TEST REPORT

of

FCC Part 15 Subpart C §15.247

FCC ID: A3LNFA455

Equipment Under Test	:	SAMSUNG NOTEBOOK
Model Name	:	NFA455 (Host PC : NP500R5H)
Applicant	:	Samsung Electronics Co., Ltd.
Manufacturer	:	Samsung Electronics Co., Ltd.
Date of Test(s)	:	2015.05.28 ~ 2015.06.02
Date of Issue	:	2015.06.02

In the configuration tested, the EUT complied with the standards specified above.

Tested By:  **Date:** **2015.06.02**

Jinhyoung Cho

Approved By:  **Date:** **2015.06.02**

Hyunchae You

INDEX

Table of contents

1. General Information

1.1. Testing Laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)
-Wireless Div. 2FL, 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 435-837
All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx.
Telephone : + 82 31 688 0901
FAX : + 82 31 688 0921

1.2. Details of Applicant

Applicant : Samsung Electronics Co., Ltd.
Address : 129, Samsung-Ro, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, Korea
Contact Person : Seo, Bum-Hee
Phone No. : +82 31 8062 4313

1.3. Description of EUT

Kind of Product	SAMSUNG NOTEBOOK
Model Name	NFA455 (Host PC : NP500R5H)
Frequency Range	2 402 ㎒ ~ 2 480 ㎒ (BT, LE), 2 412 ㎒ ~ 2 462 ㎒ (11b/g/n_HT20), 2 422 ㎒ ~ 2 452 ㎒ (11n_HT40), 5 745 ㎒ ~ 5 805 ㎒ (11a/n_HT20, 11ac_VHT20), 5 755 ㎒ ~ 5 795 ㎒ (11n_HT40, 11ac_VHT40), 5 775 ㎒ (11ac_VHT80), 5 180 ㎒ ~ 5 240 ㎒ (11a/n_HT20 – Non DFS, 11ac_VHT20 – Non DFS), 5 190 ㎒ ~ 5 230 ㎒ (11n_HT40 – Non DFS, 11ac_VHT40 – Non DFS), 5 210 ㎒ (11ac_VHT80 – Non DFS), 5 260 ㎒ ~ 5 320 ㎒ (11a/n_HT20 – DFS, 11ac_VHT20 – DFS), 5 270 ㎒ ~ 5 310 ㎒ (11n_HT40 – DFS, 11ac_VHT40 – DFS), 5 290 ㎒ (11ac_VHT80 – DFS), 5 500 ㎒ ~ 5 700 ㎒ (11a/n_HT20 – DFS, 11ac_VHT20 – DFS), 5 510 ㎒ ~ 5 670 ㎒ (11n_HT40 – DFS, 11ac_VHT40 – DFS), 5 530 ㎒ ~ 5 690 ㎒ (11ac_VHT80 – DFS)
Modulation Technique	DSSS, OFDM, GFSK, π/4DQPSK, 8DPSK
Number of Channels	11 channel (11b/g/n_HT20), 7 channel (11n_HT40), 4 channel (11a/n_HT20, 11ac_VHT20), 2 channel (11n_HT40, 11ac_VHT40), 1 channel (11ac_VHT80), 4 channel (11a/n_HT20–Non DFS, 11ac_VHT20–Non DFS), 2 channel (11n_HT40 – Non DFS, 11ac_VHT40–Non DFS), 1 channel (11ac_VHT80–Non DFS), 12 channel (11a/n_HT20 – DFS, 11ac_VHT20 – DFS), 5 channel (11n_HT40 – DFS, 11ac_VHT40 – DFS), 3 channel (11ac_VHT80 – DFS), 79 channel (BT,), 40 channel (LE)
Antenna Type	Internal type

1.4. Declaration by the manufacturer

- WLAN & BT do not transmit simultaneously

1.5. Test Equipment List

Equipment	Manufacturer	Model	S/N	Cal Date	Cal Interval	Cal Due.
Signal Generator	R&S	SMBV100A	255834	Jun. 25, 2014	Annual	Jun. 25, 2015
Signal Generator	R&S	SMR40	100272	Jul. 18, 2014	Annual	Jul. 18, 2015
Spectrum Analyzer	Agilent	N9030A	US53120526	Jul. 17, 2014	Annual	Jul. 17, 2015
Attenuator	MCLI	FAS-23-20	23834	Jun. 20, 2014	Annual	Jun. 20, 2015
High Pass Filter	Wainwright	WHK3.0/18G-10SS	344	Jun. 10, 2014	Annual	Jun. 10, 2015
High Pass Filter	Wainwright	WHNX7.5/26.5G-6SS	15	Jul. 02, 2014	Annual	Jul. 02, 2015
Low Pass Filter	Mini circuits	NLP-1200+	V8979400903-2	Mar. 12, 2015	Annual	Mar. 12, 2016
Power Sensor	R&S	NRP-Z81	100669	Mar. 12, 2015	Annual	Mar. 12, 2016
Preamplifier	H.P.	8447F	2944A03909	Aug. 27, 2014	Annual	Aug. 27, 2015
Preamplifier	R&S	SCU-18	10117	Apr. 10, 2015	Annual	Apr. 10, 2016
Preamplifier	MITEQ Inc.	JS44-18004000-35-8P	1546891	May 07, 2015	Annual	May 07, 2016
Test Receiver	R&S	ESU26	100109	Mar. 03, 2015	Annual	Mar. 03, 2016
Bilog Antenna	SCHWARZBECK MESSELEKTRONIK	VULB9163	396	Jun. 07, 2013	Biennial	Jun. 07, 2015
Loop Antenna	SCHWARZBECK MESSELEKTRONIK	FMZB 1519	1519-039	Jul. 09, 2013	Biennial	Jul. 09, 2015
Horn Antenna	R&S	HF906	100326	Dec. 10, 2013	Biennial	Dec. 10, 2015
Horn Antenna	SCHWARZBECK MESSELEKTRONIK	BBHA 9170	BBHA9170431	May 15, 2014	Biennial	May 15, 2016
Antenna Master	INN-CO	MM4000	N/A	N.C.R.	N/A	N.C.R.
Turn Table	INN-CO	DS 1200S	N/A	N.C.R.	N/A	N.C.R.
Anechoic Chamber	SY Corporation	L × W × H (9.6 m × 6.4 m × 6.6 m)	N/A	N.C.R.	N/A	N.C.R.

▶ Support equipment

Description	Manufacturer	Model	Serial Number
N/A	-	-	-

1.6. Summary of Test Results

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part15 Subpart C § 15.247		
Standard section	**Test Item(s)**	**Result**
15.205 15.209 15.247(d)	Transmitter Radiated Spurious Emissions	Complied

1.7. Test Procedure(s)

The measurement procedures described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical and Electronic Equipment in the Range of 9 ㎑ to 40 ㎓ (ANSI C63.4-2003) and the guidance provided in KDB 558074_v03r02 were used in the measurement of the DUT.

1.8. Sample calculation

Where relevant, the following sample calculation is provided:

1.8.1. Radiation test

Field strength level (㏈㎶/m) = Measured level (㏈㎶) + Antenna factor (㏈) + Cable loss (㏈) - amplifier gain(㏈)

1.9. Test report revision

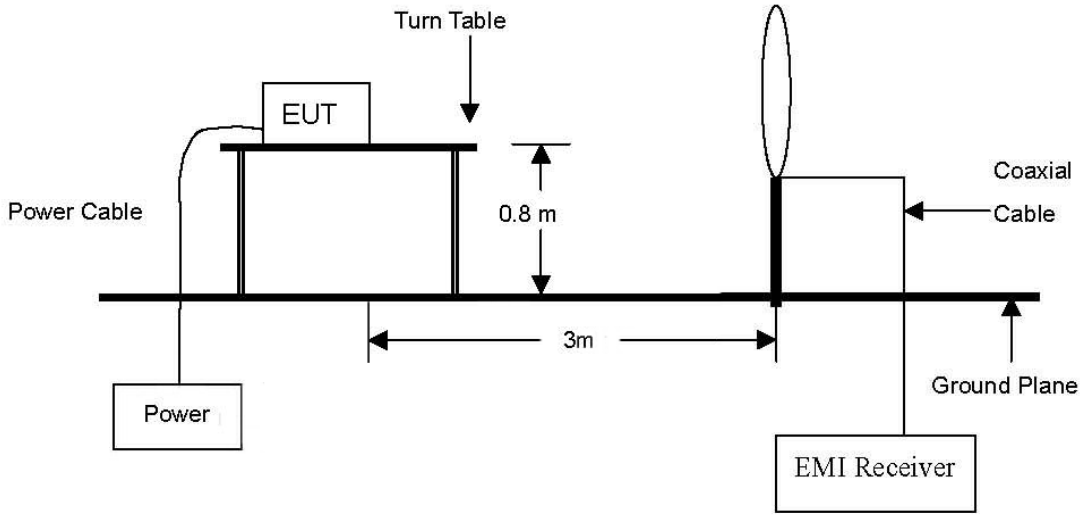
Revision	Report number	Date of Issue	Description
0	F690501/RF-RTL008782	2015.06.02	Initial

2. Transmitter Radiated Spurious Emissions and Conducted Spurious Emission

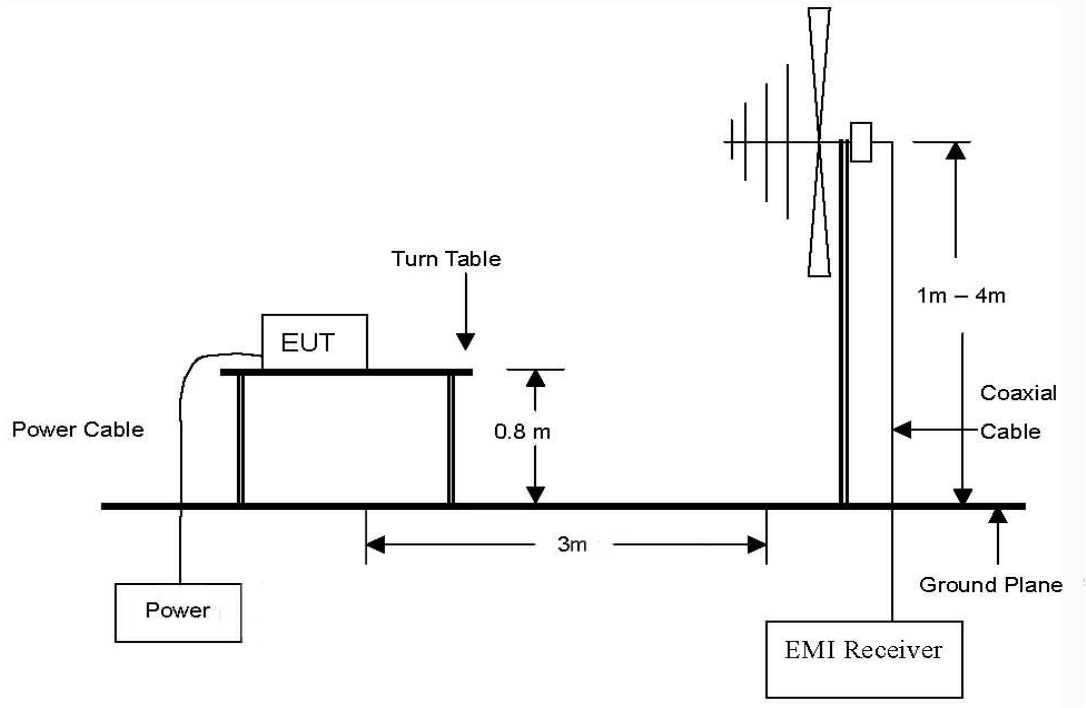
2.1. Test Setup

2.1.1. Transmitter Radiated Spurious Emissions

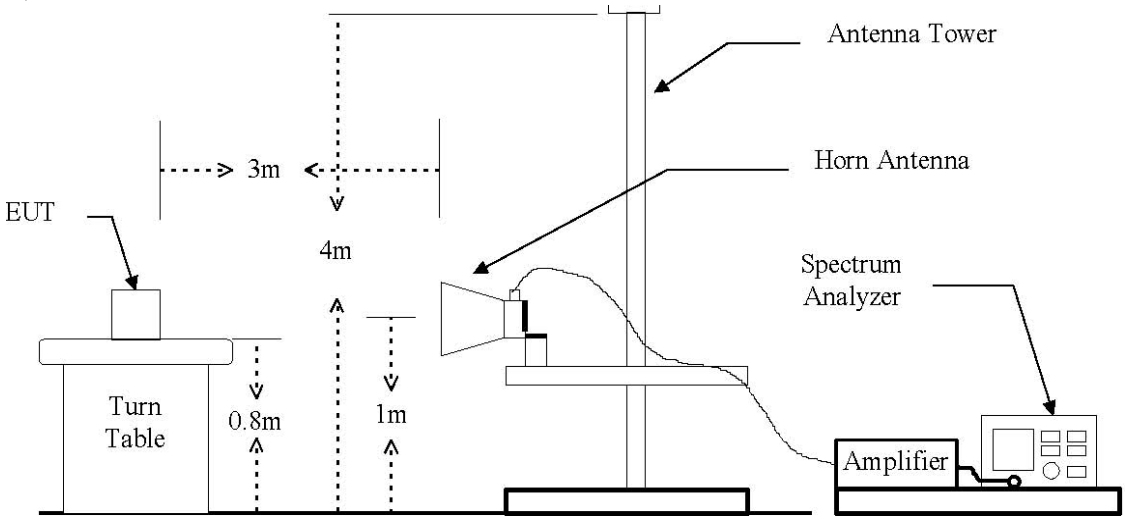
The diagram below shows the test setup that is utilized to make the measurements for emission from 9 ㎑ to 30 ㎒ Emissions.



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 .The spurious emissions were investigated form 1 ㎓ to the 10th harmonic of the highest fundamental frequency or 40 ㎓, whichever is lower.



2.2. Limit

According to §15.247(d), in any 100 ㎑ bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 ㏈ below that in the 100 ㎑ bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph(b)(3) of this section, the attenuation required under this paragraph shall be 30 ㏈ instead of 20 ㏈. Attenuation below the general limits specified in section §15.209(a) is not required. In addition, radiated emission which fall in the restricted band, as define in section §15.205(a), must also comply the radiated emission limits specified in section §15.209(a) (see section §15.205(c))

According to § 15.209(a), Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table：

Frequency (㎒)	Distance (Meters)	Field Strength (㏈㎶/m)	Field Strength (㎶/m)
0.009 – 0.490	300	20 log (2 400/F(㎑))	2 400/F(㎑)
0.490 – 1.705	30	20 log (24 000/F(㎑))	24 000/F(㎑)
1.705 – 30.0	30	29.54	30
30 - 88	3	40.0	100
88 – 216	3	43.5	150
216 – 960	3	46.0	200
Above 960	3	54.0	500

2.3. Test Procedures

Radiated emissions from the EUT were measured according to the dictates in section 11.0 & 12.0 of KDB 558074_v03r02 and ANSI C63.4-2003.

2.3.1. Test Procedures for emission 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 and perpendicular 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 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.

2.3.2. Test Procedures for emission from above 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. During performing radiated emission below 1 ㎓, the EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable-height antenna tower. During performing radiated emission above 1 ㎓, the EUT was set 3 meter away from the interference-receiving antenna.
3. The antenna is a bi-log antenna, a horn antenna and its height is 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.
4. 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.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10 ㏈ lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 ㏈ margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE;

All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

1. Unwanted Emissions into Non-Restricted Frequency Bands

- The Reference Level Measurement refer to section 11.2
Set analyzer center frequency to DTS channel center frequency, SPAN ≥ 1.5 times the DTS bandwidth, the RBW = 100 ㎑ and VBW ≥ 3 x RBW, Detector = Peak, Sweep time = Auto couple, Trace = Max hold.

- Unwanted Emissions Level Measurement refer to section 11.3
Set the center frequency and span to encompass frequency range to be measured, the RBW = 100 ㎑ and VBW ≥ 3 x RBW, Detector = Peak, Sweep time = Auto couple, Trace = Max hold.

2. Unwanted Emissions into Restricted Frequency Bands

- Peak Power measurement procedure refer to section 12.2.4
Set RBW = as specified in Table 1, VBW ≥ 3 x RBW, Detector = Peak, Sweep time = auto, Trace = Max hold.

Table 1- RBW as a function of frequency

Frequency	RBW
9 – 150 ㎑	200 – 300 ㎐
0.15 – 30 ㎒	9 – 10 ㎑
30 – 1 000 ㎒	100 – 120 ㎑
>1 000 ㎒	1 ㎒

- Average Power measurements procedure refer to section 12.2.5.1 and 12.2.5.2
Set RBW = 1 ㎒, VBW ≥ 3 x RBW, 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.
Averaging type = power(i.e., RMS). Sweep time = auto, Perform a trace average of at least 100 traces.
If duty cycle < 98 percent, a correction factor shell be added to the measurement results.
- Averaging (RMS) mode was used above the correction factor is 10 log (1/x), where x is the duty cycle.

3. Test orthogonal plan of EUT is X-axis during radiation test.

2.4. Test Results

Ambient temperature : (24 ± 1) ℃
Relative humidity : 47 % R.H.

2.4.1. Radiated Spurious Emission

The frequency spectrum from 9 ㎑ to 1 000 ㎒ was investigated. All reading values are applied for peak values per frequency band.

Radiated Emissions			Ant	Correction Factors		Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP + CL (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
432.27	33.79	Peak	V	17.08	-24.27	26.60	46.00	19.40
Above 500.00	Not detected	-	-	-	-	-	-	-

Remark:

1. Spurious emissions for all channels and modes were investigated and almost the same below 1 ㎓.
2. Reported spurious emissions are in **11b / 1Mbps / Middle channel** as worst case among other modes.
3. According to § 15.31(o), Emission levels are not reported much lower than the limits by over 20 ㏈.
4. Radiated spurious emission measurement as below.
   (Actual = Reading + Antenna Factor + Amp + CL)

2.4.2. Spurious Radiated Emission

The frequency spectrum from above 1 000 ㎒ was investigated. All reading values are peak and average values.

DSSS : 802.11b(1 Mbps)

Low Channel (2 412 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*2 310.00	25.16	Peak	V	27.77	6.48	-	59.41	74.00	14.59
*2 310.00	14.73	Average	V	27.77	6.48	-	48.98	54.00	5.02
*2 384.72	27.53	Peak	V	28.12	6.50	-	62.15	74.00	11.85
*2 384.72	15.84	Average	V	28.12	6.50	-	50.46	54.00	3.54
*2 390.00	26.43	Peak	V	28.08	6.47	-	60.98	74.00	13.02
*2 390.00	15.45	Average	V	28.08	6.47	-	50.00	54.00	4.00

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*4 824.06	42.06	Peak	H	32.78	-33.50	-	41.34	74.00	32.66
*4 824.06	36.84	Average	H	32.78	-33.50	-	36.12	54.00	17.88
Above 4 900.00	Not detected	-	-	-	-	-	-	-	-

Middle Channel (2 437 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*4 874.11	42.05	Peak	H	33.01	-33.27	-	41.79	74.00	32.21
*4 874.11	34.87	Average	H	33.01	-33.27	-	34.61	54.00	19.39
Above 4 900.00	Not detected	-	-	-	-	-	-	-	-

High Channel (2 462 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*2 483.50	25.55	Peak	V	28.17	6.65	-	60.37	74.00	13.63
*2 483.50	15.65	Average	V	28.17	6.65	-	50.47	54.00	3.53
*2 486.93	28.09	Peak	V	28.21	6.70	-	63.00	74.00	11.00
*2 486.93	16.04	Average	V	28.21	6.70	-	50.95	54.00	3.05
*2 500.00	26.10	Peak	V	28.31	6.88	-	61.29	74.00	12.71
*2 500.00	15.69	Average	V	28.31	6.88	-	50.88	54.00	3.12

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

OFDM : 802.11g(6 Mbps)

Low Channel (2 412 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*2 310.00	25.06	Peak	V	27.77	6.48	-	59.31	74.00	14.69
*2 310.00	14.76	Average	V	27.77	6.48	0.27	49.28	54.00	4.72
*2 389.92	27.35	Peak	V	28.08	6.47	-	61.90	74.00	12.10
*2 389.92	16.18	Average	V	28.08	6.47	0.27	51.00	54.00	3.00
*2 390.00	26.74	Peak	V	28.08	6.47	-	61.29	74.00	12.71
*2 390.00	16.16	Average	V	28.08	6.47	0.27	50.98	54.00	3.02

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

Middle Channel (2 437 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

High Channel (2 462 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*2 483.50	27.08	Peak	V	28.17	6.65	-	61.90	74.00	12.10
*2 483.50	16.06	Average	V	28.17	6.65	0.27	51.15	54.00	2.85
*2 485.63	28.06	Peak	V	28.19	6.68	-	62.93	74.00	11.07
*2 485.63	16.20	Average	V	28.19	6.68	0.27	51.34	54.00	2.66
*2 500.00	26.99	Peak	V	28.31	6.88	-	62.18	74.00	11.82
*2 500.00	15.75	Average	V	28.31	6.88	0.27	51.21	54.00	2.79

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

OFDM : 802.11n_HT20(MCS0)

Low Channel (2 412 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*2 310.00	23.93	Peak	V	27.77	6.48	-	58.18	74.00	15.82
*2 310.00	14.73	Average	V	27.77	6.48	0.35	49.33	54.00	4.67
*2 366.72	27.37	Peak	V	28.15	6.55	-	62.07	74.00	11.93
*2 366.72	16.43	Average	V	28.15	6.55	0.35	51.48	54.00	2.52
*2 390.00	26.35	Peak	V	28.08	6.47	-	60.90	74.00	13.10
*2 390.00	16.42	Average	V	28.08	6.47	0.35	51.32	54.00	2.68

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

Middle Channel (2 437 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

High Channel (2 462 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*2 483.50	25.73	Peak	V	28.17	6.65	-	60.55	74.00	13.45
*2 483.50	16.29	Average	V	28.17	6.65	0.35	51.46	54.00	2.54
*2 483.65	28.20	Peak	V	28.17	6.65	-	63.02	74.00	10.98
*2 483.65	16.47	Average	V	28.17	6.65	0.35	51.64	54.00	2.36
*2 500.00	25.50	Peak	V	28.31	6.88	-	60.69	74.00	13.31
*2 500.00	15.81	Average	V	28.31	6.88	0.35	51.35	54.00	2.65

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

OFDM : 802.11n_HT40(MCS0)

Low Channel (2 422 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*2 310.00	24.33	Peak	V	27.77	6.48	-	58.58	74.00	15.42
*2 310.00	14.80	Average	V	27.77	6.48	0.54	49.59	54.00	4.41
*2 388.96	32.48	Peak	V	28.09	6.47	-	67.04	74.00	6.96
*2 388.96	17.35	Average	V	28.09	6.47	0.54	52.45	54.00	1.55
*2 390.00	28.64	Peak	V	28.08	6.47	-	63.19	74.00	10.81
*2 390.00	17.35	Average	V	28.08	6.47	0.54	52.44	54.00	1.56

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

Middle Channel (2 437 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

High Channel (2 452 ㎒)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*2 483.50	25.48	Peak	V	28.17	6.65	-	60.30	74.00	13.70
*2 483.50	16.84	Average	V	28.17	6.65	0.54	52.20	54.00	1.80
*2 484.51	30.76	Peak	V	28.18	6.66	-	65.60	74.00	8.40
*2 484.51	17.03	Average	V	28.18	6.66	0.54	52.41	54.00	1.59
*2 500.00	26.13	Peak	V	28.31	6.88	-	61.32	74.00	12.68
*2 500.00	15.91	Average	V	28.31	6.88	0.54	51.64	54.00	2.36

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

Remarks :

1. "*" means the restricted band.
2. Measuring frequencies from 1 ㎓ to the 10th harmonic of highest fundamental frequency.
3. According to § 15.31(o), Emission levels are not reported much lower than the limits by over 20 ㏈.
4. Radiated emissions measured in frequency above 1 000 ㎒ were made with an instrument using peak/average detector mode.
5. Actual = Reading + AF + AMP + CL