APPLICATION FOR CERTIFICATION On Behalf of

Electronic Arts Inc.

EUT Description: Wireless HRM	Model Number
Controller for PlayStation®3	
PS3 Wireless HRM Controller	19474-H
PS3 Wireless Non HRM Controller	19474-A
PS3 Wireless Leg Controller	19474-L

FCC ID: XZKBW19474D

Prepared for: Electronic Arts Inc.

4330 Sanderson Way, Burnaby, BC, Canada VSG 4X1.

Prepared By: Audix Technology (Shenzhen) Co., Ltd.

No. 6, Ke Feng Rd., 52 Block,

Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number : ACS-F10153

Date of Test : Jun.24~Jul.04, 2010

Date of Report : Jul.08, 2010

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TEST REPORT CERTIFICATION

Applicant : Electronic Arts Inc.

Manufacturer : Berway Technology Ltd.

EUT Description &

MODEL NO.

EUT Description: Wireless HRM Controller for PlayStation®3	Model Number
PS3 Wireless HRM Controller	19474-Н
PS3 Wireless Non HRM Controller	19474-A
PS3 Wireless Leg Controller	19474-L

FCC ID : XZKBW19474D

POWER SUPPLY : DC 3V TEST VOLTAGE : DC 3V

Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart C 2008

The device described above is tested by Audix Technology (Shenzhen) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits for radiated and conducted emissions.

The test results are contained in this test report and Audix Technology (Shenzhen) Co., Ltd. is assumed full responsibility for the accuracy and completeness of tests. Also, this report shows that EUT is technically compliant with FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shenzhen) Co., Ltd.

Date of Test:	Jun.24~ Jul.04, 2010
Prepared by :	Selina Liu / Assistant

Reviewer:

Jamy Yu / Supervisor

AUDIX ® 信華科技 (深圳) 有限公司

Audix Technology (Shenzhen) Co., Ltd.

EMC部門報告專用章

Stamp only for EMC Dept. Report

Signature: Len | 4 % 10

Approved & Authorized Signe

Ken Lu / Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION					
Description of Test Item	Standard	Results			
Power Line Conducted Emission Test	FCC Part 15C: 15.207 ANSI C63.10-2009	N/A			
Radiated Emission Test	FCC Part 15C: 15.209 FCC Part 15C: 15.249 ANSI C63.10-2009	PASS			
Band Edge Compliance Test	FCC Part 15: 15.249 ANSI C63.10-2009	PASS			
20dB Bandwidth Test	FCC Part 15: 15.215 ANSI C63.10-2009	PASS			

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product name &: Model No.

EUT Description: Wireless HRM	Model Number
Controller for PlayStation®3	
PS3 Wireless HRM Controller	19474-H
PS3 Wireless Non HRM Controller	19474-A
PS3 Wireless Leg Controller	19474-L

Note: This device contains four parts, and this radio test report only for two parts of those, another one is receiver and reported in another report. 19474-A and 19474-L have same circuit and structure, 19474-H only have additional Heart Rate

Monitor compare with 19474-A

Based exploratory test this difference have no influence on EMC and RF characteristic. So this three parts share same RF

test data and FCC ID number.

FCC ID : XZKBW19474D

Operation frequency

2406MHz~2476MHz

Modulation : FSK

Power Supply : DC 3V

(Note: Batteries were full charged for all the test.)

Applicant : Electronic Arts Inc.

4330 Sanderson Way, Burnaby, BC, Canada VSG 4X1.

Manufacturer : Berway Technology Ltd.

Unit 1301-03, No.88, Kwai Cheong Road, Kwai Chung, N.T.

Hong Kong

Date of Test : Jun.24~Jul.04, 2010

Date of Receipt : Jun.01, 2010

Sample Type : Prototype production

2.2. Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.

No. 6, Ke Feng Rd., 52 Block, Shenzhen

Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

3m Anechoic Chamber : Mar.31, 2009 File on Federal

Communication Commission Registration Number: 90454

3m & 10m Anechoic Chamber : Dec. 30, 2009 File on Federal

Communication Commission Registration Number: 794232

EMC Lab. : Accredited by DATech, German

Registration Number: DAT-P-091/99-01

Feb. 02, 2009

Accredited by NVLAP, USA NVLAP Code: 200372-0

Apr. 01, 2010

2.3. Test Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty			
Uncertainty for Radiation Emission test	3.82 dB (Polarize: V)			
in 3m chamber	4.32 dB (Polarize: H)			
	2.70 dB			
Uncertainty for Radiated Spurious	(Bilog antenna 30M~1000MHz)			
Emission test in RF chamber	2.27 dB			
	(Horn antenna 1000M~25000MHz)			
Uncertainty for Temperature and humidity	2%			
test	1℃			
Uncertainty for Bandwidth test	1x10 ⁻⁹			
Uncertainty for DC power test	0.038 %			
Uncertainty for test site temperature and	0.6℃			
humidity	3%			

3. POWER LINE CONDUCTED EMISSION TEST

According to Paragraph (c) of FCC Part 15 section 15.207, Tests to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

4. RADIATED EMISSION TEST

4.1. Test Equipment

Frequency rang: 30~1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.05,09	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 10	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 10	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 10	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Dec.14, 09	1 Year
6	RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 10	1 Year
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 10	1 Year

Frequency rang: above 1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 10	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3	Horn Antenna	EMCO	3116	00060089	Nov.25, 09	1.5 Year
4	Amplifier	Agilent	8449B	3008A00863	May.08, 10	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08, 10	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX102	29091/2	May.08, 10	1 Year

4.2. Block Diagram of Test Setup

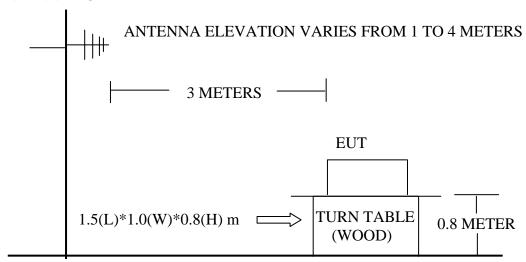
4.2.1. Block Diagram of connection between EUT and simulators

EUT

(EUT: PS3 Wireless HRM Controller)

4.2.2. Anechoic Chamber Setup Diagram

ANTENNA TOWER



GROUND PLANE

4.3. Radiated Emission Limit Standard: FCC 15.209 and 15.249

FREQUENCY	DISTANCE	FIELD STREN	NGTHS LIMIT	
MHz	Meters	$\mu V/m$	$dB(\mu V)/m$	
30 ~ 88	3	100	40.0	
88 ~ 216	3	150	43.5	
216 ~ 960	3	200	46.0	
960 ~ 1000	3	500	54.0	
Above 1000MHz	3	74.0 dB(µV)/m (Peak)		
		54.0 dB(μV	V)/m (Average)	
Field Strength of	3	94.0 dB(µV)/m (Average)		
Fundamental emission for		$114.0 \text{ dB}(\mu\text{V})/\text{m}(\text{Peak})$		
2.4GHz-2.4835GHz				
Field Strength of	3	74.0 dB(μV)/m (Peak)		
Harmonics		54.0 dB(μV	/)/m (Average)	

Remark : (1) Emission level $dB\mu V = 20 \log Emission level \mu V/m$

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.
- (4) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

4.4. EUT Configuration on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.4.1. PS3 Wireless HRM Controller(EUT)

Model Number : 19474-H Serial Number : N/A

4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT as shown in Section 4.2..
- 4.5.2. Turned on the power of all equipment.
- 4.5.3. Let the EUT worked in test mode (Tx Mode) and tested it.

4.6. Test Procedure

The EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.10-2009 on radiated emission Test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as the test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's RBW is set at 1MHz and VBW is set at 3MHz for peak emissions measurement above 1GHz

This device is pulse modulated, a duty cycle factor was used to calculate average level based measured peak level.

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

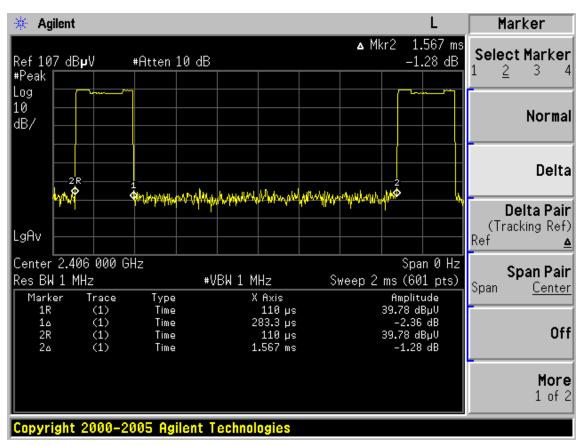
4.7. Radiated Emission Test Results

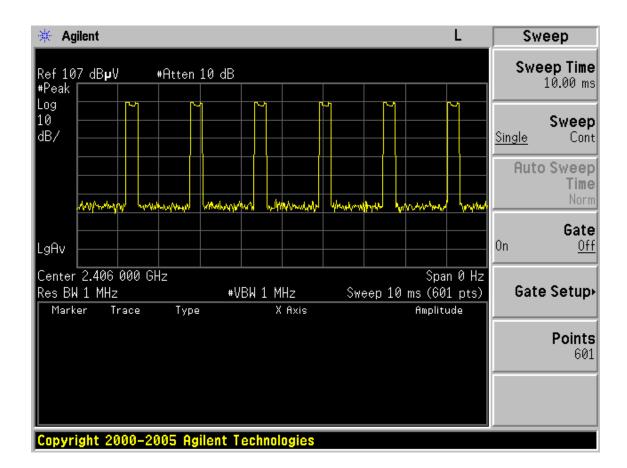
PASS

All the emissions from 30MHz to 25GHz were comply with the 15.209 and 15.249 Limit.

Duty cycle: 0.2833ms /1.567ms*100% = 18.08% Duty cycle factor = 20log (1/duty cycle) = 14.86dB





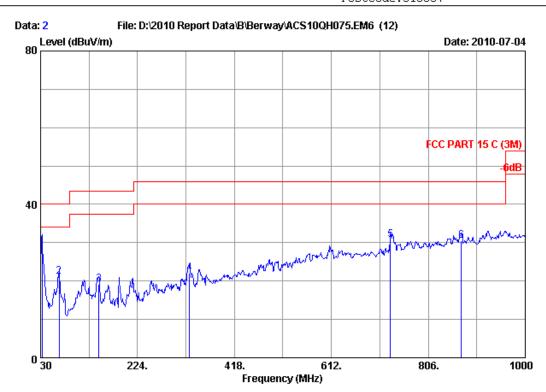


Radiated spurious emissions from 30MHz to 1GHz test result



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Fax:+86-755-26632877 Postcode:518057



Site no. : 3m Chamber Data no. : 2

Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : HORIZONTAL

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24*C/56% Engineer : Leo-Li

EUT : PS3 Wireless HRM Controller

Power Rating : DC 3V Test Mode : Tx Mode M/N : 19474-H

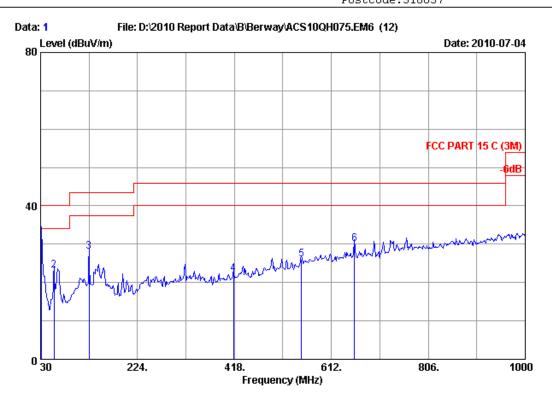
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	32.910	18.32	0.63	10.04	28.99	40.00	11.01	QP	
2	66.860	6.24	0.90	13.99	21.13	40.00	18.87	QP	
3	146.400	11.84	1.14	6.20	19.18	43.50	24.32	QP	
4	327.790	14.36	2.60	5.07	22.03	46.00	23.97	QP	
5	730.340	21.30	4.62	4.77	30.69	46.00	15.31	QP	
6	871.960	22.80	5.12	2.55	30.47	46.00	15.53	QP	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 1

Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : VERTICAL

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24*C/56% Engineer : Leo-Li

EUT : PS3 Wireless HRM Controller

Power Rating : DC 3V
Test Mode : Tx Mode
M/N : 19474-H

 No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	31.940	18.88	0.63	12.37	31.88	40.00	8.12	QP	
2	57.160	6.66	0.83	15.78	23.27	40.00	16.73	QP	
3	127.000	12.14	1.13	14.73	28.00	43.50	15.50	QP	
4	416.060	16.80	3.01	2.45	22.26	46.00	23.74	QP	
5	551.860	19.26	3.84	2.89	25.99	46.00	20.01	QP	
6	658.560	20.58	4.34	5.18	30.10	46.00	15.90	QP	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

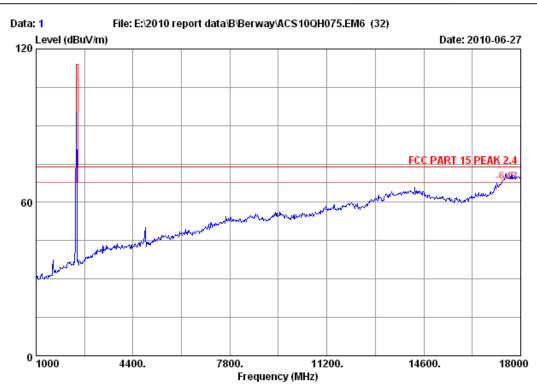
2. The emission levels that are 20dB below the official limit are not reported.

Radiated emissions from 1GHz to 18GHz (include fundamental) test result



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Site no. : 3m Chamber Data no. : 1

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 2.4

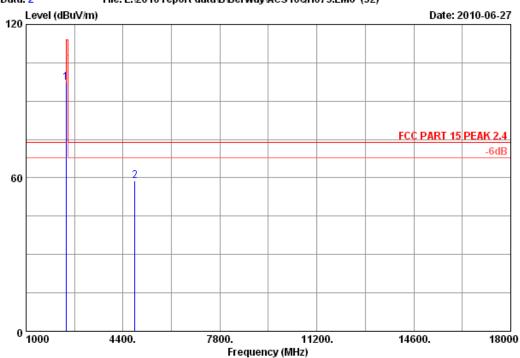
Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2406MHz M/N : 19474-H







Site no. : 3m Chamber Data no. : 2

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23 *C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

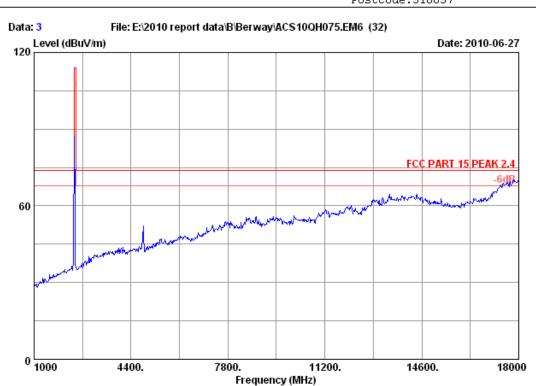
Power : DC 3V Test mode : Tx 2406MHz M/N : 19474-H

		Ant.	Cable	Amp.		Emissio	n			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2406.000	29.45	7.43	36.62	96.98	97.24	114.00	16.76	Peak	
2	4812.000	34.30	10.62	35.10	49.05	58.87	74.00	15.13	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

Frequency	PK measured	Duty cycle		_	Result
(MHz)	level (dBuV/m)	factor (dB)	(dBuV/m)	(dBuV/m)	
2406	97.24	14.86	82.38	94	PASS
4812	58.87	14.86	44.01	54	PASS





Site no. : 3m Chamber Data no. : 3

Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

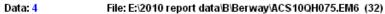
Limit : FCC PART 15 PEAK 2.4

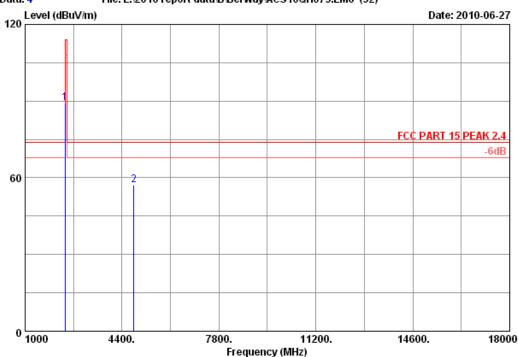
Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2406MHz M/N : 19474-H







Site no. : 3m Chamber Data no. : 4

Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2406MHz M/N : 19474-H

	-	Factor		Factor	Reading (dBuV)		Limits	_	Remark
_	2406.000				88.85			24.89	Peak
2	4812.000	34.30	10.62	35.10	47.25	57.07	74.00	16.93	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

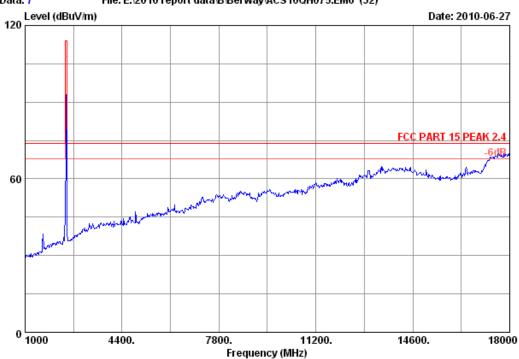
Frequency (MHz)	PK measured level (dBuV/m)	Duty cycle factor (dB)	Average level (dBuV/m)	Average Limit (dBuV/m)	Result
2406	89.11	14.86	74.25	94	PASS
4812	57.07	14.86	42.21	54	PASS



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Site no. : 3m Chamber Data no. : 7

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

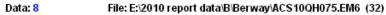
Limit : FCC PART 15 PEAK 2.4

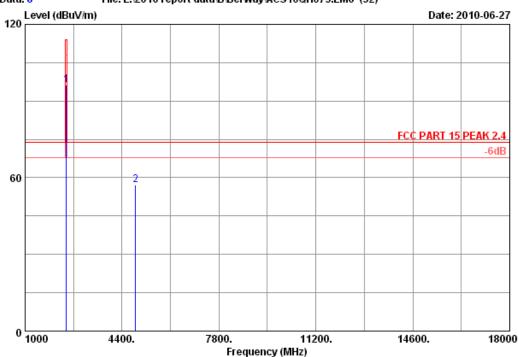
Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2440MHz M/N : 19474-H







Site no. : 3m Chamber Data no. : 8

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2440MHz M/N : 19474-H

	-	Factor	Factor	Reading (dBuV)		Limits	_	Remark
_	2440.000 4880.000		 	96.01 46.97	96.37 57.06		17.63 16.94	Peak Peak

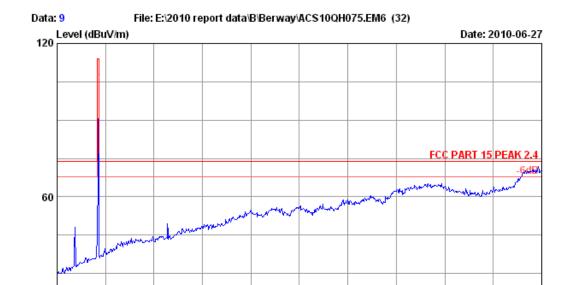
- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

Frequency	PK measured	Duty cycle	Average level	Average Limit	Result
(MHz)	level (dBuV/m)	factor (dB)	(dBuV/m)	(dBuV/m)	Kesuit
2440	96.37	14.86	81.51	94	PASS
4880	57.06	14.86	42.20	54	PASS



0 1000

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Site no. : 3m Chamber Data no. : 9

7800.

Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Frequency (MHz)

11200.

14600.

18000

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23*C/54% Engineer : Paul Tian

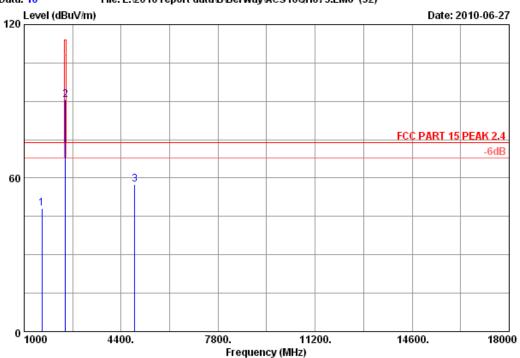
EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2440MHz M/N : 19474-H

4400.







Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23 *C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2440MHz M/N : 19474-H

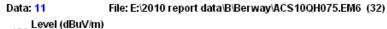
19009-H

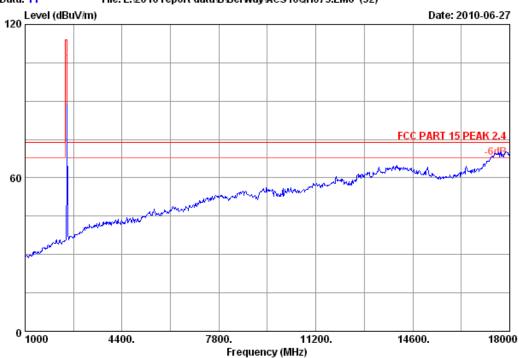
	Freq.	Factor		Amp. Factor (dB)	Reading (dBuV)		 _	Remark
2 24	40.000	27.15 29.47 34.41	7.50	36.61	51.79 90.27 47.52	47.97 90.63 57.61	 26.03 23.37 16.39	Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	PK measured level (dBuV/m)	Duty cycle factor (dB)	Average level (dBuV/m)	Average Limit (dBuV/m)	Result
2440	90.63	14.86	75.77	94	PASS
4880	57.61	14.86	42.75	54	PASS







Site no. : 3m Chamber Data no. : 11 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 2.4

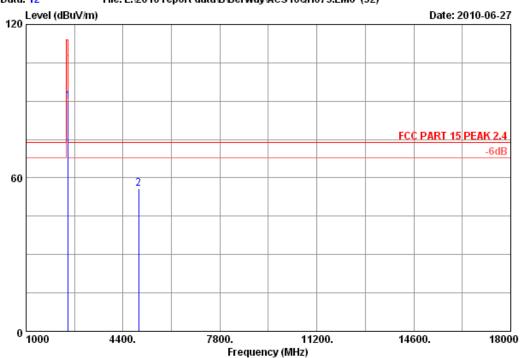
Env. / Ins. : 23*C/54% Engineer : Paul Tian

: PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2476 MHz M/N : 19474-H







Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23 *C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

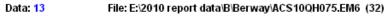
Power : DC 3V Test mode : Tx 2476MHz M/N : 19474-H

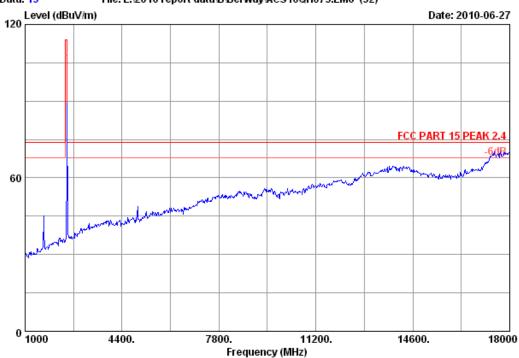
		Ant.	Cable	Amp.		Emissio:	n			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2476.000	29.49	7.54	36.60	89.54	89.97	114.00	24.03	Peak	
2	4952.000	34.52	10.78	34.95	45.34	55.69	74.00	18.31	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	PK measured level (dBuV/m)	Duty cycle factor (dB)	Average level (dBuV/m)	Average Limit (dBuV/m)	Result
2476	89.97	14.86	75.11	94	PASS
4952	55.69	14.86	40.83	54	PASS







Site no. : 3m Chamber Data no. : 13

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

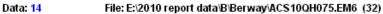
Limit : FCC PART 15 PEAK 2.4

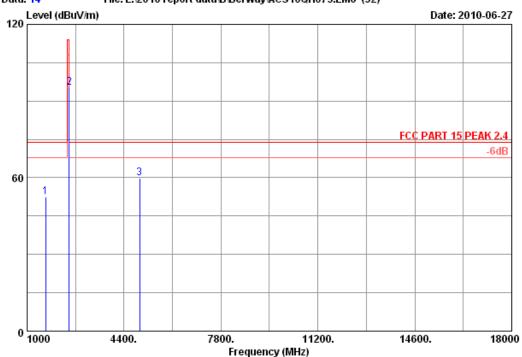
Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2476MHz M/N : 19474-H







Site no. : 3m Chamber Data no. : 14

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2476MHz M/N : 19474-H

:	•	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)			_	Remark
2 24	76.000	27.24 29.49 34.52	7.54	36.60	56.27 94.85 49.39	52.58 95.28 59.74	114.00	21.42 18.72 14.26	Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

	Frequency (MHz)	PK measured level (dBuV/m)	Duty cycle factor (dB)	Average level (dBuV/m)	Average Limit (dBuV/m)	Result
	2476	95.28	14.86	80.42	14.86	PASS
Γ	4952	59.74	14.86	44.88	14.86	PASS

5. BAND EDGE COMPLIANCE TEST

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,10	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3.	Amplifier	Agilent	8449B	3008A02495	May.08, 10	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08,10	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	May.08,10	1 Year

5.2. Limit

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 section 15.209, which is the lesser attenuation.

5.3. Test Produce

- 1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
- 2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz, PK detector, Sweep=AUTO
 - (b)This device is pulse modulated, a duty cycle factor was used to calculate average level based measured peak level.

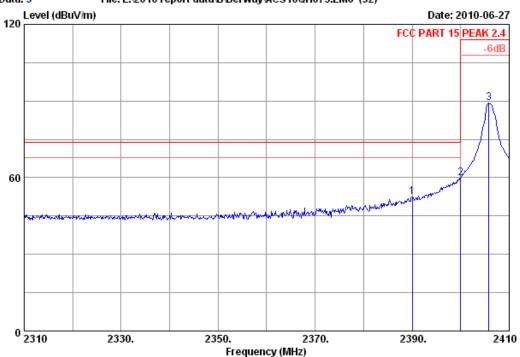
5.4. Test Results

Pass (The testing data was attached in the next pages.)



Postcode:518057

Data: 5 File: E:\2010 report data\B\Berway\AC\$10QH075.EM6 (32)



Site no. : 3m Chamber Data no. : 5

Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23 *C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2406MHz M/N : 19474-H

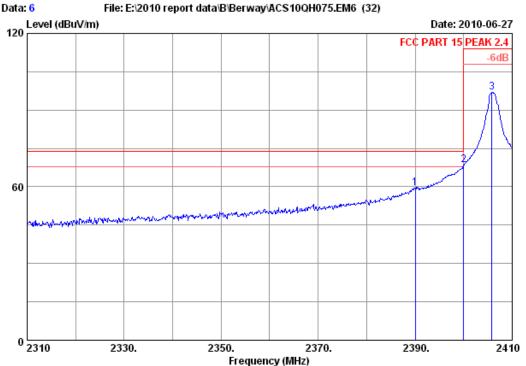
-		ss Factor B) (dB)	_	Level (dBuV/m)		_	Remark
1 2390.000 2 2400.000 3 2405.800	29.44 7.	43 36.62	52.33 59.63 88.83	52.54 59.88 89.09	74.00	21.46 14.12 24.91	Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	PK measured level (dBuV/m)	Duty cycle factor (dB)	Average level (dBuV/m)	Average Limit (dBuV/m)	Result
2405.8	89.09	14.86	74.23	94	PASS
2400	59.88	14.86	45.02	54	PASS
2390	52.54	14.86	37.68	54	PASS



Postcode:518057



Site no. : 3m Chamber Data no. : 6

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V
Test mode : Tx 2406MHz
M/N : 19474-H
19009-H

		Ant.	Cable	Amp.		Emissio	n		
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	29.44	7.39	36.62	59.25	59.46	74.00	14.54	Peak
2	2400.000	29.44	7.43	36.62	67.16	67.41	74.00	6.59	Peak
3	2405.800	29.45	7.43	36.62	96.67	96.93	114.00	17.07	Peak

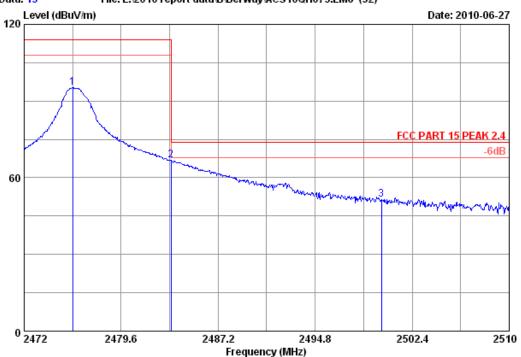
- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	PK measured level (dBuV/m)	Duty cycle factor (dB)	Average level (dBuV/m)	Average Limit (dBuV/m)	Result
2405.8	96.93	14.86	82.07	94	PASS
2400	68.41	14.86	53.55	54	PASS
2390	59.46	14.86	44.60	54	PASS



Postcode:518057





Site no. : 3m Chamber Data no. : 15

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2440MHz M/N : 19474-H

		Ant.	Cable	Amp.		Emissio	n		
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2475.800	29.49	7.54	36.60	94.90	95.33	114.00	18.67	Peak
2	2483.500	29.49	7.58	36.60	66.38	66.85	74.00	7.15	Peak
3	2500.000	29.50	7.62	36.60	50.89	51.41	74.00	22.59	Peak

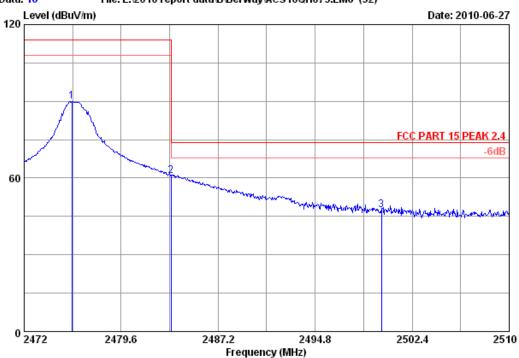
- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	PK measured level (dBuV/m)	Duty cycle factor (dB)	Average level (dBuV/m)	Average Limit (dBuV/m)	Result
2475.800	95.33	14.86	80.47	94	PASS
2483.5	66.85	14.86	51.99	54	PASS
2500	51.41	14.86	36.55	54	PASS



Postcode:518057





Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 2.4

Env. / Ins. : 23 *C/54% Engineer : Paul Tian

EUT : PS3 Wireless HRM Controller

Power : DC 3V Test mode : Tx 2440MHz M/N : 19474-H

		Ant.	Cable	Amp.		Emissio	n			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2475.724	29.49	7.54	36.60	89.54	89.97	114.00	24.03	Peak	
2	2483.500	29.49	7.58	36.60	60.52	60.99	74.00	13.01	Peak	
3	2500.000	29.50	7.62	36.60	46.91	47.43	74.00	26.57	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

Frequency	PK measured	Duty cycle	Average level	Average Limit	Dogult
(MHz)	level (dBuV/m)	factor (dB)	(dBuV/m)	(dBuV/m)	Result
2475.724	89.97	14.86	75.11	94	PASS
2483.5	60.99	14.86	46.13	54	PASS
2500	47.43	14.86	32.57	54	PASS

6. BANDWIDTH TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,10	1 Year

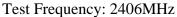
6.2. Limit

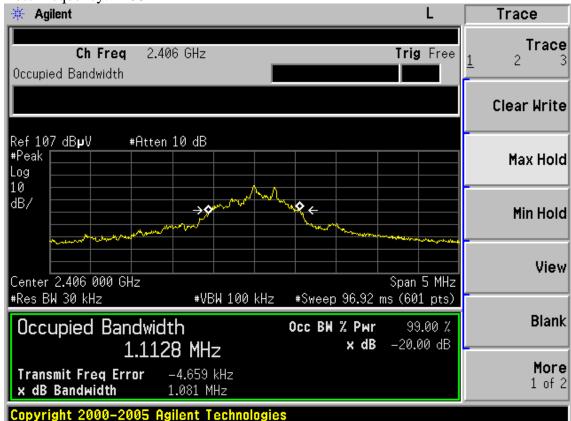
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

6.3. Test Results

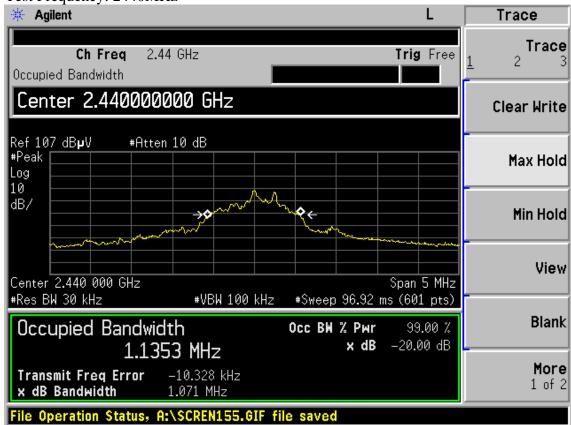
EUT: PS3 Wireless HRM Controller						
M/N: 19474-H						
Test date:2010-06-24	Pressure:100.5 kpa	Humidity:57 %				
Tested by:Paul Tian						

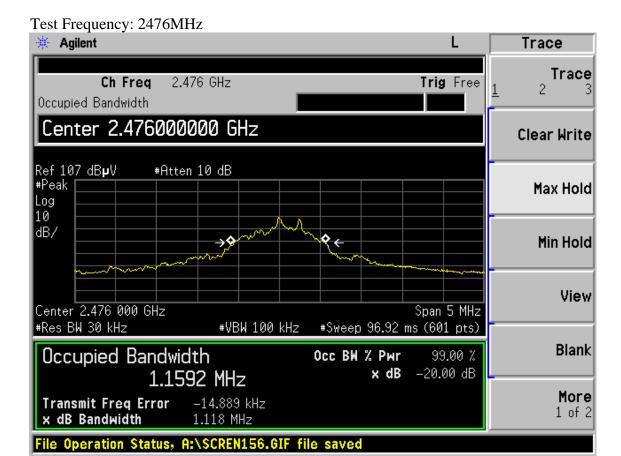
Frequency	20 bandwidth (KHz)	Limit (KHz)
2406	1081	N/A
2440	1071	N/A
2476	1181	N/A
Conclusion: PASS		





Test Frequency: 2440MHz





7. DEVIATION TO TEST SPECIFICATIONS

[NONE]