

# **MEASUREMENT REPORT of CORDLESS TELEPHONE**

**Applicant** : CIDMATE International Technology Inc.  
**Model No.** : XG2400xx, XG2401xx  
(x could be numbers or alphabets)  
**EUT** : 2.4GHz Analog Cordless Phone  
**FCC ID** : PIZXG24001  
**Report No.** : C5015384

Test by :

***Training Research Co., Ltd.***

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# CERTIFICATION

**We here by verify that:**

The test data, data evaluation, test procedures and equipment configurations shown in this report were made mainly in accordance with the procedures given in ANSI C63.4 (1992) as a reference. All test were conducted by **Training Research Co., Ltd.**, No. 255, Nan-yang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C. Also, we attest to the accuracy of each.

We further submit that the energy emitted by the sample EUT tested as described in the report is **in compliance with** the technical requirements set forth in the FCC Rules Part 15 Subpart C Section 15.249.

**Applicant** : CIDMATE International Technology Inc.  
**Product Name** : 2.4Hz Analog Cordless Phone  
**Model No.** : XG2400xx, XG2401xx  
**FCC ID** : PIZXG24001  
**Report No.** : C5015384  
**Test Date** : February 20, 2003

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## **I. GENERAL**

### **1.1 Introduction**

The following measurement report is submitted on behalf of Applicant in support of a Cordless Telephone certification in accordance with Part 2 Subpart J and Part 15 Subpart A and C of the Commission's Rules and Regulations.

### **1.2 Description of EUT**

<b>Product Name</b>	:	2.4GHz Analog Cordless Phone
<b>Model No.</b>	:	XG2400xx, XG2401xx (x could be number or alphabets)
<b>FCC ID</b>	:	PIZXG24001
<b>Frequency Range</b>	:	Base: 2402.55 – 2404.50 MHz Handset: 2474.00 – 2475.95 MHz
<b>Support Channel</b>	:	40 Channel
<b>Power Type</b>	:	Base Powered by 120Vac, 60 Hz / 9Vdc, 500mA Handset powered by 3.6 V, 600 mAh
<b>Power Cord</b>	:	cable of power adapter => Non-shielded, 190cm long, No bead
<b>Data Cable</b>	:	RJ-11 x 1 => Non-shielded, 7' long, Plastic hoods, No bead
<b>Applicant</b>	:	CIDMATE International Technology Inc. 3F-B, No. 58, Sec. 1, Minsheng E. Road, Taipei 104, Taiwan

### **1.3 Description of Support Equipment**

In order to construct the minimum testing, following equipment were used as the support units.

<b>PABX</b>	:	<b>King Design</b>
Model No.	:	KD8705-A
Serial No.	:	GV101101186
Power type	:	110 VAC 60Hz
Power cord	:	Non – Shielded, 185cm long
<b>EarphoneMIC.</b>	:	<b>God Information Inc.</b>
Model No.	:	Net8 EarphoneMic
Data cable	:	118cm long, Non – Shielded

#### **1.4 Configuration of System Under Test**

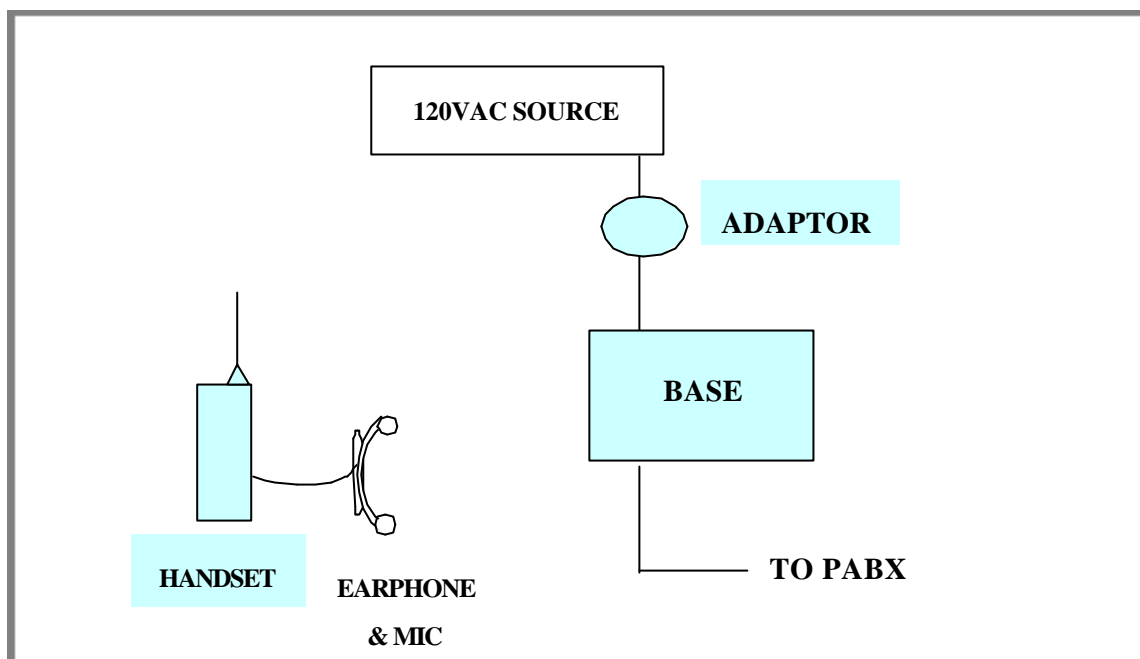


Fig.-1 Configuration of system under test

During testing the EUT was connected to PABX. A diagram of the complete test configuration was shown in Fig-1.

### **1.5 Test Procedure**

All measurements contained in this report were performed mainly according to the techniques described in Measurement procedure ANSI C63.4 (1992).

### **1.6 Location of the Test Site**

The radiated emissions measurements required by the rules were performed on the **three-meter, Anechoic Chamber (Registration Number: 93906)** maintained by *Training Research Co., Ltd.* 1F, No. 255, Nan-yang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C. Complete description and measurement data have been placed on file with the commission. The conducted power line emissions tests and other test items were performed in an anechoic chamber also located at Training Research Co., Ltd. 1F, No. 255, Nan-yang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C. *Training Research Co., Ltd.* is listed by the FCC as a facility available to do measurement work for others on a contract basis.

### **1.7 General Test Condition**

The conditions under which the EUT operates were varied to determine their effect on the equipment's emission characteristics. The final configuration of the test system and the mode of operation used during these tests was chosen as that which produced the highest emission levels. However, only those conditions which the EUT was considered likely to encounter in normal use were investigated.

In test, the base and handset are tested separately. They were set in Ch01 and Ch40 of EUT and continuously transmitting mode that controlled by test mode of EUT.



## **II. Conducted Emissions Measurements**

### **2.1 Test Condition & Setup**

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the backwall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and Line Impedance Stabilization Networks (LISNs). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in 2.3.

There is a test condition applies in this test item, The setting up procedure is recorded on <1.4>. Three channels were tested, one in the top (CH01) and the other in bottom (CH40).

### **2.2 List of Test Instruments**

<u>Instrument Name</u>	<u>Model No.</u>	<u>Brand</u>	<u>Serial No.</u>	<u>Last time</u>	<u>Next time</u>
EMI Receiver	8546A	H P	3520A00242	06/28/02	06/28/03
RF Filter Section	85460A	H P	3448A00217	06/28/02	06/28/03
LISN (EUT)	LISN-01	TRC	9912-03,04	06/04/02	06/04/03
LISN (Support E.)	LISN-01	TRC	9912-05	07/15/02	07/15/03
Auto Switch Box	ASB-01	TRC	9904-01	11/20/02	11/20/03
(< 30MHz)					

The level of confidence of 95%, the uncertainty of measurement of conducted emission is  $\pm 2.02\text{dB}$ .

### 2.3 Test Result of Conducted Emissions

The following table shows a summary of the highest emissions of power line conducted emissions on the HOT and NATURAL conductors of the EUT power cord.

**Table 1 Power Line Conducted Emissions (Channel 1 of base)**

<b>Power Connected Emissions</b>					<b>FCC Class B</b>		
<b>Conductor</b>	<b>Frequency (KHz)</b>	<b>Peak (dBmV)</b>	<b>QP (dBmV)</b>	<b>Average (dBmV)</b>	<b>QP-limit (dBmV)</b>	<b>AVG-limit (dBmV)</b>	<b>Margin (dB)</b>
Line 1	206.000	47.96	---	---	64.40	54.40	-6.44
	355.000	37.02	---	---	60.14	50.14	-13.12
	405.000	45.09	---	---	58.71	48.71	-3.62
	452.000	38.93	---	---	57.37	47.37	-8.44
	504.000	36.38	---	---	56.00	46.00	-9.62
	27210.000	34.58	---	---	60.00	50.00	-15.42
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
Line 2	205.000	47.23	---	---	64.43	54.43	-7.20
	405.000	44.68	---	---	58.71	48.71	-4.03
	456.000	39.37	---	---	57.26	47.26	-7.89
	509.000	34.67	---	---	56.00	46.00	-11.33
	552.000	31.47	---	---	56.00	46.00	-14.53
	27210.000	36.67	---	---	60.00	50.00	-13.33
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---

NOTE:

- (1) Margin = Amplitude – Limit, **The reading amplitudes are all under limit.**
- (2) A "+" sign in the margin column means the emission is OVER the Class B Limit and "-" sign of means UNDER the Class B limit

**Table 2 Power Line Conducted Emissions (Channel 40 of base)**

<b>Power Connected Emissions</b>					<b>FCC Class B</b>		
<b>Conductor</b>	<b>Frequency (KHz)</b>	<b>Peak (dBmV)</b>	<b>QP (dBmV)</b>	<b>Average (dBmV)</b>	<b>QP-limit (dBmV)</b>	<b>AVG-limit (dBmV)</b>	<b>Margin (dB)</b>
Line 1	205.000	48.67	---	---	64.43	54.43	-5.76
	409.000	44.77	---	---	58.60	48.60	-3.83
	452.000	39.55	---	---	57.37	47.37	-7.82
	504.000	35.37	---	---	56.00	46.00	-10.63
	552.000	32.25	---	---	56.00	46.00	-13.75
	27210.000	33.98	---	---	60.00	50.00	-16.02
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
Line 2	203.000	49.07	---	---	64.49	54.49	-5.42
	401.000	44.72	---	---	58.83	48.83	-4.11
	452.000	39.89	---	---	57.37	47.37	-7.48
	504.000	35.63	---	---	56.00	46.00	-10.37
	558.000	32.00	---	---	56.00	46.00	-14.00
	27210.000	36.74	---	---	60.00	50.00	-13.26
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---

NOTE:

- (1)Margin = Amplitude – Limit, **The reading amplitudes are all under limit.**
- (2)A "+" sign in the margin column means the emission is OVER the Class B Limit  
and "-" sign of means UNDER the Class B limit

### **III. Radiated Emissions Measurements**

#### **3.1 Test Condition & Setup**

The EUT was placed in an anechoic chamber and scanned at 3 meter distance to determine its emission characteristics. The physical arrangement of the EUT was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude, directivity, and frequency. The exact system configuration which produced the highest emissions was noted so it could be reproduced later during the final tests. This was done to ensure that the final measurements would demonstrate the worst-case interference potential of the EUT.

Final radiation measurements were made on a three-meter, anechoic chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter.

The spectrum was examined from 30 MHz to 1000 MHz using an Hewlett Packard 85460A EMI Receiver, Schwarzeck whole range Small Biconical antenna (Model No.: BBVU9135) is used to measure frequency from 30 MHz to 1GHz. The final test is used the HP 85460A spectrum and 8564E spectrum was examined from 1GHz to 25GHz using an Hewlett Packard Spectrum Analyzer, EMCO/CMT Horn Antenna (Model 3115 / RA42-K-F-4B-C) for 1G - 25GHz.

At each frequency, the handset of EUT stands on three orthogonal planes respectively and the EUT was rotated 360 degrees. The antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. There are two spectrum analyzers use on this testing, HP 8546A for frequency 30MHz to 1000MHz, and HP8564E for frequency 1 GHz to 25GHz. No post-detector video filters were used in the test. The spectrum analyzer's 6 dB bandwidth was set to 120KHz (spectrum was examined from 30 MHz to 1000 MHz), the spectrum analyzer's 6 dB bandwidth was set to 1 MHz (spectrum was examined from 1 GHz to 25GHz) and the analyzer was operated in the maximum hold mode.

The actual field intensity in decibels referenced to 1 microvolt per meter (dB $\mu$ V/m) is determined by algebraically adding the measured reading in dB $\mu$ V, the antenna factor (dB), and cable loss (dB) at the appropriate frequency.

**For frequency between 30MHz to 1000MHz**

$F_{Ia} \text{ (dB}\mu\text{V/m)} = F_{Ir} \text{ (dB}\mu\text{V)} - \text{Correction Factors}$

$F_{Ia}$  : Actual Field Intensity

$F_{Ir}$  : Reading of the Field Intensity

Correction Factors = Antenna Factor + Cable Loss

**For frequency between 1GHz to 25GHz**

$F_{Ia} \text{ (dB}\mu\text{V/m)} = F_{Ir} \text{ (dB}\mu\text{V)} + \text{Correction Factor}$

$F_{Ia}$  : Actual Field Intensity

$F_{Ir}$  : Reading of the Field Intensity

Correction Factors = Antenna Factor + Cable Loss – Amplifier Gain

**3.2 List of Test Instruments**

<u>Instrument Name</u>	<u>Model No.</u>	<u>Brand</u>	<u>Serial No.</u>	<u>Last time</u>	<u>Next time</u>
EMI Receiver	8546A	H P	3520A00242	06/28/02	06/28/03
RF Filter Section	85460A	H P	3448A00217	06/28/02	06/28/03
Small Biconical Antenna and Balun	BBVU9135 UBAA9114	Schwarzeck	127	05/07/02	05/07/03
Switch/Control Unit (>30MHz)	3488A	HP	N/A	11/20/02	11/20/03
Auto Switch Box (>30MHz)	ASB-01	TRC	9904-01	11/20/02	11/20/03
Spectrum Analyzer	8564E	HP	US36433002	08/01/02	08/01/03
Microwave Preamplifier	83051A	HP	3232A00347	08/01/02	08/01/03
Horn Antenna	3115	EMCO	9704 – 5178	08/01/02	08/01/03
Anechoic Chamber (cable calibrated together)				05/20/02	05/20/03

The level of confidence of 95% , the uncertainty of measurement of radiated emission is  $\pm 3.44\text{dB}$  .

### 3.3 Test Result of Radiated Emissions

The peak values of fundamental emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

**Testing room :**                      Temperature : 22 ° C   Humidity : 57 % RH

**Table 3   Fundamental Emissions**

Channel	Frequency (MHz)	A. P. (H/V)	A.H. (m)	Table (degree)	Peak (dBiV/m)	Limit (dBiV)	Margin (dBi V)
Base 1	2402.55	H	1.00	59	78.51	94.00	-15.49
		V	1.00	171	79.68	94.00	-14.32
Base 40	2404.50	H	1.00	29	76.85	94.00	-17.15
		V	1.00	308	77.68	94.00	-16.32
Handset 1	2474.00	H	1.00	65	77.58	94.00	-16.42
		V	1.00	109	74.22	94.00	-19.78
Handset 40	2475.95	H	1.00	220	74.92	94.00	-19.08
		V	1.00	307	72.92	94.00	-21.08

Note:

1. A. P. means antenna polarization, horizontal and vertical.
2. A. H. means antenna height.
3. Table means turntable turning position.
4. Amplitude means the fundamental emission measured.
5. Margin = Amplitude-limit

### 3.4 Test Result of Spurious Radiated Emissions

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

**Testing room :**      Temperature : 22.4 ° C      Humidity : 57.2 % RH

**Table 4 Radiated Emissions for 30MHz ~ 1GHz [Channel 01, Base Horizontal]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBV/m)	FCC Class B ( 3 M )	
Frequency (MHz)	Amplitude (dBV)	Ant. H. (m)	Table ( ° )			Limit (dBV/m)	Margin (dB)
116.09	32.95	1.00	151	-1.12	34.07	43.50	-9.43
800.85	57.89	1.00	311	13.76	44.13	46.00	-1.87
828.24	52.43	1.00	116	14.68	37.75	46.00	-8.25

**Table 5 Radiated Emissions for 30MHz ~ 1GHz [Channel 01, Base Vertical]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBV/m)	FCC Class B ( 3 M )	
Frequency (MHz)	Amplitude (dBV)	Ant. H. (m)	Table ( ° )			Limit (dBV/m)	Margin (dB)
31.40	44.42	1.00	10	8.12	36.30	40.00	-3.70
35.93	39.48	1.00	317	6.85	32.63	40.00	-7.37
40.96	40.16	1.00	60	6.14	34.02	40.00	-5.98
57.34	39.25	1.00	47	3.48	35.77	40.00	-4.23
806.93	41.09	2.22	130	13.96	27.13	46.00	-18.87

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude – Correction Factors = Corrected

**Table 6 Open Field Radiated Emissions for 1GHz ~ 25GHz [Channel 01, Base Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b> ( dB )	<b>Corrected Amplitude</b> (dB $\mu$ V/m)	<b>FCC Class B</b> ( 3 m )	
<b>Frequency</b> (MHz)	<b>Amplitude</b> (dB $\mu$ V)	<b>Ant. H.</b> (m)	<b>Table</b> ( ° )			<b>Limit</b> (dB $\mu$ V/m)	<b>Margin</b> (dB)
2365.03	44.50	1.00	17	3.05	47.55	53.96	-6.41
2390.30	42.16	1.00	29	3.14	45.30	53.96	-8.66
2400.17	44.17	1.00	274	3.17	47.34	53.96	-6.62

**Table 7 Open Field Radiated Emissions for 1GHz ~ 25GHz [Channel 01, Base Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b> ( dB )	<b>Corrected Amplitude</b> (dB $\mu$ V/m)	<b>FCC Class B</b> ( 3 m )	
<b>Frequency</b> (MHz)	<b>Amplitude</b> (dB $\mu$ V)	<b>Ant. H.</b> (m)	<b>Table</b> ( ° )			<b>Limit</b> (dB $\mu$ V/m)	<b>Margin</b> (dB)
2341.97	44.00	1.00	98	2.98	46.98	53.96	-6.98
2390.23	43.16	1.00	164	3.14	46.30	53.96	-7.66
2397.93	44.67	1.00	178	3.16	47.83	53.96	-6.13
2400.00	43.33	1.00	22	3.17	46.50	53.96	-7.46

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude + Correction Factor = Corrected



**Table 8 Radiated Emissions for 30MHz ~ 1GHz [Channel 40, Base Horizontal]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBµV/m)	FCC Class B ( 3 M )	
Frequency (MHz)	Amplitude (dBµV)	Ant. H. (m)	Table ( ° )			Limit (dBµV/m)	Margin (dB)
801.50	58.11	1.00	20	13.78	44.33	46.00	-1.67
828.88	52.75	1.00	38	14.70	38.05	46.00	-7.95

**Table 9 Radiated Emissions for 30MHz ~ 1GHz [Channel 40, Base Vertical]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBµV/m)	FCC Class B ( 3 M )	
Frequency (MHz)	Amplitude (dBµV)	Ant. H. (m)	Table ( ° )			Limit (dBµV/m)	Margin (dB)
31.41	45.13	1.00	256	8.12	37.01	40.00	-2.99
37.06	40.19	1.00	2	6.71	33.48	40.00	-6.52
40.96	39.73	1.00	0	6.14	33.59	40.00	-6.41
801.50	52.48	1.00	207	13.78	38.70	46.00	-7.30

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude – Correction Factors = Corrected

**Table 10 Radiated Emissions for 1GHz ~ 25GHz [Channel 40, Base Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b> ( dB )	<b>Corrected Amplitude</b> (dB $\mu$ V/m)	<b>FCC Class B</b> ( 3 m )	
<b>Frequency</b> (MHz)	<b>Amplitude</b> (dB $\mu$ V)	<b>Ant. H.</b> (m)	<b>Table</b> ( ° )			<b>Limit</b> (dB $\mu$ V/m)	<b>Margin</b> (dB)
2483.42	42.67	1.00	98	3.44	46.11	53.96	-7.85
2486.83	44.83	1.00	140	3.46	48.29	53.96	-5.67

**Table 11 Radiated Emissions for 1GHz ~ 25GHz [Channel 40, Base Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b> ( dB )	<b>Corrected Amplitude</b> (dB $\mu$ V/m)	<b>FCC Class B</b> ( 3 m )	
<b>Frequency</b> (MHz)	<b>Amplitude</b> (dB $\mu$ V)	<b>Ant. H.</b> (m)	<b>Table</b> ( ° )			<b>Limit</b> (dB $\mu$ V/m)	<b>Margin</b> (dB)
2483.19	43.67	1.00	67	3.44	47.11	53.96	-6.85
2486.37	44.84	1.00	119	3.45	48.29	53.96	-5.67

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude + Correction Factor = Corrected

**Table 12 Radiated Emissions for 30MHz ~ 1GHz [Channel 01, Handset Horizontal]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBµV/m)	FCC Class B ( 3 M )	
Frequency (MHz)	Amplitude (dBµV)	Ant. H. (m)	Table ( ° )			Limit (dBµV/m)	Margin (dB)
797.93	56.83	1.00	91	13.69	43.14	46.00	-2.86
825.32	54.25	1.00	96	14.58	39.67	46.00	-6.33

**Table 13 Radiated Emissions for 30MHz ~ 1GHz [Channel 01, Handset Vertical]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBµV/m)	FCC Class B ( 3 M )	
Frequency (MHz)	Amplitude (dBµV)	Ant. H. (m)	Table ( ° )			Limit (dBµV/m)	Margin (dB)
797.93	52.26	1.00	126	13.69	38.57	46.00	-7.43

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude – Correction Factors = Corrected

**Table 14 Radiated Emissions for 1GHz ~ 25GHz [Channel 01, Handset Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b> ( dB )	<b>Corrected Amplitude</b> (dB $\mu$ V/m)	<b>FCC Class B</b> ( 3 m )	
<b>Frequency</b> (MHz)	<b>Amplitude</b> (dB $\mu$ V)	<b>Ant. H.</b> (m)	<b>Table</b> ( ° )			<b>Limit</b> (dB $\mu$ V/m)	<b>Margin</b> (dB)
1594.79	45.33	1.00	82	3.31	48.64	53.96	-5.32
2366.25	43.83	1.00	28	3.06	46.89	53.96	-7.07
2390.31	42.50	1.00	147	3.14	45.64	53.96	-8.32
2392.06	44.50	1.00	19	3.14	47.64	53.96	-6.32
2400.25	43.00	1.00	133	3.17	46.17	53.96	-7.79

**Table 15 Radiated Emissions for 1GHz ~ 25GHz [Channel 01, Handset Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b> ( dB )	<b>Corrected Amplitude</b> (dB $\mu$ V/m)	<b>FCC Class B</b> ( 3 m )	
<b>Frequency</b> (MHz)	<b>Amplitude</b> (dB $\mu$ V)	<b>Ant. H.</b> (m)	<b>Table</b> ( ° )			<b>Limit</b> (dB $\mu$ V/m)	<b>Margin</b> (dB)
1594.79	45.33	1.00	64	3.31	48.64	53.96	-5.32
2360.56	44.00	1.00	98	3.04	47.04	53.96	-6.92
2390.12	42.66	1.00	179	3.14	45.80	53.96	-8.16
2391.94	44.33	1.00	145	3.14	47.47	53.96	-6.49
2400.87	43.00	1.00	22	3.17	46.17	53.96	-7.79

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude + Correction Factor = Corrected

**Table 16 Radiated Emissions for 30MHz ~ 1GHz [Channel 40, Handset Horizontal]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBµV/m)	FCC Class B ( 3 M )	
Frequency (MHz)	Amplitude (dBµV)	Ant. H. (m)	Table ( ° )			Limit (dBµV/m)	Margin (dB)
797.28	57.50	1.00	351	13.68	43.82	46.00	-2.18
824.67	54.95	1.00	26	14.56	40.39	46.00	-5.61

**Table 17 Radiated Emissions for 30MHz ~ 1GHz [Channel 40, Handset Vertical]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBµV/m)	FCC Class B ( 3 M )	
Frequency (MHz)	Amplitude (dBµV)	Ant. H. (m)	Table ( ° )			Limit (dBµV/m)	Margin (dB)
797.93	56.17	1.00	75	13.69	42.48	46.00	-3.52
825.32	55.96	1.00	260	14.58	41.38	46.00	-4.62

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude – Correction Factors = Corrected

**Table 18 Radiated Emissions for 1GHz ~ 25GHz [Channel 40, Handset Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b>  ( dB )	<b>Corrected Amplitude</b>  (dB $\mu$ V/m)	<b>FCC Class B</b> ( 3 m )	
<b>Frequency</b> (MHz)	<b>Amplitude</b> (dB $\mu$ V)	<b>Ant. H.</b> (m)	<b>Table</b> ( ° )			<b>Limit</b> (dB $\mu$ V/m)	<b>Margin</b> (dB)
1596.87	44.67	1.00	48	3.30	47.97	53.96	-5.99
2393.75	45.50	1.00	179	3.15	48.65	53.96	-5.31
2483.42	42.84	1.00	112	3.44	46.28	53.96	-7.68
2539.45	44.00	1.00	289	3.55	47.55	53.96	-6.41

**Table 19 Radiated Emissions for 1GHz ~ 25GHz [Channel 40, Handset Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b>  ( dB )	<b>Corrected Amplitude</b>  (dB $\mu$ V/m)	<b>FCC Class B</b> ( 3 m )	
<b>Frequency</b> (MHz)	<b>Amplitude</b> (dB $\mu$ V)	<b>Ant. H.</b> (m)	<b>Table</b> ( ° )			<b>Limit</b> (dB $\mu$ V/m)	<b>Margin</b> (dB)
1596.87	44.17	1.00	152	3.30	47.47	53.96	-6.49
2393.75	44.66	1.00	224	3.15	47.81	53.96	-6.15
2483.47	42.33	1.00	146	3.45	45.78	53.96	-8.18
2492.00	44.17	1.00	170	3.47	47.64	53.96	-6.32

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude + Correction Factor = Corrected

## **. Verify Frequencies and Channels**

This is for sure that all frequencies are in 2402MHz to 2476MHz that verifies the frequency as follow

**Table 20 Verify the Frequency Pairs**

Channel	Handset (MHz)	Base (MHz)	Channel	Handset (MHz)	Base (MHz)
1	2474.00	2402.55	21	2475.00	2403.55
2	2474.05	2402.60	22	2475.05	2403.60
3	2474.10	2402.65	23	2475.10	2403.65
4	2474.15	2402.70	24	2475.15	2403.70
5	2474.20	2402.75	25	2475.20	2403.75
6	2474.25	2402.80	26	2475.25	2403.80
7	2474.30	2402.85	27	2475.30	2403.85
8	2474.35	2402.90	28	2475.35	2403.90
9	2474.40	2402.95	29	2475.40	2403.95
10	2474.45	2403.00	30	2475.45	2404.00
11	2474.50	2403.05	31	2475.50	2404.05
12	2474.55	2403.10	32	2475.55	2404.10
13	2474.60	2403.15	33	2475.60	2404.15
14	2474.65	2403.20	34	2475.65	2404.20
15	2474.70	2403.25	35	2475.70	2404.25
16	2474.75	2403.30	36	2475.75	2404.30
17	2474.80	2403.35	37	2475.80	2404.35
18	2474.85	2403.40	38	2475.85	2404.40
19	2474.90	2403.45	39	2475.90	2404.45
20	2474.95	2403.50	40	2475.95	2404.50

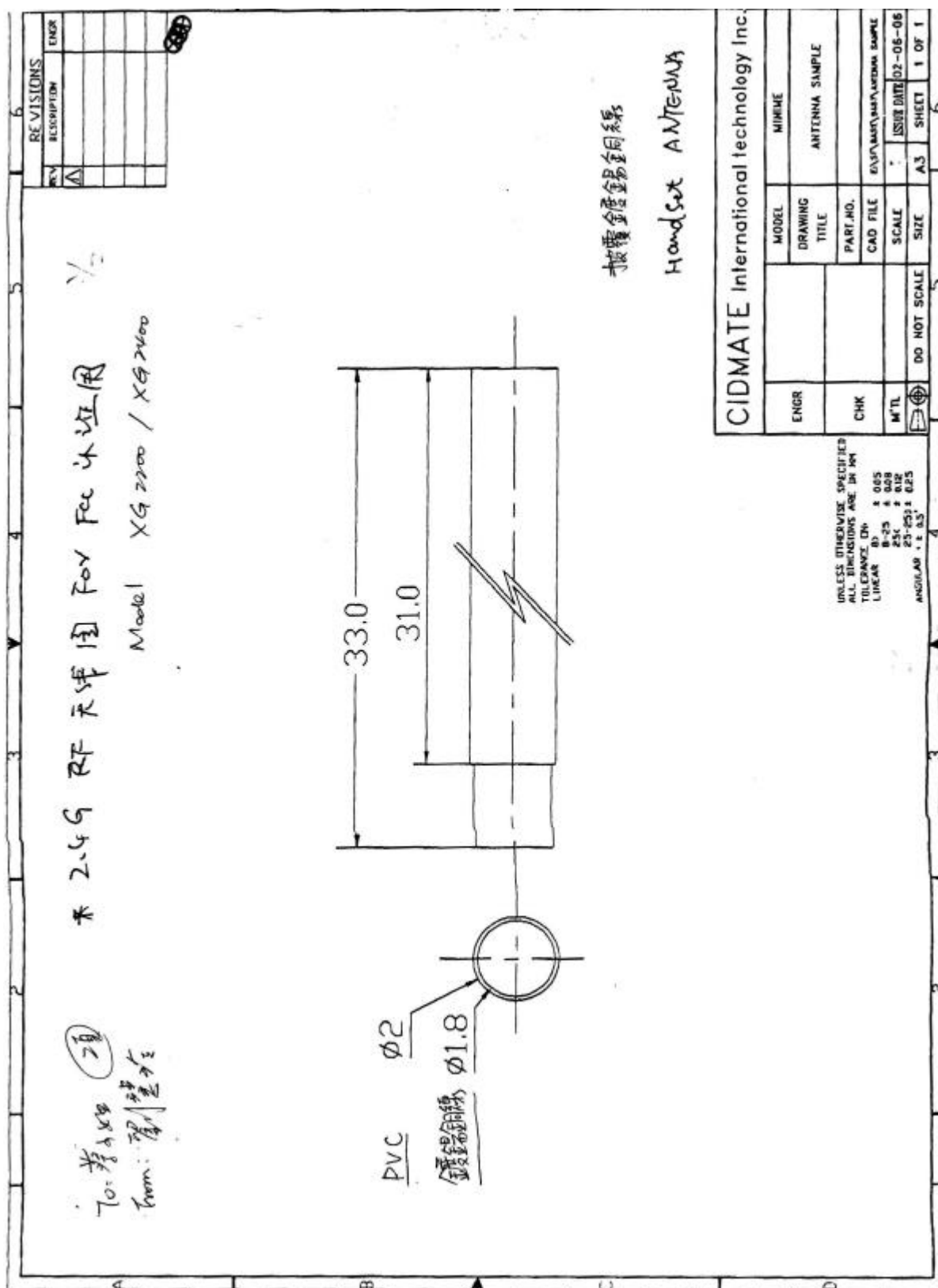
### **Section 15.214(d) The security code is set automatic:**

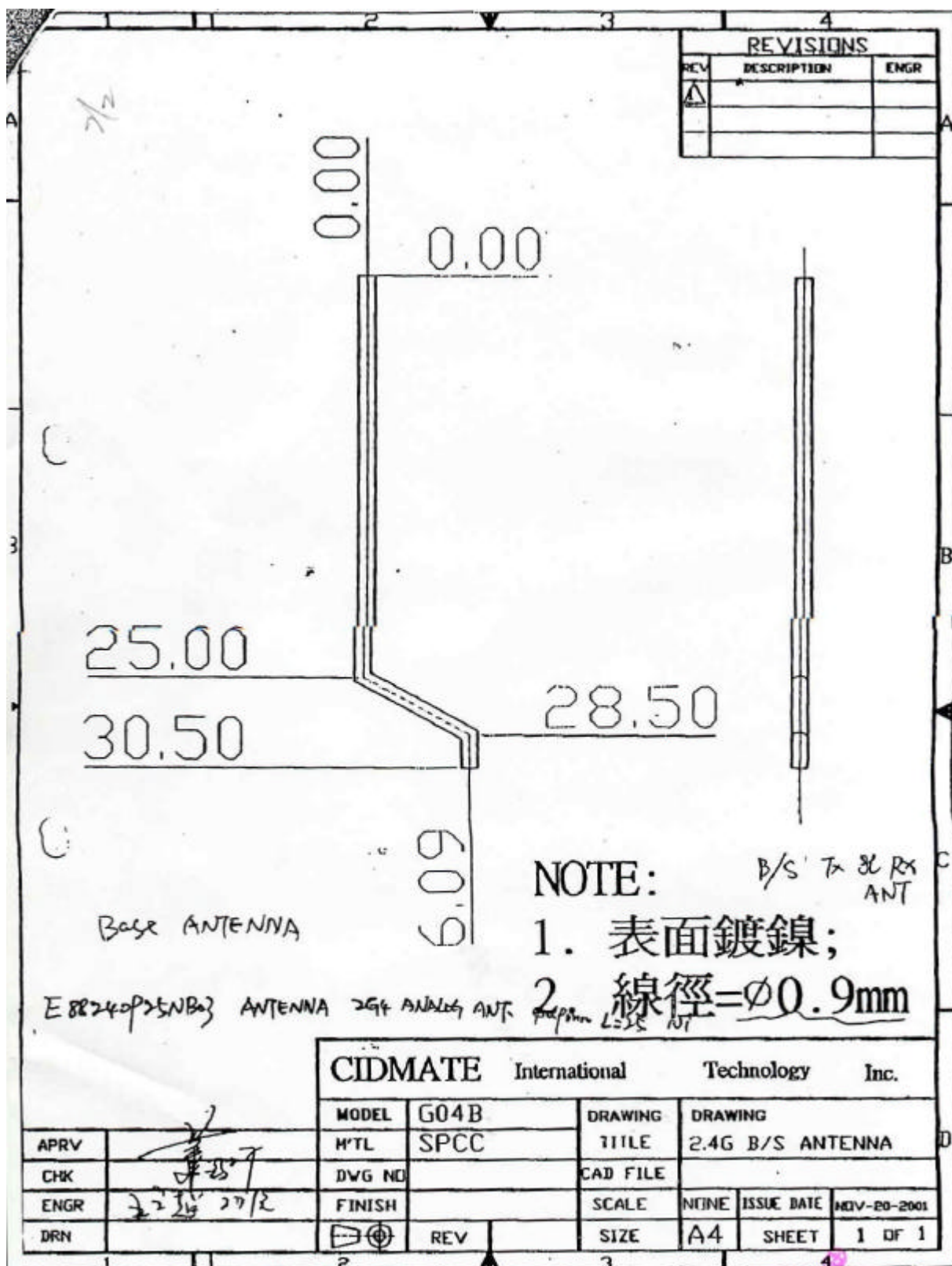
Every time when you place the handset in the base, your cordless will randomly select over one million possible security codes.

## ***Appendix A***

The antenna of the device is screwed inside the device. The user can not remove it freely without any tools from outside the device. This is comply with the FCC rules part 15.203







## ***Appendix B***

§ 15.245 (b)(3) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

See as next page.

**Base Channel 1**

<b>Frequency (MHz)</b>	<b>Peak Amplitude (dB <math>\mu</math> V/m)</b>	<b>Limit (dB <math>\mu</math> V/m)</b>	<b>Margin (dB)</b>
<b>2390.23</b>	<b>46.30</b>	<b>53.96</b>	<b>-7.66</b>

**Handset Channel 40**

<b>Frequency (MHz)</b>	<b>Peak Amplitude (dB <math>\mu</math> V/m)</b>	<b>Limit (dB <math>\mu</math> V/m)</b>	<b>Margin (dB)</b>
<b>2483.47</b>	<b>45.78</b>	<b>53.96</b>	<b>-8.18</b>