



FCC PART 15.247

TEST REPORT

For

Lorex Technology Inc.

250 Royal Crest Court, Markham, Ontario, L3R 3S1, Canada

FCC ID: UCZC2415

| | |
|--|--|
| Report Type: Class II Permissive Change | Product Type: Digital FHSS Device (Camera Unit) |
| Test Engineer: <u>David Lee</u> | <i>David Lee</i> |
| Report Number: <u>RSZ150323005-00A1</u> | |
| Report Date: <u>2015-05-05</u> | |
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Note: This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.

TABLE OF CONTENTS

| | |
|--|-----------|
| GENERAL INFORMATION | 4 |
| PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) | 4 |
| OBJECTIVE | 4 |
| RELATED SUBMITTAL(S)/GRANT(S)..... | 4 |
| TEST METHODOLOGY | 5 |
| TEST FACILITY..... | 5 |
| SYSTEM TEST CONFIGURATION | 6 |
| DESCRIPTION OF TEST CONFIGURATION | 6 |
| EUT EXERCISE SOFTWARE | 6 |
| EQUIPMENT MODIFICATIONS | 6 |
| EXTERNAL I/O CABLE..... | 6 |
| BLOCK DIAGRAM OF TEST SETUP | 6 |
| SUMMARY OF TEST RESULTS | 7 |
| FCC §15.247 (i) & §1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE) | 8 |
| APPLICABLE STANDARD | 8 |
| FCC §15.203 – ANTENNA REQUIREMENT | 9 |
| APPLICABLE STANDARD | 9 |
| ANTENNA CONNECTOR CONSTRUCTION | 9 |
| FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS | 10 |
| APPLICABLE STANDARD | 10 |
| MEASUREMENT UNCERTAINTY | 10 |
| EUT SETUP | 10 |
| EMI TEST RECEIVER SETUP | 11 |
| TEST PROCEDURE | 11 |
| TEST EQUIPMENT LIST AND DETAILS..... | 11 |
| CORRECTED FACTOR & MARGIN CALCULATION | 12 |
| TEST RESULTS SUMMARY | 12 |
| TEST DATA | 12 |
| FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS | 17 |
| APPLICABLE STANDARD | 17 |
| MEASUREMENT UNCERTAINTY | 17 |
| EUT SETUP | 17 |
| EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP | 18 |
| TEST PROCEDURE | 18 |
| CORRECTED AMPLITUDE & MARGIN CALCULATION | 19 |
| TEST EQUIPMENT LIST AND DETAILS..... | 19 |
| CORRECTED AMPLITUDE & MARGIN CALCULATION | 19 |
| TEST RESULTS SUMMARY | 20 |
| TEST DATA | 20 |
| FCC §15.247(a) (1)-CHANNEL SEPARATION | 22 |
| APPLICABLE STANDARD | 22 |
| TEST PROCEDURE | 22 |
| TEST EQUIPMENT LIST AND DETAILS..... | 22 |
| TEST DATA | 22 |
| FCC §15.247(a) (1) – 20 dB EMISSION BANDWIDTH | 23 |

| | |
|--|-----------|
| APPLICABLE STANDARD | 23 |
| TEST PROCEDURE | 23 |
| TEST EQUIPMENT LIST AND DETAILS..... | 23 |
| TEST DATA | 23 |
| FCC §15.247(a) (1) (iii)-QUANTITY OF HOPPING CHANNEL..... | 24 |
| APPLICABLE STANDARD | 24 |
| TEST PROCEDURE | 24 |
| TEST EQUIPMENT LIST AND DETAILS..... | 24 |
| TEST DATA | 24 |
| FCC §15.247(a) (1) (iii) -TIME OF OCCUPANCY (DWELL TIME)..... | 25 |
| APPLICABLE STANDARD | 25 |
| TEST PROCEDURE | 25 |
| TEST EQUIPMENT LIST AND DETAILS..... | 25 |
| TEST DATA | 25 |
| FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT | 26 |
| APPLICABLE STANDARD | 26 |
| TEST PROCEDURE | 26 |
| TEST EQUIPMENT LIST AND DETAILS..... | 26 |
| TEST DATA | 26 |
| FCC §15.247(d) - BAND EDGES | 27 |
| APPLICABLE STANDARD | 27 |
| TEST PROCEDURE | 27 |
| TEST EQUIPMENT LIST AND DETAILS..... | 27 |
| TEST DATA | 27 |
| PRODUCT SIMILARITY DECLARATION LETTER..... | 28 |

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Lorex Technology Inc.*’s product, model number: *BB2425 (FCC ID: UCZC2415)* or the "EUT" in this report was a *camera unit of digital FHSS device, named as 2.4G Baby monitor BB2425 by applicant*, which was measured approximately: 15.3 cm (L) x 9.0 cm (W) x 10.1 cm (H), rated input voltage: DC 6V from Adapter.

KINGS Adapter Information:

Model: Y07FF-060-0800U
Input: 100-240V~50/60 Hz 0.25A
Output: DC 6V 800mA

G.Credit Adapter Information:

Model: HX-AD060080-U02
Input: 100-240V~50/60 Hz 0.15A
Output: DC 6V 0.8A

5ESP Adapter Information:

Model: 5E-AD060080-U
Input: 100-240V~50/60 Hz 0.15A
Output: DC 6V 0.8A

Note: The series product, model BB2415, LB215, BB2415AC1 and BB2425, they are identical schematics, just named differently due to market purpose, which was explained in the attached product similarity declaration letter, and the model BB2425 was selected for testing.

**All measurement and test data in this report was gathered from production sample serial number: 1503204 (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2015-03-23.*

Objective

This report is prepared on behalf of *Lorex Technology Inc.* in accordance with Part 2-Subpart J, Part 15-Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine the compliance of EUT with FCC Part 15, Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Note: This is the CIIPC application of the device based on the original report RSZ131105004-00, the differences between the original device and the current one are as follows:

1. Adding two adapters: one brand is **KINGS**, the other one’s brand is **G.Credit**.
2. Changing the product name from “2.4G baby monitor BB2415” to “2.4G Baby monitor BB2425”.
3. Changing the model number from “BB2415, LB215 and BB2415AC1” to “BB2415, LB215, BB2415AC1 and BB2425”.

For the change made to the device, the test items “Conducted Emissions” and “Radiated Emissions” were performed, so the data of these two items and the related EUT and Setup photos have been updated, and all the other test data and photos please refer to the report RSZ131105004-00 with FCC ID: UCZC2415, which was granted on 2014-01-25.

Related Submittal(s)/Grant(s)

Submitted with the monitor unit of a system with FCC ID: UCZM5410

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, 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.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement uncertainty with radiated emission is 5.91 dB for 30MHz-1GHz and 4.92 dB for above 1GHz, 1.95dB for conducted measurement.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in an engineering mode which was selected by manufacturer.

EUT Exercise Software

No exercise software was used.

Equipment Modifications

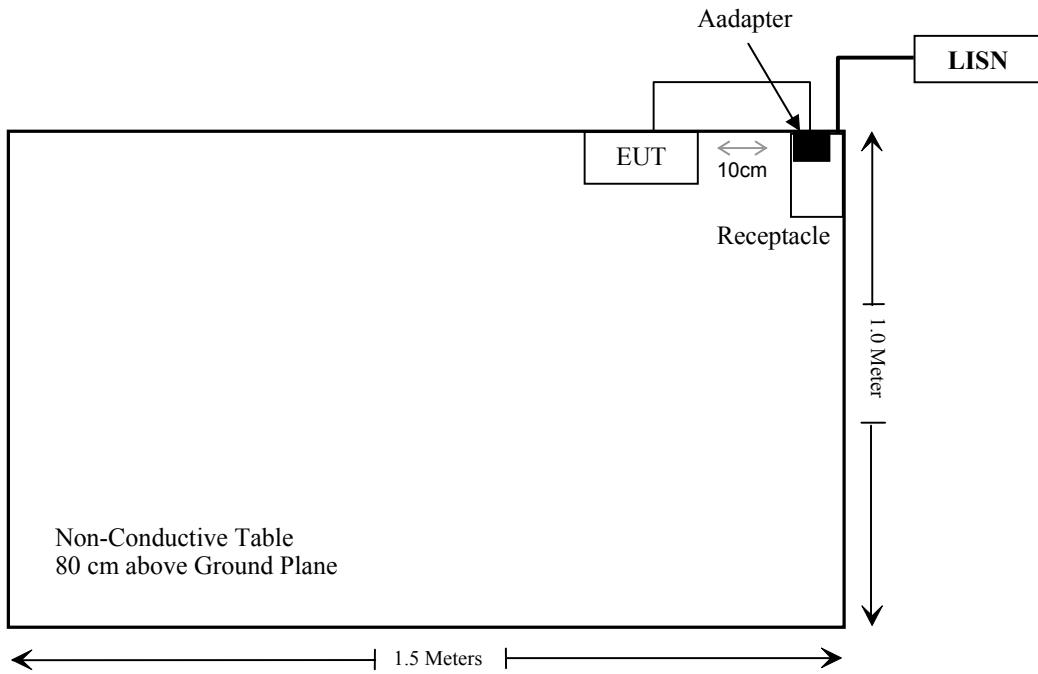
No modification was made to the EUT tested.

External I/O Cable

| Cable Description | Length (m) | From/Port | To |
|---------------------------------------|------------|-----------|---------|
| Un-shielded detachable DC Power Cable | 1.83 | EUT | Adapter |

Block Diagram of Test Setup

For Conducted Emission:



SUMMARY OF TEST RESULTS

| FCC Rules | Description of Test | Result |
|---|------------------------------------|-------------|
| §15.247 (i), §1.1307 (b)(1), §2.1091 | Maximum Permissible Exposure (MPE) | Compliance |
| §15.203 | Antenna Requirement | Compliance |
| §15.207 (a) | Conducted Emissions | Compliance |
| §15.205, §15.209, §15.247(d) | Radiated Emissions | Compliance |
| §15.247 (a)(1) | 20 dB Bandwidth | Compliance* |
| §15.247(a)(1) | Channel Separation | Compliance* |
| §15.247(a)(1)(iii) | Time of Occupancy (Dwell Time) | Compliance* |
| §15.247(a)(1)(iii) | Quantity of hopping channel | Compliance* |
| §15.247(b)(1) | Peak Output Power Measurement | Compliance* |
| §15.247(d) | Band Edges | Compliance* |

Compliance*: Please referred to FCC ID: UCZC2415 granted on 2014-01-25, report No.: RSZ131105004-00, which was tested by Simon Wang.

FCC §15.247 (i) & §1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247 (i) and subpart 1.1307 (b)(1), 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

| Limits for General Population/Uncontrolled Exposure | | | | |
|---|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm ²) | Averaging Time (Minutes) |
| 0.3-1.34 | 614 | 1.63 | *(100) | 30 |
| 1.34-30 | 824/f | 2.19/f | *(180/f ²) | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | / | / | f/1500 | 30 |
| 1500-100,000 | / | / | 1.0 | 30 |

f = frequency in MHz

* = Plane-wave equivalent power density

MPE Calculation

Predication of MPE limit at a given distance

$$S = PG/4\pi R^2$$

Where:

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

| Frequency (MHz) | Antenna Gain | | Conducted Power | | Evaluation Distance (cm) | Power Density (mW/cm ²) | MPE Limit (mW/cm ²) |
|-----------------|--------------|-----------|-----------------|-------|--------------------------|-------------------------------------|---------------------------------|
| | (dBi) | (numeric) | (dBm) | (mW) | | | |
| 2441.250 | 2.0 | 1.58 | 15.06 | 32.06 | 20 | 0.010 | 1.0 |

Note: To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliance

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Antenna Connector Construction

The EUT has one integral antenna arrangement and the maximum gain is 2.0 dBi, fulfill the requirement of this section. Please refer to the internal photos.

Result: Compliance.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207

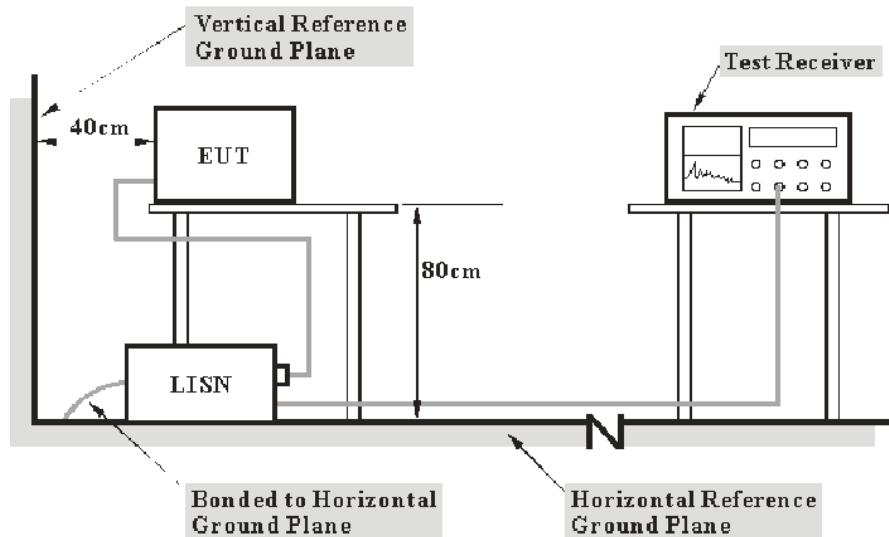
Measurement Uncertainty

Input quantities to be considered for conducted disturbance measurements maybe receiver reading, attenuation of the connection between AMN/ISN and receiver, AMN/ISN voltage division factor, AMN/ISN VDF frequency interpolation and receiver related input quantities, etc.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of conducted disturbance test at Bay Area Compliance Laboratories Corp. (Shenzhen) is shown as below. And the uncertainty will not be taken into consideration for the test data recorded in the report

| Port | Expanded Measurement uncertainty |
|----------|--|
| AC Mains | 3.26 dB (k=2, 95% level of confidence) |
| CAT 3 | 3.70 dB (k=2, 95% level of confidence) |
| CAT 5 | 3.86 dB (k=2, 95% level of confidence) |
| CAT 6 | 4.64 dB (k=2, 95% level of confidence) |

EUT Setup



Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2009 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The adapter was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

| Frequency Range | IF B/W |
|------------------|--------|
| 150 kHz – 30 MHz | 9 kHz |

Test Procedure

During the conducted emission test, the 5ESP adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

Test Equipment List and Details

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-----------------|-------------------|---------|------------------------|------------------|----------------------|
| Rohde & Schwarz | EMI Test Receiver | ESCS30 | 100176 | 2014-06-03 | 2015-06-03 |
| Rohde & Schwarz | LISN | ENV216 | 3560.6650.12-101613-Yb | 2014-12-01 | 2015-12-01 |
| Rohde & Schwarz | LISN | ESH3-Z5 | 100113 | NCR | NCR |
| Rohde & Schwarz | Transient Limiter | ESH3Z2 | DE25985 | 2014-10-15 | 2015-10-15 |
| Rohde & Schwarz | CE Test software | EMC 32 | V8.53 | NCR | NCR |

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Corrected Factor & Margin Calculation

The Corrected factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Correction Factor} = \text{LISN/ISN VDF} + \text{Cable Loss} + \text{Transient Limiter Attenuation}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Results Summary

According to the recorded data in following table, the worst margin reading as below:

4.8 dB at 0.490530 MHz in the **Line** conducted mode for G.Credit adapter

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level is in compliance with the limit if

$$L_m + U_{(Lm)} \leq L_{\text{lim}} + U_{\text{cisp}}$$

in BACL., $U_{(Lm)}$ is less than U_{cisp} , if L_m is less than L_{lim} , it implies that the EUT complies with the limit.

Test Data

Environmental Conditions

| | |
|---------------------------|-----------|
| Temperature: | 26 °C |
| Relative Humidity: | 50 % |
| ATM Pressure: | 100.0 kPa |

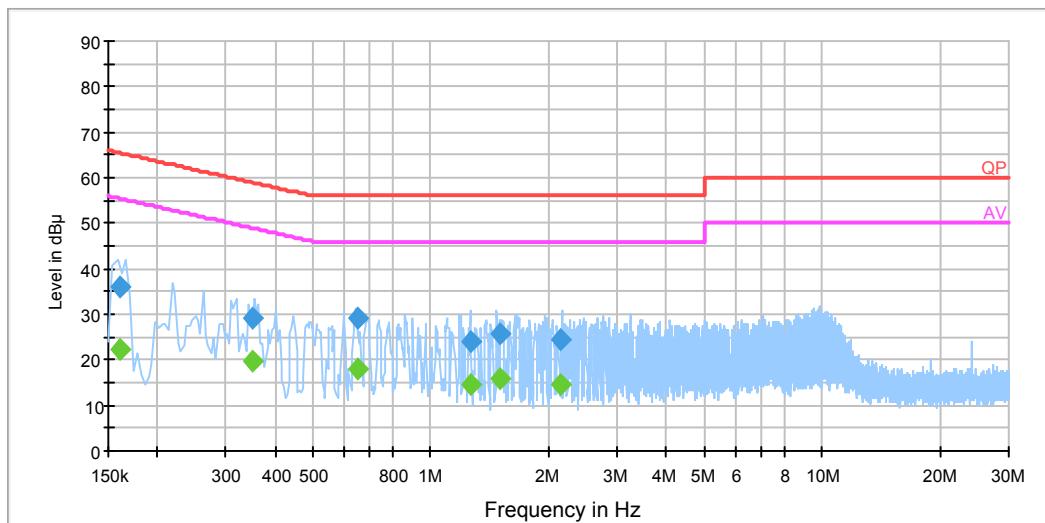
The testing was performed by David Lee on 2015-05-05.

Test Mode: Transmitting

For KINGS adapter

AC 120 V, 60 Hz, Line:

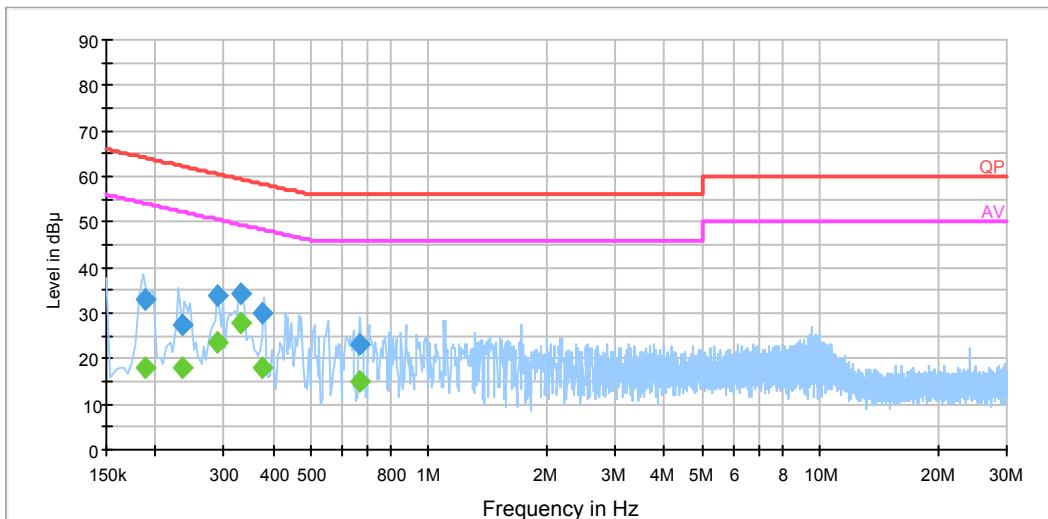
EMI Auto Test L



| Frequency (MHz) | Corrected Amplitude (dB μ V) | Correction Factor (dB) | Limit (dB μ V) | Margin (dB) | Detector (PK/QP/Ave.) |
|-----------------|----------------------------------|------------------------|--------------------|-------------|-----------------------|
| 0.161500 | 35.9 | 19.2 | 65.4 | 29.4 | QP |
| 0.161500 | 22.3 | 19.2 | 55.4 | 33.0 | Ave. |
| 0.348690 | 29.3 | 19.2 | 59.0 | 29.7 | QP |
| 0.348690 | 19.8 | 19.2 | 49.0 | 29.2 | Ave. |
| 0.648370 | 28.9 | 19.3 | 56.0 | 27.1 | QP |
| 0.648370 | 17.8 | 19.3 | 46.0 | 28.2 | Ave. |
| 1.259070 | 24.1 | 19.4 | 56.0 | 31.9 | QP |
| 1.259070 | 14.7 | 19.4 | 46.0 | 31.3 | Ave. |
| 1.495830 | 25.8 | 19.4 | 56.0 | 30.2 | QP |
| 1.495830 | 15.8 | 19.4 | 46.0 | 30.2 | Ave. |
| 2.141570 | 24.6 | 19.4 | 56.0 | 31.4 | QP |
| 2.141570 | 14.4 | 19.4 | 46.0 | 31.6 | Ave. |

AC 120V, 60 Hz, Neutral:

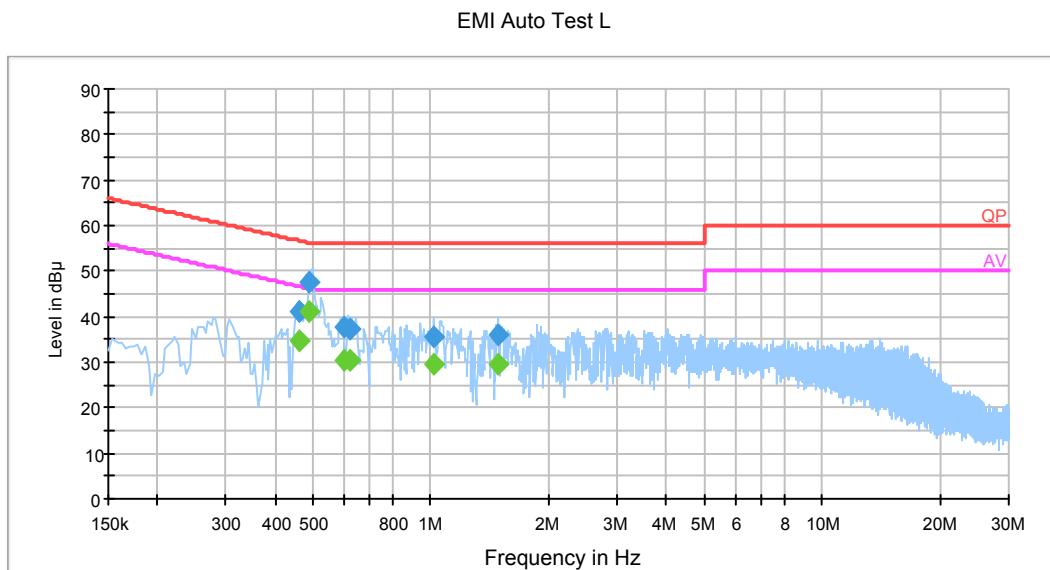
EMI Auto Test N



| Frequency (MHz) | Corrected Amplitude (dB μ V) | Correction Factor (dB) | Limit (dB μ V) | Margin (dB) | Detector (PK/QP/Ave.) |
|-----------------|----------------------------------|------------------------|--------------------|-------------|-----------------------|
| 0.189500 | 33.0 | 19.3 | 64.1 | 31.1 | QP |
| 0.189500 | 17.9 | 19.3 | 54.1 | 36.1 | Ave. |
| 0.234500 | 27.3 | 19.2 | 62.3 | 35.0 | QP |
| 0.234500 | 18.0 | 19.2 | 52.3 | 34.3 | Ave. |
| 0.289500 | 33.9 | 19.2 | 60.5 | 26.6 | QP |
| 0.289500 | 23.6 | 19.2 | 50.5 | 26.9 | Ave. |
| 0.329050 | 34.4 | 19.2 | 59.5 | 25.0 | QP |
| 0.329050 | 27.9 | 19.2 | 49.5 | 21.6 | Ave. |
| 0.376330 | 30.2 | 19.2 | 58.4 | 28.2 | QP |
| 0.376330 | 18.2 | 19.2 | 48.4 | 30.2 | Ave. |
| 0.664010 | 23.0 | 19.3 | 56.0 | 33.0 | QP |
| 0.664010 | 15.2 | 19.3 | 46.0 | 30.8 | Ave. |

For G.Credit adapter:

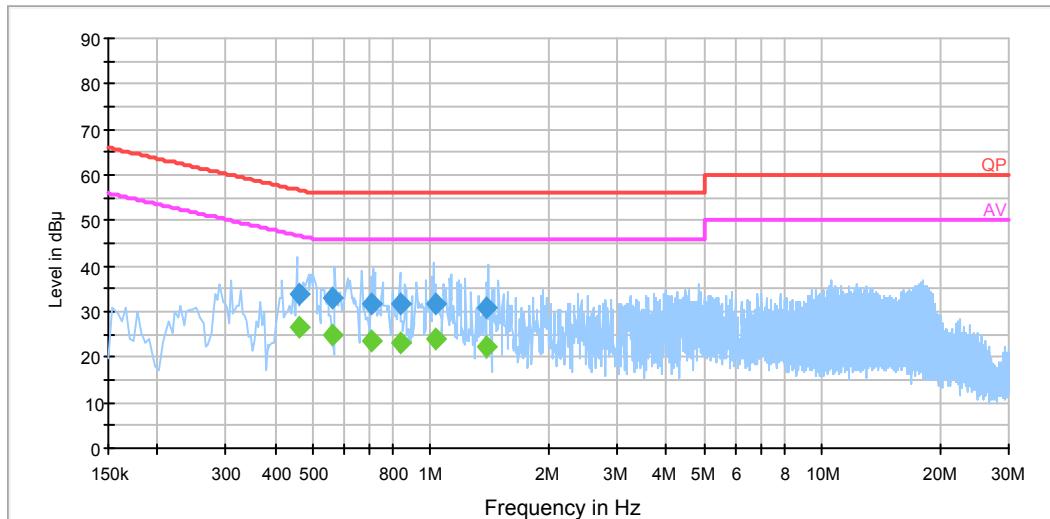
AC 120 V, 60 Hz, Line:



| Frequency (MHz) | Corrected Amplitude (dB μ V) | Correction Factor (dB) | Limit (dB μ V) | Margin (dB) | Detector (PK/QP/Ave.) |
|-----------------|----------------------------------|------------------------|--------------------|-------------|-----------------------|
| 0.463070 | 41.1 | 19.2 | 56.6 | 15.6 | QP |
| 0.463070 | 34.7 | 19.2 | 46.6 | 11.9 | Ave. |
| 0.490530 | 47.5 | 19.3 | 56.2 | 8.6 | QP |
| 0.490530 | 41.3 | 19.3 | 46.2 | 4.8 | Ave. |
| 0.602910 | 37.6 | 19.3 | 56.0 | 18.4 | QP |
| 0.602910 | 30.2 | 19.3 | 46.0 | 15.8 | Ave. |
| 0.624730 | 37.1 | 19.3 | 56.0 | 18.9 | QP |
| 0.624730 | 30.3 | 19.3 | 46.0 | 15.7 | Ave. |
| 1.014730 | 35.5 | 19.4 | 56.0 | 20.5 | QP |
| 1.014730 | 29.5 | 19.4 | 46.0 | 16.5 | Ave. |
| 1.483650 | 36.0 | 19.4 | 56.0 | 20.0 | QP |
| 1.483650 | 29.7 | 19.4 | 46.0 | 16.3 | Ave. |

AC 120V, 60 Hz, Neutral:

EMI Auto Test N



| Frequency (MHz) | Corrected Amplitude (dB μ V) | Correction Factor (dB) | Limit (dB μ V) | Margin (dB) | Detector (PK/QP/Ave.) |
|-----------------|----------------------------------|------------------------|--------------------|-------------|-----------------------|
| 0.459190 | 34.0 | 19.2 | 56.7 | 22.7 | QP |
| 0.459190 | 26.4 | 19.2 | 46.7 | 20.3 | Ave. |
| 0.561450 | 32.9 | 19.3 | 56.0 | 23.1 | QP |
| 0.561450 | 24.8 | 19.3 | 46.0 | 21.2 | Ave. |
| 0.707350 | 31.9 | 19.3 | 56.0 | 24.1 | QP |
| 0.707350 | 23.6 | 19.3 | 46.0 | 22.4 | Ave. |
| 0.833490 | 31.9 | 19.3 | 56.0 | 24.1 | QP |
| 0.833490 | 23.0 | 19.3 | 46.0 | 23.0 | Ave. |
| 1.030730 | 31.7 | 19.4 | 56.0 | 24.3 | QP |
| 1.030730 | 24.0 | 19.4 | 46.0 | 22.0 | Ave. |
| 1.384970 | 30.7 | 19.4 | 56.0 | 25.4 | QP |
| 1.384970 | 22.4 | 19.4 | 46.0 | 23.6 | Ave. |

Note:

- 1) Correction Factor = LISN VDF (Voltage Division Factor) + Cable Loss + Transient Limiter Attenuation
The corrected factor has been input into the transducer of the test software.
- 2) Corrected Amplitude = Reading + Correction Factor
- 3) Margin = Limit – Corrected Amplitude

FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS

Applicable Standard

FCC §15.247 (d); §15.209; §15.205;

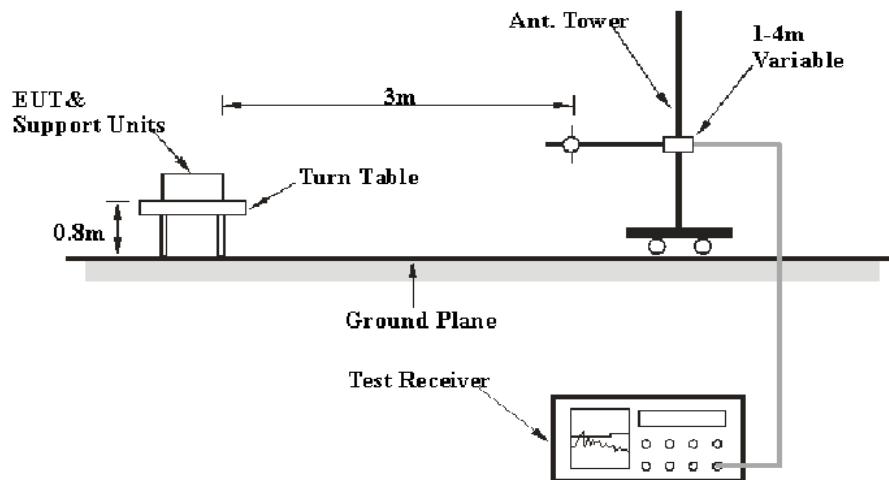
Measurement Uncertainty

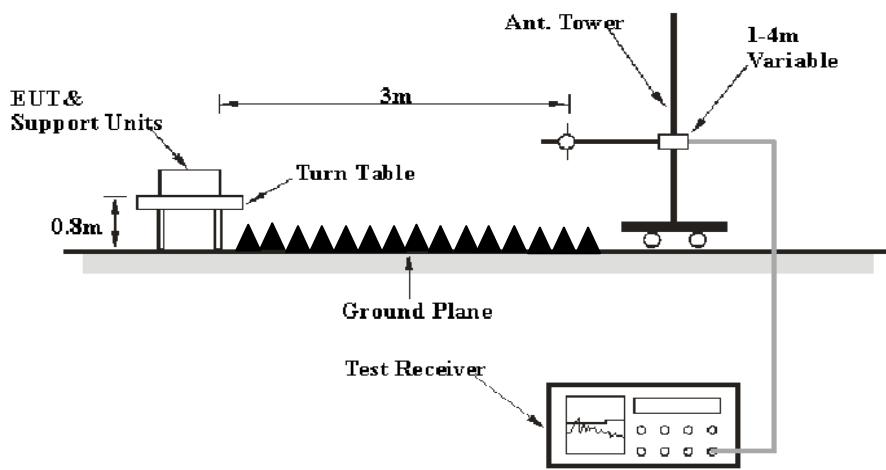
All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of radiation emissions at Bay Area Compliance Laboratories Corp. (Shenzhen) is 5.91 dB for 30MHz-1GHz and 4.92 dB for above 1GHz. And the uncertainty will not be taken into consideration for the test data recorded in the report

EUT Setup

Below 1 GHz:



Above 1GHz:

The radiated emission tests were performed in the 3 meters, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209 and FCC 15.247 limits.

The adapter was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

| Frequency Range | RBW | Video B/W | IF B/W | Detector |
|-------------------|---------|-----------|---------|----------|
| 30 MHz – 1000 MHz | 100 kHz | 300 kHz | 120 kHz | QP |
| Above 1 GHz | 1 MHz | 3 MHz | / | PK |
| | 1 MHz | 10 Hz | / | Ave. |

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All final data was recorded in Quasi-peak detection mode for frequency range of 30 MHz - 1 GHz and peak and Average detection modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

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

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Equipment List and Details

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|---------------------------|--------------------|-----------------|---------------|------------------|----------------------|
| HP | Amplifier | HP8447E | 1937A01046 | 2014-05-06 | 2015-05-06 |
| Rohde & Schwarz | EMI Test Receiver | ESCI | 101120 | 2014-11-03 | 2015-11-03 |
| Sunol Sciences | Bi-log Antenna | JB1 | A040904-1 | NCR | NCR |
| Mini | Amplifier | ZVA-183-S+ | 5969001149 | 2015-04-23 | 2016-04-23 |
| A.H. System | Horn Antenna | SAS-200/571 | 135 | 2013-02-11 | 2016-02-10 |
| Rohde & Schwarz | Signal Analyzer | FSIQ26 | 8386001028 | 2014-12-11 | 2015-12-11 |
| the electro-Mechanics Co. | Horn Antenna | 3116 | 9510-2270 | 2013-10-14 | 2016-10-13 |
| TDK | Chamber | Chamber A | 2# | 2012-10-15 | 2015-10-15 |
| TDK | Chamber | Chamber B | 1# | 2014-07-22 | 2015-07-22 |
| DUCOMMUN | Pre-amplifier | ALN-22093530-01 | 991373-01 | 2014-08-03 | 2015-08-03 |
| R&S | Auto test Software | EMC32 | V9.10 | NCR | NCR |

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Corrected Amplitude & Margin Calculation

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

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247.

4.45 dB at 432.01 MHz in the **Vertical** polarization for KINGS adapter

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level complies with the limit if

$$L_m ++ U_{(Lm)} \leq L_{lim} ++ U_{cispr}$$

In BACL, $U_{(Lm)}$ is less than $+ U_{cispr}$, if L_m is less than L_{lim} , it implies that the EUT complies with the limit.

Test Data

Environmental Conditions

| | |
|---------------------------|----------|
| Temperature: | 26 °C |
| Relative Humidity: | 50 % |
| ATM Pressure: | 100.0kPa |

The testing was performed by David Lee on 2015-05-05.

EUT operation mode: Transmitting

30 MHz -25 GHz:**For KINGS adapter:**

| Frequency (MHz) | Receiver | | Turntable Degree | Rx Antenna | | Corrected Factor (dB/m) | Corrected Amplitude (dB μ V/m) | FCC Part 15.247/205/209 | |
|-----------------|----------------------|-----------------------|------------------|------------|-------------|-------------------------|------------------------------------|-------------------------|-------------|
| | Reading (dB μ V) | Detector (PK/QP/Ave.) | | Height (m) | Polar (H/V) | | | Limit (dB μ V/m) | Margin (dB) |
| 36.02 | 38.58 | QP | 131 | 1.1 | V | -10.8 | 27.78 | 40 | 12.22 |
| 60.00 | 45.04 | QP | 199 | 1.0 | V | -19.8 | 25.24 | 40 | 14.76 |
| 408.01 | 48.67 | QP | 217 | 1.5 | V | -10.0 | 38.67 | 46 | 7.33 |
| 432.01 | 51.55 | QP | 189 | 1.3 | V | -10.0 | 41.55 | 46 | 4.45 |
| 528.02 | 41.04 | QP | 170 | 1.0 | V | -8.5 | 32.54 | 46 | 13.46 |
| 827.96 | 21.91 | QP | 20 | 2.8 | H | -4.1 | 17.81 | 46 | 28.19 |

For the G.Credit adapter:

| Frequency (MHz) | Receiver | | Turntable Degree | Rx Antenna | | Corrected Factor (dB/m) | Corrected Amplitude (dB μ V/m) | FCC Part 15.247/205/209 | |
|-----------------|----------------------|-----------------------|------------------|------------|-------------|-------------------------|------------------------------------|-------------------------|-------------|
| | Reading (dB μ V) | Detector (PK/QP/Ave.) | | Height (m) | Polar (H/V) | | | Limit (dB μ V/m) | Margin (dB) |
| 40.29 | 39.15 | QP | 254 | 1.1 | V | -13.6 | 25.55 | 40 | 14.45 |
| 48.00 | 53.98 | QP | 257 | 1.1 | V | -18.6 | 35.38 | 40 | 4.62 |
| 54.01 | 55.30 | QP | 240 | 1.4 | V | -20.1 | 35.20 | 40 | 4.80 |
| 336.03 | 45.03 | QP | 332 | 1.5 | V | -12.0 | 33.03 | 46 | 12.97 |
| 480.02 | 45.79 | QP | 30 | 1.1 | V | -8.6 | 37.19 | 46 | 8.81 |
| 576.01 | 42.53 | QP | 100 | 1.1 | V | -7.8 | 34.73 | 46 | 11.27 |

Note:

- 1) Corrected Factor=Antenna factor (RX) + cable loss – amplifier factor
- 2) Corrected Amplitude = Corrected Factor + Reading
- 3) Margin = Limit - Corrected Amplitude

FCC §15.247(a) (1)-CHANNEL SEPARATION

Applicable Standard

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater provided the systems operate with an output power no greater than 125 mW.

Test Procedure

1. Set the EUT in Operating mode, RBW was set at 100 kHz, VBW ≥ 3 RBW maxhold the channel.
2. Set the adjacent channel of the EUT maxhold another trace
3. Measure the channel separation.

Test Equipment List and Details

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-----------------|-----------------|--------|---------------|------------------|----------------------|
| Rohde & Schwarz | Signal Analyzer | FSIQ26 | 837405/023 | 2013-05-31 | 2014-05-31 |

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Data

Test data is referred to FCC ID: UCZC2415, report No.: RSZ131105004-00, issued on 2014-01-23, which was tested by Bay Area Compliance Laboratories Corp. (Shenzhen).

FCC §15.247(a) (1) – 20 dB EMISSION BANDWIDTH

Applicable Standard

Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125mW.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT on the test table without connection to measurement instrument. Turn on the EUT. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Test Equipment List and Details

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-----------------|-----------------|--------|---------------|------------------|----------------------|
| Rohde & Schwarz | Signal Analyzer | FSIQ26 | 837405/023 | 2013-05-31 | 2014-05-31 |

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Data

Test data is referred to FCC ID: UCZC2415, report No.: RSZ131105004-00, issued on 2014-01-23, which was tested by Bay Area Compliance Laboratories Corp. (Shenzhen).

FCC §15.247(a) (1) (iii)-QUANTITY OF HOPPING CHANNEL

Applicable Standard

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Procedure

1. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.
2. Set the EUT in hopping mode from first channel to last.
3. By using the max-hold function record the quantity of the channel.

Test Equipment List and Details

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-----------------|-----------------|--------|---------------|------------------|----------------------|
| Rohde & Schwarz | Signal Analyzer | FSIQ26 | 837405/023 | 2013-05-31 | 2014-05-31 |

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Data

Test data is referred to FCC ID: UCZC2415, report No.: RSZ131105004-00, issued on 2014-01-23, which was tested by Bay Area Compliance Laboratories Corp. (Shenzhen).

FCC §15.247(a) (1) (iii) -TIME OF OCCUPANCY (DWELL TIME)**Applicable Standard**

Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Procedure

The EUT was worked in channel hopping; spectrum span was set as 0. Sweep was set as 0.4 X channel no. (s), the quantity of pulse was get from single sweep. In addition, the time of single pulses was tested.

Dwell Time= Pulse time (ms) * hope rate/2/ number of hopping channels * hopping No.*0.4 s

Test Equipment List and Details

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-----------------|-----------------|--------|---------------|------------------|----------------------|
| Rohde & Schwarz | Signal Analyzer | FSIQ26 | 837405/023 | 2013-05-31 | 2014-05-31 |

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Data

Test data is referred to FCC ID: UCZC2415, report No.: RSZ131105004-00, issued on 2014-01-23, which was tested by Bay Area Compliance Laboratories Corp. (Shenzhen).

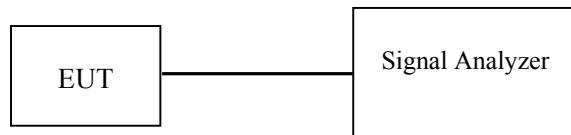
FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

According to §15.247(b) (1), for frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to an EMI Test Receiver.
3. Add a correction factor to the display.



Test Equipment List and Details

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-----------------|-----------------|--------|---------------|------------------|----------------------|
| Rohde & Schwarz | Signal Analyzer | FSIQ26 | 837405/023 | 2013-05-31 | 2014-05-31 |

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Data

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FCC §15.247(d) - BAND EDGES

Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Put it on the rotated table and turn on the EUT and make it operate in operating mode. Then set it to low channel and high channel within its operating range, and make sure the instrument is operated in its linear range.
3. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
4. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-----------------|-----------------|--------|---------------|------------------|----------------------|
| Rohde & Schwarz | Signal Analyzer | FSIQ26 | 837405/023 | 2013-05-31 | 2014-05-31 |

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Data

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PRODUCT SIMILARITY DECLARATION LETTER

Lorex Technology Inc.
250 Royal Crest Court Markham, Ontario L3R 3S1 Canada
Tel: 905 946 8589 Fax: 905 947 0138

2015-4-14

Product Similarity Declaration

To Whom It May Concern,

We, Lorex Technology Inc. , hereby declare that we have a product named as 2.4G Baby monitor BB2425. (Model number: BB2425) was tested by BACL, meanwhile, for our marketing purpose, we would like to list a series models (BB2425, BB2415, LB215, BB2415AC1) on reports and certificate, all the models are identical schematics. Only named differently due to different combination, for details as below:

| Model No | Model description |
|-----------|--|
| BB2425 | 1 camera unit +1 monitor unit +1 charger unit |
| BB2415 | 1 camera unit +1 monitor unit |
| LB215 | 1 camera unit + 1 monitor unit with difference packaging |
| BB2415AC1 | 1 camera unit |

No other changes are made to them.

We confirm that all information above is true, and we'll be responsible for all the consequences. Please contact me if you have any question.

Signature:

Niles Kanapathipillai

Director Quality Assurance

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