



WowWee Group Limited

Application
For
Certification

Rovio (Transceiver)

(FCC ID: OKP8033)

HK08081746-1

BH/ sl

September 16, 2008

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INTERTEK TESTING SERVICES

MEASUREMENT/TECHNICAL REPORT

WowWee Group Limited - MODEL: 8033

FCC ID: OKP8033

This report concerns (check one) Original Grant Class II Change

Equipment Type: DTS - Part 15 Digital Transmission System

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes No

If yes, defer until : _____
date

Company Name agrees to notify the Commission by: _____
date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes No

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [05-04-07 Edition] provision.

Report prepared by:

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List of attached file

Exhibit type	File Description	filename
Test Report	Test Report	report.pdf
Cover Letter	Letter of Agency	letter.pdf
Operation Description	Technical Description	descri.pdf
Test Report	6 dB Bandwidth Plot	6dB.pdf
Test Report	Maximum Power Density Plot	maxpd.pdf
Test Report	Out Band Antenna Conducted Emission Plot	obantcon.pdf
Test Report	Conducted Emission Test Result	conduct.pdf
Test Report Photo	Radiated Emission	radiated photos.pdf
Test Report Photo	Conducted Emission	conducted photos.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Cover Letter	Confidentiality Request	request.pdf

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EXHIBIT 1

SUMMARY OF TEST RESULTS

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1.0 Summary of Test

WowWee Group Limited - MODEL: 8033

FCC ID: OKP8033

TEST	REFERENCE	RESULTS
Max. Output power	15.247(b)	Pass
6 dB Bandwidth	15.247(a)(2)	Pass
Max. Power Density	15.247(e)	Pass
Out of Band Antenna Conducted Emission	15.247(d)	Pass
Radiated Emission in Restricted Bands	15.247(d)	Pass
AC Conducted Emission from Transmitter Part	15.207	Pass
Radiated Emission from Transmitter Part	15.209	Pass
Antenna Requirement	15.203	Pass (See Notes)

Notes: The EUT uses a permanently attached antenna, which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

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EXHIBIT 2

GENERAL DESCRIPTION

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2.0 General Description

2.1 Product Description

The Equipment Under Test (EUT) is a Transceiver operating at 2412 to 2462 MHz. It has 11 Channels, 5 MHz of channel spacing. The EUT is powered by the rechargeable battery and it can be charged by its corresponding charging dock, the dock is powered by the AC-DC adaptor 120VAC 50/60Hz input, 9VDC 2.6A output. The EUT is moving wheel camera with Wi-Fi function. It is the Wi-Fi equipped mobile webcam that enables the user to view and interact with its environment through streaming video and audio. And it can communicate and setup via USB connection to computer by using provided software.

Antenna Type : External, Integral

The circuit description is saved with filename: descri.pdf

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2.2 Related Submittal(s) Grants

This is an application for Certification of a DTS - Part 15 Digital Transmission Systems (WiFi transmitter portion). The receiver portion associated with this transmitter is exempt from technical requirement of this Part. And the Declaration of Conformity procedure for the Computer Peripheral is being processed as the same time of this application.

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). All measurements were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine worst case modes. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

2.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC.

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EXHIBIT 3
SYSTEM TEST CONFIGURATION

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3.0 System Test Configuration

3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. It was powered by AC-DC Adaptor 120VAC 50/60Hz Input, 9VDC 2.6A Output and 1 x 6.0V 3000mAh "NiMH" rechargeable battery (Model: 5LMH-43SC3000-W-T).

The signal is maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

3.2 EUT Exercising Software

The EUT exercise program (provided by client) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

The parameters of test software setting:

During the test, Channel and power controlling software provided by the applicant was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the applicant and is going to be fixed on the firmware of the end product.

Power Parameters of IEEE 802.11b/g

Test software setting of IEEE 802.11b/g			
Channel No.	Out power	Data rate	Data modulation
1, 6, 11	1	802.11b: 1-11 Mbps	802.11b: DSSS(BPSK, QPSK, CCK)
		802.11g: 6-54 Mbps	802.11g: OFDM(BPSK, QPSK, 16/64QAM)

The tests were performed in 11 Mbps and 54 Mbps data rate to find the worst case in this report.

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3.3 Details of EUT and Description of Peripherals

Details of EUT:

An AC to DC adaptor and/or a battery (provided with the unit) were used to power the device. Their description are listed below.

- (1) An AC-DC Adaptor
(Input: 100-240VAC 50-60Hz, Output: 9VDC 2.6A, Model: HKP24-0902600dU)
- (2) 1 x "Ni-MH" type rechargeable battery (6V 3000mAh)

Description of Peripherals:

- (1) Wireless router (Linksys, Model: WRT54GC by Intertek)

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3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.5 Equipment Modification

Any modifications installed previous to testing by WowWee Group Limited will be incorporated in each production model sold/leased in the United States.

All the items listed under section 3.0 of this report are confirmed by:

Confirmed by:

*Ho Wai Kin, Ben
Senior Supervisor
Intertek Testing Services Hong Kong Ltd.
Agent for WowWee Group Limited*



_____ Signature

_____ September 16, 2008 Date

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EXHIBIT 4

MEASUREMENT RESULTS

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.2 Minimum 6 dB RF Bandwidth, FCC Rule 15.247(a)(2):

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

IEEE 802.11b (DSSS, 11Mbps)	
Frequency (MHz)	6 dB Bandwidth (kHz)
Low Channel: 2412	9920.0
Middle Channel: 2437	10320.0
High Channel: 2462	10970.0

IEEE 802.11g (OFDM, 54Mbps)	
Frequency (MHz)	6 dB Bandwidth (kHz)
Low Channel: 2412	16560.0
Middle Channel: 2437	16520.0
High Channel: 2462	16600.0

Limit: at least 500kHz

Refer to the following plots for 6 dB bandwidth sharp:

IEEE 802.11b

Plot B2A: Low Channel 6 dB RF Bandwidth

Plot B2B: Middle Channel 6 dB RF Bandwidth

Plot B2C: High Channel 6 dB RF Bandwidth

IEEE 802.11g

Plot G2A: Low Channel 6 dB RF Bandwidth

Plot G2B: Middle Channel 6 dB RF Bandwidth

Plot G2C: High Channel 6 dB RF Bandwidth

For electronic filing, the above plots are saved with filename: 6dB.pdf

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.3 Maximum Power Density Reading, FCC Rule 15.247(e) :

The spectrum analyzer RES BW was set to 3kHz. In order to look for a peak, the START and STOP frequencies were set to the band edges of the maximum output passband. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs.

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

IEEE 802.11b (DSSS, 11Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
Low Channel: 2412	-13.13
Middle Channel: 2437	-8.70
High Channel: 2462	-8.85

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz
= 500 seconds

Cable Loss: 0.5 dB

Peak Power Density (at 2437MHz) = -8.70dBm/3kHz

Limit: 8dBm/ 3kHz

Refer to the following plots for power density data :

Plot B3A Low Channel power density
Plot B3B: Middle Channel power density
Plot B3C: High Channel power density

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.3 Maximum Power Density Reading, FCC Rule 15.247(e) – Continued:

The spectrum analyzer RES BW was set to 3kHz. In order to look for a peak, the START and STOP frequencies were set to the band edges of the maximum output passband. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs.

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

IEEE 802.11g (OFDM, 54Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
Low Channel: 2412	-26.05
Middle Channel: 2437	-24.82
High Channel: 2462	-23.04

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz
= 500 seconds

Cable Loss: 0.5 dB

Peak Power Density (at 2462MHz) = -23.04dBm/3kHz

Limit: 8dBm/ 3kHz

Refer to the following plots for power density data :

Plot G3A Low Channel power density
Plot G3B: Middle Channel power density
Plot G3C: High Channel power density

For electronic filing, the above plots are saved with filename: maxpd.pdf

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.4 Out of Band Conducted Emissions, FCC Rule 15.247(d):

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20dB below that of the maximum in-band 100 kHz emission, or else shall meet the general limits for radiated emissions at frequencies outside the passband, whichever results in lower attenuation.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

Refer to the following plots for out of band conducted emissions data:

Plot B4A1 - B4A2: Low Channel Emissions
Plot B4B1 - B4B2: Middle Channel Emissions
Plot B4C1 - B4C2: High Channel Emissions
Plot B4D: Modulation Products Emissions
Plot G4A1 - G4A2: Low Channel Emissions
Plot G4B1 - G4B2: Middle Channel Emissions
Plot G4C1 - G4C2: High Channel Emissions
Plot G4D: Modulation Products Emissions

The plots showed the 2nd harmonic and modulation products at the band edges of 2400MHz and 2483.5MHz. In addition, all spurious emission and up to the tenth harmonic was measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

Furthermore, delta measurement technique for measuring bandedge emissions was incorporated in the test of the edge at 2483.5MHz.

For the electronic filing, the above plots are saved with filename: obantcon.pdf

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Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.5 Out of Band Radiated Emissions (for emissions in 4.4 above that are less than 20dB below carrier), FCC Rule 15.247(d):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

- Not required, since all emissions are more than 20dB below fundamental
- See attached data sheet

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Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.6 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b), (c):

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

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Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.7 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

$$FS = RA + AF + CF - AG + PD + AV$$

where

- FS = Field Strength in dB μ V/m
- RA = Receiver Amplitude (including preamplifier) in dB μ V
- CF = Cable Attenuation Factor in dB
- AF = Antenna Factor in dB
- AG = Amplifier Gain in dB
- PD = Pulse Desensitization in dB
- AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

$$FS = RA + AF + CF - AG + PD + AV$$

Example

Assume a receiver reading of 62.0 dB μ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB, and the resultant average factor was -10 dB. The net field strength for comparison to the appropriate emission limit is 32 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

RA = 62.0 dB μ V
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0 dB
AV = -10 dB
FS = 62 + 7.4 + 1.6 - 29 + 0 + (-10) = 32 dB μ V/m

Level in mV/m = Common Antilogarithm [(32 dB μ V/m)/20] = 39.8 μ V/m

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Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.8 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
at
2483.220 MHz

For the electronic filing, the worst case radiated emission configuration photographs are saved with filename: radiated photos.doc.

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Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.9 Radiated Emission Data

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Judgement : Passed by 0.5 dB margin

TEST PERSONNEL:



Tester Signature

Terry Chan, Lead Engineer
Typed/Printed Name

September 16, 2008
Date

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
 Model: 8033
 Mode : 802.11b (TX-Channel 01)

Date of Test: July 25, 2008

Table 1 - 2

Radiated Emissions

Polarization	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Calculated at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
V	*4824.500	45.9	33	34.9	47.8	47.8	54.0	-6.2
V	7236.750	41.9	33	37.9	46.8	46.8	54.0	-7.2
V	9649.000	37.8	33	40.4	45.2	45.2	54.0	-8.8
V	*12061.250	37.1	33	40.5	44.6	44.6	54.0	-9.4

Polarization	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
V	*4824.500	45.9	33	34.9	47.8	74.0	-26.2
V	7236.750	41.9	33	37.9	46.8	74.0	-27.2
V	9649.000	37.8	33	40.4	45.2	74.0	-28.8
V	*12061.250	37.1	33	40.5	44.6	74.0	-29.4

- NOTES:
1. Peak detector is used for the emission measurement.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Terry Chan

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
 Model: 8033
 Mode : 802.11b (TX-Channel 06)

Date of Test: July 25, 2008

Table 3 - 4

Radiated Emissions

Polarization	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Calculated at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
V	*4877.012	45.7	33	34.9	47.6	47.6	54.0	-6.4
V	*7315.518	41.7	33	37.9	46.6	46.6	54.0	-7.4
V	9754.024	37.9	33	40.4	45.3	45.3	54.0	-8.7
V	*12192.530	37.0	33	40.5	44.5	44.5	54.0	-9.5

Polarization	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
V	*4877.012	45.7	33	34.9	47.6	74.0	-26.4
V	*7315.518	41.7	33	37.9	46.6	74.0	-27.4
V	9754.024	37.9	33	40.4	45.3	74.0	-28.7
V	*12192.530	37.0	33	40.5	44.5	74.0	-29.5

- NOTES:
1. Peak detector is used for the emission measurement.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Terry Chan

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
 Model: 8033
 Mode : 802.11b (TX-Channel 11)

Date of Test: July 25, 2008

Table 5 - 6

Radiated Emissions

Polarization	Frequency	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
V	2463.504	111.2	33	29.4	107.6	107.6	--	--
V	*4927.008	45.6	33	34.9	47.5	47.5	54.0	-6.5
V	*7390.512	41.6	33	37.9	46.5	46.5	54.0	-7.5
V	9854.016	38.0	33	40.4	45.4	45.4	54.0	-8.6
V	*12317.520	37.1	33	40.5	44.6	44.6	54.0	-9.4

Polarization	Frequency	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
V	*4927.008	45.6	33	34.9	47.5	74.0	-26.5
V	*7390.512	41.6	33	37.9	46.5	74.0	-27.5
V	9854.016	38.0	33	40.4	45.4	74.0	-28.6
V	*12317.520	37.1	33	40.5	44.6	74.0	-29.4

- NOTES:
1. Peak detector is used for the emission measurement.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Terry Chan

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
 Model: 8033
 Mode : 802.11g (TX-Channel 01)

Date of Test: July 25, 2008

Table 7 - 8

Radiated Emissions

Polari- zation	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Calculated at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
V	*4824.500	45.7	33	34.9	47.6	47.6	54.0	-6.4
V	7236.750	41.9	33	37.9	46.8	46.8	54.0	-7.2
V	9649.000	37.8	33	40.4	45.2	45.2	54.0	-8.8
V	*12061.250	36.9	33	40.5	44.4	44.4	54.0	-9.6

Polari- zation	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
V	*4824.500	45.7	33	34.9	47.6	74.0	-26.4
V	7236.750	41.9	33	37.9	46.8	74.0	-27.2
V	9649.000	37.8	33	40.4	45.2	74.0	-28.8
V	*12061.250	36.9	33	40.5	44.4	74.0	-29.6

- NOTES: 1. Peak detector is used for the emission measurement.
2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Terry Chan

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
 Model: 8033
 Mode : 802.11g (TX-Channel 06)

Date of Test: July 25, 2008

Table 9 - 10

Radiated Emissions

Polari- zation	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Calculated at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
V	*4877.016	45.5	33	34.9	47.4	47.4	54.0	-6.6
V	*7315.524	41.6	33	37.9	46.5	46.5	54.0	-7.5
V	9754.032	37.9	33	40.4	45.3	45.3	54.0	-8.7
V	*12192.540	36.7	33	40.5	44.2	44.2	54.0	-9.8

Polari- zation	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
V	*4877.016	45.5	33	34.9	47.4	74.0	-26.6
V	*7315.524	41.6	33	37.9	46.5	74.0	-27.5
V	9754.032	37.9	33	40.4	45.3	74.0	-28.7
V	*12192.540	36.7	33	40.5	44.2	74.0	-29.8

- NOTES:
1. Peak detector is used for the emission measurement.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Terry Chan

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
 Model: 8033
 Mode : 802.11g (TX-Channel 11)

Date of Test: July 25, 2008

Table 11 - 12

Radiated Emissions

Polarization	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Calculated at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
V	2463.506	109.0	33	29.4	105.4	105.4	--	--
V	*4927.012	45.5	33	34.9	47.4	47.4	54.0	-6.6
V	*7390.518	41.9	33	37.9	46.8	46.8	54.0	-7.2
V	9854.024	38.0	33	40.4	45.4	45.4	54.0	-8.6
V	*12317.530	36.8	33	40.5	44.3	44.3	54.0	-9.7

Polarization	Frequency	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
V	*4927.012	45.5	33	34.9	47.4	74.0	-26.6
V	*7390.518	41.9	33	37.9	46.8	74.0	-27.2
V	9854.024	38.0	33	40.4	45.4	74.0	-28.6
V	*12317.530	36.8	33	40.5	44.3	74.0	-29.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Terry Chan

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.10 AC Line Conducted Emission, FCC Rule 15.207:

Not required; battery operation only

Test data attached

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.11 Line Conducted Configuration Photograph

Worst Case Line-Conducted Configuration

For electronic filing, the worst case line conducted configuration photographs are saved with filename: conducted photos.doc.

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.12 Line Conducted Emission Configuration Data

The data on the following pages list the significant emission frequencies, the limit, and the margin of compliance.

Judgement : Passed by 10.57 dB margin

For electronic filing, the conducted emission test result is saved with filename: conduct.pdf

TEST PERSONNEL:



Tester Signature

Terry Chan, Lead Engineer
Typed/Printed Name

September 16, 2008
Date

INTERTEK TESTING SERVICES

Applicant: WowWee Group Limited
Model: 8033

Date of Test: July 25, 2008

4.13 Radiated Emissions from Transmitter Part, FCC Ref: 15.209

- Not required - No digital part
- Test results are attached
- Included in the separated Part 15 Verification report.

INTERTEK TESTING SERVICES

EXHIBIT 5
EQUIPMENT PHOTOGRAPHS

INTERTEK TESTING SERVICES

5.0 Equipment Photographs

For electronic filing, the photographs are saved with filename: external photos.doc & internal photos.doc.

INTERTEK TESTING SERVICES

EXHIBIT 6

PRODUCT LABELLING

INTERTEK TESTING SERVICES

6.0 Product Labelling

For electronic filing, the FCC ID label artwork and location is saved with filename: label.pdf.

INTERTEK TESTING SERVICES

EXHIBIT 7
TECHNICAL SPECIFICATIONS

INTERTEK TESTING SERVICES

7.0 Technical Specifications

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

INTERTEK TESTING SERVICES

EXHIBIT 8
INSTRUCTION MANUAL

INTERTEK TESTING SERVICES

8.0 Instruction Manual

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

INTERTEK TESTING SERVICES

EXHIBIT 9

DISCUSSION OF PULSE DESENSITIZATION

INTERTEK TESTING SERVICES

9.0 Discussion of Pulse Desensitization

The determination of pulse desensitivity was made in accordance with Hewlett Packard Application Note 150-2, *Spectrum Analysis ... Pulsed RF*.

Pulse desensitivity is not applicable for this device since the transmitter transmits the RF signal continuously.

INTERTEK TESTING SERVICES

EXHIBIT 10

CONFIDENTIALITY REQUEST

INTERTEK TESTING SERVICES

10.0 Confidentiality Request

The applicant would like to have confidential protection of the following documents:

- Block Diagram
- Circuit Diagram
- Operational Description

For electronic filing, the request letter is saved with filename: request.pdf.