TEST REPORT

CTK Co., Ltd.
(Ho-dong), 113, Yejik-ro, Cheoin-gu,
Yongin-si, Gyeonggi-do, Korea
Tel: +82-31-339-9970
Fax: +82-31-624-9501

Report No.:
CTK-2021-03992

1. Client

◦ Name : SOLUM CO.,LTD.

◦ Address : 4,5,6th F, 357 Guseong-ro,Giheung-gu,Yongin-si,Gyeonggi-do,
Republic of Korea(Zip 16914)

◦ Date of Receipt : 2021-08-23

2. Manufacturer

◦ Name #1 : SOLUM VINA CO., LTD

◦ Address #1 : Plot B3, Ba Thien 2 Industrial park, Thien Ke Ward, Binh Xuyen District,
Vinh Phuc Province, 281200., People's Republic of Vietnam

◦ Name #2 : DONGGUAN SOLUM ELECTRONICS CO., LTD.

◦ Address #2 : Building 2/4/6, No.35, Tongzhen Road, Tongsha, Dongcheng District,
Dongguan City, Guangdong Province, 523127 People's Republic of China

3. Use of Report : For FCC Certification & Canadian Certification

4. Test Sample / Model : LCD Stripe / WA29FO018W0/IT

5. Date of Test : 2021-10-01 to 2021-10-29

6. Test Standard(method) used : FCC 47 CFR part 15 subpart C 15.247,
ANSI C63.10-2013, RSS-Gen, RSS-247

7. Testing Environment : Temp.: (23 ± 3) ℃, Humidity: (48 ± 5) % R.H.

8. Test Results : Compliance

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full.

Affirmation	Tested by Bong-seok Kim: (Signature)	Technical Manager Young-taek Lee: (Signature)

2021-10-29

Republic of KOREA **CTK Co., Ltd.**

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REPORT REVISION HISTORY

Date	Revision	Page No
2021-10-29	Issued (CTK-2021-03992)	all

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1. General Product Description

1.1 Client Information

Company	SOLUM CO., LTD.
Contact Point	4,5,6th F, 357 Guseong-ro, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea
Contact Person	Name : Ki Dong Lee E-mail : kdlee007@solu-m.com Tel : +82-31-8006-7677

1.2 Product Information

FCC ID	2AFWN-WA29FO018W0
ISED certification number	22800-WA29FO018W0
Product Description	LCD Stripe
Model name	WA29FO018W0/IT
Variant Model name	-
Operating Frequency	2 412 MHz - 2 462 MHz (Bandwidth 20 MHz) 2 422 MHz - 2 452 MHz (Bandwidth 40 MHz)
RF Output Power	802.11b : 16.12 dBm (40.926 mW) 802.11g : 15.32 dBm (34.041 mW) 802.11n-HT20 : 15.15 dBm (32.734 mW) 802.11n-HT40 : 15.36 dBm (34.356 mW)
Antenna Specification	Antenna type : FPCB Antenna Peak Gain : 3.62 dBi
Number of channels	Bandwidth 20 MHz (11), Bandwidth 40 MHz (9)
Type of Modulation	802.11b : DSSS 802.11g/n : OFDM
Power Source	DC 12 V
Data Rate	802.11b : 11 / 5.5 / 2 / 1 Mbps 802.11g : 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps 802.11n: MCS0-7, up to 72.2 Mbps
Firmware Version Id Number(FVIN)	V1.0
RF Power setting in Test SW	Initial value

1.3 Peripheral Devices

-For Conducted Measurement and Radiated Measurement

Device	Manufacturer	Model No.	Serial No.
Notebook	HP Inc.	HP Probook 455 G7	5CD0234DWW
AC Adapter	HP Inc.	TPN-LA16	PA-1650-20HL

2.0 Facility and Accreditations

2.1 Test Facility

The measurement facility is located at (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea.

2.2 Laboratory Accreditations and Listings

Country	Agency	Registration Number
USA	FCC	805871
CANADA	ISED	8737A-2
KOREA	NRRA	KR0025

2.3 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

3.0 Test Specifications

3.1 Standards

Section in FCC	Section in RSS	Requirement(s)	Status (Note 1)	Test Condition
15.247(a)	RSS-Gen 6.7	6 dB Bandwidth	C	Conducted
15.247(e)	RSS-247 5.2(b)	Transmitter power spectral density	C	
15.247(b)	RSS-247 5.4(d)	Maximum peak conducted output power	C	
15.247(d)	RSS-Gen 6.13	Unwanted emission	C	
-	RSS-Gen 6.7	99 % Bandwidth	C	
15.209	RSS-Gen 5, RSS-Gen 6.13	Transmitter emission	C	Radiated
15.207(a)	RSS-Gen 8.8	AC Conducted Emission	C	Line Conducted

Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable

Note 2: The data in this test report are traceable to the national or international standards.

Note 3: The sample was tested according to the following specification: FCC Part 15.247, ANSI C63.10-2013, RSS-Gen Issue 5, RSS-247 Issue 2

Note 4: The tests were performed according to the method of measurements prescribed in KDB No.558074.

3.2 Mode of operation during the test

The UUT is operated in a manner representative of the typical of the equipments.
During at testing, system components were manipulated within the confines of typical usage to maximize each emission. The results are only attached worst cases.

Test mode & Worst case

Mode	Worst case(Data rate)
802.11b	11 Mbps
802.11g	48 Mbps
802.11n-HT20	MCS 0
802.11n-HT40	MCS 0

Test Frequency & Bandwidth

Bandwidth	Lowest channel	Middle channel	Highest channel
20 MHz	2 412 MHz	2 437 MHz	2 462 MHz
40 MHz	2 422 MHz	2 437 MHz	2 452 MHz

Duty cycle

Mode	Duty cycle (%)
802.11b	99.0
802.11g	93.0
802.11n-HT20	92.7
802.11n-HT40	88.8

3.3 Maximum Measurement Uncertainty

The value of the measurement uncertainty for the measurement of each parameter.
Coverage factor k = 2, Confidence levels of 95 %

Description	Uncertainty
Conducted RF Output Power	± 1.5 dB (C.L. : Approx. 95%, k=2)
Power Spectral Density	± 1.5 dB (C.L. : Approx. 95%, k=2)
Occupied Bandwidth	± 0.1 MHz (C.L. : Approx. 95%, k=2)
Unwanted Emission(conducted)	± 3.0 dB (C.L. : Approx. 95%, k=2)
Radiated Emissions (f ≤ 1 GHz)	± 5.0 dB (C.L. : Approx. 95%, k=2)
Radiated Emissions (f > 1 GHz)	± 5.0 dB (C.L. : Approx. 95%, k=2)

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4.0 Technical Characteristic Test

4.1 6dB Bandwidth & 99% Bandwidth

Test Procedures (ANSI C63.10-2013 6.9.2)

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Procedures (ANSI C63.10-2013 6.9.3)

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.
Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

Test Settings :

Center frequency = the highest, middle and the lowest channels

a) RBW = 100 kHz (6dB Bandwidth)

b) RBW = 1% to 5% of the OBW (99 % Bandwidth)

c) VBW ≥ 3 x RBW

d) Detector = peak

e) Trace mode = Max hold

f) Sweep = auto couple

g) Allow trace to fully stabilize

h) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Limit : 6dB Bandwidth

6 dB Bandwidth > 500kHz

Limit : 99 % Bandwidth

N/A

Test Data:

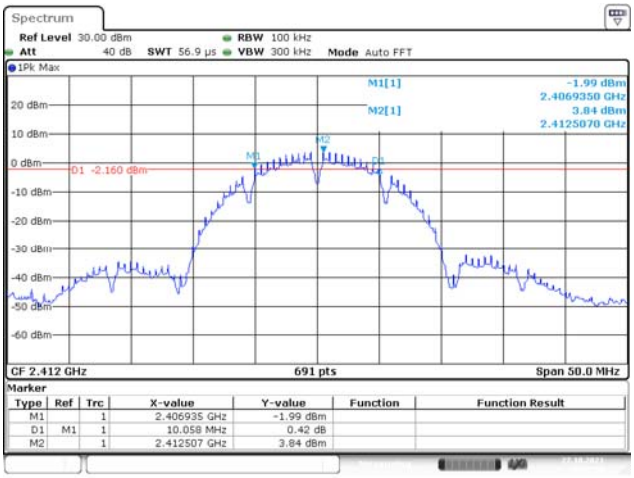
Mode	Channel	Frequency [MHz]	6 dB Bandwidth [MHz]	99 % Bandwidth [MHz]	Result
802.11b	Low	2 412	10.058	14.978	Complies
	Middle	2 437	10.058	14.906	
	High	2 462	10.058	14.906	
802.11g	Low	2 412	16.281	16.643	
	Middle	2 437	16.281	16.643	
	High	2 462	16.281	16.787	
802.11n -HT20	Low	2 412	17.511	17.945	
	Middle	2 437	17.511	18.090	
	High	2 462	17.511	18.017	
802.11n -HT40	Low	2 422	35.460	35.890	
	Middle	2 437	35.600	35.890	
	High	2 452	35.460	35.890	

See next pages for actual measured spectrum plots.

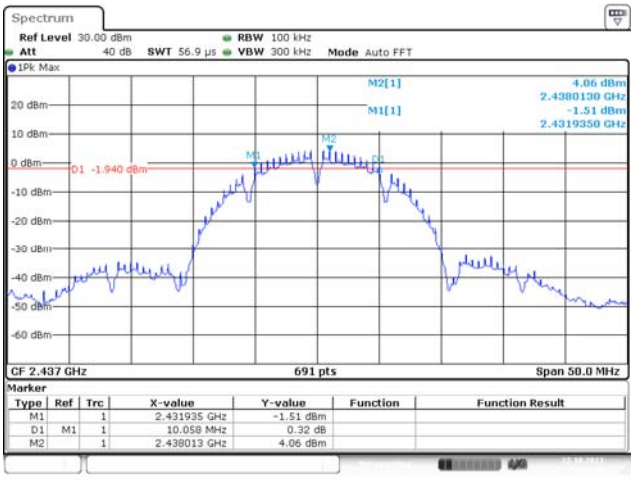
Test Mode : 802.11b

6 dB Bandwidth[MHz]

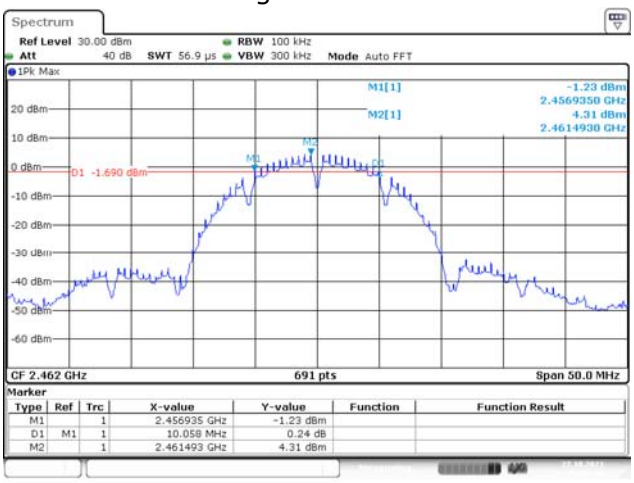
Low channel



Middle channel

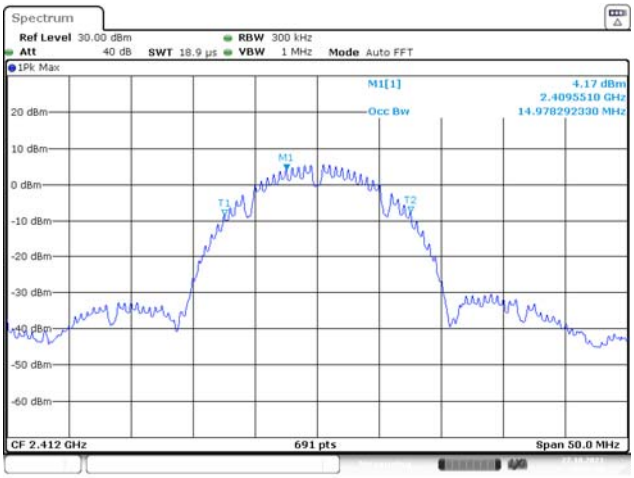


High channel

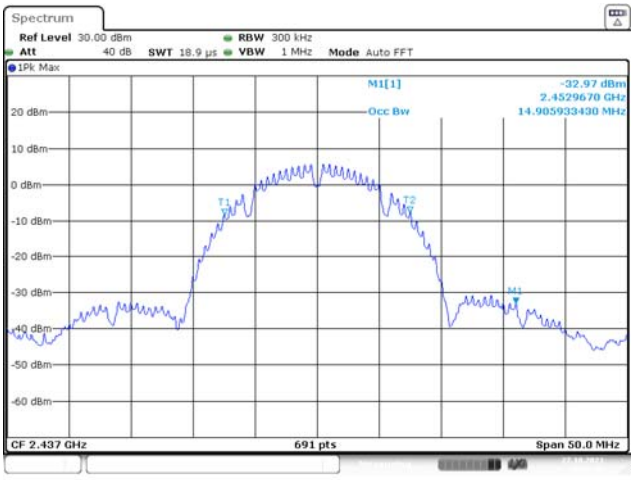


99% Bandwidth[MHz]

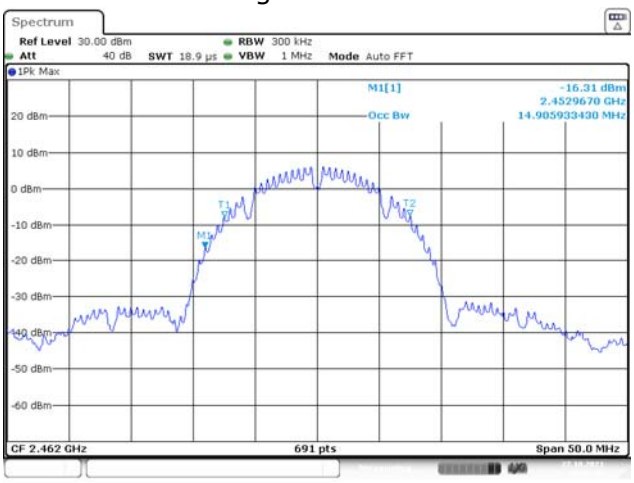
Low channel



Middle channel



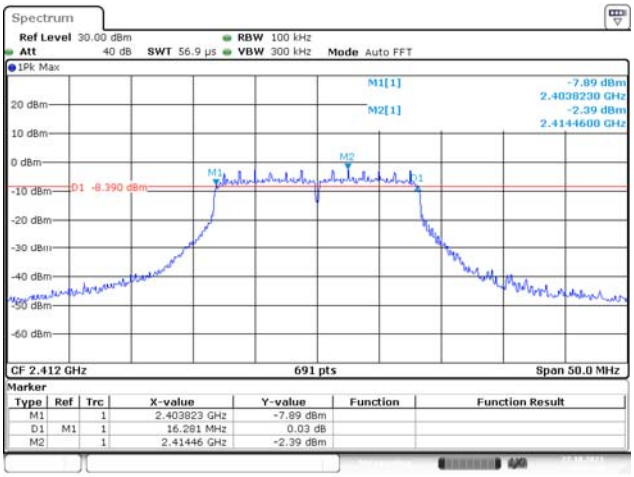
High channel



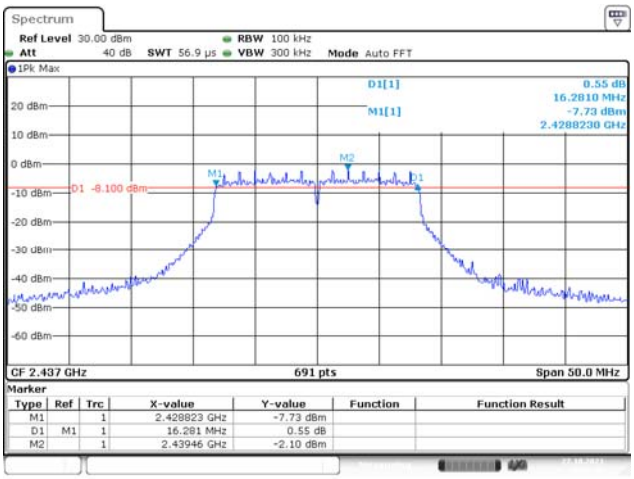
Test Mode : 802.11g

6 dB Bandwidth[MHz]

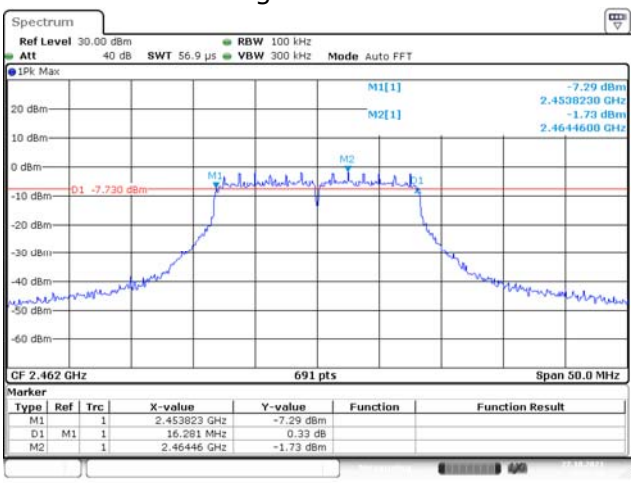
Low channel



Middle channel

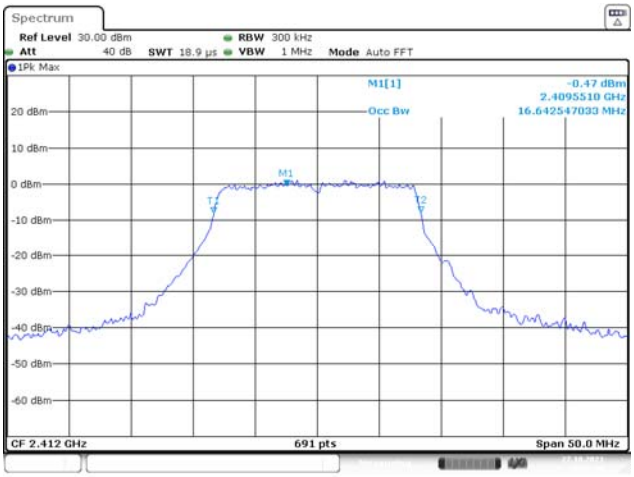


High channel

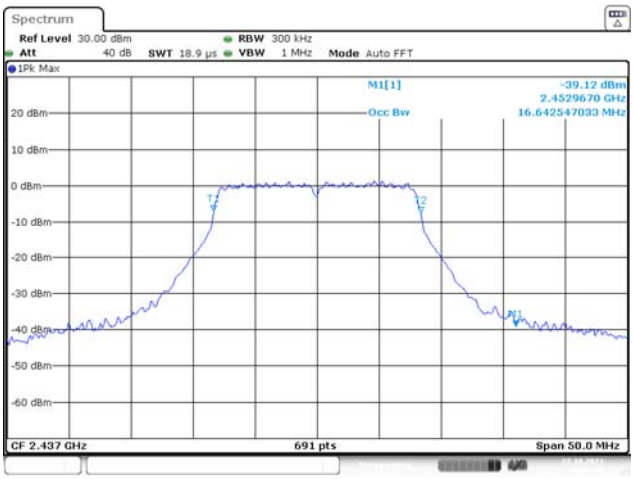


99% Bandwidth[MHz]

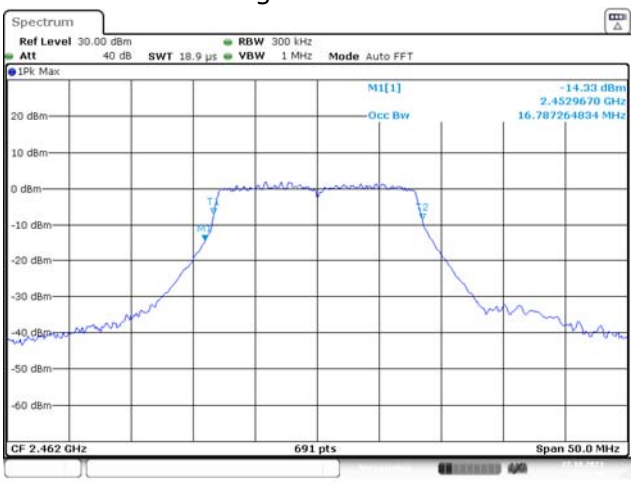
Low channel



Middle channel



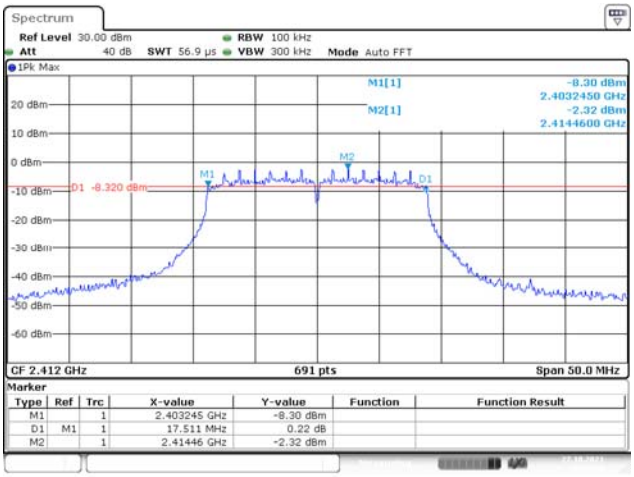
High channel



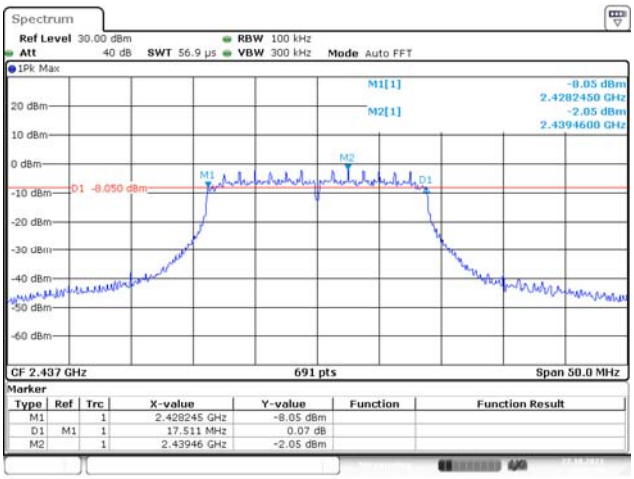
Test Mode : 802.11n-HT20

6 dB Bandwidth[MHz]

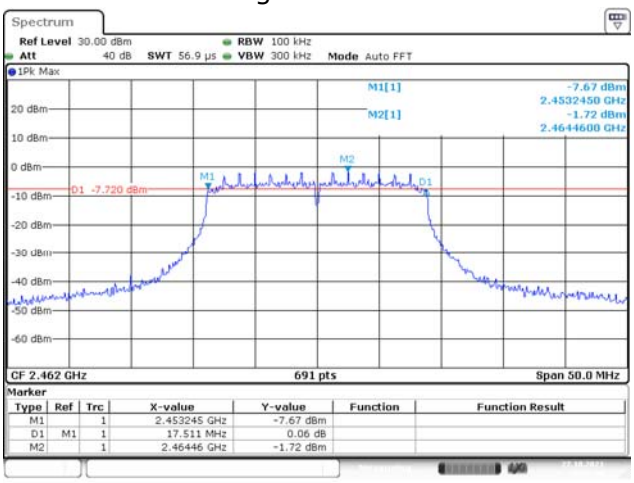
Low channel



Middle channel

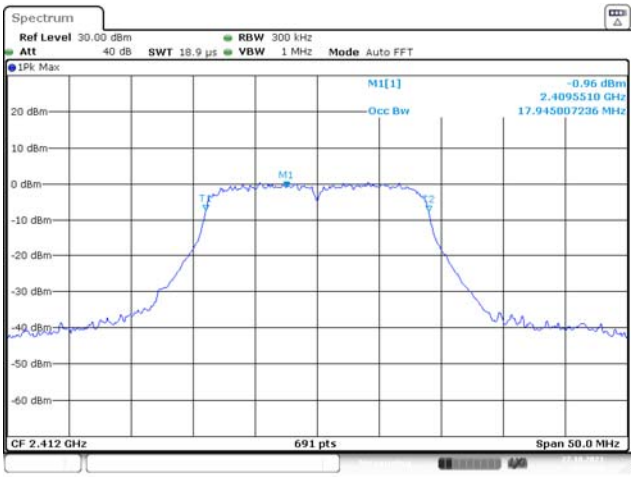


High channel

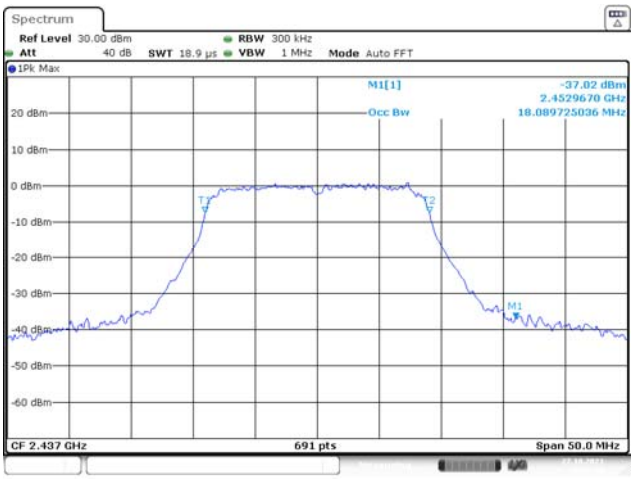


99% Bandwidth[MHz]

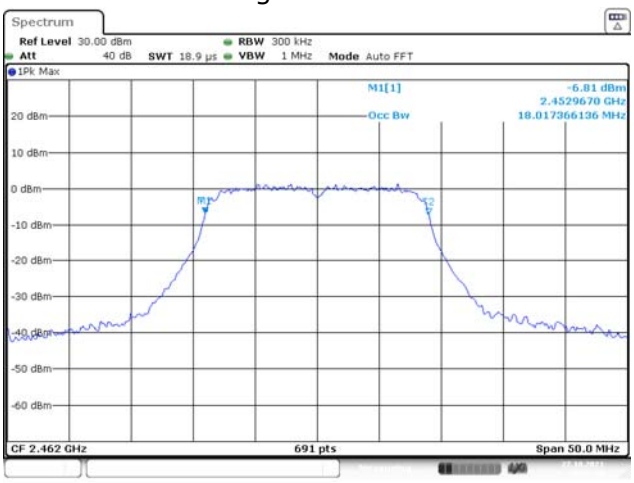
Low channel



Middle channel



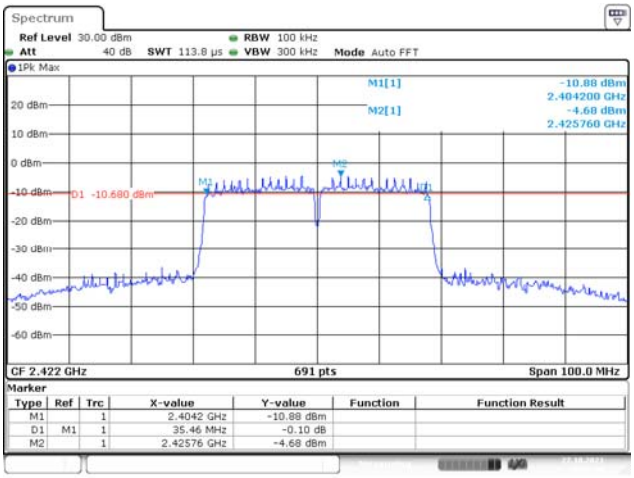
High channel



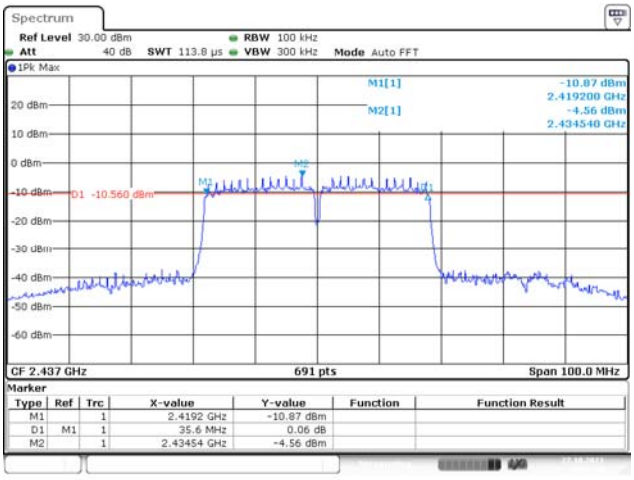
Test Mode : 802.11n-HT40

6 dB Bandwidth[MHz]

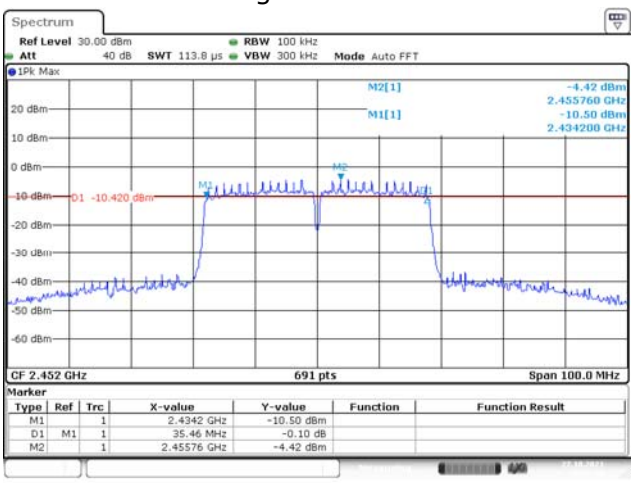
Low channel



Middle channel

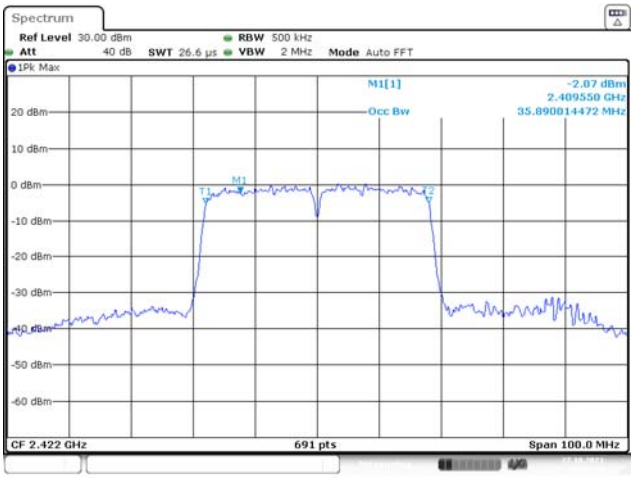


High channel

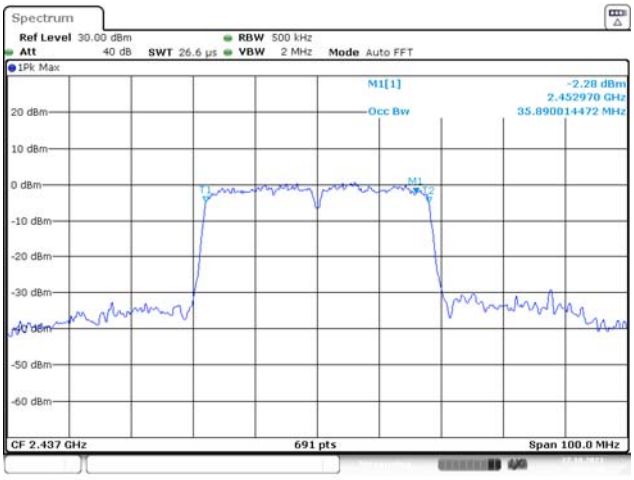


99 % Bandwidth[MHz]

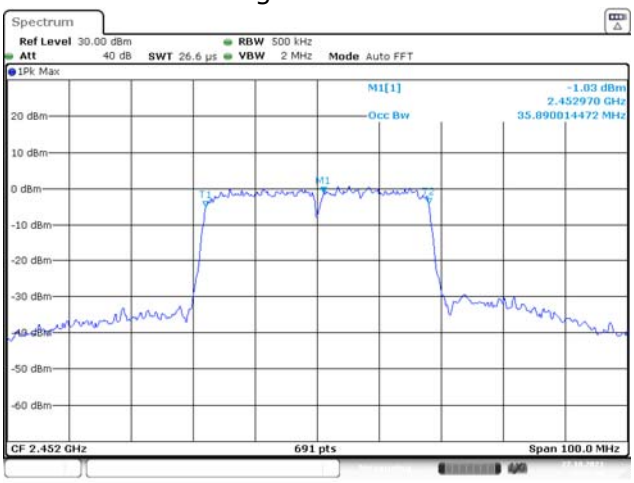
Low channel



Middle channel



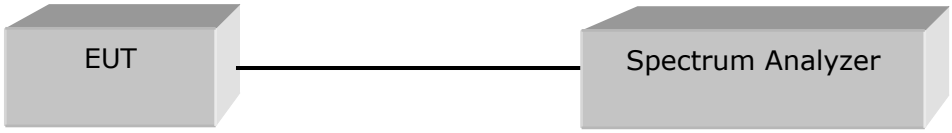
High channel



4.2 Maximum peak Conducted Output Power

Test Procedures(ANSI C63.10-2013 11.9.2.2.2)

The transmitter output is connected to a spectrum analyzer and the analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99% bandwidth.



Test Settings:

Center frequency = the highest, middle and the lowest channels

a) span ≥ 1.5 x OBW

b) RBW = 1% to 5% of the OBW, not to exceed 1 MHz

c) VBW ≥ 3 x RBW

d) Sweep point ≥ (2 x SPAN / RBW)

e) Detector = RMS

f) Sweep time = auto

g) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges.

Limit

Maximum Output Power < 1 W (30 dBm)

Test Data

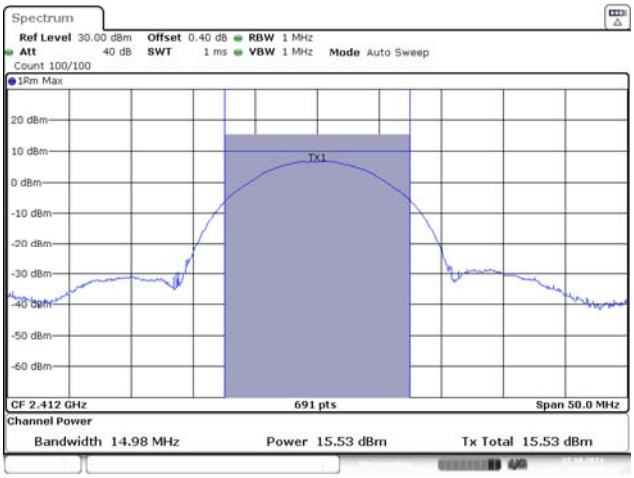
Mode	Channel	Frequency [MHz]	Measurement data [dBm]	Limit [dBm]	Result
802.11b	Low	2 412	15.53	30	Complies
	Middle	2 437	15.79		
	High	2 462	**16.12**		
802.11g	Low	2 412	14.65		
	Middle	2 437	15.08		
	High	2 462	15.32		
802.11n -HT20	Low	2 412	14.62		
	Middle	2 437	14.89		
	High	2 462	15.15		
802.11n -HT40	Low	2 422	14.74		
	Middle	2 437	14.95		
	High	2 452	15.36		

See next pages for actual measured spectrum plots.

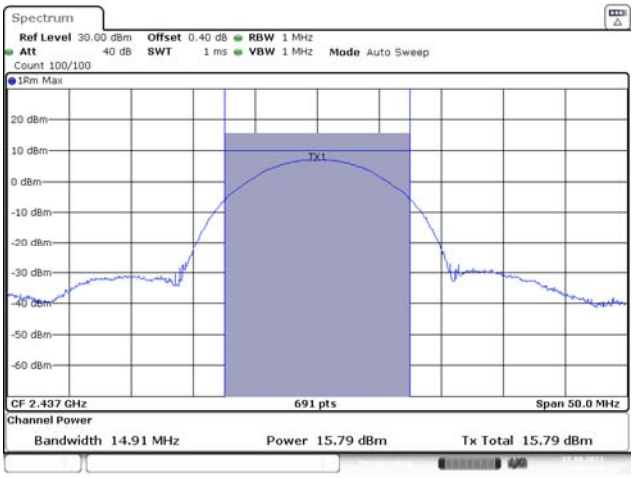
Output Power

Test Mode : 802.11b

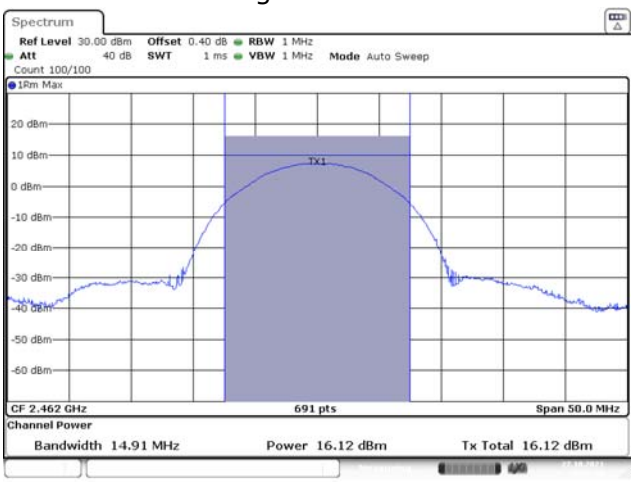
Low channel



Middle channel

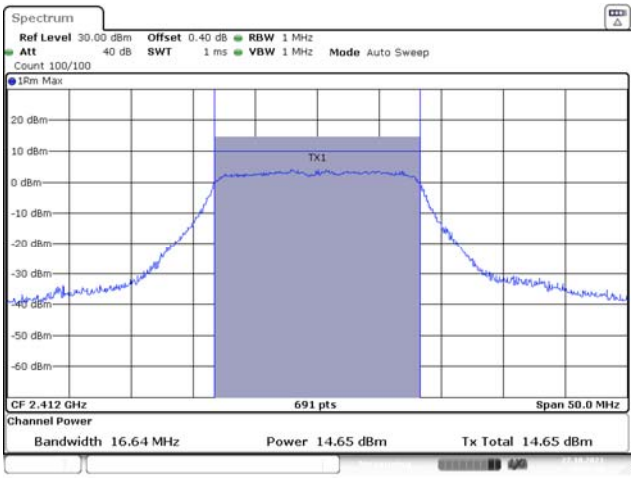


High channel

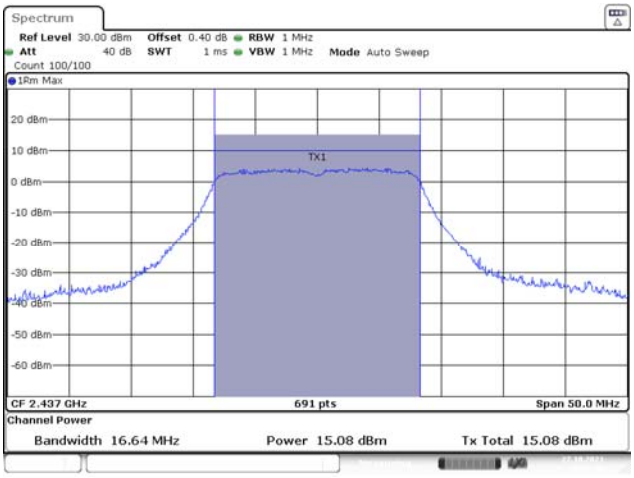


Test Mode : 802.11g

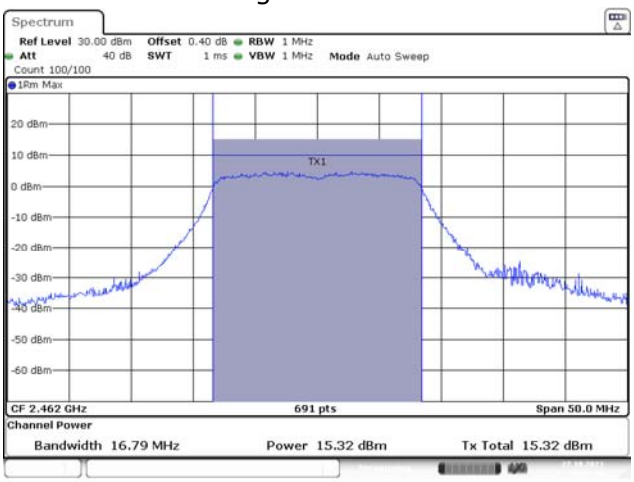
Low channel



Middle channel

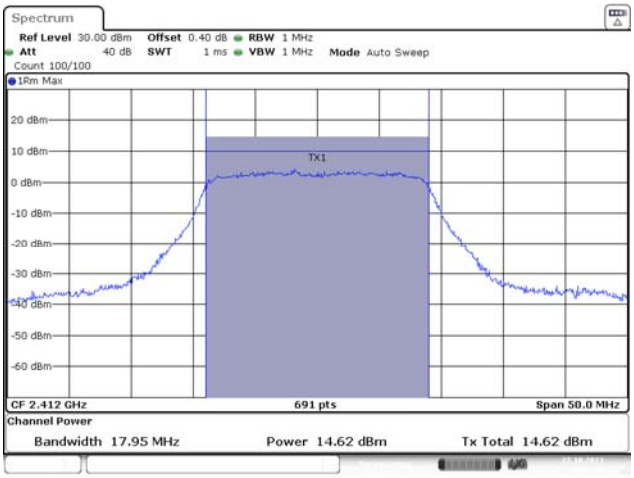


High channel

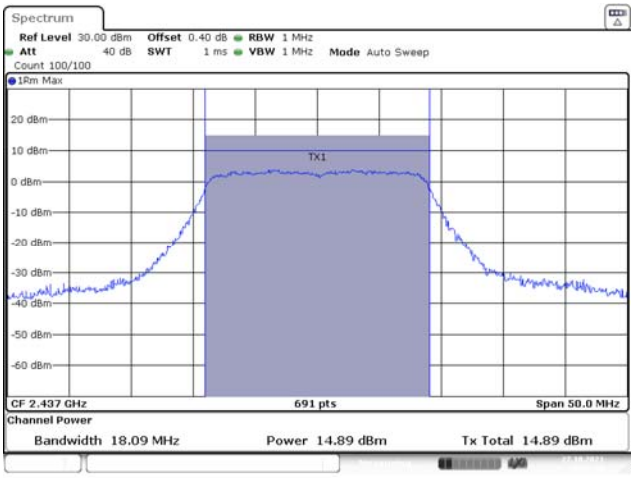


Test Mode : 802.11n-HT20

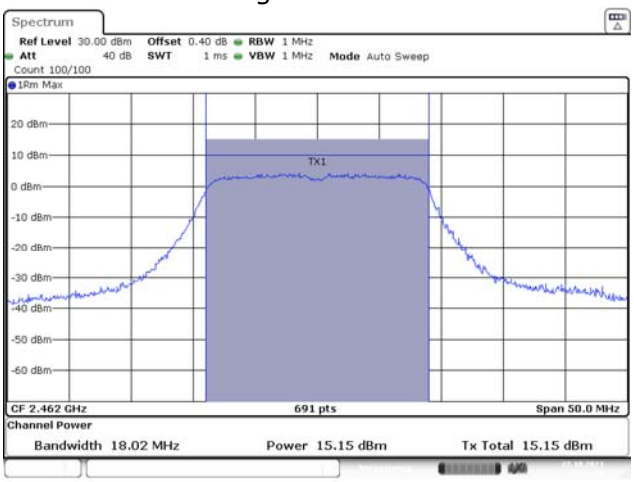
Low channel



Middle channel

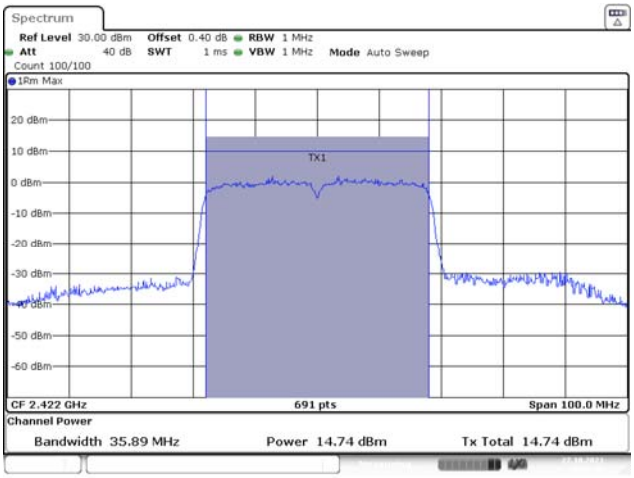


High channel

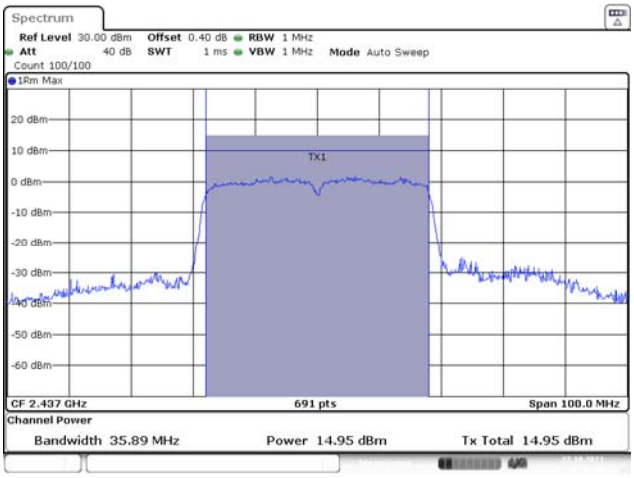


Test Mode : 802.11n-HT40

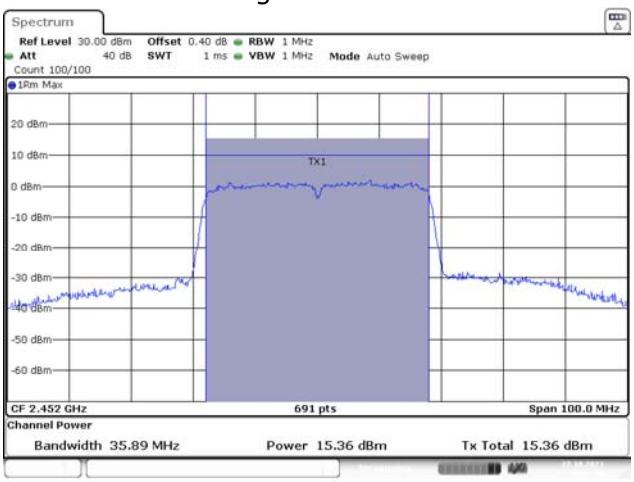
Low channel



Middle channel



High channel



4.3 Power Spectral Density

Test Procedures(ANSI C63.10-2013 11.10.2)

This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance.

Test Settings:

Center frequency = the highest, middle and the lowest channels

a) RBW : 3 kHz ≤ RBW ≤ 100 kHz

b) VBW ≥ 3 x RBW

c) span ≥ 1.5 x DTS bandwidth

d) Sweep time = auto couple

e) Detector = peak

f) Trace mode= max hold

g) Allow trace to fully stabilize

h) Use the peak marker function to determine the maximum amplitude level within the RBW.

Limit :

Power Spectral Density < 8 dBm @ 3 kHz BW

Test Data

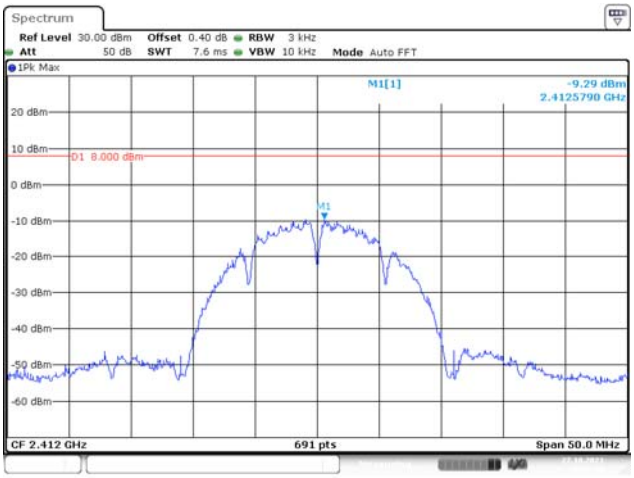
Mode	Channel	Frequency [MHz]	Measurement data [dBm]	Limit [dBm]	Result
802.11b	Low	2 412	-9.29	8	Complies
	Middle	2 437	-8.45		
	High	2 462	-7.97		
802.11g	Low	2 412	-15.70		
	Middle	2 437	-15.83		
	High	2 462	-15.34		
802.11n -HT20	Low	2 412	-14.43		
	Middle	2 437	-15.84		
	High	2 462	-15.14		
802.11n -HT40	Low	2 422	-17.88		
	Middle	2 437	-17.42		
	High	2 452	-18.49		

See next pages for actual measured spectrum plots.

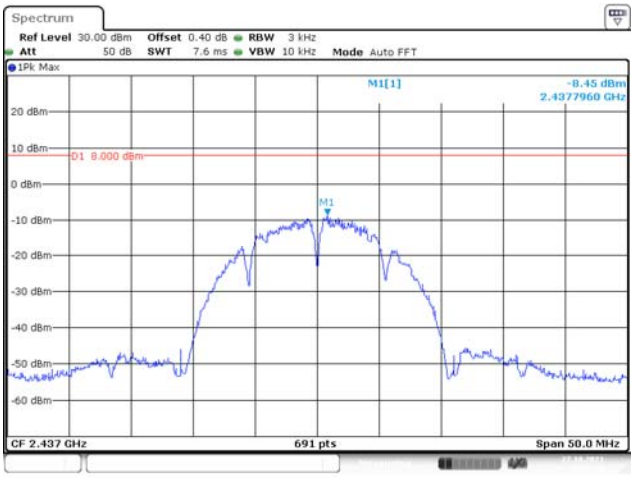
Power Spectral Density

Test Mode : 802.11b

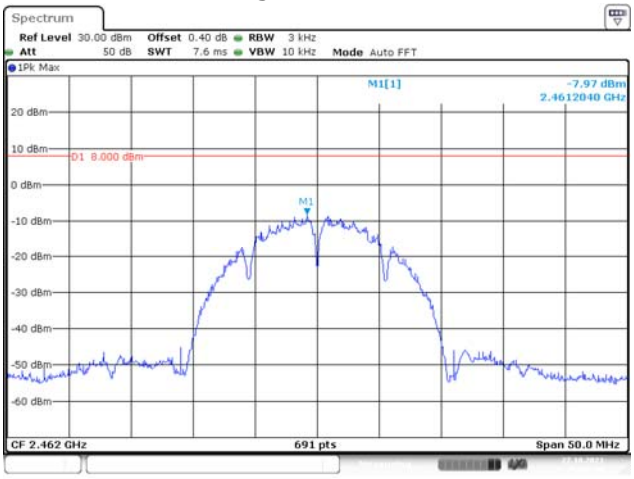
Low channel



Middle channel

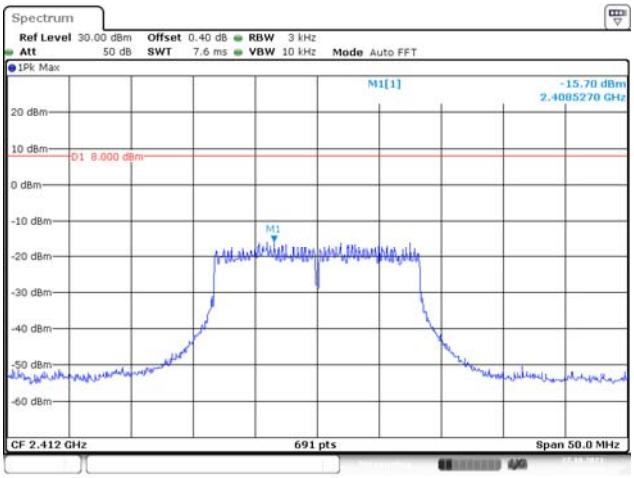


High channel

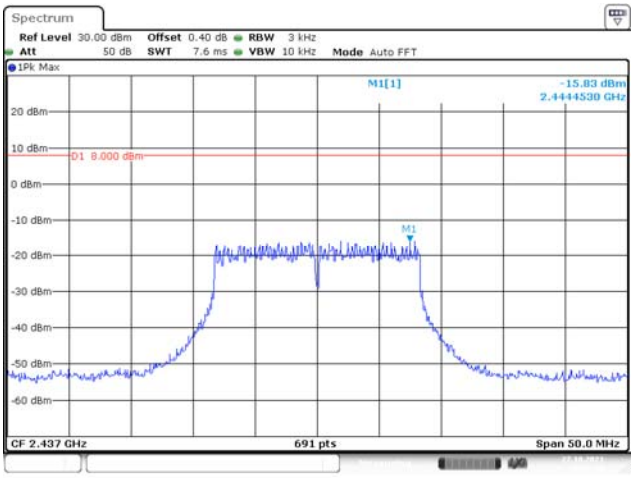


Test Mode : 802.11g

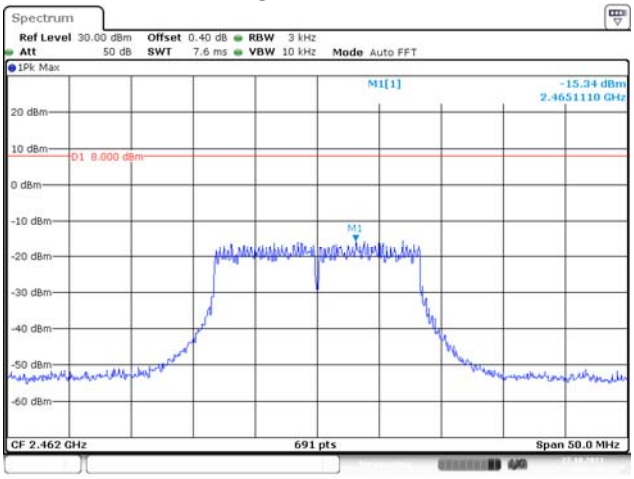
Low channel



Middle channel

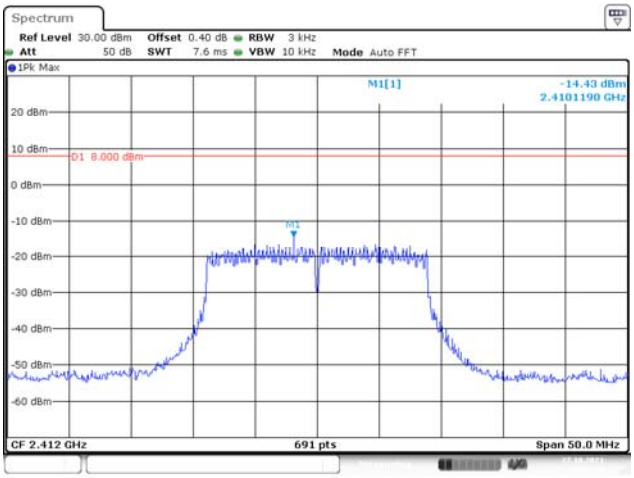


High channel

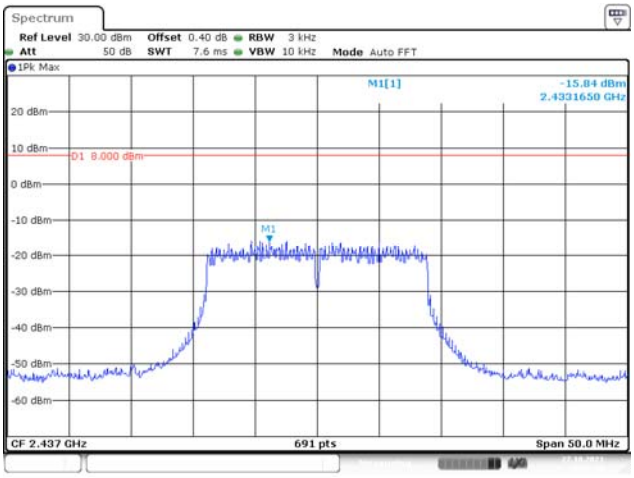


Test Mode : 802.11n-HT20

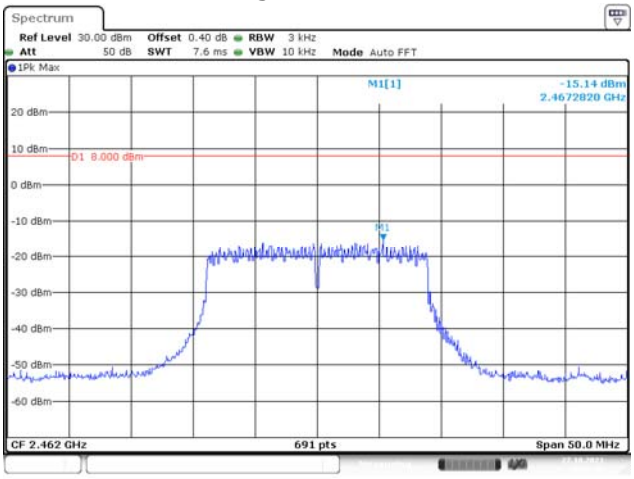
Low channel



Middle channel

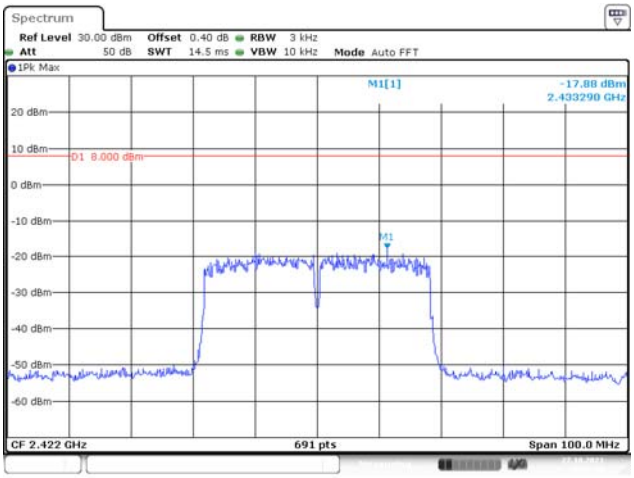


High channel

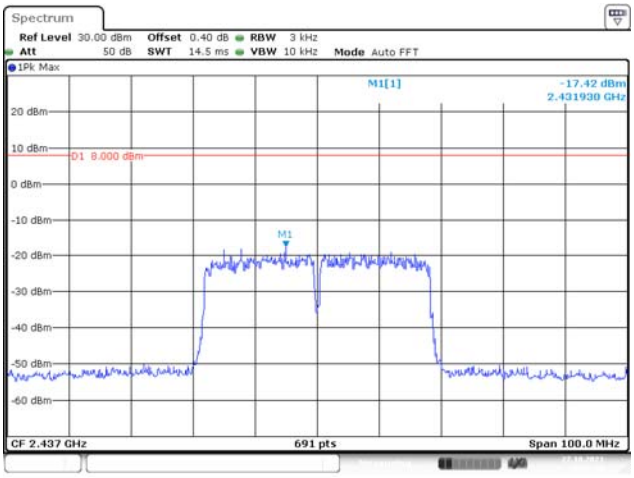


Test Mode : 802.11 n-HT40

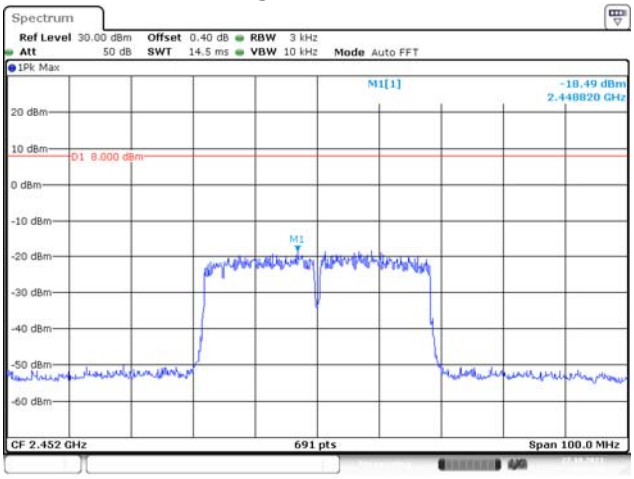
Low channel



Middle channel



High channel



4.4 Band Edge & Conducted Spurious emission

Test Procedures(ANSI C63.10-2013 11.11.3)

The Unwanted emission from the EUT were measured according to the dictates PKPSD measurement procedure in section 11.11 of ANSI C63.10-2013.

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB.

Test Settings:

Center frequency = the highest, middle and the lowest channels

a) RBW = 100 kHz
b) VBW ≥ 3 x RBW
c) Detector = peak
d) Sweep time = auto couple
e) Trace mode= max hold
f) Allow trace to fully stabilize
g) Use the peak marker function to determine the maximum amplitude level.

Limit :

Emission level < 30 dBc

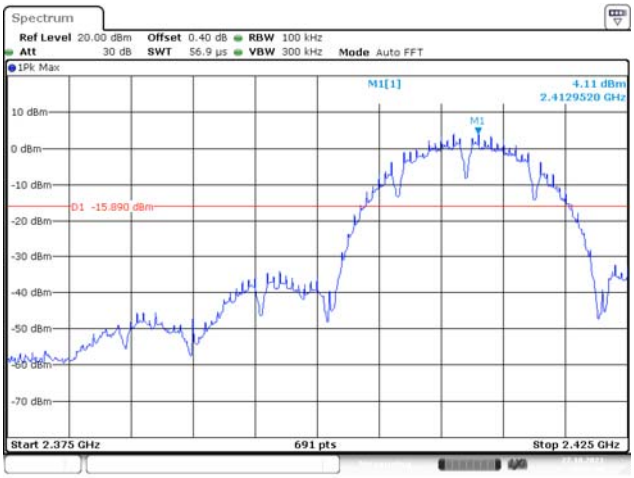
Test Data: Complies

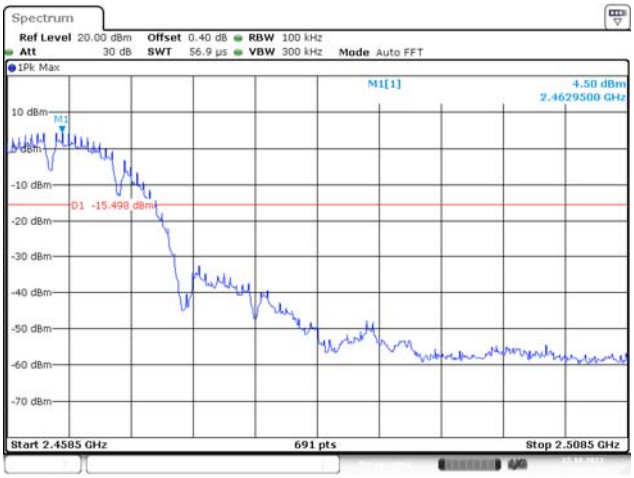
- All conducted emission in any 100 kHz bandwidth outside of the spread spectrum band was at least 30dB lower than the highest in-band spectral density. Therefore the applying equipment meets the requirement.

See next pages for actual measured spectrum plots.

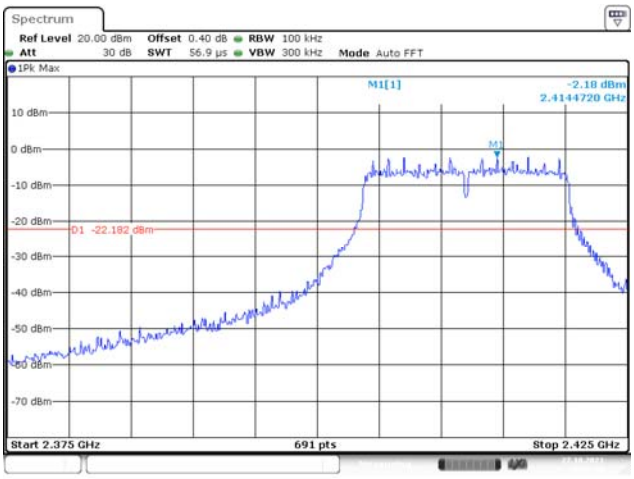
Band–edge

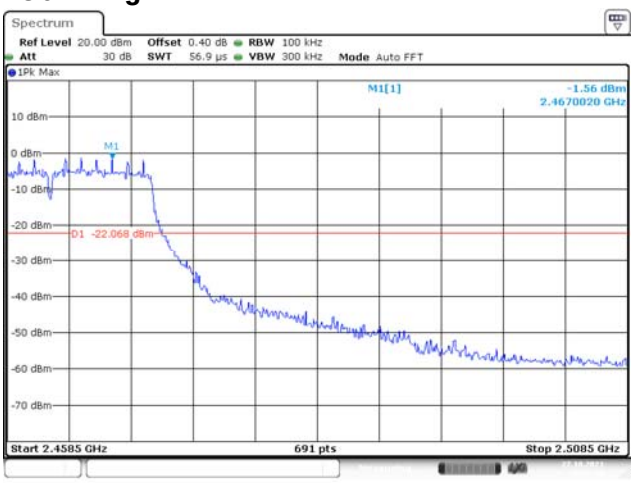
Test Mode : 802.11b



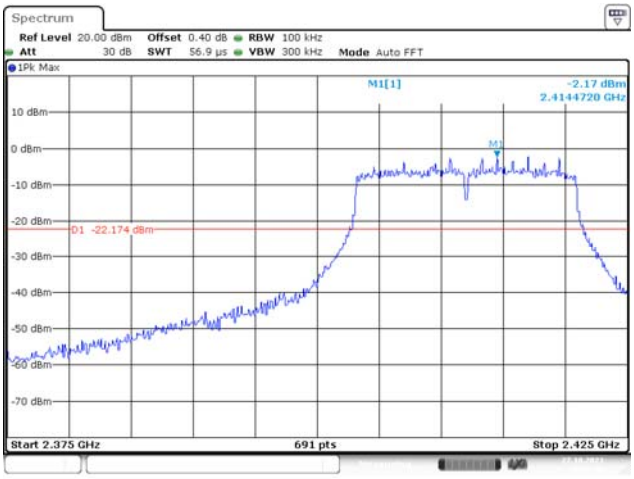


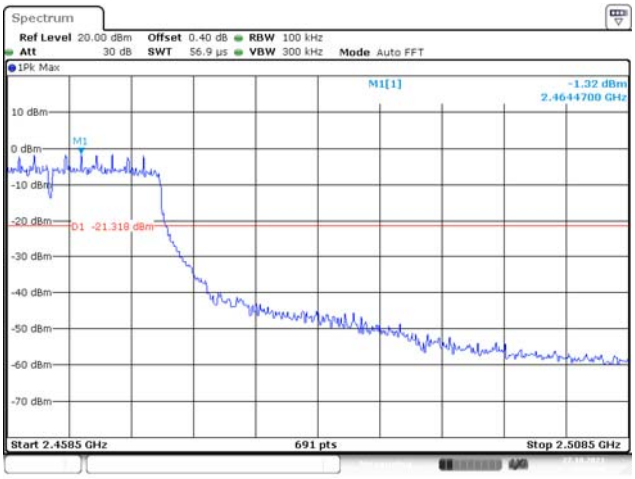
Test Mode : 802.11g



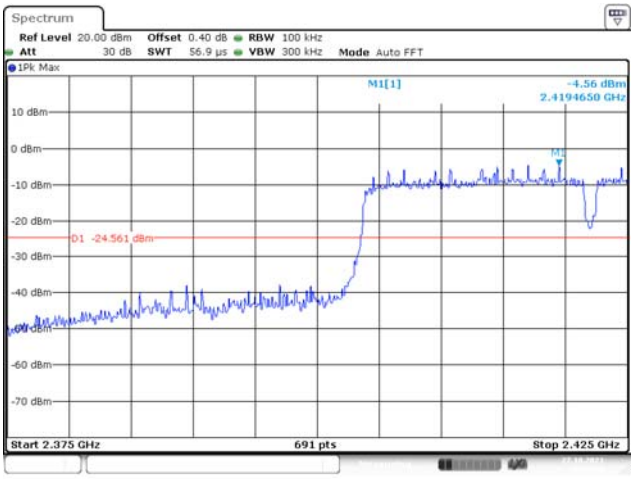


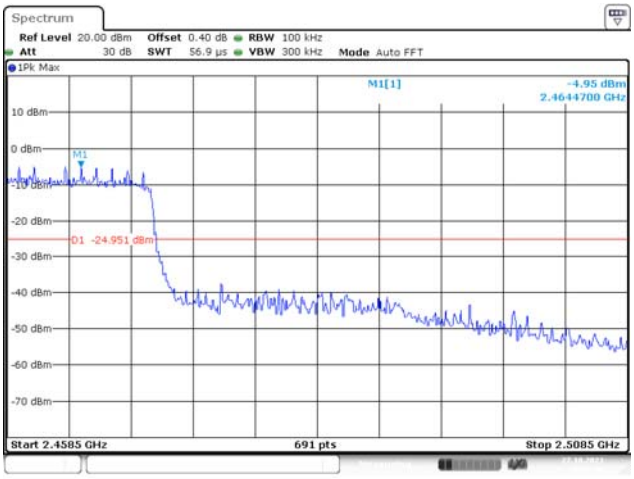
Test Mode : 802.11n-HT20





Test Mode : 802.11n-HT40





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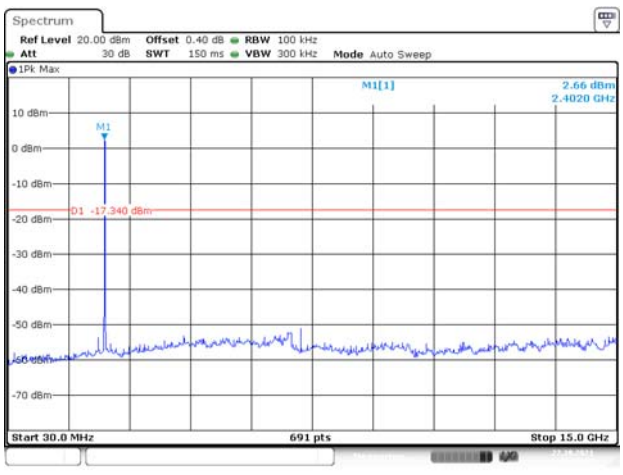
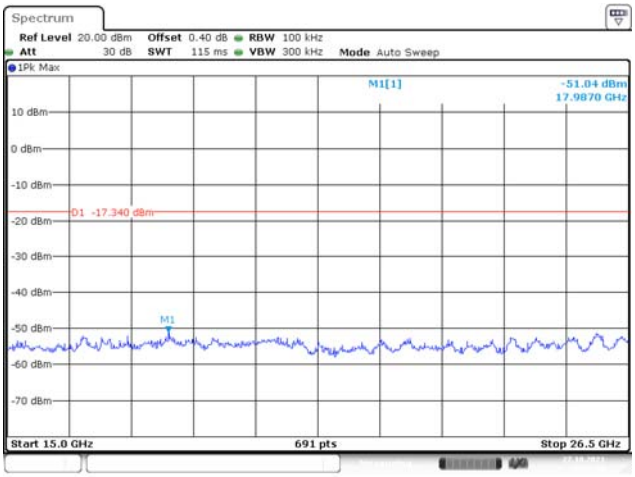
Spurious

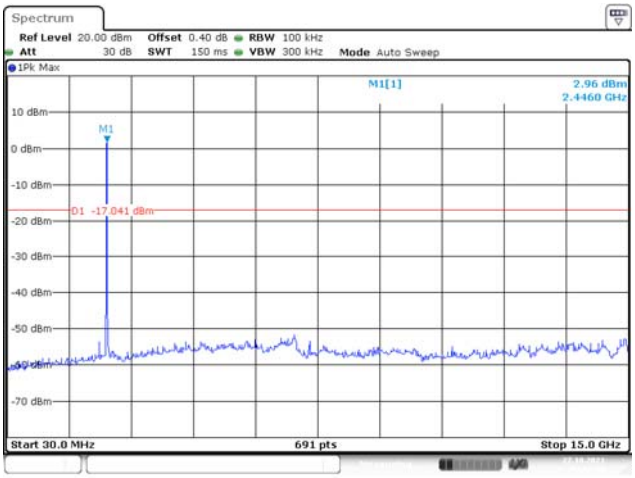
Test Mode : 802.11b

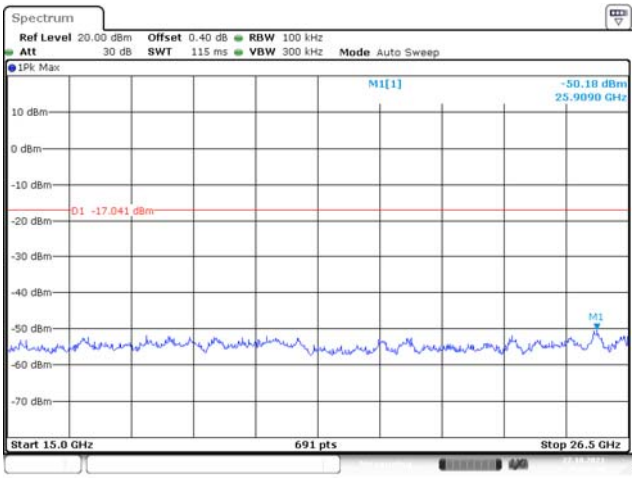
Low channel



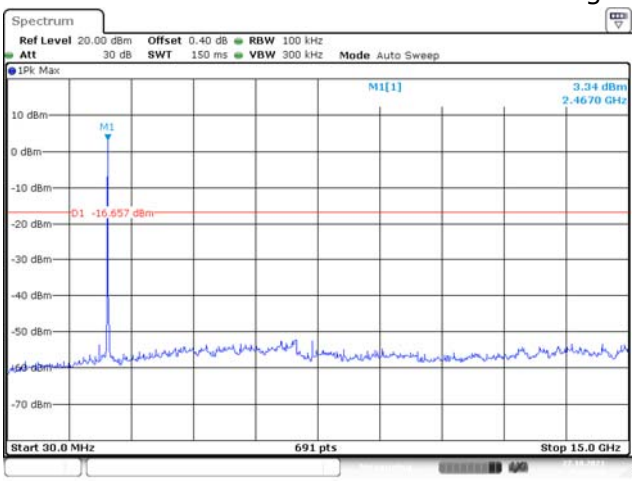


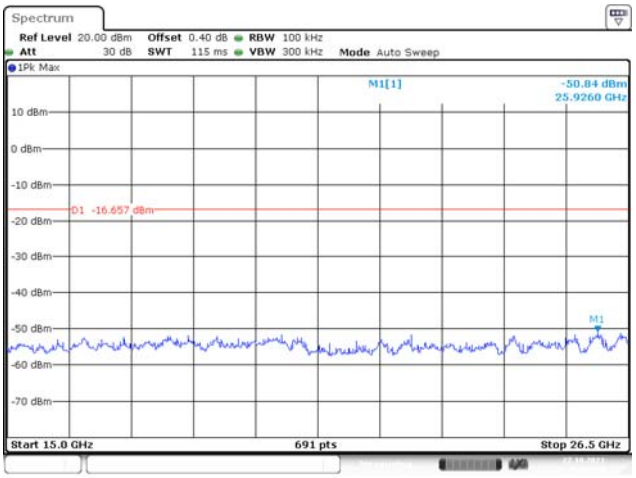
Middle channel





High channel





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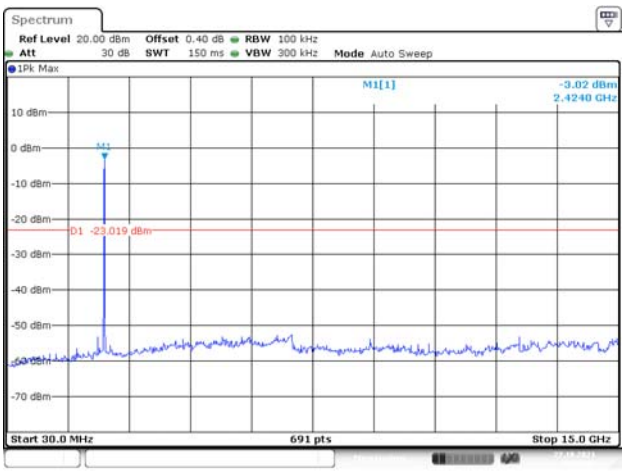
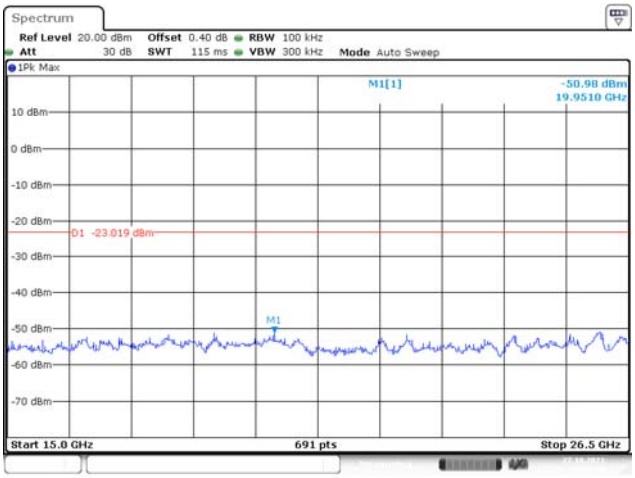
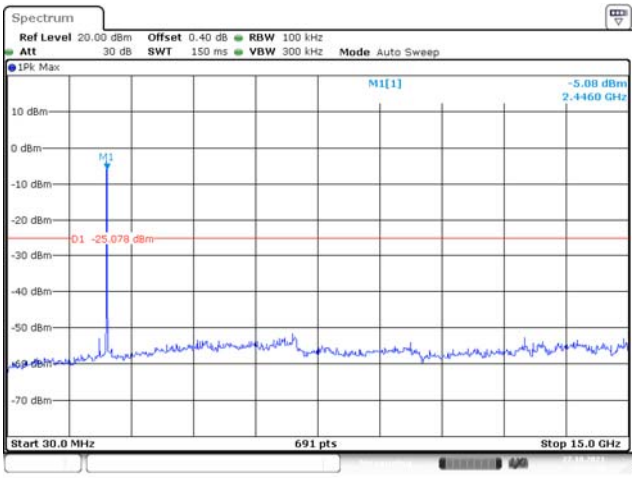
Test Mode : 802.11g

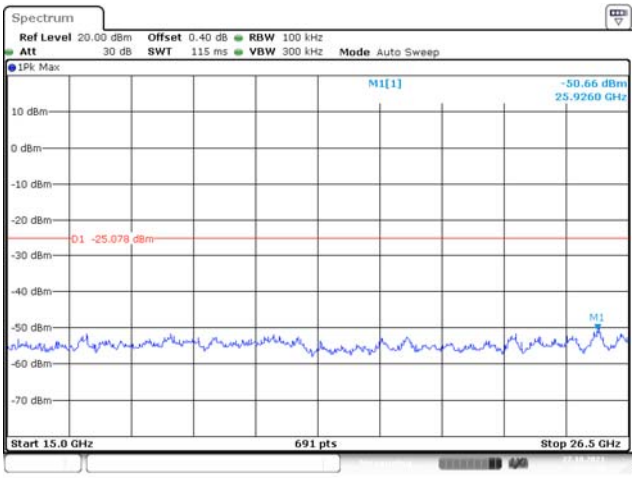
Low channel



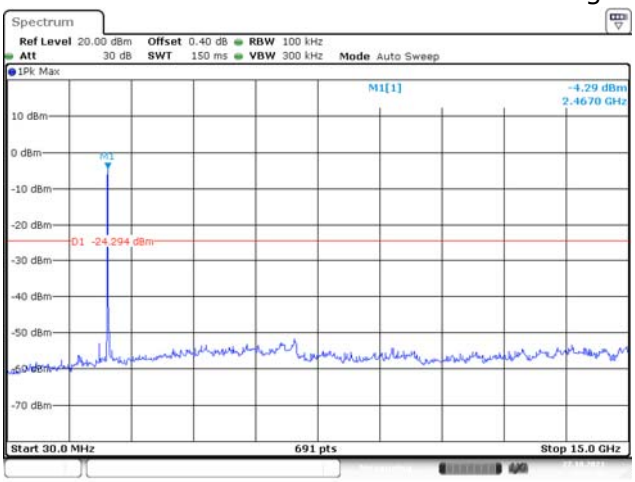


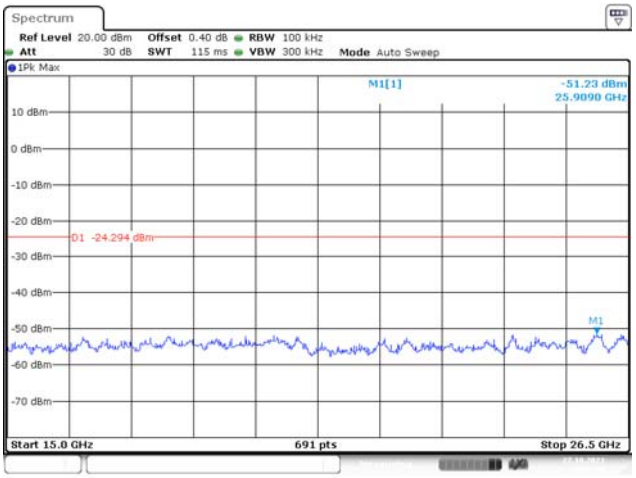
Middle channel





High channel





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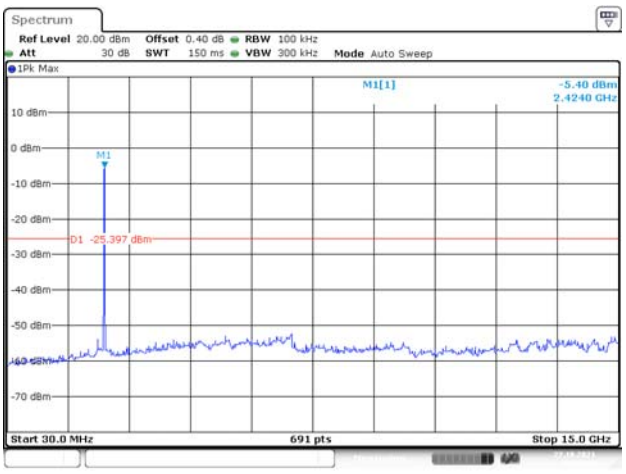
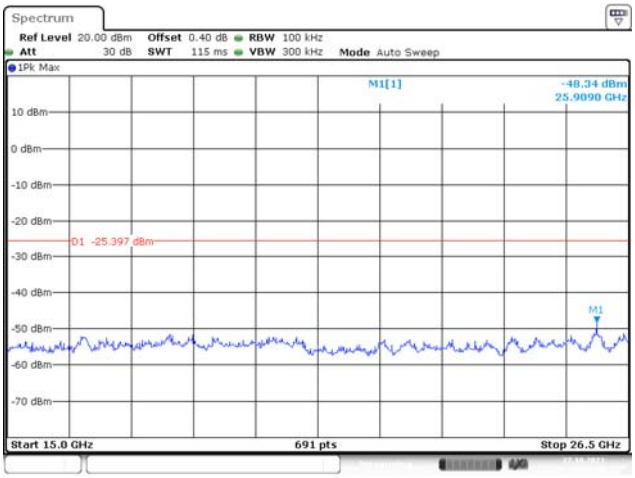
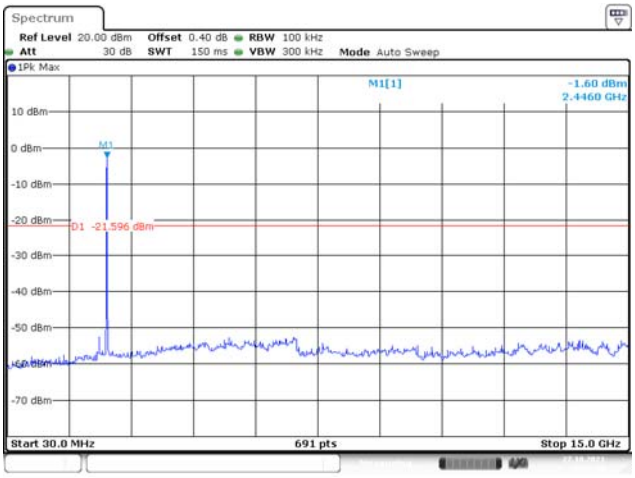
Test Mode : 802.11n-HT20

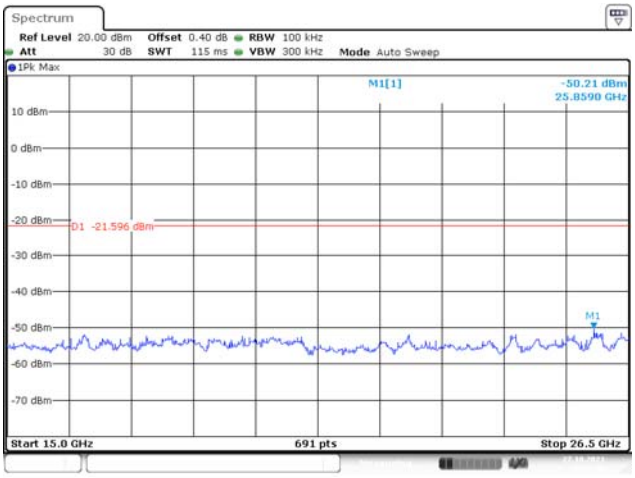
Low channel



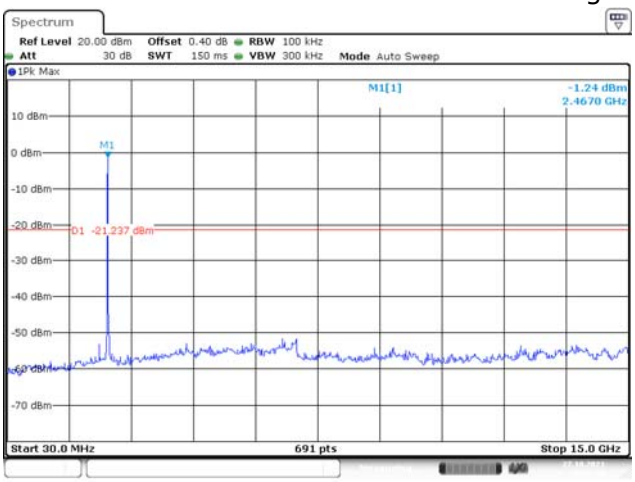


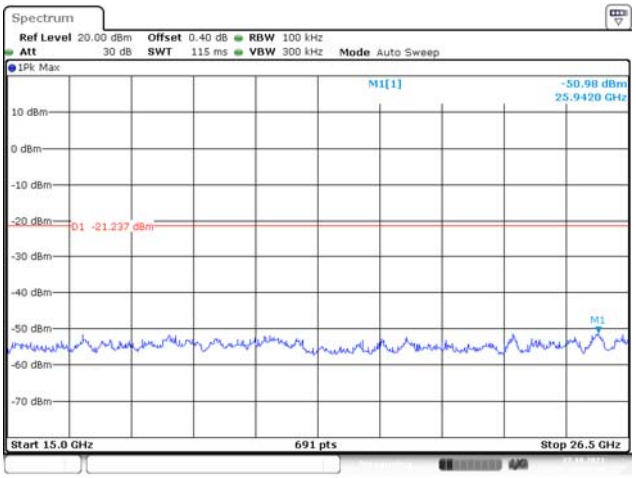
Middle channel





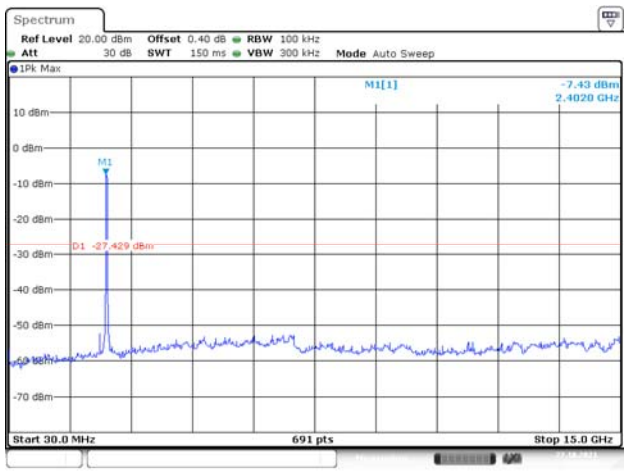
High channel

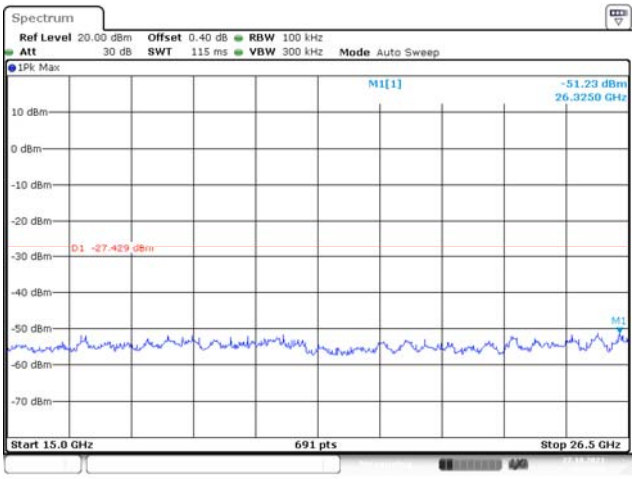




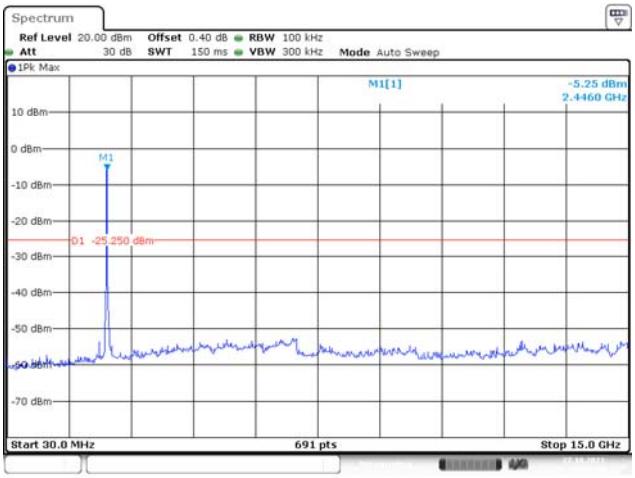
Test Mode : 802.11n-HT40

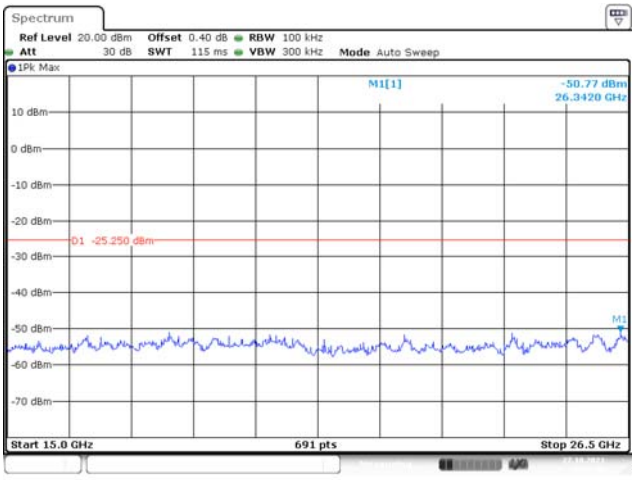
Low channel



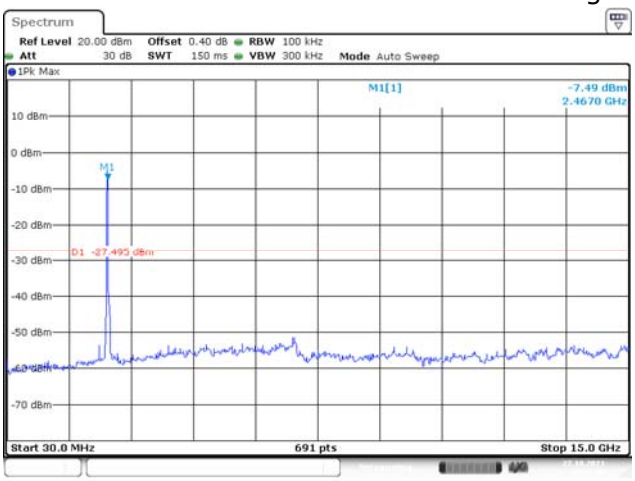


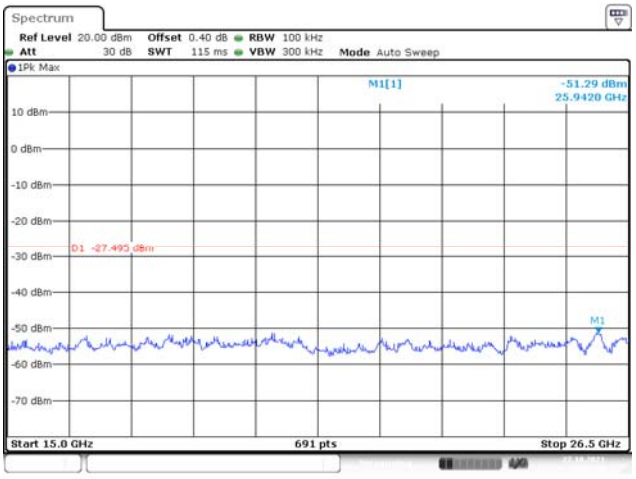
Middle channel





High channel





4.5 Radiated Emissions

Test Location

☒ 10 m SAC (test distance : ☐ 10 m, ☒ 3 m)
☒ 3 m SAC (test distance : 3 m)

Test Procedures

1) In the frequency range of 9 kHz to 30 MHz, magnetic field is measured with Loop Antenna. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
2) In the frequency rage above 30 MHz, Bi-Log Test Antenna(30 MHz to 1 GHz) and Horn Test Antenna(above 1 GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is carried from 1m to 4m above the ground to determine the maximum value of the field strength. The emissions levels at both horizontal and vertical polarizations should be tested.

Instrument Settings

Frequency Range = 9 kHz ~ 26.5 GHz (2.4 GHz 10^{th} harmonic)

a) RBW = 1 MHz for f ≥ 1 GHz, 100 kHz for f < 1 GHz, 9 kHz for f < 30 MHz

b) VBW ≥ RBW

c) Sweep time = auto couple

Limit :

FCC Part 15 § 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Table 1. Restricted Frequency Bands*

MHz	MHz	MHz	MHz	MHz	GHz
0.09-0.11	8.37626-8.38675	73-74.6	399.9-410	2690-2900	10.6-12.7
[1]0.495-0.505	8.41425-8.41475	74.8-75.2	608-614	3260-3267	13.25-13.4
2.1735-2.1905	12.29-12.293	108-121.94	960-1240	3332-3339	14.47-14.5
4.125-4.128	12.51975-12.52025	123-138	1300-1427	3345.8-3358	15.35-16.2
4.17725-4.17775	12.57675-12.57725	149.9-150.05	1435-1626.5	3600-4400	17.7-21.4
4.20725-4.20775	13.36-13.41	156.52475-156.52525	1645.5-1646.5	4500-5150	22.01-23.12
6.215-6.218	16.42-16.423	156.7-156.9	1660-1710	5350-5460	23.6-24
6.26775-6.26825	16.69475-16.69525	162.0125-167.17	1718.8-1722.2	7250-7750	31.2-31.8
6.31175-6.31225	16.80425-16.80475	167.72-173.2	2200-2300	8025-8500	36.43-36.5
8.291-8.294	25.5-25.67	240-285	2310-2390	9000-9200	[2]Above 38.6
8.362-8.366	37.5-38.25	322-335.4	2483.5-2500	9300-9500	

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

§ 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown is Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

*Certain frequency bands listed in Table 6 and in band above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to the devices are set out in the 200- and 300-series of RSSs, such as RSS-210 and RSS-310, which contain the requirements that apply to licence-exempt radio apparatus.

FCC Part 15 § 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(MHz)	Field Strength uV/m	Field Strength dBuV/m	Deasurement Distance (meters)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705-30	30	49.5	30
30-88	100**	40	3
88-216	150**	43.5	3
216-960	200**	46	3
Above 960	500	54	3

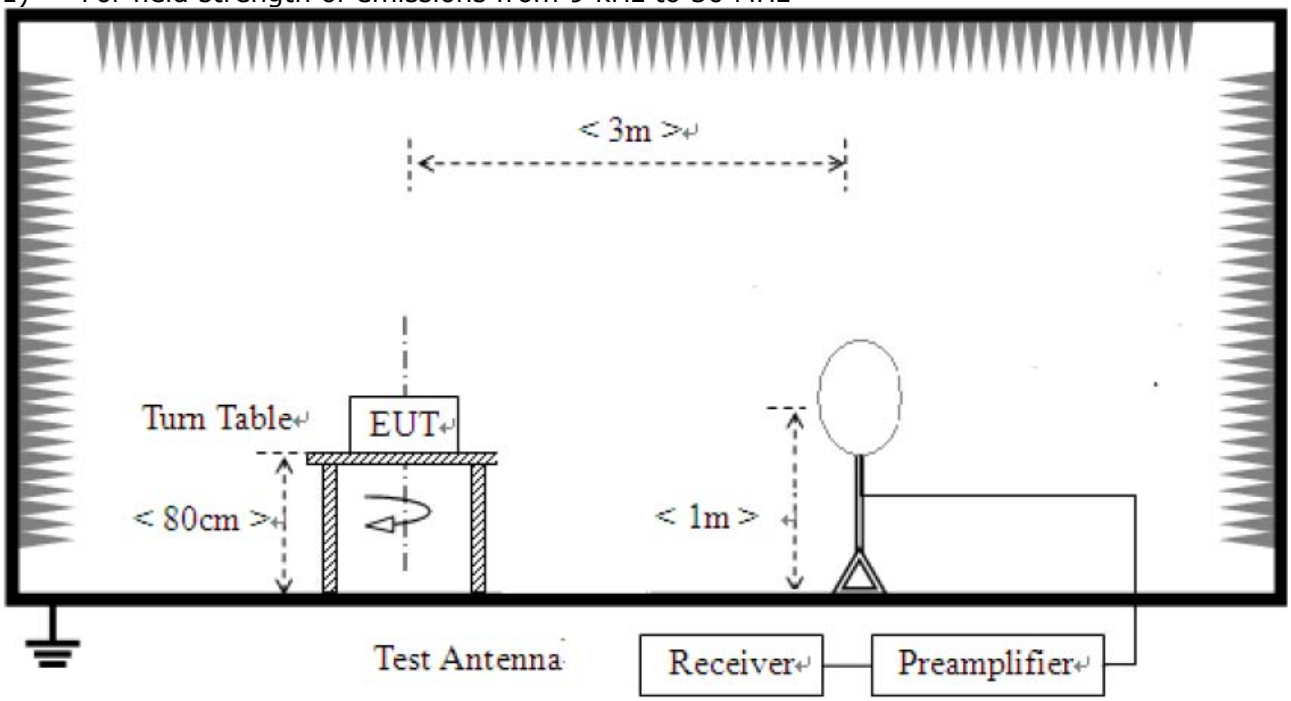
** Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72MHz, 76-88MHz, 174-216MHz, 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231 and 15.241.

Note :

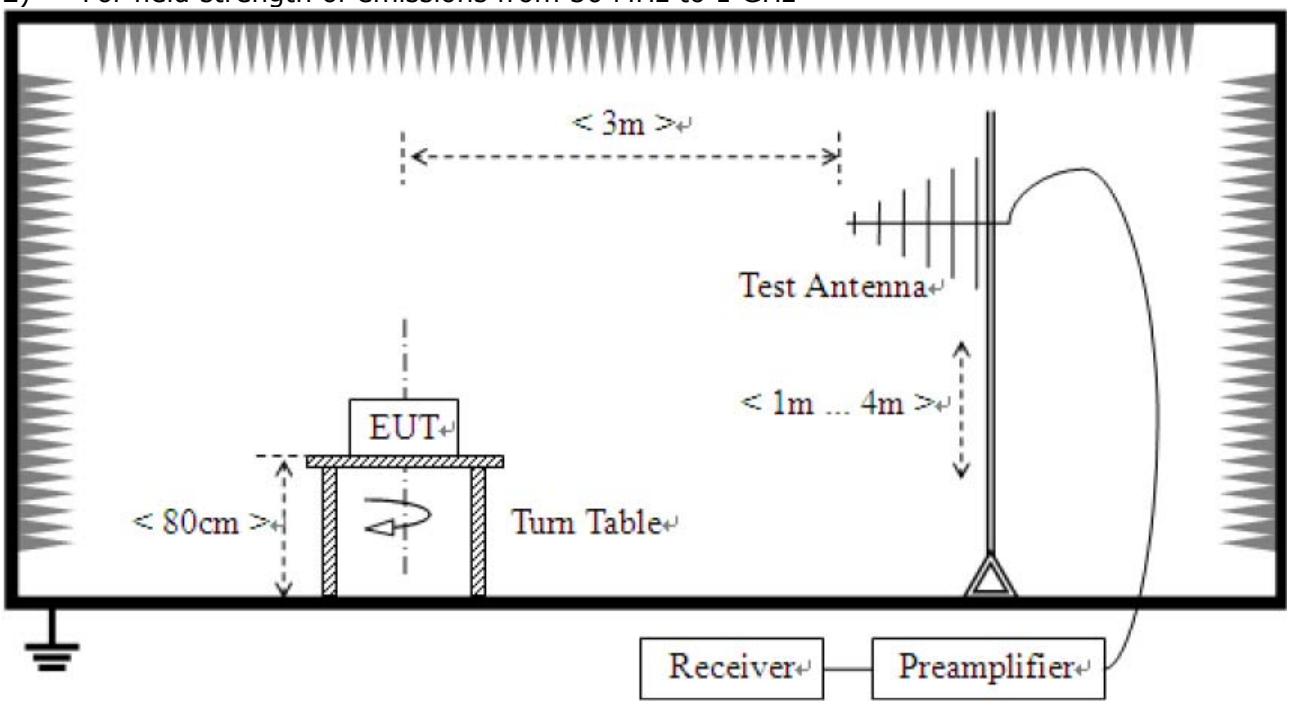
1) For above 1 GHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.
2) For above 1 GHz, limit field strength of harmonics : 54 dBuV/m@3m (AV) and 74 dBuV/m@3m (PK)
3) For measurement above 1GHz, the resolution bandwidth is set to 1 MHz and video bandwidth is set to 3 MHz for peak measurement.

Test Setup:

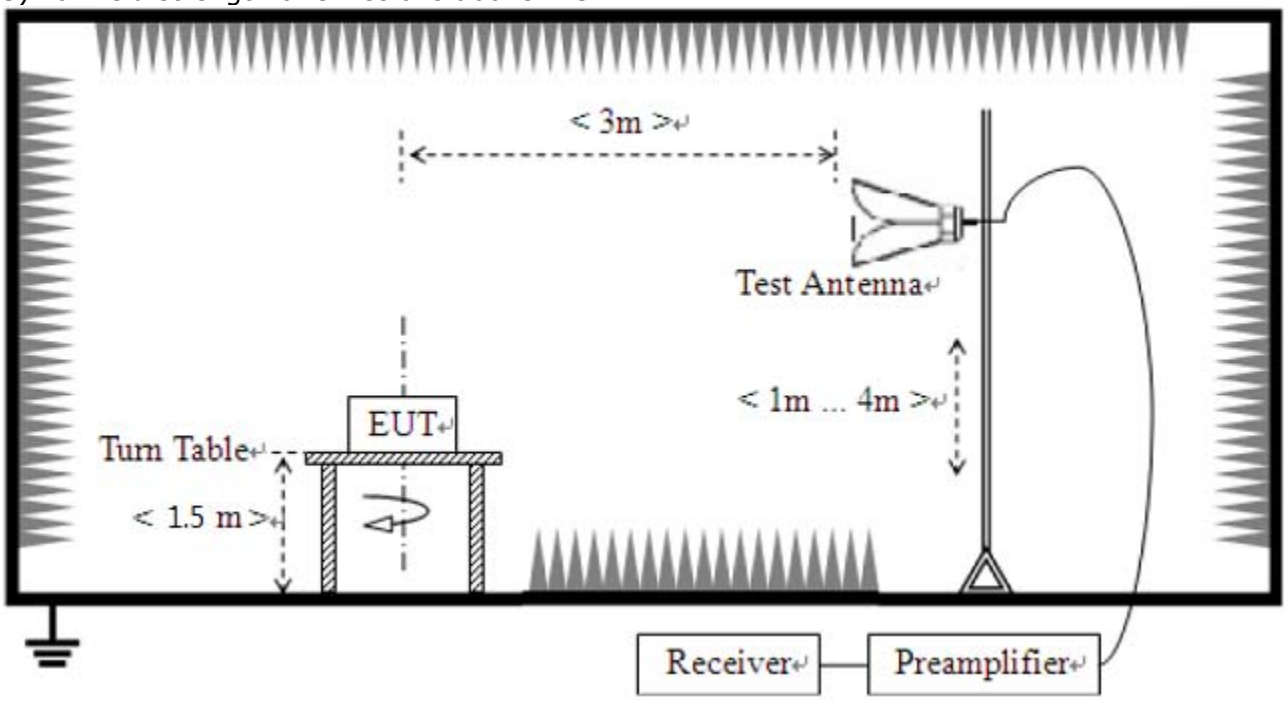
1) For field strength of emissions from 9 kHz to 30 MHz



2) For field strength of emissions from 30 MHz to 1 GHz



3) For field strength of emissions above 1 GHz

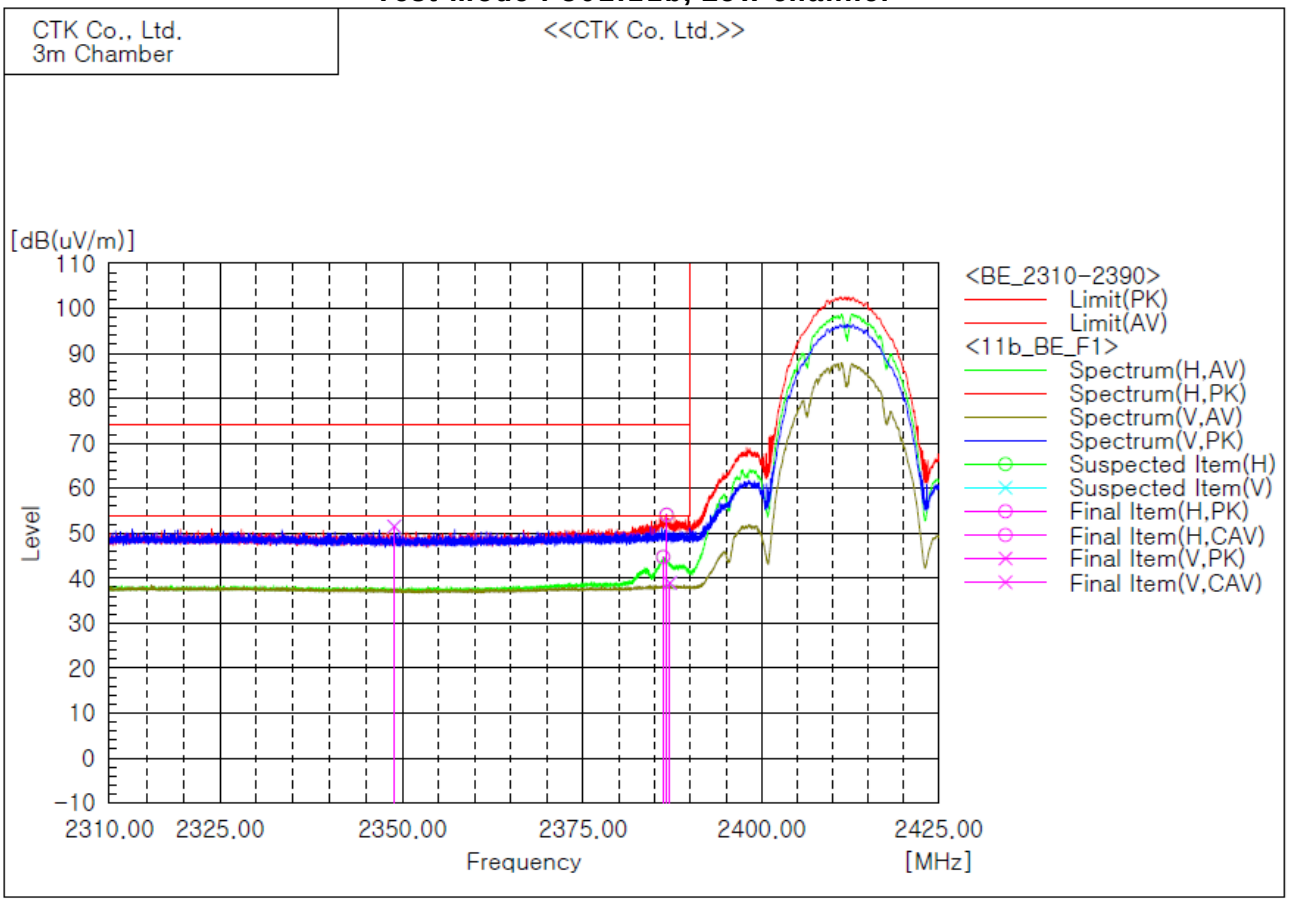


Test results

1) Restricted Frequency Bands

1. 2 310 MHz to 2 390 MHz

Test mode : 802.11b, Low channel



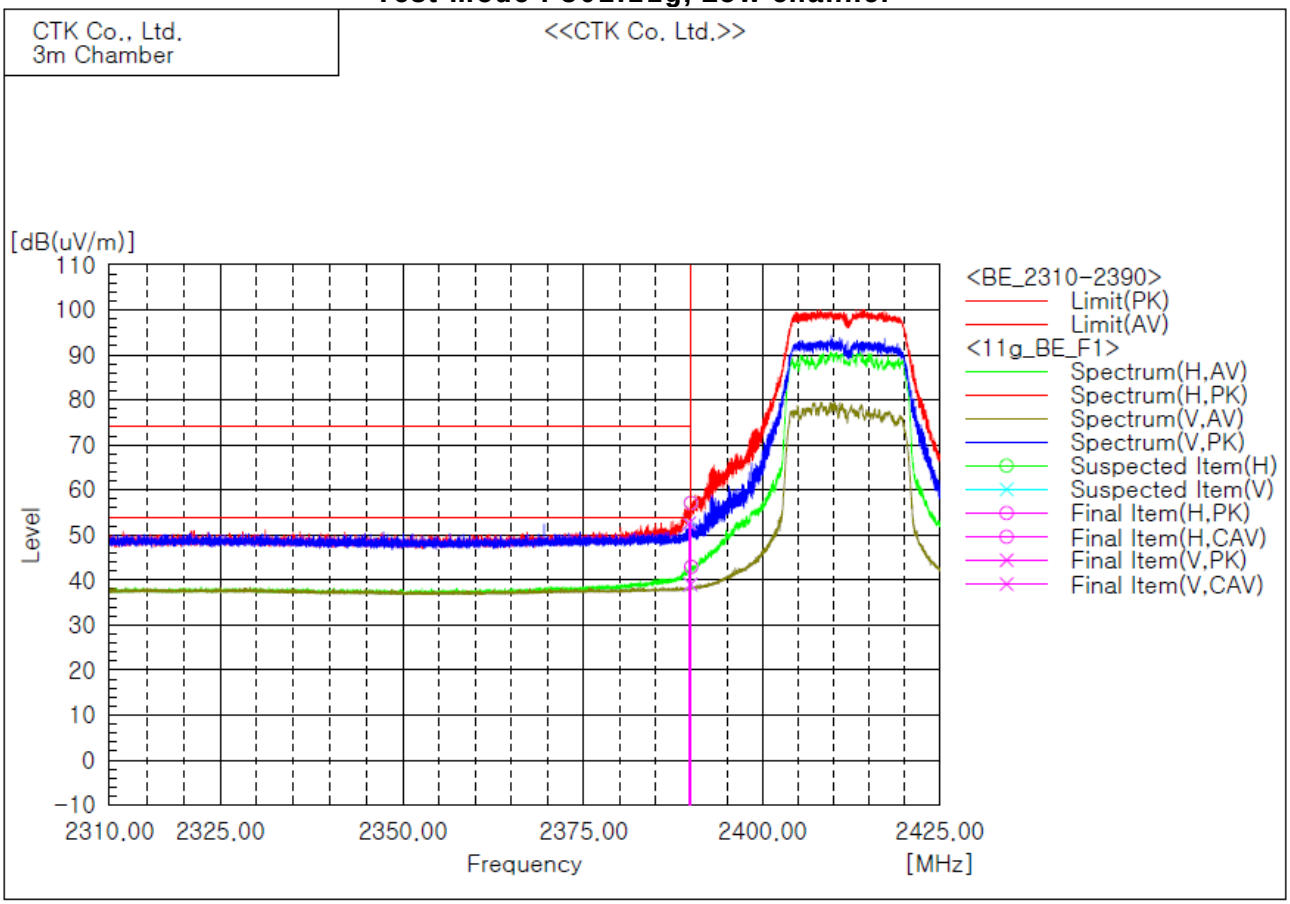
Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	2348.885	V	45.7	---------	5.8	51.5	---------	74.0	54.0	22.5	---------	464.0	136.1
2	2386.188	H	---------	38.5	6.2	---------	44.7	74.0	54.0	---------	9.3	99.8	0.0
3	2386.676	H	47.9	---------	6.2	54.1	---------	74.0	54.0	19.9	---------	99.8	340.7
4	2387.122	V	---------	32.7	6.2	---------	38.9	74.0	54.0	---------	15.1	100.0	0.0

Remarks

1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : 802.11g, Low channel



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	2389.709	V	46.3	--------	6.3	52.6	--------	74.0	54.0	21.4	--------	344.4	120.5
2	2389.896	V	--------	32.7	6.3	--------	39.0	74.0	54.0	--------	15.0	464.1	0.0
3	2389.954	H	50.8	--------	6.3	57.1	--------	74.0	54.0	16.9	--------	356.1	336.7
4	2389.997	H	--------	36.6	6.3	--------	42.9	74.0	54.0	--------	11.1	100.0	356.0

Remarks

1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

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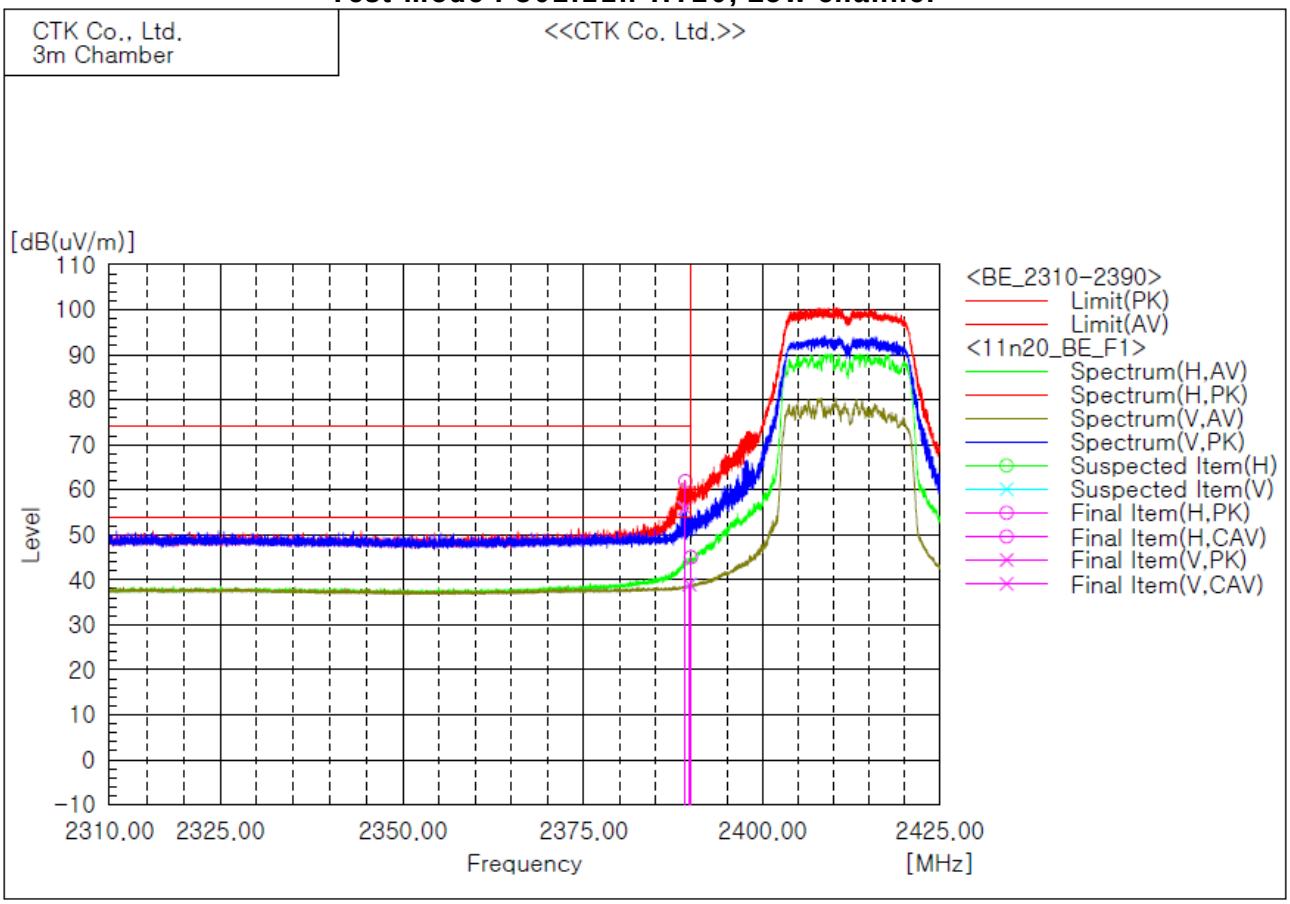
Test mode : 802.11n-HT20, Low channel



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	2389.120	V	49.7	---------	6.2	55.9	---------	74.0	54.0	18.1	---------	99.8	332.6
2	2389.192	H	55.7	---------	6.2	61.9	---------	74.0	54.0	12.1	---------	99.8	339.2
3	2389.767	V	---------	32.6	6.3	---------	38.9	74.0	54.0	---------	15.1	346.5	112.5
4	2389.954	H	---------	38.7	6.3	---------	45.0	74.0	54.0	---------	9.0	99.8	0.0

Remarks

1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

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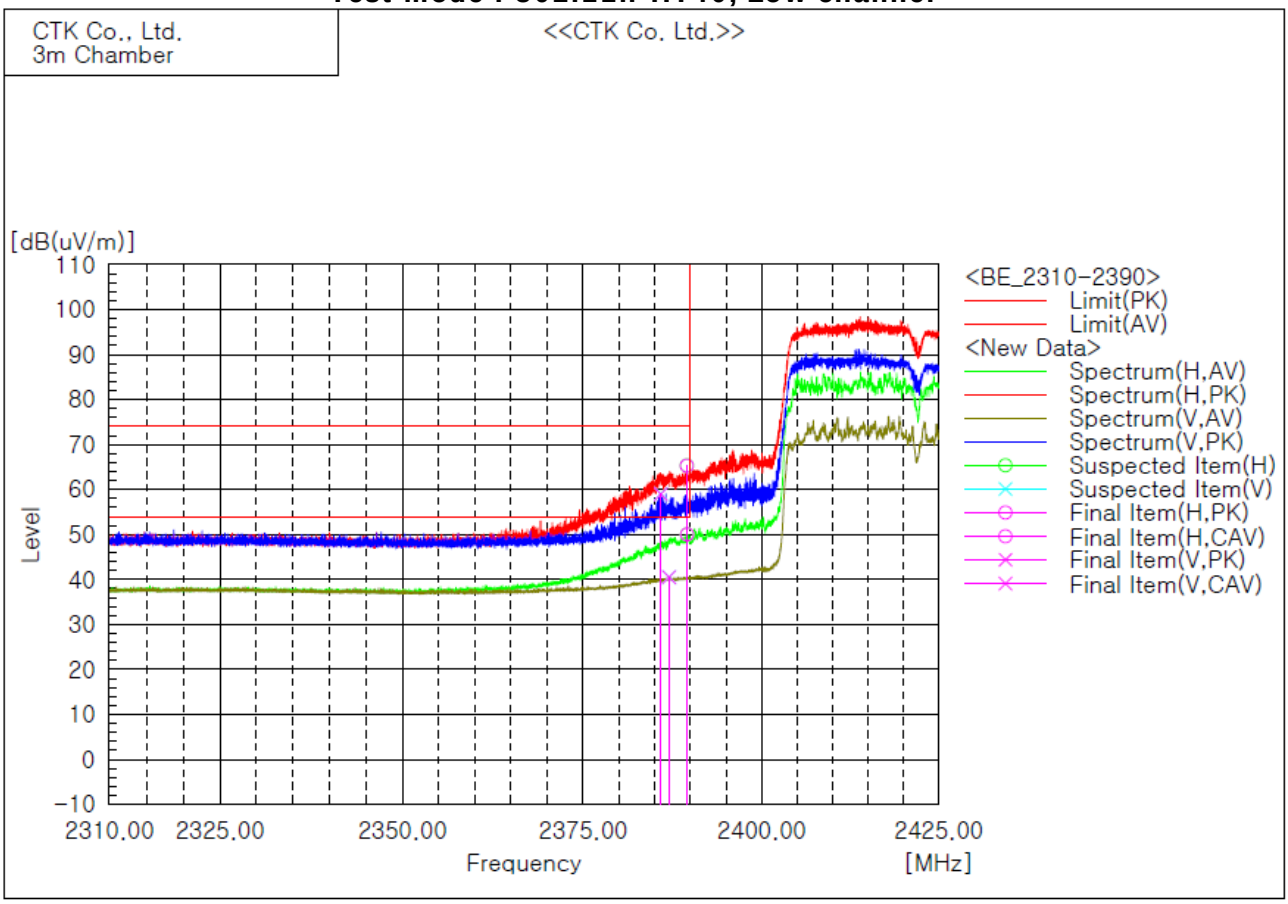
Test mode : 802.11n-HT40, Low channel



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	2389.508	H	59.1	--------	6.2	65.3	--------	74.0	54.0	8.7	--------	99.9	339.7
2	2389.537	H	--------	43.7	6.3	--------	50.0	74.0	54.0	--------	4.0	99.9	359.9
3	2385.843	V	52.8	--------	6.2	59.0	--------	74.0	54.0	15.0	--------	354.8	100.4
4	2387.007	V	--------	34.3	6.2	--------	40.5	74.0	54.0	--------	13.5	236.8	29.4

Remarks

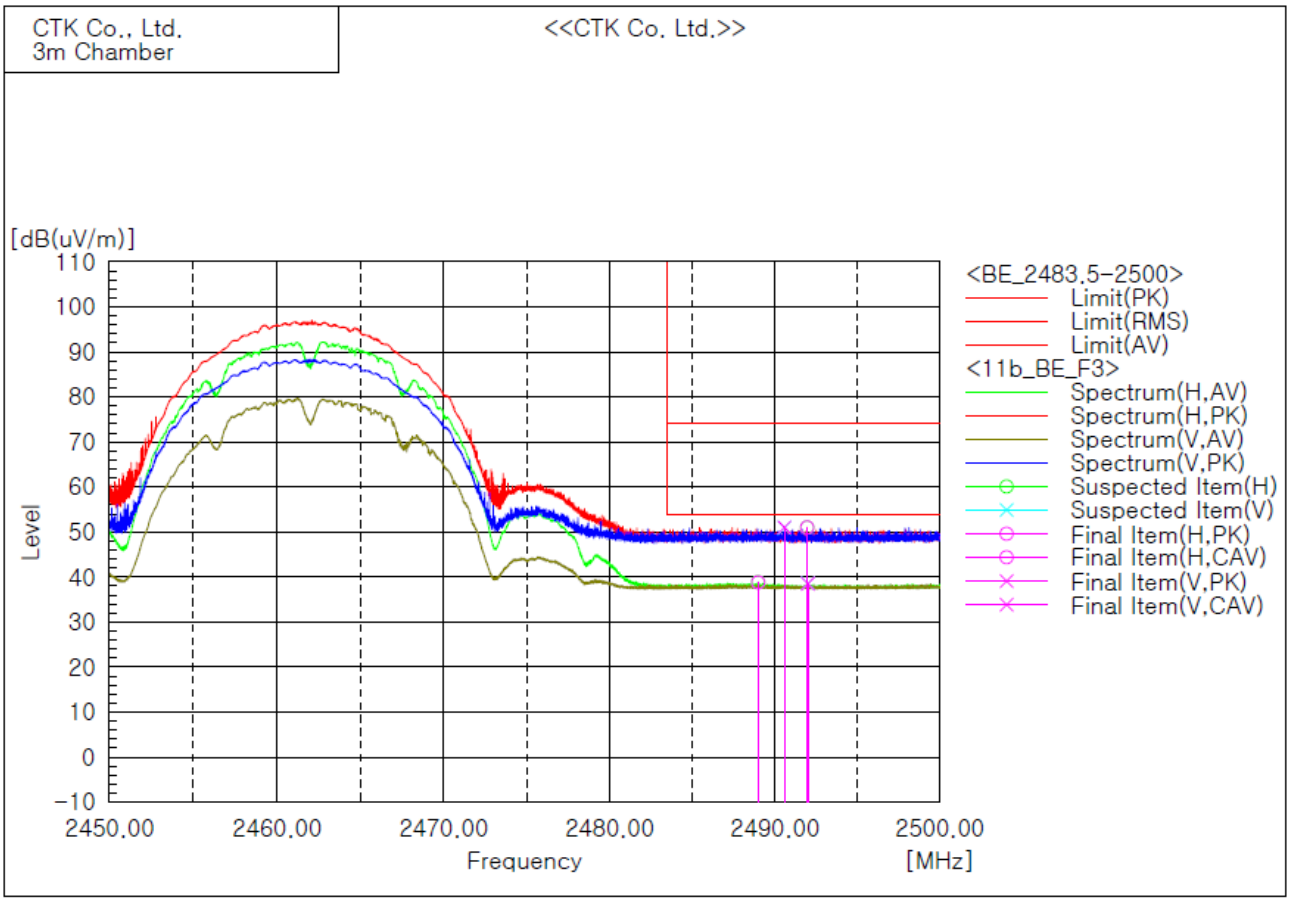
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

2. 2 483.5 MHz – 2 500 MHz

Test mode : 802.11b, High Channel

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	2488.981	H	---------	32.5	6.3	---------	38.8	74.0	54.0	---------	15.2	99.8	0.0
2	2490.581	V	44.7	---------	6.3	51.0	---------	74.0	54.0	23.0	---------	464.3	58.9
3	2491.950	H	44.7	---------	6.3	51.0	---------	74.0	54.0	23.0	---------	233.9	232.0
4	2491.994	V	---------	32.2	6.3	---------	38.5	74.0	54.0	---------	15.5	345.8	0.0

Remarks

1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

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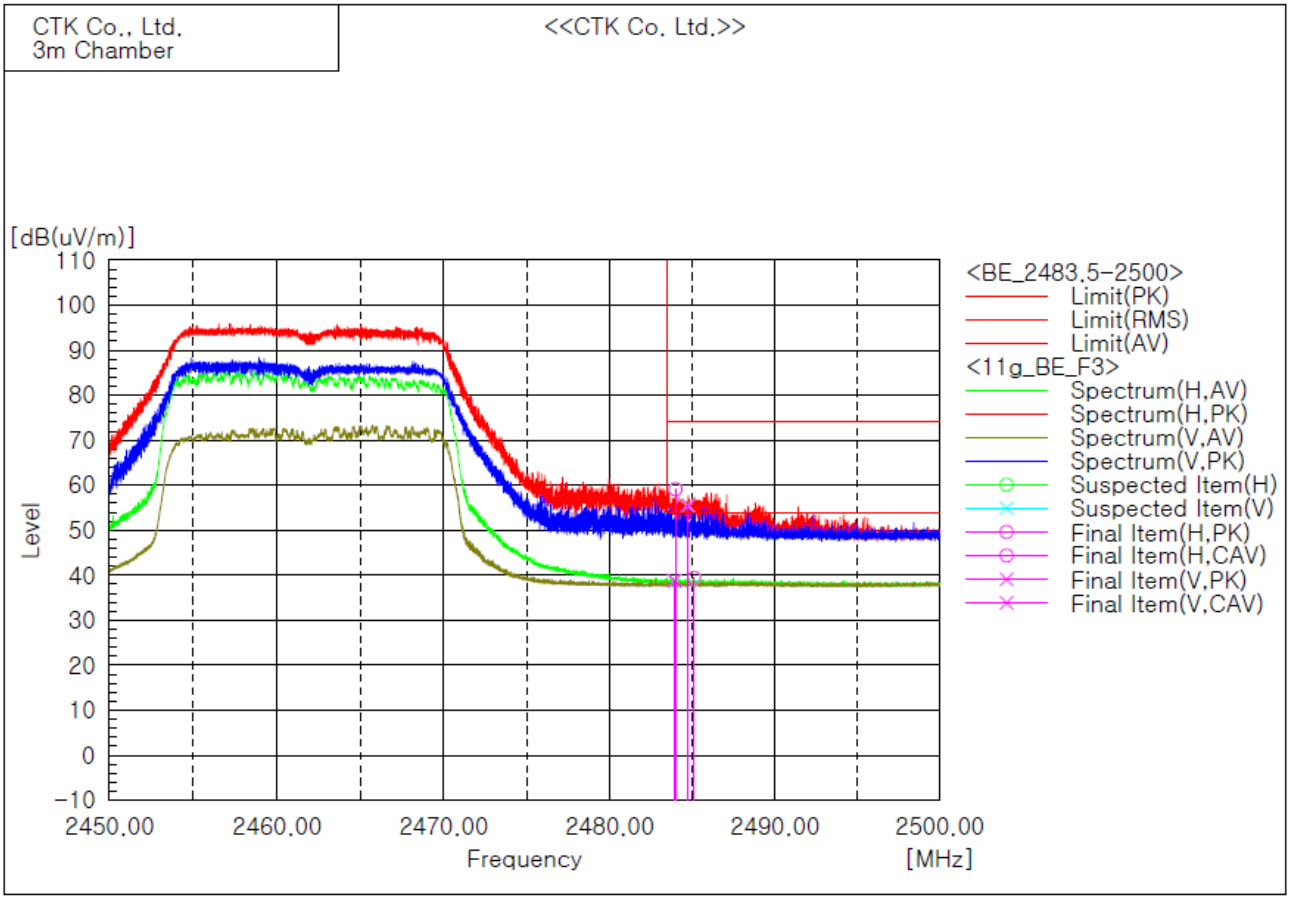
Test mode : 802.11g, High Channel

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	2483.919	V	---------	32.6	6.2	---------	38.8	74.0	54.0	---------	15.2	99.8	0.1
2	2483.981	H	52.9	---------	6.2	59.1	---------	74.0	54.0	14.9	---------	341.9	347.9
3	2484.738	V	49.3	---------	6.2	55.5	---------	74.0	54.0	18.5	---------	234.7	16.0
4	2485.106	H	---------	33.2	6.2	---------	39.4	74.0	54.0	---------	14.6	99.8	359.9

Remarks
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

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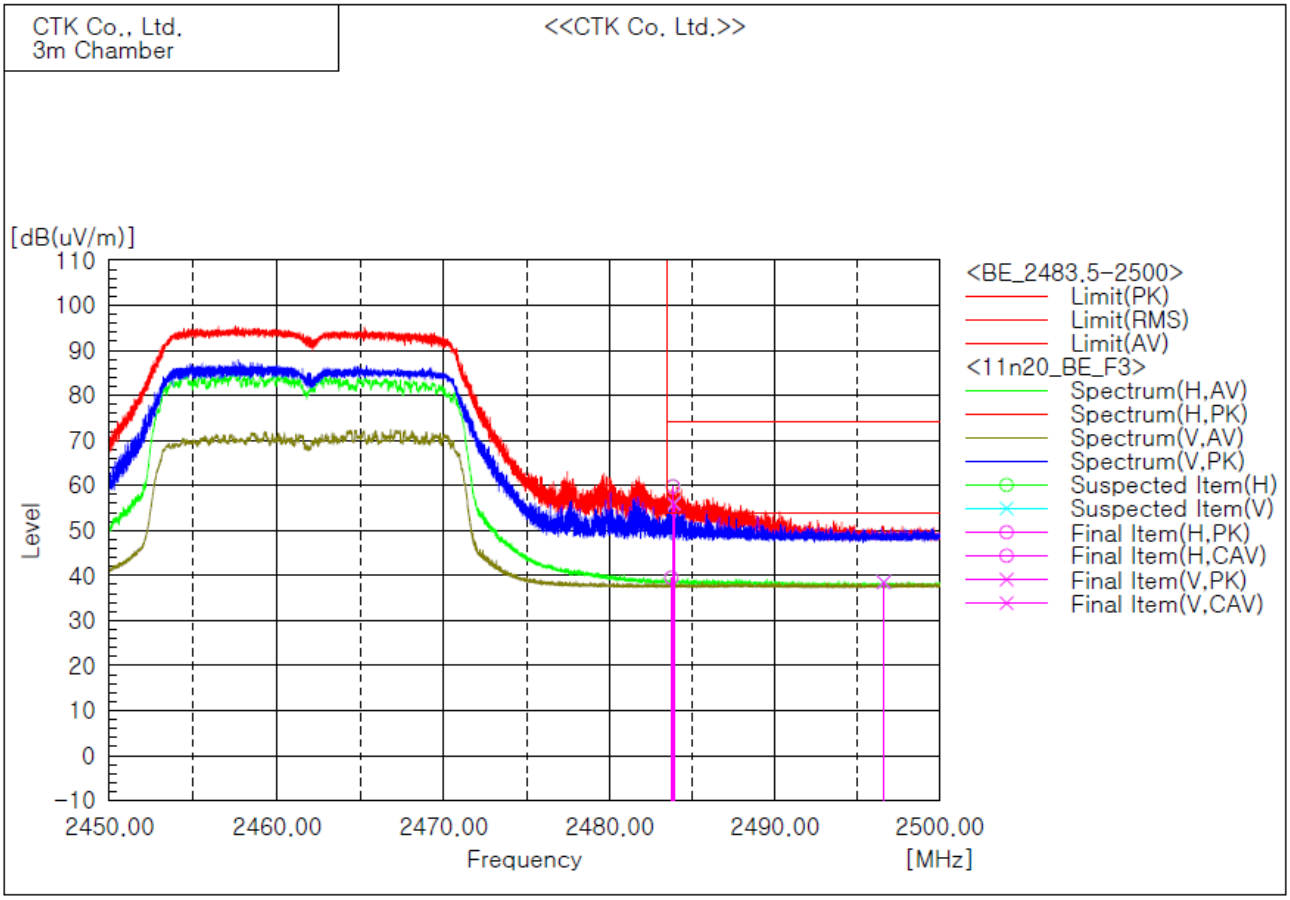
Test mode : 802.11n-HT20, High channel

The requirements are:
☒ Complies

Test Data



Final Result

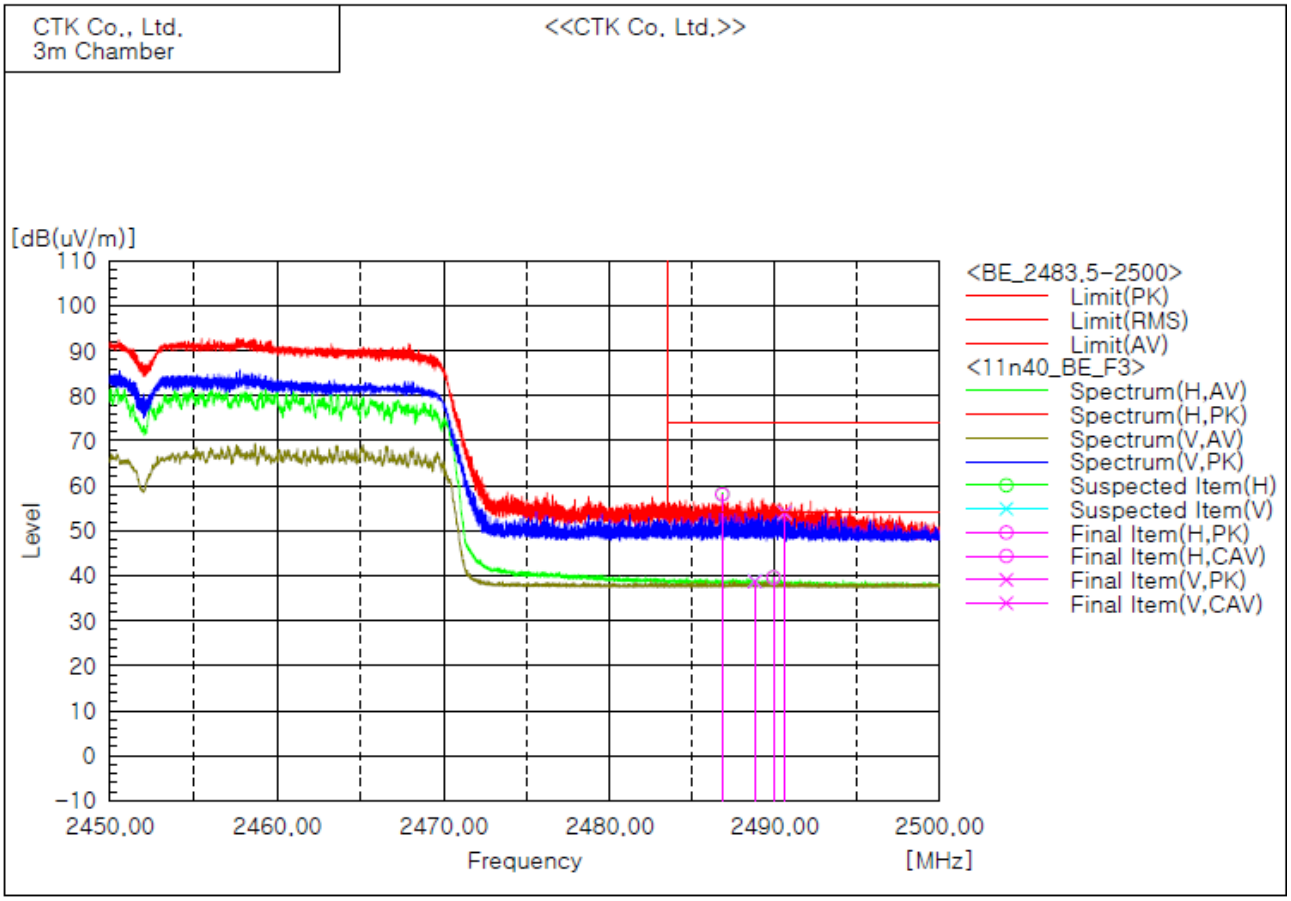
No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	2483.738	H	---------	33.3	6.2	---------	39.5	74.0	54.0	---------	14.5	99.9	359.9
2	2483.831	H	53.6	---------	6.2	59.8	---------	74.0	54.0	14.2	---------	464.0	12.7
3	2483.875	V	49.7	---------	6.2	55.9	---------	74.0	54.0	18.1	---------	354.5	100.9
4	2496.600	V	---------	32.2	6.3	---------	38.5	74.0	54.0	---------	15.5	464.1	0.0

Remarks
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : 802.11n-HT40, High channel

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	2486.813	H	51.9	------	6.2	58.1	------	74.0	54.0	15.9	------	224.2	44.6
2	2488.781	V	------	32.4	6.3	------	38.7	74.0	54.0	------	15.3	99.8	0.0
3	2489.913	H	------	33.3	6.3	------	39.6	74.0	54.0	------	14.4	99.8	359.9
4	2490.594	V	47.7	------	6.3	54.0	------	74.0	54.0	20.0	------	235.5	158.1

Remarks

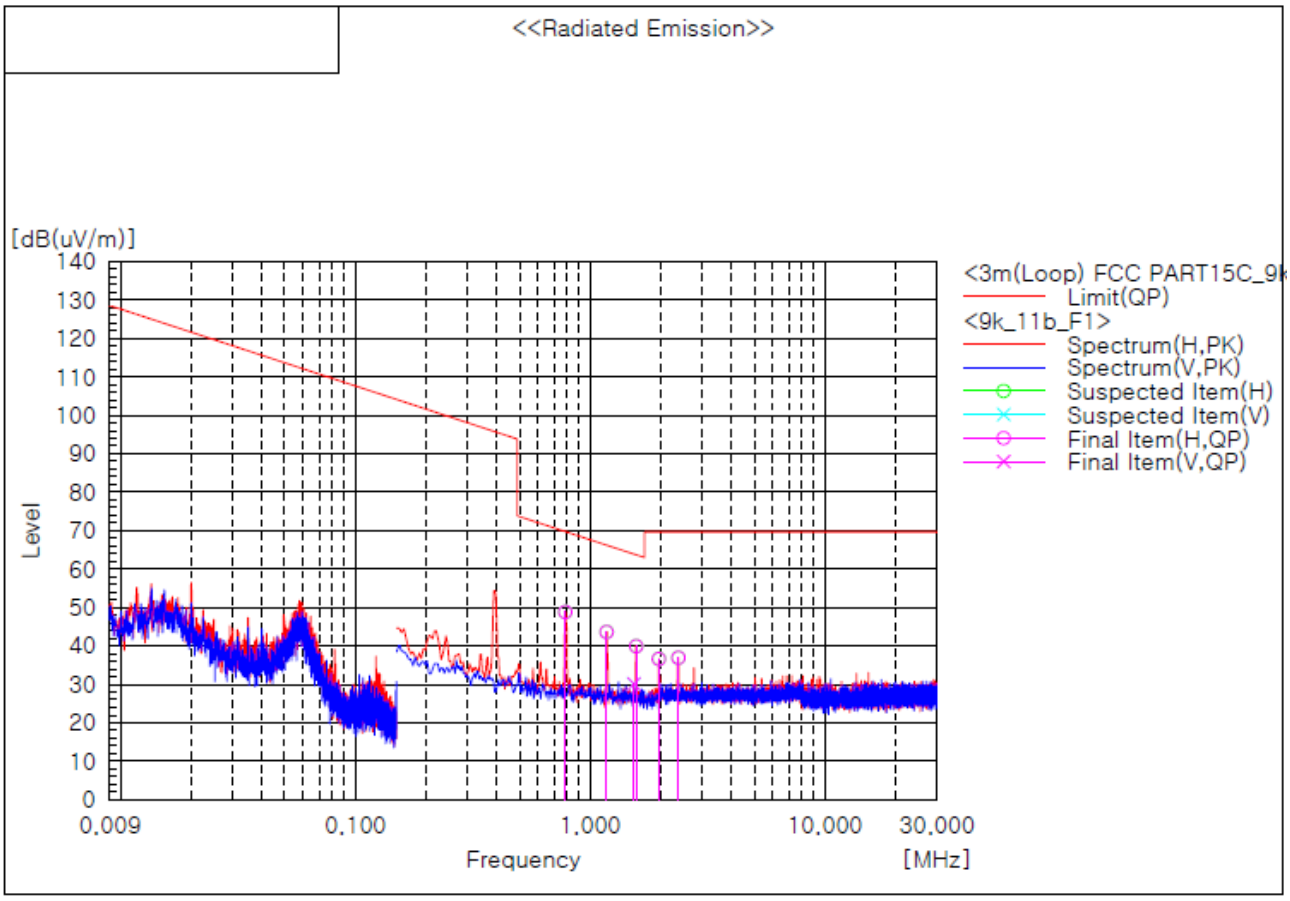
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

2) Spurious
1. 9 kHz to 30 MHz

Test mode : 802.11b, Low channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

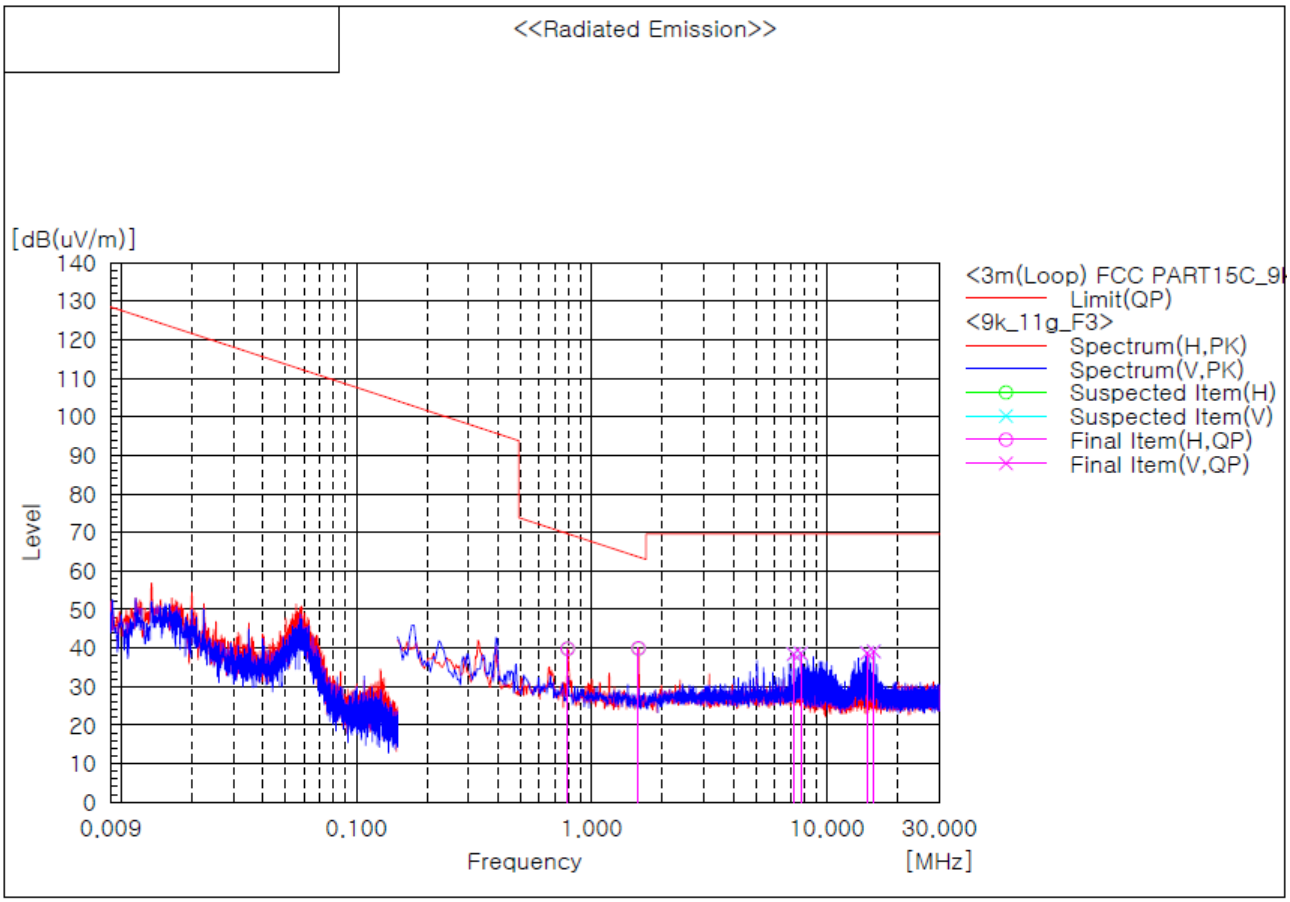
No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	0.784	H	23.8	25.0	48.8	69.7	20.9	100.0	44.0
2	1.176	H	18.6	25.0	43.6	66.2	22.6	100.0	44.0
3	1.538	V	5.1	25.0	30.1	63.9	33.8	100.0	228.0
4	1.572	H	14.9	25.0	39.9	63.7	23.8	100.0	28.0
5	1.963	H	11.5	25.1	36.6	69.5	32.9	100.0	47.0
6	2.378	H	11.8	25.1	36.9	69.5	32.6	100.0	121.0

Remark :
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
5. This data is the Peak(PK) value.

Test mode : 802.11g, High channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

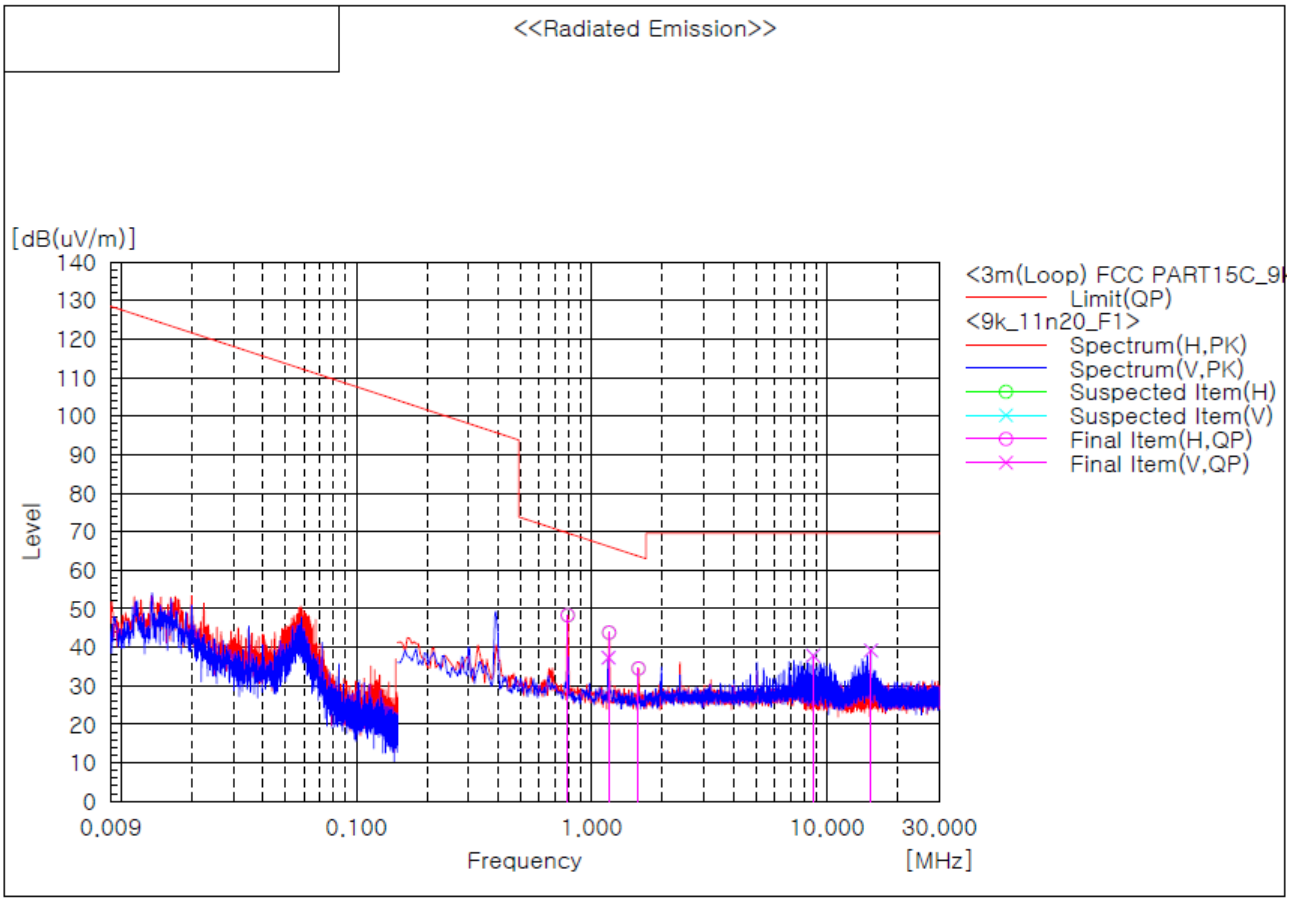
No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	0.792	H	14.8	25.0	39.8	69.6	29.8	100.0	64.0
2	1.583	H	14.9	25.0	39.9	63.6	23.7	100.0	153.0
3	7.228	V	12.6	25.8	38.4	69.5	31.1	100.0	308.0
4	7.739	V	12.8	25.8	38.6	69.5	30.9	100.0	311.0
5	14.803	V	12.5	26.2	38.7	69.5	30.8	100.0	258.0
6	15.814	V	12.8	26.3	39.1	69.5	30.4	100.0	204.0

Remark :
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
5. This data is the Peak(PK) value.

Test mode : 802.11n-HT20, Low channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

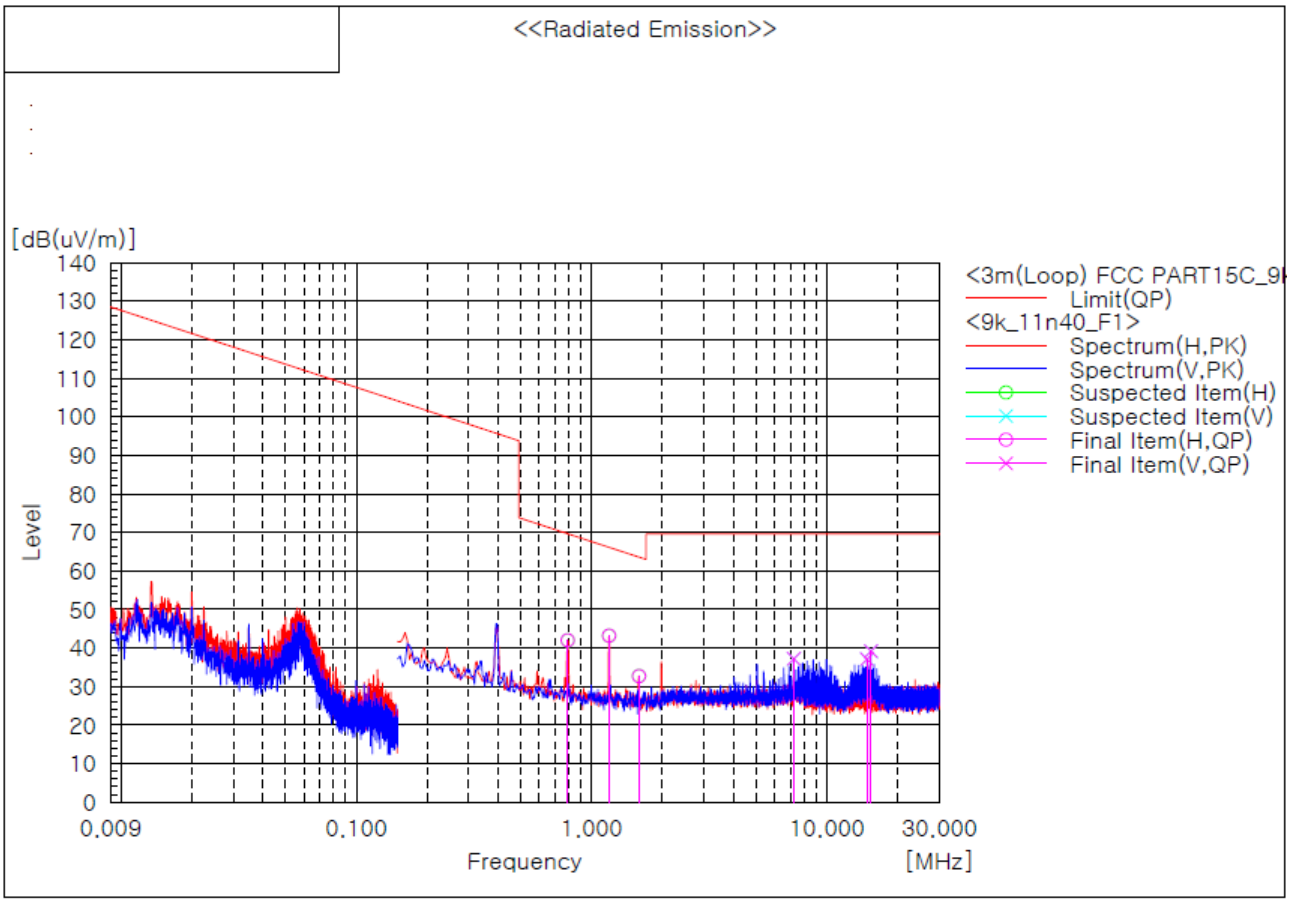
No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	0.792	H	23.3	25.0	48.3	69.6	21.3	100.0	117.0
2	1.180	V	12.3	25.0	37.3	66.2	28.9	100.0	357.0
3	1.187	H	18.8	25.0	43.8	66.1	22.3	100.0	80.0
4	1.583	H	9.5	25.0	34.5	63.6	29.1	100.0	357.0
5	8.747	V	11.9	25.9	37.8	69.5	31.7	100.0	128.0
6	15.385	V	12.9	26.3	39.2	69.5	30.3	100.0	241.0

Remark : ㅈ
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
5. This data is the Peak(PK) value.

Test mode : 802.11n-HT40, Low channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	0.792	H	17.0	25.0	42.0	69.6	27.6	100.0	356.0
2	1.187	H	18.2	25.0	43.2	66.1	22.9	100.0	64.0
3	1.590	H	7.7	25.0	32.7	63.6	30.9	100.0	0.0
4	7.236	V	11.4	25.8	37.2	69.5	32.3	100.0	311.0
5	14.814	V	10.9	26.2	37.1	69.5	32.4	100.0	21.0
6	15.381	V	12.9	26.3	39.2	69.5	30.3	100.0	1.0

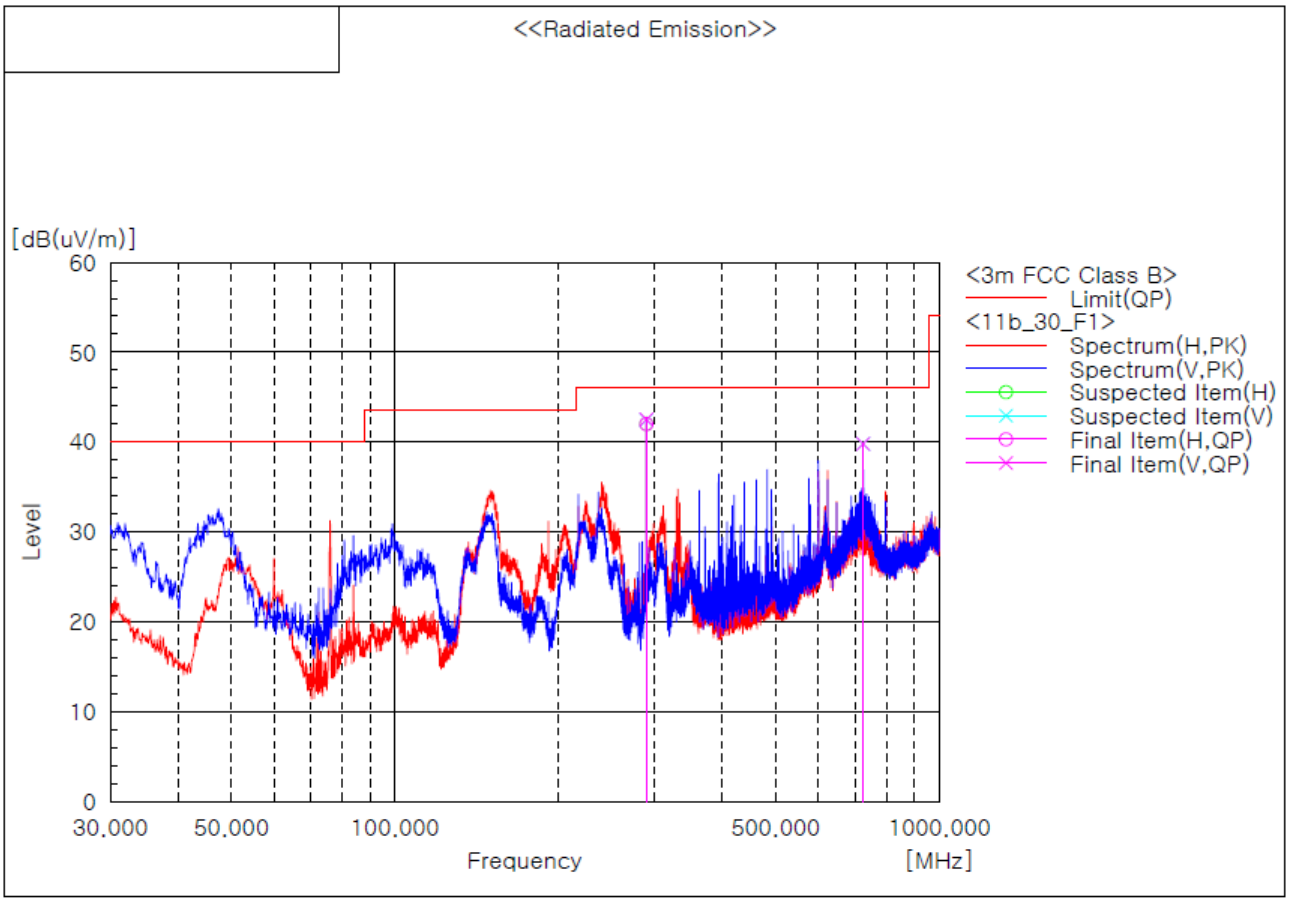
Remark :
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
5. This data is the Peak(PK) value.

2. 30 MHz to 1 GHz

Test mode : 802.11b, High channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	289.960	V	51.5	-9.0	42.5	46.0	3.5	193.0	340.0
2	289.960	H	51.0	-9.0	42.0	46.0	4.0	100.0	321.0
3	725.005	V	37.6	2.2	39.8	46.0	6.2	193.0	21.0

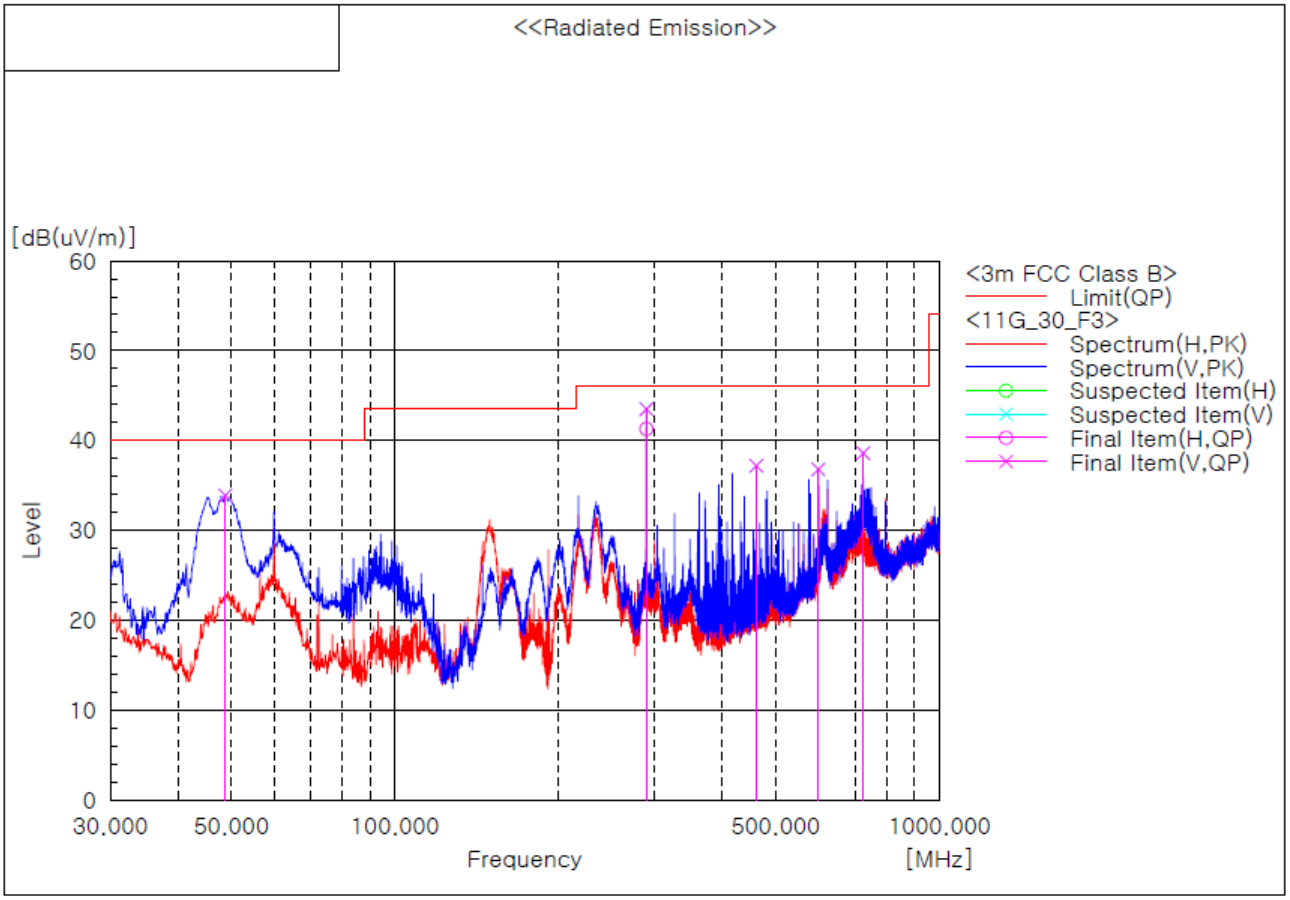
Result : There are more than 20 dB of margin compared to the limit.

Remark :
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain
4. This data is the Peak(PK) value.

Test mode : 802.11g, High channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

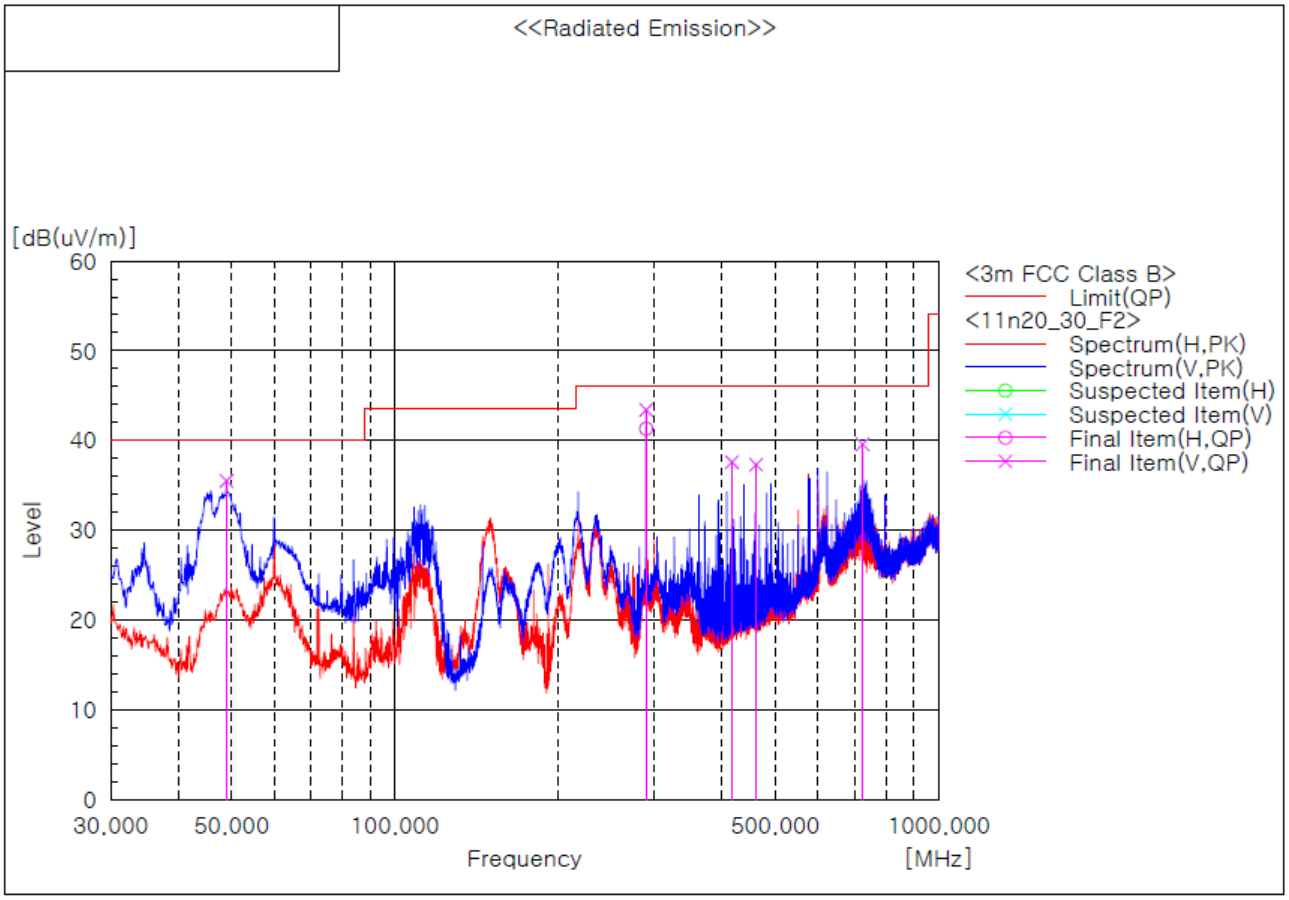
No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	48.794	V	49.6	-15.7	33.9	40.0	6.1	100.0	250.0
2	289.960	V	52.5	-9.0	43.5	46.0	2.5	193.0	21.0
3	289.960	H	50.3	-9.0	41.3	46.0	4.7	101.0	54.0
4	461.529	V	40.5	-3.3	37.2	46.0	8.8	100.0	18.0
5	599.996	V	36.8	0.0	36.8	46.0	9.2	100.0	339.0
6	725.005	V	36.4	2.2	38.6	46.0	7.4	100.0	25.0

Remark :
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain
4. This data is the Peak(PK) value.

Test mode : 802.11n-HT20, High channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

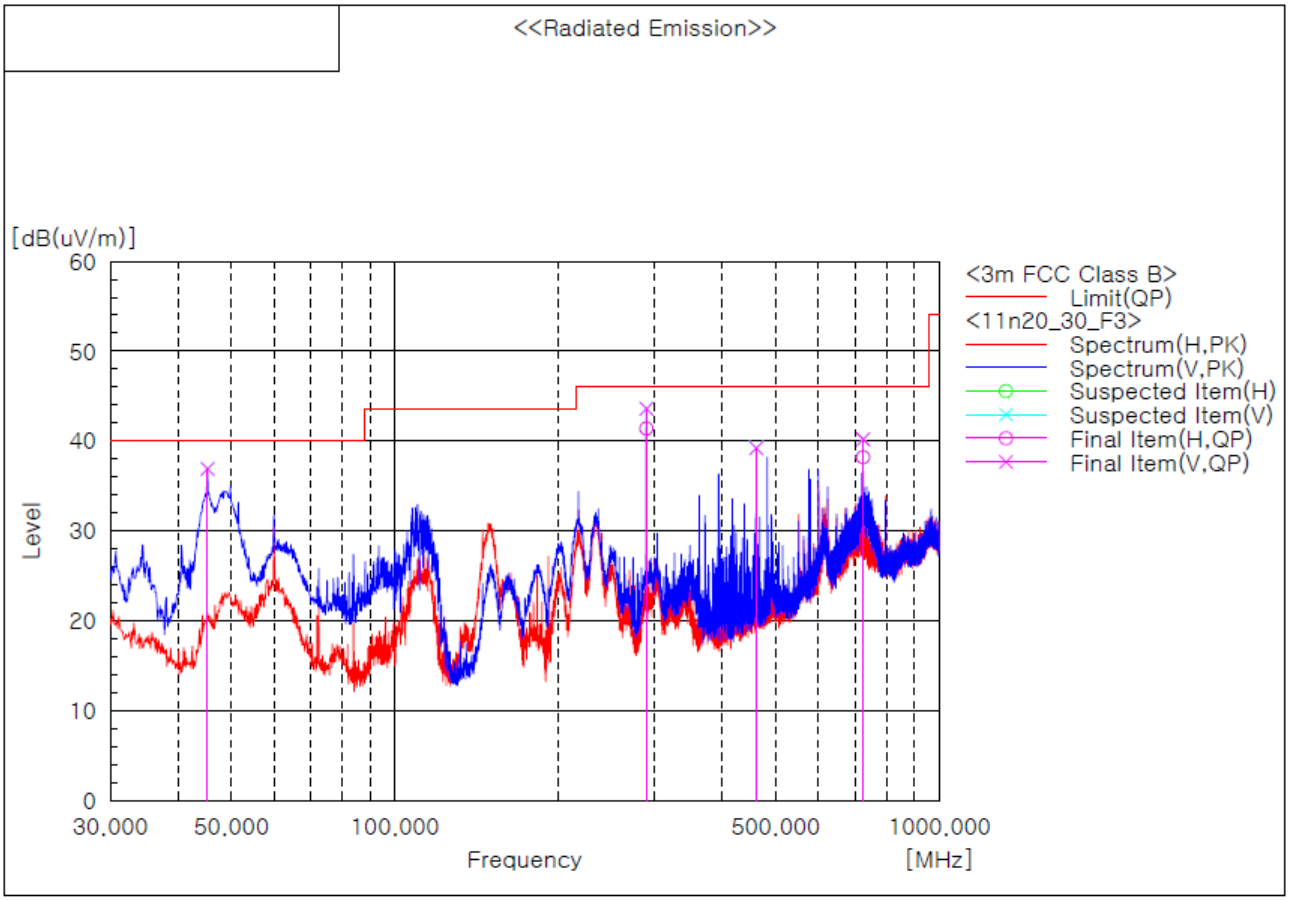
No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	49.036	V	51.3	-15.8	35.5	40.0	4.5	101.0	339.0
2	289.960	V	52.4	-9.0	43.4	46.0	2.6	193.0	21.0
3	289.960	H	50.3	-9.0	41.3	46.0	4.7	101.0	57.0
4	416.545	V	42.1	-4.5	37.6	46.0	8.4	101.0	5.0
5	461.650	V	40.6	-3.3	37.3	46.0	8.7	101.0	4.0
6	725.005	V	37.4	2.2	39.6	46.0	6.4	193.0	21.0

Remark :
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain
4. This data is the Peak(PK) value.

Test mode : 802.11n-HT40, Low channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	45.278	V	50.7	-13.8	36.9	40.0	3.1	101.0	289.0
2	289.960	V	52.6	-9.0	43.6	46.0	2.4	192.0	0.0
3	289.960	H	50.4	-9.0	41.4	46.0	4.6	101.0	328.0
4	461.529	V	42.5	-3.3	39.2	46.0	6.8	101.0	15.0
5	725.005	V	38.0	2.2	40.2	46.0	5.8	192.0	21.0
6	725.005	H	36.0	2.2	38.2	46.0	7.8	101.0	54.0

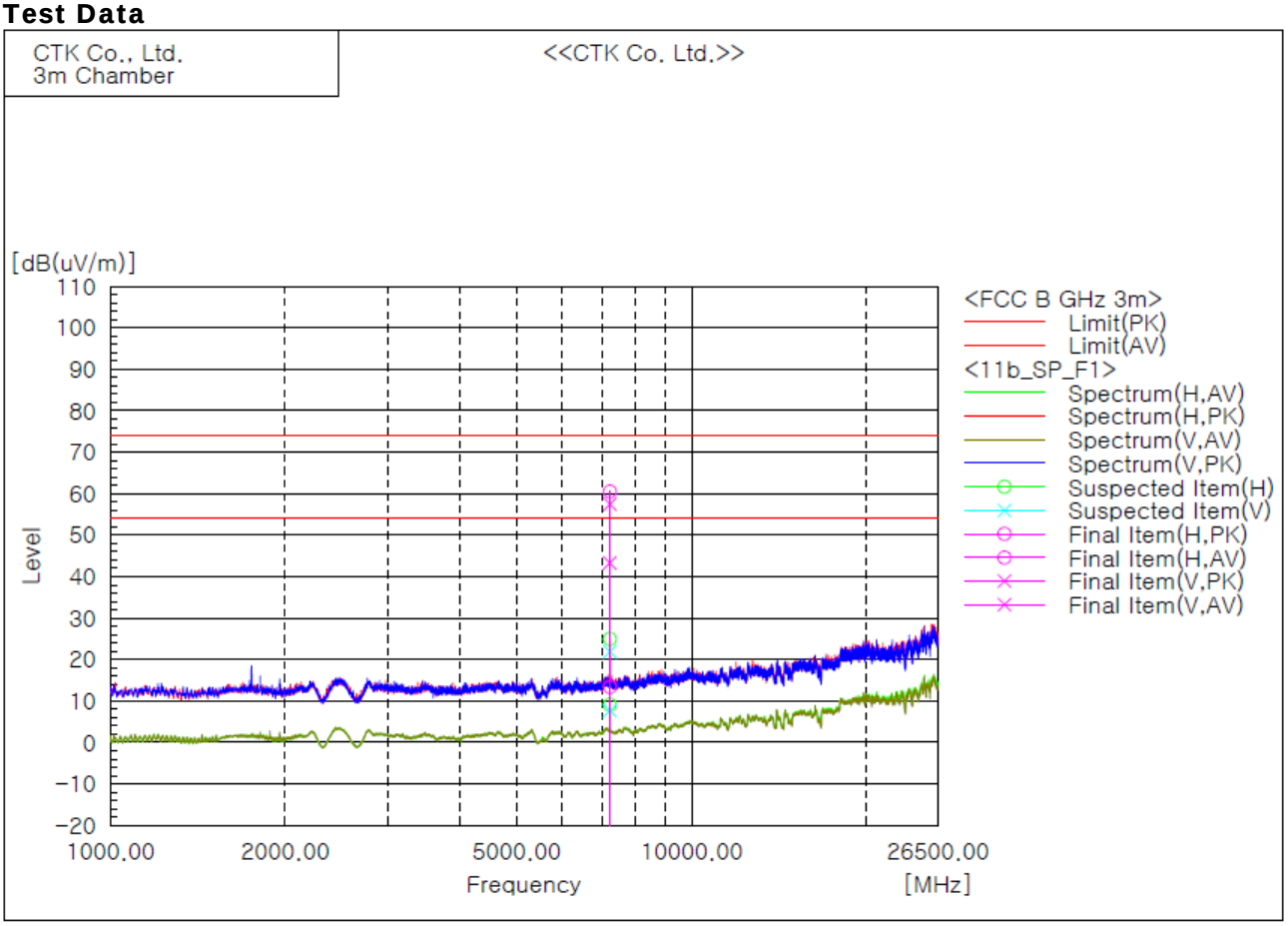
Remark :
1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain
4. This data is the Peak(PK) value.

3. 1 GHz to 26.5 GHz

Test mode : 802.11b, Low Channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading AV [dB(uV)]	o.f [dB(1/m)]	Result PK [dB(uV/m)]	Result AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [deg]
1	7236.875	H	56.4	--------	4.1	60.5	--------	74.0	54.0	13.5	--------	235.0	132.3
2	7236.875	H	--------	9.3	4.1	--------	13.4	74.0	54.0	--------	40.6	235.0	96.5
3	7236.875	V	53.4	--------	4.1	57.5	--------	74.0	54.0	16.5	--------	226.8	282.5
4	7234.750	V	--------	39.2	4.1	--------	43.3	74.0	54.0	--------	10.7	464.2	295.5

Remarks

1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

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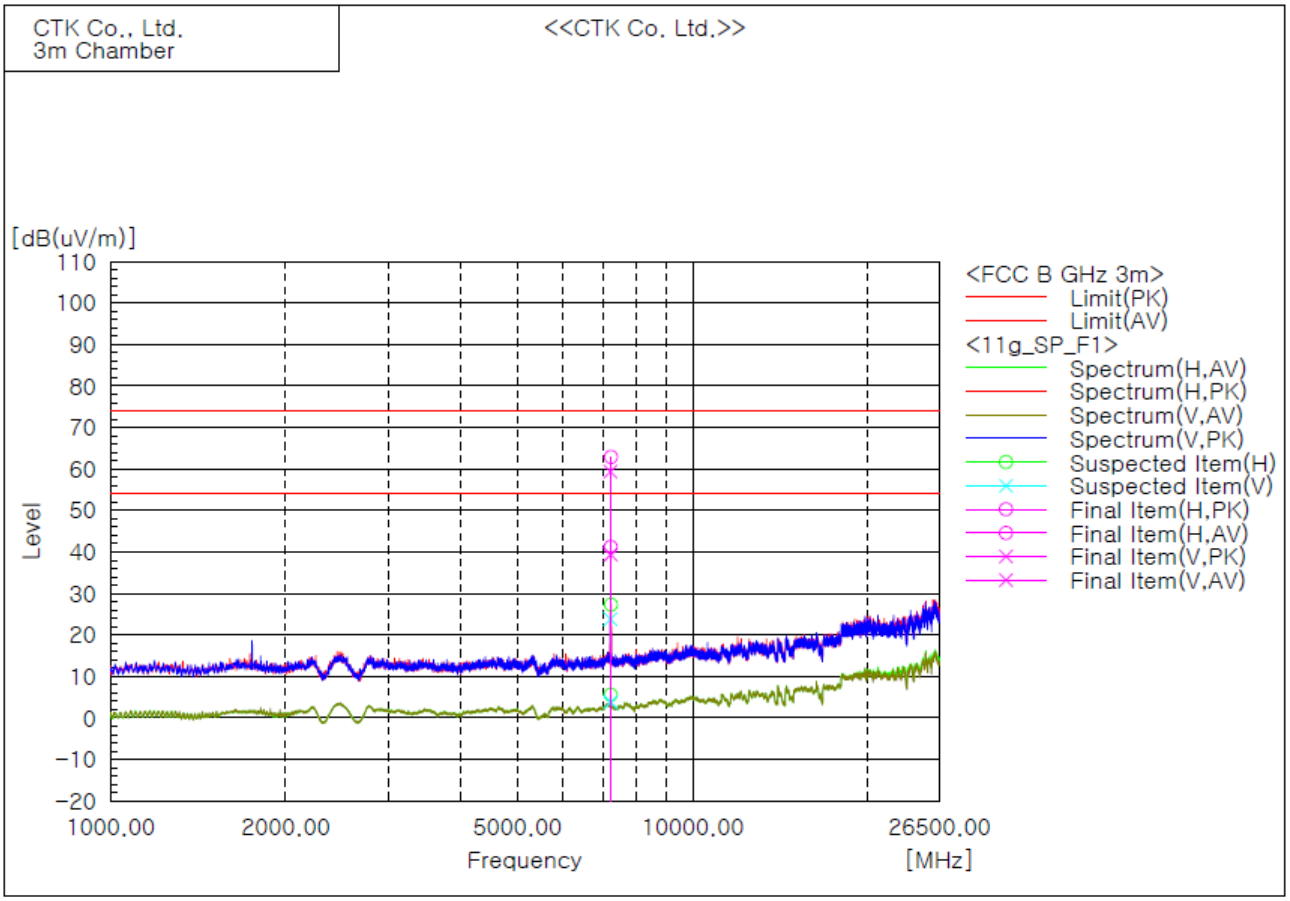
Test mode : 802.11g, High channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading AV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [deg]
1	7241.125	H	58.8	--------	4.1	62.9	--------	74.0	54.0	11.1	--------	235.1	129.4
2	7234.750	H	--------	37.1	4.1	--------	41.2	74.0	54.0	--------	12.8	235.1	105.4
3	7226.250	V	55.3	--------	4.1	59.4	--------	74.0	54.0	14.6	--------	226.7	271.4
4	7232.625	V	--------	35.3	4.1	--------	39.4	74.0	54.0	--------	14.6	226.7	283.3

Remarks

1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

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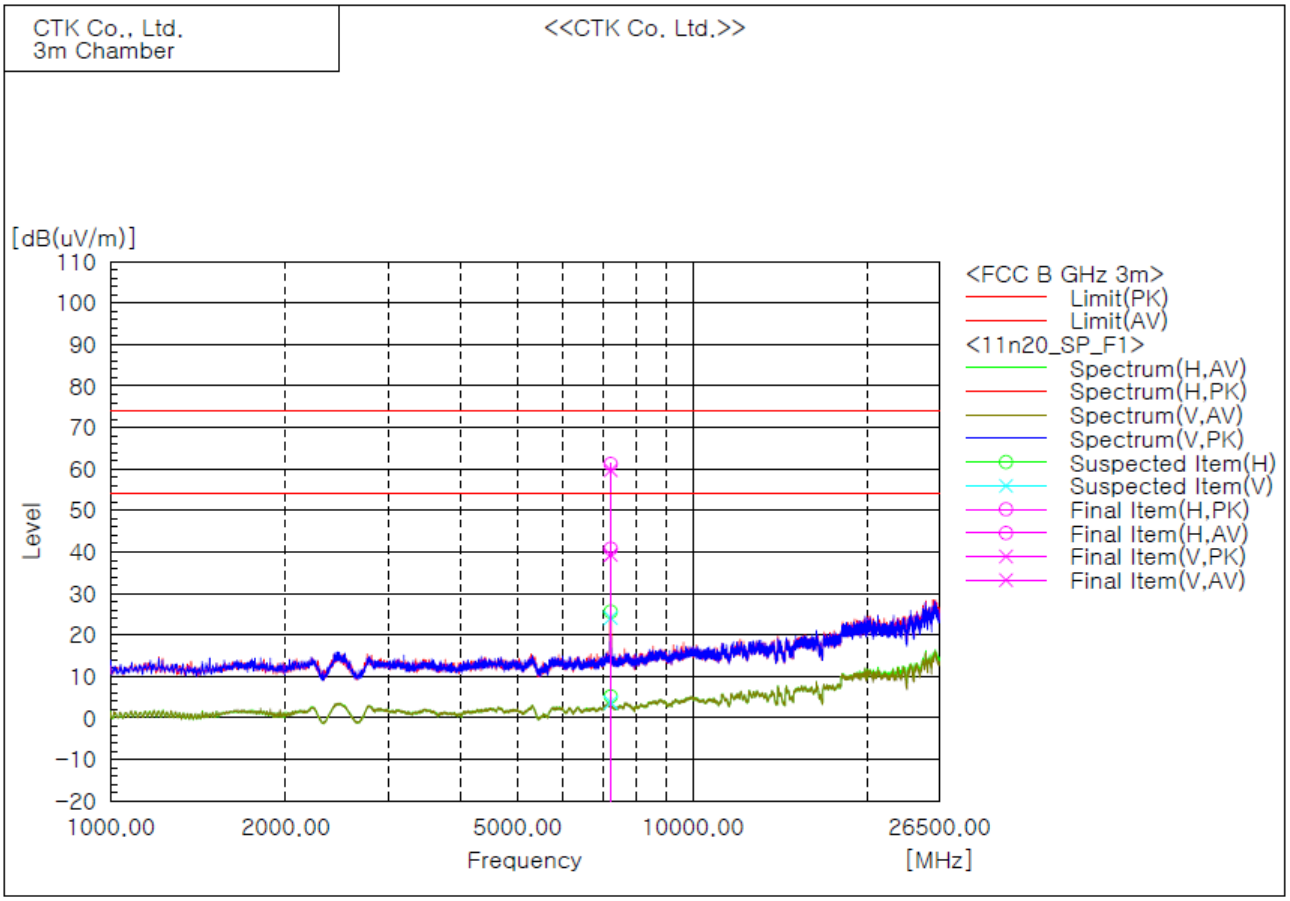
Test mode : 802.11n-HT20, High channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading AV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [deg]
1	7232.625	H	57.1	--------	4.1	61.2	--------	74.0	54.0	12.8	--------	99.8	231.1
2	7234.750	H	--------	36.7	4.1	--------	40.8	74.0	54.0	--------	13.2	234.5	114.7
3	7232.625	V	55.6	--------	4.1	59.7	--------	74.0	54.0	14.3	--------	233.0	279.7
4	7232.625	V	--------	35.2	4.1	--------	39.3	74.0	54.0	--------	14.7	233.0	305.0

Remarks

1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

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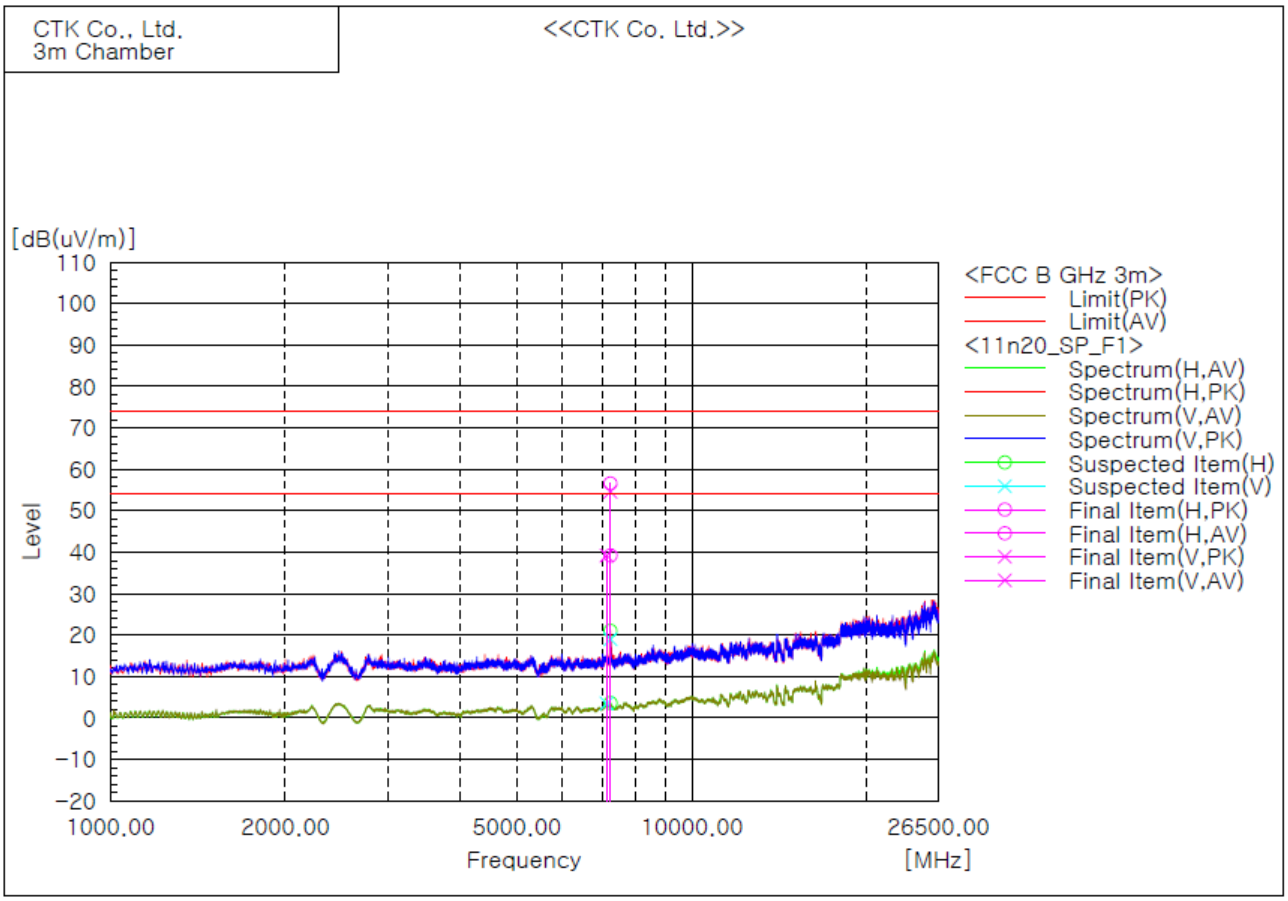
Test mode : 802.11n-HT20, Middle channel(Worst case)

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading AV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [deg]
1	7243.250	H	52.5	--------	4.1	56.6	--------	74.0	54.0	17.4	--------	99.8	207.1
2	7247.500	H	--------	35.1	4.1	--------	39.2	74.0	54.0	--------	14.8	226.2	99.4
3	7243.250	V	50.5	--------	4.1	54.6	--------	74.0	54.0	19.4	--------	235.1	291.8
4	7137.000	V	--------	35.0	4.2	--------	39.2	74.0	54.0	--------	14.8	99.8	359.9

Remarks

1. The Unwanted emission was measured in the following position:
   EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss - Amp Gain

4.6 AC Power Line Conducted Emissions

A radio apparatus that is designed to be connected to the public utility (AC) power line shall ensure that the radio frequency voltage, which is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz-30 MHz, shall not exceed the limits.

Instrument Settings

IF Band Width: 9 kHz

Test Procedures

The EUT was placed on a non-metallic table 0.8m above the metallic, grounded floor and 0.4m from the reference ground plane wall. The distance to other metallic surfaces was at least 0.8m.
Amplitude measurements were performed with a quasi-peak detector and an average detector.

Limit

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average**
0.15 ~ 0.5	66 to 56*	56 to 46*
0.5 ~ 5	56	46
5 ~ 30	60	50

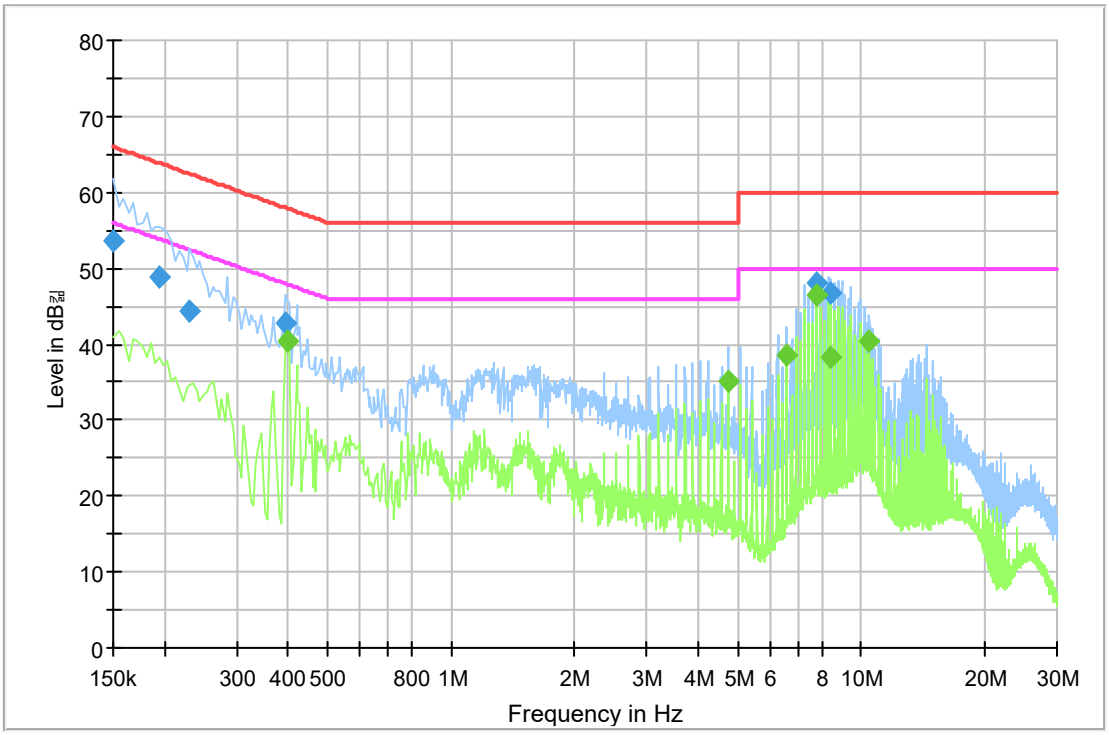
* The level decreases linearly with the logarithm of the frequency.
** A linear average detector is required.

Test Results :

The requirements are:
☒ Complies

Test mode : 802.11b(Worst case)
[L1]

3CE_Class B_L1



Final Result 1

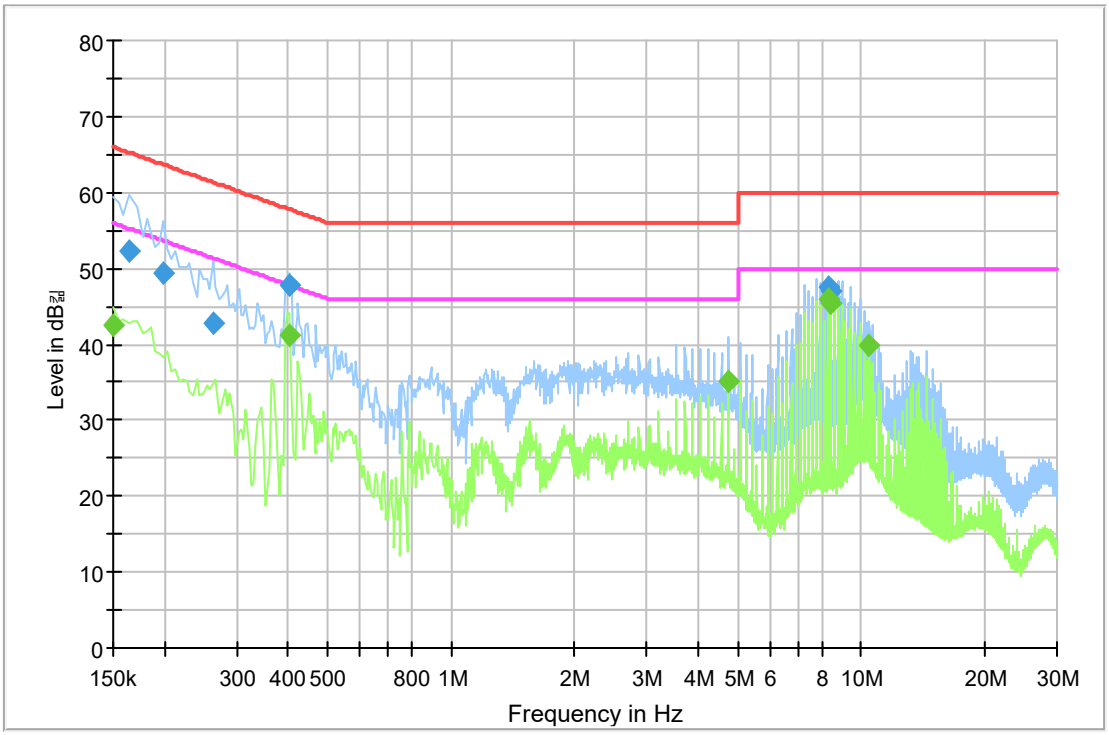
Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	53.6	1000.0	9.000	On	L1	9.8	12.4	66.0
0.195000	48.8	1000.0	9.000	On	L1	10.0	15.0	63.8
0.231000	44.3	1000.0	9.000	On	L1	9.7	18.1	62.4
0.393000	42.8	1000.0	9.000	On	L1	9.9	15.2	58.0
7.773000	48.1	1000.0	9.000	On	L1	9.9	11.9	60.0
8.452500	46.7	1000.0	9.000	On	L1	9.9	13.3	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.397500	40.3	1000.0	9.000	On	L1	9.9	7.6	47.9
4.731000	35.1	1000.0	9.000	On	L1	9.9	10.9	46.0
6.589500	38.5	1000.0	9.000	On	L1	9.9	11.5	50.0
7.773000	46.4	1000.0	9.000	On	L1	9.9	3.6	50.0
8.452500	38.3	1000.0	9.000	On	L1	9.9	11.7	50.0
10.477500	40.3	1000.0	9.000	On	L1	9.9	9.7	50.0

[NEUTRAL]

3CE_Class B_N



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.163500	52.3	1000.0	9.000	On	N	10.0	13.0	65.3
0.199500	49.4	1000.0	9.000	On	N	9.8	14.2	63.6
0.262500	42.7	1000.0	9.000	On	N	9.7	18.6	61.4
0.402000	47.7	1000.0	9.000	On	N	9.9	10.1	57.8
8.281500	47.5	1000.0	9.000	On	N	9.9	12.5	60.0
8.452500	47.0	1000.0	9.000	On	N	9.9	13.0	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	42.5	1000.0	9.000	On	N	9.8	13.5	56.0
0.402000	41.2	1000.0	9.000	On	N	9.9	6.6	47.8
4.731000	35.1	1000.0	9.000	On	N	9.8	10.9	46.0
8.281500	45.8	1000.0	9.000	On	N	9.9	4.2	50.0
8.452500	45.3	1000.0	9.000	On	N	9.9	4.7	50.0
10.477500	39.8	1000.0	9.000	On	N	9.9	10.2	50.0

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APPENDIX A – Test Equipment Used For Tests

No.	Name of Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	SPECTRUM ANALYZER	R&S	FSV40	101574	2021-01-18	2022-01-18
2	EMI Test Receiver	Rohde & Schwarz	ESCI7	100814	2020-10-20	2021-10-20
					2021-10-20	2022-10-20
3	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-126	2020-05-20	2022-05-20
4	Bilog Antenna	Schaffner	CBL6111C	2551	2021-03-22	2023-03-22
5	AMPLIFIER	SONOMA	310	291721	2021-01-22	2022-01-22
6	6dB Attenuator	R&S	DNF	272.4110.50-2	2020-10-23	2021-10-23
					2021-10-22	2022-10-22
7	EMI Test Receiver	Rohde & Schwarz	ESU40	100336	2021-01-12	2022-01-12
8	Double Ridged Guide Antenna	ETS-Lindgren	3117	00154525	2020-10-21	2022-10-21
9	Double Ridged Guide Antenna	ETS-Lindgren	3116	00062916	2020-04-14	2022-04-14
10	Preamplifier	Agilent	8449B	3008A02011	2020-11-30	2021-11-30
11	Band Reject Filter	Micro Tronics	BRM50702	G233	2021-01-14	2022-01-14
12	Signal Generator	R&S	SMB100A	175528	2021-04-12	2022-04-12
13	Dual-Tracking DC Power Supply	Topward Electric Instruments Co.,Ltd.	6303D	711196	2021-01-14	2022-01-14
14	6dB Attenuator	BIRD	5W 6dB	1744	2020-12-16	2021-12-16
15	SPECTRUM ANALYZER	R&S	FSV30	100925	2021-01-14	2022-01-14

No.	Name of Equipment	Manufacturer	Model No.	Serial No.	Check Date
1	RF Cable (conducted)	Junkosha Inc.	MWX221	1510S087	2021-02-02
2	3m Loop Cable (Radiated)	HUBER+SUHNER	N/A	N/A	2020-10-25
3	3 m 1GHz Above RF Cable (Radiated)	HUBER+SUHNER	SUCOFLEX 104	MY27558/4	2021-01-28
4	3 m 1GHz Below RF Cable (Radiated)	HUBER+SUHNER	SUCOFLEX 104	N/A (below 1GHz)	2021-01-28
5	3 m 1GHz Above RF Cable (Radiated)	HUBER+SUHNER	SUCOFLEX 104	MY27573/4	2020-12-12
6	3 m 1GHz Above RF Cable (Radiated)	HUBER+SUHNER	SUCOFLEX 104	801924/4	2020-12-12
7	3 m 1GHz Above RF Cable (Radiated)	HUBER+SUHNER	SUCOFLEX 102	MY4728/2	2021-02-02
8	3 m 1GHz Above RF Cable (Radiated)	HUBER+SUHNER	SUCOFLEX 102	MY2374/2	2021-02-02