

FCC PART 15D
MEASUREMENT AND TEST REPORT

For

Clearsounds Communications, Inc.

1743 Quincy Ave., Unit #155, Naperville, IL 60540, USA

FCC ID: WG8A500

Report Type: Original Report	Product Type: Amplified Cordless Phone (Handset Unit)
Test Engineer: Mick Yin	<i>Mick Yin</i>
Report Number: RSZ130220005-00PP	
Report Date: 2013-04-25	
Reviewed By: RF Engineer	<i>Sula Huang</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.

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Clearsounds Communications, Inc.*'s product, model number: A500 (FCC ID: WG8A500) (or the "EUT") in this report was a handset unit of *Amplified Cordless Phone*, which was measured approximately: 17.4 cm (L) x 5.5 cm (W) x 3.0 cm (H), input voltage: DC 3*1.2V rechargeable NI-MH battery and charging by base.

Note: The product Amplified Cordless Phone, the model A500, A500E and A500Bundle are different in model number due to different combinations. The handset unit in these models is the same, which was explained in the attached declaration letter.

** All measurement and test data in this report was gathered from production sample serial number: 1302035 (Assigned by BACL, Shenzhen). The EUT supplied by applicant was received on 2013-02-20.*

Objective

This test report was 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 the compliance of the EUT with FCC Part 15-Subpart D, section 15.203, 15.315, 15.317, 15.319 and 15.323 rules.

The handset portion in this system is the same as the handset of the previous certified DECT phone system (ID: WG8A400), please refer to the declaration by the applicant attached.

Related Submittal(s)/Grant(s)

FCC Part 15D submission of base portion with FCC ID: WG8A500.

FCC Part 15D submission of handset portion with FCC ID: WG8A400 granted on 2013-04-22.

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 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 TBR6 mode which is provided by the manufacturer.

Equipment Modifications

No modification was made to the EUT tested.

Local Support Equipment List and Details

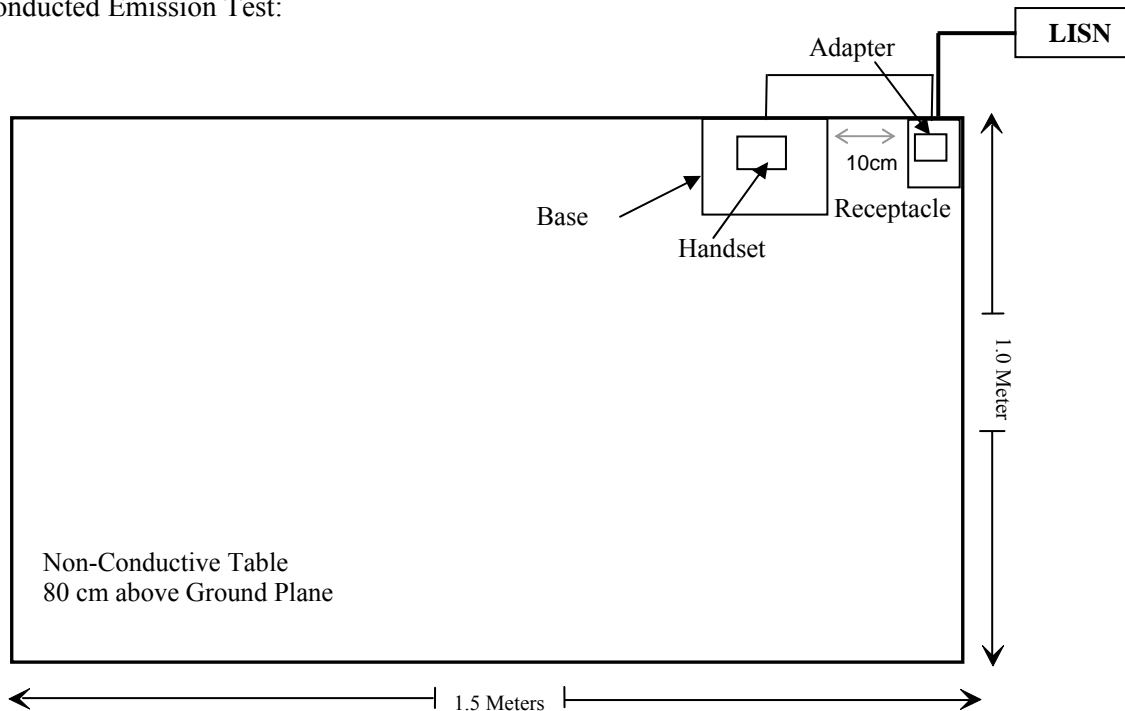
Manufacturer	Description	Model	Serial Number
R & S	Digital Radio-Communication Tester	CMD60	829902/026
Clearsounds	Amplified Cordless Phone (Base)	A500	/
5ESP	AC ADAPTER	5E-AD070042-U	/

External I/O Cable

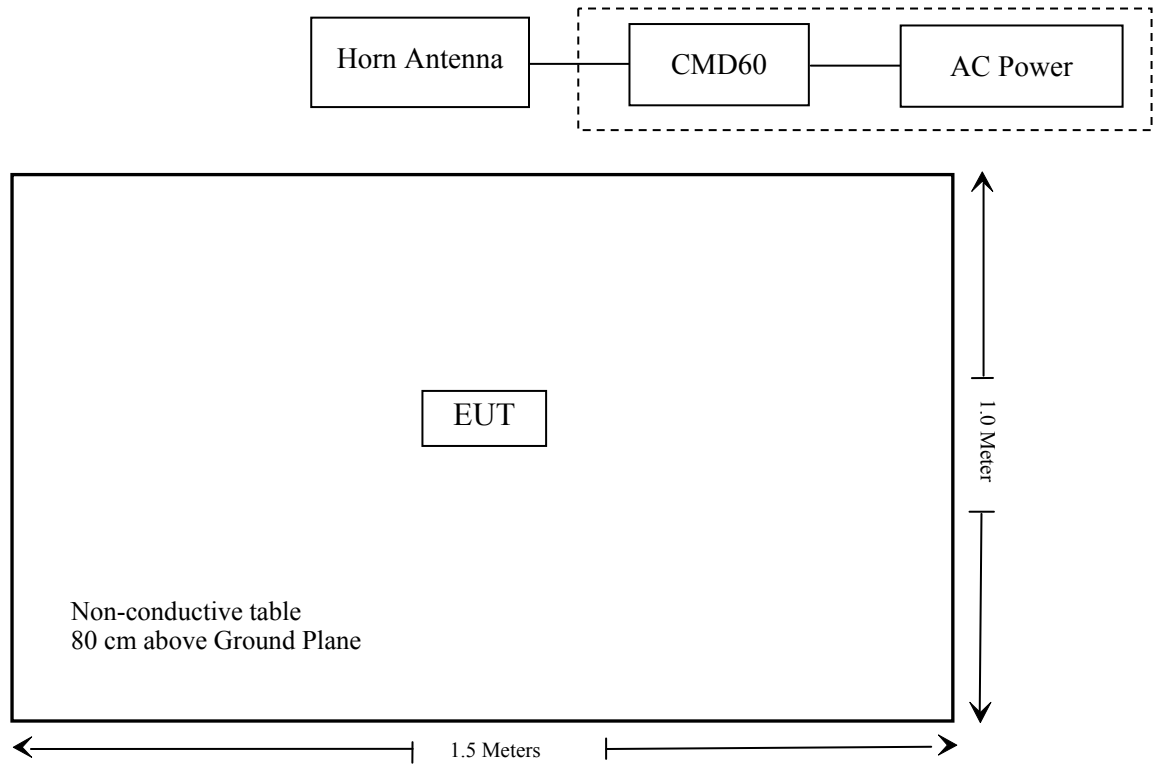
Cable Description	Length (m)	From/Port	To
Un-shielding DC Power Cable	1.85	FP	Adapter

Block Diagram of Test Setup

For Conducted Emission Test:



For Radiated Emission Test:



SUMMARY OF TEST RESULTS

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

Note: Compliant*Based on the applicant's declaration, the handset is exactly identical as the handset unit of the previous certified product (FCC ID: WG8A400), 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

Applicable Standard

According to FCC Part 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:

Please refer to SAR test report RSZ130220005-20.

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 RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

FCC §15.315 & §15.207 - CONDUCTED EMISSIONS

Applicable Standard

FCC §15.315, an unlicensed PCS device that is designed to be connected to the public utility (AC) power line must meet the limits specified in §15.207.

Results

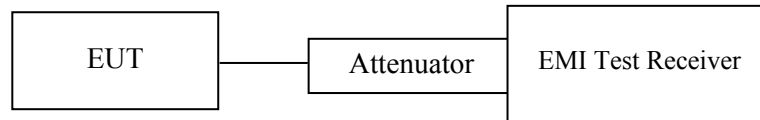
Please refer to the report RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

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

Test Setup 1:



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)].

Results

Please refer to the report RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

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:

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

Results

Please refer to the report RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

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.

Results

Please refer to the report RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

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.

Results

Please refer to the report RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

FCC §15.319 (g) - RADIATED EMISSIONS

Applicable Standard

FCC §15.319(g) Notwithstanding other technical requirements specified in this subpart, attenuation of emissions below the general emission limits in §15.209 is not required.

Results

Please refer to the report RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

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 $+50^{\circ}$ 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° . 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

Results

Please refer to the report RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

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

Results

Please refer to the report RSZ121213001-00PP for Clearsounds Communications, Inc. issued on 2013-02-20 with FCC ID: WG8A400 by Bay Area Compliance Laboratories Corp. (Shenzhen).

DECLARATION LETTER



Clearsounds Communications Inc
1743 Quincy Ave. Unit #155 Naperville, IL, USA
Tel: 630.654.9200 Fax: 630.654.9219

2013-2-20

Product Similarity Declaration Letter

To Whom It May Concern,

We, Clearsounds Communications Inc, hereby declare that our product Amplified Cordless Phone, the models A500, A500E and A500Bundle are different in model number due to different combinations, which have the same base, handset and charger, details as below:

A500: 1 base+1 Handset

A500E: 1 Handset+1 Charger

A500Bundle: 1 base+2 Handset+1 Charger

Please contact me if you have any question.

Signature:

A handwritten signature in blue ink, appearing to read "Michele Ahlman".

Michele Ahlman

President and CEO



Clearsounds Communications Inc
1743 Quincy Ave. Unit #155 Naperville, IL, USA
Tel: 630.654.9200 Fax: 630.654.9219

2013-2-20

To:

Bay Area Compliance Laboratories Corp.
1274 Anvilwood Avenue
Sunnyvale, CA 94089

Declaration of Using the Same Handset and Charger

Dear Sir/Madam,

We, Clearsounds Communications Inc, hereby declare that we use the same handset and charger in our product Amplified Cordless Phone, model numbers:A500,A500E, A500Bundle as our product Amplified Cordless Phone, model numbers: A400,A400E, A400Bundle(FCC ID:WG8A400,US:CLSW400BA400,IC:7800A-CSA400)that was certified by BACL.

Please contact me if you have any question.

Signature:

Michele Ahlman

President and CEO

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