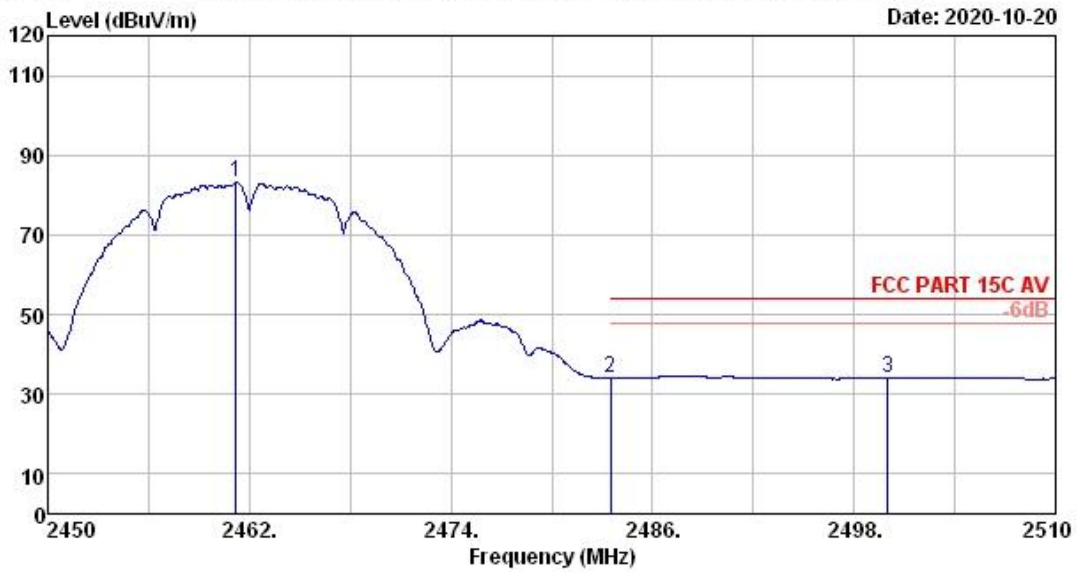


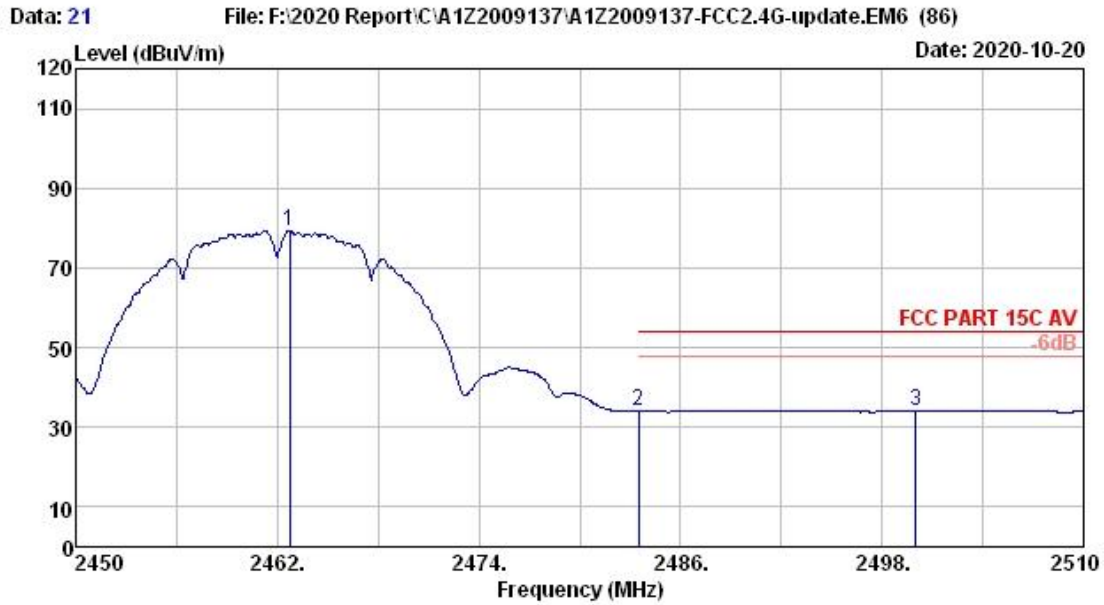
Data: 20 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-10-20



Site no. : 3m Chamber Data no. : 20
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2461.22	27.93	6.02	82.61	33.46	83.10	-----	-----	Average
2	2483.50	27.97	6.03	33.70	33.46	34.24	54.00	19.76	Average
3	2500.00	28.00	6.04	33.40	33.45	33.99	54.00	20.01	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.

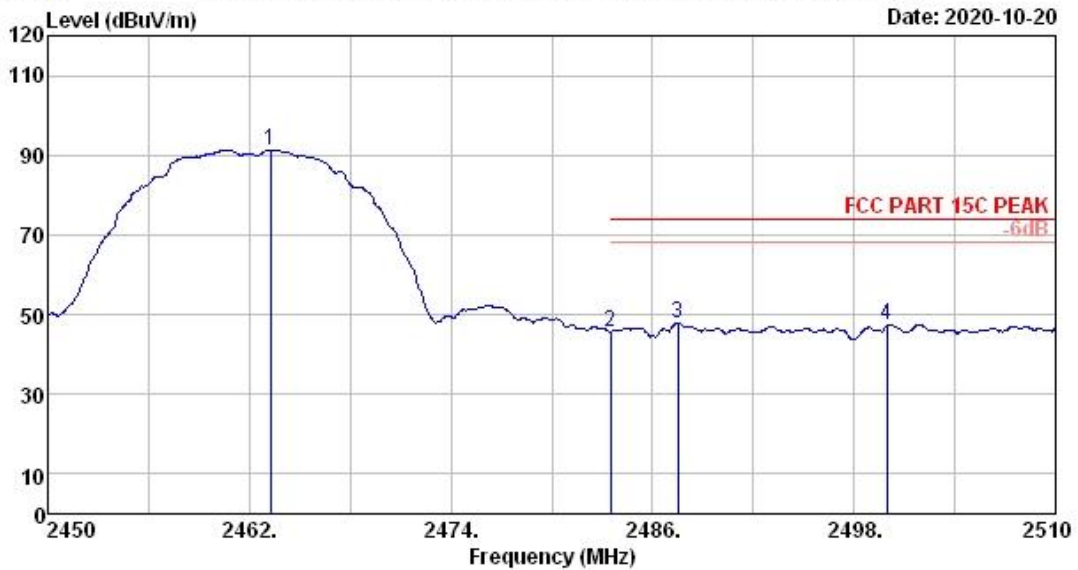


Site no. : 3m Chamber Data no. : 21
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 Test Mode : 802.11b 2462MHz Tx Mode

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	27.93	6.02	78.82	33.46	79.31	-----	-----	Average
2	2483.50	27.97	6.03	33.47	33.46	34.01	54.00	19.99	Average
3	2500.00	28.00	6.04	33.39	33.45	33.98	54.00	20.02	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.

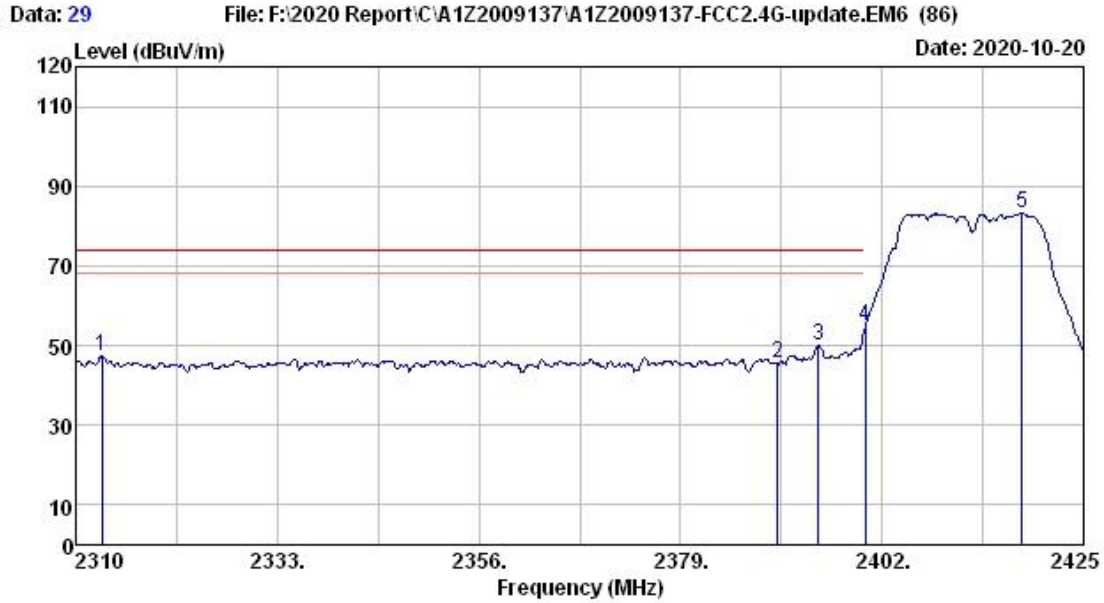
Data: 22 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-10-20



Site no. : 3m Chamber Data no. : 22
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2463.26	27.93	6.02	90.82	33.46	91.31	-----	-----	Peak
2	2483.48	27.97	6.03	45.24	33.46	45.78	-----	-----	Peak
3	2487.50	28.00	6.04	47.20	33.45	47.79	74.00	26.21	Peak
4	2499.98	28.00	6.04	46.58	33.45	47.17	74.00	26.83	Peak

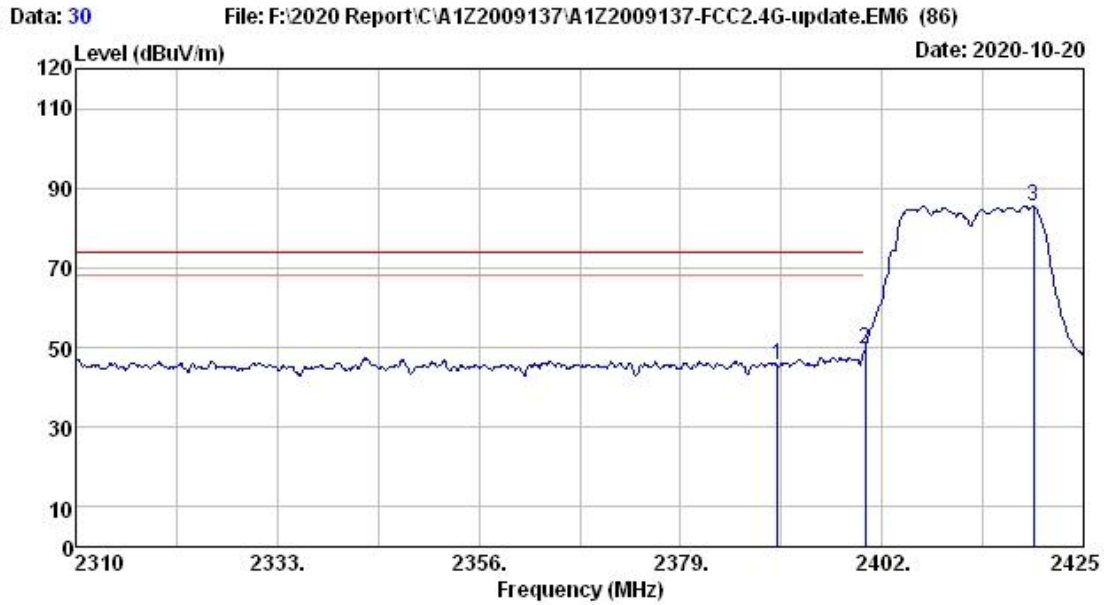
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 29
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2312.99	27.62	5.93	47.27	33.51	47.31	74.00	26.69	Peak
2	2390.04	27.79	5.98	45.11	33.48	45.40	74.00	28.60	Peak
3	2394.76	27.79	5.98	49.80	33.48	50.09	74.00	23.91	Peak
4	2400.05	27.79	5.98	54.50	33.48	54.79	-----	-----	Peak
5	2417.99	27.83	5.99	82.97	33.48	83.31	-----	-----	Peak

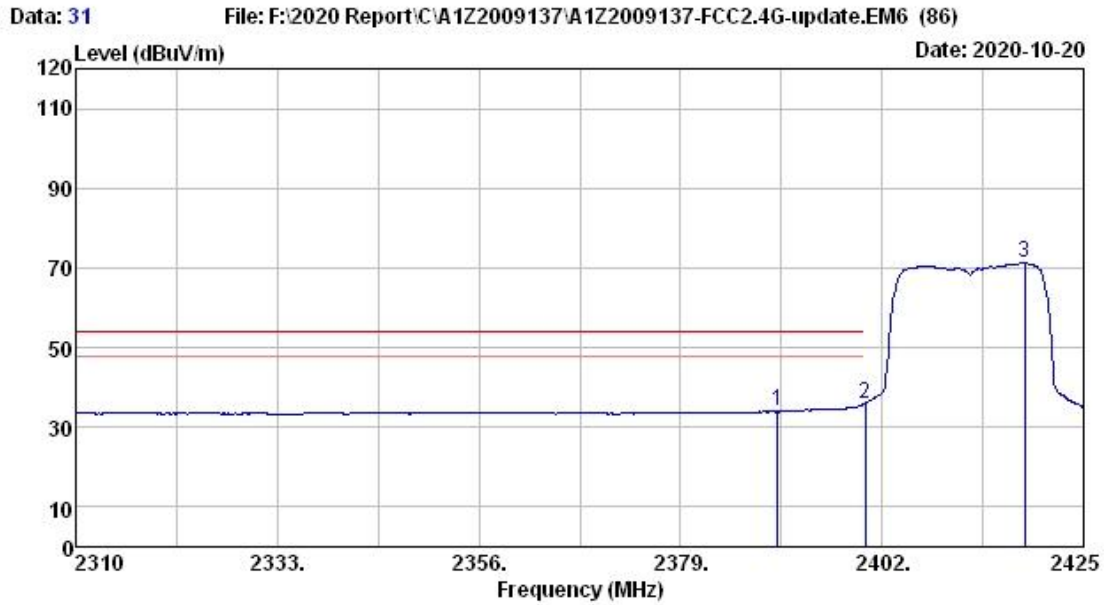
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 30
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2390.04	27.79	5.98	45.16	33.48	45.45	74.00	28.55	Peak
2	2400.05	27.79	5.98	49.19	33.48	49.48	-----	-----	Peak
3	2419.25	27.83	5.99	85.09	33.48	85.43	-----	-----	Peak

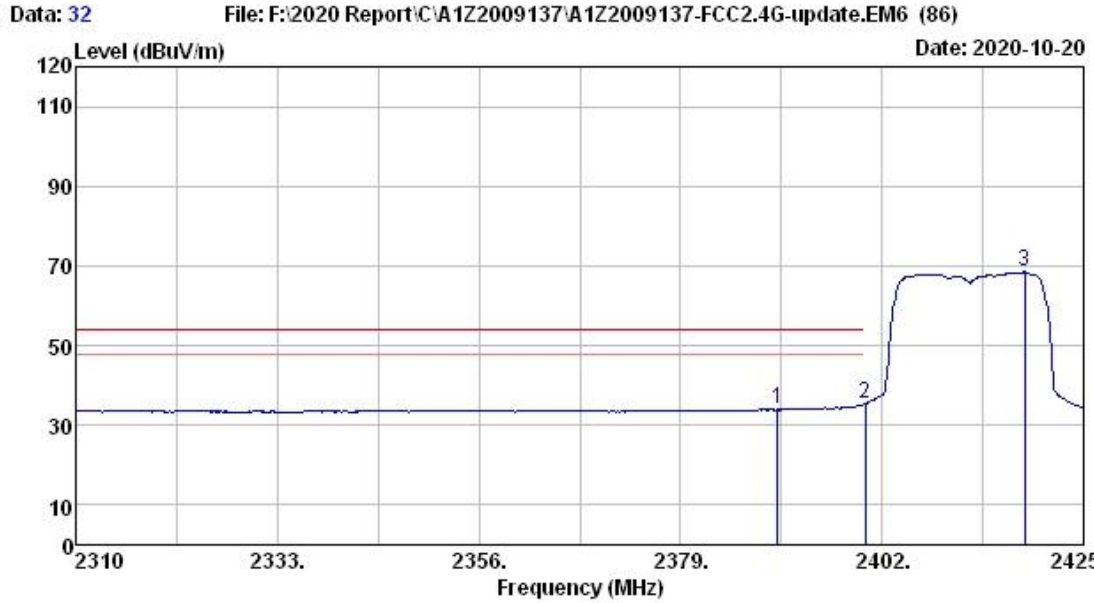
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 31
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2390.04	27.79	5.98	33.59	33.48	33.88	54.00	20.12	Average
2	2400.05	27.79	5.98	35.71	33.48	36.00	-----	-----	Average
3	2418.33	27.83	5.99	70.84	33.48	71.18	-----	-----	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.

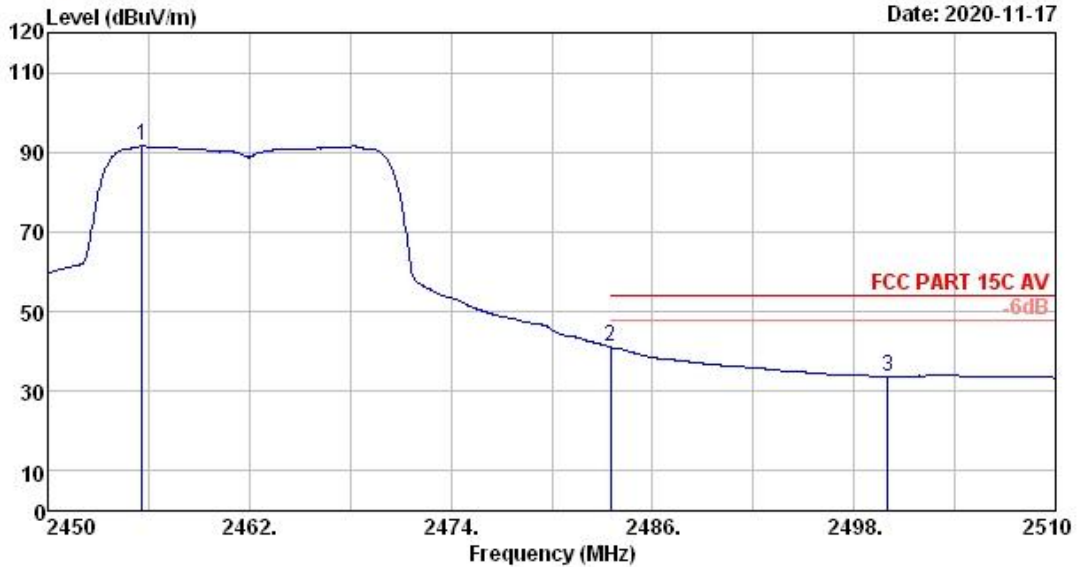


Site no. : 3m Chamber Data no. : 32
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 Test Mode : 802.11g 2412MHz Tx Mode

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	2390.04	27.79	5.98	33.60	33.48	33.89	54.00	20.11	Average
2	2400.05	27.79	5.98	35.05	33.48	35.34	-----	-----	Average
3	2418.33	27.83	5.99	68.09	33.48	68.43	-----	-----	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.

Data: 41 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-11-17

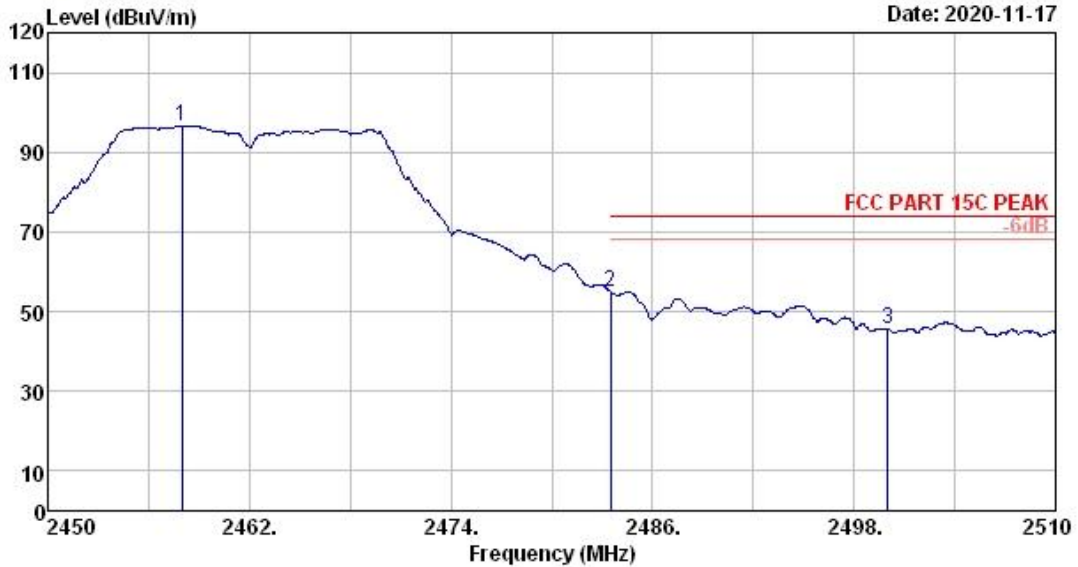


Site no. : 3m Chamber Data no. : 41
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 Test Mode : 802.11g 2462MHz Tx Mode

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	2455.64	28.14	0.94	95.89	33.46	91.51	-----	-----	Average
2	2483.50	28.17	0.94	45.41	33.46	41.06	54.00	12.94	Average
3	2500.00	28.20	0.95	38.09	33.45	33.79	54.00	20.21	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.

Data: 42 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-11-17

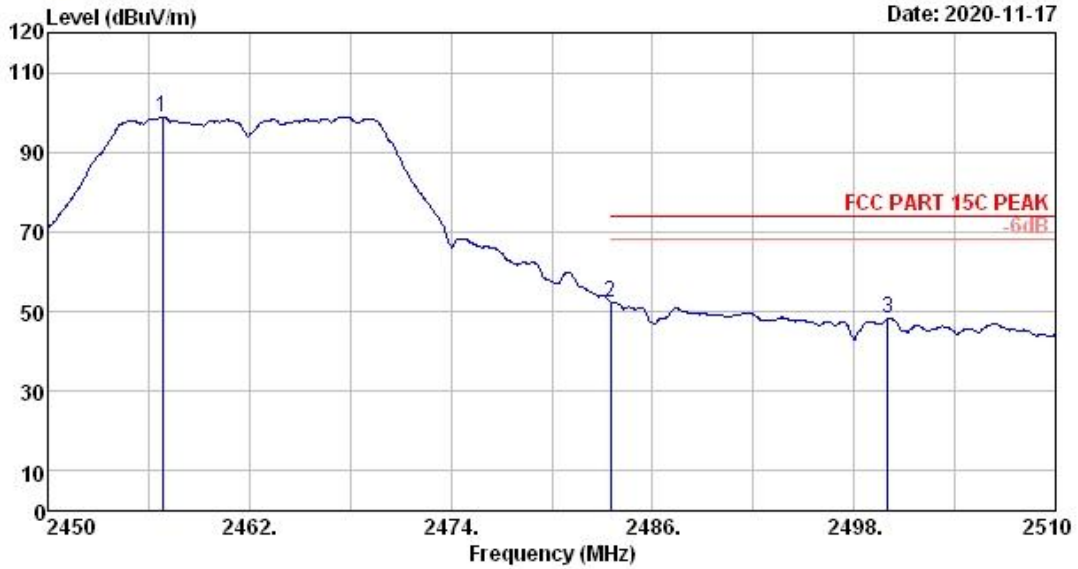


Site no. : 3m Chamber Data no. : 42
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 Test Mode : 802.11g 2462MHz Tx Mode

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	2457.98	28.14	0.94	101.05	33.46	96.67	-----	-----	Peak
2	2483.50	28.17	0.94	59.20	33.46	54.85	74.00	19.15	Peak
3	2500.00	28.20	0.95	49.91	33.45	45.61	74.00	28.39	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.

Data: 43 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-11-17

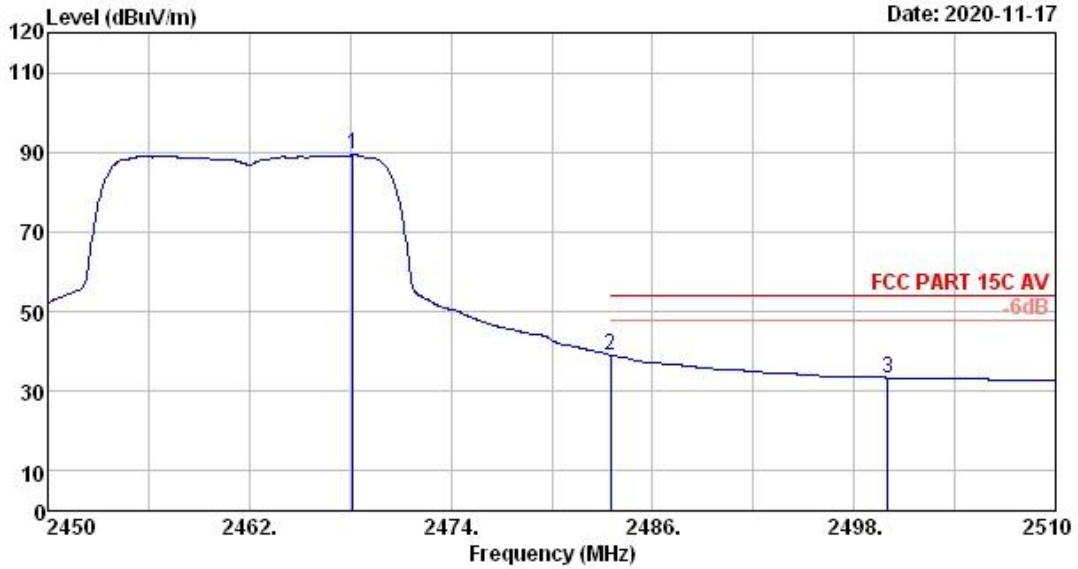


Site no. : 3m Chamber Data no. : 43
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 Test Mode : 802.11g 2462MHz Tx Mode

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	2456.84	28.14	0.94	103.20	33.46	98.82	-----	-----	Peak
2	2483.50	28.17	0.94	56.72	33.46	52.37	74.00	21.63	Peak
3	2500.00	28.20	0.95	52.43	33.45	48.13	74.00	25.87	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.

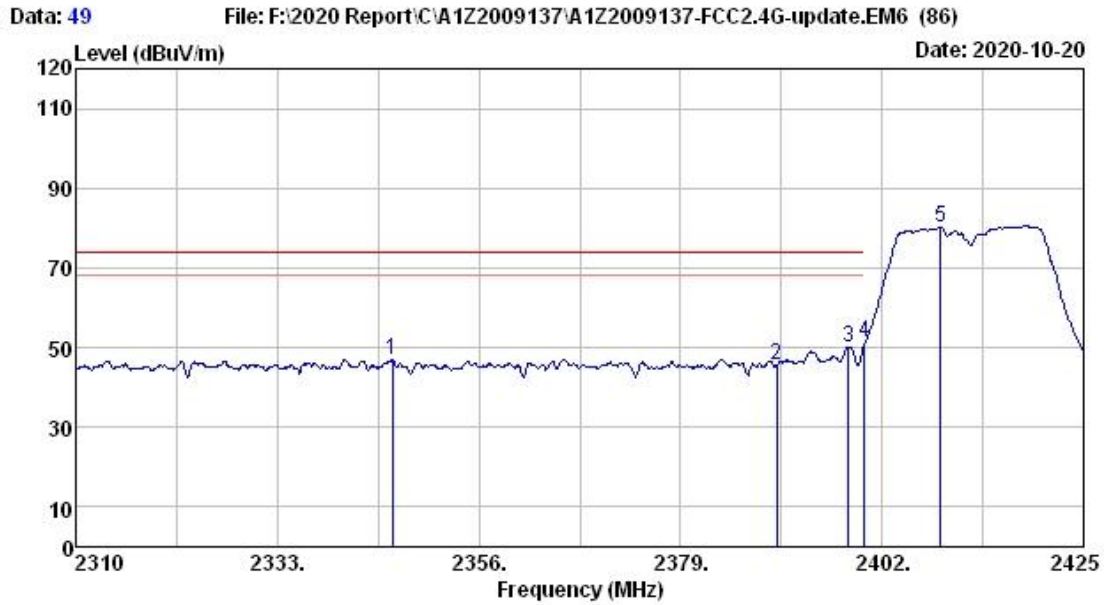
Data: 44 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-11-17



Site no. : 3m Chamber Data no. : 44
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2468.18	28.14	0.94	93.71	33.46	89.33	-----	-----	Average
2	2483.50	28.17	0.94	43.46	33.46	39.11	54.00	14.89	Average
3	2500.00	28.20	0.95	37.71	33.45	33.41	54.00	20.59	Average

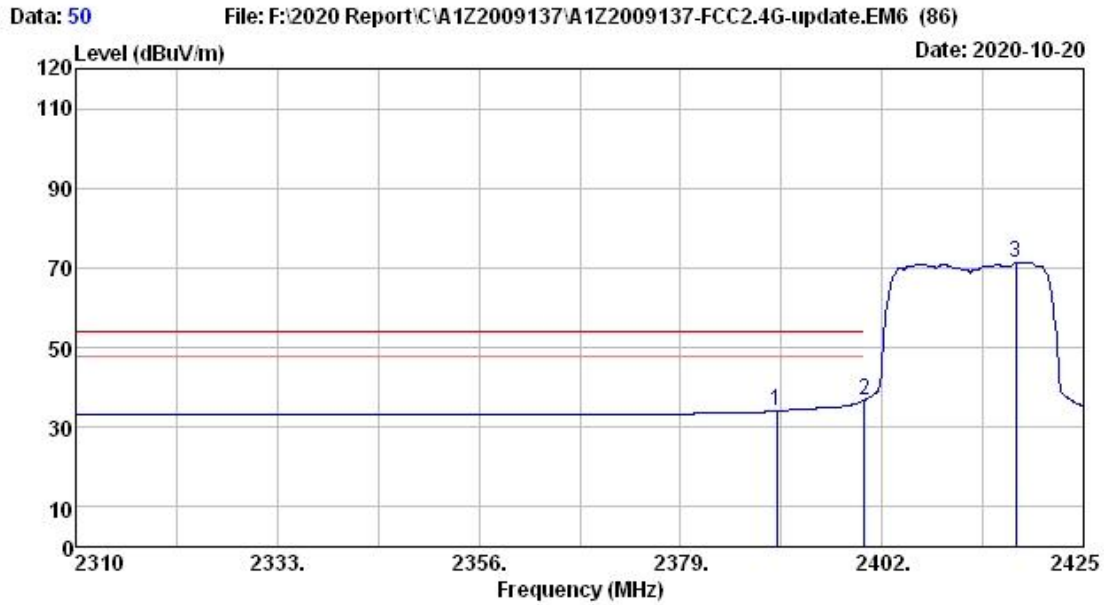
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 49
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2346.11	27.69	5.95	46.83	33.50	46.97	74.00	27.03	Peak
2	2390.00	27.79	5.98	45.36	33.48	45.65	74.00	28.35	Peak
3	2398.21	27.79	5.98	49.87	33.48	50.16	74.00	23.84	Peak
4	2400.00	27.79	5.98	50.98	33.48	51.27	74.00	22.73	Peak
5	2408.67	27.83	5.99	79.89	33.48	80.23	-----	-----	Peak

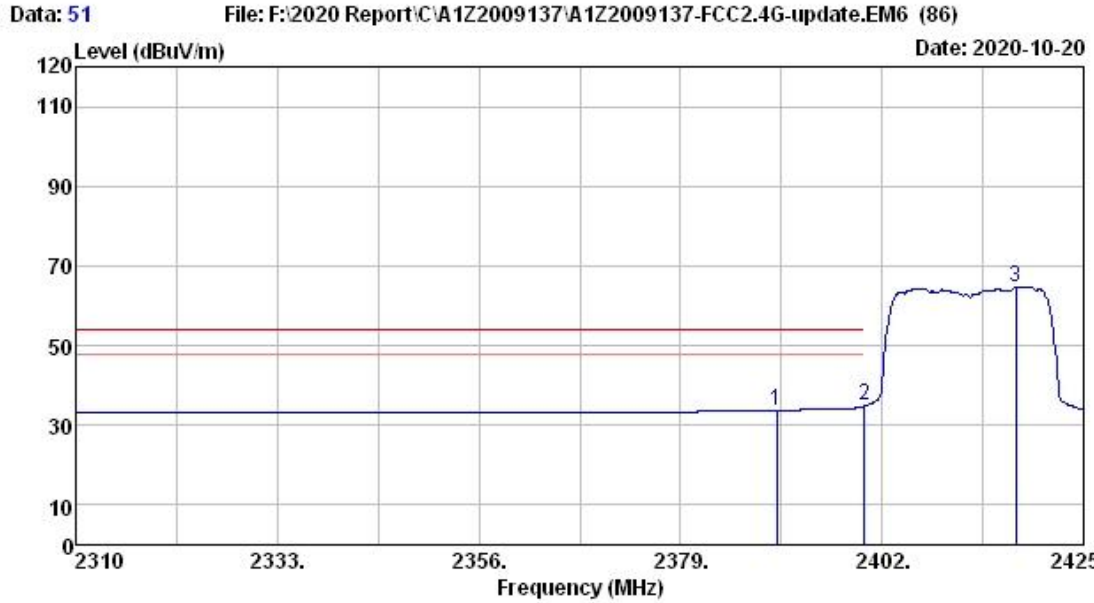
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 50
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	27.79	5.98	33.80	33.48	34.09	54.00	19.91	Average
2	2400.00	27.79	5.98	36.59	33.48	36.88	54.00	17.12	Average
3	2417.30	27.83	5.99	71.10	33.48	71.44	-----	-----	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.

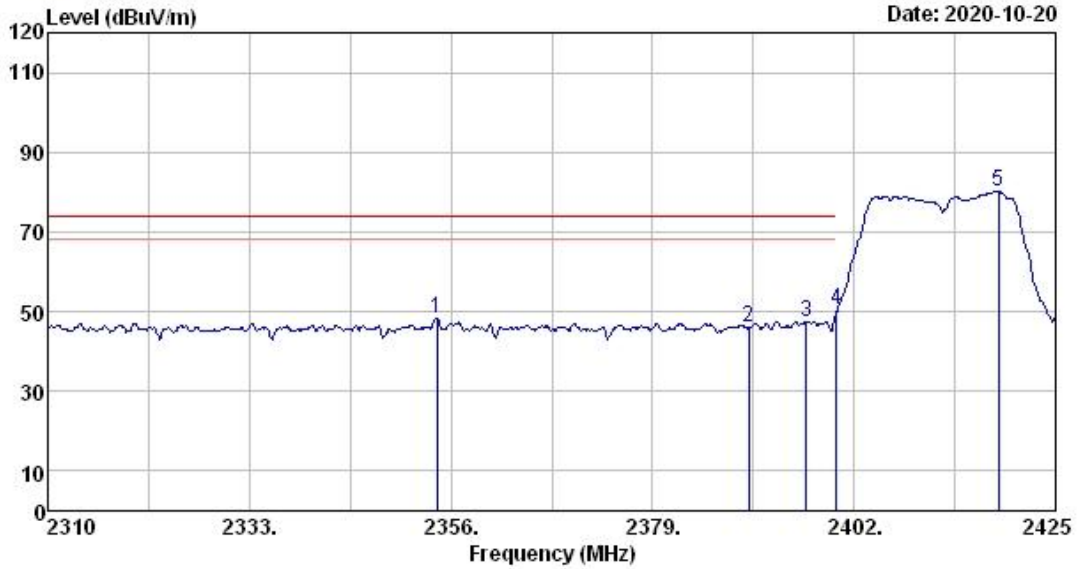


Site no. : 3m Chamber Data no. : 51
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 Test Mode : 802.11nHT20 2412MHz Tx Mode

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	27.79	5.98	33.38	33.48	33.67	54.00	20.33	Average
2	2400.00	27.79	5.98	34.58	33.48	34.87	54.00	19.13	Average
3	2417.30	27.83	5.99	64.47	33.48	64.81	-----	-----	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.

Data: 52 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-10-20

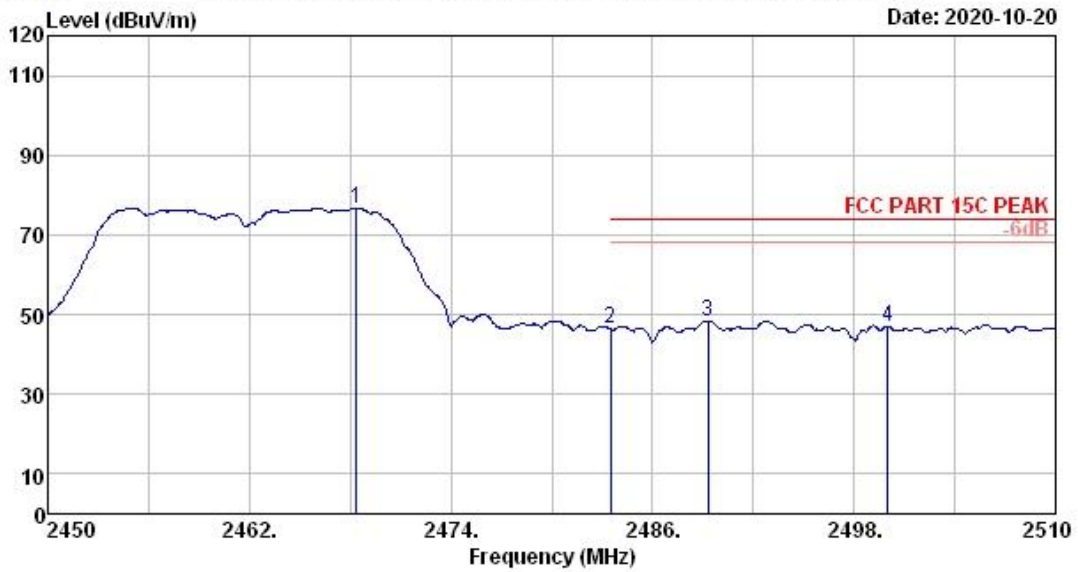


Site no. : 3m Chamber Data no. : 52
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 Test Mode : 802.11nHT20 2412MHz Tx Mode

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	2354.39	27.72	5.96	47.97	33.49	48.16	74.00	25.84	Peak
2	2390.00	27.79	5.98	45.88	33.48	46.17	74.00	27.83	Peak
3	2396.60	27.79	5.98	47.20	33.48	47.49	74.00	26.51	Peak
4	2400.00	27.79	5.98	50.07	33.48	50.36	74.00	23.64	Peak
5	2418.45	27.83	5.99	79.70	33.48	80.04	-----	-----	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.

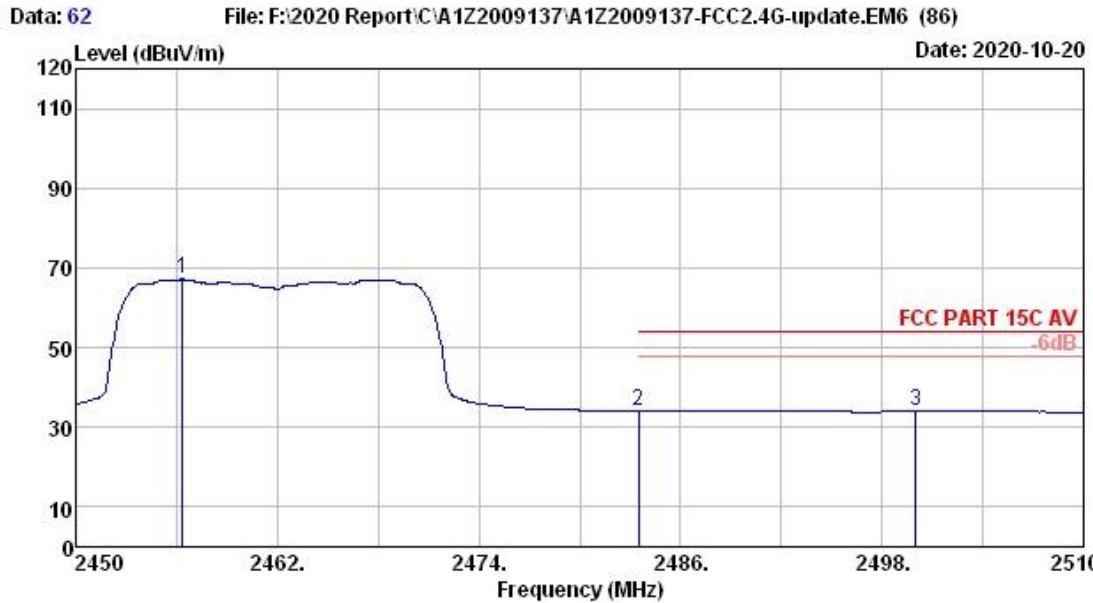
Data: 61 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-10-20



Site no. : 3m Chamber Data no. : 61
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2468.36	27.93	6.02	76.13	33.46	76.62	-----	-----	Peak
2	2483.50	27.97	6.03	45.85	33.46	46.39	74.00	27.61	Peak
3	2489.30	28.00	6.04	47.81	33.45	48.40	74.00	25.60	Peak
4	2500.00	28.00	6.04	46.47	33.45	47.06	74.00	26.94	Peak

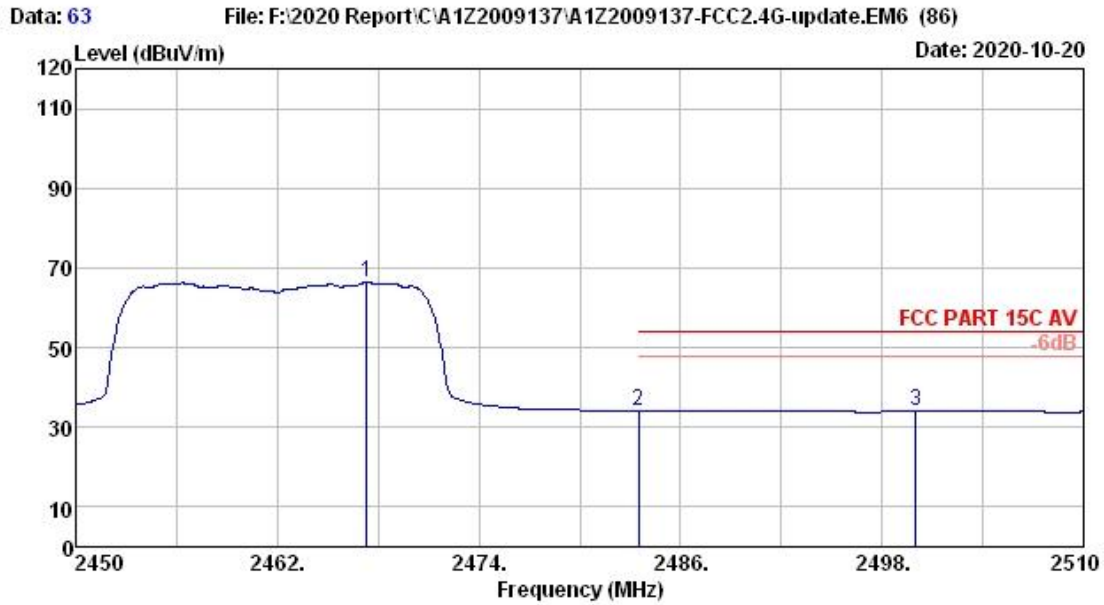
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 62
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2456.36	27.93	6.02	66.63	33.46	67.12	-----	-----	Average
2	2483.50	27.97	6.03	33.48	33.46	34.02	54.00	19.98	Average
3	2500.00	28.00	6.04	33.36	33.45	33.95	54.00	20.05	Average

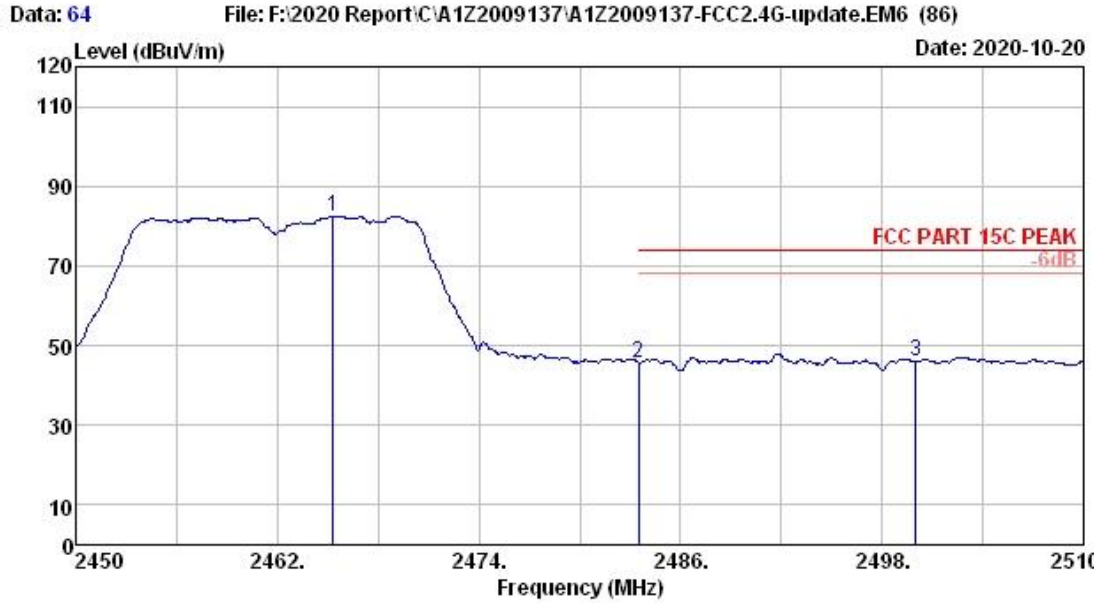
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 63
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2467.34	27.93	6.02	65.79	33.46	66.28	-----	-----	Average
2	2483.50	27.97	6.03	33.49	33.46	34.03	54.00	19.97	Average
3	2500.00	28.00	6.04	33.38	33.45	33.97	54.00	20.03	Average

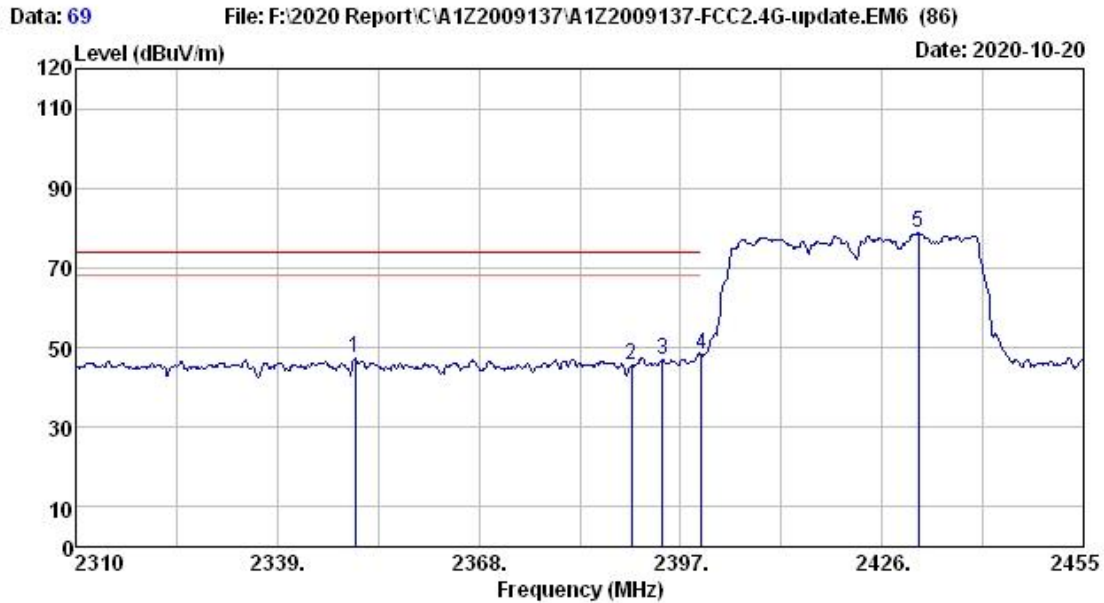
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 64
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2465.30	27.93	6.02	81.97	33.46	82.46	-----	-----	Peak
2	2483.50	27.97	6.03	45.23	33.46	45.77	74.00	28.23	Peak
3	2500.00	28.00	6.04	45.48	33.45	46.07	74.00	27.93	Peak

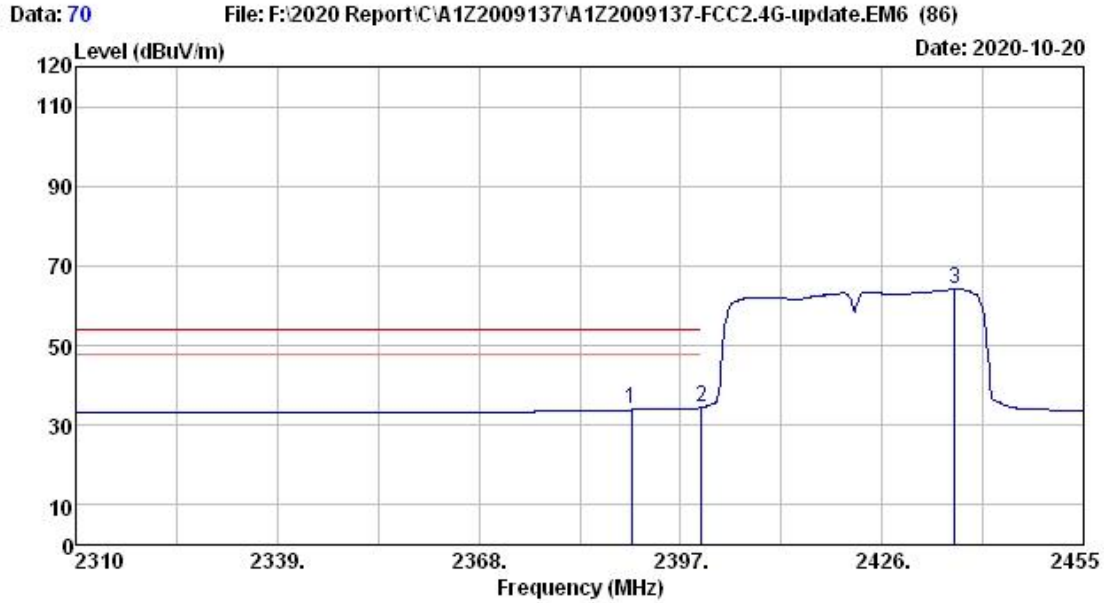
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 69
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2350.17	27.69	5.95	47.15	33.50	47.29	74.00	26.71	Peak
2	2390.00	27.79	5.98	45.11	33.48	45.40	74.00	28.60	Peak
3	2394.39	27.79	5.98	46.65	33.48	46.94	74.00	27.06	Peak
4	2400.00	27.79	5.98	48.04	33.48	48.33	74.00	25.67	Peak
5	2431.22	27.86	6.00	78.22	33.47	78.61	-----	-----	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.

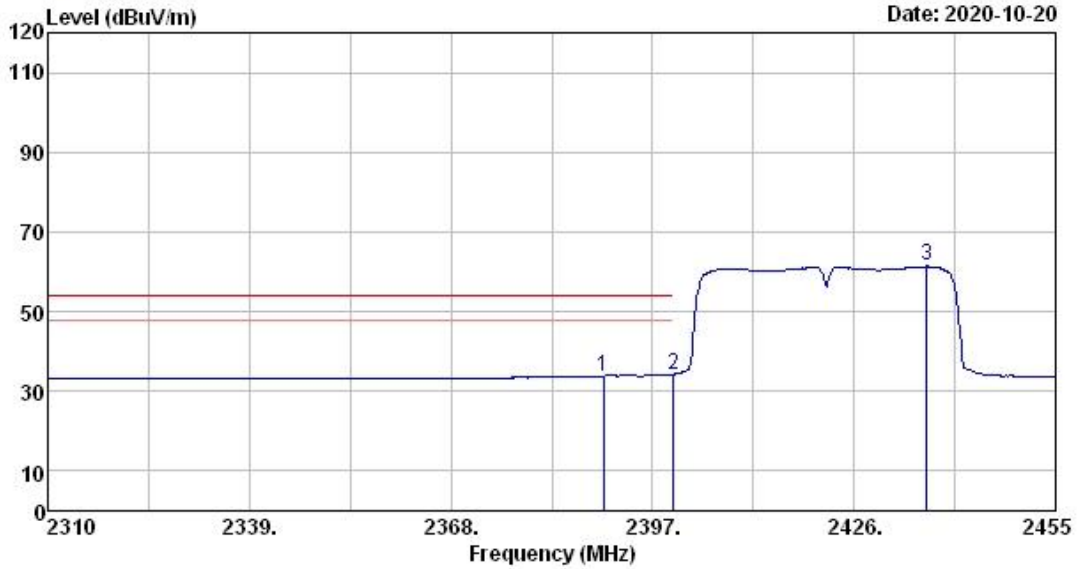


Site no. : 3m Chamber Data no. : 70
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 Test Mode : 802.11nHT40 2422MHz Tx Mode

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	27.79	5.98	33.62	33.48	33.91	54.00	20.09	Average
2	2400.00	27.79	5.98	34.18	33.48	34.47	54.00	19.53	Average
3	2436.44	27.86	6.00	63.75	33.47	64.14	-----	-----	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.

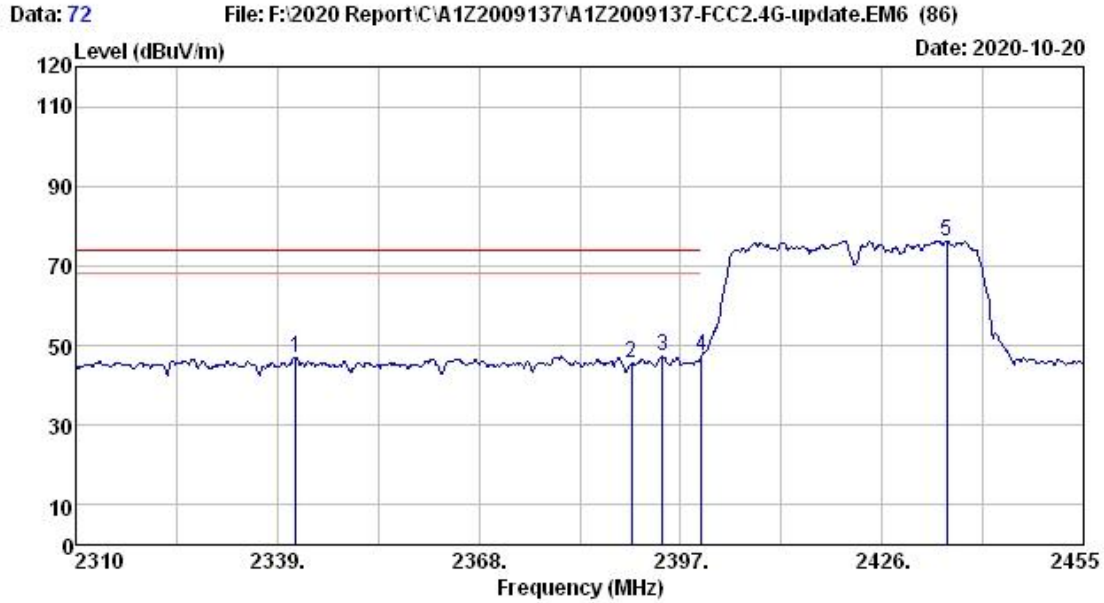
Data: 71 File: F:\2020 Report\C\A1Z2009137\A1Z2009137-FCC2.4G-update.EM6 (86) Date: 2020-10-20



Site no. : 3m Chamber Data no. : 71
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	27.79	5.98	33.56	33.48	33.85	54.00	20.15	Average
2	2400.00	27.79	5.98	33.98	33.48	34.27	54.00	19.73	Average
3	2436.44	27.86	6.00	60.96	33.47	61.35	-----	-----	Average

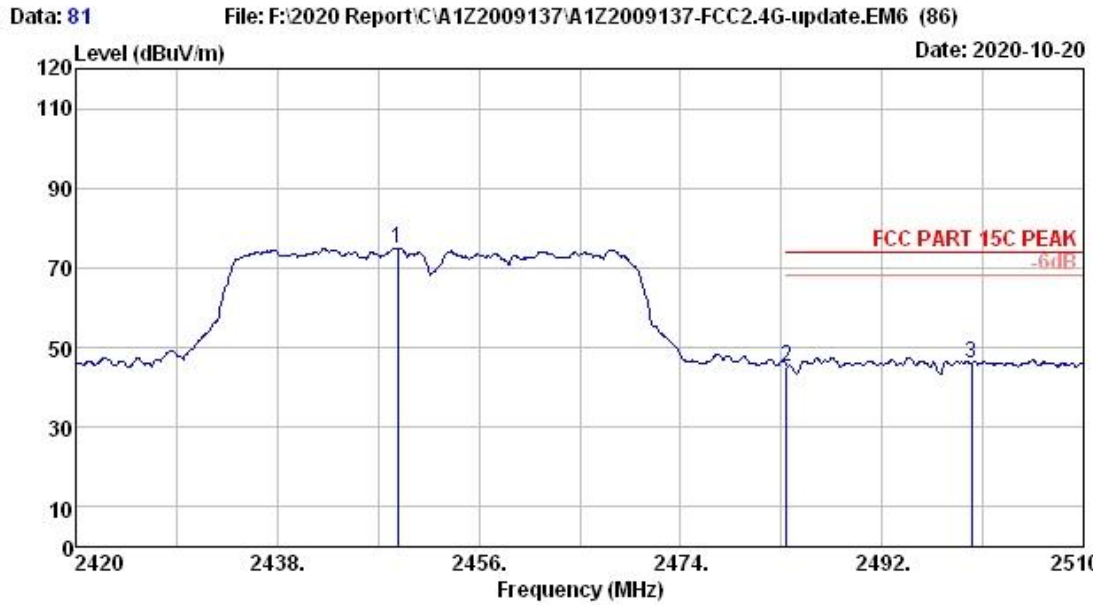
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 72
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2341.61	27.69	5.95	47.01	33.50	47.15	74.00	26.85	Peak
2	2390.00	27.79	5.98	45.20	33.48	45.49	74.00	28.51	Peak
3	2394.39	27.79	5.98	46.87	33.48	47.16	74.00	26.84	Peak
4	2400.00	27.79	5.98	46.89	33.48	47.18	74.00	26.82	Peak
5	2435.28	27.86	6.00	75.88	33.47	76.27	-----	-----	Peak

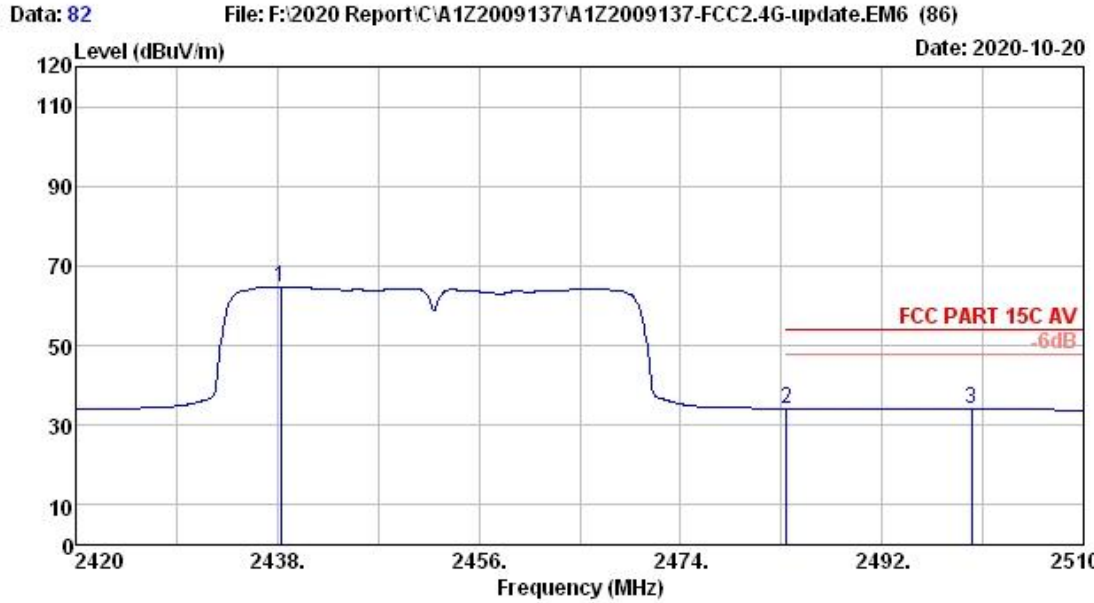
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 81
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2448.71	27.90	6.01	74.54	33.47	74.98	-----	-----	Peak
2	2483.50	27.97	6.03	44.73	33.46	45.27	74.00	28.73	Peak
3	2500.00	28.00	6.04	45.36	33.45	45.95	74.00	28.05	Peak

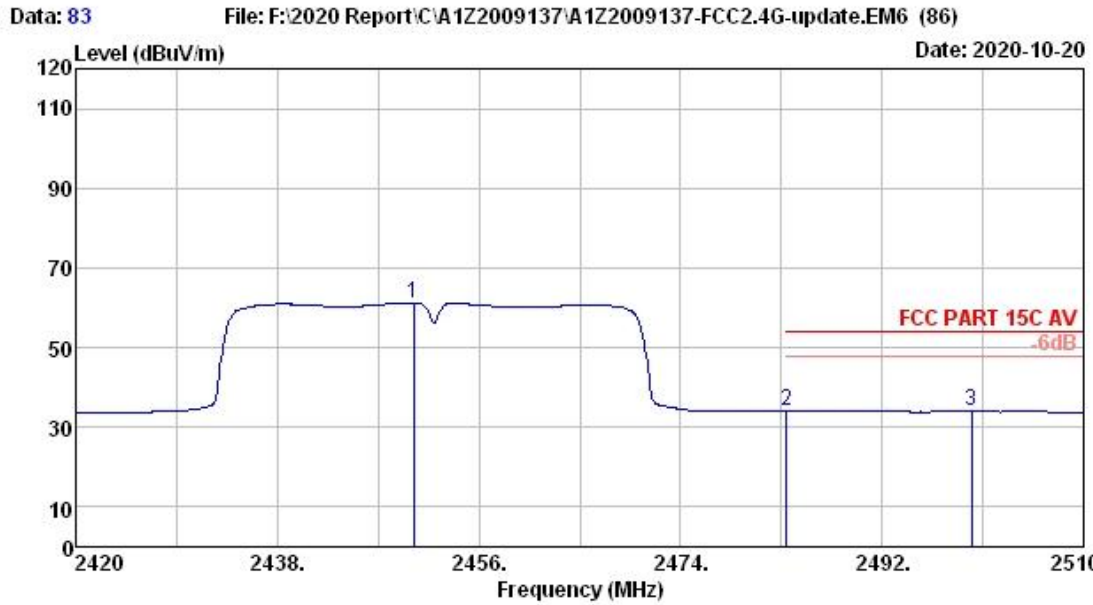
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 82
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2438.27	27.90	6.01	64.36	33.47	64.80	-----	-----	Average
2	2483.50	27.97	6.03	33.65	33.46	34.19	54.00	19.81	Average
3	2500.00	28.00	6.04	33.40	33.45	33.99	54.00	20.01	Average

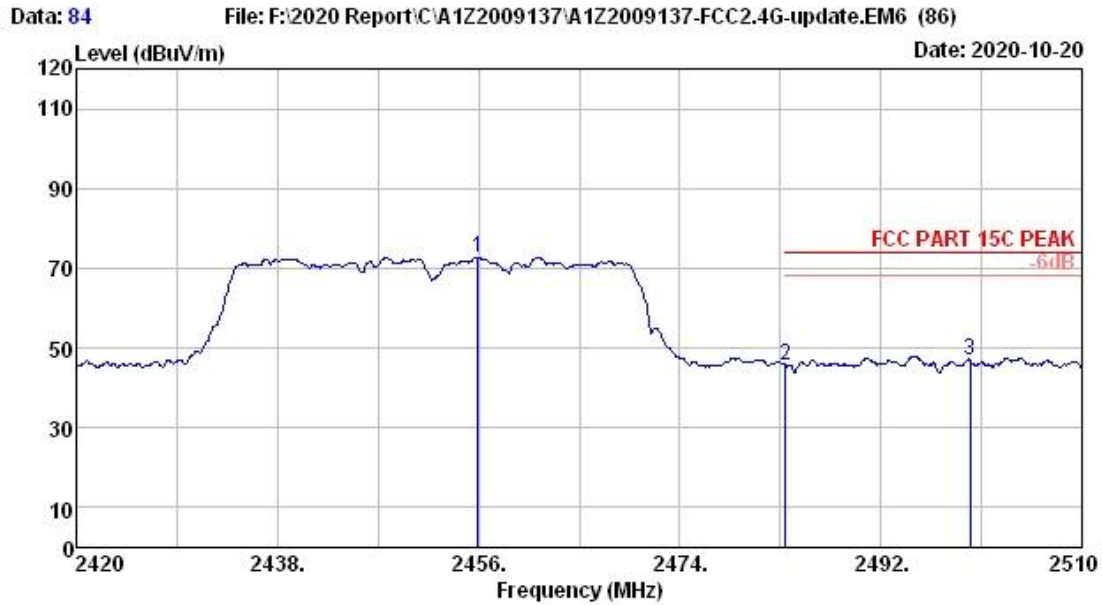
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 83
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2450.15	27.90	6.01	60.78	33.47	61.22	-----	-----	Average
2	2483.50	27.97	6.03	33.37	33.46	33.91	54.00	20.09	Average
3	2500.00	28.00	6.04	33.37	33.45	33.96	54.00	20.04	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. : 84
 Dis. / Ant. : 3m 2020 MCTD1209-3007 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/51.5% Engineer : Garry
 Power rating : DC 5V From Notebook Input AC 120V/60Hz
 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	2455.91	27.93	6.02	72.28	33.46	72.77	-----	-----	Peak
2	2483.50	27.97	6.03	45.07	33.46	45.61	74.00	28.39	Peak
3	2500.00	28.00	6.04	46.34	33.45	46.93	74.00	27.07	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.

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	Apr.12,20	1 Year
2.	Attenuator	Agilent	8491B	MY39269201	Oct.12,20	1 Year
3.	RF Cable	EMCI	EMC102-KM-KM 3500	170702	Apr.12,20	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: U9W34		
Test date: 2020-10-16	Pressure: 102.3±1.0 kpa	Humidity: 53.6±3.0%
Tested by: Leo	Test site: RF site	Temperature: 25.5±0.6 °C

Test Mode	CH	6dB bandwidth (MHz)		Limit (kHz)
		ANTA	ANTB	
11b	CH1	10.11	10.11	≥ 500
	CH6	10.09	10.09	≥ 500
	CH11	10.11	10.10	≥ 500
11g	CH1	16.51	16.54	≥ 500
	CH6	16.55	16.53	≥ 500
	CH11	16.53	16.52	≥ 500
11n HT20	CH1	17.66	17.65	≥ 500
	CH6	17.67	17.68	≥ 500
	CH11	17.66	17.65	≥ 500
11n HT40	CH3	36.44	36.44	≥ 500
	CH6	36.43	36.45	≥ 500
	CH9	36.45	36.45	≥ 500
Conclusion : PASS				

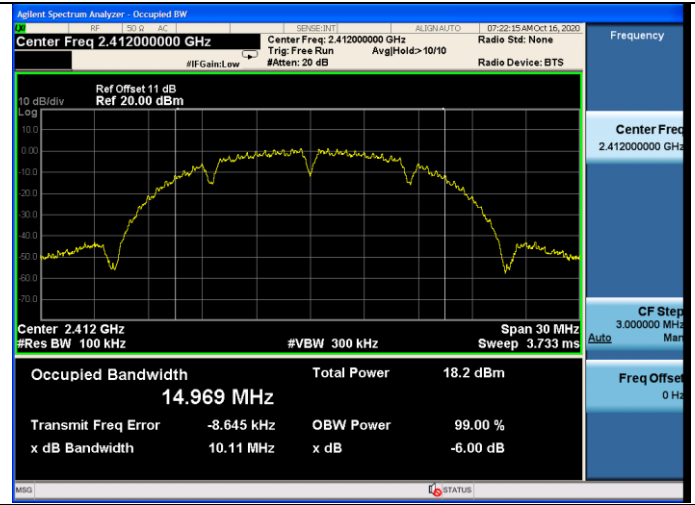
ANTA:

Test Mode: IEEE 802.11b
Test CH1: 2412MHz

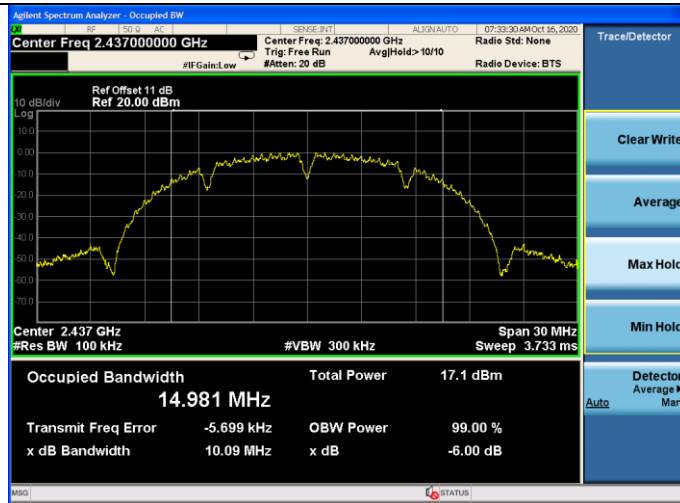


ANTB:

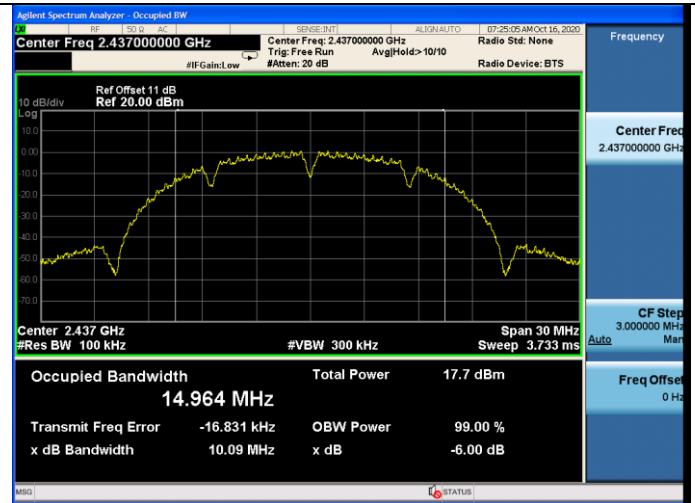
Test Mode: IEEE 802.11b
Test CH1: 2412MHz



Test CH6: 2437MHz



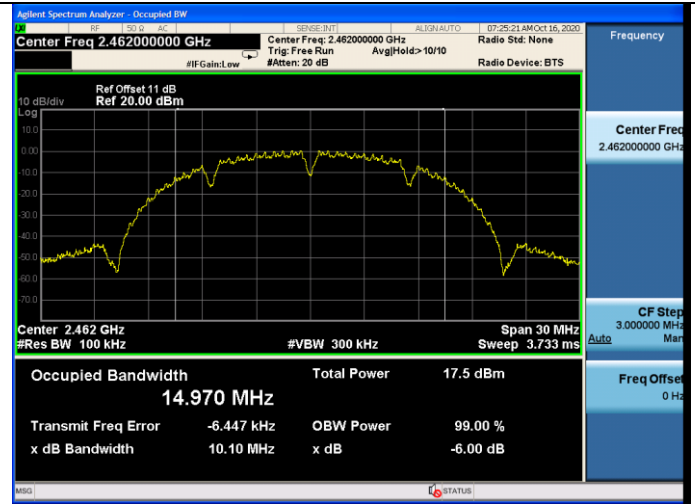
Test CH6: 2437MHz



Test CH11: 2462MHz

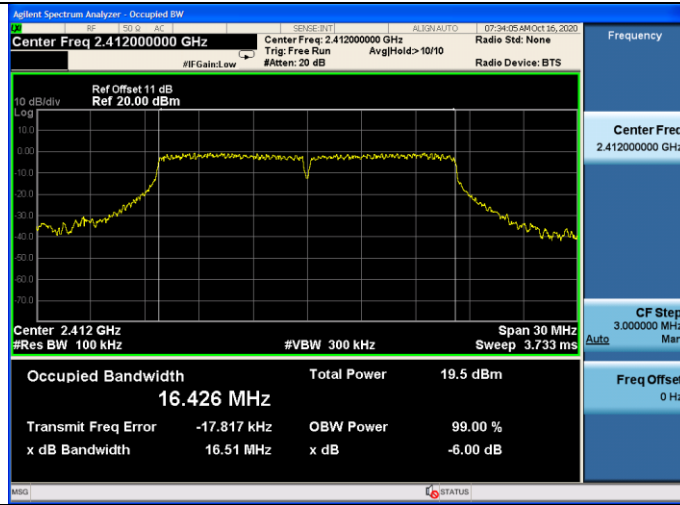


Test CH11: 2462MHz



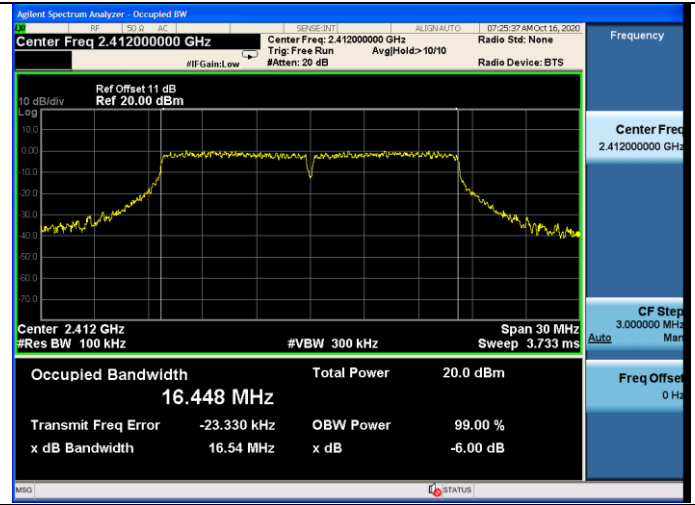
ANTA:

Test Mode: IEEE 802.11g
Test CH1: 2412MHz

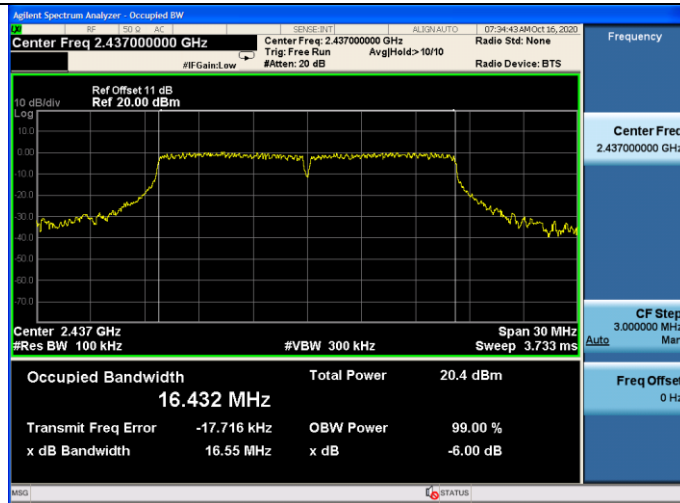


ANTB:

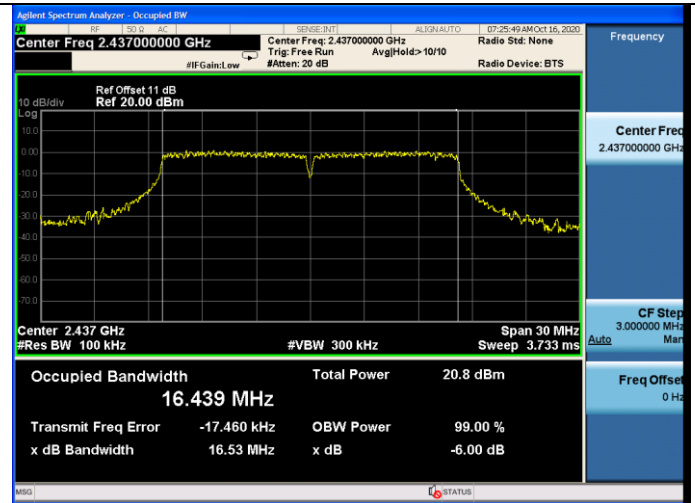
Test Mode: IEEE 802.11g
Test CH1: 2412MHz



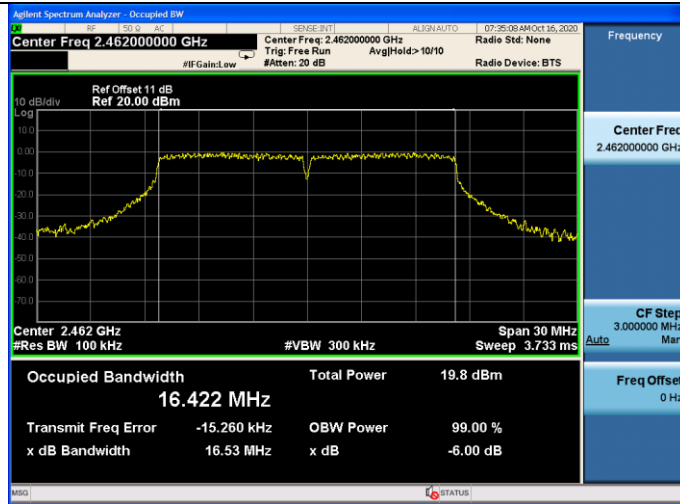
Test CH6: 2437MHz



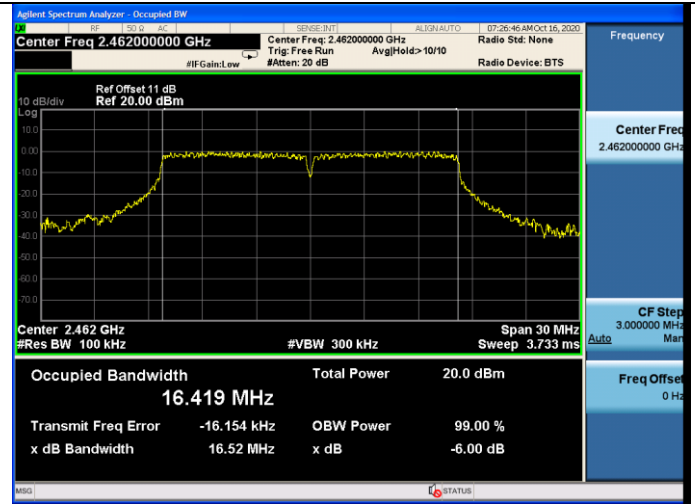
Test CH6: 2437MHz



Test CH11: 2462MHz

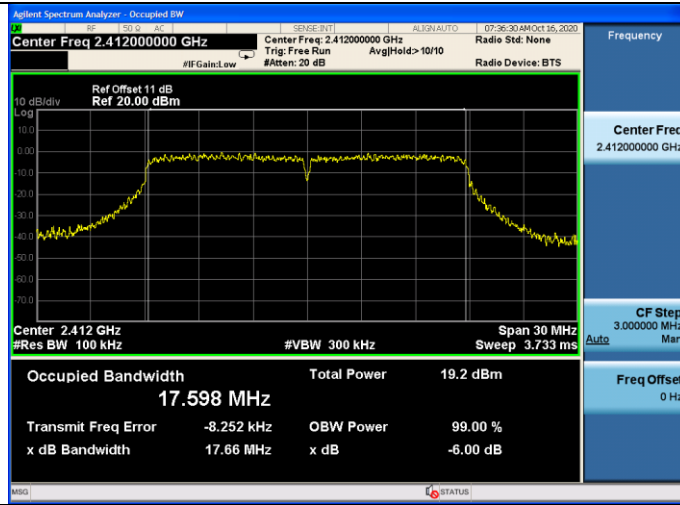


Test CH11: 2462MHz



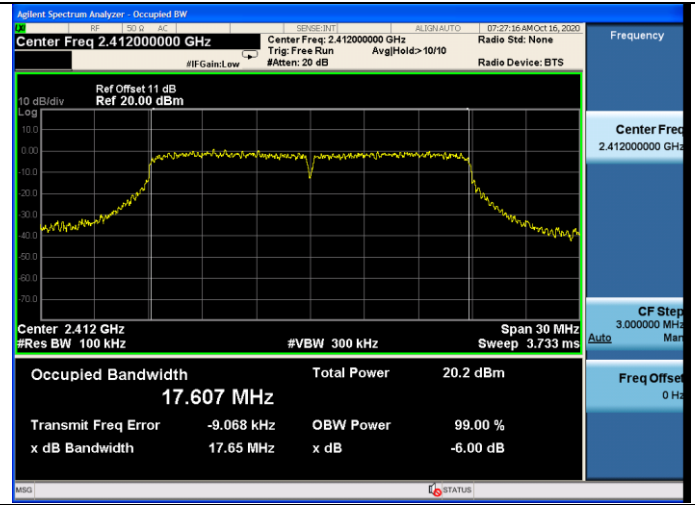
ANTA:

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

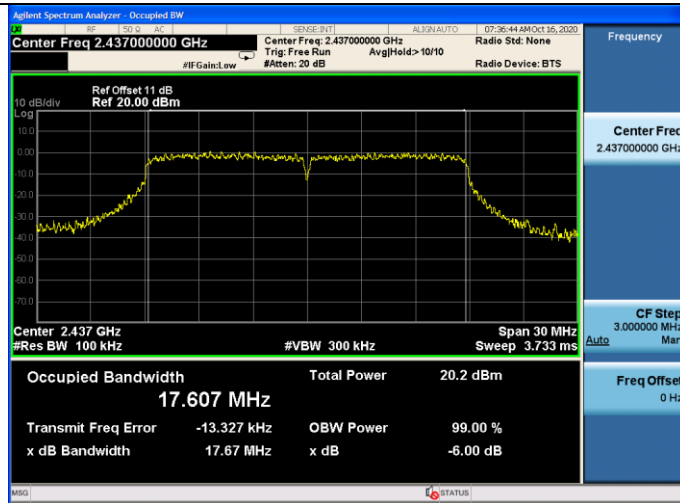


ANTB:

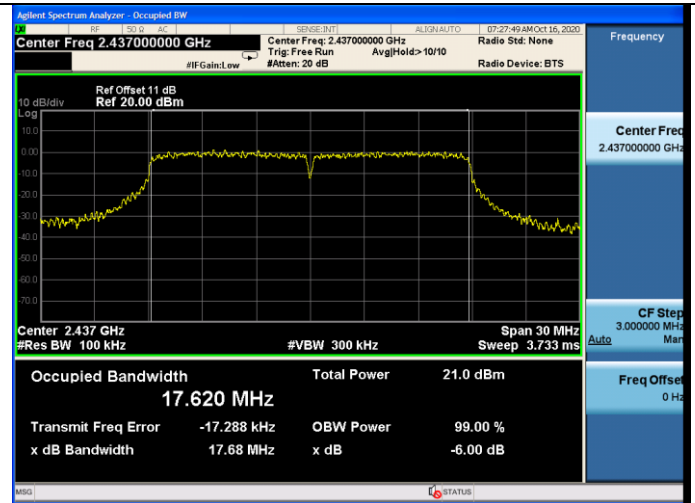
Test Mode: IEEE 802.11n HT20
Test CH1: 2412MHz



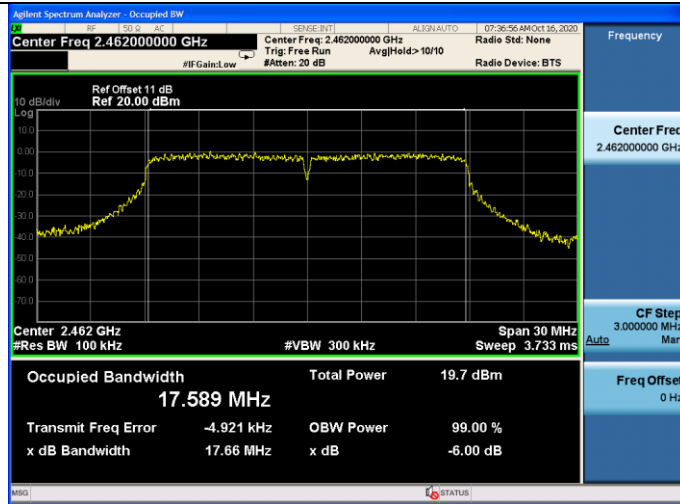
Test CH6: 2437MHz



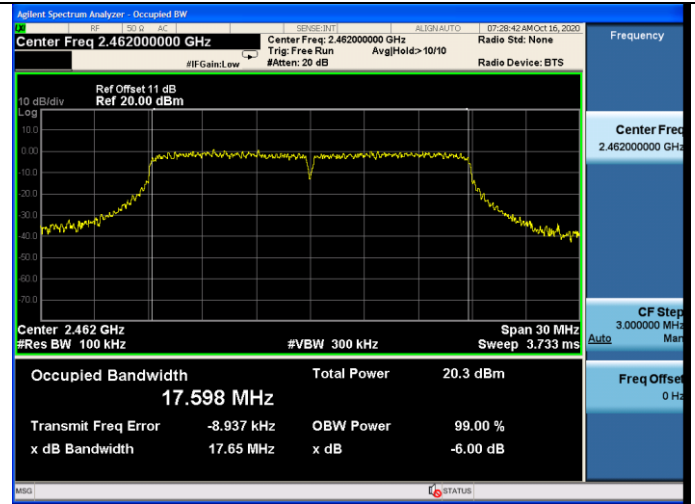
Test CH6: 2437MHz



Test CH11: 2462MHz

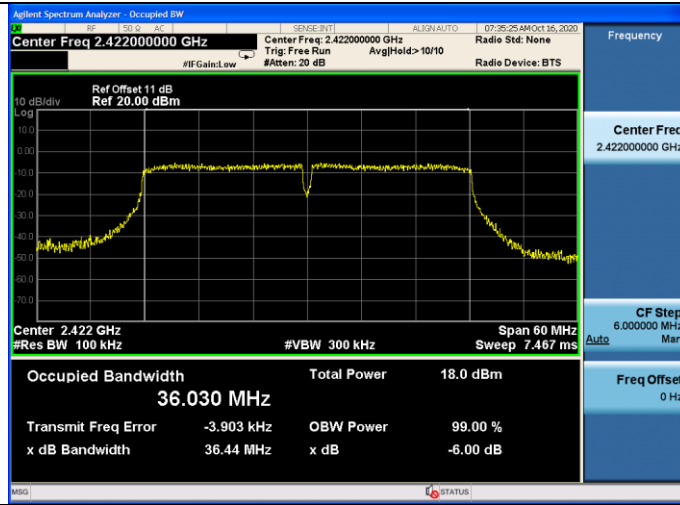


Test CH11: 2462MHz



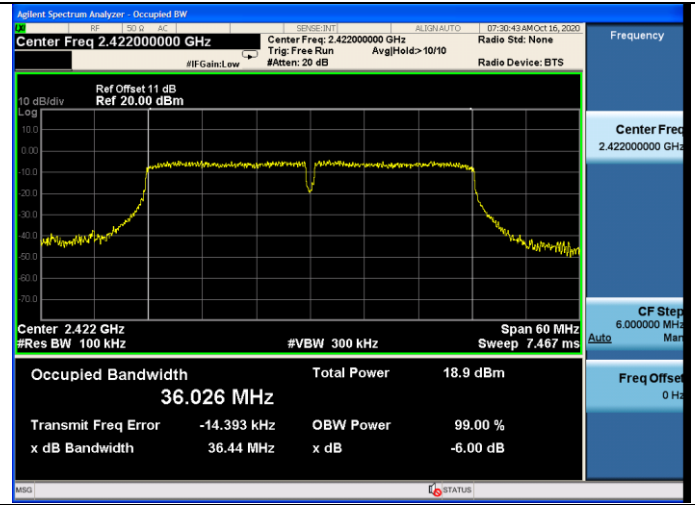
ANTA:

Test Mode: IEEE 802.11n HT40
Test CH3: 2422MHz

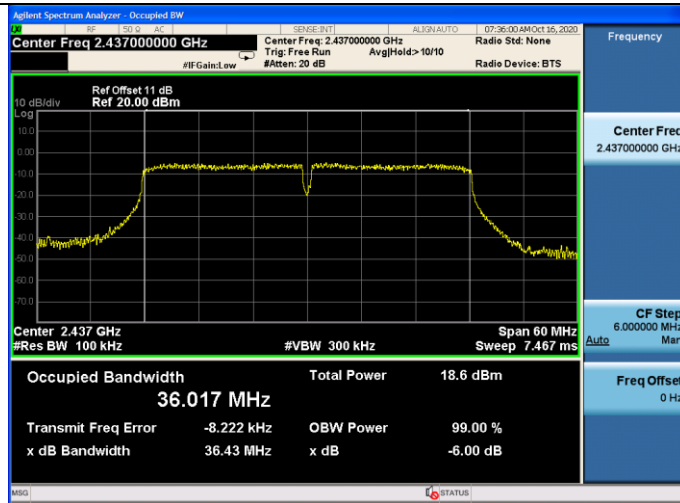


ANTB:

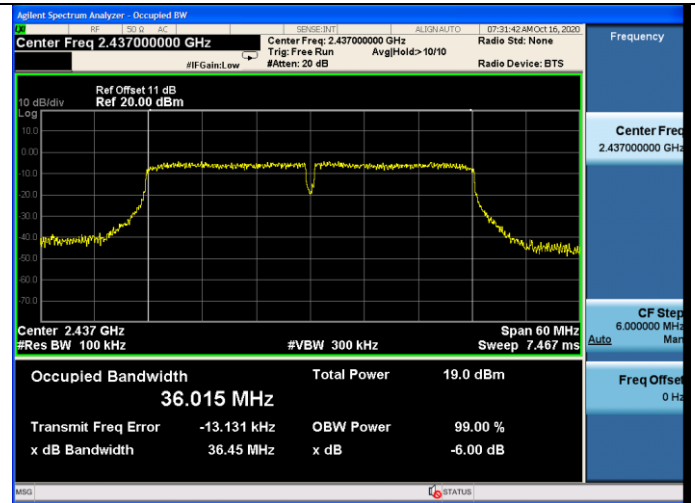
Test Mode: IEEE 802.11n HT40
Test CH3: 2422MHz



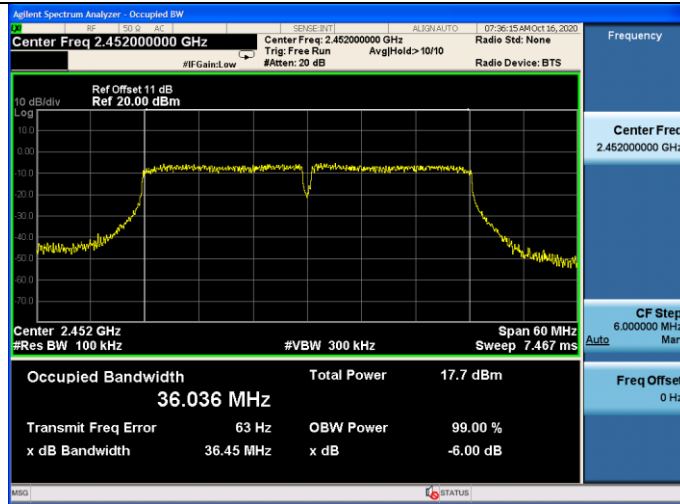
Test CH6: 2437MHz



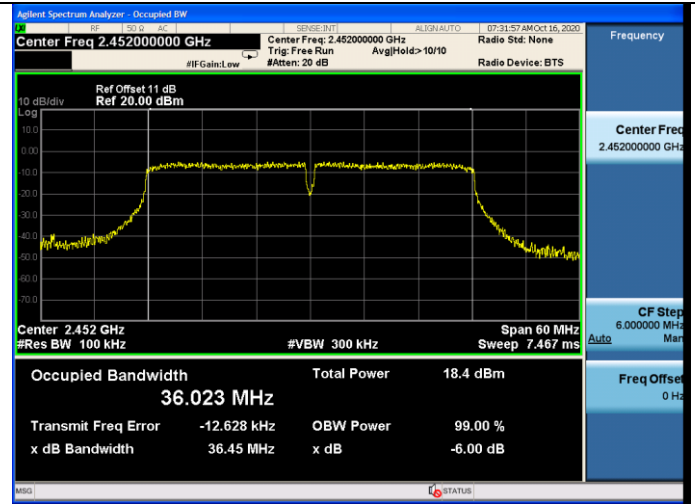
Test CH6: 2437MHz



Test CH9: 2452MHz



Test CH9: 2452MHz



8. OUTPUT POWER TEST

8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.12,20	1 Year
2.	Power meter	Anritsu	ML2487A	6K00002472	Apr.11,20	1 Year
3.	Power sensor	Anritsu	MA2491A	033005	Apr.11,20	1 Year
4.	Attenuator	Agilent	8491B	MY39269201	Oct.12,20	1 Year
5.	RF Cable	EMCI	EMC102-KM-KM 3500	170702	Apr.12,20	1 Year

8.2. Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak output Power shall not exceed 1W(30dBm), As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level.

8.3. Test Procedure

- 1, Connected the EUT’s antenna port to measure device by 20dB attenuator.
- 2, Use the test method described in ANSI C63.10-2013 clause 11.9.2.2.2 Method AVGSA-1.
 - 1) Set span to at least 1.5 times the OBW.
 - 2) Set RBW = 1% to 5% of the OBW, not to exceed 1 MHz.
 - 3) Set VBW $\geq [3 \times \text{RBW}]$.
 - 4) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
 - 5) Sweep time = auto.
 - 6) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
 - 7) If transmit duty cycle $< 98\%$, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at the maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle $\geq 98\%$, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run.”
 - 8) Trace average at least 100 traces in power averaging (rms) mode.
 - 9) Compute power by integrating the spectrum across the OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

8.4. Test Results

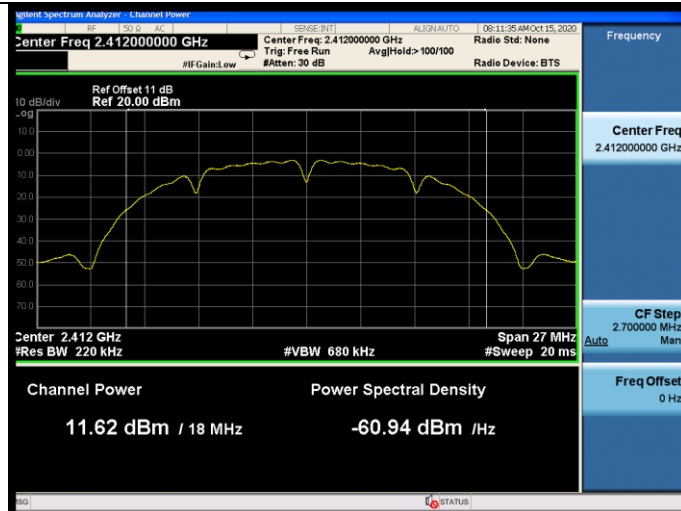
EUT: WiFi module		
M/N: U9W34		
Test date: 2020-10-15~16	Pressure: 102.1 ±1.0 kpa	Humidity: 51.1 ±3.0%
Tested by: Leo	Test site: RF site	Temperature: 22.8 ±0.6 °C

Test Mode	CH	output Power (dBm)		Limit (dBm)
		ANTA	ANTB	
11b	CH1	11.62	12.20	30
	CH6	11.43	11.96	
	CH11	11.33	11.77	
11g	CH1	14.61	15.17	30
	CH6	15.48	15.87	
	CH11	14.94	15.31	
11n HT20	CH1	14.59	15.19	30
	CH6	15.40	15.92	
	CH11	14.87	15.35	
11n HT40	CH3	13.84	14.36	30
	CH6	14.12	14.62	
	CH9	13.68	14.13	

Conclusion: PASS

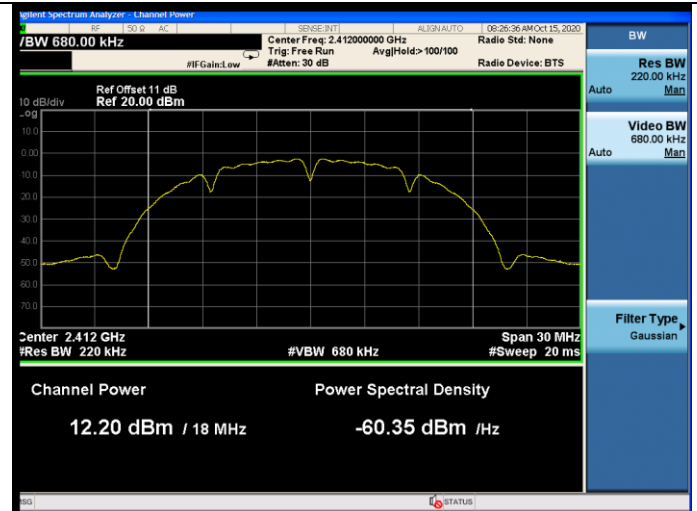
ANTA:

Test Mode: IEEE 802.11b
Test CH1: 2412MHz

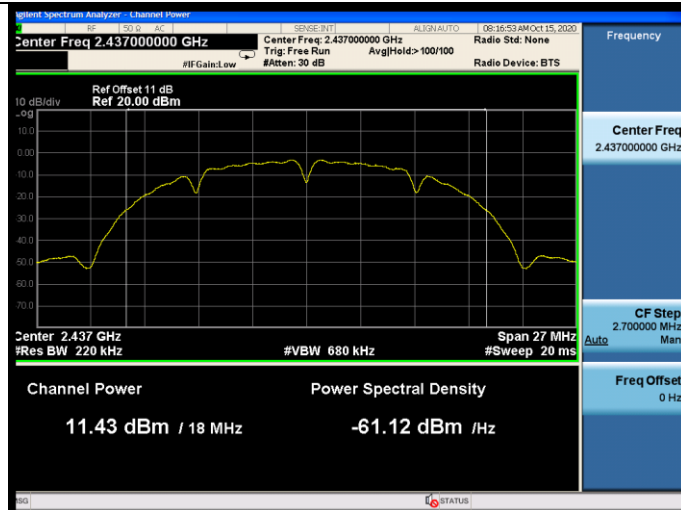


ANTB:

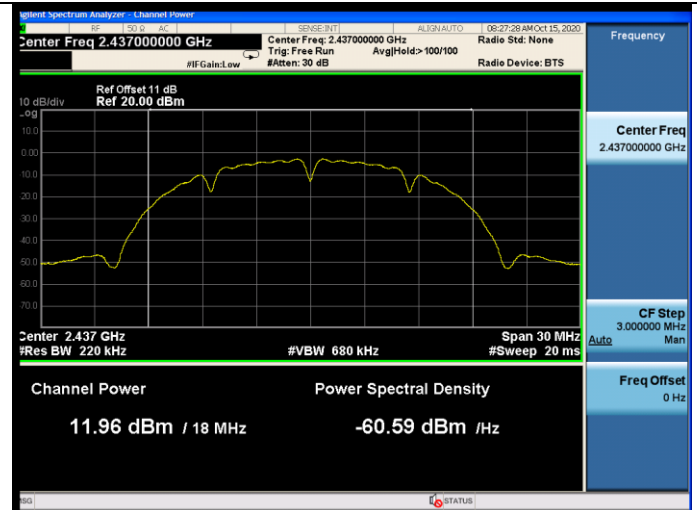
Test Mode: IEEE 802.11b
Test CH1: 2412MHz



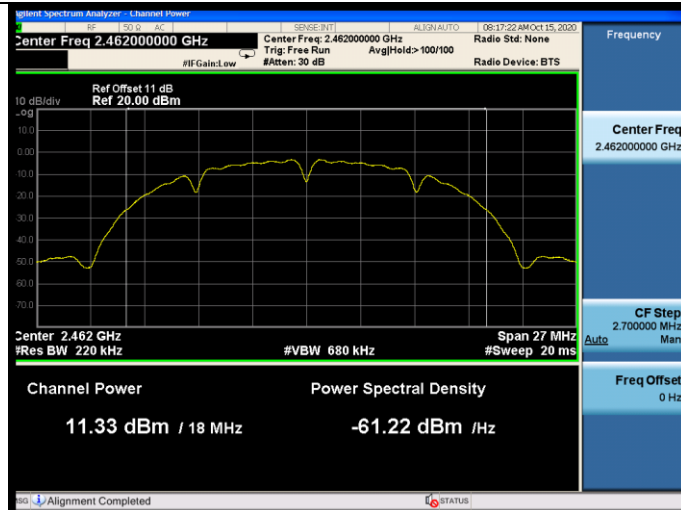
Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



Test CH11: 2462MHz

