



**FCC PART 15C TEST REPORT FOR CERTIFICATION**  
**On Behalf of**

**Activision Publishing, Inc.**

**Controller for Xbox360**

**Trade Name : Activision**

**Model Number: 76965800**

**FCC ID: XLU76965800**

**Prepared for : Activision Publishing, Inc.**  
**3100 Ocean Park Boulevard, Santa Monica,**  
**CA90405, USA**

**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-F12229**

**Date of Test : Sep.07~Oct.27, 2012**

**Date of Report : Nov.14, 2012**

## TABLE OF CONTENTS

Description	Page
<b>1. SUMMARY OF STANDARDS AND RESULTS.....</b>	<b>1-1</b>
1.1. Description of Standards and Results .....	1-1
<b>2. GENERAL INFORMATION .....</b>	<b>2-1</b>
2.1. Description of Device (EUT) .....	2-1
2.2. EUT Configuration and operation conditions for test.....	2-2
2.3. Test Facility .....	2-3
2.4. Measurement Uncertainty (95% confidence levels, k=2) .....	2-3
<b>3. POWER LINE CONDUCTED EMISSION MEASUREMENT .....</b>	<b>3-1</b>
<b>4. RADIATED EMISSION MEASUREMENT .....</b>	<b>4-1</b>
4.1. Test Equipment .....	4-1
4.2. Block Diagram of Test Setup.....	4-1
4.3. Radiated Emission Limit Standard: FCC 15.209 and 15.249 .....	4-2
4.4. EUT Configuration on Test.....	4-3
4.5. Operating Condition of EUT.....	4-3
4.6. Test Procedure.....	4-3
4.7. Radiated Emission Test Results .....	4-3
<b>5. 20 DB BANDWIDTH TEST .....</b>	<b>5-1</b>
5.1. Test Equipment .....	5-1
5.2. Limit.....	5-1
5.3. Test Results .....	5-1
<b>6. BAND EDGE COMPLIANCE TEST .....</b>	<b>6-1</b>
6.1. Test Equipment .....	6-1
6.2. Limit.....	6-1
6.3. Test Produce .....	6-1
6.4. Test Results .....	6-1
<b>7. DEVIATION TO TEST SPECIFICATIONS.....</b>	<b>7-1</b>
<b>8. PHOTOGRAPH OF TEST .....</b>	<b>8-1</b>
8.1. Photos of Radiated Emission Test (30-1000MHz) .....	8-1
<b>9. PHOTOS OF THE EUT.....</b>	<b>3</b>



## TEST REPORT CERTIFICATION

Applicant : Activision Publishing, Inc.  
Manufacturer : Berway Technology Ltd.  
EUT Description : Controller for Xbox360  
FCC ID : XLU76965800  
(A) MODEL NO. : 76965800  
(B) Trade Name : Activision.  
(C) SERIAL NO. : N/A  
(D) Power Supply : DC 3V  
(E) TEST VOLTAGE : DC 3V

Tested for comply with:  
FCC Rules and Regulations Part 15 Subpart C: 2011  
Test procedure used:  
ANSI C63.10:2009

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements.

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 these tests. This report contains data that are not covered by the NVLAP accreditation. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

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.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Sep.07 ~ Oct.27, 2012 Report of date: Nov.14, 2012

Prepared by : June shao Reviewed by : Sunny Lu / Assistant Manager  
June Shao / Assistant Sunny Lu / Assistant Manager



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

Approved &amp; Authorized Signer :

Signature: Ken Lu 11/15/12

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
Radiated Emission Test	FCC Part 15C: 15.209 FCC Part 15C: 15.249 ANSI C63.10-2009 ANSI C63.4-2009	PASS
Band Edge Compliance Test	FCC Part 15: 15.249 ANSI C63.10-2009 ANSI C63.4-2009	PASS
20dB Bandwidth Test	FCC Part 15: 15.215 ANSI C63.10-2009	PASS

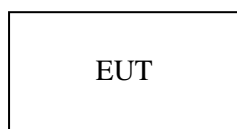
## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Product Name	: Controller for Xbox360
Model Number	: 76965800
FCC ID	: XLU76965800
Operation frequency	: 2402MHz-2482MHz
Antenna	: Integrated PCB antenna, 0dBi gain
Modulation	: GFSK
Power Supply	: DC 3V
Applicant	: Activision Publishing, Inc. 3100 Ocean Park Boulevard, Santa Monica, CA90405, USA
Manufacturer	: Berway Technology Ltd. Unit1301-03, 13/F., No.88 Kwai Cheong Road, Kwai Chung, N.T., H.K.
Date of Test	: Sep.07~Oct.27, 2012
Date of Receipt	: Sep.06, 2012
Sample Type	: Prototype production

No	Freq (MHz)	No	Freq (MHz)	No	Freq (MHz)
1	2402	16	2432	31	2462
2	2404	17	2434	32	2464
3	2406	18	2436	33	2466
4	2408	19	2438	34	2468
5	2410	20	2440	35	2470
6	2412	21	2442	36	2472
7	2414	22	2444	37	2474
8	2416	23	2446	38	2476
9	2418	24	2448	39	2478
10	2420	25	2450	40	2480
11	2422	26	2452	41	2482
12	2424	27	2454		
13	2426	28	2456		
14	2428	29	2458		
15	2430	30	2460		

## 2.2. T Configuration and operation conditions for test.



**( EUT: Controller for Xbox360)**



## 2.3. 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 : Certificated by FCC, USA  
Registration Number: 90454  
Valid Date: Feb.22, 2015

3m & 10m Anechoic Chamber : Certificated by FCC, USA  
Registration Number: 794232  
Valid Date: Dec.30, 2012

EMC Lab. : Certificated by Industry Canada  
Registration Number: IC 5183A-1  
Valid Date: Jun.13, 2014

Certificated by DAkkS, Germany  
Registration No: D-PL-12151-01-01  
Valid Date: Feb.01, 2014

Accredited by NVLAP, USA  
NVLAP Code: 200372-0  
Valid Date: Mar.31, 2013

## 2.4. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty
Uncertainty for Radiation Emission test in 3m chamber	3.6 dB(30~200MHz, Polarize: H)
	3.8 dB(30~200MHz, Polarize: V)
	4.2 dB(200M~1GHz, Polarize: H)
	3.8 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.57dB
Uncertainty for Conduction Spurious emission test	2.00 dB
Uncertainty for Output power test	0.73 dB
Uncertainty for Power density test	2.00 dB
Uncertainty for Frequency range test	$7 \times 10^{-8}$
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and humidity	0.6°C
	3%

### **3. POWER LINE CONDUCTED EMISSION MEASUREMENT**

According to Paragraph (c) of FCC Part 15 section 15.249, 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 MEASUREMENT

### 4.1. Test Equipment

Frequency rang: 30~1000MHz

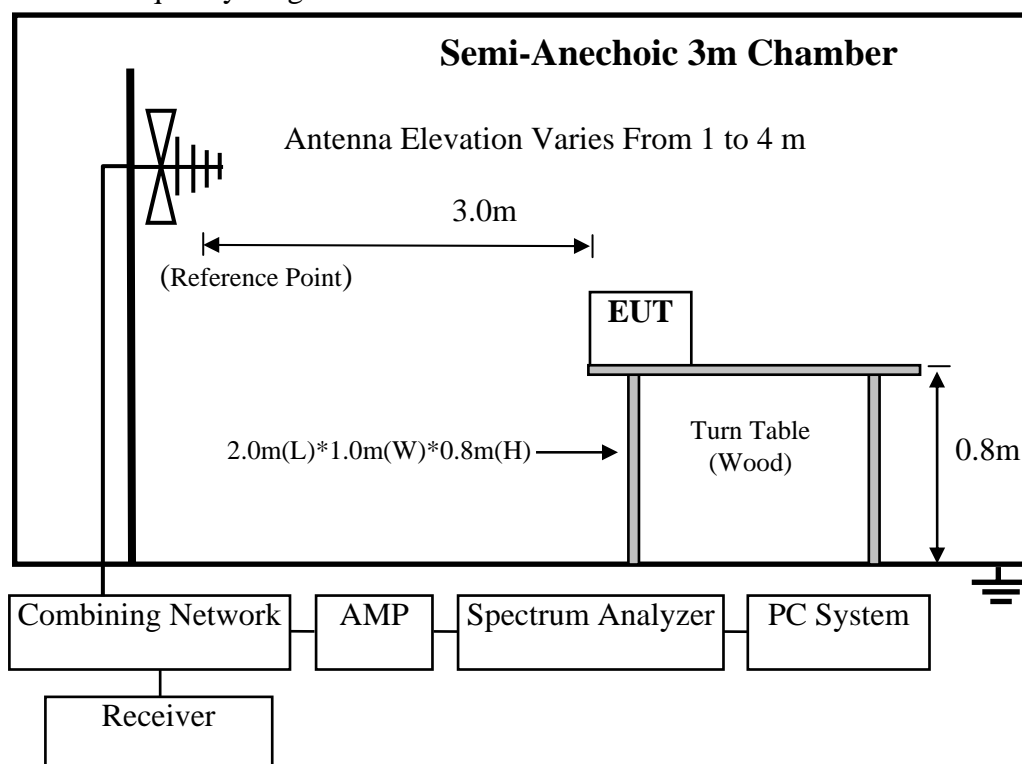
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Nov.28,11	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 12	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 12	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 12	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Dec.26, 10	2.0 Year
6	RF Cable	MIYAZAKI	CFD400-NL	3# Chamber No.1	May.08, 12	1 Year
7	Coaxial Switch	Anritsu	MP59B	M74389	May.08, 12	1 Year

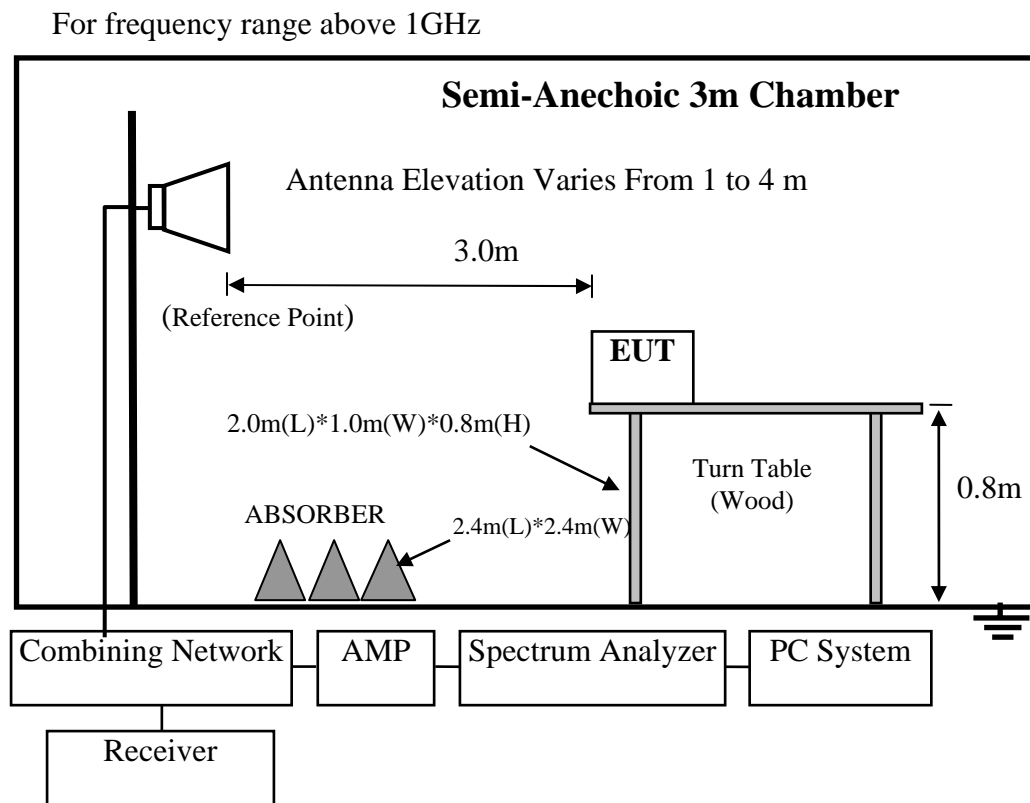
Frequency rang: above 1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4407B	MY41440292	May.08, 12	1 Year
2	Horn Antenna	EMCO	3115	9510-4580	June.05, 12	1 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 12	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX106	77980/6	May.08, 12	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	May.08, 12	1 Year
6	Horn Antenna	EMCO	3116	00060089	May.08, 12	1.5 Year

### 4.2. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz





#### 4.3. Radiated Emission Limit Standard: FCC 15.209 and 15.249

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
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 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	
Field Strength of fundamental emissions for 2.4GHz-2.4835GHz	3	114.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 94.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

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

- (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.

#### 4.5.Operating Condition of EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2. Turned on the power of all equipment.
- 4.5.3. Let EUT work in Tx mode.

#### 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.

During the pretest the EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emissions.

After that the EUT was manually handled to find the orientation that has the maximum emission, which is the orientation show in the test setup photos.

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

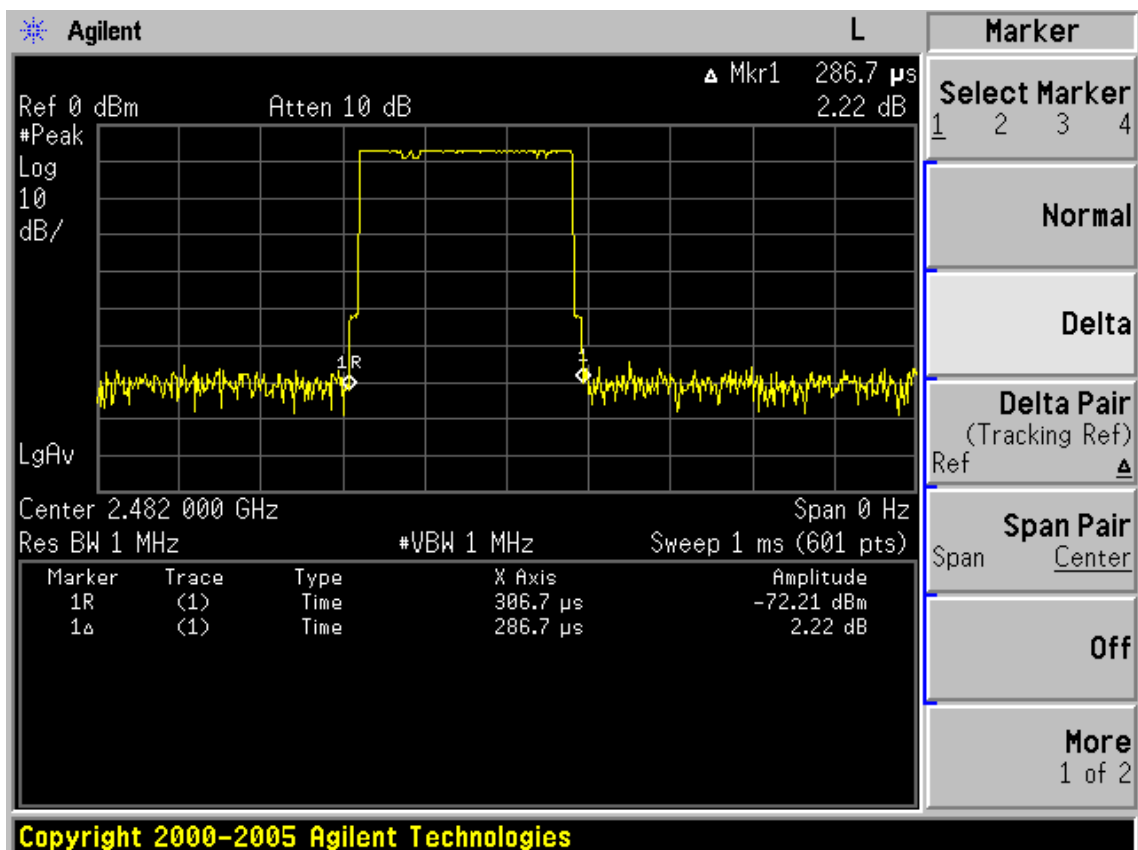
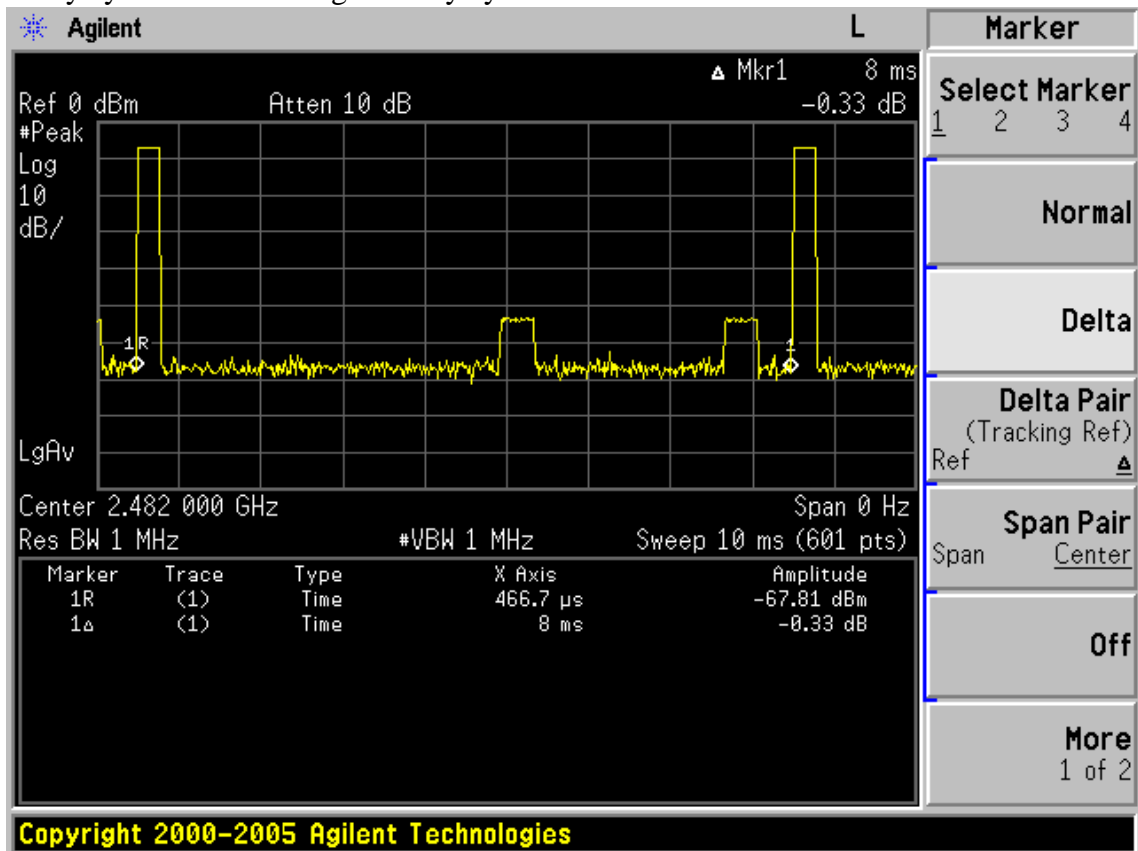
##### **PASS.**

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

Note: The duty cycle factor for calculate average level is 28.91dB, and average limit is 20dB below peak limit, so if peak measured level comply with peak limit, the average level was deemed to comply with average limit.

Duty cycle:  $0.2867\text{ms} \times 1\text{times} / 8\text{ms} \times 100\% = 3.58\%$

Duty cycle factor =  $20\log (1/\text{duty cycle}) = 28.91\text{dB}$

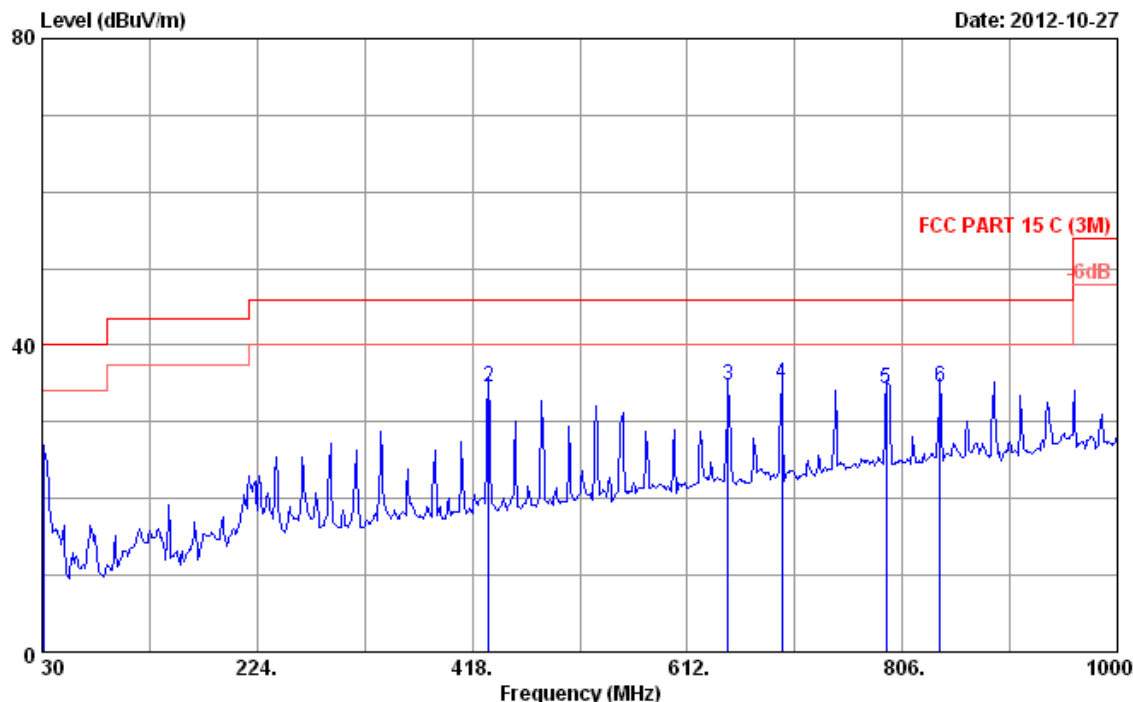


# Frequency: 30MHz~1GHz

Data: 2

File: E:\2012 Report Data\A\Activision\ACS12QH121.EM6 (6)

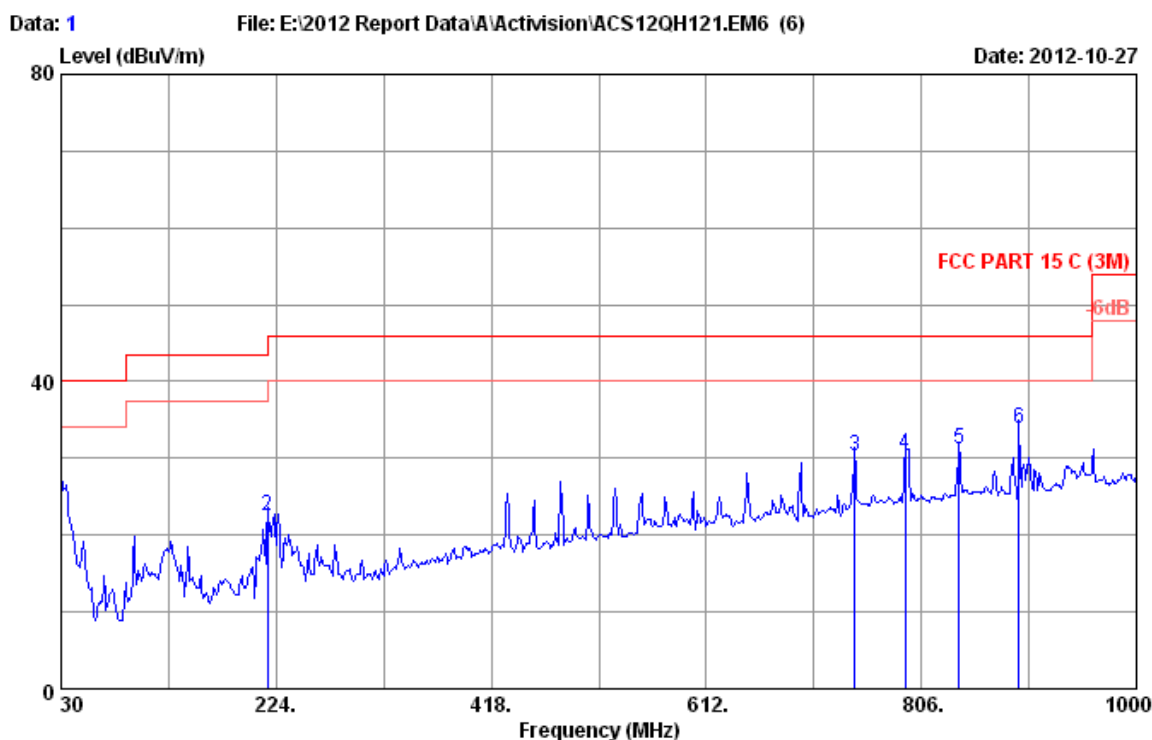
Date: 2012-10-27



Site no. : 10m Chamber Data no. : 2  
Dis. / Ant. : 3m 2012 CBL6111C 2598 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 C (3M)  
Env. / Ins. : 24°C/56% Engineer : Tony\_Yan  
EUT : Controller for Xbox360  
Power rating : DC 3V  
Test Mode : Tx Mode  
M/N: 76965800

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	17.61	0.45	6.34	24.40	40.00	15.60	QP
2	432.550	17.58	1.64	15.41	34.63	46.00	11.37	QP
3	648.860	20.68	2.25	11.77	34.70	46.00	11.30	QP
4	697.360	21.38	2.40	11.17	34.95	46.00	11.05	QP
5	791.450	22.70	2.68	9.03	34.41	46.00	11.59	QP
6	839.950	23.23	2.75	8.60	34.58	46.00	11.42	QP

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

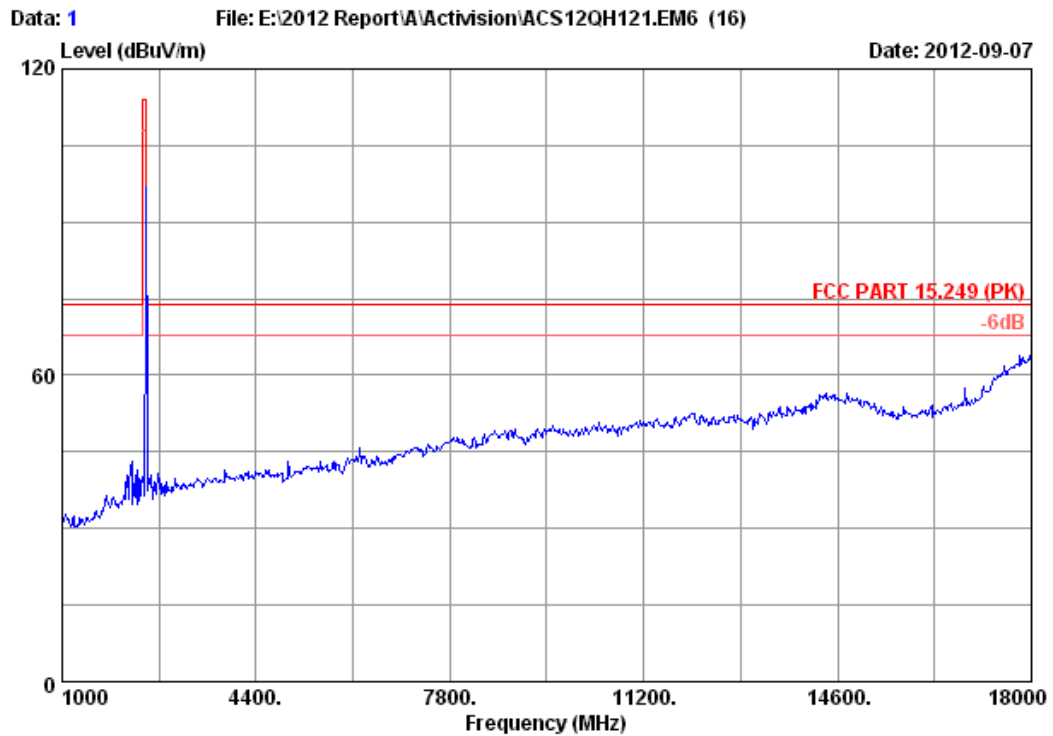


Site no. : 10m Chamber Data no. : 1  
Dis. / Ant. : 3m 2012 CBL6111C 2598 Ant. pol. : VERTICAL  
Limit : FCC PART 15 C (3M)  
Env. / Ins. : 24°C/56% Engineer : Tony\_Yan  
EUT : Controller for Xbox360  
Power rating : DC 3V  
Test Mode : Tx Mode  
M/N: 76965800

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	18.74	0.45	6.43	25.62	40.00	14.38	QP
2	216.240	9.75	1.11	11.71	22.57	46.00	23.43	QP
3	745.860	22.18	2.54	5.67	30.39	46.00	15.61	QP
4	791.450	22.70	2.68	5.14	30.52	46.00	15.48	QP
5	839.950	23.23	2.75	5.13	31.11	46.00	14.89	QP
6	894.270	23.46	2.81	7.68	33.95	46.00	12.05	QP

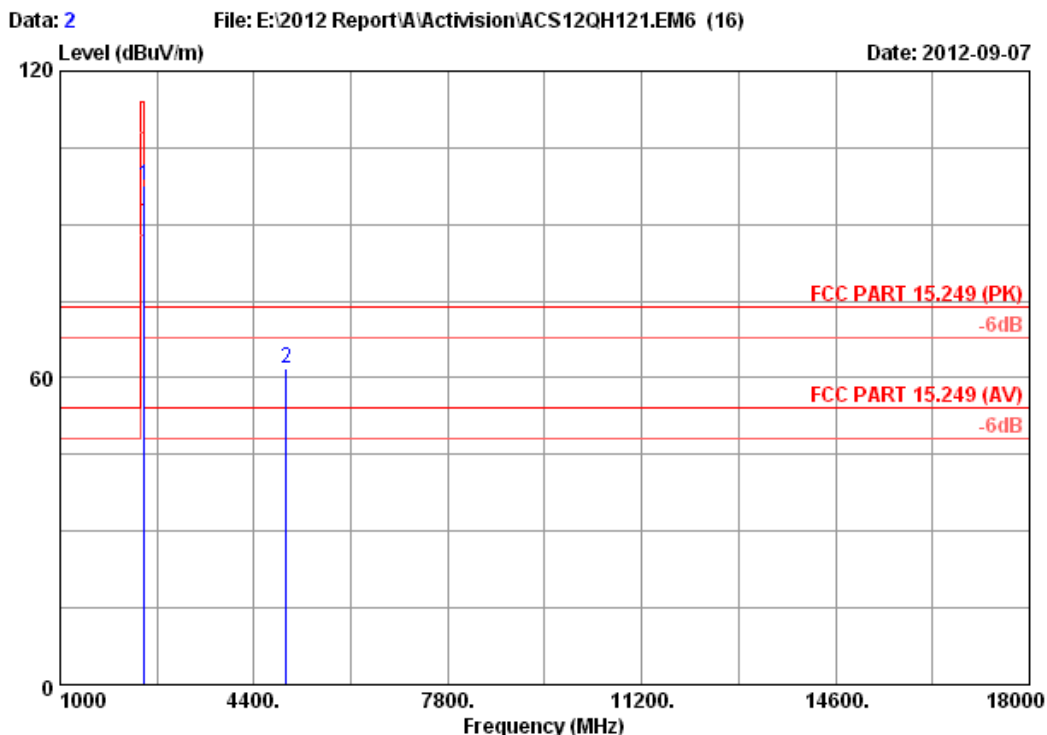
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.

# Frequency: 1GHz~18GHz



Site no.	: 3m Chamber	Data no.	: 1
Dis. / Ant.	: 3m 2011 3115 4580	Ant. pol.	: VERTICAL
Limit	: FCC PART 15.249 (PK)		
Env. / Ins.	: 23°C/54%	Engineer	: Leo-Li
EUT	: Controller for Xbox360		
Power supply	: DC 3V		
Test mode	: 2482MHz Tx		
M/N	: 76965800		





Site no. : 3m Chamber Data no. : 2  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2482MHz Tx  
 M/N : 76965800

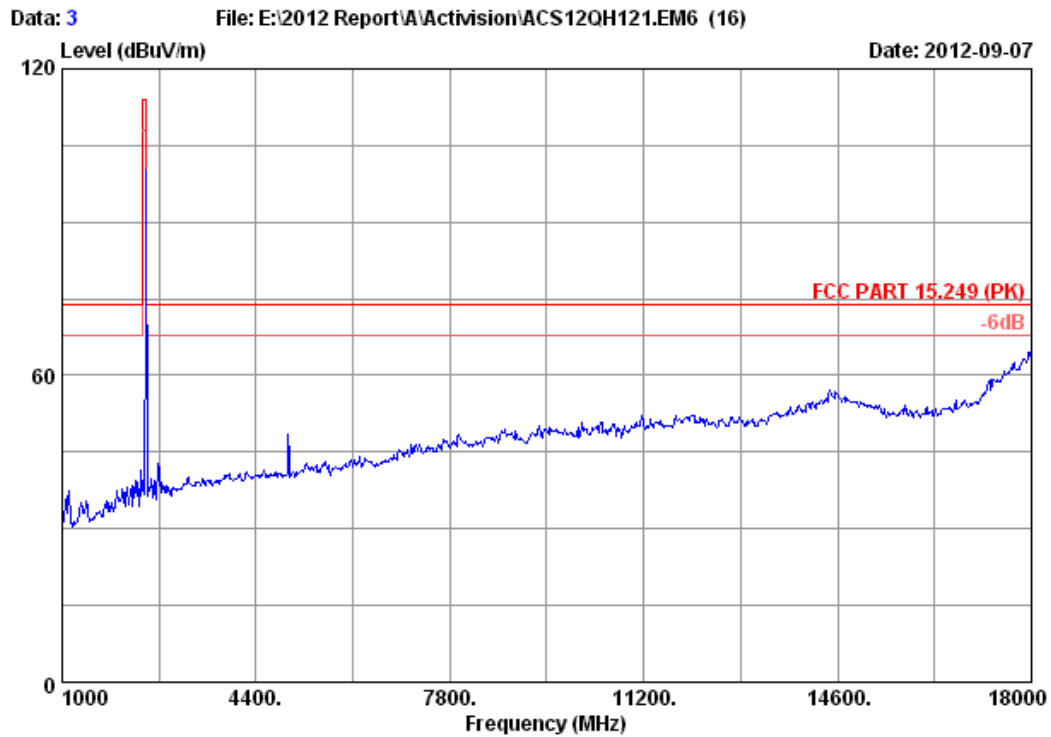
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2482.000	28.08	6.15	34.45	97.90	97.68	114.00	16.32	Peak
2	4964.000	33.14	8.65	34.60	54.74	61.93	74.00	12.07	Peak

#### Remarks:

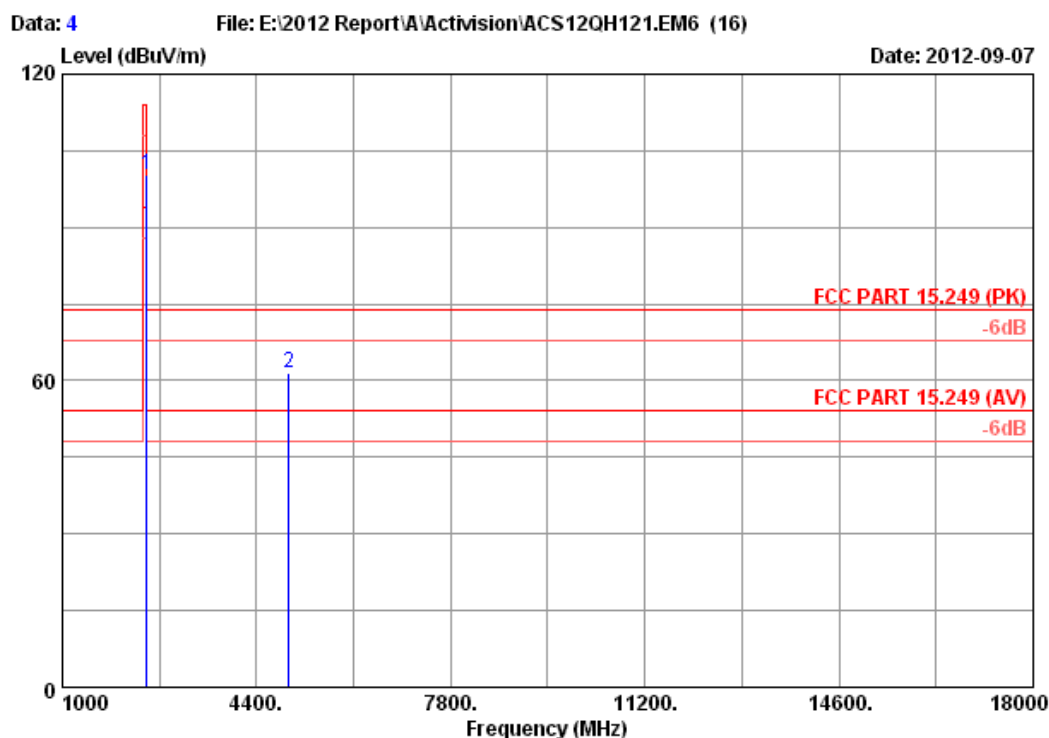
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.

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

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
2482	97.68	28.91	68.77	94	Pass
4964	61.93	28.91	33.02	54	Pass



Site no.	: 3m Chamber	Data no.	: 3
Dis. / Ant.	: 3m 2011 3115 4580	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15.249 (PK)		
Env. / Ins.	: 23°C/54%	Engineer	: Leo-Li
EUT	: Controller for Xbox360		
Power supply	: DC 3V		
Test mode	: 2482MHz Tx		
M/N	: 76965800		



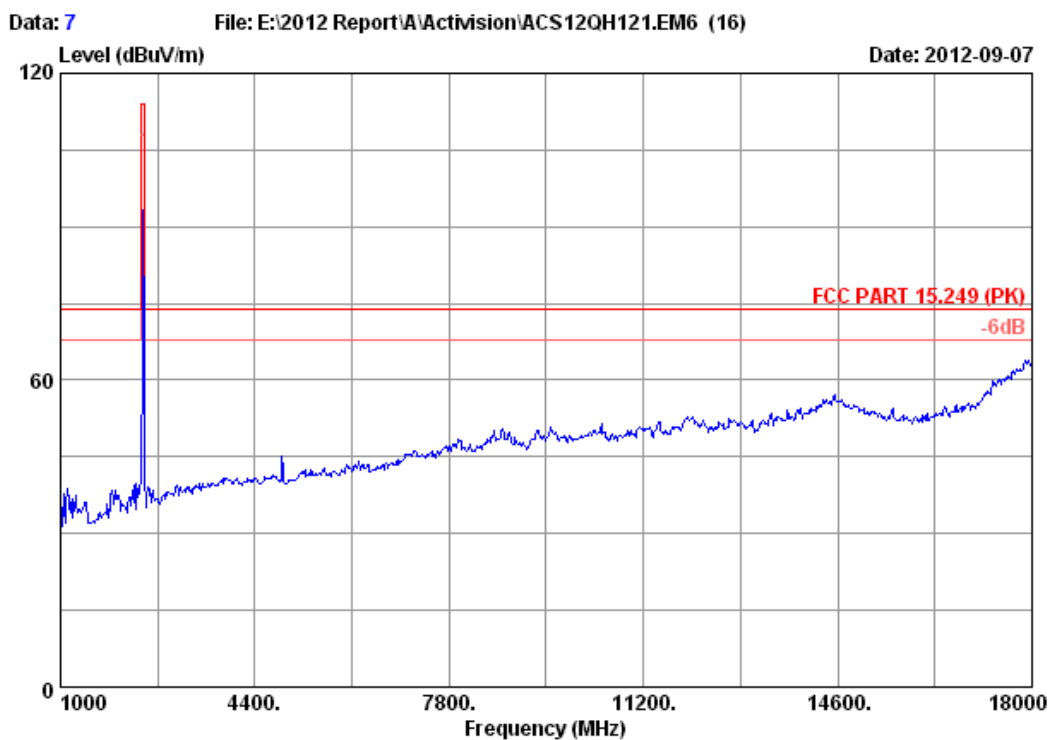
Site no. : 3m Chamber Data no. : 4  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2482MHz Tx  
 M/N : 76965800

	Freq.	Ant.	Cable	Amp.		Emission			
	(MHz)	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2482.000	28.08	6.15	34.45	100.55	100.33	114.00	13.67	Peak
2	4964.000	33.14	8.65	34.60	54.39	61.58	74.00	12.42	Peak

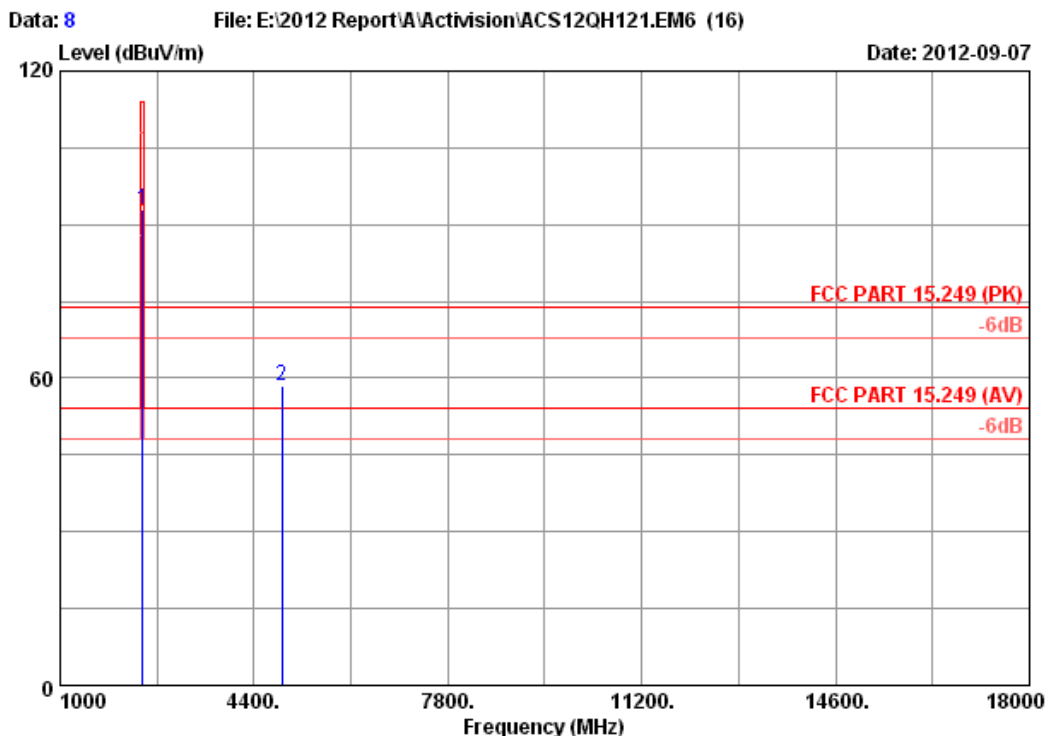
# Remarks:

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

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
2482	100.33	28.91	71.42	94	Pass
4964	61.58	28.91	32.67	54	Pass



Site no.	: 3m Chamber	Data no.	: 7
Dis. / Ant.	: 3m 2011 3115 4580	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15.249 (PK)		
Env. / Ins.	: 23°C/54%	Engineer	: Leo-Li
EUT	: Controller for Xbox360		
Power supply	: DC 3V		
Test mode	: 2442MHz Tx		
M/N	: 76965800		



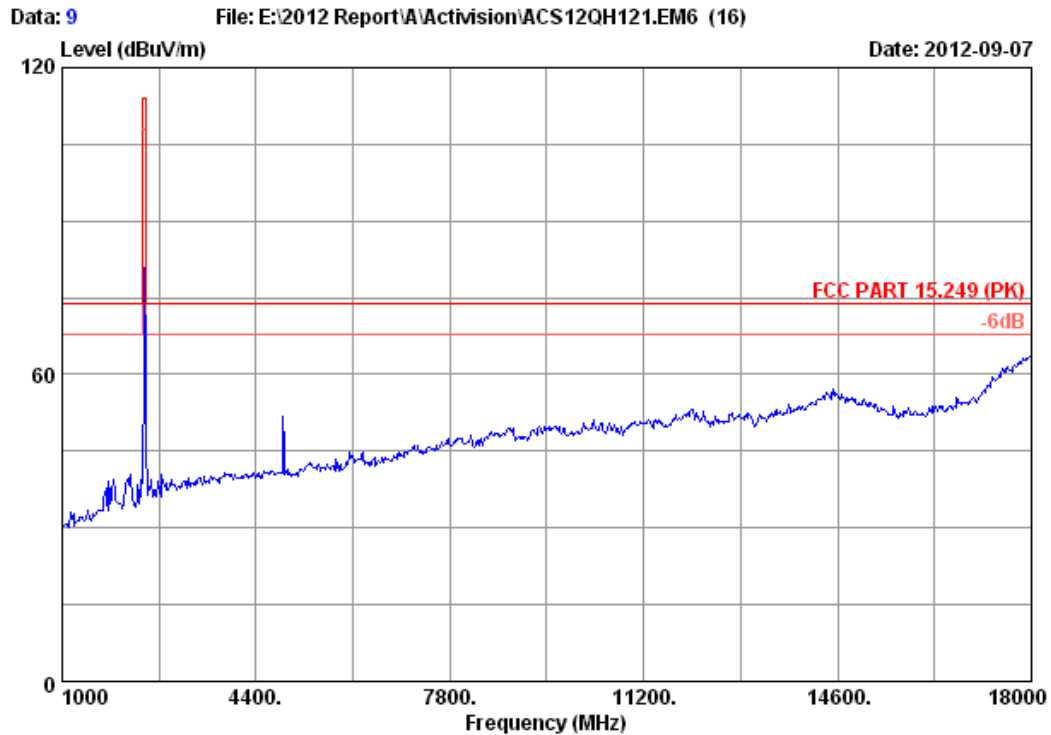
Site no. : 3m Chamber Data no. : 8  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2442MHz Tx  
 M/N : 76965800

	Freq.	Ant.	Cable	Amp.		Emission			
	(MHz)	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2442.000	28.03	6.09	34.44	93.36	93.04	114.00	20.96	Peak
2	4884.000	32.98	8.59	34.60	51.44	58.41	74.00	15.59	Peak

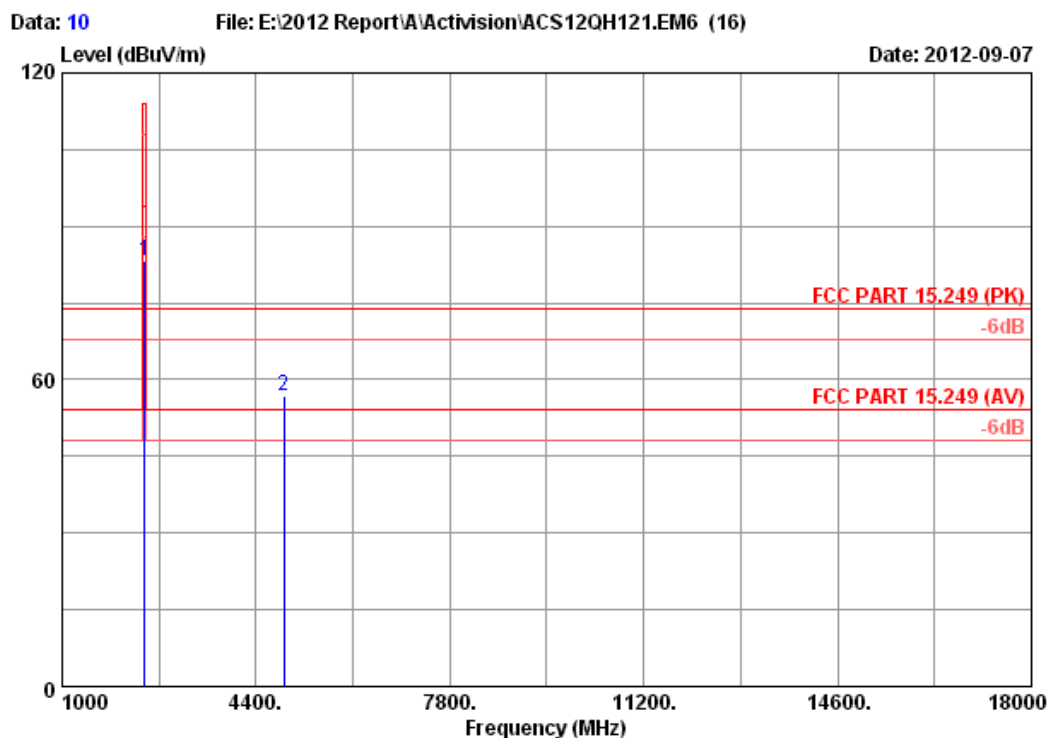
#### Remarks:

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

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
4884	58.41	28.91	29.50	54	Pass



Site no.	: 3m Chamber	Data no.	: 9
Dis. / Ant.	: 3m 2011 3115 4580	Ant. pol.	: VERTICAL
Limit	: FCC PART 15.249 (PK)		
Env. / Ins.	: 23°C/54%	Engineer	: Leo-Li
EUT	: Controller for Xbox360		
Power supply	: DC 3V		
Test mode	: 2442MHz Tx		
M/N	: 76965800		



Site no. : 3m Chamber Data no. : 10  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2442MHz Tx  
 M/N : 76965800

	Freq.	Ant.	Cable	Amp.		Emission			
	(MHz)	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2442.000	28.03	6.09	34.44	83.61	83.29	114.00	30.71	Peak
2	4884.000	32.98	8.59	34.60	49.78	56.75	74.00	17.25	Peak

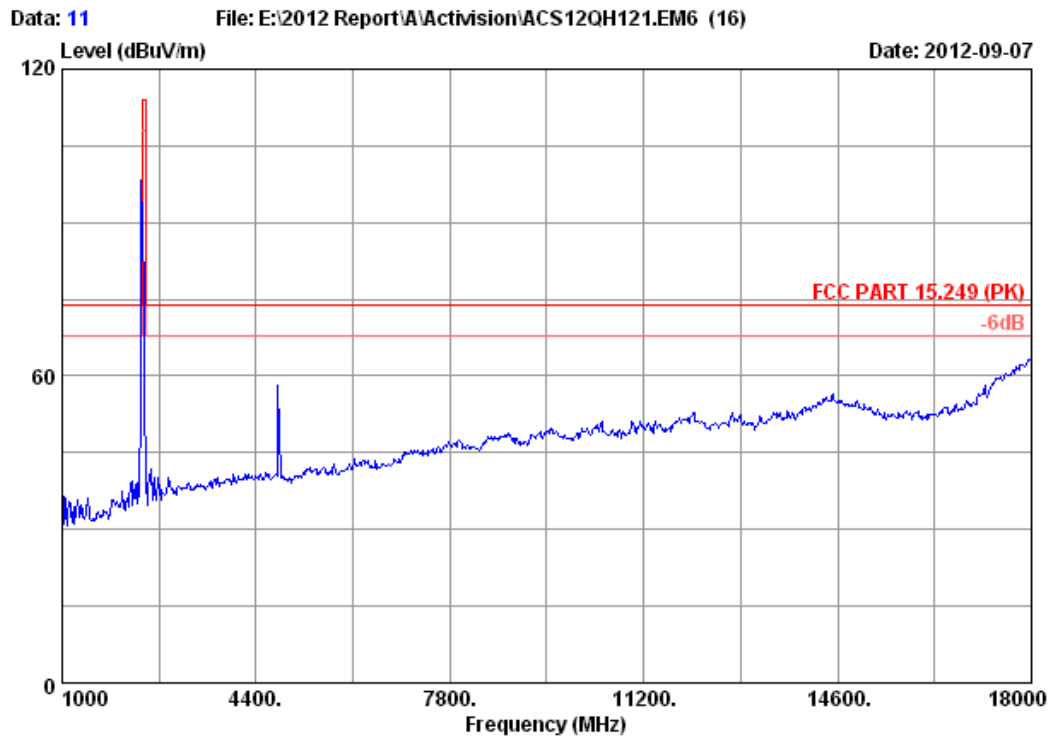
# Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.

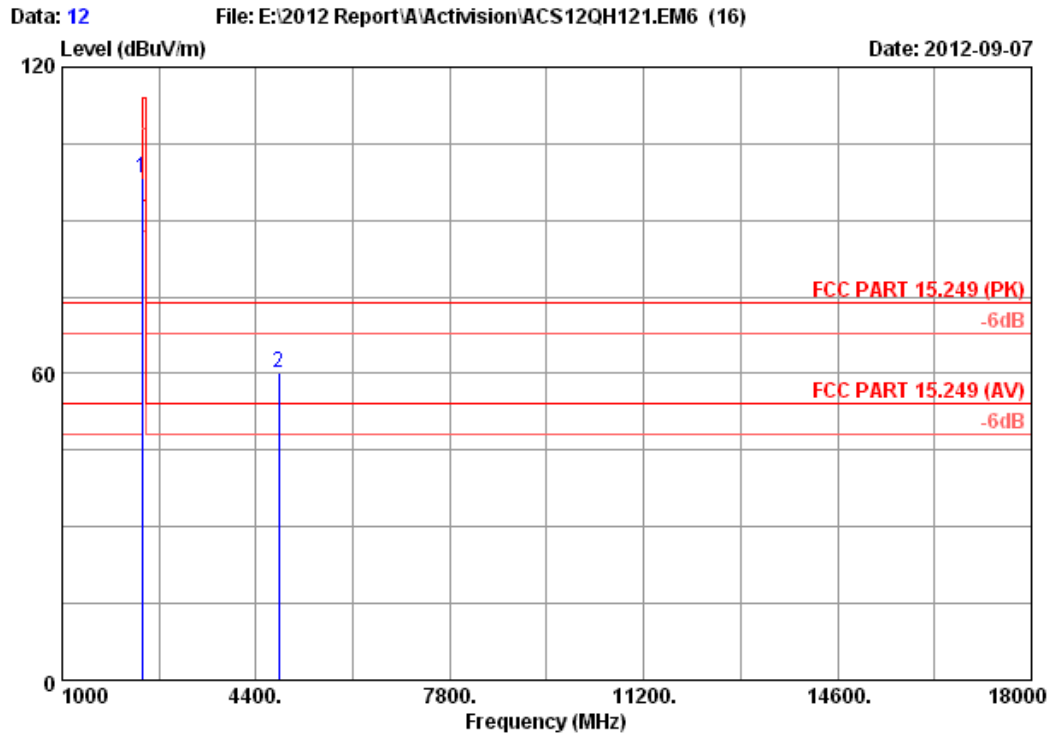
2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
4884	56.75	28.91	27.84	54	Pass





Site no.	: 3m Chamber	Data no.	: 11
Dis. / Ant.	: 3m 2011 3115 4580	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15.249 (PK)		
Env. / Ins.	: 23°C/54%	Engineer	: Leo-Li
EUT	: Controller for Xbox360		
Power supply	: DC 3V		
Test mode	: 2402MHz Tx		
M/N	: 76965800		



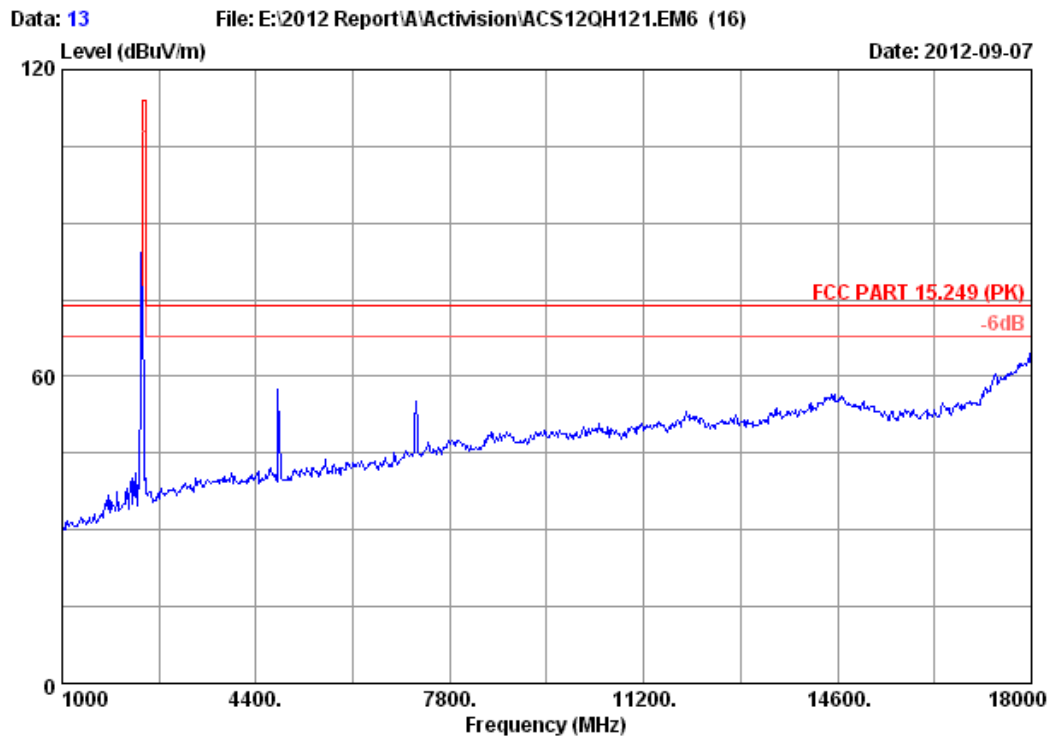
Site no. : 3m Chamber Data no. : 12  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2402MHz Tx  
 M/N : 76965800

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	27.96	6.01	34.44	98.61	98.14	114.00	15.86	Peak
2	4804.000	32.86	8.52	34.60	53.33	60.11	74.00	13.89	Peak

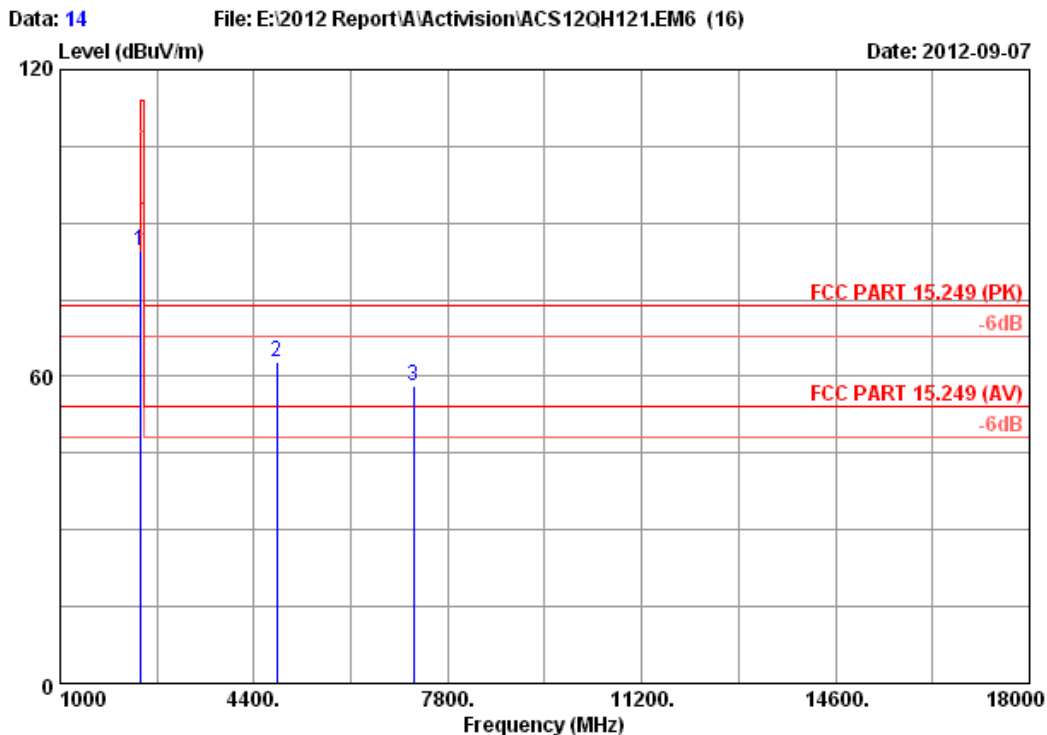
#### Remarks:

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

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
2402	98.14	28.91	69.23	94	Pass
4804	60.11	28.91	31.20	54	Pass



Site no.	: 3m Chamber	Data no.	: 13
Dis. / Ant.	: 3m 2011 3115 4580	Ant. pol.	: VERTICAL
Limit	: FCC PART 15.249 (PK)		
Env. / Ins.	: 23°C/54%	Engineer	: Leo-Li
EUT	: Controller for Xbox360		
Power supply	: DC 3V		
Test mode	: 2402MHz Tx		
M/N	: 76965800		



Site no. : 3m Chamber Data no. : 14  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2402MHz Tx  
 M/N : 76965800

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	27.96	6.01	34.44	84.96	84.49	114.00	29.51	Peak
2	4804.000	32.86	8.52	34.60	56.18	62.96	74.00	11.04	Peak
3	7206.000	35.74	10.45	34.72	46.85	58.32	74.00	15.68	Peak

#### Remarks:

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)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
4804	62.96	28.91	37.05	54	Pass
7206	58.32	28.91	29.41	54	Pass

## 5. 20 DB BANDWIDTH TEST

### 5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year

### 5.2. Limit

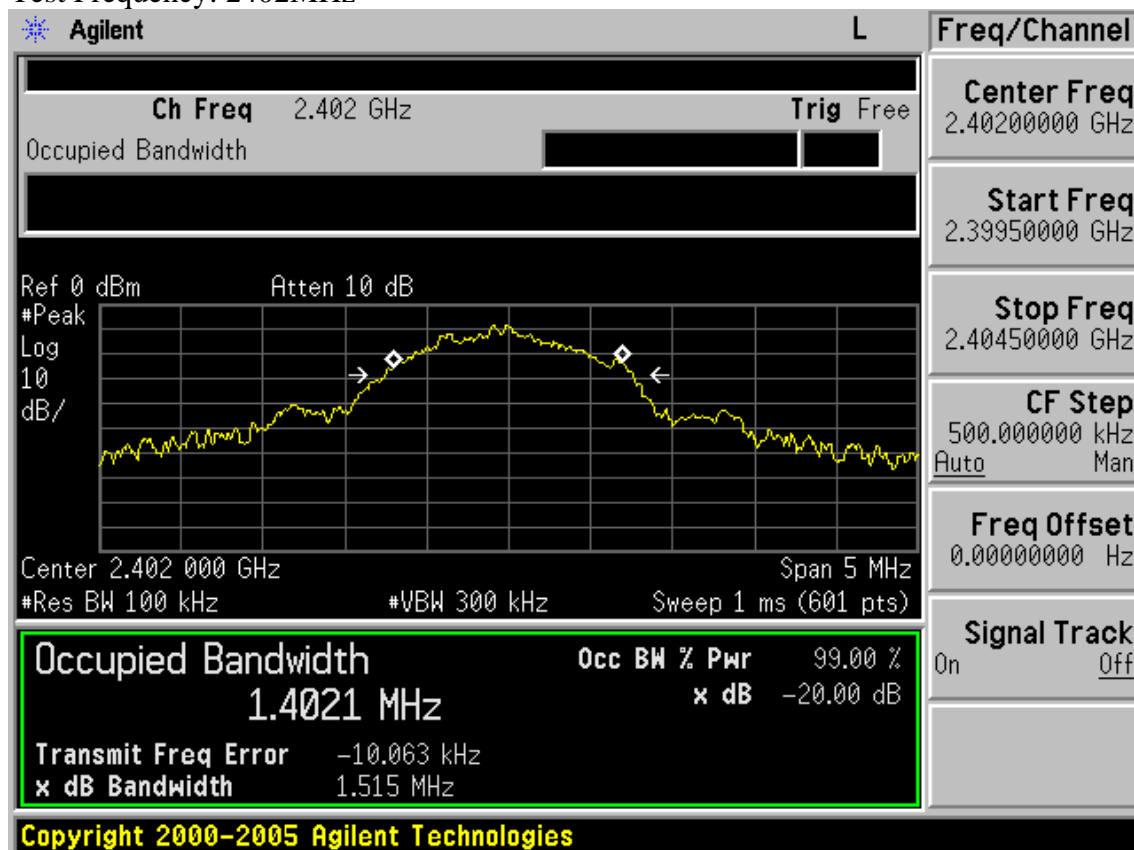
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific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

### 5.3. Test Results

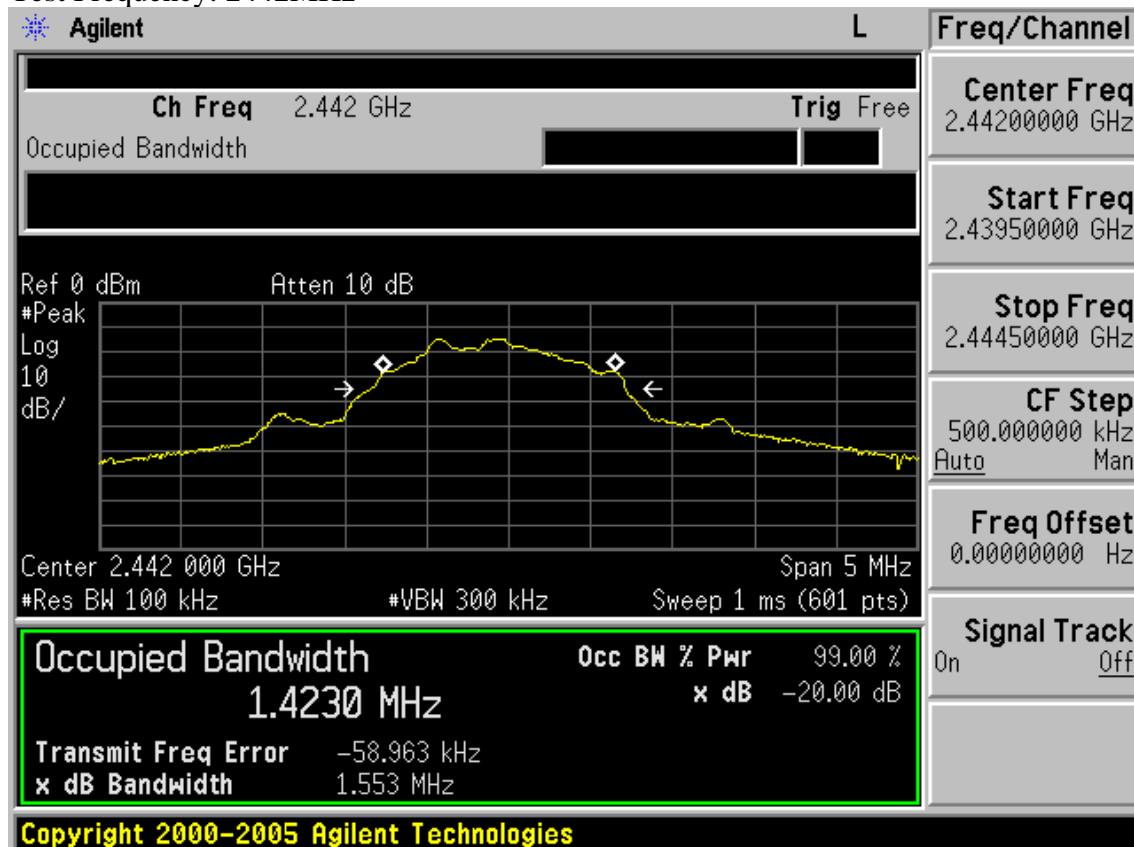
EUT: Controller for Xbox360		
M/N: 76965800		
Test date:2012-09-07	Pressure: 101.2 kpa	Humidity: 53.4 %
Tested by: Leo-Li	Test site: RF site	Temperature : 24.1 °C

Frequency	20dB bandwidth ( MHz )	Limit (MHz)
2402MHz	1.515	N/A
2442MHz	1.553	N/A
2482MHz	1.593	N/A
Conclusion : PASS		

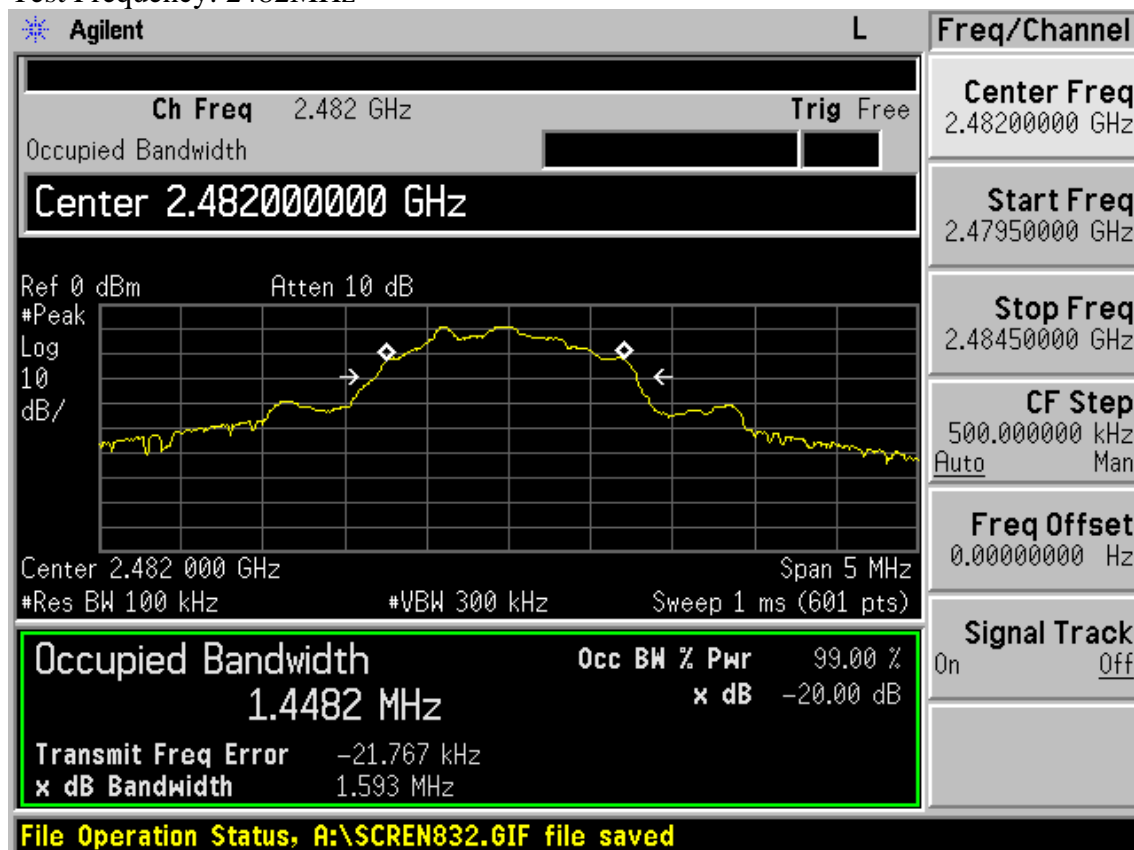
Test Frequency: 2402MHz



Test Frequency: 2442MHz



Test Frequency: 2482MHz





## 6. BAND EDGE COMPLIANCE TEST

### 6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.08, 12	1Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 12	1 Year

### 6.2. Limit

All the emissions outside the operation frequency band 2400MHz to 2483.5MHz shall not exceed the limits shown in 15.209.

### 6.3. Test Produce

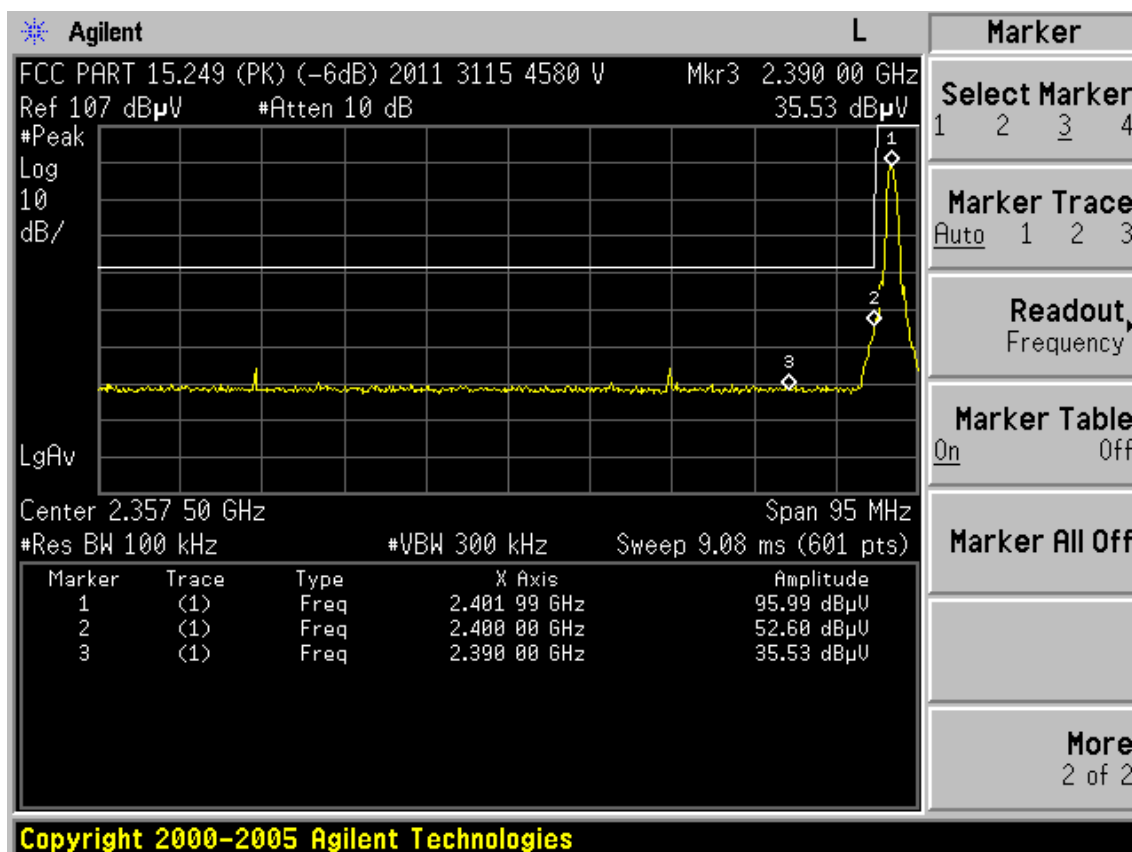
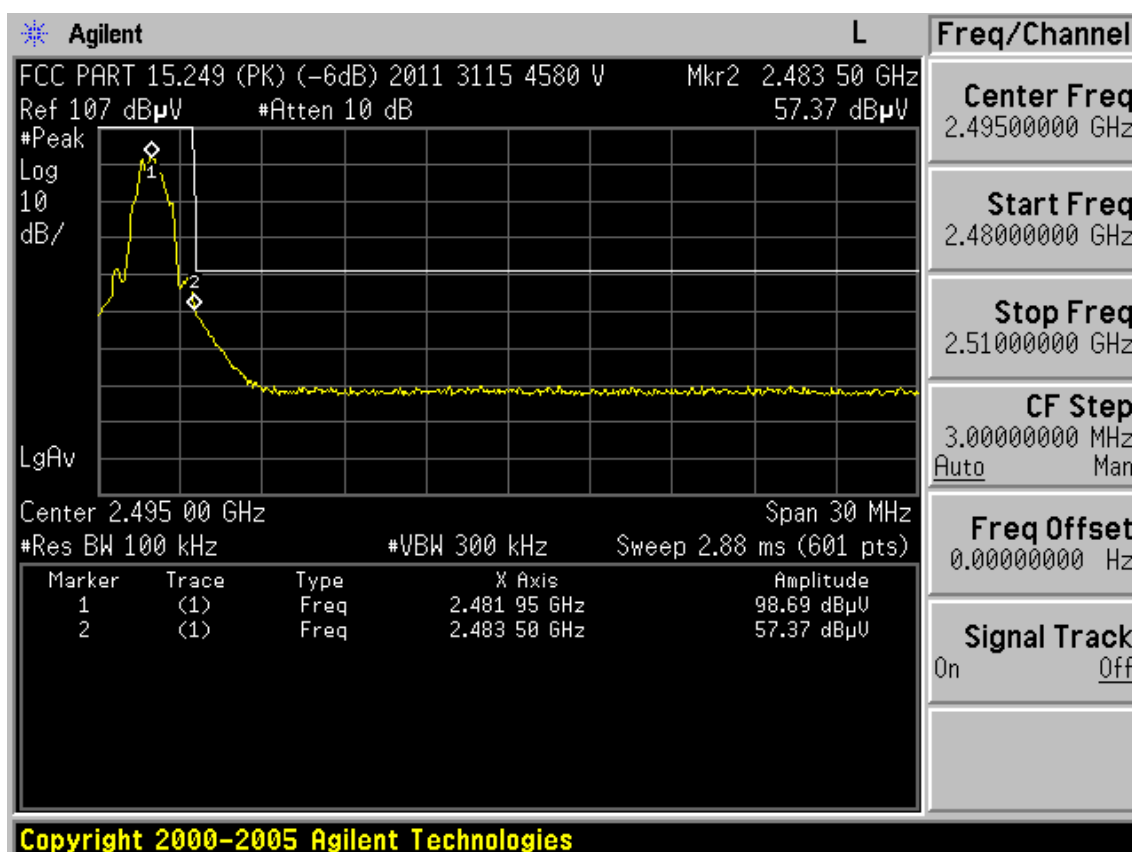
1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out 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. As to 2400MHz and 2483.5MHz use Mark-Delta test Method

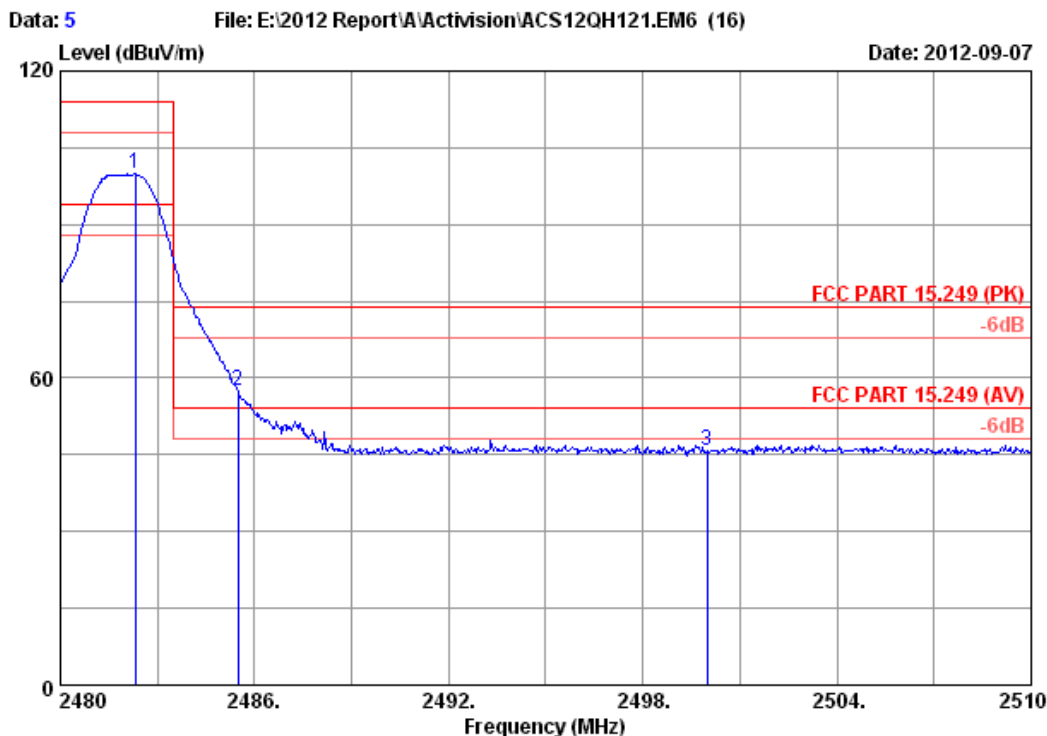
### 6.4. Test Results

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

Note: If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

Note: The duty cycle factor for calculate average level is 28.91dB, and average limit is 20dB below peak limit, so if peak measured level comply with peak limit, the average level was deemed to comply with average limit.





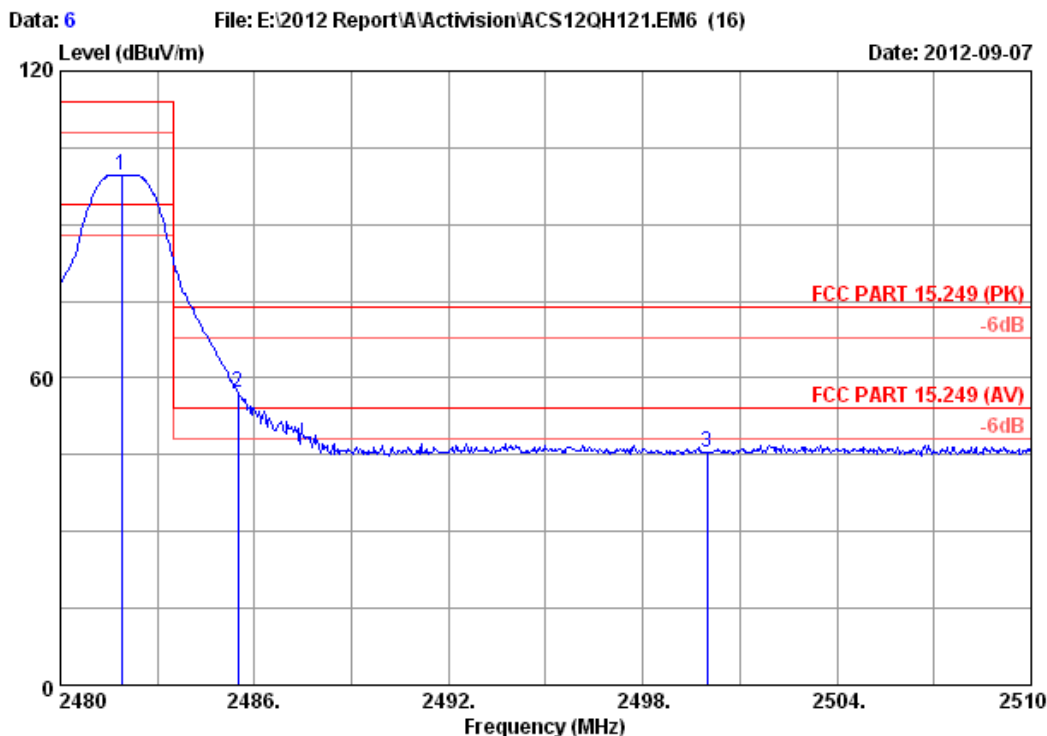
Site no. : 3m Chamber Data no. : 5  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2482MHz Tx  
 M/N : 76965800

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2482.310	28.08	6.15	34.45	100.03	99.81	114.00	14.19	Peak
2	2485.500	28.08	6.15	34.45	57.61	57.39	74.00	16.61	Peak
3	2500.000	28.10	6.18	34.45	46.06	45.89	74.00	28.11	Peak

#### Remarks:

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)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
2482	99.81	28.91	70.90	94	Pass
2485.500	58.39	28.91	29.48	54	Pass



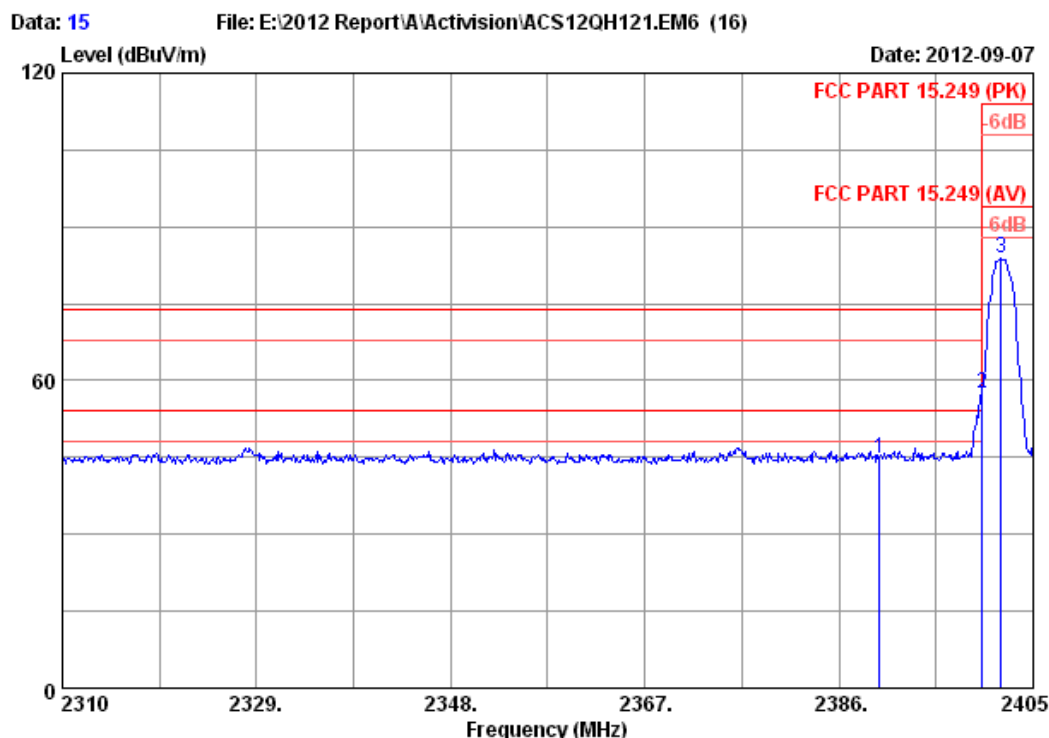
Site no. : 3m Chamber Data no. : 6  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2482MHz Tx  
 M/N : 76965800

	Freq.	Ant.	Cable	Amp.	Emission				
	(MHz)	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2481.890	28.08	6.15	34.45	99.94	99.72	114.00	14.28	Peak
2	2485.500	28.08	6.15	34.45	57.33	57.11	74.00	16.89	Peak
3	2500.000	28.10	6.18	34.45	45.61	45.44	74.00	28.56	Peak

#### Remarks:

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)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
2481	99.72	28.91	70.81	94	Pass
2485.500	57.11	28.91	28.20	54	Pass



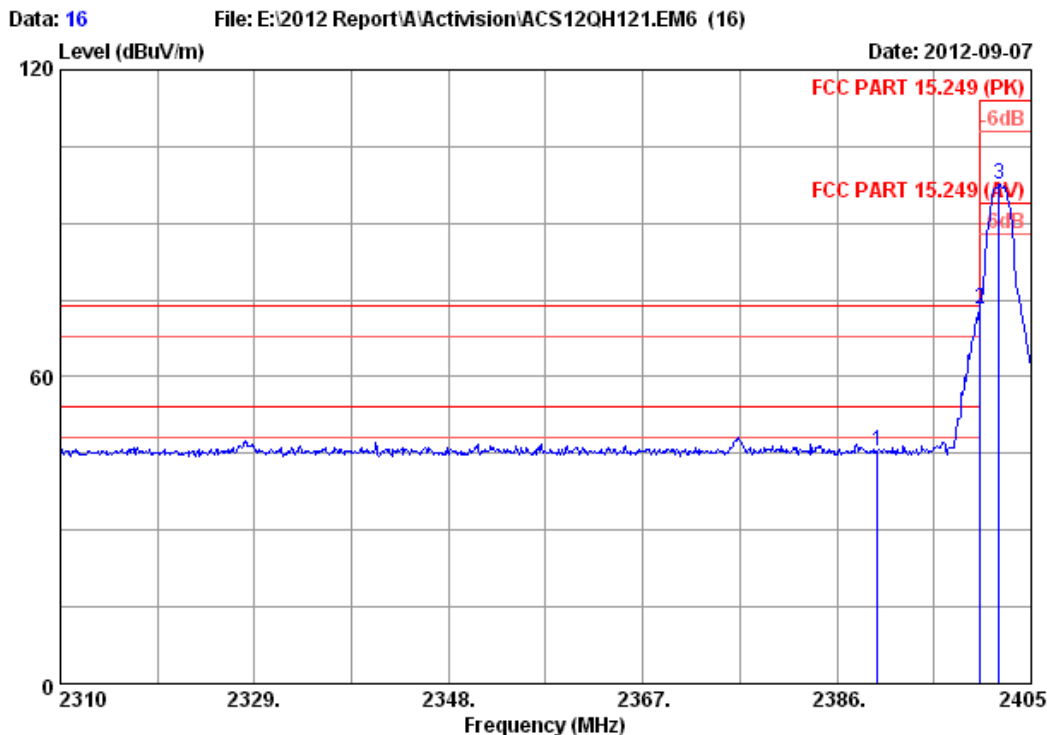
Site no. : 3m Chamber Data no. : 15  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2402MHz Tx  
 M/N : 76965800

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	45.25	44.78	74.00	29.22	Peak
2	2400.000	27.96	6.01	34.44	57.92	57.45	74.00	16.55	Peak
3	2401.865	27.96	6.01	34.44	84.22	83.75	114.00	30.25	Peak

#### Remarks:

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)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
2400	57.45	28.91	28.54	54	Pass



Site no. : 3m Chamber Data no. : 16  
 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15.249 (PK)  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : Controller for Xbox360  
 Power supply : DC 3V  
 Test mode : 2402MHz Tx  
 M/N : 76965800

	Freq.	Ant.	Cable	Amp.	Emission				
	(MHz)	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	27.96	6.01	34.44	46.02	45.55	74.00	28.45	Peak
2	2400.000	27.96	6.01	34.44	73.63	73.16	74.00	0.84	Peak
3	2401.865	27.96	6.01	34.44	98.10	97.63	114.00	16.37	Peak

#### Remarks:

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)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit(dBuV/m)	Conclusion
2401	97.63	28.91	68.72	94	Pass
2400	73.16	28.91	44.25	54	Pass

## 7. DEVIATION TO TEST SPECIFICATIONS

[NONE]