

# **Uniden America Corporation**

47 CFR Part 15

Unlicensed Personal Communication Service Devices (Handset)

FCC ID: AMWUC518WP

Test Report Number: HK08030115-1

Issue Date: March 13, 2008

## TL/ac

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# **LIST OF EXHIBITS**

# **INTRODUCTION**

EXHIBIT 1: Summary of Tests

EXHIBIT 2: General Description

EXHIBIT 3: System Test Configuration

EXHIBIT 4: Measurement Results

EXHIBIT 5: Equipment Photographs

Test Report Number: HK08030115-1 Page 1 of 57

# **Table of Contents**

1.0 Summary of Test Results	6
2.0 General Description	9
2.1 Product Description	9
2.2 Technical Description	
2.3 Test Methodology	
2.4 Test Facility	10
3.0 System Test Configuration	
3.1 Justification	
3.2 Conducted Emission Test Configuration	
3.3 Conducted Monitoring and Operational Test Configuration	
3.4 EUT Exercising Software	
3.5 Details of EUT and Description of Peripherals	
3.6 Measurement Uncertainty	
3.7 Equipment Modification	15
4.0 Measurement Results	
4.1 Antenna Requirement	
4.2 Digital Modulation Techniques	17
4.3 Emission Bandwidth	
4.4 Directional Gain of the Antenna	
4.5 Peak Transmit Power	
4.6 Power Spectral Density	
4.7 Automatic Discontinuation of Transmission	
4.8 Unwanted Emission Inside the Sub-Band	
4.9 Emissions Outside the Sub-Band	
4.9.1 Radiated Emissions Configuration Photographs	
4.9.2 Radiated Emissions Data	
4.9.3 Field Strength Calculation	
4.9.4 Average Factor Calculation	
4.10 AC Power Lines Conducted Emissions from Transmitter portion of EUT	
<ul><li>4.11 Radiated Emissions from Computing Device Peripheral Portion of EUT</li><li>4.12 AC Power Lines Conducted Emissions from Computing Device Peripheral</li></ul>	
of EUT	
4.13 Radio Frequency Radiation Exposure	37
4.14 Frame Repetition Stability	
4.15 Frame Period and Jitter	39
4.16 Carrier Frequency Stability	40
4.17 Monitoring Threshold	
4.17.1 Lower Monitoring Threshold	42
4.17.2.1 Upper Monitoring Threshold	43
4.17.2.2 Least Interfered Channel (LIC) Selection	
4.17.2.3 Least Interfered Channel (LIC) Confirmation	45
4.17.2.4 Maximum Spectrum Occupancy	45
4.18 Monitoring Time	46
4.19 Maximum Transmit Period	47

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP

# **Table of Contents**

4.20 System Acknowledgement	48
4.21 Random Waiting	
4.22 Monitoring Bandwidth	
4.23 Maximum Reaction Time	
4.24 Monitoring Antenna	52
4.25 Duplex Connections	
4.26 Alternative Monitoring Interval for Co-located Device	54
4.27 Fair Access	
5.0 Equipment Photographs	57
2.0 = qu.p2	

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP Page 3 of 57

# **List of Attached Files**

Exhibit Type	File Description	Filename
Operational Description	Technical Description	descri.pdf
Test Report	Test Report	report.pdf
Test Report	Emission Bandwidth and Test Frequency Plots	26bw.pdf
Test Report	Peak Transmit Power Plots	peaktp.pdf
Test Report	Power Spectral Density Plots	psd.pdf
Test Report	Unwanted Emission Inside Sub- Band Plots	inband.pdf
Test Setup Photo	Radiated Emission Test Configuration	config photos.pdf
External Photos	External Photo	external photos.pdf
Internal Photos	Internal Photo	internal photos.pdf

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP Page 4 of 57

# **EXHIBIT 1 SUMMARY OF TEST RESULTS**

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP Page 5 of 57

# 1.0 **Summary of Test Results**

# Uniden America Corporation - Model: DECT2085 water proof handset

**FCC ID: AMWUC518WP** 

General Technical Requirements				
Test Items	FCC Part 15 Section	Test Procedure ANSI C63.17 / ANSI C63.4 *	Results	Details see section
Antenna Requirement	15.317		Pass	4.1
Digital Modulation Techniques	15.319(b)	6.1.4	Pass	4.2
Emission Bandwidth	15.323(a)	6.1.3	Pass	4.3
Directional Gain of the Antenna	15.319(e)	4.3.1	Pass	4.4
Peak Transmit Power	15.319(c)	6.1.2	Pass	4.5
Power Spectral Density	15.319(d)	6.1.5	Pass	4.6
Automatic Discontinuation of Transmission	15.319(f)		Pass	4.7
AC Power Lines Conducted Emissions from Transmitter Portion of EUT	15.315	7 *	NA	4.10
Radiated Emissions from Computing Device Peripheral Portion of EUT	15.109(a)	8 *	NA	4.11
AC Power Lines Conducted Emissions from Computing Device Peripheral Portion of EUT	15.107(a)	7 *	NA	4.12
Radio Frequency Radiation Exposure	15.319(i)		Remark	4.13

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Ken Sit Supervisor

Date: March 13, 2008

Approved By:

Leung Wai Leung, Tommy

Senior Manager

Date: March 13, 2008

Remark: please refer to Exhibit 4.13 Radio Frequency Radiation Exposure for more details.

Test Report Number: HK08030115-1 Page 6 of 57

# 1.0 **Summary of Test Results (continued)**

# Uniden America Corporation - Model: DECT2085 water proof handset

**FCC ID: AMWUC518WP** 

Specific Requirements for UPCS Device				
Test Items	FCC Part 15 Section	Test Procedure ANSI C63.17 / ANSI C63.4 *	Results	Details see section
Unwanted Emission Inside the Sub-Band	15.323(d)	6.1.6.1	Pass	4.8
Emissions Outside the Sub-Band	15.323(d)	6.1.6.2	Pass	4.9
Frame Repetition Stability	15.323(e)	6.2.2	Pass	4.14
Frame Period and Jitter	15.323(e)	6.2.3	Pass	4.15
Carrier Frequency Stability	15.323(f)	6.2.1	Pass	4.16
Lower Monitoring Threshold	15.323(c)(2)	7.3.1(b)	NA	4.17.1
Upper Monitoring Threshold	15.323(c)(5)	7.3.2	Pass	4.17.2.1
Least Interfered Channel (LIC) Selection,	15.323(c)(5)	7.3.3	Pass	4.17.2.2
Least Interfered Channel (LIC) Confirmation	15.323(c)(5)	7.3.3 , 7.3.4	Pass	4.17.2.3
Maximum Spectrum Occupancy	15.323(c)(5)		Pass	4.17.2.4
Monitoring Time	15.323(c)(1)	7.3.4	Pass	4.18
Maximum Transmit Period	15.323(c)(3)		Pass	4.19
System Acknowledgement	15.323(4)	8.1 or 8.2	Pass	4.20
Random Waiting	15.323(c)(6)	8.1.2 & 8.1.3	NA	4.21
Monitoring Bandwidth	15.323(c)(7)	7.4	Pass	4.22
Maximum Reaction Time	15.323(c)(7)	7.5	Pass	4.23
Monitoring Antenna	15.323(c)(8)	4	Pass	4.24
Duplex Connections	15.323(c)(10)	8.3	Pass	4.25
Alternative Monitoring Interval for Co-located Device	15.323(c)(11)	8.4	NA	4.26
Fair Access	5.323(c)(12)		Remark	4.27

Test Engineer:

Approved By:

Ken Sit Supervisor Leung Wai Leung, Tommy

Senior Manager

Date: March 13, 2008

Date: March 13, 2008

Remark: please refer to Exhibit 4.27 Fair Access for more details.

Test Report Number: HK08030115-1

FCC ID: AMWUC518WP

Page 7 of 57

# **EXHIBIT 2 GENERAL DESCRIPTION**

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP Page 8 of 57

# 2.0 General Description

# 2.1 Product Description

The DECT2085 water proof handset is a 1.9GHz Digital Modulation Cordless Phone with Caller ID and Speakerphone-Handset. It operates at frequency range of 1921.536MHz to 1928.448MHz with 5 physical frequency channels. The circuit wiring is consistent under the requirement of part 68.

The antenna used in handset is integral, and the test sample is a prototype.

# 2.2 Technical Description

The circuit description and digital modulation techniques description are saved as filename: descri.pdf.

Test Report Number: HK08030115-1 Page 9 of 57

# 2.3 Test Methodology

The radiated emission measurements for unintentional radiator and AC power line-conducted emission measurements were performed according to the test procedures specified in ANSI C63.4 (2003). The radiated emission measurements for intentional radiator contained in UPCS device, conducted emission measurements, Listen Before Transmit (LBT) tests, Time Frame and Frequency Stability tests were performed according to the test procedures specified in ANSI C63.17 (2006). All radiated measurements were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "Justification Section" of this Application. All other measurements were made in accordance with the procedures in 47 CFR Part 2.

# 2.4 Test Facility

The open area test site and conducted measurement facility used to collect the emission data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC.

Test Report Number: HK08030115-1 Page 10 of 57

# **EXHIBIT 3 SYSTEM TEST CONFIGURATION**

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP Page 11 of 57

### 3.0 System Test Configuration

#### 3.1 Justification

For emissions testing, the equipment under test (EUT) was setup to transmit continuously in burst mode with pseudo-random data to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst-case emissions. The handset (if any) was powered by a fully charged battery.

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable. If the base unit attached to peripherals, they were connected and operational (as typical as possible).

The signal was maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization were varied during the search for maximum signal level. The antenna height was varied from 1 to 4 meters. Detector function was in peak mode. Radiated emissions are taken at three meters unless the signal level was too low for measurement at that distance. If necessary, a pre-amplifier was used and/or the test was conducted at a closer distance.

The spectrum analyzer resolution bandwidth was approximately 1% of the EUT emission bandwidth, unless otherwise specified.

Radiated emission measurements were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

Test Report Number: HK08030115-1 Page 12 of 57

### 3.2 Conducted Emission Test Configuration

The setup and equipment setting were made in accordance with ANSI C63.17. The antenna of EUT transmitter was replaced by a coaxial cable. The impendence matching of connection, cable loss and external RF attenuator are taken into account. The EUT was arranged to communicate via a fixed carrier frequency between its transmitter and a companion device. The transmission was configured in burst mode with pseudo-random data as typical as normal operation.

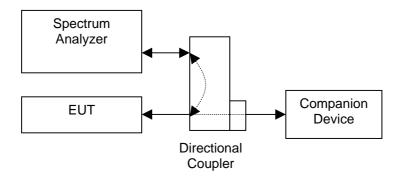


Figure 3.2.1

# 3.3 Conducted Monitoring and Operational Test Configuration

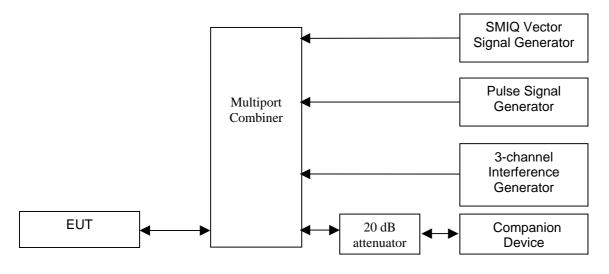


Figure 3.3.1

### 3.4 EUT Exercising Software

The EUT exercise program (if any) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

Test Report Number: HK08030115-1 Page 13 of 57

# 3.5 Details of EUT and Description of Peripherals

# **Details of EUT:**

A battery (provided with the unit) was used to power the device. Description is listed below.

(1) Handset: A "Ni-MH" type rechargeable battery (2.4V 650mAh) (Supplied by Client)

# **Description of Peripherals**:

There are no special accessories necessary for compliance of this product.

Test Report Number: HK08030115-1 Page 14 of 57

# 3.6 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty test has been considered.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

### 3.7 Equipment Modification

Any modifications installed previous to testing by Uniden America Corporation will be incorporated in each production model sold/leased in the United States.

No modifications were installed by Commercial & Electrical Division, Intertek Testing Services Hong Kong Ltd.

All the items listed under section 3.0 of this report are confirmed by:

# Confirmed by:

Leung Wai Leung, Tommy Senior Manager Intertek Testing Services Hong Kong Ltd. Agent for Uniden America Corporation

Signature\_\_\_\_

March 13, 2008 Date

Test Report Number: HK08030115-1 Page 15 of 57

# **EXHIBIT 4 MEASUREMENT RESULTS**

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP Page 16 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

# 4.0 Measurement Results

4.1 Antenna Requirement, FCC Rule 15.317:

EUT must meet the antenna requirement of FCC Rule 15.203.

- [x] EUT uses a permanently attached antenna which is considered sufficient to comply with the provisions of this rule. Please refer to Exhibit 5: Internal Photos for more details.
- [ ] EUT uses a unique antenna jack or electrical connector which is considered sufficient to comply with the provisions of this rule. Please refer to Exhibit 5: Internal Photos for more details.
- 4.2 Digital Modulation Techniques, FCC Rule 15.319(b):

All transmissions must use only digital modulation techniques.

The requirements are made in accordance with ANSI C63.17 sub-clause 6.1.4.

Attestation:

Please refer to relevant DECT standards for more details.

Test Report Number: HK08030115-1 Page 17 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

# 4.3 Emission Bandwidth, FCC Rule 15.323(a):

Operation shall be contained within the 1920 - 1930 MHz band. The emission bandwidth (B) shall be less than 2.5 MHz and greater than 50 kHz.

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.3. Test setup is shown in section 3.2 Figure 3.2.1.

#### Test Results:

#### I. Traffic Carrier

Channel	Channel Frequency (MHz)	Measuring Signal Level	Measured Emission Bandwidth (MHz)	Results
Lowest	1921.536	26 dB down	2.18	Pass
Highest	1928.448	26 dB down	2.10	Pass

Please refer to the attached plots for more details:

Plot 1A: Lowest Channel 26dB Emission Bandwidth (Traffic Carrier) Plot 1D: Highest Channel 26dB Emission Bandwidth (Traffic Carrier)

The plots of emission bandwidth and test frequency are saved as filename: 26bw.pdf

Test Report Number: HK08030115-1 Page 18 of 57

Date of Test: March 4-12, 2008

Company: Uniden America Corporation

Model: DECT2085 water proof handset

4.4 Directional Gain of the Antenna, FCC Rule FCC 15.319(e): The peak transmit power shall be reduced by the amount in dB that the maximum directional gain of the antenna exceeds 3 dBi. The requirements are made in accordance with ANSI C63.17 sub-clause 4.3.1. Manufacturer declares that the directional gain of the antenna is less than or [ x ] equal to 3dBi. No peak transmit power reduction is required. Manufacturer declares that the directional gain of the antenna is greater than 3dBi. The peak transmit power shall be reduced by dB.

Test Report Number: HK08030115-1 Page 19 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

# 4.5 Peak Transmit Power, FCC Rule 15.319(c):

The peak transmit power ( $P_{\text{EUT}}$ ) shall not exceed 100 $\mu$ W multiplied by the square root of the emission bandwidth (B) in Hz or 5 log<sub>10</sub> B-10 dBm. The peak transmit power shall be reduced by the amount in dB that the maximum directional gain of the antenna exceeds 3 dBi.

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.2. Test setup is shown in section 3.2 Figure 3.2.1. The cable loss and/or external attenuation are included in OFFSET function of spectrum analyzer.

Calculation of Peak Transmit Power Limit ( $P_{max}$ ):

[ $\times$ ]  $P_{\text{max}} = 5 \log_{10} B - 10 \text{ dBm}$  when  $G_A \le 3 \text{dBi}$ 

[ ]  $P_{\text{max}} = 5 \log_{10} B - 10 \text{ dBm} - (G_A - 3 \text{dBi})$  when  $G_A > 3 \text{dBi}$ 

Where  $G_A = EUT$  Antenna Gain: 0 dBi

Test Results:

#### I. Traffic Carrier

Channel	Channel Frequency (MHz)	Measured Peak Transmit Power (dBm)	Limit (dBm)	Results
Lowest	1921.536	18.87	21.69	Pass
Highest	1928.448	19.11	21.61	Pass

Please refer to the attached plots for more details:

Plot 2A: Lowest Channel Peak Transmit Power (Traffic Carrier) Plot 2B: Highest Channel Peak Transmit Power (Traffic Carrier)

The plots of peak transmit power are saved as filename: peaktp.pdf

Test Report Number: HK08030115-1 Page 20 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

### 4.6 Power Spectral Density, FCC Rule 15.319(d):

Power spectral density shall not exceed 3 mW (4.8dBm) in any 3 kHz bandwidth as measured with a spectrum analyzer having a resolution bandwidth of 3 kHz.

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.5. Test setup is shown in section 3.2 Figure 3.2.1.

#### Test Results:

#### I. Traffic Carrier

Channel	Channel Frequency (MHz)	Measured Power Spectral Density (dBm/3kHz)	Limit (dBm/3 kHz)	Results
Lowest	1921.536	-11.9	4.8	Pass
Highest	1928.448	-11.3	4.8	Pass

Please refer to the attached plots for more details:

Plot 3A: Lowest Channel Power Spectral Density (Traffic Carrier) Plot 3B: Highest Channel Power Spectral Density (Traffic Carrier)

The plots of the power spectral density are saved as filename: psd.pdf

Test Report Number: HK08030115-1 Page 21 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

## 4.7 Automatic Discontinuation of Transmission, FCC Rule 15.319(f):

The EUT shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude transmission of control and signaling information or use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

#### Test Procedures:

The following tests simulate the reaction of EUT in case of either absence of information to transmit or operational failure after a connection of its companion device is established. Test setup is shown in section 3.2 Figure 3.2.1.

#### Test Descriptions and Results:

#### I. Handset:

	Test Descriptions	Reaction of EUT	Results
1	Switch-off companion device	NA	NA
2	On Hook by companion device	NA*	NA
3	Remove power from companion device	Α	Pass
4	Switch-off EUT	NA	NA
5	On Hook on EUT Side	С	Pass
6	Remove power from EUT	С	Pass

- A Connection is terminated and, transmission ceases.
- B Connection is terminated but EUT transmits control or signaling information.
- C Connection is terminated but companion device transmits control or signaling information.
- NA Not applicable, represents the device does not contain a hook switch or a power off switch
- [ ] The manufacturer declares that the EUT can automatically discontinue transmission in case of either absent information to transmit or operational failure. The manufacturer's declaration is saved as filename: declaration.pdf

Remark: \* On hook by companion device is neither absence of information to transmit nor operational failure.

Test Report Number: HK08030115-1 Page 22 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

4.8 Unwanted Emission Inside the Sub-Band, FCC Rule 15.323(d):

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

- 1. In the bands between 1*B* and 2*B* measured from the center of the emission bandwidth, emission shall be at least 30 dB below the permitted peak transmit power; i.e.-9.5 dBm
- 2. In the bands between 2B and 3B measured from the center of the emission bandwidth, emission shall be at least 50 dB below the permitted peak transmit power; i.e. -29.5 dBm
- 3. In the bands between 3*B* and the band edge, emission shall be at least 60 dB below the permitted peak transmit power. i.e. -39.5 dBm

Where B = emission bandwidth in Hz

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.6.1. Test setup is shown in section 3.2 Figure 3.2.1.

#### Test Results:

#### I. Traffic Carrier

Channel	Channel Frequency (MHz)	Results
Lowest	1921.536	Pass
Highest	1928.448	Pass

Please refer to the attached plots for more details:

Plot 4A: Lowest Channel Unwanted Emission Inside the Sub-Band (Traffic Carrier) Plot 4B: Highest Channel Unwanted Emission Inside the Sub-Band (Traffic Carrier)

The plots of the unwanted emission inside the sub-band are saved as filename: inband.pdf

Test Report Number: HK08030115-1 Page 23 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

### 4.9 Emissions Outside the Sub-Band, FCC Rule 15.323(d):

Emissions outside the sub-band shall be attenuated below a reference power of 112 mW (20.5 dBm) as follows:

- 1. 30 dB between the band edge and 1.25 MHz above or below the band;
- 2. 50 dB between 1.25 and 2.5 MHz above or below the band; and
- 3. 60 dB at 2.5 MHz or greater above or below the band shall not exceed the limits of FCC Rule 15.209.

Example: Calculation of Limit for emissions between the band edge and 1.25 MHz (1920.000 – 1918.750 MHz)

The emissions shall not exceed the Limit: 20.5 dBm - 30 dB = -9.5 dBm

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.6.2. As EUT has non-detachable antenna(s), radiated emissions test method is used for out-of-band emissions tests. Emissions that are directly caused by digital circuits in the transmit path and transmitter portion are measured. Test setup and procedures are described in section 3.2 Figure 3.2.1.

#### Test Results:

#### Handset:

Channel	Carrier Frequency (MHz)	Measured Band (MHz)	Limit (dBm)	Results
		1920.000 - 1918.750	-9.5	Pass
Lowest	1921.536	1918.750 - 1917.500	-29.5	Pass
		0.009 - 1917.500 & 1932.500 - 19300.000	-39.5 / FCC Rule 15.209	Pass
	1930.000 - 1931.250	-9.5	Pass	
Highest	1928.448	1931.250 - 1932.500	-29.5	Pass
		0.009 - 1917.500 & 1932.500 - 19300.000	-39.5 / FCC Rule 15.209	Pass

Please refer to the section 4.9.1 to 4.9.4 for more details.

Test Report Number: HK08030115-1 Page 24 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

Mode: Transmission

4.9.1 Radiated Emissions Configuration Photographs:

Worst Case Radiated Emission at

3856.896 MHz

The worst case radiated emission configuration photographs are saved as filename: config photos.pdf

Test Report Number: HK08030115-1 Page 25 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset Mode: Transmission

#### 4.9.2 Radiated Emissions Data:

Data are included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data in tables 1 to 5 list the significant emission frequencies, the limit and the margin of compliance.

### Judgement:

Passed by 1.4 dB Margin from peak limit

**TEST ENGINEER:** 

Signature

Ken Sit, Supervisor

Typed/Printed Name

March 13, 2008

Date

Test Report Number: HK08030115-1 Page 26 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

Mode: Transmission

Table 1 - Handset

# Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) Emissions Requirements

#### **Lowest Channel**

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
		(dBm)	(dBm)	
V	1919.920	-49.9	-9.5	-40.4
V	1918.505	-51.3	-29.5	-21.8
V	1917.400	-52.7	-39.5	-13.2

#### NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters.

3. Negative value in the margin column shows emission below limit.

Test Report Number: HK08030115-1 Page 27 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

Mode: Transmission

Table 2, Handset

# Radiated Emissions Data Pursuant To FCC Part 15 Section 15.209 Emissions Requirements

#### Lowest Channel:

								Average	
			Pre-Amp	Antenna	Net at	Average	Calculated	Limit	
Polari-	Frequency	Reading	Gain	Factor	3m - Peak	Factor	at 3m	at 3m	Margin
zation	(MHz)	(dBμV)	(dB)	(dB)	(dBμV/m)	(dB)	(dBμV/m)	(dBµV/m)	(dB)
Н	3843.072	71.9	33	33.3	72.2	28.1	44.1	54.0	-9.9
Н	5764.608	58.5	33	36.6	62.1	28.1	34.0	54.0	-20.0
Н	7686.144	57.1	33	38.9	63.0	28.1	34.9	54.0	-19.1
Н	9607.680	51.7	33	40.4	59.1	28.1	31.0	54.0	-23.0
Н	11529.216	52.6	33	40.5	60.1	28.1	32.0	54.0	-22.0

			Pre-Amp	Antenna	Net at	Peak Limit	
Polari-	Frequency	Reading	Gain	Factor	3m - Peak	at 3m	Margin
zation	(MHz)	(dBμV)	(dB)	(dB)	(dB <sub>µ</sub> V/m)	$(dB_{\mu}V/m)$	(dB)
Н	3843.072	71.9	33	33.3	72.2	74.0	-1.8
Н	5764.608	58.5	33	36.6	62.1	74.0	-11.9
Н	7686.144	57.1	33	38.9	63.0	74.0	-11.0
Н	9607.680	51.7	33	40.4	59.1	74.0	-14.9
Н	11529.216	52.6	33	40.5	60.1	74.0	-13.9

# NOTES:

- 1. Peak detector is used for the emission measurement over 1000 MHz.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK08030115-1 Page 28 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

Mode: Transmission

Table 3 - Handset

# Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) Emissions Requirements

# **Highest Channel**

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
		(dBm)	(dBm)	
V	1930.850	-48.9	-9.5	-39.4
V	1931.350	-51.1	-29.5	-21.6
V	1932.630	-52.4	-39.5	-12.9

#### NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters.

3. Negative value in the margin column shows emission below limit.

Test Report Number: HK08030115-1 Page 29 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

Mode: Transmission

Table 4, Handset

# Radiated Emissions Data Pursuant To FCC Part 15 Section 15.209 Emissions Requirements

# Highest Channel:

								Average	
			Pre-Amp	Antenna	Net at	Average	Calculated	Limit	
Polari-	Frequency	Reading	Gain	Factor	3m - Peak	Factor	at 3m	at 3m	Margin
zation	(MHz)	(dBμV)	(dB)	(dB)	$(dB\mu V/m)$	(dB)	(dBμV/m)	(dB <sub>µ</sub> V/m)	(dB)
Н	3856.896	72.3	33	33.3	72.6	28.1	44.5	54.0	-9.5
Н	5785.344	58.7	33	36.6	62.3	28.1	34.2	54.0	-19.8
Н	7713.792	57.4	33	38.9	63.3	28.1	35.2	54.0	-18.8
Н	9642.240	51.2	33	40.4	58.6	28.1	30.5	54.0	-23.5
Н	11570.688	52.5	33	40.5	60.0	28.1	31.9	54.0	-22.1

			Pre-Amp	Antenna	Net at	Peak Limit	
Polari-	Frequency	Reading	Gain	Factor	3m - Peak	at 3m	Margin
zation	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
Н	3856.896	72.3	33	33.3	72.6	74.0	-1.4
Н	5785.344	58.7	33	36.6	62.3	74.0	-11.7
Н	7713.792	57.4	33	38.9	63.3	74.0	-10.7
Н	9642.240	51.2	33	40.4	58.6	74.0	-15.4
Н	11570.688	52.5	33	40.5	60.0	74.0	-14.0

#### NOTES:

- 1. Peak detector is used for the emission measurement over 1000 MHz.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK08030115-1 Page 30 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

Mode: Talking

Table 5 - Handset

# Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) Emissions Requirements

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
		(dBm)	(dBm)	
V	41.475	-67.3	-39.5	-27.8
V	55.300	-67.8	-39.5	-28.3
V	69.125	-68.1	-39.5	-28.6
V	96.775	-68.6	-39.5	-29.1
Н	124.420	-68.9	-39.5	-29.4
Н	152.070	-69.4	-39.5	-29.9

#### NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK08030115-1 Page 31 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

### 4.9.3 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD + AV

Where  $FS = Field Strength in dB\mu V/m$ 

RA = Receiver Amplitude (including preamplifier) in  $dB\mu V$ 

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB AG = Amplifier Gain in dB

PD = Pulse Desensitization in dB

AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD + AV

#### Example

Assume a receiver reading of 62.0 dB $_{\mu}$ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29.0 dB is subtracted. The pulse desensitization factor of the spectrum analyzer is 0.0 dB, and the resultant average factor is -10.0 dB. The net field strength for comparison to the appropriate emission limit is 32.0 dB $_{\mu}$ V/m. This value in dB $_{\mu}$ V/m is converted to its corresponding level in  $_{\mu}$ V/m.

 $RA = 62.0 dB\mu V$ 

AF = 7.4 dB

CF = 1.6 dB

 $AG = 29.0 \, dB$ 

PD = 0.0 dB

AV = -10 dB

 $FS = 62.0 + 7.4 + 1.6 - 29.0 + 0.0 + (-10.0) = 32.0 \text{ dB}\mu\text{V/m}$ 

Level in mV/m = Common Antilogarithm [(32.0 dB $\mu$ V/m)/20] = 39.8  $\mu$ V/m

Test Report Number: HK08030115-1 Page 32 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

4.9.4 Average Factor Calculation, FCC Rule 15.35(b, c)

Average Factor (AF) = -28.1dB

Please refer to Exhibit 2.2 Technical Description for more details.

Test Report Number: HK08030115-1 Page 33 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

4.10 AC Power Lines Conducted Emissions from Transmitter portion of EUT, FCC Rule 15.315:

The AC power lines conducted emission shall not exceed the limits of FCC Rule 15.207.

Measurements are made in accordance with ANSI C63.4 sub-clause 7. Emissions that are directly caused by digital circuits in the transmit path and transmitter portion are measured.

[ x ]	Not applicable –	<ul> <li>EUT is only</li> </ul>	powered by	battery for	operation.
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[ ] EUT connects to AC power lines. Emission Data are listed in following pages. Please refer to the section 4.10.1 to 4.10.2 for more details.

Test Report Number: HK08030115-1 Page 34 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

4.11 Radiated Emissions from Computing Device Peripheral Portion of EUT, FCC Rule 15.109(a):

EUT includes computing device peripheral circuitry and is subject to the requirements of FCC Part 15 Subpart B. The radiated emission shall not exceed the limits of FCC Rule 15.109(a).

Measurements are made in accordance with ANSI C63.4 sub-clause 8 and section 3.1. Radiated emissions shall be measured with EUT operating in typical operation modes. The spectrum analyzer resolution bandwidth was 100 kHz or greater for frequencies below 1000 MHz.

[×]	Not applicable – No computing device peripheral
]	The computing device peripheral portion of EUT is subject to FCC Part 15 Subpart B, Certification. Please refer to the section 4.11.1 for more details.
[ ]	The computing device peripheral portion of EUT is subject to FCC Part 15 Subpart B, DoC. Emission Data are included in the separated DoC report.

Test Report Number: HK08030115-1 Page 35 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

4.12 AC Power Lines Conducted Emissions from Computing Device Peripheral Portion of EUT, FCC Rule 15.107(a):

EUT includes computing device peripheral and is subject to the requirements of FCC Part 15 Subpart B. The AC power lines conducted emission shall not exceed the limits of FCC Rule 15.107(a).

Measurements are made in accordance with ANSI C63.4 sub-clause 7. Conducted emissions shall be measured with EUT operating in typical operation modes.

[×]	Not applicable – No computing device peripheral
[ ]	The computing device peripheral portion of EUT is subject to FCC Part 15 Subpart B, Certification. Please refer to the section 4.12.1 for more details.
[ ]	The computing device peripheral portion of EUT is subject to FCC Part 15 Subpart B, DoC. Emission Data are included in the separated DoC report.

Test Report Number: HK08030115-1 Page 36 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

4.13 Radio Frequency Radiation Exposure, FCC Rule 15.319(i):

Please refer to the SAR report separately.

Test Report Number: HK08030115-1 Page 37 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

- 4.14 Frame Repetition Stability, FCC Rule 15.323(e):
- [ ] EUT implements Time Division Duplex (TDD) in order to support duplex connection on a given frequency carrier shall maintain a frame repetition rate whereby 3 X the standard deviation of the frequency stability shall not exceed 50 ppm, not including a shift of the mean.
- [x] EUT uses Time Division Multiple Access (TDMA) in order to support multiple communication links on a given frequency carrier shall maintain a frame repetition rate whereby 3 X standard deviation of the frequency stability shall not exceed 10 ppm, not including a shift of the mean.

Measurements are made in accordance with ANSI C63.17 sub-clause 6.2.2. Test setup is shown in section 3.2 Figure 3.2.1. A spectrum analyzer measures the time duration between rising edges of two consecutive frames over a time period of at least 1000 frame periods. These measurement values are used to compute the 3 X standard deviation of the frequency stability.

### Test Results:

### I. Handset:

Maximum Frame Repetition Stability	Limit (ppm)	Results
(ppm)		
0.0002	10	Pass

Test Report Number: HK08030115-1 Page 38 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

### 4.15 Frame Period and Jitter, FCC Rule 15.323(e):

The frame period (a set of consecutive time slots in which the position of each time slot can be identified by reference to a synchronizing source) of EUT operating in these sub-bands shall be 20 ms or 10 ms/X where X is a positive whole number.

The jitter (time-related, abrupt, spurious variations in the duration of the frame interval) introduced at the two ends of such a communication link shall not exceed 25  $\mu$ s for any two consecutive transmissions. Transmissions shall be continuous in every time and spectrum window during the frame period defined for EUT.

Measurements are made in accordance with ANSI C63.17 sub-clause 6.2.3. Test setup is shown in section 3.2 Figure 3.2.1. A spectrum analyzer measures the time duration between the rising edges of two consecutive frames. The measurements are taken over 100,000 frames. These measurement values are used to compute mean value and the difference between any two consecutive frame periods. The mean value is the frame period.

### Test Results:

### I. Jitter - Handset

Measured Maximum Jitter (μs)	Limit (μs)	Results
-0.3006	±25	Pass

Test Report Number: HK08030115-1 Page 39 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

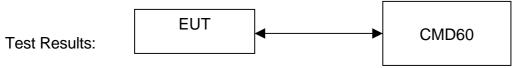
## 4.16 Carrier Frequency Stability, FCC Rule 15.323(f):

The carrier frequency stability of EUT shall be maintained within +/-10 ppm at the following conditions:

- 1. Over 1 hour at nominal supply voltage and a temperature of +20 °C;
- 2. Over a variation in the primary supply voltage of 85 % to 115 % of nominal supply voltage at a temperature of +20 °C. This test does not apply to an EUT that is only powered by battery for operation;
- 3. Over a temperature variation of -20 °C to +50 °C or at extreme temperatures as declared by manufacturer, and at nominal supply voltage.

The nominal supply voltage: <u>2.4</u> VDC and the extreme temperatures of -20°C to +50°C are declared by manufacturer.

Measurements are made in accordance with ANSI C63.17 sub-clause 6.2.1 The EUT and CMD60 is connected with shielded coaxial cable. The EUT is controlled by DECT Radio Communication Tester, CMD60, to use a fixed frequency channel during test as well as record the frequency offset. The transmission of EUT is in burst mode with pseudorandom data. Test setup is shown as follows.



## I. Carrier Frequency Stability over time

Supply Voltage	Temperature (°C)	Measured Frequency Offset Over an hour (ppm)		Limit (ppm)	Results
		Max.	Min.		
Nominal	+20°C	4.99	-0.21	±10	Pass

### II. Carrier Frequency Stability over Temperature

Supply	Temperature	Measured Frequency Offset	Limit	Results
Voltage	(°C)	(ppm)	(ppm)	
Nominal	-20°C	-0.73	±10	Pass
Nominal	+50°C	1.35	±10	Pass

Test Report Number: HK08030115-1 Page 40 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

### 4.17 Monitoring Threshold:

Monitoring threshold can be relaxed according to FCC Rule 15.323(c)(9). EUT that has a power output lower than the maximum permitted under FCC Rule 15.319(c) may increase their monitoring detection threshold by one decibel for each one decibel that the transmitter power is below the maximum permitted.

Calculation of Monitoring Threshold Limit:

Monitoring Threshold (7)  $\leq$  -174 + 10 log<sub>10</sub> B + M +  $P_{\text{max}}$  -  $P_{\text{EUT}}$  dBm  $\leq$  15 log<sub>10</sub> B - 184 + M -  $P_{\text{EUT}}$  dBm

Where B = Measured Occupied Bandwidth: 2.10 x10<sup>6</sup> Hz

M = 30 dB for Lower Monitoring Threshold ( $T_L$ ), or = 50 dB for Upper Monitoring Threshold ( $T_U$ )

 $P_{\text{max}} = 5 \log_{10} B - 10 \text{ dBm}$ 

 $P_{\text{EUT}}$  = Measured Peak Transmit Power: 19.11 dBm

Calculated Monitoring Threshold Limits:

#### I. Handset

Lower Monitoring Threshold (T <sub>L</sub> ) in dBm	-78.3
Upper Monitoring Threshold ( $T_U$ ) in dBm	-58.3

Test Report Number: HK08030115-1 Page 41 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

### 4.17.1 Lower Monitoring Threshold, FCC Rule 15.323(c)(2):

- [x] Not applicable EUT which supports at least of 40 duplex system access channels and implements Least Interfered Channel (LIC) algorithm is permitted to use an upper monitoring threshold. Please refer to the section 4.17.2 for more details.
- [ ] The lower monitoring threshold must not be more than 30 dB above the thermal noise power for a bandwidth equivalent to the emission bandwidth used by EUT.

Measurements are made in accordance with ANSI C63.17 sub-clause 7.3.1(b). Test setup is shown in section 3.3 Figure 3.3.1. The test is performed on the carrier closest to center of the band. RF signal generators apply uniform CW interference on all EUT carriers each at level  $T_L$  + 10 dB. Then, the interference level is reduced uniformly on all carriers until the EUT can transmit. The interference level shall be lower than or equal to the threshold limit.

#### Test Results:

#### I. Handset

Measured Maximum Interference Level (dBm)	Adjusted Lower Monitoring Threshold Limit (dBm)	Results
NA	-78.3	NA

### NA - Not Applicable

Test Report Number: HK08030115-1 Page 42 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

4.17.2 Least Interfered Channel, LIC, FCC Rule 15.323(c)(5):

- Not implemented EUT met lower monitoring threshold requirements. Please refer to the section 4.17.1 for more details
- [x] If access to spectrum is not available as determined by section 4.17.1 and a minimum of 40 duplex system access channels are defined for the EUT, the time and spectrum windows with the lowest power level below a monitoring threshold of 50 dB above the thermal noise power determined for the emission bandwidth may be accessed

Number of duplex channels per frequency channel  $= \underline{12}$ Number of frequency channel  $= \underline{5}$ Total Duplex Channels  $= \underline{60}$ 

Hence, the time and spectrum windows below upper monitoring threshold may be accessed.

## 4.17.2.1 Upper Monitoring Threshold, FCC Rule 15.323(c)(5):

Measurements are made in accordance with ANSI C63.17 sub-clause 7.3.2(b). Test setup is shown in section 3.3 Figure 3.3.1. The test is performed on the carrier closest to center of the band. RF signal generators apply uniform CW interference on all EUT carriers each at level  $T_{\rm U}$  + U<sub>M</sub> +10 dB. Then, the interference level is reduced uniformly on all carriers until the EUT can transmit. The interference level shall be lower than or equal to the threshold limit.

### Test Results:

### I. Handset:

Measured Maximum Interference Level (dBm)	Upper Monitoring Threshold Limit (dBm)	Results
-61.6	-58.3	Pass

Test Report Number: HK08030115-1 Page 43 of 57

Date of Test: March 4-12, 2008

Company: Uniden America Corporation

Model: DECT2085 water proof handset

4.17.2.2 Least Interfered Channel (LIC) Selection, FCC Rule 15.323(c)(5):

The criteria are specified in section 4.17.2. In addition, the power measurement resolution for this comparison must be accurate to within 6 dB.

Measurements are made in accordance with ANSI C63.17 sub-clause 7.3.3. Test setup is shown in section 3.3 Figure 3.3.1. RF signal generators apply uniform CW interference on all EUT carriers except two carriers (designated  $f_1$  and  $f_2$ ), each at level  $T_{U}$ . EUT can only transmit on these two carriers.

## Test Descriptions and Results:

### I. LIC Procedure:

	Test Descriptions	EUT transmits on	Results
1	Apply interference on $f_1$ at level $T_L + 7$ dB. Apply interference on $f_2$ at level $T_L$ . Initiate transmission. Verify transmission on $f_2$ . Terminate transmission. Repeat 5 times.	f <sub>2</sub>	Pass
2	Apply interference on $f_1$ at level $T_L$ . Apply interference on $f_2$ at level $T_L + 7$ dB. Initiate transmission. Verify transmission on $f_1$ . Terminate transmission. Repeat 5 times.	<i>f</i> <sub>1</sub>	Pass
3	Apply interference on $f_1$ at level $T_L + 1$ dB. Apply interference on $f_2$ at level $T_L - 6$ dB. Initiate transmission. Verify transmission on $f_2$ . Terminate transmission. Repeat 5 times.	f <sub>2</sub>	Pass
4	Apply interference on $f_1$ at level $T_L$ - 6 dB. Apply interference on $f_2$ at level $T_L$ + 1 dB. Initiate transmission. Verify transmission on $f_1$ . Terminate transmission. Repeat 5 times.	<i>f</i> <sub>1</sub>	Pass

Test Report Number: HK08030115-1 Page 44 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

## 4.17.2.3 Least Interfered Channel (LIC) Confirmation, FCC Rule 15.323(c)(5):

EUT utilizing the provision of FCC Rule 15.323(c)(5) must have monitored all access channels defined for its system within the last 10 s and must verify, within the 20 ms (40 ms for EUT designed to use a 20 ms frame period) immediately preceding actual channel access that the detected power of the selected time and spectrum windows is no higher than the previously detected value.

Measurements are made in accordance with ANSI C63.17 sub-clause 7.3.4. This test is performed in section 4.18.

#### Results:

The tests are reported in section 4.18.

## 4.17.2.4 Maximum Spectrum Occupancy, FCC Rule 15.323(c)(5):

No EUT or group of co-operating EUTs located within 1 meter of each other shall during any frame period occupy more than 6 MHz of aggregate bandwidth, or alternatively, more than one third of the time and spectrum windows defined by the EUT.

#### Attestation:

According to the technical description provided, the total number of the time and spectrum windows defined by the system is 5\*12 = 60

During any frame period, the maximum number of time and spectrum windows occupied by the system will be 12, which is less than one third of the time and spectrum windows defined by the system.

Test Report Number: HK08030115-1 Page 45 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

## 4.18 Monitoring Time, FCC Rule 15.323(c)(1):

Immediately prior to initiating transmission, EUT must monitor the combined time and spectrum windows in which they intend to transmit for a period of at least 10 ms for EUT designed to use a 10 ms or shorter frame period, or at least 20 ms for EUT designed to use a 20 ms frame period.

Measurements are made in accordance with ANSI C63.17 sub-clause 7.3.4. Test setup is shown in section 3.3 Figure 3.3.1. RF signal generators apply uniform CW interference on all system carriers except two carriers (designated  $f_1$  and  $f_2$ ), each at level  $T_U$ . EUT can only transmit on these two carriers.

## Test Descriptions and Results:

### I. Handset:

	Test Descriptions	EUT transmits on	Results
1	Apply interference on $f_1$ at level $T_U$ , and no interference on $f_2$ . Initiate transmission. Verify transmission on $f_2$ . Then, terminate transmission.	f <sub>2</sub>	Pass
2	Apply interference on $f_2$ at level $T_U$ , and remove interference from $f_1$ immediately. Also immediately initiate transmission but is at least 20 ms after interference on $f_2$ is applied. Verify transmission on $f_1$ .	$f_1$	Pass

Test Report Number: HK08030115-1 Page 46 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

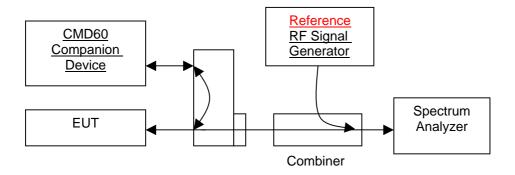
Model: DECT2085 water proof handset

### 4.19 Maximum Transmit Period, FCC Rule 15.323(c)(3):

If no signal above the threshold level is detected, transmission may commence and continue with the same emission bandwidth in the monitored time and spectrum windows without further monitoring. However, occupation of the same combined time and spectrum windows by a EUT or group of co-operating EUTs continuously over a period of time longer than 8 hours is not permitted without repeating the access criteria.

EUT establishes a communication channel with its companion device, which occupies the duplex pair combined time and spectrum windows. Reference RF signal generator synchronized with the sample and then generated a pulse as a time frame reference. The centre frequency of spectrum analyzer was set to the carrier frequency and the SPAN was set to ZERO. The spectrum analyzer was used to monitor the time (reference to the time signal) and spectrum of the communication channel. The occupied time or spectrum of the communication channel shall be changed over a period of time no longer than 8 hours. For a EUT with a frame period of 10/X ms, no more than 2,880,000 X frames should be transmitted without a break.

Test setup is shown as follows:



**Test Results:** 

#### I. Handset:

Measured Maximum Transmission Duration	Limit	Results
(seconds)	(seconds)	
720	28,800	Pass

Test Report Number: HK08030115-1 Page 47 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

## 4.20 System Acknowledgement, FCC Rule 15.323(c)(4):

Once access to specific combined time and spectrum windows is obtained an acknowledgment from a system participant must be received by the initiating transmitter within one second or transmission must cease. Periodic acknowledgments must be received at least every 30 seconds or transmission must cease. Channels used exclusively for control and signaling information may transmit continuously for 30 seconds without receiving an acknowledgment, at which time the access criteria must be repeated.

Measurements are made in accordance with ANSI C63.17 sub-clause 8.1.1 and 8.2.1. Test setup is shown in section 3.3 Figure 3.3.1.

### Test Results:

### I. Handset

## [ ] Timing for EUTs using control and signaling channel type transmissions:

Conditions	Transmission Duration (seconds)	Limit (seconds)	Results
Time needed to repeat access criteria	NA	30	NA

## [x] Timing for EUTs using communications channel type transmissions:

Conditions	Transmission Duration (seconds)	Limit (seconds)	Results
Activate EUT w/ companion device off	0	1	Pass
Time needed to cease Traffic Channel	5.6	30	Pass

NA - Not applicable

Test Report Number: HK08030115-1 Page 48 of 57

Company: Uniden America Corporation Model: DECT2085 water proof handset

Date of Test: March 4-12, 2008

## 4.21 Random Waiting, FCC Rule 15.323(c)(6):

If the selected combined time and spectrum windows are unavailable, the EUT may either monitor and select different windows or seek to use the same windows after waiting an amount of time, randomly chosen from a uniform random distribution between 10 and 150 ms, commencing when the channel becomes available.

Measurements are made in accordance with ANSI C63.17 sub-clause 8.1.2 and 8.1.3. Test setup is shown in section 3.3 Figure 3.3.1.

### Test Results:

- I. Handset
- [ ] Random Waiting Interval is not implemented in the EUT:

Conditions	Transmit Channel	Results
Interference applied at operating Channel, $f_1$	NA	NA

Random waiting is implemented in the EUT:

Maximum time interval from the end of interference to the start of the control channel	The distribution of the measured time intervals	Results
NA	NA	NA

NA - Not applicable

Test Report Number: HK08030115-1 Page 49 of 57

Date of Test: March 4-12, 2008

Company: Uniden America Corporation

Model: DECT2085 water proof handset

4.22 Monitoring Bandwidth, FCC Rule 15.323(c)(7).1:

The monitoring bandwidth must be equal to or greater than the emission bandwidth of the intended transmission.

Measurements are made in accordance with ANSI C63.17 sub-clause 7.4. Test setup is shown in section 3.3 Figure 3.3.1.

### Attestation:

- [x] Monitoring is made through the radio receiver used by the EUT for communication. Please refer to the Exhibit 2.2 Technical Description for more details.
- [ ] Compliance is demonstrated by Monitoring Bandwidth Tests as shown below.

### Test Results:

## I. Simple Compliance Test Results:

Interference from Carrier	Reaction of EUT	Results
-30% Occupied Bandwidth	NA	NA
+30% Occupied Bandwidth	NA	NA

### II. Detailed Compliance Test Results:

CW Interference from Carrier	m Carrier Reaction of EUT		
+ 6 dB	NA	NA	
+ 12 dB	NA	NA	
- 6 dB	NA	NA	
- 12 dB	NA	NA	

A – Could Transmit

B - Could not Transmit

NA - Not applicable

Test Report Number: HK08030115-1 Page 50 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

## 4.23 Maximum Reaction Time, FCC Rule 15.323(c)(7).2:

The monitoring system bandwidth must have a maximum reaction time less than 50 x SQRT (1.25/emission bandwidth B in MHz)  $\mu$ s for signals at the applicable threshold level but shall not be required to be less than 50  $\mu$ s. If a signal is detected that is 6 dB or more above the applicable threshold level, the maximum reaction time shall be 35 x SQRT (1.25/emission bandwidth B in MHz)  $\mu$ s but shall not be required to be less than 35  $\mu$ s.

Measurements are made in accordance with ANSI C63.17 sub-clause 7.5. Test setup is shown in section 3.3 Figure 3.3.1.

### Test Results:

#### I. Handset

	Test	Reaction of EUT	Results
1	With Interference Pulse width, 50μs	В	Pass
2	With Interference Pulse width, 35μs	В	Pass

A - Could be connected in at least one channel

B - Could not be connected in all channels

NA - Not applicable

Test Report Number: HK08030115-1 Page 51 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

4.24 Monitoring Antenna, FCC Rule 15.323(c)(8):

The monitoring system shall use the same antenna used for transmission, or an antenna that yields equivalent reception at that location.

[x] EUT uses the same antenna used for transmission and monitoring that is in compliance meet above provision.

[ ] EUT uses difference antenna used for transmission and monitoring. It must be verified that the monitoring antenna provides coverage equivalent to that of the transmitting antenna. Measurements are made in accordance with ANSI C63.17 sub-clause 4.

Test Report Number: HK08030115-1 Page 52 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008 Model: DECT2085 water proof handset

### 4.25 Duplex Connections, FCC 15.323(c)(10):

An initiating device may attempt to establish a duplex connection by monitoring both its intended transmit (Tx) and receive (Rx) time and spectrum windows. If both the intended transmit and receive time and spectrum windows meet the access criteria, then the initiating device can initiate a transmission in the intended transmit time and spectrum window. If the power detected by the responding device can be decoded as a duplex connection signal from the initiating device, then the responding device may immediately begin transmitting on the receive time and spectrum window monitored by the initiating device.

Measurements are made in accordance with ANSI C63.17 sub-clause 8.3. Test setup is shown in section 3.3 Figure 3.3.1.

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- [ ] Not applicable.
- [x] The EUT is the initiating device of the duplex connection

### Test Results:

- I. Handset:
- [x] Dual Access Criteria Check for EUT Implemented the Upper Threshold:

Interference	Reaction of EUT	Results
All Tx windows with level $T_L$ & Rx windows with level $T_L$ +7dB, except one for Tx window & one for Rx window, which are not duplex.	А	Pass
All Tx windows with level $T_L$ +7dB & Rx windows with level $T_L$ , except one for Tx window & one for Rx, which are not duplex	В	Pass
All Tx & Rx windows with level $T_U$ , except one for Tx window & one fro Rx Window, which are not duplex	С	Pass

- A Could be connected on the target Rx window and its duplex mate
- B Could be connected on the target Tx window and its duplex mate
- C Could not be connected
- NA Not applicable

Test Report Number: HK08030115-1 Page 53 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

4.26 Alternative Monitoring Interval for Co-located Device, FCC Rule 15.323(c)(11):

An initiating device that is prevented from monitoring during its intended transmit window due to monitoring system blocking from the transmissions of a co-located (within one meter) transmitter of the same system, may monitor the portions of the time and spectrum windows in which they intend to receive over a period of at least 10 ms. The monitored time and spectrum window must total at least 50 % of the 10 ms frame interval and the monitored spectrum must be within the 1.25 MHz frequency channel(s) already occupied by that device or co-located co-operating devices. If the access criteria is met for the intended receive time and spectrum window under the above conditions, then transmission in the intended transmit window by the initiating device may commence.

Measurements are made in accordance with ANSI C63.17 sub-clause 8.4.

### Attestation:

Appropriate as it is Co-located Device, in which the monitoring system will be blocked from the transmissions of a co-located (Within one meter) transmitter of the same system. Please refer to attachment, 15.323(c)(11).pdf, for details.

[x] Not appropriate, as it is Cordless Telephone Application.

Test Report Number: HK08030115-1 Page 54 of 57

Company: Uniden America Corporation Date of Test: March 4-12, 2008

Model: DECT2085 water proof handset

4.27 Fair Access, FCC Rule 15.323(c)(12):

The provisions of FCC Rule 15.323(c)(10) or (c)(11) shall not be used to extend the range of spectrum occupied over space or time for the purpose of denying fair access to spectrum to other devices.

Please refer to the corresponding declaration provided by Uniden America Corporation for details.

Test Report Number: HK08030115-1 Page 55 of 57

# **EXHIBIT 5 EQUIPMENT PHOTOGRAPHS**

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP Page 56 of 57

# 5.0 Equipment Photographs

The photographs are saved as filename: external photos.pdf & internal photos.pdf

Test Report Number: HK08030115-1 FCC ID: AMWUC518WP Page 57 of 57