



Shenzhen Certification Technologh Service Co., Ltd  
3F, Bldg27,Area A, Tanglang Industrial Zone, Xili Town,  
Nanshan District, ShenZhen, Guang dong, P.R.  
China.

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# TEST REPORT

**FCC ID: ZGE-KINEO-K-01**

Applicant: Worldex Technology LTD.

Address : Unit 10,9 F., Hing Wai Centre, NO.7 Tin Wan Praya Road, HongKong

Equipment Under Test (EUT):

Name : Educational Device (Kineo)

Model : Kineo, K-01

In Accordance with: FCC PART 15, SUBPART C: 2010 (Section 15.247)

Report No : STE110322185

Date of Test : Apr. 01- Apr. 04, 2011

Date of Issue : Apr.05 2011

Test Result: **PASS**

In the configuration tested, the EUT complied with the standards specified above

Authorized Signature

A handwritten signature in black ink, appearing to read 'Mark Zhu', is written over a horizontal line.

(Mark Zhu)

General Manager

The manufacture should ensure that all the products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of Shenzhen Certification Technology Service Co., Ltd. Or test done by Shenzhen Certification Technology Service Co., Ltd. Approvals in connection with, distribution or use of the product described in this report must be approved by Shenzhen Certification Technology Service Co., Ltd. Approvals in writing.

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## 1. General Information

### 1.1. Description of Device (EUT)

EUT Name	: Educational Device (Kineo)
Model No.	: Kineo, K-01
Power supply	: DC 3.7V form battery or DC 5V from power adapter
Radio Technology	: IEEE802.11b/g
Operation frequency	: 2412MHz—2462MHz
Modulation	: IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)
Antenna Type	: Integral Patch Antenna, Maximum Gain 1dBi
Applicant	: Worldex Technology LTD.
Address	: Unit 10,9 F., Hing Wai Centre,NO.7 Tin Wan Praya Road,HongKong
Manufacturer	: Worldex Technology Ltd. (Mototech Electronic (DongGuan) Company Ltd.)
Address	: HaKong 4 <sup>th</sup> Industrial Zone, Chang An Town, DongGuan City, GuangDong Province, P.R. China.

### 1.2. Test Lab information

Shenzhen Certification Technology Service Co.,Ltd.  
3F, Bldg.27, Area A, Tanglang Industrial Zone, Xili Town, Nanshan District,  
Shenzhen 518055, Guangdong, P.R. China  
FCC Registered No.:305283

## 2. Summary of test

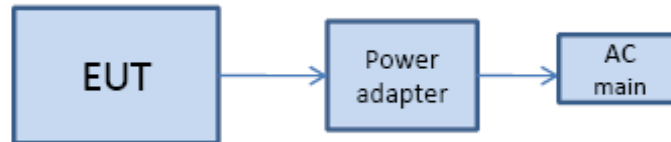
### 2.1. Summary of test result

Description of Test Item	Standard	Results
Power Line Conducted Emission Test	FCC Part 15: 15.207 ANSI C63.10: 2009	PASS
Radiated Emission Test	FCC Part 15: 15.207 ANSI C63.10: 2009	PASS
Band Edge Compliance Test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Conducted spurious emissions test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
6dB Bandwidth Test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Output Power Test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Power Spectral Density Test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

## 2.2. Assistant equipment used for test

N/A

## 2.3. Block Diagram of EUT setup for test.



Special test software was installed in EUT and run to control EUT work in test mode.

Note: EUT can be powered with inside battery or power adapter from AC mains, according to exploratory test, when powered by power adapter from AC mains have worse emissions, and also can make sure EUT have enough power for wireless work, so all the final test were performed with power adapter.

## 2.4. Test mode

Tested mode, channel, and data rate information			
Mode	data rate (Mbps)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	11	Low :CH1	2412
	11	Middle: CH7	2437
	11	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH7	2437
	6	High: CH11	2462
Note: According exploratory test, EUT will have maximum output power in those data rate. so those data rate were used for all test.			

## 2.5. Test Conditions

Temperature range	21-25℃
Humidity range	40-75%
Pressure range	86-106kPa

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

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.42dB	
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.54dB	Polarize: V
	4.1dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	2.08dB	Polarize: H
	2.56dB	Polarize: V
Uncertainty for radio frequency	$1 \times 10^{-9}$	
Uncertainty for conducted RF Power	0.65dB	
Uncertainty for temperature	0.2°C	
Uncertainty for humidity	1%	
Uncertainty for DC and low frequency voltages	0.06%	

## 2.7. Test Equipment

Equipment	Manufacture	Model No.	Serial No.	Last cal.	Cal Interval
3m Semi-Anechoic	ETS-LINDGREN	N/A	SEL0017	07/01/2010	1Year
Spectrum analyzer	Agilent	E4443A	MY46185649	07/01/2010	1Year
Receiver	R&S	ESCI	100492	07/01/2010	1Year
Receiver	R&S	ESCI	101202	07/01/2010	1Year
Bilog Antenna	Sunol	JB3	A121206	07/01/2010	1Year
Horn Antenna	EMCO	3115	640201028-06	07/01/2010	1Year
Power Meter	Anritsu	ML2487A	6K00001491	02/23/2011	1Year
ETS Horn Antenna	ETS	3160	SEL0076	08/12/2010	1Year
Cable	Resenberger	N/A	No.1	07/01/2010	1Year
Cable	SCHWARZBEC K	N/A	No.2	07/01/2010	1Year
Cable	SCHWARZBEC K	N/A	No.3	07/01/2010	1Year
Pre-amplifier	R&S	AFS42-00101 800-25-S-42	SEL0081	07/01/2010	1Year
Pre-amplifier	R&S	AFS33-18002 650-30-8P-44	SEL0080	07/01/2010	1Year

### 3. Power Line Conducted Emissions Test

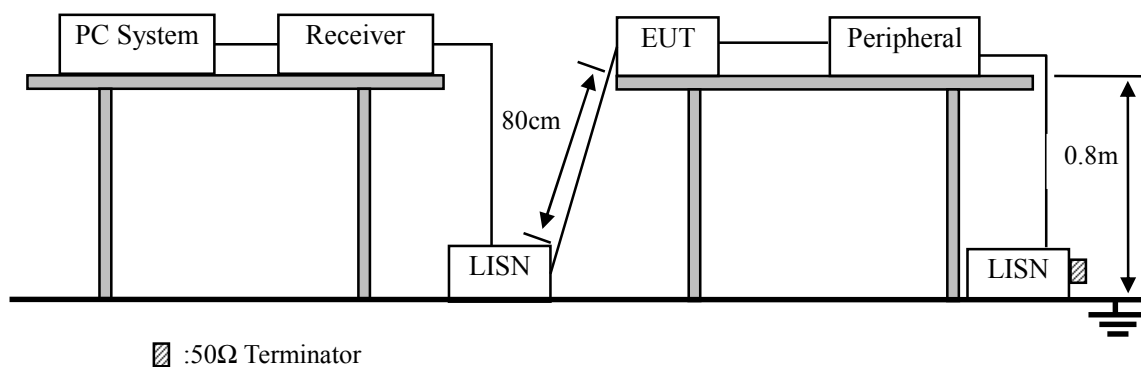
#### 3.1. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB( $\mu$ V)	Average Level dB( $\mu$ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. \* Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

#### 3.2. Block Diagram of Test Setup



#### 3.3. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT was powered from AC adapter which connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#) and work in test mode( Tx Mode). Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2003 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

#### 3.4. Test Result

**PASS.** (All emissions not reported below are too low against the prescribed limits.)

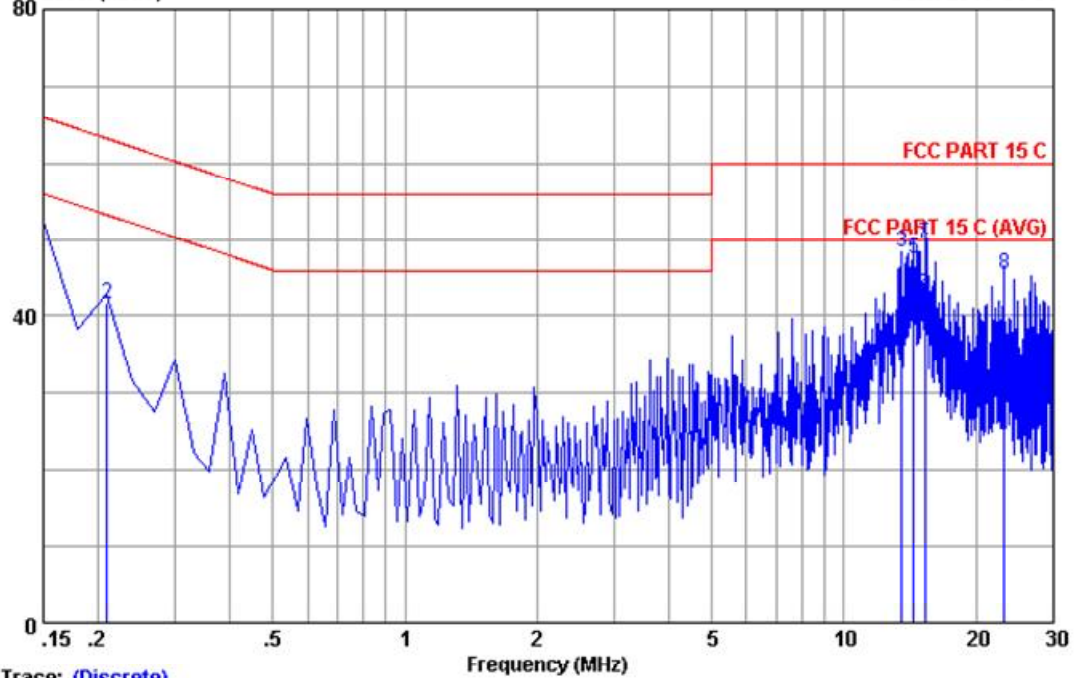
Original test data:



Data: 14

Level (dBuV)

Date: 2011-04-01



Trace: (Discrete)

Site no :1#conduction Data No :14  
 Dis./Ant. :\*\* 2010 ESH2-Z5 NEUTRAL  
 Limit :FCC PART 15 C  
 Env./Ins. :29.5°C/55% Engineer :Sunny-lu  
 EUT :Educational Device (Kineo)  
 Power Rating :DC 5V From Adapter input AC 120V/60Hz  
 Test Mode :Tx Mode  
 M/N :Kineo

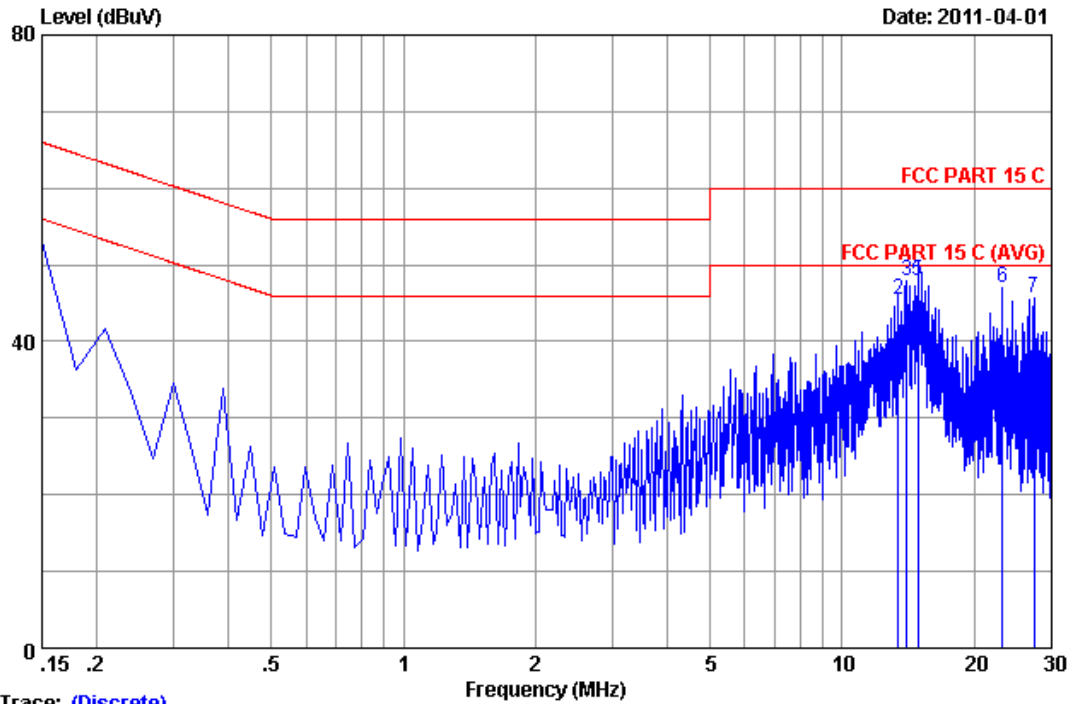
No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.21	9.88	41.22	51.31	66.00	14.69	QP
2	0.20970	0.21	9.88	31.59	41.68	63.22	21.54	QP
3	13.553	0.55	10.02	37.69	48.26	60.00	11.74	QP
4	14.388	0.57	10.03	30.20	40.80	50.00	9.20	Average
5	14.388	0.57	10.03	36.90	47.50	60.00	12.50	QP
6	15.284	0.59	10.03	32.24	42.86	50.00	7.14	Average
7	15.284	0.59	10.03	38.80	49.42	60.00	10.58	QP
8	23.135	0.97	10.11	34.42	45.50	60.00	14.50	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.

2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

Data: 13

Date: 2011-04-01



Trace: (Discrete)

Site no :1#conduction Data No :13  
 Dis./Ant. : \*\* 2010 ESH2-Z5 LINE  
 Limit :FCC PART 15 C  
 Env./Ins. :29.5°C/55% Engineer :Sunny-lu  
 EUT :Educational Device (Kineo)  
 Power Rating :DC 5V From Adapter input AC 120V/60Hz  
 Test Mode :Tx Mode  
 M/N :Kineo

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.23	9.88	41.84	51.95	66.00	14.05	QP
2	13.433	0.49	10.02	34.93	45.44	60.00	14.56	QP
3	14.030	0.50	10.03	37.37	47.90	60.00	12.10	QP
4	14.896	0.51	10.03	31.20	41.74	50.00	8.26	Average
5	14.896	0.51	10.03	37.40	47.94	60.00	12.06	QP
6	23.135	0.78	10.11	36.10	46.99	60.00	13.01	QP
7	27.343	0.98	10.15	34.65	45.78	60.00	14.22	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.

2.If the average limit is met when using a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

## 4. Radiated emissions test

### 4.1. Limit

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

#### 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	( <sup>2</sup> )

#### 15.209 Limit

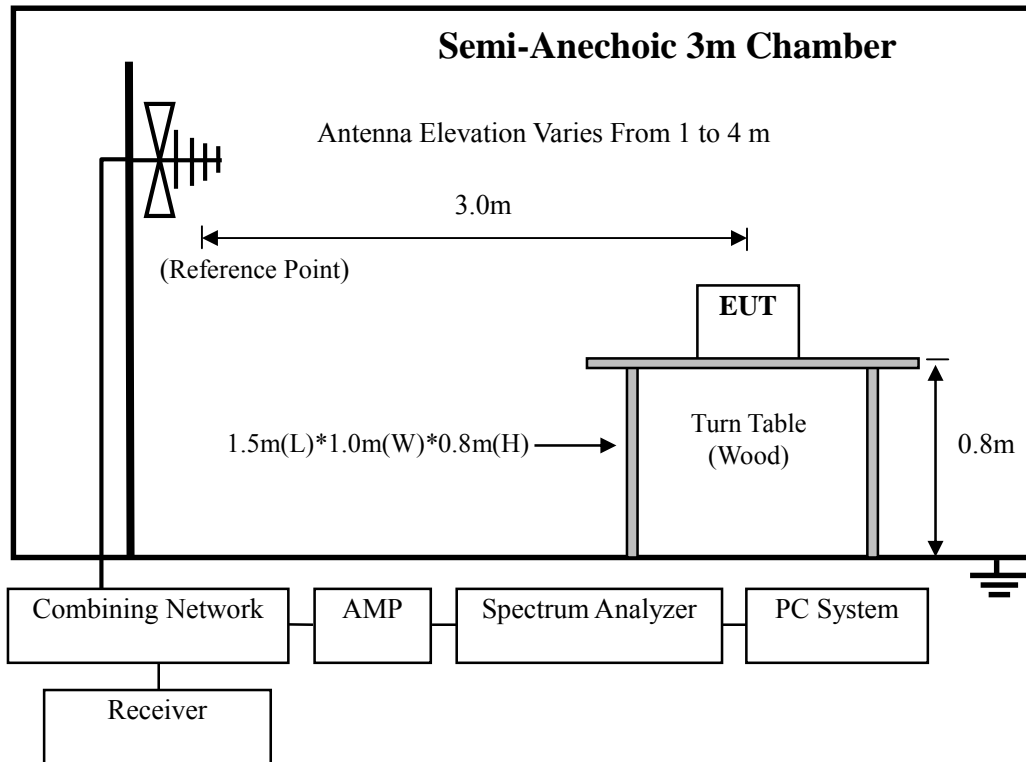
FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1GHz	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Note:

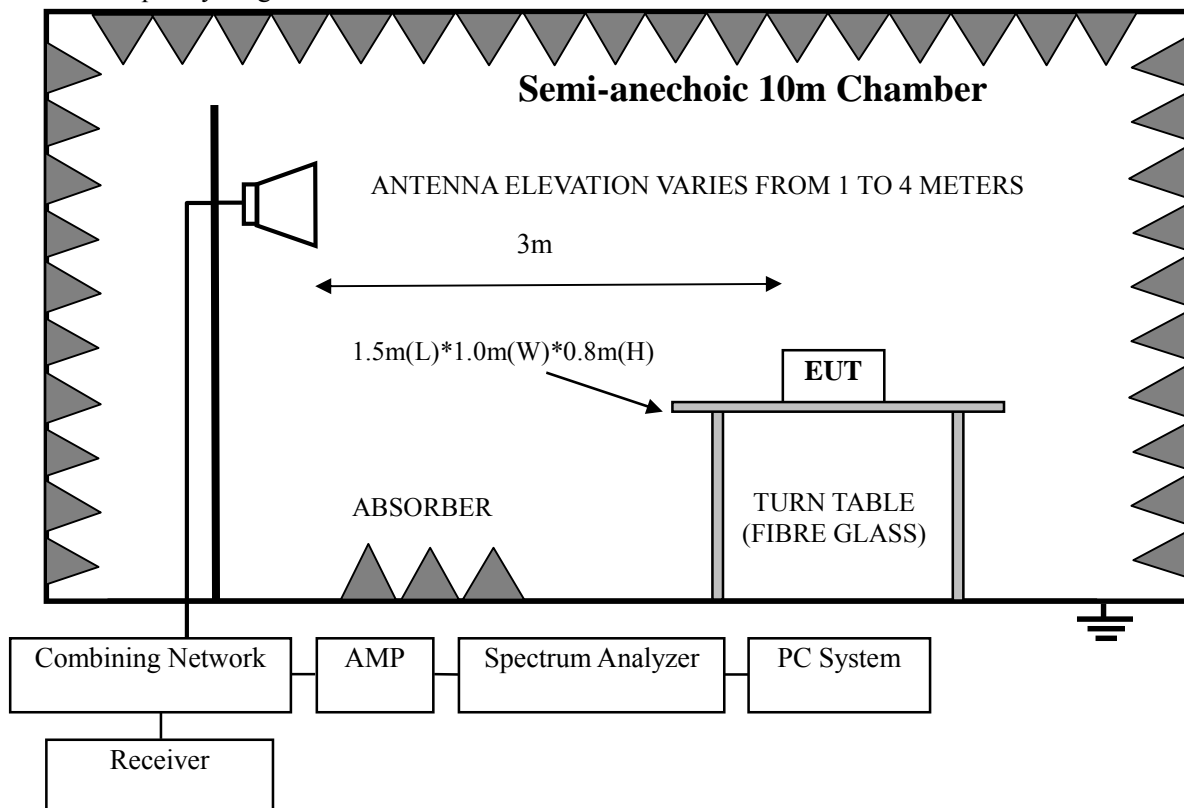
- (1) Emission level dBμV = 20 log Emission level μV/m
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.
- (4) For emissions below 1GHz, the level were based QP detector, and for emissions above 1GHz, the level were based PK detector for PK level and average detector for average level.

## 4.2. Block Diagram of Test setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



### 4.3. Test Procedure

EUT was 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. Power on the EUT and let it working in test mode, then test it. 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. Both horizontal and vertical polarization of the antenna are set on test.

This device is portable device, in the exploratory radiated emissions test, three axis positions were tested and the wore case is EUT in horizontal position as test photos 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 VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

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.

### 4.4. Test Result

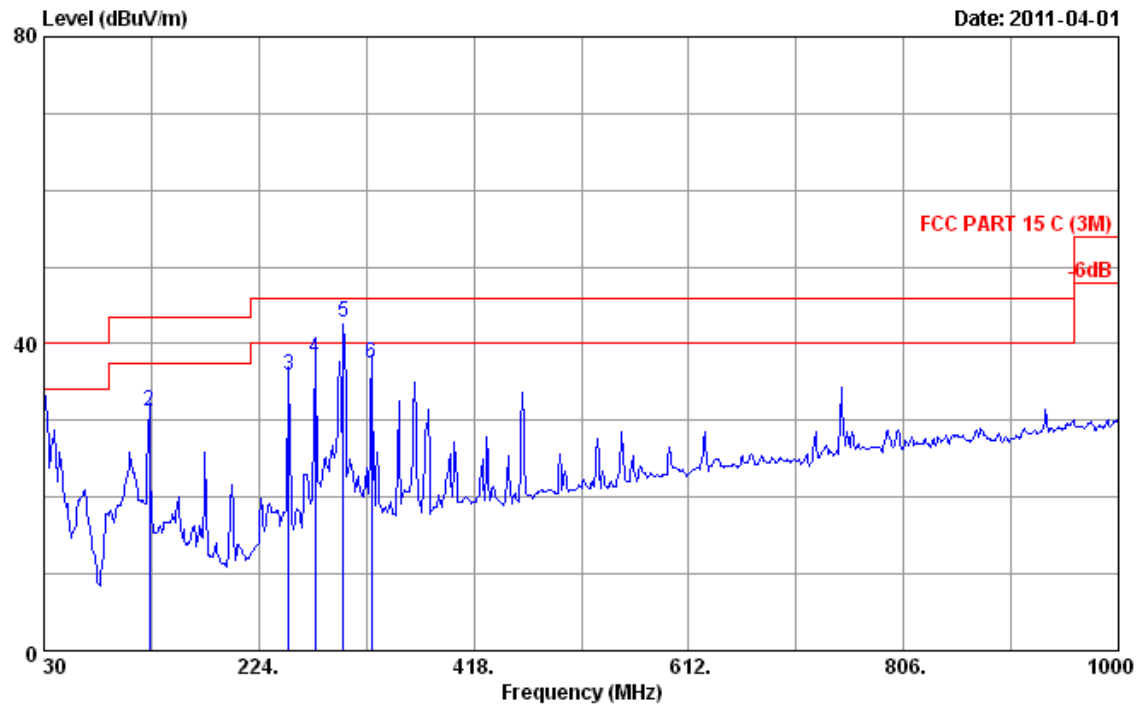
**PASS.**

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

Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

**Original test data:**

Data: 16



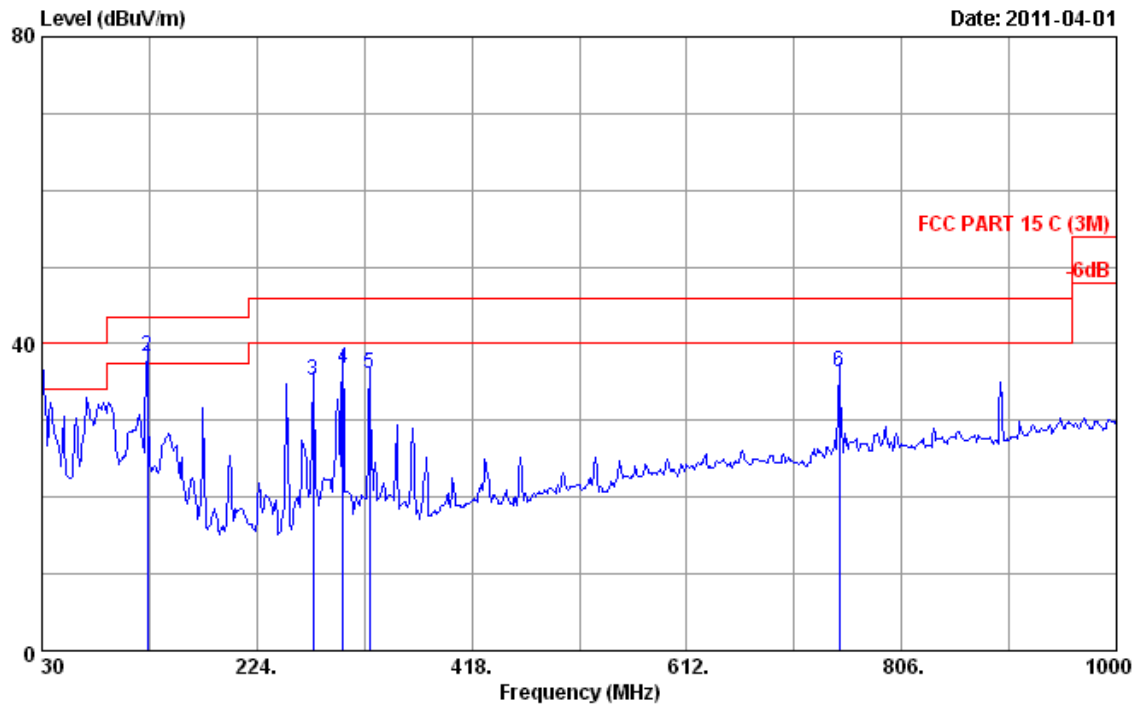
Site no. : 3m chamber Data no. : 16  
 Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C (3M)  
 Env. / Ins. : 24°C/56% Engineer : sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power Rating : DC 5V From Adapter input AC 120V/60Hz  
 Test Mode : Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission		Limits (dBuV/m)	Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)			
1	30.000	20.00	0.61	11.83	32.44	40.00	7.56	QP
2	125.060	12.10	1.13	18.06	31.29	43.50	12.21	QP
3	251.160	12.90	2.18	20.86	35.94	46.00	10.06	QP
4	274.440	13.22	2.32	22.55	38.09	46.00	7.91	QP
5	300.040	13.70	2.48	26.60	42.78	46.00	3.22	QP
6	325.850	14.32	2.59	20.62	37.53	46.00	8.47	QP

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

Data: 15

Date: 2011-04-01

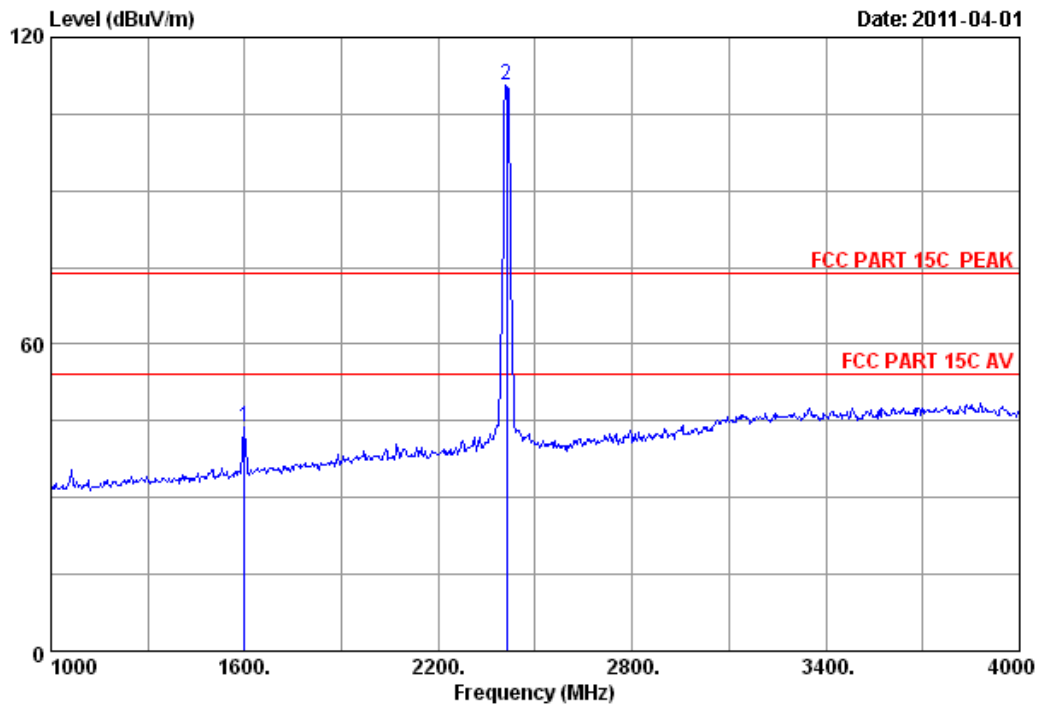


Site no. : 3m chamber                      Data no. : 15  
 Dis. / Ant. : 3m 2010 CBL6111C              Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C (3M)  
 Env. / Ins. : 24°C/56%                      Engineer : sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power Rating : DC 5V From Adapter input AC 120V/60Hz  
 Test Mode : Tx Mode

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	20.00	0.61	17.00	37.61	40.00	2.39	QP
2	125.000	12.10	1.13	25.20	38.43	43.50	5.07	QP
3	274.440	13.22	2.32	19.69	35.23	46.00	10.77	QP
4	301.600	13.75	2.49	20.51	36.75	46.00	9.25	QP
5	325.850	14.32	2.59	19.08	35.99	46.00	10.01	QP
6	749.740	22.00	4.70	9.71	36.41	46.00	9.59	QP

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

Data: 1



Site no. : 3m chamber Data no. : 1  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx

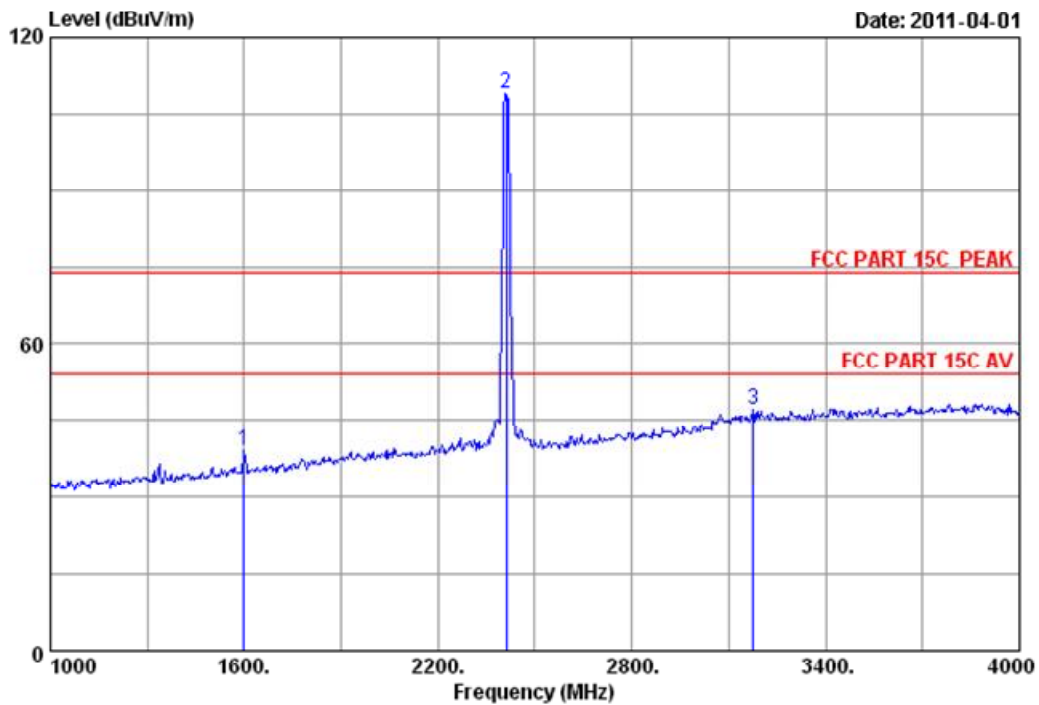
		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1600.000	26.96	5.91	36.94	47.85	43.78	74.00	30.22	Peak
2	2412.000	29.45	7.43	36.62	110.26	110.52	74.00	-36.52	Peak

## 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.



Data: 2

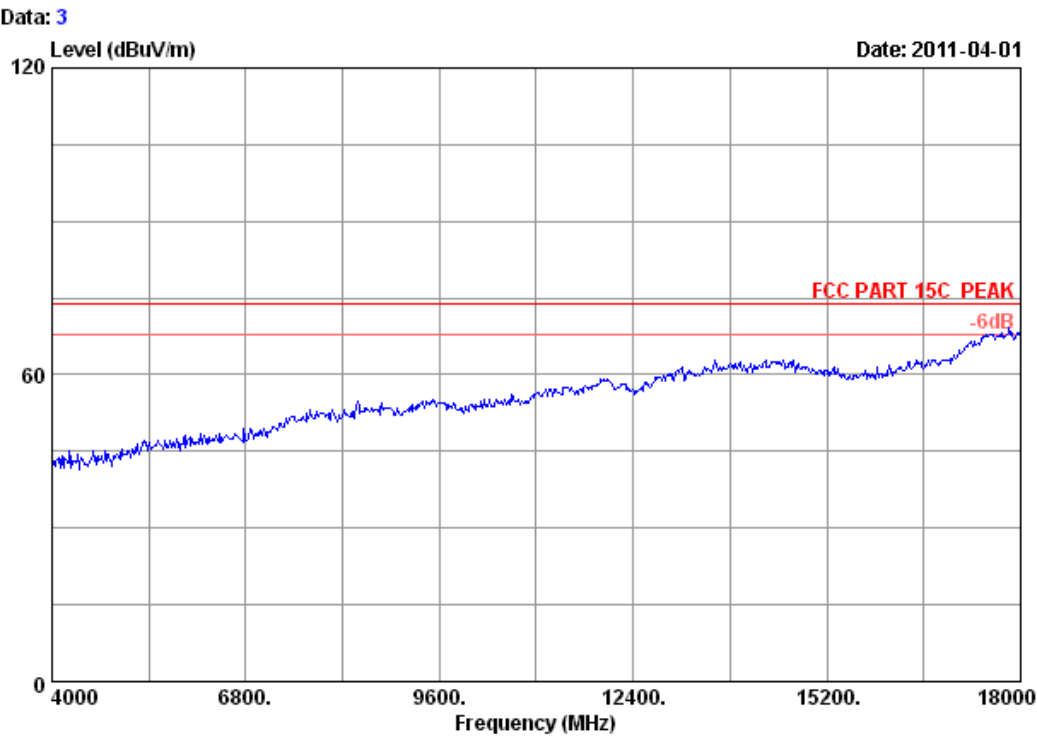


Site no. : 3m chamber Data no. : 2  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1600.000	26.96	5.91	36.94	43.21	39.14	74.00	34.86	Peak
2	2412.000	29.45	7.43	36.62	108.57	108.83	74.00	-34.83	Peak
3	3175.000	32.45	8.74	36.33	42.17	47.03	74.00	26.97	Peak

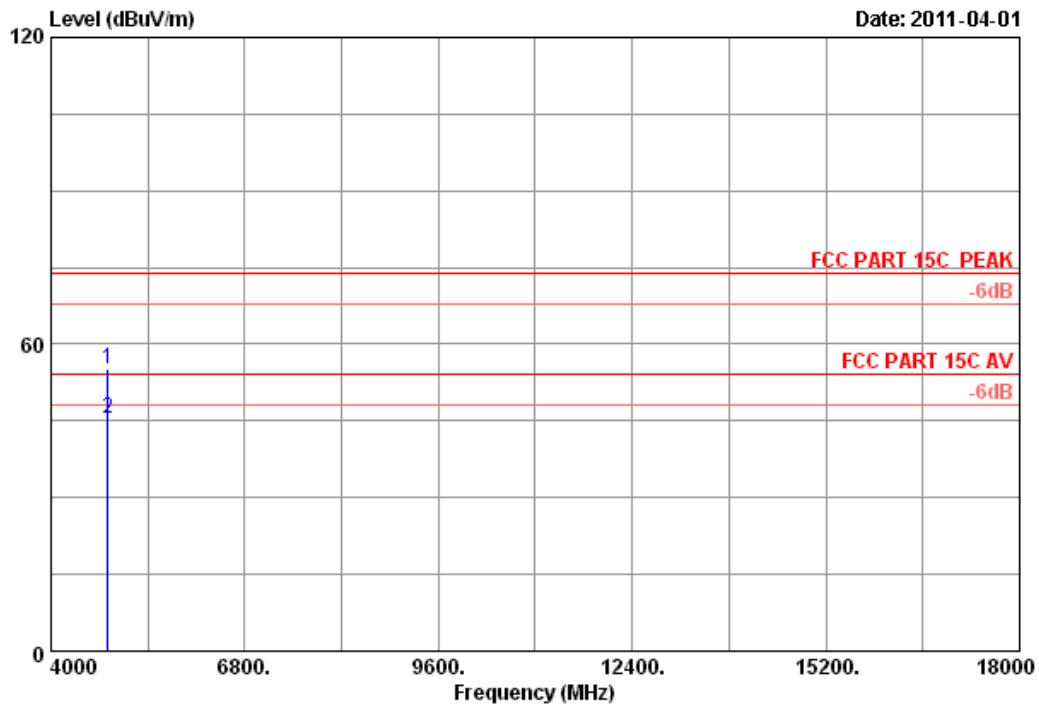
## Remarks:

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



Site no.	: 3m chamber	Data no. :	3
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH1 2412MHz Tx		

Data: 4

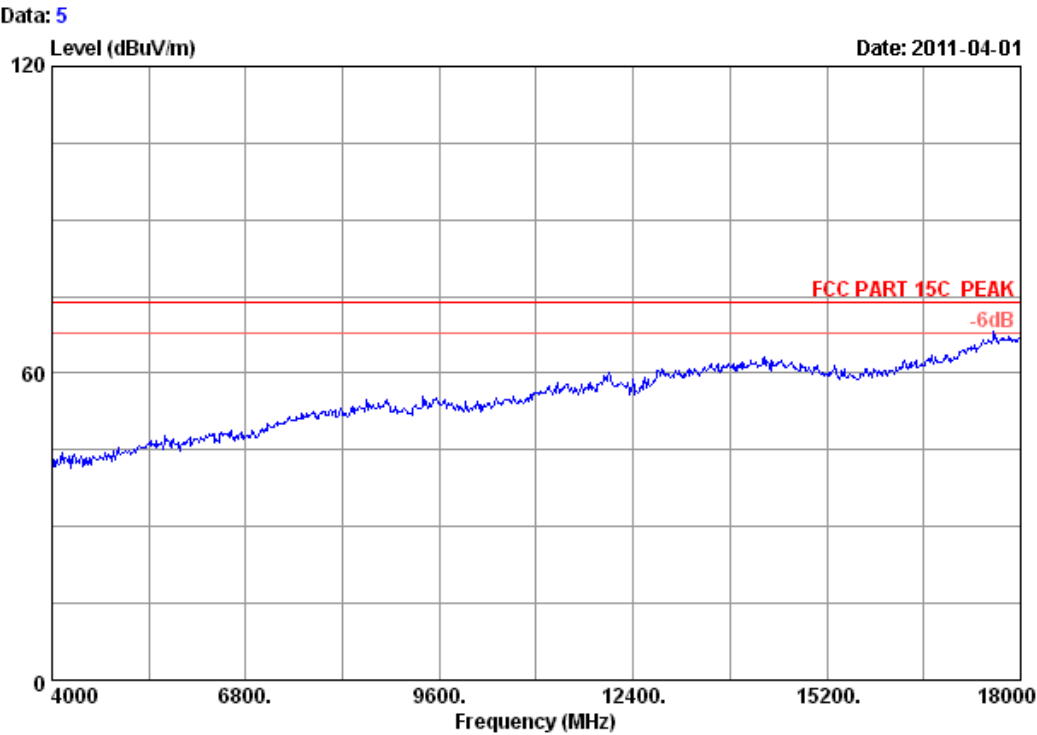


Site no. : 3m chamber Data no. : 4  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4824.000	34.32	10.64	35.08	45.27	55.15	74.00	18.85	Peak
2	4824.000	34.32	10.64	35.08	35.70	45.58	54.00	8.42	Average

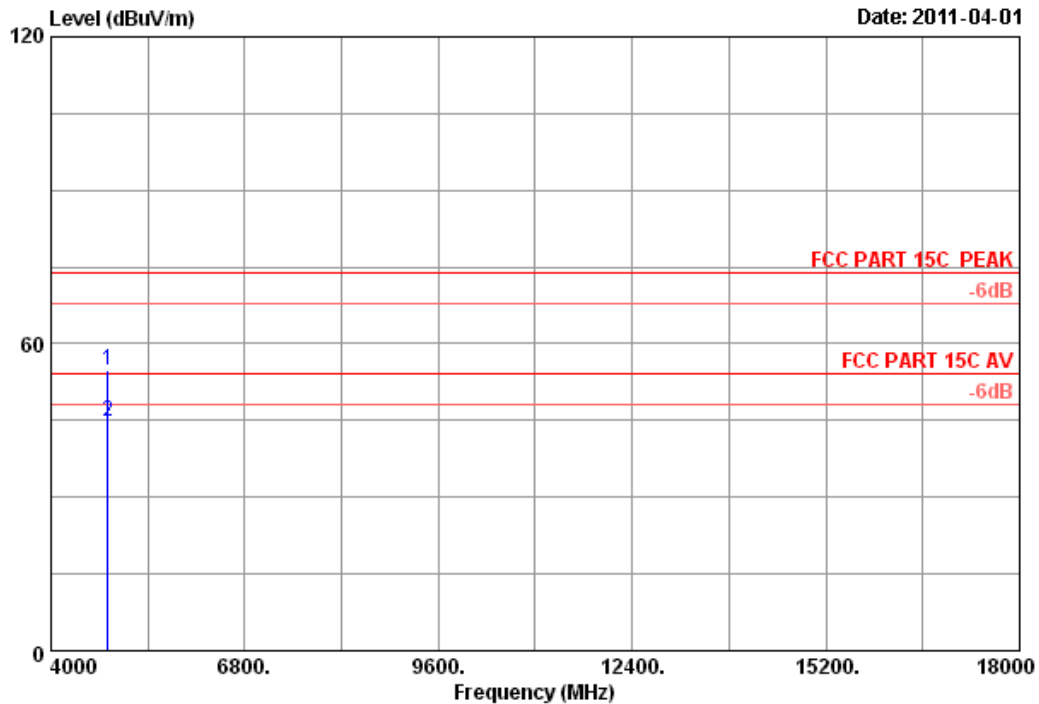
## Remarks:

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



Site no.	: 3m chamber	Data no. :	5
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11b CH1	2412MHz	Tx

Data: 6



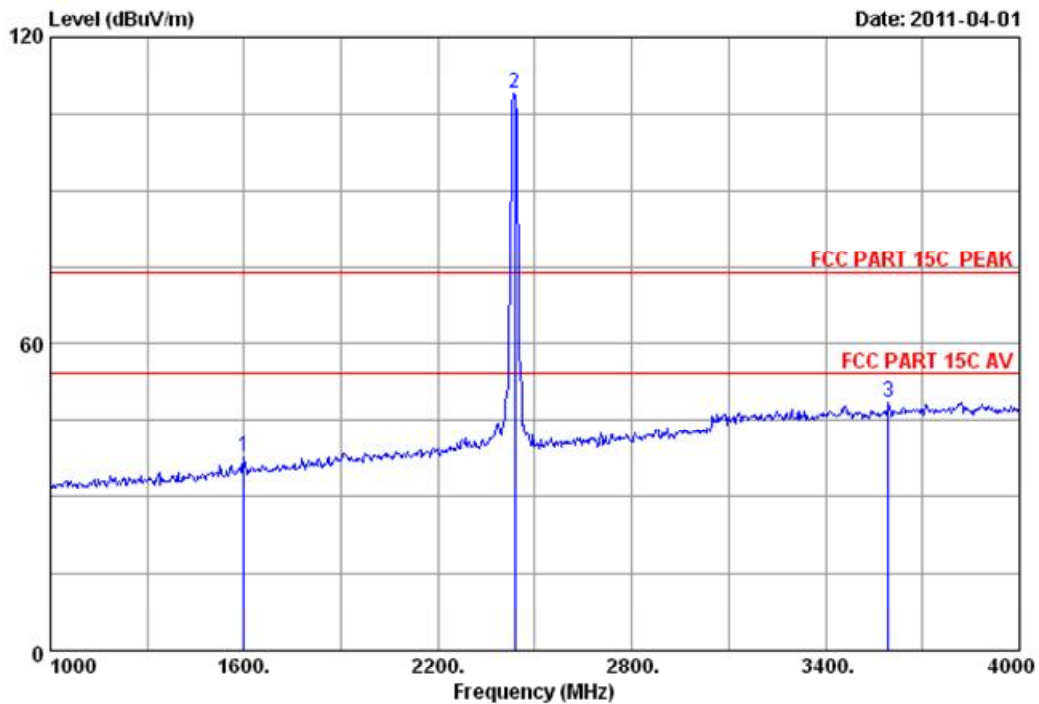
Site no. : 3m chamber Data no. : 6  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4824.000	34.32	10.64	35.08	44.97	54.85	74.00	19.15	Peak
2	4824.000	34.32	10.64	35.08	34.87	44.75	54.00	9.25	Average

## 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.

Data: 7



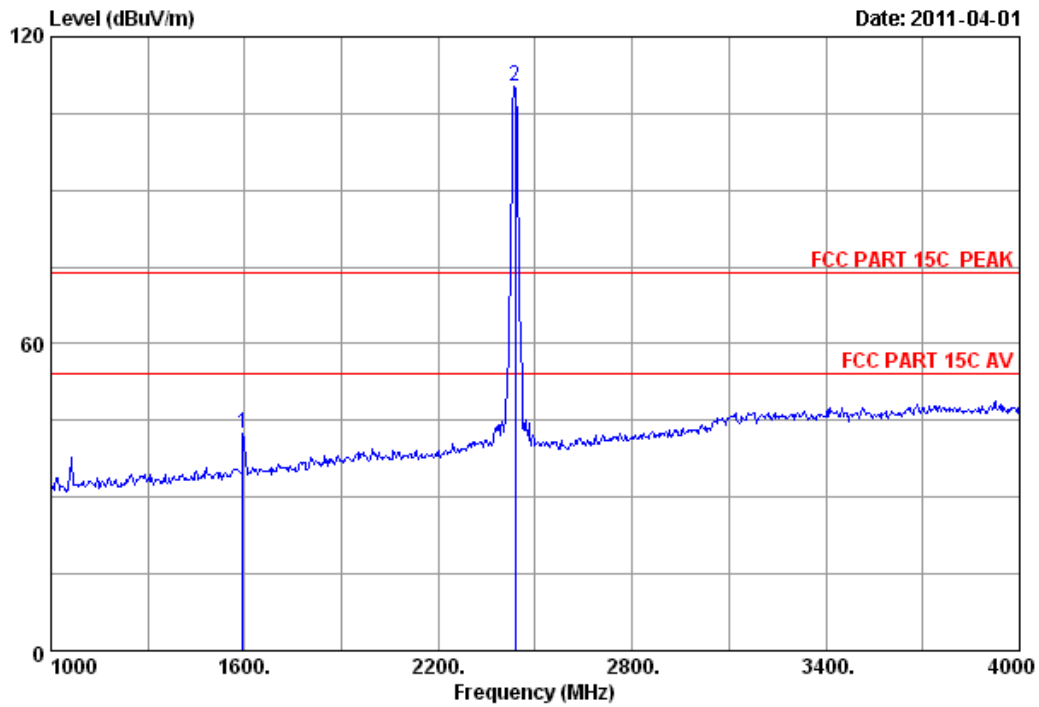
Site no. : 3m chamber Data no. : 7  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH6 2437MHz Tx

	Ant.	Cable	Amp.		Emission				
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1600.000	26.96	5.91	36.94	41.95	37.88	74.00	36.12	Peak
2	2437.000	29.47	7.46	36.61	108.52	108.84	74.00	-34.84	Peak
3	3595.000	33.44	9.22	35.92	41.77	48.51	74.00	25.49	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.

Data: 8

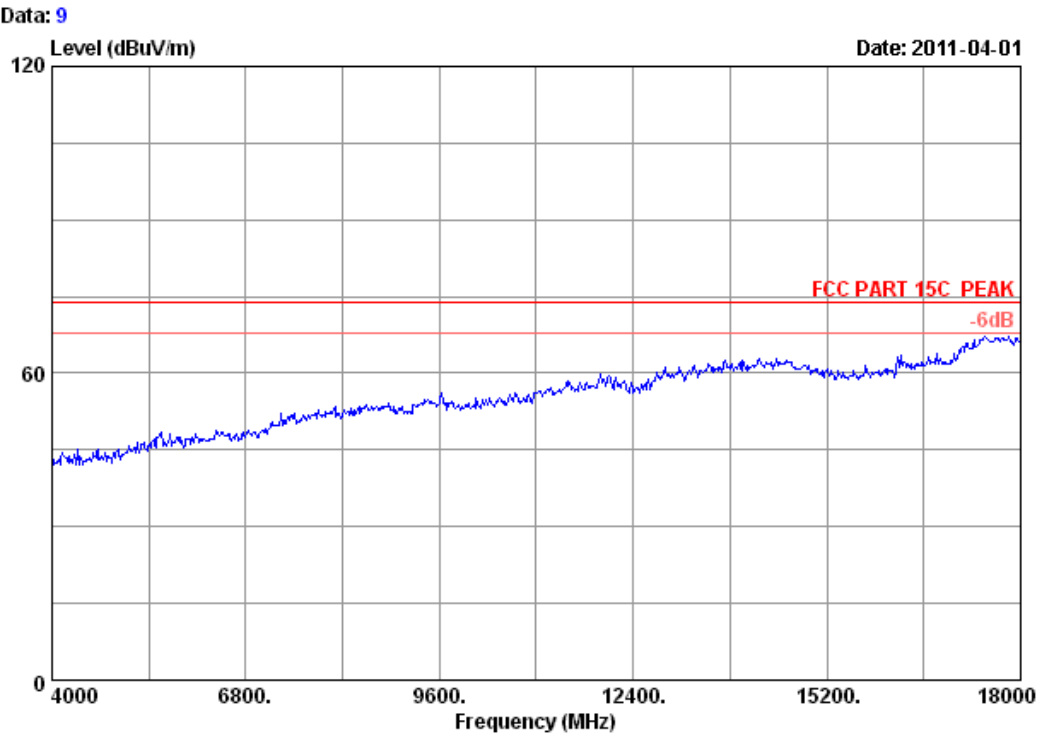


Site no. : 3m chamber Data no. : 8  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH6 2437MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1594.000	26.96	5.88	36.95	46.65	42.54	74.00	31.46	Peak
2	2437.000	29.47	7.46	36.61	109.86	110.18	74.00	-36.18	Peak

## Remarks:

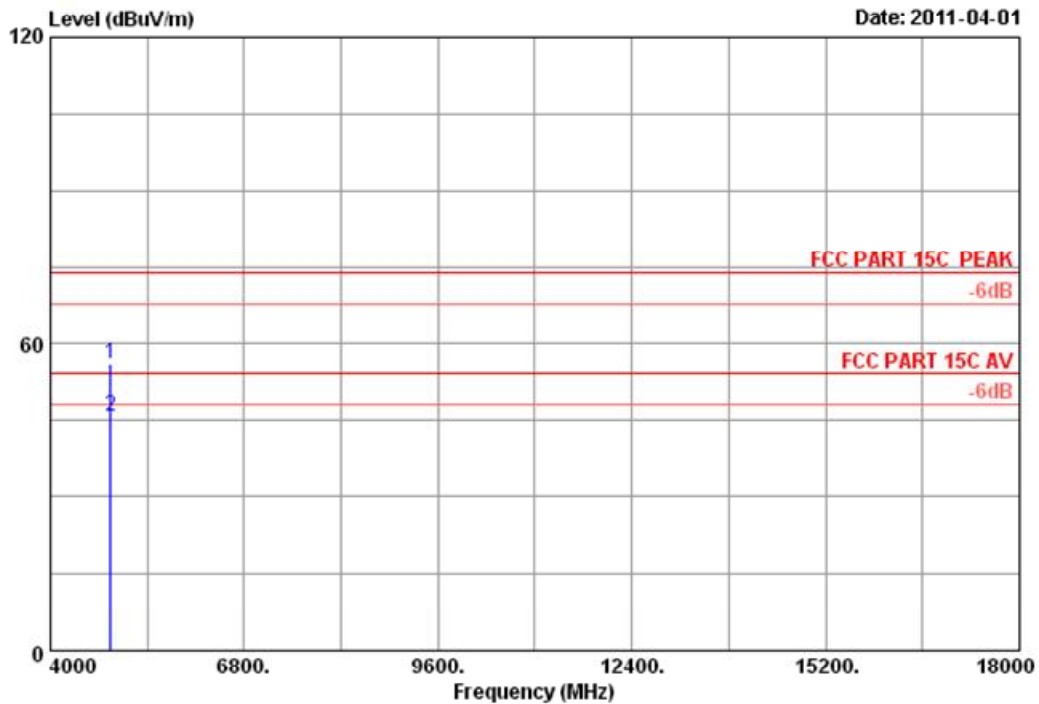
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no.	: 3m chamber	Data no. :	9
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH6 2437MHz Tx		



Data: 10



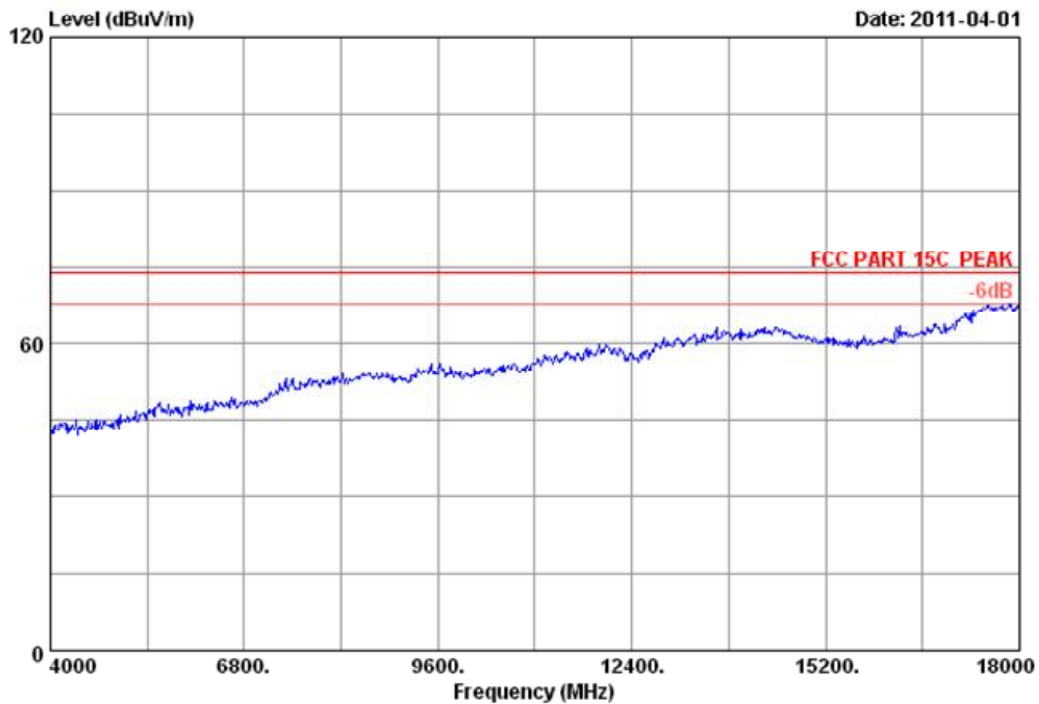
Site no. : 3m chamber Data no. : 10  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH6 2437MHz Tx

	Ant.	Cable	Amp.		Emission				
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4874.000	34.41	10.69	35.03	45.98	56.05	74.00	17.95	Peak
2	4874.000	34.41	10.69	35.03	35.84	45.91	54.00	8.09	Average

## Remarks:

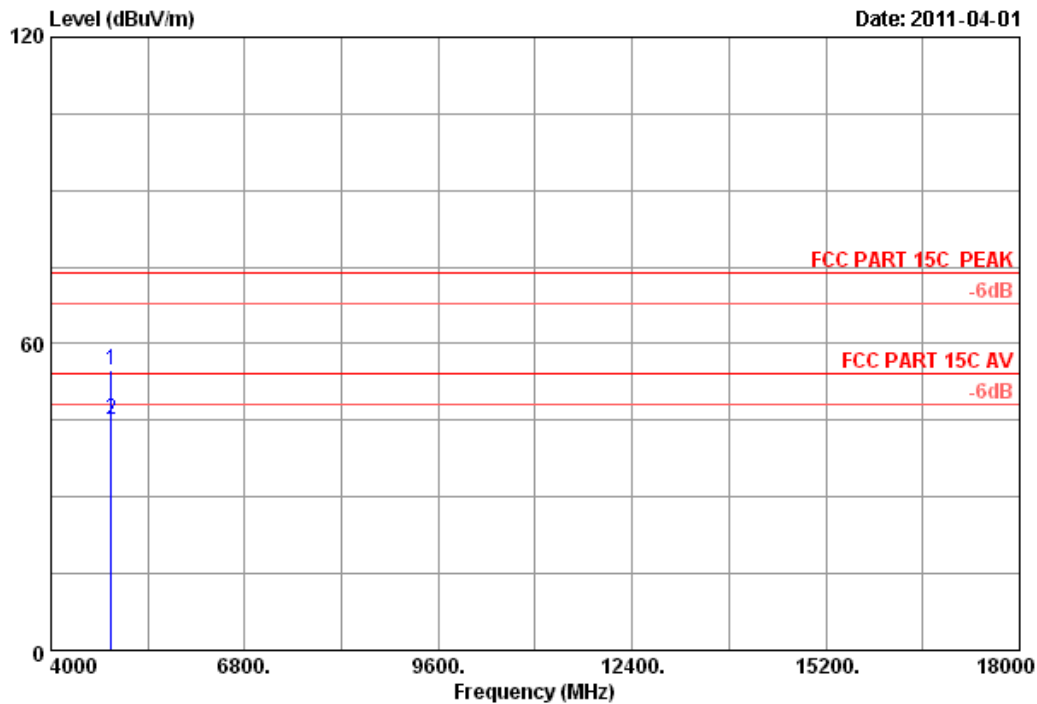
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Data: 11



Site no.	: 3m chamber	Data no. :	11
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH6 2437MHz Tx		

Data: 12



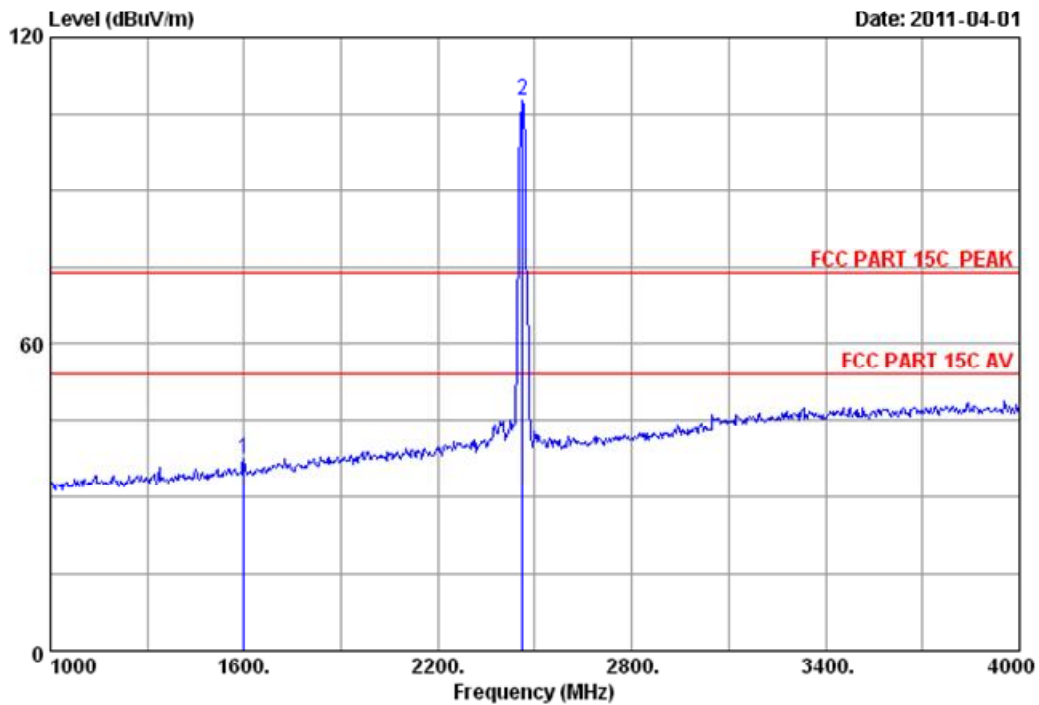
Site no. : 3m chamber                      Data no. : 12  
 Dis. / Ant. : 3m 3115(0911)              Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%                      Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH6 2437MHz Tx

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 4874.000	34.41	10.69	35.03	44.63	54.70	74.00	19.30	Peak	
2 4874.000	34.41	10.69	35.03	34.99	45.06	54.00	8.94	Average	

## 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.

Data: 13



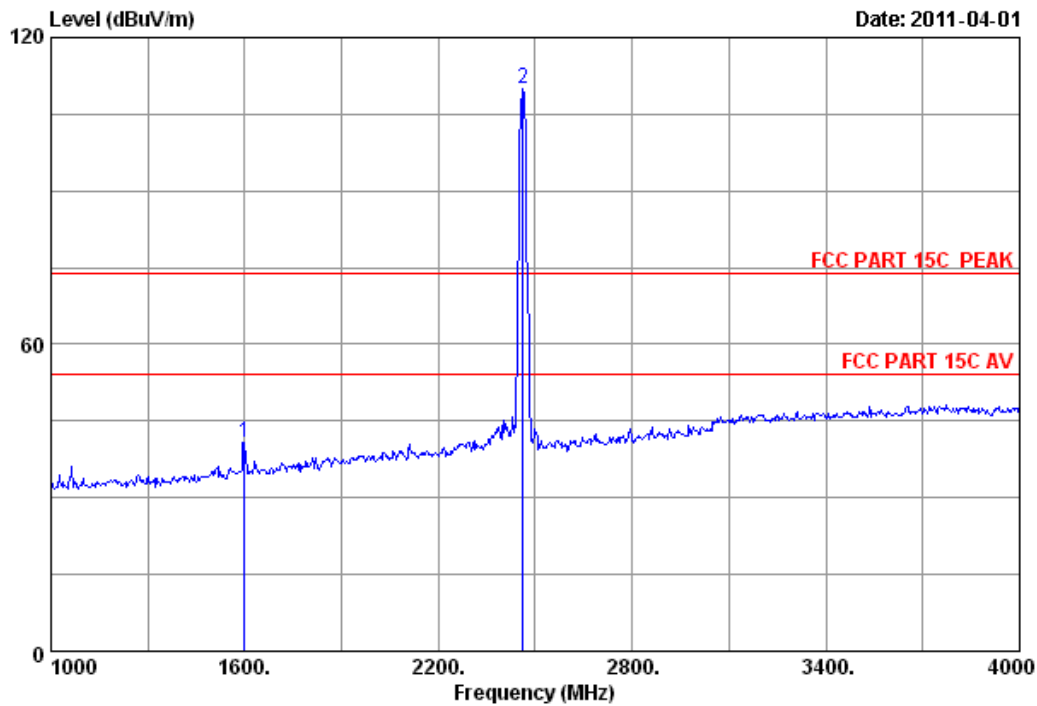
Site no. : 3m chamber Data no. : 13  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH11 2462MHz Tx

	Ant.	Cable	Amp.		Emission				
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1600.000	26.96	5.91	36.94	41.48	37.41	74.00	36.59	Peak
2	2462.000	29.48	7.54	36.61	107.14	107.55	74.00	-33.55	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.

Data: 14

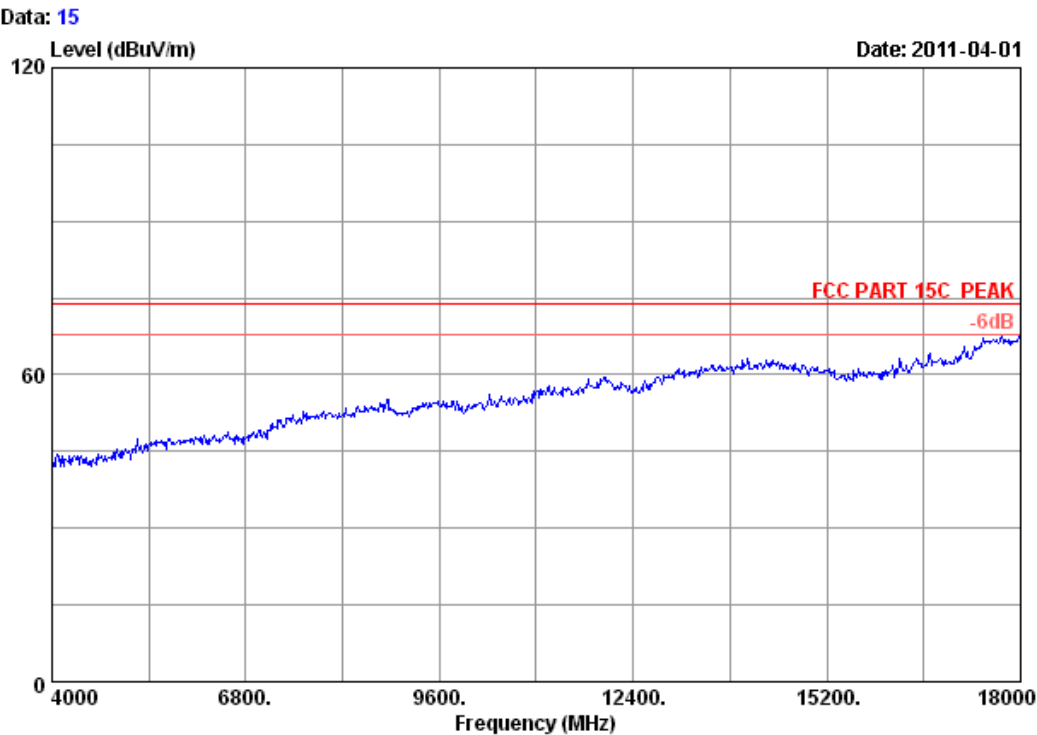


Site no. : 3m chamber Data no. : 14  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH11 2462MHz Tx

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	1600.000	26.96	5.91	36.94	44.80	40.73	74.00	33.27	Peak
2	2462.000	29.48	7.54	36.61	109.54	109.95	74.00	-35.95	Peak

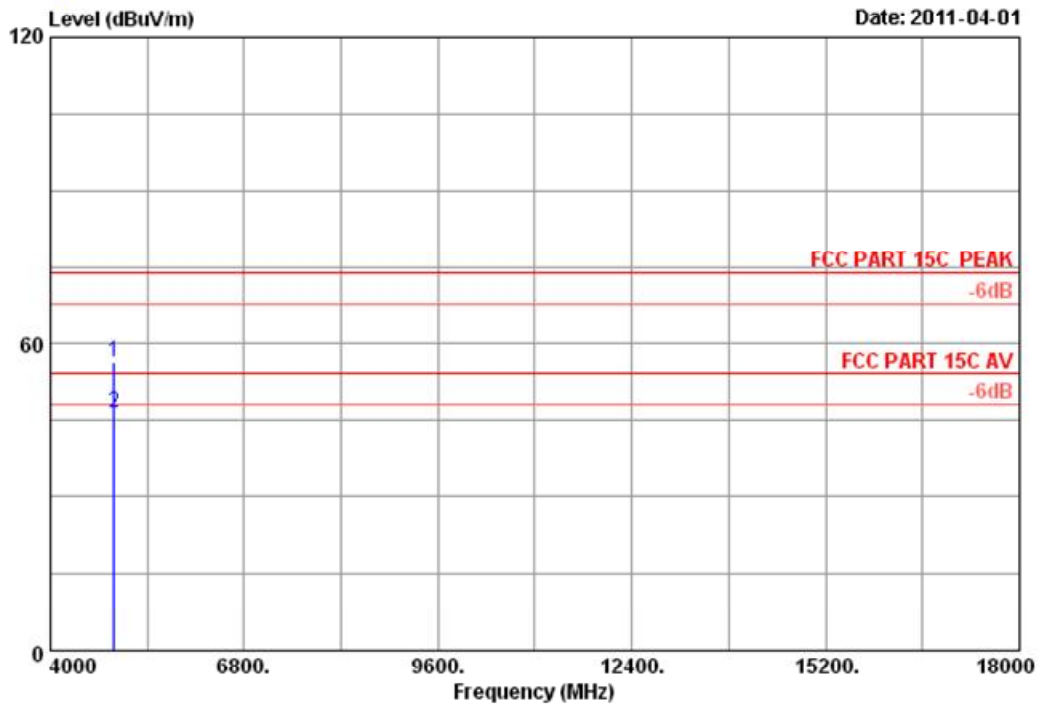
## Remarks:

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



Site no.	: 3m chamber	Data no. :	15
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11b CH11		2462MHz Tx

Data: 16

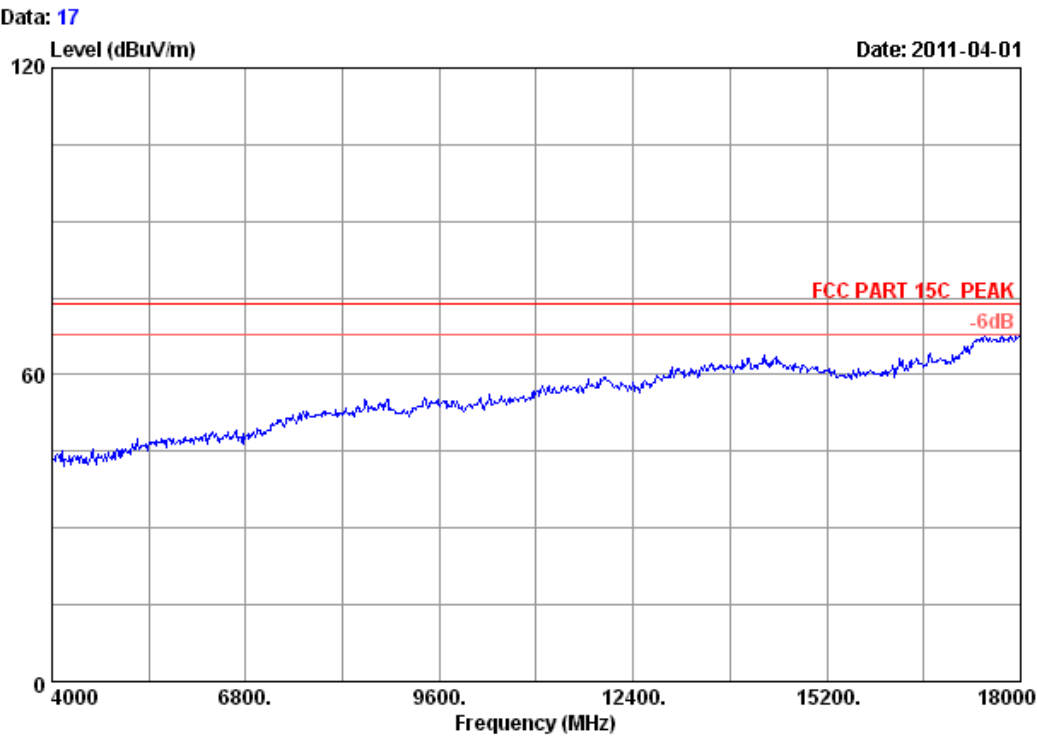


Site no. : 3m chamber Data no. : 16  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH11 2462MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	34.49	10.76	34.98	46.26	56.53	74.00	17.47	Peak
2	4924.000	34.49	10.76	34.98	36.18	46.45	54.00	7.55	Average

## Remarks:

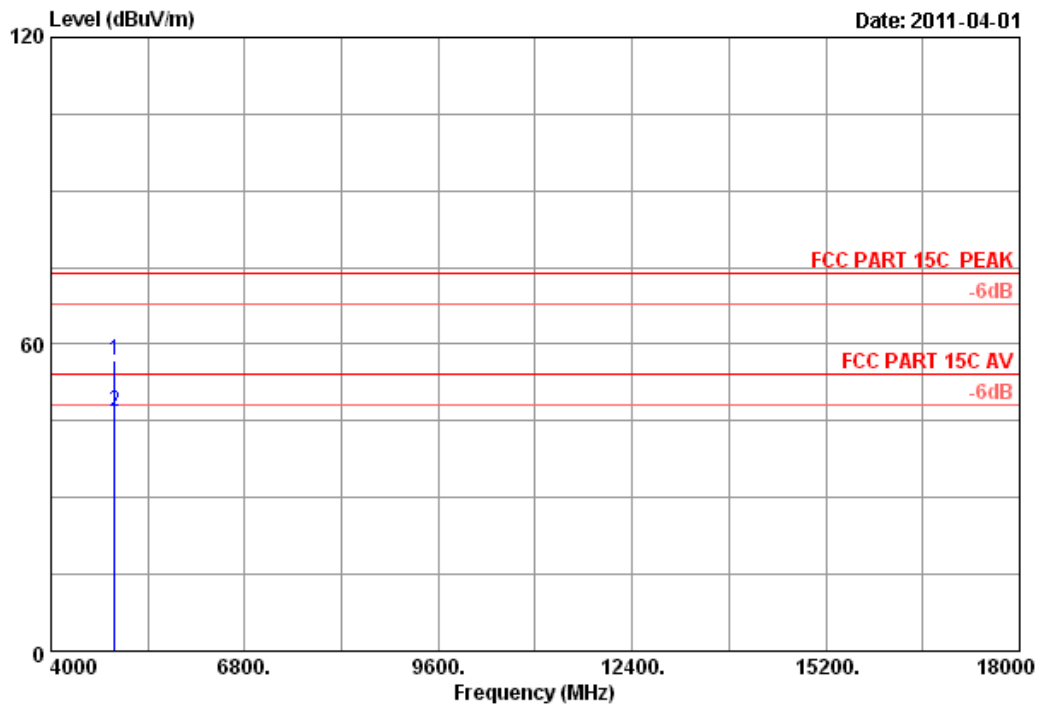
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no.	: 3m chamber	Data no. :	17
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH11 2462MHz Tx		



Data: 18



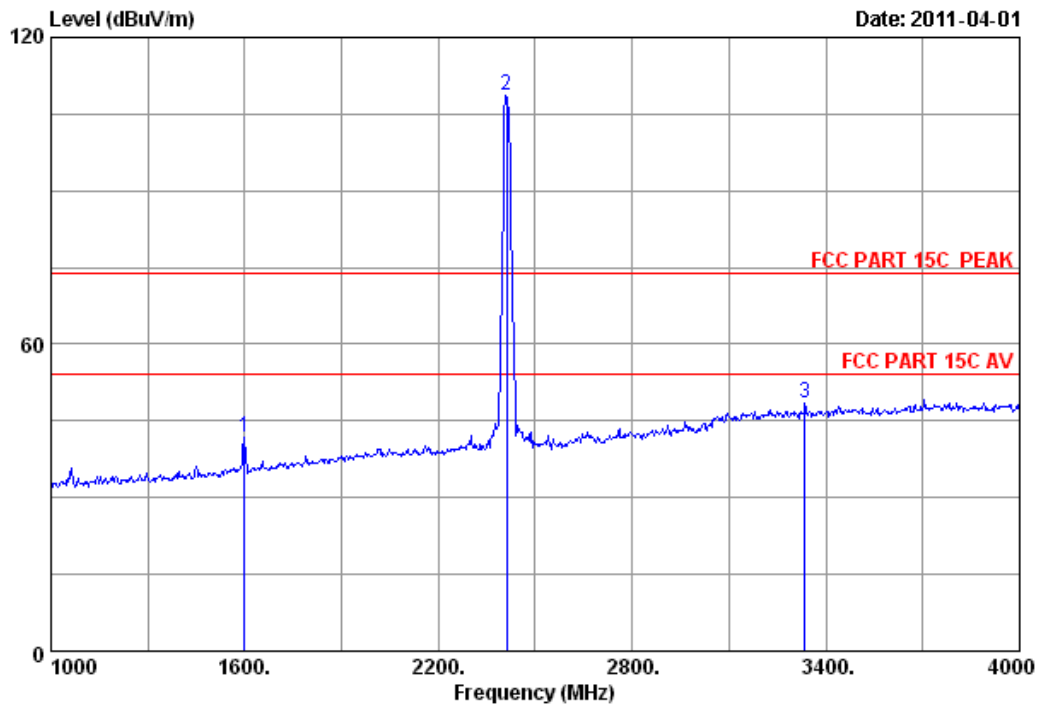
Site no. : 3m chamber Data no. : 18  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH11 2462MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	34.49	10.76	34.98	46.53	56.80	74.00	17.20	Peak
2	4924.000	34.49	10.76	34.98	36.42	46.69	54.00	7.31	Average

## 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.

Data: 19



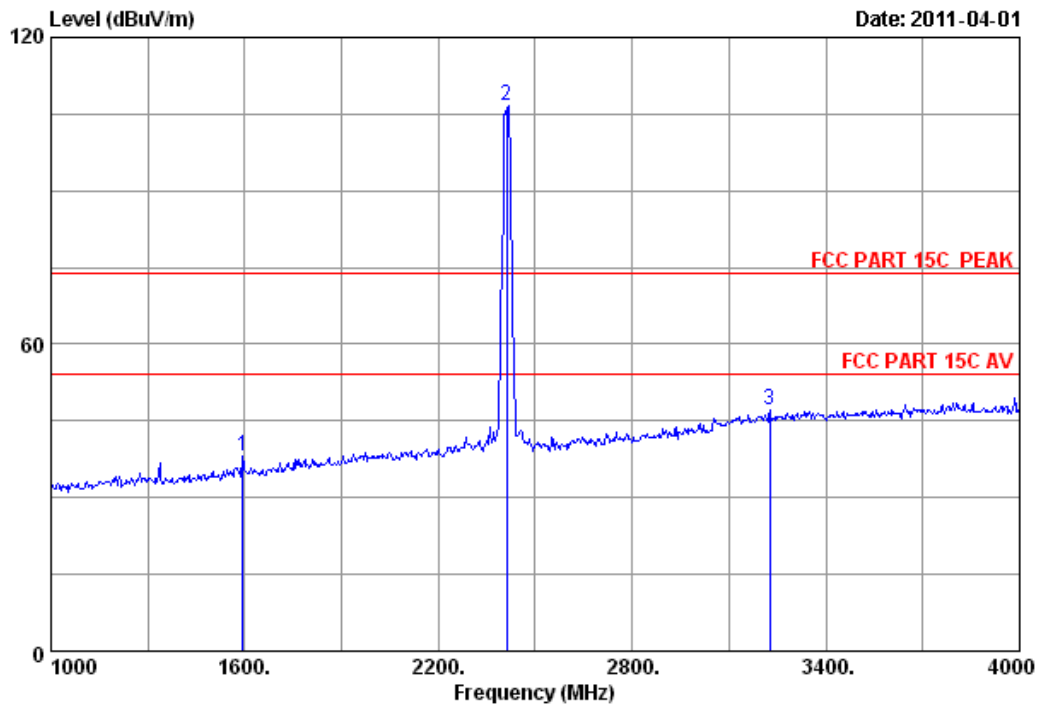
Site no. : 3m chamber Data no. : 19  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH1 2412MHz Tx

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	1600.000	26.96	5.91	36.94	45.72	41.65	74.00	32.35	Peak
2	2412.000	29.45	7.43	36.62	108.51	108.77	74.00	-34.77	Peak
3	3334.000	32.85	8.93	36.15	42.81	48.44	74.00	25.56	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.

Data: 20

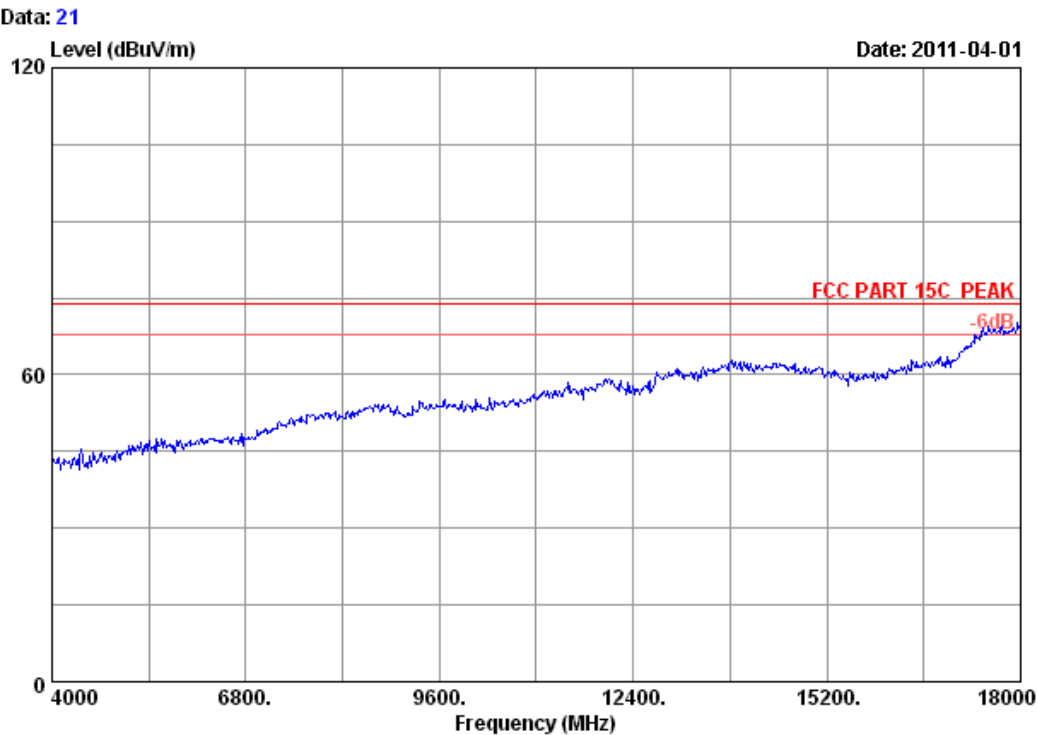


Site no. : 3m chamber Data no. : 20  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH1 2412MHz Tx

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	1594.000	26.96	5.88	36.95	42.31	38.20	74.00	35.80	Peak
2	2412.000	29.45	7.43	36.62	106.39	106.65	74.00	-32.65	Peak
3	3226.000	32.58	8.81	36.28	42.09	47.20	74.00	26.80	Peak

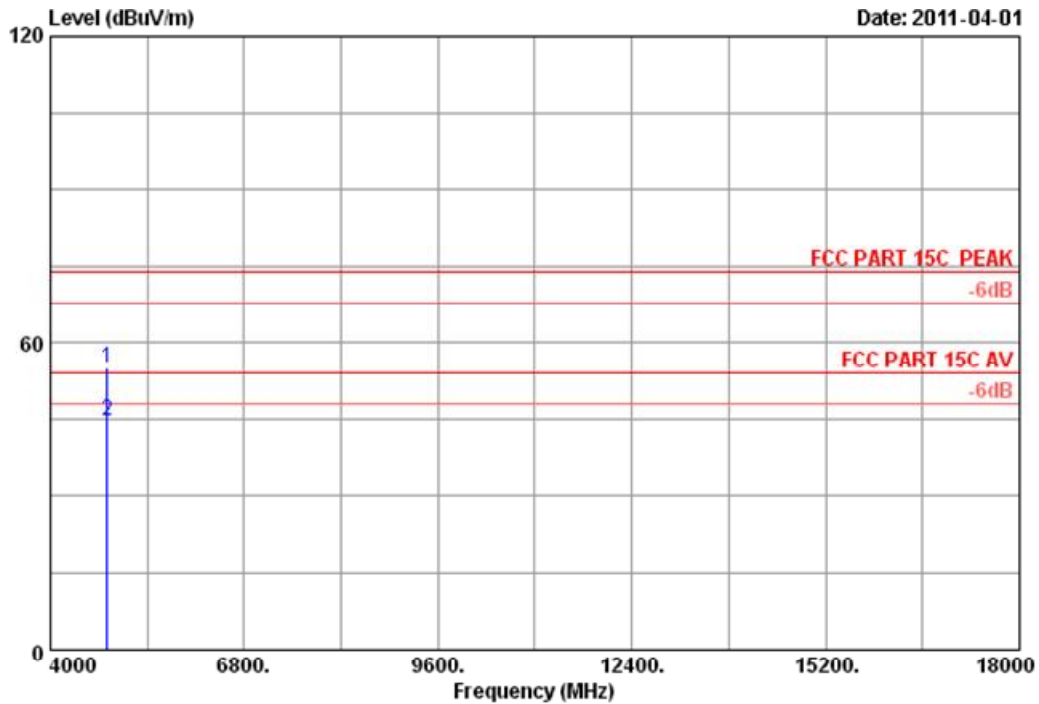
## Remarks:

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



Site no.	: 3m chamber	Data no. :	21
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11g CH1	2412MHz	Tx

Data: 22

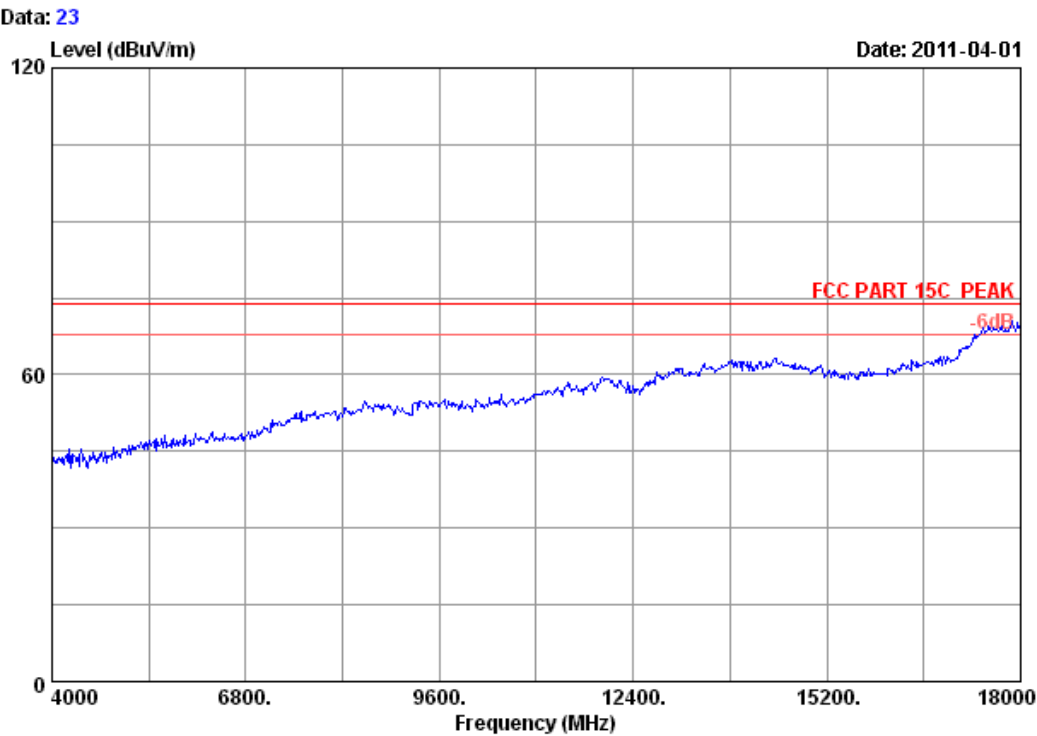


Site no. : 3m chamber Data no. : 22  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH1 2412MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4824.000	34.32	10.64	35.08	45.13	55.01	74.00	18.99	Peak
2	4824.000	34.32	10.64	35.08	34.99	44.87	54.00	9.13	Average

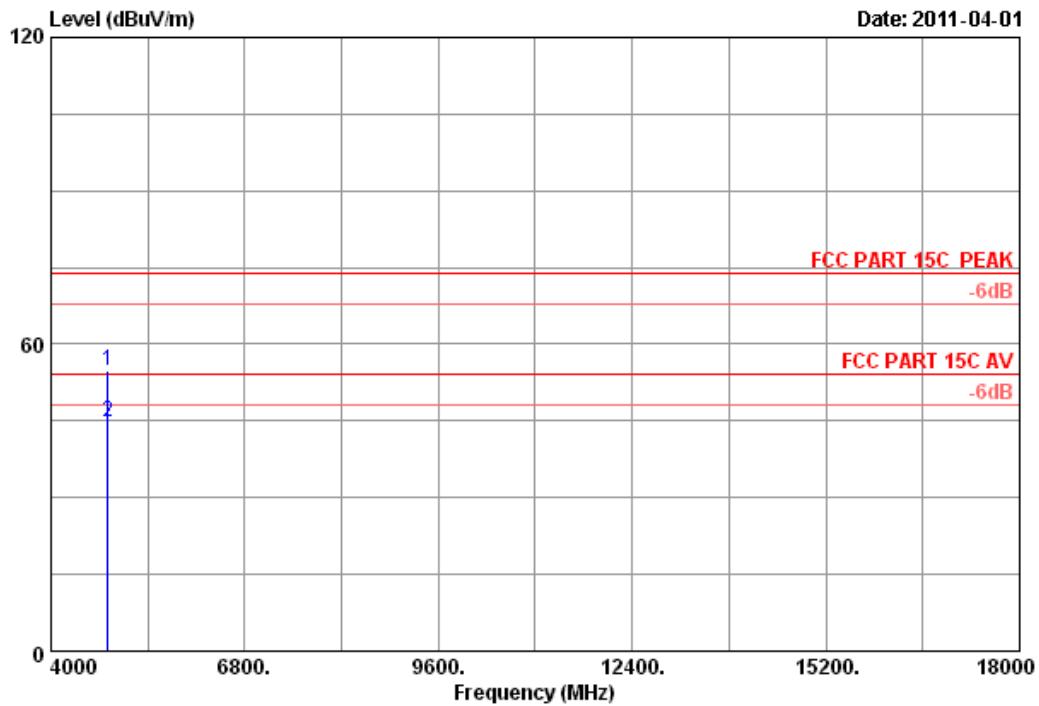
## Remarks:

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



Site no.	: 3m chamber	Data no. :	23
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11g CH1	2412MHz	Tx

Data: 24



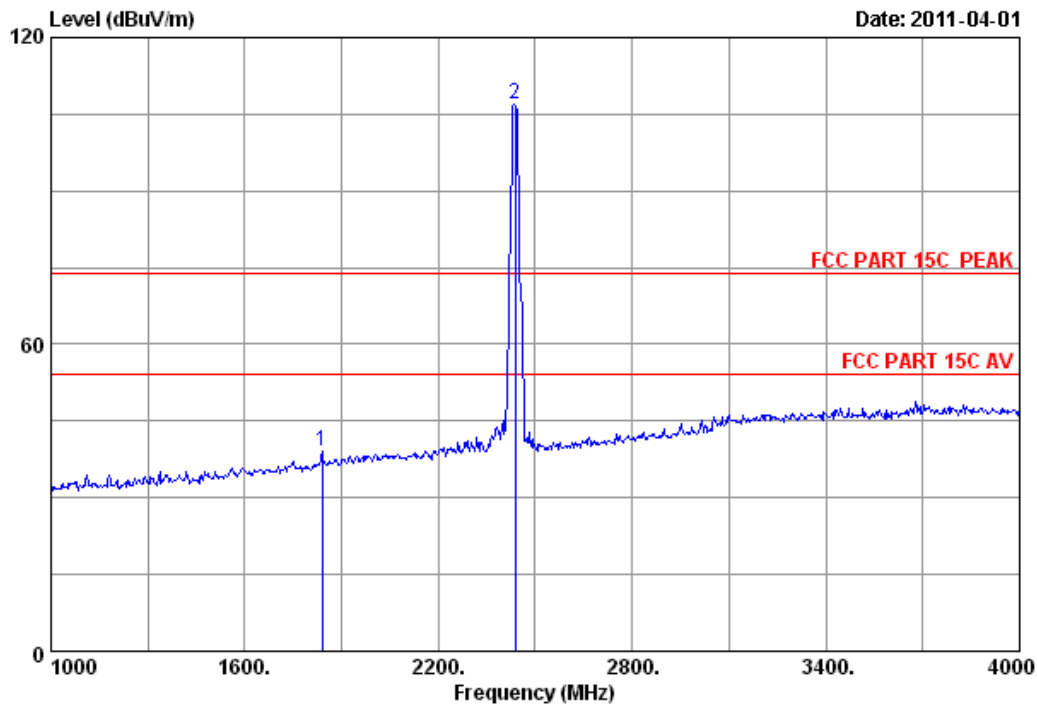
Site no. : 3m chamber Data no. : 24  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH1 2412MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4824.000	34.32	10.64	35.08	44.97	54.85	74.00	19.15	Peak
2	4824.000	34.32	10.64	35.08	34.88	44.76	54.00	9.24	Average

## 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.

Data: 25



Site no. : 3m chamber Data no. : 25  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH6 2437MHz Tx

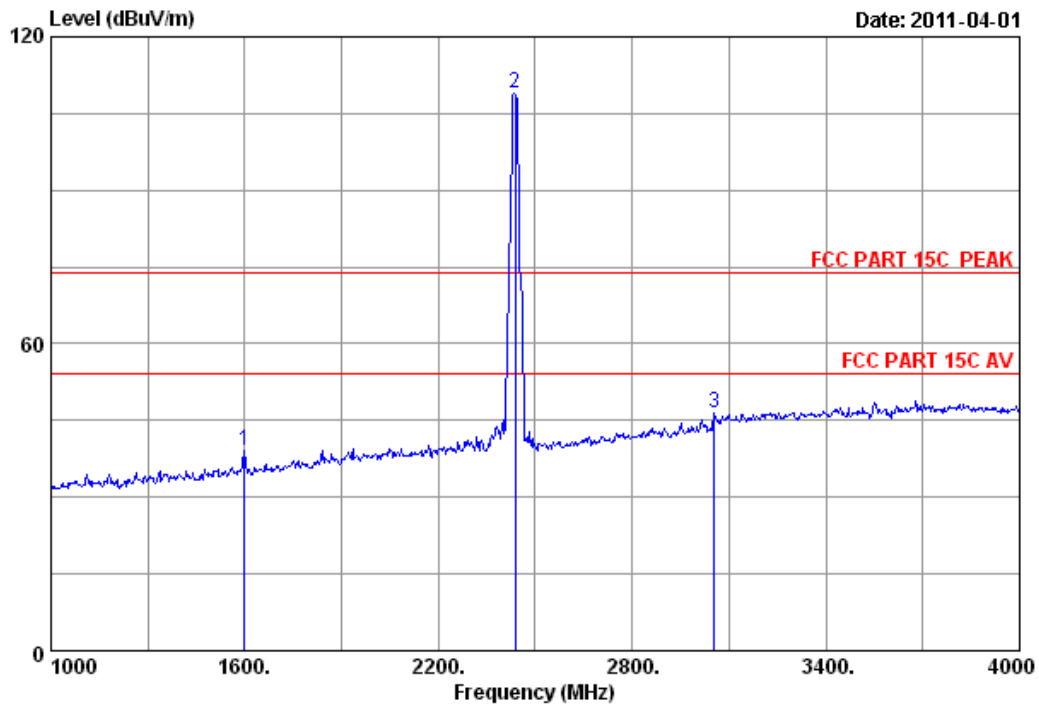
	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 1840.000	28.27	6.37	36.79	41.19	39.04	74.00	34.96	Peak	
2 2437.000	29.47	7.46	36.61	106.61	106.93	74.00	-32.93	Peak	

## 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.



Data: 26



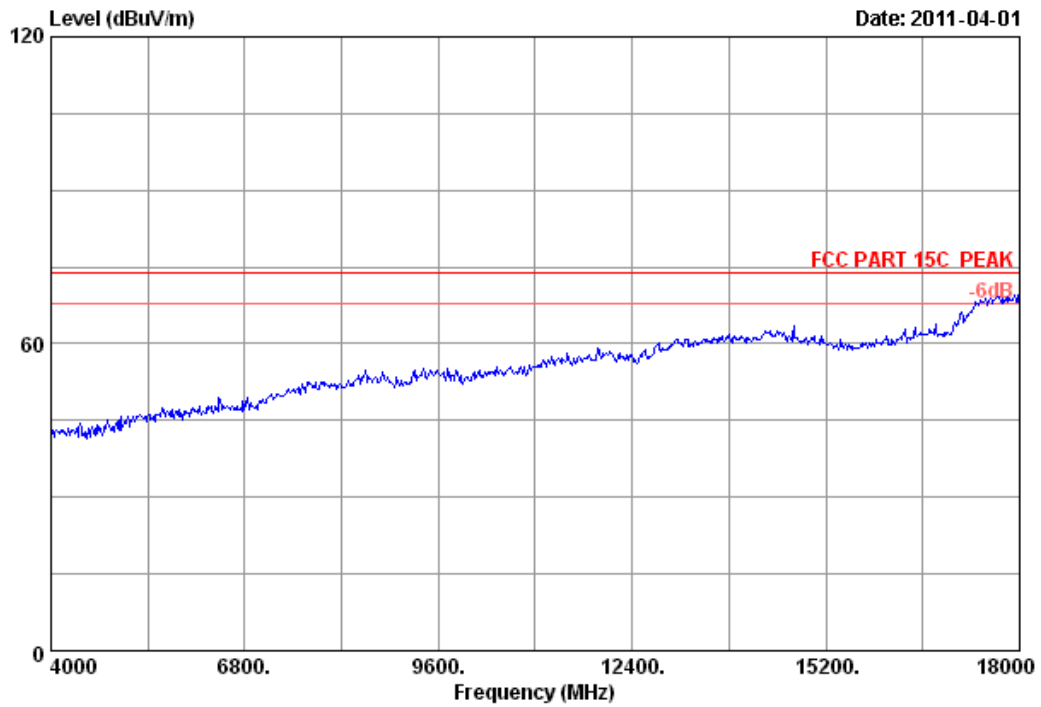
Site no. : 3m chamber Data no. : 26  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH6 2437MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1600.000	26.96	5.91	36.94	43.01	38.94	74.00	35.06	Peak
2	2437.000	29.47	7.46	36.61	108.61	108.93	74.00	-34.93	Peak
3	3055.000	32.13	8.61	36.42	42.12	46.44	74.00	27.56	Peak

## Remarks:

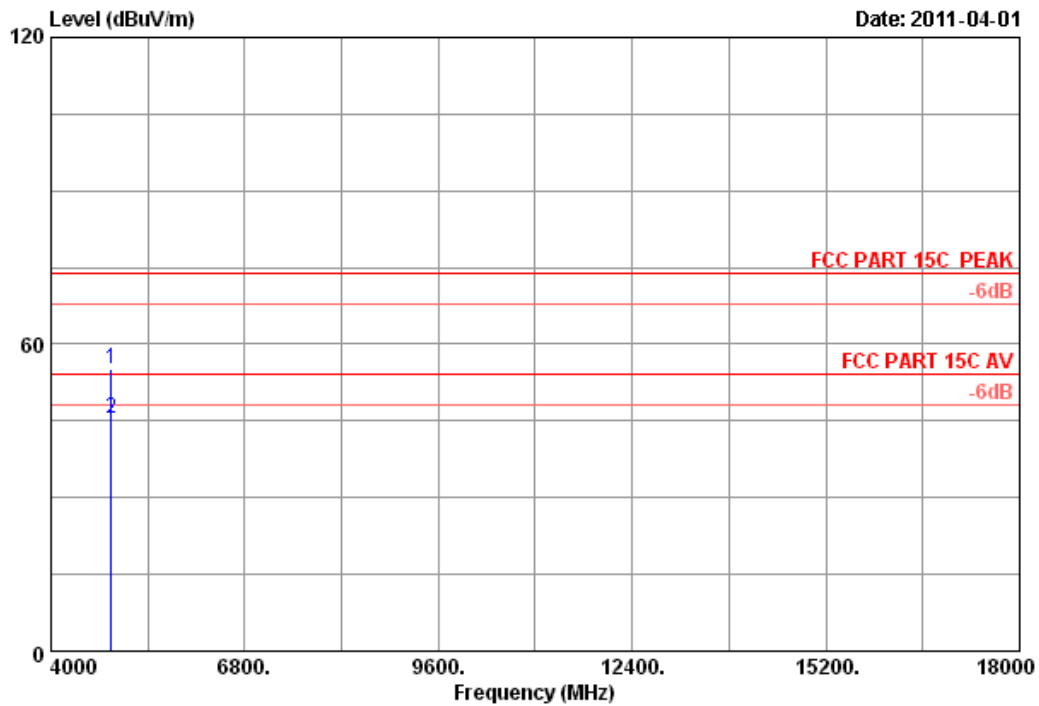
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Data: 27



Site no.	: 3m chamber	Data no. :	27
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11g CH6		2437MHz Tx

Data: 28

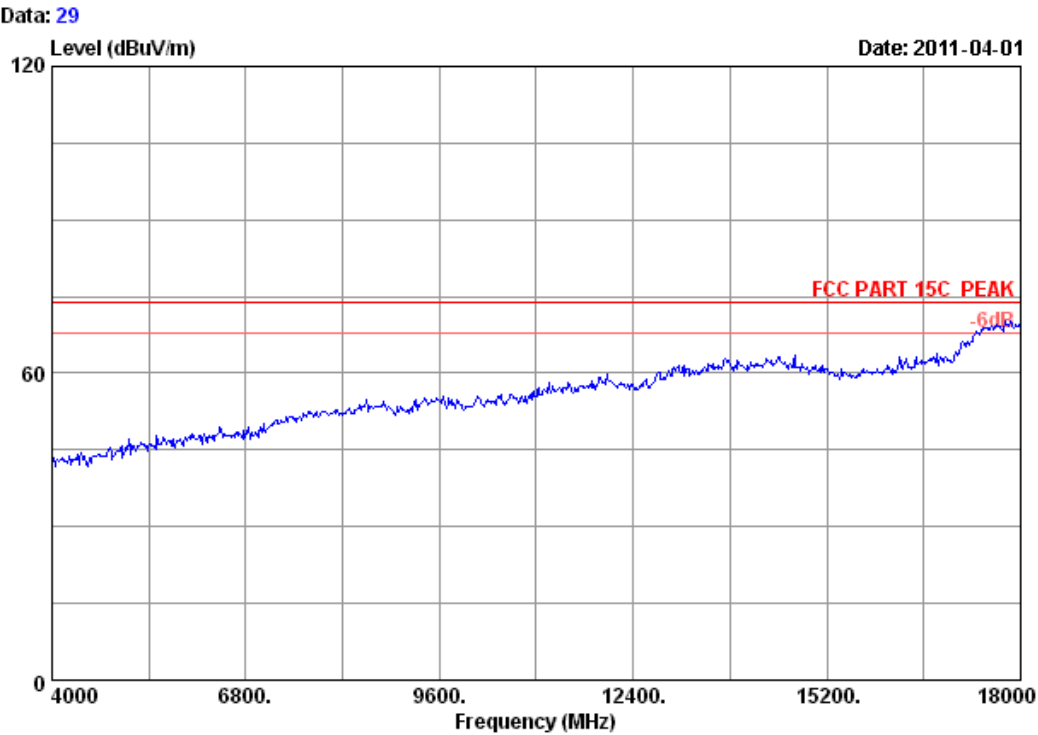


Site no. : 3m chamber Data no. : 28  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH6 2437MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4874.000	34.41	10.69	35.03	44.97	55.04	74.00	18.96	Peak
2	4874.000	34.41	10.69	35.03	35.28	45.35	54.00	8.65	Average

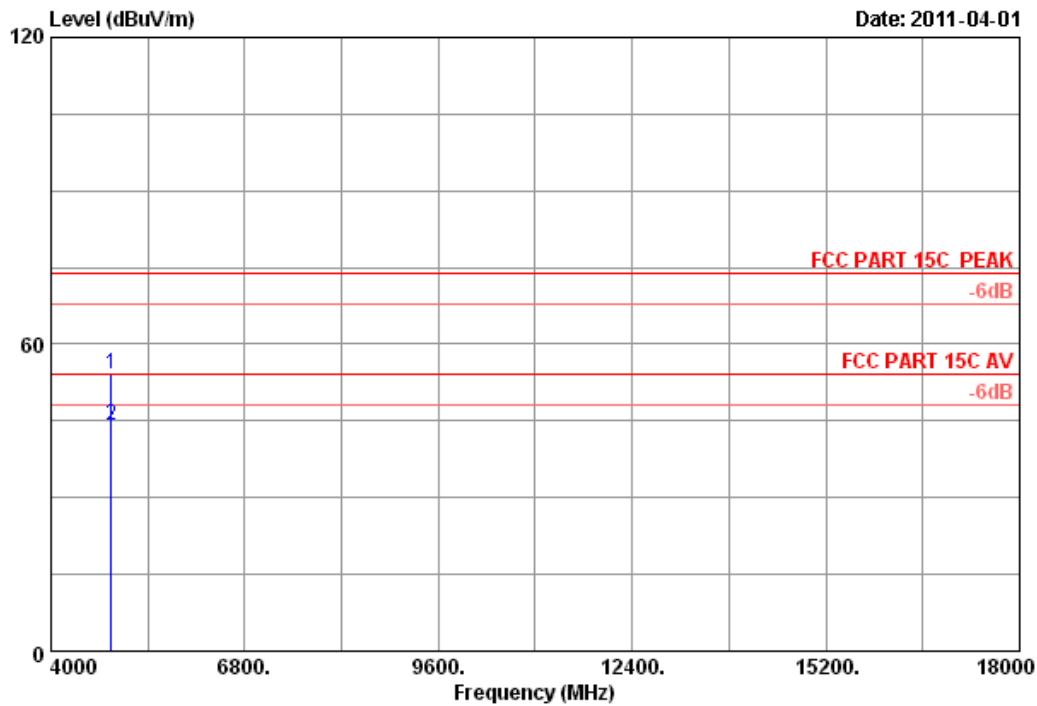
## Remarks:

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



Site no.	: 3m chamber	Data no. :	29
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH6 2437MHz Tx		

Data: 30



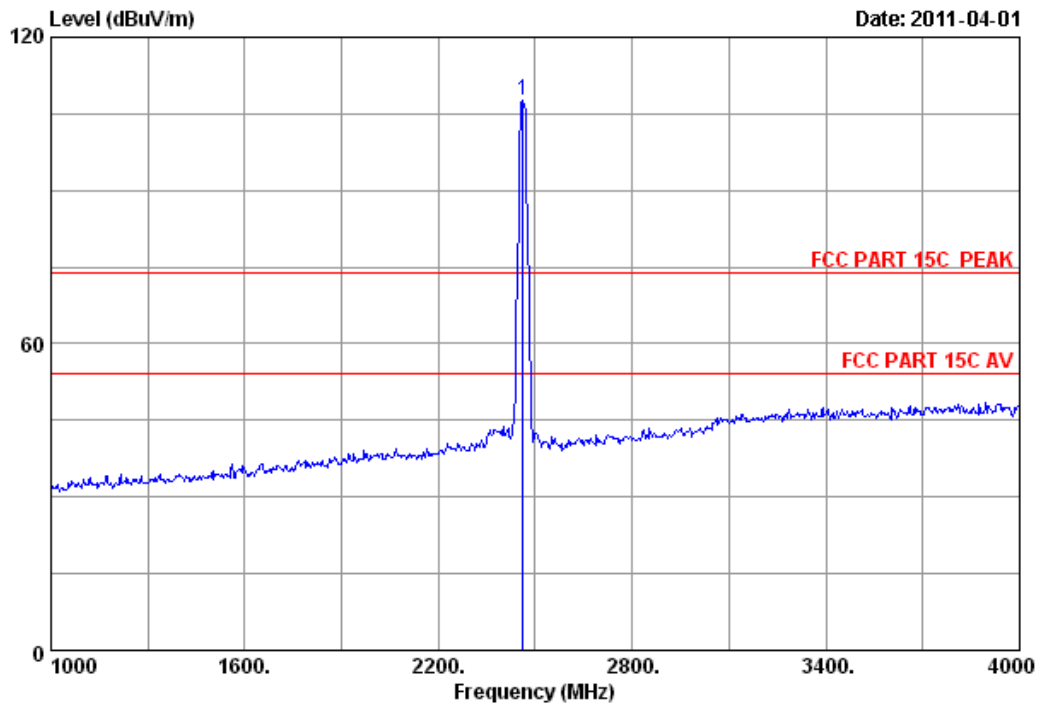
Site no. : 3m chamber Data no. : 30  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH6 2437MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4874.000	34.41	10.69	35.03	44.19	54.26	74.00	19.74	Peak
2	4874.000	34.41	10.69	35.03	34.08	44.15	54.00	9.85	Average

## 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.

Data: 31



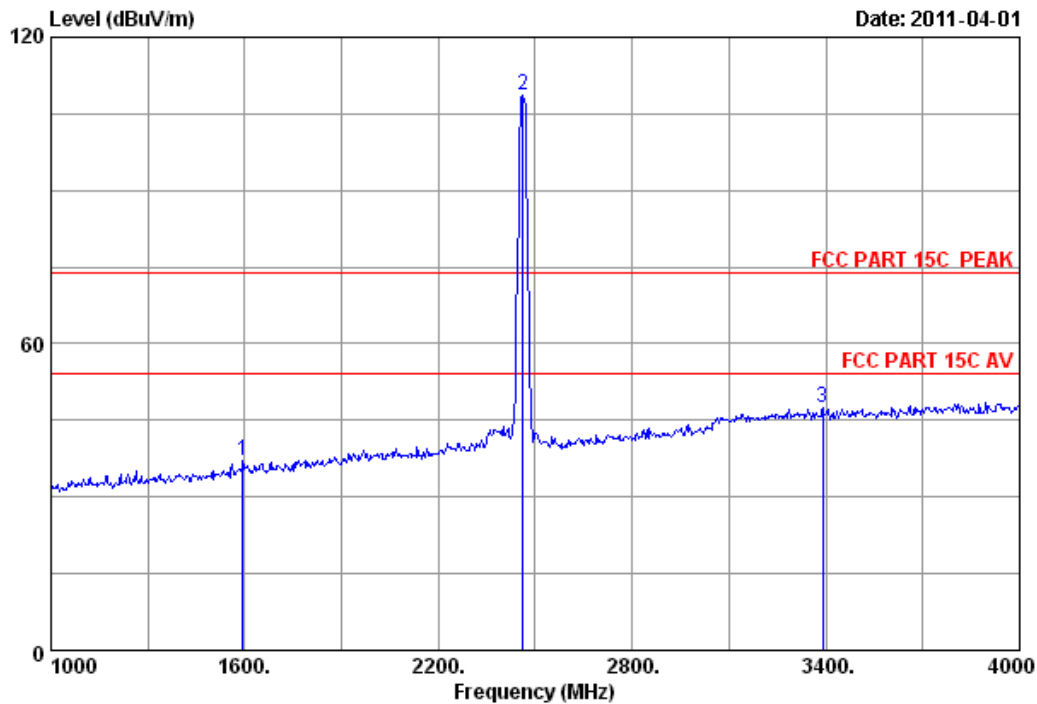
Site no. : 3m chamber Data no. : 31  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH11 2462MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission			Remark
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	
1	2462.000	29.48	7.54	36.61	107.38	107.79	74.00	-33.79	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.

Data: 32

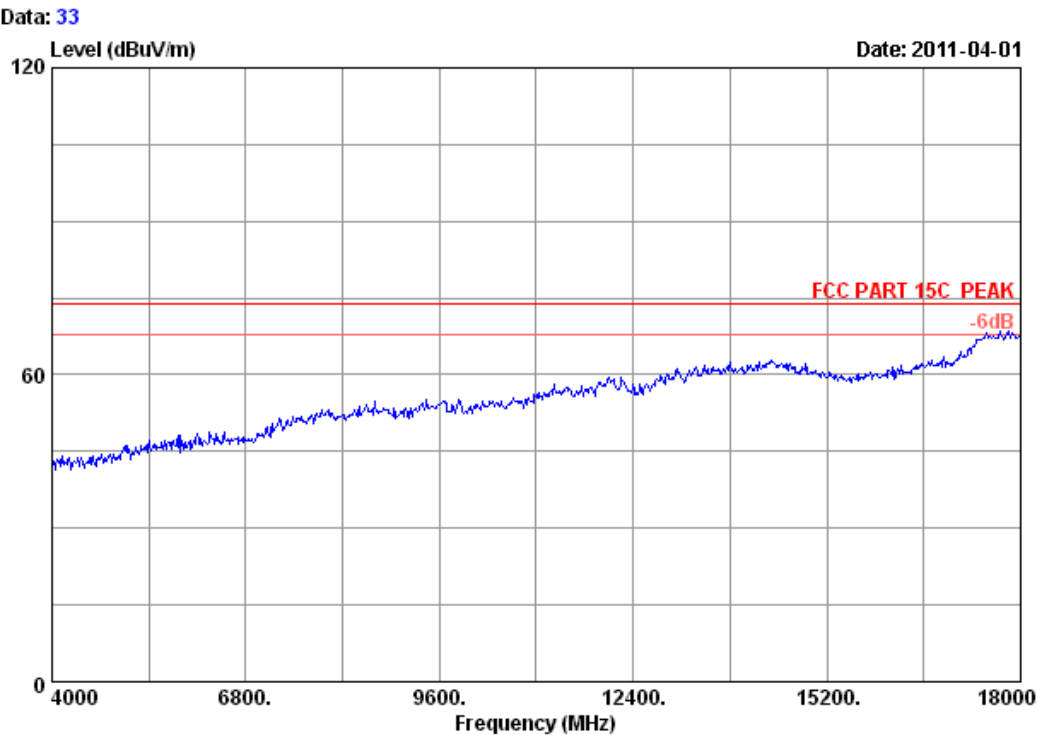


Site no. : 3m chamber Data no. : 32  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH11 2462MHz Tx

	Ant.	Cable	Amp.	Emission					
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1594.000	26.96	5.88	36.95	41.38	37.27	74.00	36.73	Peak
2	2462.000	29.48	7.54	36.61	108.38	108.79	74.00	-34.79	Peak
3	3391.000	33.03	9.00	36.10	41.65	47.58	74.00	26.42	Peak

## Remarks:

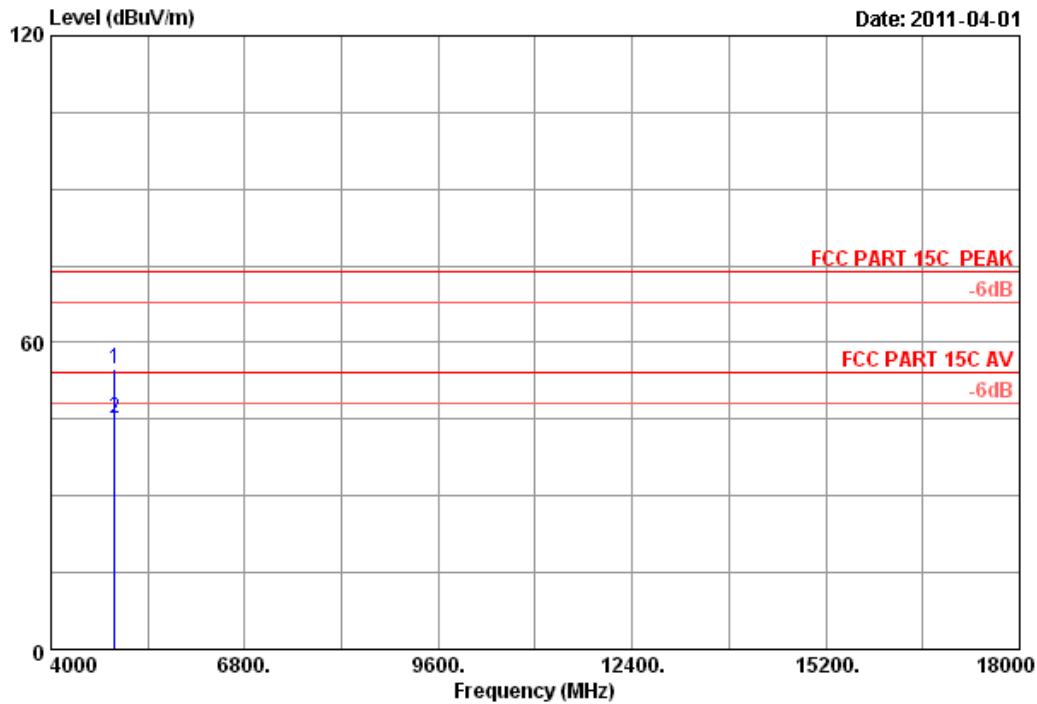
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no.	: 3m chamber	Data no. :	33
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11g CH11		2462MHz Tx



Data: 34



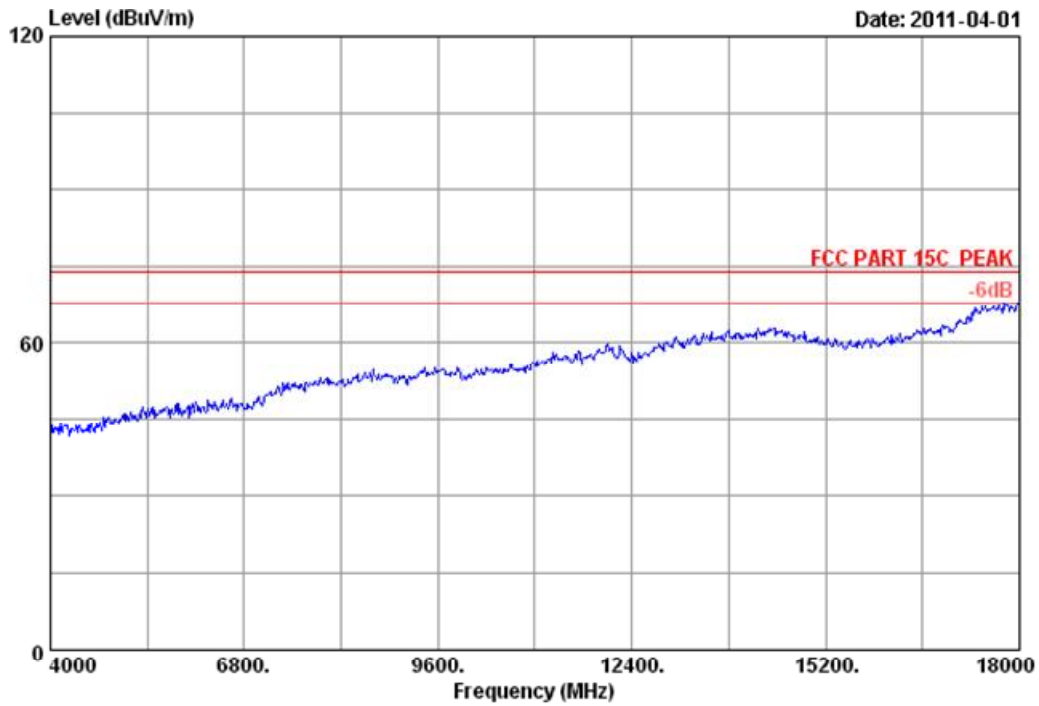
Site no. : 3m chamber Data no. : 34  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH11 2462MHz Tx

	Ant.	Cable	Amp.		Emission				
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	34.49	10.76	34.98	44.69	54.96	74.00	19.04	Peak
2	4924.000	34.49	10.76	34.98	34.89	45.16	54.00	8.84	Average

## Remarks:

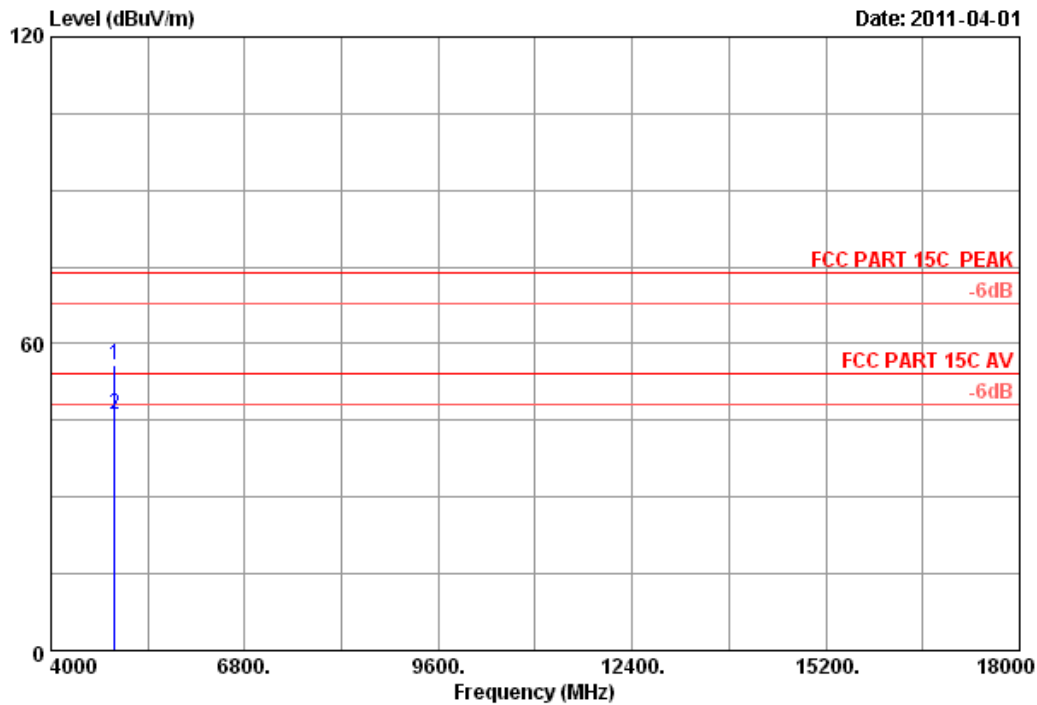
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Data: 35



Site no.	: 3m chamber	Data no. :	35
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo) M/N:Kineo		
Power	: DC 5V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH11 2462MHz Tx		

Data: 36



Site no. : 3m chamber Data no. : 36  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH11 2462MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	34.49	10.76	34.98	45.68	55.95	74.00	18.05	Peak
2	4924.000	34.49	10.76	34.98	35.75	46.02	54.00	7.98	Average

## 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.

## 5. Band Edge Compliance

### 5.1. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

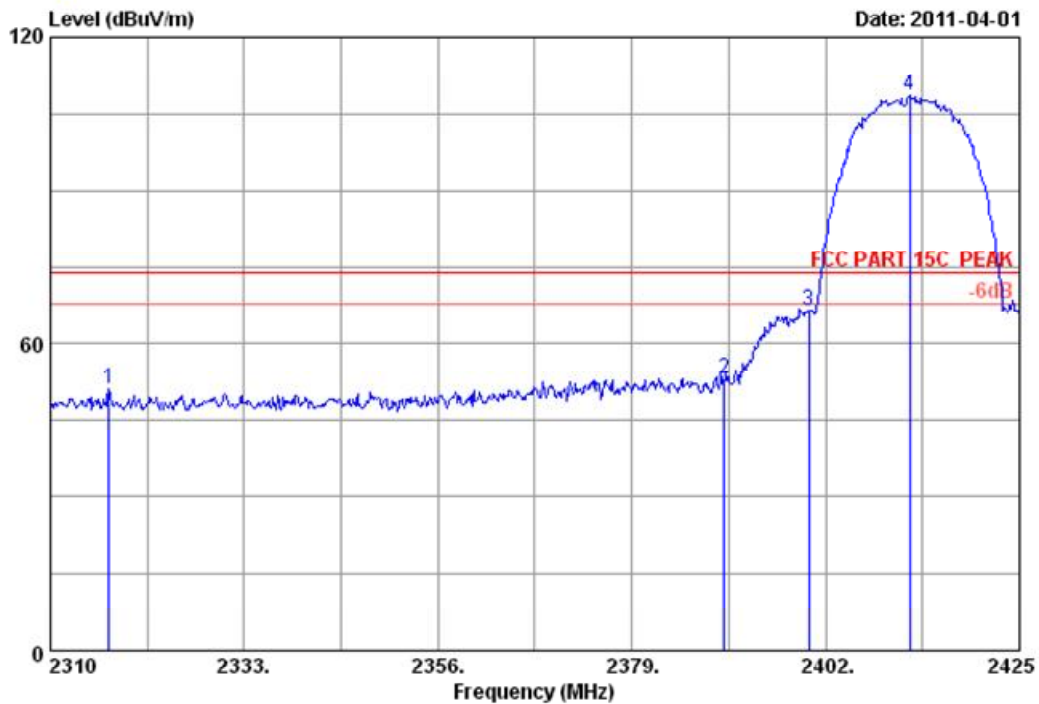
### 5.2. Test Procedure

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 upper band-edges of the emission:
  - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
  - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

### 5.3. Test Result

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

Data: 37



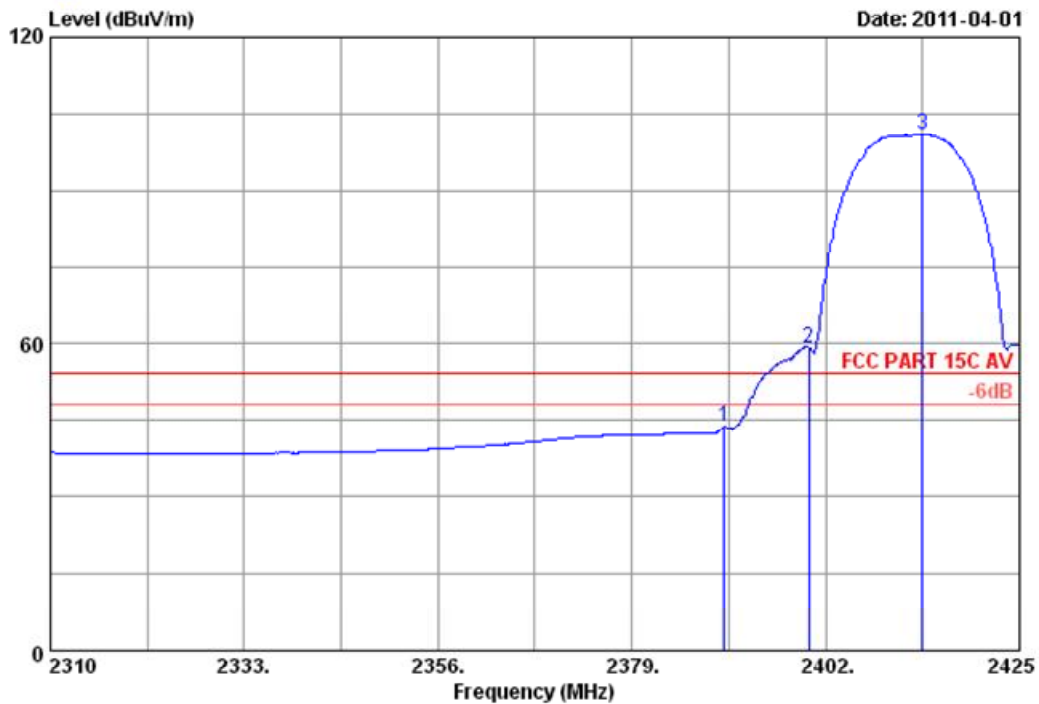
Site no. : 3m chamber Data no. : 37  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2316.900	29.39	7.24	36.63	51.20	51.20	74.00	22.80	Peak
2	2390.000	29.44	7.39	36.62	52.86	53.07	74.00	20.93	Peak
3	2400.000	29.44	7.43	36.62	66.12	66.37	74.00	7.63	Peak
4	2412.005	29.45	7.43	36.62	108.25	108.51	74.00	-34.51	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.

Data: 38



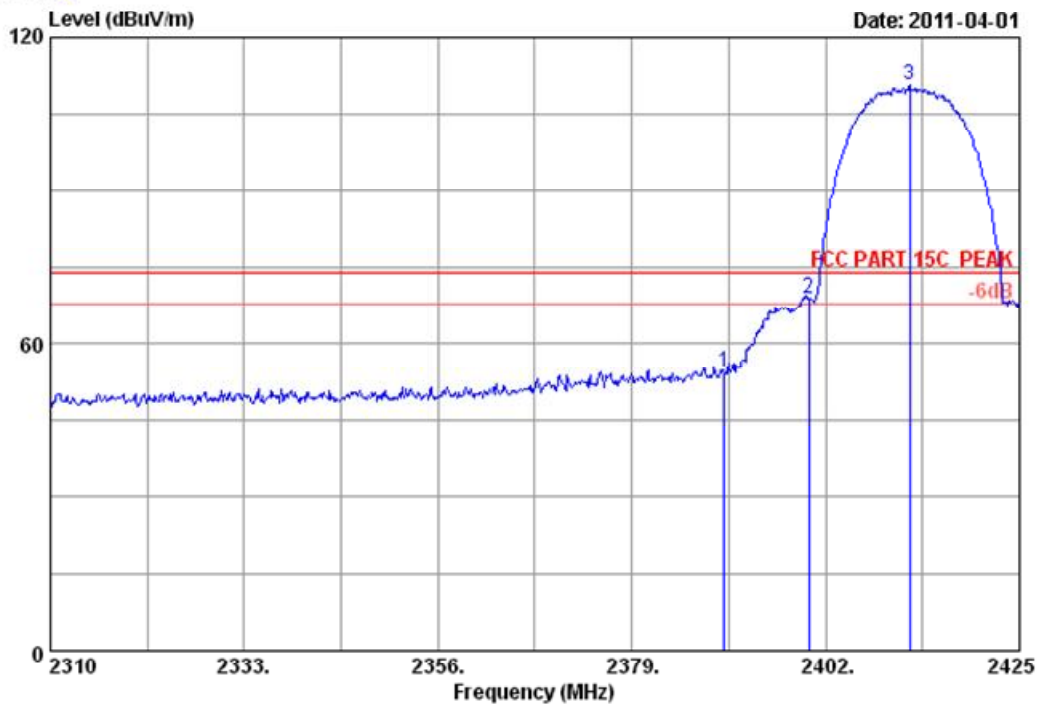
Site no. : 3m chamber Data no. : 38  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx

	Ant.	Cable	Amp.		Emission				
	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	43.48	43.69	54.00	10.31	Average
2	2400.000	29.44	7.43	36.62	59.04	59.29	54.00	-5.29	Average
3	2413.500	29.45	7.43	36.62	100.73	100.99	54.00	-46.99	Average

## 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.

Data: 39



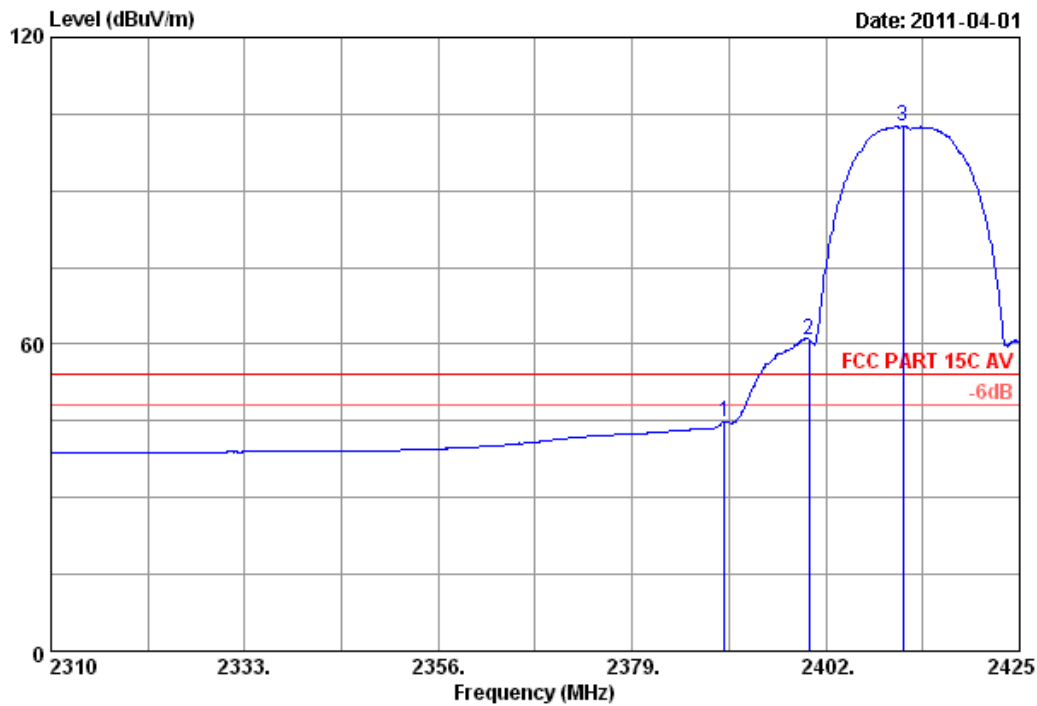
Site no. : 3m chamber Data no. : 39  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx

	Ant.	Cable	Amp.		Emission				
	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	54.35	54.56	74.00	19.44	Peak
2	2400.000	29.44	7.43	36.62	68.76	69.01	74.00	4.99	Peak
3	2412.005	29.45	7.43	36.62	110.22	110.48	74.00	-36.48	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.

Data: 40



Site no. : 3m chamber Data no. : 40  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx

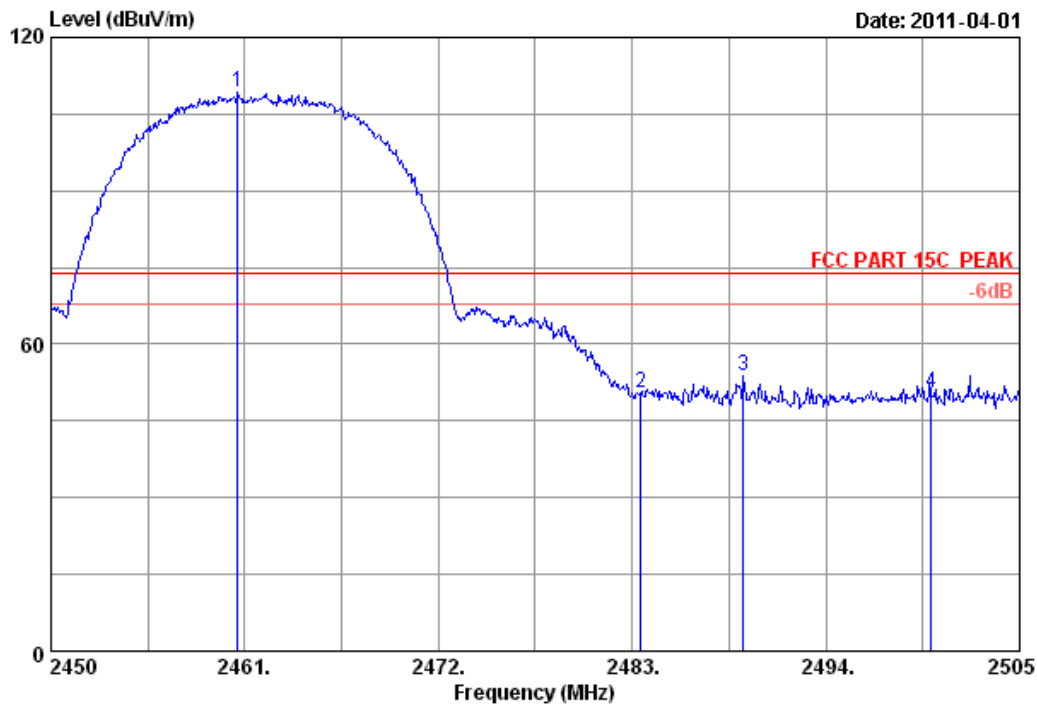
	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2390.000	29.44	7.39	36.62	44.68	44.89	54.00	9.11	Average
2	2400.000	29.44	7.43	36.62	60.65	60.90	54.00	-6.90	Average
3	2411.200	29.45	7.43	36.62	102.30	102.56	54.00	-48.56	Average

## 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.



Data: 41



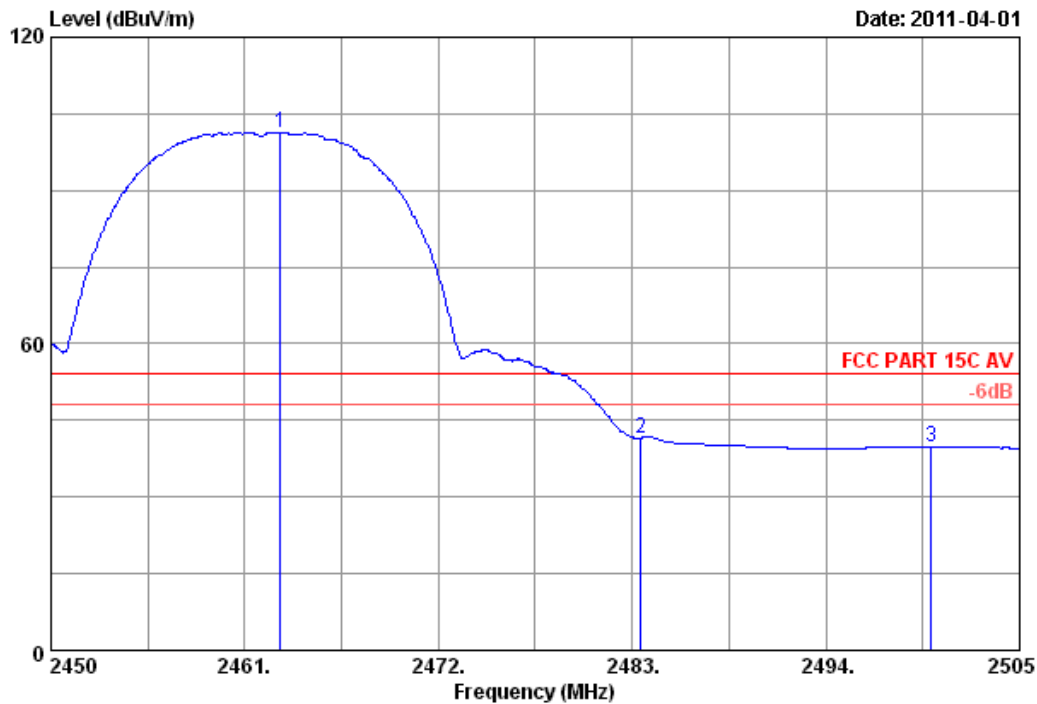
Site no. : 3m chamber Data no. : 41  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH11 2462MHz Tx

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.615	29.48	7.54	36.61	108.95	109.36	74.00	-35.36	Peak
2	2483.500	29.49	7.58	36.60	50.10	50.57	74.00	23.43	Peak
3	2489.325	29.50	7.58	36.60	53.27	53.75	74.00	20.25	Peak
4	2500.000	29.50	7.62	36.60	50.11	50.63	74.00	23.37	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.

Data: 42



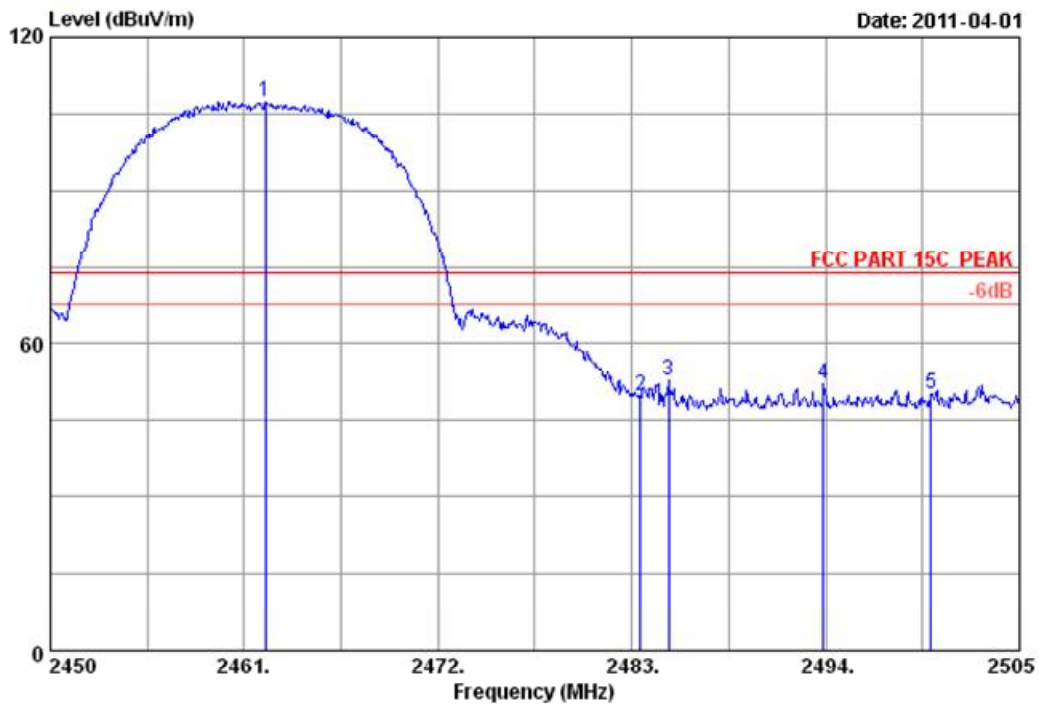
Site no. : 3m chamber Data no. : 42  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH11 2462MHz Tx

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2463.035	29.48	7.54	36.61	101.01	101.42	54.00	-47.42	Average	
2 2483.500	29.49	7.58	36.60	41.11	41.58	54.00	12.42	Average	
3 2500.000	29.50	7.62	36.60	39.32	39.84	54.00	14.16	Average	

## 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.

Data: 43



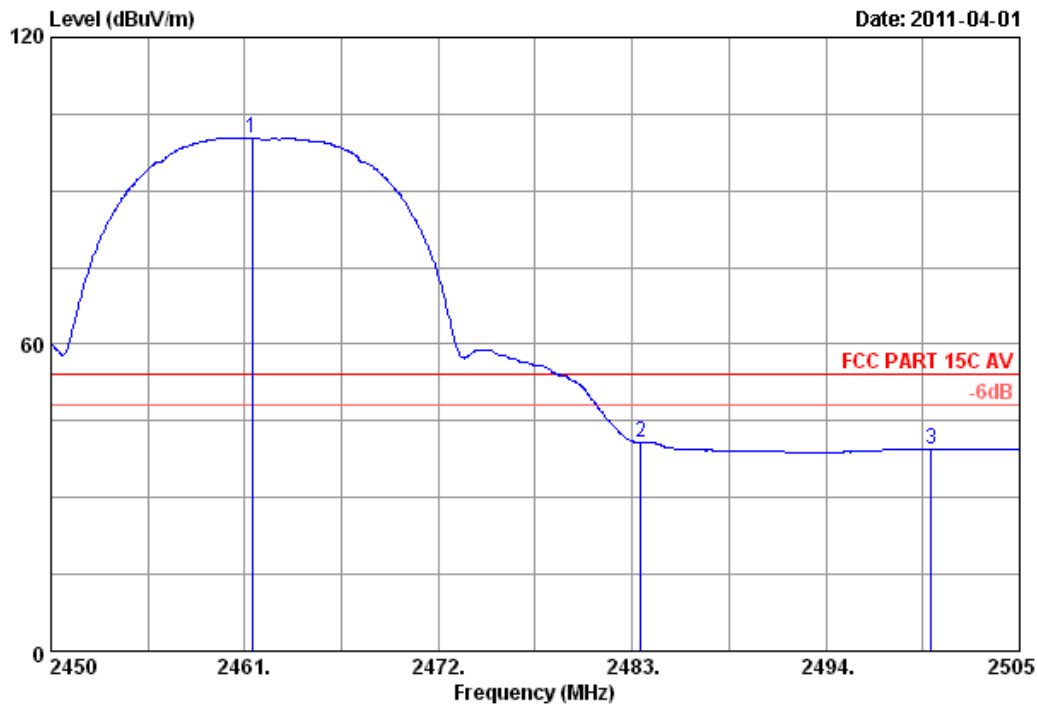
Site no. : 3m chamber Data no. : 43  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH11 2462MHz Tx

	Ant.	Cable	Amp.		Emission				
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2462.210	29.48	7.54	36.61	106.87	107.28	74.00	-33.28	Peak
2	2483.500	29.49	7.58	36.60	49.25	49.72	74.00	24.28	Peak
3	2485.090	29.49	7.58	36.60	52.19	52.66	74.00	21.34	Peak
4	2493.890	29.50	7.58	36.60	51.65	52.13	74.00	21.87	Peak
5	2500.000	29.50	7.62	36.60	49.47	49.99	74.00	24.01	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.

Data: 44

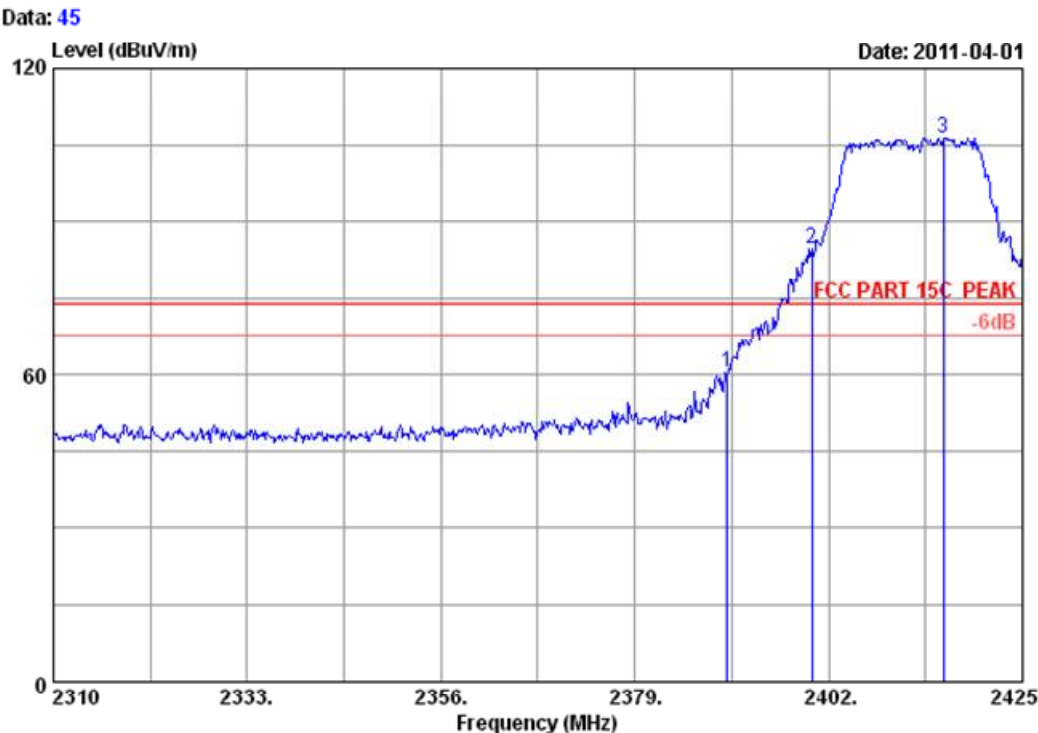


Site no. : 3m chamber Data no. : 44  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11b CH11 2462MHz Tx

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.440	29.48	7.54	36.61	99.97	100.38	54.00	-46.38	Average
2	2483.500	29.49	7.58	36.60	40.34	40.81	54.00	13.19	Average
3	2500.000	29.50	7.62	36.60	38.91	39.43	54.00	14.57	Average

## 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.



Site no. : 3m chamber Data no. : 45  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
EUT : Educational Device (Kineo) M/N:Kineo  
Power : DC 5V From Adapter input AC 120V/60Hz  
Test mode : IEEE802.11g CH1 2412MHz Tx

		Ant.	Cable	Amp.		Emission			
	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	60.45	60.66	74.00	13.34	Peak
2	2400.000	29.44	7.43	36.62	84.36	84.61	74.00	-10.61	Peak
3	2415.570	29.45	7.43	36.61	106.15	106.42	74.00	-32.42	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.

Data: 46



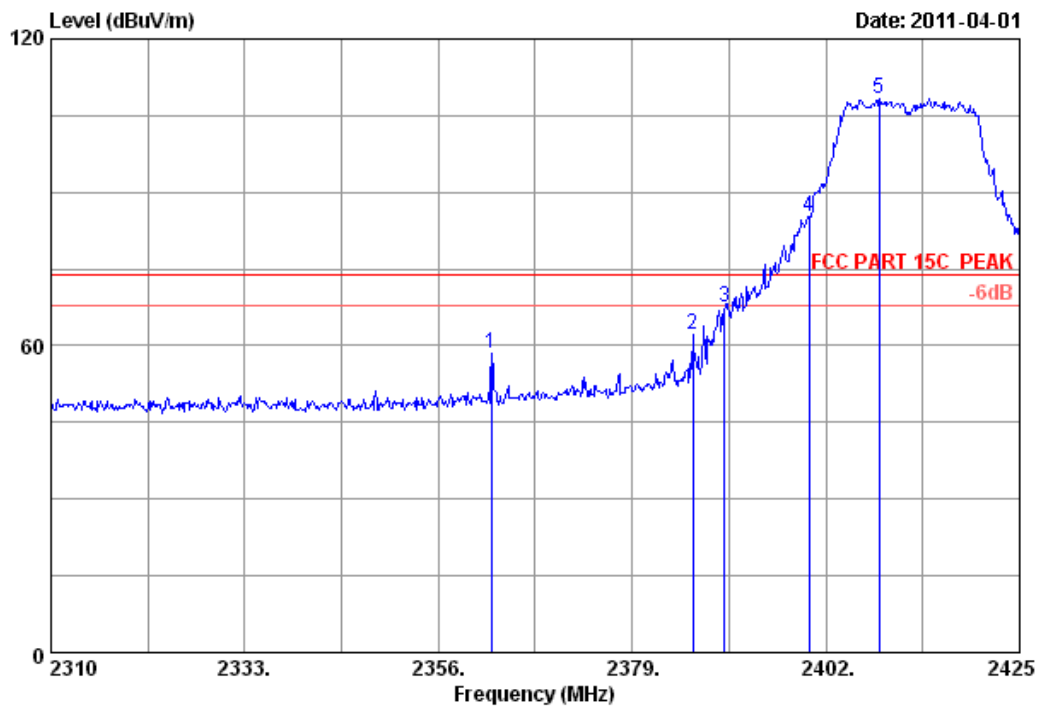
Site no. : 3m chamber Data no. : 46  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH1 2412MHz Tx

	Ant. Freq. (MHz)	Cable Factor (dB/m)	Amp. loss (dB)	Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	29.44	7.39	36.62	47.99	48.20	54.00	5.80	Average
2	2400.000	29.44	7.43	36.62	63.80	64.05	54.00	-10.05	Average
3	2416.720	29.45	7.43	36.61	96.85	97.12	54.00	-43.12	Average

## 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.

Data: 47



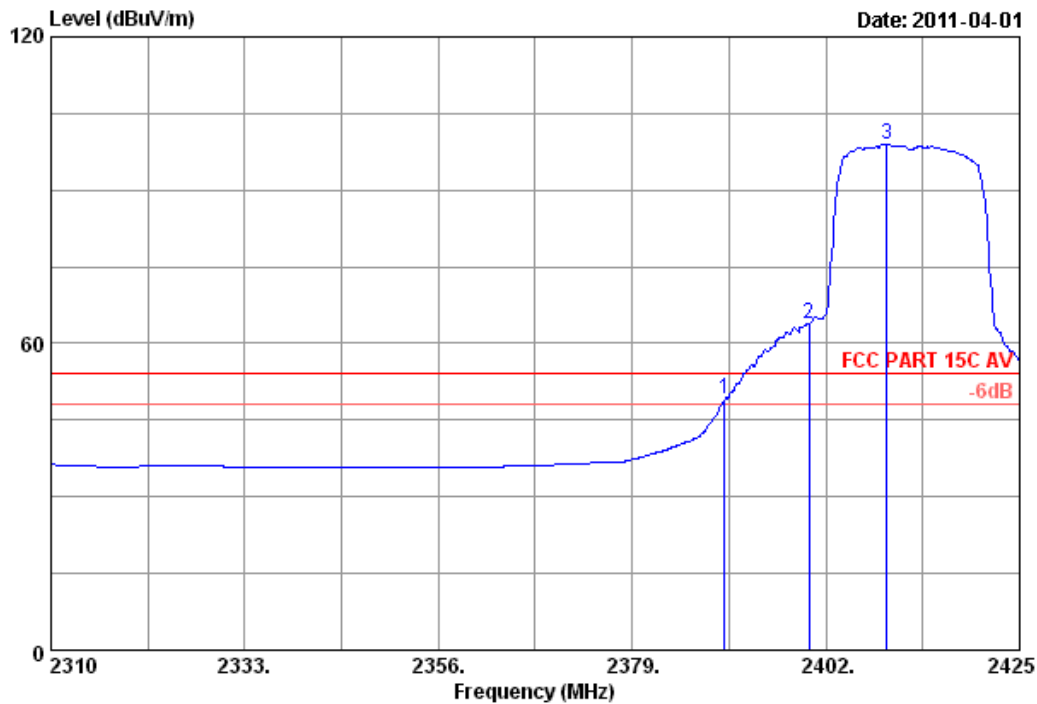
Site no. : 3m chamber Data no. : 47  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH1 2412MHz Tx

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2362.325	29.42	7.35	36.63	58.30	58.44	74.00	15.56	Peak
2	2386.245	29.44	7.39	36.62	61.92	62.13	74.00	11.87	Peak
3	2390.000	29.44	7.39	36.62	67.44	67.65	74.00	6.35	Peak
4	2400.000	29.44	7.43	36.62	85.00	85.25	74.00	-11.25	Peak
5	2408.325	29.45	7.43	36.62	108.09	108.35	74.00	-34.35	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.

Data: 48



Site no. : 3m chamber Data no. : 48  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH1 2412MHz Tx

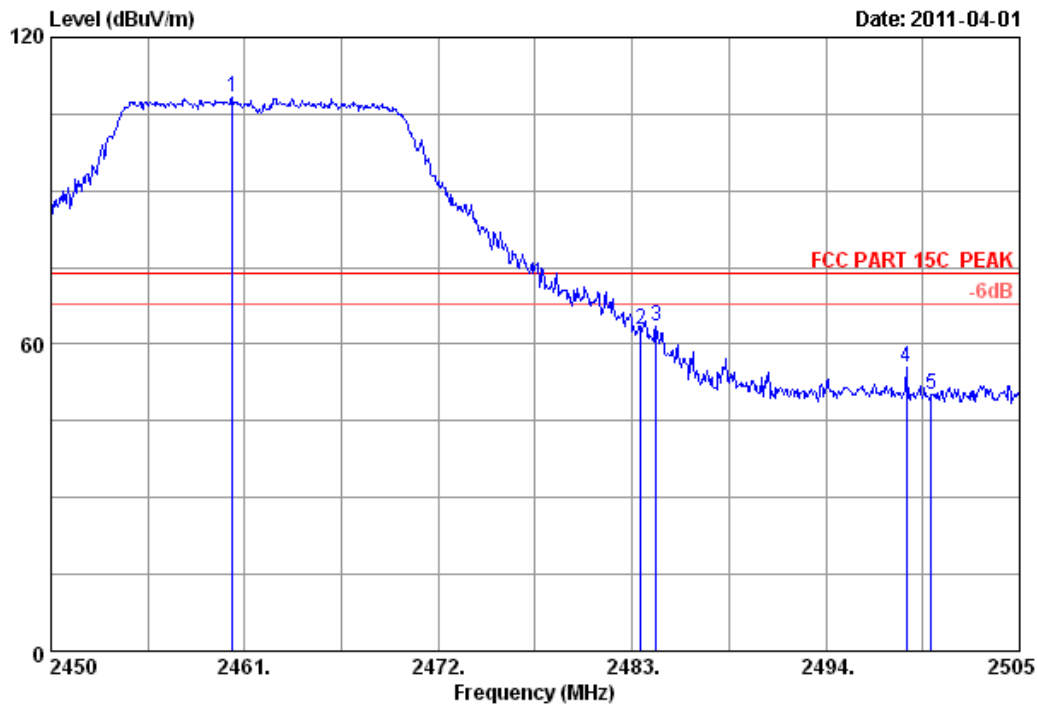
	Freq.	Ant.	Cable	Amp.		Emission			
	(MHz)	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	29.44	7.39	36.62	48.81	49.02	54.00	4.98	Average
2	2400.000	29.44	7.43	36.62	63.59	63.84	54.00	-9.84	Average
3	2409.245	29.45	7.43	36.62	98.75	99.01	54.00	-45.01	Average

## 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.



Data: 49



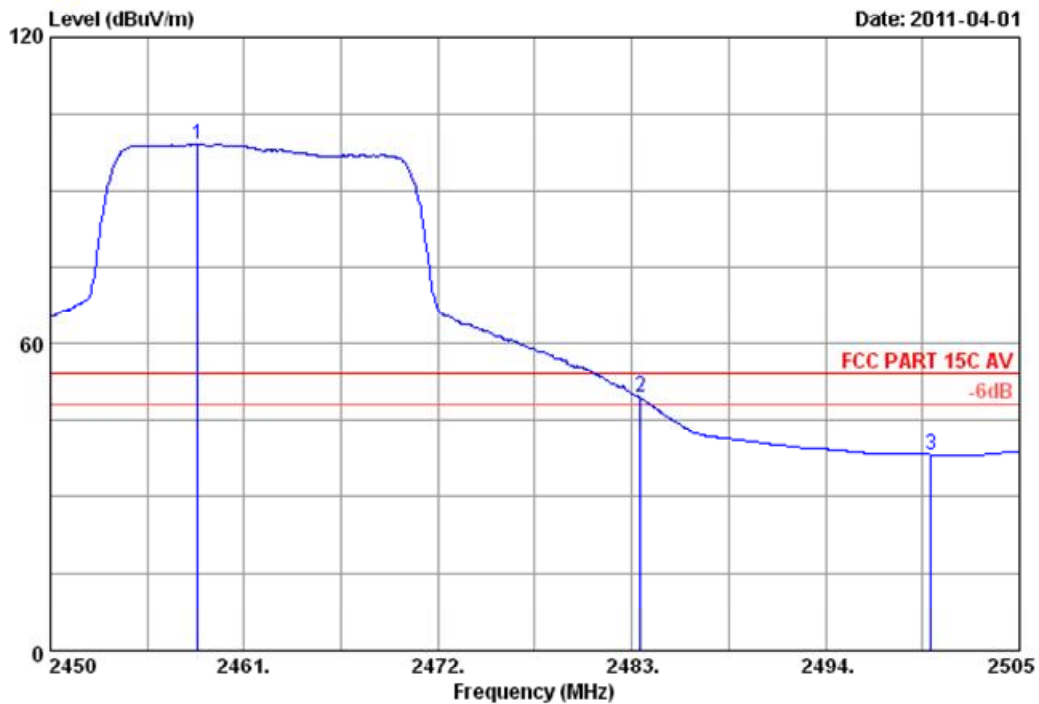
Site no. : 3m chamber Data no. : 49  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH11 2462MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2460.285	29.48	7.54	36.61	107.79	108.20	74.00	-34.20	Peak
2	2483.500	29.49	7.58	36.60	62.53	63.00	74.00	11.00	Peak
3	2484.375	29.49	7.58	36.60	63.16	63.63	74.00	10.37	Peak
4	2498.565	29.50	7.58	36.60	54.96	55.44	74.00	18.56	Peak
5	2500.000	29.50	7.62	36.60	49.50	50.02	74.00	23.98	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.

Data: 50



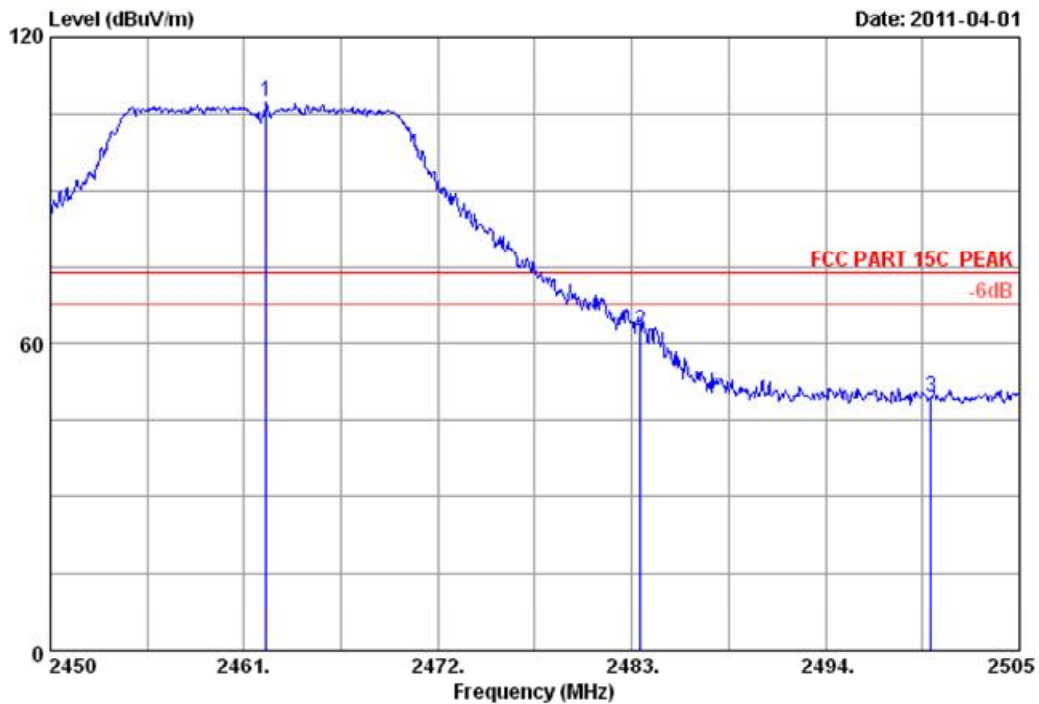
Site no. : 3m chamber Data no. : 50  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH11 2462MHz Tx

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2458.360	29.48	7.50	36.61	98.52	98.89	54.00	-44.89	Average
2	2483.500	29.49	7.58	36.60	48.84	49.31	54.00	4.69	Average
3	2500.000	29.50	7.62	36.60	37.73	38.25	54.00	15.75	Average

## 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.

Data: 51



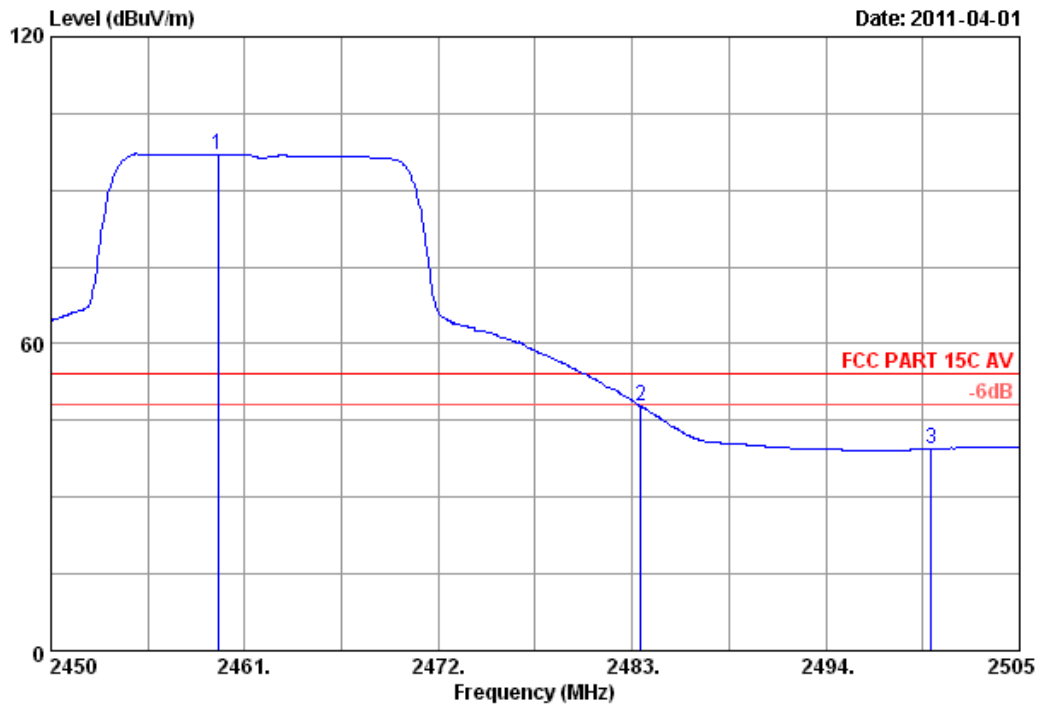
Site no.	: 3m chamber	Data no. :	51
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Sunny-lu
EUT	: Educational Device (Kineo)	M/N:	Kineo
Power	: DC 5V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH11 2462MHz Tx		

	Ant.	Cable	Amp.		Emission				
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2462.265	29.48	7.54	36.61	106.88	107.29	74.00	-33.29	Peak
2	2483.500	29.49	7.58	36.60	62.06	62.53	74.00	11.47	Peak
3	2500.000	29.50	7.62	36.60	48.94	49.46	74.00	24.54	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.

Data: 52



Site no. : 3m chamber Data no. : 52  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu  
 EUT : Educational Device (Kineo) M/N:Kineo  
 Power : DC 5V From Adapter input AC 120V/60Hz  
 Test mode : IEEE802.11g CH11 2462MHz Tx

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2459.460	29.48	7.54	36.61	96.64	97.05	54.00	-43.05	Average	
2 2483.500	29.49	7.58	36.60	47.20	47.67	54.00	6.33	Average	
3 2500.000	29.50	7.62	36.60	38.95	39.47	54.00	14.53	Average	

## 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.

## **6. Conducted spurious emissions test**

### **6.1. Limit**

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

### **6.2. Test Procedure**

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz to measure conducted emissions from antenna port.

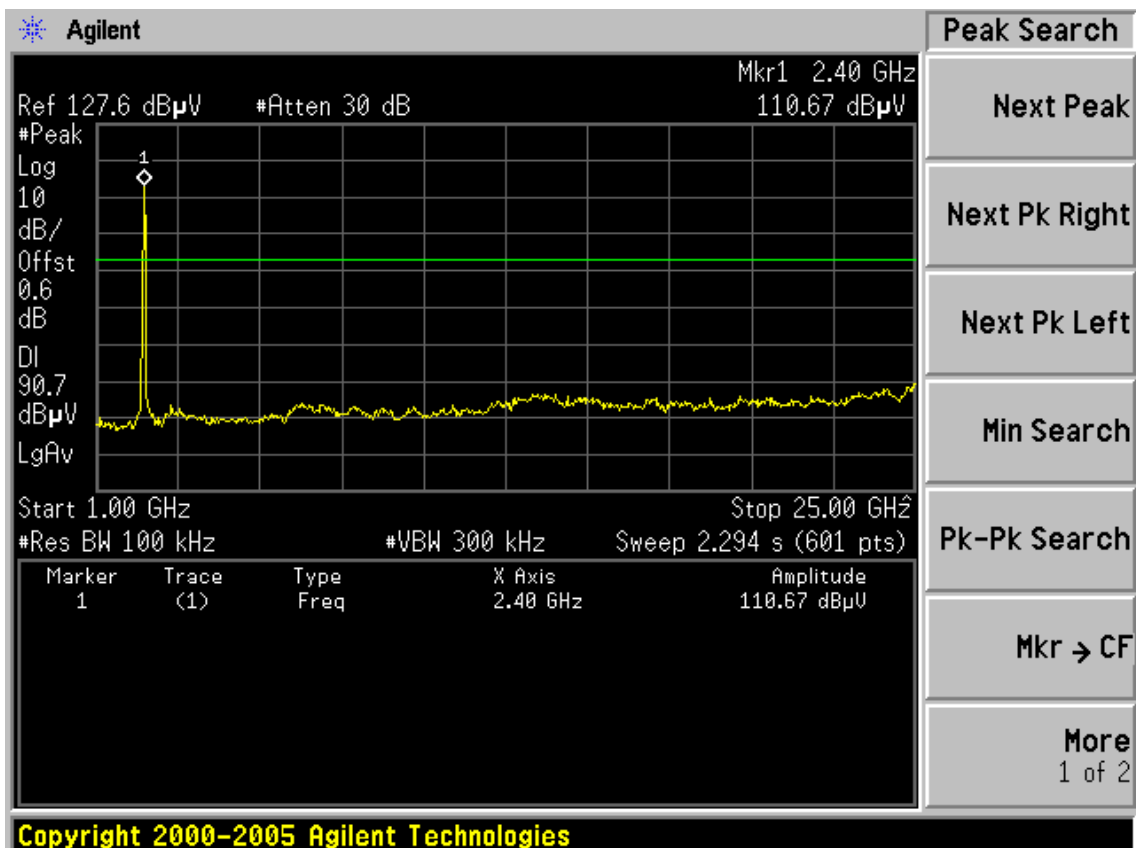
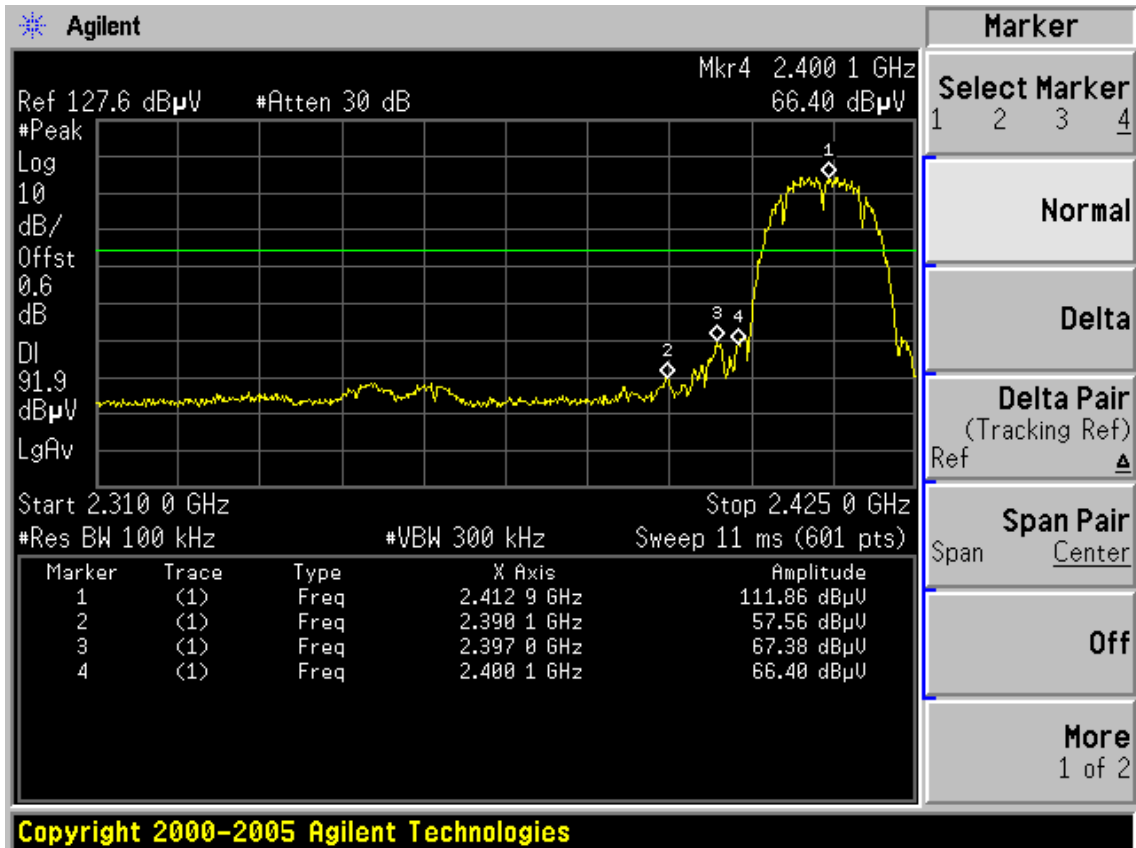
### **6.3. Test Result**

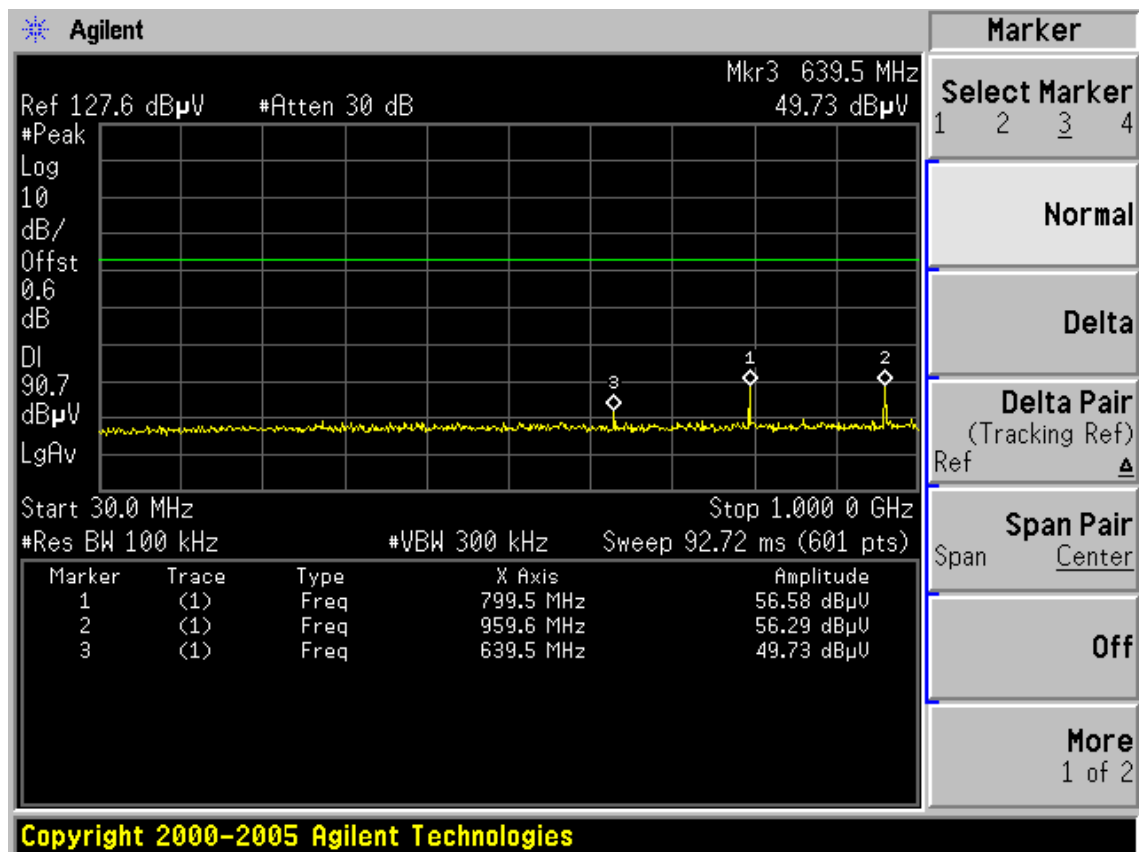
PASS

**Conducted emission test data:**

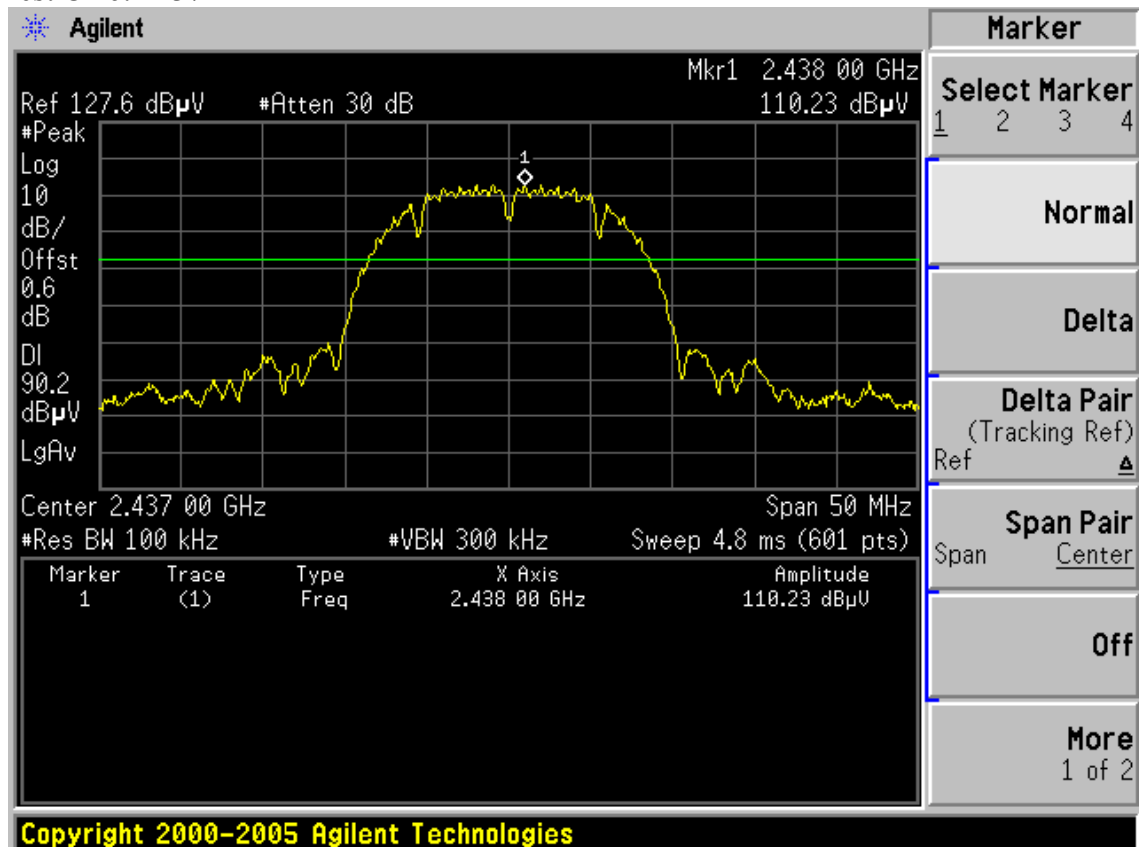
Test Mode: IEEE 802.11b TX

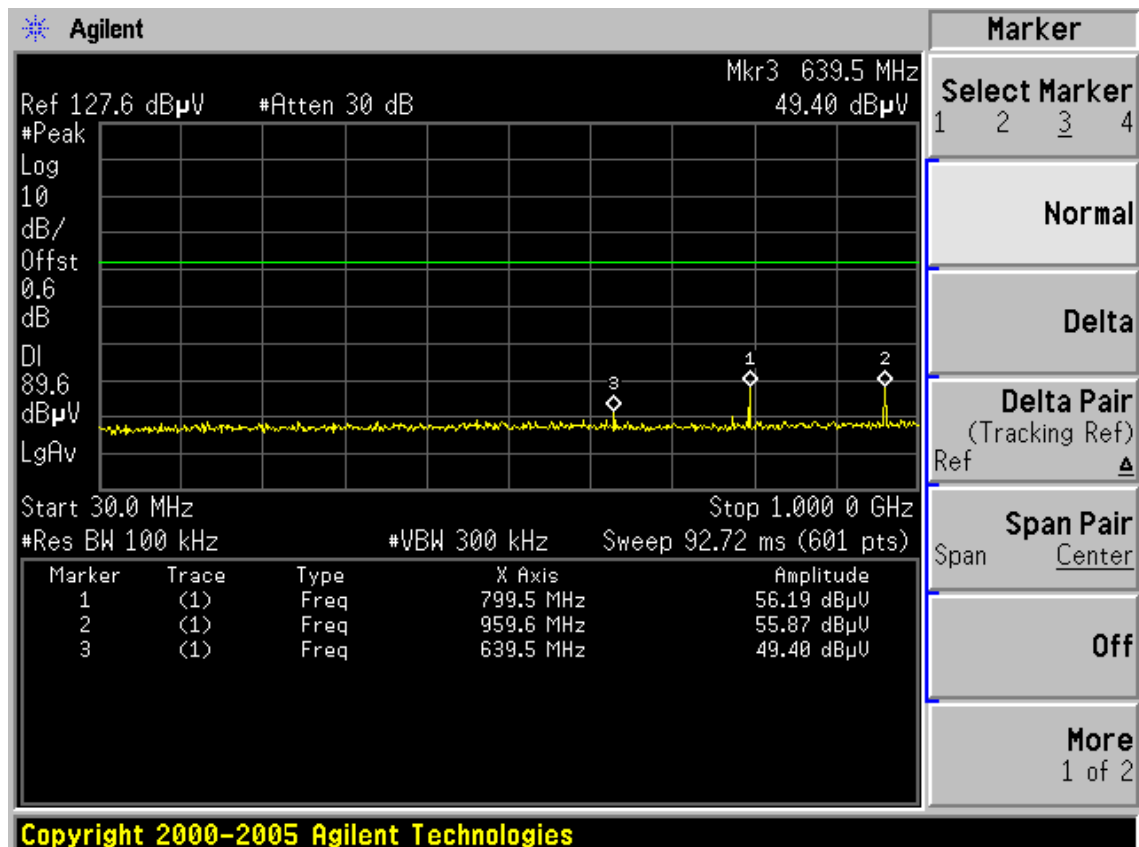
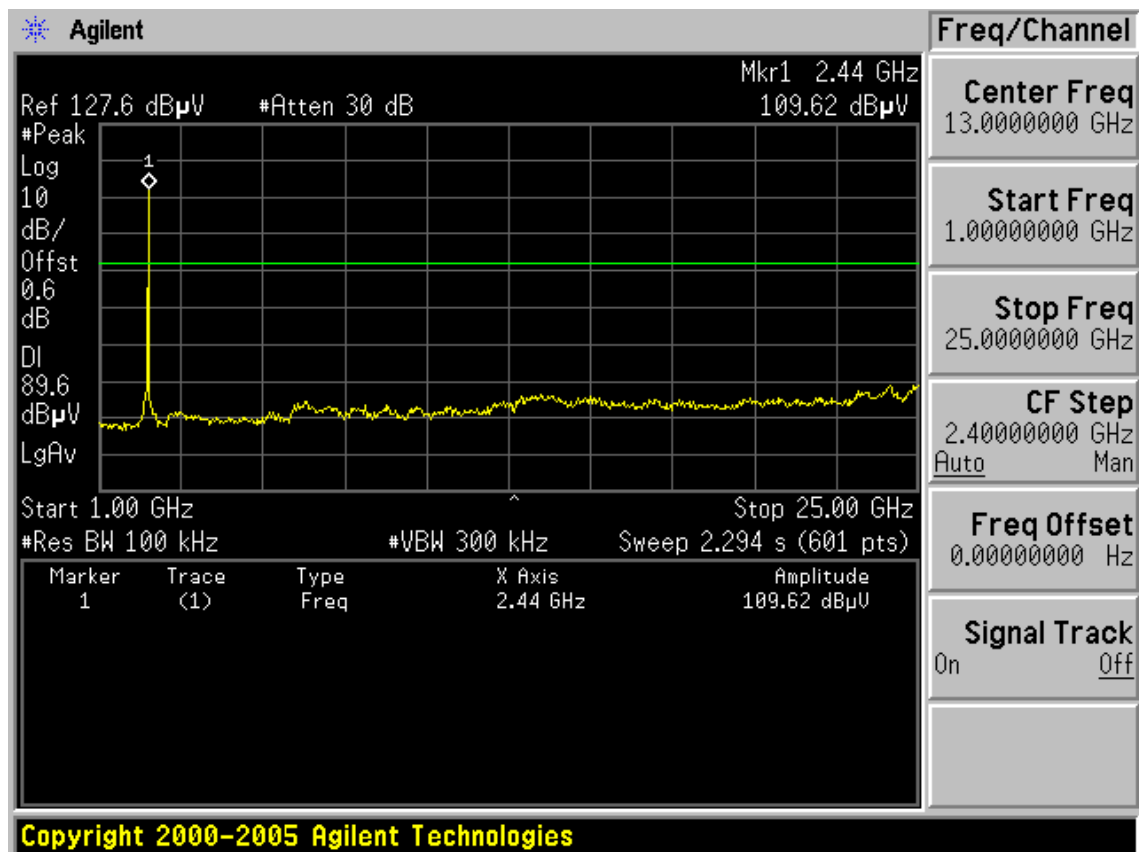
Test CH1: 2412MHz





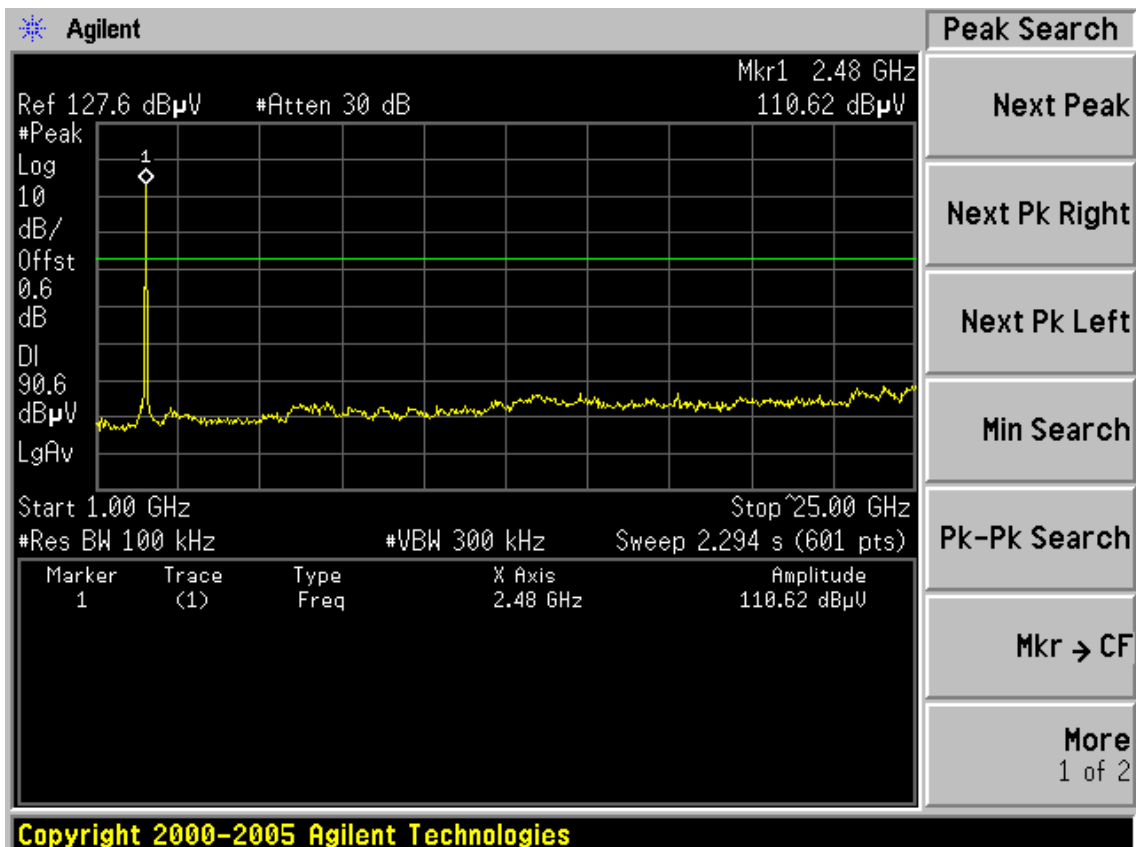
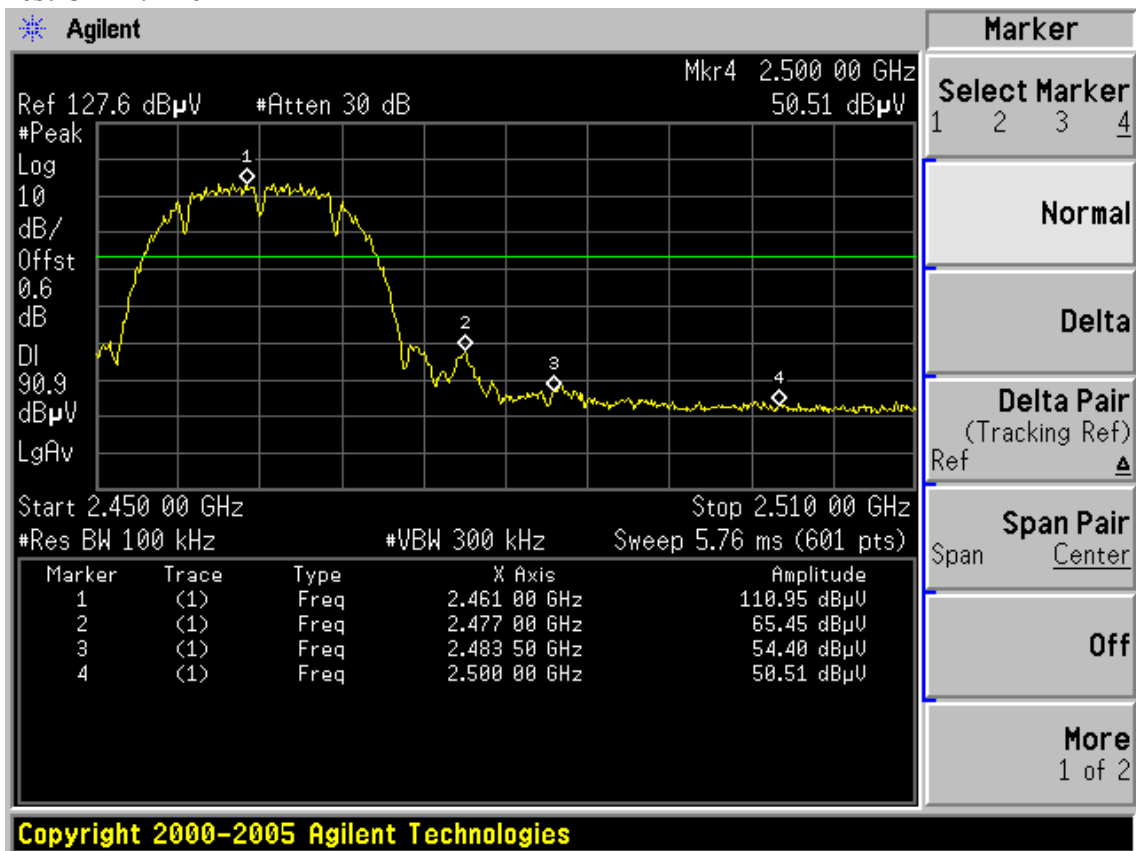
Test CH6: 2437MHz

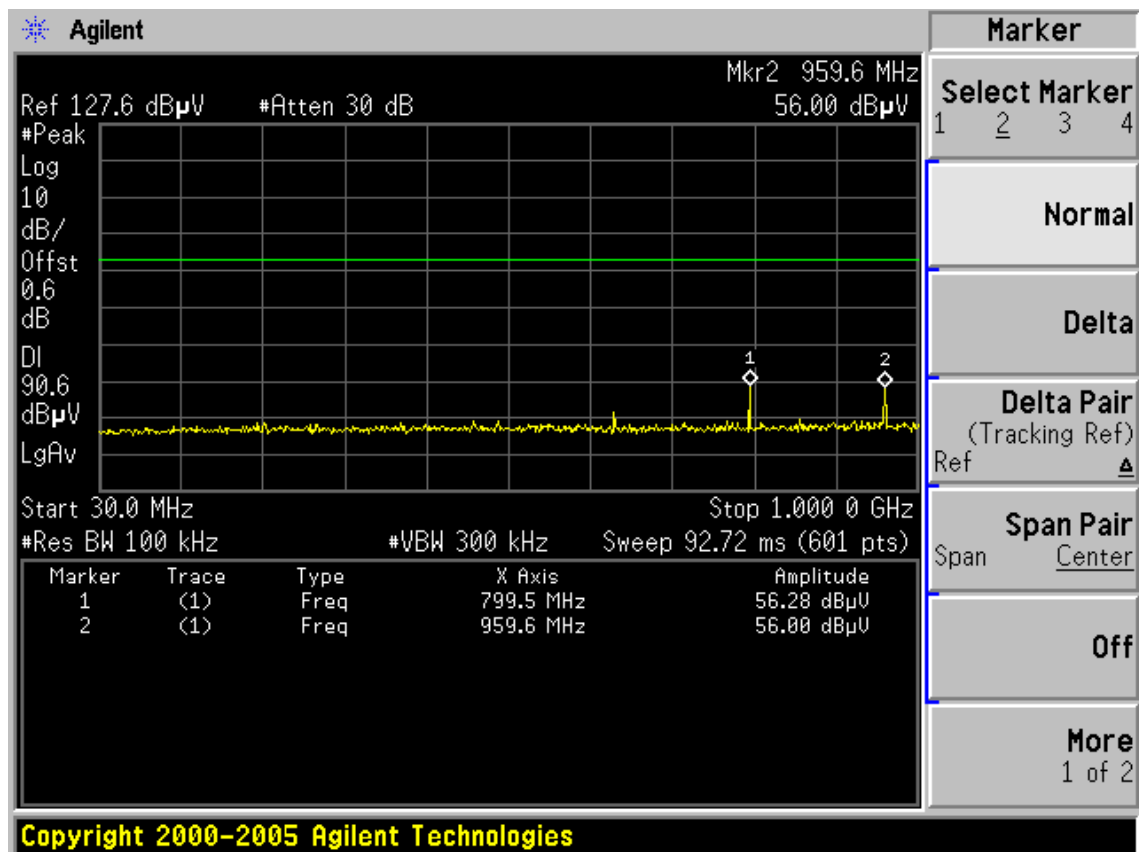






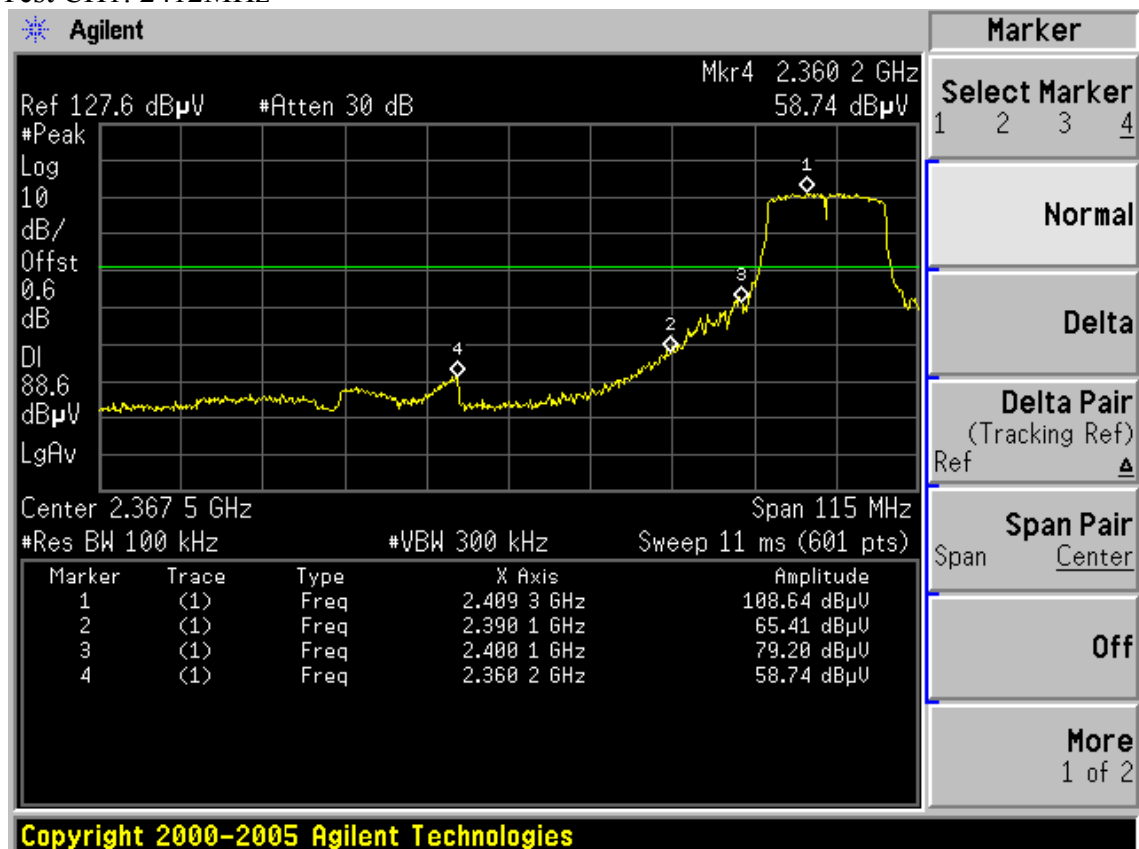
## Test CH11: 2462MHz

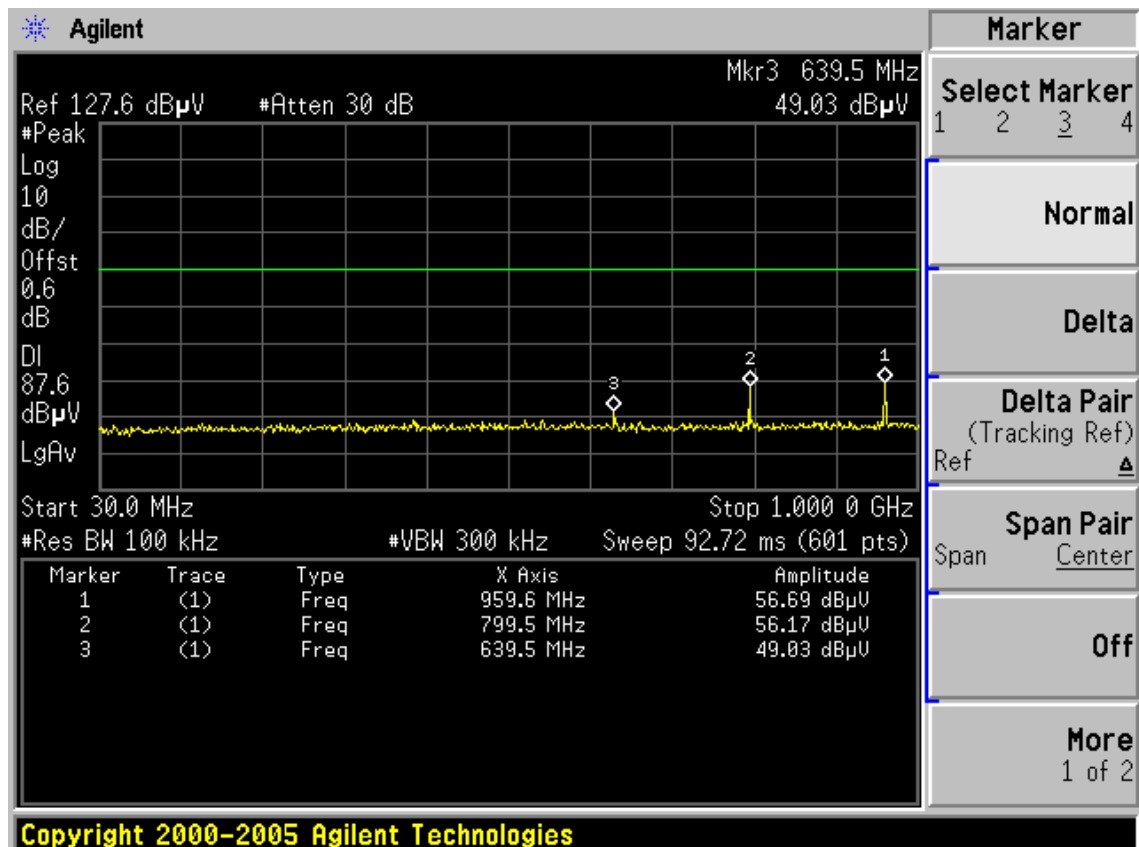
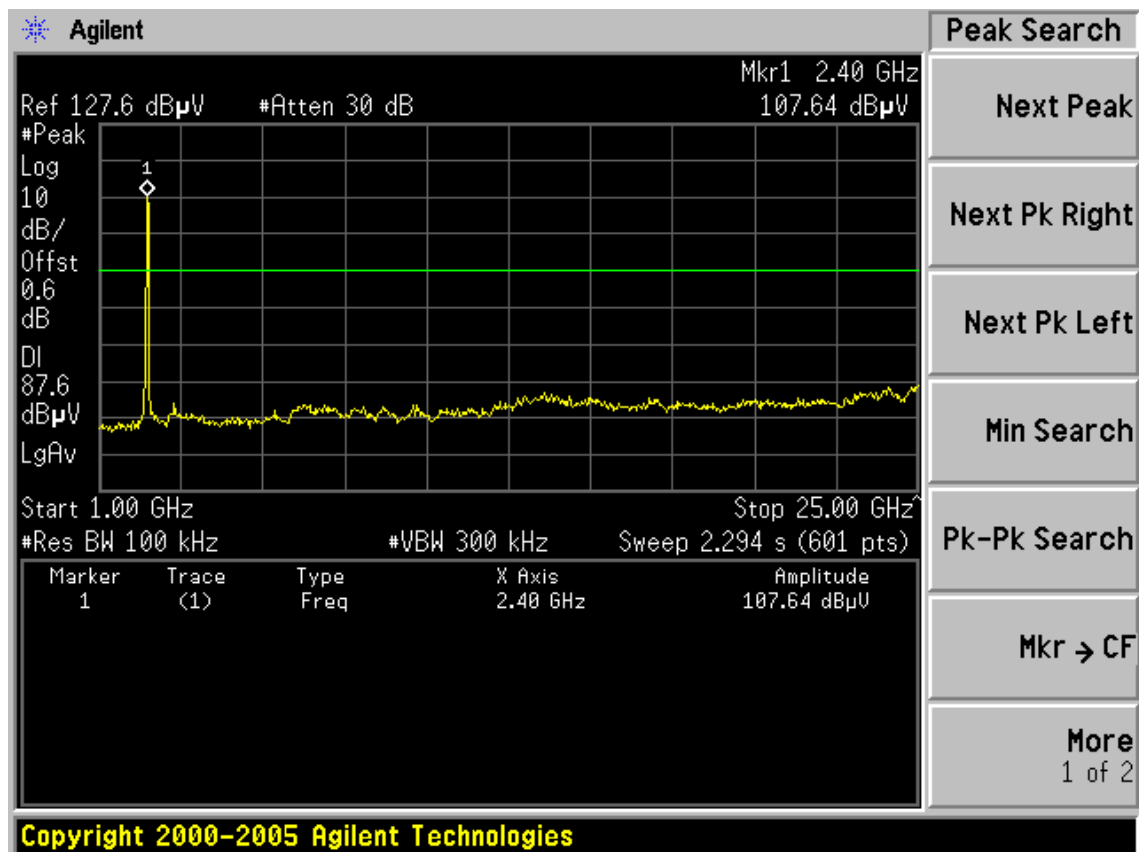




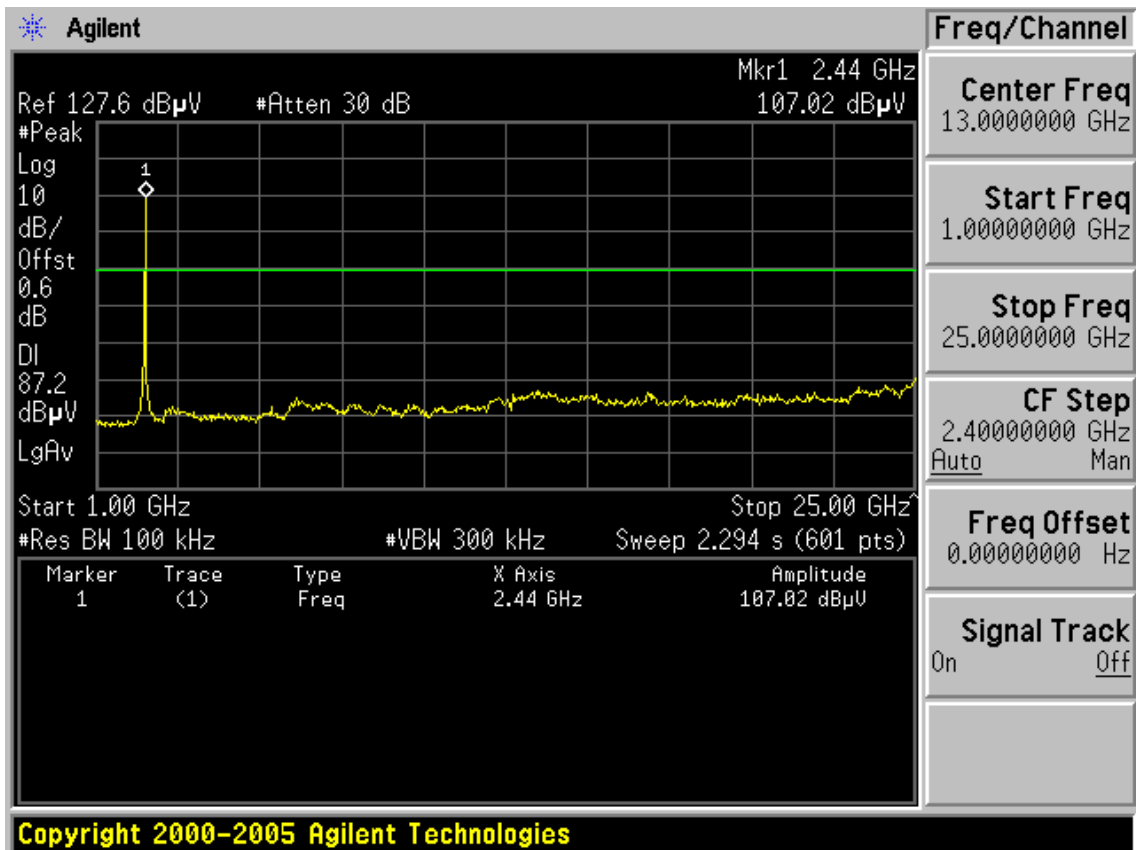
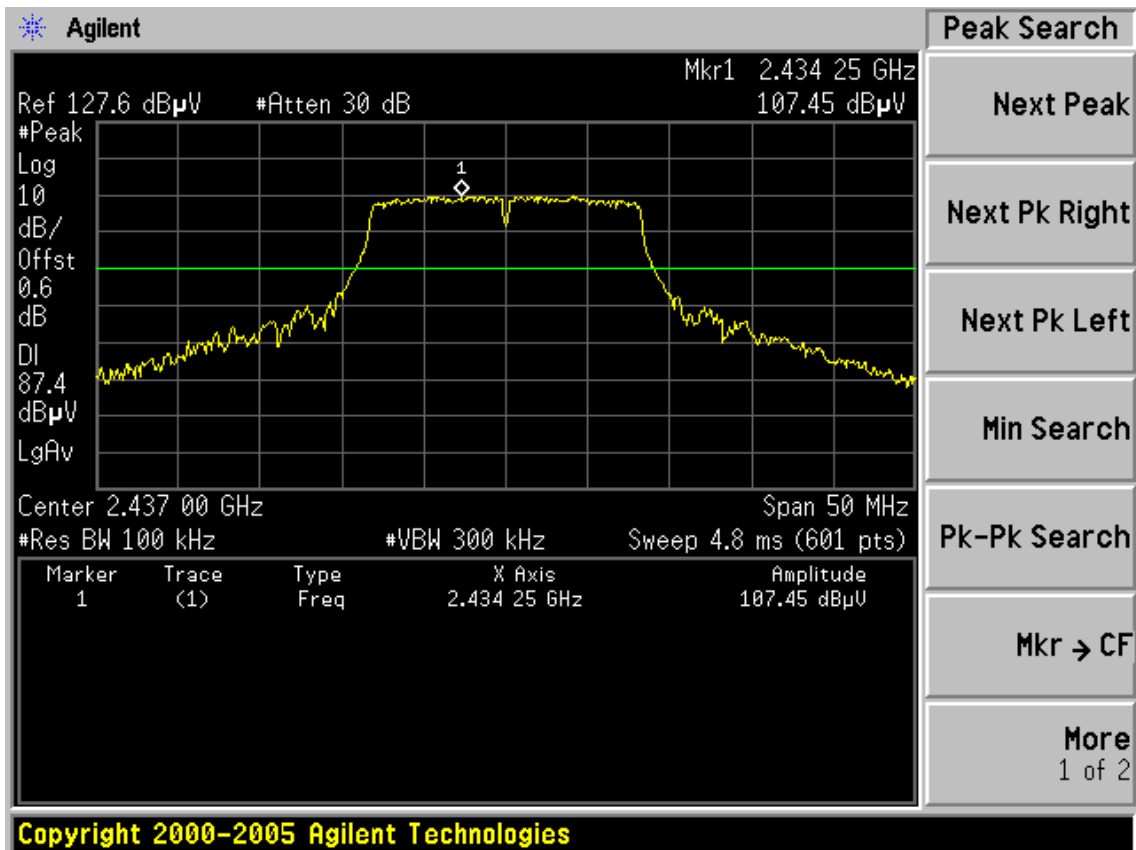
Test Mode: IEEE 802.11g TX

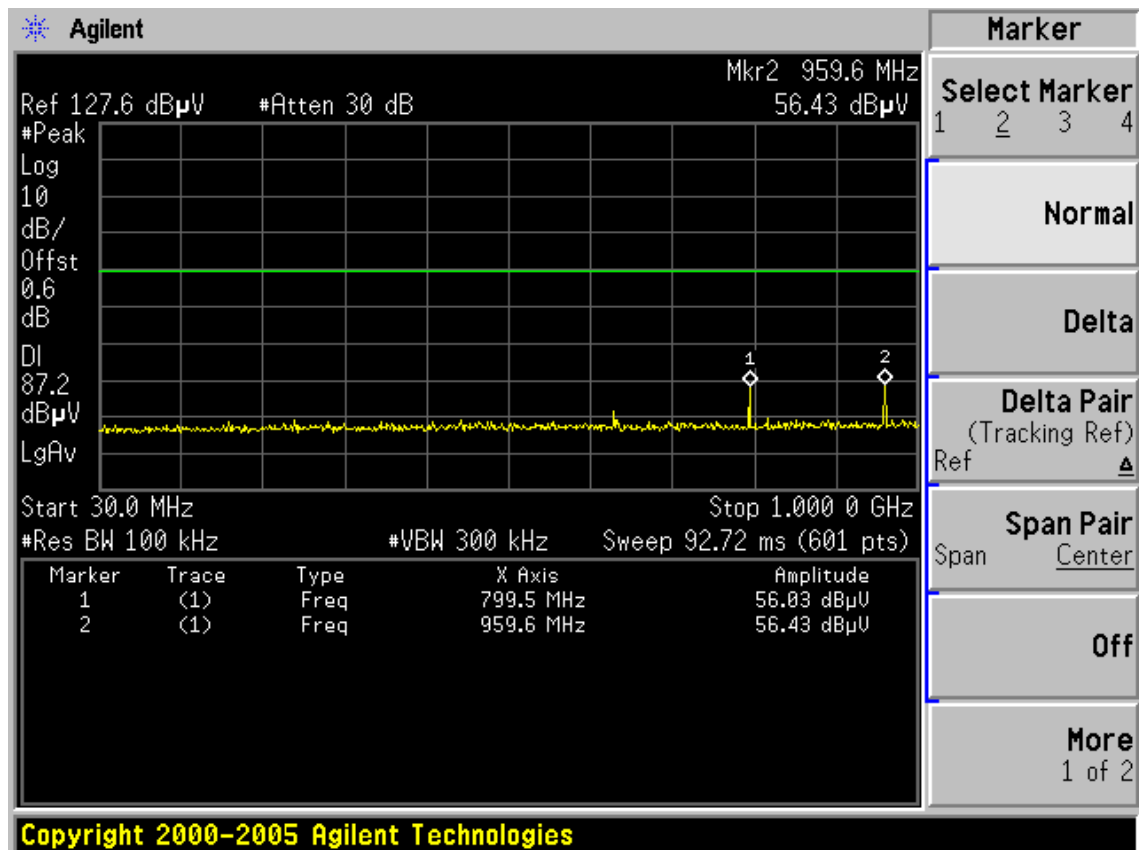
Test CH1: 2412MHz



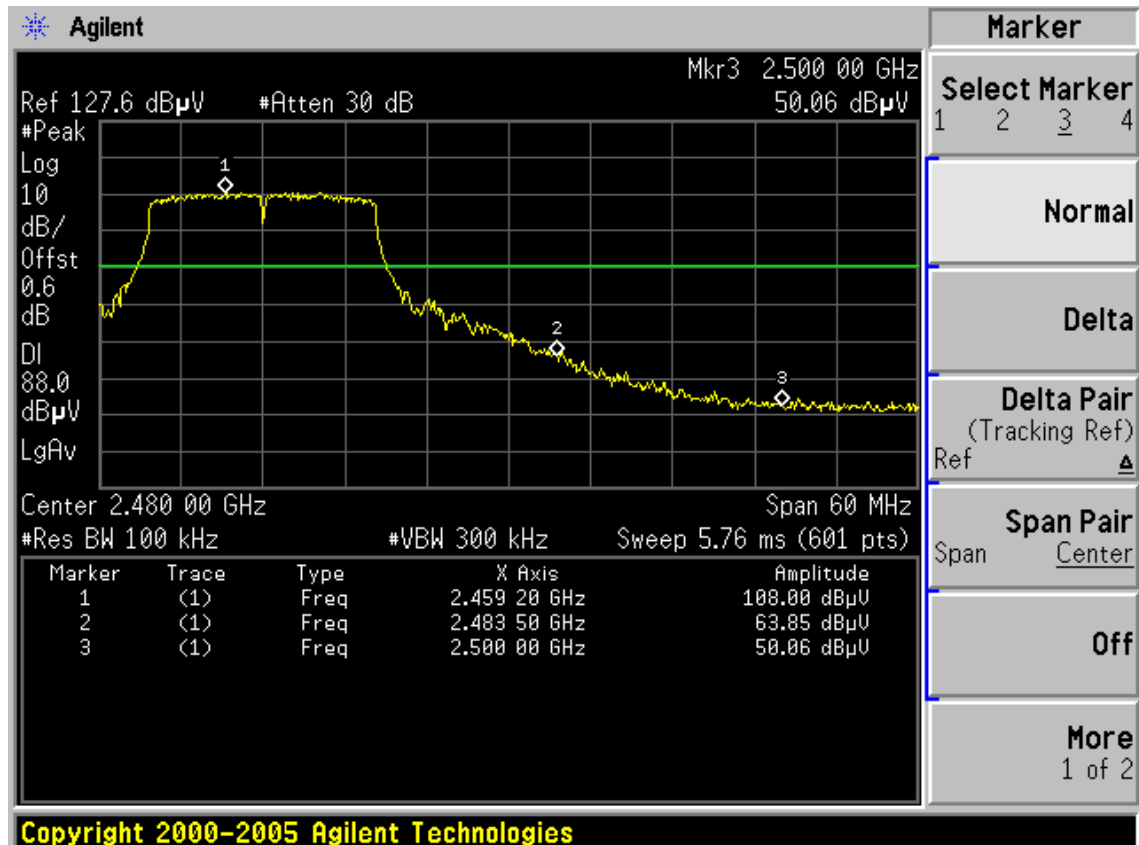


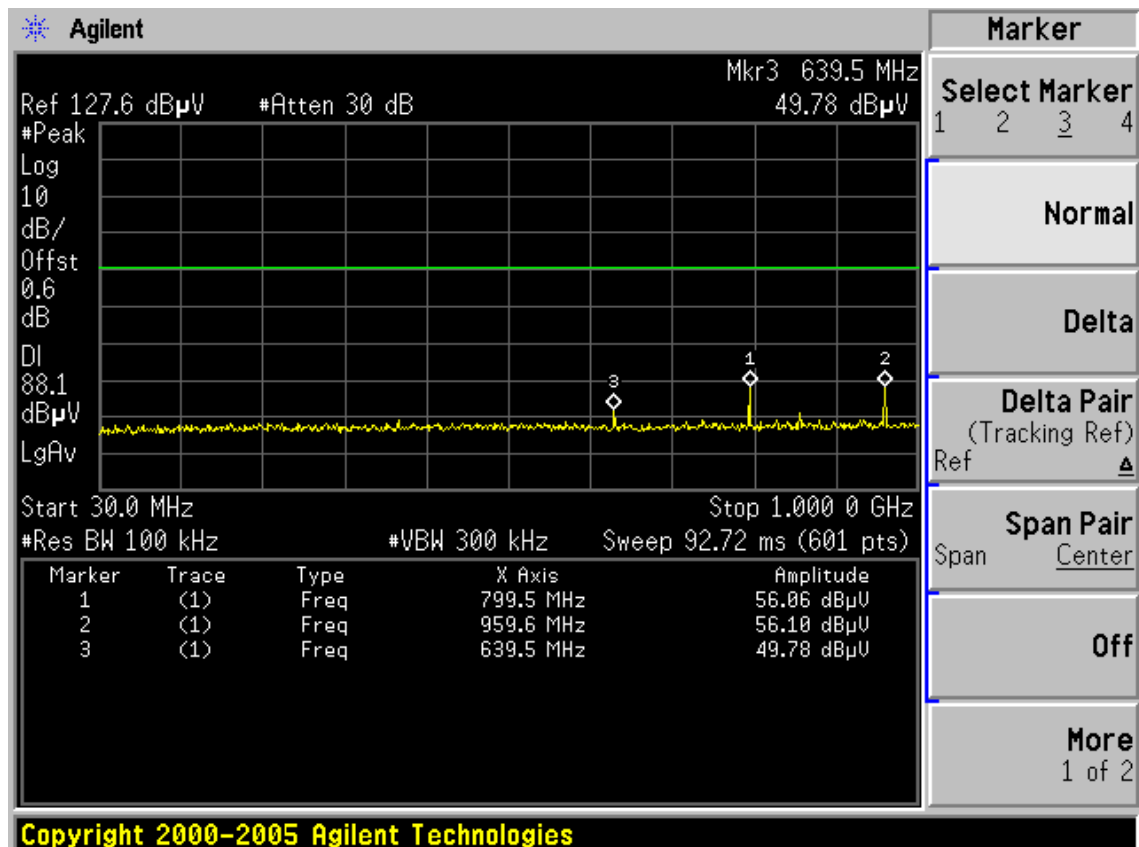
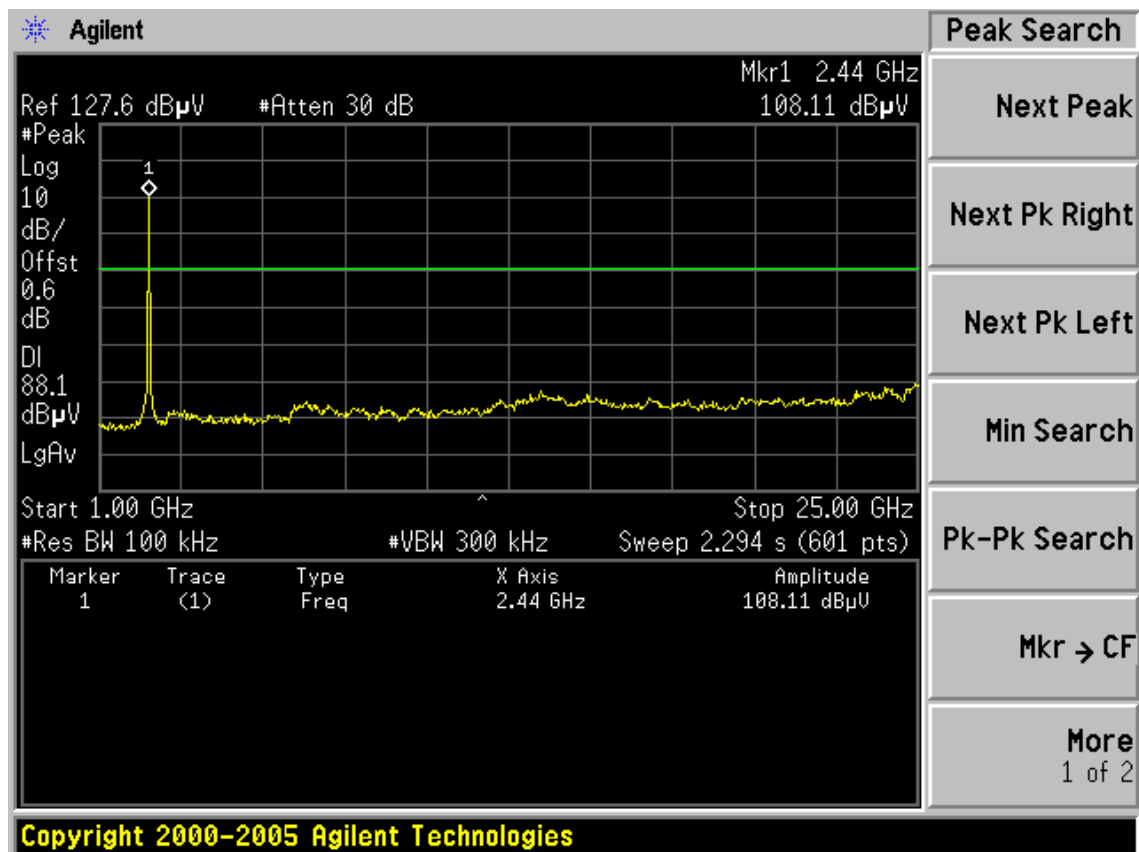
Test CH6: 2437MHz





Test CH11: 2462MHz





## 7. 6dB bandwidth test

### 7.1. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

### 7.2. Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

### 7.3. Test Result

Test Mode: IEEE 802.11b TX

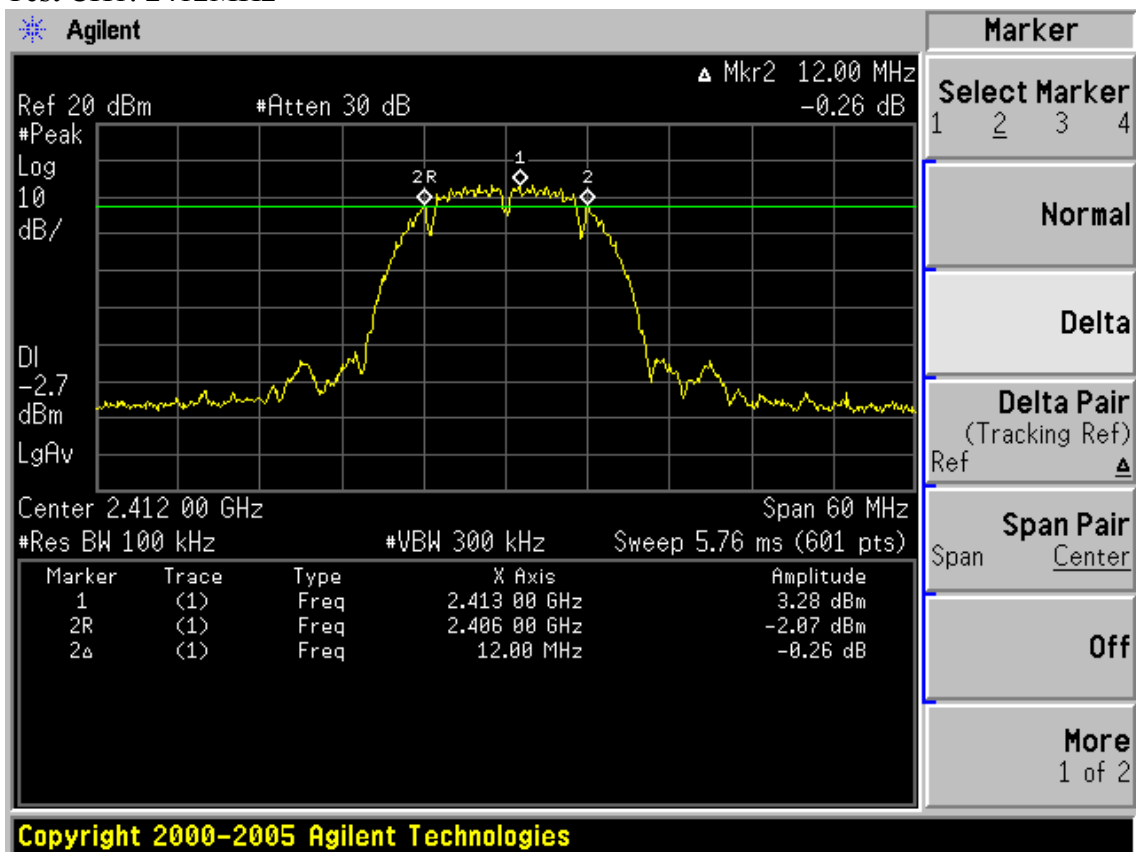
CH	6dB Bandwidth (MHz)	Limit	Conclusion
1	12.00	>500	PASS
6	12.00	>500	PASS
11	12.00	>500	PASS

Test Mode: IEEE 802.11g TX

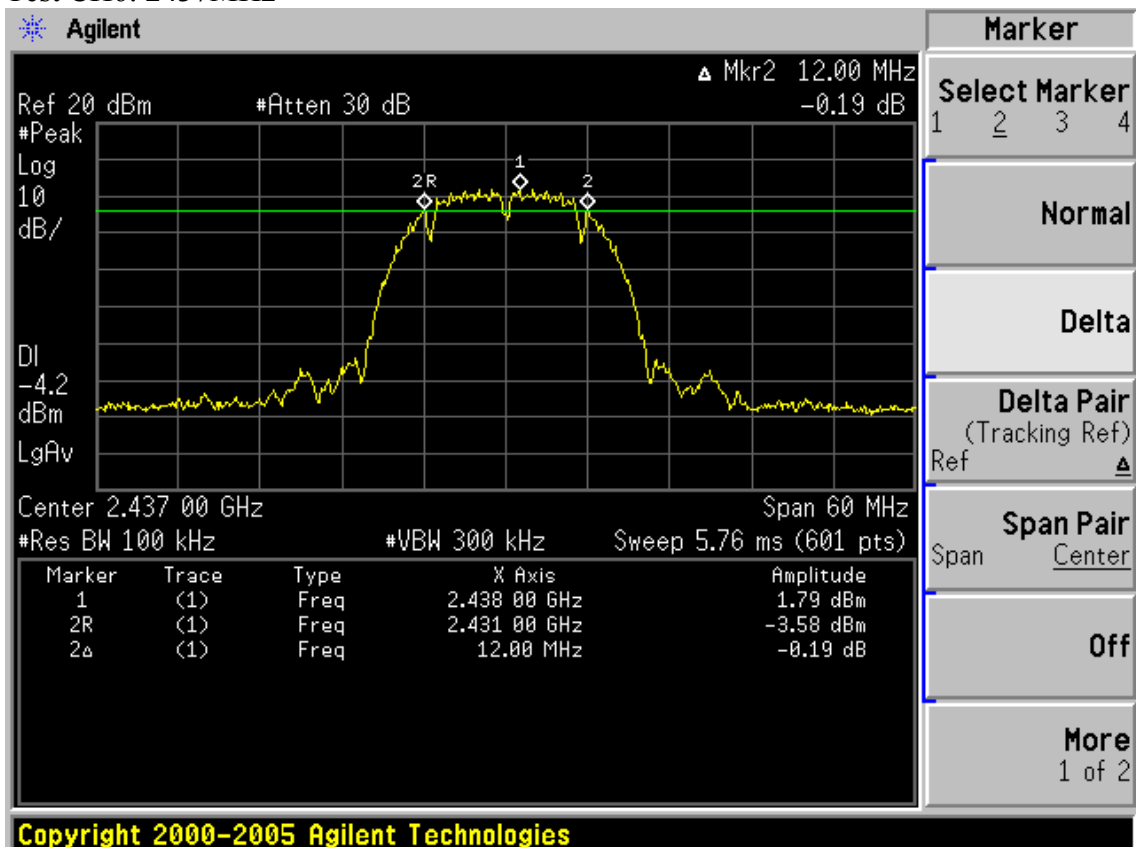
CH	6dB Bandwidth (MHz)	Limit	Conclusion
1	16.60	>500	PASS
6	16.60	>500	PASS
11	16.60	>500	PASS

Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz

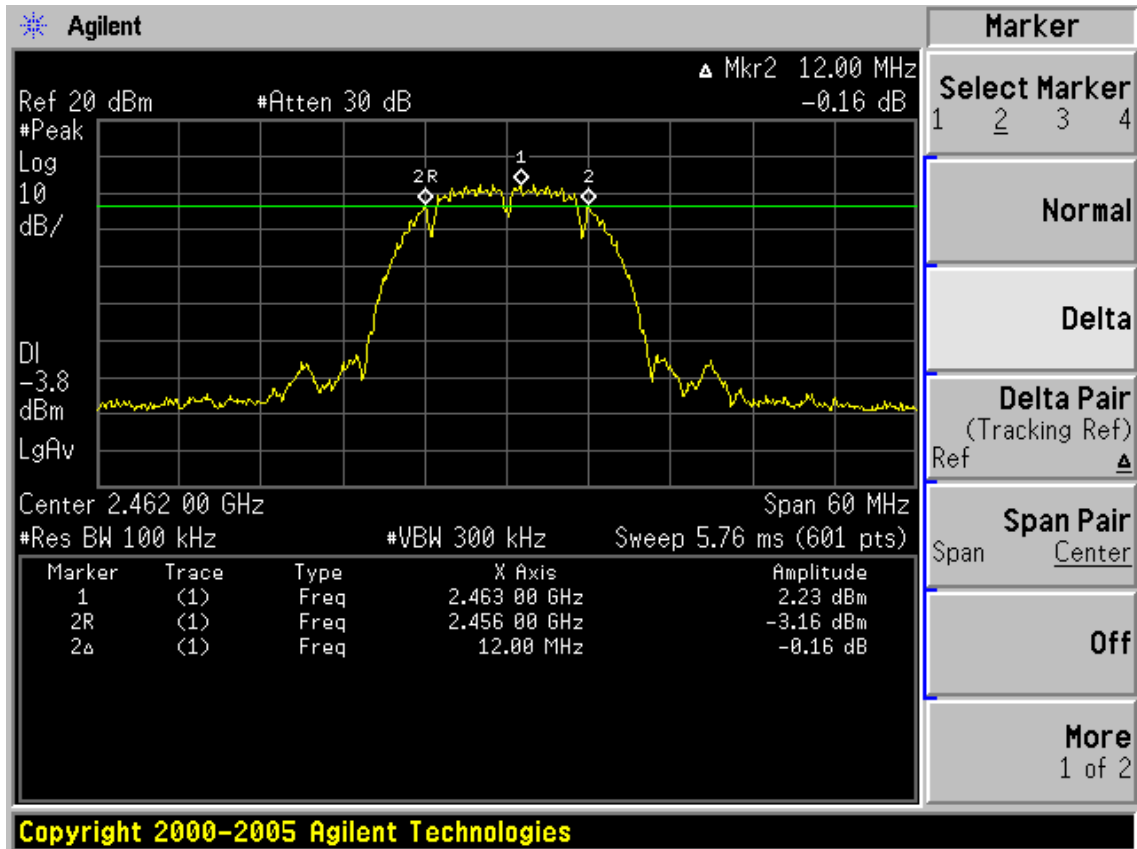


Test CH6: 2437MHz



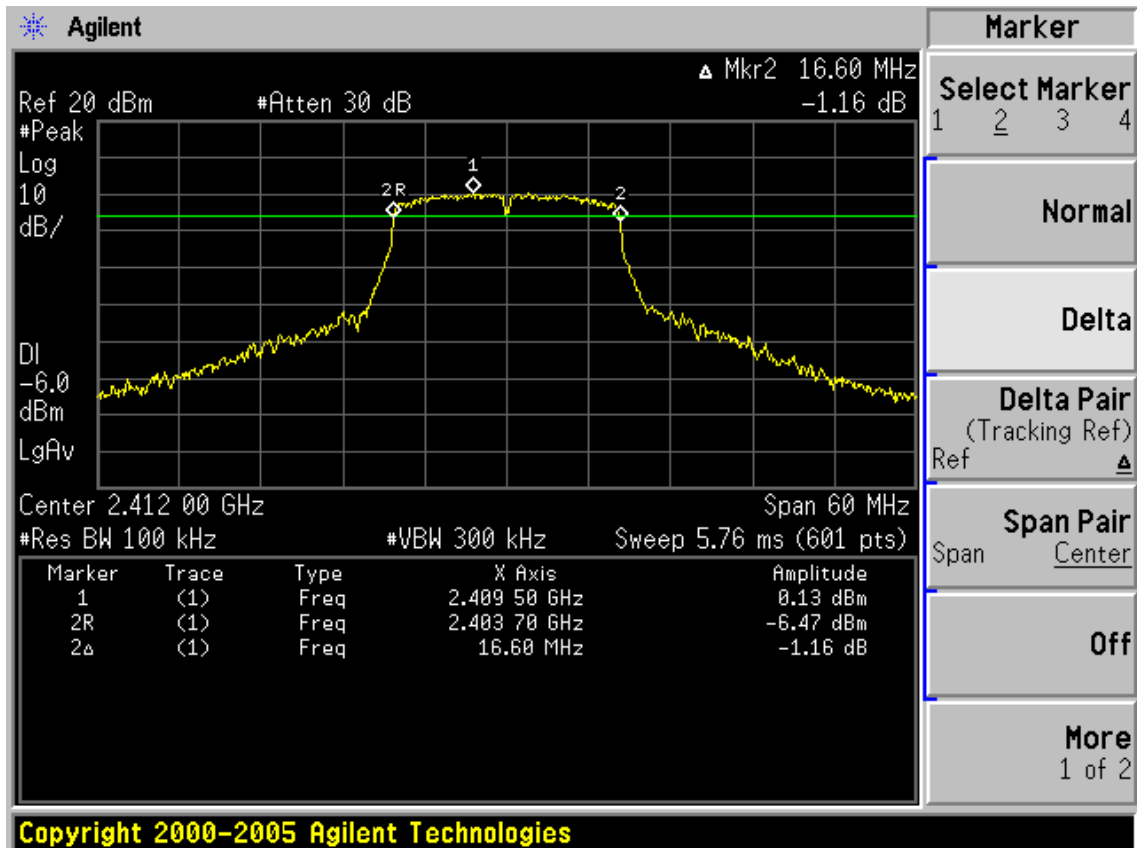


Test CH1: 2462MHz

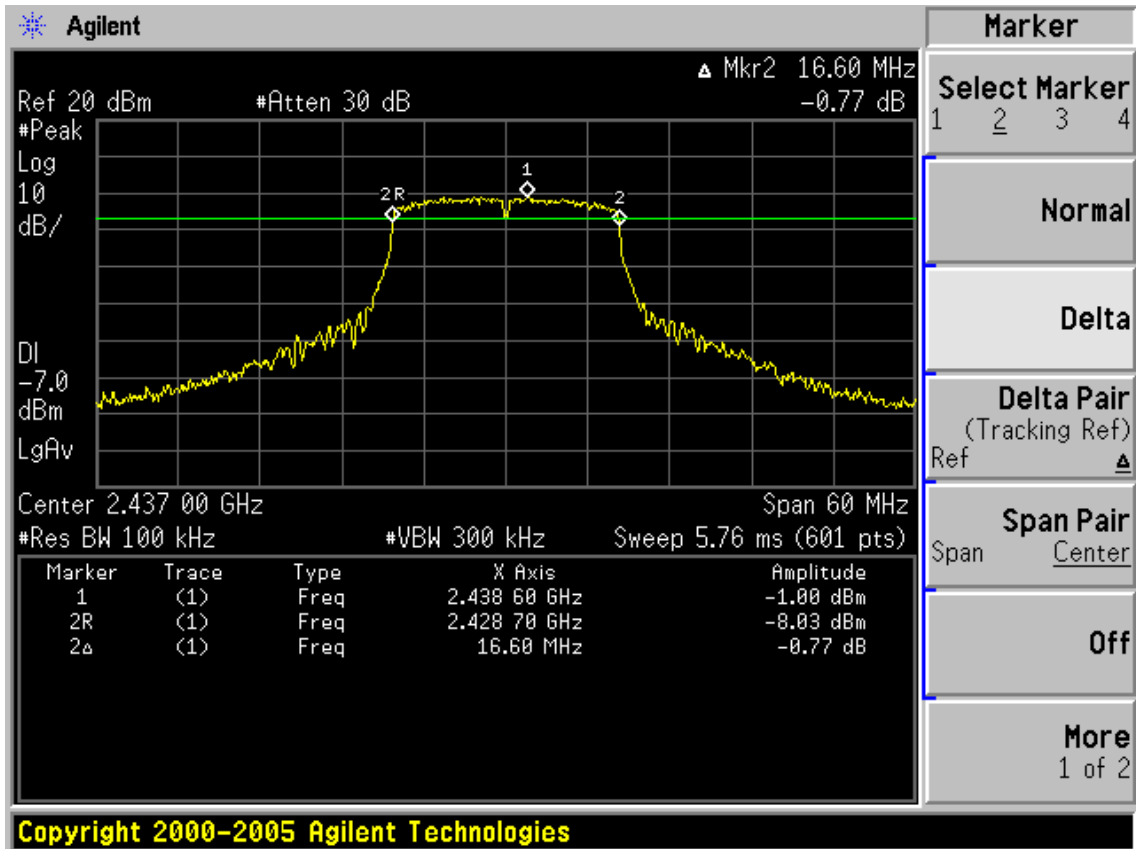


Test Mode: IEEE 802.11g TX

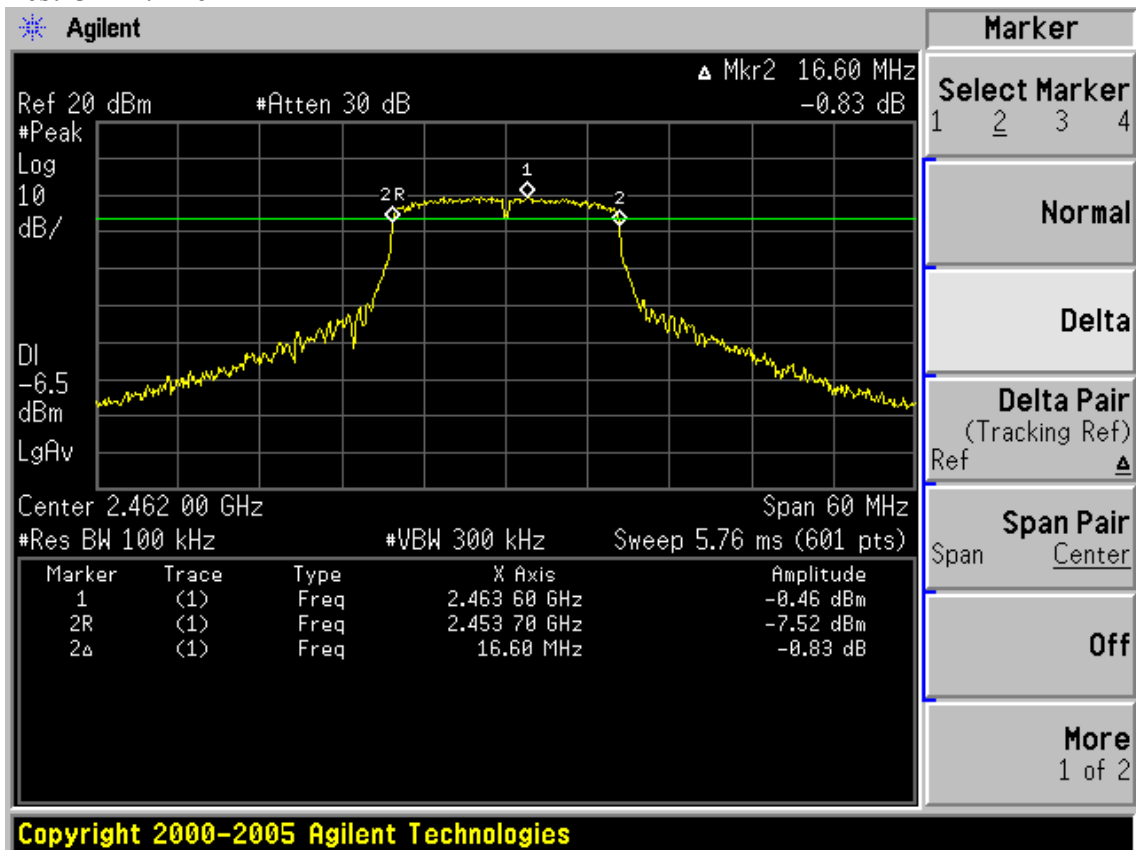
Test CH1: 2412MHz



## Test CH6: 2437MHz



## Test CH11: 2462MHz



## 8. Output power test

### 8.1. Limit

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

### 8.2. Test Procedure

1, Connected the EUT's antenna port to measure device by 20dB attenuator.

2, Use a PK power meter which's bandwidth is above 6dB bandwidth of signal to measure out each test modes' PK output power.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

### 8.3. Test Result

EUT: Educational Device (Kineo)				
M/N: Kineo, K-01				
Test date:2011-04-02		Pressure: 101.5kpa		Humidity: 61 %
Tested by: Sunny_Lu		Test site: RF Site		Temperature: 25 °C

Cable loss: 1.0 dB      Attenuator loss: 20 dB      Antenna Gain: 1dBi				
Data rate: 11b 11Mbps      11g:6Mbps				
Test Mode	CH	Average Power (dBm)	Peak Power (dBm)	Peak Power Limit (dBm)
11b	CH1	15.63	21.89	30
	CH6	15.66	21.75	30
	CH11	14.96	21.07	30
11g	CH1	15.14	22.69	30
	CH6	15.05	22.75	30
	CH11	14.54	22.04	30
Conclusion: PASS				

## 9. Power Special density

### 9.1. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

### 9.2. Test Procedure

The transmitter output was connected to a spectrum analyzer. Each chain's power density was measured by spectrum analyzer with 3kHz RBW and 30kHz VBW, sweep time=span/3kHz.

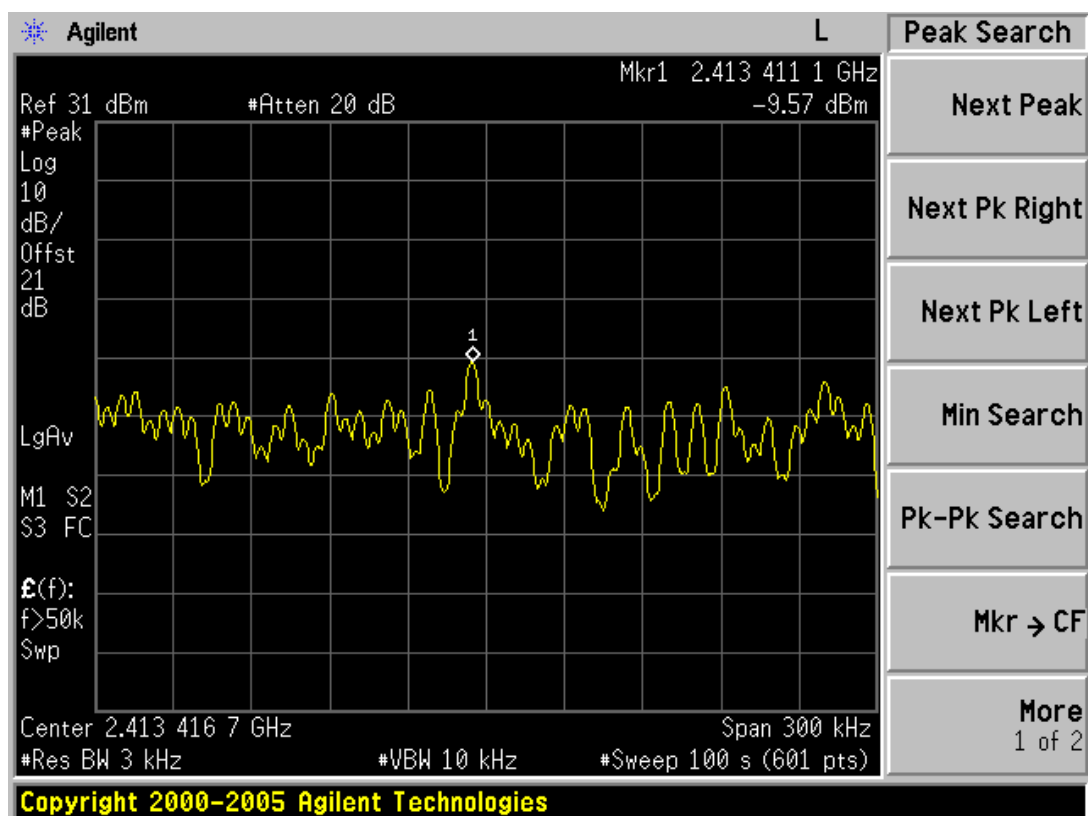
### 9.3. Test Result

EUT: Educational Device (Kineo)		
M/N: Kineo, K-01		
Test date:2011-04-02	Pressure: 101.6 kpa	Humidity: 60 %
Tested by: Leo-Li	Test site: RF Site	Temperature: 25 °C

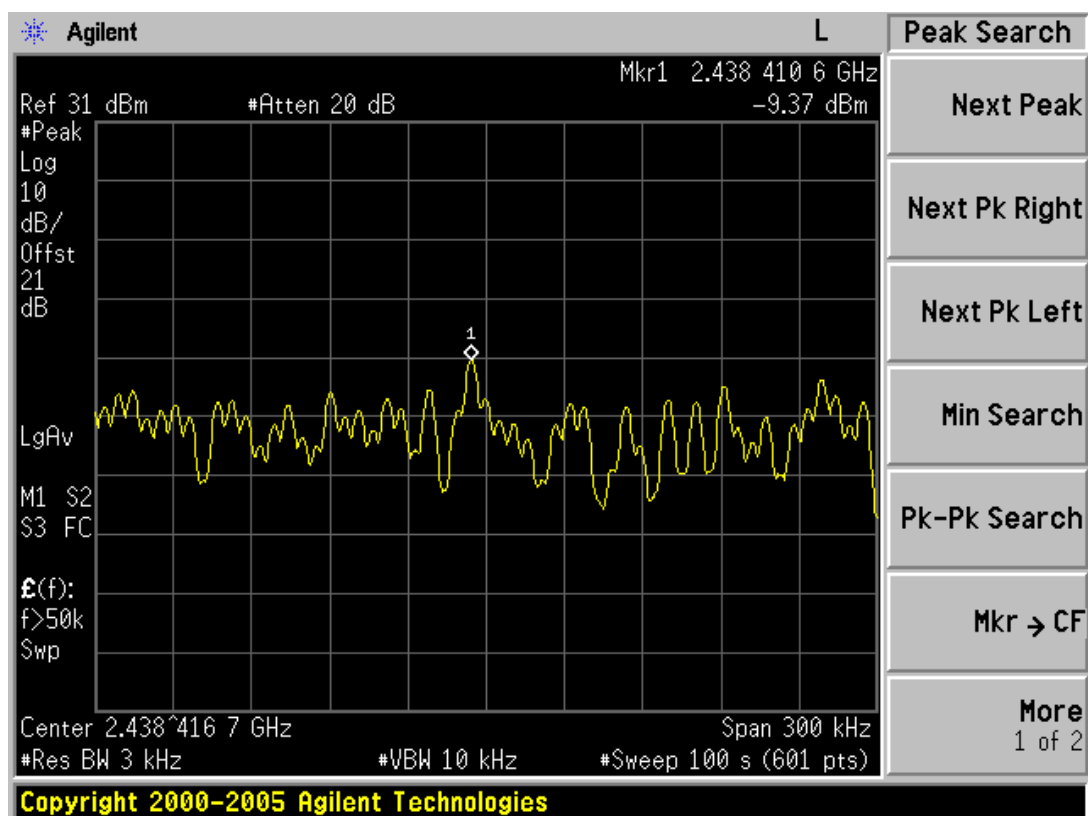
Cable loss: 1 dB		Attenuator loss: 20 dB	Antenna Gain: 1 dBi
Test Mode	CH	Power density (dBm/3KHz)	Limit (dBm/3KHz)
11b	CH1	-9.57	8
	CH6	-9.37	8
	CH11	-9.96	8
11g	CH1	-15.40	8
	CH6	-15.12	8
	CH11	-14.46	8
Conclusion: PASS			

Test Mode: IEEE 802.11b TX

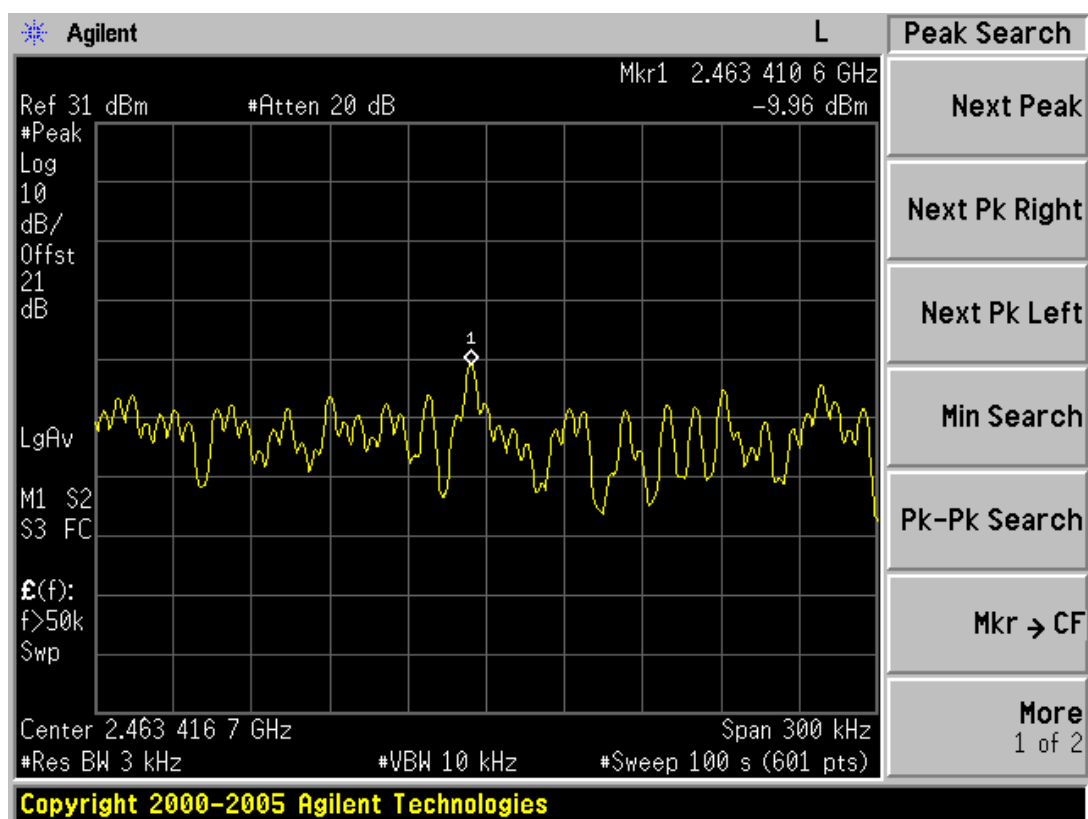
Test CH1: 2412MHz



Test CH6: 2437MHz

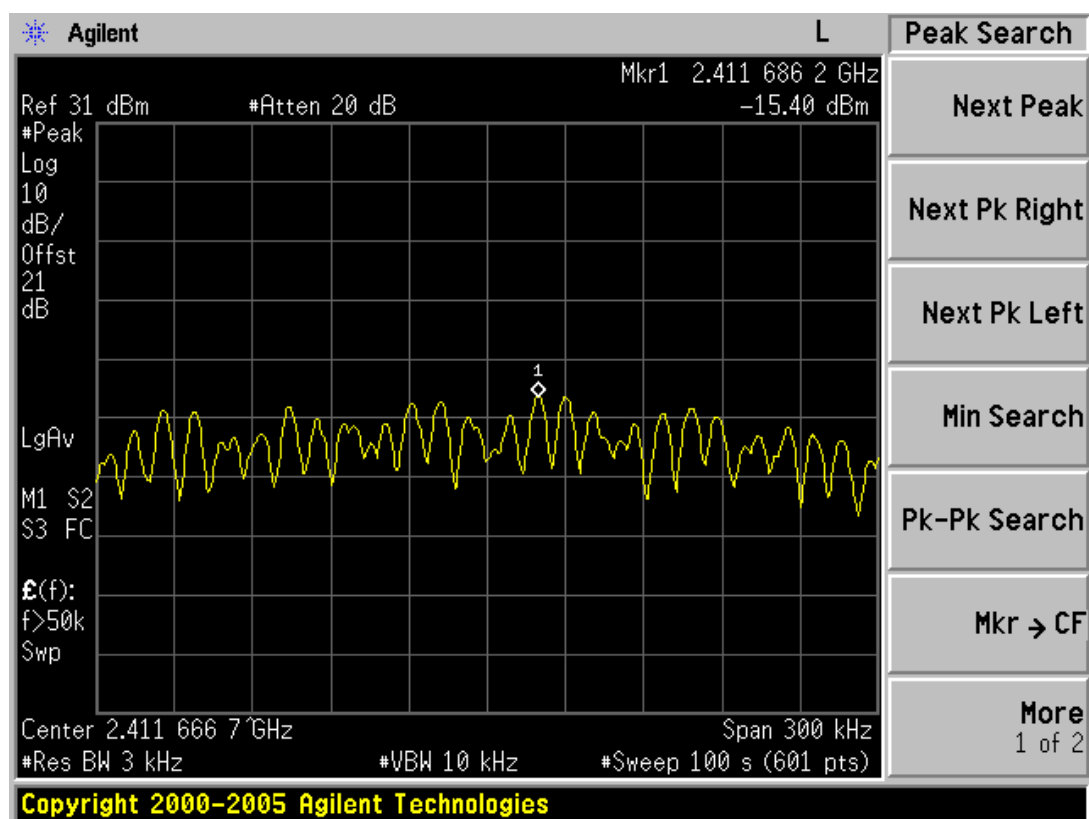


## Test CH11: 2462MHz

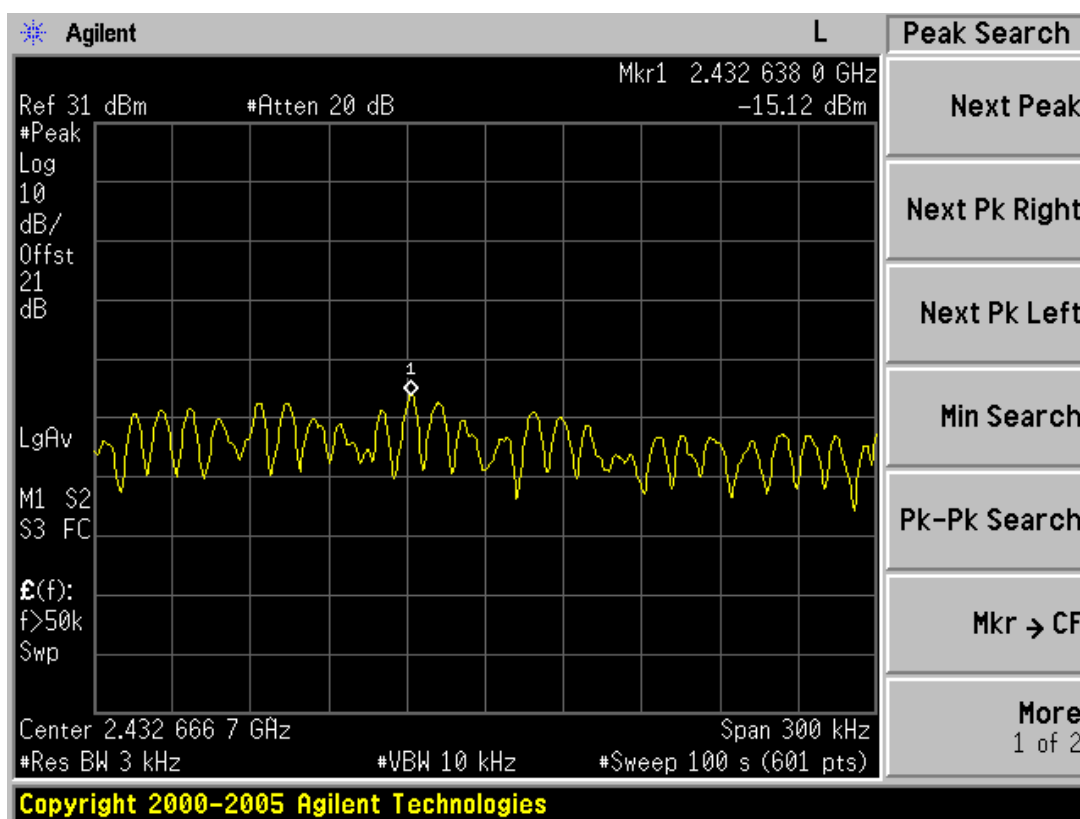


Test Mode: IEEE 802.11g TX

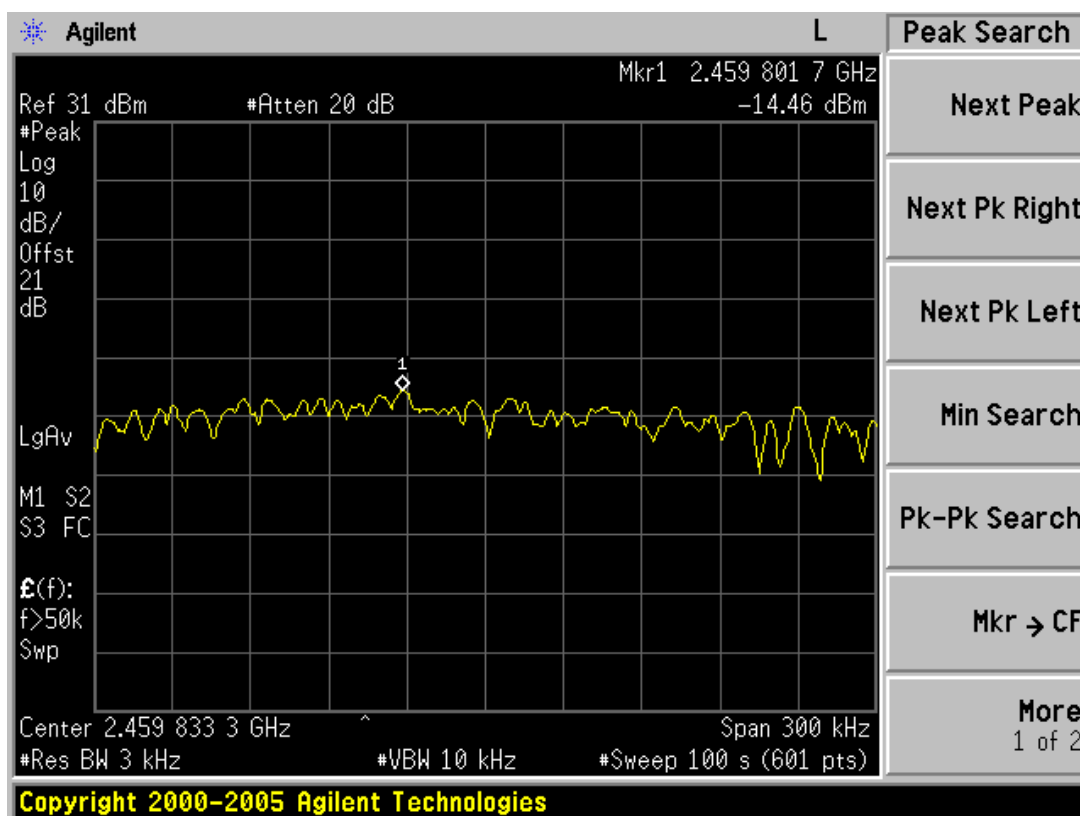
Test CH1: 2412MHz



## Test CH6: 2437MHz



## Test CH11: 2462MHz



## **10. Antenna Requirements**

### **10.1. Limit**

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### **10.2. Result**

The antenna used for this product is integral Patch Antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 1dBi.



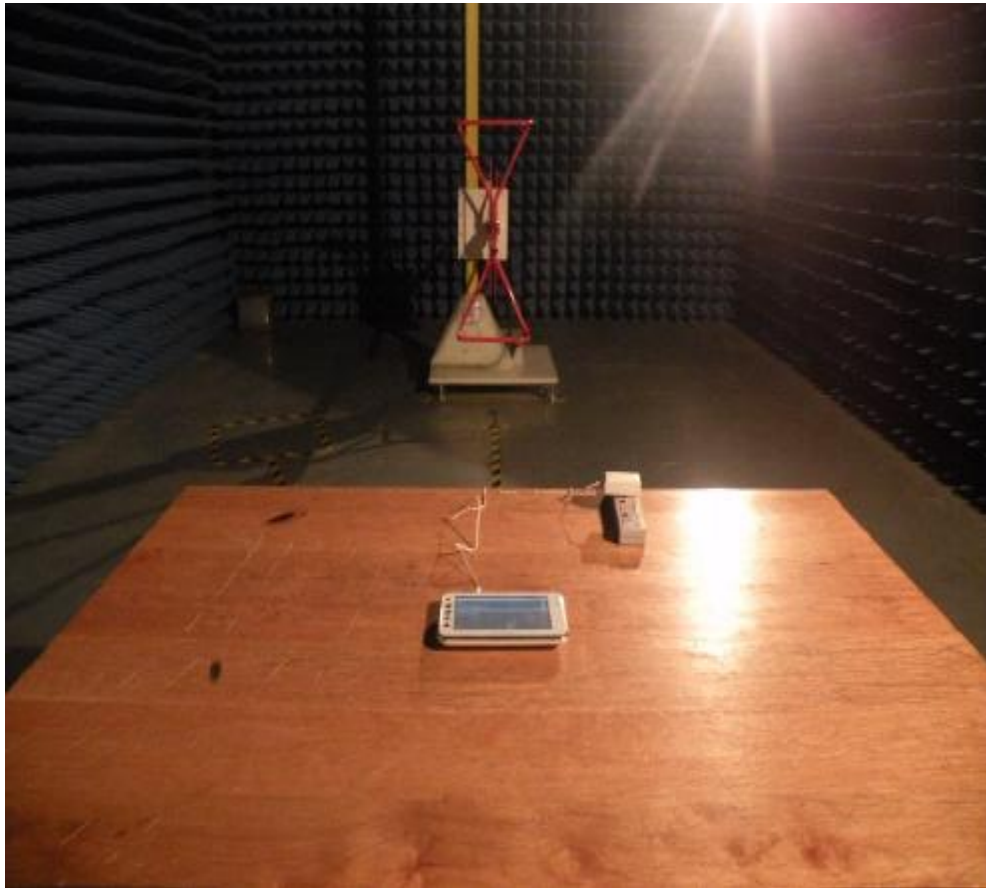
## 11. Testsetup photo

### Photographs-Conducted Emission Test Setup in Chamber

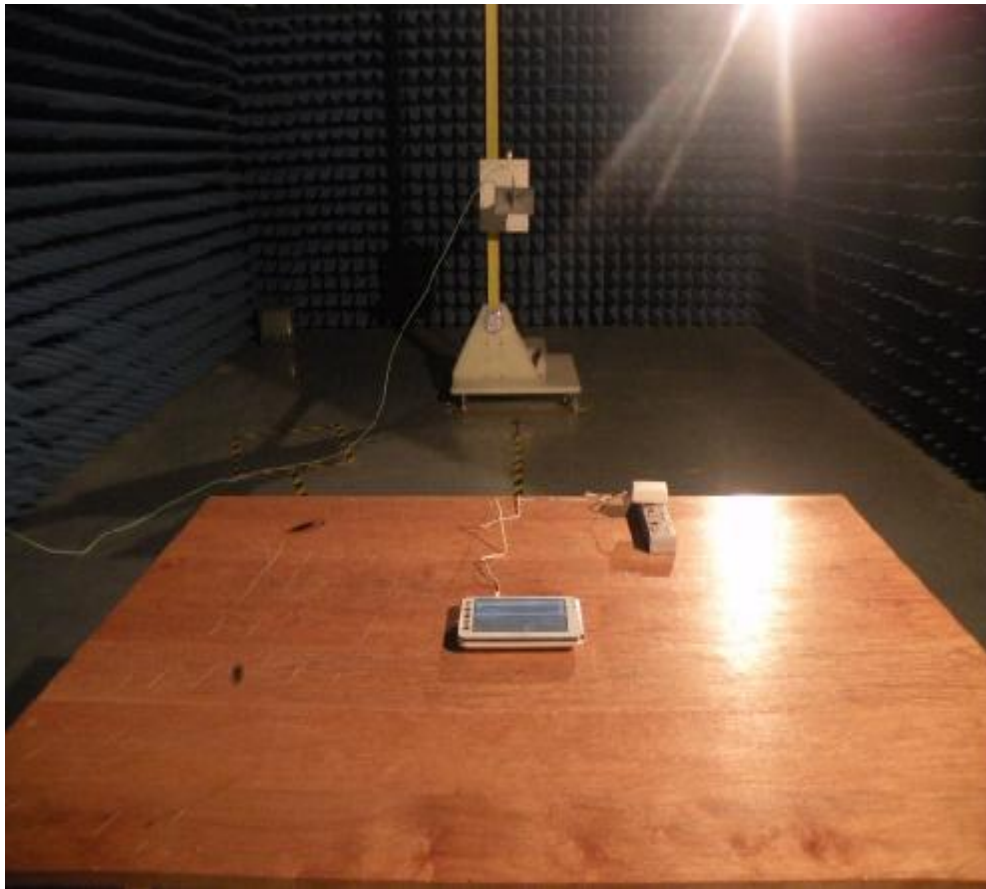


## Photographs-Radiated Emission Test Setup in Chamber

Below 1G



## Above 1G



## 12.Photos of EUT

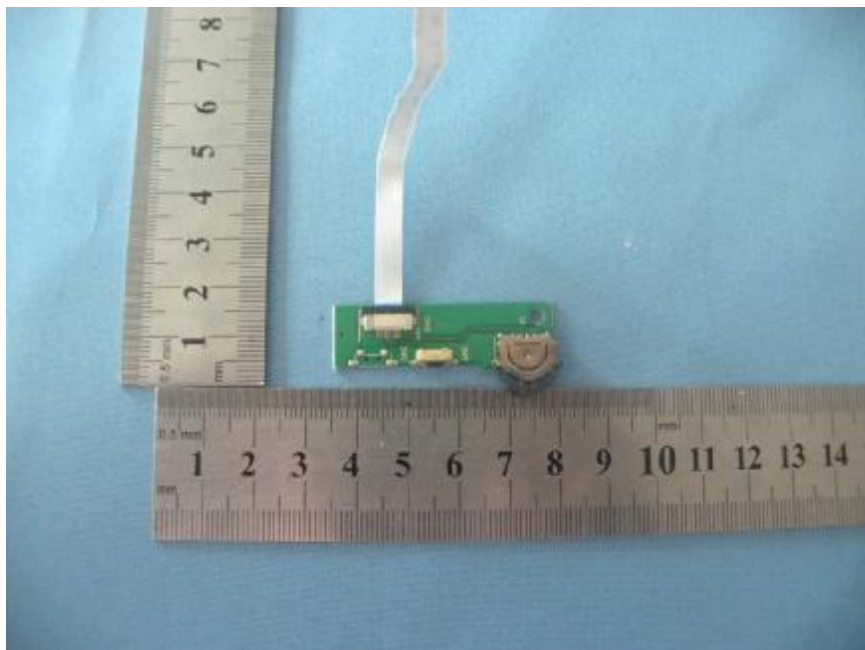
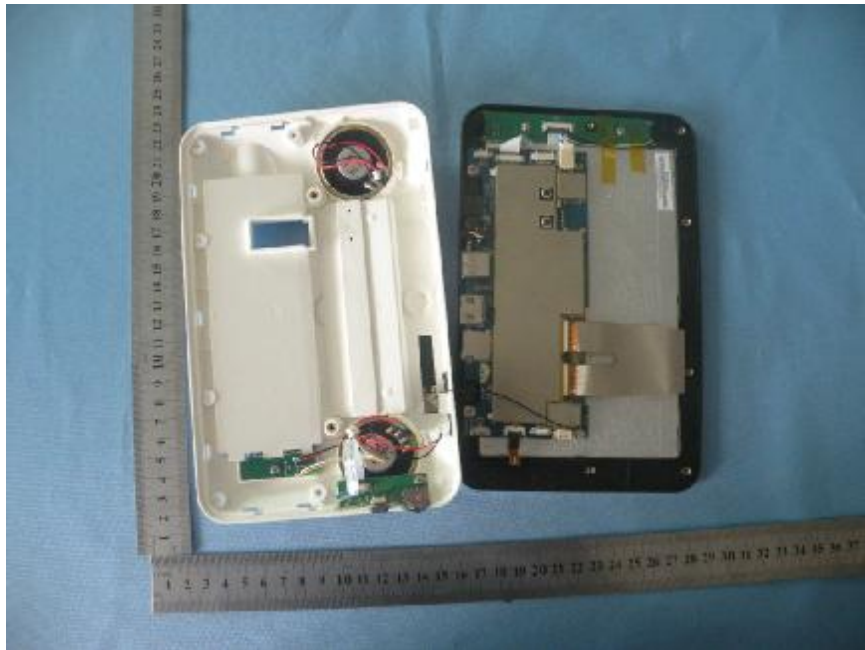




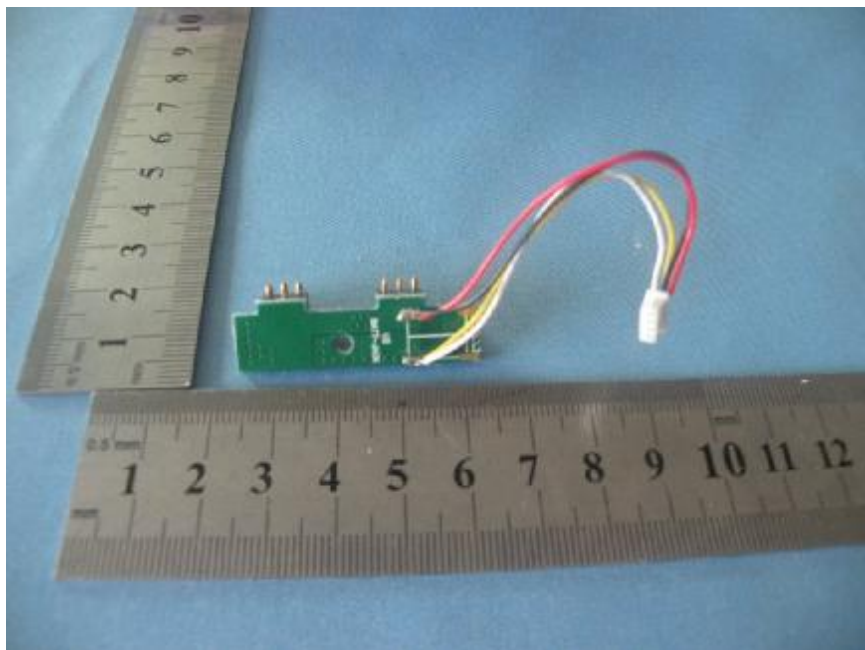


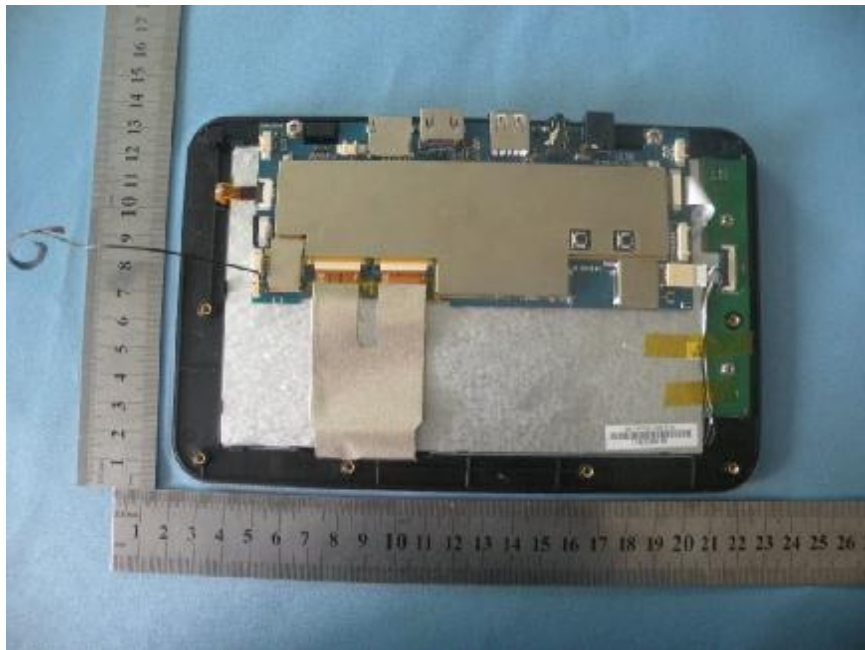
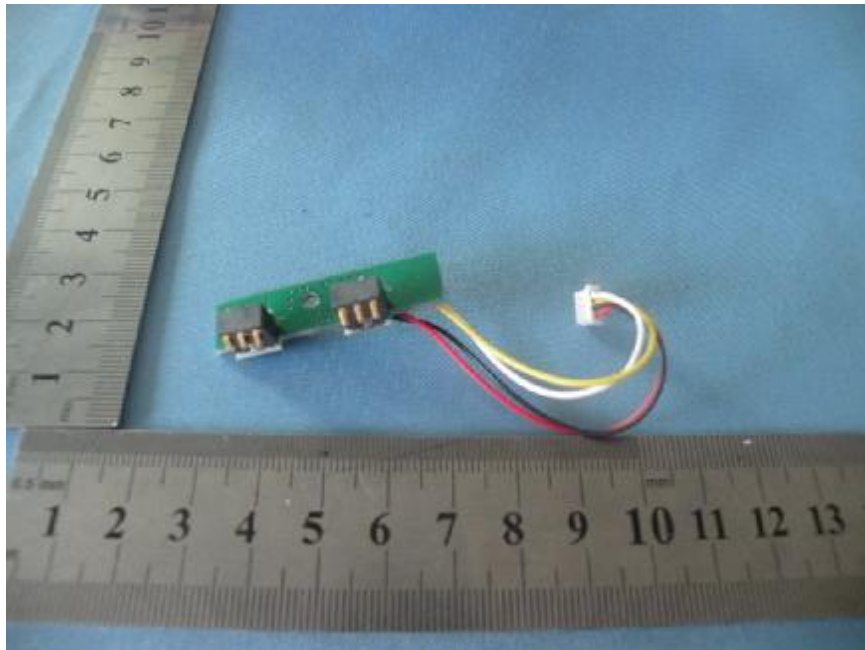


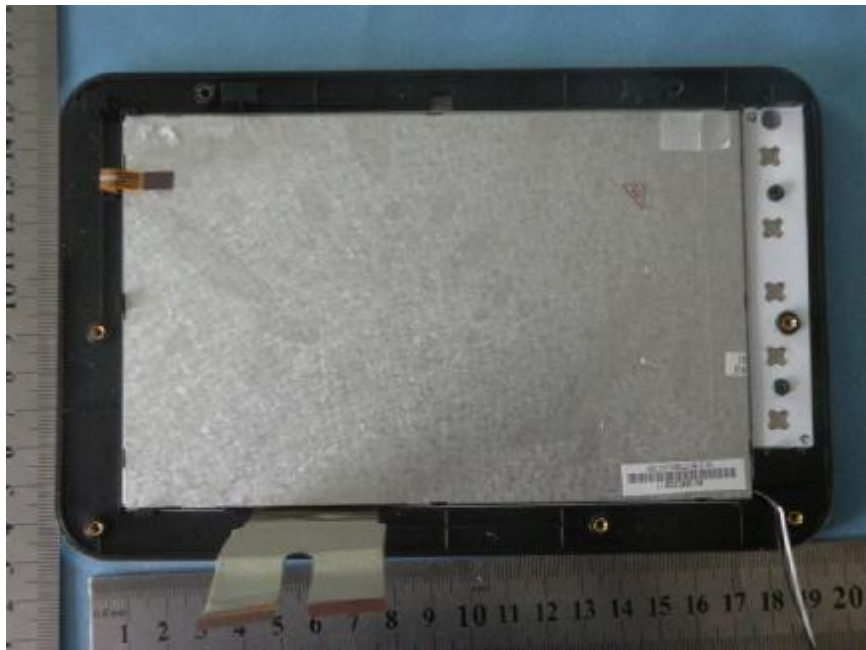
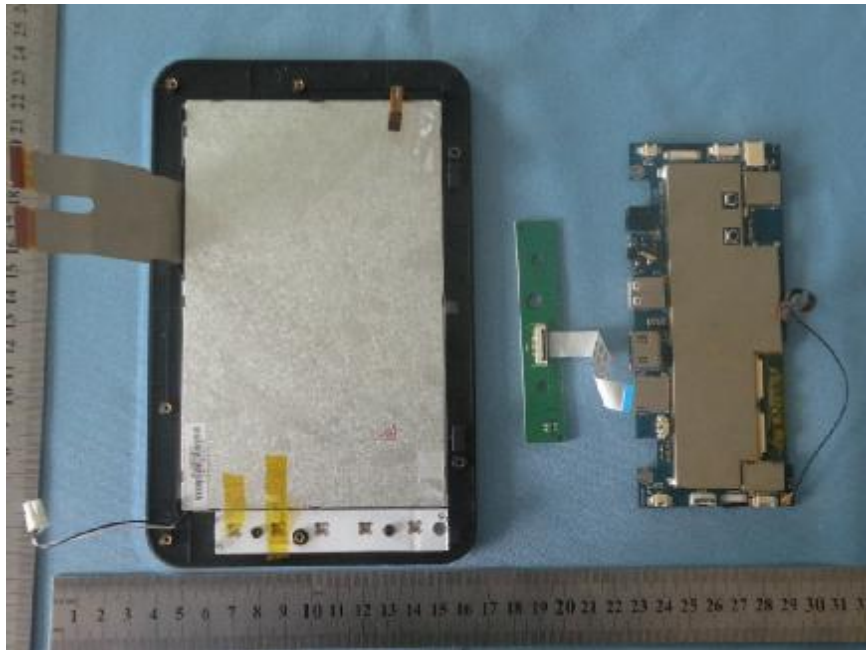


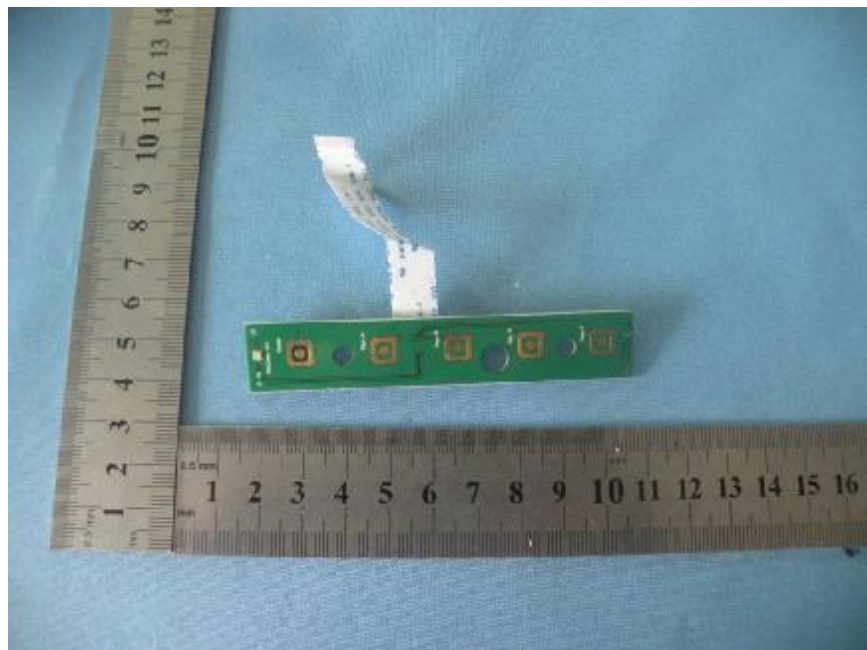




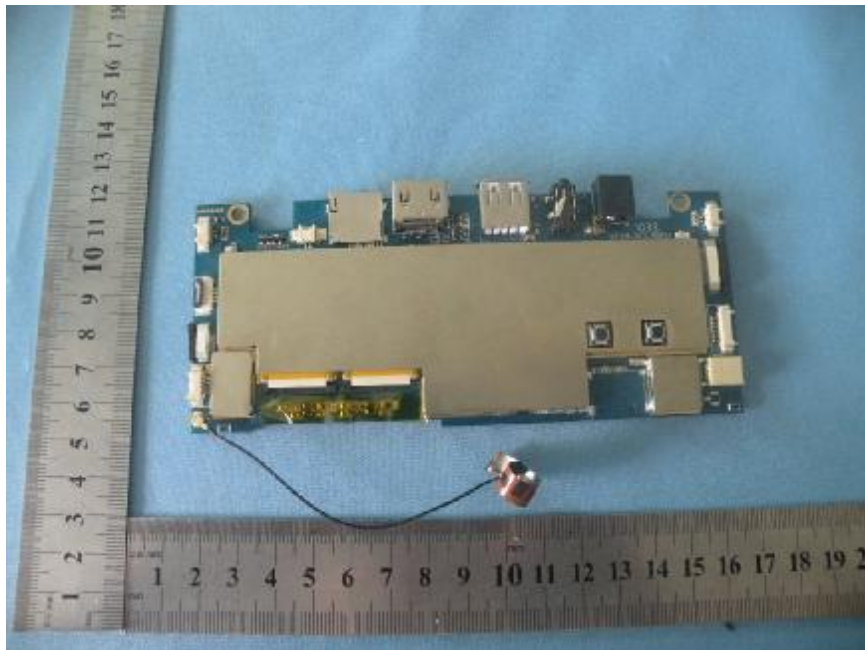
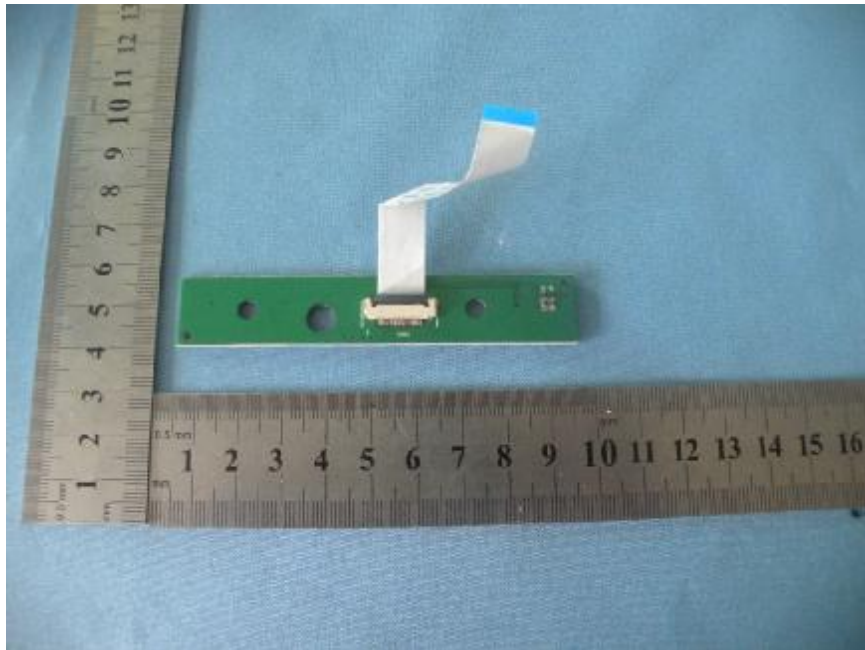


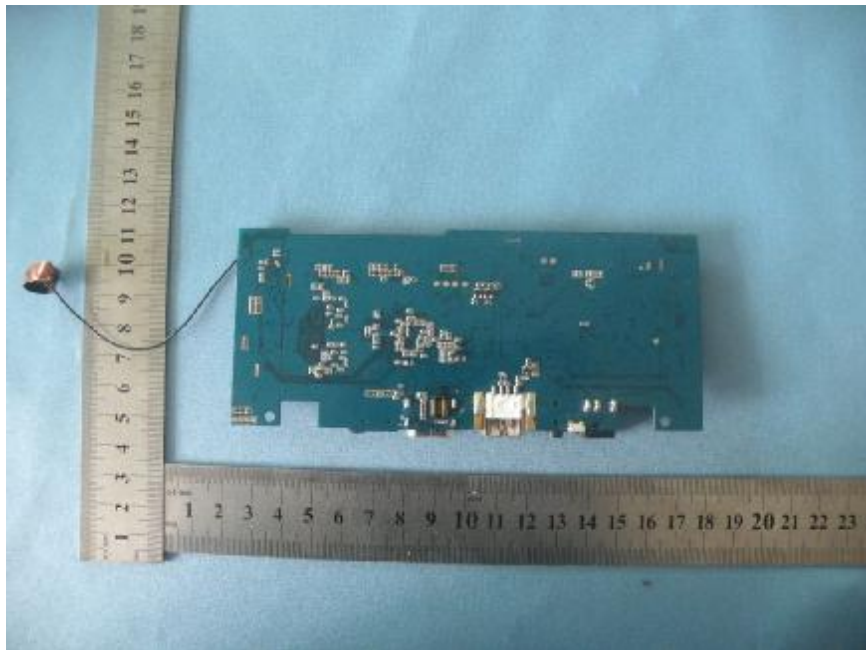
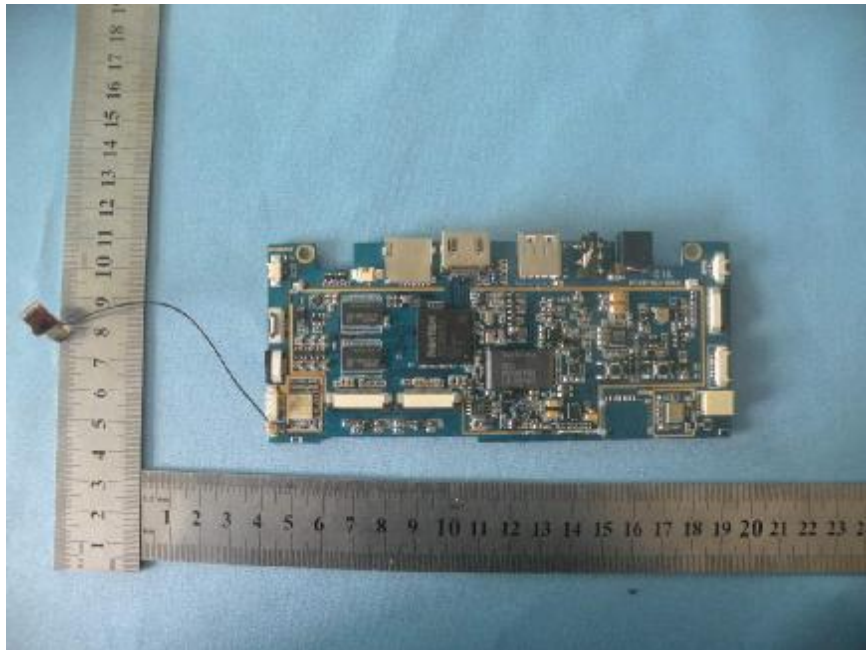


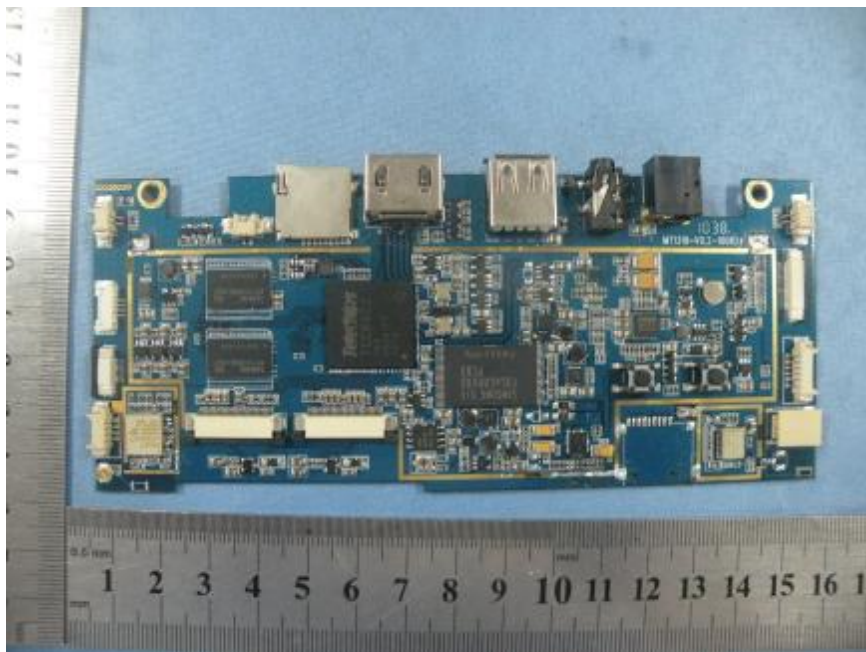
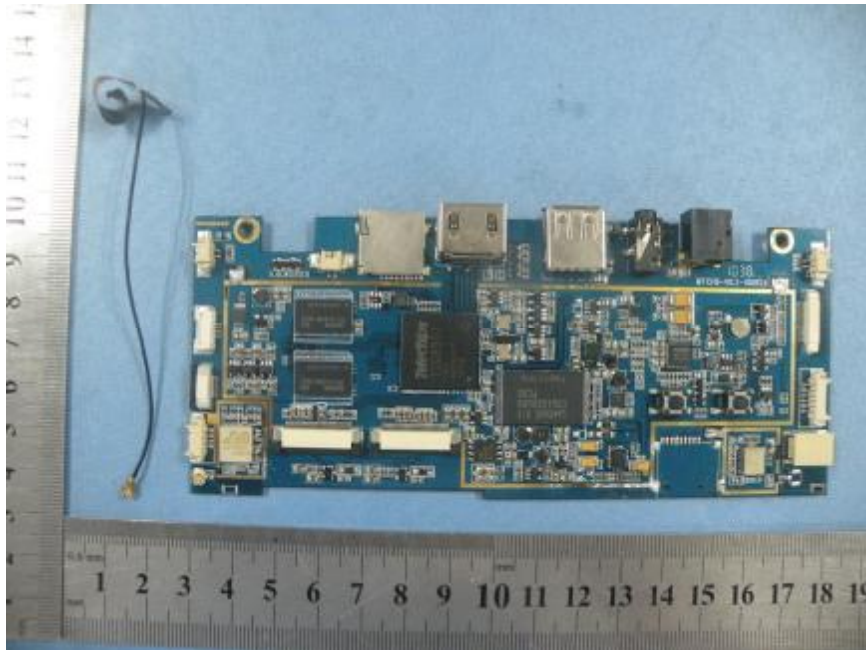












END OF THE REPORT