



Client Name	<u>Thunderkick Malta LTD</u>
Client Address	<u>Level 5, The Mall Complex,</u> <u>Floriana, Malta</u>
Client Contact Person	<u>Mr. Sven Grip, Mr. Stéphane</u> <u>Redon, Mr. Johnny Aspelin, Mr.</u> <u>Daniel Gjörwell, Ms. Jeanette</u> <u>Karlsson</u>
Test item	<u>Arcader</u>
Test item type	<u>Game (video slot)</u>
Test item code	<u>G001</u>
Test item release	<u>Server ver. 3.5.0; RNG ver. 3.5.0;</u> <u>Game revision: 2.11.1</u> <u>HTML5 (Desktop & Mobile)</u>
Test item payout	<u>96.10%</u>
Test item components	<u>Ref. to Annex report</u>

*Standard report***Online casino****Testing standards – SCP.01.03.EN.1.0.SR**

[] Initial full certification

[X] Renewal of certification based on SCP06.00.EN

Standard report for inspection standards for
online casino

Certification dates	Previous Certification	Current Certification	Expected date for the <i>next</i> certification
	<u>July 11th, 2016.</u>	<u>August 18th, 2017</u>	<u>August 18th, 2018</u>

Requirements for personnel at the testing organisation supervising and attesting the certification
To ensure that the necessary qualifications are in place during the certification the testing organisation and their staff shall be able to document that the minimum requirements are fulfilled.
The employee(s) of the testing organisation can only supervise and attest the certification when the testing organisation fulfils the following requirements:

- Shall have at least three years' experience in inspecting gambling systems or a similar closely related subject area,
- Shall work on the basis of the ISO/IEC 17020 accreditation and/or ISO/IEC 17025 accreditation, which refers to the requirements of SCP.01.03.EN.1.0, and
- Shall ensure that staff with sufficient qualifications will carry through the certification.

Testing organisation	Name	Telephone number
	<u>Quinel M LTD</u>	<u>+356 2713 1412</u>
	Address	
	<u>Marina Court, Flat 8, Triq Giuseppe Cali'</u>	
	Postal code and city	CVR-/SE-no.
	<u>XBX 1421 Ta'Xbiex - Malta</u>	<u>N.A.</u>
	Contact person/E-mail address	
	<u>Enrico Piccinini, Technical Director, enrico@quinel.com.mt</u>	
	Does the testing organisation have a valid accreditation?	
	<input checked="" type="checkbox"/> Yes - enclose documentation <input type="checkbox"/> No	

The employee(s) shall ensure that the certification is carried out to adequate professional standards and shall supervise and attest the certification.
A number of employees who in conjunction fulfil the requirements can supervise and attest the certification together.

Employee	Name	Telephone number
	<u>Enrico Piccinini</u>	<u>+356 2713 1412</u>
	Address	
	<u>Marina Court, Flat 8, Triq Giuseppe Cali'</u>	

Postal code and city <i>XBX 1421 Ta'Xbiex - Malta</i>	CPR-/ID-no. N.A.
E-mail address enrico@quinel.com.mt	

Requirements for employees

a) The supervisor shall have a relevant education background or in other ways prove relevant qualifications

Name <i>Alessandro Dutto</i>	
Education <i>BSc. European Business with Technology - University of Brighton</i> <i>MSc. Management Engineering - Politecnico di Torino</i>	Period <i>2002</i> <i>2004</i>
Other relevant qualifications <i>ISACA – CISA</i>	Period <i>2016</i>

b) The supervisor shall be certified as

International Information Systems Security Certification Consortium (ISC) 2 Certified Information Systems Security Professional (CISSP)

☐ Yes ☒ No

Name

Does the employee have five years of professional experience in inspecting gambling systems or a similar closely related subject area for an accredited or certified organisation

☒ Yes ☐ No - fill in section c

Payment Card Industry (PCI) Qualified Security Assessor (QSA)

☐ Yes ☒ No

Information Systems Audit and Control Association (ISACA) Certified Information Systems Auditor (CISA)

☒ Yes ☐ No

Name

c) Information concerning a supervisor with five years of professional experience in inspecting gambling systems or a similar closely related subject area for an accredited or certified organisation

Name

Education	Period
Qualifications and experience with inspection gambling systems	Period
Qualifications and experience with inspection gambling systems	Period

Supplier

It is the responsibility of the licence holder that their supplier(s) are certified. The testing organisation shall insure that the supplier(s) of the licence holder is certified to the Danish certification programme in a period covering the previous certification on to the current certification.

Is/are the supplier(s) of the licence holder certified?

☐ Yes - documentation has been presented ☒ No

Name of the supplier of the licence holder

Name of the supplier of the licence holder

Name of the supplier of the licence holder

Name of the supplier of the licence holder

Name of the supplier of the licence holder

3 Requirements for the testing of gambling functionality

In the table below it shall be recorded whether the various requirements have passed assessment. If the assessment of the requirement is not a pass the requirement shall be added to the list in appendix I with a description of why the requirements failed to pass assessment as well as when the failure was or is expected to be remedied. It is important that all failures are recorded even if the failure has been remedied before the submission of the certification report to Danish Gambling Authority. A description of the requirements can be found in the *Testing Standards for Online Casino*.

3.1 Deriving game symbols and events**3.1.1 Random Number Generator suitability for generating results**

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.1.1.1					[X]
3.1.1.2					[X]
3.1.1.3					[X]
3.1.1.4					[X]
3.1.1.5					[X]
3.1.1.6					[X]
3.1.1.7					[X]

3.1.2 Random Number Generator suitability for generating results

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.1.2.1					[X]
3.1.2.2					[X]
3.1.2.3					[X]
3.1.2.4					[X]
3.1.2.5					[X]
3.1.2.6					[X]
3.1.2.7					[X]

3.1.3 Degrees of freedom and mapping

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.1.3.1					[X]
3.1.3.2					[X]
3.1.3.3					[X]
3.1.3.4					[X]
3.1.3.5					[X]
3.1.3.6					[X]
3.1.3.7					[X]

3.1.4 Degrees of freedom and mapping

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.1.4.1					[X]
3.1.4.2					[X]

3.1.5 Seeding

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.1.5.1					[X]

3.1.6 Security

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.1.6.1					[X]

3.2 Gambling functionality**3.2.1 General**

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.2.1.1	[X]				

3.2.2 Games without stakes

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.2.2.1	[X]				

3.2.3 Accurate representation of chance

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.2.3.1	[X]				
3.2.3.2	[X]				
3.2.3.3	[X]				
3.2.3.4	[X]				

3.3 Jackpots

3.3.1 Jackpots

Req.	Pass	Pass Remedied (submit detail)	Pass Risk assessment (submit detail)	No (submit detail)	N/A (submit detail)
3.3.1.1					[X]
3.3.1.2					[X]
3.3.1.3					[X]
3.3.1.5					[X]
3.3.1.4					[X]

**Further
Information**

The scope of this audit was to re-certify the game due to a bugfix made by the producer.
In the specific case where a player wins the freespins game with 4 or 5 bonus symbols, some of the pay table values were incorrect.
In some cases, payout has been slightly higher (player advantage) than stated in paytable.
Other information relevant for the Danish Gambling Authority shall be stated in the appendix.

Declaration and signature

By my signature below I declare that the information supplied in this certification report is correct. I acknowledge that missing information or deliberate misinformation can lead to the certification report being rejected. Any changes in the supplied information shall be forwarded to the Danish Gambling Authority without delay.

Date

Signature

August 18th, 2017



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Standard report - Appendix
Online Casino
Testing standards - SCP.01.03.EN.1.0.SR

Appendix to Standard report for testing standards for online casino

Req.	Req. status	Comments
3.1.1.1 – 3.1.1.7	N.A.	Refer to compliance Report ID: “MDI 02-17 SCP.01.03.EN.1.0.SR J17080236 R001” issued and signed by Quinel M. LTD, dated August 18 th , 2017 for results of testing performed over core RNG testing.
3.1.2.1 – 3.1.2.7	N.A.	A unique RNG instance is used (core RNG) wherever a random symbol is used without regards of the usage. Refer to compliance Report ID: “MDI 02-17 SCP.01.03.EN.1.0.SR J17080236 R001” issued and signed by Quinel M. LTD, dated August 18 th , 2017 for results of testing performed over core RNG testing.
3.1.3.1 – 3.1.3.7	N.A.	Refer to compliance Report ID: “MDI 02-17 SCP.01.03.EN.1.0.SR J17080236 R001” issued and signed by Quinel M. LTD, dated August 18 th , 2017 for results of testing performed over core RNG testing.
3.1.4.1	N.A.	Software based RNG
3.1.4.2	N.A.	Refer to compliance Report ID: “MDI 02-17 SCP.01.03.EN.1.0.SR J17080236 R001” issued and signed by Quinel M. LTD, dated August 18 th , 2017 for results of testing performed over core RNG testing.
3.1.5.1	N.A.	Refer to compliance Report ID: “MDI 02-17 SCP.01.03.EN.1.0.SR J17080236 R001” issued and signed by Quinel M. LTD, dated August 18 th , 2017 for results of testing performed over core RNG testing.
3.1.6.1	N.A.	Refer to compliance Report ID: “MDI 02-17 SCP.01.03.EN.1.0.SR J17080236 R001” issued and signed by Quinel M. LTD, dated August 18 th , 2017 for results of testing performed over core RNG testing.
3.3.1.1 – 3.3.1.5	N.A.	Not applicable for this game type

Product Tested and Critical files

SHA1	Critical	Type	Test item	File name
c562929cdac223c233de57d88a99cc745662bf92	Yes	Configuration	G001	game.slot.vanilla.astronaut
d5e01a5f41deae3b63b46b2ccb7125278e3ebc29	Yes	RNG (*)	N.A.	gp-rng\...\MersenneTwister32.java
ea8940a1cd7d561eb944c42f101ddfd7cce2ec7	Yes	RNG (*)	N.A.	gp-rng-api\...\RandomNumberGenerator.java
ca246a57ccfcd9bd310a0fff58ec0e0aebcf0168	No	Simulator	All	gp-game-vanilla-simulation-3.7.0-RELEASE.jar
b3e9552d480c34b62262b8ef8d7bef309f8df7ed	Yes	Game logic	G001	gp-game-vanilla-astronaut-3.5.0-RELEASE.jar
f2dcd4e8ed46eb5653d99ff54f60c4e4047ad4ec	Yes	RNG	All	rng-implementation\gp-rng-3.5.0-RELEASE.jar
ea01386be069745202580bd50c3de32c33f3553f	Yes	RNG	All	rng-interface\gp-rng-api-3.5.0-RELEASE.jar

(*) RNG main source code files.