

4.6 Unwanted 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 Test Antenna is positioned with its plane vertical at 1m distance from the EUT. 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 range 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.

Test Settings:

Frequency Range = 9 kHz ~ 1 GHz

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

b) VBW $\geq$ RBW

c) Detector = CISPR Quasi-peak

d) Sweep time = auto couple

- Peak

Frequency Range = 1 GHz ~ 40 GHz

a) RBW = 1 MHz

b) VBW $\geq 3 \times$ RBW

d) Sweep time = auto

c) Detector = Peak

e) Trace mode = max hold

- Average (duty cycle $\geq 98\%$)

Frequency Range = 1 GHz ~ 40 GHz

a) RBW = 1 MHz

b) VBW $\geq 3 \times$ RBW

d) Sweep time = auto

f) Trace mode = average (at least 100 traces)

c) Detector = RMS

e) Averaging type = power (i.e., RMS)

- Average (duty cycle < 98%)

Frequency Range = 1 GHz ~ 40 GHz

a) RBW = 1 MHz

b) VBW $\geq 3 \times$ RBW

c) Detector = RMS

d) Sweep time = auto

e) Averaging type = power (i.e., RMS)

f) Trace mode = average (at least 100 traces)

If power averaging (RMS) mode, then the applicable correction factor is $10 \log(1/x)$, where x is the duty cycle.

Test mode	Duty Cycle Factor (dB)
802.11a_ANT0	0.27
802.11a_ANT1	0.31
802.11n_HT20	0.52
802.11n_HT40	0.97
802.11ac_VHT20	0.30
802.11ac_VHT40	0.55
802.11ac_VHT80	1.07

Limit

UNII 1 : All emissions outside of the 5.15-5.24 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

UNII 3 : 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.

※ Limit conversion

$E [\text{dBuV/m}] = \text{EIRP} [\text{dBm}] - 20\log(D) + 104.8$;

where

D is the measurement distance(in the far field region) and this test was measured at 3m.

EIPR : -27 dBm/MHz,

Therefore, E : 68.2 dBuV/m

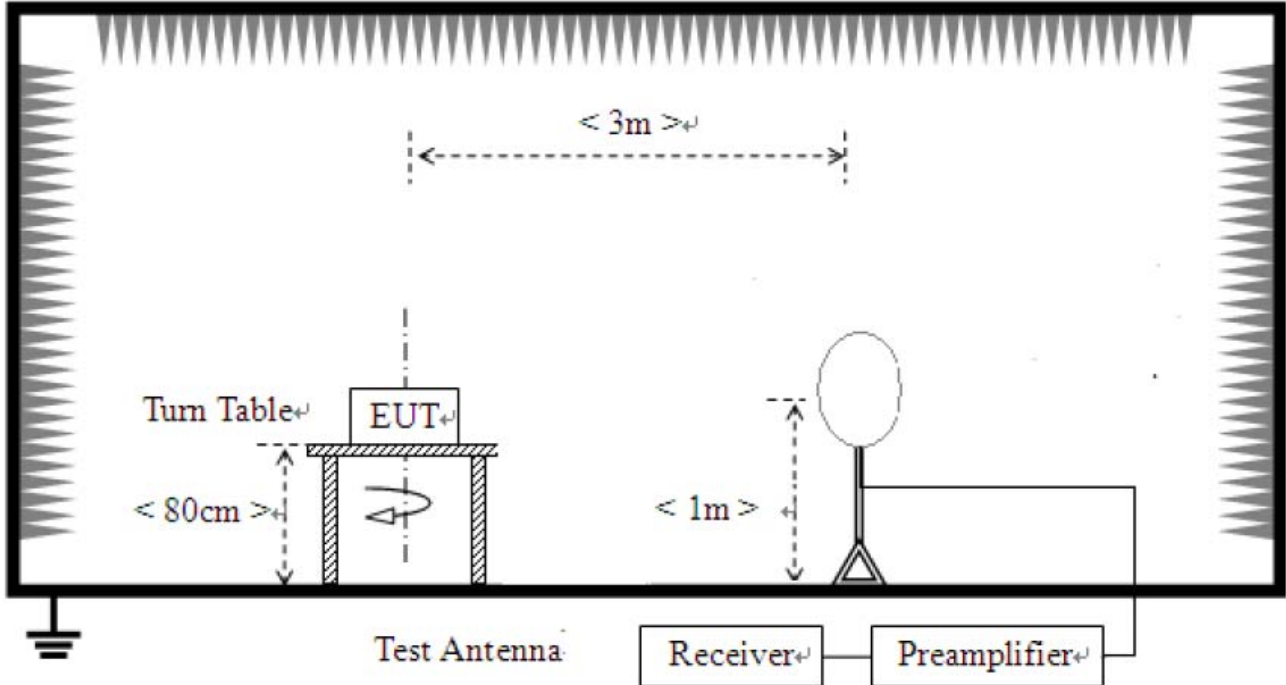
- 15.209(a)

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

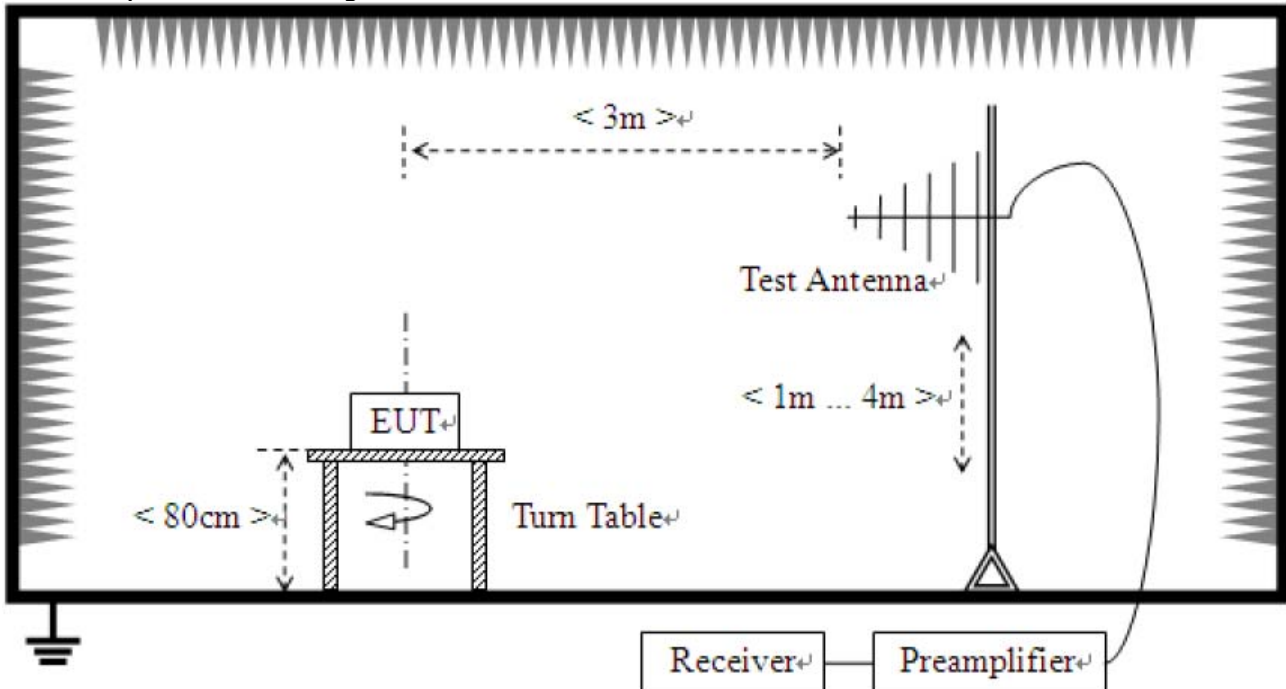
** Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72MHz, 76-88MHz, 174-216MHz, 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231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

Test Setup:

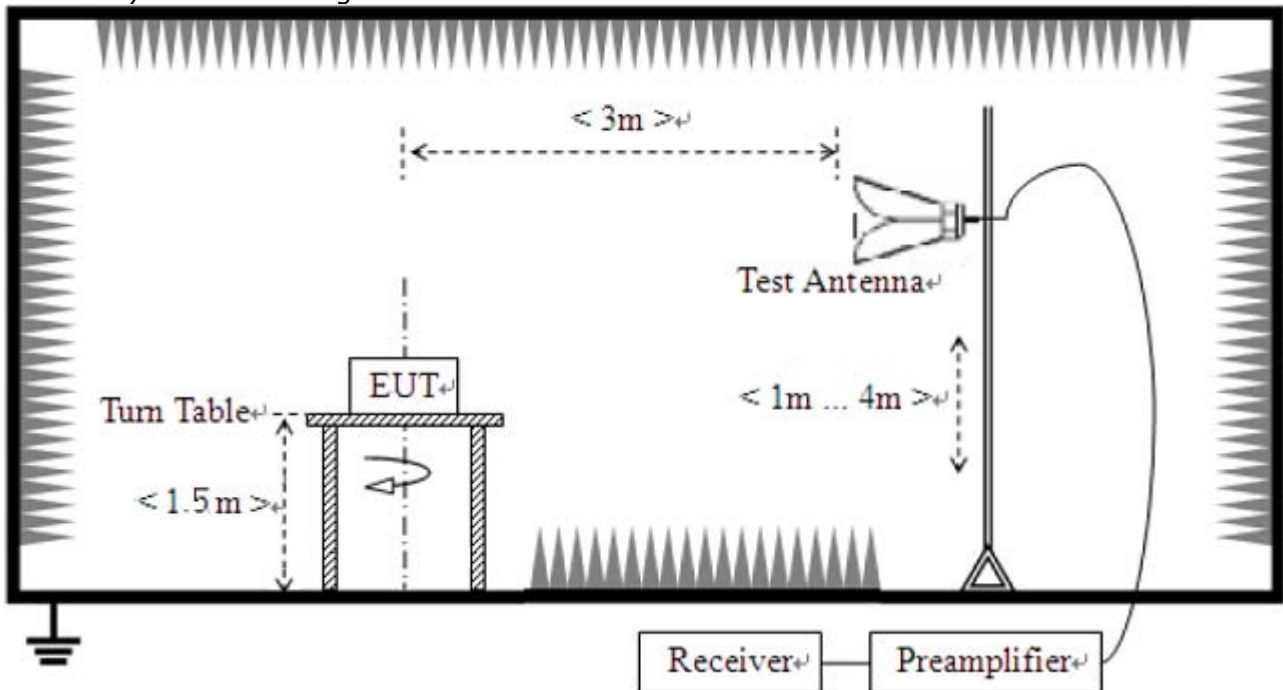
- 1) For field strength of emissions from 9 kHz to 30 MHz



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



3) For field strength of emissions above 1 GHz



Test Mode

We have done all test mode.

The worst case antenna configuration and Test mode are determined to be as follows.

SISO_802.11a mode : ANT 0, ANT 1

MIMO_802.11n, ac mode : ANT 0 + ANT 1

So the results are only attached worst cases.

Test Results

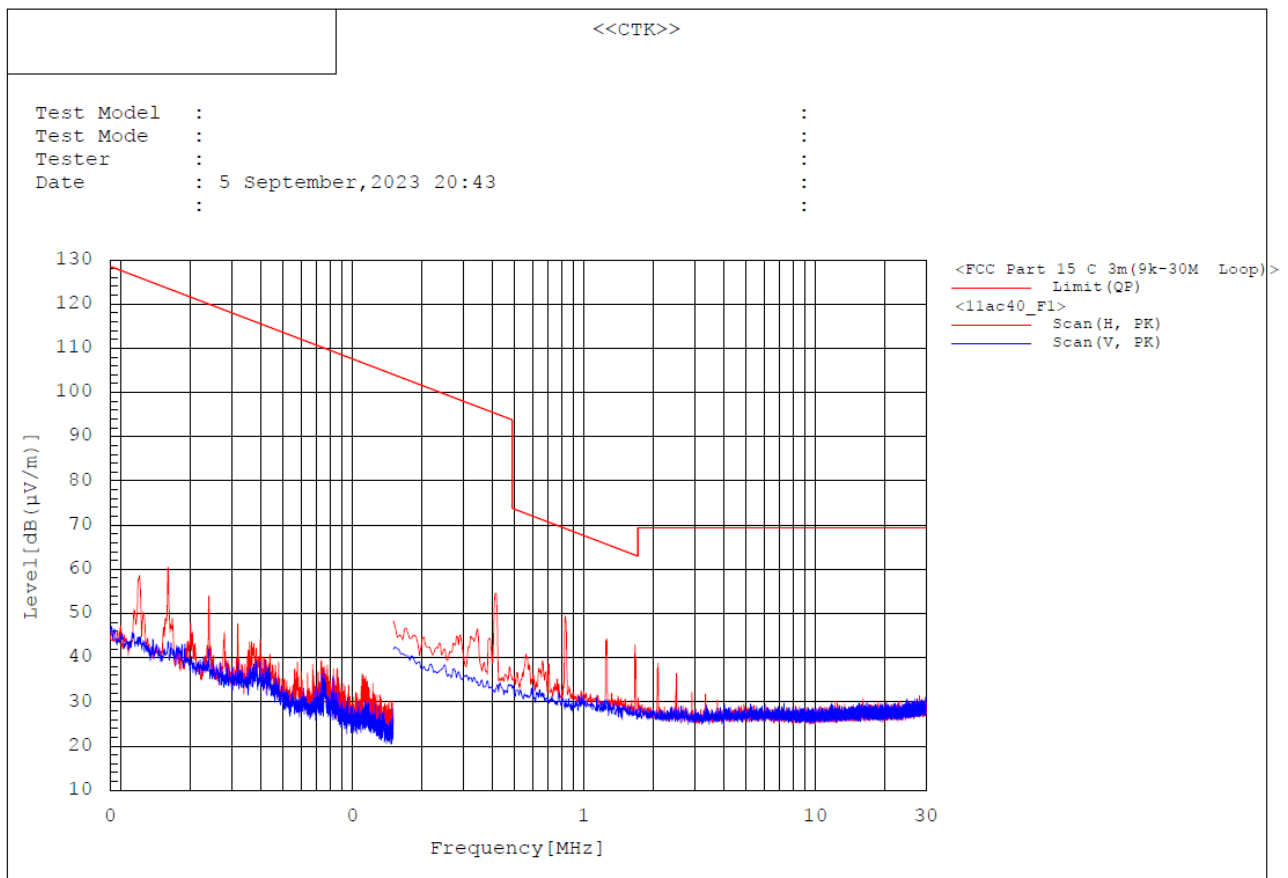
1) 9 kHz to 30 MHz

Test mode : 802.11ac40, Low Channel (Worst Case)

The requirements are:

☒ Complies

Test Data



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Level [dB(uV/m)]	Limit [dB(uV/m)]	Margin [dB]
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The emissions 9 kHz to 30 MHz were 20 dB lower than the limit.

Remark :

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

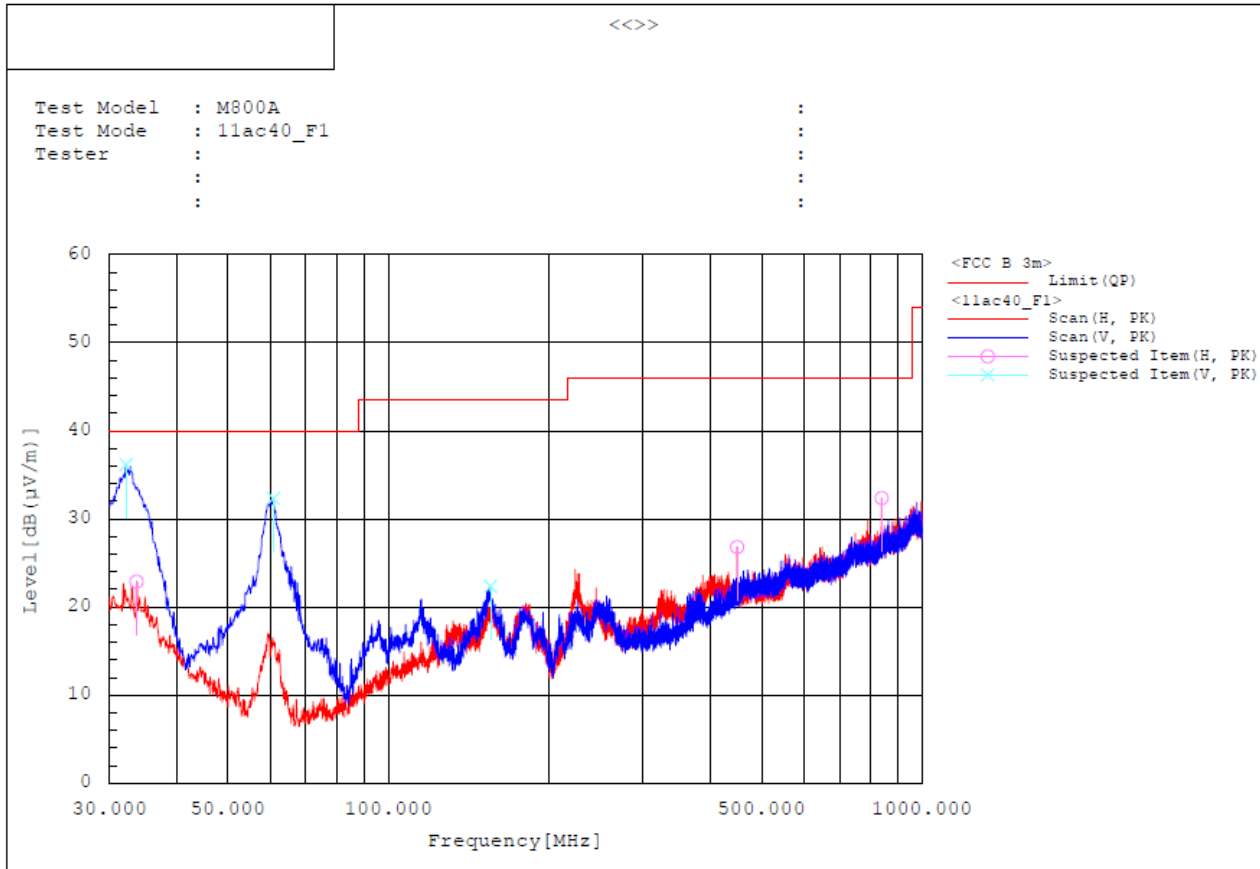
2) 30 MHz to 1 GHz

Test mode : 802.11ac40, Low Channel (Worst Case)

The requirements are:

☒ Complies

Test Data



Spectrum Selection

No.	Frequency	Pol	Reading	c.f	Result	Limit	Margin	Height	Angle	Remark
	[MHz]		[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[cm]	[deg]	
1	32.231	V	43.9	-7.7	36.2	40.0	3.8	100.0	356.0	
2	33.686	H	31.5	-8.6	22.9	40.0	17.1	100.0	241.0	
3	60.846	V	51.8	-19.5	32.3	40.0	7.7	100.0	59.0	
4	155.227	V	36.1	-13.7	22.4	43.5	21.1	100.0	298.1	
5	450.010	H	32.6	-5.8	26.8	46.0	19.2	100.0	354.3	
6	839.465	H	30.4	2.0	32.4	46.0	13.6	100.0	349.7	

Remark :

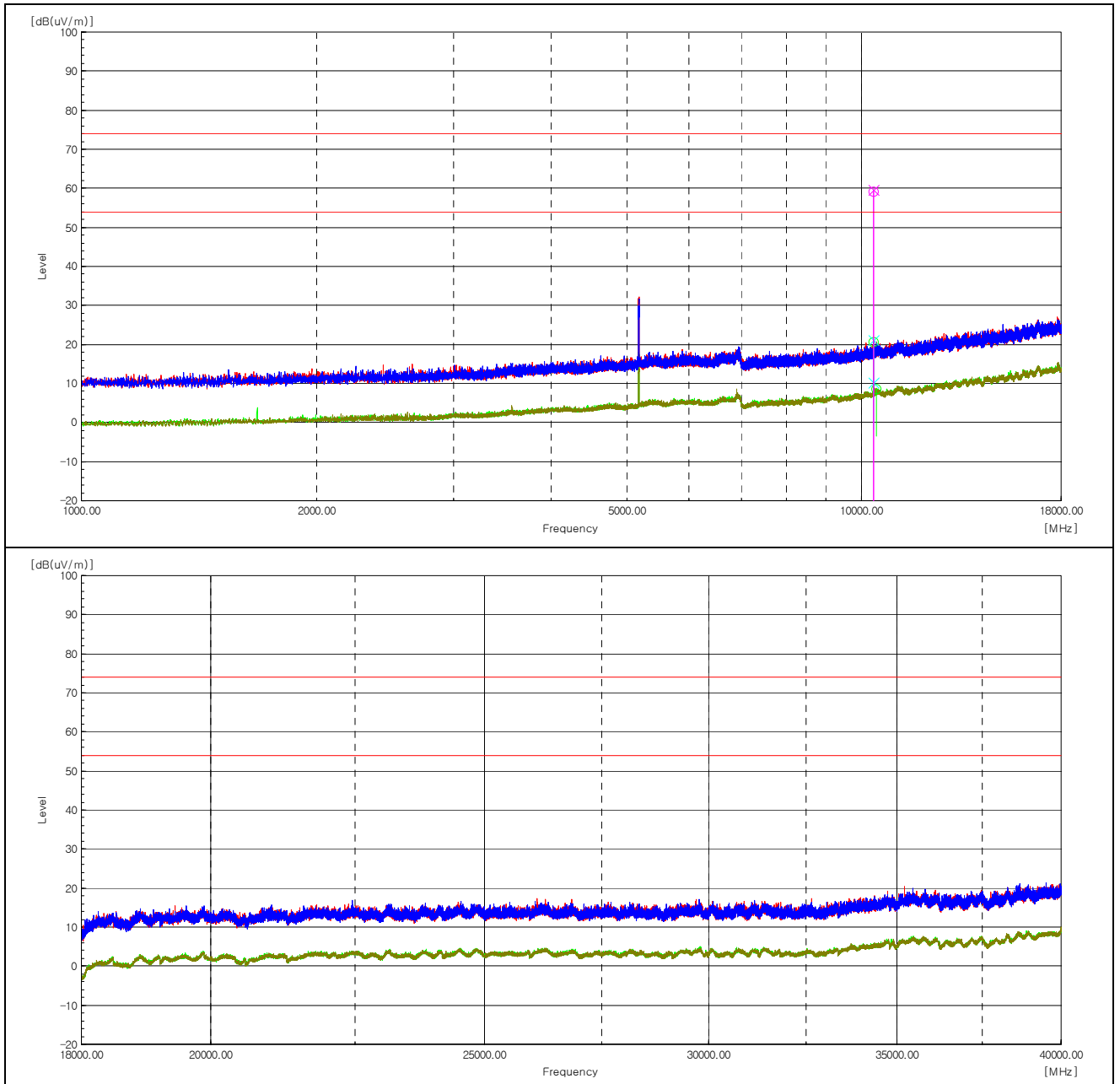
1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down positon(X,Y axis). The worst emission was found in lie-down positon(Y axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable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

3) above 1 GHz

The requirements are:

☒ Complies

Test Data



Test mode : Transmitter, 802.11a-ANT0

The requirements are:

☒ Complies

Test Data

Ch.36(5 180 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
10355.81	V	48.9	10.8	-----	59.7	-----	68.2	-----	8.5	-----	Peak
10360.57	H	48.4	10.8	-----	59.2	-----	68.2	-----	9.0	-----	Peak

Ch.44(5 220 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
10438.78	V	50.4	11.1	-----	61.5	-----	68.2	-----	6.7	-----	Peak
10441.5	H	48.8	11.1	-----	59.9	-----	68.2	-----	8.3	-----	Peak

Ch.48(5 240 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
10479.58	H	48.9	11.1	-----	60.0	-----	68.2	-----	8.2	-----	Peak
10474.82	V	49.3	11.1	-----	60.4	-----	68.2	-----	7.8	-----	Peak

Ch.149(5 745 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.157(5 785 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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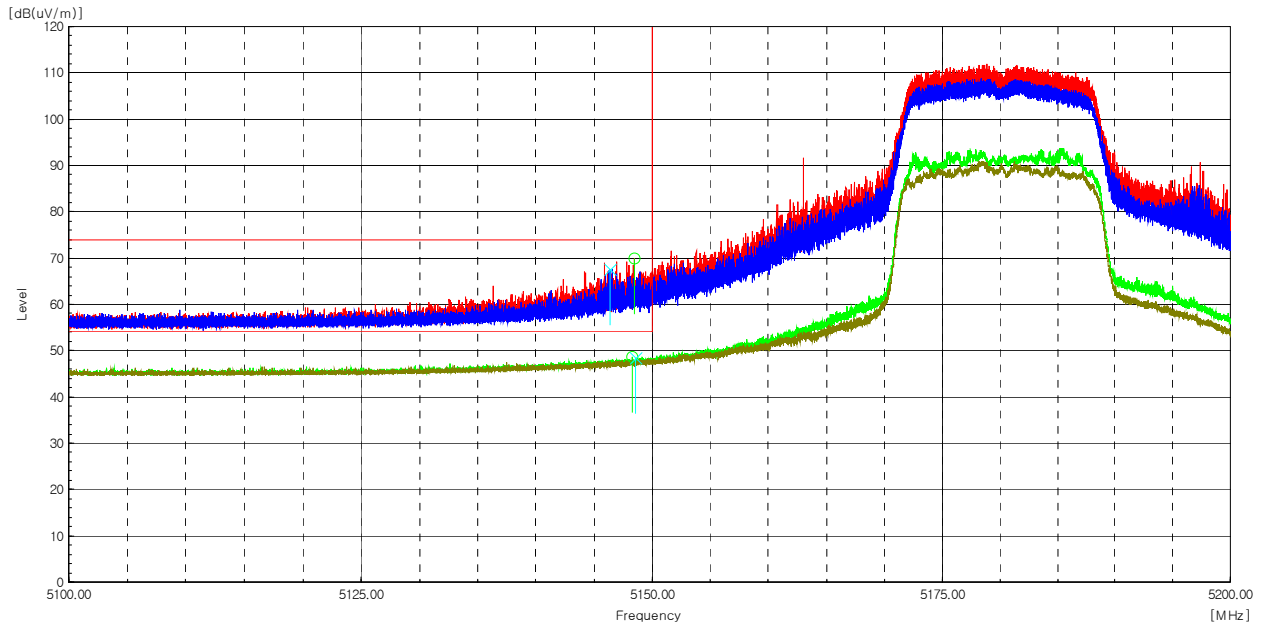
The emissions above 1 GHz were 20 dB lower than the limit.

Ch.165(5 825 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

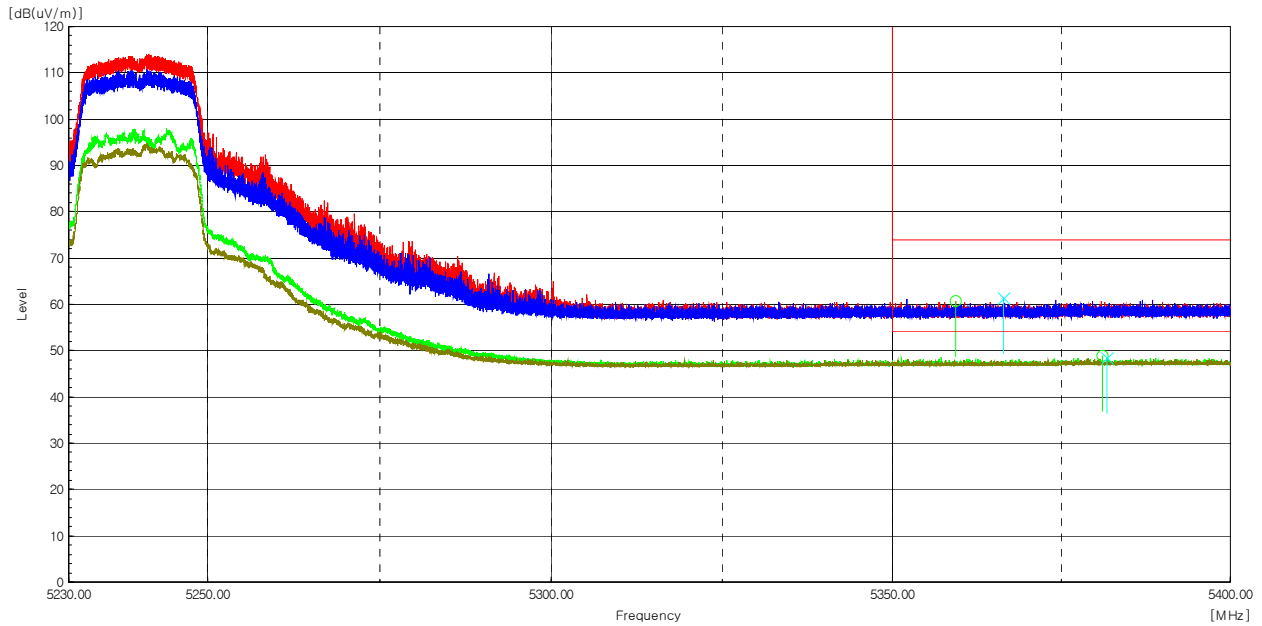
Worst Case Mode :	802.11a-ANT0
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 180 MHz
Channel :	36



Frequency [MHz]	(P)	Reading [dBUV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5146.4	V	64.8	2.8	-----	67.6	-----	74.0	-----	6.4	-----	Peak
5148.3	H	46.0	2.8	0.27	-----	49.1	-----	54.0	-----	4.9	Average
5148.4	H	67.1	2.8	-----	69.9	-----	74.0	-----	4.1	-----	Peak
5148.5	V	45.7	2.8	0.27	-----	48.8	-----	54.0	-----	5.2	Average

Radiated Restricted Band Edge Plot

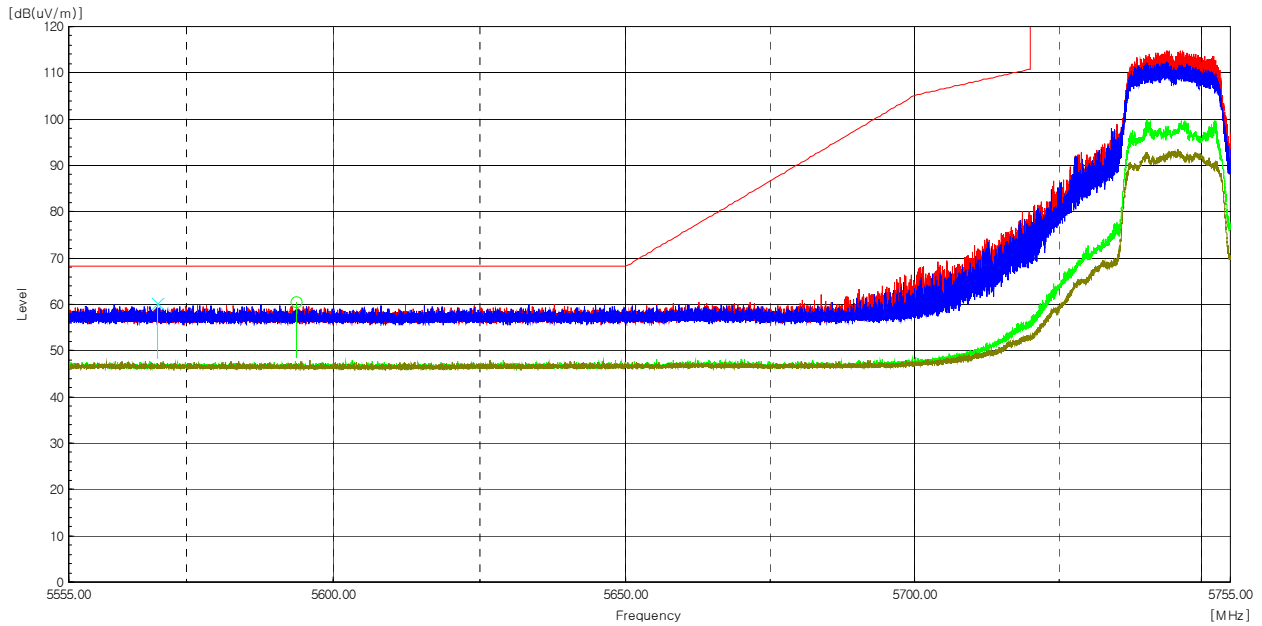
Worst Case Mode :	802.11a-ANT0
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 240 MHz
Channel :	48



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5359.3	H	57.3	3.4	-----	60.7	-----	74.0	-----	13.3	-----	Peak
5366.4	V	57.9	3.4	-----	61.3	-----	74.0	-----	12.7	-----	Peak
5381.0	H	45.3	3.5	0.27	-----	49.1	-----	54.0	-----	4.9	Average
5381.7	V	45.0	3.5	0.27	-----	48.8	-----	54.0	-----	5.2	Average

Radiated Restricted Band Edge Plot

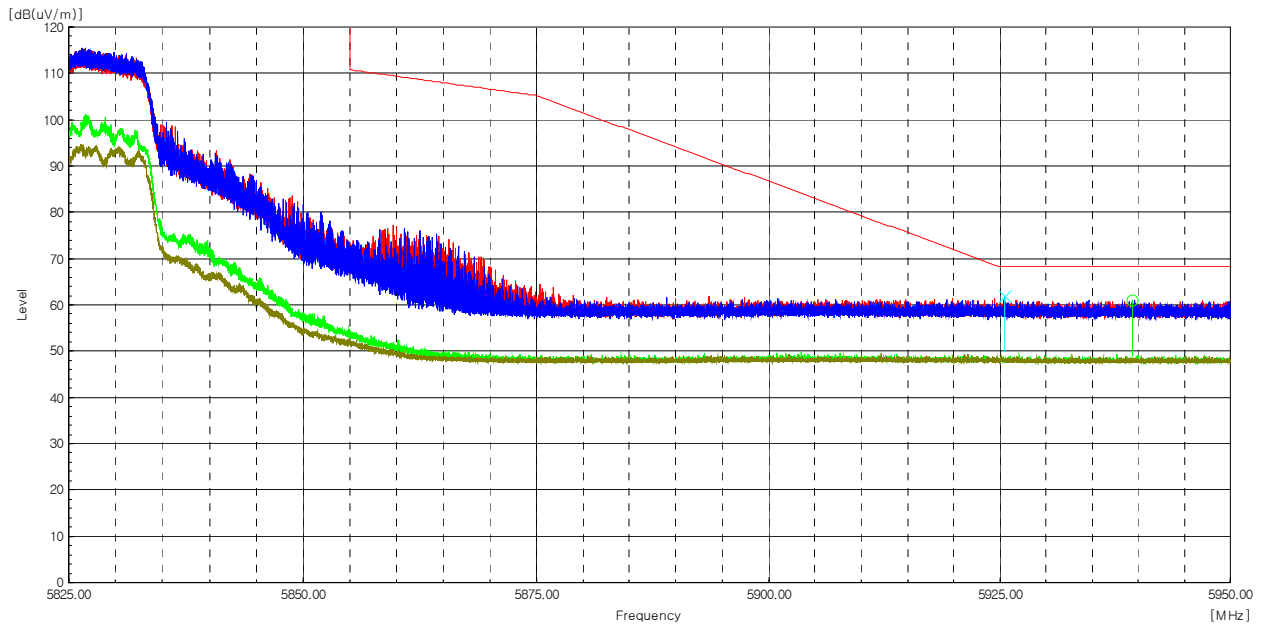
Worst Case Mode :	802.11a-ANT0
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 745 MHz
Channel :	149



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5593.7	H	56.2	4.2	-----	60.4	-----	68.2	-----	7.8	-----	Peak
5570.0	V	55.9	4.2	-----	60.1	-----	68.2	-----	8.1	-----	Peak

Radiated Restricted Band Edge Plot

Worst Case Mode :	802.11a-ANT0
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 825 MHz
Channel :	165



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5925.5	V	56.7	5.2	-----	61.9	-----	68.2	-----	6.3	-----	Peak
5939.3	H	55.9	5.1	-----	61.0	-----	68.2	-----	7.2	-----	Peak

Radiated Restricted Band Edge Plot

Remarks

- 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(Y axis) and the worst case was recorded.
- Peak Result = Reading + c.f(Correction factor)
Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
- Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter, 802.11a-ANT1

The requirements are:

☒ Complies

Test Data

Ch.36(5 180 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.44(5 220 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.48(5 240 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.149(5 745 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.157(5 785 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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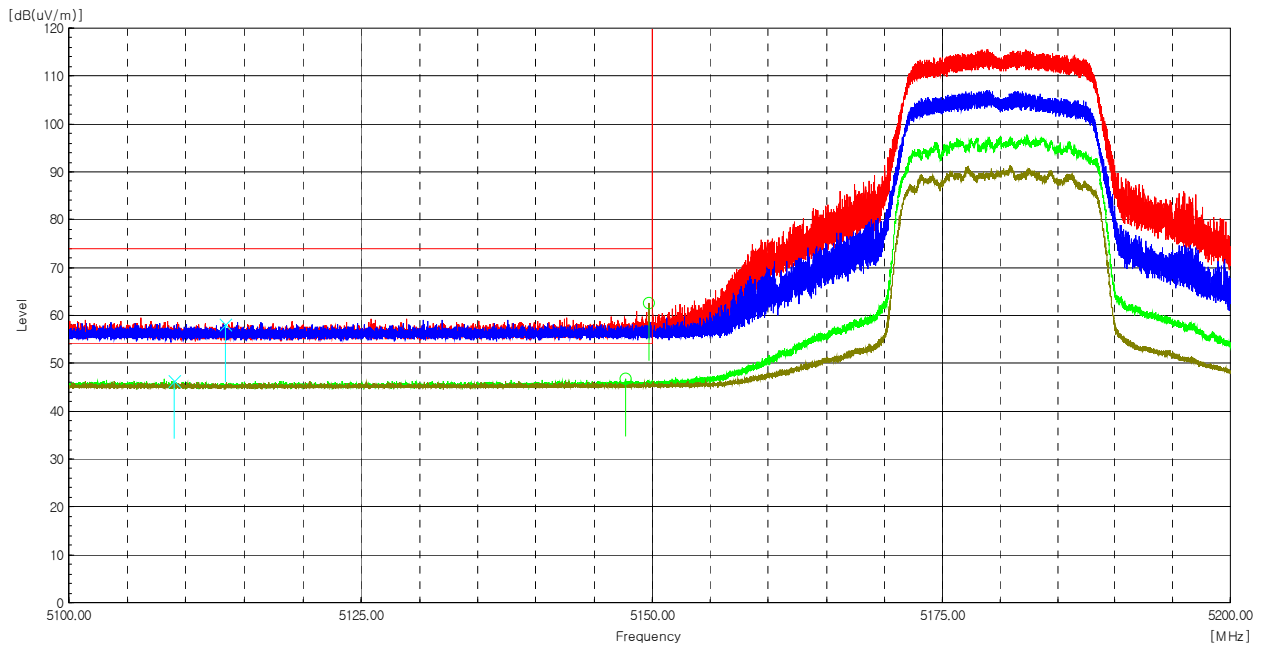
The emissions above 1 GHz were 20 dB lower than the limit.

Ch.165(5 825 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

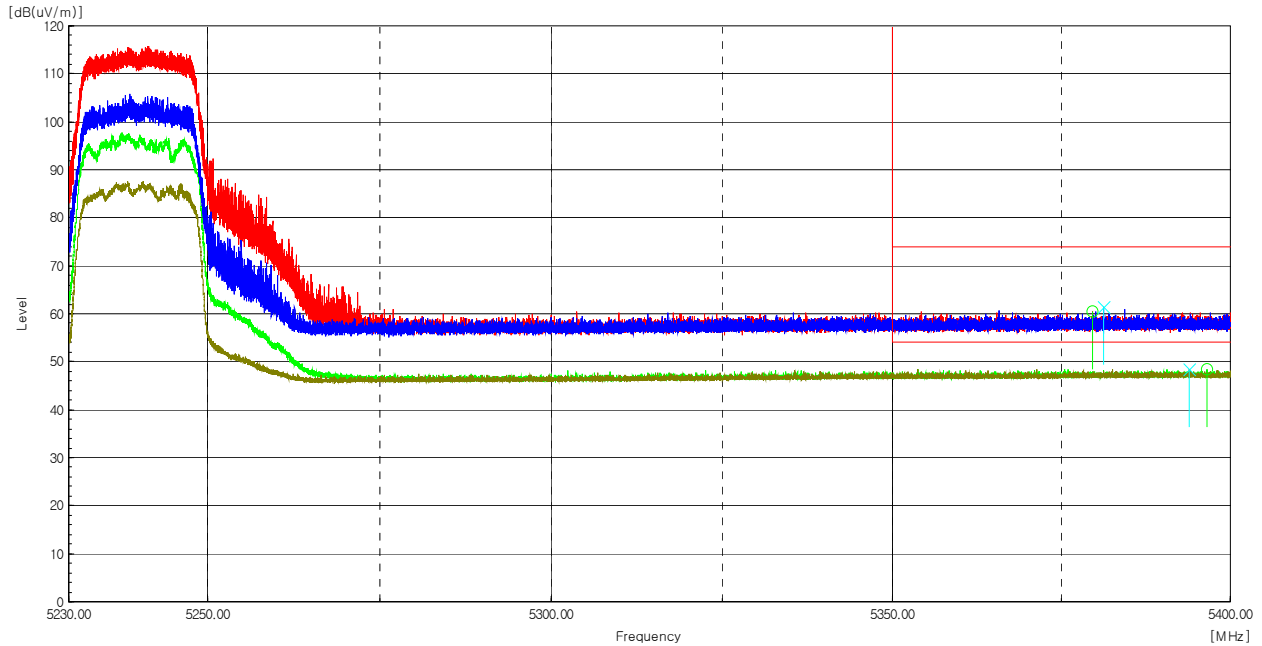
Worst Case Mode :	802.11a-ANT1
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 180 MHz
Channel :	36



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5109.0	V	43.4	2.8	0.31	-----	46.5	-----	54.0	-----	7.5	Average
5113.3	V	55.3	2.8	-----	58.1	-----	74.0	-----	15.9	-----	Peak
5147.7	H	44.1	2.8	0.31	-----	47.2	-----	54.0	-----	6.8	Average
5149.7	H	59.8	2.8	-----	62.6	-----	74.0	-----	11.4	-----	Peak

Radiated Restricted Band Edge Plot

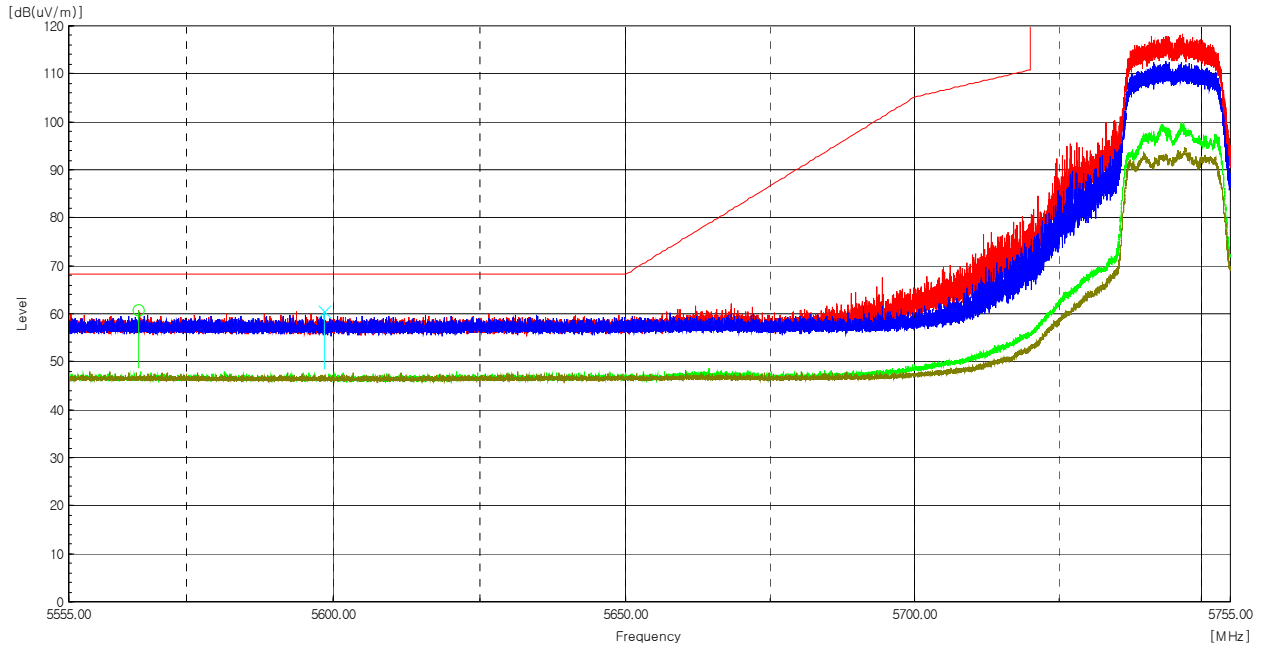
Worst Case Mode :	802.11a-ANT1
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 320 MHz
Channel :	48



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5379.6	H	57.0	3.5	-----	60.5	-----	74.0	-----	13.5	-----	Peak
5381.1	V	57.8	3.5	-----	61.3	-----	74.0	-----	12.7	-----	Peak
5393.9	V	44.9	3.5	0.31	-----	48.7	-----	54.0	-----	5.4	Average
5396.5	H	45.0	3.5	0.31	-----	48.8	-----	54.0	-----	5.2	Average

Radiated Restricted Band Edge Plot

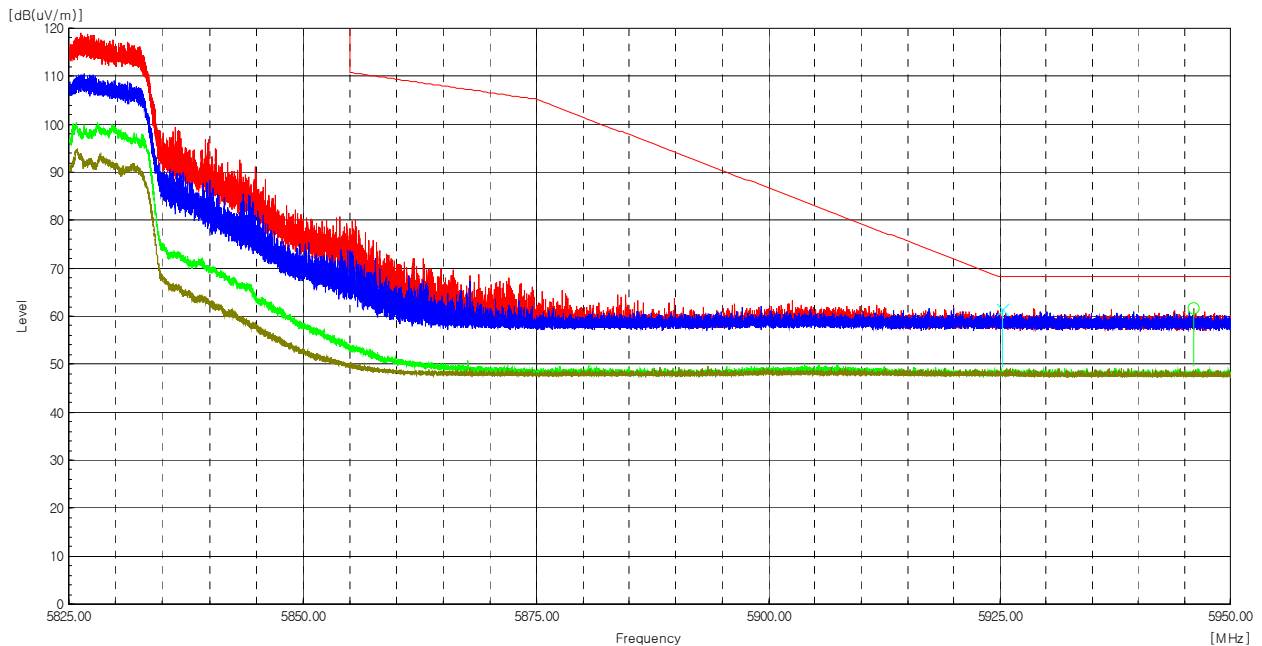
Worst Case Mode :	802.11a-ANT1
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 745 MHz
Channel :	149



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5566.8	H	56.5	4.2	-----	60.7	-----	68.2	-----	7.5	-----	Peak
5598.4	V	56.3	4.2	-----	60.5	-----	68.2	-----	7.7	-----	Peak

Radiated Restricted Band Edge Plot

Worst Case Mode :	802.11a-ANT1
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 825 MHz
Channel :	165



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5925.3	V	56.2	5.2	-----	61.4	-----	68.2	-----	6.8	-----	Peak
5946.0	H	56.6	5.1	-----	61.7	-----	68.2	-----	6.5	-----	Peak

Radiated Restricted Band Edge Plot

Remarks

- The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down positon(X,Y axis). The worst emission was found in lie-down positon(Y axis) and the worst case was recorded.
- Peak Result = Reading + c.f(Correction factor)
Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
- Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter, 802.11n_HT20

The requirements are:

☒ Complies

Test Data

Ch.36(5 180 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.44(5 220 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
10444.22	V	48.6	11.1	-----	59.7	-----	68.2	-----	8.5	-----	Peak
10445.58	H	47.8	11.1	-----	58.9	-----	68.2	-----	9.3	-----	Peak

Ch.48(5 240 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
10487.7	V	49.1	11.1	-----	60.2	-----	68.2	-----	8.0	-----	Peak
10567.3	H	49.7	11.2	-----	60.9	-----	68.2	-----	7.3	-----	Peak

Ch.149(5 745 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.157(5 785 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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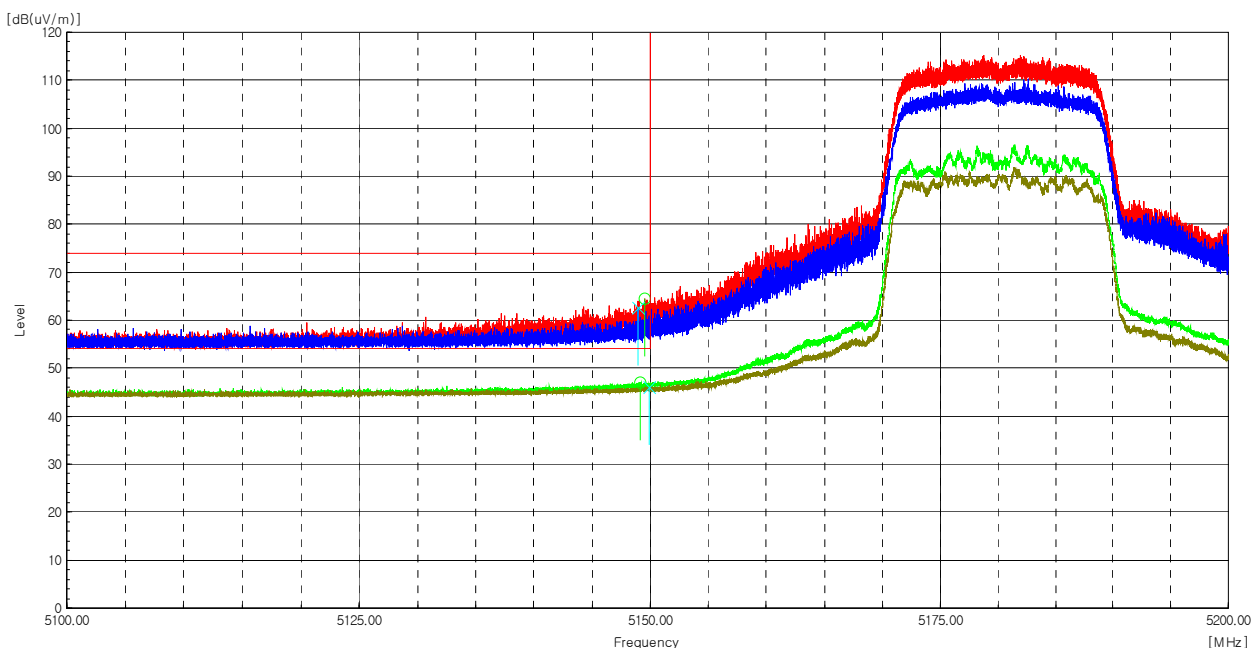
The emissions above 1 GHz were 20 dB lower than the limit.

Ch.165(5 825 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

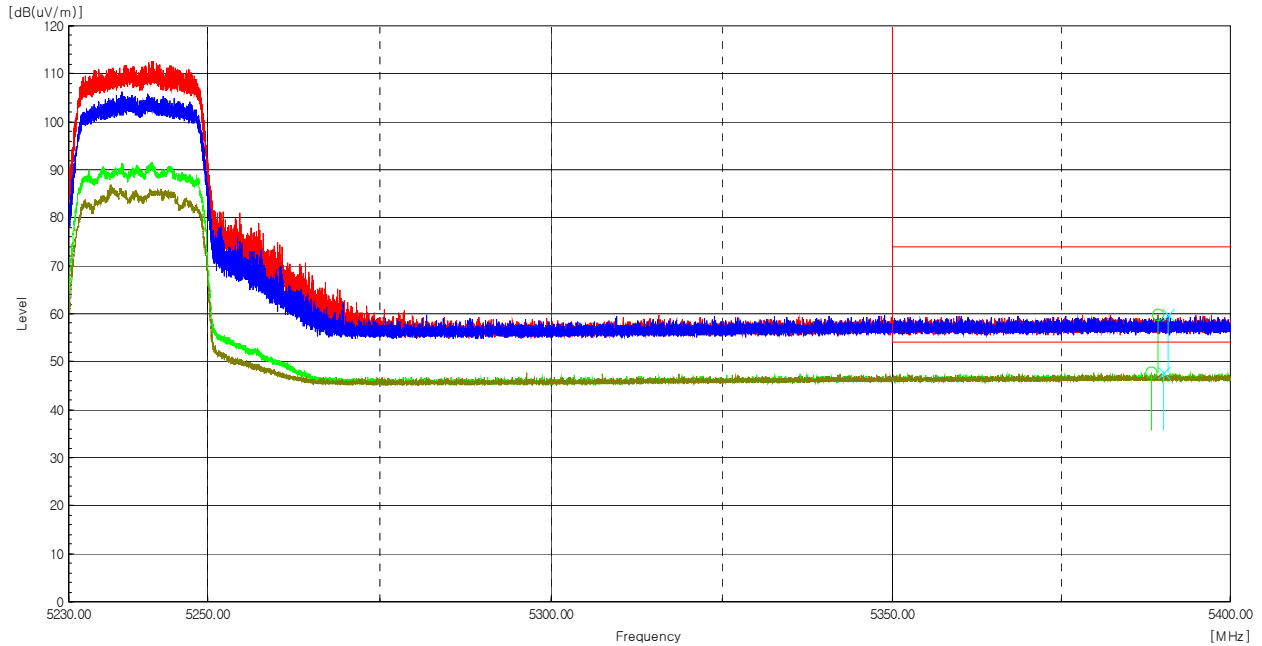
Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 180 MHz
Channel :	36



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5148.9	V	59.7	2.8	-----	62.5	-----	74.0	-----	11.5	-----	Peak
5149.1	H	44.2	2.8	0.52	-----	47.5	-----	54.0	-----	6.5	Average
5149.5	H	61.6	2.8	-----	64.4	-----	74.0	-----	9.6	-----	Peak
5149.9	V	43.3	2.8	0.52	-----	46.6	-----	54.0	-----	7.4	Average

Radiated Restricted Band Edge Plot

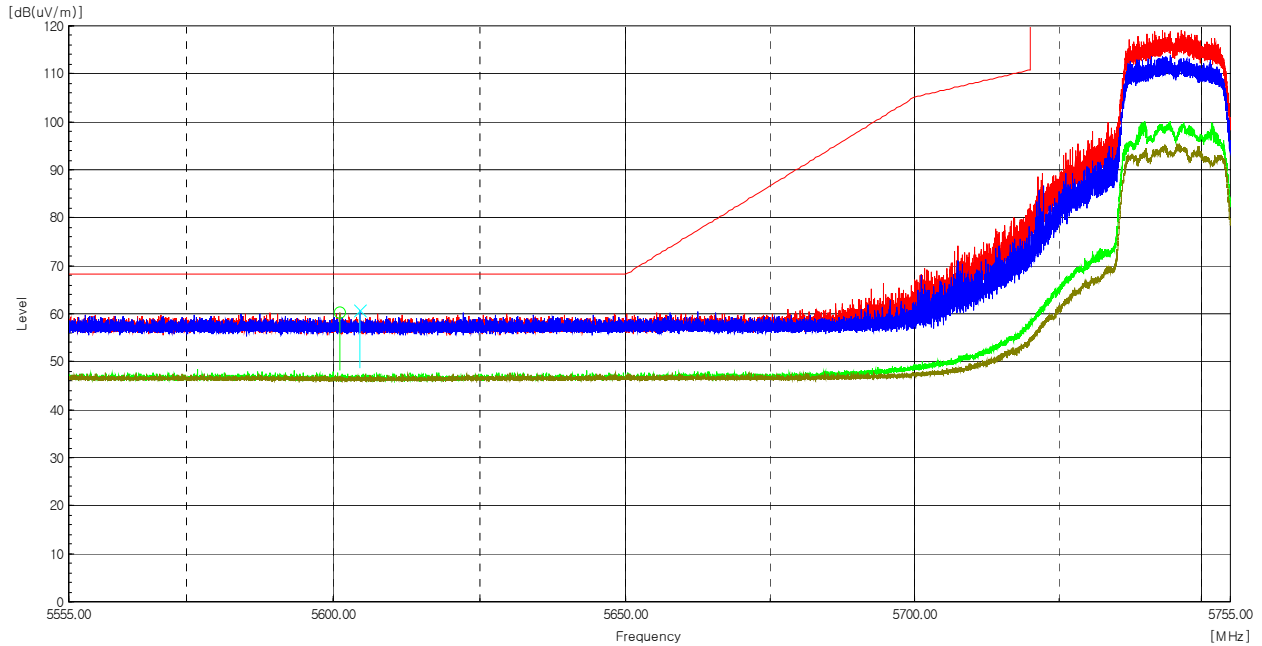
Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 240 MHz
Channel :	48



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5388.3	H	44.1	3.5	0.52	-----	48.1	-----	54.0	-----	5.9	Average
5389.2	H	56.3	3.5	-----	59.8	-----	74.0	-----	14.2	-----	Peak
5390.0	V	44.2	3.5	0.52	-----	48.2	-----	54.0	-----	5.8	Average
5390.7	V	56.2	3.5	-----	59.7	-----	74.0	-----	14.3	-----	Peak

Radiated Restricted Band Edge Plot

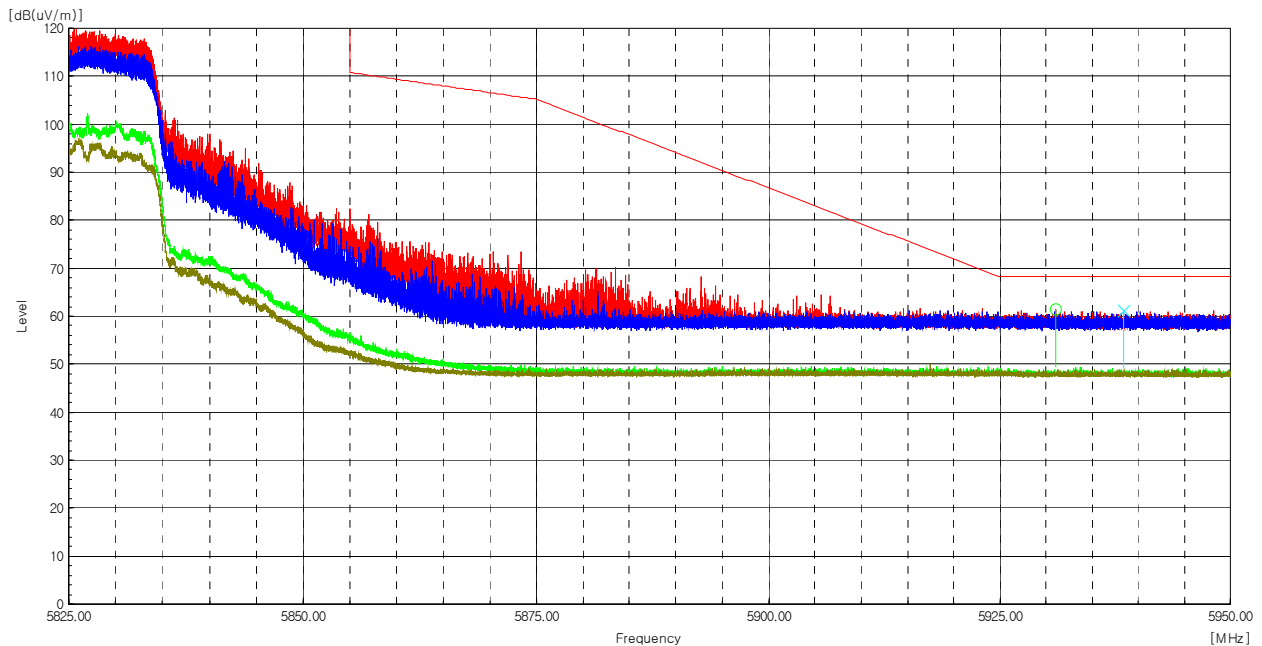
Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 745 MHz
Channel :	149



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5601.1	H	56.0	4.2	-----	60.2	-----	68.2	-----	8.0	-----	Peak
5604.4	V	56.5	4.2	-----	60.7	-----	68.2	-----	7.5	-----	Peak

Radiated Restricted Band Edge Plot

Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 825 MHz
Channel :	165



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5931.1	H	56.2	5.1	-----	61.3	-----	68.2	-----	6.9	-----	Peak
5938.4	V	56.0	5.1	-----	61.1	-----	68.2	-----	7.1	-----	Peak

Radiated Restricted Band Edge Plot

Remarks

- The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down positon(X,Y axis). The worst emission was found in lie-down positon(Y axis) and the worst case was recorded.
- Peak Result = Reading + c.f(Correction factor)
Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
- Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter, 802.11ac_VHT20

The requirements are:

☒ Complies

Test Data

Ch.36(5 180 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.44(5 220 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.48(5 240 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.149(5 745 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.157(5 785 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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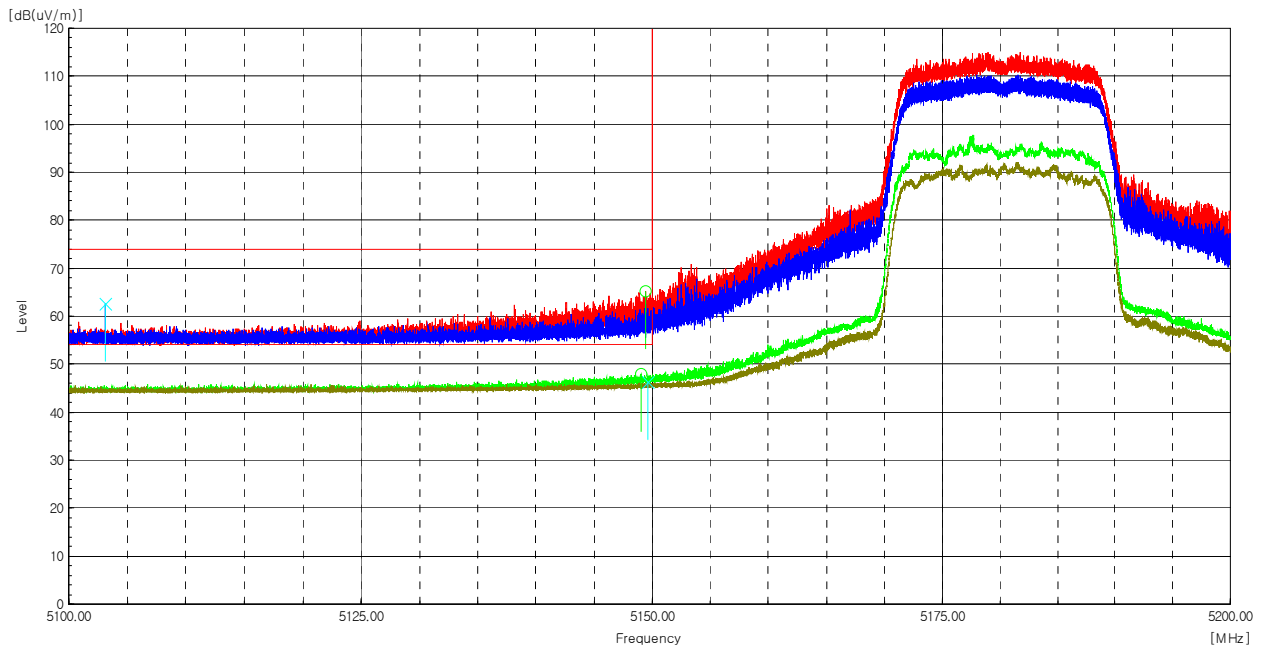
The emissions above 1 GHz were 20 dB lower than the limit.

Ch.165(5 825 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

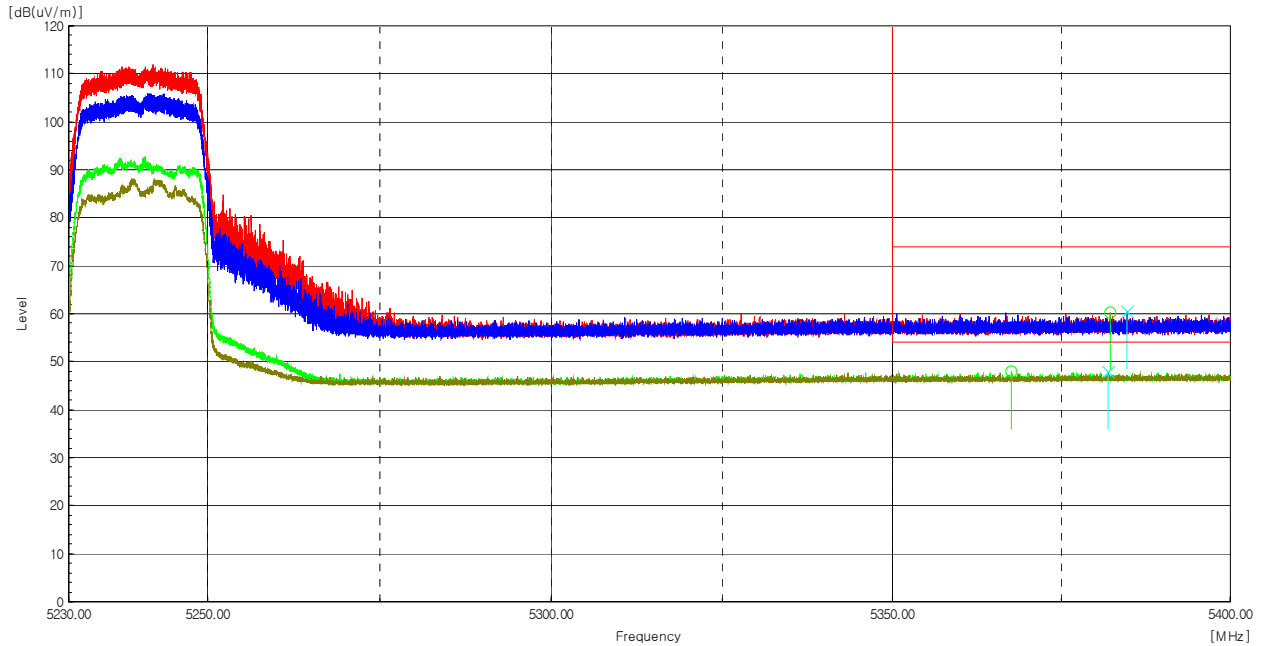
Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 180 MHz
Channel :	36



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5149.6	V	43.5	2.8	0.30	-----	46.6	-----	54.0	-----	7.4	Average
5149.4	H	62.3	2.8	-----	65.1	-----	74.0	-----	8.9	-----	Peak
5149.0	H	45.1	2.8	0.30	-----	48.2	-----	54.0	-----	5.8	Average
5103.1	V	59.9	2.8	-----	62.7	-----	74.0	-----	11.3	-----	Peak

Radiated Restricted Band Edge Plot

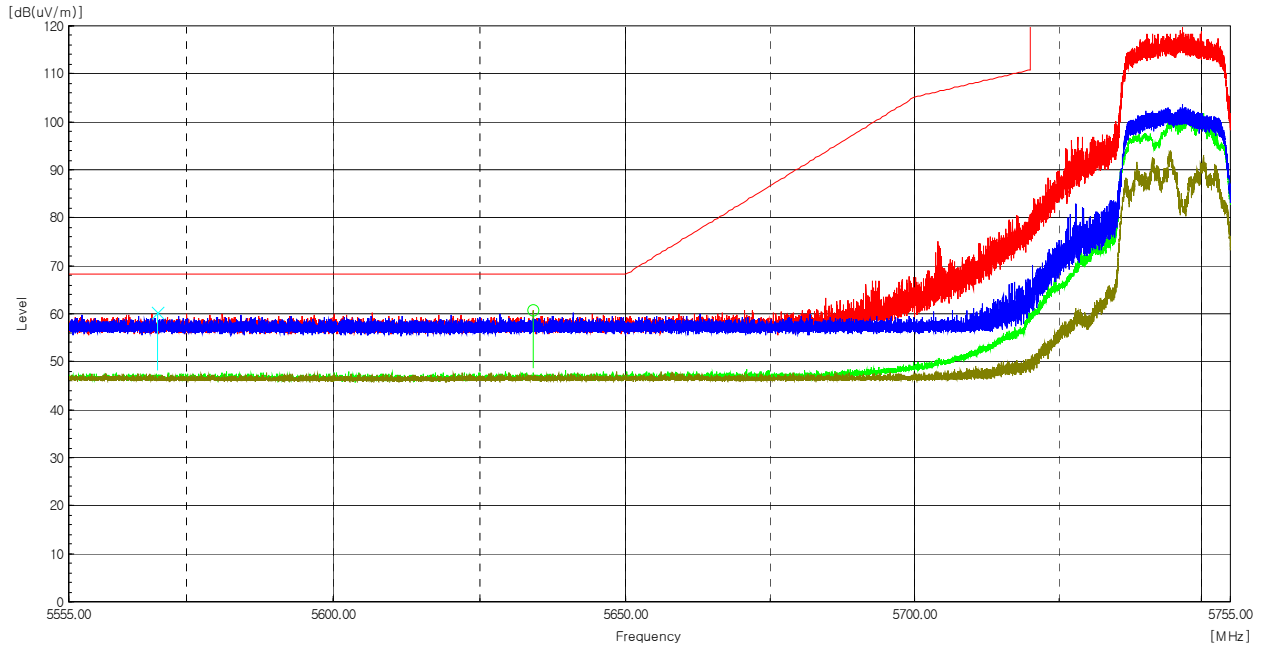
Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 240 MHz
Channel :	48



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5367.5	H	44.5	3.4	0.30	-----	48.2	-----	54.0	-----	5.8	Average
5381.9	V	44.3	3.5	0.30	-----	48.1	-----	54.0	-----	5.9	Average
5382.2	H	56.8	3.5	-----	60.3	-----	74.0	-----	13.7	-----	Peak
5384.6	V	56.9	3.5	-----	60.4	-----	74.0	-----	13.6	-----	Peak

Radiated Restricted Band Edge Plot

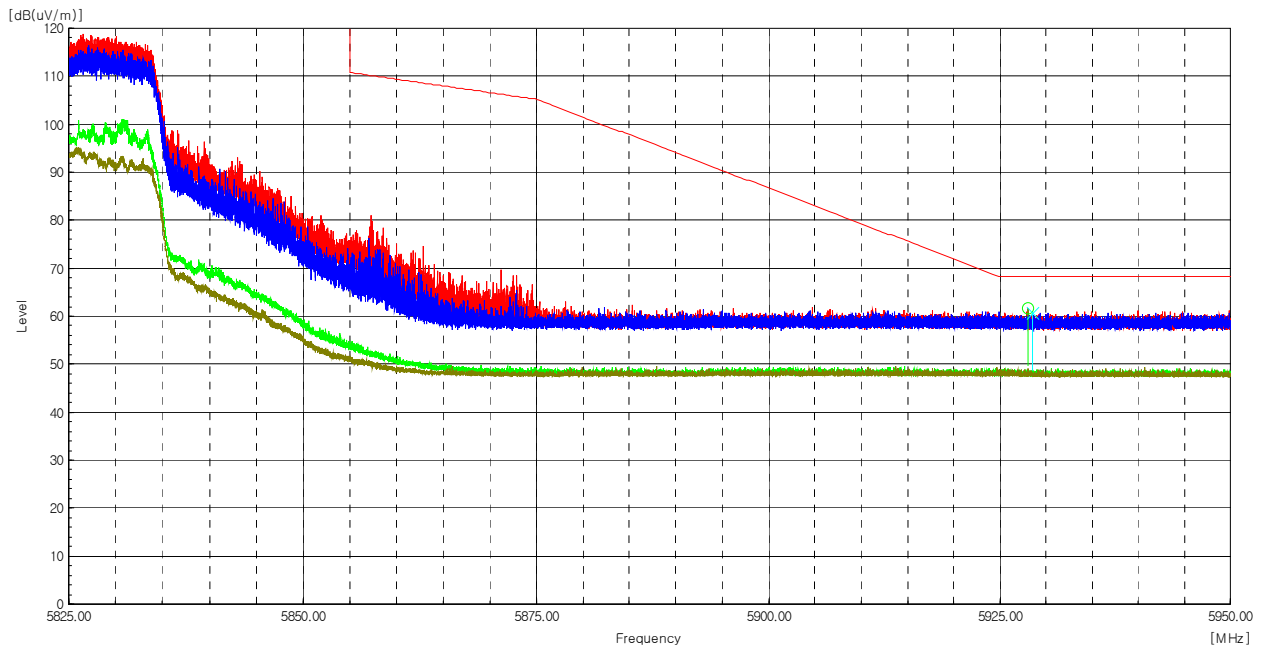
Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 745 MHz
Channel :	149



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5570.0	V	56.0	4.2	-----	60.2	-----	68.2	-----	8.0	-----	Peak
5634.1	H	56.3	4.3	-----	60.6	-----	68.2	-----	7.6	-----	Peak

Radiated Restricted Band Edge Plot

Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 825 MHz
Channel :	165



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1 / m)]	Duty Cycle Factor [dB]	Level PK [dB(uV / m)]	Level AV [dB(uV / m)]	Limit PK [dB(uV / m)]	Limit AV [dB(uV / m)]	Margin PK [dB]	Margin AV [dB]	Note
5928.1	H	56.6	5.1	-----	61.7	-----	68.2	-----	6.5	-----	Peak
5928.6	V	55.7	5.1	-----	60.8	-----	68.2	-----	7.4	-----	Peak

Radiated Restricted Band Edge Plot

Remarks

- 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(Y axis) and the worst case was recorded.
- Peak Result = Reading + c.f(Correction factor)
Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
- Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter, 802.11n_HT40

The requirements are:

☒ Complies

Test Data

Ch.38(5 190 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.46(5 230 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.151(5 755 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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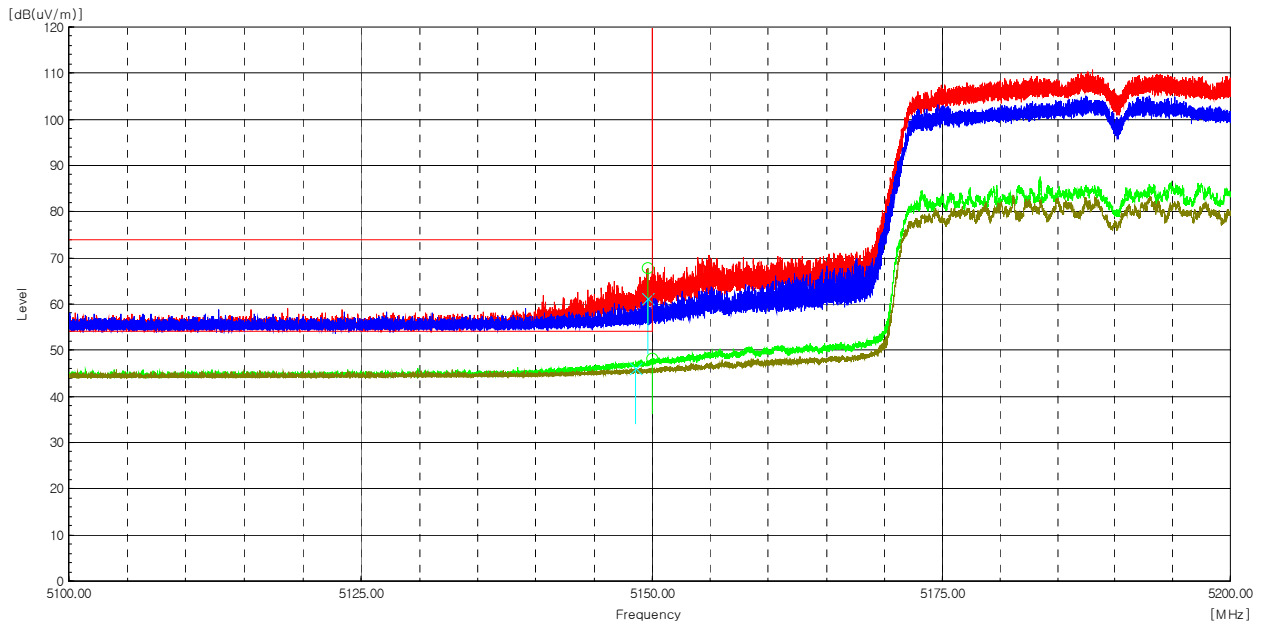
The emissions above 1 GHz were 20 dB lower than the limit.

Ch.159(5 795 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

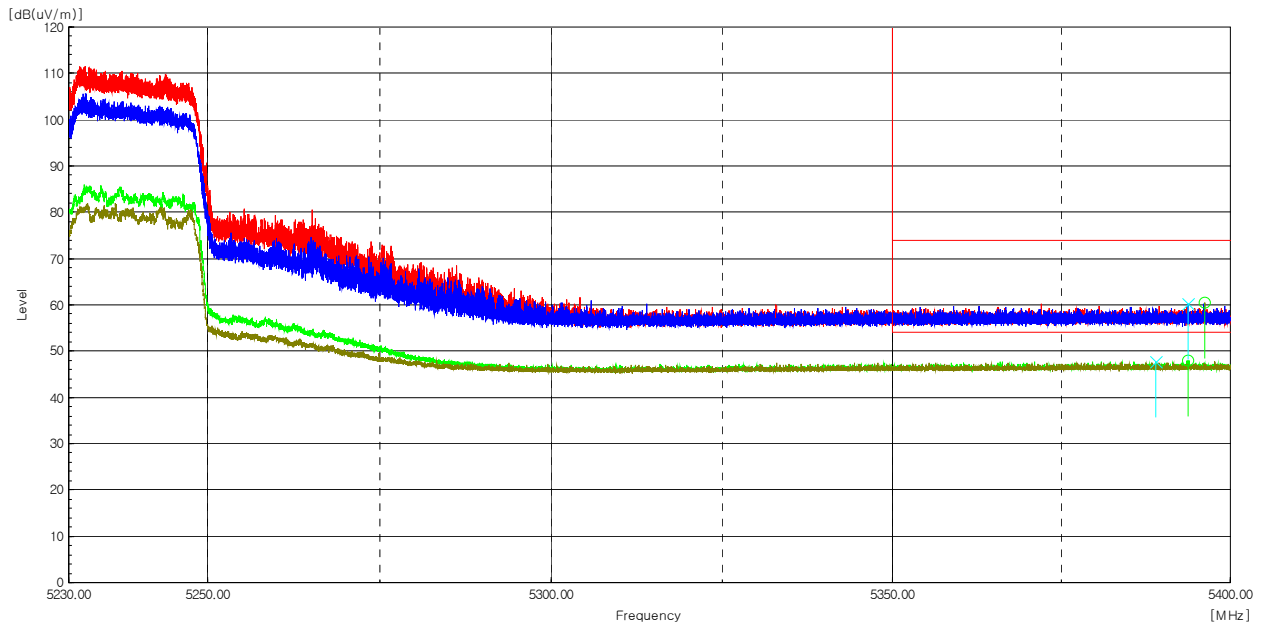
Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 190 MHz
Channel :	38



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5148.6	V	43.3	2.8	0.97	-----	47.1	-----	54.0	-----	6.9	Average
5149.6	H	64.9	2.8	-----	67.7	-----	74.0	-----	6.3	-----	Peak
5149.7	V	58.3	2.8	-----	61.1	-----	74.0	-----	12.9	-----	Peak
5150.0	H	45.4	2.8	0.97	-----	49.2	-----	54.0	-----	4.8	Average

Radiated Restricted Band Edge Plot

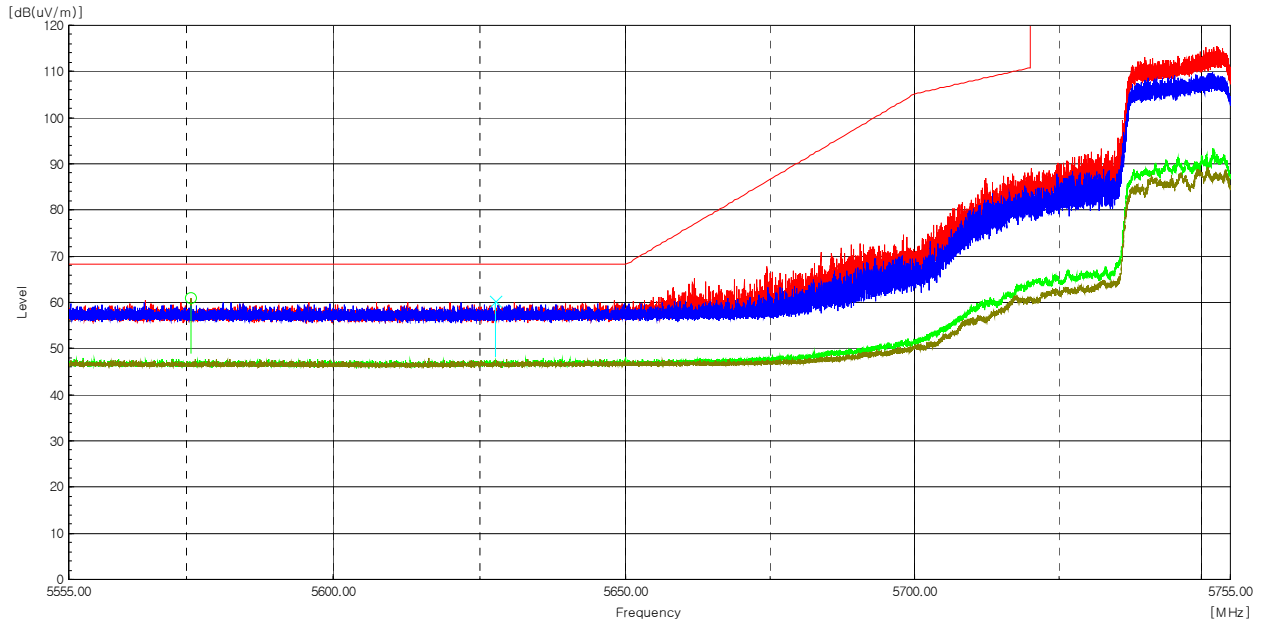
Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 230 MHz
Channel :	46



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5389.0	V	44.3	3.5	0.97	48.8	-----	54.0	-----	-----	5.2	Average
5393.7	H	44.4	3.5	0.97	48.9	-----	54.0	-----	-----	5.1	Average
5393.7	V	56.7	3.5	-----	-----	74.0	-----	13.8	13.8	-----	Peak
5396.2	H	56.9	3.5	-----	-----	74.0	-----	13.6	13.6	-----	Peak

Radiated Restricted Band Edge Plot

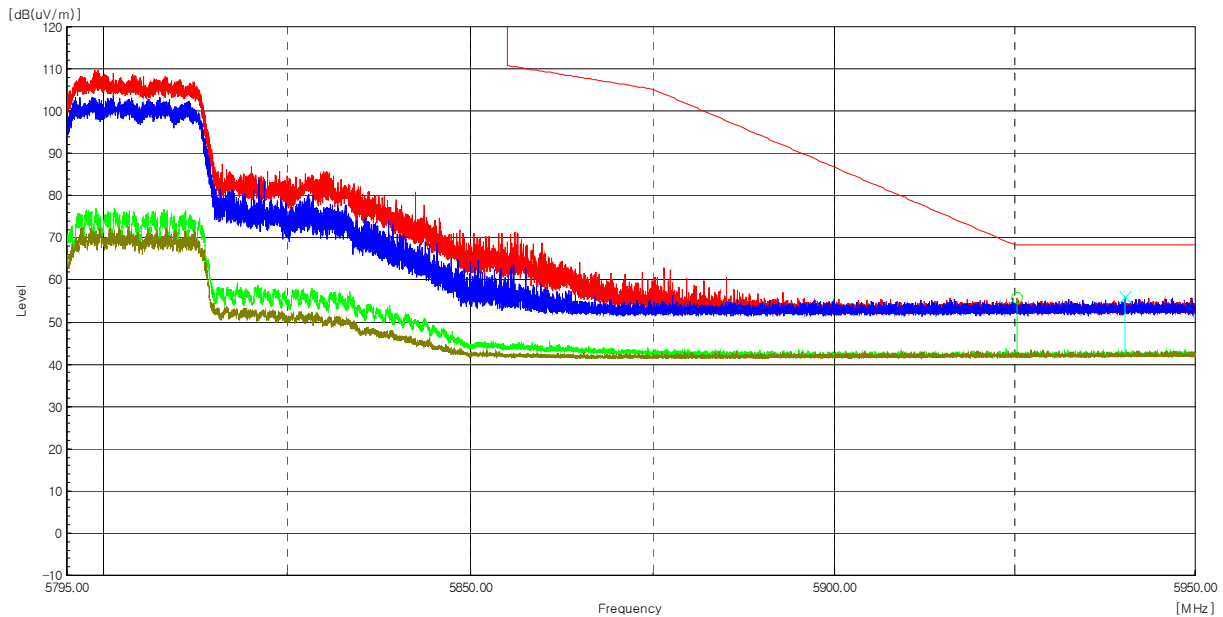
Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 755 MHz
Channel :	151



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5575.6	H	56.7	4.2	-----	60.9	-----	68.2	-----	7.3	-----	Peak
5627.7	V	56.0	4.3	-----	60.3	-----	68.2	-----	7.9	-----	Peak

Radiated Restricted Band Edge Plot

Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 795 MHz
Channel :	159



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5926.2	H	56.3	5.2	-----	61.5	-----	68.2	-----	6.7	-----	Peak
5936.3	V	56.9	5.1	-----	62.0	-----	68.2	-----	6.2	-----	Peak

Radiated Restricted Band Edge Plot

Remarks

- 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(Y axis) and the worst case was recorded.
- Peak Result = Reading + c.f(Correction factor)
Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
- Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter, 802.11ac_VHT40

The requirements are:

☒ Complies

Test Data

Ch.38(5 190 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.46(5 230 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

Ch.151(5 755 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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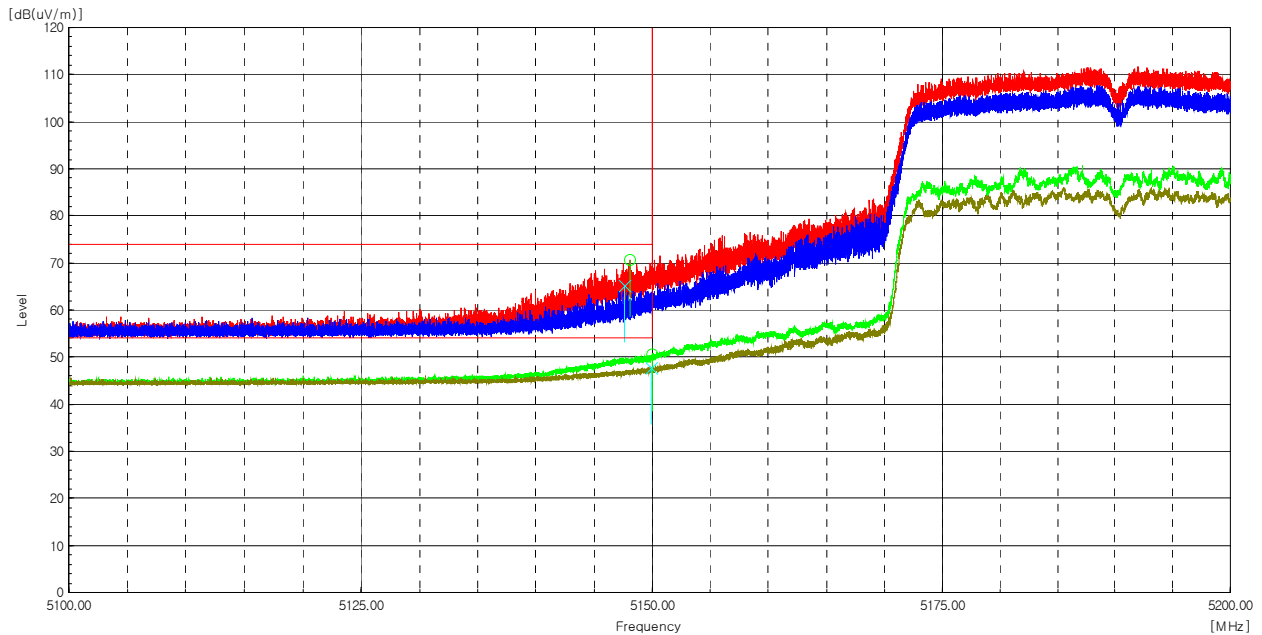
The emissions above 1 GHz were 20 dB lower than the limit.

Ch.159(5 795 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

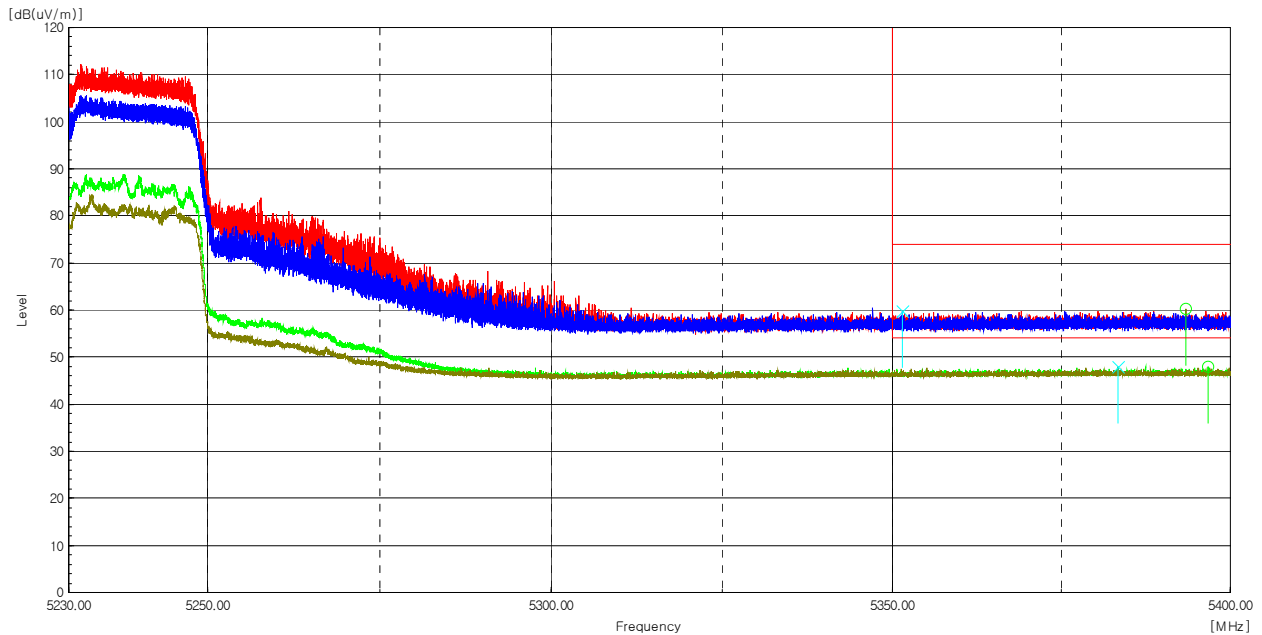
Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 190 MHz
Channel :	38



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5147.6	V	62.3	2.8	-----	65.1	-----	74.0	-----	8.9	-----	Peak
5148.0	H	67.8	2.8	-----	70.6	-----	74.0	-----	3.4	-----	Peak
5149.9	V	45.0	2.8	0.55	-----	48.4	-----	54.0	-----	5.6	Average
5150.0	H	47.7	2.8	0.55	-----	50.9	-----	54.0	-----	2.6	Average

Radiated Restricted Band Edge Plot

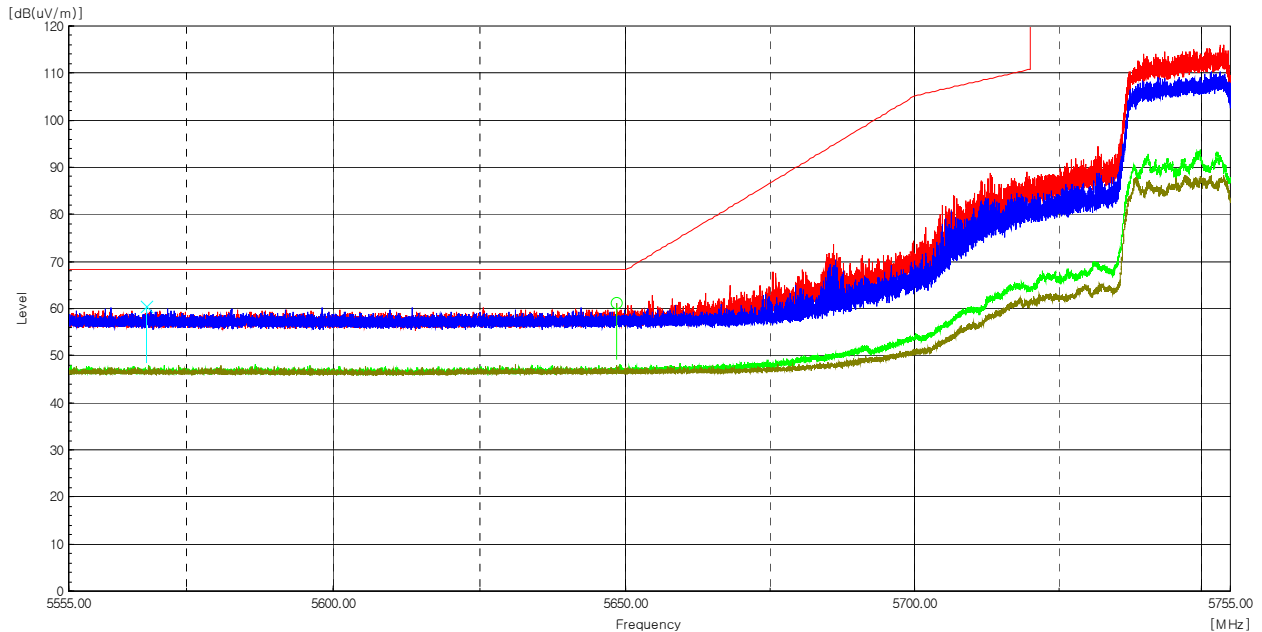
Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 230 MHz
Channel :	46



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5351.4	V	56.3	3.4	-----	59.7	-----	74.0	-----	14.3	-----	Peak
5383.4	V	44.5	3.5	0.55	-----	48.6	-----	54.0	-----	5.4	Average
5393.5	H	56.8	3.5	-----	60.3	-----	74.0	-----	13.7	-----	Peak
5396.7	H	44.5	3.5	0.55	-----	48.6	-----	54.0	-----	5.4	Average

Radiated Restricted Band Edge Plot

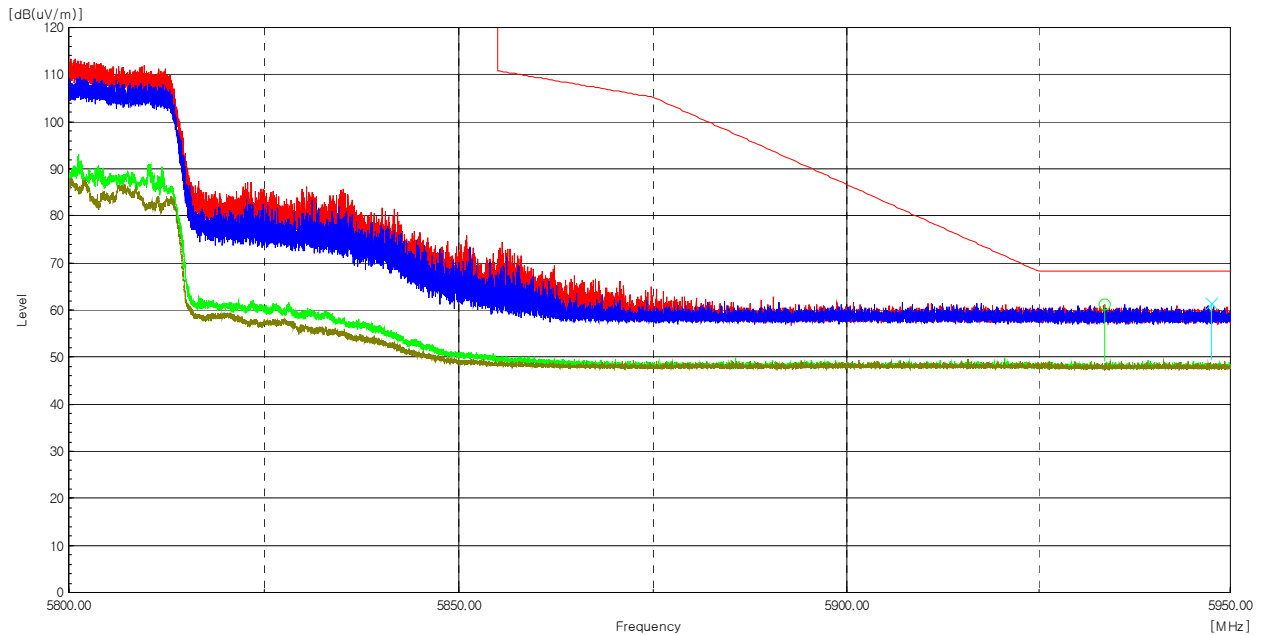
Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 755 MHz
Channel :	151



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5568.2	V	56.2	4.2	-----	60.4	-----	68.2	-----	7.8	-----	Peak
5648.4	H	56.8	4.3	-----	61.1	-----	68.2	-----	7.1	-----	Peak

Radiated Restricted Band Edge Plot

Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 795 MHz
Channel :	159



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5933.6	H	56.1	5.1	-----	61.2	-----	68.2	-----	7.0	-----	Peak
5947.5	V	56.4	5.1	-----	61.5	-----	68.2	-----	6.7	-----	Peak

Radiated Restricted Band Edge Plot

Remarks

- 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(Y axis) and the worst case was recorded.
- Peak Result = Reading + c.f(Correction factor)
Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
- Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter, 802.11ac_VHT80

The requirements are:
☒ Complies

Test Data

Ch.44(5 210 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1 / m)]	Duty Cycle Factor [dB]	Level PK [dB(uV / m)]	Level AV [dB(uV / m)]	Limit PK [dB(uV / m)]	Limit AV [dB(uV / m)]	Margin PK [dB]	Margin AV [dB]	Note
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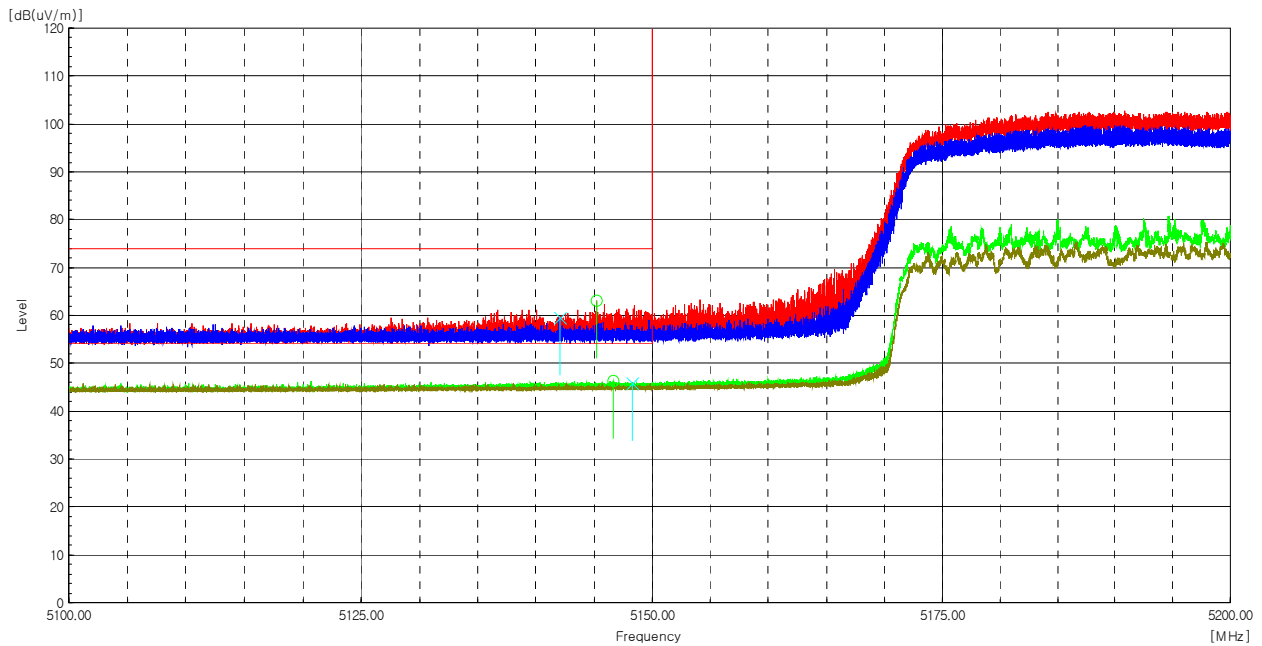
The emissions above 1 GHz were 20 dB lower than the limit.

Ch.155(5 775 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1 / m)]	Duty Cycle Factor [dB]	Level PK [dB(uV / m)]	Level AV [dB(uV / m)]	Limit PK [dB(uV / m)]	Limit AV [dB(uV / m)]	Margin PK [dB]	Margin AV [dB]	Note
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The emissions above 1 GHz were 20 dB lower than the limit.

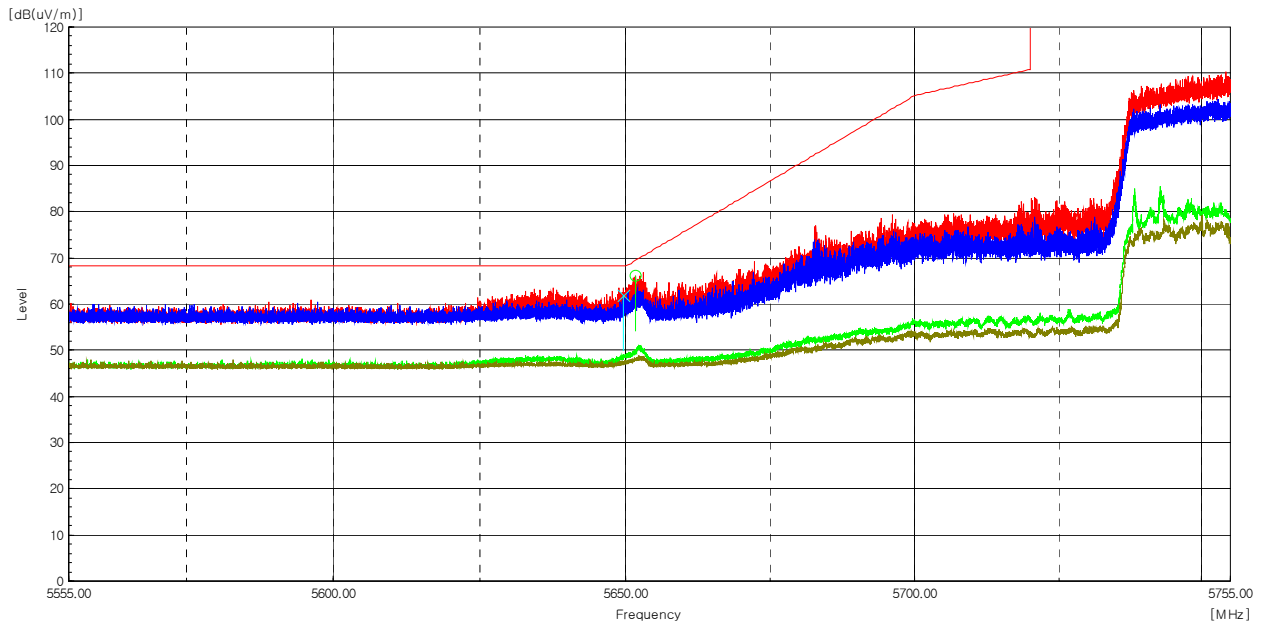
Worst Case Mode :	802.11ac_VHT80
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 210 MHz
Channel :	42



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5142.0	V	56.6	2.8	-----	59.4	-----	74.0	-----	14.6	-----	Peak
5145.3	H	60.4	2.8	-----	63.2	-----	74.0	-----	10.8	-----	Peak
5146.6	H	43.5	2.8	1.07	-----	47.4	-----	54.0	-----	6.6	Average
5148.3	V	43.1	2.8	1.07	-----	47.0	-----	54.0	-----	7.0	Average

Radiated Restricted Band Edge Plot

Worst Case Mode :	802.11ac_VHT80
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 775 MHz
Channel :	155



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
5649.6	V	57.7	4.3	-----	62.0	-----	6.2	-----	6.2	-----	Peak
5651.8	H	61.7	4.3	-----	66.0	-----	3.5	-----	3.5	-----	Peak

Radiated Restricted Band Edge Plot

Remarks

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

4.7 AC Conducted Emissions

Test Location

Shielded Room

Frequency Range of Measurement

150 kHz to 30 MHz

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

- 15.207(a)

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

* Decreases with the logarithm of the frequency.

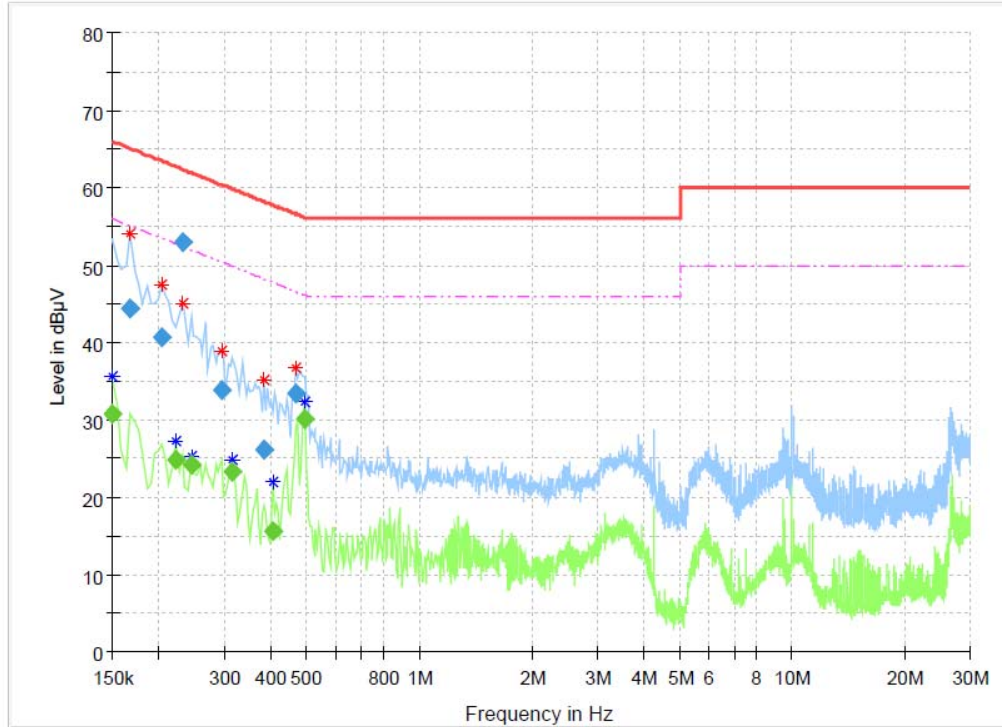
Test Results

The requirements are:

☒ Complies

Test Data

[Worst Case - 802.11ac_VHT40]



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.150000	---	30.77	56.00	25.23	15000.0	9.000	N	ON	9.8
0.168000	44.30	---	65.06	20.76	15000.0	9.000	N	ON	10.0
0.204000	40.73	---	63.45	22.72	15000.0	9.000	N	ON	9.9
0.222000	---	24.86	52.74	27.88	15000.0	9.000	L1	ON	9.8
0.231000	52.94	---	62.41	9.48	15000.0	9.000	L1	ON	9.8
0.244500	---	24.26	51.94	27.68	15000.0	9.000	L1	ON	9.8
0.294000	33.76	---	60.41	26.65	15000.0	9.000	L1	ON	9.8
0.316500	---	23.39	49.80	26.41	15000.0	9.000	L1	ON	9.9
0.384000	26.24	---	58.19	31.96	15000.0	9.000	L1	ON	9.9
0.406500	---	15.55	47.72	32.17	15000.0	9.000	N	ON	9.9
0.465000	33.46	---	56.60	23.14	15000.0	9.000	L1	ON	9.9
0.492000	---	30.13	46.13	16.00	15000.0	9.000	L1	ON	9.9

APPENDIX A – Test Equipment Used For Tests

	Name of Equipment	Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date
1	Signal Analyzer	Agilent	N9020A	MY50200512	2023-04-06	2024-04-06
2	Signal Analyzer	Agilent	N9020A	MY46471102	2023-12-05	2024-12-05
3	Signal Generator	Rohde & Schwarz	SMB100A	175528	2023-03-22	2024-03-22
4	EMI TEST RECEIVER	Rohde & Schwarz	ESW44	102039	2023-05-03	2024-05-03
5	BILOG ANTENNA	TESEQ	CBL6111D	60654	2023-08-21	2025-08-21
6	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-125	2023-04-15	2025-04-15
7	6dB Attenuator	PASTERNAK	PE7AP006-06	L20210504000023	2023-08-04	2024-08-04
8	AMPLIFIER	SONOMA INSTRUMENT	310N	411011	2023-08-04	2024-08-04
9	Spectrum Analyzer	R&S	FSV40	101574	2023-01-11	2024-01-11
10	PRE AMPLIFIER	HP	8449B	3008A00620	2023-04-21	2024-04-21
11	Double Ridged Guide Antenna	ETS-Lindgren	3115	00078895	2023-04-13	2024-04-13
12	HORN ANTENNA	SCHWARZBECK	BBHA9170	1153	2023-10-19	2024-10-19
13	LOW NOISE AMPLIFIER	TESTEK	TK-PA1840H	210124-L	2023-10-23	2024-10-23
14	Band Reject Filter	Micro Tronics	BRM50702	G233	2023-01-03	2024-01-03
15	EMI Test Receiver	R&S	ESR3	102826	2023-05-03	2024-05-03
16	LISN	R&S	ENV216	102698	2023-05-03	2024-05-03

	Cable	Manufacturer	Model No.	Serial No.	Check Date
1	RF Cable (Conducted)	Junkosha Inc.	MWX221	1512S151	2023-08-21
2	RF Cable (Conducted)	Junkosha Inc.	MWX221	1512S148	2023-08-21
3	RF Cable (Line Conducted)	Canare Corporation	L-5D2W	N/A	2023-03-06
4	RF Cable (9kHz-1GHz Radiated)	Canare Corporation	L-5D2W	N/A	2023-08-23
5	RF Cable (9kHz-1GHz Radiated)	HUBER+SUHNER	SUCOFLEX 104	MY27558/4	2023-08-23
6	RF Cable (1GHz-18GHz Radiated)	Junkosha Inc.	MWX221	2008S246	2023-06-28
7	RF Cable (1GHz-18GHz Radiated)	Rosenberger	NONE	1520.9927.00	2023-06-28
8	RF Cable (1GHz-18GHz Radiated)	Sensorview Co., LTD	9S18	TPC2204060007	2023-06-28
9	RF Cable (18 GHz - 40 GHz Radiated)	Sensorview Co., LTD	9S40	TPC2204060009	2023-06-28
10	RF Cable (18 GHz - 40 GHz Radiated)	Sensorview Co., LTD	9A40	TP210713-001	2023-06-28

-END-