



**MGA Entertainment (HK) Ltd.**

Application  
For  
Certification

Mobile Handset

**(FCC ID: LU9337966F7)**

07070421  
TL/ ac  
May 31, 2007

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**Intertek Testing Services Hong Kong Ltd.**

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# INTERTEK TESTING SERVICES

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## INTERTEK TESTING SERVICES

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### MEASUREMENT/TECHNICAL REPORT

**Application** : MGA Entertainment (HK) Ltd.  
**Trade Name/Model No** : Bratz 337966F7C  
                                    Bratz 337966F7  
**Date** : May 31, 2007

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

Equipment Type: FRF – Part 95 Family Radio Face Held Transmitter

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.

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Report prepared by: Leung Wai Leung, Tommy  
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### List of attached file

Exhibit type	File Description	Filename
Operation Description	Technical Description	descri.pdf
Test Report	Bandwidth Plot	bw.pdf
Test Report	Modulation Frequency Response	mfr.pdf
Test Report	Modulation Limit Characteristic	mlc.pdf
Test Report	Spurious Emission	spurious.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
Test Report	Test Report	report.pdf
Test Setup Photo	Radiated Emission	config photos.doc
Internal Photo	Internal Photo	internal photos.doc
External Photo	External Photo	external photos.doc
Test Report	Tune Up Procedure	tuneup.pdf
Test Report	Part List	partlist.pdf
Test Report	Audio Low Pass Filter Response	lpf.pdf
Test Report	Digital Data Transmission	ddt.pdf
Cover Letter	Confidentiality Request	request.pdf

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**INTERTEK TESTING SERVICES**

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**EXHIBIT 1**

**GENERAL DESCRIPTION**

## **INTERTEK TESTING SERVICES**

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### **1.0 General Description**

#### **1.1 Product Description**

The Equipment Under Test (EUT) is a Two Way Radio with FRS and Messaging operating at 462.66250MHz and 462.6875MHz. The EUT is powered by 6.0V (4 x "AAA" size 1.5V alkaline batteries). It has a channel switch for selecting mode A & B. After switching on the unit, it can conduct two-way voice communication with another person at the same mode (mode A). In addition, it can send a brief text message to the corresponding mobile handset at the same mode (mode B).

##### **Transmitter Portion**

- (i) Type of Emission : FRS Channel A: 5K76F3E;  
FRS Channel B: 5K12F2D
  
- (ii) Frequency Range : Channel A: 462.6625MHz;  
Channel B: 462.6875MHz
  
- (iii) Maximum Power Rating : Channel A: 0.09W ERP;  
Channel B: 0.09W ERP
  
- (iii) Antenna Type : Integral

The Model: Bratz 337966F7 is the same as the Model: Bratz 337966F7C in hardware aspect except different cosmetics. The difference in model number serves as marketing strategy.

The brief circuit description is saved with filename: descri.pdf

## INTERTEK TESTING SERVICES

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### 1.2 Related Submittal(s) Grants

This is an Application for Certification of the transmitter portion of a FRS Transceiver. The receiver section of this Transceiver and digital device portion are subject to verification process.

### 1.3 Test Methodology

Radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003) and ANSI/TIA-603-B-2002. All measurement were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine worst case modes. For each scan, the procedure of maximizing emissions in Appendices D and E were followed. All Radiated tests were performed at an antenna the EUT distance of 3 meters, unless stated otherwise in the “**Justification Section**” of this Application.

### 1.4 Test Facility

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



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**EXHIBIT 2**

**SYSTEM TEST CONFIGURATION**

## INTERTEK TESTING SERVICES

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### 2.0 **System Test Configuration**

#### 2.1 Justification

The device was configured for testing in a typical fashion (as a customer would normally use it). The device was placed on a turntable, which enabled the engineer to maximize emissions through its placement in the three orthogonal axes.

The device was powered by 4 new "AAA" size 1.5V alkaline batteries.

The frequency range from 30 MHz to 4.69 GHz was searched for spurious emissions from the device. Only those emissions reported were detected. All other emissions were at least 20 dB below the applicable limits.

## INTERTEK TESTING SERVICES

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### 2.2 EUT Exercising Software

There was no special software to exercise the device. Once the PTT button is pushed, a signal is transmitted.

### 2.3 Special Accessories

No special accessory is needed for compliance of this device.

### 2.4 Measurement Uncertainty

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

### 2.5 Equipment Modification

Any modification installed previous to testing by MGA Entertainment (HK) Ltd. will be incorporated in each production model sold/leased in the United States.


No modification were installed by Intertek Testing Services Hong Kong Ltd.

### 2.6 Support Equipment

There are no special accessories necessary for compliance of this product.

*Confirmed by:*

*Leung Wai Leung, Tommy  
Manager  
Intertek Testing Services Hong Kong Ltd.  
Agent for MGA Entertainment (HK) Ltd.*



\_\_\_\_\_  
Signature

\_\_\_\_\_  
May 31, 2007 Date

**INTERTEK TESTING SERVICES**

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**EXHIBIT 3**

**RF POWER OUTPUT**

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## INTERTEK TESTING SERVICES

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### 3.0 RF Power Output (Section 2.1046(a))

#### A. Equipment Used

<b>Equipment</b>	<b>Brand Name</b>	<b>Model No.</b>
Log Periodic Antenna	EMCO	3148
Test receiver	Rohde & Schwarz	ESVS30
Tuned Dipole Antenna	CDI	A100
Signal Generator	IFR	2023B

#### B. Testing Procedure

1. On a test site, the EUT shall be placed at 1.5m height on a wooden turntable, and in the position closest to normal use as declared by the applicant.
2. The test antenna shall be oriented initially for vertical polarisation located 3m from EUT to correspond to the frequency of the transmitter.
3. The output of the test antenna shall be connected to the measuring receiver and the quasi-peak detector is used for the measurement.
4. The transmitter shall be switched on, if possible, without modulation and the measuring receiver shall be tuned to the frequency of the transmitter under test.
5. The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.

## INTERTEK TESTING SERVICES

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6. The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
7. The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
8. The maximum signal level detected by the measuring receiver shall be noted.
9. The transmitter shall be replaced by a tuned dipole (substitution antenna).
10. The substitution antenna shall be orientated for vertical polarisation and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
11. The substitution antenna shall be connected to a calibrated signal generator.
12. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
13. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
14. The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
15. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
16. The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarisation.
17. The measure of the effective radiated power is the larger of the two levels recorded, at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.

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## INTERTEK TESTING SERVICES

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**Table 1**

**MGA Entertainment (HK) Ltd.  
Bratz 337966F7C**

**Transmission Power**

Channel	Frequency (MHz)	Effective Radiated Power		Limit (W)	Margin (W)
		(dBm)	(W)		
A	462.6625	19.5	0.09	0.5	-0.41
B	462.6875	19.5	0.09	0.5	-0.41

Notes: Negative sign in the margin column shows the value below limits.

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007

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**EXHIBIT 4**

**MODULATION CHARACTERISTICS**



## INTERTEK TESTING SERVICES

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### 4.0 Modulation Characteristics

In order to satisfy the 95.637(a) requirement, Modulation Frequency Response and Modulation Limit Characteristics are attached in Exhibit 4.1 & 4.2.

Plots for each tests are saved with filename: mfr.pdf and mlc.pdf

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## INTERTEK TESTING SERVICES

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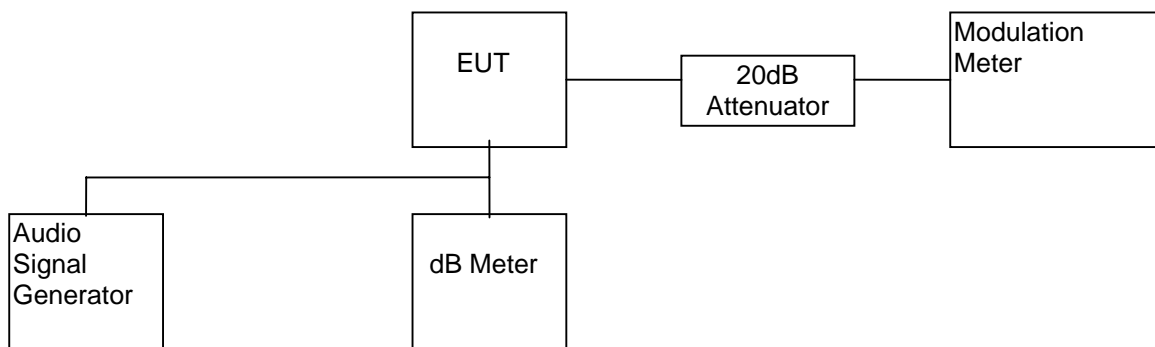
### 4.1 Modulation Frequency Response

#### A. Test Equipment

Equipment	Brand Name	Model No.
Audio Signal Generator	HP	HP8904A
AC Millivoltmeter	Leader	LMV-182A
20 dB RF Attenuator	Bird	8304-200-N
Radiocommunication Service Monitor	R&S	CMS54

#### B. Testing Procedure

- 1) Set-up the test equipment in the following configuration:



- 2) Set the audio signal generator frequency to the sound pressure level 127dB SPL at the microphone of the EUT.
- 3) The frequency of the audio signal generator is changed from 300Hz to 5kHz.
- 4) Record the frequency deviation.

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**INTERTEK TESTING SERVICES**

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**C. Test Result**

**Table 2**

**MGA Entertainment (HK) Ltd.  
Bratz 337966F7C**

**Modulation Frequency Response**

Test Channel : A  
Input level = 127dBSPL

Modulation Frequency (Hz)	Modulation index (%)
300	6.67
400	4.78
500	3.71
600	3.17
700	2.68
800	2.29
900	2.01
1000	1.73
1250	1.33
1500	1.15
1750	1.01
2000	0.89
2250	0.78
2500	0.67
2750	0.59
3000	0.53
3125	0.47
3250	0.43
3500	0.35
4000	0.22
5000	0.11

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007

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## INTERTEK TESTING SERVICES

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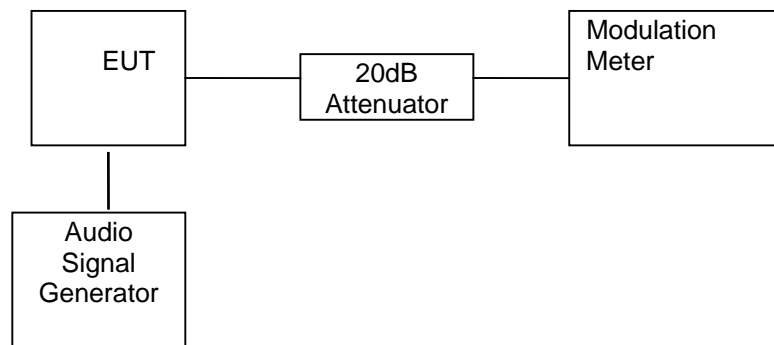
### 4.2 Modulation Limiting Characteristics (Section 2.1047(b))

#### A. Test Equipment

Equipment	Brand Name	Model No.
Audio Signal Generator	HP	HP8904A
20 dB RF Attenuator	Bird	8304-200-N
Radiocommunication Service Monitor	R&S	CMS54

#### B. Testing Procedure

- 1) Set-up the test equipment in the following configuration:



- 2) Set the frequency of the audio signal generator to 500Hz and adjust the level from 47dB SPL to 137dB SPL.
- 3) Record the maximum value of plus or minus peak frequency deviation.
- 4) Repeat the above procedure with frequency 1000Hz, 2500Hz & 3125Hz.

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## INTERTEK TESTING SERVICES

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### C. Test Result

**Table 3**

**MGA Entertainment (HK) Ltd.  
Bratz 337966F7C**

### Modulation Limiting Characteristics

Test Channel : A

<b>Modulation Input (dB SPL)</b>	<b>Peak Frequency Deviation (kHz) at 500Hz</b>	<b>Peak Frequency Deviation (kHz) at 1000Hz</b>	<b>Peak Frequency Deviation (kHz) at 2500Hz</b>	<b>Peak Frequency Deviation (kHz) at 3125Hz</b>
47	0.056	0.055	0.056	0.056
57	0.059	0.059	0.058	0.057
67	0.060	0.063	0.059	0.063
77	0.064	0.080	0.061	0.064
87	0.102	0.186	0.080	0.084
97	0.603	0.991	0.190	0.200
107	1.364	1.022	0.962	1.011
117	1.863	1.699	1.632	1.401
127	1.856	1.725	1.669	1.475
137	1.889	1.732	1.692	1.525

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007

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## INTERTEK TESTING SERVICES

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### 4.3 Audio Low Pass Filter Response (Section 95.637(b))

#### A. Test Equipment

Equipment	Brand Name	Model No.
Audio Signal Generator	HP	HP8904A
AC Millivoltmeter	Leader	LMV-182A

#### B. Testing Procedure

- 1) Connect the audio signal generator to the input of the post limiter low pass filter and the dB meter to the output of the post limiter low pass filter.
- 2) Apply a 1000 Hz tone from the audio signal generator and adjust the level per manufacturer's specifications. Record the dB level of the 1000 Hz tone as  $LEV_{REF}$ .
- 3) Set the audio signal generator to the desired test frequency between 3000 Hz and the upper low pass filter limit. Record the dB level at the test frequency as  $LEV_{FREQ}$ .
- 4) Calculate the audio frequency response at the test frequency as:

$$\text{low pass filter response} = LEV_{FREQ} - LEV_{REF}$$

- 5) Repeat the above procedure for all the desired test frequencies.

#### C. Test Result

For electronic filing, the audio low pass frequency response is saved with filename: lpf.pdf.

**INTERTEK TESTING SERVICES**

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**EXHIBIT 5**

**OCCUPIED BANDWIDTH**

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## INTERTEK TESTING SERVICES

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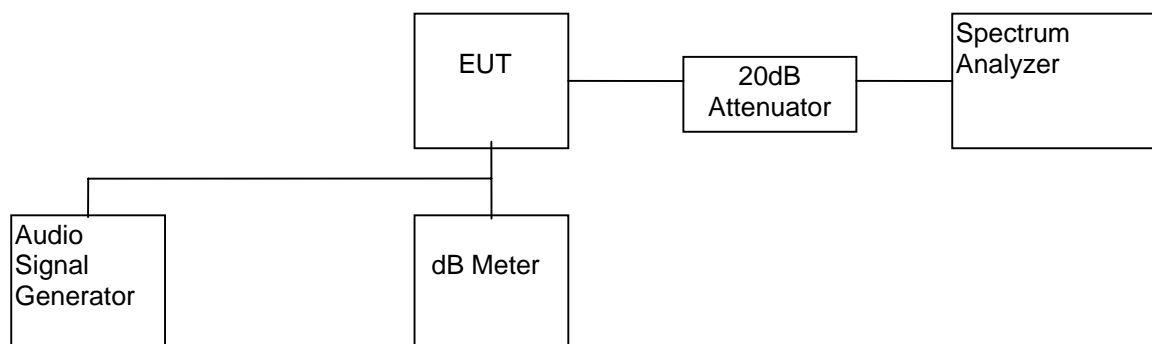
### 5.0 Occupied Bandwidth (Section 95.633(c))

#### A. Test Equipment

Equipment	Brand Name	Model No.
Audio Signal Generator	HP	HP8904A
AC Millivoltmeter	Leader	LMV-182A
20 dB RF Attenuator	Bird	8304-200-N
Spectrum Analyzer	HP	8951EM

#### B. Testing Procedure

- 1) Set-up the test equipment in the following configuration:



- 2) Set the level of audio signal generator to obtain 16 dB greater than required for 50% modulation.
- 3) The occupied bandwidth is measured with the spectrum analyzer set at 2kHz/div scan and 10dB/div.

#### C. Test Result

The occupied Bandwidth is measured to be 5.76 kHz (Voice on the Channel A) and 5.12 kHz (Data on the Channel B) for FRS.

For the electronic filing, the bandwidth plot is saved with filename: bw.pdf

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007



**INTERTEK TESTING SERVICES**

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**EXHIBIT 6**

**SPURIOUS EMISSION**

## INTERTEK TESTING SERVICES

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### 6.0 **Spurious Emission (Section 95.635)**

In order to satisfy the 95.635 requirement, the spurious emission from the EUT are measured and shown in the Exhibit 6.1.

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## INTERTEK TESTING SERVICES

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### 6.1 Field Strength of Spurious Radiation (Section 95.635)

#### A. Test Equipment

Equipment	Brand Name	Model No.
Antenna	EMCO	A100, 3148, 3104C, 3115
Spectrum Analyzer	Agilent	E4407B
Test receiver	Rohde & Schwarz	ESVS30
RF Filter	Trilithic	3VF500/1000-5-50-CC
Signal Generator	IFR	2023B

#### B. Testing Procedure

Radiated emission measurements were performed according to the procedures in ANSI C63.4(2003). All measurements were performed in Open Area Test Sites located at Roof Top of Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.

## INTERTEK TESTING SERVICES

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### C. Radiated Emission Configuration Photograph

#### Worst Case Radiated Emission

For electronic filing, the radiated emission configurations photograph is saved with filename: config photos.doc

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## INTERTEK TESTING SERVICES

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### C. Test Result

**MGA Entertainment (HK) Ltd.  
Bratz 337966F7C**

**Table 4(a)**

- 1) Unwanted emission from CARRIER  $\pm 6.25\text{kHz}$  to CARRIER  $\pm 31.25\text{kHz}$

(Refer to the plots which is saved with filename: spurious.pdf)

Region	Unwanted emission	
	Channel 4	Channel 11
CARRIER $\pm 6.25\text{kHz}$ to $\pm 12.5\text{kHz}$	$<25\text{dB}$	$<25\text{dB}$
CARRIER $\pm 12.5\text{kHz}$ to $\pm 31.25\text{kHz}$	$<35\text{dB}$	$<35\text{dB}$

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## INTERTEK TESTING SERVICES

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**Table 4(b): Channel A**

<b>Frequency (MHz)</b>	<b>Effective Radiated Power (dBm)</b>	<b>Transmission Power (dBm)</b>	<b>Attenuation (dBc)</b>	<b>Limit (dB)</b>	<b>Margin (dB)</b>
925.325	-30.8	19.5	50.3	32.5	-17.8
1387.987	-32.4	19.5	51.9	32.5	-19.4
1850.650	-30.8	19.5	50.3	32.5	-17.8
2313.312	-24.9	19.5	44.4	32.5	-11.9
2775.975	-32.4	19.5	51.9	32.5	-19.4
3238.637	-49.6	19.5	69.1	32.5	-36.6
3701.300	-36.6	19.5	56.1	32.5	-23.6
4163.963	-38.9	19.5	58.4	32.5	-25.9
4626.625	-39.4	19.5	58.9	32.5	-26.4

- Remark: 1. Transmission power is 19.5 dBm or -10.5 dB(W).
2. According to Section 95.635(b7), the unwanted emission should be attenuated below TP by at least  $43 + 10 \log_{10} (TP)$  dB or 32.5 dB.
3. The test is performed according to ANSI/TIA-603-B-2002.

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007

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## INTERTEK TESTING SERVICES

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**Table 4(b): Channel B**

<b>Frequency (MHz)</b>	<b>Effective Radiated Power (dBm)</b>	<b>Transmission Power (dBm)</b>	<b>Attenuation (dBc)</b>	<b>Limit (dB)</b>	<b>Margin (dB)</b>
925.374	-32.4	19.5	51.9	32.5	-19.4
1388.061	-32.6	19.5	52.1	32.5	-19.6
1850.748	-31.7	19.5	51.2	32.5	-18.7
2313.435	-25.9	19.5	45.4	32.5	-12.9
2776.122	-32.6	19.5	52.1	32.5	-19.6
3238.809	-50.4	19.5	69.9	32.5	-37.4
3701.496	-37.4	19.5	56.9	32.5	-24.4
4164.183	-36.6	19.5	56.1	32.5	-23.6
4626.870	-41.4	19.5	60.9	32.5	-28.4

- Remark: 1. Transmission power is 19.5 dBm or -10.5 dB(W).
2. According to Section 95.635(b7), the unwanted emission should be attenuated below TP by at least  $43 + 10 \log_{10} (TP)$  dB or 32.5 dB.
3. The test is performed according to ANSI/TIA-603-B-2002.

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007

**INTERTEK TESTING SERVICES**

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**EXHIBIT 7**

**FREQUENCY STABILITY**



## INTERTEK TESTING SERVICES

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### 7.0 Frequency Stability

The frequency tolerance was tested in normal condition & over extreme ambient conditions with respect to voltage and temperature variation.

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## INTERTEK TESTING SERVICES

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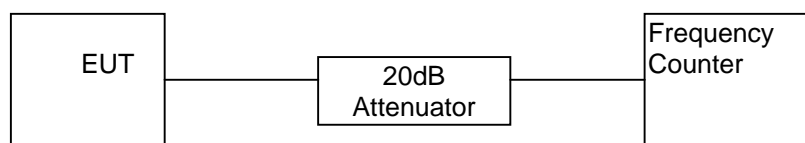
### 7.1 Frequency Tolerance (Section 95.627)

#### A. Test Equipment

Equipment	Brand Name	Model No.
20 dB RF Attenuator	Bird	8304-200-N
Frequency Counter	OPTOELECTRONICS	3000A

#### B. Testing Procedure

- 1) Set-up the test equipment in the following configuration:



- 2) Measure all transmit channel frequencies in MHz.

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**INTERTEK TESTING SERVICES**

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**C. Test Result**

**Table 5**

**MGA Entertainment (HK) Ltd.  
Bratz 337966F7C**

**Frequency Tolerance**

Channel	Frequency (MHz)	Measured Frequency (MHz)	Tolerance (%)
A	462.66250	462.66275	0.000054
B	462.68750	462.68774	0.000052

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## INTERTEK TESTING SERVICES

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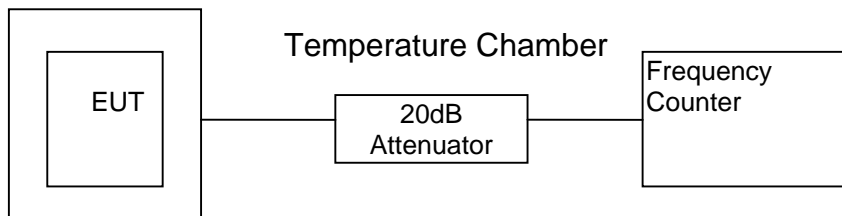
### 7.2 Frequency Stability - Temperature (Section 2.1055)

#### A. Test Equipment

Equipment	Brand Name	Model No.
20 dB RF Attenuator	Bird	8304-200-N
Frequency Counter	OPTOELECTRONICS	3000A

#### B. Testing Procedure

- 1) Set-up the test equipment in the following configuration:



- 2) Set the Temperature Chamber to 20°C and stabilize the EUT temperature for one hour. Set transmitter ON for two minutes.
- 3) Measure the channel frequency of channel 4, 11 in MHz.
- 4) Turn the EUT OFF.
- 5) Repeat the above procedure from -20°C to 50°C with 10°C increment.

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## INTERTEK TESTING SERVICES

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### C. Test Result

**Table 6(a)**

**MGA Entertainment (HK) Ltd.  
Bratz 337966F7C**

### Frequency Deviation with Temperature Variation

Channel : A

Temperature (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Deviation (%)	*Frequency Tolerance with reference to its value at +20°C (ppm)
-20	462.66250	462.66288	0.000082	0.3
-10	462.66250	462.66330	0.000173	1.2
0	462.66250	462.66353	0.000223	1.7
10	462.66250	462.66358	0.000233	1.8
20	462.66250	462.66275	0.000054	0.0
30	462.66250	462.66291	0.000089	0.3
40	462.66250	462.66266	0.000035	-0.2
50	462.66250	462.66240	-0.000022	-0.8

\*Remark: This column is presentable for Industry Canada Certification only.

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007

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## INTERTEK TESTING SERVICES

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### C. Test Result

**Table 6(b)**

**MGA Entertainment (HK) Ltd.  
Bratz 337966F7C**

### Frequency Deviation with Temperature Variation

Channel : B

Temperature (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Deviation (%)	*Frequency Tolerance with reference to its value at +20°C (ppm)
-20	462.68750	462.68789	0.000084	0.3
-10	462.68750	462.68832	0.000177	1.3
0	462.68750	462.68852	0.000220	1.7
10	462.68750	462.68858	0.000233	1.8
20	462.68750	462.68774	0.000052	0.0
30	462.68750	462.68790	0.000086	0.3
40	462.68750	462.68767	0.000037	-0.2
50	462.68750	462.68742	-0.000017	-0.7

\*Remark: This column is presentable for Industry Canada Certification only.

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007

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## INTERTEK TESTING SERVICES

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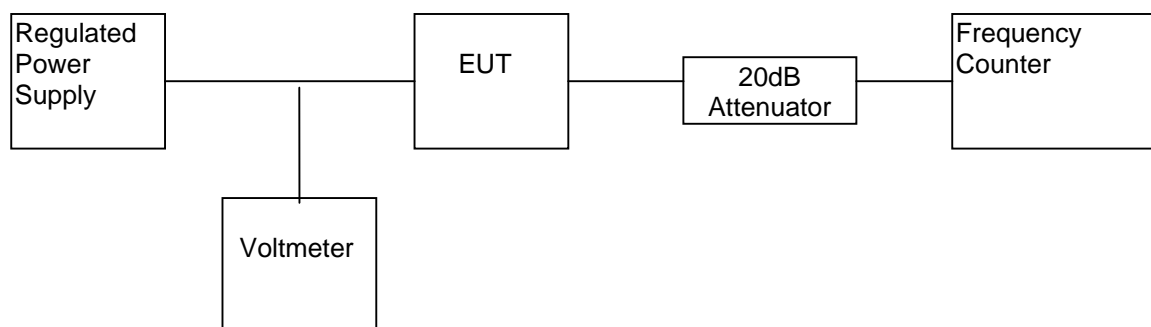
### 7.3 Frequency Stability - Voltage (Section 2.995)

#### A. Test Equipment

Equipment	Brand Name	Model No.
Regulated Power Supply	PAD	30-35L
20 dB RF Attenuator	Bird	8304-200-N
Voltage meter	Fluke	87
Frequency Counter	OPTOELECTRONICS	3000A

#### B. Testing Procedure

- 1) Set-up the test equipment in the following configuration:



- 2) Vary the level of regulated power supply to the manufacturer specified battery end point of the EUT.
- 3) Measure the channel frequency of channel 4 and 11 in MHz.

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## INTERTEK TESTING SERVICES

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### C. Test Result

**Table 7**

**MGA Entertainment (HK) Ltd.  
Bratz 337966F7C**

### Frequency Deviation with Voltage Variation

The manufacturer specified battery end point 4.5V

Channel	Frequency (MHz)	Measured Frequency (MHz)	Tolerance (%)
A	462.66250	462.66217	-0.000071
B	462.68750	462.68712	-0.000082



**INTERTEK TESTING SERVICES**

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**EXHIBIT 8**

**DIGITAL DATA TRANSMISSION**

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## INTERTEK TESTING SERVICES

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### 8.0 Digital Data Transmission (Section 95.193(b)(2))

#### A. Test Equipment

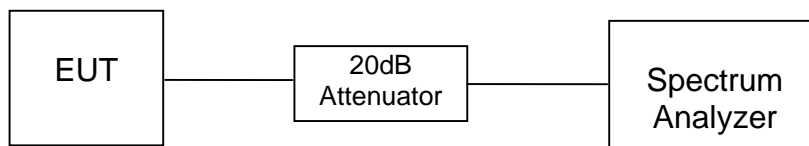
Equipment	Brand Name	Model No.
Oscilloscope	Tektronix	TDS 3012B
20 dB RF Attenuator	Bird	8304-200-N
Spectrum Analyzer	HP	8951EM

#### B. Testing Procedure

- 1) Set-up the test equipment in the following configuration for length of digital data measurement:



- 2) The probe interface is connected to the digital data input of EUT's modulator. The EUT is keyed into maximum characteristics.
- 3) The length of digital data is measured with the oscilloscope.
- 4) Set-up the test equipment in the following configuration for period of digital data transmission measurement:



- 5) The digital data transmission of EUT is continuously initiated within 60 seconds.
- 6) The period of digital data transmission is measured with the spectrum analyzer set at 60 seconds swept time and 10dB/div.

#### C. Test Result

The length of digital data is measured to be 750ms (see Plot B) and the digital data transmission can not be repeated within 30 seconds (see Plot A).

For the electronic filing, the digital data transmission plot is saved with filename: ddt.pdf

Test Engineer: Kenneth C. C. Lam

Date of Test: April 11, 2007-May 10, 2007

**INTERTEK TESTING SERVICES**

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**EXHIBIT 9**

**TECHNICAL SPECIFICATIONS**

## INTERTEK TESTING SERVICES

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### 9.0 Technical Specifications

## INTERTEK TESTING SERVICES

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### 9.1 Block Diagram

For electronic filing, the block diagram of the transceiver is saved with filename: block.pdf

Figure 9.1 Block Diagram

## INTERTEK TESTING SERVICES

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### 9.2 Schematic Diagram

For electronic filing, the schematic diagram of the transceiver is saved with filename: circuit.pdf

Figure 9.2 Schematic Diagram

**INTERTEK TESTING SERVICES**

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**EXHIBIT 10**

**PRODUCT LABELLING**

## INTERTEK TESTING SERVICES

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### 10.0 Product Labelling



## INTERTEK TESTING SERVICES

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### 10.1 Label Artwork & Location

Figure 10.1 Label Artwork & Location

An engineering drawing of the label which will be permanently affixed to the unit.  
For electronic filing, the label artwork & location are saved with filename: label.pdf

**INTERTEK TESTING SERVICES**

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**EXHIBIT 11**  
**PHOTOGRAPHS**

## INTERTEK TESTING SERVICES

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### 11.0 Equipment Photographs

For electronic filing, photographs of the tested EUT are saved with filename: external photos.doc and internal photos.doc

**INTERTEK TESTING SERVICES**

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**EXHIBIT 12**

**INSTRUCTION MANUAL**

## INTERTEK TESTING SERVICES

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### 12.0 Instruction Manual

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

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

**INTERTEK TESTING SERVICES**

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**EXHIBIT 13**

**TUNE UP PROCEDURE**

## INTERTEK TESTING SERVICES

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### 13.0 Tune Up Procedure

For electronic filing, a preliminary copy of the Tune Up Procedure is saved with filename: tuneup.pdf

**INTERTEK TESTING SERVICES**

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**EXHIBIT 14**

**PART LIST**



## INTERTEK TESTING SERVICES

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### 14.0 Part List

For electronic filing, a preliminary copy of the Part List is saved with filename: partlist.pdf

**EXHIBIT 15**  
**INPUT CURRENT**

## INTERTEK TESTING SERVICES

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### 15.0 Input Current

The input current to final r.f. stage at 6.0VDC is 0.32A.

**INTERTEK TESTING SERVICES**

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**EXHIBIT 16**

**RF EXPOSURE INFO**

## INTERTEK TESTING SERVICES

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### 16.0 RF Exposure Info

The RF Safety Information is shown on P.14 of User Manual.

**INTERTEK TESTING SERVICES**

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**EXHIBIT 17**

**CONFIDENTIALITY REQUEST**

## INTERTEK TESTING SERVICES

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### 17.0 Confidentiality Request

For electronic filing, a confidentiality request is saved with filename: request.pdf