

MEASUREMENT AND TEST REPORT

For

Xingtel Xiamen Electronics Co., Ltd.

Xingtel Building, Chuangxin Road, Torch Hi-Tech Industrial District,
Xiamen, Fujian 361006, China

FCC ID: QMHA1600

Report Type: Original Report	Product Type: DECT 6.0 Amplified Cordless Freedom Deluxe Phone (Handset)
Test Engineer: Cookies Bu	<i>Cookies, Bu</i>
Report Number: RSZ10101803-Handset	
Report Date: 2011-04-18	
Reviewed By: EMC Engineer	Merry Zhao <i>Merry Zhao</i>
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP*, or any agency of the Federal Government.

* This report contains data that are not covered by the NVLAP accreditation and are marked with an asterisk "★" (Rev.2)

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *Xingtel Xiamen Electronics Co., Ltd.*'s product, FCC ID: QMHA1600, model number: A1600, A1600E, CL-3611 or the "EUT" as referred to in this report is a Handset of *DECT 6.0 Amplified Cordless Freedom Deluxe Phone*, which measures approximately: 16.5 cm L x 6.0 cm W x 3.0 cm H, input voltage: DC 3.6V battery .

Battery information of handset
AAA 1.2 V × 3 600 mAh

**Note: The series products with model numbers CL-3611, A1600; A1600E are identical, for detail, please refer to the attached Declaration Letter.*

Objective

This document is a test report based on the Electromagnetic Interference (EMI) tests performed on the EUT. The EMI measurements were performed according to the measurement procedure described in ANSI C63.17 - 2006, and ANSI C63.4-2009.

The tests were performed in order to determine compliance with FCC Part 15, Subpart D, and section 15.203, 15.315, 15.317, 15.319 and 15.323 rules.

Related Submittal(s)/Grant(s)

FCC ID: QMHA1600, FCC Part 15D filing of Base portion.
FCC ID: QMHA600, FCC Part 15D filing of handset portion

Test Methodology

All measurements contained in this report were conducted with ANSI C63.17 - 2006, 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 radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located in 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.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 guide accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at <http://ts.nist.gov/Standards/scopes/2007070.htm>

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

Equipment Modifications

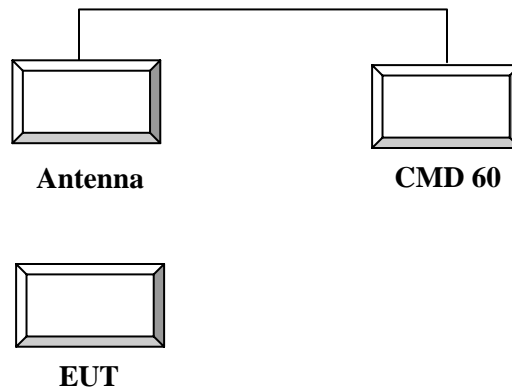
No modification was made to the unit tested.

Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
R & S	Digital Radio-Communication Tester	CMD60	829902/026	DoC

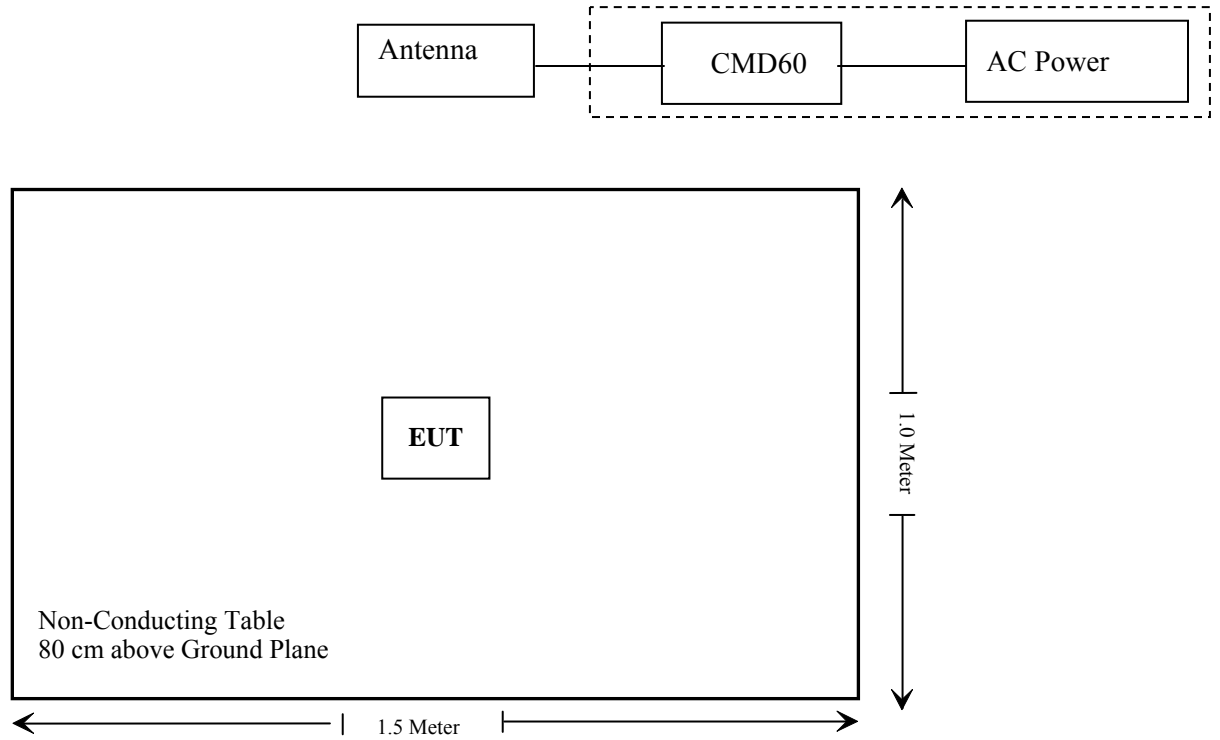
Configuration of Test Setup

Radiated emissions:



Block Diagram of Test Setup

Radiated emissions:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.319 (i); §2.1093	RF Radiation Exposure (SAR)	Compliant*
§15.317 §15.203	Antenna Requirement	Compliant*
§15.319 (e)	Antenna Gain	Compliant*
§15.315, §15.207	AC Line Conducted Emission	N/A
§15.323 (a)	Emission Bandwidth	Compliant*
§15.319 (c)	Peak Transmit Power	Compliant*
§15.319 (d)	Power Spectral Density	Compliant*
§15.323 (d)	Emission Inside and Outside the sub-band	Compliant*
§15.319 (g)	Radiated Emission	Compliant*
§15.323 (f)	Frequency Stability Handset	Compliant*
§15.323(c)(e), §15.319 (f)	Specific Requirements for UPCS	Compliant*

Note: Compliance* Based on the manufacturer's declaration, the handset is exactly identical as the handset unit of the previous certified product (FCC ID: QMHA600, IC: 4002A-A600), the manufacturer just updated the base unit only. The relevant test report of handset from original filing can be accurately represented the test results under the new conditions.

FCC §15.319 (i) & §2.1093 - RF EXPOSURE INFORMATION

Applicable Standard

According to FCC §15.319 (i), Unlicensed PCS devices are subject to the radiofrequency radiation exposure requirements specified in §1.1307(b) and 2.1093 of this chapter, as appropriate. All equipment shall be considered to operate in a “general population/uncontrolled” environment. Applications for equipment authorization of devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request.

Result:

FCC §15.317 & §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.

Results

Please refer to the report RSZ09121604-Handset for Xingtel Xiamen Electronics Co., Ltd. issued on 2010-01-21 with ID QMHA600 by Bay Area Compliance Laboratories Corp. (Shenzhen).

FCC §15.319 (e) - ANTENNA GAIN

Applicable Standard

According to FCC §15.319 (e):

The peak transmit power shall be reduced by the amount in decibels that the maximum directional gain of the antenna exceeds 3 dBi.

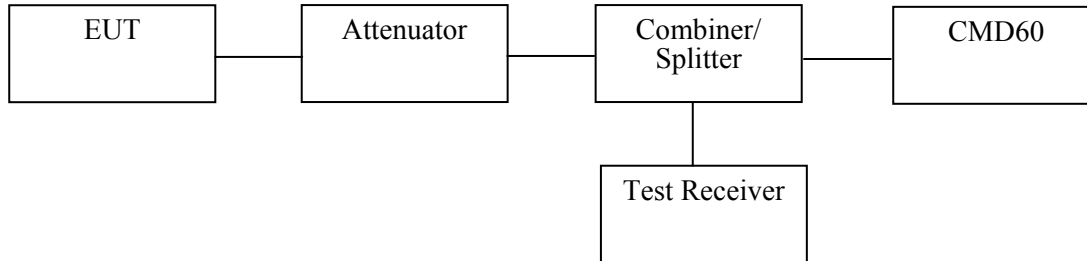
Results

Please refer to the original handset report of FCC ID: QMHA600, IC: 4002A-A600.

FCC §15.323 (a) - EMISSION BANDWIDTH

Applicable Standard

The emission bandwidth is measured in accordance with ANSI C63.17 sub-clause 6.1.3 using the setup below



The width, in Hz, of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that is 26 dB down relative to the maximum level of the modulated carrier. It is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1% of the emission band-width of the device under measurement. [Extraction from 47 CFR 15, subpart D, 15.303 (C)].

Test Results

Please refer to the original handset report of FCC ID: QMHA600, IC: 4002A-A600.

FCC §15.319 (c) - PEAK TRANSMIT POWER

Applicable Standard

The peak power output as measured over an interval of time equal to the transmission-burst duration of the device under all conditions of modulation. [47 CFR 15, subpart D, 15.303 (f)].

Part 15.323(a) & Part 15.319(c) Peak Transmit Power:

The limit for Peak Transmit Power (PTP) is calculated using the following formula:

$$PTP = 100 \mu W \times (EBW)^{1/2}$$

EBW is the transmit emission bandwidth in Hz determined in the other test item:

$$EBW = 1480000\text{Hz}$$

$$PTP = 100 \mu W \times (1480000)^{1/2}$$

$$PTP = 121.62\text{mW} = 20.85\text{dBm}$$

The peak transmitter power is measured in accordance with ANSI C63.17-2006 Clause 6.1.2.

Test Results

Please refer to the original handset report of FCC ID: QMHA600, IC: 4002A-A600.

FCC §15.319 (d) - POWER SPECTRAL DENSITY

Applicable Standard

The average pulse energy in a 3 kHz bandwidth is divided by the pulse duration.

The power spectral density shall not exceed 3mW in any 3 kHz bandwidth as measured with a spectrum analyzer having a resolution bandwidth of 3 kHz.

The power spectral density is measured in accordance with ANSI C63.17.2006 Clause 6.1.5.

Test Results

Please refer to the original handset report of FCC ID: QMHA600, IC: 4002A-A600.

FCC §15.323 (d) - EMISSION INSIDE AND OUTSIDE THE SUB-BAND

Applicable Standard

Emissions inside the sub-band must comply with the following emission mask:

1. In the bands between 1B and 2B measured from the center of the emission bandwidth the total power emitted by the device shall be at least 30 dB below the transmit power permitted for that device;
2. in the bands between 2B and 3B measured from the center of the emission bandwidth the total power emitted by an intentional radiator shall be at least 50 dB below the transmit power permitted for that radiator;
3. in the bands between 3B and the sub-band edge the total power emitted by an intentional radiator in the measurement bandwidth shall be at least 60 dB below the transmit power permitted for that radiator.

Where B = emission bandwidth

Emission Outside the sub-band shall be attenuated below a reference power of 112 mw (20.5 dBm) as follows:

1. 30 dB between the sub-band and 1.25 MHz above or below the sub-band;
2. 50 dB between 1.25 and 2.5 MHz above or below the sub-band;
3. 60 dB at 2.5 MHz or greater above or below the sub-band.

Test Results

Please refer to the original handset report of FCC ID: QMHA600, IC: 4002A-A600.

FCC §15.319 (g) - RADIATED EMISSIONS

Please refer to the original handset report of FCC ID: QMHA600, IC: 4002A-A600.

FCC §15.323 (f) - FREQUENCY STABILITY

Applicable Standard

Per FCC §15.323(f), the frequency stability of the carrier frequency of the intentional radiator shall be maintained within ± 10 ppm over 1 hour or the interval between channel access monitoring, whichever is shorter. The frequency stability shall be maintained over a temperature variation of -20° to $+50^{\circ}$ °C at normal supply voltage, and over a variation in the primary supply voltage of 85 percent to 115 percent of the rated supply voltage at a temperature of 20 °C. For equipment that is capable only of operating from a battery, the frequency stability tests shall be performed using a new battery without any further requirement to vary supply voltage

Test Results

Please refer to the original handset report of FCC ID: QMHA600, IC: 4002A-A600.

**FCC §15.323 (c)(e) & §15.319(f) – SPECIFIC REQUIREMENTS FOR UPCS
DEVICE**

Please refer to the original handset report of FCC ID: QMHA600, IC: 4002A-A600.

DECLARATION LETTER



XINGTEL XIAMEN ELECTRONICS CO., LTD.
Xingtel Building, Chuangxin Road, Torch Hi-Tech Industrial
District, Xiamen 361006, P.R. China
E-mail: info@xingtel.com Website: http://www.xingtel.com

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Fax: +86-592-603-7880

To: Bay Area Compliance Laboratories Corp

Declaration of Similarity

To whom it may concern,

We,

Xingtel Xiamen Electronics Co., Ltd.

Address: Xingtel Building, Chuangxin Road, Torch Hi-tech Industrial District, Xiamen, 361006, China

Hereby declare that

Product Name: DECT 6.0 Amplified Cordless Freedom Deluxe Phone

Model No. A1600 series as follow

A1600(1base+1handset);

A1600E(1charger+1handset)

belong to ClearSounds Communications, Inc. with the trade name are ClearSounds, they are exactly same with the telephone model no. CL-3611, and belong to Xingtel. These three models are electrically and mechanically identical, the only difference between them are the model number and trade name!

Model number	Trade name
A1600	ClearSounds
A1600E	ClearSounds
CL-3611	Xingtel

Regards,

Xingtel Xiamen Electronics Co., Ltd.

Simon Liu

Managing Director

October 15, 2010



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Declaration of using the same handset

April 26, 2011

To:
Bay Area Compliance Laboratories Corp.
1274 Anvilwood Ave.
Sunnyvale, CA 94089
Phone: 408-732-9162, Fax: 408-732-9164
<http://www.baclcorp.com>

Dear Sir or Madam:

We, Xingtel Xiamen Electronics Co., Ltd., hereby declare that the handset used in our product DECT 6.0 Amplified Cordless Freedom Deluxe Phone, FCC ID: QMHA1600, IC: 4002-A1600, model number: A1600; A1600E; CL-3611 is exactly same as the previous certified handset of product DECT 6.0 Amplified Freedom Phone, FCC ID: QMHA600, IC: 4002A-A600, model number: A600E; A600; A600BUN; CL-3373. They have the same schematics, PCB layout, components, enclosure and RF characteristics.
Please contact me if you have any other questions.

Best Regards,

Simon Liu
Director

A handwritten signature in black ink, appearing to be "Simon Liu", written over a light blue horizontal line.

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