



June 01, 2009

Cybiotronics Limited  
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1065 King's Road, Quarry Bay,  
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Dear Ms. Angel Lam,

Enclosed you will find your file copy of a Part 15 Certification (FCC ID: CAC301001).

For your reference, TCB will normally take another 15 to 20 days for reviewing the report. Approval will then be granted when no query is sorted.

Please contact me if you have any questions regarding the enclosed material.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Sit".

Sit Kim Wai, Ken  
Assistant Manager

Enclosure

## List of Exhibits

Exhibit type	File Description	filename
Test Report	Test Report	report.pdf
Operational Description	Technical Description	descri.pdf
Test Setup Photos	Radiated & Conducted Emission	config photos.pdf
Test Report	Emission Plot	emission.pdf
Test Report	Conducted Emission Test Result	conduct.pdf
External Photos	External Photo	external photos.pdf
Internal Photos	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
ID Label/Location Info	Label Artwork and Location	label.pdf
Users Manual	User Manual	manual.pdf
Cover Letter	Letter of Agency	letter of agency.pdf
Cover Letter	Confidentiality Request	request.pdf

## **Cybiotronics Limited**

Application  
For  
Certification

Bluetooth Cellular Gateway

**(FCC ID: CAC301001)**

HK08100294-1  
KS/ sl  
June 01, 2009

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### **Intertek Testing Services Hong Kong Ltd.**

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## INTERTEK TESTING SERVICES

### MEASUREMENT/TECHNICAL REPORT

**Cybiotronics Limited - Model: CY-AD301(XXX)  
C2T-XT2000(XXX)**

**FCC ID: CAC301001**

This report concerns (check one:)      Original Grant   X        Class II Change     

Equipment Type : DXX - Pt 15 Low Pwr Com. Device Tx

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)?      Yes           No   X  

If yes, defer until :                       
date

Company Name agrees to notify the Commission by:                       
date

of the intended date of announcement of the product so that the grant can be issued  
on that date.

Transition Rules Request per 15.37 ?      Yes           No   X  

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-01-08  
Edition] Provision.

Report prepared by:

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## INTERTEK TESTING SERVICES

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### Table of Contents

<b>1.0 General Description .....</b>	<b>4</b>
1.1 Product Description .....	4
1.2 Test Methodology .....	5
1.3 Test Facility .....	5
<b>2.0 System Test Configuration .....</b>	<b>7</b>
2.1 Justification .....	7
2.2 EUT Exercising Software .....	7
2.3 Details of EUT and Description of Peripherals .....	8
2.4 Measurement Uncertainty .....	9
2.5 Equipment Modification .....	9
<b>3.0 Emission Results .....</b>	<b>11</b>
3.1 Field Strength Calculation .....	12
3.2 Radiated Emission Configuration Photograph - Base Unit .....	13
3.3 Radiated Emission Data - Base Unit .....	14
3.4 Radiated Emission on the Bandedge .....	19
3.5 Line Conducted Configuration Photograph - Base Unit .....	20
3.6 Line Conducted Emission Data .....	21
3.7 Transmitter Duty Cycle Calculation .....	23
<b>4.0 Equipment List .....</b>	<b>24</b>
<b>Appendix - Exhibits for Application of Certification</b>	

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 1 GENERAL DESCRIPTION**

## INTERTEK TESTING SERVICES

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### 1.0 General Description

#### 1.1 Product Description

The CY-AD301(XXX) is a Bluetooth Cellular Gateway. It can make and receive cellular calls using home telephone, dial out and receive calls by home telephone from cell phone or over a landline. The device can be paired and connected with 1 or 2 Bluetooth cell phones. The firmware can be updated by computer via a USB cable.

The EUT is powered by an adaptor from 100-240VAC 0.4A to 9VDC 0.5A. The circuit wiring is consistent under the requirement of part 68.

The antenna used in base unit is integral, and the tested sample is a prototype.

The Model: C2T-XT2000(XXX) is the same as the Model: CY-AD301(XXX) in hardware aspect. The suffix "(XXX)" stands for color difference only. The difference in model number serves as marketing strategy.

The circuit description is saved with filename: descri.pdf

Connection between the base unit and the telephone network is accomplished through the use of USOC RJ11C in the 2-wire loop calling central office line.

## INTERTEK TESTING SERVICES

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### 1.2 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). Preliminary scans were performed in the Open Area Test Site only to determine worst case modes. All measurements were performed in Open Area Test Sites. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

### 1.3 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data and conducted data are 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.



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## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 2 SYSTEM TEST CONFIGURATION**

## INTERTEK TESTING SERVICES

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### 2.0 System Test Configuration

#### 2.1 Justification

For emissions testing, the equipment under test (EUT) was setup to transmit continuously 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.

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

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

Measurements of the radiated signal level of the fundamental frequency component of the emission was performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed 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.

All relevant operation modes have been tested, and the worst-case data is included in this report.

Determination of pulse desensitization was made according to *Hewlett Packard Application Note 150-2, Spectrum Analysis... Pulsed RF*. The effective period ( $\tau_{\text{eff}}$ ) was 625 $\mu$ s for Bluetooth. With the resolution bandwidth 1MHz and spectrum analyzer IF bandwidth 3 dB, the pulse desensitization factor was 0 dB.

#### 2.2 EUT Exercising Software

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

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## INTERTEK TESTING SERVICES

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### 2.3 Details of EUT and Description of Peripherals

#### Details of EUT:

An AC adaptor (provided with the unit) was used to power the device. Their description are listed below.

- (1) An AC adaptor (100-240VAC to 9VDC 0.5A, Model: E-AWA045-090A) (Supplied by Client)

#### Description of Peripherals:

- (1) 3m Telephone Line (Supplied by Client)
- (2) 3m Telephone Line with Termination (Supplied by Intertek)
- (3) 1 x USB cable with 2 meter long (Supplied by Client)
- (4) Simple Corded Phone, Model: C80LC (Supplied by Intertek)
- (5) Simple Corded Phone, Model: FC2548W (Supplied by Intertek)
- (6) A Mobile Phone, Model: Nokia 5300, IMEI: 352772015773193 (Supplied by Intertek)
- (7) HP Notebook, Model: NX6320, S/N: CNU6370FWN, DoC product (Supplied by Intertek)
- (8) HP Mouse, Model: S34, S/N: LZA8197, DoC product (Supplied by Intertek)
- (9) Genius Modem, Model: GM56EX, S/N: ZT5505000355, DoC product (Supplied by Intertek)
- (10) Hayes Modem, Model: 6800CN, S/N: AD0900153317, FCC ID: BFJ9D907-00038 (Supplied by Intertek)
- (11) HP Notebook Adaptor (110-240VAC to 18.5VDC 6.5A, Model: Series PPP017L PA-1121-12HC) (Supplied by Intertek)
- (12) HP Printer, Model: C2642A, S/N: SG67B131RY, DoC Product (Supplied by Intertek)

## INTERTEK TESTING SERVICES

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### 2.4 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.

### 2.5 Equipment Modification

Any modifications installed previous to testing by Cybionics Limited 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 2.0 of this report are confirmed by:

*Confirmed by:*

*Sit Kim Wai, Ken  
Assistant Manager  
Intertek Testing Services  
Agent for Cybionics Limited*



\_\_\_\_\_  
Signature

\_\_\_\_\_  
June 01, 2009

\_\_\_\_\_  
Date

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## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 3 EMISSION RESULTS**

## INTERTEK TESTING SERVICES

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### 3.0 Emission Results

Data is 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.

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## INTERTEK TESTING SERVICES

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### 3.1 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CF - AG$$

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

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:-

$$FS = RR + LF$$

where      FS = Field Strength in dB $\mu$ V/m  
              RR = RA - AG in dB $\mu$ V  
              LF = CF + AF in dB

Assume a receiver reading of 52.0 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 dB is subtracted, giving a field strength of 32 dB $\mu$ V/m. This value in dB $\mu$ V/m was converted to its corresponding level in  $\mu$ V/m.

RA = 52.0 dB $\mu$ V	
AF = 7.4 dB	RR = 23.0 dB $\mu$ V
CF = 1.6 dB	LF = 9.0 dB
AG = 29.0 dB	
FS = RR + LF	
FS = 23 + 9 = 32 dB $\mu$ V/m	

Level in  $\mu$ V/m = Common Antilogarithm [(32 dB $\mu$ V/m)/20] = 39.8  $\mu$ V/m

## **INTERTEK TESTING SERVICES**

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### 3.2 Radiated Emission Configuration Photograph - Base Unit

Worst Case Radiated Emission

at 63.987 MHz

For electronic filing, the worst case radiated emission configuration photographs are saved with filename: config photos.pdf



## INTERTEK TESTING SERVICES

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### 3.3 Radiated Emission Data - Base Unit

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Judgement : Passed by 3.2 dB margin

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#### **TEST PERSONNEL:**



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*Tester Signature*

Koo Wai Ip, Engineer  
*Typed/Printed Name*

June 01, 2009  
*Date*

## INTERTEK TESTING SERVICES

Company: Cybionics Limited  
Model: CY-AD301(XXX)  
Mode : TX-Channel 00

Date of Test: October 02, 2008-April 28, 2009

Table 1, Base unit

### Radiated Emissions Pursuant to FCC Part 15 Section 15.249(a) Requirements

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dB $\mu$ V/m)	Average Limit at 3m (dB $\mu$ V/m)	Margin (dB)
H	2402.000	97.2	33	29.4	43.9	49.7	94.0	-44.3
H	*4803.996	44.9	33	34.9	43.9	2.9	54.0	-51.1
H	7205.994	41.3	33	37.9	43.9	2.3	54.0	-51.7
H	9607.992	38.0	33	40.4	43.9	1.5	54.0	-52.5
H	*12009.990	36.1	33	40.5	43.9	-0.3	54.0	-54.3

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB $\mu$ V/m)	Peak Limit at 3m (dB $\mu$ V/m)	Margin (dB)
H	2402.000	97.2	33	29.4	93.6	114.0	-20.4
H	*4803.996	44.9	33	34.9	46.8	74.0	-27.2
H	7205.994	41.3	33	37.9	46.2	74.0	-27.8
H	9607.992	38.0	33	40.4	45.4	74.0	-28.6
H	*12009.990	36.1	33	40.5	43.6	74.0	-30.4

- NOTES:
1. Peak detector is used for the emission measurement.
  2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
  3. Negative value in the margin column shows emission below limit.
  4. Horn antenna is used for the emission over 1000MHz.
- \* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Koo Wai Ip

## INTERTEK TESTING SERVICES

Company: Cybionics Limited  
Model: CY-AD301(XXX)  
Mode : TX-Channel 39

Date of Test: October 02, 2008-April 28, 2009

Table 2, Base unit

### Radiated Emissions Pursuant to FCC Part 15 Section 15.249(a) Requirements

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	2441.000	97.5	33	29.4	43.9	50.0	94.0	-44.0
H	*4881.996	44.3	33	34.9	43.9	2.3	54.0	-51.7
H	*7322.994	40.9	33	37.9	43.9	1.9	54.0	-52.1
H	9763.992	37.8	33	40.4	43.9	1.3	54.0	-52.7
H	*12204.990	36.0	33	40.5	43.9	-0.4	54.0	-54.4

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	2441.000	97.5	33	29.4	93.9	114.0	-20.1
H	*4881.996	44.3	33	34.9	46.2	74.0	-27.8
H	*7322.994	40.9	33	37.9	45.8	74.0	-28.2
H	9763.992	37.8	33	40.4	45.2	74.0	-28.8
H	*12204.990	36.0	33	40.5	43.5	74.0	-30.5

- NOTES: 1. Peak detector is used for the emission measurement.
2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna is used for the emission over 1000MHz.
- \* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Koo Wai Ip

## INTERTEK TESTING SERVICES

Company: Cybionics Limited  
Model: CY-AD301(XXX)  
Mode : TX-Channel 78

Date of Test: October 02, 2008-April 28, 2009

Table 3, Base unit

### Radiated Emissions Pursuant to FCC Part 15 Section 15.249(a) Requirements

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	2480.000	97.5	33	29.4	43.9	50.0	94.0	-44.0
H	*4959.996	43.9	33	34.9	43.9	1.9	54.0	-52.1
H	*7439.994	40.3	33	37.9	43.9	1.3	54.0	-52.7
H	9919.992	37.5	33	40.4	43.9	1.0	54.0	-53.0
H	*12400.000	36.0	33	40.5	43.9	-0.4	54.0	-54.4

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	2480.000	97.5	33	29.4	93.9	114.0	-20.1
H	*4959.996	43.9	33	34.9	45.8	74.0	-28.2
H	*7439.994	40.3	33	37.9	45.2	74.0	-28.8
H	9919.992	37.5	33	40.4	44.9	74.0	-29.1
H	*12400.000	36.0	33	40.5	43.5	74.0	-30.5

- NOTES: 1. Peak detector is used for the emission measurement.
2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna is used for the emission over 1000MHz.
- \* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Koo Wai Ip

## INTERTEK TESTING SERVICES

Company: Cybionics Limited  
Model: CY-AD301(XXX)  
Mode : Ringing with Bluetooth

Date of Test: October 02, 2008-April 28, 2009

Table 4

### Radiated Emissions Pursuant to FCC Part 15 Section 15.209 Requirements

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	31.990	38.6	16	10.0	32.6	40.0	-7.4
V	63.987	43.8	16	9.0	36.8	40.0	-3.2
H	*128.004	35.9	16	14.0	33.9	43.5	-9.6
H	160.012	37.2	16	16.0	37.2	43.5	-6.3
H	192.002	36.8	16	16.0	36.8	43.5	-6.7
H	223.984	38.4	16	18.0	40.4	46.0	-5.6
H	*255.974	35.2	16	21.0	40.2	46.0	-5.8
H	320.008	25.6	16	23.0	32.6	46.0	-13.4
H	808.666	19.1	16	31.0	34.1	46.0	-11.9
H	813.666	19.2	16	31.0	34.2	46.0	-11.8
H	826.666	19.0	16	31.0	34.0	46.0	-12.0

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	*1601.333	62.0	33	27.2	43.9	12.3	54.0	-41.7
H	1627.333	62.6	33	27.2	43.9	12.9	54.0	-41.1
H	1653.333	63.2	33	27.2	43.9	13.5	54.0	-40.5
H	3202.664	48.7	33	31.9	43.9	3.7	54.0	-50.3
H	3254.664	48.7	33	31.9	43.9	3.7	54.0	-50.3
H	3306.664	48.0	33	31.9	43.9	3.0	54.0	-51.0

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	*1601.333	62.0	33	27.2	56.2	74.0	-17.8
H	1627.333	62.6	33	27.2	56.8	74.0	-17.2
H	1653.333	63.2	33	27.2	57.4	74.0	-16.6
H	3202.664	48.7	33	31.9	47.6	74.0	-26.4
H	3254.664	48.7	33	31.9	47.6	74.0	-26.4
H	3306.664	48.0	33	31.9	46.9	74.0	-27.1

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

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

\* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Koo Wai Ip

Test Report Number: HK08100294-1  
FCC ID: CAC301001

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## INTERTEK TESTING SERVICES

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### 3.4 Radiated Emission on the Bandedge

From the following plots, they show that the fundamental emissions are confined in the specified band (2400MHz and 2483.5MHz). In case of the fundamental emissions are within two standard bandwidths from the bandedge, the delta measurement technique is used for determining bandedge compliance. Standard bandwidth is the bandwidth specified by ANSI C63.4 (2003) for frequency being measured.

Emissions radiated outside of the specified frequency bands, except harmonics, are attenuated by 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation, which meet the requirement of part 15.249(d).

Please refer to the following plots for radiated emission on the bandedge:

Plot B1A\*: Base Unit - Low Channel Emissions

Plot B1B: Base Unit - High Channel Emissions

For electronic filing, the above plots are saved with filename: emission.pdf

\* Bandedge compliance is determined by applying marker-delta method, i.e.

Resultant field strength = Fundamental emissions - delta from the plot

$$= 93.6\text{dB}\mu\text{V/m} - 43.72\text{dB}$$

$$= 49.88\text{dB}\mu\text{V/m}$$

The resultant field strength meets the general radiated emission limit in section 15.209, which does not exceed 74dB $\mu$ V/m for peak limit and also 54dB $\mu$ V/m for average limit.

Pursuant to FCC Part 15 Section 15.215(c), the 20dB bandwidth of the emission was contained within the frequency band designated (mentioned as above) which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over expected variations in temperature and supply voltage were considered.

## **INTERTEK TESTING SERVICES**

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### **3.5 Line Conducted Configuration Photograph - Base Unit**

Worst Case Line-Conducted Configuration

at 0.420 MHz

For electronic filing, the worst case line conducted configuration photographs are saved with filename: config photos.pdf

## INTERTEK TESTING SERVICES

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### 3.6 Line Conducted Emission Data

The data on the following pages list the significant emission frequencies, the limit, and the margin of compliance.

Judgement : Passed by 13.27 dB margin compare with average limit

#### **TEST PERSONNEL:**



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*Tester Signature*

Koo Wai Ip, Engineer  
*Typed/Printed Name*

June 01, 2009  
*Date*



## **INTERTEK TESTING SERVICES**

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Company: Cybiotronics Limited  
Model: CY-AD301(XXX)

Date of Test: May 14, 2009

### **Conducted Emissions**

For electronic filing, the conducted emission test result is saved with filename:  
conduct.pdf

## INTERTEK TESTING SERVICES

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### 3.7 Transmitter Duty Cycle Calculation, FCC Rule 15.35(b, c)

Based on the Bluetooth Specification Version 2.1 + EDR, transmitter ON time is independent of the packet type (DH1, DH3 and DH5) and packet length (single-slot and multi-slot). The maximum transmitter ON time for the Bluetooth is 625 $\mu$ s.

Each TX and RX time slot is 625 $\mu$ s in length. A TDD scheme is used where master and slave alternately transmit. For one period for a pseudo-random hopping through all 79 RF channels, it takes:  $79 \times (0.625 \times 2)\text{ms} = 98.75\text{ms}$ .

Therefore,

$$\begin{aligned}\text{Average Factor (AF) of Bluetooth in dB} &= 20 \log_{10} (0.625/98.75) \text{ dB} \\ &= 20 \log_{10} (0.00633) \text{ dB} \\ &= -43.9\text{dB}\end{aligned}$$

## INTERTEK TESTING SERVICES

### 4.0 Equipment List

#### 1) Radiated Emissions Test

Equipment	EMI Test Receiver	Biconical Antenna	Log Periodic Antenna	Spectrum Analyzer
Registration No.	EW-0014	EW-0954	EW-0446	EW-2372
Manufacturer	R&S	EMCO	EMCO	ADVANTEST
Model No.	ESVS30	3104C	3146	U3772
Calibration Date	May 09, 2008	Sep. 30, 2008	Oct. 02, 2008	Jul. 25, 2007
Calibration Due Date	May 09, 2009	Mar. 30, 2010	Apr. 02, 2010	Oct. 25, 2008

Equipment	Spectrum Analyzer	Log Periodic Antenna	Double Ridged Guide Antenna	
Registration No.	EW-1792	EW-0447	EW-0194	EW-1015
Manufacturer	ROHDESCHWARZ	EMCO	EMCO	EMCO
Model No.	FSP40	3146	3115	3115
Calibration Date	Feb. 02, 2009	Nov. 12, 2008	Jun. 06, 2007	Jul. 28, 2008
Calibration Due Date	Feb. 02, 2010	May 12, 2010	Dec. 07, 2008	Jan. 28, 2010

Equipment	RF Amplifier	EMI Test Receiver	Biconical Antenna	Spectrum Analyzer
Registration No.	EW-1779	EW-0016	EW-0571	EW-2466
Manufacturer	MITEQ	R&S	EMCO	ROHDESCHWARZ
Model No.	AMF-4D-001120-34-13P	ESVS30	3104C	FSP30
Calibration Date	Jul. 05, 2008	Apr. 14, 2009	Nov. 12, 2008	Jun. 24, 2008
Calibration Due Date	Aug. 01, 2009	Apr. 14, 2010	May 12, 2010	Jun. 24, 2009

#### 2) Conducted Emissions Test

Equipment	EMI Test Receiver	LISN	Pulse Limiter
Registration No.	EW-2251	EW-0192	EW-0700
Manufacturer	R&S	R&S	R&S
Model No.	ESCI	ESH3-Z5	ESH3-Z2
Calibration Date	Oct. 28, 2008	Nov. 12, 2008	Dec 04, 2007
Calibration Due Date	Oct. 28, 2009	Nov. 12, 2009	Jun. 04, 2009

Equipment	EMI Test Receiver	LISN
Registration No.	EW-0015	EW-2501
Manufacturer	R&S	R&S
Model No.	ESHS30	ENV-216
Calibration Date	Jul. 30, 2008	Sep. 19, 2008
Calibration Due Date	Jul. 30, 2009	Sep. 19, 2009

## **INTERTEK TESTING SERVICES**

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### **APPENDIX EXHIBITS FOR APPLICATION OF CERTIFICATION**