



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

### Standard report for testing standards for online casino

|                 |   |                  |
|-----------------|---|------------------|
| <b>Licensee</b> | Name  | Telephone number |
|                 | Thunderkick Malta Ltd   | -                |
|                 | Address   |                  |
|                 | Level 5, The Mall Complex   |                  |
|                 | Postal code and city  | CVR-/SE-no.      |
|                 | Floriana, Malta   | N.A.             |
|                 | Contact person/E-mail address   |                  |
|                 | Mr. Sven Grip, Mr. Stéphane Redon, Mr. Johnny Aspelin, Mr. Daniel Gjørwell, Ms. Jeanette Karlsson |                  |

|                            |                        |                       |   |
|----------------------------|------------------------|-----------------------|---|
| <b>Certification dates</b> | Previous certification | Current certification | Expected date for the <i>next</i> certification |
|                            | -                      | 24/04/2019            | 24/04/2020                                      |

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

**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 |  |

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      |
| <i>Fabio Valenti</i>                             | <i>+356 2713 1412</i> |
| Address  |                       |
| <i>Marina Court, Flat 8, Triq Giuseppe Cali'</i> |                       |
| Postal code and city                             | CPR-/ID-no.           |
| <i>XBX 1421 Ta'Xbiex – Malta</i>                 | <i>N.A.</i>           |
| E-mail address                                   |                       |
| <i>fabio.valenti@quinel.com.mt</i>               |                       |

**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  |                   |
| <i>Fabio Valenti</i>  |                   |
| Education   | Period            |
| <i>B.Sc. electronic engineering</i>                         | <i>2008-2013</i>  |
| Qualifications and experience with testing gambling systems | Period            |
| <i>Quinel</i>   | <i>2013-today</i> |

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                                      |                     |
| <i>Joseph Landry Lachunou Mougoue</i>     |                     |
| Education                                 | Period              |
| <i>Master's in electronic engineering</i> | <i>1998 - 2004</i>  |
| Other relevant qualifications             | Period              |
| <i>ISACA – CISA</i>                       | <i>2019 - today</i> |

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 organisation 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 requirement 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<br>(submit detail) | Pass Risk assessment<br>(submit detail) | No<br>(submit detail) | N/A<br>(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<br>(submit detail) | Pass Risk assessment<br>(submit detail) | No<br>(submit detail) | N/A<br>(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<br>Remedied<br>(submit detail) | Pass<br>Risk assessment<br>(submit detail) | No<br>(submit<br>detail) | N/A<br>(submit<br>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<br>Remedied<br>(submit detail) | Pass<br>Risk assessment<br>(submit detail) | No<br>(submit<br>detail) | N/A<br>(submit<br>detail) |
|---------|------|-------------------------------------|--|--------------------------|---------------------------|
| 3.1.4.1 |      |                                     |  |                          | [X]                       |
| 3.1.4.2 |      |                                     |  |                          | [X]                       |

### 3.1.5 Seeding

| Req.    | Pass | Pass<br>Remedied<br>(submit detail) | Pass<br>Risk assessment<br>(submit detail) | No<br>(submit<br>detail) | N/A<br>(submit<br>detail) |
|---------|------|-------------------------------------|--|--------------------------|---------------------------|
| 3.1.5.1 |      |                                     |  |                          | [X]                       |

### 3.1.6 Security

| Req.    | Pass | Pass<br>Remedied<br>(submit detail) | Pass<br>Risk assessment<br>(submit detail) | No<br>(submit<br>detail) | N/A<br>(submit<br>detail) |
|---------|------|-------------------------------------|--|--------------------------|---------------------------|
| 3.1.6.1 |      |                                     |  |                          | [X]                       |

## 3.2 Gambling functionality

### 3.2.1 General

| Req.    | Pass | Pass<br>Remedied<br>(submit detail) | Pass<br>Risk assessment<br>(submit detail) | No<br>(submit<br>detail) | N/A<br>(submit<br>detail) |
|---------|------|-------------------------------------|--|--------------------------|---------------------------|
| 3.2.1.1 | [X]  |                                     |  |                          |                           |

### 3.2.2 Games without stakes

| Req.    | Pass | Pass<br>Remedied<br>(submit detail) | Pass<br>Risk assessment<br>(submit detail) | No<br>(submit<br>detail) | N/A<br>(submit<br>detail) |
|---------|------|-------------------------------------|--|--------------------------|---------------------------|
| 3.2.2.1 | [X]  |                                     |  |                          |                           |

### 3.2.3 Accurate representation of chance

| Req.    | Pass                                | Pass Remedied<br>(submit detail) | Pass Risk assessment<br>(submit detail) | No<br>(submit detail) | N/A<br>(submit detail)              |
|---------|-------------------------------------|----------------------------------|---|-----------------------|-------------------------------------|
| 3.2.3.1 | <input checked="" type="checkbox"/> |                                  |   |                       |                                     |
| 3.2.3.2 | <input checked="" type="checkbox"/> |                                  |   |                       |                                     |
| 3.2.3.3 | <input checked="" type="checkbox"/> |                                  |   |                       |                                     |
| 3.2.3.4 |                                     |                                  |   |                       | <input checked="" type="checkbox"/> |

### 3.3 Jackpots

#### 3.3. Jackpots

| Req.    | Pass | Pass Remedied<br>(submit detail) | Pass Risk assessment<br>(submit detail) | No<br>(submit detail) | N/A<br>(submit detail)              |
|---------|------|----------------------------------|---|-----------------------|-------------------------------------|
| 3.3.1.1 |      |                                  |   |                       | <input checked="" type="checkbox"/> |
| 3.3.1.2 |      |                                  |   |                       | <input checked="" type="checkbox"/> |
| 3.3.1.3 |      |                                  |   |                       | <input checked="" type="checkbox"/> |
| 3.3.1.4 |      |                                  |   |                       | <input checked="" type="checkbox"/> |
| 3.3.1.5 |      |                                  |   |                       | <input checked="" type="checkbox"/> |

### 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

24/04/2019 ..... 

*Certification standard report – Appendix*  
**Online Casino**  
**Testing standards - SCP.01.03.EN**

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         | Dragon Horn   |
| Test item type    | Game (video slot)   |
| Test item code    | G001  |
| Test item release | Server ver. 1.0.1; RNG ver. 3.5.0; Game revision: 1.0.3<br>HTML5 (Desktop & Mobile) |
| Test item payout  | 96.1%   |

| SHA1                                     | Critical | Type (Game)   | Test item | File name                             |
|--|----------|---------------|-----------|---------------------------------------|
| be46218462eda74112c940f5e8323ce217b839c1 | Yes      | Configuration | G001      | gp-game-s1-g23.json                   |
| 6414d3f49cef02e8b8783ac85543d05c72aa8188 | Yes      | Game Logic    | G001      | gp-game-s1-g23-core-1.0.1-RELEASE.jar |
| d5e01a5f41deae3b63b46b2ccb7125278e3ebc29 | Yes      | RNG (*)       | N.A.      | MersenneTwister32.java                |
| ea8940a1cd7d561eb944c42f101ddfd7cce2ec7  | 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.