FCC 47 CFR PART 15 SUBPART C

CERTIFICATION TEST REPORT

For

Smart Plug

MODEL NUMBER: 7HPLWA0

FCC ID: 2AB2Q7HPLWA0

REPORT NUMBER: 4788552405.1-1

ISSUE DATE: July 13, 2018

Prepared for

LEEDARSON LIGHTING CO., LTD.
Xingtai Industrial Zone, Economic Development Zone, Changtai County,
Zhangzhou City, Fujian Province, P.R.China

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
--	07/13/2018	Initial Issue	

Summary of Test Results			
Clause	**Test Items**	FCC	Test Results
1	6dB Bandwidth and 99% 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

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	LEEDARSON LIGHTING CO., LTD.
Address:	Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou City, Fujian Province, P.R.China

Manufacturer Information

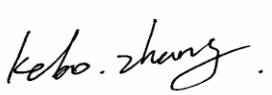
Company Name:	LEEDARSON LIGHTING CO., LTD.
Address:	Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou City, Fujian Province, P.R.China

EUT Description

Product Name	Smart plug
Brand Name	LEEDARSON
Model Name	7HPLWA0
Date Tested	July 2~10, 2018

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

Tested By:



Kebo Zhang
Engineer

Checked By:

Shawn Wen
Laboratory Leader

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Stephen Guo

Laboratory Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 DTS Meas Guidance v04, KDB 414788 D01 Radiated Test Site v01, FCC CFR 47 Part 2, FCC CFR 47 Part 15 and ANSI C63.10-2013.

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. **IAS (Lab Code: TL-702)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has demonstrated compliance with ISO/IEC Standard 17025:2005, General requirements for the competence of testing and calibration laboratories **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.

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	Smart plug
Model Name	7HPLWA0
Radio Technology	IEEE802.11b/g/n HT20/n HT40
Operation frequency	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz
Modulation	IEEE 802.11b: DSSS(CCK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Power Supply	AC120V/60Hz
Power Supply	AC120V, 60Hz
Main test Relay	RTD34012_076140120141105
Alternative test Relay	HF115F(JQX-115F)_cn
Note: The equipment has two relays, one of them will be used in the end product and the others are exactly the same.	

5.2. MAXIMUM OUTPUT POWER

Frequency Range (MHz)	Number of Transmit Chains (NTX)	IEE Std. 802.11	Frequency (MHz)	Channel Number	Max PK Conducted Power (dBm)
2412-2462	1	IEEE 802.11b	2412-2462	1-11[11]	17.05
2412-2462	1	IEEE 802.11g	2412-2462	1-11[11]	22.15
2412-2462	1	IEEE 802.11nHT20	2412-2462	1-11[11]	21.65
2422-2452	1	IEEE 802.11nHT40	2422-2452	3-9[7]	22.21

5.3. CHANNEL LIST

Channel List for 802.11b/g/n (20 MHz)							
Channel	Frequency (MHz)	Channel	Frequenc y(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				

Channel List for 802.11n (40 MHz)							
Channel	Frequency (MHz)	Channel	Frequenc y(MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442				
4	2427	8	2447				
5	2432	9	2452				
6	2437						

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel (MHz)
IEEE 802.11b	LCH :CH01 2412
	MCH: CH06 2437
	HCH: CH11 2462
IEEE 802.11g	LCH :CH01 2412
	MCH: CH06 2437
	HCH: CH11 2462
IEEE 802.11n HT20	LCH :CH01 2412
	MCH: CH06 2437
	HCH: CH11 2462
IEEE 802.11n HT40	LCH :CH03 2422
	MCH: CH06 2437
	HCH: CH09 2452

5.5. THE WORSE CASE CONFIGURATIONS

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band							
Test Software		UI_mptool					
Modulation Mode	Transmit Antenna Number	Test Channel					
		NCB: 20MHz			NCB: 40MHz		
		CH 1	CH 6	CH 11	CH 3	CH 6	CH 9
802.11b	1	33	32	33	N/A		
802.11g	1	43	42	42			
802.11n HT20	1	42	41	41			
802.11n HT40	1	N/A	N/A	N/A	42	42	42

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

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2412-2462	PCB Antenna	3dBi

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11b	☒1TX, 1RX	Chain 1 can be used as transmitting/receiving antenna.
IEEE 802.11g	☒1TX, 1RX	Chain 1 can be used as transmitting/receiving antenna.
IEEE 802.11n HT20	☒1TX, 1RX	Chain 1 can be used as transmitting/receiving antenna.
IEEE 802.11n HT40	☒1TX, 1RX	Chain 1 can be used as transmitting/receiving antenna.

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	Laptop	ThinkPad	T460S	SL10K24796 JS
2	USB to UART	N/A	N/A	N/A

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	NA	NA	0.5m	N/A

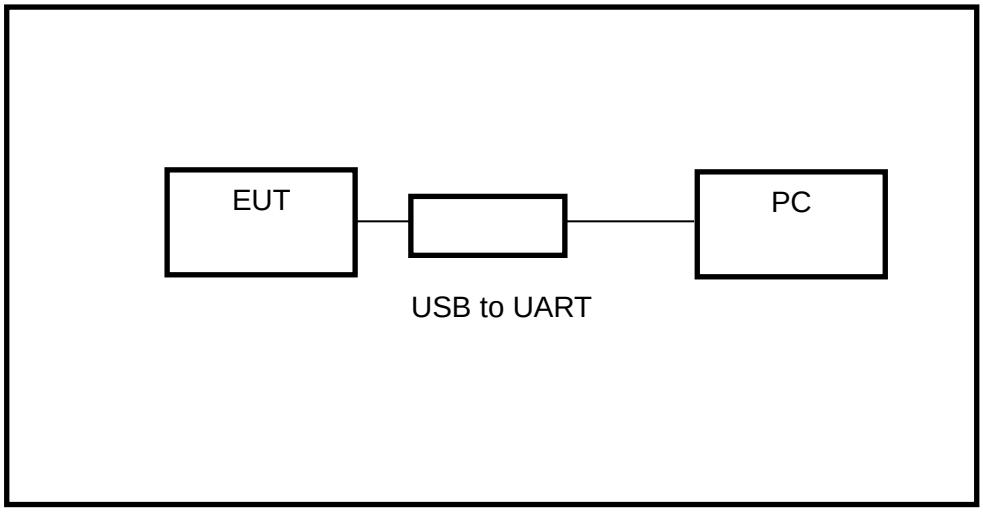
ACCESSORY

Item	Accessory	Brand Name	Model Name	Description
1	NA	N/A	NA	NA

TEST SETUP

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

SETUP DIAGRAM FOR TESTS



5.9. 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
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. ANTENNA PORT TEST RESULTS

6.1. ON TIME AND DUTY CYCLE

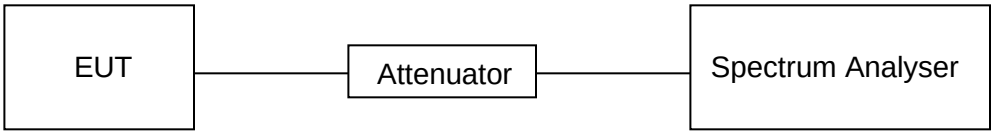
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP

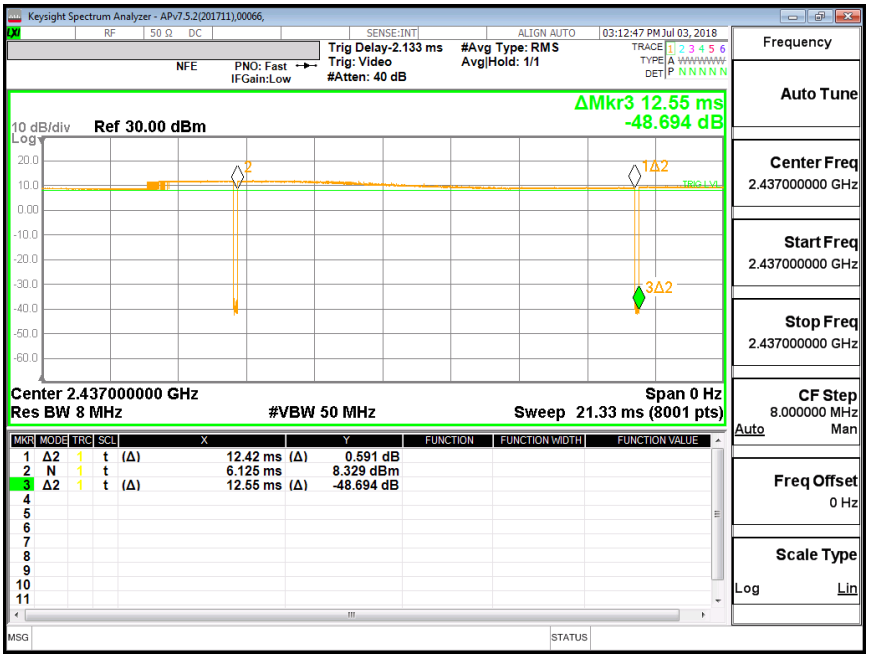


RESULTS

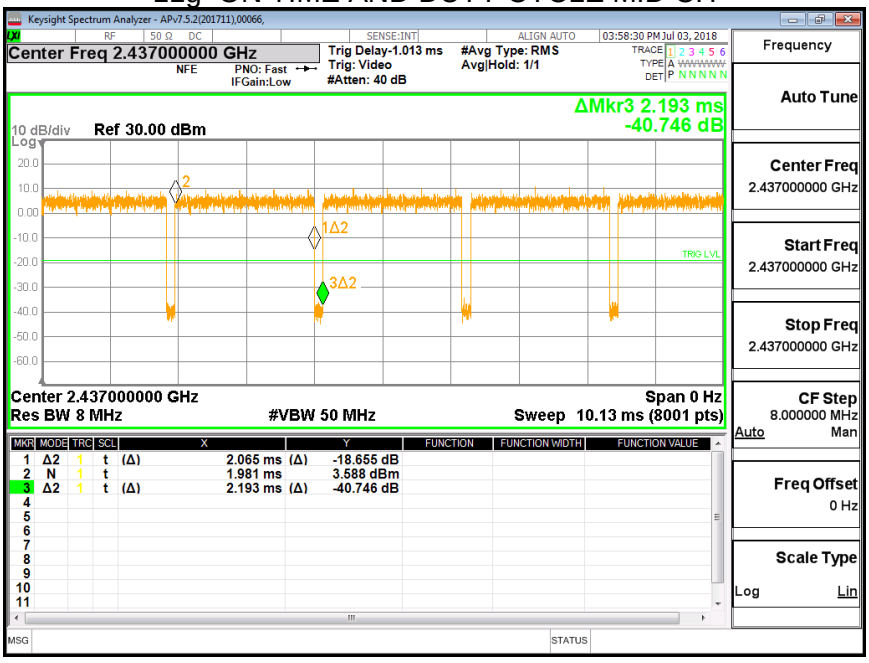
Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (KHz)	Final setting For VBW (KHz)
11b	12.42	12.55	0.9896	98.96	0.05	0.08	1
11g	2.065	2.193	0.9416	94.16	0.26	0.48	1
11n20	1.920	2.048	0.9375	93.75	0.28	0.52	1
11n40	0.944	1.074	0.8790	87.90	0.56	1.06	2

Note:
Duty Cycle Correction Factor=10log (1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time
If that calculated VBW is not available on the analyzer then the next higher value should be used.

11b ON TIME AND DUTY CYCLE MID CH



11g ON TIME AND DUTY CYCLE MID CH



11n20 ON TIME AND DUTY CYCLE MID CH

11n40 ON TIME AND DUTY CYCLE MID CH

6.2. 6 dB AND 99% DTS BANDWIDTH

LIMITS

FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.247(a)(2)	6 dB Bandwidth	>= 500KHz	2400-2483.5

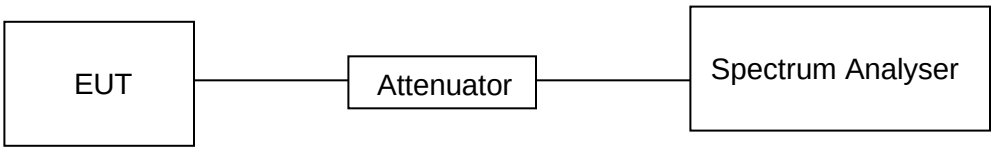
TEST PROCEDURE

KDB 558074D01 Section 8.1 test method.
Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100K
VBW	≥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 relative to the maximum level measured in the fundamental emission.

TEST SETUP

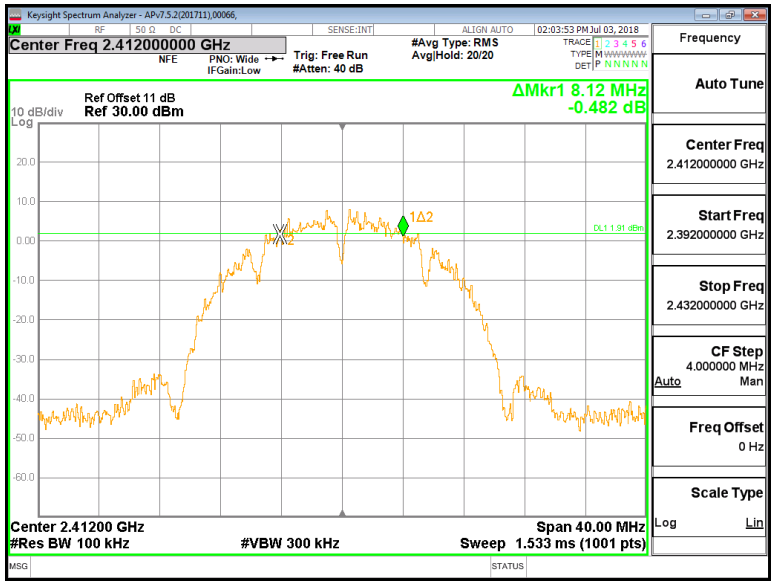


RESULTS

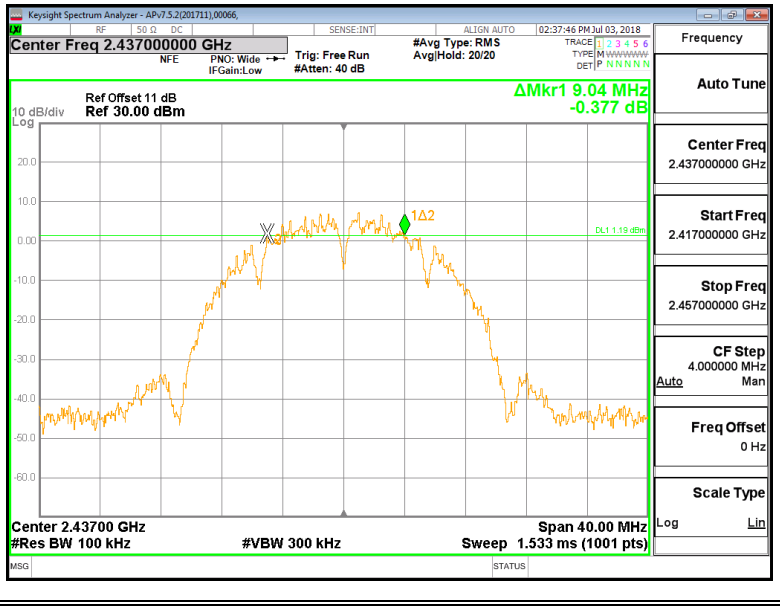
6.2.1. 802.11b MODE

Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
2412	8.12	500	Pass
2437	9.04	500	Pass
2462	8.88	500	Pass

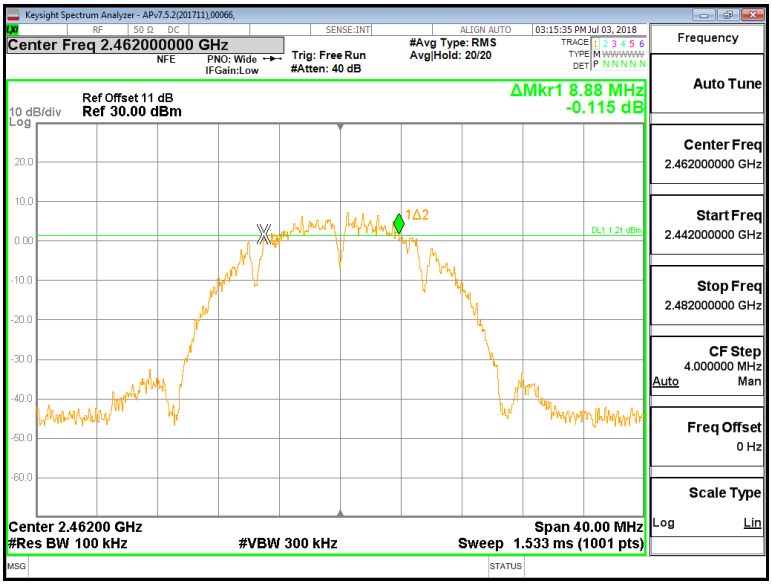
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



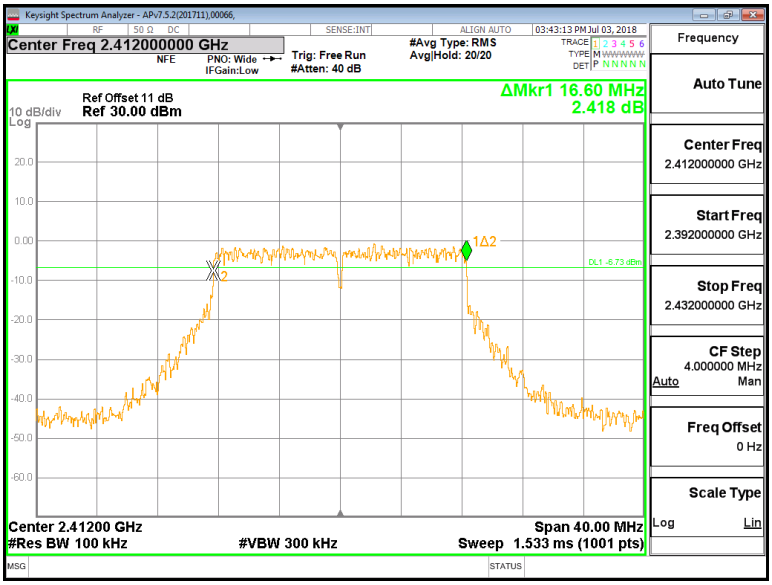
6 dB BANDWIDTH HIGH CH



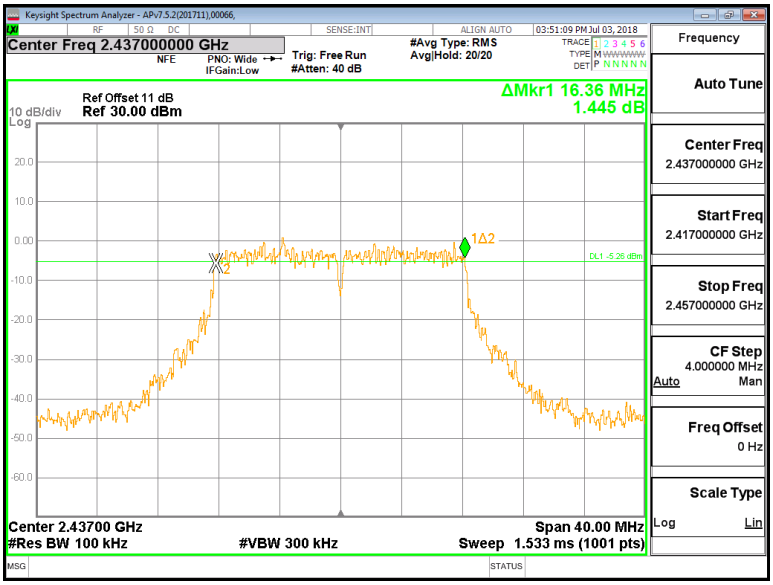
6.2.2. 802.11g MODE

Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
2412	16.60	500	Pass
2437	16.36	500	Pass
2462	16.32	500	Pass

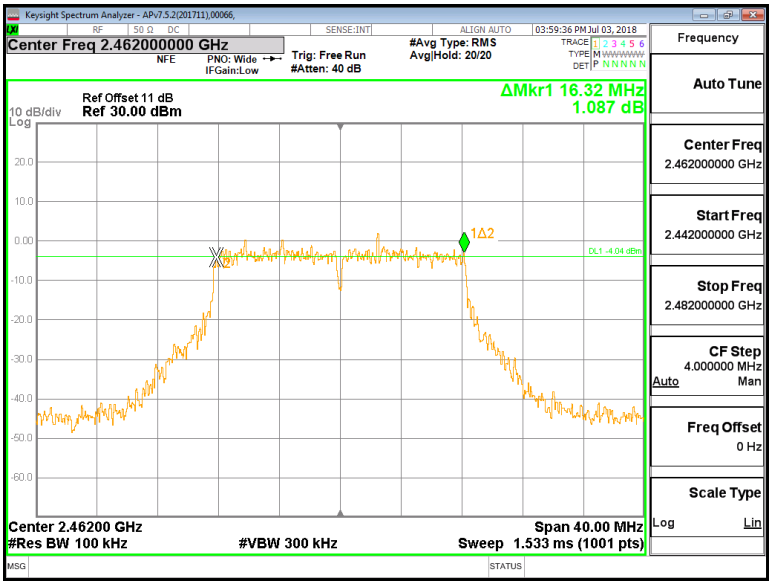
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



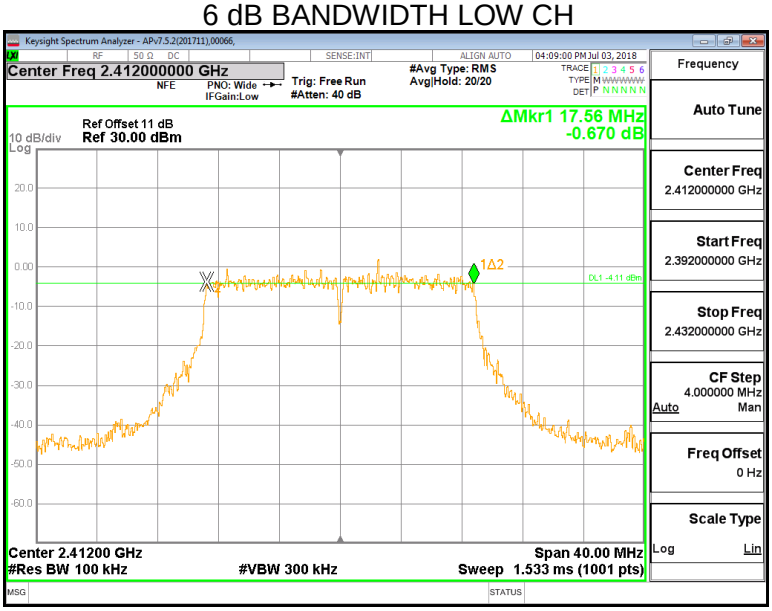
6 dB BANDWIDTH HIGH CH



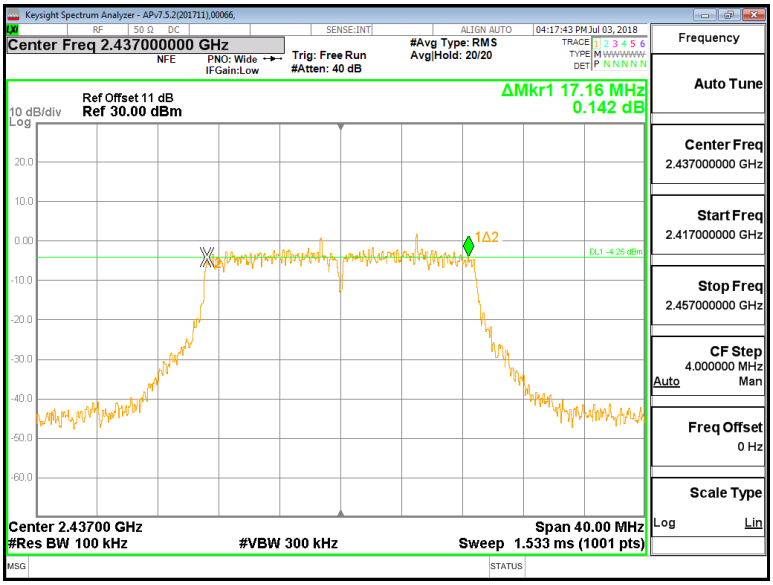
6.2.3. 802.11n20 MODE

Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
2412	17.56	500	Pass
2437	17.16	500	Pass
2462	17.60	500	Pass

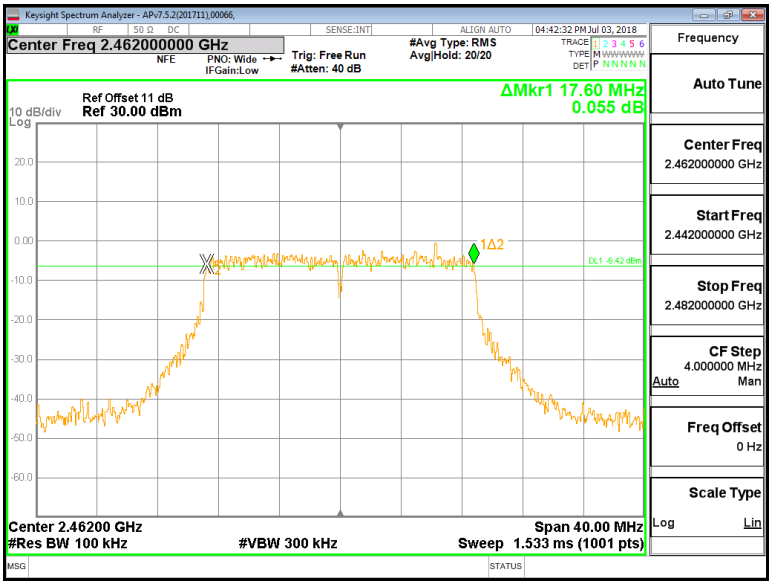
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



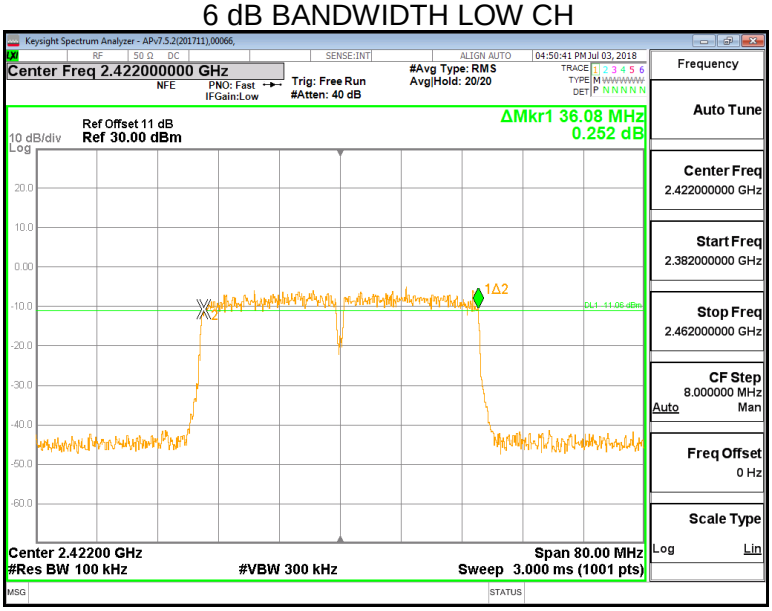
6 dB BANDWIDTH HIGH CH



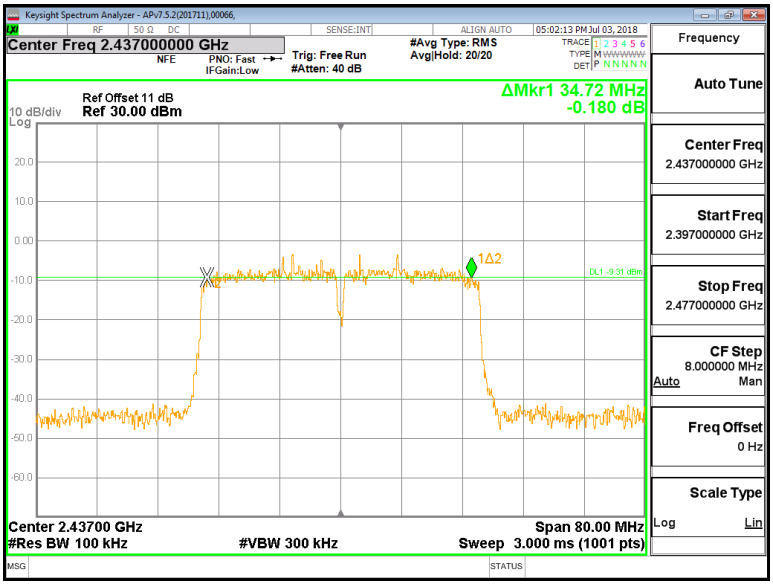
6.2.4. 802.11n40 MODE

Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
2422	36.08	500	Pass
2437	34.72	500	Pass
2452	35.04	500	Pass

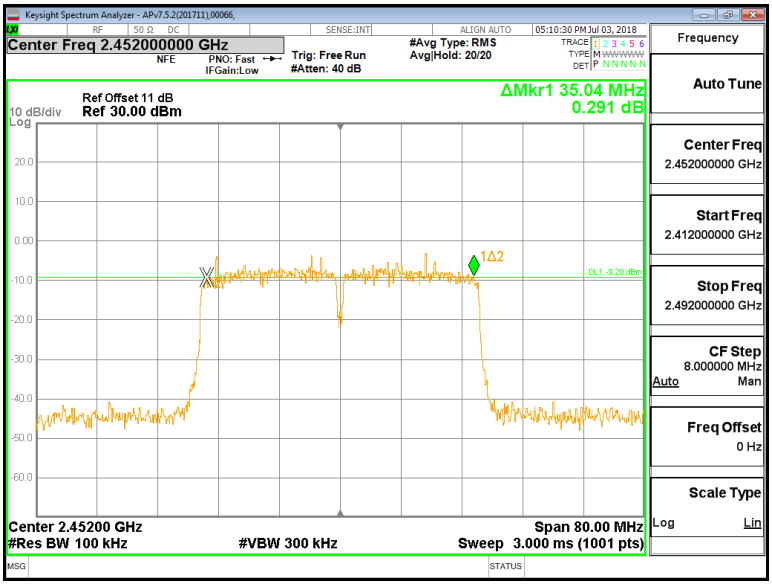
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



6.3. PEAK CONDUCTED OUTPUT POWER

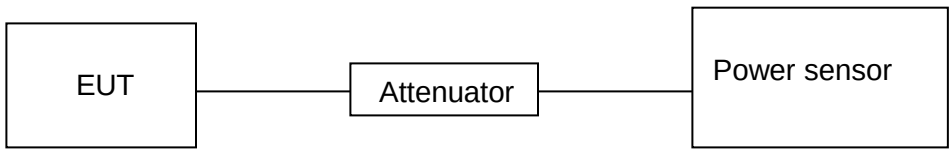
LIMITS

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

TEST PROCEDURE

KDB558074D01 section 9.1.3 for peak measurement and 9.2.3 for average measurement.
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



RESULTS

Mode	Channel	Peak. Power [dBm]	Verdict
11B	2412	16.45	PASS
11B	2437	16.31	PASS
11B	2462	17.05	PASS
11G	2412	22.15	PASS
11G	2437	21.98	PASS
11G	2462	22.11	PASS
11N20	2412	21.65	PASS
11N20	2437	21.55	PASS
11N20	2462	21.59	PASS
11N40	2422	21.85	PASS
11N40	2437	22.15	PASS
11N40	2452	22.21	PASS

Mode	Channel	Average. Power [dBm]	Verdict
11B	2412	13.27	PASS
11B	2437	13.06	PASS
11B	2462	13.51	PASS
11G	2412	13.95	PASS
11G	2437	13.96	PASS
11G	2462	14.15	PASS
11N20	2412	13.15	PASS
11N20	2437	13.21	PASS
11N20	2462	13.12	PASS
11N40	2422	13.01	PASS
11N40	2437	13.21	PASS
11N40	2452	13.31	PASS

6.4. 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

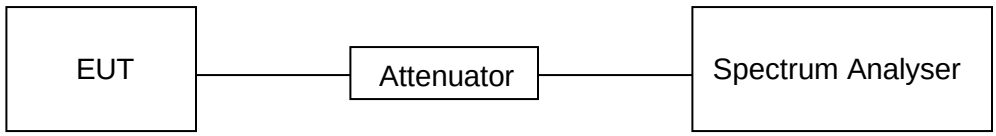
TEST PROCEDURE

KDB 558074D01 section 10.2 test method.
Connect the UUT to the spectrum analyser 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

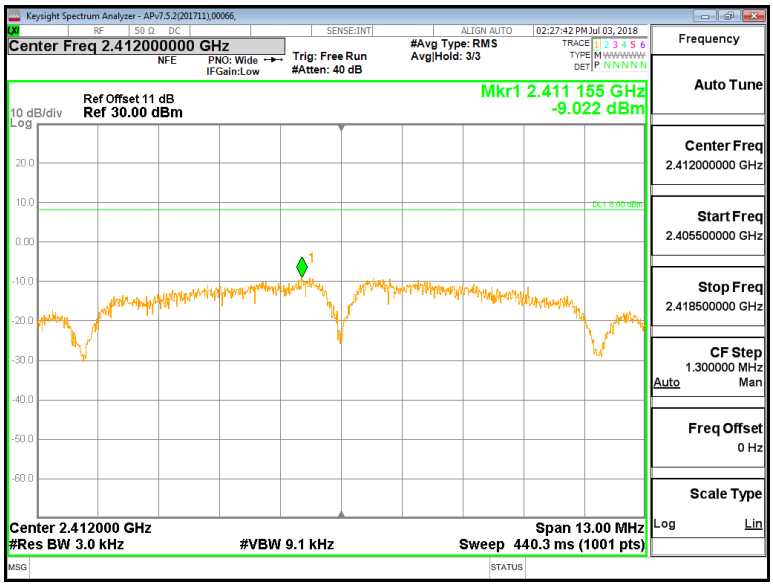


RESULTS

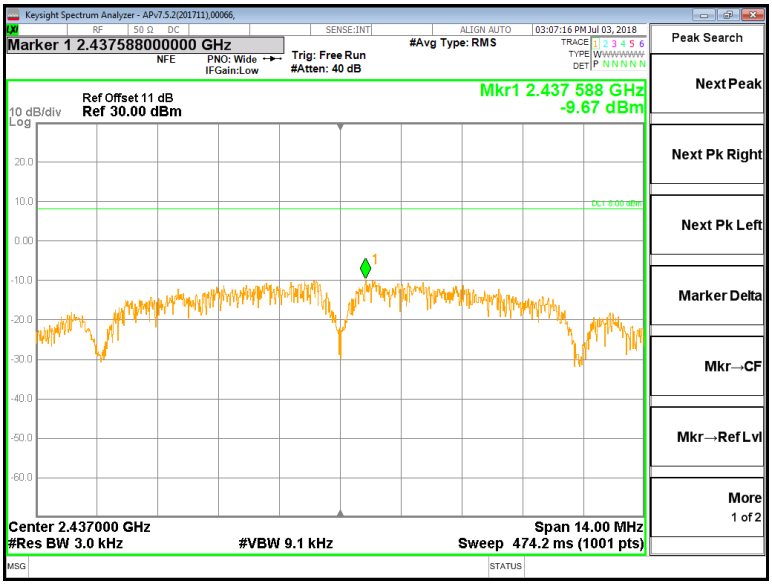
6.4.1. 802.11b MODE

Channel	Meas.Level [dBm/3kHz]	Limit(dBm)	Verdict
2412	-9.022	8	PASS
2437	-9.67	8	PASS
2462	-8.322	8	PASS

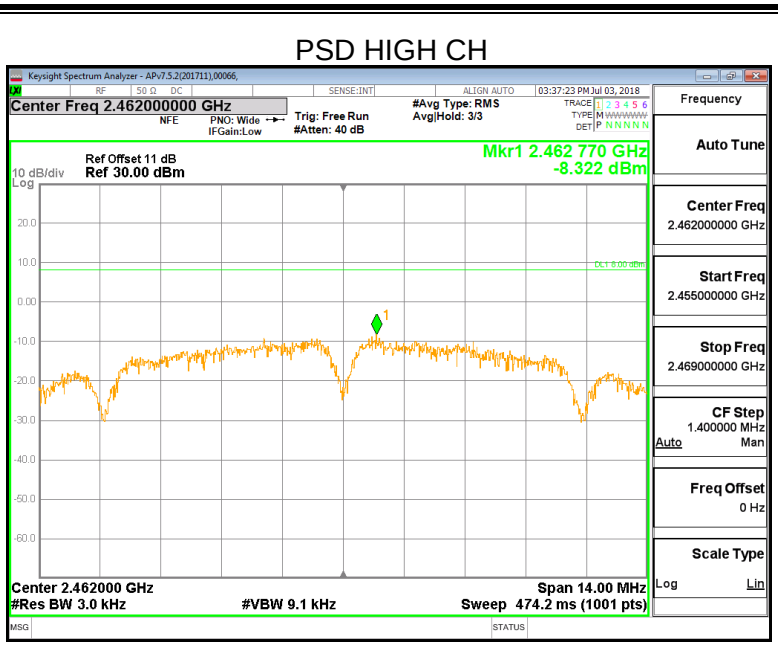
PSD LOW CH



PSD MID CH



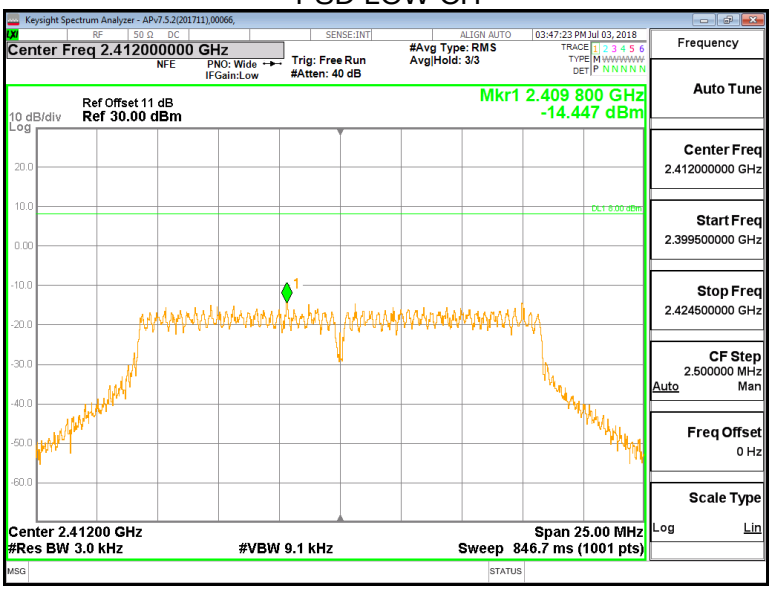
PSD HIGH CH



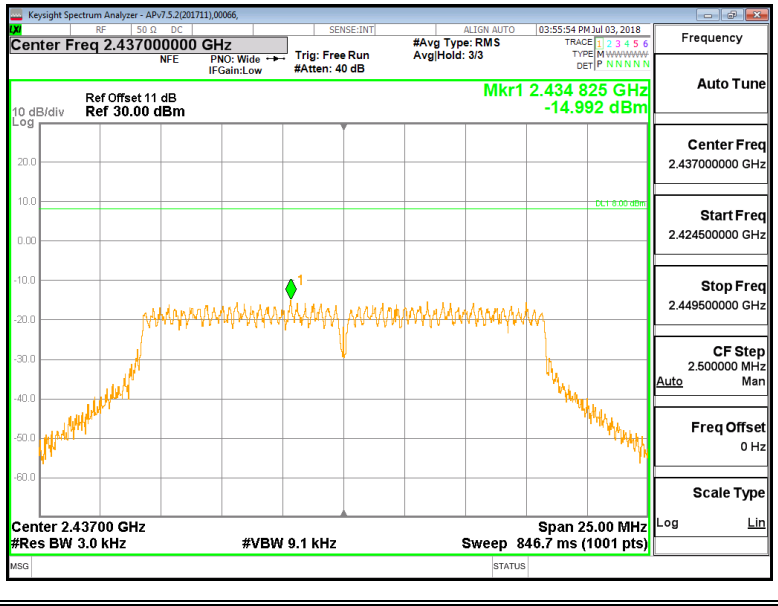
6.4.2. 802.11g MODE

Channel	Meas.Level [dBm/3kHz]	Limit(dBm)	Verdict
2412	-14.447	8	PASS
2437	-14.992	8	PASS
2462	-14.246	8	PASS

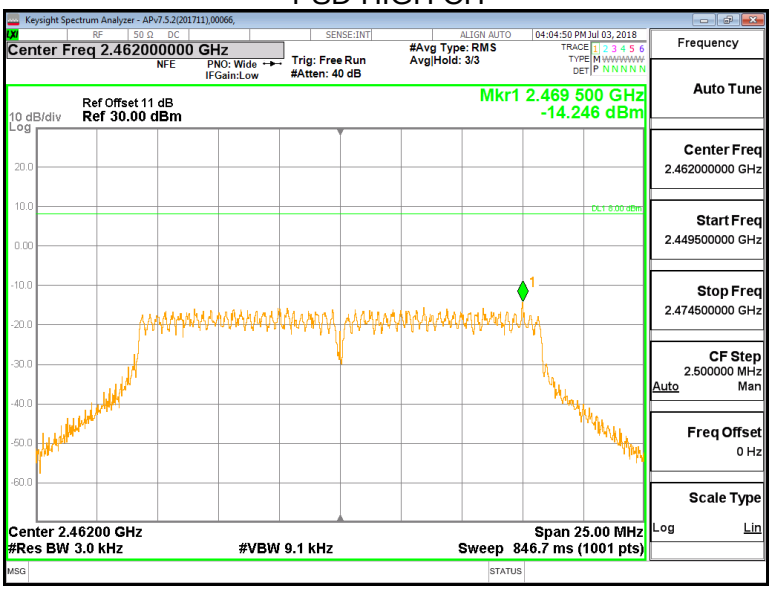
PSD LOW CH



PSD MID CH



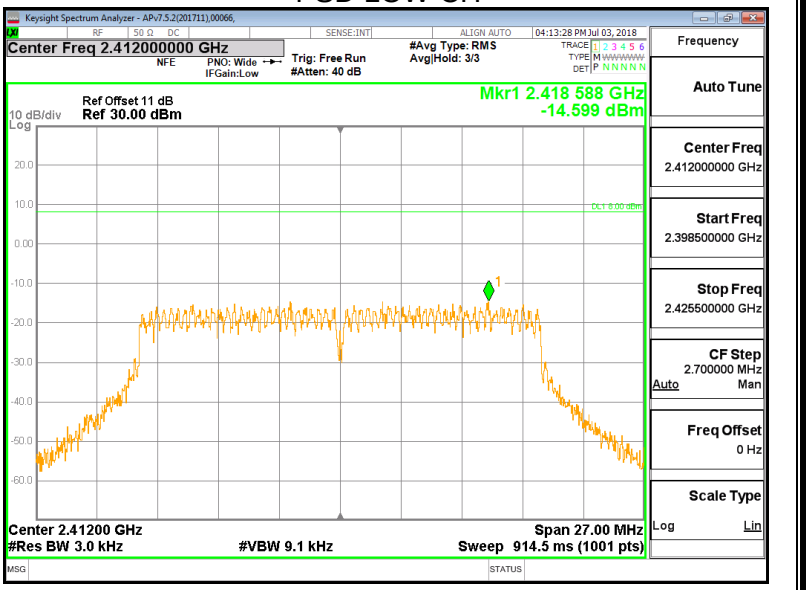
PSD HIGH CH



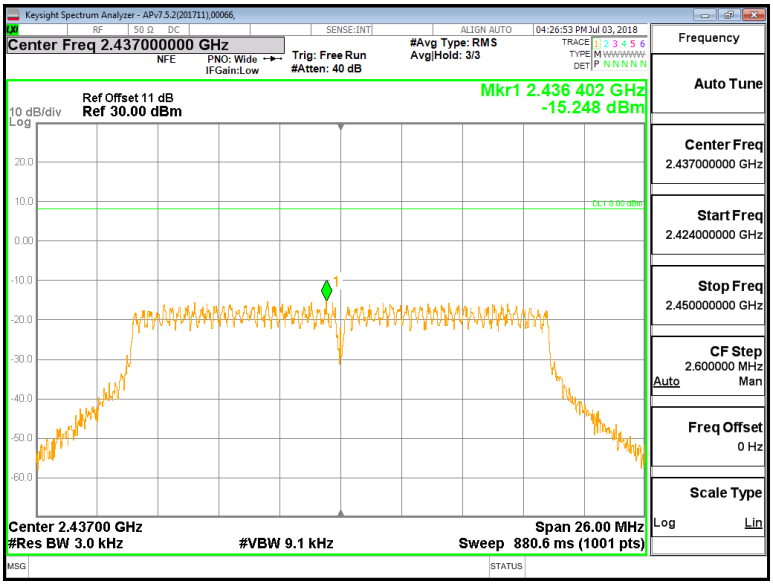
6.4.3. 802.11n20 MODE

Channel	Meas.Level [dBm/3kHz]	Limit(dBm)	Verdict
2412	-14.599	8	PASS
2437	-15.248	8	PASS
2462	-16.036	8	PASS

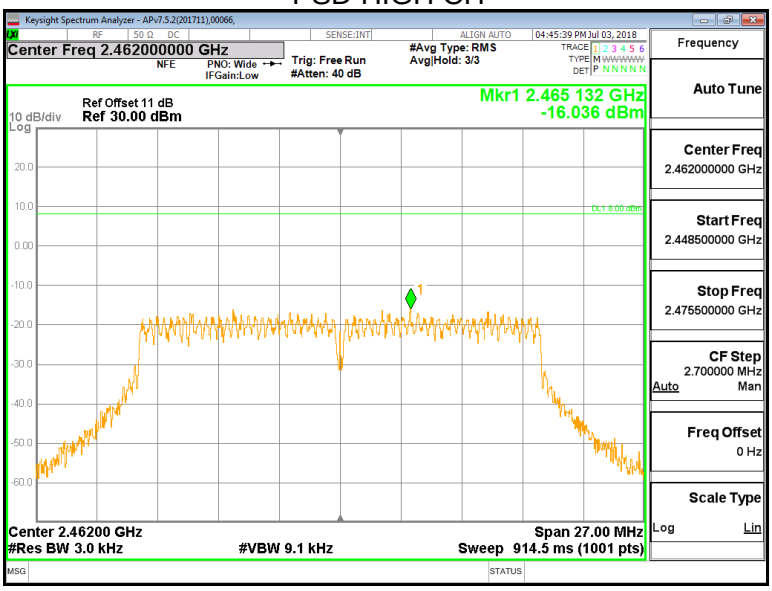
PSD LOW CH



PSD MID CH



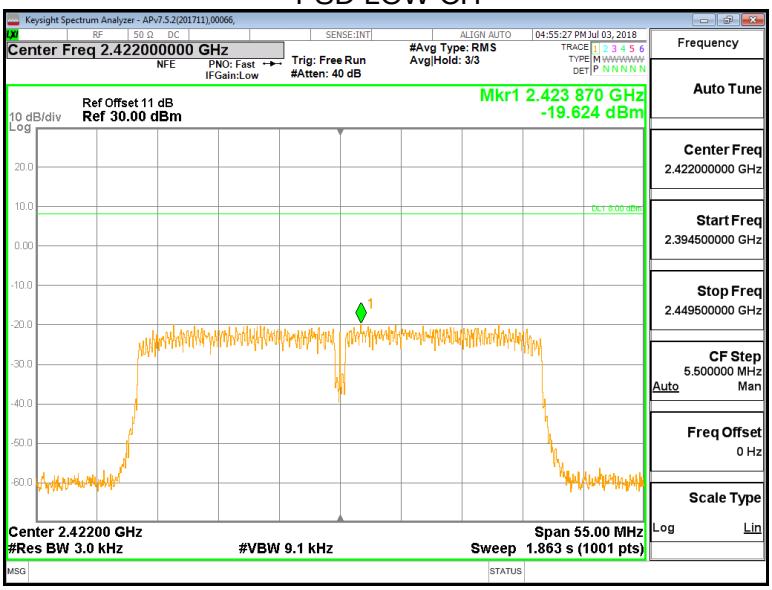
PSD HIGH CH



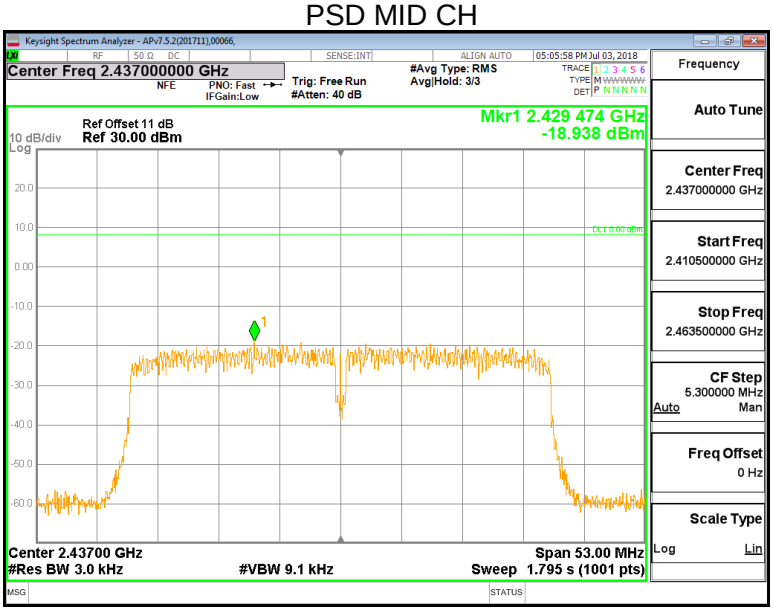
6.4.4. 802.11n40 MODE

Channel	Meas.Level [dBm/3kHz]	Limit(dBm)	Verdict
2412	-19.624	8	PASS
2437	-18.938	8	PASS
2462	-18.806	8	PASS

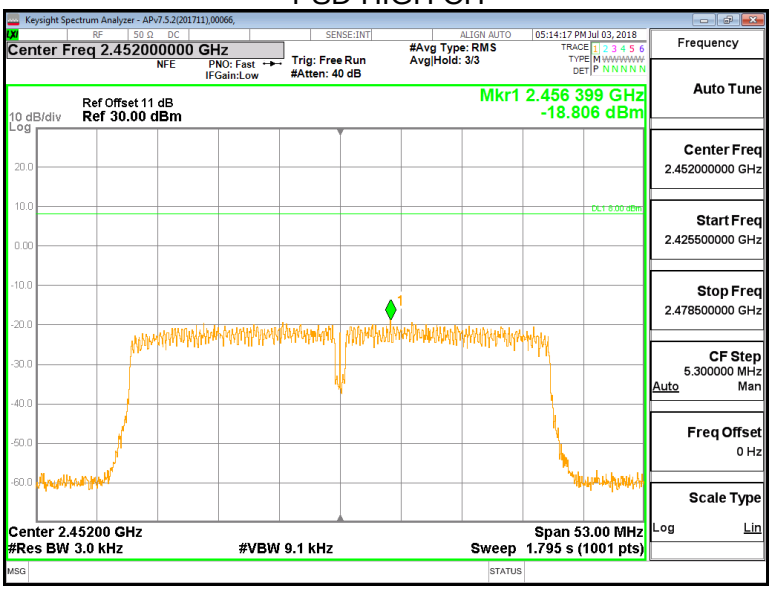
PSD LOW CH



PSD MID CH



PSD HIGH CH



6.5. 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

KDB 558074D01 section 11 test method.
Connect the UUT to the spectrum analyser and use the following settings:

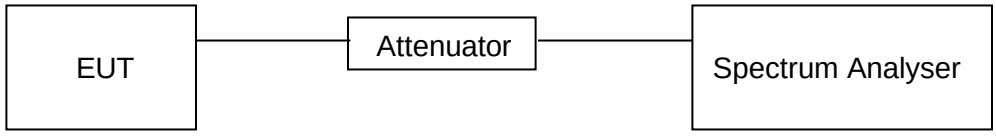
Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100K
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

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**.**

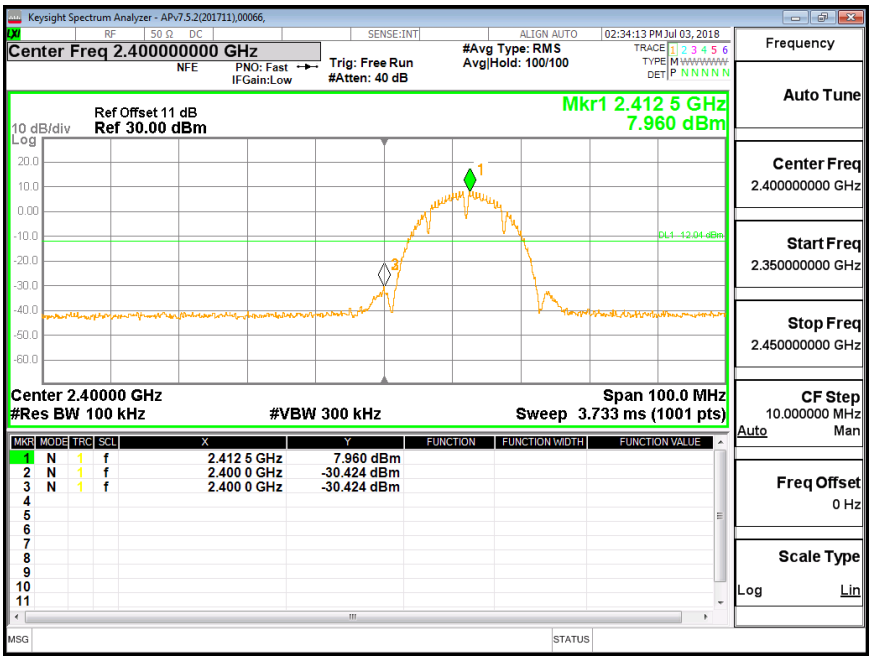
TEST SETUP



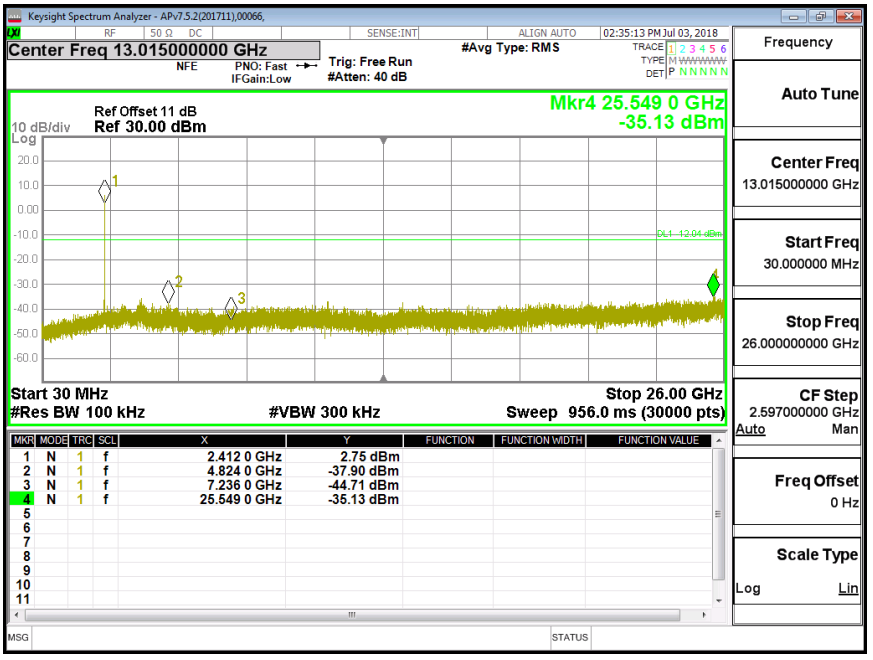
RESULTS

6.5.1. 802.11b MODE

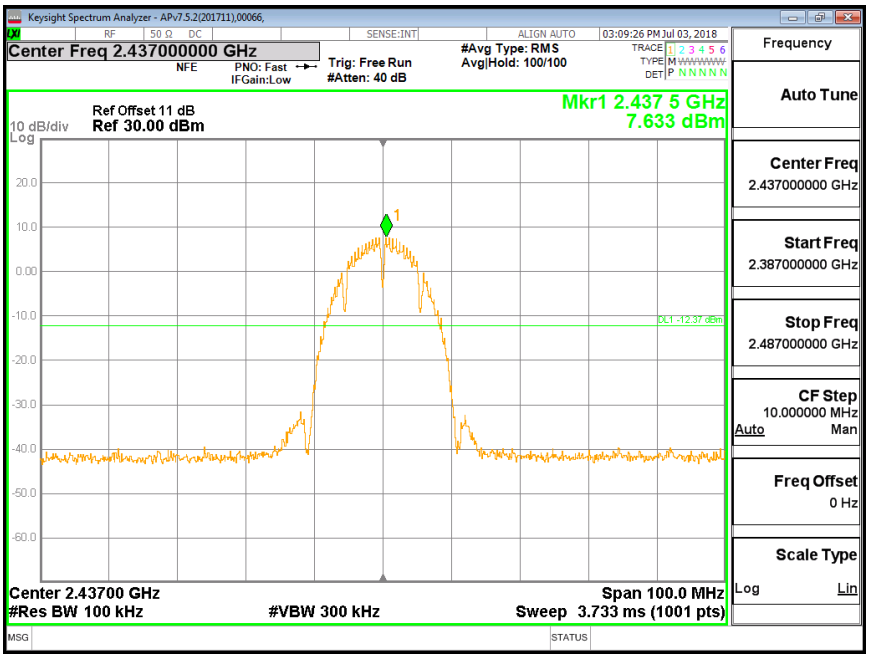
LOW CH BANDEDAGE



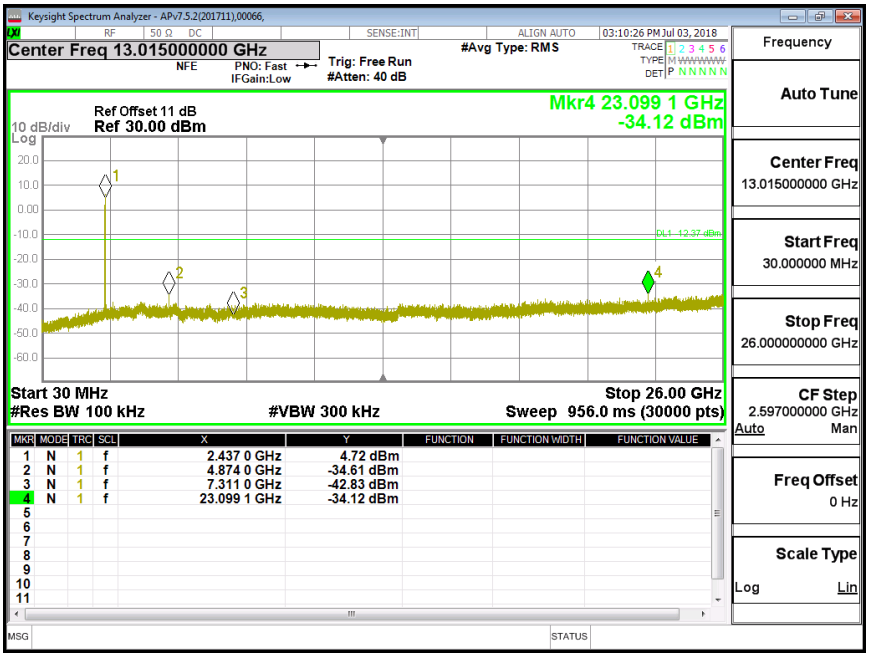
LOW CH SPURIOUS EMISSIONS 30M-26G



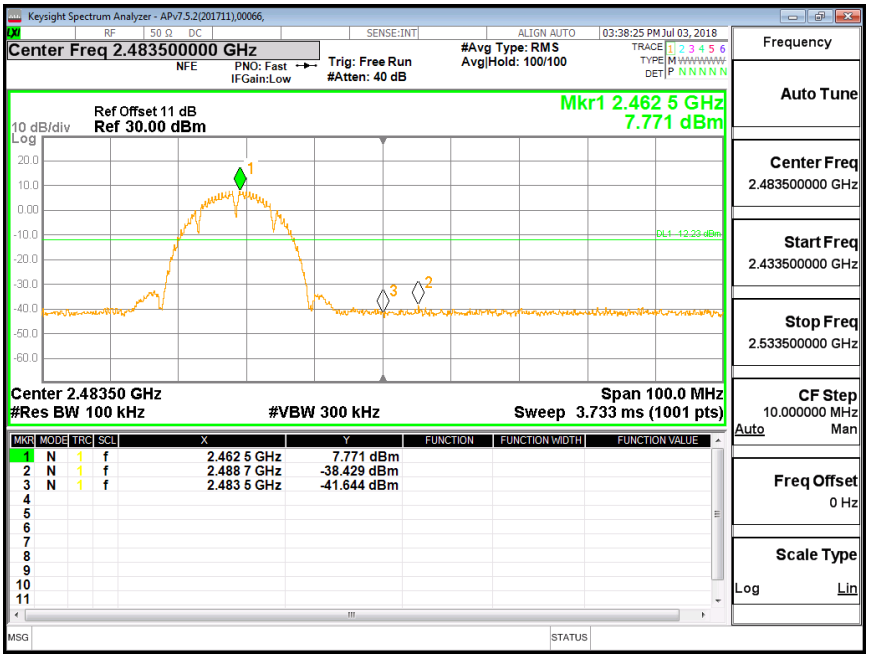
MID CH BANDEDAGE



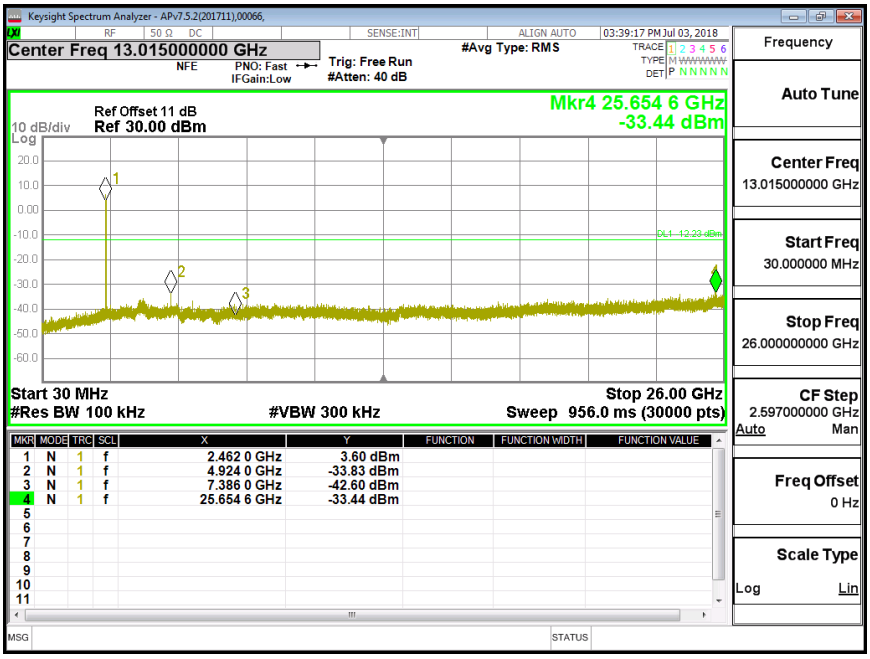
MID CH SPURIOUS EMISSIONS 30M-26G



HIGH CH BANDEDAGE

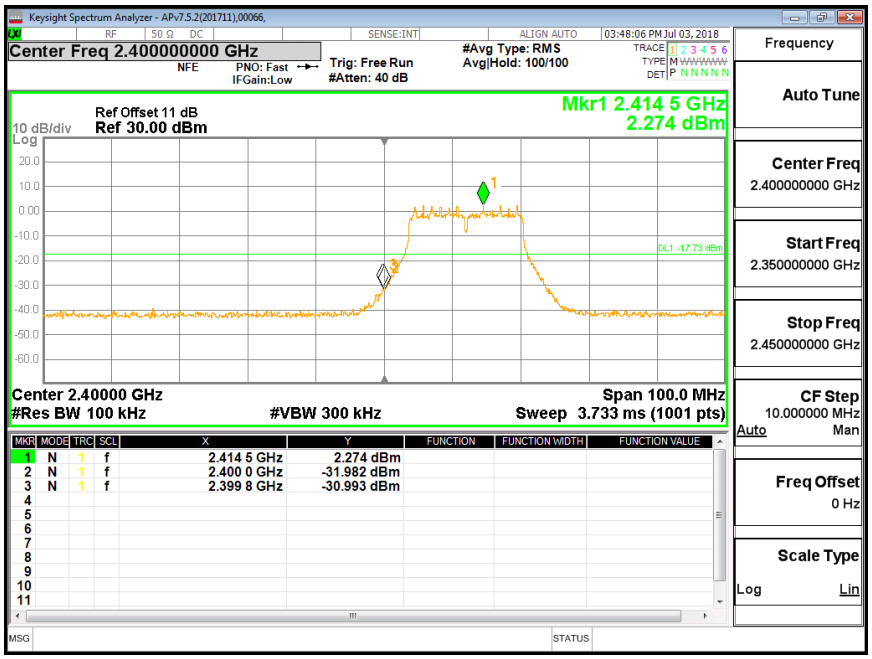


HIGH CH SPURIOUS EMISSIONS 30M-26G

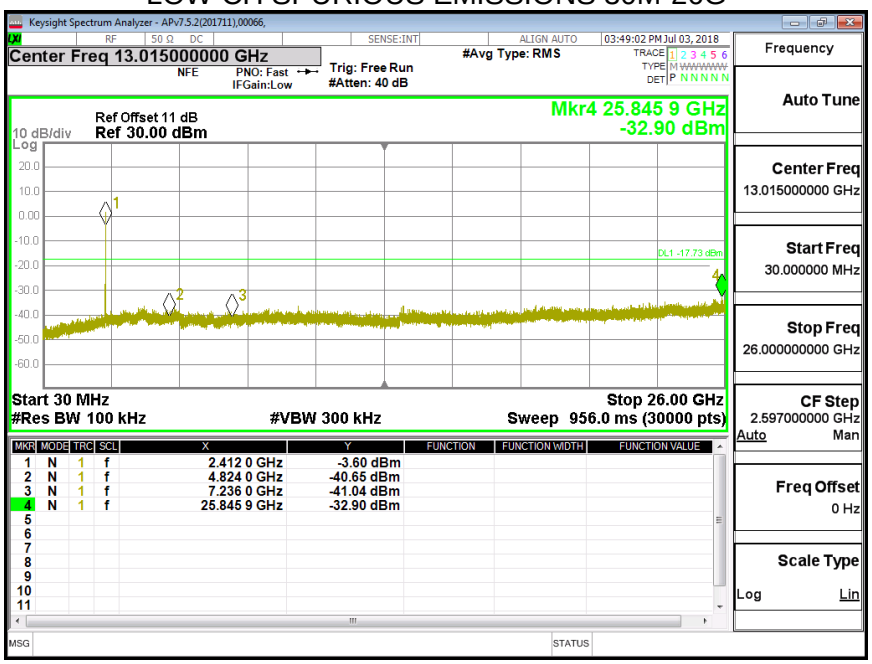


6.5.2. 802.11g MODE

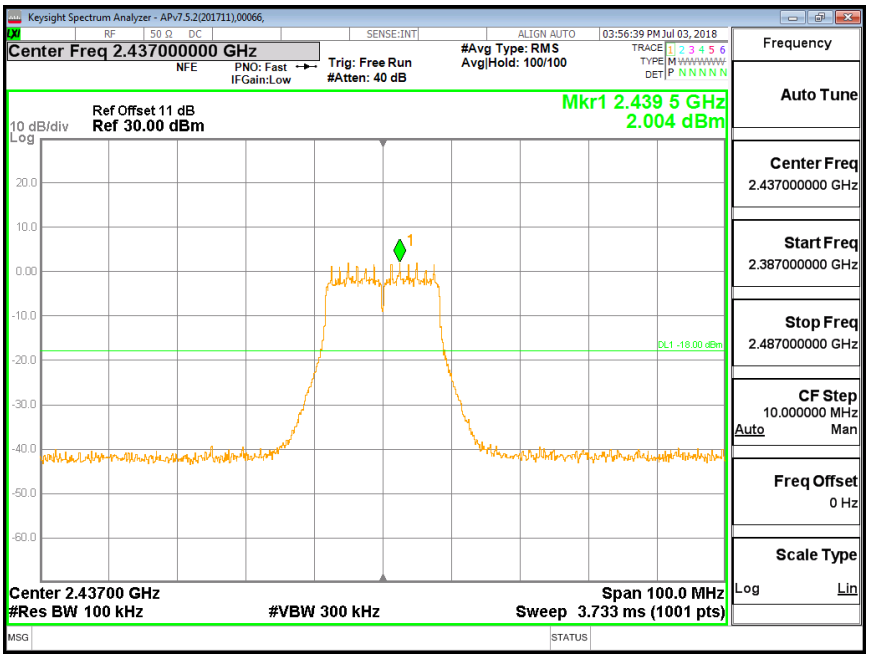
LOW CH BANDEDAGE



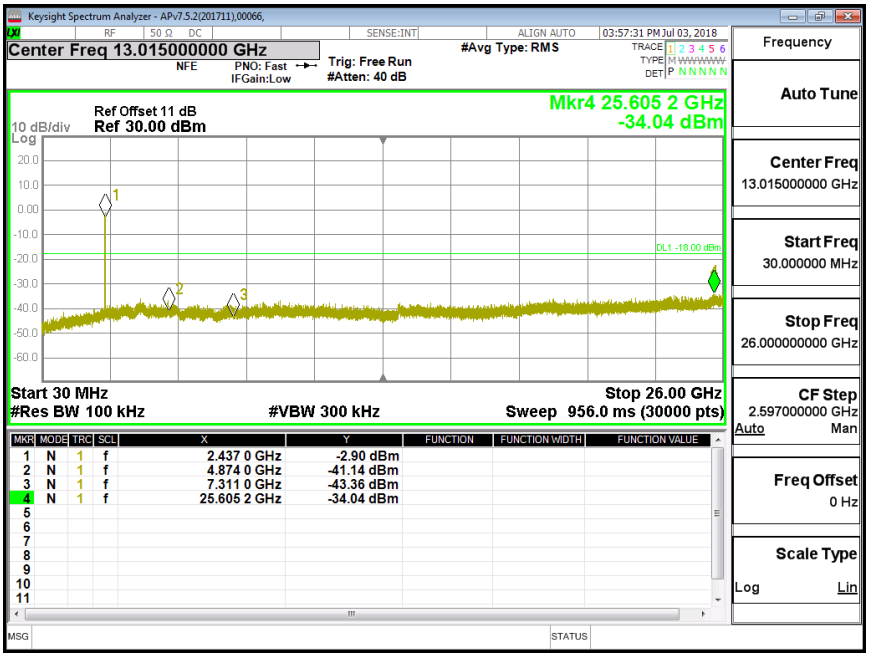
LOW CH SPURIOUS EMISSIONS 30M-26G



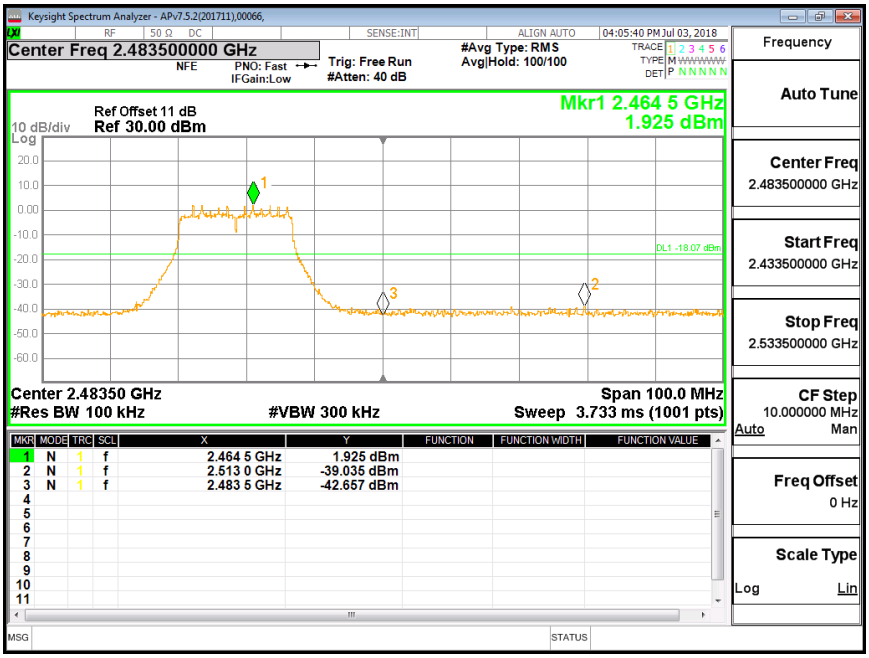
MID CH BANDEDAGE



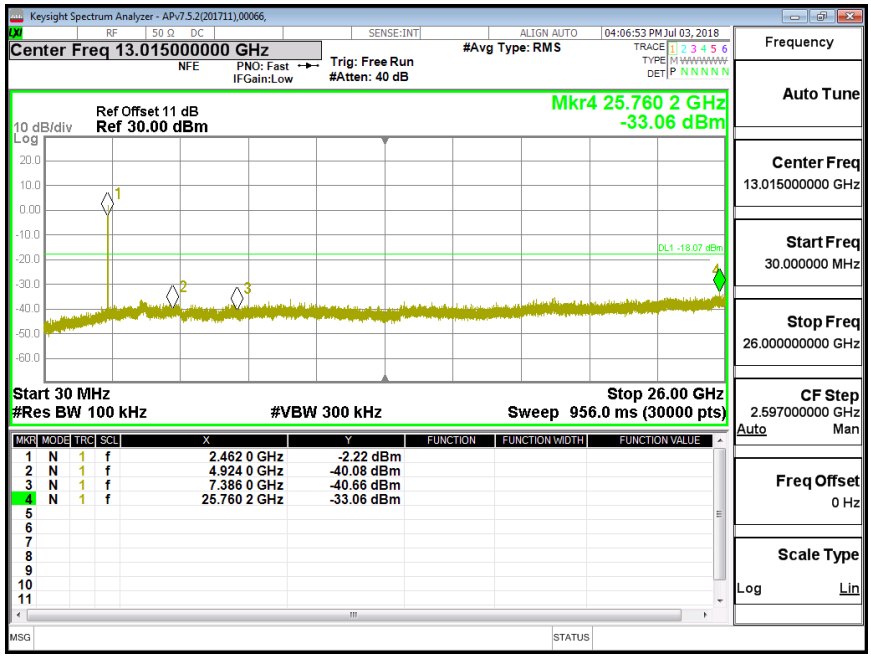
MID CH SPURIOUS EMISSIONS 30M-26G



HIGH CH BANDEDAGE

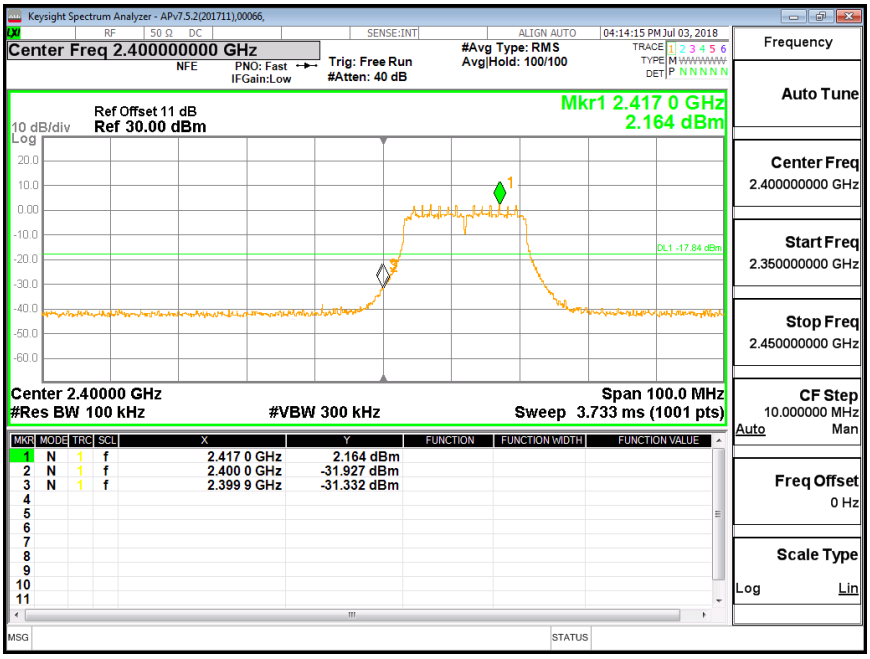


HIGH CH SPURIOUS EMISSIONS 30M-26G

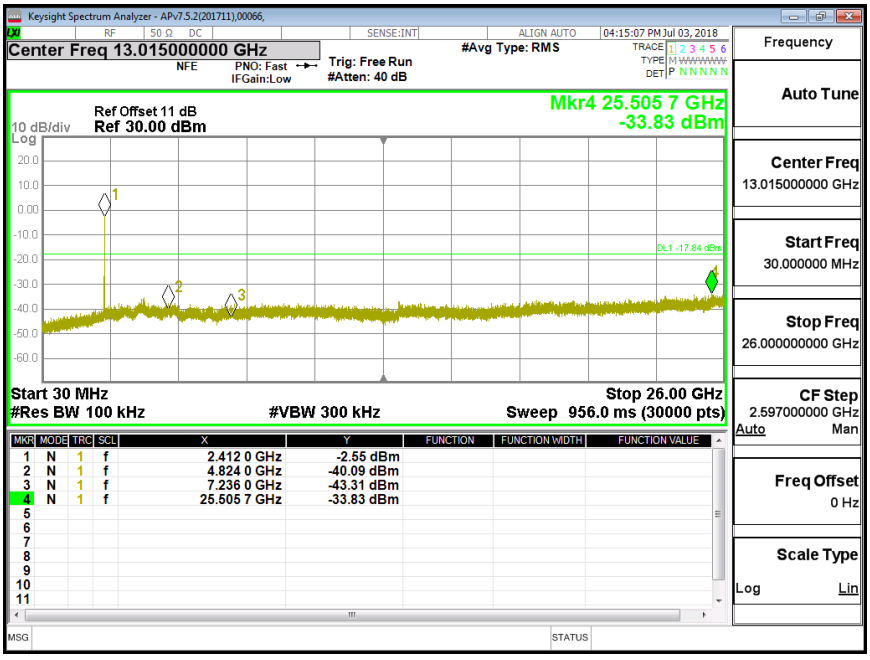


6.5.3. 802.11n20 MODE

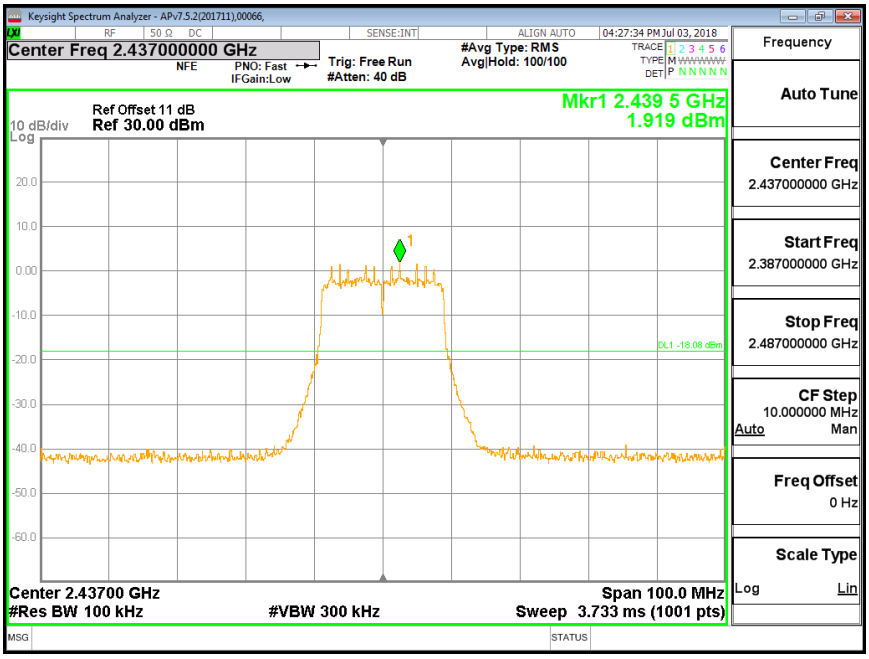
LOW CH BANDEDAGE



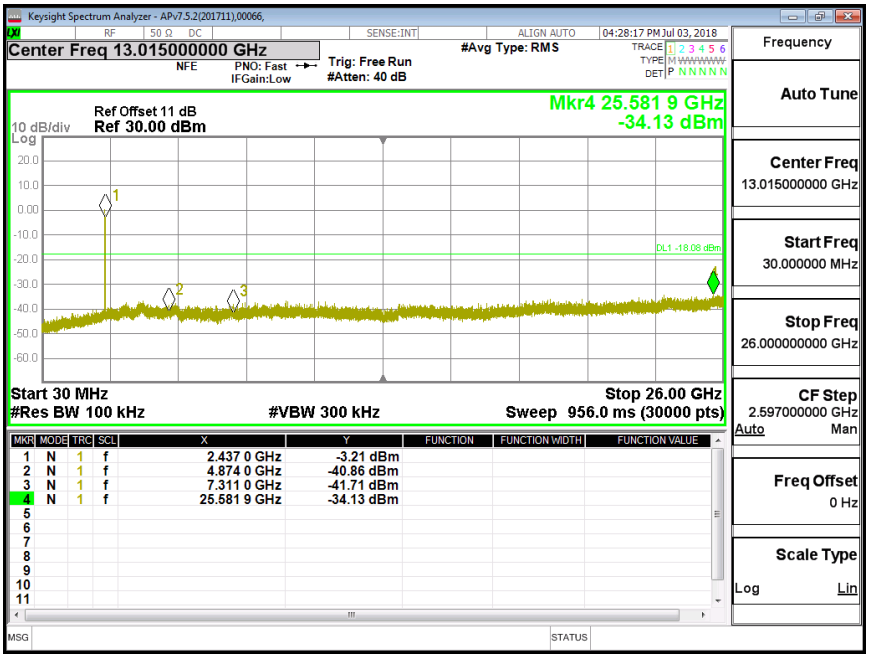
LOW CH SPURIOUS EMISSIONS 30M-26G



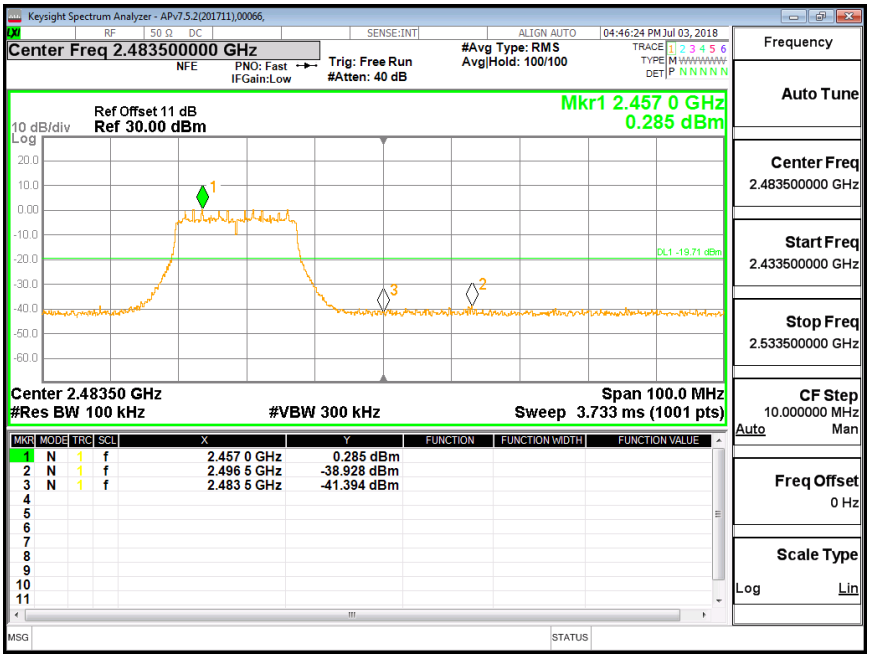
MID CH BANDEDAGE



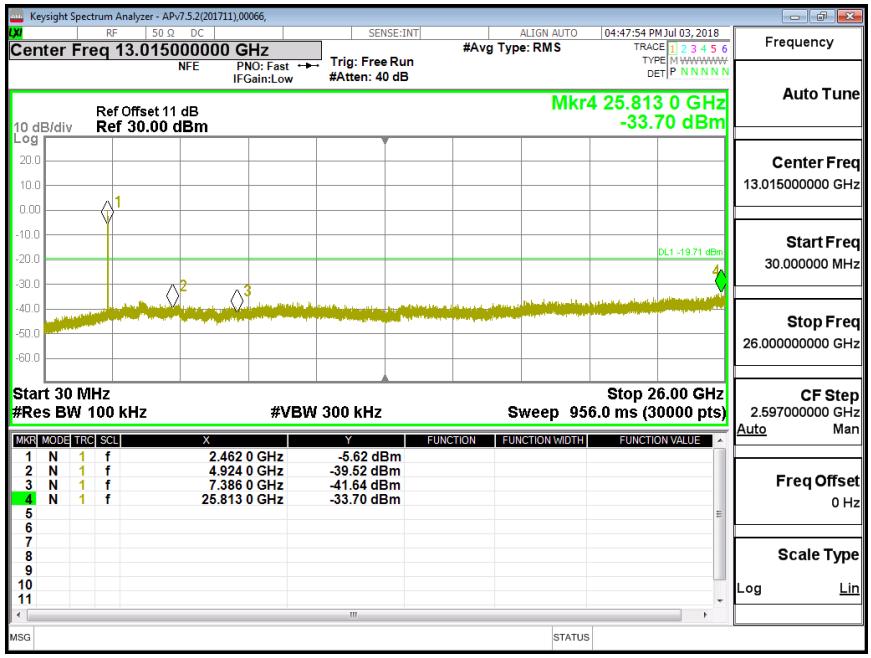
MID CH SPURIOUS EMISSIONS 30M-26G



HIGH CH BANDEDAGE

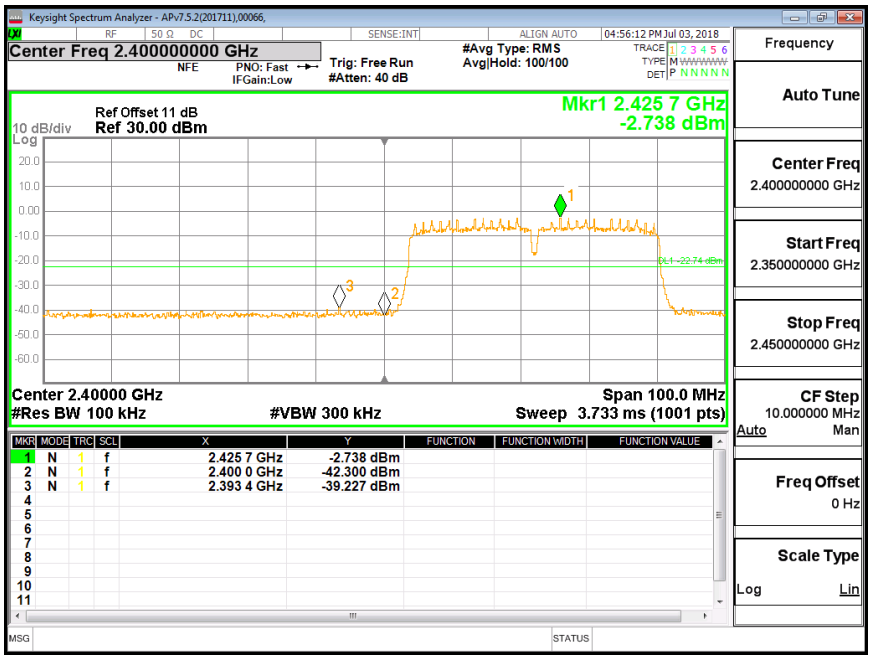


HIGH CH SPURIOUS EMISSIONS 30M-26G

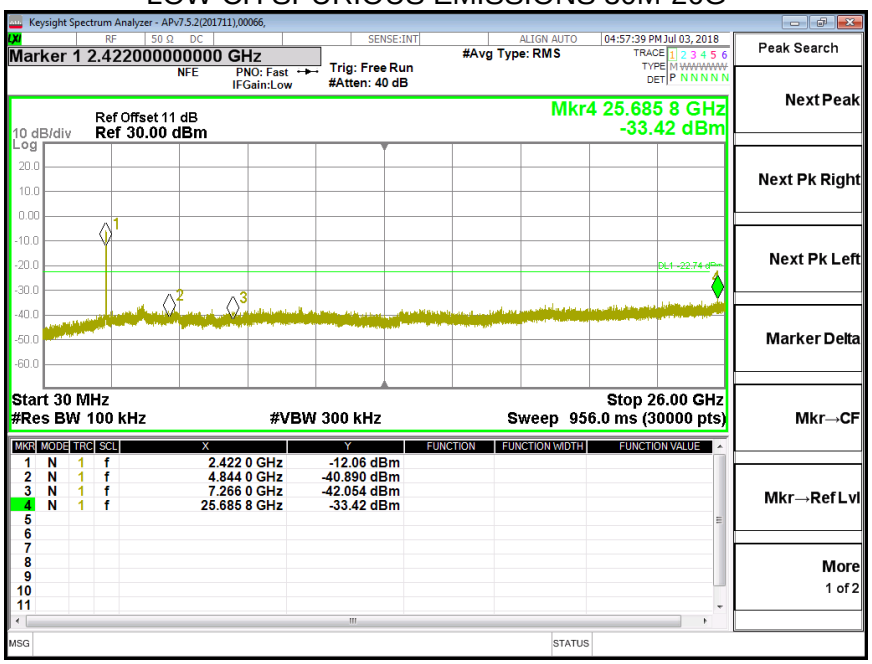


6.5.4. 802.11n40 MODE

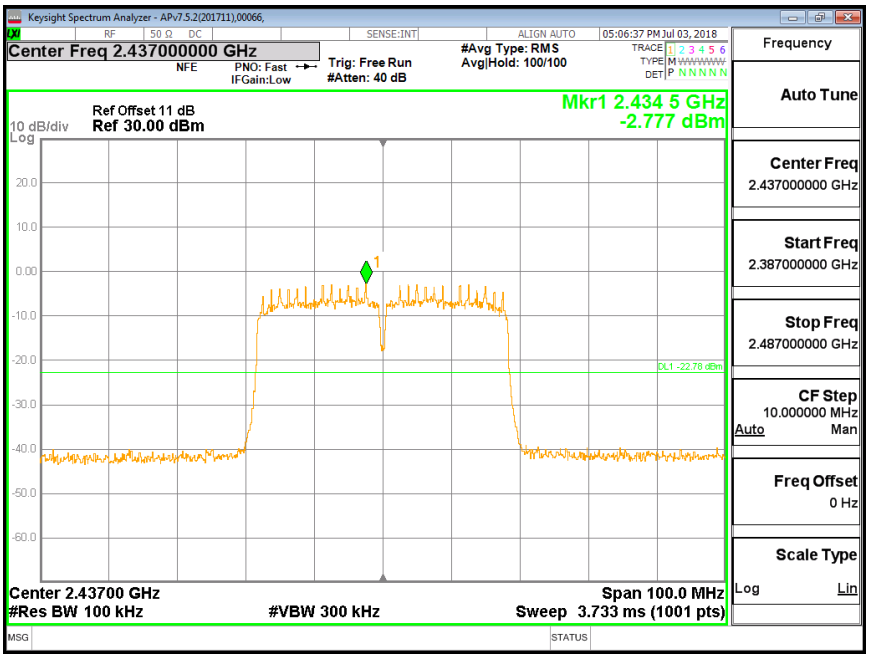
LOW CH BANDEDAGE



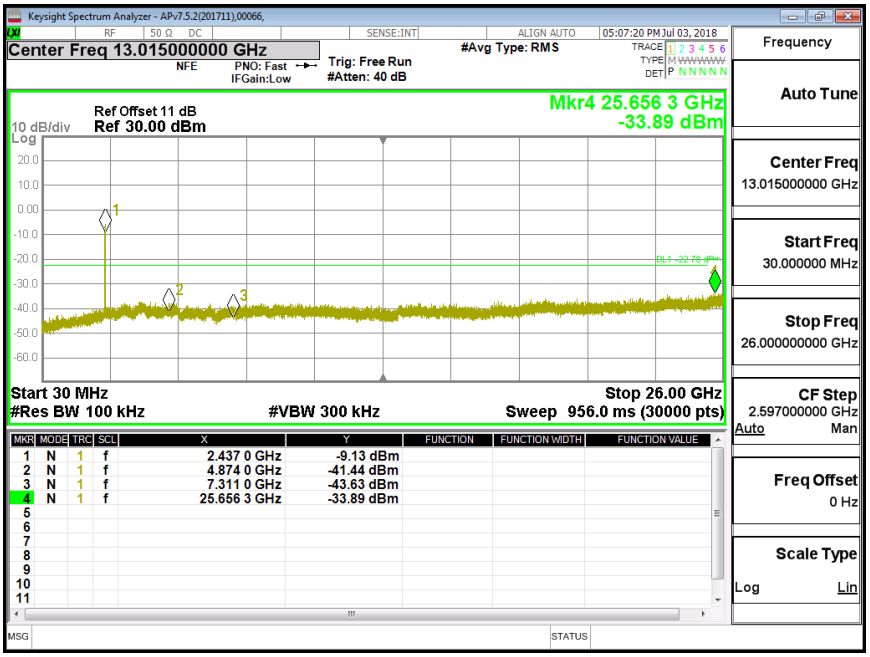
LOW CH SPURIOUS EMISSIONS 30M-26G



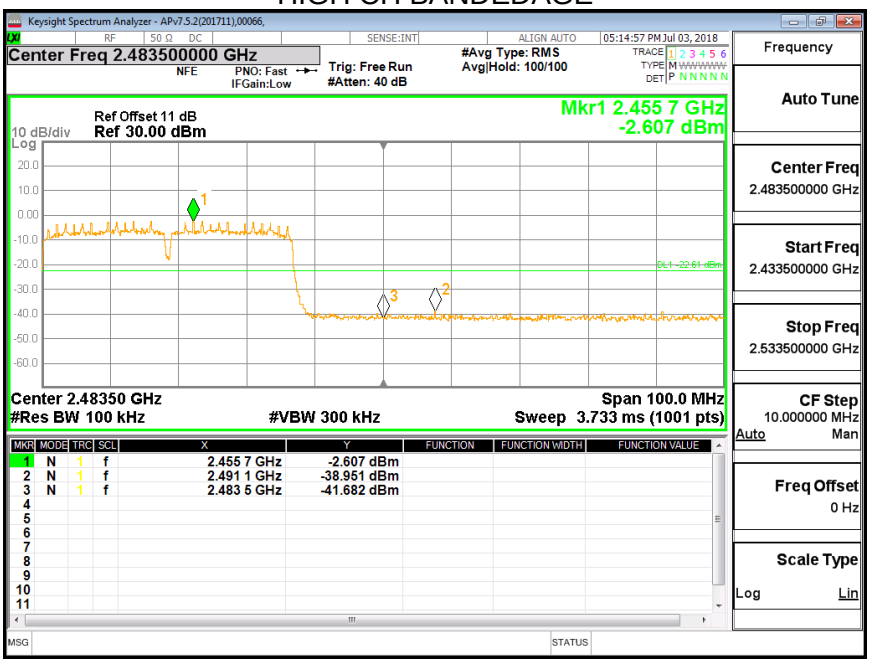
MID CH BANDEDAGE



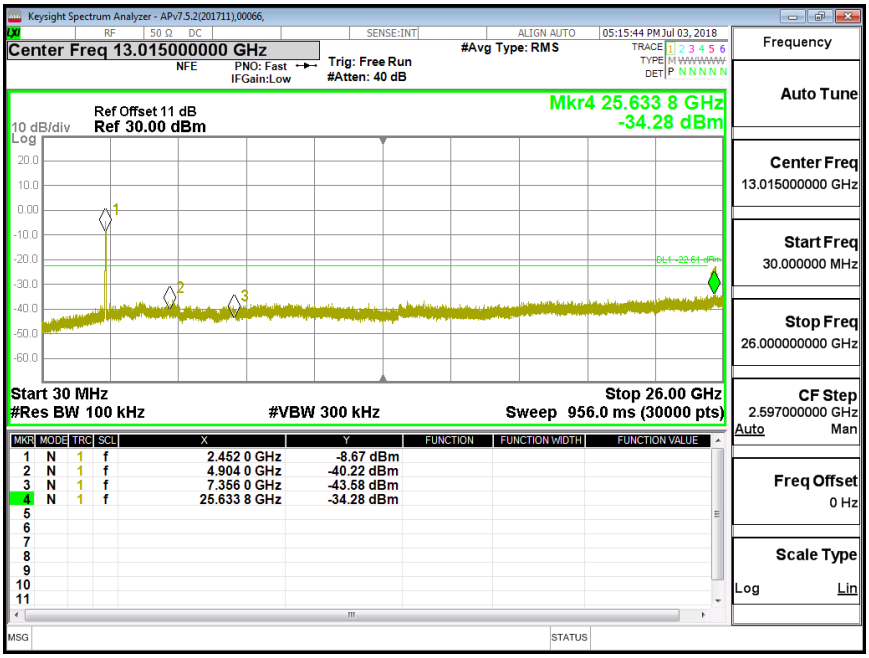
MID CH SPURIOUS EMISSIONS 30M-26G



HIGH CH BANDEDAGE



HIGH CH SPURIOUS EMISSIONS 30M-26G



7. 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

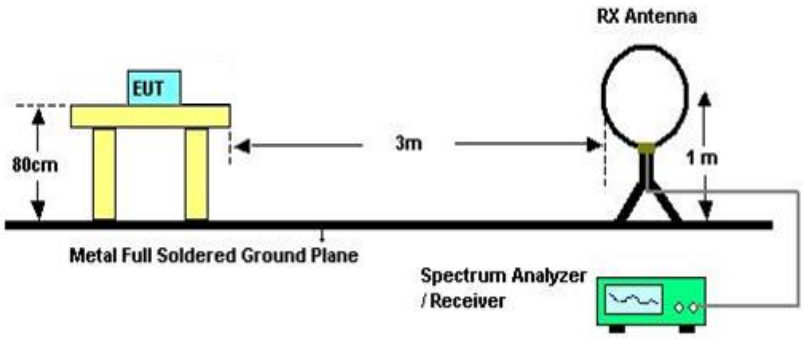
Restricted bands of operation

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 analyser

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.

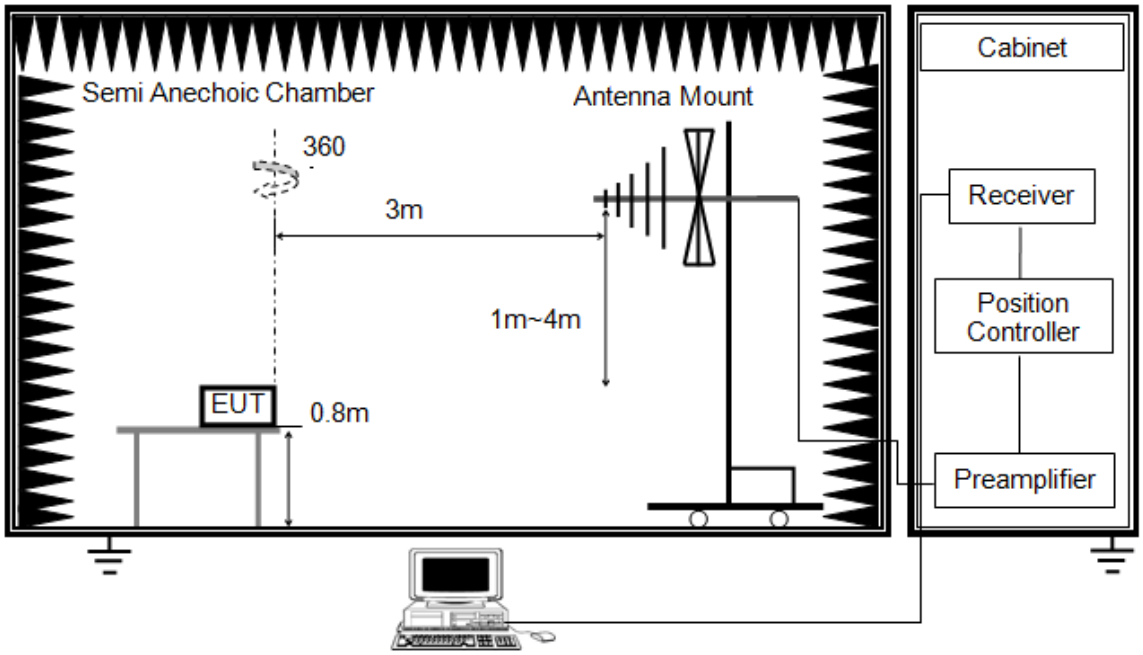
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

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)

7. Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Below 1G



The setting of the spectrum analyser

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

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

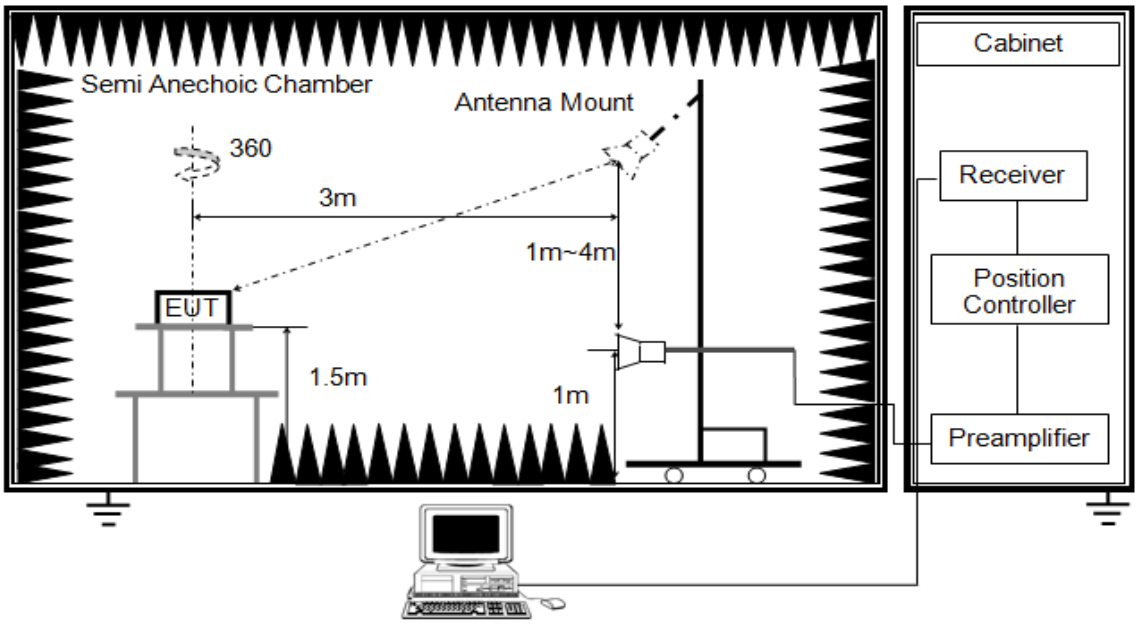
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations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

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



The setting of the spectrum analyser

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.

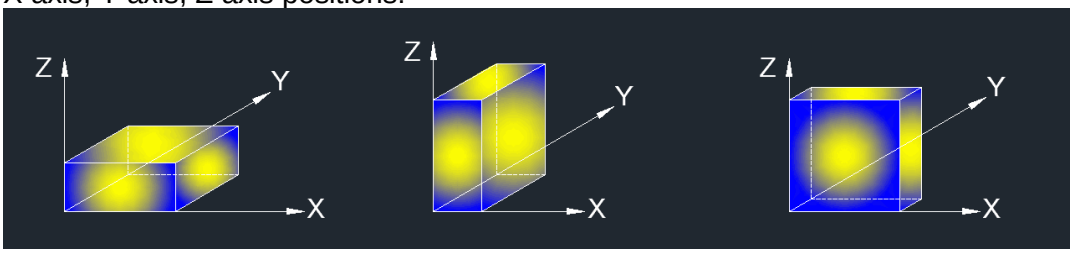
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

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 please refer to clause 6.1.ON TIME AND DUTY CYCLE.

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

X axis, Y axis, Z axis positions:



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

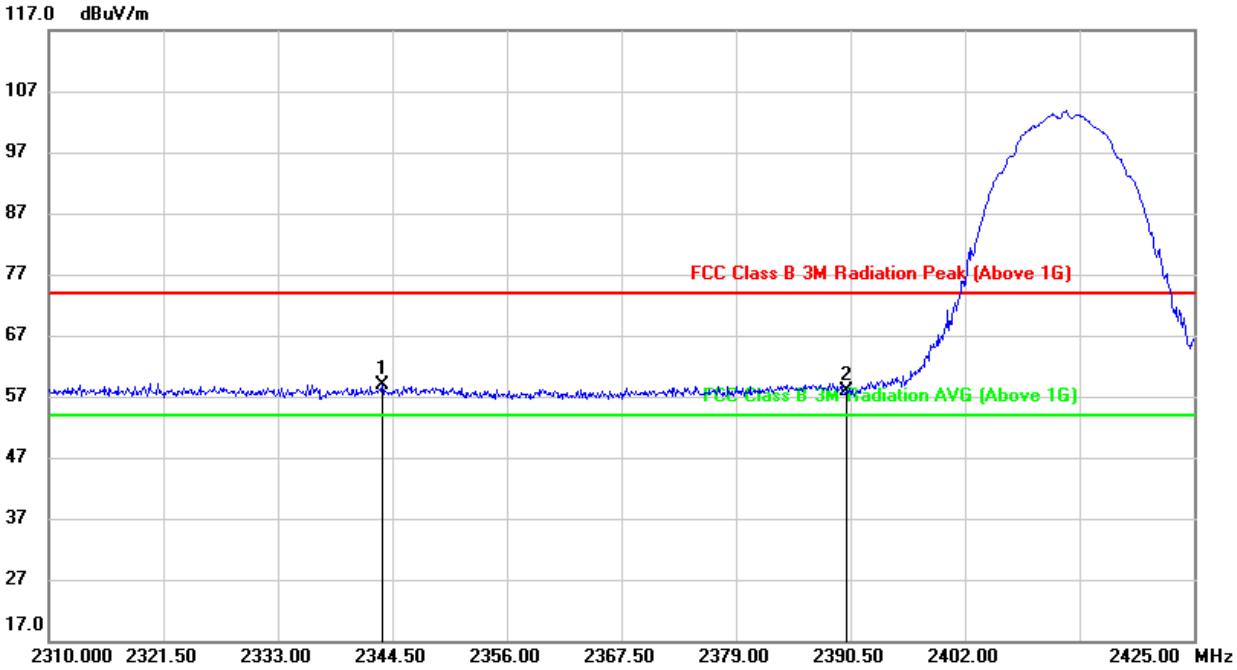
7.1. RESTRICTED BANDEDGE

Main Relay

7.1.1. 802.11b MODE

PEAK

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

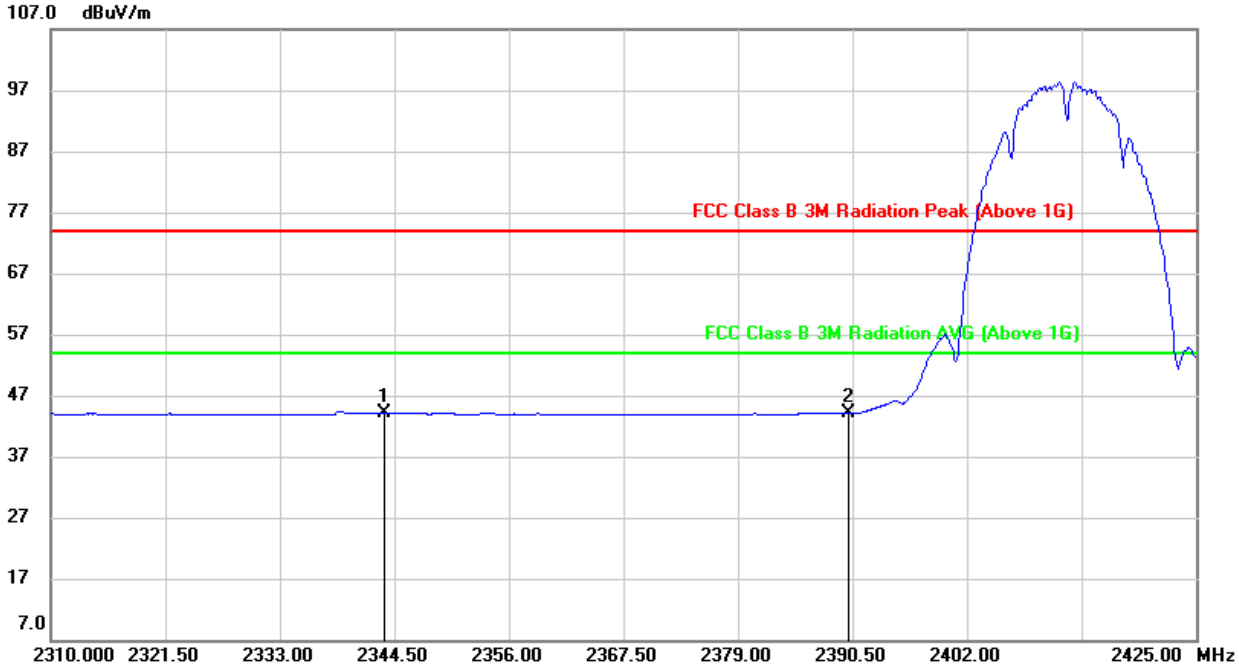


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2343.465	25.43	33.47	58.90	74.00	-15.10	peak
2	2390.000	24.74	33.14	57.88	74.00	-16.12	peak

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 (LOW CHANNEL, HORIZONTAL)

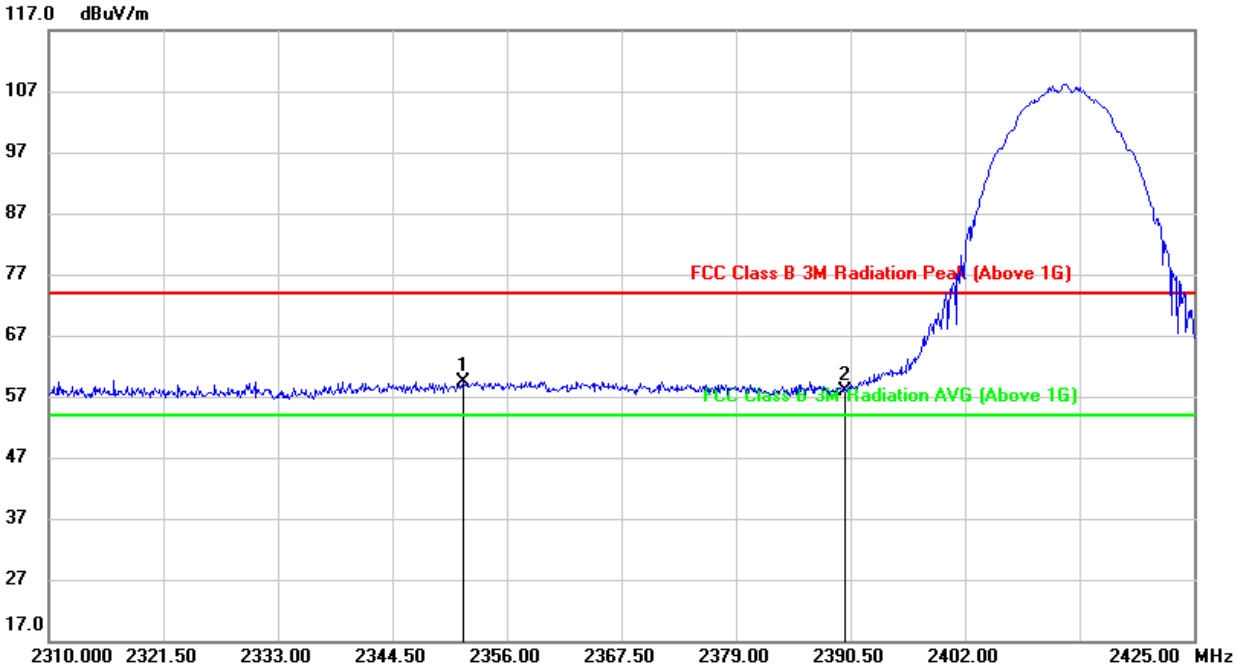


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2343.465	10.69	33.47	44.16	54.00	-9.84	AVG
2	2390.000	10.97	33.14	44.11	54.00	-9.89	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (LOW CHANNEL, VERTICAL)

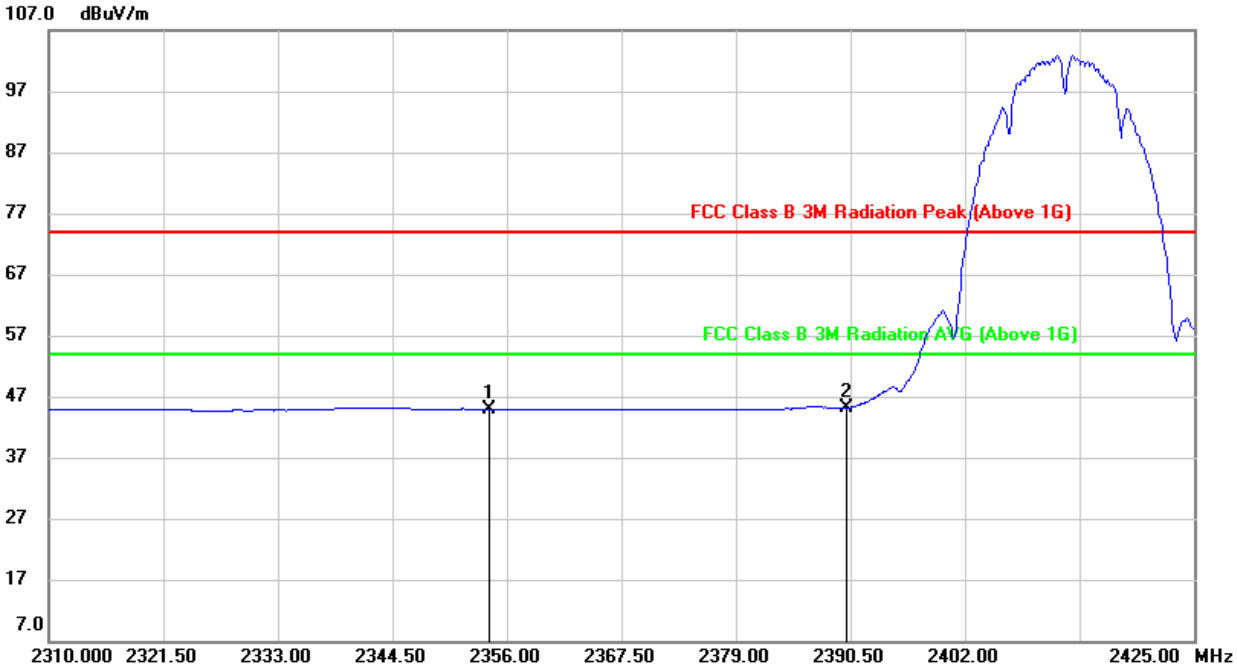


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2351.630	25.97	33.52	59.49	74.00	-14.51	peak
2	2390.000	24.59	33.24	57.83	74.00	-16.17	peak

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.

AVG

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

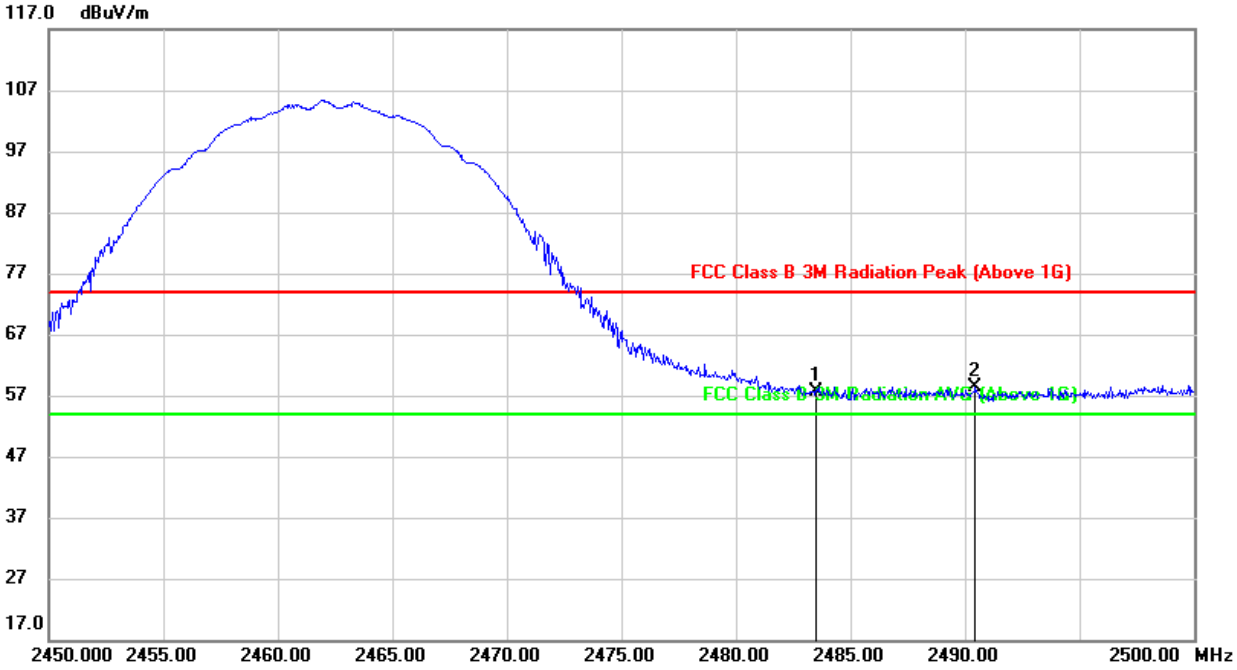


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2351.630	11.48	33.49	44.97	54.00	-9.03	AVG
2	2390.000	11.94	33.24	45.18	54.00	-8.82	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (HIGH CHANNEL, HORIZONTAL)

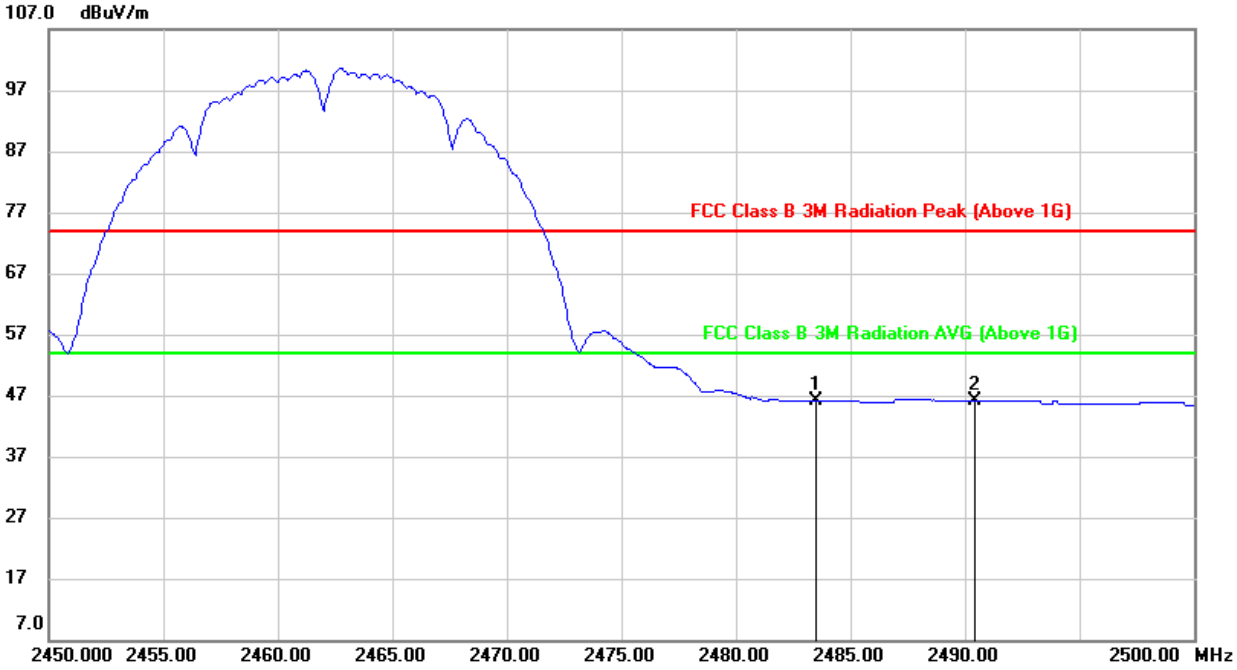


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	24.73	32.78	57.51	74.00	-16.49	peak
2	2490.450	25.58	32.78	58.36	74.00	-15.64	peak

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 (HIGH CHANNEL, HORIZONTAL)

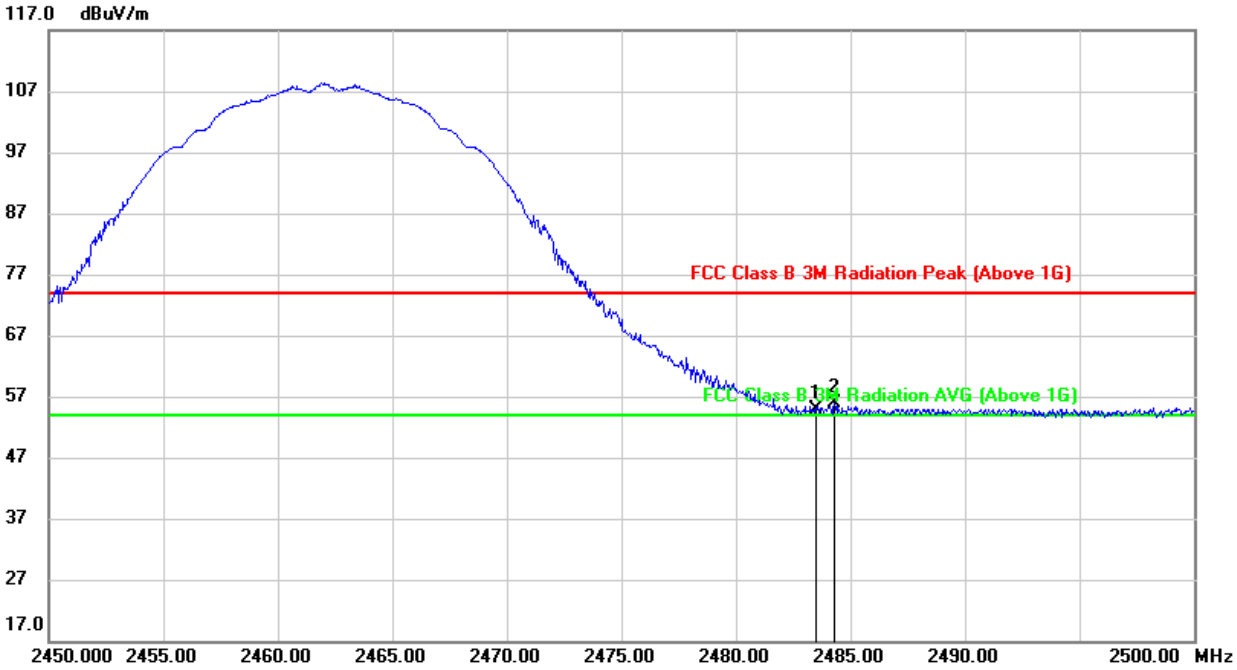


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	13.29	32.78	46.07	54.00	-7.93	AVG
2	2490.450	13.43	32.78	46.21	54.00	-7.79	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (HIGH CHANNEL, VERTICAL)

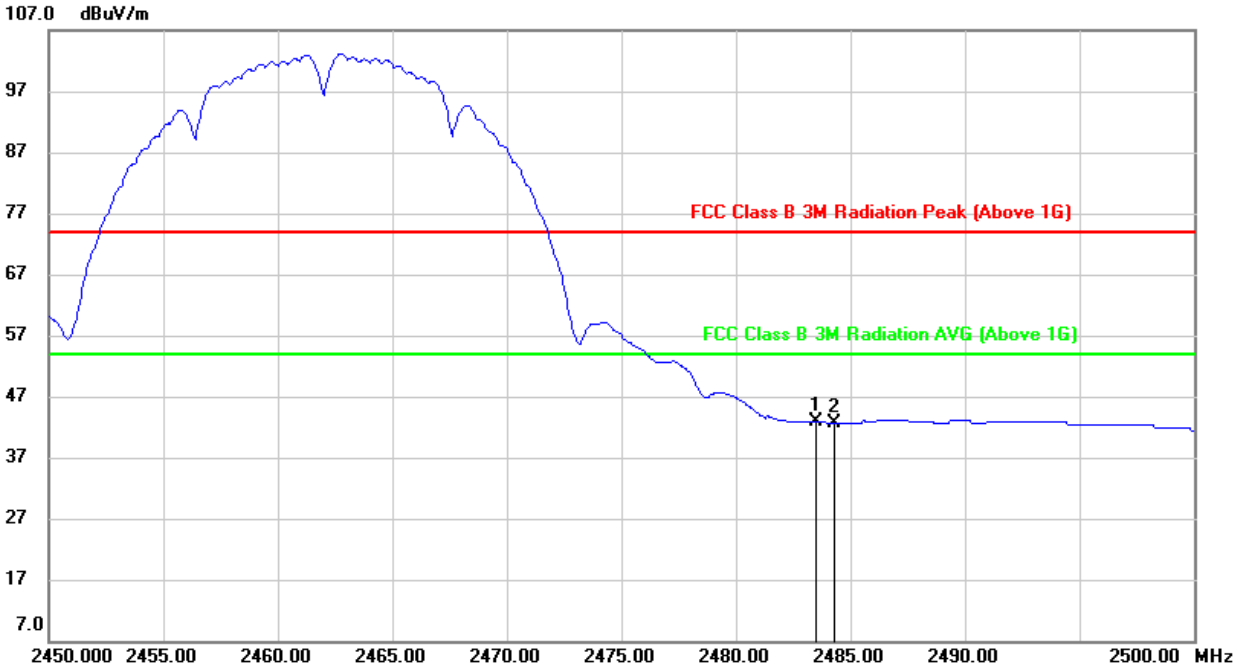


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	21.96	32.88	54.84	74.00	-19.16	peak
2	2484.300	23.10	32.88	55.98	74.00	-18.02	peak

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 (HIGH CHANNEL, VERTICAL)



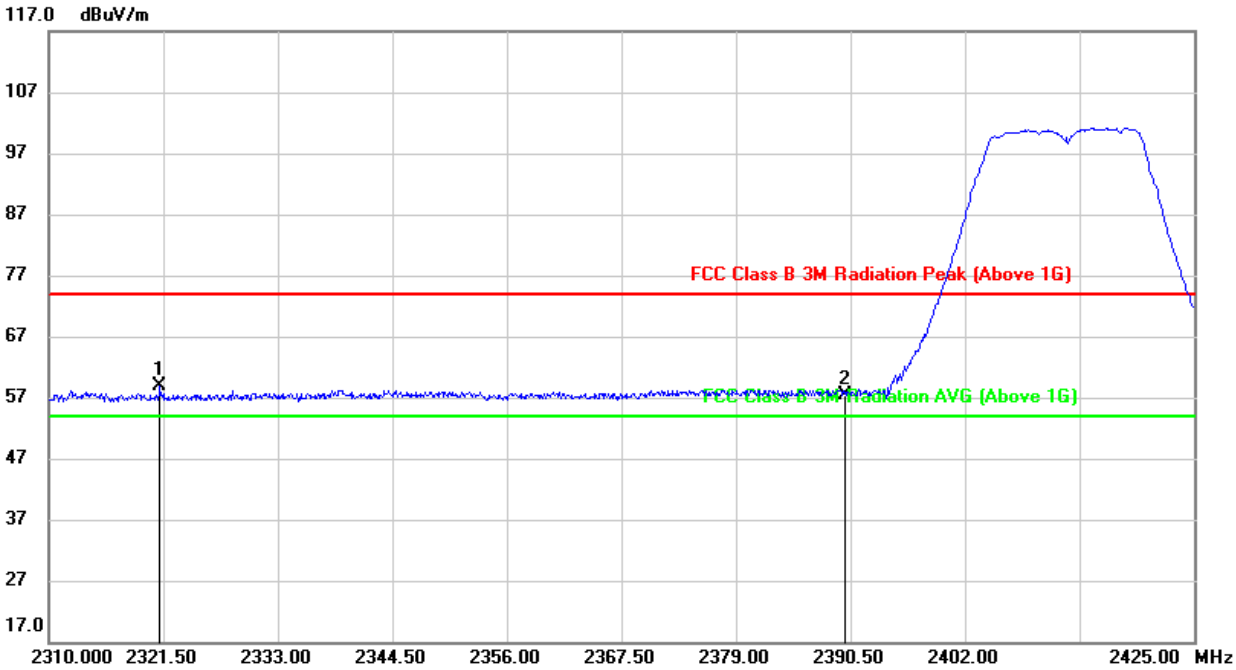
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	10.02	32.88	42.90	54.00	-11.10	AVG
2	2484.300	9.75	32.88	42.63	54.00	-11.37	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

7.1.2. 802.11g MODE

PEAK

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

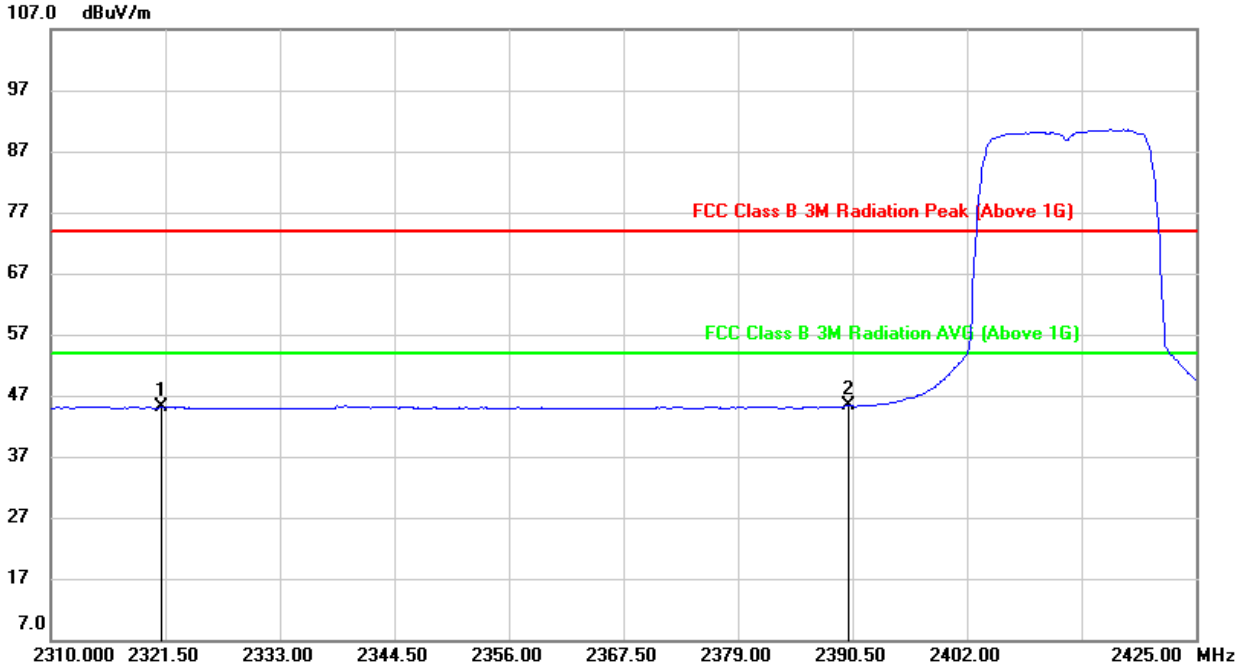


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2321.155	25.24	33.64	58.88	74.00	-15.12	peak
2	2390.000	24.36	33.14	57.50	74.00	-16.50	peak

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 (LOW CHANNEL, HORIZONTAL)

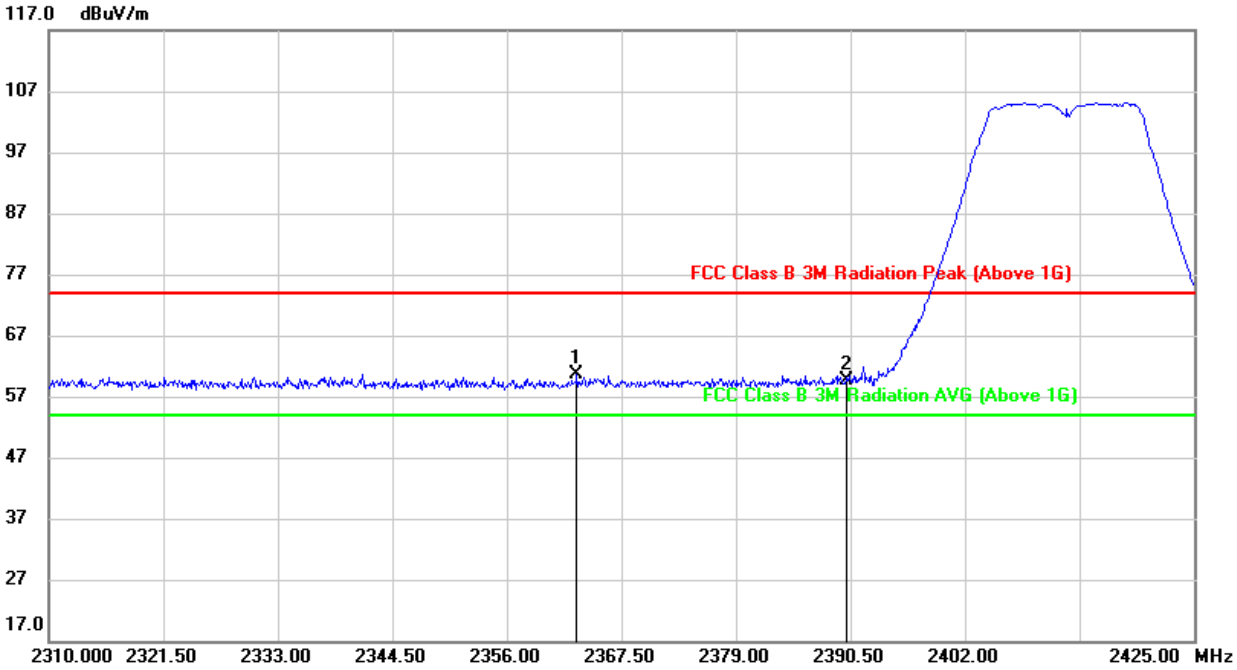


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2321.155	11.47	33.64	45.11	54.00	-8.89	AVG
2	2390.000	12.18	33.14	45.32	54.00	-8.68	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (LOW CHANNEL, VERTICAL)

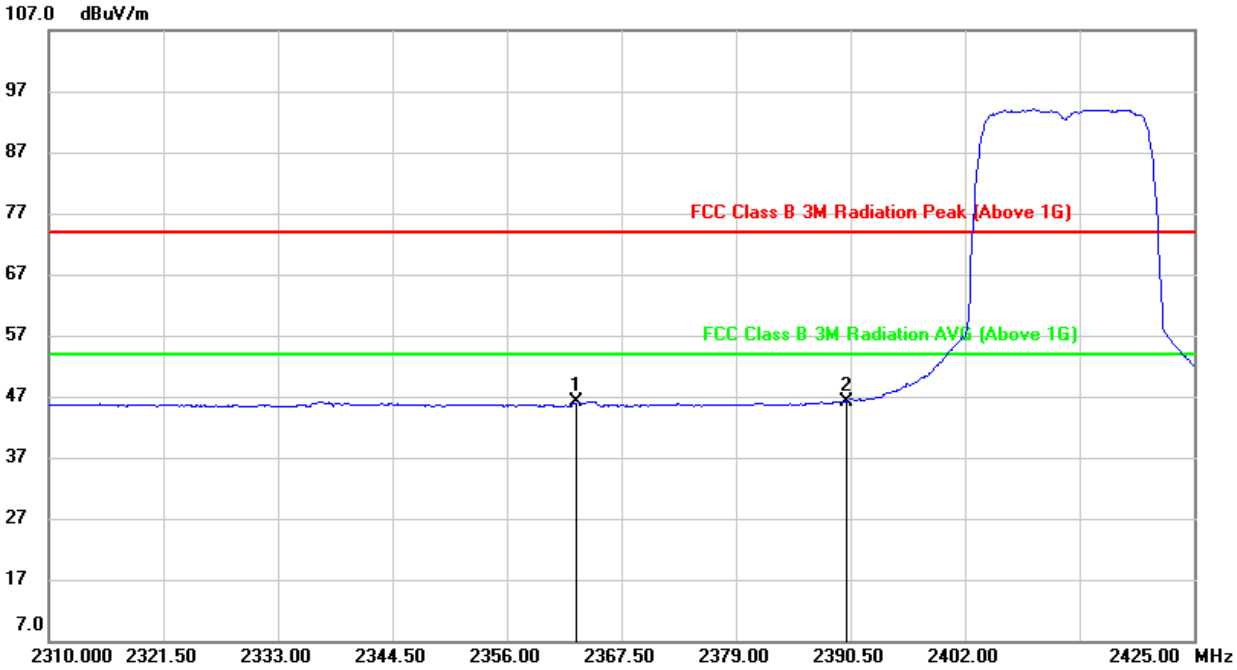


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2363.015	27.11	33.44	60.55	74.00	-13.45	peak
2	2390.000	26.51	33.24	59.75	74.00	-14.25	peak

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 (LOW CHANNEL, VERTICAL)

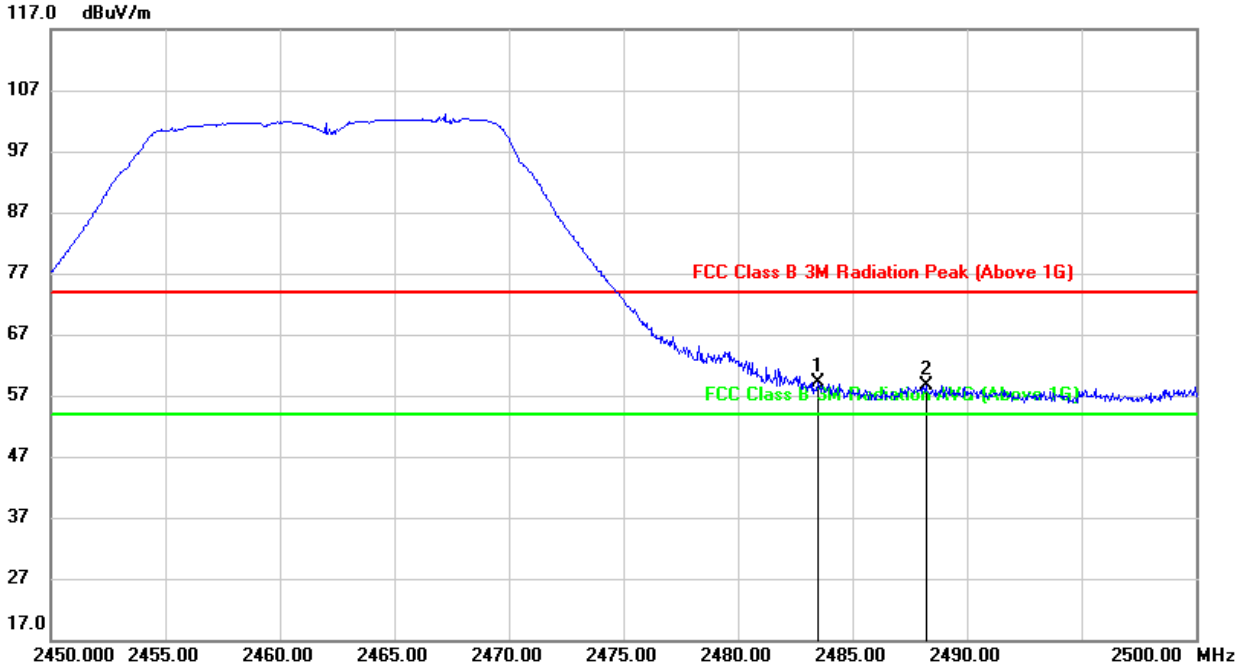


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2363.015	12.57	33.44	46.01	54.00	-7.99	AVG
2	2390.000	13.00	33.24	46.24	54.00	-7.76	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (HIGH CHANNEL, HORIZONTAL)

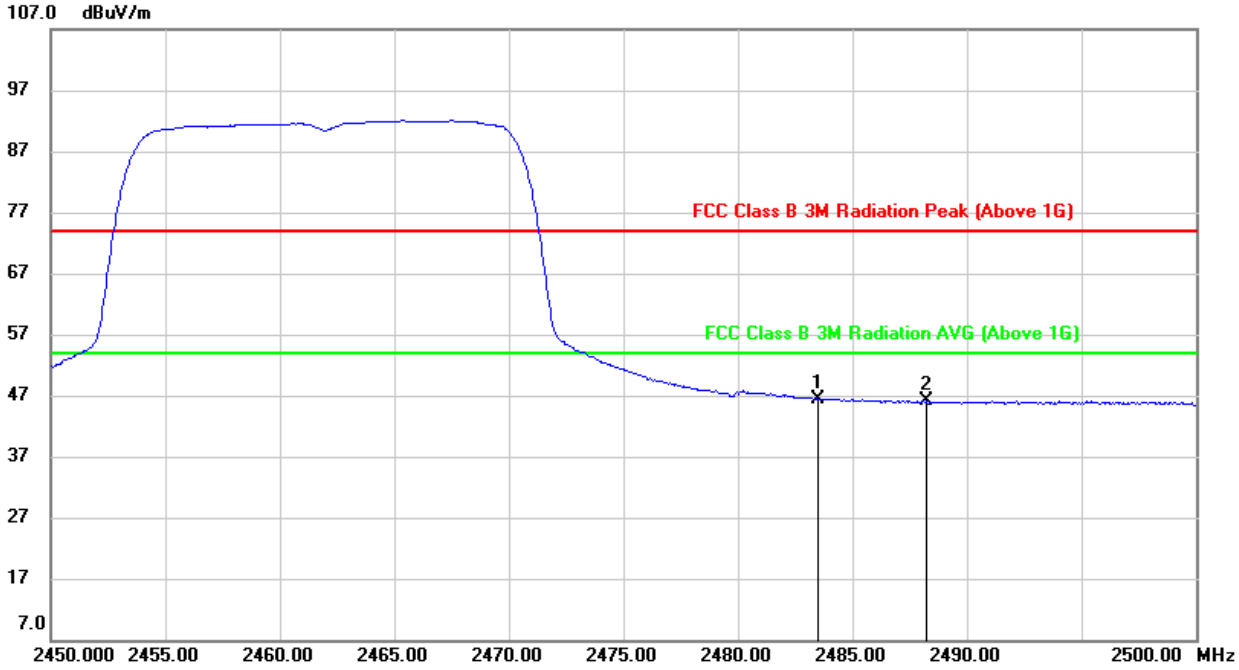


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	26.35	32.78	59.13	74.00	-14.87	peak
2	2488.200	25.79	32.78	58.57	74.00	-15.43	peak

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.
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 (HIGH CHANNEL, HORIZONTAL)

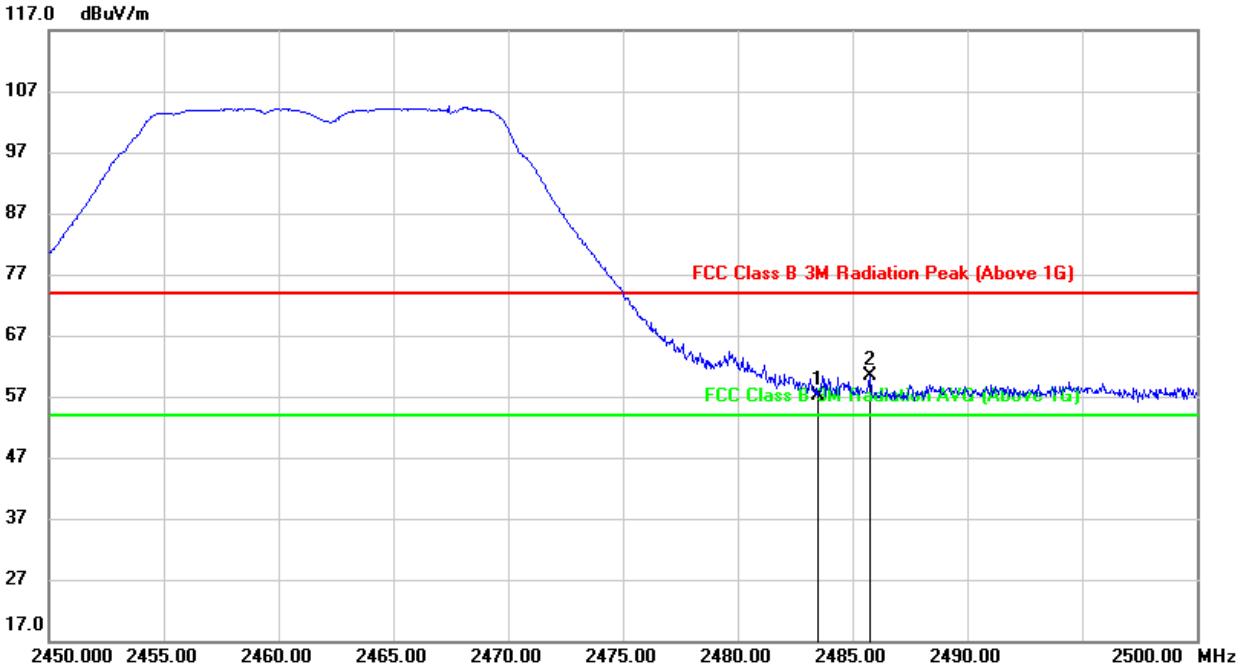


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	13.69	32.78	46.47	54.00	-7.53	AVG
2	2488.200	13.33	32.78	46.11	54.00	-7.89	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (HIGH CHANNEL, VERTICAL)

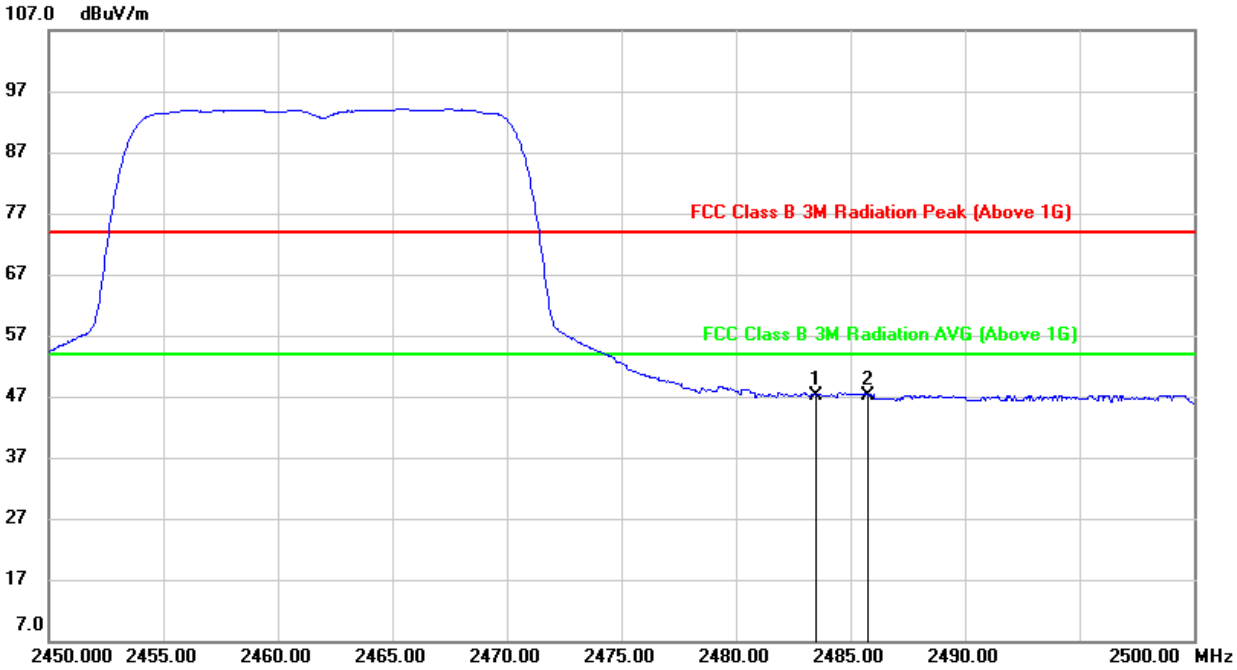


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	24.24	32.88	57.12	74.00	-16.88	peak
2	2485.750	27.55	32.89	60.44	74.00	-13.56	peak

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.

AVG

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



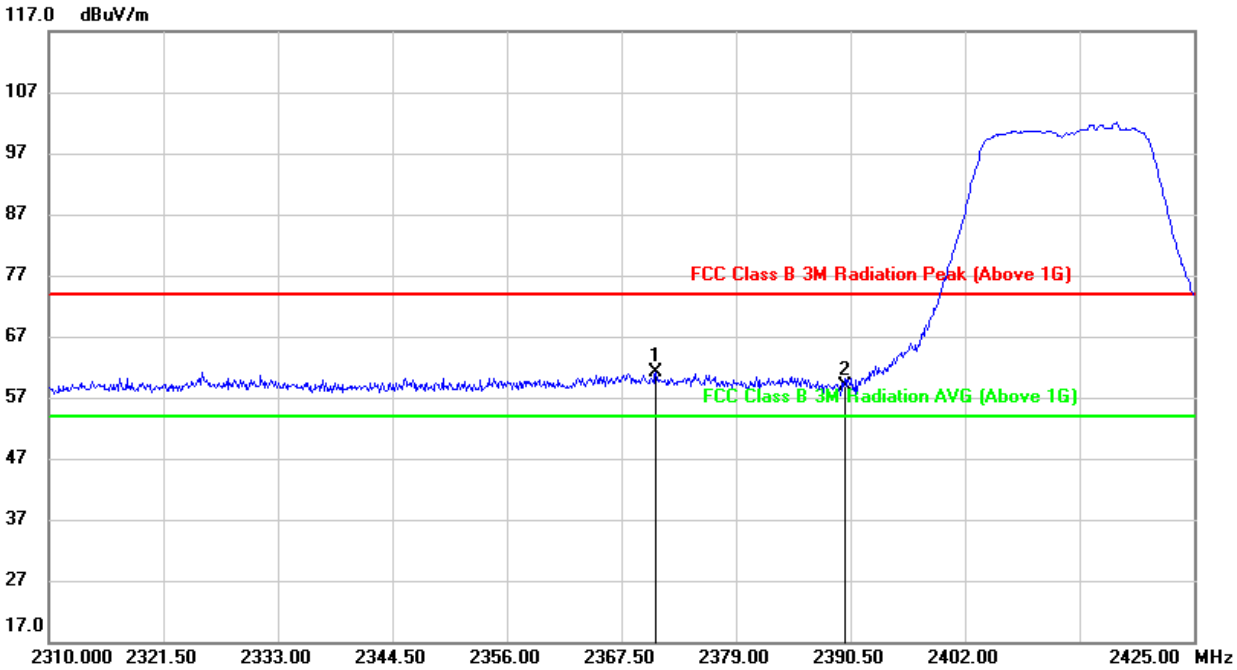
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	14.36	32.88	47.24	54.00	-6.76	AVG
2	2485.750	14.29	32.89	47.18	54.00	-6.82	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

7.1.3. 802.11n20 MODE

PEAK

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

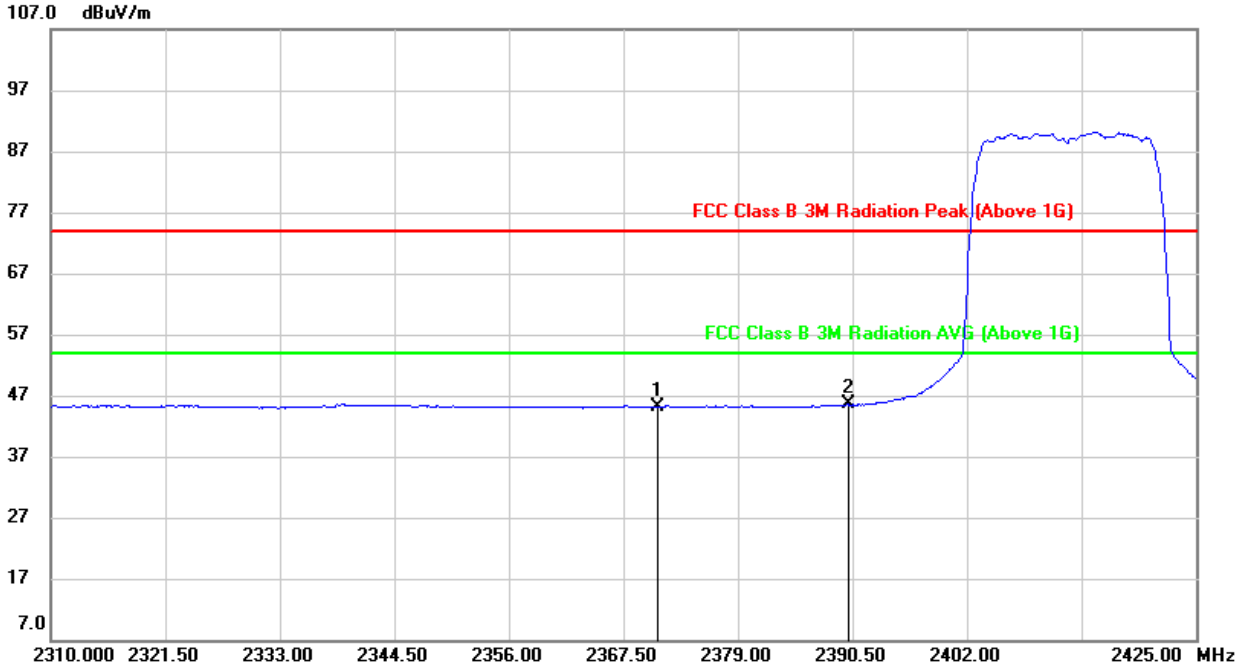


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2370.950	27.91	33.28	61.19	74.00	-12.81	peak
2	2390.000	25.71	33.14	58.85	74.00	-15.15	peak

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.

AVG

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

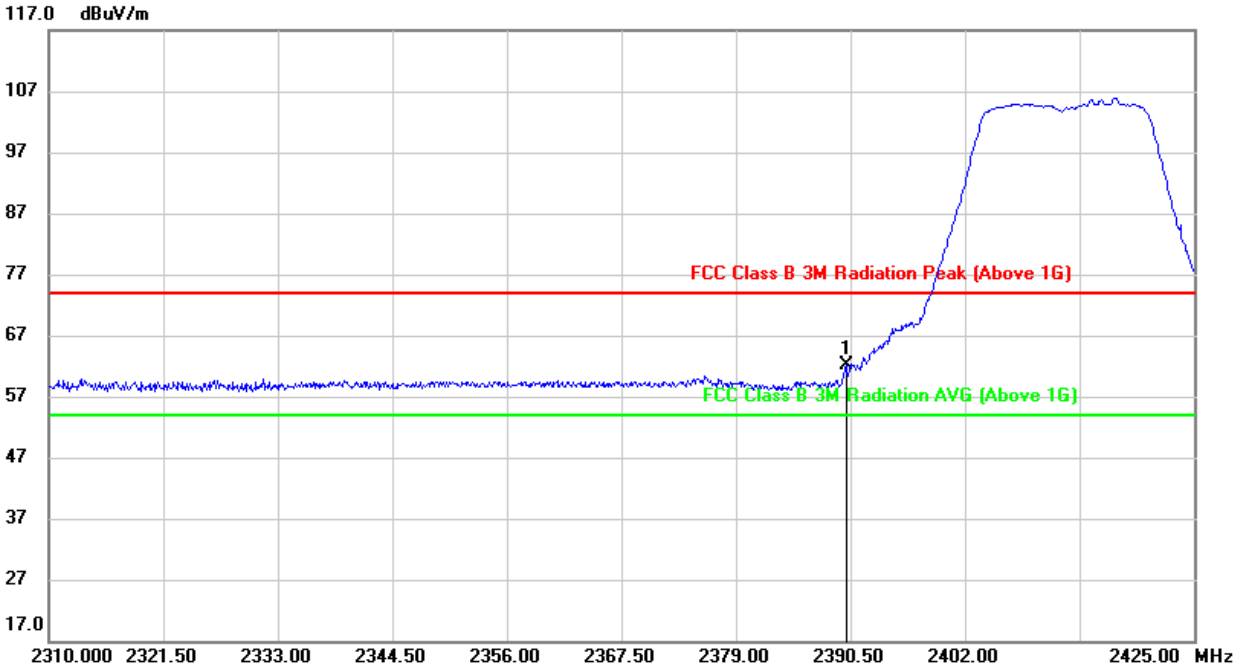


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2370.950	11.88	33.28	45.16	54.00	-8.84	AVG
2	2390.000	12.37	33.14	45.51	54.00	-8.49	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (LOW CHANNEL, VERTICAL)

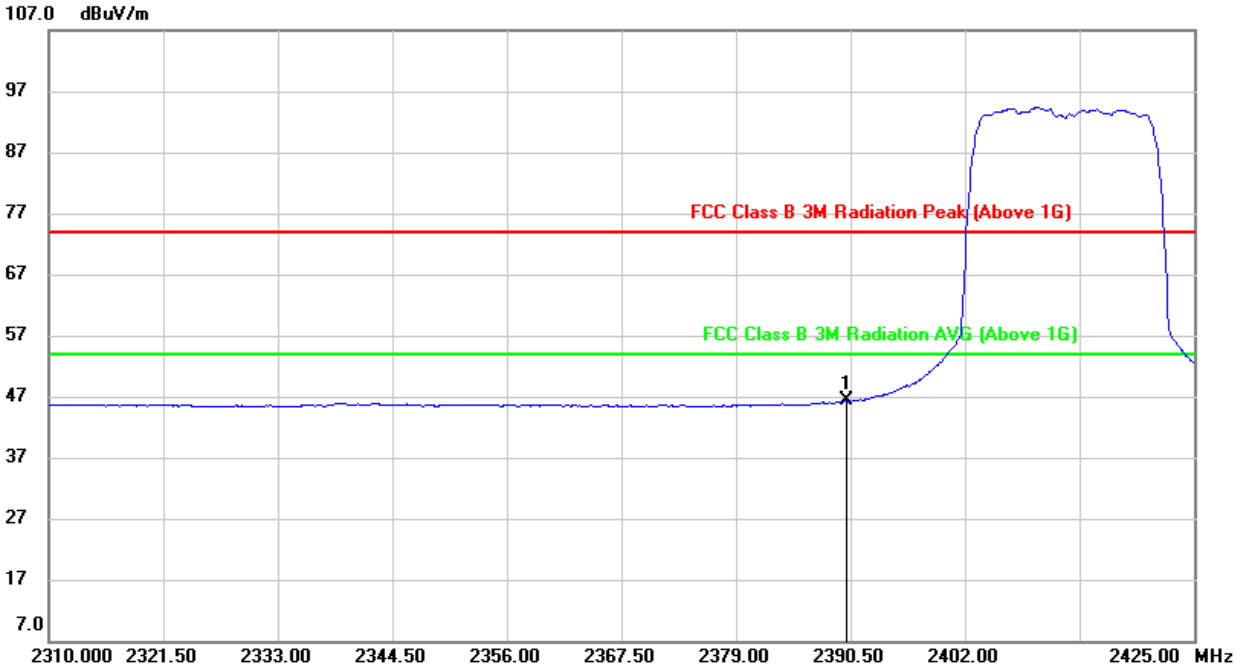


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.95	33.24	62.19	74.00	-11.81	peak

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 (LOW CHANNEL, VERTICAL)

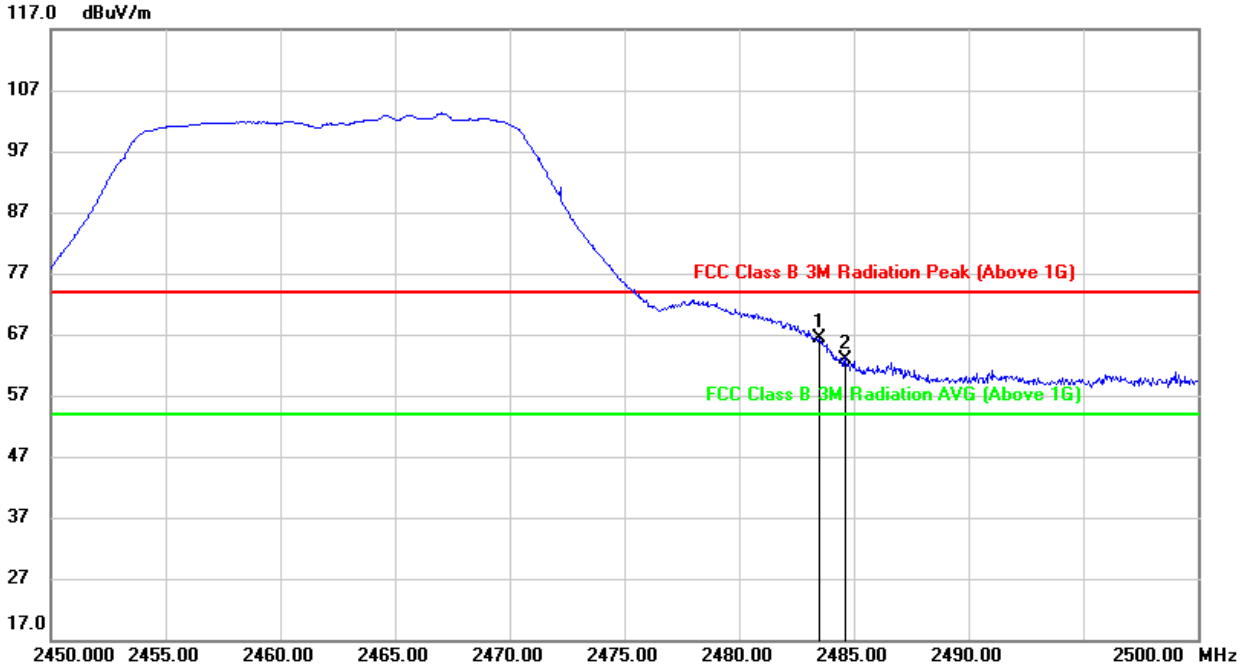


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	13.03	33.24	46.27	54.00	-7.73	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (HIGH CHANNEL, HORIZONTAL)

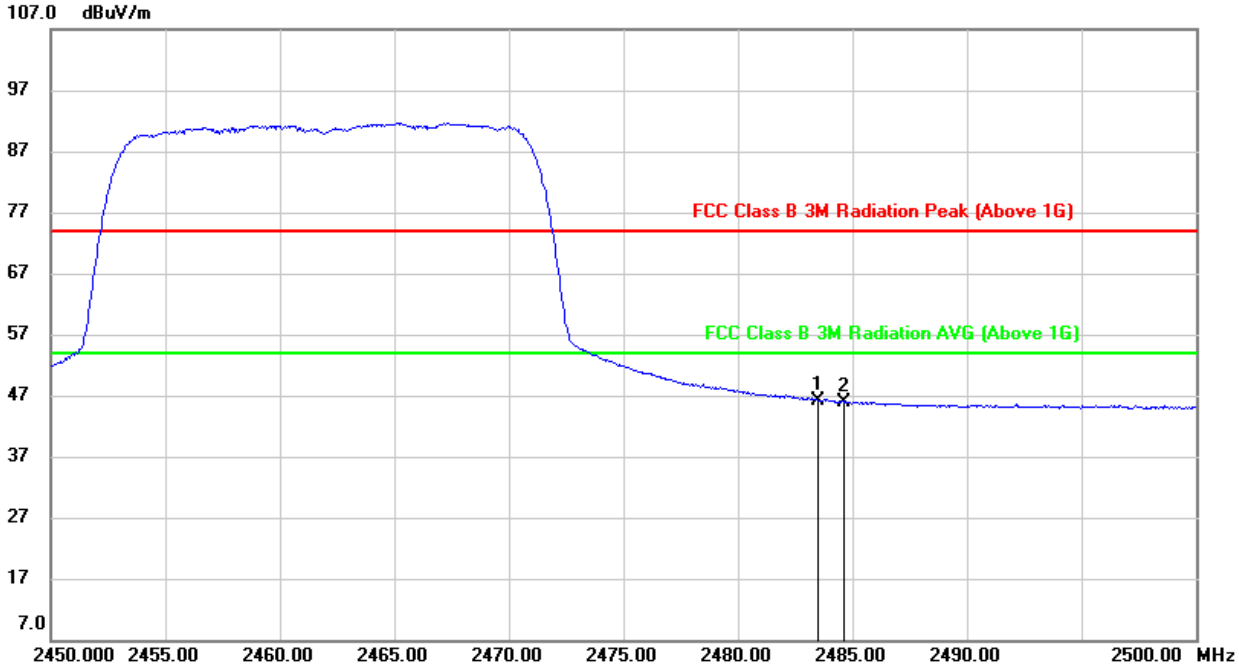


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	33.63	32.78	66.41	74.00	-7.59	peak
2	2484.650	30.00	32.78	62.78	74.00	-11.22	peak

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 (HIGH CHANNEL, HORIZONTAL)

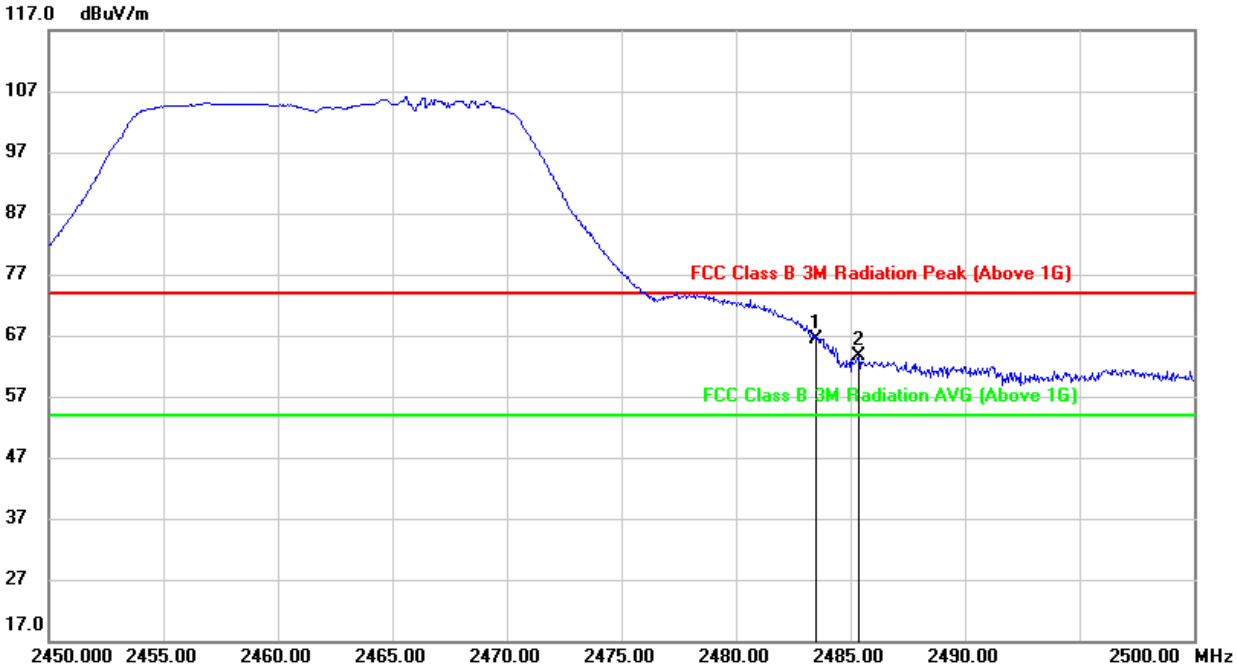


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	13.42	32.78	46.20	54.00	-7.80	AVG
2	2484.650	13.16	32.78	45.94	54.00	-8.06	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (HIGH CHANNEL, VERTICAL)

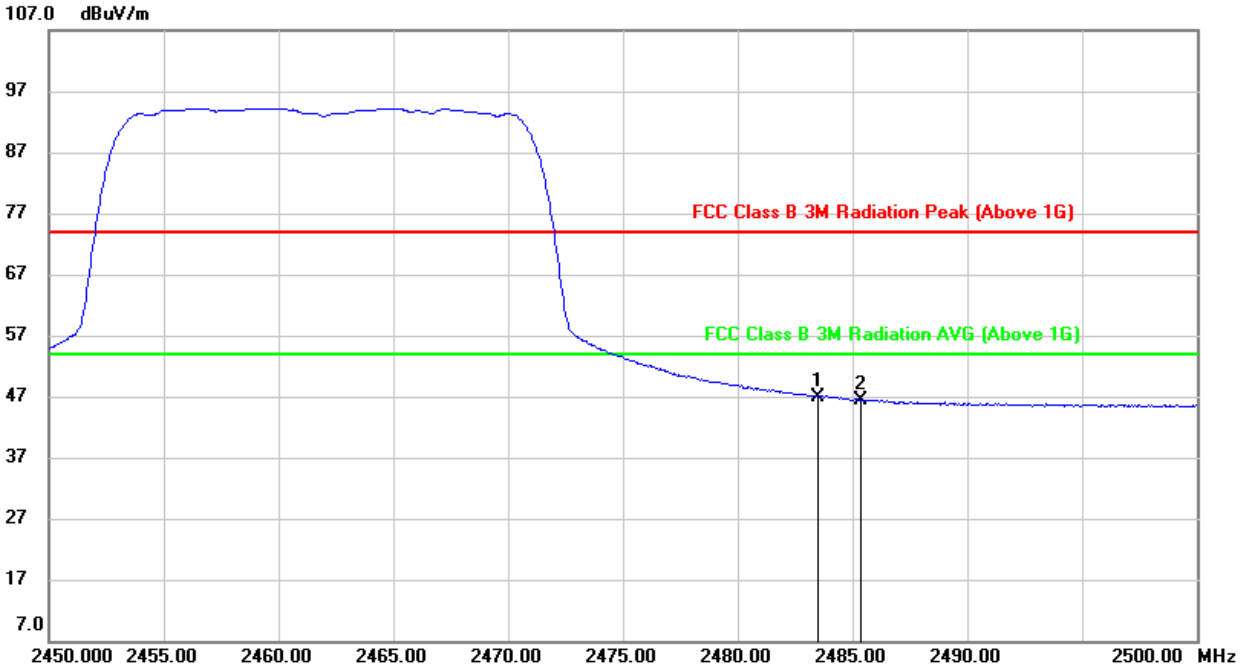


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	33.55	32.88	66.43	74.00	-7.57	peak
2	2485.350	30.62	32.89	63.51	74.00	-10.49	peak

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.

AVG

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



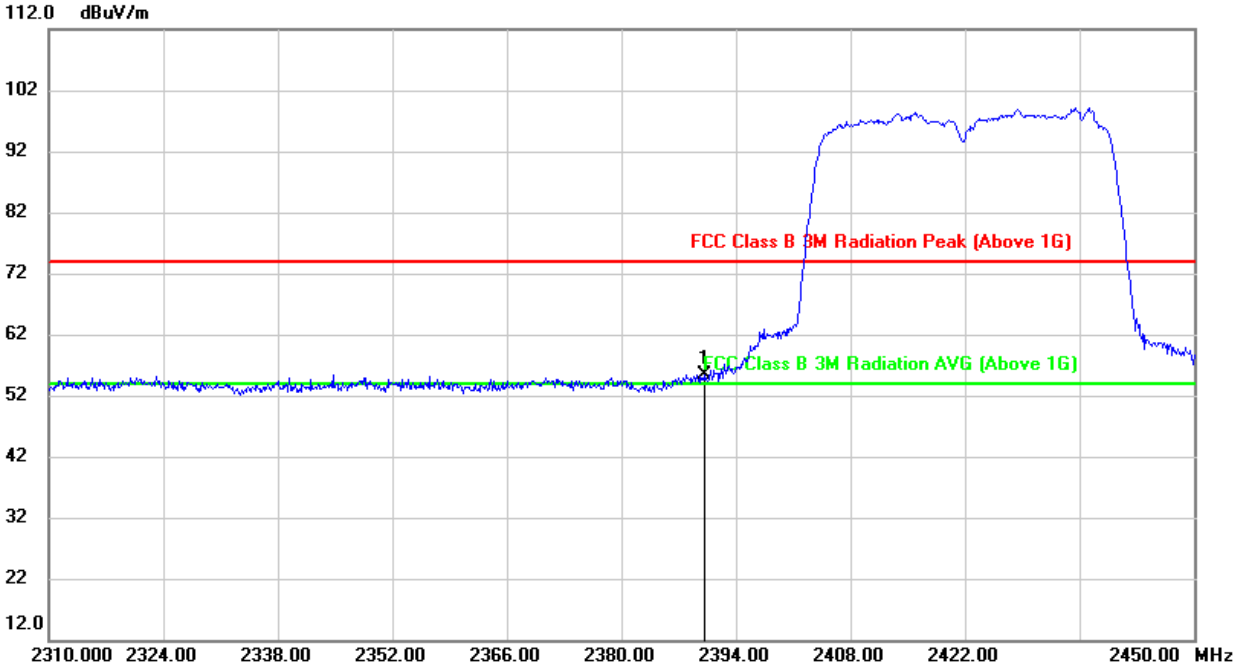
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	14.07	32.88	46.95	54.00	-7.05	AVG
2	2485.350	13.53	32.89	46.42	54.00	-7.58	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

7.1.4. 802.11n40 MODE

PEAK

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

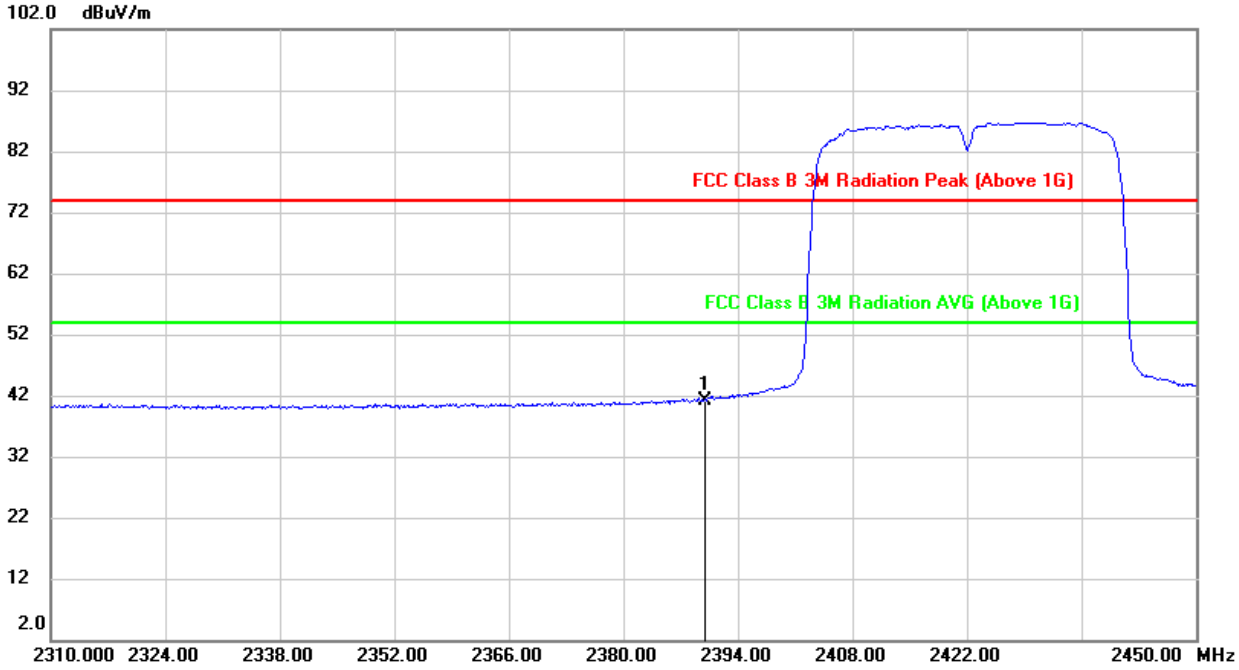


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	22.17	33.14	55.31	74.00	-18.69	peak

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 (LOW CHANNEL, HORIZONTAL)

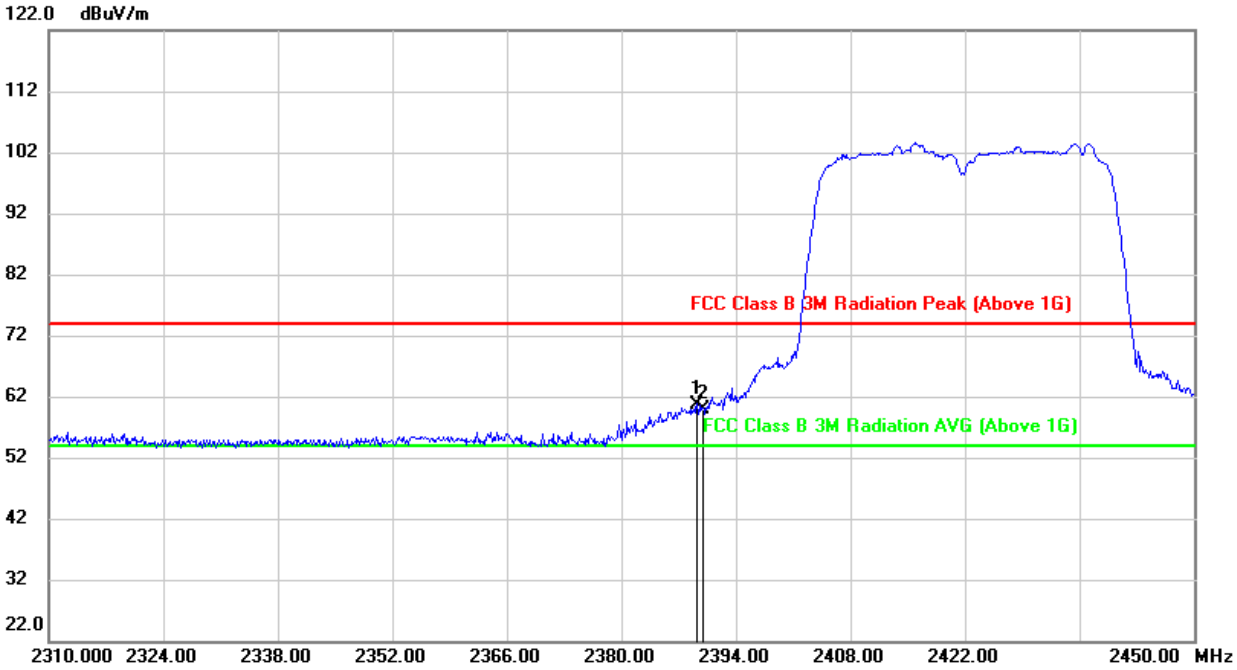


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	8.06	33.14	41.20	54.00	-12.80	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (LOW CHANNEL, VERTICAL)

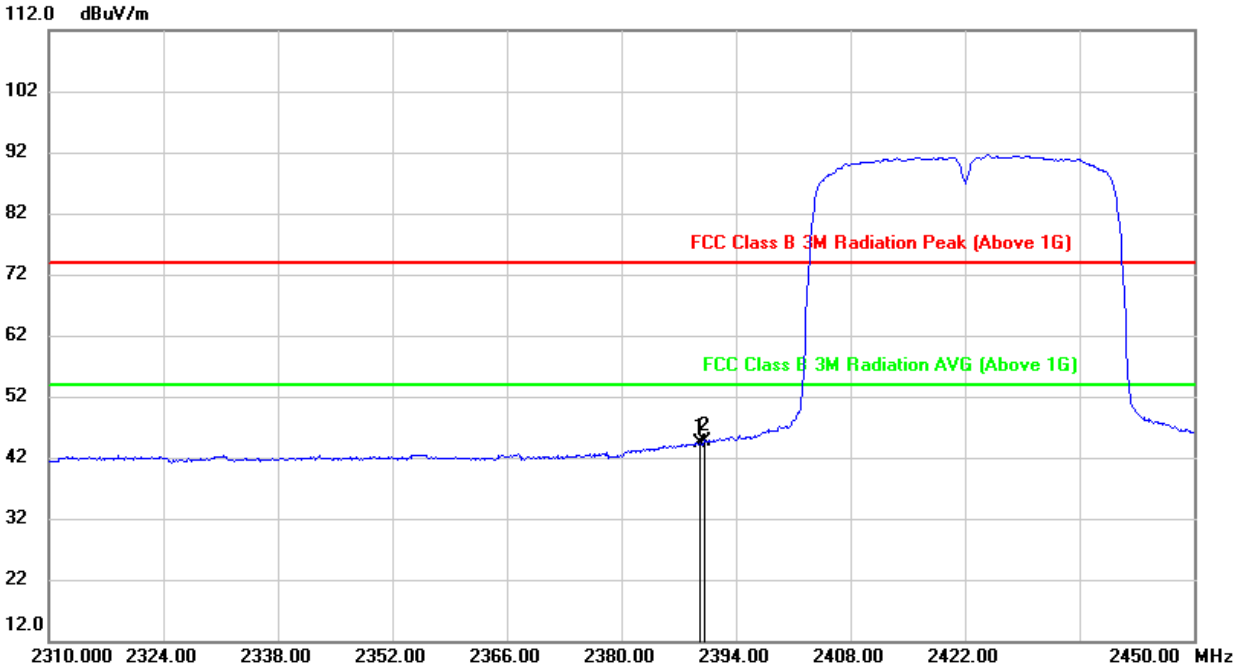


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.240	27.50	33.25	60.75	74.00	-13.25	peak
2	2390.000	26.59	33.24	59.83	74.00	-14.17	peak

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.

AVG

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

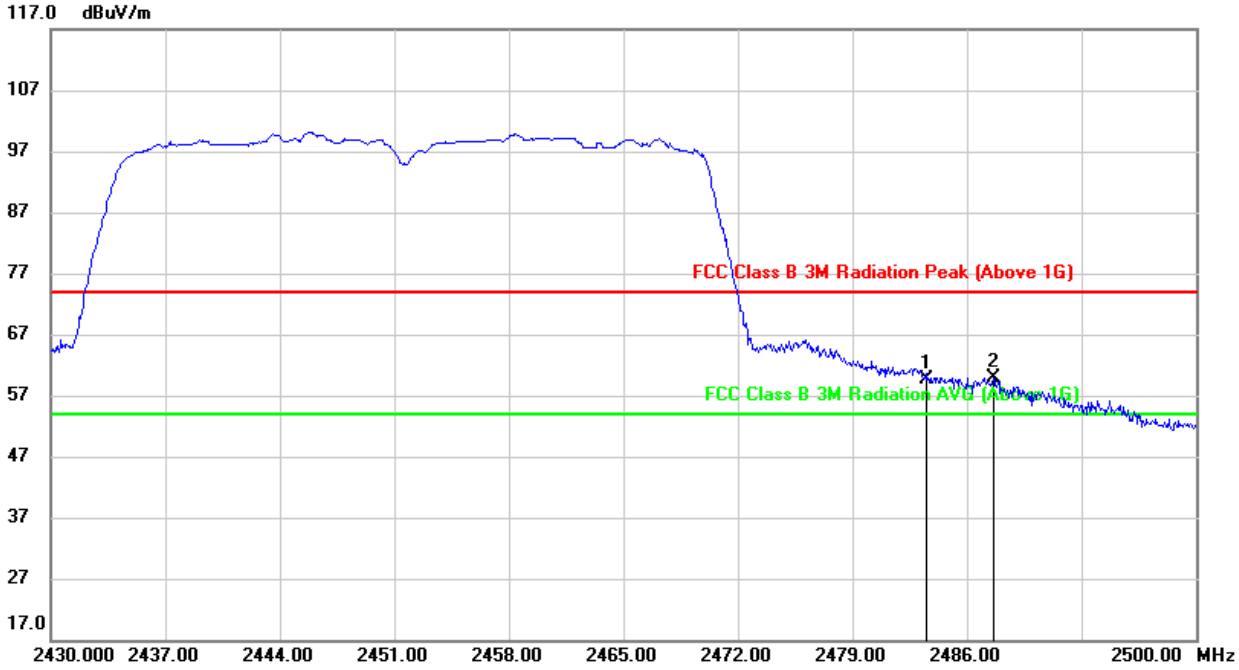


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.240	11.12	33.24	44.36	54.00	-9.64	AVG
2	2390.000	11.38	33.24	44.62	54.00	-9.38	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (HIGH CHANNEL, HORIZONTAL)

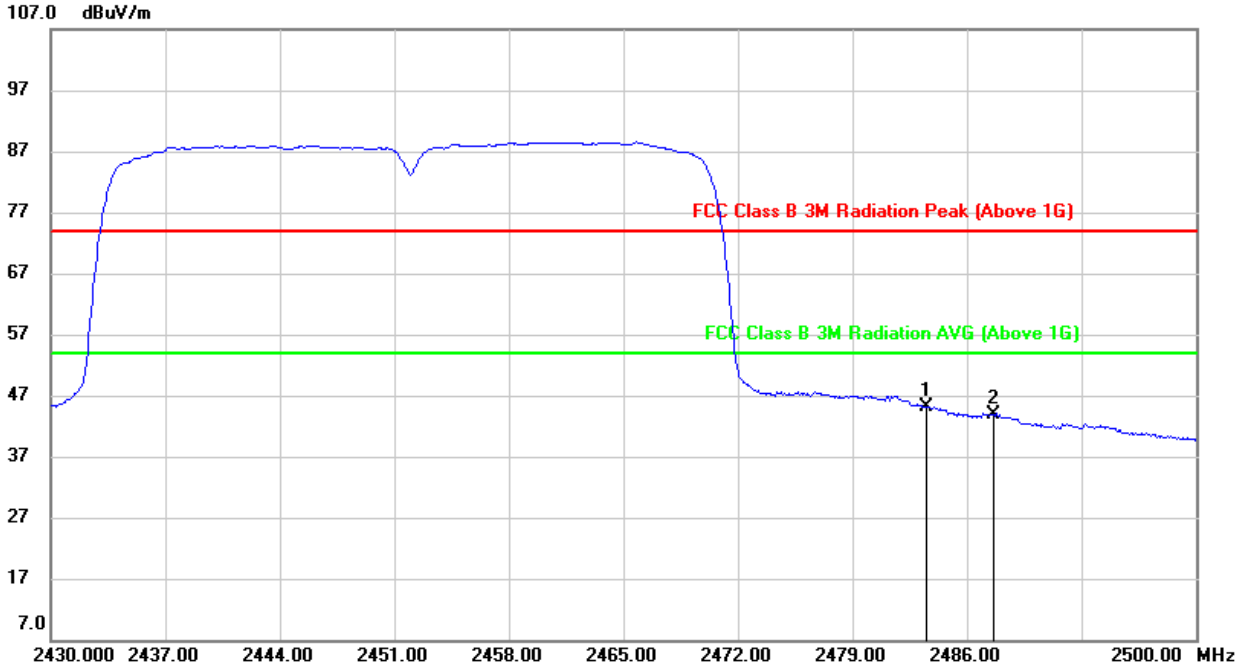


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	26.93	32.78	59.71	74.00	-14.29	peak
2	2487.610	27.19	32.78	59.97	74.00	-14.03	peak

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 (HIGH CHANNEL, HORIZONTAL)

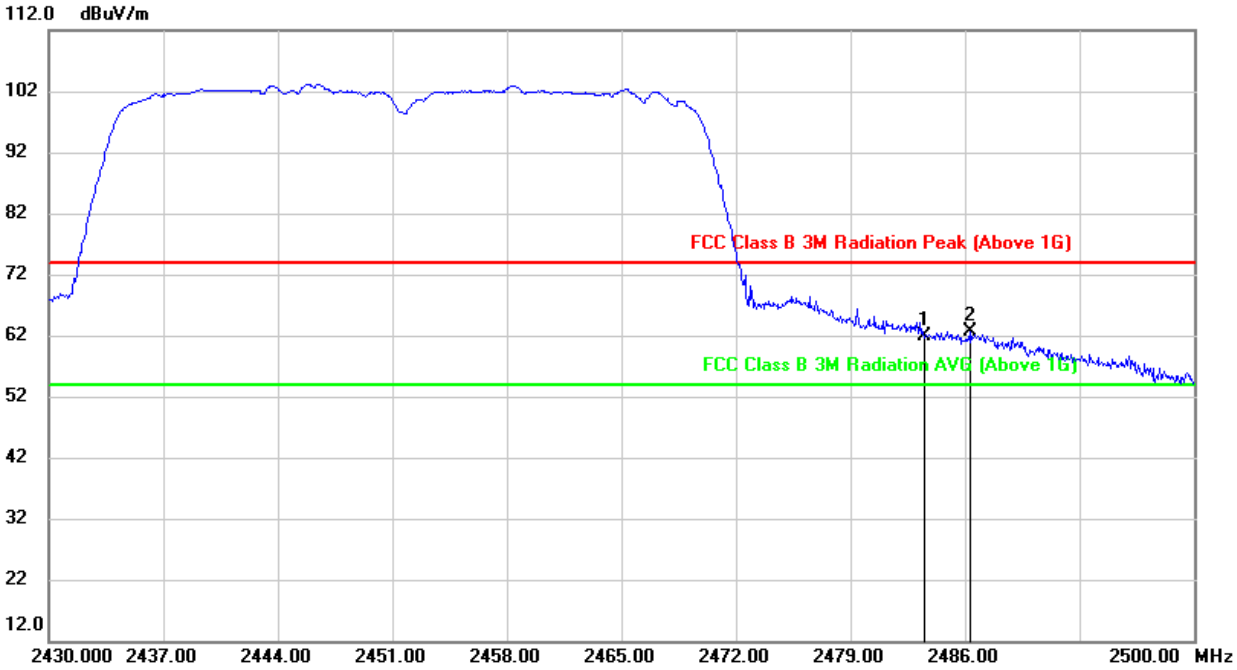


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	12.34	32.78	45.12	54.00	-8.88	AVG
2	2487.610	10.99	32.78	43.77	54.00	-10.23	AVG

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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
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 (HIGH CHANNEL, VERTICAL)

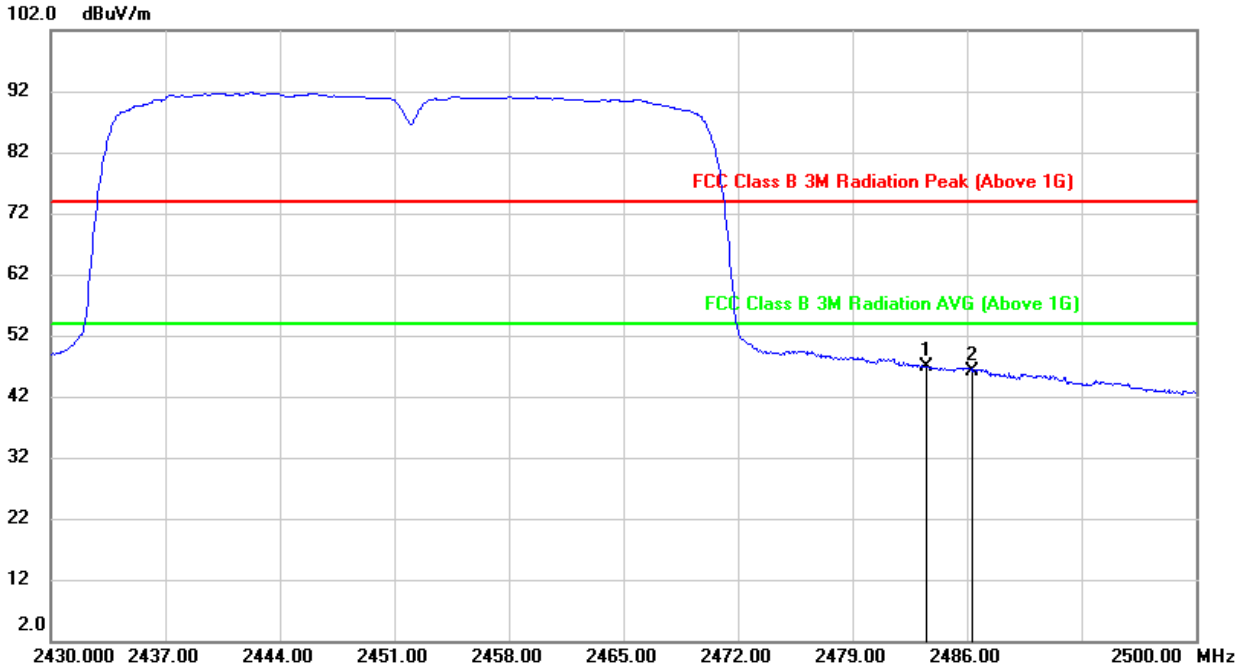


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	29.00	32.88	61.88	74.00	-12.12	peak
2	2486.350	29.67	32.89	62.56	74.00	-11.44	peak

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.

AVG

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	13.89	32.88	46.77	54.00	-7.23	AVG
2	2486.350	13.31	32.89	46.20	54.00	-7.80	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=1/Ton where: ton is transmit duration.
4. For transmit duration, please refer to clause 6.1.
5. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

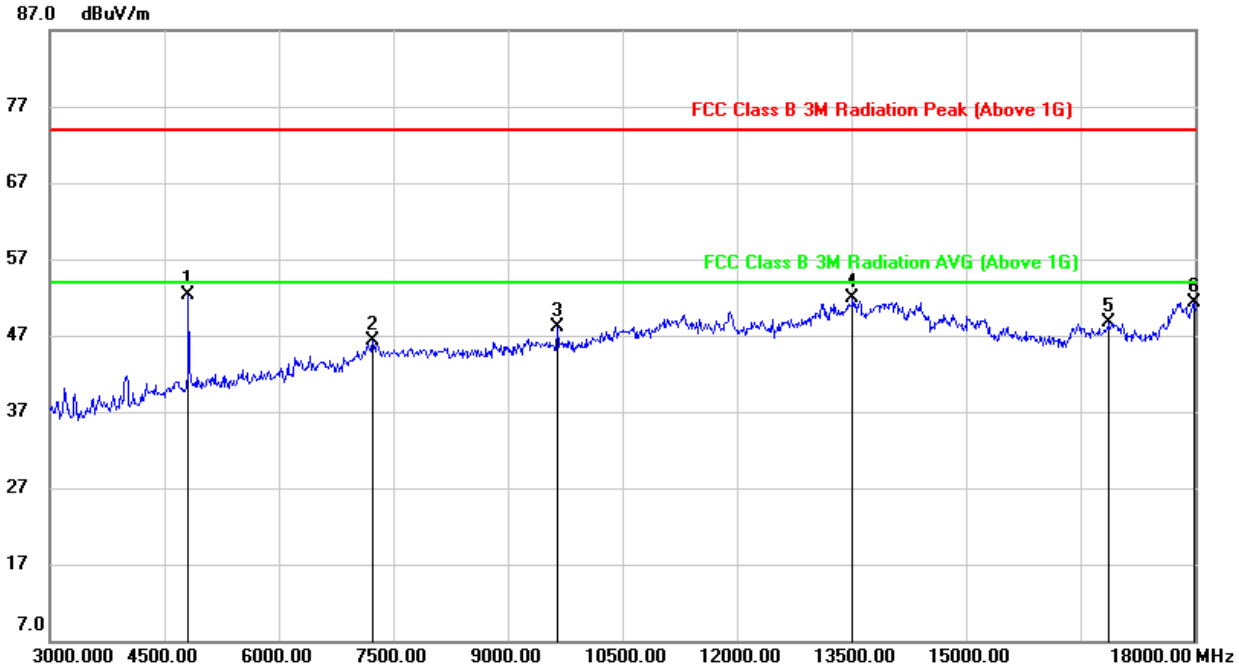
Note: Main relay and Alternative relay had been tested, but only the worst data were recorded in the report.

7.2. SPURIOUS EMISSIONS (3~18GHz)

Main Relay

7.2.1. 802.11b MODE

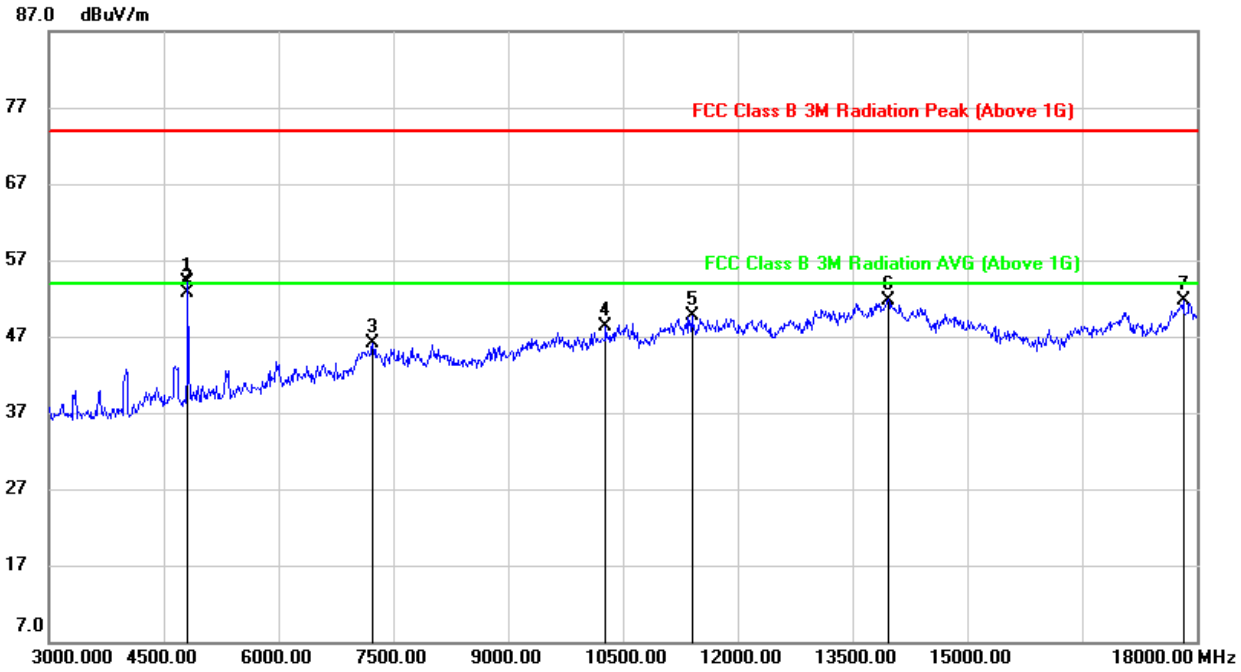
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	52.75	-0.38	52.37	74.00	-21.63	peak
2	7230.000	38.47	7.81	46.28	74.00	-27.72	peak
3	9645.000	36.87	11.24	48.11	74.00	-25.89	peak
4	13515.000	31.67	20.14	51.81	74.00	-22.19	peak
5	16875.000	27.91	20.82	48.73	74.00	-25.27	peak
6	17985.000	24.18	27.05	51.23	74.00	-22.77	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

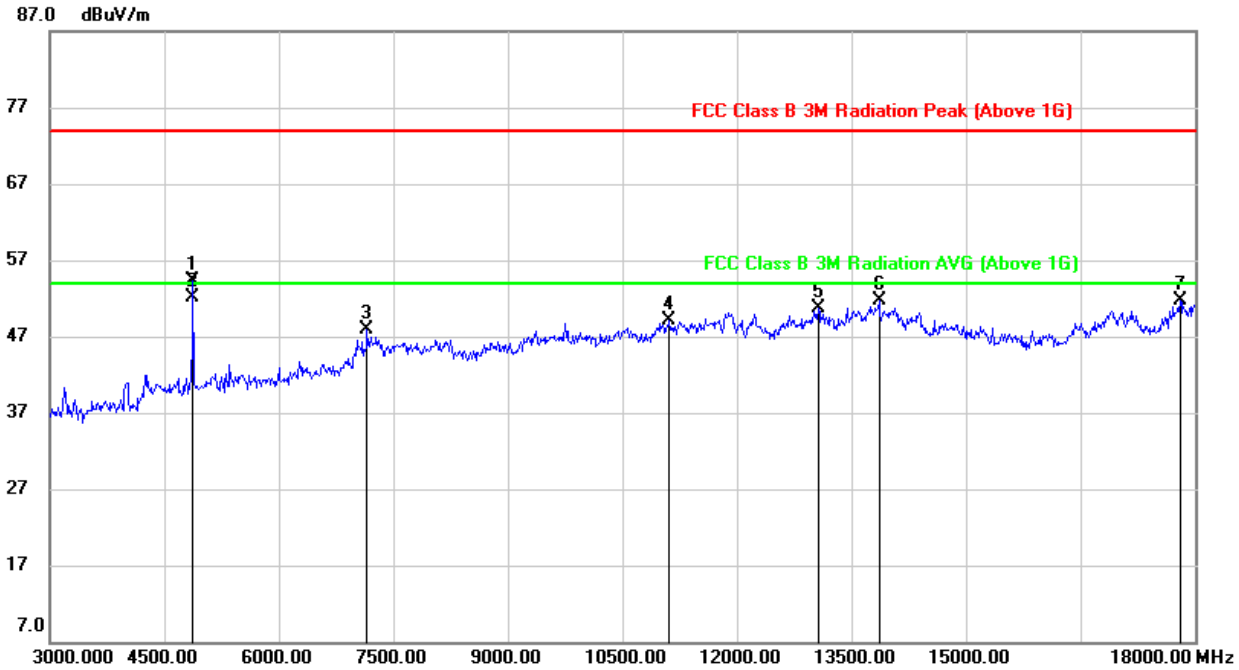
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	54.34	-0.31	54.03	74.00	-19.97	peak
2	4815.000	52.95	-0.31	52.64	54.00	-1.36	AVG
3	7230.000	38.26	7.79	46.05	74.00	-27.95	peak
4	10275.000	35.53	12.70	48.23	74.00	-25.77	peak
5	11400.000	34.02	15.59	49.61	74.00	-24.39	peak
6	13965.000	31.04	20.76	51.80	74.00	-22.20	peak
7	17820.000	25.18	26.56	51.74	74.00	-22.26	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

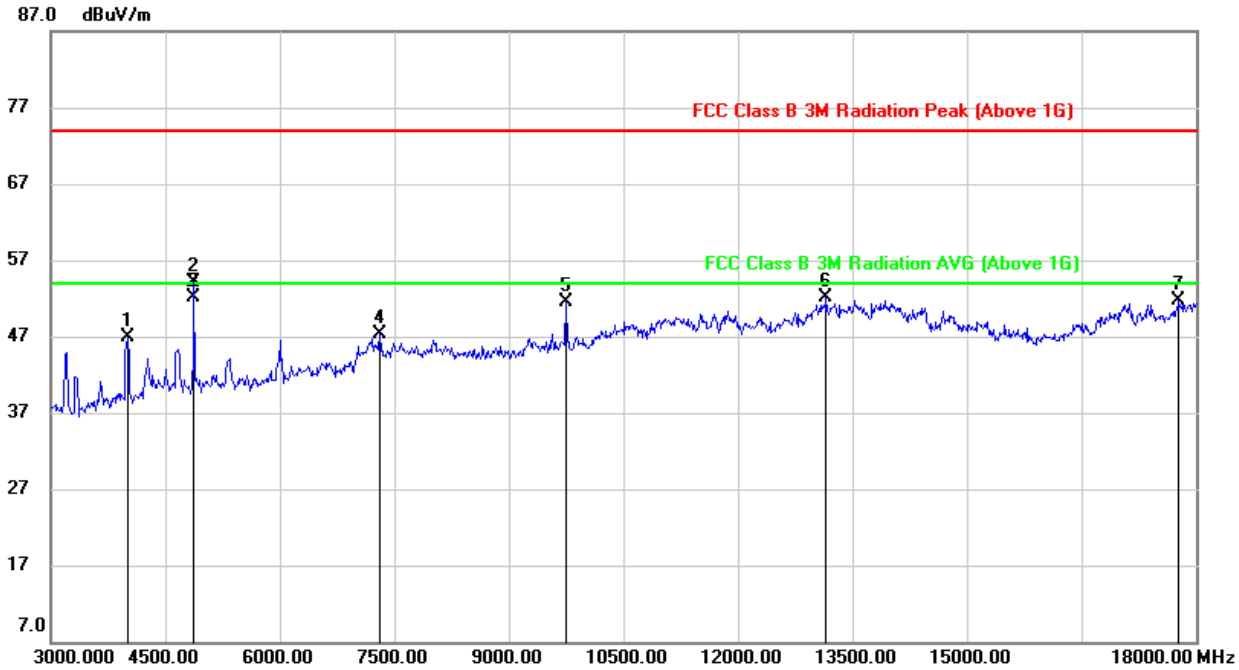
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	53.94	0.38	54.32	74.00	-19.68	peak
2	4875.000	51.72	0.38	52.10	54.00	-1.90	AVG
3	7155.000	40.27	7.70	47.97	74.00	-26.03	peak
4	11115.000	33.94	15.07	49.01	74.00	-24.99	peak
5	13065.000	32.21	18.40	50.61	74.00	-23.39	peak
6	13860.000	31.07	20.72	51.79	74.00	-22.21	peak
7	17805.000	25.22	26.48	51.70	74.00	-22.30	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

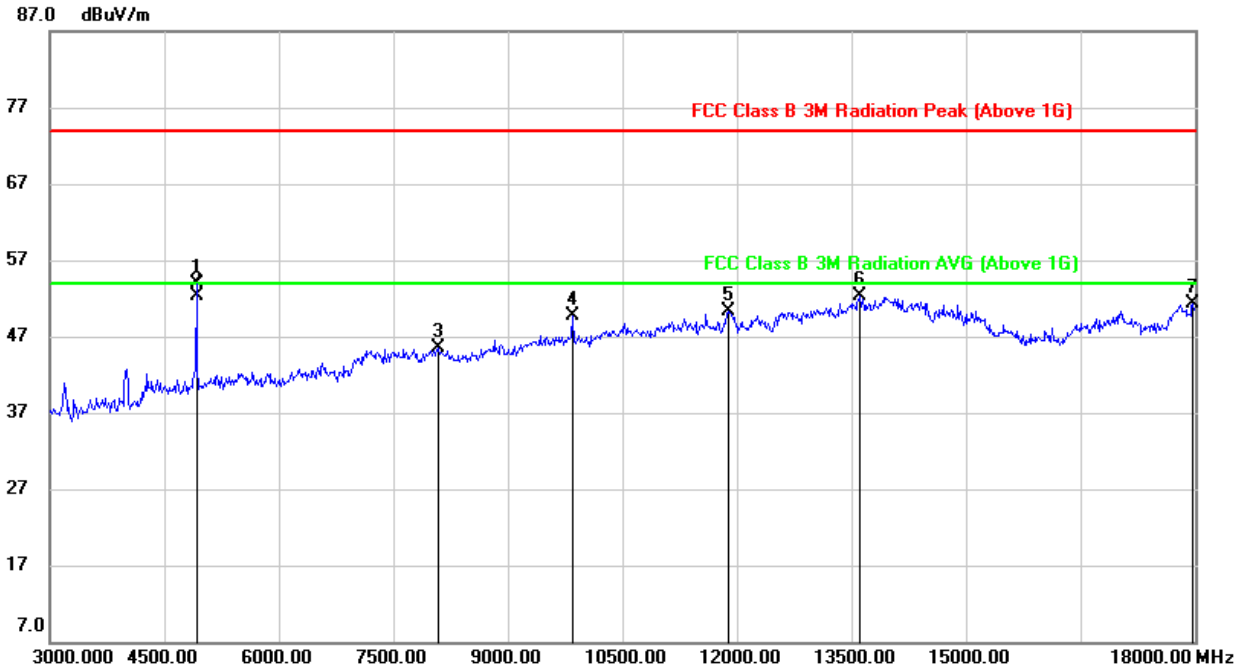


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4005.000	49.83	-2.97	46.86	74.00	-27.14	peak
2	4875.000	53.70	0.33	54.03	74.00	-19.97	peak
3	4875.000	51.84	0.33	52.17	54.00	-1.83	AVG
4	7305.000	39.53	7.81	47.34	74.00	-26.66	peak
5	9750.000	39.78	11.67	51.45	74.00	-22.55	peak
6	13155.000	33.20	18.83	52.03	74.00	-21.97	peak
7	17775.000	25.09	26.57	51.66	74.00	-22.34	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

Note: All the antennas had been tested, but only the worst data record in the report.

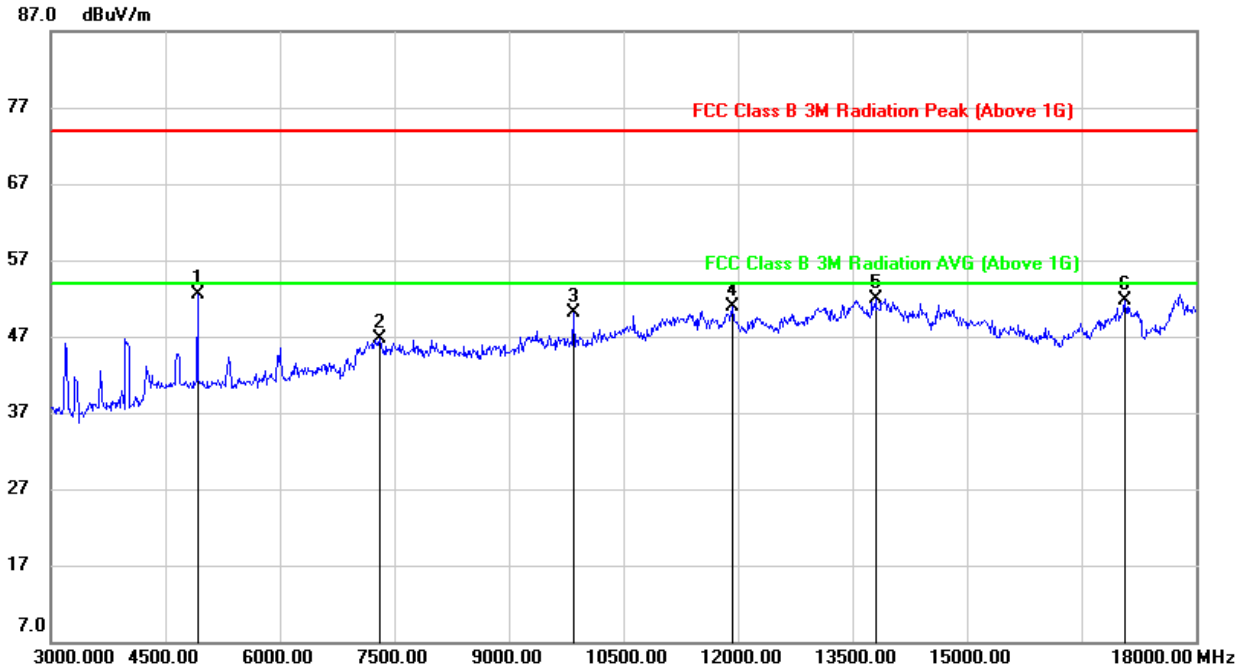
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	53.29	0.65	53.94	74.00	-20.06	peak
2	4920.000	51.70	0.65	52.35	54.00	-1.65	AVG
3	8085.000	37.21	8.36	45.57	74.00	-28.43	peak
4	9840.000	37.91	11.83	49.74	74.00	-24.26	peak
5	11880.000	33.57	16.74	50.31	74.00	-23.69	peak
6	13605.000	31.83	20.54	52.37	74.00	-21.63	peak
7	17970.000	24.32	27.04	51.36	74.00	-22.64	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

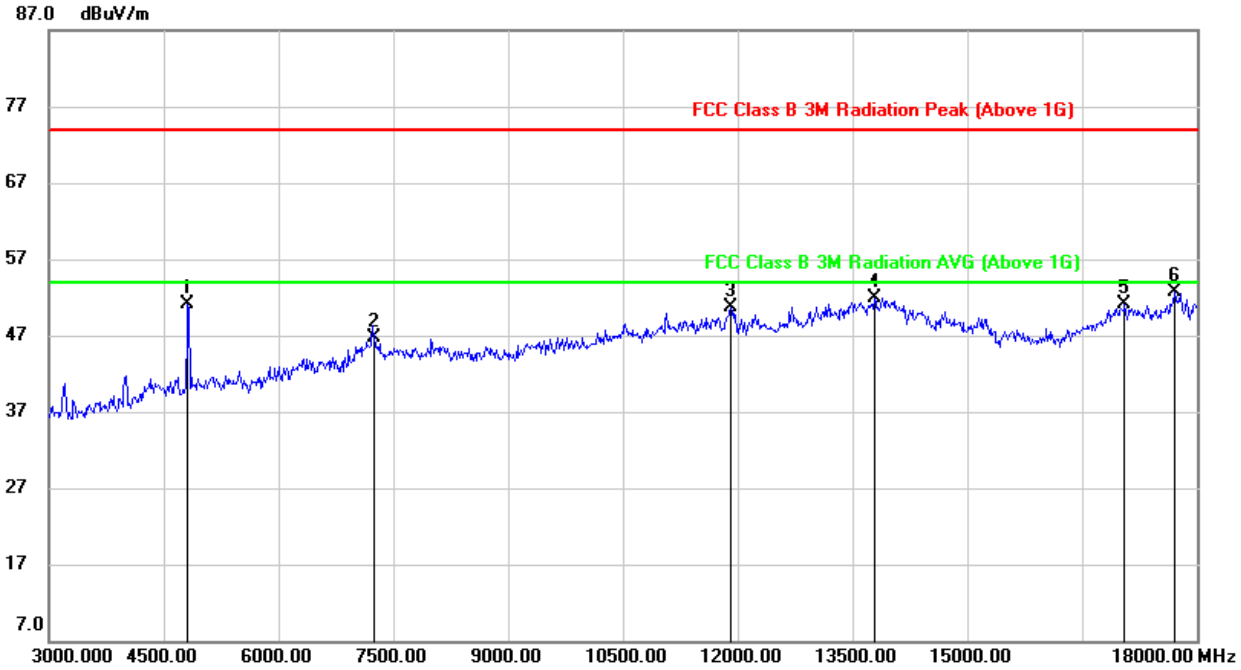


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	51.94	0.59	52.53	74.00	-21.47	peak
2	7305.000	38.81	7.81	46.62	74.00	-27.38	peak
3	9840.000	38.14	11.95	50.09	74.00	-23.91	peak
4	11925.000	34.17	16.64	50.81	74.00	-23.19	peak
5	13800.000	30.75	21.21	51.96	74.00	-22.04	peak
6	17070.000	28.95	22.73	51.68	74.00	-22.32	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

7.2.2. 802.11g MODE

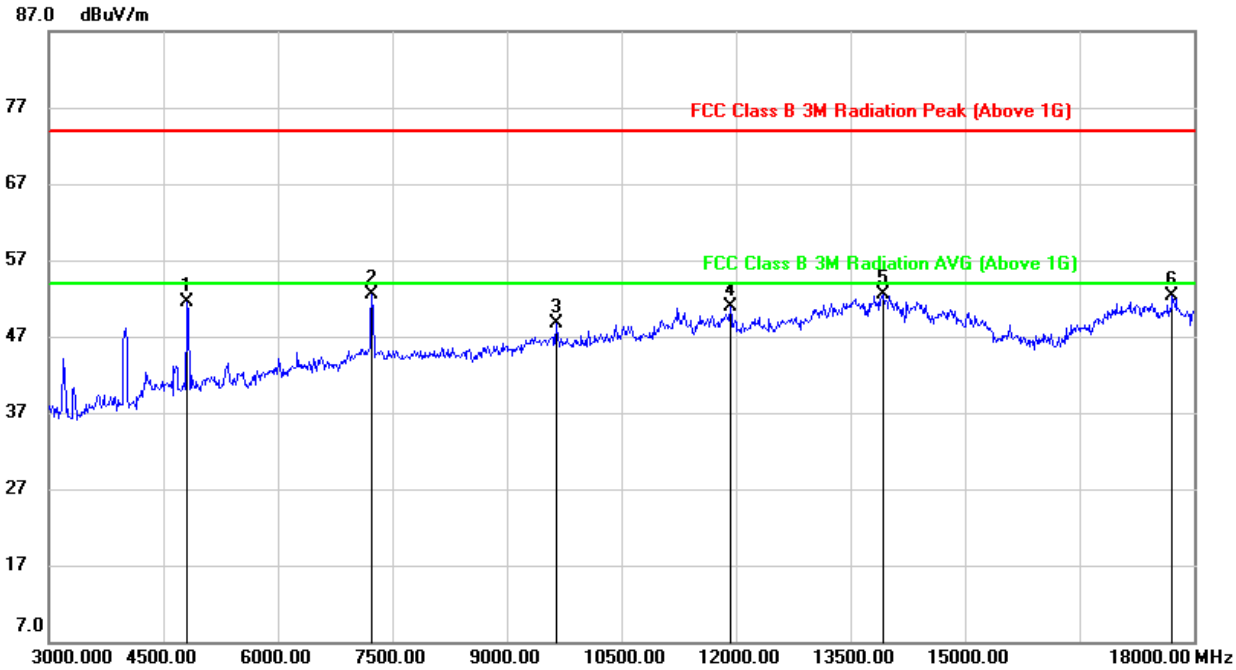
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	51.48	-0.38	51.10	74.00	-22.90	peak
2	7245.000	38.90	7.84	46.74	74.00	-27.26	peak
3	11910.000	33.81	16.98	50.79	74.00	-23.21	peak
4	13785.000	31.23	20.76	51.99	74.00	-22.01	peak
5	17055.000	28.94	22.17	51.11	74.00	-22.89	peak
6	17715.000	26.83	25.79	52.62	74.00	-21.38	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.
4. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

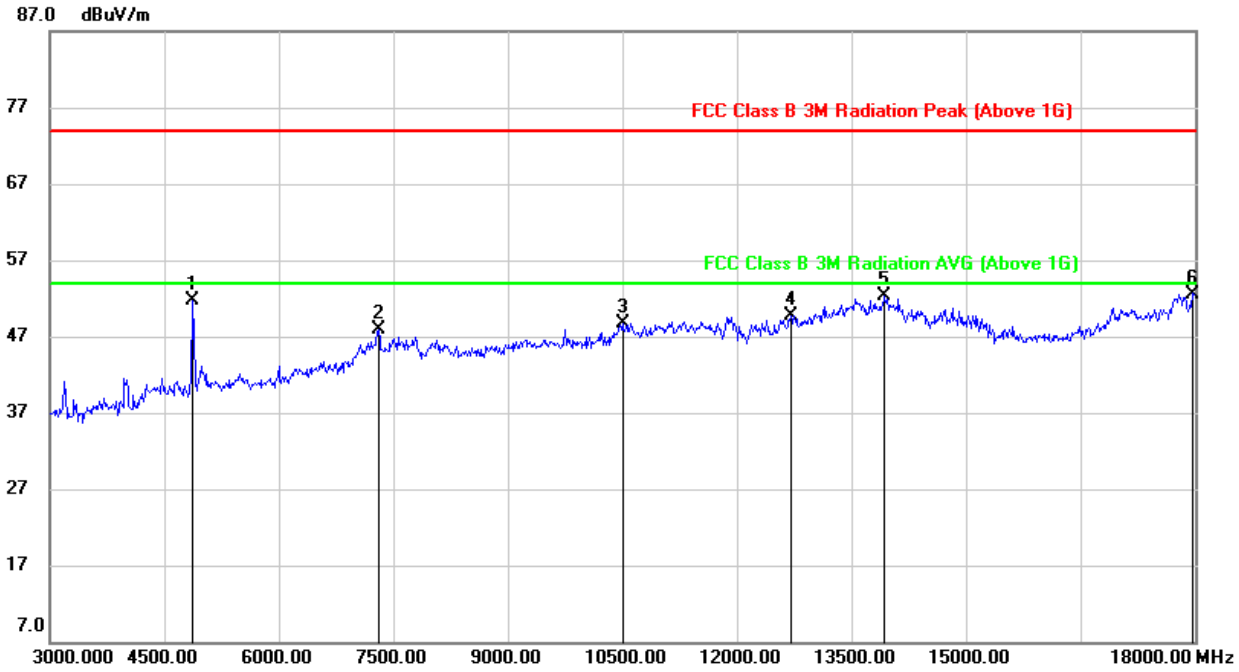
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	51.75	-0.31	51.44	74.00	-22.56	peak
2	7230.000	44.72	7.79	52.51	74.00	-21.49	peak
3	9645.000	37.33	11.35	48.68	74.00	-25.32	peak
4	11925.000	34.20	16.64	50.84	74.00	-23.16	peak
5	13935.000	31.72	20.80	52.52	74.00	-21.48	peak
6	17715.000	26.44	25.84	52.28	74.00	-21.72	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

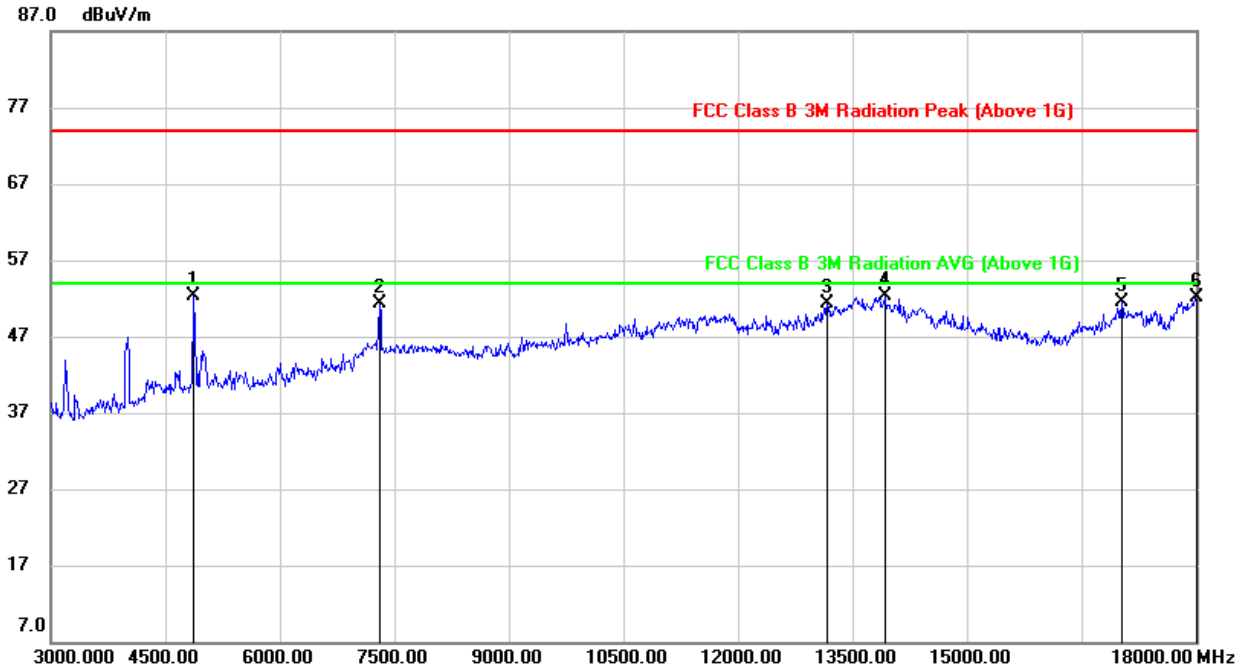
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	51.32	0.38	51.70	74.00	-22.30	peak
2	7305.000	40.18	7.80	47.98	74.00	-26.02	peak
3	10500.000	34.95	13.71	48.66	74.00	-25.34	peak
4	12705.000	32.26	17.43	49.69	74.00	-24.31	peak
5	13935.000	31.54	20.67	52.21	74.00	-21.79	peak
6	17970.000	25.56	27.04	52.60	74.00	-21.40	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

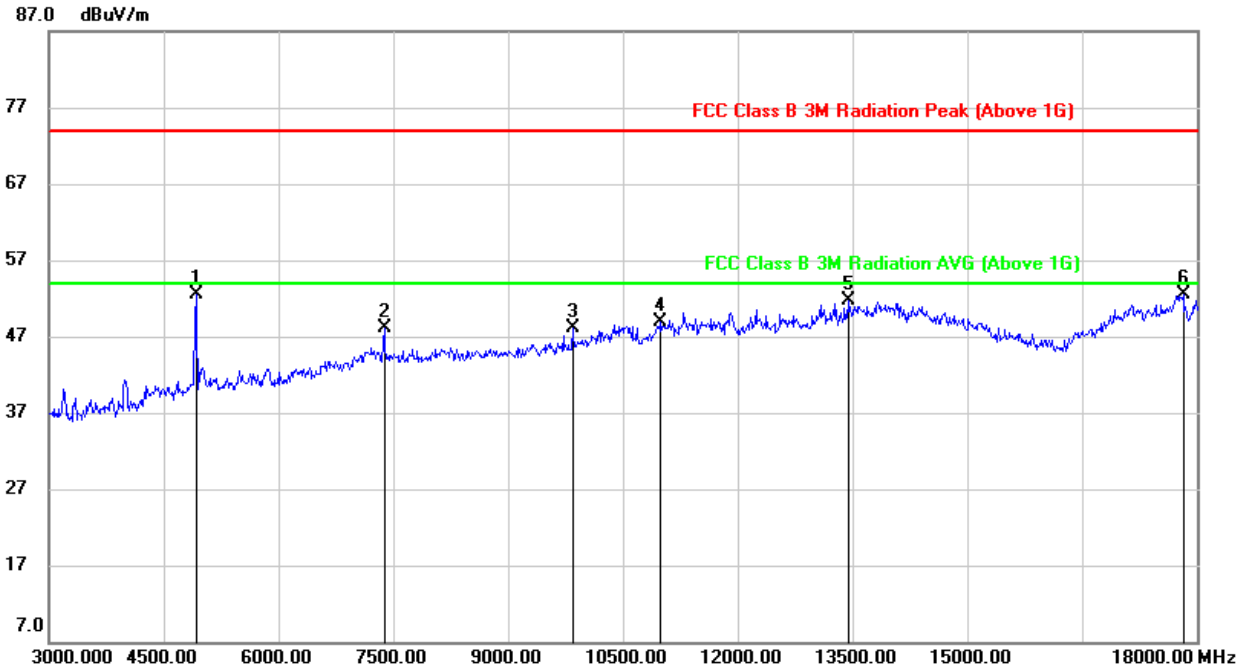
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	51.91	0.33	52.24	74.00	-21.76	peak
2	7305.000	43.47	7.81	51.28	74.00	-22.72	peak
3	13170.000	32.29	18.95	51.24	74.00	-22.76	peak
4	13920.000	31.42	20.83	52.25	74.00	-21.75	peak
5	17025.000	28.99	22.48	51.47	74.00	-22.53	peak
6	18000.000	25.53	26.66	52.19	74.00	-21.81	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

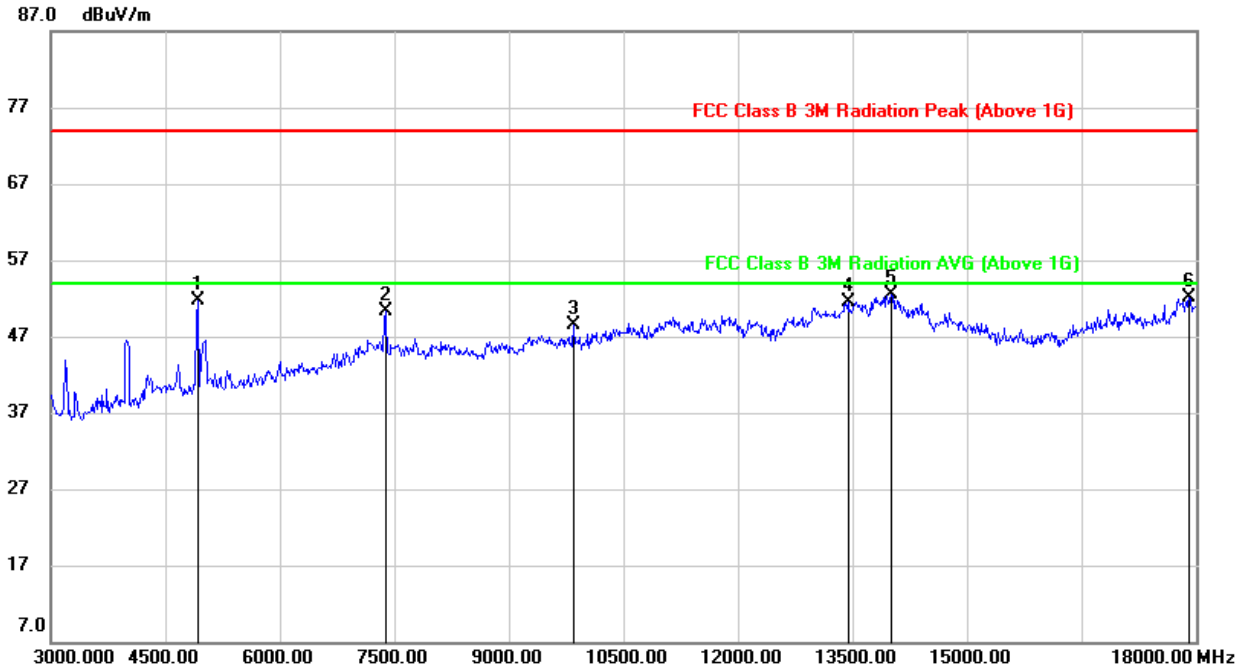
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	51.80	0.65	52.45	74.00	-21.55	peak
2	7380.000	40.91	7.10	48.01	74.00	-25.99	peak
3	9840.000	36.23	11.83	48.06	74.00	-25.94	peak
4	10995.000	34.29	14.57	48.86	74.00	-25.14	peak
5	13440.000	31.84	19.95	51.79	74.00	-22.21	peak
6	17820.000	25.93	26.48	52.41	74.00	-21.59	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

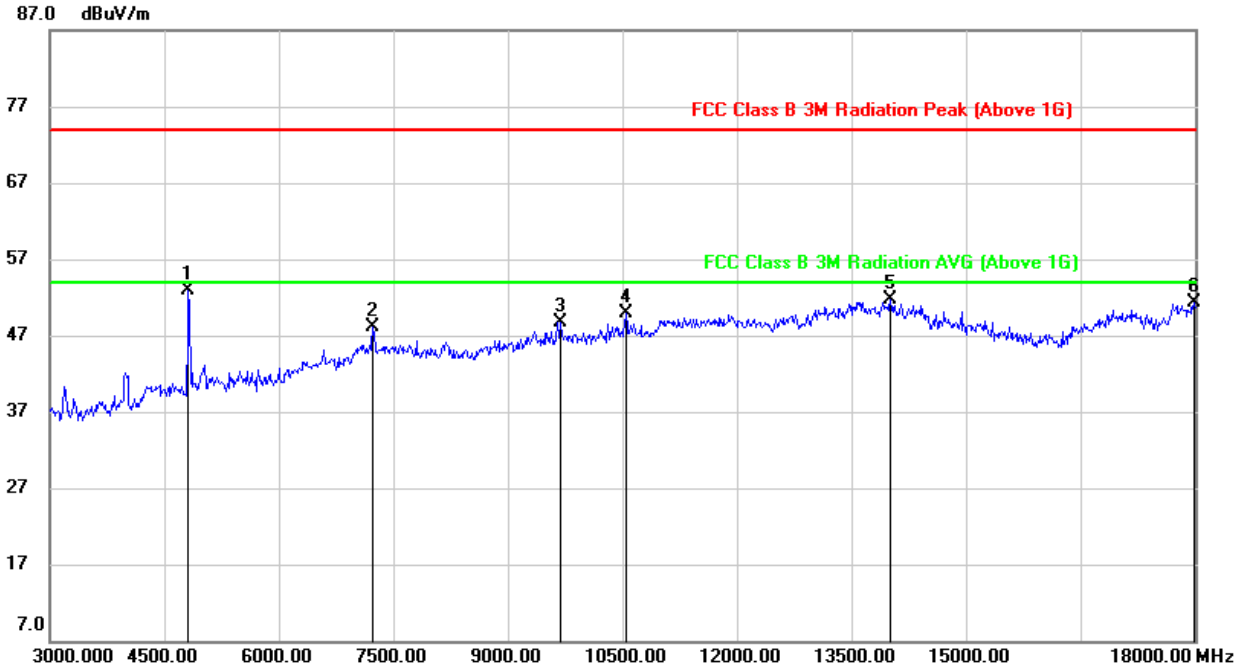


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	51.18	0.59	51.77	74.00	-22.23	peak
2	7380.000	43.22	7.14	50.36	74.00	-23.64	peak
3	9840.000	36.61	11.95	48.56	74.00	-25.44	peak
4	13440.000	31.52	19.95	51.47	74.00	-22.53	peak
5	14010.000	31.86	20.67	52.53	74.00	-21.47	peak
6	17910.000	25.80	26.37	52.17	74.00	-21.83	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

7.2.3. 802.11n20 MODE

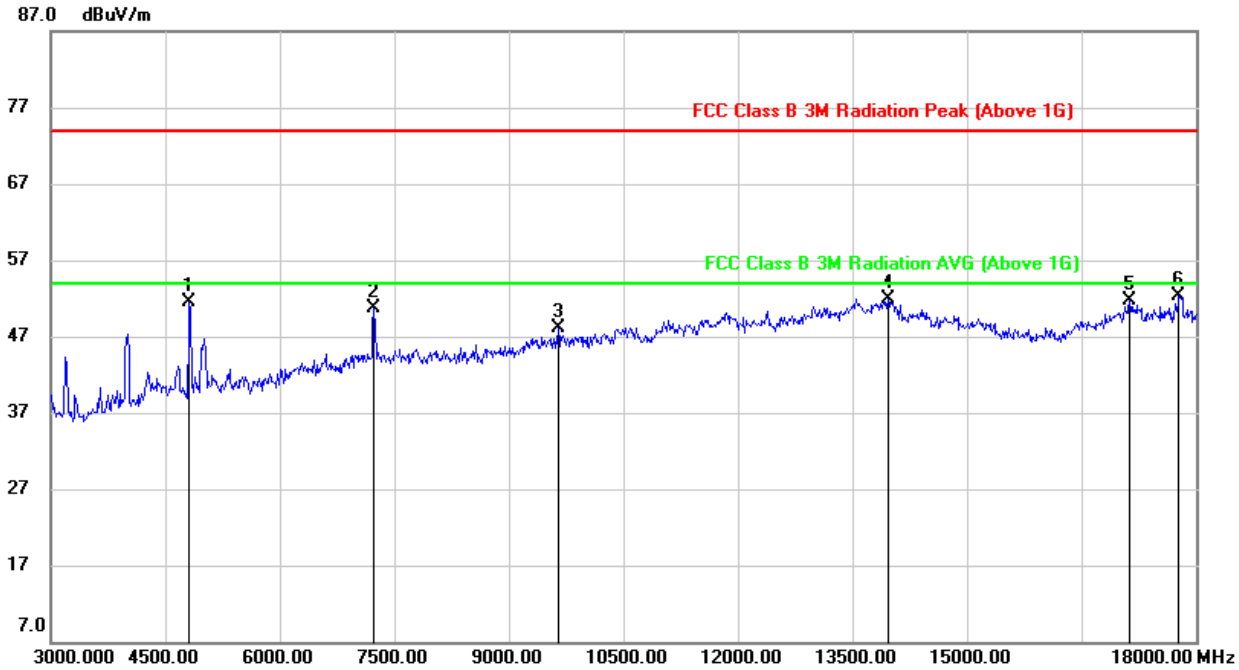
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	53.32	-0.38	52.94	74.00	-21.06	peak
2	7230.000	40.24	7.81	48.05	74.00	-25.95	peak
3	9690.000	37.25	11.41	48.66	74.00	-25.34	peak
4	10545.000	36.16	13.79	49.95	74.00	-24.05	peak
5	14010.000	31.04	20.61	51.65	74.00	-22.35	peak
6	17985.000	24.33	27.05	51.38	74.00	-22.62	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

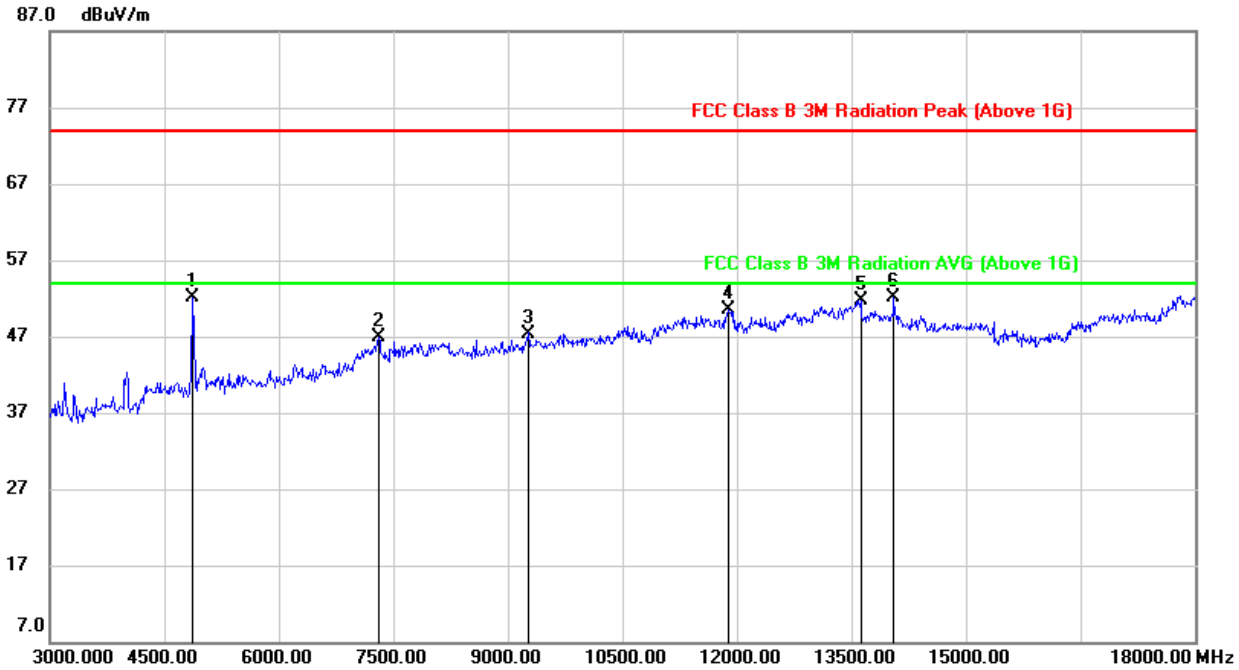
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	51.88	-0.31	51.57	74.00	-22.43	peak
2	7230.000	42.92	7.79	50.71	74.00	-23.29	peak
3	9645.000	36.84	11.35	48.19	74.00	-25.81	peak
4	13965.000	31.23	20.76	51.99	74.00	-22.01	peak
5	17130.000	28.76	22.86	51.62	74.00	-22.38	peak
6	17775.000	25.71	26.57	52.28	74.00	-21.72	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

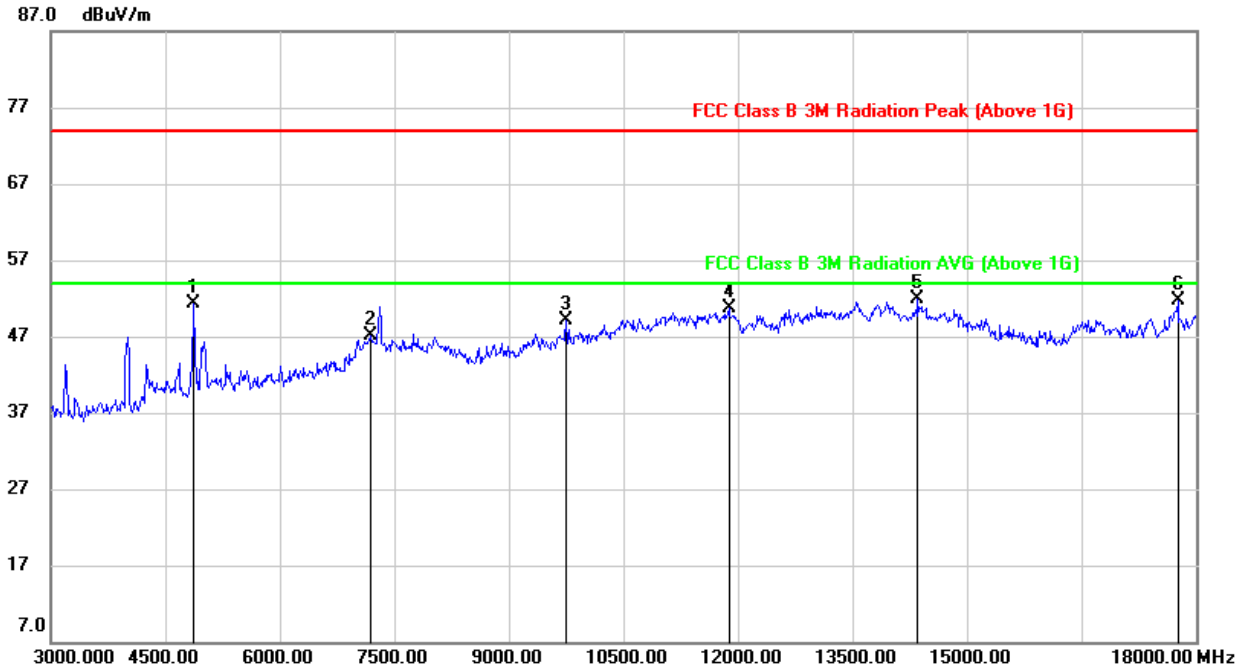
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	51.93	0.20	52.13	74.00	-21.87	peak
2	7305.000	39.15	7.80	46.95	74.00	-27.05	peak
3	9270.000	36.91	10.49	47.40	74.00	-26.60	peak
4	11880.000	33.73	16.74	50.47	74.00	-23.53	peak
5	13620.000	31.16	20.51	51.67	74.00	-22.33	peak
6	14055.000	31.44	20.64	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

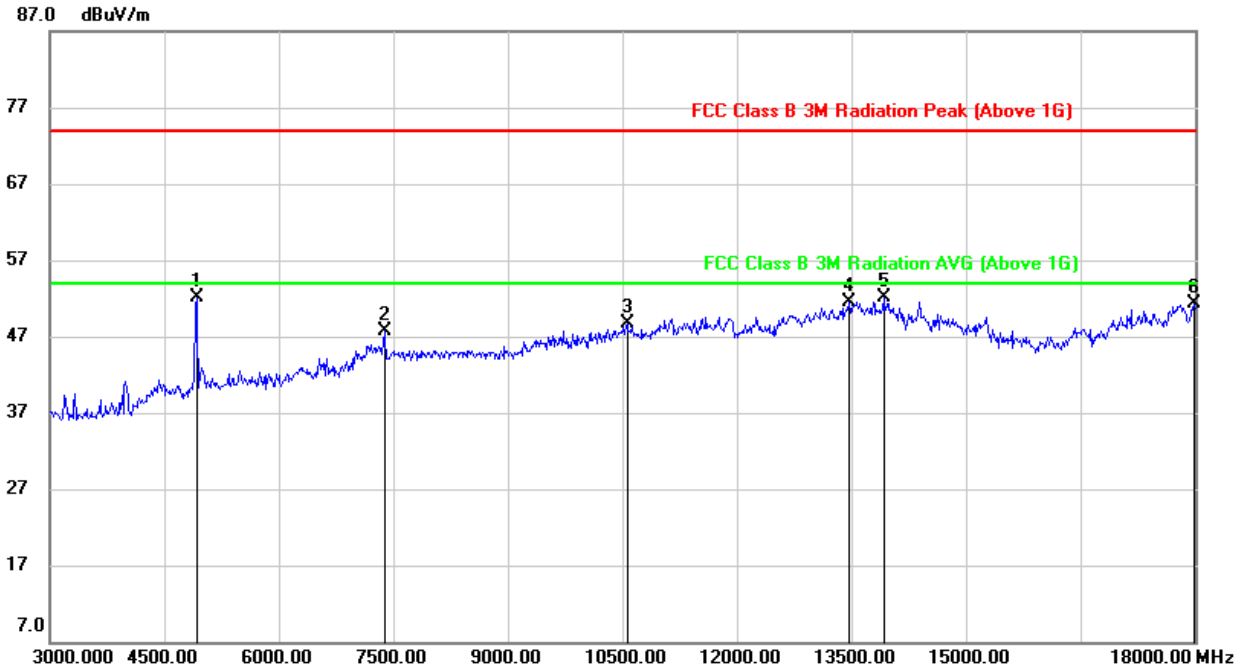
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	50.97	0.33	51.30	74.00	-22.70	peak
2	7185.000	39.30	7.83	47.13	74.00	-26.87	peak
3	9750.000	37.41	11.67	49.08	74.00	-24.92	peak
4	11880.000	33.97	16.64	50.61	74.00	-23.39	peak
5	14355.000	31.55	20.31	51.86	74.00	-22.14	peak
6	17760.000	25.25	26.39	51.64	74.00	-22.36	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

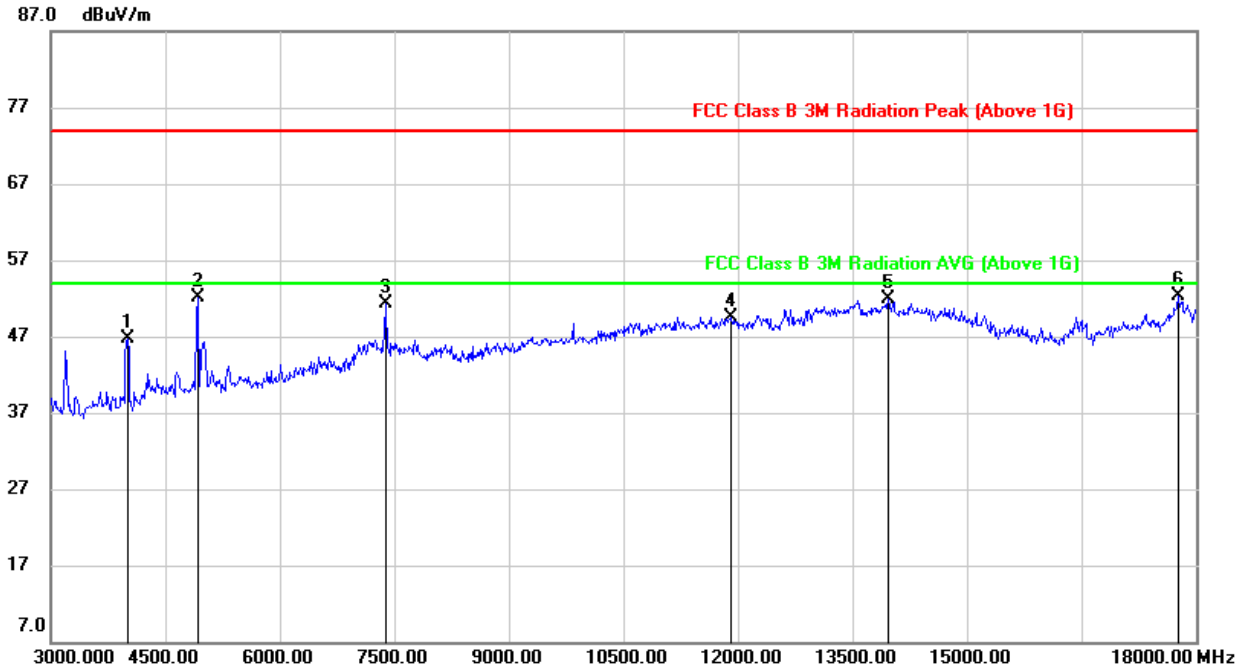
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	51.47	0.65	52.12	74.00	-21.88	peak
2	7380.000	40.54	7.10	47.64	74.00	-26.36	peak
3	10560.000	34.94	13.76	48.70	74.00	-25.30	peak
4	13470.000	31.39	20.09	51.48	74.00	-22.52	peak
5	13920.000	31.37	20.67	52.04	74.00	-21.96	peak
6	17985.000	24.31	27.05	51.36	74.00	-22.64	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

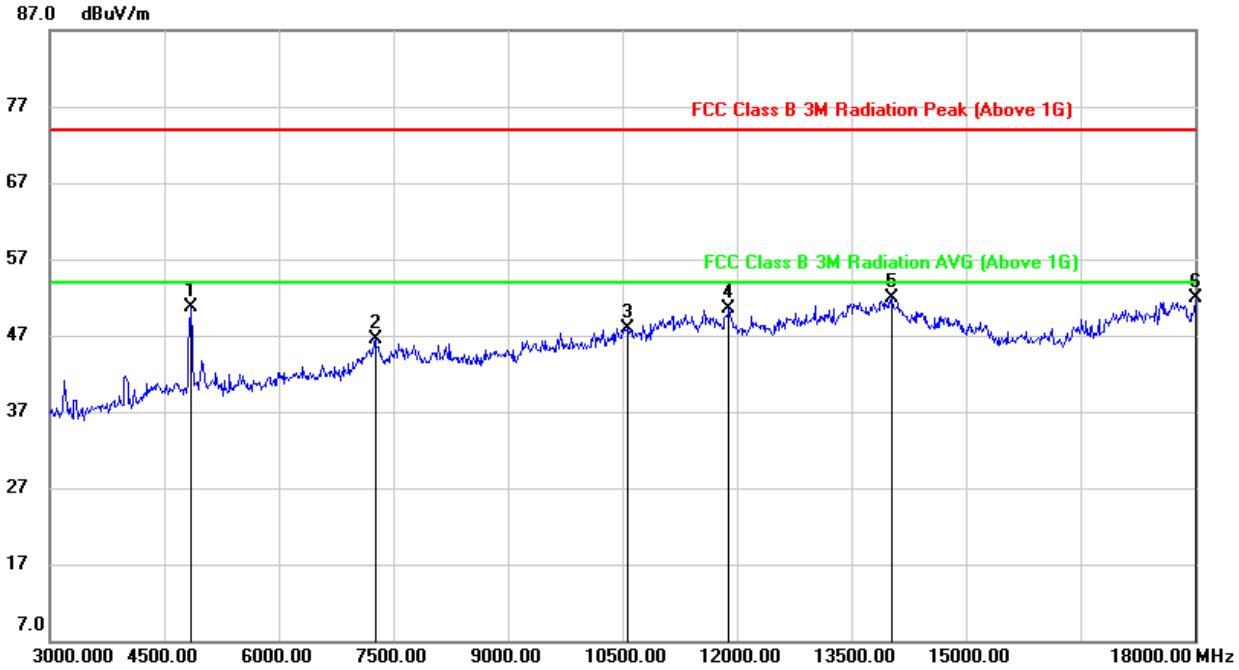


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4005.000	49.65	-2.97	46.68	74.00	-27.32	peak
2	4920.000	51.45	0.59	52.04	74.00	-21.96	peak
3	7380.000	44.19	7.14	51.33	74.00	-22.67	peak
4	11910.000	32.95	16.64	49.59	74.00	-24.41	peak
5	13965.000	31.08	20.76	51.84	74.00	-22.16	peak
6	17760.000	25.94	26.39	52.33	74.00	-21.67	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

7.2.4. 802.11n40 MODE

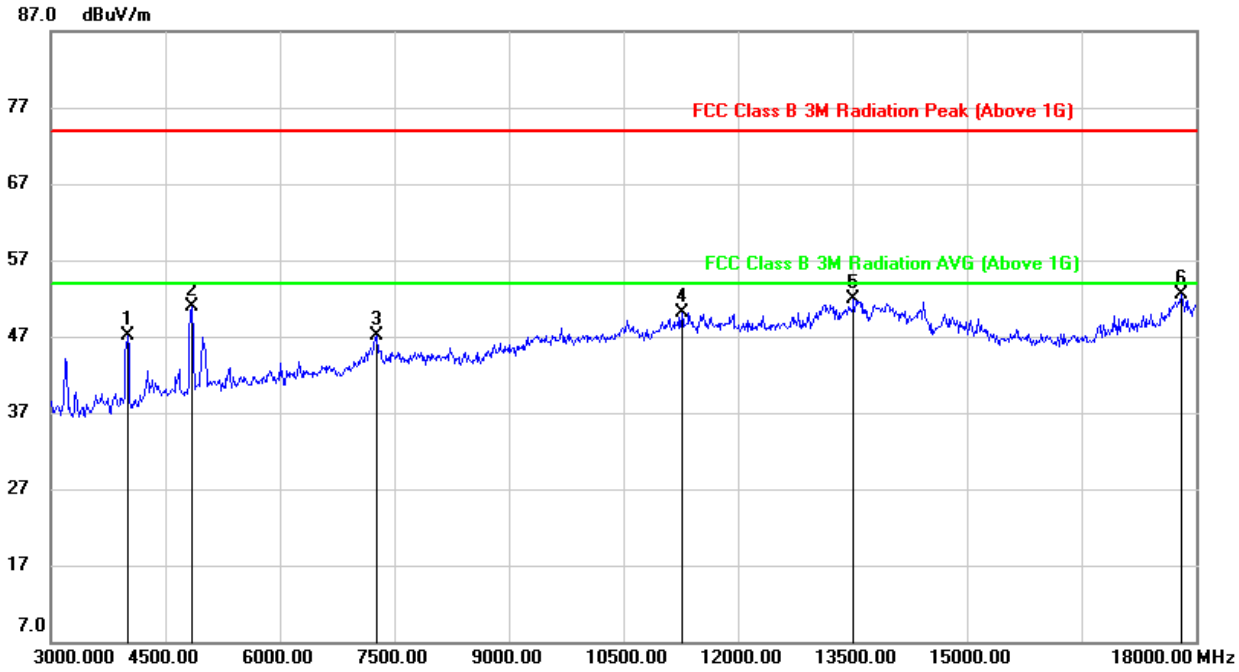
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4845.000	50.66	0.00	50.66	74.00	-23.34	peak
2	7260.000	38.57	7.86	46.43	74.00	-27.57	peak
3	10560.000	34.24	13.76	48.00	74.00	-26.00	peak
4	11895.000	33.49	17.04	50.53	74.00	-23.47	peak
5	14025.000	31.32	20.62	51.94	74.00	-22.06	peak
6	18000.000	24.87	27.06	51.93	74.00	-22.07	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

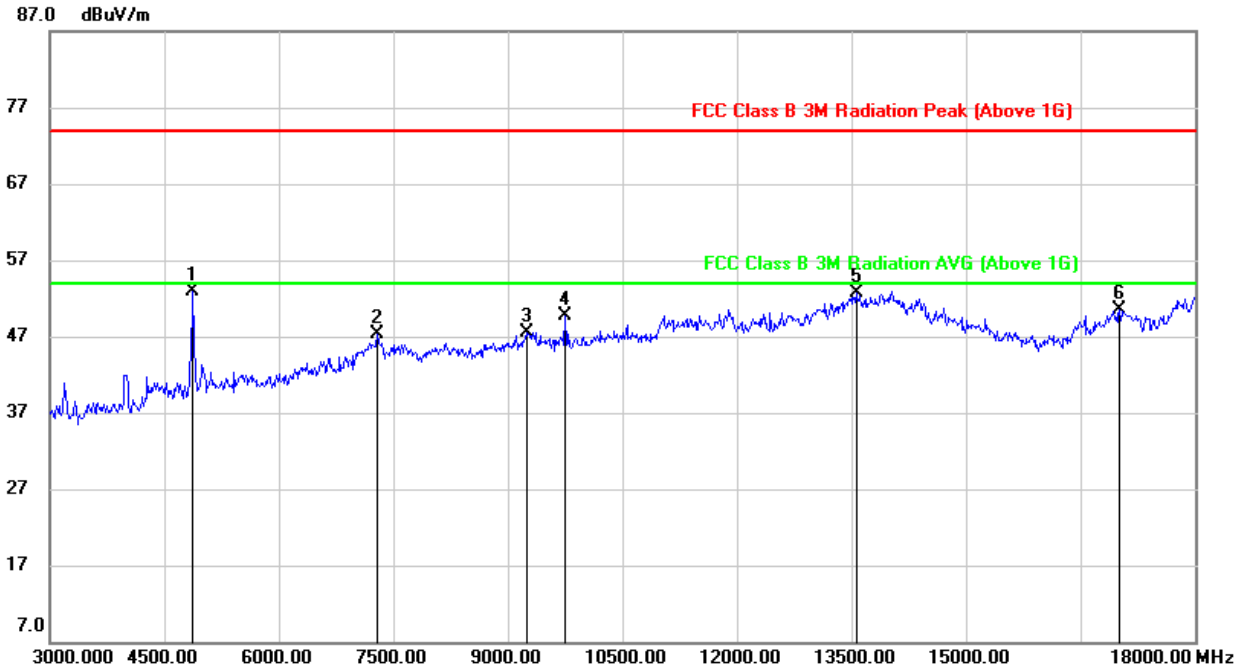
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4005.000	50.15	-2.97	47.18	74.00	-26.82	peak
2	4845.000	50.94	0.01	50.95	74.00	-23.05	peak
3	7275.000	39.20	7.81	47.01	74.00	-26.99	peak
4	11265.000	34.83	15.26	50.09	74.00	-23.91	peak
5	13515.000	31.18	20.67	51.85	74.00	-22.15	peak
6	17805.000	25.78	26.80	52.58	74.00	-21.42	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

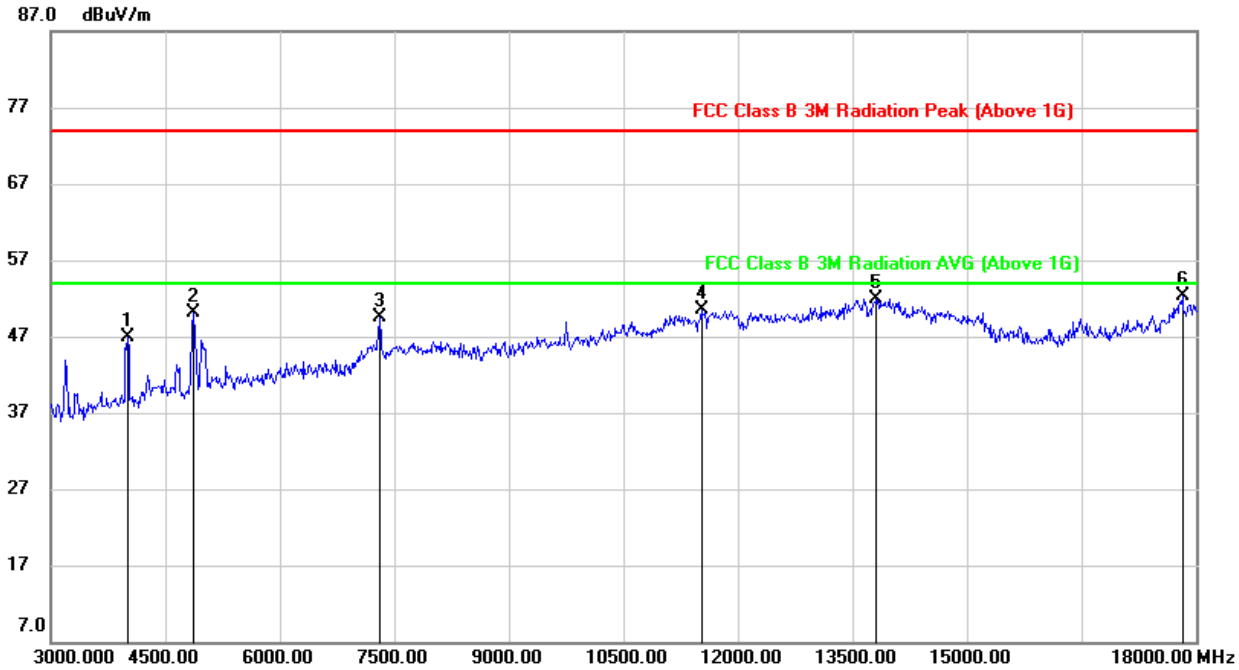
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	52.56	0.38	52.94	74.00	-21.06	peak
2	7290.000	39.46	7.86	47.32	74.00	-26.68	peak
3	9240.000	37.12	10.36	47.48	74.00	-26.52	peak
4	9750.000	38.08	11.57	49.65	74.00	-24.35	peak
5	13560.000	32.29	20.37	52.66	74.00	-21.34	peak
6	17010.000	28.55	21.94	50.49	74.00	-23.51	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

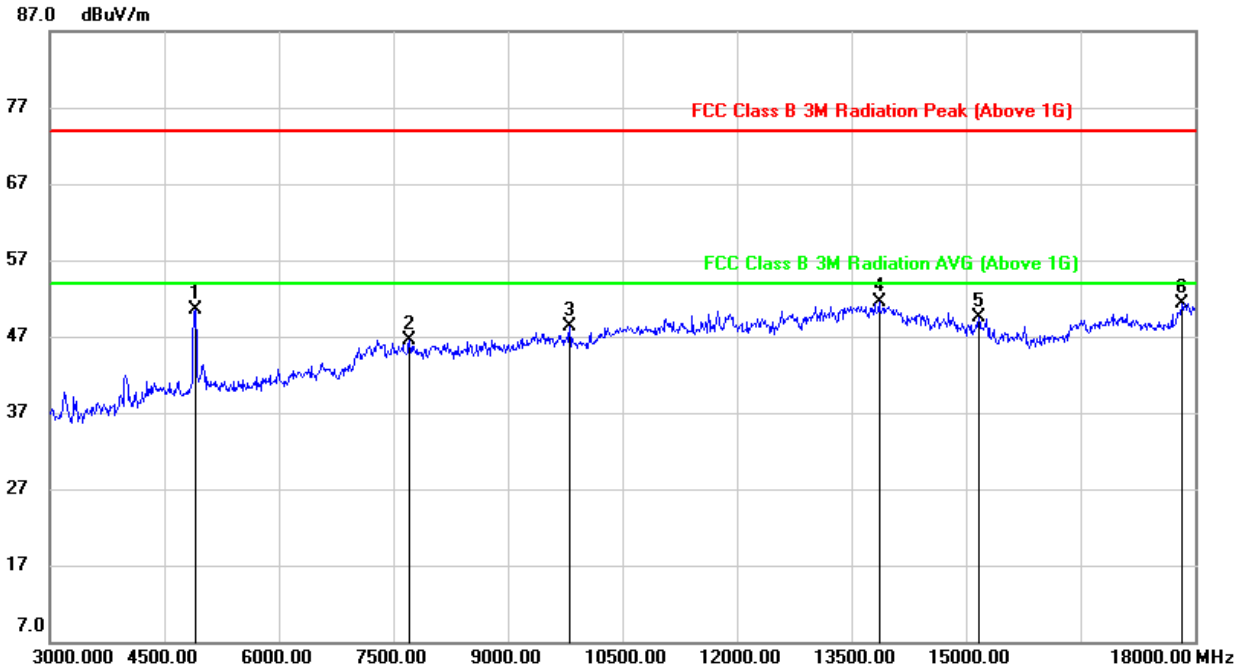
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4005.000	49.83	-2.97	46.86	74.00	-27.14	peak
2	4860.000	50.02	0.18	50.20	74.00	-23.80	peak
3	7305.000	41.67	7.81	49.48	74.00	-24.52	peak
4	11520.000	34.19	16.25	50.44	74.00	-23.56	peak
5	13815.000	30.88	21.12	52.00	74.00	-22.00	peak
6	17820.000	25.74	26.56	52.30	74.00	-21.70	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

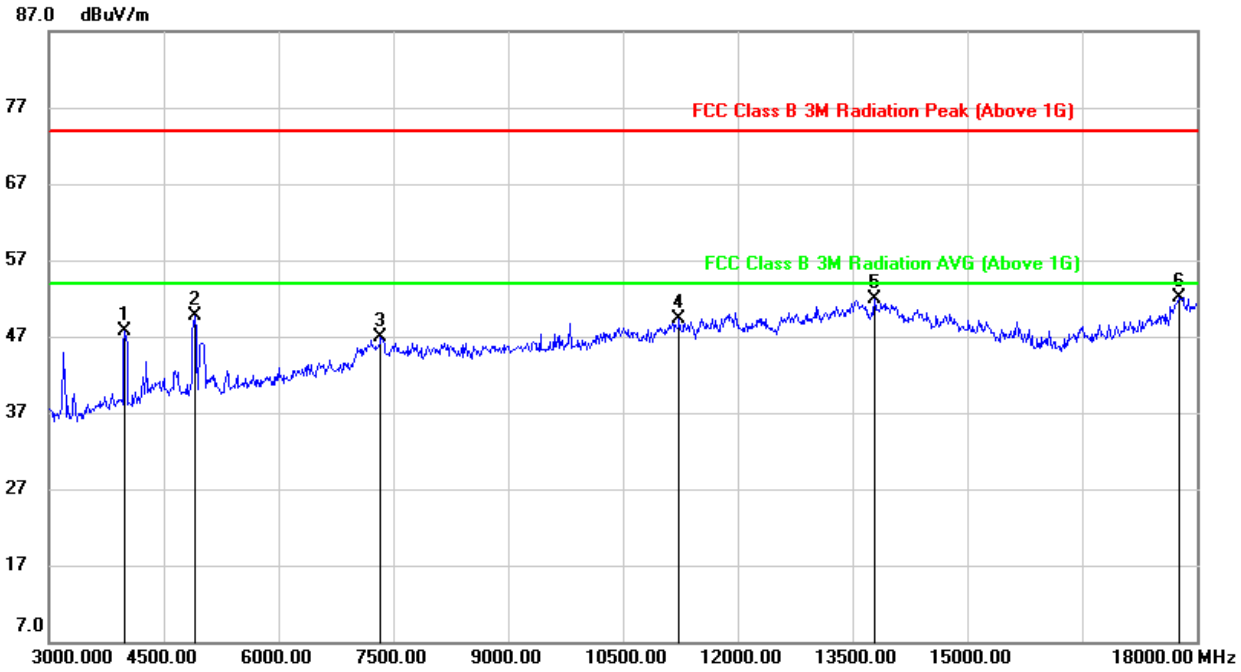
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4905.000	49.76	0.68	50.44	74.00	-23.56	peak
2	7710.000	38.50	8.05	46.55	74.00	-27.45	peak
3	9810.000	36.52	11.72	48.24	74.00	-25.76	peak
4	13860.000	30.87	20.72	51.59	74.00	-22.41	peak
5	15165.000	31.68	17.89	49.57	74.00	-24.43	peak
6	17835.000	24.80	26.49	51.29	74.00	-22.71	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	50.63	-3.00	47.63	74.00	-26.37	peak
2	4905.000	49.03	0.59	49.62	74.00	-24.38	peak
3	7335.000	39.47	7.52	46.99	74.00	-27.01	peak
4	11235.000	34.00	15.36	49.36	74.00	-24.64	peak
5	13785.000	30.82	21.05	51.87	74.00	-22.13	peak
6	17760.000	25.78	26.39	52.17	74.00	-21.83	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

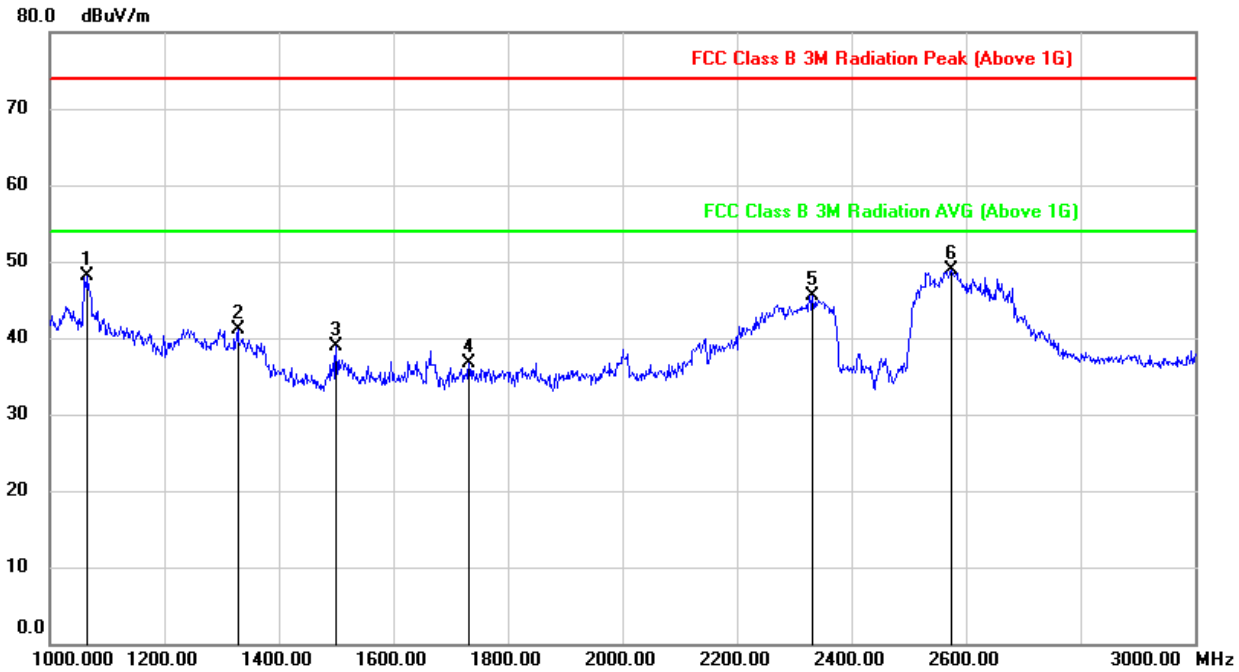
Note: Main relay and Alternative relay had been tested, but only the worst data were recorded in the report.

7.3. SPURIOUS EMISSIONS (1~3GHz)

Main Relay

7.3.1. 802.11b MODE

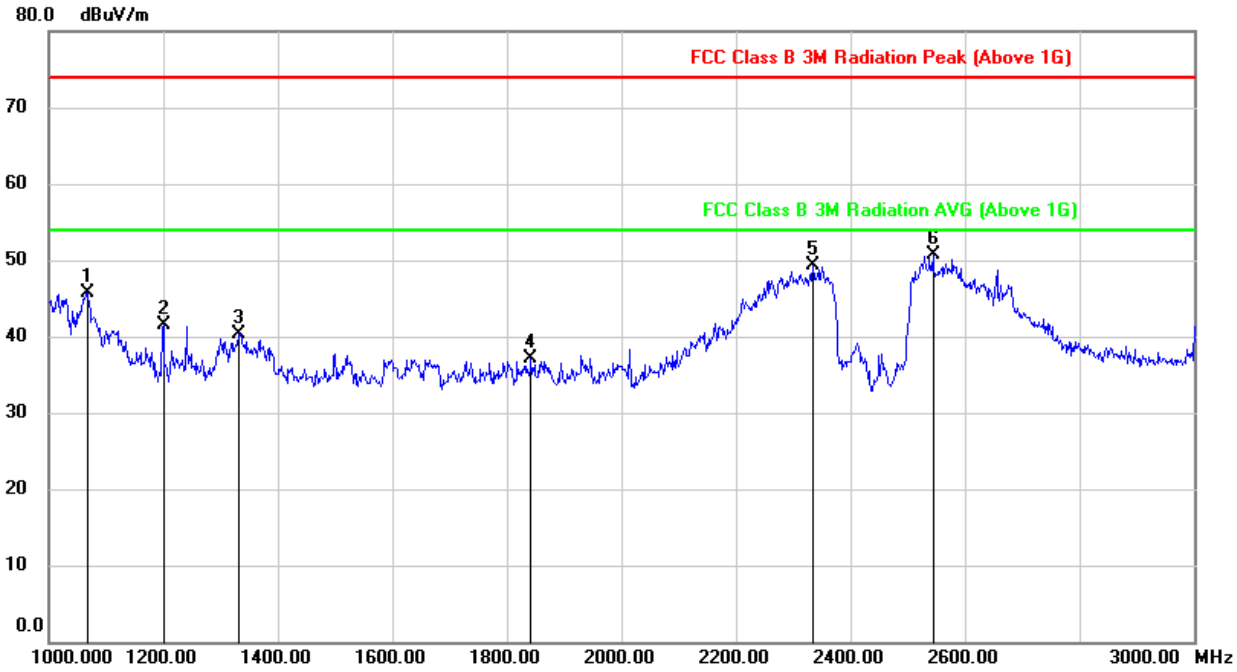
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1064.000	61.70	-13.62	48.08	74.00	-25.92	peak
2	1328.000	53.58	-12.38	41.20	74.00	-32.80	peak
3	1500.000	51.12	-12.18	38.94	74.00	-35.06	peak
4	1732.000	48.03	-11.36	36.67	74.00	-37.33	peak
5	2332.000	53.21	-7.62	45.59	74.00	-28.41	peak
6	2574.000	57.16	-8.23	48.93	74.00	-25.07	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

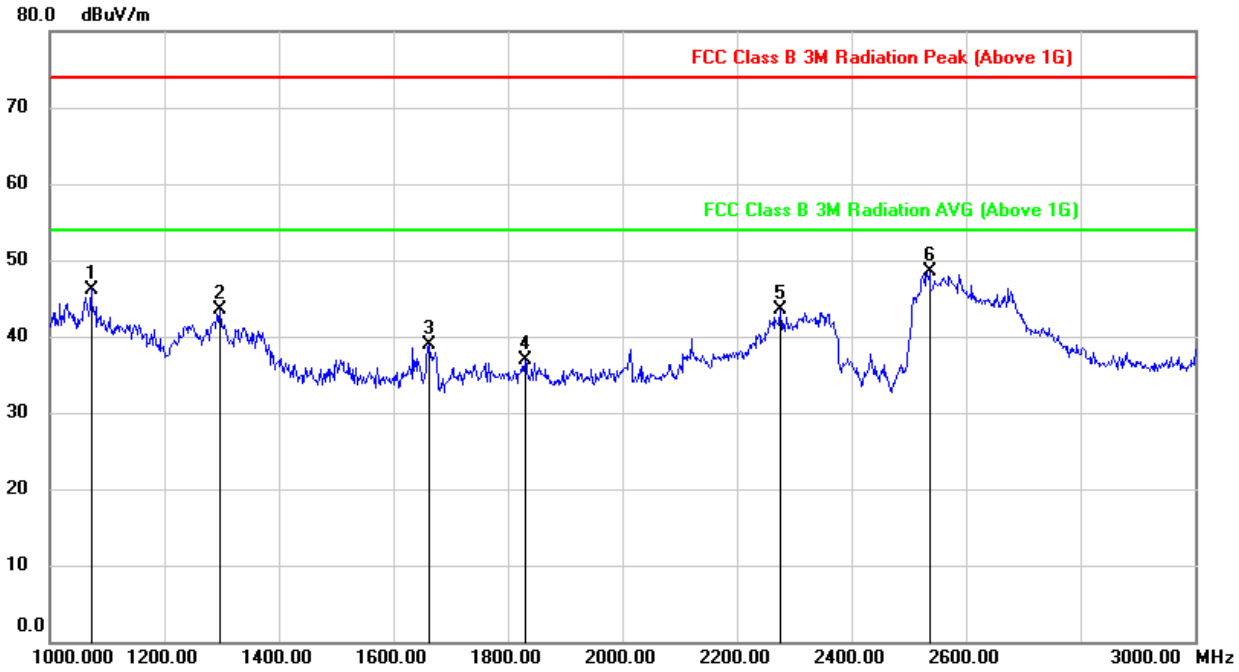
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1068.000	59.60	-13.91	45.69	74.00	-28.31	peak
2	1200.000	54.76	-13.17	41.59	74.00	-32.41	peak
3	1332.000	52.79	-12.48	40.31	74.00	-33.69	peak
4	1842.000	48.01	-10.92	37.09	74.00	-36.91	peak
5	2334.000	56.76	-7.50	49.26	74.00	-24.74	peak
6	2544.000	58.88	-8.26	50.62	74.00	-23.38	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.
4. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

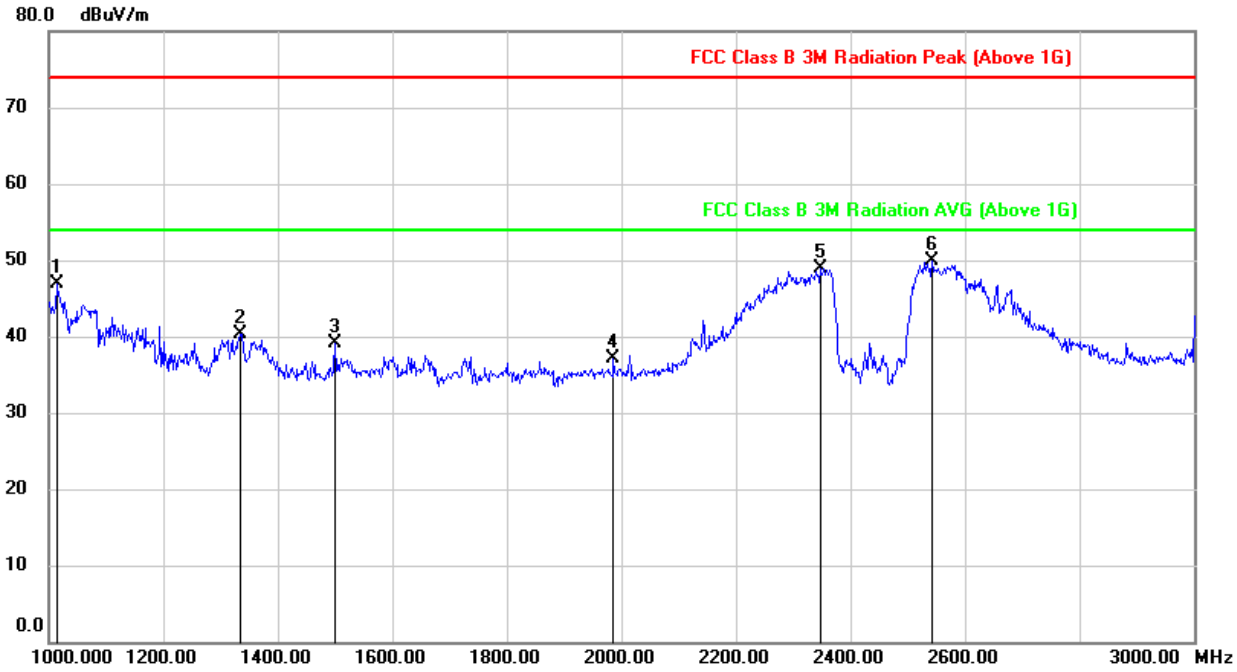
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1072.000	59.81	-13.61	46.20	74.00	-27.80	peak
2	1296.000	55.89	-12.42	43.47	74.00	-30.53	peak
3	1662.000	50.59	-11.69	38.90	74.00	-35.10	peak
4	1830.000	47.86	-10.98	36.88	74.00	-37.12	peak
5	2276.000	51.06	-7.49	43.57	74.00	-30.43	peak
6	2536.000	56.79	-8.37	48.42	74.00	-25.58	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

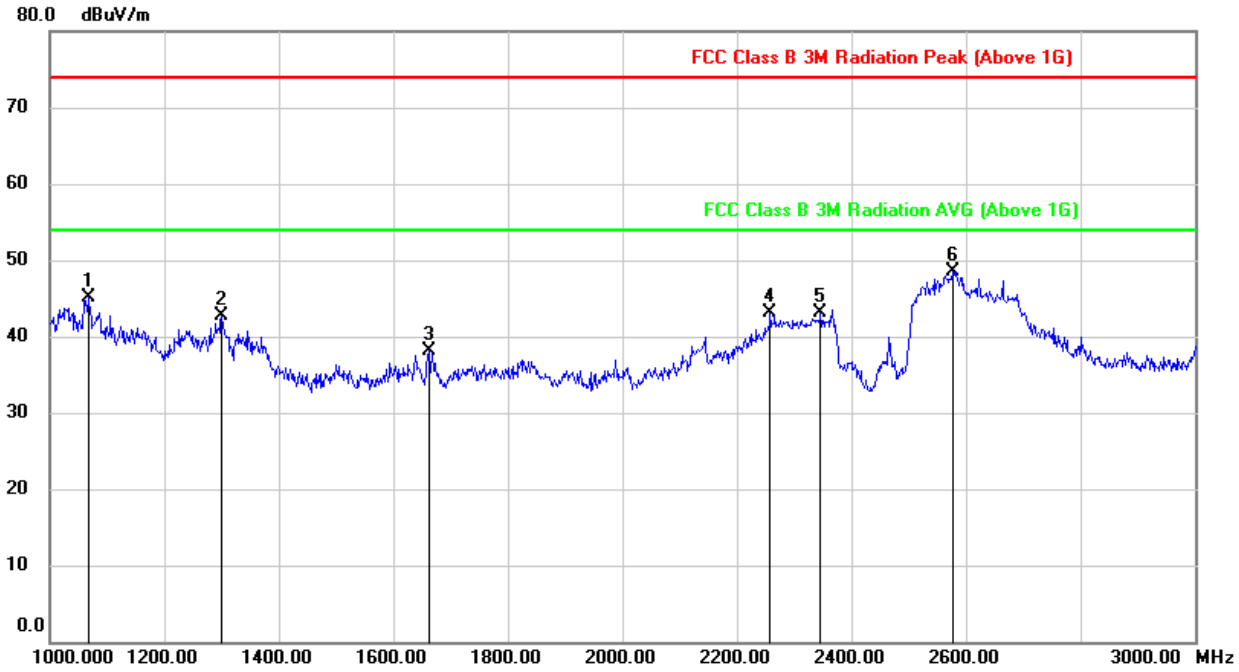


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1014.000	60.82	-13.99	46.83	74.00	-27.17	peak
2	1334.000	52.79	-12.47	40.32	74.00	-33.68	peak
3	1500.000	51.45	-12.28	39.17	74.00	-34.83	peak
4	1986.000	47.69	-10.68	37.01	74.00	-36.99	peak
5	2348.000	56.62	-7.64	48.98	74.00	-25.02	peak
6	2542.000	58.18	-8.26	49.92	74.00	-24.08	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

Note: All the antennas had been tested, but only the worst data record in the report.

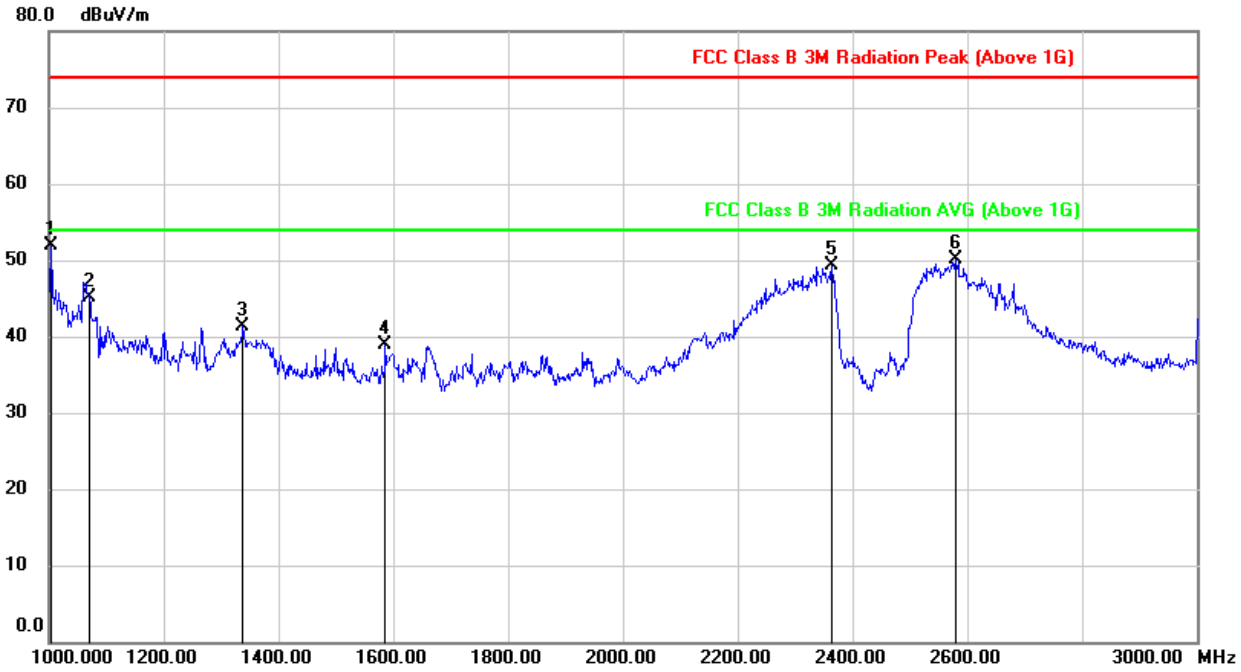
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1068.000	58.72	-13.61	45.11	74.00	-28.89	peak
2	1300.000	55.03	-12.39	42.64	74.00	-31.36	peak
3	1662.000	49.77	-11.69	38.08	74.00	-35.92	peak
4	2258.000	50.70	-7.57	43.13	74.00	-30.87	peak
5	2346.000	50.88	-7.73	43.15	74.00	-30.85	peak
6	2576.000	56.71	-8.23	48.48	74.00	-25.52	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

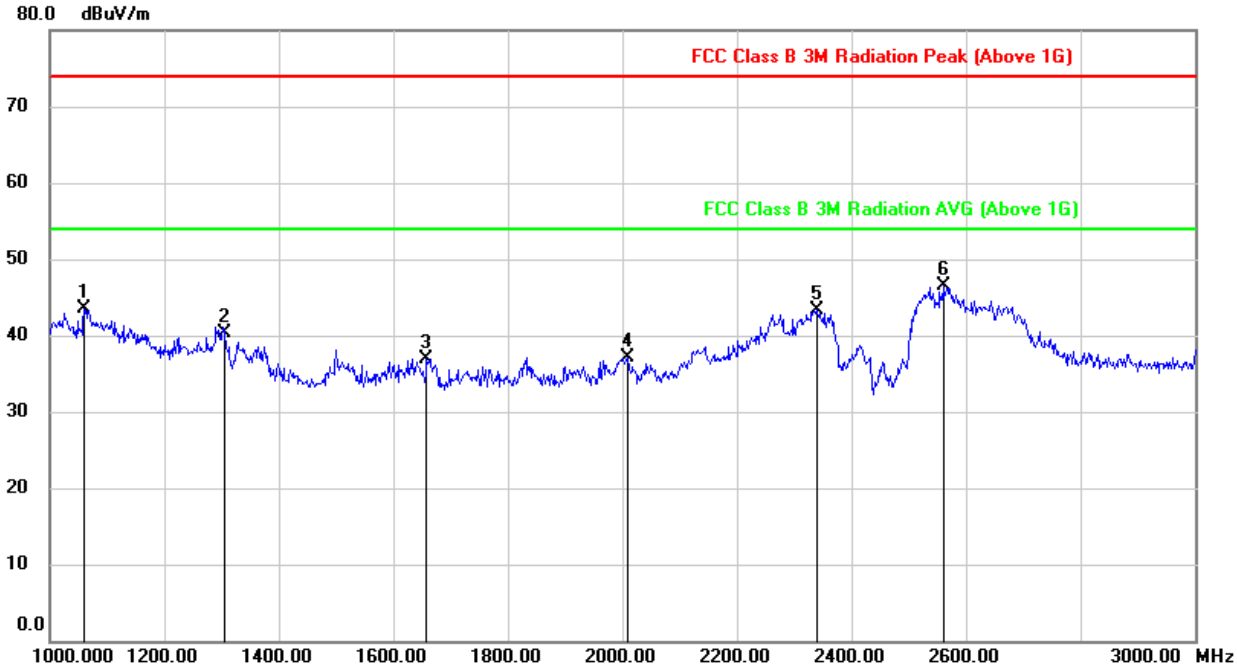


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1004.000	65.89	-14.00	51.89	74.00	-22.11	peak
2	1070.000	58.93	-13.91	45.02	74.00	-28.98	peak
3	1338.000	53.72	-12.45	41.27	74.00	-32.73	peak
4	1586.000	50.95	-12.12	38.83	74.00	-35.17	peak
5	2364.000	57.00	-7.75	49.25	74.00	-24.75	peak
6	2580.000	58.28	-8.17	50.11	74.00	-23.89	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

7.3.2. 802.11g MODE

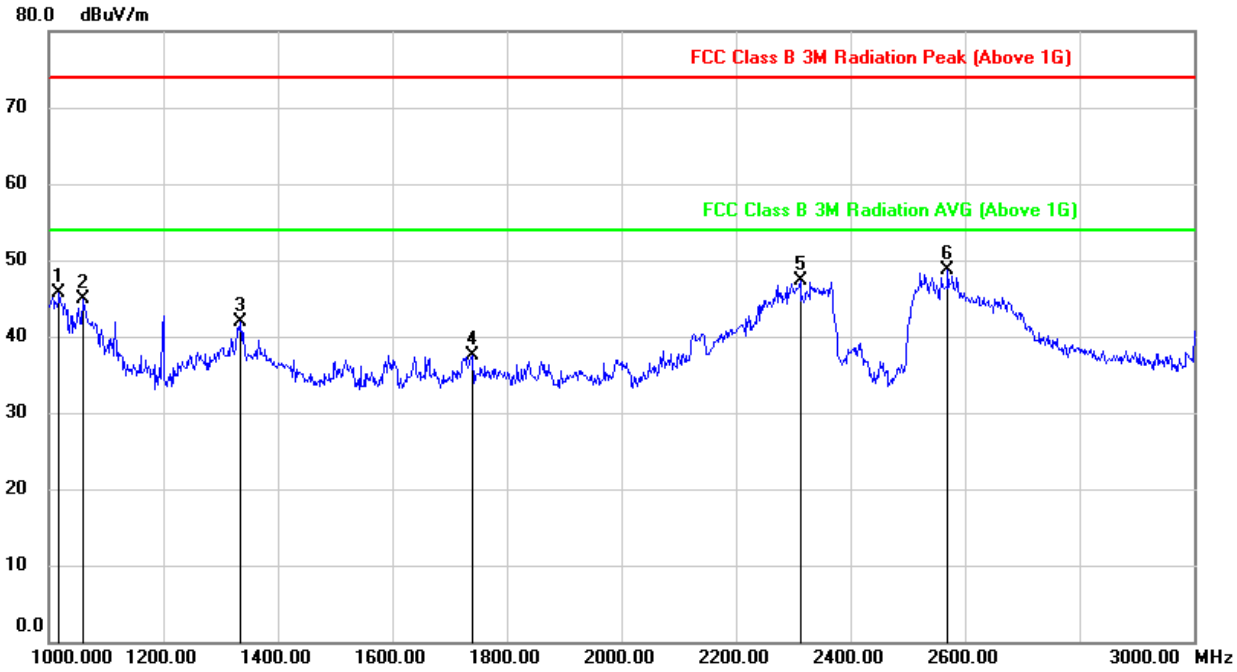
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1060.000	57.17	-13.62	43.55	74.00	-30.45	peak
2	1306.000	52.75	-12.39	40.36	74.00	-33.64	peak
3	1658.000	48.68	-11.71	36.97	74.00	-37.03	peak
4	2010.000	47.67	-10.54	37.13	74.00	-36.87	peak
5	2340.000	51.05	-7.68	43.37	74.00	-30.63	peak
6	2560.000	54.83	-8.31	46.52	74.00	-27.48	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

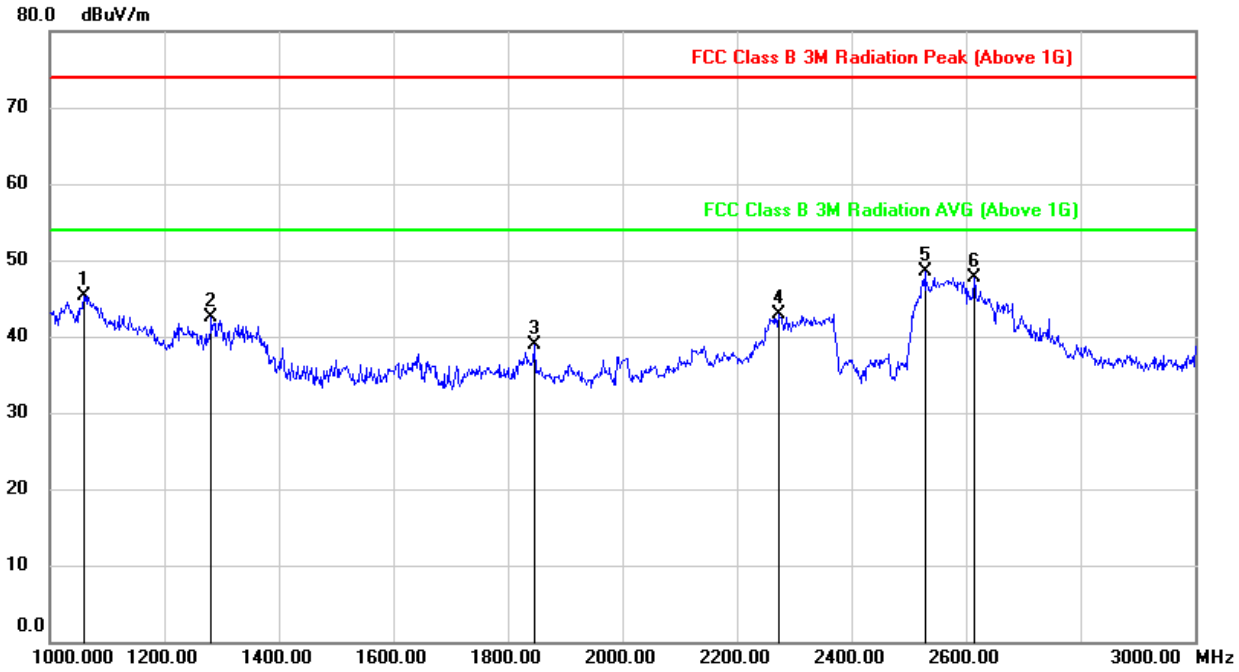
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1018.000	59.72	-13.98	45.74	74.00	-28.26	peak
2	1060.000	58.86	-13.92	44.94	74.00	-29.06	peak
3	1334.000	54.41	-12.47	41.94	74.00	-32.06	peak
4	1740.000	48.88	-11.32	37.56	74.00	-36.44	peak
5	2312.000	54.52	-7.30	47.22	74.00	-26.78	peak
6	2570.000	56.91	-8.19	48.72	74.00	-25.28	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

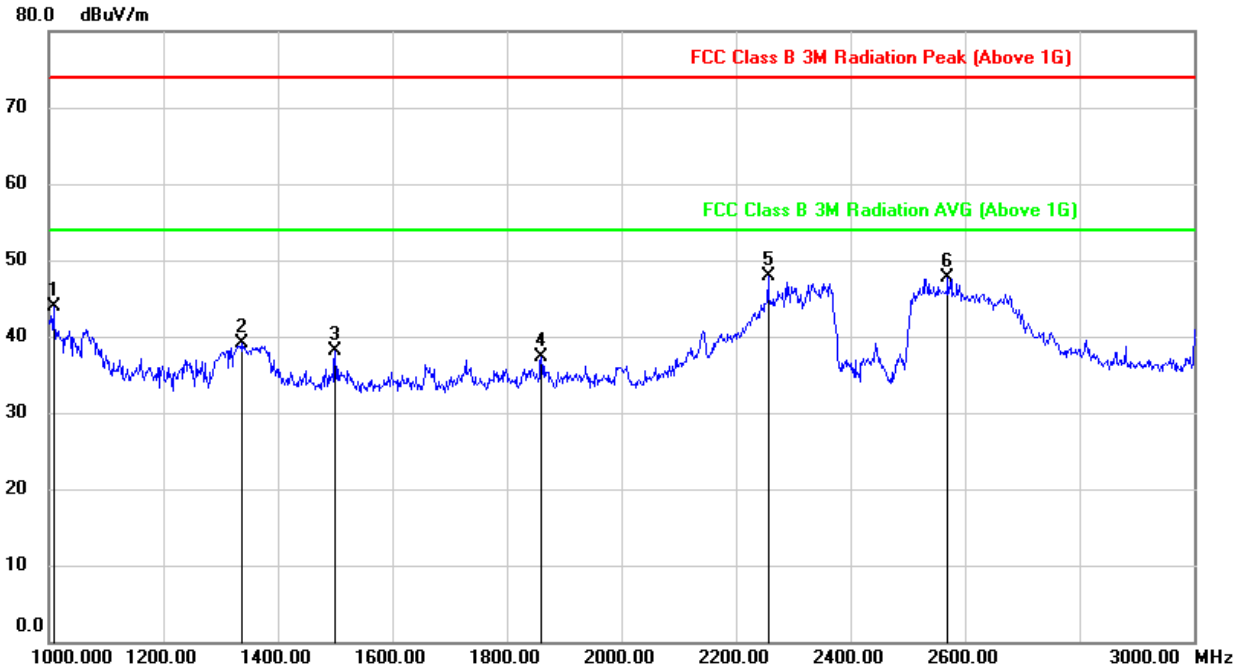
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1060.000	58.92	-13.62	45.30	74.00	-28.70	peak
2	1282.000	55.11	-12.55	42.56	74.00	-31.44	peak
3	1846.000	49.88	-10.90	38.98	74.00	-35.02	peak
4	2272.000	50.37	-7.50	42.87	74.00	-31.13	peak
5	2528.000	56.93	-8.38	48.55	74.00	-25.45	peak
6	2614.000	55.67	-8.03	47.64	74.00	-26.36	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

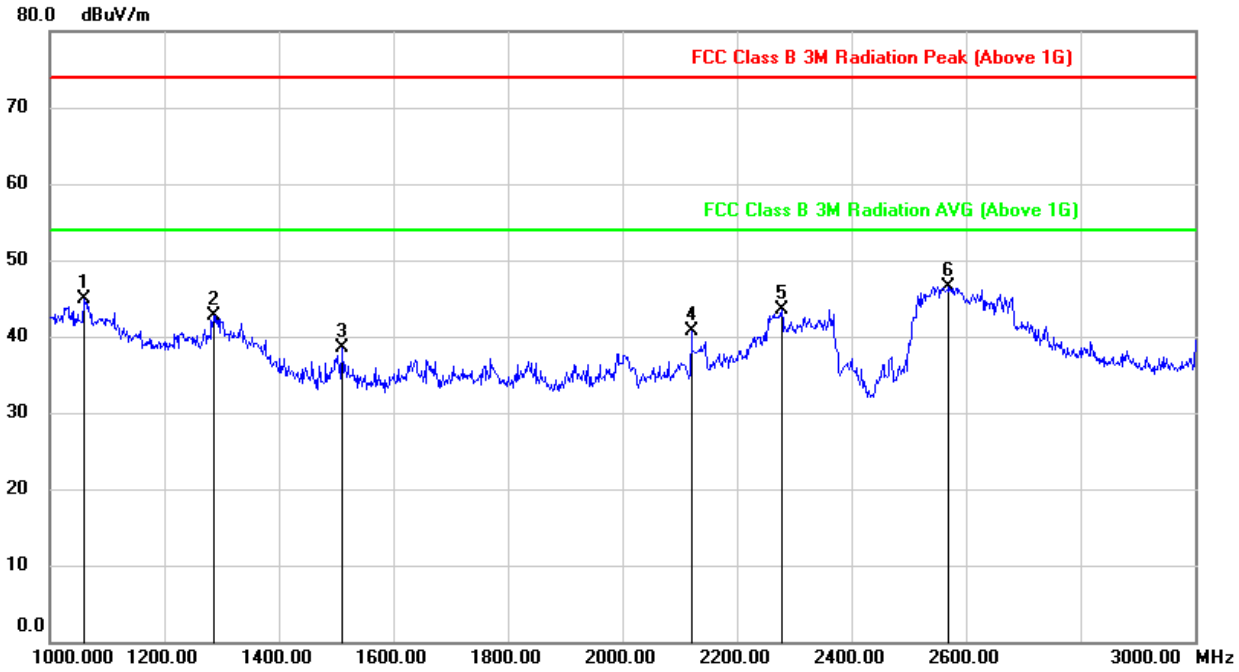
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1008.000	57.89	-13.99	43.90	74.00	-30.10	peak
2	1338.000	51.48	-12.45	39.03	74.00	-34.97	peak
3	1500.000	50.43	-12.28	38.15	74.00	-35.85	peak
4	1860.000	48.15	-10.88	37.27	74.00	-36.73	peak
5	2256.000	55.40	-7.55	47.85	74.00	-26.15	peak
6	2570.000	55.83	-8.19	47.64	74.00	-26.36	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

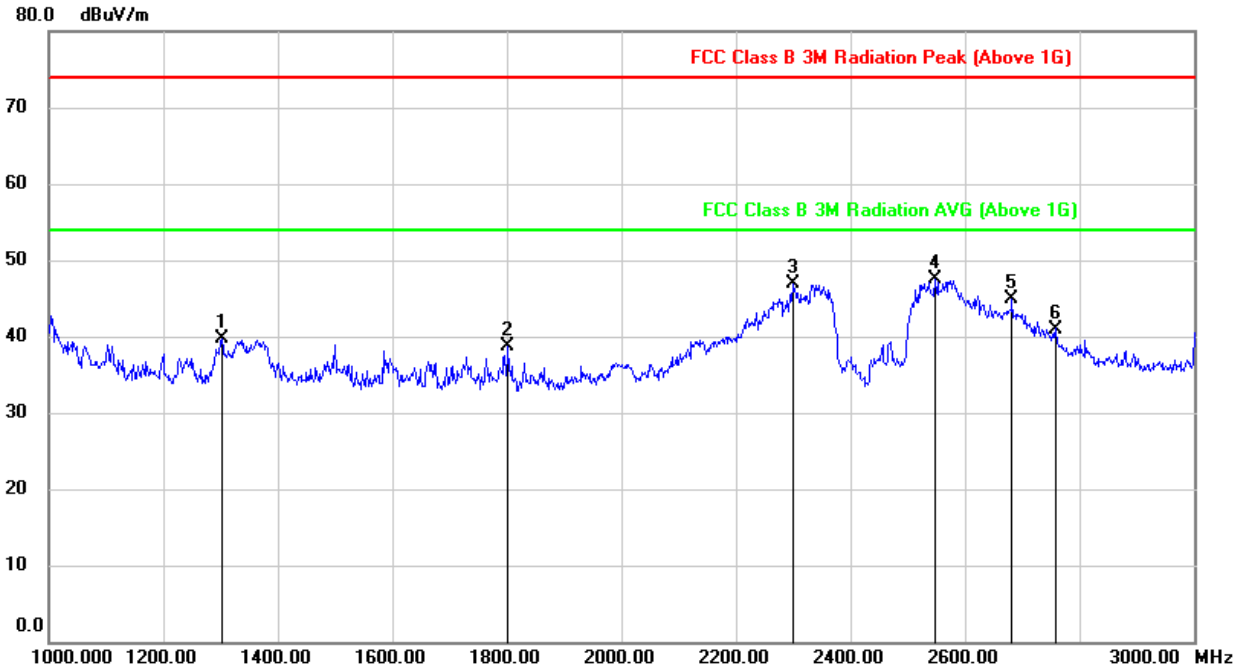
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1060.000	58.56	-13.62	44.94	74.00	-29.06	peak
2	1286.000	55.24	-12.51	42.73	74.00	-31.27	peak
3	1510.000	50.80	-12.22	38.58	74.00	-35.42	peak
4	2120.000	49.94	-9.31	40.63	74.00	-33.37	peak
5	2278.000	51.05	-7.49	43.56	74.00	-30.44	peak
6	2570.000	54.84	-8.25	46.59	74.00	-27.41	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

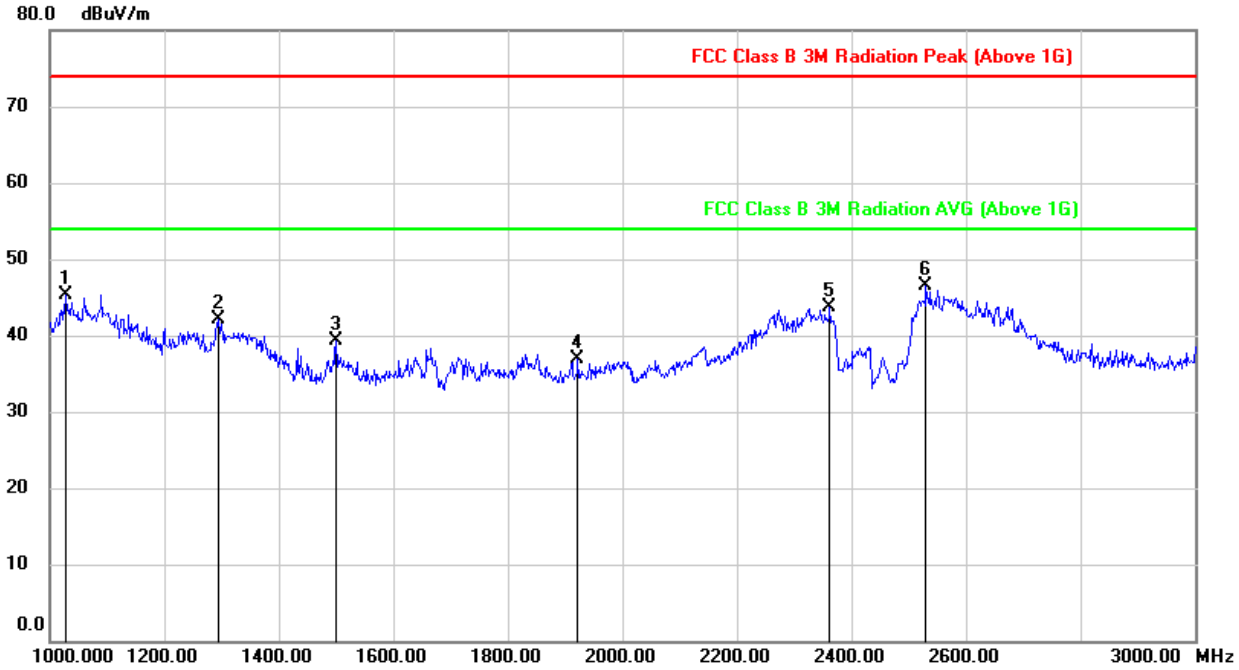


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1302.000	52.31	-12.68	39.63	74.00	-34.37	peak
2	1802.000	49.76	-11.12	38.64	74.00	-35.36	peak
3	2300.000	54.16	-7.20	46.96	74.00	-27.04	peak
4	2548.000	55.67	-8.26	47.41	74.00	-26.59	peak
5	2682.000	52.62	-7.73	44.89	74.00	-29.11	peak
6	2758.000	48.27	-7.27	41.00	74.00	-33.00	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

7.3.3. 802.11n20 MODE

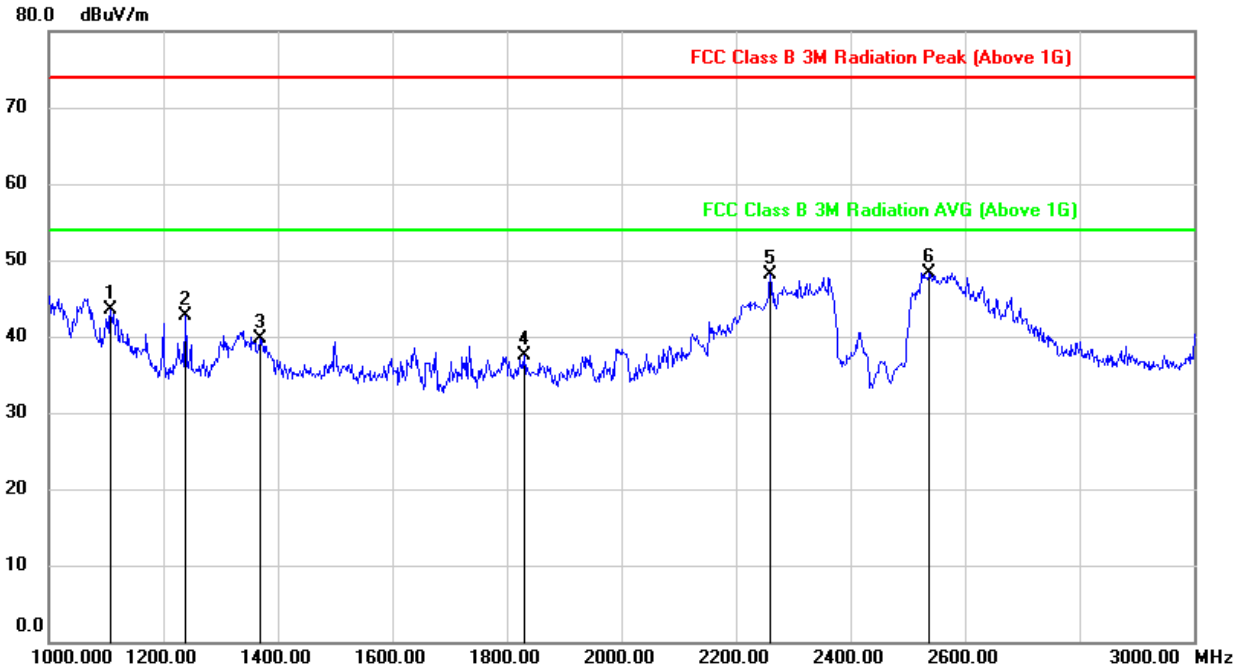
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1028.000	59.28	-13.88	45.40	74.00	-28.60	peak
2	1294.000	54.58	-12.45	42.13	74.00	-31.87	peak
3	1500.000	51.50	-12.18	39.32	74.00	-34.68	peak
4	1922.000	47.67	-10.72	36.95	74.00	-37.05	peak
5	2362.000	51.61	-7.84	43.77	74.00	-30.23	peak
6	2530.000	54.85	-8.37	46.48	74.00	-27.52	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

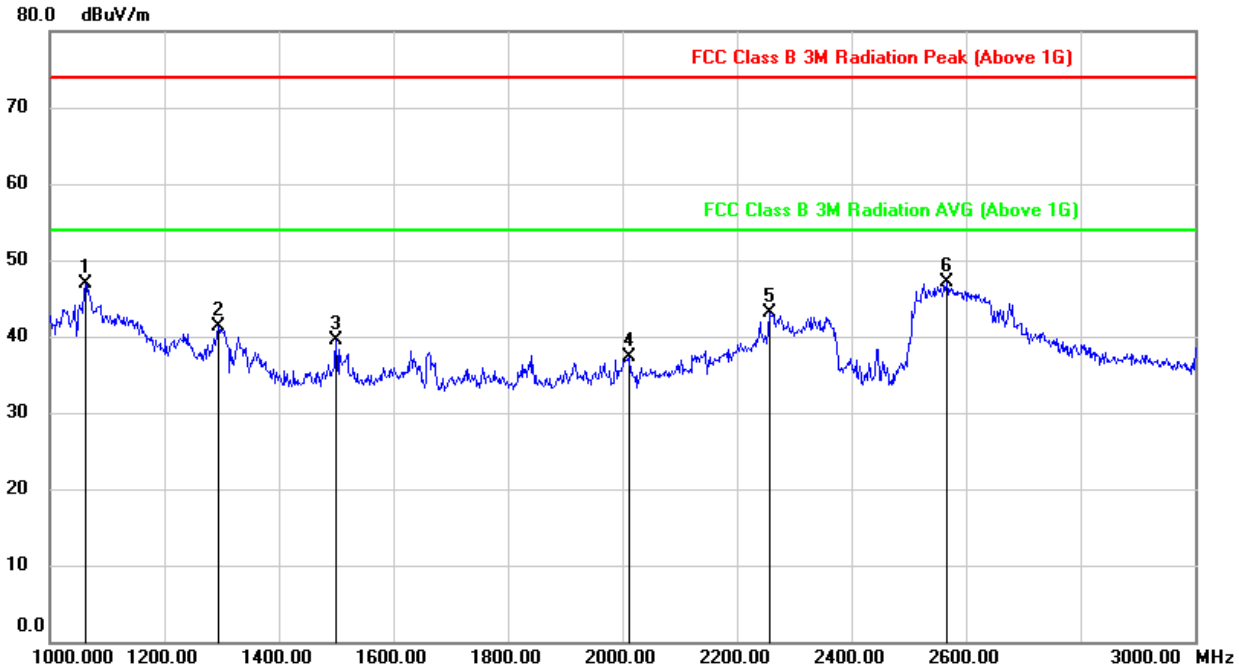
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1108.000	57.34	-13.81	43.53	74.00	-30.47	peak
2	1238.000	55.61	-12.84	42.77	74.00	-31.23	peak
3	1368.000	52.13	-12.41	39.72	74.00	-34.28	peak
4	1830.000	48.51	-10.98	37.53	74.00	-36.47	peak
5	2260.000	55.57	-7.52	48.05	74.00	-25.95	peak
6	2538.000	56.60	-8.26	48.34	74.00	-25.66	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

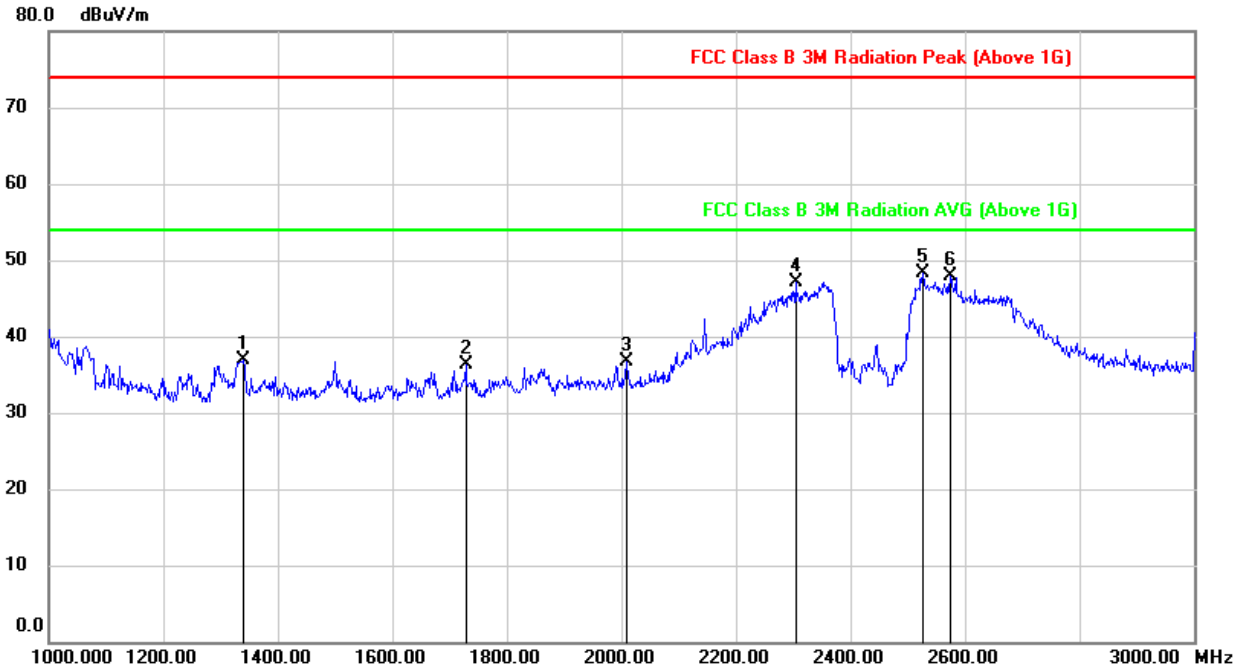
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1062.000	60.45	-13.62	46.83	74.00	-27.17	peak
2	1294.000	53.69	-12.45	41.24	74.00	-32.76	peak
3	1500.000	51.62	-12.18	39.44	74.00	-34.56	peak
4	2012.000	47.90	-10.52	37.38	74.00	-36.62	peak
5	2256.000	50.63	-7.57	43.06	74.00	-30.94	peak
6	2566.000	55.46	-8.28	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

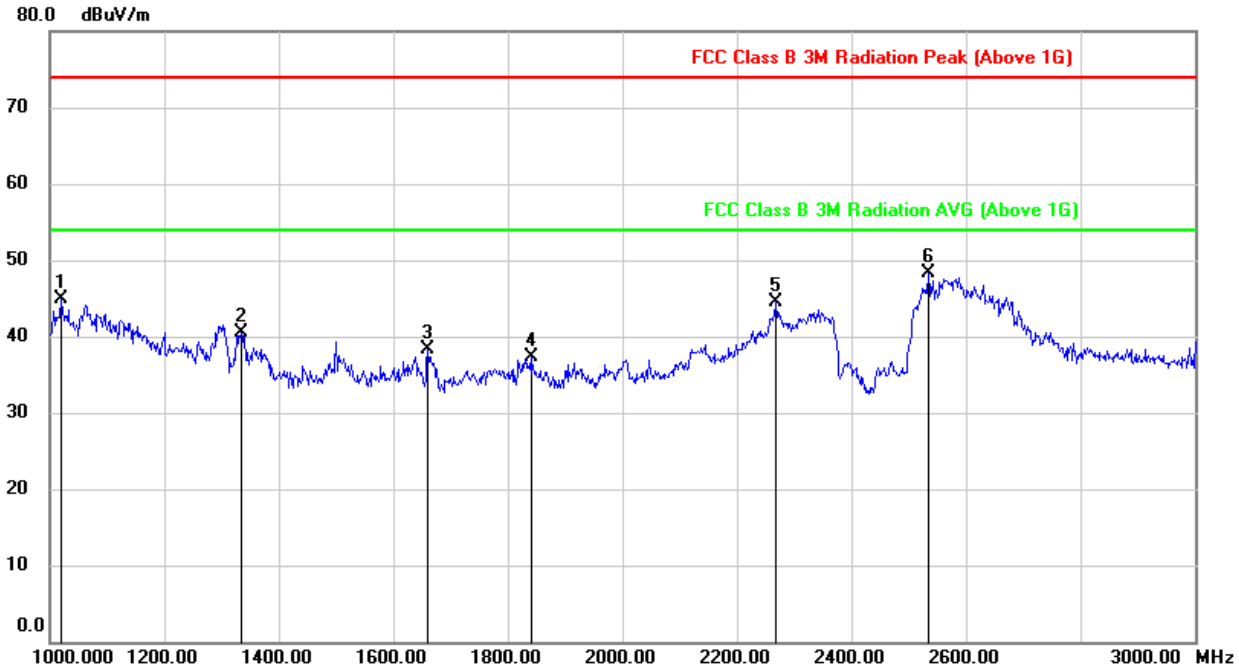
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1340.000	49.27	-12.43	36.84	74.00	-37.16	peak
2	1728.000	47.68	-11.38	36.30	74.00	-37.70	peak
3	2008.000	47.36	-10.58	36.78	74.00	-37.22	peak
4	2304.000	54.30	-7.24	47.06	74.00	-26.94	peak
5	2526.000	56.56	-8.28	48.28	74.00	-25.72	peak
6	2574.000	56.05	-8.18	47.87	74.00	-26.13	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

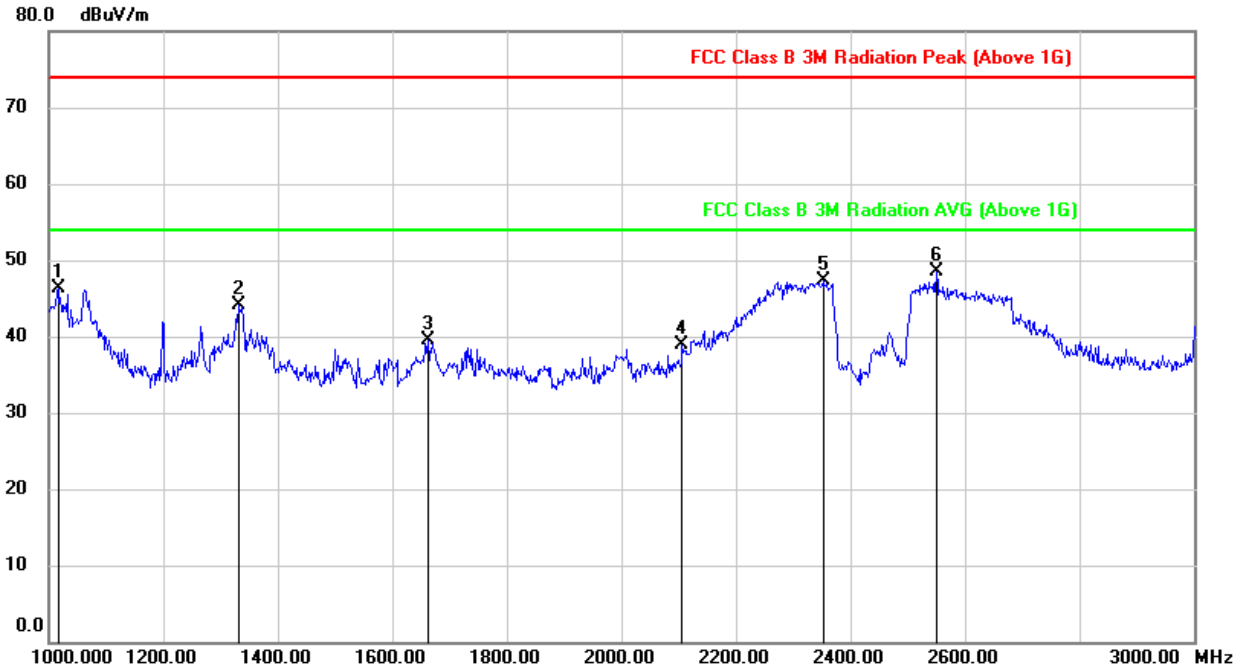
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1020.000	58.85	-13.98	44.87	74.00	-29.13	peak
2	1334.000	52.83	-12.38	40.45	74.00	-33.55	peak
3	1660.000	50.07	-11.70	38.37	74.00	-35.63	peak
4	1840.000	48.25	-10.93	37.32	74.00	-36.68	peak
5	2268.000	51.98	-7.53	44.45	74.00	-29.55	peak
6	2534.000	56.73	-8.37	48.36	74.00	-25.64	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

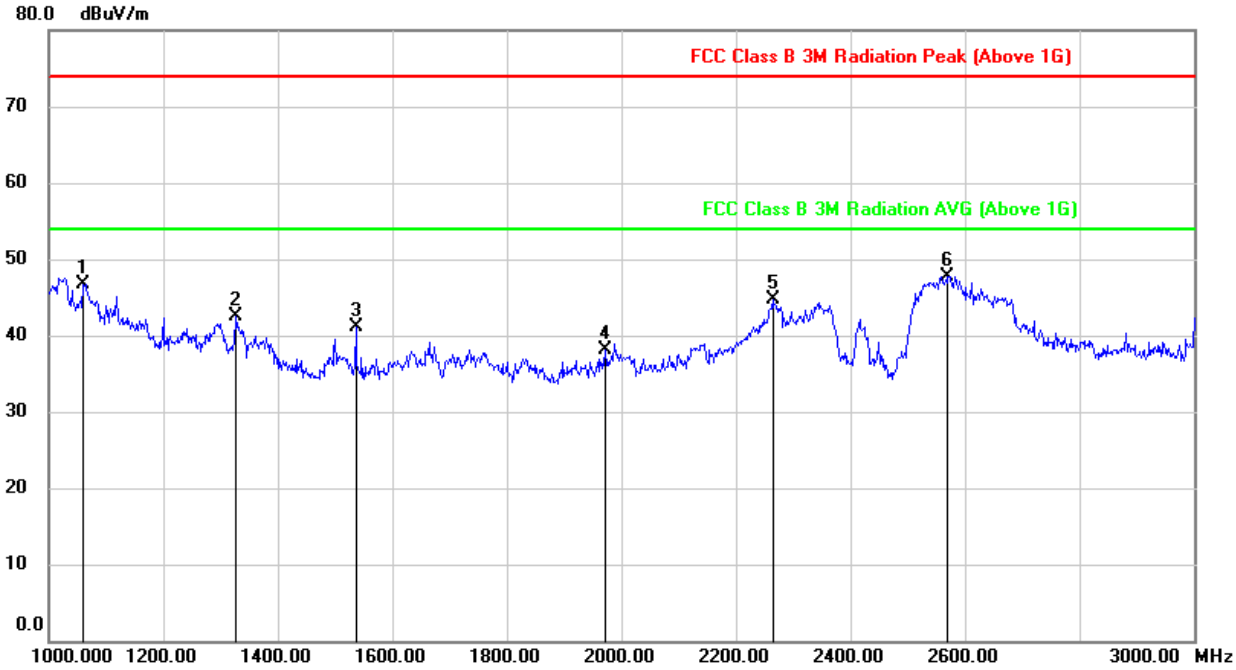


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1016.000	60.22	-13.99	46.23	74.00	-27.77	peak
2	1332.000	56.60	-12.48	44.12	74.00	-29.88	peak
3	1662.000	51.22	-11.69	39.53	74.00	-34.47	peak
4	2106.000	48.49	-9.60	38.89	74.00	-35.11	peak
5	2352.000	54.91	-7.66	47.25	74.00	-26.75	peak
6	2550.000	56.78	-8.25	48.53	74.00	-25.47	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

7.3.4. 802.11n40 MODE

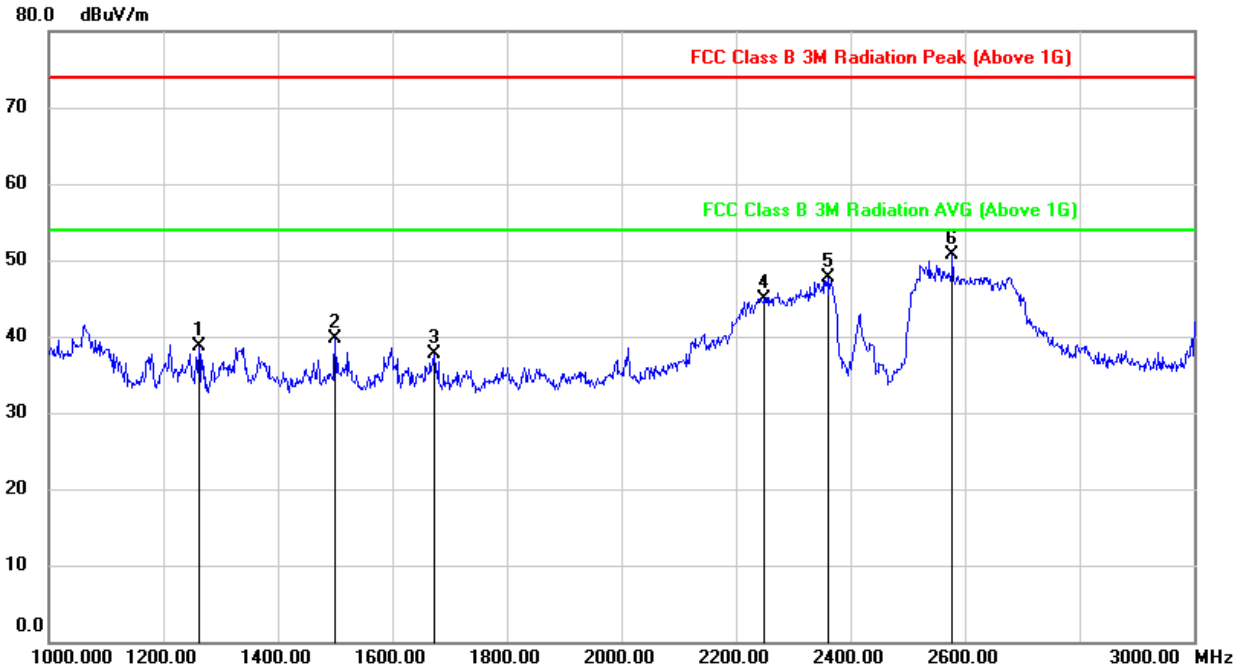
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1060.000	60.28	-13.62	46.66	74.00	-27.34	peak
2	1326.000	54.90	-12.38	42.52	74.00	-31.48	peak
3	1536.000	53.43	-12.32	41.11	74.00	-32.89	peak
4	1972.000	48.80	-10.67	38.13	74.00	-35.87	peak
5	2264.000	52.22	-7.54	44.68	74.00	-29.32	peak
6	2570.000	56.04	-8.25	47.79	74.00	-26.21	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

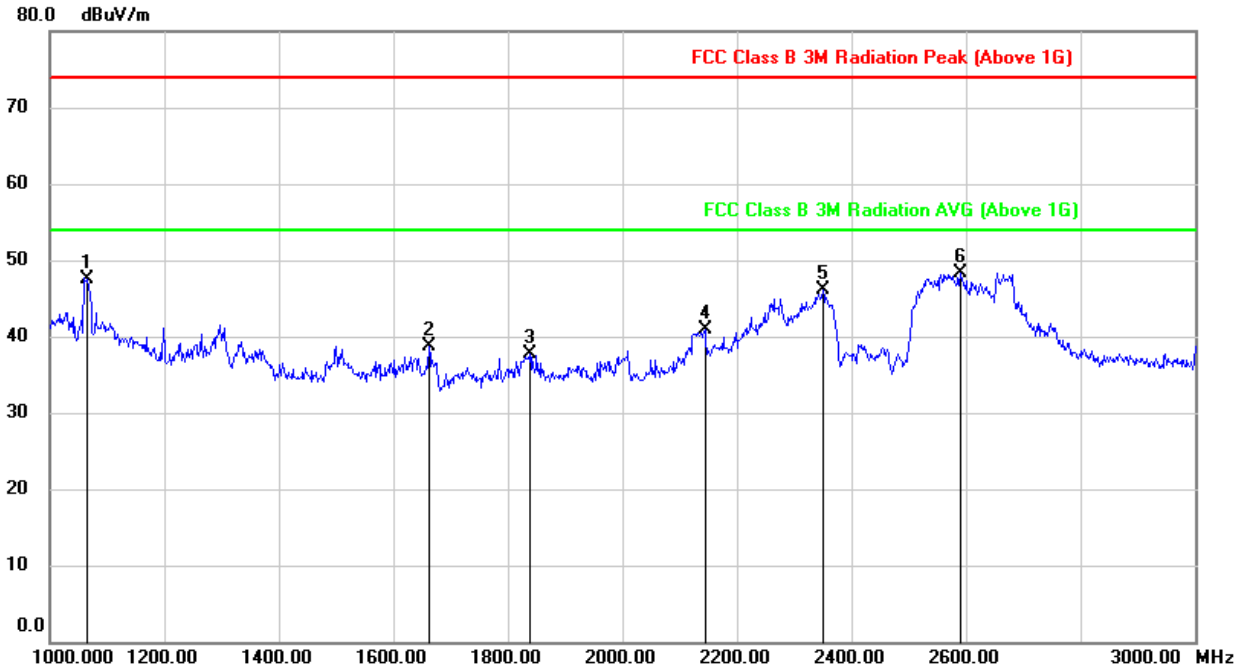
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1262.000	51.46	-12.72	38.74	74.00	-35.26	peak
2	1500.000	51.90	-12.28	39.62	74.00	-34.38	peak
3	1672.000	49.30	-11.65	37.65	74.00	-36.35	peak
4	2250.000	52.59	-7.59	45.00	74.00	-29.00	peak
5	2360.000	55.38	-7.72	47.66	74.00	-26.34	peak
6	2578.000	58.85	-8.17	50.68	74.00	-23.32	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

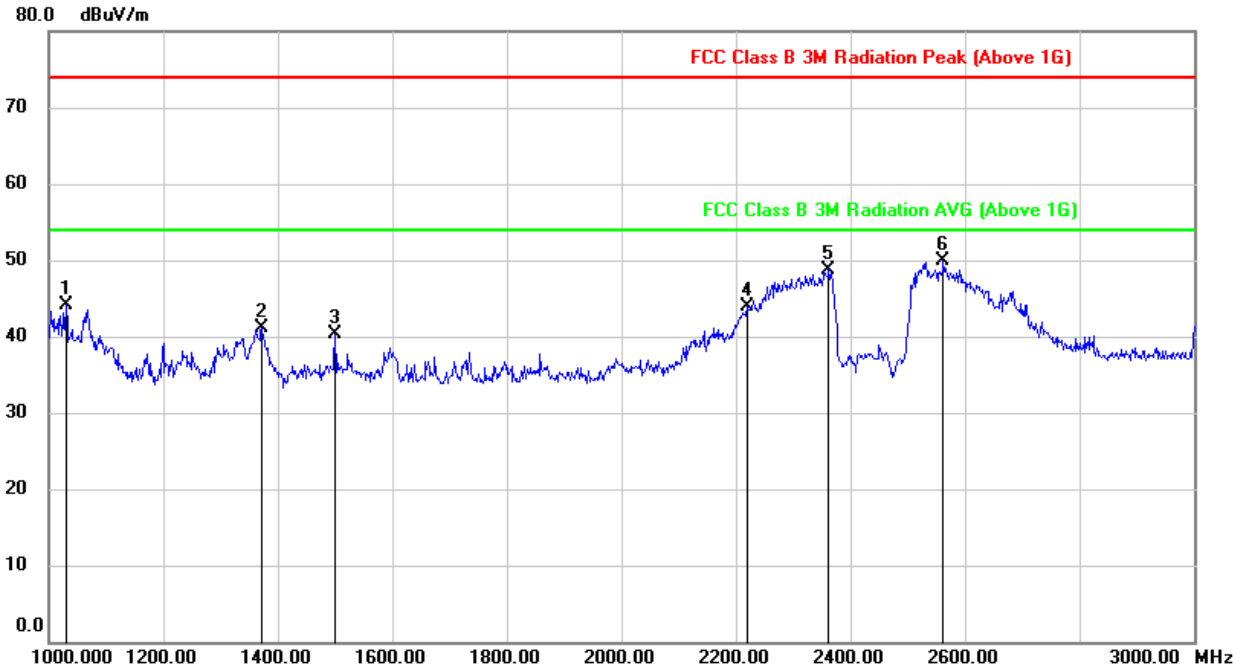
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1064.000	61.09	-13.62	47.47	74.00	-26.53	peak
2	1662.000	50.36	-11.69	38.67	74.00	-35.33	peak
3	1838.000	48.64	-10.94	37.70	74.00	-36.30	peak
4	2144.000	49.83	-9.01	40.82	74.00	-33.18	peak
5	2350.000	53.79	-7.75	46.04	74.00	-27.96	peak
6	2590.000	56.48	-8.15	48.33	74.00	-25.67	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

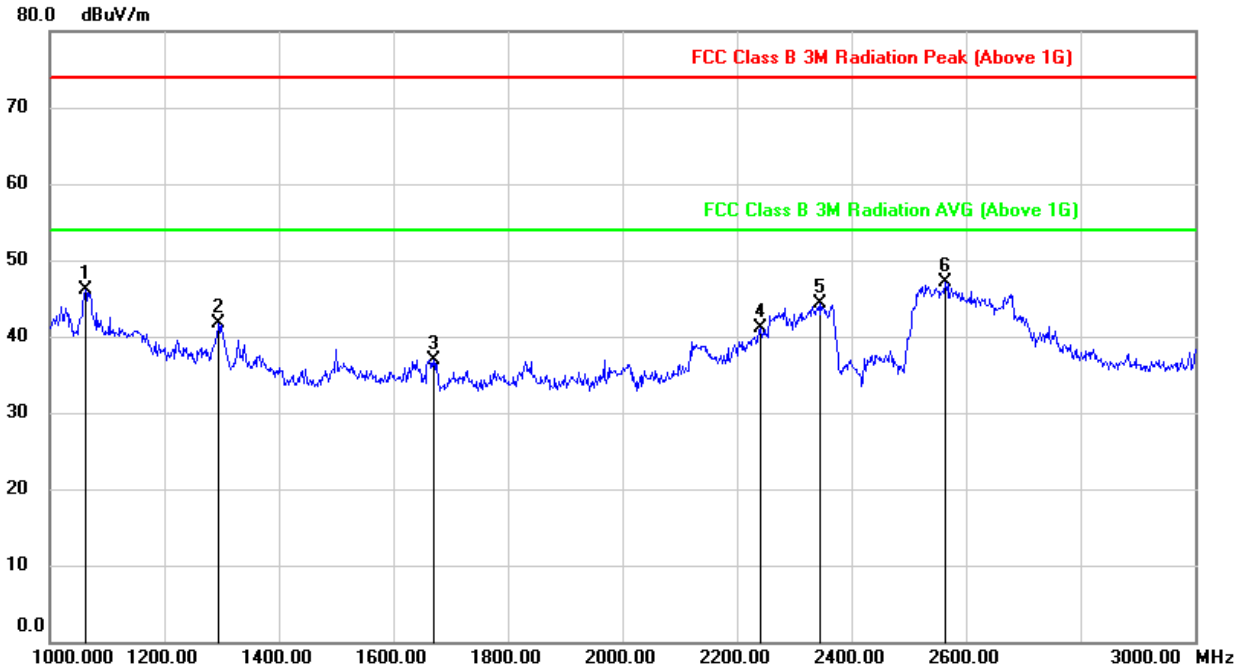
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1030.000	57.98	-13.96	44.02	74.00	-29.98	peak
2	1372.000	53.62	-12.42	41.20	74.00	-32.80	peak
3	1500.000	52.63	-12.28	40.35	74.00	-33.65	peak
4	2220.000	51.92	-8.01	43.91	74.00	-30.09	peak
5	2362.000	56.54	-7.74	48.80	74.00	-25.20	peak
6	2562.000	58.13	-8.23	49.90	74.00	-24.10	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. AVG: VBW=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

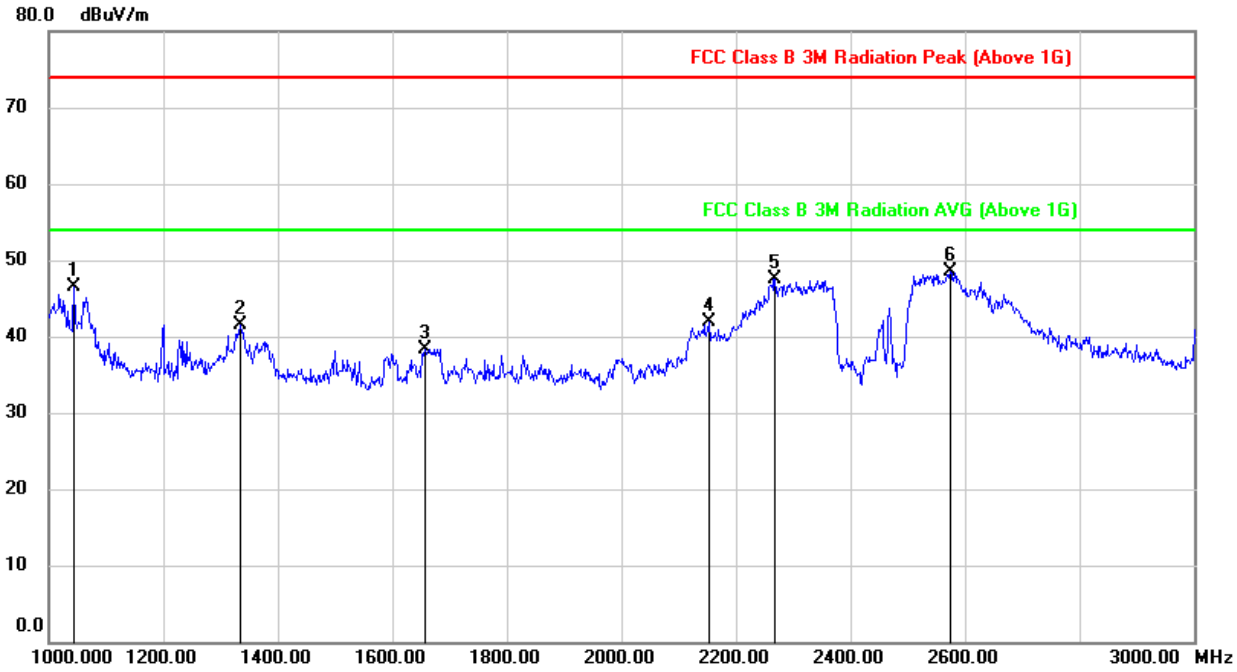
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1062.000	59.66	-13.62	46.04	74.00	-27.96	peak
2	1294.000	54.11	-12.45	41.66	74.00	-32.34	peak
3	1670.000	48.58	-11.65	36.93	74.00	-37.07	peak
4	2242.000	48.79	-7.70	41.09	74.00	-32.91	peak
5	2344.000	51.92	-7.71	44.21	74.00	-29.79	peak
6	2564.000	55.29	-8.28	47.01	74.00	-26.99	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1044.000	60.38	-13.94	46.44	74.00	-27.56	peak
2	1334.000	53.94	-12.47	41.47	74.00	-32.53	peak
3	1658.000	50.11	-11.71	38.40	74.00	-35.60	peak
4	2154.000	50.83	-8.96	41.87	74.00	-32.13	peak
5	2268.000	55.02	-7.45	47.57	74.00	-26.43	peak
6	2574.000	56.61	-8.18	48.43	74.00	-25.57	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=1/Ton where: ton is transmit duration.
5. For transmit duration, please refer to clause 6.1.

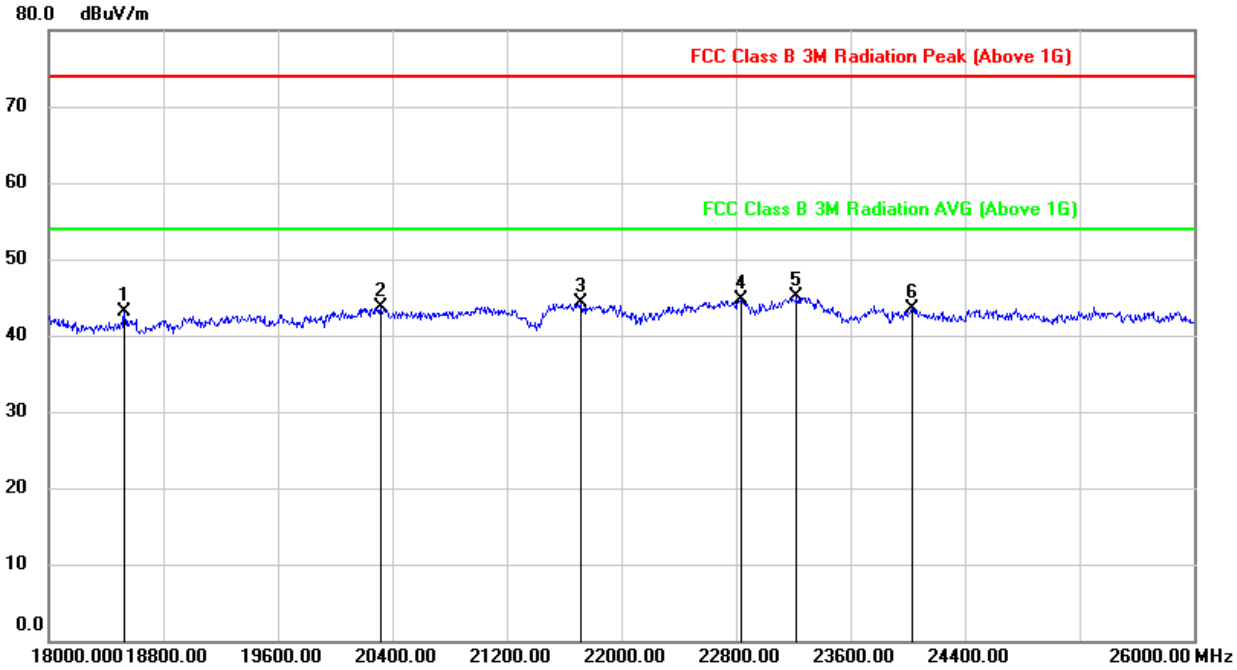
Note: Main relay and Alternative relay had been tested, but only the worst data were recorded in the report.

7.4. SPURIOUS EMISSIONS 18~26GHz

Main Relay

7.4.1. 802.11b MODE

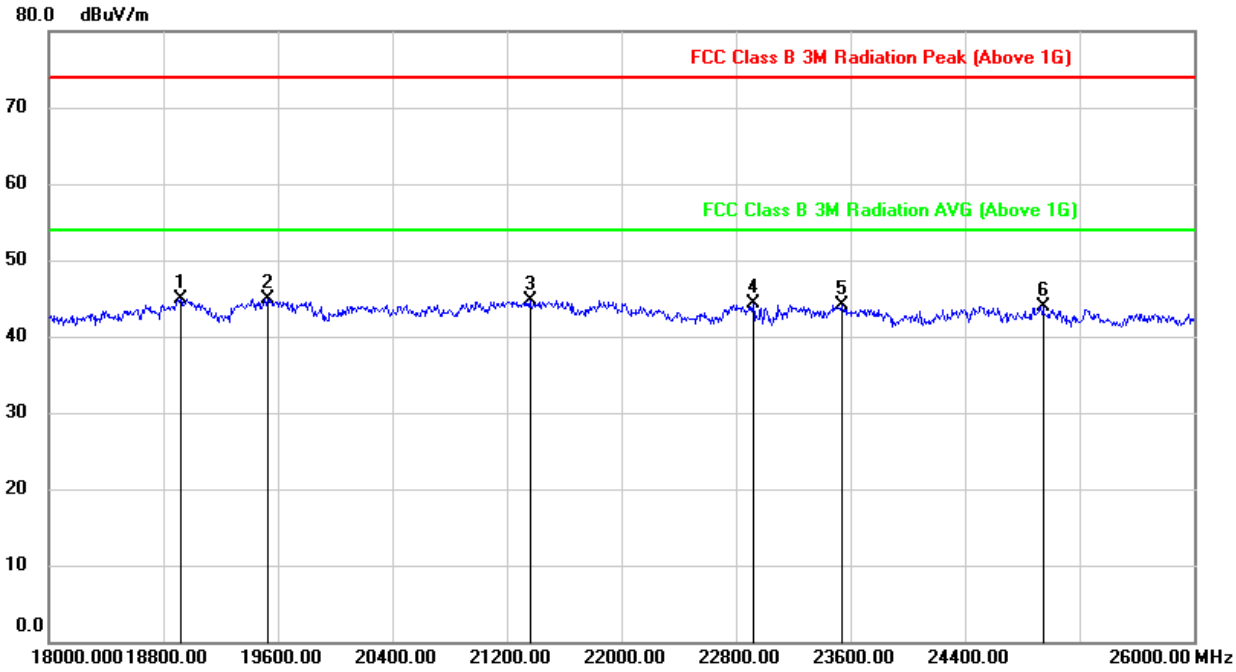
SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18528.000	48.41	-5.26	43.15	74.00	-30.85	peak
2	20320.000	49.22	-5.54	43.68	74.00	-30.32	peak
3	21720.000	48.61	-4.37	44.24	74.00	-29.76	peak
4	22840.000	48.26	-3.60	44.66	74.00	-29.34	peak
5	23224.000	48.42	-3.37	45.05	74.00	-28.95	peak
6	24032.000	46.35	-2.75	43.60	74.00	-30.40	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 (HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18920.000	50.17	-5.29	44.88	74.00	-29.12	peak
2	19528.000	50.50	-5.52	44.98	74.00	-29.02	peak
3	21360.000	49.52	-4.73	44.79	74.00	-29.21	peak
4	22920.000	47.80	-3.52	44.28	74.00	-29.72	peak
5	23536.000	47.34	-3.15	44.19	74.00	-29.81	peak
6	24944.000	46.05	-2.15	43.90	74.00	-30.10	peak

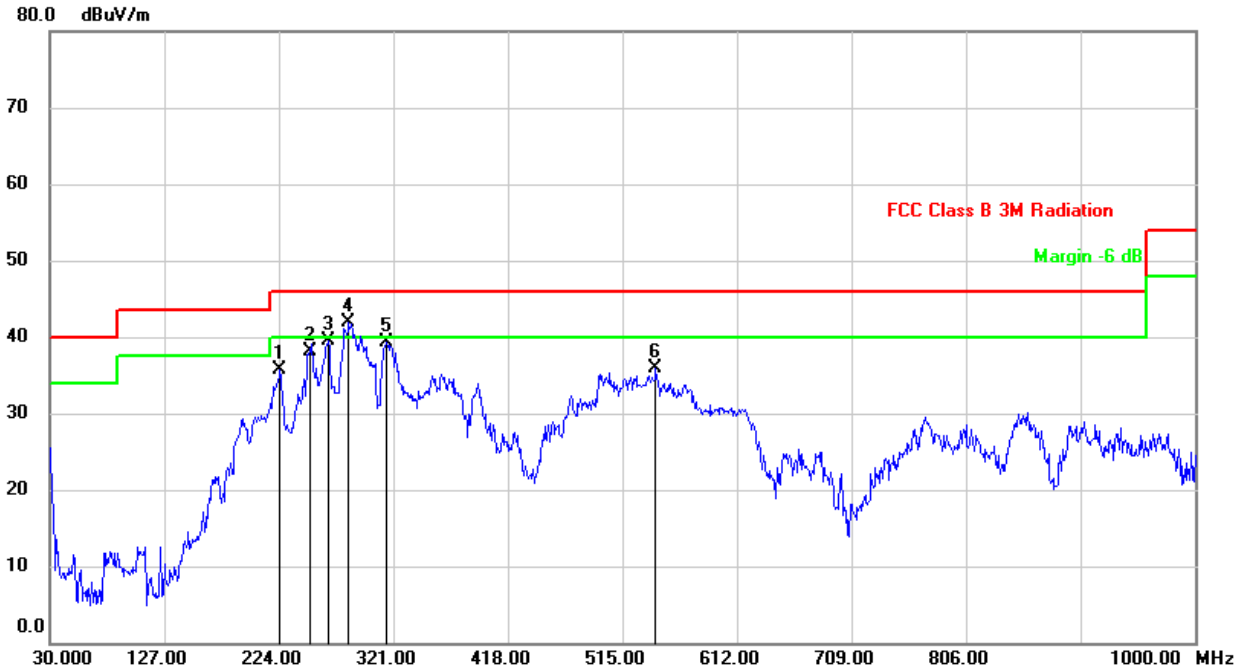
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton where: ton is transmit duration.

Note: 1.All the modes had been tested, but only the worst data were recorded in the report.
2.Main relay and Alternative relay had been tested, but only the worst data were recorded in the report.

7.5. SPURIOUS EMISSIONS 30M ~ 1 GHz

7.5.1. 802.11b MODE for Main Relay

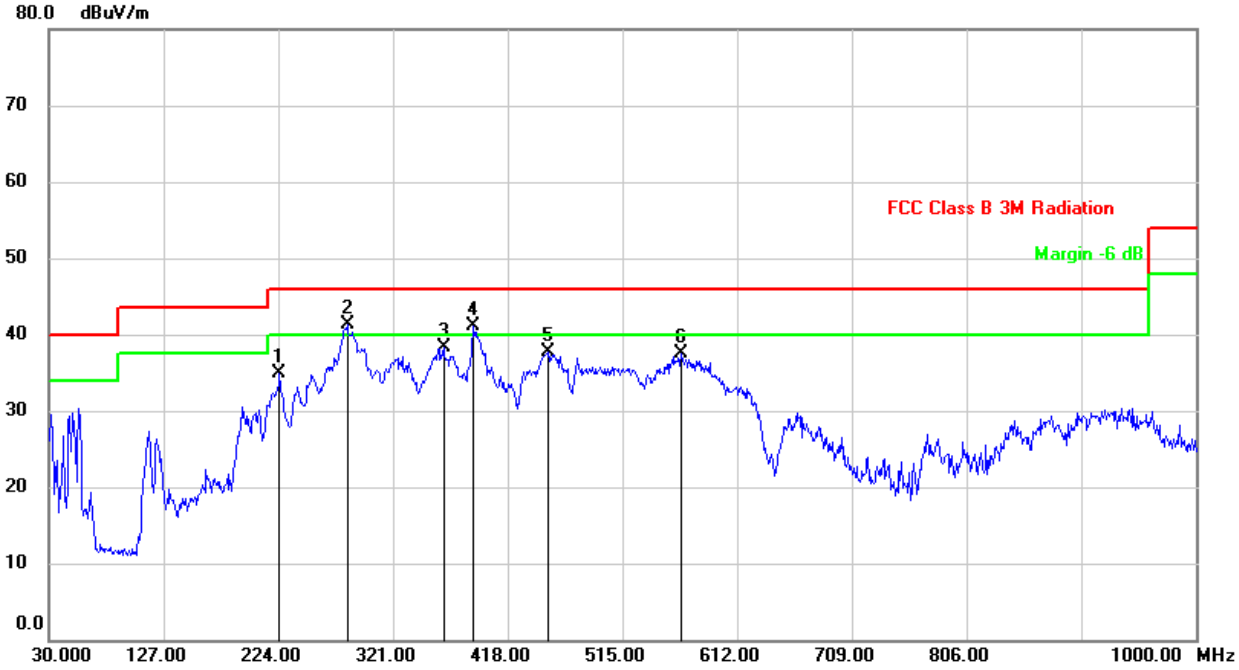
SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	224.9700	53.03	-17.34	35.69	46.00	-10.31	QP
2	250.1900	55.88	-17.70	38.18	46.00	-7.82	QP
3	265.7100	56.24	-16.73	39.51	46.00	-6.49	QP
4	283.1700	57.17	-15.31	41.86	46.00	-4.14	QP
5	315.1800	53.98	-14.74	39.24	46.00	-6.76	QP
6	543.1300	46.17	-10.28	35.89	46.00	-10.11	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)

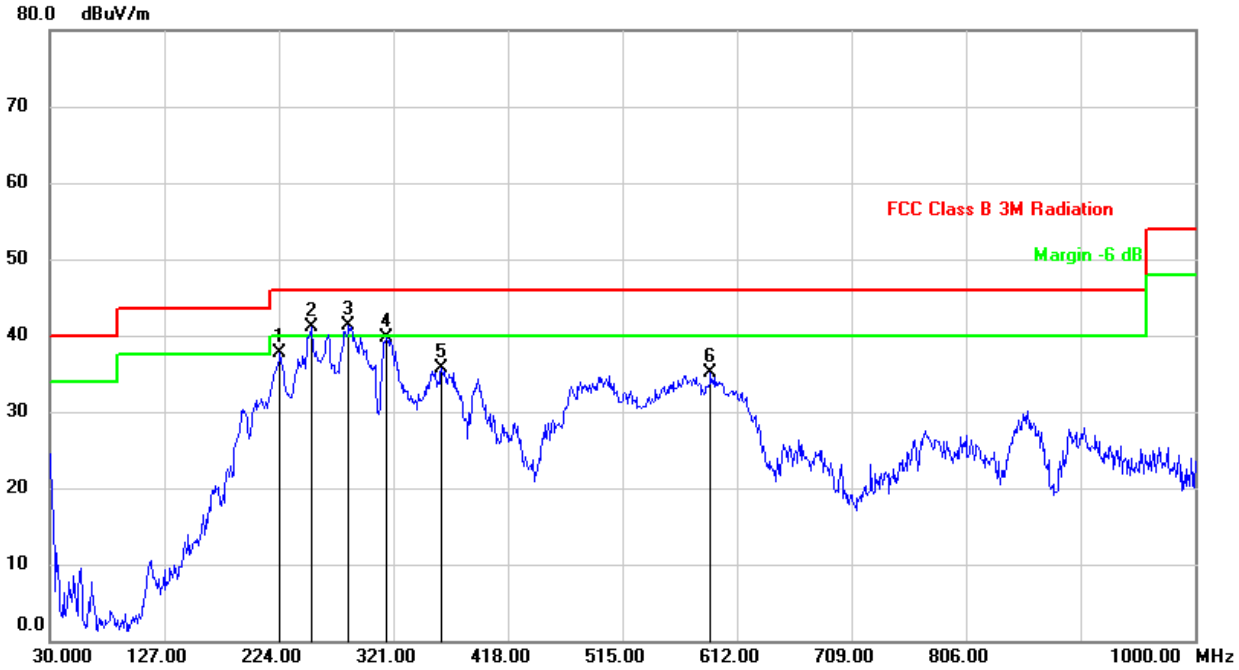


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	224.9700	52.22	-17.34	34.88	46.00	-11.12	QP
2	282.2000	56.64	-15.32	41.32	46.00	-4.68	QP
3	363.6800	51.68	-13.38	38.30	46.00	-7.70	QP
4	388.9000	53.78	-12.63	41.15	46.00	-4.85	QP
5	451.9500	49.48	-11.71	37.77	46.00	-8.23	QP
6	564.4700	47.27	-9.80	37.47	46.00	-8.53	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

7.5.2. 802.11b MODE for Alternative Relay

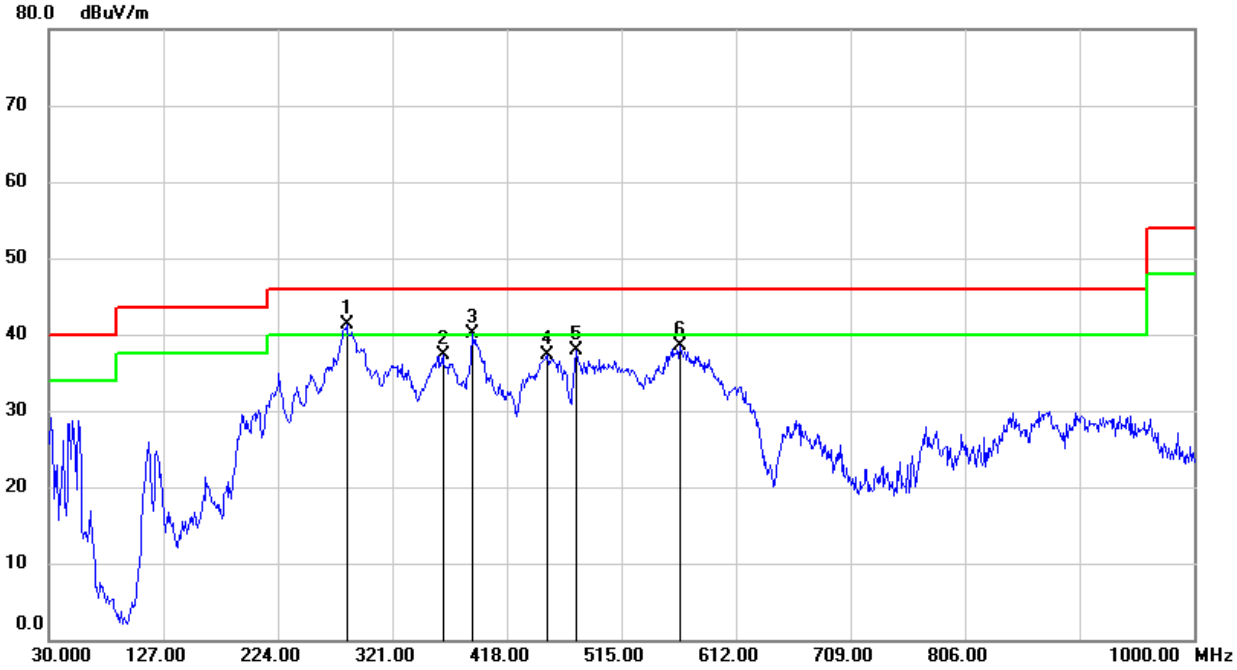
SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	224.9700	55.03	-17.34	37.69	46.00	-8.31	QP
2	251.1600	58.74	-17.66	41.08	46.00	-4.92	QP
3	283.1700	56.67	-15.31	41.36	46.00	-4.64	QP
4	315.1800	54.48	-14.74	39.74	46.00	-6.26	QP
5	361.7400	49.14	-13.45	35.69	46.00	-10.31	QP
6	589.6900	44.30	-9.26	35.04	46.00	-10.96	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 (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	282.2000	56.64	-15.32	41.32	46.00	-4.68	QP
2	363.6800	50.68	-13.38	37.30	46.00	-8.70	QP
3	388.9000	52.78	-12.63	40.15	46.00	-5.85	QP
4	451.9500	48.98	-11.71	37.27	46.00	-8.73	QP
5	477.1700	49.35	-11.43	37.92	46.00	-8.08	QP
6	564.4699	48.27	-9.80	38.47	46.00	-7.53	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: 1.All the modes had been tested, but only the worst data were recorded in the report.
2.Main relay and Alternative relay had been tested, but only the worst data were recorded in the report.

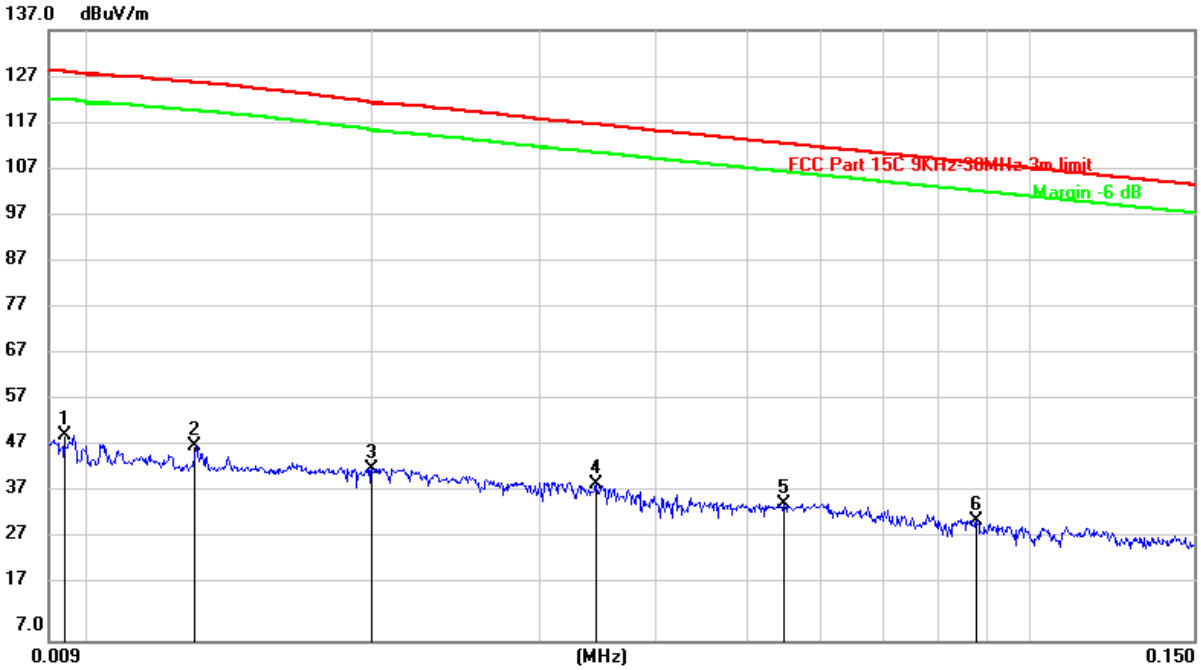
7.6. SPURIOUS EMISSIONS BELOW 30M

Main Relay

7.6.1. 802.11b MODE

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

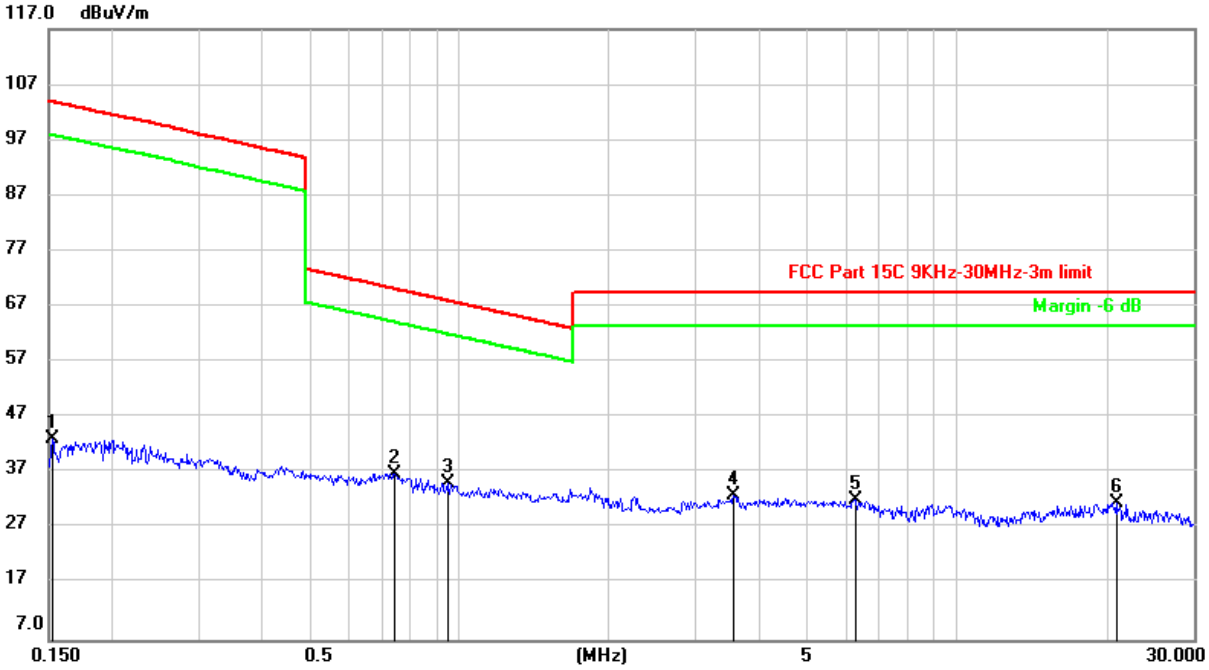
9KHz~ 150KHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0094	30.49	20.26	50.75	128.06	-77.31	peak
2	0.0129	28.31	20.24	48.55	125.85	-77.30	peak
3	0.0200	23.30	20.31	43.61	121.58	-77.97	peak
4	0.0345	20.11	20.31	40.42	116.94	-76.52	peak
5	0.0548	15.78	20.31	36.09	112.86	-76.77	peak
6	0.0879	12.39	20.26	32.65	108.73	-76.08	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

150KHz ~ 30M

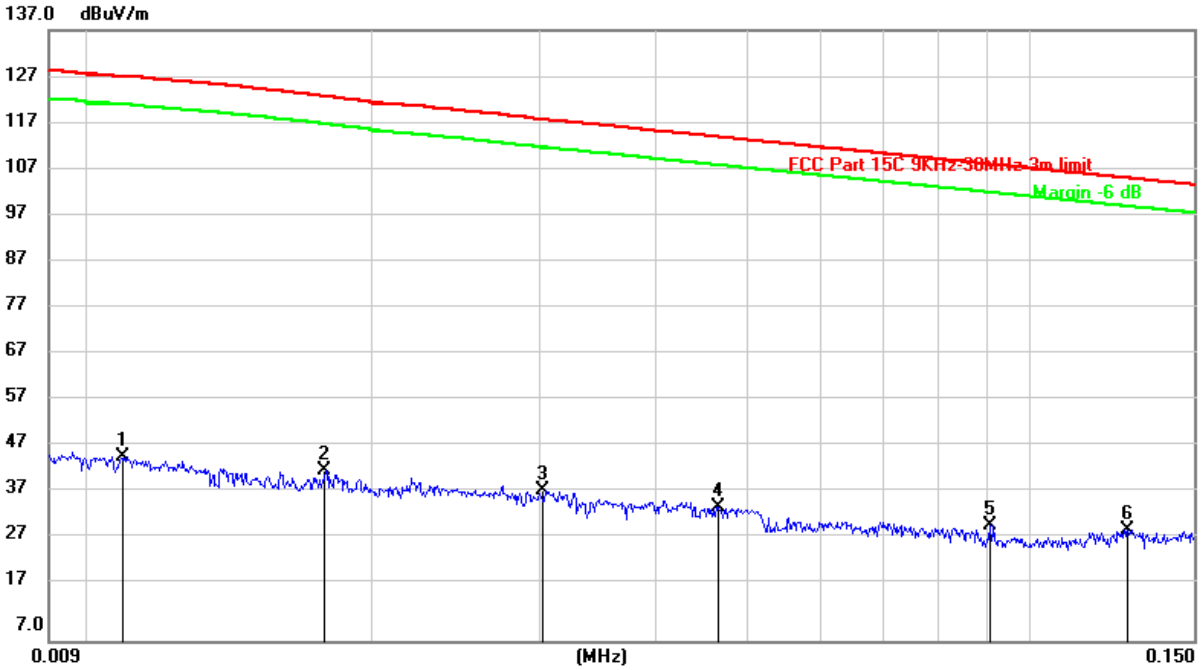


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1524	22.66	20.42	43.08	103.95	-60.87	peak
2	0.7429	16.57	20.36	36.93	70.20	-33.27	peak
3	0.9481	14.85	20.37	35.22	68.08	-32.86	peak
4	3.5653	11.95	20.99	32.94	69.54	-36.60	peak
5	6.2850	11.19	20.89	32.08	69.54	-37.46	peak
6	20.9237	10.56	21.13	31.69	69.54	-37.85	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

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

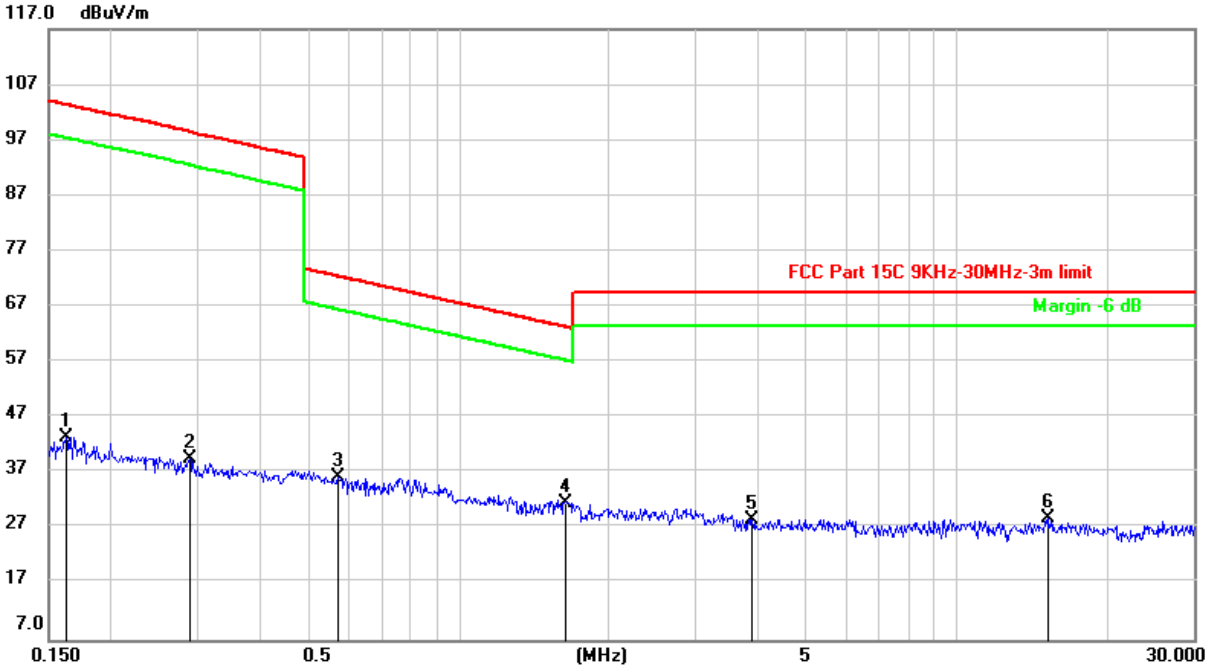
9KHz~ 150KHz



No.	Frequency (KHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0108	25.94	20.22	46.16	127.12	-80.96	peak
2	0.0177	22.96	20.29	43.25	122.96	-79.71	peak
3	0.0303	18.69	20.31	39.00	117.98	-78.98	peak
4	0.0466	15.09	20.31	35.40	114.28	-78.88	peak
5	0.0908	11.34	20.26	31.60	108.45	-76.85	peak
6	0.1274	10.35	20.33	30.68	105.51	-74.83	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

150KHz ~ 30M



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1622	23.11	20.41	43.52	103.41	-59.89	peak
2	0.2878	19.16	20.31	39.47	98.49	-59.02	peak
3	0.5701	16.00	20.27	36.27	72.52	-36.25	peak
4	1.6363	11.15	20.60	31.75	63.33	-31.58	peak
5	3.8807	7.57	21.04	28.61	69.54	-40.93	peak
6	15.3070	8.05	20.94	28.99	69.54	-40.55	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

Note: 1.All the modes had been tested, but only the worst data were recorded in the report.
2.Main relay and Alternative relay had been tested, but only the worst data were recorded in the report.

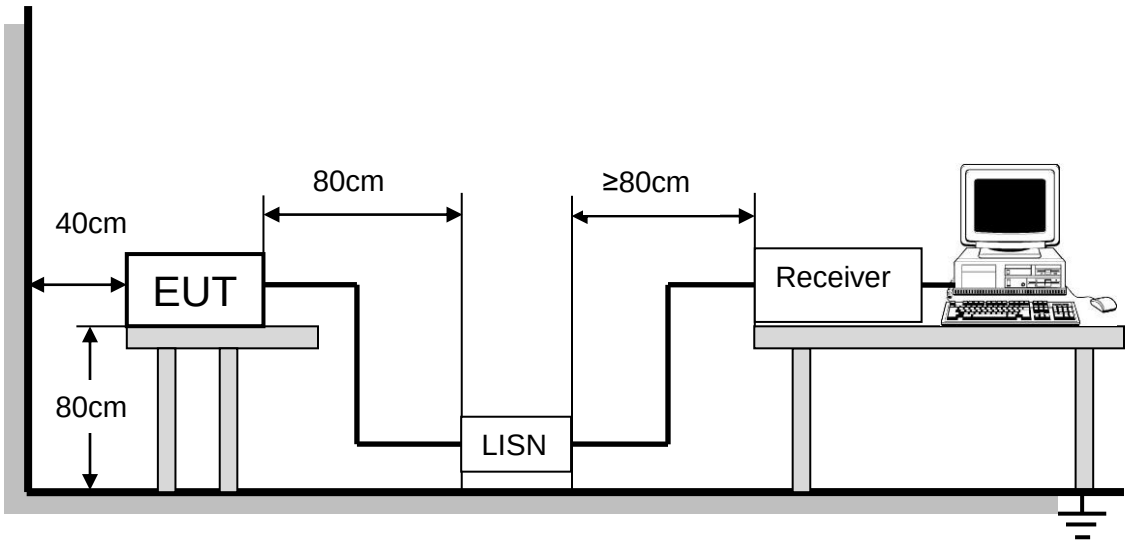
8. AC POWER LINE CONDUCTED EMISSIONS

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



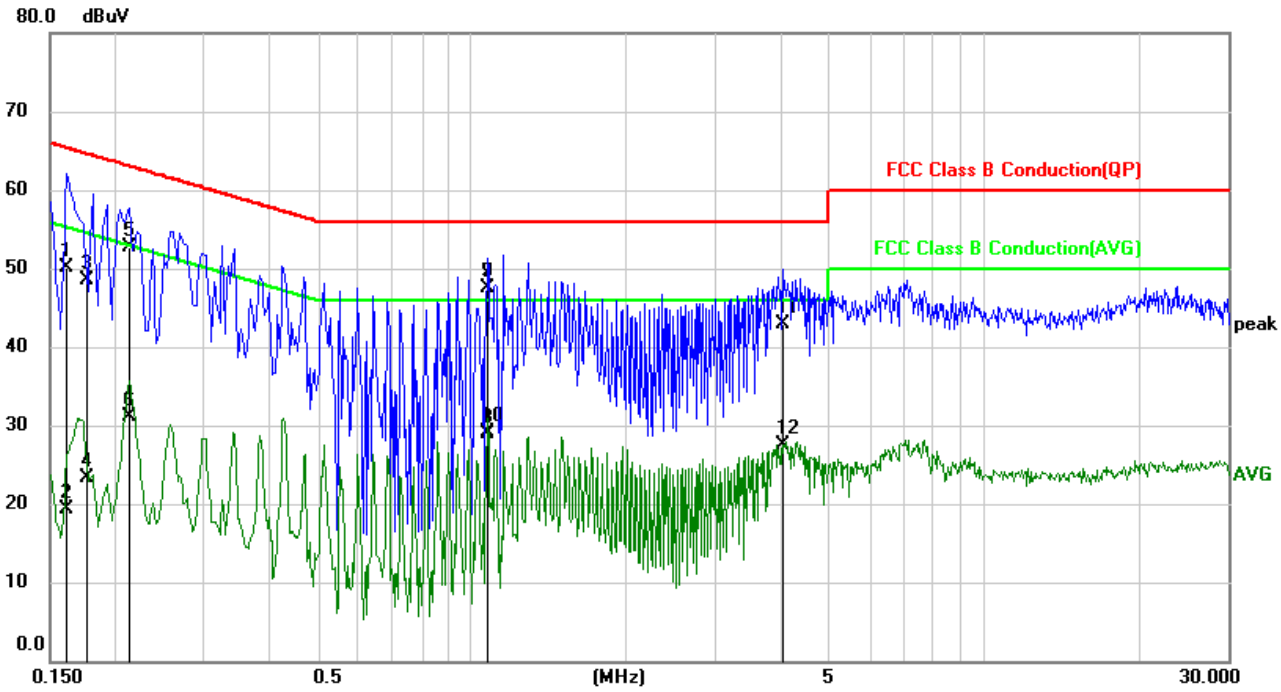
The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) 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 RESULTS

8.1.1. 802.11b MODE for Main Relay

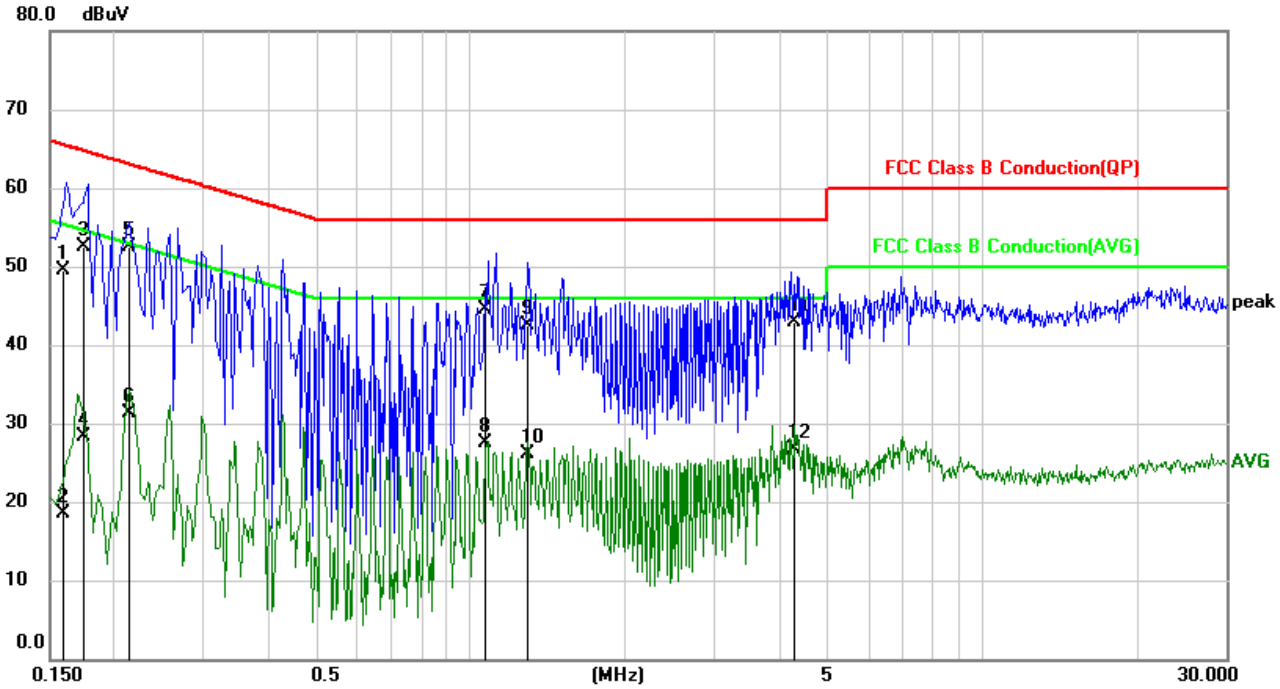
LINE N RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1619	40.51	9.62	50.13	65.37	-15.24	QP
2	0.1619	9.71	9.62	19.33	55.37	-36.04	AVG
3	0.1771	38.90	9.62	48.52	64.62	-16.10	QP
4	0.1771	13.60	9.62	23.22	54.62	-31.40	AVG
5	0.2145	43.12	9.62	52.74	63.03	-10.29	QP
6	0.2145	21.53	9.62	31.15	53.03	-21.88	AVG
7	1.0723	37.81	9.63	47.44	56.00	-8.56	QP
8	1.0723	19.36	9.63	28.99	46.00	-17.01	AVG
9	1.0726	37.91	9.63	47.54	56.00	-8.46	QP
10	1.0726	19.39	9.63	29.02	46.00	-16.98	AVG
11	4.0755	33.30	9.69	42.99	56.00	-13.01	QP
12	4.0755	17.84	9.69	27.53	46.00	-18.47	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)



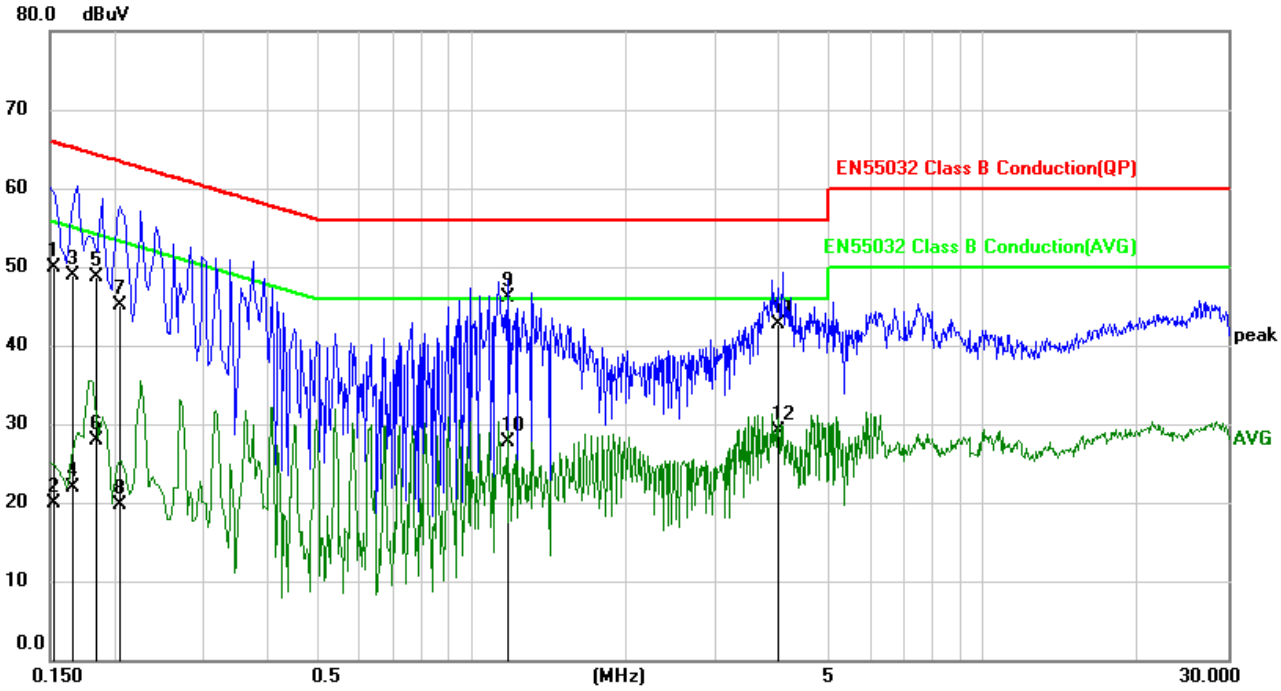
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1587	39.88	9.64	49.52	65.53	-16.01	QP
2	0.1587	8.80	9.64	18.44	55.53	-37.09	AVG
3	0.1735	42.82	9.63	52.45	64.79	-12.34	QP
4	0.1735	18.64	9.63	28.27	54.79	-26.52	AVG
5	0.2143	42.81	9.63	52.44	63.04	-10.60	QP
6	0.2143	21.75	9.63	31.38	53.04	-21.66	AVG
7	1.0727	34.84	9.64	44.48	56.00	-11.52	QP
8	1.0727	17.93	9.64	27.57	46.00	-18.43	AVG
9	1.2873	32.87	9.64	42.51	56.00	-13.49	QP
10	1.2873	16.48	9.64	26.12	46.00	-19.88	AVG
11	4.3056	33.16	9.70	42.86	56.00	-13.14	QP
12	4.3056	16.94	9.70	26.64	46.00	-19.36	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 modulation and channels had been tested, but only the worst data recorded in the report.

8.1.2. 802.11b MODE for Alternative Relay

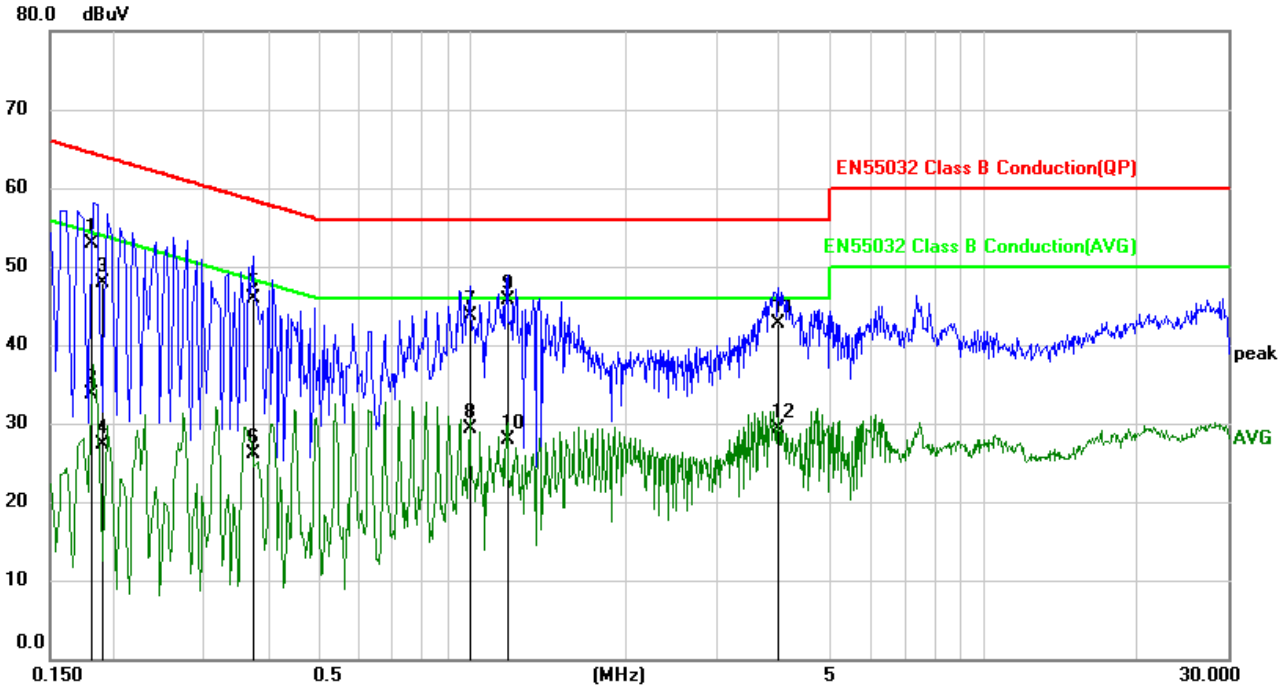
LINE N RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1529	49.82	0.00	49.82	65.84	-16.02	QP
2	0.1529	19.92	0.00	19.92	55.84	-35.92	AVG
3	0.1651	48.97	0.00	48.97	65.20	-16.23	QP
4	0.1651	21.83	0.00	21.83	55.20	-33.37	AVG
5	0.1853	48.70	0.00	48.70	64.24	-15.54	QP
6	0.1853	28.00	0.00	28.00	54.24	-26.24	AVG
7	0.2056	45.17	0.00	45.17	63.38	-18.21	QP
8	0.2056	19.74	0.00	19.74	53.38	-33.64	AVG
9	1.1731	46.16	0.00	46.16	56.00	-9.84	QP
10	1.1731	27.71	0.00	27.71	46.00	-18.29	AVG
11	3.9727	42.61	0.00	42.61	56.00	-13.39	QP
12	3.9727	29.04	0.00	29.04	46.00	-16.96	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	0.1802	43.21	9.63	52.84	64.48	-11.64	QP
2	0.1802	24.11	9.63	33.74	54.48	-20.74	AVG
3	0.1903	38.36	9.63	47.99	64.02	-16.03	QP
4	0.1903	17.67	9.63	27.30	54.02	-26.72	AVG
5	0.3720	36.34	9.63	45.97	58.46	-12.49	QP
6	0.3720	16.45	9.63	26.08	48.46	-22.38	AVG
7	0.9943	34.00	9.64	43.64	56.00	-12.36	QP
8	0.9943	19.71	9.64	29.35	46.00	-16.65	AVG
9	1.1728	36.14	9.64	45.78	56.00	-10.22	QP
10	1.1728	18.34	9.64	27.98	46.00	-18.02	AVG
11	3.9754	33.01	9.69	42.70	56.00	-13.30	QP
12	3.9754	19.58	9.69	29.27	46.00	-16.73	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.

9. 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 a PCB antenna without antenna connector.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi.

END OF REPORT