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ISO 17025
ACCREDITED
TESTING
NAB-MALTA N° 014

Certification standard report
Online casino
Testing standards – SCP.01.03.EN

Standard report for testing standards for online casino

Licensee	Name Thunderkick Malta Ltd	Telephone number -
	Address Level 5, The Mall Complex	
	Postal code and city Floriana, Malta	CVR-/SE-no. N.A.
	Contact person/E-mail address Mr. Sven Grip, Mr. Stéphane Redon, Mr. Johnny Aspelin, Mr. Daniel Gjörwell, Ms. Jeanette Karlsson, Mr. Wan Kim (wan.kim@thunderkick.com)	

Certification dates	Previous certification 09/05/2018	Current certification 17/06/2019	Expected date for the *next* certification 09/05/2020

Testing organisation	Name QUINEL Limited	Telephone number *+356 2713 1412*
	Address Marina Court, Flat 8, Triq Giuseppe Cali'	
	Postal code and city XBX 1421 Ta' Xbiex – Malta	CVR-/SE-no. N.A.
	Contact person/E-mail address Davide De Nobile, Technical Director, davide@quinel.com.mt	
	Does the testing organisation have a valid accreditation? Yes, enclose documentation _X_ No _____	

Testing organisation's supplier Must only be filled in if the testing organisation is using a supplier to perform the certification.	Name _____ Address Postal code and city

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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.

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Employee	Name	Telephone number
	Fabio Valenti	*+356 2713 1412*

Address
Marina Court, Flat 8, Triq Giuseppe Cali'

Postal code and city	CPR-/ID-no.
XBX 1421 Ta'Xbiex – Malta	N.A.

E-mail address
fabio.valenti@quinel.com.mt

Employee	Name	Telephone number

Address

Postal code and city	CPR-/ID-no.

E-mail address

Requirements for employees

a) For the testing of the Random Number Generator the supervisor shall have a relevant master's or PhD degree or in other ways be able to prove relevant qualifications

Name
Fabio Valenti

Education	Period
B.Sc. electronic engineering	*2008-2013*

Qualifications and experience with testing gambling systems	Period
Quinel	*2013-today*

b) For the testing of other gambling functions, the supervisor shall have a relevant educational background or in other ways be able to prove relevant qualifications

Name
Joseph Landry Lachunou Mougoue

Education	Period
Master's in electronic engineering	*1998 - 2004*

Other relevant qualifications	Period
ISACA – CISA	*2019 - today*
ISACA – CISM	*2019 - today*

Does the employee have five years of professional experience in testing gambling systems or a similar subject for an accredited or certified organisation?
Yes_____X_____No, fill in section c)_____

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 organization

Name

Education	Period

Qualifications and experience with testing gambling systems	Period

Supplier

It is the responsibility of the licence holder that their supplier(s) are certified. The testing organisa- tion shall ensure that the supplier(s) of the licence holder is/are 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

It shall be recorded whether a requirement has passed testing or not. If the test of the require- ment is not passed it must be recorded below and the appendix must be used. Here the reason for the failed test must be described and when the failure was or is expected to be remedied. It is important that all failed tests are recorded, even if the failure has been remedied before the submission of the certification report. 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 functionality other than 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 Degres 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 Error control procedures

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. 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]
3.3.1.4					[X]
3.3.1.5					[X]

Further information

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

17/06/2019

Appendix to standard report for testing standards for online casino

Req.	Req. status	Comments
3.1.*	N.A.	Refer to compliance Report ID: "*MDI 02-17 SCP.01.03.EN.1.1.SR J18090447 R001_REV.1*" for results of testing performed over core RNG testing.
3.2.3.4	N.A.	Not applicable for this game type
3.3.*	N.A.	Not applicable for this game type

Product Tested and Critical files

Test item	Flame Busters
Test item type	Slot game
Jackpot	No
Test item code	G005
Test item release	client release 2.3.0; server vers. 1.0.0; RNG vers: 3.5.0 HTML5 (Desktop & Mobile)
Test item payout	96.17%
Submission Date	12/04/2019
Test date	24/05/2019 - 17/06/2019

SHA1	*Critical*	*Type (Game)*	*Test item*	*File name*
8d1cf536a75edf4aa7ffb8f25cc6de8834c96200	Yes	Configuration	G005	gp-game-s1-g10.json
01f20e9e8cf624d41ee281abc9504d551b07bd61	Yes	Game Logic	G005	gp-game-s1-g10-core-1.0.0-RELEASE.jar
d5e01a5f41deae3b63b46b2ccb7125278e3ebc29	Yes	RNG (*)	N.A.	MersenneTwister32.java
ea8940a1cd7d561eb944c42f101ddfcd7cce2ec7	Yes	RNG (*)	N.A.	RandomNumberGenerator.java
f2dcd4e8ed46eb5653d99ff54f60c4e4047ad4ec	Yes	RNG	All	gp-rng-3.5.0-RELEASE.jar
ea01386be069745202580bd50c3de32c33f3553f	Yes	RNG	All	gp-rng-api-3.5.0-RELEASE.jar

(*) RNG main source code files.

Report revisions

N/A