

Test Report

FCC Part15 Subpart E(Class II Permissive Change)

Product Name : Notebook PC

Model No. : T100T,H100T,R104T,
T100TAM,H100TAM,R104TAM

FCC ID : MSQT100T

Applicant : ASUSTeK COMPUTER INC.

Address : 4F, No. 150, LI-TE Rd., PEITOU, TAIPEI 112,
TAIWAN

Date of Receipt : May. 12, 2016

Test Date : May. 12, 2016~May. 17, 2016

Issued Date : May. 20, 2016

Report No. : 1652033R-RF-US-P09V01

Report Version : V1.0

Note : This report is based on QTK No. 1470047R, it is only update the regulation, so we re-evaluate items are output power, radiated emission and bandedge.

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by CNAS,TAF any agency of the government.

The test report shall not be reproduced without the written approval of QuieTek Corporation.

Test Report Certification

Issued Date : May. 20, 2016

Report No. : 1652033R-RF-US-P09V01



Product Name : Notebook PC
Applicant : ASUSTeK COMPUTER INC.
Address : 4F, No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN
Manufacturer : 1. PEGATRON CORP TAOYUAN MFG
2. PROTEK (SHANGHAI) LTD
3. TECH-FRONT(CHONGQING)COMPUTER COLTD
4. TECH-COM(SHANGHAI) COMPUTER CO. LTD
5. DIGITEK (CHONGQING) LIMITED
6. COTEK ELECTRONICS(Suzhou)Co.,Ltd
7. Wistron InfoComm(Chongqing) Co.,Ltd
Address : 1. 5, SHING YEH ST., KWEI SHAN HSIANG, TAOYUAN 333, TAIWAN
2. 3768 XIU YAN RD KANG QIAO TOWN PU DONG NEW District, Shanghai, China
3. 18, ZONGBAO ROAD, SHAPINGBA DISTRICT, CHONGQING CHINA
4. 68 SANZHUANG RD, SONGJIANG EXPORT PROCESSING ZONE, SHANGHAI 201613, CHINA
5. B01, SECTION C, AIRPORT FUNCTION ZONE, LIANGLU CUNTAN FREE TRADE PORT AREA, YUBEI DISTRICT CHONGQING CITY, CHINA
6. 288 MAYUN RD NEW DISTRICT SUZHOU JIANGSU 215011 CHINA
7. No. 18-9, Baohong Avenue, Wangjia Sub-district, Yubei District, Chongqing, China
Model No. : T100T, H100T, R104T, T100TAM, H100TAM, R104TAM
FCC ID : MSQT100T
EUT Voltage : AC 100-240V, 50/60Hz
Brand Name : ASUS
Applicable Standard : FCC CFR Title 47 Part 15 Subpart E: 2015
ANSI C63.4:2014; ANSI C63.10:2013;
789033 D02 General UNII Test Procedures New Rules v01r02
Test Result : Complied
Performed Location : Quietek Corporation - Suzhou EMC Laboratory
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
FCC Registration Number: 800392;

Documented By : Alice Ni
(Senior Adm. Specialist: Alice Ni)

Reviewed By : Jack Zhang
(Senior Engineer: Jack Zhang)

Approved By : Harry Zhao
(Engineering Manager : Harry Zhao)

Laboratory Information

We, **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	:	BSMI, NCC, TAF
USA	:	FCC
Japan	:	VCCI
China	:	CNAS

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site :<http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site :
<http://www.quietek.com/>

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory :

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory :

No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

Suzhou Testing Laboratory :

No.99 Hongye Rd., Suzhou Industrial Park, Suzhou,215006, Jiangsu, China
TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE

1. General Information

1.1. EUT Description

Product Name	Notebook PC					
Brand Name	ASUS					
Model No.	T100T,H100T,R104T, T100TAM,H100TAM,R104TAM					
EUT Voltage	AC 100-240V, 50/60Hz					
Type of Modulation	802.11a/n:OFDM, BPSK, QPSK, 16QAM, 64QAM					
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 150Mbps					
Channel Control	Auto					
Transmit modes	☒	802.11a	☒	802.11n(20MHz)	☒	802.11n(40MHz)
	☐	802.11ac(20MHz)	☐	802.11ac(40MHz)	☐	802.11ac(80MHz)
Support Bands	☐		☐	Outdoor AP		
	☒	5150MHz~5250MHz	☐	Indoor AP		
			☐	Fixed point-to-point AP		
			☒	Mobile and Portable Client		
	☒	5250MHz~5350MHz				
	☒	5470MHz~5725MHz	☒	With TDWR Channels		
			☐	Without TDWR Channels		
	☒	5725MHz~5850MHz				

1.2. Antenna information

Antenna No.	Antenna 0					
Antenna Part No.	WA-P-LB-02-083					
Antenna Manufacturer	INPAQ					
Antenna Delivery	☒	1*TX+1*RX	☐	2*TX+2*RX	☐	3*TX+3*RX
Antenna Technology	☒	SISO				
Antenna Type	PIFA					
Antenna Gain	-1.01 dBi for 5.15~5.25GHz 1.05 dBi for 5.25~5.35GHz 1.43 dBi for 5.47~5.725GHz					

Antenna No.	Antenna 1
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Antenna Part No.	WA-F-LB-02-027					
Antenna Manufacturer	INPAQ					
Antenna Delivery	☒	1*TX+1*RX	☐	2*TX+2*RX	☐	3*TX+3*RX
Antenna Technology	☒	SISO				
Antenna Type	PIFA					
Antenna Gain	-0.17 dBi for 5.15~5.25GHz -0.71 dBi for 5.25~5.35GHz 1.66 dBi for 5.47~5.725GHz					

Antenna No.	Antenna 2					
Antenna Part No.	T-543-901-1045-1					
Antenna Manufacturer	TongDa					
Antenna Delivery	☒	1*TX+1*RX	☐	2*TX+2*RX	☐	3*TX+3*RX
Antenna Technology	☒	SISO				
Antenna Type	PIFA					
Antenna Gain	-0.24 dBi for 5.15~5.25GHz -0.79 dBi for 5.25~5.35GHz 1.45 dBi for 5.47~5.725GHz					

1.3. Working Frequency of Each Channel:

802.11a/n(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz
52	5260MHz	56	5280 MHz	60	5300 MHz	64	5320 MHz
100	5500MHz	104	5520 MHz	108	5540 MHz	112	5550 MHz
116	5580MHz	120	5600 MHz	124	5620 MHz	128	5640 MHz
132	5660MHz	136	5680 MHz	140	5700 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz	165	5825MHz
802.11n(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz	62	5310 MHz
102	5510 MHz	110	5550 MHz	118	5590 MHz	126	5630 MHz
134	5670MHz	151	5755 MHz	159	5795 MHz	N/A	N/A

1.4. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Transmit by 802.11a
Mode 2: Transmit by 802.11n(20MHz)
Mode 3: Transmit by 802.11n(40MHz)
Note 1: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

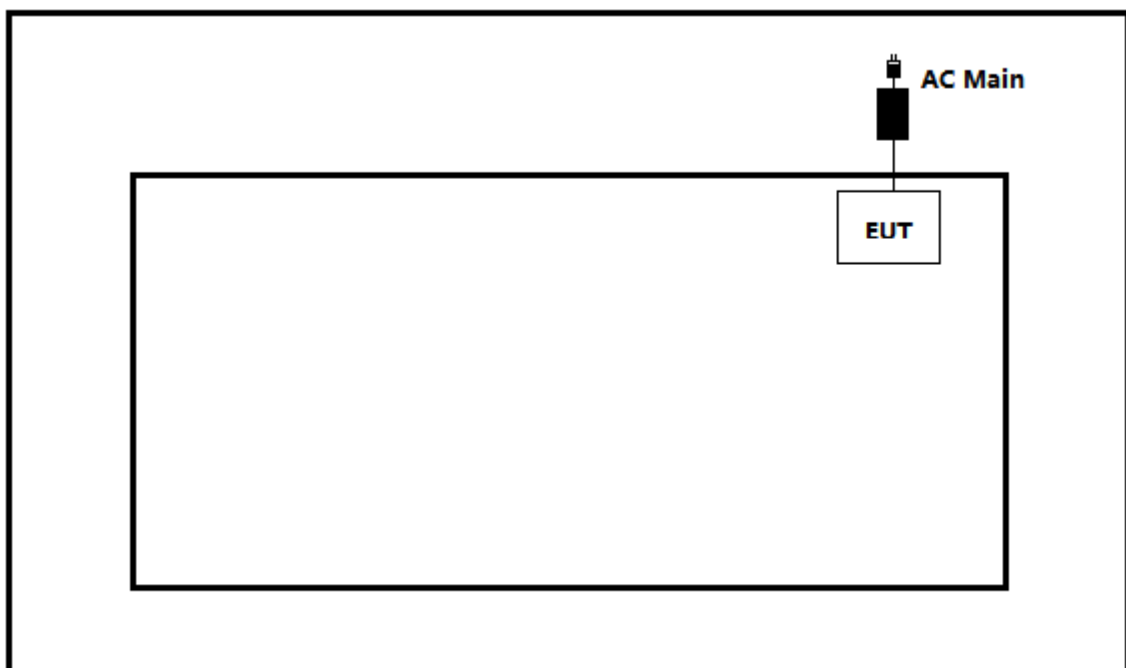
1.5. Tested System Details

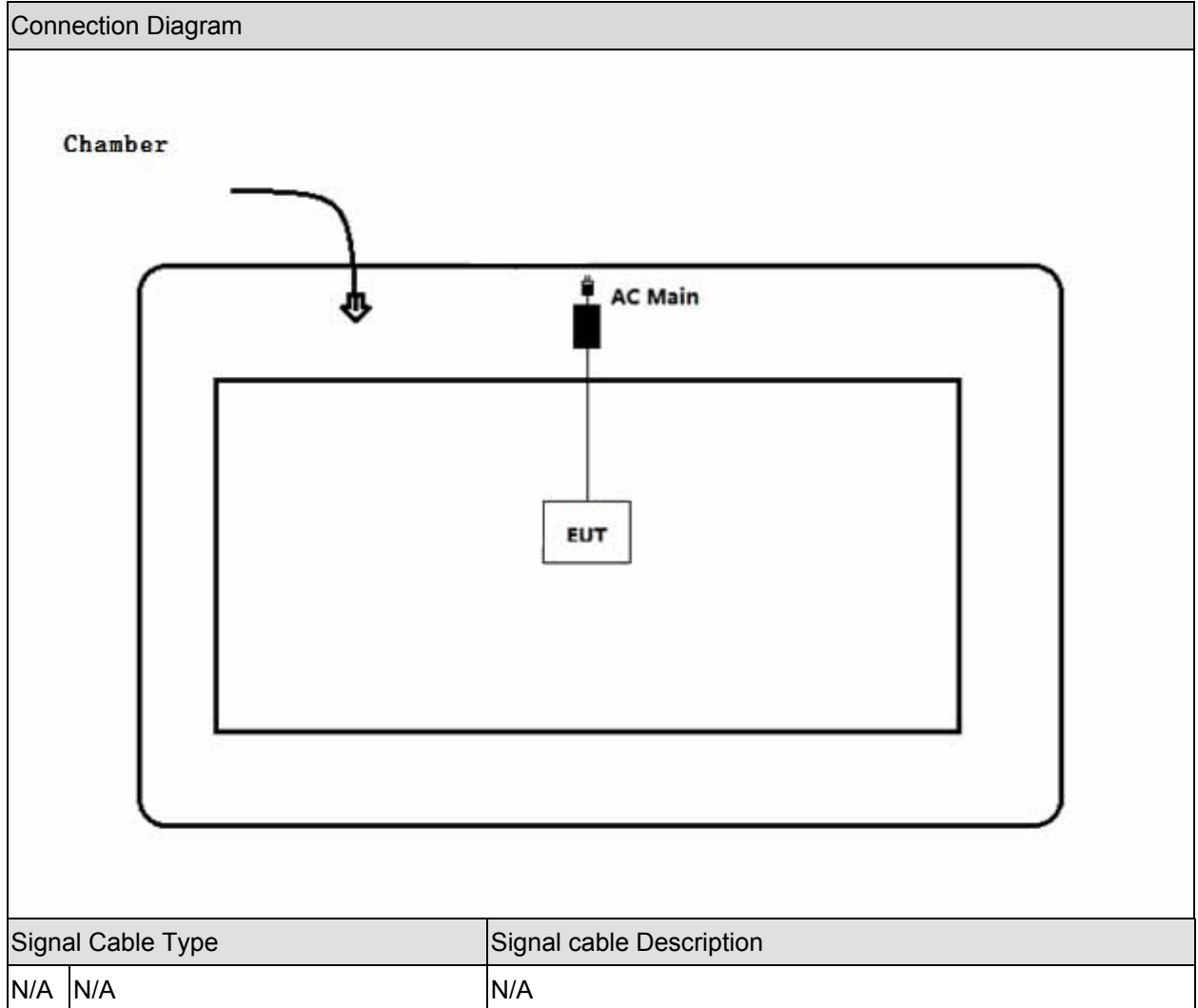
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	N/A	N/A	N/A	N/A	N/A

1.6. Configuration of Tested System

Connection Diagram





1.7. EUT Exercise Software

With CDD:

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of equipment.
3	Run "ChipControl_104", and set the test mode and channel, then press OK to start to continue transmit or receive.

2. Technical Test

2.1. Summary of Test Result

Performed Test Item	Normative References	Limit	Result
Conducted Emission	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.207	FCC 15.207	PASS
Radiated Emission	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.209	FCC 15.209	PASS
Power Output	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	FCC 15.407(a)	PASS
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.205, 15.407(b)	FCC 15.407(b)	PASS

2.2. Test Frequency configuration:

Modulation Mode	Channel	Frequency	Channel	Frequency	Channel	Frequency
802.11a/n(20MHz)	36	5180MHz	44	5200MHz	48	5240MHz
	100	5500MHz	116	5580MHz	140	5700MHz
	149	5745MHz	157	5785MHz	165	5825MHz
802.11n(40MHz)	38	5190MHz	46	5230 MHz	54	5270MHz
	62	5310 MHz	102	5510MHz	110	5550MHz
	134	5670MHz	151	5755MHz	159	5795Mhz

2.3. Power Parameter Value of the test software

Test Mode	Test Channel	Power Setting (With CDD)
802.11a	5180	13
	5220	13
	5240	13
	5260	13
	5300	13
	5320	13
	5500	12.5
	5580	12.5
	5700	12.5
802.11n(20MHz)	5180	13
	5220	13
	5240	13
	5260	13
	5300	13
	5320	13
	5500	13
	5580	13
	5700	13
802.11n(40MHz)	5190	13
	5230	13
	5270	13
	5310	13
	5510	13
	5550	12.5
	5670	13

2.4. Power vs Data Rate

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)						
		802.11b	802.11g	802.11a	20MHz Bandwidth		40MHz Bandwidth	
					800ns GI	400ns GI	800ns GI	400ns GI
0	1	1	6	6	6.5	7.2	13.5	15.0
1	1	2	9	9	13.0	14.4	27.0	30.0
2	1	5.5	12	12	19.5	21.7	40.5	45.0
3	1	11	18	18	26.0	28.9	54.0	60.0
4	1	---	24	24	39.0	43.3	81.0	90.0
5	1	---	36	36	52.0	57.8	108.0	120.0
6	1	---	48	48	58.5	65.0	121.5	135.0
7	1	---	54	54	65.0	72.2	135.0	150.0
Note 1 : The blue form is the maximum power data rate								

2.5. Duty Cycle

For 5.0GHz Band with CDD

Test Mode	Tx On (ms)	T (ms)	VBW	Tx On + Tx Off (ms)	Duty Cycle
802.11a	2.04	2.04	510Hz	2.18	93.58%
802.11 n(20MHz)	1.92	1.92	520Hz	2.02	95.05%
802.11n(40MHz)	0.93	0.95	1.2kHz	1.04	97.87%

Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Note 2: According to KDB 789033

2.6. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

2.7. Measurement Uncertainty

Test Items	Uncertainty
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AC Power Line Conducted Emission

3. Radiated Emission

3.1. Test Equipment

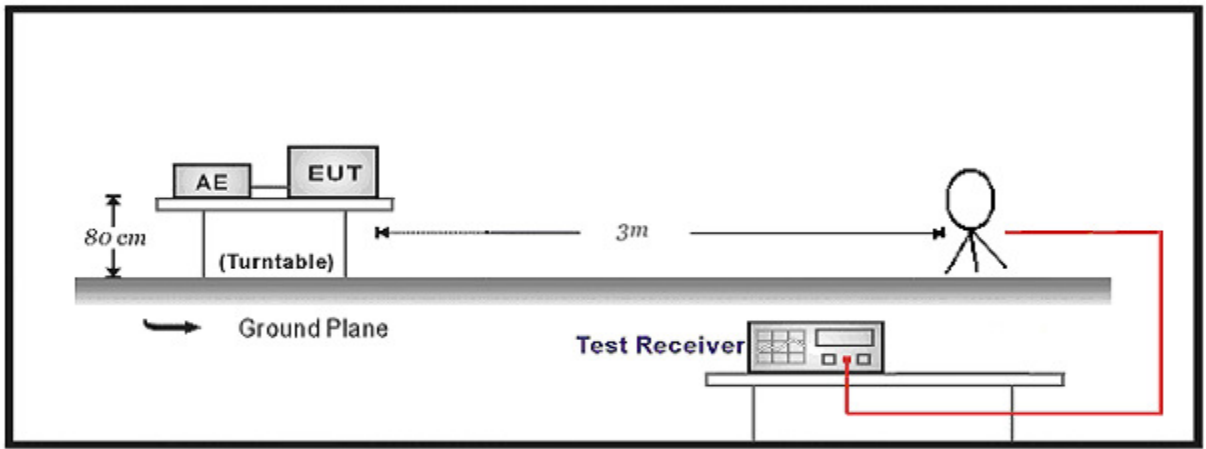
Radiated Emission / AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2016.03.29	2017.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2015.11.18	2016.11.17
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2015.10.16	2016.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2016.03.02	2017.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2016.01.09	2017.01.08

Radiated Emission / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2016.01.08	2017.01.07
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.06	2017.05.05
Preamplifier	Quietek	AP-040G	CHM-0906001	2016.05.06	2017.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.22	2017.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2015.11.25	2016.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2015.06.10	2016.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2016.01.09	2017.01.08

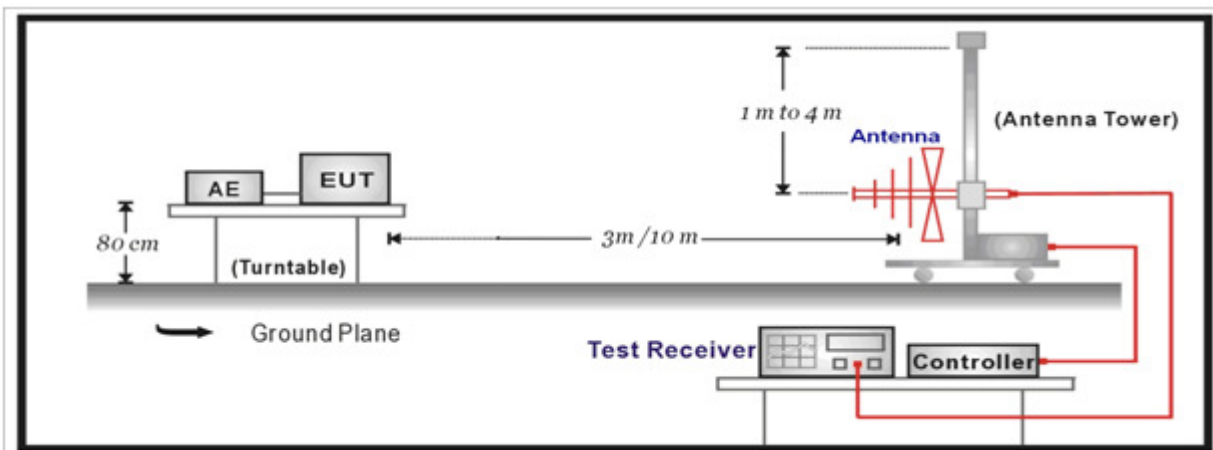
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

3.2. Test Setup

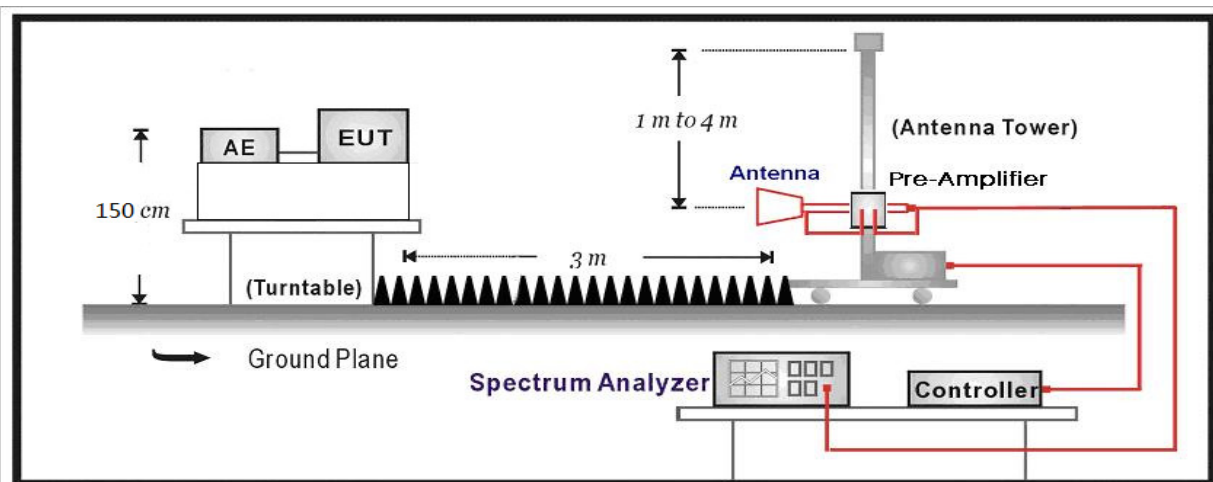
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



3.3. Limit

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Distance (m)	Level (dB

FCC Part 15 Subpart C Paragraph 15.205 (Restricted Band)			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (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
8.81425 – 8.81475	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	
13.36 – 13.41			

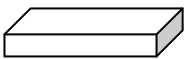
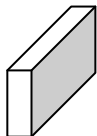
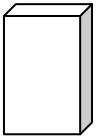
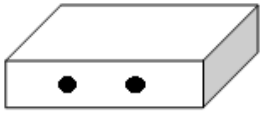
FCC Part 15 Subpart C Paragraph 15.407(5)(b) (Unrestricted Band Emissions Limit)

Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dB
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3.4. Test Procedure

Test Method				
	References Rule		Chapter	Description
☐	ANSI C63.10		12.7.3	Emissions in non-restricted frequency bands
☒	ANSI C63.10		12.7.2	Emissions in restricted frequency bands
	☒	ANSI C63.10	12.7.5	Radiated emission measurements
	☒	ANSI C63.10	12.7.6	Procedure for peak unwanted emissions measurements above 1000 MHz
	☒	ANSI C63.10	12.7.7	Procedures for average unwanted emissions measurements above 1000 MHz
	☐	ANSI C63.10	12.7.7.2	Method AD (average detection)—primary method
	☒	ANSI C63.10	12.7.7.3	Method VB-A (Alternative)
	☒	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
	☒	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
	☒	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
☐	FCC KDB 789033 D02v01r02		G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v01r02		G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v01r02	G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v01r02	G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r02	G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r02	G.6.c	Method AD (Average detection)—primary method
	☐	FCC KDB 789033 D02v01r02	G.6.d	Method VB (Averaging using reduced video bandwidth): Alternative method.

3.5. EUT test Axis definition

Item	Radiated Emission			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Mobile position use		
Test mode	Mode 1-3			
Test method	☒	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☒	Worst Axis ☐
	☐	Conducted		
	☐	Chain 0		
				
	☐	Chain 0	Chain 1	
				
	☐	Chain 0	Chain 1	Chain 2
				

3.6. Test Result

Product Name	:	Notebook PC	Power	:	AC 120V/60Hz
Test Mode	:	Mode 1	Test Site	:	AC-5

Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measured Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0	36	H	10360.0	32.6	16.5	49.1	54(Note3)	4.9	PK
		V	10360.0	25.9	24.1	50.0	54(Note3)	4.0	PK
		H	15540.0	32.1	16.5	48.6	54(Note3)	5.4	PK
		V	15540.0	27.1	24.2	51.3	54(Note3)	2.7	PK
	40	H	10400.0	31.0	16.8	47.8	54(Note3)	6.2	PK
		V	10400.0	26.0	24.6	50.6	54(Note3)	3.4	PK
		H	15603.0	31.6	16.7	48.3	54(Note3)	5.7	PK
		V	15604.0	26.5	24.6	51.1	54(Note3)	2.9	PK
	48	H	10480.0	30.7	16.6	47.3	54(Note3)	6.7	PK
		V	10480.0	25.2	26.8	52.0	54(Note3)	2.0	PK
		H	15720.0	31.2	16.6	47.8	54(Note3)	6.2	PK
		V	15720.0	25.3	26.8	52.1	54(Note3)	1.9	PK
	52	H	10520.0	31.0	18.2	49.2	54(Note3)	4.8	PK
		V	15780.0	23.8	27.2	51.0	54(Note3)	3.0	PK
		H	10520.0	31.2	18.2	49.4	54(Note3)	4.6	PK
		V	15780.0	25.0	27.2	52.2	54(Note3)	1.8	PK
	60	H	10600.0	30.5	17.3	47.8	54(Note3)	6.2	PK
		V	15900.0	24.8	26.1	50.9	54(Note3)	3.1	PK
		H	10600.0	30.3	17.4	47.7	54(Note3)	6.3	PK
		V	15900.0	26.1	26.1	52.2	54(Note3)	1.8	PK
	64	H	10640.0	29.5	17.8	47.3	54(Note3)	6.7	PK
		V	15960.0	22.4	28.3	50.7	54(Note3)	3.3	PK
		H	10640.0	31.8	17.7	49.5	54(Note3)	4.5	PK
		V	15960.0	23.8	28.3	52.1	54(Note3)	1.9	PK
	100	H	11000.0	30.1	18.5	48.6	54(Note3)	5.4	PK
		V	16500.0	23.7	27.3	51.0	54(Note3)	3.0	PK
		H	11000.0	30.3	18.5	48.8	54(Note3)	5.2	PK
		V	16500.0	24.7	27.3	52.0	54(Note3)	2.0	PK
	116	H	11160.0	29.5	18.7	48.2	54(Note3)	5.8	PK
		V	16740.0	25.5	24.6	50.1	54(Note3)	3.9	PK

		H	11160.0	29.6	18.8	48.4	54(Note3)	5.6	PK
		V	16740.0	27.5	24.6	52.1	54(Note3)	1.9	PK
	140	H	11400.0	29.2	19.7	48.9	54(Note3)	5.1	PK
		V	17100.0	25.0	25.5	50.5	54(Note3)	3.5	PK
		H	11400.0	29.1	19.6	48.7	54(Note3)	5.3	PK
		V	17100.0	27.5	25.5	53.0	54(Note3)	1.0	PK

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Product Name	:	Notebook PC	Power	:	AC 120V/60Hz
Test Mode	:	Mode 2	Test Site	:	AC-5

Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measured Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0	36	H	10360.0	32.0	16.5	48.5	54(Note3)	5.5	PK
		V	10360.0	26.0	24.1	50.1	54(Note3)	3.9	PK
		H	15540.0	32.0	16.5	48.5	54(Note3)	5.5	PK
		V	15540.0	27.6	24.2	51.8	54(Note3)	2.2	PK
	40	H	10400.0	30.9	16.8	47.7	54(Note3)	6.3	PK
		V	10400.0	26.5	24.6	51.1	54(Note3)	2.9	PK
		H	15603.0	30.7	16.7	47.4	54(Note3)	6.6	PK
		V	15604.0	27.9	24.6	52.5	54(Note3)	1.5	PK
	48	H	10480.0	31.3	16.6	47.9	54(Note3)	6.1	PK
		V	10480.0	23.6	26.8	50.4	54(Note3)	3.6	PK
		H	15720.0	30.8	16.6	47.4	54(Note3)	6.6	PK
		V	15720.0	25.5	26.8	52.3	54(Note3)	1.7	PK
	52	H	10520.0	30.8	18.2	49.0	54(Note3)	5.0	PK
		V	15780.0	24.2	27.2	51.4	54(Note3)	2.6	PK
		H	10520.0	30.8	18.2	49.0	54(Note3)	5.0	PK
		V	15780.0	24.9	27.2	52.1	54(Note3)	1.9	PK
	60	H	10600.0	29.8	17.3	47.1	54(Note3)	6.9	PK
		V	15900.0	24.6	26.1	50.7	54(Note3)	3.3	PK
		H	10600.0	30.8	17.4	48.2	54(Note3)	5.8	PK
		V	15900.0	26.8	26.1	52.9	54(Note3)	1.1	PK
	64	H	10640.0	29.6	17.8	47.4	54(Note3)	6.6	PK
		V	15960.0	22.7	28.3	51.0	54(Note3)	3.0	PK
		H	10640.0	31.2	17.7	48.9	54(Note3)	5.1	PK
		V	15960.0	23.6	28.3	51.9	54(Note3)	2.1	PK
	100	H	11000.0	29.8	18.5	48.3	54(Note3)	5.7	PK
		V	16500.0	24.2	27.3	51.5	54(Note3)	2.5	PK
		H	11000.0	30.2	18.5	48.7	54(Note3)	5.3	PK
		V	16500.0	25.2	27.3	52.5	54(Note3)	1.5	PK
	116	H	11160.0	29.1	18.7	47.8	54(Note3)	6.2	PK
		V	16740.0	26.4	24.6	51.0	54(Note3)	3.0	PK
		H	11160.0	29.7	18.8	48.5	54(Note3)	5.5	PK

		V	16740.0	27.5	24.6	52.1	54(Note3)	1.9	PK
	140	H	11400.0	29.3	19.7	49.0	54(Note3)	5.0	PK
		V	17100.0	26.0	25.5	51.5	54(Note3)	2.5	PK
		H	11400.0	29.5	19.6	49.1	54(Note3)	4.9	PK
		V	17100.0	27.3	25.5	52.8	54(Note3)	1.2	PK

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

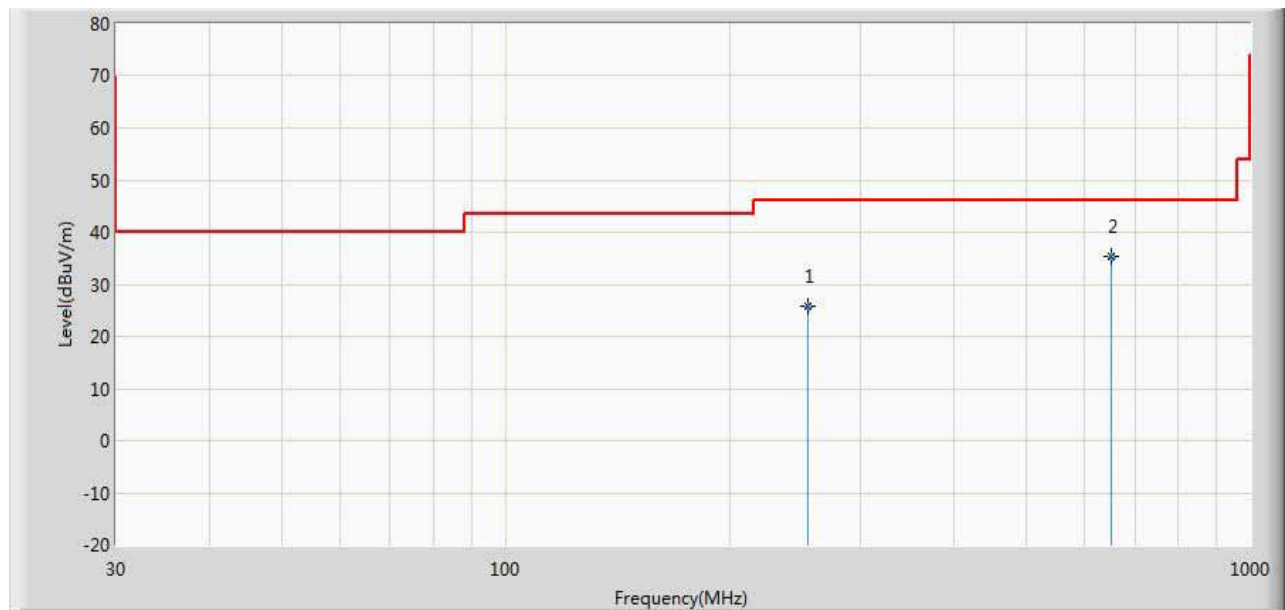
Product Name	:	Notebook PC	Power	:	AC 120V/60Hz
Test Mode	:	Mode 3	Test Site	:	AC-5

Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measured Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0	38	H	10380.0	31.7	17.2	48.9	54(Note3)	5.1	PK
		V	15570.0	25.1	27.1	52.2	54(Note3)	1.8	PK
		H	10380.0	31.7	17.2	48.9	54(Note3)	5.1	PK
		V	15570.0	25.1	27.1	52.2	54(Note3)	1.8	PK
	46	H	10460.0	30.6	16.5	47.1	54(Note3)	6.9	PK
		V	15690.0	27.8	23.6	51.4	54(Note3)	2.6	PK
		H	10460.0	31.1	16.5	47.6	54(Note3)	6.4	PK
		V	15690.0	28.8	23.6	52.4	54(Note3)	1.6	PK
	54	H	10540.0	30.4	17.9	48.3	54(Note3)	5.7	
		V	15810.0	23.5	27.7	51.2	54(Note3)	2.8	
		H	10540.0	31.0	17.9	48.9	54(Note3)	5.1	
		V	15810.0	24.5	27.7	52.2	54(Note3)	1.8	
	62	H	10620.0	30.0	17.8	47.8	54(Note3)	6.2	
		V	15930.0	23.3	27.7	51.0	54(Note3)	3.0	
		H	10620.0	30.8	17.8	48.6	54(Note3)	5.4	
		V	15930.0	24.3	27.7	52.0	54(Note3)	2.0	
	102	H	11020.0	30.3	17.7	48.0	54(Note3)	6.0	PK
		V	16530.0	26.0	25.6	51.6	54(Note3)	2.4	PK
		H	11020.0	30.7	17.7	48.4	54(Note3)	5.6	PK
		V	16530.0	27.0	25.7	52.7	54(Note3)	1.3	PK
	110	H	11100.0	29.7	20.3	50.0	54(Note3)	4.0	PK
		V	16650.0	23.6	27.4	51.0	54(Note3)	3.0	PK
		H	11100.0	29.6	20.3	49.9	54(Note3)	4.1	PK
		V	16650.0	25.4	27.4	52.8	54(Note3)	1.2	PK
	134	H	11340.0	28.8	20.9	49.7	54(Note3)	4.3	PK
		V	17010.0	25.4	27.2	52.6	54(Note3)	1.4	PK
		H	11340.0	29.0	20.9	49.9	54(Note3)	4.1	PK
		V	17010.0	25.7	27.2	52.9	54(Note3)	1.1	PK

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

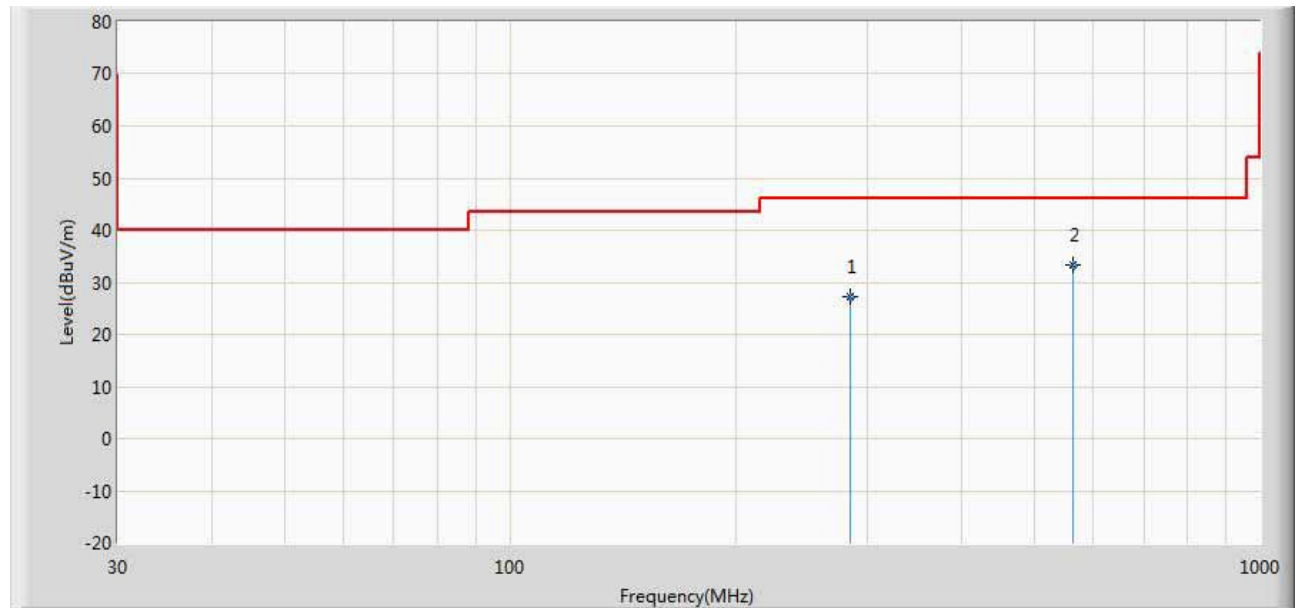
The worst case of Radiated Emission below 1GHz:

Engineer: Jack	
Site: AC2	Time: 2016/05/11 - 09:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Horizontal
EUT: Notebook PCNotebook PC	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		254.919	25.875	5.919	-20.125	46.000	19.956	QP
2	*	650.921	35.332	7.617	-10.668	46.000	27.714	QP

Engineer: Jack	
Site: AC2	Time: 2016/05/11 - 09:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Vertical
EUT: Notebook PCNotebook PC	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		284.625	27.391	7.071	-18.609	46.000	20.320	QP
2	*	562.530	33.395	6.551	-12.605	46.000	26.844	QP

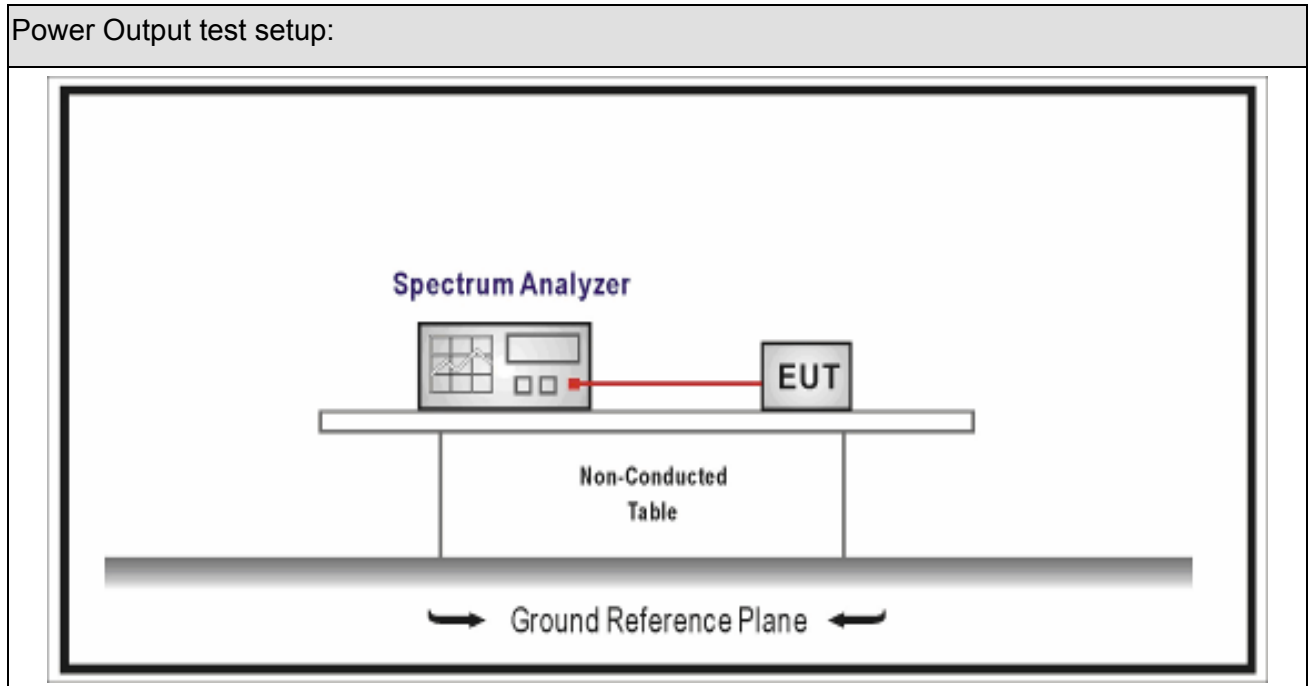
4. Power Output

4.1. Test Equipment

Power Output / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.11	2017.03.10
Power Sensor	Anritsu	MA2411B	0846014	2015.11.11	2016.11.10
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

4.2. Test Setup



4.3. Limit

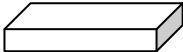
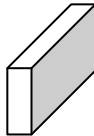
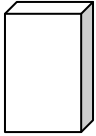
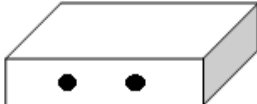
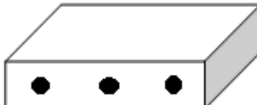
Fundamental emission output power Limit	
☒	For the band 5.15-5.25 GHz
☐	Outdoor access point: the maximum conducted output power shall not exceed 1 W. If G_{TX}

4.4. Test Procedure

Fundamental emission output power Test Method				
	References Rule		Chapter	Description
☒	ANSI C63.10		12.3	Maximum conducted output power
	☐	ANSI C63.10	12.3.2	Maximum conducted output power measurement using a spectrum analyzer (SA) or EMI receiver
		☐ ANSI C63.10	12.3.2.2	Method SA-1
		☐ ANSI C63.10	12.3.2.3	Method SA-1A (alternative)
		☐ ANSI C63.10	12.3.2.4	Method SA-2
		☐ ANSI C63.10	12.3.2.5	Method SA-2A (alternative)
		☐ ANSI C63.10	12.3.2.6	Method SA-3
		☐ ANSI C63.10	12.3.2.7	Method SA-3A (alternative)
	☒	ANSI C63.10	12.3.3	Maximum conducted output power using a power meter
		☐ ANSI C63.10	12.3.3.1	Method PM
		☒ ANSI C63.10	12.3.3.2	Method PM-G
☐	FCC KDB 789033 D02v01r02		E	Maximum conducted output power
	☐	FCC KDB 789033 D02v01r02	E.2	Measurement using a Spectrum Analyzer or EMI Receiver (SA)
		☐ FCC KDB 789033 D02v01r02	E.2.b	Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep)
		☐ FCC KDB 789033 D02v01r02	E.2.c	Method SA-1 Alternative (RMS detection with slow sweep and EUT transmitting continuously at full power)
		☐ FCC KDB 789033 D02v01r02	E.2.d	Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction)
		☐ FCC KDB 789033 D02v01r02	E.2.e	Method SA-2 Alternative (RMS detection with slow sweep with each spectrum bin averaging across on and off times of the EUT transmissions, followed by duty cycle correction)

		☐	FCC KDB 789033 D02v01r02	E.2.f	Method SA-3 (RMS detection with max hold)
		☐	FCC KDB 789033 D02v01r02	E.2.g	Method SA-3 Alternative (Reduced VBW with max hold)
		☒	FCC KDB 789033 D02v01r02	E.3	Measurement using a Power Meter (PM)
		☐	FCC KDB 789033 D02v01r02	E.3.a	Method PM (Measurement using an RF average power meter)
		☒	FCC KDB 789033 D02v01r02	E.3.b	Method PM-G (Measurement using a gated RF average power meter)

4.5. EUT test Axis definition

Item	Power Output			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Mobile position use		
Test mode	Mode 1-3			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 0		
				
	☐	Chain 0	Chain 1	
				
	☐	Chain 0	Chain 1	Chain 2
				

4.6. Test Result

Product	:	Notebook PC
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode: Transmit

Mode	Channel	Test Frequency (MHz)	Measurement Power Output (dBm)	Total Power (dBm)	Limit (dBm)	Result
1	36	5180	11.71	11.71	24	Pass
	44	5220	11.78	11.78	24	Pass
	48	5240	11.76	11.76	24	Pass
	52	5260	11.52	11.52	24	Pass
	60	5300	11.50	11.50	24	Pass
	64	5320	11.47	11.47	24	Pass
	100	5500	11.58	11.58	24	Pass
	116	5580	11.82	11.82	24	Pass
	140	5700	11.74	11.74	24	Pass
2	36	5180	11.52	11.52	24	Pass
	44	5220	11.60	11.60	24	Pass
	48	5240	11.63	11.63	24	Pass
	52	5260	11.61	11.61	24	Pass
	60	5300	11.53	11.53	24	Pass
	64	5320	11.56	11.56	24	Pass

	100	5500	11.74	11.74	24	Pass
	116	5580	11.76	11.76	24	Pass
	140	5700	11.62	11.62	24	Pass
3	38	5190	11.14	11.14	24	Pass
	46	5230	11.18	11.18	24	Pass
	54	5270	11.15	11.15	24	Pass
	62	5310	11.12	11.12	24	Pass
	102	5510	11.47	11.47	24	Pass
	110	5550	11.46	11.46	24	Pass
	134	5670	11.51	11.51	24	Pass

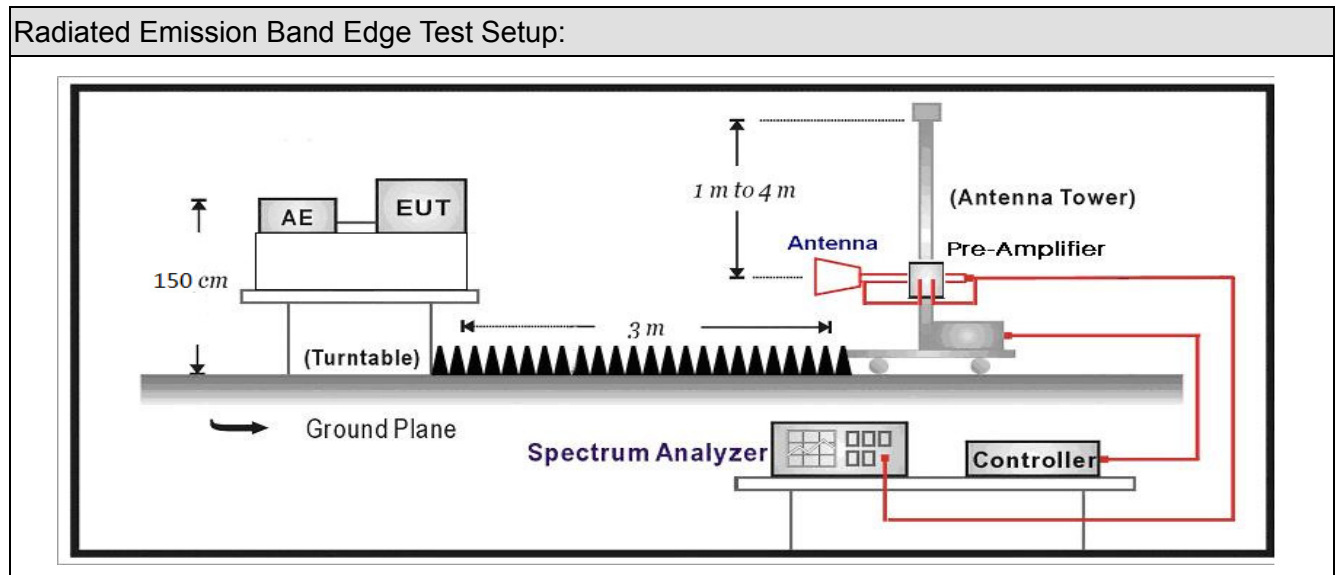
5. Radiated Emission Band Edge

5.1. Test Equipment

Radiated Emission Band Edge / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.11	2017.03.10
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.04	2017.05.03
Preamplifier	QuieTek	AP-040G	CHM-0906001	2016.05.04	2017.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2015.10.16	2016.10.15
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.08	2017.01.07
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2015.06.10	2016.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2016.01.09	2017.01.08

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

5.2. Test Setup



5.3. Limit

FCC Part 15 Subpart C Paragraph 15.209 (Restricted Band Emissions Limit)		
Frequency (MHz)	Distance (m)	Level (dBμV/m)
0.009-0.490	300	2400/F(kHz)
0.490-1.705	30	24000/F(kHz)
1.705-30.0	30	30
30-88	3	100**
88-216	3	150**
216-960	3	200**
Above 960	3	500

Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

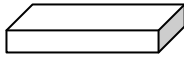
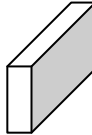
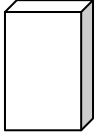
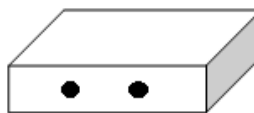
FCC Part 15 Subpart C Paragraph 15.205 (Restricted Band)			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (MHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	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
8.81425 – 8.81475	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	
13.36 – 13.41			

FCC Part 15 Subpart C Paragraph 15.407(5)(b) (Unrestricted Band Emissions Limit)		
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dB

5.4. Test Procedure

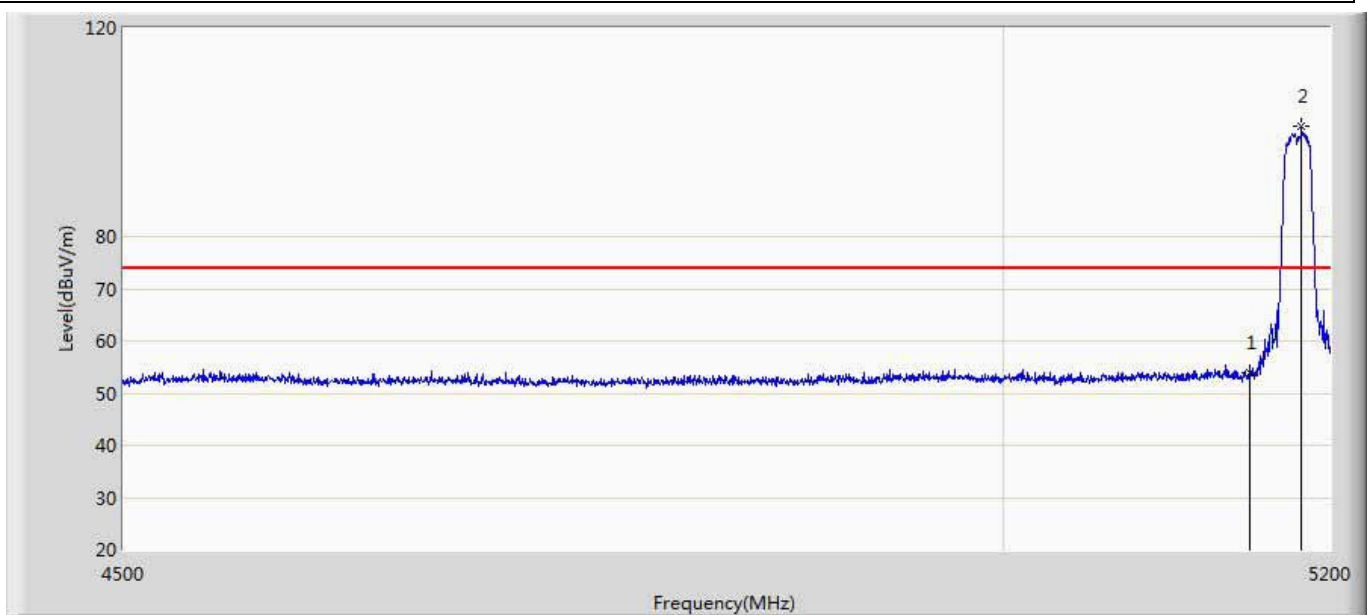
Test Method				
	References Rule		Chapter	Description
☐	ANSI C63.10		12.7.3	Emissions in non-restricted frequency bands
☒	ANSI C63.10		12.7.2	Emissions in restricted frequency bands
	☒	ANSI C63.10	12.7.5	Radiated emission measurements
	☒	ANSI C63.10	12.7.6	Procedure for peak unwanted emissions measurements above 1000 MHz
	☒	ANSI C63.10	12.7.7	Procedures for average unwanted emissions measurements above 1000 MHz
	☐	ANSI C63.10	12.7.7.2	Method AD (average detection)—primary method
	☒	ANSI C63.10	12.7.7.3	Method VB-A (Alternative)
	☒	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
	☒	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
	☒	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
☐	FCC KDB 789033 D02v01r02		G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v01r02		G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v01r02	G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v01r02	G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r02	G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r02	G.6.c	Method AD (Average detection)—primary method
	☐	FCC KDB 789033 D02v01r02	G.6.d	Method VB (Averaging using reduced video bandwidth): Alternative method.

5.5. EUT test Axis definition

Item	Radiated Emission Band Edge			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Mobile position use		
Test mode	Mode 1-3			
Test method	☒	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☒	Worst Axis ☐
	☐	Conducted		
	☐	Chain 0		
				
	☐	Chain 0	Chain 1	
				
	☐	Chain 0	Chain 1	Chain 2
				

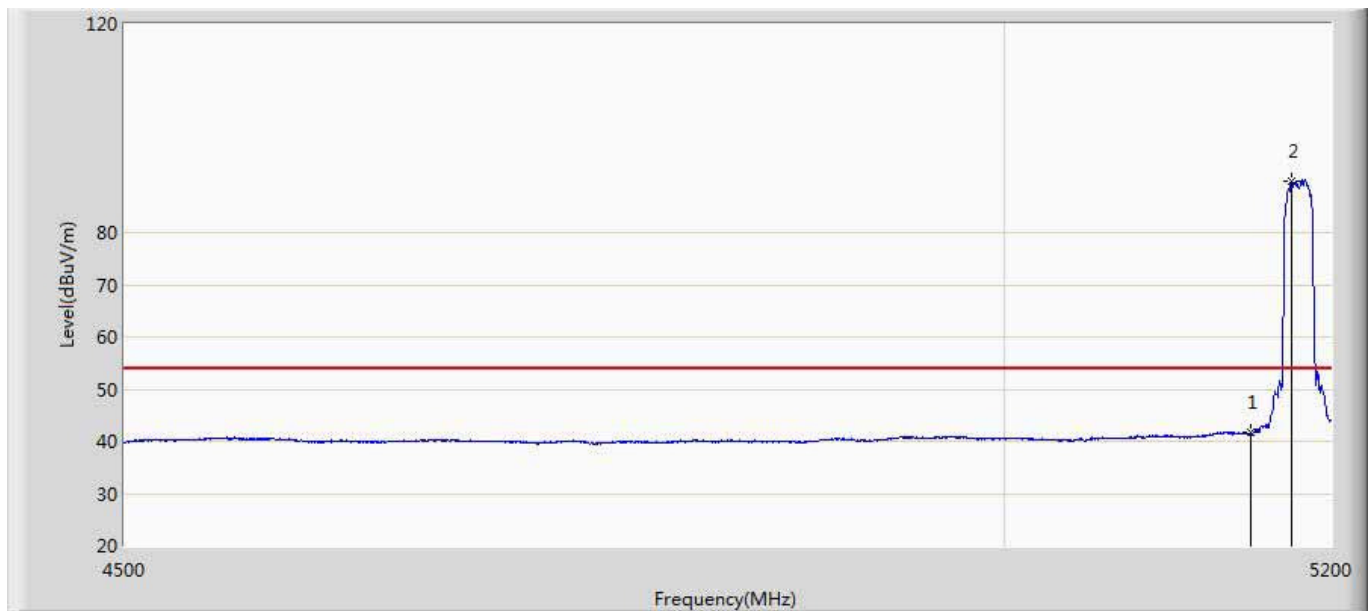
5.6. Test Result

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 14:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5180Mhz by 802.11a	



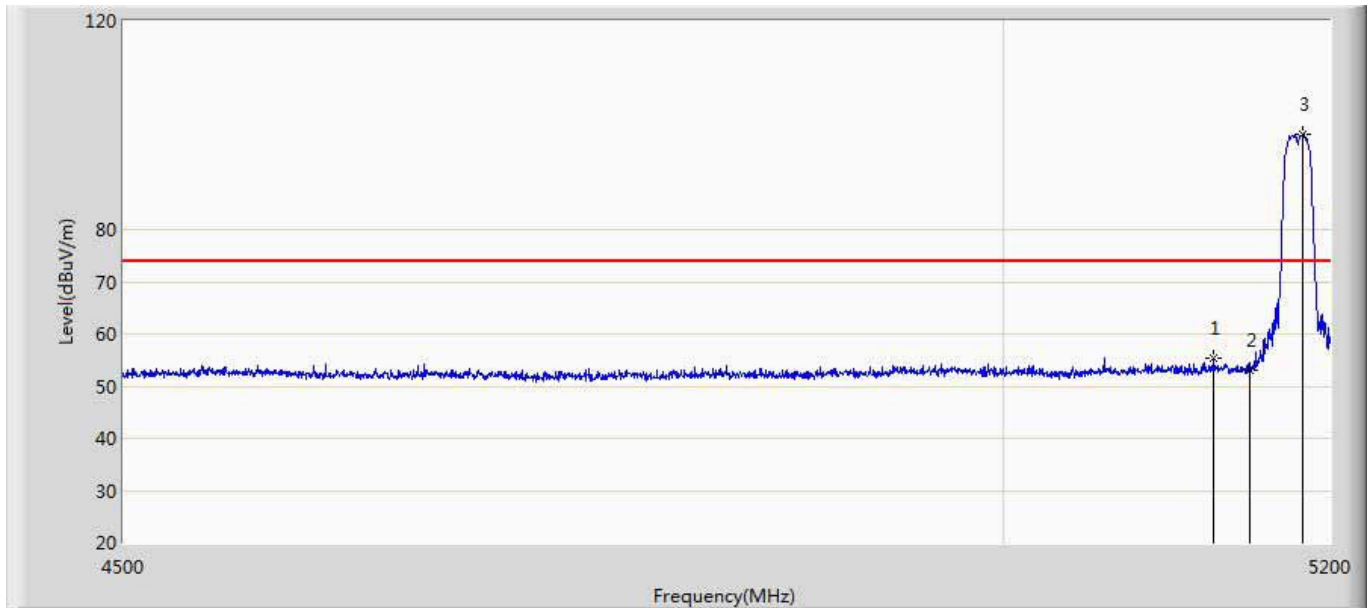
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.995	11.980	-20.005	74.000	42.015	PK
2	*	5182.500	101.233	59.091	N/A	N/A	42.143	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5180Mhz by 802.11a	



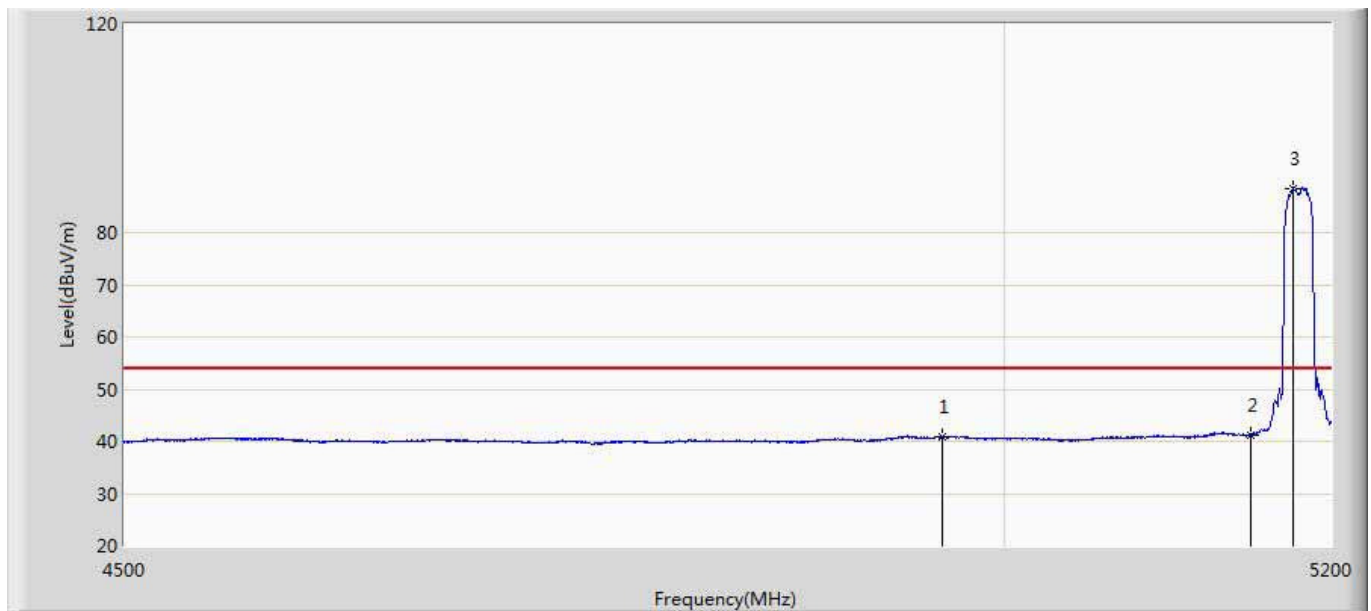
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	41.762	-0.253	-12.238	54.000	42.015	AV
2	*	5175.500	89.882	47.737	N/A	N/A	42.145	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5180Mhz by 802.11a	



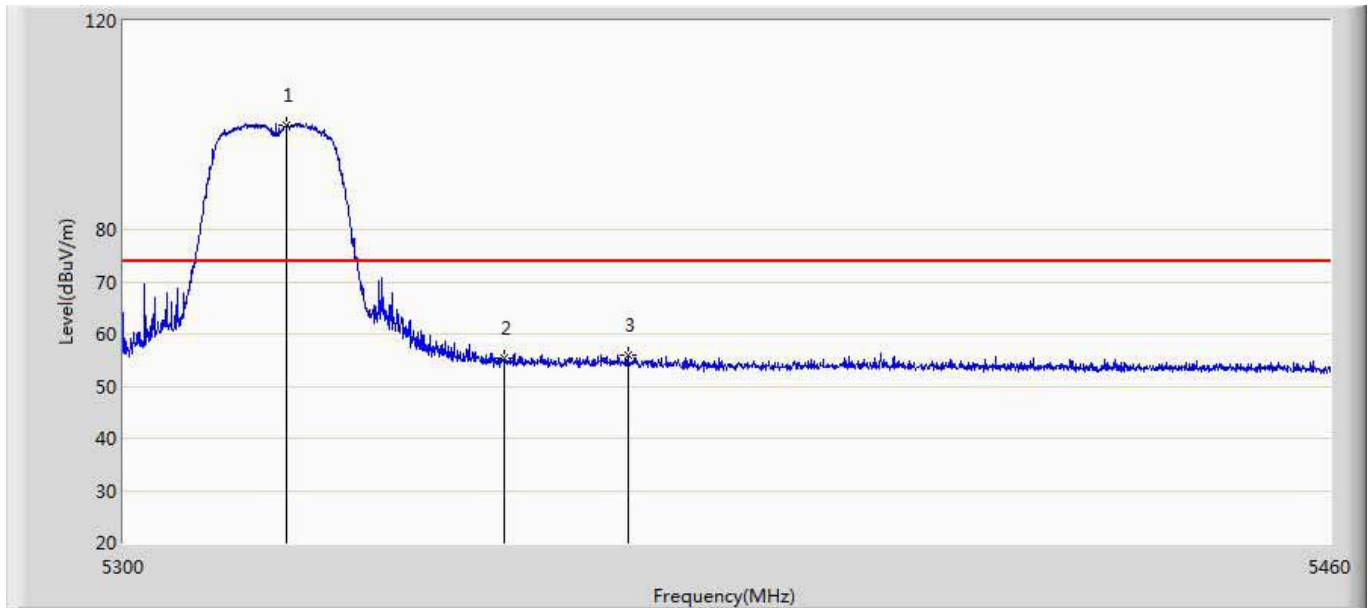
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5127.900	55.370	13.160	-18.630	74.000	42.210	PK
2		5150.000	53.031	11.016	-20.969	74.000	42.015	PK
3	*	5183.200	98.205	56.067	N/A	N/A	42.137	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5180Mhz by 802.11a	



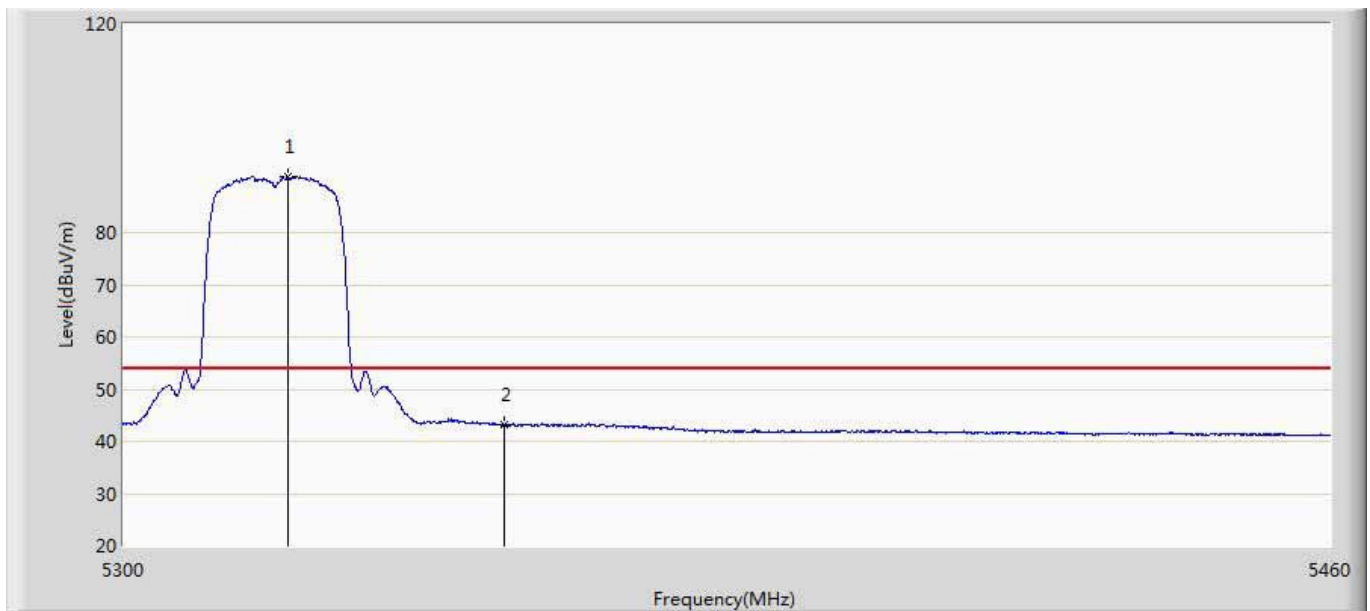
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4963.750	40.993	-0.663	-13.007	54.000	41.656	AV
2		5150.000	41.111	-0.904	-12.889	54.000	42.015	AV
3	*	5176.200	88.530	46.385	N/A	N/A	42.145	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5320Mhz by 802.11a	



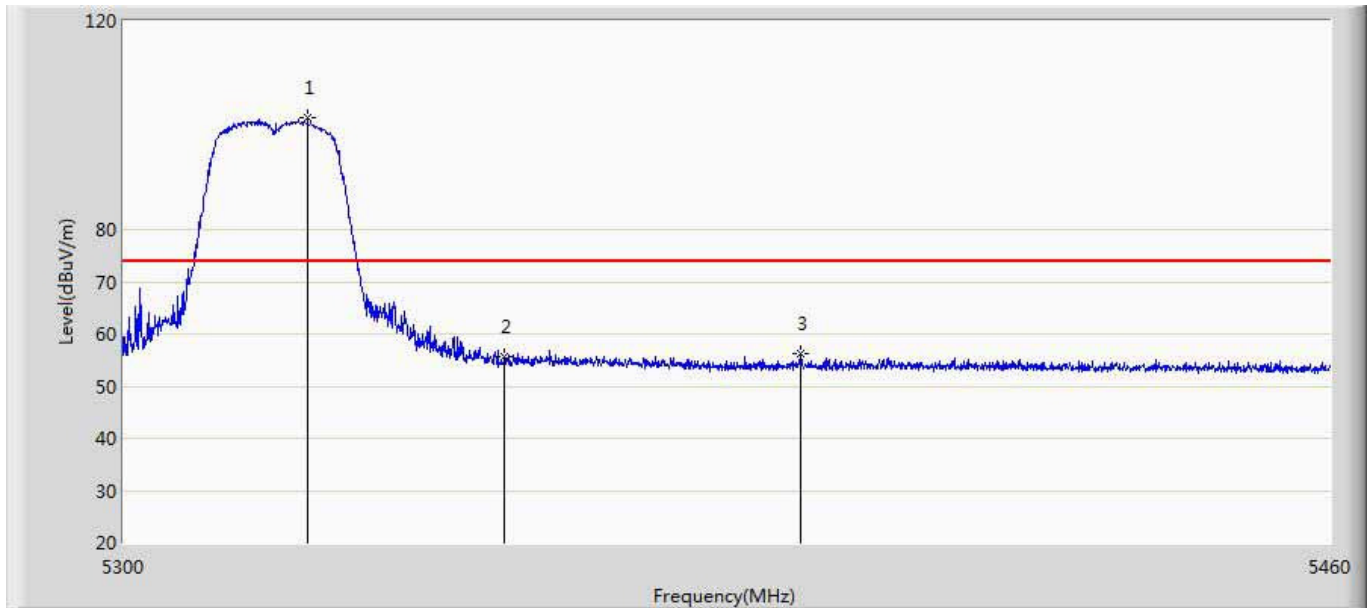
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5321.440	100.016	57.662	N/A	N/A	42.354	PK
2		5350.000	55.454	12.938	-18.546	74.000	42.516	PK
3		5366.320	55.901	13.411	-18.099	74.000	42.489	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5320Mhz by 802.11a	



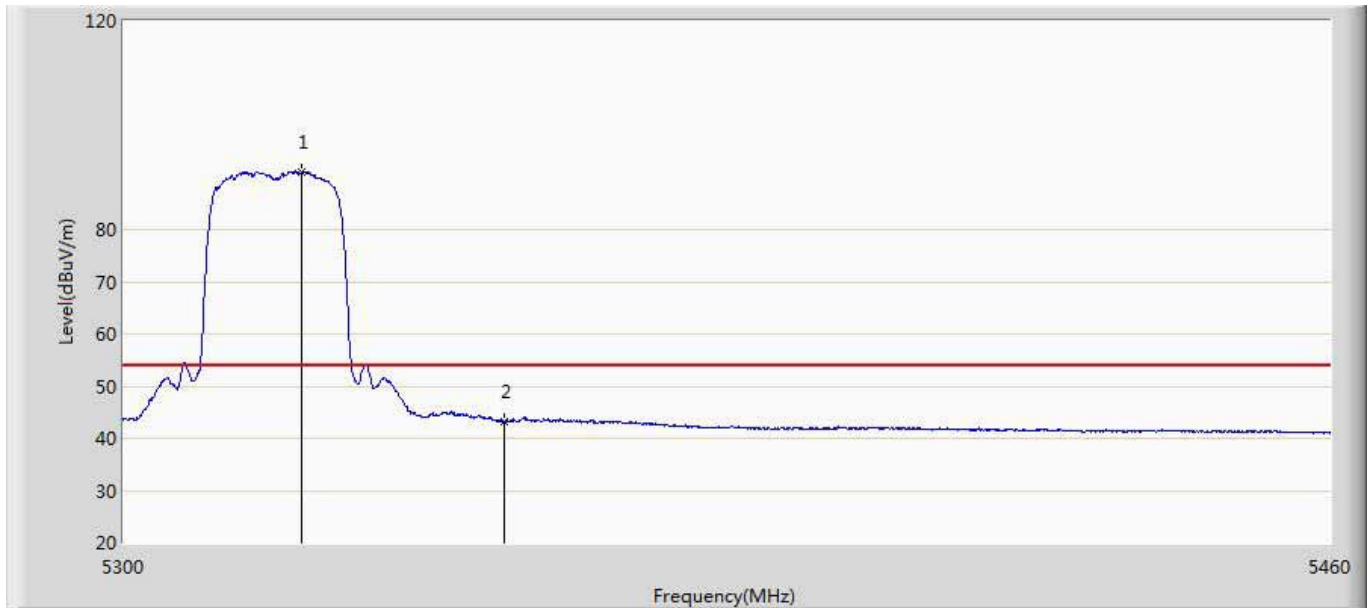
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5321.520	90.750	48.397	N/A	N/A	42.354	AV
2		5350.000	43.159	0.643	-10.841	54.000	42.516	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5320Mhz by 802.11a	



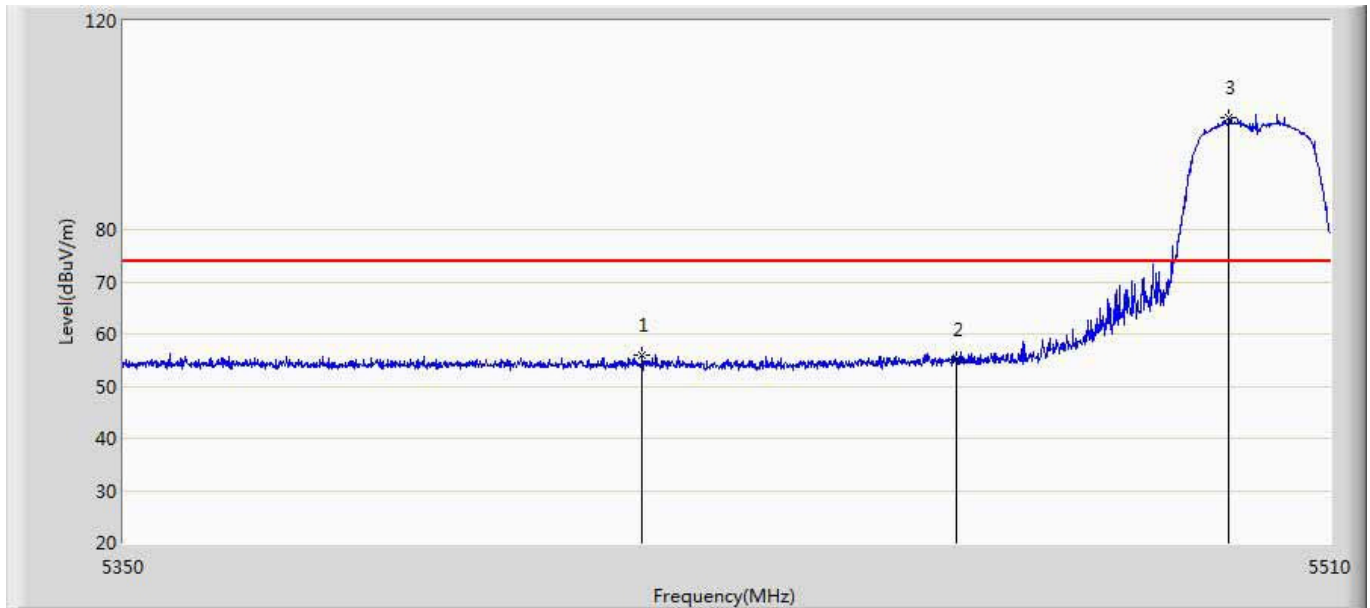
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5324.160	101.582	59.261	N/A	N/A	42.320	PK
2		5350.000	55.749	13.233	-18.251	74.000	42.516	PK
3		5389.280	56.143	13.796	-17.857	74.000	42.347	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5320Mhz by 802.11a	



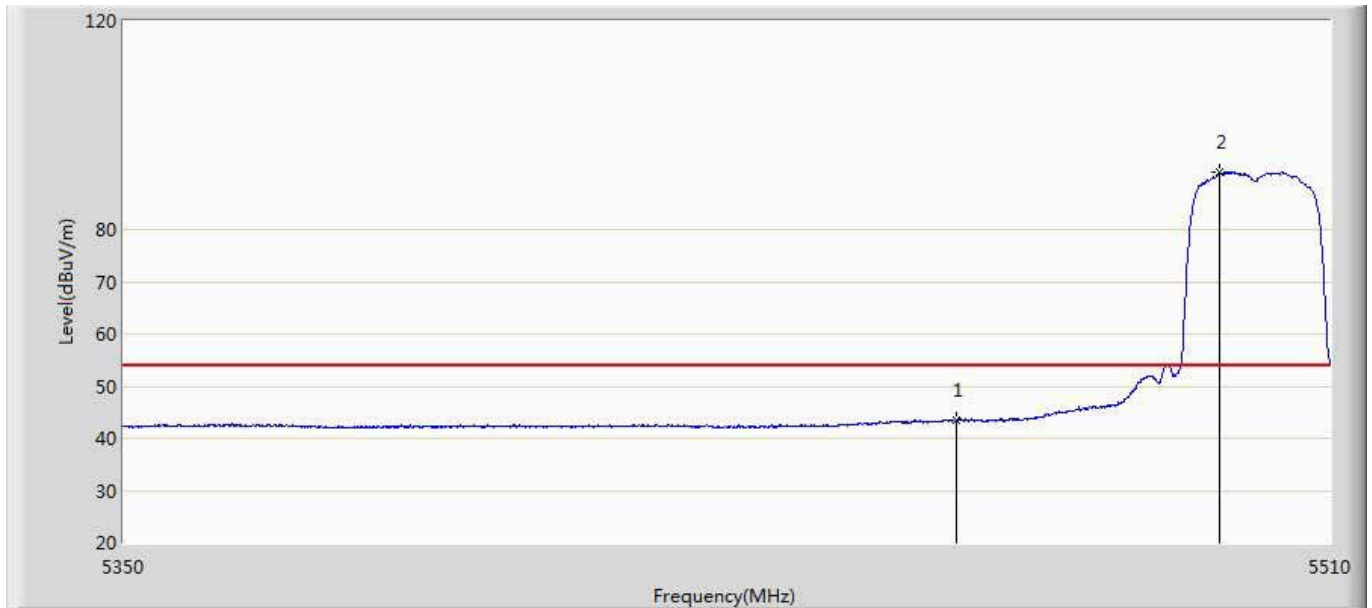
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5323.280	90.987	48.655	N/A	N/A	42.331	AV
2		5350.000	43.289	0.773	-10.711	54.000	42.516	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5500Mhz by 802.11a	



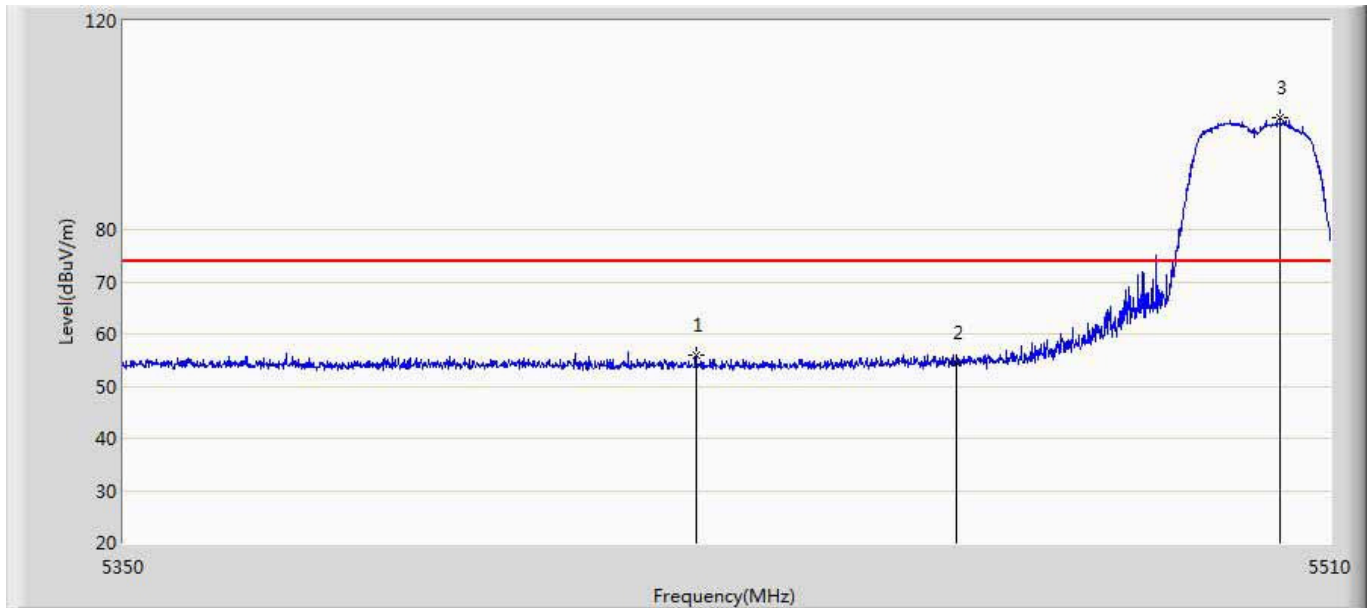
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5418.240	55.978	13.465	-18.022	74.000	42.513	PK
2		5460.000	55.046	12.389	-18.954	74.000	42.657	PK
3	*	5496.400	101.326	58.627	N/A	N/A	42.698	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5500Mhz by 802.11a	



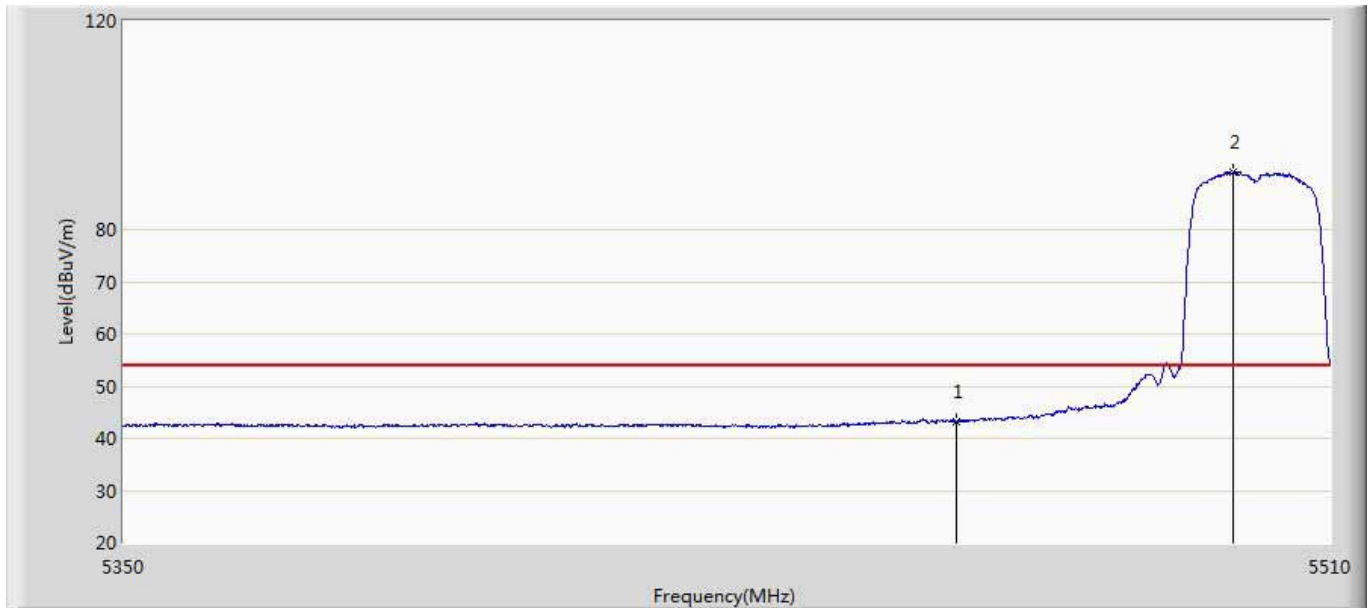
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	43.464	0.807	-10.536	54.000	42.657	AV
2	*	5495.200	90.979	48.266	N/A	N/A	42.713	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5500Mhz by 802.11a	



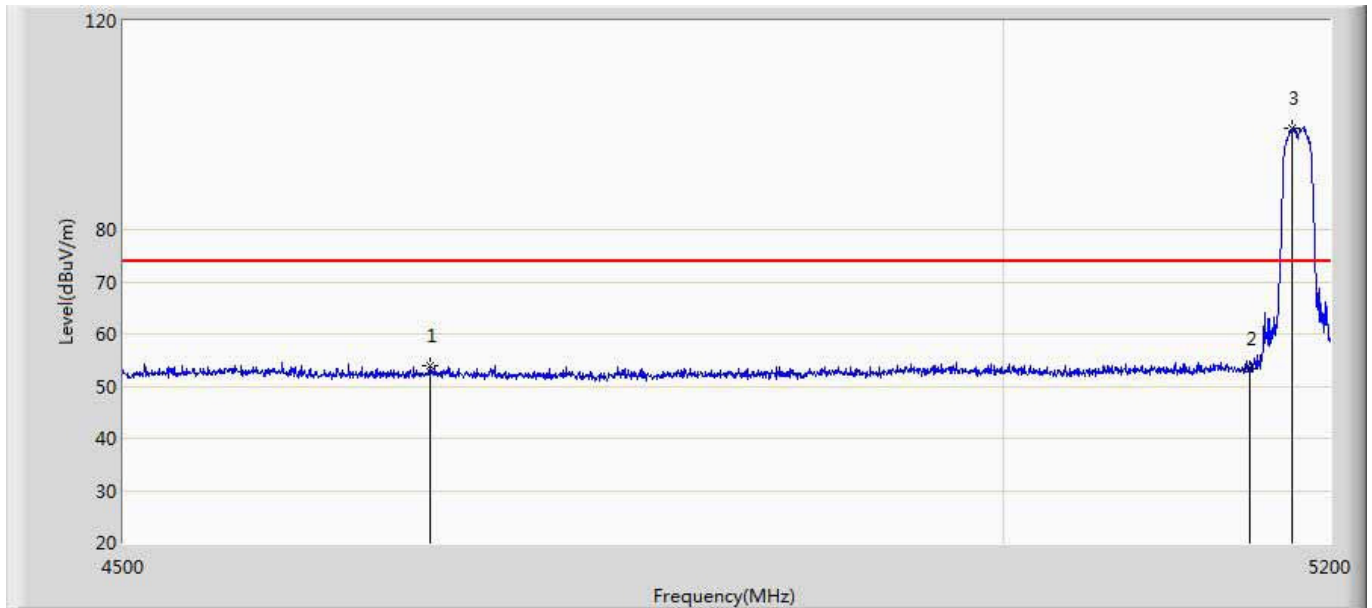
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5425.360	55.886	13.376	-18.114	74.000	42.510	PK
2		5460.000	54.431	11.774	-19.569	74.000	42.657	PK
3	*	5503.280	101.313	58.698	N/A	N/A	42.615	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 15:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 5500Mhz by 802.11a	



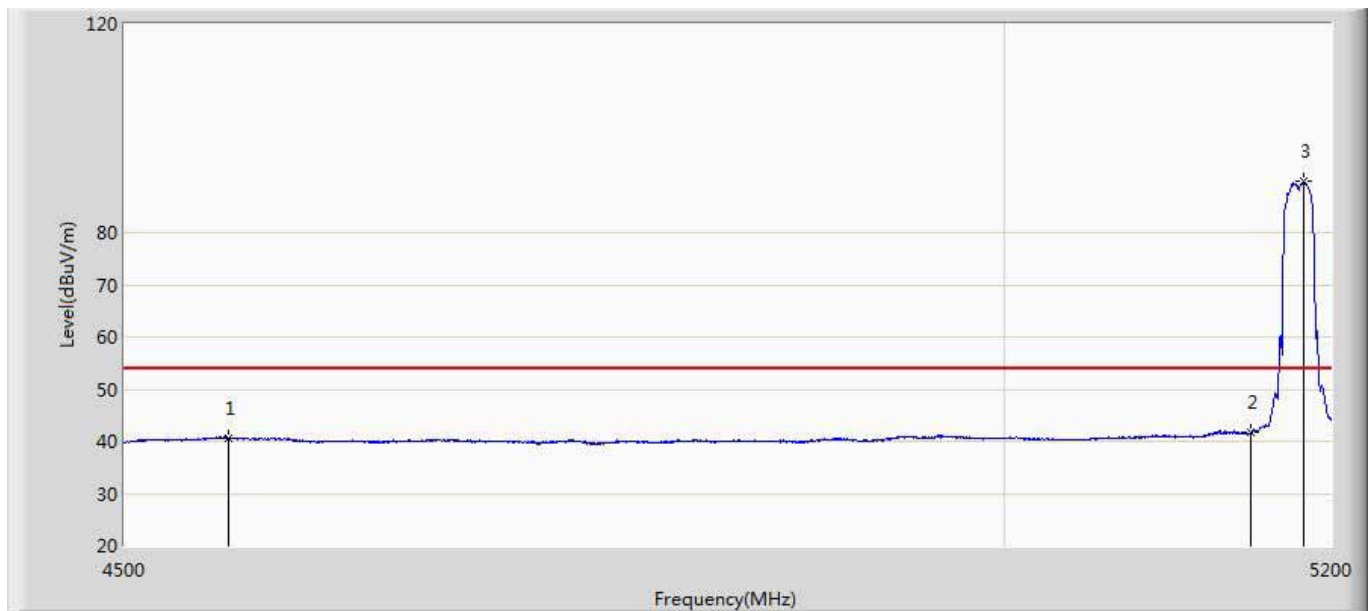
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	43.324	0.667	-10.676	54.000	42.657	AV
2	*	5497.040	90.997	48.306	N/A	N/A	42.691	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5180Mhz by 802.11n20	



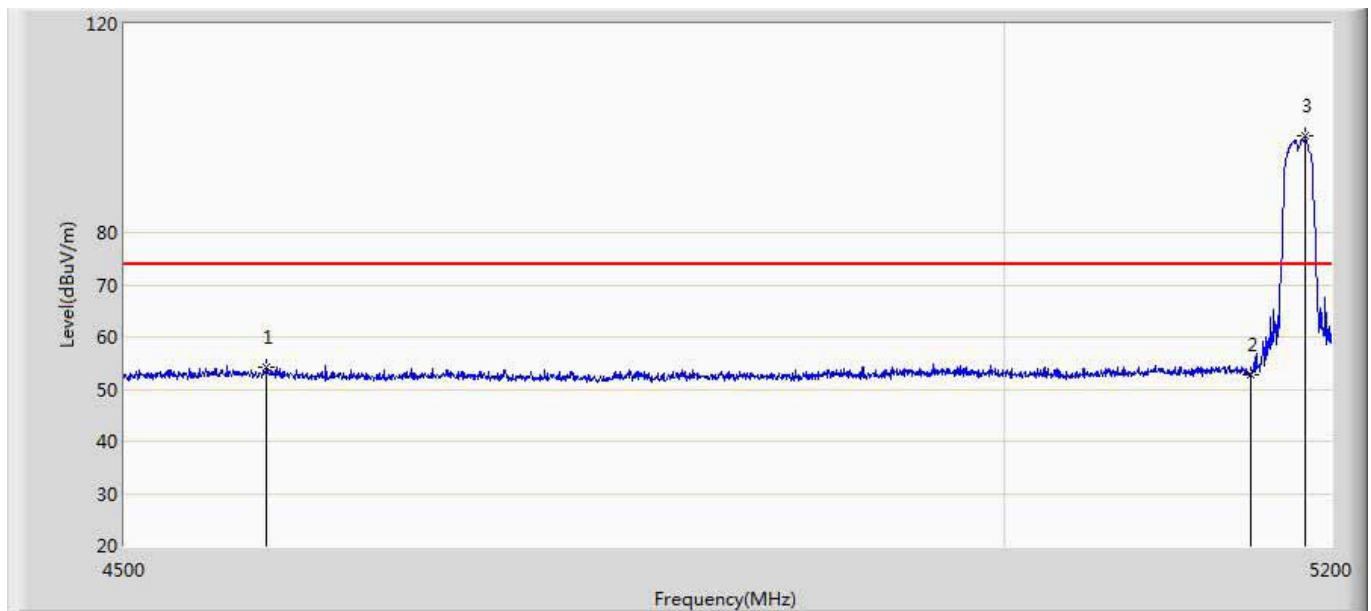
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4668.350	54.057	12.737	-19.943	74.000	41.320	PK
2		5150.000	53.397	11.382	-20.603	74.000	42.015	PK
3	*	5176.900	99.293	57.148	N/A	N/A	42.145	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5180Mhz by 802.11n20	



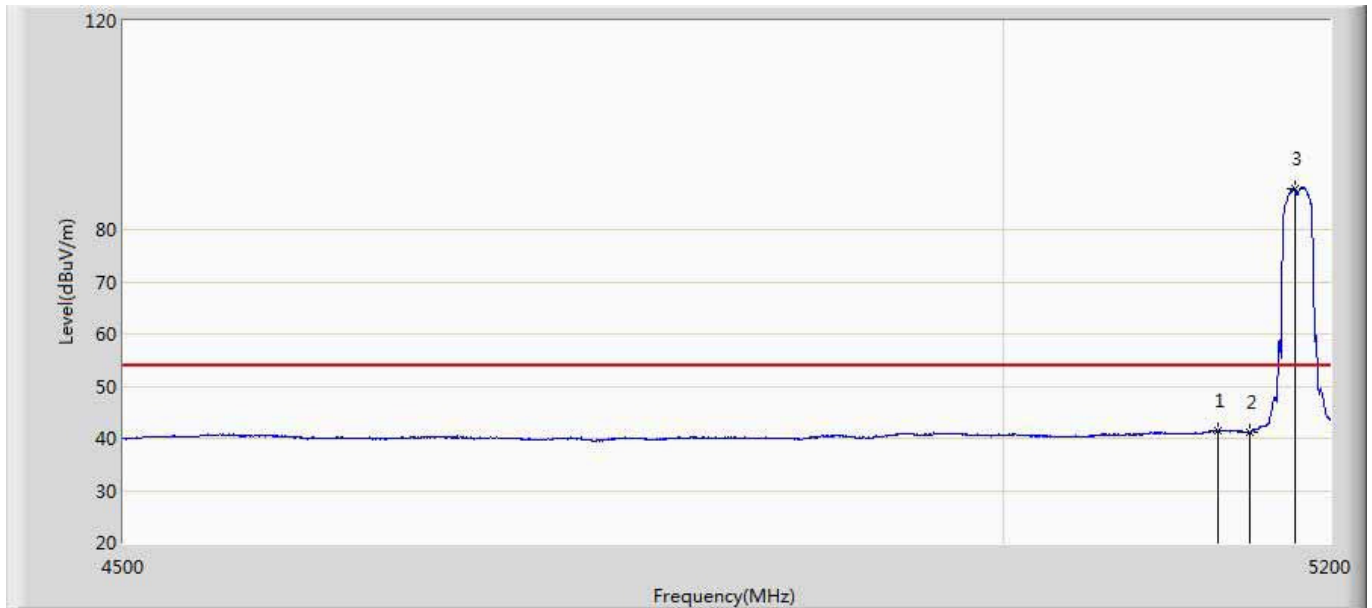
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4556.350	40.654	-0.663	-13.346	54.000	41.318	AV
2		5150.000	41.645	-0.370	-12.355	54.000	42.015	AV
3	*	5183.200	89.753	47.615	N/A	N/A	42.137	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5180Mhz by 802.11n20	



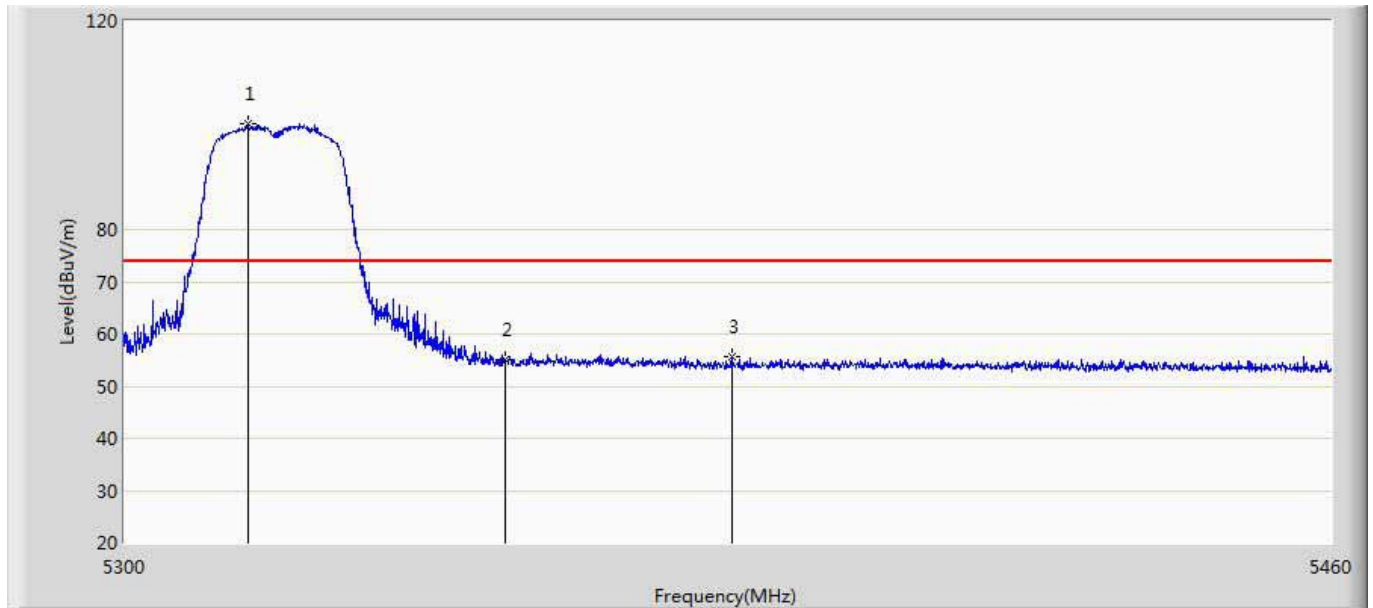
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4577.350	54.330	13.001	-19.670	74.000	41.329	PK
2		5150.000	52.878	10.863	-21.122	74.000	42.015	PK
3	*	5184.250	98.539	56.408	N/A	N/A	42.131	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5180Mhz by 802.11n20	



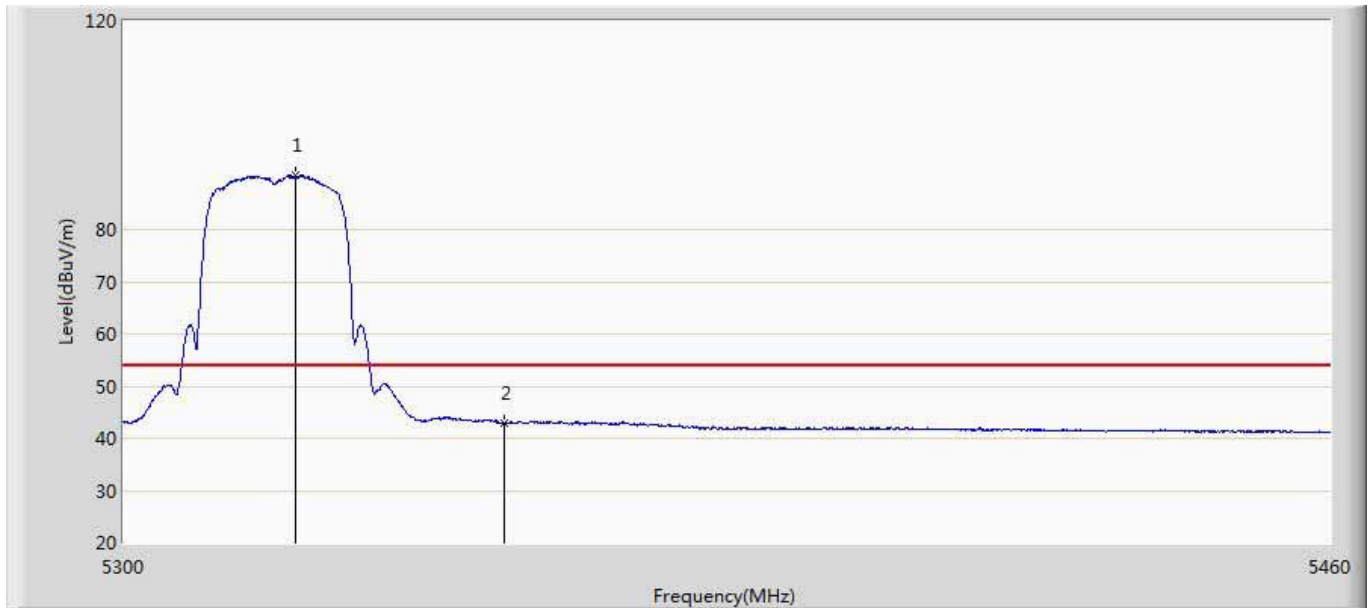
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5131.050	41.592	-0.654	-12.408	54.000	42.246	AV
2		5150.000	41.258	-0.757	-12.742	54.000	42.015	AV
3	*	5177.950	87.866	45.721	N/A	N/A	42.145	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5320Mhz by 802.11n20	



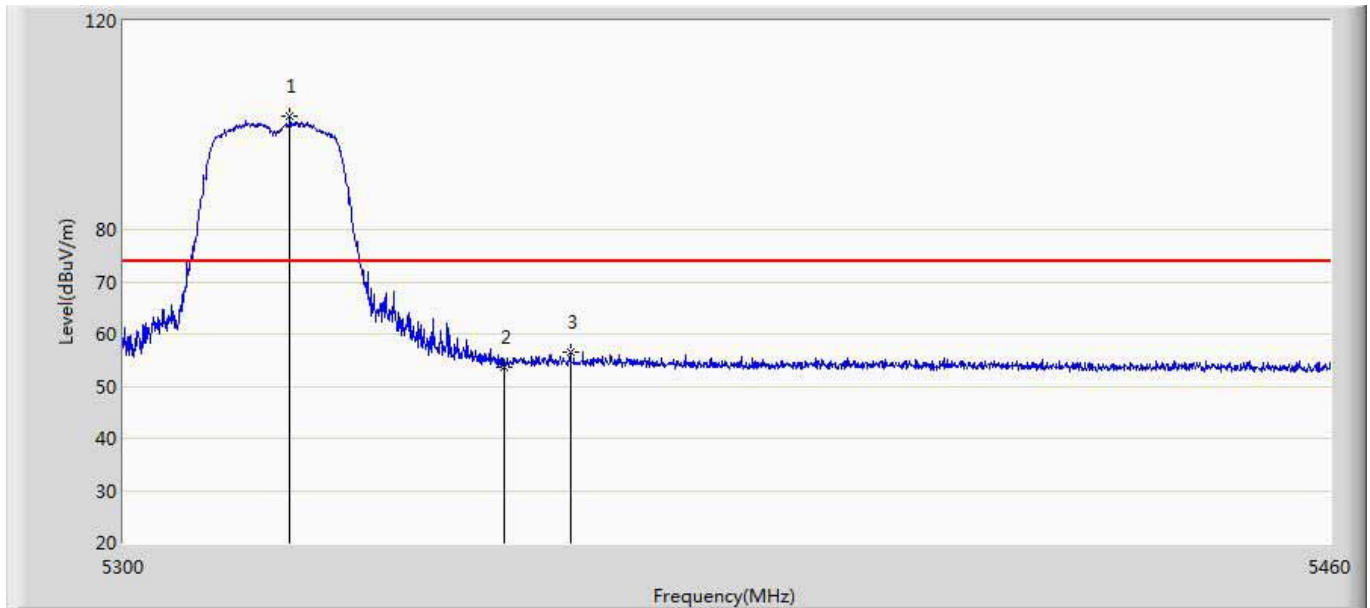
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5316.160	100.278	57.882	N/A	N/A	42.396	PK
2		5350.000	54.997	12.481	-19.003	74.000	42.516	PK
3		5380.080	55.756	13.378	-18.244	74.000	42.378	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5320Mhz by 802.11n20	



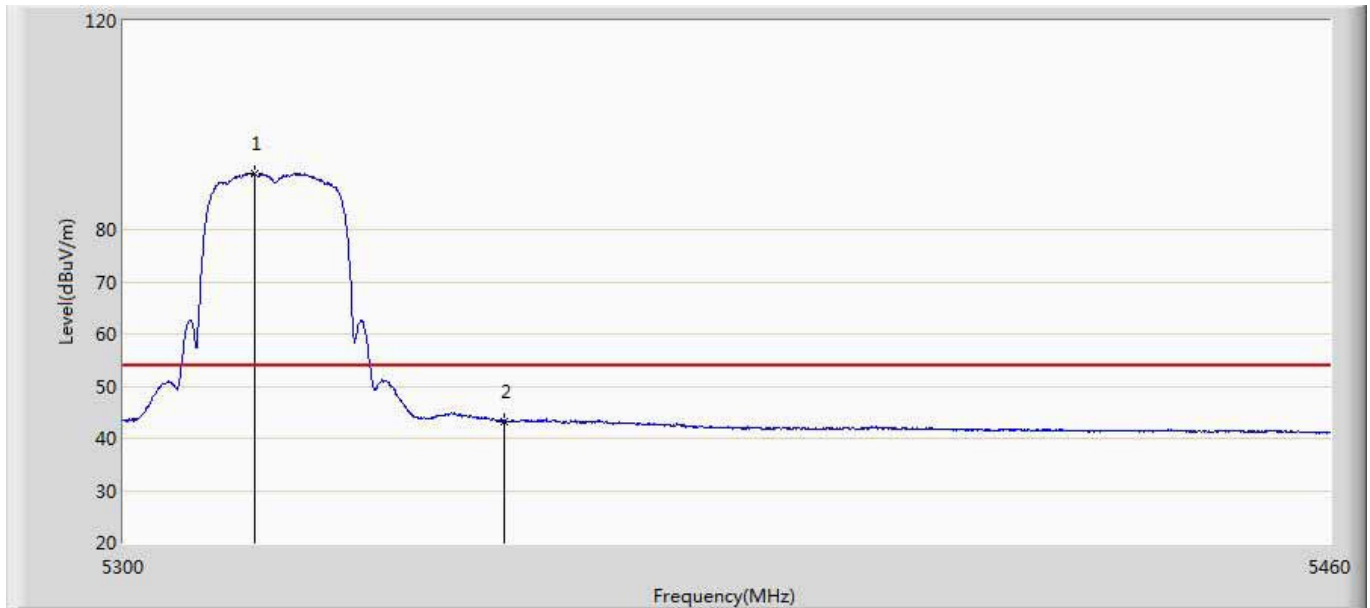
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5322.560	90.369	48.029	N/A	N/A	42.341	AV
2		5350.000	42.958	0.442	-11.042	54.000	42.516	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5320Mhz by 802.11n20	



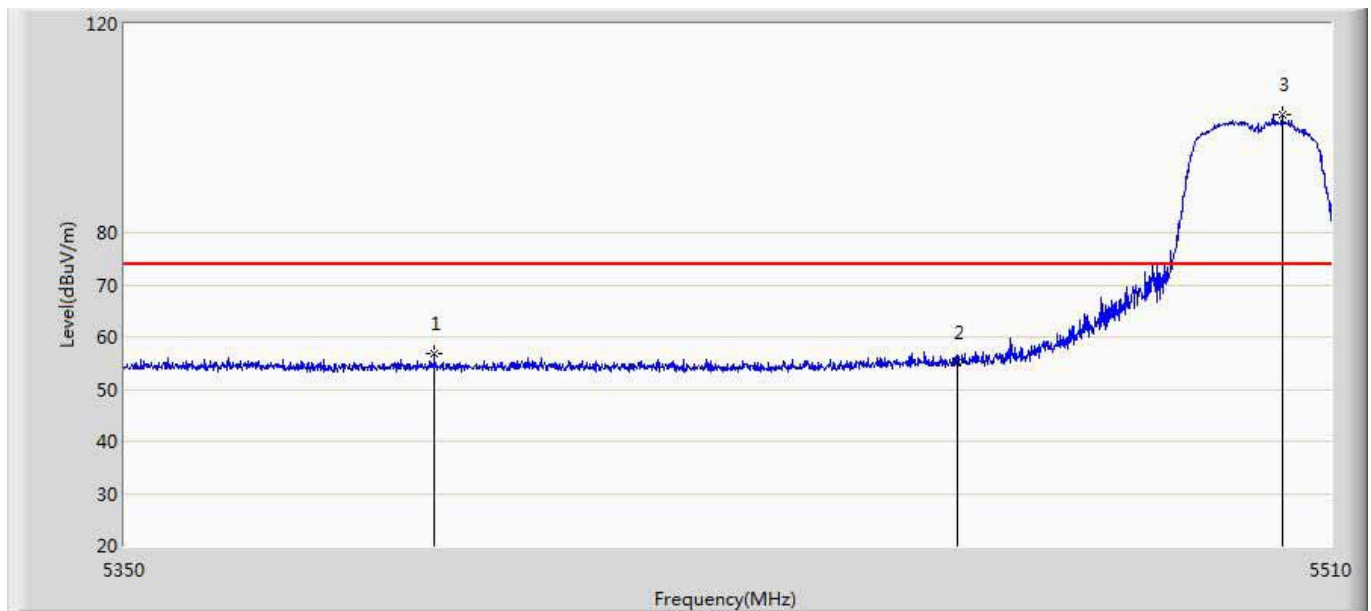
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5321.840	101.618	59.269	N/A	N/A	42.349	PK
2		5350.000	53.766	11.250	-20.234	74.000	42.516	PK
3		5358.720	56.625	14.098	-17.375	74.000	42.527	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5320Mhz by 802.11n20	



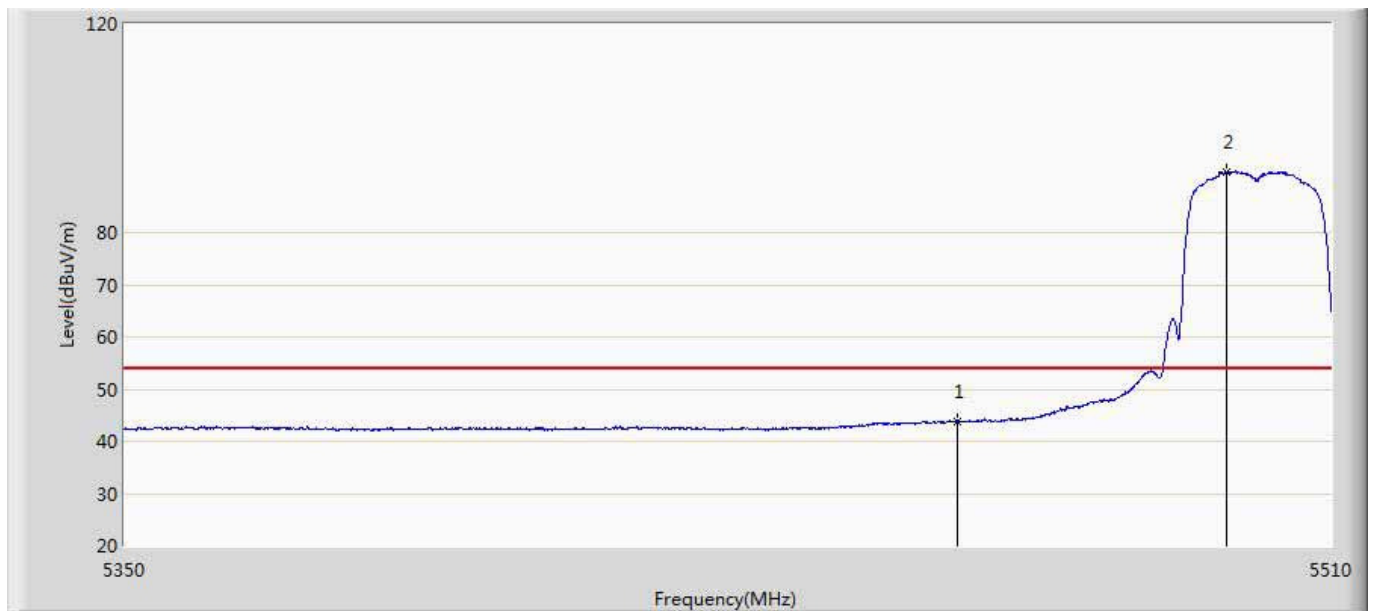
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5317.200	90.725	48.329	N/A	N/A	42.396	AV
2		5350.000	43.287	0.771	-10.713	54.000	42.516	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5500Mhz by 802.11n20	



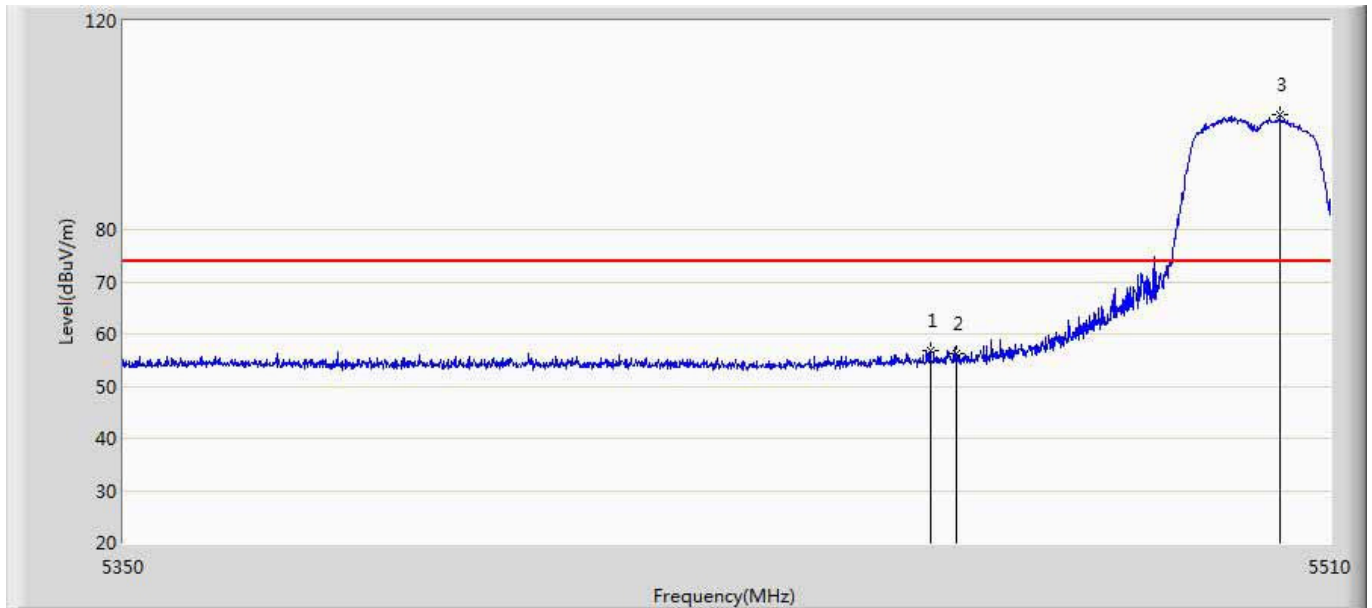
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5390.640	56.864	14.508	-17.136	74.000	42.356	PK
2		5460.000	54.936	12.279	-19.064	74.000	42.657	PK
3	*	5503.440	102.520	59.907	N/A	N/A	42.613	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5500Mhz by 802.11n20	



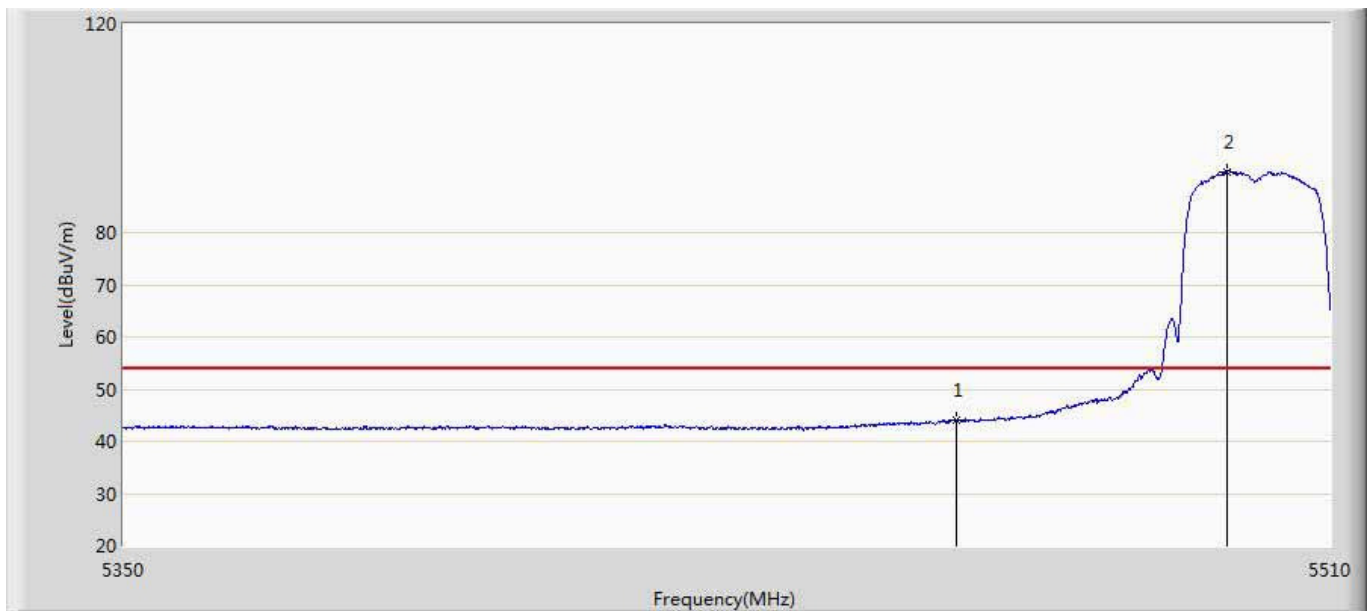
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	43.644	0.987	-10.356	54.000	42.657	AV
2	*	5495.920	91.618	48.914	N/A	N/A	42.705	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5500Mhz by 802.11n20	



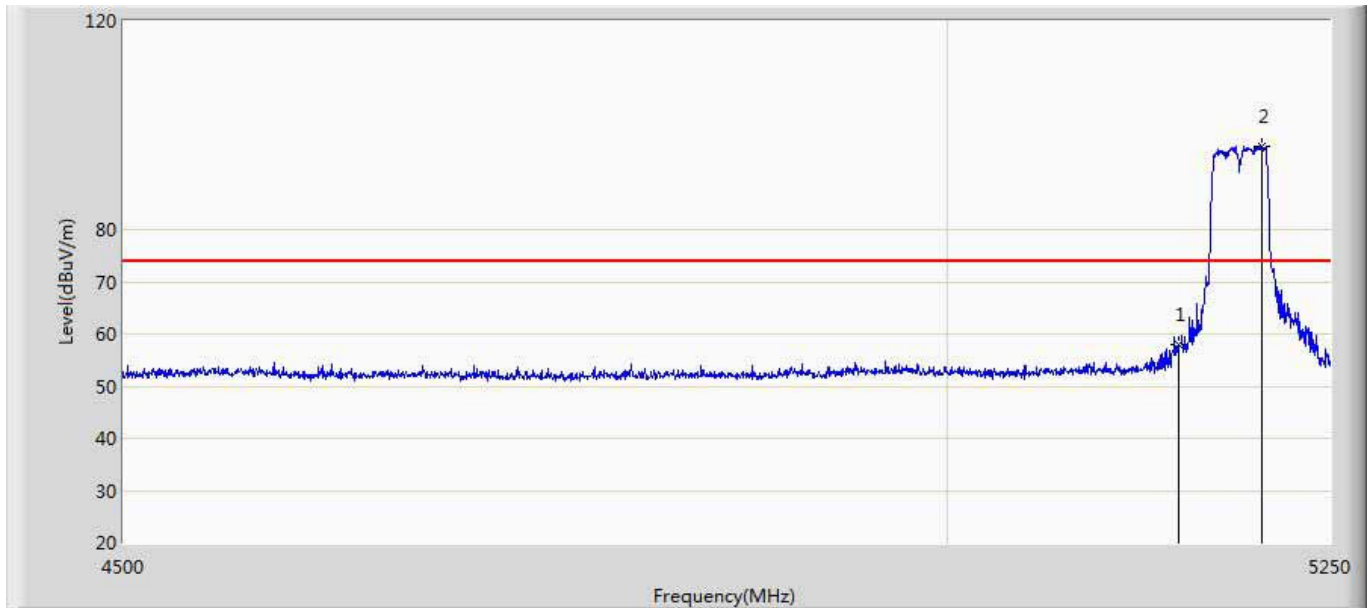
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5456.480	56.928	14.316	-17.072	74.000	42.611	PK
2		5460.000	56.346	13.689	-17.654	74.000	42.657	PK
3	*	5503.280	102.153	59.538	N/A	N/A	42.615	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 5500Mhz by 802.11n20	



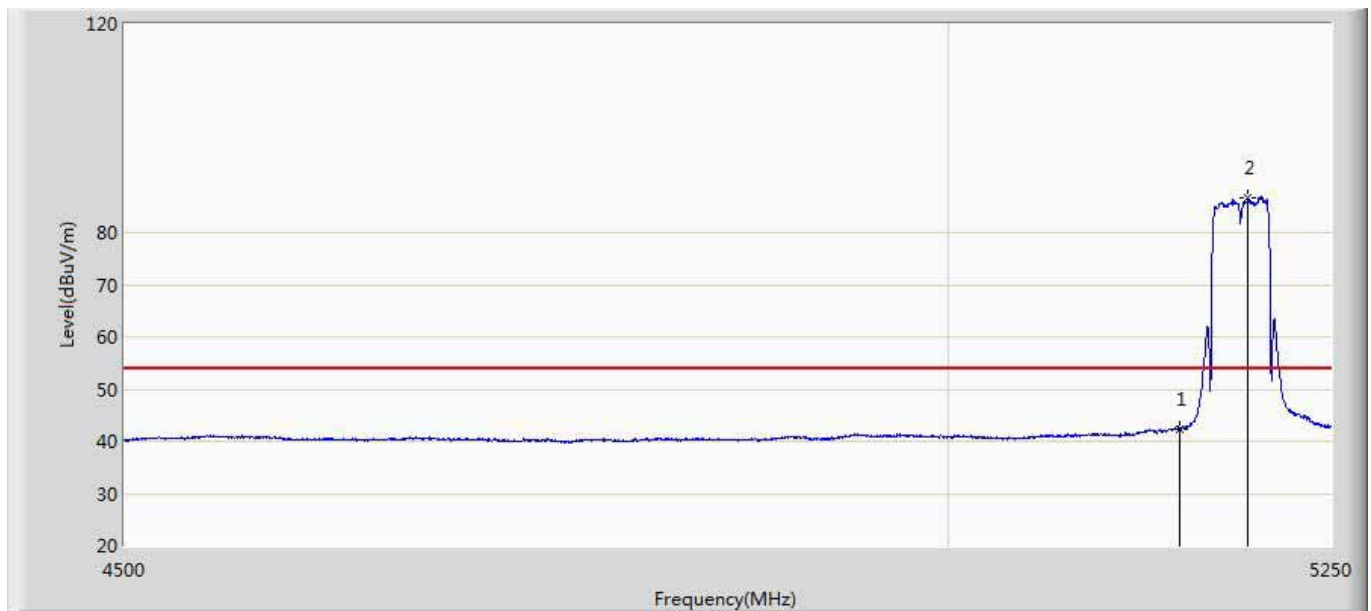
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	44.045	1.388	-9.955	54.000	42.657	AV
2	*	5496.080	91.609	48.907	N/A	N/A	42.702	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5190Mhz by 802.11n40	



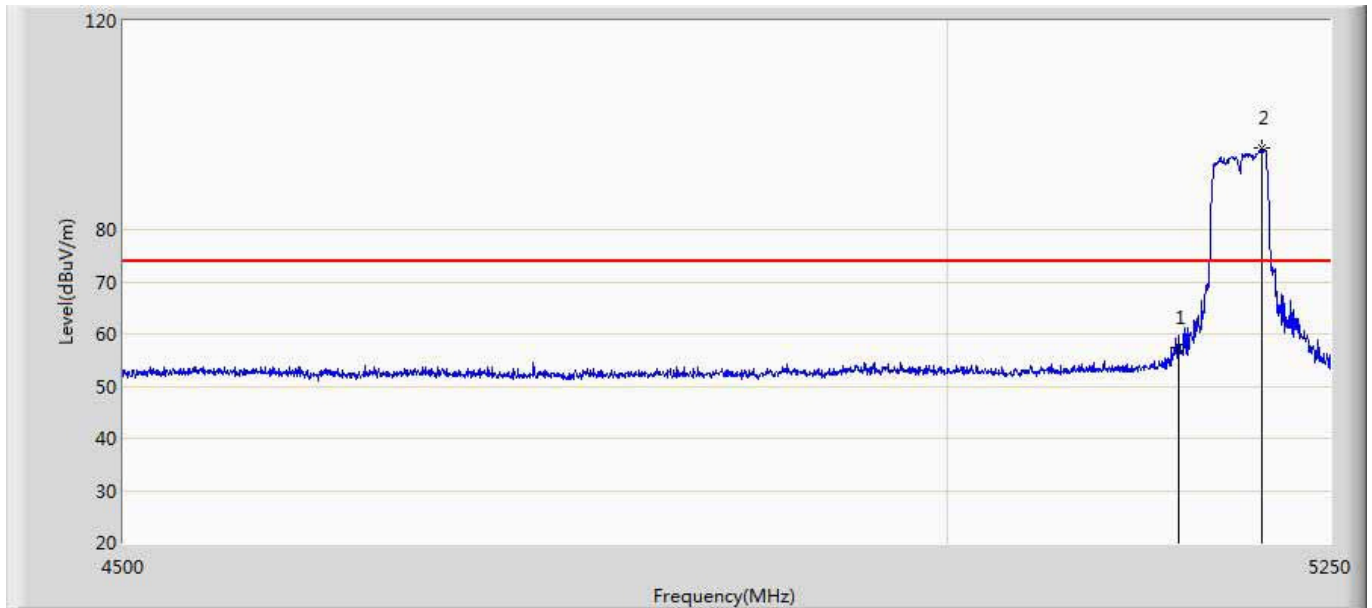
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	57.894	15.879	-16.106	74.000	42.015	PK
2	*	5204.250	96.011	53.991	N/A	N/A	42.020	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5190Mhz by 802.11n40	



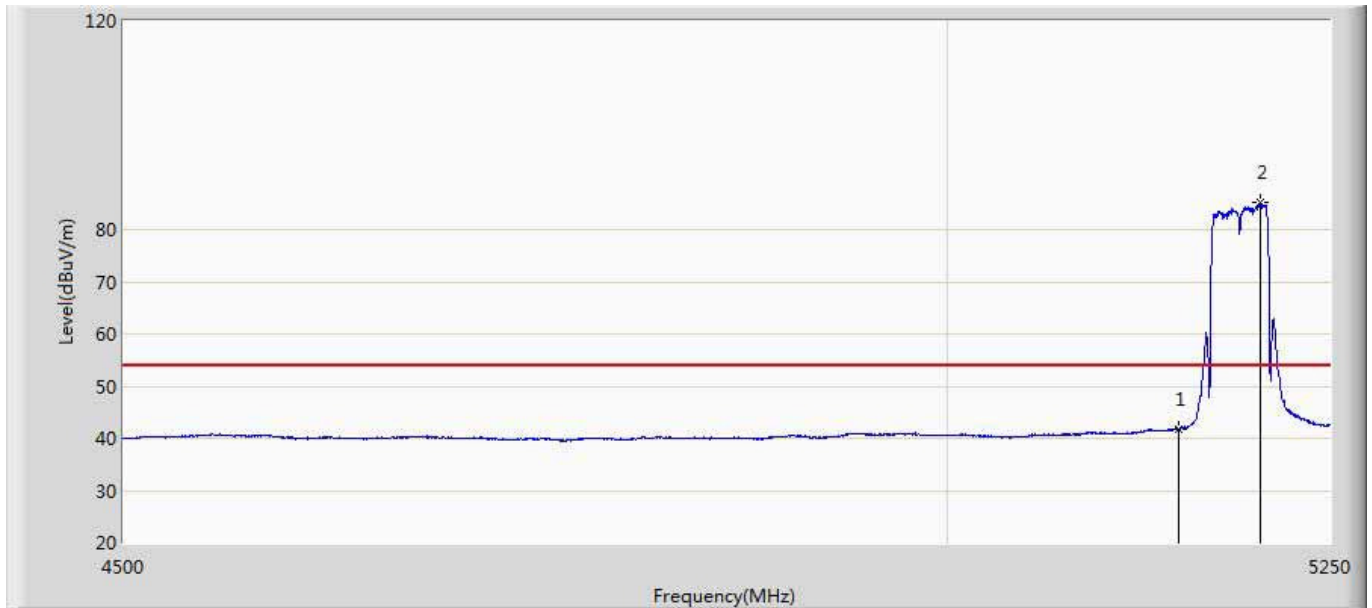
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	42.441	0.426	-11.559	54.000	42.015	AV
2	*	5194.500	86.633	44.568	N/A	N/A	42.065	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5190Mhz by 802.11n40	



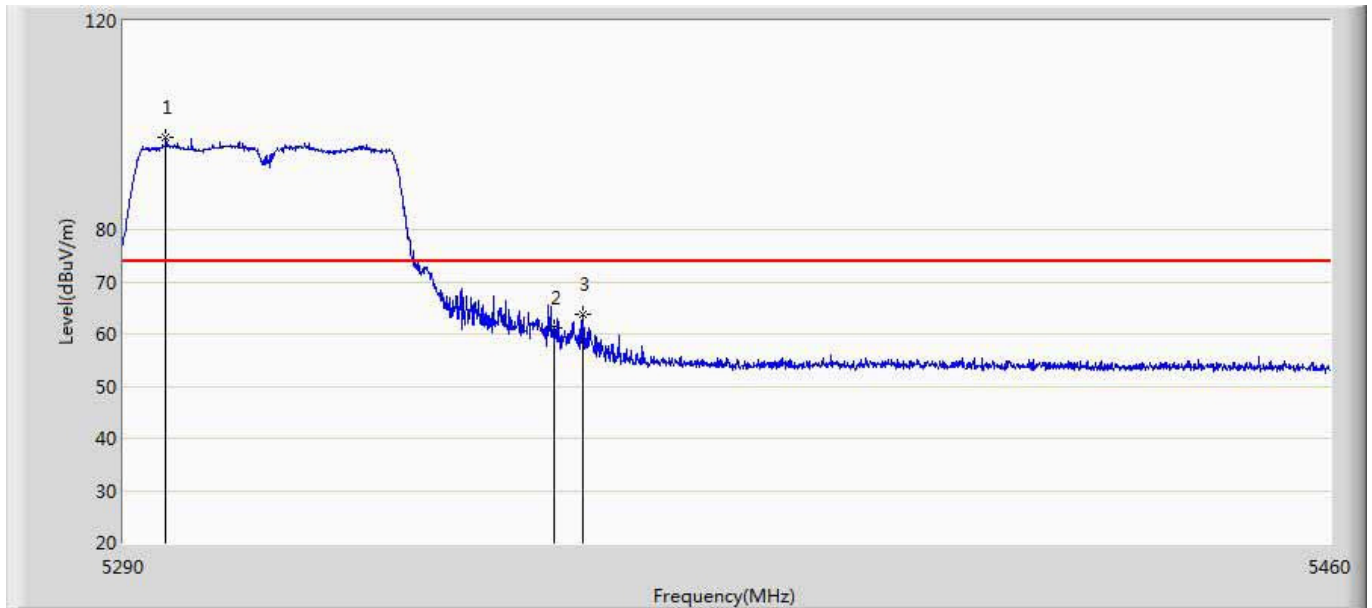
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	57.276	15.261	-16.724	74.000	42.015	PK
2	*	5205.000	95.738	53.721	N/A	N/A	42.017	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 16:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5190Mhz by 802.11n40	



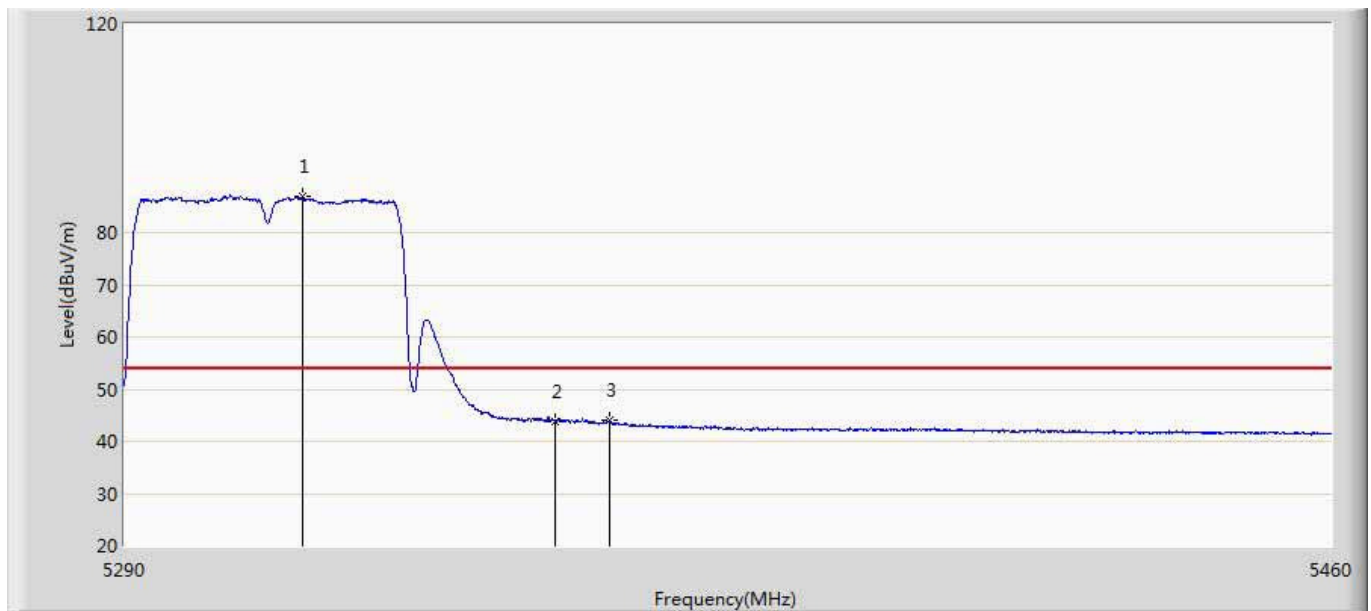
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	41.827	-0.188	-12.173	54.000	42.015	AV
2	*	5203.125	85.124	43.101	N/A	N/A	42.023	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 17:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5310Mhz by 802.11n40	



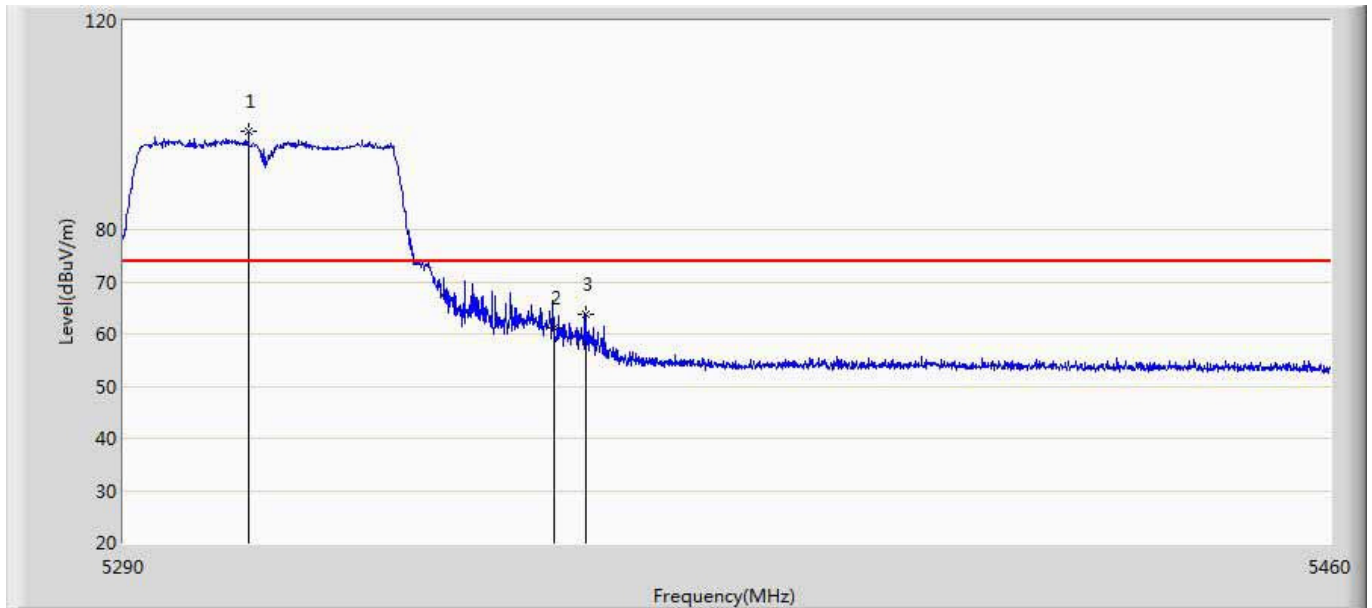
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5295.950	97.732	55.433	N/A	N/A	42.299	PK
2		5350.000	61.233	18.717	-12.767	74.000	42.516	PK
3		5354.175	63.626	21.077	-10.374	74.000	42.549	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 17:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5310Mhz by 802.11n40	



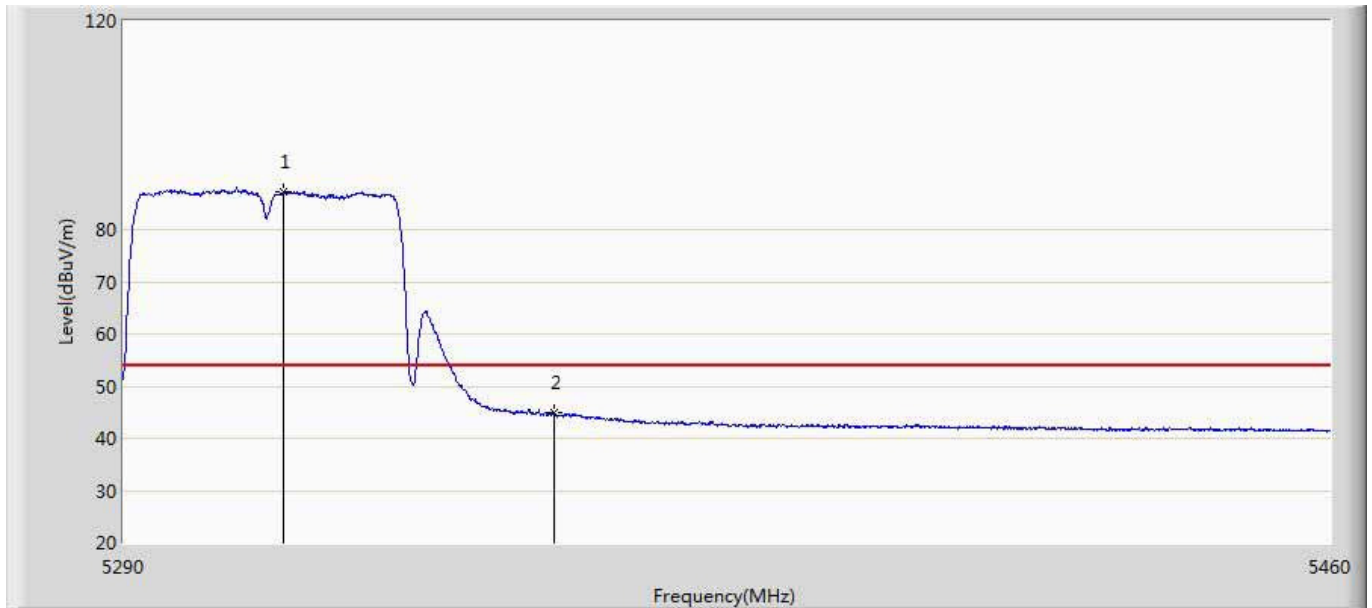
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5314.820	86.812	44.416	N/A	N/A	42.396	AV
2		5350.000	43.855	1.339	-10.145	54.000	42.516	AV
3		5357.745	44.186	1.654	-9.814	54.000	42.532	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 17:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5310Mhz by 802.11n40	



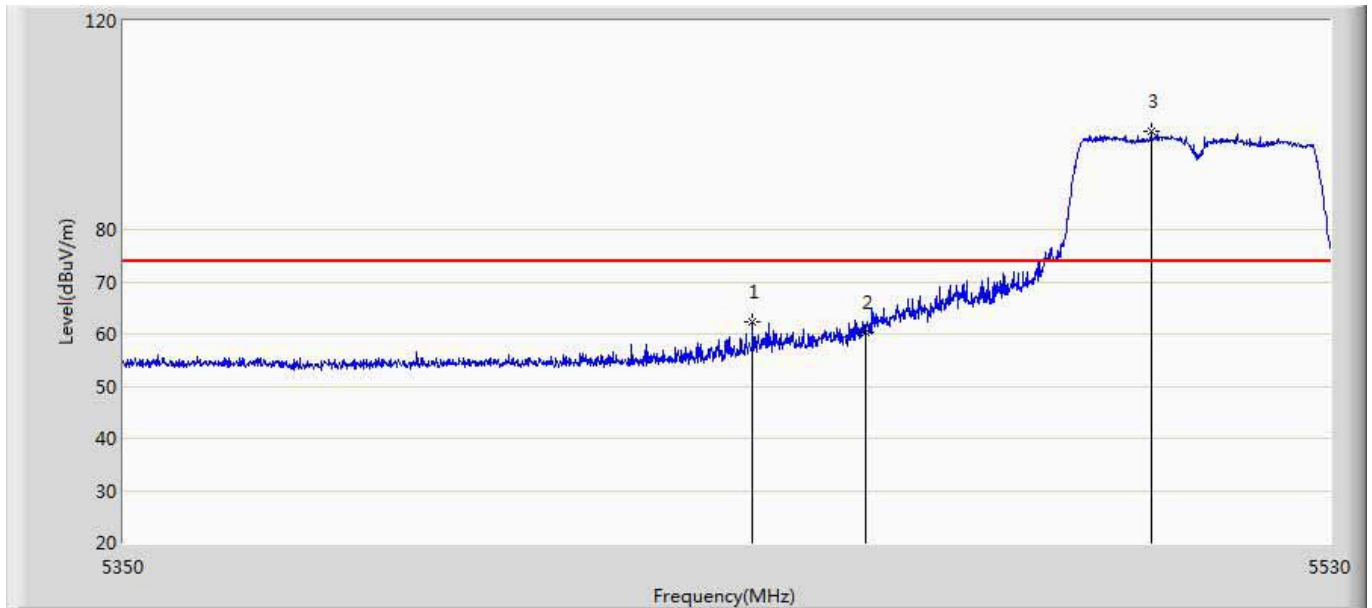
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5307.425	98.854	56.460	N/A	N/A	42.393	PK
2		5350.000	61.183	18.667	-12.817	74.000	42.516	PK
3		5354.515	63.820	21.272	-10.180	74.000	42.548	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 17:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5310Mhz by 802.11n40	



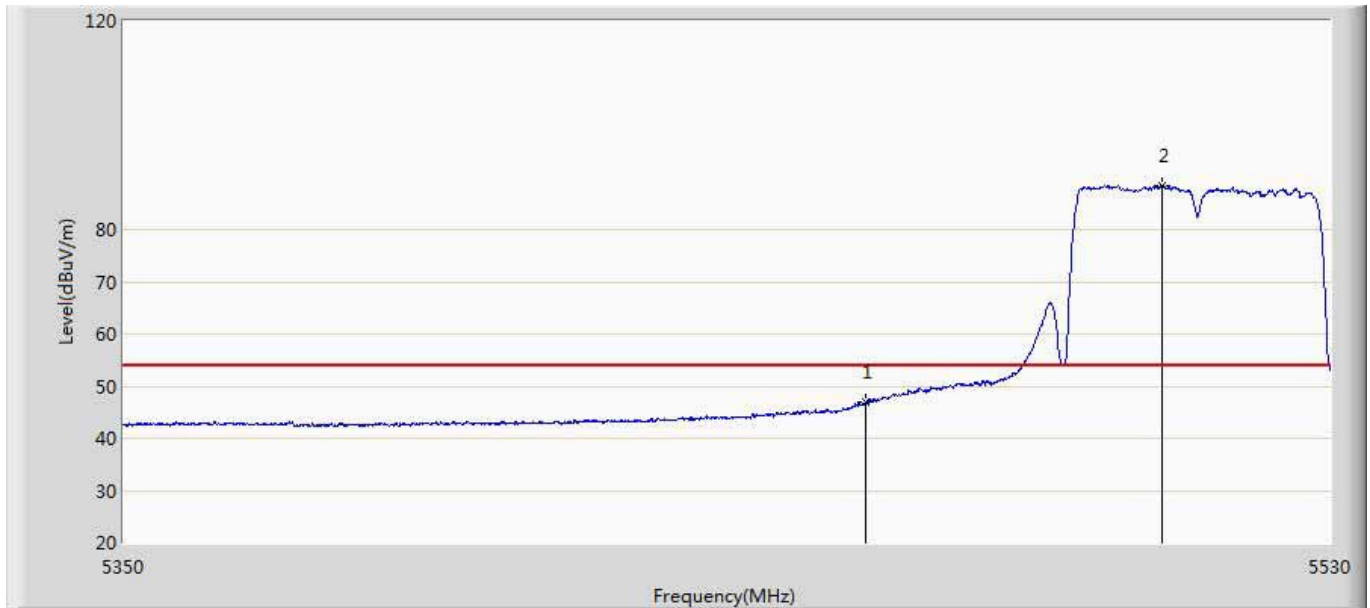
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5312.355	87.284	44.889	N/A	N/A	42.395	AV
2		5350.000	44.783	2.267	-9.217	54.000	42.516	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 17:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5510Mhz by 802.11n40	



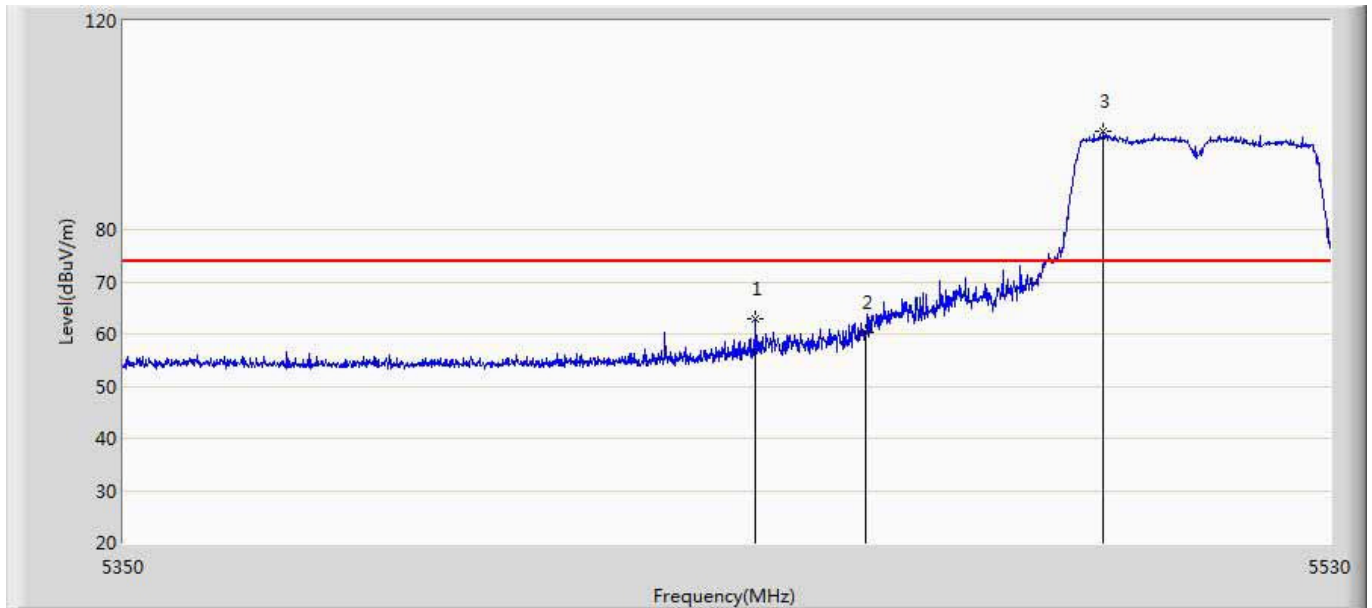
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5443.150	62.393	19.874	-11.607	74.000	42.519	PK
2		5460.000	60.185	17.528	-13.815	74.000	42.657	PK
3	*	5503.000	98.809	56.190	N/A	N/A	42.619	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 17:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5510Mhz by 802.11n40	



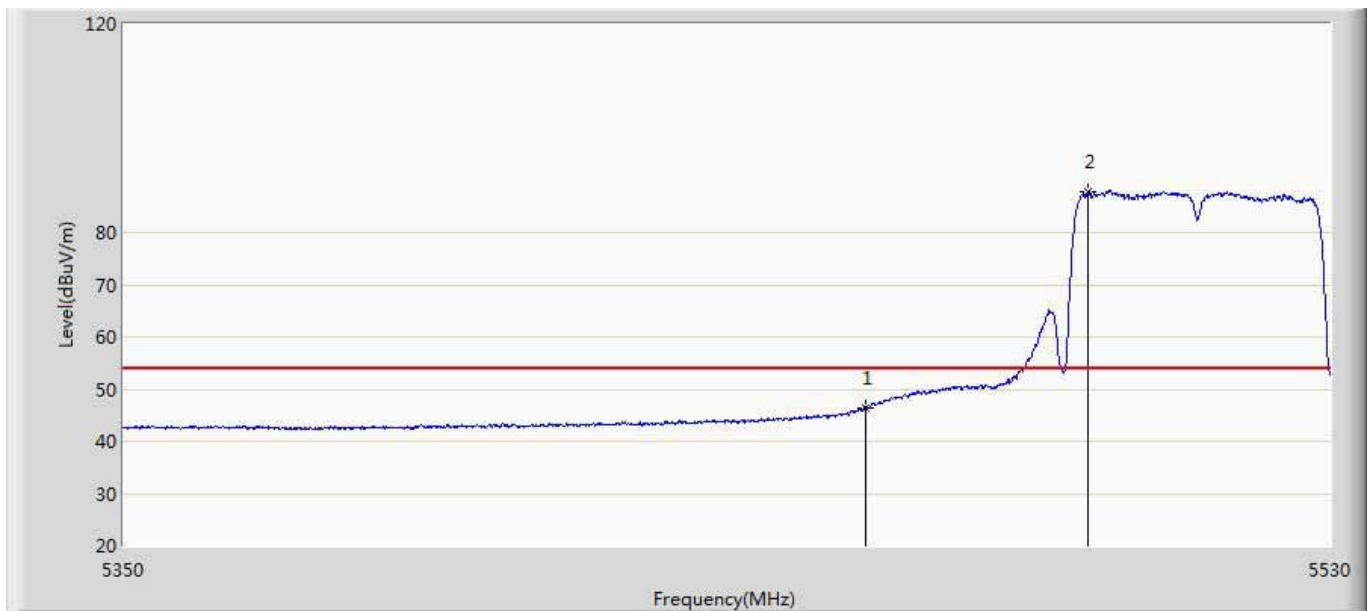
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	46.827	4.170	-7.173	54.000	42.657	AV
2	*	5504.530	88.546	45.946	N/A	N/A	42.600	AV

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 17:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5510Mhz by 802.11n40	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5443.600	62.793	20.272	-11.207	74.000	42.522	PK
2		5460.000	60.401	17.744	-13.599	74.000	42.657	PK
3	*	5495.800	98.708	56.002	N/A	N/A	42.706	PK

Engineer: Scott	
Site: AC5	Time: 2016/05/10 - 17:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Notebook PC	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 5510Mhz by 802.11n40	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	46.510	3.853	-7.490	54.000	42.657	AV
2	*	5493.460	87.692	44.958	N/A	N/A	42.734	AV

_____ The End _____