Lab Code: 200707-0

FCC PART 15B, CLASS B

TEST REPORT

For

Unical Enterprises Inc.

16960 Gale Avenue, City of Industry, CA 91745, USA

FCC ID: LZXDM1500C

Report Type:	**Product Type:**
Original Report	DECT6.0 Cordless Telephone with 3G Cell Phone

Test Engineer:	Phase Zhang Felix Li
Report Number:	RSZ110517007-00
Report Date:	2011-12-19
Reviewed By:	Alvin Huang EMC Engineer
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Unical Enterprises, Inc.*'s product, model number: *X1500C-2HS (FCC ID: LZXDM1500C)* (the "EUT") in this report is a base of DECT6.0 Cordless Telephone with 3G Cell Phone, which was measured approximately: 11.7 cm (L) x 15.0 cm (W) x 3.0 cm (H), input voltage: DC 9.5 V from adapter.

Adapter information: Switching Power Supply
Model: YJS03-0951500U
Input: 100-240VAC 50/60Hz 500mA
Output: 9.5VDC 1500mA

Note: The series product, model X1500C, X1500C-2HS and X1500 Series are electrically identical, and the differences between them were explained for details in the attached declaration letter. Model X1500C-2HS was selected for fully testing.

All measurement and test data in this report was gathered from production sample serial number: 1105090(Assigned by BACL, Shenzhen). The EUT was received on 2011-08-02.

Objective

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

The objective of the manufacturer is to determine the compliance of EUT with FCC Part 15 Class B.

Related Submittal(s)/Grant(s)

Part 22H/24E PCB, Part 15D PUB submissions of base unit with FCC ID: LZXDM1500C.
Part 15D PUE submission of handset unit with FCC ID: LZXDM150HS

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 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 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.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 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 EUT tested.

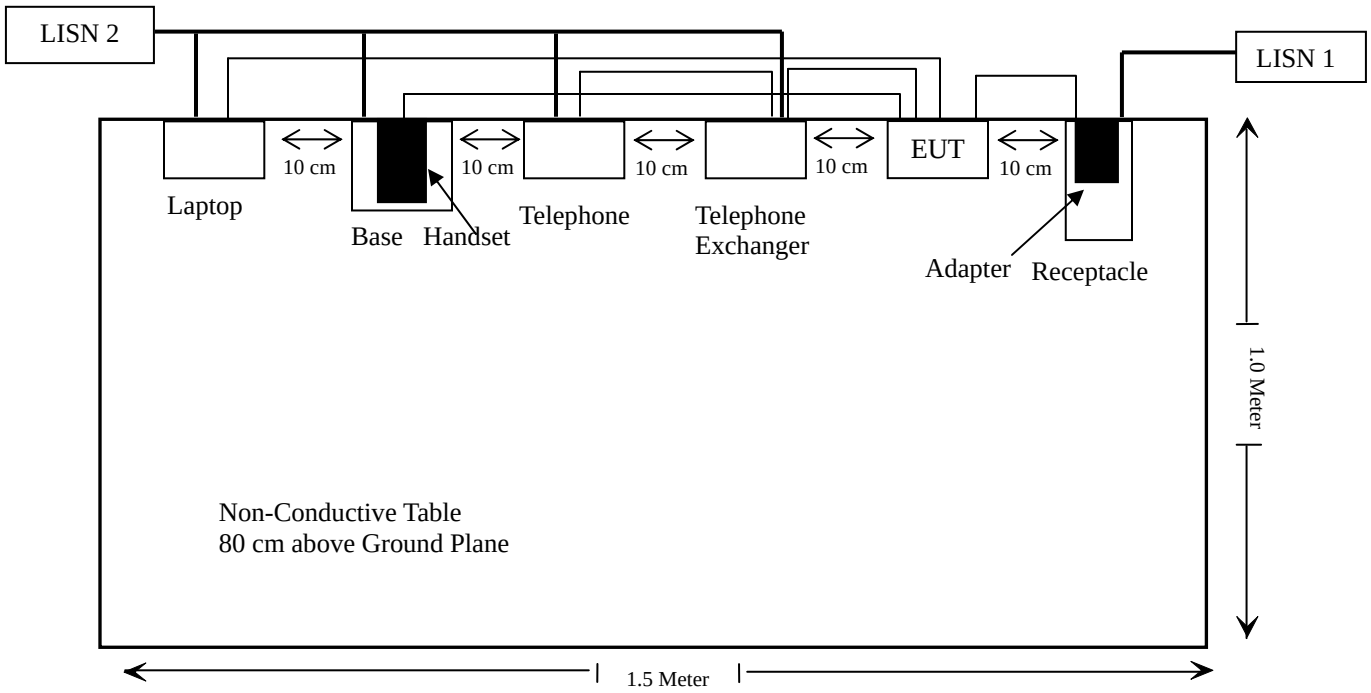
Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Acer	Laptop	1#	N/A
SPIKER	Telephone	HP1000	N/A
YIKE	Telephone Exchanger	TC-108H	N/A

External I/O Cable

Cable Description	Length (m)	From/Port	To
Unshielded Detectable RJ45 Cable	1.0	EUT	PC
Unshielded Detectable RJ11 Cable	1.0	Telephone Exchanger	EUT
Unshielded Detectable AC Cable	1.0	Adapter	LISN

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	Conducted Emissions	Compliance
§15.109	Radiated Emissions	Compliance

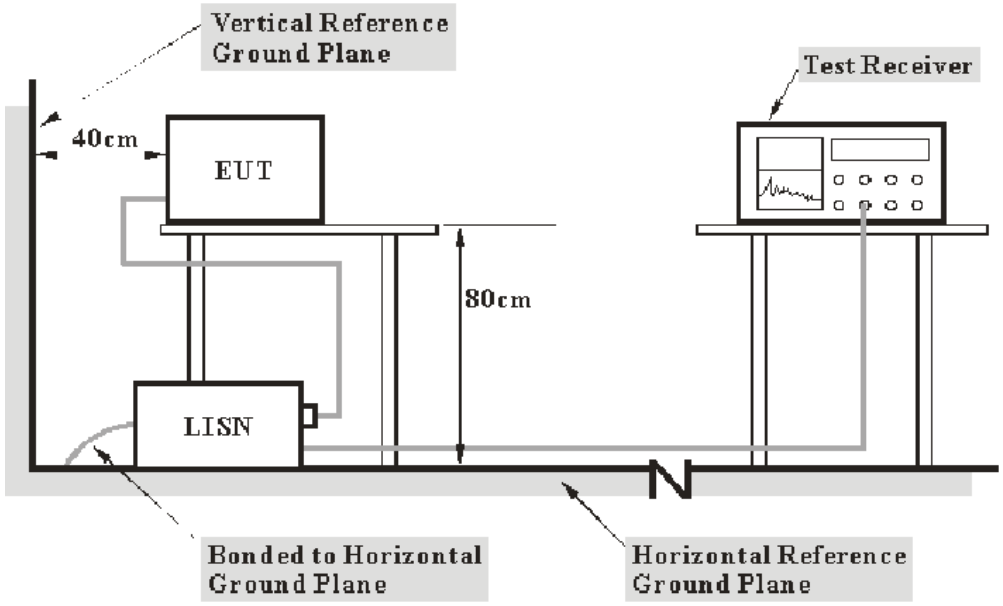
FCC §15.107 - CONDUCTED EMISSIONS

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ±2.4 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 Class B limits.

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

The receptacle 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245	2011-03-03	2012-03-02
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2011-03-09	2012-03-08

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

During the conducted emission test, the receptacle was connected to the first LISN and other relevant support equipments were connected to the second LISN.

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

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

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.107, with the worst margin reading of:

8.01 dB at **1.930 MHz** in the **Neutral** conducted mode

Test Data

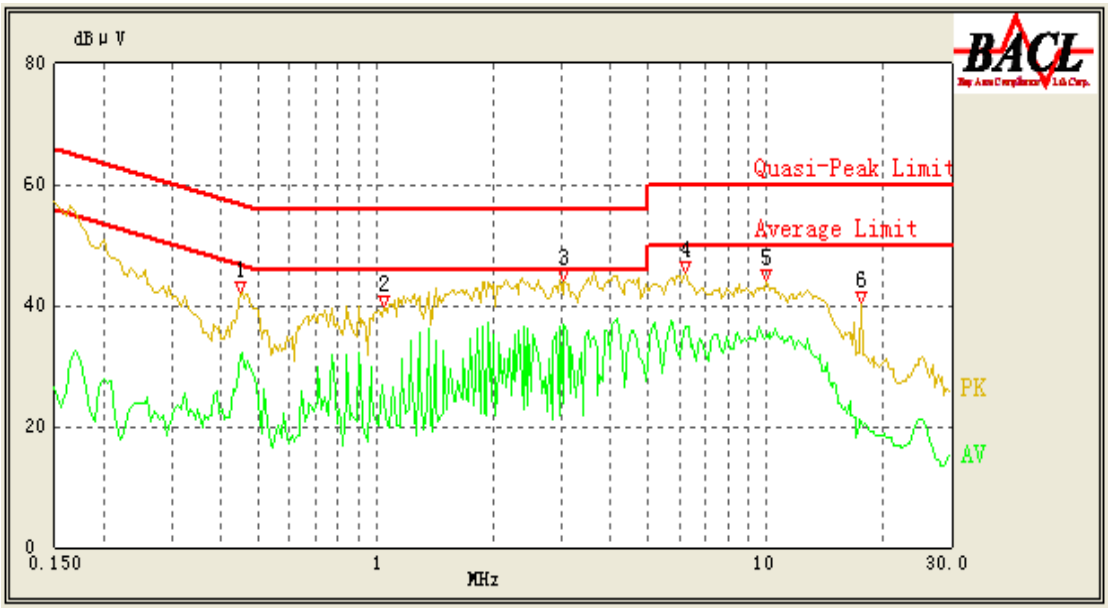
Environmental Conditions

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

The testing was performed by Phase Zhang on 2011-09-27.

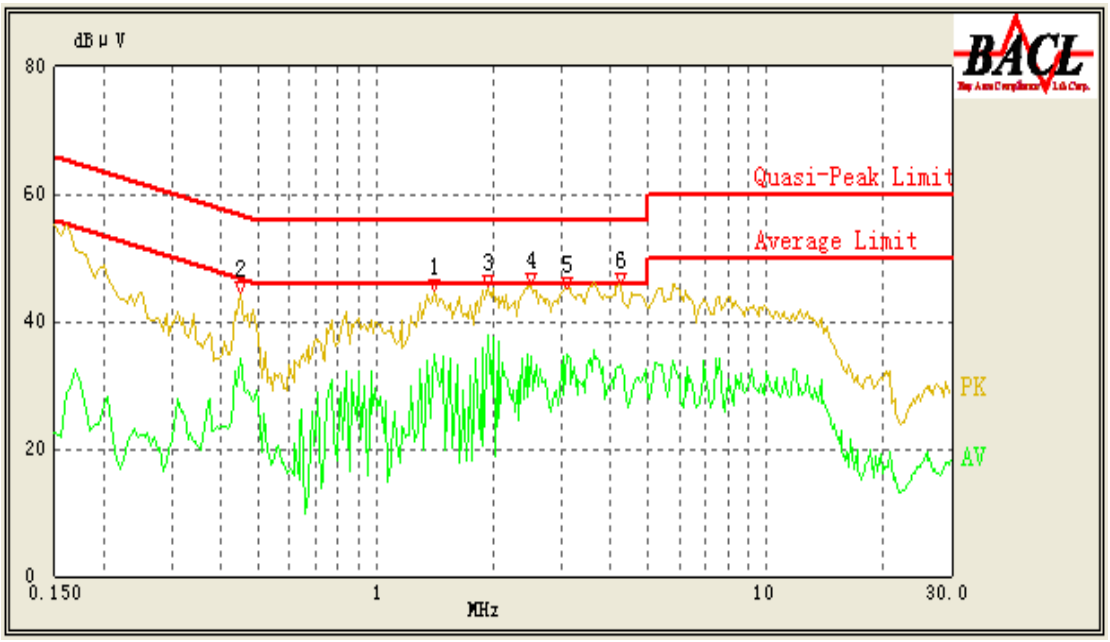
EUT operation mode: Running

AC 120V/60Hz, Line



Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/QP/Ave.)
3.040	36.83	10.10	46.00	9.17	Ave.
6.210	36.40	10.10	50.00	13.60	Ave.
3.040	42.10	10.10	56.00	13.90	QP
10.095	34.80	10.10	50.00	15.20	Ave.
0.450	31.92	10.10	47.43	15.51	Ave.
0.450	39.68	10.10	57.43	17.75	QP
1.050	23.71	10.10	46.00	22.29	Ave.
6.250	37.40	10.10	60.00	22.60	QP
1.050	32.96	10.10	56.00	23.04	QP
10.055	35.50	10.10	60.00	24.50	QP
17.465	21.16	10.10	50.00	28.84	Ave.
17.495	23.50	10.10	60.00	36.50	QP

AC 120V/60Hz, Neutral



Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/QP/Ave.)
1.930	37.99	10.10	46.00	8.01	Ave.
1.415	34.76	10.10	46.00	11.24	Ave.
3.090	34.71	10.10	46.00	11.29	Ave.
2.510	34.51	10.10	46.00	11.49	Ave.
1.930	43.69	10.10	56.00	12.31	QP
2.510	43.29	10.10	56.00	12.71	QP
4.245	33.10	10.10	46.00	12.90	Ave.
0.450	34.24	10.10	47.43	13.19	Ave.
3.090	42.71	10.10	56.00	13.29	QP
1.415	42.36	10.10	56.00	13.64	QP
4.245	41.05	10.10	56.00	14.95	QP
0.450	40.61	10.10	57.43	16.82	QP

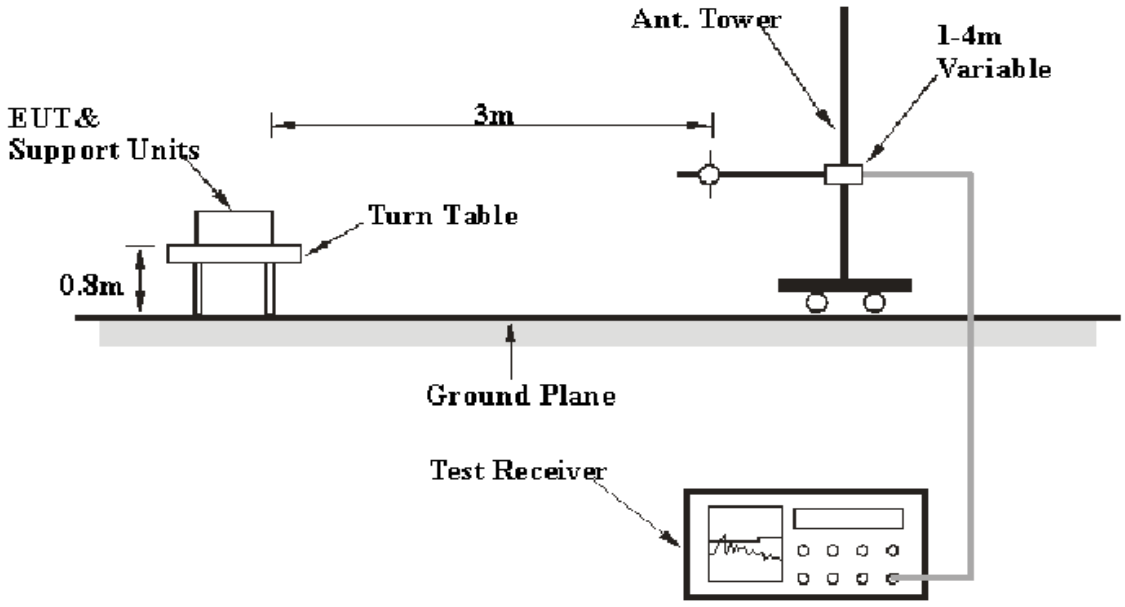
FCC §15.109 - RADIATED EMISSIONS

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 NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ±4.0 dB.(k=2, 95% level of confidence)

EUT Setup



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part 15B, Class B limits.

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

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

EMI Test Receiver Setup

The system was investigated from 30 MHz to 1000 MHz.

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

Frequency Range	*RBW*	*Video B/W*	*Detector*
30MHz – 1000 MHz	100 kHz	300 kHz	QP

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10
HP	Amplifier	HP8447E	1937A01046	2011-08-02	2012-08-01
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2011-07-05	2012-07-04

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

During the radiated emission, the receptacle and other relevant support equipments were connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.
The data was recorded in Quasi-peak detection mode for 30 MHz to 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:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - 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 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.109, with the worst margin reading of:

Powered by adapter: 8.9 dB at **74.563500 MHz** in the **Vertical** polarization
Powered by battery: 9.7 dB at **60.454200 MHz** in the **Vertical** polarization

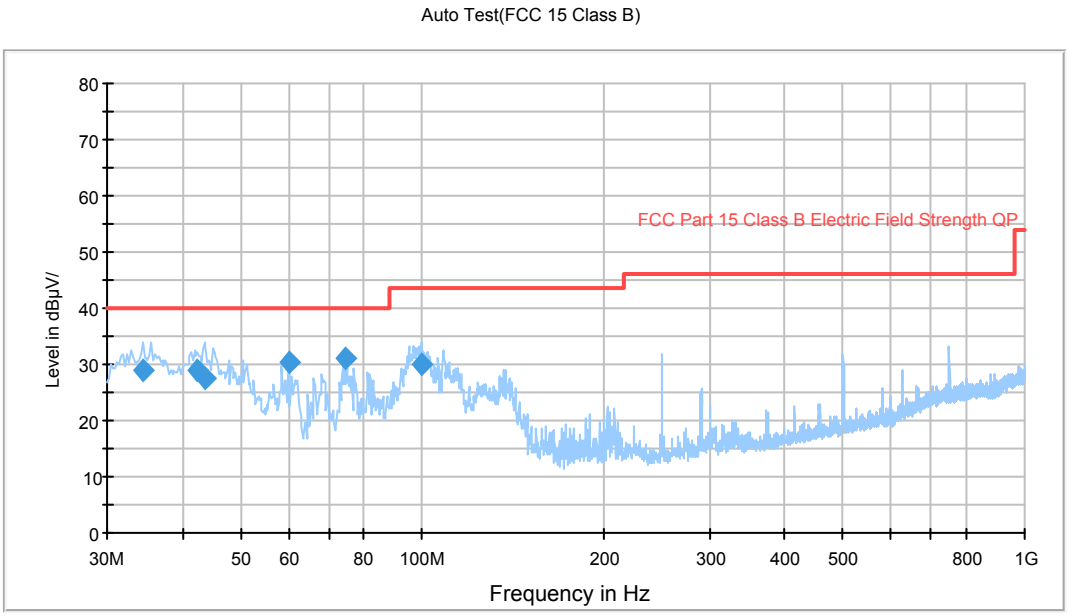
Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

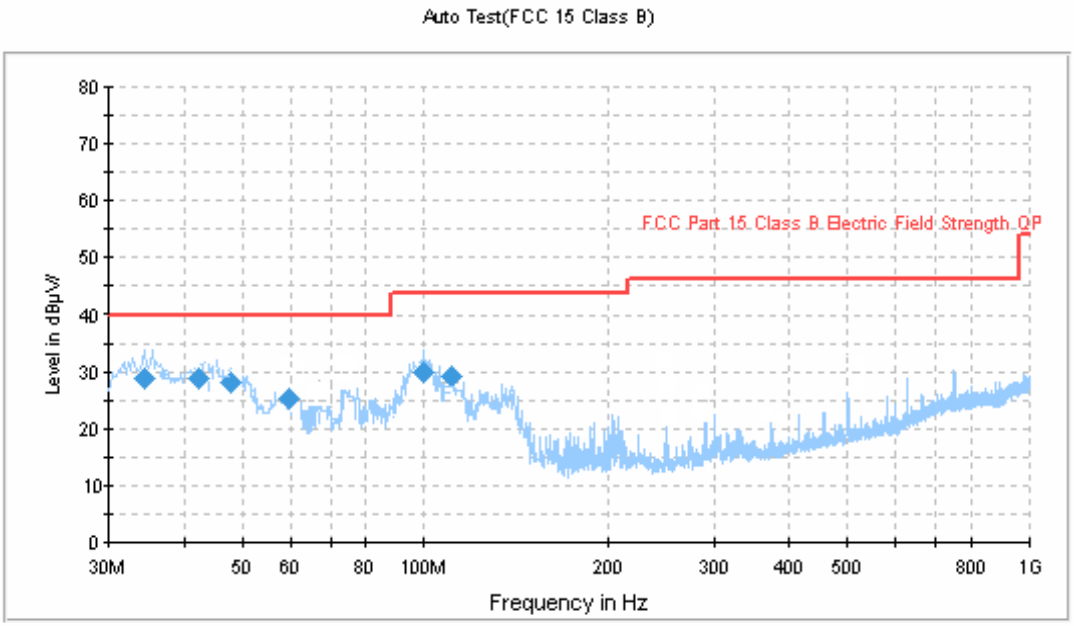
The testing was performed by Phase Zhang on 2011-12-18.

EUT operation mode: Running (Powered by adapter)



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (Degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
74.563500	31.1	105.0	V	155.0	-18.2	40.0	8.9
60.216500	30.3	105.0	V	135.0	-18.7	40.0	9.7
34.438250	28.8	104.0	V	77.0	-8.4	40.0	11.2
42.317000	28.8	102.0	V	0.0	-13.5	40.0	11.2
43.714250	27.5	138.0	V	265.0	-14.4	40.0	12.5
99.647750	30.1	102.0	V	96.0	-14.7	43.5	13.4

EUT operation mode: Running (Powered by battery)



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (Degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
60.454200	30.3	102.0	V	108.0	-18.6	40.0	9.7
34.832100	29.2	104.0	V	78.0	-8.4	40.0	10.8
42.368700	28.8	103.0	V	325.0	-13.5	40.0	11.2
99.452100	31.1	101.0	V	225.0	-18.2	43.5	12.4
48.364200	27.5	105.0	V	124.0	-14.2	40.0	12.5
105.23100	30.1	102.0	V	25.0	-14.9	43.5	13.4

PRODUCT SIMILARITY DECLARATION LETTER

UNICAL
ENTERPRISES, INC.
Tel.: 626-9655588 Fax.: 626-9122258

Product Similarity Declaration

To Whom It May Concern,

We, Unical Enterprises Inc. hereby declare that our (Product Name:DECT6.0 cordless telephone with 3G cell phone), Model Number: X1500C and X1500 Series are electrically identical with the Model Number: X1500C-2HS that was certified by BACL.

The only difference between X1500C-2HS and X1500C and X1500 Series is that:
1. X1500C-2HS contains two multiple handsets in the same box
2. X1500C contains only one cordless handset in the same box
3. X1500 Series contains only one cordless handset in the box without Baseunit

This is just package configuration difference and there are no electrically different components or uncertified products contained

Please contact me if you have any question.

Signature:
Andy Chung
Assistant to the president
Date:2011-10-18

16960 Gale Avenue, City of Industry, California 91745

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