

## TEST REPORT SUMMARY

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Issued by: BMM Compliance Singapore Private limited,  
1 Science Park, TUV SUD PSB Blk,  
#B1-03, Singapore – 118221.

Project Number: MARQUEE.1003  
Report Number: MARQUEE.1003.01

Applicant: Marquee Holdings Ltd (“Marquee”)  
Akara Building 24 De Castro Street,  
Wickhams Cay 1, Road Town,  
Tortola, British Virgin Islands.

Standards Tested To: GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013)

Product Name: Online live dealer game “Roulette” (Version 14.04.08)

Test Location: BMM Compliance Singapore Private limited,  
1 Science Park, TUV SUD PSB Blk,  
#B1-03, Singapore – 118221.

Conclusion: This Compliance Certificate relates to the evaluation of Marquee’s online live dealer game – Roulette. The evaluation was performed against “Section 3: Game Requirements” and “Section B.0: Live Dealer / Proxy Player Requirements” of GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013).

Singapore, 09<sup>th</sup> April 2014  
BMM Compliance Singapore Pte Ltd



Vineet Malhotra

### Test Lead – Technical Services

**Note:** The content of this document is strictly confidential. It has been prepared by BMM Singapore Pte Ltd (BMM) exclusively for Marquee Holdings Ltd and may not be disclosed to any other party without prior written approval of BMM.



The results reported herein have been performed in accordance with the laboratory’s terms of accreditation under the Singapore Accreditation Council–Singapore Laboratory Accreditation Scheme.

**bmm compliance singapore private limited**

1 science park, TUV SUD PSB blk, #b1-03, singapore 118221 t +65 6592 0145 f +65 6592 0147

company registration number: 200821837K

[bmm.com](http://bmm.com)

# Test Report

## 1. STANDARD(S) TESTED AGAINST/RESULT

Technical Standard(s) used for Compliance Evaluation:	Test Result	
	Pass	Fail
GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 2. PURPOSE

Marquee Holdings Ltd requested BMM to evaluate their online live dealer game - Roulette software for satisfactory operation against GLI-19, version 2.0 standards.

The purpose of this report is to set out the findings of BMM's evaluation, and to provide a recommendation in respect of Marquee's Roulette game software.

## 3. GAME CHARACTERISTICS

Game rules are contained in the "Rules" menu accessible on the game play skin. Below are standard common rules for the game:

### **Roulette:**

Live Roulette uses standard European Roulette rules, is played on a single zero wheel with 37 numbers (0 to 36) with a live dealer and a real Roulette table.

### **Straight Up**

You can bet on any number, including 0, by placing a chip on the center of the number. The maximum bet for this wager is indicated on the Roulette table (refer to Limits tab).

### **Split Bet**

You can bet on two numbers by placing a chip on the line that divides the two (2) numbers. The maximum bet for this wager is the Straight Up bet maximum multiplied by two (2).

### **Street Bet**

To bet on a row of three numbers (a street) place a chip on the inner boundary line of the roulette table at the end of the corresponding row. Street Bet also includes these two combinations: 0&2&3 and 0&1&2. The maximum bet for this wager is the Straight Up bet maximum multiplied by three (3).

### Corner Bet

You can bet on four (4) numbers by placing chips at the corner where the four numbers meet. The maximum bet for this wager is the Straight Up bet maximum multiplied by four (4).

### Line Bet

Place your bet on the intersection of two (2) rows of three (3) numbers (covers six numbers). The bet has to be placed on the inner boundary line of the roulette table. The maximum bet for this wager is the Straight Up bet maximum multiplied by six (6).

### Column Bet

There are three boxes labeled "2 to 1" at the bottom of each column of numbers. You can place bets on all the numbers in a column by placing chip(s) in one of these boxes. If any of the numbers in the selected column is hit you get paid 2:1; 0 is a losing number. The maximum bet for this wager is the Straight Up bet maximum multiplied by five (5).

### Dozen Bet

You can bet on a group of twelve numbers by placing your chip in one of the three boxes marked "1-12," "13-24," or "25-36." If one of your twelve (12) numbers is hit, you are paid 2:1; 0 is a losing number. The maximum bet for this wager is the Straight Up bet maximum multiplied by five (5).

### Red/Black, Even/Odd, Low/High Bets

You can place a bet in one of the boxes along the long side of the table that covers half of the numbers on the roulette table (excluding 0). Each box covers eighteen (18) numbers. You win even money (1 to 1) on all of these bets; 0 is a losing number. The maximum bet for this wager is the Straight Up bet maximum multiplied by fifteen (15).

### Minimum table bet

There is a minimum table bet, meaning that the total bet must at least be equivalent to the minimum per bet value indicated on the table (Limits tab).

### Voisins du zero

Is a bet on all numbers of the Voisins arc: 22, 18, 29, 7, 28, 12, 35, 3, 26, 0, 32, 15, 19, 4, 21, 2 and 25. These are all the numbers on almost half the Roulette wheel, including the zero. Players need nine (9) chips and these nine chips are placed as follows: one split bet on each of the numbers 4&7, 12&15, 18&21, 19&22, 32&35, two chips on the triplet (street bet) 0&2&3 and two chips on 25&26&28&29 (corner bet).

Possible winnings are as follows:

<b>If winning number is one of these:</b>	<b>Player gets paid:</b>	<b>Player's true profit:</b>
4, 7, 12, 15, 18, 19, 21, 22, 32, 35	17 chips (17:1) + 1 chip	$17 + 1 - 9 = 9$ chips
0, 2, 3	22 chips (11:1) + 2 chip	$22 + 2 - 9 = 15$ chips
25, 26, 28, 29	16 chips (8:1) + 2 chips	$16 + 2 - 9 = 9$ chips

## Tier

Players can place six (6) chips to cover the numbers 27, 13, 36, 11, 30, 8, 23, 10, 5, 24, 16 and 33. This is called a Tier arc on the Roulette board. One chip goes on each of the following splits: 5&8, 10&11, 13&16, 23&24, 27&30, 33&36. The true profit on this bet is:  $17 + 1 - 6 = 12$  chips. So the payout is 12:6 or 2:1.

## Orphelins

Players bet on numbers 17, 34, 6, 1, 20, 14, 31 and 9. This is called the Orphelins arc on the Roulette board. Players need five (5) chips, which are placed as follows: one straight bet on number 1 and one split bet on each one of the numbers 6&9, 14&17, 17&20, 31&34. Note that number 17 participates in two splits (14&17 and 17&20). Orphelins yields the following possible winning combinations:

If winning number is one of these:	Player gets paid:	Player's true profit:
1	35 chips (35:1) + 1 chip	$35 + 1 - 5 = 31$ chips
6, 9, 14, 20, 31, 34	17 chips (17:1) + 1 chips	$17 + 1 - 5 = 13$ chips
17	34 chips (17:1) + 2 chips	$34 + 2 - 5 = 31$ chips

## Neighbors

Bet on a number and neighboring two numbers on the right and two numbers on the left of the number. This bet is played with five (5) chips and it is placed using the race track only. For example, "8 and the neighbors" means that the player places a bet on five consecutive numbers 11&30&8&23&10 (8 is in the middle). The true payout is  $35 + 1 - 5 = 31$  chips.

## Payout

Chip Covers	Term	Pays
1 number	Straight Up	35: 1
2 number	Split Bet	17: 1
3 number	Street Bet	11: 1
4 number	Corner Bet	8: 1
6 number	Line Bet	5: 1
12 number	Dozen Bet or Column Bet	2: 1
18 number	Red/Black, Even/Odd or	1:1

## **4. BMM EVALUATION PERFORMED**

BMM has tested and confirmed compliance of the Roulette game software against the relevant technical requirements in GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013). BMM performed the following tests to confirm compliance to the relevant regulatory requirements:

### **4.1 Software Evaluation**

Ensure that software meets all the relevant requirements specified in GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013). BMM performed this by evaluating all the game source code.

### **4.2 Artwork Verification**

Artwork was evaluated to ensure that it correctly explains the game rules and payouts as specified in the technical documentation supplied by the manufacturer and that it conforms to the relevant requirements of GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013).

### **4.3 Mathematical Evaluation**

Verification of the theoretical return of the game is as specified in the technical documentation supplied by the manufacturer and complies with the relevant rules as specified by GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013) requirements.

### **4.4 Combination Testing**

Combination testing was conducted by simulating all possible winning combinations of the game to ensure that the correct amount of credits are awarded for all possible winning combinations as reflected on the artwork, pay-table, source code and the technical documentation supplied by the manufacturer.

### **4.5 Regression Testing**

BMM conducted a complete range of functional tests on this game. Testing was conducted in accordance with the test plans using relevant checklists to confirm the game's performance to a wide range of functions and failures.

### **4.6 Compliance Testing**

Perform all tests necessary to confirm that the game complies with all the relevant requirements specified in "Section 3: Game Requirements" and "Section B.0: Live Dealer / Proxy Player Requirements" of GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013).

## **5. RECOMMENDATION**

BMM has tested and confirmed compliance of Roulette game software against "Section 3: Game Requirements" and "Section B.0: Live Dealer / Proxy Player Requirements" of GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013), subject to secure installation on the production system and information specified in section 6 of this report.

BMM therefore, recommends approval of Marquee’s Roulette game software.

Details of the software used for this evaluation are given below:

Game Name	Ver #	SHA-1 #
<b><u>Binaries - &lt;Roulette&gt;</u></b>	14.04.08	
App		57E5BE56213EEA45652D10DC619A1C55CD21C5F6
casino		3D70900FFB8E30C391E065CD5C978663CEB6C357
crossdomain		4966F15084393E351AD74CD19657FFF2FCE654BD
index		E78BE7C3CF3A4D8B610FF5FB6A2DE44D11D8326D
library		AF0859CB7796AA4C10109D1A259F69C8F6B03B2F
MinimaFlatCustomColorPlayBackSeekCounterVolMute		488F019B8138103AA73C125488A477A763166E77
multitable		E969E1BBECC68956E3EECF40465E52CC22A36AA6
multitable_config		6AF27254820DA1BBDC9814DFA83C5632AC6AEEA5
normal_config		0A117A40EE6354191026063C25D97DD4AB865A6B
normaltables		AFBC096388AAA1D5742140EEDCBF3610B328F509
playerProductInstall		02B34F62C2C130752118D8B7A33453A2A2972E41
preloader		4F05A3720E26536ED4C276B6A4D066608D709E29
require		6CDD4FDB5EEF8D482303C942123054C08C70CE9A
SkinOverAllNoVolNoCaptionNoFull		3BAD998F20A5E677F74E1CF915CFE5EC5745A155
swfobject		06BCA3CBC44EF36774AE8734867767CDEBC5BE80
videoreplay		28F06009E0B3926BAA7B1D5C635276C21A8CE226
videoreplay		D53C3E1C9A8414875051FC64AED14C75661B9391
web.config		308B73B8B457F164889BD457EE24033D79A6ECAB
<b>Folder: \assets</b>		
bottombanner		047CBEAF1852AB19C0CAEC198ECCC07D2BAF81D2
comm		5BEA06B94E2982D04B34F789E90587042B488CB3

Game Name	Ver #	SHA-1 #
dices		96D1FA73FC4056E7EA26886A9FA219B1A79B9DC4
livecall		EF0F820F929750DCFAE7E3FEF327D305E4F8C04B
lobbyheader		B80CA157BCCCE83AA87B793B55FE8E3E078C9FB9
minigames_filler		61F6D677C07CF7AE6ABE9819F67EA617CE52B964
multitable		DC16C83A1A5DFBA10B4E4E59E4B1D8C3028CFA4C
normaltables		5E532AFBF02E43998CB7C68B743FB1342A07DAE0
<b>Folder: \assets\en-us</b>		
audios		147B8971FC61FA7A90F9D5967DE91F20DF8EBC5B
bottombanner		3A1A382448B32E540E93672F350D81A82DD9149A
games		B64DB2176A388F81F14CF3039DC974D61DC989D9
lang		1BD4E11E42F41B2BB98293EEEDBB602A3B158997
lobbyheader		FF3E9D7BC105CD28E0B2510B444C321C2301F67E
multitablemode		B91F2318B95360CCDDE3E8F60C29F57DFD8D5755
rules		D4345985CA3F4676734F4AFD477FA31F55FC4302
textLayout_2.0.0.232		865F668AE152FFF51EDEE261CE33803ED67F48E8
<b>Folder: \css</b>		
close		E44551F338998FCFFAC26BF10F0E410303EBD94D
<b>Folder: \history</b>		
history		E44551F338998FCFFAC26BF10F0E410303EBD94D
history		13E45883335CC3C5DF07978F5BA5006148509CD4
historyFrame		94E944B749B18B6745F778678A4C72BA3AD8196C

## GAME PERCENTAGE VARIATION DETAILS

Game Name	BMM Calculated RTP%			MARQUEE Calculated RTP%		
	Min	Max	Average	Min	Max	Average
Roulette	97.30	97.30	97.30	97.30	97.30	97.30

### 6. ADDITIONAL INFORMATION/OBSERVATIONS

1. The information on percentage return to player (RTP) is listed under the "Rules" menu on the individual game play skin.
2. Video replay functionality could not be tested due to limitations of the test environment.
3. Cashier link could not be tested due to limitations of the test environment.
4. Sound functionality could not be verified due to limitations of the test environment.
5. Sections B.5.1 and B.6.1 of GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013) could not be verified due to limitations of the test environment.
6. Clauses 3.3.4b, 3.3.7a and 3.3.7d of GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013) could not be verified due to limitations of the test environment.

### 7. COMMENTS

BMM has conducted a level of testing/evaluation which has historically been adequate for a submission of this type. Accordingly from the testing performed BMM confirms that the item under test (unless otherwise stated) conforms to all the relevant GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013) as stated below, subject to secure installation on the production system and information specified in section 6 of this report.

GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013)	Pass / Fail / N/A	Comments
2.0 GAMING PLATFORM REQUIREMENTS	N/A	
3.0 GAME REQUIREMENTS	Pass	



<b>GLI-19: Interactive Gaming Systems Version 2.0 (February 15, 2013)</b>	<b>Pass / Fail / N/A</b>	<b>Comments</b>
4.0 RANDOM NUMBER GENERATOR (RNG) REQUIREMENTS	N/A	
5.0 INFORMATION SECURITY SYSTEM (ISS) REQUIREMENTS	N/A	
6.0 PROGRESSIVE JACKPOT REQUIREMENTS	N/A	
A.0 EVENT WAGERING	N/A	
B.0 LIVE DEALER / PROXY PLAYER REQUIREMENTS	Pass	