FCC 47 CFR PART 15 SUBPART C

CERTIFICATION TEST REPORT

For

Network Video Recorder

MODEL NUMBER: DHI-NVR2108-W-4KS2

FCC ID: SVNDHNVR21W

REPORT NUMBER: 4788560210.2-4

ISSUE DATE: September 10, 2018

Prepared for

ZHEJIANG DAHUA VISION TECHNOLOGY CO.,LTD.
No.1199, Bin' an Road, Binjiang District, Hangzhou, P.R. China

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
--	09/10/2018	Initial Issue	

Summary of Test Results			
Clause	**Test Items**	FCC Rules	Test Results
1	6dB Bandwidth	FCC 15.247 (a) (2)	PASS
2	Peak Conducted Output Power	FCC 15.247 (b) (3)	PASS
3	Power Spectral Density	FCC 15.247 (e)	PASS
4	Conducted Bandedge and Spurious Emission	FCC 15.247 (d)	PASS
5	Radiated Bandedge and Spurious Emission	FCC 15.247 (d) FCC 15.209 FCC 15.205	PASS
6	Conducted Emission Test For AC Power Port	FCC 15.207	PASS
7	Antenna Requirement	FCC 15.203	PASS

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	ZHEJIANG DAHUA VISION TECHNOLOGY CO.,LTD.
Address:	No.1199, Bin'an Road, Binjiang District, Hangzhou, P.R. China

Manufacturer Information

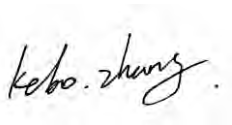
Company Name:	ZHEJIANG DAHUA VISION TECHNOLOGY CO.,LTD.
Address:	No.1199, Bin'an Road, Binjiang District, Hangzhou, P.R. China

EUT Description

Product Name	Network Video Recorder
Model Name	DHI-NVR2108-W-4KS2
Sample Status	Good
Sample Received date	August 13, 2018
Date Tested	August 15~September 10, 2018

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	PASS

Tested By:



Kebo Zhang
Engineer

Checked By:

Shawn Wen
Laboratory Leader

Approved By:

Stephen Guo

Laboratory Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, KDB558074 D01 DTS Meas Guidance v05, KDB414788 D01 Radiated Test Site v01r01, ANSI C63.10-2013 and KDB 662911 D01 Multiple Transmitter Output v02r01.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Delcaration of Conformity (DoC) and Certification rules **IC(Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320. **VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OATS.

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4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognize national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.90dB
Uncertainty for Radiation Emission test(include Fundamental emission) (9KHz-30MHz)	2.2dB
Uncertainty for Radiation Emission test(include Fundamental emission) (30MHz-1GHz)	4.52dB
Uncertainty for Radiation Emission test (1GHz to 26GHz)(include Fundamental emission)	5.04dB(1-6GHz)
	5.30dB (6GHz-18Gz)
	5.23dB (18GHz-26Gz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

Equipment	Network Video Recorder
Model Name	DHI-NVR2108-W-4KS2
Series model	DHI-NVR2104-W-4KS2,DHI-NVR2108-W-4KS2, NVR2104-W-4KS2,NVR2108-W-4KS2, NVR2104-W-4KS2-Lechange,NVR2108-W-4KS2-Lechange, DHI-NVR21XY-W-4KSZ, DH-NVR21XY-W-4KSZ, NVR21XY-W-4KSZ, NVR21XY-W-4KSZ-Lechange
Model difference	Different: only the name and the number of channels for audio, video input and output are different (different ways are supported by software functions, the hardware structure is the same), 04 stands for 4 channels, 08 stands for 8 channels; XY can be 04,08,16,32,64. Z can be 0~9 (only the version number of different product models of the same product is different, no hardware information is involved); the structure of the product is the same as that of the power supply. The electrical principle and key components are identical and do not affect the safety and electromagnetic compatibility of the product.
Radio Technology	IEEE802.11b/g/n HT20
Operation frequency	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz
Modulation	IEEE 802.11b: DSSS(CCK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK)
Power Supply	AC120V/60Hz

5.2. MAXIMUM OUTPUT POWER

Frequency Range (MHz)	Number of Transmit ANTs (NTX)	IEE Std. 802.11	Channel Number	Max Conducted PEAK Power (dBm)
2412-2462	2	b	1-11[11]	9.62
2412-2462	2	g	1-11[11]	18.03
2412-2462	2	n HT20	1-11[11]	17.29

Note: All mode support MIMO mode.

5.3. CHANNEL LIST

Channel List for 802.11b/g/n (20 MHz)					
Channel	Frequency (MHz)	Channel	Frequency(MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447	12	/

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
WiFi TX(802.11b)	CH 1, CH 6, CH 11	2412MHz, 2437MHz, 2462MHz
WiFi TX(802.11g)	CH 1, CH 6, CH 11	2412MHz, 2437MHz, 2462MHz
WiFi TX(802.11n HT20)	CH 1, CH 6, CH 11	2412MHz, 2437MHz, 2462MHz

5.5. THE WORSE CASE CONFIGURATIONS

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band				
Test Software		Tera Term		
Modulation Mode	Transmit Antenna Number	Test Channel		
		NCB: 20MHz		
		CH 1	CH 6	CH 11
802.11b	1	4	4	4
802.11g	1	6.5	6.5	6.5
802.11n HT20	1	6.5	6.5	6.5
802.11b	2	4	4	4
802.11g	2	6.5	6.5	6.5
802.11n HT20	2	6.5	6.5	6.5

5.6. TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests	
Relative Humidity	55 ~ 65%	
Atmospheric Pressure:	1025Pa	
Temperature	TN	23 ~ 28°C
Voltage :	VL	N/A
	VN	AC 120V/60Hz
	VH	N/A

Note: VL= Lower Extreme Test Voltage
VN= Nominal Voltage
VH= Upper Extreme Test Voltage
TN= Normal Temperature

5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2412-2462	Omni-directional	4.67
2	2412-2462	Omni-directional	4.64

Note: Directional gain= $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 7.67 > 6dBi$

N_{ANT}: the number of Antenna

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11b	☒2TX, 2RX	ANT 1, 2 can be used as transmitting/receiving antenna.
IEEE 802.11g	☒2TX, 2RX	ANT 1, 2 can be used as transmitting/receiving antenna.
IEEE 802.11n HT20	☒2TX, 2RX	ANT 1, 2 can be used as transmitting/receiving antenna.

Note: All mode support MIMO mode.

5.8. WORST-CASE CONFIGURATIONS

IEE Std. 802.11	Modulation Technology	Modulation Type	Data Rate (Mbps)	Worst Case (Mbps)
b	DSSS	CCK	11/5.5/2/1	1
g	OFDM	BPSK, QPSK, 16QAM, 64QAM	54/48/36/24/18/12/9/6	6
n HT20	OFDM	BPSK, QPSK, 16QAM, 64QAM	MCS0~MCS15	MCS0

Note: 1.All mode support MIMO mode.
2.SISO mode and MIMO mode have the same power setting, so only the worst case MOMI mode will be record in the report.

5.9. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	PC	Dell	Vostro 3902	8KNDDB2
2	USB TO RS232	N/A	N/A	N/A

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	N/A	N/A	0.5	N/A
2	Network Line	N/A	N/A	0.8	N/A

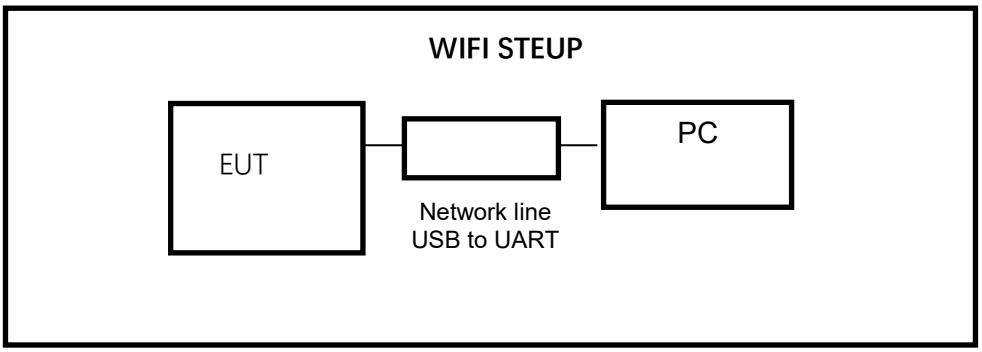
ACCESSORY

Item	Accessory	Brand Name	Model Name	Description
1	Adapter	HONOR	ADS-26FSG-12	Input: AC 100-240, 50/60Hz, 0.6A Output: 12V 2A
2	Adapter	MASS	S024-1A120200	Input: AC 100-240, 50/60Hz, 0.6A Output: 12V 2A
3	Hard Disk	Seagate	5VJB870P	500GB
Note: Both adapters have been pre-tested and only the worst case adapter data(MASS) is recorded in the report.				

TEST SETUP

The EUT can work in engineering mode with a software through a PC.

SETUP DIAGRAM FOR TESTS



5.10. MEASURING INSTRUMENT AND SOFTWARE USED

Conducted Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	EMI Test Receiver	R&S	ESR3	101961	Dec.12,2017	Dec.11,2018
☑	Two-Line V-Network	R&S	ENV216	101983	Dec.12,2017	Dec.11,2018
☑	Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Dec.12,2017	Dec.11,2018
Software						
Used	Description		Manufacturer	Name	Version	
☑	Test Software for Conducted disturbance		Farad	EZ-EMC	Ver. UL-3A1	

Radiated Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Dec.12,2017	Dec.11,2018
☑	Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Jan.09, 2016	Jan.09, 2019
☑	Preamplifier	HP	8447D	2944A09099	Dec.12,2017	Dec.11,2018
☑	EMI Measurement Receiver	R&S	ESR26	101377	Dec.12,2017	Dec.11,2018
☑	Horn Antenna	TDK	HRN-0118	130939	Jan. 09, 2016	Jan. 09, 2019
☑	High Gain Horn Antenna	Schwarzbeck	BBHA-9170	691	Jan.06, 2016	Jan.06, 2019
☑	Preamplifier	TDK	PA-02-0118	TRS-305-00066	Dec.12,2017	Dec.11,2018
☑	Preamplifier	TDK	PA-02-2	TRS-307-00003	Dec.12,2017	Dec.11,2018
☑	Loop antenna	Schwarzbeck	1519B	00008	Mar. 26, 2016	Mar. 25, 2019
☑	Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Dec.12, 2017	Dec.11, 2018
☑	High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Dec.12, 2017	Dec.11, 2018
Software						
Used	Description		Manufacturer	Name	Version	
☑	Test Software for Radiated disturbance		Farad	EZ-EMC	Ver. UL-3A1	

Other instruments						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	Spectrum Analyzer	Keysight	N9030A	MY55410512	Dec.12,2017	Dec.11,2018
☑	Power Meter	Keysight	N1911A	MY55416024	Dec.12,2017	Dec.11,2018
☑	Power Sensor	Keysight	N1921A	MY51100041	Dec.12,2017	Dec.11,2018

6. MEASUREMENT METHODS

No.	Test Item	KDB Name	Section
1	6dB Bandwidth	KDB 558074 D01 DTS Meas Guidance v05	8.0
2	Peak Output Power	KDB 558074 D01 DTS Meas Guidance v05	9.1.1
3	Power Spectral Density	KDB 558074 D01 DTS Meas Guidance v05	10.2
4	Out-of-band emissions in non-restricted bands	KDB 558074 D01 DTS Meas Guidance v05	11.0
5	Out-of-band emissions in restricted bands	KDB 558074 D01 DTS Meas Guidance v05	12.1
6	Band-edge	KDB 558074 D01 DTS Meas Guidance v05	13.3.2
7	Conducted Emission Test For AC Power Port	ANSI C63.10-2013	7.3
	99% Occupied bandwidth	ANSI C63.10-2013	6.9.3

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

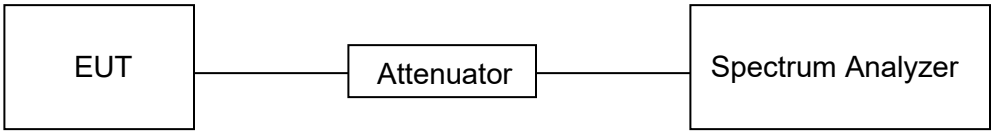
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



TEST ENVIRONMENT

Temperature	24.4°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

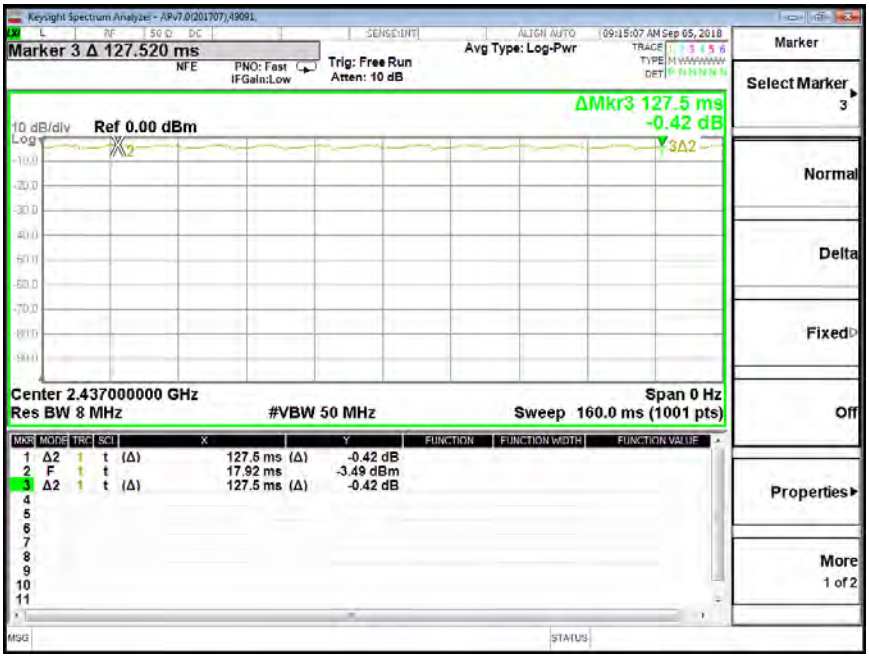
RESULTS

ANTENNA1

Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)	1/B Minimum VBW (KHz)
11b	127.5	127.5	1.00	100	0	0.01
11g	2.01	2.07	0.97	97	0.13	0.5
11n20	2.02	2.08	0.97	97	0.13	1.0

Note: Duty Cycle Correction Factor=10log(1/x).
Where: x is Duty Cycle (Linear)
Where: B is On Time
Antenna 1 and Antenna 2 has the same duty cycle, only Antenna 1 data show here.

11b 1TX ON TIME AND DUTY CYCLE MID CH



11g 1TX ON TIME AND DUTY CYCLE MID CH

11n20 CDD ON TIME AND DUTY CYCLE MID CH

7.2. 6 dB DTS BANDWIDTH AND 99% BANDWIDTH

LIMITS

FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.247(a)(2) RSS-247 5.1 (a)	6 dB Bandwidth	>= 500KHz	2400-2483.5
C63.10 Clause 6.9.3	99% Bandwidth	For reporting purposes only.	2400-2483.5

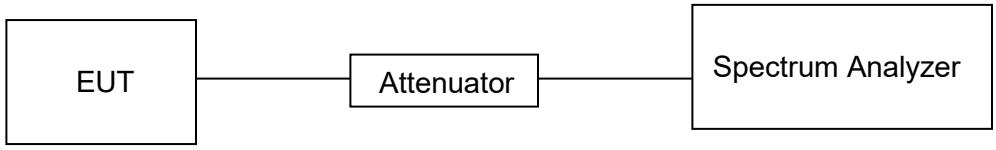
TEST PROCEDURE

Connect the UUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6dB Bandwidth :100K For 99% Bandwidth :1% to 5% of the occupied bandwidth
VBW	For 6dB Bandwidth : ≥3 × RBW For 99% Bandwidth : approximately 3×RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB and 99% relative to the maximum level measured in the fundamental emission.

TEST SETUP



TEST ENVIRONMENT

Temperature	24.4°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

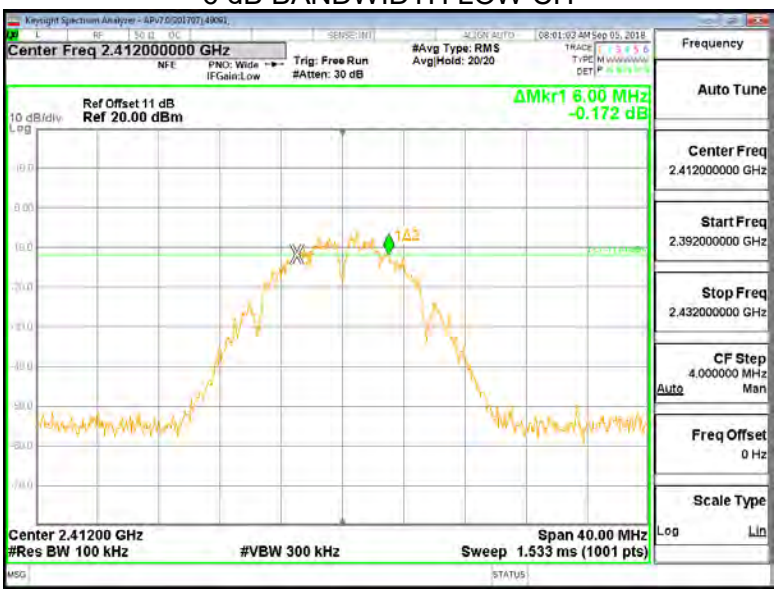
RESULTS

7.2.1. 802.11b MODE

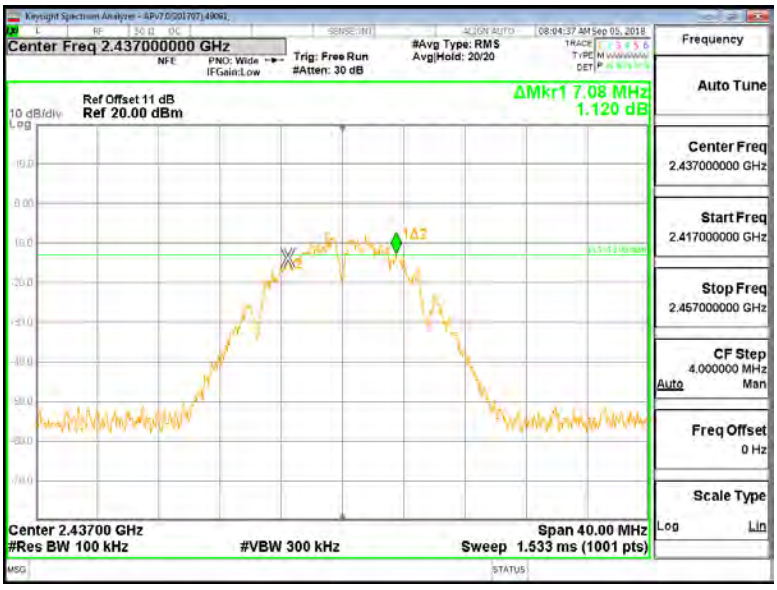
ANTENNA1

Frequency (MHz)	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit For 6dB (kHz)	Result
2412	6.00	11.052	500	Pass
2437	7.08	11.222	500	Pass
2462	6.36	11.007	500	Pass

6 dB BANDWIDTH LOW CH

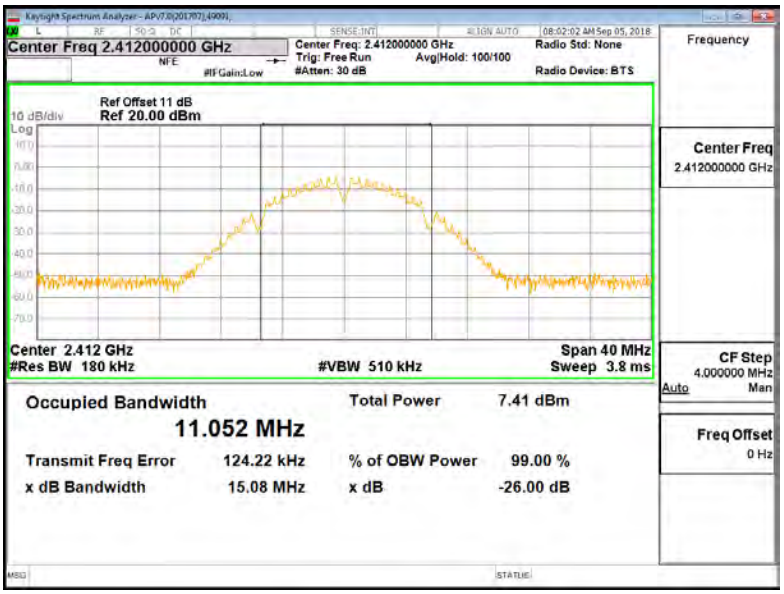


6 dB BANDWIDTH MID CH

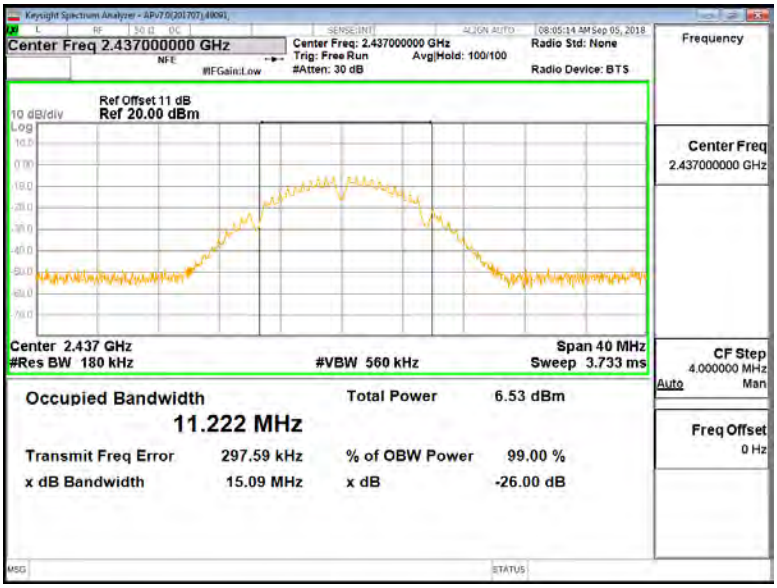


6 dB BANDWIDTH HIGH CH

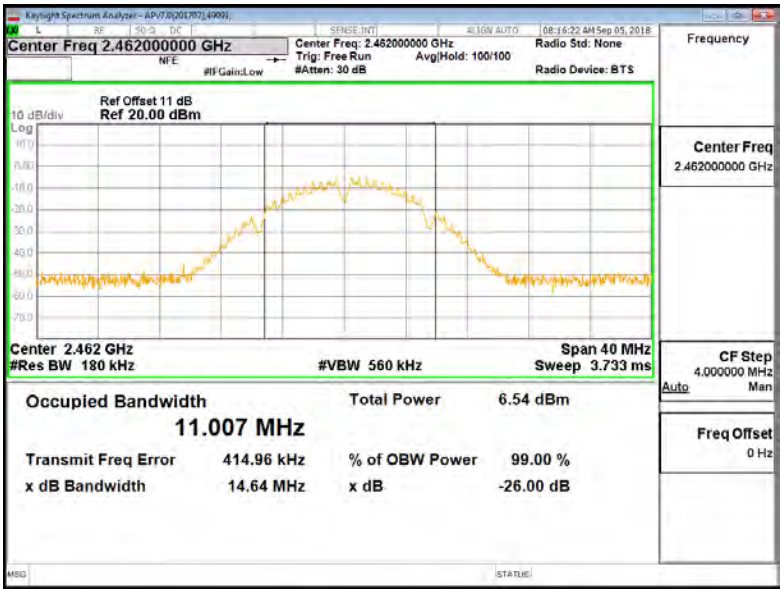
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



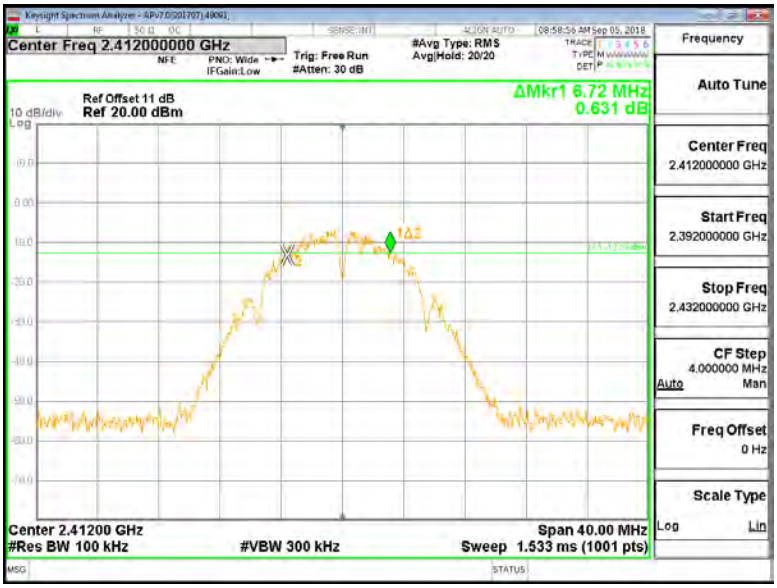
99% BANDWIDTH HIGH CH



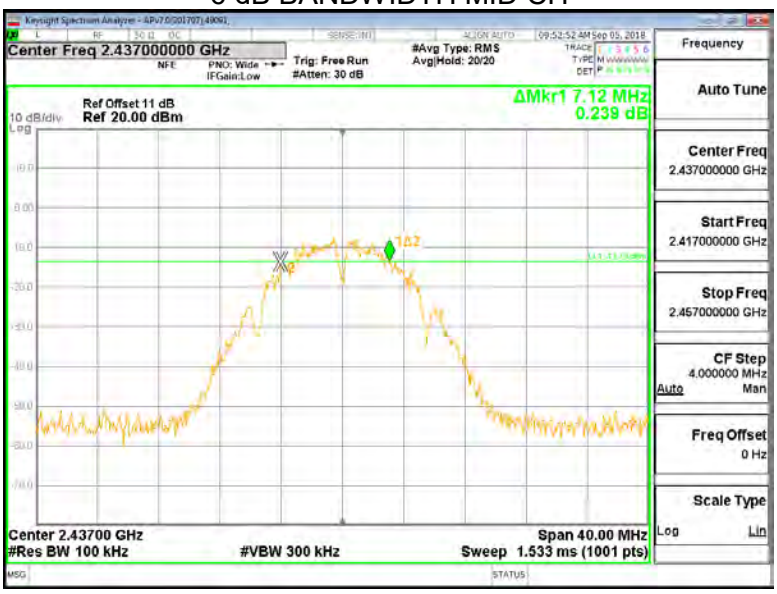
ANTENNA2

Frequency (MHz)	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit For 6dB (kHz)	Result
2412	6.72	10.689	500	Pass
2437	7.12	10.471	500	Pass
2462	7.08	11.199	500	Pass

6 dB BANDWIDTH LOW CH

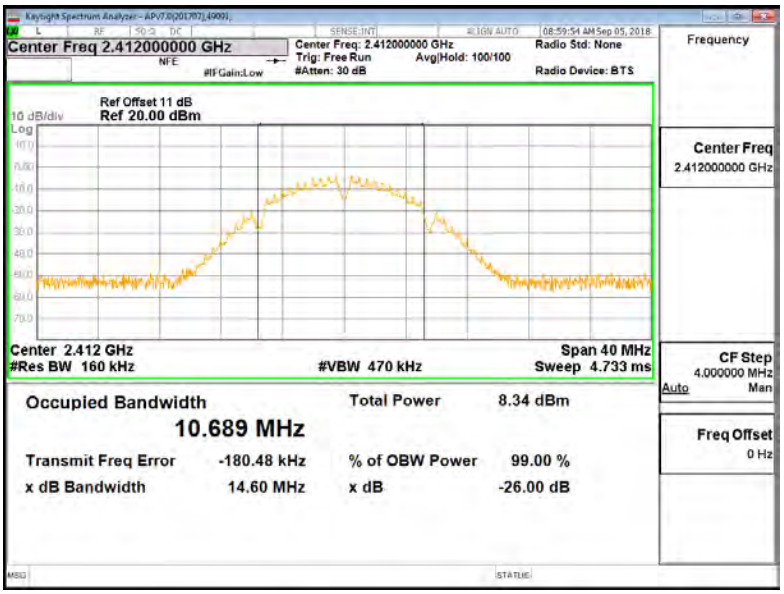


6 dB BANDWIDTH MID CH

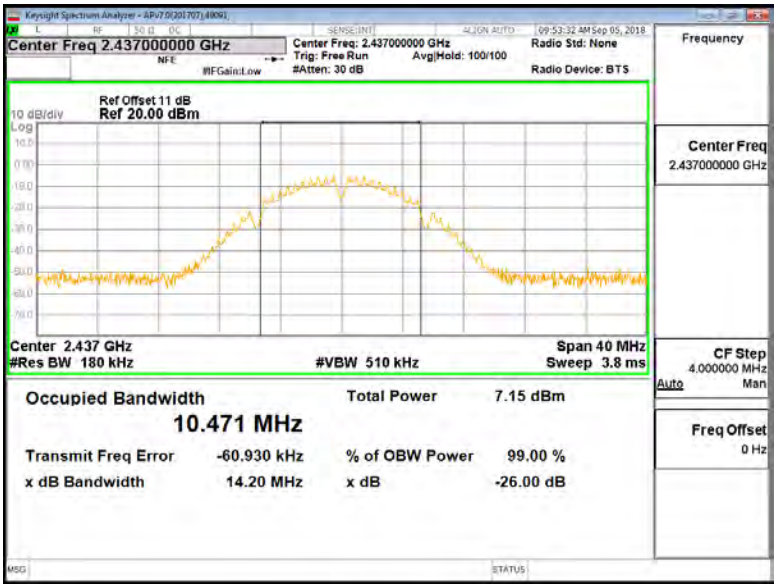


6 dB BANDWIDTH HIGH CH

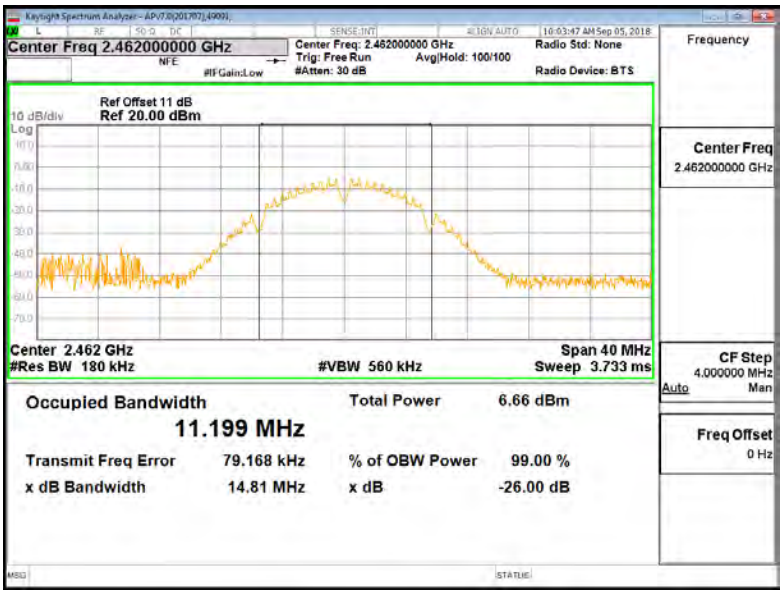
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH

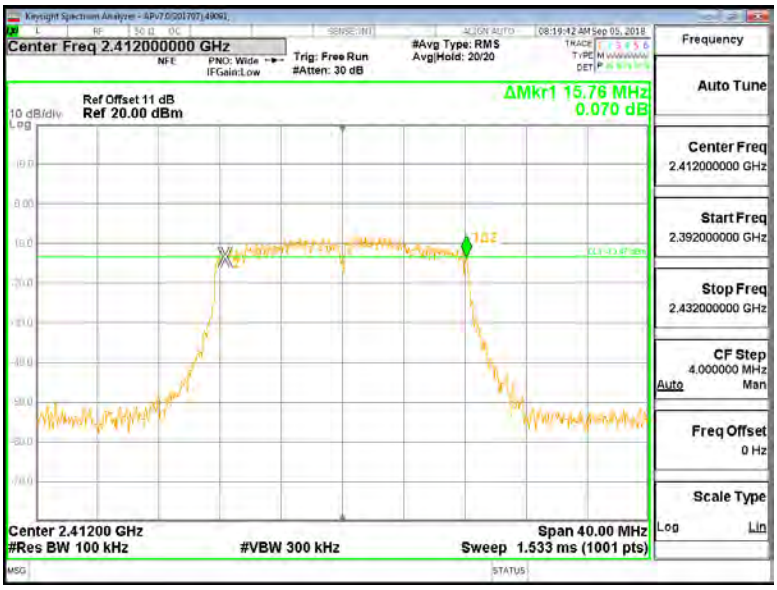


7.2.2. 802.11g MODE

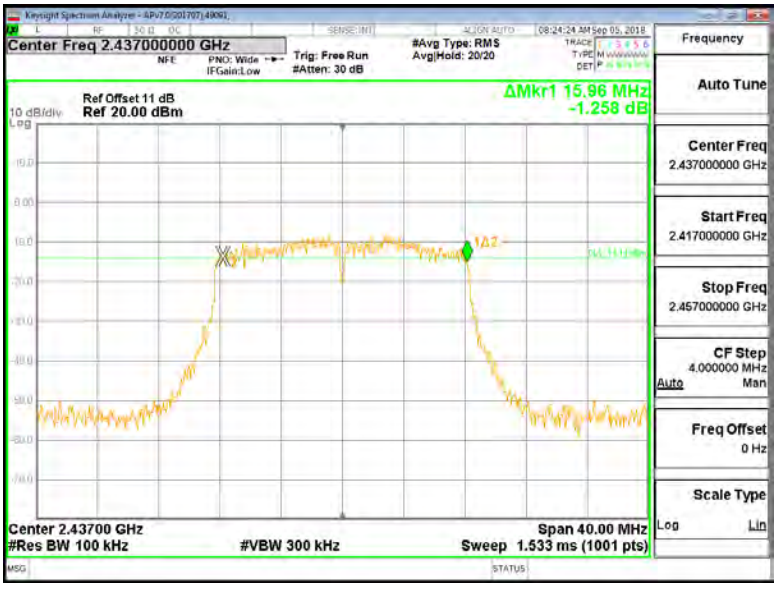
ANTENNA1

Frequency (MHz)	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit For 6dB (kHz)	Result
2412	15.76	16.271	500	Pass
2437	15.96	16.309	500	Pass
2462	16.08	16.228	500	Pass

6 dB BANDWIDTH LOW CH

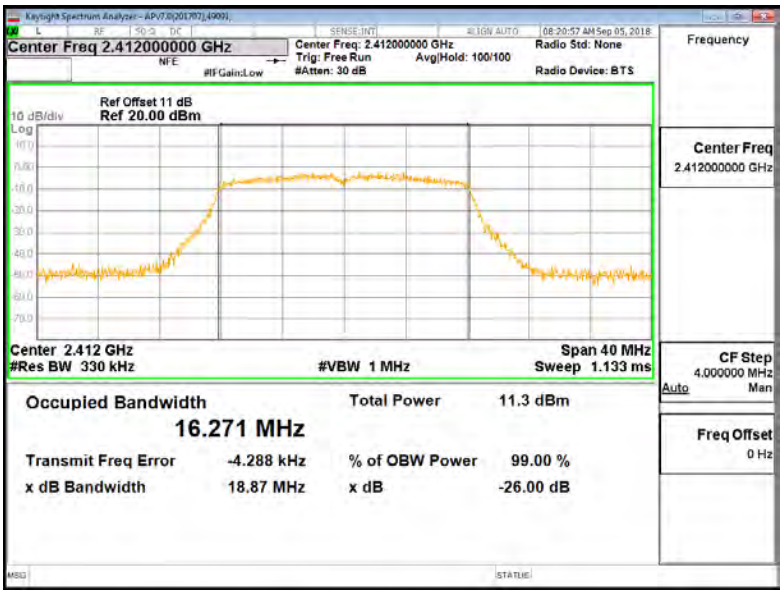


6 dB BANDWIDTH MID CH

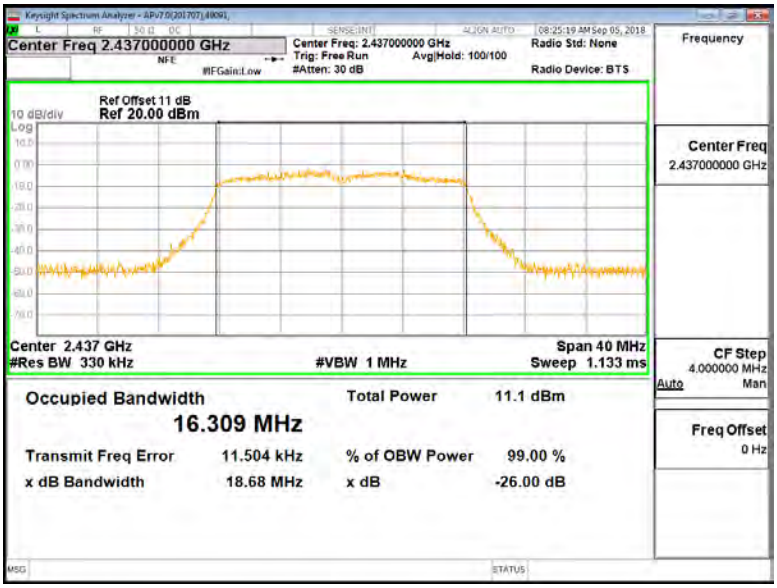


6 dB BANDWIDTH HIGH CH

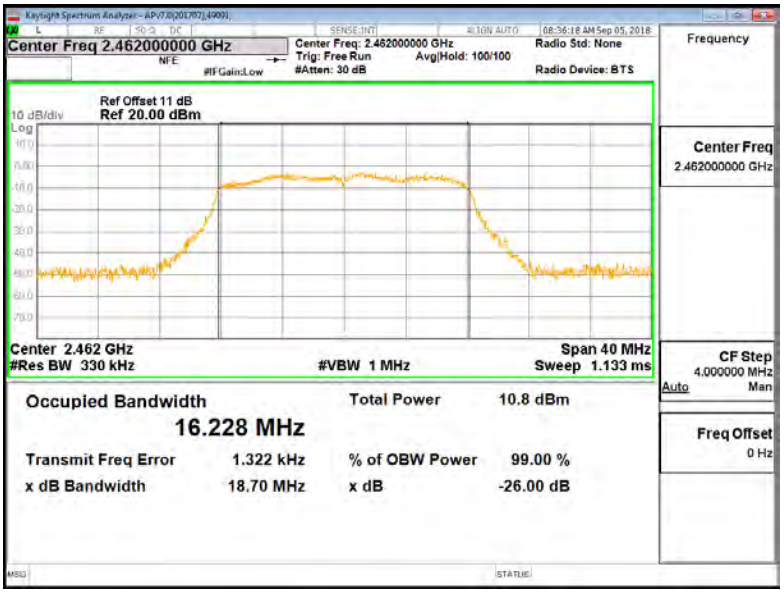
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



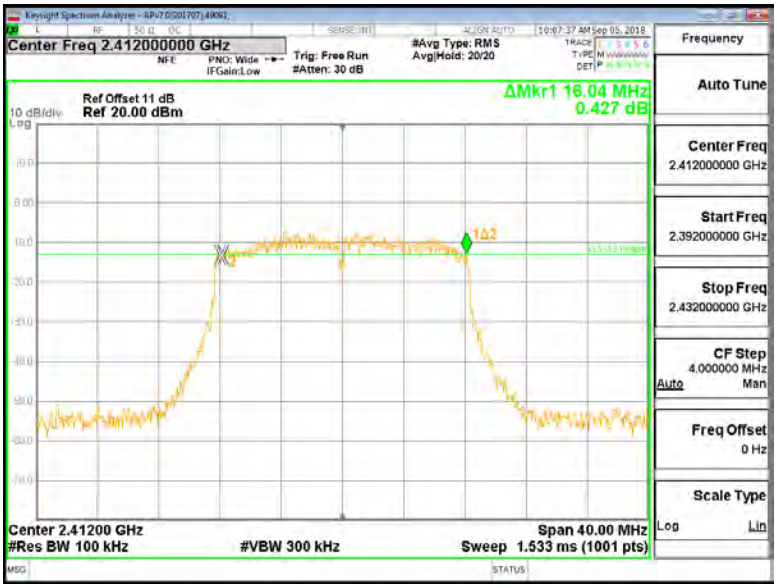
99% BANDWIDTH HIGH CH



ANTENNA2

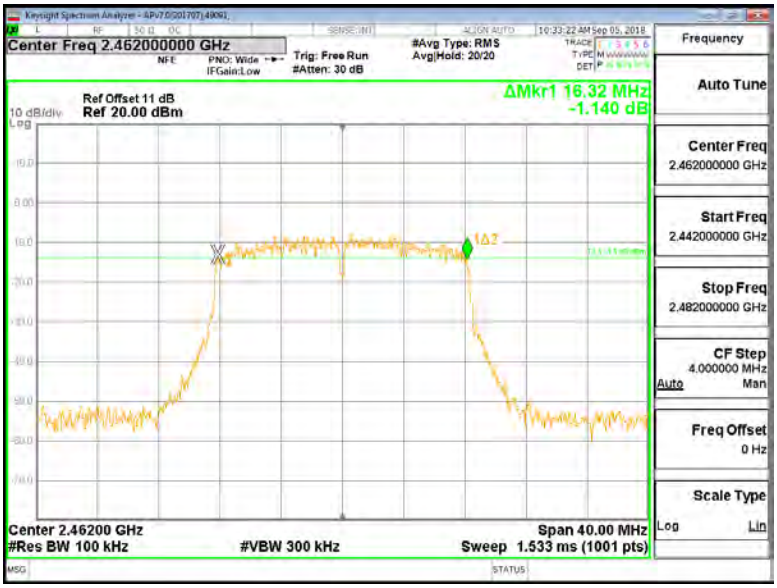
Frequency (MHz)	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit For 6dB (kHz)	Result
2412	16.04	16.260	500	Pass
2437	16.08	16.199	500	Pass
2462	16.32	16.234	500	Pass

6 dB BANDWIDTH LOW CH

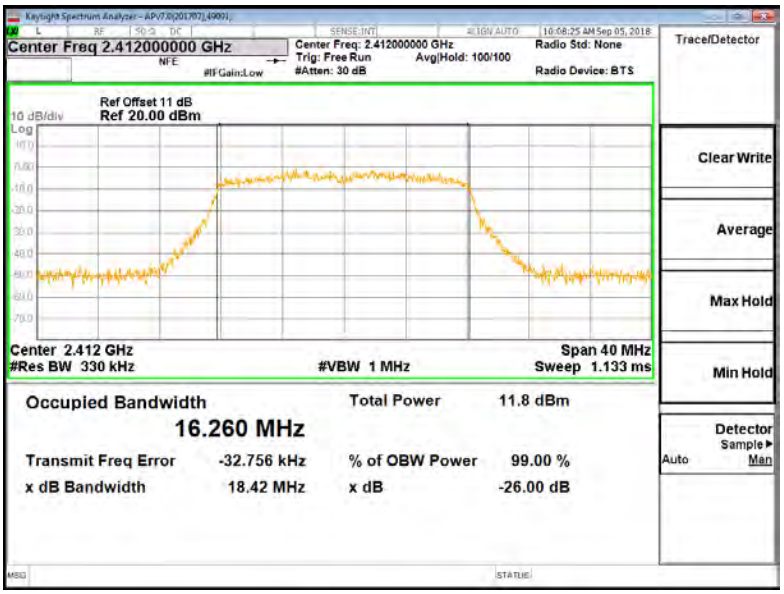


6 dB BANDWIDTH MID CH

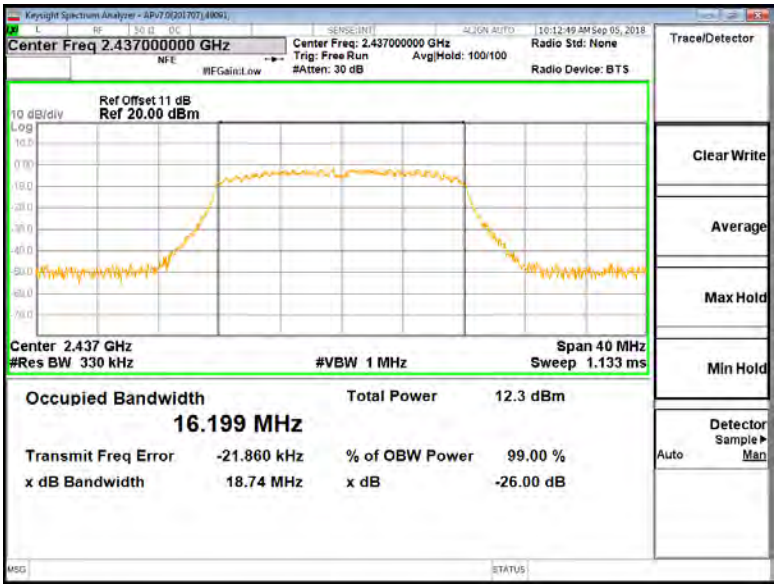
6 dB BANDWIDTH HIGH CH



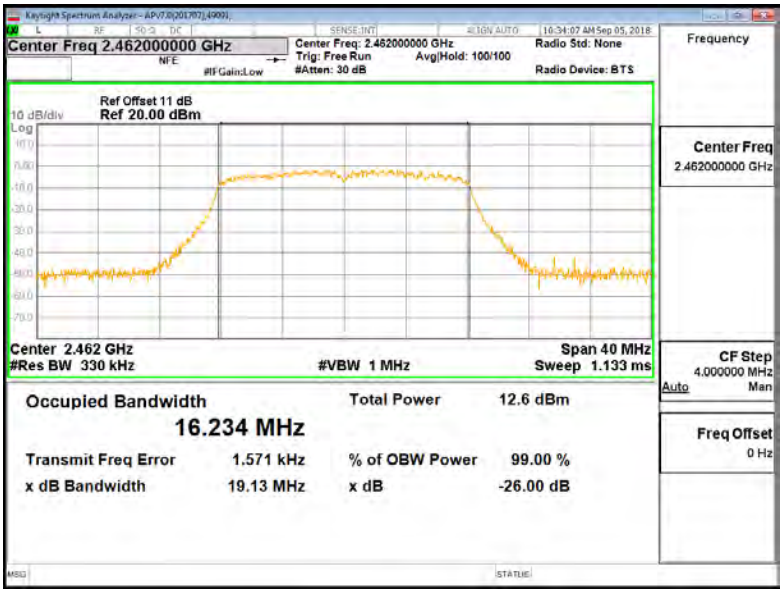
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH

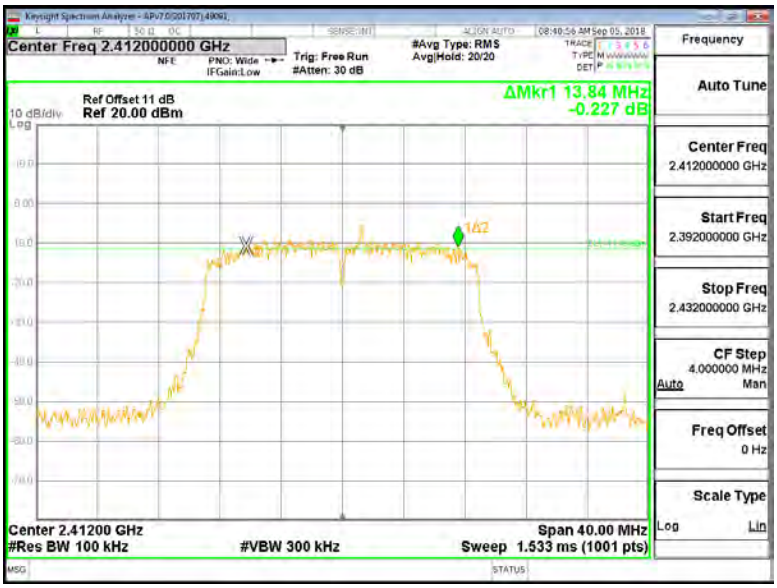


7.2.3. 802.11n20 MODE

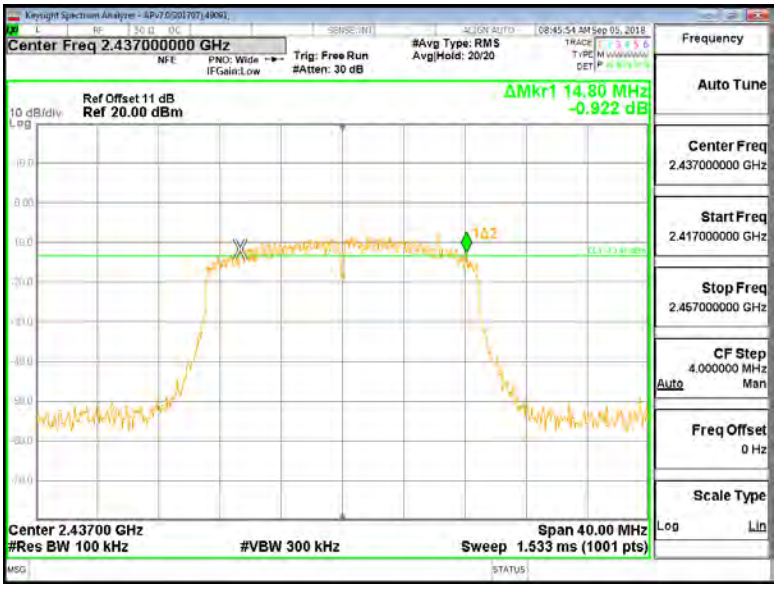
ANTENNA1

Frequency (MHz)	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit For 6dB (kHz)	Result
2412	13.84	17.432	500	Pass
2437	14.80	17.244	500	Pass
2462	16.72	17.371	500	Pass

6 dB BANDWIDTH LOW CH

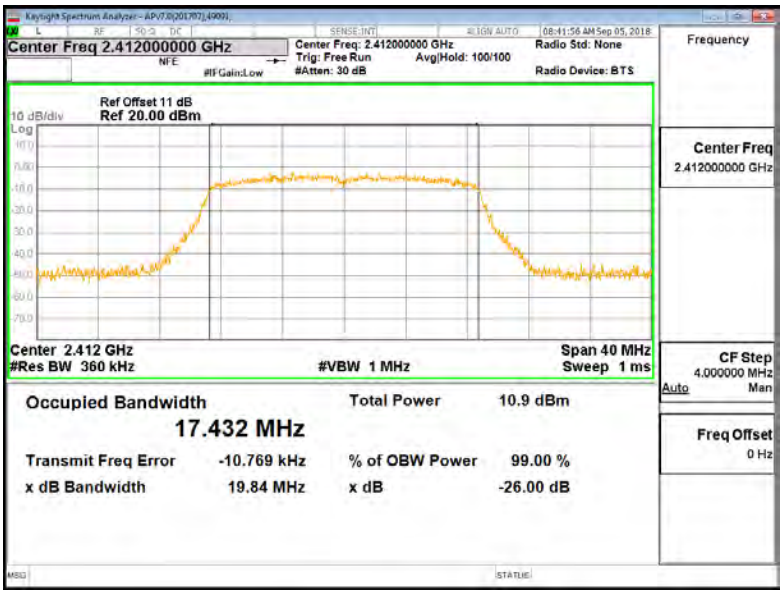


6 dB BANDWIDTH MID CH

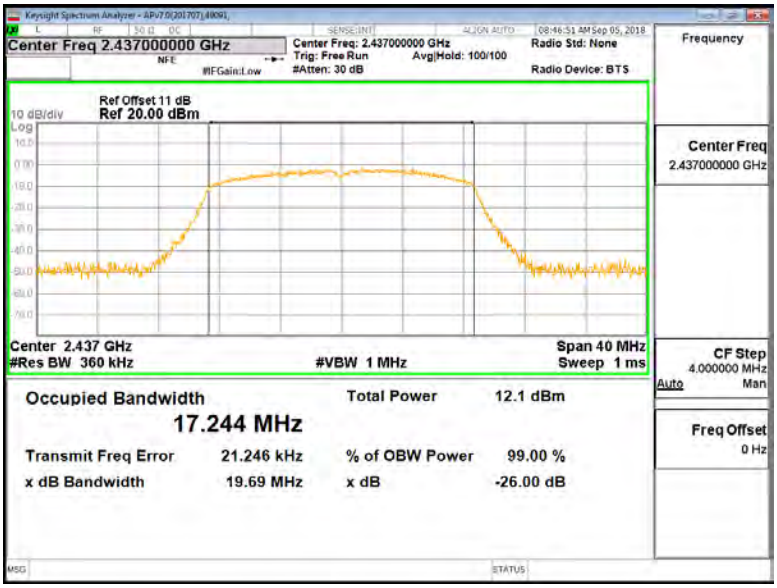


6 dB BANDWIDTH HIGH CH

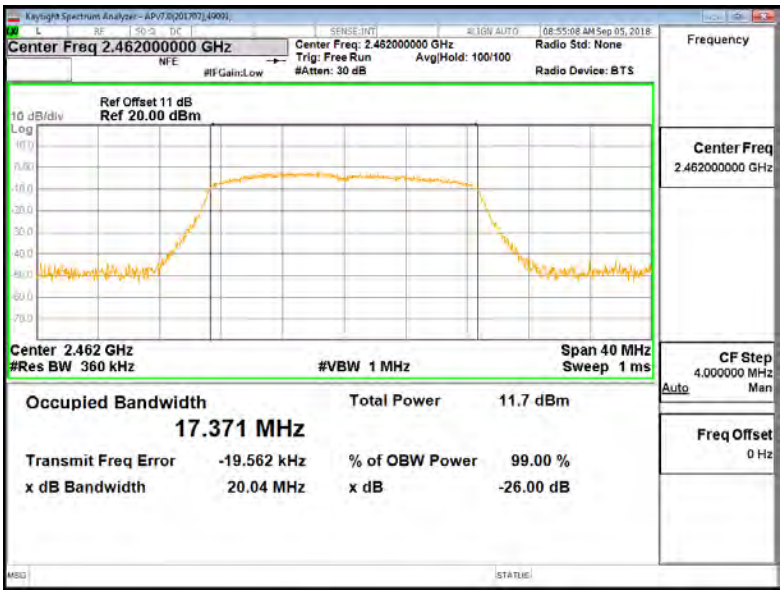
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



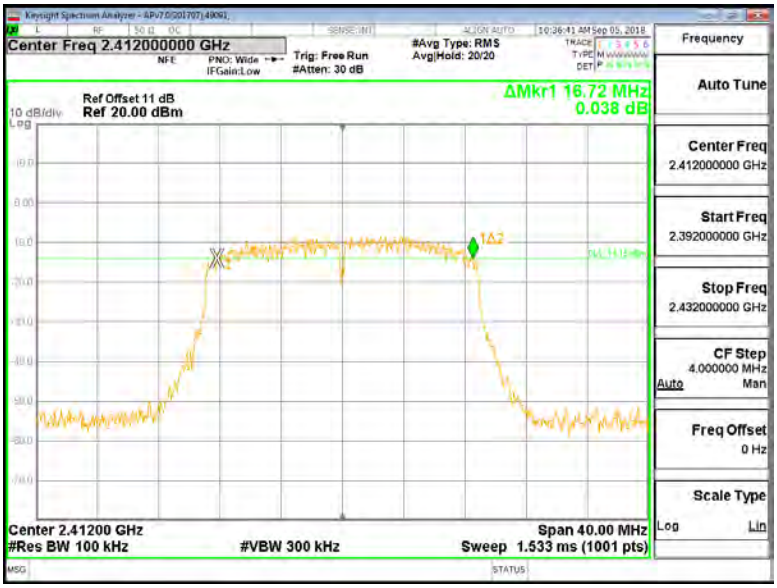
99% BANDWIDTH HIGH CH



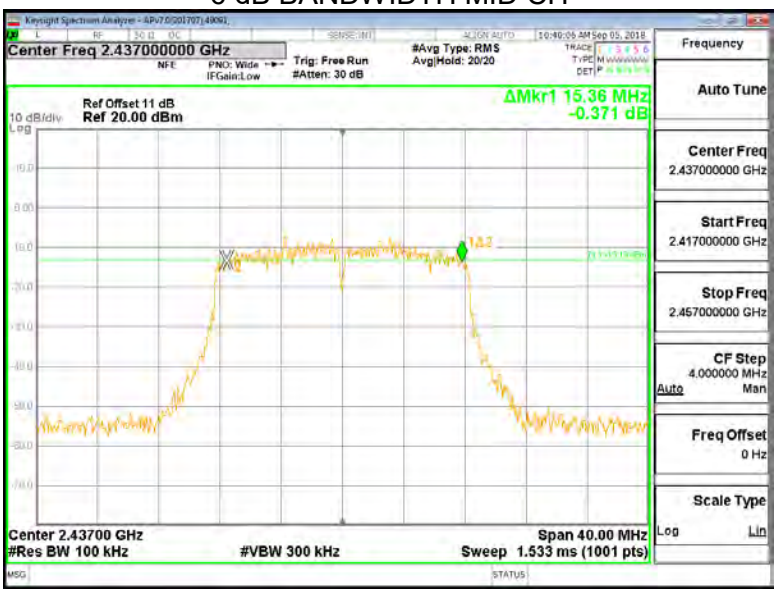
ANTENNA2

Frequency (MHz)	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit For 6dB (kHz)	Result
2412	16.72	17.372	500	Pass
2437	15.36	16.229	500	Pass
2462	16.28	17.414	500	Pass

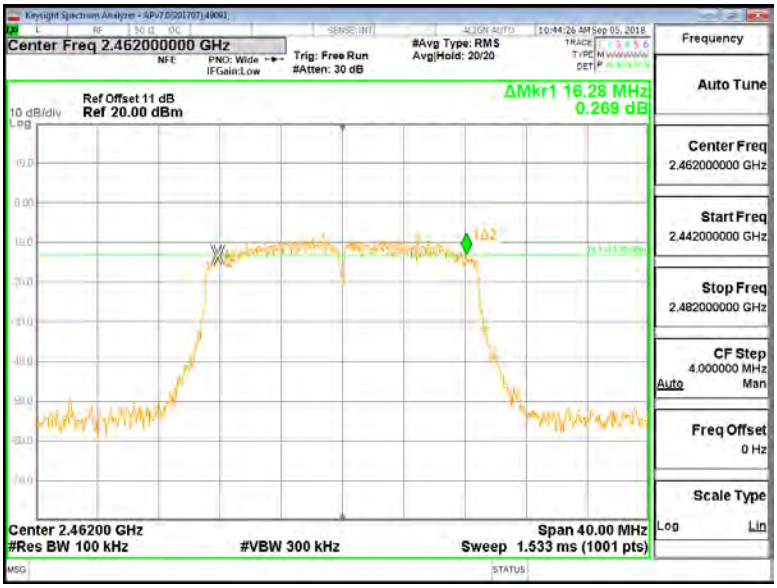
6 dB BANDWIDTH LOW CH



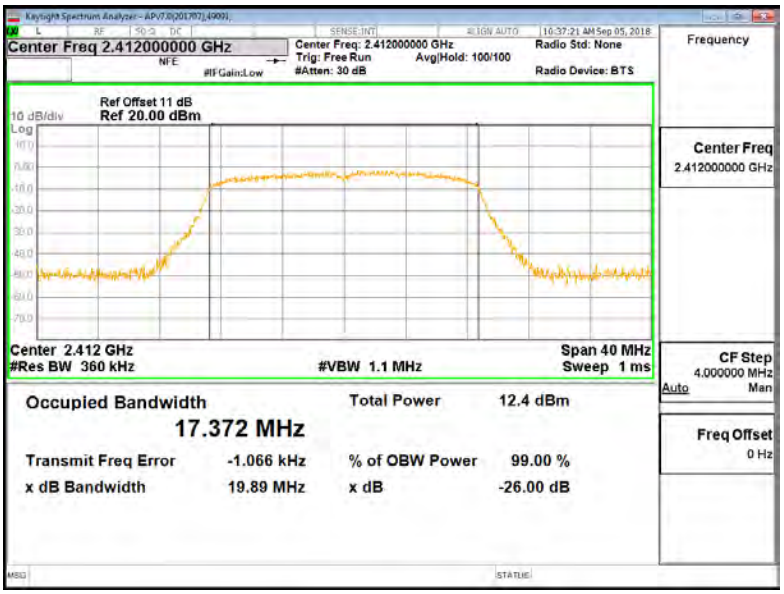
6 dB BANDWIDTH MID CH



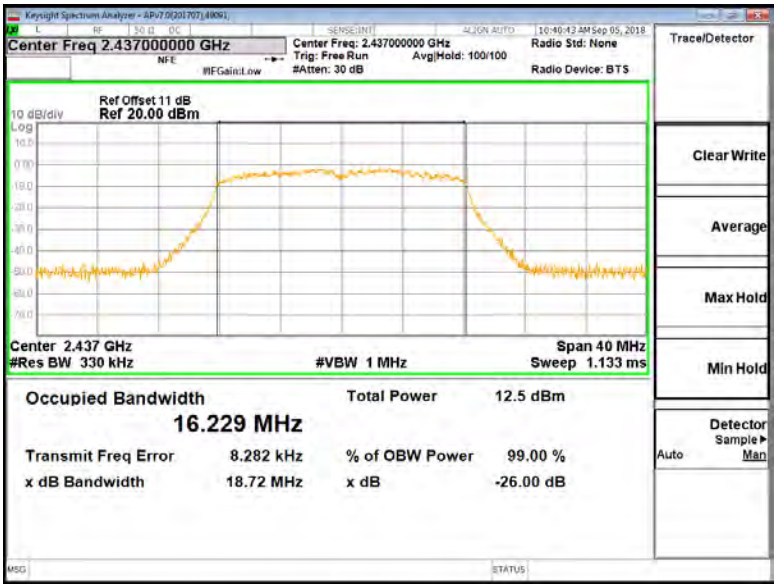
6 dB BANDWIDTH HIGH CH



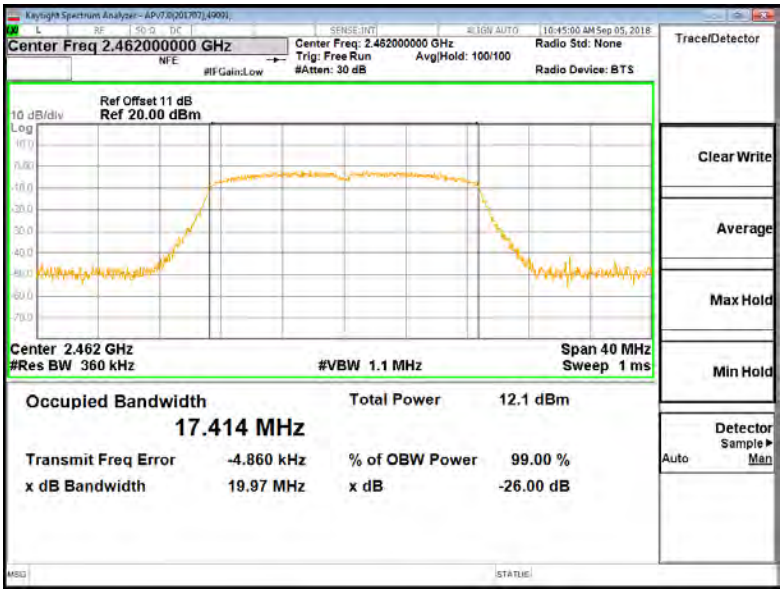
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH



7.3. PEAK CONDUCTED OUTPUT POWER

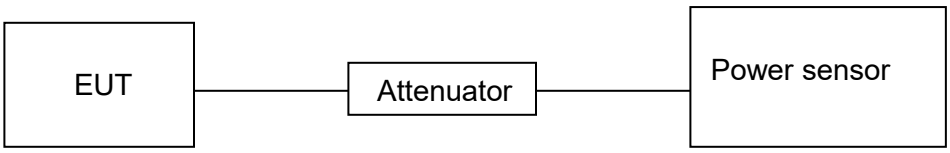
LIMITS

FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5
Note: 1. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. 2. Limit=30dBm – (Directional gain -6)dBi Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 7.67 > 6$dBi, where NANT is the number of outputs, G1/2 is the Antenna gain. So the power limit shall be reduced to 30-(7.67-6)=28.33dBm			

TEST PROCEDURE

Place the EUT on the table and set it in the transmitting mode.
Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Power sensor.
Measure peak power each channel.

TEST SETUP



TEST ENVIRONMENT

Temperature	24.4°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

RESULTS

7.3.1. 802.11b MODE

MIMO MODE

Mode	Frequency (MHz)	ANT	Maximum PEAK Conducted Output Power (dBm)		Result
			Single	Total	
802.11b	2412	1	6.34	9.62	PASS
		2	6.86		
	2437	1	6.26	9.46	
		2	6.64		
	2462	1	5.33	8.58	
		2	5.79		

Mode	Frequency (MHz)	ANT	Maximum AVG Conducted Output Power (dBm)		Result
			Single	Total	
802.11b	2412	1	3.31	6.54	PASS
		2	3.74		
	2442	1	3.28	6.49	
		2	3.68		
	2462	1	2.41	5.47	
		2	2.51		

SISO MODE

Mode	Frequency (MHz)	ANT	Maximum PEAK Conducted Output Power (dBm)		Result
			Single	Total	
802.11b	2412	1	6.31	/	PASS
		2	6.76		
	2437	1	6.23	/	
		2	6.61		
	2462	1	5.28	/	
		2	5.73		

Mode	Frequency (MHz)	ANT	Maximum AVG Conducted Output Power (dBm)		Result
			Single	Total	
802.11b	2412	1	3.30	/	PASS
		2	3.72		
	2442	1	3.21	/	
		2	3.58		
	2462	1	2.38	/	
		2	2.50		

7.3.2. 802.11g MODE

MIMO MODE

Mode	Frequency (MHz)	ANT	Maximum PEAK Conducted Output Power (dBm)		Result
			Single	Total	
802.11g	2412	1	14.82	18.03	PASS
		2	15.22		
	2437	1	14.72	17.83	
		2	14.91		
	2462	1	14.28	17.47	
		2	14.63		

Mode	Frequency (MHz)	ANT	Maximum AVG Conducted Output Power (dBm)		Result
			Single	Total	
802.11g	2412	1	6.53	9.46	PASS
		2	6.36		
	2442	1	6.53	9.22	
		2	5.86		
	2462	1	5.89	8.77	
		2	5.62		

SISO MODE

Mode	Frequency (MHz)	ANT	Maximum PEAK Conducted Output Power (dBm)		Result
			Single	Total	
802.11g	2412	1	14.76	/	PASS
		2	15.21		
	2437	1	14.68	/	
		2	14.90		
	2462	1	14.24	/	
		2	14.61		

Mode	Frequency (MHz)	ANT	Maximum AVG Conducted Output Power (dBm)		Result
			Single	Total	
802.11g	2412	1	6.47	/	PASS
		2	6.32		
	2442	1	6.48	/	
		2	5.82		
	2462	1	5.83	/	
		2	5.61		

7.3.3. 802.11n HT20 MODE

MIMO MODE

Mode	Frequency (MHz)	ANT	Maximum PEAK Conducted Output Power (dBm)		Result
			Single	Total	
802.11n HT20	2412	1	14.24	17.29	PASS
		2	14.31		
	2442	1	14.58	17.21	
		2	13.78		
	2462	1	13.75	16.65	
		2	13.53		

Mode	Frequency (MHz)	ANT	Maximum AVG Conducted Output Power (dBm)		Result
			Single	Total	
802.11n HT20	2412	1	6.16	9.10	PASS
		2	6.01		
	2442	1	6.40	9.46	
		2	6.50		
	2462	1	6.46	9.49	
		2	6.50		

SISO MODE

Mode	Frequency (MHz)	ANT	Maximum PEAK Conducted Output Power (dBm)		Result
			Single	Total	
802.11n HT20	2412	1	14.12	/	PASS
		2	14.25		
	2442	1	14.38	/	
		2	13.48		
	2462	1	13.53	/	
		2	13.37		

Mode	Frequency (MHz)	ANT	Maximum AVG Conducted Output Power (dBm)		Result
			Single	Total	
802.11n HT20	2412	1	6.11	/	PASS
		2	6.03		
	2442	1	6.28	/	
		2	6.35		
	2462	1	6.35	/	
		2	6.47		

7.4. POWER SPECTRAL DENSITY

LIMITS

FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
FCC §15.247 (e)	Power Spectral Density	8 dBm in any 3 kHz band	2400-2483.5
Note: 1. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. 2. Limit=30dBm – (Directional gain -6)dBi Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 7.67 > 6$dBi, where NANT is the number of outputs, G1/2 is the Antenna gain. So the power density limit shall be reduced to 8-(7.67-6)=6.33dBm in any 3 kHz band.			

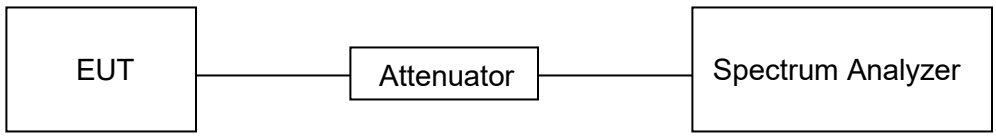
TEST PROCEDURE

Connect the UUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	3 kHz ≤ RBW ≤ 100 kHz.
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.
If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



TEST ENVIRONMENT

Temperature	24.4°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

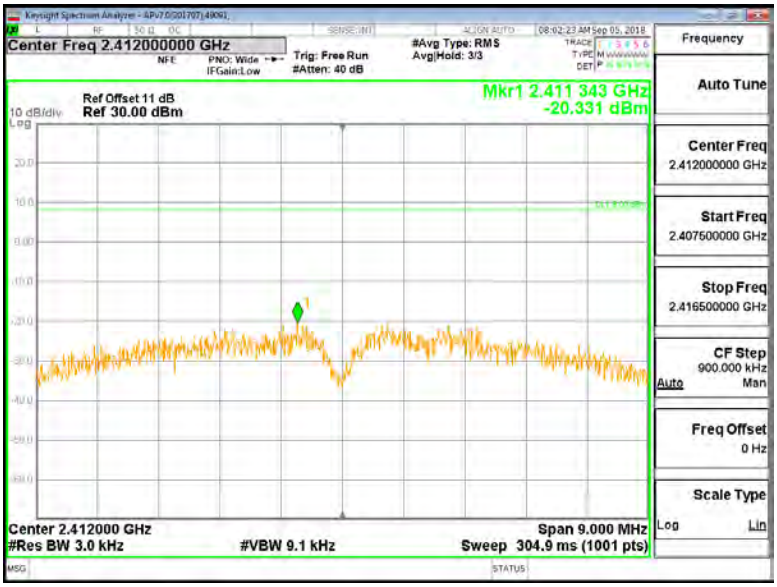
RESULTS

7.4.1. 802.11b MODE

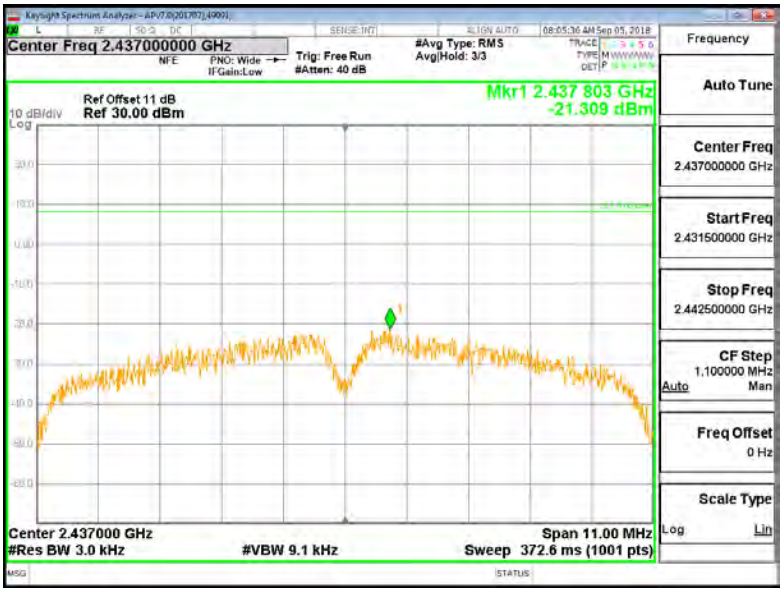
Frequency (MHz)	ANT	Power Spectral Density (dBm/3kHz)		Limit (dBm/3kHz)
		Single	Total	
2412	1	-20.331	-16.88	6.33
	2	-19.490		
2437	1	-21.309	-17.34	
	2	-19.571		
2462	1	-21.285	-18.13	
	2	-21.005		

ANTENNA1

PSD LOW CH



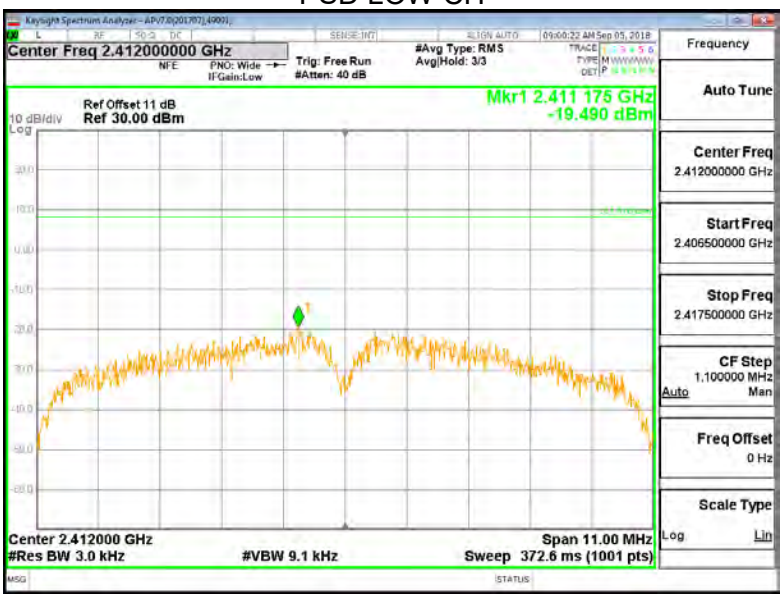
PSD MID CH



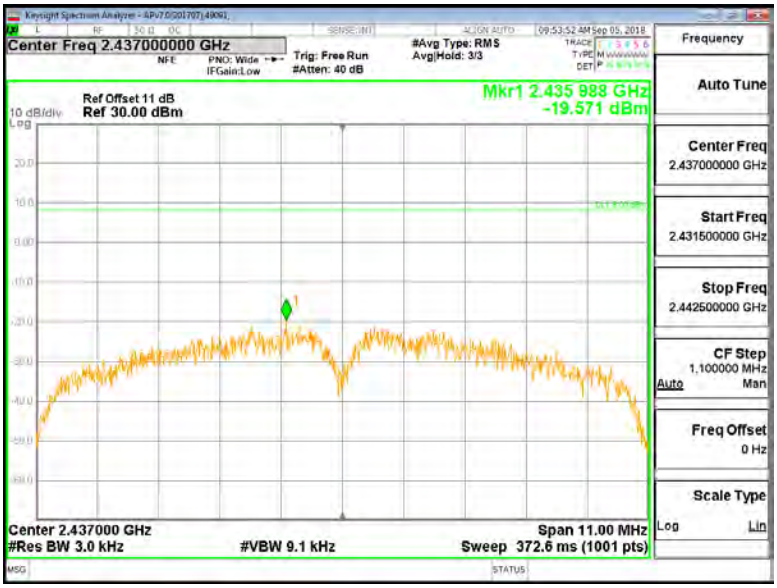
PSD HIGH CH

ANTENNA2

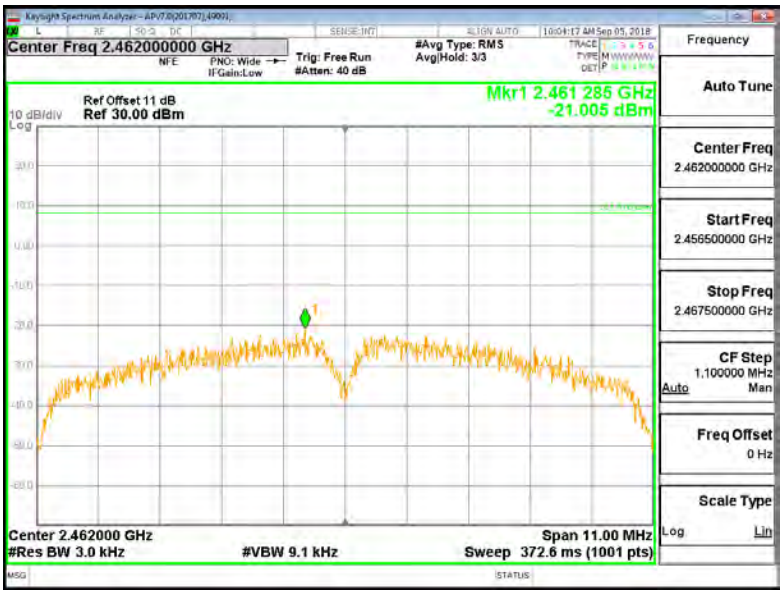
PSD LOW CH



PSD MID CH



PSD HIGH CH

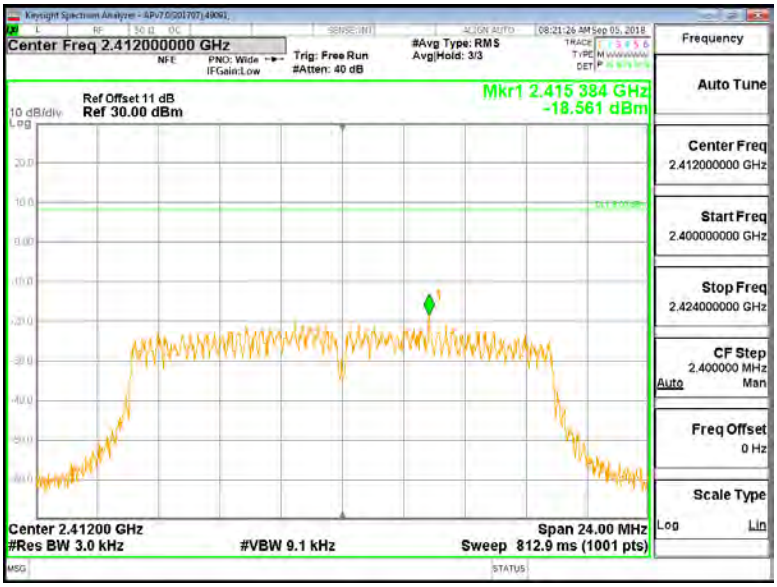


7.4.2. 802.11g MODE

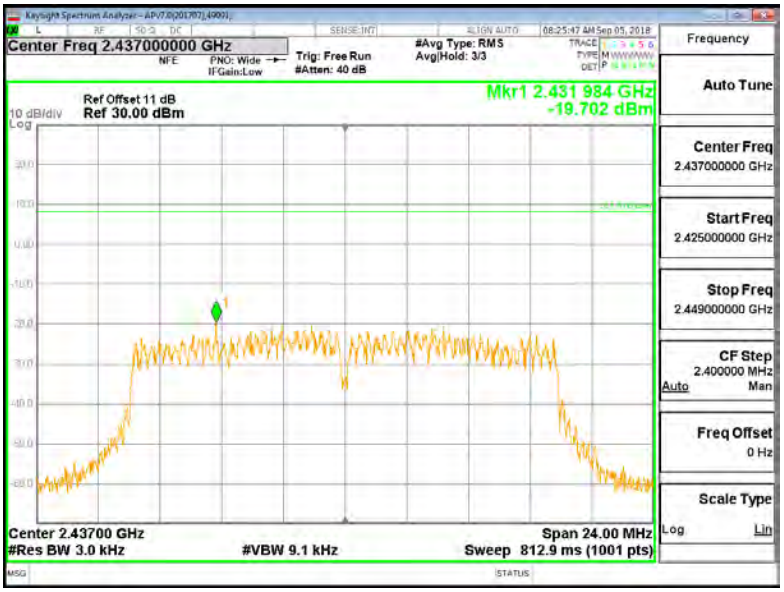
Frequency (MHz)	ANT	Power Spectral Density (dBm/3kHz)		Limit (dBm/3kHz)
		Single	Total	
2412	1	-18.561	-16.02	6.33
	2	-19.563		
2437	1	-19.702	-16.78	
	2	-19.876		
2462	1	-19.123	-15.92	
	2	-18.750		

ANTENNA1

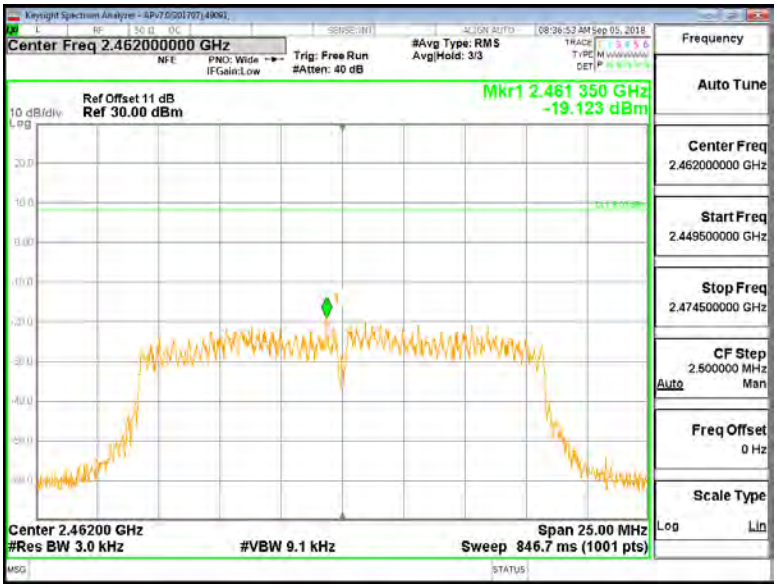
PSD LOW CH



PSD MID CH

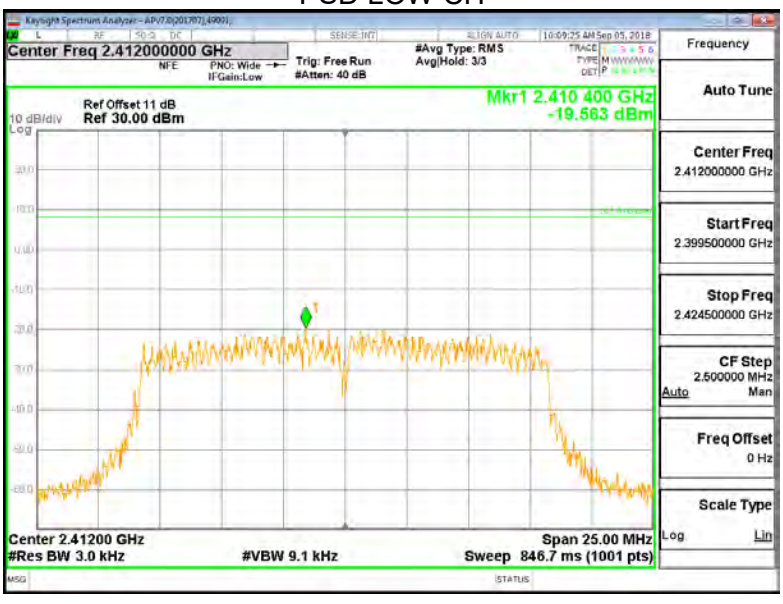


PSD HIGH CH

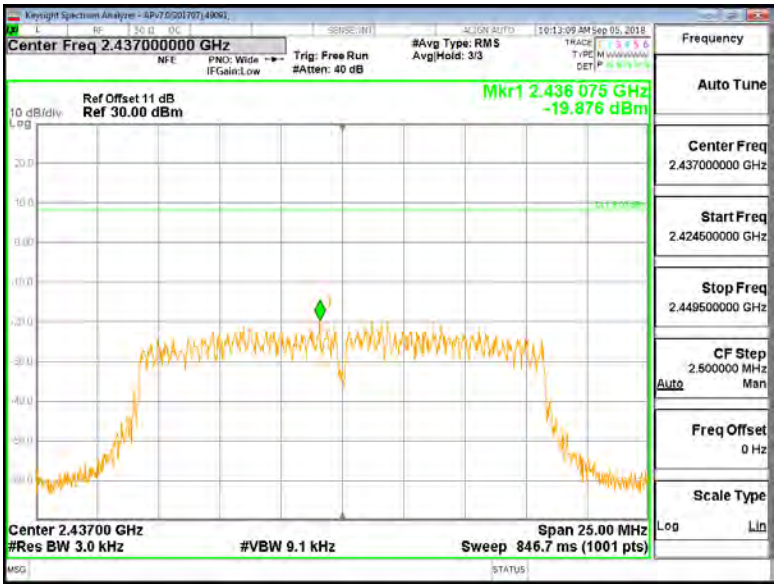


ANTENNA2

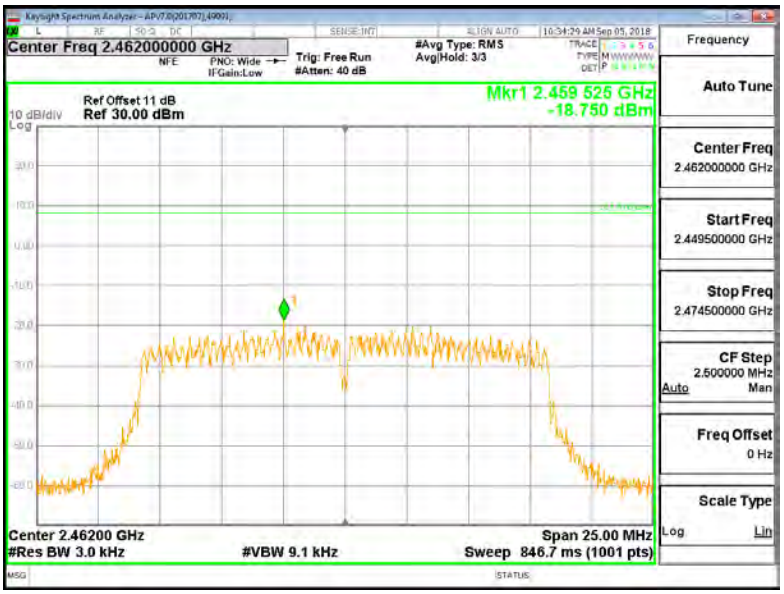
PSD LOW CH



PSD MID CH



PSD HIGH CH

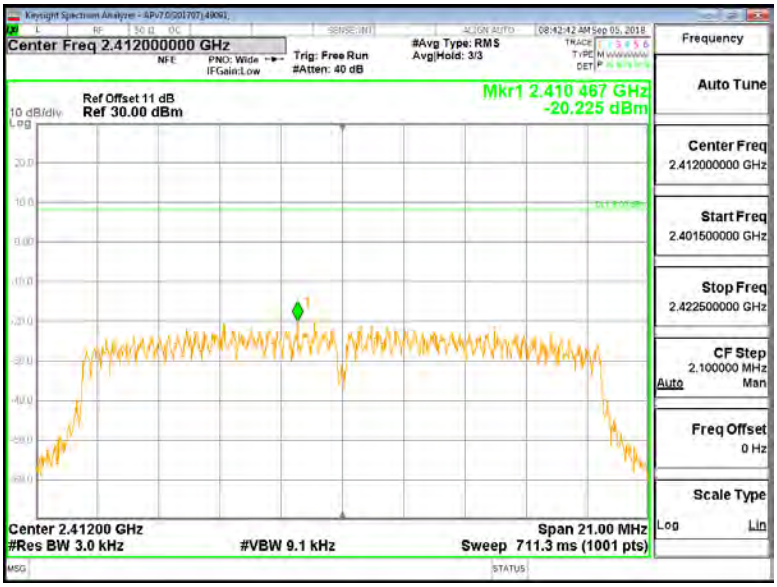


7.4.3. 802.11n20 MODE

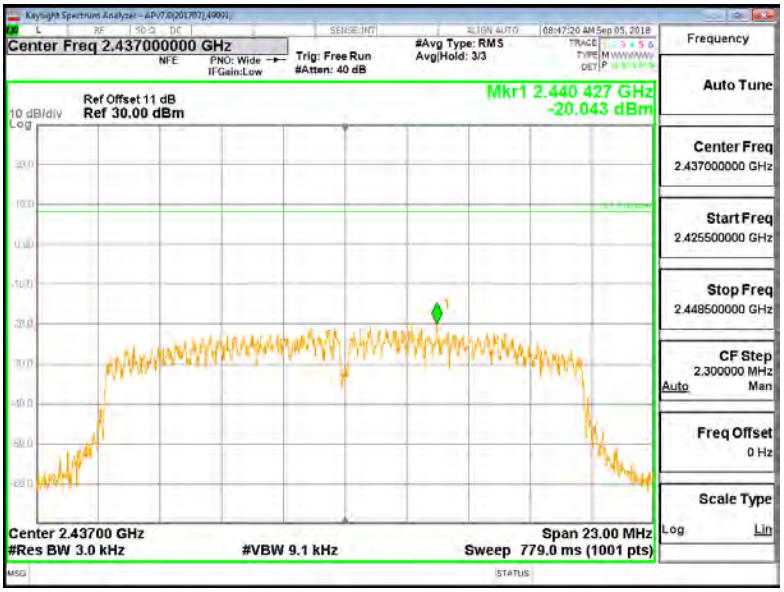
Frequency (MHz)	ANT	Power Spectral Density (dBm/3kHz)		Limit (dBm/3kHz)
		Single	Total	
2412	1	-20.225	-17.37	6.33
	2	-20.540		
2437	1	-20.043	-16.56	
	2	-19.143		
2462	1	-20.067	-17.11	
	2	-20.171		

ANTENNA1

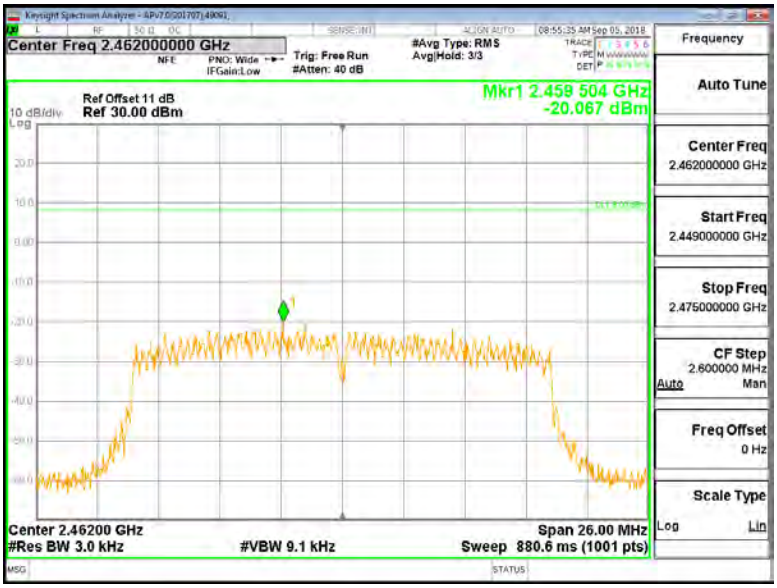
PSD LOW CH



PSD MID CH

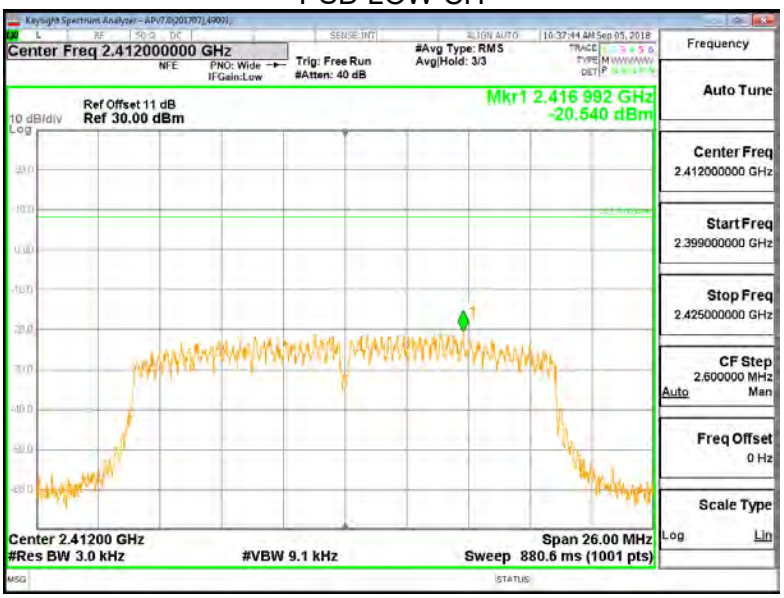


PSD HIGH CH

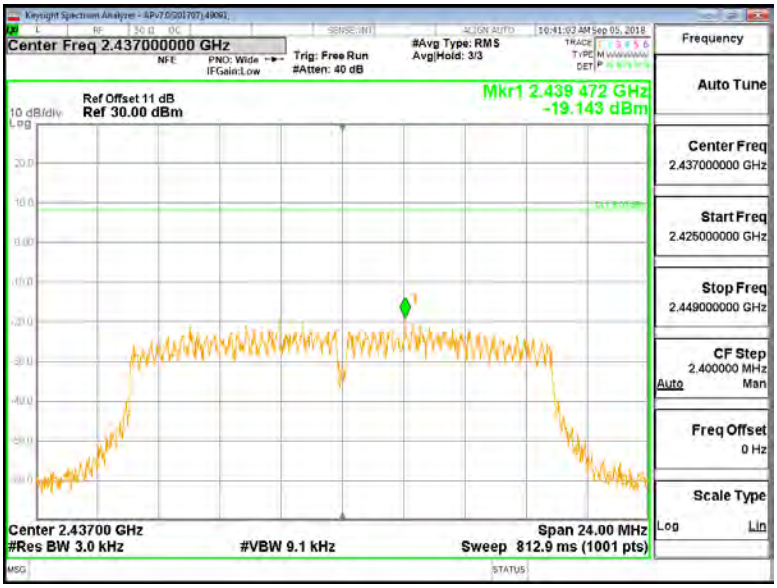


ANTENNA2

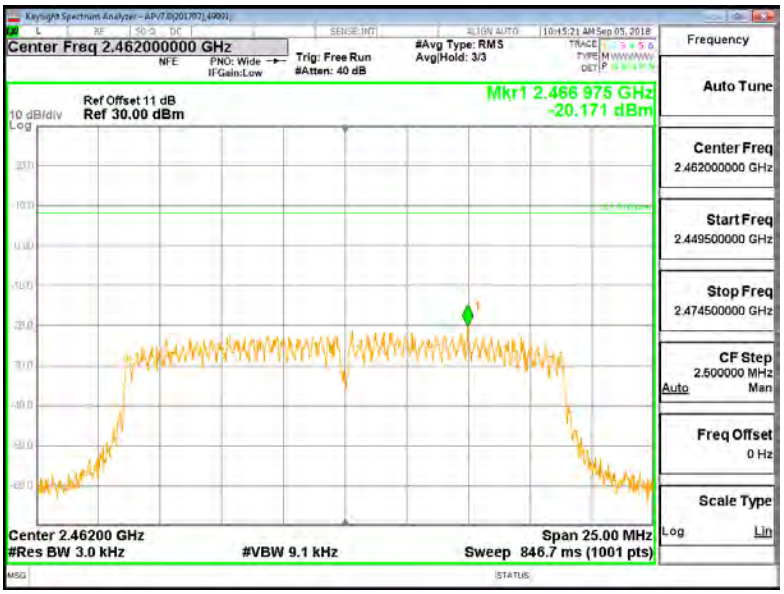
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

FCC Part15 (15.247) Subpart C		
Section	Test Item	Limit
FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

TEST PROCEDURE

Connect the UUT to the spectrum analyzer and use the following settings:

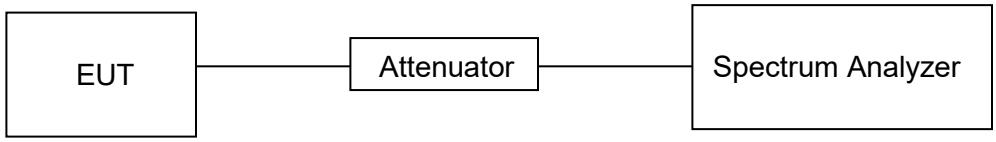
Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100K
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100K
VBW	≥3 × RBW
measurement points	≥span/RBW
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum amplitude level**.**

TEST SETUP



TEST ENVIRONMENT

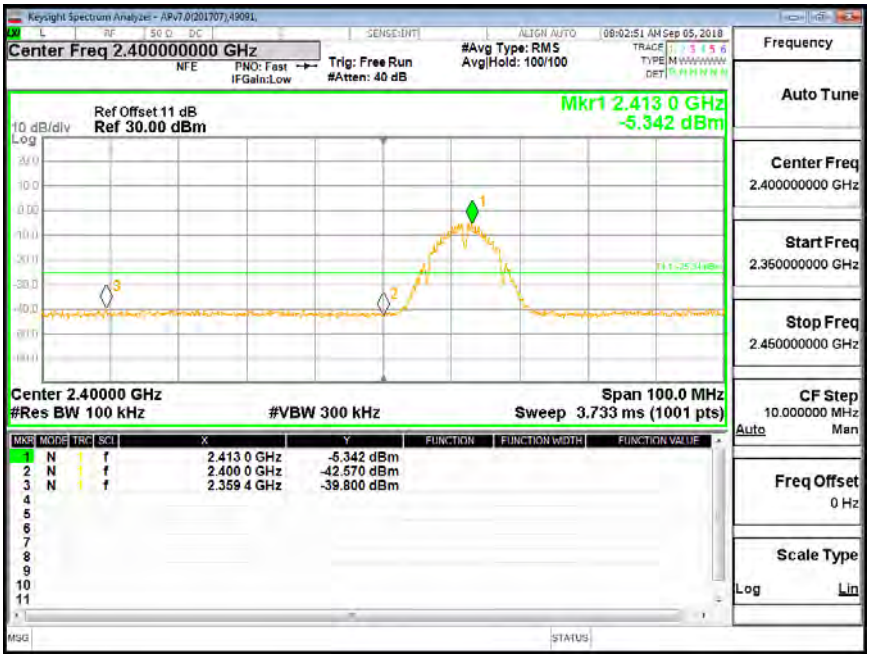
Temperature	24.4°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

RESULTS

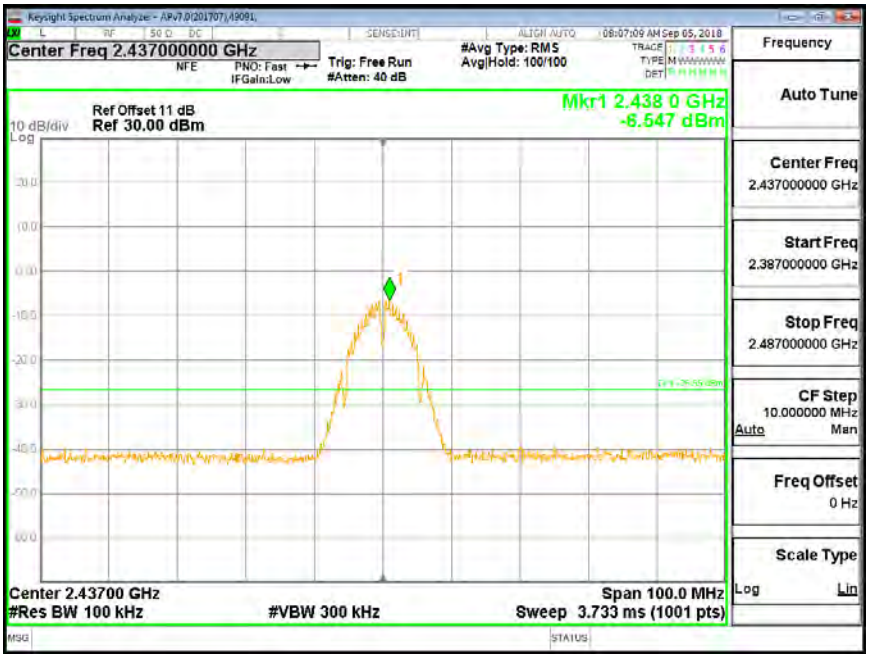
7.5.1. 802.11b MODE

ANTENNA1

LOW CH BANDEDAGE

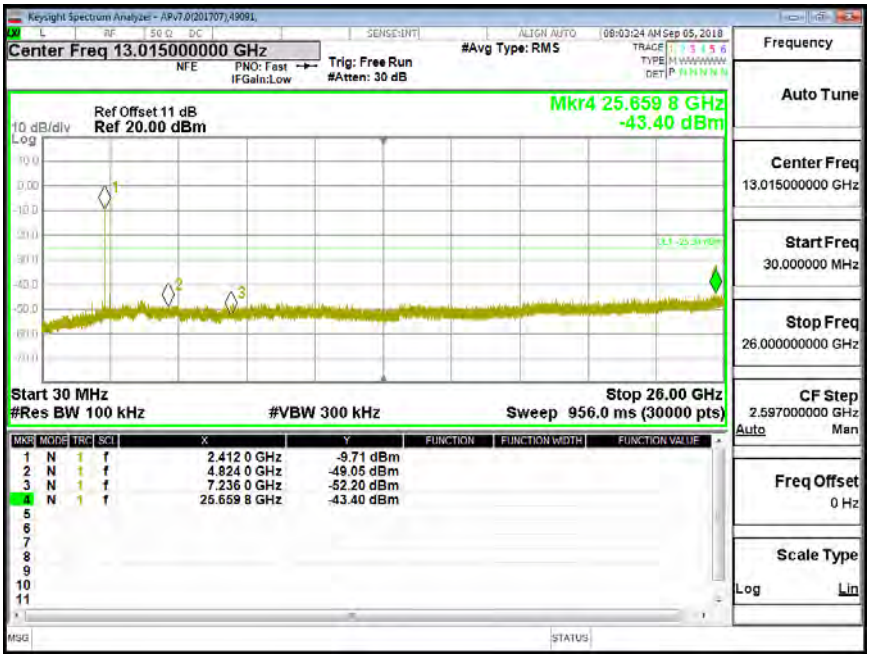


MID CH BANDEDAGE



HIGH CH BANDEDAGE

LOW CH SPURIOUS EMISSIONS 30M-26G

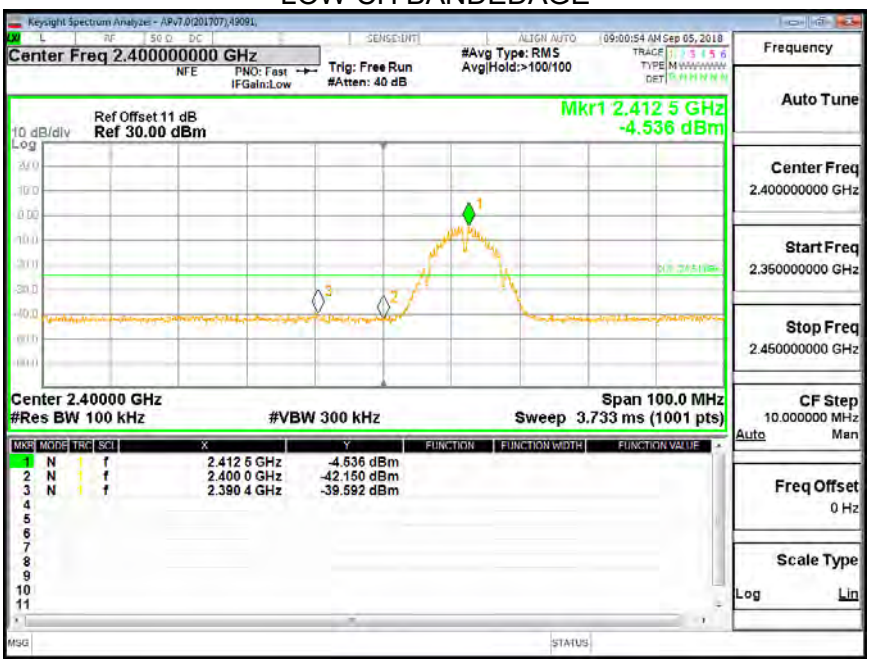


MID LOW CH SPURIOUS EMISSIONS 30M-26G

HIGH LOW CH SPURIOUS EMISSIONS 30M-26G

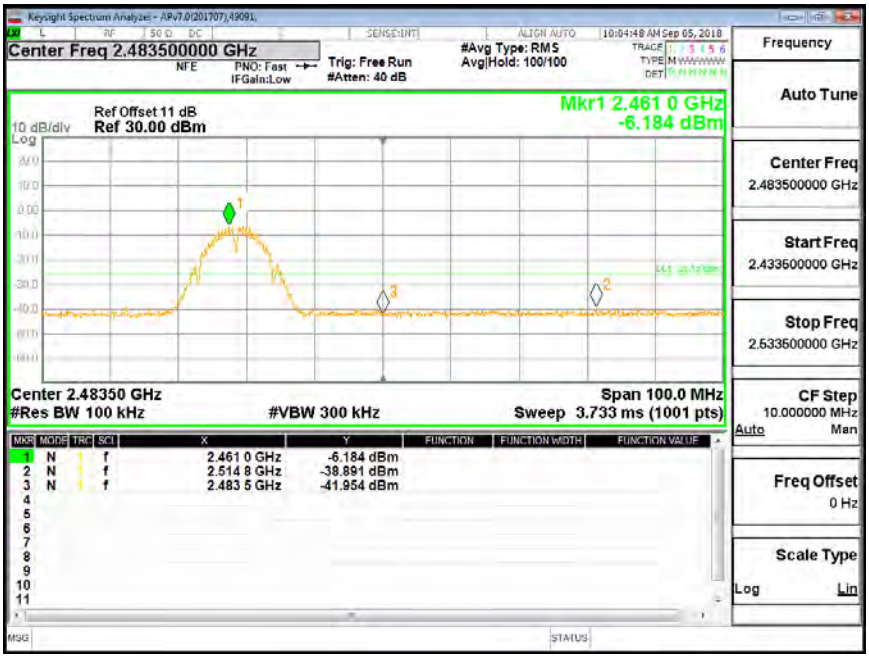
ANTENNA2

LOW CH BANDEDAGE

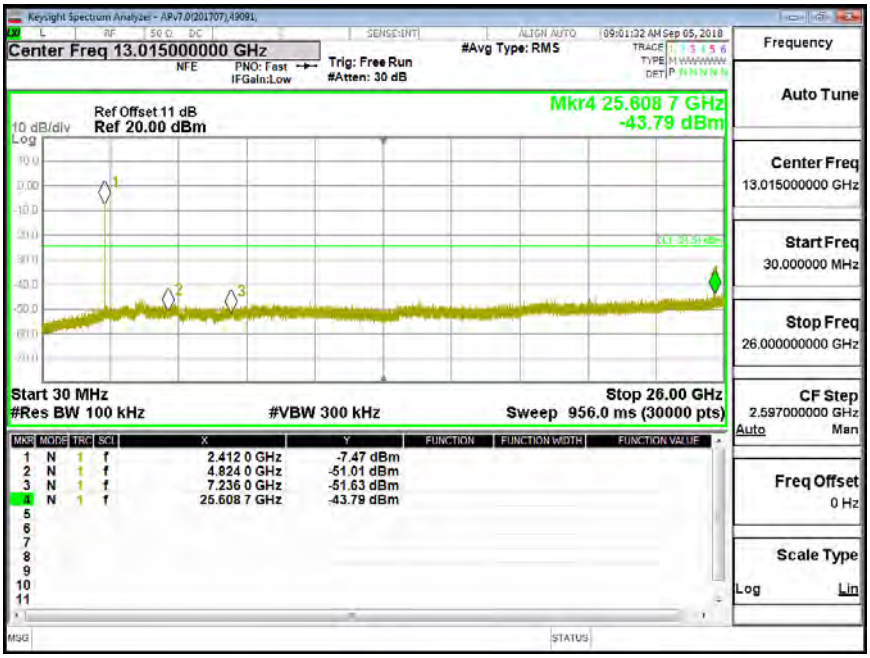


MID CH BANDEDAGE

HIGH CH BANDEDAGE



LOW CH SPURIOUS EMISSIONS 30M-26G



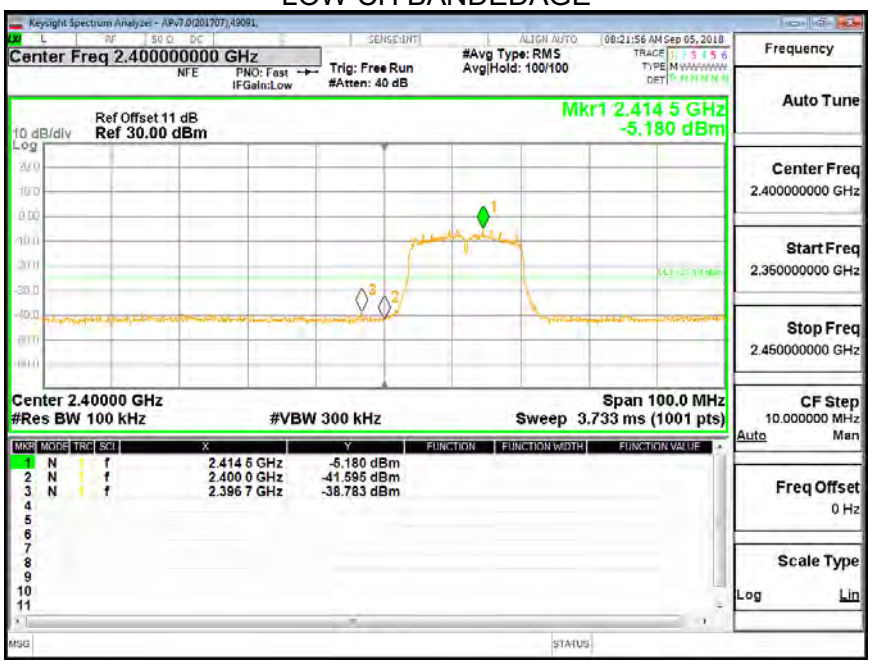
MID CH SPURIOUS EMISSIONS 30M-26G

HIGH CH SPURIOUS EMISSIONS 30M-26G

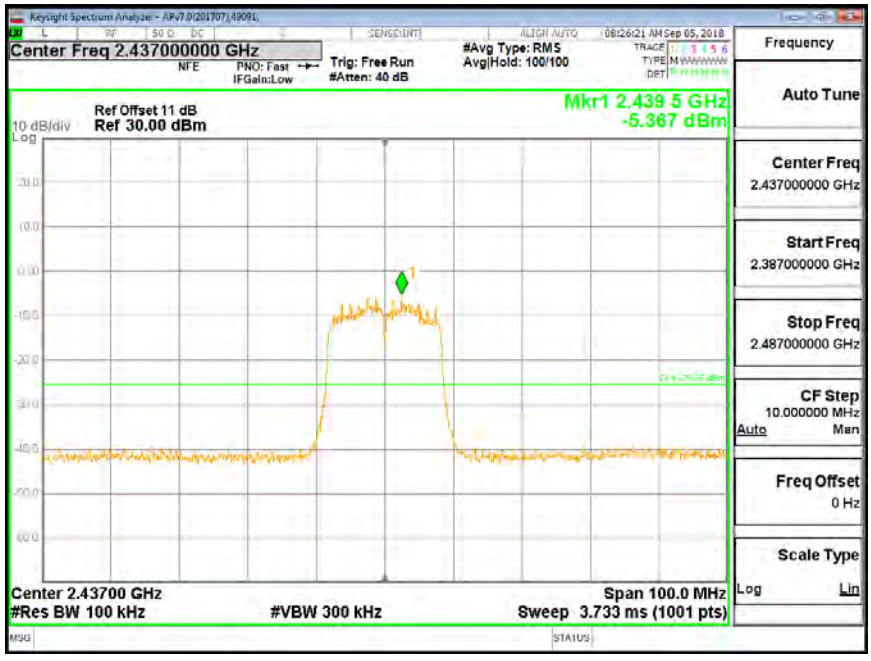
7.5.2. 802.11g MODE

ANTENNA1

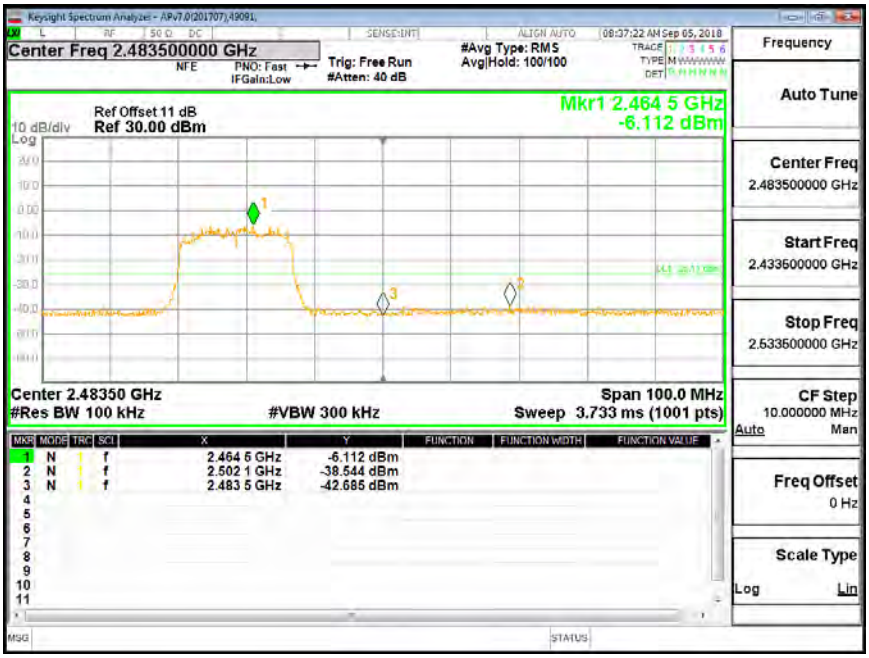
LOW CH BANDEDAGE



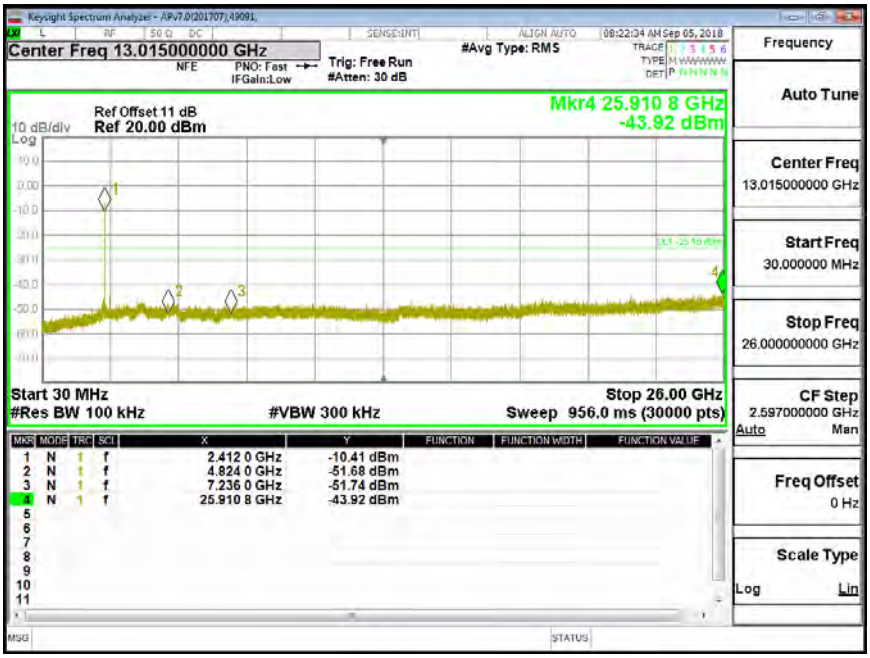
MID CH BANDEDAGE



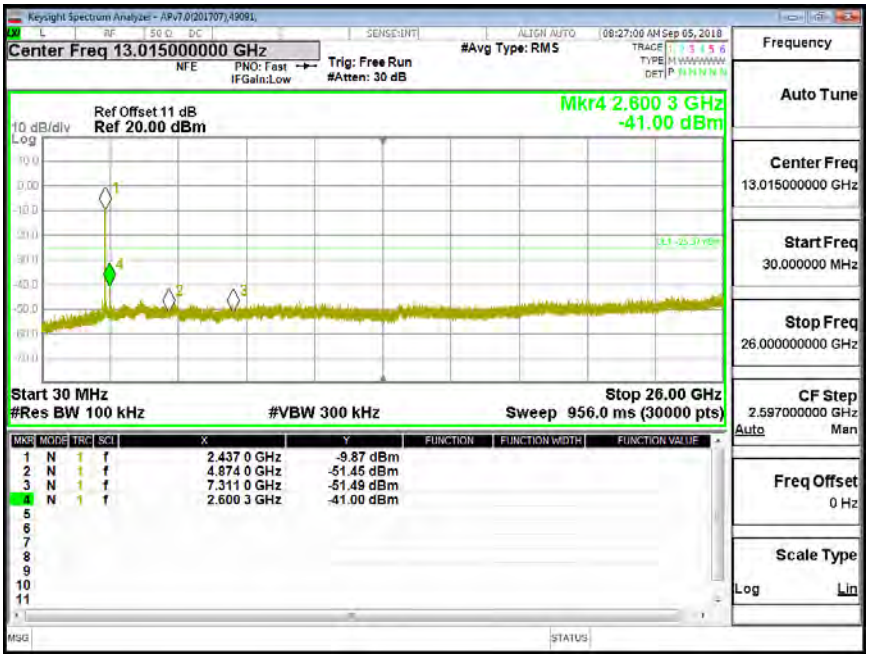
HIGH CH BANDEDAGE



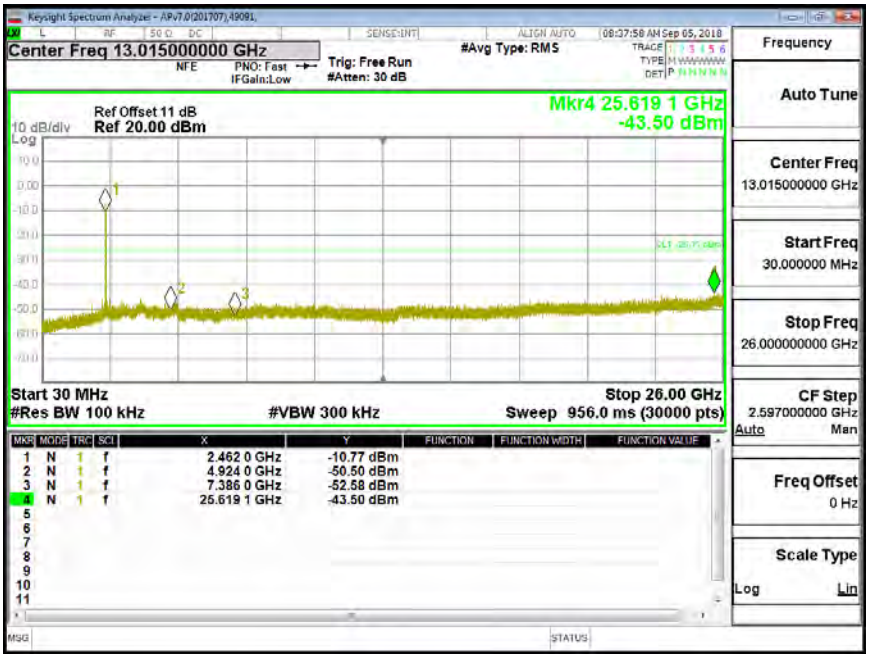
LOW CH SPURIOUS EMISSIONS 30M-26G



MID CH SPURIOUS EMISSIONS 30M-26G

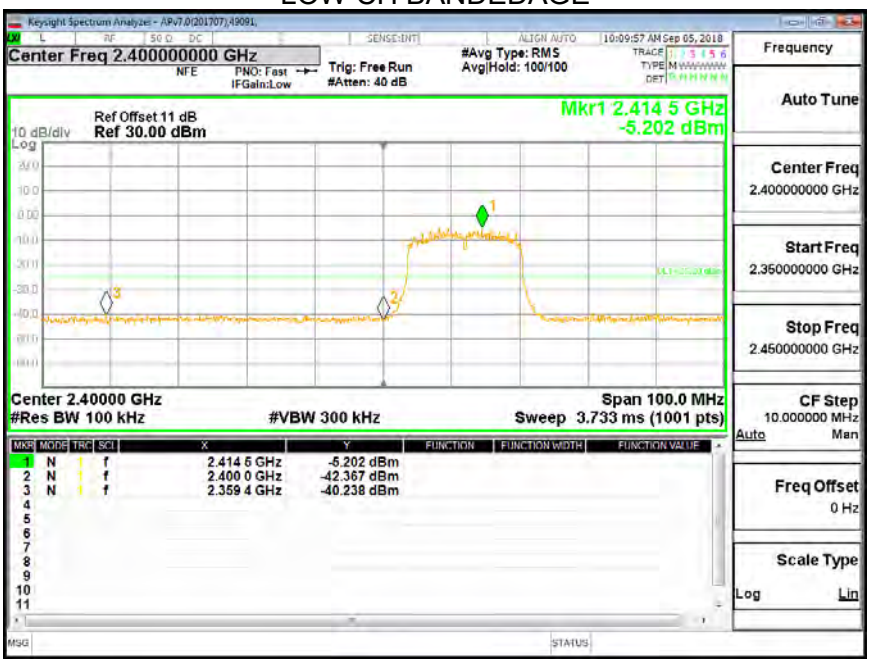


HIGH CH SPURIOUS EMISSIONS 30M-26G

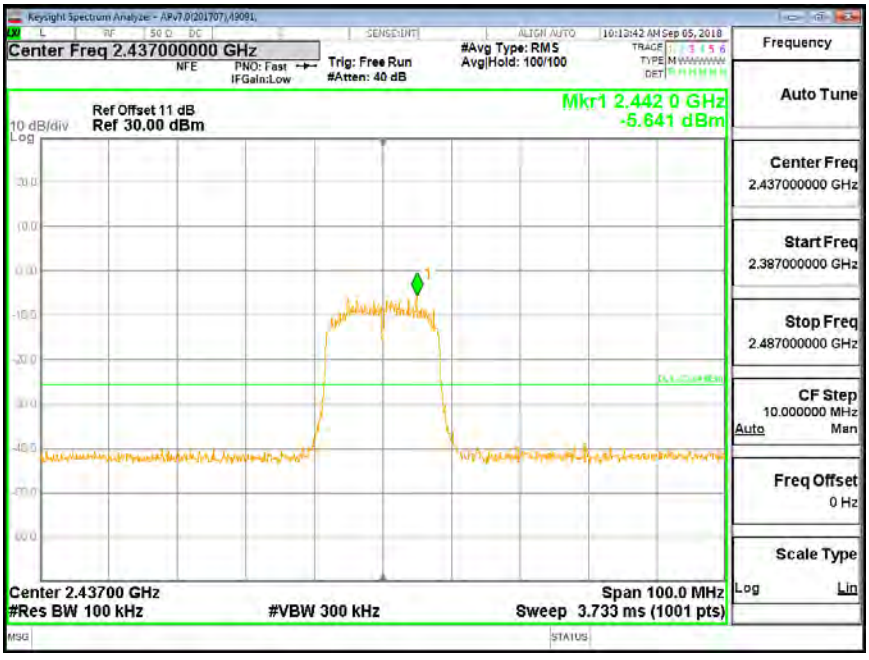


ANTENNA2

LOW CH BANDEDAGE

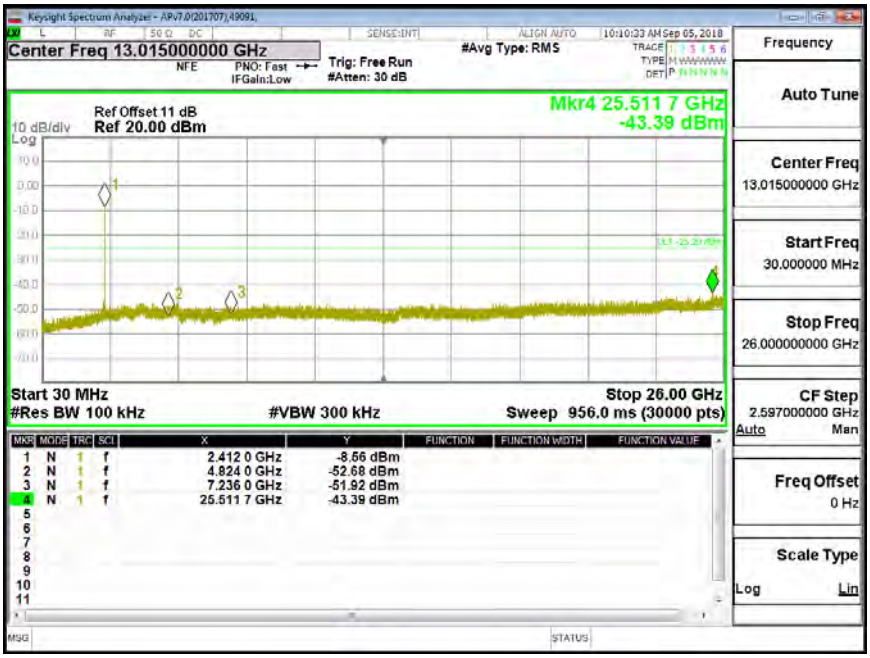


MID CH BANDEDAGE

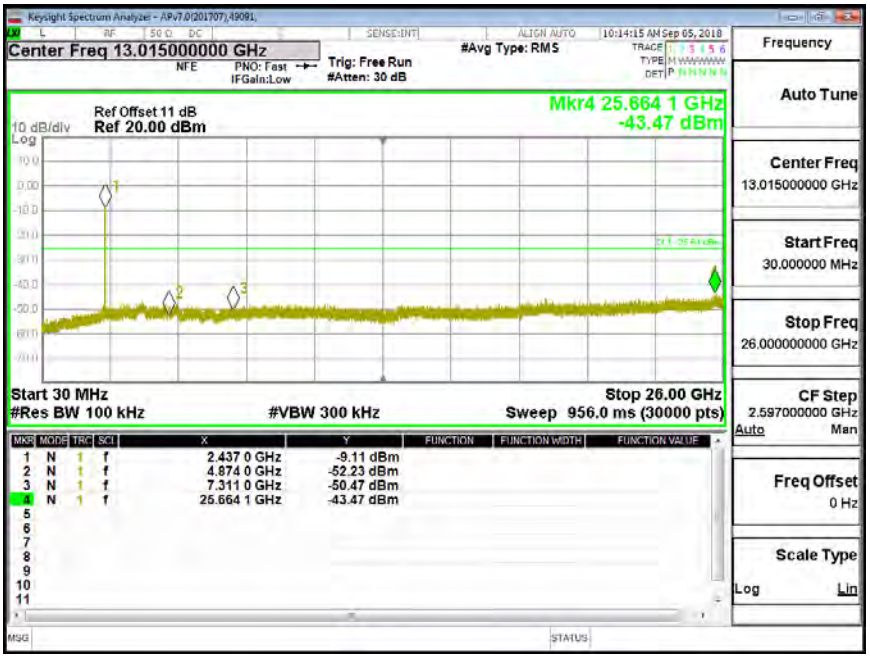


HIGH CH BANDEDAGE

LOW CH SPURIOUS EMISSIONS 30M-26G



MID CH SPURIOUS EMISSIONS 30M-26G

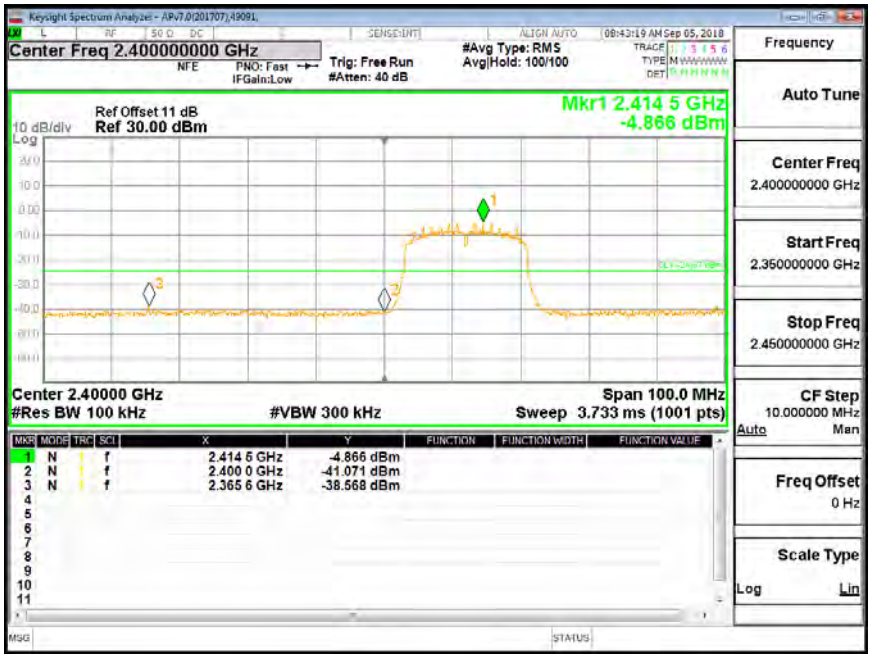


HIGH CH SPURIOUS EMISSIONS 30M-26G

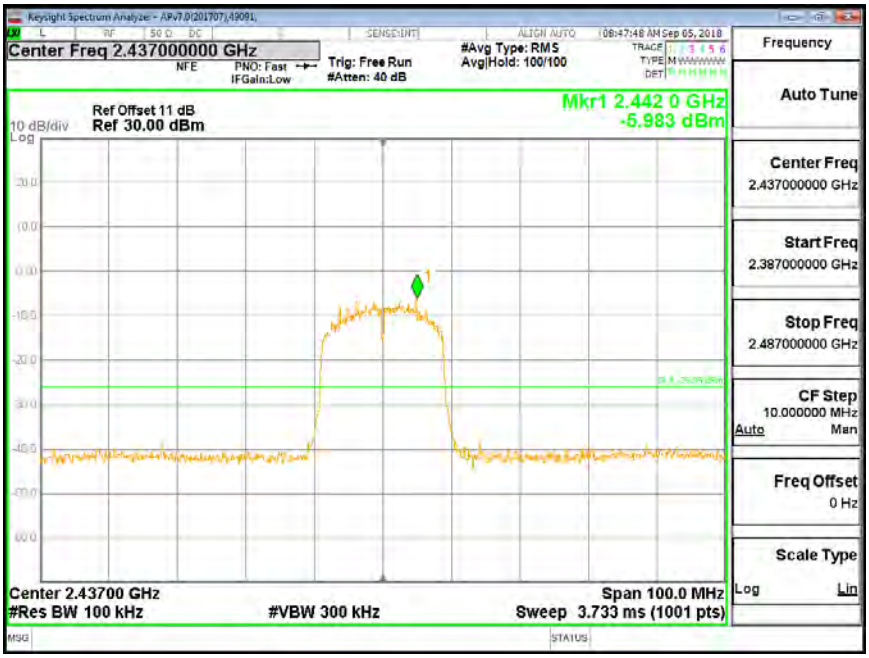
7.5.3. 802.11n20 MODE

ANTENNA1

LOW CH BANDEDAGE

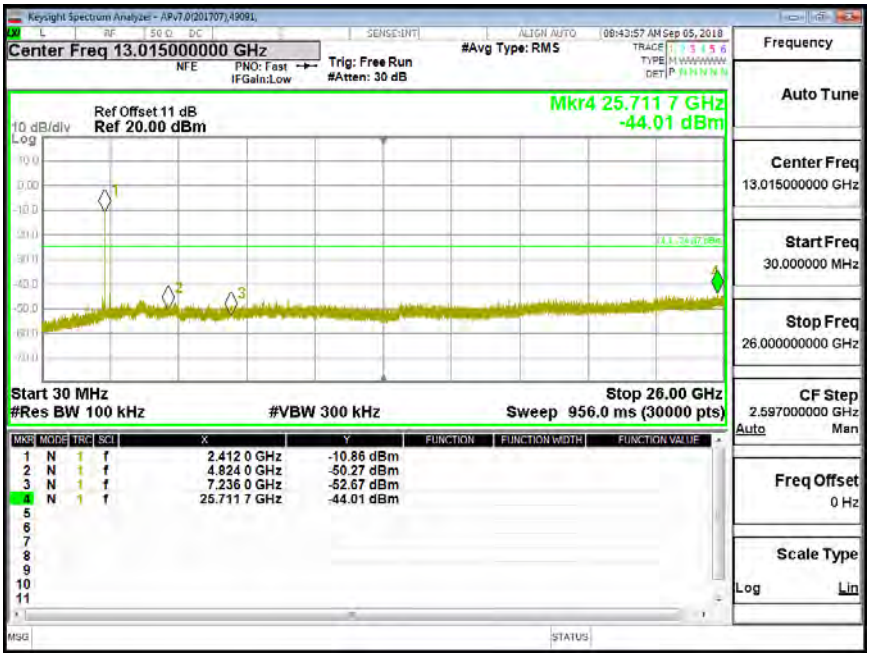


MID CH BANDEDAGE



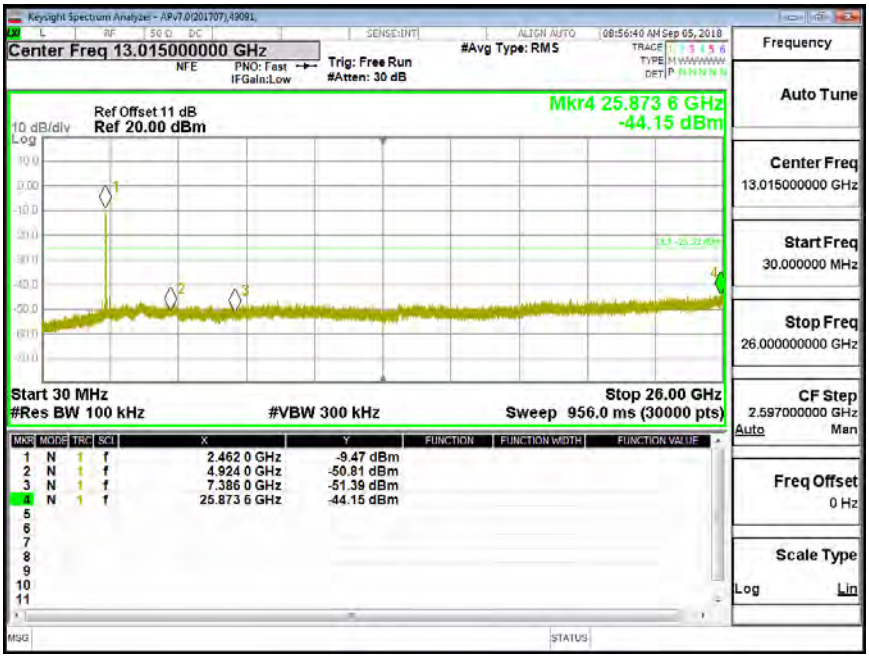
HIGH CH BANDEDAGE

LOW CH SPURIOUS EMISSIONS 30M-26G



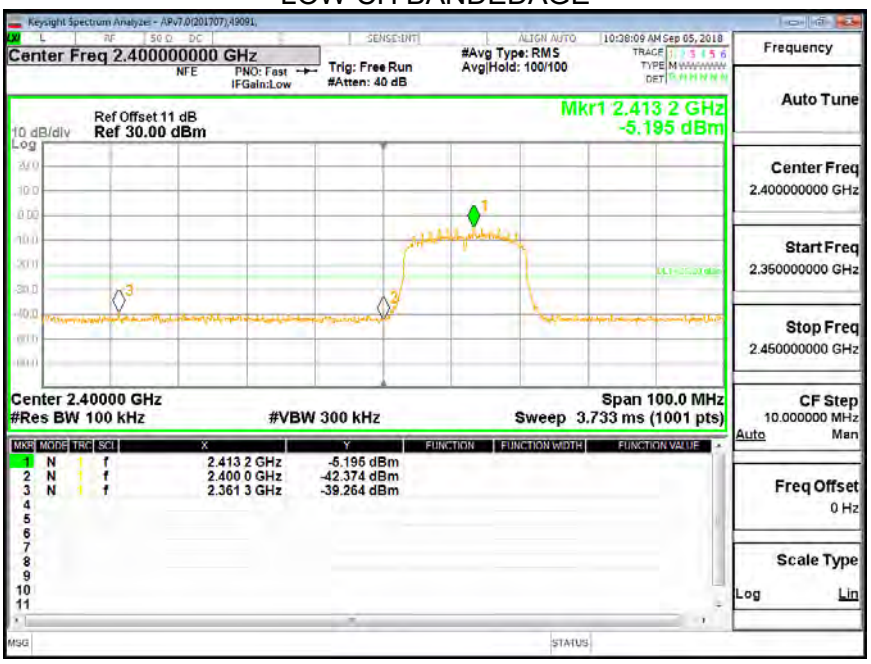
MID CH SPURIOUS EMISSIONS 30M-26G

HIGH CH SPURIOUS EMISSIONS 30M-26G

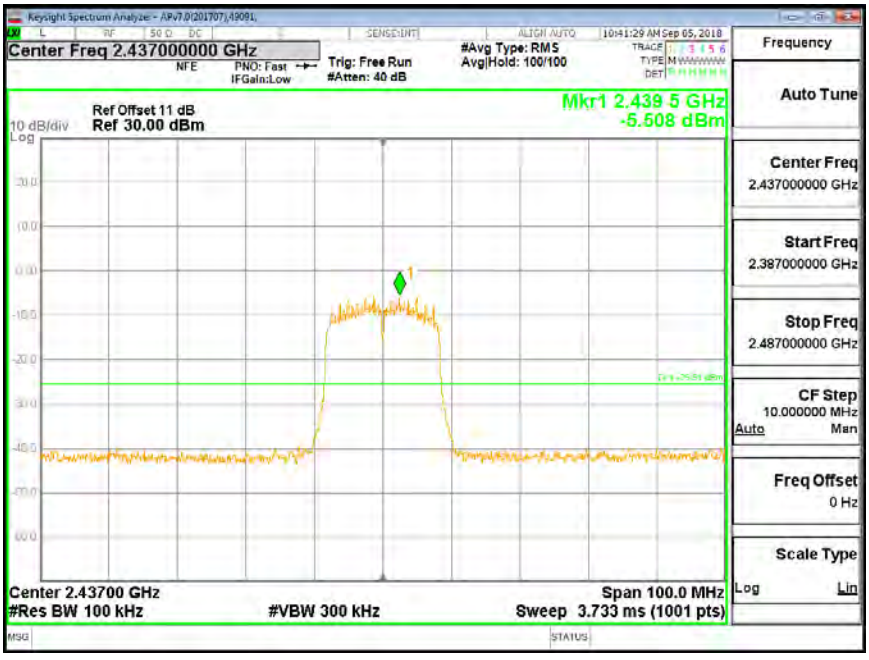


ANTENNA2

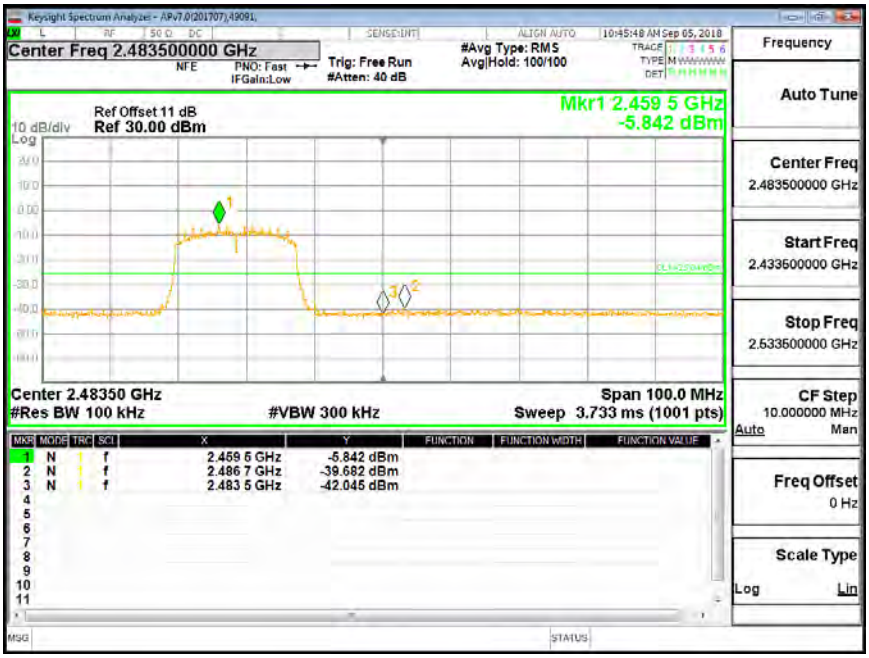
LOW CH BANDEDAGE



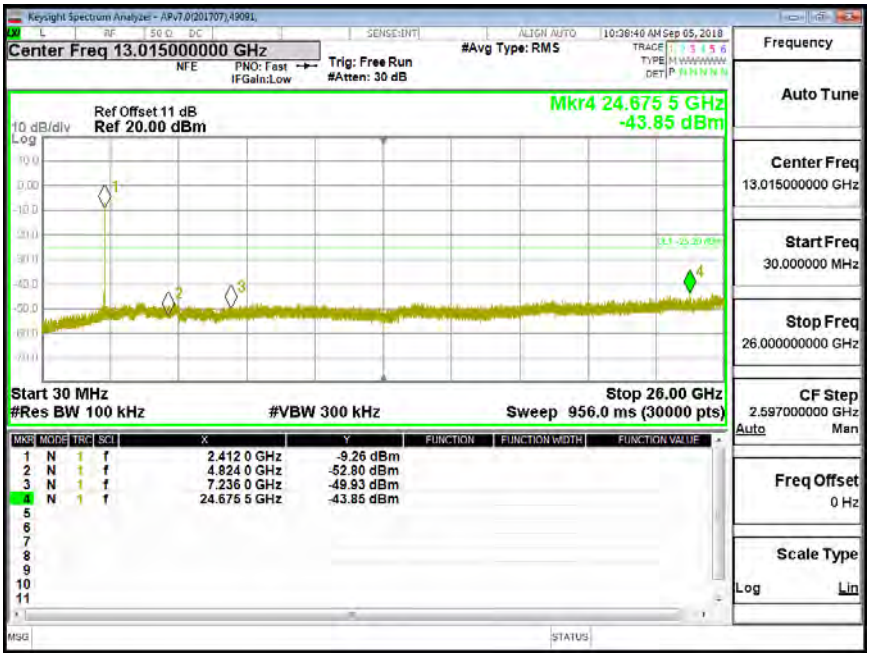
MID CH BANDEDAGE



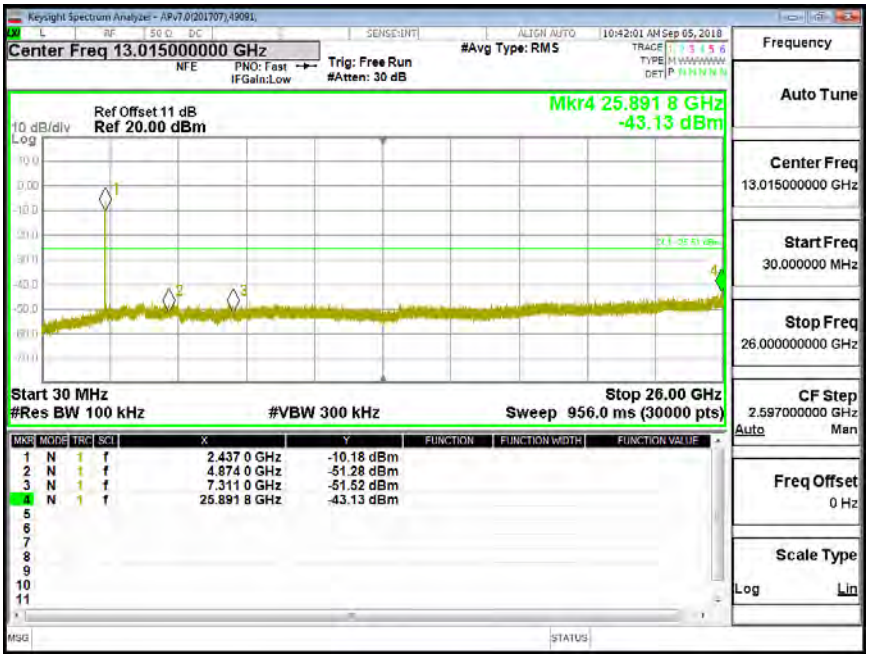
HIGH CH BANDEDAGE



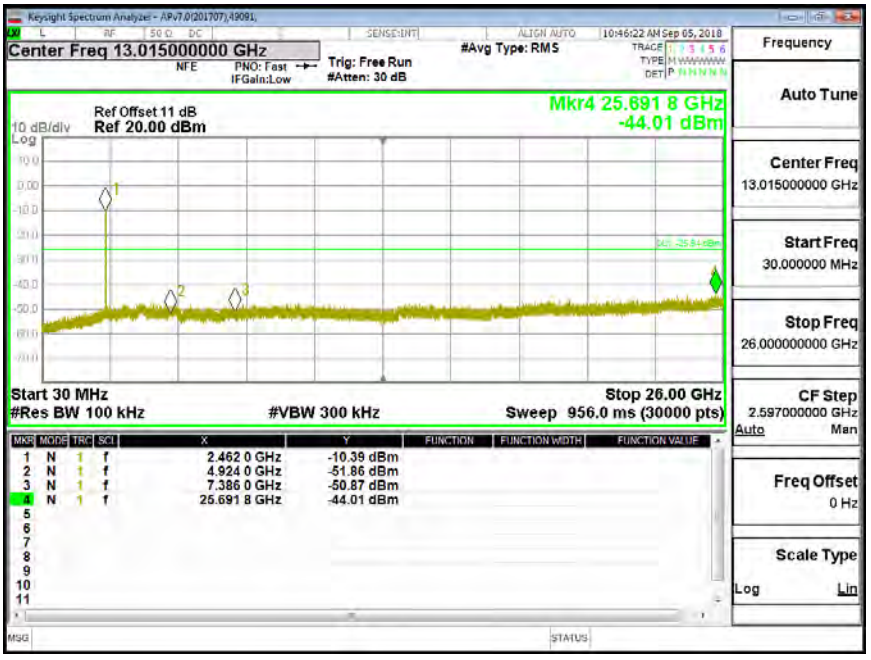
LOW CH SPURIOUS EMISSIONS 30M-26G



MID CH SPURIOUS EMISSIONS 30M-26G



HIGH CH SPURIOUS EMISSIONS 30M-26G



8. RADIATED TEST RESULTS

LIMITS

Please refer to FCC §15.205 and §15.209

Radiation Disturbance Test Limit for FCC (Class B)(9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Note: 1) 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).

(2) 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). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.

Radiation Disturbance Test Limit for FCC (Above 1G)

Frequency (MHz)	dB(uV/m) (at 3 meters)	
	Peak	Average
Above 1000	74	54

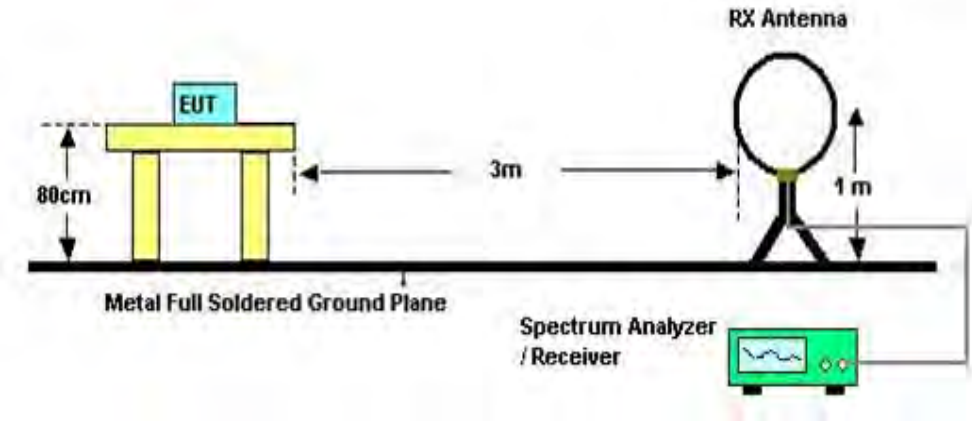
Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]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	([2])
13.36-13.41			

Note: [1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2]Above 38.6c

TEST SETUP AND PROCEDURE

Below 30MHz



The setting of the spectrum analyzer

RBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

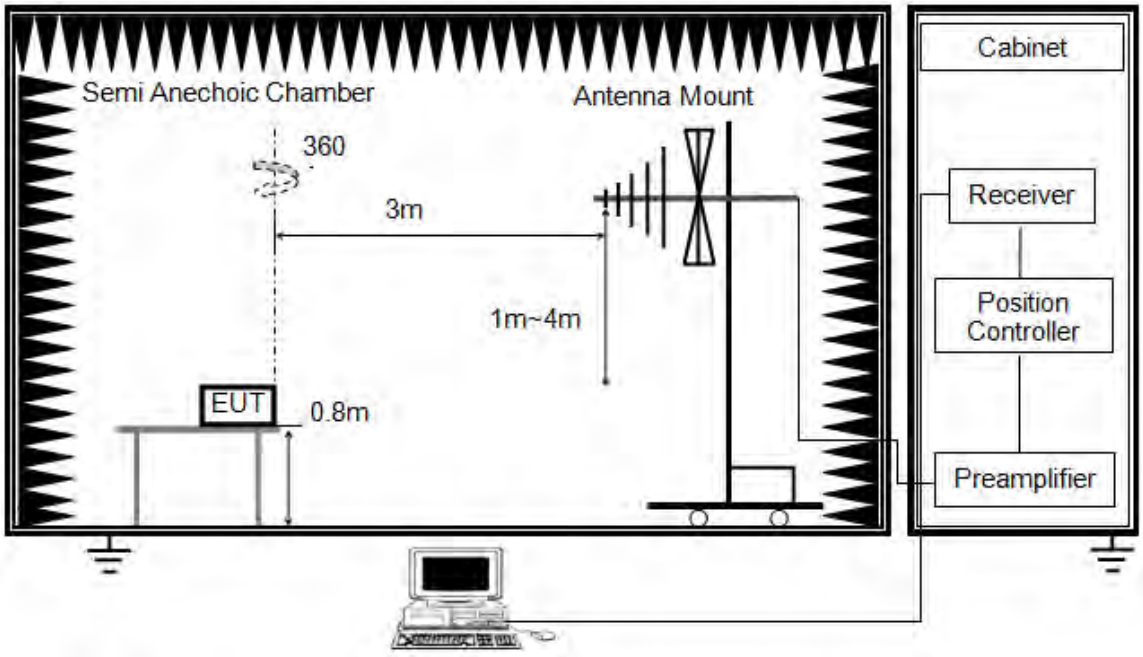
3. The EUT was placed on a turntable with 0.8 meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

6. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)

Below 1G



The setting of the spectrum analyzer

RBW	120K
VBW	300K
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

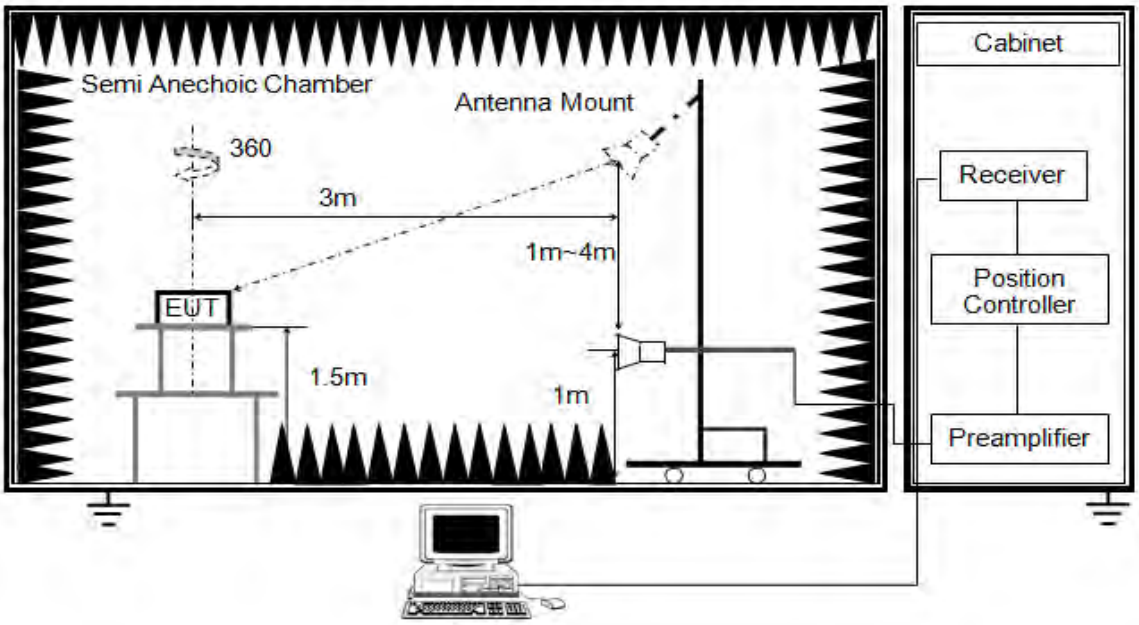
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 0.8 meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

ABOVE 1G



The setting of the spectrum analyzer

RBW	1M
VBW	PEAK: 3M AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

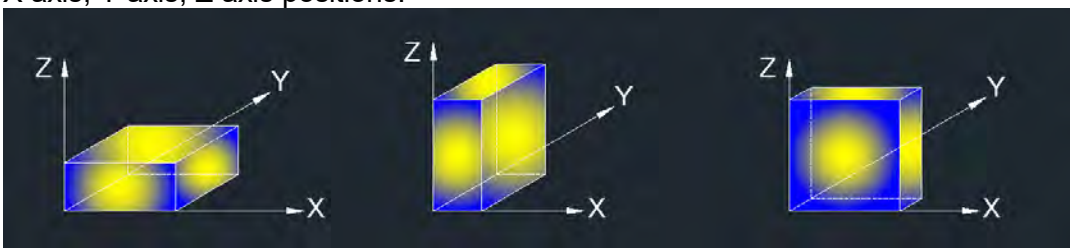
3. The EUT was placed on a turntable with 1.5m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector. For the Duty Cycle and Correction Factor please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (Z axis) data recorded in the report

Note 2: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

TEST ENVIRONMENT

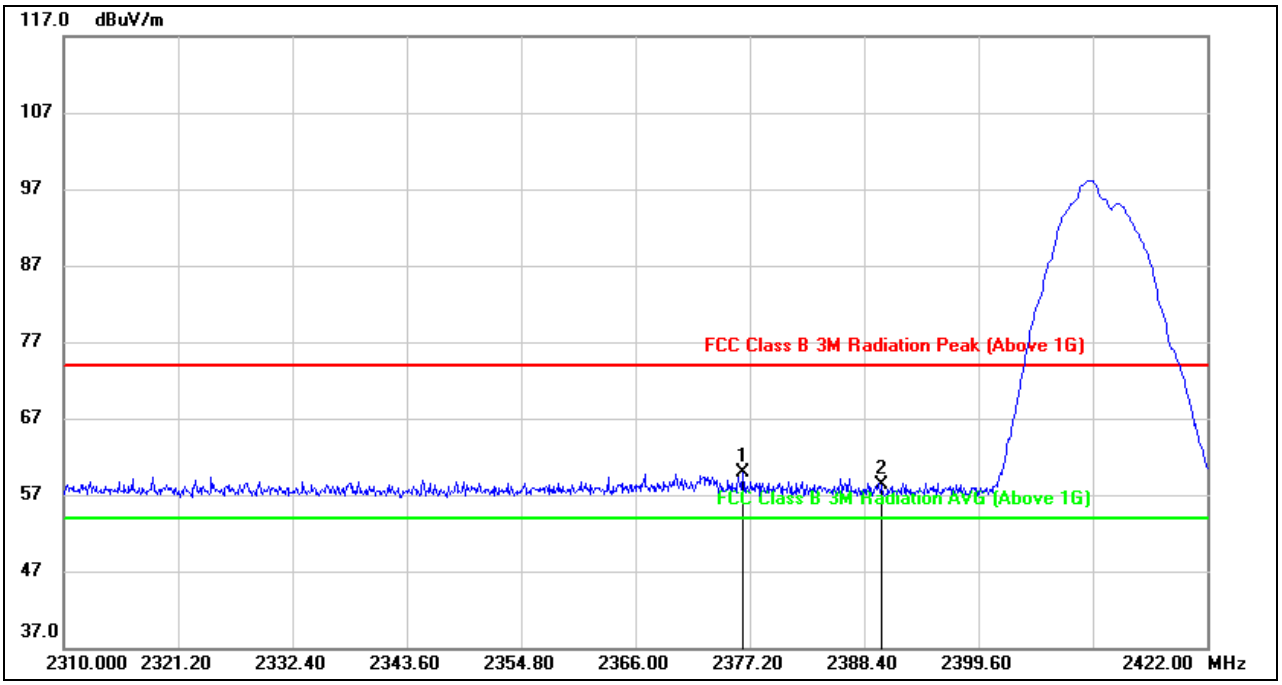
Temperature	24.6°C	Relative Humidity	55%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

8.1. RESTRICTED BANDEDGE

8.1.1. 802.11b MODE

PEAK

RESTRICTED BANDEDGE (CHANNEL1, HORIZONTAL)

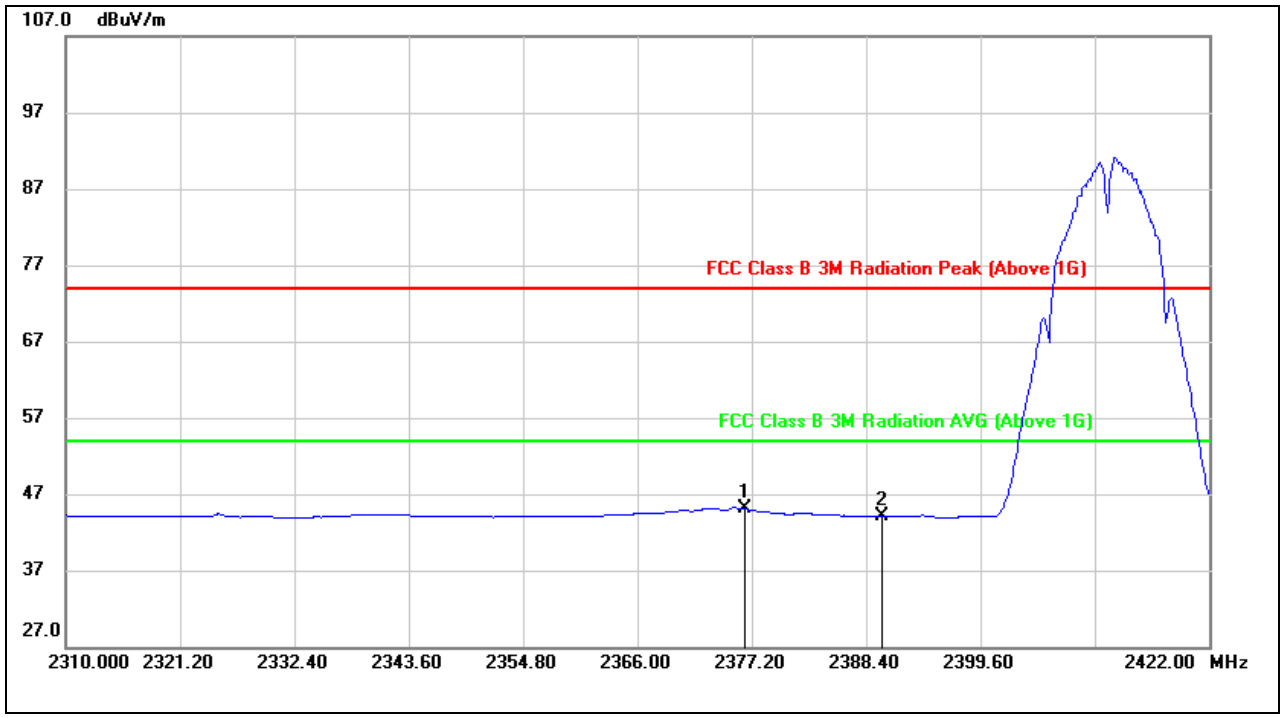


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2376.528	26.62	33.24	59.86	74.00	-14.14	peak
2	2390.000	25.14	33.14	58.28	74.00	-15.72	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL1, HORIZONTAL)

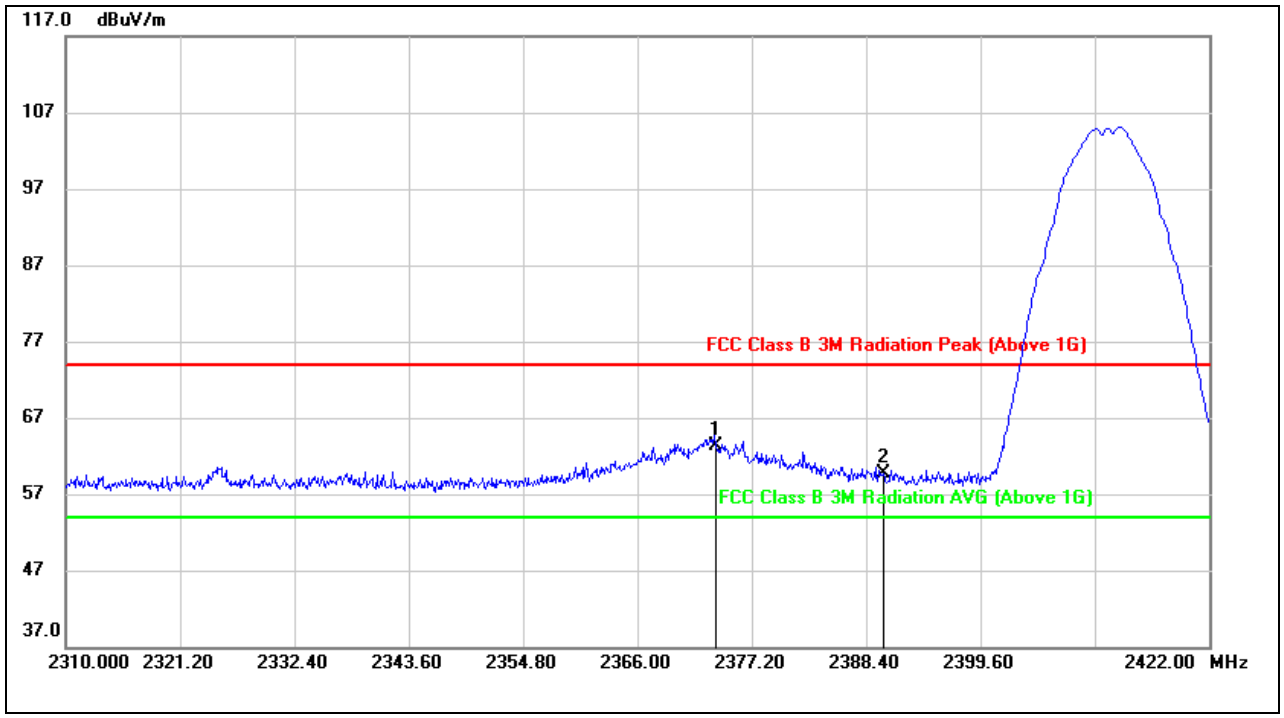


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2376.528	11.78	33.24	45.02	54.00	-8.98	AVG
2	2390.000	10.99	33.14	44.13	54.00	-9.87	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=10Hz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL1, VERTICAL)

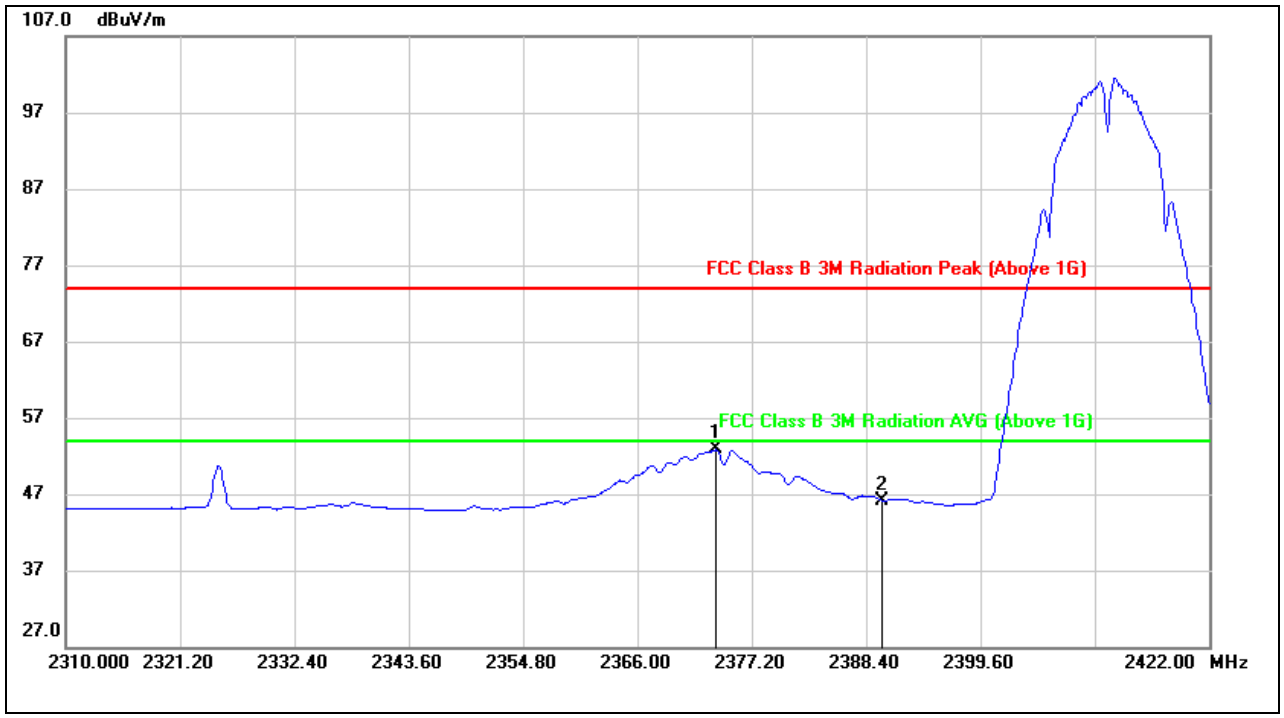


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2373.728	29.87	33.36	63.23	74.00	-10.77	peak
2	2390.000	26.48	33.24	59.72	74.00	-14.28	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL1, VERTICAL)

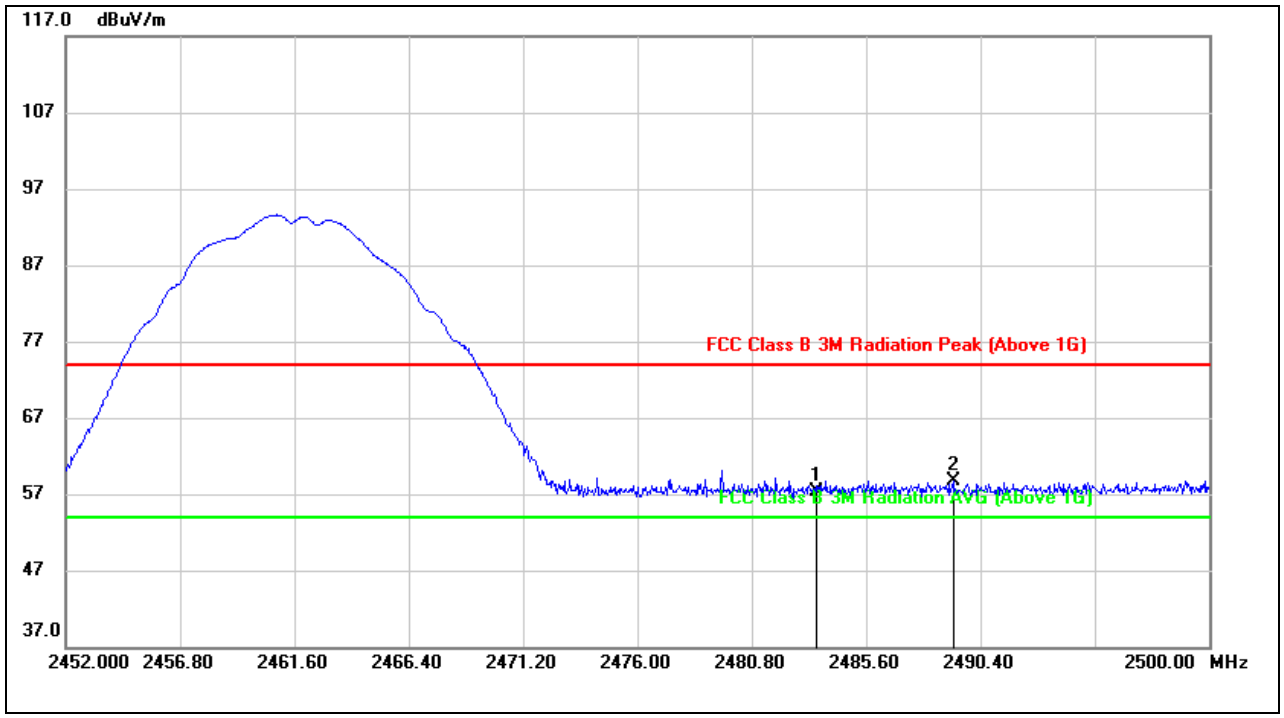


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2373.728	19.46	33.36	52.82	54.00	-1.18	AVG
2	2390.000	12.89	33.24	46.13	54.00	-7.87	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=10Hz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL11, HORIZONTAL)

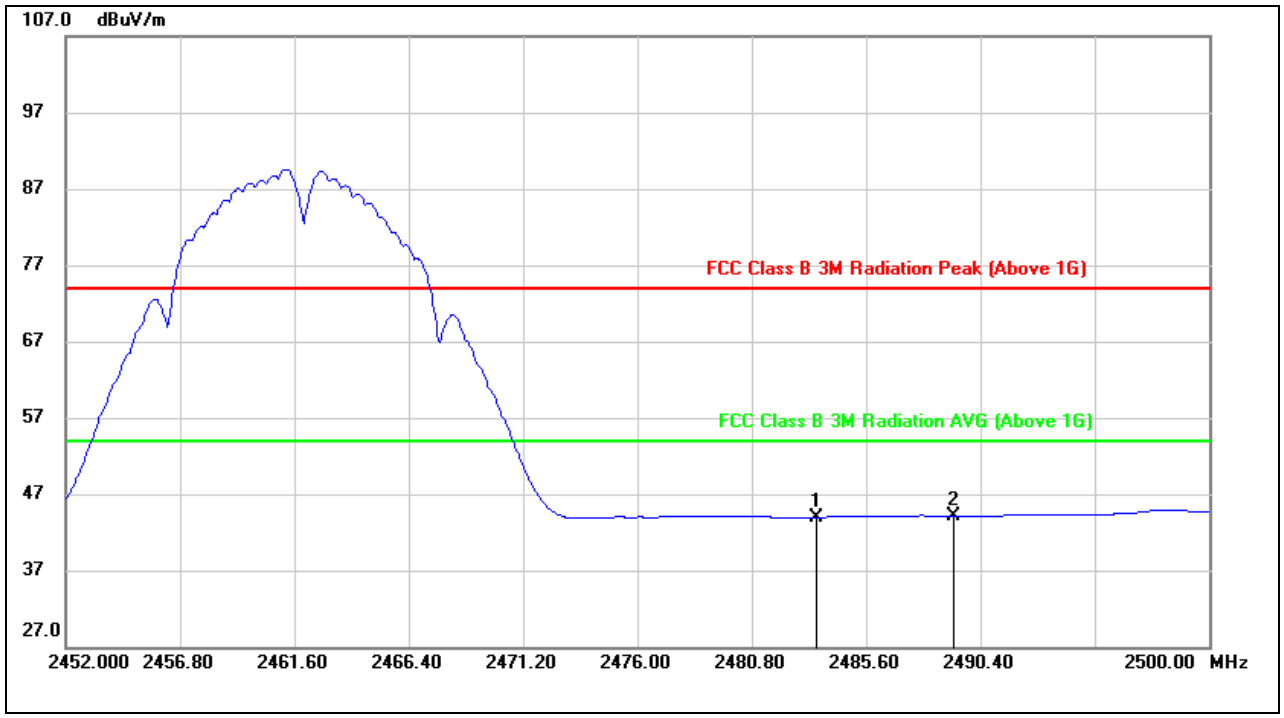


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	24.60	32.78	57.38	74.00	-16.62	peak
2	2489.248	26.00	32.78	58.78	74.00	-15.22	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL11, HORIZONTAL)

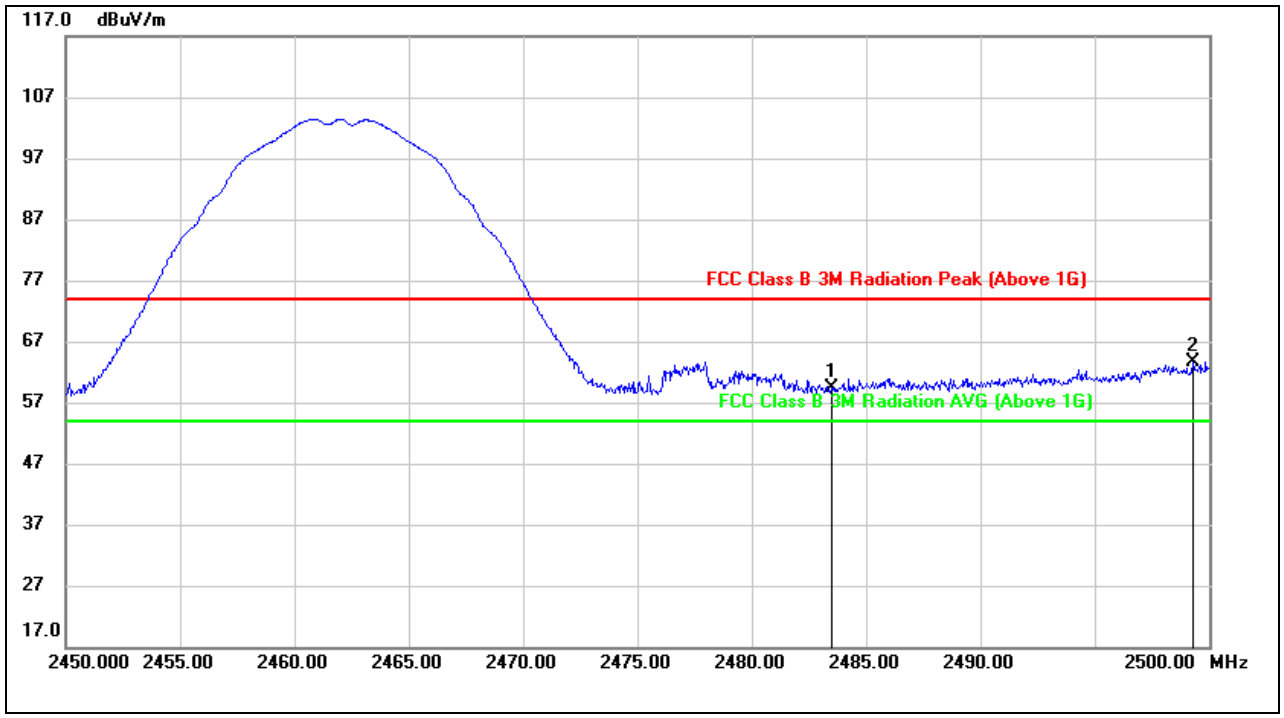


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	11.19	32.78	43.97	54.00	-10.03	AVG
2	2489.248	11.32	32.78	44.10	54.00	-9.90	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=10Hz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL11, VERTICAL)

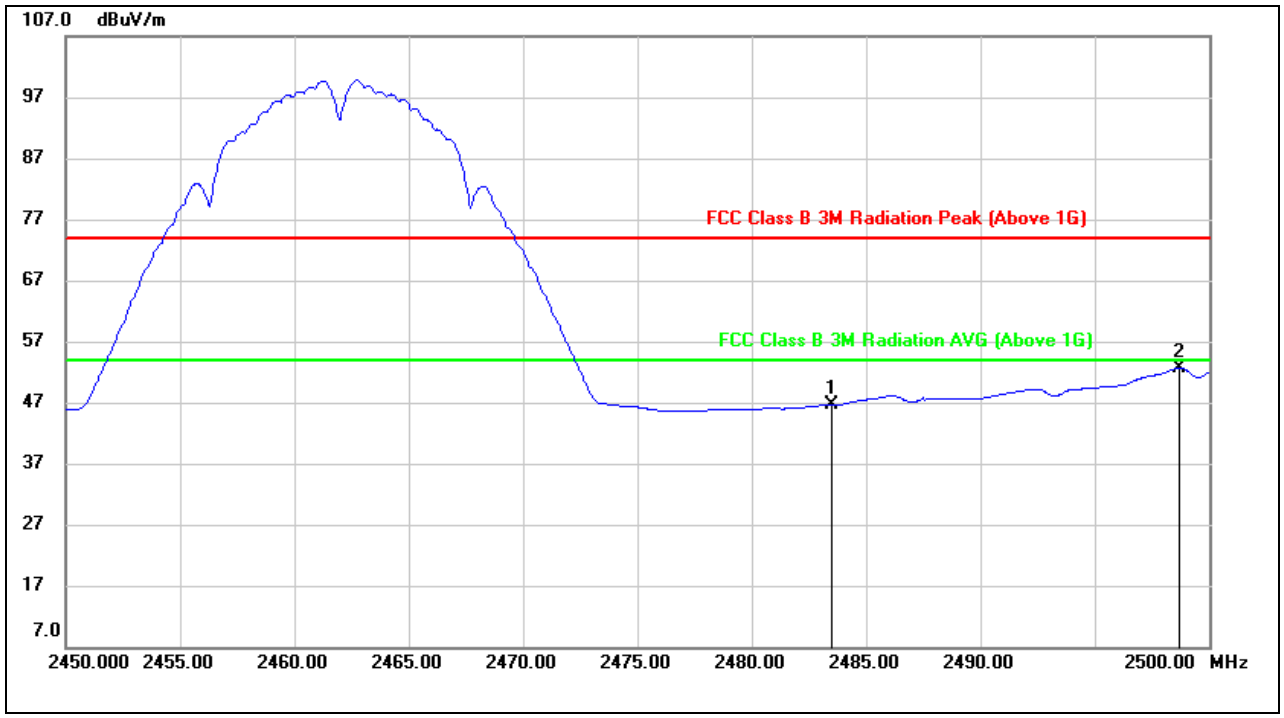


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	26.40	32.88	59.28	74.00	-14.72	peak
2	2499.300	30.83	32.87	63.70	74.00	-10.30	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL11, VERTICAL)



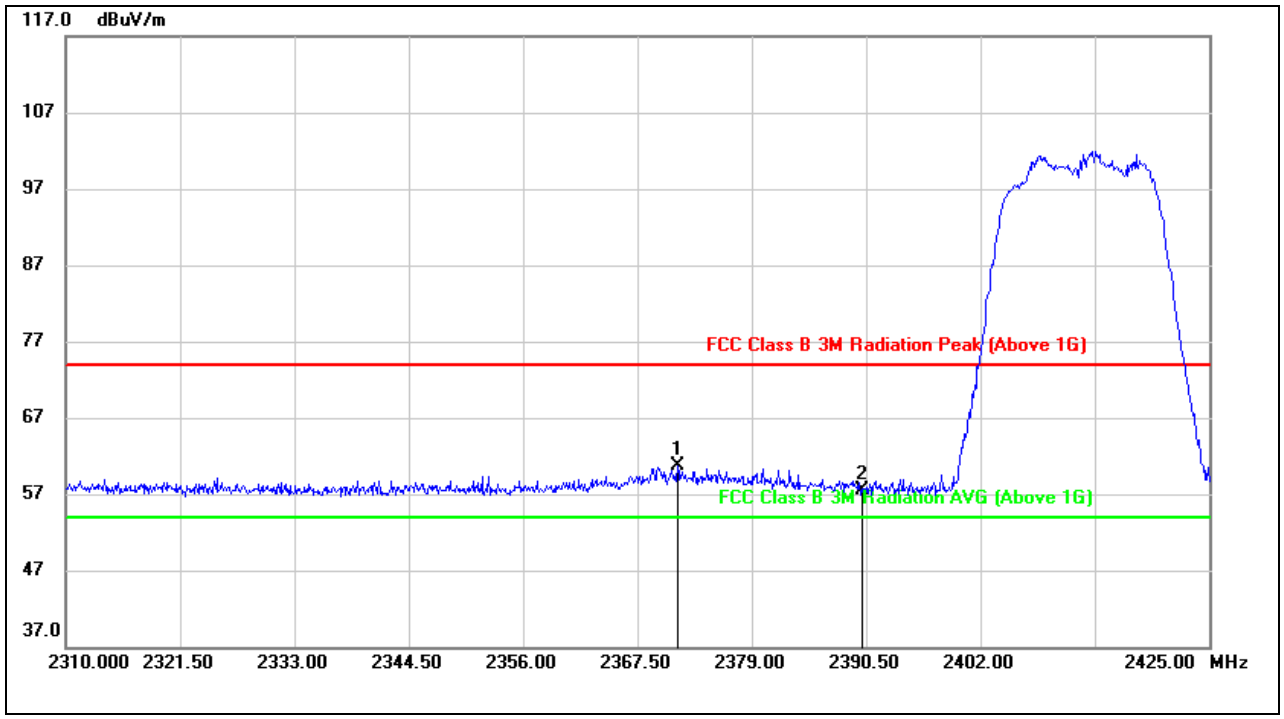
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	13.68	32.88	46.56	54.00	-7.44	AVG
2	2499.300	19.82	32.87	52.69	54.00	-1.31	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=10Hz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.1.2. 802.11g MODE

PEAK

RESTRICTED BANDEDGE (CHANNEL1, HORIZONTAL)

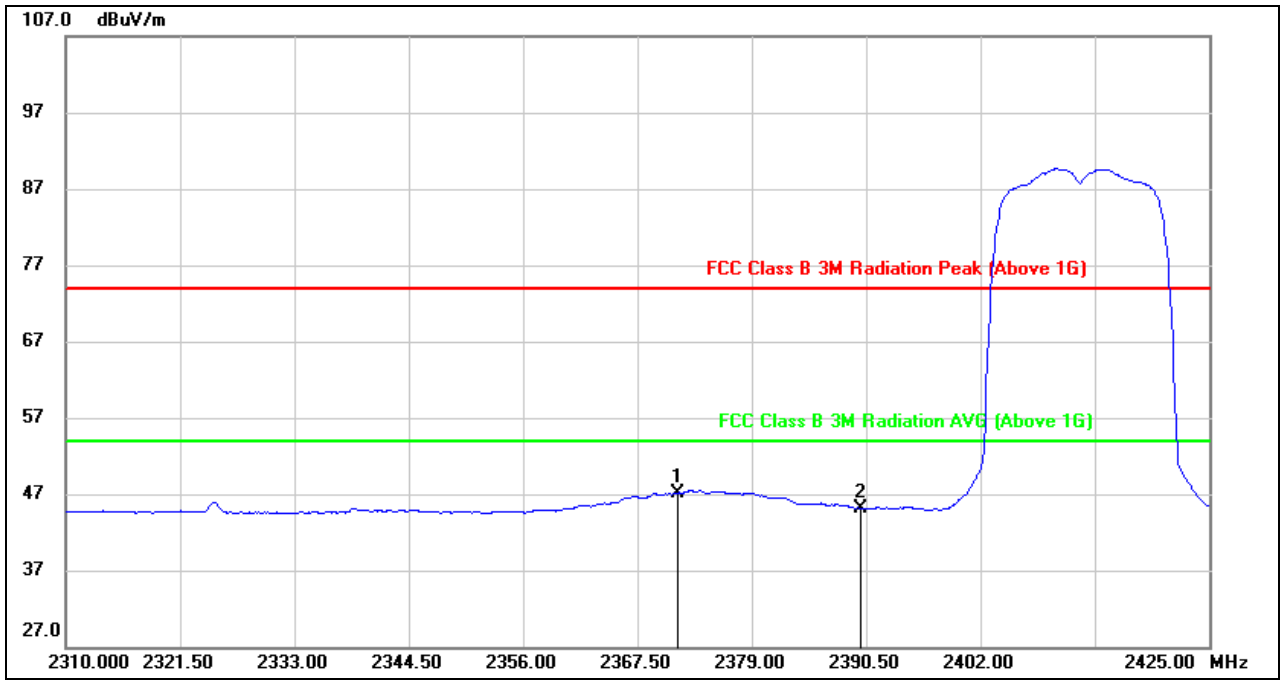


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2371.525	27.42	33.28	60.70	74.00	-13.30	peak
2	2390.000	24.39	33.14	57.53	74.00	-16.47	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL1, HORIZONTAL)

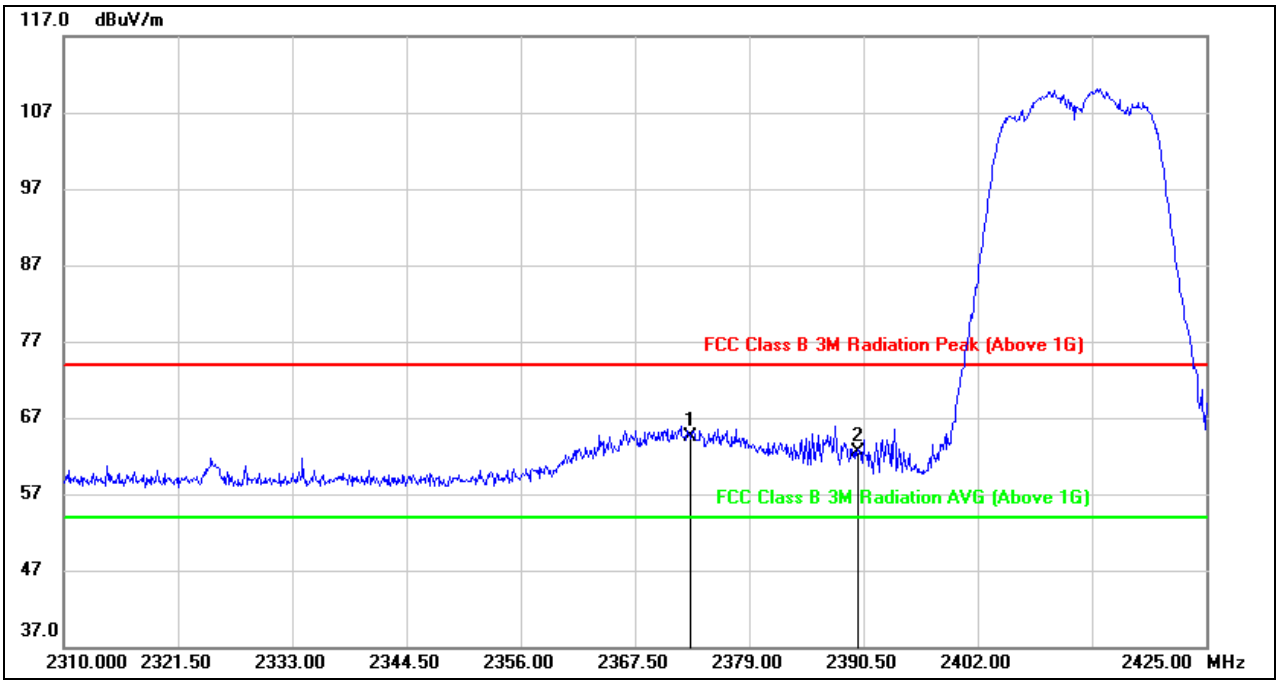


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2371.525	13.86	33.28	47.14	54.00	-6.86	AVG
2	2390.000	12.00	33.14	45.14	54.00	-8.86	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=500Hz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL1, VERTICAL)

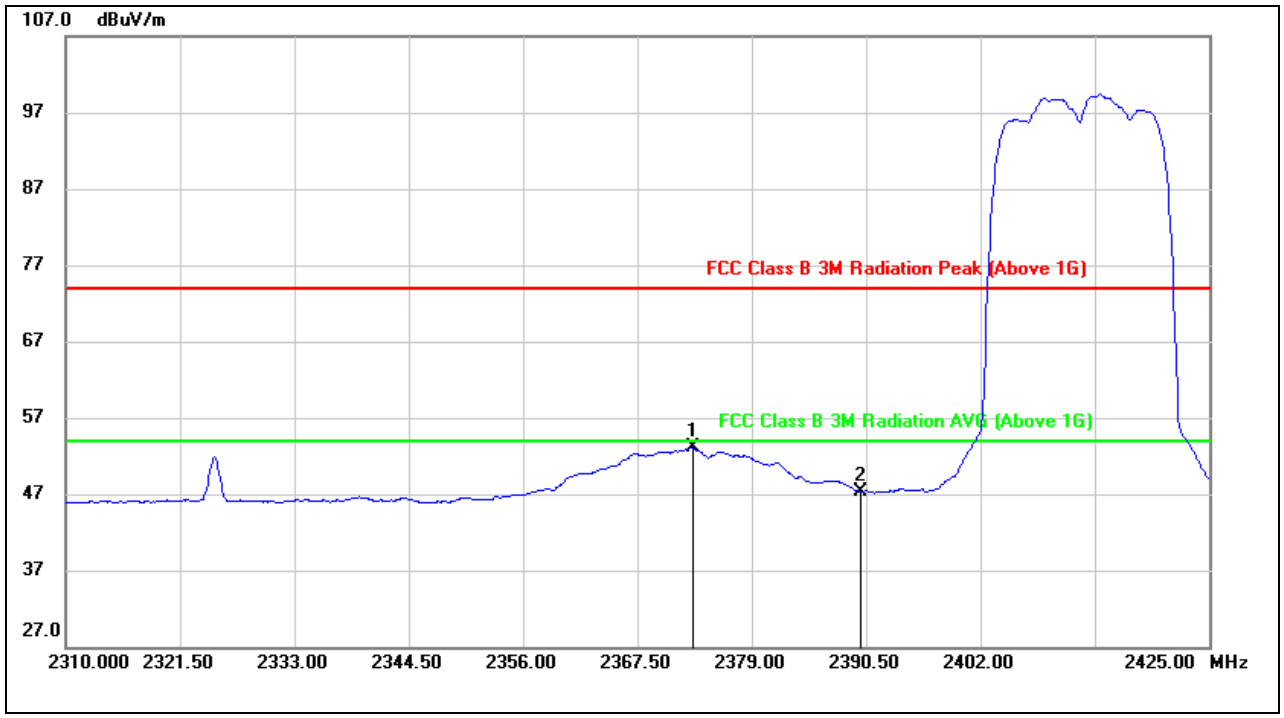


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2373.020	31.04	33.37	64.41	74.00	-9.59	peak
2	2390.000	29.18	33.24	62.42	74.00	-11.58	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL1, VERTICAL)

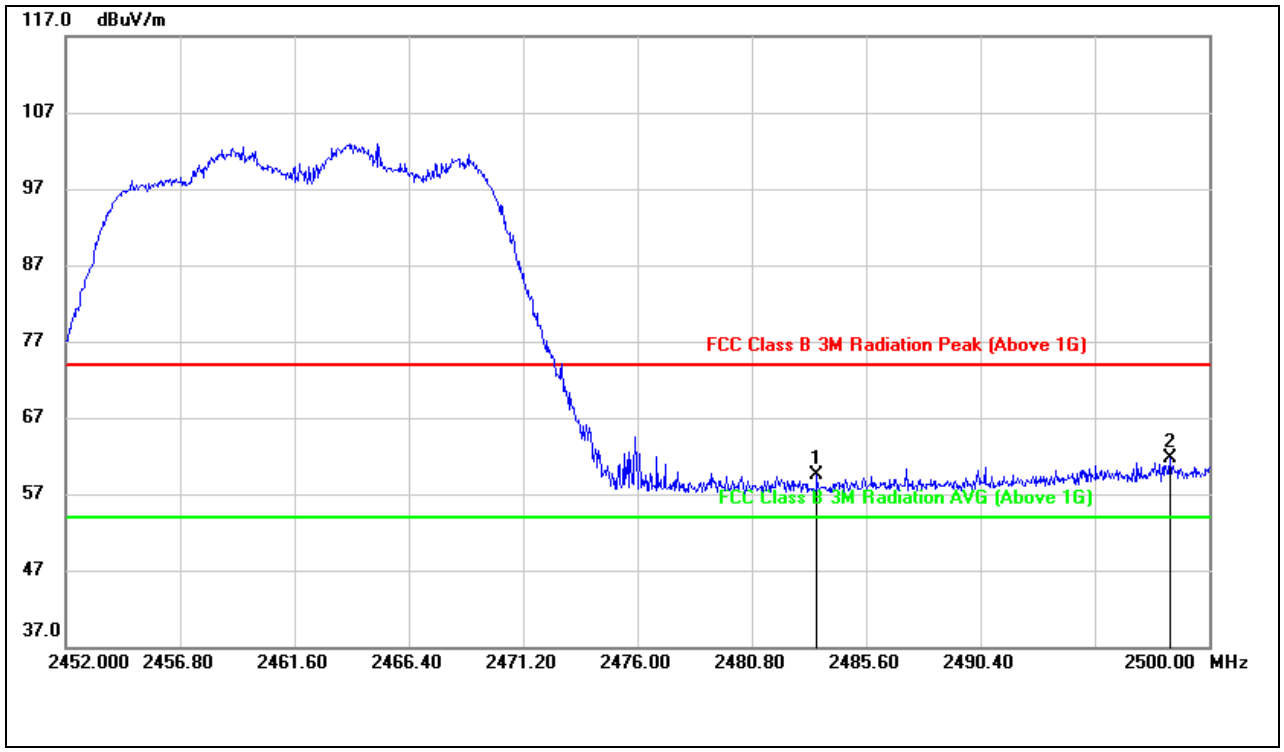


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2373.020	19.71	33.37	53.08	54.00	-0.92	AVG
2	2390.000	14.10	33.24	47.34	54.00	-6.66	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=500Hz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL11, HORIZONTAL)

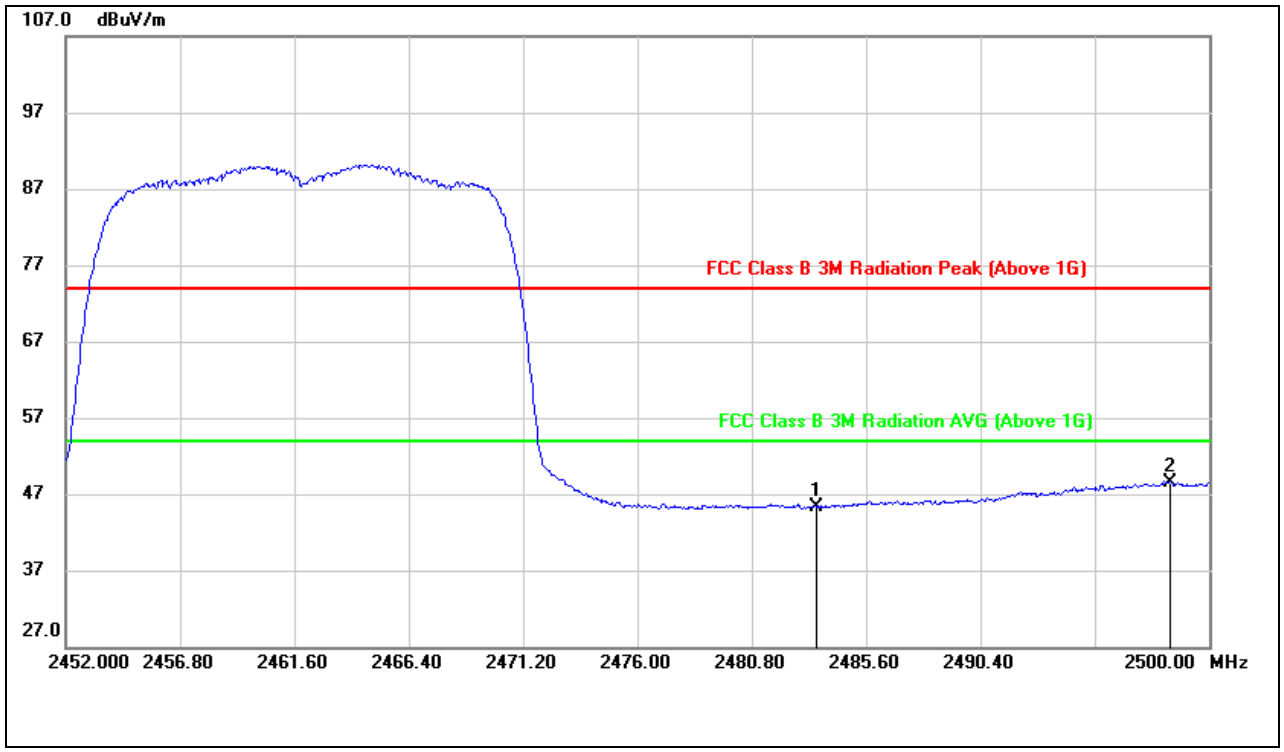


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	26.65	32.78	59.43	74.00	-14.57	peak
2	2498.368	28.93	32.77	61.70	74.00	-12.30	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL11, HORIZONTAL)

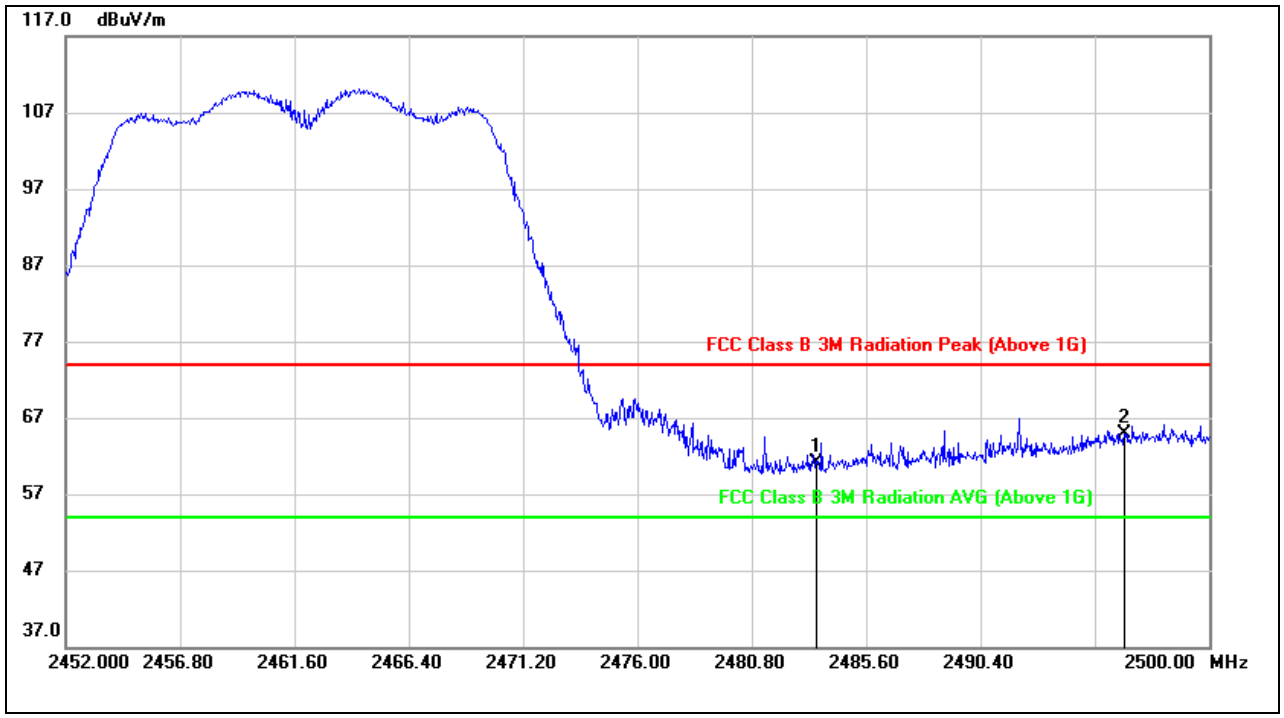


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	12.46	32.78	45.24	54.00	-8.76	AVG
2	2498.368	15.71	32.77	48.48	54.00	-5.52	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=500Hz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL11, VERTICAL)

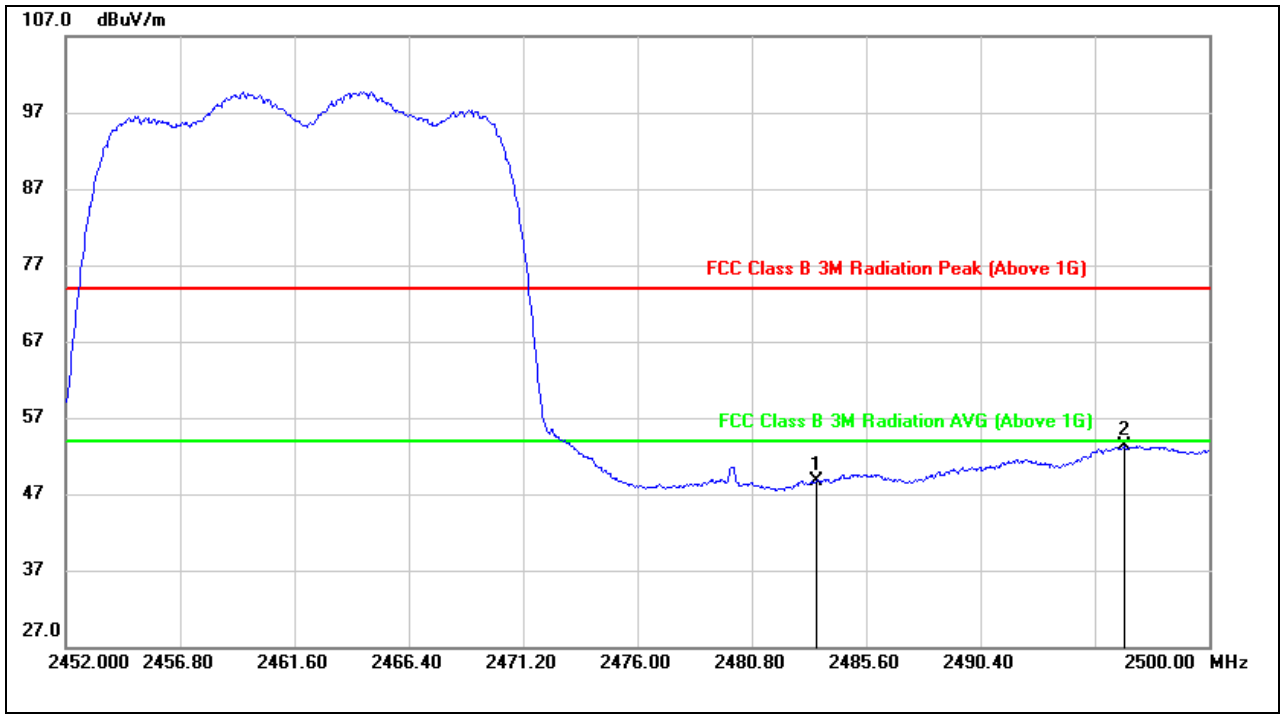


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	28.25	32.88	61.13	74.00	-12.87	peak
2	2496.448	32.04	32.88	64.92	74.00	-9.08	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL11, VERTICAL)



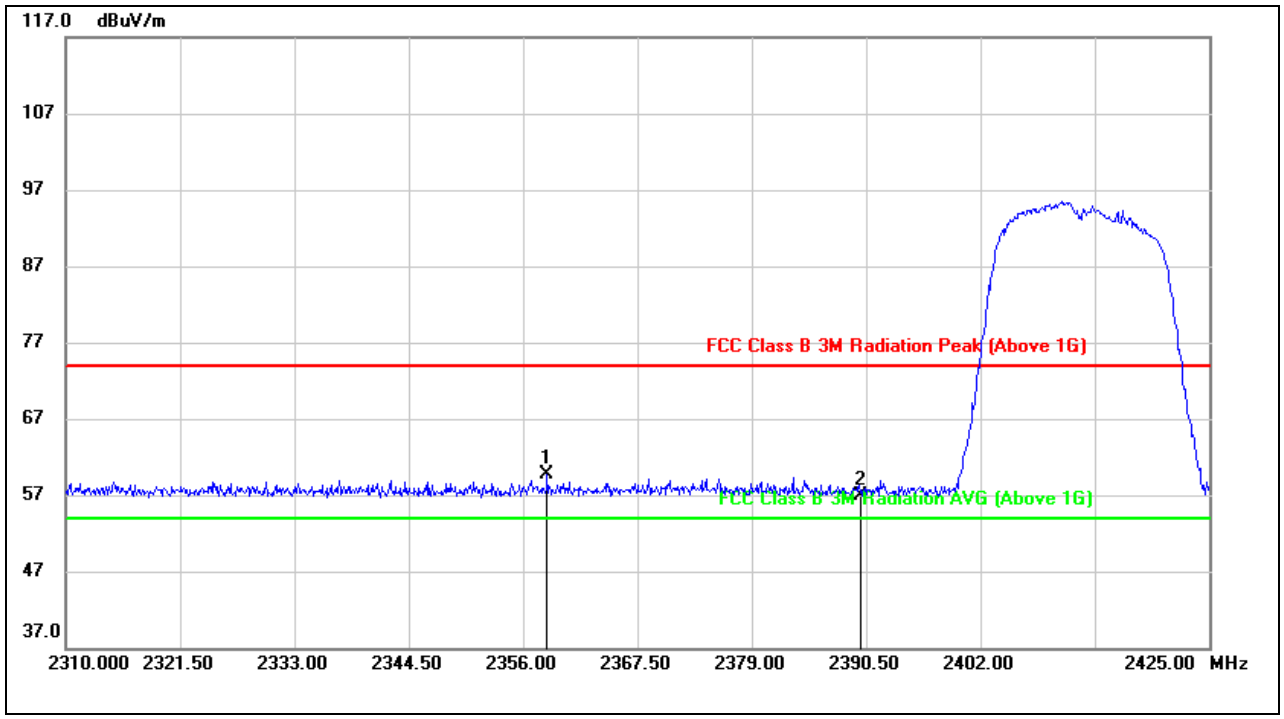
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	15.88	32.88	48.76	54.00	-5.24	AVG
2	2496.448	20.44	32.88	53.32	54.00	-0.68	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=500Hz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.1.3. 802.11n20 MODE

PEAK

RESTRICTED BANDEDGE (CHANNEL1, HORIZONTAL)

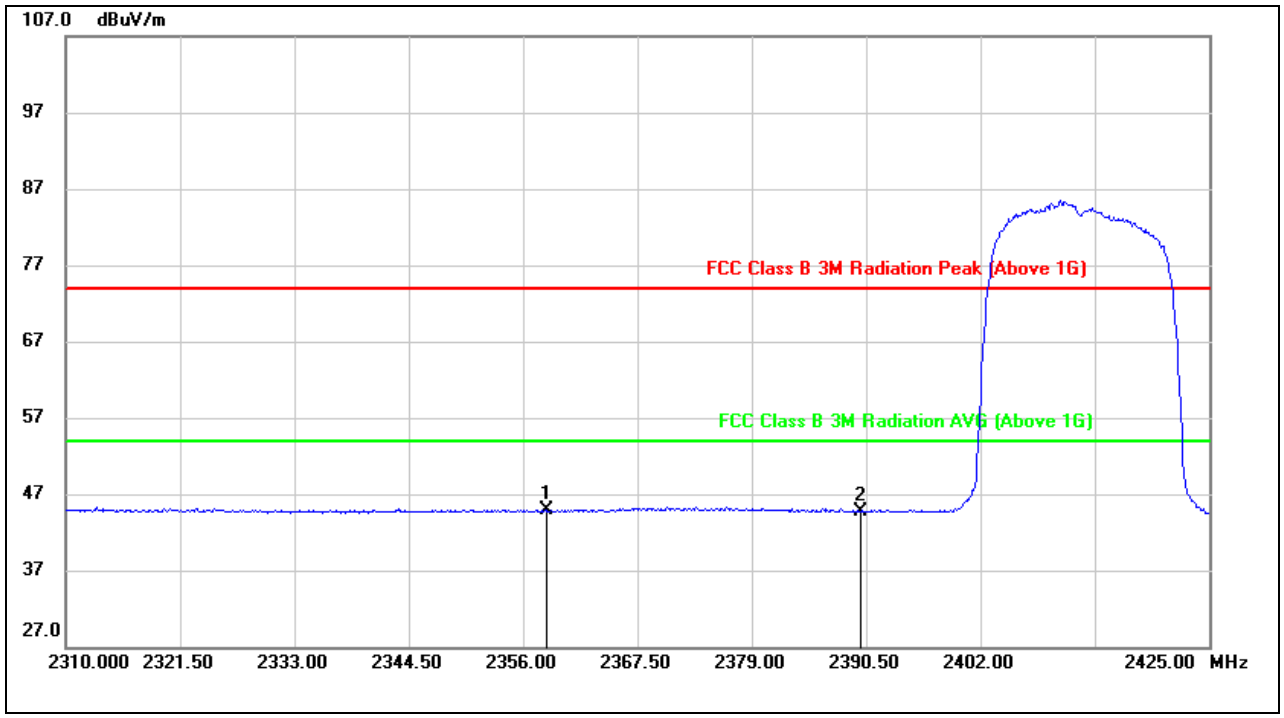


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2358.415	26.29	33.37	59.66	74.00	-14.34	peak
2	2390.000	23.82	33.14	56.96	74.00	-17.04	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL1, HORIZONTAL)

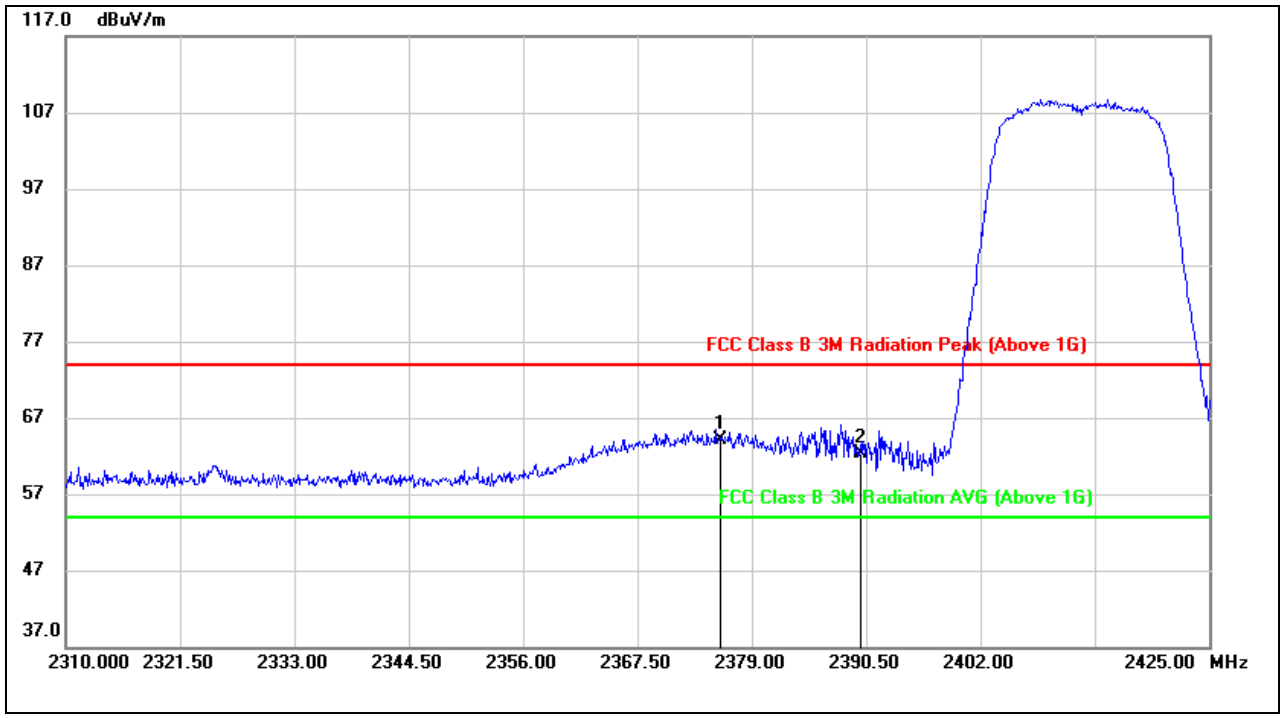


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2358.415	11.51	33.37	44.88	54.00	-9.12	AVG
2	2390.000	11.50	33.14	44.64	54.00	-9.36	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1kHz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL1, VERTICAL)

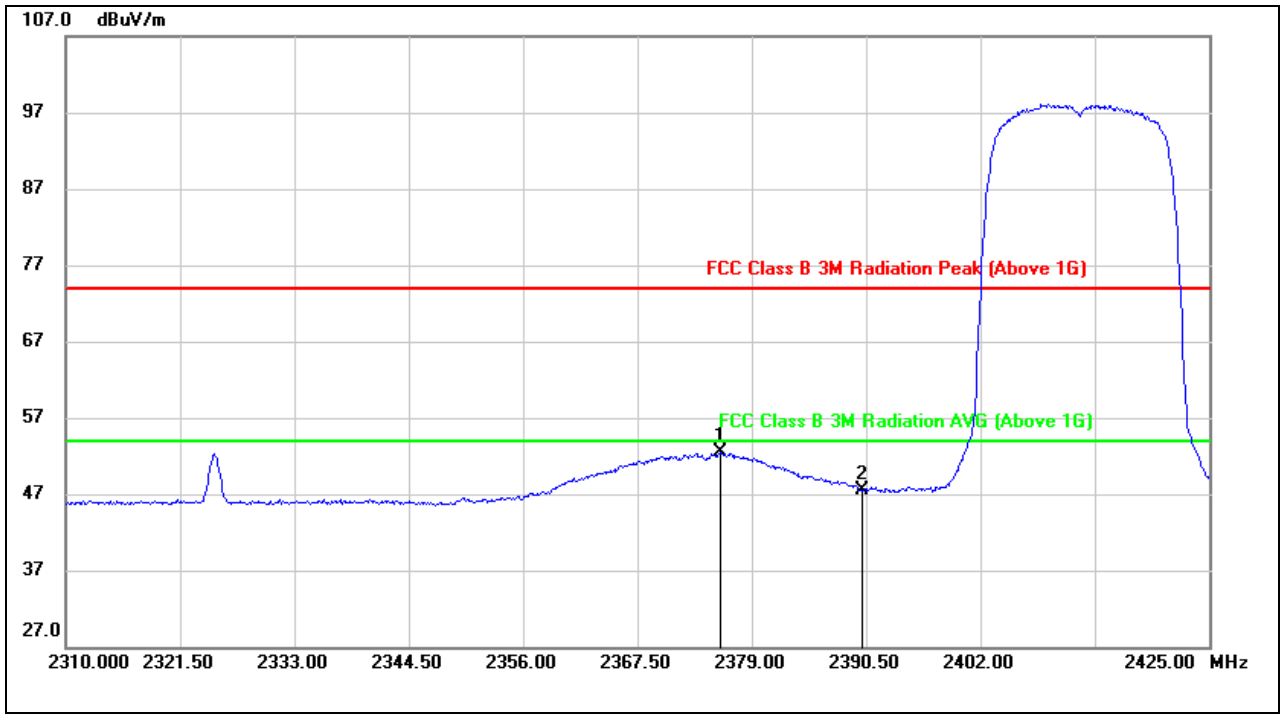


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2375.780	30.72	33.34	64.06	74.00	-9.94	peak
2	2390.000	29.06	33.24	62.30	74.00	-11.70	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL1, VERTICAL)

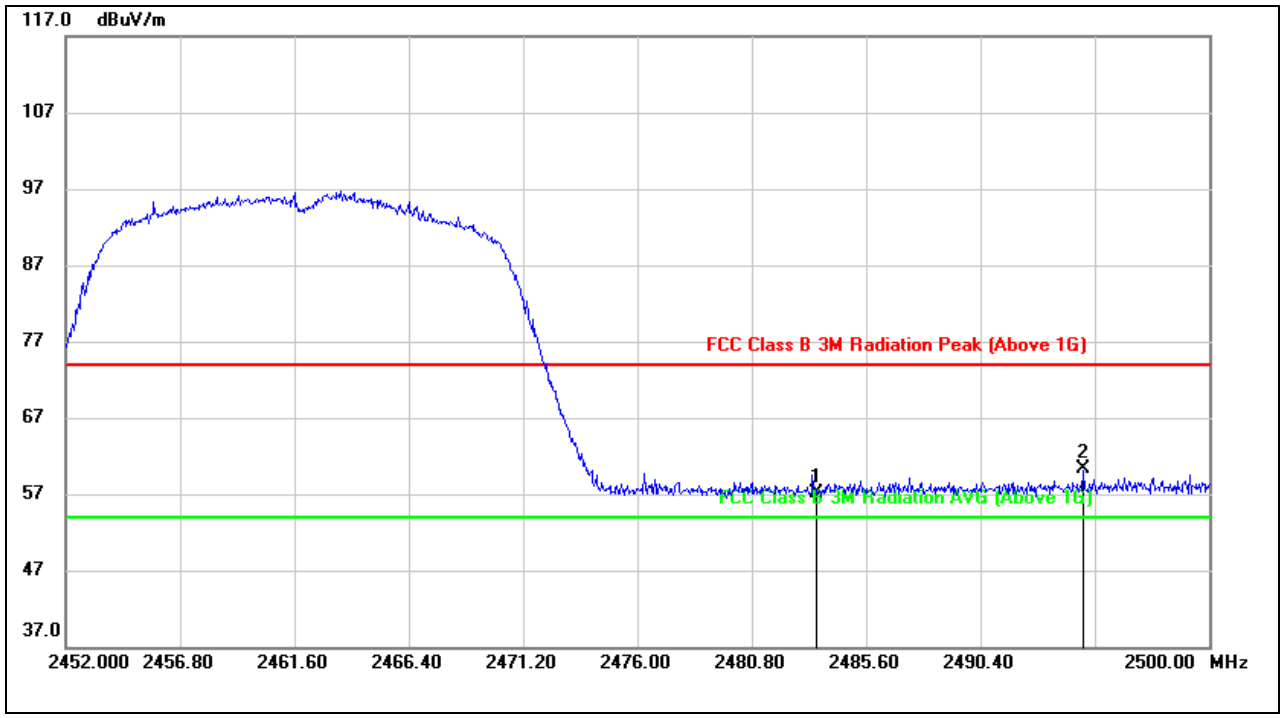


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2375.780	19.21	33.34	52.55	54.00	-1.45	AVG
2	2390.000	14.34	33.24	47.58	54.00	-6.42	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1kHz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL11, HORIZONTAL)

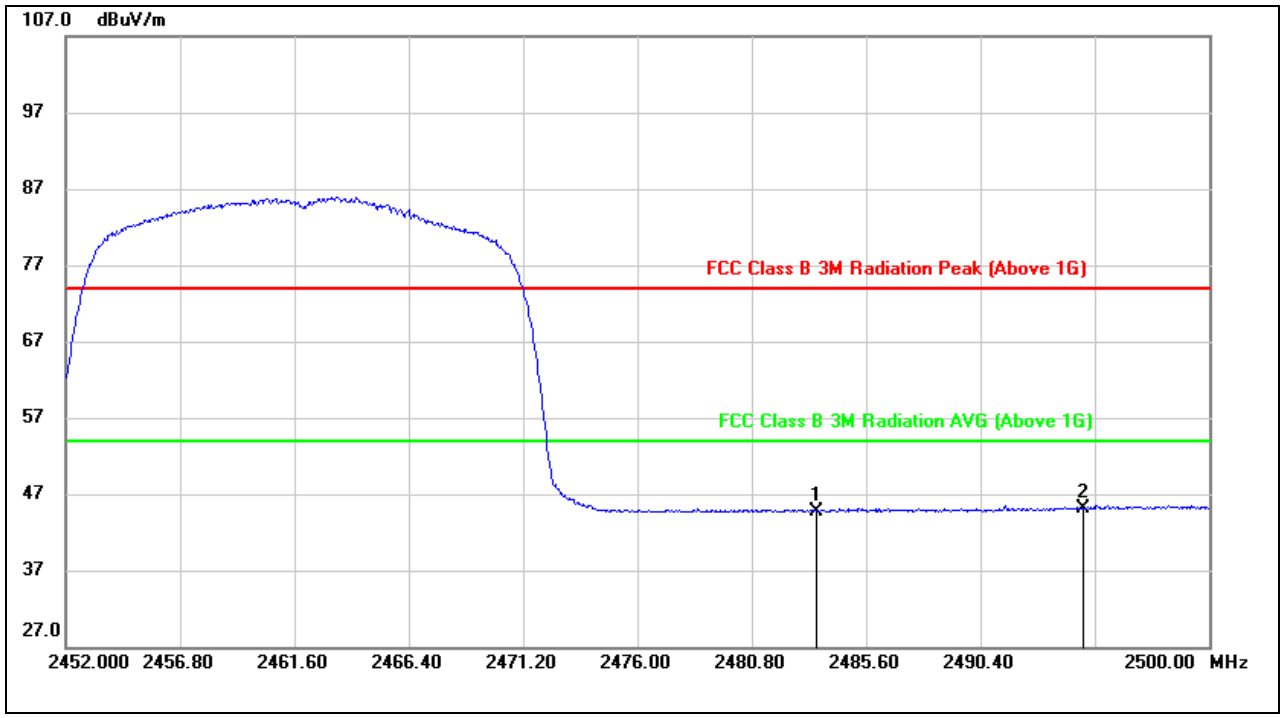


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	24.27	32.78	57.05	74.00	-16.95	peak
2	2494.720	27.43	32.77	60.20	74.00	-13.80	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL11, HORIZONTAL)

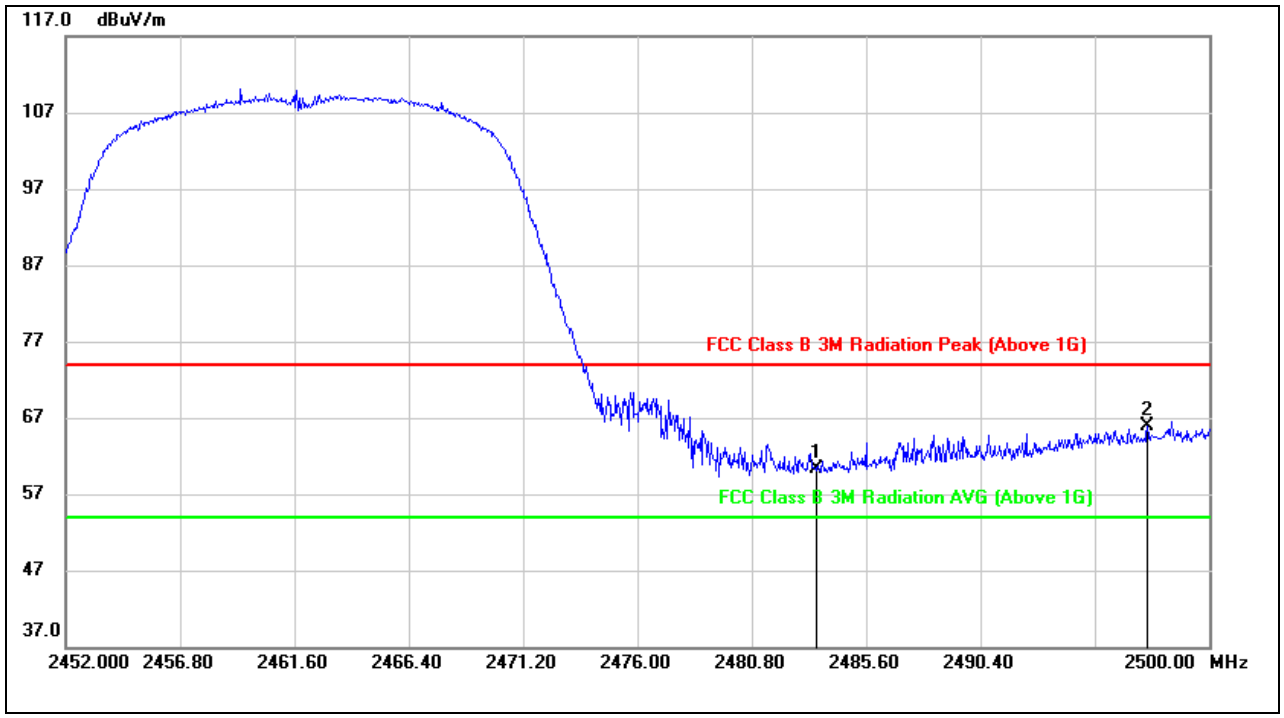


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	11.98	32.78	44.76	54.00	-9.24	AVG
2	2494.720	12.36	32.77	45.13	54.00	-8.87	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1kHz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

PEAK

RESTRICTED BANDEDGE (CHANNEL11, VERTICAL)

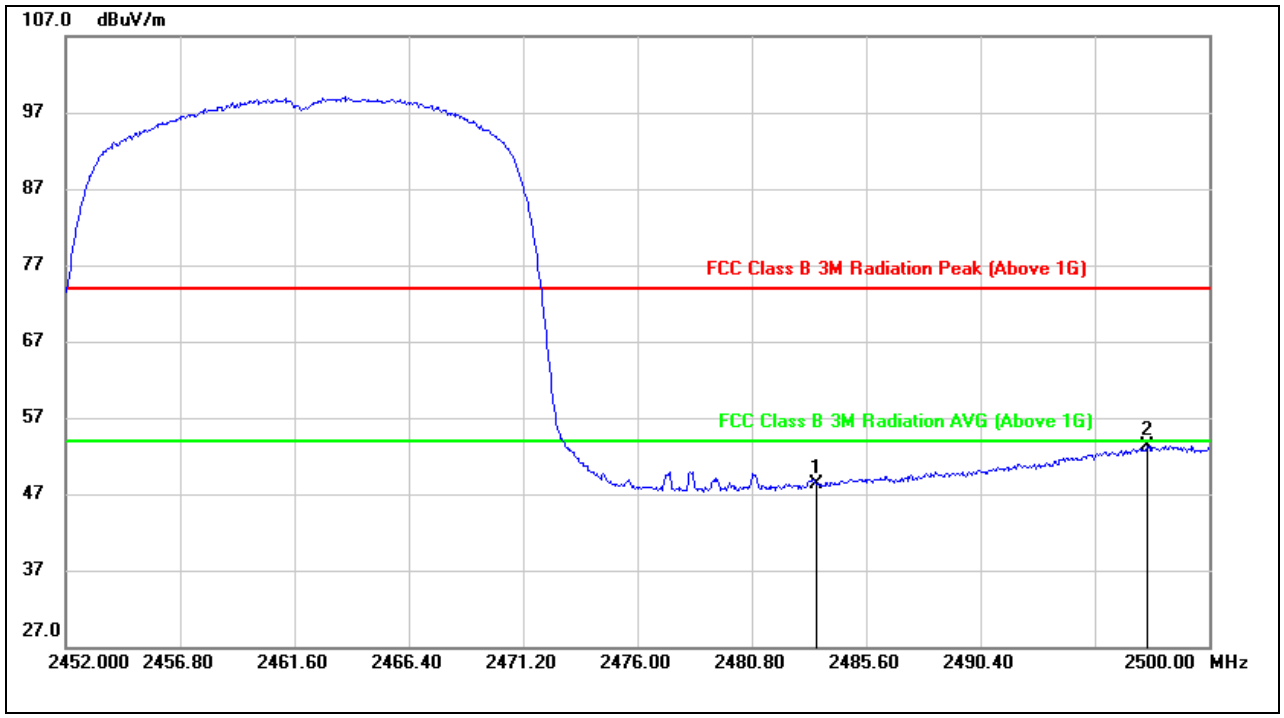


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	27.46	32.88	60.34	74.00	-13.66	peak
2	2497.408	33.00	32.88	65.88	74.00	-8.12	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

RESTRICTED BANDEDGE (CHANNEL11, VERTICAL)



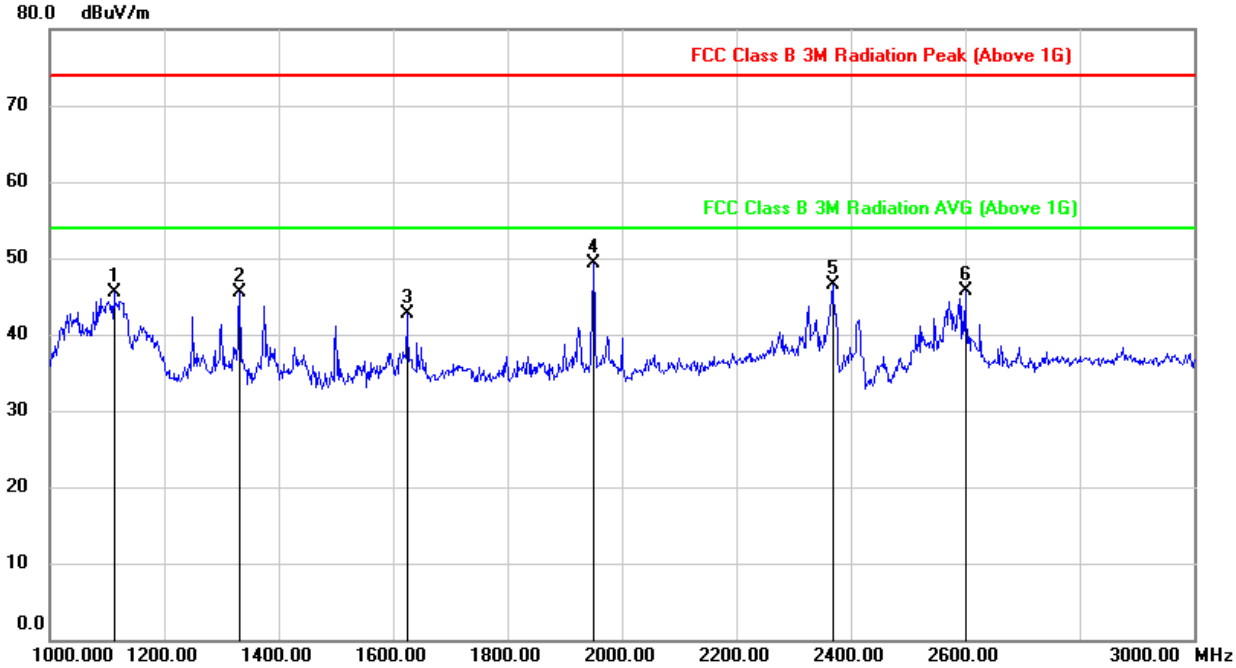
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	15.35	32.88	48.23	54.00	-5.77	AVG
2	2497.408	20.39	32.88	53.27	54.00	-0.73	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1kHz.
4. For transmit duration, please refer to clause 7.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.2. SPURIOUS EMISSIONS (1~3GHz)

8.2.1. 802.11b MODE

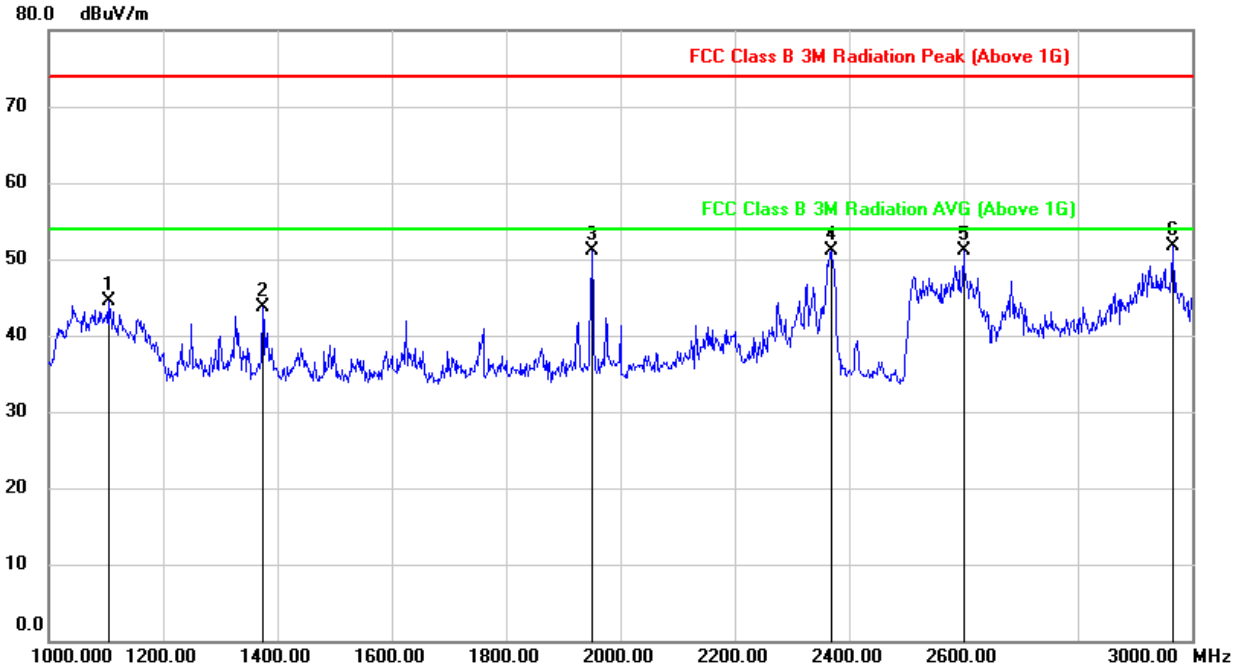
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL1, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1112.000	59.08	-13.52	45.56	74.00	-28.44	peak
2	1332.000	57.84	-12.37	45.47	74.00	-28.53	peak
3	1624.000	54.68	-11.90	42.78	74.00	-31.22	peak
4	1950.000	60.05	-10.68	49.37	74.00	-24.63	peak
5	2368.000	54.30	-7.88	46.42	74.00	-27.58	peak
6	2600.000	53.76	-8.11	45.65	74.00	-28.35	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

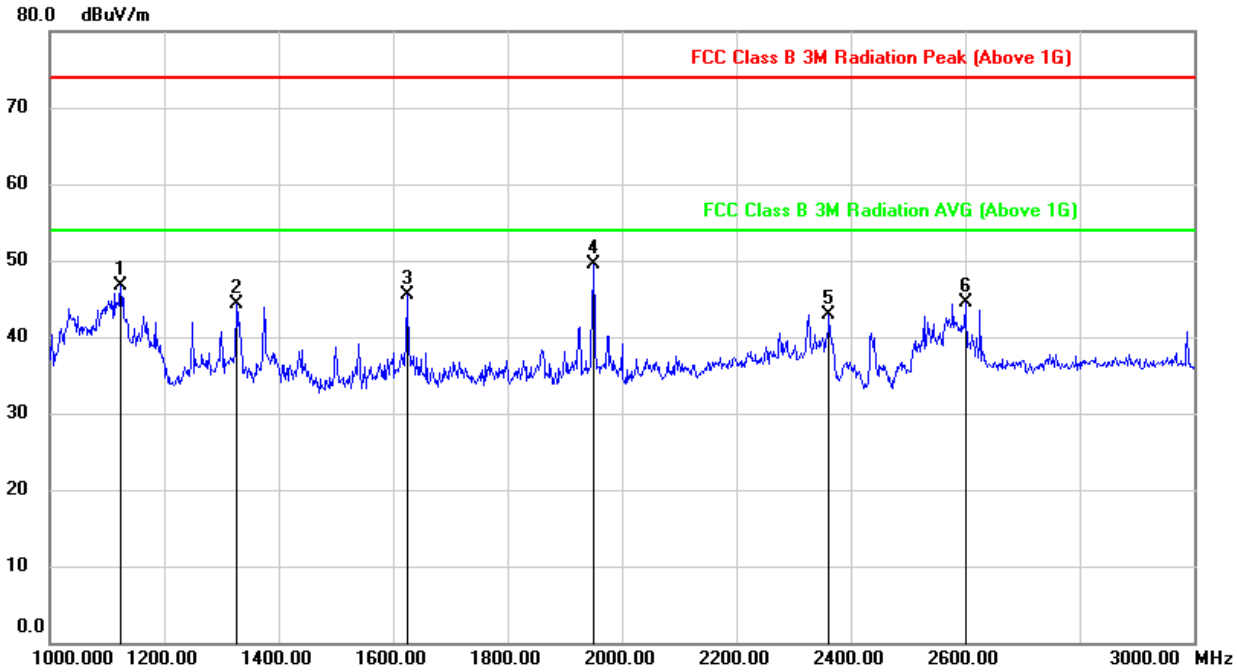
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL1, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1104.000	58.29	-13.83	44.46	74.00	-29.54	peak
2	1374.000	56.19	-12.42	43.77	74.00	-30.23	peak
3	1950.000	61.85	-10.78	51.07	74.00	-22.93	peak
4	2370.000	58.88	-7.79	51.09	74.00	-22.91	peak
5	2600.000	59.20	-8.11	51.09	74.00	-22.91	peak
6	2966.000	58.37	-6.58	51.79	74.00	-22.21	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

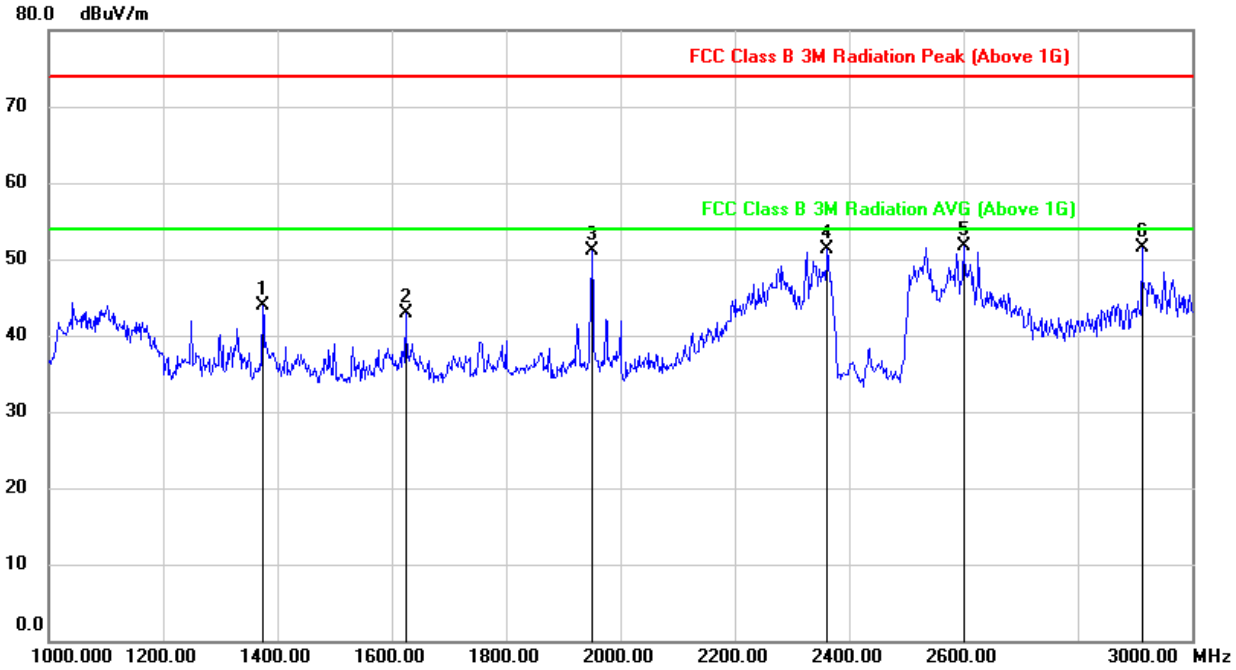
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL6, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1124.000	60.20	-13.46	46.74	74.00	-27.26	peak
2	1326.000	56.65	-12.38	44.27	74.00	-29.73	peak
3	1624.000	57.39	-11.90	45.49	74.00	-28.51	peak
4	1950.000	60.27	-10.68	49.59	74.00	-24.41	peak
5	2362.000	50.76	-7.84	42.92	74.00	-31.08	peak
6	2600.000	52.62	-8.11	44.51	74.00	-29.49	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

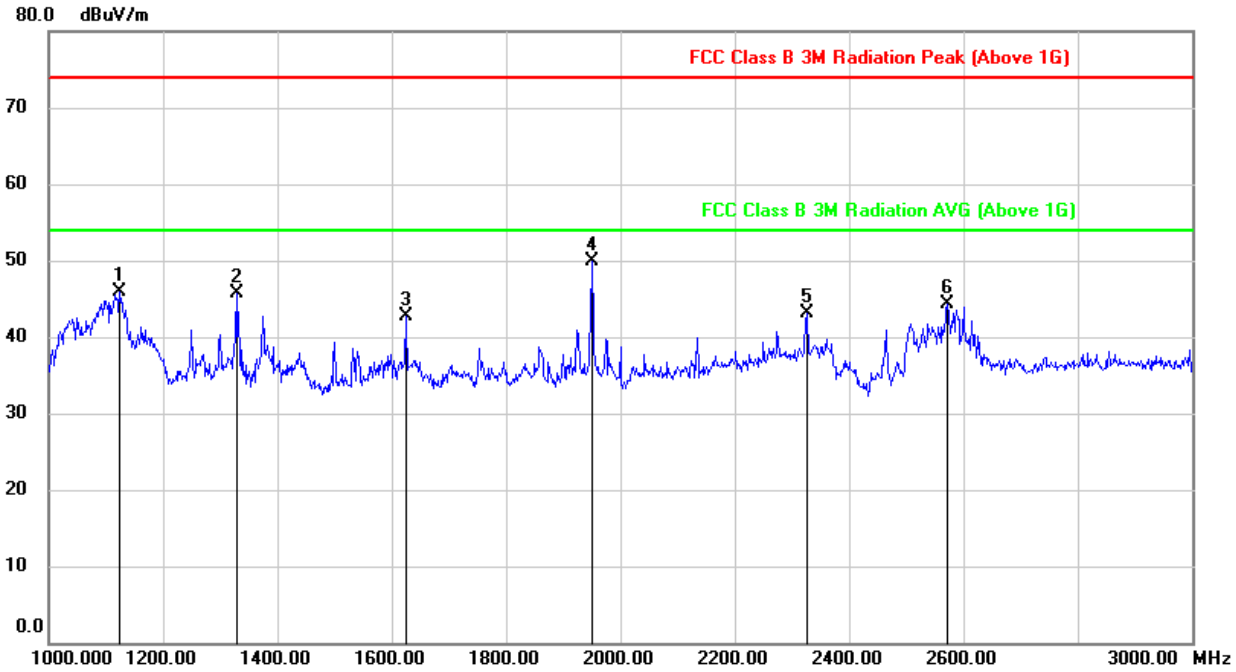
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL6, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1374.000	56.28	-12.42	43.86	74.00	-30.14	peak
2	1624.000	54.71	-11.90	42.81	74.00	-31.19	peak
3	1950.000	61.86	-10.78	51.08	74.00	-22.92	peak
4	2362.000	59.12	-7.74	51.38	74.00	-22.62	peak
5	2600.000	59.79	-8.11	51.68	74.00	-22.32	peak
6	2912.000	57.98	-6.53	51.45	74.00	-22.55	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

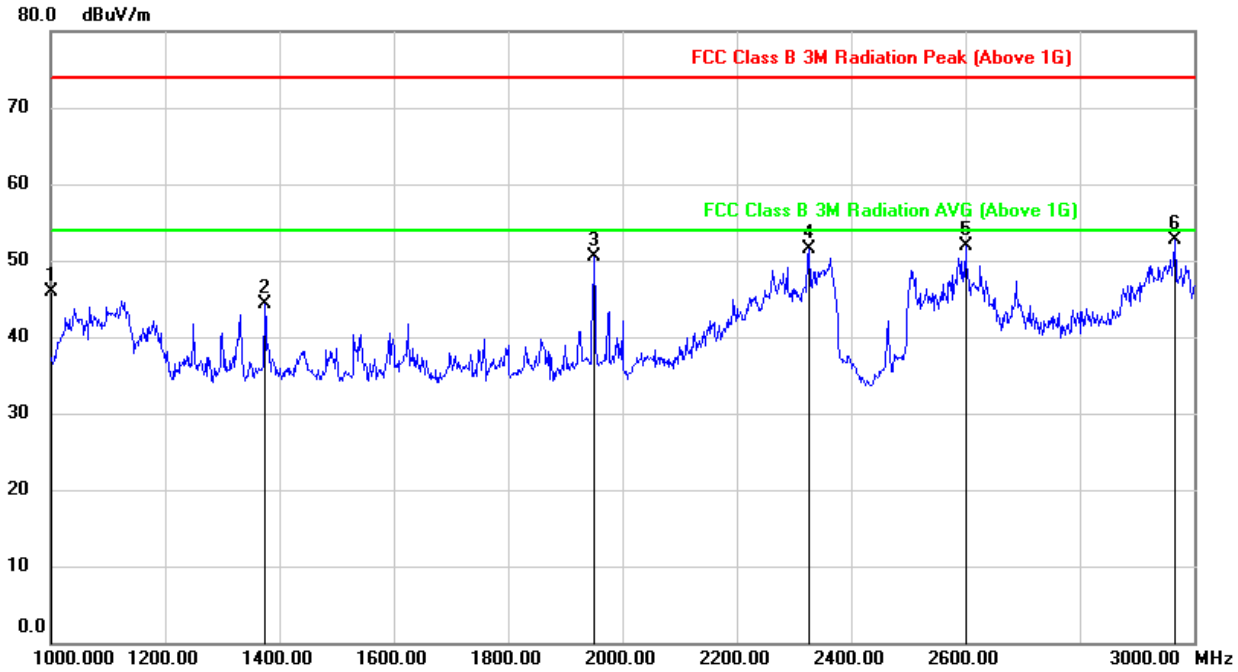
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL11, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1124.000	59.28	-13.46	45.82	74.00	-28.18	peak
2	1328.000	58.16	-12.38	45.78	74.00	-28.22	peak
3	1624.000	54.53	-11.90	42.63	74.00	-31.37	peak
4	1950.000	60.62	-10.68	49.94	74.00	-24.06	peak
5	2326.000	50.62	-7.59	43.03	74.00	-30.97	peak
6	2572.000	52.56	-8.24	44.32	74.00	-29.68	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL11, VERTICAL)

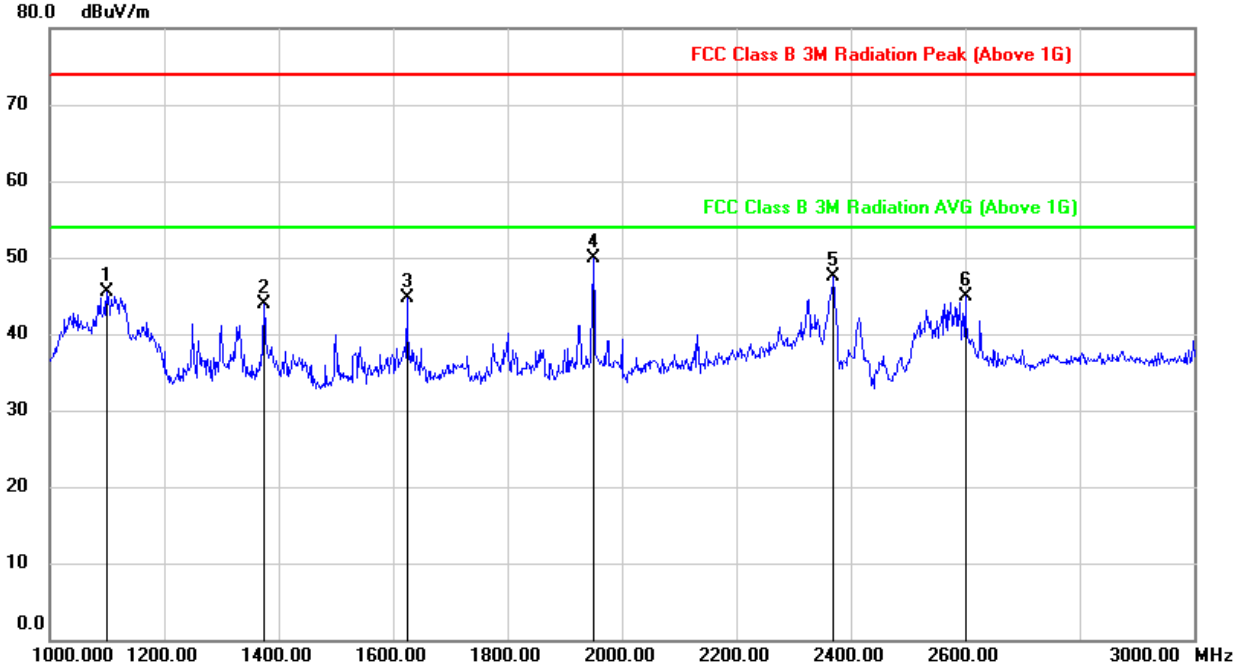


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1000.0000	60.00	-14.01	45.99	74.00	-28.01	peak
2	1374.000	56.66	-12.42	44.24	74.00	-29.76	peak
3	1950.000	61.23	-10.78	50.45	74.00	-23.55	peak
4	2326.000	59.03	-7.44	51.59	74.00	-22.41	peak
5	2600.000	59.96	-8.11	51.85	74.00	-22.15	peak
6	2966.000	59.38	-6.58	52.80	74.00	-21.20	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.2.2. 802.11g MODE

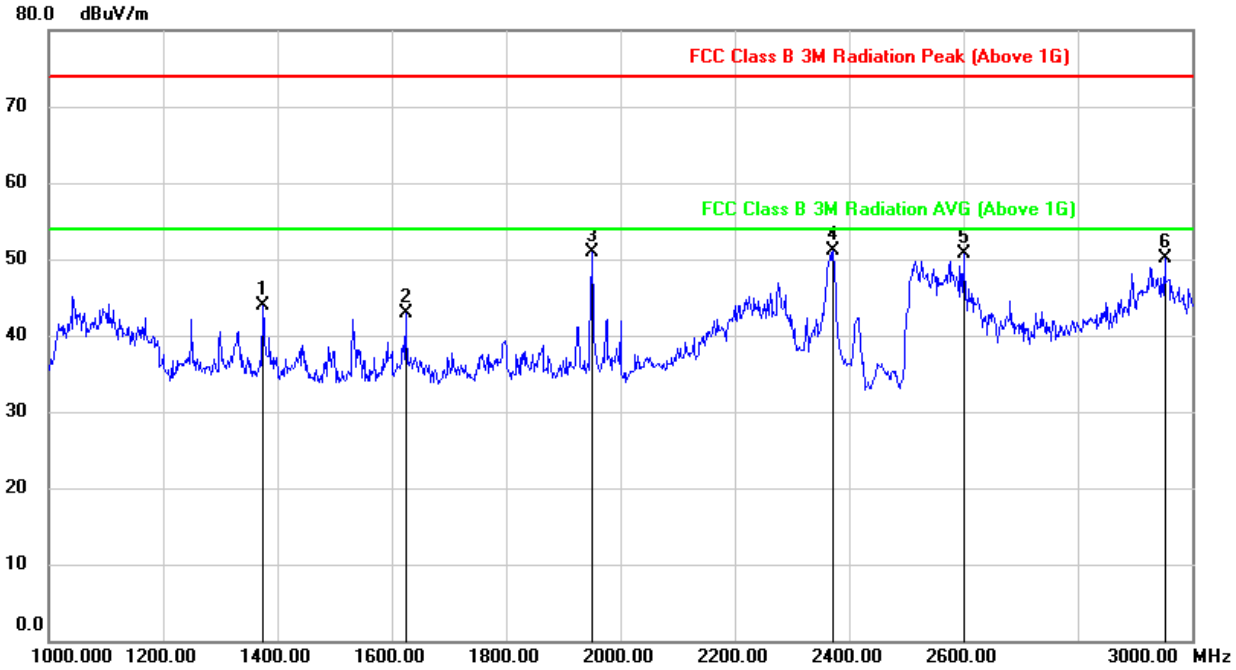
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL1, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1100.000	59.01	-13.56	45.45	74.00	-28.55	peak
2	1374.000	56.14	-12.22	43.92	74.00	-30.08	peak
3	1624.000	56.55	-11.90	44.65	74.00	-29.35	peak
4	1950.000	60.49	-10.68	49.81	74.00	-24.19	peak
5	2370.000	55.33	-7.89	47.44	74.00	-26.56	peak
6	2600.000	52.95	-8.11	44.84	74.00	-29.16	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

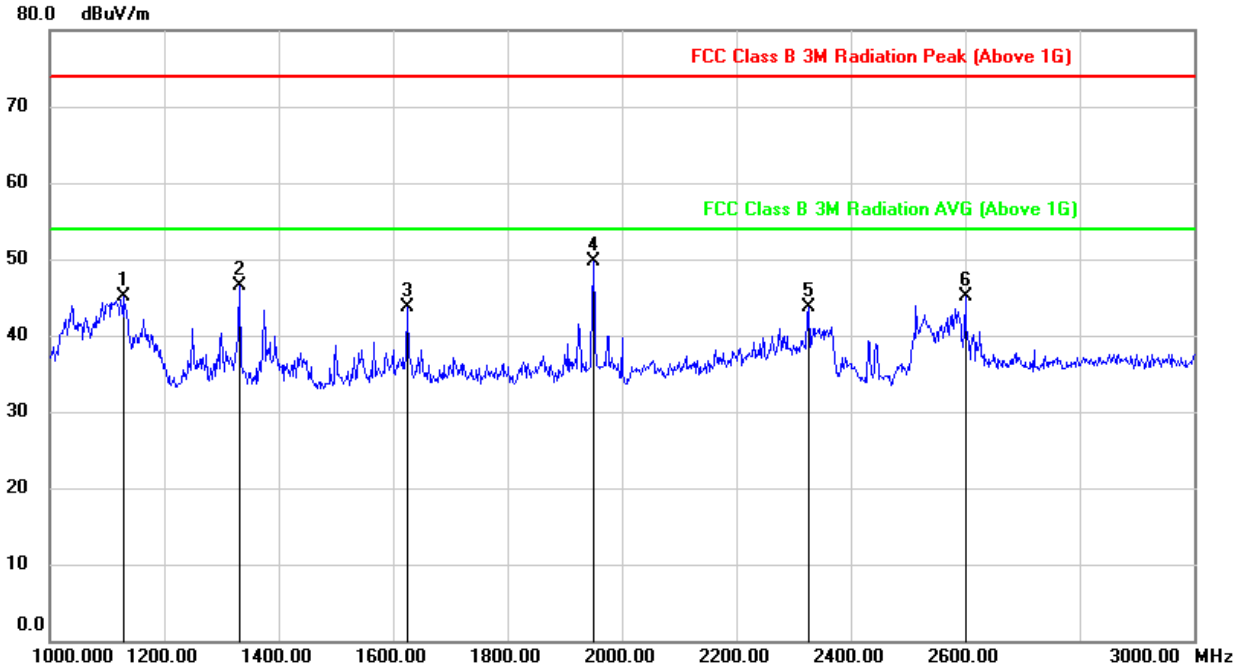
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL1, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1374.000	56.29	-12.42	43.87	74.00	-30.13	peak
2	1624.000	54.82	-11.90	42.92	74.00	-31.08	peak
3	1950.000	61.73	-10.78	50.95	74.00	-23.05	peak
4	2372.000	58.97	-7.80	51.17	74.00	-22.83	peak
5	2600.000	58.85	-8.11	50.74	74.00	-23.26	peak
6	2952.000	56.74	-6.56	50.18	74.00	-23.82	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

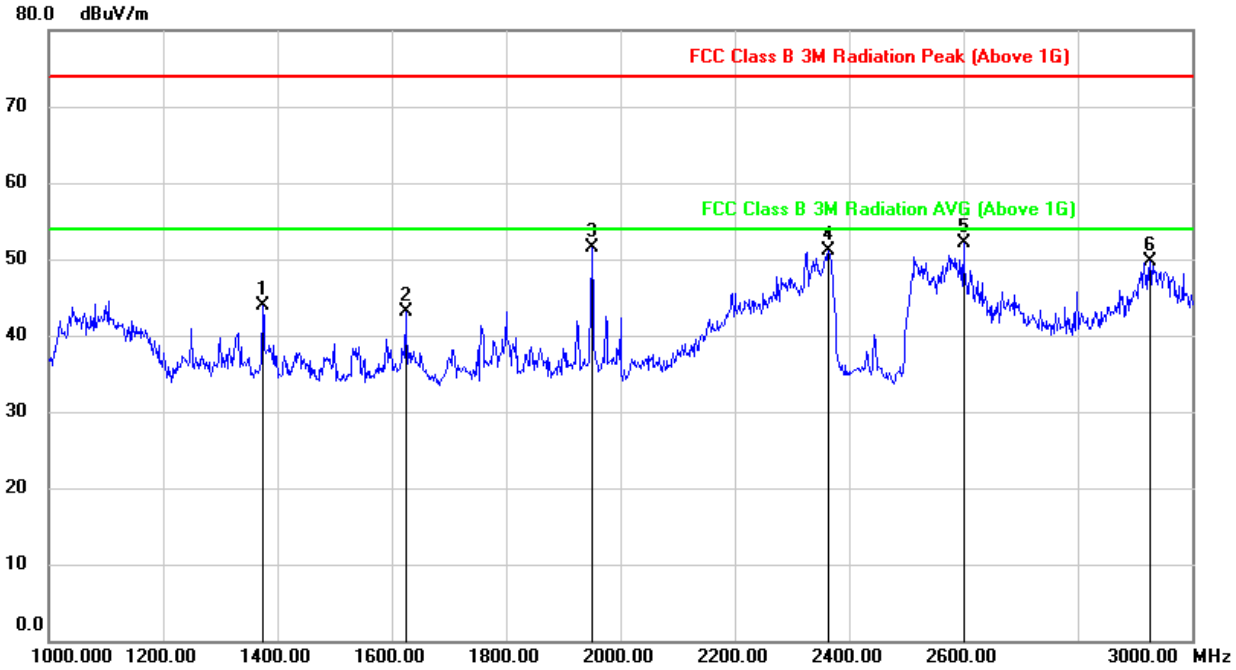
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL6, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1128.000	58.46	-13.44	45.02	74.00	-28.98	peak
2	1332.000	58.79	-12.37	46.42	74.00	-27.58	peak
3	1626.000	55.51	-11.89	43.62	74.00	-30.38	peak
4	1950.000	60.38	-10.68	49.70	74.00	-24.30	peak
5	2326.000	51.25	-7.59	43.66	74.00	-30.34	peak
6	2600.000	53.28	-8.11	45.17	74.00	-28.83	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

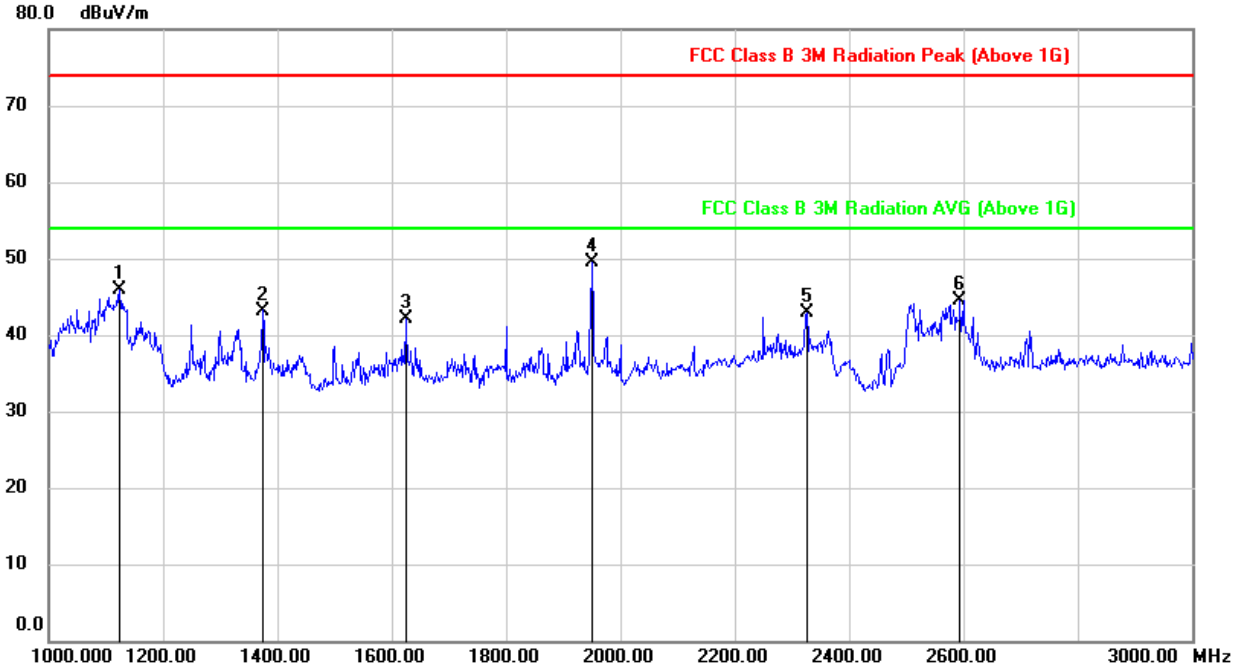
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL6, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1374.000	56.29	-12.42	43.87	74.00	-30.13	peak
2	1624.000	55.02	-11.90	43.12	74.00	-30.88	peak
3	1950.000	62.21	-10.78	51.43	74.00	-22.57	peak
4	2364.000	58.78	-7.75	51.03	74.00	-22.97	peak
5	2600.000	60.28	-8.11	52.17	74.00	-21.83	peak
6	2926.000	56.16	-6.55	49.61	74.00	-24.39	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

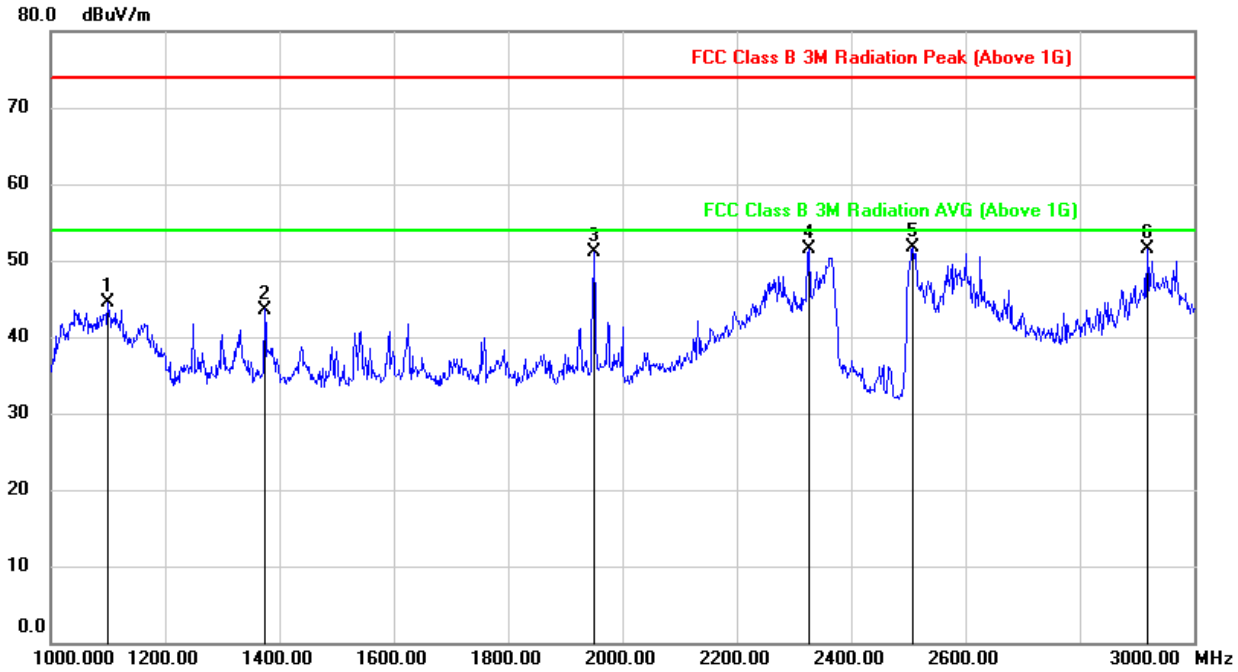
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL11, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1124.000	59.35	-13.46	45.89	74.00	-28.11	peak
2	1374.000	55.42	-12.22	43.20	74.00	-30.80	peak
3	1624.000	54.02	-11.90	42.12	74.00	-31.88	peak
4	1950.000	60.24	-10.68	49.56	74.00	-24.44	peak
5	2326.000	50.57	-7.59	42.98	74.00	-31.02	peak
6	2594.000	52.68	-8.13	44.55	74.00	-29.45	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL11, VERTICAL)

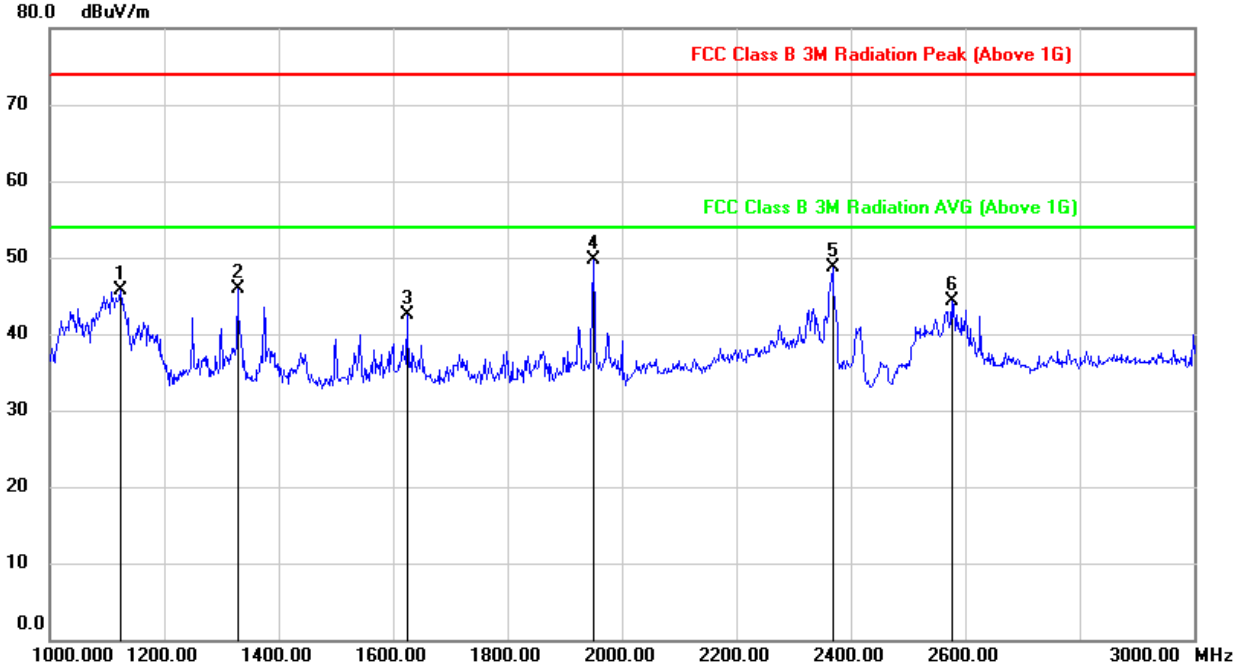


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1100.000	58.31	-13.86	44.45	74.00	-29.55	peak
2	1374.000	56.02	-12.42	43.60	74.00	-30.40	peak
3	1950.000	61.81	-10.78	51.03	74.00	-22.97	peak
4	2326.000	58.95	-7.44	51.51	74.00	-22.49	peak
5	2508.000	60.10	-8.30	51.80	74.00	-22.20	peak
6	2918.000	57.95	-6.54	51.41	74.00	-22.59	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.2.3. 802.11n20 MODE

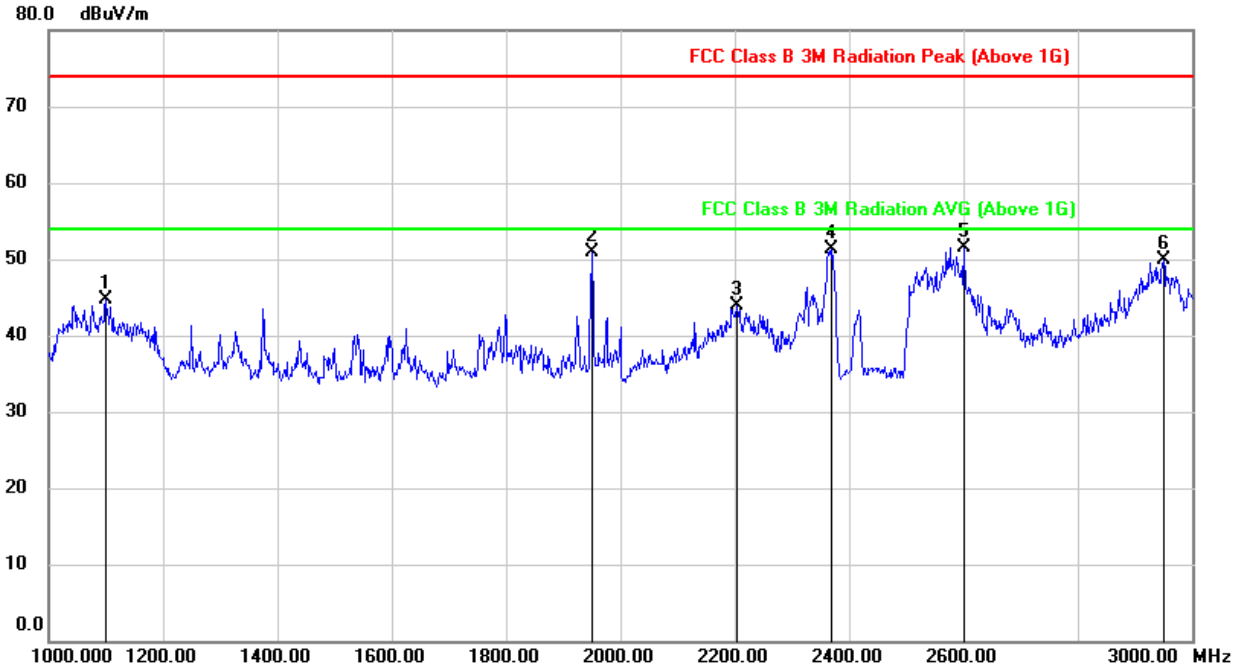
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1124.000	59.25	-13.46	45.79	74.00	-28.21	peak
2	1328.000	58.30	-12.38	45.92	74.00	-28.08	peak
3	1624.000	54.45	-11.90	42.55	74.00	-31.45	peak
4	1950.000	60.37	-10.68	49.69	74.00	-24.31	peak
5	2368.000	56.53	-7.88	48.65	74.00	-25.35	peak
6	2576.000	52.57	-8.23	44.34	74.00	-29.66	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

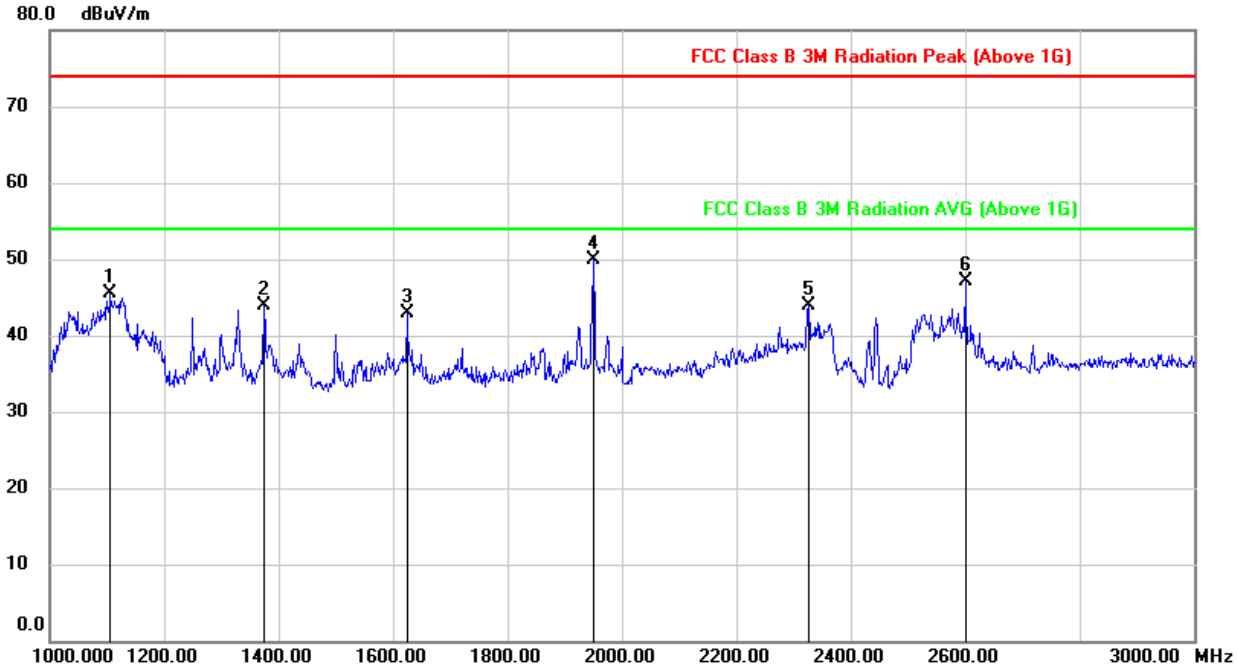
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1100.000	58.63	-13.86	44.77	74.00	-29.23	peak
2	1950.000	61.65	-10.78	50.87	74.00	-23.13	peak
3	2204.000	52.06	-8.24	43.82	74.00	-30.18	peak
4	2370.000	59.10	-7.79	51.31	74.00	-22.69	peak
5	2600.000	59.55	-8.11	51.44	74.00	-22.56	peak
6	2950.000	56.51	-6.56	49.95	74.00	-24.05	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

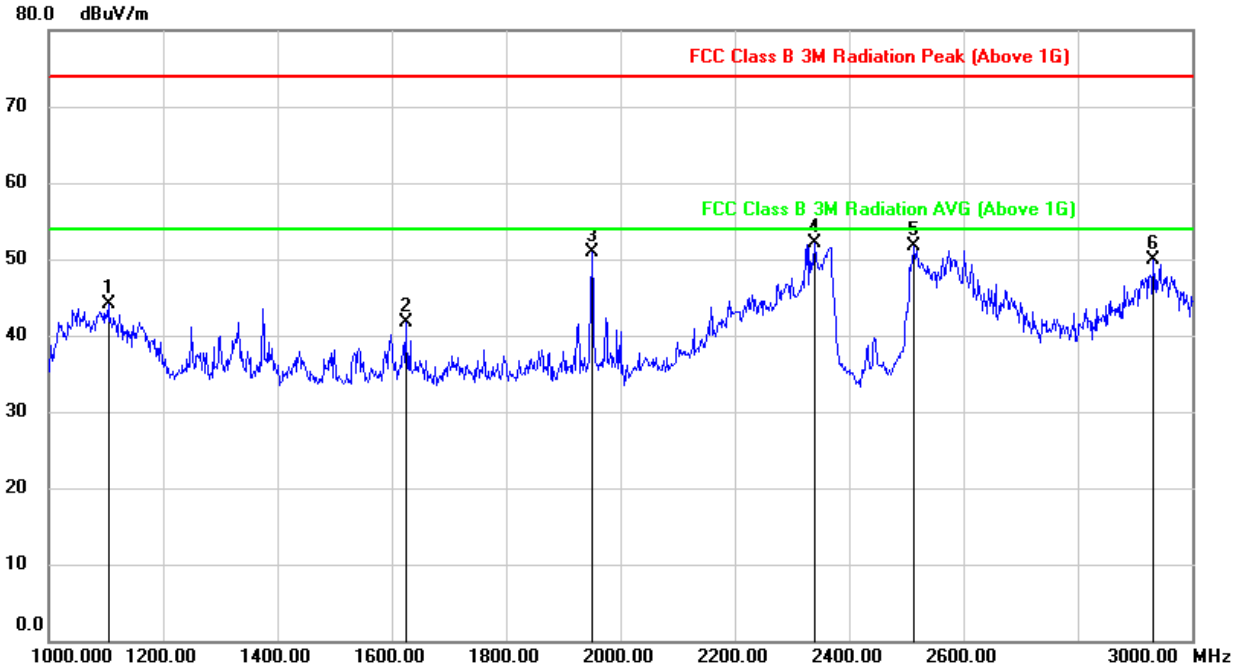
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1106.000	58.98	-13.54	45.44	74.00	-28.56	peak
2	1374.000	56.04	-12.22	43.82	74.00	-30.18	peak
3	1624.000	54.82	-11.90	42.92	74.00	-31.08	peak
4	1950.000	60.58	-10.68	49.90	74.00	-24.10	peak
5	2326.000	51.53	-7.59	43.94	74.00	-30.06	peak
6	2600.000	55.29	-8.11	47.18	74.00	-26.82	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

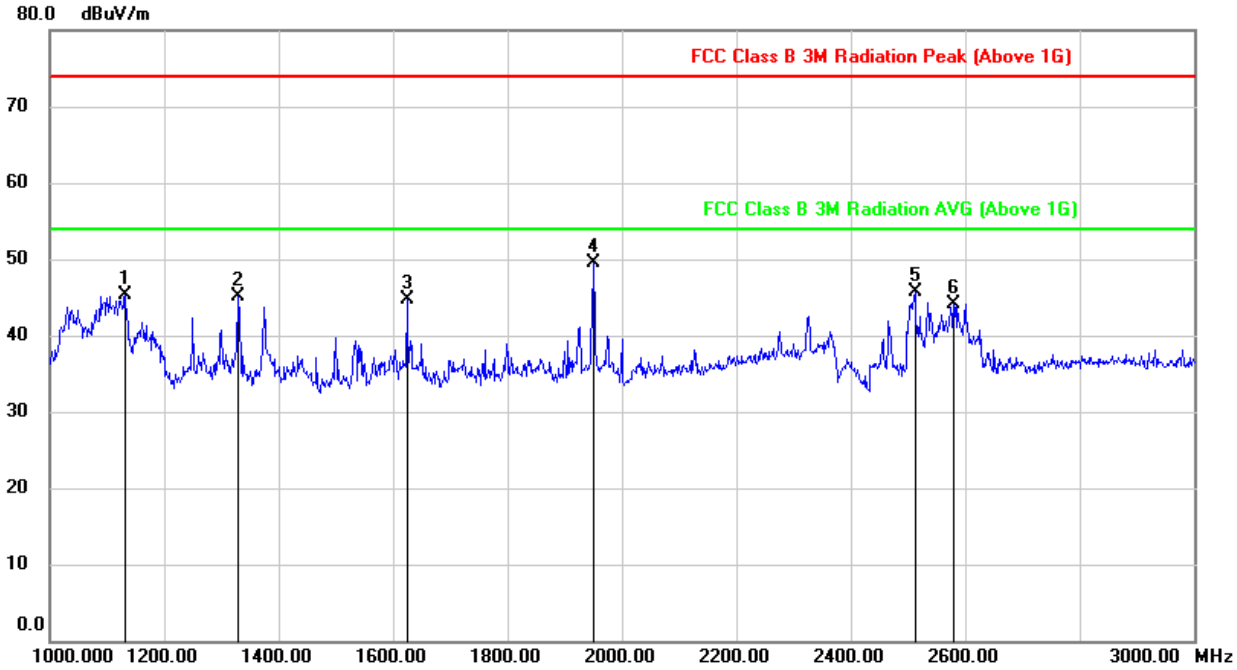
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1104.000	57.86	-13.83	44.03	74.00	-29.97	peak
2	1624.000	53.62	-11.90	41.72	74.00	-32.28	peak
3	1950.000	61.66	-10.78	50.88	74.00	-23.12	peak
4	2340.000	59.58	-7.56	52.02	74.00	-21.98	peak
5	2514.000	60.06	-8.28	51.78	74.00	-22.22	peak
6	2932.000	56.42	-6.55	49.87	74.00	-24.13	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

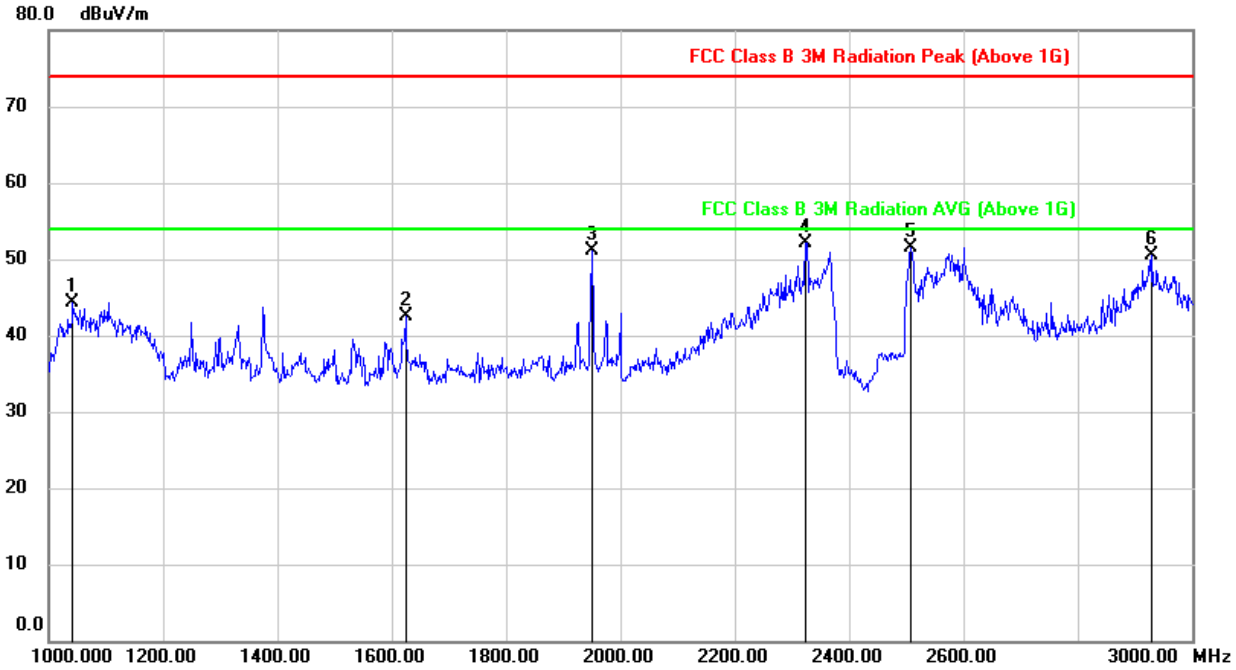
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1132.000	58.82	-13.44	45.38	74.00	-28.62	peak
2	1328.000	57.54	-12.38	45.16	74.00	-28.84	peak
3	1624.000	56.52	-11.90	44.62	74.00	-29.38	peak
4	1950.000	60.18	-10.68	49.50	74.00	-24.50	peak
5	2512.000	54.01	-8.39	45.62	74.00	-28.38	peak
6	2580.000	52.32	-8.21	44.11	74.00	-29.89	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, VERTICAL)



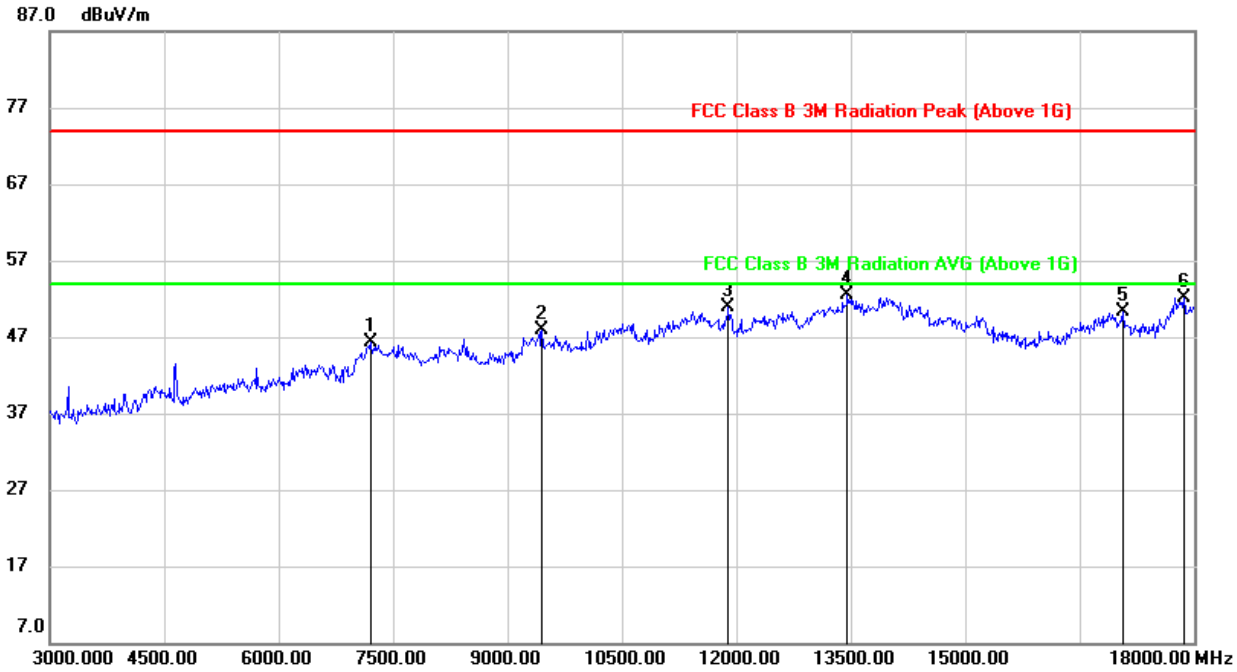
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1042.000	58.22	-13.95	44.27	74.00	-29.73	peak
2	1624.000	54.35	-11.90	42.45	74.00	-31.55	peak
3	1950.000	61.89	-10.78	51.11	74.00	-22.89	peak
4	2324.000	59.59	-7.42	52.17	74.00	-21.83	peak
5	2508.000	59.80	-8.30	51.50	74.00	-22.50	peak
6	2930.000	56.96	-6.55	50.41	74.00	-23.59	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.3. SPURIOUS EMISSIONS (3~18GHz)

8.3.1. 802.11b MODE

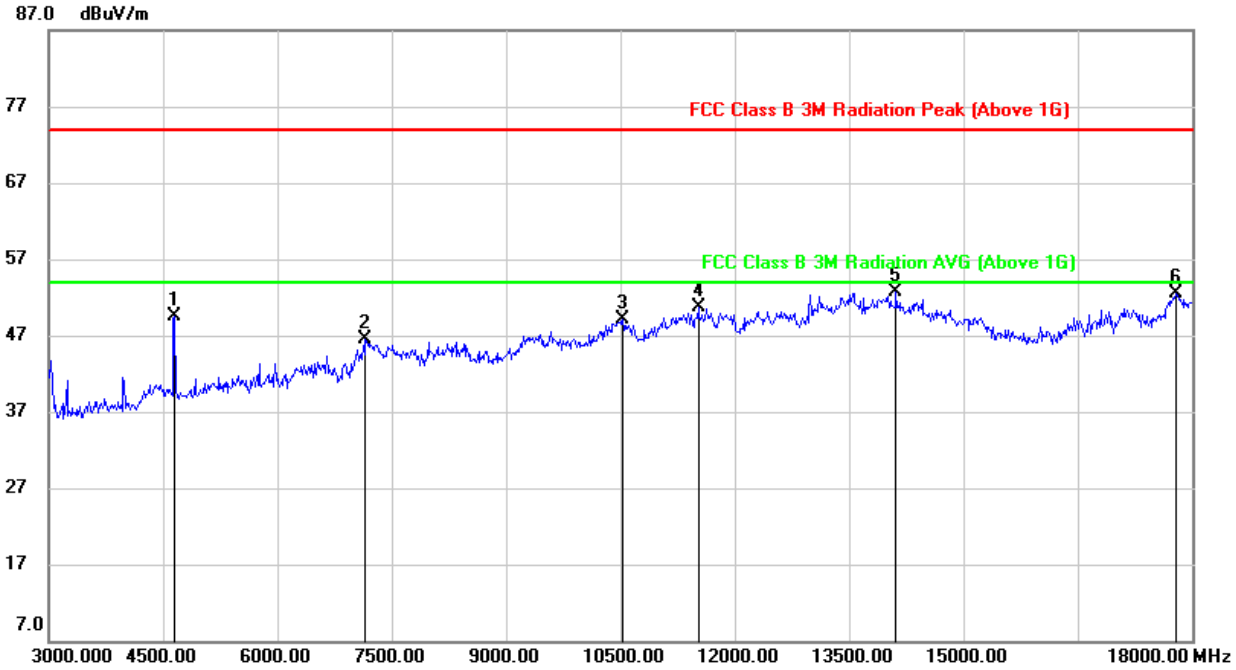
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL1, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7200.000	38.50	7.75	46.25	74.00	-27.75	peak
2	9450.000	37.00	10.90	47.90	74.00	-26.10	peak
3	11895.000	33.91	17.04	50.95	74.00	-23.05	peak
4	13455.000	32.38	20.11	52.49	74.00	-21.51	peak
5	17070.000	28.05	22.19	50.24	74.00	-23.76	peak
6	17865.000	25.68	26.40	52.08	74.00	-21.92	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

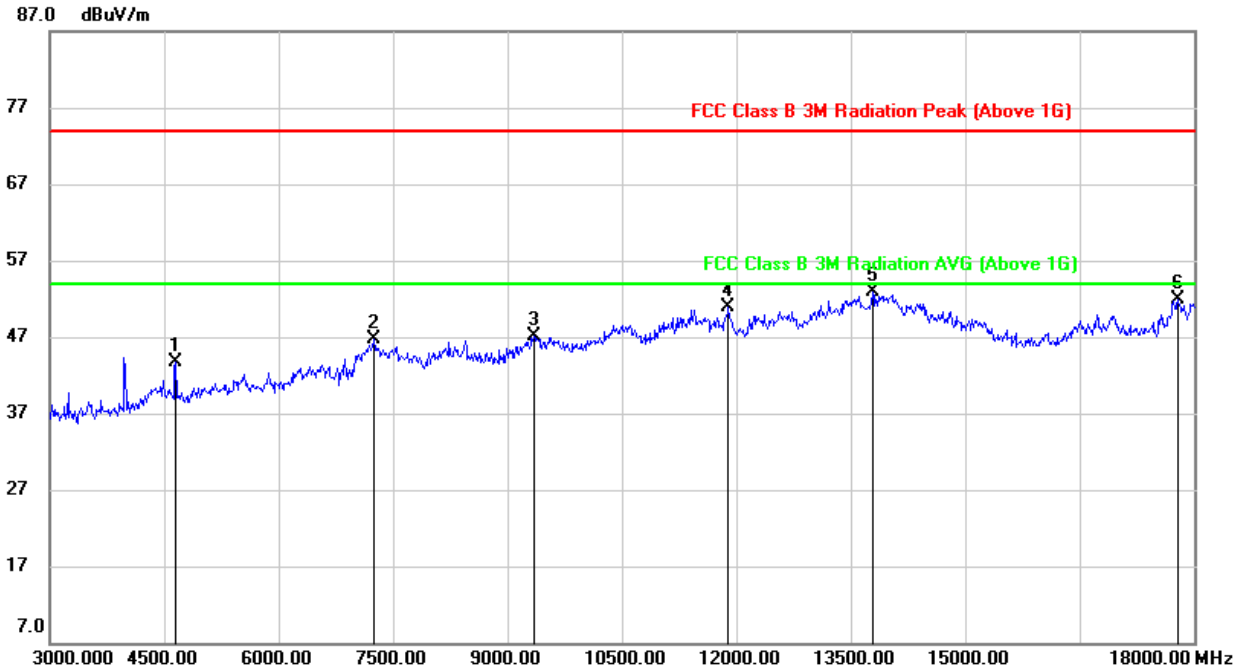
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL1, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	50.06	-0.60	49.46	74.00	-24.54	peak
2	7155.000	38.69	7.80	46.49	74.00	-27.51	peak
3	10530.000	35.31	13.74	49.05	74.00	-24.95	peak
4	11520.000	34.55	16.25	50.80	74.00	-23.20	peak
5	14115.000	32.04	20.59	52.63	74.00	-21.37	peak
6	17790.000	25.79	26.76	52.55	74.00	-21.45	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

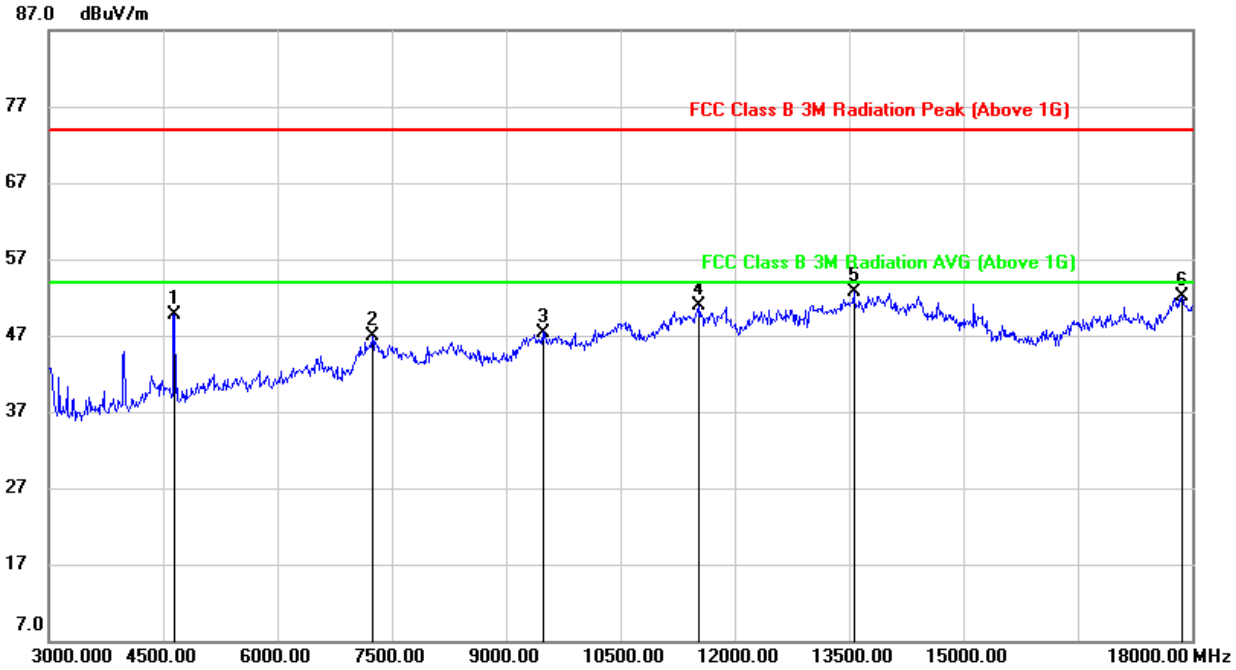
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL6, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	44.34	-0.70	43.64	74.00	-30.36	peak
2	7245.000	38.78	7.84	46.62	74.00	-27.38	peak
3	9345.000	36.26	10.82	47.08	74.00	-26.92	peak
4	11895.000	33.81	17.04	50.85	74.00	-23.15	peak
5	13785.000	32.08	20.76	52.84	74.00	-21.16	peak
6	17790.000	25.56	26.36	51.92	74.00	-22.08	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

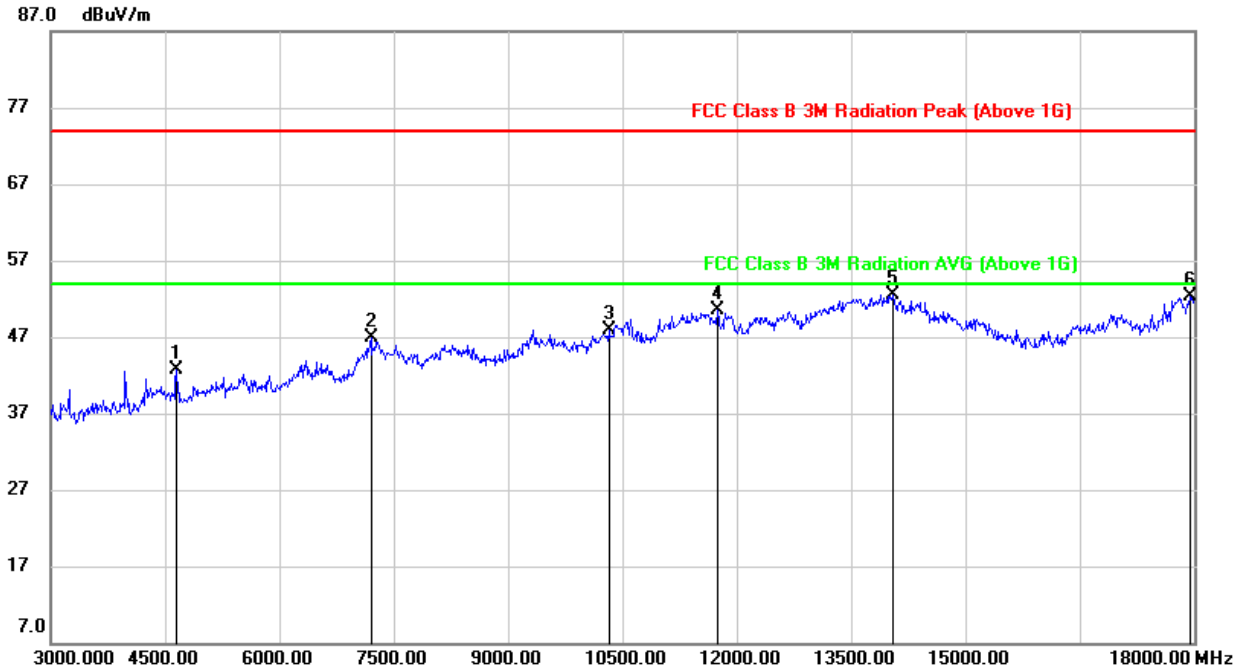
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL6, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	50.38	-0.60	49.78	74.00	-24.22	peak
2	7245.000	39.15	7.76	46.91	74.00	-27.09	peak
3	9480.000	36.13	11.27	47.40	74.00	-26.60	peak
4	11535.000	34.58	16.23	50.81	74.00	-23.19	peak
5	13560.000	31.97	20.81	52.78	74.00	-21.22	peak
6	17865.000	25.82	26.21	52.03	74.00	-21.97	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

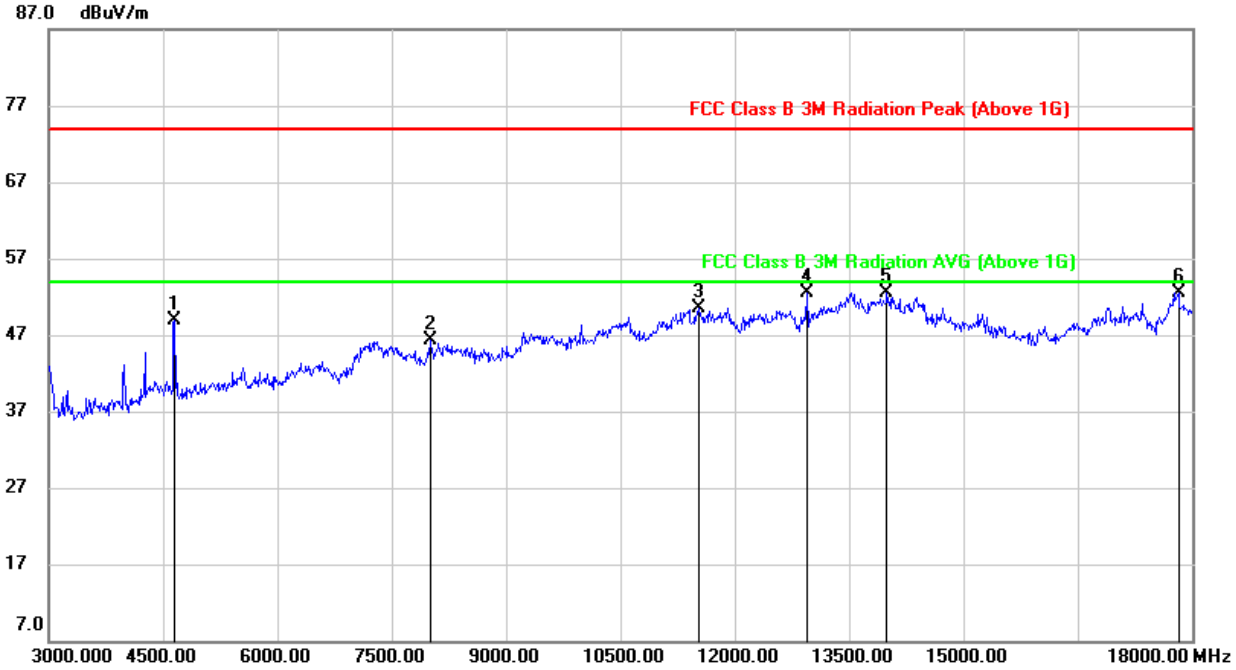
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL11, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	43.45	-0.70	42.75	74.00	-31.25	peak
2	7200.000	39.21	7.75	46.96	74.00	-27.04	peak
3	10320.000	35.29	12.63	47.92	74.00	-26.08	peak
4	11745.000	34.04	16.49	50.53	74.00	-23.47	peak
5	14055.000	31.95	20.64	52.59	74.00	-21.41	peak
6	17955.000	25.34	27.03	52.37	74.00	-21.63	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL11, VERTICAL)

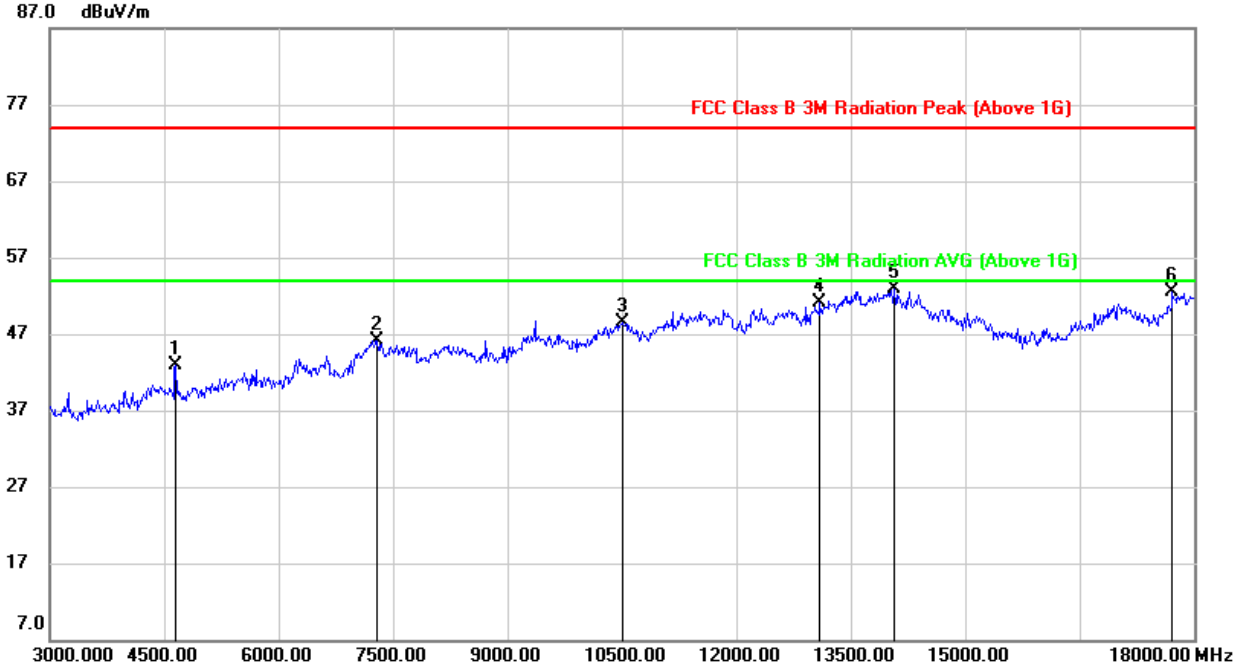


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	49.47	-0.60	48.87	74.00	-25.13	peak
2	8010.000	37.64	8.59	46.23	74.00	-27.77	peak
3	11535.000	34.32	16.23	50.55	74.00	-23.45	peak
4	12945.000	34.00	18.56	52.56	74.00	-21.44	peak
5	13995.000	31.76	20.72	52.48	74.00	-21.52	peak
6	17820.000	26.00	26.56	52.56	74.00	-21.44	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.3.2. 802.11g MODE

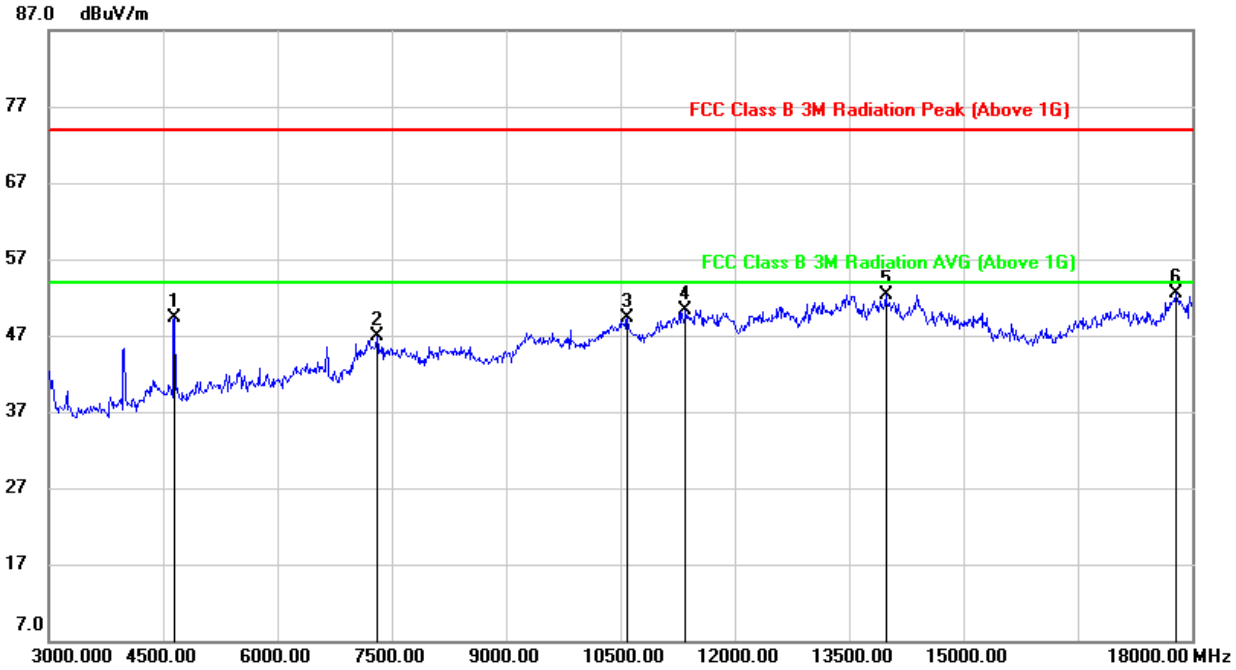
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL1, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4650.000	43.62	-0.70	42.92	74.00	-31.08	peak
2	7290.000	38.25	7.86	46.11	74.00	-27.89	peak
3	10515.000	34.76	13.74	48.50	74.00	-25.50	peak
4	13095.000	32.64	18.37	51.01	74.00	-22.99	peak
5	14070.000	32.24	20.65	52.89	74.00	-21.11	peak
6	17715.000	26.77	25.79	52.56	74.00	-21.44	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

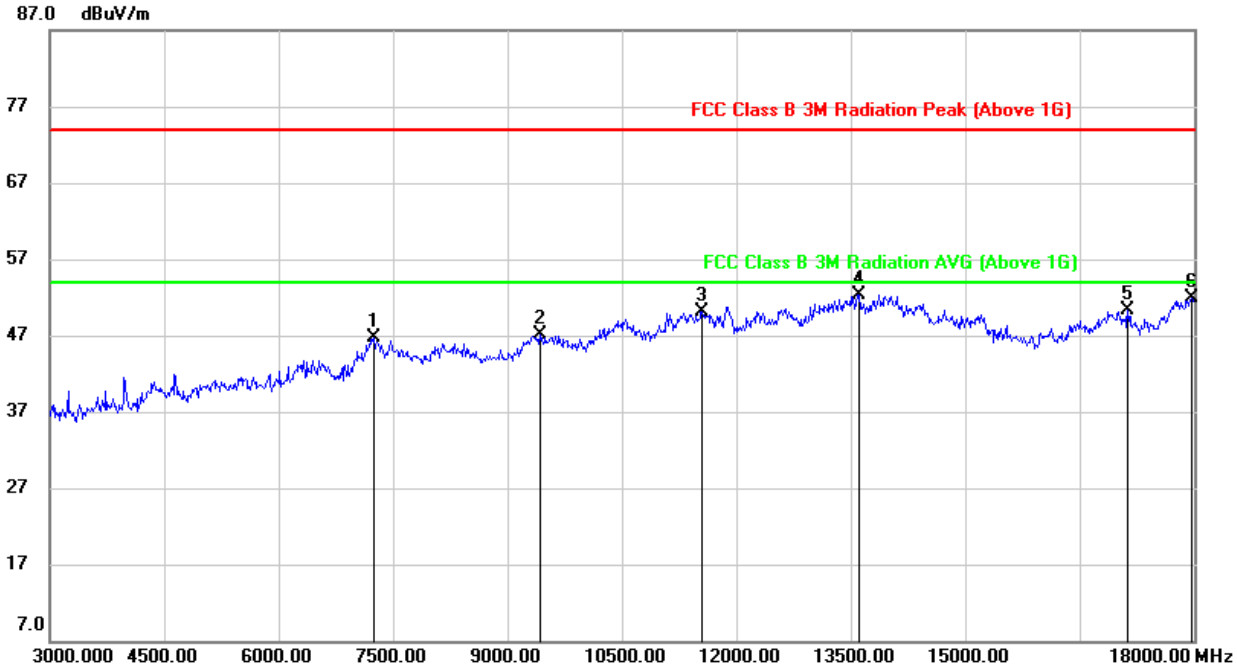
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL1, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	49.91	-0.60	49.31	74.00	-24.69	peak
2	7305.000	39.10	7.81	46.91	74.00	-27.09	peak
3	10590.000	35.56	13.77	49.33	74.00	-24.67	peak
4	11355.000	34.75	15.54	50.29	74.00	-23.71	peak
5	13980.000	31.64	20.73	52.37	74.00	-21.63	peak
6	17790.000	25.77	26.76	52.53	74.00	-21.47	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

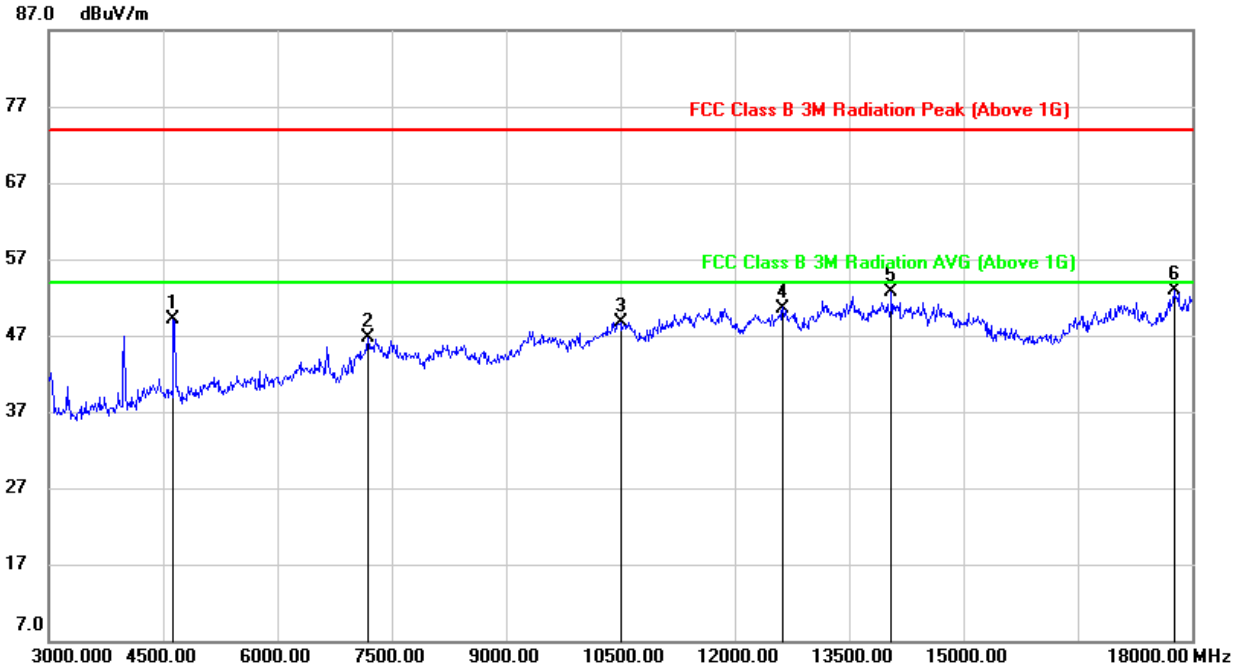
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL6, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7245.000	38.85	7.84	46.69	74.00	-27.31	peak
2	9420.000	36.31	10.85	47.16	74.00	-26.84	peak
3	11550.000	34.26	15.82	50.08	74.00	-23.92	peak
4	13605.000	31.76	20.54	52.30	74.00	-21.70	peak
5	17130.000	27.84	22.50	50.34	74.00	-23.66	peak
6	17970.000	24.86	27.04	51.90	74.00	-22.10	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

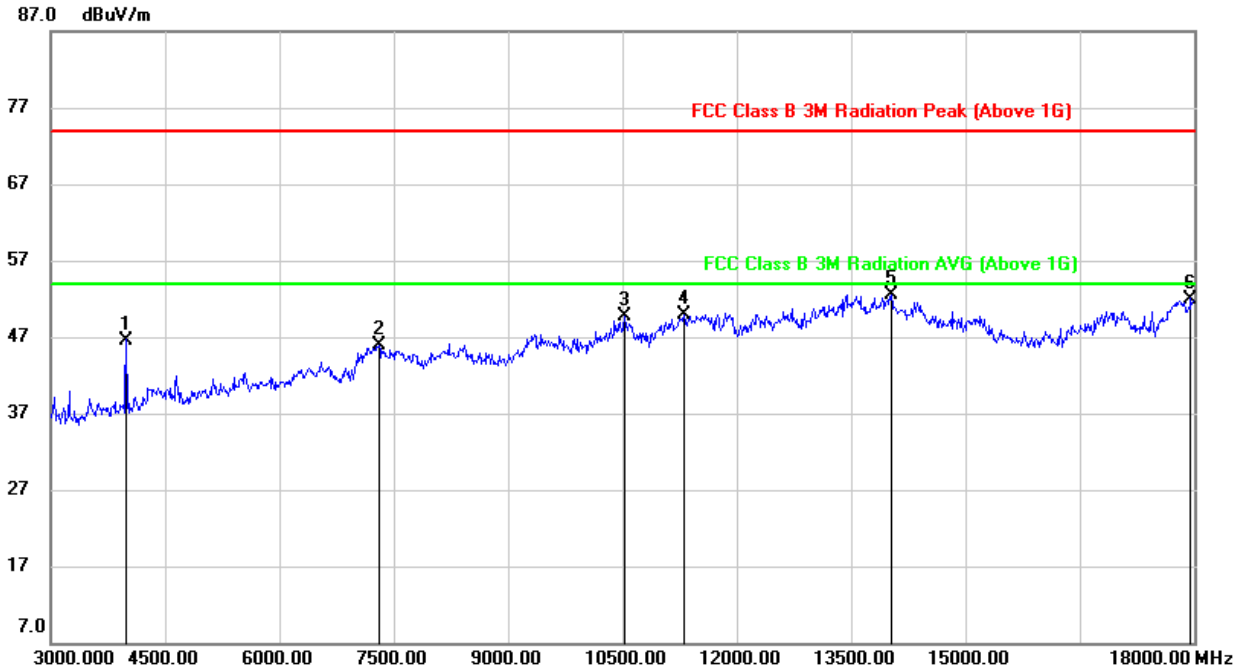
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL6, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4635.000	49.77	-0.61	49.16	74.00	-24.84	peak
2	7185.000	38.81	7.83	46.64	74.00	-27.36	peak
3	10500.000	34.99	13.81	48.80	74.00	-25.20	peak
4	12630.000	33.19	17.41	50.60	74.00	-23.40	peak
5	14055.000	32.18	20.55	52.73	74.00	-21.27	peak
6	17760.000	26.46	26.39	52.85	74.00	-21.15	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

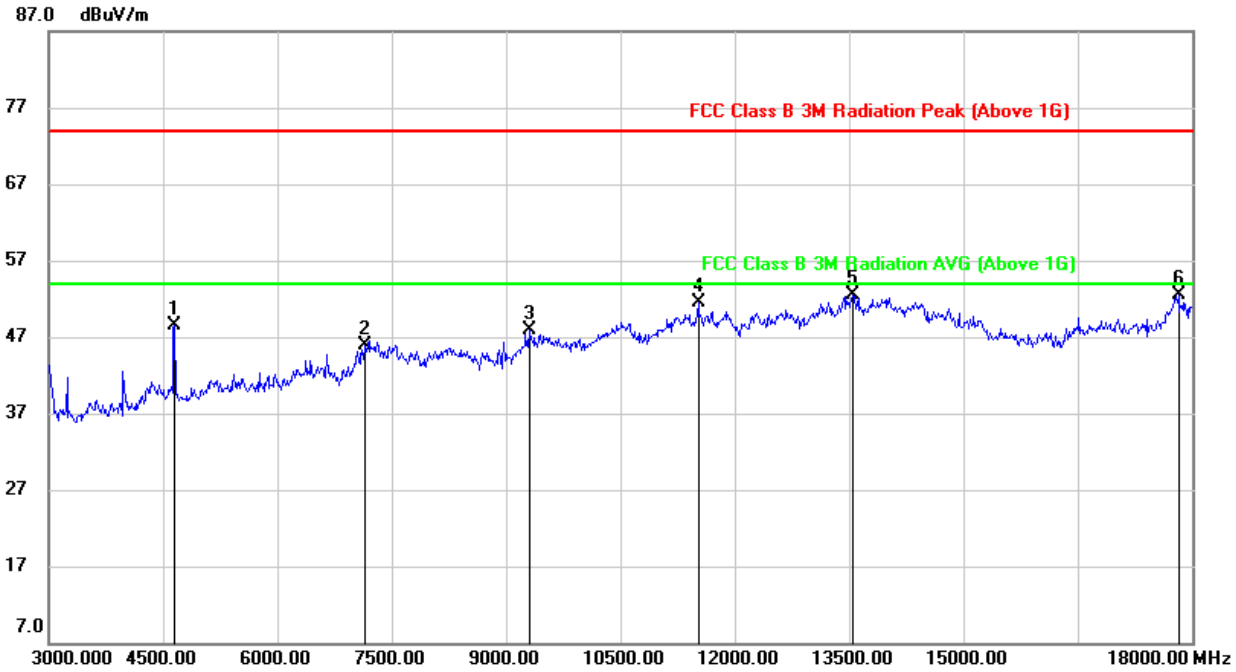
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL11, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	49.60	-3.00	46.60	74.00	-27.40	peak
2	7305.000	38.04	7.80	45.84	74.00	-28.16	peak
3	10530.000	35.92	13.76	49.68	74.00	-24.32	peak
4	11310.000	34.47	15.44	49.91	74.00	-24.09	peak
5	14025.000	31.84	20.62	52.46	74.00	-21.54	peak
6	17955.000	24.97	27.03	52.00	74.00	-22.00	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL11, VERTICAL)

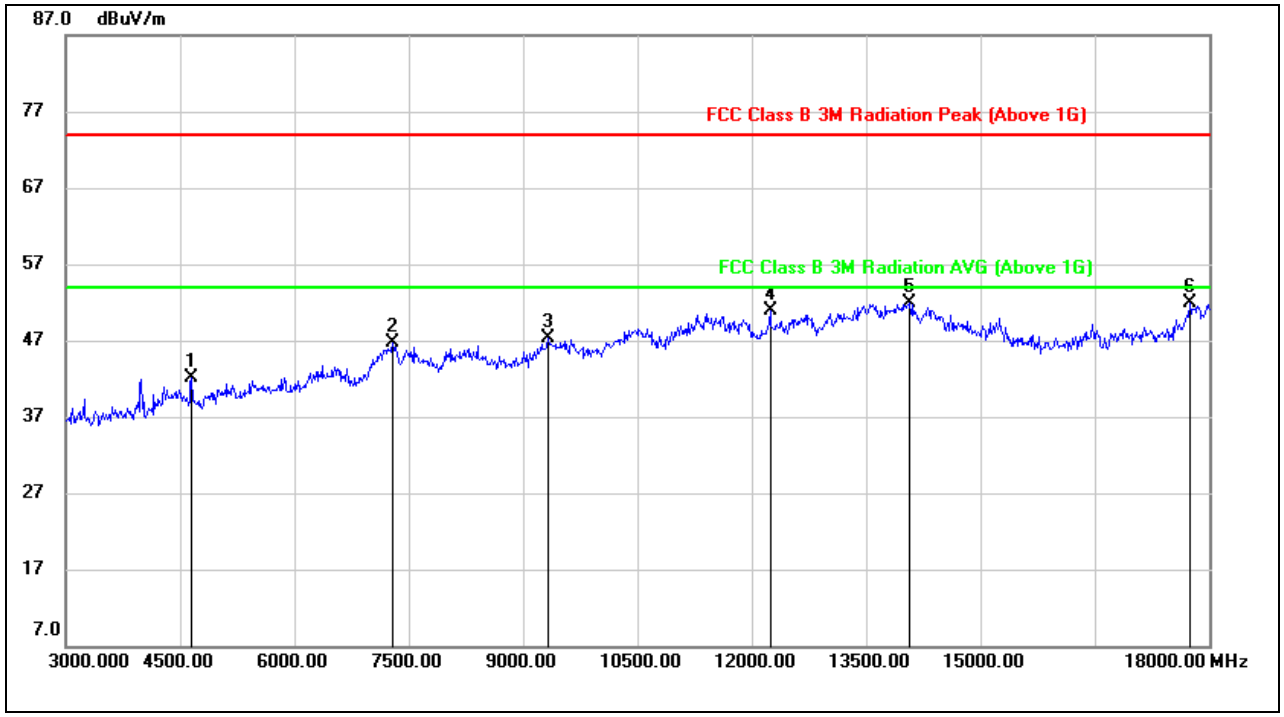


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4650.000	49.01	-0.60	48.41	74.00	-25.59	peak
2	7140.000	38.24	7.72	45.96	74.00	-28.04	peak
3	9300.000	37.02	10.86	47.88	74.00	-26.12	peak
4	11520.000	35.25	16.25	51.50	74.00	-22.50	peak
5	13545.000	31.53	20.88	52.41	74.00	-21.59	peak
6	17820.000	25.88	26.56	52.44	74.00	-21.56	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.3.3. 802.11n20 MODE

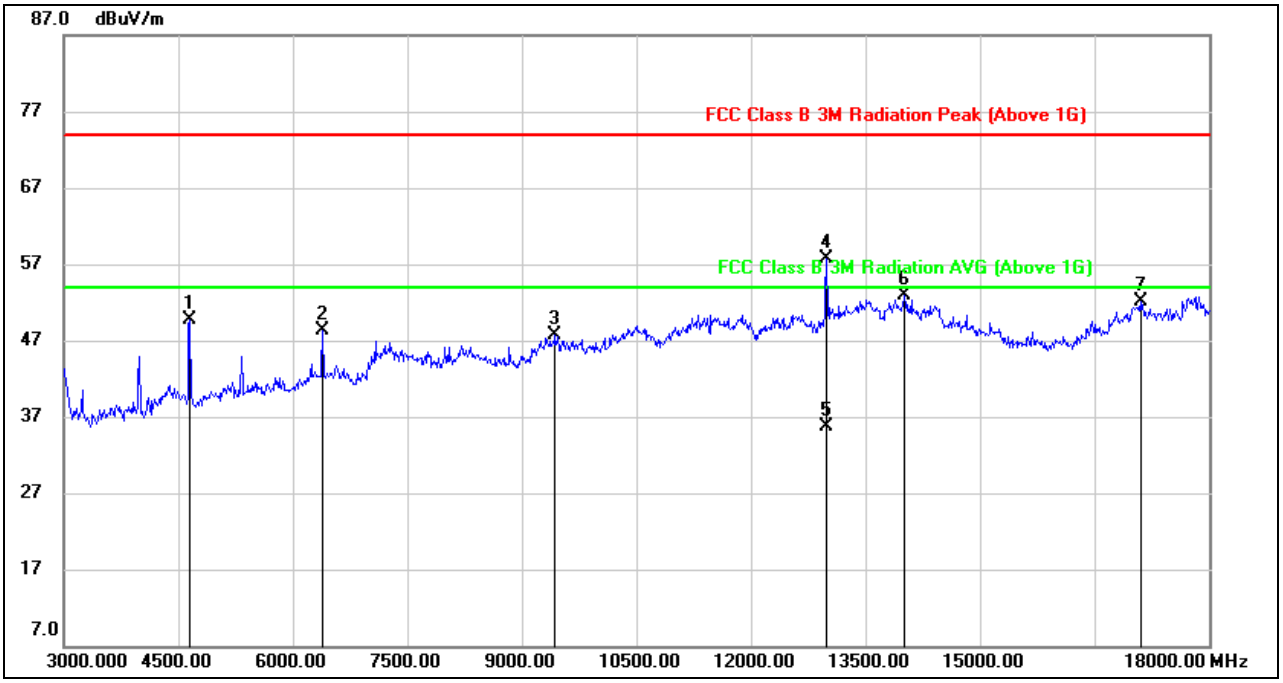
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	42.86	-0.70	42.16	74.00	-31.84	peak
2	7290.000	38.82	7.86	46.68	74.00	-27.32	peak
3	9330.000	36.50	10.77	47.27	74.00	-26.73	peak
4	12240.000	34.76	16.22	50.98	74.00	-23.02	peak
5	14070.000	31.26	20.65	51.91	74.00	-22.09	peak
6	17745.000	25.97	25.86	51.83	74.00	-22.17	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

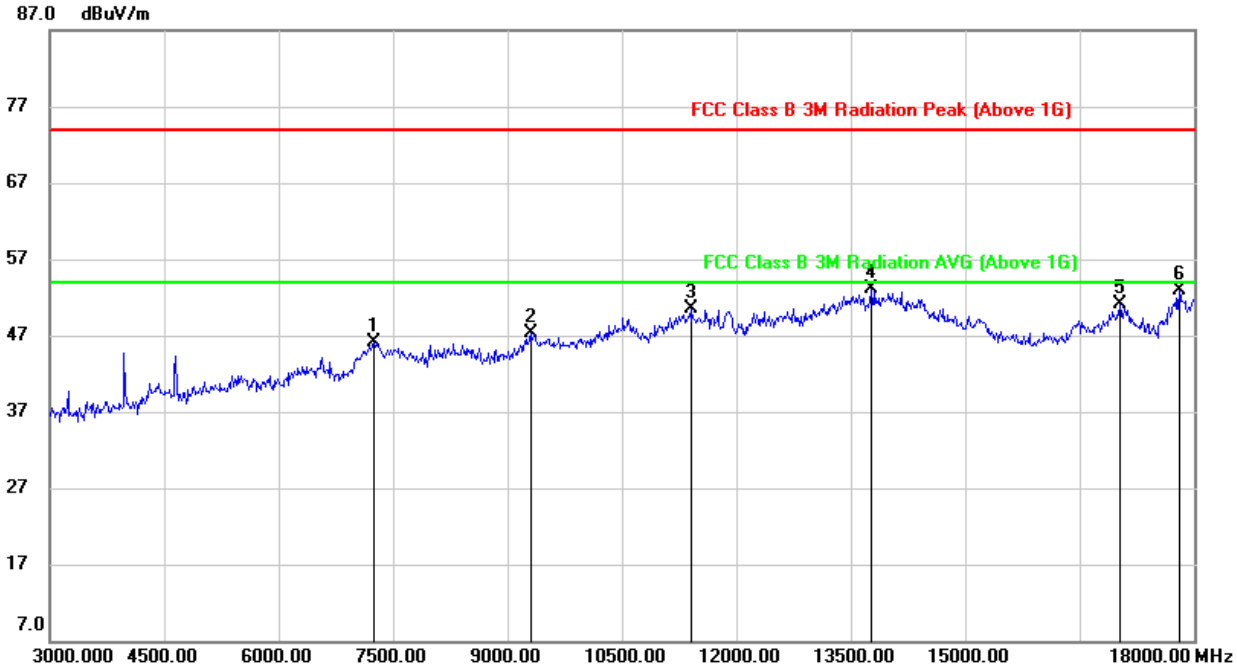
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	50.33	-0.60	49.73	74.00	-24.27	peak
2	6390.000	43.52	4.73	48.25	74.00	-25.75	peak
3	9435.000	36.65	11.01	47.66	74.00	-26.34	peak
4	12990.000	38.94	18.82	57.76	74.00	-16.24	peak
5	12990.000	16.96	18.82	35.78	54.00	-18.22	AVG
6	14010.000	32.24	20.67	52.91	74.00	-21.09	peak
7	17100.000	29.25	22.84	52.09	74.00	-21.91	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. AVG: VBW=1kHz.
5. For transmit duration, please refer to clause 7.1.
6. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

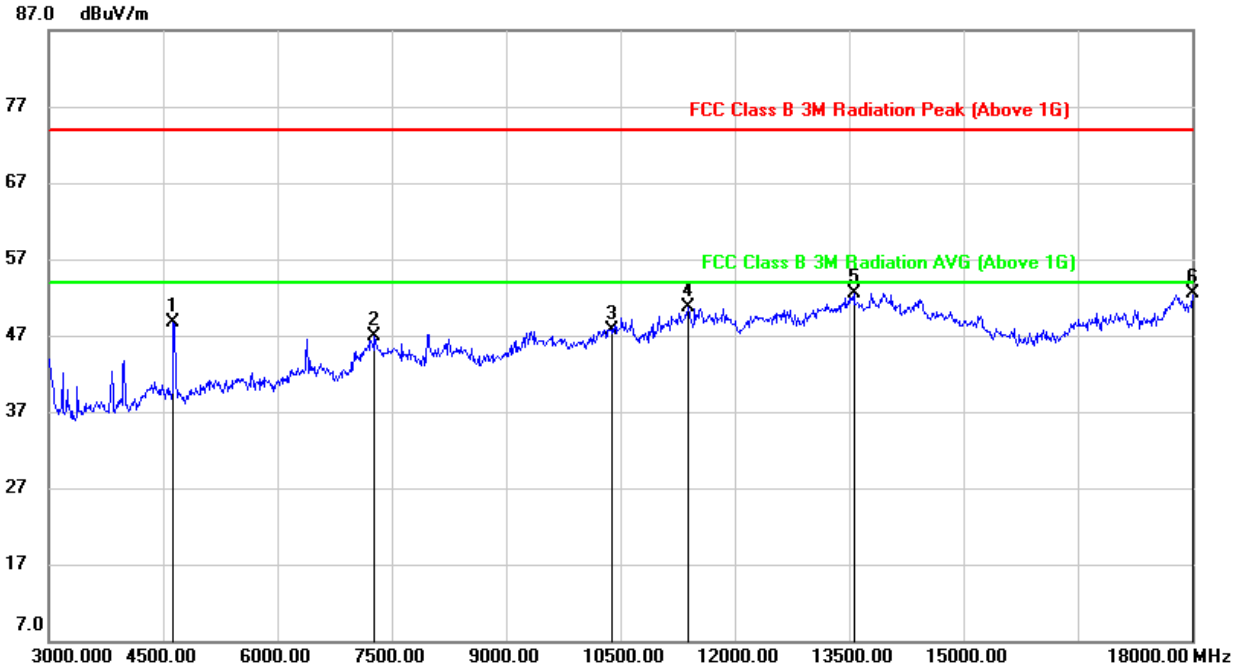
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7245.000	38.23	7.84	46.07	74.00	-27.93	peak
2	9300.000	36.72	10.66	47.38	74.00	-26.62	peak
3	11415.000	34.83	15.76	50.59	74.00	-23.41	peak
4	13770.000	32.23	20.79	53.02	74.00	-20.98	peak
5	17025.000	29.14	22.03	51.17	74.00	-22.83	peak
6	17805.000	26.39	26.48	52.87	74.00	-21.13	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

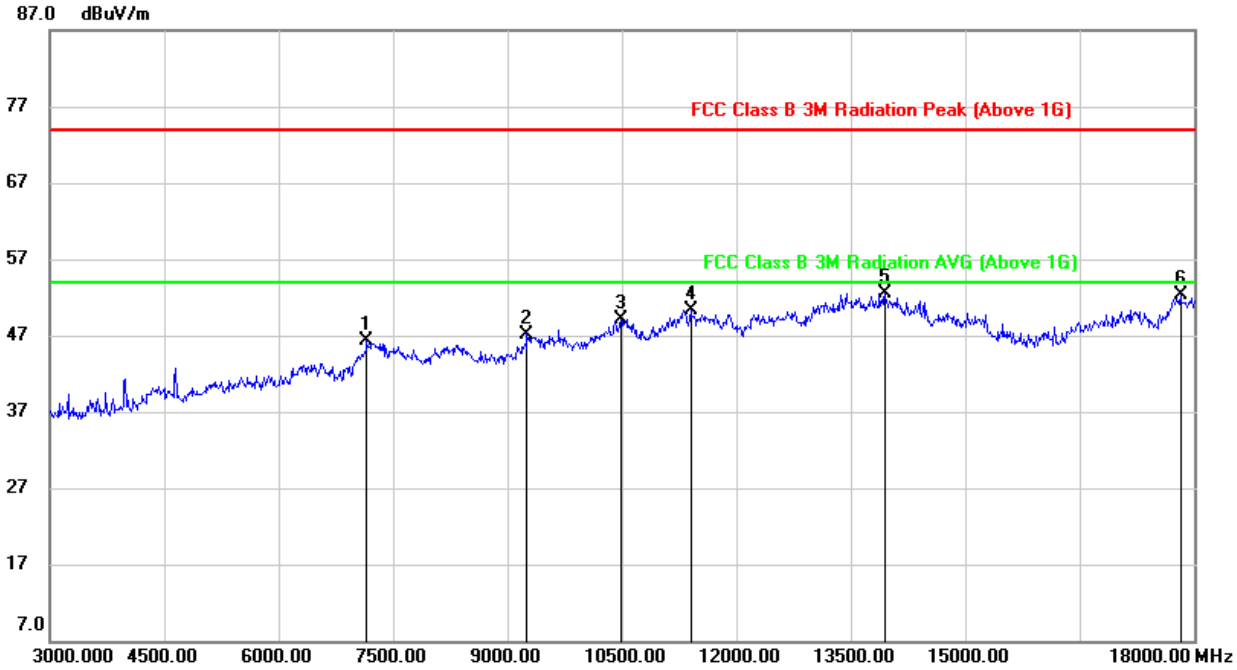
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4635.000	49.36	-0.61	48.75	74.00	-25.25	peak
2	7275.000	39.06	7.81	46.87	74.00	-27.13	peak
3	10380.000	34.71	13.05	47.76	74.00	-26.24	peak
4	11385.000	35.10	15.57	50.67	74.00	-23.33	peak
5	13560.000	31.77	20.81	52.58	74.00	-21.42	peak
6	18000.000	25.79	26.66	52.45	74.00	-21.55	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

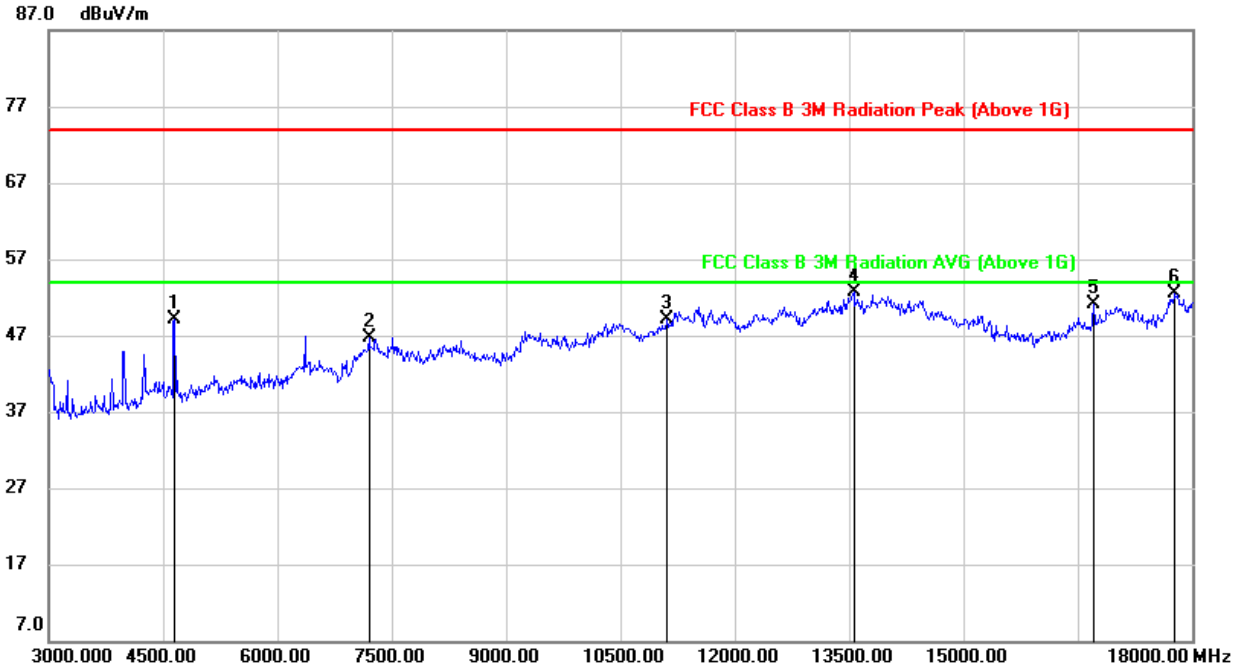
HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7155.000	38.58	7.70	46.28	74.00	-27.72	peak
2	9255.000	36.78	10.42	47.20	74.00	-26.80	peak
3	10485.000	35.49	13.62	49.11	74.00	-24.89	peak
4	11400.000	34.67	15.69	50.36	74.00	-23.64	peak
5	13950.000	31.92	20.68	52.60	74.00	-21.40	peak
6	17820.000	25.81	26.48	52.29	74.00	-21.71	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, VERTICAL)



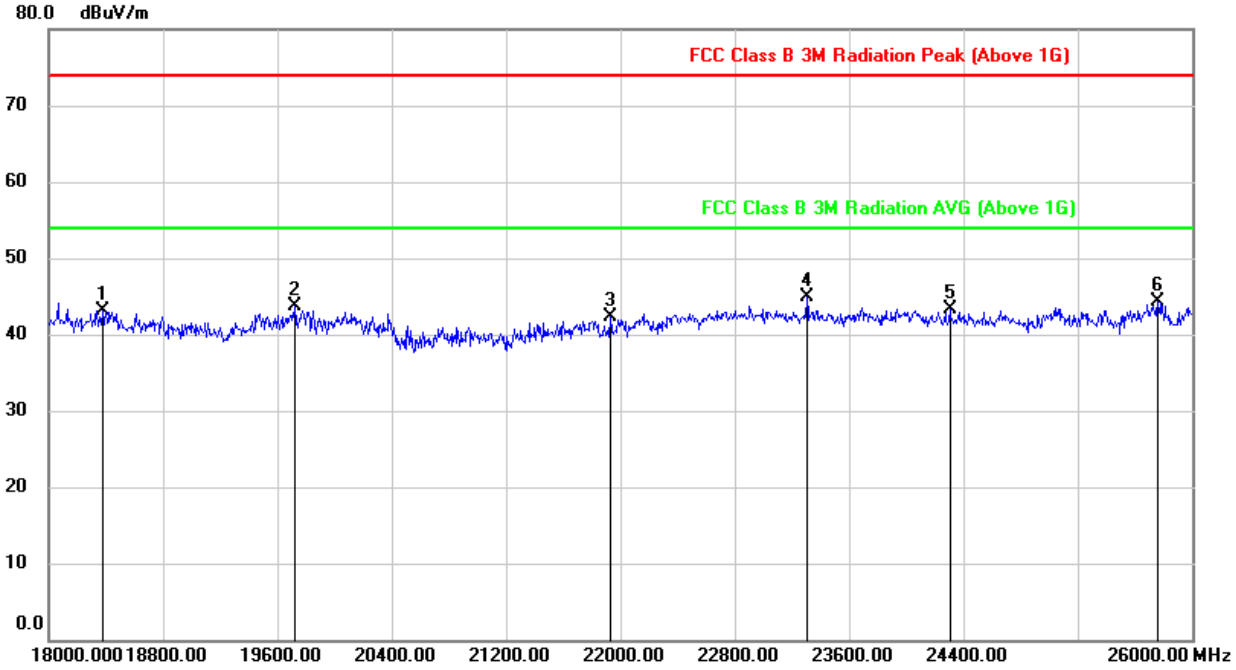
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4650.000	49.71	-0.60	49.11	74.00	-24.89	peak
2	7200.000	38.87	7.85	46.72	74.00	-27.28	peak
3	11115.000	34.16	15.01	49.17	74.00	-24.83	peak
4	13560.000	31.83	20.81	52.64	74.00	-21.36	peak
5	16710.000	30.34	20.82	51.16	74.00	-22.84	peak
6	17775.000	25.92	26.57	52.49	74.00	-21.51	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

8.4. SPURIOUS EMISSIONS (18~26GHz)

8.4.1. 802.11b MODE

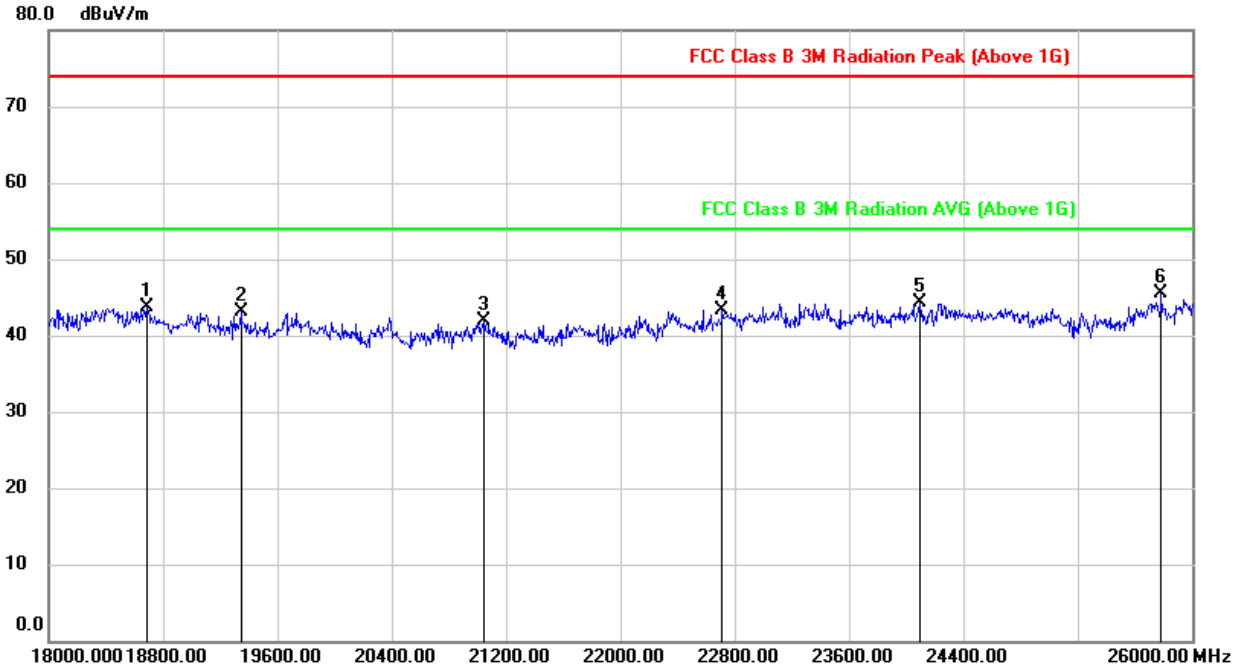
SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18376.000	47.53	-4.35	43.18	74.00	-30.82	peak
2	19720.000	47.75	-4.12	43.63	74.00	-30.37	peak
3	21928.000	47.80	-5.52	42.28	74.00	-31.72	peak
4	23304.000	48.50	-3.64	44.86	74.00	-29.14	peak
5	24304.000	46.73	-3.38	43.35	74.00	-30.65	peak
6	25760.000	46.65	-2.42	44.23	74.00	-29.77	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18688.000	48.33	-4.71	43.62	74.00	-30.38	peak
2	19344.000	47.91	-4.86	43.05	74.00	-30.95	peak
3	21048.000	47.69	-5.86	41.83	74.00	-32.17	peak
4	22712.000	47.45	-4.18	43.27	74.00	-30.73	peak
5	24096.000	47.72	-3.40	44.32	74.00	-29.68	peak
6	25784.000	47.90	-2.49	45.41	74.00	-28.59	peak

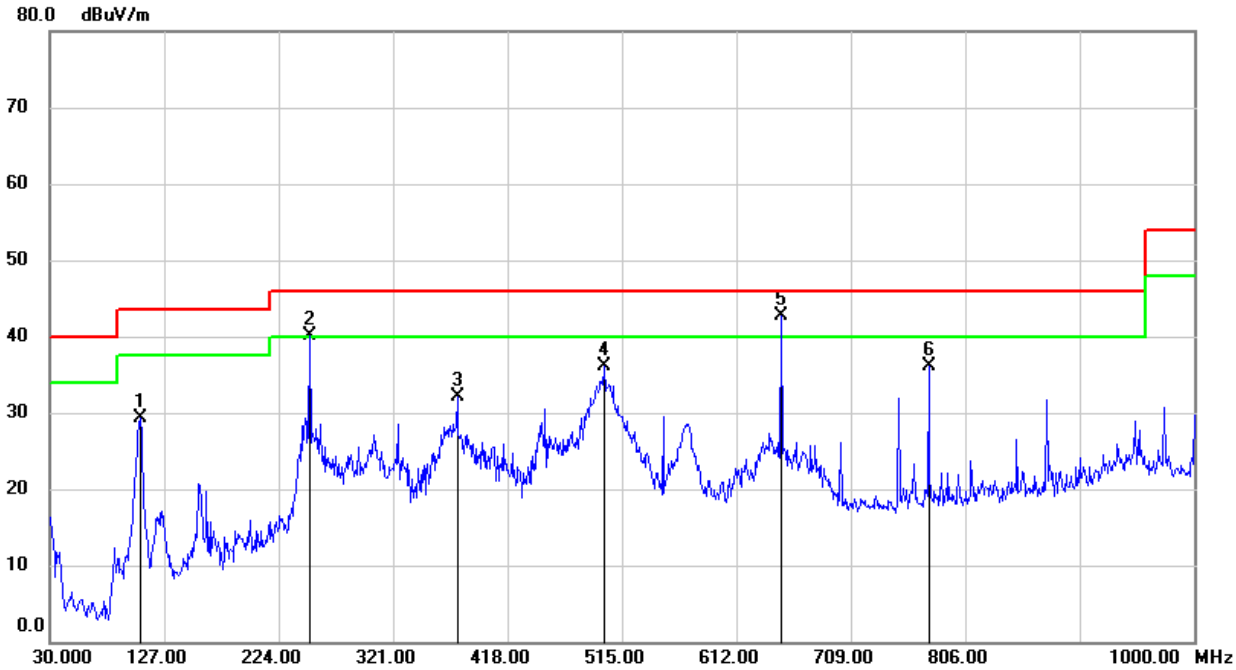
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All the modes had been tested, but only the worst data were recorded in the report.

8.5. SPURIOUS EMISSIONS (30M ~ 1 GHz)

8.5.1. 802.11b MODE

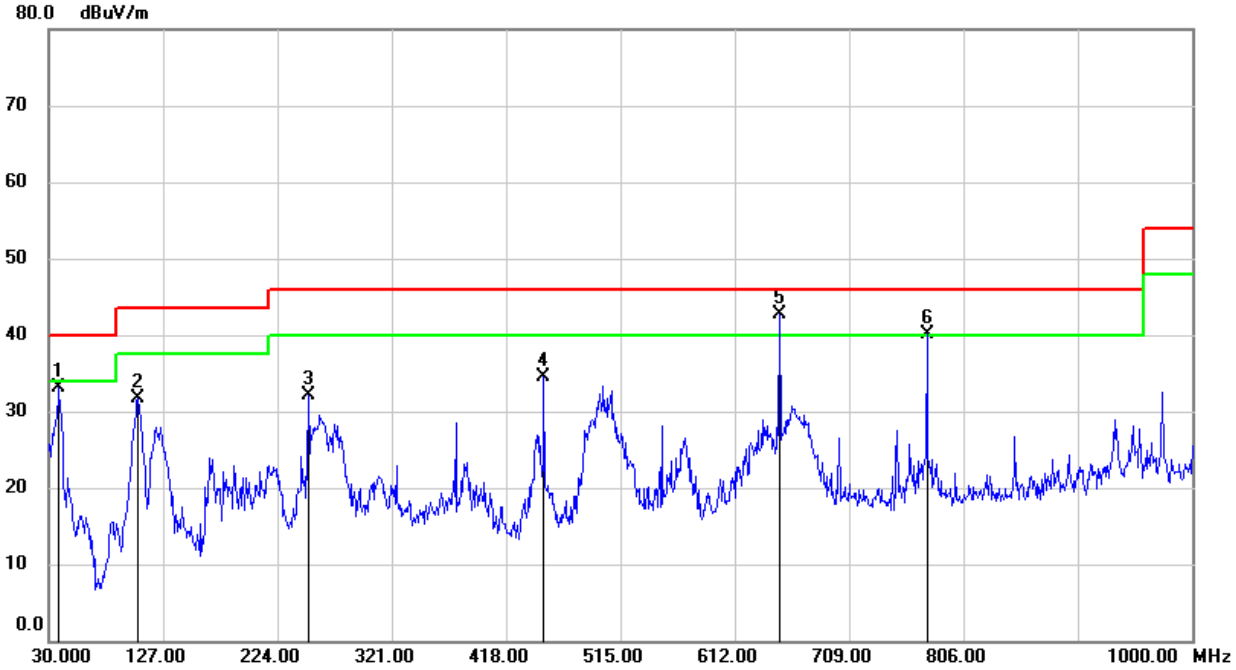
SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	106.6300	51.01	-21.76	29.25	43.50	-14.25	QP
2	250.1900	56.85	-16.66	40.19	46.00	-5.81	QP
3	375.3200	45.53	-13.40	32.13	46.00	-13.87	QP
4	500.4500	47.26	-11.21	36.05	46.00	-9.95	QP
5	649.8300	51.03	-8.35	42.68	46.00	-3.32	QP
6	774.9600	42.47	-6.35	36.12	46.00	-9.88	QP

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	38.7300	51.31	-18.11	33.20	40.00	-6.80	QP
2	105.6600	53.41	-21.75	31.66	43.50	-11.84	QP
3	250.1900	48.84	-16.66	32.18	46.00	-13.82	QP
4	450.0100	46.54	-12.11	34.43	46.00	-11.57	QP
5	649.8300	50.99	-8.35	42.64	46.00	-3.36	QP
6	774.9600	46.52	-6.35	40.17	46.00	-5.83	QP

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

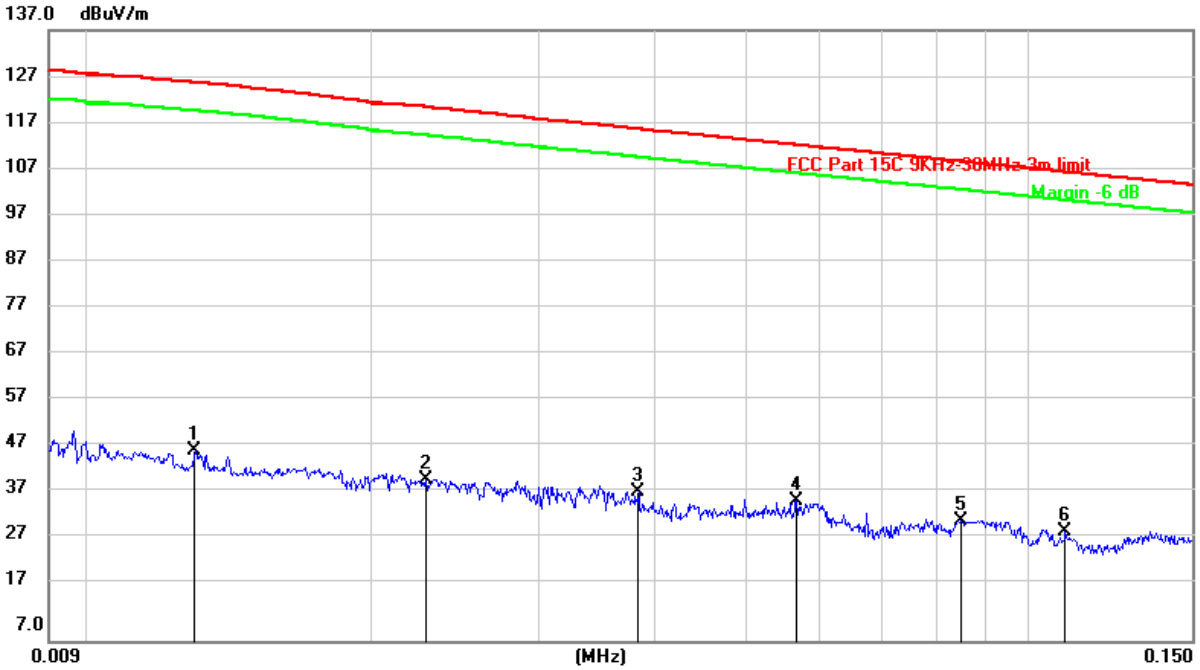
Note: All the modes had been tested, but only the worst data were recorded in the report.

8.6. SPURIOUS EMISSIONS BELOW 30M

8.6.1. 802.11b MODE

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

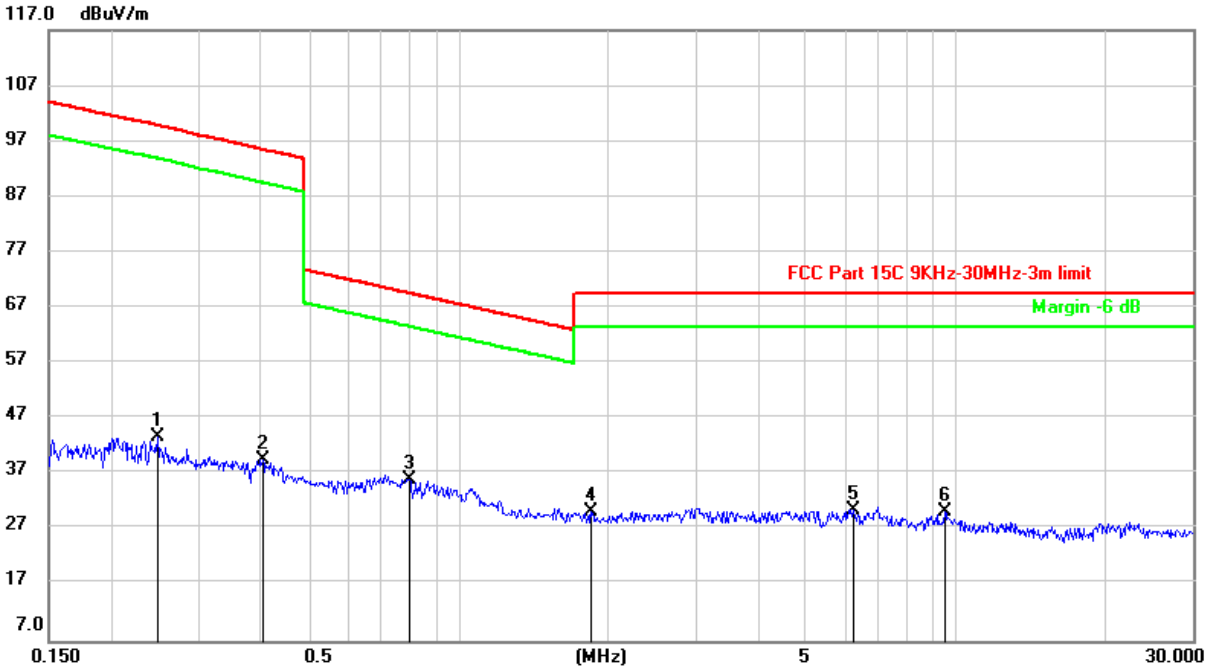
9KHz~ 150KHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0129	27.31	20.24	47.55	125.85	-78.30	peak
2	0.0228	20.97	20.31	41.28	120.59	-79.31	peak
3	0.0383	18.25	20.31	38.56	115.98	-77.42	peak
4	0.0567	16.51	20.31	36.82	112.56	-75.74	peak
5	0.0850	12.23	20.27	32.50	109.03	-76.53	peak
6	0.1097	9.84	20.26	30.10	106.80	-76.70	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

150KHz ~ 30M

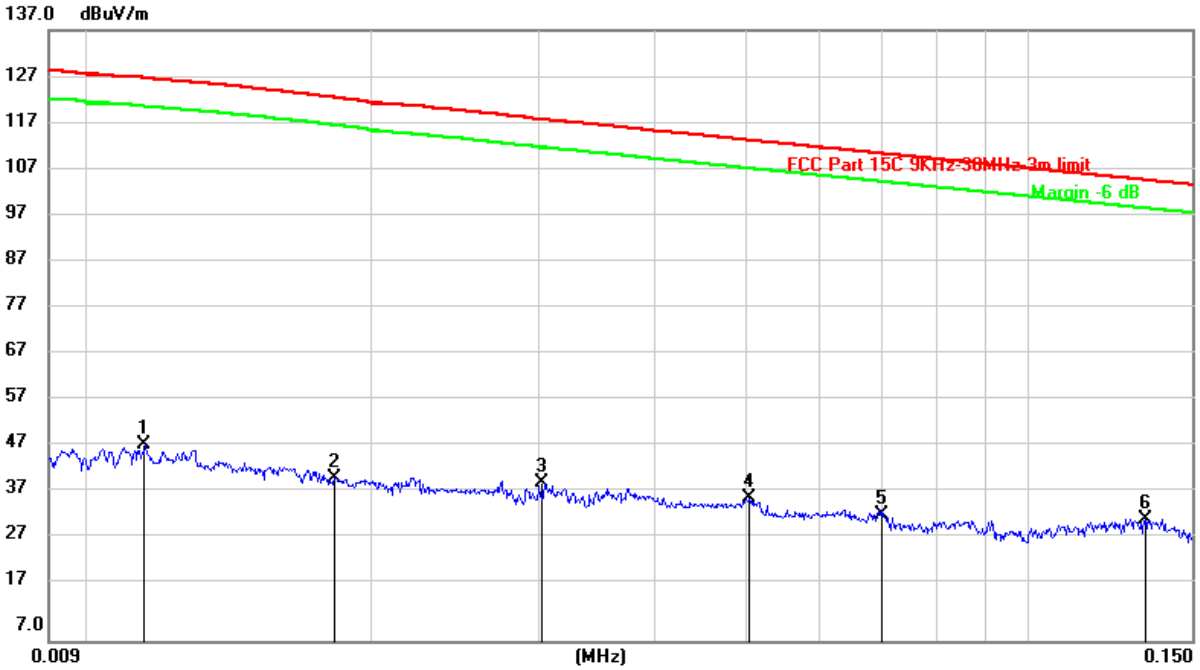


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.2479	23.41	20.32	43.73	99.89	-56.16	peak
2	0.4040	19.23	20.27	39.50	95.48	-55.98	peak
3	0.7960	15.75	20.36	36.11	69.59	-33.48	peak
4	1.8483	9.53	20.67	30.20	69.54	-39.34	peak
5	6.2187	9.67	20.87	30.54	69.54	-39.00	peak
6	9.5014	9.07	21.04	30.11	69.54	-39.43	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)

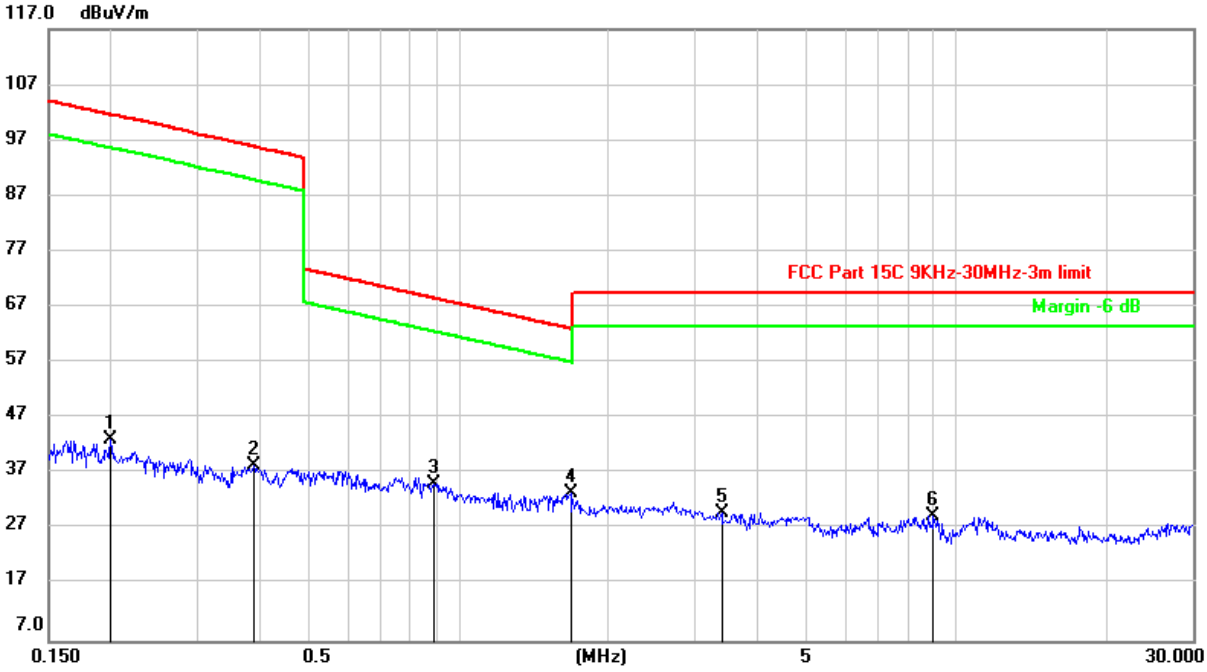
9KHz~ 150KHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0114	28.69	20.22	48.91	126.76	-77.85	peak
2	0.0182	21.45	20.29	41.74	122.66	-80.92	peak
3	0.0303	20.19	20.31	40.50	117.98	-77.48	peak
4	0.0505	17.23	20.31	37.54	113.54	-76.00	peak
5	0.0700	13.35	20.31	33.66	110.70	-77.04	peak
6	0.1337	12.36	20.35	32.71	105.09	-72.38	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

150KHz ~ 30M



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1995	22.85	20.37	43.22	101.60	-58.38	peak
2	0.3870	18.15	20.27	38.42	95.89	-57.47	peak
3	0.8941	14.85	20.36	35.21	68.58	-33.37	peak
4	1.6800	12.91	20.61	33.52	63.10	-29.58	peak
5	3.3814	9.11	20.96	30.07	69.54	-39.47	peak
6	9.0113	8.33	21.01	29.34	69.54	-40.20	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

Note: All the modes had been tested, but only the worst data were recorded in the report.

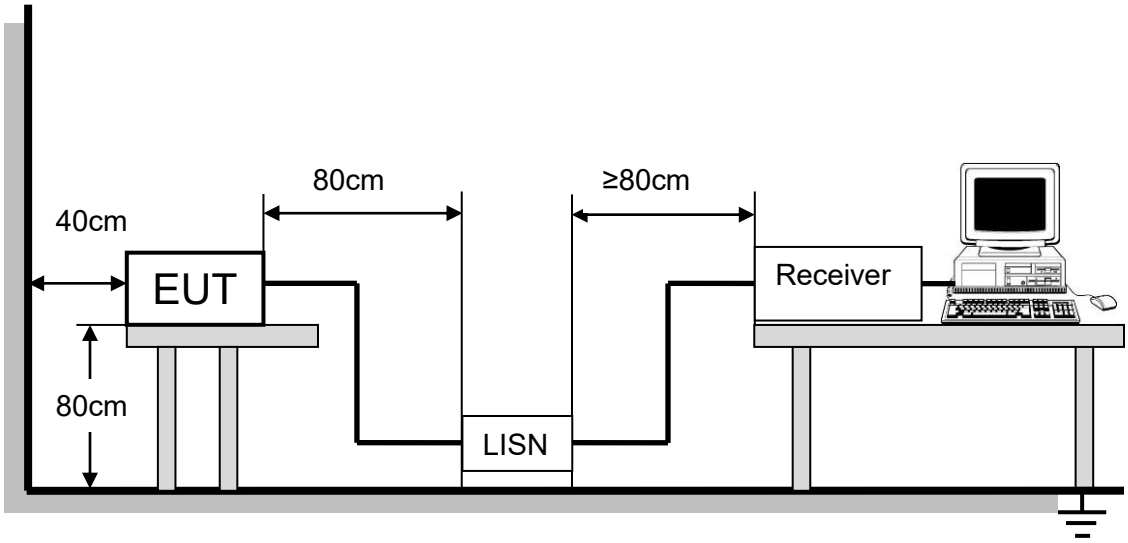
9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a).

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10 -2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

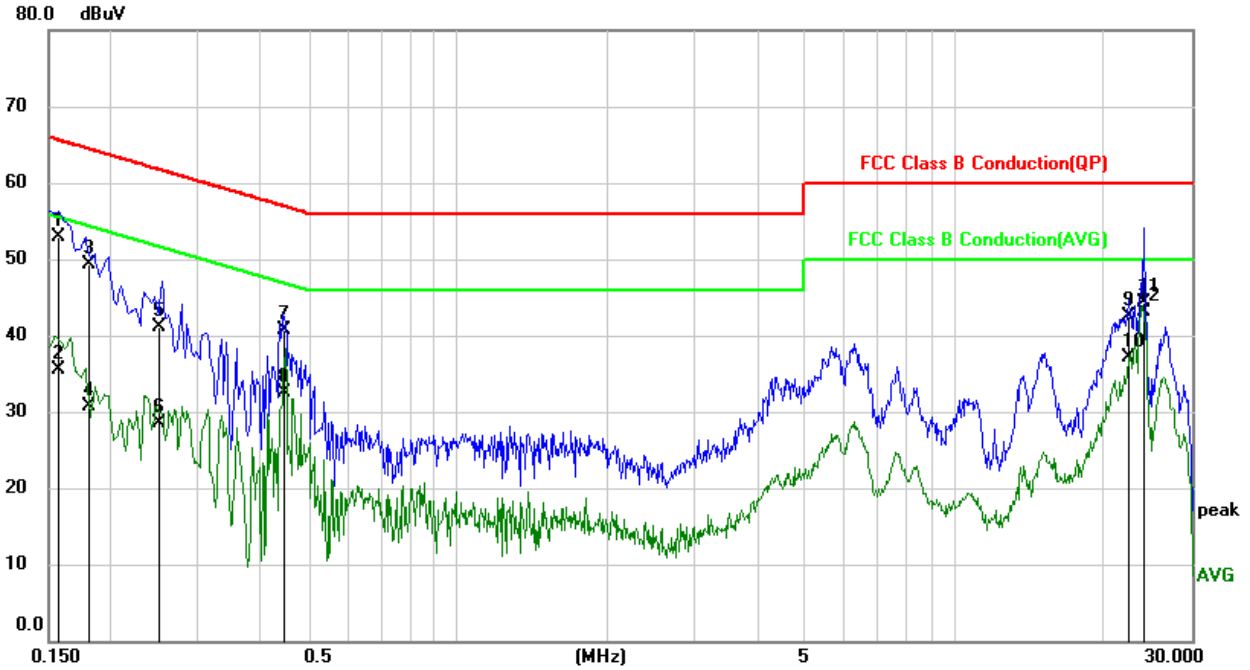
Temperature	24.5°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

TEST RESULTS

9.1.1. 802.11b MODE

LINE N RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)

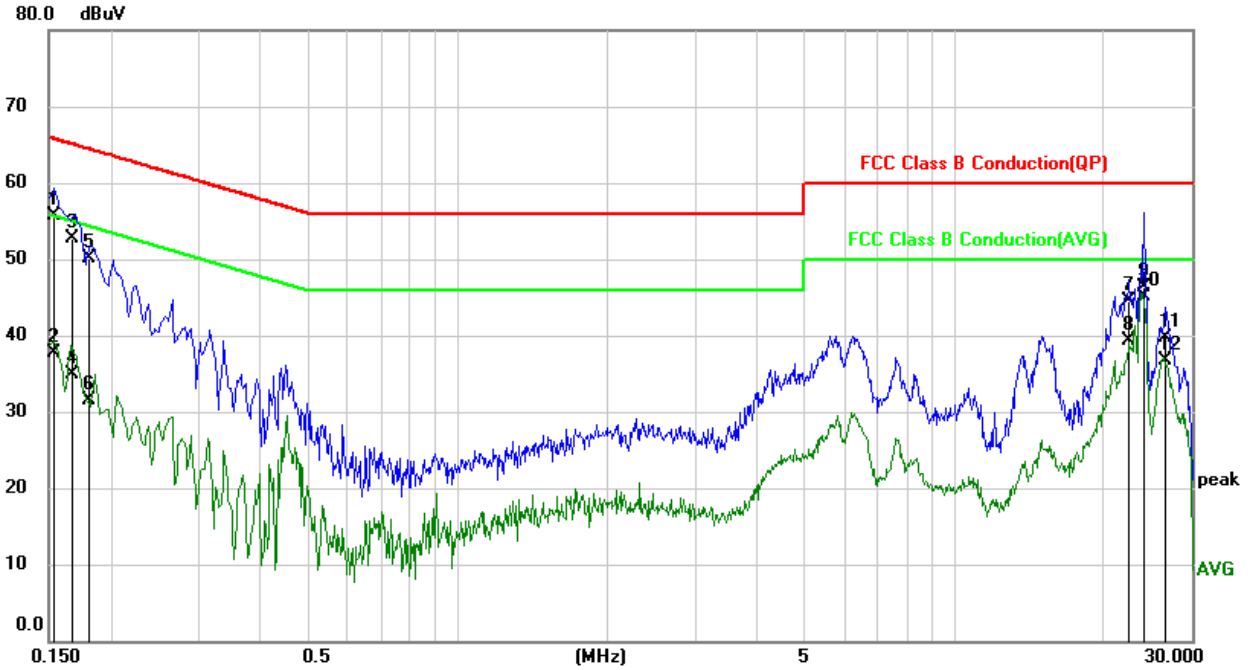
Adapter: MASS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1568	43.38	9.62	53.00	65.63	-12.63	QP
2	0.1568	25.90	9.62	35.52	55.63	-20.11	AVG
3	0.1816	39.68	9.62	49.30	64.41	-15.11	QP
4	0.1816	21.12	9.62	30.74	54.41	-23.67	AVG
5	0.2507	31.57	9.63	41.20	61.73	-20.53	QP
6	0.2507	18.86	9.63	28.49	51.73	-23.24	AVG
7	0.4479	31.02	9.63	40.65	56.91	-16.26	QP
8	0.4479	22.79	9.63	32.42	46.91	-14.49	AVG
9	22.3197	32.67	9.92	42.59	60.00	-17.41	QP
10	22.3197	27.16	9.92	37.08	50.00	-12.92	AVG
11	24.0106	34.37	9.94	44.31	60.00	-15.69	QP
12	24.0106	33.25	9.94	43.19	50.00	-6.81	AVG

Note: 1. Result = Reading +Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

LINE L RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)



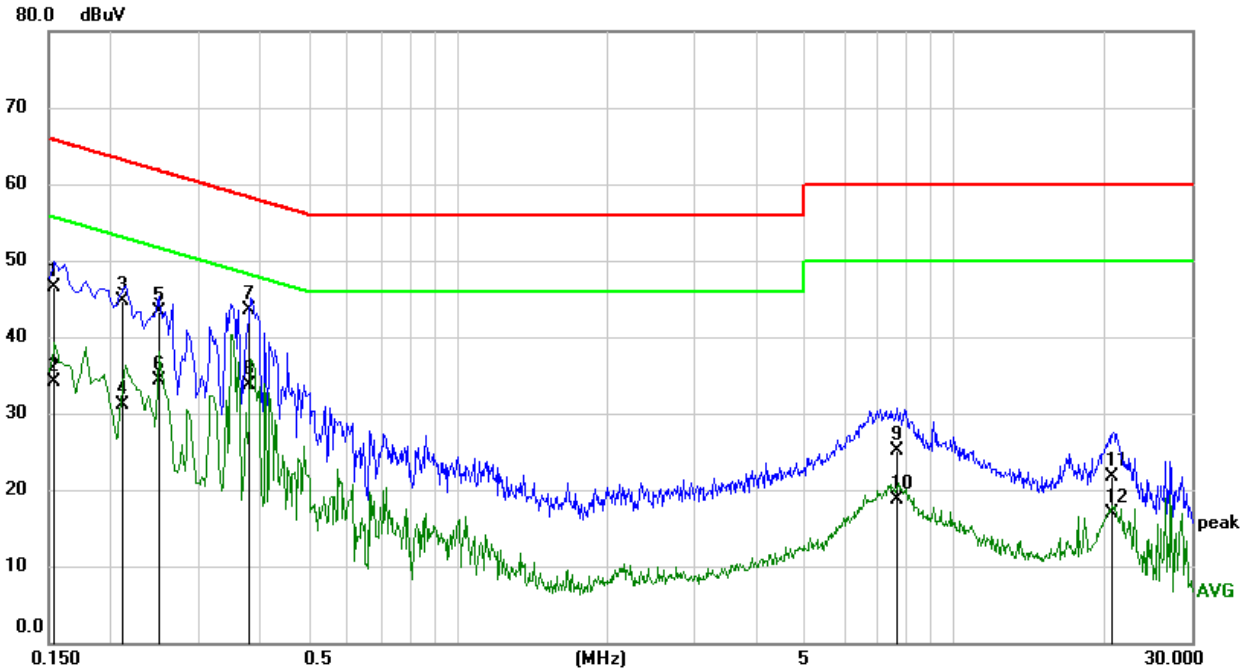
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1525	46.03	9.64	55.67	65.86	-10.19	QP
2	0.1525	28.12	9.64	37.76	55.86	-18.10	AVG
3	0.1669	43.17	9.63	52.80	65.11	-12.31	QP
4	0.1669	25.32	9.63	34.95	55.11	-20.16	AVG
5	0.1806	40.56	9.63	50.19	64.46	-14.27	QP
6	0.1806	21.84	9.63	31.47	54.46	-22.99	AVG
7	22.4404	34.66	9.89	44.55	60.00	-15.45	QP
8	22.4404	29.33	9.89	39.22	50.00	-10.78	AVG
9	24.0185	36.40	9.90	46.30	60.00	-13.70	QP
10	24.0185	35.20	9.90	45.10	50.00	-4.90	AVG
11	26.6547	29.72	9.94	39.66	60.00	-20.34	QP
12	26.6547	26.68	9.94	36.62	50.00	-13.38	AVG

Note: 1. Result = Reading +Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

Note: All the modes had been tested, but only the worst data were recorded in the report.

LINE N RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)

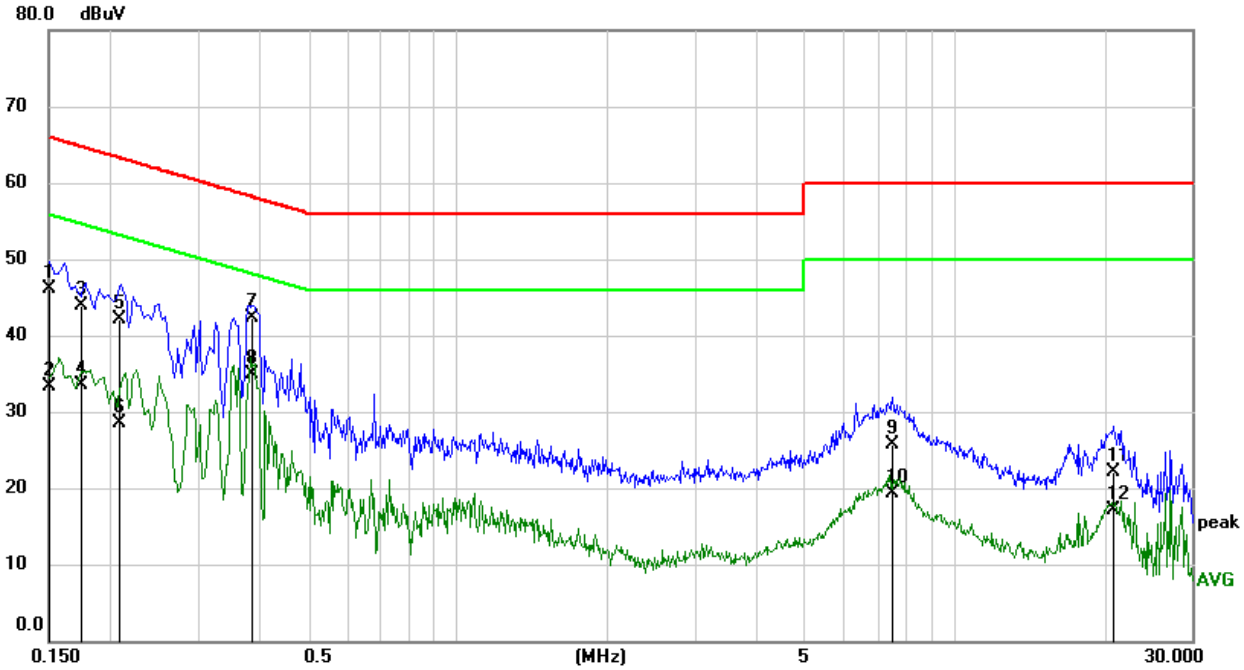
Adapter: HONOR



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1539	36.86	9.64	46.50	65.79	-19.29	QP
2	0.1539	24.46	9.64	34.10	55.79	-21.69	AVG
3	0.2116	35.01	9.63	44.64	63.14	-18.50	QP
4	0.2116	21.45	9.63	31.08	53.14	-22.06	AVG
5	0.2504	33.76	9.63	43.39	61.74	-18.35	QP
6	0.2504	24.64	9.63	34.27	51.74	-17.47	AVG
7	0.3787	33.94	9.63	43.57	58.31	-14.74	QP
8	0.3787	24.12	9.63	33.75	48.31	-14.56	AVG
9	7.6542	15.22	9.84	25.06	60.00	-34.94	QP
10	7.6542	8.85	9.84	18.69	50.00	-31.31	AVG
11	20.7646	11.74	9.87	21.61	60.00	-38.39	QP
12	20.7646	6.95	9.87	16.82	50.00	-33.18	AVG

Note: 1. Result = Reading +Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

LINE L RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1500	36.56	9.64	46.20	66.00	-19.80	QP
2	0.1500	23.66	9.64	33.30	56.00	-22.70	AVG
3	0.1748	34.36	9.63	43.99	64.73	-20.74	QP
4	0.1748	23.79	9.63	33.42	54.73	-21.31	AVG
5	0.2074	32.51	9.63	42.14	63.31	-21.17	QP
6	0.2074	18.93	9.63	28.56	53.31	-24.75	AVG
7	0.3837	32.77	9.63	42.40	58.20	-15.80	QP
8	0.3837	25.36	9.63	34.99	48.20	-13.21	AVG
9	7.5405	15.87	9.83	25.70	60.00	-34.30	QP
10	7.5405	9.49	9.83	19.32	50.00	-30.68	AVG
11	20.8687	12.16	9.87	22.03	60.00	-37.97	QP
12	20.8687	7.24	9.87	17.11	50.00	-32.89	AVG

Note: 1. Result = Reading +Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

Note: All the modes had been tested, but only the worst data were recorded in the report.

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

ANTENNA CONNECTOR

EUT has an omni-directional antenna with an antenna connector, it will be installed in a specific environment and users cannot change the antenna.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi, Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ $=7.67 > 6$dBi, So the power and power density limit shall be reduced amount in dB that the directional gain of the antenna exceeds 6dBi.

END OF REPORT