

FCC C2PC Test Report

FCC ID : PY313200235
Equipment : LTE Gateway
Model No. : LG6100D
Brand Name : NETGEAR
Applicant : NETGEAR, Inc.
Address : 350 East Plumeria Drive, San Jose, California
95134, USA
Standard : 47 CFR FCC Part 15.247
Received Date : Nov. 05, 2013
Tested Date : Nov. 28 ~ Dec. 02, 2013

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Approved & Reviewed by:



Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR3O2308AC-02	Rev. 01	Initial issue	Jan. 15, 2014

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 54.25MHz 38.72 (Margin -1.28 dB) - QP	Pass

1 General Description

1.1 Information

This report is issued as a FCC Class II Permissive Change. No hardware and software change for this device. The modification is only adding a foundation and absorber therefore only radiated emission is performed for this C2PC.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
2400-2483.5	b	2412-2462	1-11 [11]	2	1-11 Mbps
2400-2483.5	g	2412-2462	1-11 [11]	2	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	2	MCS 0-15
2400-2483.5	n (HT40)	2422-2452	3-9 [7]	2	MCS 0-15

Note 1: RF output power specifies that Maximum Conducted (Average) Output Power.
 Note 2: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
 Note 3: 802.11g/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

1.1.2 Antenna Details

Model	Type	Gain (dBi)	Connector
401-10006-01	PCB Dipole Antenna	2.4	U.FL

1.1.3 EUT Operational Condition

Power Supply Type	12Vdc from AC adapter
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1.1.4 Accessories

Accessories		
No.	Equipment	Description
1	AC adapter 1	Brand Name: NETGEAR Model Name: P030WF120B Power Rating: I/P: 100-240Vac, 50-60Hz, 1.0A O/P: 12Vdc, 2.5A Power Line: DC 1.8m non-shielded cable w/o core
2	AC adapter 2	Brand Name: NETGEAR Model Name: MU30-5120250-A1 Power Rating: I/P: 100-240Vac, 50-60Hz, 0.8A O/P: 12Vdc, 2.5A Power Line: DC 1.8m non-shielded cable w/o core
3	AC adapter 3	Brand Name: NETGEAR Model Name: SAS030F1 Power Rating: I/P: 100-120Vac, 47-63Hz, 0.9A O/P: 12Vdc, 2.5A Power Line: DC 1.8m non-shielded cable w/o core

1.1.5 Channel List

Frequency band (MHz)		2400~2483.5	
802.11 b / g / n HT20		802.11n HT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	2412	3	2422
2	2417	4	2427
3	2422	5	2432
4	2427	6	2437
5	2432	7	2442
6	2437	8	2447
7	2442	9	2452
8	2447	---	---
9	2452	---	---
10	2457	---	---
11	2462	---	---

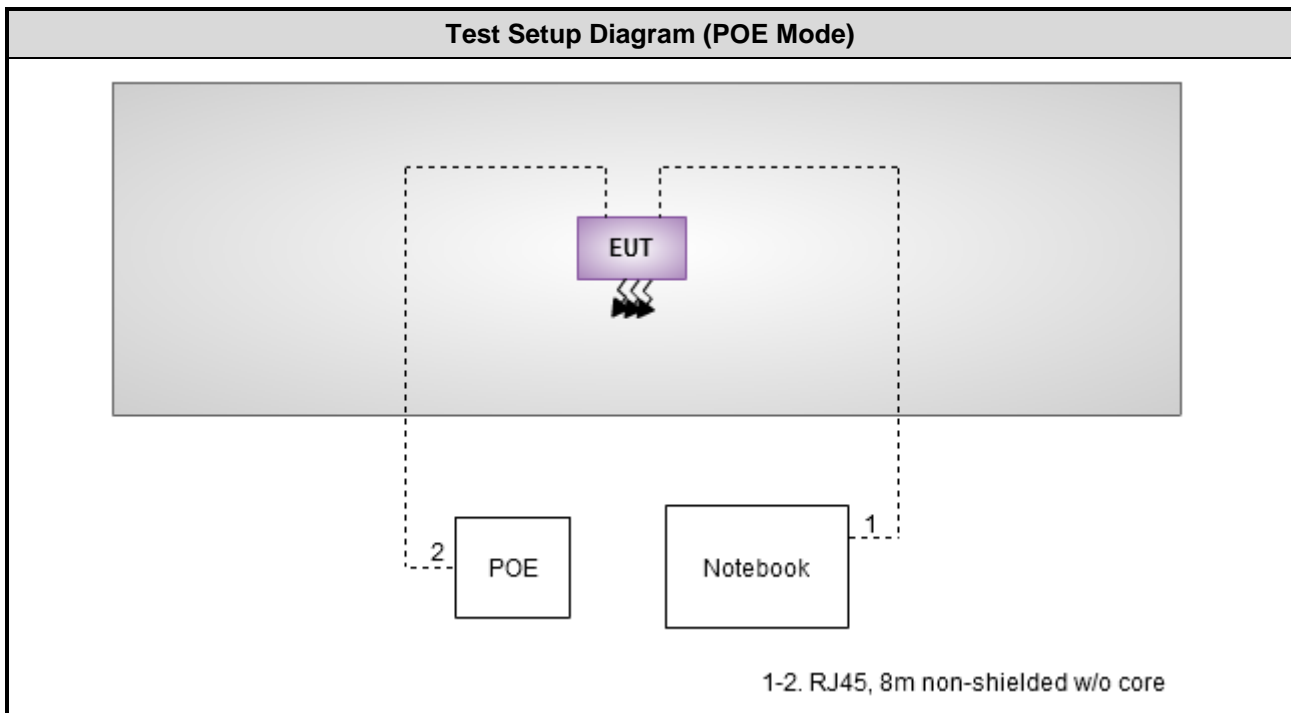
1.2 Local Support Equipment List

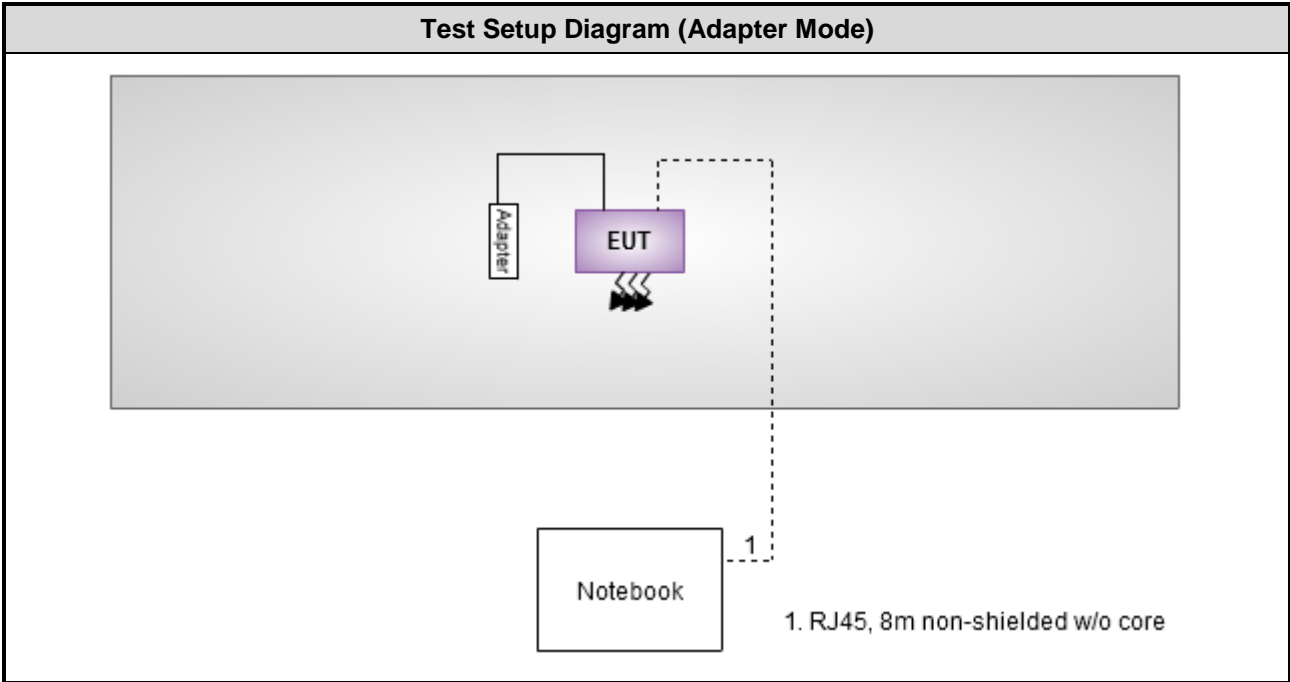
Support Equipment List						
No.	Equipment	Brand	Model	S/N	FCC ID	Signal cable / Length (m)
1	Notebook	DELL	E6430	---	DoC	RJ45, 8m non-shielded w/o core.
2	POE	PowerDsine	PD-3001G C/AC	---	DoC	RJ45, 8m non-shielded w/o core.

Note:

- 1) No. 2 was supplied by applicant.
- 2) POE is for POE mode only.

1.3 Test Setup Chart





1.4 The Equipment List

Test Item	Radiated Emission				
Test Site	966 chamber 2 / (03CH02-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
3m semi-anechoic chamber	CHAMPRO	SAC-03	03CH02-WS	Jan. 02, 2013	Jan. 01, 2014
Spectrum Analyzer	R&S	FSV40	101499	Jan. 28, 2013	Jan. 27, 2014
Receiver	R&S	ESR3	101657	Jan. 30, 2013	Jan. 29, 2014
Bilog Antenna	Schwarzbeck	VULB9168	VULB9168-524	Jan. 11, 2013	Jan. 10, 2014
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120D	BBHA 9120 D 1095	Jan. 29, 2013	Jan. 28, 2014
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Jan. 14, 2013	Jan. 13, 2014
Amplifier	Burgeon	BPA-530	100218	Dec. 14, 2012	Dec. 13, 2013
Amplifier	Agilent	83017A	MY39501309	Dec. 18, 2012	Dec. 17, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16140/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16018/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16015/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R03m	Woken	CFD400NL-LW	CFD400NL-003	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R10m	Woken	CFD400NL-LW	CFD400NL-004	Dec. 25, 2012	Dec. 24, 2013
control	EM Electronics	EM1000	060608	N/A	N/A
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber 2 / (03CH02-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 15, 2012	Nov. 14, 2014
Amplifier	MITEQ	AMF-6F-260400	9121372	Apr. 19, 2013	Apr. 18, 2015
Note: Calibration Interval of instruments listed above is two year.					

1.5 Test Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.247

ANSI C63.10-2009

FCC KDB 558074 D01 DTS Meas Guidance v03r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

Note: The EUT has been tested and complied with FCC part 15B requirement. FCC Part 15B test results are issued to another report.

1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Measurement Uncertainty	
Parameters	Uncertainty
Radiated emission	±2.49 dB

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
Radiated Emissions	03CH02-WS	18-20°C / 62-68%	Anderson Hong Aska Huang

➤ FCC site registration No.: 657002

➤ IC site registration No.: 10807A-2

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Radiated Emissions ≤1GHz	11b	2412	6 Mbps	1, 2
Radiated Emissions >1GHz	11b	2412 / 2437 / 2462	1 Mbps	1
	11g	2412 / 2437 / 2462	6 Mbps	
	HT20	2412 / 2437 / 2462	MCS 0	
	HT40	2422 / 2437 / 2452	MCS 0	

NOTE:

1. The tests reported herein were performed according to the original worst adapter 2 for final testing.
2. EUT has 2 types of power supply; each type is selected to perform radiated emission test as below test configuration.
 - 1) Configuration 1: POE Mode.
 - 2) Configuration 2: Adapter Mode.

3 Transmitter Test Results

3.1 Unwanted Emissions into Restricted Frequency Bands

3.1.1 Limit of Unwanted Emissions into Restricted Frequency Bands

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

3.1.2 Test Procedures

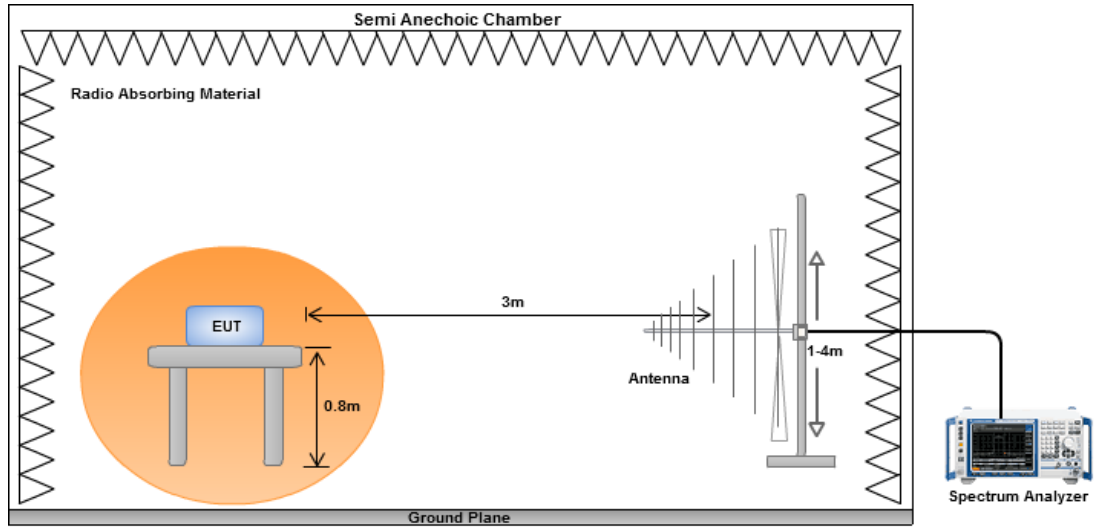
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

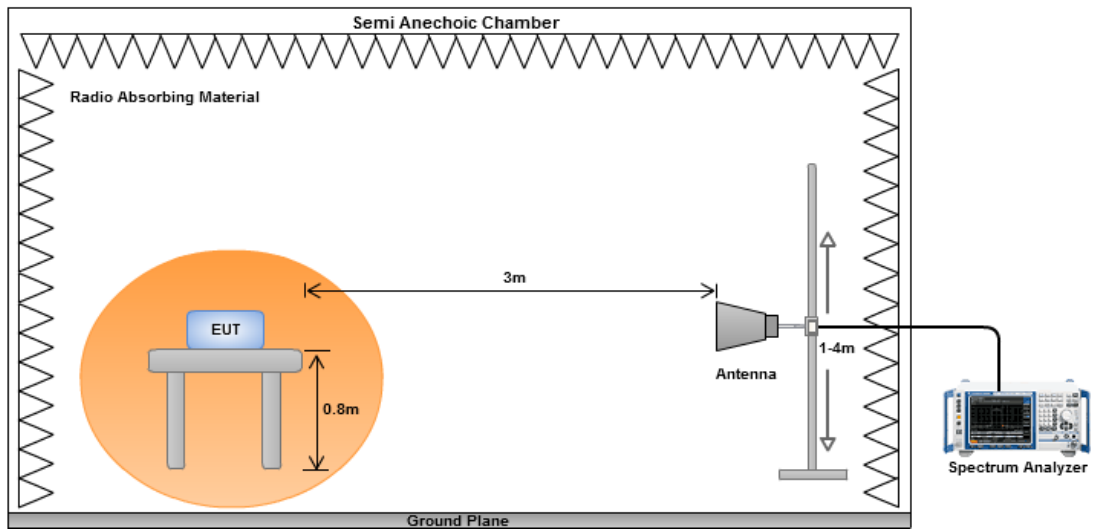
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.1.3 Test Setup

Radiated Emissions below 1 GHz

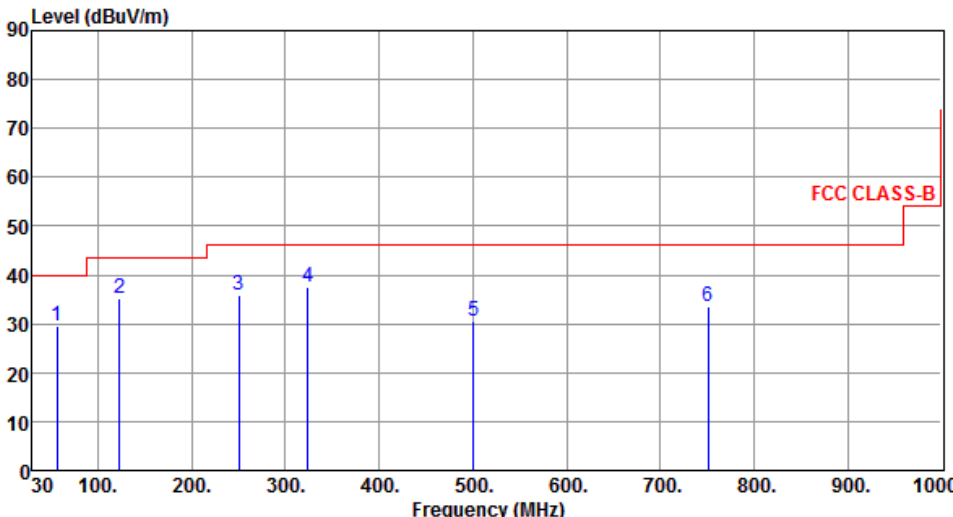


Radiated Emissions above 1 GHz



3.1.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

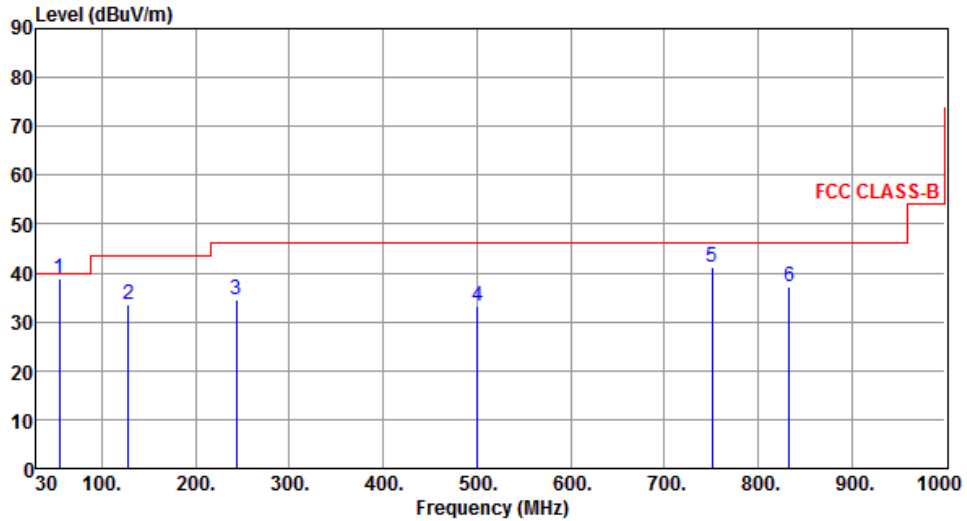
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	56.19	29.53	40.00	-10.47	45.92	-16.39	Peak	---	---
2	123.12	35.06	43.50	-8.44	53.50	-18.44	Peak	---	---
3	250.19	35.96	46.00	-10.04	53.30	-17.34	Peak	---	---
4	323.91	37.63	46.00	-8.37	52.64	-15.01	Peak	---	---
5	500.45	30.64	46.00	-15.36	41.58	-10.94	Peak	---	---
6	750.71	33.43	46.00	-12.57	40.04	-6.61	Peak	---	---

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical	Test Configuration	1



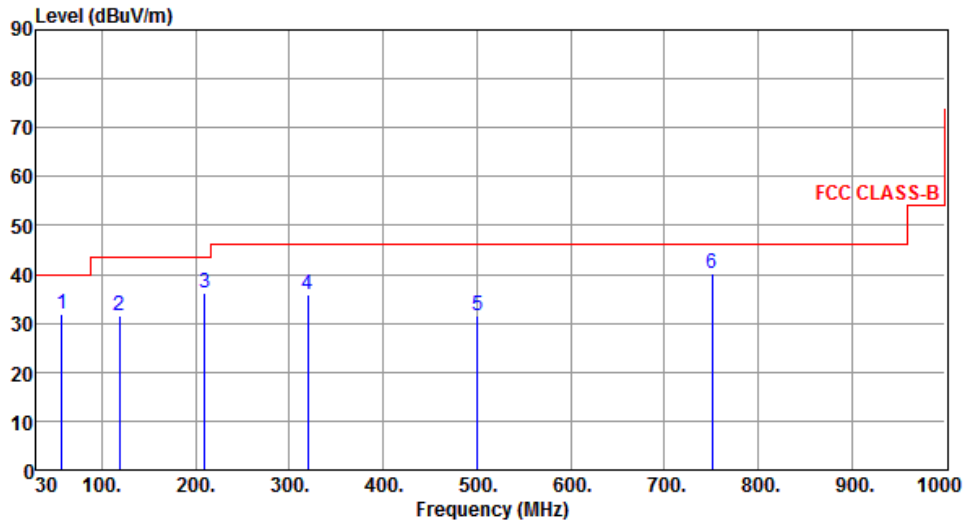
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	54.25	38.72	40.00	-1.28	54.97	-16.25	QP	100	29
2	127.97	33.41	43.50	-10.09	51.40	-17.99	Peak	---	---
3	243.40	34.61	46.00	-11.39	52.05	-17.44	Peak	---	---
4	500.45	33.31	46.00	-12.69	44.25	-10.94	Peak	---	---
5	750.71	41.19	46.00	-4.81	47.80	-6.61	Peak	---	---
6	833.16	37.24	46.00	-8.76	42.88	-5.64	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2412
Polarization	Horizontal	Test Configuration	2



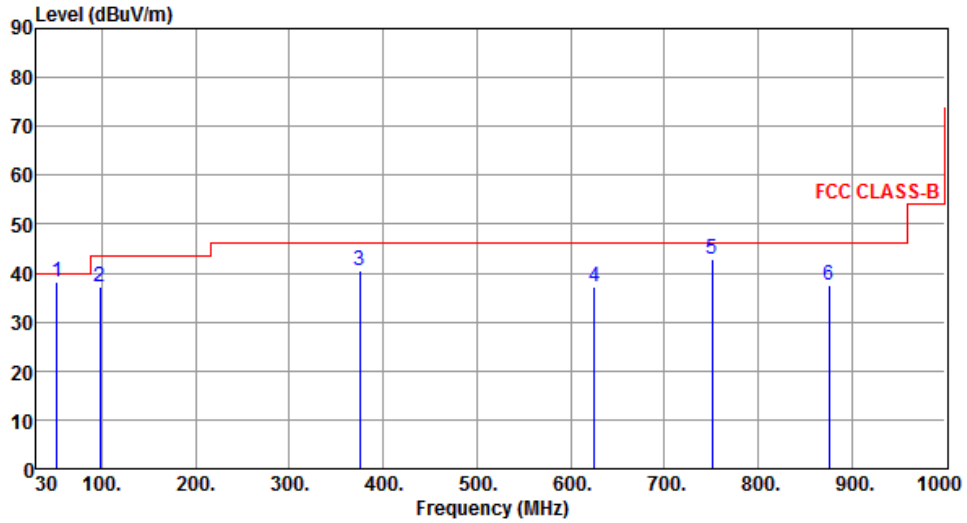
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	57.16	31.79	40.00	-8.21	48.26	-16.47	Peak	---	---
2	118.27	31.55	43.50	-11.95	50.42	-18.87	Peak	---	---
3	209.45	36.20	43.50	-7.30	55.06	-18.86	Peak	---	---
4	320.03	35.87	46.00	-10.13	50.98	-15.11	Peak	---	---
5	500.45	31.39	46.00	-14.61	42.33	-10.94	Peak	---	---
6	750.71	40.24	46.00	-5.76	46.85	-6.61	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical	Test Configuration	2



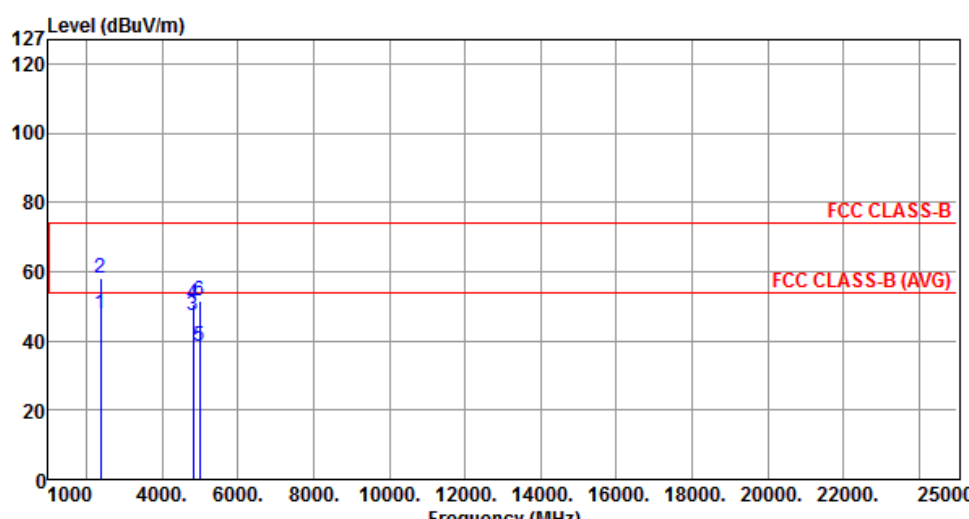
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	52.31	38.29	40.00	-1.71	54.40	-16.11	QP	100	315
2	97.90	37.20	43.50	-6.30	58.71	-21.51	Peak	---	---
3	375.32	40.49	46.00	-5.51	54.19	-13.70	Peak	---	---
4	625.58	37.24	46.00	-8.76	45.82	-8.58	Peak	---	---
5	750.71	42.80	46.00	-3.20	49.41	-6.61	Peak	---	---
6	875.84	37.67	46.00	-8.33	42.83	-5.16	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

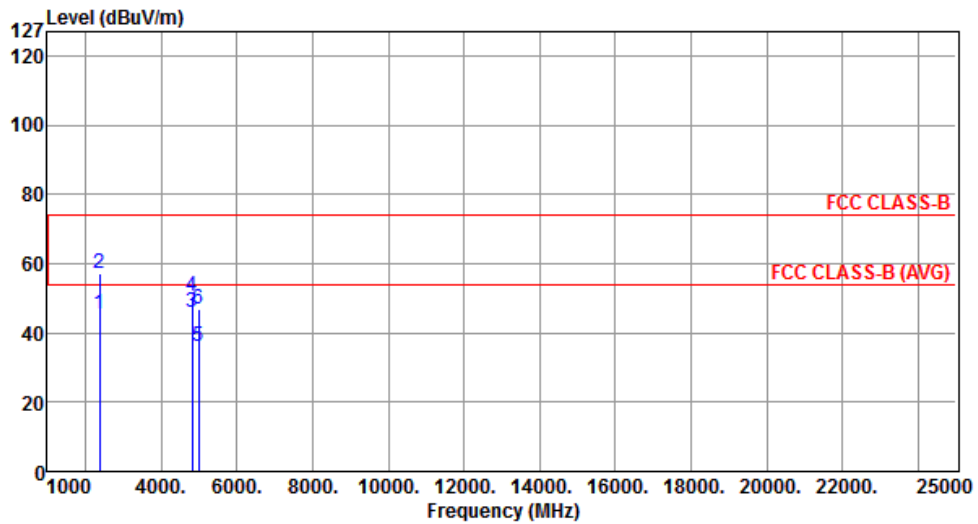
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.1.5 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11b

Modulation	11b	Test Freq. (MHz)	2412																																																																						
Polarization	Horizontal																																																																								
																																																																									
	<table border="1"> <thead> <tr> <th>Freq.</th> <th>Emission level</th> <th>Limit</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>47.79</td> <td>54.00</td> <td>-6.21</td> <td>50.69</td> <td>-2.90</td> <td>Average</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>58.20</td> <td>74.00</td> <td>-15.80</td> <td>61.10</td> <td>-2.90</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>3</td> <td>4824.00</td> <td>47.39</td> <td>54.00</td> <td>-6.61</td> <td>42.70</td> <td>4.69</td> <td>Average</td> <td>---</td> </tr> <tr> <td>4</td> <td>4824.00</td> <td>50.39</td> <td>74.00</td> <td>-23.61</td> <td>45.70</td> <td>4.69</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>5</td> <td>5000.00</td> <td>38.33</td> <td>54.00</td> <td>-15.67</td> <td>33.35</td> <td>4.98</td> <td>Average</td> <td>---</td> </tr> <tr> <td>6</td> <td>5000.00</td> <td>51.54</td> <td>74.00</td> <td>-22.46</td> <td>46.56</td> <td>4.98</td> <td>Peak</td> <td>---</td> </tr> </tbody> </table>	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High cm	Turn Table deg	MHz	dBuV/m	dBuV/m	dB	dBuV	dB				1	2390.00	47.79	54.00	-6.21	50.69	-2.90	Average	---	2	2390.00	58.20	74.00	-15.80	61.10	-2.90	Peak	---	3	4824.00	47.39	54.00	-6.61	42.70	4.69	Average	---	4	4824.00	50.39	74.00	-23.61	45.70	4.69	Peak	---	5	5000.00	38.33	54.00	-15.67	33.35	4.98	Average	---	6	5000.00	51.54	74.00	-22.46	46.56	4.98	Peak	---
Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High cm	Turn Table deg																																																																	
MHz	dBuV/m	dBuV/m	dB	dBuV	dB																																																																				
1	2390.00	47.79	54.00	-6.21	50.69	-2.90	Average	---																																																																	
2	2390.00	58.20	74.00	-15.80	61.10	-2.90	Peak	---																																																																	
3	4824.00	47.39	54.00	-6.61	42.70	4.69	Average	---																																																																	
4	4824.00	50.39	74.00	-23.61	45.70	4.69	Peak	---																																																																	
5	5000.00	38.33	54.00	-15.67	33.35	4.98	Average	---																																																																	
6	5000.00	51.54	74.00	-22.46	46.56	4.98	Peak	---																																																																	
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>																																																																									

Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		



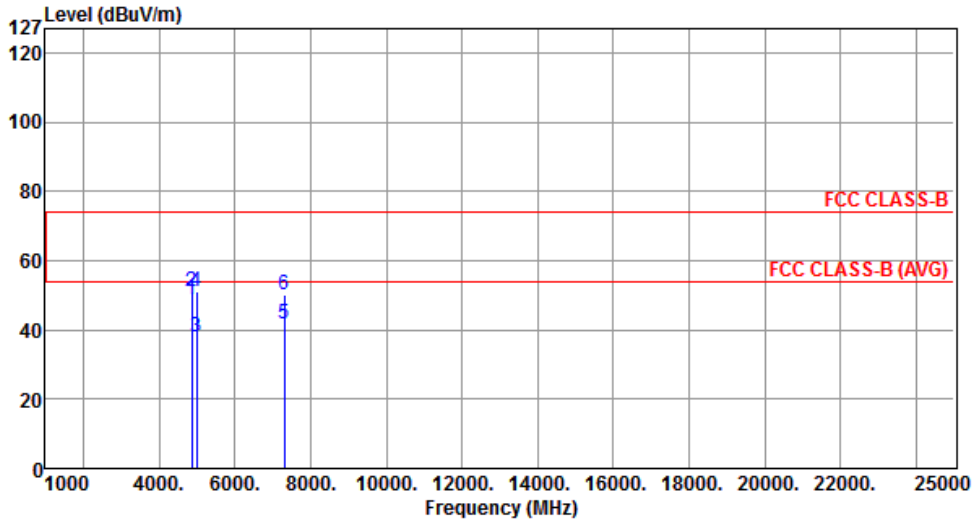
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.39	54.00	-8.61	48.29	-2.90	Average	---	---
2	2390.00	57.23	74.00	-16.77	60.13	-2.90	Peak	---	---
3	4824.00	45.99	54.00	-8.01	41.30	4.69	Average	---	---
4	4824.00	50.51	74.00	-23.49	45.82	4.69	Peak	---	---
5	5000.00	35.94	54.00	-18.06	30.96	4.98	Average	---	---
6	5000.00	46.68	74.00	-27.32	41.70	4.98	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2437
Polarization	Horizontal		



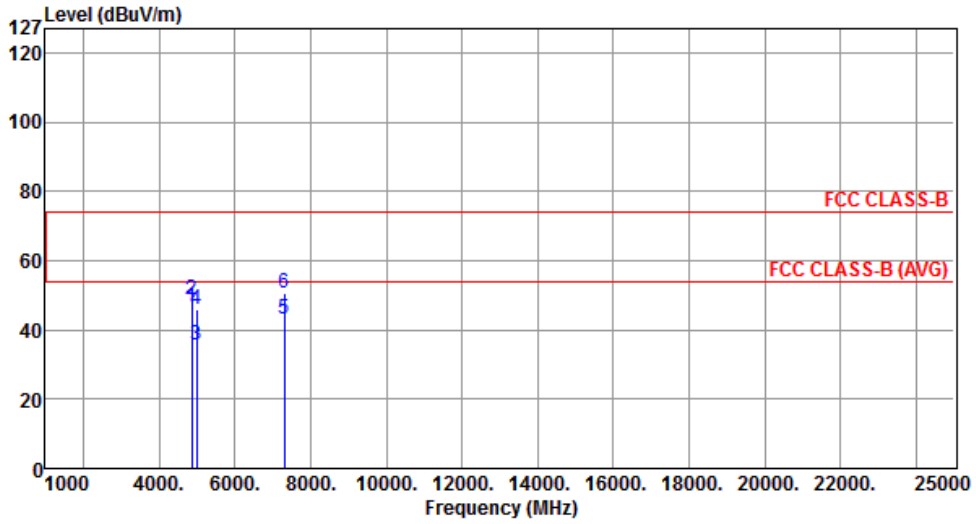
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4874.00	48.94	54.00	-5.06	44.17	4.77	Average	---	---
2	4874.00	51.13	74.00	-22.87	46.36	4.77	Peak	---	---
3	5000.00	37.91	54.00	-16.09	32.93	4.98	Average	---	---
4	5000.00	51.11	74.00	-22.89	46.13	4.98	Peak	---	---
5	7311.00	41.83	54.00	-12.17	32.26	9.57	Average	---	---
6	7311.00	50.34	74.00	-23.66	40.77	9.57	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2437
Polarization	Vertical		



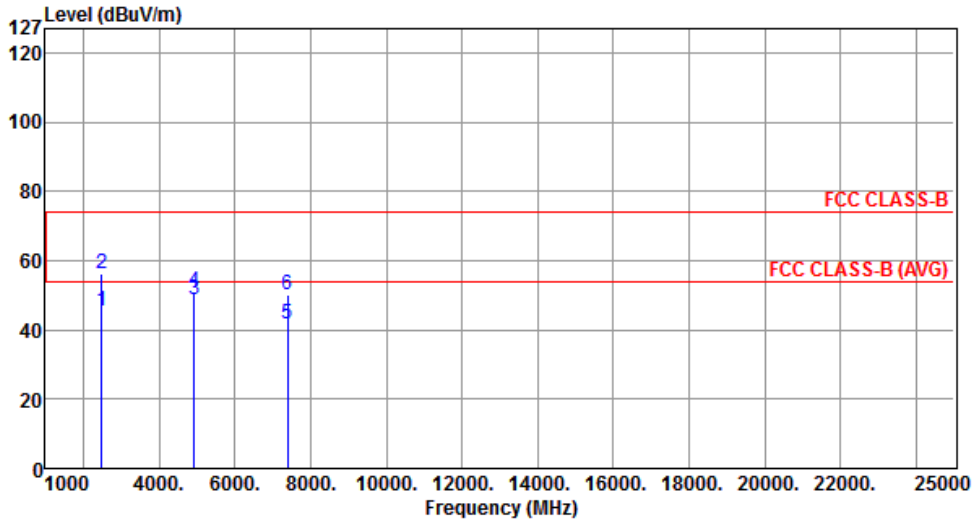
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4874.00	46.53	54.00	-7.47	41.76	4.77	Average	---	---
2	4874.00	48.78	74.00	-25.22	44.01	4.77	Peak	---	---
3	5000.00	35.54	54.00	-18.46	30.56	4.98	Average	---	---
4	5000.00	46.10	74.00	-27.90	41.12	4.98	Peak	---	---
5	7311.00	43.08	54.00	-10.92	33.51	9.57	Average	---	---
6	7311.00	50.63	74.00	-23.37	41.06	9.57	Peak	---	---

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11b	Test Freq. (MHz)	2462
Polarization	Horizontal		



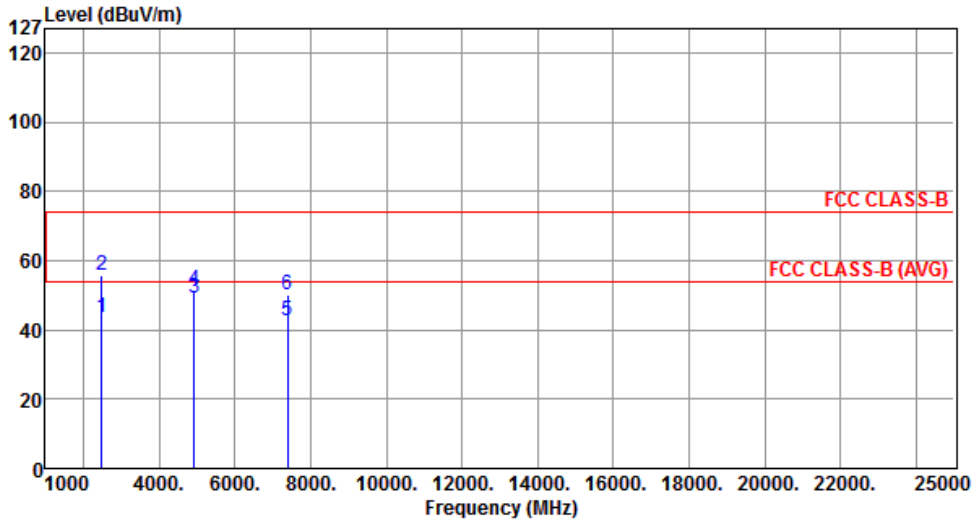
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	45.33	54.00	-8.67	47.75	-2.42	Average	---	---
2	2483.50	56.17	74.00	-17.83	58.59	-2.42	Peak	---	---
3	4924.00	48.60	54.00	-5.40	43.74	4.86	Average	---	---
4	4924.00	50.85	74.00	-23.15	45.99	4.86	Peak	---	---
5	7386.00	41.58	54.00	-12.42	31.90	9.68	Average	---	---
6	7386.00	49.98	74.00	-24.02	40.30	9.68	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11b	Test Freq. (MHz)	2462
Polarization	Vertical		



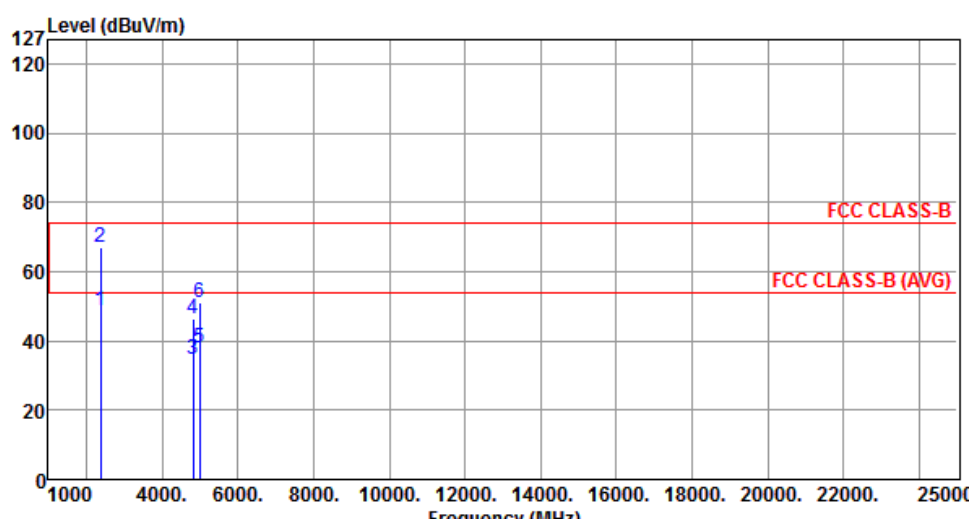
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	43.48	54.00	-10.52	45.90	-2.42	Average	---	---
2	2483.50	55.77	74.00	-18.23	58.19	-2.42	Peak	---	---
3	4924.00	49.22	54.00	-4.78	44.36	4.86	Average	---	---
4	4924.00	51.33	74.00	-22.67	46.47	4.86	Peak	---	---
5	7386.00	42.84	54.00	-11.16	33.16	9.68	Average	---	---
6	7386.00	50.24	74.00	-23.76	40.56	9.68	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

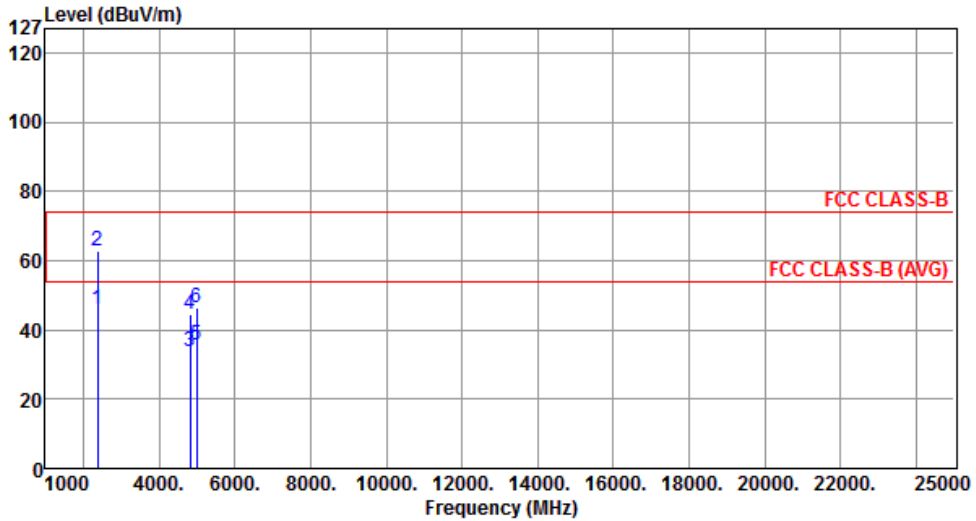
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.1.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11g

Modulation	11g	Test Freq. (MHz)	2412						
Polarization	Horizontal								
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	48.91	54.00	-5.09	51.81	-2.90	Average	---	---
2	2390.00	67.00	74.00	-7.00	69.90	-2.90	Peak	---	---
3	4824.00	34.55	54.00	-19.45	29.86	4.69	Average	---	---
4	4824.00	46.38	74.00	-27.62	41.69	4.69	Peak	---	---
5	5000.00	37.82	54.00	-16.18	32.84	4.98	Average	---	---
6	5000.00	51.03	74.00	-22.97	46.05	4.98	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



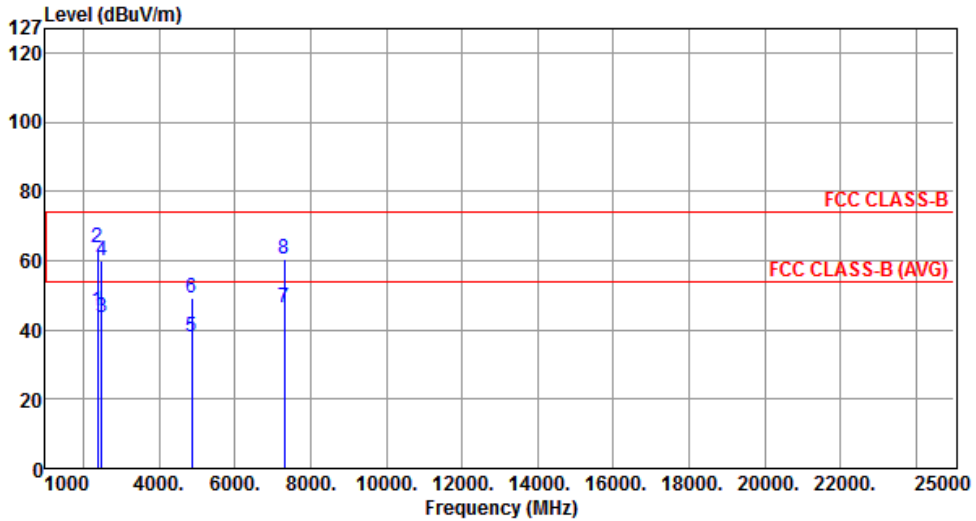
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	46.11	54.00	-7.89	49.01	-2.90	Average	---	---
2	2390.00	62.81	74.00	-11.19	65.71	-2.90	Peak	---	---
3	4824.00	33.76	54.00	-20.24	29.07	4.69	Average	---	---
4	4824.00	44.72	74.00	-29.28	40.03	4.69	Peak	---	---
5	5000.00	35.43	54.00	-18.57	30.45	4.98	Average	---	---
6	5000.00	46.24	74.00	-27.76	41.26	4.98	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2437
Polarization	Horizontal		



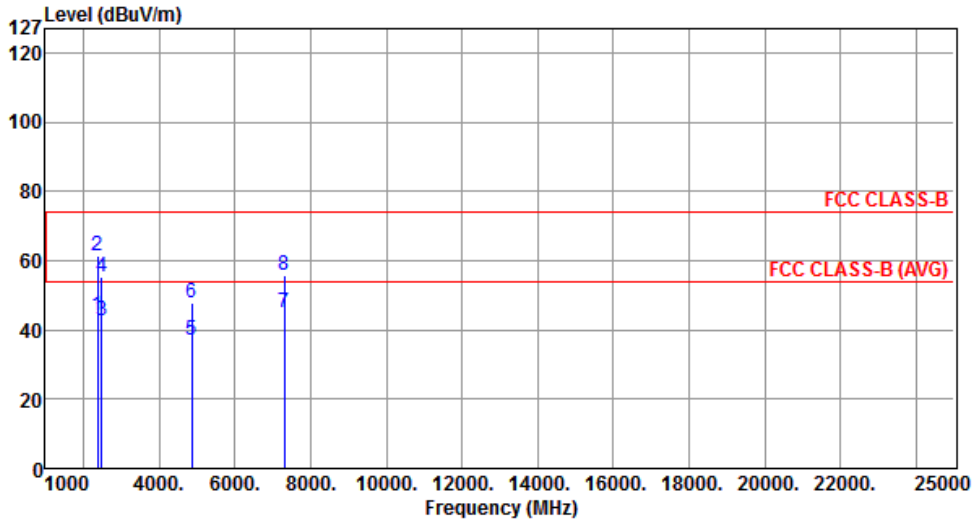
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.39	54.00	-8.61	48.29	-2.90	Average	---	---
2	2390.00	63.91	74.00	-10.09	66.81	-2.90	Peak	---	---
3	2483.50	43.68	54.00	-10.32	46.10	-2.42	Average	---	---
4	2483.50	60.12	74.00	-13.88	62.54	-2.42	Peak	---	---
5	4874.00	37.73	54.00	-16.27	32.96	4.77	Average	---	---
6	4874.00	49.29	74.00	-24.71	44.52	4.77	Peak	---	---
7	7311.00	46.48	54.00	-7.52	36.91	9.57	Average	---	---
8	7311.00	60.33	74.00	-13.67	50.76	9.57	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		



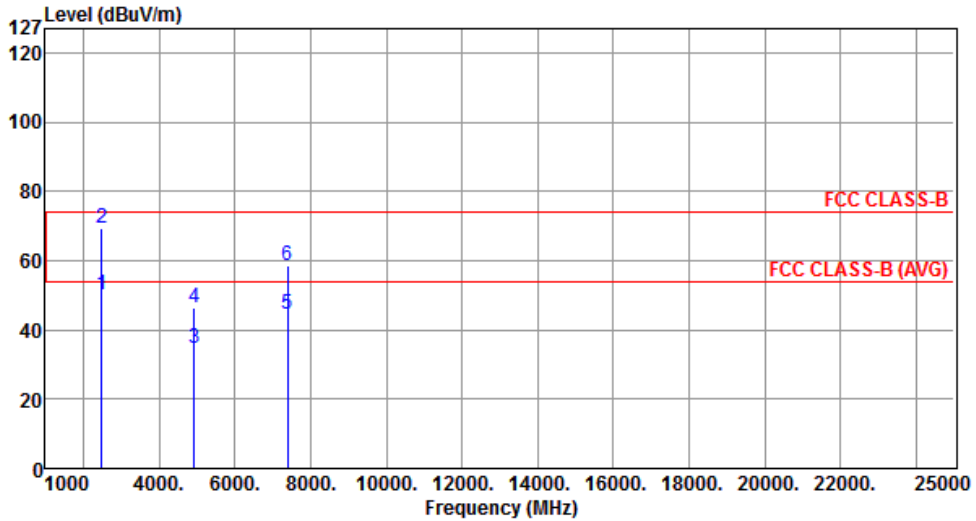
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	43.91	54.00	-10.09	46.81	-2.90	Average	---	---
2	2390.00	61.21	74.00	-12.79	64.11	-2.90	Peak	---	---
3	2483.50	42.73	54.00	-11.27	45.15	-2.42	Average	---	---
4	2483.50	55.38	74.00	-18.62	57.80	-2.42	Peak	---	---
5	4874.00	36.99	54.00	-17.01	32.22	4.77	Average	---	---
6	4874.00	47.97	74.00	-26.03	43.20	4.77	Peak	---	---
7	7311.00	44.93	54.00	-9.07	35.36	9.57	Average	---	---
8	7311.00	55.99	74.00	-18.01	46.42	9.57	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2462
Polarization	Horizontal		



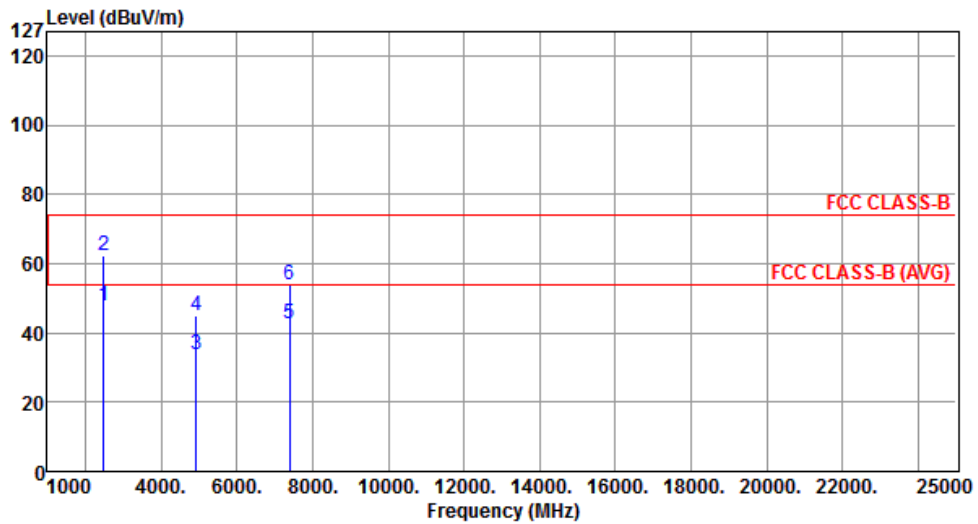
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	49.91	54.00	-4.09	52.33	-2.42	Average	---	---
2	2483.50	69.26	74.00	-4.74	71.68	-2.42	Peak	---	---
3	4924.00	34.78	54.00	-19.22	29.92	4.86	Average	---	---
4	4924.00	46.38	74.00	-27.62	41.52	4.86	Peak	---	---
5	7386.00	44.52	54.00	-9.48	34.84	9.68	Average	---	---
6	7386.00	58.40	74.00	-15.60	48.72	9.68	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2462
Polarization	Vertical		



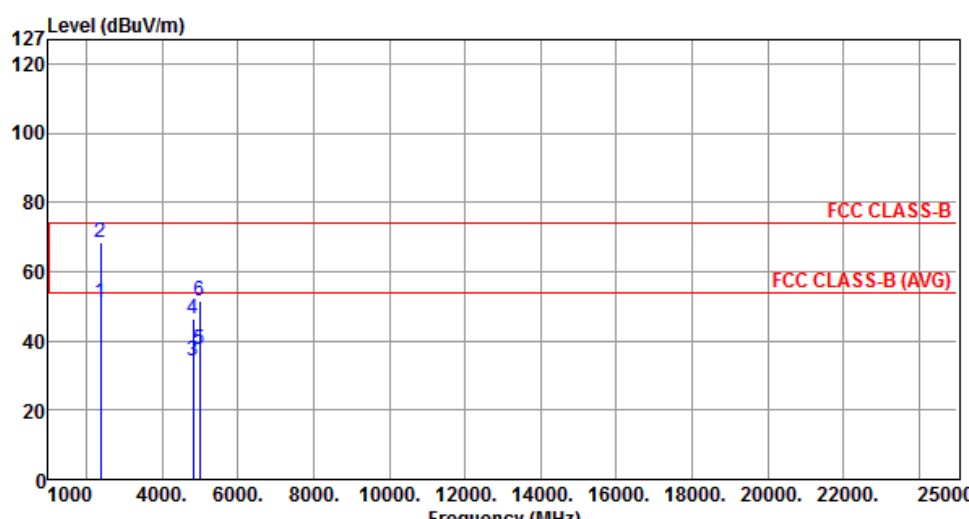
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	47.82	54.00	-6.18	50.24	-2.42	Average	---	---
2	2483.50	62.45	74.00	-11.55	64.87	-2.42	Peak	---	---
3	4924.00	33.62	54.00	-20.38	28.76	4.86	Average	---	---
4	4924.00	44.86	74.00	-29.14	40.00	4.86	Peak	---	---
5	7386.00	42.84	54.00	-11.16	33.16	9.68	Average	---	---
6	7386.00	53.75	74.00	-20.25	44.07	9.68	Peak	---	---

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

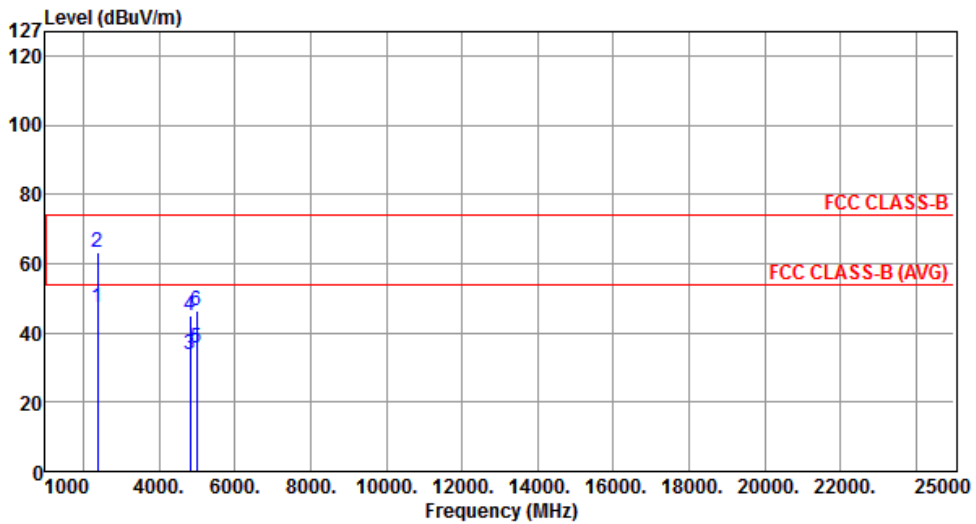
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

3.1.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT20

Modulation	HT20	Test Freq. (MHz)	2412						
Polarization	Horizontal								
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High cm	Turn Table deg
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB			
1	2390.00	51.29	54.00	-2.71	54.19	-2.90	Average	---	---
2	2390.00	68.32	74.00	-5.68	71.22	-2.90	Peak	---	---
3	4824.00	34.00	54.00	-20.00	29.31	4.69	Average	---	---
4	4824.00	46.25	74.00	-27.75	41.56	4.69	Peak	---	---
5	5000.00	37.29	54.00	-16.71	32.31	4.98	Average	---	---
6	5000.00	51.51	74.00	-22.49	46.53	4.98	Peak	---	---
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>									

Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Vertical		



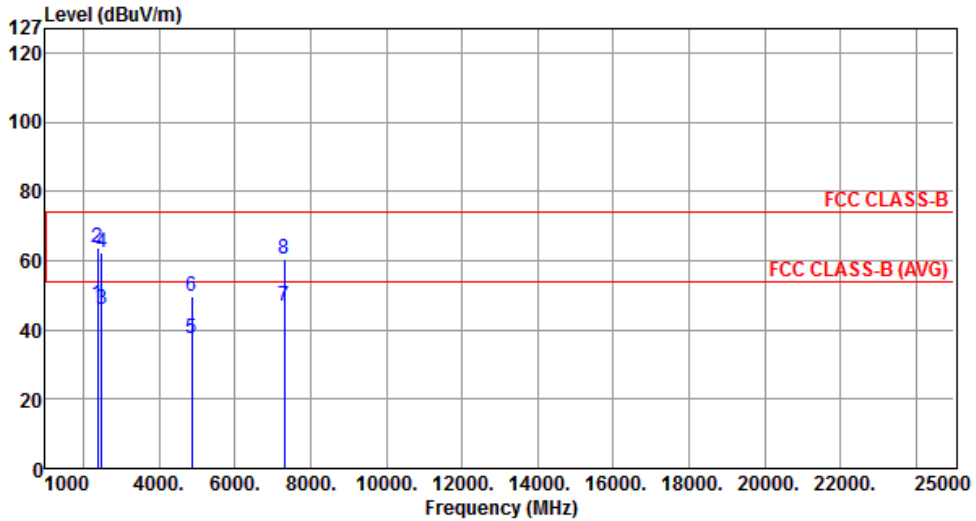
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	47.32	54.00	-6.68	50.22	-2.90	Average	---	---
2	2390.00	63.24	74.00	-10.76	66.14	-2.90	Peak	---	---
3	4824.00	33.91	54.00	-20.09	29.22	4.69	Average	---	---
4	4824.00	45.22	74.00	-28.78	40.53	4.69	Peak	---	---
5	5000.00	35.63	54.00	-18.37	30.65	4.98	Average	---	---
6	5000.00	46.36	74.00	-27.64	41.38	4.98	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Horizontal		



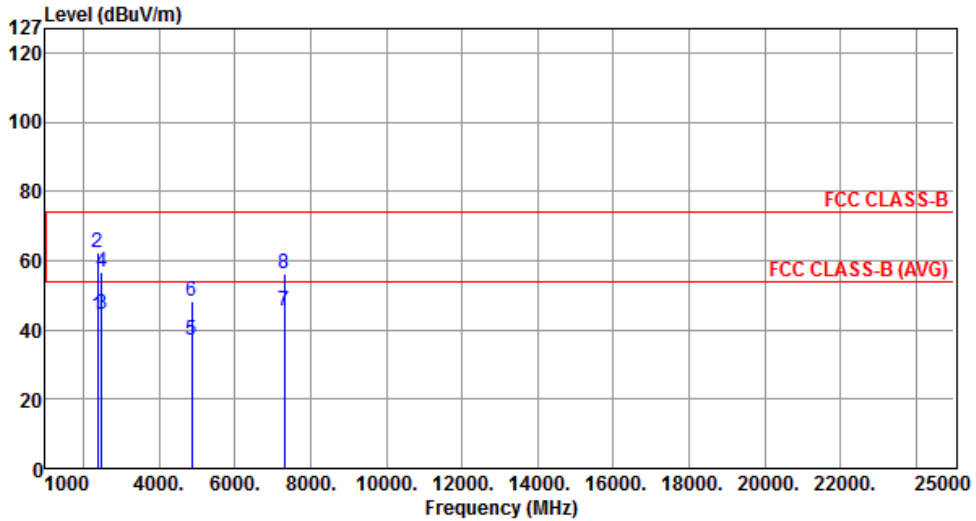
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	47.35	54.00	-6.65	50.25	-2.90	Average	---	---
2	2390.00	63.91	74.00	-10.09	66.81	-2.90	Peak	---	---
3	2483.50	45.91	54.00	-8.09	48.33	-2.42	Average	---	---
4	2483.50	62.17	74.00	-11.83	64.59	-2.42	Peak	---	---
5	4874.00	37.66	54.00	-16.34	32.89	4.77	Average	---	---
6	4874.00	49.45	74.00	-24.55	44.68	4.77	Peak	---	---
7	7311.00	46.80	54.00	-7.20	37.23	9.57	Average	---	---
8	7311.00	60.53	74.00	-13.47	50.96	9.57	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Vertical		



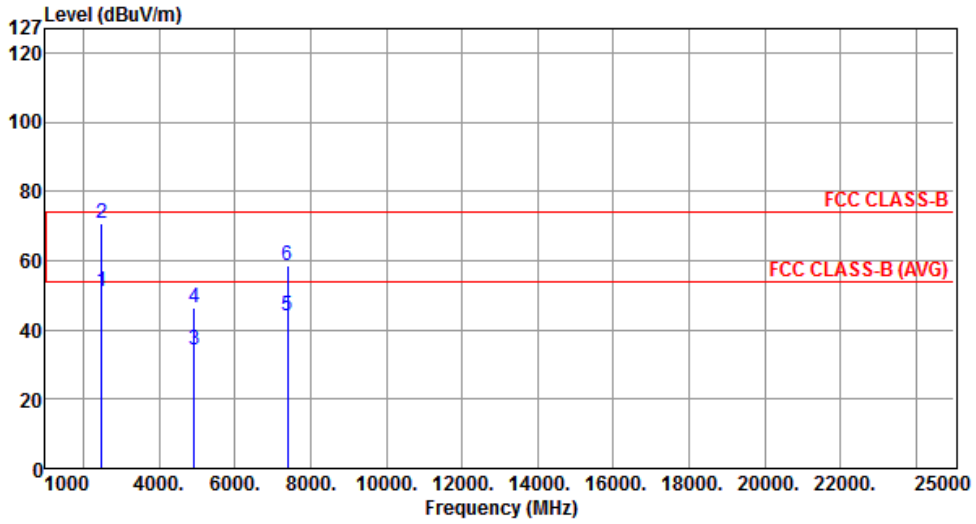
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	44.26	54.00	-9.74	47.16	-2.90	Average	---	---
2	2390.00	62.42	74.00	-11.58	65.32	-2.90	Peak	---	---
3	2483.50	44.47	54.00	-9.53	46.89	-2.42	Average	---	---
4	2483.50	56.71	74.00	-17.29	59.13	-2.42	Peak	---	---
5	4874.00	37.25	54.00	-16.75	32.48	4.77	Average	---	---
6	4874.00	48.39	74.00	-25.61	43.62	4.77	Peak	---	---
7	7311.00	45.67	54.00	-8.33	36.10	9.57	Average	---	---
8	7311.00	56.31	74.00	-17.69	46.74	9.57	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT20	Test Freq. (MHz)	2462
Polarization	Horizontal		



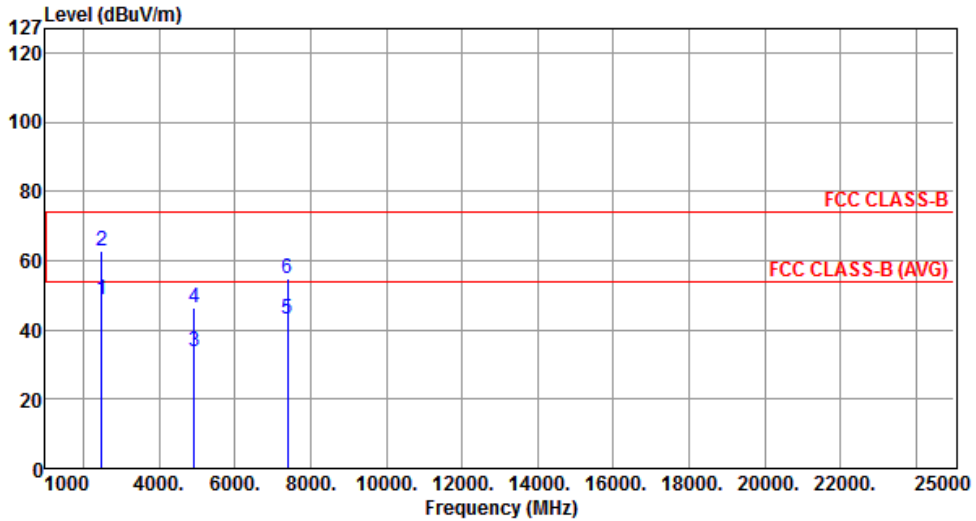
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	51.14	54.00	-2.86	53.56	-2.42	Average	---	---
2	2483.50	70.67	74.00	-3.33	73.09	-2.42	Peak	---	---
3	4924.00	34.20	54.00	-19.80	29.34	4.86	Average	---	---
4	4924.00	46.41	74.00	-27.59	41.55	4.86	Peak	---	---
5	7386.00	44.29	54.00	-9.71	34.61	9.68	Average	---	---
6	7386.00	58.64	74.00	-15.36	48.96	9.68	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT20	Test Freq. (MHz)	2462
Polarization	Vertical		



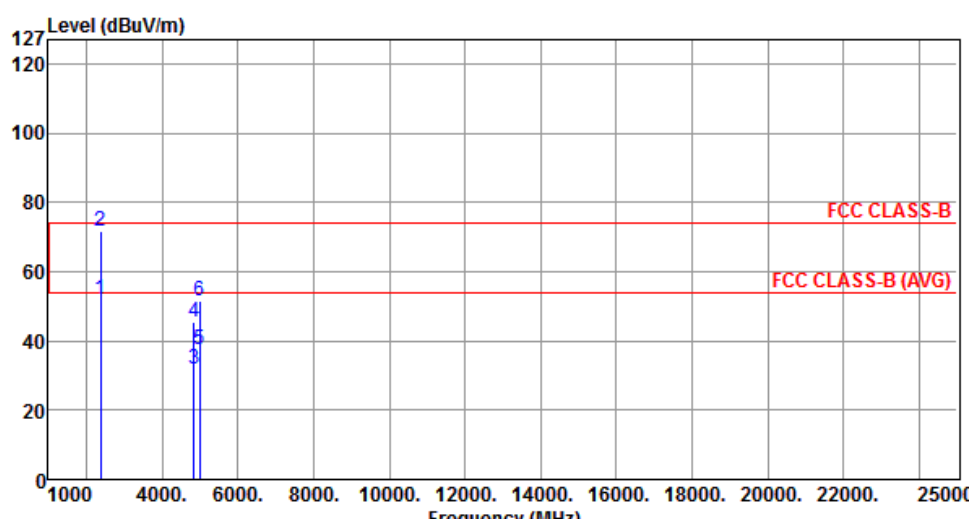
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	48.92	54.00	-5.08	51.34	-2.42	Average	---	---
2	2483.50	62.71	74.00	-11.29	65.13	-2.42	Peak	---	---
3	4924.00	33.84	54.00	-20.16	28.98	4.86	Average	---	---
4	4924.00	46.42	74.00	-27.58	41.56	4.86	Peak	---	---
5	7386.00	43.33	54.00	-10.67	33.65	9.68	Average	---	---
6	7386.00	54.65	74.00	-19.35	44.97	9.68	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

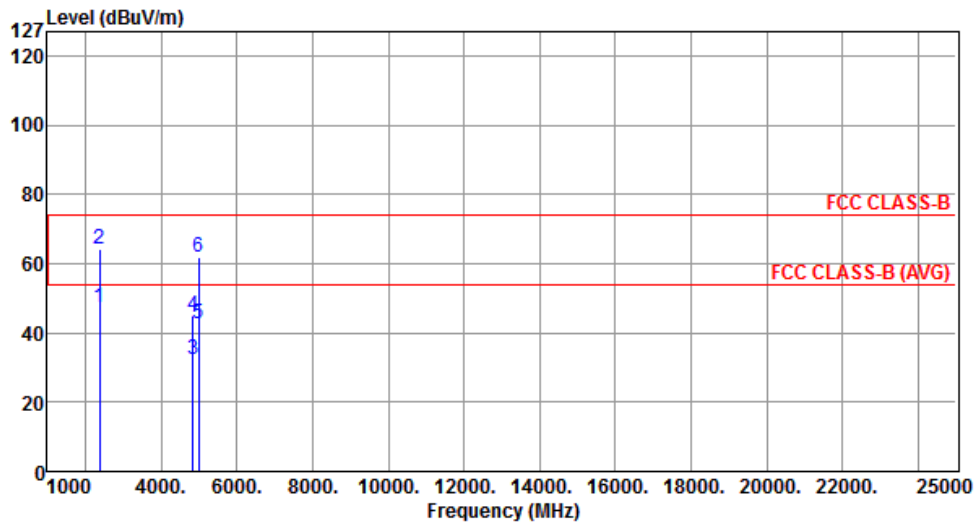
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.1.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT40

Modulation	HT40	Test Freq. (MHz)	2422																																																																						
Polarization	Horizontal																																																																								
																																																																									
	<table border="1"> <thead> <tr> <th>Freq.</th> <th>Emission level</th> <th>Limit</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>52.13</td> <td>54.00</td> <td>-1.87</td> <td>55.03</td> <td>-2.90</td> <td>Average</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>71.81</td> <td>74.00</td> <td>-2.19</td> <td>74.71</td> <td>-2.90</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>3</td> <td>4844.00</td> <td>32.07</td> <td>54.00</td> <td>-21.93</td> <td>27.36</td> <td>4.71</td> <td>Average</td> <td>---</td> </tr> <tr> <td>4</td> <td>4844.00</td> <td>45.31</td> <td>74.00</td> <td>-28.69</td> <td>40.60</td> <td>4.71</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>5</td> <td>5000.00</td> <td>37.41</td> <td>54.00</td> <td>-16.59</td> <td>32.43</td> <td>4.98</td> <td>Average</td> <td>---</td> </tr> <tr> <td>6</td> <td>5000.00</td> <td>51.55</td> <td>74.00</td> <td>-22.45</td> <td>46.57</td> <td>4.98</td> <td>Peak</td> <td>---</td> </tr> </tbody> </table>	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High cm	Turn Table deg	MHz	dBuV/m	dBuV/m	dB	dBuV	dB				1	2390.00	52.13	54.00	-1.87	55.03	-2.90	Average	---	2	2390.00	71.81	74.00	-2.19	74.71	-2.90	Peak	---	3	4844.00	32.07	54.00	-21.93	27.36	4.71	Average	---	4	4844.00	45.31	74.00	-28.69	40.60	4.71	Peak	---	5	5000.00	37.41	54.00	-16.59	32.43	4.98	Average	---	6	5000.00	51.55	74.00	-22.45	46.57	4.98	Peak	---
Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High cm	Turn Table deg																																																																	
MHz	dBuV/m	dBuV/m	dB	dBuV	dB																																																																				
1	2390.00	52.13	54.00	-1.87	55.03	-2.90	Average	---																																																																	
2	2390.00	71.81	74.00	-2.19	74.71	-2.90	Peak	---																																																																	
3	4844.00	32.07	54.00	-21.93	27.36	4.71	Average	---																																																																	
4	4844.00	45.31	74.00	-28.69	40.60	4.71	Peak	---																																																																	
5	5000.00	37.41	54.00	-16.59	32.43	4.98	Average	---																																																																	
6	5000.00	51.55	74.00	-22.45	46.57	4.98	Peak	---																																																																	
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>																																																																									

Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



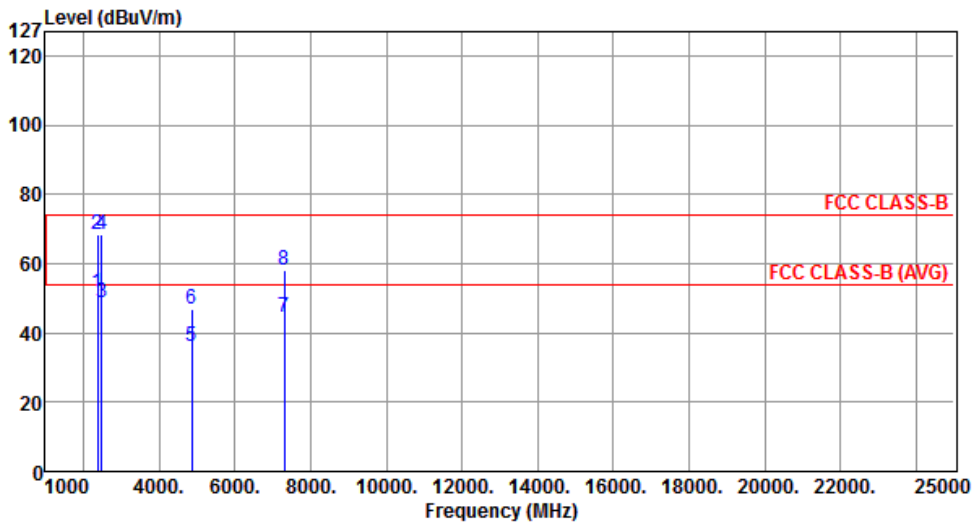
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	47.36	54.00	-6.64	50.26	-2.90	Average	---	---
2	2390.00	64.16	74.00	-9.84	67.06	-2.90	Peak	---	---
3	4844.00	32.37	54.00	-21.63	27.66	4.71	Average	---	---
4	4844.00	45.11	74.00	-28.89	40.40	4.71	Peak	---	---
5	5000.00	42.62	54.00	-11.38	37.64	4.98	Average	---	---
6	5000.00	61.66	74.00	-12.34	56.68	4.98	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Horizontal		



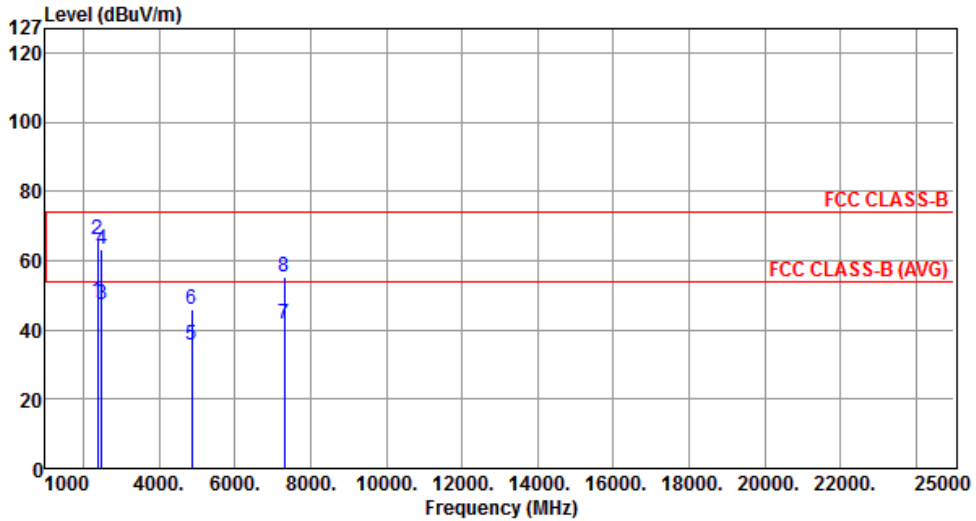
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	51.49	54.00	-2.51	54.39	-2.90	Average	---	---
2	2390.00	68.36	74.00	-5.64	71.26	-2.90	Peak	---	---
3	2483.50	48.84	54.00	-5.16	51.26	-2.42	Average	---	---
4	2483.50	68.23	74.00	-5.77	70.65	-2.42	Peak	---	---
5	4874.00	36.02	54.00	-17.98	31.25	4.77	Average	---	---
6	4874.00	47.02	74.00	-26.98	42.25	4.77	Peak	---	---
7	7311.00	44.72	54.00	-9.28	35.15	9.57	Average	---	---
8	7311.00	58.31	74.00	-15.69	48.74	9.57	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Vertical		



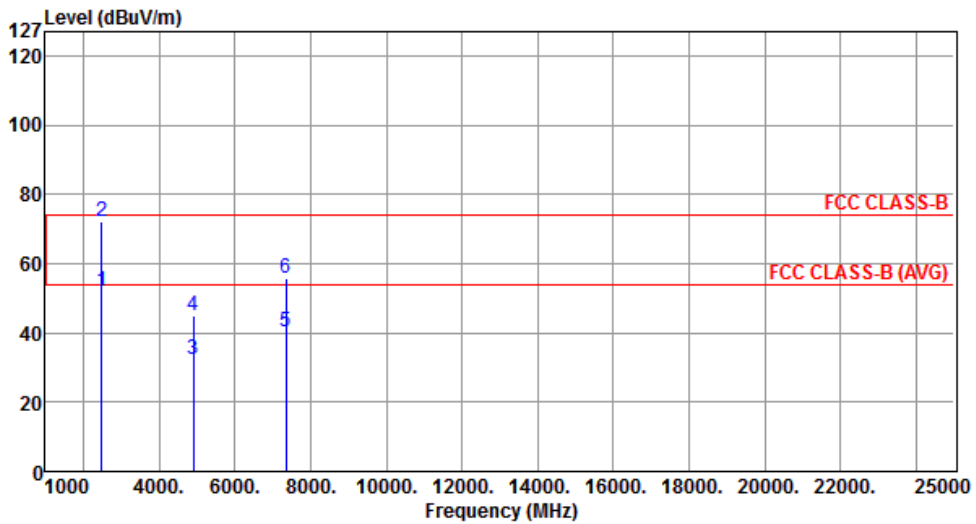
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	48.33	54.00	-5.67	51.23	-2.90	Average	---	---
2	2390.00	66.06	74.00	-7.94	68.96	-2.90	Peak	---	---
3	2483.50	47.21	54.00	-6.79	49.63	-2.42	Average	---	---
4	2483.50	63.27	74.00	-10.73	65.69	-2.42	Peak	---	---
5	4874.00	35.82	54.00	-18.18	31.05	4.77	Average	---	---
6	4874.00	46.15	74.00	-27.85	41.38	4.77	Peak	---	---
7	7311.00	41.89	54.00	-12.11	32.32	9.57	Average	---	---
8	7311.00	55.28	74.00	-18.72	45.71	9.57	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	2452
Polarization	Horizontal		



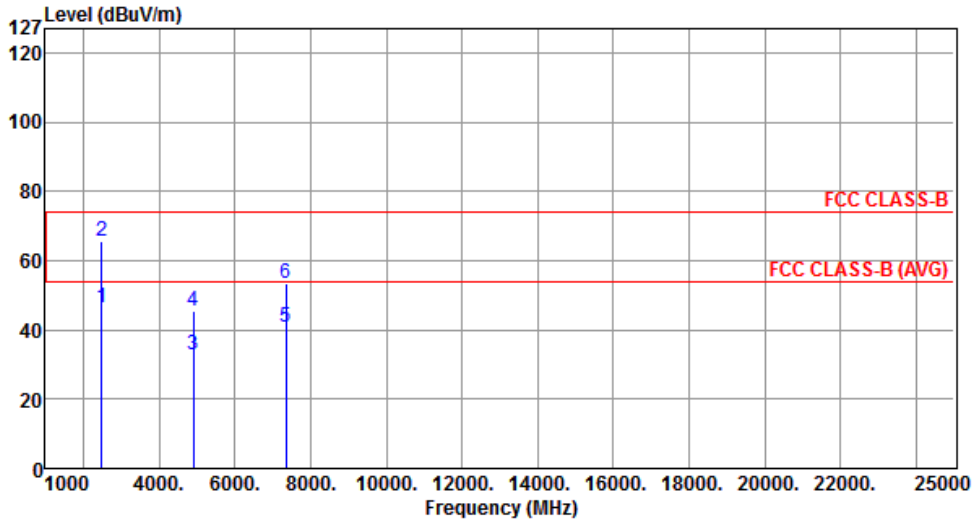
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	52.24	54.00	-1.76	54.66	-2.42	Average	---	---
2	2483.50	72.26	74.00	-1.74	74.68	-2.42	Peak	---	---
3	4904.00	32.27	54.00	-21.73	27.45	4.82	Average	---	---
4	4904.00	45.20	74.00	-28.80	40.38	4.82	Peak	---	---
5	7356.00	40.07	54.00	-13.93	30.44	9.63	Average	---	---
6	7356.00	55.58	74.00	-18.42	45.95	9.63	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	2452
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	46.24	54.00	-7.76	48.66	-2.42	Average	---	---
2	2483.50	65.73	74.00	-8.27	68.15	-2.42	Peak	---	---
3	4904.00	32.98	54.00	-21.02	28.16	4.82	Average	---	---
4	4904.00	45.50	74.00	-28.50	40.68	4.82	Peak	---	---
5	7356.00	40.69	54.00	-13.31	31.06	9.63	Average	---	---
6	7356.00	53.41	74.00	-20.59	43.78	9.63	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp, it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan Hsiang. Location map can be found on our website <http://www.icertifi.com.tw>.

Linkou

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information

Tel: 886-3-271-8666

Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

==END==