceman		95.50%	100	500k

The Client has provided Mathematical treatise of the game which included the calculation of theoretical RTP. **ga** performed independent calculations and confirmed the theoretical RTP provided in the mathematical treatise and advertised in-game rules. No issues were found.

A game simulator was run by the Client to simulate the play of 10 million rounds of the game to calculate the actual RTP. The actual RTP for 10 million rounds of the game is 95.50%. For a very high number of game rounds i.e. the long-term actual RTP value gets very close to the theoretical RTP.

3.9 Max Win including all Features

Max win including all features	Answer	Settings or Remarks
Max win (incl. all features + gamble)	Yes	The max win includes all feature
Limits on possible wins is used (preventive limitation)	No	No limits on wins, all wins are based on the Game Rules
The capping method is used (corrective measure)	No	No capping method is not used for this game

3.10 Gaming Rules

Gaming rules	Answer	Settings or Remarks
Gaming rules (help) comply fully with art. 30 OMJ	Yes	All information is provided in online game rules as per the requirements.
Limitation is transparent to the player	Yes	In this game, it's not possible to bet less than the minimum or more than the maximum.
Capping is transparent to the player	N/A	There are no caps on wins.
Languages provided for the gaming rules	➔	English
Languages verified by the laboratory	➔	English



4. Conditions of Evaluation

1. **ga** has reported on what it has discovered through evaluation of Pragmatic Play's game Spaceman.
2. The scope of this certification report is testing of the game in test environment provided by the Pragmatic Play.
3. This compliance evaluation does not include evaluation of the Random Number Generator (RNG). The RNG being used has already been certified. Refer to RNG certification report "567RN-330-PPL-21-01-567 - Random Number Generator, version 2.0.pdf", issued date 29 June 2021".
4. Verification of actual RTP has been performed using simulated game results utilising the certified RNG listed above. The simulation was performed by the Pragmatic Play and results were provided to us for analysis.
5. The evaluation was limited only to the Technical Standard requirements applicable to the Pragmatic Play's Spaceman game.
6. The compliance evaluation of the game was related only to the technical scope of work discussed in this report. Any other features or functions provided by the submission not related to these elements are excluded.
7. **ga** recommends the Pragmatic Play's game Spaceman to be approved for use in the production system.



5. Statement of Compliance

Subject to the Conditions of Evaluation, **ga** has determined that the Pragmatic Play Ltd game “Spaceman” complies with requirements of the applicable technical standards of the jurisdiction Switzerland Online, as regulated by the Swiss Federal Gaming Board.

If you have any question, please do not hesitate to contact us.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Usman Vaseer', with a stylized flourish at the end.

Usman Vaseer
CTO & Delivery Manager

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