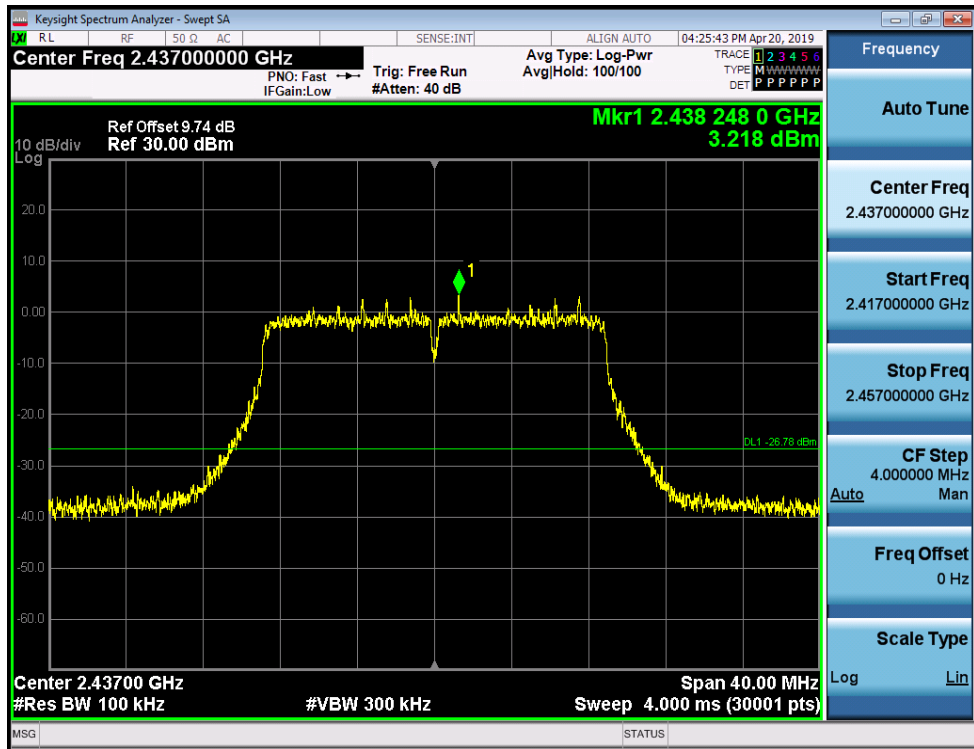
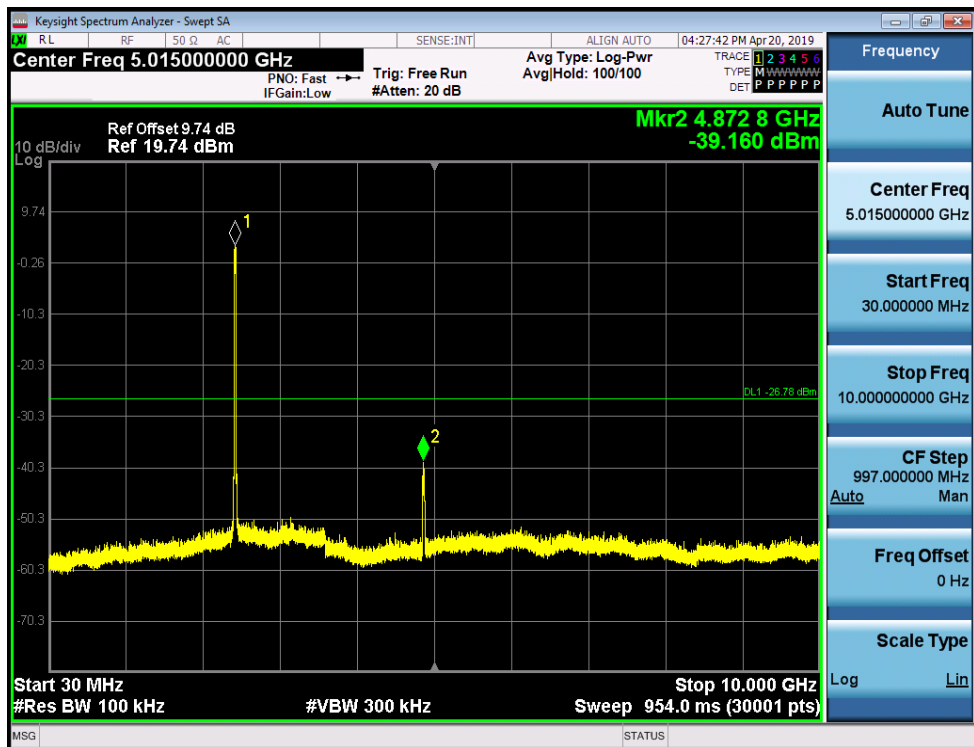
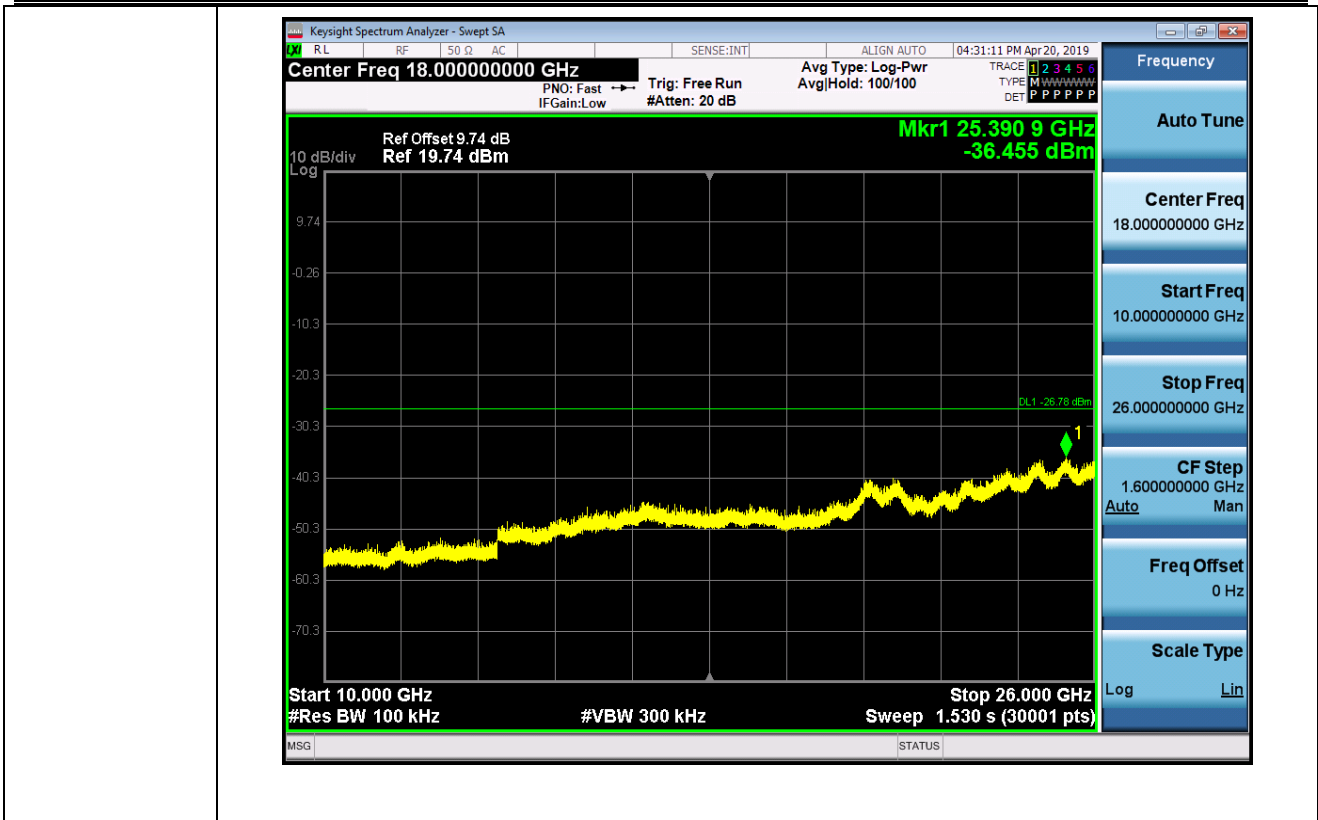


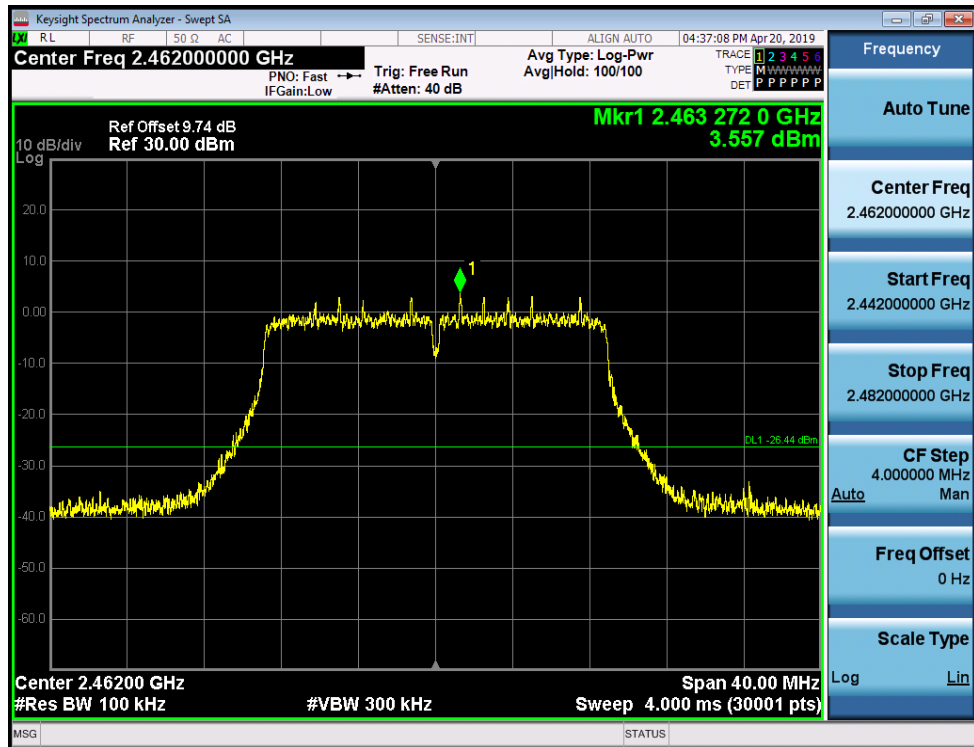
## 11N20\_MCH\_Graphs

 Pref/11N20/MC  
H

 Puw/11N20/M  
CH


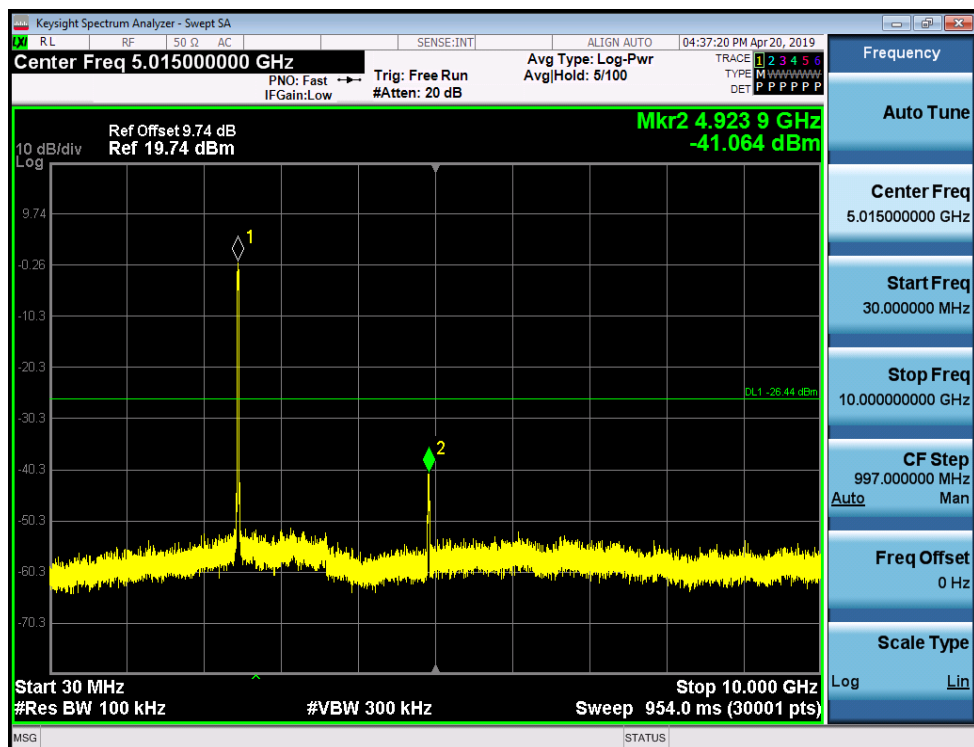


11N20\_HCH\_Graphs

Pref/11N20/HCH



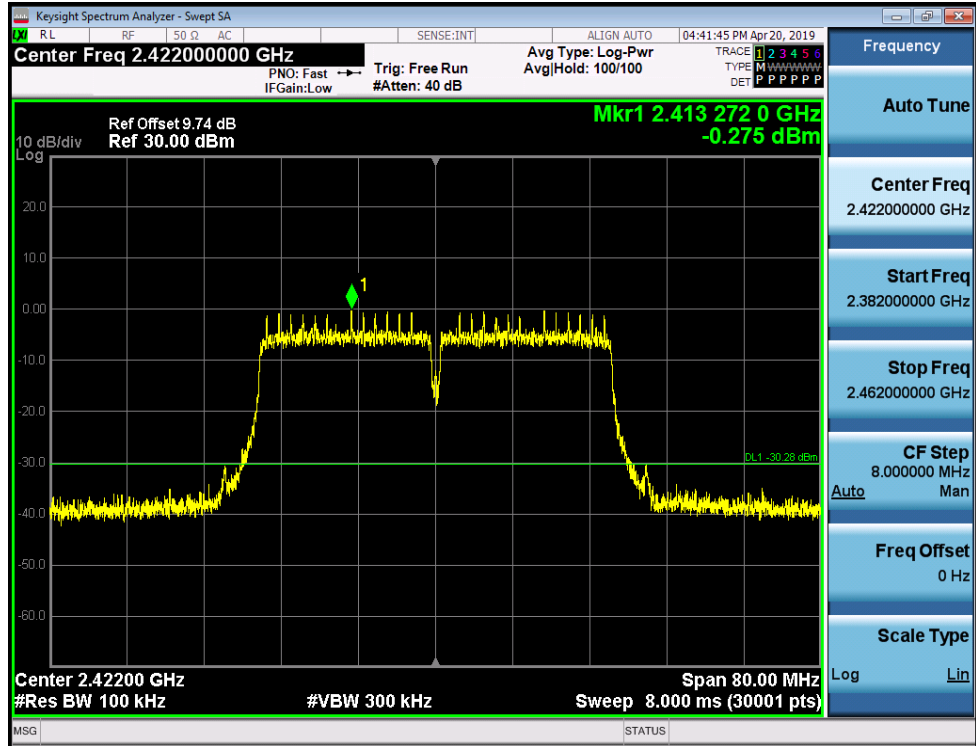
Puw/11N20/HCH



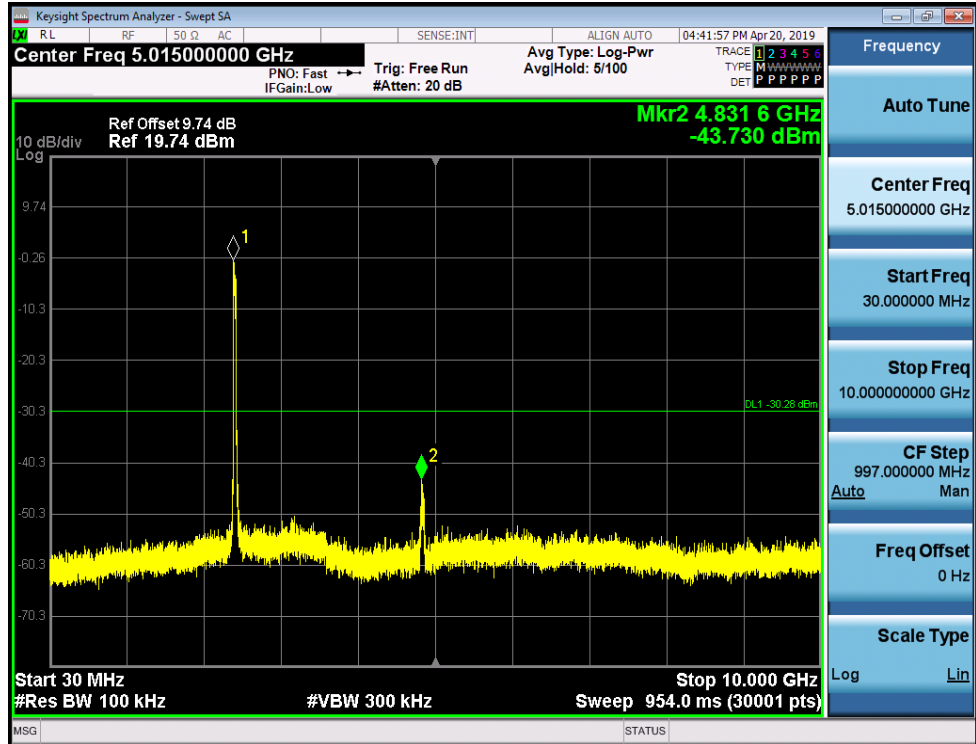


11N40\_LCH\_Graphs

Pref/11N40/LCH



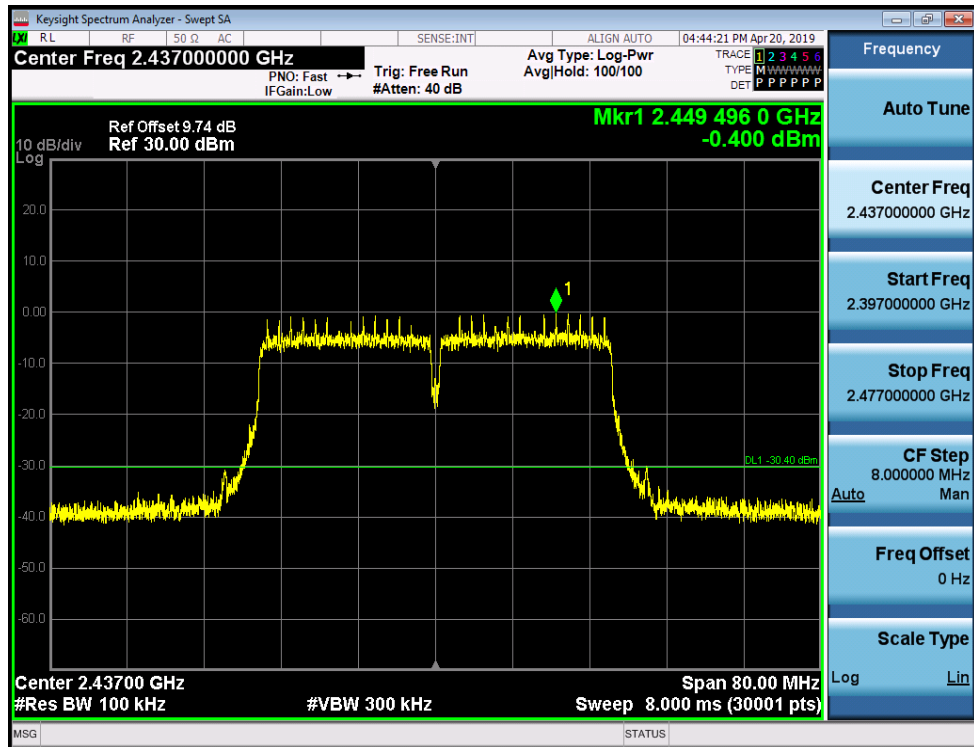
Puw/11N40/LCH



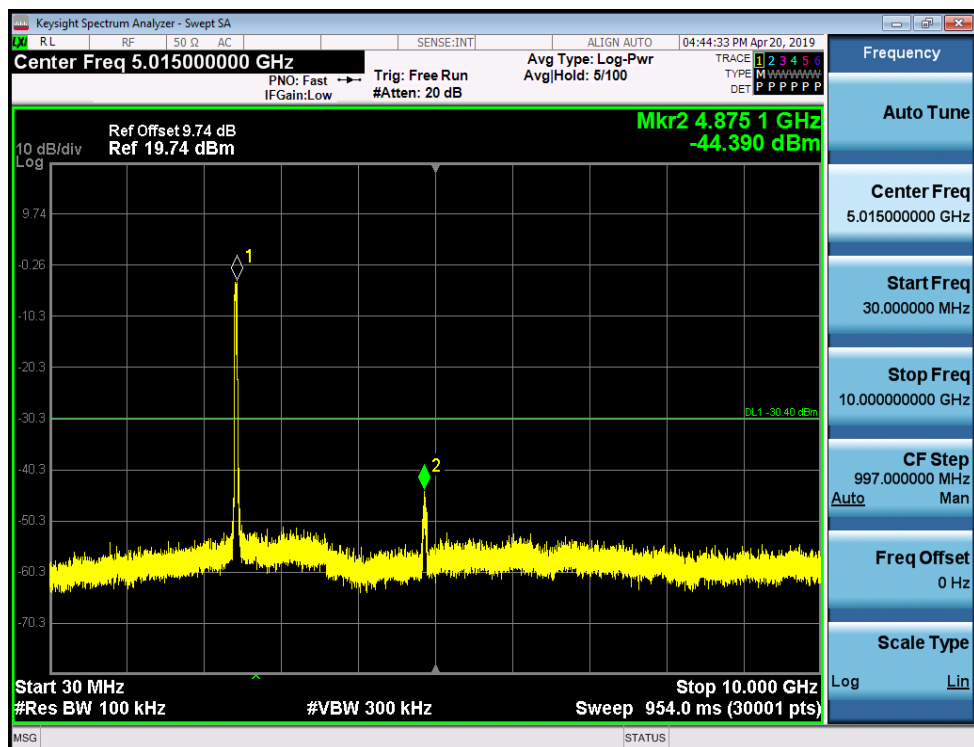


## 11N40\_MCH\_Graphs

Pref/11N40/MCH



Puw/11N40/MCH

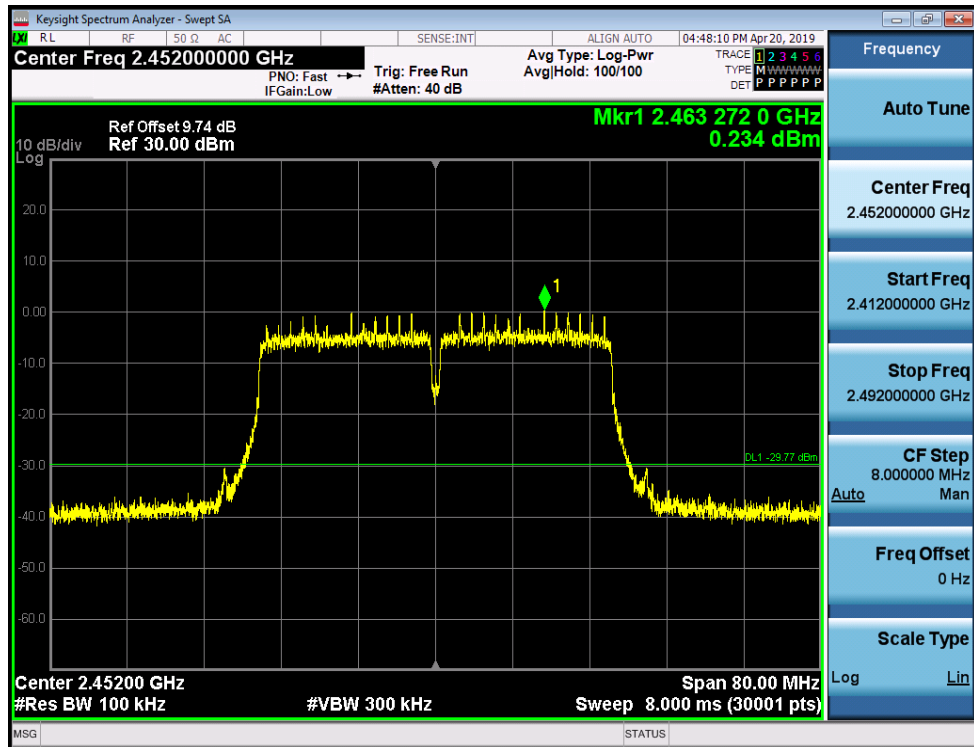




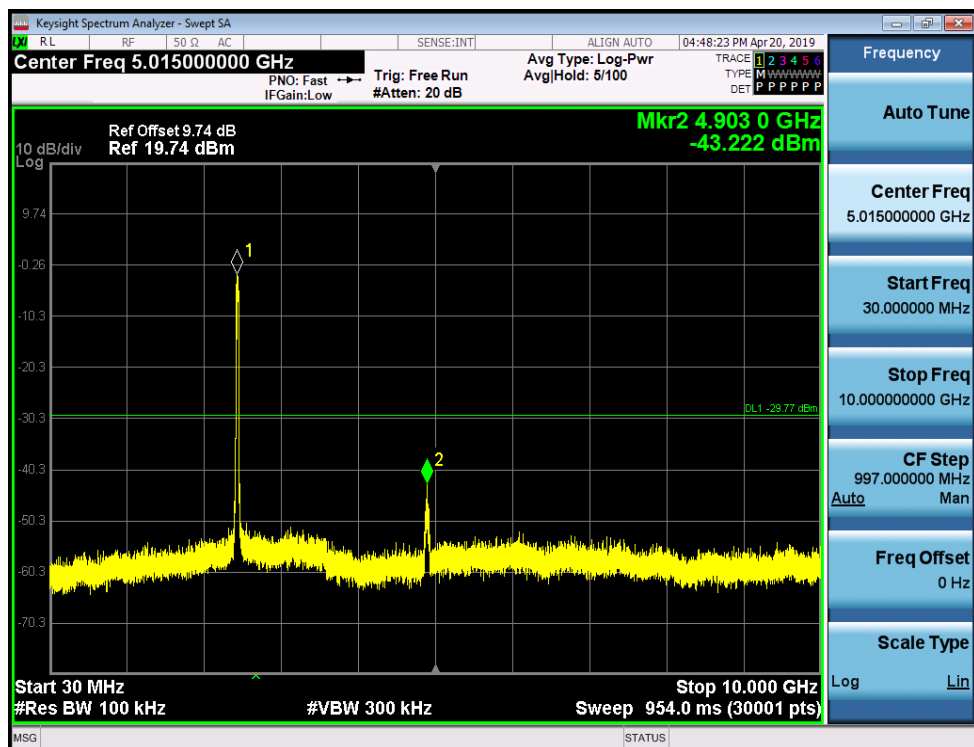


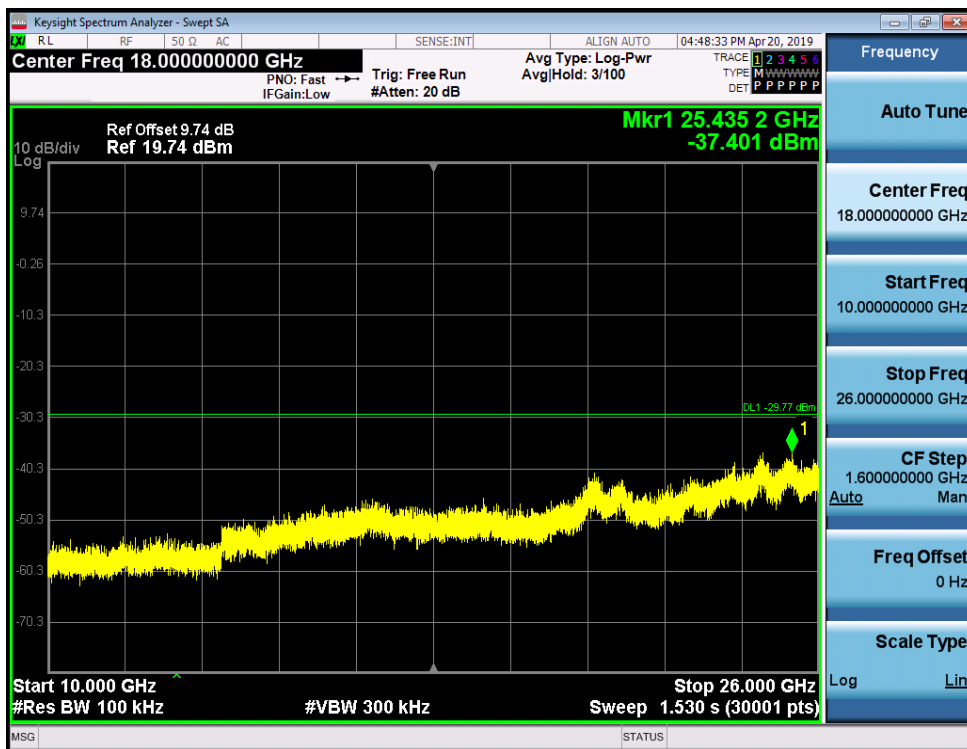
11N40\_HCH\_Graphs

Pref/11N40/HCH



Puw/11N40/HCH





## 4.5 Radiated Band Edges and Spurious Emission Measurement

### 4.5.1 Limit of Radiated Band Edges and Spurious Emission

FCC §15.247 (d)

IC RSS-247 5.5

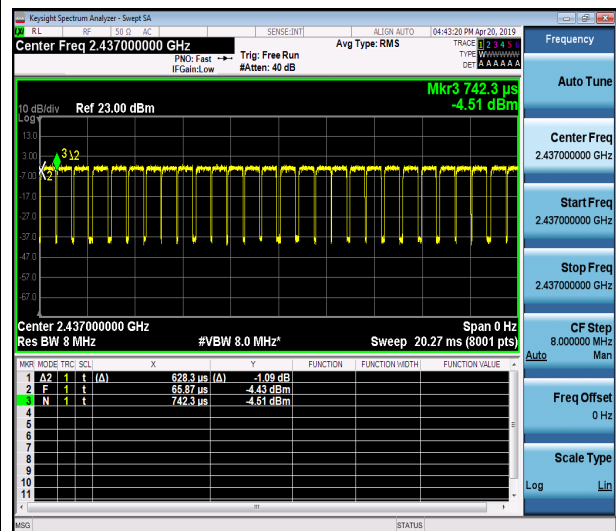
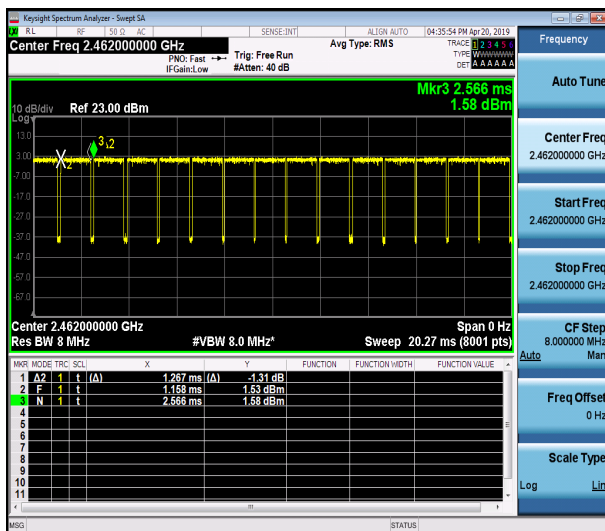
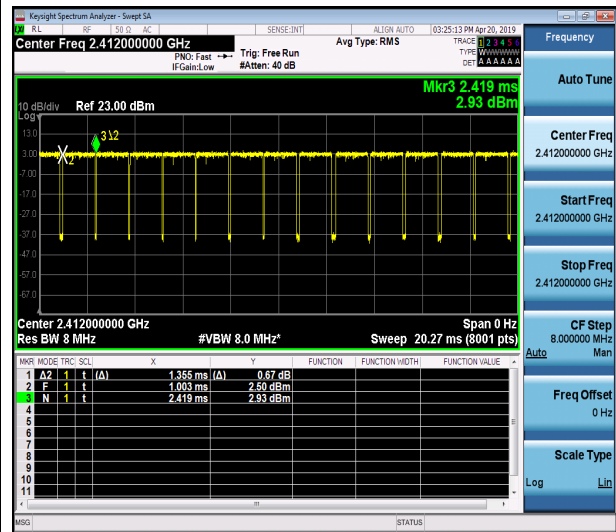
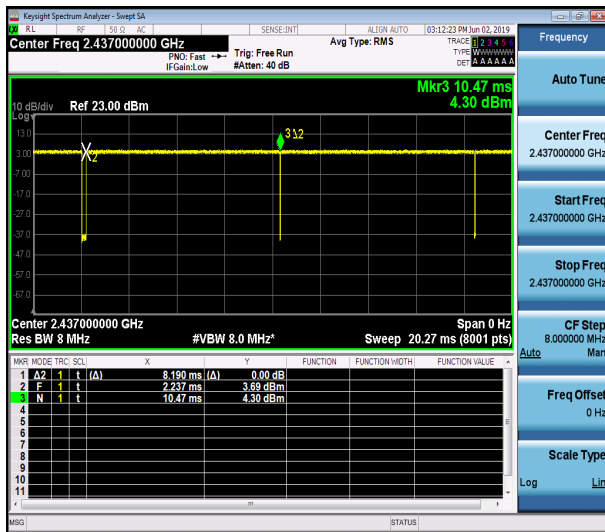
In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

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

#### 4.5.2 Test Procedures

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The measurement distance is 3 meter.
3. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW=100 kHz for  $f < 1$  GHz, RBW=1MHz for  $f > 1$ GHz ; VBW  $\geq$  3RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak
  - (3) For average measurement:  
VBW = 10 Hz, when duty cycle is no less than 98 percent.  
VBW  $\geq$  1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11b	99.51 %	8.190	0.12	1
802.11g	95.71 %	1.355	0.74	1
2.4GHz 802.11n HT20	89.93 %	1.267	0.79	1
2.4GHz 802.11n HT40	92.88 %	0.628	1.59	3

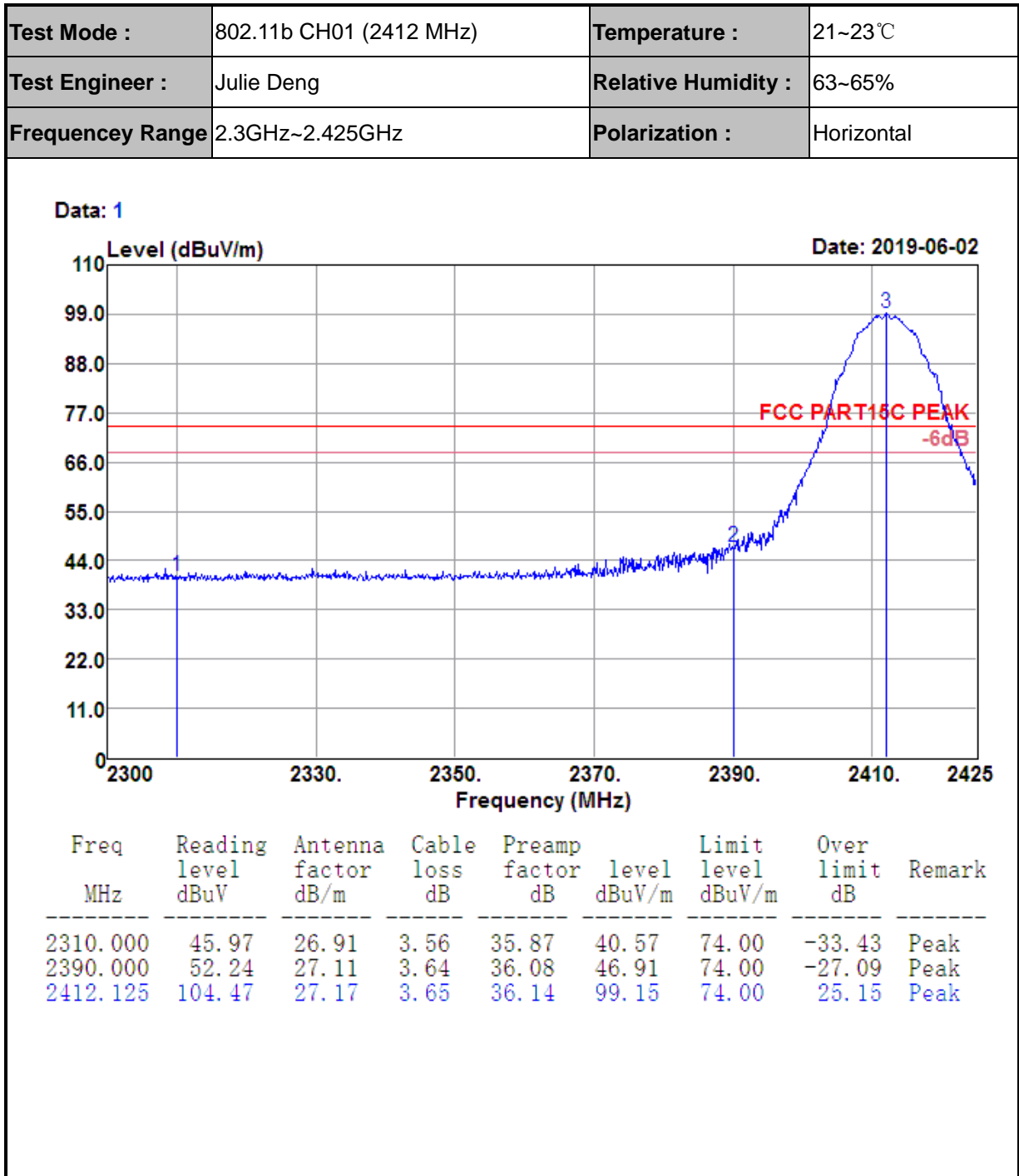


6. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

#### 4.5.3 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

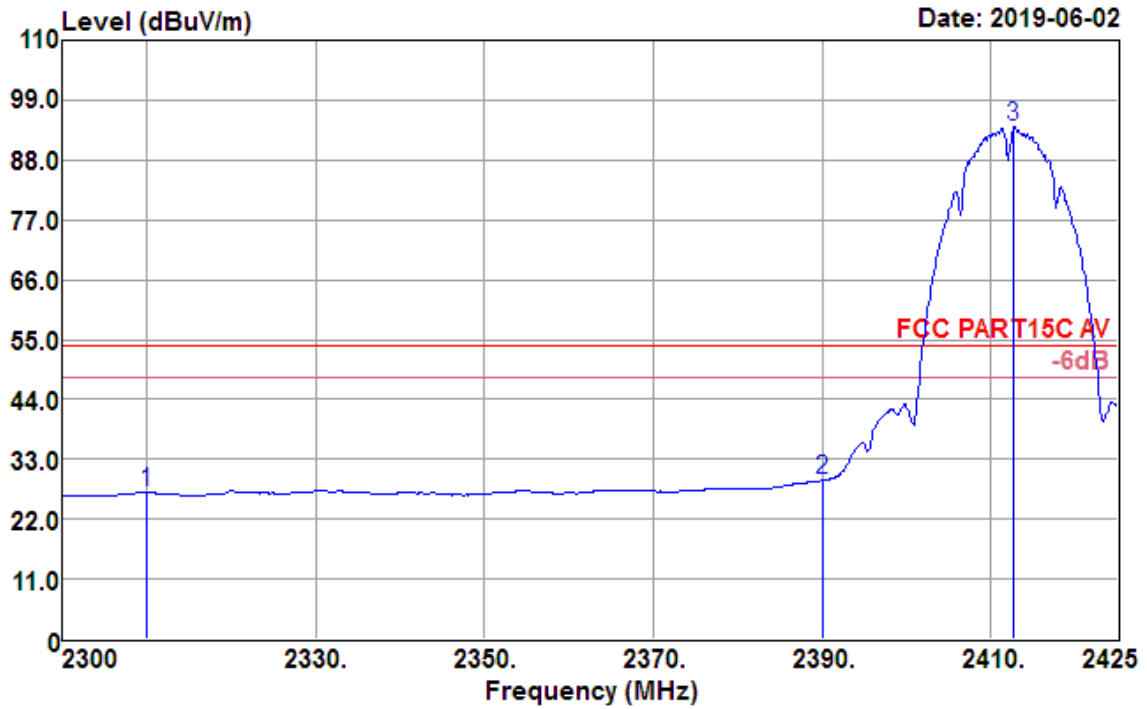
The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

#### 4.5.4 Test Result of Radiated Spurious at Band Edges



Test Mode :	802.11b CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Horizontal

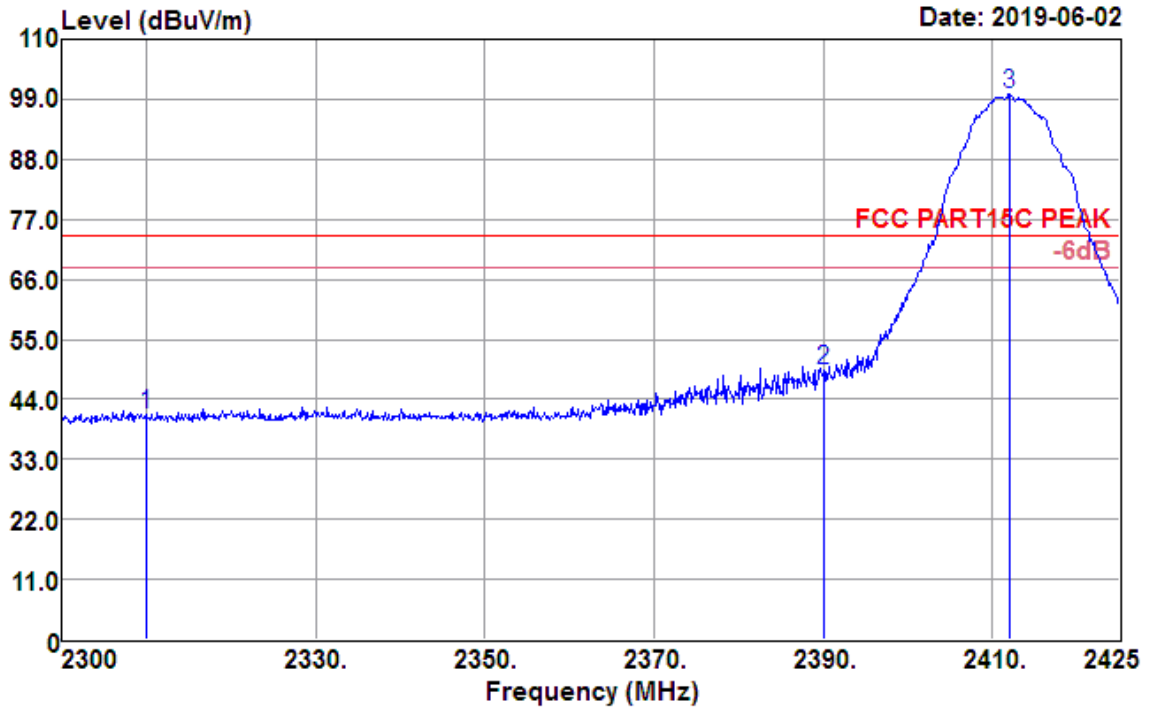
Data: 2



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	32.25	26.91	3.56	35.87	26.85	54.00	-27.15	Average
2390.000	34.48	27.11	3.64	36.08	29.15	54.00	-24.85	Average
2412.750	99.37	27.17	3.65	36.14	94.05	54.00	40.05	Average

Test Mode :	802.11b CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Vertical

Data: 4

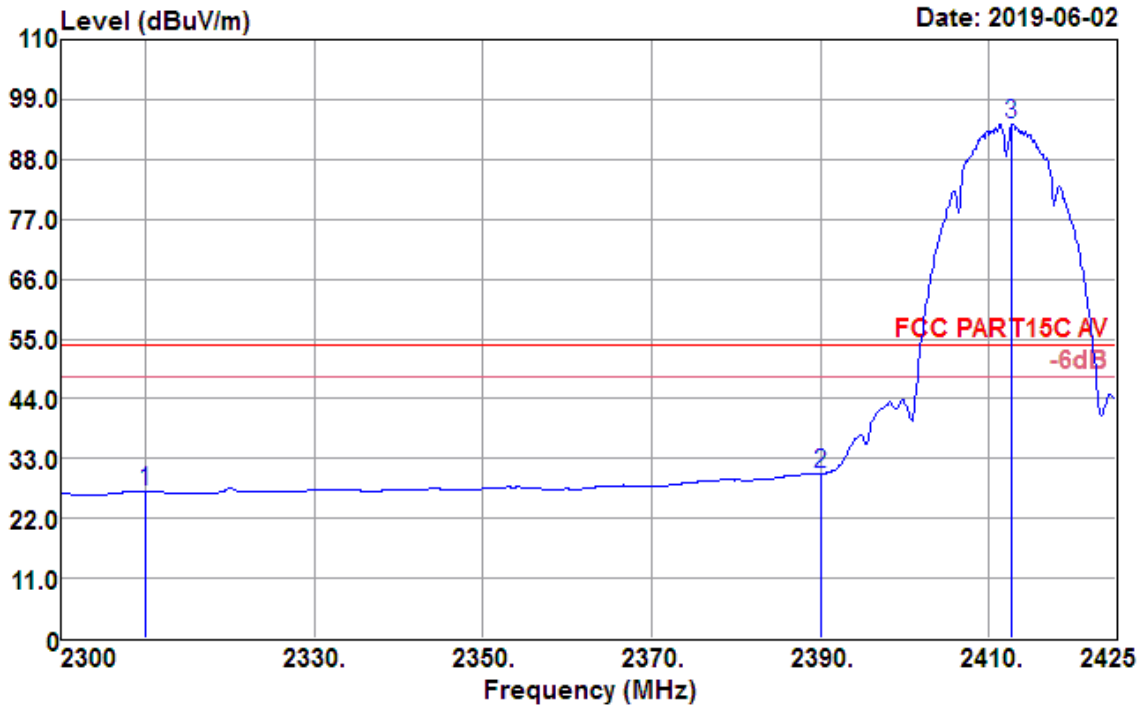


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2310.000	46.57	26.91	3.56	35.87	41.17	74.00	-32.83	Peak
2390.000	54.82	27.11	3.64	36.08	49.49	74.00	-24.51	Peak
2412.000	105.32	27.17	3.65	36.14	100.00	74.00	26.00	Peak



<b>Test Mode :</b>	802.11b CH01 (2412 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.3GHz~2.425GHz	<b>Polarization :</b>	Vertical

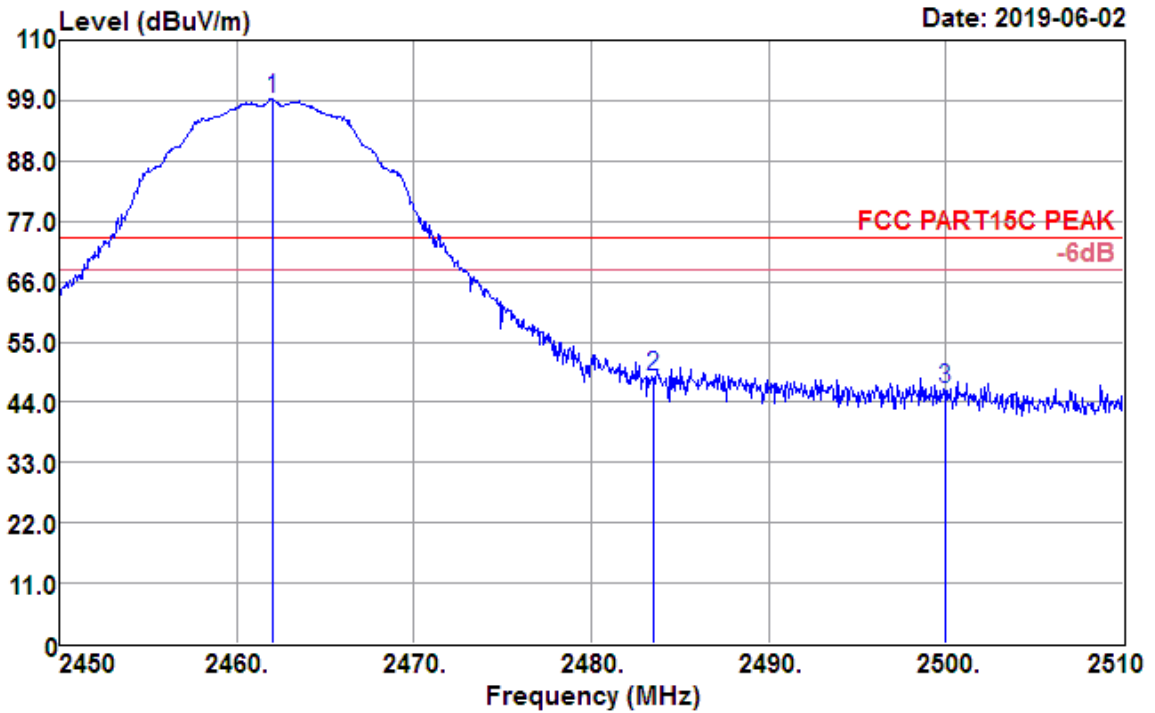
Data: 5



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2310.000	32.35	26.91	3.56	35.87	26.95	54.00	-27.05	Average
2390.000	35.63	27.11	3.64	36.08	30.30	54.00	-23.70	Average
2412.750	99.79	27.17	3.65	36.14	94.47	54.00	40.47	Average

Test Mode :	802.11b CH11 (2462 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.45GHz~2.51GHz	Polarization :	Horizontal

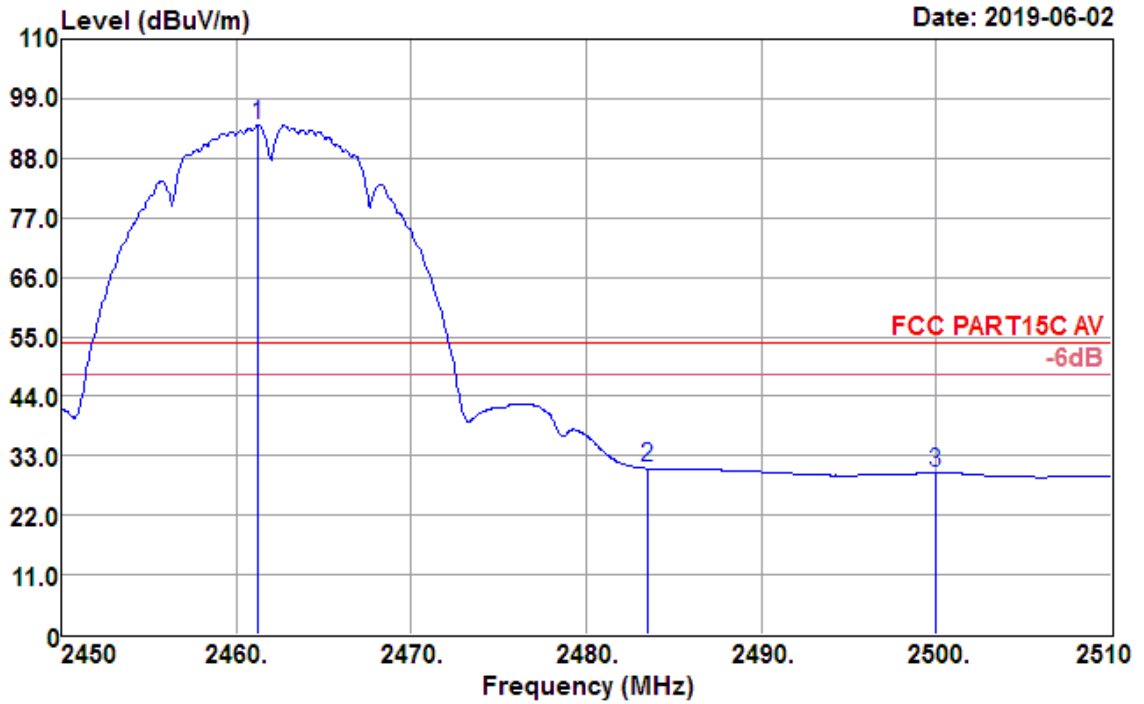
Data: 17



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2462.060	104.51	27.30	3.67	36.27	99.21	74.00	25.21	Peak
2483.500	54.08	27.36	3.68	36.33	48.79	74.00	-25.21	Peak
2500.000	51.81	27.40	3.68	36.37	46.52	74.00	-27.48	Peak

<b>Test Mode :</b>	802.11b CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.45GHz~2.51GHz	<b>Polarization :</b>	Horizontal

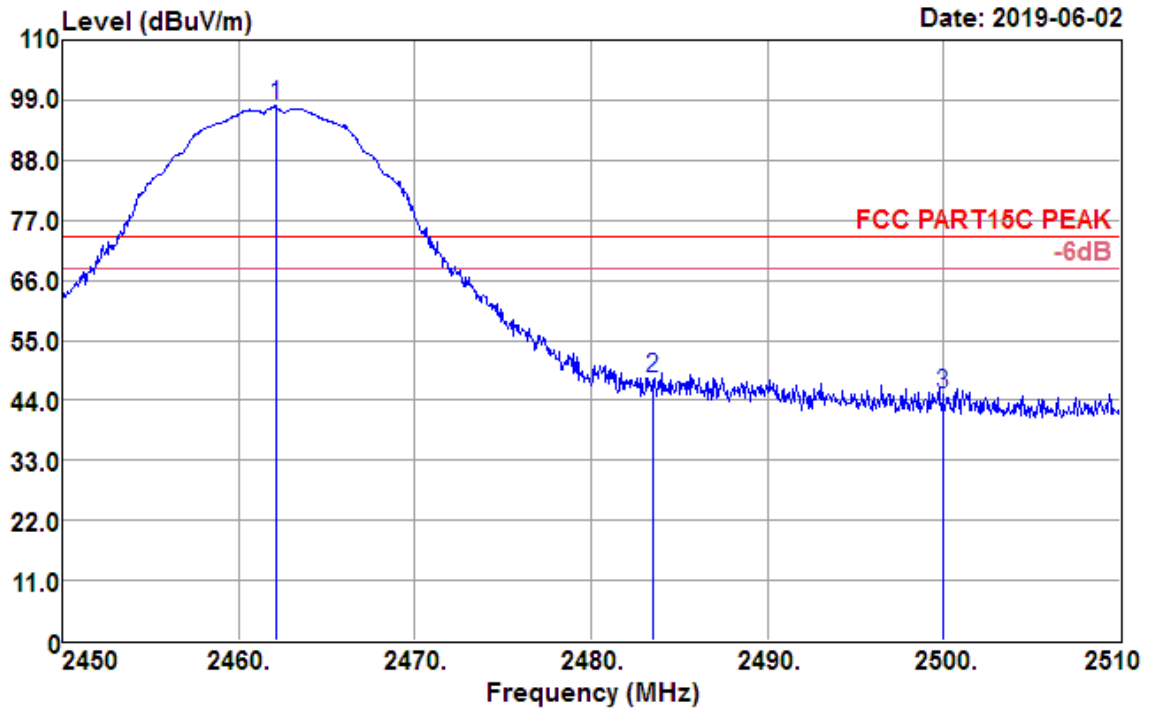
Data: 18



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2461.220	99.40	27.30	3.67	36.27	94.10	54.00	40.10	Average
2483.500	36.04	27.36	3.68	36.33	30.75	54.00	-23.25	Average
2500.000	35.11	27.40	3.68	36.37	29.82	54.00	-24.18	Average

Test Mode :	802.11b CH11 (2462 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.45GHz~2.51GHz	Polarization :	Vertical

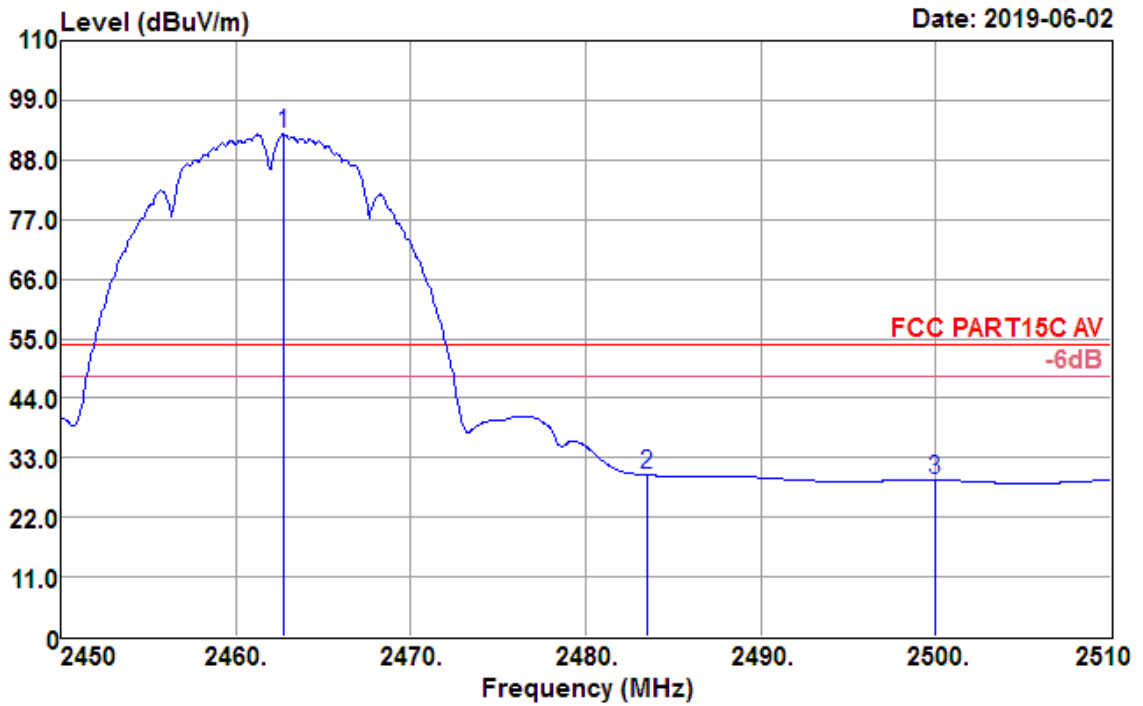
Data: 20



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2462.120	103.19	27.30	3.67	36.27	97.89	74.00	23.89	Peak
2483.500	53.49	27.36	3.68	36.33	48.20	74.00	-25.80	Peak
2500.000	50.47	27.40	3.68	36.37	45.18	74.00	-28.82	Peak

<b>Test Mode :</b>	802.11b CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.45GHz~2.51GHz	<b>Polarization :</b>	Vertical

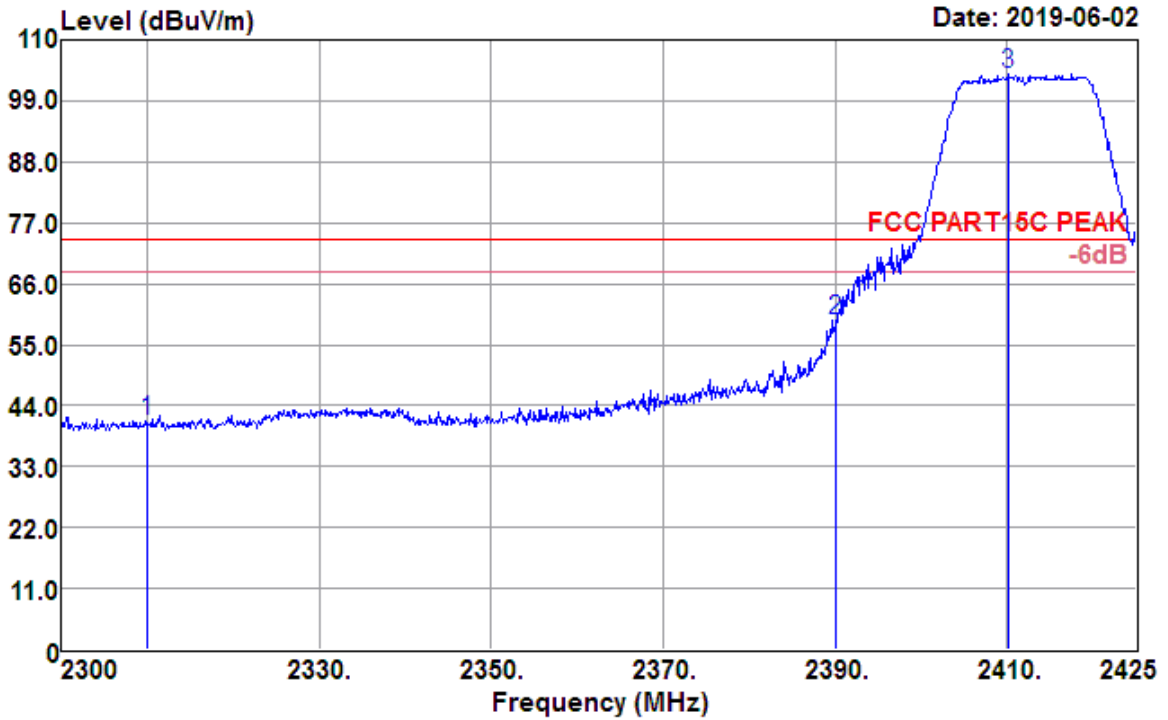
Data: 21



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2462.720	98.07	27.30	3.67	36.27	92.77	54.00	38.77	Average
2483.500	35.15	27.36	3.68	36.33	29.86	54.00	-24.14	Average
2500.000	34.28	27.40	3.68	36.37	28.99	54.00	-25.01	Average

Test Mode :	802.11g CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Horizontal

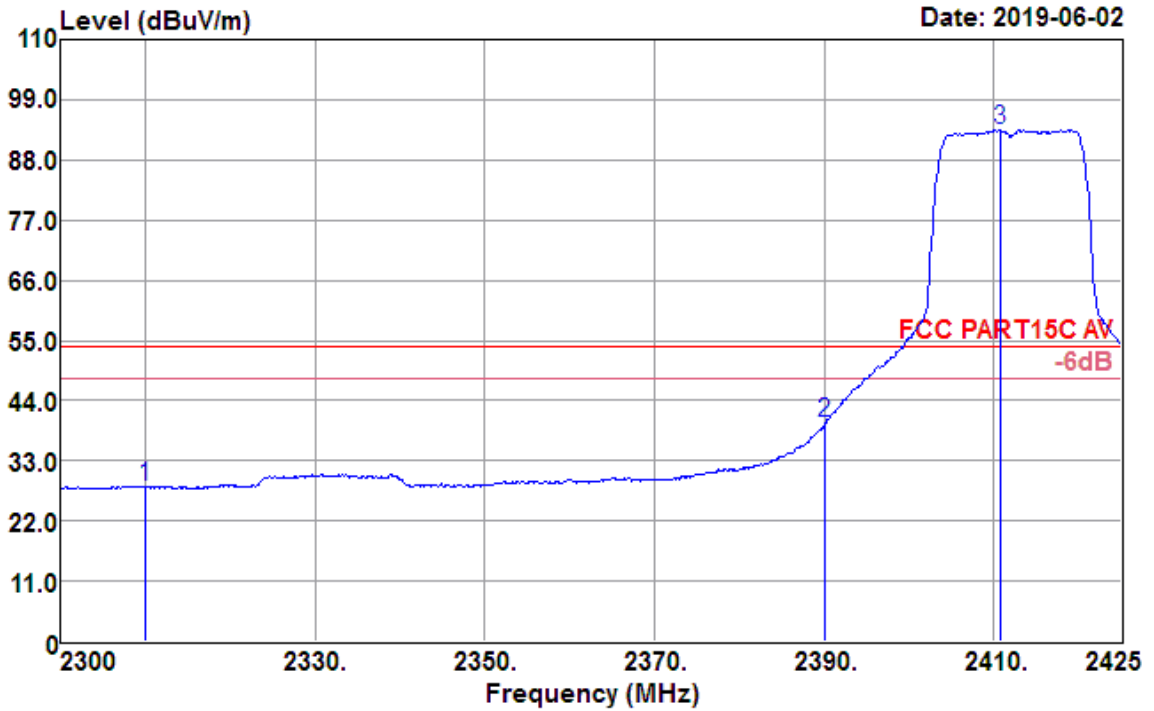
Data: 31



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	46.54	26.91	3.56	35.87	41.14	74.00	-32.86	Peak
2390.000	64.76	27.11	3.64	36.08	59.43	74.00	-14.57	Peak
2410.250	109.21	27.17	3.65	36.13	103.90	74.00	29.90	Peak

Test Mode :	802.11g CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Horizontal

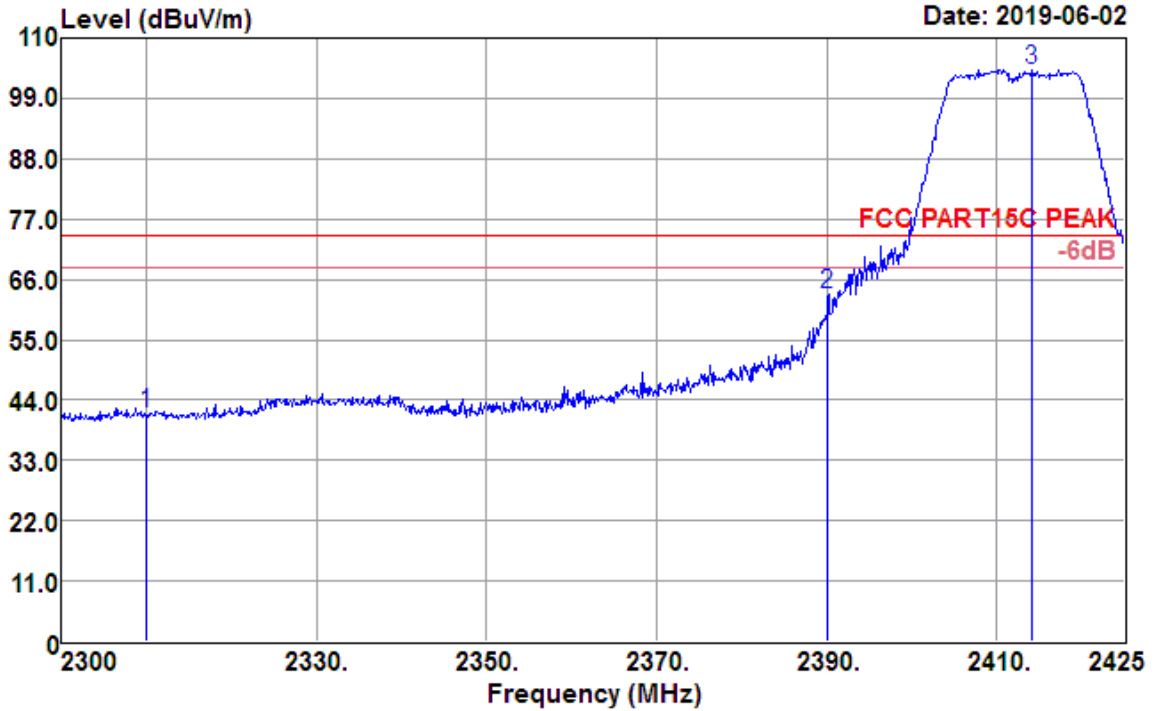
Data: 32



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	33.67	26.91	3.56	35.87	28.27	54.00	-25.73	Average
2390.000	45.33	27.11	3.64	36.08	40.00	54.00	-14.00	Average
2410.875	98.79	27.17	3.65	36.13	93.48	54.00	39.48	Average

Test Mode :	802.11g CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Vertical

Data: 34

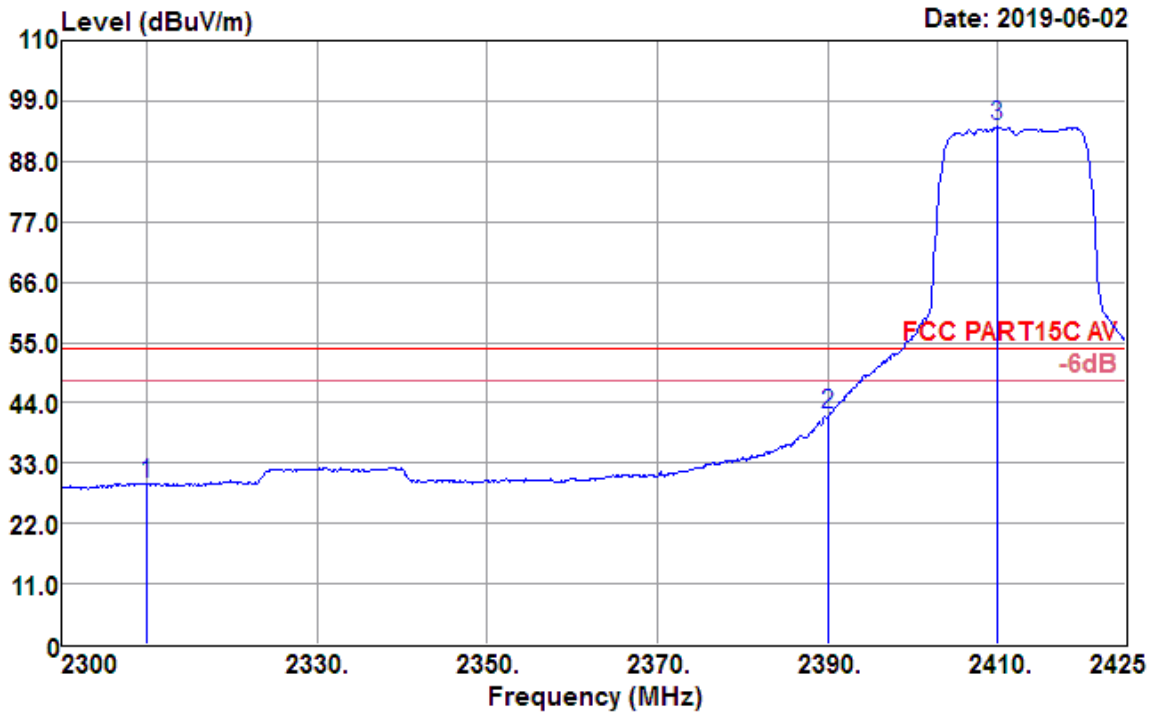


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	46.99	26.91	3.56	35.87	41.59	74.00	-32.41	Peak
2390.000	68.66	27.11	3.64	36.08	63.33	74.00	-10.67	Peak
2414.125	109.51	27.18	3.65	36.14	104.20	74.00	30.20	Peak



Test Mode :	802.11g CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Vertical

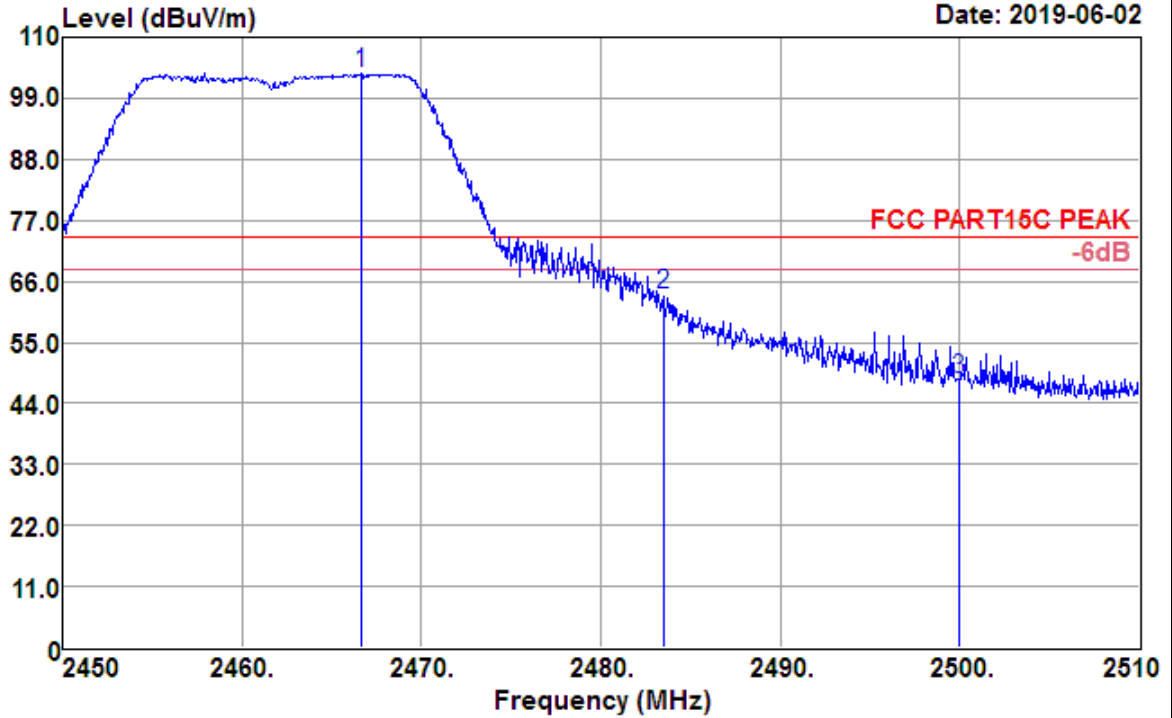
Data: 35



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	34.71	26.91	3.56	35.87	29.31	54.00	-24.69	Peak
2390.000	47.20	27.11	3.64	36.08	41.87	54.00	-12.13	Peak
2409.875	99.60	27.17	3.65	36.13	94.29	54.00	40.29	Peak

Test Mode :	802.11g CH11 (2462 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.45GHz~2.51GHz	Polarization :	Horizontal

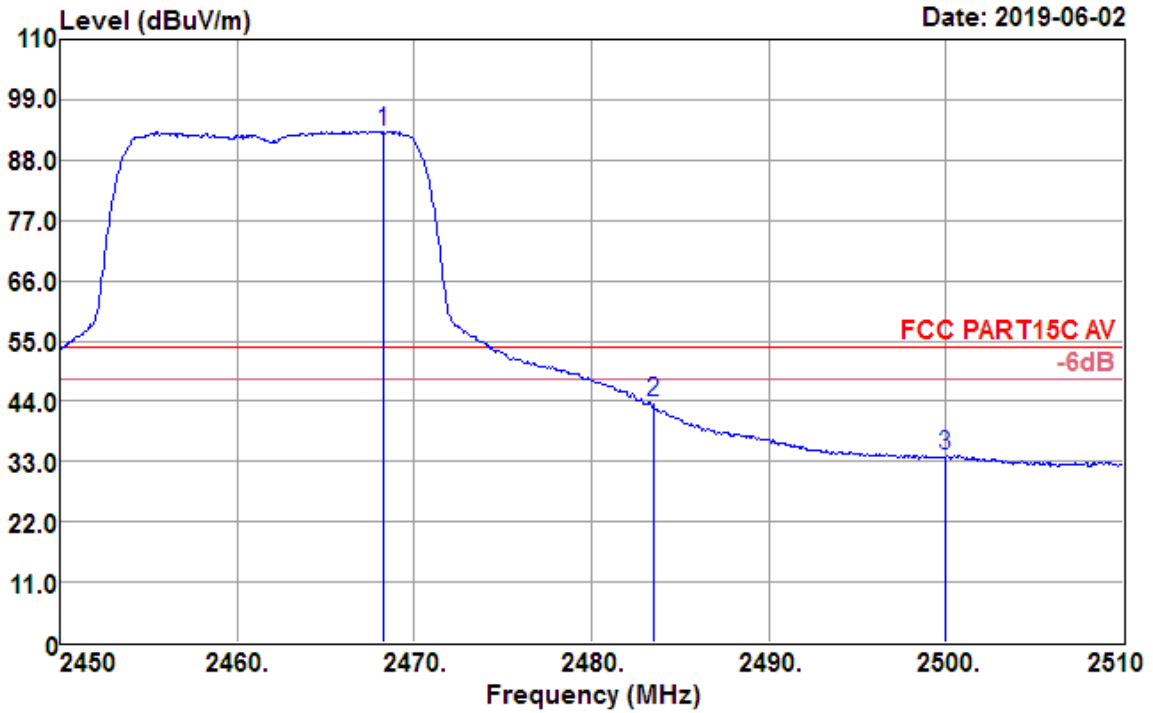
Data: 47



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2466.680	108.98	27.31	3.67	36.28	103.68	74.00	29.68	Peak
2483.500	68.75	27.36	3.68	36.33	63.46	74.00	-10.54	Peak
2500.000	53.73	27.40	3.68	36.37	48.44	74.00	-25.56	Peak

<b>Test Mode :</b>	802.11g CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.45GHz~2.51GHz	<b>Polarization :</b>	Horizontal

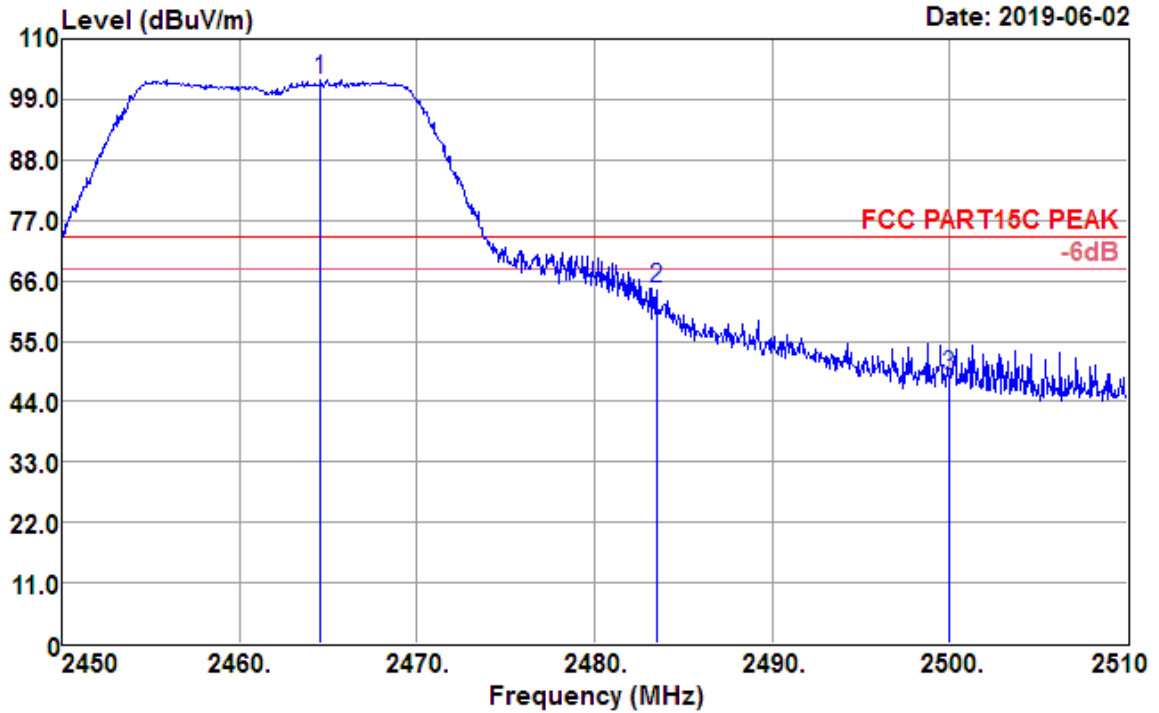
Data: 48



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2468.240	98.54	27.32	3.67	36.29	93.24	54.00	39.24	Average
2483.500	49.12	27.36	3.68	36.33	43.83	54.00	-10.17	Average
2500.000	39.31	27.40	3.68	36.37	34.02	54.00	-19.98	Average

Test Mode :	802.11g CH11 (2462 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.45GHz~2.51GHz	Polarization :	Vertical

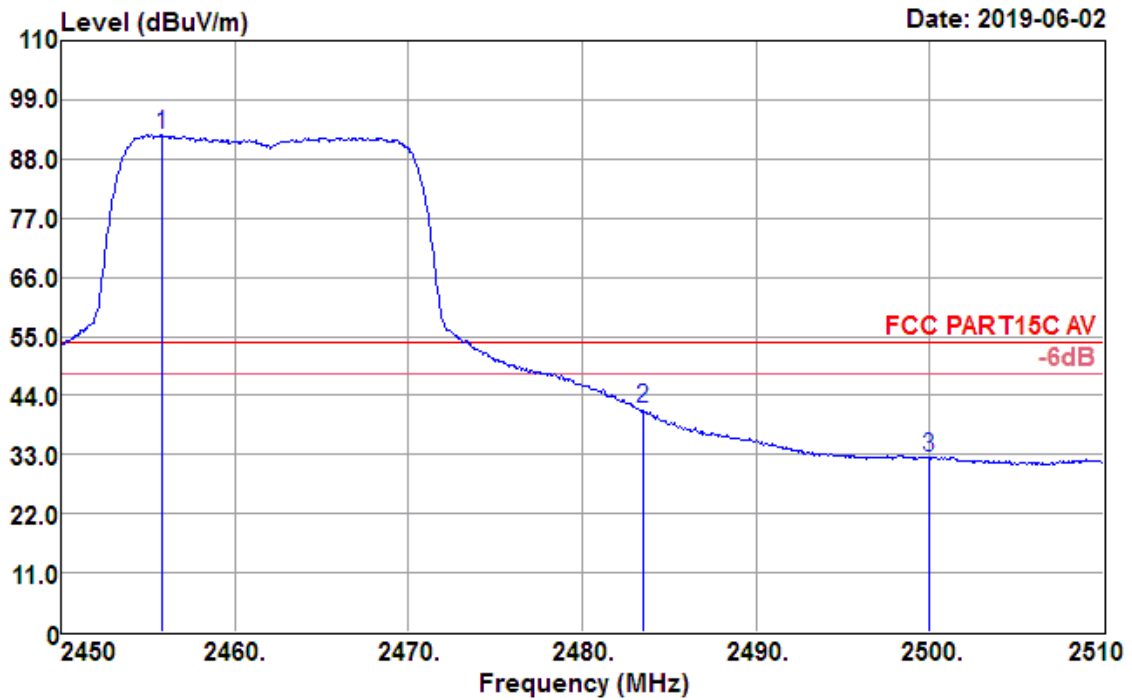
Data: 50



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2464.580	107.93	27.31	3.67	36.28	102.63	74.00	28.63	Peak
2483.500	69.71	27.36	3.68	36.33	64.42	74.00	-9.58	Peak
2500.000	53.97	27.40	3.68	36.37	48.68	74.00	-25.32	Peak

<b>Test Mode :</b>	802.11g CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.45GHz~2.51GHz	<b>Polarization :</b>	Vertical

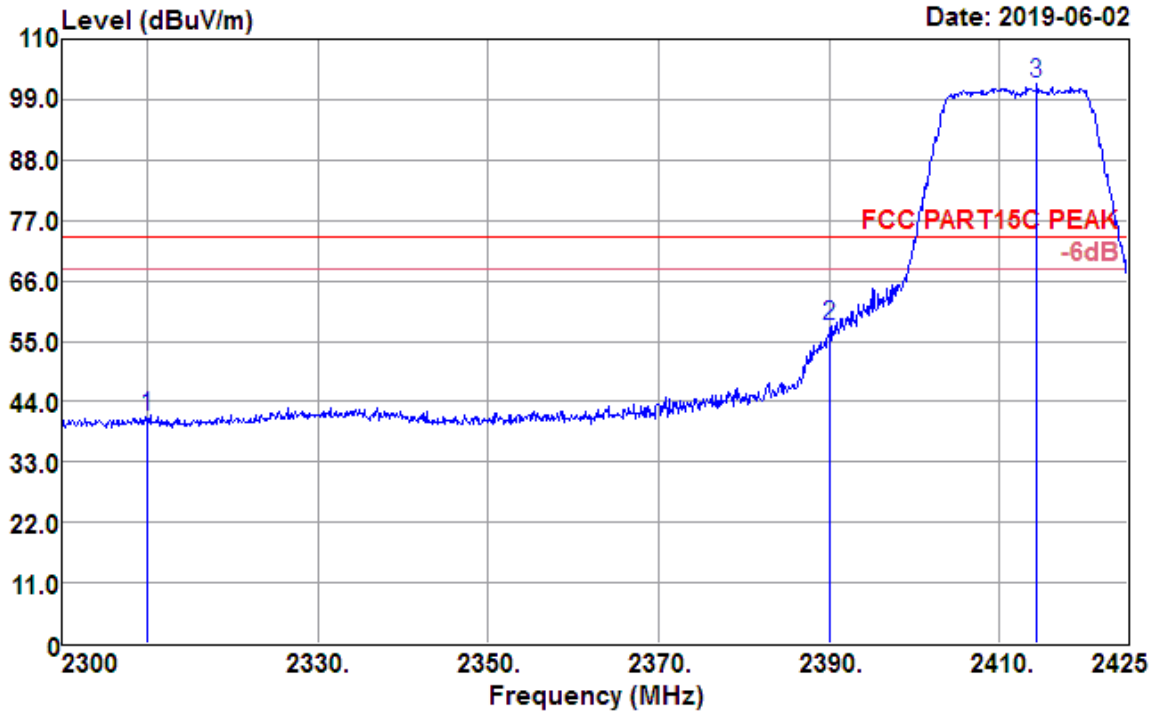
Data: 51



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2455.820	97.71	27.29	3.67	36.25	92.42	54.00	38.42	Average
2483.500	46.82	27.36	3.68	36.33	41.53	54.00	-12.47	Average
2500.000	37.74	27.40	3.68	36.37	32.45	54.00	-21.55	Average

Test Mode :	802.11n HT20 CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Horizontal

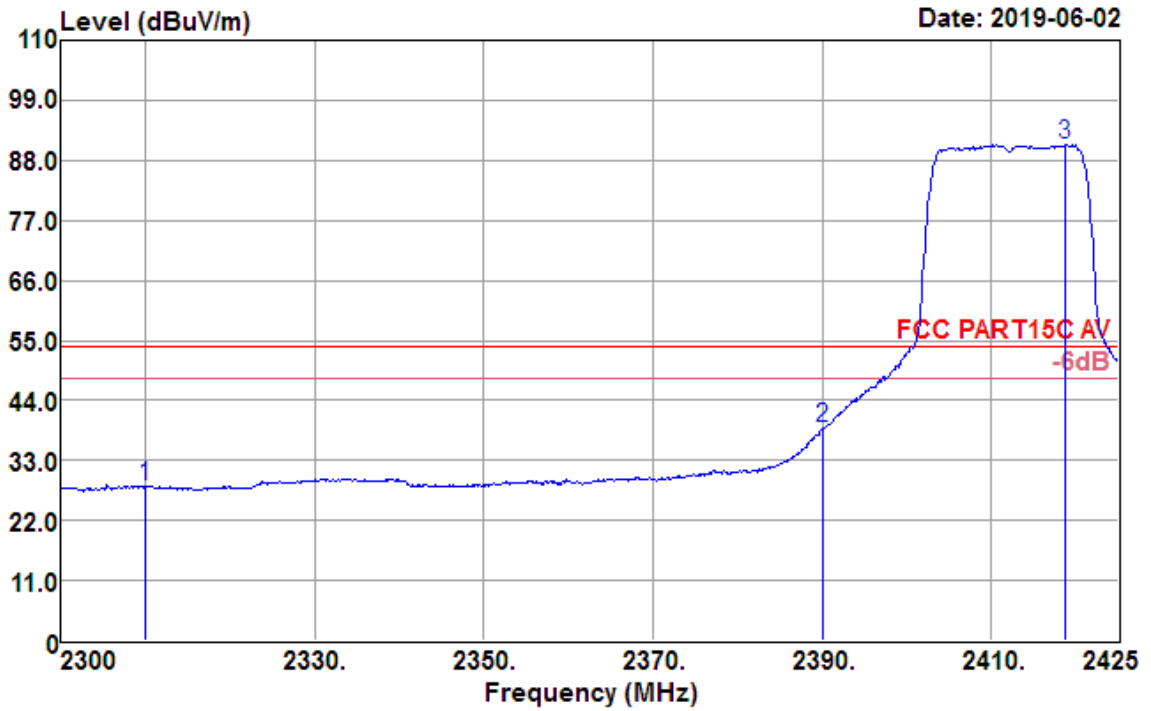
Data: 56



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	46.58	26.91	3.56	35.87	41.18	74.00	-32.82	Peak
2390.000	63.14	27.11	3.64	36.08	57.81	74.00	-16.19	Peak
2414.375	107.29	27.18	3.66	36.14	101.99	74.00	27.99	Peak

Test Mode :	802.11n HT20 CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Horizontal

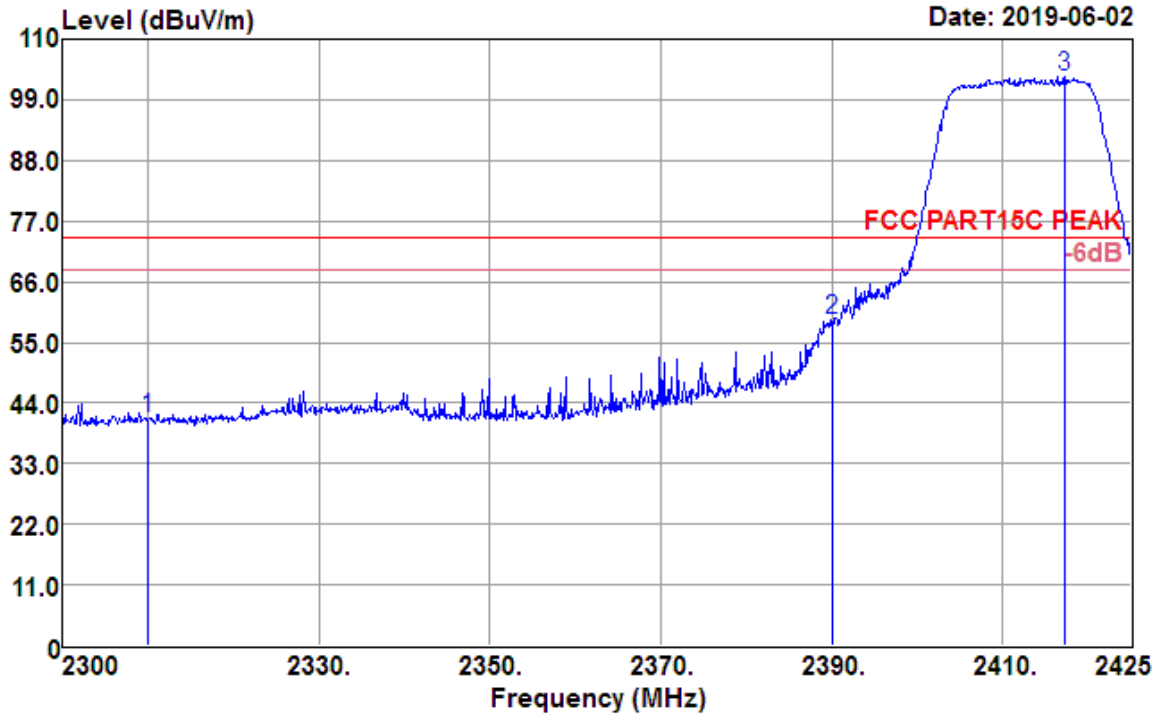
Data: 57



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	33.69	26.91	3.56	35.87	28.29	54.00	-25.71	Average
2390.000	44.30	27.11	3.64	36.08	38.97	54.00	-15.03	Average
2418.625	96.18	27.19	3.66	36.16	90.87	54.00	36.87	Average

Test Mode :	802.11n HT20 CH01 (2412 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.425GHz	Polarization :	Vertical

Data: 53

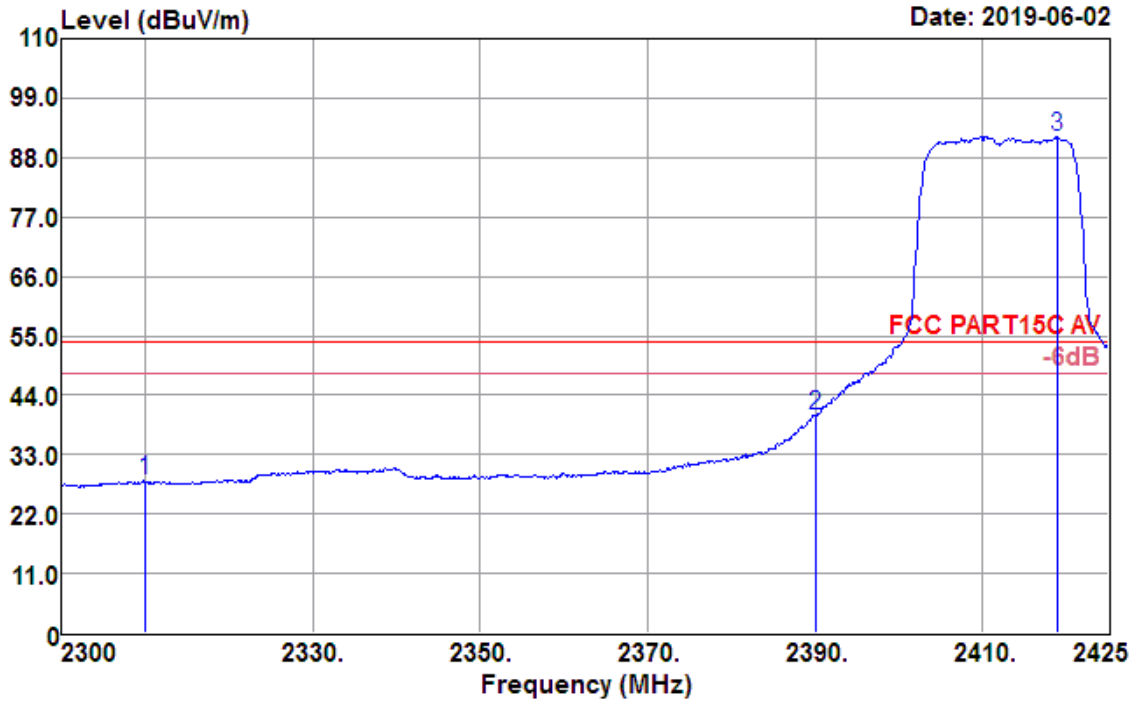


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2310.000	46.78	26.91	3.56	35.87	41.38	74.00	-32.62	Peak
2390.000	64.29	27.11	3.64	36.08	58.96	74.00	-15.04	Peak
2417.250	108.65	27.18	3.66	36.15	103.34	74.00	29.34	Peak



<b>Test Mode :</b>	802.11n HT20 CH01 (2412 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.3GHz~2.425GHz	<b>Polarization :</b>	Vertical

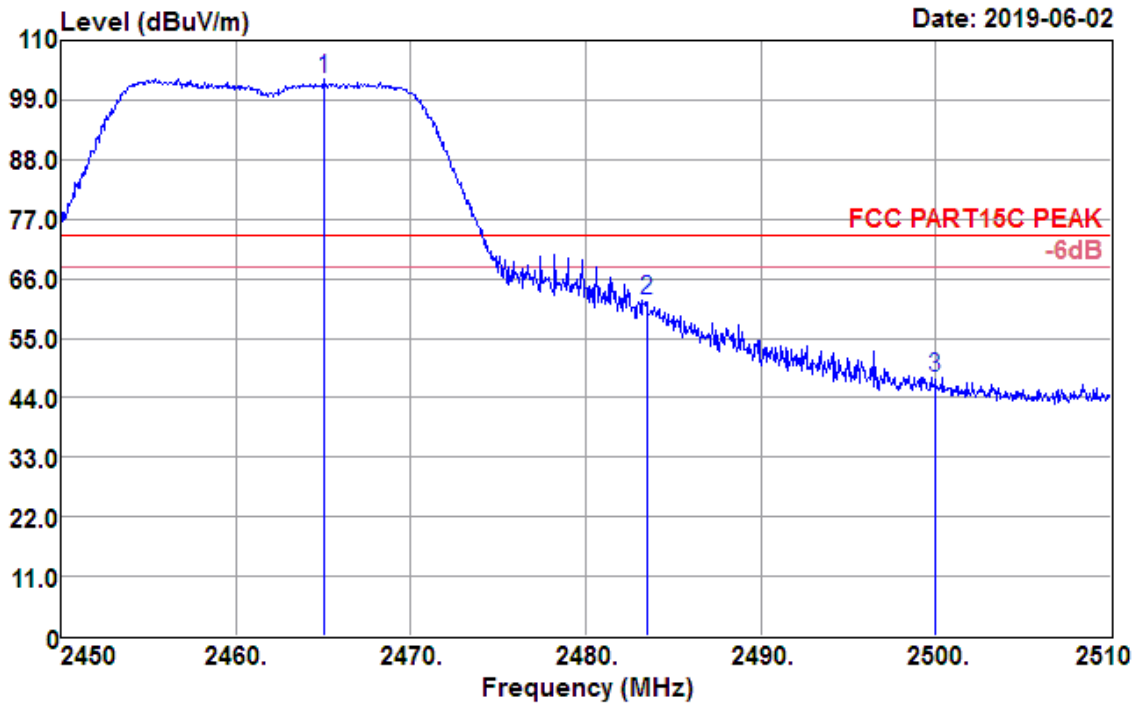
Data: 54



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2310.000	33.50	26.91	3.56	35.87	28.10	54.00	-25.90	Average
2390.000	45.59	27.11	3.64	36.08	40.26	54.00	-13.74	Average
2418.875	97.20	27.19	3.66	36.16	91.89	54.00	37.89	Average

<b>Test Mode :</b>	802.11n HT20 CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.45GHz~2.51GHz	<b>Polarization :</b>	Horizontal

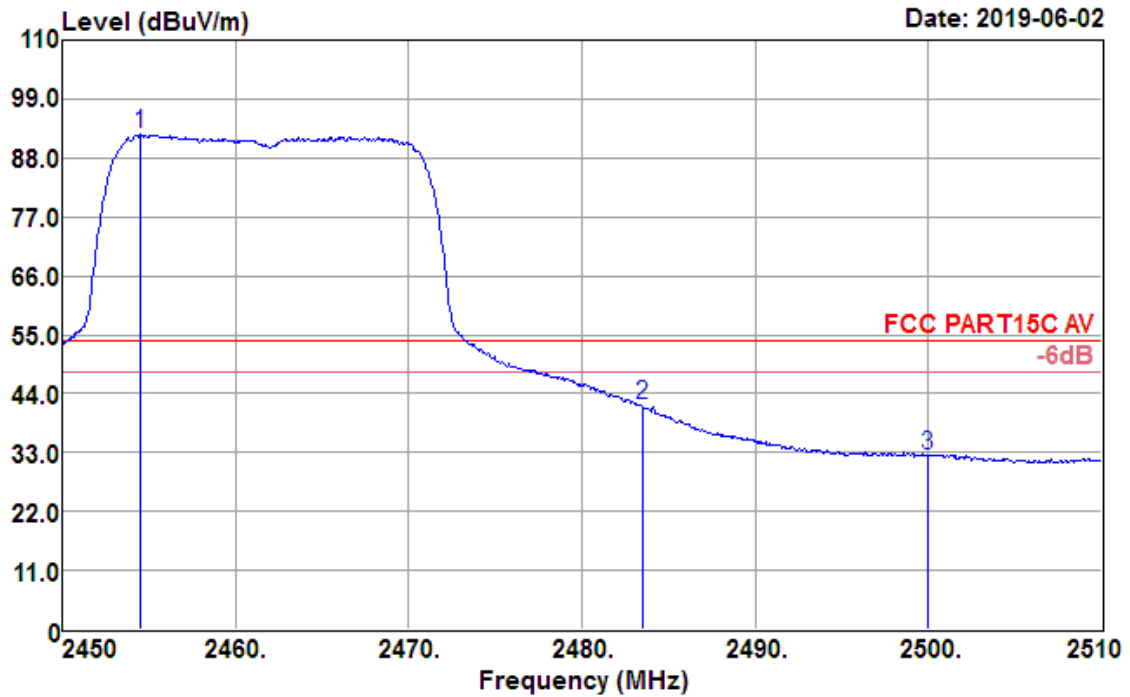
Data: 69



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2465.000	108.15	27.31	3.67	36.28	102.85	74.00	28.85	Peak
2483.500	67.12	27.36	3.68	36.33	61.83	74.00	-12.17	Peak
2500.000	53.07	27.40	3.68	36.37	47.78	74.00	-26.22	Peak

<b>Test Mode :</b>	802.11n HT20 CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.45GHz~2.51GHz	<b>Polarization :</b>	Horizontal

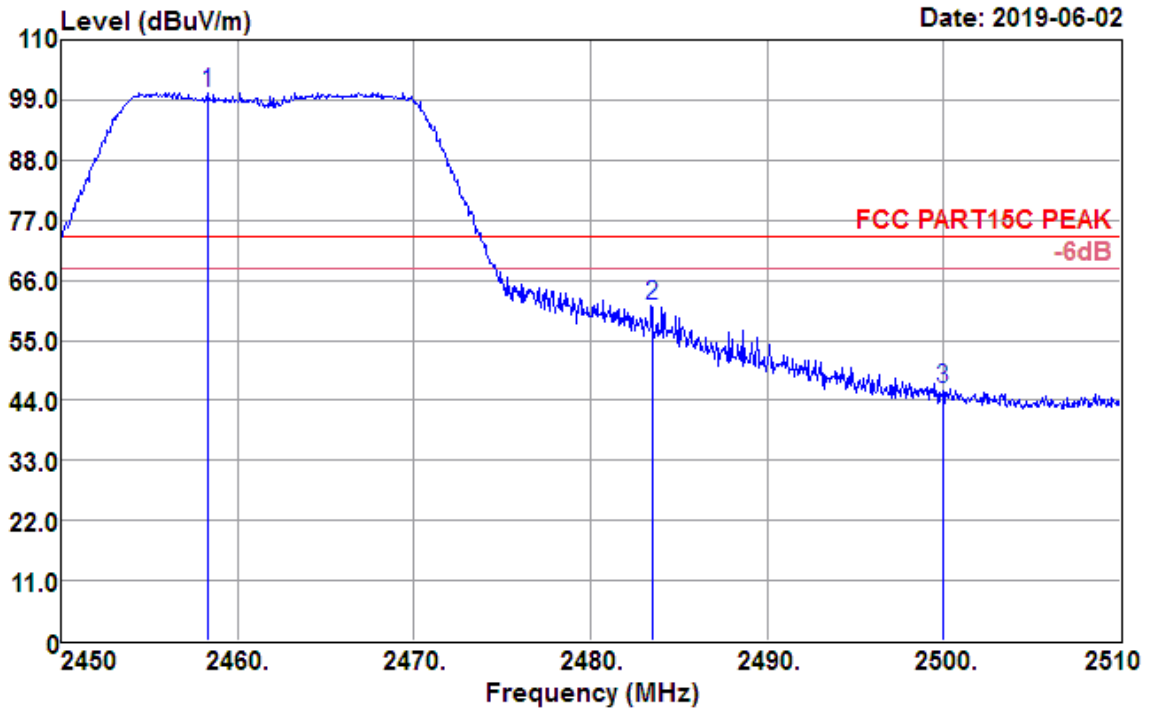
Data: 70



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2454.560	97.63	27.28	3.67	36.25	92.33	54.00	38.33	Average
2483.500	47.18	27.36	3.68	36.33	41.89	54.00	-12.11	Average
2500.000	37.89	27.40	3.68	36.37	32.60	54.00	-21.40	Average

Test Mode :	802.11n HT20 CH11 (2462 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.45GHz~2.51GHz	Polarization :	Vertical

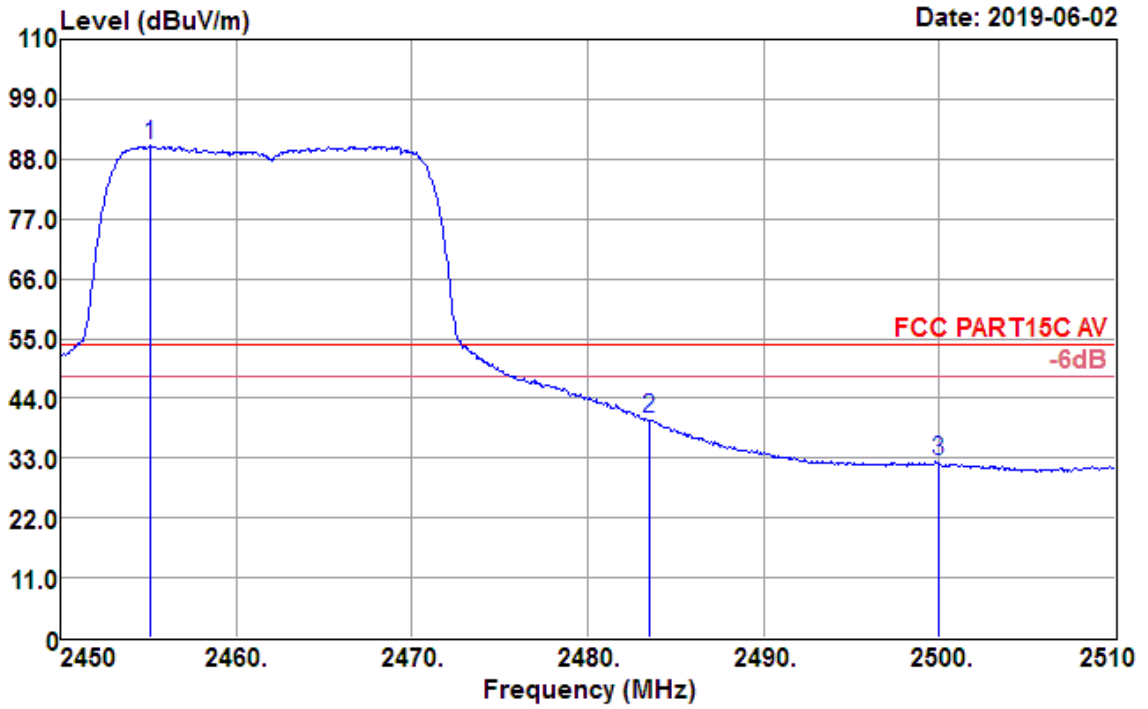
Data: 72



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2458.280	105.71	27.29	3.67	36.26	100.41	74.00	26.41	Peak
2483.500	66.47	27.36	3.68	36.33	61.18	74.00	-12.82	Peak
2500.000	51.37	27.40	3.68	36.37	46.08	74.00	-27.92	Peak

Test Mode :	802.11n HT20 CH11 (2462 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.45GHz~2.51GHz	Polarization :	Vertical

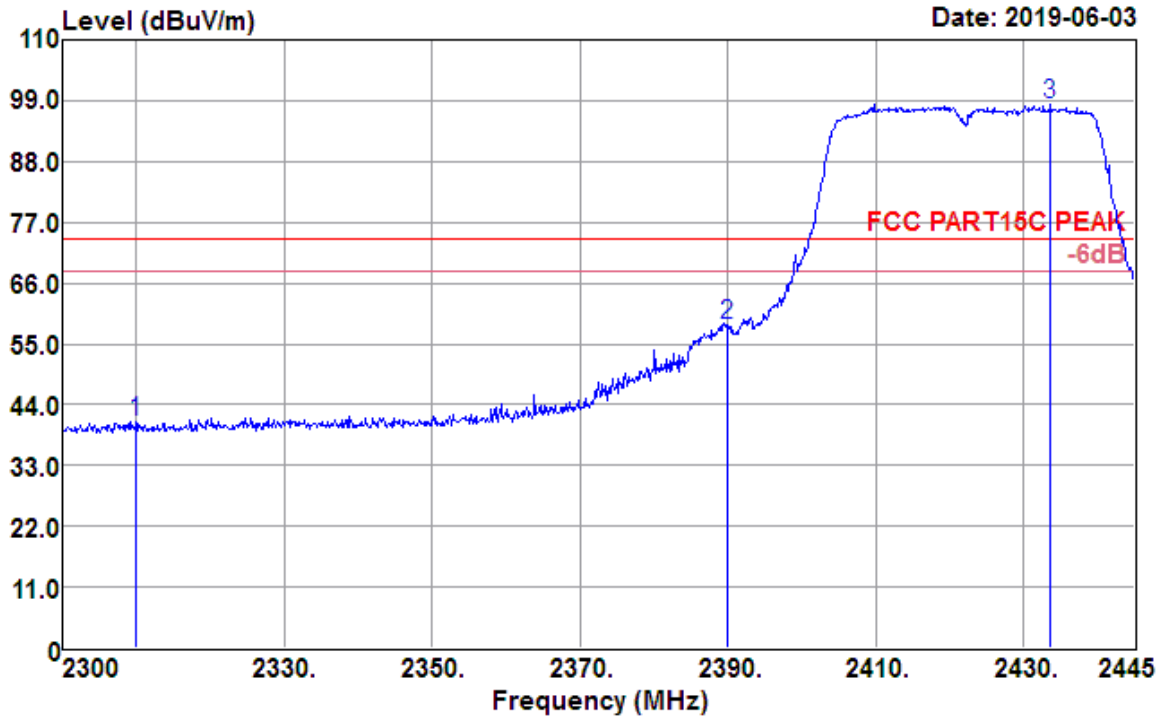
Data: 73



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2455.100	95.72	27.28	3.67	36.25	90.42	54.00	36.42	Average
2483.500	45.51	27.36	3.68	36.33	40.22	54.00	-13.78	Average
2500.000	37.65	27.40	3.68	36.37	32.36	54.00	-21.64	Average

<b>Test Mode :</b>	802.11n HT40 CH03 (2422 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.3GHz~2.445GHz	<b>Polarization :</b>	Horizontal

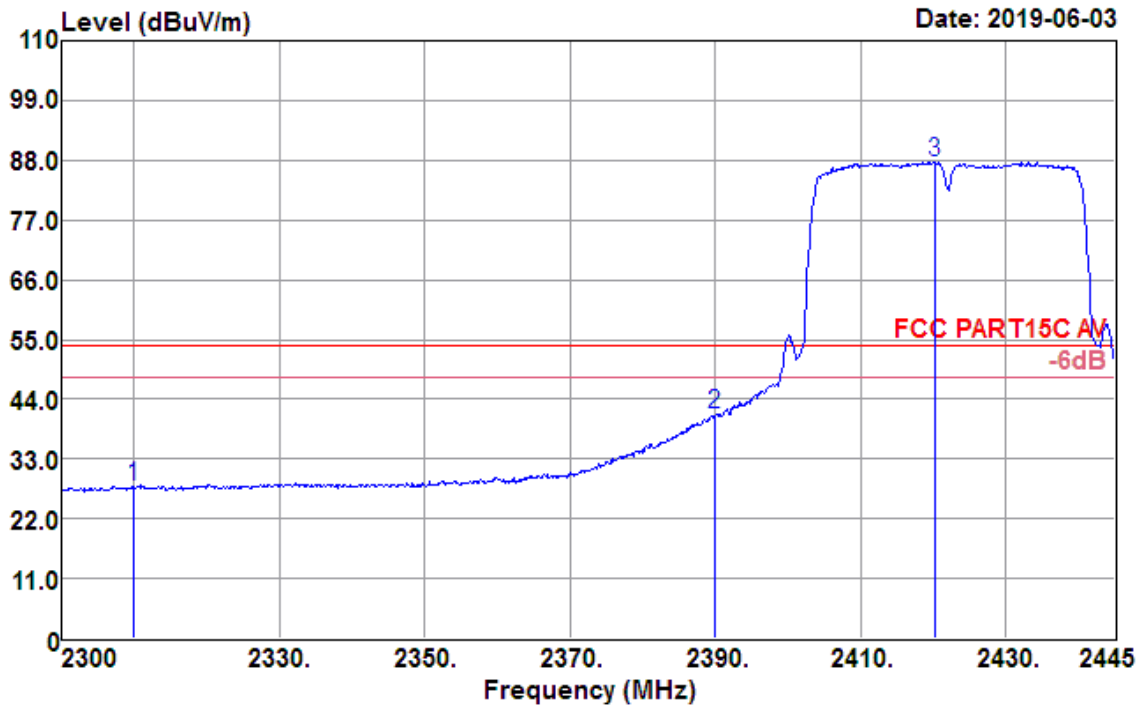
Data: 83



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2310.000	46.37	26.91	3.56	35.87	40.97	74.00	-33.03	Peak
2390.000	63.83	27.11	3.64	36.08	58.50	74.00	-15.50	Peak
2433.690	103.76	27.23	3.66	36.19	98.46	74.00	24.46	Peak

Test Mode :	802.11n HT40 CH03 (2422 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.445GHz	Polarization :	Horizontal

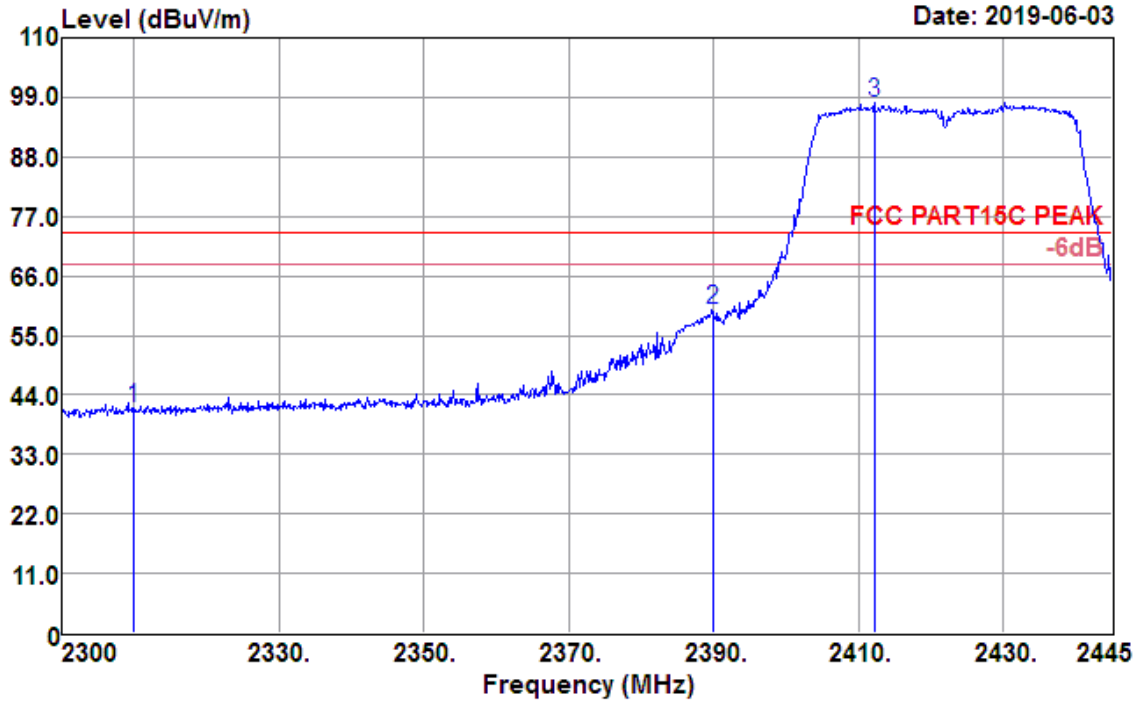
Data: 84



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	33.31	26.91	3.56	35.87	27.91	54.00	-26.09	Average
2390.000	46.41	27.11	3.64	36.08	41.08	54.00	-12.92	Average
2420.205	92.97	27.19	3.66	36.16	87.66	54.00	33.66	Average

Test Mode :	802.11n HT40 CH03 (2422 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.445GHz	Polarization :	Vertical

Data: 86

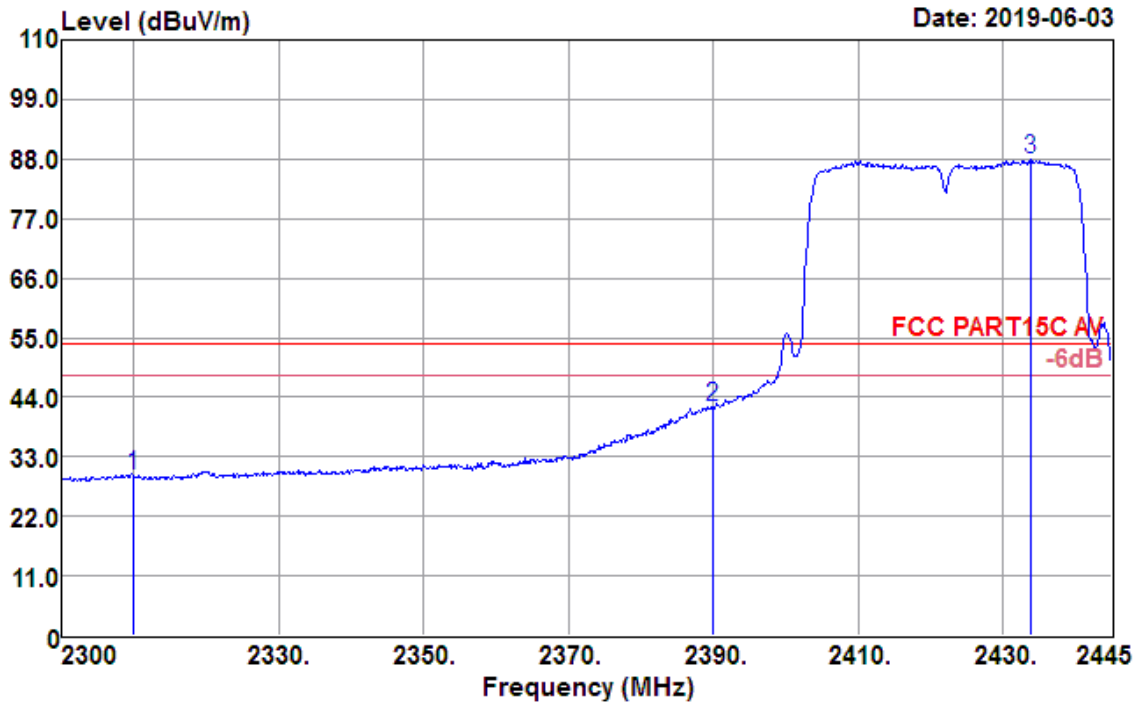


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	46.88	26.91	3.56	35.87	41.48	74.00	-32.52	Peak
2390.000	65.00	27.11	3.64	36.08	59.67	74.00	-14.33	Peak
2412.230	103.39	27.17	3.65	36.14	98.07	74.00	24.07	Peak



Test Mode :	802.11n HT40 CH03 (2422 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.3GHz~2.445GHz	Polarization :	Vertical

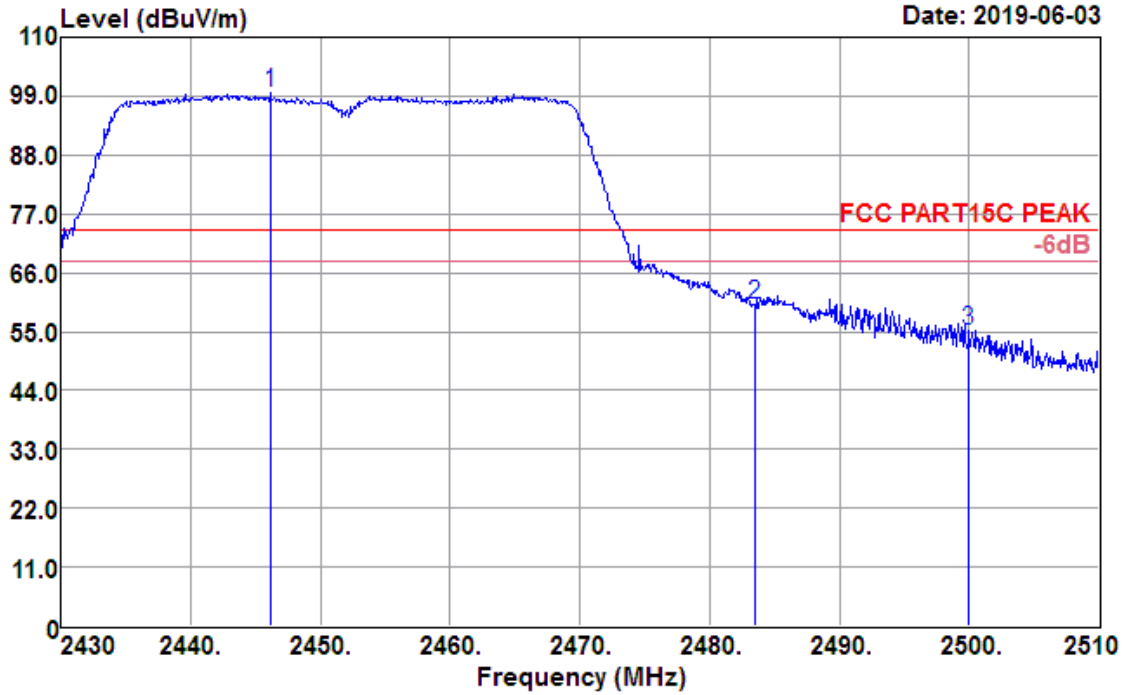
Data: 87



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2310.000	34.86	26.91	3.56	35.87	29.46	54.00	-24.54	Average
2390.000	47.53	27.11	3.64	36.08	42.20	54.00	-11.80	Average
2433.835	93.12	27.23	3.66	36.20	87.81	54.00	33.81	Average

Test Mode :	802.11n HT40 CH09 (2452 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.43GHz~2.51GHz	Polarization :	Horizontal

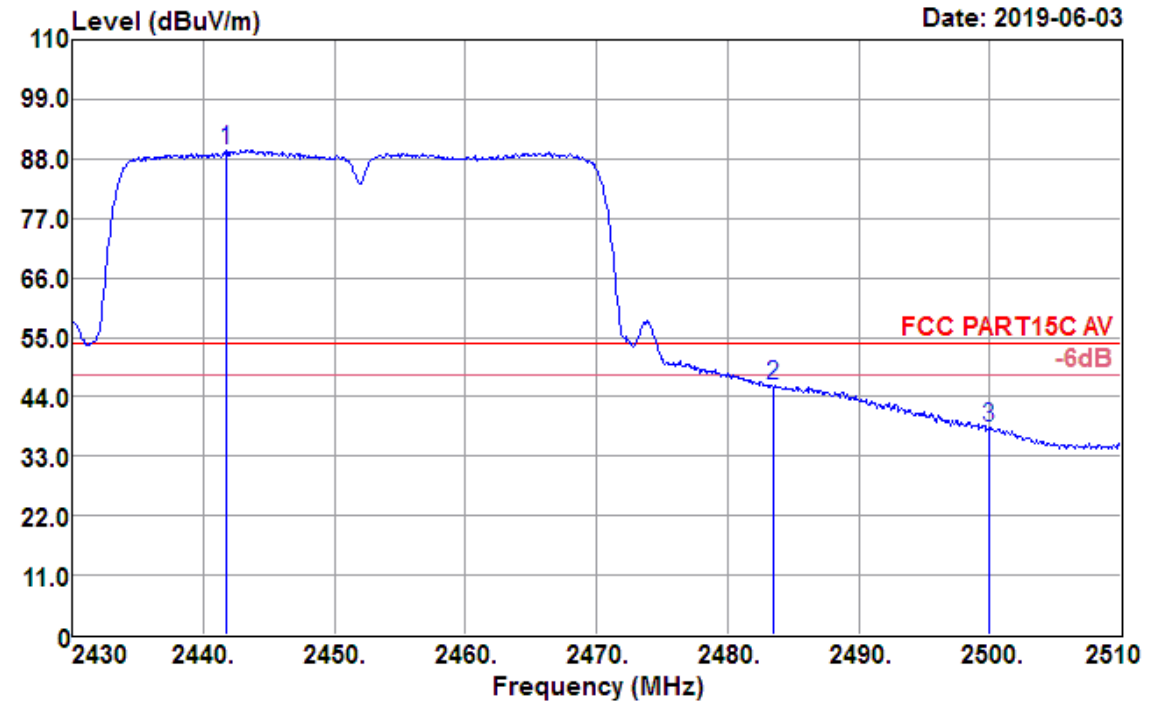
Data: 99



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2446.160	105.01	27.26	3.67	36.23	99.71	74.00	25.71	Peak
2483.500	65.30	27.36	3.68	36.33	60.01	74.00	-13.99	Peak
2500.000	60.47	27.40	3.68	36.37	55.18	74.00	-18.82	Peak

<b>Test Mode :</b>	802.11n HT40 CH09 (2452 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.43GHz~2.51GHz	<b>Polarization :</b>	Horizontal

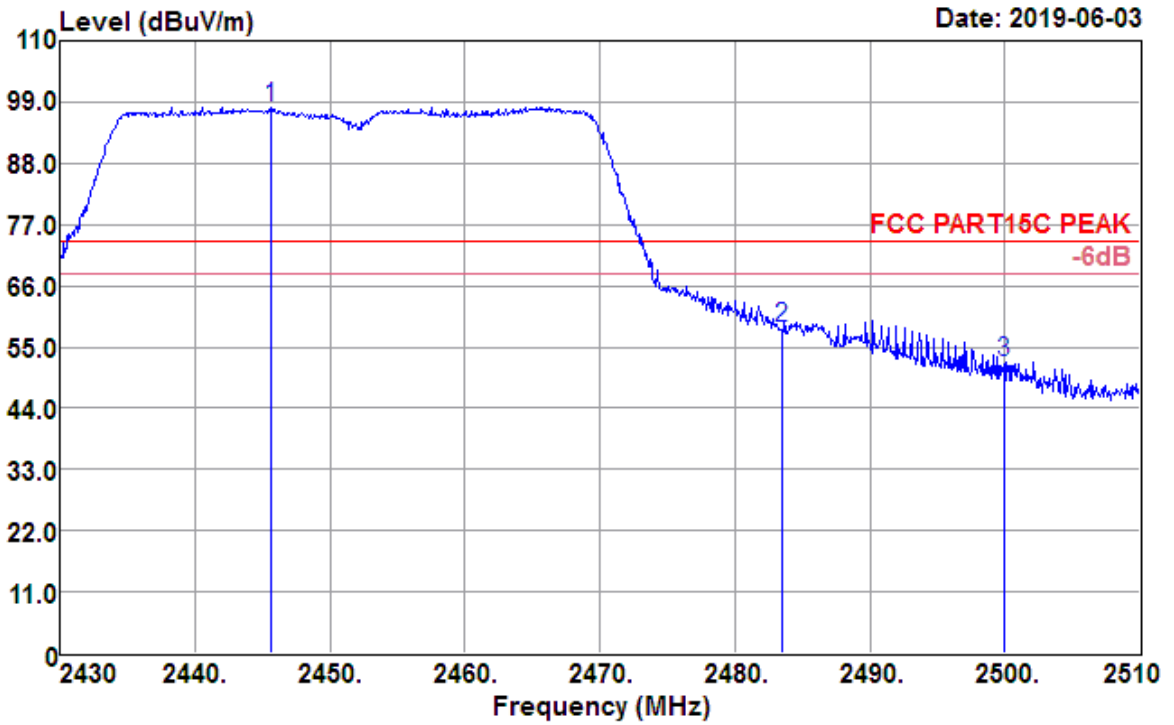
Data: 100



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2441.760	94.91	27.25	3.66	36.22	89.60	54.00	35.60	Average
2483.500	51.43	27.36	3.68	36.33	46.14	54.00	-7.86	Average
2500.000	43.53	27.40	3.68	36.37	38.24	54.00	-15.76	Average

<b>Test Mode :</b>	802.11n HT40 CH09 (2452 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	2.43GHz~2.51GHz	<b>Polarization :</b>	Vertical

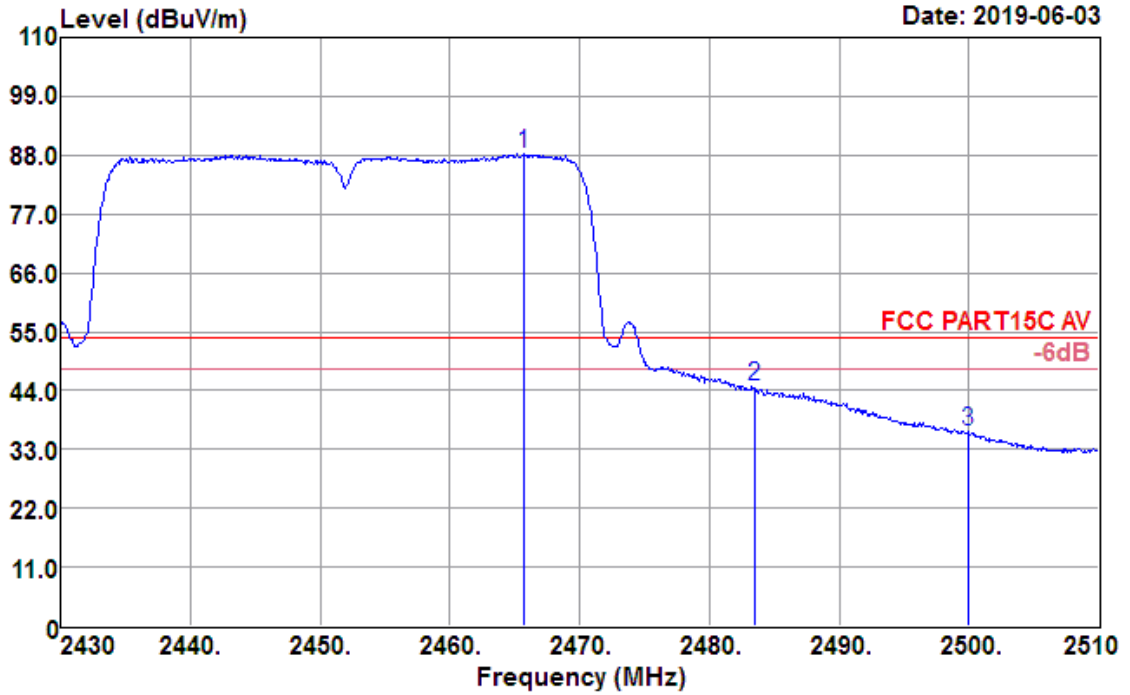
Data: 102



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2445.600	103.42	27.26	3.67	36.23	98.12	74.00	24.12	Peak
2483.500	63.79	27.36	3.68	36.33	58.50	74.00	-15.50	Peak
2500.000	57.46	27.40	3.68	36.37	52.17	74.00	-21.83	Peak

Test Mode :	802.11n HT40 CH09 (2452 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	2.43GHz~2.51GHz	Polarization :	Vertical

Data: 103

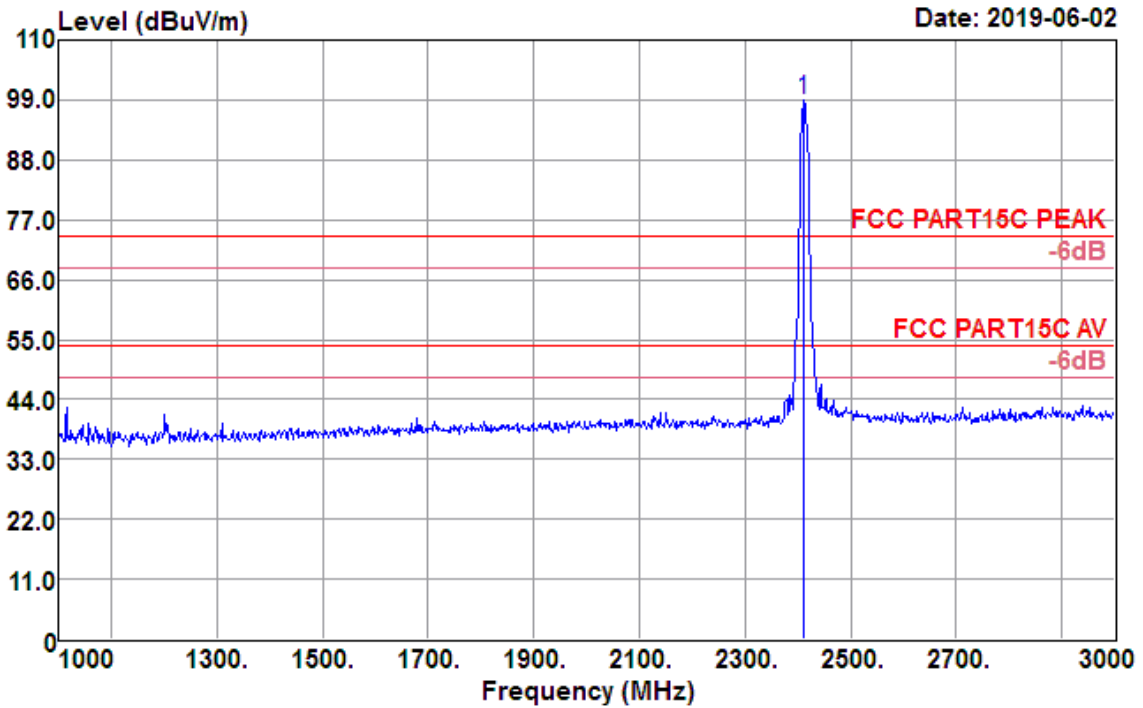


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2465.760	93.49	27.31	3.67	36.28	88.19	54.00	34.19	Average
2483.500	50.07	27.36	3.68	36.33	44.78	54.00	-9.22	Average
2500.000	41.70	27.40	3.68	36.37	36.41	54.00	-17.59	Average

#### 4.5.5 Test Result of Radiated Spurious Emission (1GHz ~ 10<sup>th</sup> Harmonic)

<b>Test Mode :</b>	802.11b CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

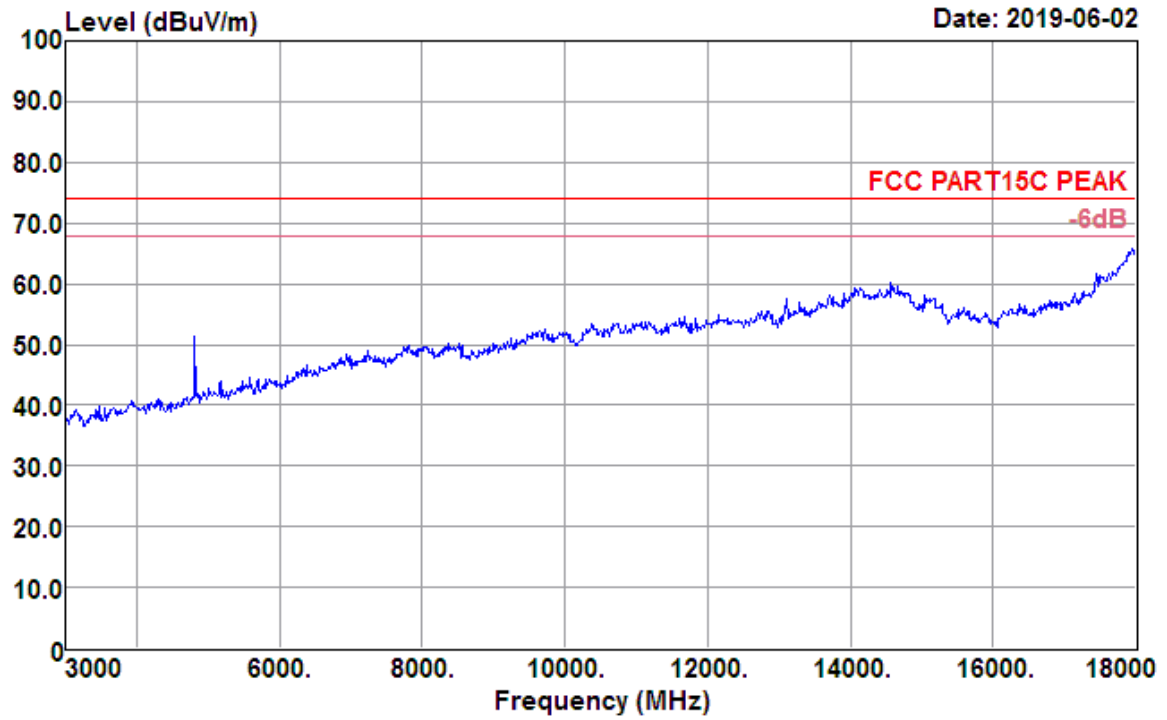
Data: 3

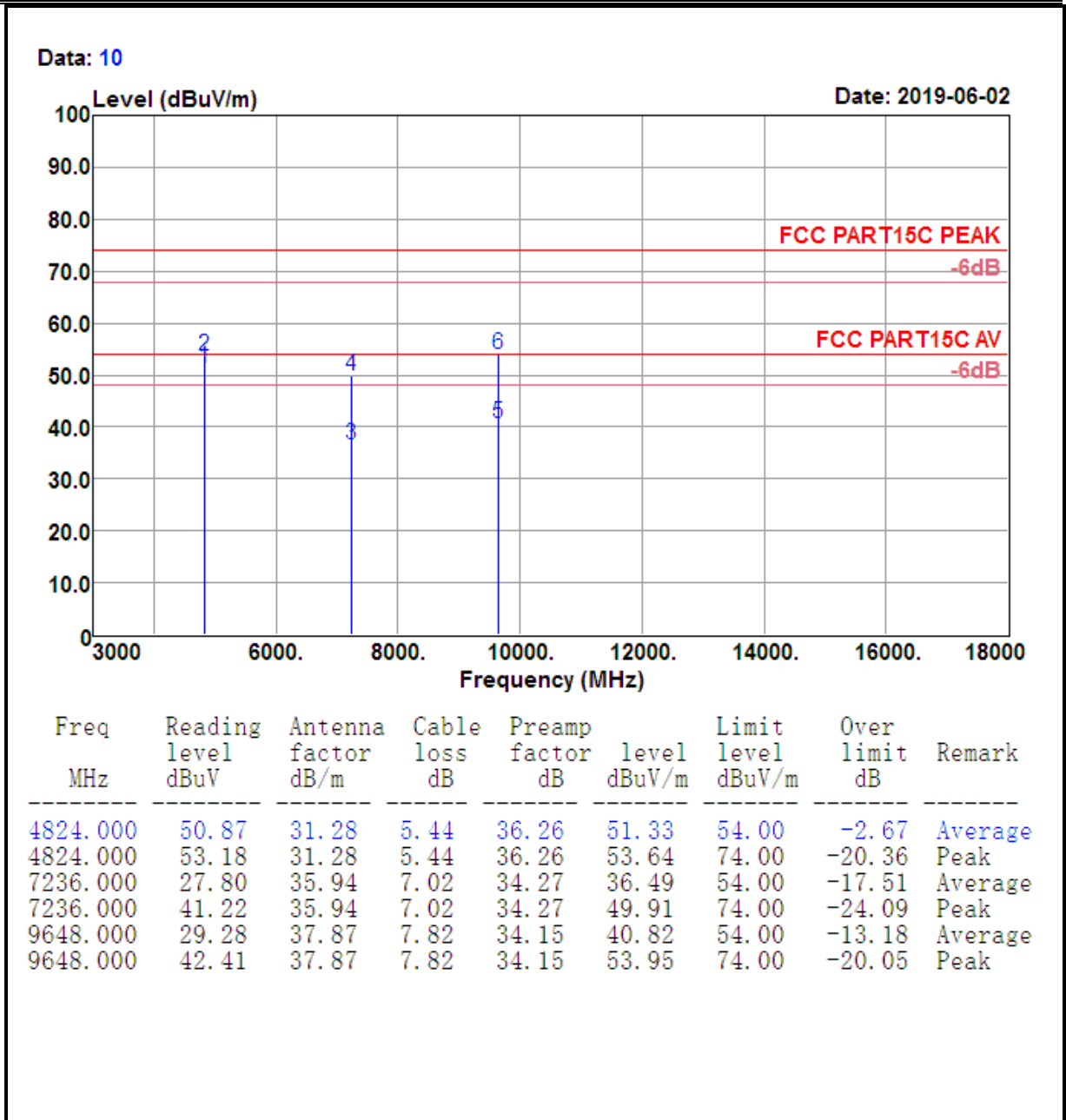


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2412.000	104.42	27.17	3.65	36.14	99.10	74.00	25.10	Peak

<b>Test Mode :</b>	802.11b CH01 (2412 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 9



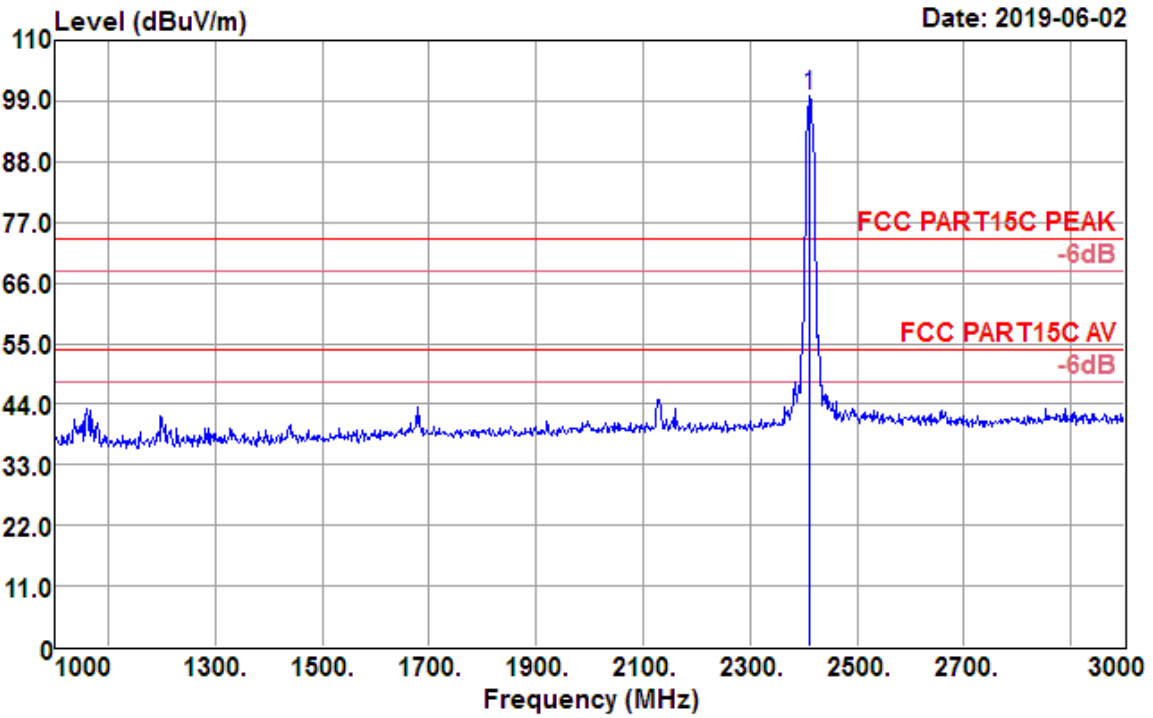


Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



<b>Test Mode :</b>	802.11b CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

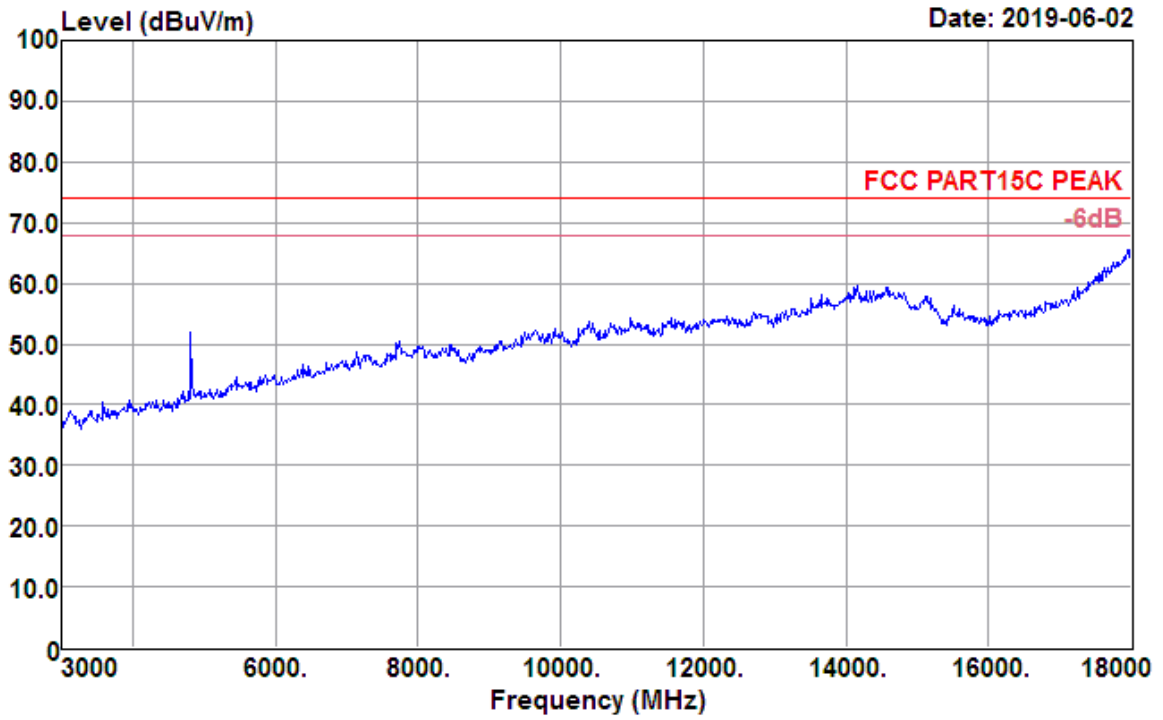
Data: 6

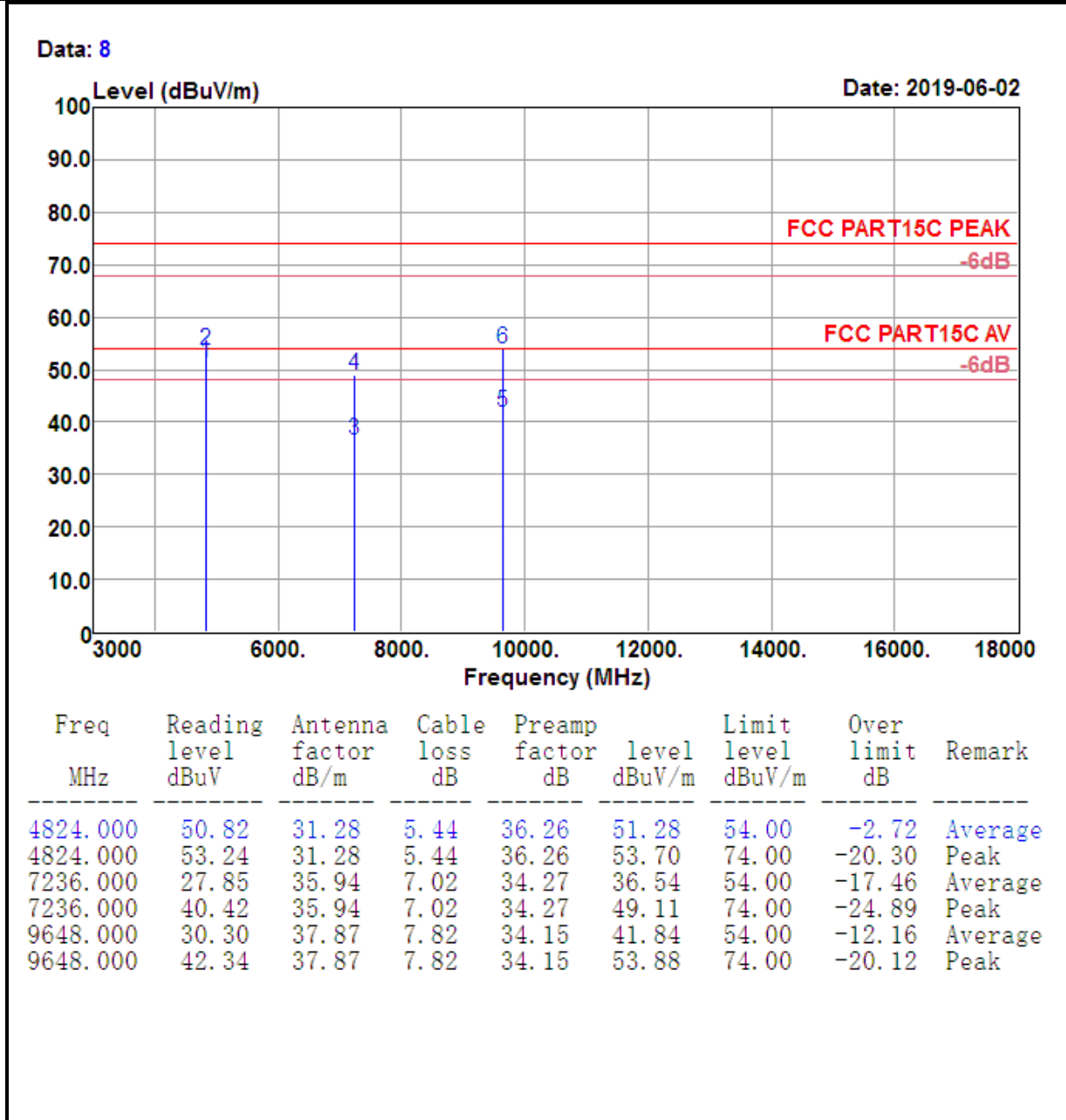


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2412.000	105.17	27.17	3.65	36.14	99.85	74.00	25.85	Peak

<b>Test Mode :</b>	802.11b CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 7

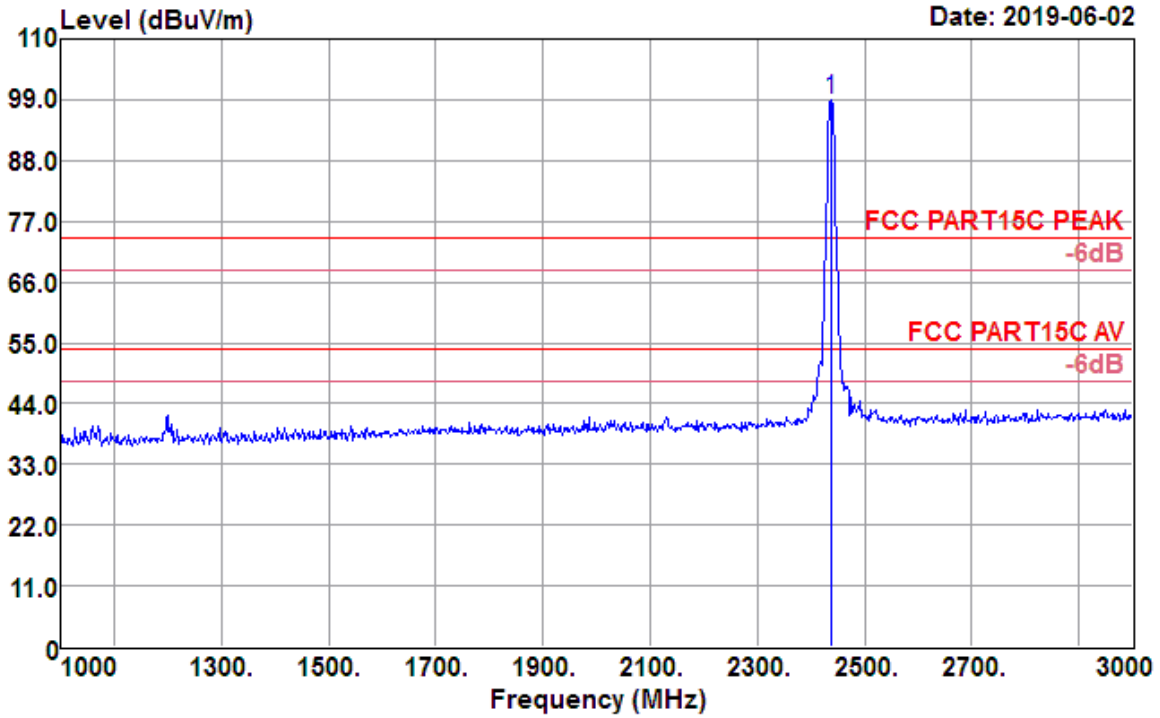




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11b CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

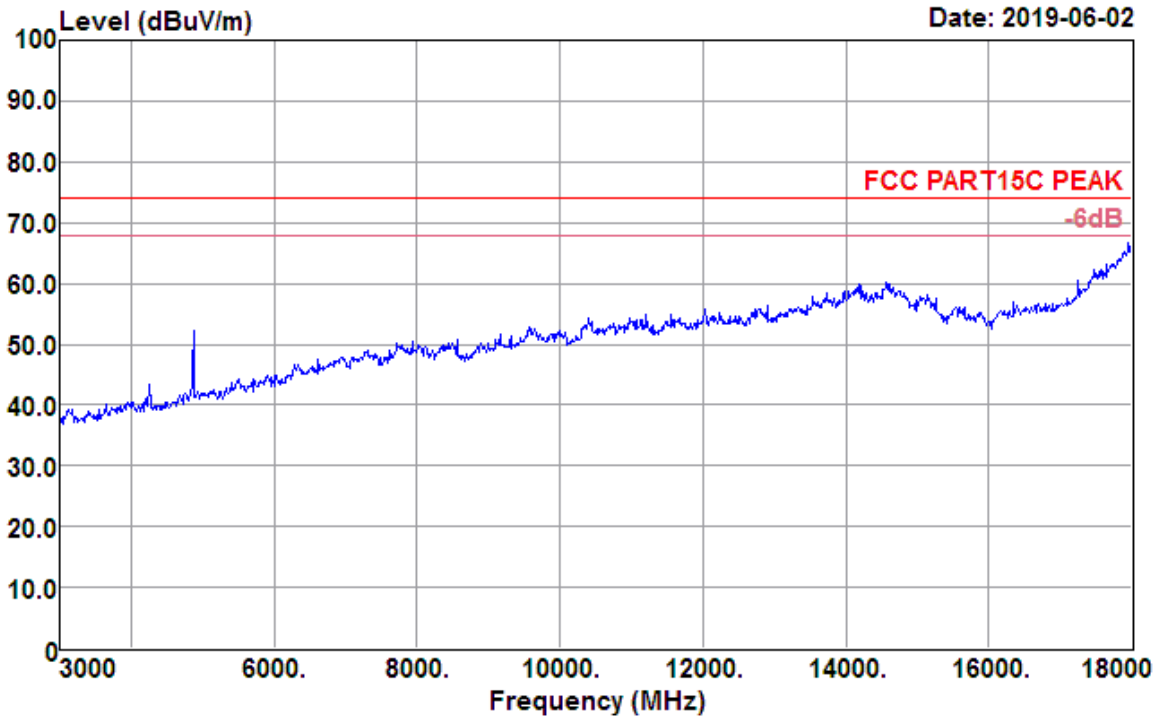
Data: 16

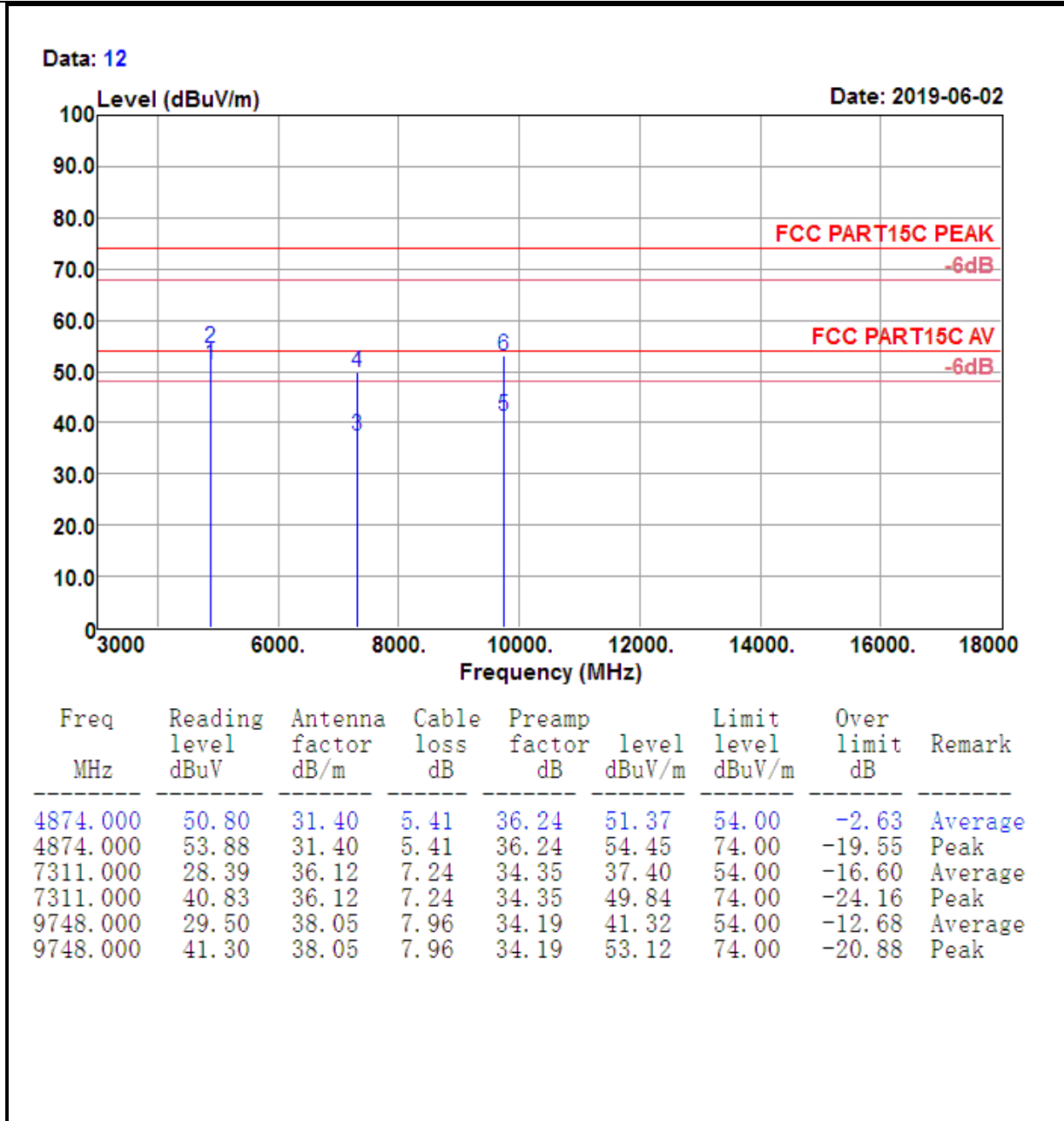


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2437.000	104.17	27.24	3.66	36.20	98.87	74.00	24.87	Peak

<b>Test Mode :</b>	802.11b CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 11

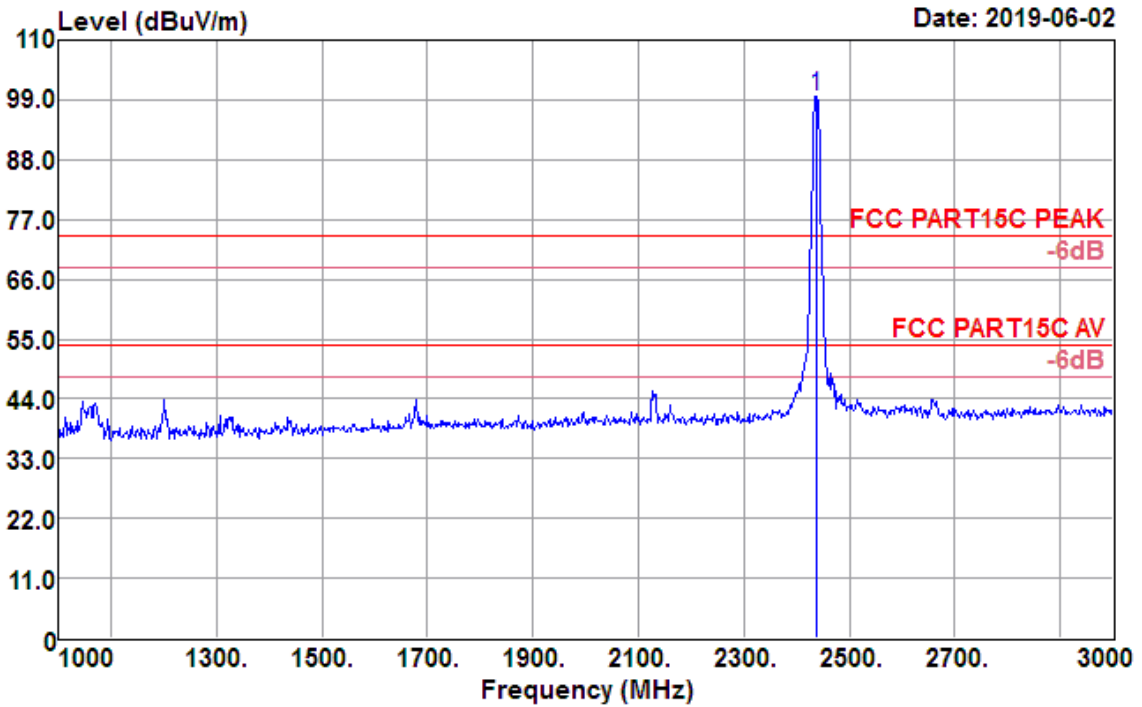




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11b CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

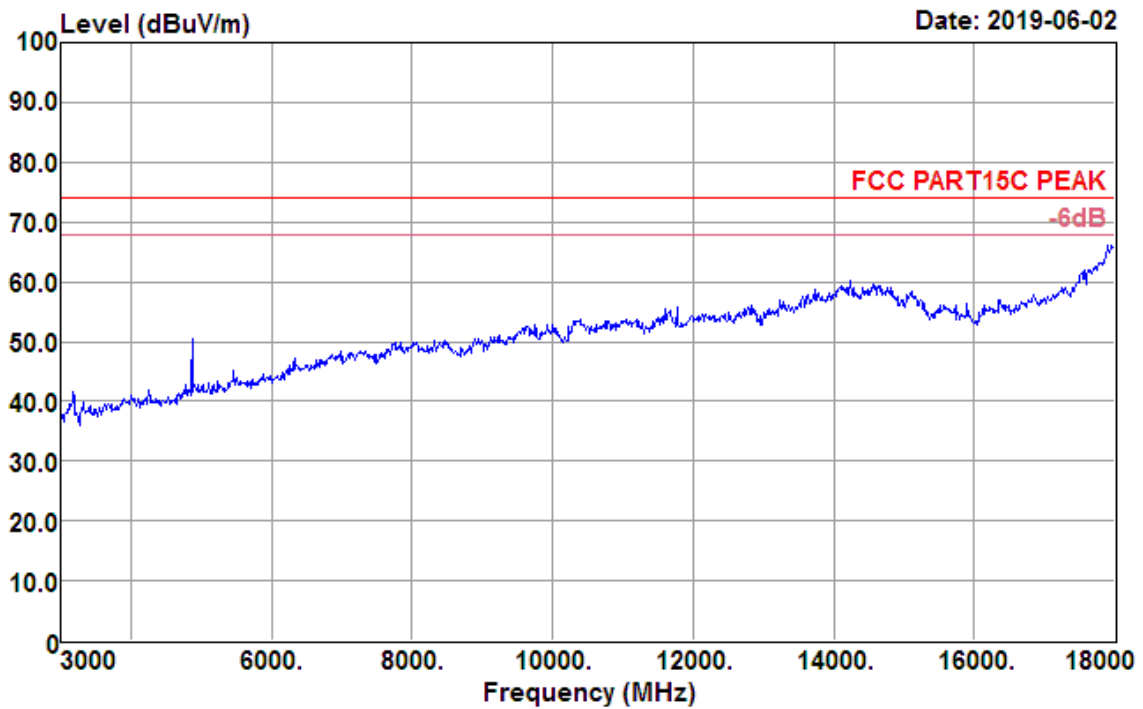
Data: 15



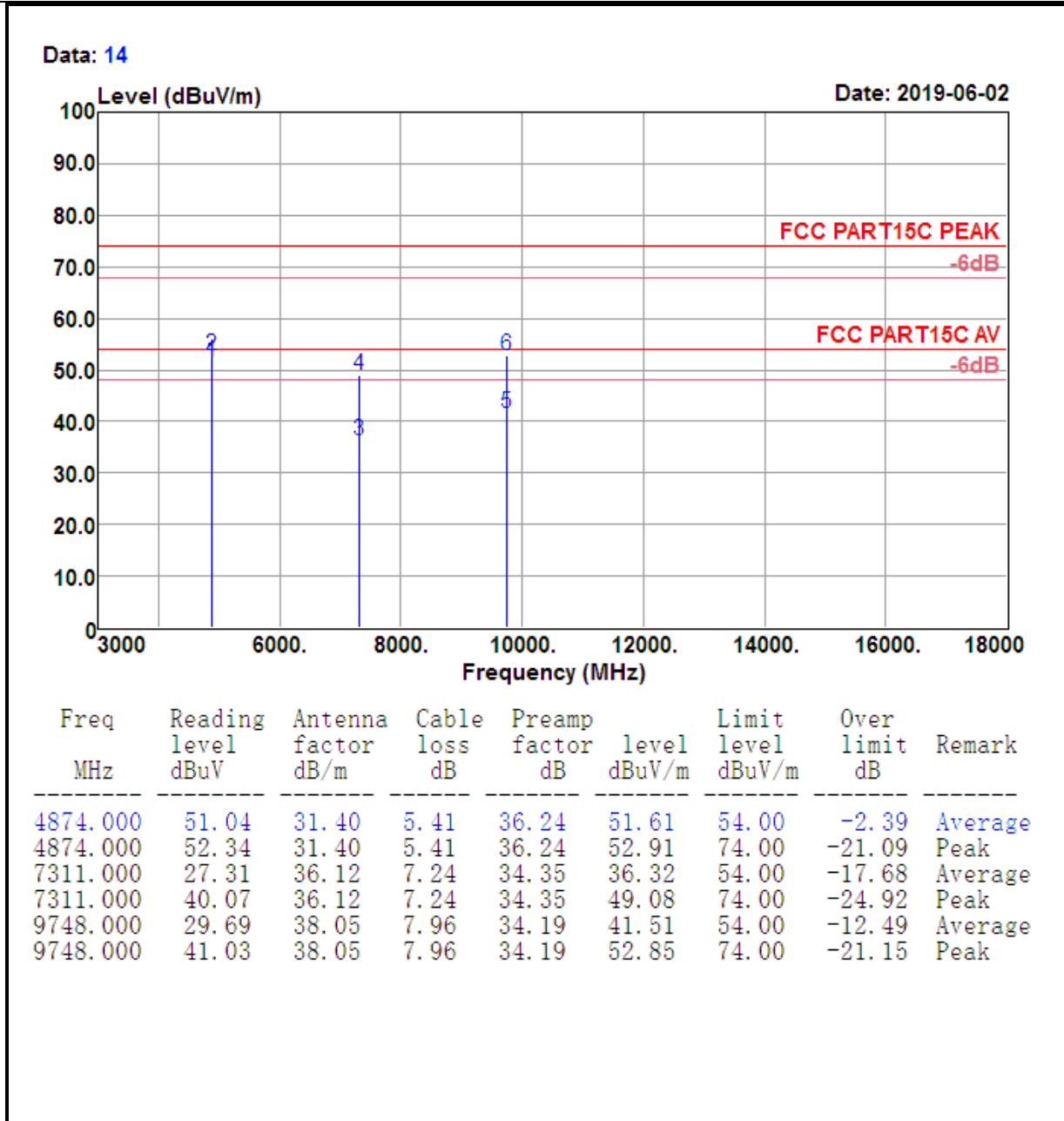
Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2437.000	105.01	27.24	3.66	36.20	99.71	74.00	25.71	Peak

<b>Test Mode :</b>	802.11b CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 13



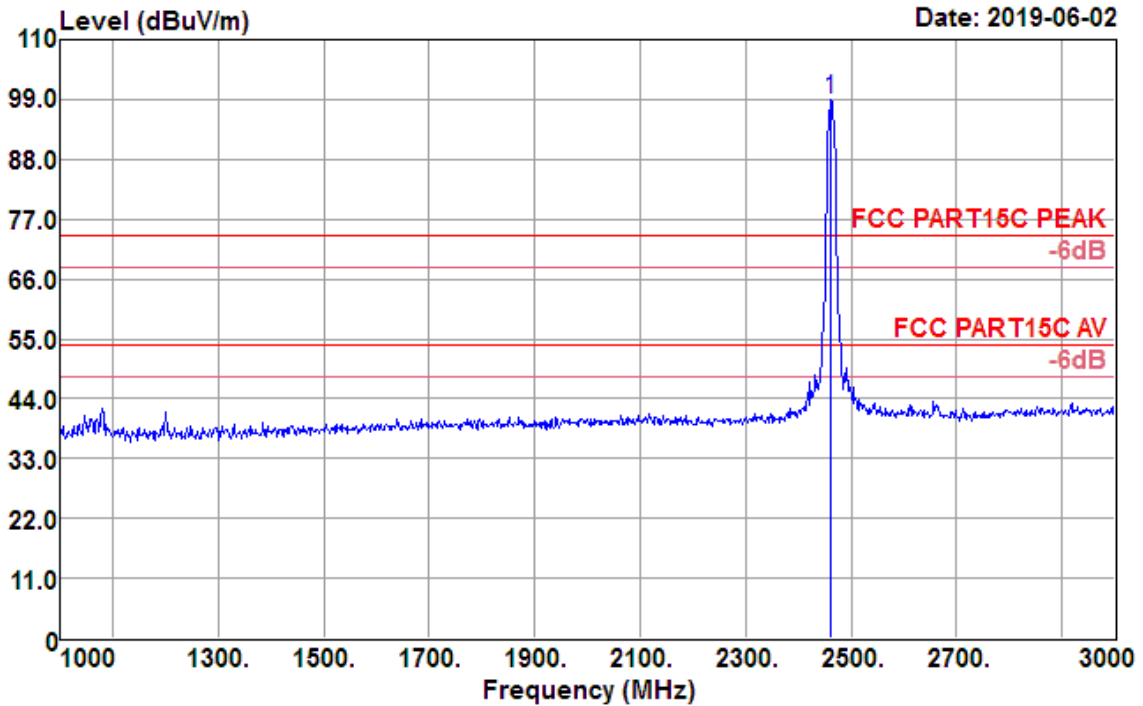




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11b CH11 (2462MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

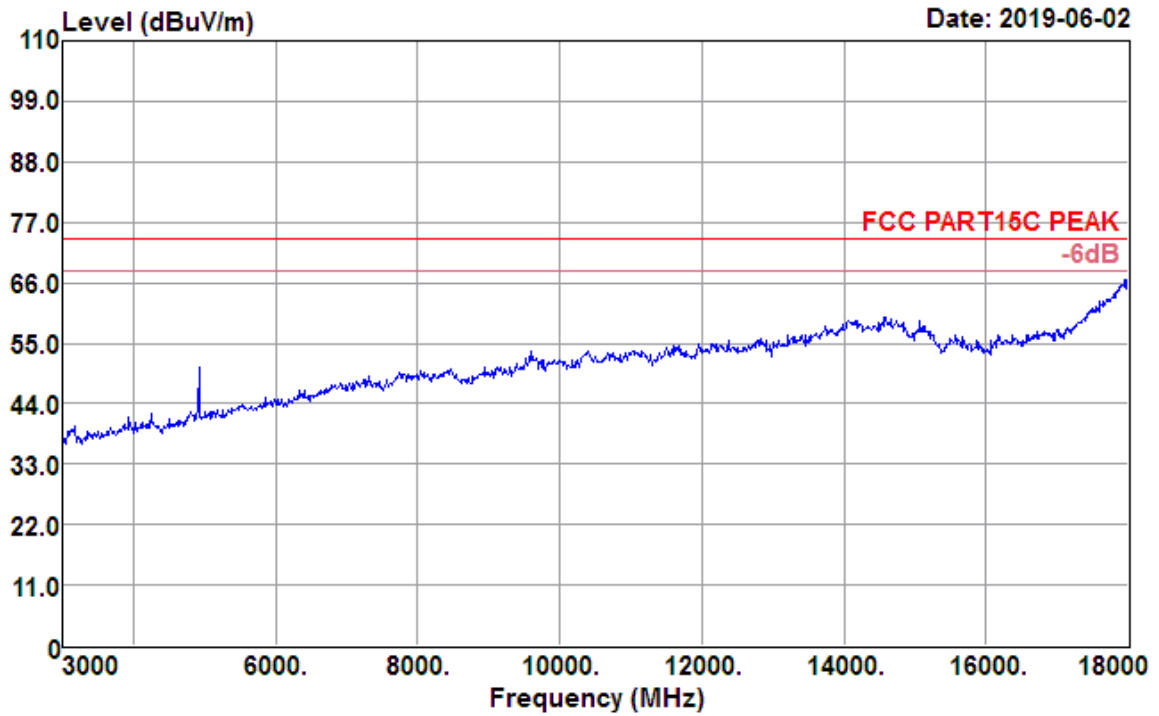
Data: 19

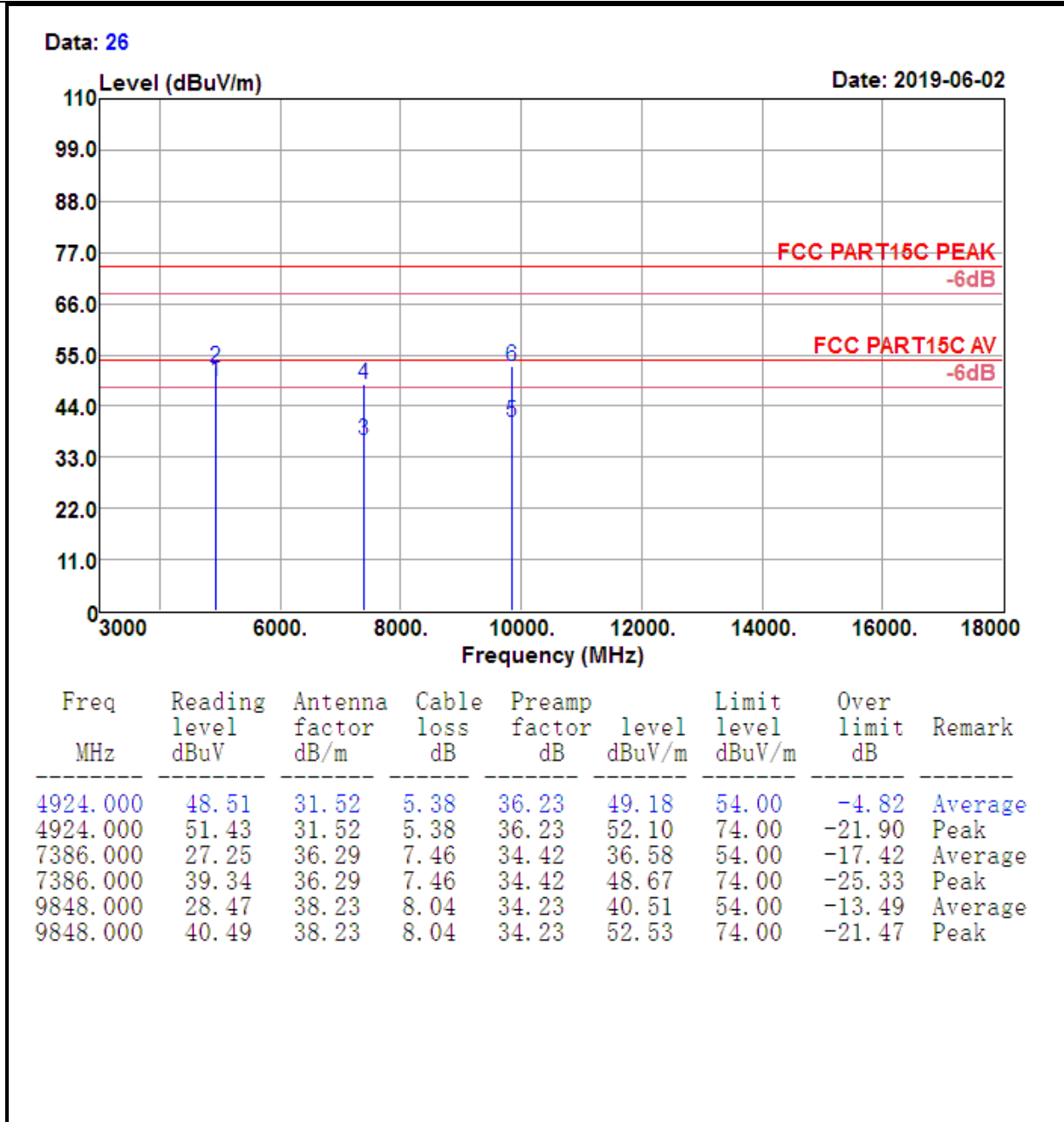


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2462.000	104.38	27.30	3.67	36.27	99.08	74.00	25.08	Peak

<b>Test Mode :</b>	802.11b CH11 (2462MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 25

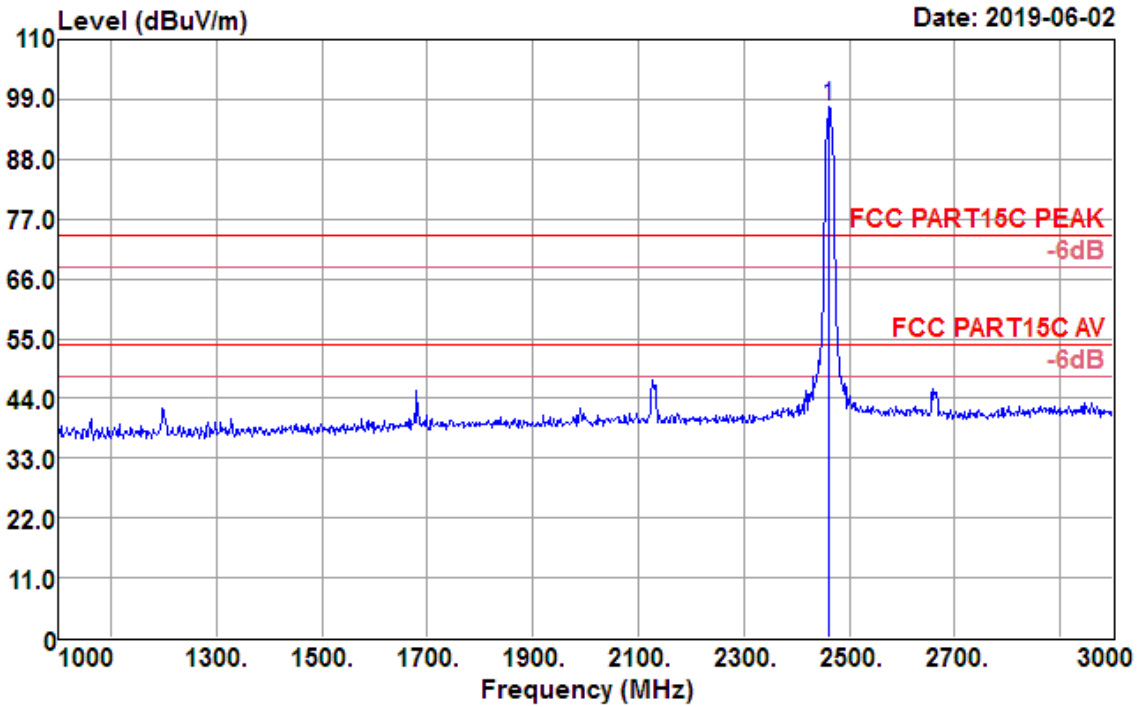




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11b CH11 (2462MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

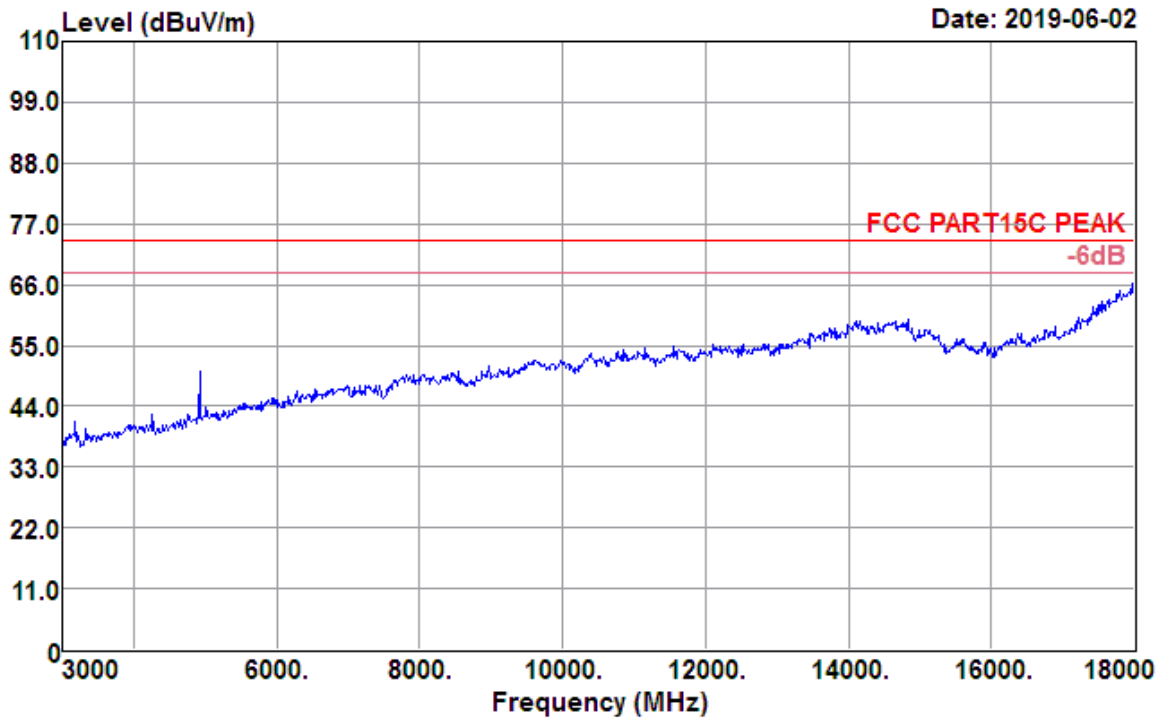
Data: 22



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2462.000	103.00	27.30	3.67	36.27	97.70	74.00	23.70	Peak

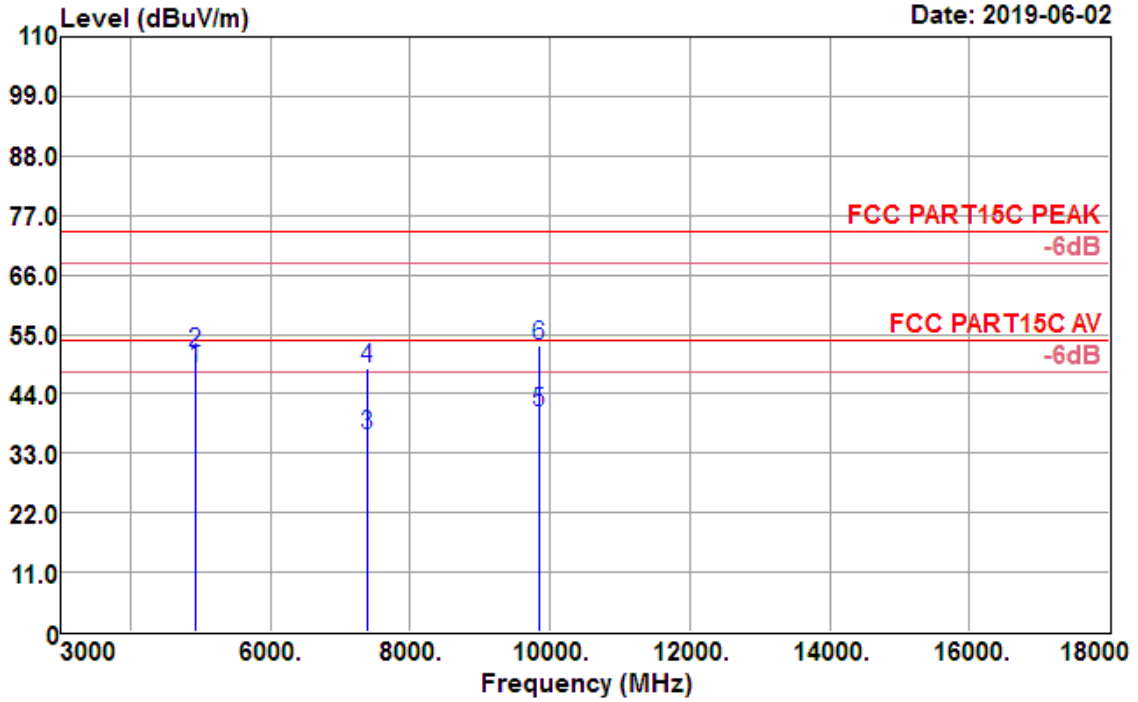
<b>Test Mode :</b>	802.11b CH11 (2462MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 23



Data: 24

Date: 2019-06-02

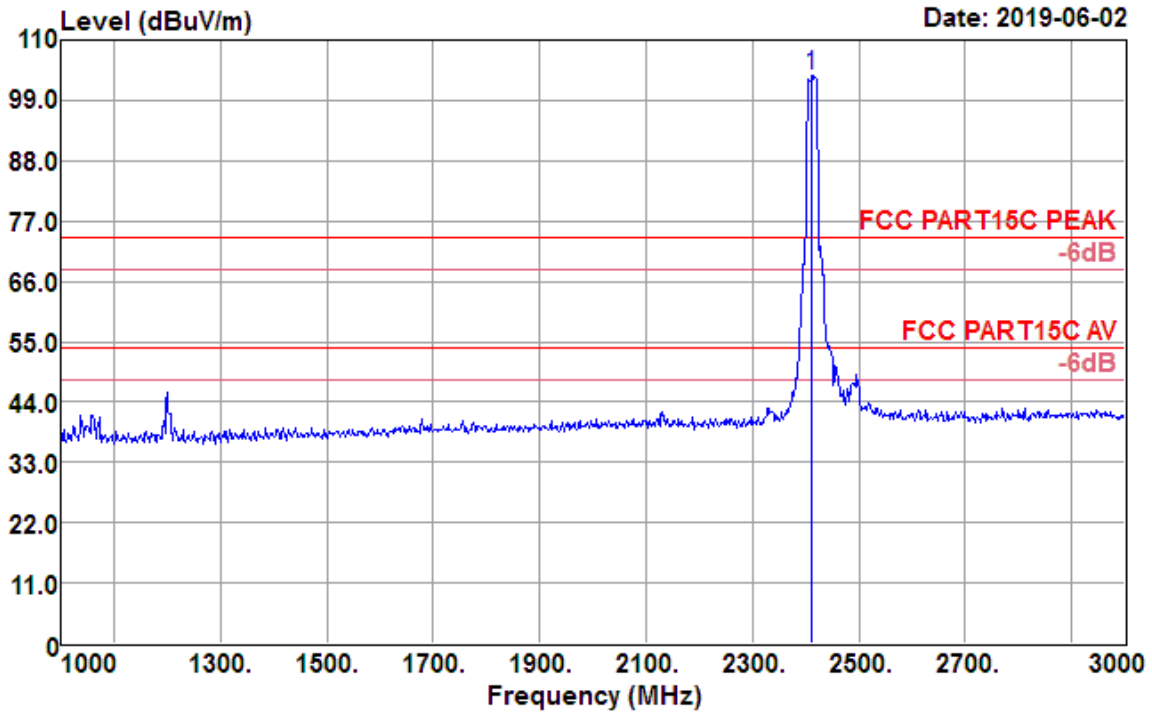


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
4924.000	48.06	31.52	5.38	36.23	48.73	54.00	-5.27	Average
4924.000	50.94	31.52	5.38	36.23	51.61	74.00	-22.39	Peak
7386.000	27.16	36.29	7.46	34.42	36.49	54.00	-17.51	Average
7386.000	39.30	36.29	7.46	34.42	48.63	74.00	-25.37	Peak
9848.000	28.62	38.23	8.04	34.23	40.66	54.00	-13.34	Average
9848.000	40.72	38.23	8.04	34.23	52.76	74.00	-21.24	Peak

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11g CH01 (2412 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

Data: 33

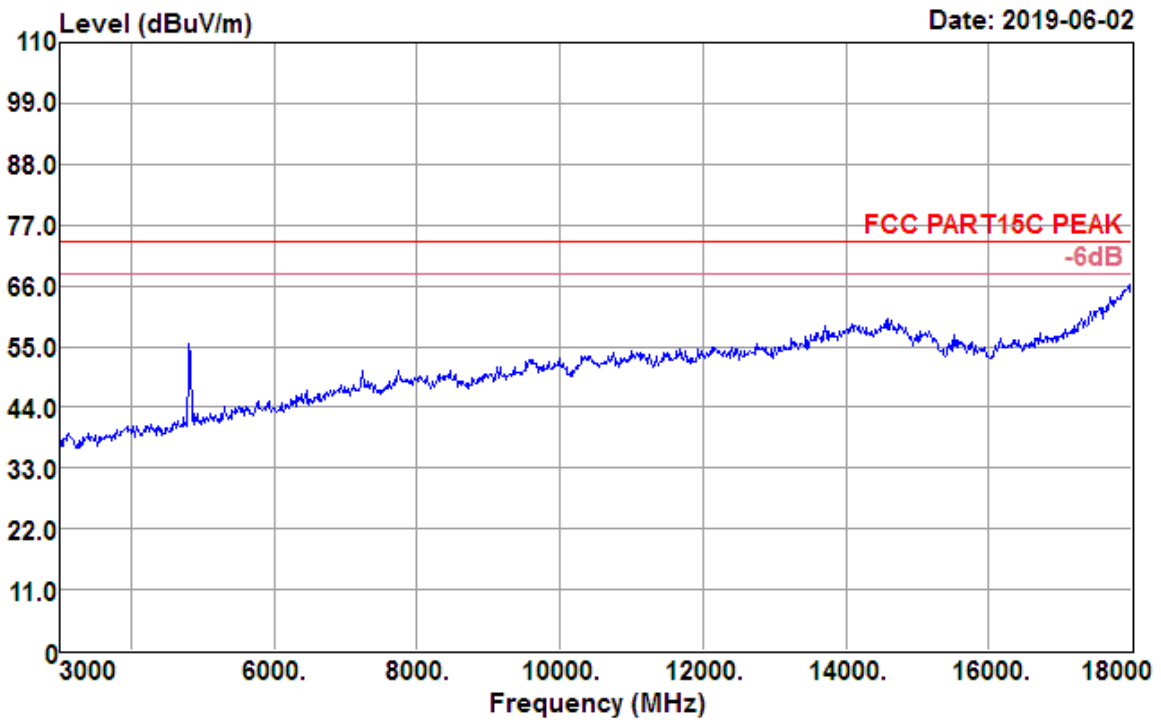


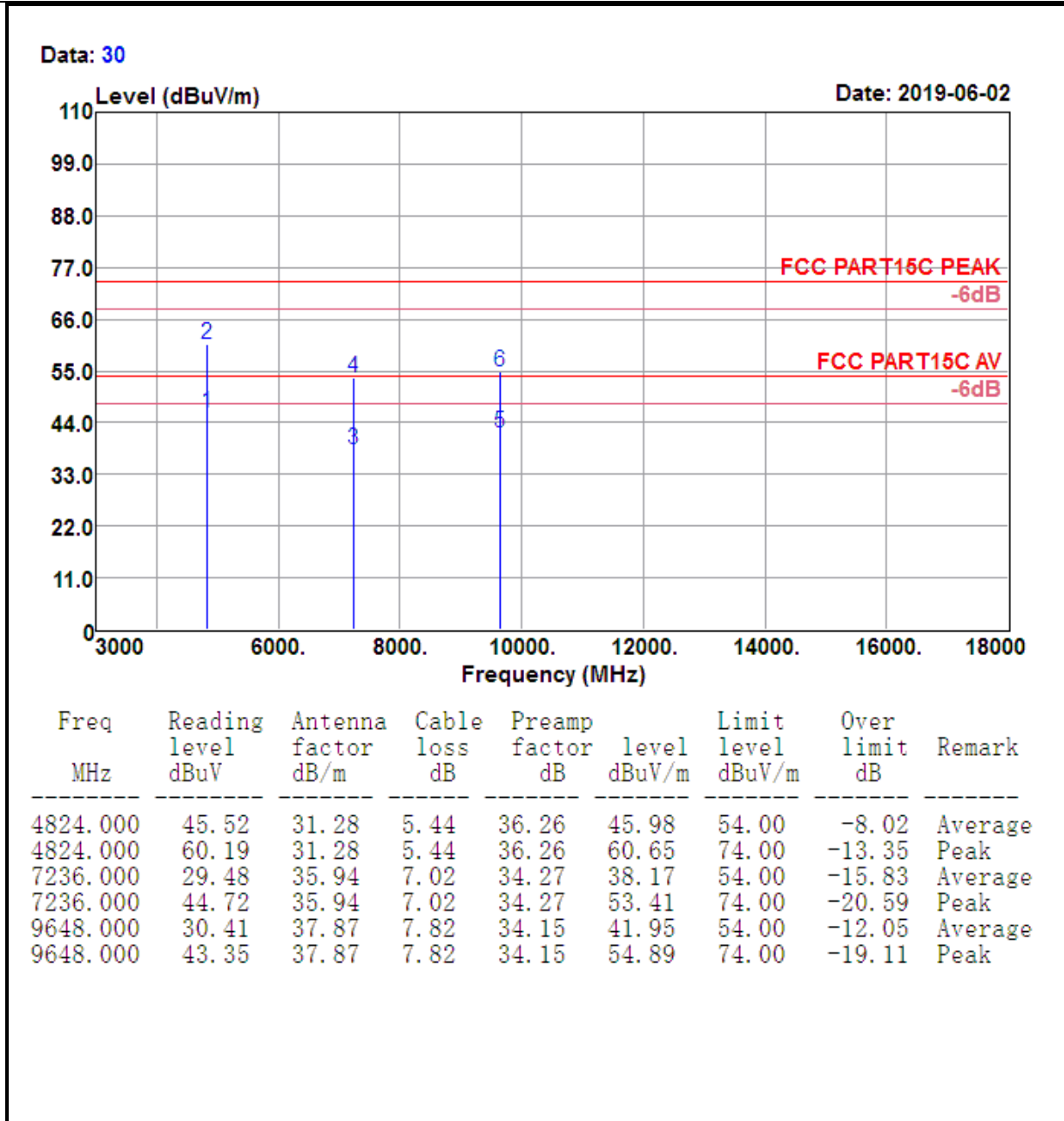
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2412.000	108.74	27.17	3.65	36.14	103.42	74.00	29.42	Peak



<b>Test Mode :</b>	802.11g CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 29

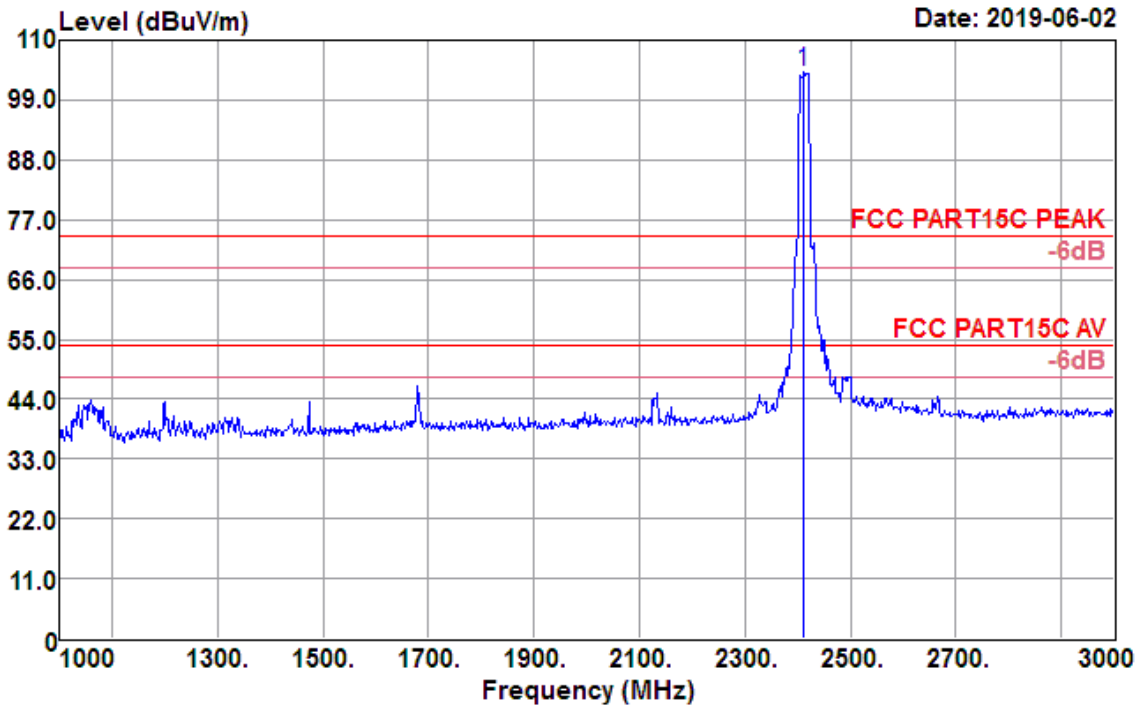




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11g CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

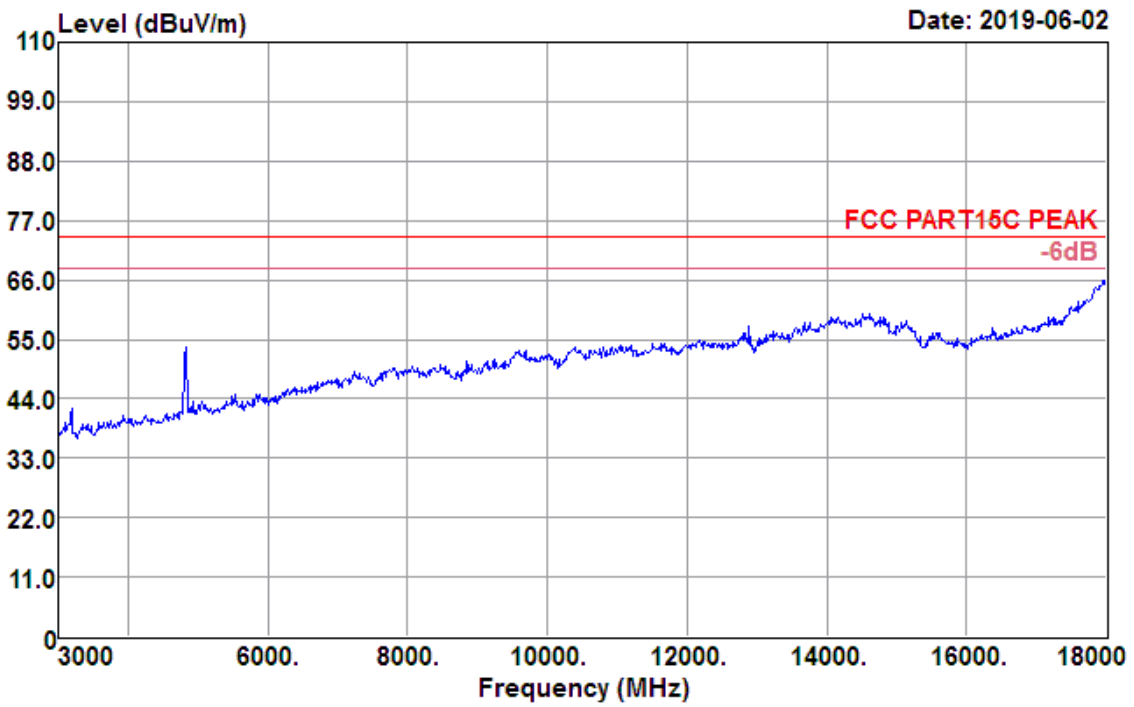
Data: 36



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2412.000	109.43	27.17	3.65	36.14	104.11	74.00	30.11	Peak

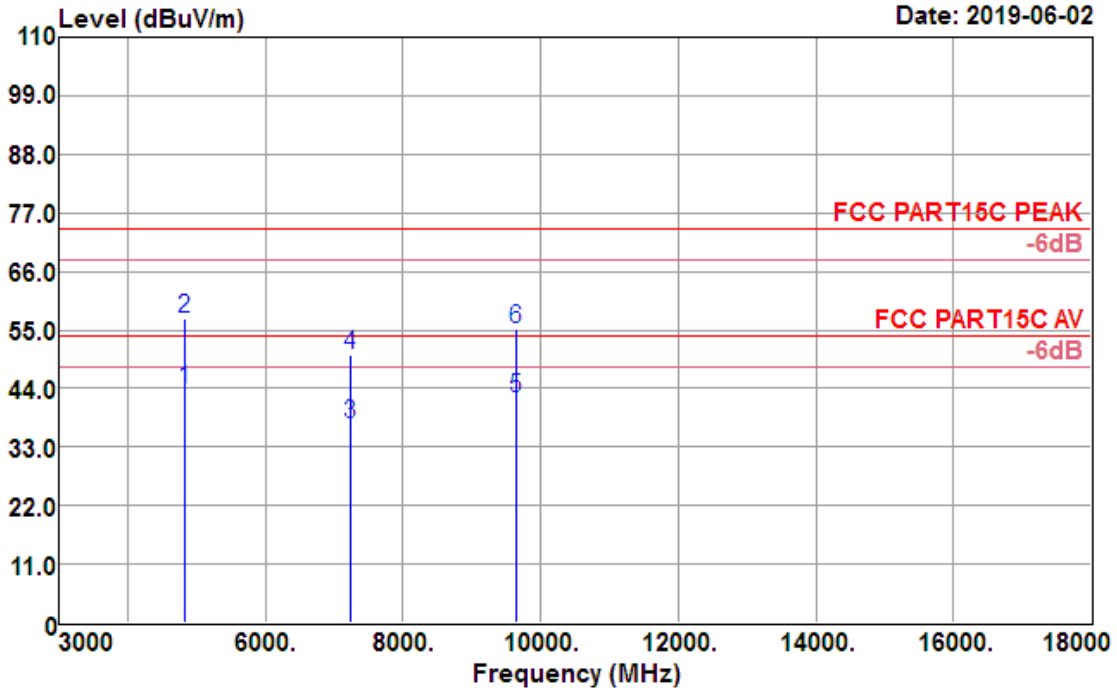
<b>Test Mode :</b>	802.11g CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 27



Data: 28

Date: 2019-06-02

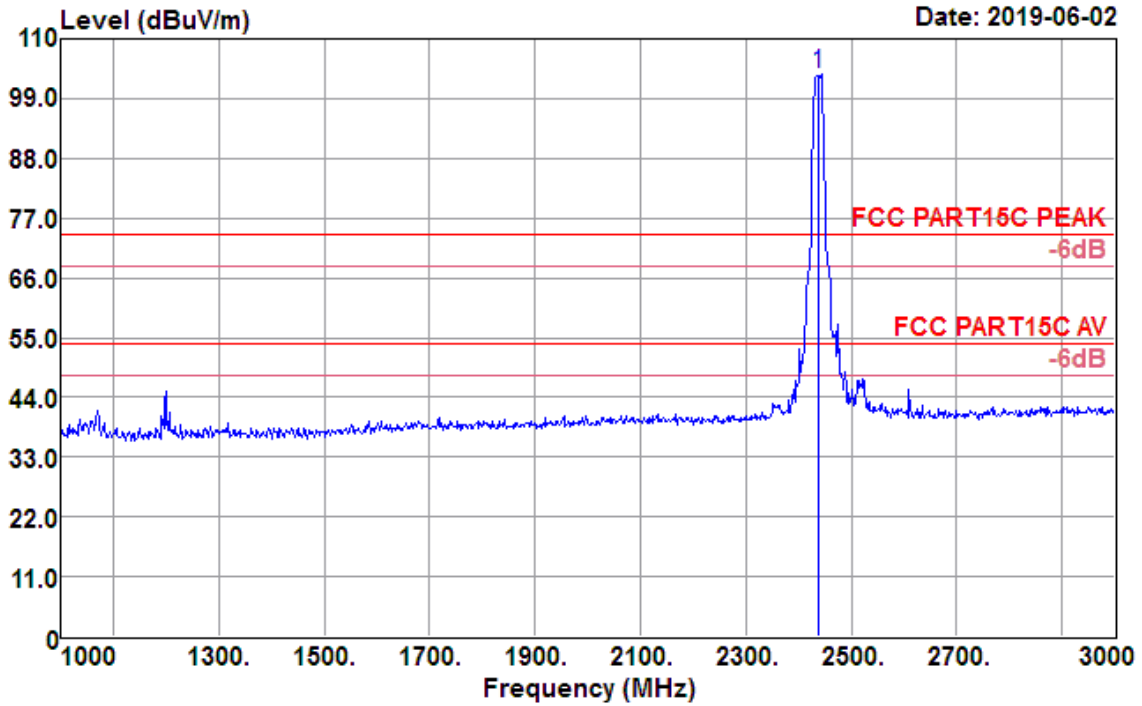


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
4824.000	43.42	31.28	5.44	36.26	43.88	54.00	-10.12	Average
4824.000	56.57	31.28	5.44	36.26	57.03	74.00	-16.97	Peak
7236.000	28.68	35.94	7.02	34.27	37.37	54.00	-16.63	Average
7236.000	41.47	35.94	7.02	34.27	50.16	74.00	-23.84	Peak
9648.000	30.74	37.87	7.82	34.15	42.28	54.00	-11.72	Average
9648.000	43.76	37.87	7.82	34.15	55.30	74.00	-18.70	Peak

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

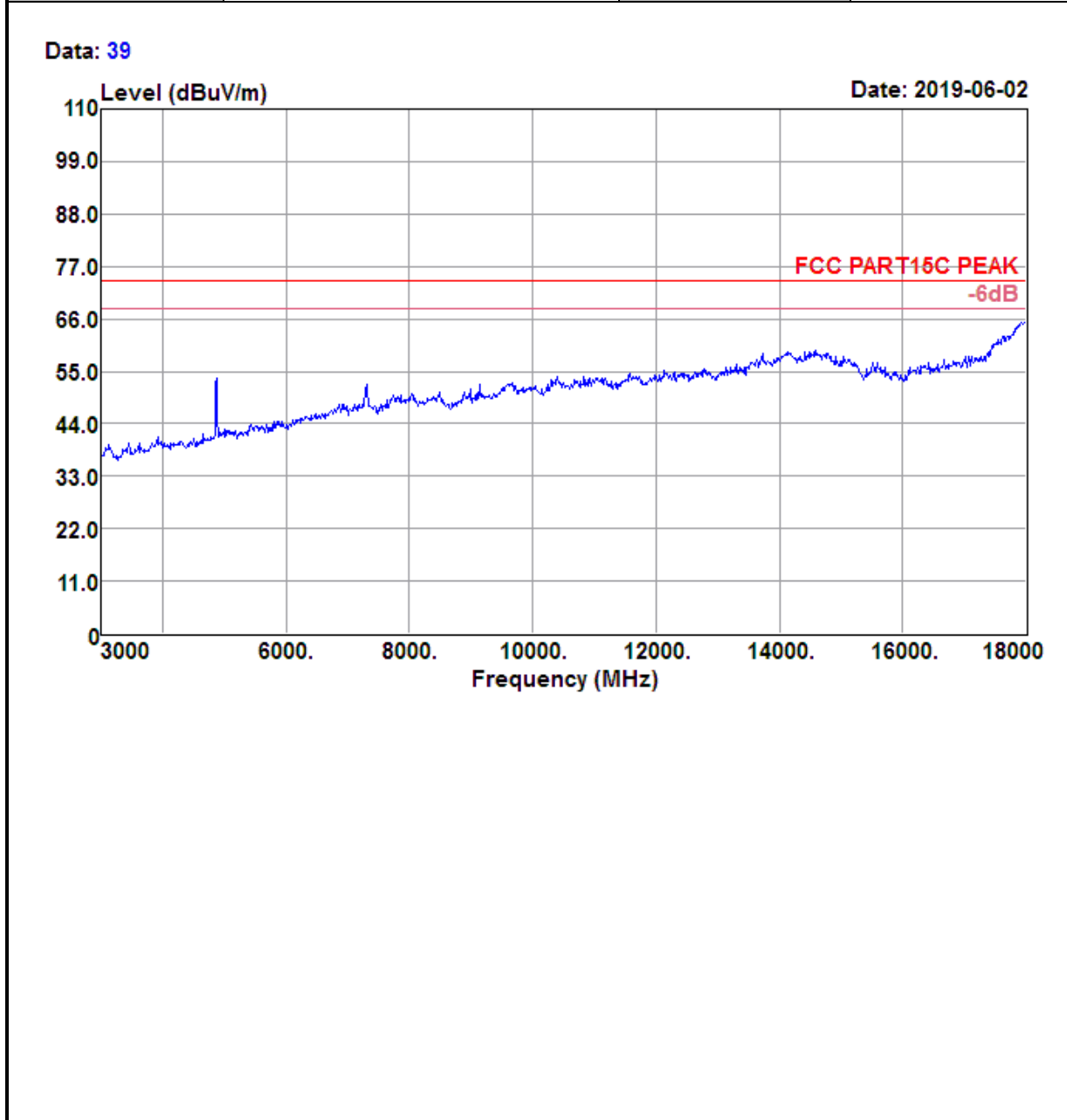
<b>Test Mode :</b>	802.11g CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

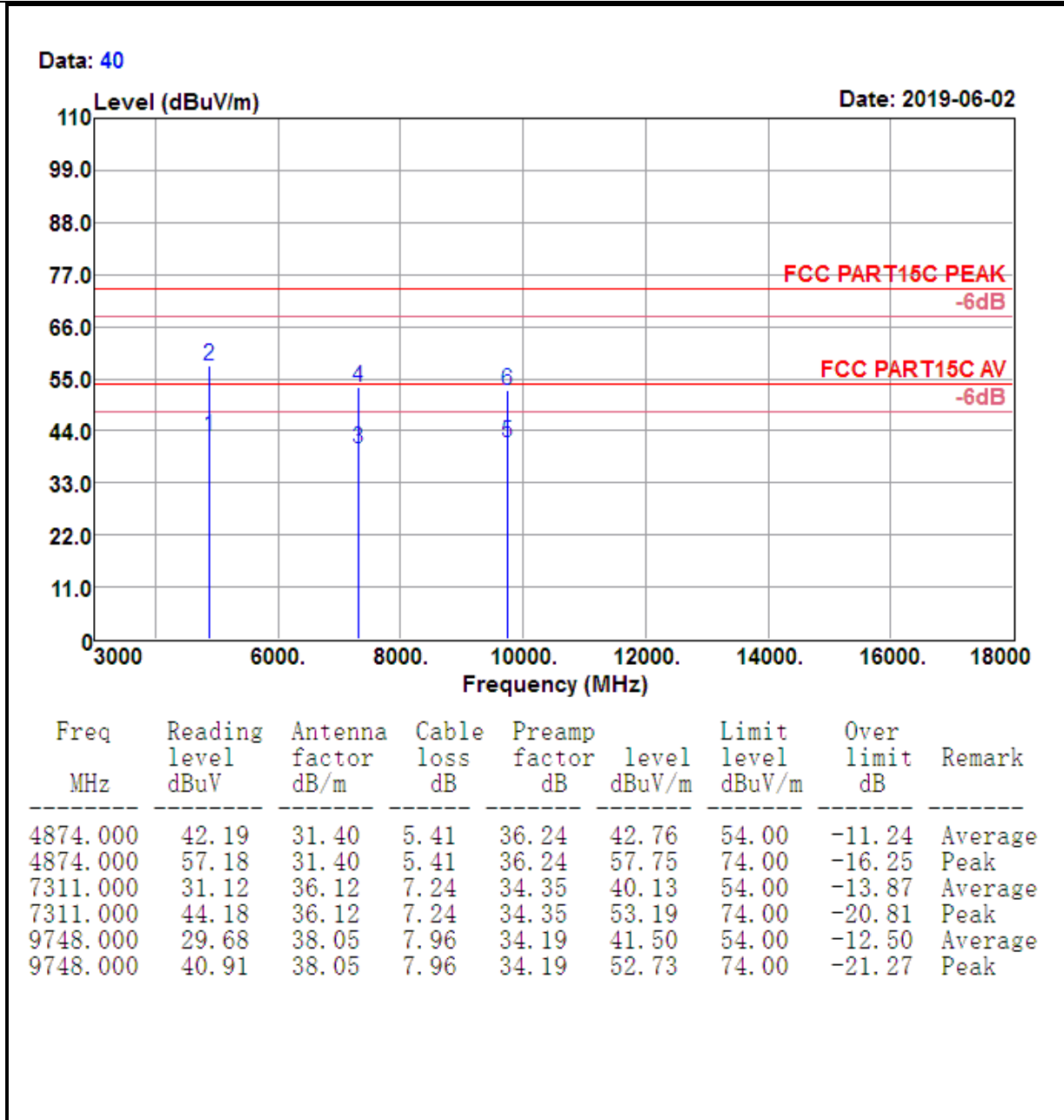
Data: 38



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2437.000	108.82	27.24	3.66	36.20	103.52	74.00	29.52	Peak

<b>Test Mode :</b>	802.11g CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal



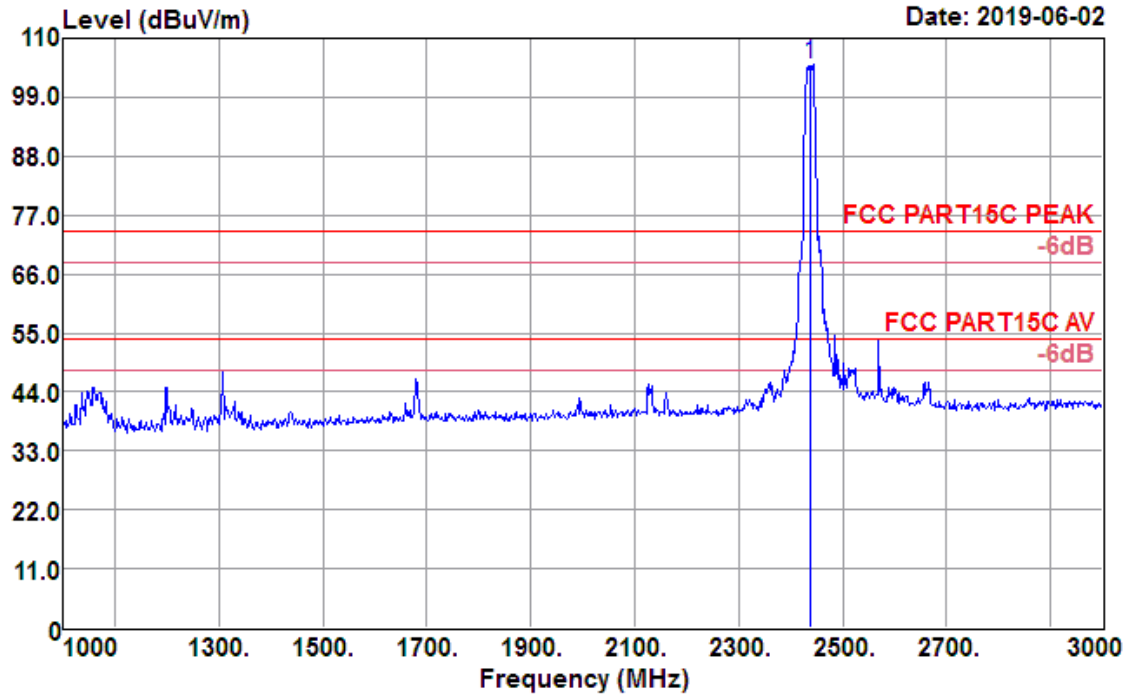


Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



<b>Test Mode :</b>	802.11g CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

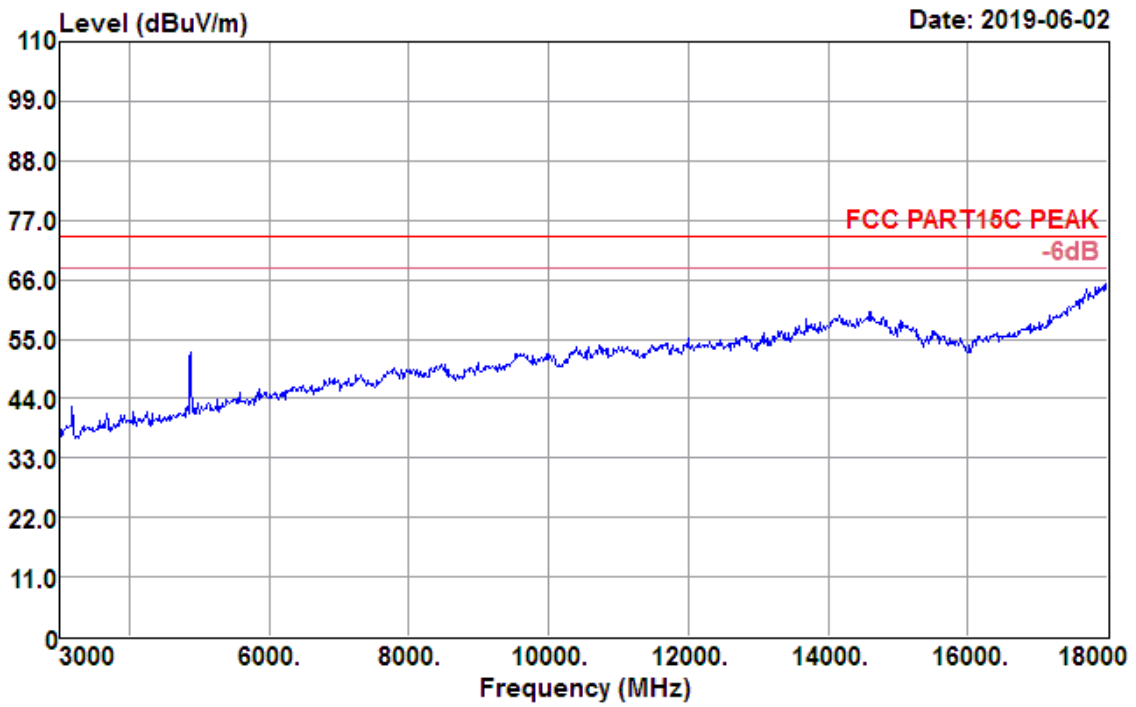
Data: 37

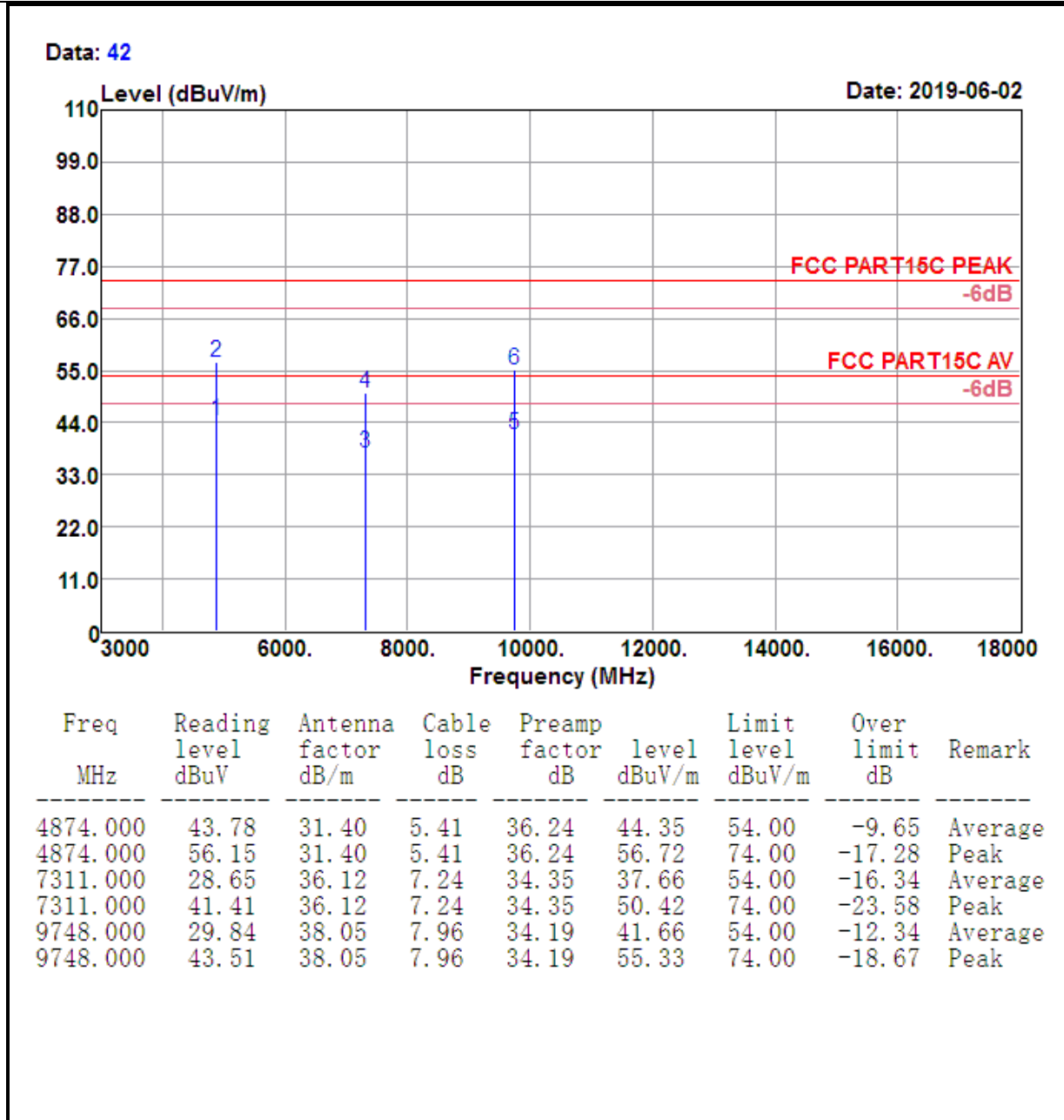


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2437.000	110.56	27.24	3.66	36.20	105.26	74.00	31.26	Peak

<b>Test Mode :</b>	802.11g CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 41

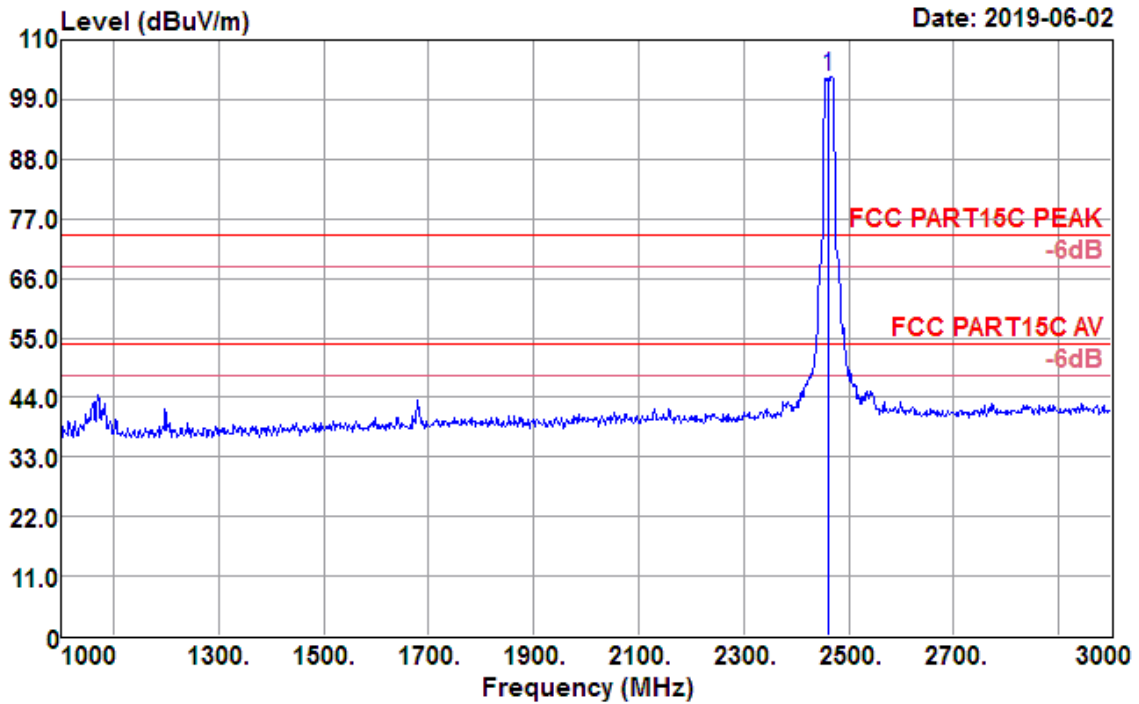




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11g CH11 (2462MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

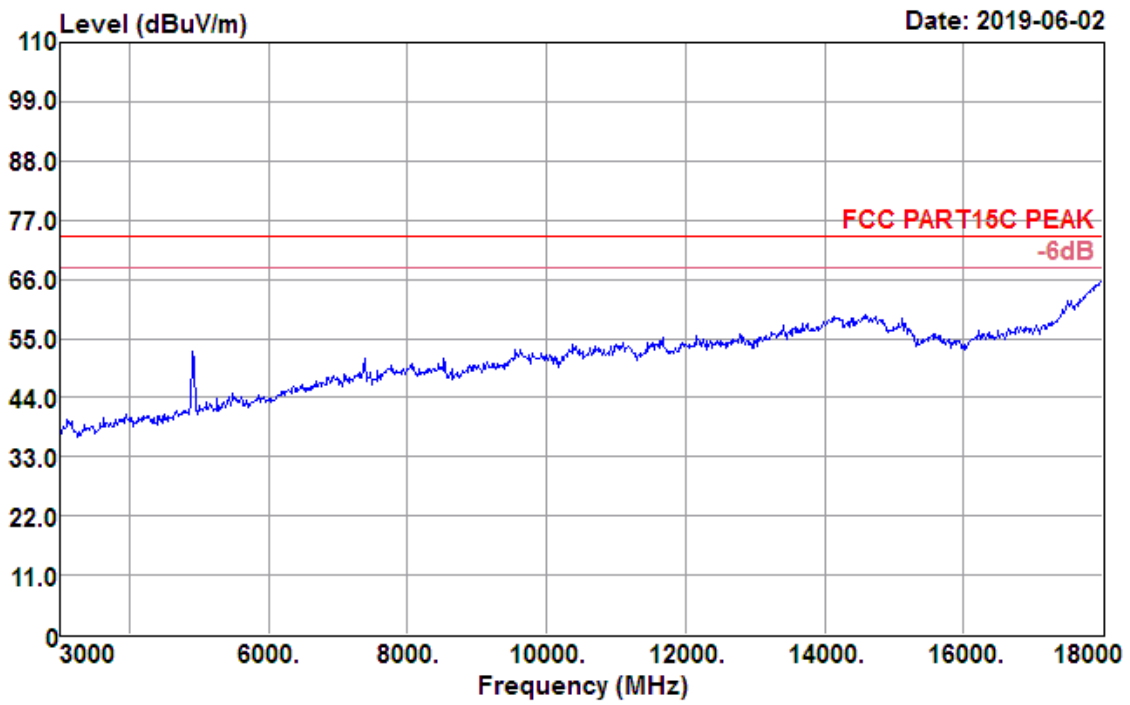
Data: 49

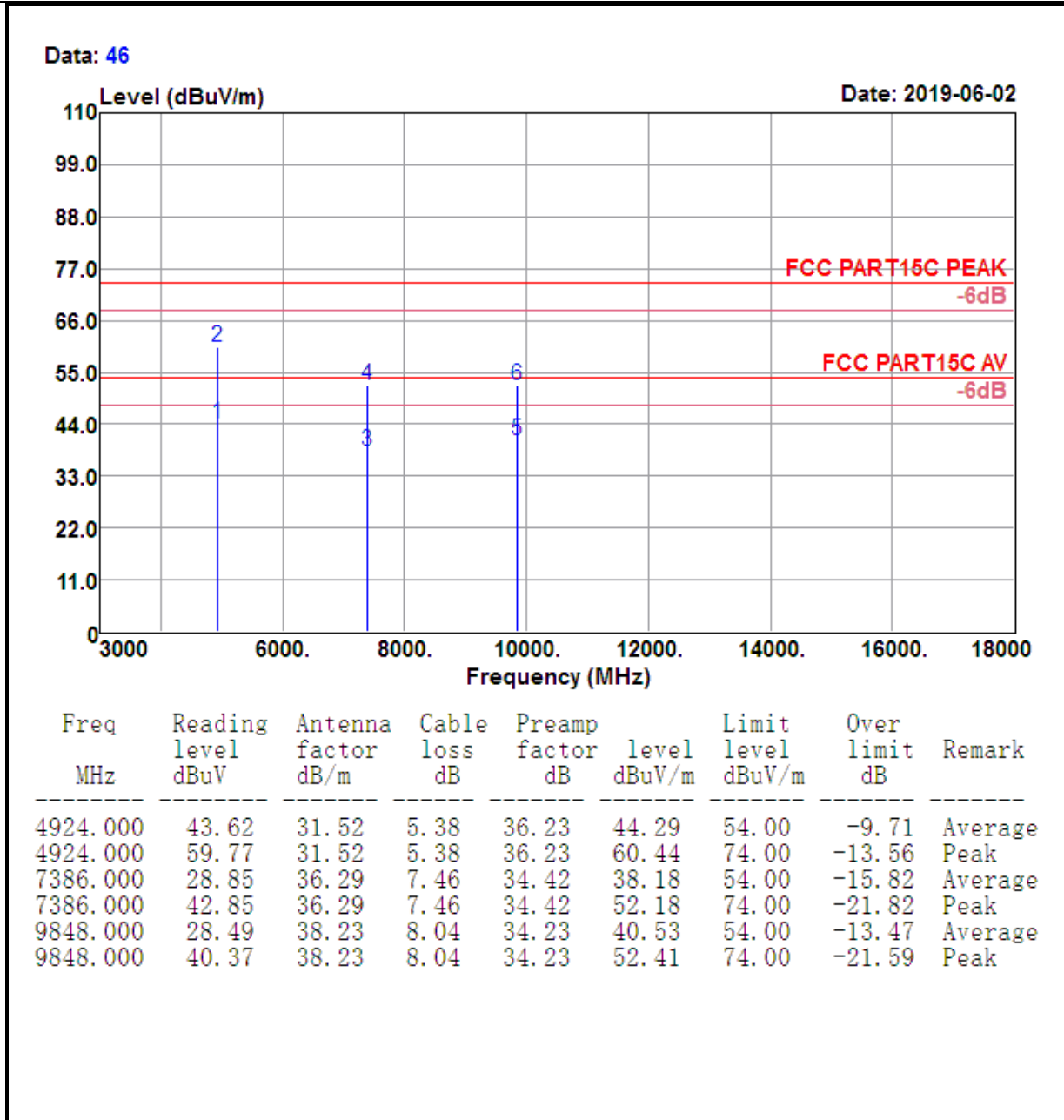


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2462.000	108.53	27.30	3.67	36.27	103.23	74.00	29.23	Peak

<b>Test Mode :</b>	802.11g CH11 (2462MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 45

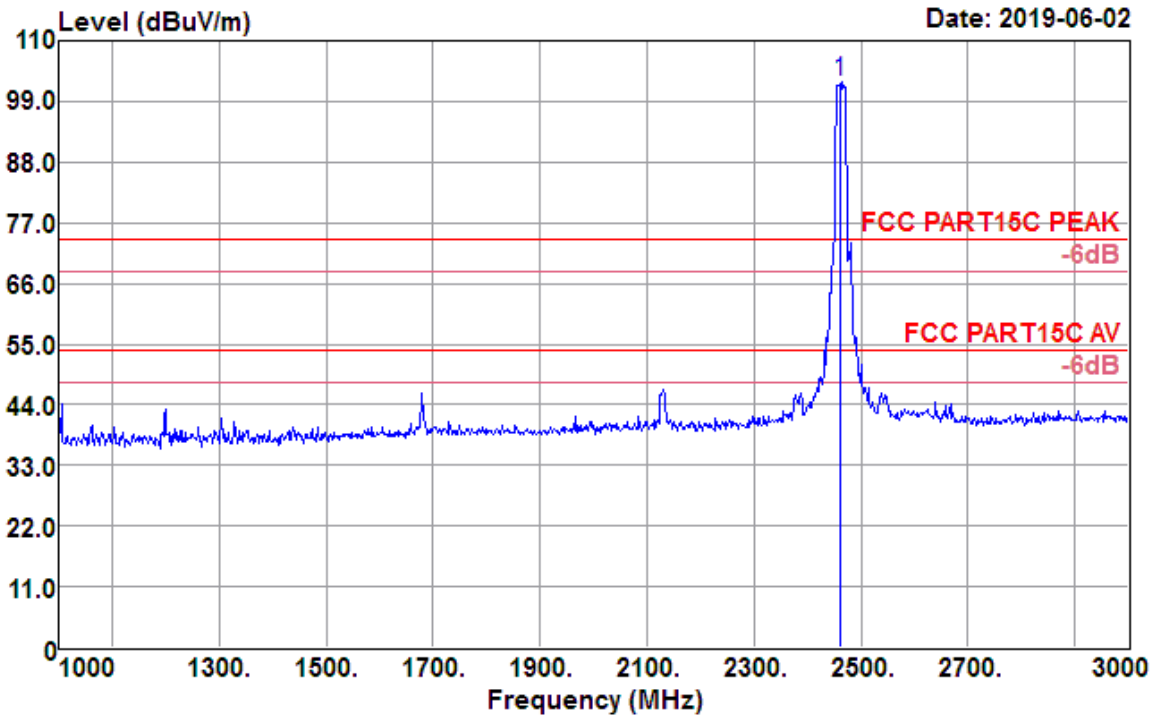




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11g CH11 (2462MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

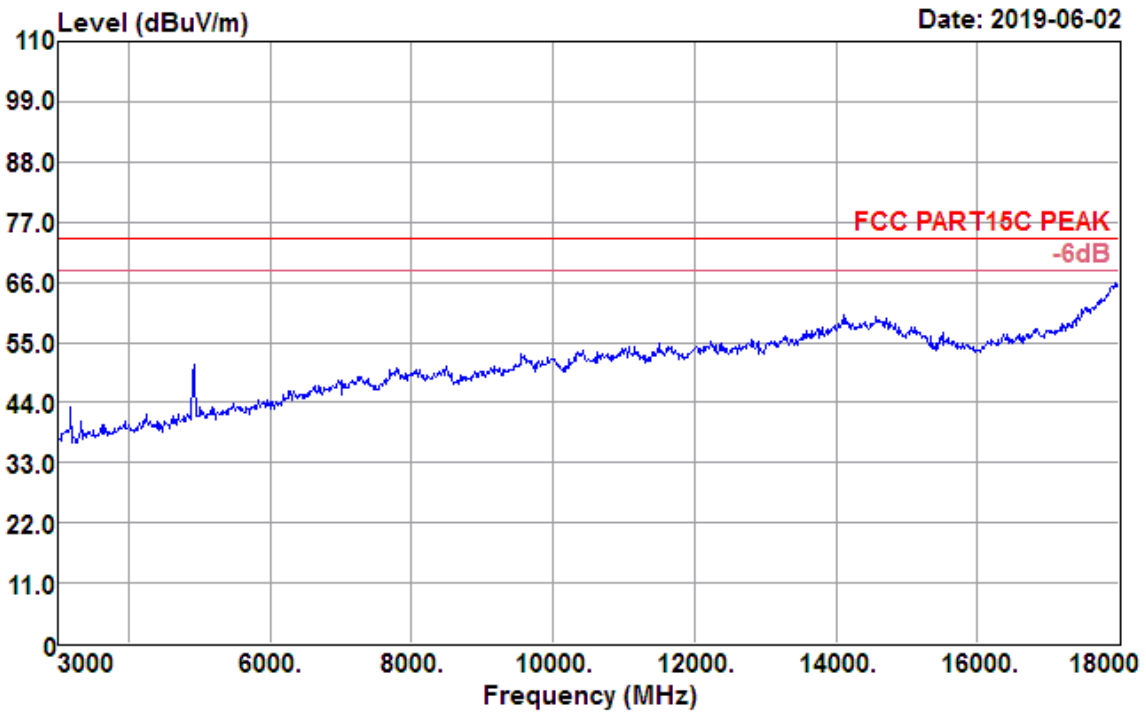
Data: 52



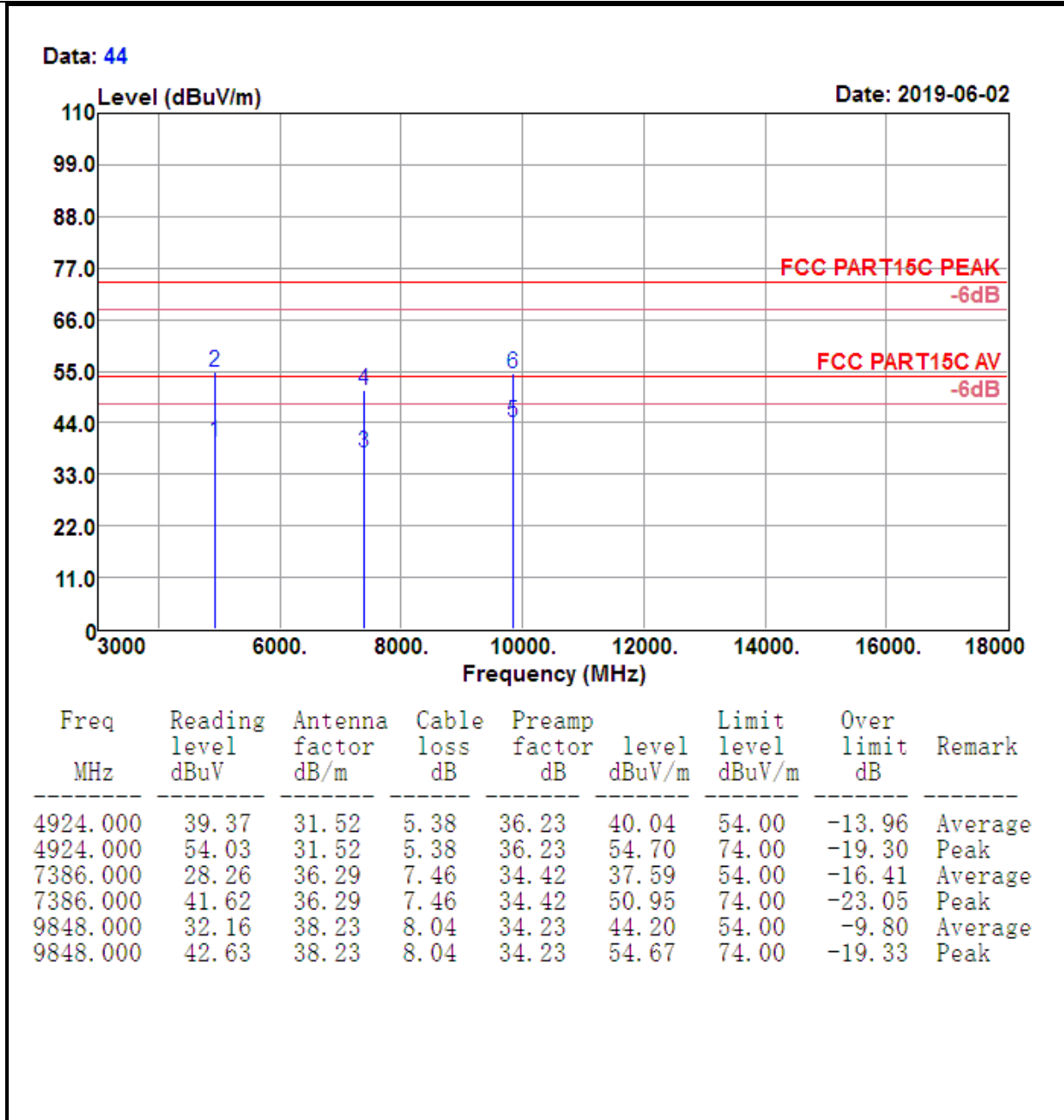
Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2462.000	107.86	27.30	3.67	36.27	102.56	74.00	28.56	Peak

<b>Test Mode :</b>	802.11g CH11 (2462MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 43



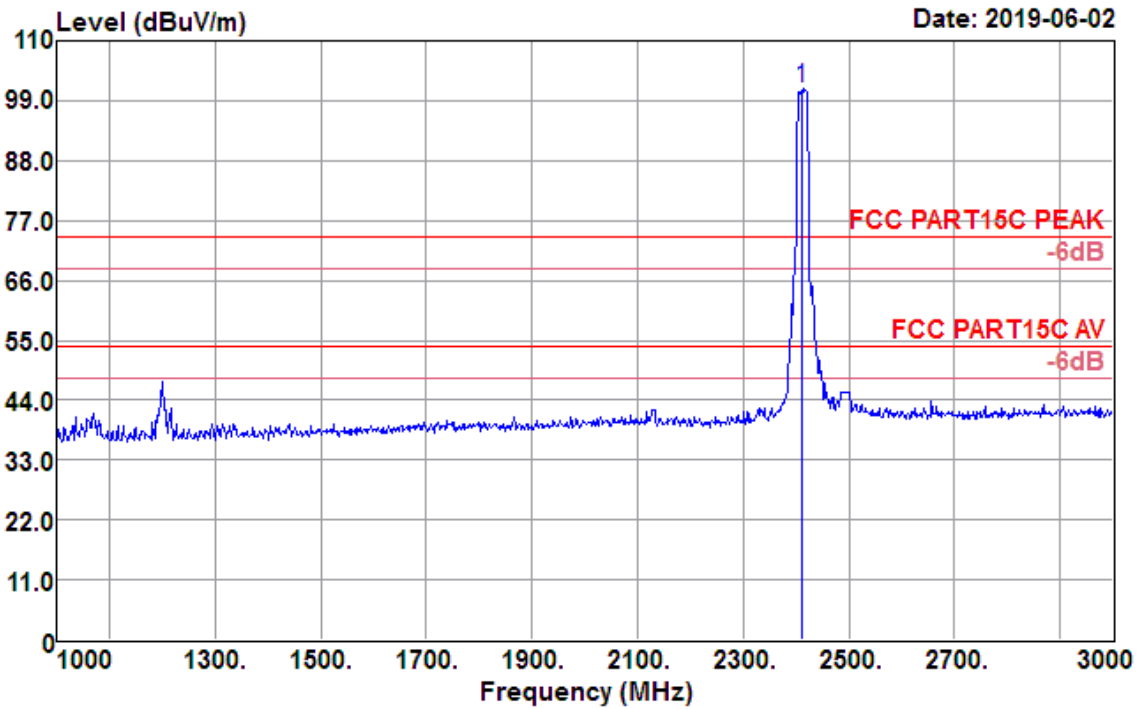




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT20 CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

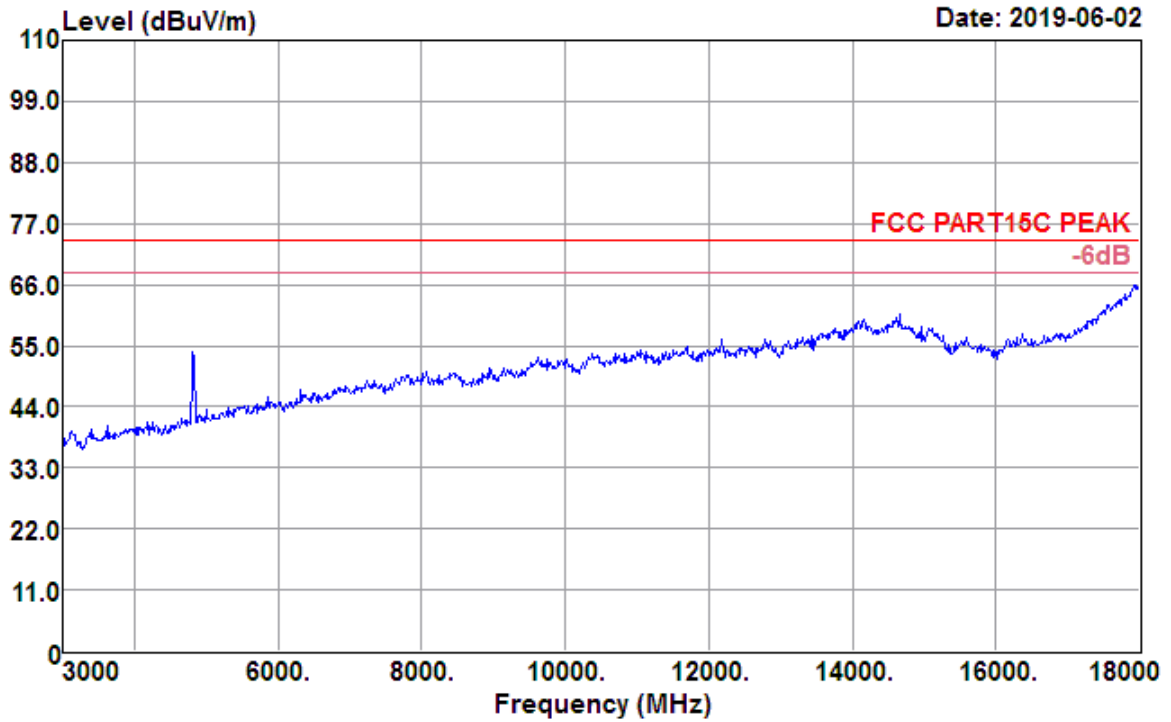
Data: 58

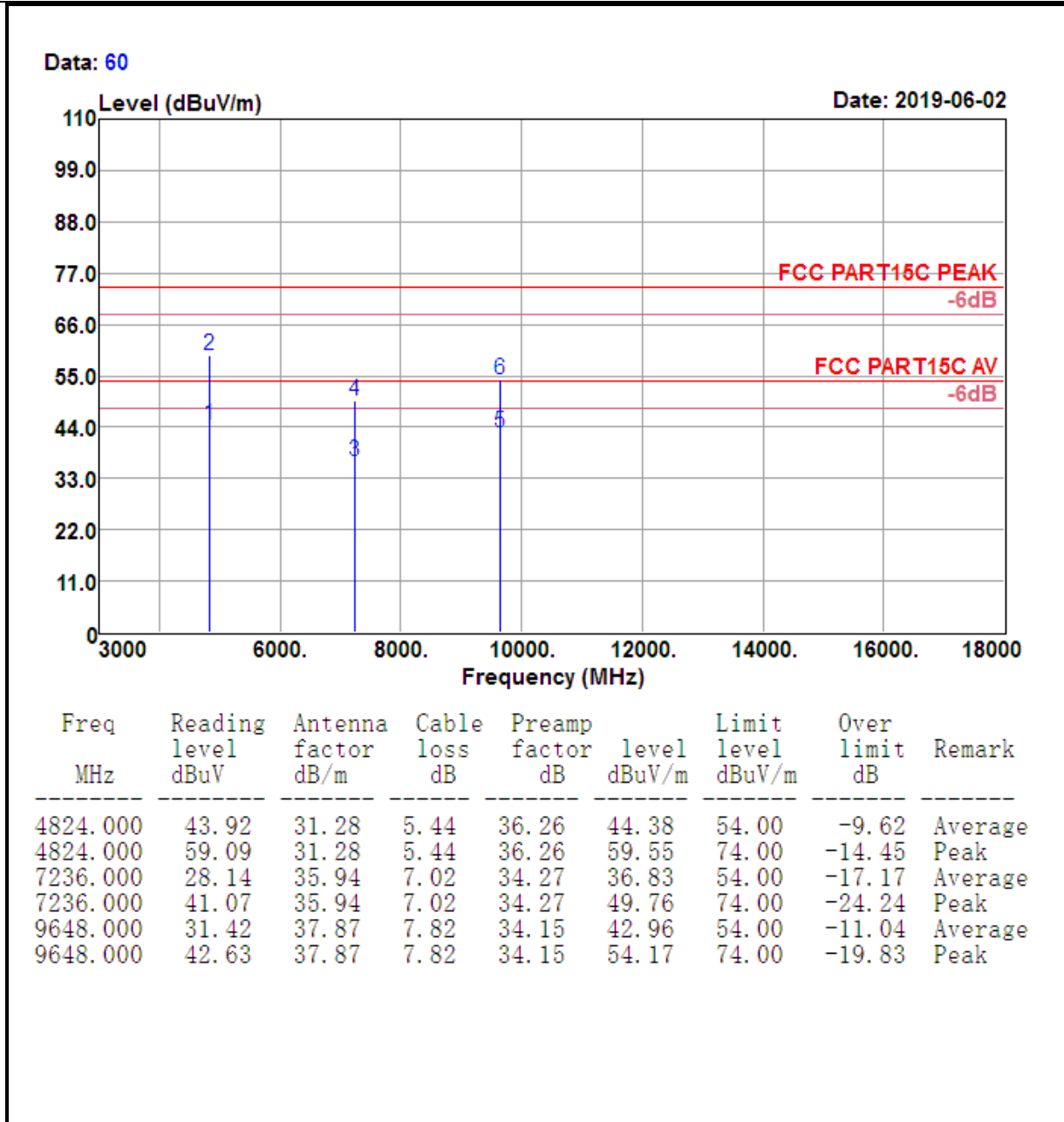


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2412.000	106.64	27.17	3.65	36.14	101.32	74.00	27.32	Peak

<b>Test Mode :</b>	802.11n HT20 CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 59

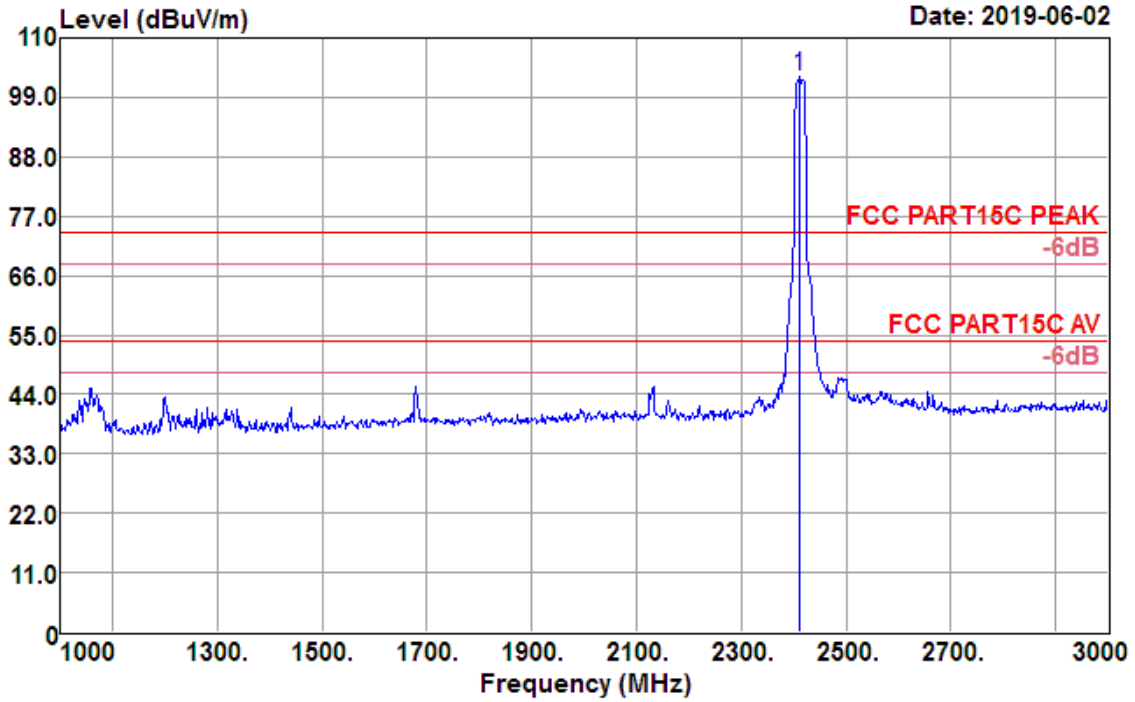




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

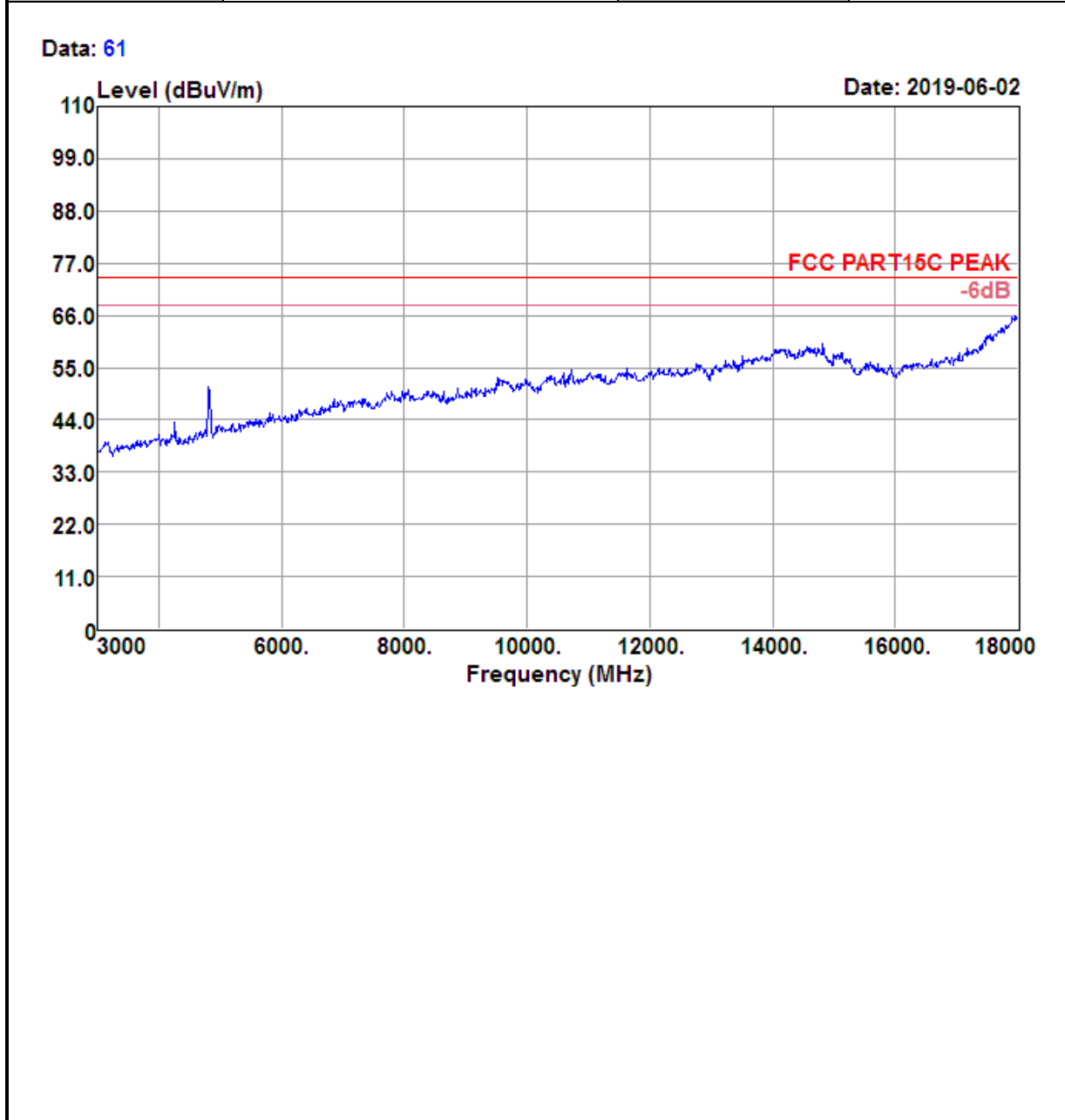
<b>Test Mode :</b>	802.11n HT20 CH01 (2412 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

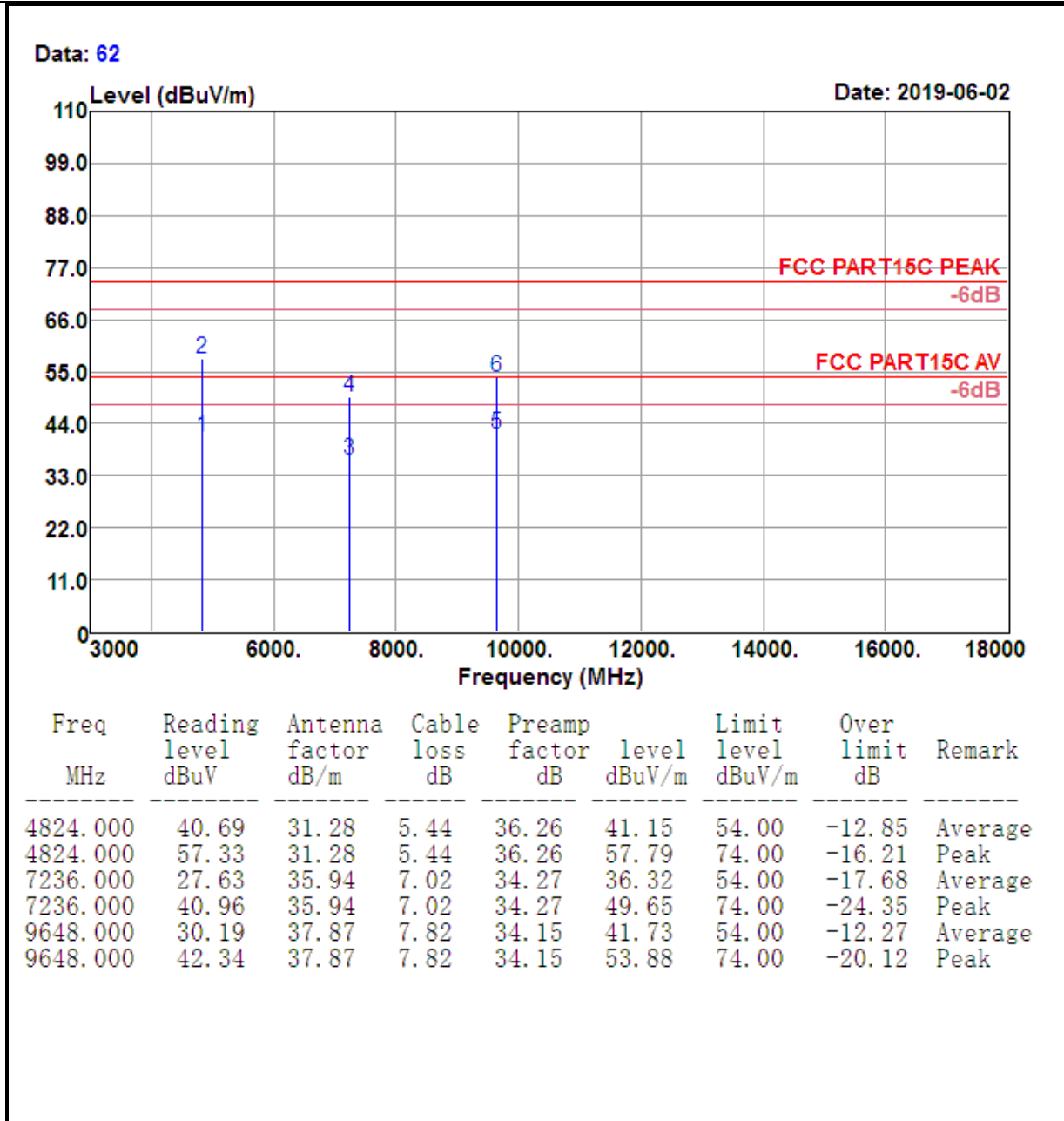
Data: 55



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2412.000	108.04	27.17	3.65	36.14	102.72	74.00	28.72	Peak

<b>Test Mode :</b>	802.11n HT20 CH01 (2412 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

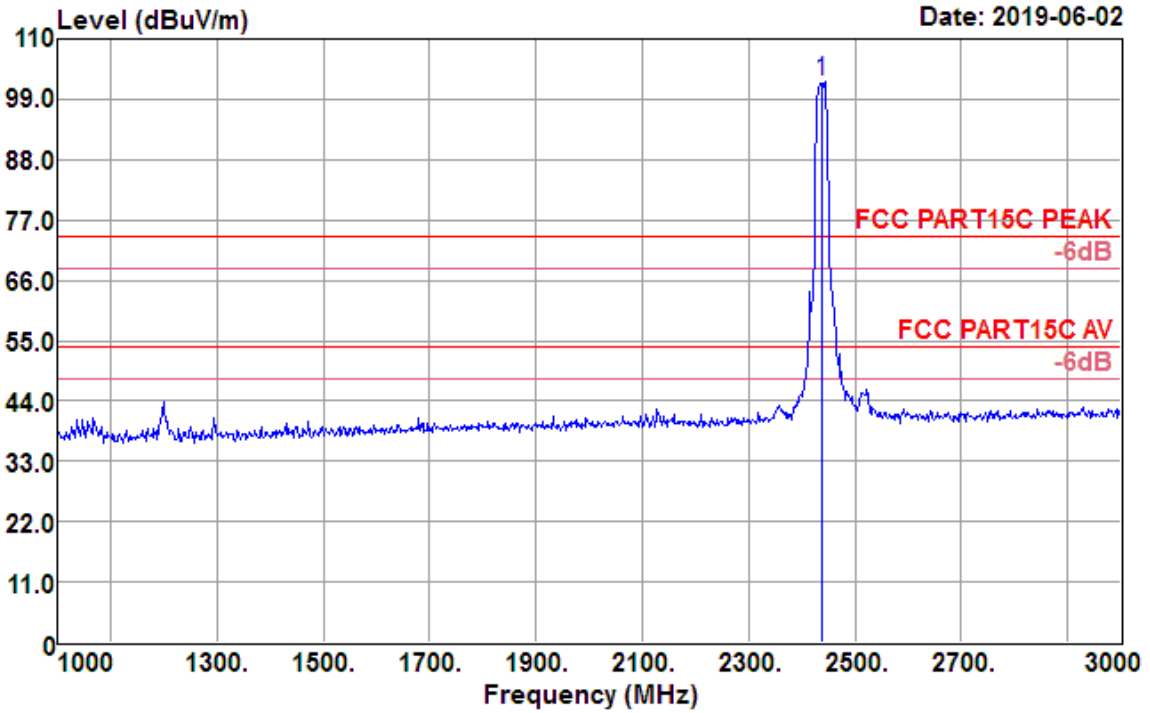




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT20 CH06 (2437MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

Data: 68

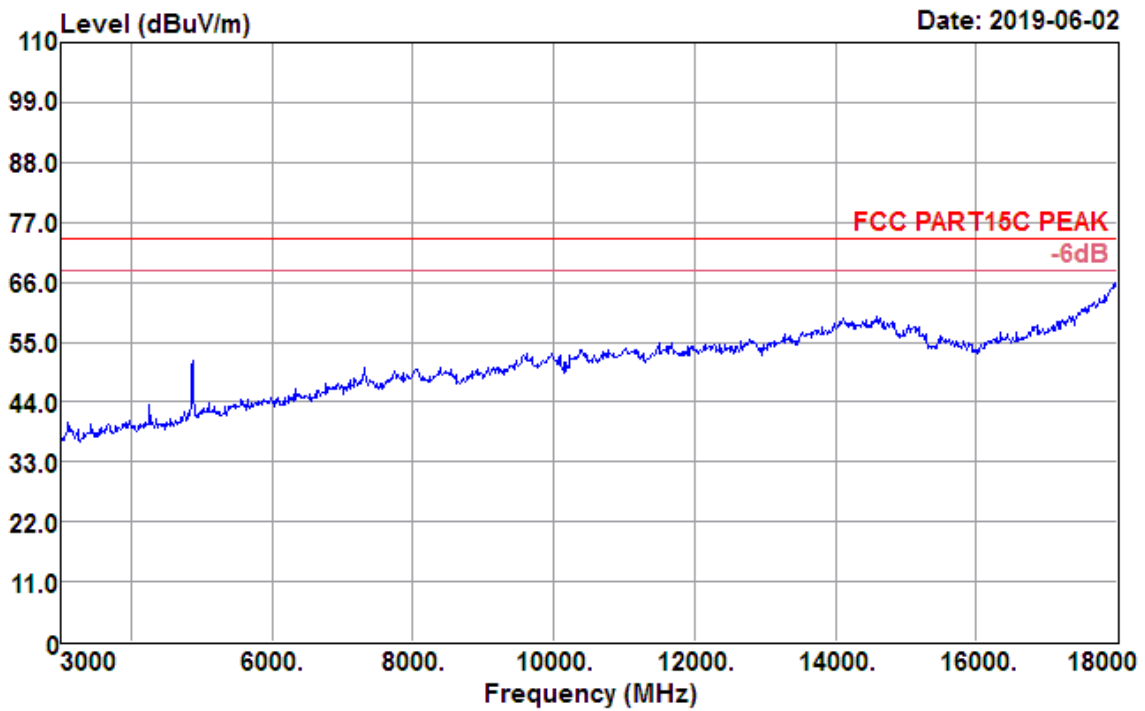


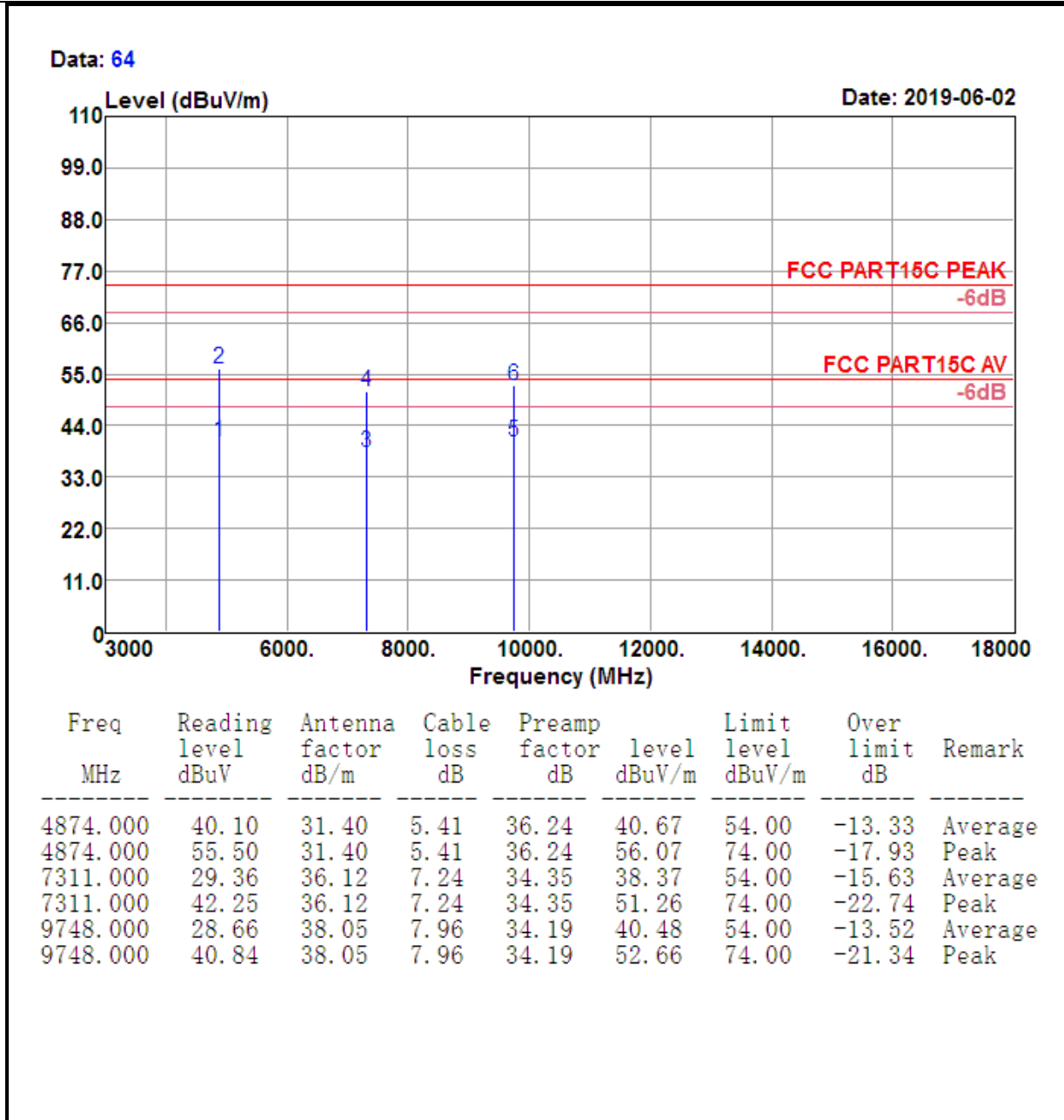
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2437.000	107.59	27.24	3.66	36.20	102.29	74.00	28.29	Peak



<b>Test Mode :</b>	802.11n HT20 CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 63

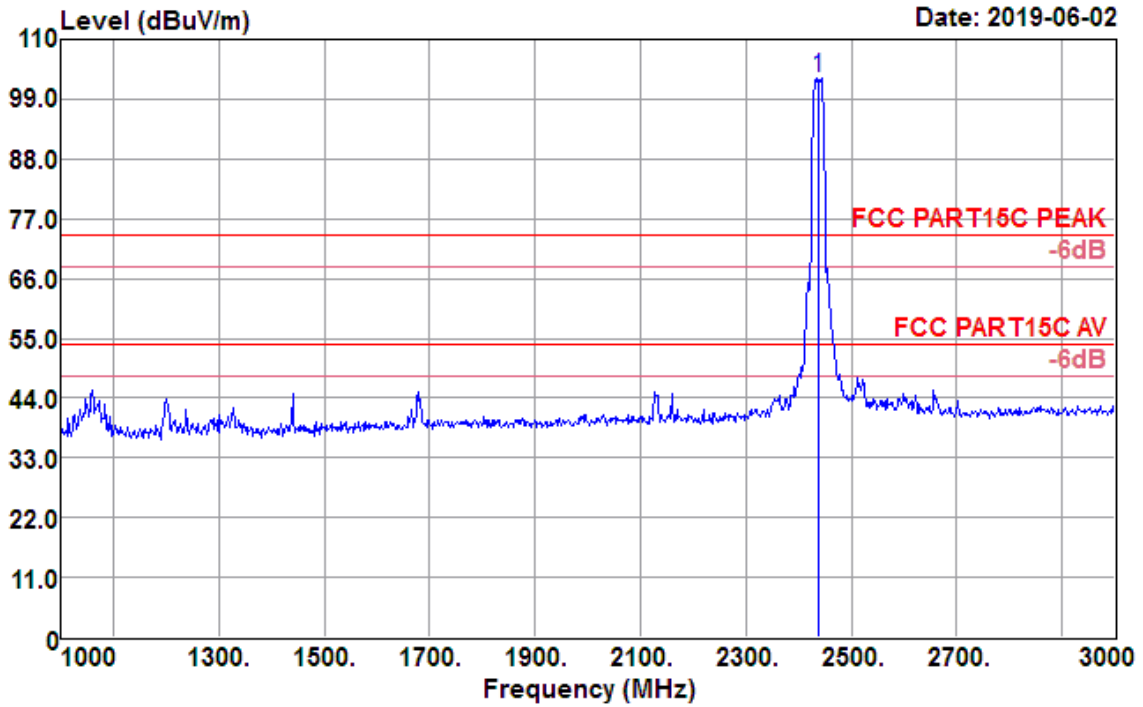




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT20 CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

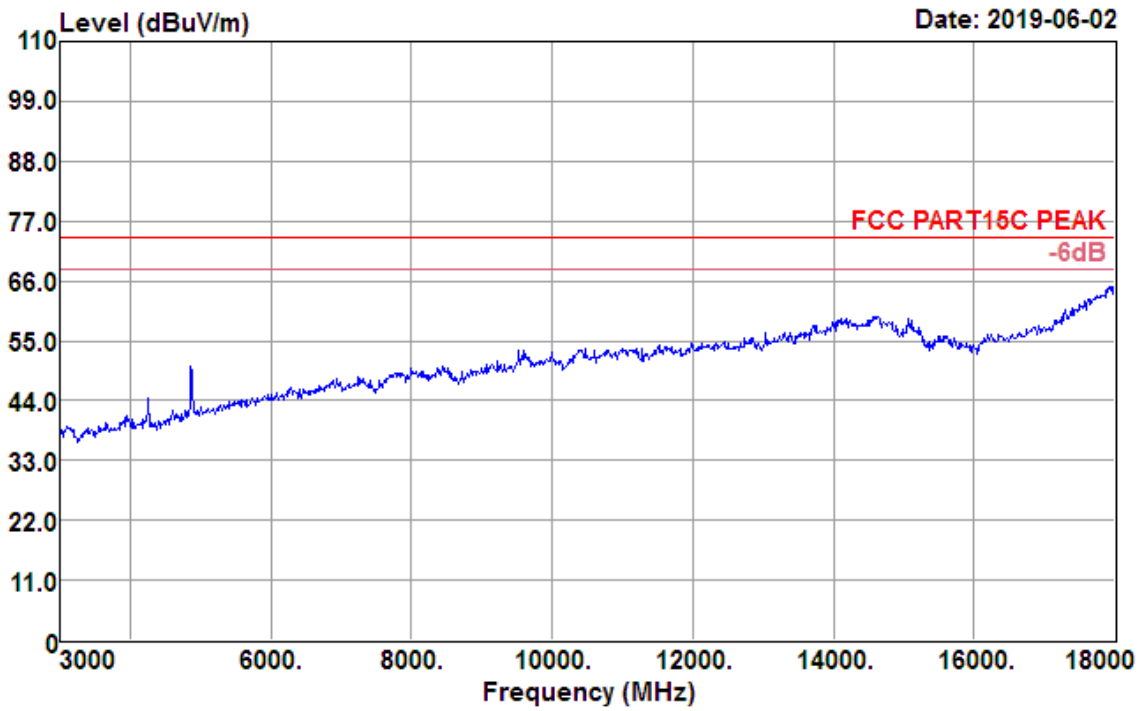
Data: 67

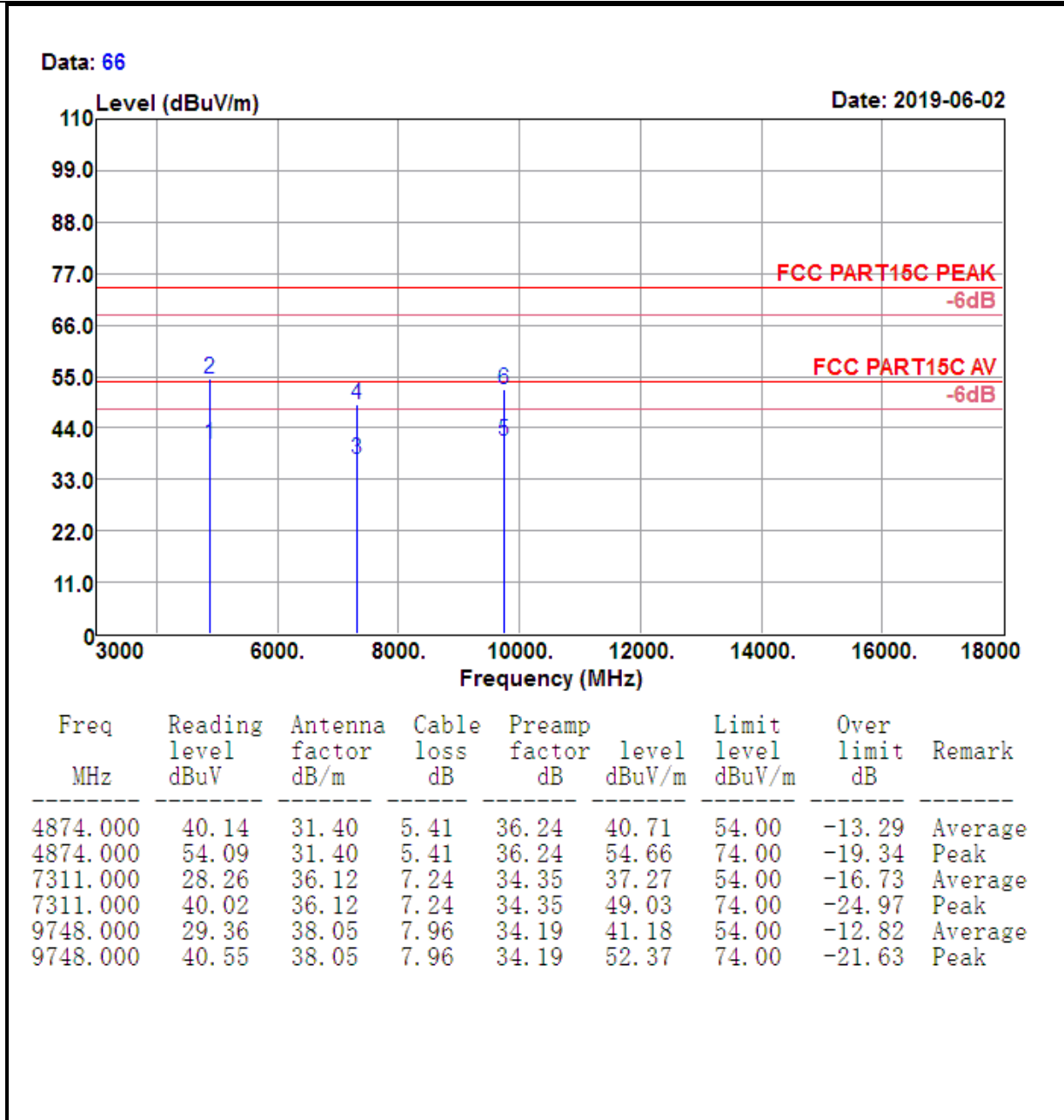


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2437.000	108.24	27.24	3.66	36.20	102.94	74.00	28.94	Peak

<b>Test Mode :</b>	802.11n HT20 CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 65

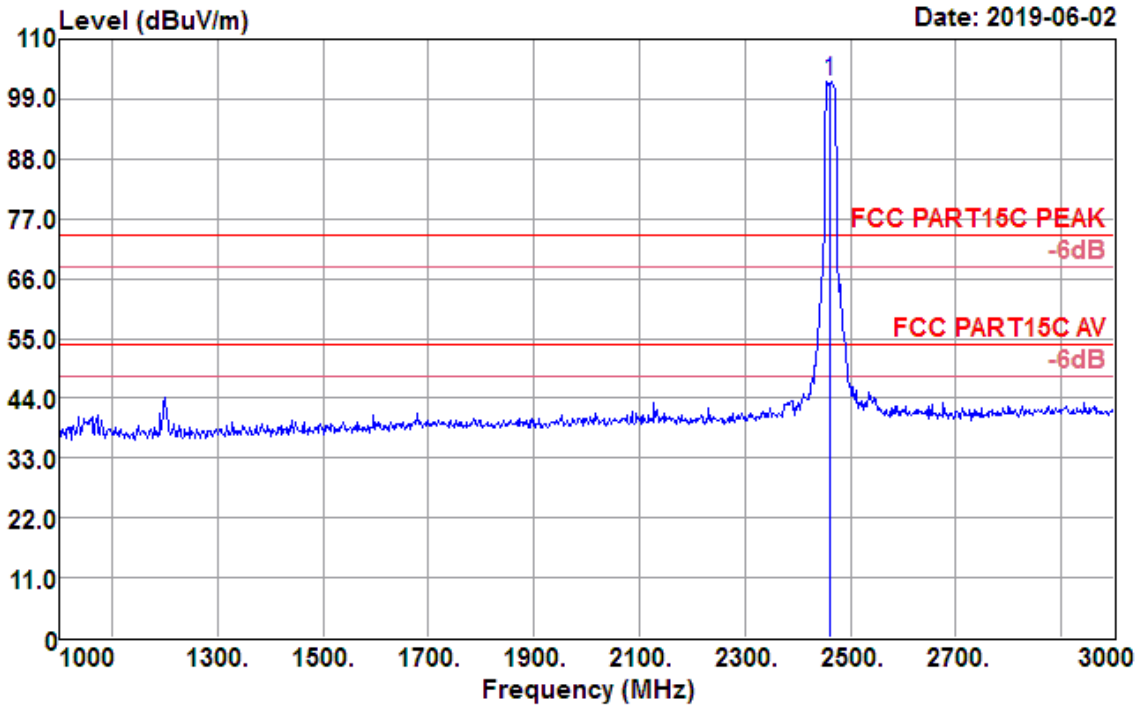




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT20 CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

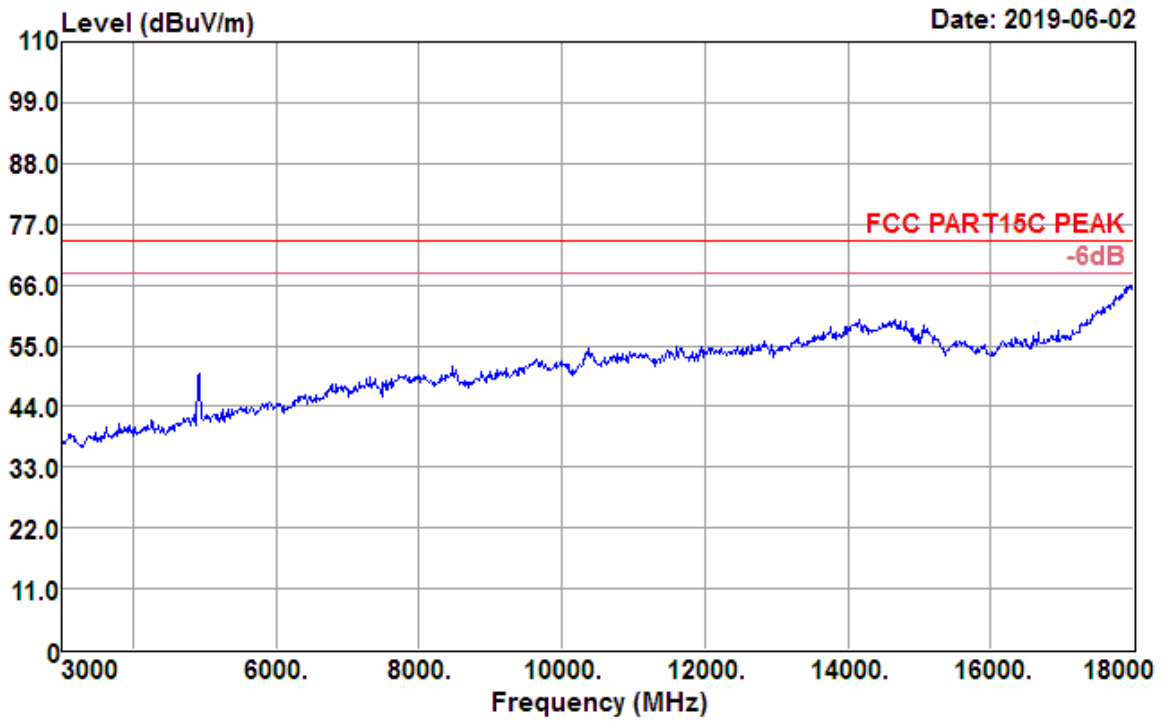
Data: 71

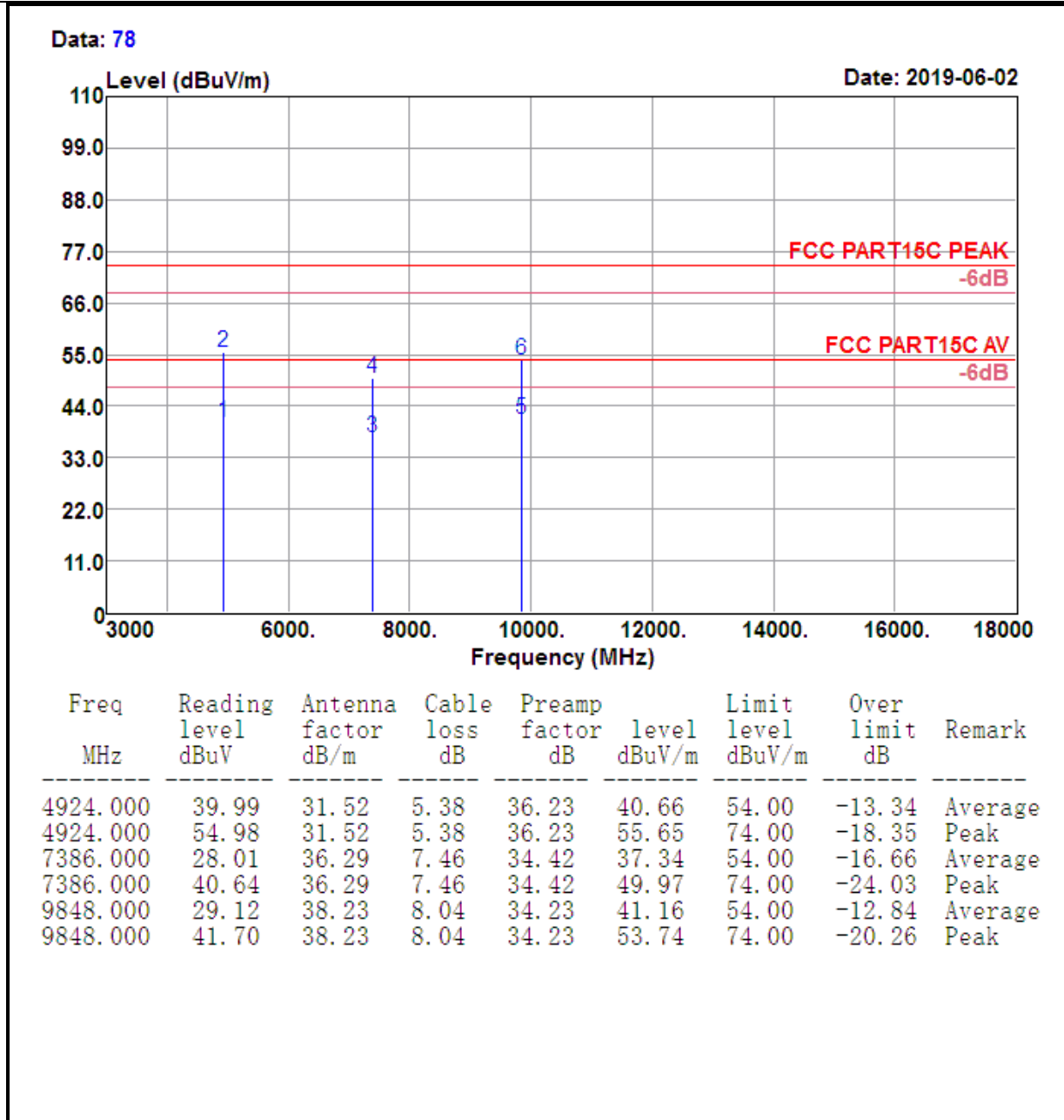


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2462.000	107.49	27.30	3.67	36.27	102.19	74.00	28.19	Peak

<b>Test Mode :</b>	802.11n HT20 CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 77



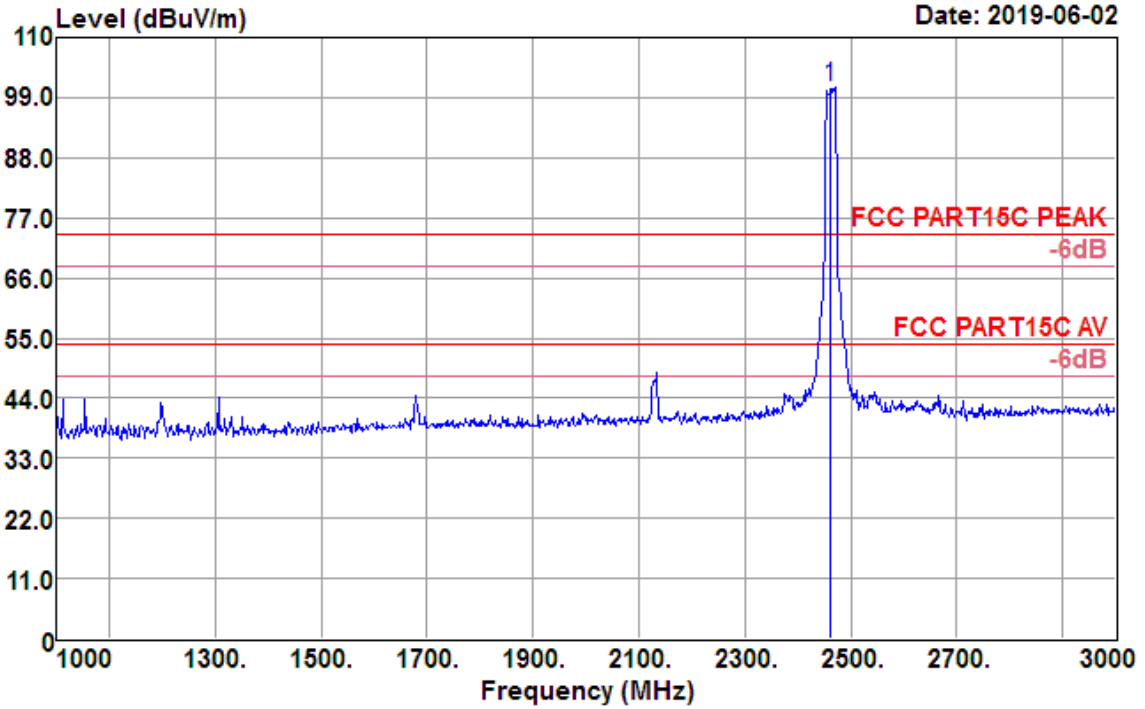


Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



<b>Test Mode :</b>	802.11n HT20 CH11 (2462 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

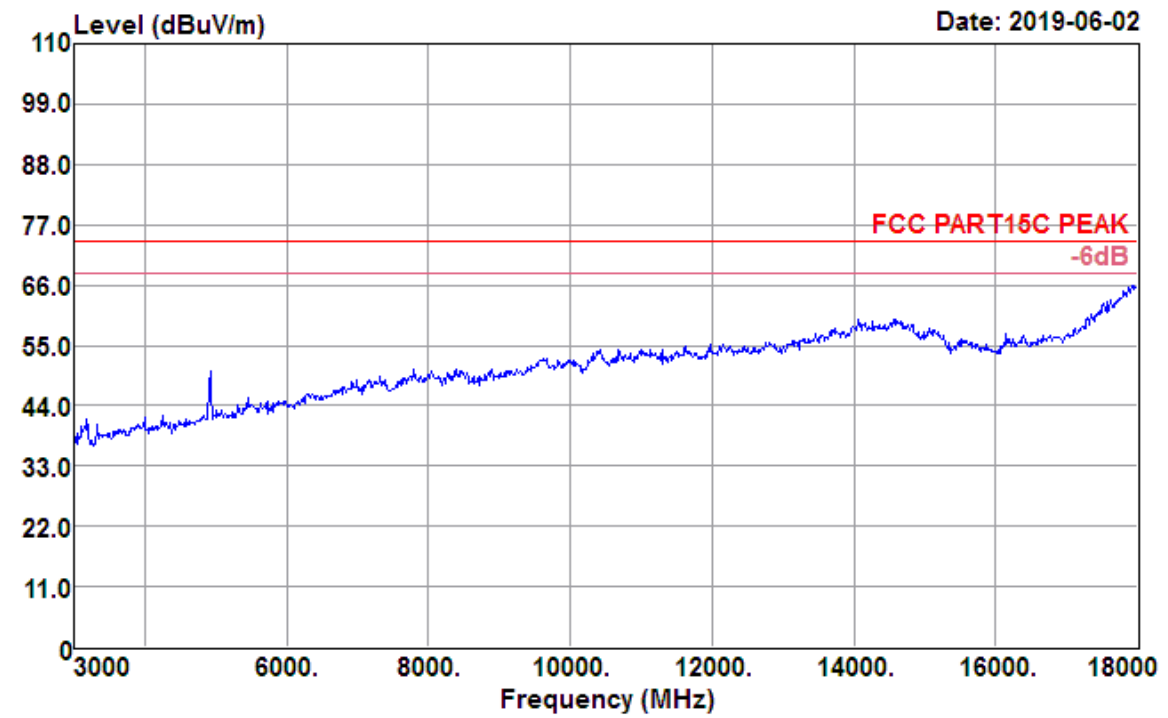
Data: 74

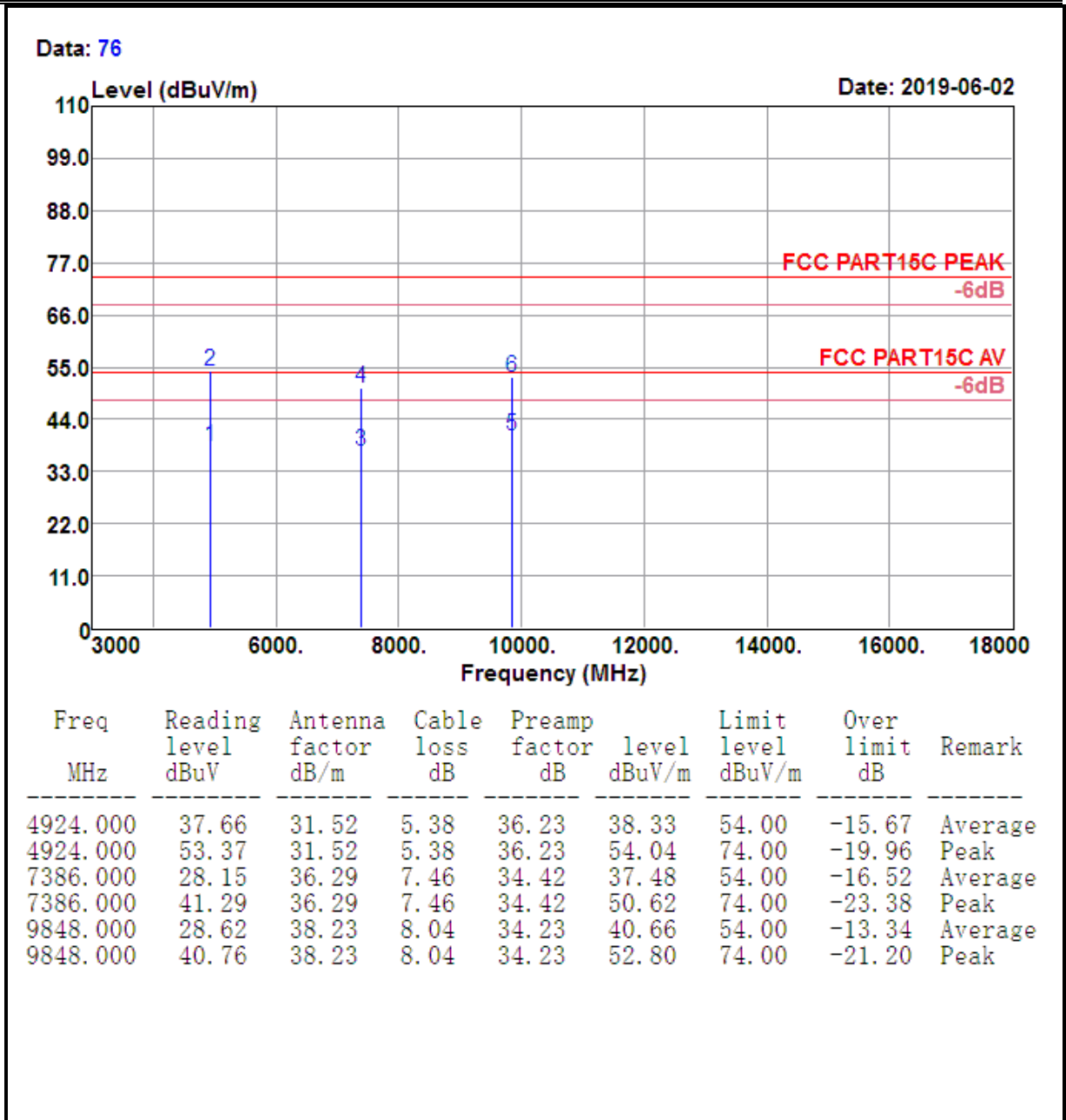


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2462.000	106.32	27.30	3.67	36.27	101.02	74.00	27.02	Peak

<b>Test Mode :</b>	802.11n HT20 CH11 (2462 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 75

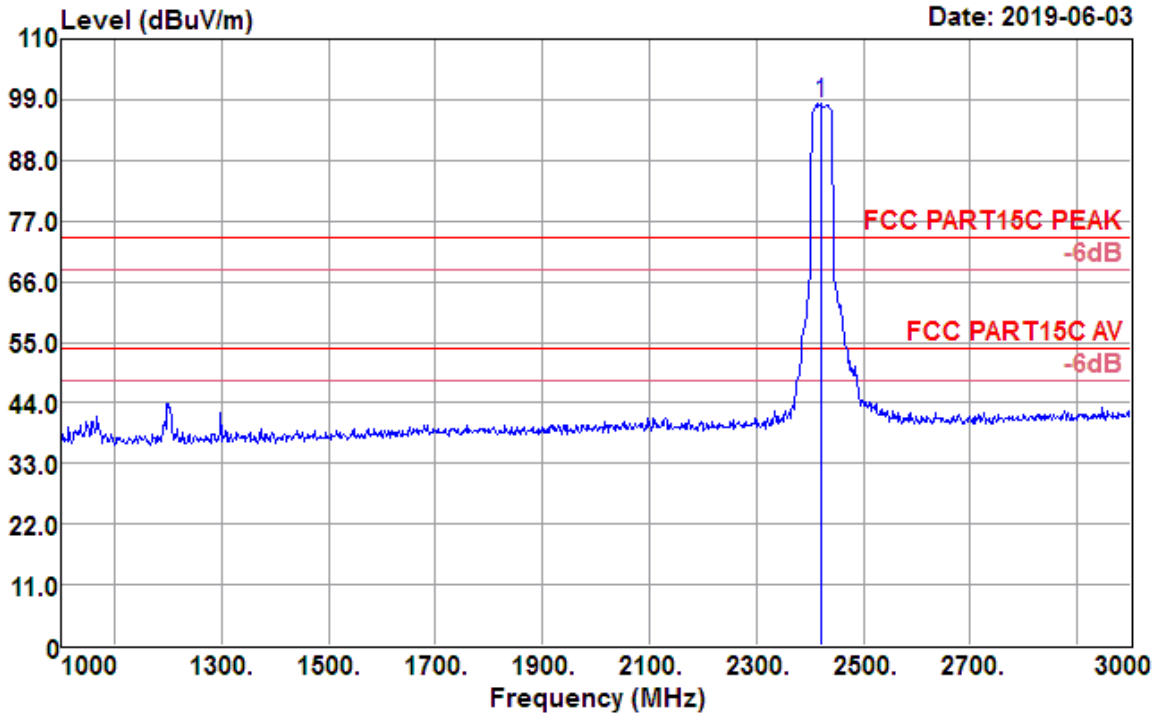




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT40 CH03 (2422 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

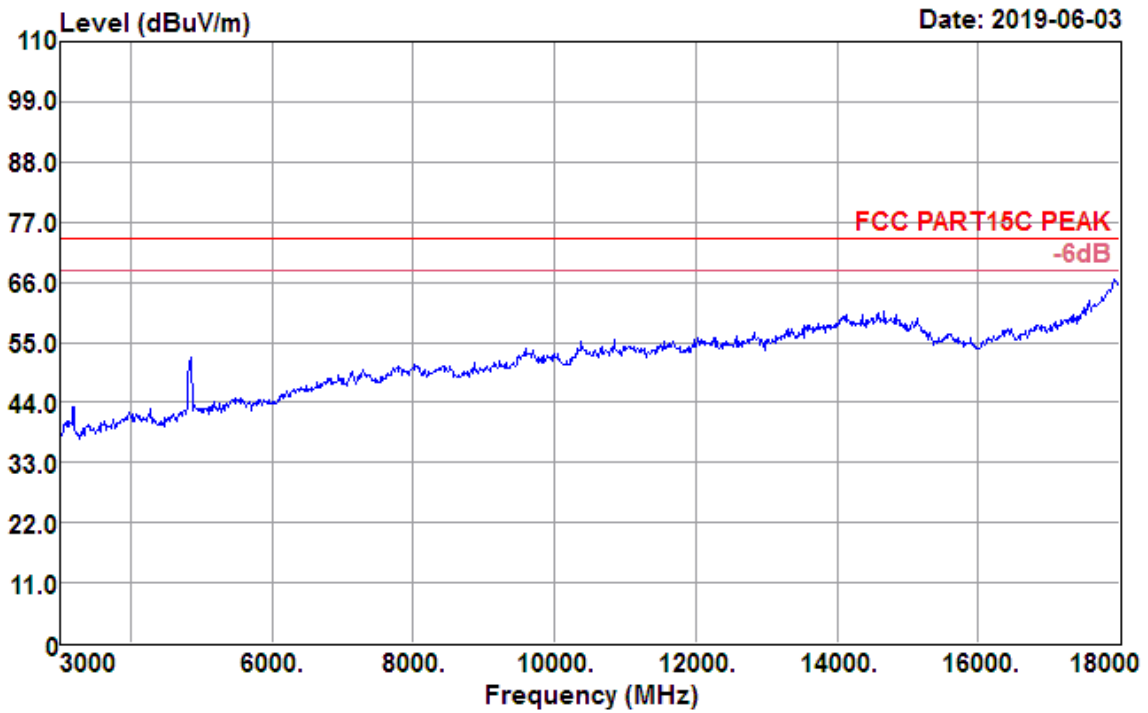
Data: 85

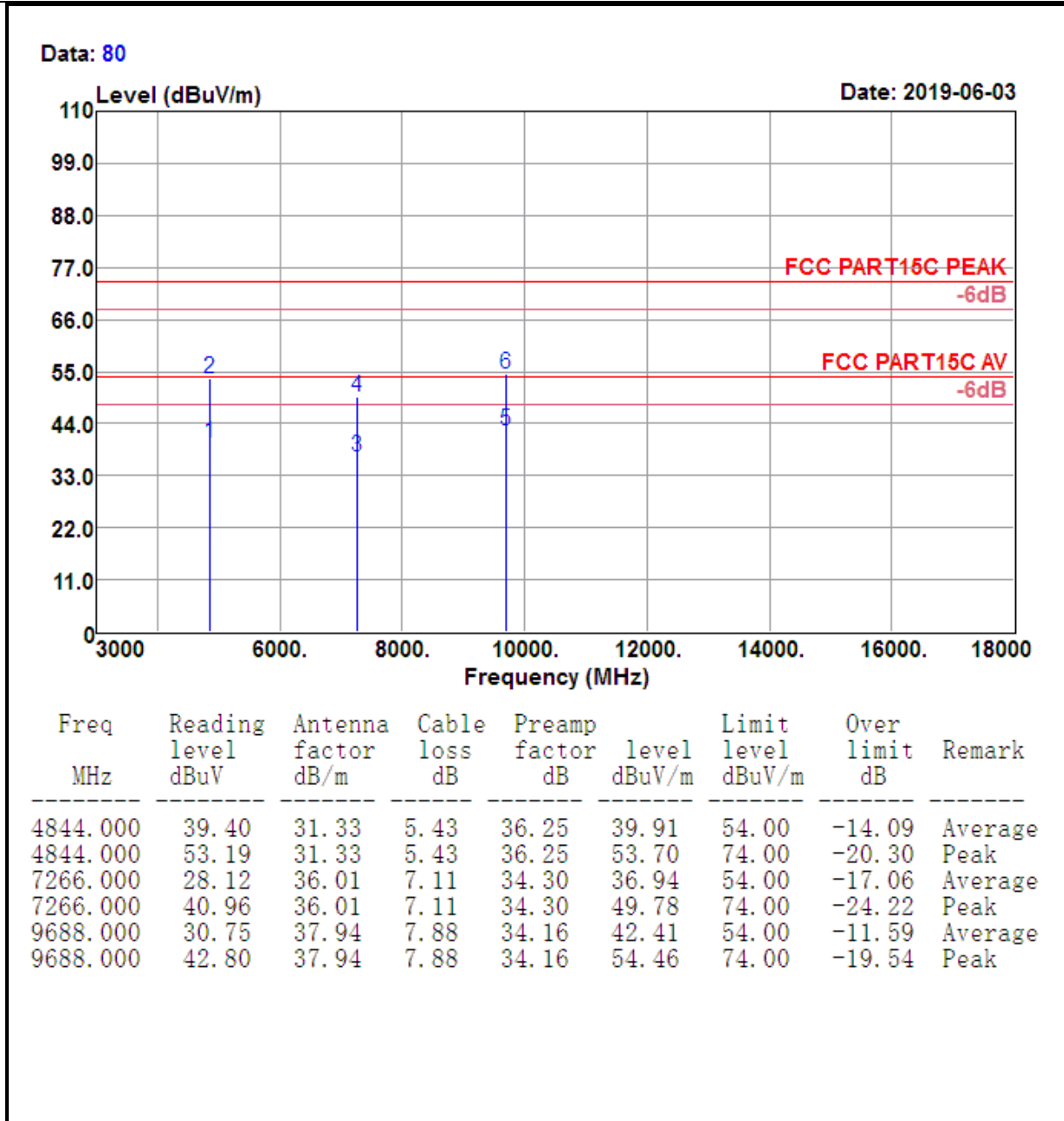


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2422.000	103.57	27.20	3.66	36.16	98.27	74.00	24.27	Peak

<b>Test Mode :</b>	802.11n HT40 CH03 (2422 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 79

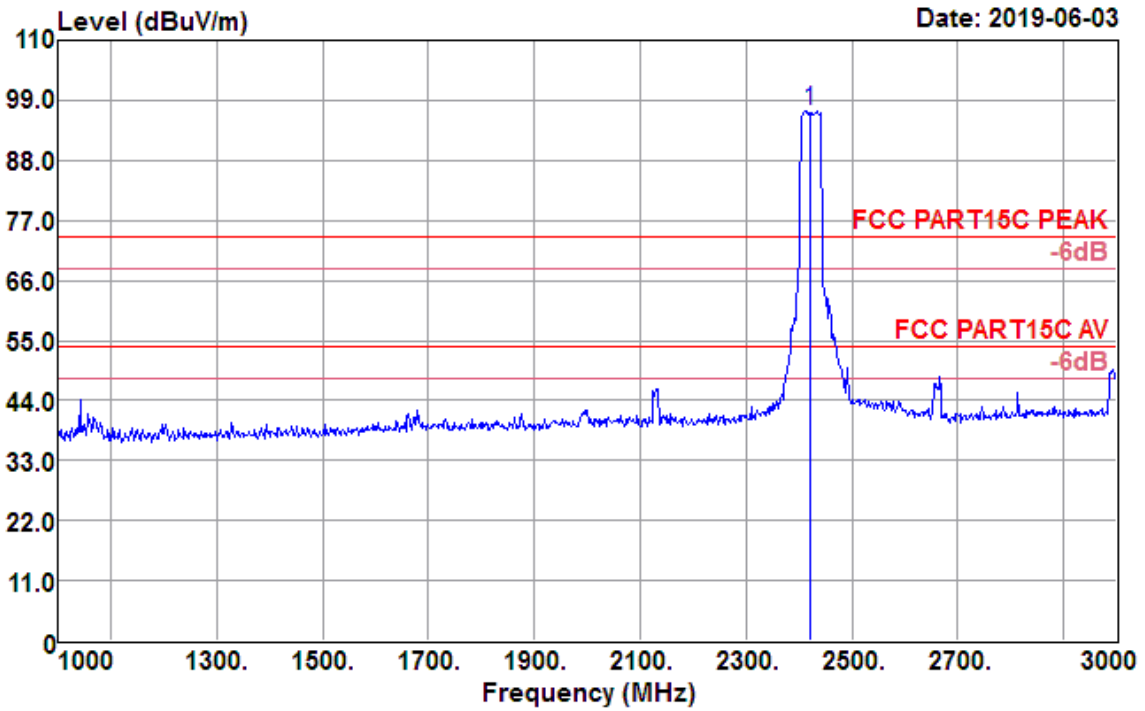




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

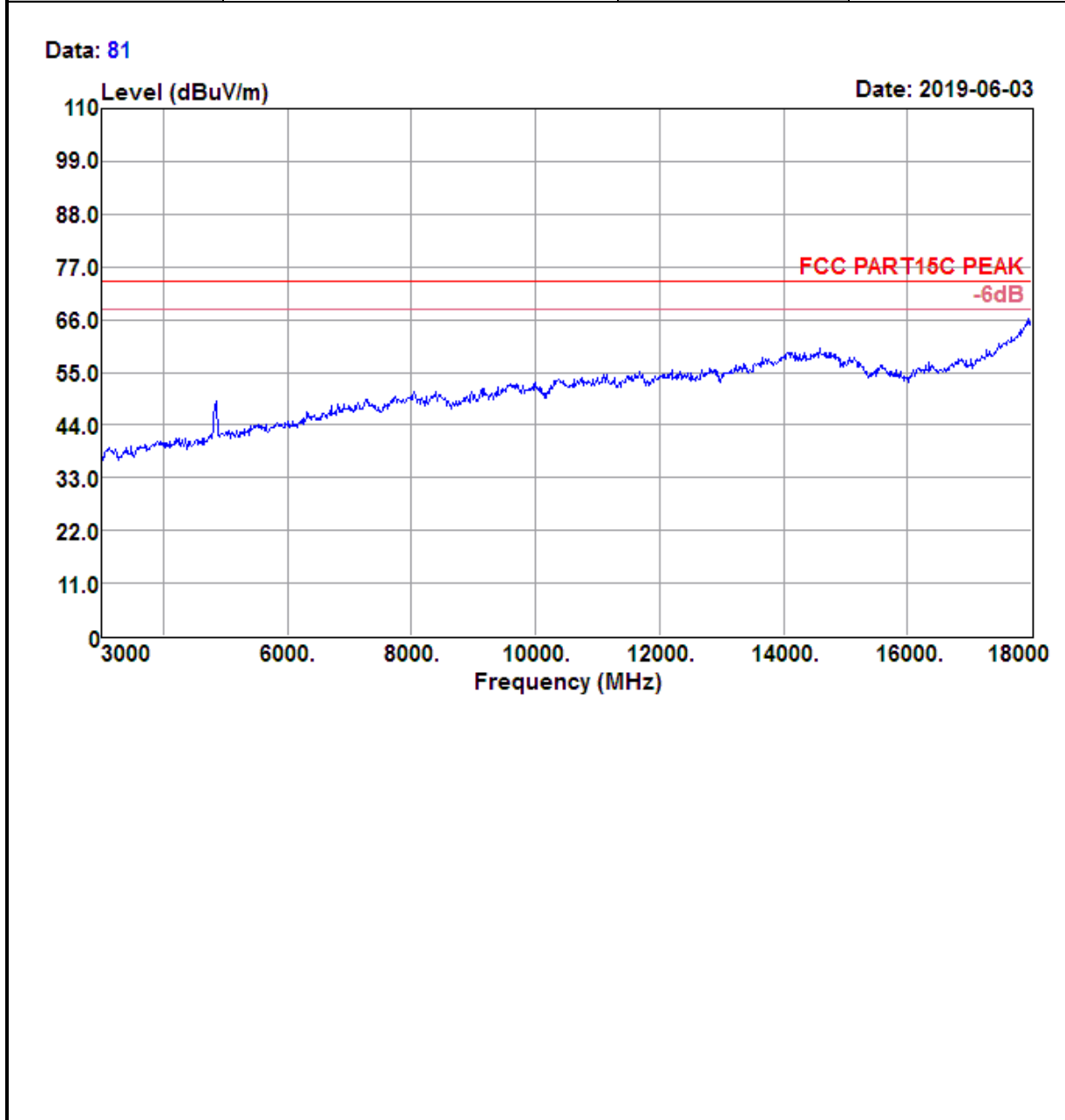
<b>Test Mode :</b>	802.11n HT40 CH03 (2422 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

Data: 88



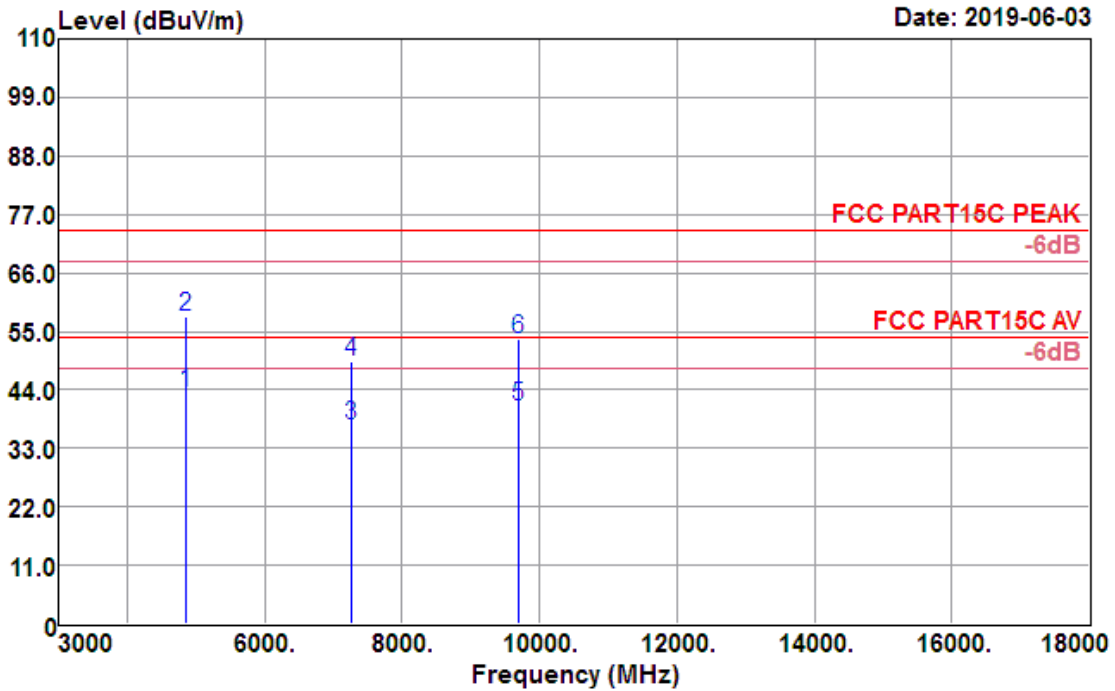
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2422.000	102.40	27.20	3.66	36.16	97.10	74.00	23.10	Peak

<b>Test Mode :</b>	802.11n HT40 CH03 (2422 MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical





Data: 82

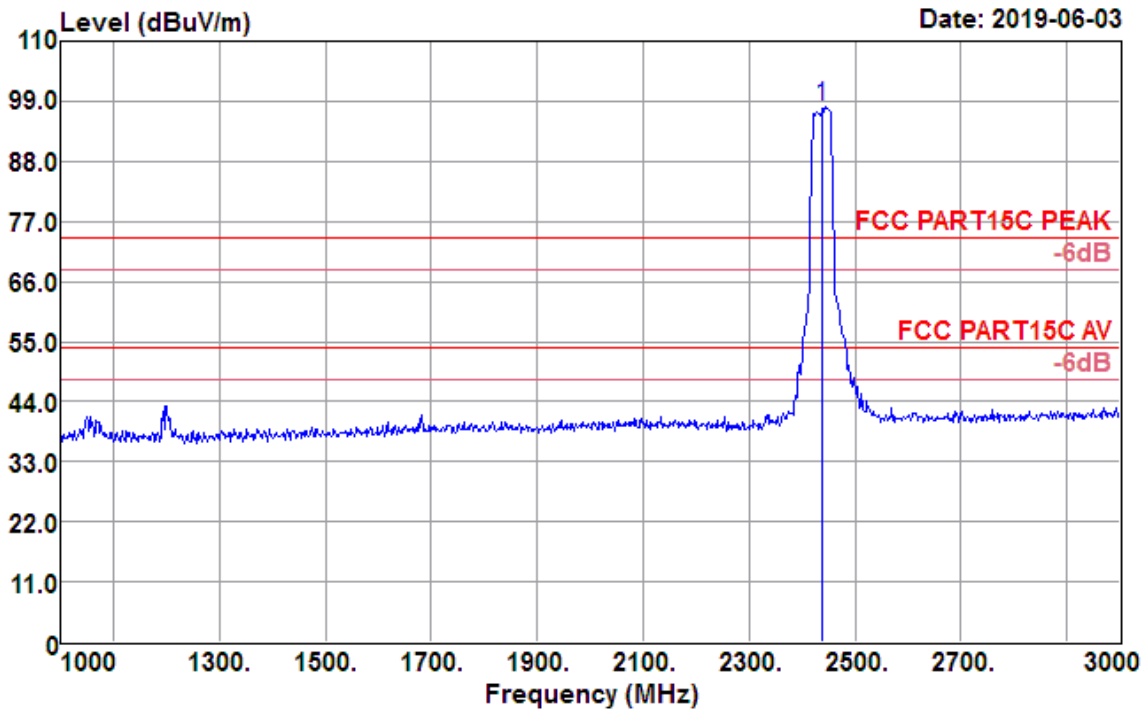


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
4844.000	43.00	31.33	5.43	36.25	43.51	54.00	-10.49	Average
4844.000	57.12	31.33	5.43	36.25	57.63	74.00	-16.37	Peak
7266.000	28.63	36.01	7.11	34.30	37.45	54.00	-16.55	Average
7266.000	40.59	36.01	7.11	34.30	49.41	74.00	-24.59	Peak
9688.000	29.17	37.94	7.88	34.16	40.83	54.00	-13.17	Average
9688.000	41.94	37.94	7.88	34.16	53.60	74.00	-20.40	Peak

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT40 CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

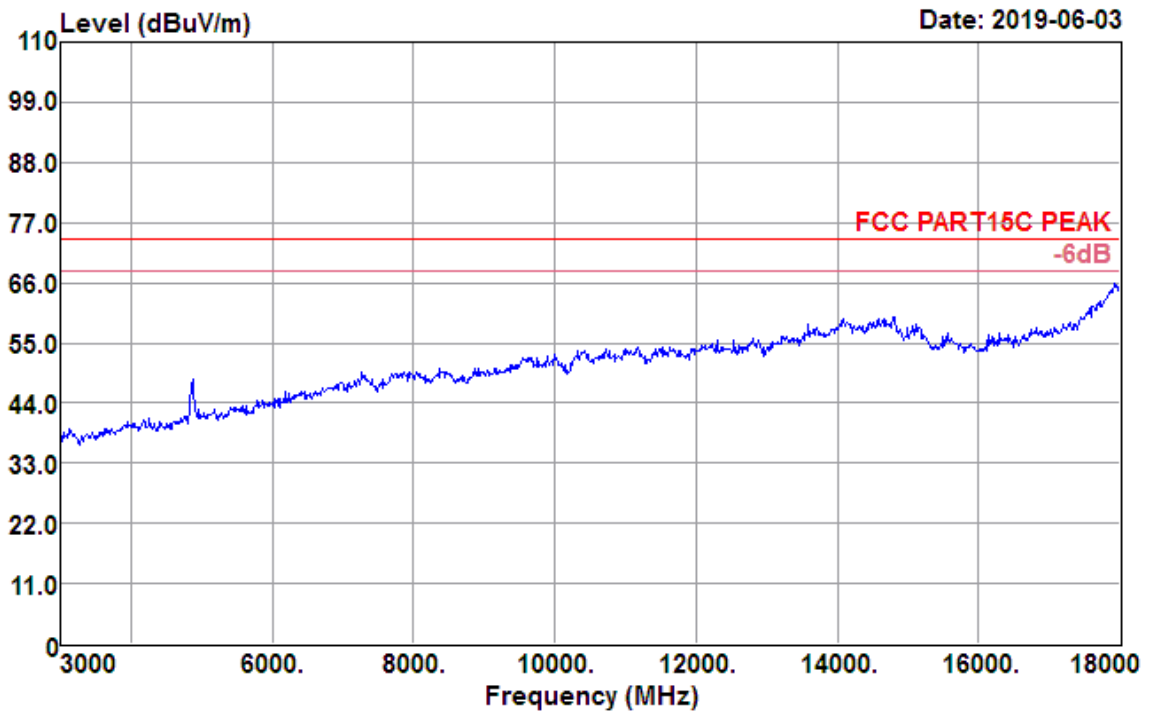
Data: 90



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2437.000	103.35	27.24	3.66	36.20	98.05	74.00	24.05	Peak

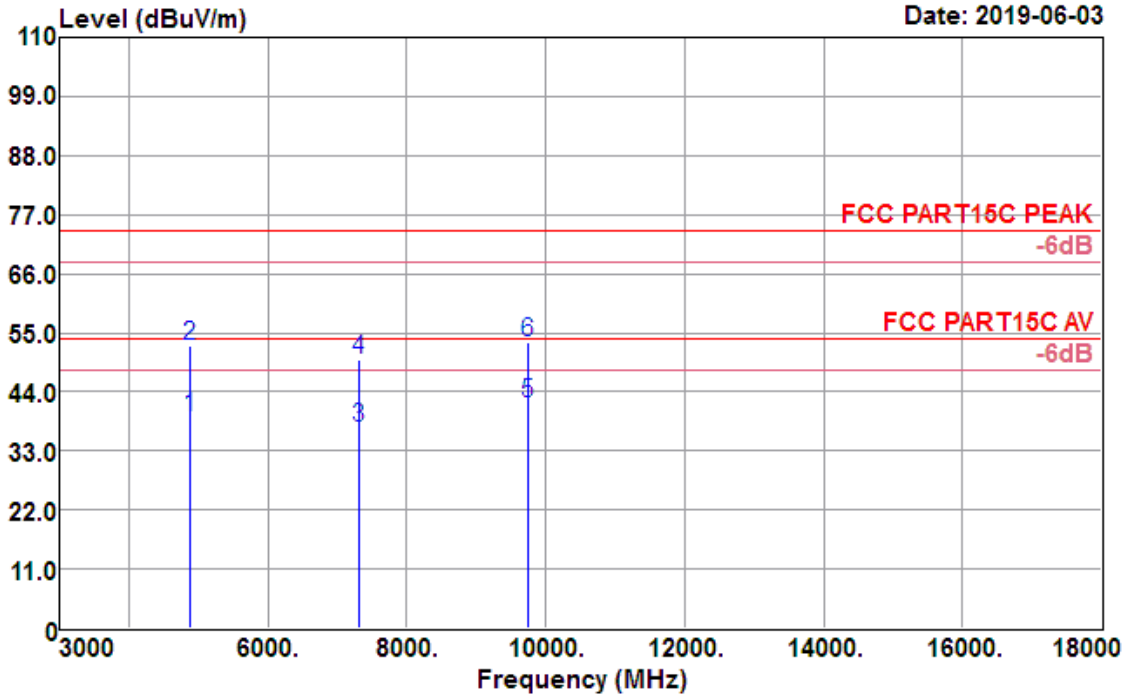
<b>Test Mode :</b>	802.11n HT40 CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 91



Data: 92

Date: 2019-06-03

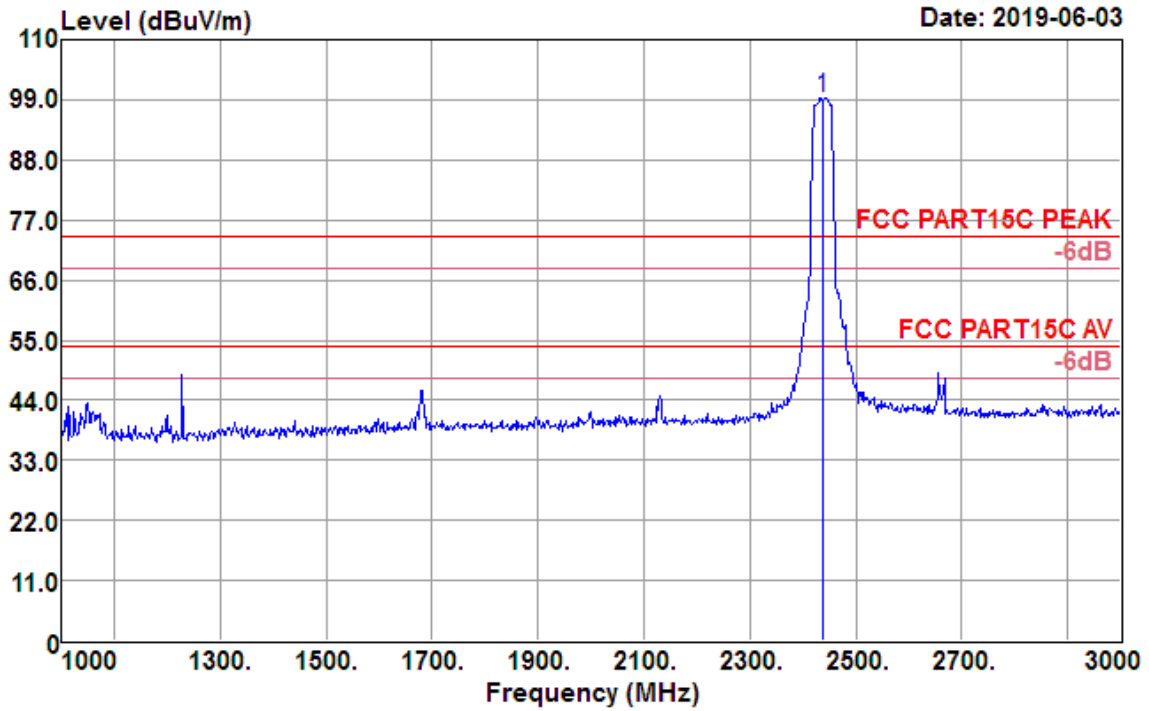


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
4874.000	38.55	31.40	5.41	36.24	39.12	54.00	-14.88	Average
4874.000	52.15	31.40	5.41	36.24	52.72	74.00	-21.28	Peak
7311.000	28.35	36.12	7.24	34.35	37.36	54.00	-16.64	Average
7311.000	40.96	36.12	7.24	34.35	49.97	74.00	-24.03	Peak
9748.000	30.12	38.05	7.96	34.19	41.94	54.00	-12.06	Average
9748.000	41.45	38.05	7.96	34.19	53.27	74.00	-20.73	Peak

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT40 CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

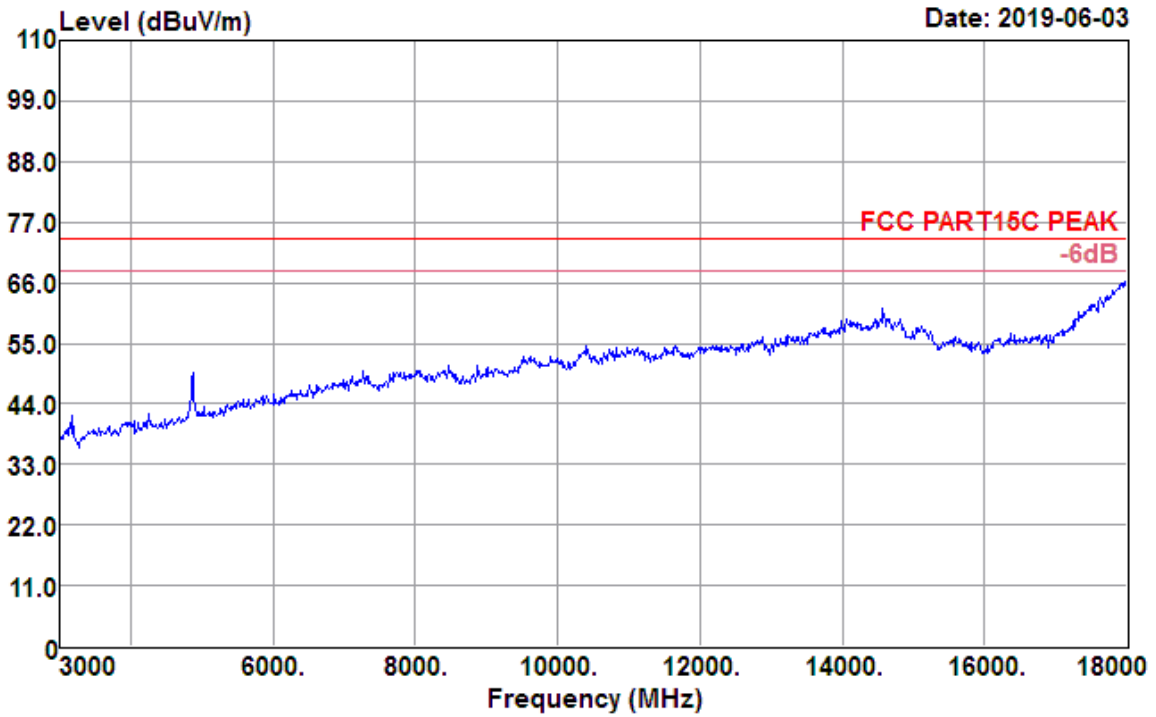
Data: 89

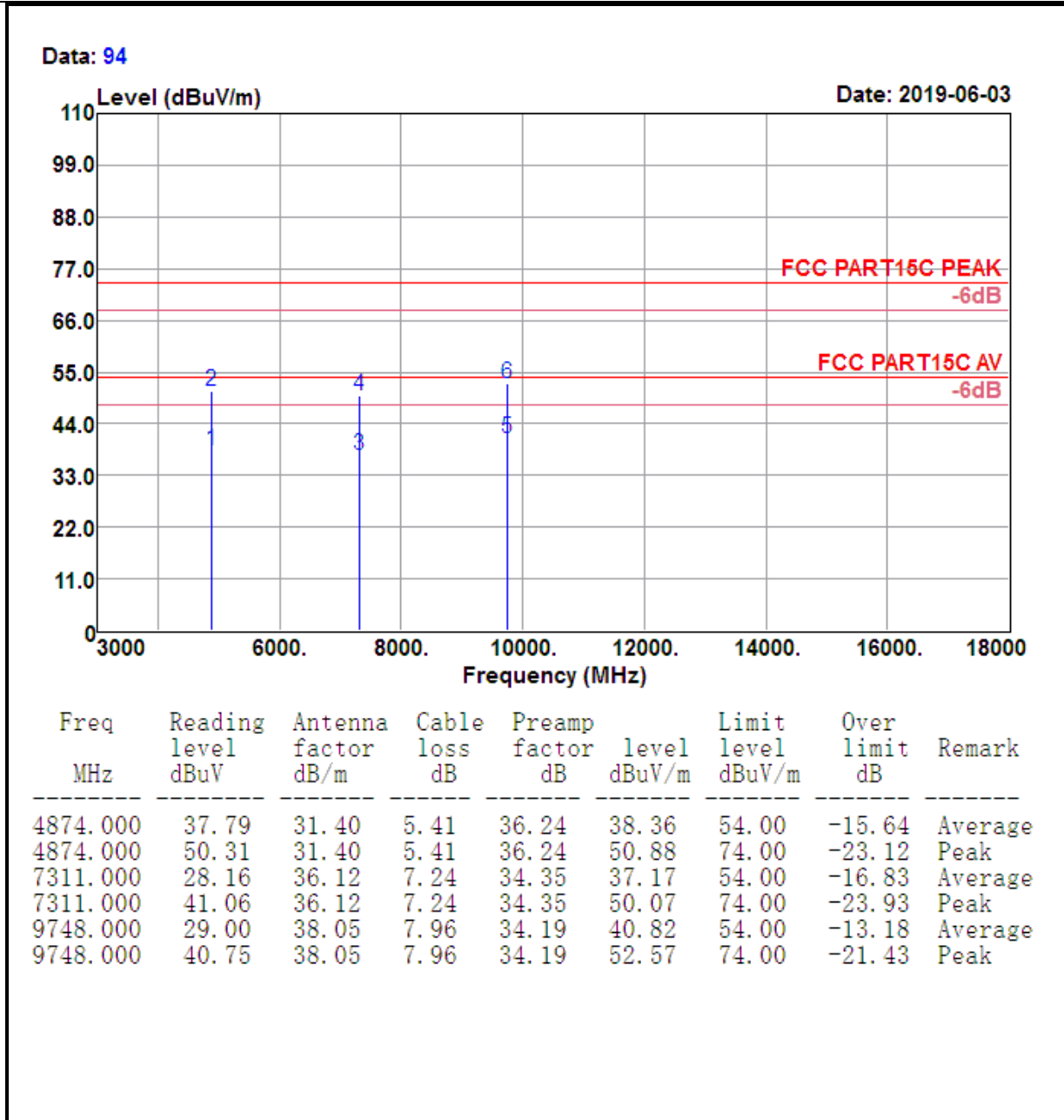


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2437.000	104.76	27.24	3.66	36.20	99.46	74.00	25.46	Peak

<b>Test Mode :</b>	802.11n HT40 CH06 (2437MHz)	<b>Temperature :</b>	21~23℃
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Vertical

Data: 93

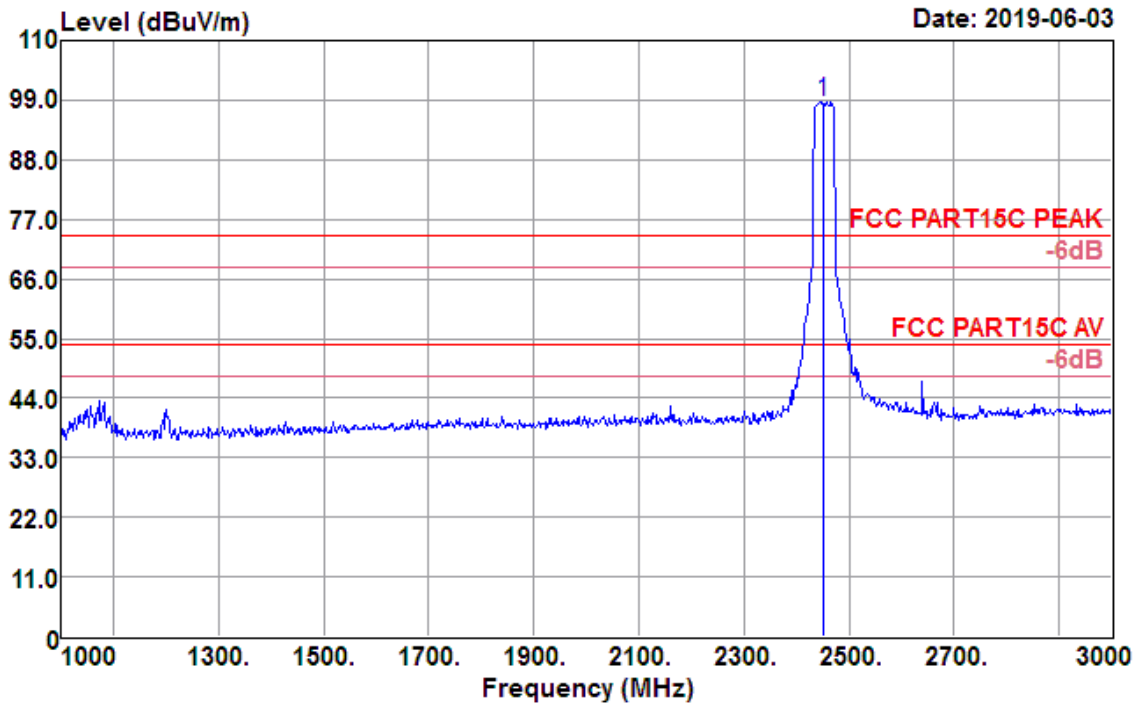




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT40 CH09 (2452 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Horizontal

Data: 101

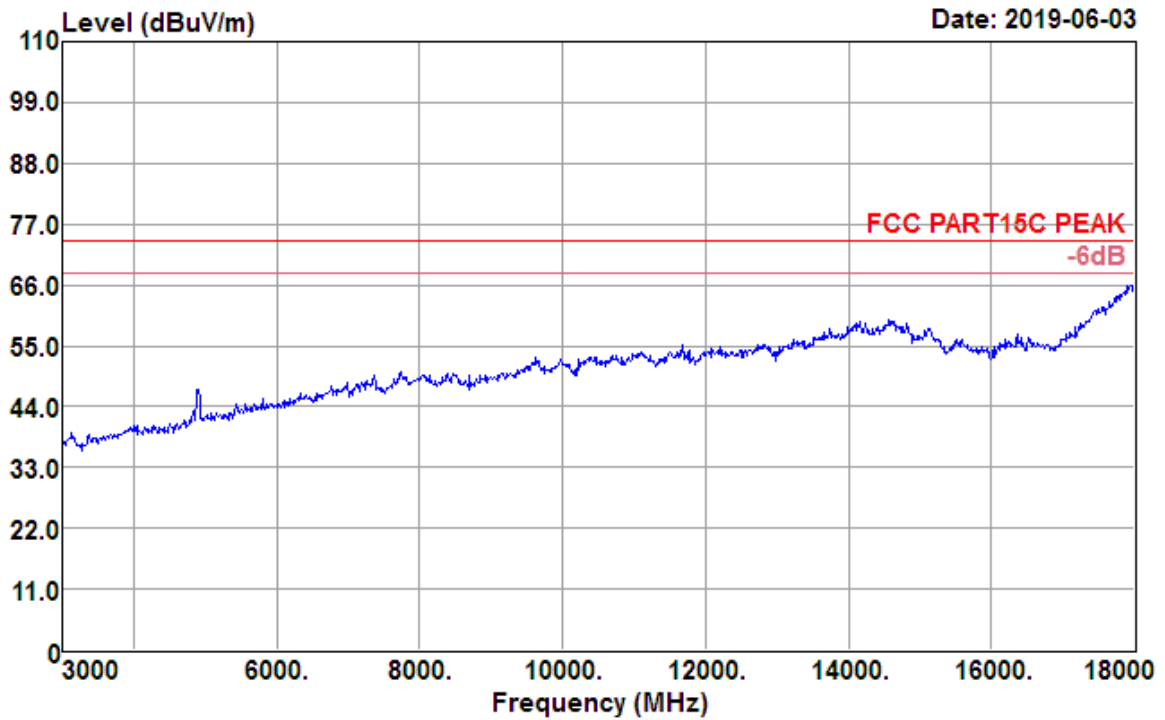


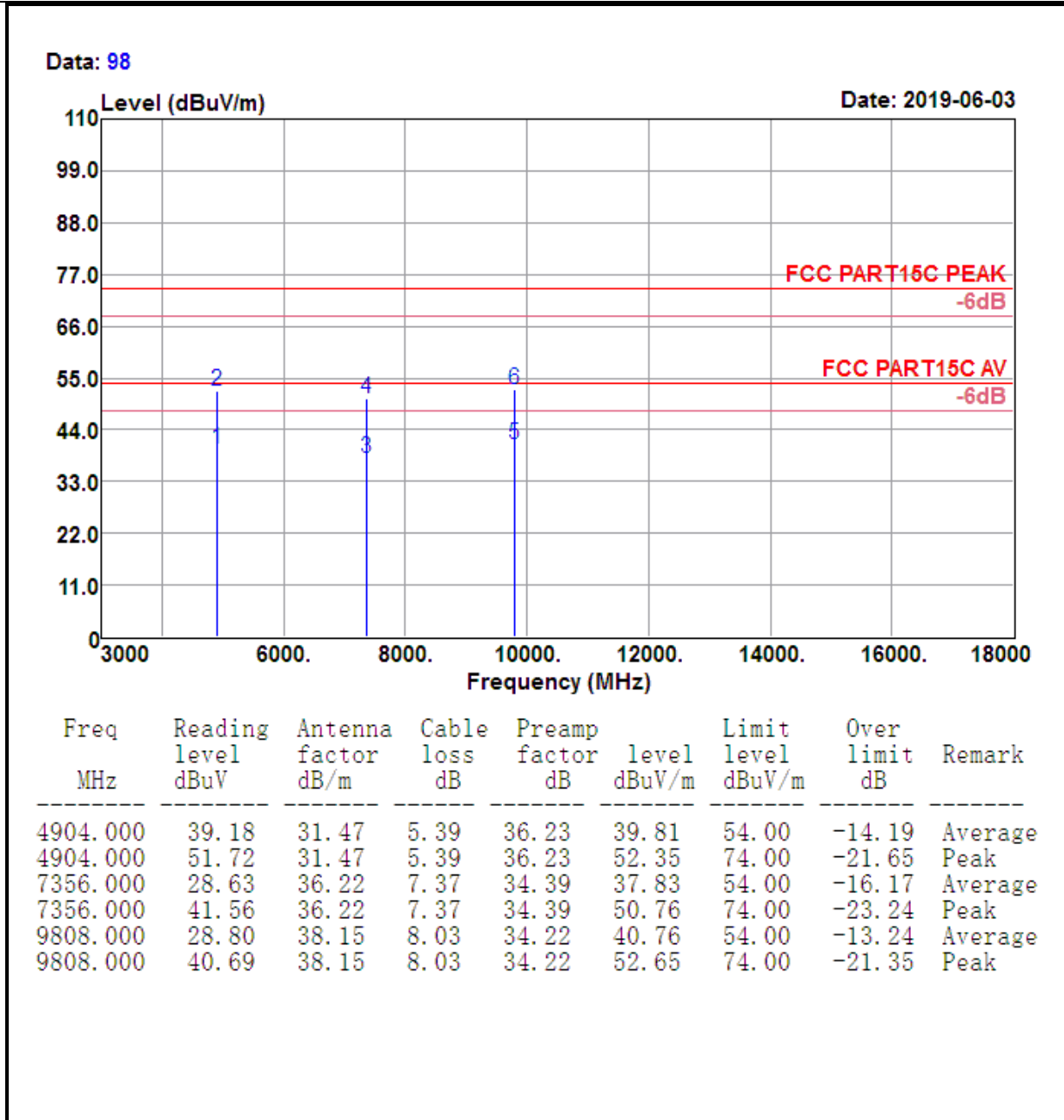
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2452.000	103.99	27.28	3.67	36.24	98.70	74.00	24.70	Peak



<b>Test Mode :</b>	802.11n HT40 CH09 (2452 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	3GHz~18GHz	<b>Polarization :</b>	Horizontal

Data: 97

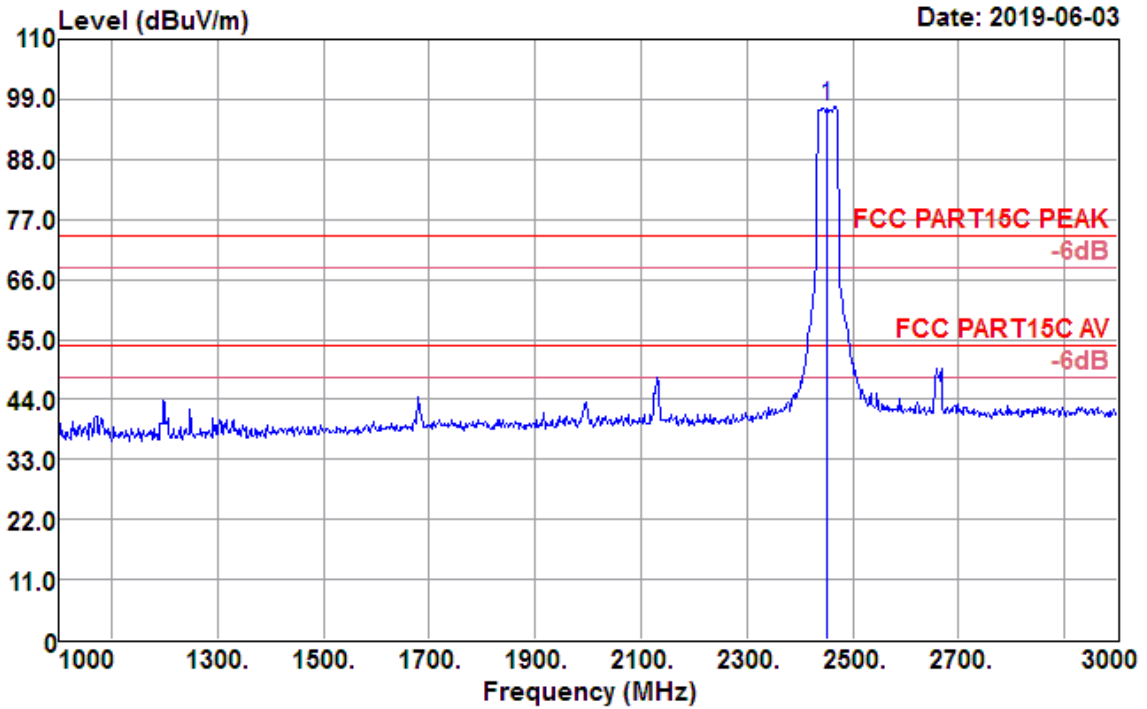




Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

<b>Test Mode :</b>	802.11n HT40 CH09 (2452 MHz)	<b>Temperature :</b>	21~23°C
<b>Test Engineer :</b>	Julie Deng	<b>Relative Humidity :</b>	63~65%
<b>Frequency Range</b>	1GHz~3GHz	<b>Polarization :</b>	Vertical

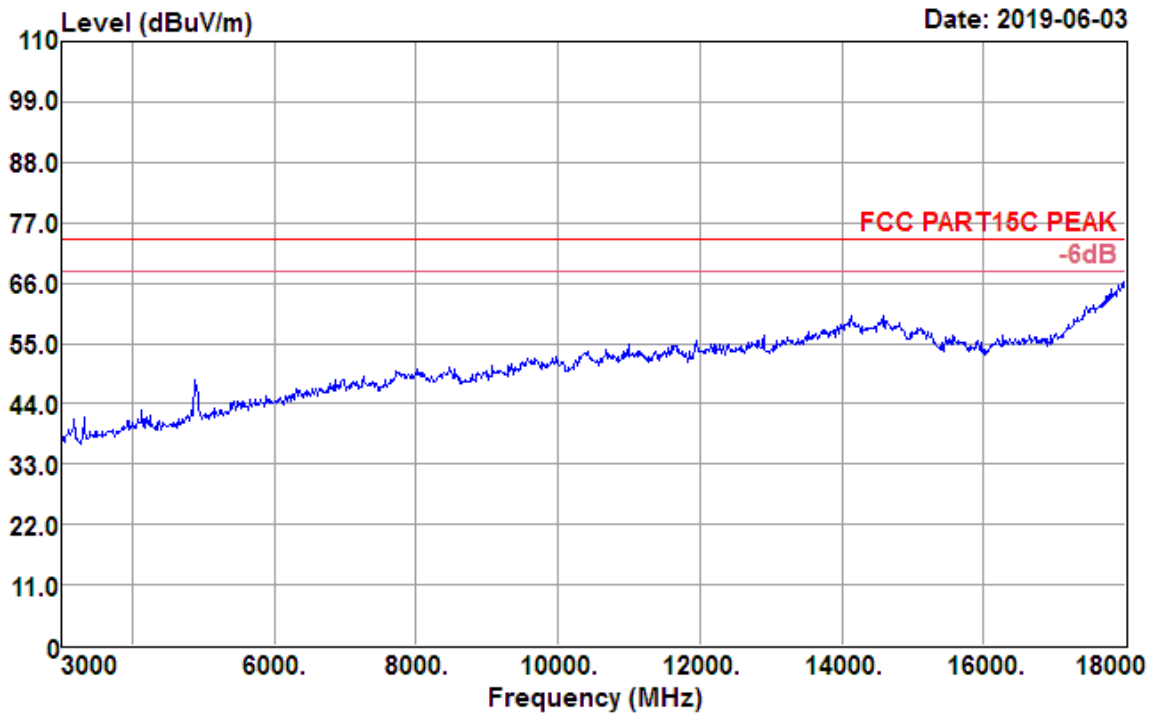
Data: 104

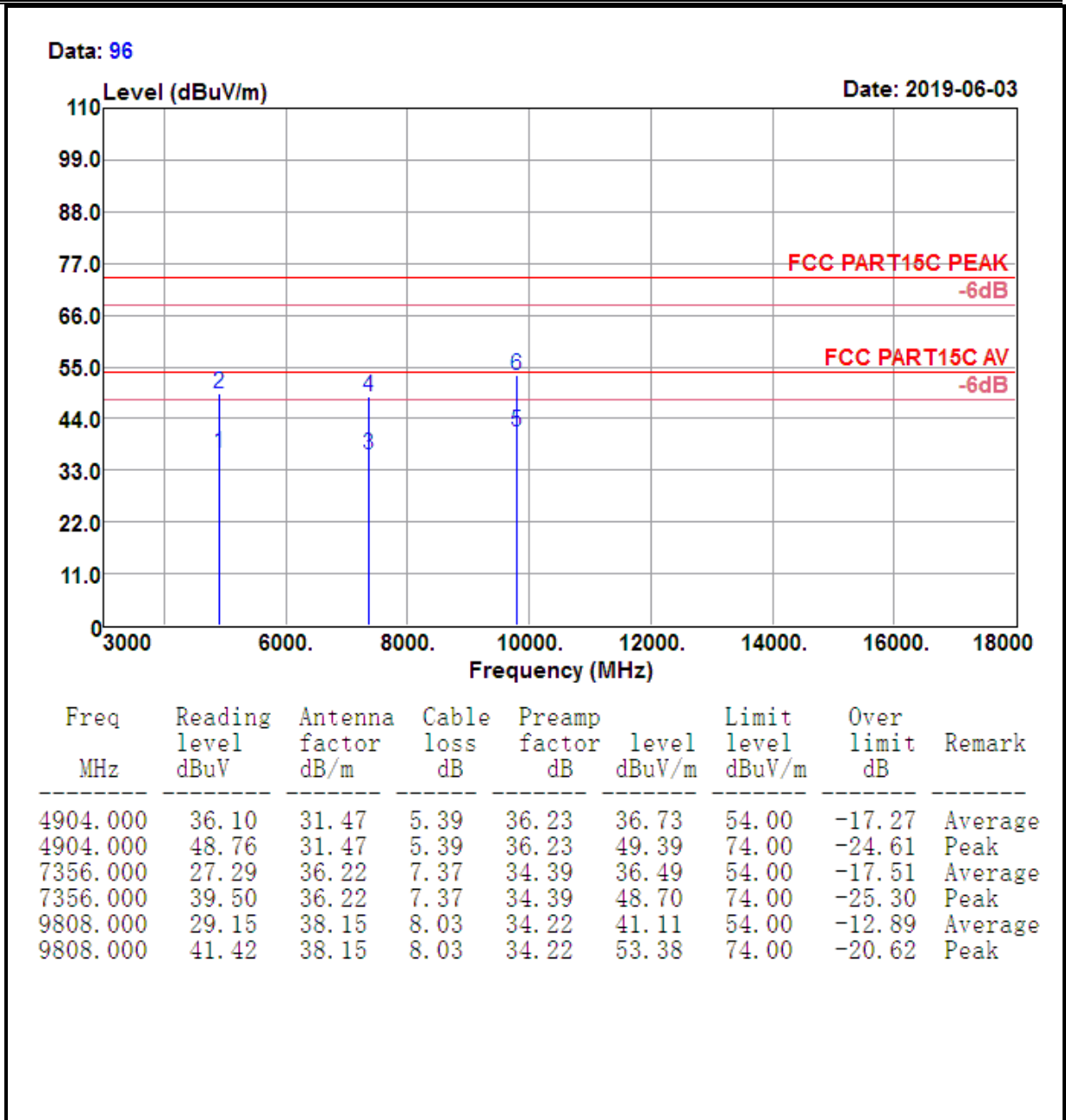


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
2452.000	103.02	27.28	3.67	36.24	97.73	74.00	23.73	Peak

Test Mode :	802.11n HT40 CH09 (2452 MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	3GHz~18GHz	Polarization :	Vertical

Data: 95



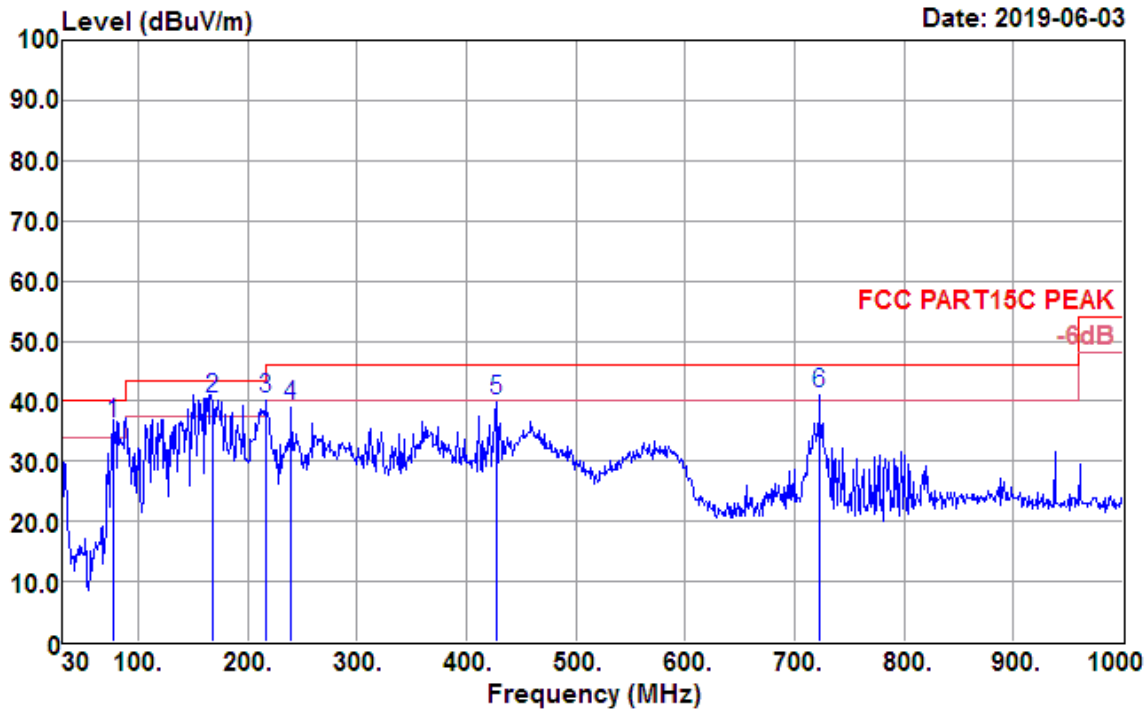


Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

### 4.5.6 Test Result of Radiated Spurious Emission (30MHz ~ 1GHz)

Test Mode :	802.11g CH11 (2462MHz)	Temperature :	21~23℃
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	30MHz~1GHz	Polarization :	Horizontal

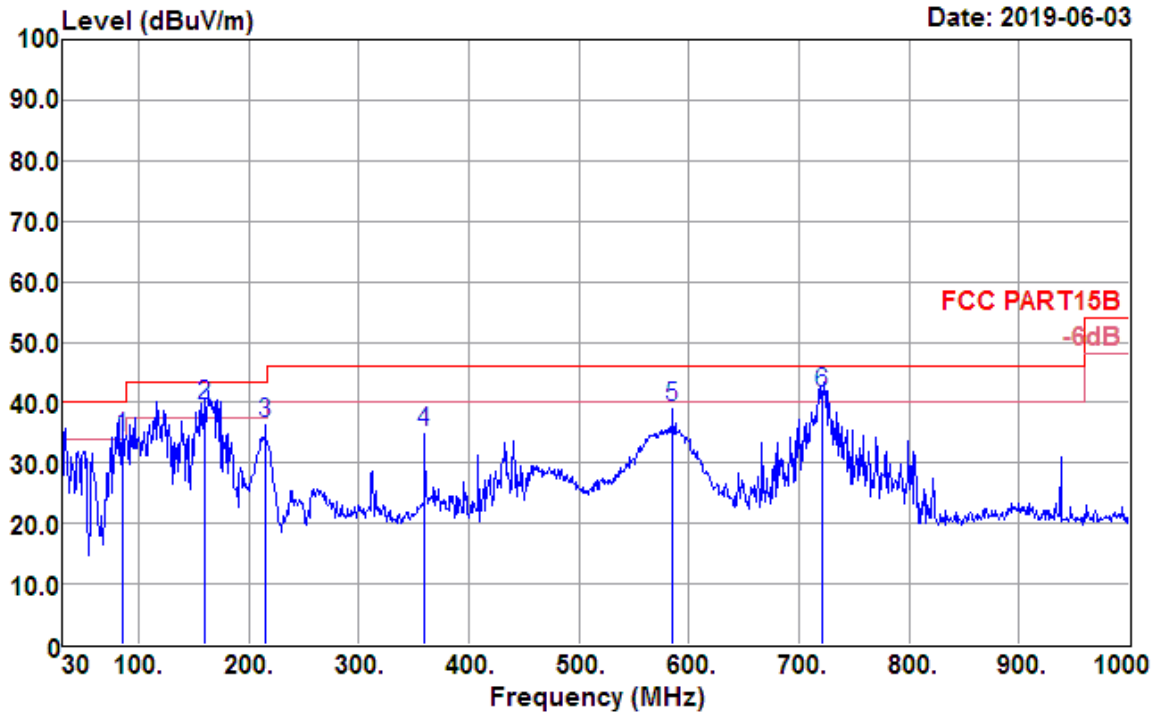
Data: 106



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
77.530	57.40	9.67	1.72	32.50	36.29	40.00	-3.71	QP
167.740	56.90	13.43	2.53	32.52	40.34	43.50	-3.16	QP
216.240	59.69	10.39	2.91	32.54	40.45	46.00	-5.55	QP
239.520	57.55	11.09	3.08	32.54	39.18	46.00	-6.82	QP
426.730	53.27	15.25	4.16	32.49	40.19	46.00	-5.81	QP
722.580	48.66	19.95	5.58	32.75	41.44	46.00	-4.56	QP

Test Mode :	802.11g CH11 (2462MHz)	Temperature :	21~23°C
Test Engineer :	Julie Deng	Relative Humidity :	63~65%
Frequency Range	30MHz~1GHz	Polarization :	Vertical

Data: 105



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
84.320	55.60	9.39	1.78	32.48	34.29	40.00	-5.71	QP
159.600	55.39	14.20	2.48	32.51	39.56	43.50	-3.94	QP
215.270	55.87	10.36	2.91	32.54	36.60	43.50	-6.90	QP
359.800	49.70	14.04	3.86	32.49	35.11	46.00	-10.89	QP
584.840	48.80	18.11	4.98	32.67	39.22	46.00	-6.78	QP
720.640	48.80	19.93	5.58	32.75	41.56	46.00	-4.44	QP

## 4.6 AC Conducted Emission Measurement

### 4.6.1 Limit of AC Conducted Emission

FCC §15.207

IC RSS-GEN 8.8

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

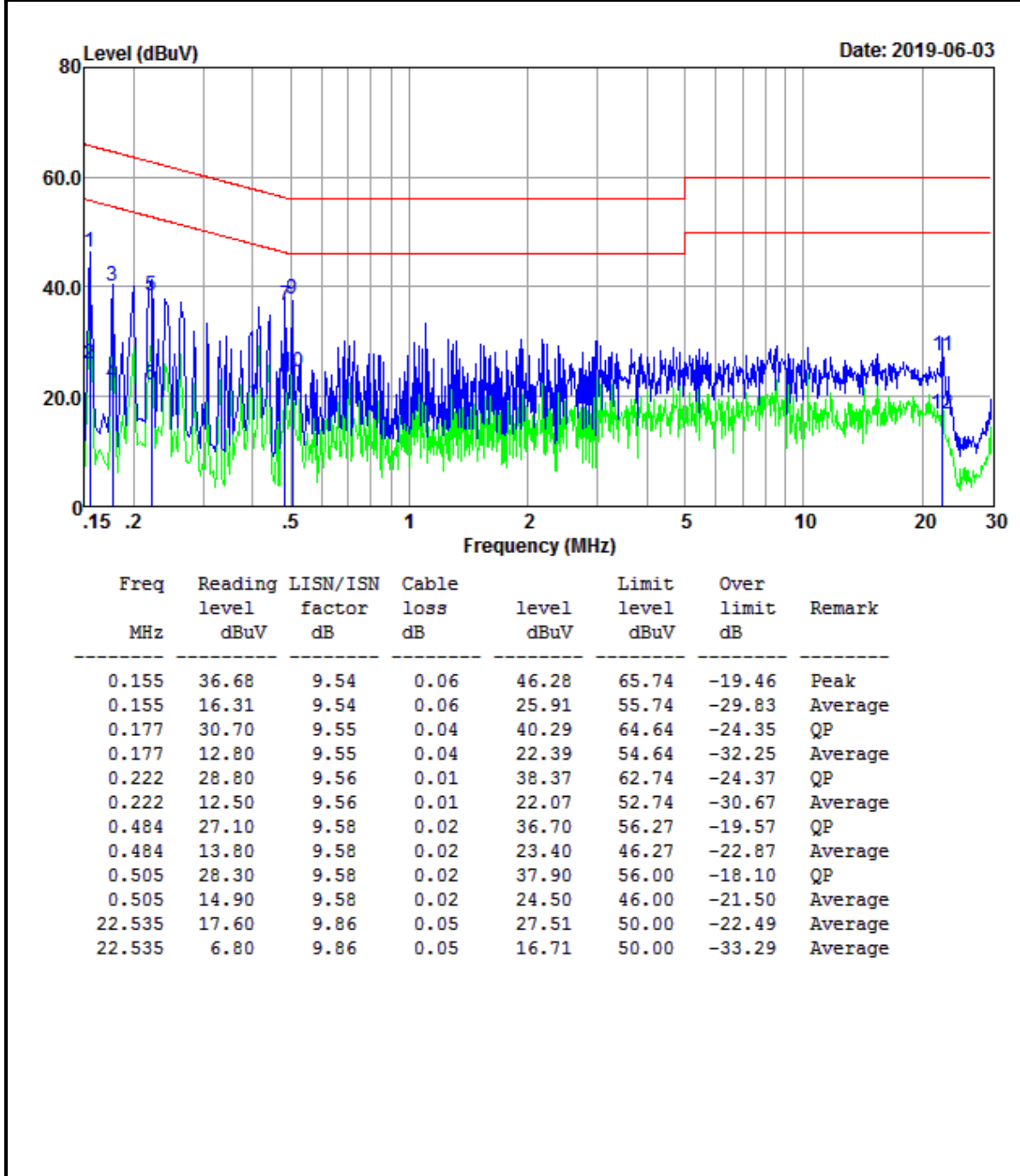
### 4.6.2 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.



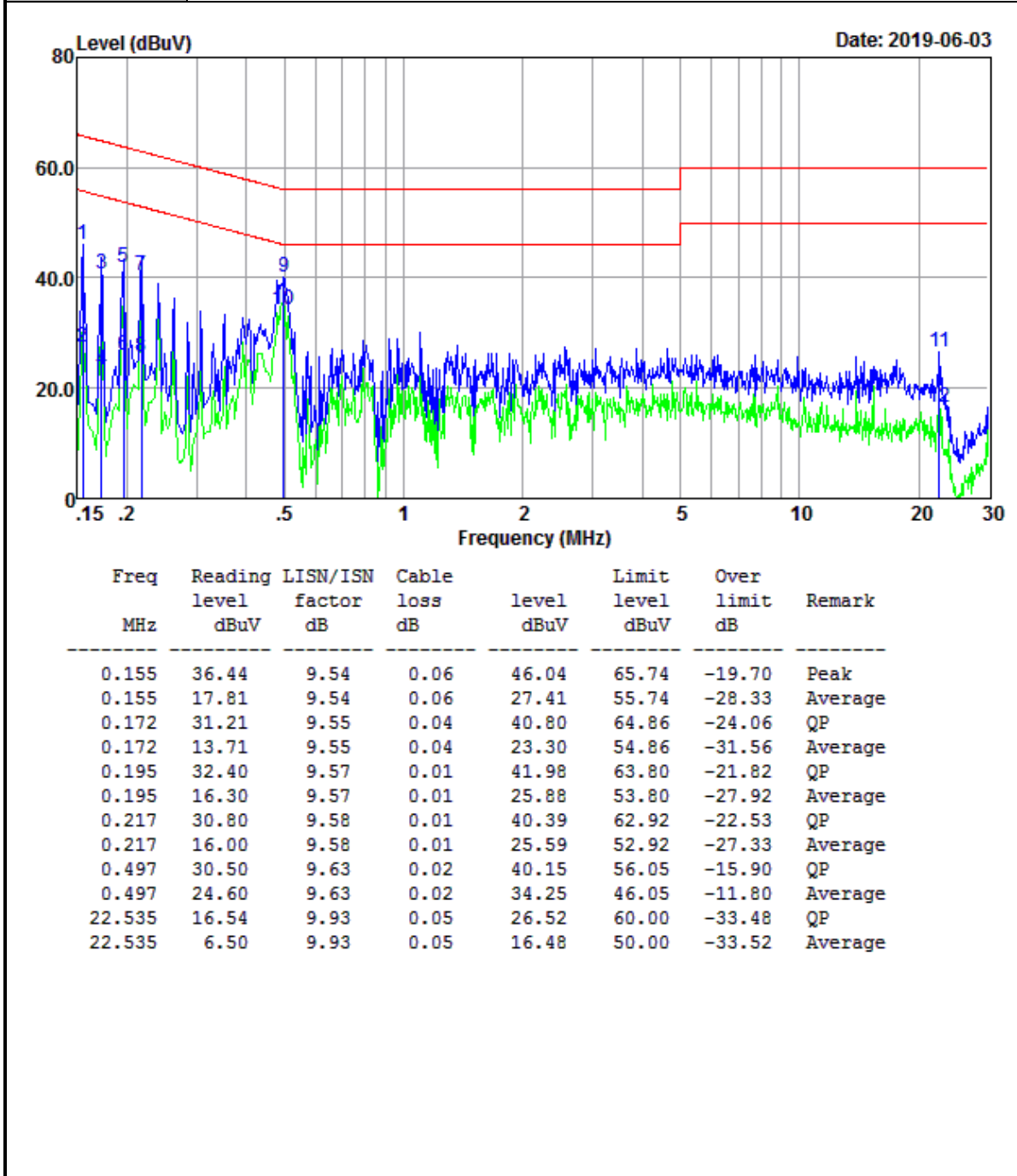
### 4.6.3 Test Result of AC Conducted Emission

<b>Test Mode :</b>	Mode 1	<b>Temperature :</b>	20°C
<b>Test Engineer :</b>	Jerry.Wang	<b>Relative Humidity :</b>	64%
<b>Test Voltage :</b>	120Vac / 60Hz	<b>Phase :</b>	Line
<b>Function Type :</b>	WLAN Link + Function on		



Result Level= Reading Level + LISN Factor + Cable Loss

<b>Test Mode :</b>	Mode 1	<b>Temperature :</b>	20°C
<b>Test Engineer :</b>	Jerry.Wang	<b>Relative Humidity :</b>	64%
<b>Test Voltage :</b>	120Vac / 60Hz	<b>Phase :</b>	NEUTRAL
<b>Function Type :</b>	WLAN Link + Function on		



Result Level= Reading Level + LISN Factor + Cable Loss

## 4.7 Antenna Requirements

### 4.7.1 Standard Applicable

According to antenna requirement of §15.203.

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be re-placed by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded..

And according to §15.247(4)(1), system operating in the 2400-2483.5MHz bands that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

### 4.7.2 Antenna Connected Construction

An embedded-in antenna design is used.

### 4.7.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	Keysight	N9010A	MY56070788	2019-01-23	2020-01-22	Conducted
Power Sensor	Keysight	U2021XA	MY56510025	2019-01-23	2020-01-22	Conducted
Power Sensor	Keysight	U2021XA	MY57030005	2019-01-23	2020-01-22	Conducted
Power Sensor	Keysight	U2021XA	MY56510018	2019-01-23	2020-01-22	Conducted
Power Sensor	Keysight	U2021XA	MY56480002	2019-01-23	2020-01-22	Conducted
Thermal Chamber	Sanmtest	SMC-408-CD	2435	2018-07-05	2019-07-04	Conducted
Base Station	R&S	CMW 270	101231	2019-01-23	2020-01-22	Conducted
Signal Generator (Interferer)	Keysight	N5182B	MY56200384	2018-04-10	2019-04-09	Conducted
Signal Generator (Blocker)	Keysight	N5171B	MY56200661	2019-01-23	2020-01-22	Conducted

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV 40	101433	2019-02-18	2020-02-17	Radiation
Amplifier	Sonoma	310	363917	2019-01-22	2020-01-21	Radiation
Amplifier	Schwarzbeck	BBV 9718	327	2019-01-22	2020-01-21	Radiation
Amplifier	Narda	TTA1840-35-HG	2034380	2018-07-18	2019-07-17	Radiation
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-051	2017/3/3	2020/3/2	Radiation
Broadband Antenna	Schwarzbeck	VULB 9168	9168-757	2017-03-03	2020-03-02	Radiation
Horn Antenna	Schwarzbeck	BBHA 9120 D	1677	2017-03-03	2020-03-02	Radiation
Horn Antenna	COM-POWER	AH-1840	101117	2018-06-20	2021-06-19	Radiation
Test Software	Auidx	E3	6.111221a	N/A	N/A	Radiation
Filter	Micro-Tronics	BRM 50702	G266	N/A	N/A	Radiation

N/A: No Calibration Required

## 6 Uncertainty of Evaluation

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.67dB
Radiated emissions	30MHz ~ 1GMHz	5.05dB
	1GHz ~ 18GHz	5.06 dB
	18GHz ~ 40GHz	3.65dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

-----End of the report-----