

FCC Part 15B


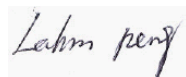

Measurement and Test Report

For

FUFU LIFESTYLE CO., LIMITED

**UNIT 706, HALESON BUILDING, NO. 1 JUBILEE STREET, CENTRAL,
HONG KONG**

FCC ID: ZF566888RX

Report Concerns: Original Report	Equipment Type: Rechargeable Egg
Model:	<u>C1</u>
Report No.:	<u>STR11048006I</u>
Test Date:	<u>2011-04-01 to 2011-04-12</u>
Issue Date:	<u>2011-04-22</u>
Tested By:	<u>Galy He / Engineer</u> 
Reviewed By:	<u>Lahm Peng / EMC Manager</u> 
Approved & Authorized By:	<u>Jandy so/PSQ Manager</u> 
Prepared By:	SEM.Test Compliance Service Co., Ltd 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C. (518101) Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: www.semtest.com.cn

Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: FUFU LIFESTYLE CO., LIMITED
Address of applicant: UNIT 706, HALESON BUILDING, NO. 1 JUBILEE STREET
CENTRAL, HONG KONG

Manufacturer: BLUE OCEAN INNOVATION LIMITED
Address of manufacturer: Sima Village, Chang Ping Town, Dongguan, Guangdong,
China

General Description of E.U.T

Items	Description
EUT Description:	Rechargeable Egg
Trade Name:	EXTASE
Model No.:	C1
Rated Voltage:	DC 3.7 V Battery
Rated Current:	95mA
Rated Power:	0.35W
Size:	6.5x3.2x2.4 cm

The test data is gathered from a production sample, provided by the manufacturer.

1.2 Test Standards

The following report is prepared on behalf of the FUFU LIFESTYLE CO., LIMITED in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart B, and section 15.205, 15.107, and 15.109 rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the Operating Instructions.

1.4 Test Facility

- **FCC – Registration No.: 994117**

SEM.Test Compliance Services Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 994117.

- **Industry Canada (IC) Registration No.: 7673A**

The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**

Shenzhen SEM.Test Electronics Service Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C (518101)

1.5 EUT Exercise Software

The EUT exercise program used during the testing was designed to exercise the system components.

1.6 Accessories Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook	ASUS	XR55	/
/	/	/	/

1.7 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
Charging Cable	1.1	Unshielded	Without Core
/	/	/	/

2. SUMMARY OF TEST RESULTS

Description of Test	Result
§15.107 (a) Conducted Emission	Compliant
§15.109(a) Radiated Emission	Compliant

3. §15.107 (a) CONDUCTED EMISSIONS

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

3.2 Test Equipment List and Details

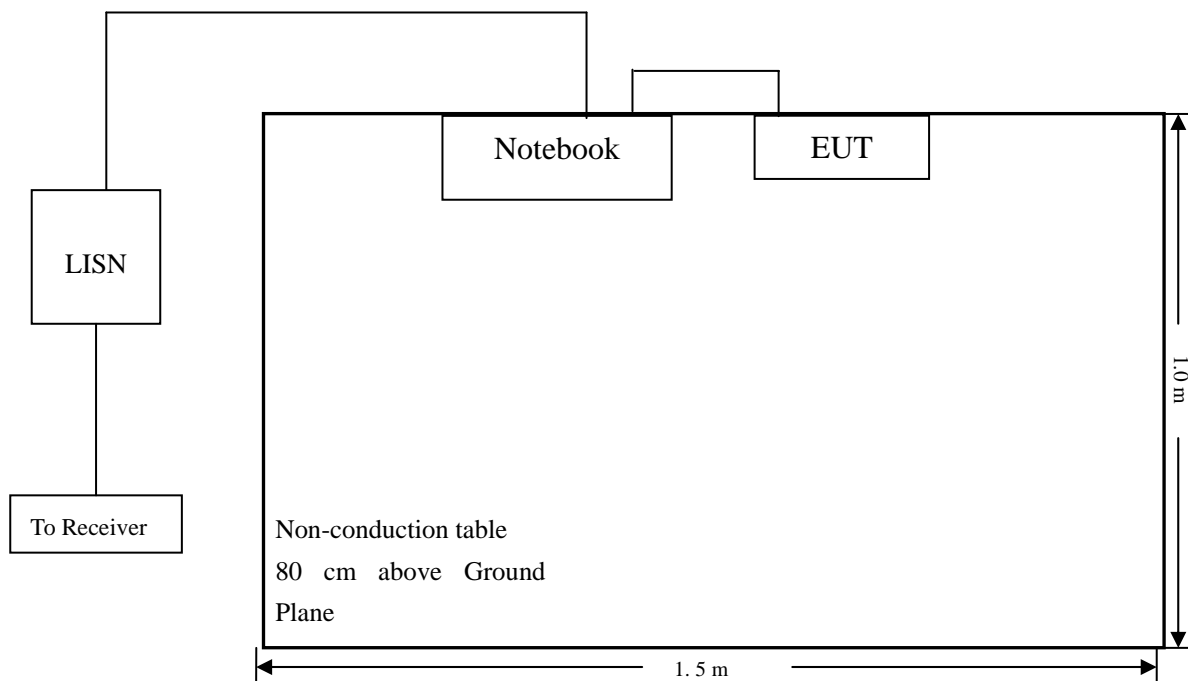
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2010-12-20	2011-12-19
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2010-12-20	2011-12-19
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2010-12-20	2011-12-19

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

3.3 Test Procedure

Test is conducting under the description of ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	52%
ATM Pressure:	1011 mbar

3.6 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the FCC 15.107 Conducted margin for a Class B device, with the *worst* margin reading of:

-8.95 dB μ V at **0.430 MHz** in the **Line** mode, **Peak** detector, 0.15-30MHz

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

Conducted Disturbance

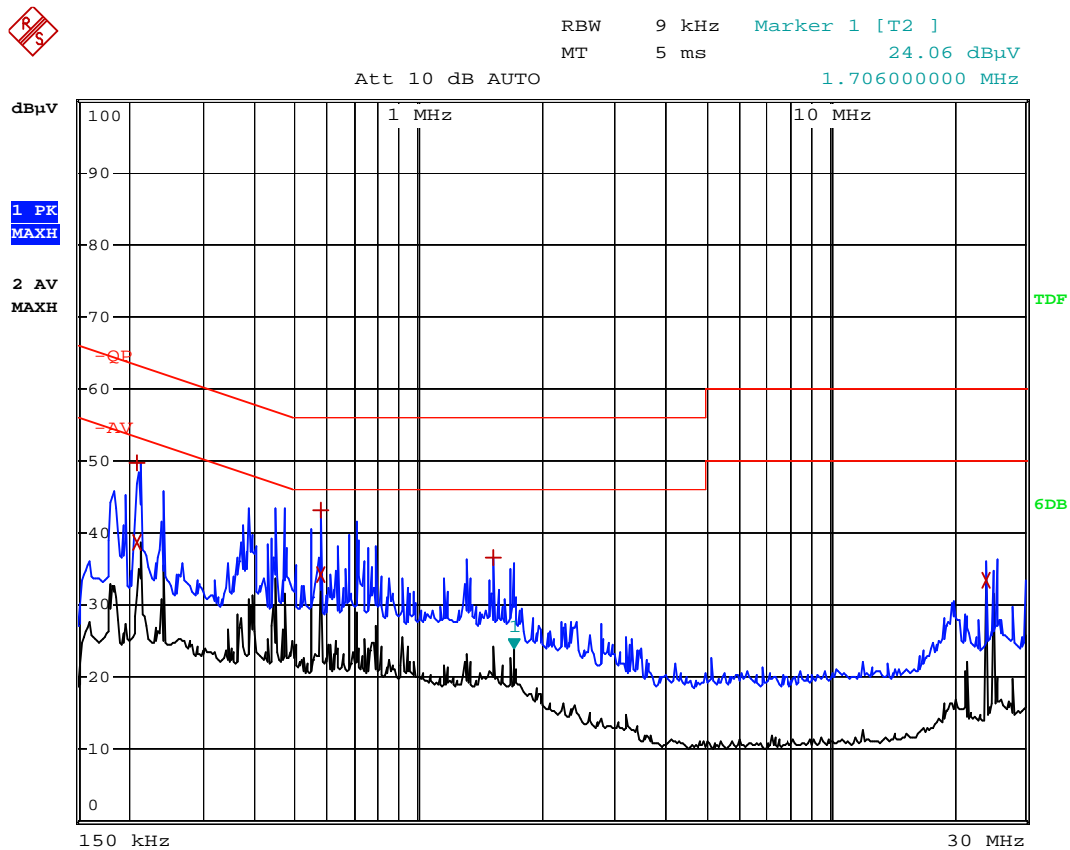
EUT: Rechargeable Egg

M/N: C1

Operating Condition: Charging

Test Specification: N

Comment: AC 120V/60Hz, USB 5V



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	210 kHz	49.81	-13.39
2 Average	210 kHz	38.64	-14.55
1 Max Peak	578 kHz	43.16	-12.83
2 Average	578 kHz	34.38	-11.61
1 Max Peak	1.53 MHz	36.72	-19.27
2 Average	23.982 MHz	33.55	-16.44

Plot of Conducted Emissions Test Data

Conducted Disturbance

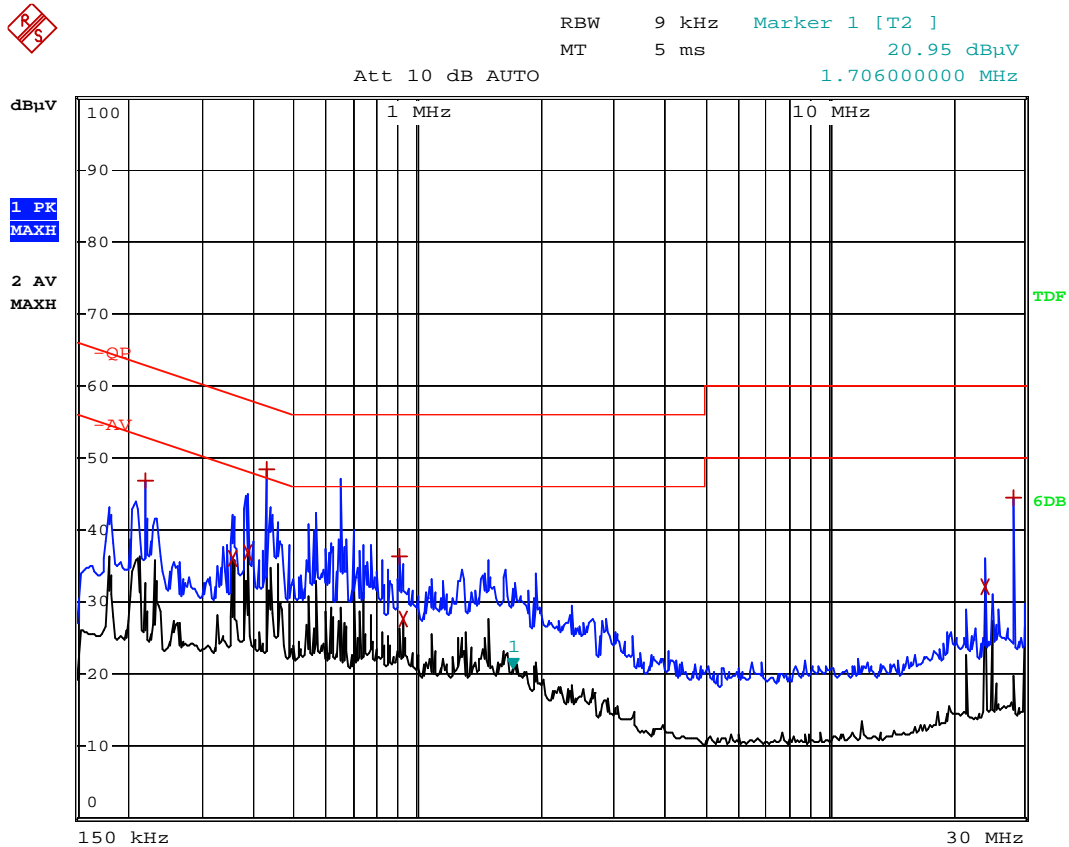
EUT: Rechargeable Egg

M/N: C1

Operating Condition: Charging

Test Specification: L

Comment: AC 120V/60Hz, USB 5V



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	218 kHz	46.87	-16.02
2 Average	354 kHz	36.09	-12.76
2 Average	386 kHz	36.96	-11.18
1 Max Peak	430 kHz	48.29	-8.95
1 Max Peak	902 kHz	36.36	-19.63
2 Average	926 kHz	27.80	-18.19
2 Average	23.986 MHz	32.04	-17.95
1 Max Peak	28.182 MHz	44.53	-15.46

4. §15.109(a)- RADIATED EMISSION

4.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Equipment List and Details

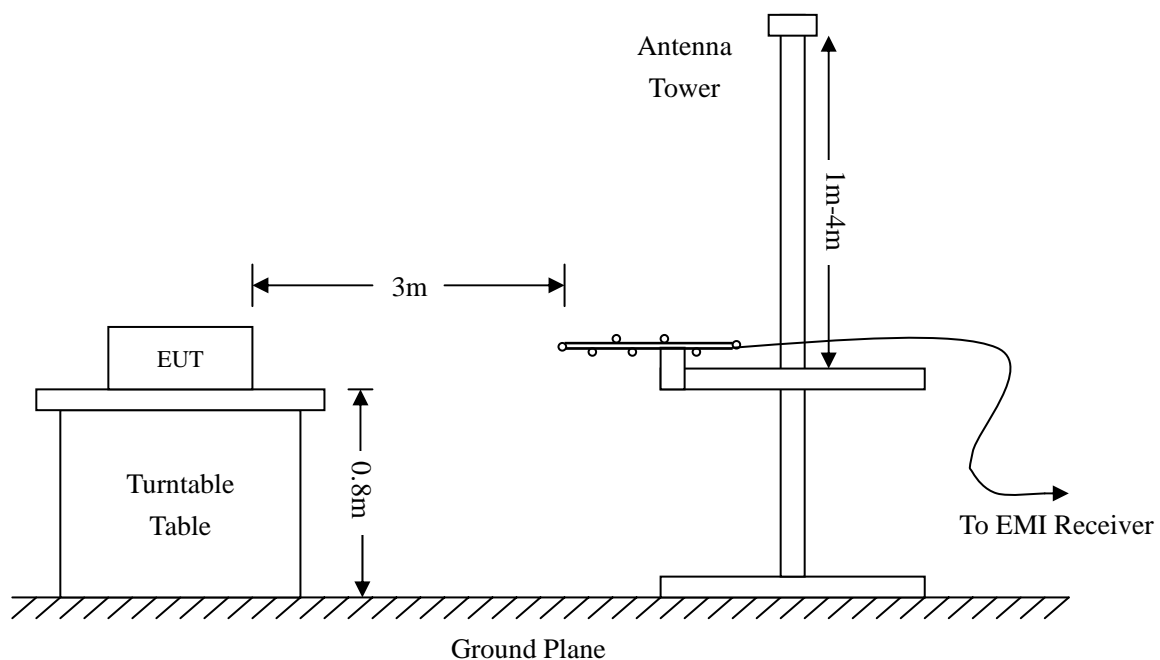
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2010-12-20	2011-12-19
EMI Test Receiver	R&S	ESVB	825471/005	2010-12-20	2011-12-19
Positioning Controller	C&C	CC-C-1F	N/A	2010-12-20	2011-12-19
RF Switch	EM	EMSW18	SW060023	2010-12-20	2011-12-19
Pre-amplifier	Agilent	8447F	3113A06717	2010-12-20	2011-12-19
Pre-amplifier	Compliance Direction	PAP-0118	24002	2010-12-20	2011-12-19
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2011-01-09	2012-01-08
Horn Antenna	ETS	3117	00086197	2011-01-09	2012-01-08

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.109 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.



4.4 Test Receiver Setup

During the radiated emission test for above 1GHz, the test receiver was set with the following configurations:

For peak detector:

RBW = 1000kHz, VBW = 3000kHz, Sweep Time = Auto

For average detector:

RBW = 1000kHz, VBW = 10Hz, Sweep Time = Auto

4.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} - \text{Corr. Factor}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15B Limit}$$

4.6 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

4.7 Summary of Test Results/Plots

According to the data, the EUT complied with the FCC 15B Class B standards, and had the worst margin of:

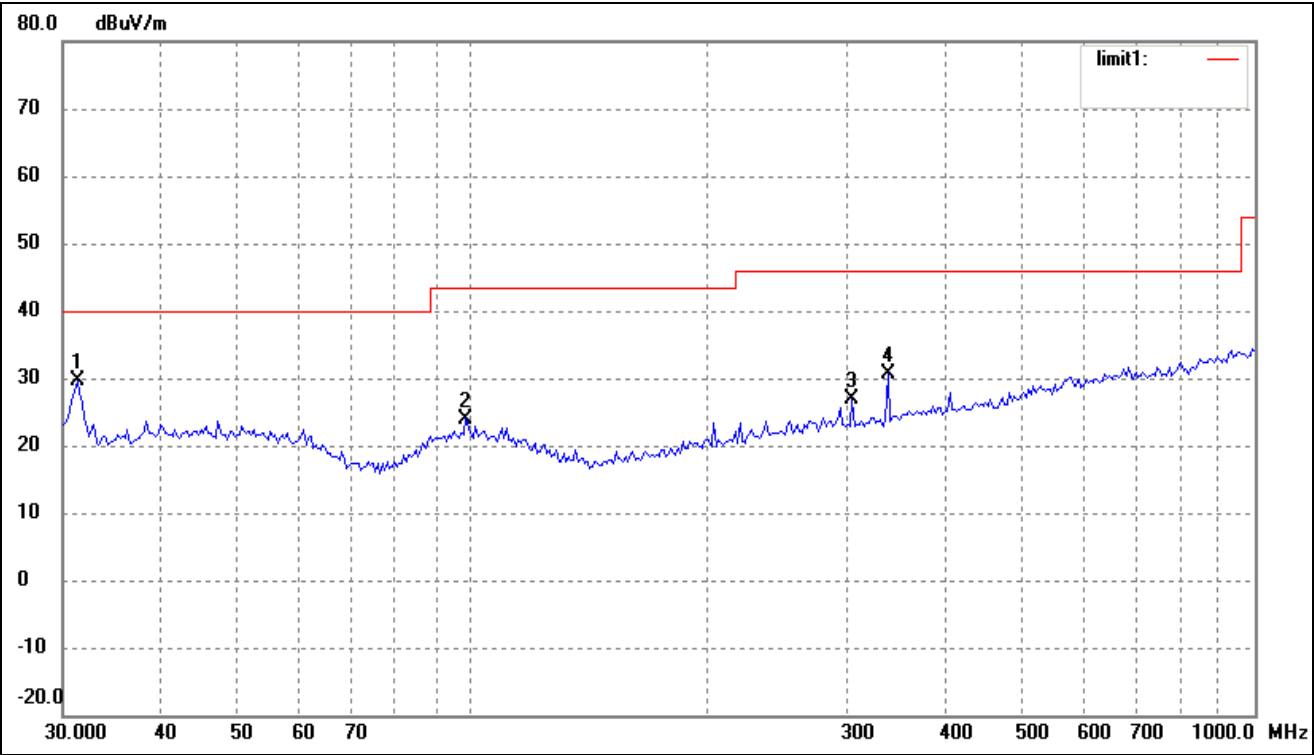
-10.43 dB μ V at 31.2893 MHz in the Horizontal polarization, Receiving mode, 30 MHz to 1 GHz, 3Meters

-6.28 dB μ V at 958.7943 MHz in the Vertical polarization, Charging Model, 30 MHz to 5 GHz, 3Meters

Plot of Radiation Emissions Test

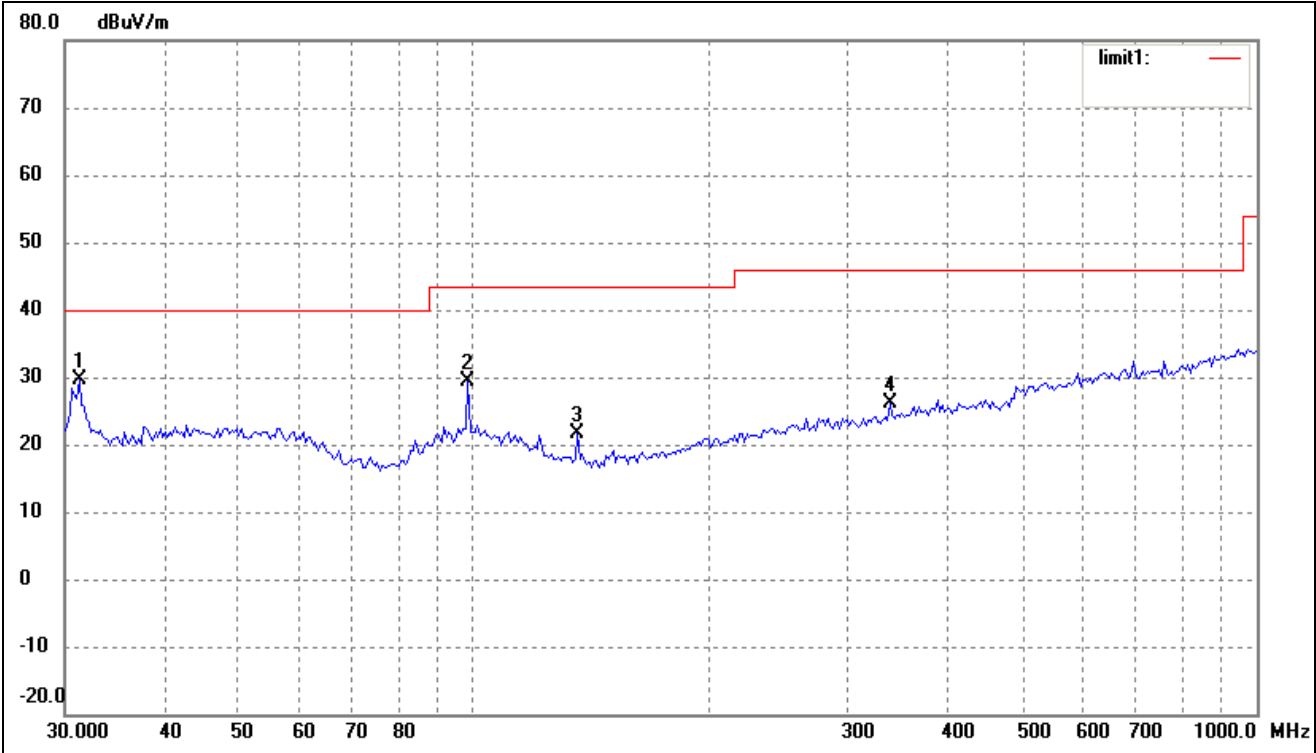
Radiated Disturbance
EUT: Rechargeable Egg
M/N: C1
Operating Condition: Receiving
Test Specification: Horizontal & Vertical
Comment: DC 3.7V battery

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	31.2893	22.95	6.62	29.57	40.00	-10.43	360	100	peak
2	98.1419	16.31	7.69	24.00	43.50	-19.50	360	100	peak
3	305.6800	18.22	8.70	26.92	46.00	-19.08	360	100	peak
4	339.5888	21.48	9.22	30.70	46.00	-15.30	360	100	peak

Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	31.2893	22.90	6.62	29.52	40.00	-10.48	360	100	peak
2	98.1419	21.62	7.69	29.31	43.50	-14.19	360	100	peak
3	135.5062	18.10	3.51	21.61	43.50	-21.89	360	100	peak
4	339.5888	16.86	9.22	26.08	46.00	-19.92	360	100	peak

Radiated Disturbance

EUT: Rechargeable Egg

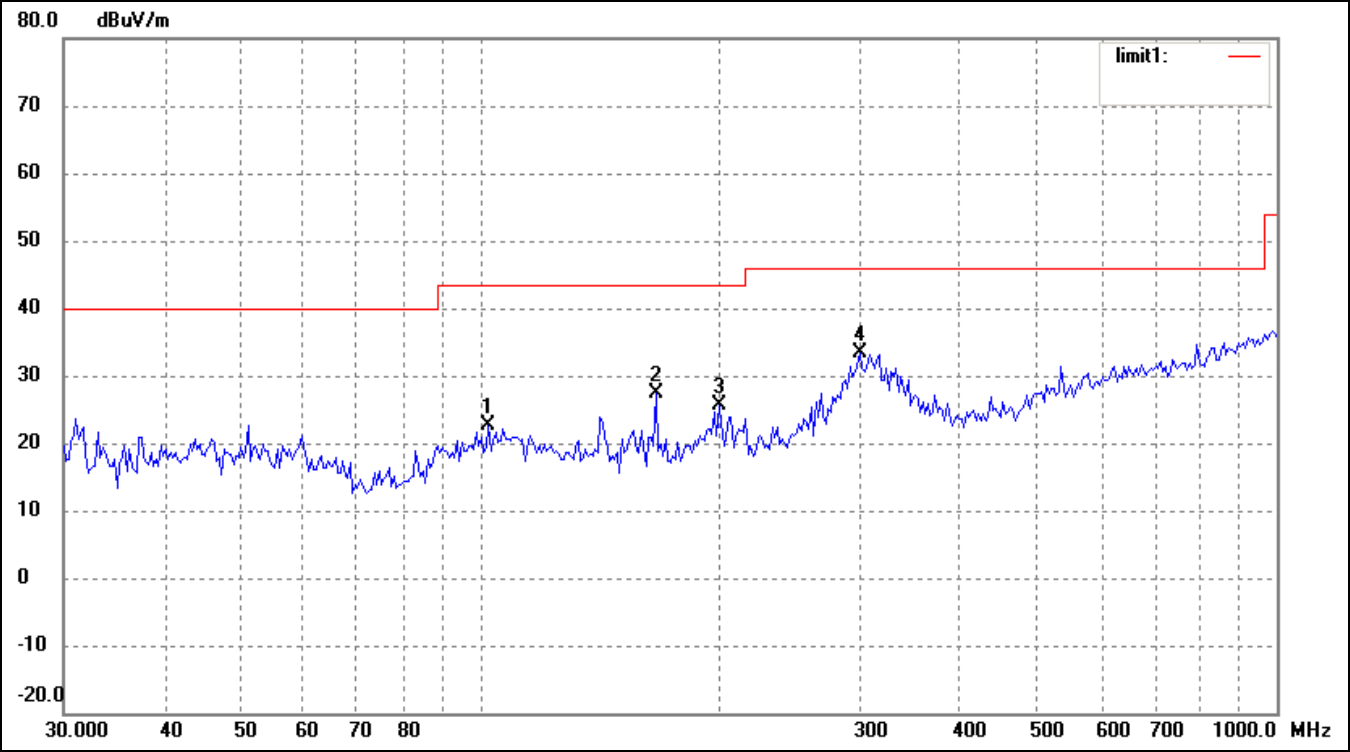
M/N: C1

Operating Condition: Charging

Test Specification: Horizontal & Vertical

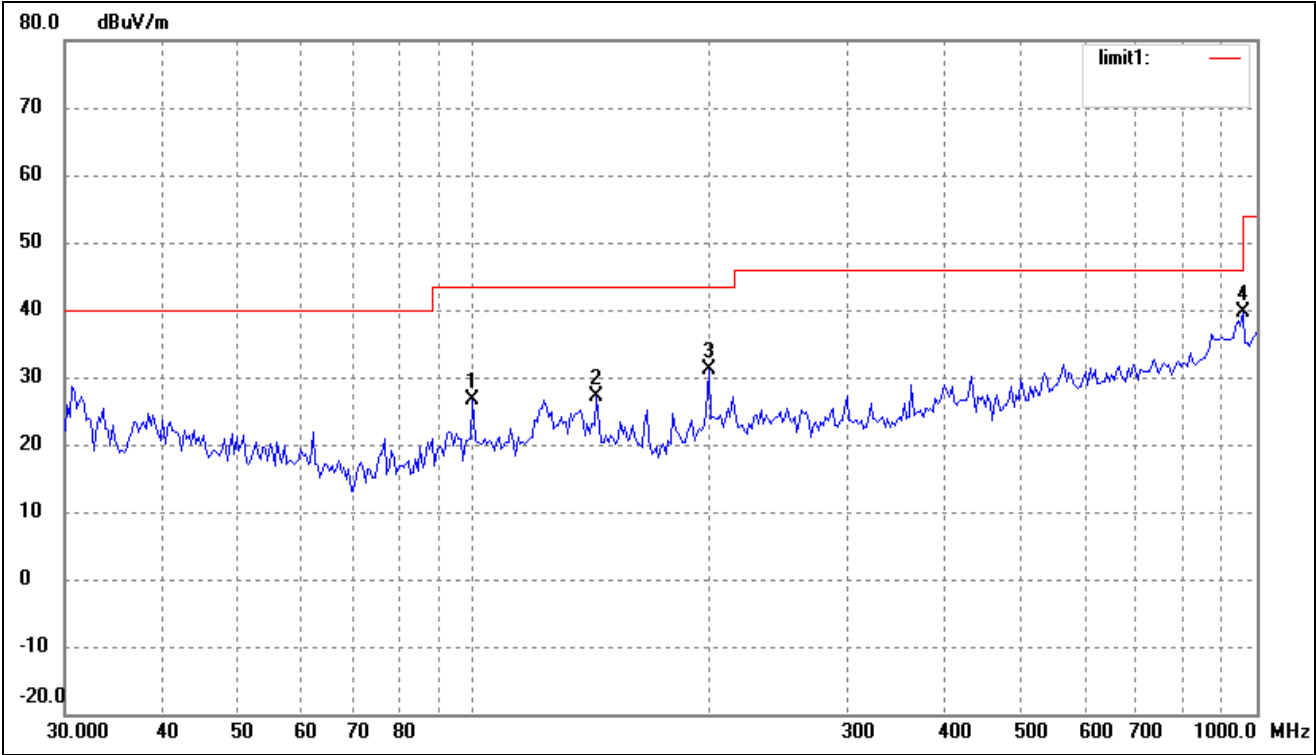
Comment: AC120V/60Hz; Connect to PC, USB 5V

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	102.3597	14.28	8.23	22.51	43.50	-20.99	360	100	peak
2	166.0680	22.57	4.75	27.32	43.50	-16.18	360	100	peak
3	199.2855	19.00	6.58	25.58	43.50	-17.92	360	100	peak
4	299.3158	23.50	9.77	33.27	46.00	-12.73	360	100	peak

Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	99.5281	18.24	8.40	26.64	43.50	-16.86	360	100	peak
2	143.3261	23.07	4.00	27.07	43.50	-16.43	360	100	peak
3	199.2855	24.60	6.58	31.18	43.50	-12.32	360	100	peak
4	958.7943	17.74	21.98	39.72	46.00	-6.28	360	100	peak

***** END OF REPORT *****