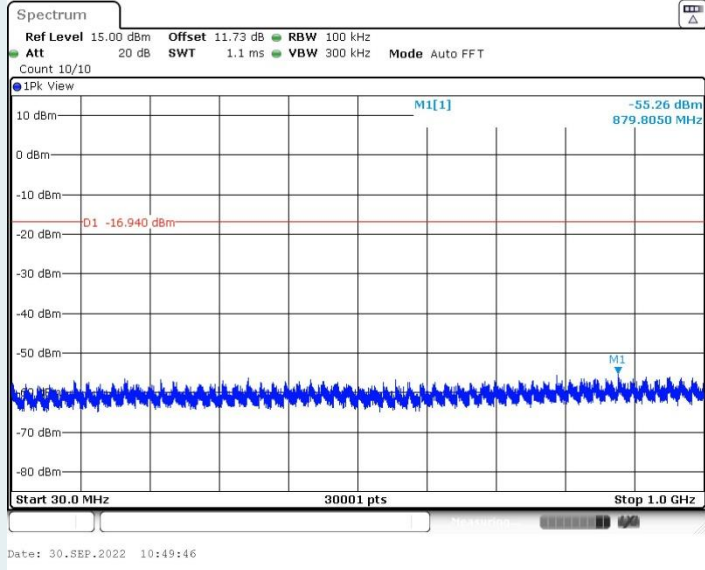
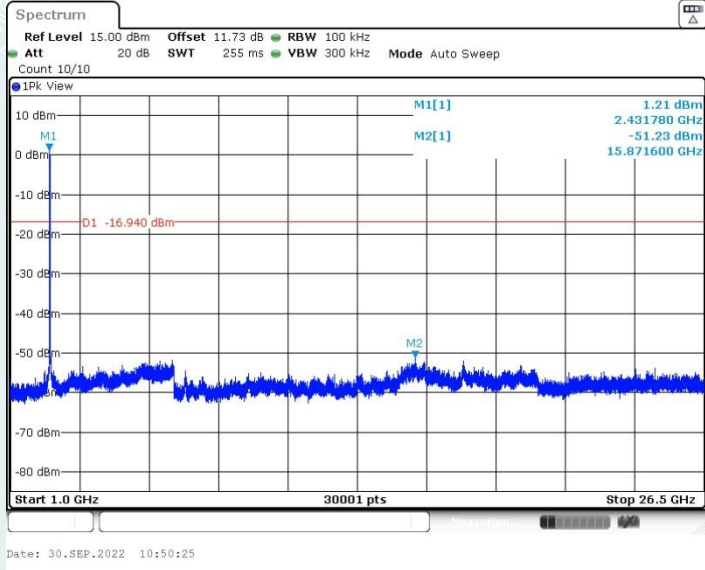


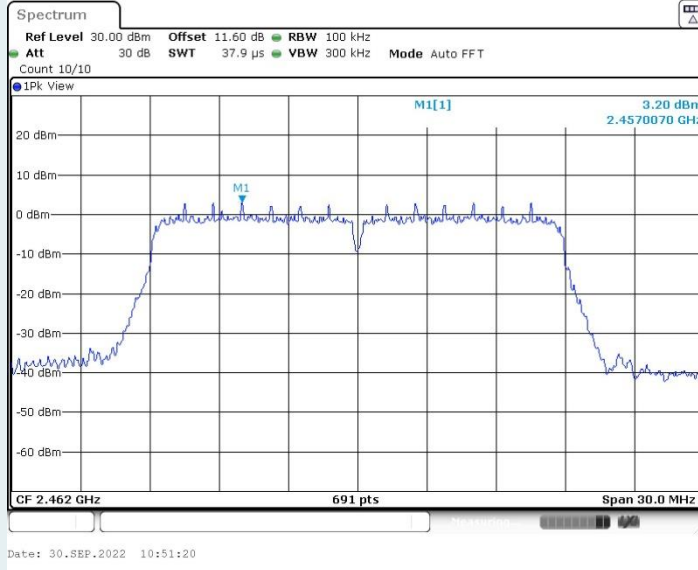
IEEE 802.11n HT20_Ant1_2437 MHz_30~1000 MHz



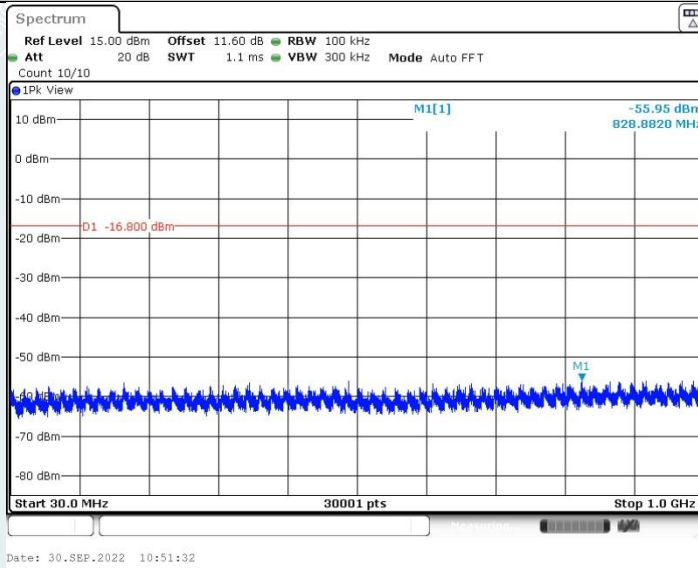
IEEE 802.11n HT20_Ant1_2437 MHz_1000~26500 MHz

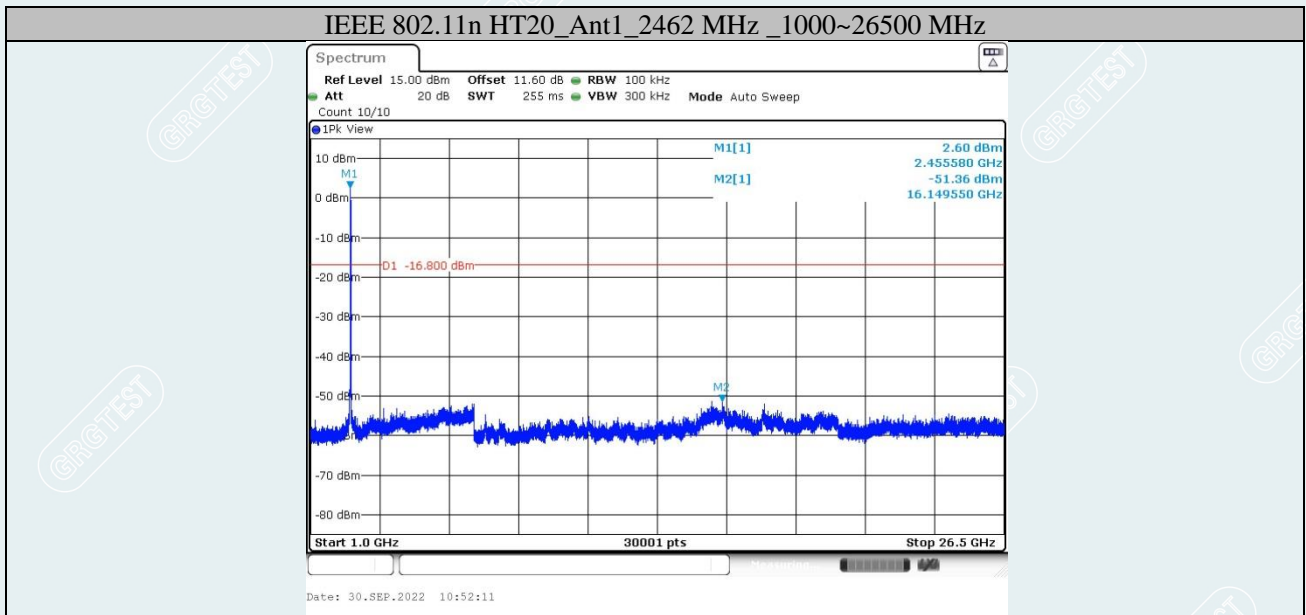


IEEE 802.11n HT20_Ant1_2462 MHz_0~Reference



IEEE 802.11n HT20_Ant1_2462 MHz_30~1000 MHz





----- The following blanks -----

11. RESTRICTED BANDS OF OPERATION

11.1 LIMITS

Section 15.247(d) In addition, Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	
13.36 - 13.41			

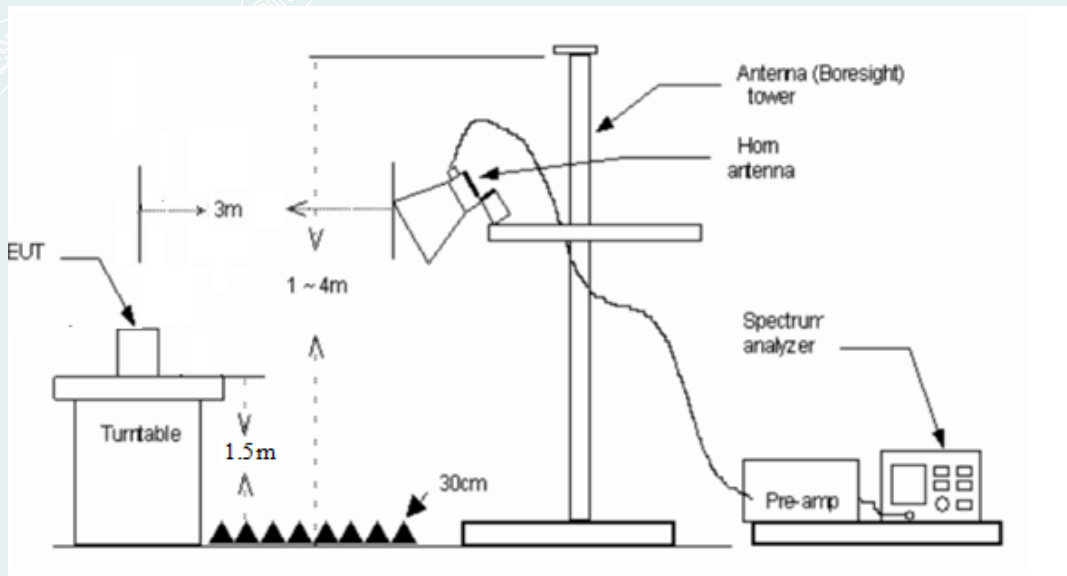
Frequency (MHz)	Quasi-peak(μV/m)	Measurement distance(m)	Quasi-peak(dBμV/m)@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30~88	100	3	40
88~216	150	3	43.5
216~960	200	3	46
Above 960	500	3	54

11.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 15.247 measurement guidance v05r02.

- 1) The EUT is placed on a turntable, which is 1.5m above the ground plane.
- 2) The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4) Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - a) The frequency above 1GHz, for Peak detector: Set RBW=1MHz, RBW=3MHz.
 - b) The frequency above 1GHz, for Avg detector: Set RBW=1MHz, if the EUT is configured to transmit with duty cycle $\geq 98\%$, set $VBW \leq RBW/100$ (i.e., 10kHz) but not less than 10 Hz, Where duty cycle is defined in section 2.9. If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$, Where T is defined in section 2.9.
- 5) Repeat the procedures until all the PEAK and AVERAGE versus polarization are measured.

11.3 TEST SETUP



----- The following blanks -----

11.4 TEST RESULTS

IEEE 802.11b mode

Lowest Channel

Frequency 2412MHz

Environment: 23.2°C/60%RH/101.0kPa

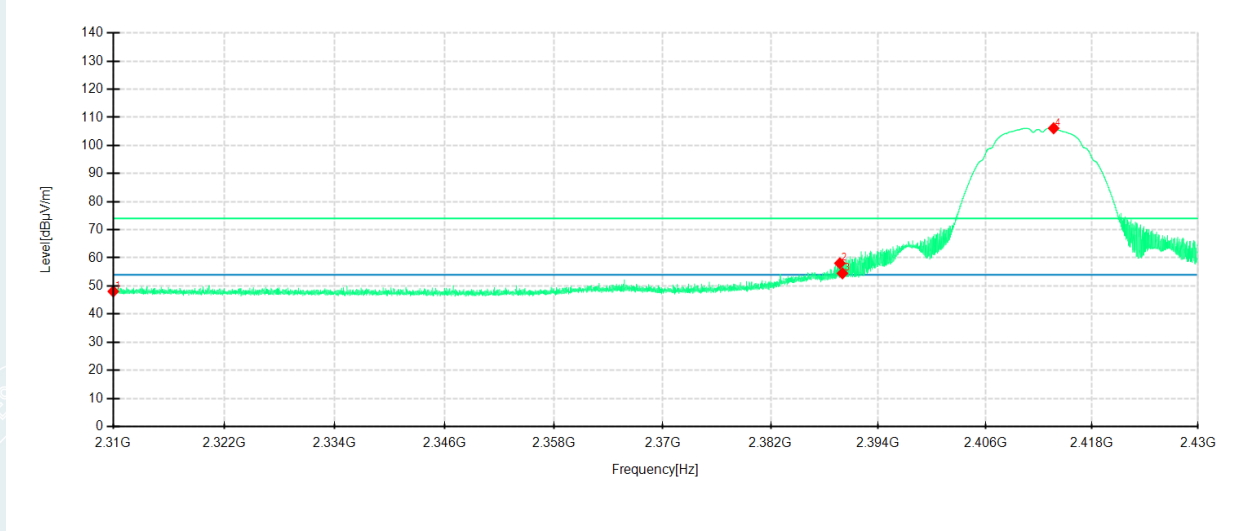
Tested By: Chen xiacong

Detector mode: Peak

Voltage: AC 120V/60Hz

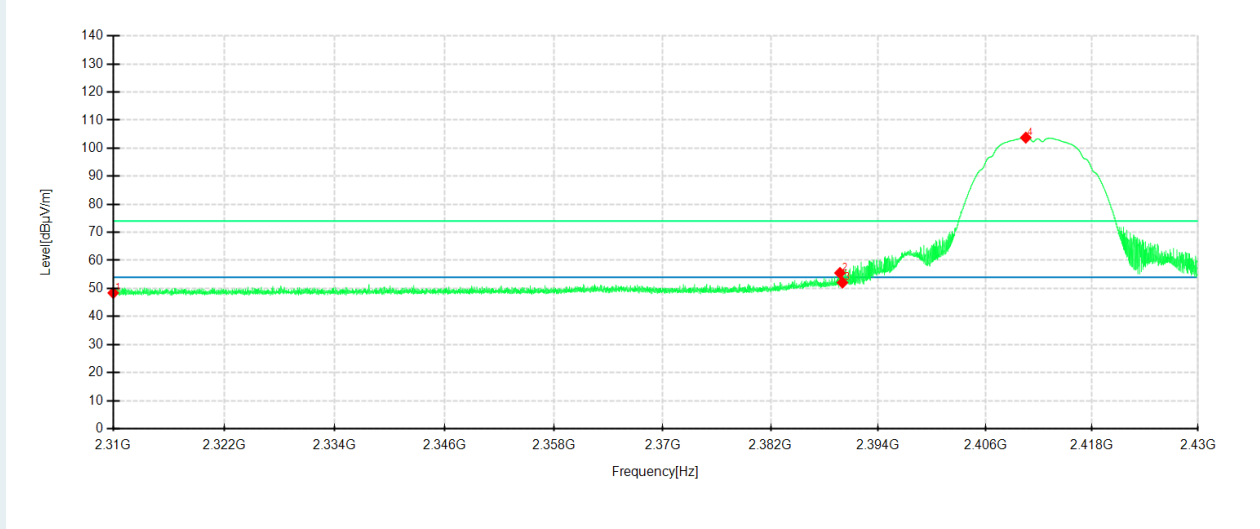
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dB μ V/m	Level dB μ V/m	Factor dB	Limit dB μ V/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310	48.35	48.06	-0.29	74.00	25.94	100	190	Horizontal	/
2	2389.712	58.92	58.07	-0.85	74.00	15.93	100	157	Horizontal	/
3	2390	55.35	54.50	-0.85	74.00	19.50	200	172	Horizontal	/
4	2413.6784	106.79	106.12	-0.67	74.00	-32.12	200	172	Horizontal	No limit
1	2310	48.11	48.40	0.29	74.00	25.60	200	158	Vertical	/
2	2389.724	55.23	55.52	0.29	74.00	18.48	200	188	Vertical	/
3	2390	51.79	52.08	0.29	74.00	21.92	200	188	Vertical	/
4	2410.5461	103.68	103.76	0.08	74.00	-29.76	200	54	Vertical	No limit

----- The following blanks -----

IEEE 802.11b mode

Lowest Channel

Frequency 2412MHz

Environment: 23.2°C/60%RH/101.0kPa

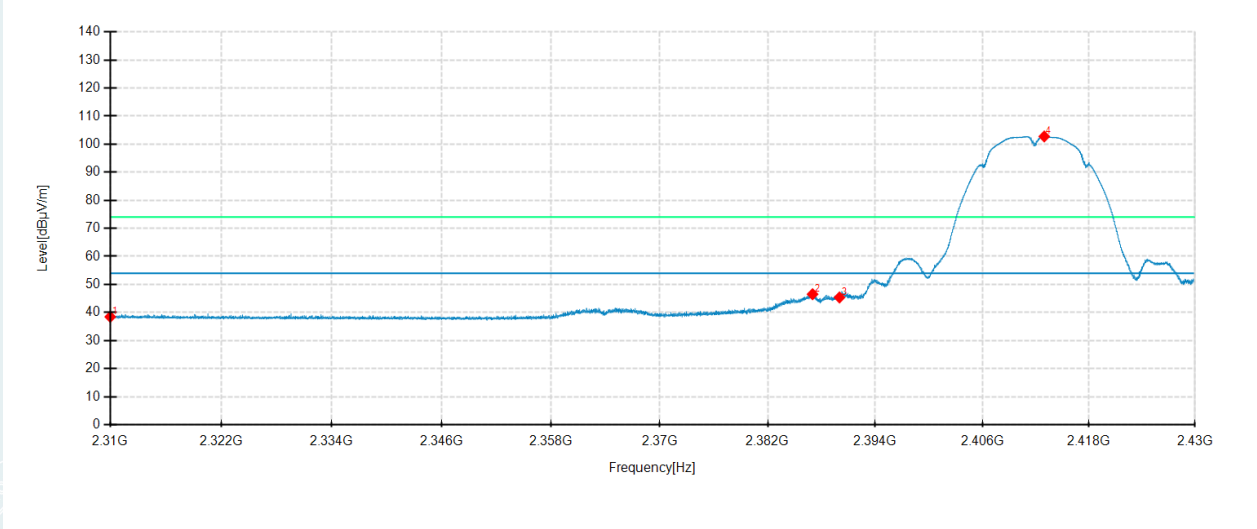
Tested By: Chen xiacong

Detector mode: Average

Voltage: AC 120V/60Hz

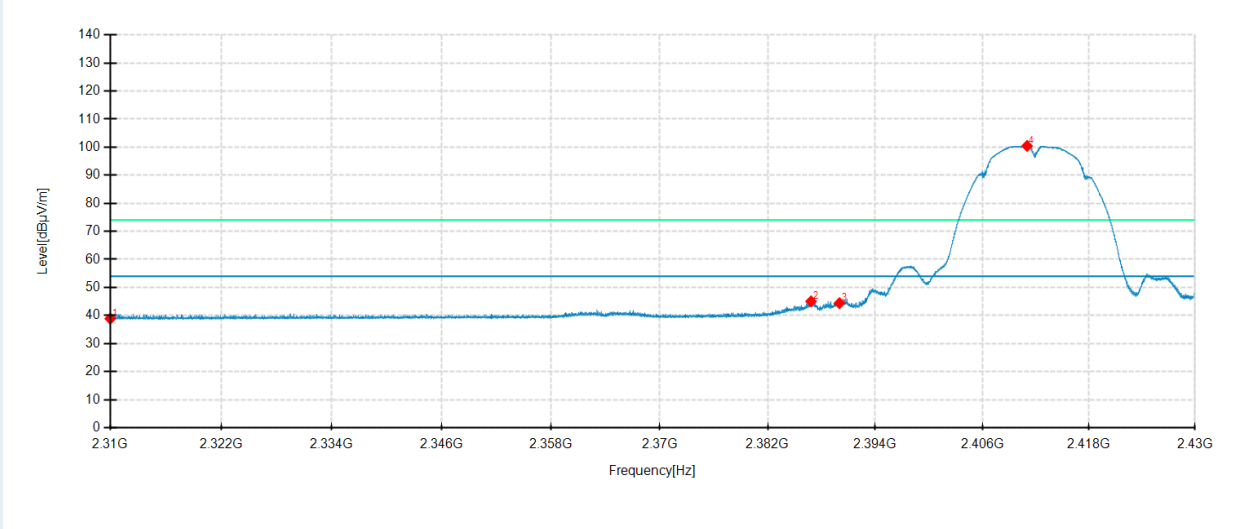
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBµV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310	38.74	38.45	-0.29	54.00	15.55	100	0	Horizontal	/
2	2386.9997	47.39	46.52	-0.87	54.00	7.48	200	173	Horizontal	/
3	2390	46.21	45.36	-0.85	54.00	8.64	200	194	Horizontal	/
4	2412.9583	103.43	102.75	-0.68	54.00	-48.75	200	173	Horizontal	No limit
1	2310	38.58	38.87	0.29	54.00	15.13	100	173	Vertical	/
2	2386.8317	44.72	45.03	0.31	54.00	8.97	200	64	Vertical	/
3	2390	44.10	44.39	0.29	54.00	9.61	200	64	Vertical	/
4	2411.0261	100.36	100.44	0.08	54.00	-46.44	200	64	Vertical	No limit

IEEE 802.11b mode

Highest Channel

Frequency 2462MHz

Environment: 23.2°C/60%RH/101.0kPa

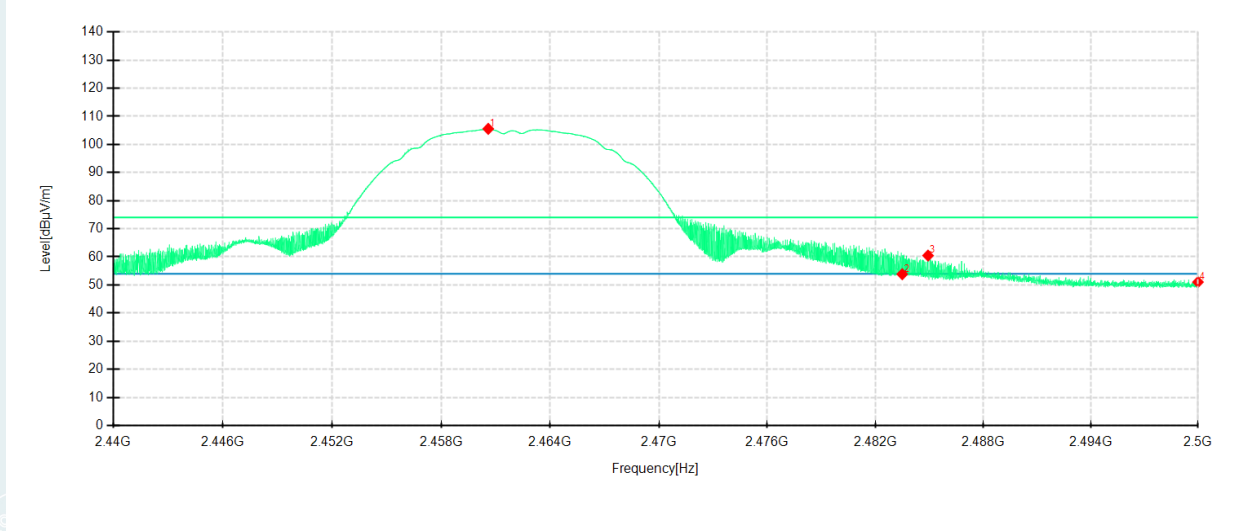
Tested By: Chen xiacong

Detector mode: Peak

Voltage: AC 120V/60Hz

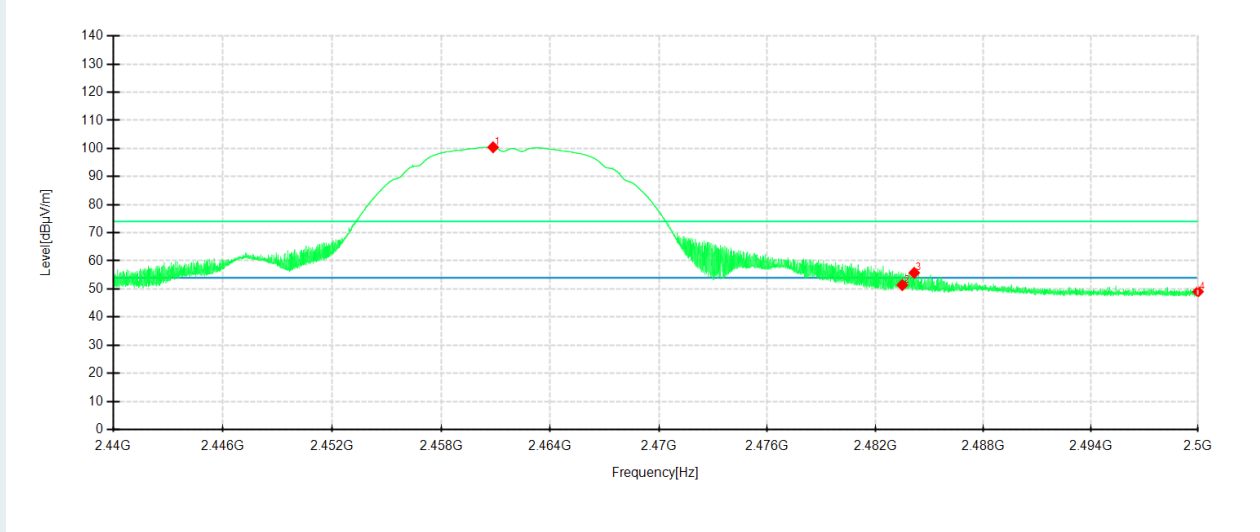
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBµV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2460.5761	105.74	105.56	-0.18	74.00	-31.56	100	155	Horizontal	No limit
2	2483.5	53.59	53.85	0.26	74.00	20.15	200	172	Horizontal	/
3	2484.9325	60.17	60.46	0.29	74.00	13.54	100	155	Horizontal	/
4	2500	50.46	51.04	0.58	74.00	22.96	100	187	Horizontal	/
1	2460.8461	100.87	100.42	-0.45	74.00	-26.42	200	44	Vertical	No limit
2	2483.5	51.76	51.38	-0.38	74.00	22.62	200	44	Vertical	/
3	2484.1644	56.13	55.76	-0.37	74.00	18.24	100	225	Vertical	/
4	2500	49.37	49.05	-0.32	74.00	24.95	200	74	Vertical	/

IEEE 802.11b mode

Highest Channel

Frequency 2462MHz

Environment: 23.2°C/60%RH/101.0kPa

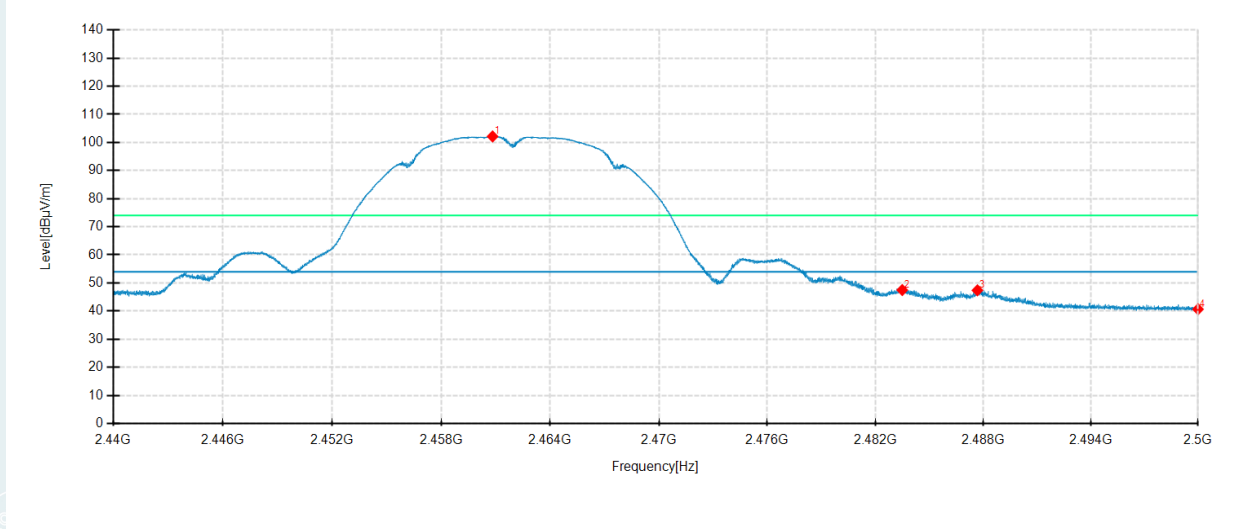
Tested By: Chen xiacong

Detector mode: Average

Voltage: AC 120V/60Hz

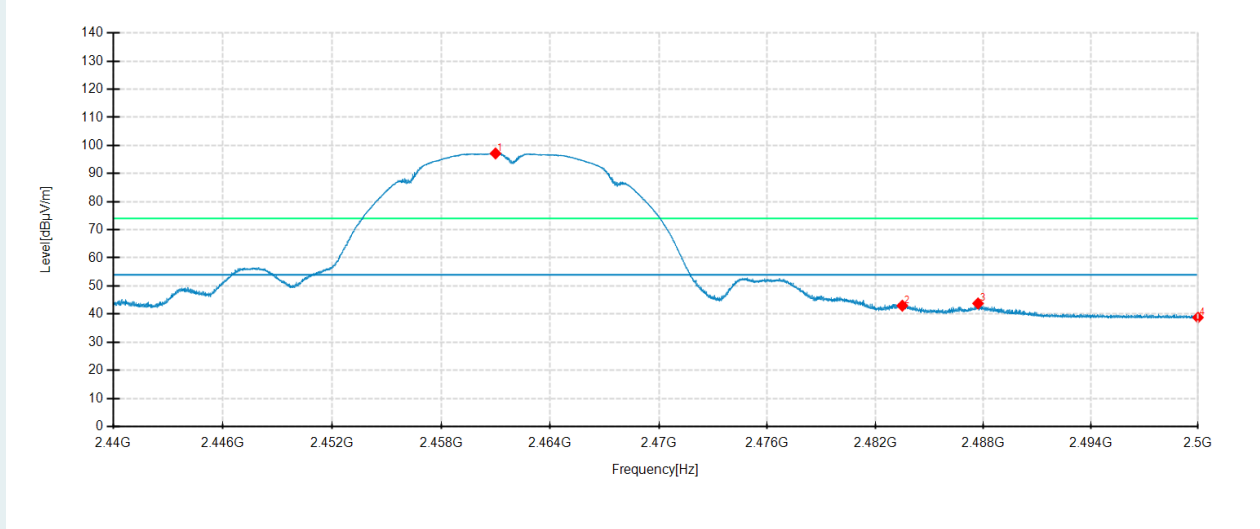
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBµV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2460.8161	102.32	102.14	-0.18	54.00	-48.14	100	157	Horizontal	No limit
2	2483.5	47.23	47.49	0.26	54.00	6.51	100	157	Horizontal	/
3	2487.6808	47.05	47.39	0.34	54.00	6.61	100	157	Horizontal	/
4	2500	40.08	40.66	0.58	54.00	13.34	100	188	Horizontal	/
1	2460.9781	97.61	97.16	-0.45	54.00	-43.16	200	42	Vertical	No limit
2	2483.5	43.36	42.98	-0.38	54.00	11.02	200	73	Vertical	/
3	2487.7168	44.14	43.78	-0.36	54.00	10.22	200	73	Vertical	/
4	2500	39.09	38.77	-0.32	54.00	15.23	100	338	Vertical	/

IEEE 802.11g mode

Lowest Channel

Frequency 2412MHz

Environment: 23.2°C/60%RH/101.0kPa

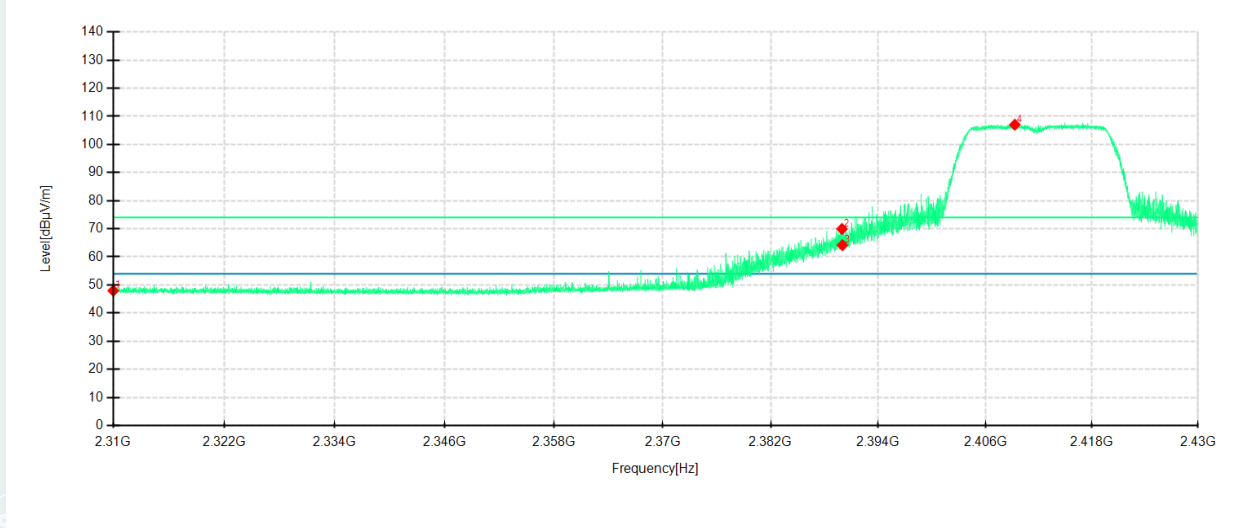
Tested By: Chen xiacong

Detector mode: Peak

Voltage: AC 120V/60Hz

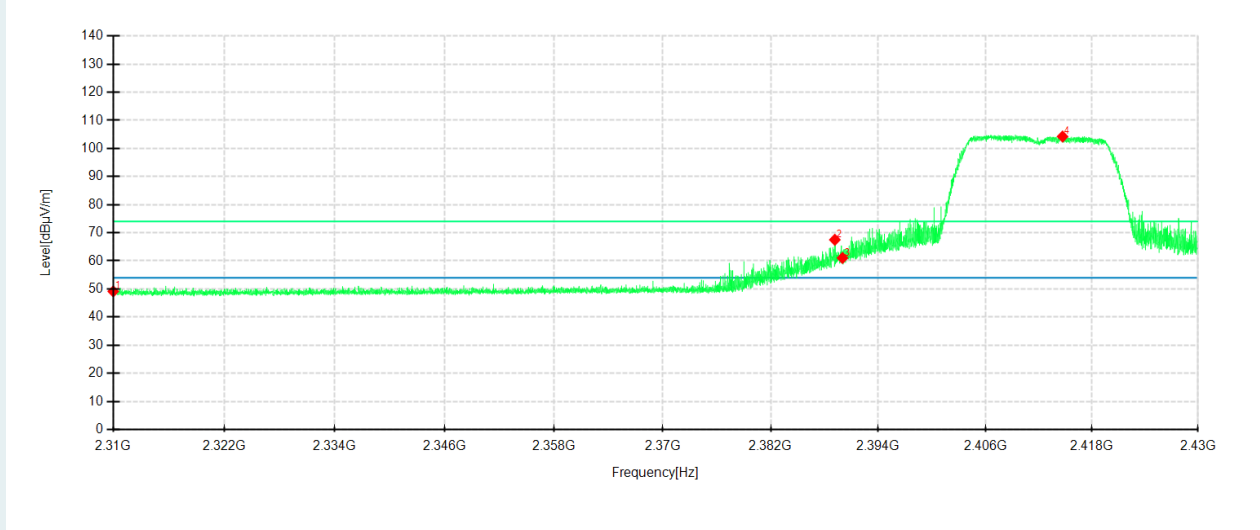
Date: 2022-04-12

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310	48.24	47.95	-0.29	74.00	26.05	100	85	Horizontal	/
2	2389.94	70.77	69.92	-0.85	74.00	4.08	100	156	Horizontal	/
3	2390	65.01	64.16	-0.85	74.00	9.84	100	188	Horizontal	/
4	2409.3099	107.73	107.03	-0.70	74.00	-33.03	200	173	Horizontal	No limit
1	2310	48.85	49.14	0.29	74.00	24.86	100	172	Vertical	/
2	2389.1479	67.20	67.50	0.30	74.00	6.50	200	64	Vertical	/
3	2390	60.75	61.04	0.29	74.00	12.96	200	64	Vertical	/
4	2414.6865	104.23	104.24	0.01	74.00	-30.24	200	64	Vertical	No limit

IEEE 802.11g mode

Lowest Channel

Frequency 2412MHz

Environment: 23.2°C/60%RH/101.0kPa

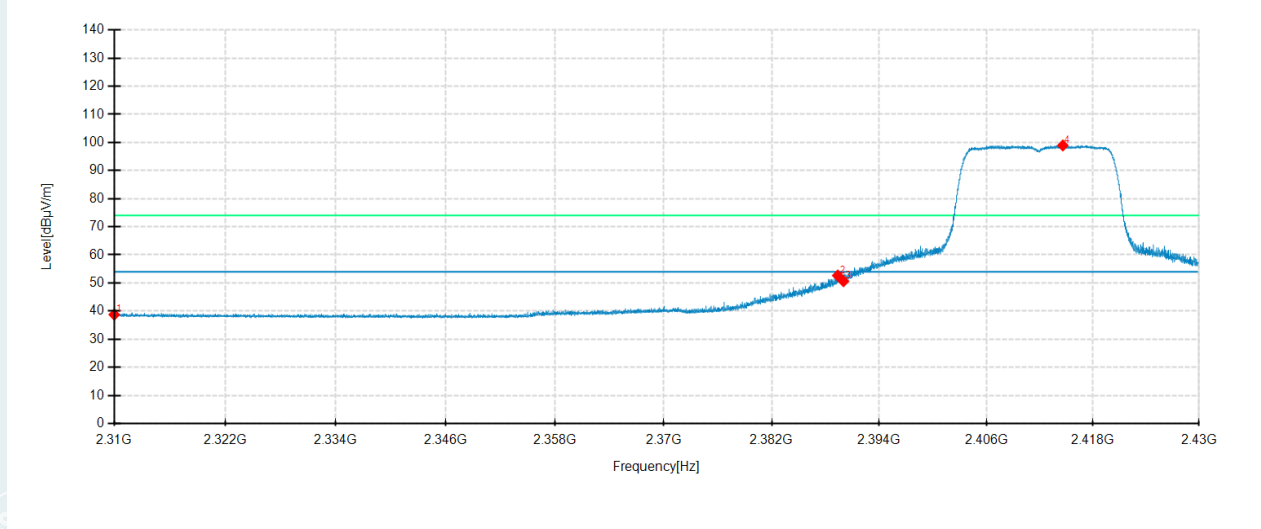
Tested By: Chen xiacong

Detector mode: Average

Voltage: AC 120V/60Hz

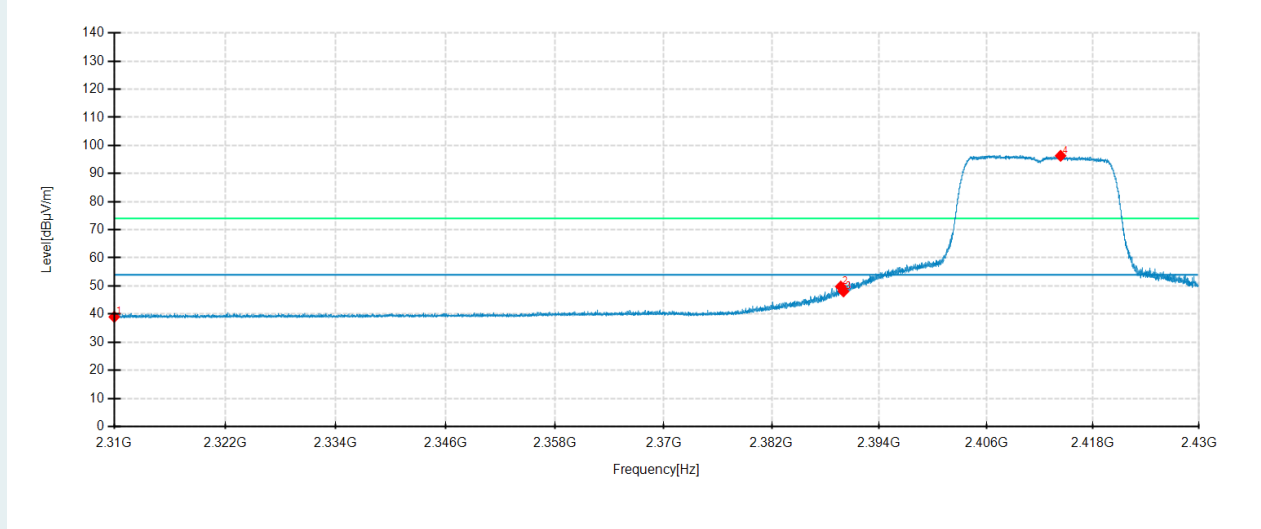
Date: 2022-04-12

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310	39.04	38.75	-0.29	54.00	15.25	100	136	Horizontal	/
2	2389.3639	53.50	52.65	-0.85	54.00	1.35	200	172	Horizontal	/
3	2390	51.47	50.62	-0.85	54.00	3.38	100	145	Horizontal	/
4	2414.6025	99.60	98.94	-0.66	54.00	-44.94	200	172	Horizontal	No limit
1	2310	38.71	39.00	0.29	54.00	15.00	200	116	Vertical	/
2	2389.7	49.49	49.78	0.29	54.00	4.22	200	44	Vertical	/
3	2390	47.79	48.08	0.29	54.00	5.92	200	63	Vertical	/
4	2414.3504	96.29	96.31	0.02	54.00	-42.31	200	63	Vertical	No limit

IEEE 802.11g mode

Highest Channel

Frequency 2462MHz

Environment: 23.2°C/60%RH/101.0kPa

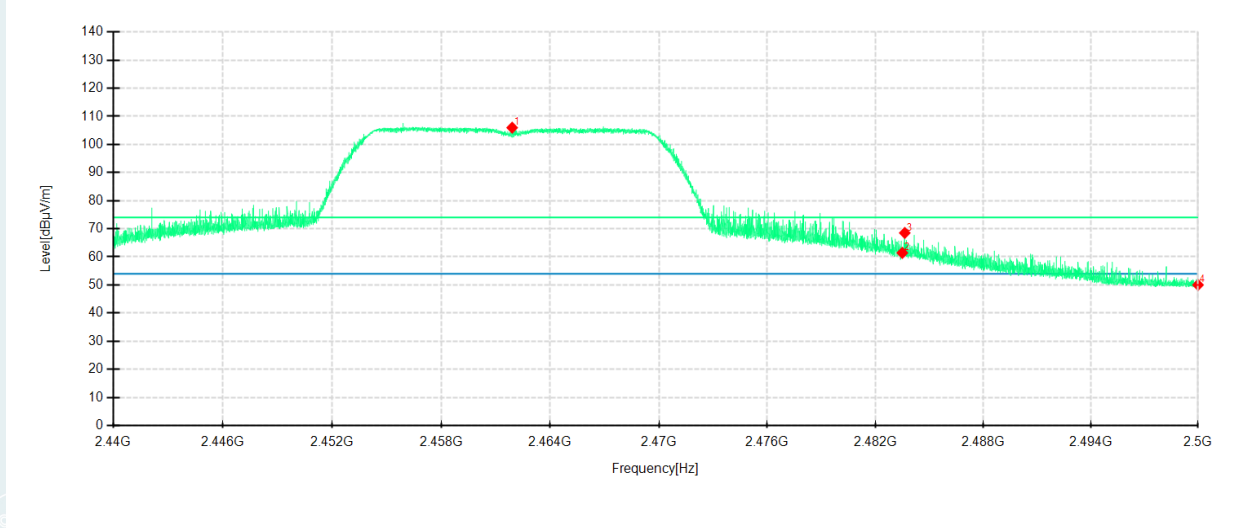
Tested By: Chen xiacong

Detector mode: Peak

Voltage: AC 120V/60Hz

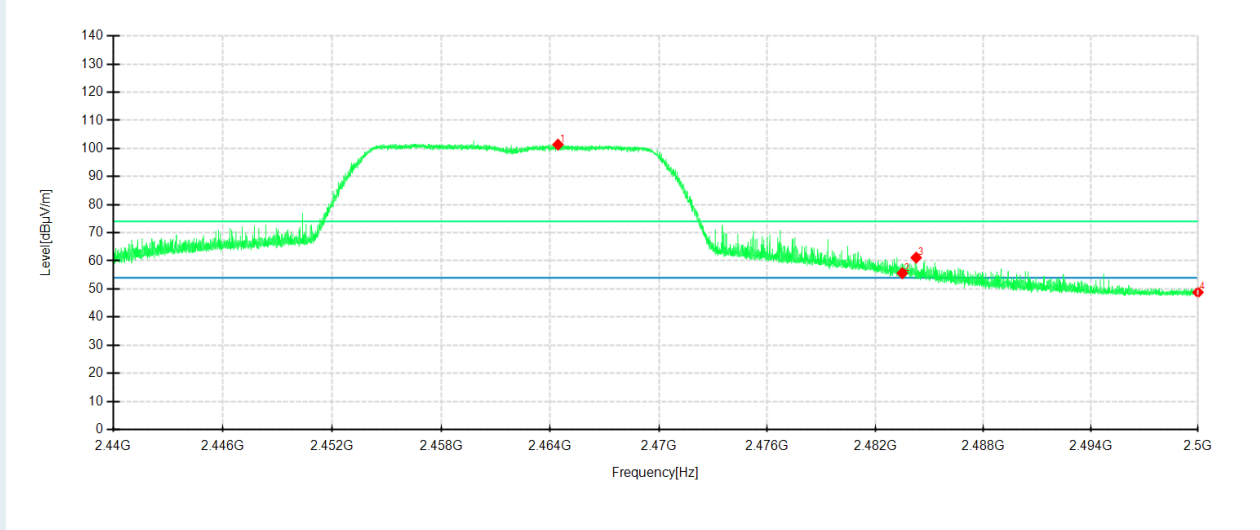
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBµV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2461.8962	106.14	105.98	-0.16	74.00	-31.98	100	158	Horizontal	No limit
2	2483.5	61.17	61.43	0.26	74.00	12.57	200	173	Horizontal	/
3	2483.6364	68.25	68.51	0.26	74.00	5.49	100	158	Horizontal	/
4	2500	49.44	50.02	0.58	74.00	23.98	100	188	Horizontal	/
1	2464.4224	101.80	101.36	-0.44	74.00	-27.36	200	41	Vertical	No limit
2	2483.5	56.00	55.62	-0.38	74.00	18.38	200	188	Vertical	/
3	2484.2724	61.51	61.14	-0.37	74.00	12.86	100	225	Vertical	/
4	2500	49.11	48.79	-0.32	74.00	25.21	200	188	Vertical	/

**IEEE 802.11g mode
Highest Channel**

Frequency 2462MHz

Environment: 23.2°C/60%RH/101.0kPa

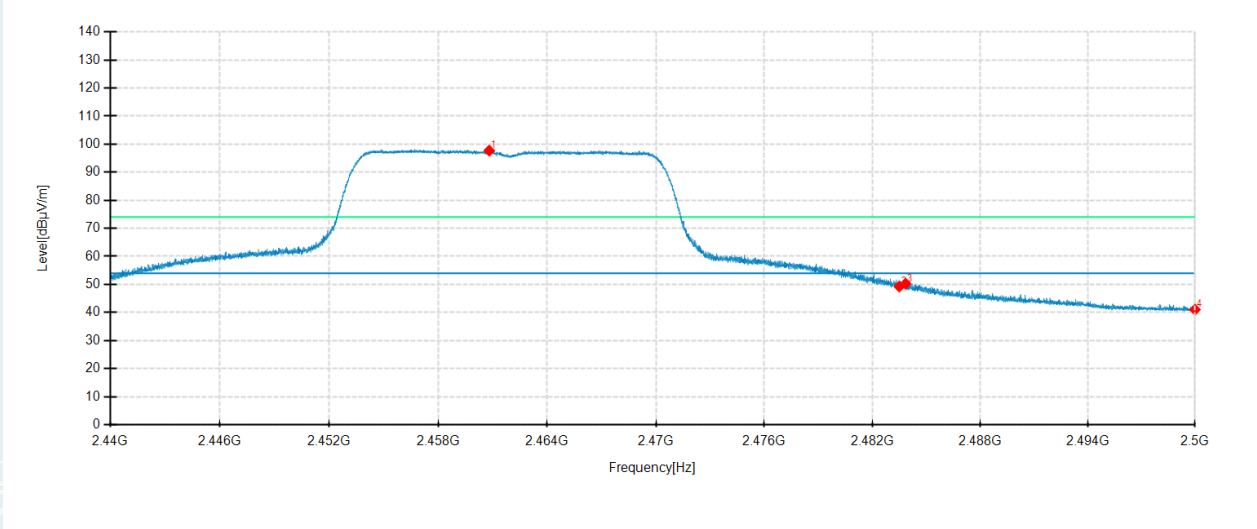
Tested By: Chen xiaocong

Detector mode: Average

Voltage: AC 120V/60Hz

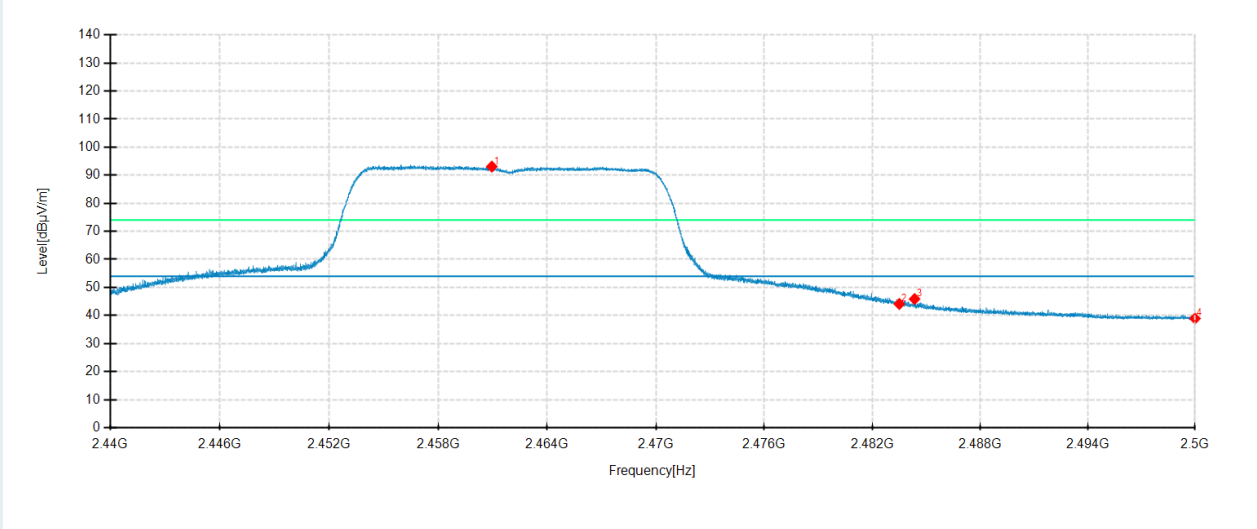
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBµV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2460.7981	97.89	97.71	-0.18	54.00	-43.71	100	156	Horizontal	No limit
2	2483.5	49.01	49.27	0.26	54.00	4.73	100	156	Horizontal	/
3	2483.8464	49.99	50.26	0.27	54.00	3.74	100	156	Horizontal	/
4	2500	40.43	41.01	0.58	54.00	12.99	100	156	Horizontal	/
1	2460.9421	93.53	93.08	-0.45	54.00	-39.08	200	44	Vertical	No limit
2	2483.5	44.48	44.10	-0.38	54.00	9.90	200	34	Vertical	/
3	2484.3504	46.24	45.87	-0.37	54.00	8.13	200	34	Vertical	/
4	2500	39.26	38.94	-0.32	54.00	15.06	200	34	Vertical	/

IEEE 802.11n HT20 mode

Lowest Channel

Frequency 2412MHz

Environment: 23.2°C/60%RH/101.0kPa

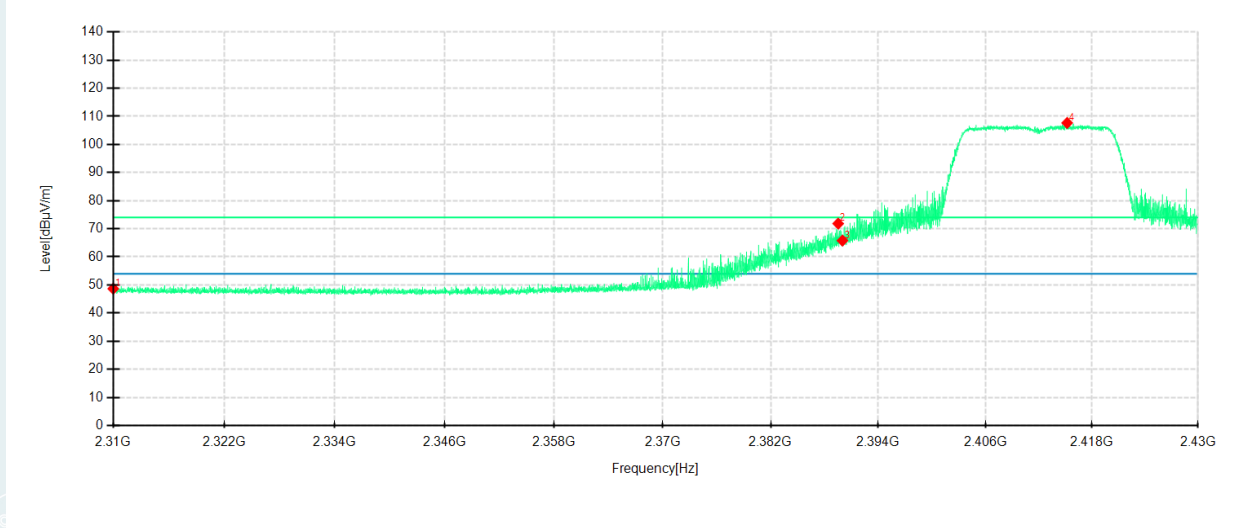
Tested By: Chen xiaocong

Detector mode: Peak

Voltage: AC 120V/60Hz

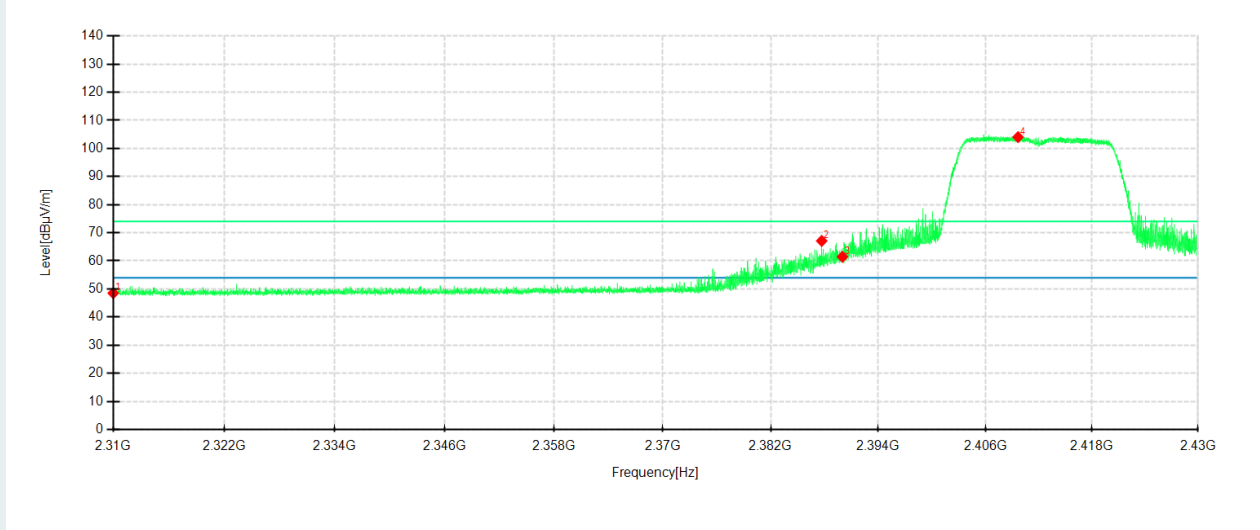
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310	48.96	48.67	-0.29	74.00	25.33	100	189	Horizontal	/
2	2389.52	72.69	71.84	-0.85	74.00	2.16	100	157	Horizontal	/
3	2390	66.65	65.80	-0.85	74.00	8.20	100	157	Horizontal	/
4	2415.2025	108.32	107.66	-0.66	74.00	-33.66	100	157	Horizontal	No limit
1	2310	48.23	48.52	0.29	74.00	25.48	100	172	Vertical	/
2	2387.6838	66.81	67.11	0.30	74.00	6.89	200	73	Vertical	/
3	2390	61.15	61.44	0.29	74.00	12.56	100	318	Vertical	/
4	2409.67	103.95	104.04	0.09	74.00	-30.04	200	53	Vertical	No limit

IEEE 802.11n HT20 mode

Lowest Channel

Frequency 2412MHz

Environment: 23.2°C/60%RH/101.0kPa

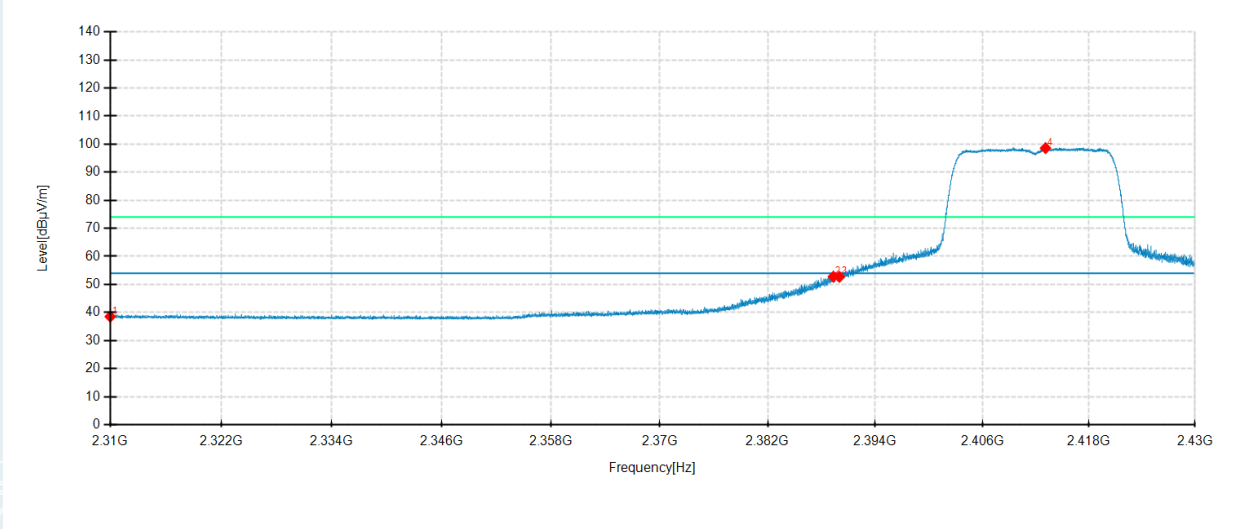
Tested By: Chen xiacong

Detector mode: Average

Voltage: AC 120V/60Hz

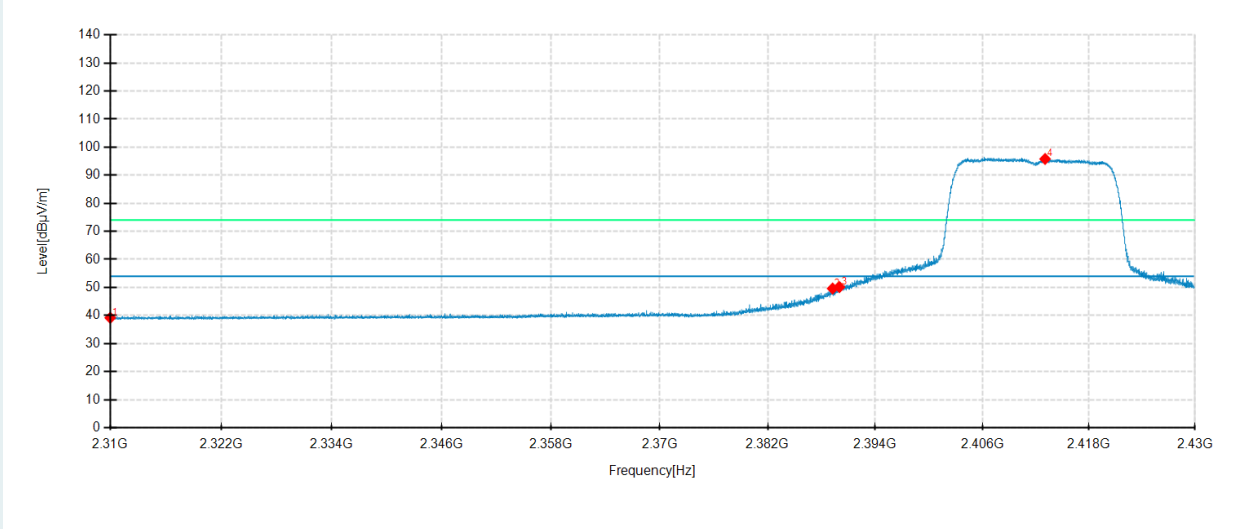
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBµV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310	38.82	38.53	-0.29	54.00	15.47	200	172	Horizontal	/
2	2389.3159	53.62	52.77	-0.85	54.00	1.23	200	172	Horizontal	/
3	2390	53.56	52.71	-0.85	54.00	1.29	200	172	Horizontal	/
4	2413.1023	99.28	98.60	-0.68	54.00	-44.60	100	157	Horizontal	No limit
1	2310	38.87	39.16	0.29	54.00	14.84	100	234	Vertical	/
2	2389.2319	49.30	49.60	0.30	54.00	4.40	200	44	Vertical	/
3	2390	49.83	50.12	0.29	54.00	3.88	200	54	Vertical	/
4	2413.0543	95.77	95.81	0.04	54.00	-41.81	200	54	Vertical	No limit

IEEE 802.11n HT20 mode

Highest Channel

Frequency 2462MHz

Environment: 23.2°C/60%RH/101.0kPa

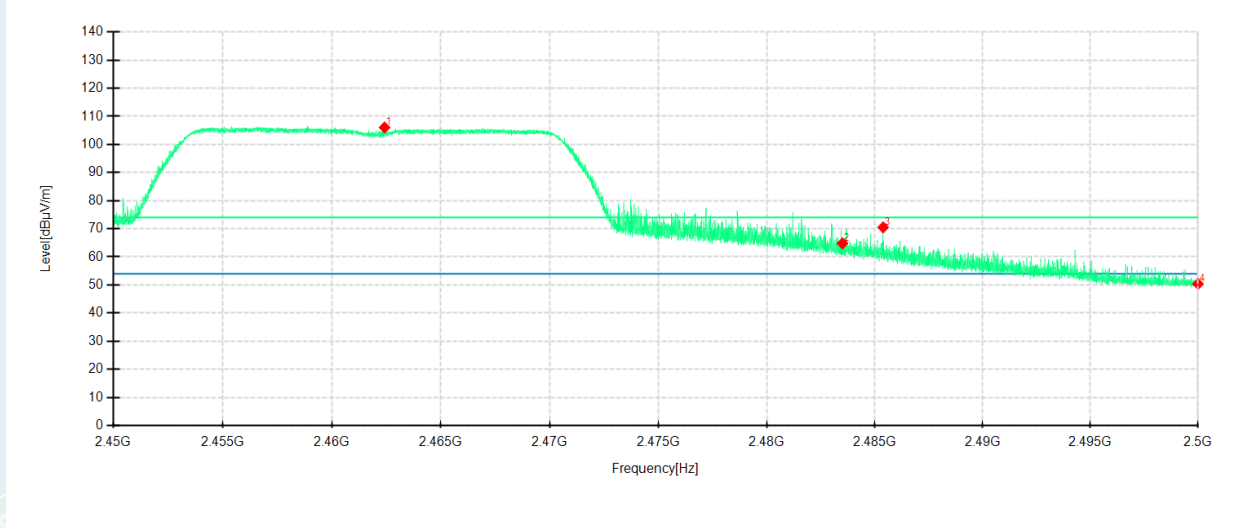
Tested By: Chen xiacong

Detector mode: Peak

Voltage: AC 120V/60Hz

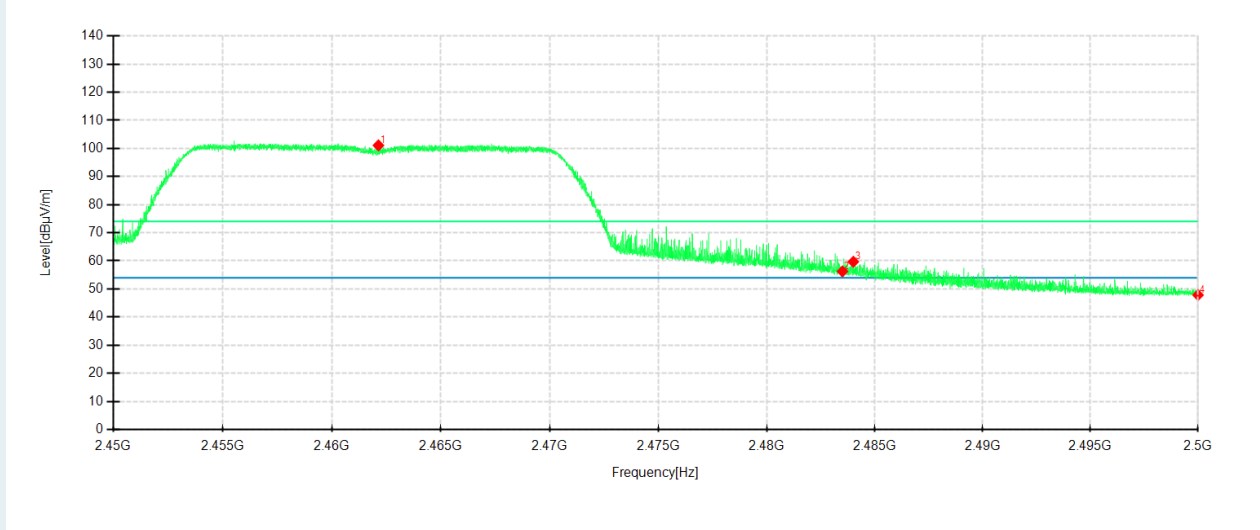
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBµV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2462.4112	106.18	106.03	-0.15	74.00	-32.03	100	156	Horizontal	No limit
2	2483.5	64.53	64.79	0.26	74.00	9.21	100	156	Horizontal	/
3	2485.3835	70.20	70.50	0.30	74.00	3.50	100	166	Horizontal	/
4	2500	49.78	50.36	0.58	74.00	23.64	100	186	Horizontal	/
1	2462.1312	101.53	101.08	-0.45	74.00	-27.08	200	41	Vertical	No limit
2	2483.5	56.63	56.25	-0.38	74.00	17.75	200	187	Vertical	/
3	2484.0034	60.05	59.68	-0.37	74.00	14.32	200	41	Vertical	/
4	2500	48.16	47.84	-0.32	74.00	26.16	200	41	Vertical	/

**IEEE 802.11n HT20 mode
Highest Channel**

Frequency 2462MHz

Environment: 23.2°C/60%RH/101.0kPa

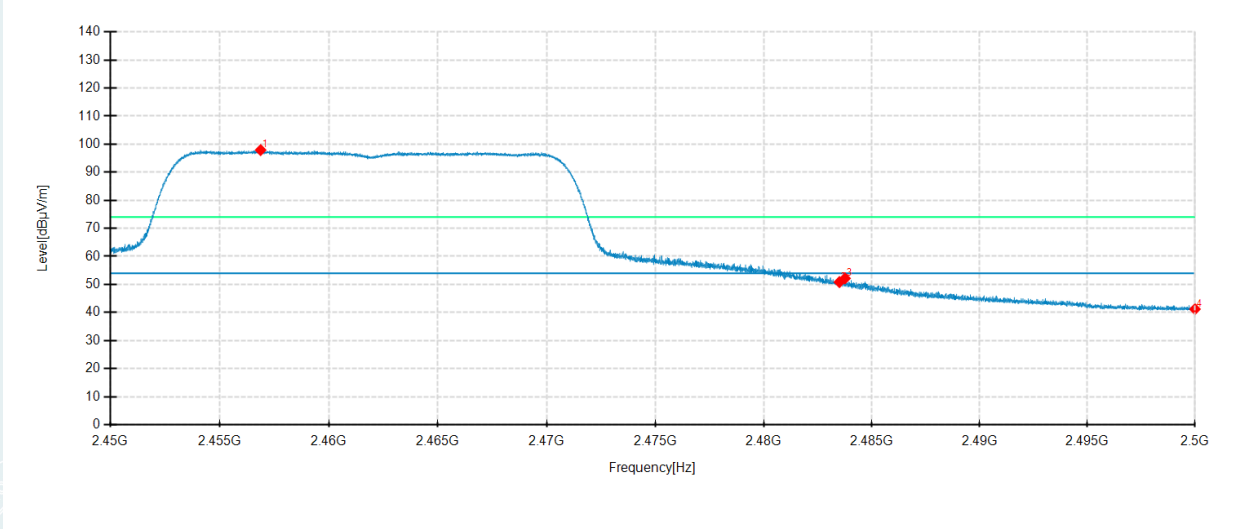
Tested By: Chen xiaocong

Detector mode: Average

Voltage: AC 120V/60Hz

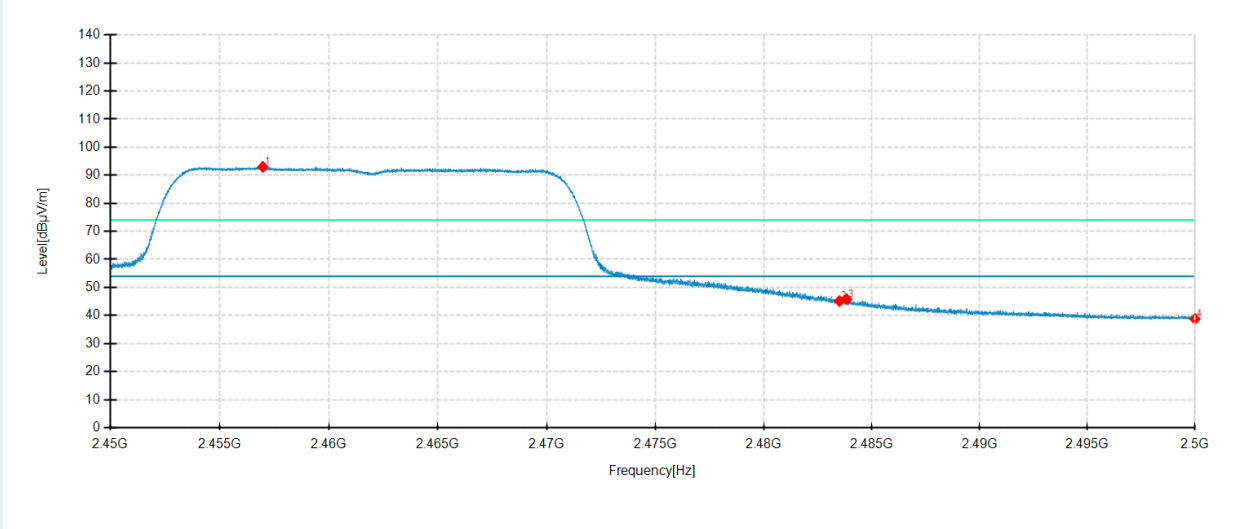
Date: 2022-09-23

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2456.8707	98.16	97.90	-0.26	54.00	-43.90	100	169	Horizontal	No limit
2	2483.5	50.58	50.84	0.26	54.00	3.16	100	158	Horizontal	/
3	2483.7584	51.90	52.16	0.26	54.00	1.84	100	158	Horizontal	/
4	2500	40.62	41.20	0.58	54.00	12.80	100	158	Horizontal	/
1	2456.9757	93.44	92.97	-0.47	54.00	-38.97	200	188	Vertical	No limit
2	2483.5	45.51	45.13	-0.38	54.00	8.87	200	188	Vertical	/
3	2483.8334	46.15	45.78	-0.37	54.00	8.22	200	42	Vertical	/
4	2500	39.06	38.74	-0.32	54.00	15.26	200	94	Vertical	/

APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Please refer to the attached document E20220818423001-16-Test photo.

APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E20220818423001-17-EUT photo.

----- End of Report -----