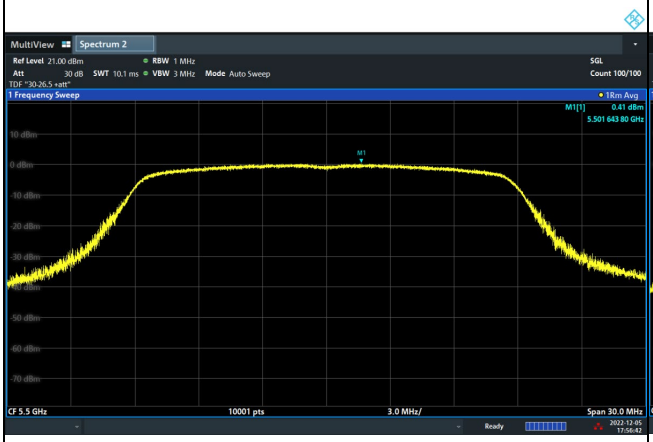
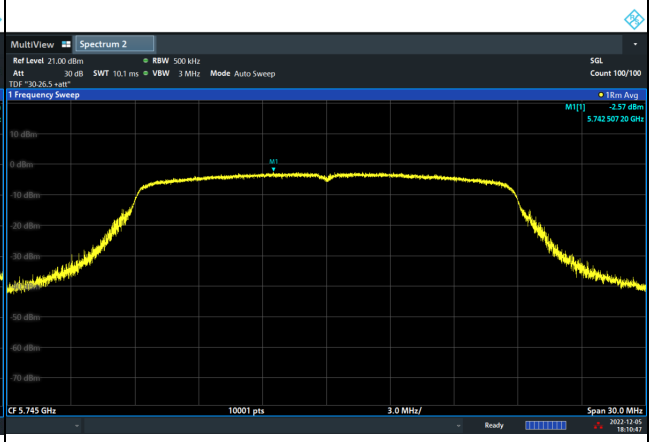
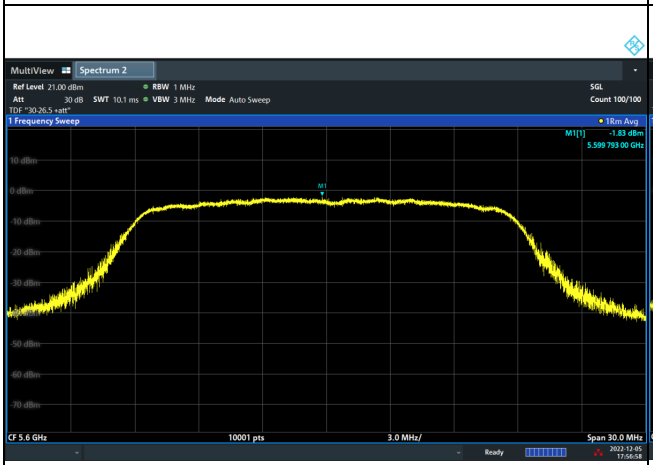
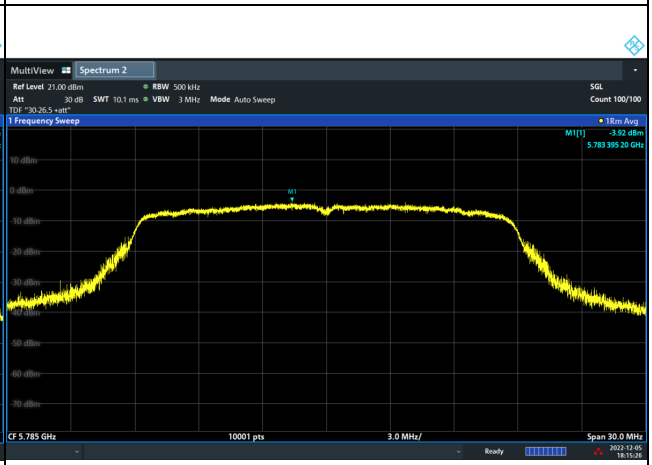
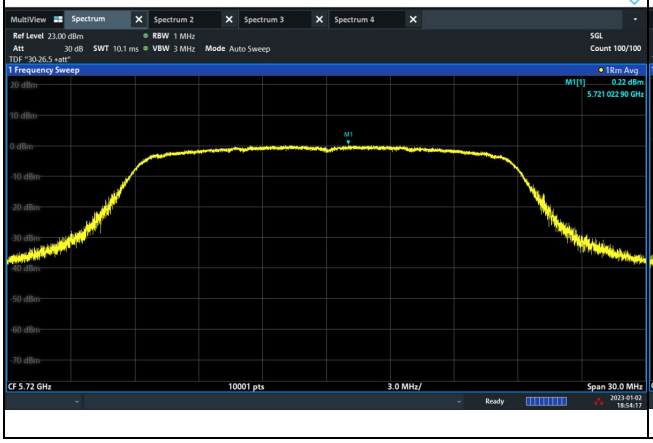
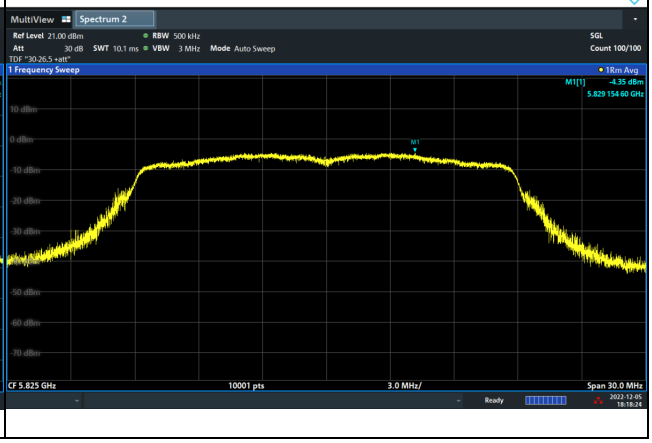
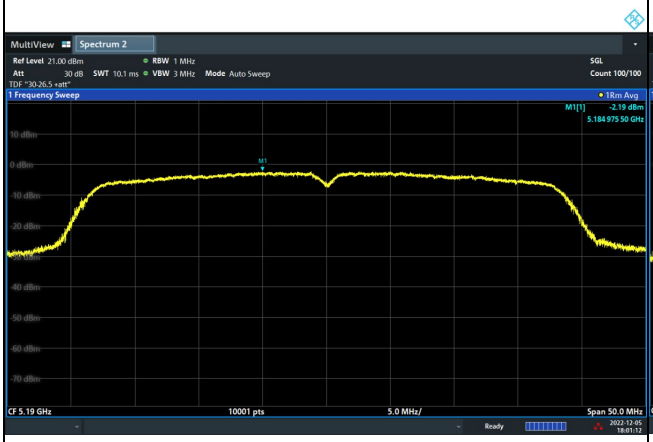
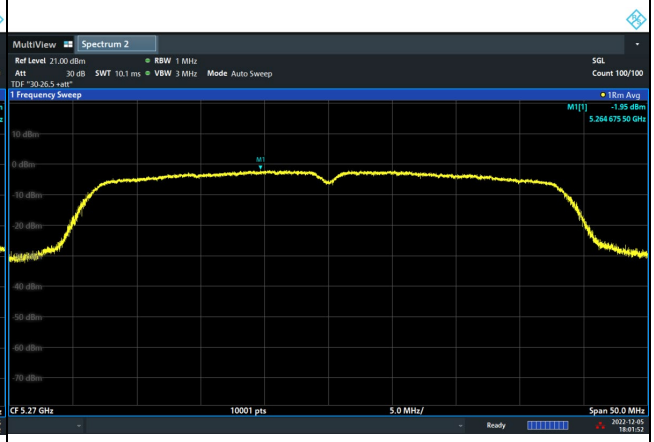
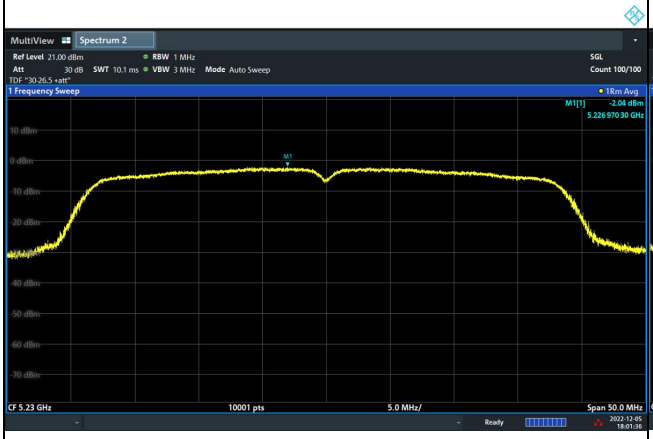
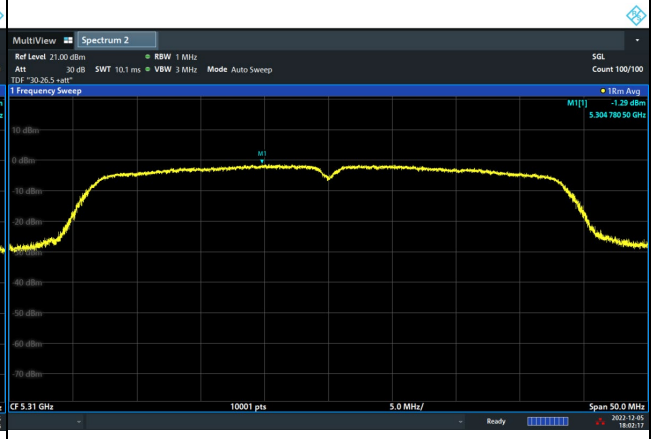
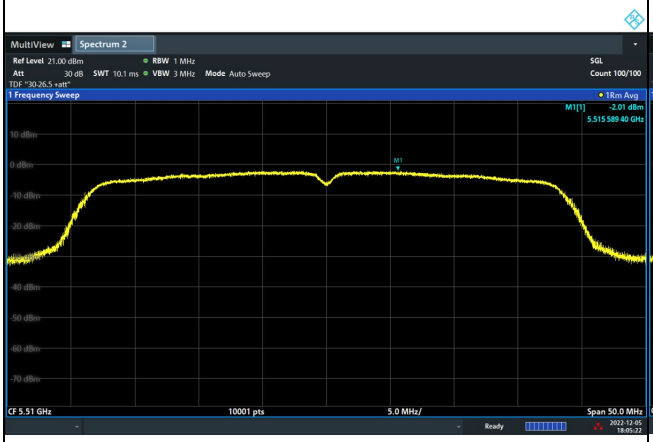
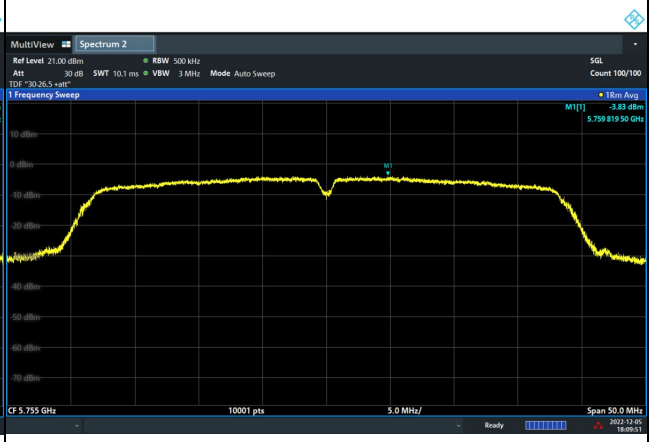
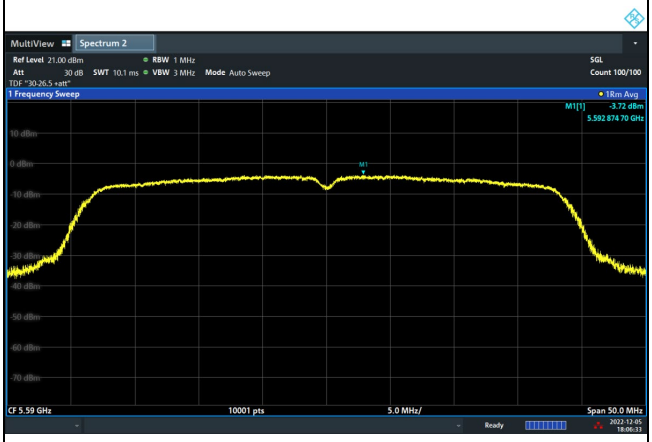
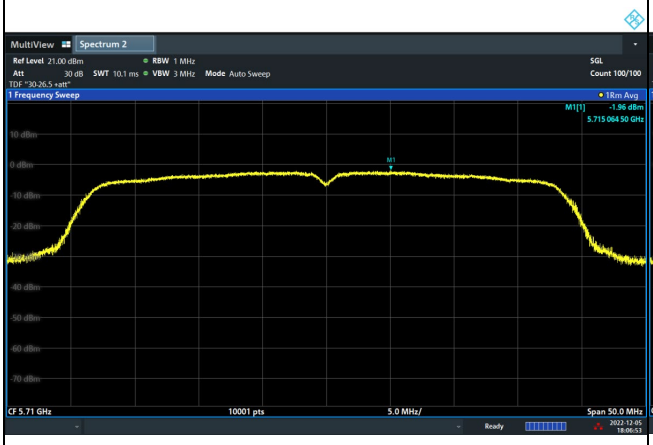
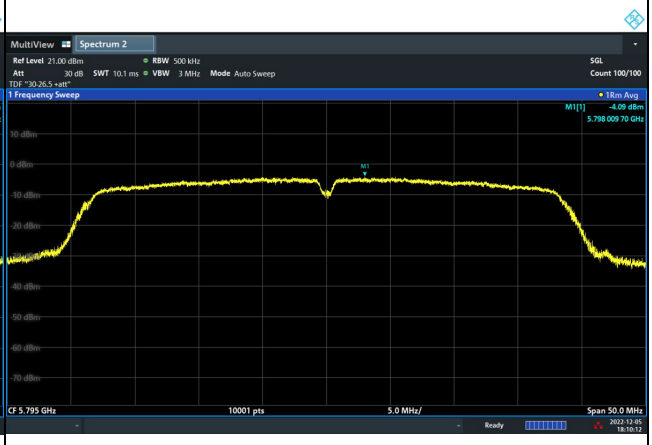
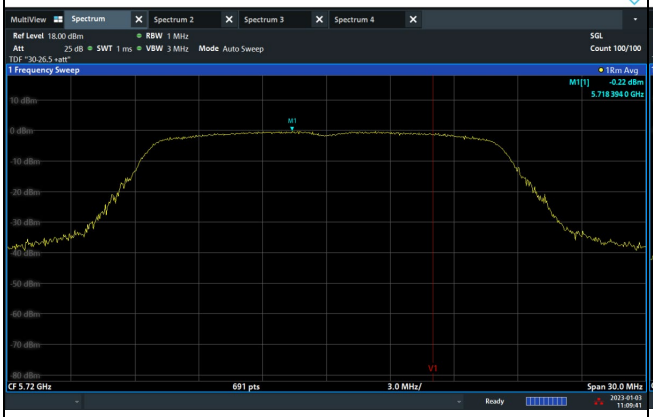
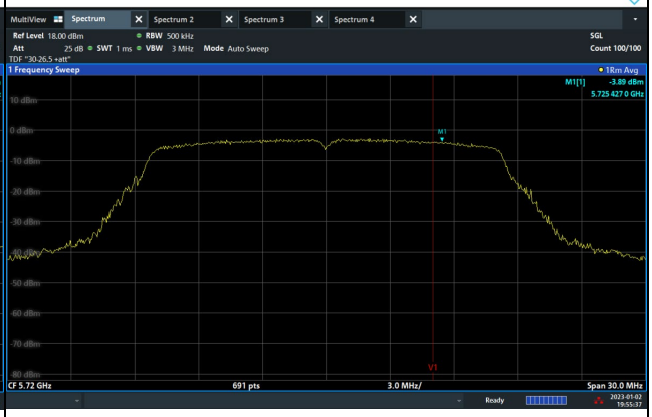
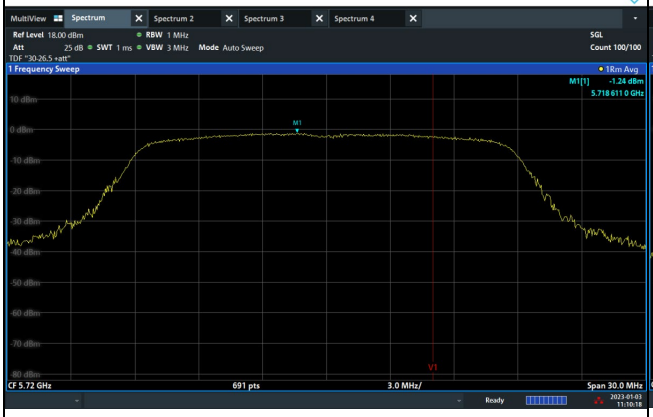
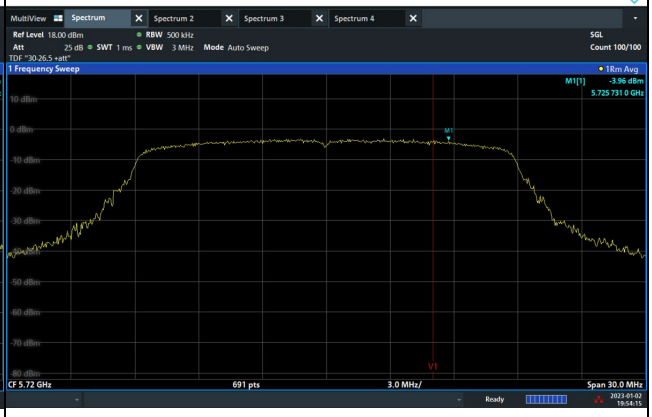
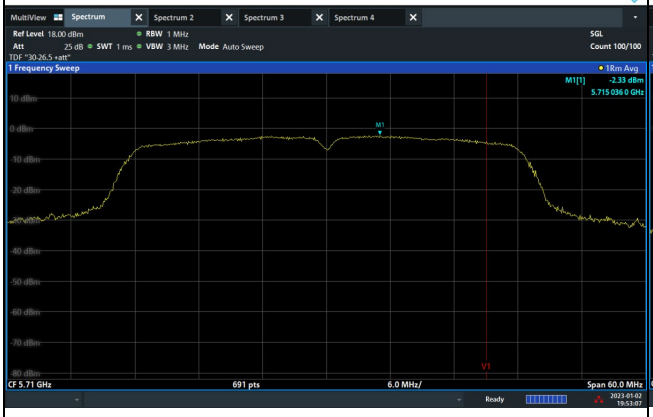
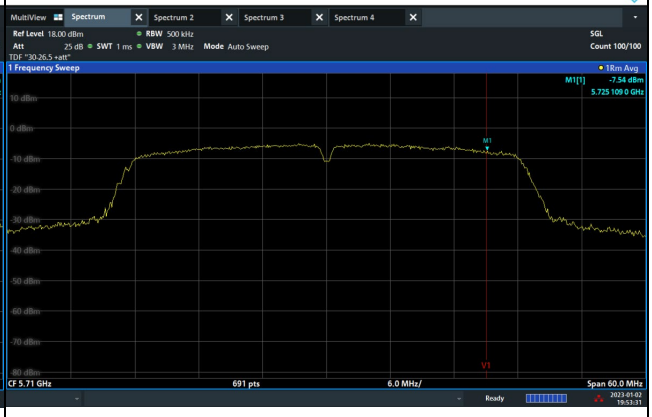
UNII-2C	UNII-3
	
	
	

Mode : 802.11n_HT40

UNII-1	UNII-2A
	
	

UNII-2C	UNII-3
	
	N/A
	

Band-crossing channels

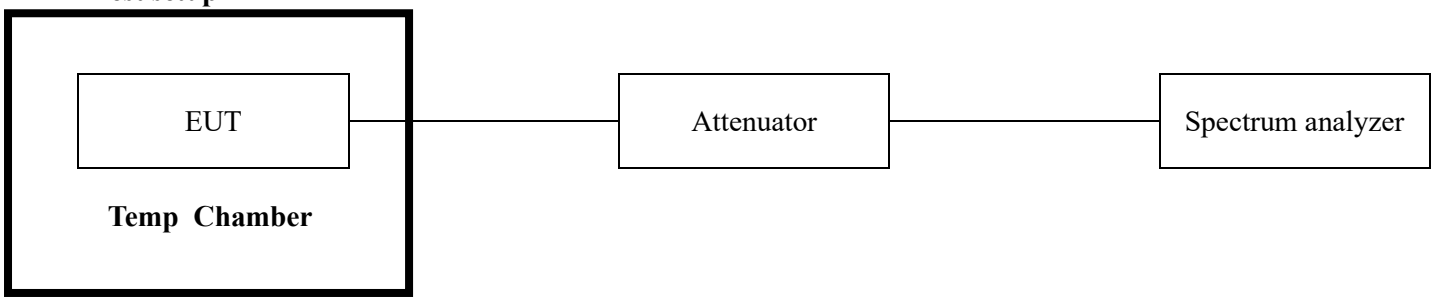
UNII-2C_802.11a (Ch. 144)	UNII-3_802.11a (Ch. 144)
	
UNII-2C_802.11n_HT20 (Ch. 144)	**UNII-3_802.11n_HT20 (Ch. 144)**
	
UNII-2C_802.11n_HT40 (Ch. 142)	**UNII-3_802.11n_HT40 (Ch. 142)**
	

3.5. Frequency Stability

Test procedure

ANSI C63.10-2013, clause 6.8.1

Test setup



1. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
7. While maintaining a constant temperature inside the environmental chamber, turn the EUT on and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

Limit

N/A

Test results

Mode: UNII-1

Operating frequency: 5 180 ㎒

Test voltage (%)	Test voltage (V)	Temperature (℃)	Maintaining time	Measure frequency (㎒)	Frequency deviation (㎐)	Deviation (%)
100 %	AC 120	-10	Startup	5 179.998 236	-1 764	-0.000 034
			2 minutes	5 179.998 382	-1 618	-0.000 031
			5 minutes	5 179.998 343	-1 657	-0.000 032
			10 minutes	5 179.998 082	-1 918	-0.000 037
100 %		-5	Startup	5 179.998 255	-1 745	-0.000 034
			2 minutes	5 179.998 399	-1 601	-0.000 031
			5 minutes	5 179.998 363	-1 637	-0.000 032
			10 minutes	5 179.998 102	-1 898	-0.000 037
100 %		0	Startup	5 179.998 261	-1 739	-0.000 034
			2 minutes	5 179.998 412	-1 588	-0.000 031
			5 minutes	5 179.998 389	-1 611	-0.000 031
			10 minutes	5 179.998 142	-1 858	-0.000 036
100 %		10	Startup	5 179.997 852	-2 148	-0.000 041
			2 minutes	5 179.998 004	-1 996	-0.000 039
			5 minutes	5 179.997 762	-2 238	-0.000 043
			10 minutes	5 179.997 715	-2 285	-0.000 044
100 %		20	Startup	5 179.997 685	-2 315	-0.000 045
			2 minutes	5 179.997 843	-2 157	-0.000 042
			5 minutes	5 179.997 781	-2 219	-0.000 043
			10 minutes	5 179.998 525	-1 475	-0.000 028
100 %		23	Startup	5 179.997 653	-2 347	-0.000 045
			2 minutes	5 179.997 822	-2 178	-0.000 042
			5 minutes	5 179.997 765	-2 235	-0.000 043
			10 minutes	5 179.998 505	-1 495	-0.000 029
100 %		30	Startup	5 179.997 352	-2 648	-0.000 051
			2 minutes	5 179.997 504	-2 496	-0.000 048
			5 minutes	5 179.997 466	-2 534	-0.000 049
			10 minutes	5 179.998 185	-1 815	-0.000 035
100 %		40	Startup	5 179.997 202	-2 798	-0.000 054
			2 minutes	5 179.997 722	-2 278	-0.000 044
			5 minutes	5 179.997 651	-2 349	-0.000 045
			10 minutes	5 179.997 689	-2 311	-0.000 045
100 %		50	Startup	5 179.997 023	-2 977	-0.000 057
			2 minutes	5 179.997 582	-2 418	-0.000 047
			5 minutes	5 179.997 515	-2 485	-0.000 048
			10 minutes	5 179.997 562	-2 438	-0.000 047
85 %	AC 102	23	Startup	5 179.997 635	-2 365	-0.000 046
			2 minutes	5 179.997 833	-2 167	-0.000 042
			5 minutes	5 179.997 775	-2 225	-0.000 043
			10 minutes	5 179.998 512	-1 488	-0.000 029
115 %	AC 138	23	Startup	5 179.997 642	-2 358	-0.000 046
			2 minutes	5 179.997 835	-2 165	-0.000 042
			5 minutes	5 179.997 785	-2 215	-0.000 043
			10 minutes	5 179.998 533	-1 467	-0.000 028

Mode: UNII-2A

Operating frequency: 5 260 ㎒

Test voltage (%)	Test voltage (V)	Temperature (℃)	Maintaining time	Measure frequency (㎒)	Frequency deviation (㎐)	Deviation (%)
100 %	AC 120	-10	Startup	5 259.998 130	-1 870	-0.000 036
			2 minutes	5 259.998 280	-1 720	-0.000 033
			5 minutes	5 259.998 240	-1 760	-0.000 033
			10 minutes	5 259.997 980	-2 020	-0.000 038
100 %		-5	Startup	5 259.998 075	-1 925	-0.000 037
			2 minutes	5 259.998 228	-1 772	-0.000 034
			5 minutes	5 259.998 186	-1 814	-0.000 034
			10 minutes	5 259.997 944	-2 056	-0.000 039
100 %		0	Startup	5 259.998 005	-1 995	-0.000 038
			2 minutes	5 259.998 167	-1 833	-0.000 035
			5 minutes	5 259.998 095	-1 905	-0.000 036
			10 minutes	5 259.997 793	-2 207	-0.000 042
100 %		10	Startup	5 259.997 768	-2 232	-0.000 042
			2 minutes	5 259.997 918	-2 082	-0.000 040
			5 minutes	5 259.997 878	-2 122	-0.000 040
			10 minutes	5 259.997 618	-2 382	-0.000 045
100 %		20	Startup	5 259.997 556	-2 444	-0.000 046
			2 minutes	5 259.997 792	-2 208	-0.000 042
			5 minutes	5 259.997 753	-2 247	-0.000 043
			10 minutes	5 259.997 489	-2 511	-0.000 048
100 %		23	Startup	5 259.997 541	-2 459	-0.000 047
			2 minutes	5 259.997 785	-2 215	-0.000 042
			5 minutes	5 259.997 735	-2 265	-0.000 043
			10 minutes	5 259.997 482	-2 518	-0.000 048
100 %		30	Startup	5 259.997 490	-2 510	-0.000 048
			2 minutes	5 259.998 030	-1 970	-0.000 037
			5 minutes	5 259.997 941	-2 059	-0.000 039
			10 minutes	5 259.997 983	-2 017	-0.000 038
100 %		40	Startup	5 259.997 465	-2 535	-0.000 048
			2 minutes	5 259.997 986	-2 014	-0.000 038
			5 minutes	5 259.997 881	-2 119	-0.000 040
			10 minutes	5 259.997 913	-2 087	-0.000 040
100 %		50	Startup	5 259.997 425	-2 575	-0.000 049
			2 minutes	5 259.997 922	-2 078	-0.000 040
			5 minutes	5 259.997 897	-2103	-0.000 040
			10 minutes	5 259.997 930	-2 070	-0.000 039
85 %	AC 102	23	Startup	5 259.997 562	-2 438	-0.000 046
			2 minutes	5 259.997 775	-2 225	-0.000 042
			5 minutes	5 259.997 743	-2 257	-0.000 043
			10 minutes	5 259.997 489	-2 511	-0.000 048
115 %	AC 138	23	Startup	5 259.997 529	-2 471	-0.000 047
			2 minutes	5 259.997 775	-2 225	-0.000 042
			5 minutes	5 259.997 753	-2 247	-0.000 043
			10 minutes	5 259.997 476	-2 524	-0.000 048

Mode: UNII-2C

Operating frequency: 5500 ㎒

Test voltage (%)	Test voltage (V)	Temperature (℃)	Maintaining time	Measure frequency (㎒)	Frequency deviation (㎐)	Deviation (%)
100 %	AC 120	-10	Startup	5 499.999 856	-144	-0.000 003
			2 minutes	5 499.999 941	-59	-0.000 001
			5 minutes	5 499.999 836	-164	-0.000 003
			10 minutes	5 499.999 657	-343	-0.000 006
100 %		-5	Startup	5 499.999 489	-511	-0.000 009
			2 minutes	5 499.999 621	-379	-0.000 007
			5 minutes	5 499.999 597	-403	-0.000 007
			10 minutes	5 499.999 252	-748	-0.000 014
100 %		0	Startup	5 499.998 850	-1 150	-0.000 021
			2 minutes	5 499.998 975	-1 025	-0.000019
			5 minutes	5 499.998 887	-1 113	-0.000 020
			10 minutes	5 499.998 645	-1 355	-0.000 025
100 %		10	Startup	5 499.998 149	-1 851	-0.000 034
			2 minutes	5 499.998 354	-1 646	-0.000 030
			5 minutes	5 499.998 288	-1 712	-0.000 031
			10 minutes	5 499.998 163	-1 837	-0.000 033
100 %		20	Startup	5 499.997 597	-2 403	-0.000 044
			2 minutes	5 499.997 721	-2 279	-0.000 041
			5 minutes	5 499.997 666	-2 334	-0.000 042
			10 minutes	5 499.997 489	-2 511	-0.000 046
100 %		23	Startup	5 499.997 367	-2 633	-0.000 048
			2 minutes	5 499.997 729	-2 271	-0.000 041
			5 minutes	5 499.997 641	-2 359	-0.000 043
			10 minutes	5 499.997 493	-2 507	-0.000 046
100 %		30	Startup	5 499.997 349	-2 651	-0.000 048
			2 minutes	5 499.997 824	-2 176	-0.000 040
			5 minutes	5 499.997 736	-2 264	-0.000 041
			10 minutes	5 499.997 747	-2 253	-0.000 041
100 %		40	Startup	5 499.997 389	-2 611	-0.000 047
			2 minutes	5 499.997 863	-2 137	-0.000 039
			5 minutes	5 499.997 767	-2 233	-0.000 041
			10 minutes	5 499.997 811	-2 189	-0.000 040
100 %		50	Startup	5 499.997 456	-2 544	-0.000 046
			2 minutes	5 499.997 836	-2 164	-0.000 039
			5 minutes	5 499.997 796	-2 204	-0.000 040
			10 minutes	5 499.997 854	-2 146	-0.000 039
85 %	AC 102	23	Startup	5 499.997 373	-2 627	-0.000 048
			2 minutes	5 499.997 351	-2 649	-0.000 048
			5 minutes	5 499.997 373	-2 627	-0.000 048
			10 minutes	5 499.997 351	-2 649	-0.000 048
115 %	AC 138	23	Startup	5 499.997 381	-2 619	-0.000 048
			2 minutes	5 499.997 363	-2 637	-0.000 048
			5 minutes	5 499.997 368	-2 632	-0.000 048
			10 minutes	5 499.997 355	-2 645	-0.000 048

Mode: UNII-3

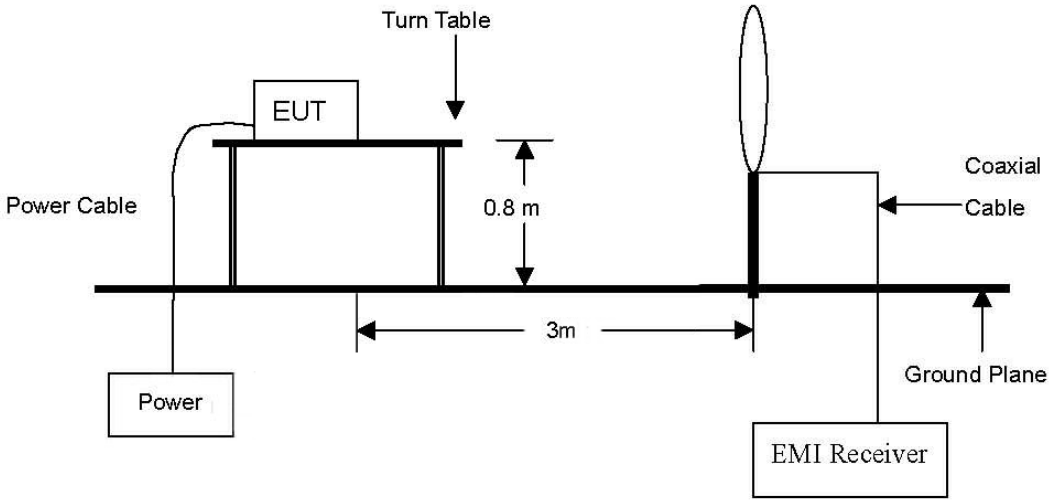
Operating frequency: 5 745 ㎒

Test voltage (%)	Test voltage (V)	Temperature (℃)	Maintaining time	Measure frequency (㎒)	Frequency deviation (㎐)	Deviation (%)
100 %	AC 120	-10	Startup	5 744.999 872	-128	-0.000 002
			2 minutes	5 745.000 024	24	0.000 000
			5 minutes	5 744.999 938	-62	-0.000 001
			10 minutes	5 744.999 714	-286	-0.000 005
100 %		-5	Startup	5 744.999 457	-543	-0.000 009
			2 minutes	5 744.999 609	-391	-0.000 007
			5 minutes	5 744.999 558	-442	-0.000 008
			10 minutes	5 744.999 292	-708	-0.000 012
100 %		0	Startup	5 744.998 763	-1 237	-0.000 022
			2 minutes	5 744.998 926	-1 074	-0.000 019
			5 minutes	5 744.998 847	-1 153	-0.000 020
			10 minutes	5 744.998 562	-1 438	-0.000 025
100 %		10	Startup	5 744.998 040	-1 960	-0.000 034
			2 minutes	5 744.998 192	-1 808	-0.000 031
			5 minutes	5 744.998 149	-1 851	-0.000 032
			10 minutes	5 744.997 867	-2 133	-0.000 037
100 %		20	Startup	5 744.997 220	-2 780	-0.000 048
			2 minutes	5 744.997395	-2 605	-0.000 045
			5 minutes	5 744.997324	-2 676	-0.000 047
			10 minutes	5 744.997070	-2 930	-0.000 051
100 %		23	Startup	5 744.997 245	-2 755	-0.000 048
			2 minutes	5 744.997 395	-2 605	-0.000 045
			5 minutes	5 744.997 324	-2 676	-0.000 047
			10 minutes	5 744.997 070	-2 930	-0.000 051
100 %		30	Startup	5 744.997 287	-2 713	-0.000 047
			2 minutes	5 744.997 803	-2 197	-0.000 038
			5 minutes	5 744.997 707	-2 293	-0.000 040
			10 minutes	5 744.997 762	-2 238	-0.000 039
100 %		40	Startup	5 744.997 315	-2 685	-0.000 047
			2 minutes	5 744.997 820	-2 180	-0.000 038
			5 minutes	5 744.997 743	-2 257	-0.000 039
			10 minutes	5 744.997 758	-2 242	-0.000 039
100 %		50	Startup	5 744.997 356	-2 644	-0.000 046
			2 minutes	5 744.997 844	-2 156	-0.000 038
			5 minutes	5 744.997 819	-2 181	-0.000 038
			10 minutes	5 744.997 844	-2 156	-0.000 038
85 %	AC 102	23	Startup	5 744.997 255	-2 745	-0.000 048
			2 minutes	5 744.997 384	-2 616	-0.000 046
			5 minutes	5 744.997 331	-2 669	-0.000 046
			10 minutes	5 744.997 046	-2 954	-0.000 051
115 %	AC 138	23	Startup	5 744.997 261	-2 739	-0.000 048
			2 minutes	5 744.997 388	-2 612	-0.000 045
			5 minutes	5 744.997 335	-2 665	-0.000 046
			10 minutes	5744.997 052	-2 948	-0.000051

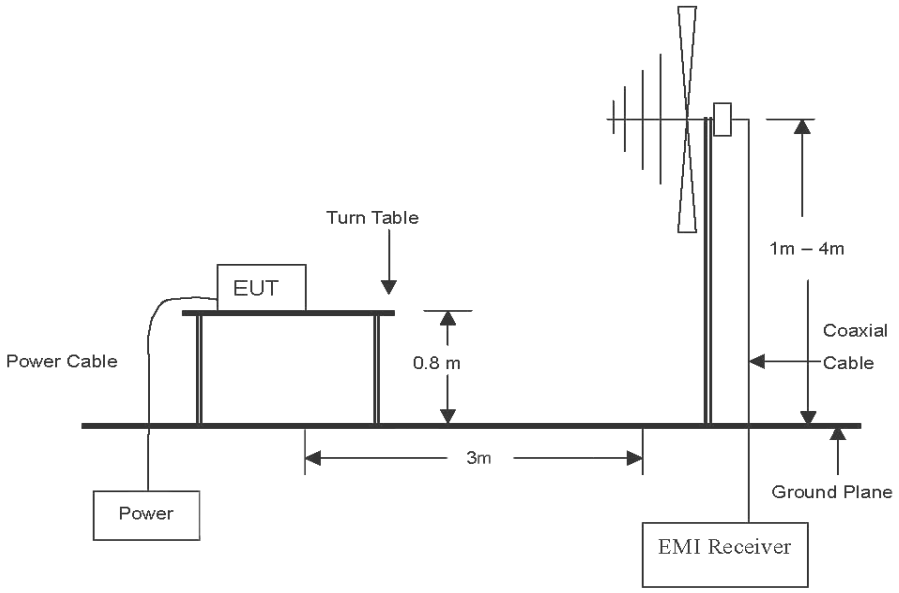
3.6. Radiated restricted band and emissions

Test setup

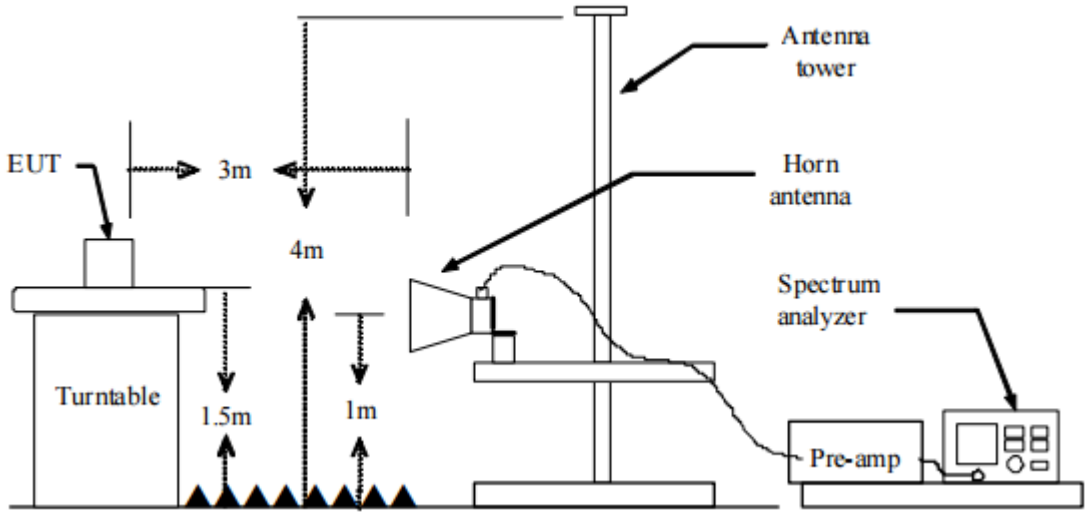
The diagram below shows the test setup that is utilized to make the measurements for emission from 9 ㎑ to 30 ㎒ Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 ㎒ to 1 ㎓ emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 1 ㎓ to the tenth harmonic of the highest fundamental frequency or to 40 ㎓ emissions, whichever is lower.



Test procedure

Radiated emissions from the EUT were measured according to the dictates in section 11.11 & 11.12 of ANSI C63.10-2013.

Test procedure below 30 ㎒

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Then antenna is a loop antenna is fixed at one meter above the ground to determine the maximum value of the field strength. Both parallel, ground parallel and perpendicular of the antenna are set to make the measurement. It was determined that **parallel** was worst-case orientation; therefore, all final radiated testing was performed with the EUT in **parallel.**
3. For each suspected emission, the EUT was arranged to its worst case and then the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test-receiver system was set to average or quasi peak detect function and Specified Bandwidth with Maximum hold mode.

Test procedure above 30 ㎒

1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The antenna is a bi-log antenna, a horn antenna ,and its height are varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5. Spectrum analyzer settings for f < 1 ㎓:
   ① Span = wide enough to fully capture the emission being measured
   ② RBW = 100 ㎑
   ③ VBW ≥ RBW
   ④ Detector = quasi peak
   ⑤ Sweep time = auto
   ⑥ Trace = max hold
6. Spectrum analyzer settings for f ≥1 ㎓: Peak
   ① Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
   ② RBW = 1 ㎒
   ③ VBW ≥ 3 ㎒
   ④ Detector = peak
   ⑤ Sweep time = auto
   ⑥ Trace = max hold
   ⑦ Trace was allowed to stabilize

7. Spectrum analyzer settings for f ≥1 ㎓: Average
   ① Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
   ② RBW = 1 ㎒
   ③ VBW ≥ 3 × RBW
   ④ Detector = RMS, if span/(# of points in sweep) ≤ (RBW/2). Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
   ⑤ Averaging type = power(i.e., RMS)
      1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
      2) Some instruments require linear display mode in order to use linear voltage averaging. Log or ㏈ averaging shall not be used.
   ⑥ Sweep = auto
   ⑦ Trace = max hold
   ⑧ Perform a trace average of at least 100 traces.
   ⑨ A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:
      1) If power averaging (RMS) mode was used in step ⑤, then the applicable correction factor is 10 log(1/x), where x is the duty cycle.
      2) If linear voltage averaging mode was used in step ⑤, then the applicable correction factor is 20 log(1/x), where x is the duty cycle.
      3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

Note.

1. f<30 ㎒, extrapolation factor of 40 ㏈/decade of distance. $F_d = 40\log(D_m/Ds)$
   f ≥30 ㎒, extrapolation factor of 20 ㏈/decade of distance. $F_d = 20\log(D_m/Ds)$
   Where:
   F_d = Distance factor in ㏈
   D_m = Measurement distance in meters
   D_s = Specification distance in meters
2. Field strength(㏈㎶/m) = Level(㏈㎶) + CF (㏈) + or DCF(㏈)
3. Margin(㏈) = Limit(㏈㎶/m) - Field strength(㏈㎶/m)
4. Emissions below 18 ㎓ were measured at a 3 meter test distance while emissions above 18 ㎓ were measured at a 1 meter test distance with the application of a distance correction factor.
7. The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z, it was determined that **X orientation** was worst-case orientation; therefore, all final radiated testing was performed with the EUT in **X orientation.**
8. The worst-case emissions are reported however emissions whose levels were not within 20 ㏈ of respective limits were not reported.
9. According to exploratory test no any obvious emission were detected from 9 ㎑ to 30 ㎒. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30 m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Limit

According to 15.209(a), for an intentional radiator devices, the general required of field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values：

Frequency (㎒)	Distance (Meters)	Radiated (㎶/m)
0.009 ~ 0.490	300	2400/F(㎑)
0.490 ~ 1.705	30	24000/F(㎑)
1.705 ~ 30.0	30	30
30 ~ 88	3	100**
88 ~ 216	3	150**
216 ~ 960	3	200**
Above 960	3	500

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54 ~ 72 ㎒, 76 ~ 88 ㎒, 174 ~ 216 ㎒ or 470 ~ 806 ㎒. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

According to 15.407(b), (b) Undesirable emission limits: Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15–5.25 ㎓ band: all emissions outside of the 5.15–5.35 ㎓ band shall not exceed an e.i.r.p of –27 ㏈m/㎒.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band:
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.
ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 ㎒.
A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 ㎒.
(6) Unwanted emissions below 1 ㎓ must comply with the general field strength limits set forth in § 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.
(7) The provisions of §15.205 apply to intentional radiators operating under this section.
(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

Duty cycle

Regarding to KDB 789033 D02 v02r01, B)2)b), the maximum duty cycles of all modes were investigated and set the spectrum analyzer as below.

Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T, where T is defined in II.B.1.a), and the number of sweep points across duration T exceeds 100.

For the band 5.15-5.25 ㎓

For the band 5.150-5.250 ㎓

Test mode	T_{on} time (㎳)	Period (㎳)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	1.45	1.51	0.96	96.03	0.18
802.11n_HT20	1.22	1.23	0.99	99.19	0.04
802.11n_HT40	0.60	0.64	0.94	93.96	0.27

For the band 5.250-5.350 ㎓

Test mode	T_{on} time (㎳)	Period (㎳)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	1.45	1.51	0.96	96.03	0.18
802.11n_HT20	1.22	1.23	0.99	99.19	0.04
802.11n_HT40	0.60	0.64	0.94	93.96	0.27

For the band 5.470-5.725 ㎓

Test mode	T_{on} time (㎳)	Period (㎳)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	1.45	1.51	0.96	96.03	0.18
802.11n_HT20	1.22	1.23	0.99	99.19	0.04
802.11n_HT40	0.60	0.64	0.94	93.96	0.27

For the band 5.725-5.85 ㎓

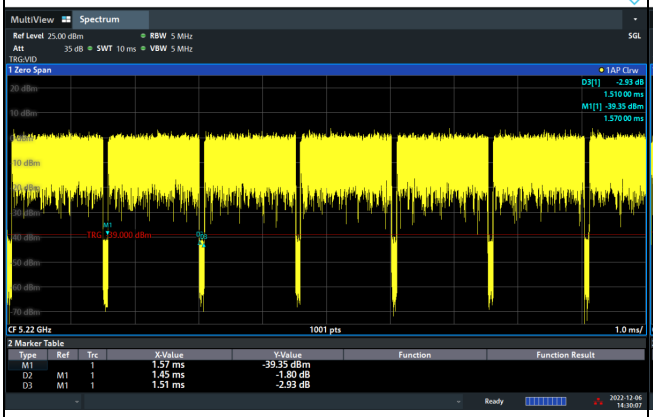
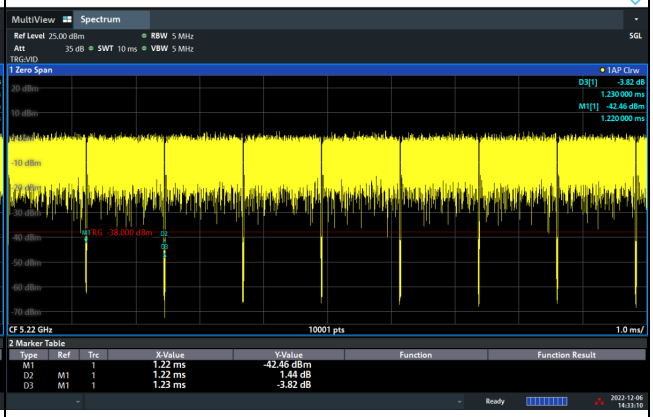
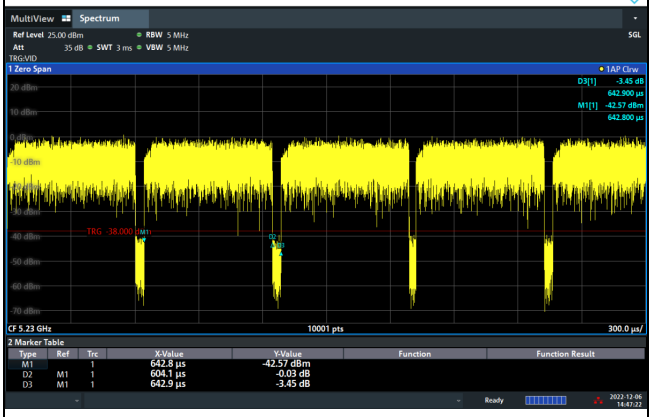
Test mode	T_{on} time (㎳)	Period (㎳)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	1.45	1.51	0.96	96.03	0.18
802.11n_HT20	1.22	1.23	0.99	99.19	0.04
802.11n_HT40	0.60	0.64	0.94	93.96	0.27

Note:

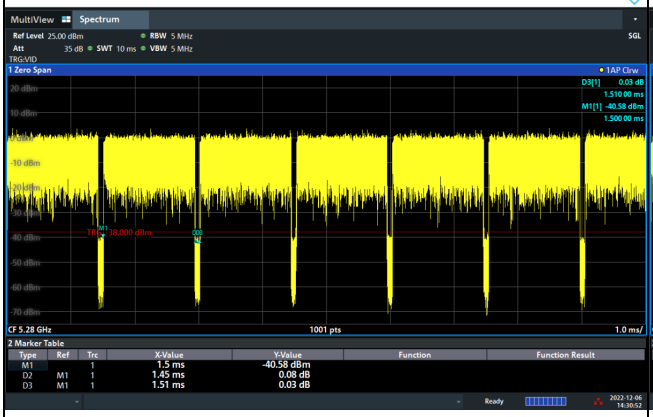
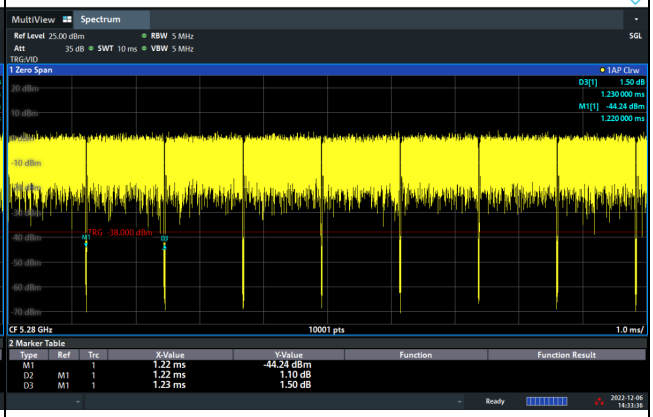
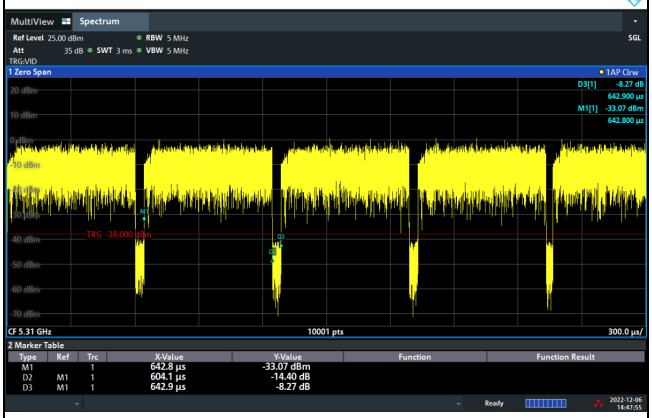
Duty cycle (Linear) = T_{on} time/Period

DCF(Duty cycle correction factor (㏈)) = 10log(1/duty cycle)

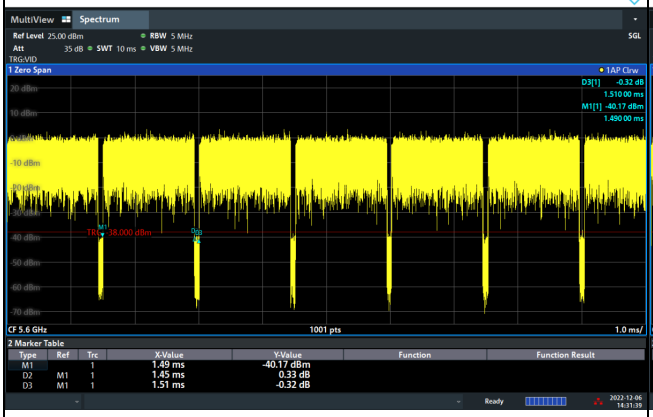
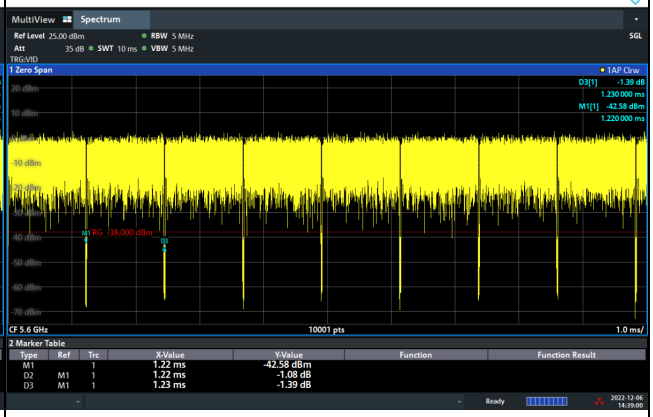
Mode:UNII-1

802.11a	802.11n_HT20
	
802.11n_HT40	**-**
	N/A

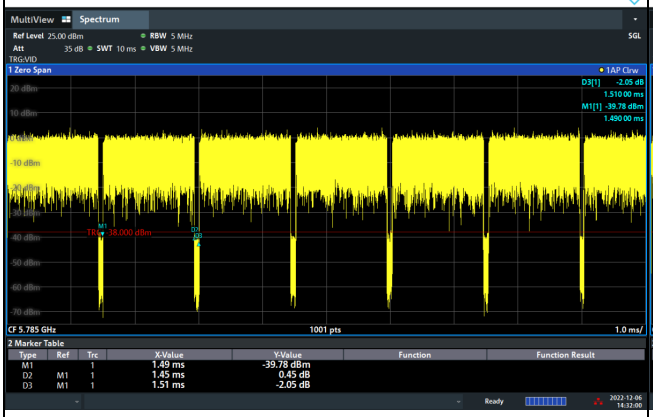
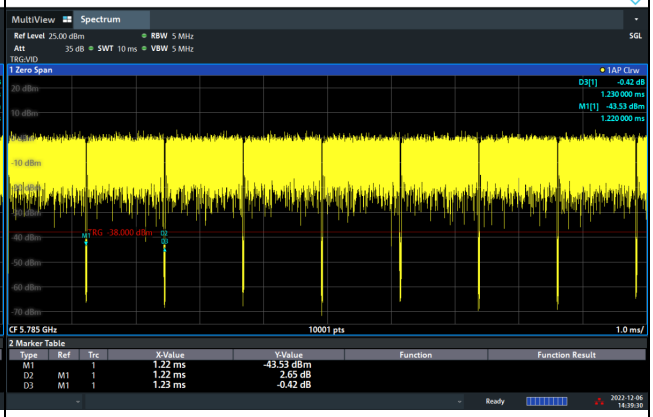
Mode:UNII-2A

802.11a	802.11n_HT20
	
802.11n_HT40	-
	N/A

Mode:UNII-2C

802.11a	802.11n_HT20
	
802.11n_HT40	**-**
	N/A

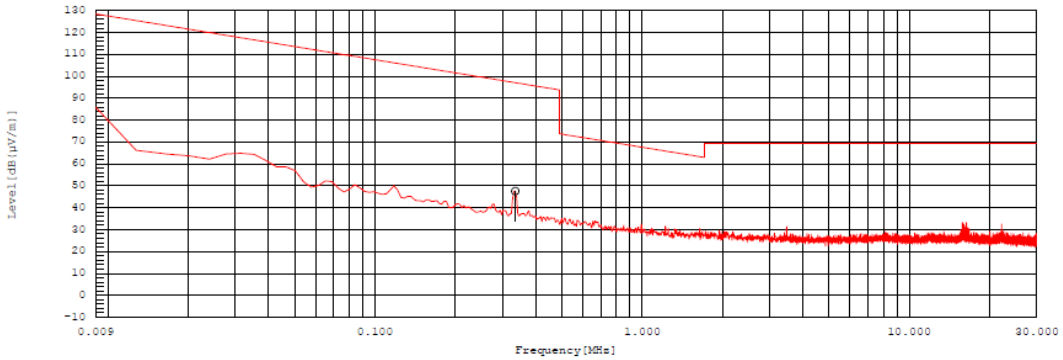
Mode:UNII-3

802.11a	802.11n_HT20
	
802.11n_HT40	**-**
	N/A

Test results (Below 30 ㎒)

Band	802.11n_HT40
Mode	UNII-1
Channel	38 (Worst Case)
Distance of measurement:	3 meter

Parallel



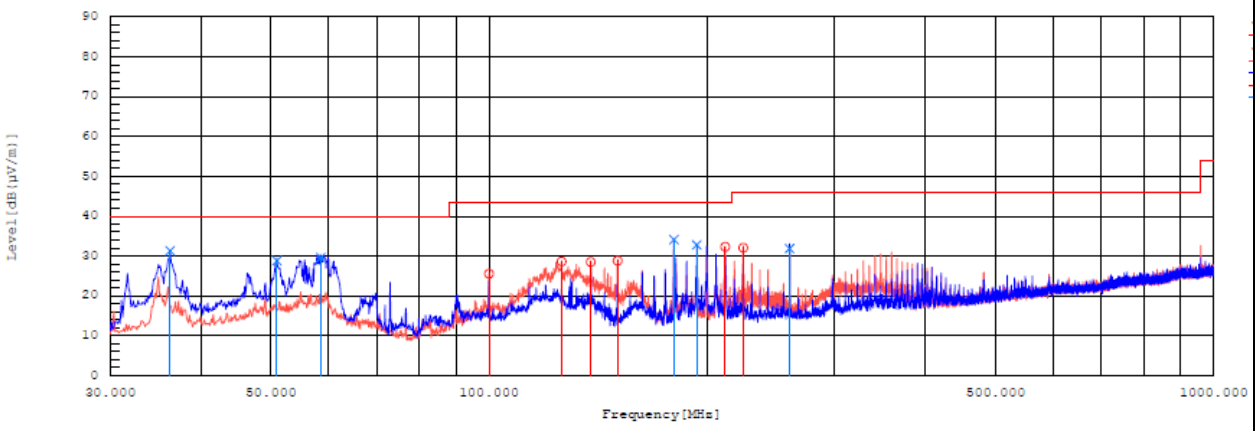
No.	Range	Frequency [MHz]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Angle [deg]	Remark
1	Range1	0.335	27.9	19.8	47.7	----------	93.4	

Note.
1. No spurious emission were detected under 30 ㎒, the above test result is the peak result.

Test results (Below 1 000 ㎒)

Band	802.11n_HT40
Mode	UNII-1
Channel	38 (Worst Case)
Distance of measurement:	3 meter

Horizontal // Vertical



Final Result

No.	Frequency [MHz]	Pol	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	36.305	V	45.1	-13.8	31.3	40.0	8.7	126.0	288.3	
2	50.976	V	40.3	-11.5	28.8	40.0	11.2	111.0	288.3	
3	58.615	V	41.9	-12.3	29.6	40.0	10.4	106.0	359.9	
4	99.961	H	38.8	-13.2	25.6	43.5	17.9	203.0	240.3	
5	125.909	H	44.0	-15.4	28.6	43.5	14.9	256.0	27.5	
6	138.155	H	44.5	-16.0	28.5	43.5	15.0	167.0	199.0	
7	150.523	H	45.2	-16.4	28.8	43.5	14.7	221.0	66.1	
8	179.986	V	48.3	-14.2	34.1	43.5	9.4	100.0	46.2	
9	193.445	V	46.0	-13.2	32.8	43.5	10.7	135.0	158.2	
10	211.875	H	44.7	-12.4	32.3	43.5	11.2	185.0	359.9	
11	224.243	H	44.1	-12.0	32.1	46.0	13.9	106.0	76.0	
12	260.011	V	42.9	-11.0	31.9	46.0	14.1	155.0	5.8	

Test results (Above 1 000 ㎒)

Mode:	802.11a
Band:	UNII-1
Distance of measurement:	3 meter
Channel:	36

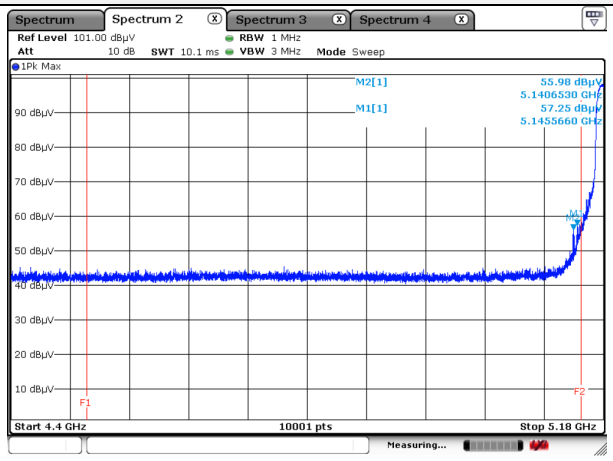
- **Spurious**

Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1 000.25	45.94	Peak	H	-10.42	-	35.52	74.00	38.48
1 007.25	44.54	Peak	V	-10.37	-	34.17	74.00	39.83
1 155.23	44.62	Peak	V	-9.47	-	35.15	74.00	38.85
2 409.11	43.63	Peak	H	-1.67	-	41.96	68.20	26.24

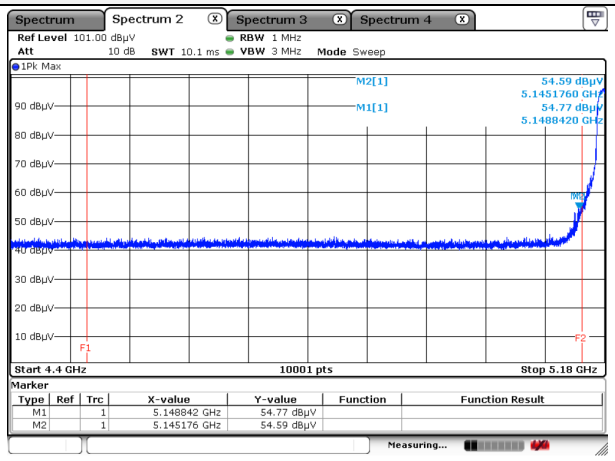
- **Band edge**

Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
5 140.65	55.98	Peak	H	6.01	-	61.99	74.00	12.01
5 140.65	36.98	Average	H	6.01	0.18	43.17	54.00	10.83
5 145.18	54.59	Peak	V	6.00	-	60.59	74.00	13.41
5 145.18	38.43	Average	V	6.00	0.18	44.61	54.00	9.39
5 145.57	57.25	Peak	H	6.00	-	63.25	74.00	10.75
5 145.57	40.90	Average	H	6.00	0.18	47.08	54.00	6.92
5 148.84	54.77	Peak	V	5.99	-	60.76	74.00	13.24
5 148.84	41.96	Average	V	5.99	0.18	48.13	54.00	5.87

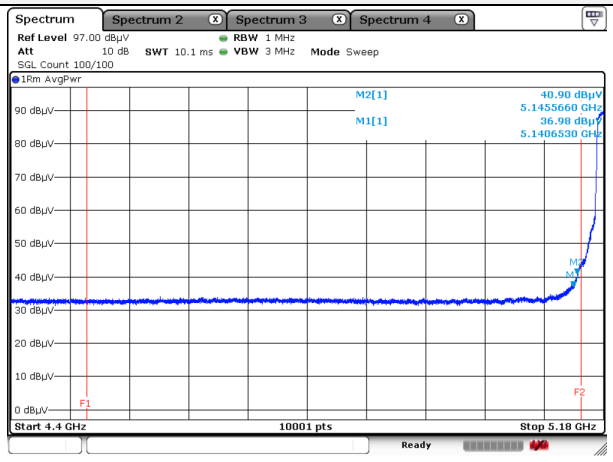
Restricted band // Horizontal // Peak



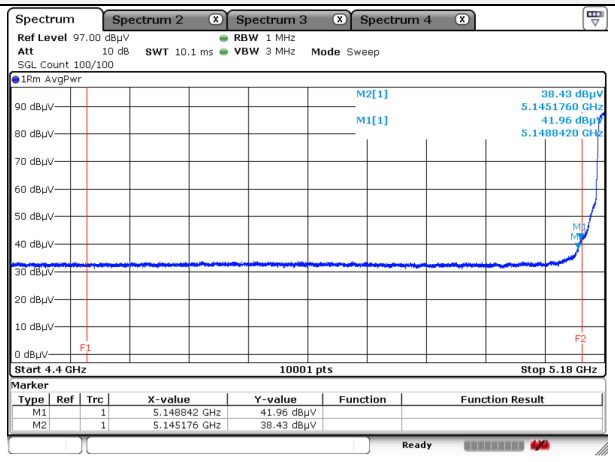
Restricted band // Vertical // Peak

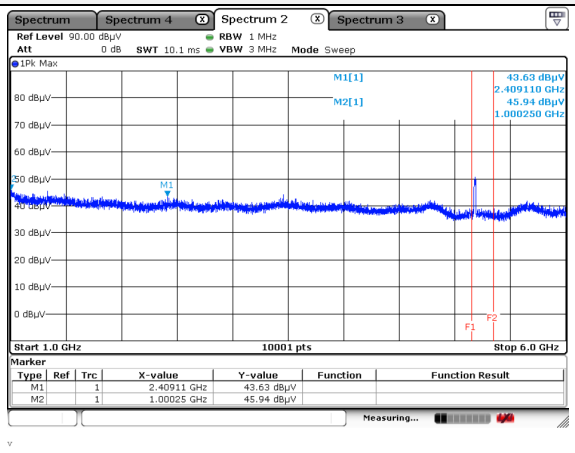
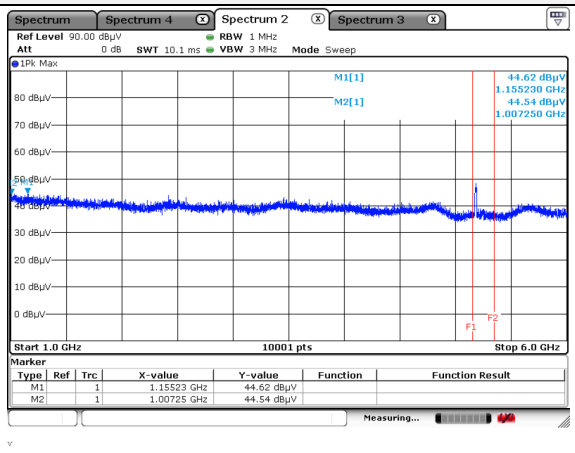
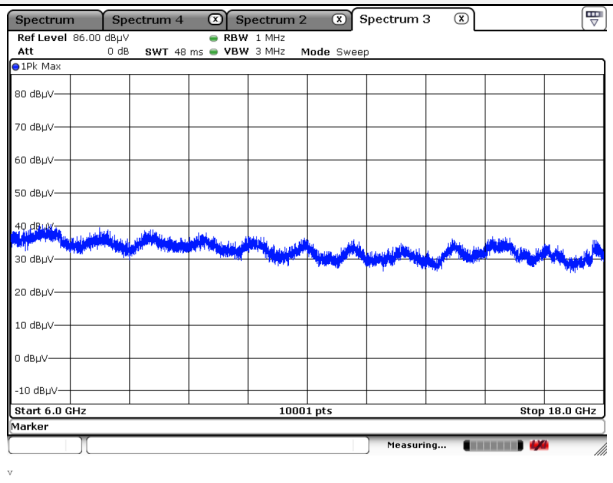
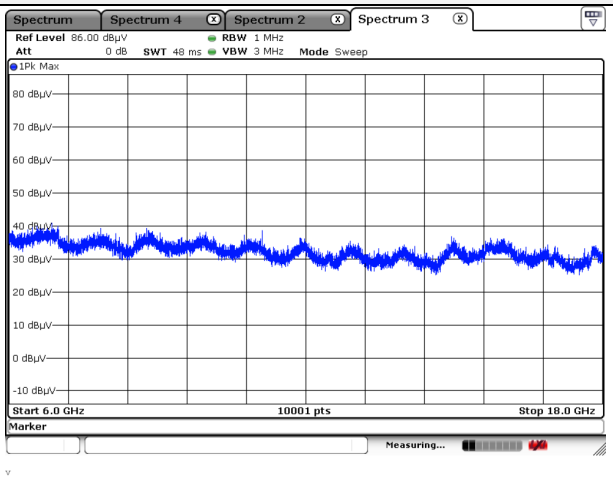


Restricted band // Horizontal // Average



Restricted band // Vertical // Average



Horizontal // Peak for 1 ㎓ to 6 ㎓	Vertical // Peak for 1 ㎓ to 6 ㎓
	
Horizontal // Peak for 6 ㎓ to 18 ㎓	**Vertical // Peak for 6 ㎓ to 18 ㎓**
	

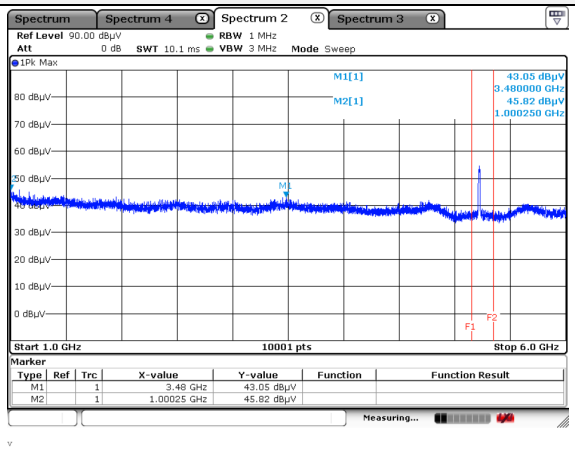
Note.
1. No spurious emission were detected above 6 ㎓.
2. Average test would be performed if the peak result were greater than the average limit.

Mode: 802.11a
Band: UNII-1
Distance of measurement: 3 meter
Channel: 44

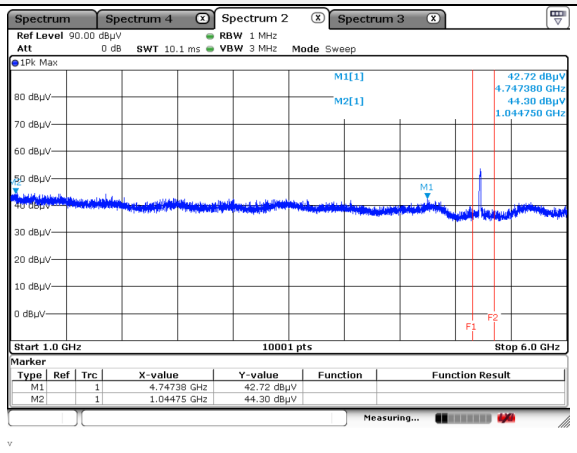
- **Spurious**

Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1 000.25	45.82	Peak	H	-10.42	-	35.40	74.00	38.60
1 044.75	44.30	Peak	V	-10.15	-	34.15	74.00	39.85
3 480.00	43.05	Peak	H	-0.17	-	42.88	68.20	25.32
4 747.38	42.72	Peak	V	4.32	-	47.04	74.00	26.96

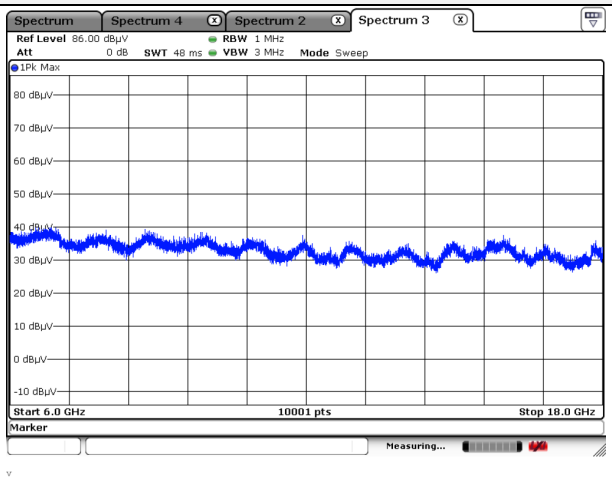
Horizontal // Peak for 1 ㎓ to 6 ㎓



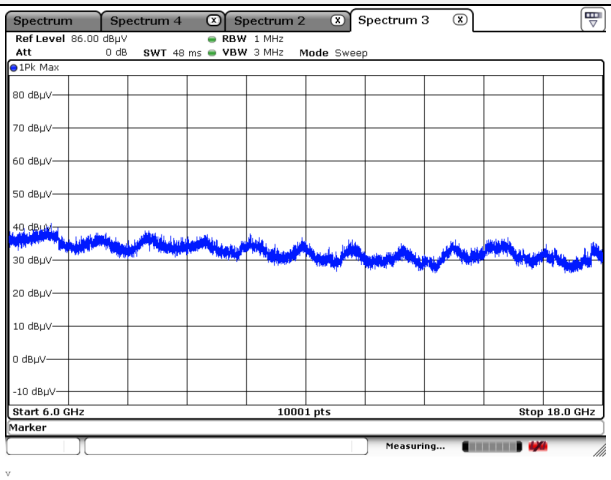
Vertical // Peak for 1 ㎓ to 6 ㎓



Horizontal // Peak for 6 ㎓ to 18 ㎓



Vertical // Peak for 6 ㎓ to 18 ㎓



Note.
1. No spurious emission were detected above 6 ㎓.
2. Average test would be performed if the peak result were greater than the average limit.