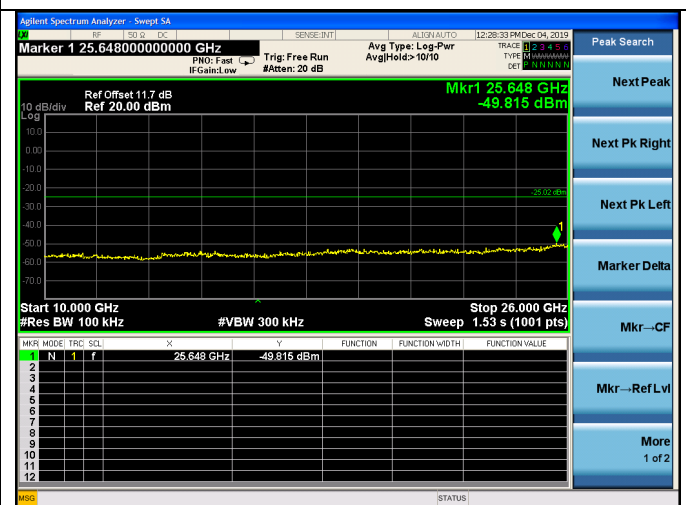
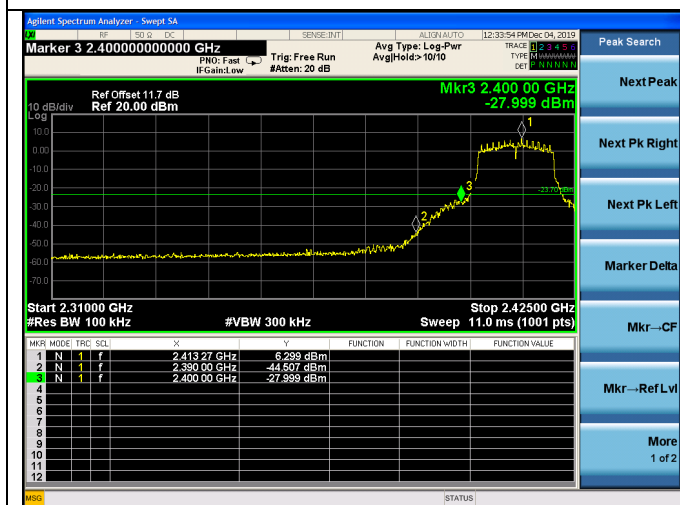
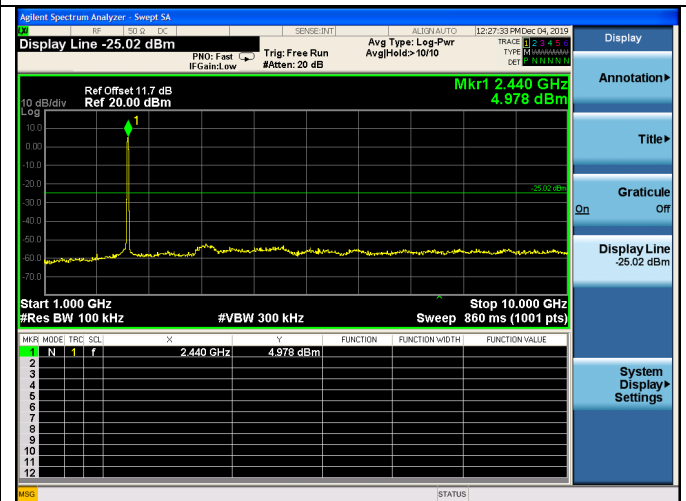
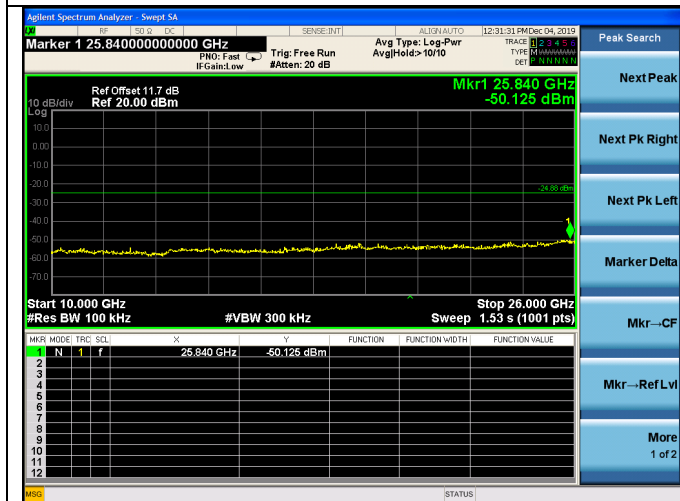
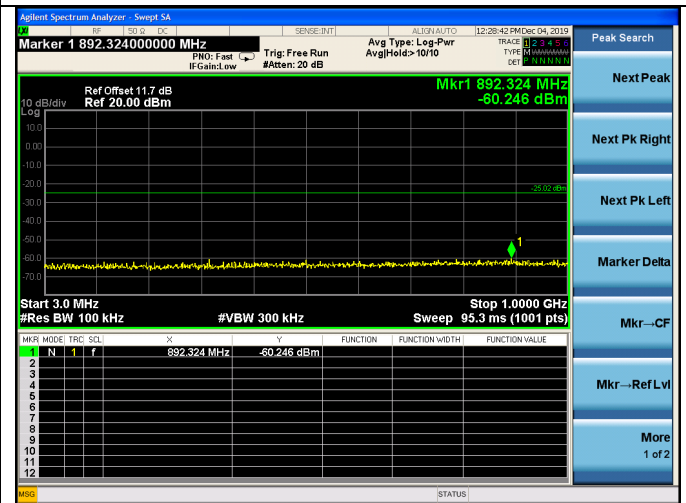
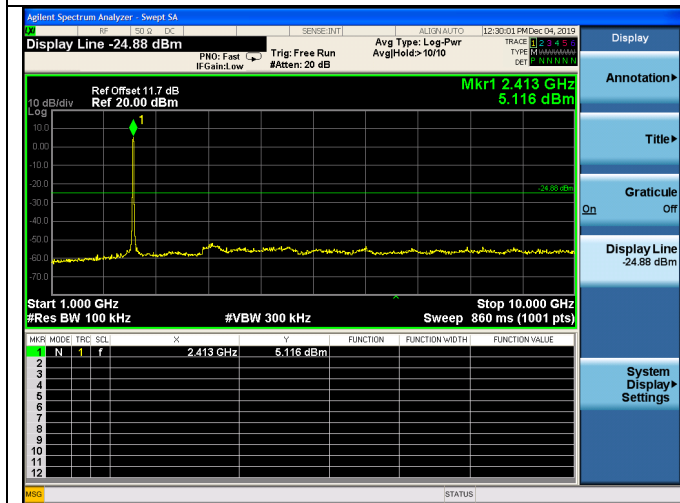
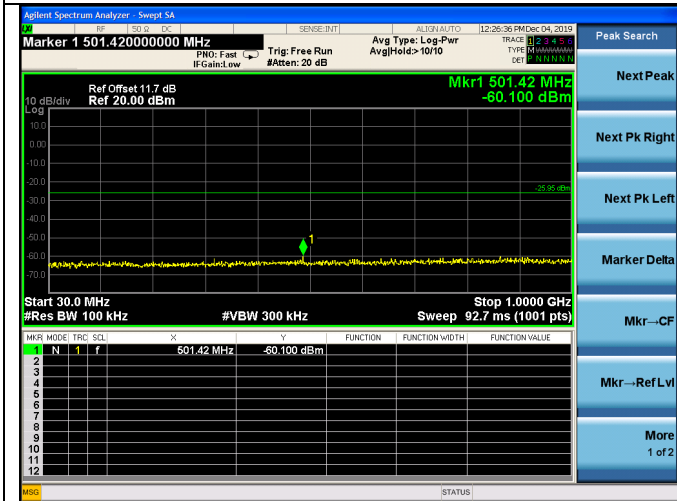


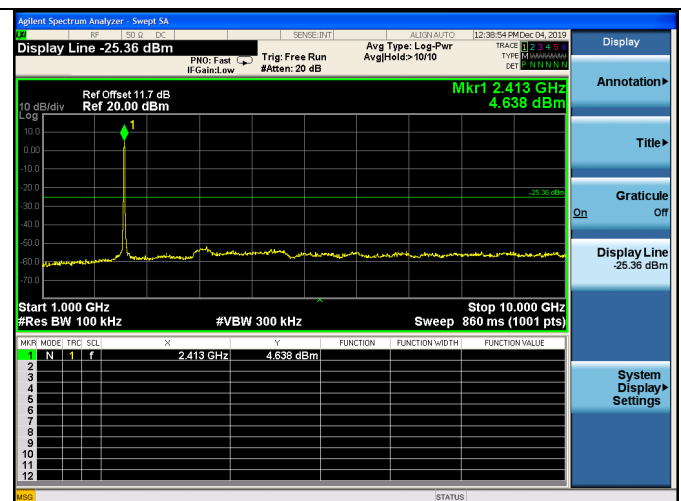
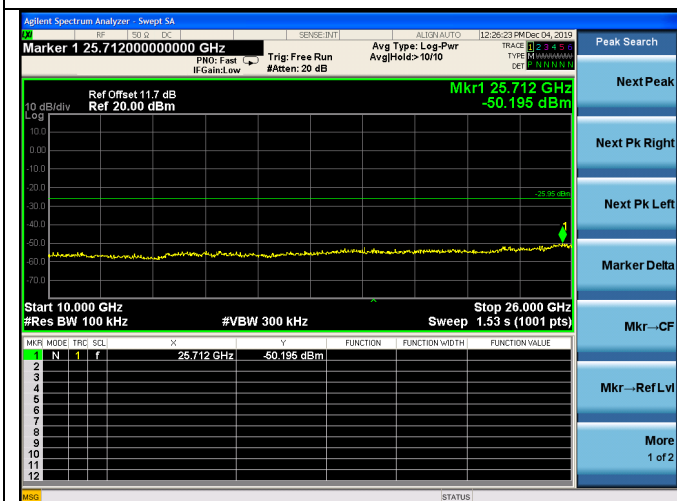
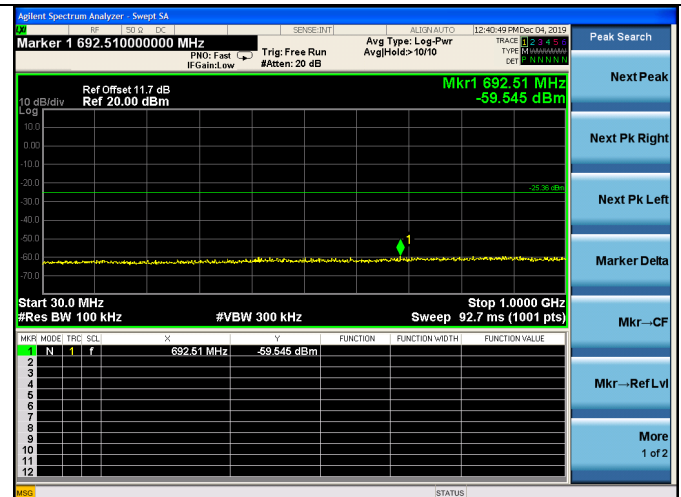
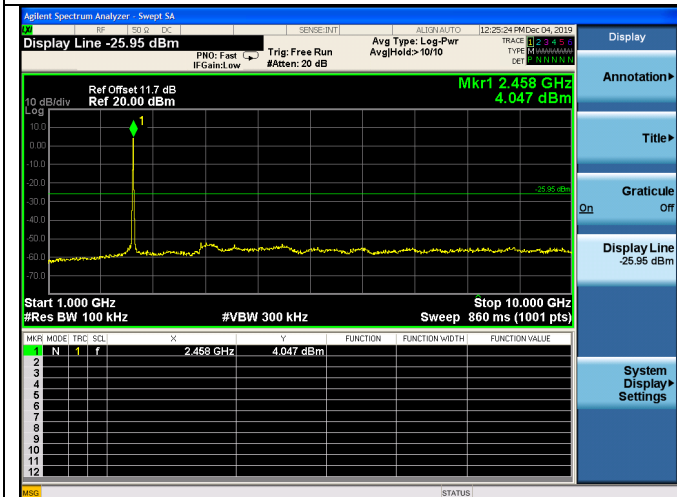
Test CH6: 2437MHz

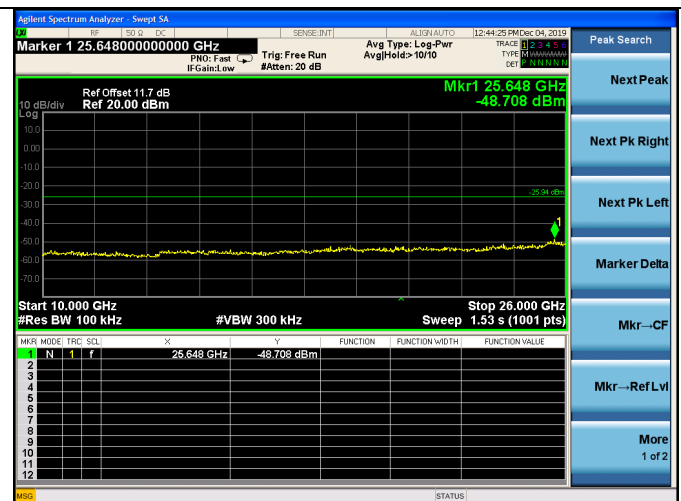
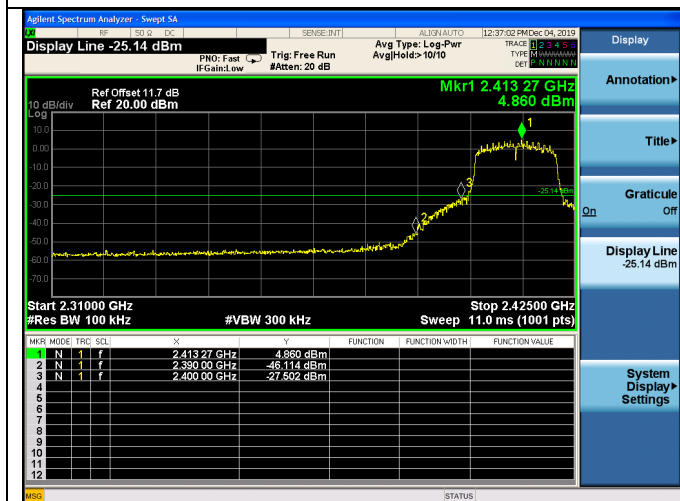
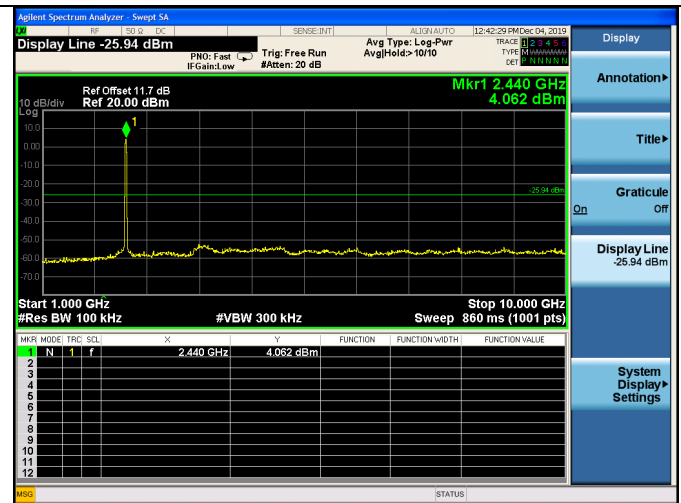
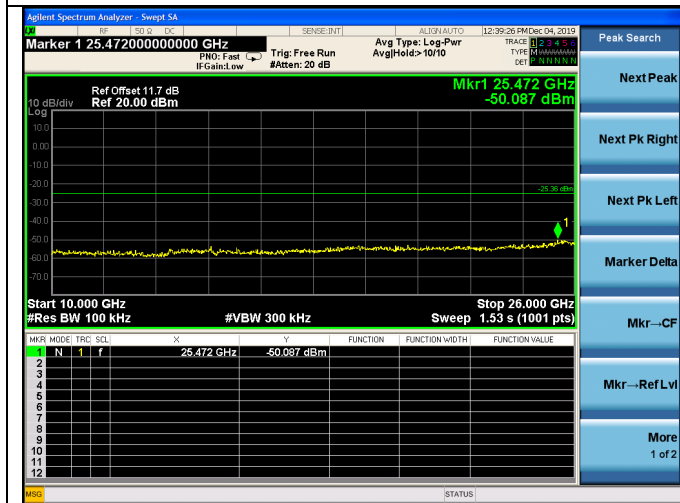


Test CH11: 2462MHz

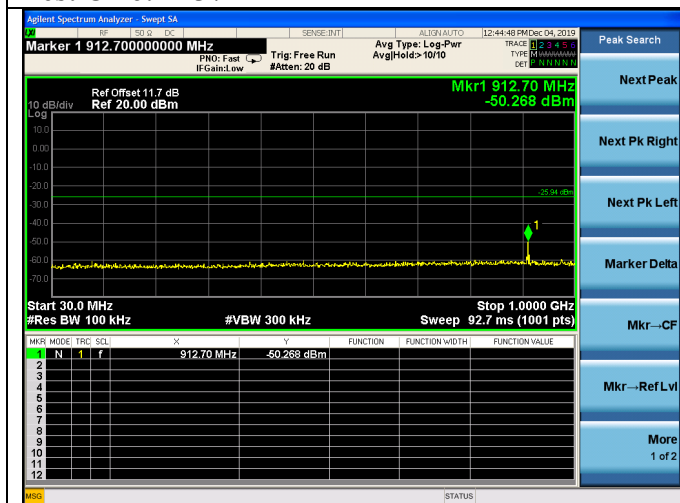


Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz

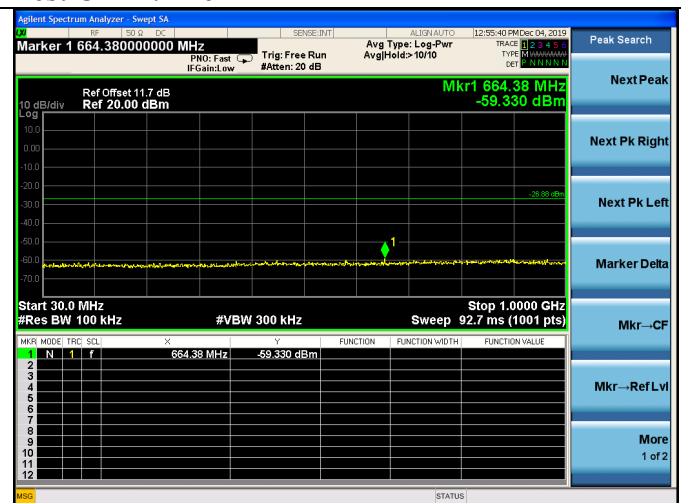




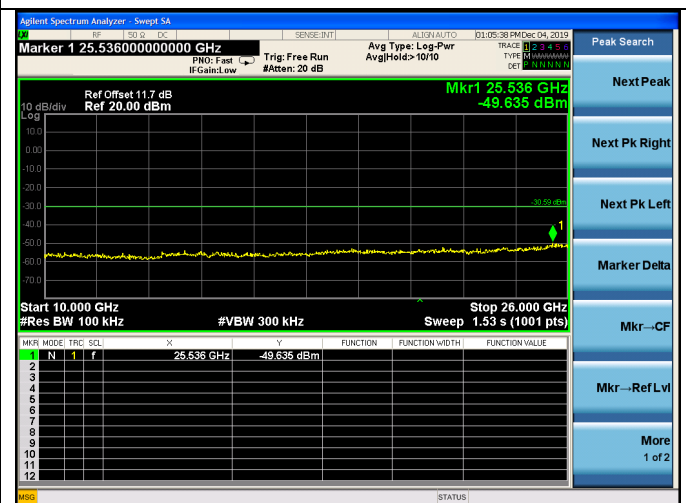
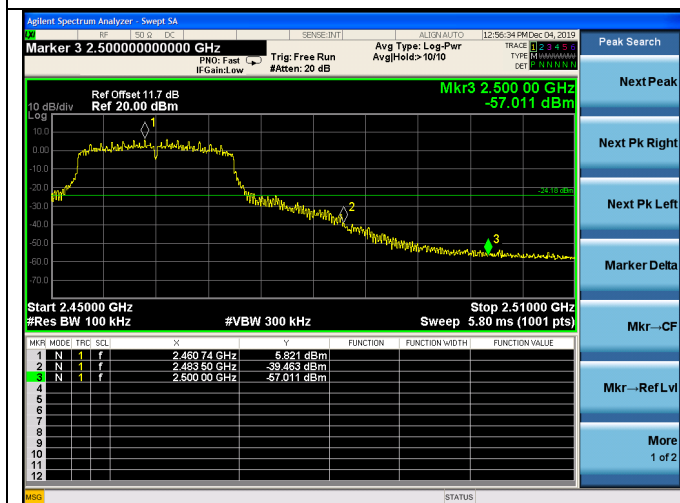
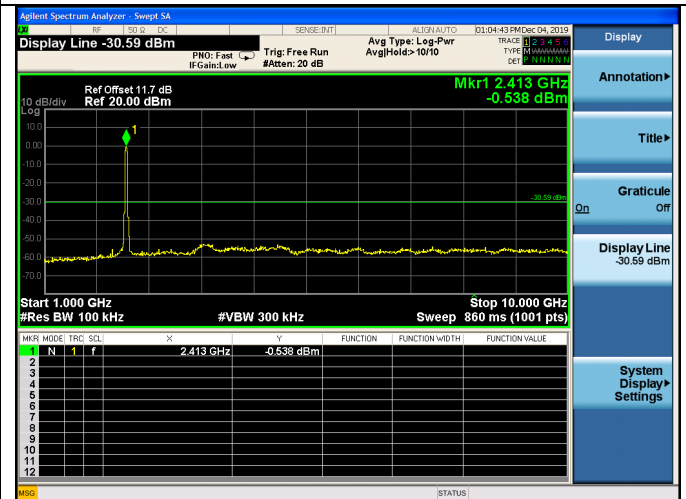
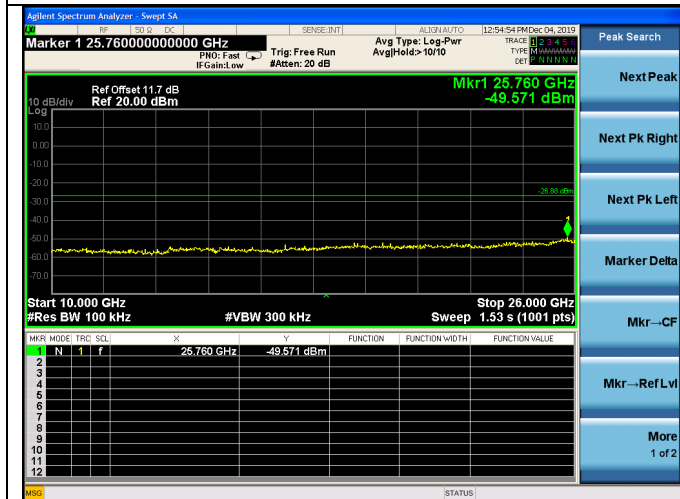
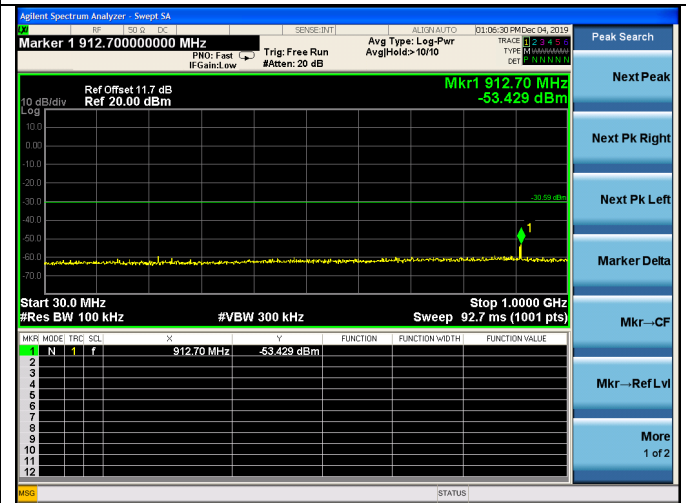
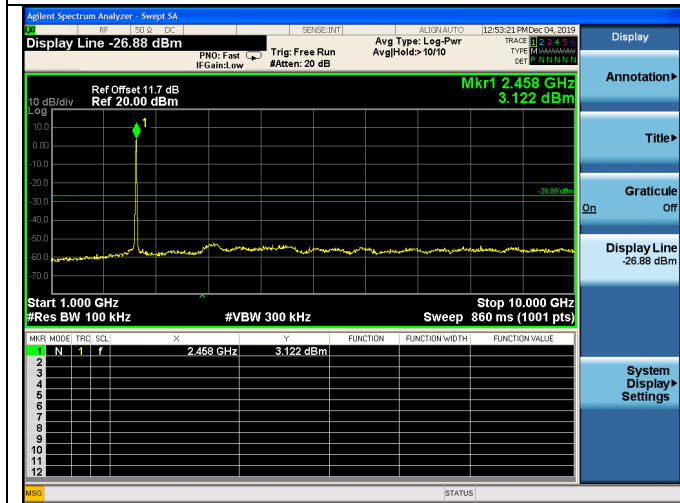
Test CH6: 2437MHz

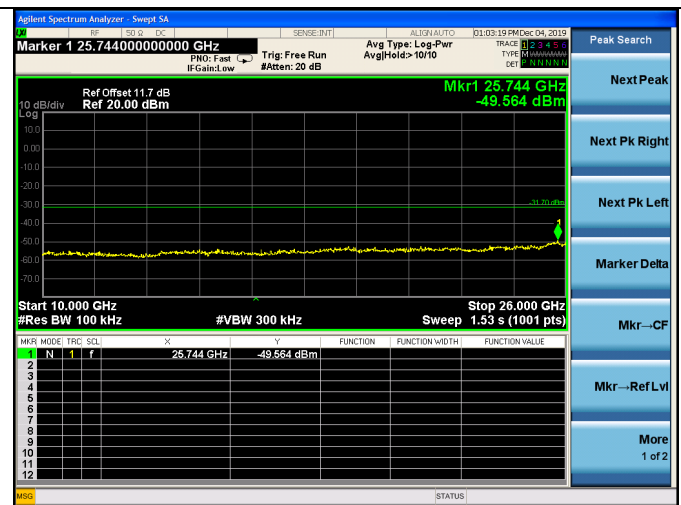
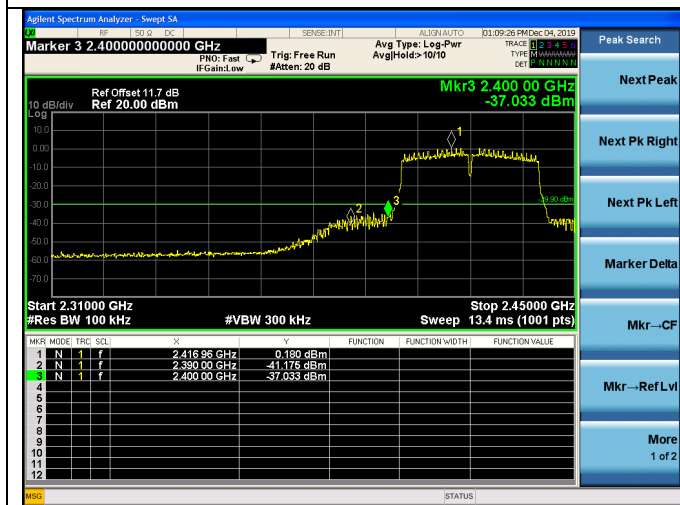


Test CH11: 2462MHz

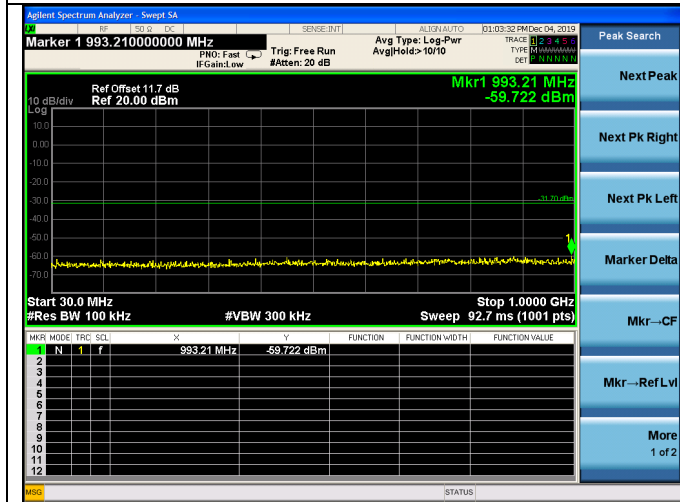


Test Mode: IEEE 802.11n HT40
Test CH1: 2422MHz

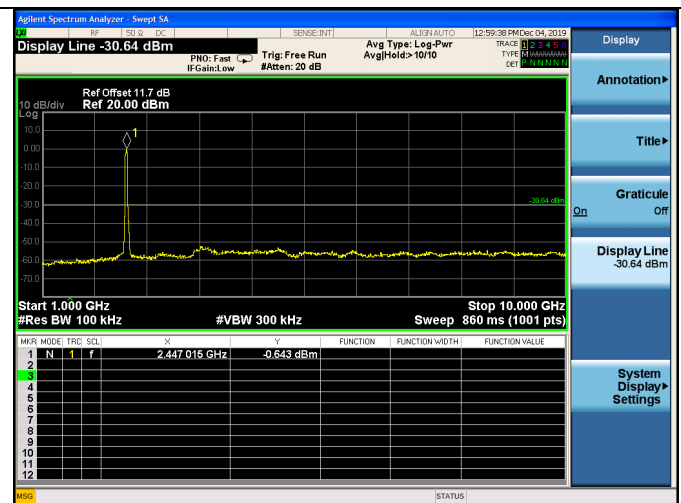
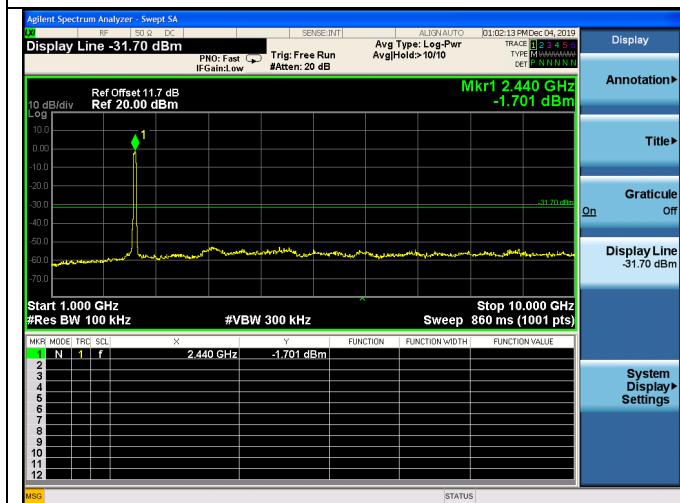
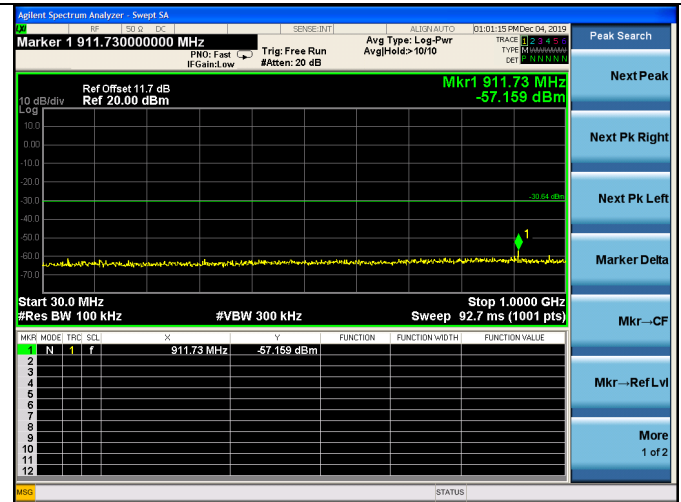


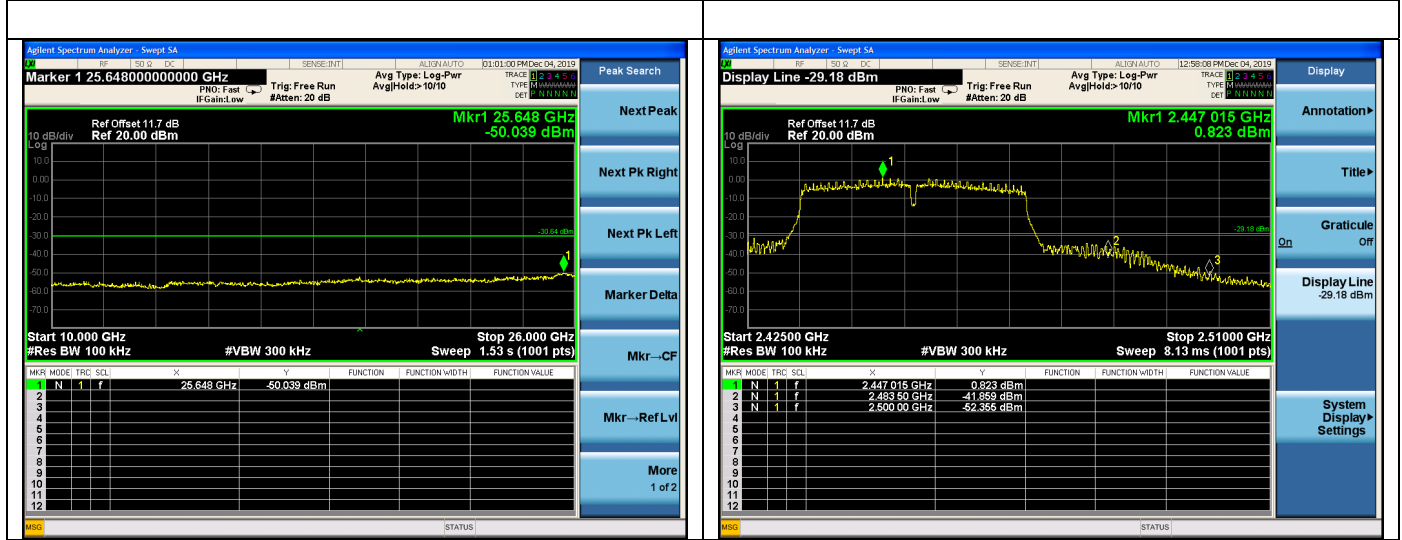


Test CH1: 2437MHz



Test CH1: 2452MHz





6. BAND EDGE COMPLIANCE TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Jun.30,19	1 Year
2.	Amplifier	Agilent	8449B	3008A02495	Apr.23,19	1 Year
3.	Horn Antenna	ETC	MCTD 1209	DRH15F03007	Jun.17,19	1 Year
4.	RF Cable	EMCI	EMC102-KM-KM 3500	170702	May.13,19	1 Year

6.2. Limit

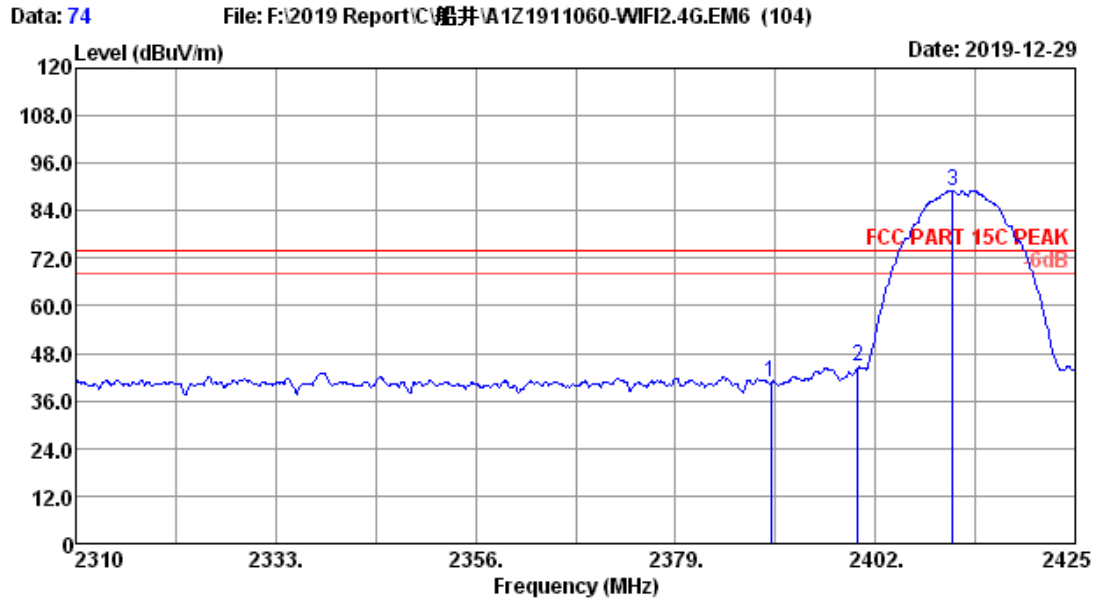
All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental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

6.3. Test Procedure

1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4. Test Results

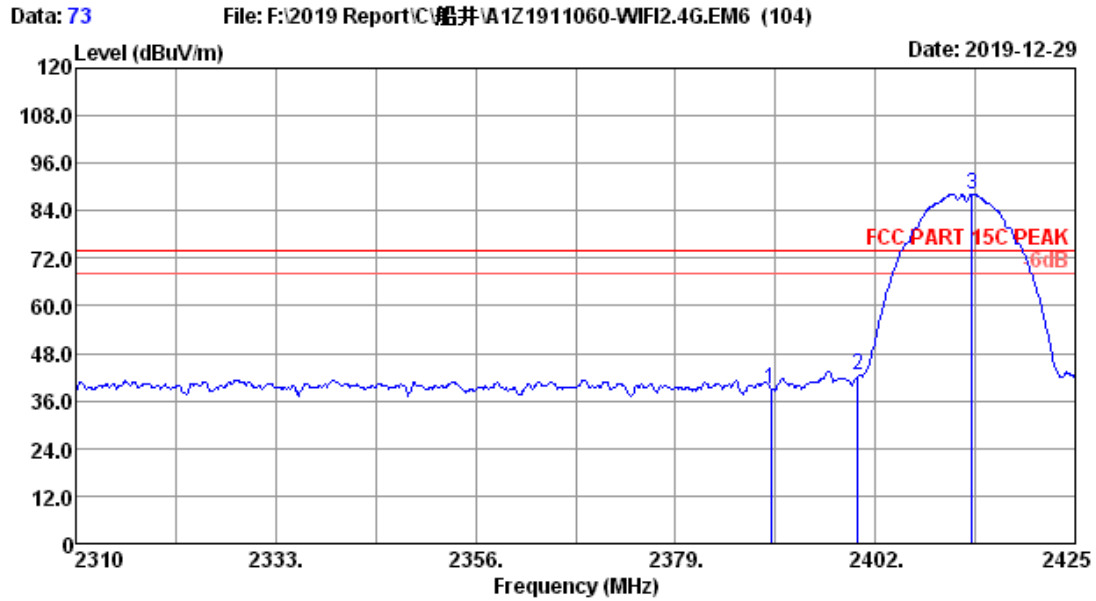
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 74
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11b 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	44.92	35.04	40.62	74.00	33.38	Peak
2	2400.00	27.70	3.04	48.86	35.04	44.56	74.00	29.44	Peak
3	2410.86	27.77	3.05	93.40	35.04	89.18	74.00	-15.18	Peak

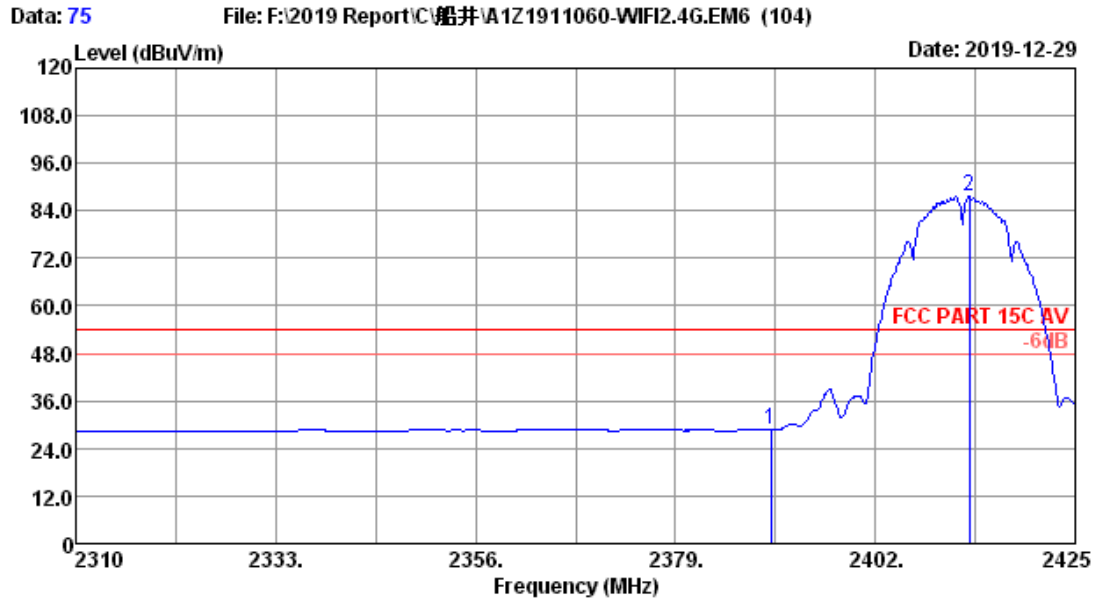
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 73
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11b 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	43.25	35.04	38.95	74.00	35.05	Peak
2	2400.00	27.70	3.04	46.79	35.04	42.49	74.00	31.51	Peak
3	2413.16	27.77	3.05	92.43	35.04	88.21	74.00	-14.21	Peak

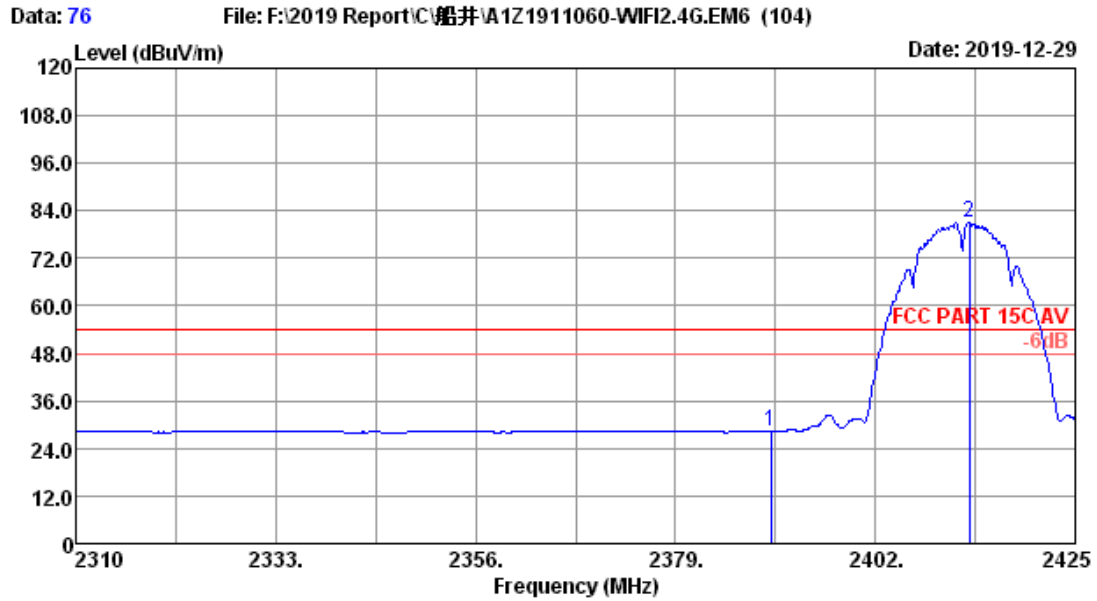
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 75
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11b 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	33.04	35.04	28.74	54.00	25.26	Average
2	2412.81	27.77	3.05	91.91	35.04	87.69	54.00	-33.69	Average

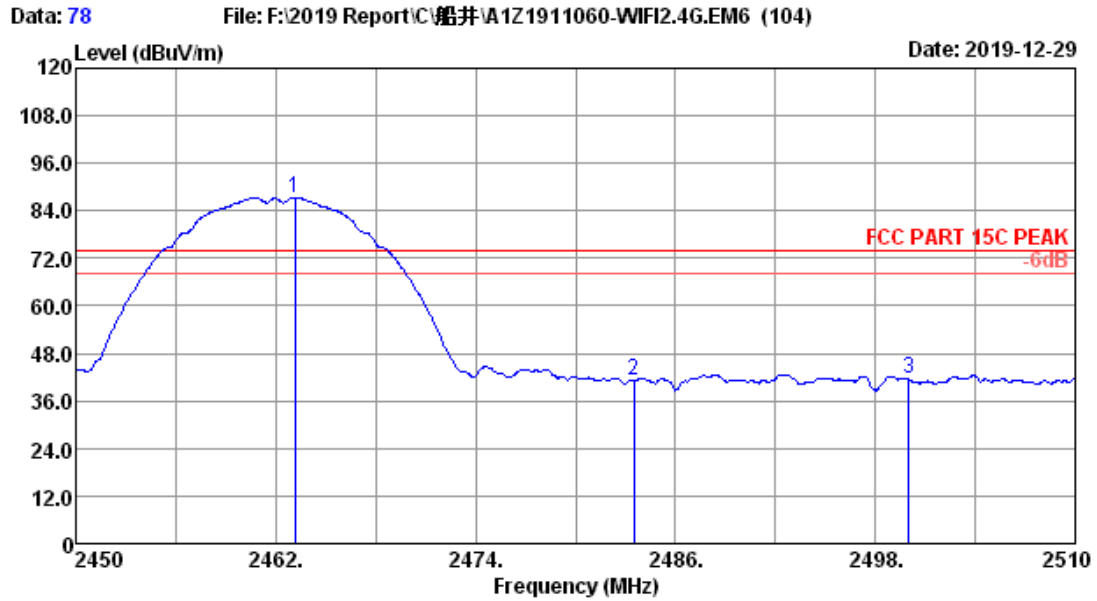
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 76
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11b 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	32.58	35.04	28.28	54.00	25.72	Average
2	2412.81	27.77	3.05	85.45	35.04	81.23	54.00	-27.23	Average

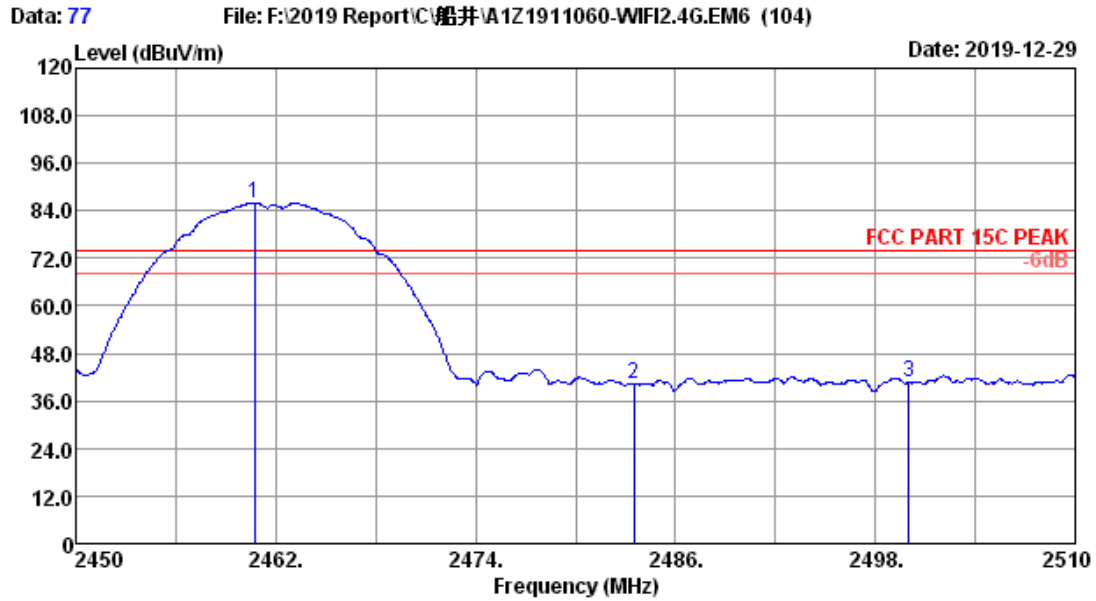
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 78
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11b 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.14	27.97	3.09	91.28	35.02	87.32	74.00	-13.32	Peak
2	2483.50	28.03	3.10	44.99	35.01	41.11	74.00	32.89	Peak
3	2500.00	28.10	3.11	45.26	35.00	41.47	74.00	32.53	Peak

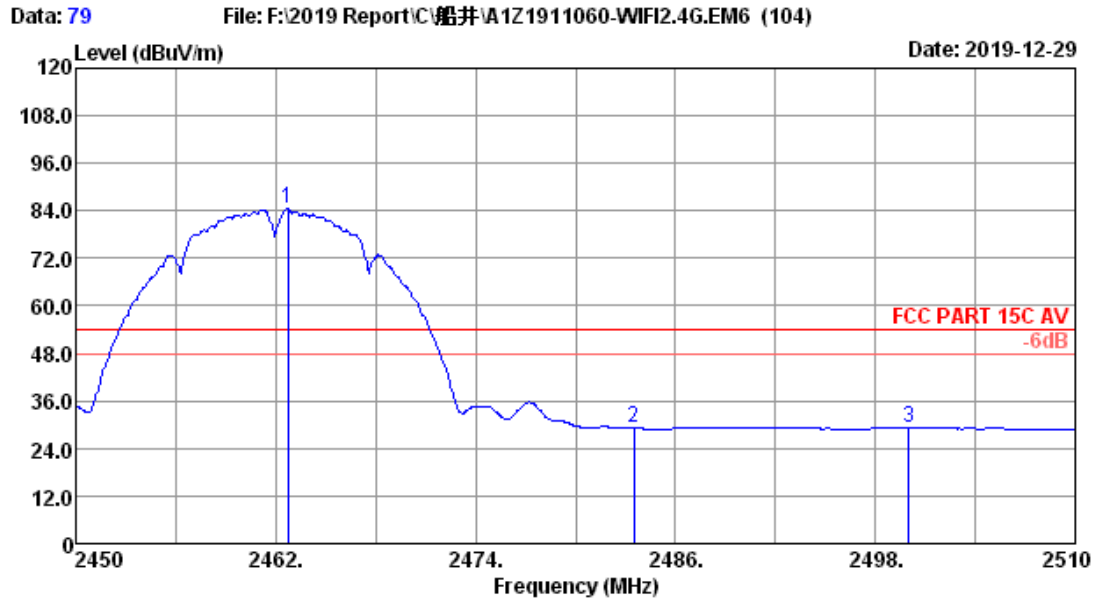
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 77
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11b 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.74	27.97	3.09	89.96	35.02	86.00	74.00	-12.00	Peak
2	2483.50	28.03	3.10	44.06	35.01	40.18	74.00	33.82	Peak
3	2500.00	28.10	3.11	44.44	35.00	40.65	74.00	33.35	Peak

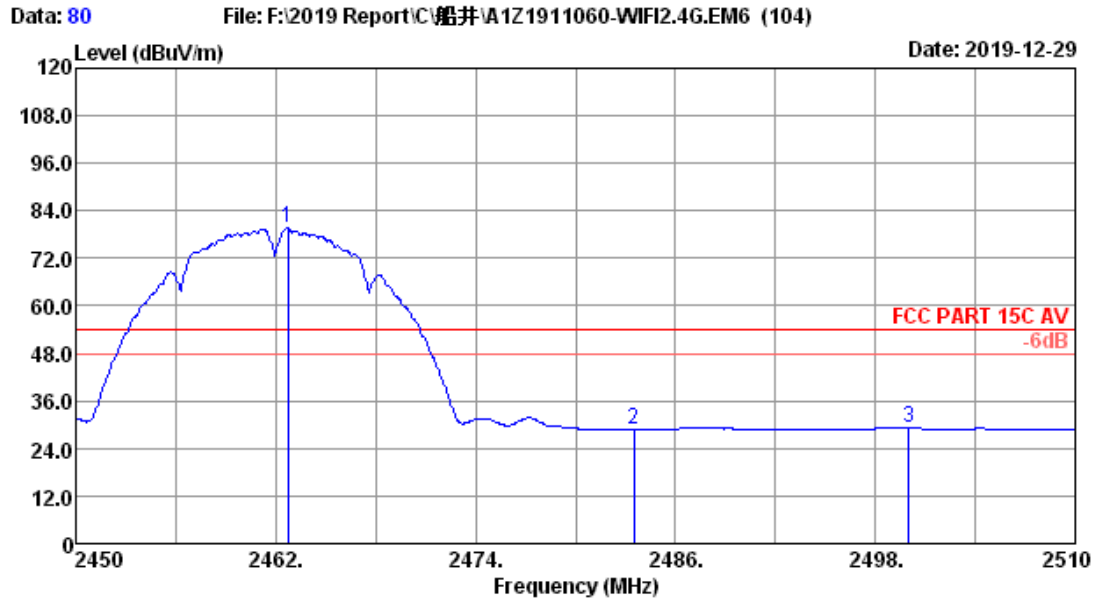
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 79
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11b 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.72	27.97	3.09	88.33	35.02	84.37	54.00	-30.37	Average
2	2483.50	28.03	3.10	32.92	35.01	29.04	54.00	24.96	Average
3	2500.00	28.10	3.11	32.92	35.00	29.13	54.00	24.87	Average

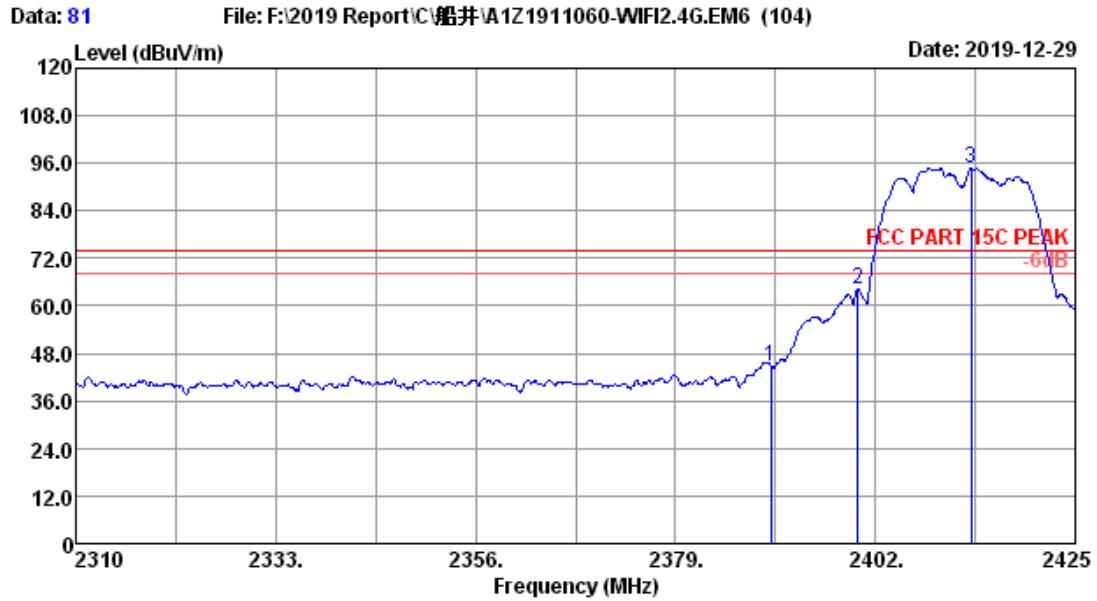
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no.	: 3m Chamber	Data no.	: 80
Dis. / Ant.	: 3m 2019 MCTD1209-3007	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C AV		
Env. / Ins.	: 23.4°C/52.9%	Engineer	: Garry
Power rating	: DC 3.3V		
Test Mode	: 802.11b 2462MHz Tx Mode		

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.72	27.97	3.09	83.51	35.02	79.55	54.00	-25.55	Average
2	2483.50	28.03	3.10	32.69	35.01	28.81	54.00	25.19	Average
3	2500.00	28.10	3.11	32.86	35.00	29.07	54.00	24.93	Average

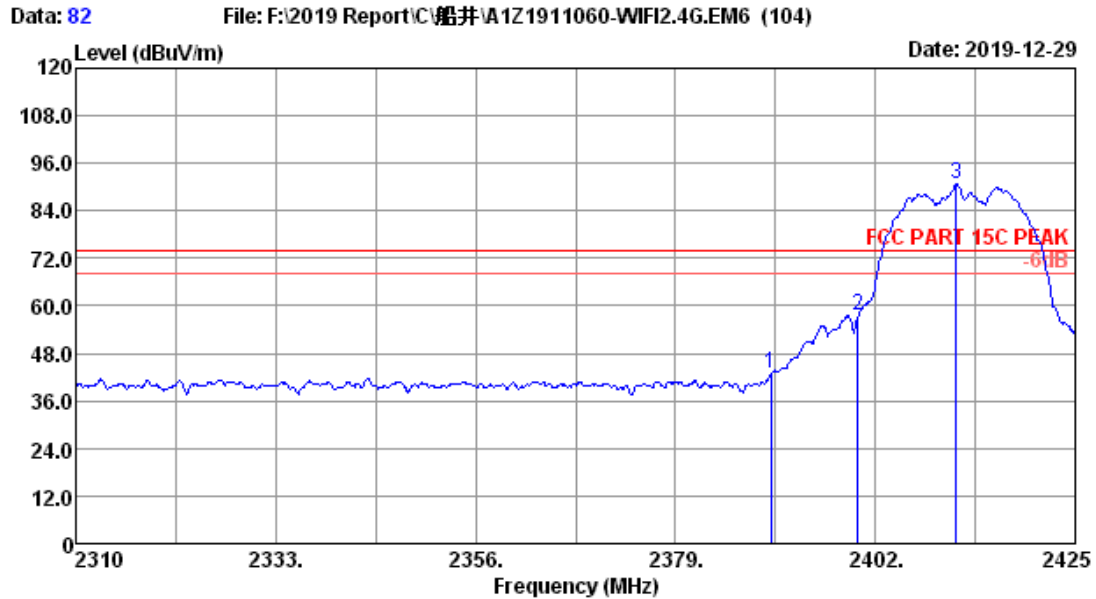
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp factor.
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Data no. : 81
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11g 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	49.09	35.04	44.79	74.00	29.21	Peak
2	2400.00	27.70	3.04	68.46	35.04	64.16	74.00	9.84	Peak
3	2413.04	27.77	3.05	99.05	35.04	94.83	74.00	-20.83	Peak

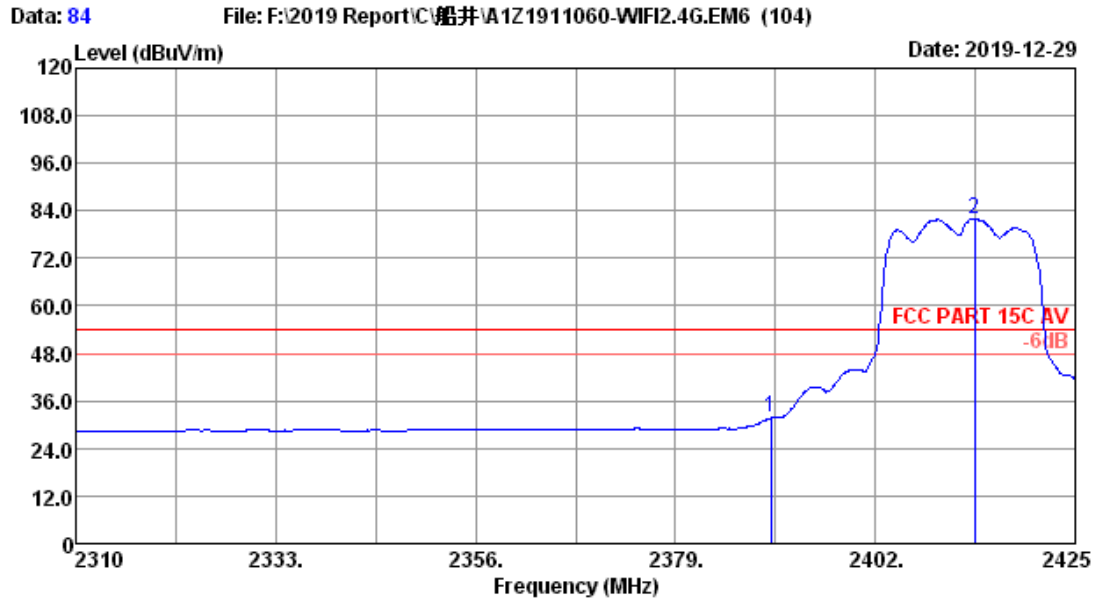
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 82
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11g 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	47.34	35.04	43.04	74.00	30.96	Peak
2	2400.00	27.70	3.04	61.96	35.04	57.66	74.00	16.34	Peak
3	2411.32	27.77	3.05	94.83	35.04	90.61	74.00	-16.61	Peak

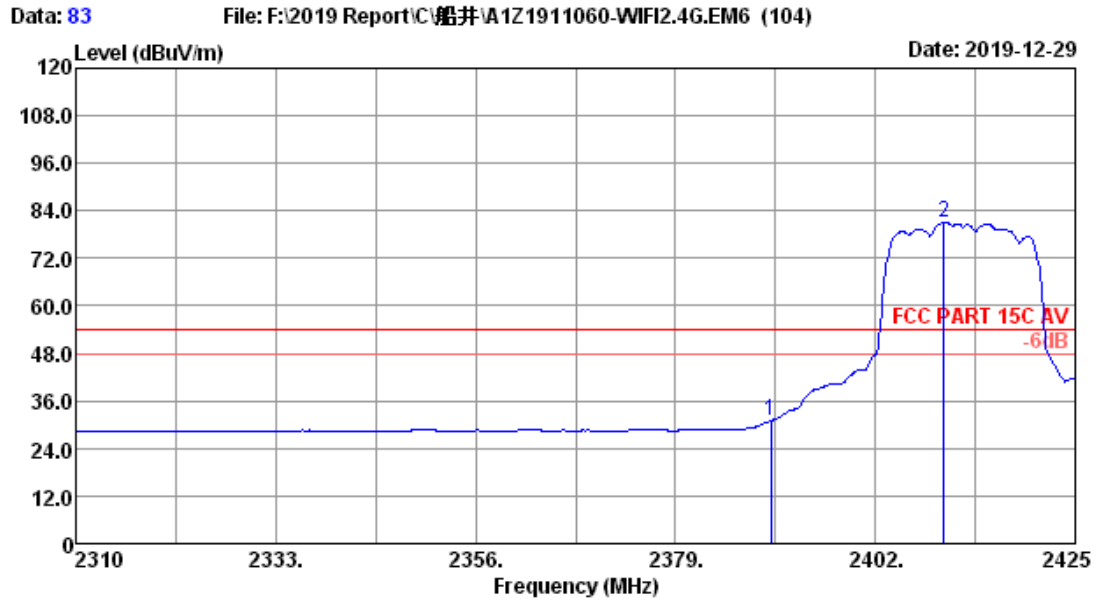
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 84
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11g 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	35.98	35.04	31.68	54.00	22.32	Average
2	2413.39	27.77	3.05	86.27	35.04	82.05	54.00	-28.05	Average

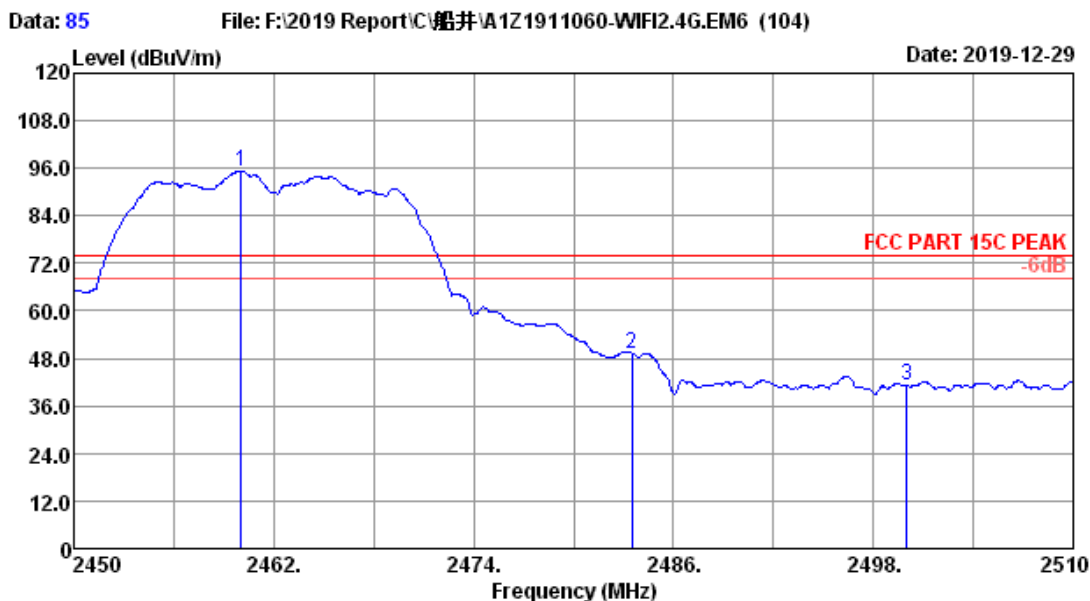
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 83
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11g 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	35.38	35.04	31.08	54.00	22.92	Average
2	2409.94	27.77	3.05	85.24	35.04	81.02	54.00	-27.02	Average

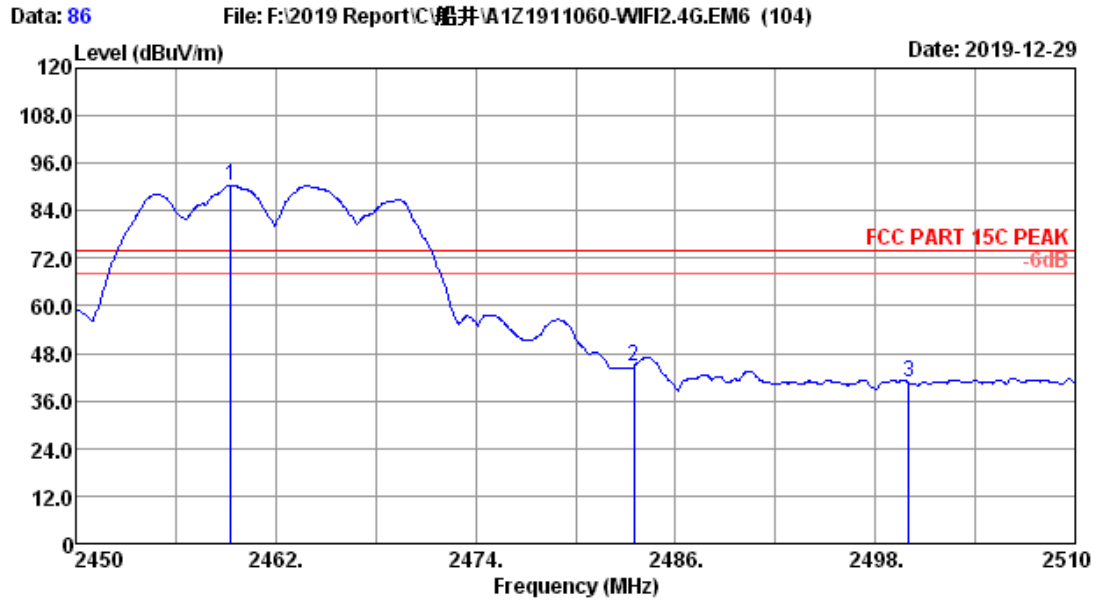
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 85
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11g 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.02	27.97	3.09	99.25	35.02	95.29	74.00	-21.29	Peak
2	2483.50	28.03	3.10	53.24	35.01	49.36	74.00	24.64	Peak
3	2500.00	28.10	3.11	45.11	35.00	41.32	74.00	32.68	Peak

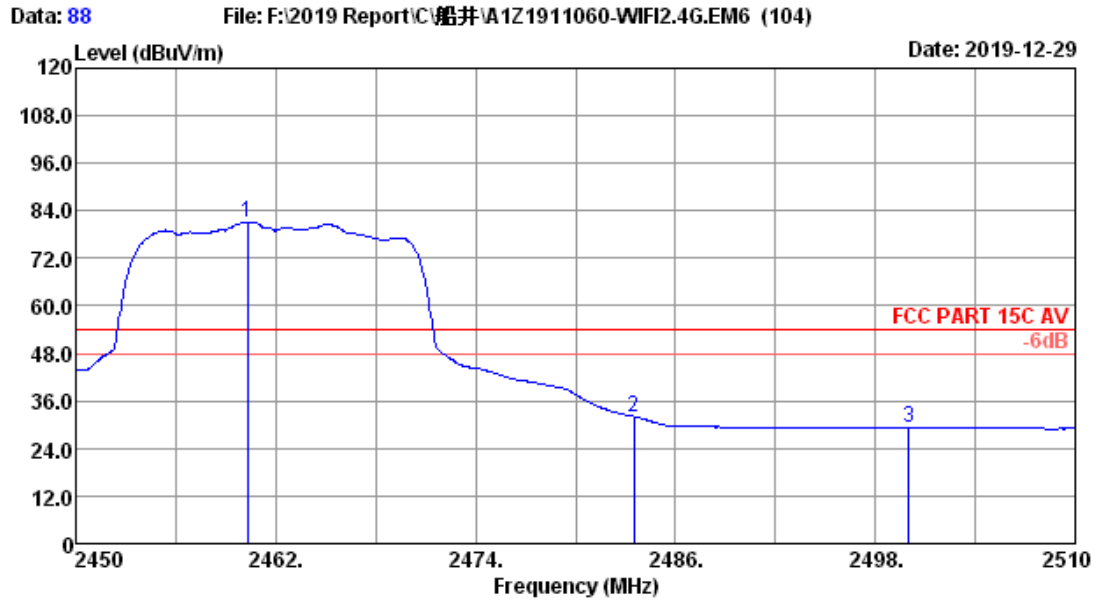
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 86
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11g 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.30	27.97	3.09	94.40	35.02	90.44	74.00	-16.44	Peak
2	2483.50	28.03	3.10	48.65	35.01	44.77	74.00	29.23	Peak
3	2500.00	28.10	3.11	44.46	35.00	40.67	74.00	33.33	Peak

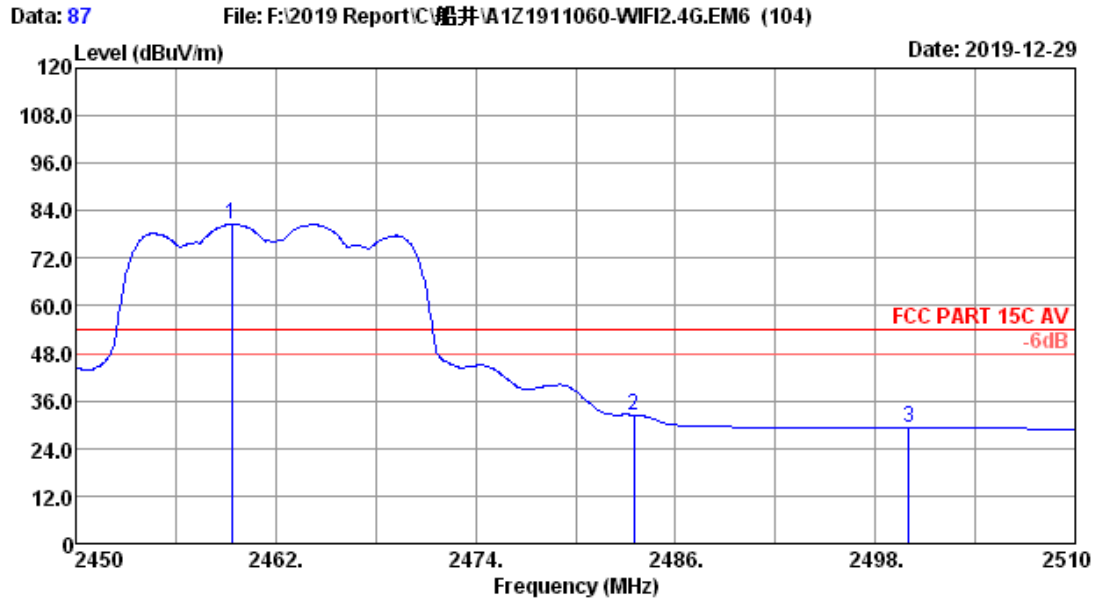
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 88
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11g 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.32	27.97	3.09	85.16	35.02	81.20	54.00	-27.20	Average
2	2483.50	28.03	3.10	35.94	35.01	32.06	54.00	21.94	Average
3	2500.00	28.10	3.11	33.06	35.00	29.27	54.00	24.73	Average

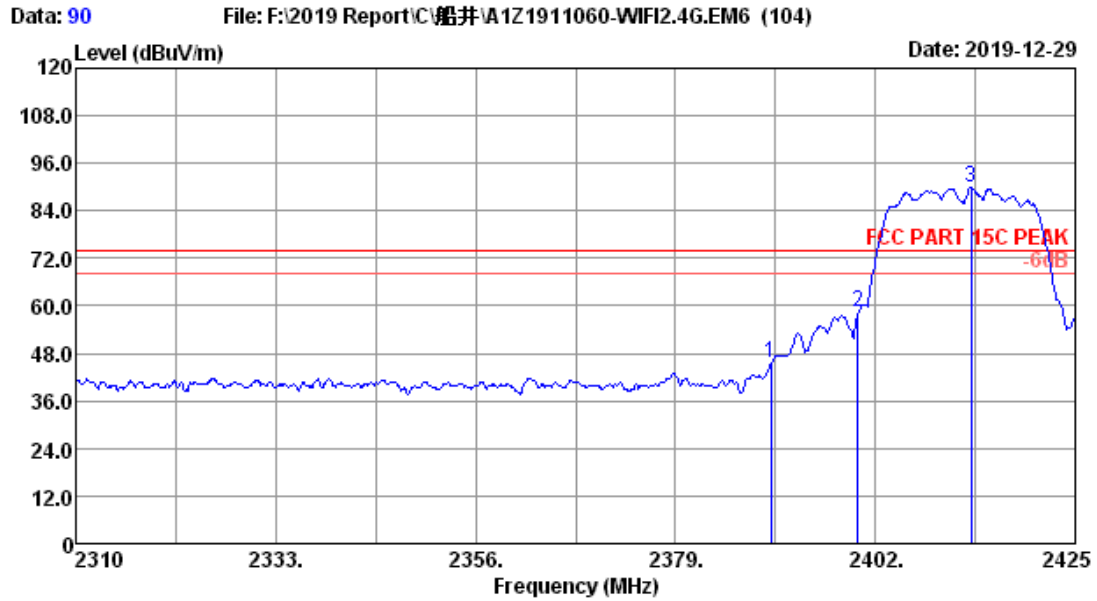
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 87
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11g 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.36	27.97	3.09	84.62	35.02	80.66	54.00	-26.66	Average
2	2483.50	28.03	3.10	36.36	35.01	32.48	54.00	21.52	Average
3	2500.00	28.10	3.11	33.04	35.00	29.25	54.00	24.75	Average

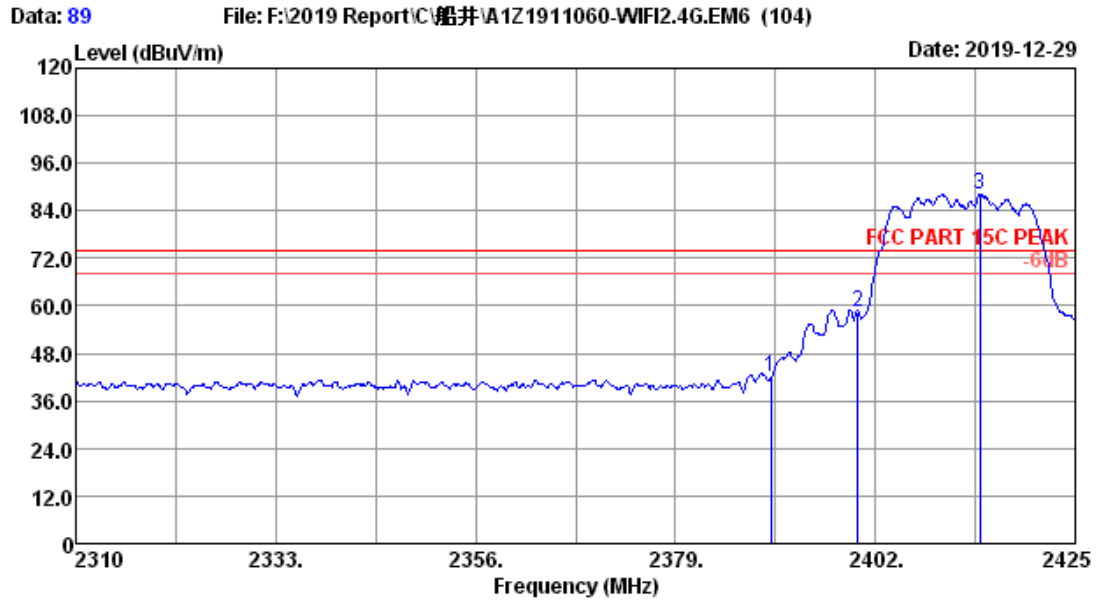
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 90
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT20 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	49.72	35.04	45.42	74.00	28.58	Peak
2	2400.00	27.70	3.04	62.74	35.04	58.44	74.00	15.56	Peak
3	2413.04	27.77	3.05	94.26	35.04	90.04	74.00	-16.04	Peak

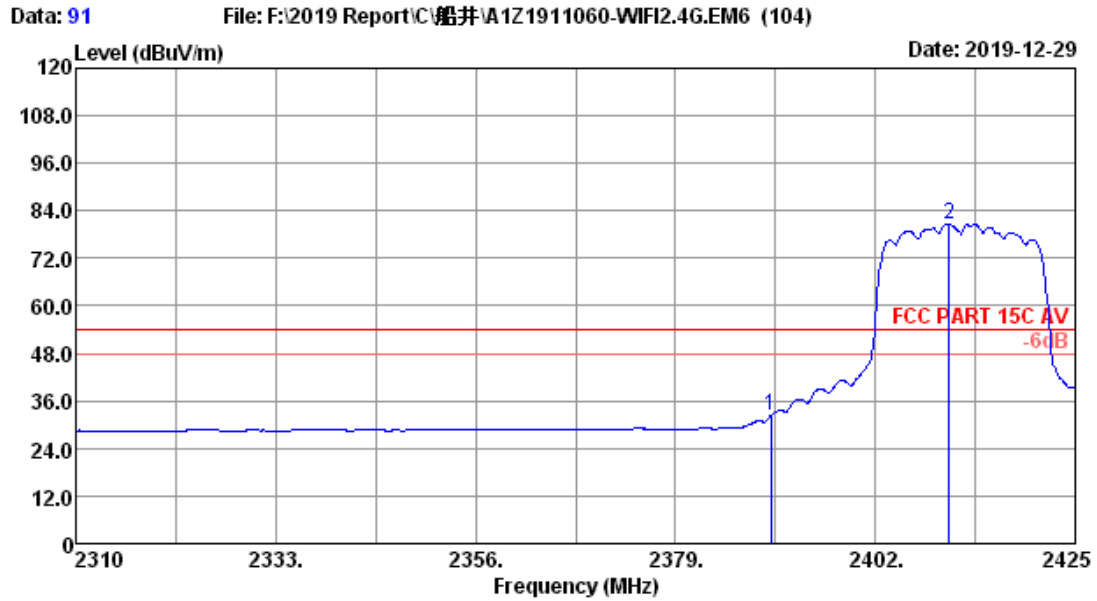
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 89
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT20 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	46.15	35.04	41.85	74.00	32.15	Peak
2	2400.00	27.70	3.04	62.79	35.04	58.49	74.00	15.51	Peak
3	2414.08	27.77	3.05	92.45	35.04	88.23	74.00	-14.23	Peak

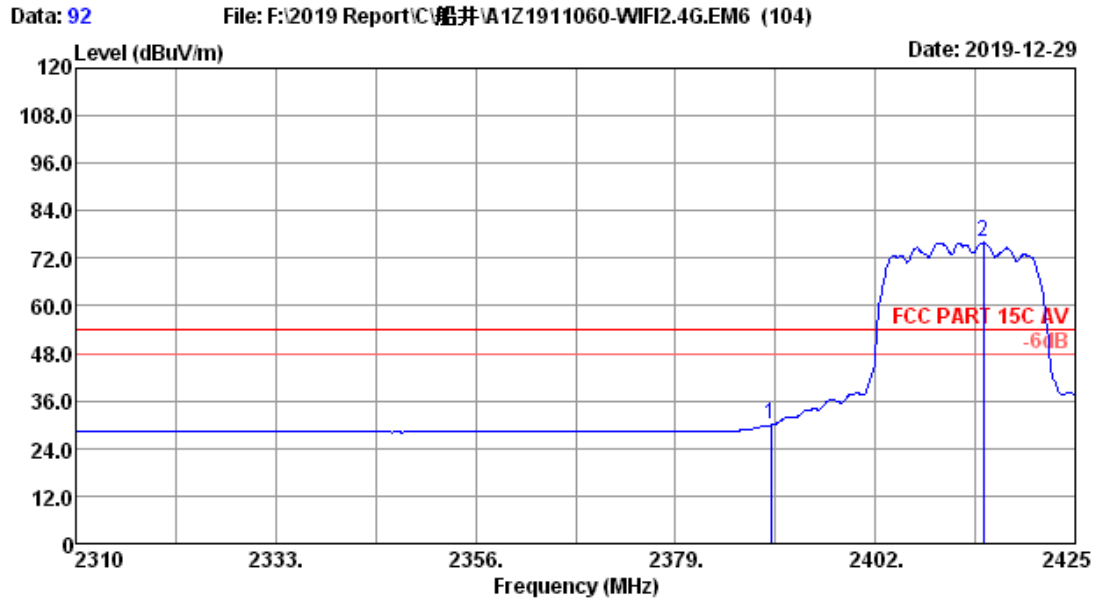
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 91
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT20 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	36.72	35.04	32.42	54.00	21.58	Average
2	2410.51	27.77	3.05	84.96	35.04	80.74	54.00	-26.74	Average

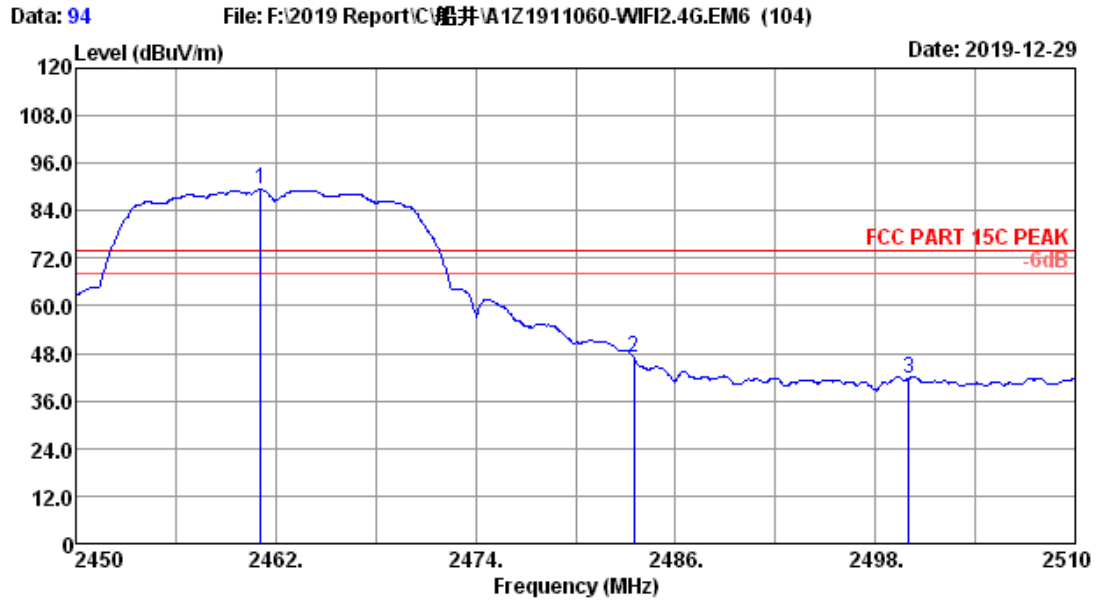
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 92
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT20 2412MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	34.20	35.04	29.90	54.00	24.10	Average
2	2414.42	27.77	3.05	80.24	35.04	76.02	54.00	-22.02	Average

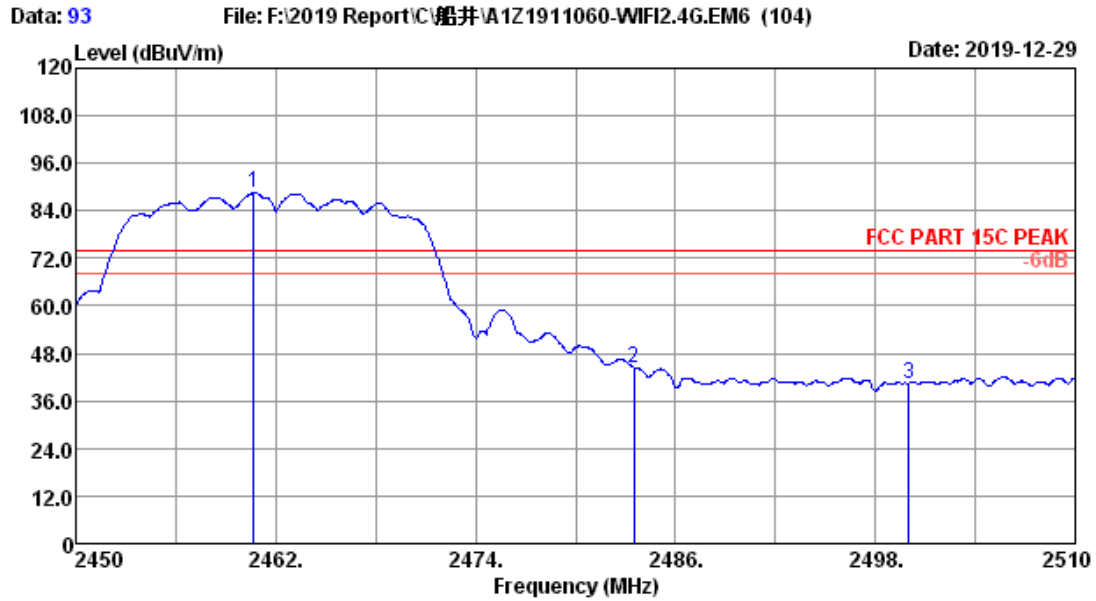
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 94
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT20 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.10	27.97	3.09	93.47	35.02	89.51	74.00	-15.51	Peak
2	2483.50	28.03	3.10	50.77	35.01	46.89	74.00	27.11	Peak
3	2500.00	28.10	3.11	45.42	35.00	41.63	74.00	32.37	Peak

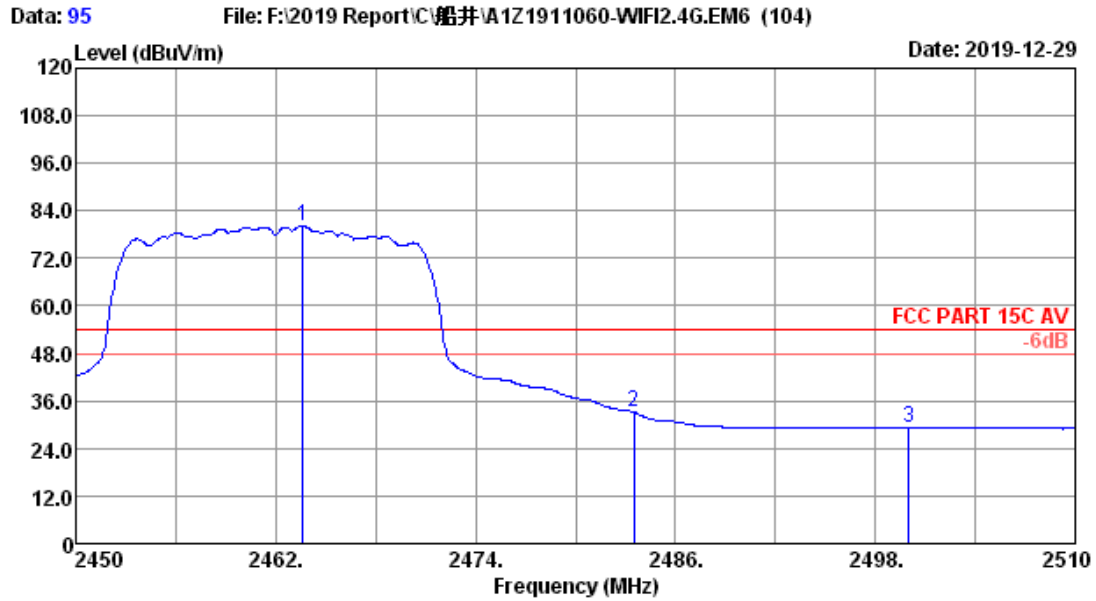
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 93
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT20 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.68	27.97	3.09	92.45	35.02	88.49	74.00	-14.49	Peak
2	2483.50	28.03	3.10	48.28	35.01	44.40	74.00	29.60	Peak
3	2500.00	28.10	3.11	44.10	35.00	40.31	74.00	33.69	Peak

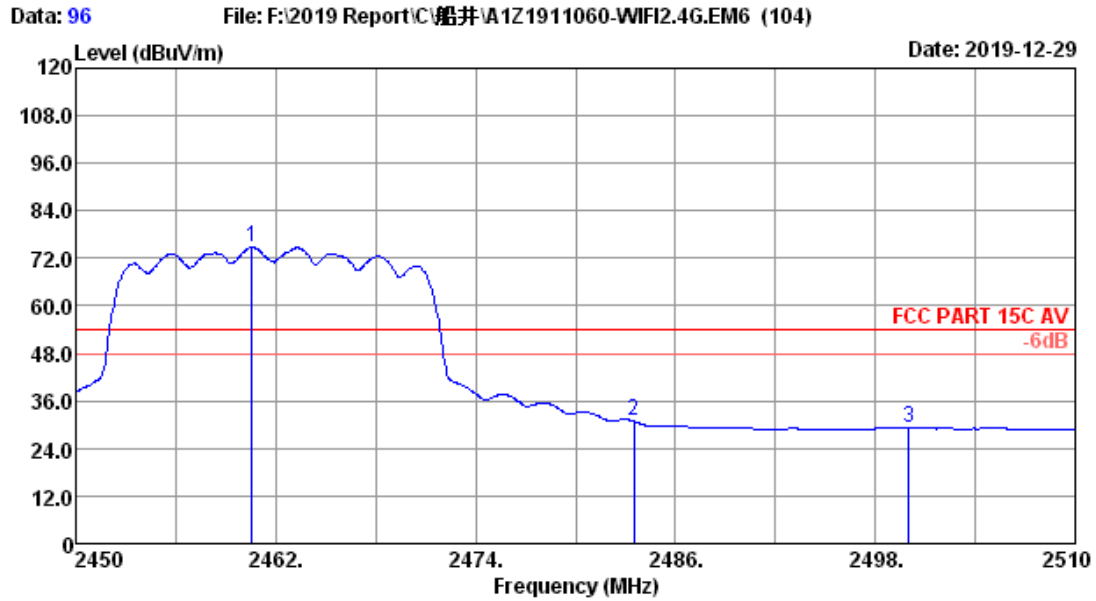
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 95
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT20 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.62	27.97	3.09	84.16	35.02	80.20	54.00	-26.20	Average
2	2483.50	28.03	3.10	37.08	35.01	33.20	54.00	20.80	Average
3	2500.00	28.10	3.11	33.08	35.00	29.29	54.00	24.71	Average

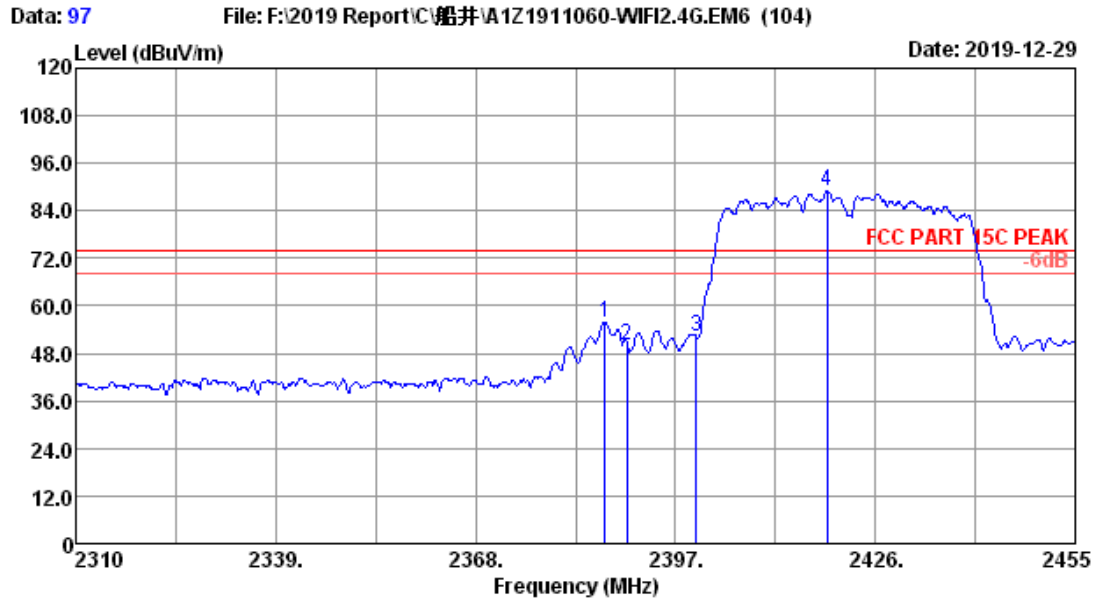
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 96
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT20 2462MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.56	27.97	3.09	78.77	35.02	74.81	54.00	-20.81	Average
2	2483.50	28.03	3.10	34.76	35.01	30.88	54.00	23.12	Average
3	2500.00	28.10	3.11	32.88	35.00	29.09	54.00	24.91	Average

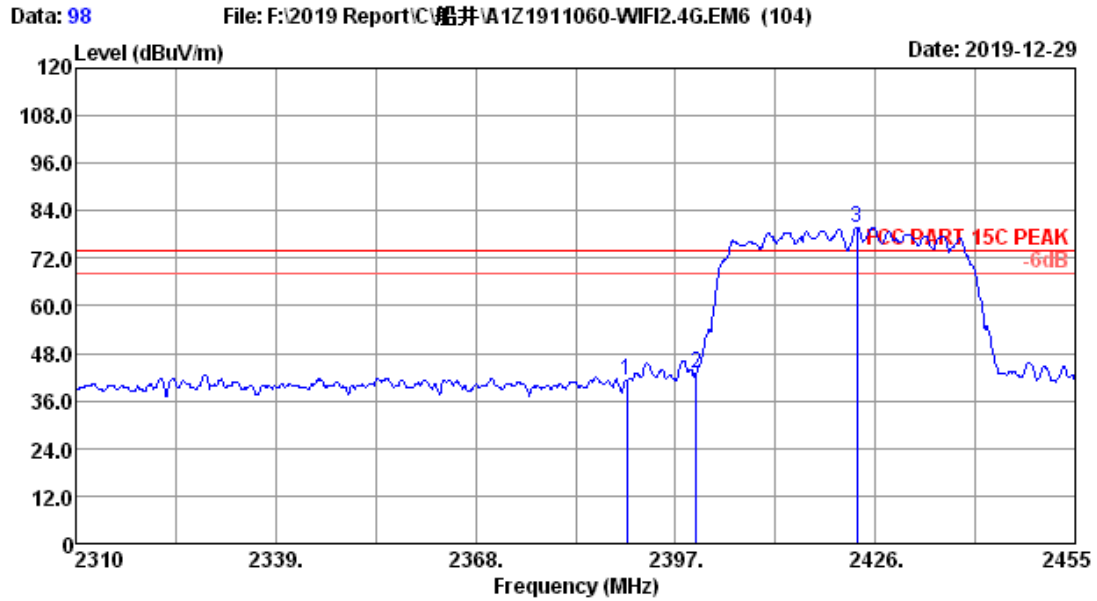
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 97
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT40 2422MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.71	27.70	3.04	59.95	35.04	55.65	74.00	18.35	Peak
2	2390.00	27.70	3.04	54.36	35.04	50.06	74.00	23.94	Peak
3	2400.00	27.70	3.04	56.58	35.04	52.28	74.00	21.72	Peak
4	2419.04	27.77	3.05	93.13	35.04	88.91	74.00	-14.91	Peak

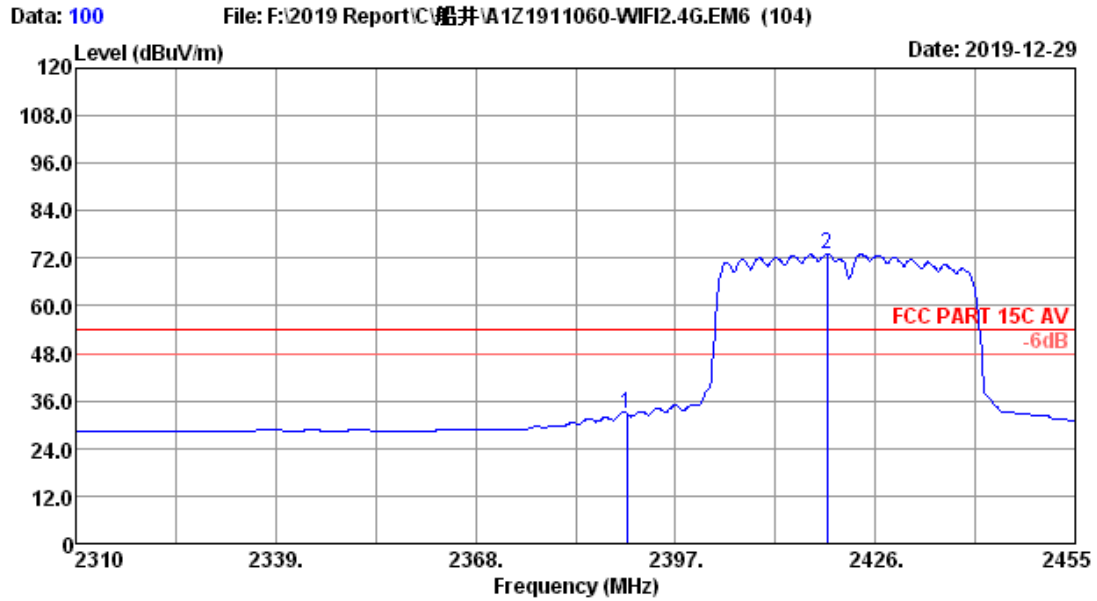
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 98
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT40 2422MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	45.66	35.04	41.36	74.00	32.64	Peak
2	2400.00	27.70	3.04	47.36	35.04	43.06	74.00	30.94	Peak
3	2423.39	27.83	3.07	83.86	35.03	79.73	74.00	-5.73	Peak

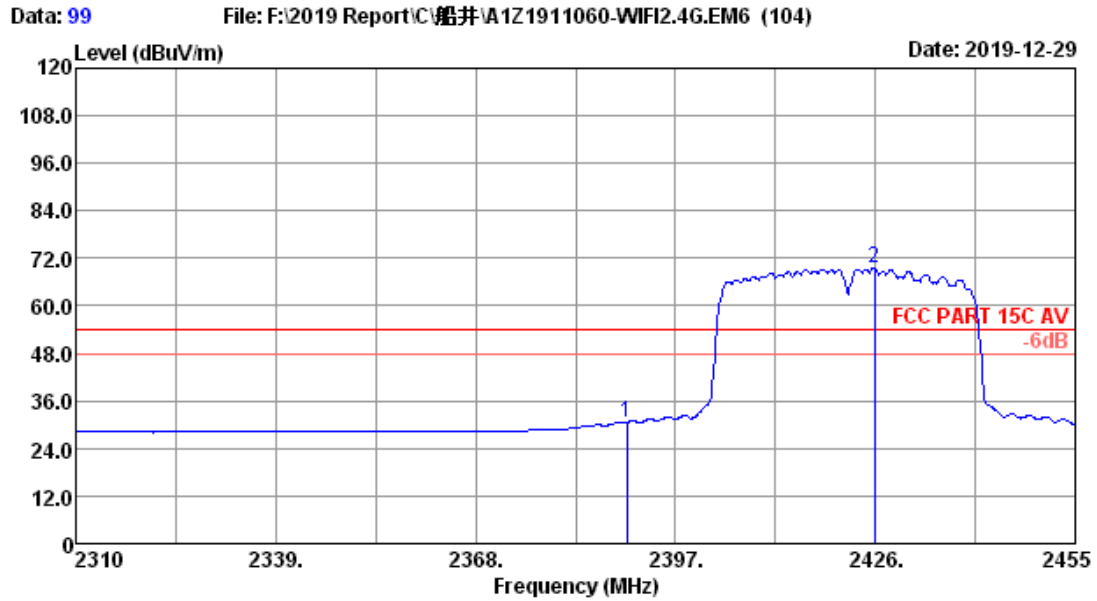
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 100
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT40 2422MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	36.94	35.04	32.64	54.00	21.36	Average
2	2419.04	27.77	3.05	77.31	35.04	73.09	54.00	-19.09	Average

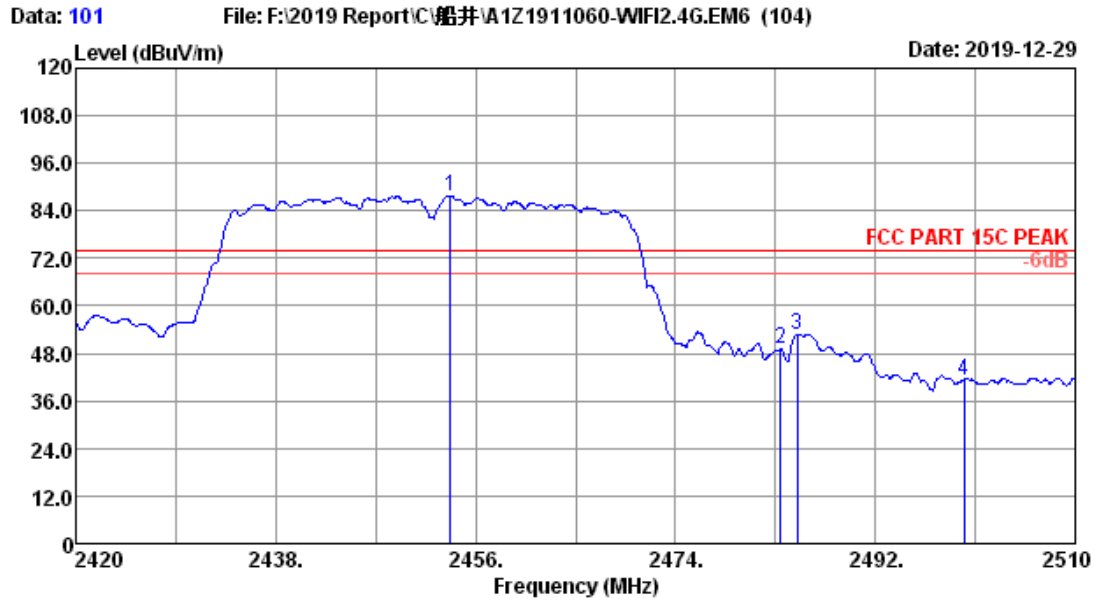
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 99
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT40 2422MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.70	3.04	35.01	35.04	30.71	54.00	23.29	Average
2	2425.86	27.83	3.07	73.61	35.03	69.48	54.00	-15.48	Average

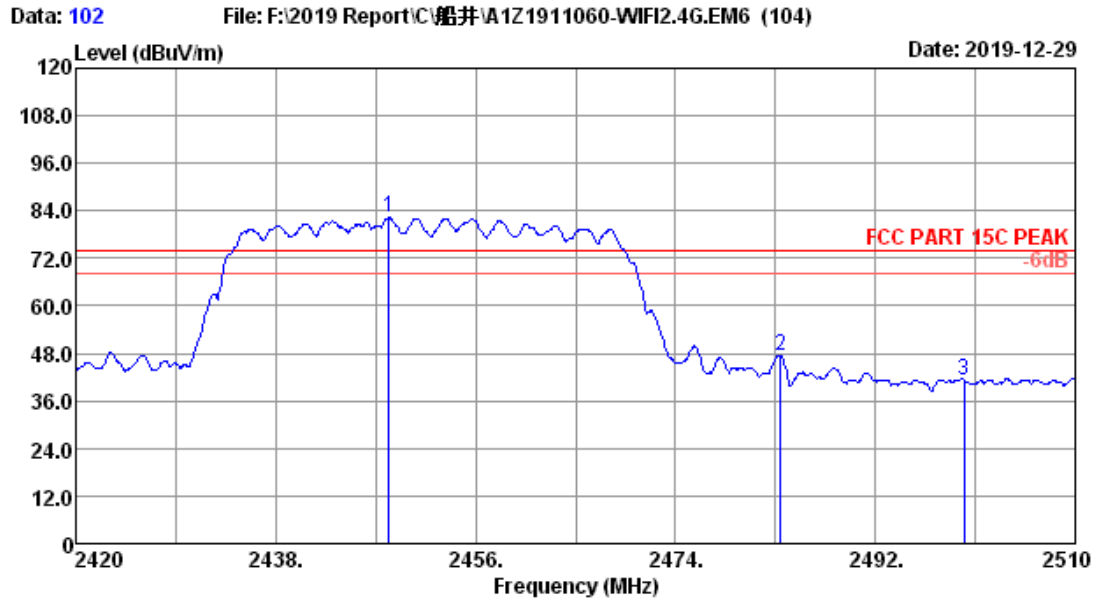
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 101
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT40 2452MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2453.75	27.97	3.09	91.85	35.02	87.89	74.00	-13.89	Peak
2	2483.50	28.03	3.10	52.82	35.01	48.94	74.00	25.06	Peak
3	2484.98	28.03	3.10	56.75	35.01	52.87	74.00	21.13	Peak
4	2500.00	28.10	3.11	45.07	35.00	41.28	74.00	32.72	Peak

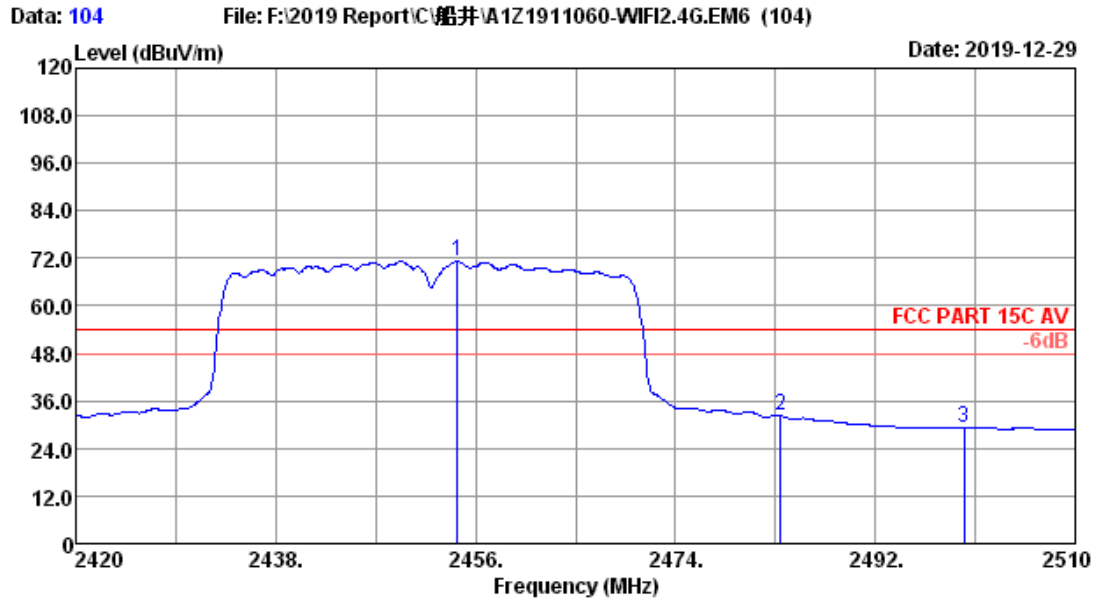
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 102
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT40 2452MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2448.17	27.90	3.08	86.27	35.02	82.23	74.00	-8.23	Peak
2	2483.50	28.03	3.10	51.14	35.01	47.26	74.00	26.74	Peak
3	2500.00	28.10	3.11	45.00	35.00	41.21	74.00	32.79	Peak

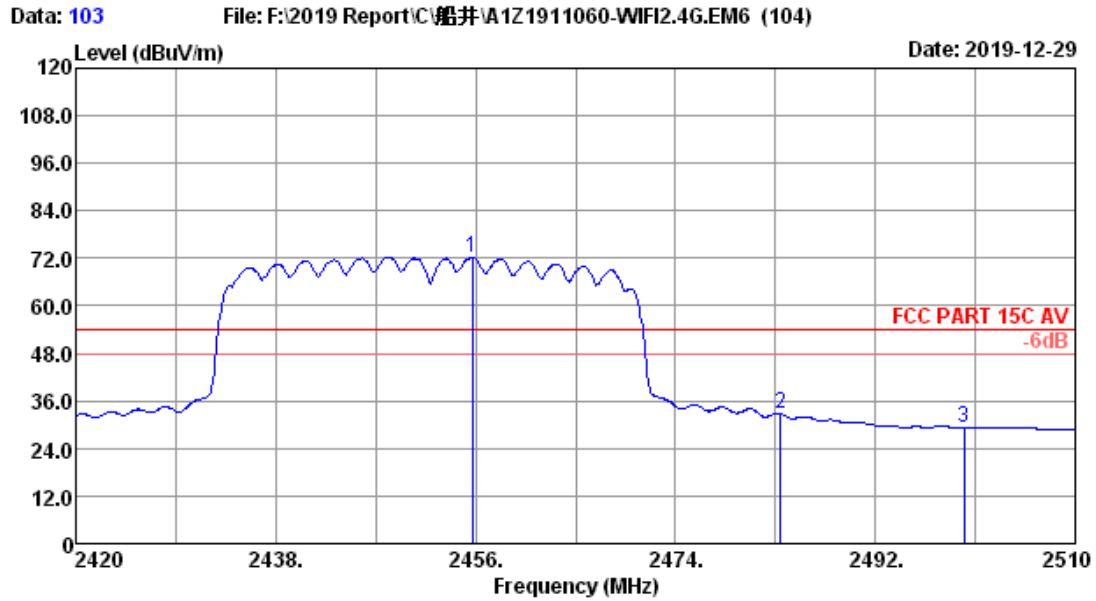
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 104
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT40 2452MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2454.38	27.97	3.09	75.17	35.02	71.21	54.00	-17.21	Average
2	2483.50	28.03	3.10	36.08	35.01	32.20	54.00	21.80	Average
3	2500.00	28.10	3.11	32.98	35.00	29.19	54.00	24.81	Average

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



Site no. : 3m Chamber Data no. : 103
 Dis. / Ant. : 3m 2019 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.4°C/52.9% Engineer : Garry
 Power rating : DC 3.3V
 Test Mode : 802.11nHT40 2452MHz Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2455.73	27.97	3.09	76.21	35.02	72.25	54.00	-18.25	Average
2	2483.50	28.03	3.10	36.64	35.01	32.76	54.00	21.24	Average
3	2500.00	28.10	3.11	33.06	35.00	29.27	54.00	24.73	Average

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

7. 6dB Bandwidth Test

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Jun.30,19	1 Year
2.	Attenuator	Agilent	8491B	MY39269201	Oct.13,19	1 Year
3.	RF Cable	EMCI	EMC102-KM-KM 3500	170702	May.13,19	1 Year

7.2. Limit

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

7.3. Test Procedure

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

7.4. Test Results

EUT: WiFi module		
M/N: U9W42		
Test date: 2019-11-22	Pressure: 102.3±1.0 kpa	Humidity: 53.6±3.0%
Tested by: Garry	Test site: RF site	Temperature: 25.5±0.6 °C

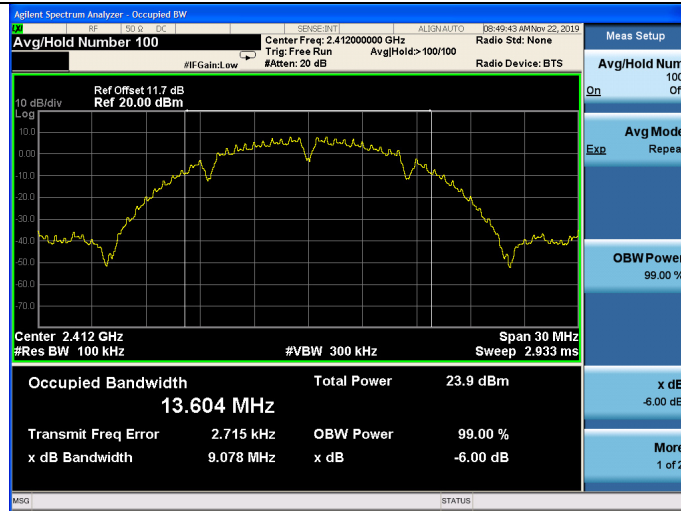
Test Mode	CH	6dB bandwidth (MHz)		Limit (kHz)
		ANTA	ANTB	
11b	CH1	9.078	9.092	≥ 500
	CH6	9.094	9.069	≥ 500
	CH11	9.089	9.075	≥ 500
11g	CH1	15.12	15.14	≥ 500
	CH6	15.15	15.15	≥ 500
	CH11	15.15	15.13	≥ 500
11n HT20	CH1	15.15	15.14	≥ 500
	CH6	15.15	15.16	≥ 500
	CH11	15.14	15.12	≥ 500
11n HT40	CH3	35.17	35.18	≥ 500
	CH6	35.19	35.17	≥ 500
	CH9	35.19	35.16	≥ 500

Conclusion : PASS

ANTA:

Test Mode: IEEE 802.11b

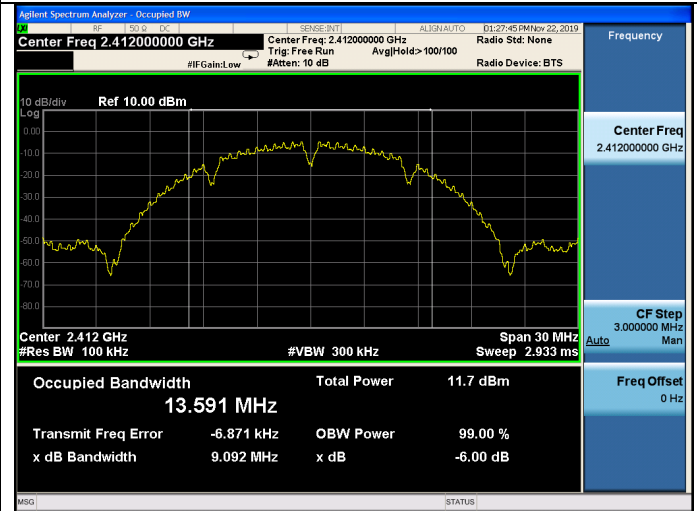
Test CH1: 2412MHz



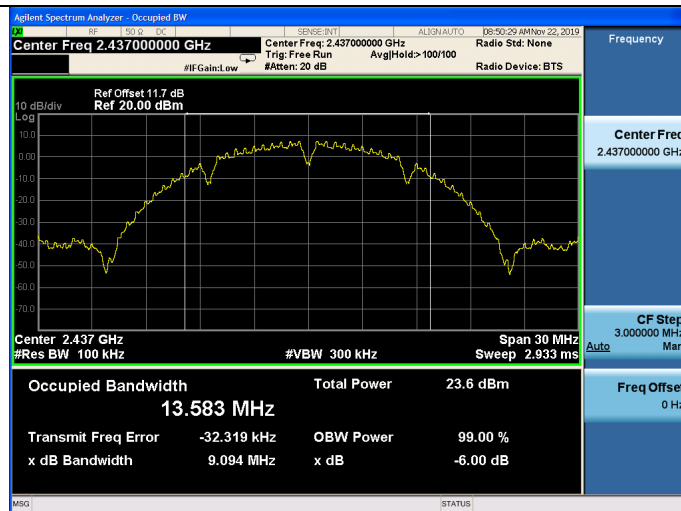
ANTB:

Test Mode: IEEE 802.11b

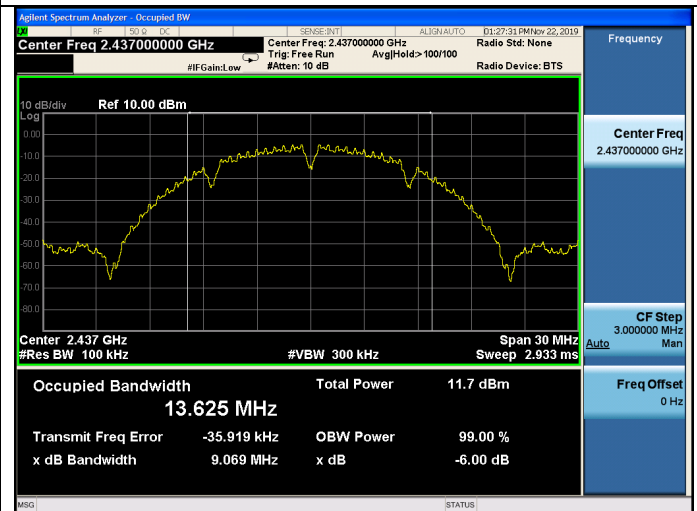
Test CH1: 2412MHz



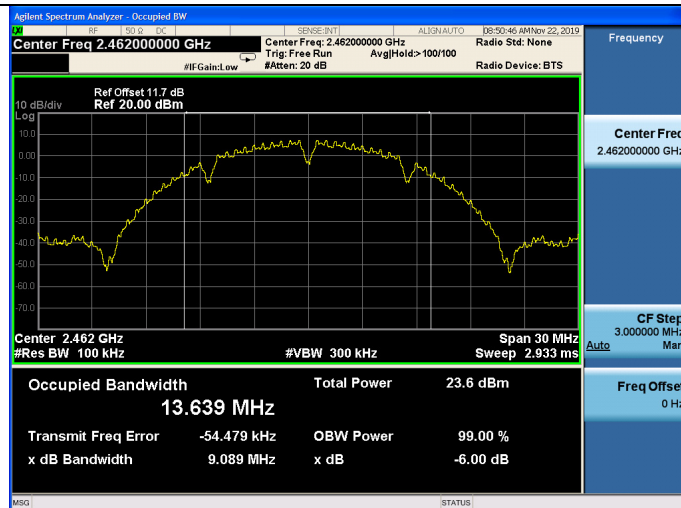
Test CH6: 2437MHz



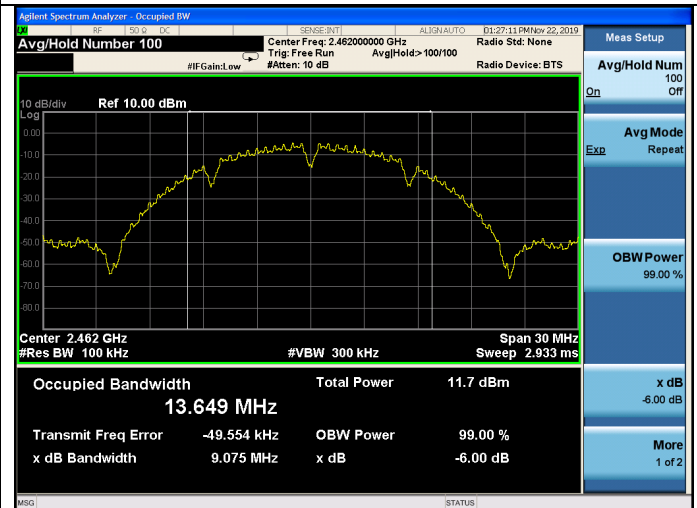
Test CH6: 2437MHz



Test CH11: 2462MHz

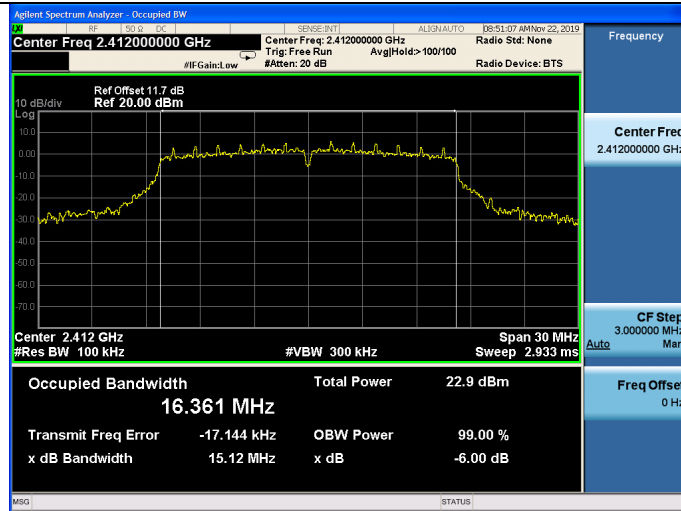


Test CH11: 2462MHz



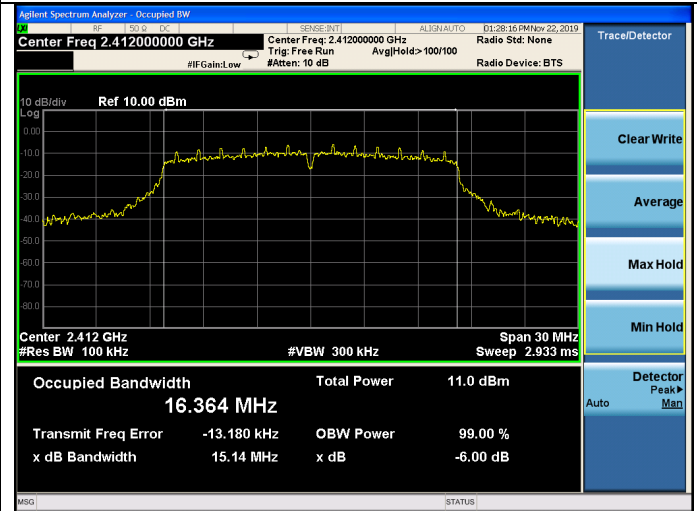
ANTA:

Test Mode: IEEE 802.11g
Test CH1: 2412MHz

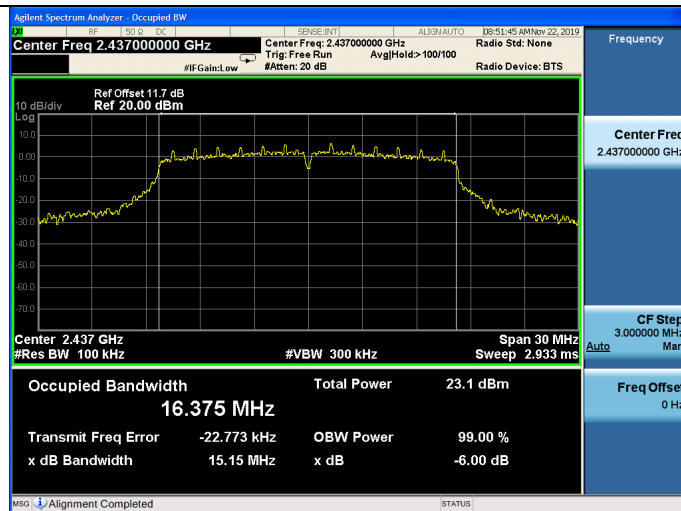


ANTB:

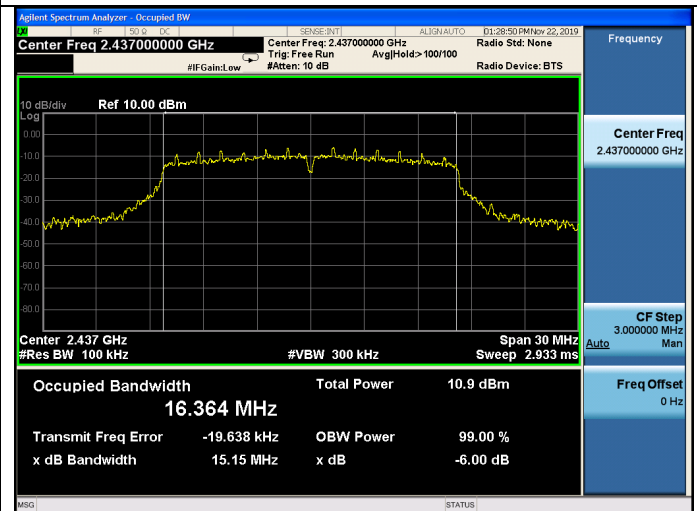
Test Mode: IEEE 802.11g
Test CH1: 2412MHz



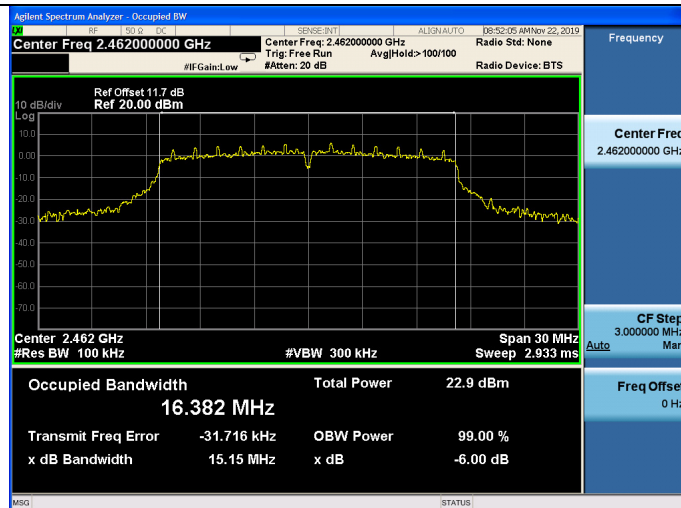
Test CH6: 2437MHz



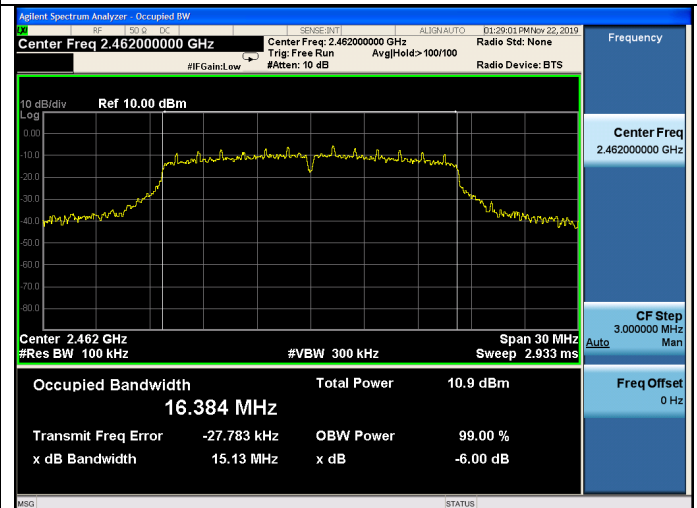
Test CH6: 2437MHz



Test CH11: 2462MHz



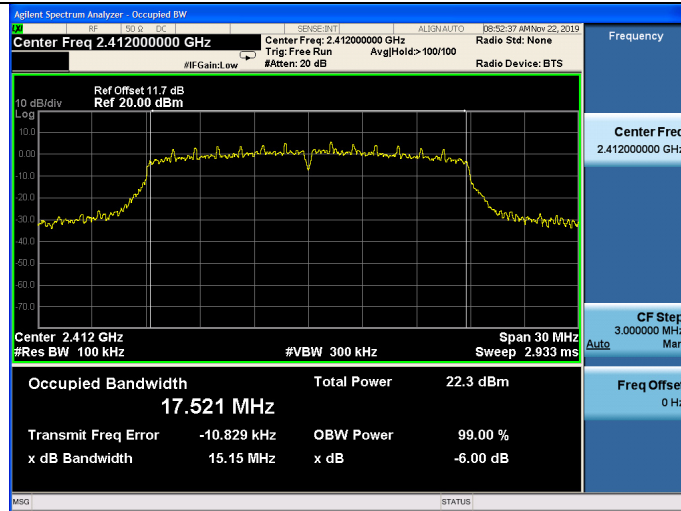
Test CH11: 2462MHz



ANTA:

Test Mode: IEEE 802.11n HT20

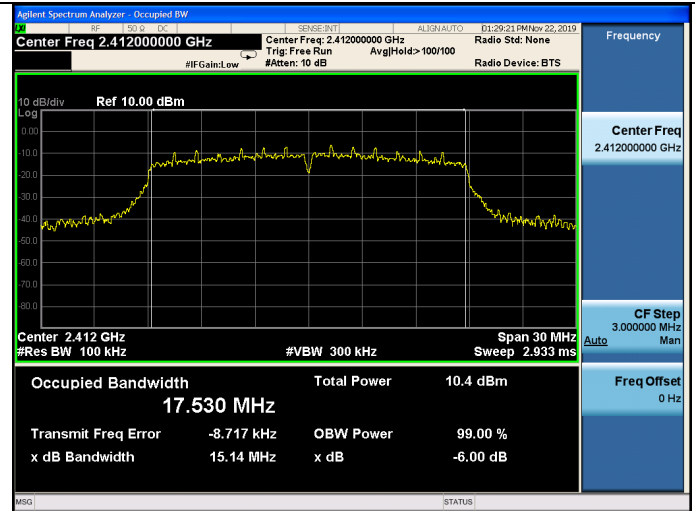
Test CH1: 2412MHz



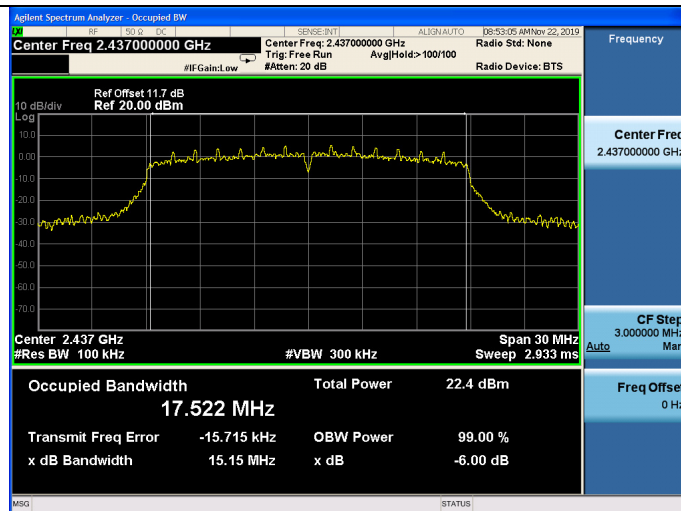
ANTB:

Test Mode: IEEE 802.11n HT20

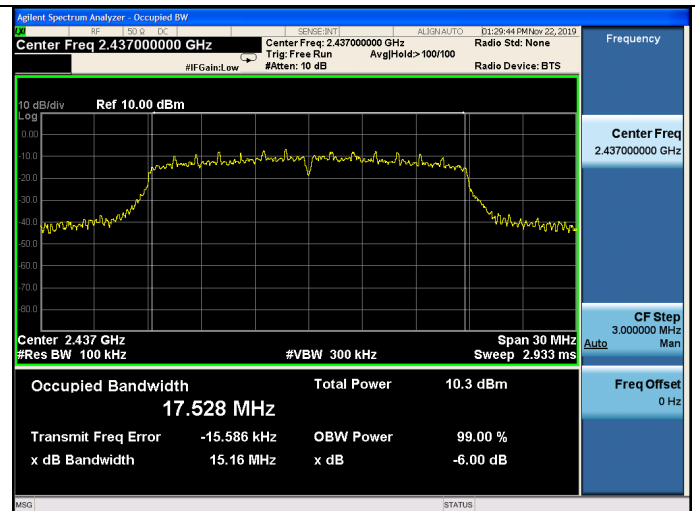
Test CH1: 2412MHz



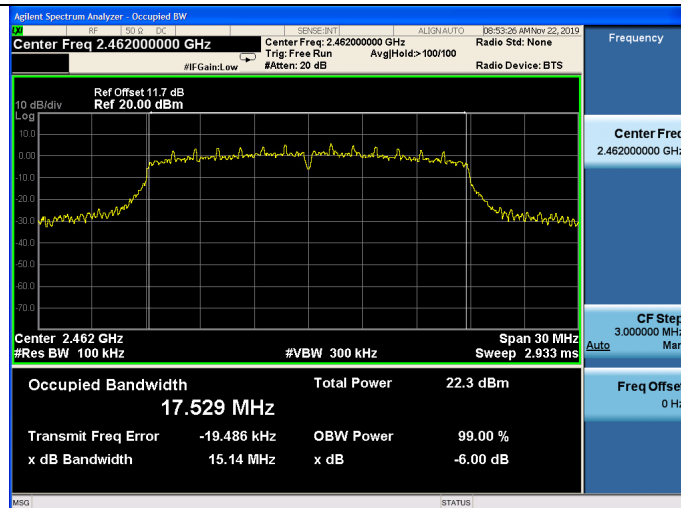
Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



Test CH11: 2462MHz

