

4.4 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part15.205.

4.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350MHz band shall not exceed an EIRP of -27 dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outsideof the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table

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

Note: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \quad \mu\text{V/m, where P is the eirp (Watts)}$$

EIRP (dBm)	Field Strength at 3m (dBμV/m)
-17	78.3
-27	68.3

(3) KDB789033 D02 v02r01 G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

4.4.2 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

- RBW = 120 kHz
- VBW = 300 kHz
- Detector = Peak
- Trace mode = max hold

(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

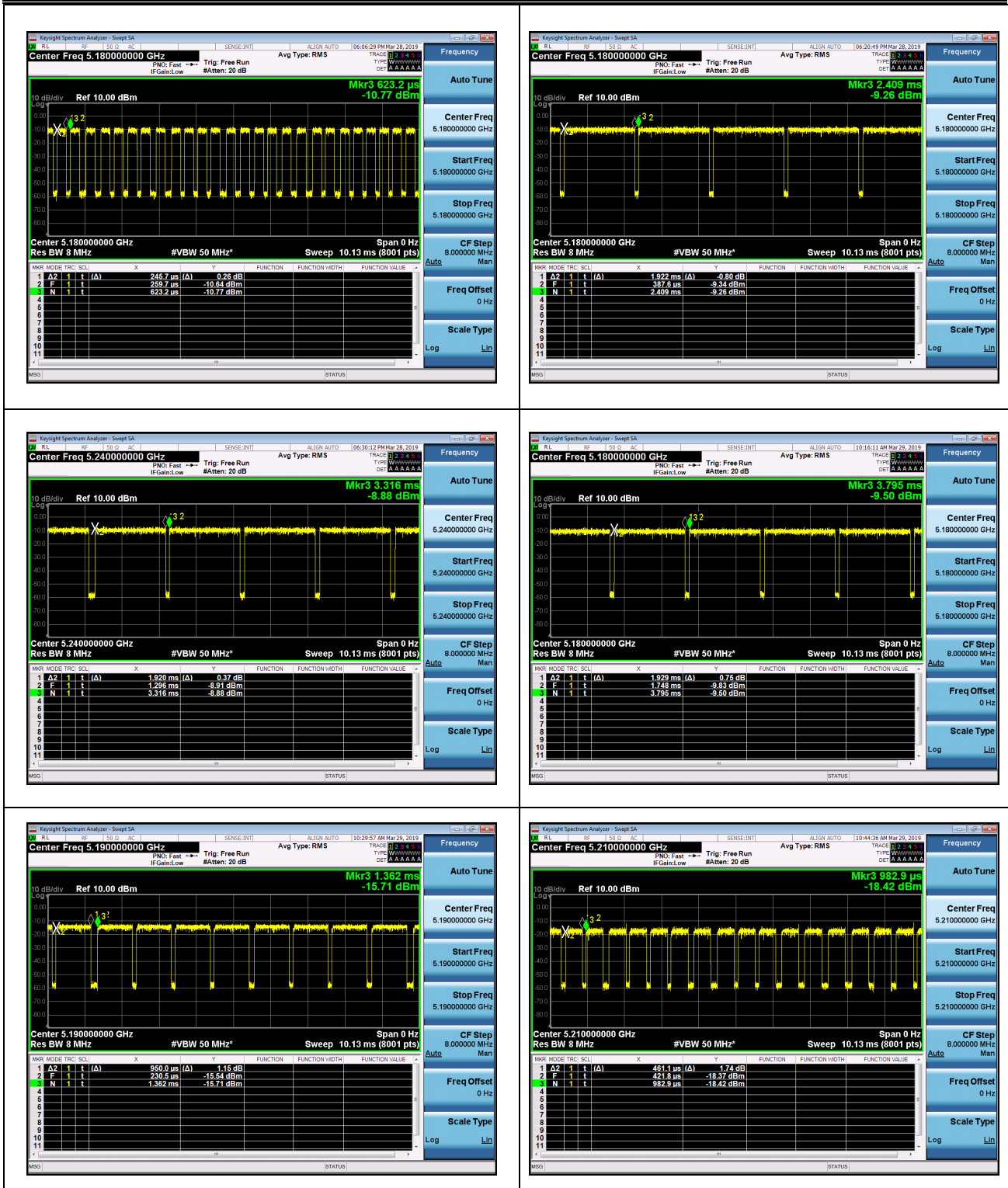
- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep time = auto

- Trace mode = max hold

(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

- RBW = 1 MHz
 - 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.
2. 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..
 3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
 4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
 5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
 6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
 7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	67.59	0.2457	4.07	10KHz
802.11n HT20	95.08	1.922	0.52	1KHz
802.11n HT40	95.05	1.920	0.52	1KHz
802.11ac HT20	94.24	1.929	0.52	1KHz
802.11ac HT40	83.96	0.9500	1.05	3KHz
802.11ac HT80	82.18	0.4611	2.17	3KHz



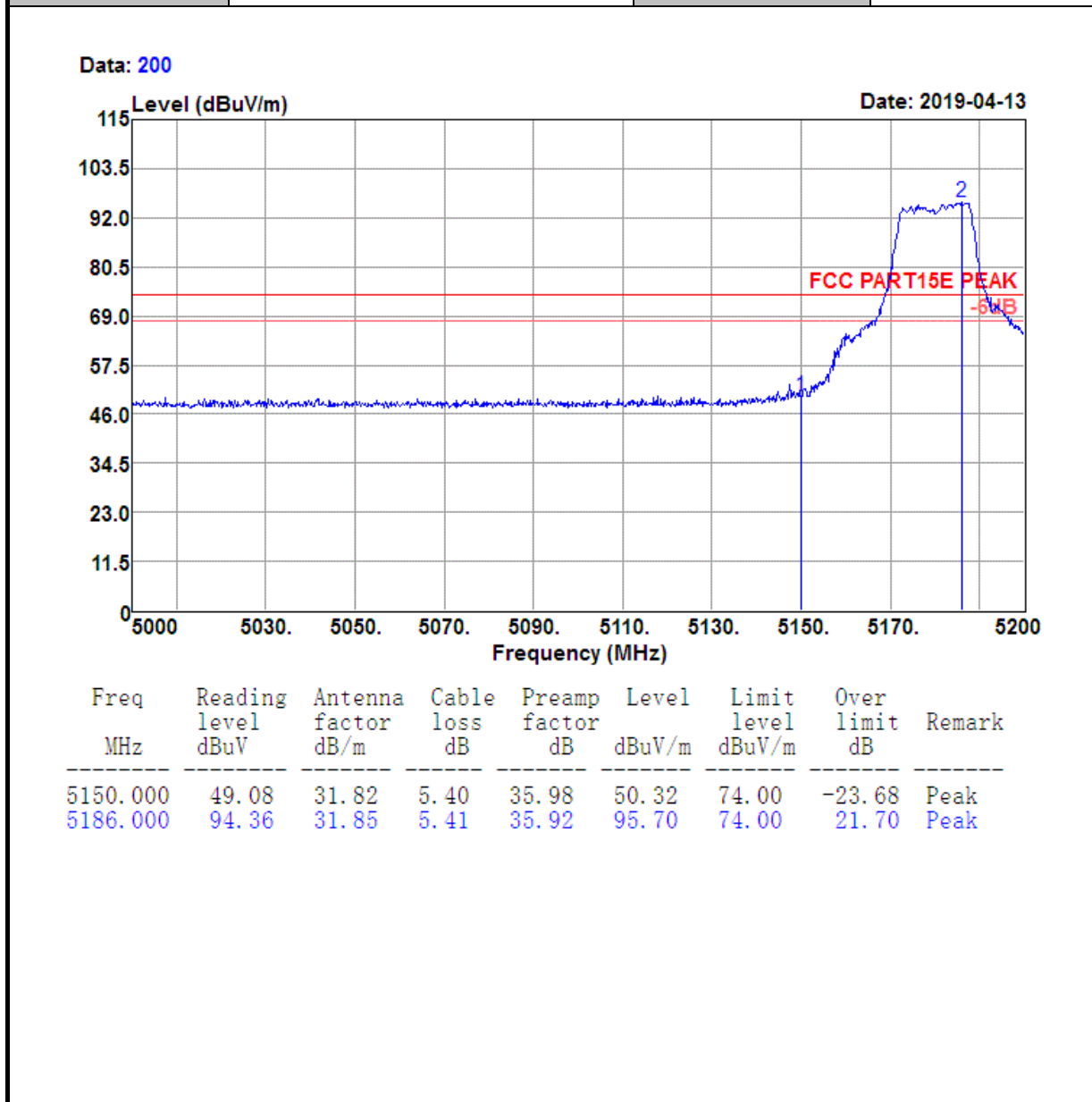
8. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

4.4.3 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.

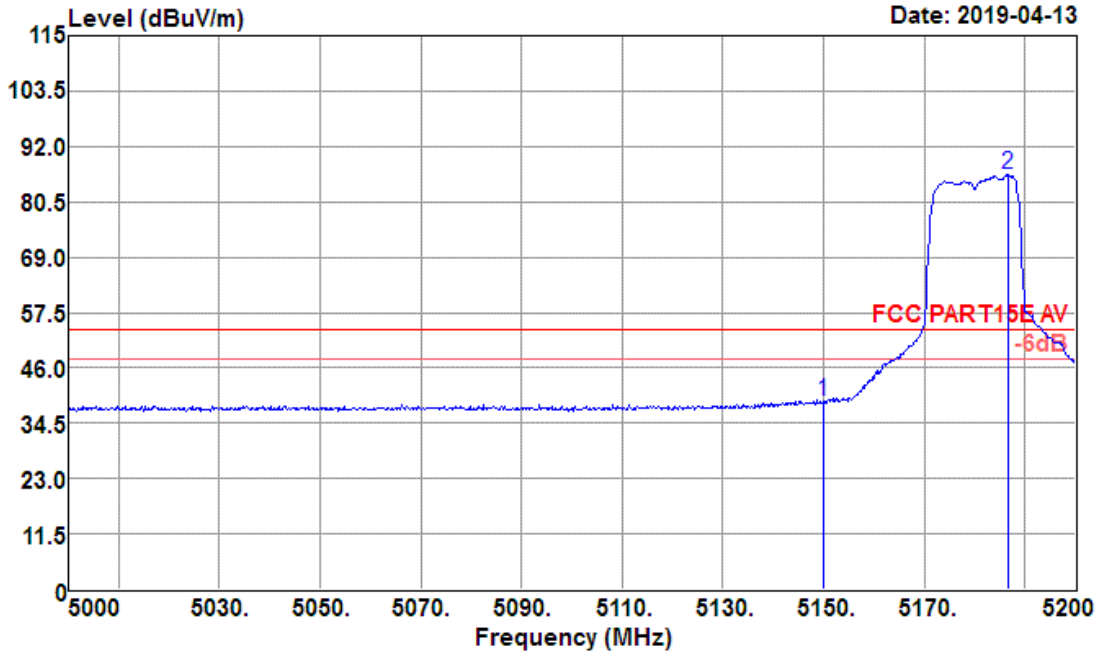
4.4.4 Test Result of Radiated Spurious at Band Edges

Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal



Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

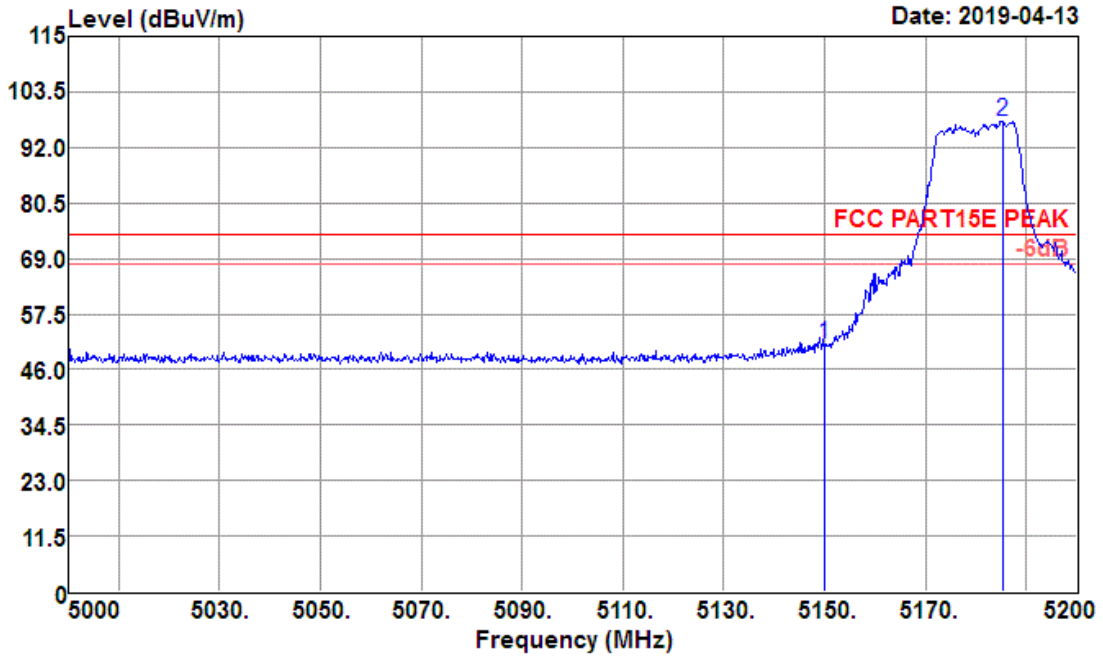
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5150.000	37.72	31.82	5.40	35.98	38.96	54.00	-15.04	Average
5186.600	84.72	31.85	5.41	35.92	86.06	54.00	32.06	Average

Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

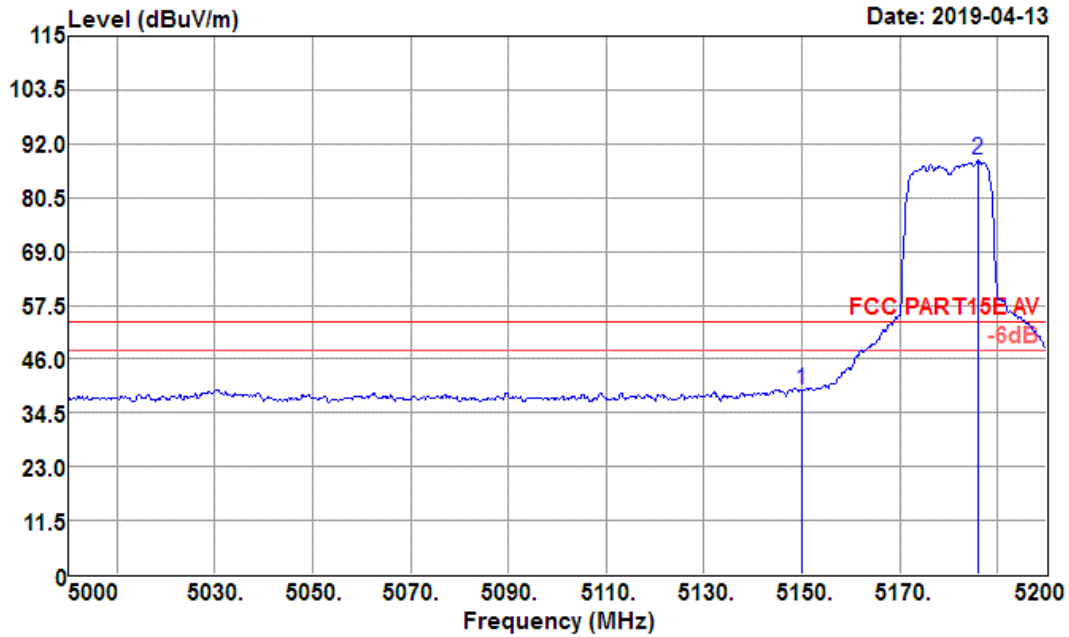
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5150.000	50.10	31.82	5.40	35.98	51.34	74.00	-22.66	Peak
5185.400	96.14	31.85	5.41	35.93	97.47	74.00	23.47	Peak

Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

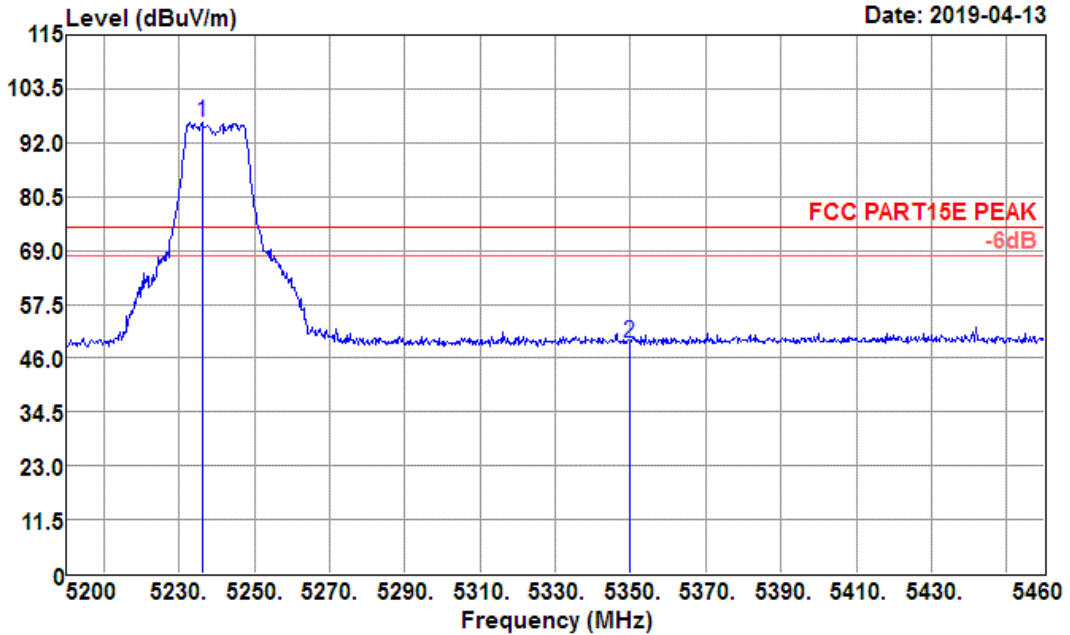
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5150.000	38.12	31.82	5.40	35.98	39.36	54.00	-14.64	Average
5186.000	87.08	31.85	5.41	35.92	88.42	54.00	34.42	Average

Test Mode :	802.11a CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

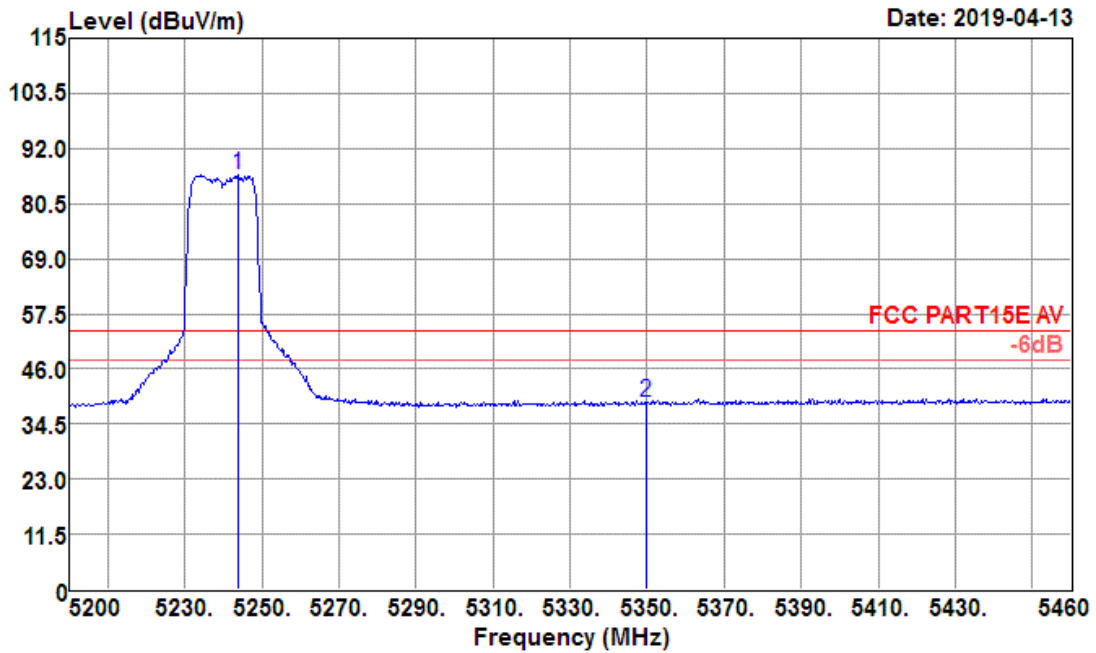
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5236.140	94.69	31.89	5.56	35.85	96.29	74.00	22.29	Peak
5350.000	46.83	31.98	5.98	35.68	49.11	74.00	-24.89	Peak

Test Mode :	802.11a CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

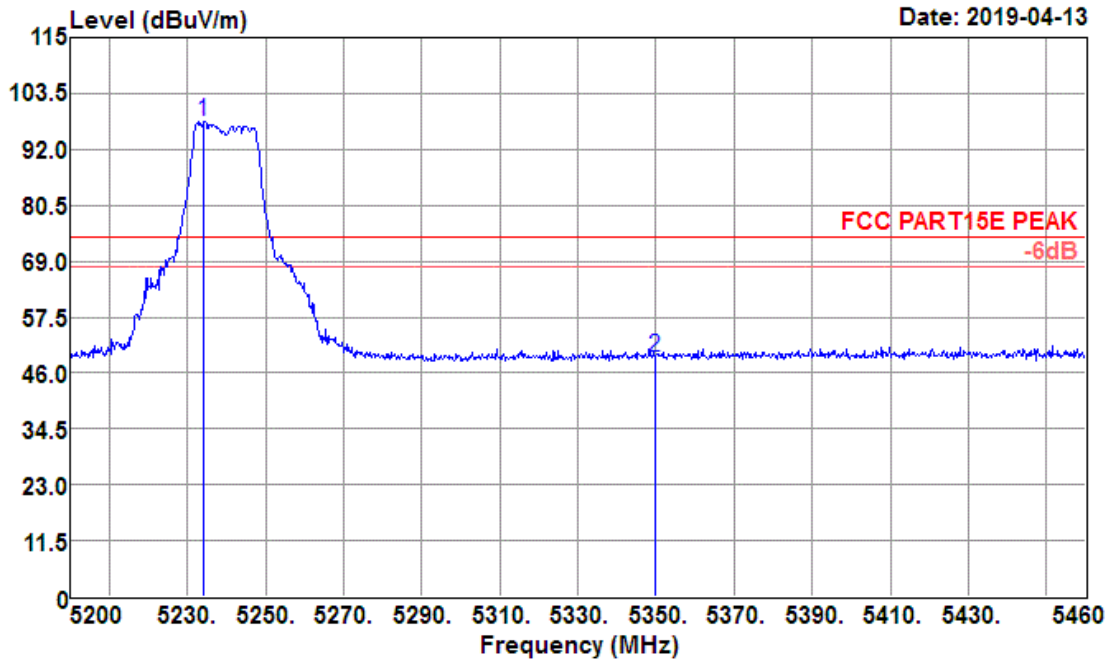
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Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
5243.680	84.93	31.89	5.58	35.84	86.56	54.00	32.56	Average
5350.000	36.90	31.98	5.98	35.68	39.18	54.00	-14.82	Average

Test Mode :	802.11a CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

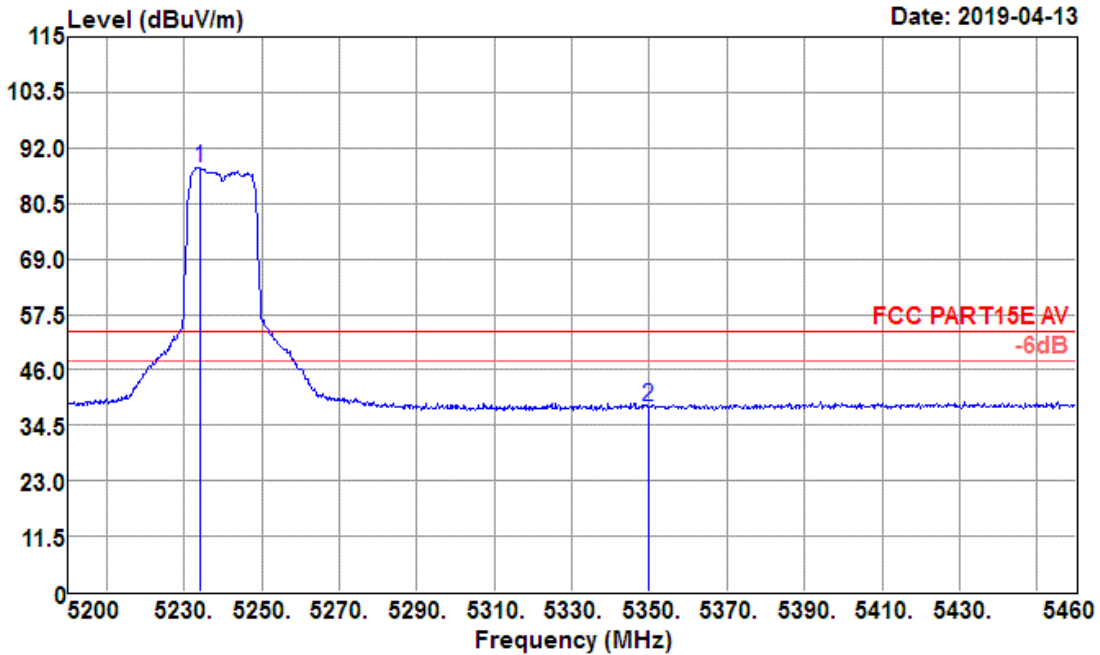
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5234.320	96.04	31.89	5.55	35.85	97.63	74.00	23.63	Peak
5350.000	46.97	31.98	5.98	35.68	49.25	74.00	-24.75	Peak

Test Mode :	802.11a CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

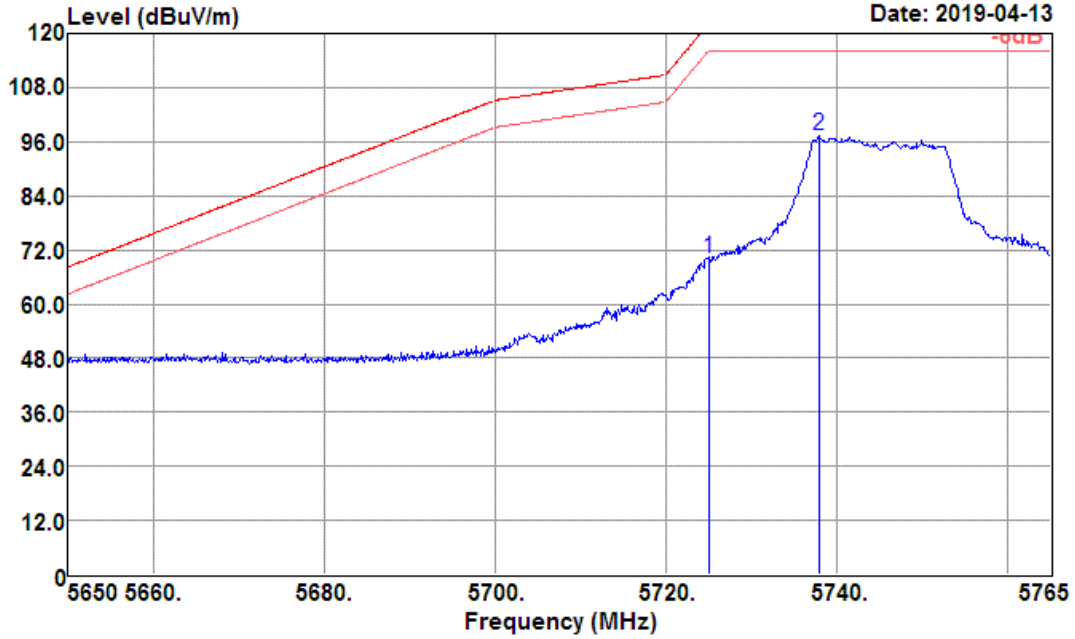
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5234.320	86.28	31.89	5.55	35.85	87.87	54.00	33.87	Average
5350.000	36.09	31.98	5.98	35.68	38.37	54.00	-15.63	Average

Test Mode :	802.11a CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Horizontal

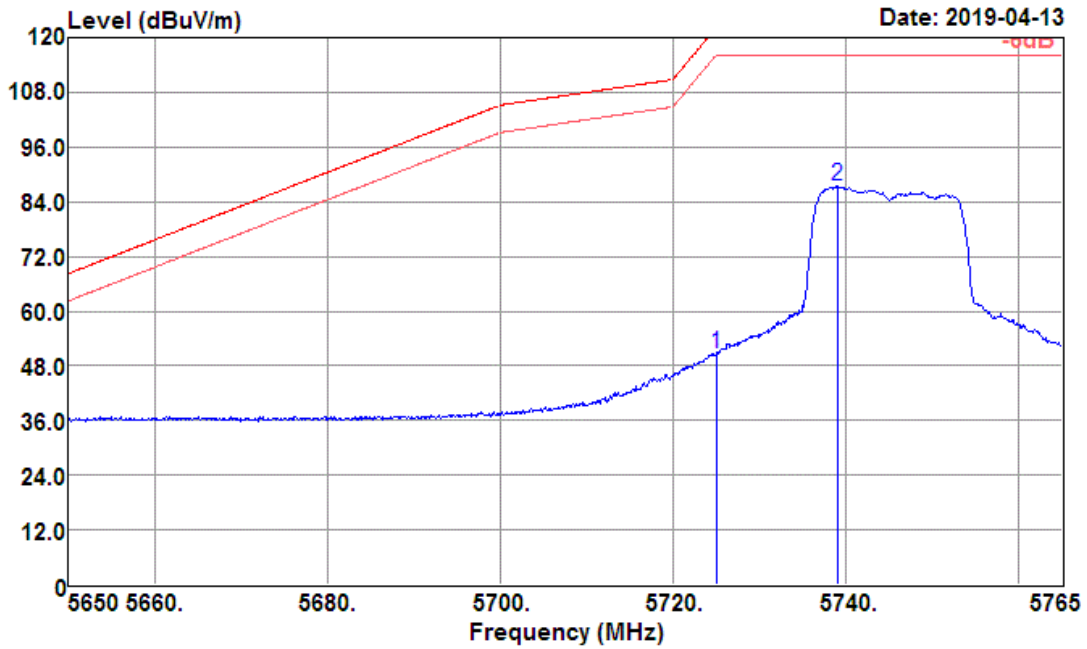
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5725.000	66.59	32.28	6.42	35.13	70.16	122.20	-52.04	Peak
5737.860	93.76	32.29	6.44	35.11	97.38	122.20	-24.82	Peak

Test Mode :	802.11a CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Horizontal

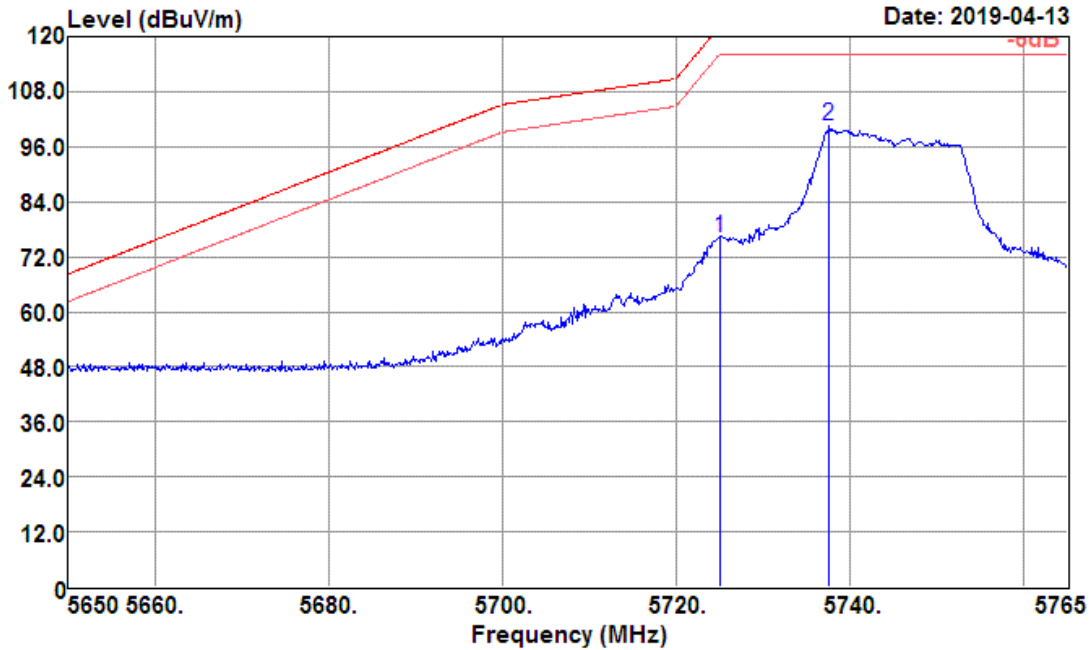
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5725.000	47.01	32.28	6.42	35.13	50.58	122.20	-71.62	Average
5739.010	83.85	32.29	6.44	35.11	87.47	122.20	-34.73	Average

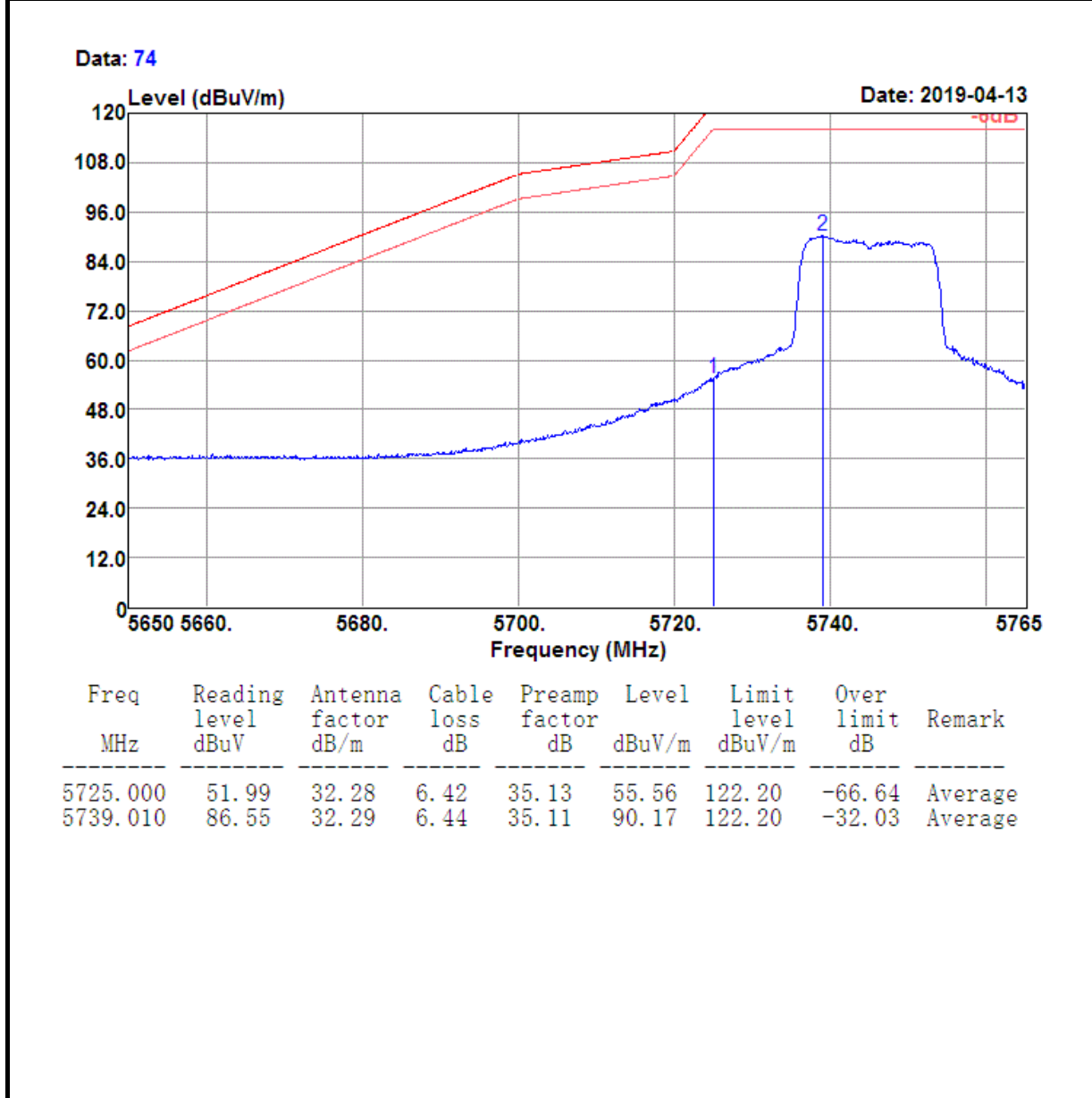
Test Mode :	802.11a CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Vertical

Data: 73



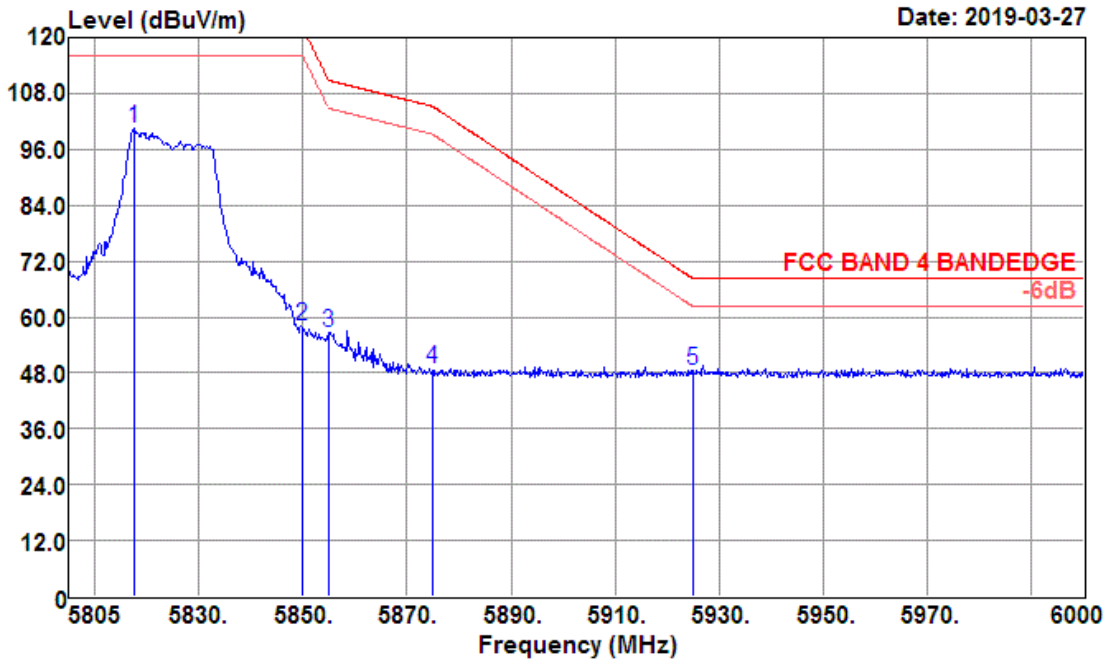
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5724.980	72.61	32.28	6.42	35.13	76.18	122.15	-45.97	Peak
5737.630	97.03	32.29	6.44	35.11	100.65	122.20	-21.55	Peak

Test Mode :	802.11a CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Vertical



Test Mode :	802.11a CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Horizontal

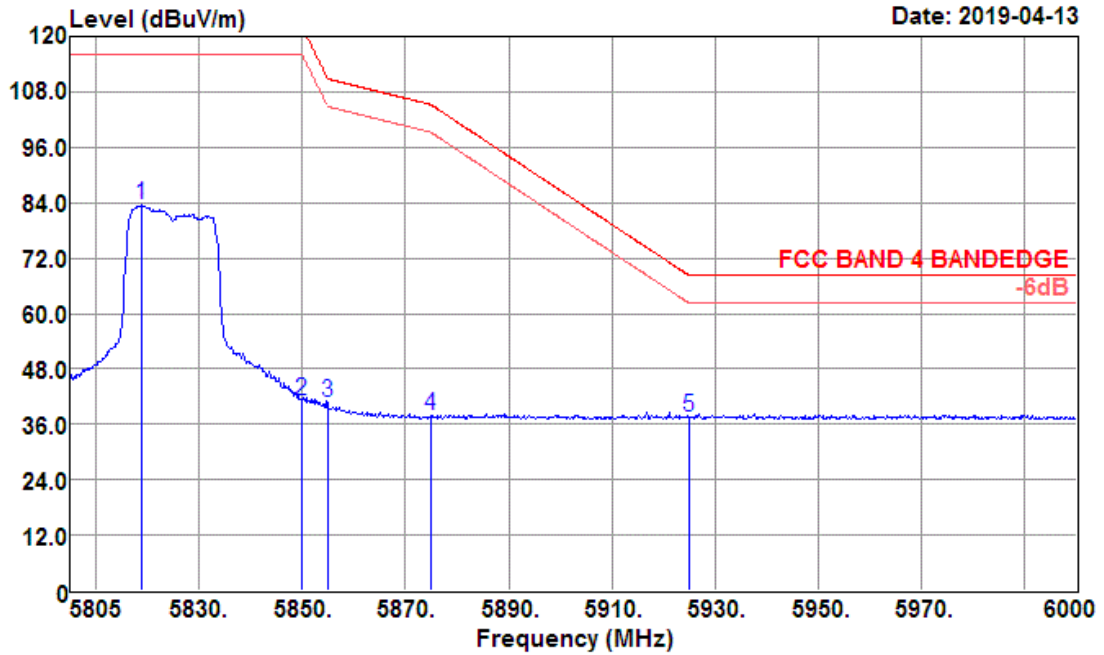
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5817.675	96.62	32.35	6.53	34.99	100.51	122.20	-21.69	Peak
5850.000	54.00	32.38	6.53	34.94	57.97	122.20	-64.23	Peak
5855.000	52.70	32.38	6.53	34.93	56.68	110.80	-54.12	Peak
5875.000	44.94	32.40	6.53	34.91	48.96	105.20	-56.24	Peak
5925.000	44.43	32.44	6.52	34.83	48.56	68.20	-19.64	Peak

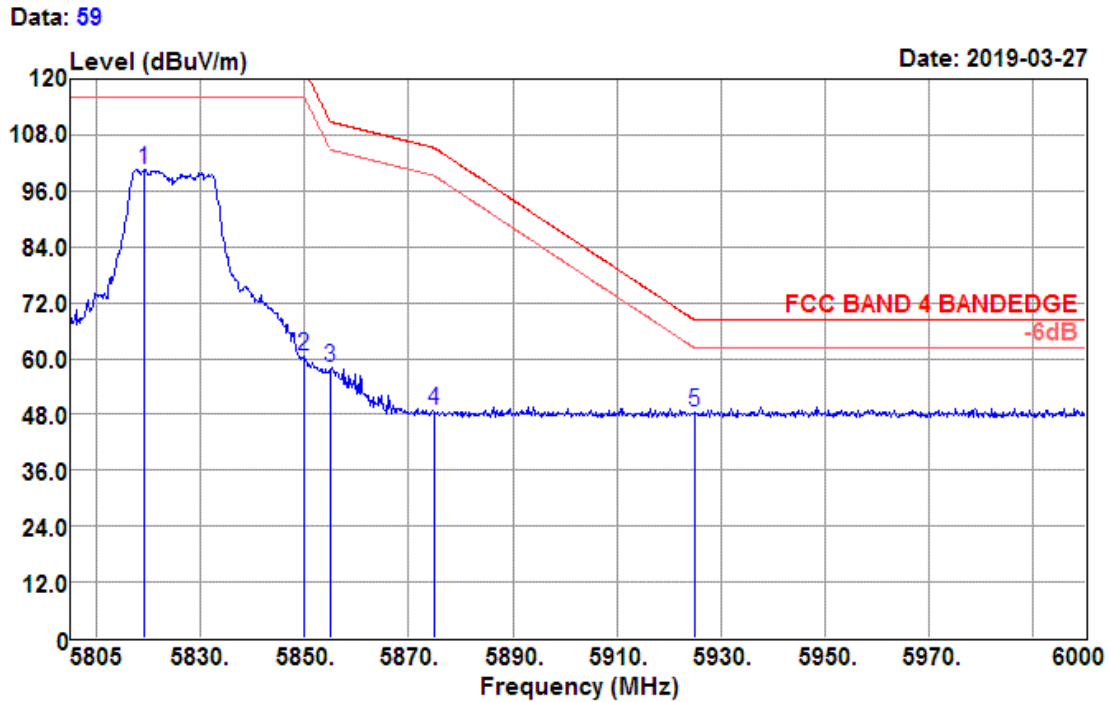
Test Mode :	802.11a CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Horizontal

Data: 64



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
5818.845	79.67	32.36	6.53	34.99	83.57	122.20	-38.63	Average
5850.045	37.15	32.38	6.53	34.94	41.12	122.10	-80.98	Average
5855.000	36.58	32.38	6.53	34.93	40.56	110.80	-70.24	Average
5875.000	33.75	32.40	6.53	34.91	37.77	105.20	-67.43	Average
5925.000	33.27	32.44	6.52	34.83	37.40	68.20	-30.80	Average

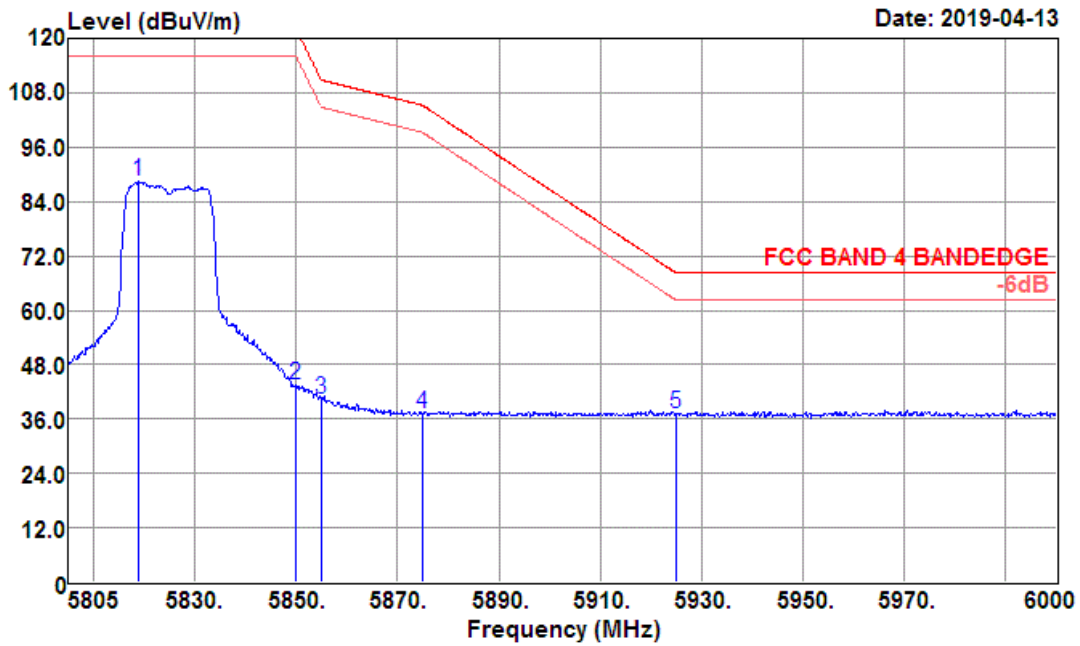
Test Mode :	802.11a CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Vertical



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
5819.235	96.74	32.36	6.53	34.99	100.64	122.20	-21.56	Peak
5850.000	56.46	32.38	6.53	34.94	60.43	122.20	-61.77	Peak
5855.000	54.02	32.38	6.53	34.93	58.00	110.80	-52.80	Peak
5875.000	44.78	32.40	6.53	34.91	48.80	105.20	-56.40	Peak
5925.000	44.23	32.44	6.52	34.83	48.36	68.20	-19.84	Peak

Test Mode :	802.11a CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Vertical

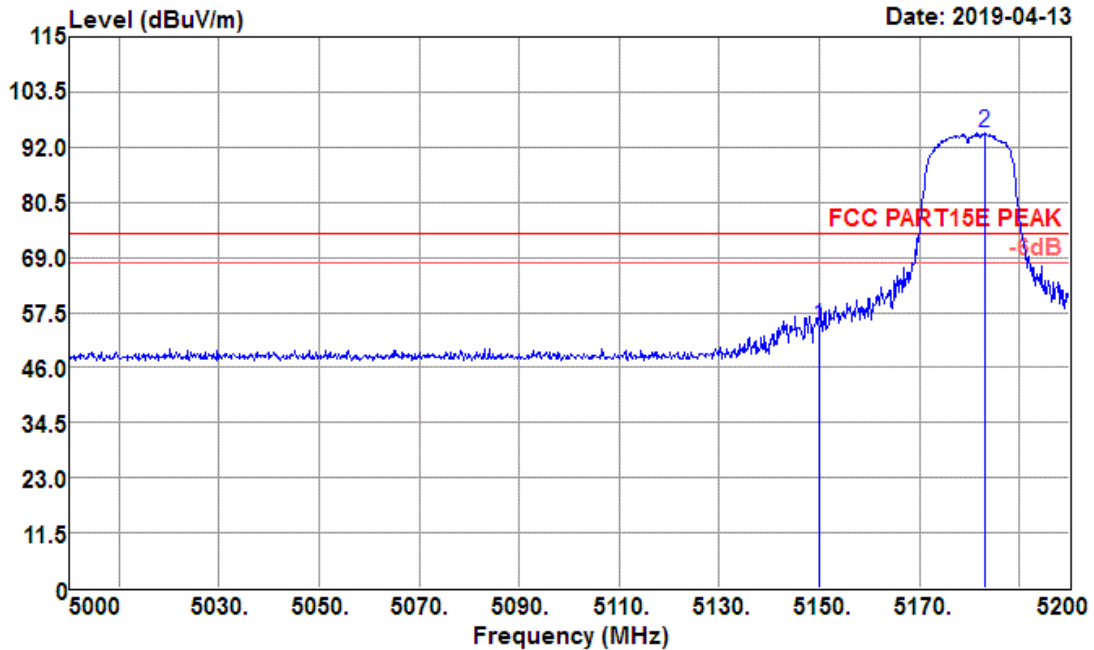
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5818.845	84.66	32.36	6.53	34.99	88.56	122.20	-33.64	Average
5850.000	39.48	32.38	6.53	34.94	43.45	122.20	-78.75	Average
5855.000	36.34	32.38	6.53	34.93	40.32	110.80	-70.48	Average
5875.000	33.08	32.40	6.53	34.91	37.10	105.20	-68.10	Average
5925.000	33.07	32.44	6.52	34.83	37.20	68.20	-31.00	Average

Test Mode :	802.11n HT20 CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

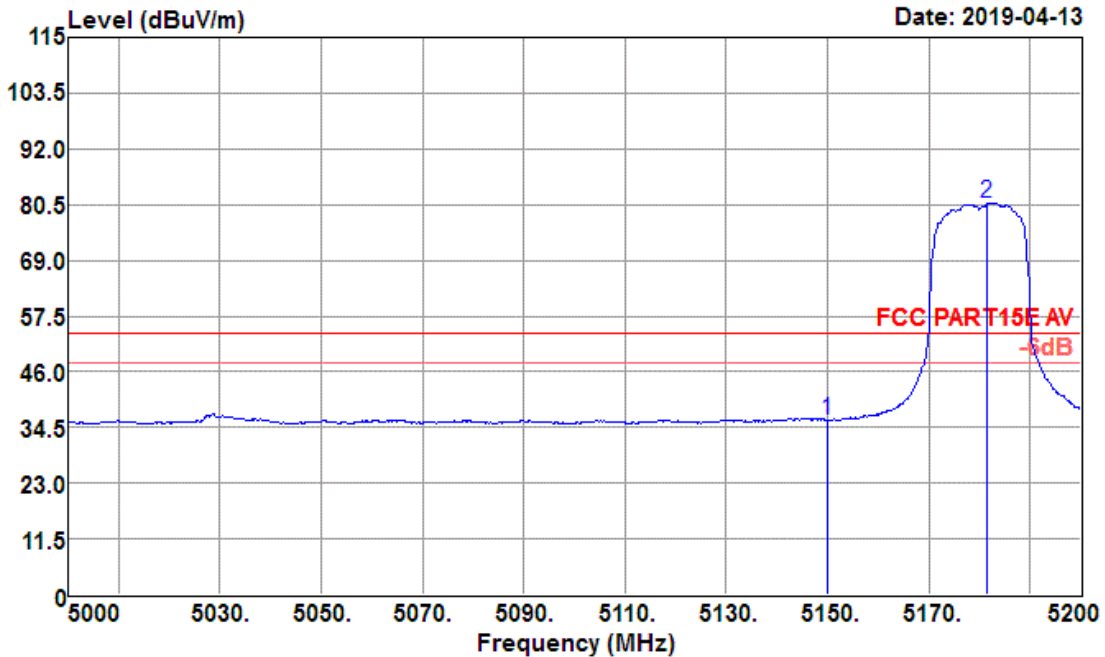
Data: 215



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
5150.000	53.28	31.82	5.40	35.98	54.52	74.00	-19.48	Peak
5183.200	93.57	31.85	5.41	35.93	94.90	74.00	20.90	Peak

Test Mode :	802.11n HT20 CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

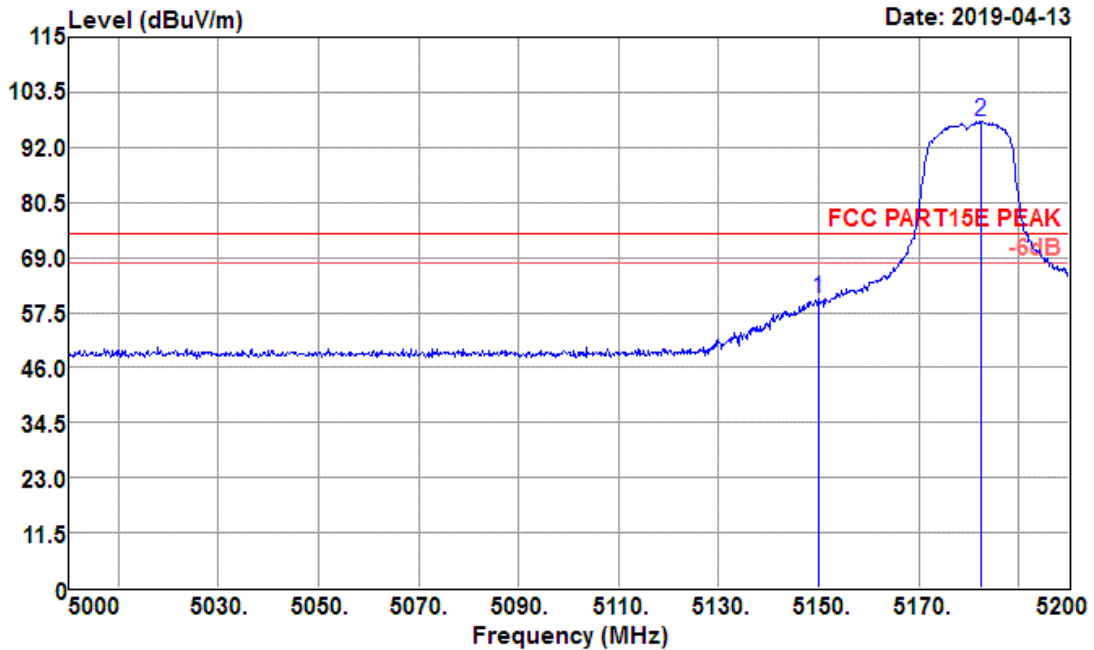
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5150.000	34.78	31.82	5.40	35.98	36.02	54.00	-17.98	Average
5181.600	79.48	31.85	5.41	35.93	80.81	54.00	26.81	Average

Test Mode :	802.11n HT20 CH36 5180MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

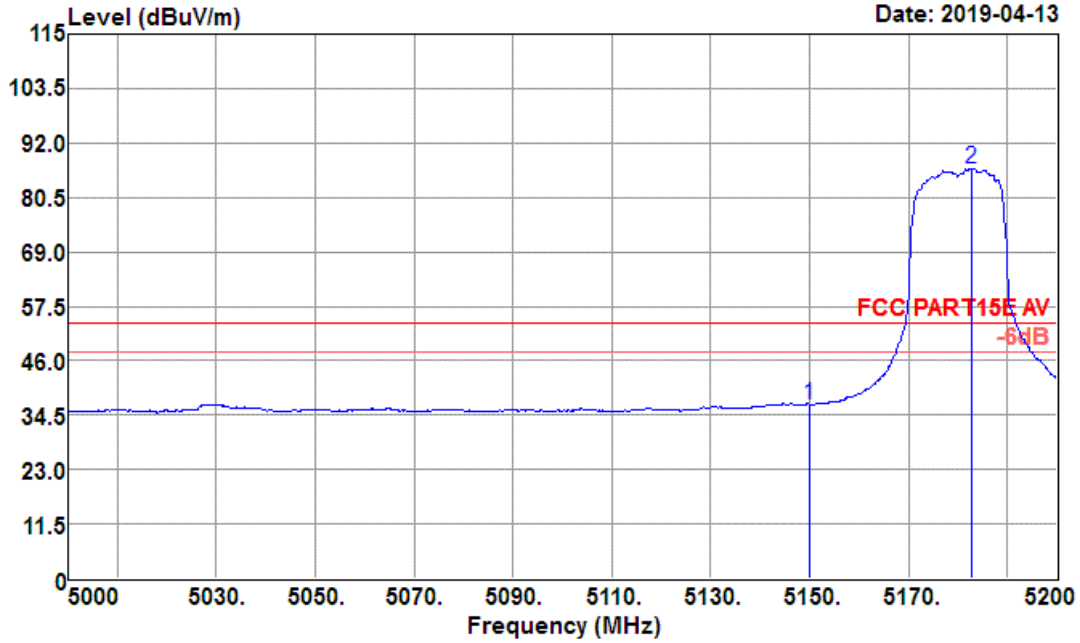
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5150.000	59.13	31.82	5.40	35.98	60.37	74.00	-13.63	Peak
5182.600	96.20	31.85	5.41	35.93	97.53	74.00	23.53	Peak

Test Mode :	802.11n HT20 CH36 5180MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

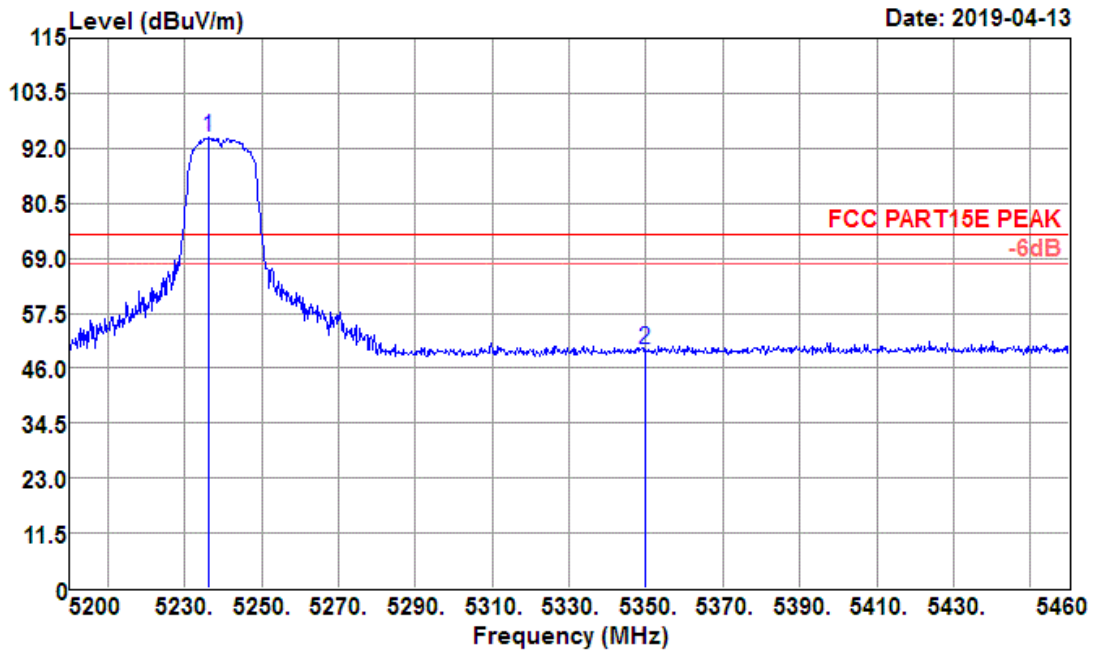
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5150.000	35.52	31.82	5.40	35.98	36.76	54.00	-17.24	Average
5182.800	85.24	31.85	5.41	35.93	86.57	54.00	32.57	Average

Test Mode :	802.11n HT 20 CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

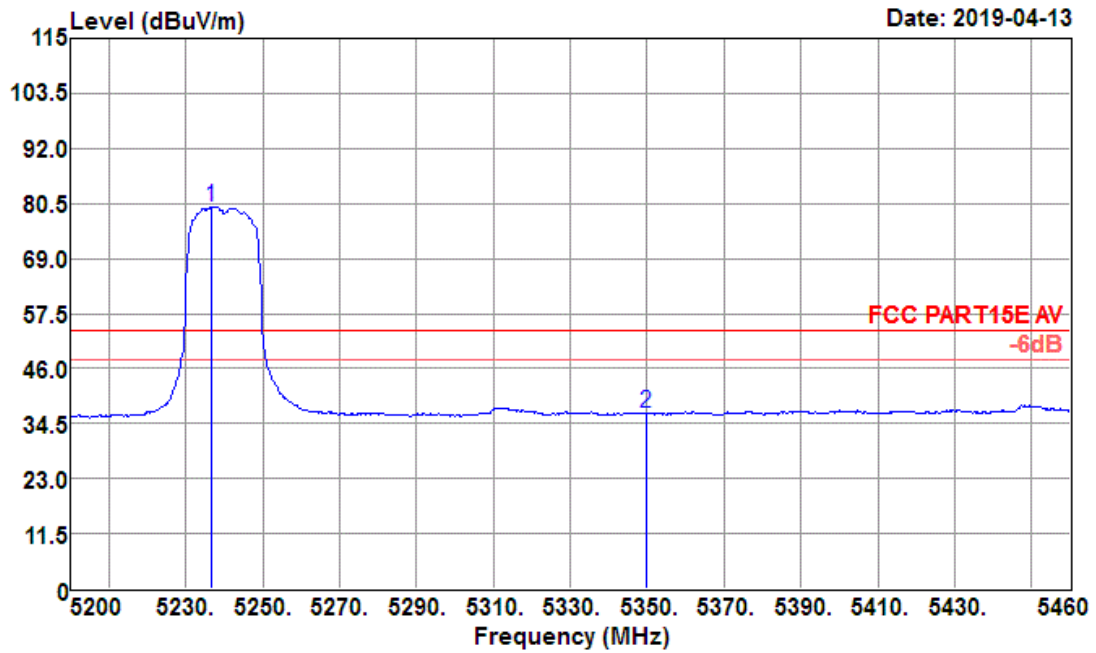
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Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
5236.400	92.59	31.89	5.56	35.85	94.19	74.00	20.19	Peak
5350.000	47.64	31.98	5.98	35.68	49.92	74.00	-24.08	Peak

Test Mode :	802.11 n HT 20 CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

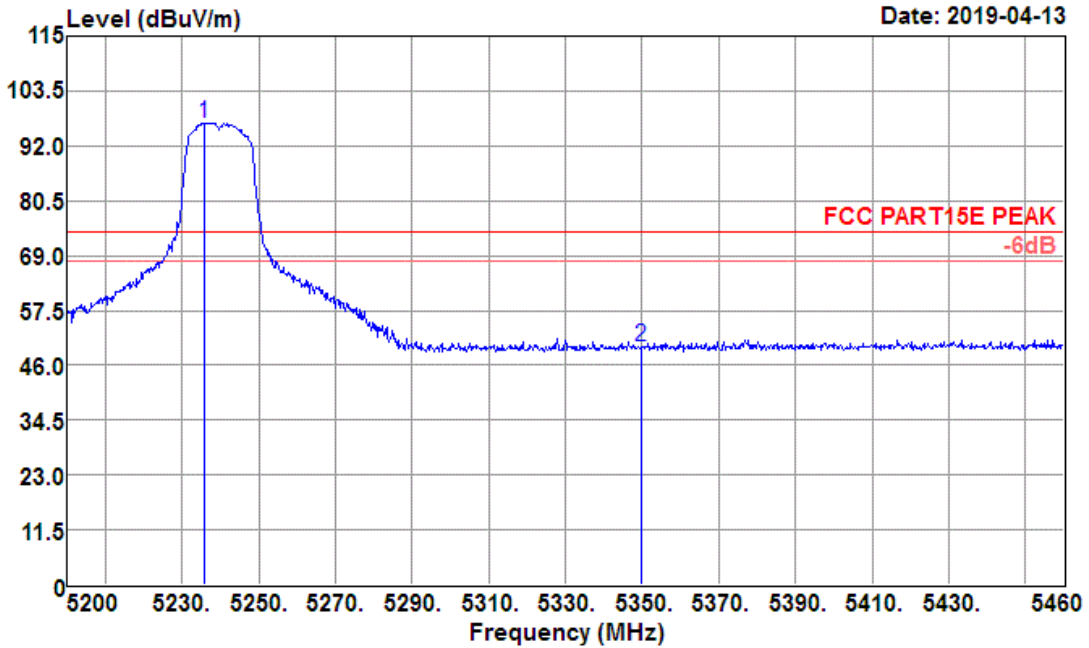
Data: 223



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
5236.660	78.28	31.89	5.56	35.85	79.88	54.00	25.88	Average
5350.000	34.41	31.98	5.98	35.68	36.69	54.00	-17.31	Average

Test Mode :	802.11 n HT 20 CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

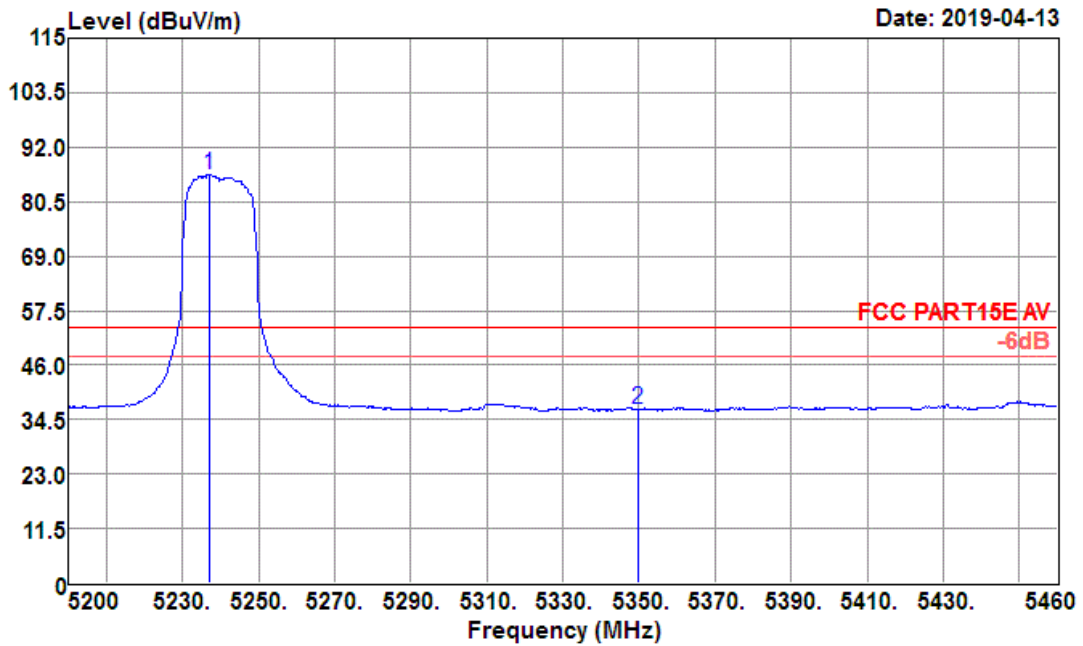
Data: 220



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
5235.880	95.24	31.89	5.55	35.85	96.83	74.00	22.83	Peak
5350.000	47.66	31.98	5.98	35.68	49.94	74.00	-24.06	Peak

Test Mode :	802.11 n HT 20 CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

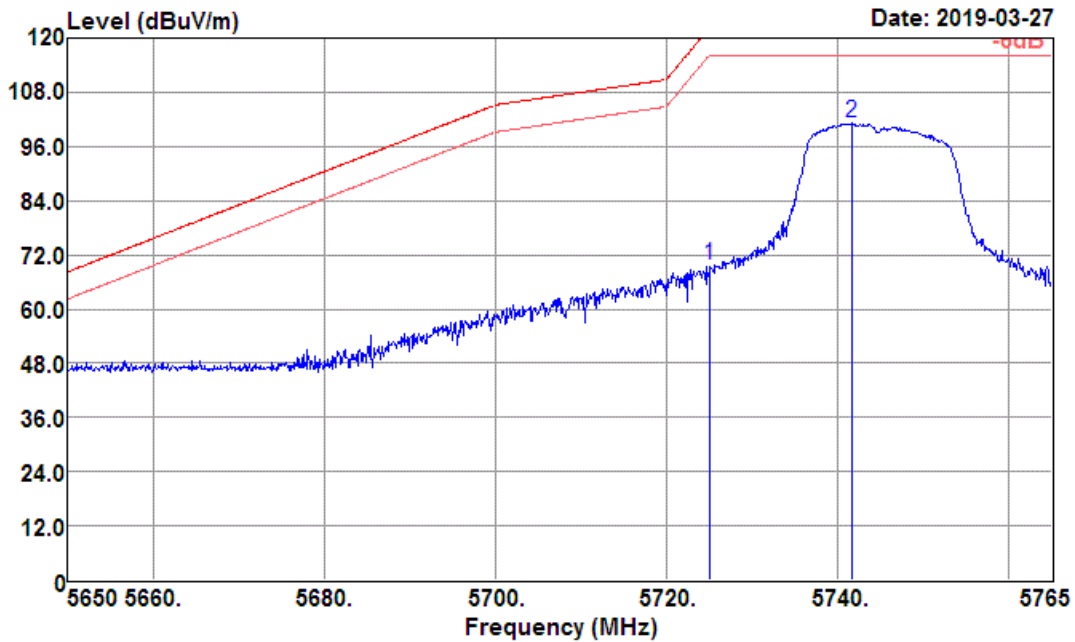
Data: 221



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamplifier factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5236.920	84.73	31.89	5.56	35.85	86.33	54.00	32.33	Average
5350.000	34.42	31.98	5.98	35.68	36.70	54.00	-17.30	Average

Test Mode :	802.11 n HT 20 CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Horizontal

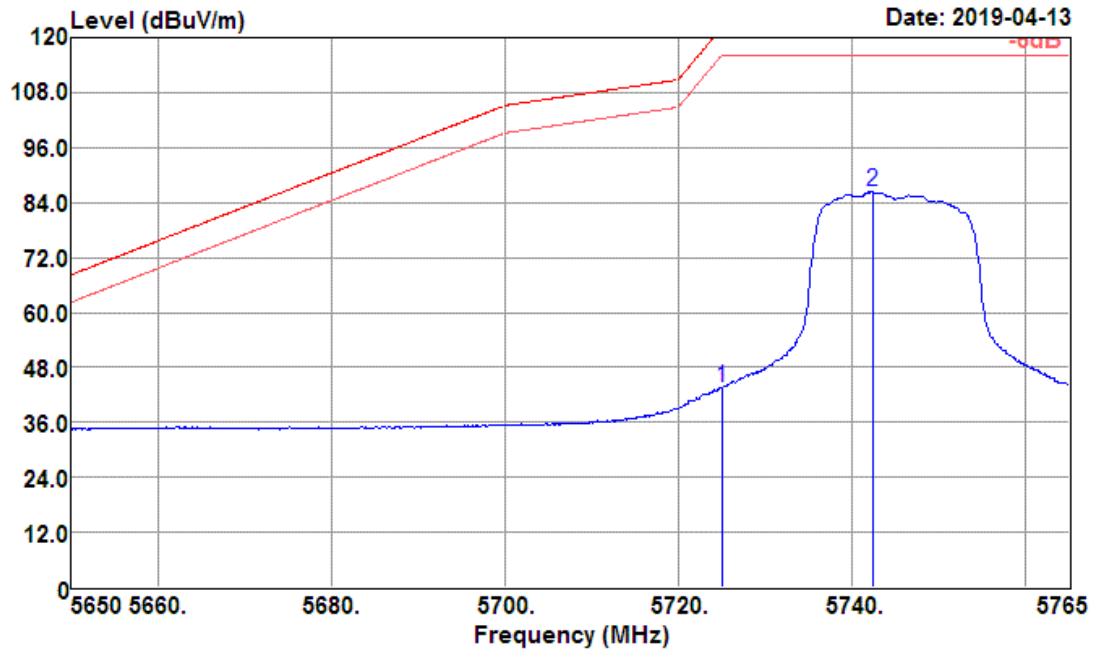
Data: 97



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
5725.000	66.05	32.28	6.42	35.13	69.62	122.20	-52.58	Peak
5741.655	97.48	32.29	6.45	35.10	101.12	122.20	-21.08	Peak

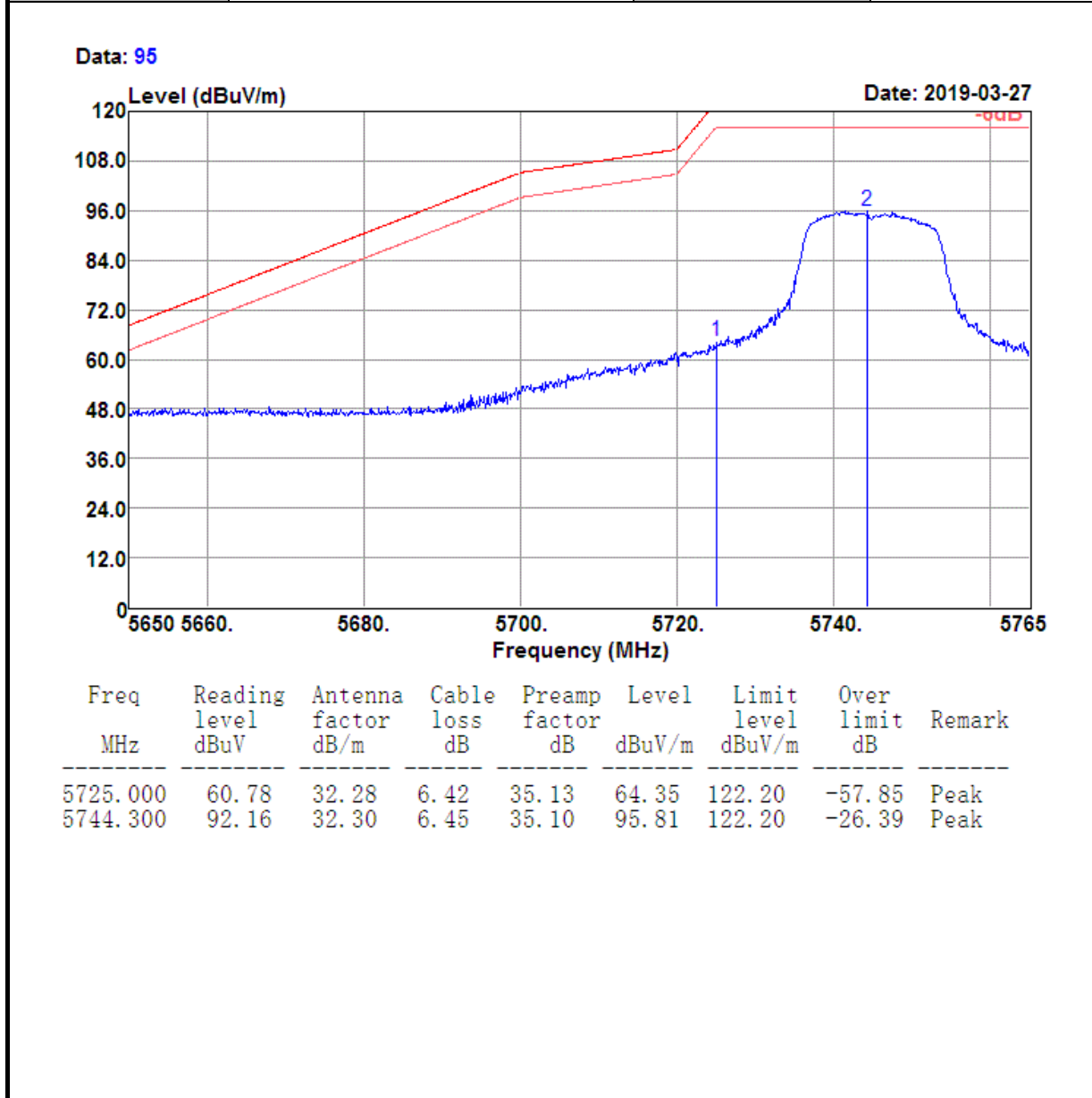
Test Mode :	802.11 n HT 20 CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Horizontal

Data: 91



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
5725.000	39.85	32.28	6.42	35.13	43.42	122.20	-78.78	Average
5742.345	82.68	32.29	6.45	35.10	86.32	122.20	-35.88	Average

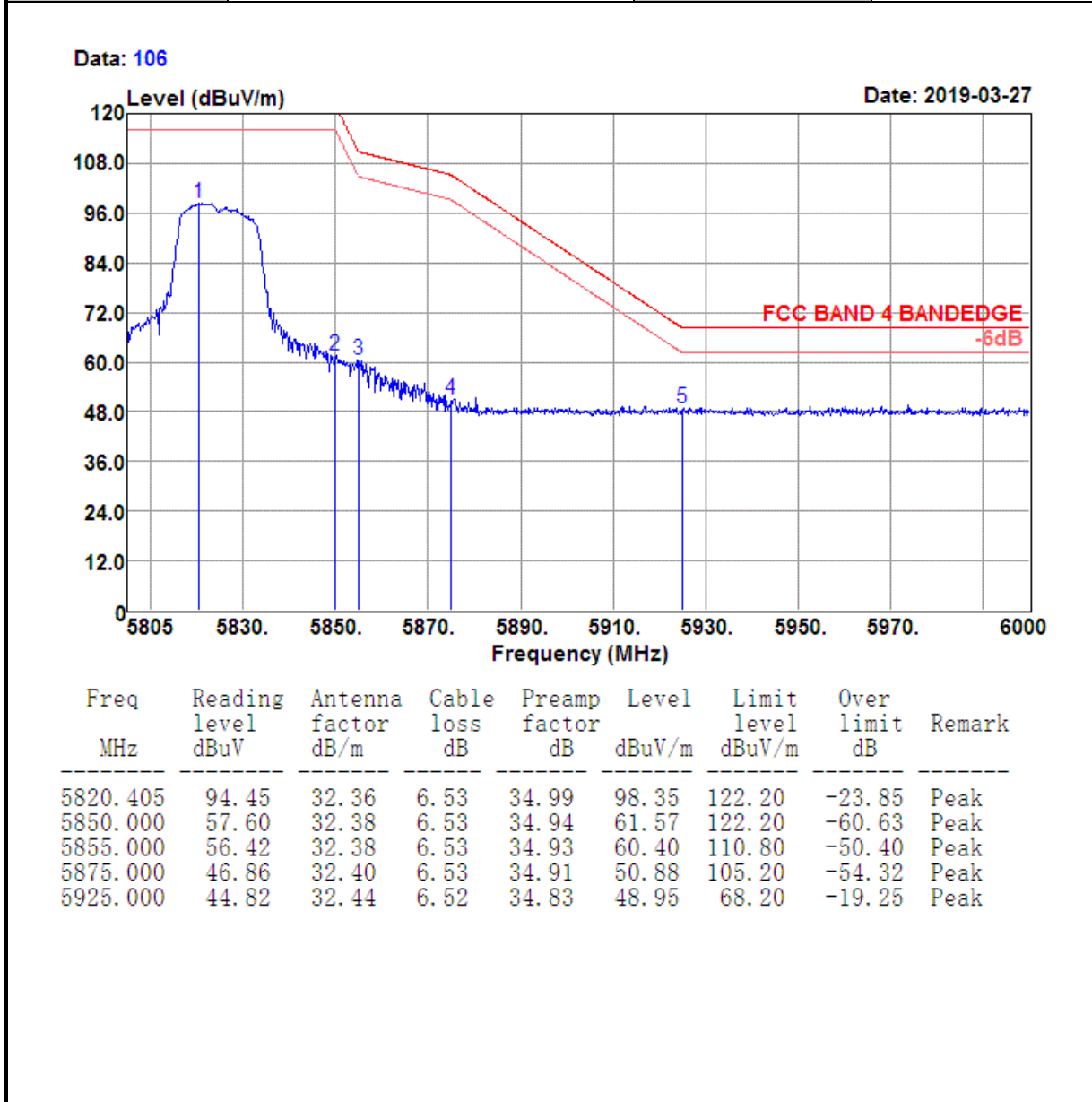
Test Mode :	802.11 n HT 20 CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Vertical



Test Mode :	802.11 n HT 20 CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Vertical

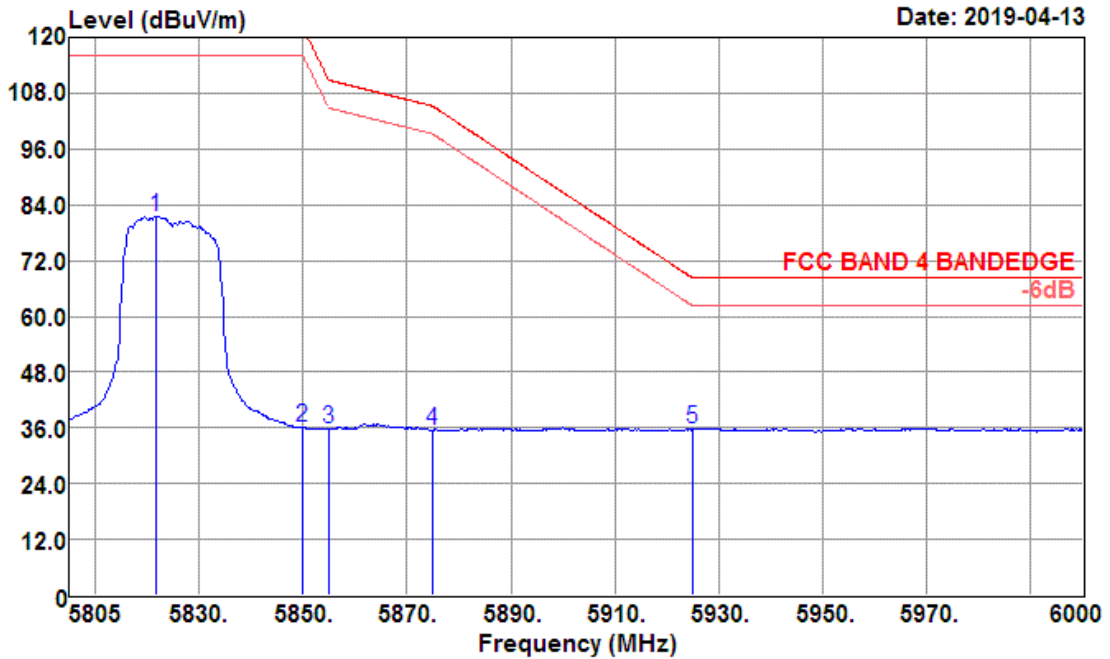


Test Mode :	802.11 n HT 20 CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Horizontal



Test Mode :	802.11 n HT 20 CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Horizontal

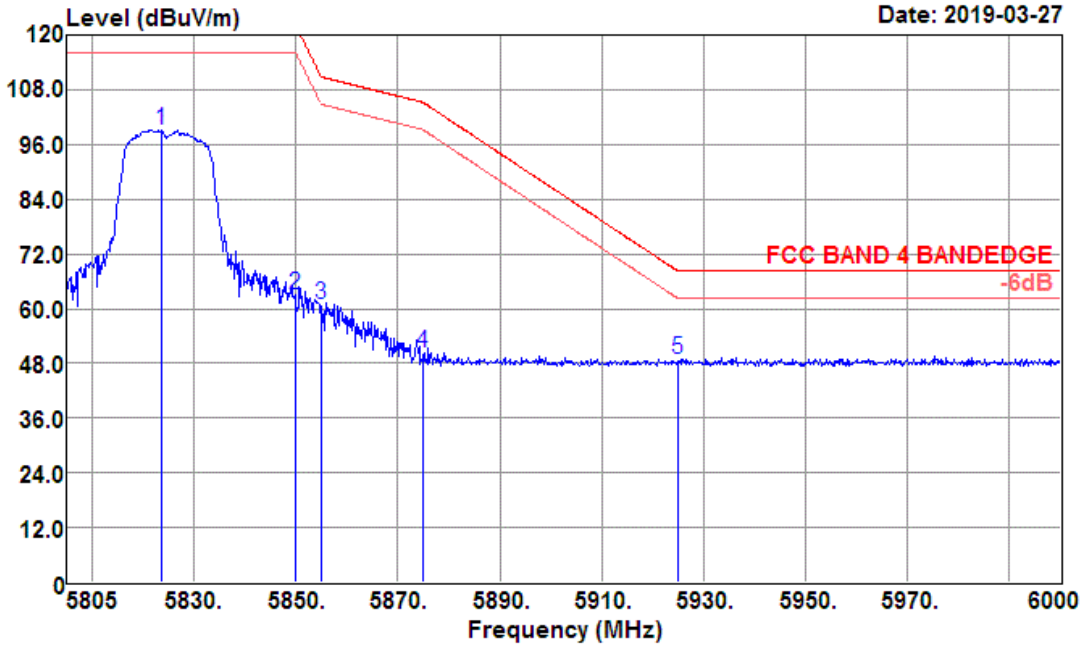
Data: 107



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
5821.770	77.69	32.36	6.53	34.98	81.60	122.20	-40.60	Average
5850.000	31.98	32.38	6.53	34.94	35.95	122.20	-86.25	Average
5855.000	31.88	32.38	6.53	34.93	35.86	110.80	-74.94	Average
5875.000	31.52	32.40	6.53	34.91	35.54	105.20	-69.66	Average
5925.000	31.53	32.44	6.52	34.83	35.66	68.20	-32.54	Average

Test Mode :	802.11 n HT 20 CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Vertical

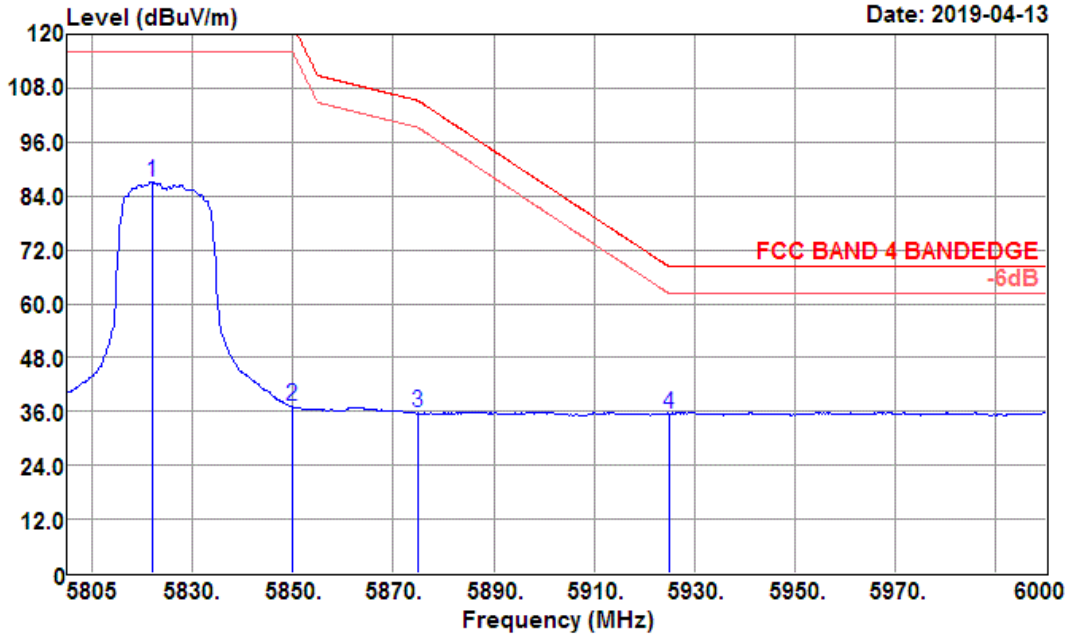
Data: 103



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
5823.720	95.31	32.36	6.53	34.98	99.22	122.20	-22.98	Peak
5850.000	59.09	32.38	6.53	34.94	63.06	122.20	-59.14	Peak
5855.000	56.92	32.38	6.53	34.93	60.90	110.80	-49.90	Peak
5875.000	46.11	32.40	6.53	34.91	50.13	105.20	-55.07	Peak
5925.000	44.59	32.44	6.52	34.83	48.72	68.20	-19.48	Peak

Test Mode :	802.11 n HT 20 CH165 5825MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Vertical

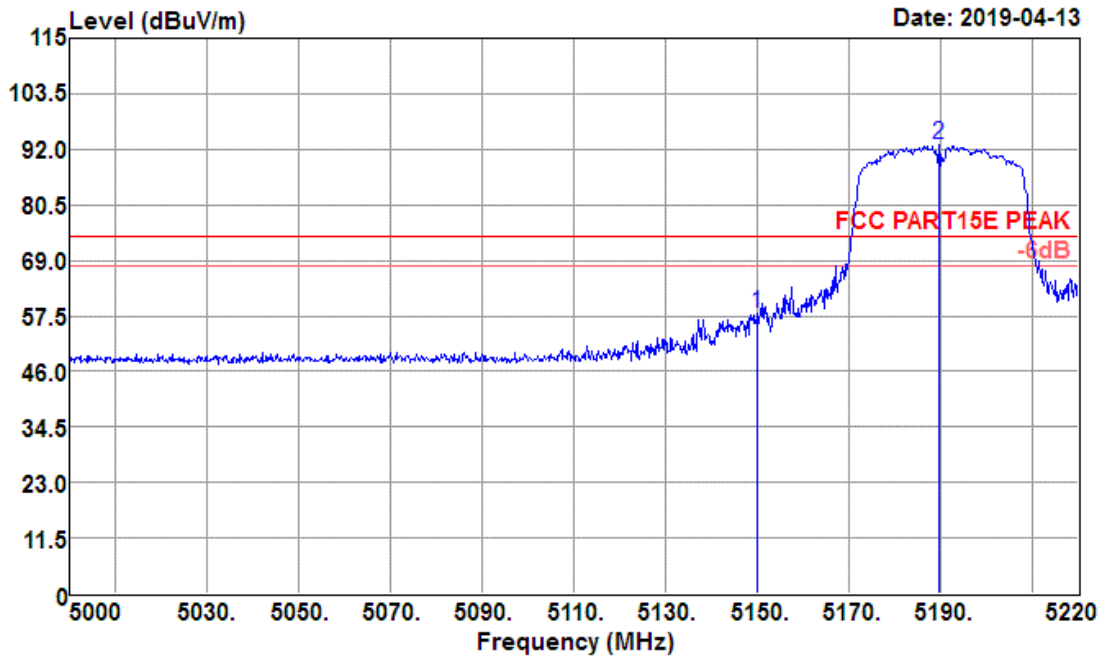
Data: 104



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
5822.160	83.18	32.36	6.53	34.98	87.09	122.20	-35.11	Average
5850.000	33.08	32.38	6.53	34.94	37.05	122.20	-85.15	Average
5875.000	31.57	32.40	6.53	34.91	35.59	105.20	-69.61	Average
5925.000	31.42	32.44	6.52	34.83	35.55	68.20	-32.65	Average

Test Mode :	802.11n HT40 CH38 5190MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

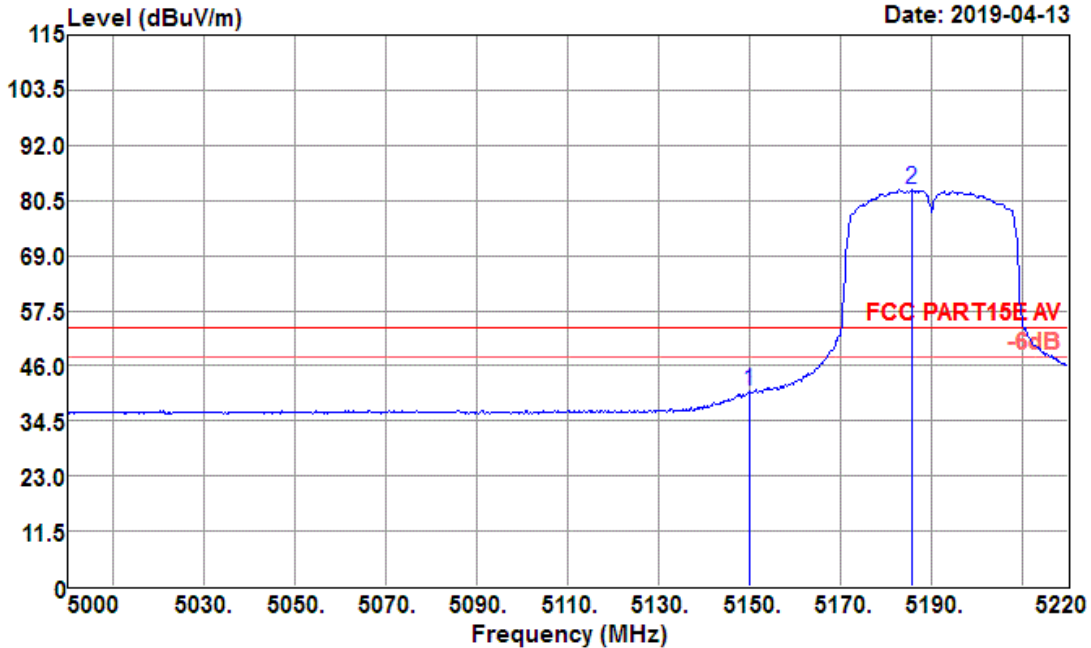
Data: 225



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
5150.000	56.69	31.82	5.40	35.98	57.93	74.00	-16.07	Peak
5189.640	91.58	31.85	5.42	35.92	92.93	74.00	18.93	Peak

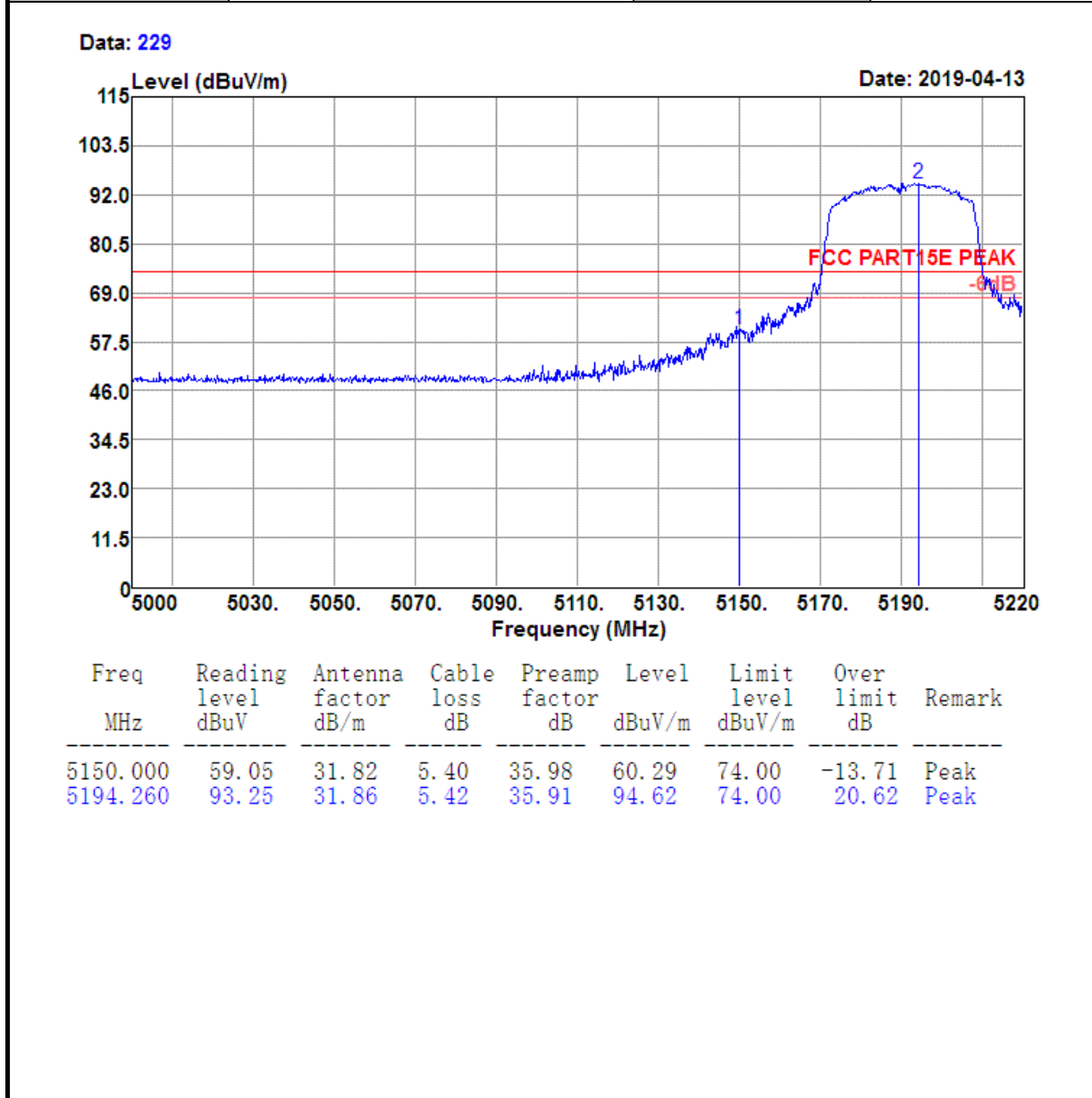
Test Mode :	802.11n HT40 CH38 5190MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

Data: 226



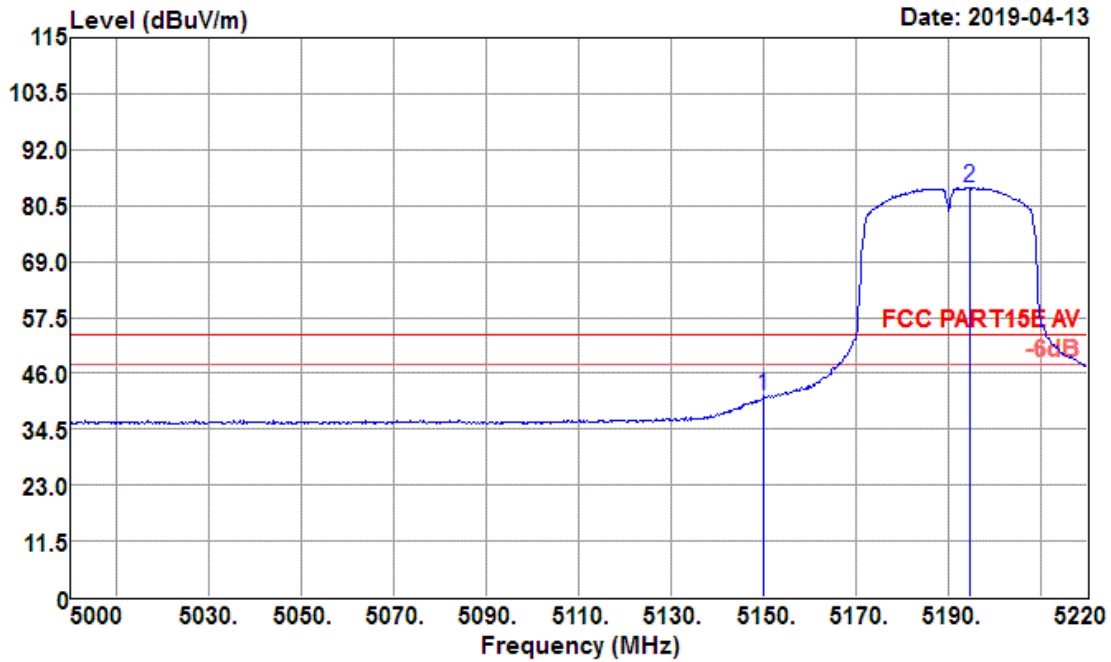
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5150.000	39.40	31.82	5.40	35.98	40.64	54.00	-13.36	Average
5185.680	81.31	31.85	5.41	35.93	82.64	54.00	28.64	Average

Test Mode :	802.11n HT40 CH38 5190MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical



Test Mode :	802.11n HT40 CH38 5190MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

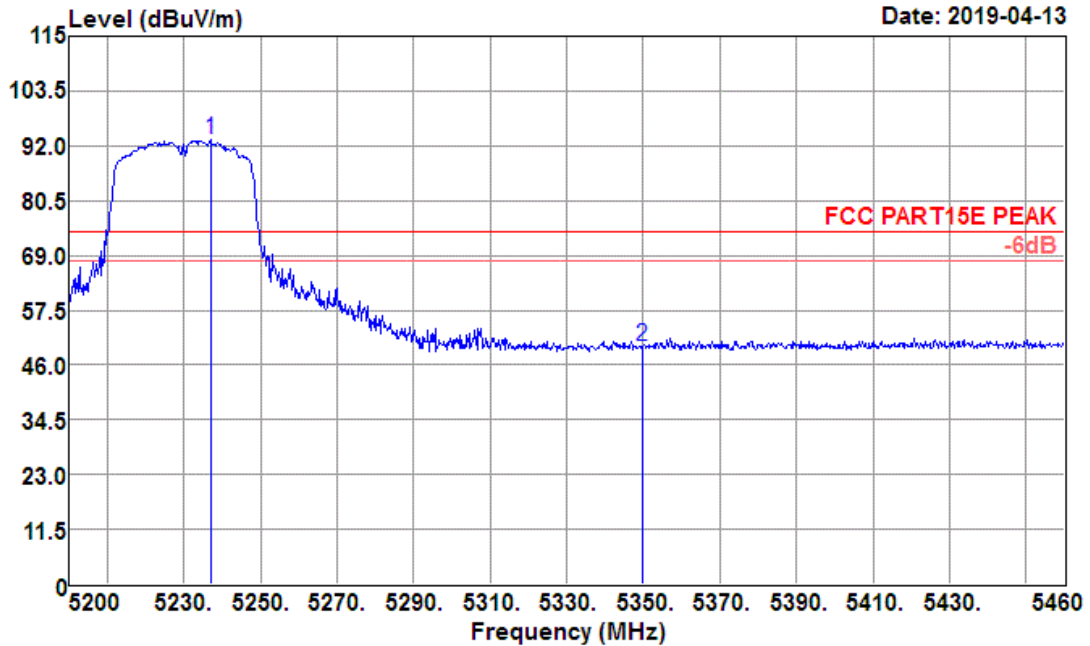
Data: 230



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
5150.000	40.17	31.82	5.40	35.98	41.41	54.00	-12.59	Average
5194.480	82.91	31.86	5.42	35.91	84.28	54.00	30.28	Average

Test Mode :	802.11n HT40 CH46 5230MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

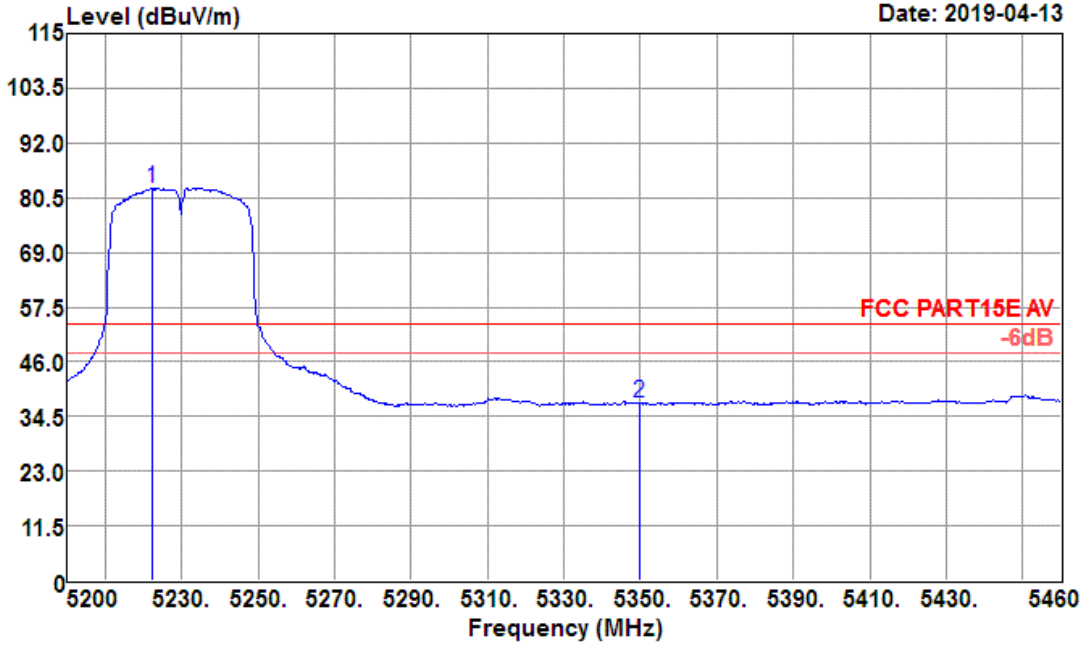
Data: 235



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
5236.920	91.72	31.89	5.56	35.85	93.32	74.00	19.32	Peak
5350.000	47.63	31.98	5.98	35.68	49.91	74.00	-24.09	Peak

Test Mode :	802.11n HT40 CH46 5230MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

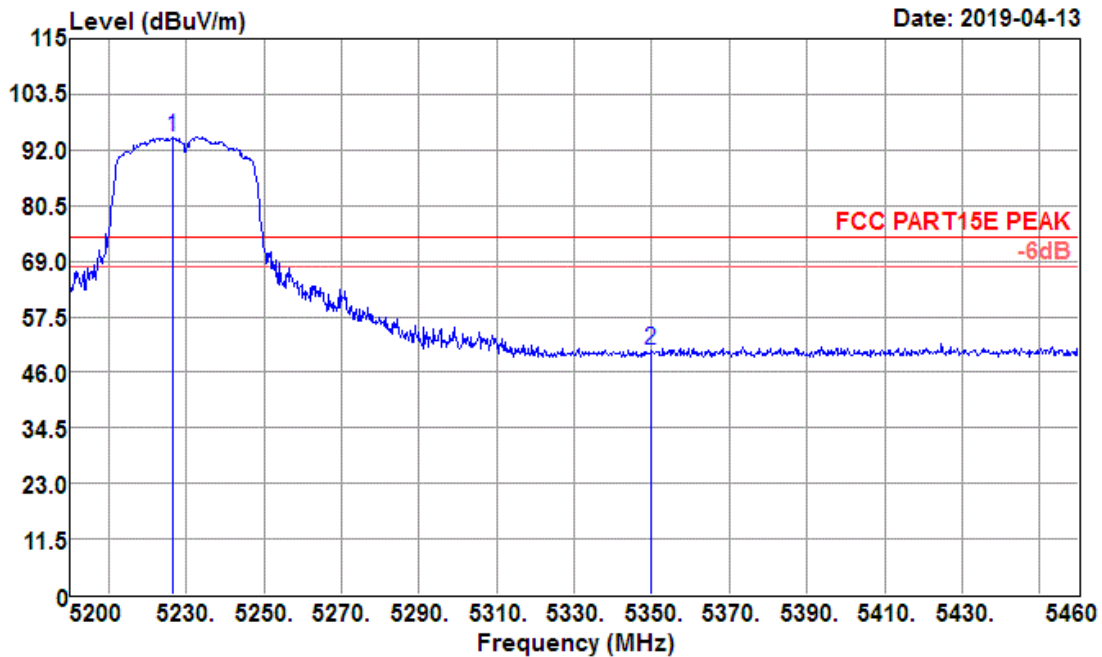
Data: 236



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
5222.360	81.04	31.88	5.50	35.87	82.55	54.00	28.55	Average
5350.000	35.02	31.98	5.98	35.68	37.30	54.00	-16.70	Average

Test Mode :	802.11n HT40 CH46 5230MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

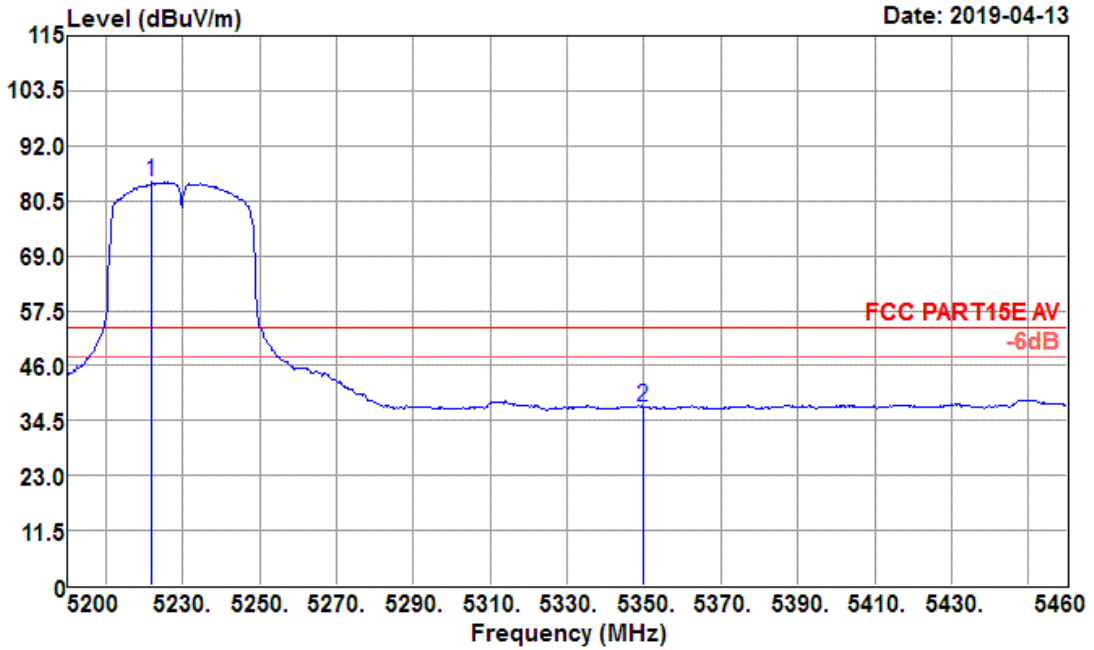
Data: 231



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
5226.780	93.19	31.88	5.52	35.86	94.73	74.00	20.73	Peak
5350.000	48.22	31.98	5.98	35.68	50.50	74.00	-23.50	Peak

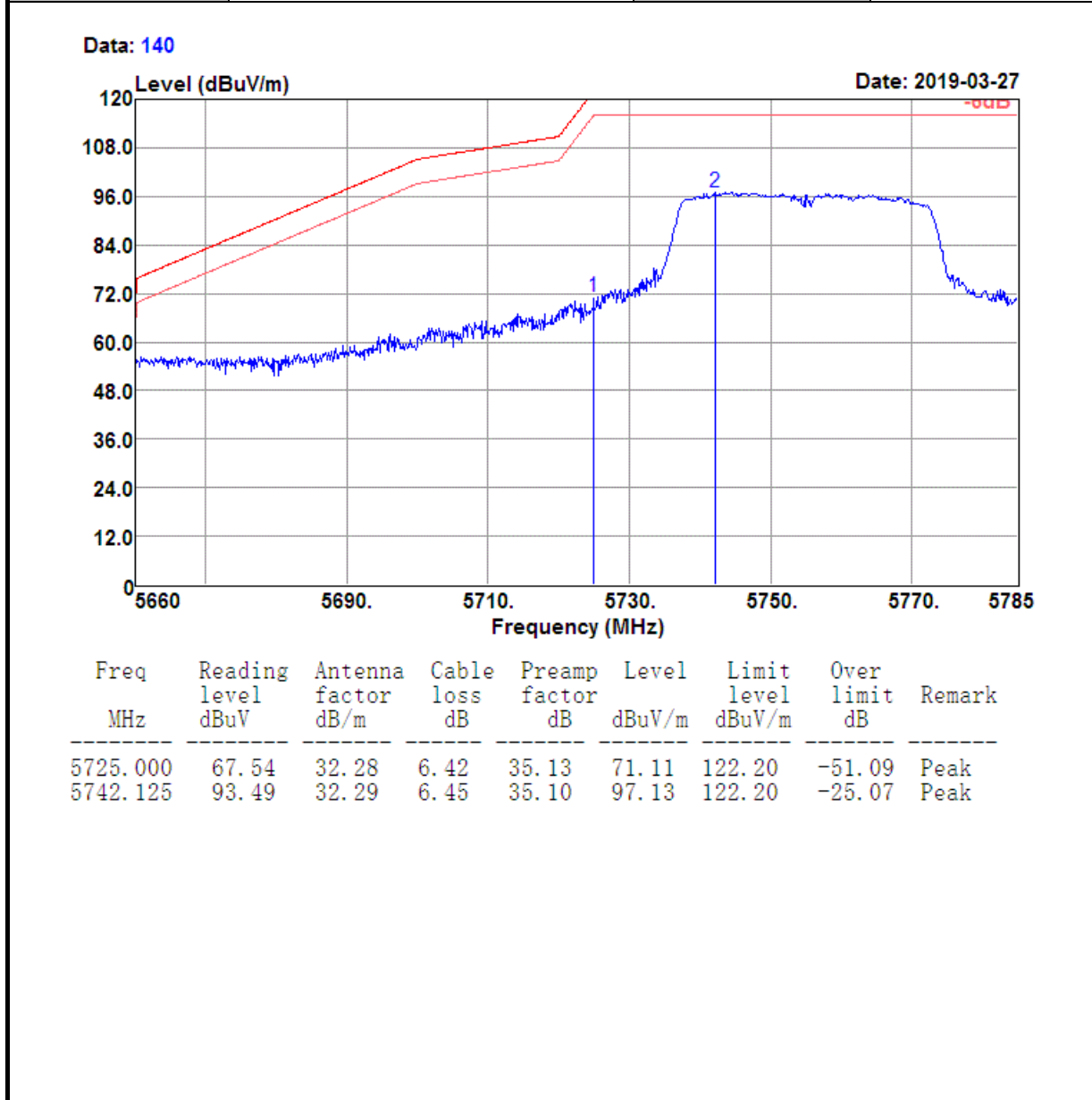
Test Mode :	802.11n HT40 CH46 5230MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

Data: 232



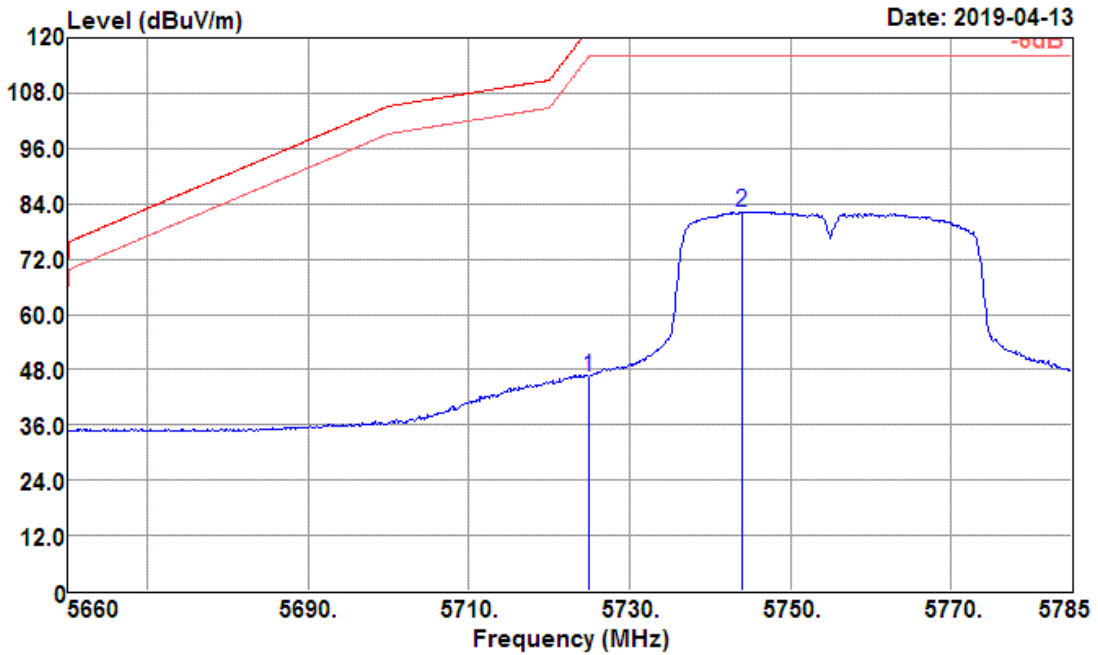
Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
5222.100	82.88	31.88	5.50	35.87	84.39	54.00	30.39	Average
5350.000	35.16	31.98	5.98	35.68	37.44	54.00	-16.56	Average

Test Mode :	802.11n HT40 CH151 5755MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Horizontal



Test Mode :	802.11n HT40 CH151 5755MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Horizontal

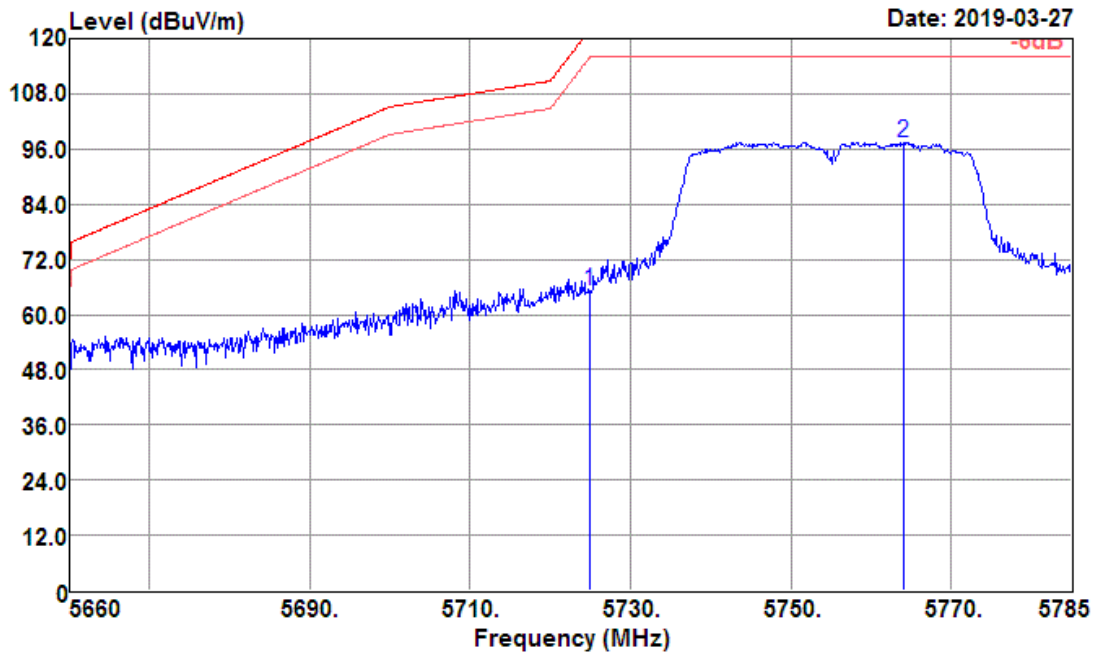
Data: 139



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
5725.000	42.97	32.28	6.42	35.13	46.54	122.20	-75.66	Average
5744.000	78.65	32.30	6.45	35.10	82.30	122.20	-39.90	Average

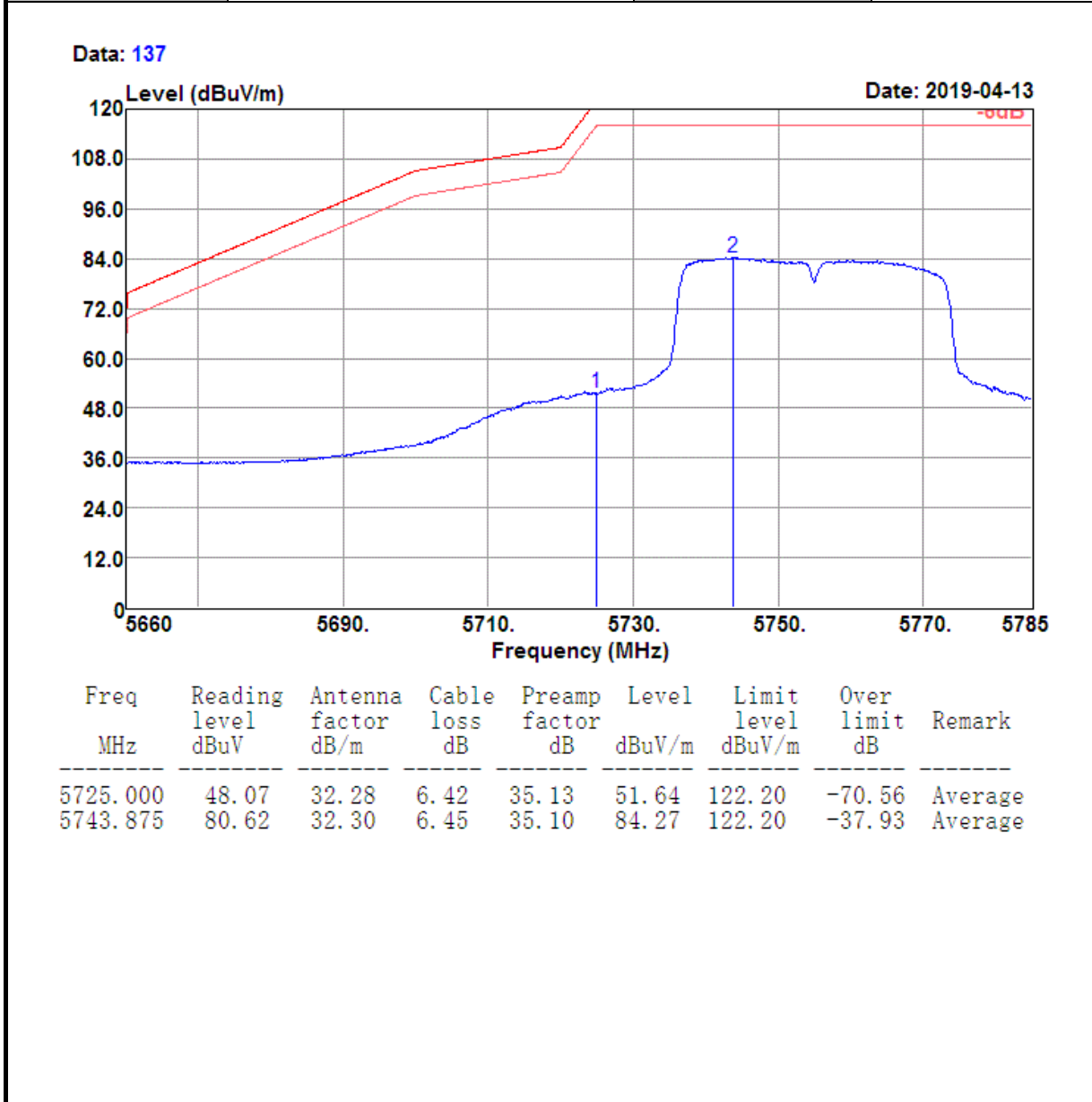
Test Mode :	802.11n HT40 CH151 5755MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Vertical

Data: 136



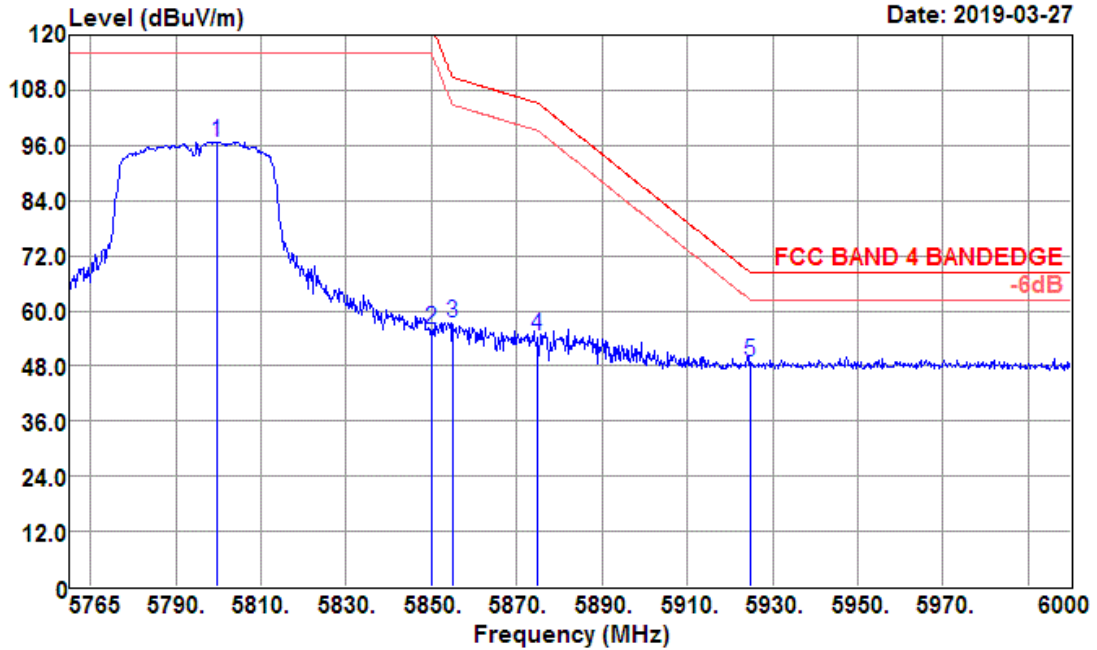
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5725.000	61.62	32.28	6.42	35.13	65.19	122.20	-57.01	Peak
5764.125	93.81	32.31	6.48	35.07	97.53	122.20	-24.67	Peak

Test Mode :	802.11n HT40 CH151 5755MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.85GHz	Polarization :	Vertical



Test Mode :	802.11n HT40 CH159 5795MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Horizontal

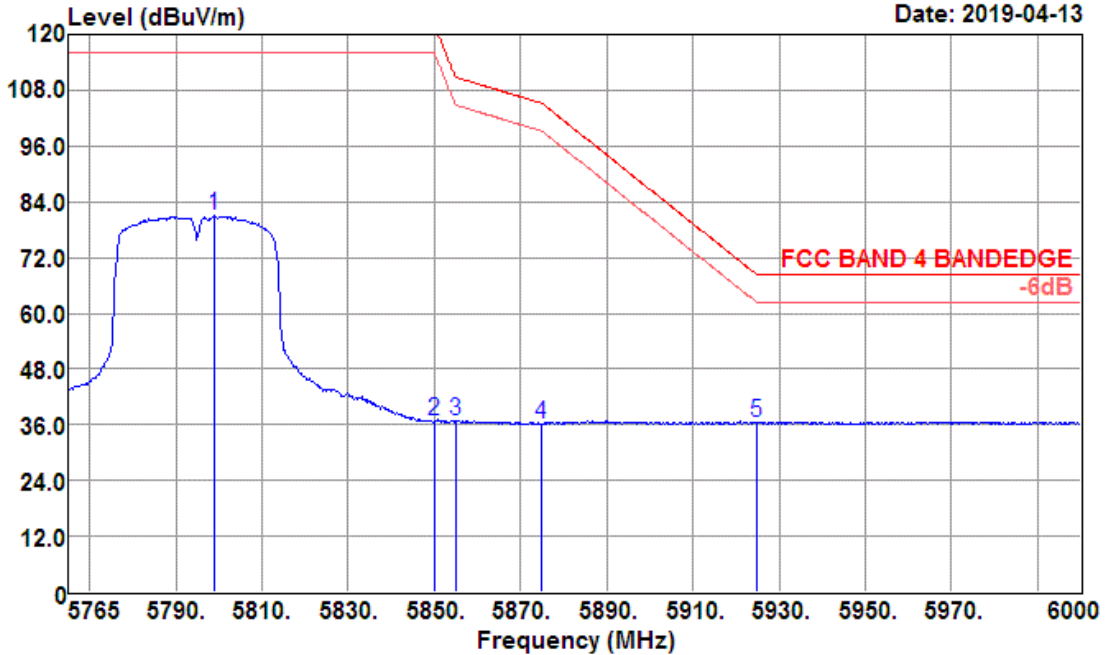
Data: 145



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamplifier factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5799.545	92.89	32.34	6.53	35.02	96.74	122.20	-25.46	Peak
5850.000	52.13	32.38	6.53	34.94	56.10	122.20	-66.10	Peak
5855.000	53.31	32.38	6.53	34.93	57.29	110.80	-53.51	Peak
5875.000	50.43	32.40	6.53	34.91	54.45	105.20	-50.75	Peak
5925.000	44.65	32.44	6.52	34.83	48.78	68.20	-19.42	Peak

Test Mode :	802.11n HT40 CH159 5795MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Horizontal

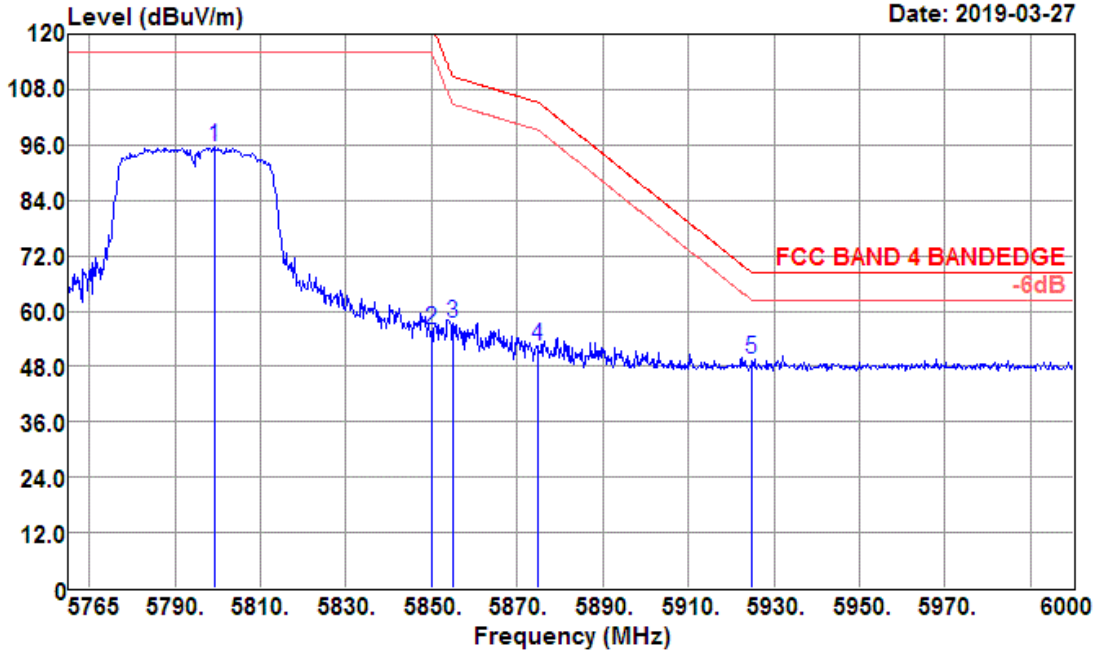
Data: 146



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
5798.840	77.11	32.34	6.53	35.02	80.96	122.20	-41.24	Average
5850.000	32.87	32.38	6.53	34.94	36.84	122.20	-85.36	Average
5855.000	32.69	32.38	6.53	34.93	36.67	110.80	-74.13	Average
5875.000	32.27	32.40	6.53	34.91	36.29	105.20	-68.91	Average
5925.000	32.22	32.44	6.52	34.83	36.35	68.20	-31.85	Average

Test Mode :	802.11n HT40 CH159 5795MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Vertical

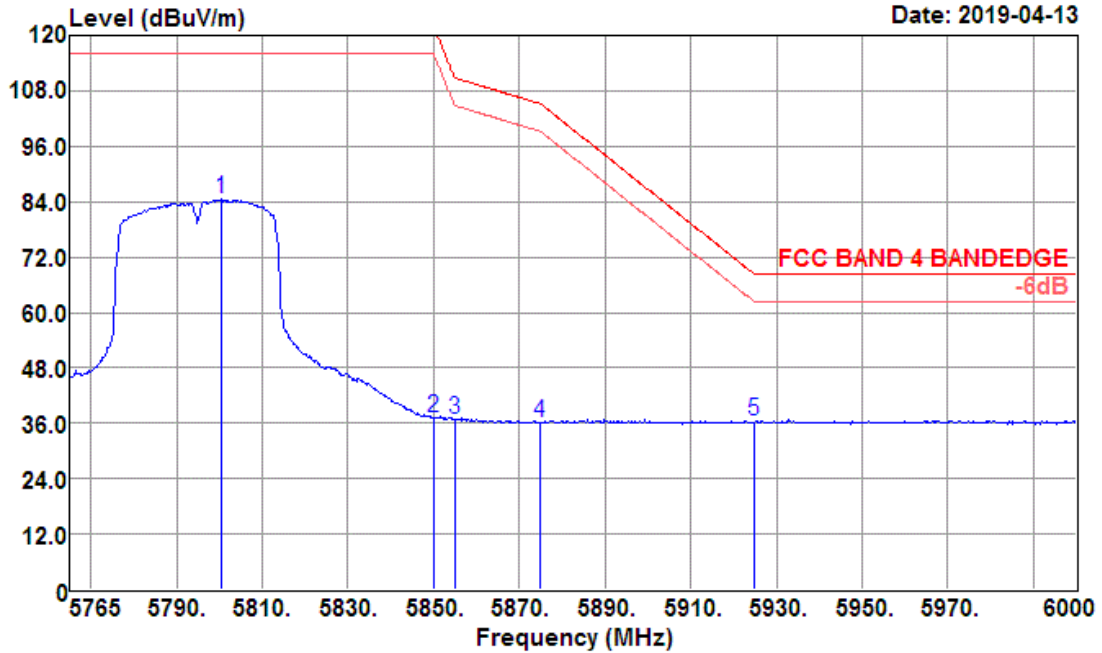
Data: 148



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
5799.310	91.58	32.34	6.53	35.02	95.43	122.20	-26.77	Peak
5850.000	51.93	32.38	6.53	34.94	55.90	122.20	-66.30	Peak
5855.000	53.53	32.38	6.53	34.93	57.51	110.80	-53.29	Peak
5875.000	48.32	32.40	6.53	34.91	52.34	105.20	-52.86	Peak
5925.000	45.34	32.44	6.52	34.83	49.47	68.20	-18.73	Peak

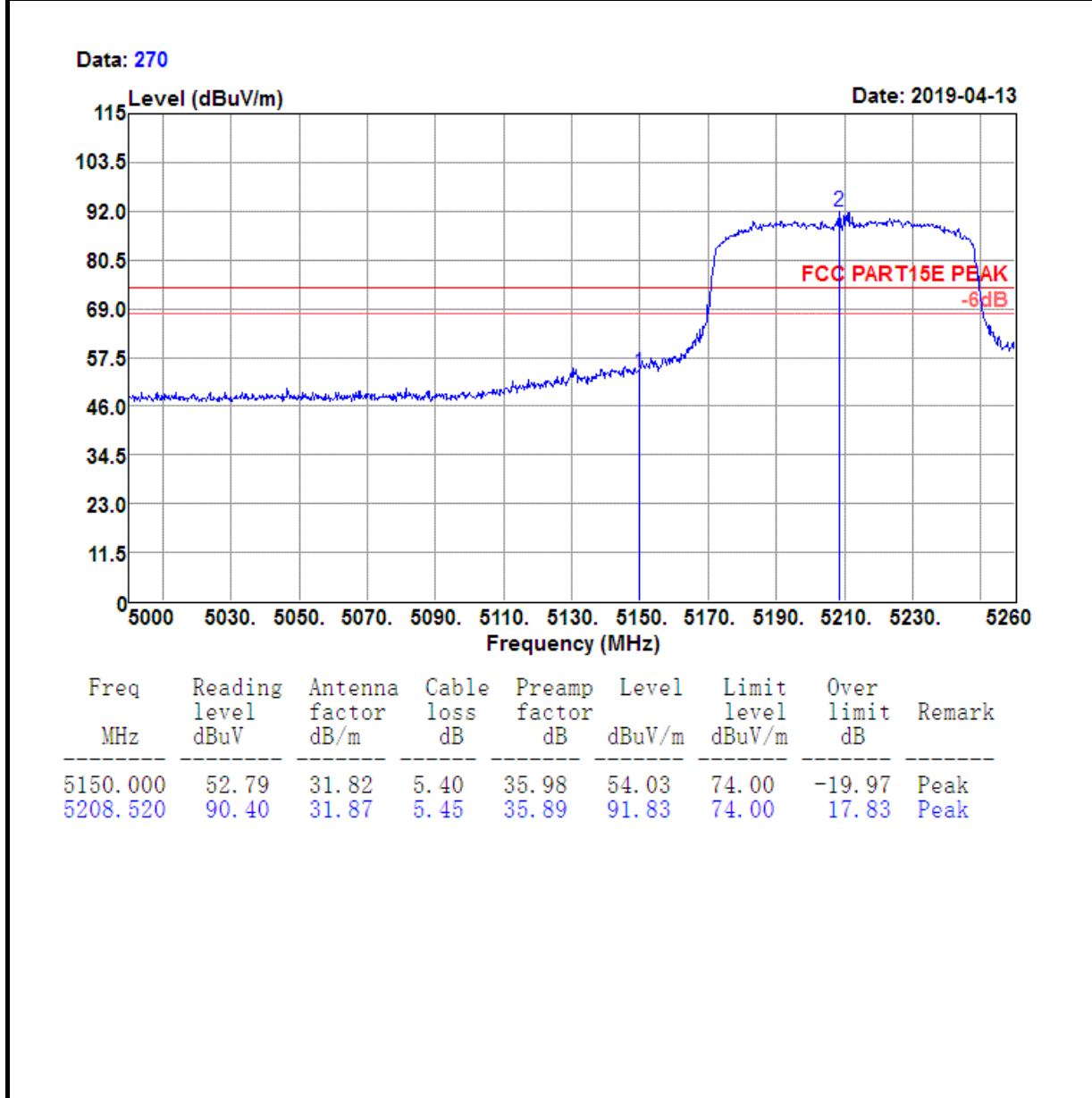
Test Mode :	802.11n HT40 CH159 5795MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Vertical

Data: 149



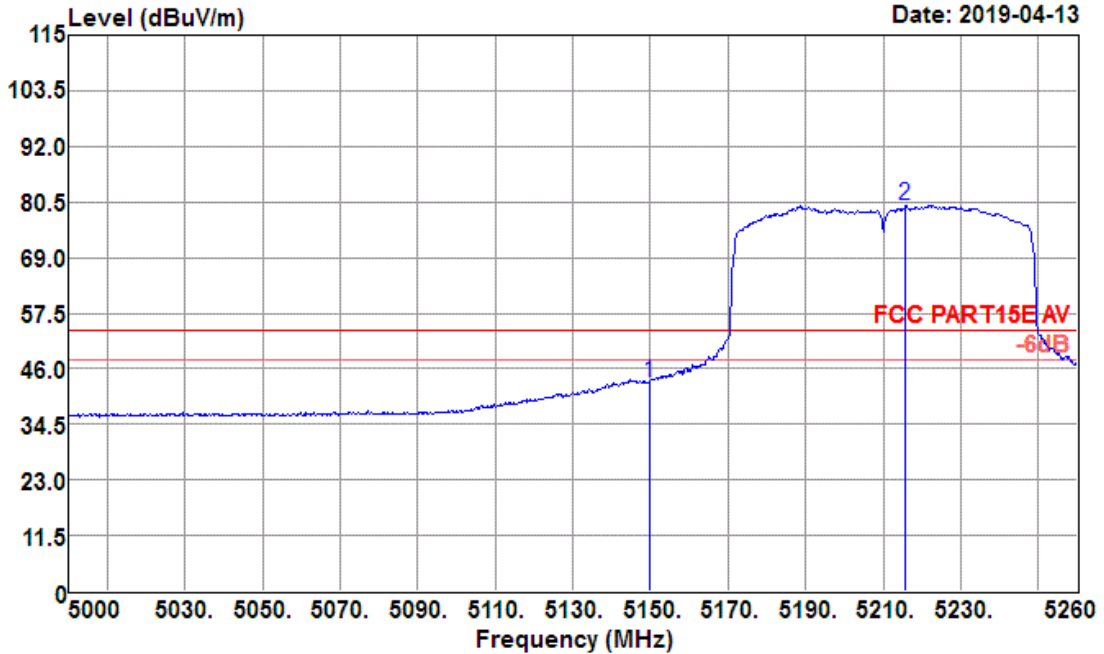
Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
5800.485	80.61	32.34	6.53	35.02	84.46	122.20	-37.74	Average
5850.000	33.21	32.38	6.53	34.94	37.18	122.20	-85.02	Average
5855.000	32.77	32.38	6.53	34.93	36.75	110.80	-74.05	Average
5875.000	32.21	32.40	6.53	34.91	36.23	105.20	-68.97	Average
5925.000	32.18	32.44	6.52	34.83	36.31	68.20	-31.89	Average

Test Mode :	802.11ac VHT80 CH42 5210MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal



Test Mode :	802.11ac VHT80 CH42 5210MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Horizontal

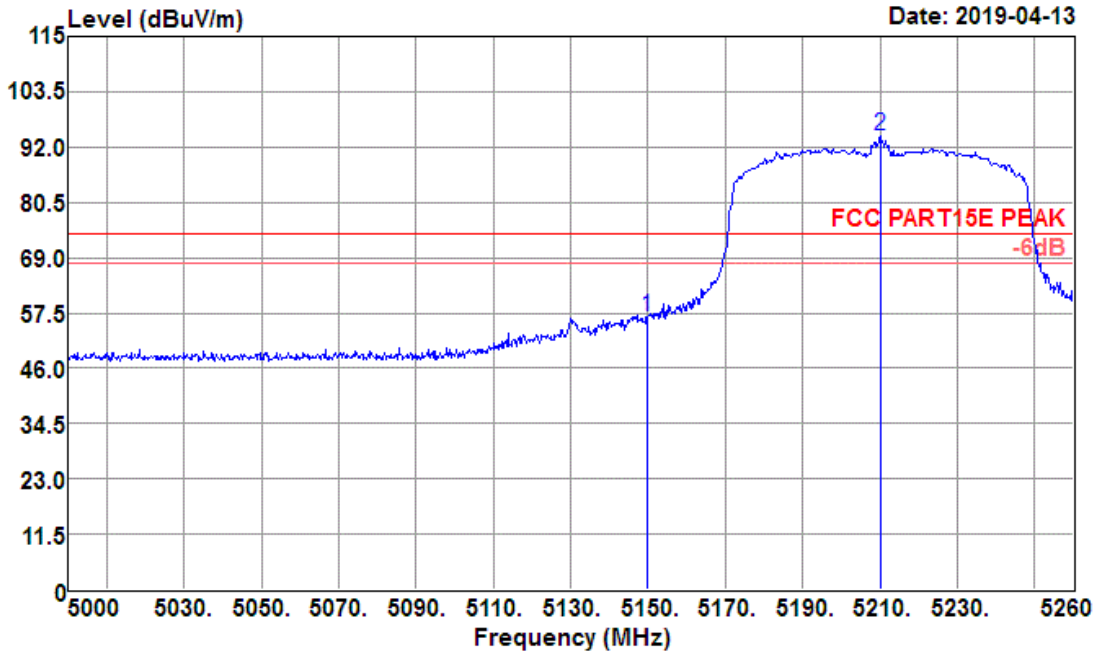
Data: 271



Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamplifier factor dB	Level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
5150.000	42.00	31.82	5.40	35.98	43.24	54.00	-10.76	Average
5215.800	78.27	31.87	5.48	35.88	79.74	54.00	25.74	Average

Test Mode :	802.11ac VHT80 CH42 5210MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

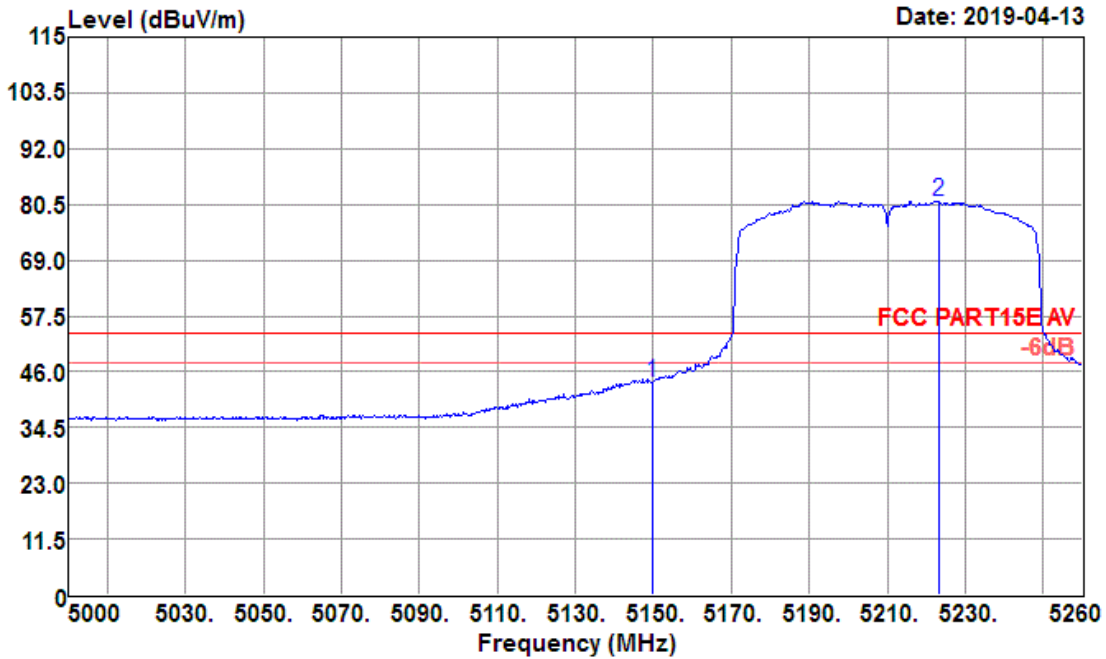
Data: 264



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
5150.000	55.59	31.82	5.40	35.98	56.83	74.00	-17.17	Peak
5210.080	92.98	31.87	5.46	35.89	94.42	74.00	20.42	Peak

Test Mode :	802.11ac VHT80 CH42 5210MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.0GHz~5.26GHz	Polarization :	Vertical

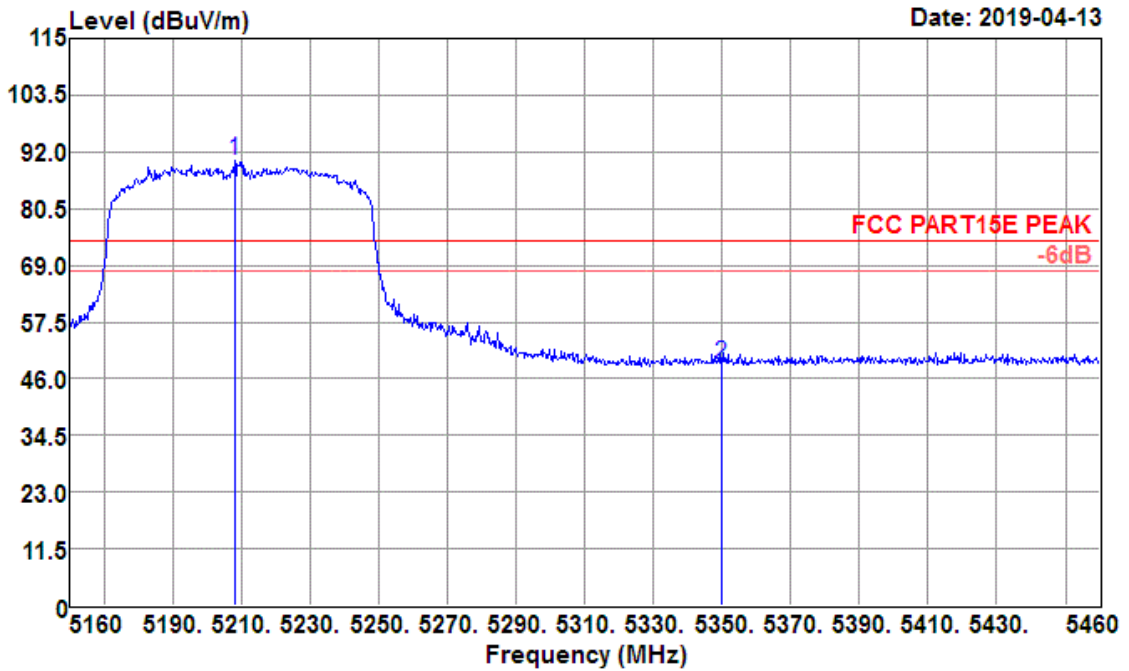
Data: 265



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
5150.000	42.64	31.82	5.40	35.98	43.88	54.00	-10.12	Average
5223.080	79.64	31.88	5.51	35.87	81.16	54.00	27.16	Average

Test Mode :	802.11ac VHT80 CH42 5210MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.160GHz~5.46GHz	Polarization :	Horizontal

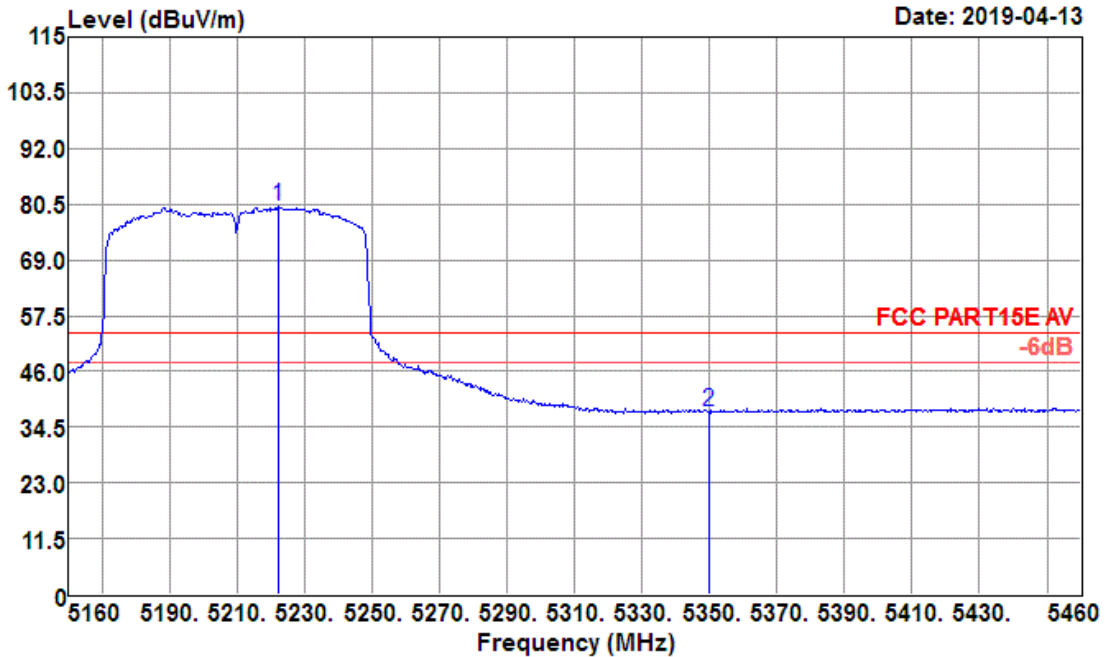
Data: 268



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
5208.000	88.67	31.87	5.45	35.89	90.10	74.00	16.10	Peak
5350.000	46.68	31.98	5.98	35.68	48.96	74.00	-25.04	Peak

Test Mode :	802.11ac VHT80 CH42 5210MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.160GHz~5.46GHz	Polarization :	Horizontal

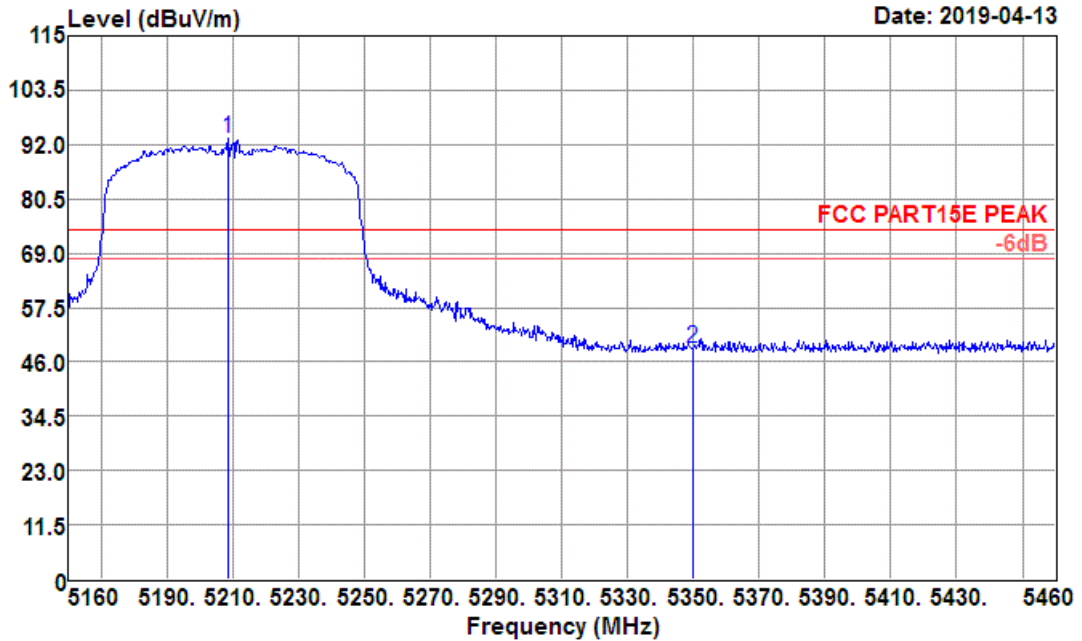
Data: 269



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
5222.400	78.46	31.88	5.50	35.87	79.97	54.00	25.97	Average
5350.000	35.45	31.98	5.98	35.68	37.73	54.00	-16.27	Average

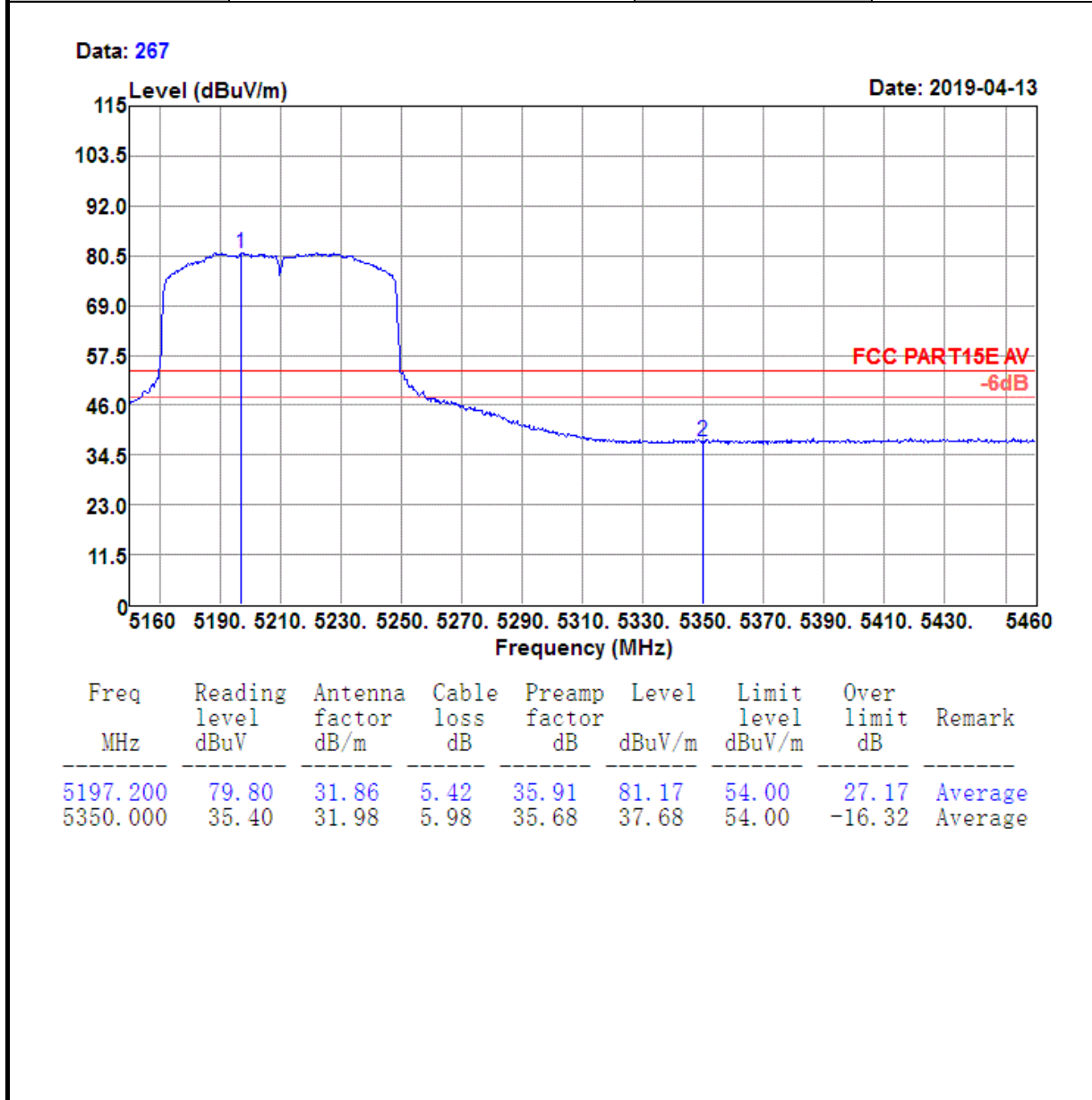
Test Mode :	802.11ac VHT80 CH42 5210MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.160GHz~5.46GHz	Polarization :	Vertical

Data: 266

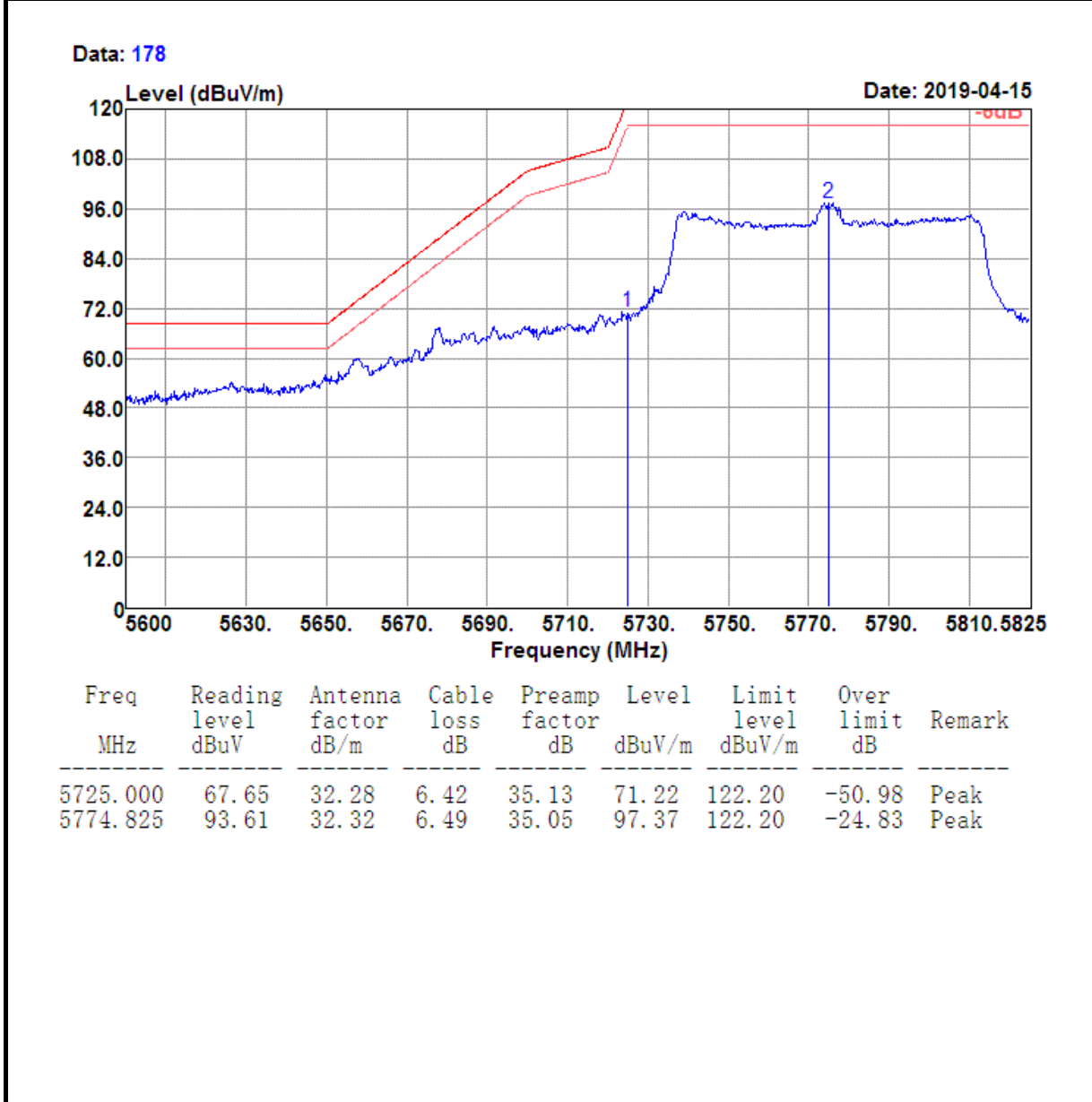


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5208.900	92.02	31.87	5.45	35.89	93.45	74.00	19.45	Peak
5349.900	46.46	31.98	5.98	35.68	48.74	74.00	-25.26	Peak

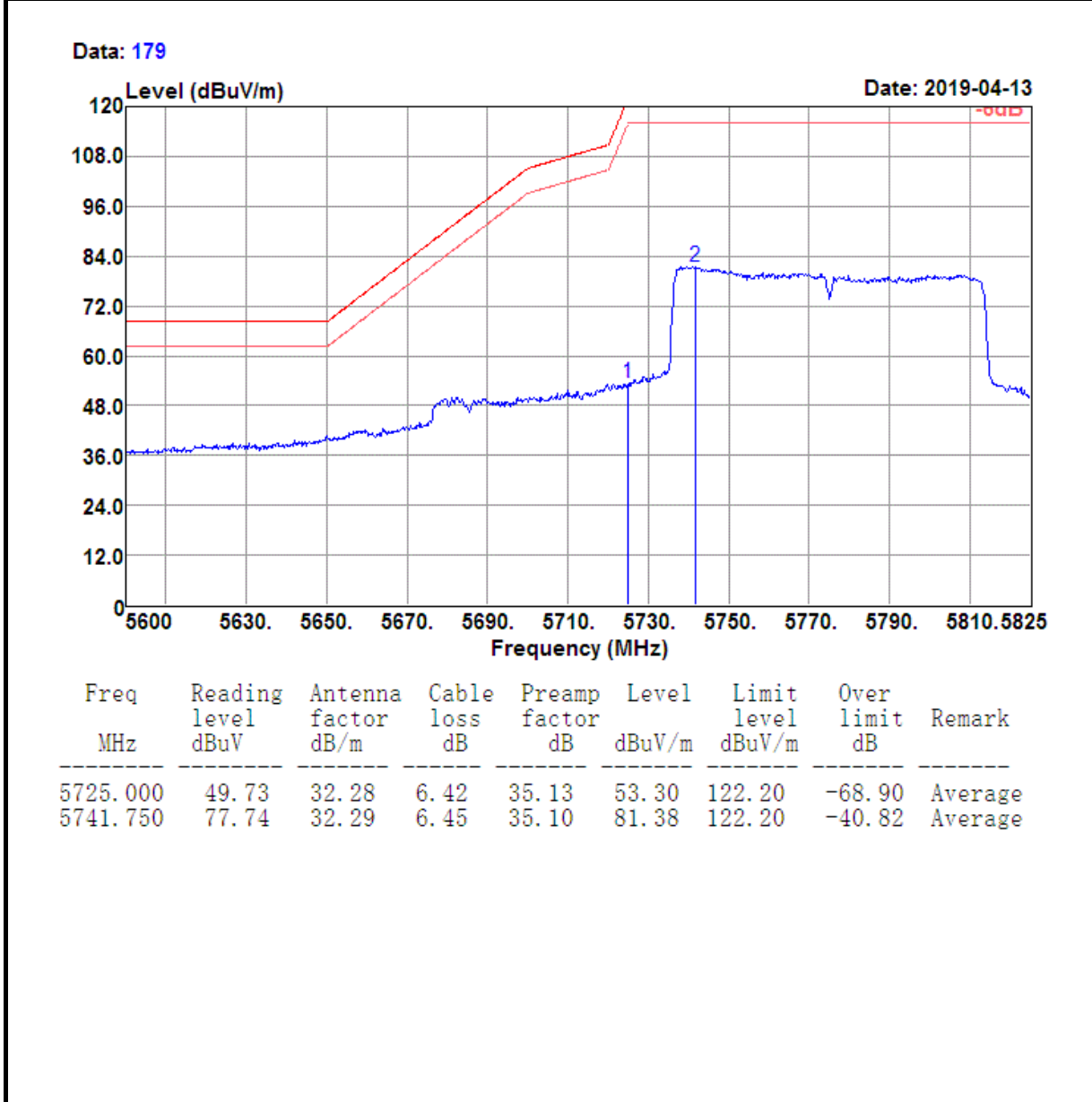
Test Mode :	802.11ac VHT80 CH42 5210MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.160GHz~5.46GHz	Polarization :	Vertical



Test Mode :	802.11ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.825GHz	Polarization :	Horizontal

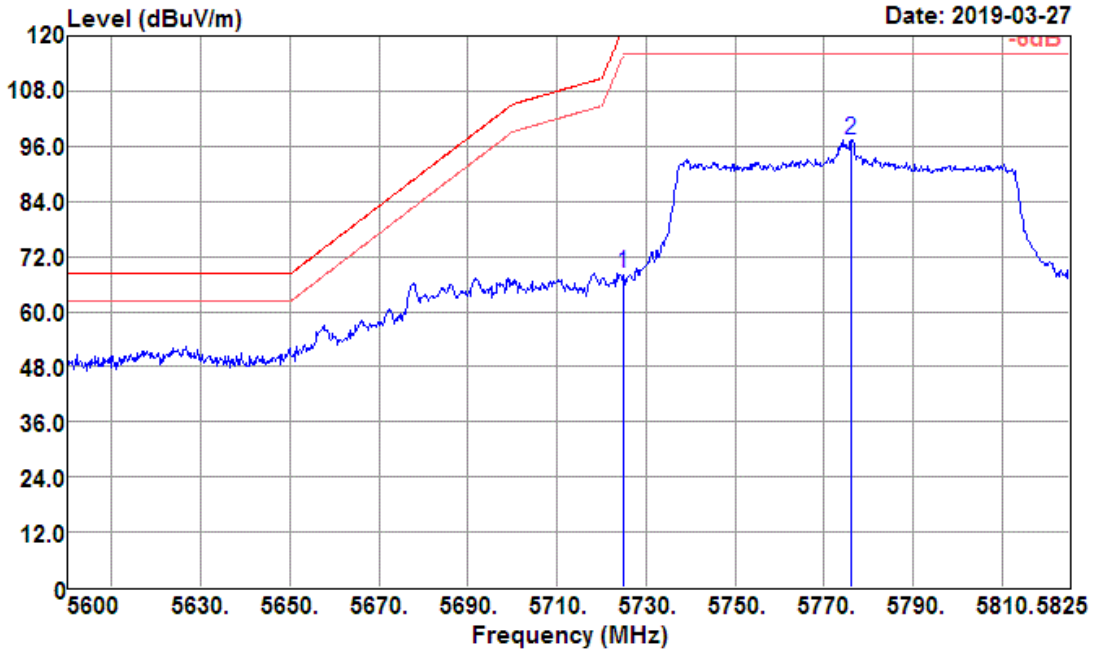


Test Mode :	802.11ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.825GHz	Polarization :	Horizontal



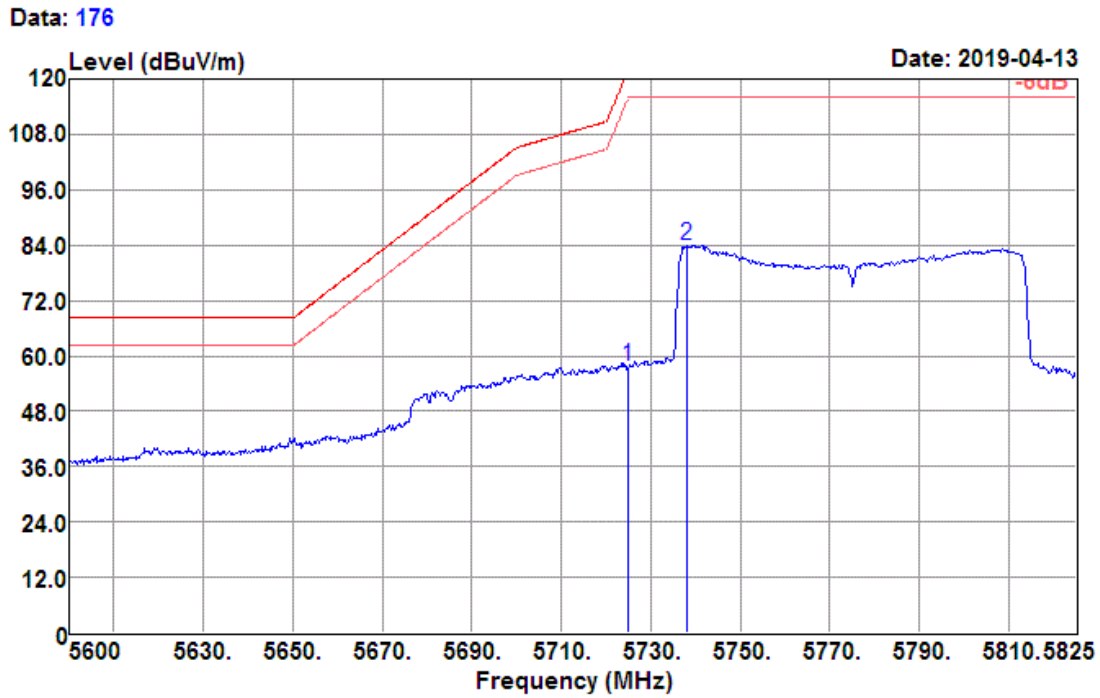
Test Mode :	802.11ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.825GHz	Polarization :	Vertical

Data: 175



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
5725.000	64.70	32.28	6.42	35.13	68.27	122.20	-53.93	Peak
5776.175	93.71	32.32	6.50	35.05	97.48	122.20	-24.72	Peak

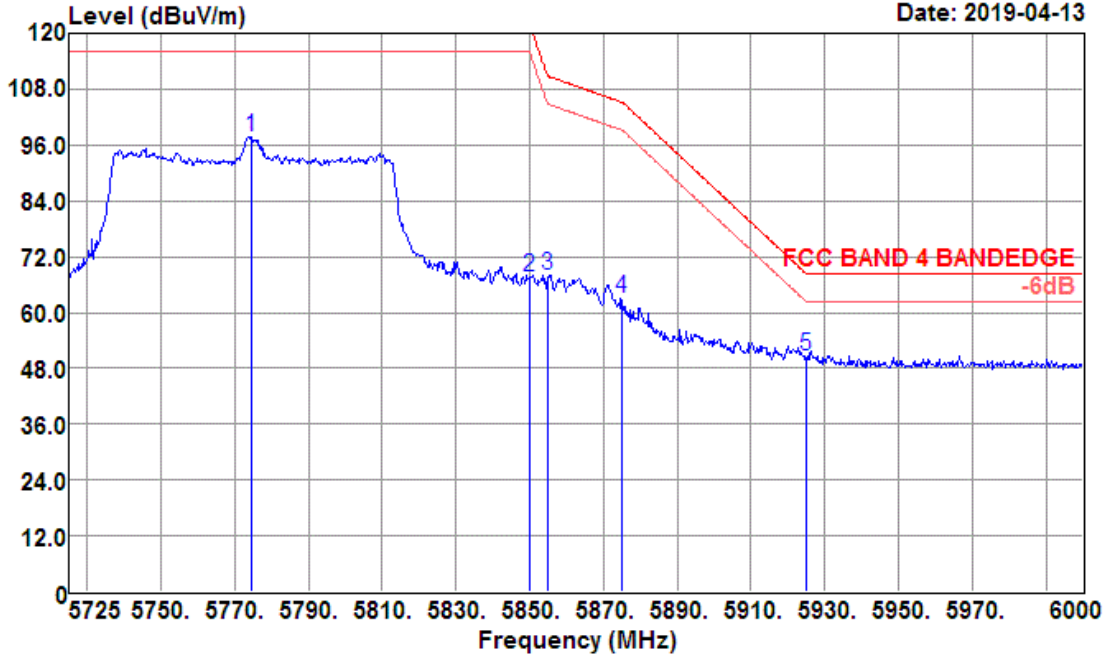
Test Mode :	802.11ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.6GHz~5.825GHz	Polarization :	Vertical



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
5725.000	54.29	32.28	6.42	35.13	57.86	122.20	-64.34	Average
5738.150	80.33	32.29	6.44	35.11	83.95	122.20	-38.25	Average

Test Mode :	802.11ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Horizontal

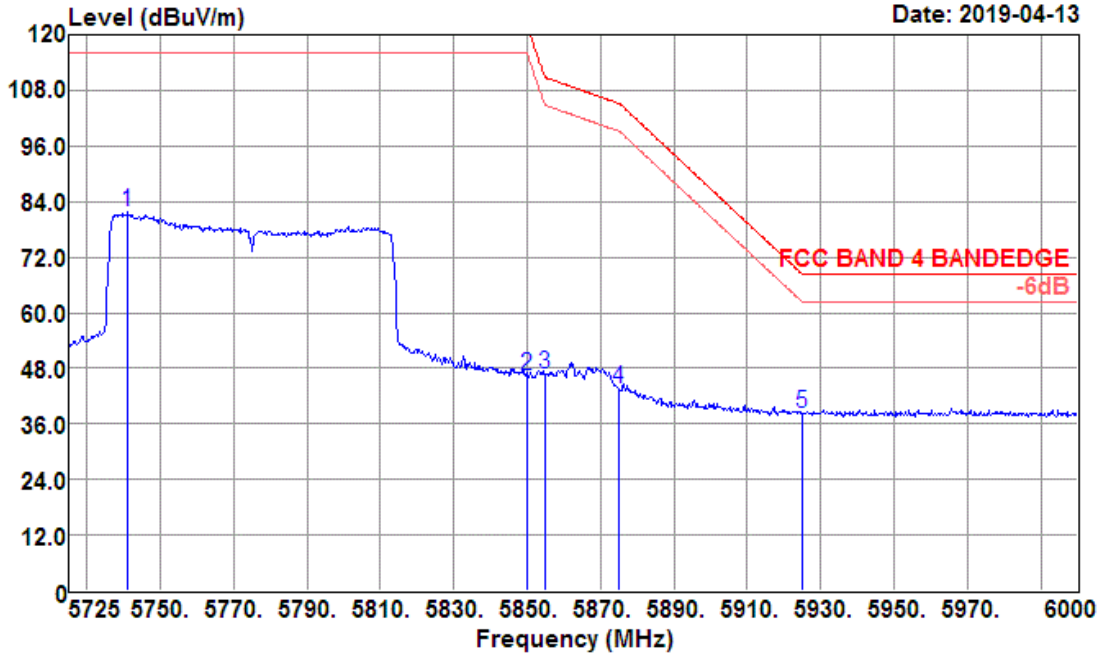
Data: 189



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
5774.500	94.11	32.32	6.49	35.05	97.87	122.20	-24.33	Peak
5850.000	63.61	32.38	6.53	34.94	67.58	122.20	-54.62	Peak
5855.000	64.01	32.38	6.53	34.93	67.99	110.80	-42.81	Peak
5875.000	59.09	32.40	6.53	34.91	63.11	105.20	-42.09	Peak
5925.000	46.67	32.44	6.52	34.83	50.80	68.20	-17.40	Peak

Test Mode :	802.11ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Horizontal

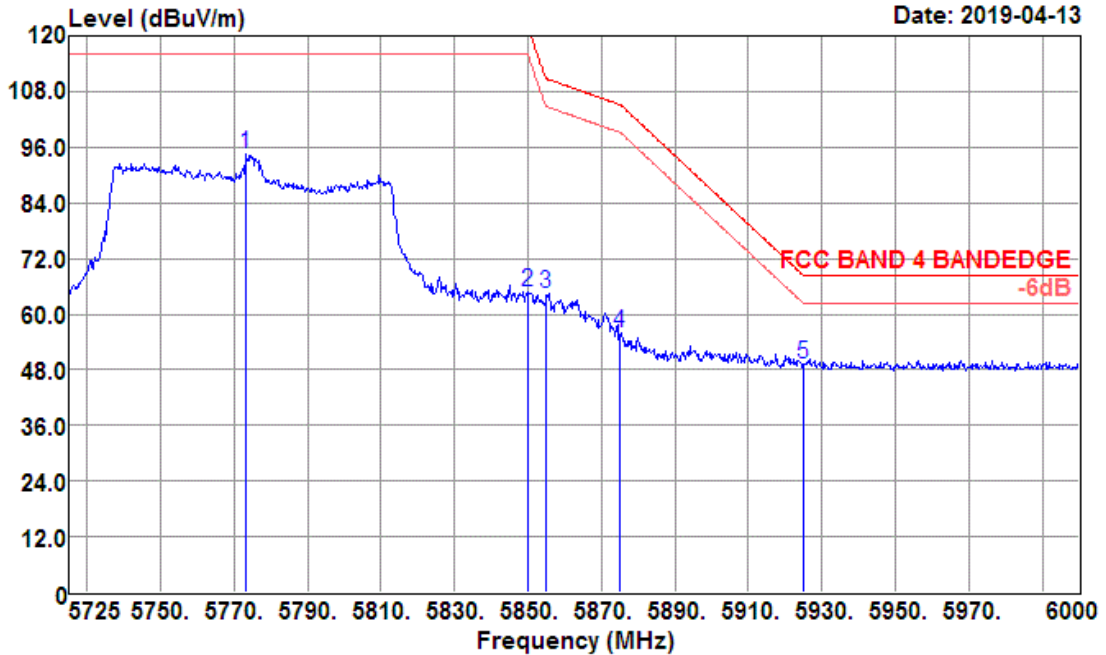
Data: 190



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
5741.225	78.07	32.29	6.44	35.10	81.70	122.20	-40.50	Average
5850.000	42.30	32.38	6.53	34.94	46.27	122.20	-75.93	Average
5855.000	42.66	32.38	6.53	34.93	46.64	110.80	-64.16	Average
5875.000	39.52	32.40	6.53	34.91	43.54	105.20	-61.66	Average
5925.000	34.22	32.44	6.52	34.83	38.35	68.20	-29.85	Average

Test Mode :	802.11ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Vertical

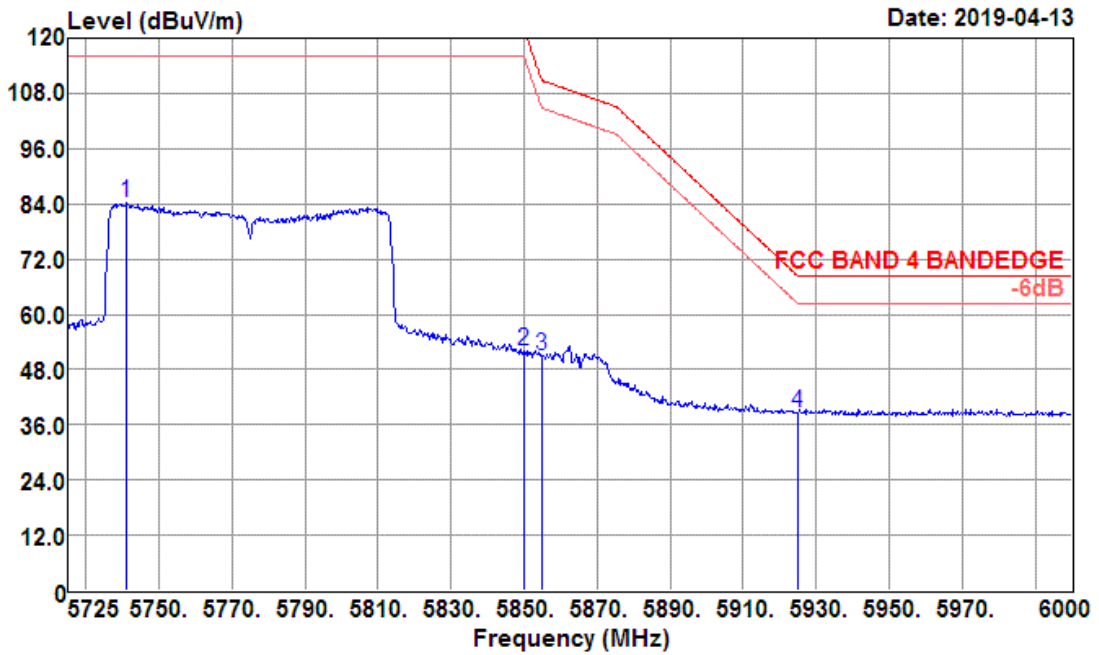
Data: 192



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
5773.400	90.81	32.32	6.49	35.06	94.56	122.20	-27.64	Peak
5850.000	60.68	32.38	6.53	34.94	64.65	122.20	-57.55	Peak
5855.000	60.34	32.38	6.53	34.93	64.32	110.80	-46.48	Peak
5875.000	51.82	32.40	6.53	34.91	55.84	105.20	-49.36	Peak
5925.000	45.26	32.44	6.52	34.83	49.39	68.20	-18.81	Peak

Test Mode :	802.11ac VHT80 CH155 5775MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	5.75GHz~5.95GHz	Polarization :	Vertical

Data: 191

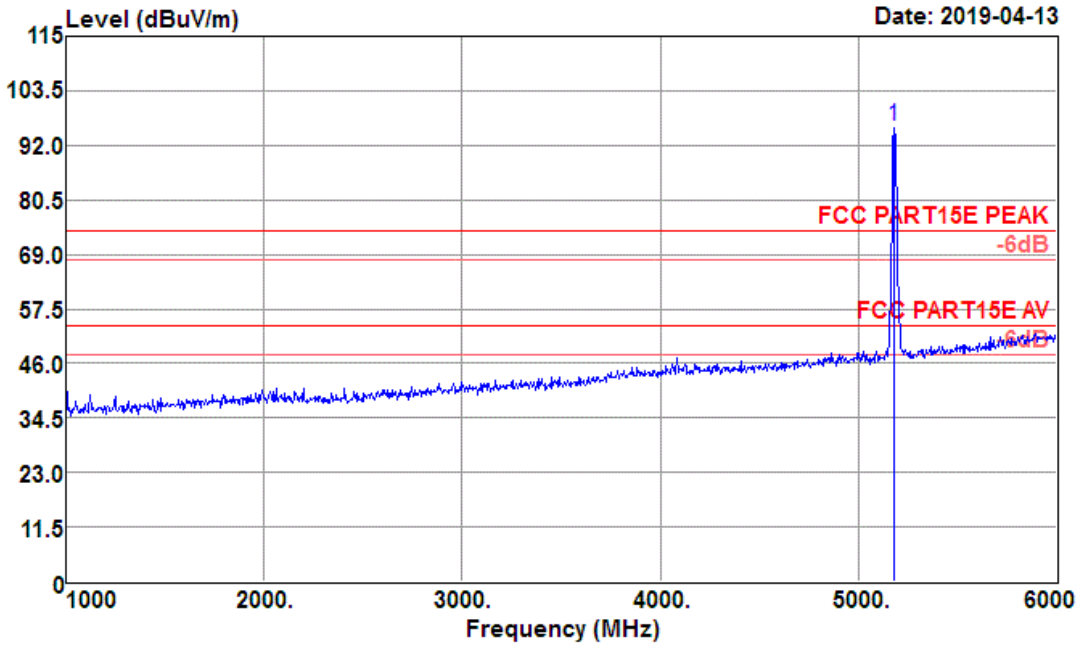


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5741.225	80.60	32.29	6.44	35.10	84.23	122.20	-37.97	Average
5850.000	48.13	32.38	6.53	34.94	52.10	122.20	-70.10	Average
5855.000	47.09	32.38	6.53	34.93	51.07	110.80	-59.73	Average
5924.925	34.39	32.44	6.52	34.83	38.52	68.26	-29.74	Average

4.4.5 Test Result of Radiated Spurious Emission (1GHz ~ 10th Harmonic)

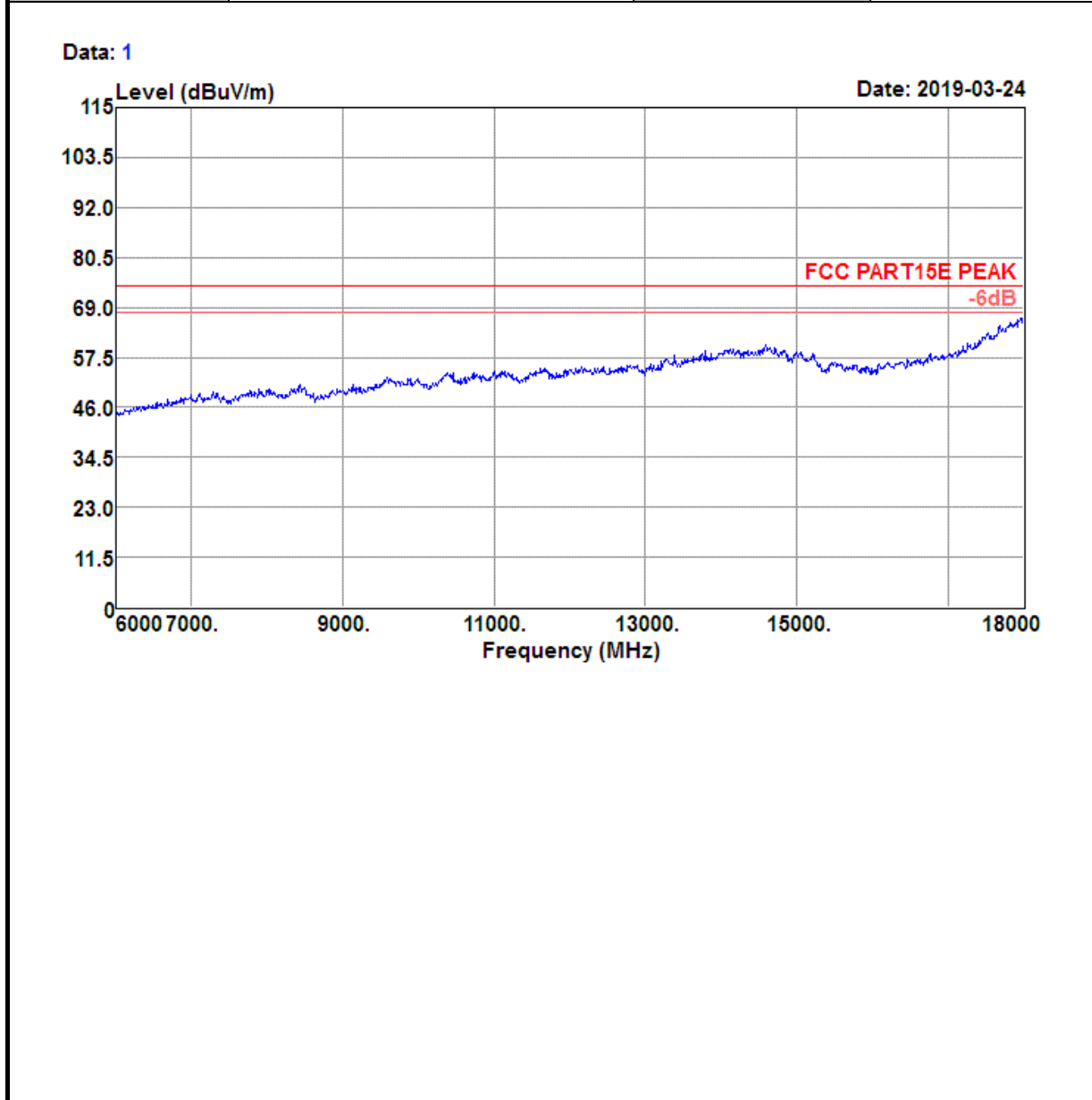
Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

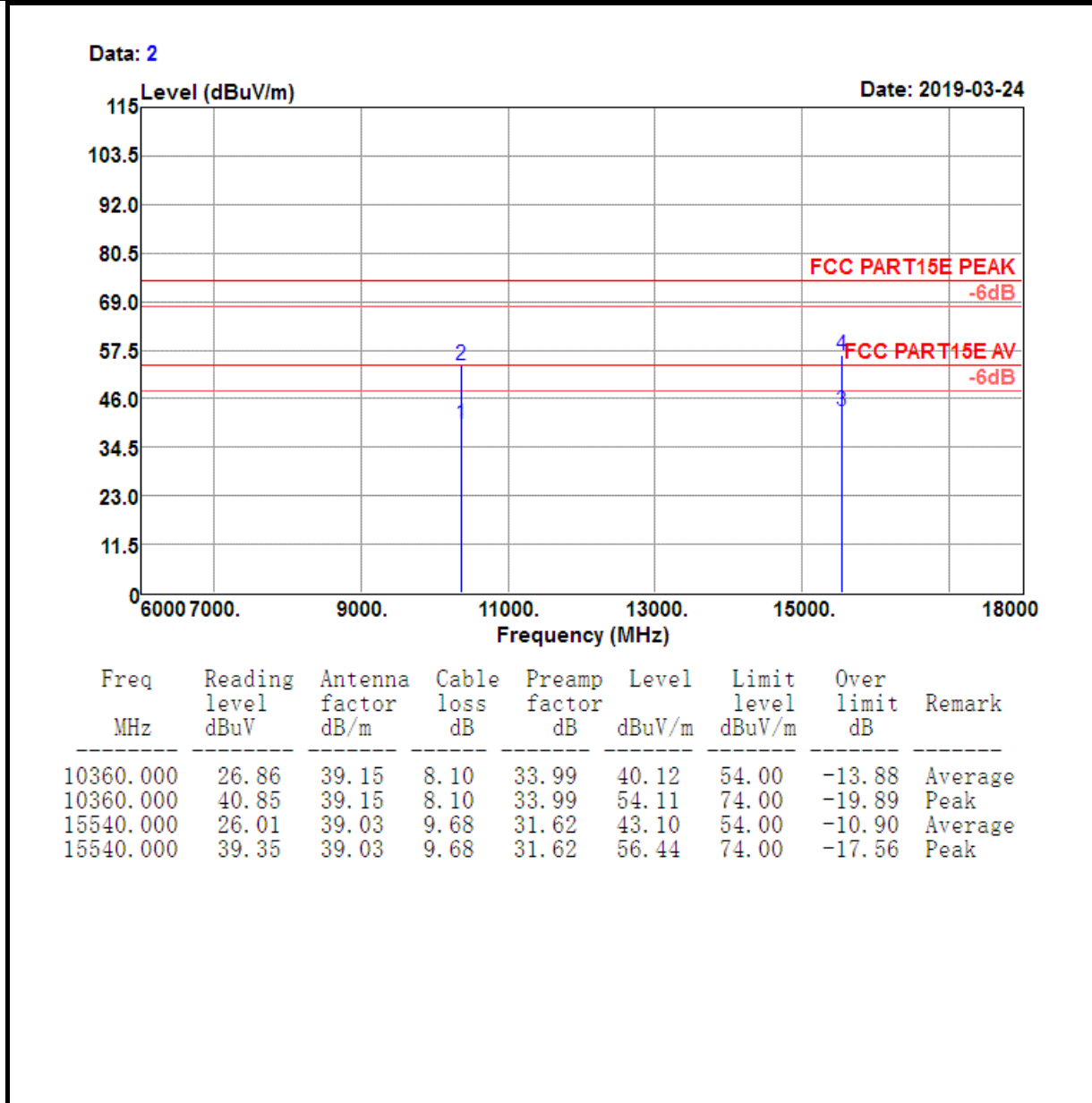
Data: 202



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
5180.000	94.82	31.84	5.41	35.93	96.14	74.00	22.14	Peak

Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

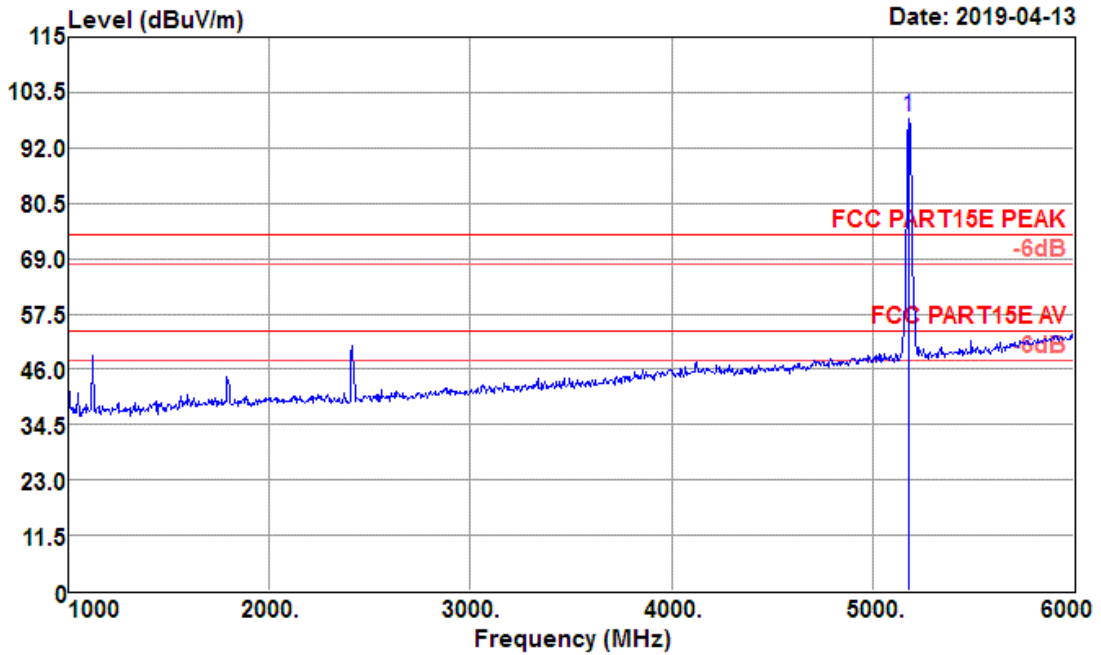




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

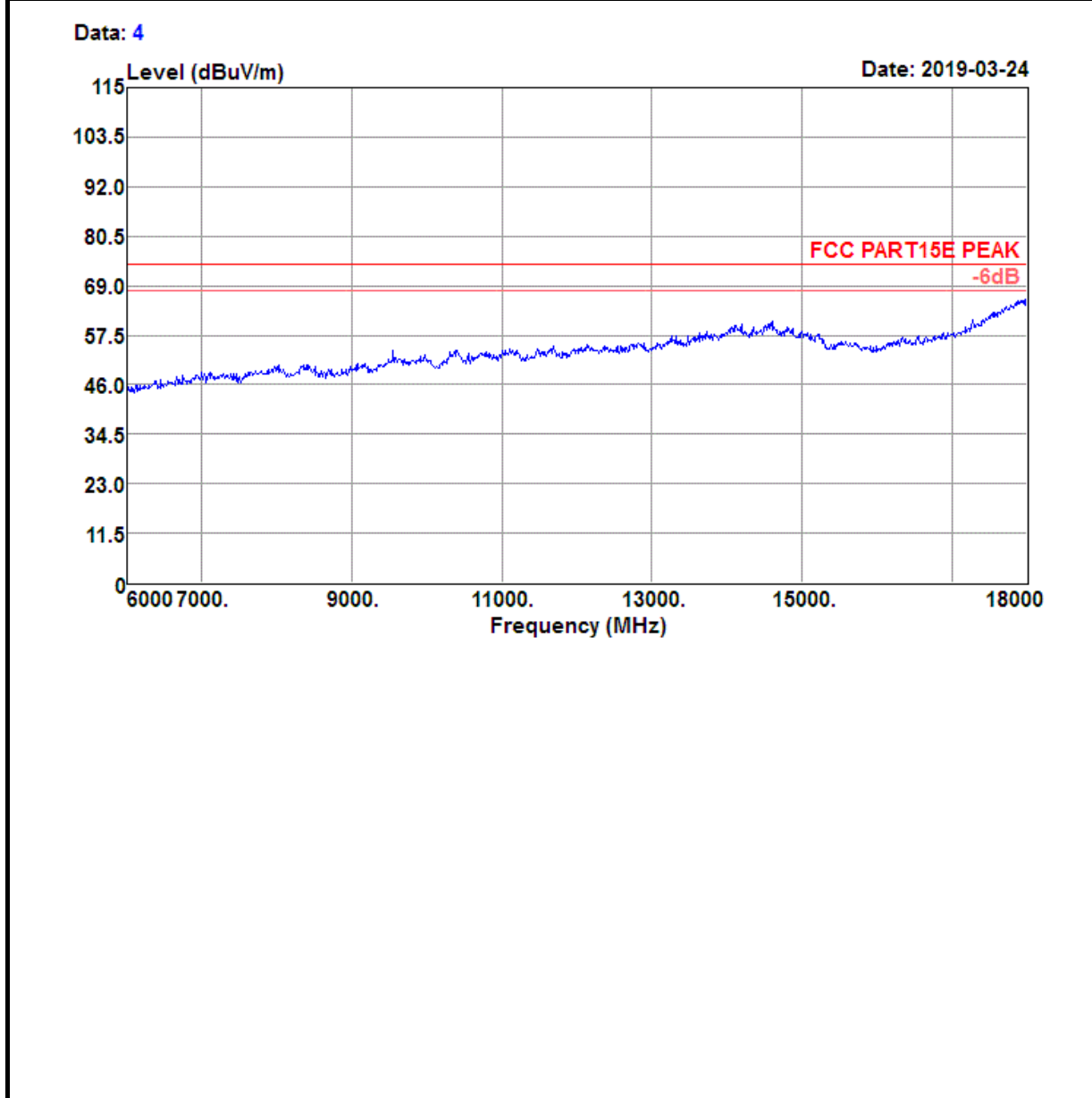
Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

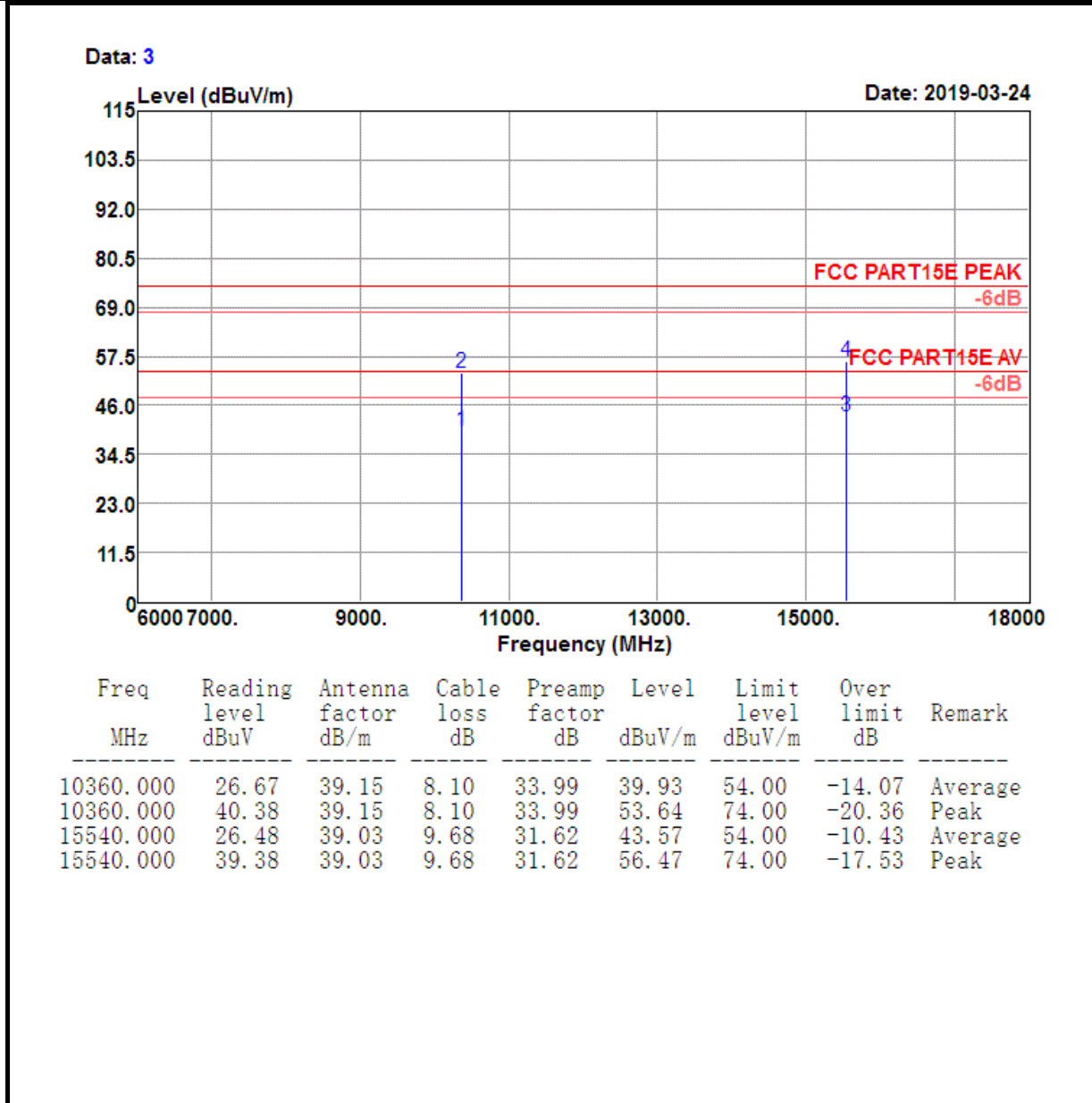
Data: 199



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
5180.000	97.02	31.84	5.41	35.93	98.34	74.00	24.34	Peak

Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

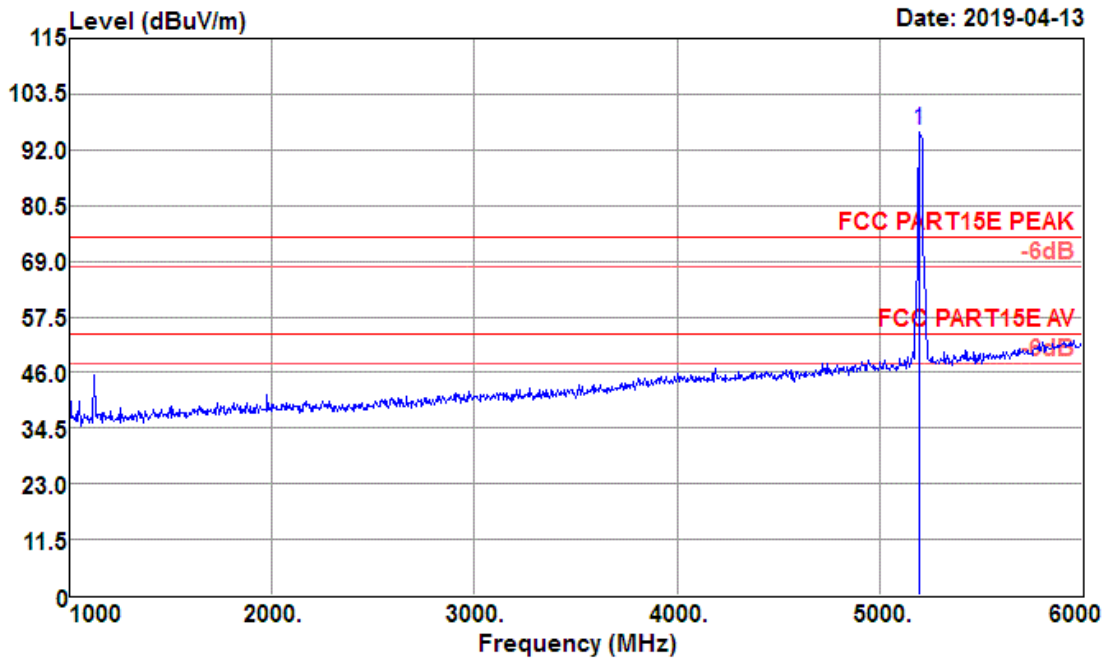




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

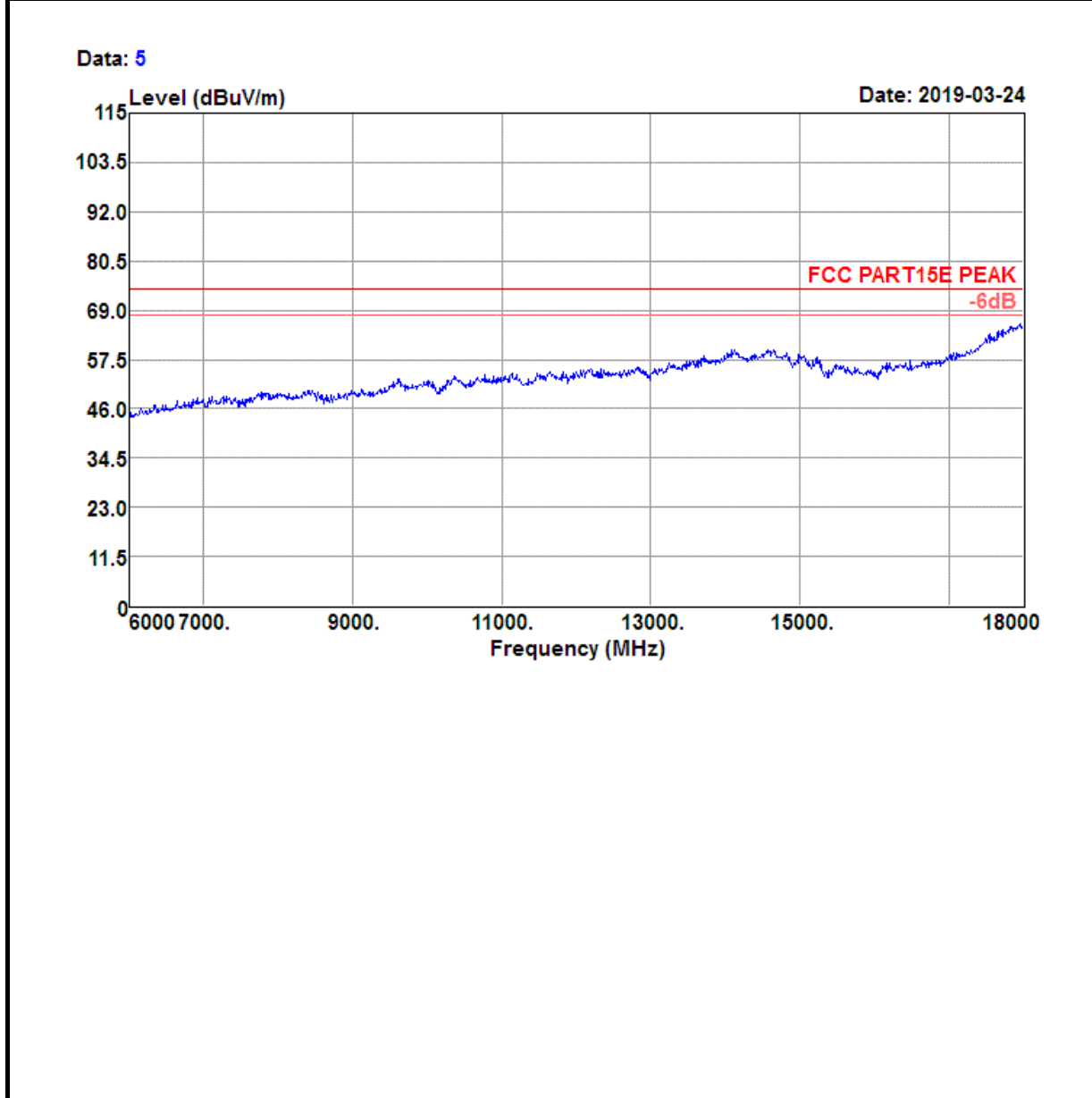
Test Mode :	802.11a CH40 5200MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

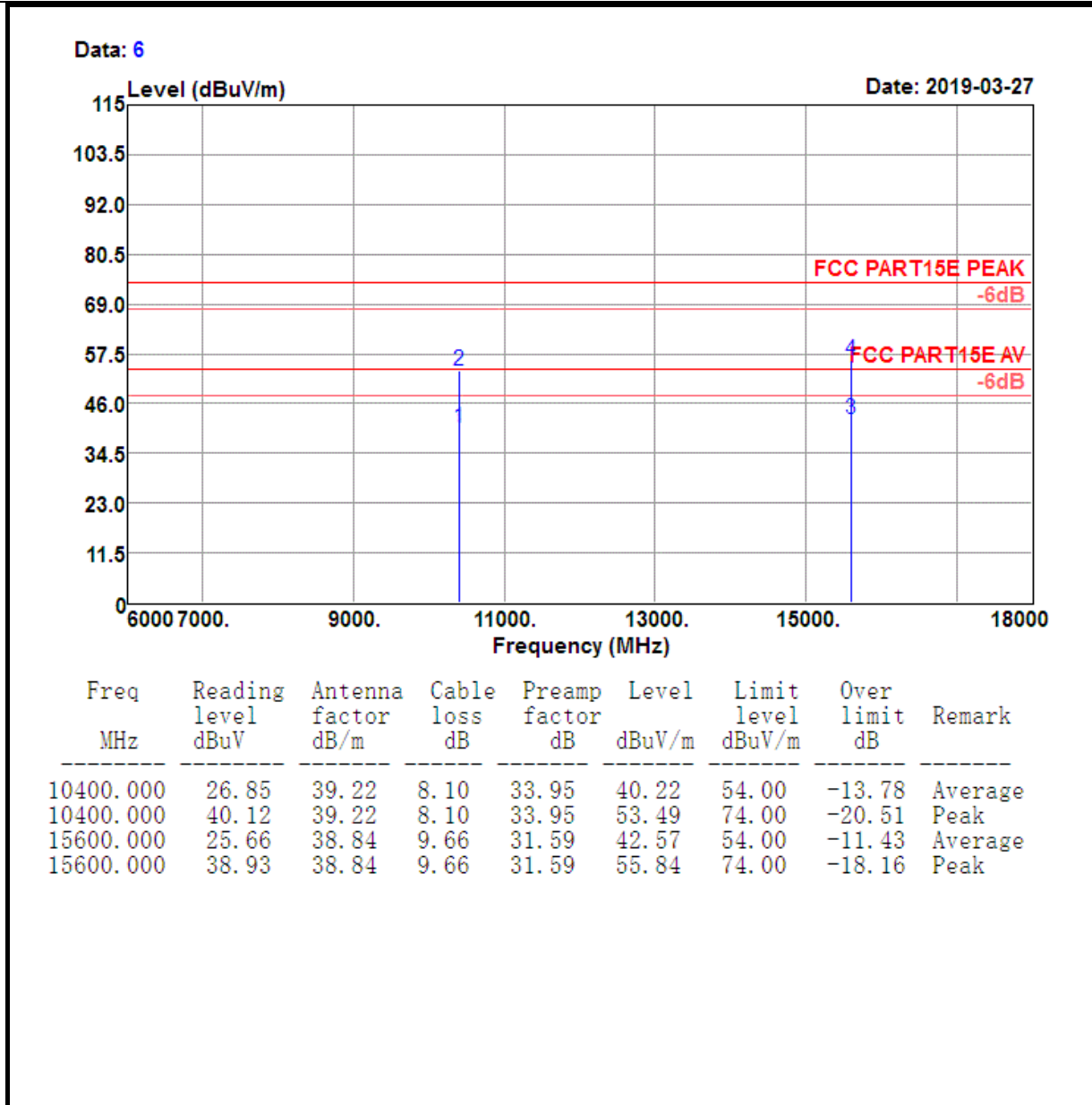
Data: 203



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
5200.000	94.76	31.86	5.42	35.90	96.14	74.00	22.14	Peak

Test Mode :	802.11a CH40 5200MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

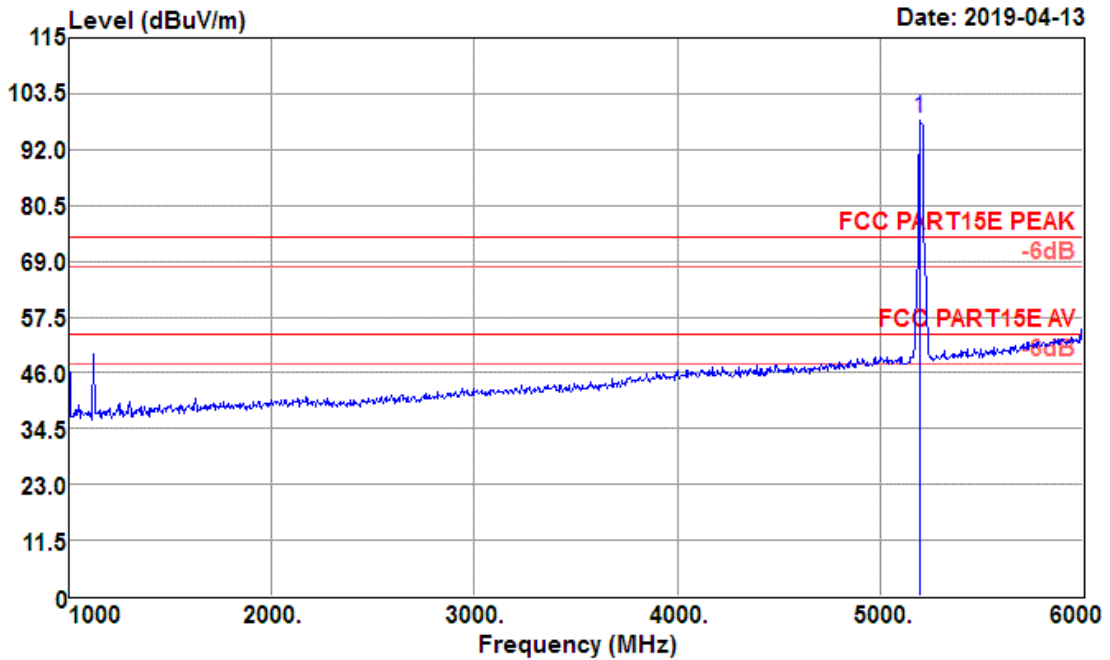




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

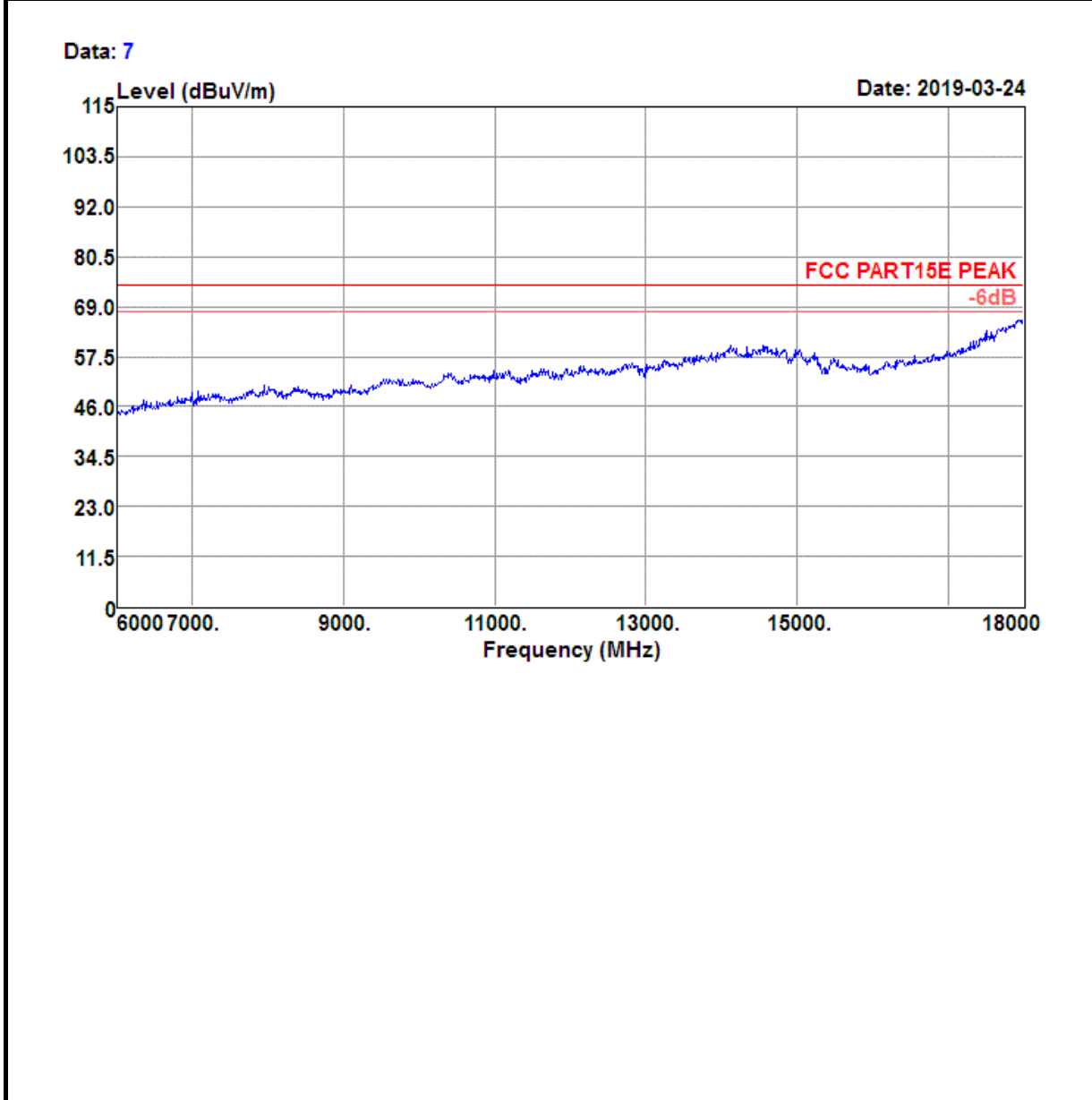
Test Mode :	802.11a CH40 5200MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

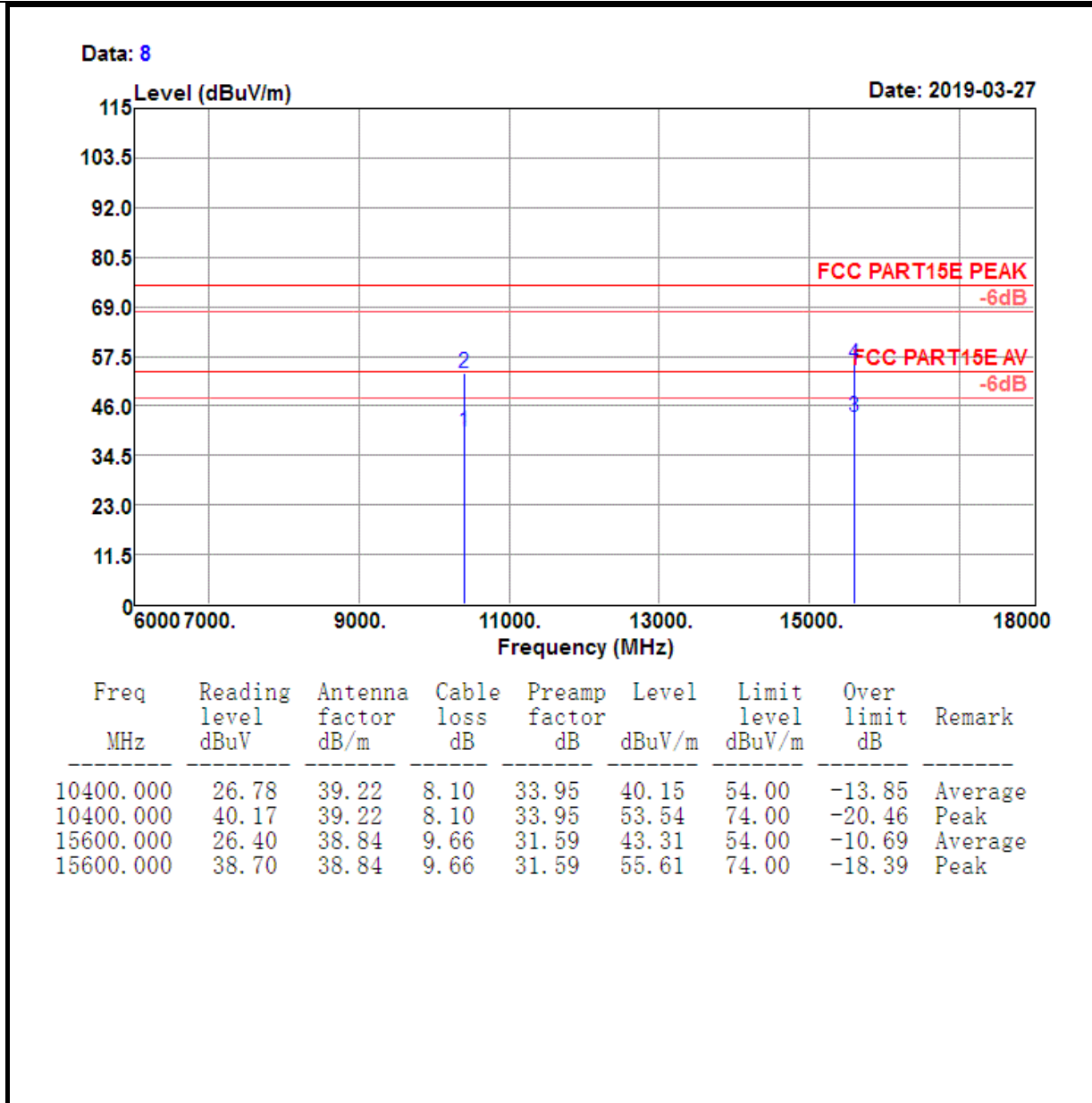
Data: 204



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
5200.000	96.89	31.86	5.42	35.90	98.27	74.00	24.27	Peak

Test Mode :	802.11a CH40 5200MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

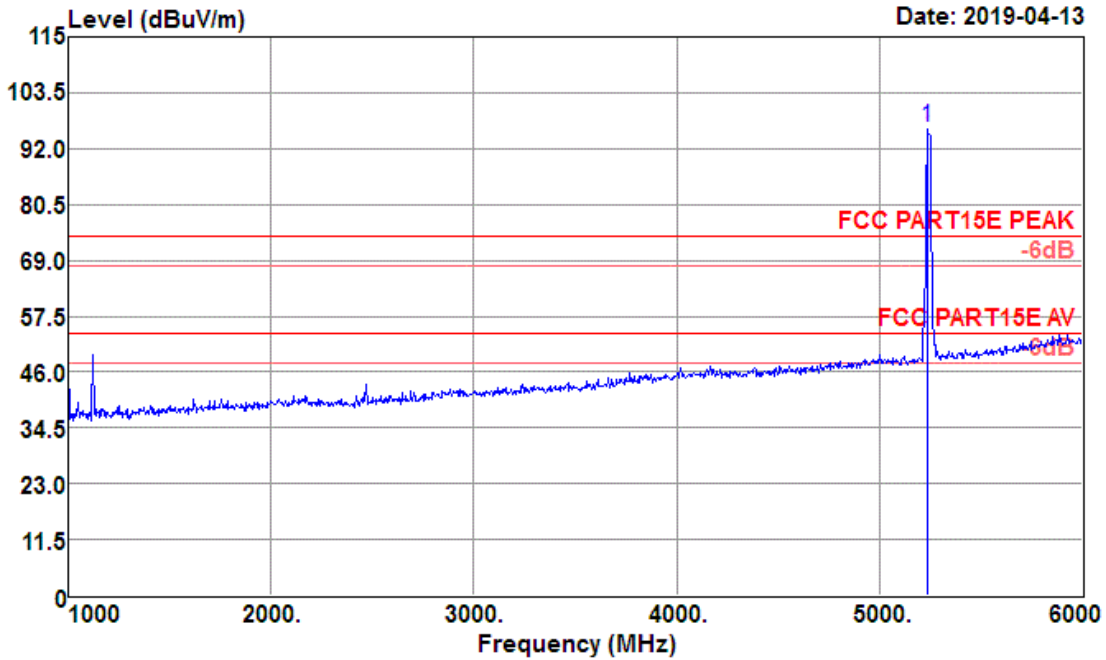




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

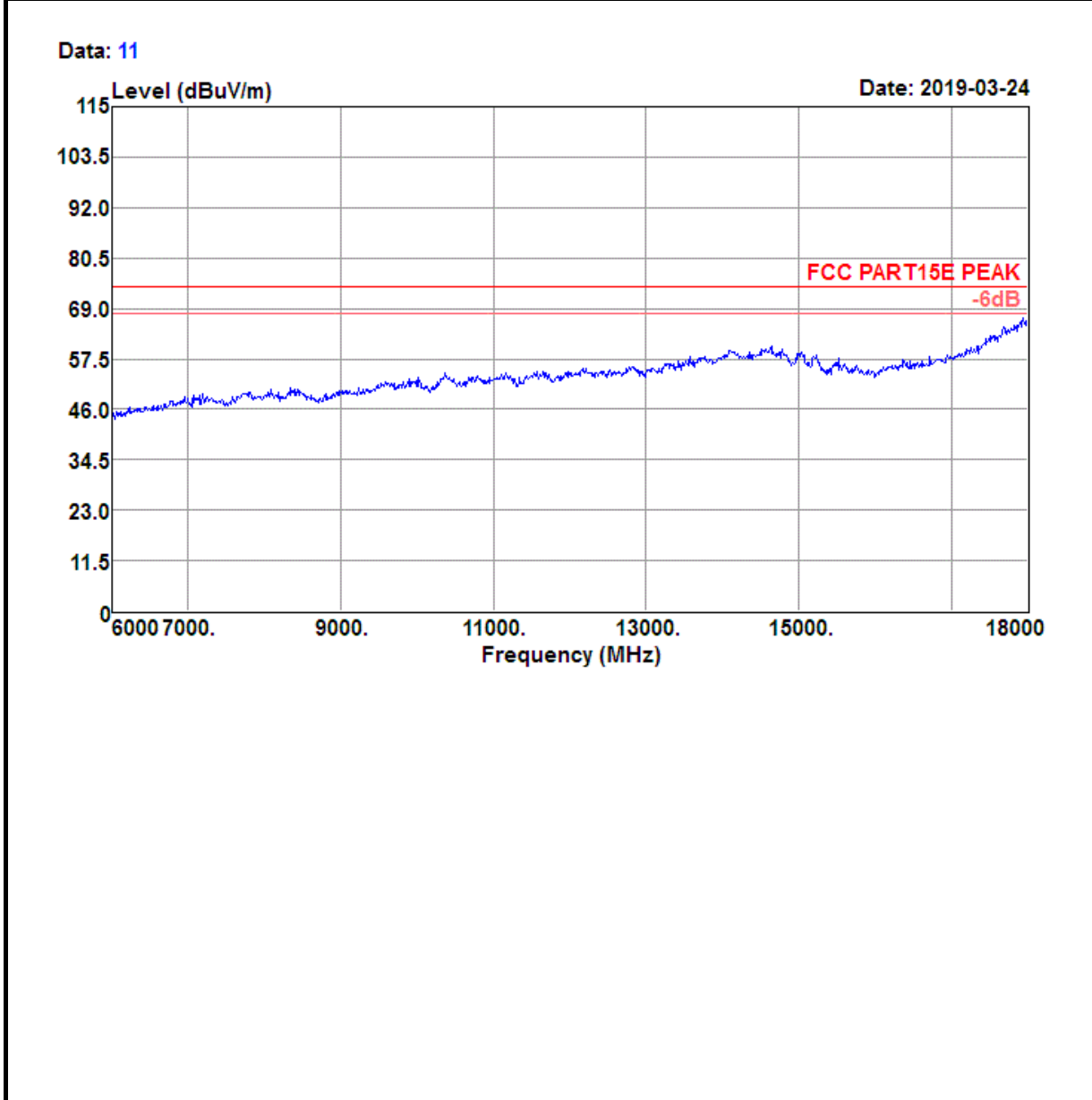
Test Mode :	802.11a CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

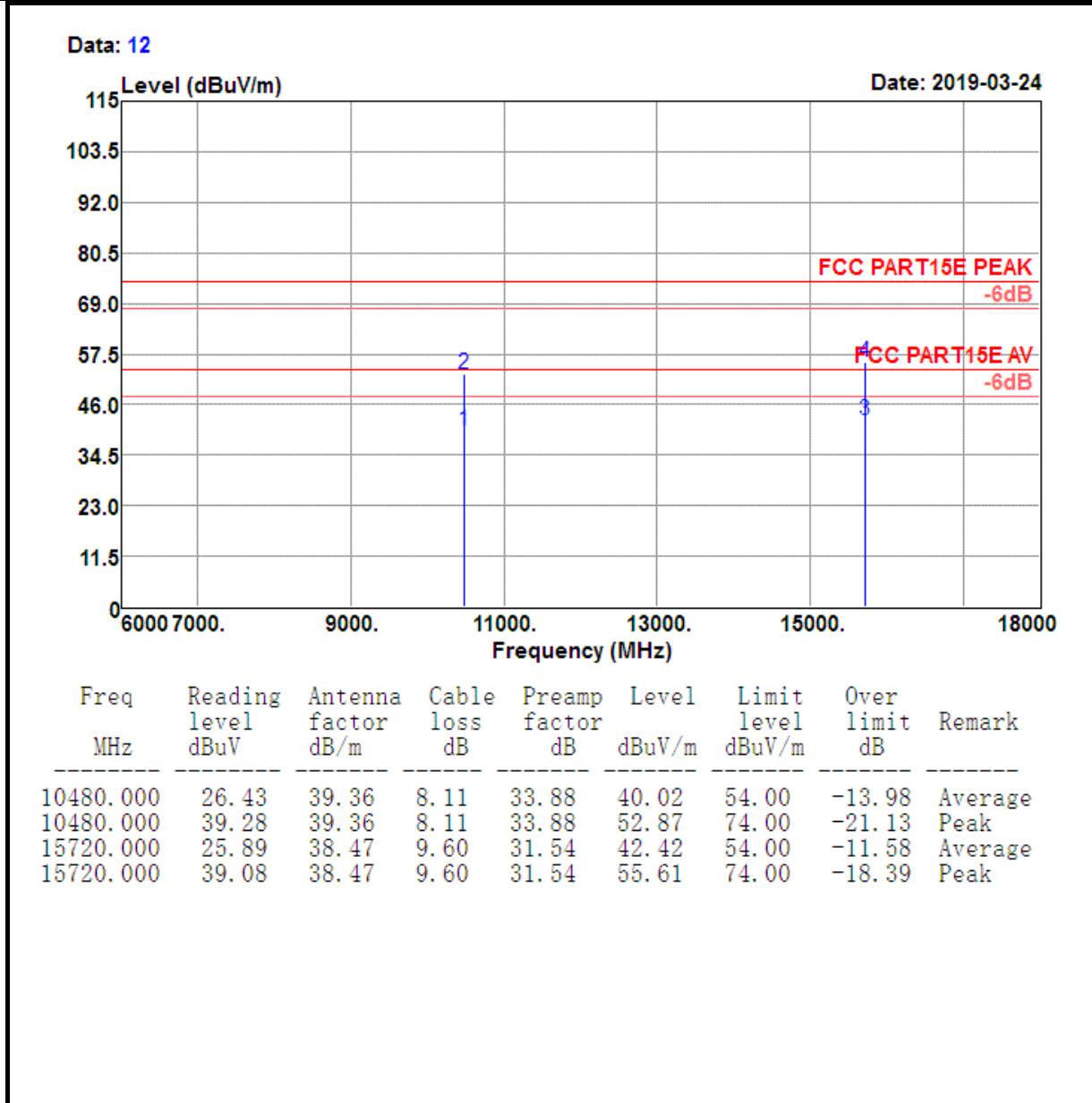
Data: 208



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
5240.000	94.82	31.89	5.57	35.84	96.44	74.00	22.44	Peak

Test Mode :	802.11a CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

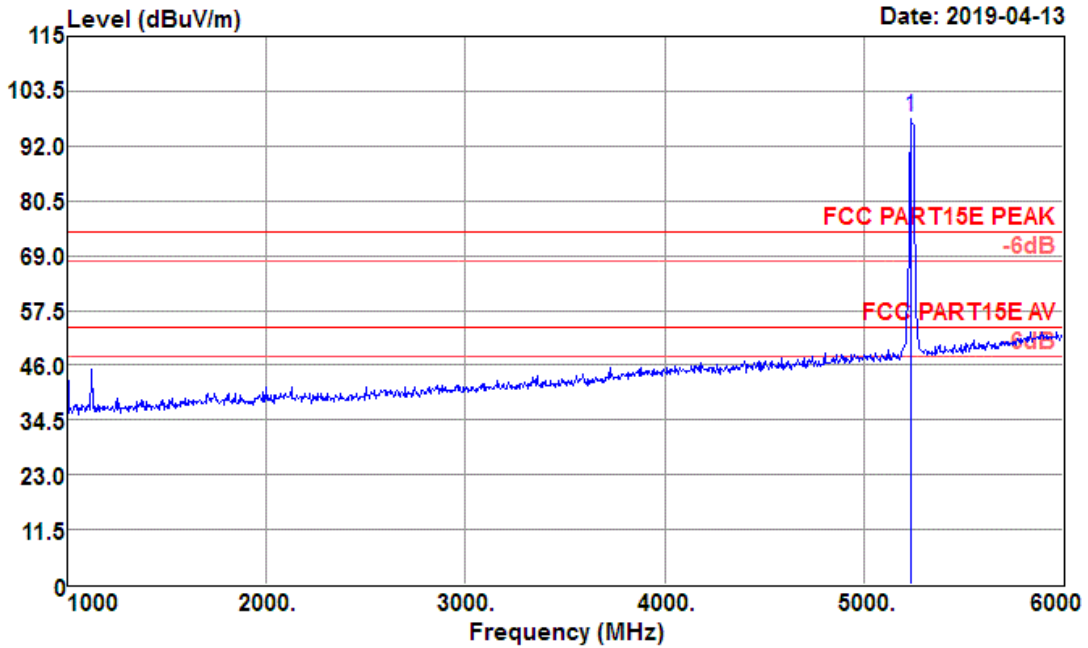




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

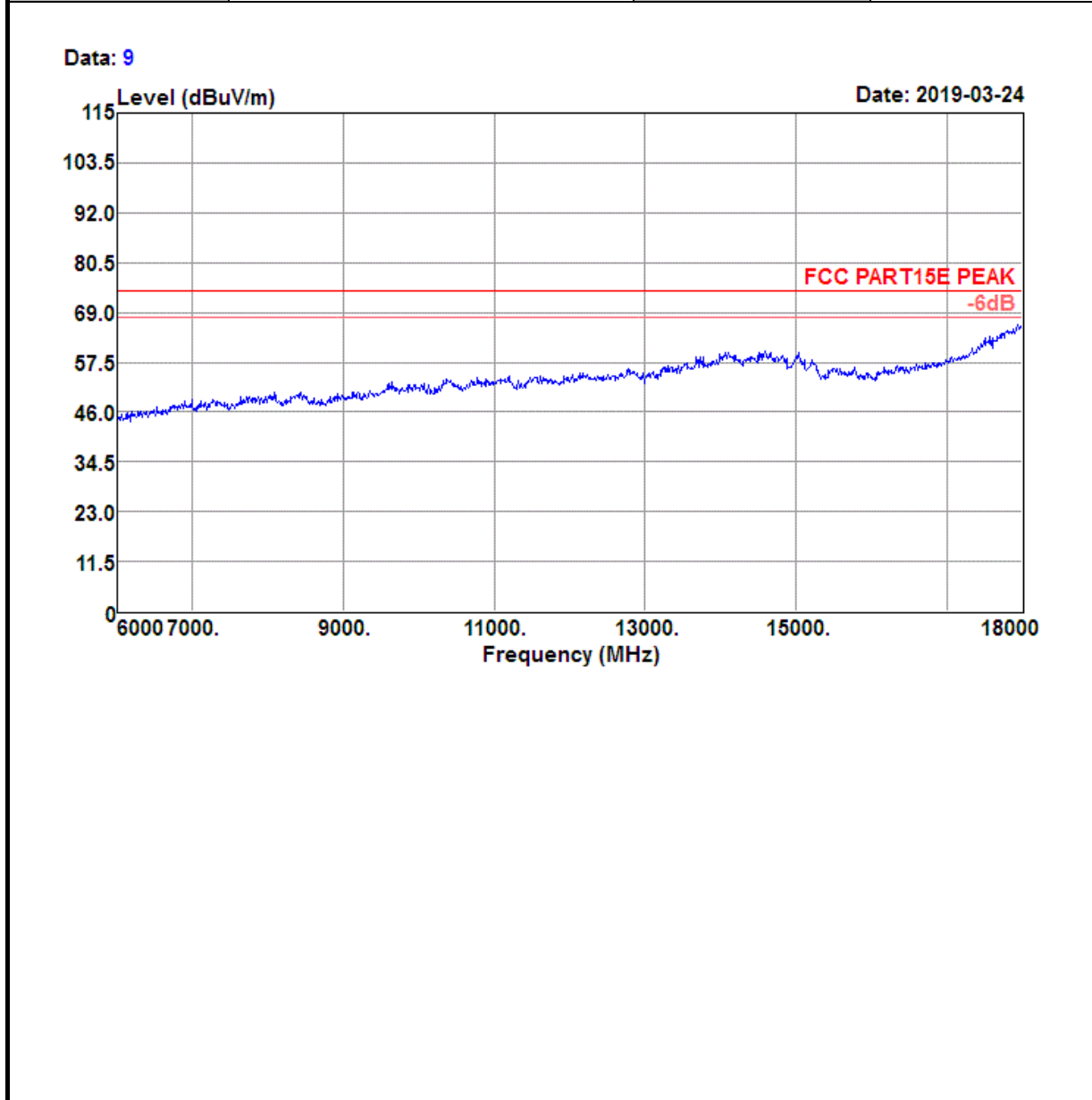
Test Mode :	802.11a CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

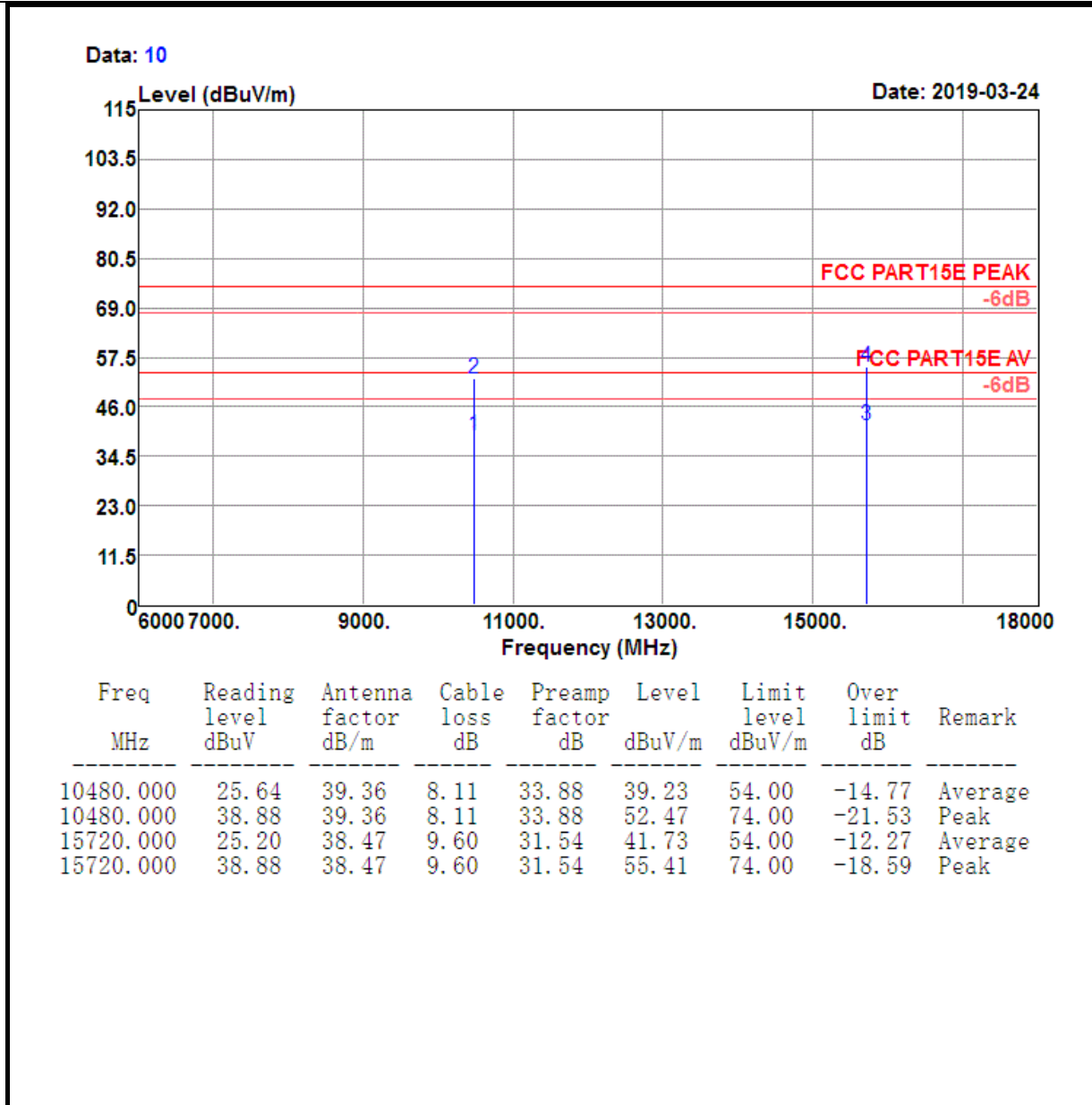
Data: 205



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
5240.000	96.55	31.89	5.57	35.84	98.17	74.00	24.17	Peak

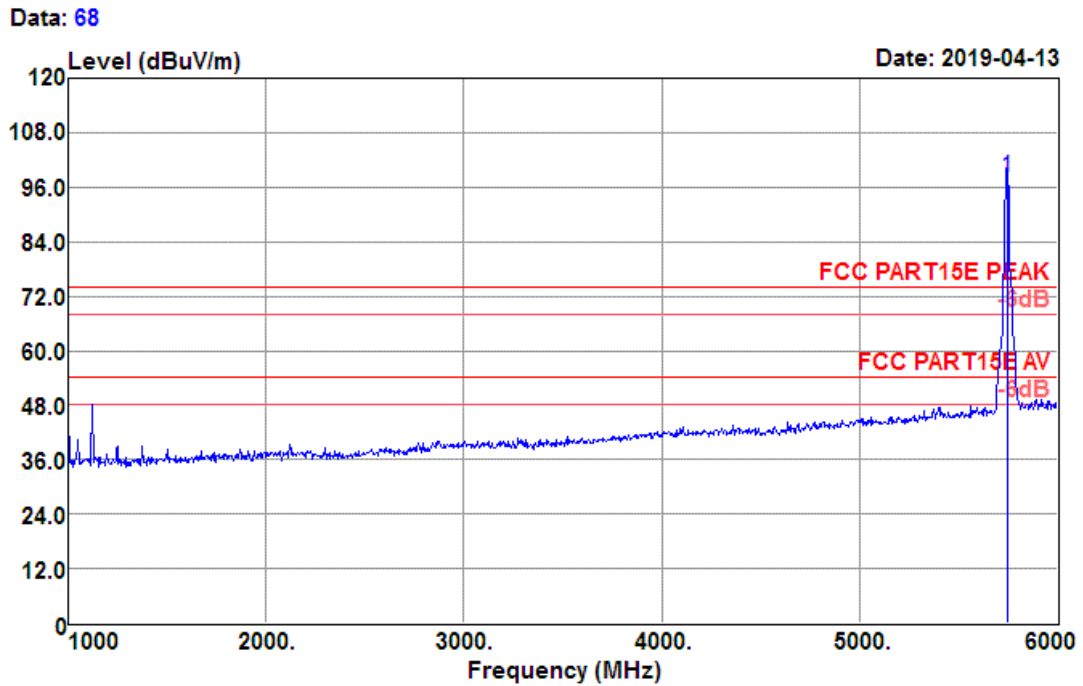
Test Mode :	802.11a CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical





Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

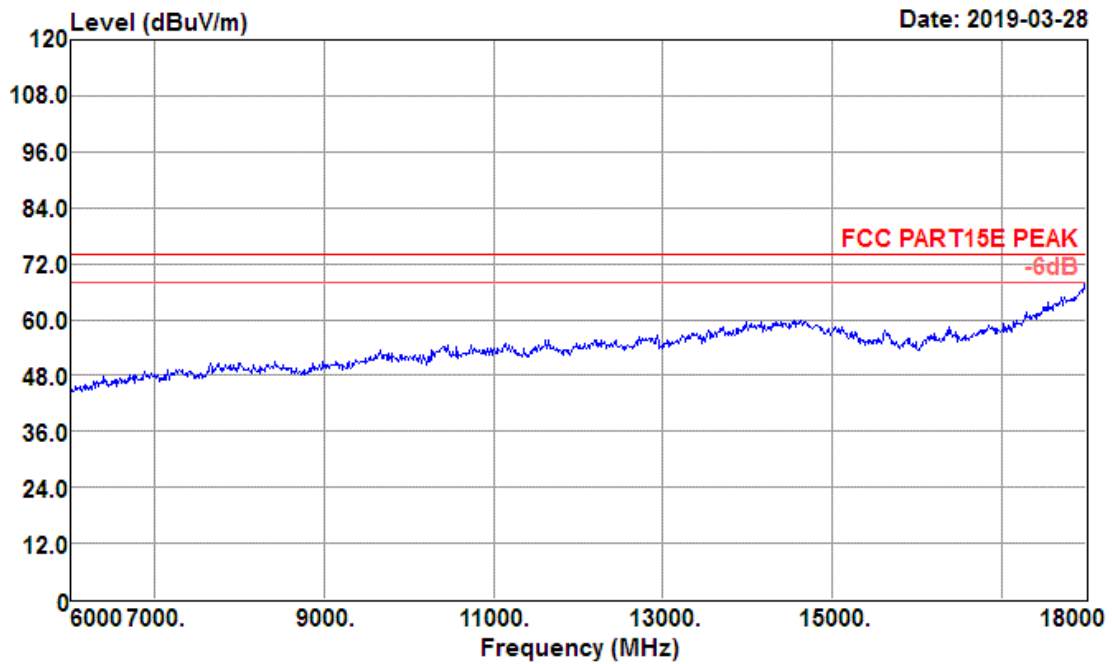
Test Mode :	802.11a CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

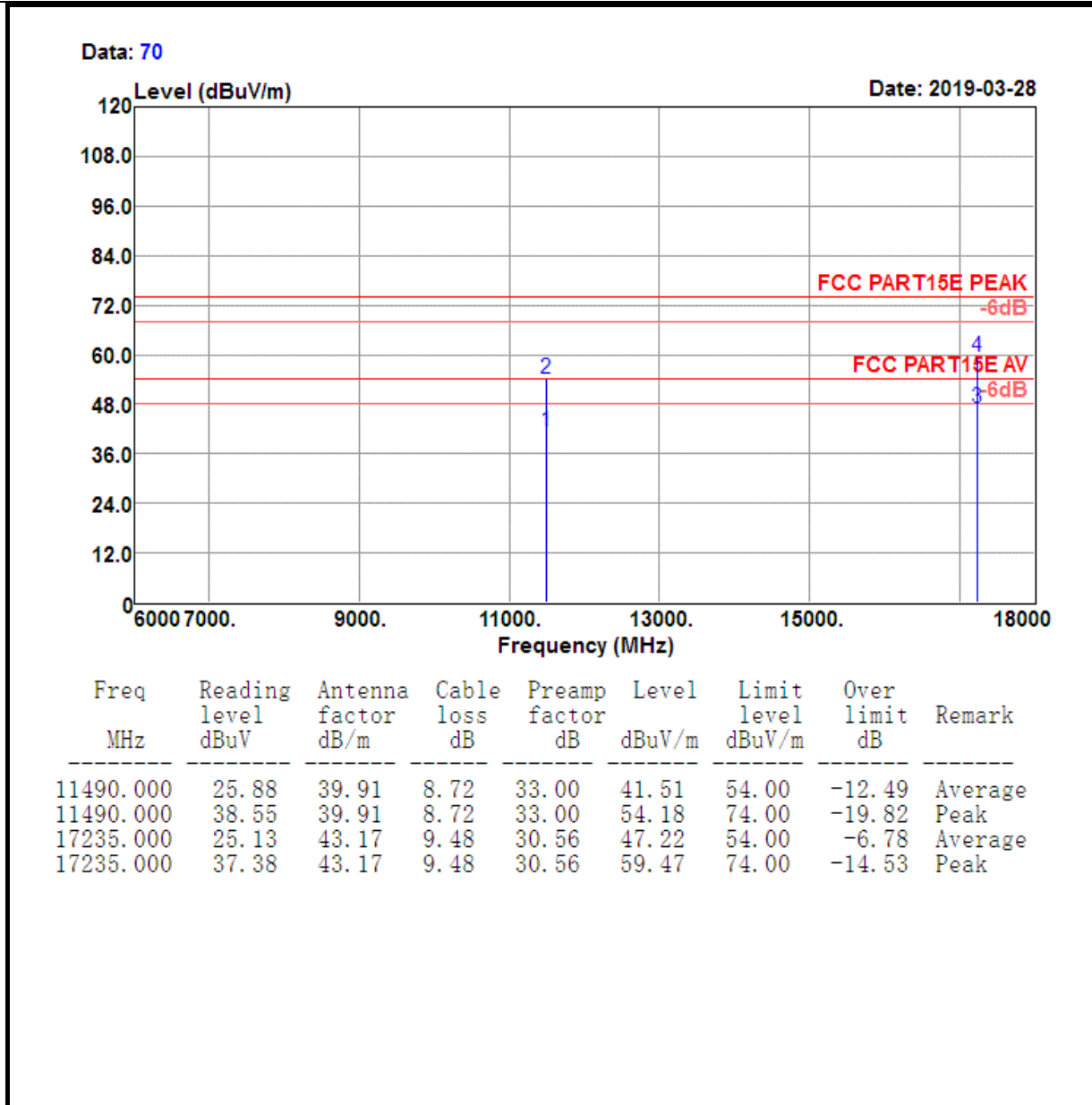


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5745.000	94.56	32.30	6.45	35.10	98.21	74.00	24.21	Peak

Test Mode :	802.11a CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

Data: 69

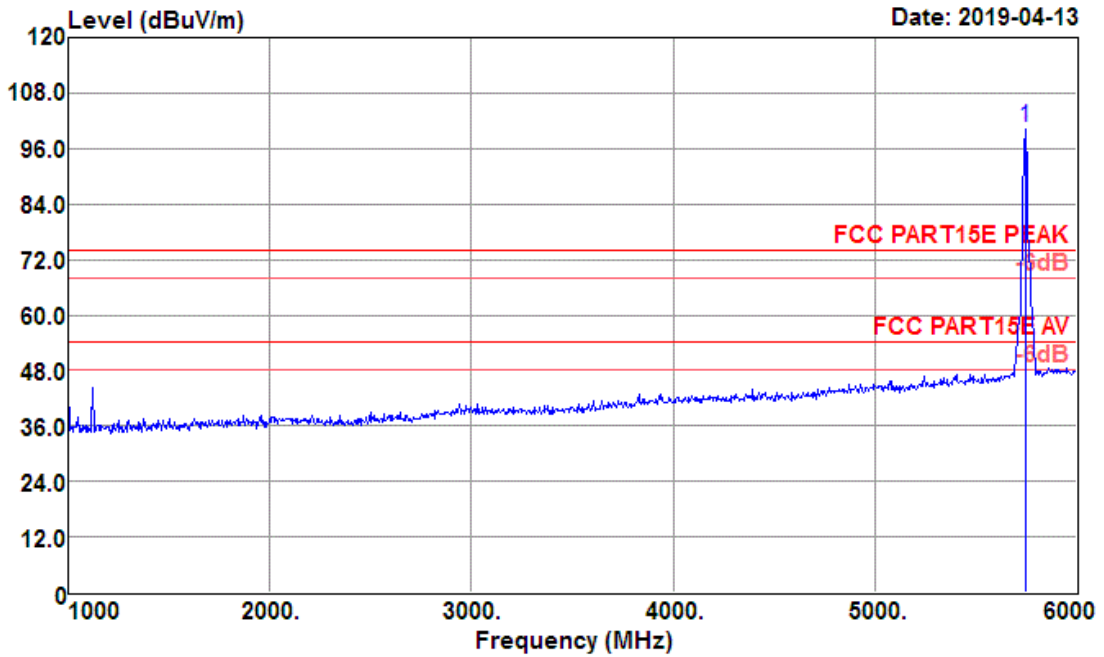




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

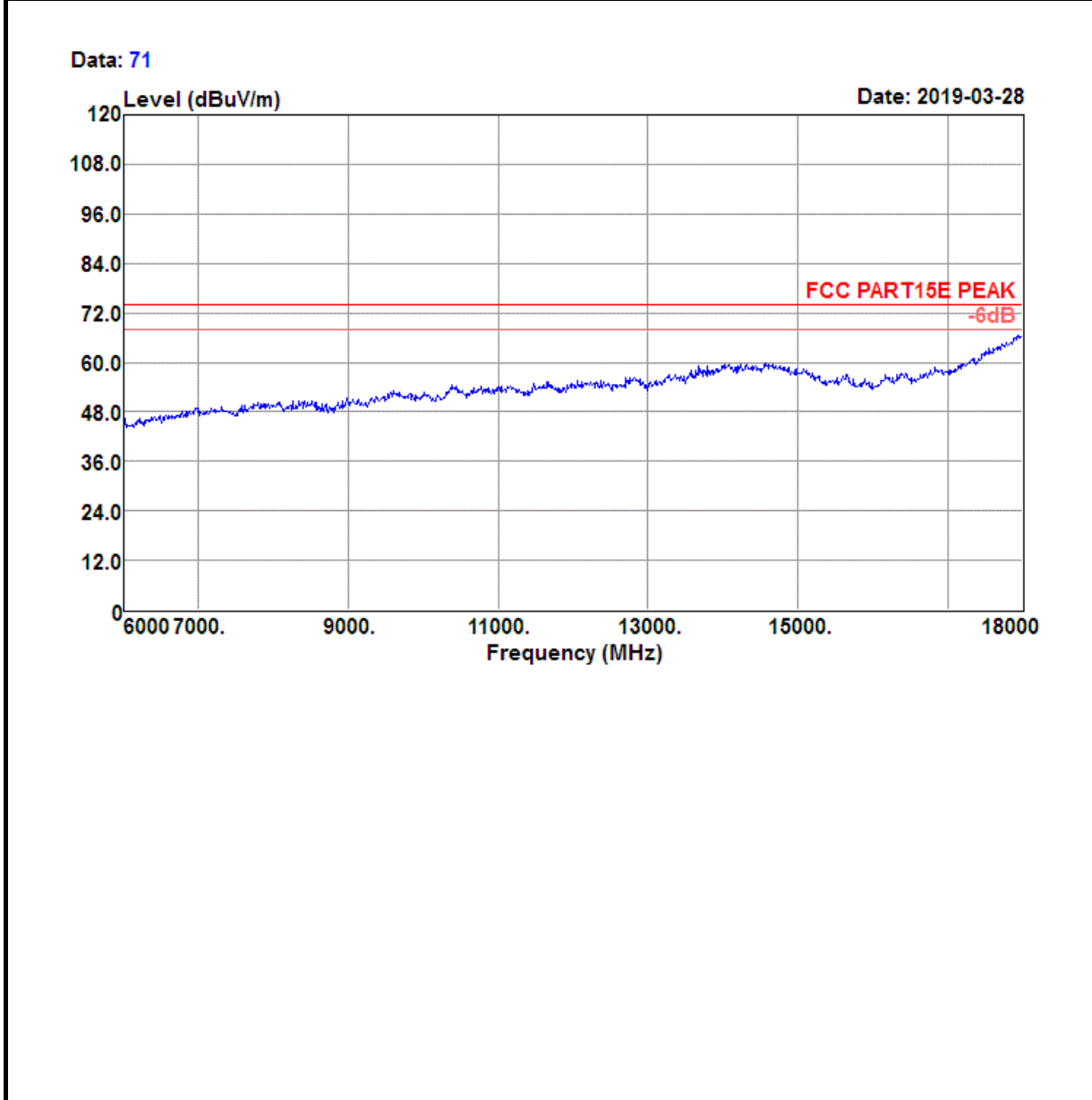
Test Mode :	802.11a CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

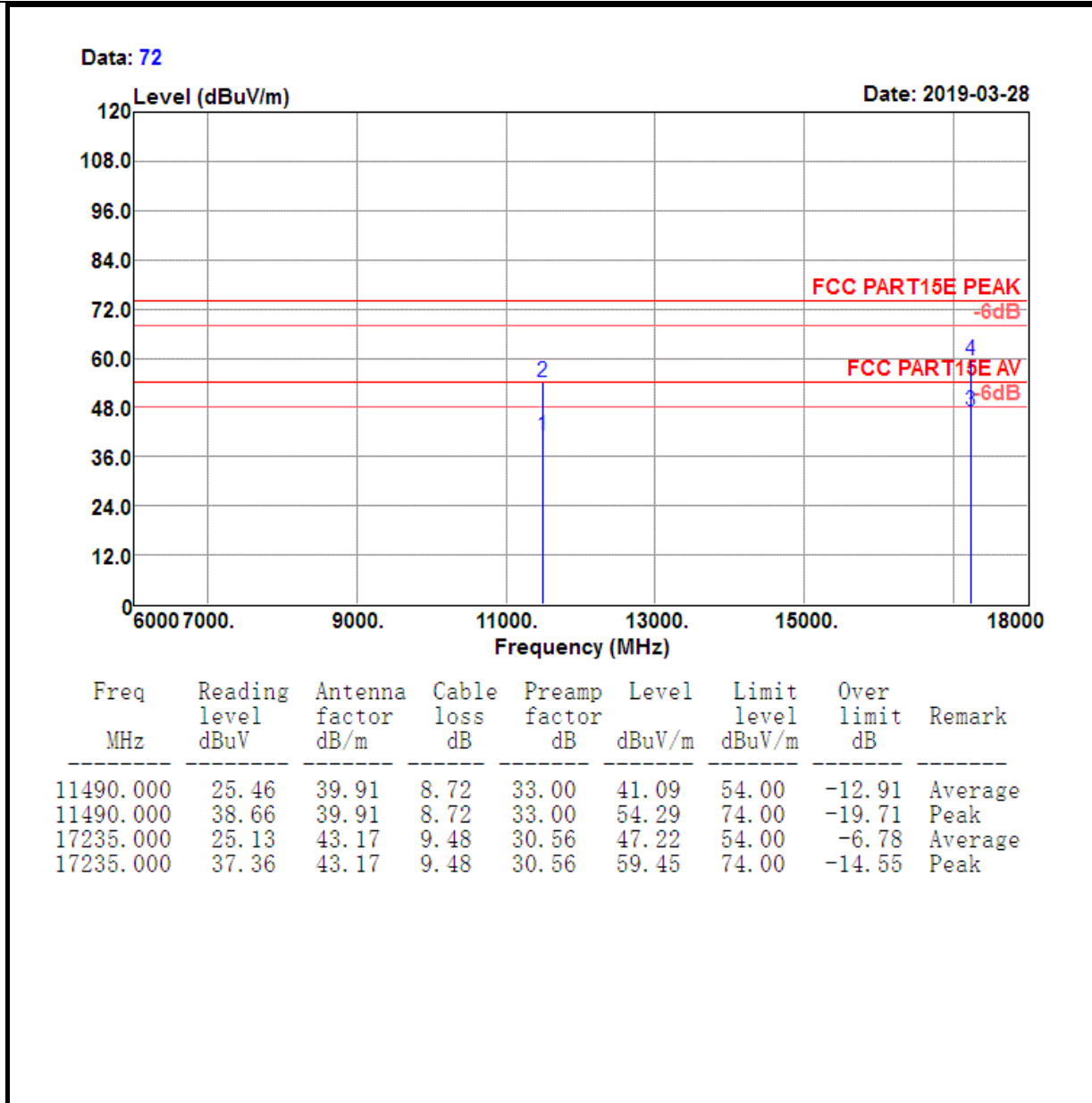
Data: 67



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
5745.000	97.03	32.30	6.45	35.10	100.68	74.00	26.68	Peak

Test Mode :	802.11a CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

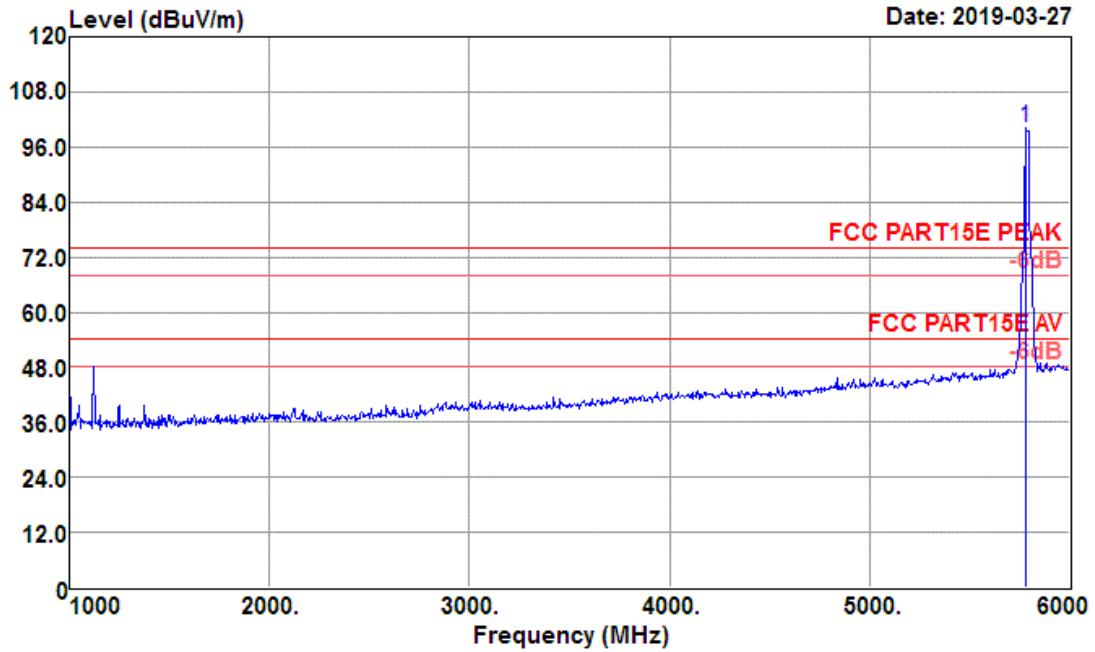




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

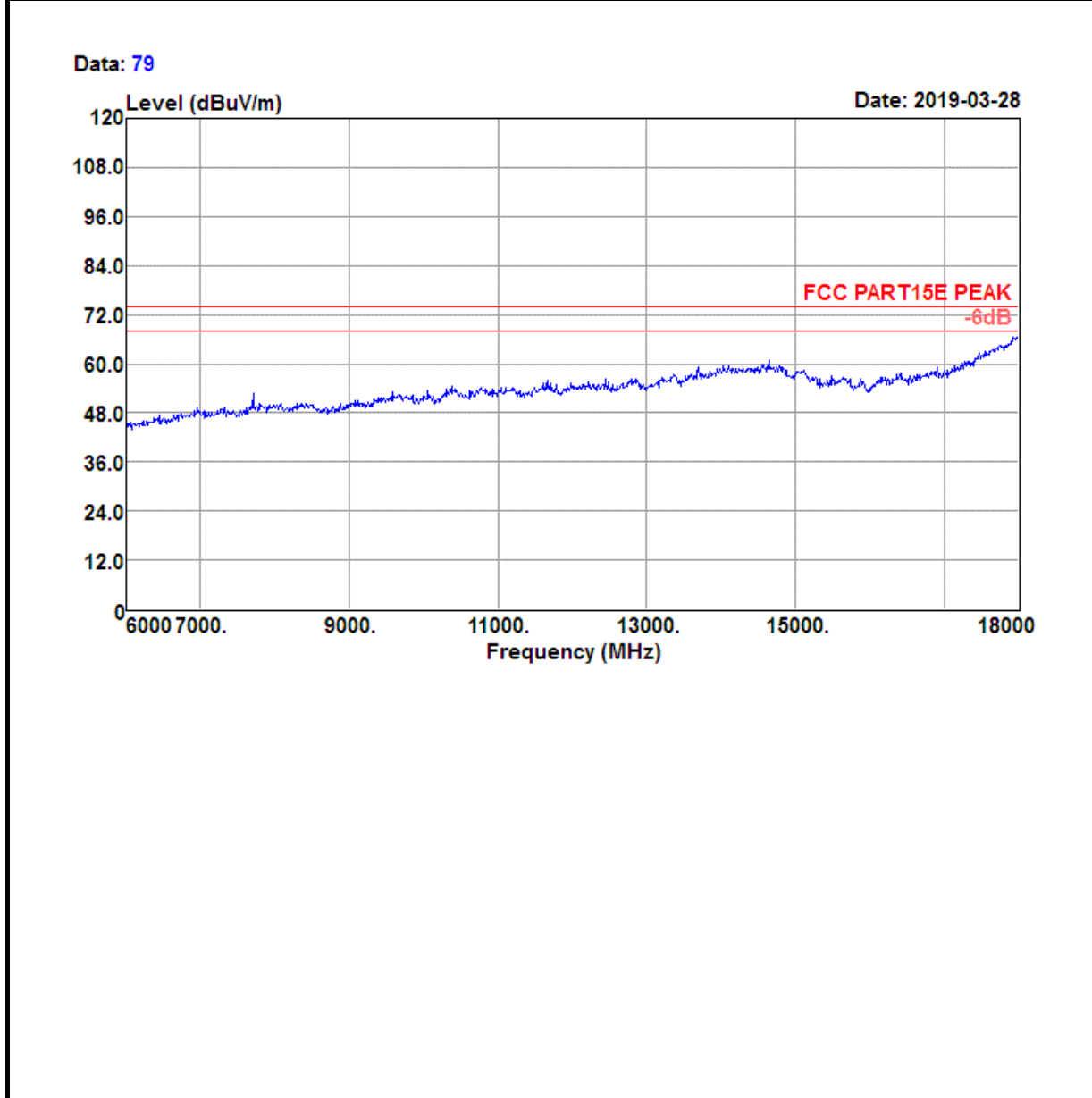
Test Mode :	802.11a CH157 5785MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

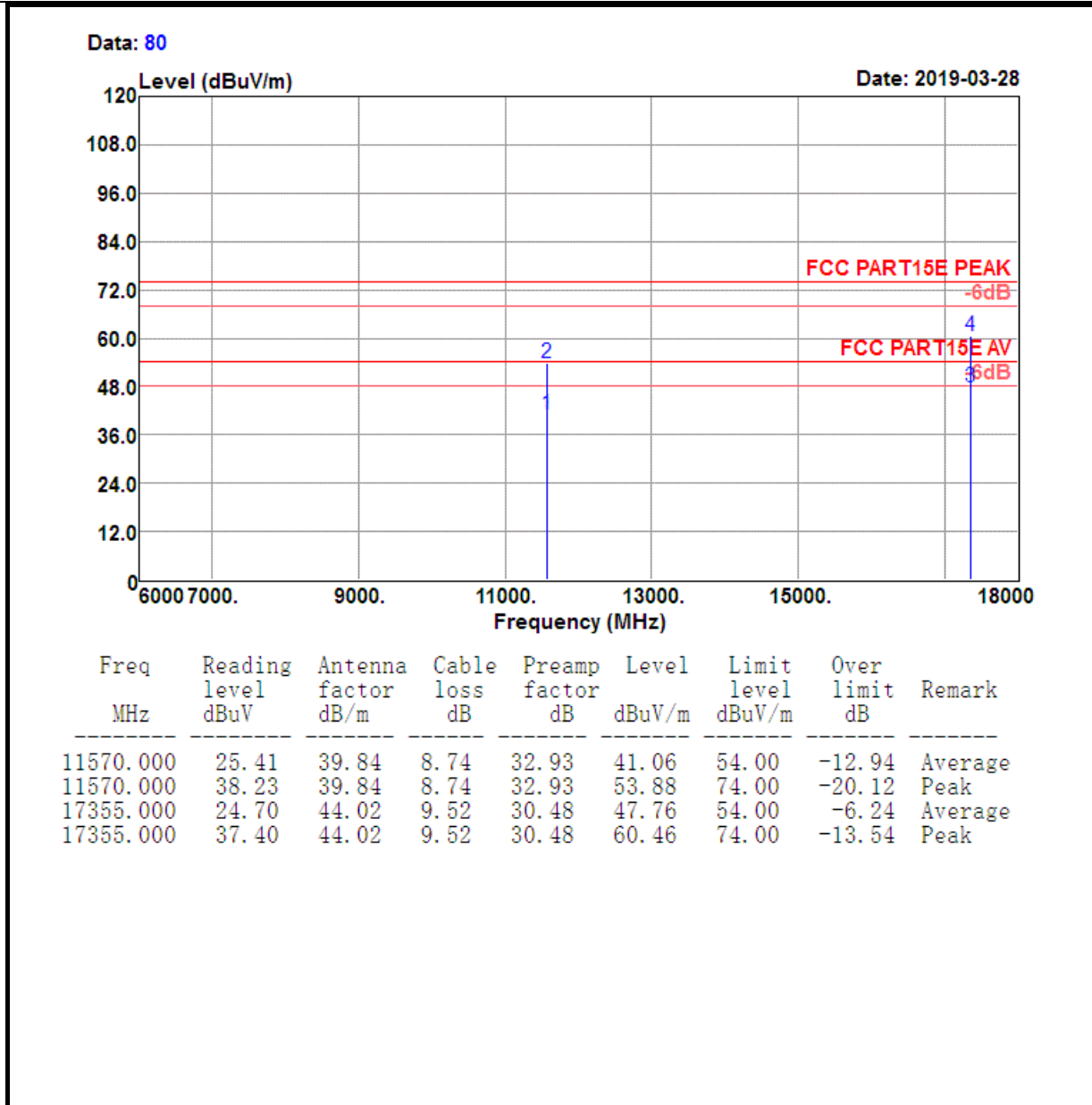
Data: 81



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
5780.000	96.31	32.32	6.50	35.05	100.08	74.00	26.08	Peak

Test Mode :	802.11a CH157 5785MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

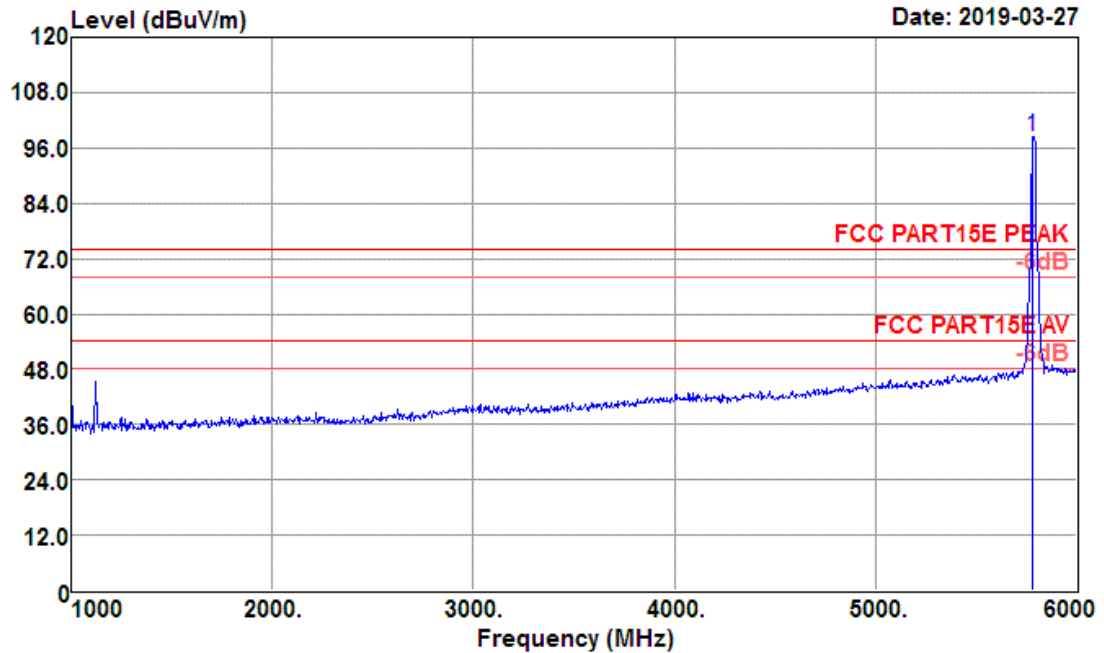




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

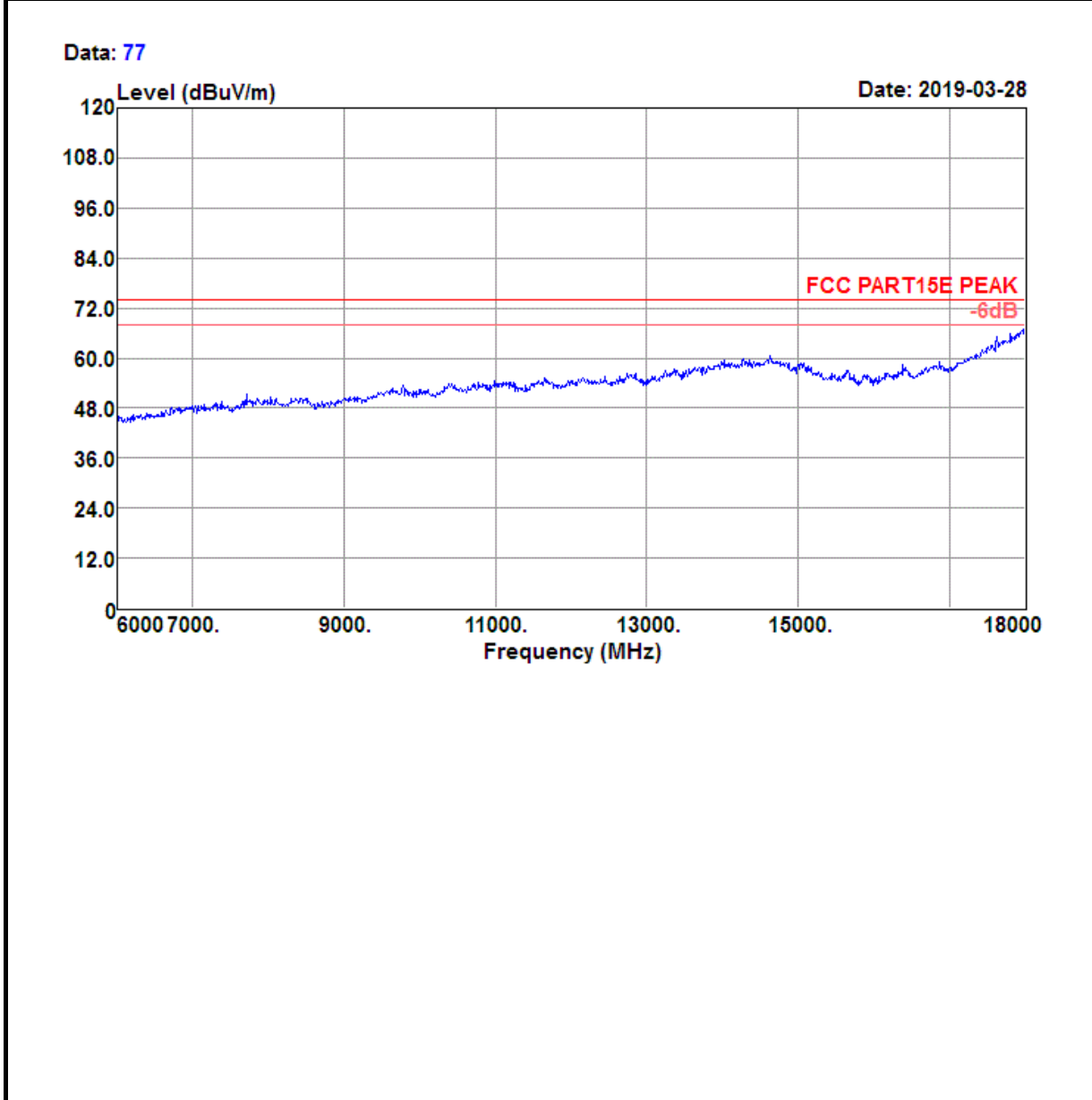
Test Mode :	802.11a CH157 5785MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

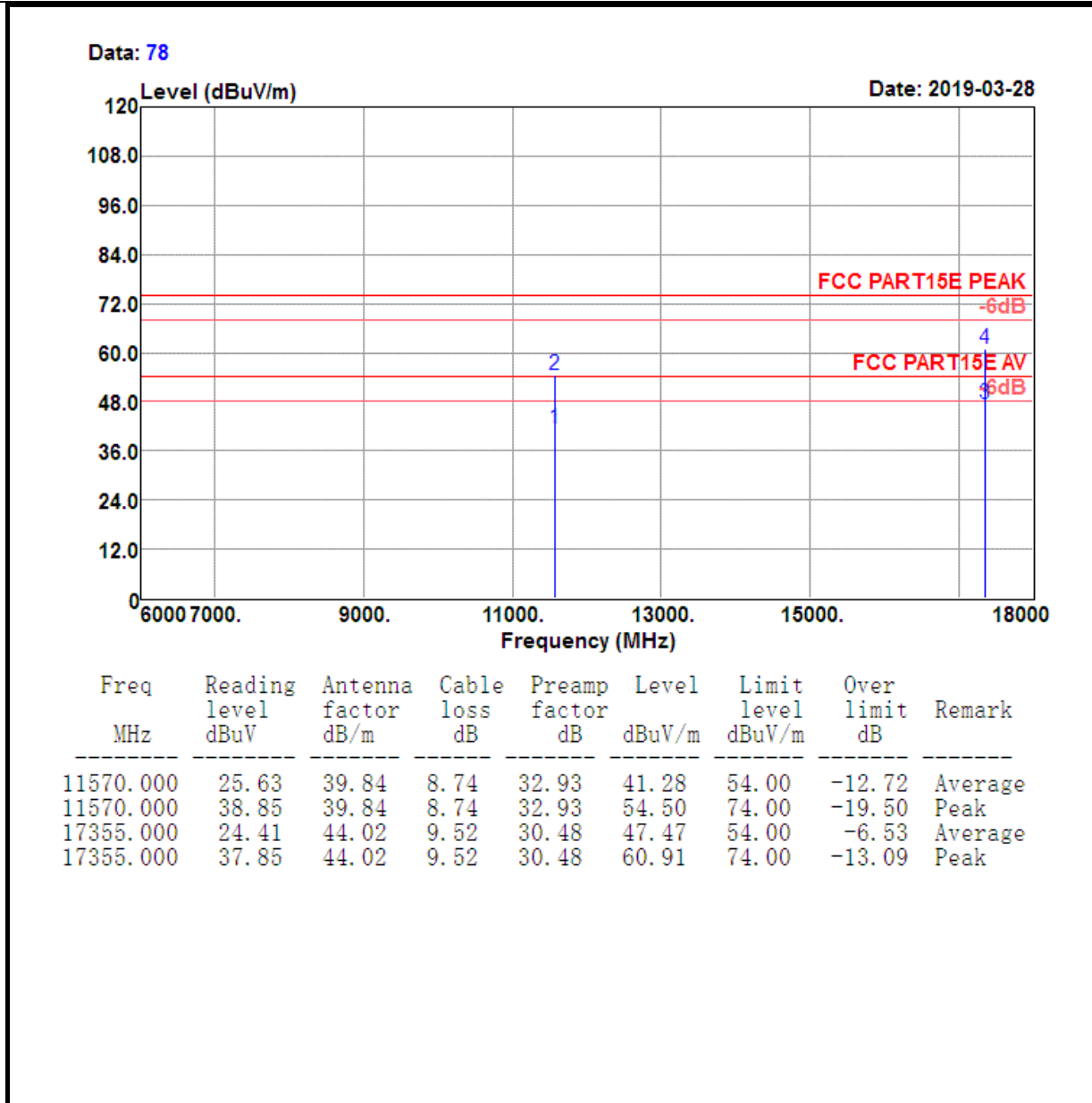
Data: 82



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
5780.000	94.68	32.32	6.50	35.05	98.45	74.00	24.45	Peak

Test Mode :	802.11a CH157 5785MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

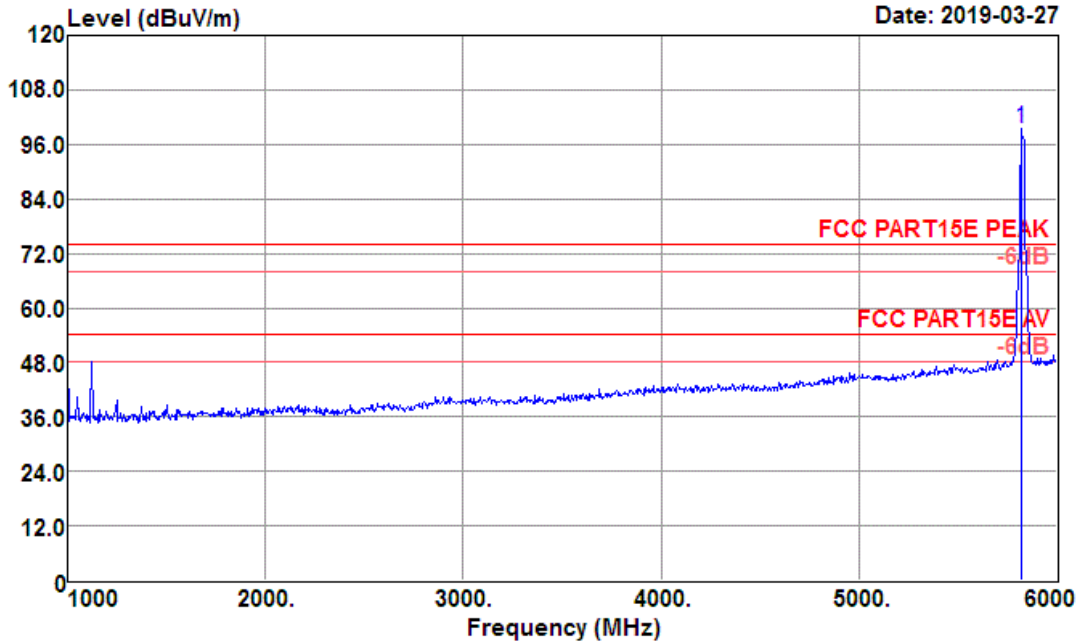




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

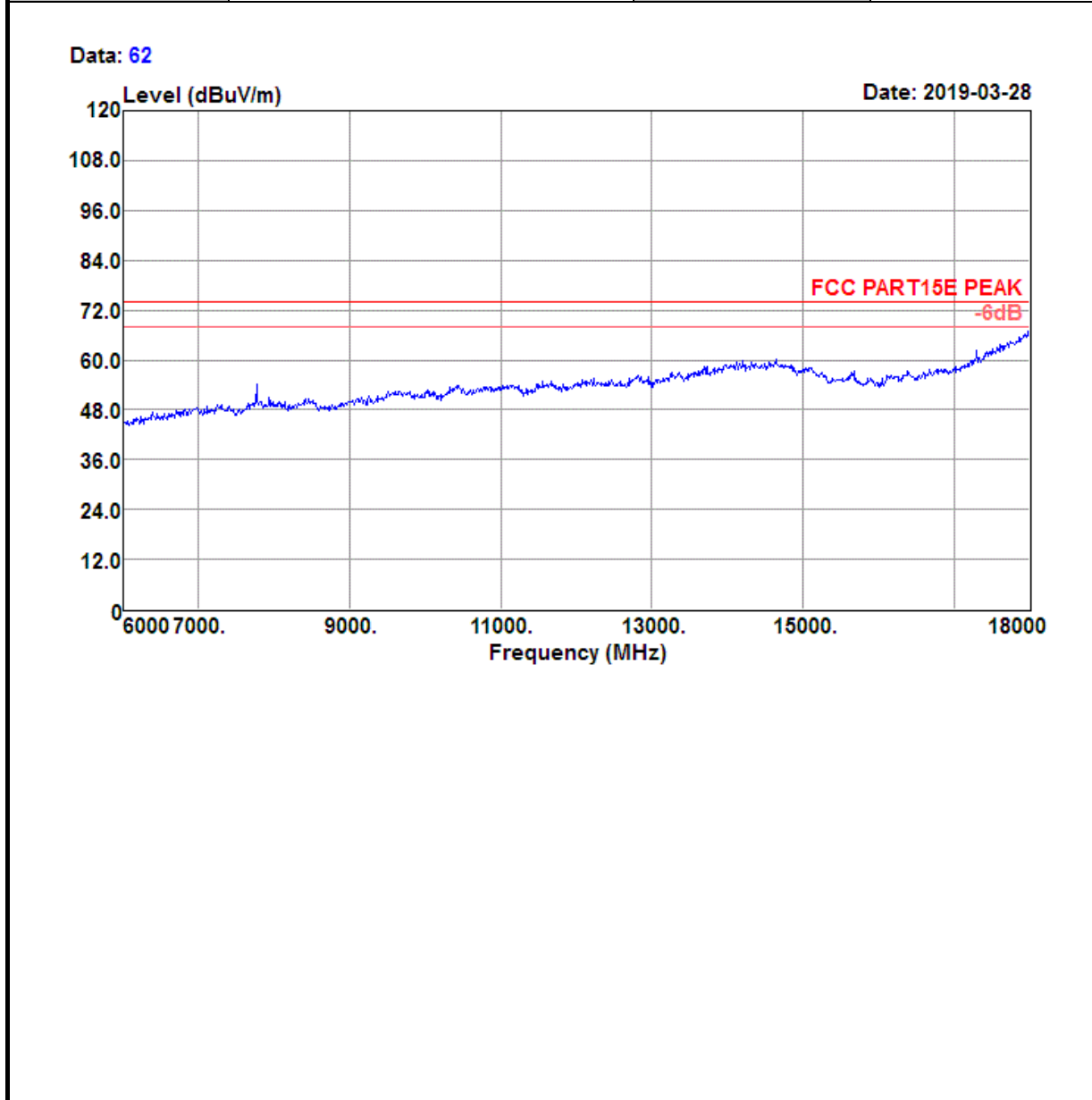
Test Mode :	802.11a CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

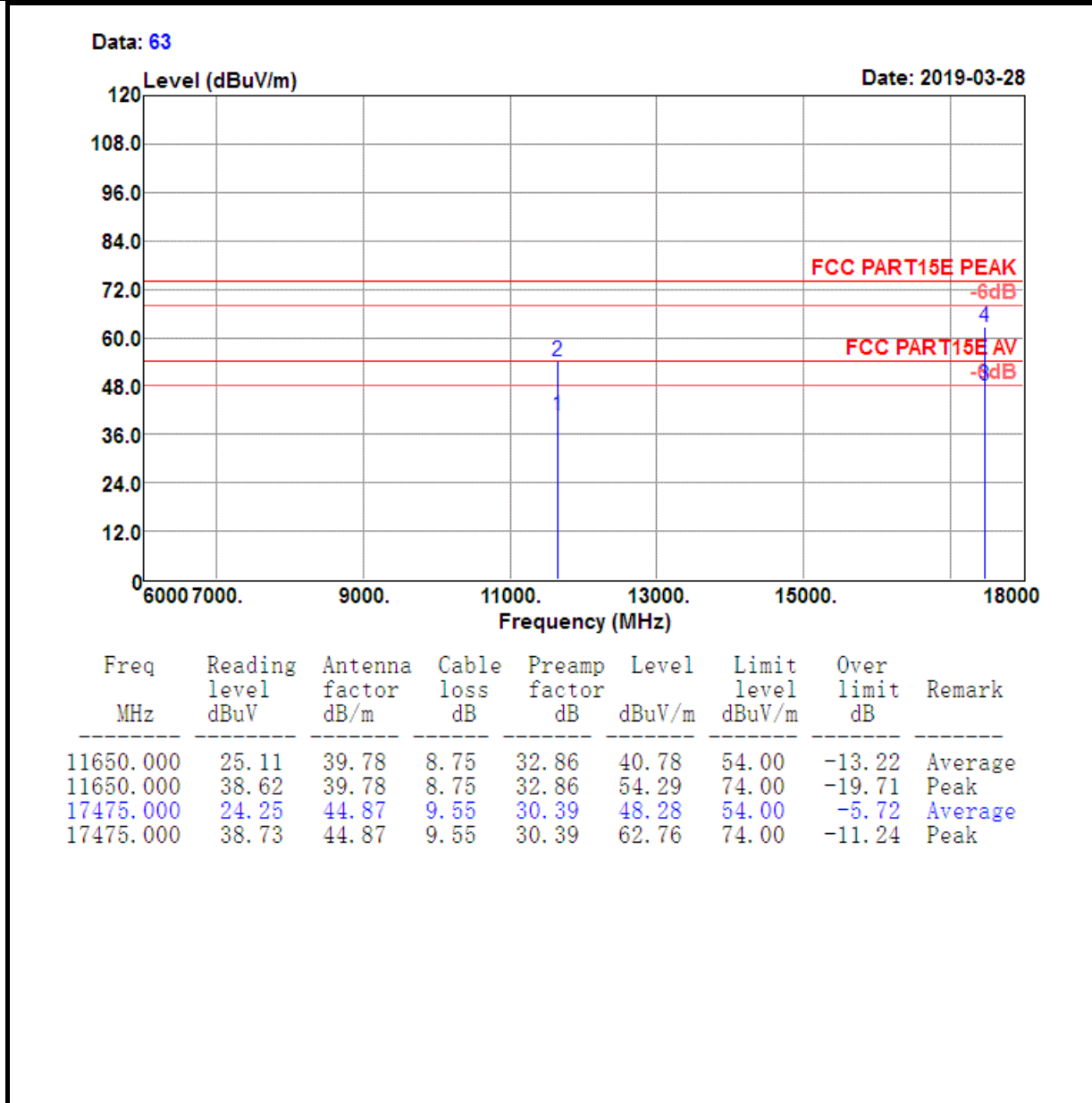
Data: 58



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
5820.000	95.64	32.36	6.53	34.99	99.54	74.00	25.54	Peak

Test Mode :	802.11a CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

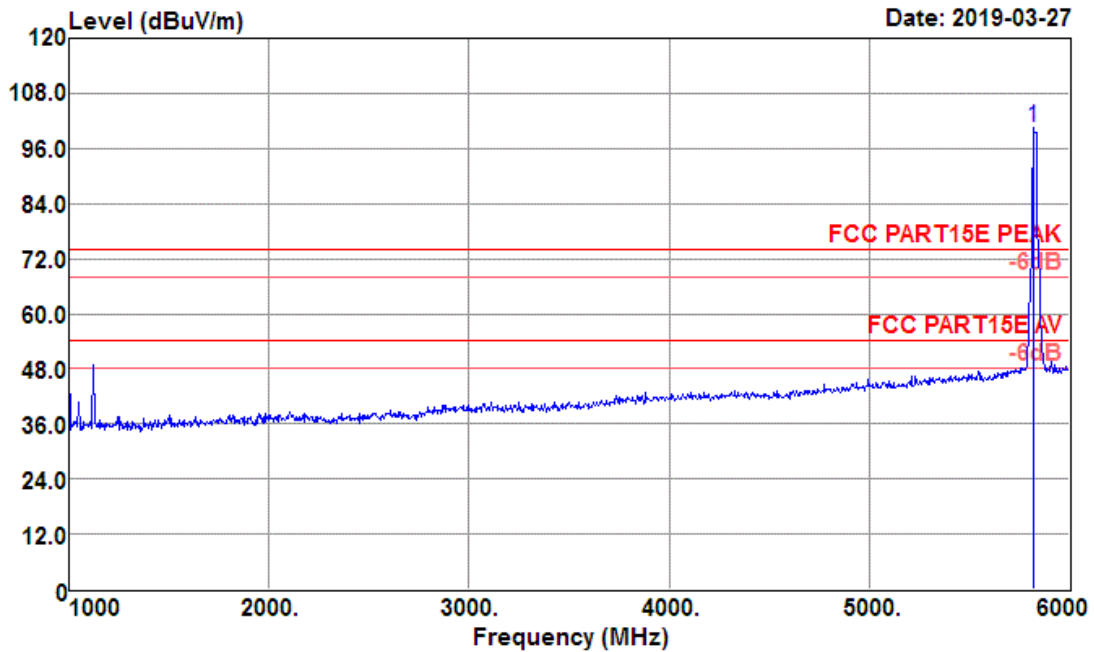




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

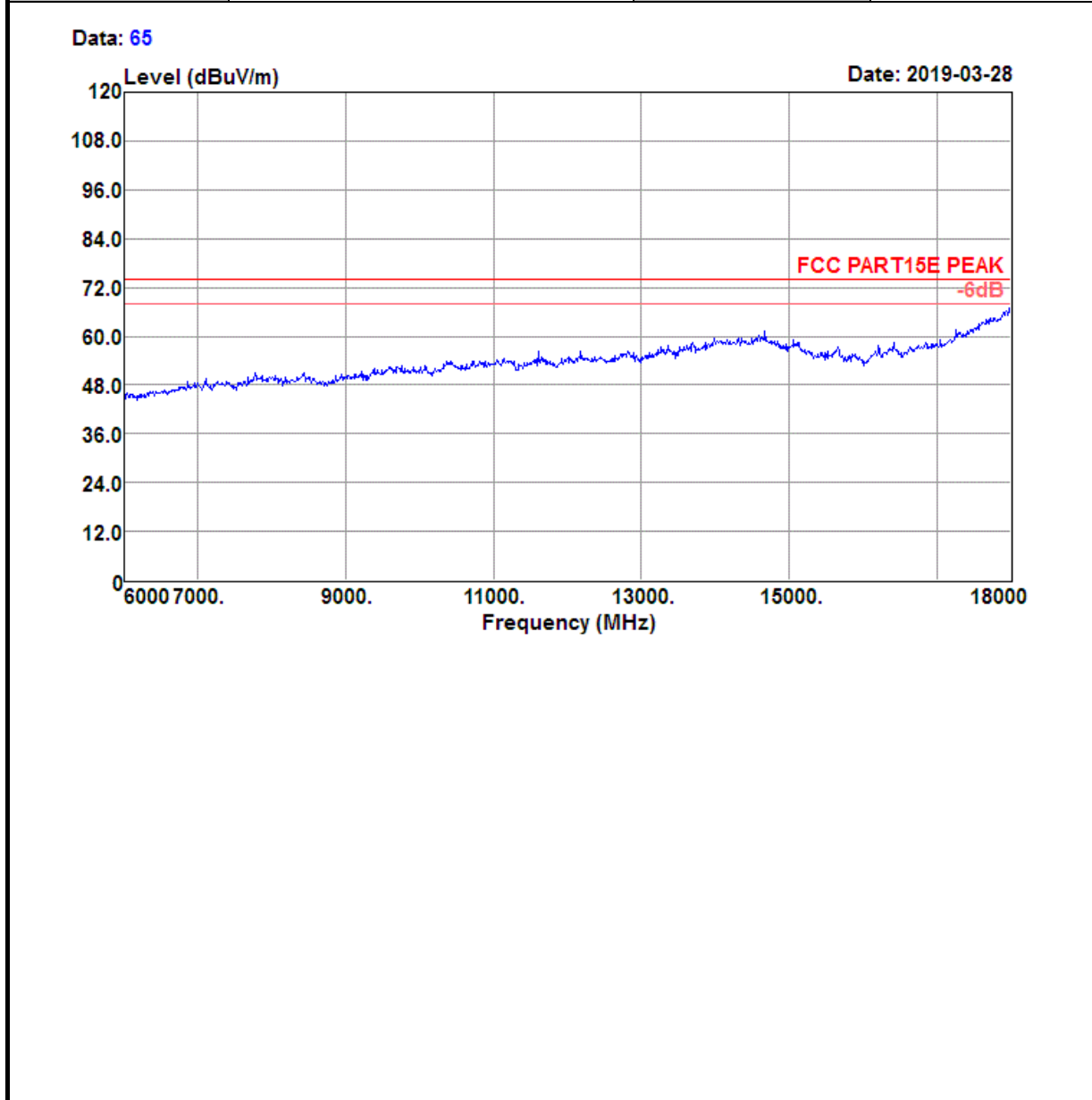
Test Mode :	802.11a CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

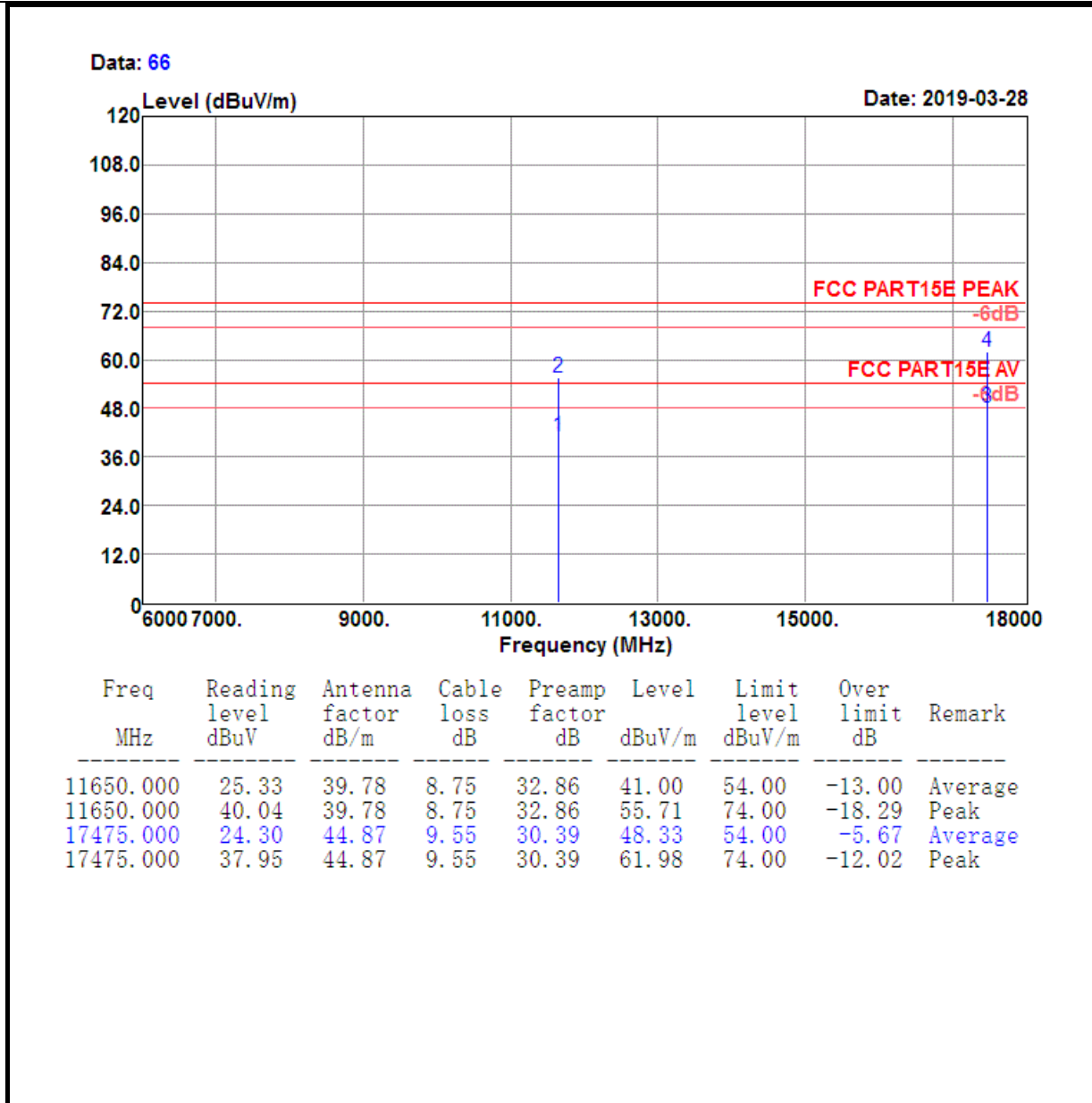
Data: 61



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
5820.000	96.52	32.36	6.53	34.99	100.42	74.00	26.42	Peak

Test Mode :	802.11a CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

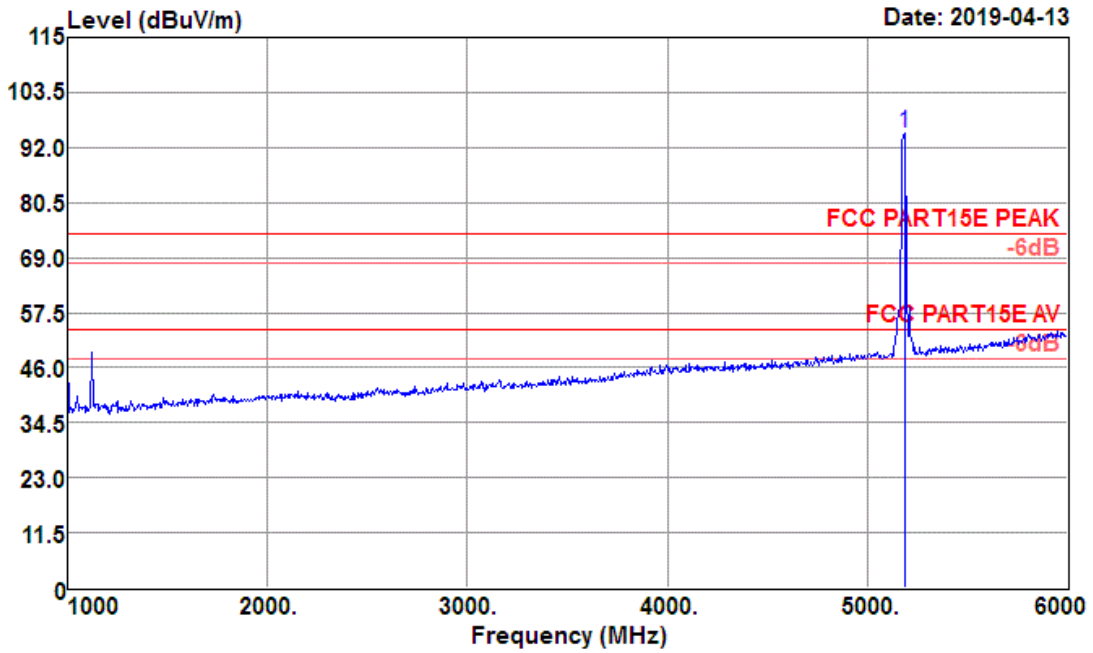




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11n HT20 CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

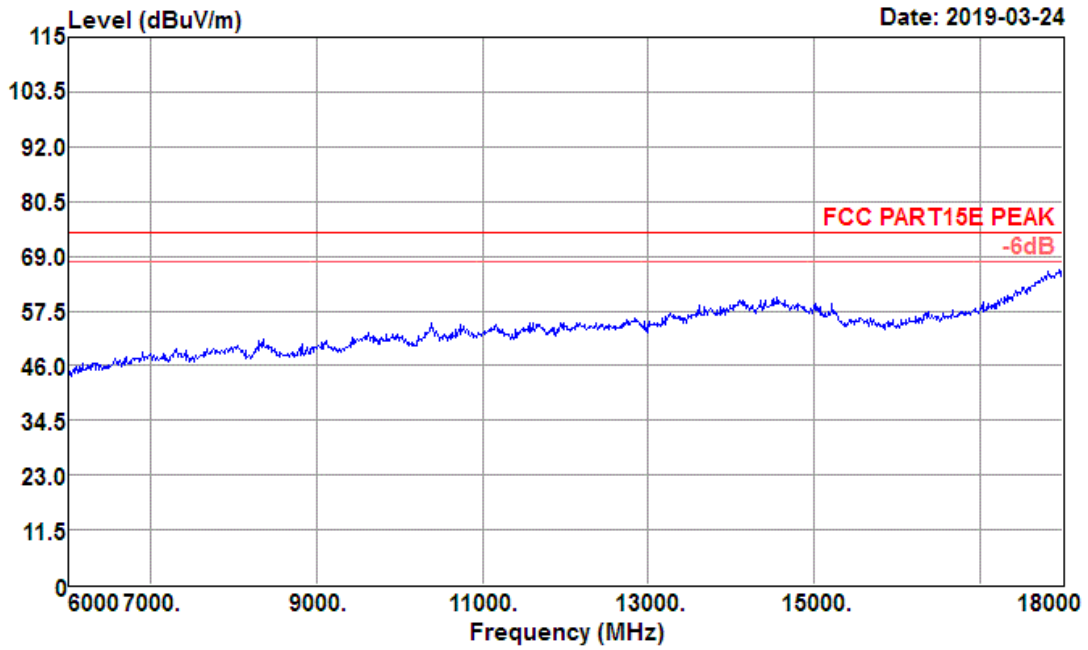
Data: 214

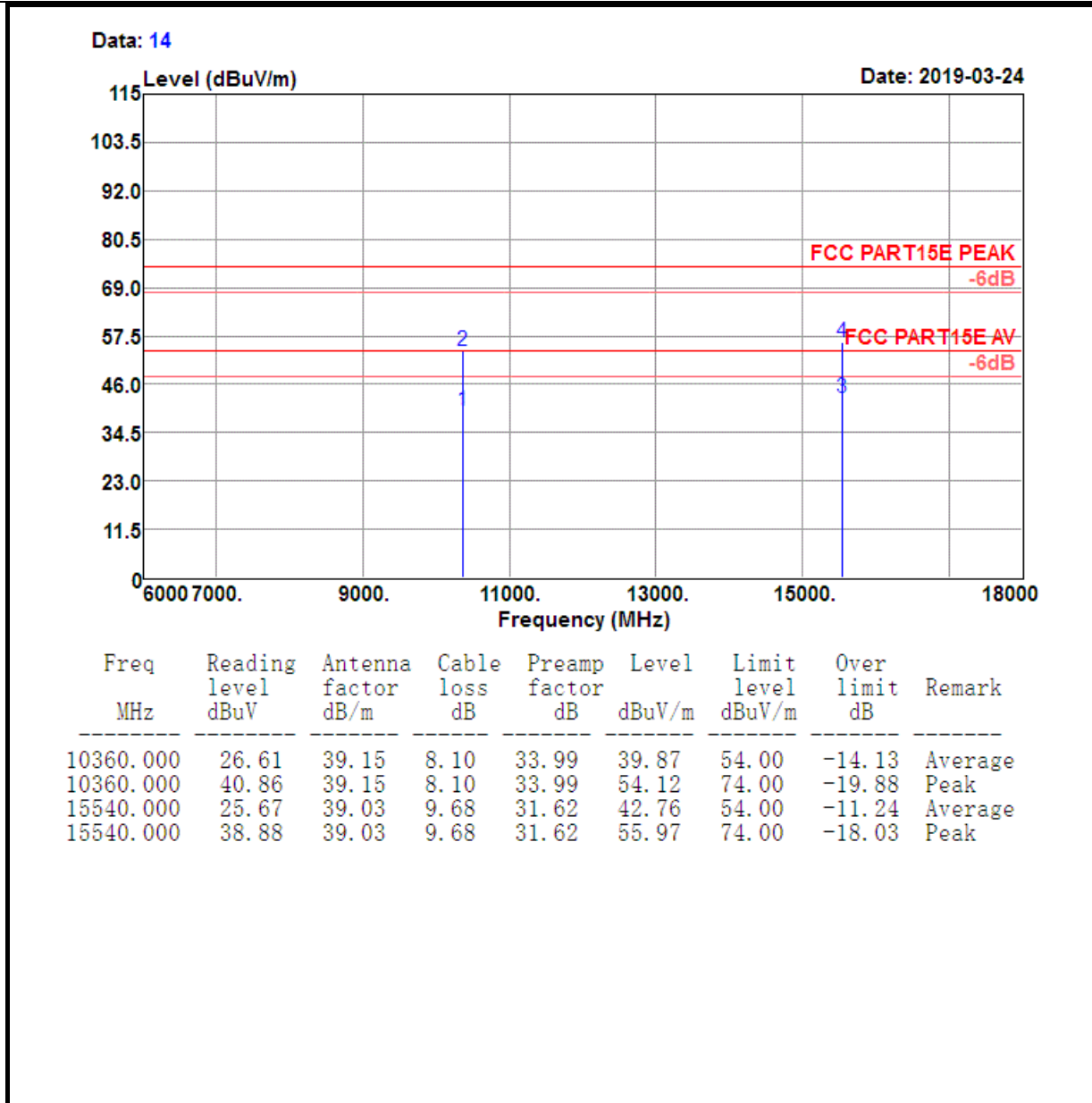


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5185.000	93.82	31.85	5.41	35.93	95.15	74.00	21.15	Peak

Test Mode :	802.11 n HT20 CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

Data: 13

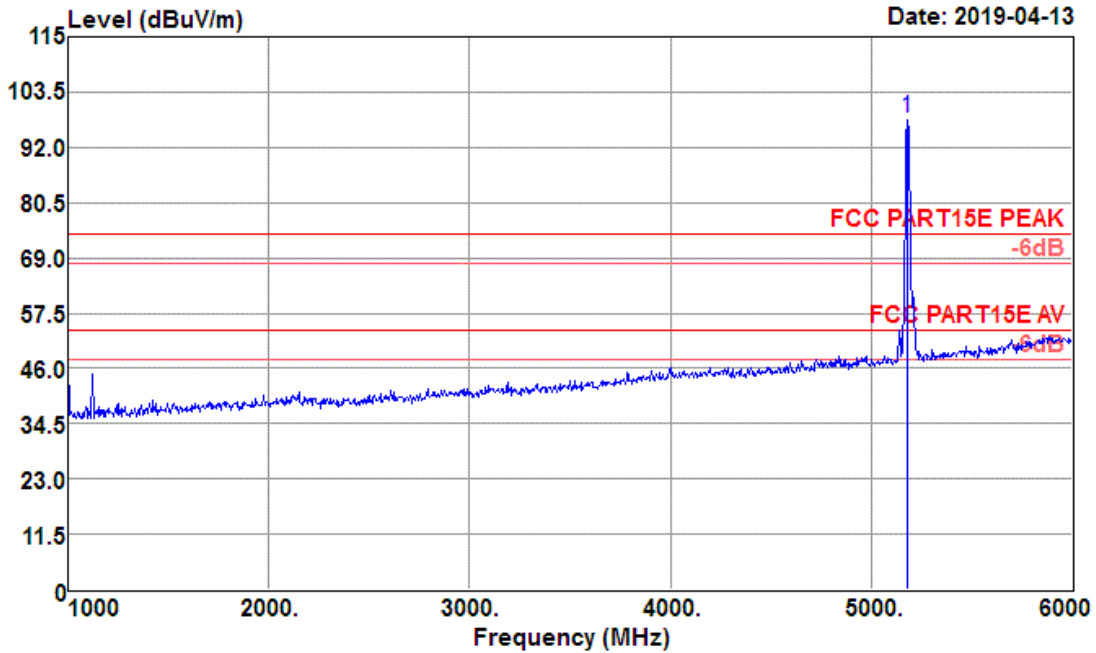




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

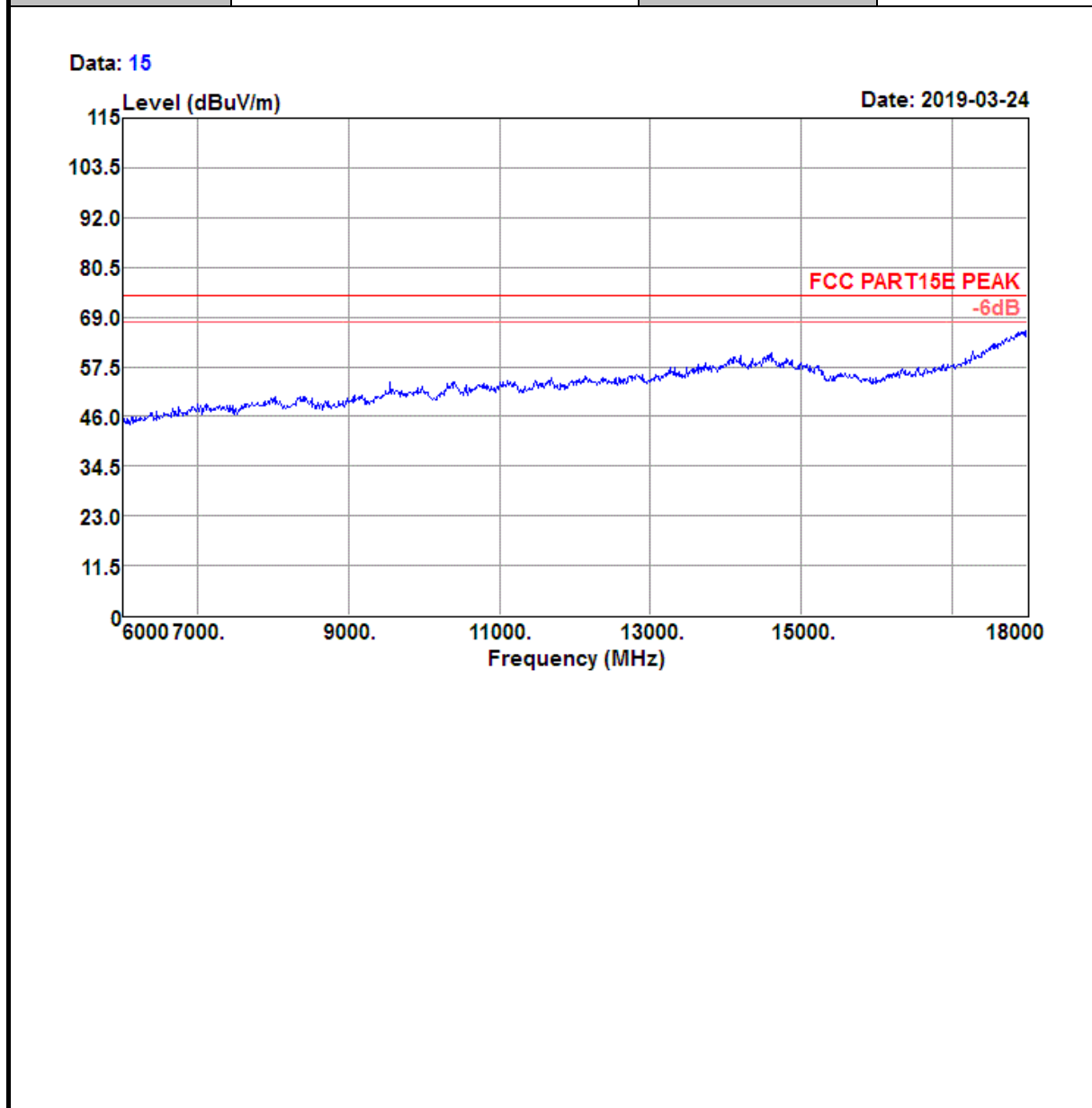
Test Mode :	802.11 n HT20 CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

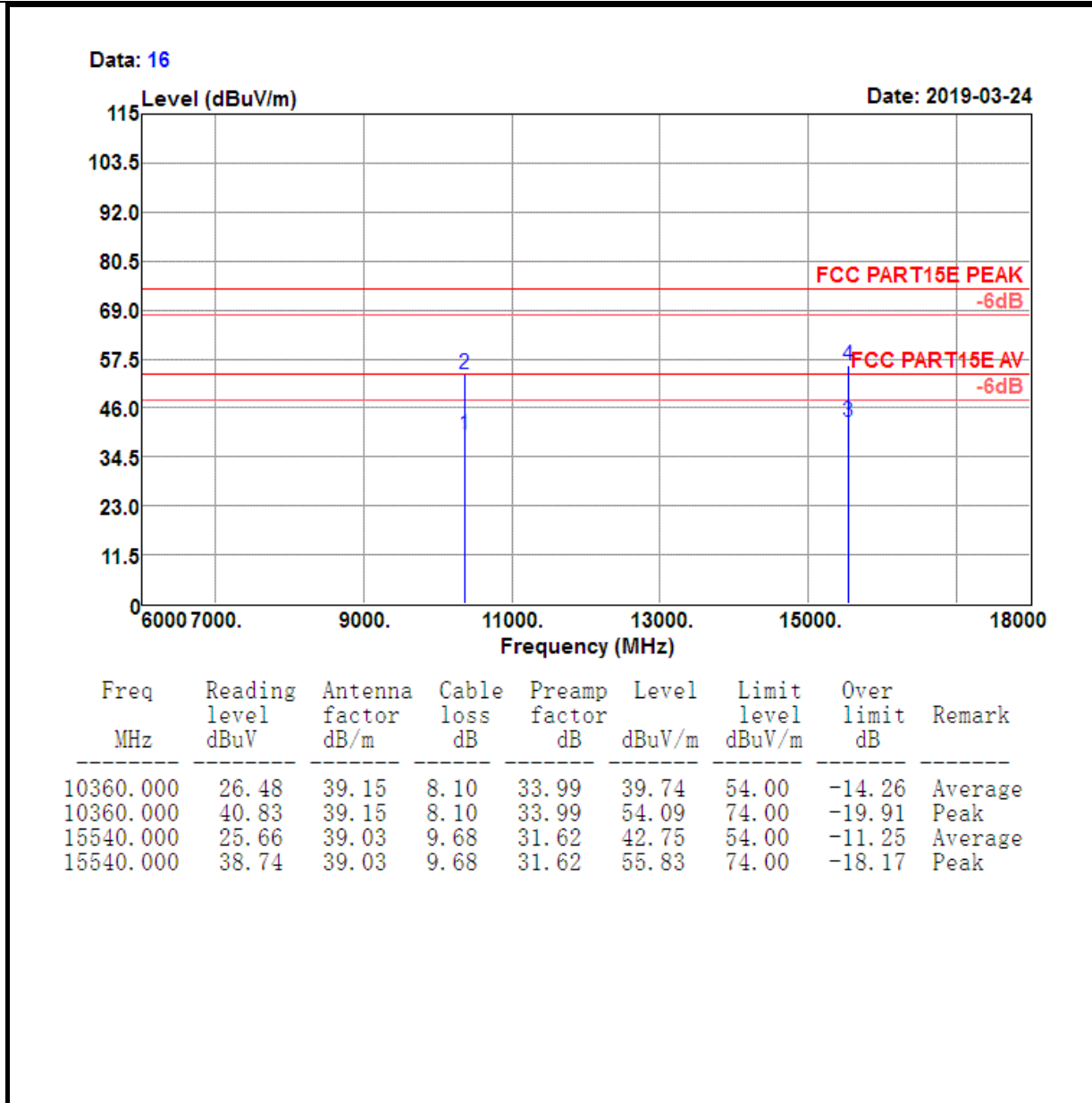
Data: 213



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
5180.000	96.89	31.84	5.41	35.93	98.21	74.00	24.21	Peak

Test Mode :	802.11 n HT20 CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

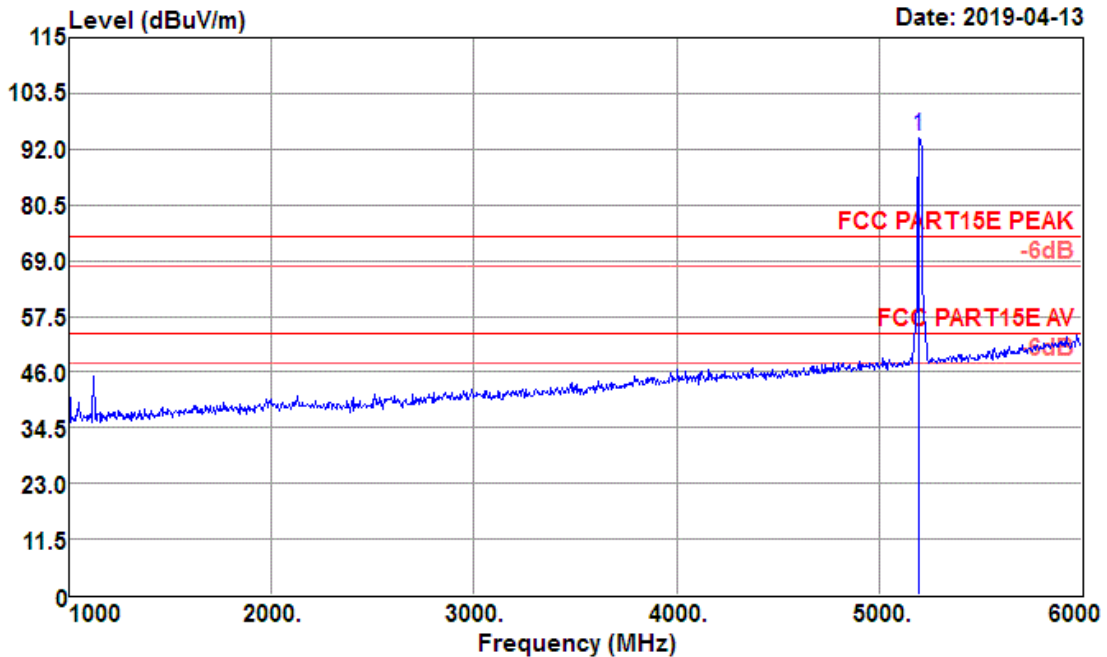




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

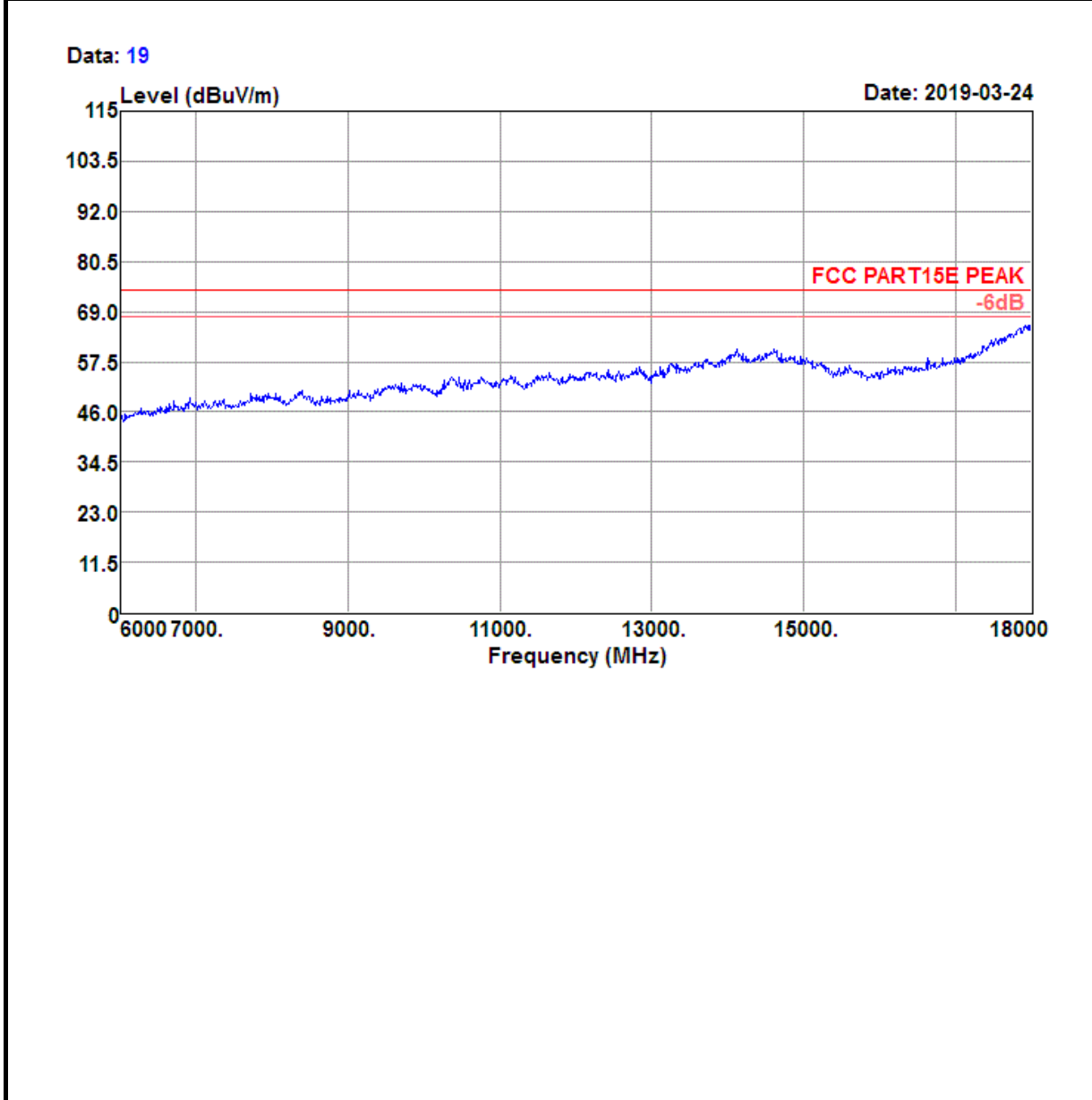
Test Mode :	802.11 n HT20 CH40 5200MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

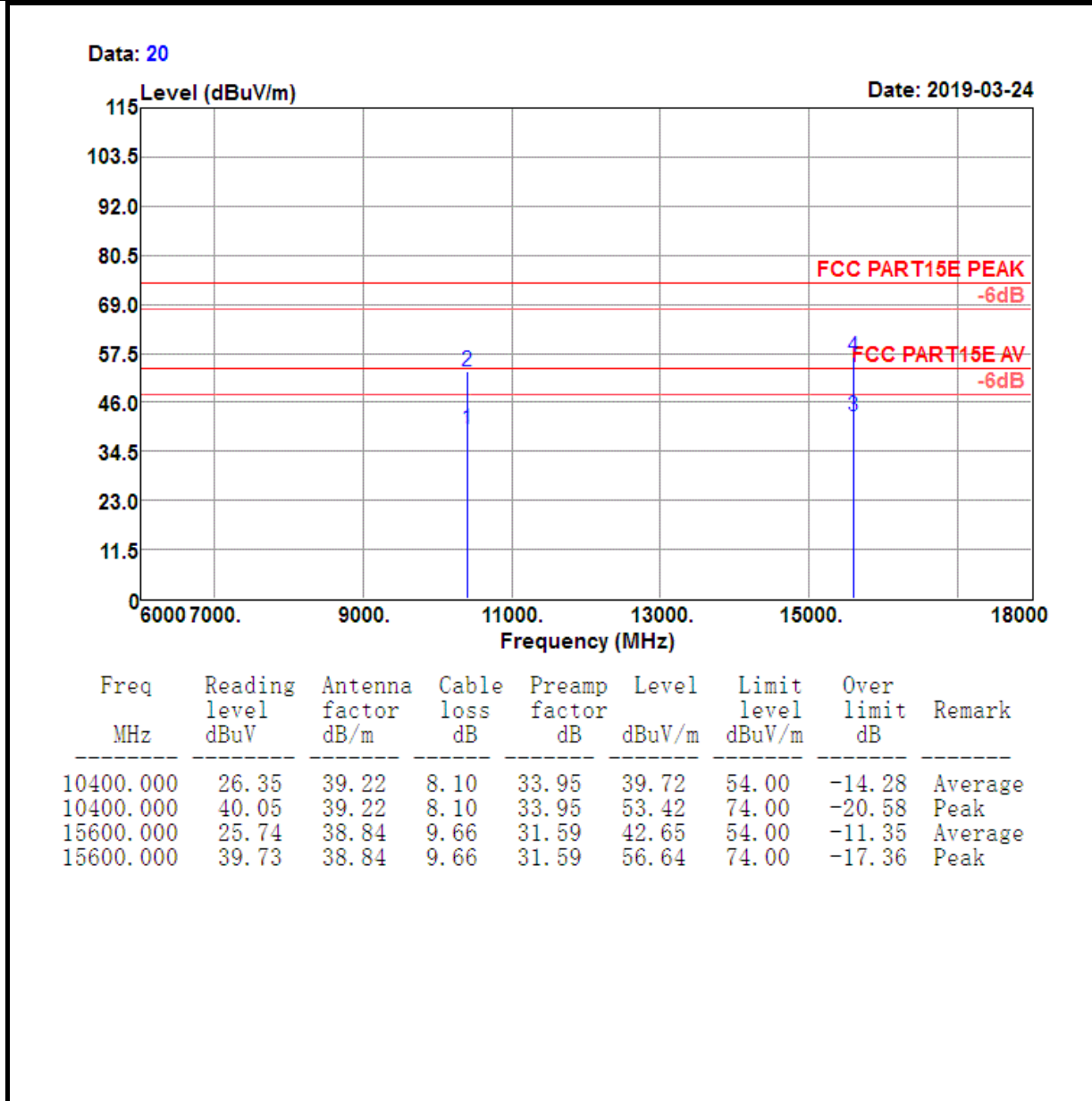
Data: 217



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamplifier factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5200.000	93.25	31.86	5.42	35.90	94.63	74.00	20.63	Peak

Test Mode :	802.11 n HT20 CH40 5200MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

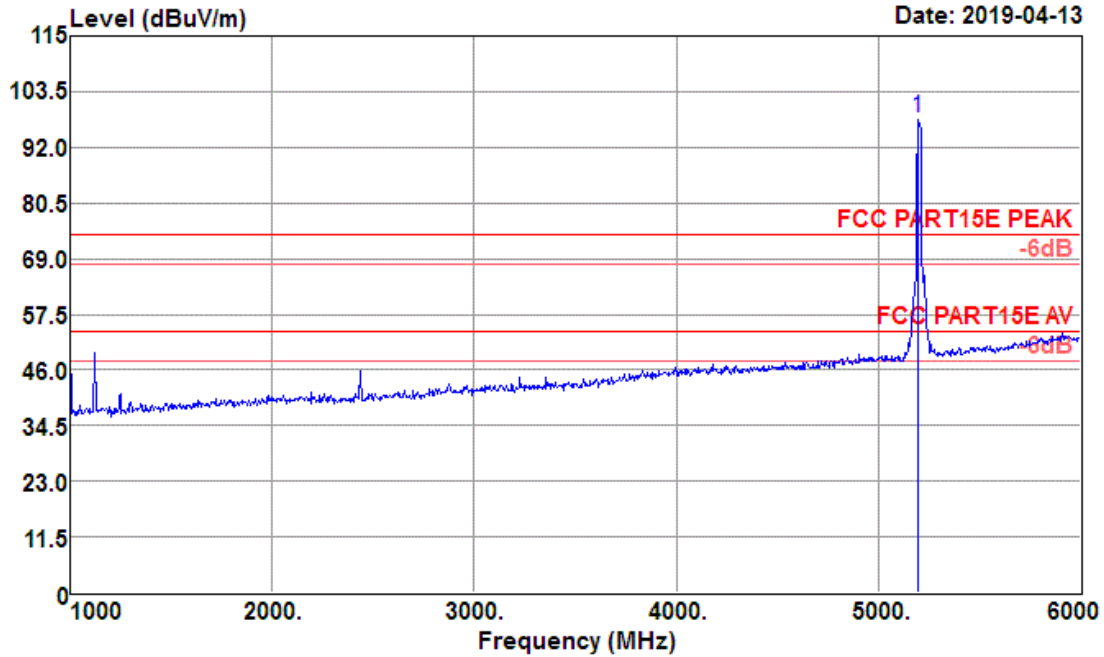




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

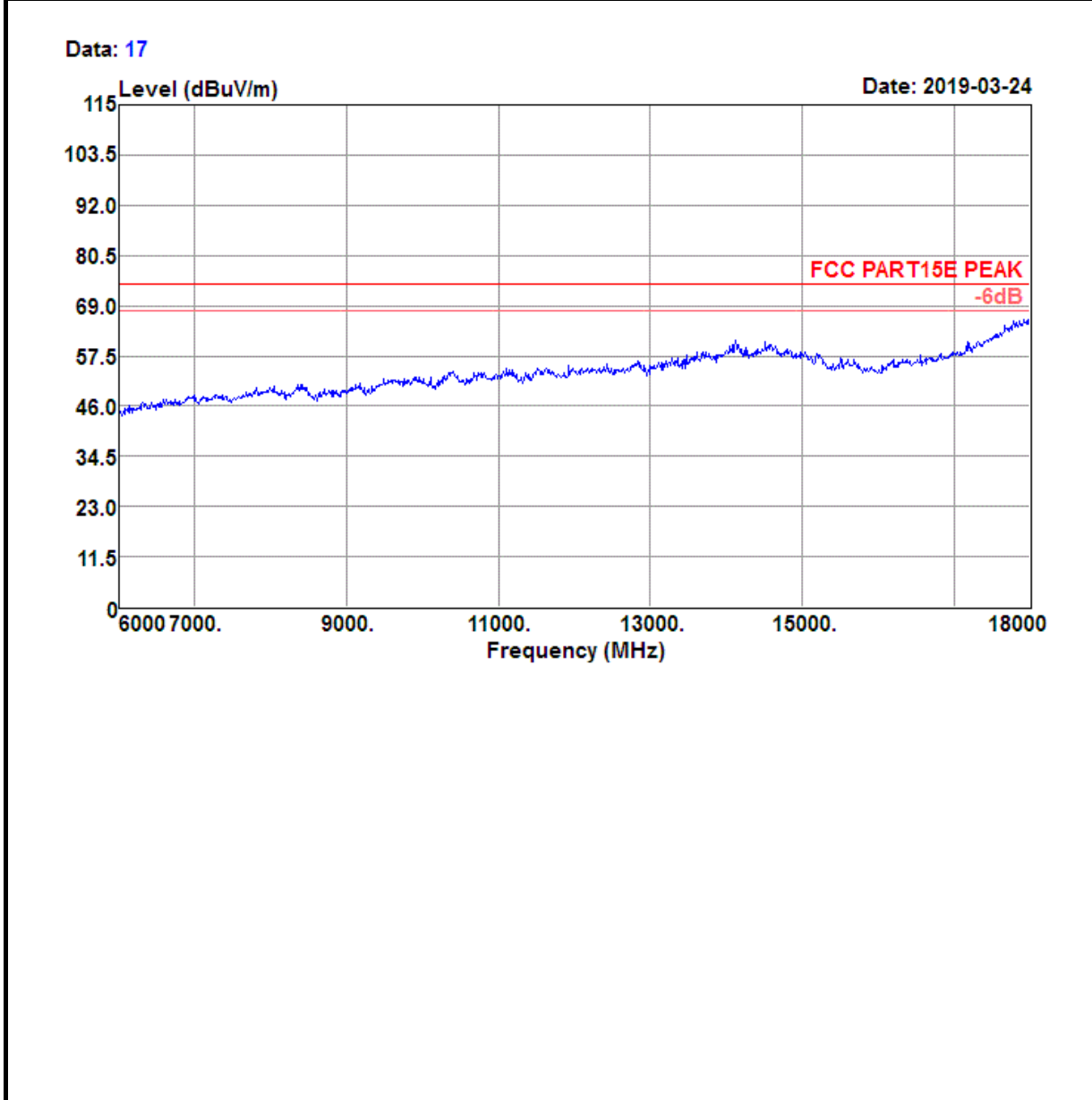
Test Mode :	802.11 n HT20 CH40 5200MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

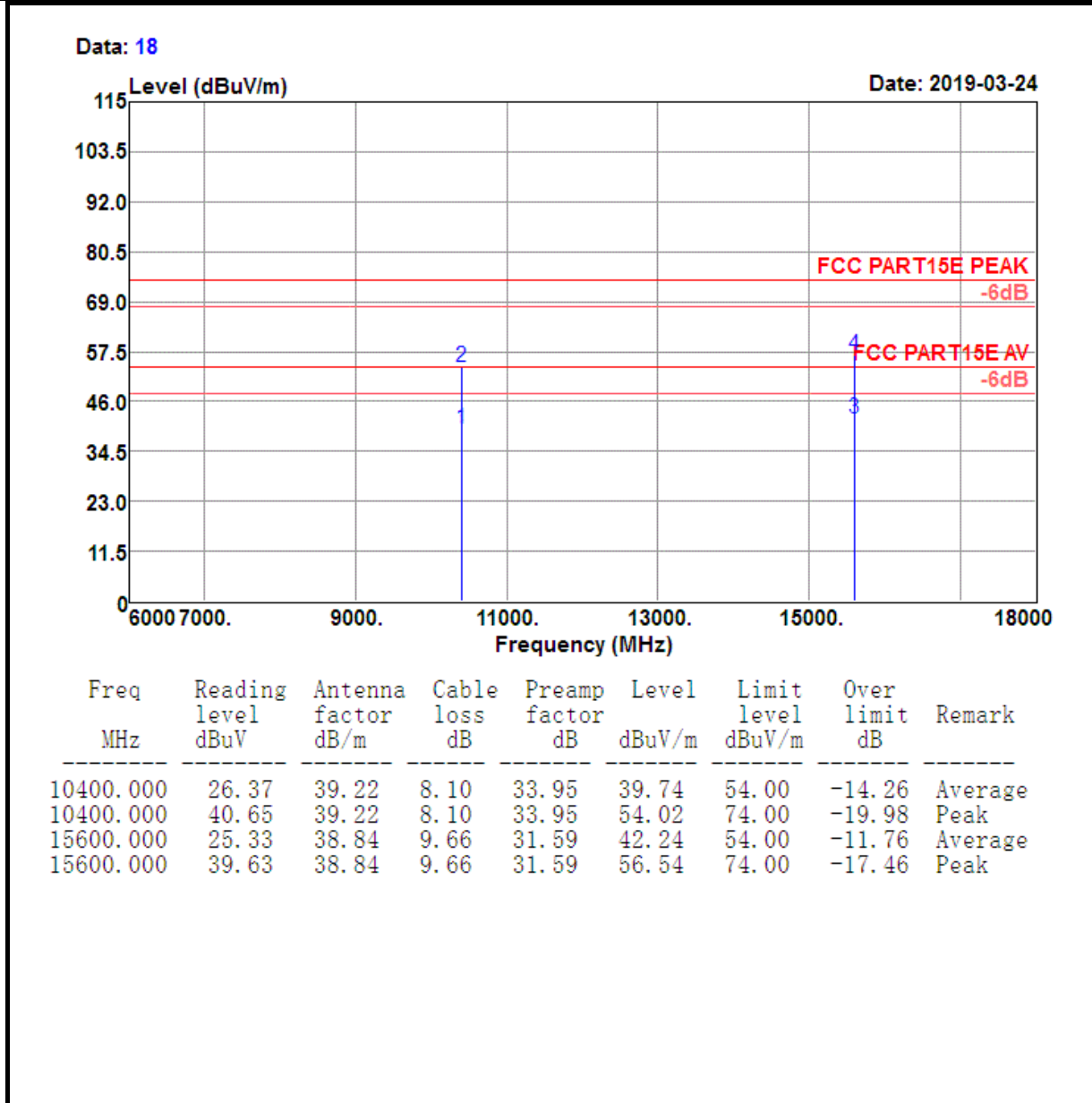
Data: 218



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
5200.000	96.59	31.86	5.42	35.90	97.97	74.00	23.97	Peak

Test Mode :	802.11 n HT20 CH40 5200MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

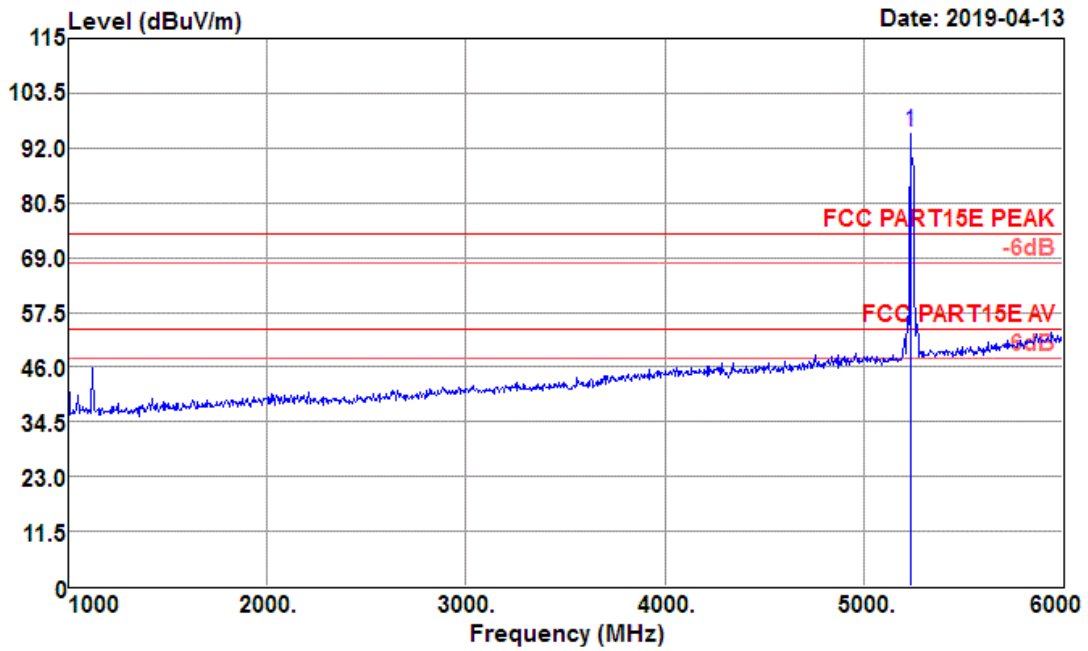




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

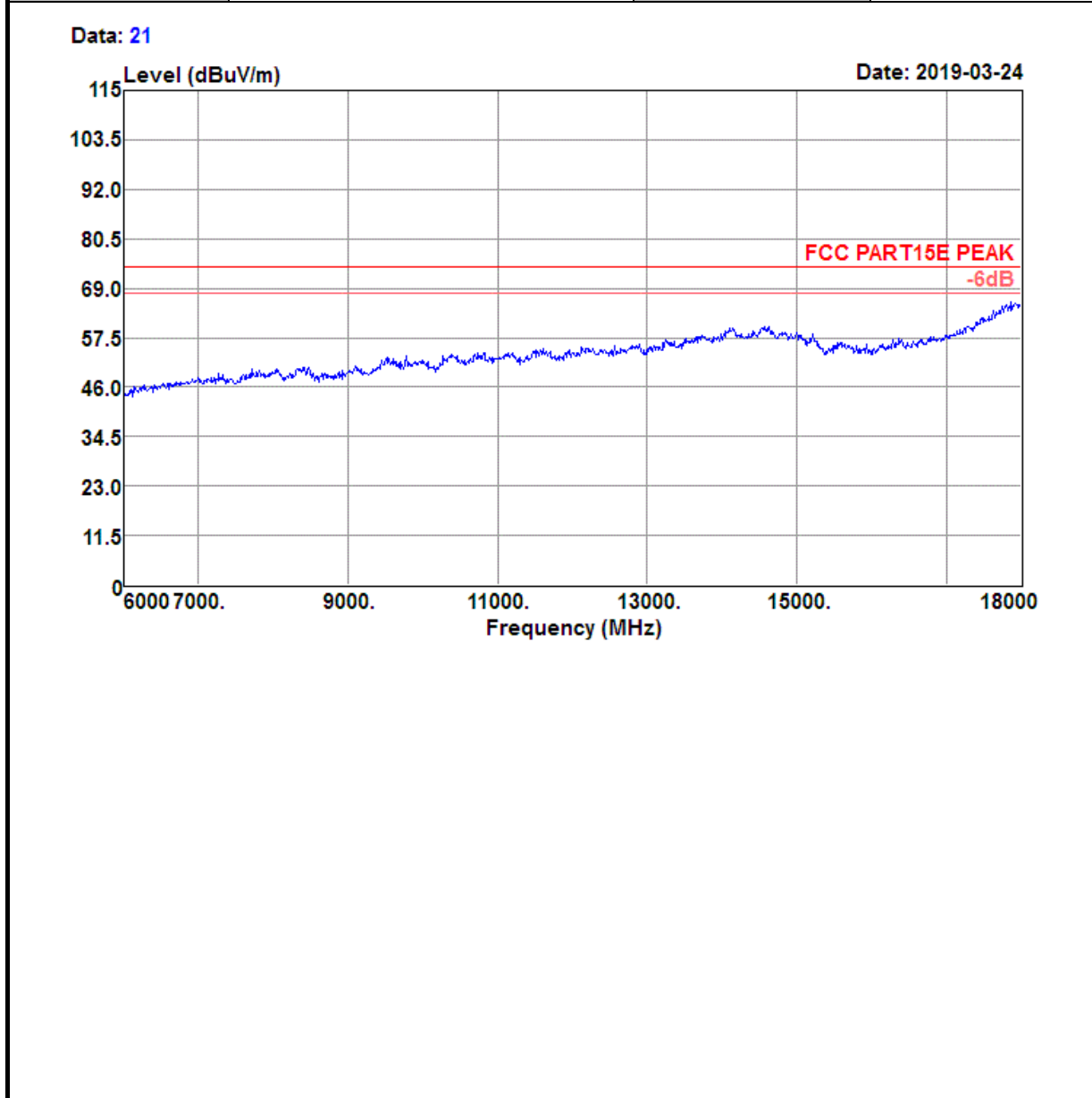
Test Mode :	802.11 n HT20 CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

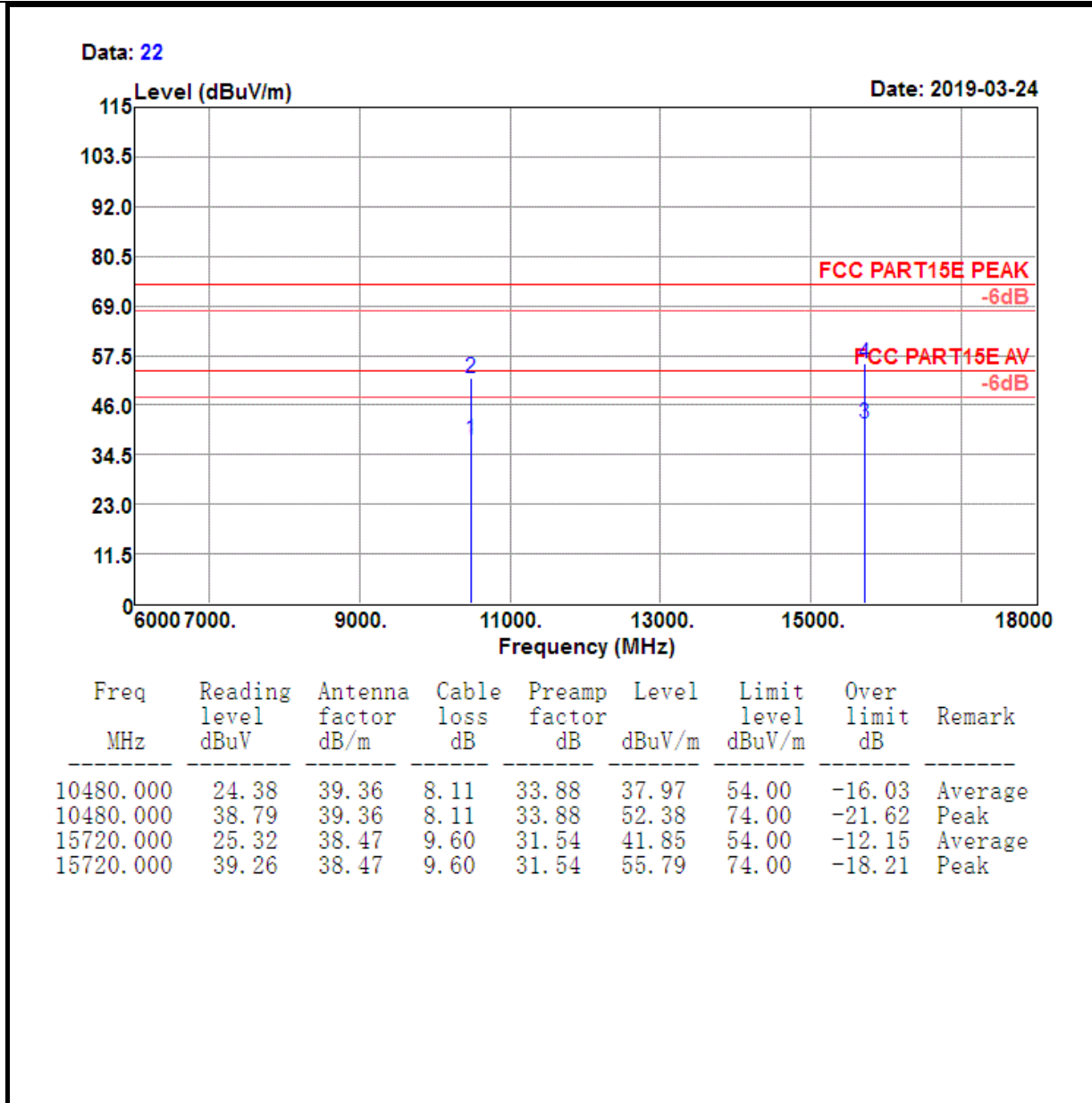
Data: 224



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
5240.000	93.88	31.89	5.57	35.84	95.50	74.00	21.50	Peak

Test Mode :	802.11 n HT20 CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

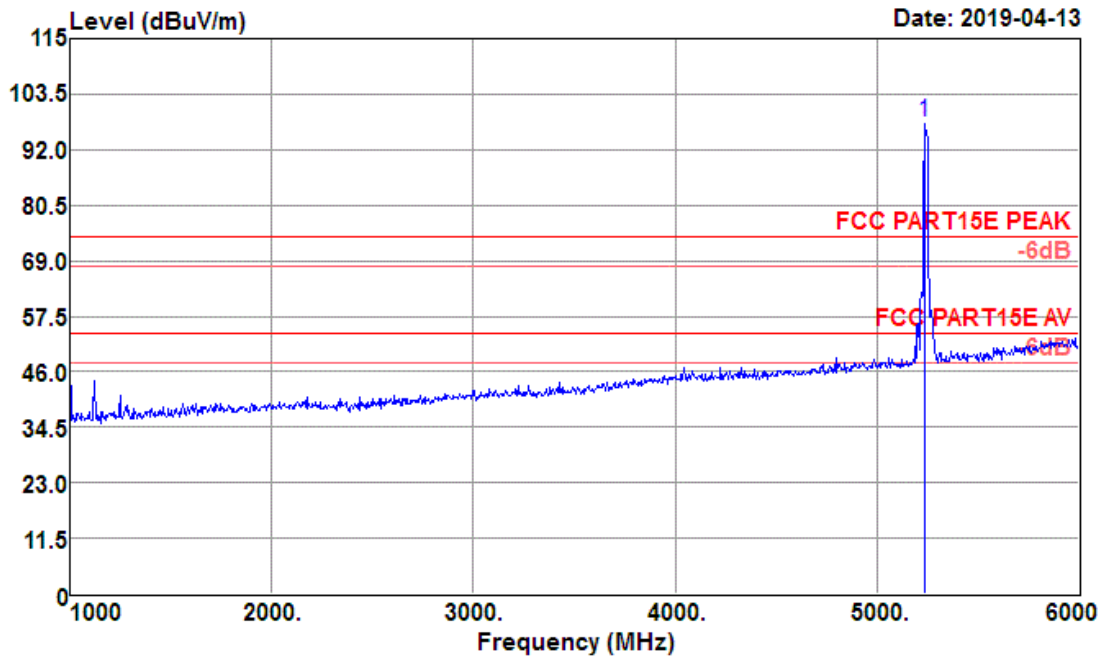




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 n HT20 CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

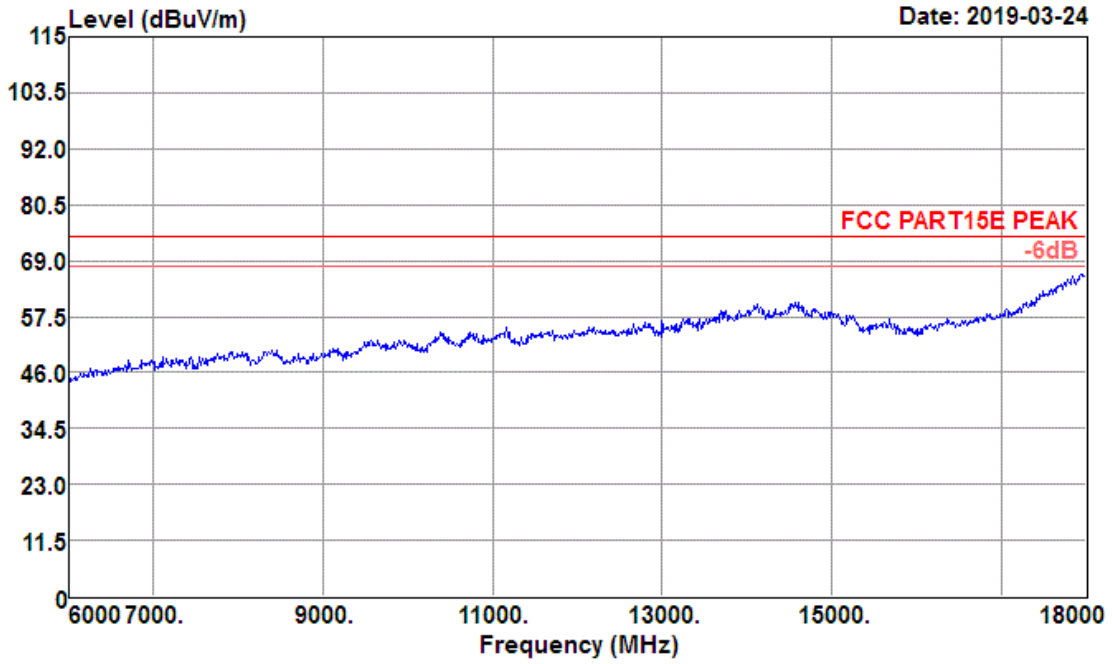
Data: 219

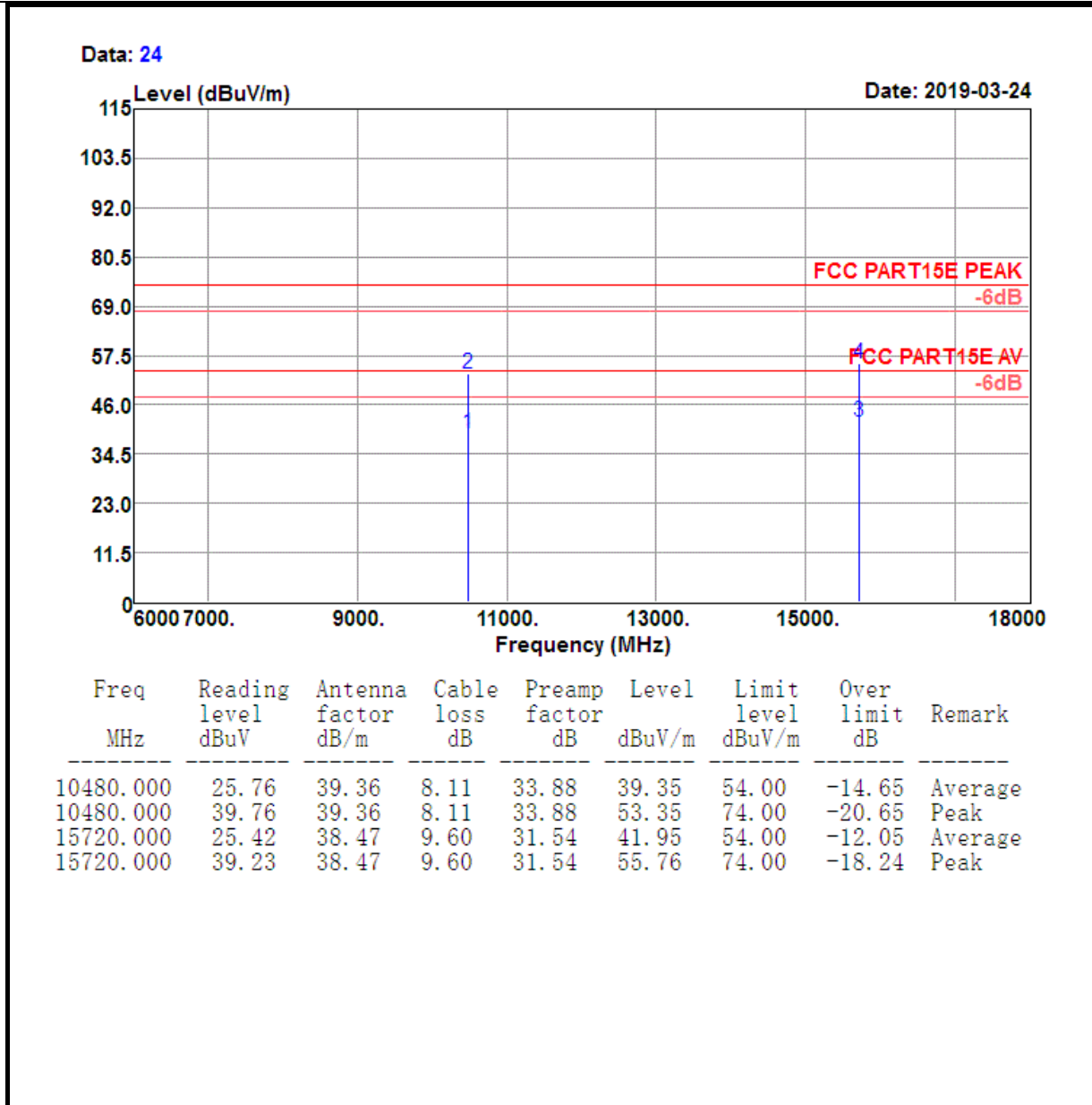


Freq MHz	Reading level dBUV	Antenna factor dB/m	Cable loss dB	Preamplifier factor dB	Level dBUV/m	Limit level dBUV/m	Over limit dB	Remark
5240.000	96.03	31.89	5.57	35.84	97.65	74.00	23.65	Peak

Test Mode :	802.11 n HT20 CH48 5240MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

Data: 23

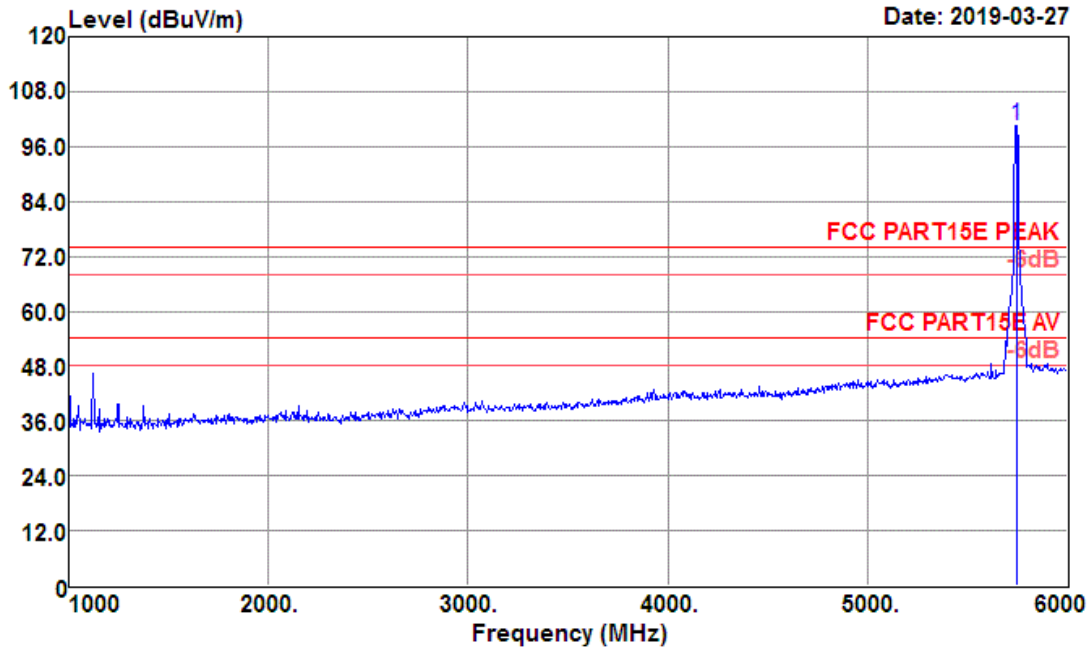




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

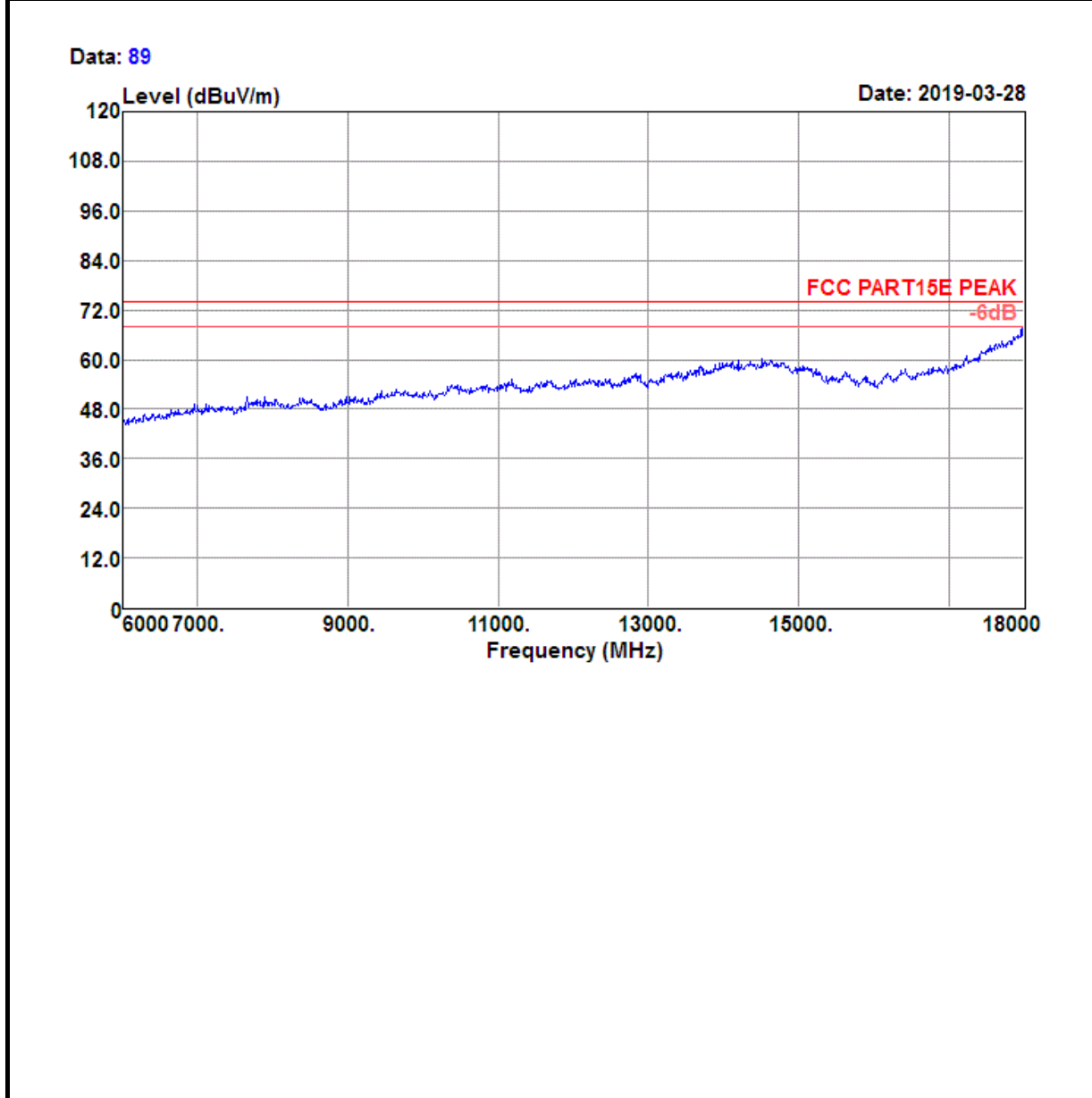
Test Mode :	802.11 n HT20 CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

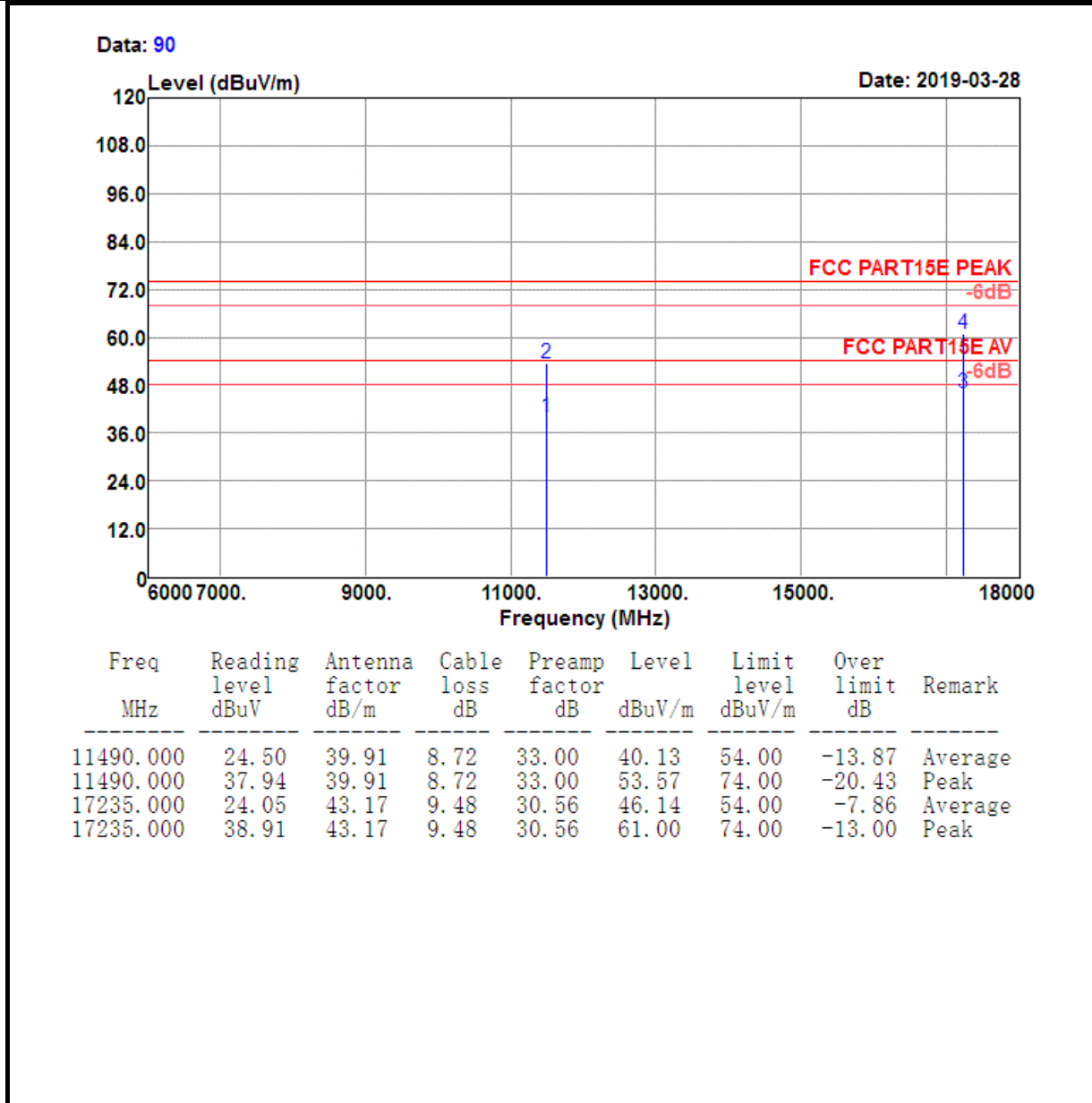
Data: 98



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
5745.000	97.06	32.30	6.45	35.10	100.71	74.00	26.71	Peak

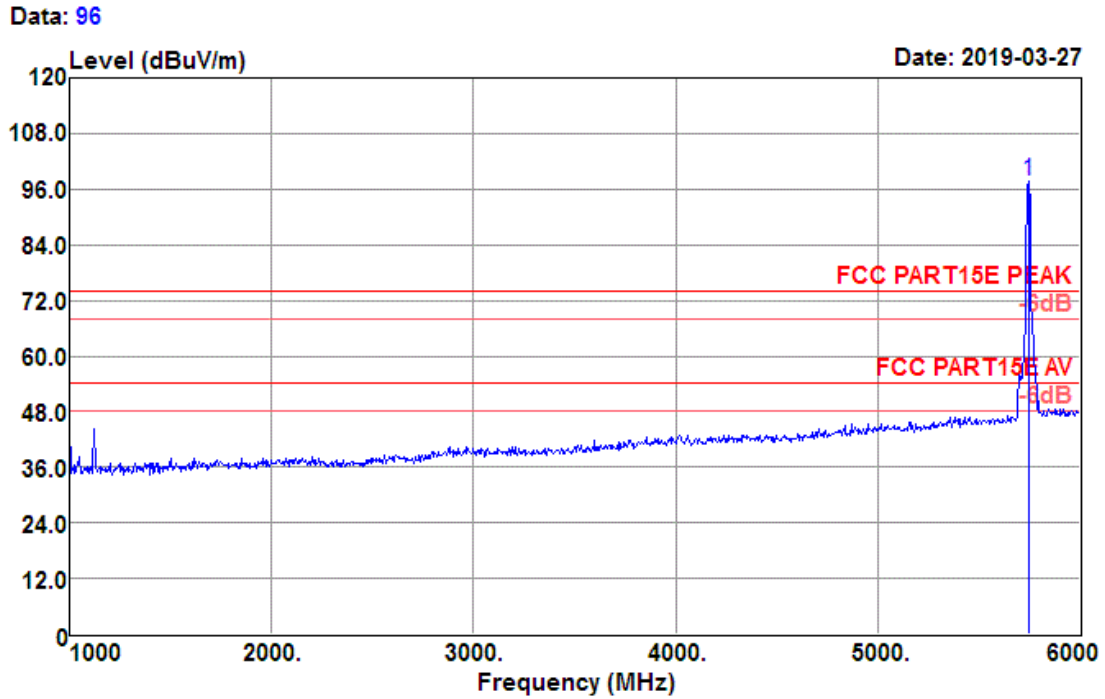
Test Mode :	802.11 n HT20 CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal





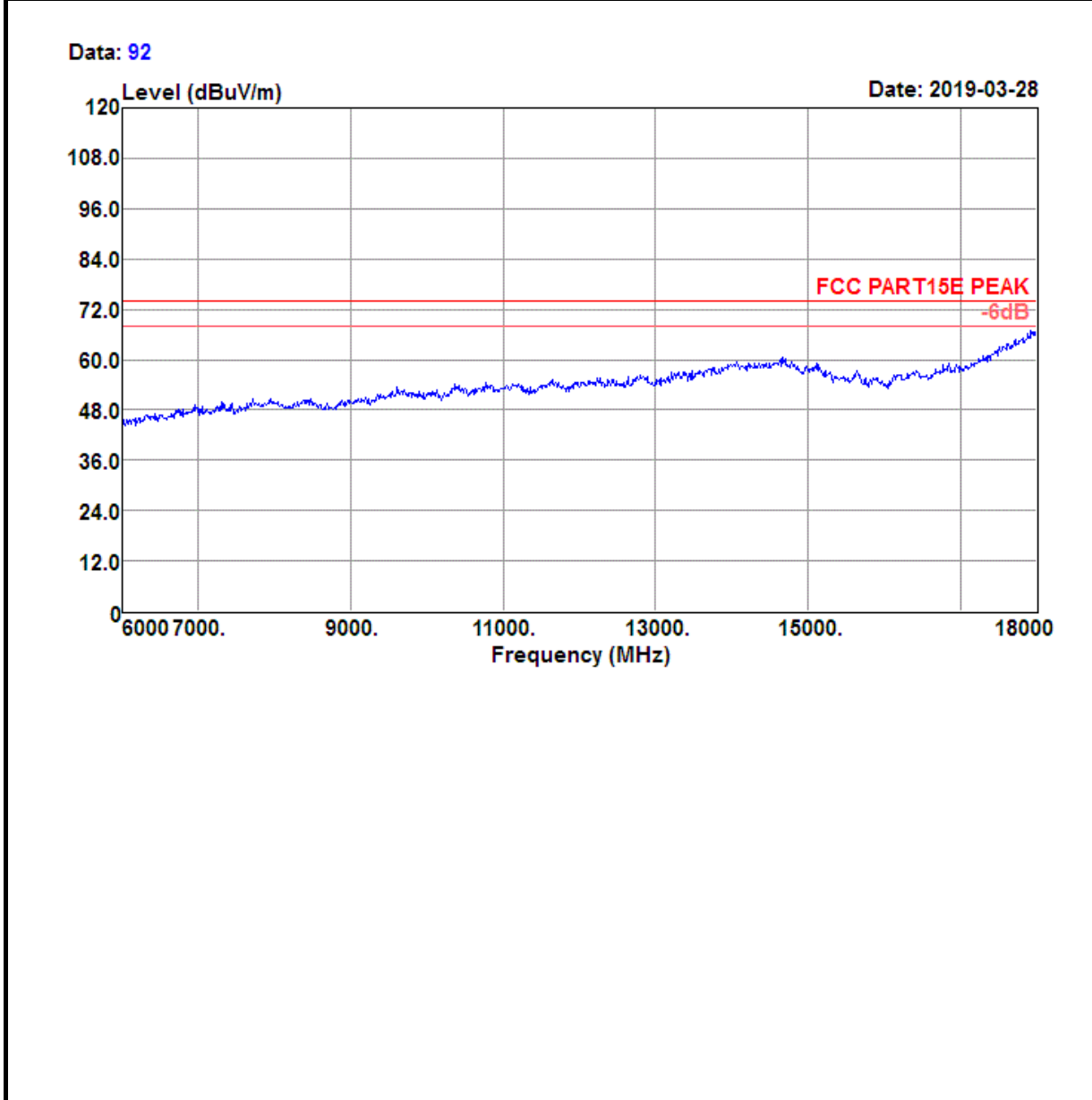
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

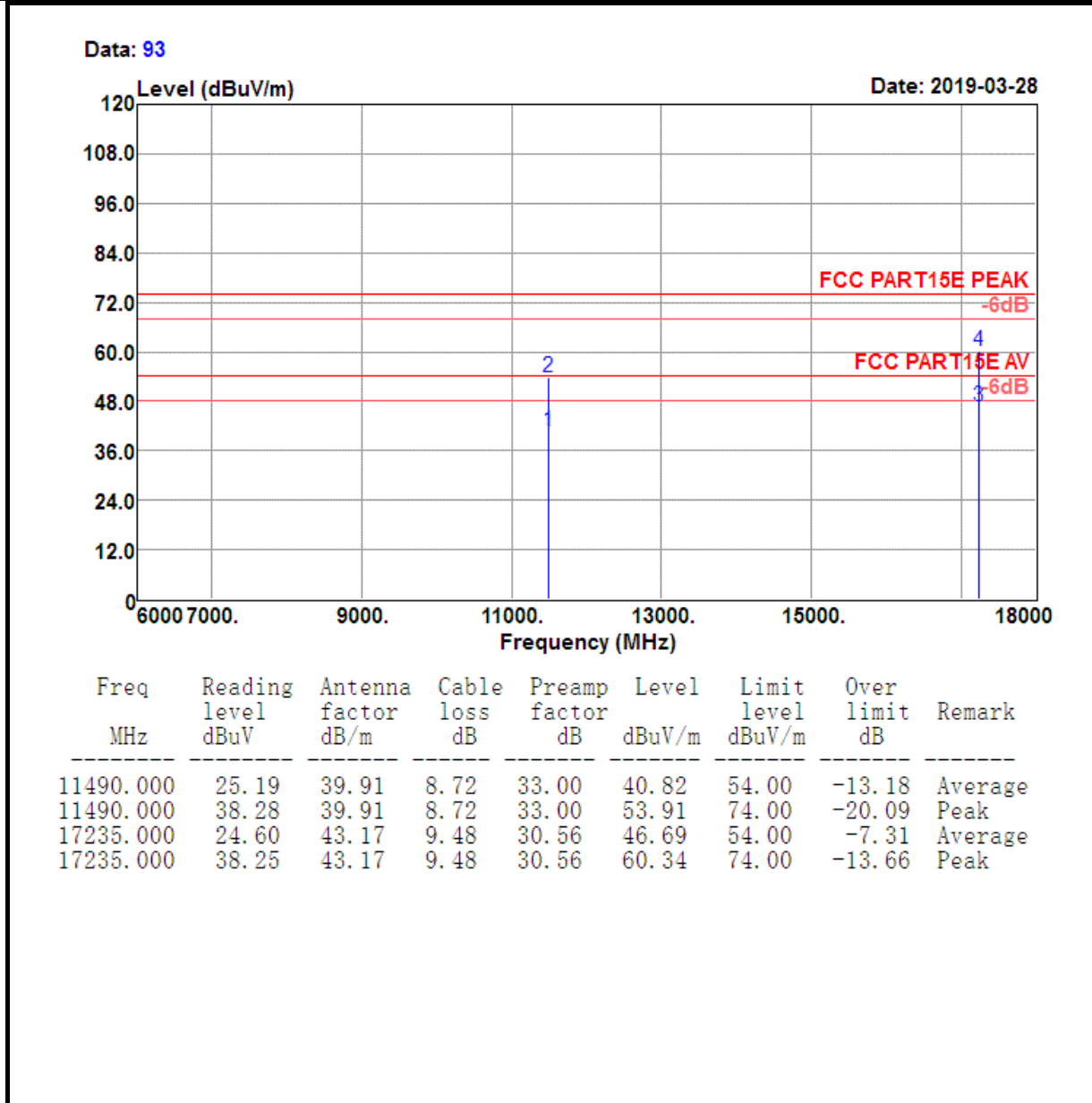
Test Mode :	802.11 n HT20 CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical



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
5745.000	93.96	32.30	6.45	35.10	97.61	74.00	23.61	Peak

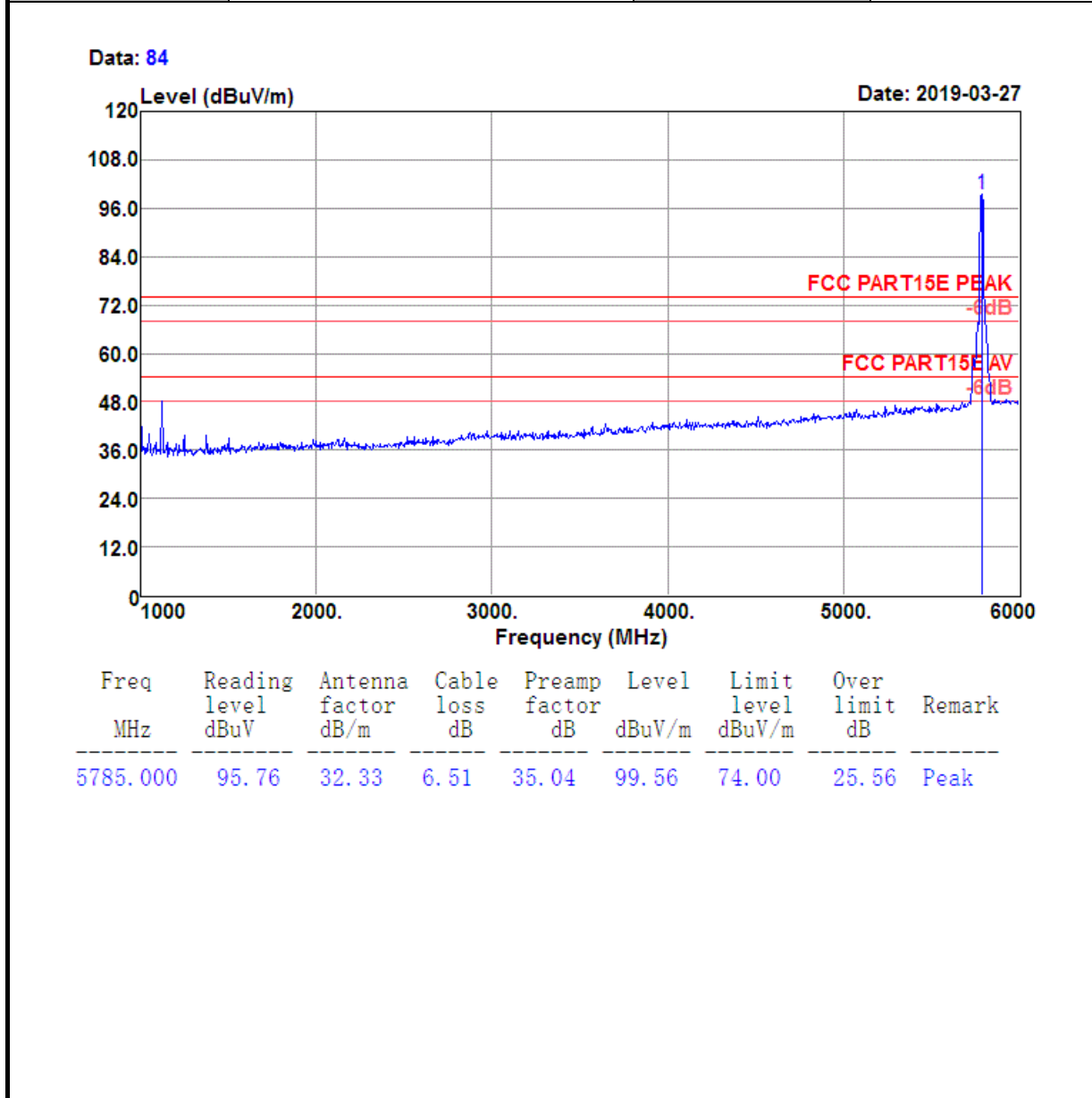
Test Mode :	802.11 n HT20 CH149 5745MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical



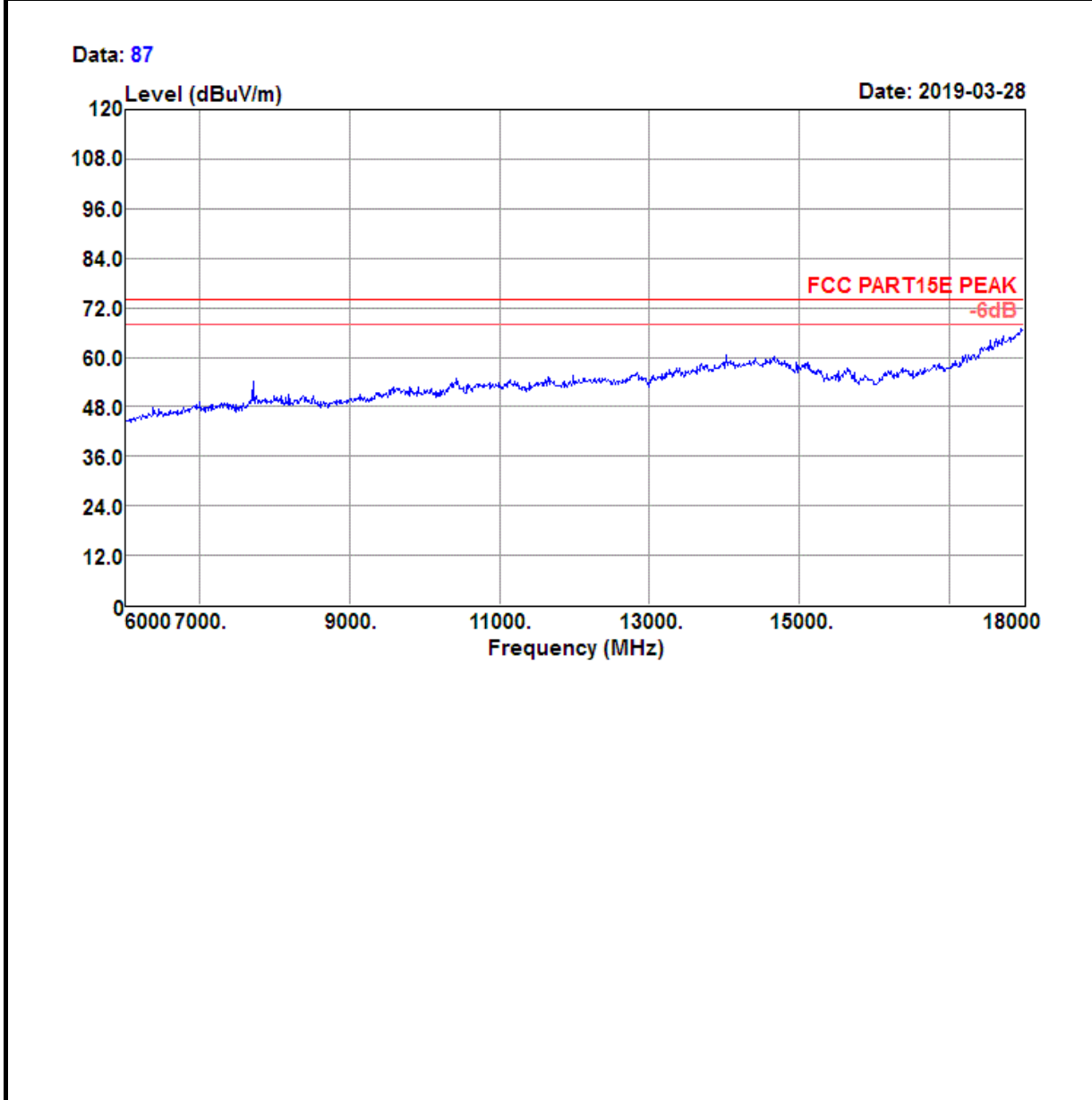


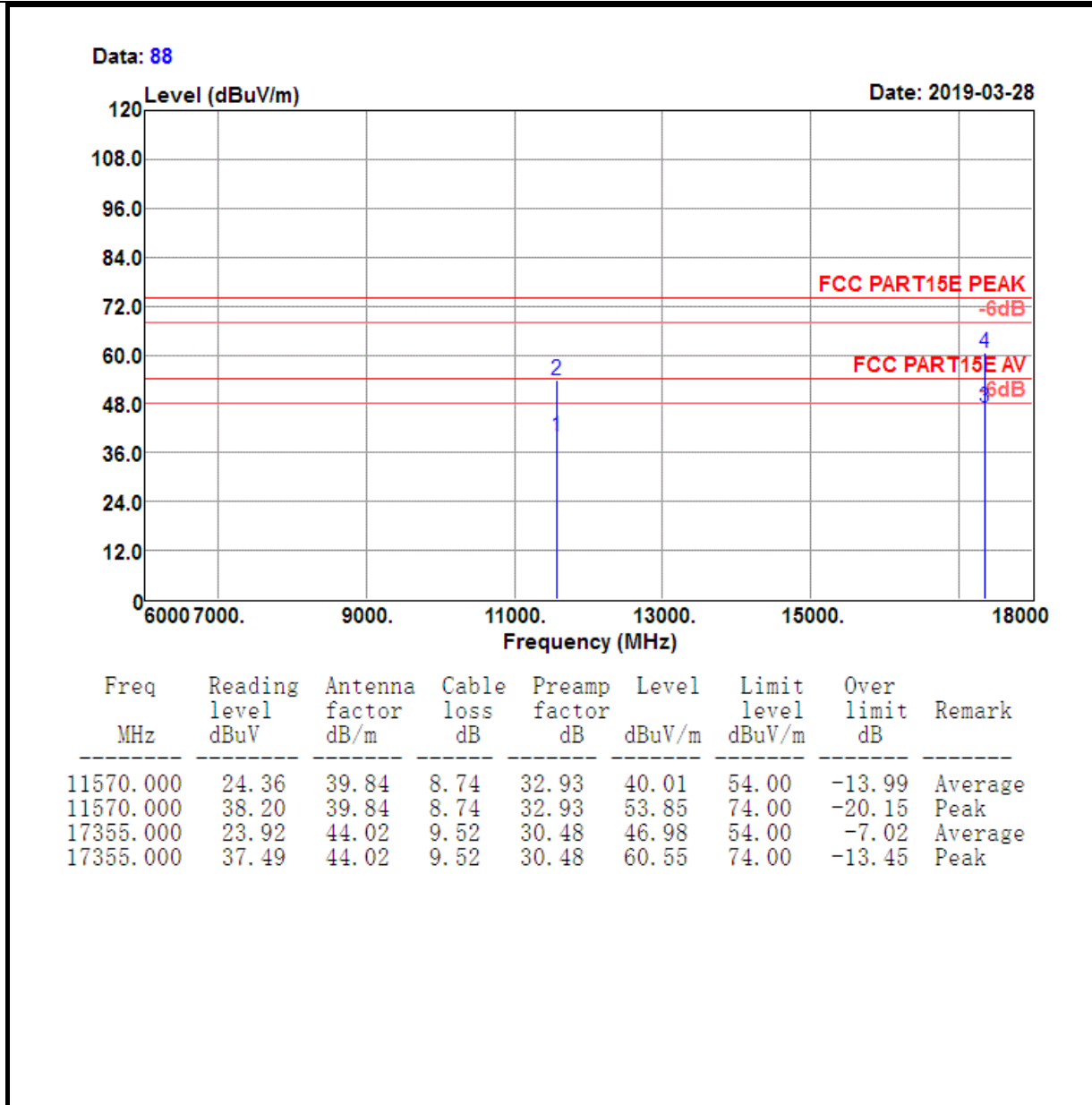
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 n HT20 CH157 5785MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal



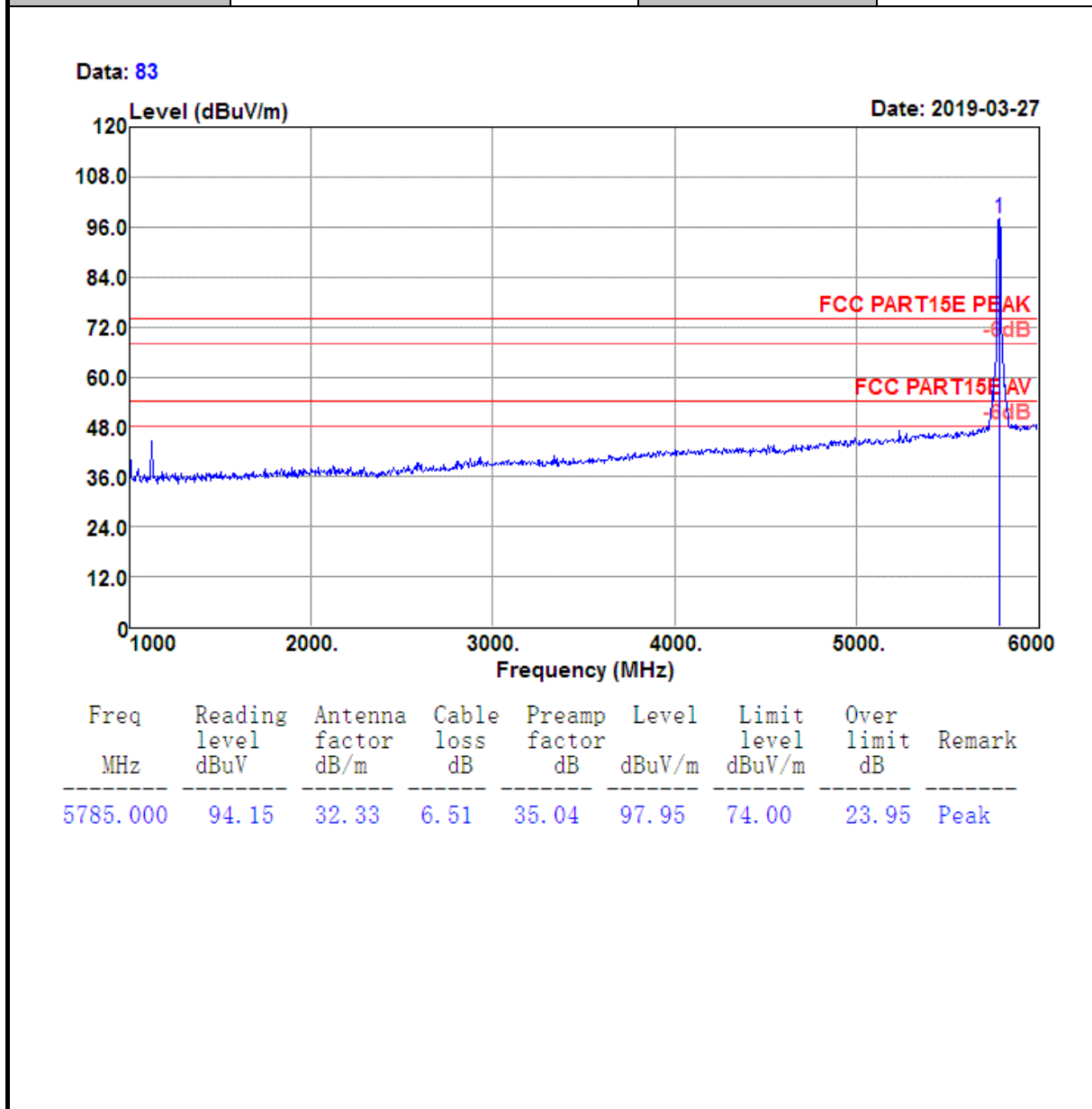
Test Mode :	802.11 n HT20 CH157 5785MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal



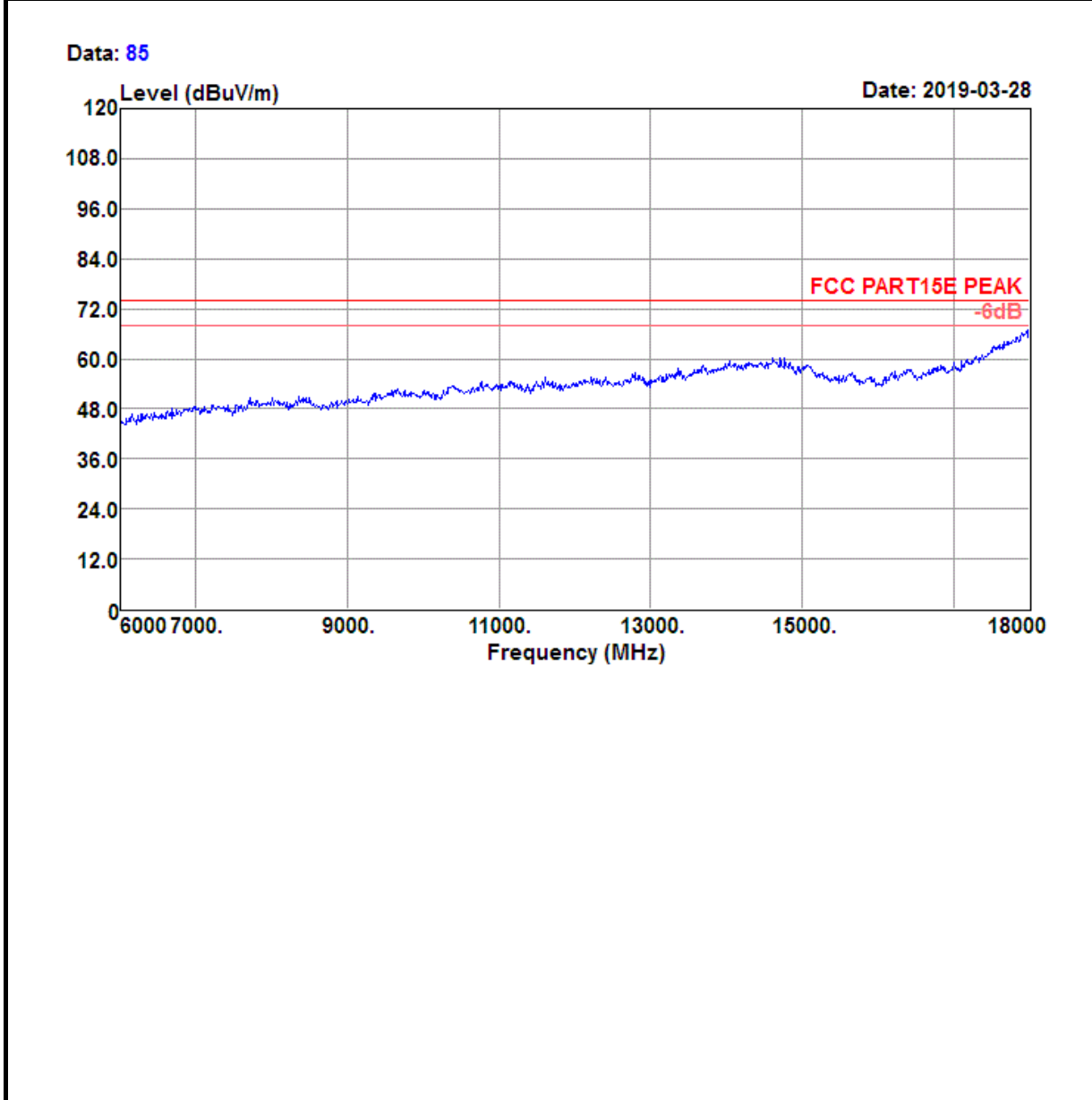


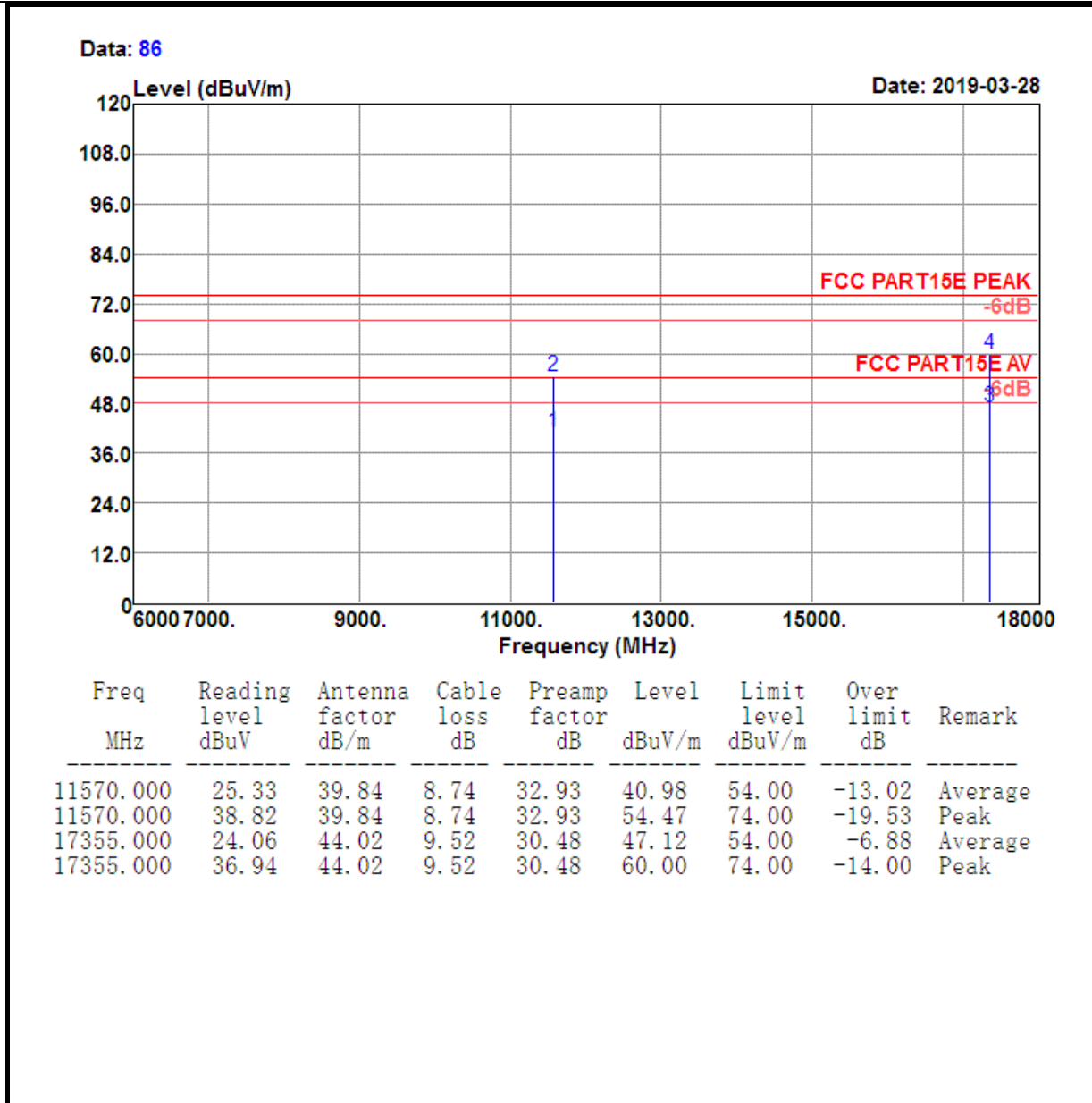
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 n HT20 CH157 5785MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical



Test Mode :	802.11 n HT20 CH157 5785MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

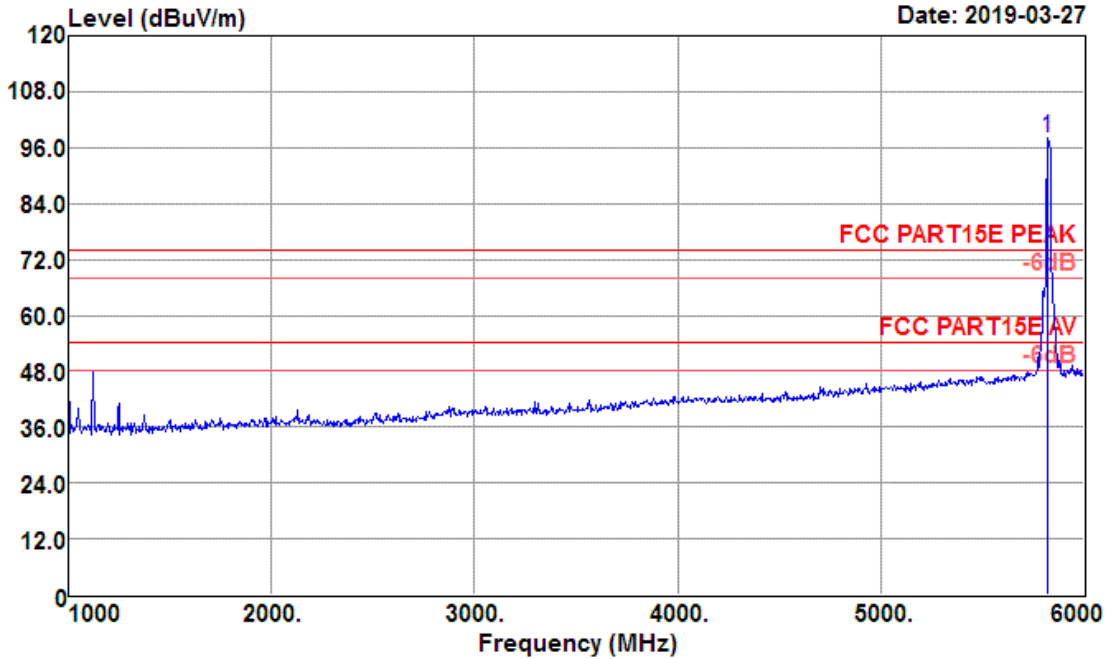




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

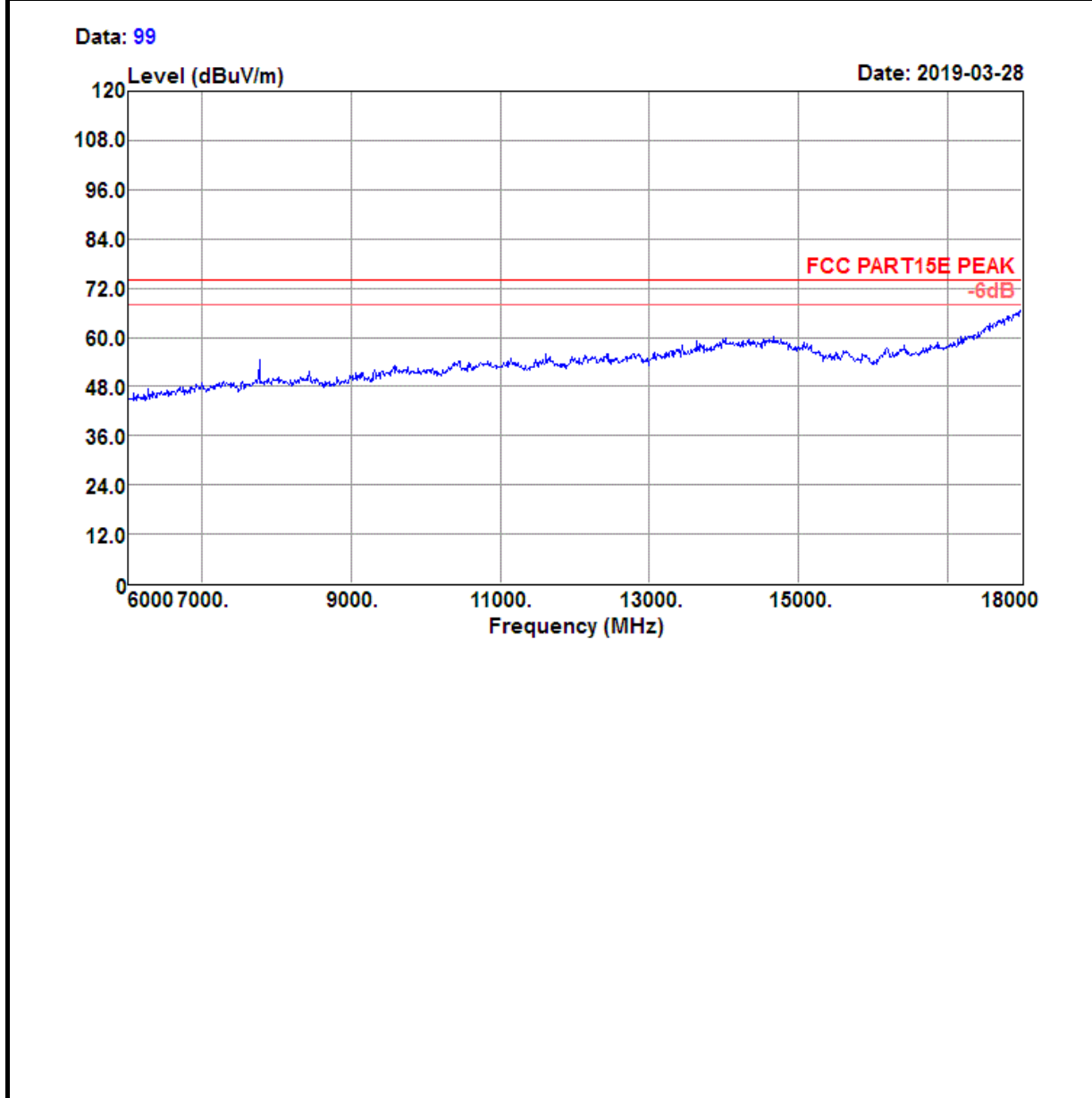
Test Mode :	802.11 n HT20 CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

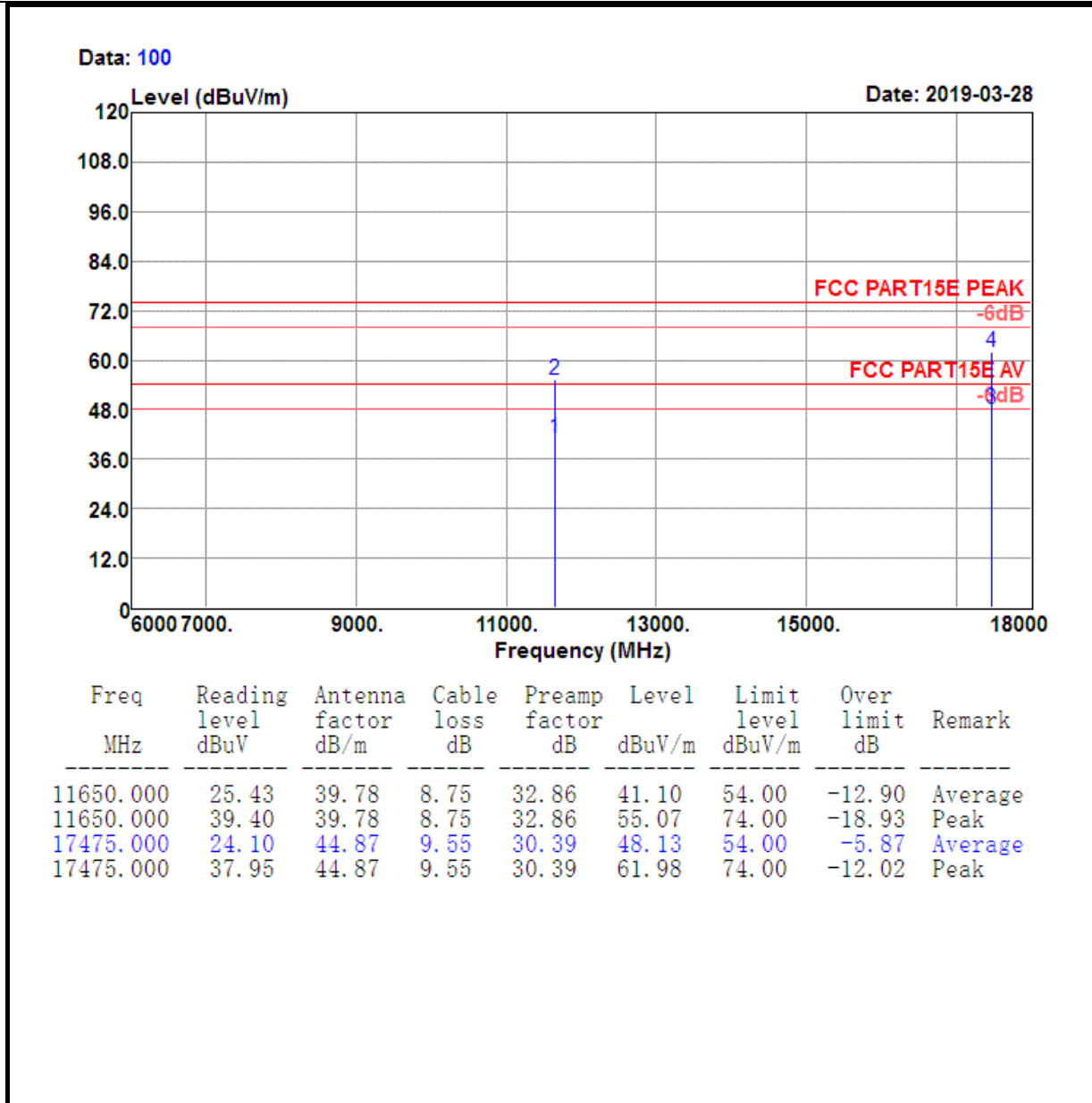
Data: 108



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
5825.000	94.16	32.36	6.53	34.98	98.07	74.00	24.07	Peak

Test Mode :	802.11 n HT20 CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

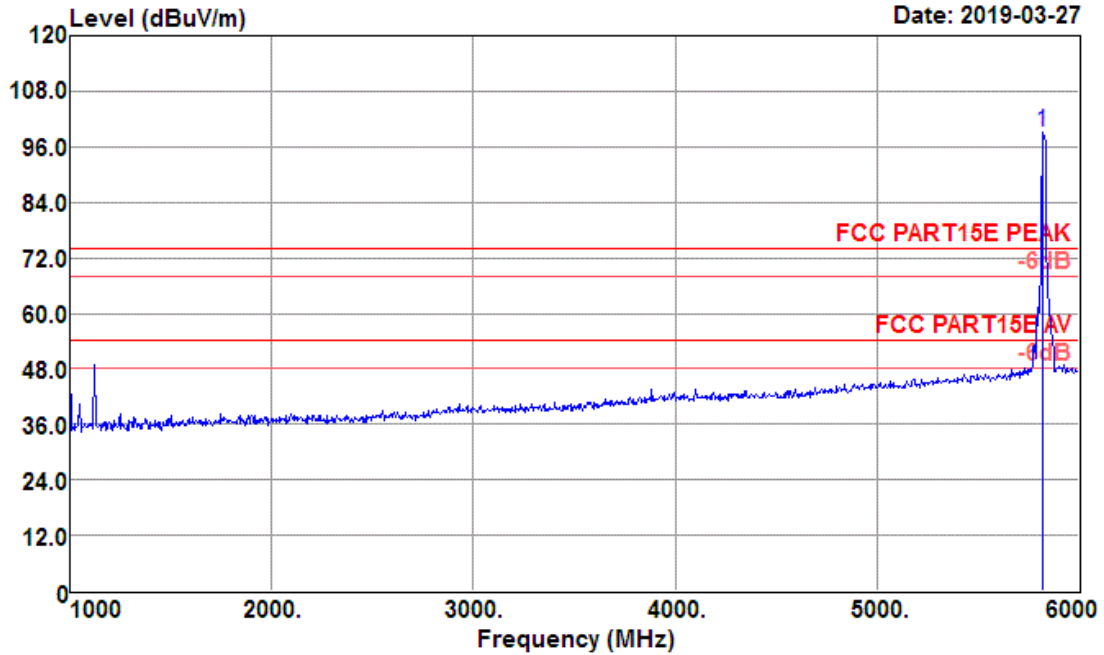




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

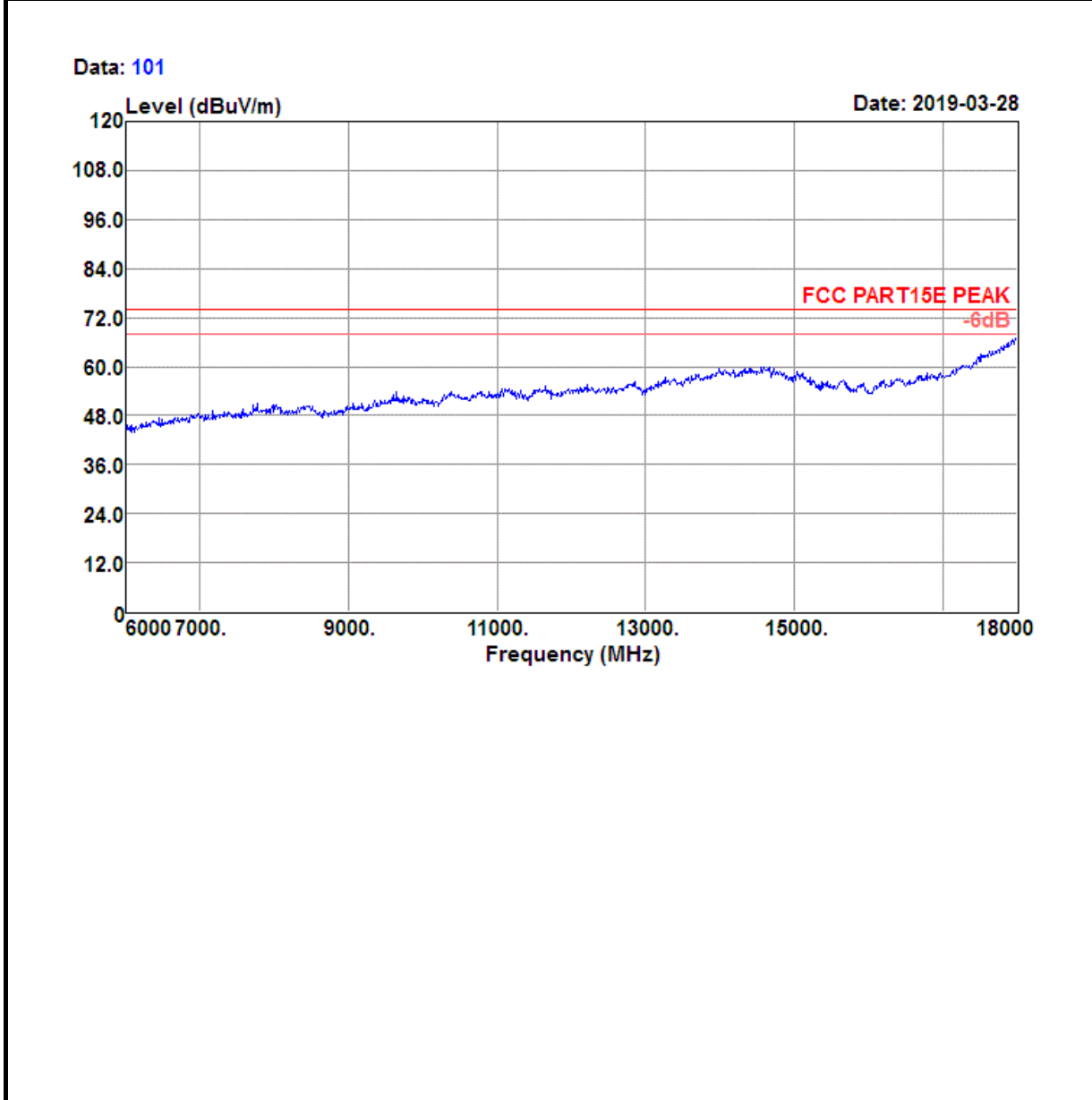
Test Mode :	802.11 n HT20 CH165 5825MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

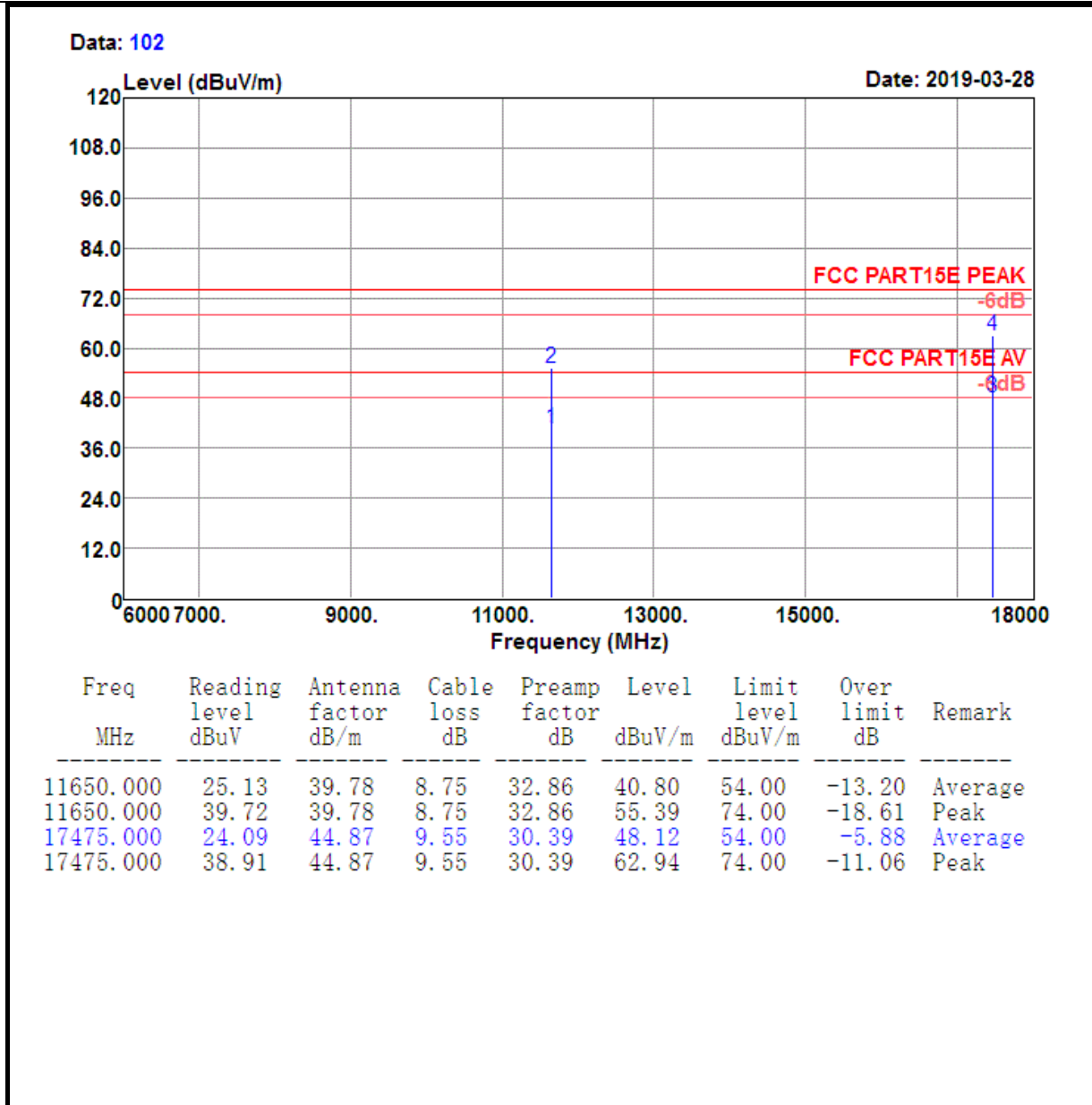
Data: 105



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
5825.000	95.18	32.36	6.53	34.98	99.09	74.00	25.09	Peak

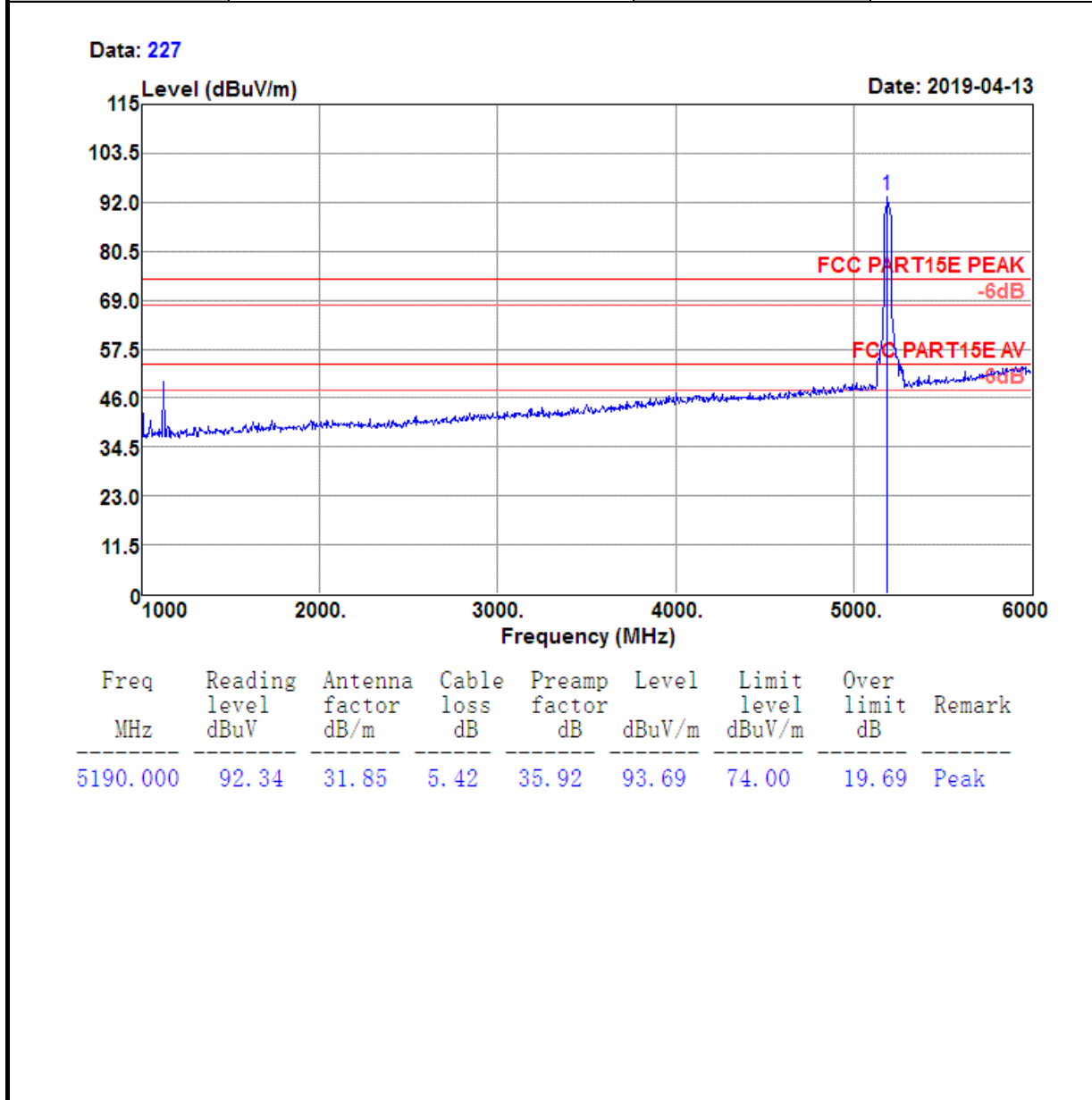
Test Mode :	802.11 n HT20 CH165 5825MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical





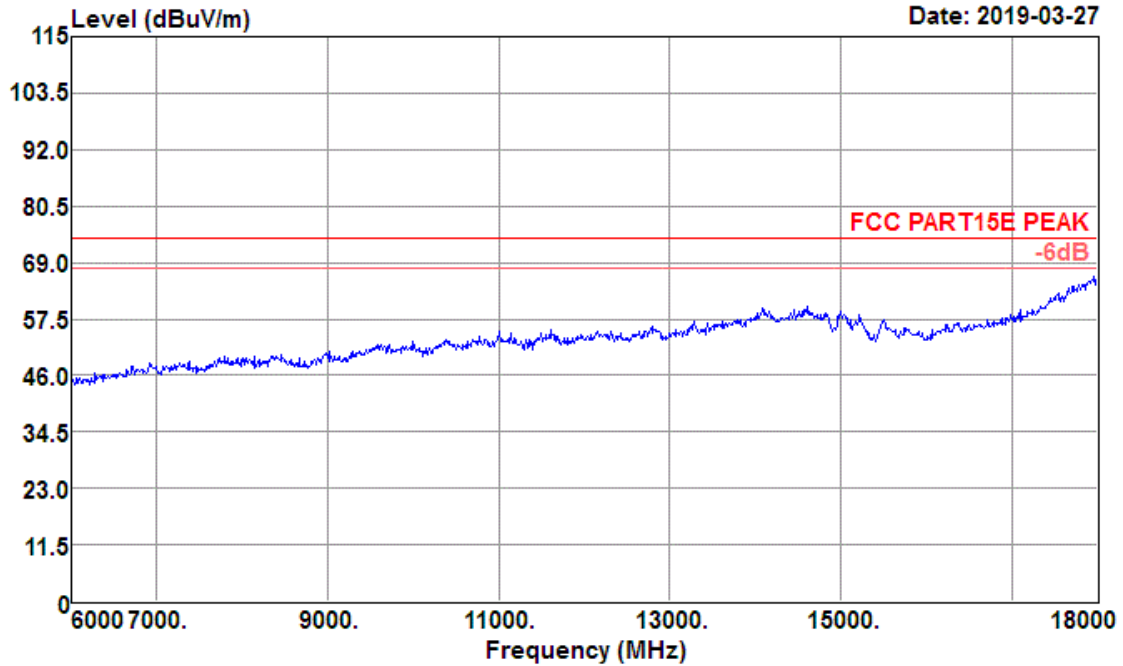
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

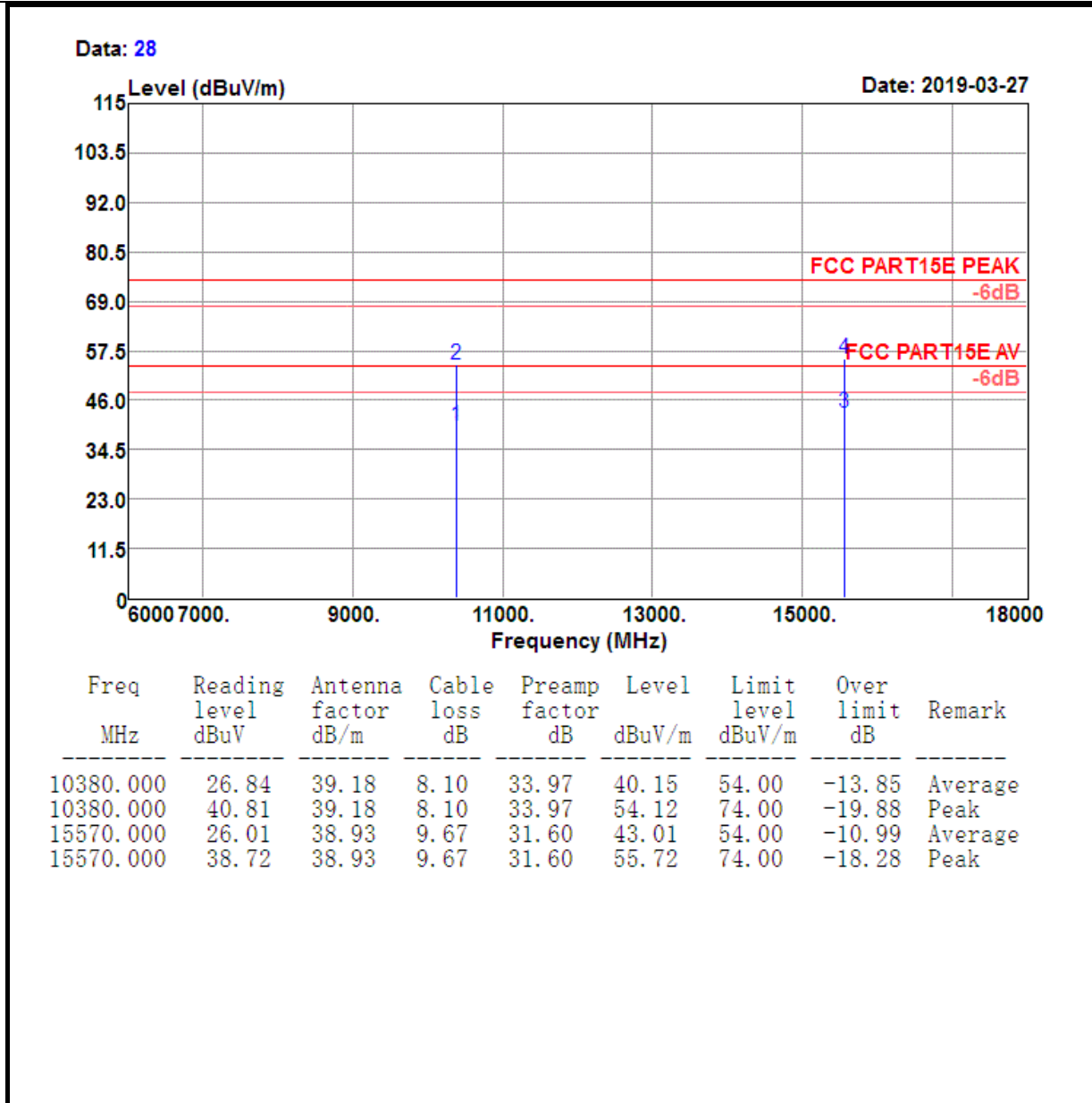
Test Mode :	802.11n HT40 CH38 5190MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal



Test Mode :	802.11n HT40 CH38 5190MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

Data: 27

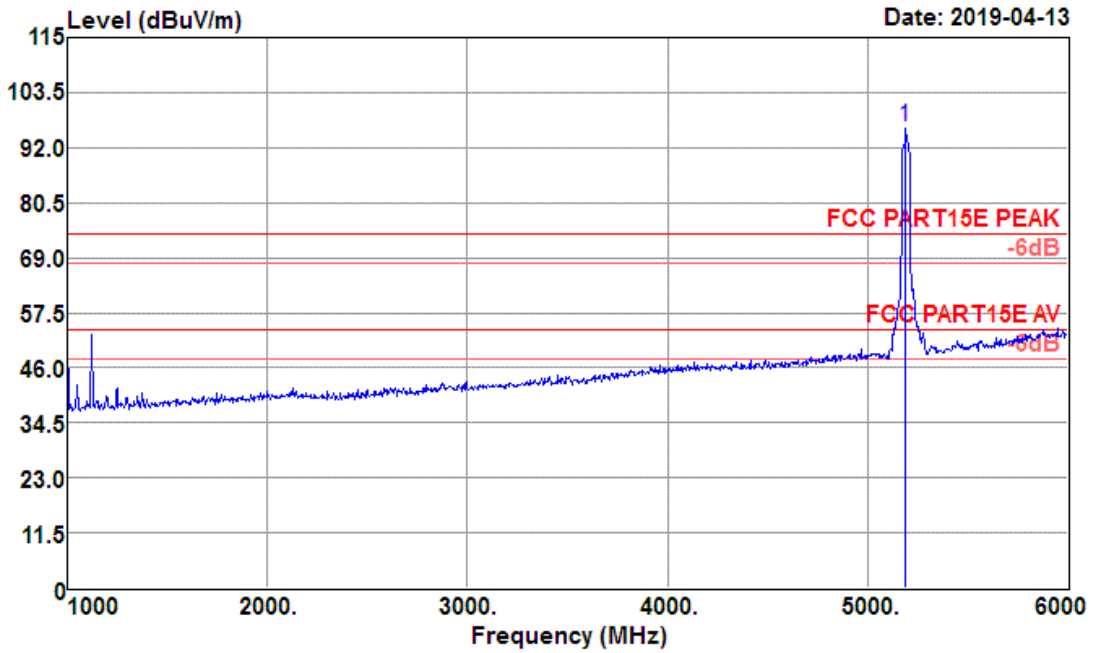




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

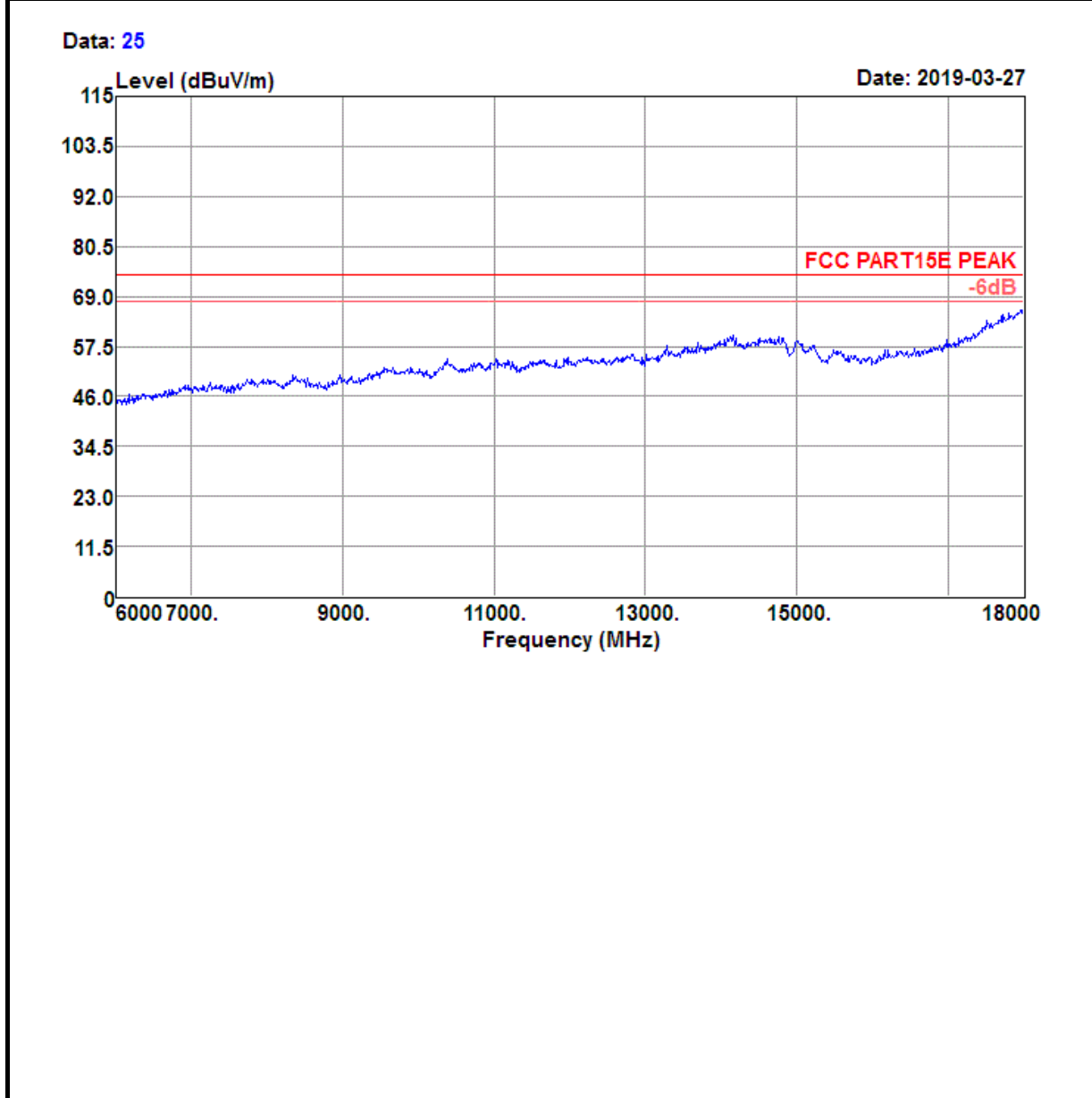
Test Mode :	802.11n HT40 CH38 5190MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

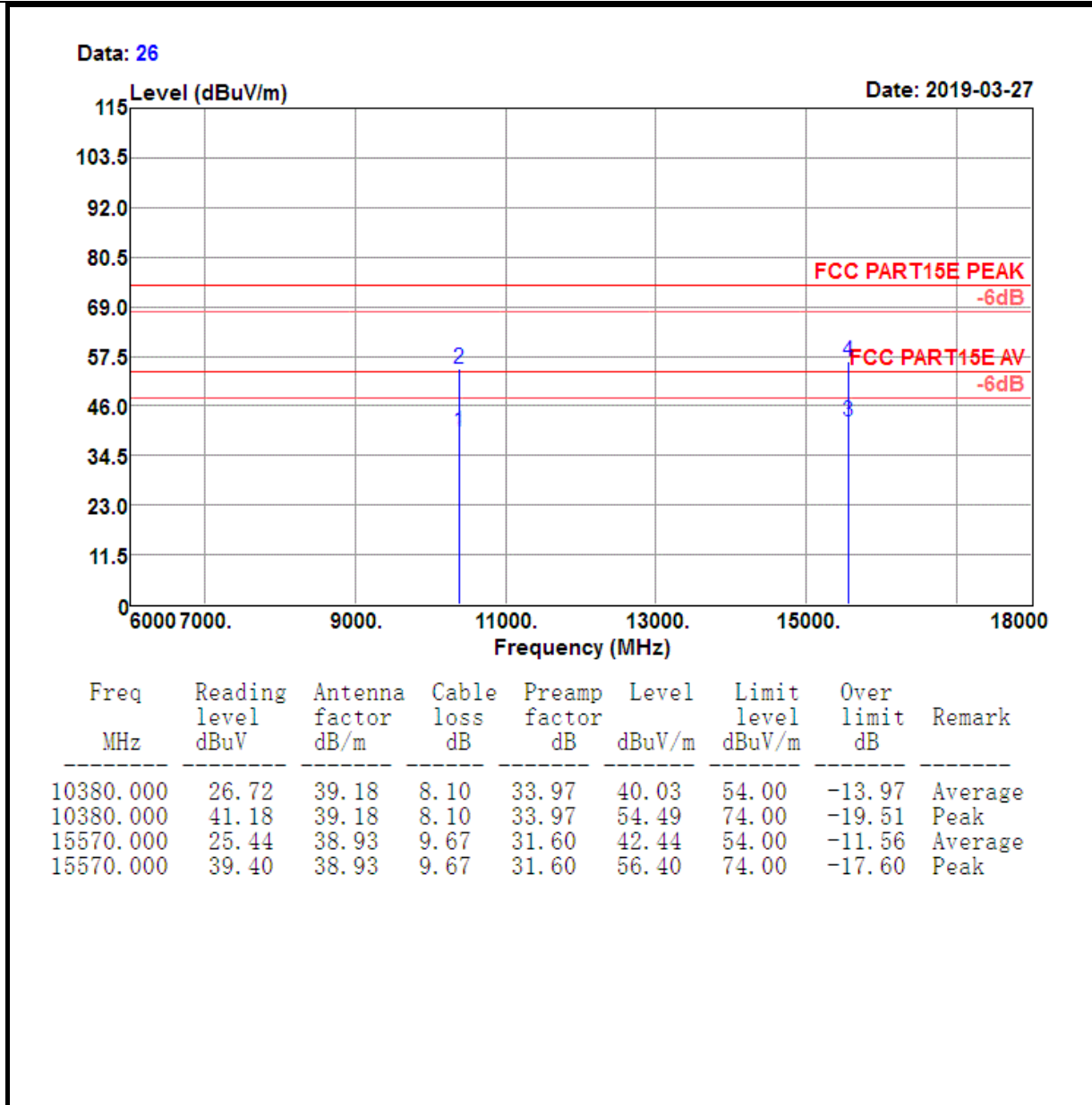
Data: 228



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
5190.000	94.86	31.85	5.42	35.92	96.21	74.00	22.21	Peak

Test Mode :	802.11n HT40 CH38 5190MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

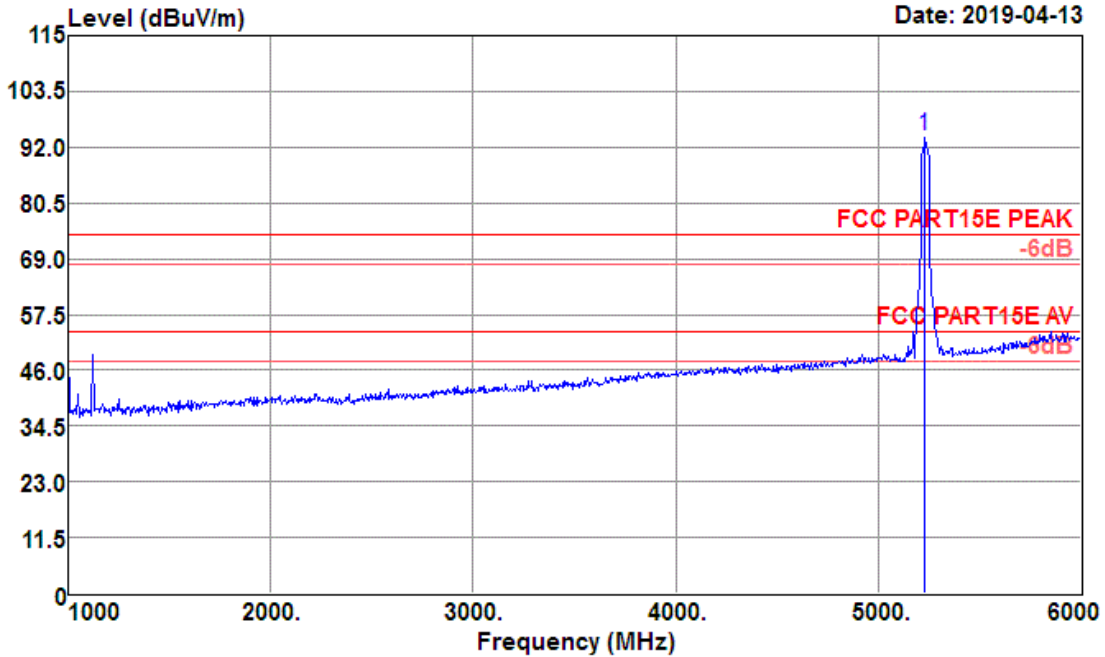




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

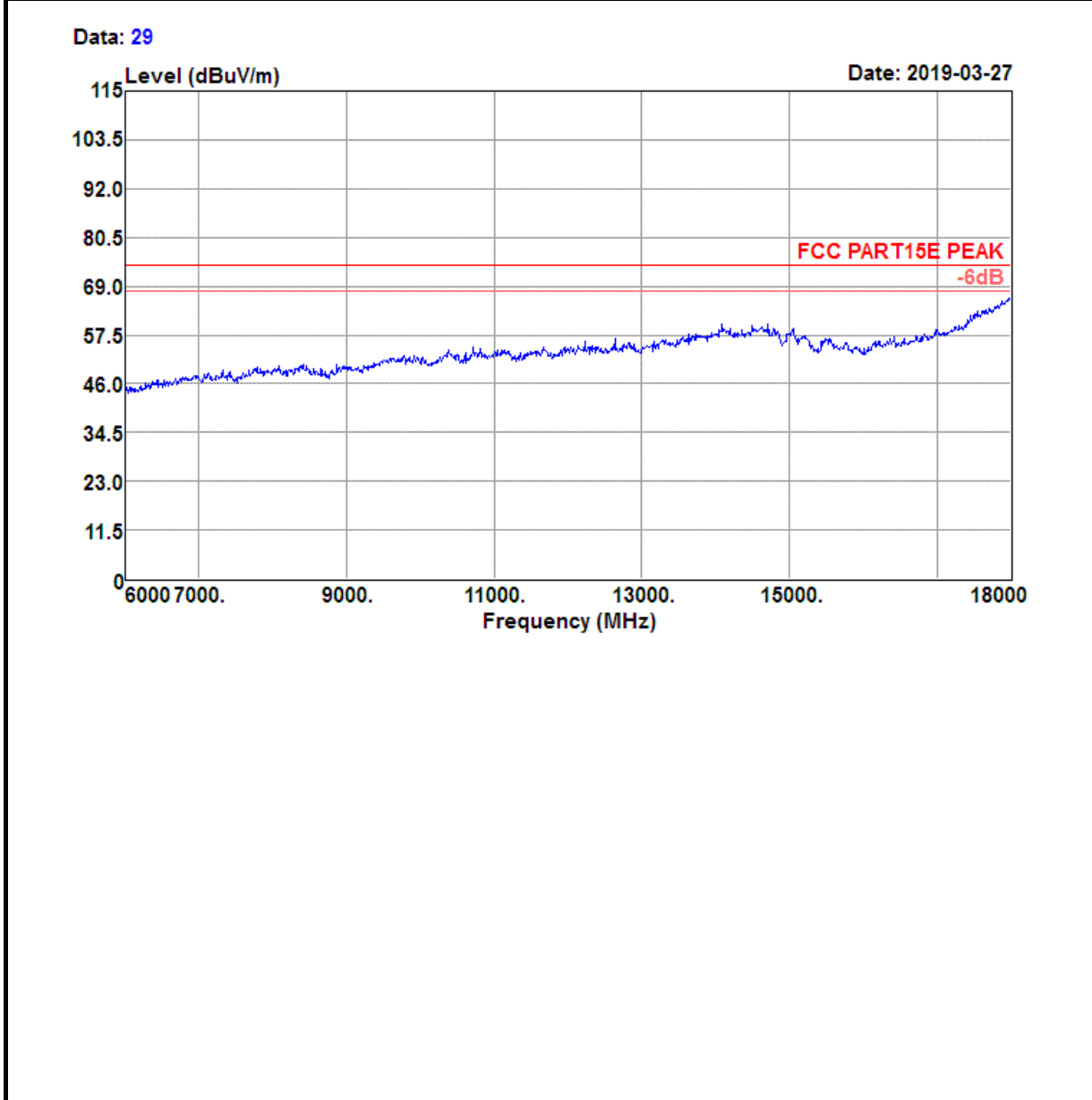
Test Mode :	802.11 n HT40 CH46 5230MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

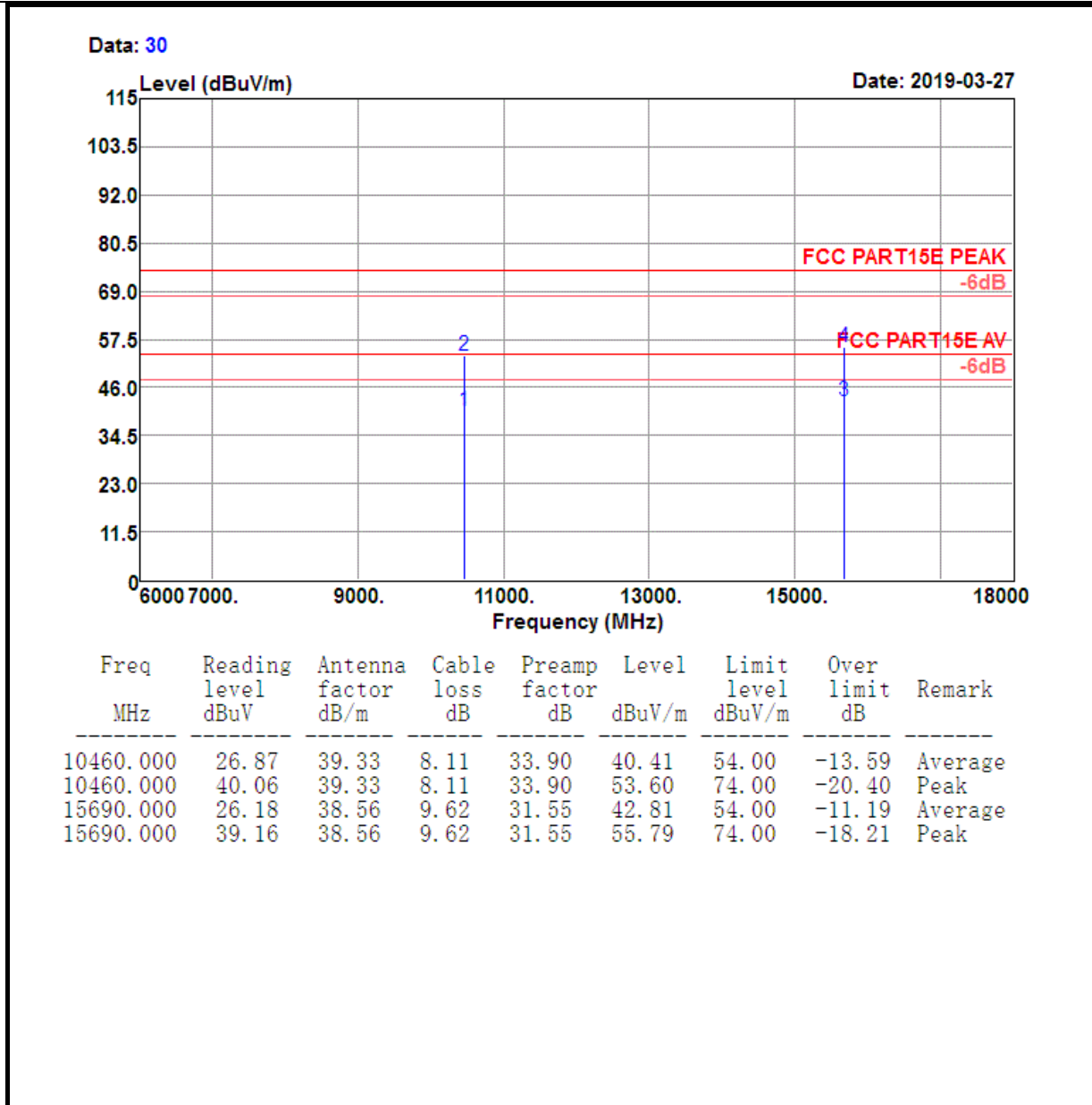
Data: 234



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
5230.000	92.84	31.88	5.53	35.86	94.39	74.00	20.39	Peak

Test Mode :	802.11 n HT40 CH46 5230MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

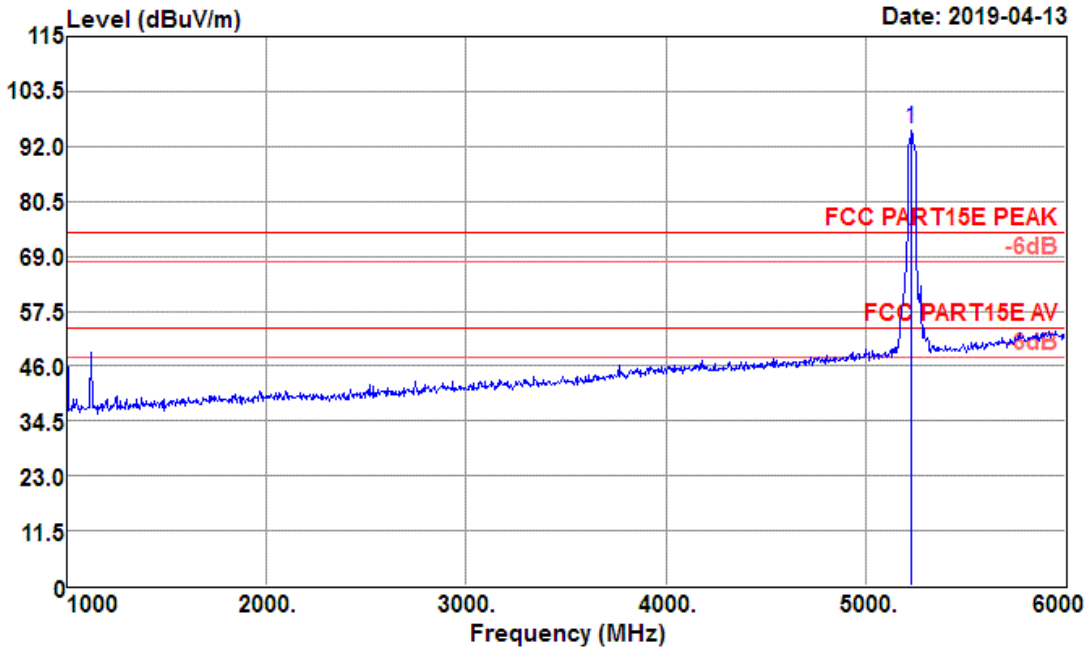




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

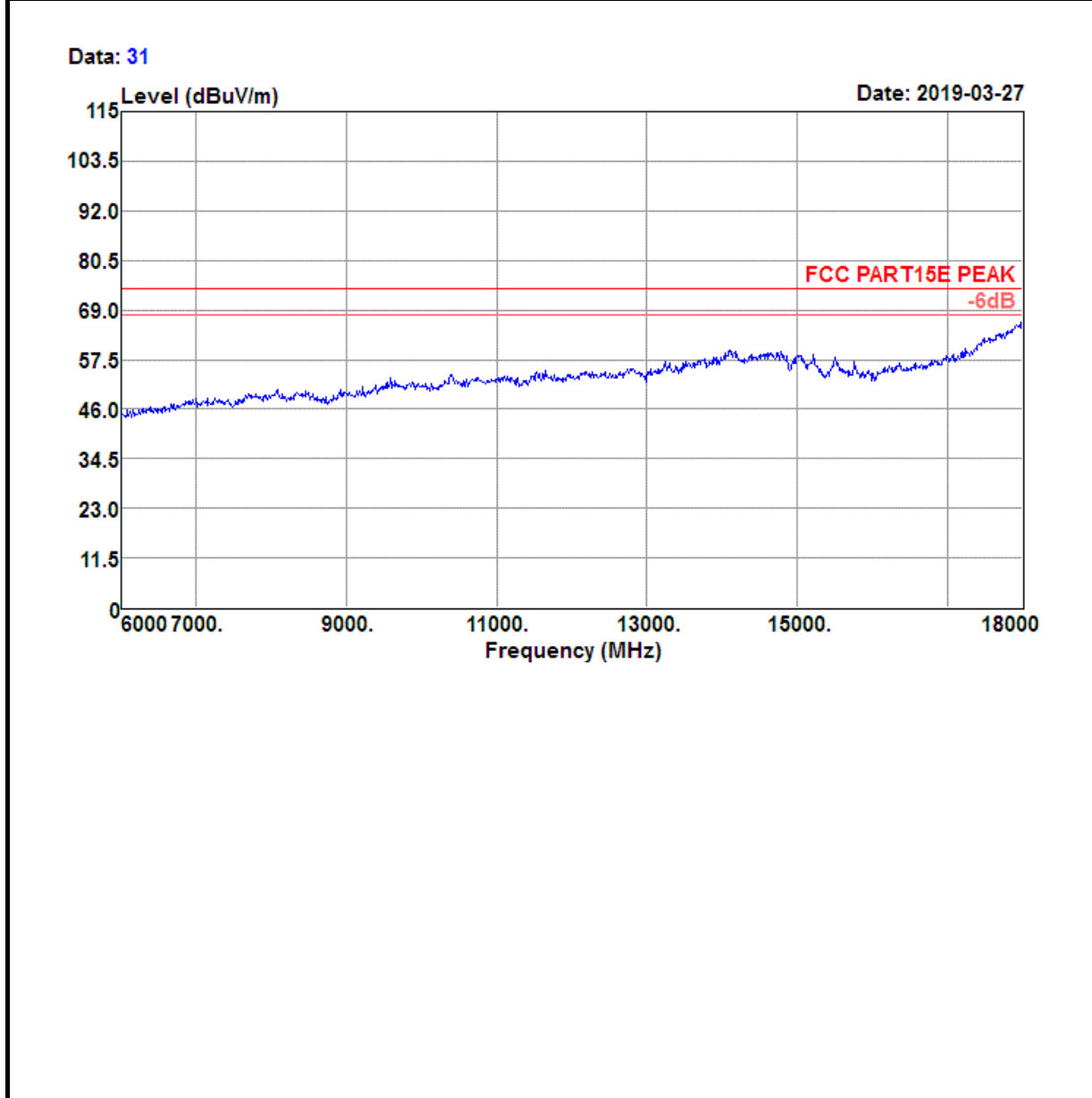
Test Mode :	802.11 n HT40 CH46 5230MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

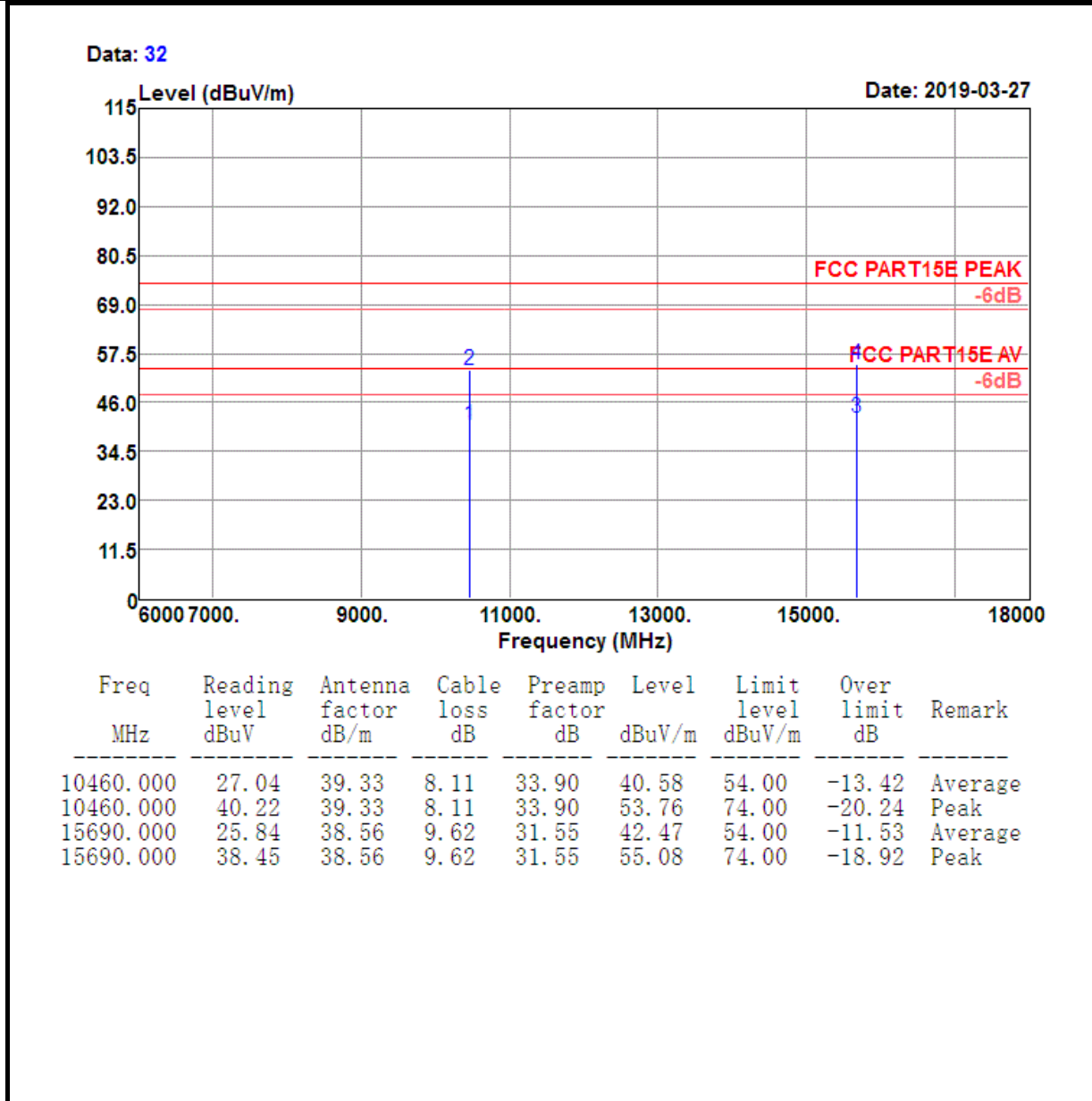
Data: 233



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
5230.000	94.17	31.88	5.53	35.86	95.72	74.00	21.72	Peak

Test Mode :	802.11 n HT40 CH46 5230MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

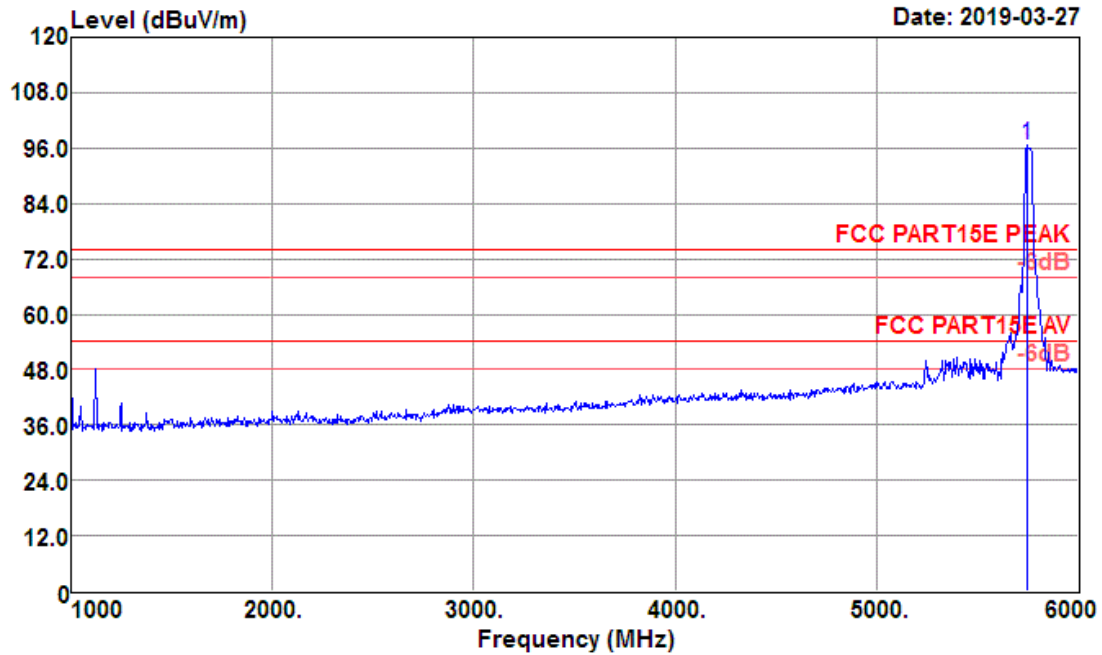




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 n HT40 CH151 5755MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

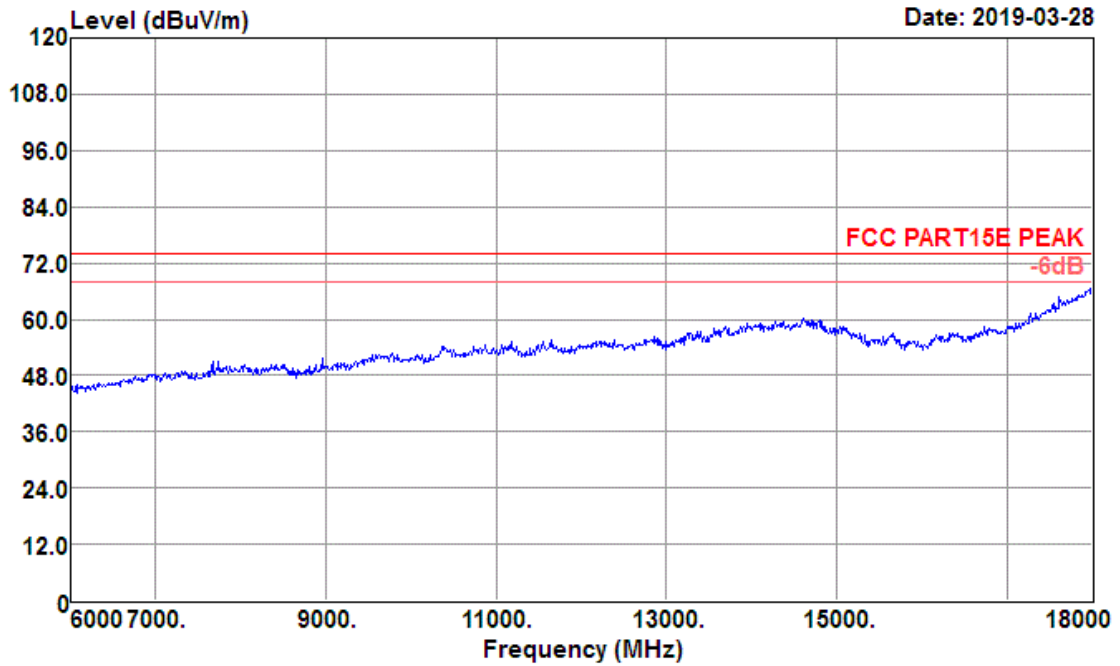
Data: 135

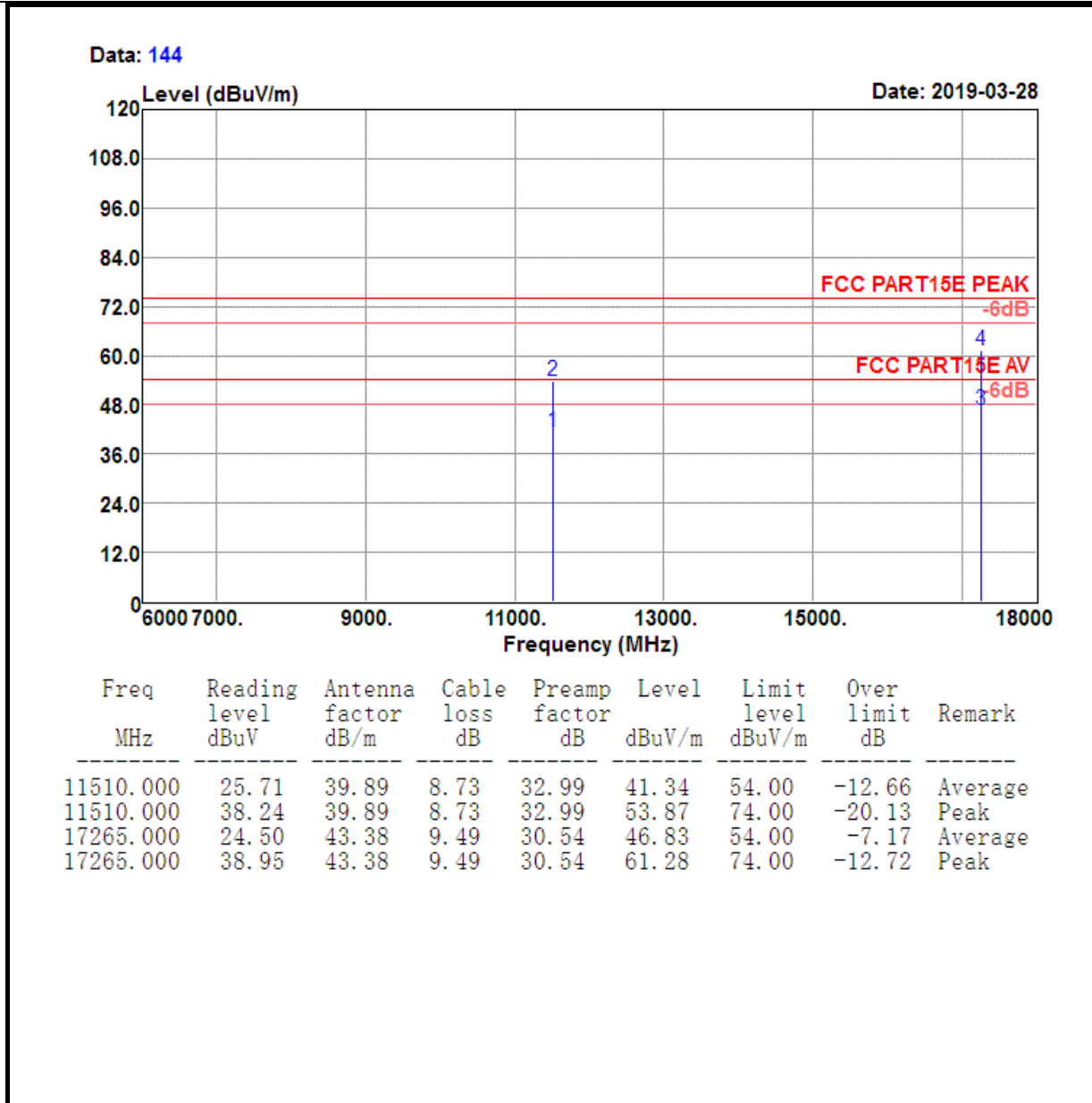


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5745.000	93.04	32.30	6.45	35.10	96.69	74.00	22.69	Peak

Test Mode :	802.11 n HT40 CH151 5755MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

Data: 143

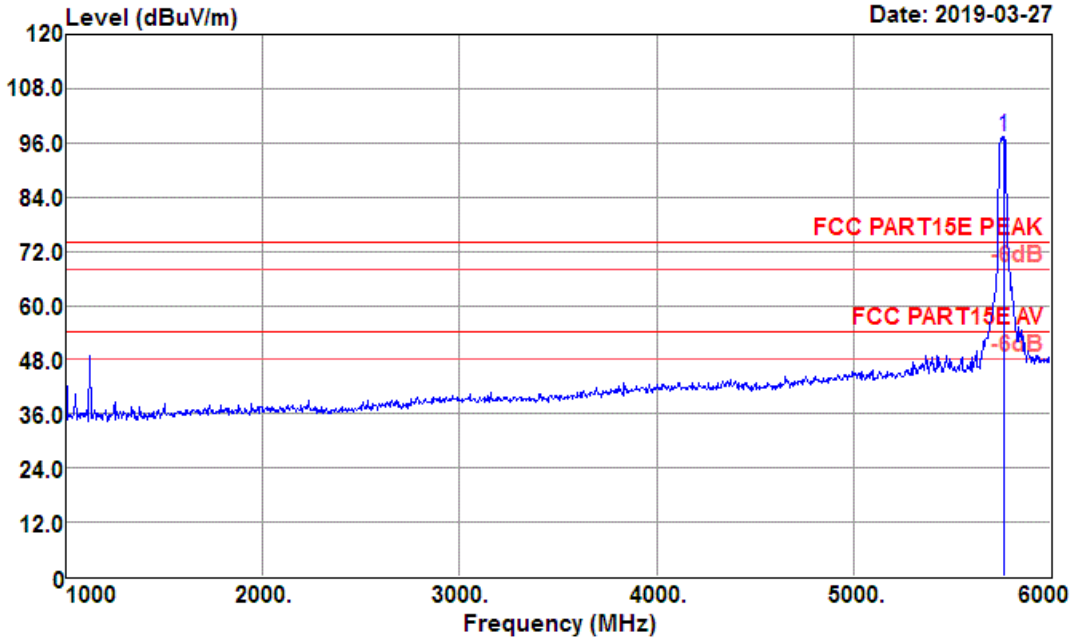




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

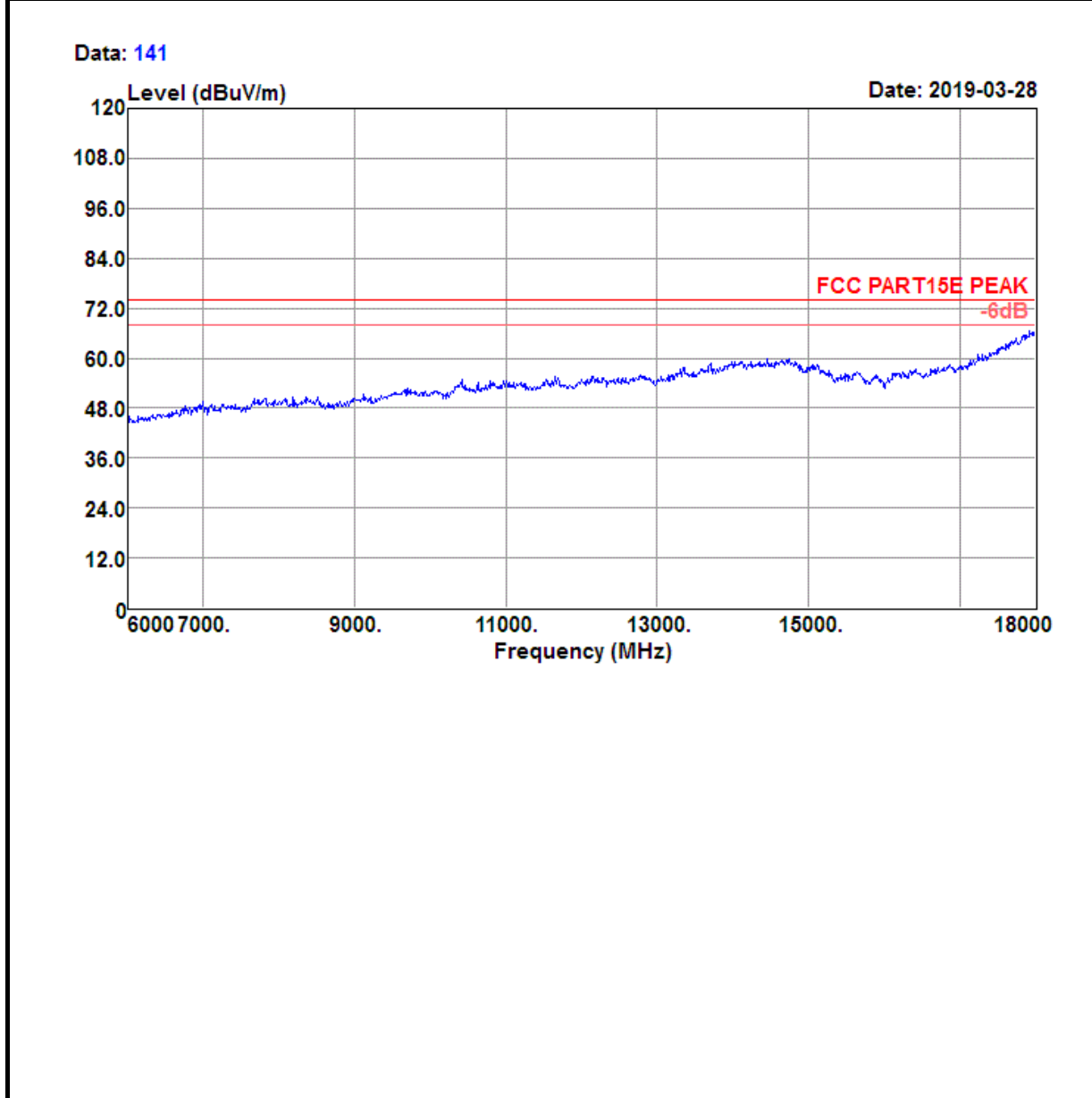
Test Mode :	802.11 n HT40 CH151 5755MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

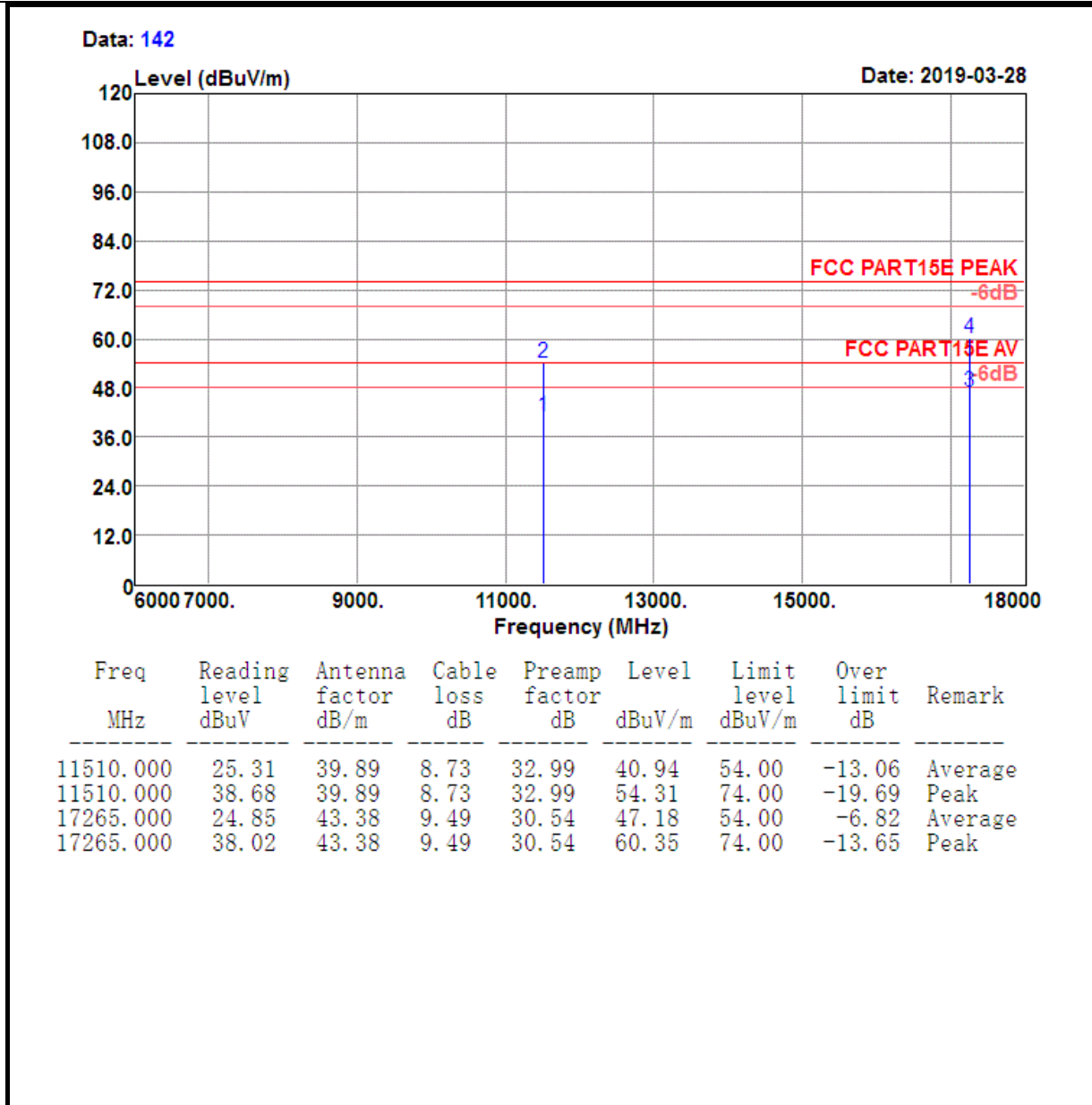
Data: 138



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
5765.000	93.79	32.31	6.48	35.07	97.51	74.00	23.51	Peak

Test Mode :	802.11 n HT40 CH151 5755MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

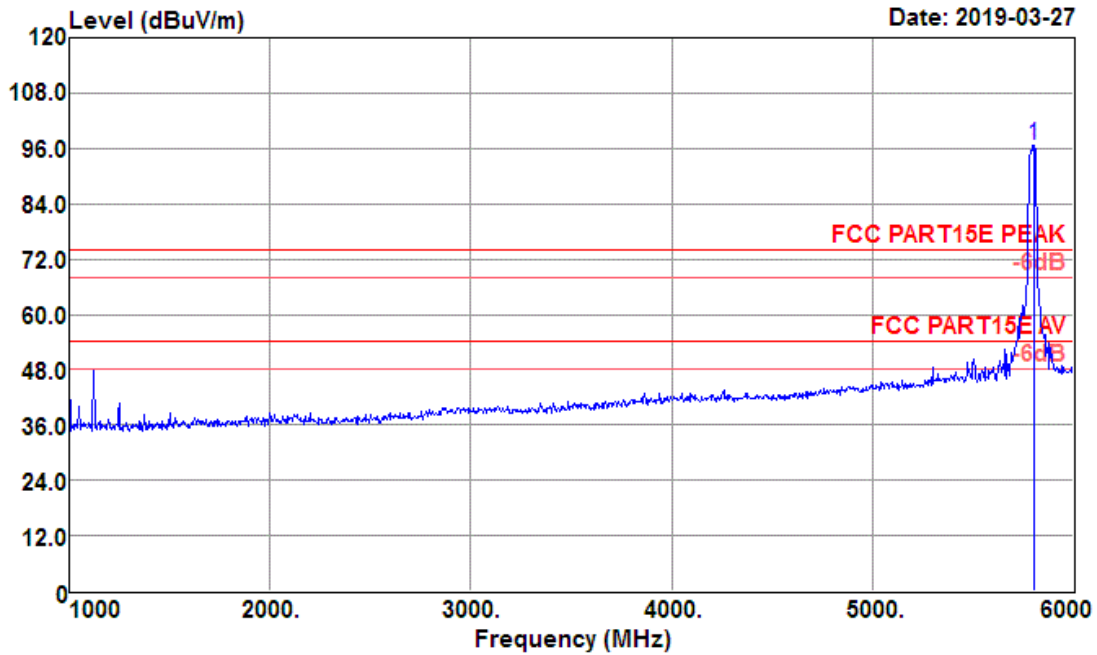




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

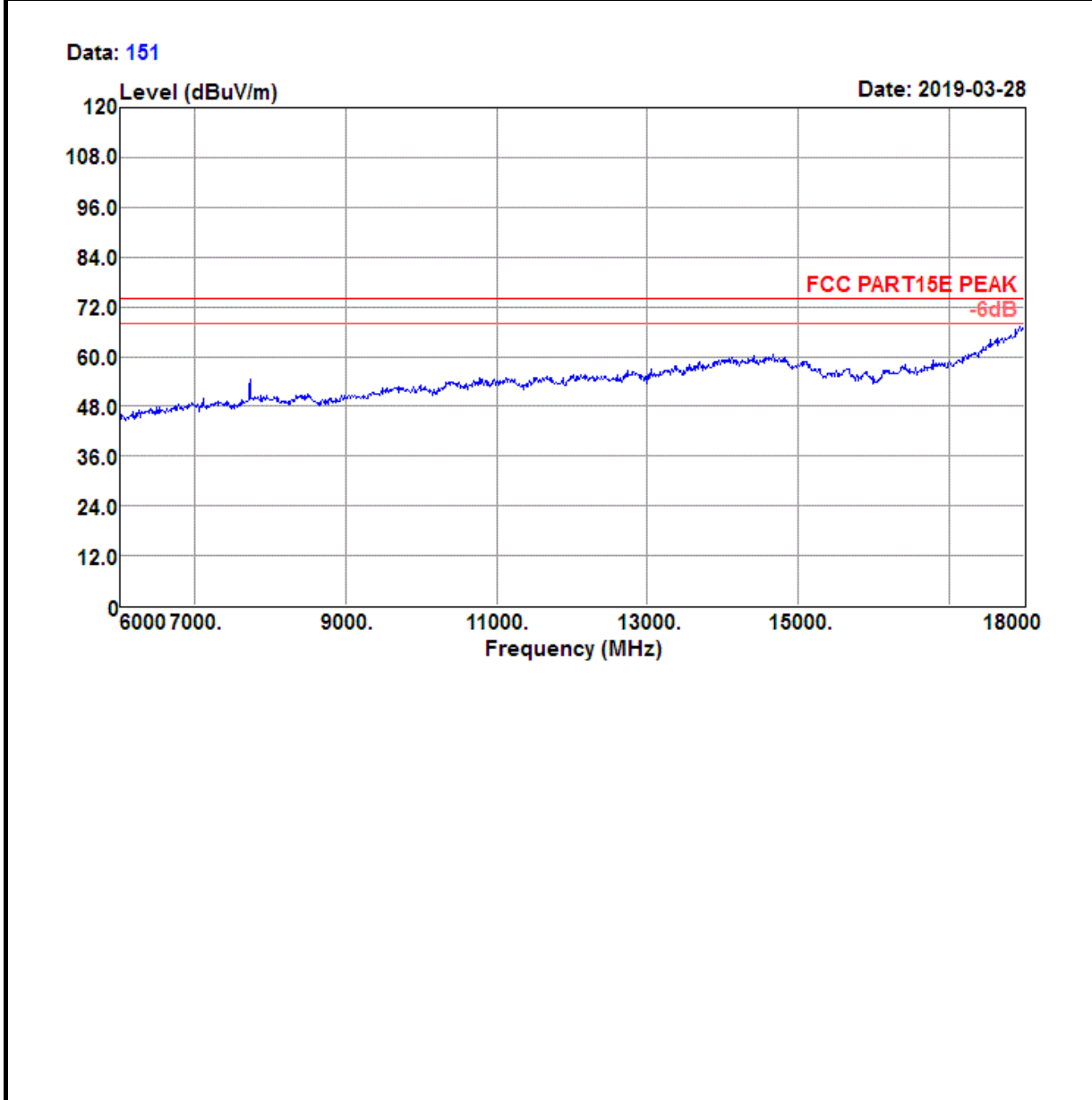
Test Mode :	802.11 n HT40 CH159 5795MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

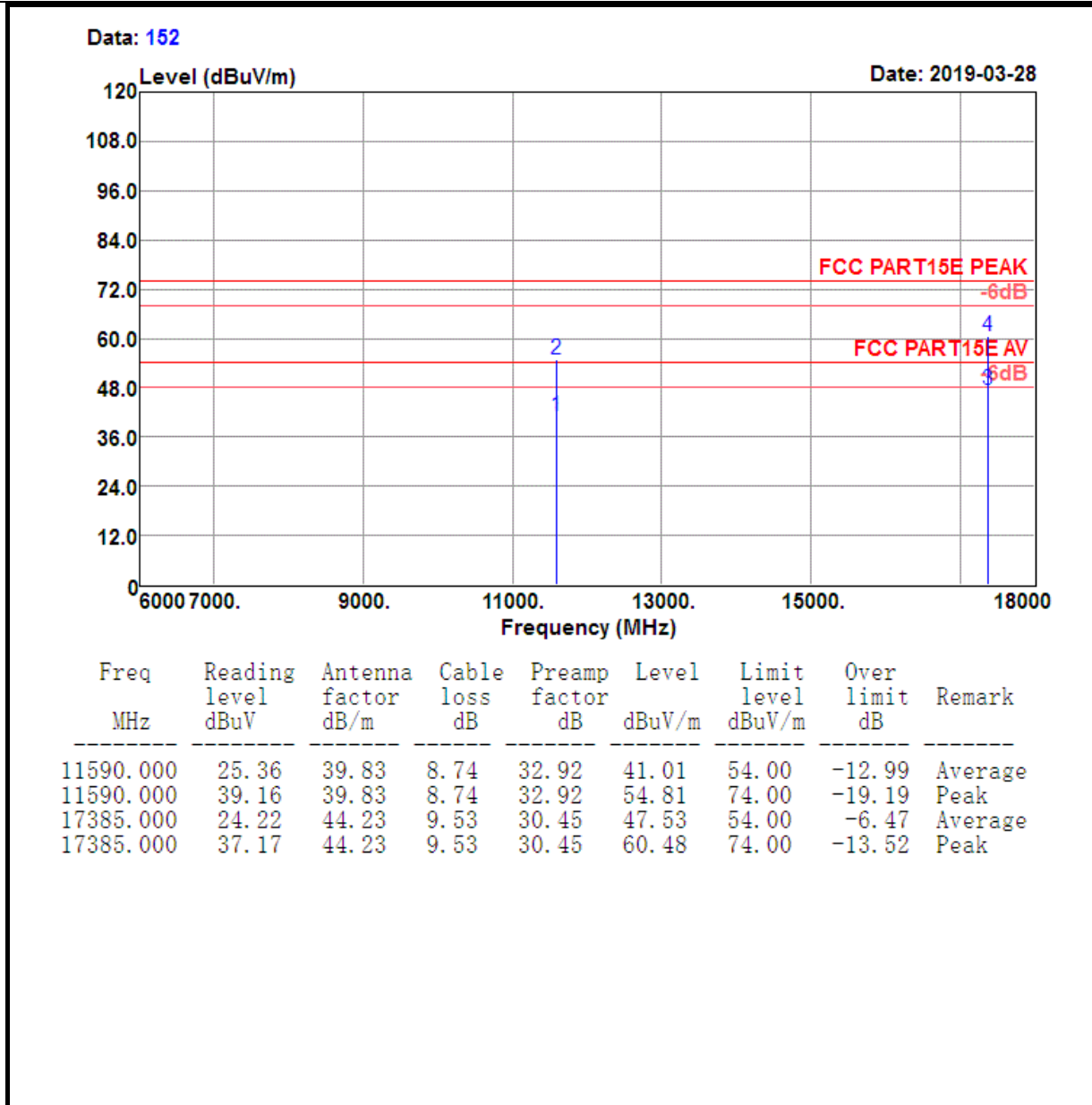
Data: 147



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
5805.000	92.73	32.34	6.53	35.01	96.59	74.00	22.59	Peak

Test Mode :	802.11 n HT40 CH159 5795MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal

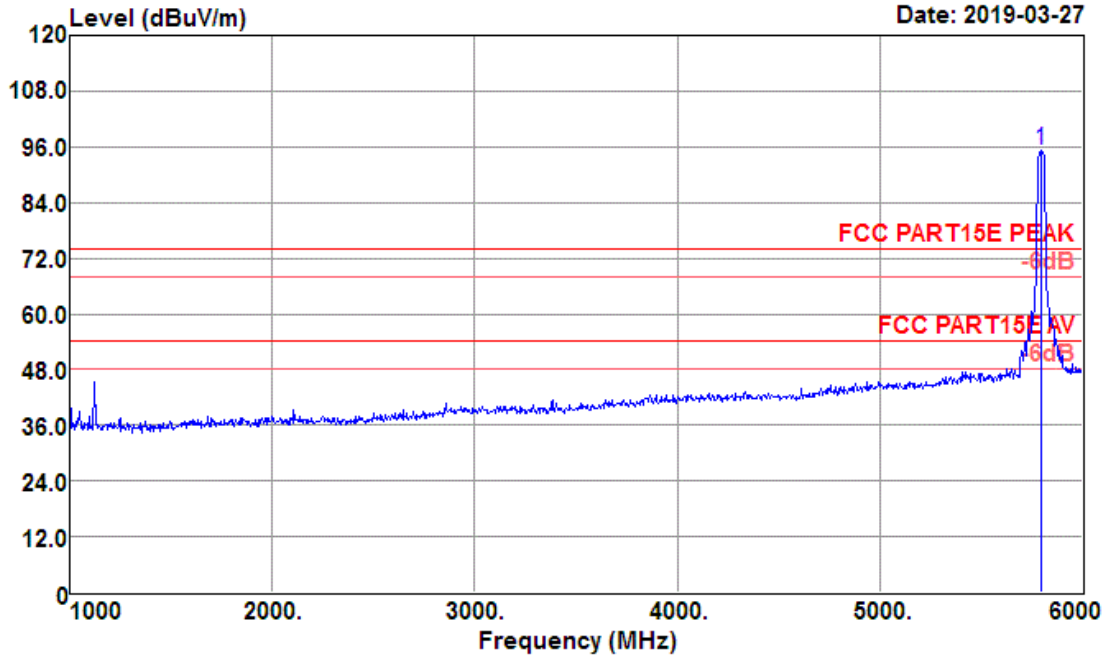




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

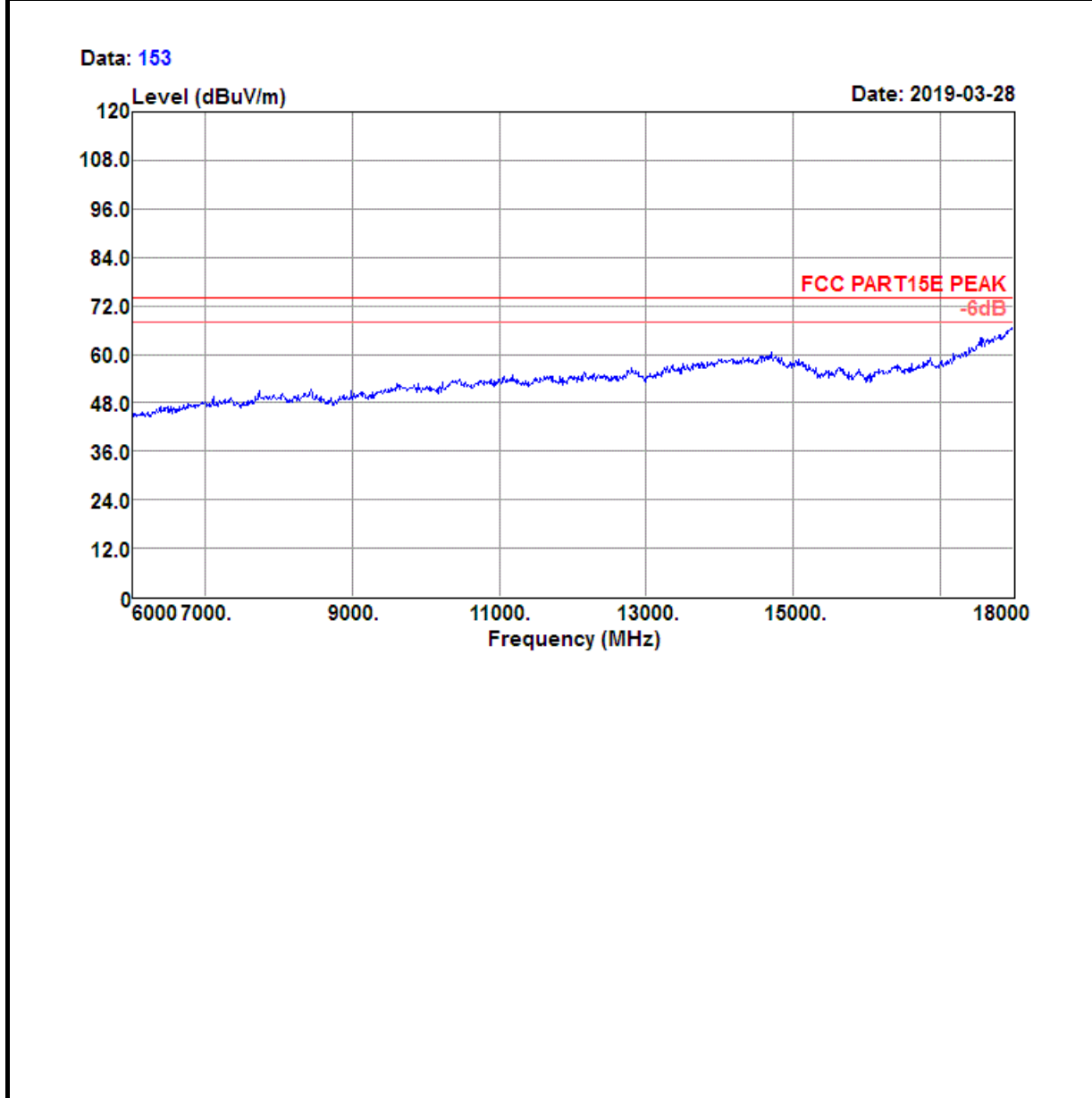
Test Mode :	802.11 n HT40 CH159 5795MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

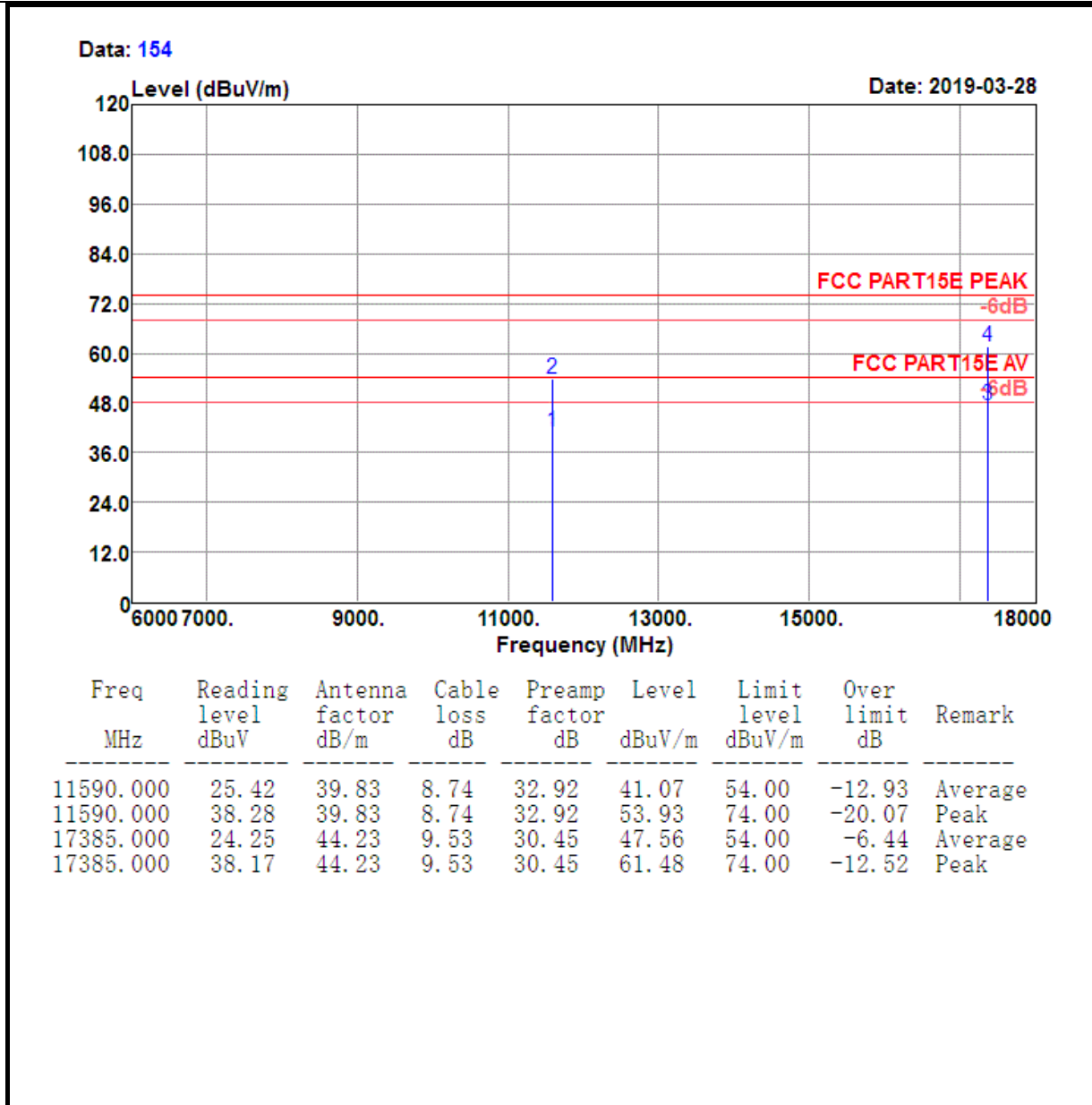
Data: 150



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
5800.000	91.32	32.34	6.53	35.02	95.17	74.00	21.17	Peak

Test Mode :	802.11 n HT40 CH159 5795MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

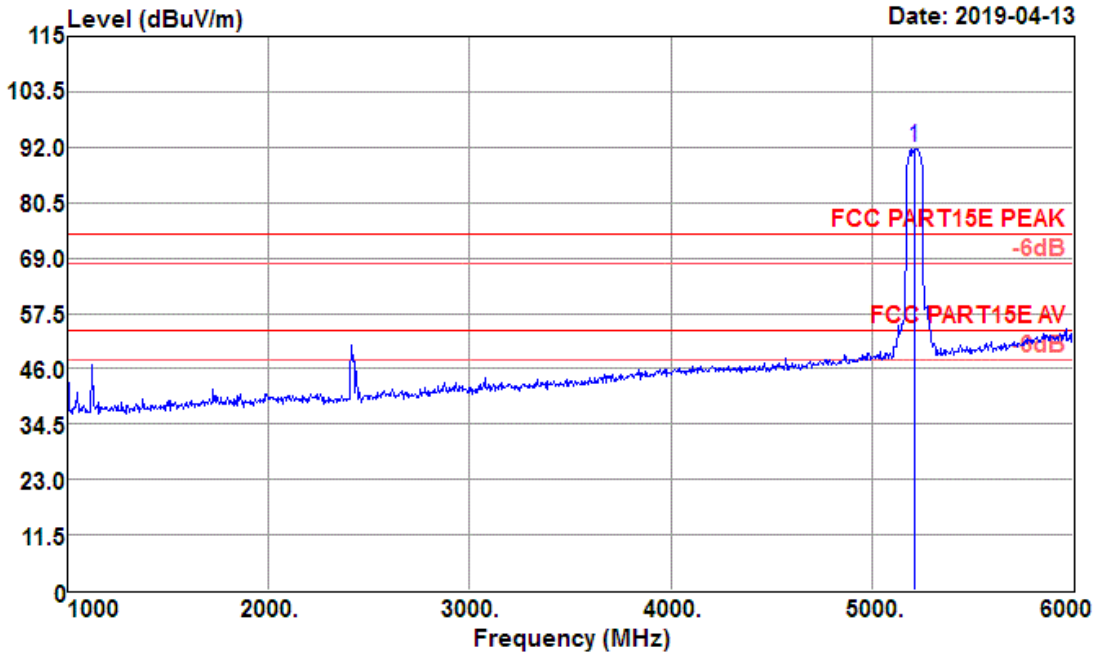




Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

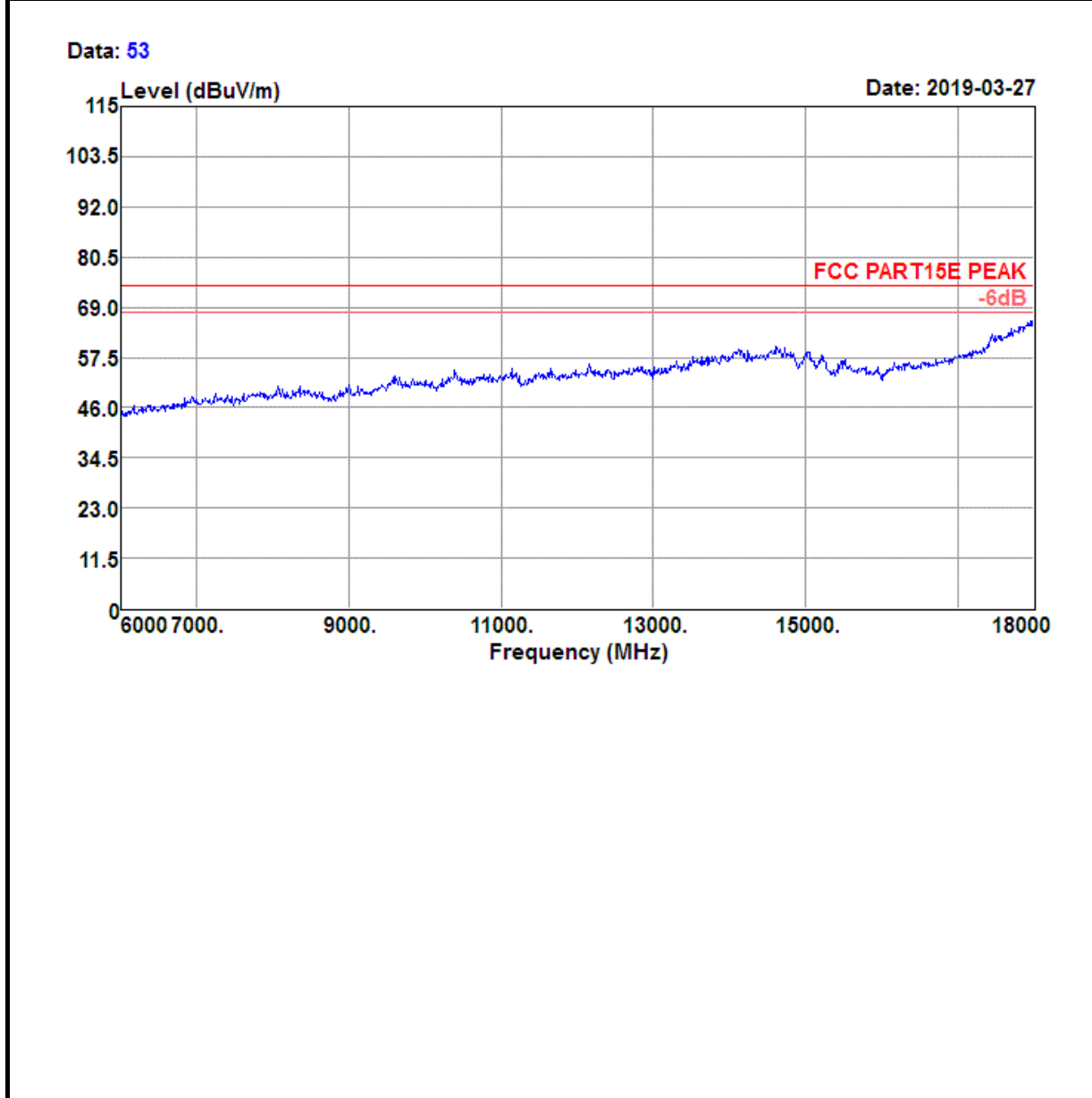
Test Mode :	802.11 ac VHT80 CH42 5210MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal

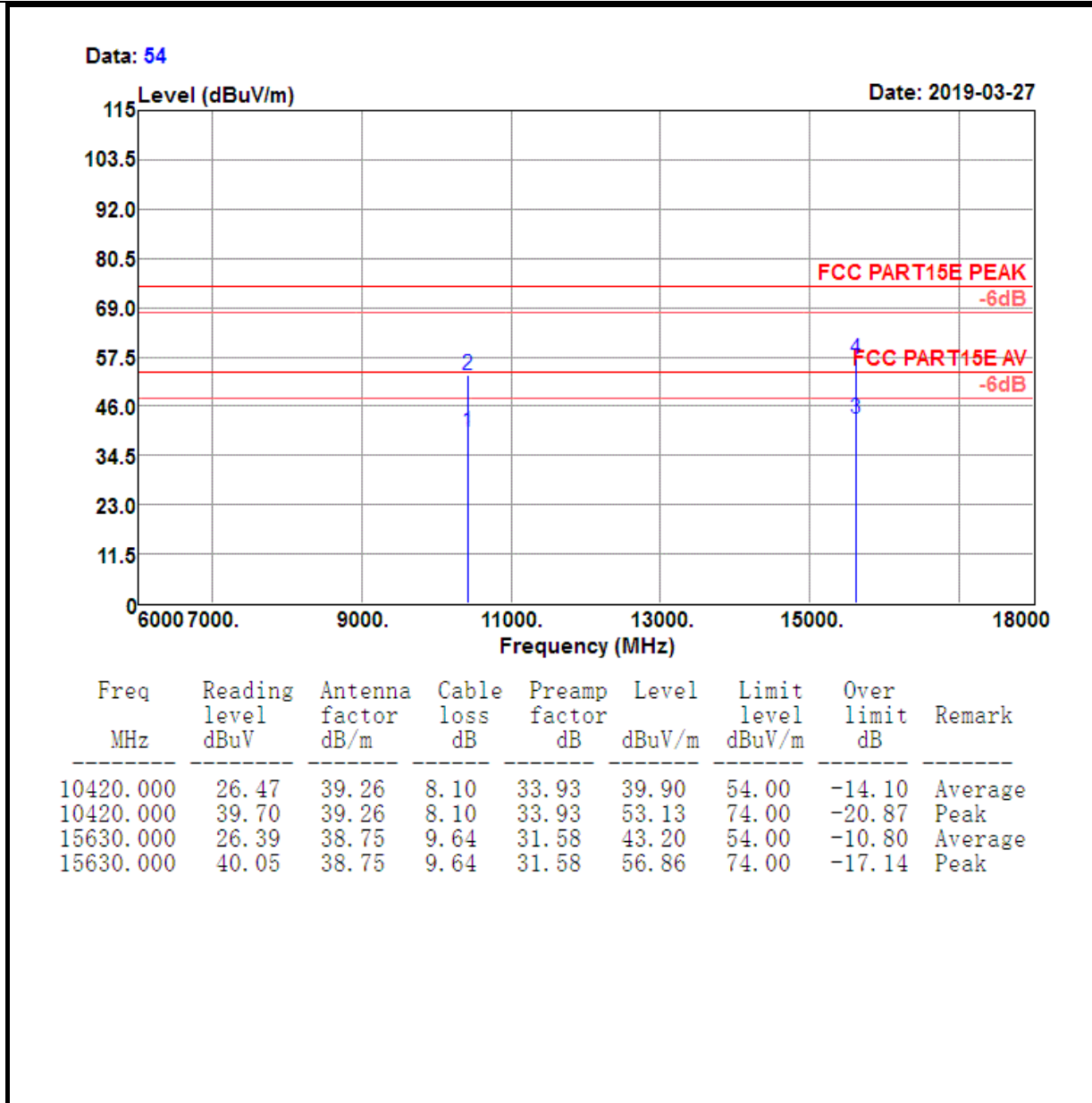
Data: 272



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
5210.000	90.59	31.87	5.46	35.89	92.03	74.00	18.03	Peak

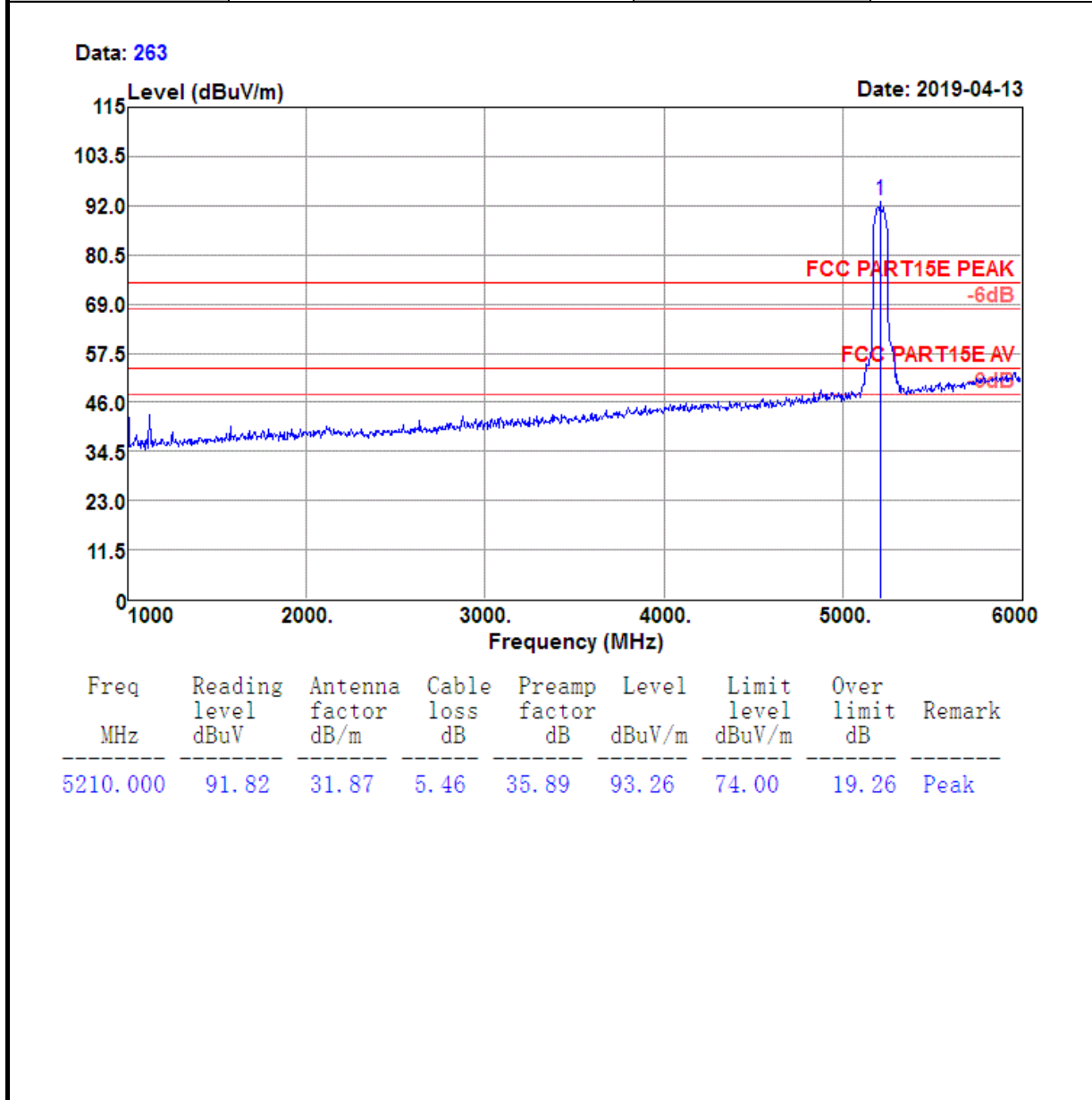
Test Mode :	802.11 ac VHT80 CH42 5210MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal



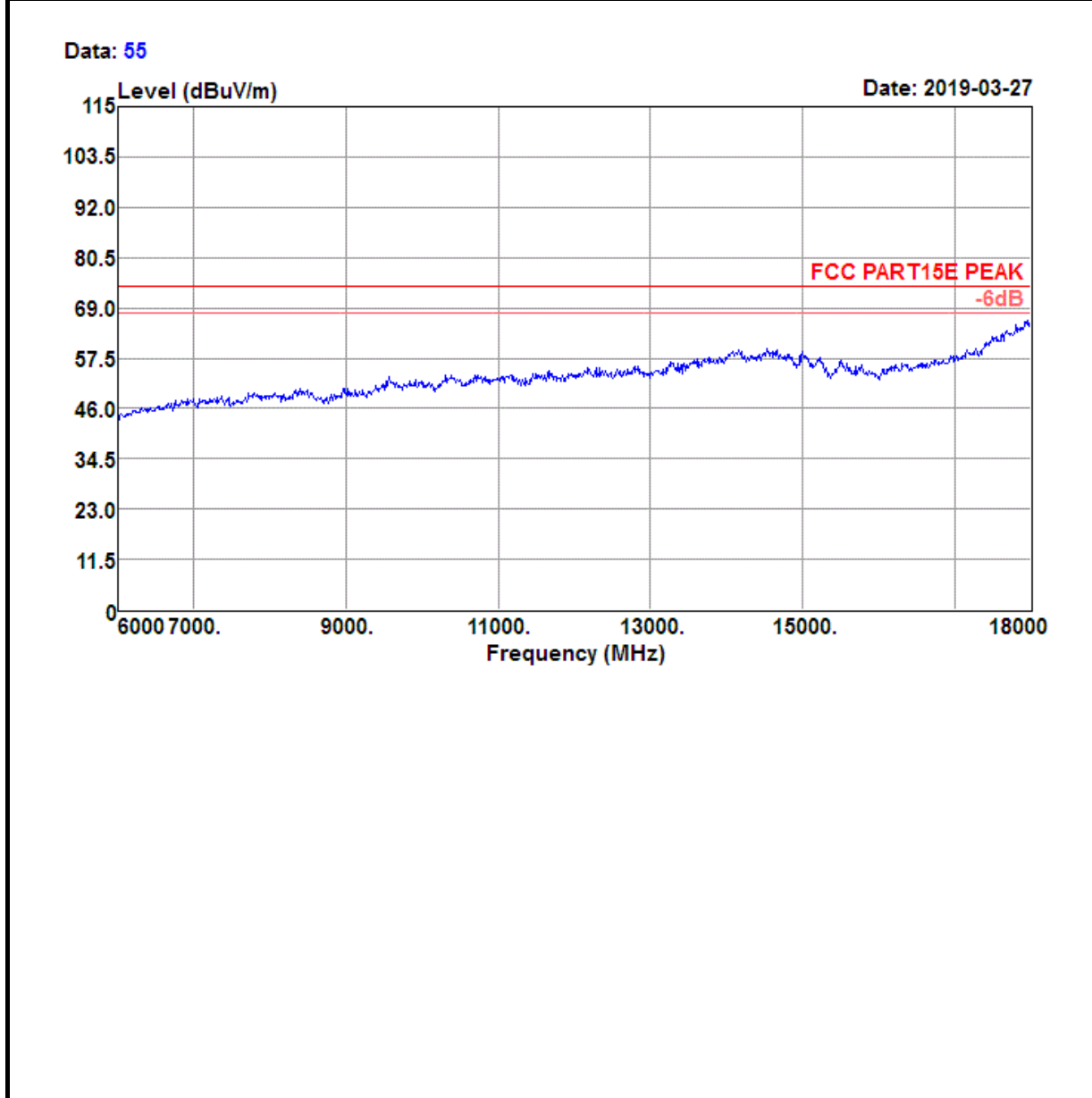


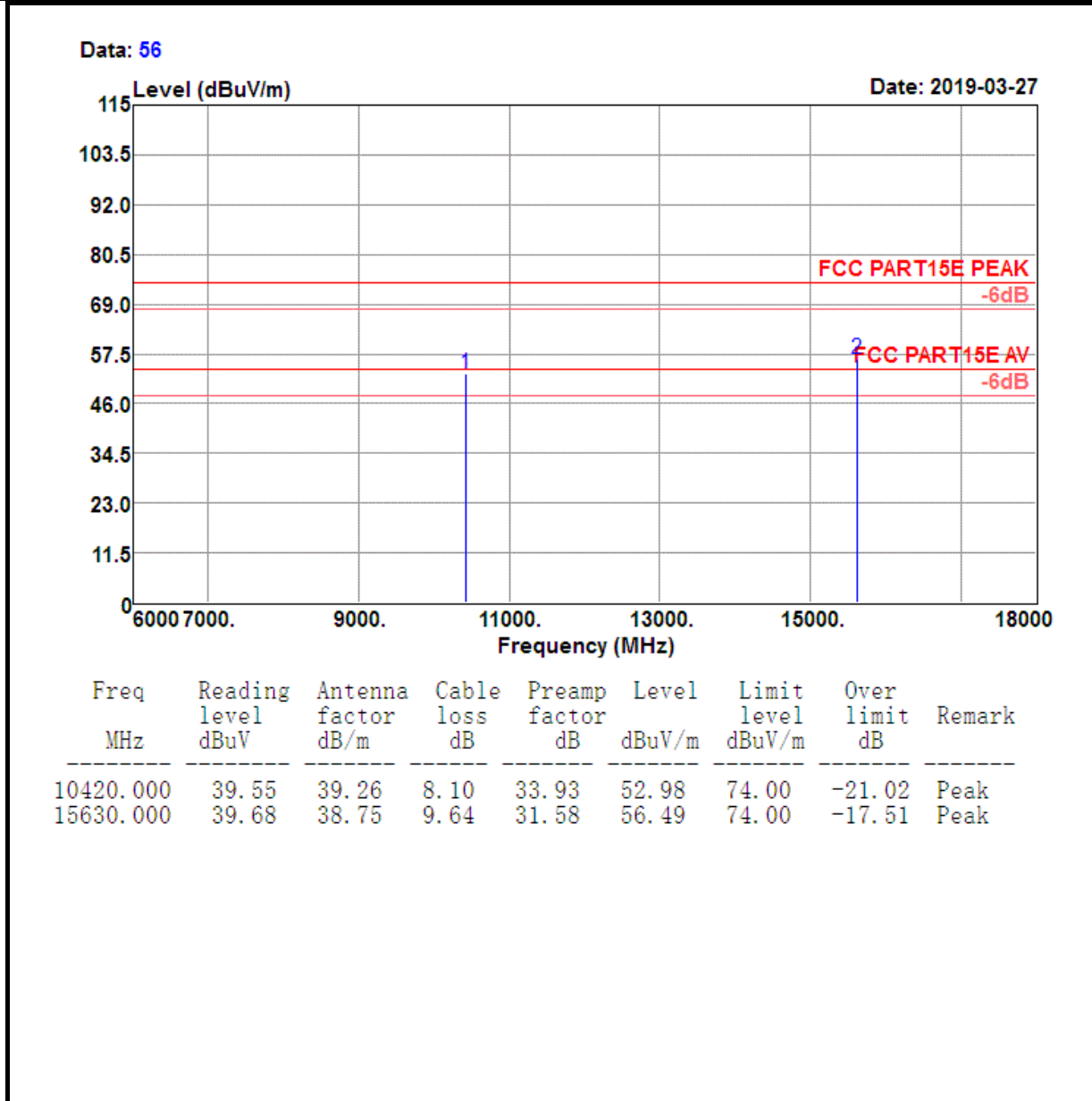
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 ac VHT80 CH42 5210MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical



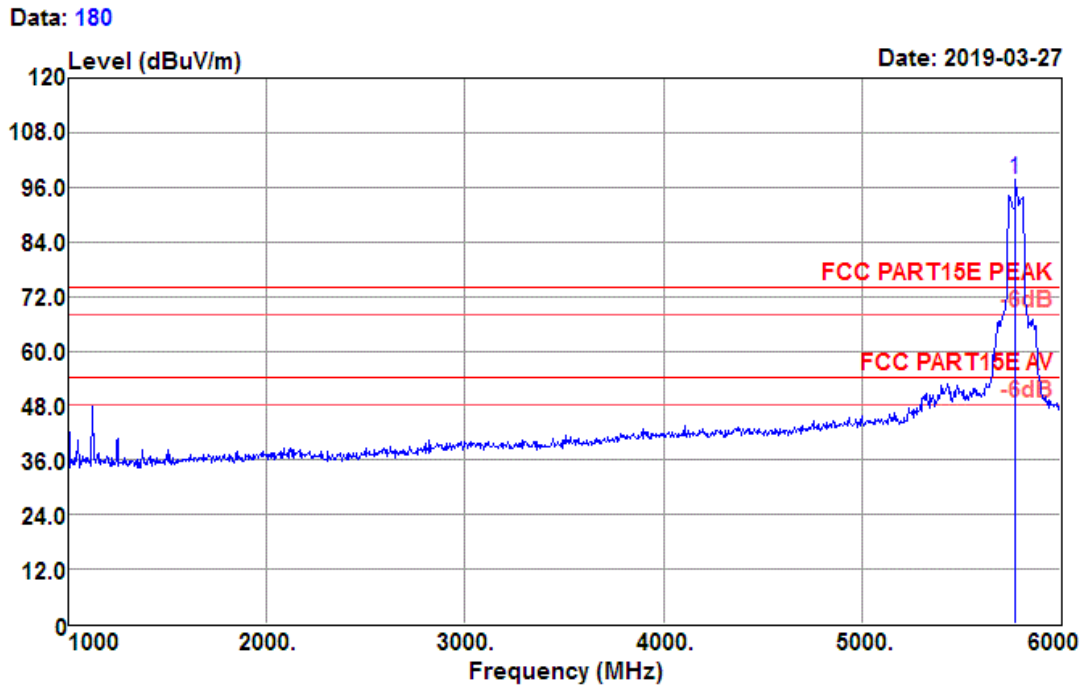
Test Mode :	802.11 ac VHT80 CH42 5210MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical





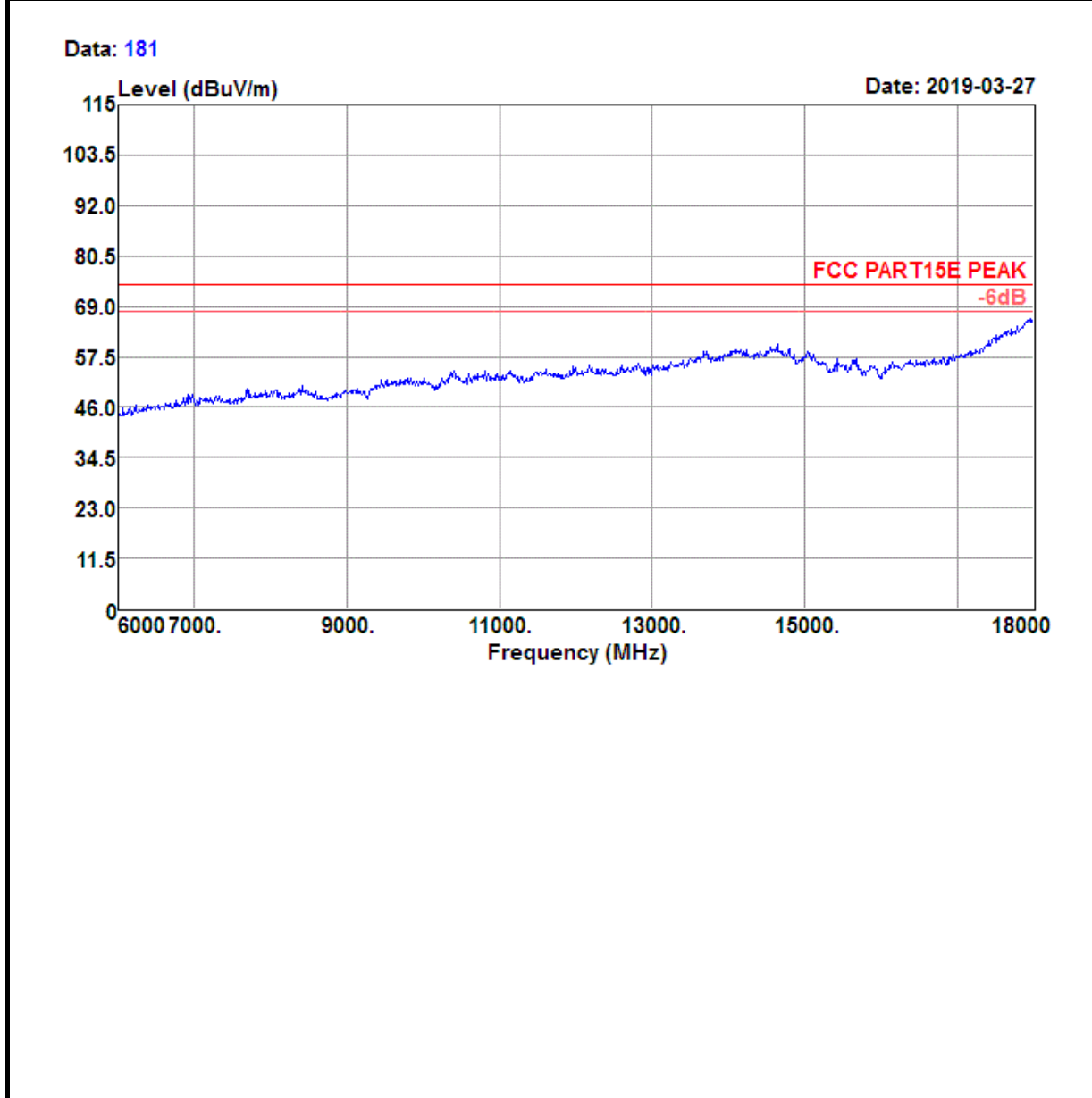
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

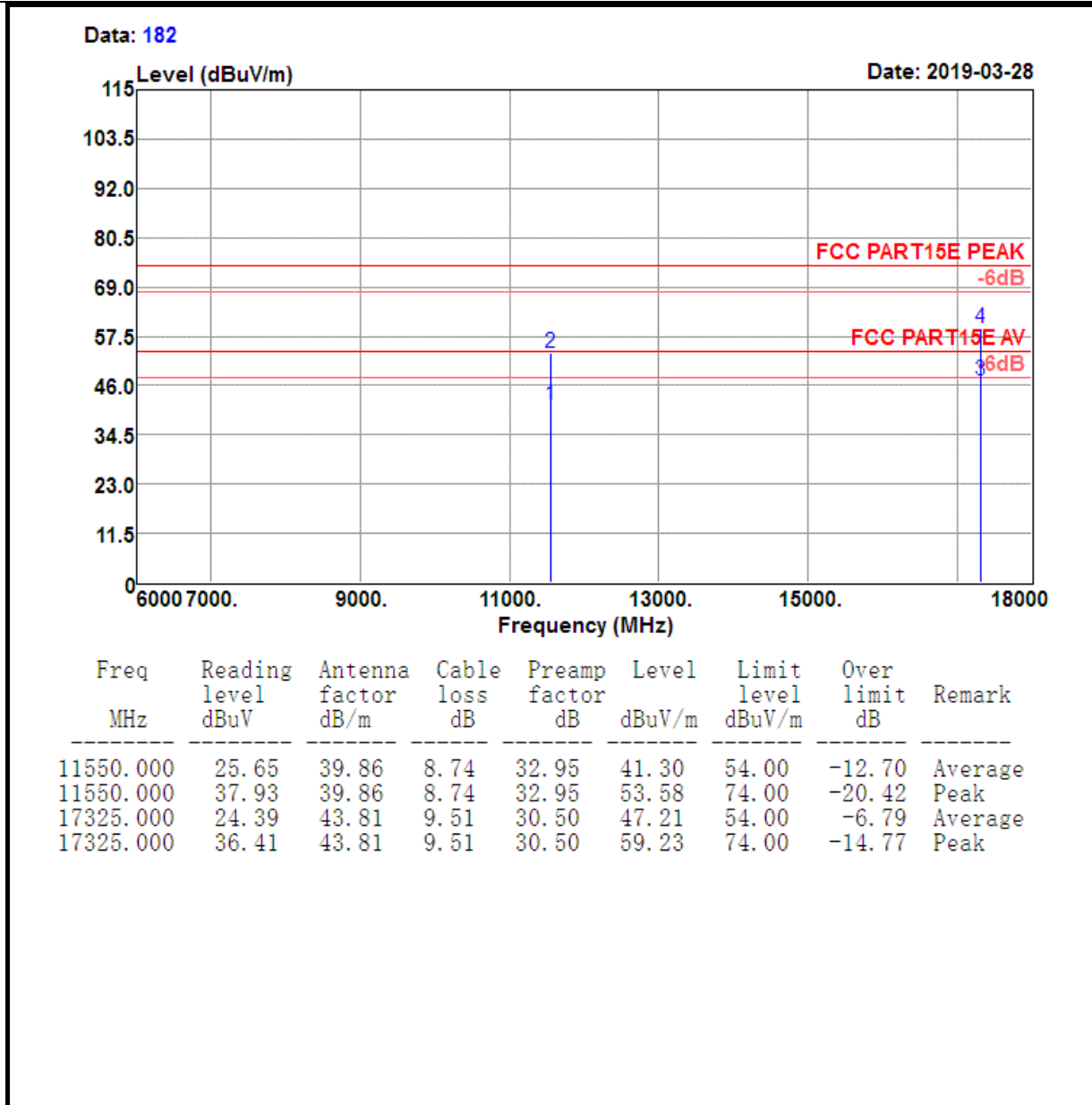
Test Mode :	802.11 ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Horizontal



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
5775.000	93.90	32.32	6.49	35.05	97.66	74.00	23.66	Peak

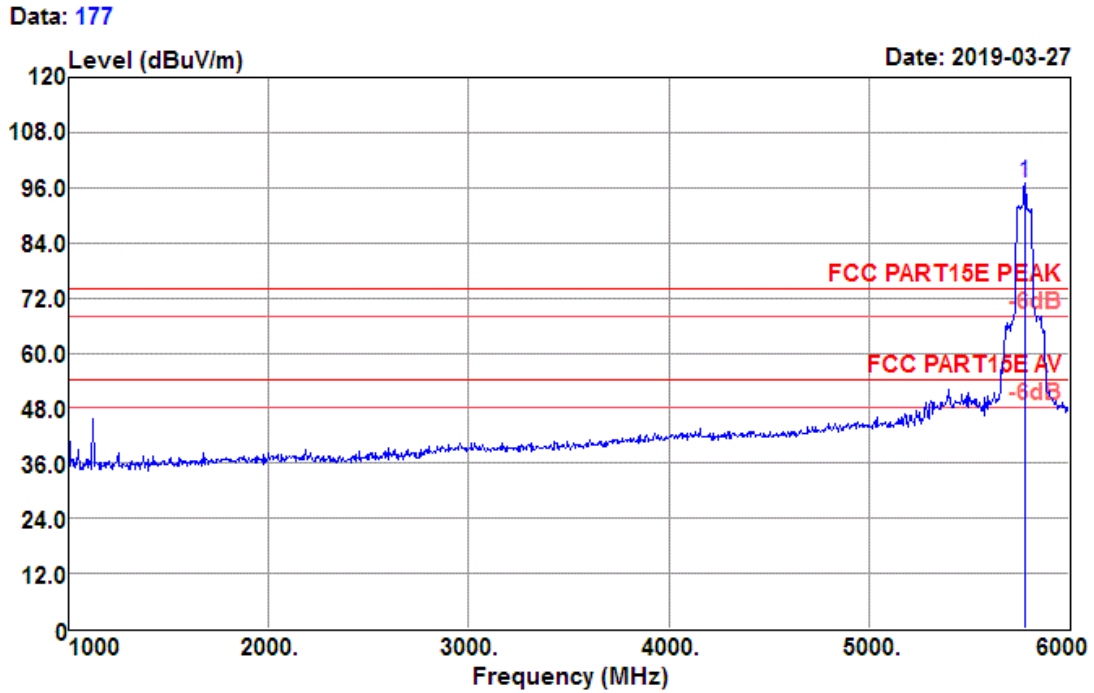
Test Mode :	802.11 ac VHT80 CH155 5775MHz	Temperature :	21~23°C
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Horizontal





Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

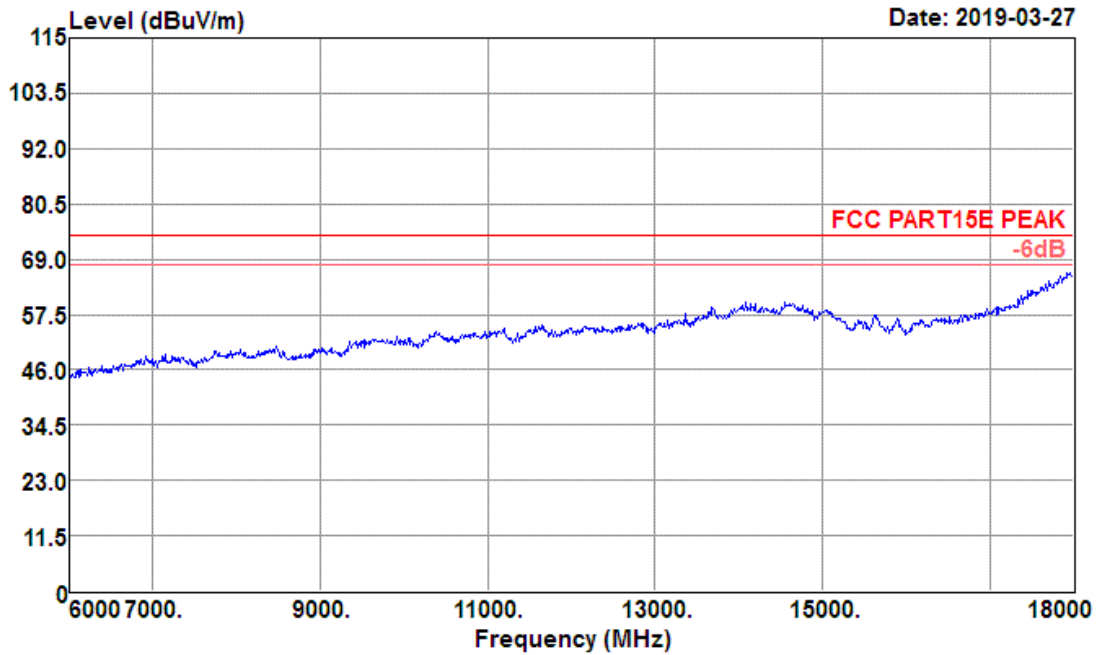
Test Mode :	802.11 ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	1GHz~6GHz	Polarization :	Vertical

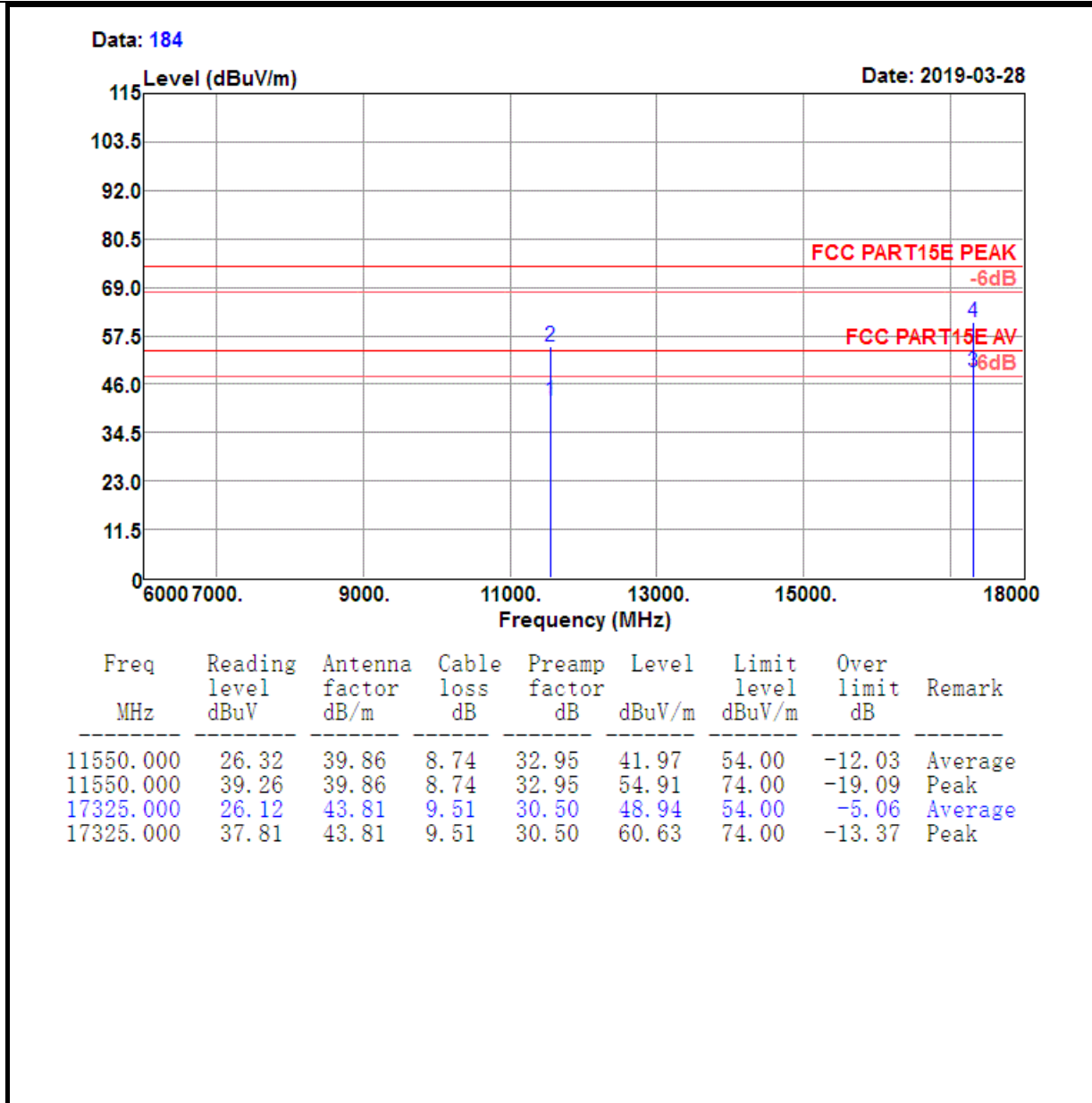


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
5780.000	93.06	32.32	6.50	35.05	96.83	74.00	22.83	Peak

Test Mode :	802.11 ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	6GHz~18GHz	Polarization :	Vertical

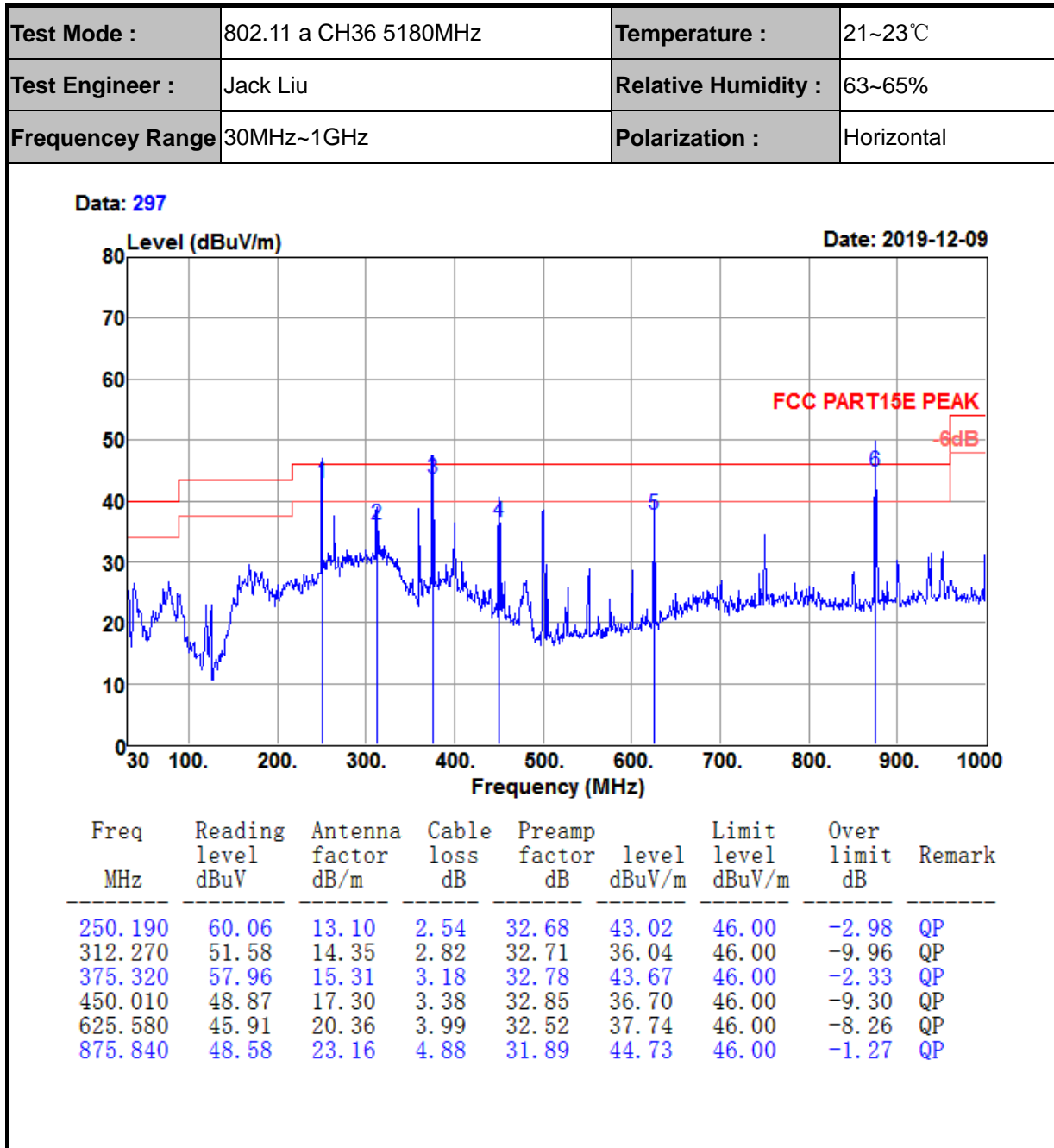
Data: 183





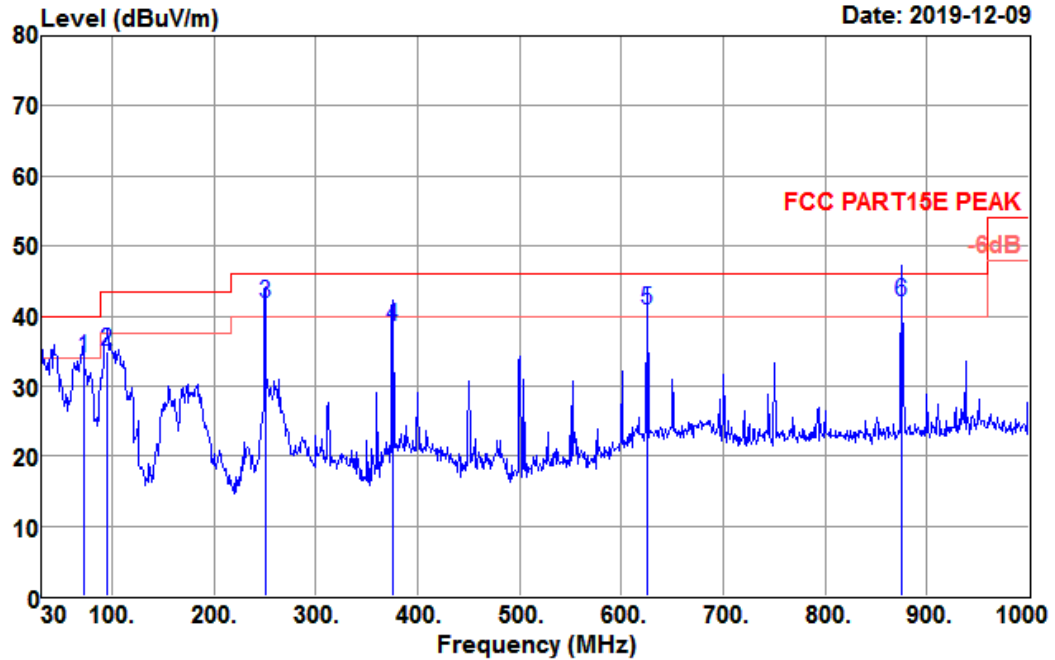
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

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



Test Mode :	802.11 a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	63~65%
Frequency Range	30MHz~1GHz	Polarization :	Vertical

Data: 298



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
71.710	55.14	9.55	1.75	32.50	33.94	40.00	-6.06	QP
94.990	56.89	8.70	1.89	32.57	34.91	43.50	-8.59	QP
250.190	58.92	13.10	2.54	32.68	41.88	46.00	-4.12	QP
375.320	52.86	15.31	3.18	32.78	38.57	46.00	-7.43	QP
625.580	48.89	20.36	3.99	32.52	40.72	46.00	-5.28	QP
875.840	45.96	23.16	4.88	31.89	42.11	46.00	-3.89	QP

4.5 AC Conducted Emission Measurement

4.5.1 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 μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

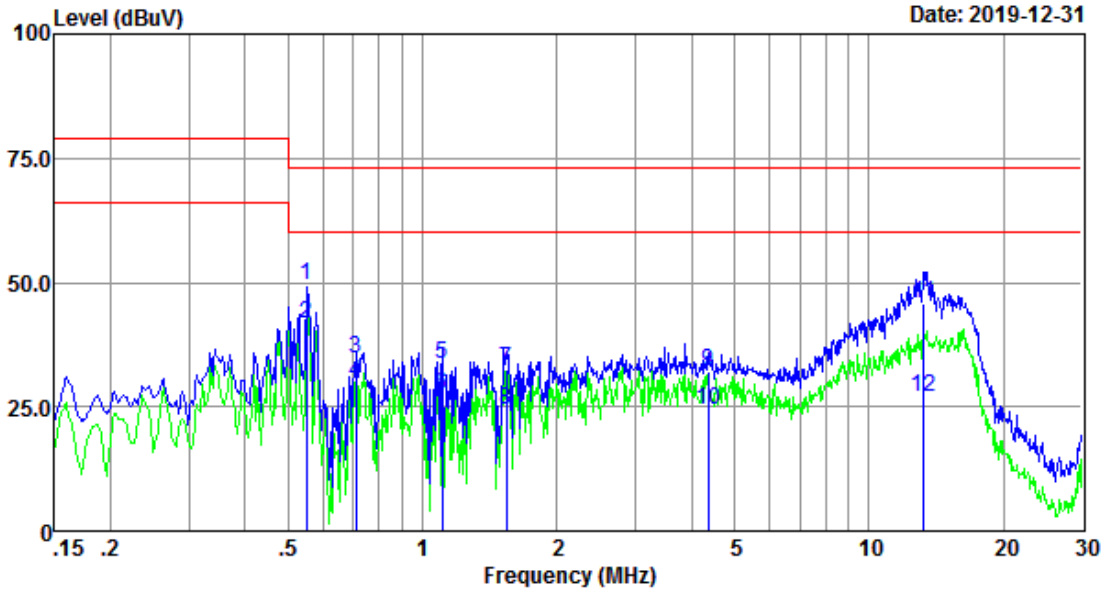
*Decreases with the logarithm of the frequency.

4.5.2 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.

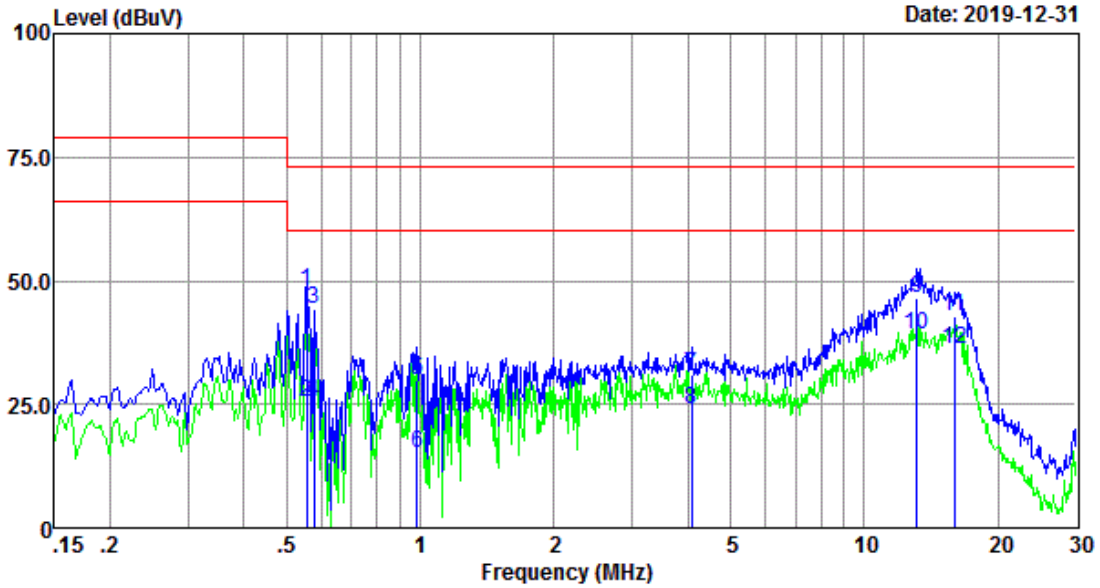
4.5.3 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20°C
Test Engineer :	Victorique Gao	Relative Humidity :	64%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 2 Link + WLAN Link + SD Card + Data Transmitting(LAN Port) + Adapter		



Freq MHz	Reading level dBuV	LISN/ISN factor dB	Cable loss dB	Result level dBuV	Limit level dBuV	Over limit dB	Remark
0.549	39.79	9.73	0.04	49.56	73.00	-23.44	QP
0.549	32.00	9.73	0.04	41.77	60.00	-18.23	Average
0.708	24.98	9.75	0.04	34.77	73.00	-38.23	QP
0.708	20.07	9.75	0.04	29.86	60.00	-30.14	Average
1.106	23.69	9.83	0.05	33.57	73.00	-39.43	QP
1.106	17.27	9.83	0.05	27.15	60.00	-32.85	Average
1.544	22.61	9.85	0.06	32.52	73.00	-40.48	QP
1.544	14.40	9.85	0.06	24.31	60.00	-35.69	Average
4.361	22.36	9.85	0.08	32.29	73.00	-40.71	QP
4.361	14.52	9.85	0.08	24.45	60.00	-35.55	Average
13.267	35.49	10.01	0.12	45.62	73.00	-27.38	QP
13.267	16.77	10.01	0.12	26.90	60.00	-33.10	Average

Test Mode :	Mode 1	Temperature :	20°C
Test Engineer :	Jerry.Wang	Relative Humidity :	64%
Test Voltage :	120Vac / 60Hz	Phase :	NEUTRAL
Function Type :	LTE Band 2 Link + WLAN Link + SD Card + Data Transmitting(LAN Port) + Adapter		



Freq MHz	Reading level dBuV	LISN/ISN factor dB	Cable loss dB	Result level dBuV	Limit level dBuV	Over limit dB	Remark
0.555	38.13	9.73	0.04	47.90	73.00	-25.10	QP
0.555	15.68	9.73	0.04	25.45	60.00	-34.55	Average
0.576	34.60	9.74	0.04	44.38	73.00	-28.62	QP
0.576	15.87	9.74	0.04	25.65	60.00	-34.35	Average
0.984	20.19	9.80	0.05	30.04	73.00	-42.96	QP
0.984	5.26	9.80	0.05	15.11	60.00	-44.89	Average
4.092	21.04	9.84	0.07	30.95	73.00	-42.05	QP
4.092	13.90	9.84	0.07	23.81	60.00	-36.19	Average
13.127	36.26	10.01	0.12	46.39	73.00	-26.61	QP
13.127	28.95	10.01	0.12	39.08	60.00	-20.92	Average
15.970	32.56	10.01	0.14	42.71	73.00	-30.29	QP
15.970	26.04	10.01	0.14	36.19	60.00	-23.81	Average

4.6 Frequency Stability Measurement

4.6.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

4.6.2 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

NT: 25°C LT: -20°C HT: 50°C

NV: 120Vac LV: 102Vac HV: 138Vac

4.6.3 Test Result of Frequency Stability

Frequency Error vs. Voltage:

Voltage								
TestMode	Antenna	Frequency(MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (KHz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	0	0.00	20	PASS
			LV	NT	20	3.86	20	PASS
			HV	NT	-20	-3.86	20	PASS
		5200	NV	NT	0	0.00	20	PASS
			LV	NT	-25	-4.81	20	PASS
			HV	NT	25	4.81	20	PASS
		5240	NV	NT	20	3.82	20	PASS
			LV	NT	20	3.82	20	PASS
			HV	NT	-25	-4.77	20	PASS
11N20SISO	Ant1	5180	NV	NT	15	2.90	20	PASS
			LV	NT	15	2.90	20	PASS
			HV	NT	0	0.00	20	PASS
		5200	NV	NT	-15	-2.88	20	PASS
			LV	NT	25	4.81	20	PASS
			HV	NT	-10	-1.92	20	PASS
		5240	NV	NT	20	3.82	20	PASS
			LV	NT	15	2.86	20	PASS
			HV	NT	-30	-5.73	20	PASS
11N40SISO	Ant1	5190	NV	NT	10	1.93	20	PASS
			LV	NT	20	3.85	20	PASS
			HV	NT	-40	-7.71	20	PASS
		5230	NV	NT	-20	-3.82	20	PASS
			LV	NT	20	3.82	20	PASS
			HV	NT	0	0.00	20	PASS
11AC20SISO	Ant1	5180	NV	NT	25	4.83	20	PASS
			LV	NT	-15	-2.90	20	PASS
			HV	NT	20	3.86	20	PASS
		5200	NV	NT	20	3.85	20	PASS
			LV	NT	15	2.88	20	PASS
			HV	NT	-20	-3.85	20	PASS

		5240	NV	NT	0	0.00	20	PASS
			LV	NT	10	1.91	20	PASS
			HV	NT	-10	-1.91	20	PASS
11AC40SIS O	Ant1	5190	NV	NT	0	0.00	20	PASS
			LV	NT	-40	-7.71	20	PASS
			HV	NT	0	0.00	20	PASS
		5230	NV	NT	0	0.00	20	PASS
			LV	NT	-20	-3.82	20	PASS
			HV	NT	20	3.82	20	PASS
11AC80SIS O	Ant1	5210	NV	NT	25	4.80	20	PASS
			LV	NT	0	0.00	20	PASS
			HV	NT	0	0.00	20	PASS

Voltage								
TestMode	Antenna	Frequency(MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (KHz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	NT	40	6.96	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	-40	-6.96	20	PASS
		5785	NV	NT	0	0	20	PASS
			LV	NT	-40	-6.91	20	PASS
			HV	NT	40	6.91	20	PASS
		5825	NV	NT	20	3.43	20	PASS
			LV	NT	20	3.43	20	PASS
			HV	NT	-20	-3.43	20	PASS
11N20SISO	Ant1	5745	NV	NT	40	6.96	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5785	NV	NT	-20	-3.46	20	PASS
			LV	NT	20	3.46	20	PASS
			HV	NT	20	3.46	20	PASS
		5825	NV	NT	20	3.43	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	-80	-13.73	20	PASS
11N40SISO	Ant1	5755	NV	NT	0	0	20	PASS

		5795	LV	NT	0	0	20	PASS
			HV	NT	-40	-6.95	20	PASS
			NV	NT	0	0	20	PASS
			LV	NT	40	6.90	20	PASS
			HV	NT	0	0	20	PASS
11AC20SIS O	Ant1	5745	NV	NT	20	3.48	20	PASS
			LV	NT	20	3.48	20	PASS
			HV	NT	20	3.48	20	PASS
		5785	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5825	NV	NT	20	3.43	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	20	3.43	20	PASS
11AC40SIS O	Ant1	5755	NV	NT	0	0	20	PASS
			LV	NT	-80	-13.90	20	PASS
			HV	NT	0	0	20	PASS
		5795	NV	NT	-40	-6.90	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	-40	-6.90	20	PASS
11AC80SIS O	Ant1	5775	NV	NT	80	13.85	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS

Frequency Error vs. Temperature:

Temperature								
TestMode	Antenna	Frequency(MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (KHz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	0	0.00	20	PASS
			NV	-20	15	2.90	20	PASS
			NV	-10	15	2.90	20	PASS
			NV	0	15	2.90	20	PASS
			NV	10	-34	-6.56	20	PASS
			NV	20	-15	-2.90	20	PASS

			NV	30	30	5.79	20	PASS	
			NV	40	-15	-2.90	20	PASS	
			NV	50	15	2.90	20	PASS	
		5200	NV	-30	60	11.54	20	PASS	
			NV	-20	0	0.00	20	PASS	
			NV	-10	60	11.54	20	PASS	
			NV	0	0	0.00	20	PASS	
			NV	10	60	11.54	20	PASS	
			NV	20	30	5.77	20	PASS	
			NV	30	30	5.77	20	PASS	
			NV	40	30	5.77	20	PASS	
			NV	50	45	8.65	20	PASS	
			5240	NV	-30	-90	-17.18	20	PASS
				NV	-20	0	0.00	20	PASS
		NV		-10	-15	-2.86	20	PASS	
		NV		0	15	2.86	20	PASS	
		NV		10	-30	-5.73	20	PASS	
		NV		20	30	5.73	20	PASS	
		NV		30	0	0.00	20	PASS	
		NV		40	15	2.86	20	PASS	
		11N20SISO	Ant1	5180	NV	-30	0	0.00	20
NV	-20				30	5.79	20	PASS	
NV	-10				30	5.79	20	PASS	
NV	0				0	0.00	20	PASS	
NV	10				15	2.90	20	PASS	
NV	20				0	0.00	20	PASS	
NV	30				-15	-2.90	20	PASS	
NV	40				15	2.90	20	PASS	
NV	50				0	0.00	20	PASS	
5200	NV			-30	0	0.00	20	PASS	
	NV			-20	45	8.65	20	PASS	
	NV			-10	30	5.77	20	PASS	
	NV			0	0	0.00	20	PASS	
	NV			10	30	5.77	20	PASS	
	NV			20	0	0.00	20	PASS	

			NV	30	15	2.88	20	PASS
			NV	40	15	2.88	20	PASS
			NV	50	15	2.88	20	PASS
		5240	NV	-30	0	0.00	20	PASS
			NV	-20	0	0.00	20	PASS
			NV	-10	15	2.86	20	PASS
			NV	0	15	2.86	20	PASS
			NV	10	0	0.00	20	PASS
			NV	20	15	2.86	20	PASS
			NV	30	30	5.73	20	PASS
			NV	40	0	0.00	20	PASS
			NV	50	30	5.73	20	PASS
			11N40SISO	Ant1	5190	NV	-30	60
NV	-20	30				5.78	20	PASS
NV	-10	60				11.56	20	PASS
NV	0	30				5.78	20	PASS
NV	10	30				5.78	20	PASS
NV	20	30				5.78	20	PASS
NV	30	30				5.78	20	PASS
NV	40	60				11.56	20	PASS
NV	50	30				5.78	20	PASS
5230	NV	-30			60	11.47	20	PASS
	NV	-20			0	0.00	20	PASS
	NV	-10			60	11.47	20	PASS
	NV	0			30	5.74	20	PASS
	NV	10			30	5.74	20	PASS
	NV	20			60	11.47	20	PASS
	NV	30			30	5.74	20	PASS
	NV	40			0	0.00	20	PASS
	NV	50			60	11.47	20	PASS
11AC20SIS O	Ant1	5180	NV	-30	-15	-2.90	20	PASS
			NV	-20	15	2.90	20	PASS
			NV	-10	15	2.90	20	PASS
			NV	0	0	0.00	20	PASS
			NV	10	15	2.90	20	PASS
			NV	20	-15	-2.90	20	PASS

			NV	30	15	2.90	20	PASS	
			NV	40	0	0.00	20	PASS	
			NV	50	15	2.90	20	PASS	
		5200	NV	-30	0	0.00	20	PASS	
			NV	-20	-15	-2.88	20	PASS	
			NV	-10	15	2.88	20	PASS	
			NV	0	0	0.00	20	PASS	
			NV	10	0	0.00	20	PASS	
			NV	20	0	0.00	20	PASS	
			NV	30	15	2.88	20	PASS	
			NV	40	0	0.00	20	PASS	
			NV	50	0	0.00	20	PASS	
			5240	NV	-30	15	2.86	20	PASS
				NV	-20	0	0.00	20	PASS
		NV		-10	30	5.73	20	PASS	
		NV		0	0	0.00	20	PASS	
		NV		10	15	2.86	20	PASS	
		NV		20	30	5.73	20	PASS	
		NV		30	0	0.00	20	PASS	
		NV		40	-15	-2.86	20	PASS	
		11AC40SIS O	Ant1	5190	NV	-30	30	5.78	20
NV	-20				30	5.78	20	PASS	
NV	-10				30	5.78	20	PASS	
NV	0				0	0.00	20	PASS	
NV	10				0	0.00	20	PASS	
NV	20				30	5.78	20	PASS	
NV	30				30	5.78	20	PASS	
NV	40				60	11.56	20	PASS	
NV	50				0	0.00	20	PASS	
5230	NV			-30	0	0.00	20	PASS	
	NV			-20	30	5.74	20	PASS	
	NV			-10	30	5.74	20	PASS	
	NV			0	30	5.74	20	PASS	
	NV			10	60	11.47	20	PASS	
	NV			20	30	5.74	20	PASS	

			NV	30	30	5.74	20	PASS
			NV	40	30	5.74	20	PASS
			NV	50	30	5.74	20	PASS
11AC80SIS O	Ant1	5210	NV	-30	60	11.52	20	PASS
			NV	-20	60	11.52	20	PASS
			NV	-10	60	11.52	20	PASS
			NV	0	-60	-11.52	20	PASS
			NV	10	-60	-11.52	20	PASS
			NV	20	0	0.00	20	PASS
			NV	30	60	11.52	20	PASS
			NV	40	0	0.00	20	PASS
			NV	50	0	0.00	20	PASS

Temperature								
TestMode	Antenna	Frequency(MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (KHz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	-30	0	0	20	PASS
			NV	-20	-20	-3.48	20	PASS
			NV	-10	20	3.48	20	PASS
			NV	0	20	3.48	20	PASS
			NV	10	20	3.48	20	PASS
			NV	20	40	6.96	20	PASS
			NV	30	-40	-6.96	20	PASS
			NV	40	-40	-6.96	20	PASS
			NV	50	-20	-3.48	20	PASS
		5785	NV	-30	-20	-3.46	20	PASS
			NV	-20	-20	-3.46	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	-20	-3.46	20	PASS
			NV	10	0	0	20	PASS
			NV	20	-20	-3.46	20	PASS
			NV	30	-20	-3.46	20	PASS
			NV	40	20	3.46	20	PASS
			NV	50	0	0	20	PASS
		5825	NV	-30	40	6.87	20	PASS
			NV	-20	-40	-6.87	20	PASS



			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	-20	-3.43	20	PASS
			NV	20	0	0	20	PASS
			NV	30	-20	-3.43	20	PASS
			NV	40	-20	-3.43	20	PASS
			NV	50	0	0	20	PASS
11N20SISO	Ant1	5745	NV	-30	0	0	20	PASS
			NV	-20	-80	-13.93	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	20	3.48	20	PASS
			NV	10	20	3.48	20	PASS
			NV	20	20	3.48	20	PASS
			NV	30	0	0	20	PASS
			NV	40	20	3.48	20	PASS
			NV	50	20	3.48	20	PASS
		5785	NV	-30	0	0	20	PASS
			NV	-20	-20	-3.46	20	PASS
			NV	-10	-20	-3.46	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	-20	-3.46	20	PASS
			NV	30	20	3.46	20	PASS
			NV	40	20	3.46	20	PASS
			NV	50	20	3.46	20	PASS
		5825	NV	-30	20	3.43	20	PASS
			NV	-20	20	3.43	20	PASS
			NV	-10	20	3.43	20	PASS
			NV	0	0	0	20	PASS
			NV	10	-20	-3.43	20	PASS
			NV	20	-20	-3.43	20	PASS
			NV	30	100000	17.17	20	PASS
			NV	40	0	0	20	PASS
			NV	50	40	6.87	20	PASS
11N40SISO	Ant1	5755	NV	-30	0	0	20	PASS
			NV	-20	40	6.95	20	PASS

			NV	-10	40	6.95	20	PASS			
			NV	0	0	0	20	PASS			
			NV	10	-40	-6.95	20	PASS			
			NV	20	0	0	20	PASS			
			NV	30	-40	-6.95	20	PASS			
			NV	40	0	0	20	PASS			
			NV	50	-40	-6.95	20	PASS			
		5795	NV	-30	40	6.90	20	PASS			
			NV	-20	0	0	20	PASS			
			NV	-10	40	6.90	20	PASS			
			NV	0	0	0	20	PASS			
			NV	10	0	0	20	PASS			
			NV	20	40	6.90	20	PASS			
			NV	30	40	6.90	20	PASS			
			NV	40	80	13.81	20	PASS			
			NV	50	0	0	20	PASS			
			11AC20SIS O	Ant1	5745	NV	-30	0	0	20	PASS
						NV	-20	0	0	20	PASS
NV	-10	0				0	20	PASS			
NV	0	20				3.48	20	PASS			
NV	10	20				3.48	20	PASS			
NV	20	-20				-3.48	20	PASS			
NV	30	20				3.48	20	PASS			
NV	40	0				0	20	PASS			
NV	50	0				0	20	PASS			
5785	NV	-30			40	6.91	20	PASS			
	NV	-20			-20	-3.46	20	PASS			
	NV	-10			0	0	20	PASS			
	NV	0			20	3.46	20	PASS			
	NV	10			20	3.46	20	PASS			
	NV	20			0	0	20	PASS			
	NV	30			0	0	20	PASS			
	NV	40			0	0	20	PASS			
	NV	50			20	3.46	20	PASS			
5825	NV	-30	-20	-3.43	20	PASS					
	NV	-20	20	3.43	20	PASS					

			NV	-10	20	3.43	20	PASS
			NV	0	-20	-3.43	20	PASS
			NV	10	0	0	20	PASS
			NV	20	20	3.43	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
11AC40SIS O	Ant1	5755	NV	-30	-40	-6.95	20	PASS
			NV	-20	-40	-6.95	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	-40	-6.95	20	PASS
		5795	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	-40	-6.90	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	40	6.90	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
11AC80SIS O	Ant1	5775	NV	-30	80	13.85	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	-80	-13.85	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS

4.7 Automatically Discontinue Transmission

4.7.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

4.7.2 Test Result of Automatically Discontinue Transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

4.8 Antenna Requirements

4.8.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.8.2 Antenna Connected Construction

An embedded-in antenna design is used.

4.8.3 Antenna Gain

The antenna peak gain of EUT is 2dBi less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

No antenna other than that furnished by the responsible party shall be used with the device. This device use a permanently attached antennas. The use of a standard antenna jack or electrical connector is prohibited. This device is compliant with FCC Part 15.203.

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
Thermal Chamber	Sanmtest	SMC-408-CD	2435	2019-05-09	2020-05-08	Conducted
Base Station	R&S	CMW 270	101231	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
Amplifier	Narda	TTA1840-35-HG	2034380	2019-05-15	2020-05-14	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	Audix	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	2.60dB
Radiated emissions	30MHz ~ 1GMHz	5.05dB
	1GHz ~ 18GHz	5.06 dB
	18GHz ~ 40GHz	3.65dB

MEASUREMENT	UNCERTAINTY
Occupied Channel Bandwidth	±0.1%
RF output power, conducted	±1.2dB
Power density, conducted	±1.2dB

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