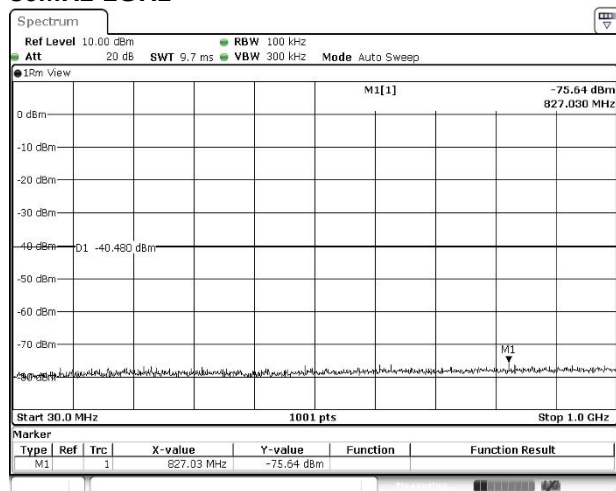


[IEEE802.11n (HT20)]

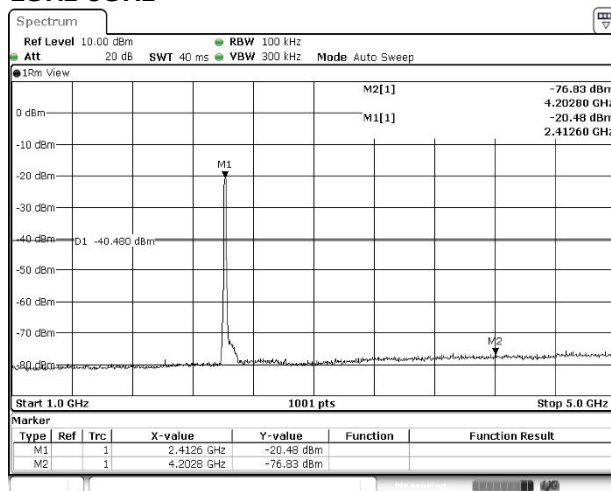
ANT5

Channel Low

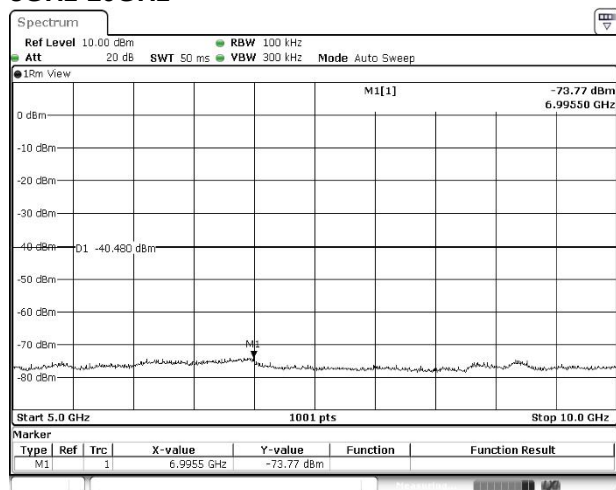
30MHz-1GHz



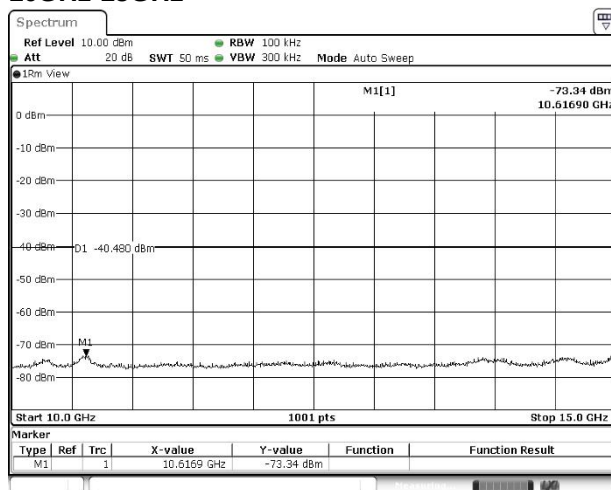
1GHz-5GHz



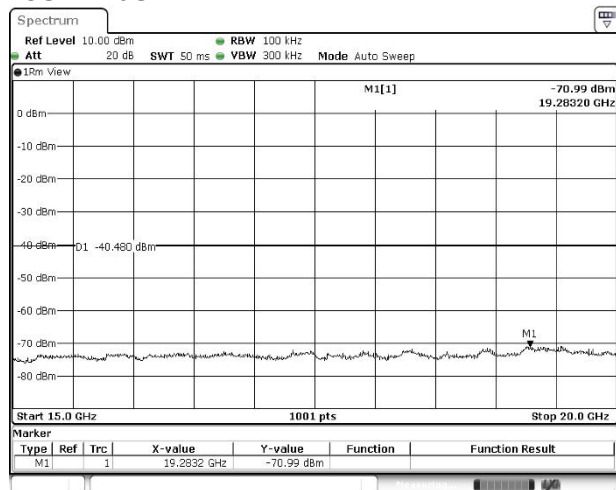
5GHz-10GHz



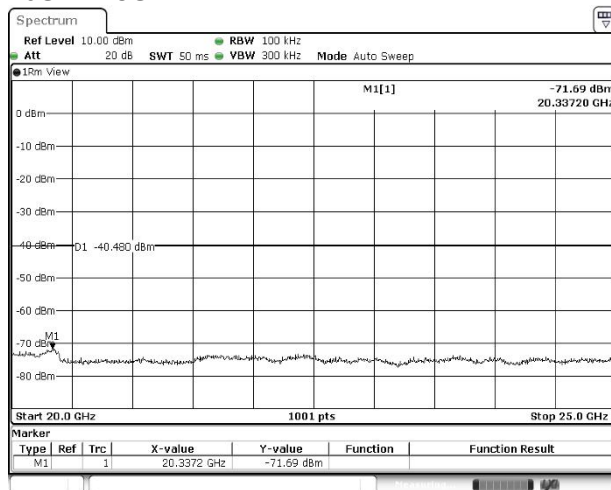
10GHz-15GHz

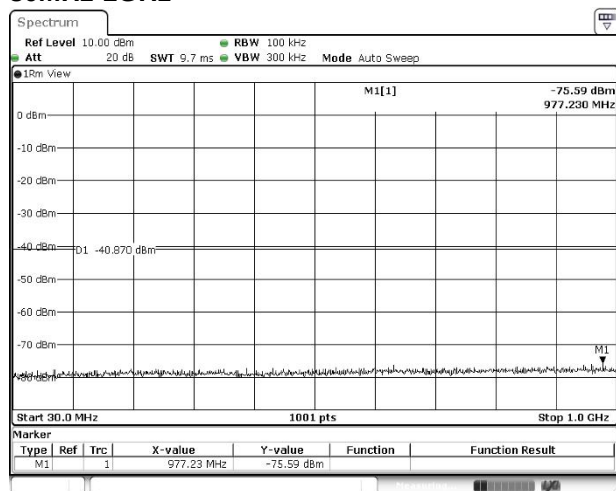
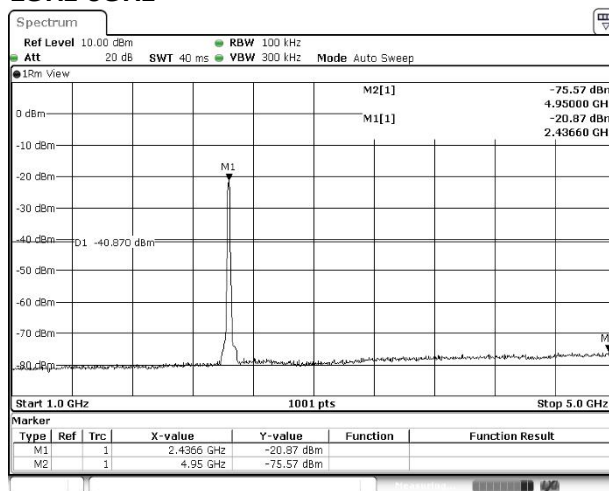
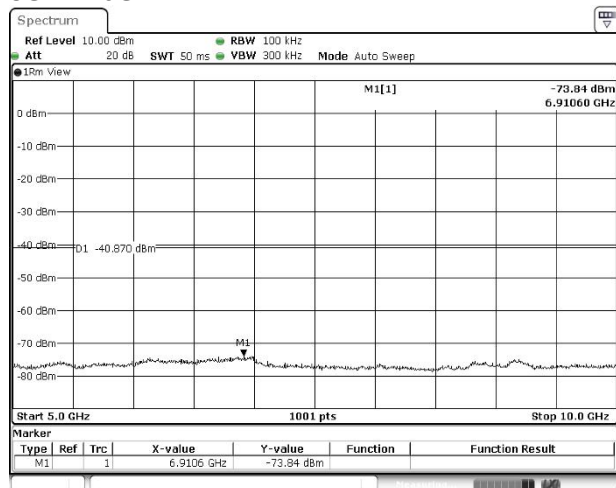
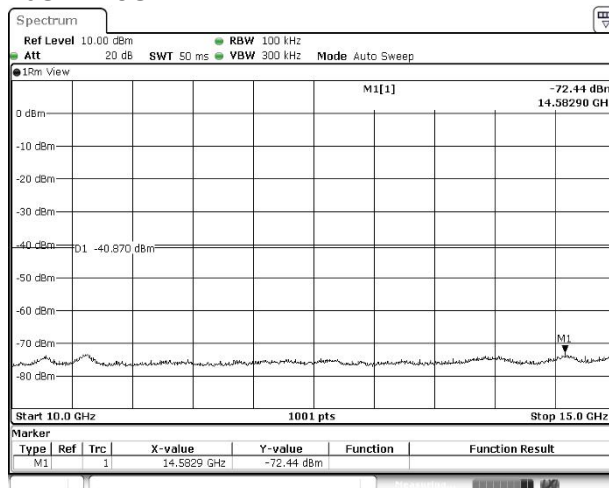
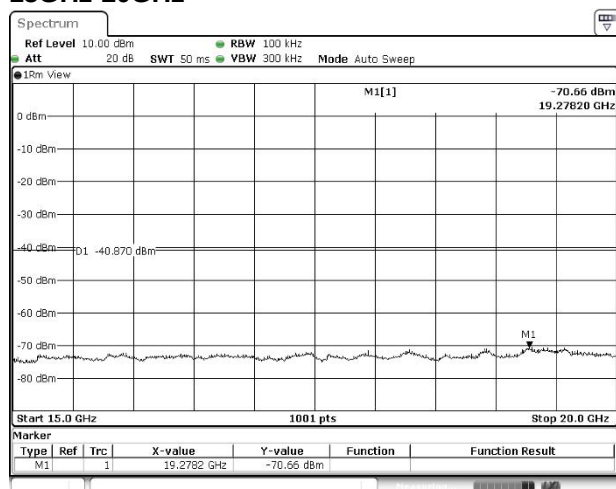
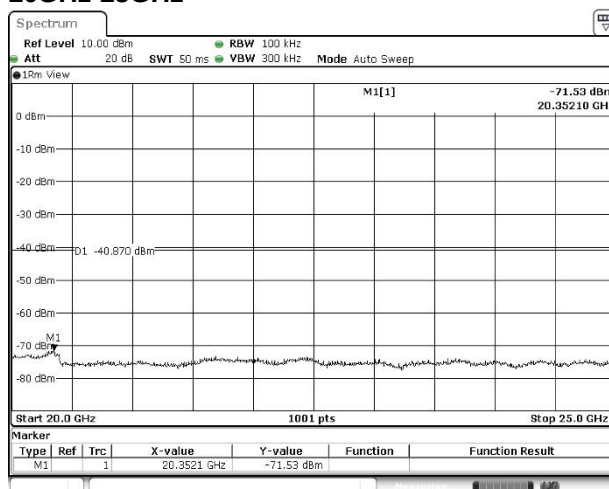


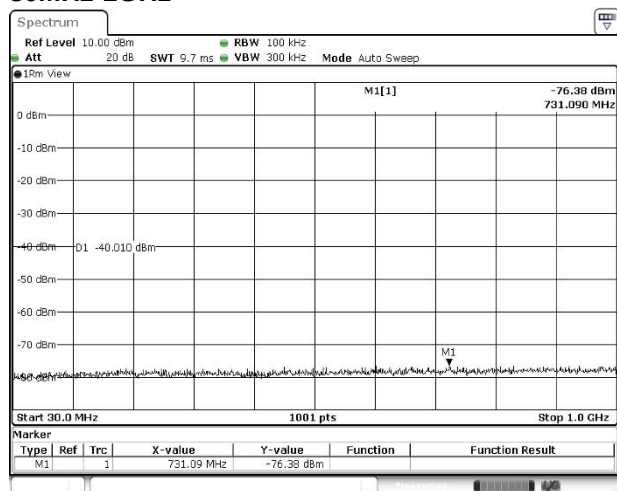
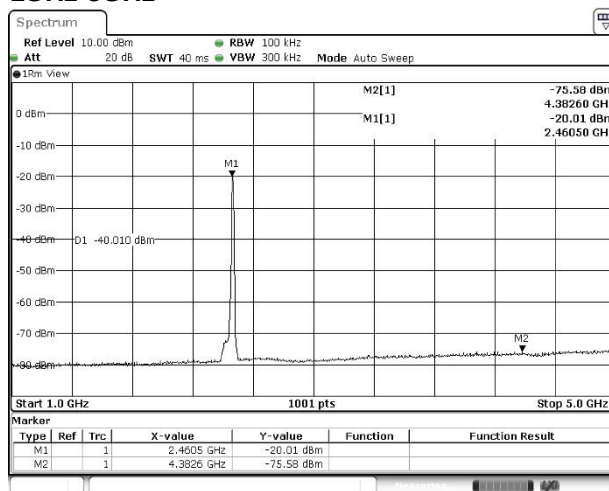
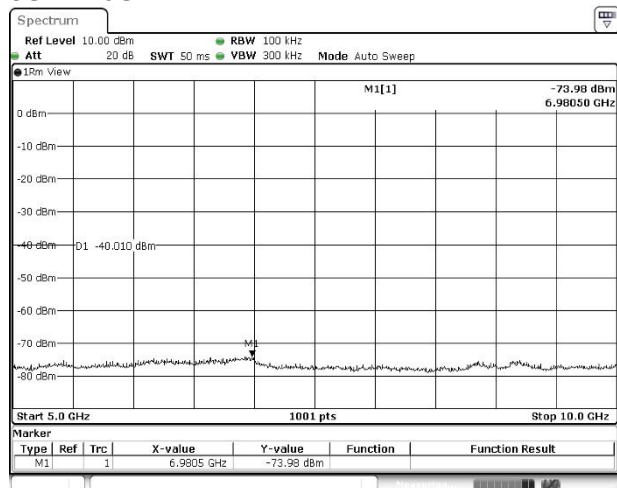
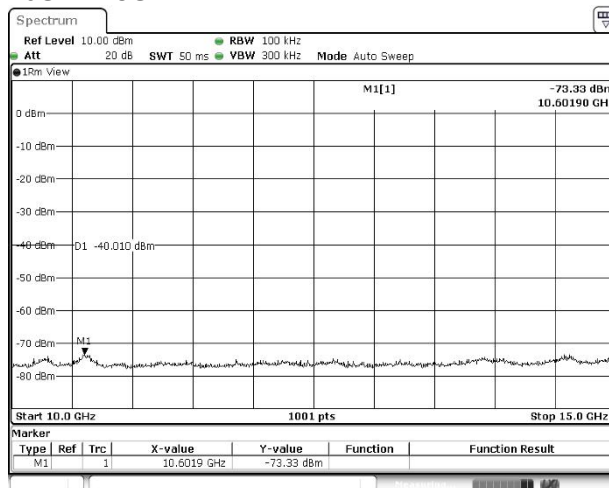
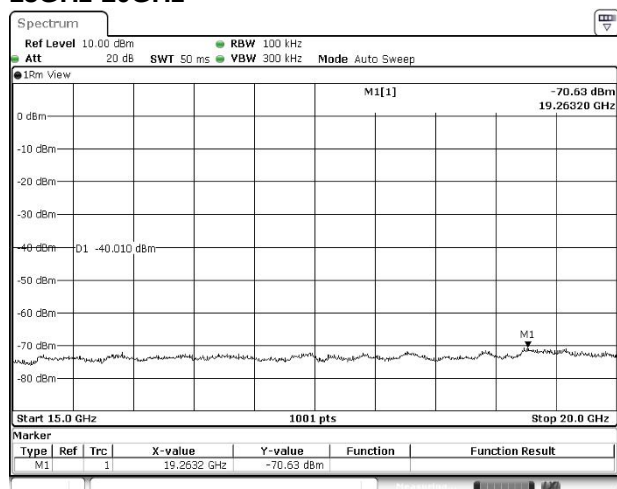
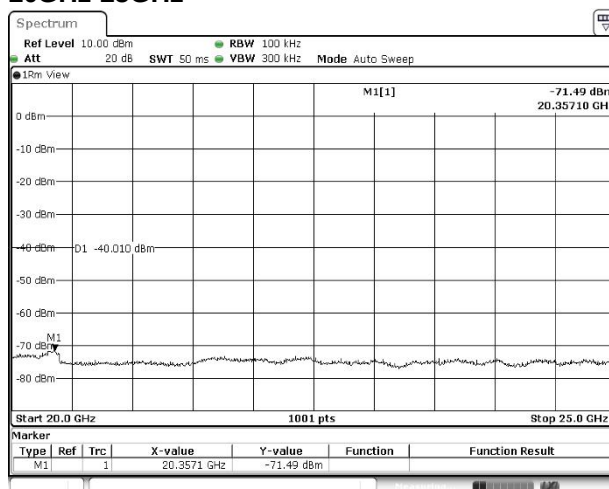
15GHz-20GHz



20GHz-25GHz



Channel Middle
30MHz-1GHz**1GHz-5GHz****5GHz-10GHz****10GHz-15GHz****15GHz-20GHz****20GHz-25GHz**

**Channel High
30MHz-1GHz****1GHz-5GHz****5GHz-10GHz****10GHz-15GHz****15GHz-20GHz****20GHz-25GHz**

4.5 Spurious Emissions - Radiated -

4.5.1 Measurement procedure

[FCC 15.247(d), 15.205, 15.209, KDB 558074 D01 v05r02, Section 8.6]

Test was applied by following conditions.

Test method	: ANSI C63.10
Frequency range	: 9 kHz to 25 GHz
Test place	: 3m Semi-anechoic chamber
EUT was placed on	: Styrofoam table / (W) 1.0 × (D) 1.0 × (H) 0.8 m (below 1 GHz) Styrofoam table / (W) 0.6 × (D) 0.6 × (H) 1.5 m (above 1 GHz)
Antenna distance	: 3 m
Test receiver setting	Below 1 GHz
- Detector	: Average (9 kHz-90 kHz, 110 kHz-490 kHz), Quasi-peak
- Bandwidth	: 200 Hz, 120 kHz
Spectrum analyzer setting	Above 1 GHz
- Peak	: RBW=1 MHz, VBW=3 MHz, Span=0 Hz, Sweep=auto
- Average	: RBW=1 MHz, VBW=1kHz, 3kHz, Span=0 Hz, Sweep=auto Display mode=Linear

Average Measurement Setting [VBW]

Mode	Duty Cycle (%)	T _{on} (us)	T _{off} (us)	1/T _{on} (kHz)	Determined VBW Setting
IEEE802.11b	90.79	946	96	1.057	3kHz
IEEE802.11g	97.40	1346	36	0.743	1kHz
IEEE802.11n(HT20)	97.07	1260	38	0.794	1kHz

Although these tests were performed other than open area test site, adequate comparison measurements

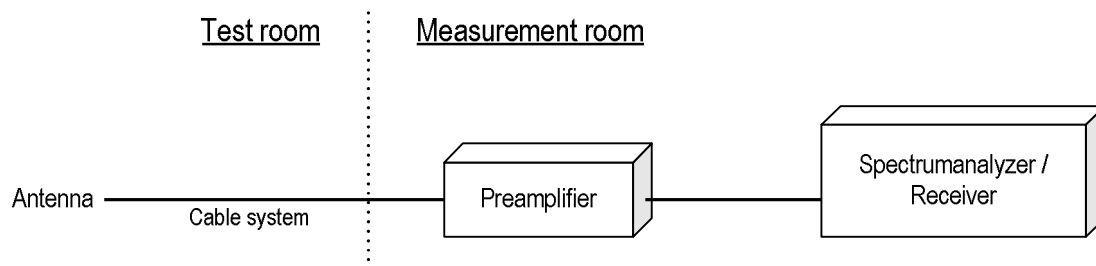
were confirmed against 30 m open area test site.

Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 937606.

Radiated emission measurements are performed at 3m distance with the broadband antenna (Loop antenna, Biconical antenna, Log periodic antenna and Double ridged guide antenna). The antenna is positioned both the horizontal and vertical planes of polarization and height is varied 1m to 4m and stopped at height producing the maximum emission. As for the Loop antenna, it is positioned with its plane vertical, and the center of the Loop antenna is 1m above the ground plane.

The EUT is Placed on a turntable, which is 0.8m/1.5m above ground plane. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. The test results represent the worst case emission for each emission with manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation. Sufficient time for the EUT, support equipment, and test equipment are allowed in order for them to warm up to their normal operating condition.

- Test configuration



4.5.2 Calculation method

[9 kHz to 150 kHz]

Emission level = Reading + (Ant factor + Cable system loss)

Margin = Limit – Emission level

[150 kHz to 25 GHz]

Emission level = Reading + (Ant factor + Cable system loss - Amp. Gain)

Margin = Limit – Emission level

Example:

Limit @ 4824.0 MHz : 74.0 dBuV/m (Peak Limit)

S.A Reading = 49.5 dBuV Cable system loss = 8.4 dB

Result = 49.5 + 8.4 = 45.1 dBuV/m

Margin = 74.0 - 45.1 = 16.1 dB

4.5.3 Limit

Frequency [MHz]	Field strength		Distance [m]
	[uV/m]	[dBuV/m]	
0.009-0.490	2400 / F [kHz]	20logE [uV/m]	300
0.490-1.705	24000 / F [kHz]	20logE [uV/m]	30
1.705-30	30	29.5	30
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level [dBuV/m] = 20log Emission [uV/m]
3. As shown in 15.35(b), for frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition modulation.

4.5.4 Transmission mode

Modulation Type	Mode
IEEE802.11b IEEE802.11g	Simultaneous transmission (ANT3 + ANT5)
IEEE802.11n (HT20)	MIMO (ANT3 + ANT5)

4.5.5 Test data

Date	:	8-December-2020		
Temperature	:	22.6 [°C]		
Humidity	:	26.8 [%]	Test engineer	:
Test place	:	3m Semi-anechoic chamber		<u>Tadahiro Seino</u>
Date	:	9-December-2020		
Temperature	:	22.2 [°C]		
Humidity	:	21.3 [%]	Test engineer	:
Test place	:	3m Semi-anechoic chamber		<u>Chiaki Kanno</u>
Date	:	23-December-2020		
Temperature	:	20.9 [°C]		
Humidity	:	31.8 [%]	Test engineer	:
Test place	:	3m Semi-anechoic chamber		<u>Chiaki Kanno</u>

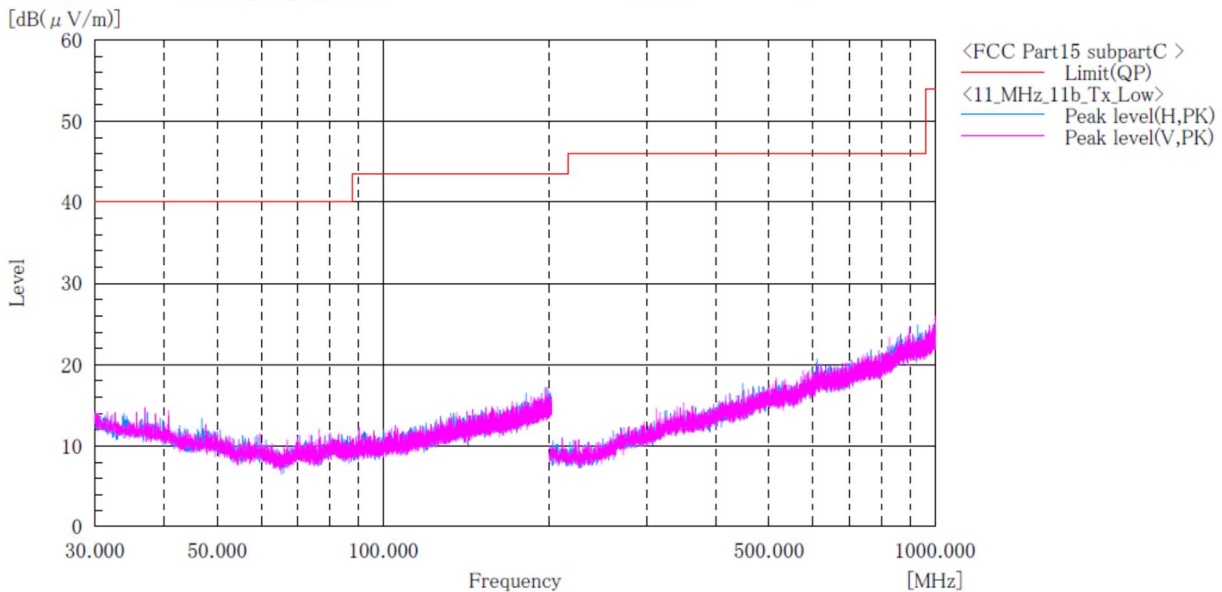
4.5.5.1 Transmission mode

[11b]

Channel Low
BELOW 1GHz

Company name : KYOCERA Corporation
EUT : Mobile Phone
Model No. : EB1065
Serial No. : N/A
Test mode : WLAN_11b_Tx_ch:Low

Standard : FCC Part.15 subpartC
Operator : C.Kanno
Temp,Hum : 22.2[°C] 21.3[%]
Note1 :
Note2 :



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

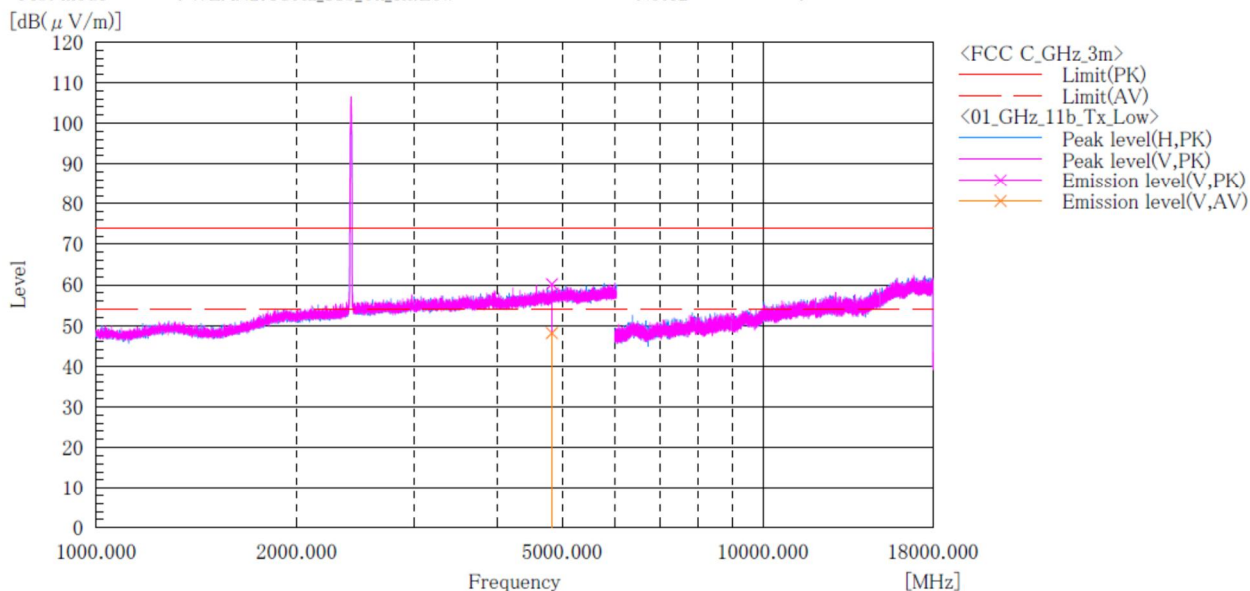
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11b]
Channel Low
ABOVE 1GHz

Company name : KYOCERA Corporation
EUT : Mobile Phone
Model No. : EB1065
Serial No. : N/A
Test mode : WLAN2.4GHz_11b_Tx_ch:Low

Standard : FCC Part.15 subpart C
Operator : T.Seino
Temp,Hum,Atm : 22.6[°C] 26.8[%]
Note1 :
Note2 :



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]	Remark
1	4824.000	V	49.8	37.8	10.4	60.2	48.2	74.0	54.0	13.8	5.8	100.0	283.0	

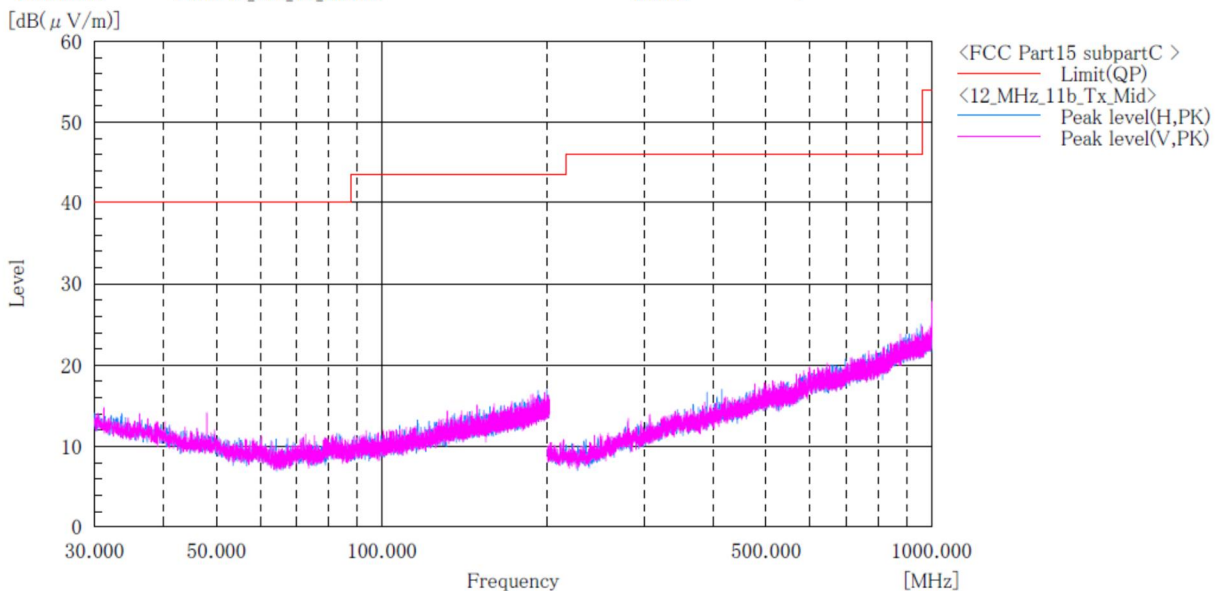
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

[11b]
Channel Middle
BELOW 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11b_Tx_ch:Mid

Standard : FCC Part.15 subpartC
 Operator : C.Kanno
 Temp,Hum : 22.2[°C] 21.3[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

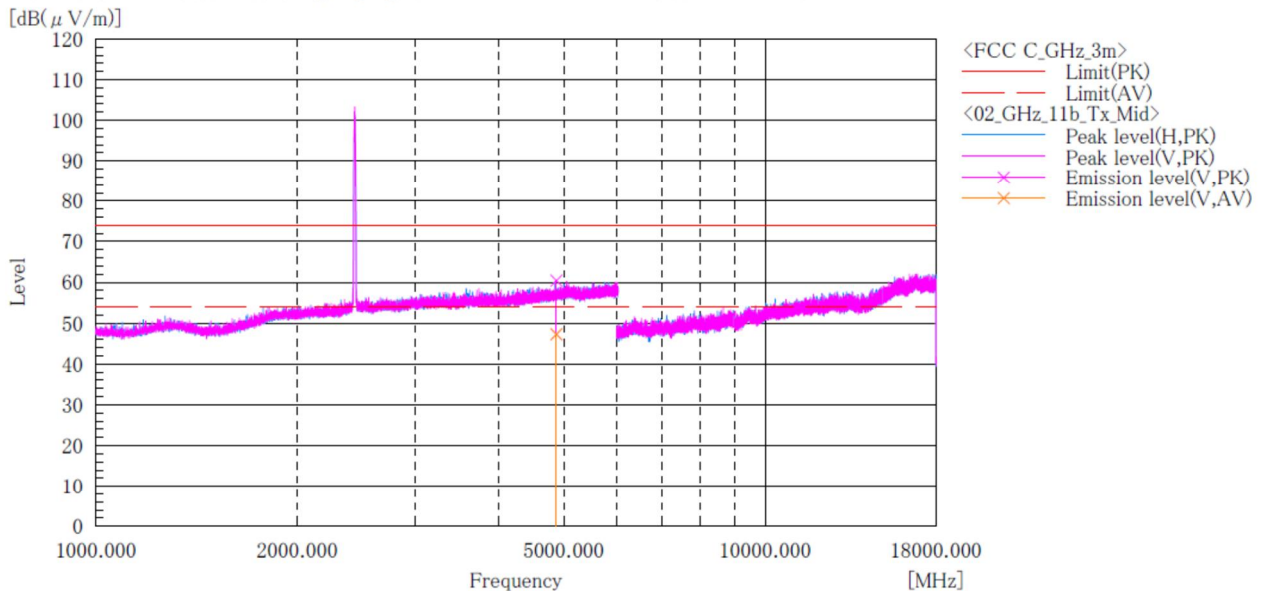
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11b]
Channel Middle
ABOVE 1GHz

Company name : KYOCERA Corporation
EUT : Mobile Phone
Model No. : EB1065
Serial No. : N/A
Test mode : WLAN2.4GHz_11b_Tx_ch:Mid

Standard : FCC Part.15 subpart C
Operator : T.Seino
Temp,Hum,Atm : 22.6[°C] 26.8[%]
Note1 :
Note2 :



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]	Remark
1	4874.000	V	49.9	36.7	10.6	60.5	47.3	74.0	54.0	13.5	6.7	122.0	271.0	

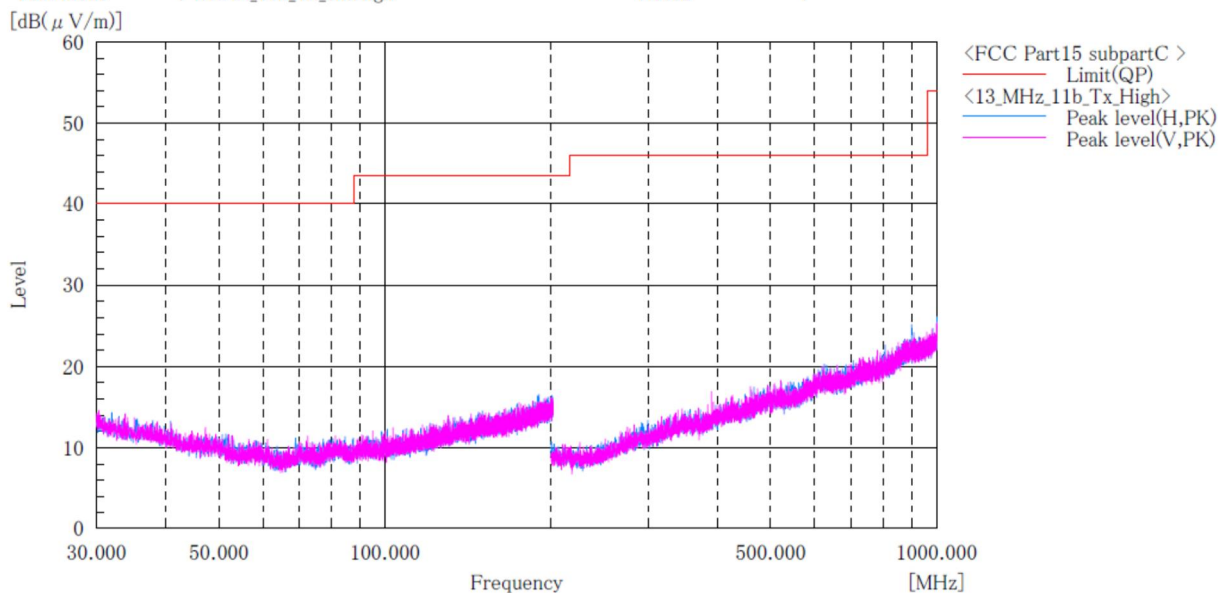
Note:

- Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
- No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

[11b]
Channel High
BELOW 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11b_Tx_ch:High

Standard : FCC Part.15 subpartC
 Operator : C.Kanno
 Temp,Hum : 22.2[°C] 21.3[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

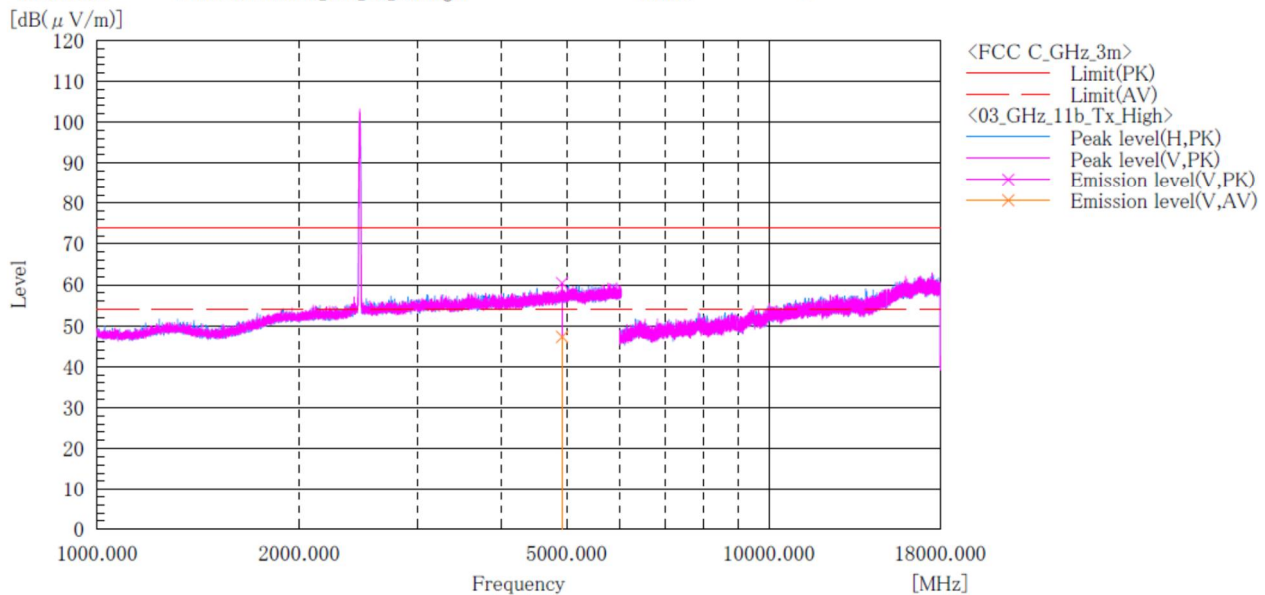
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11b]
Channel High
ABOVE 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN2.4GHz_11b_Tx_ch:High

Standard : FCC Part.15 subpart C
 Operator : T.Seino
 Temp,Hum,Atm : 22.6[°C] 26.8[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]	Remark
1	4924.000	V	49.8	36.6	10.7	60.5	47.3	74.0	54.0	13.5	6.7	125.0	278.0	

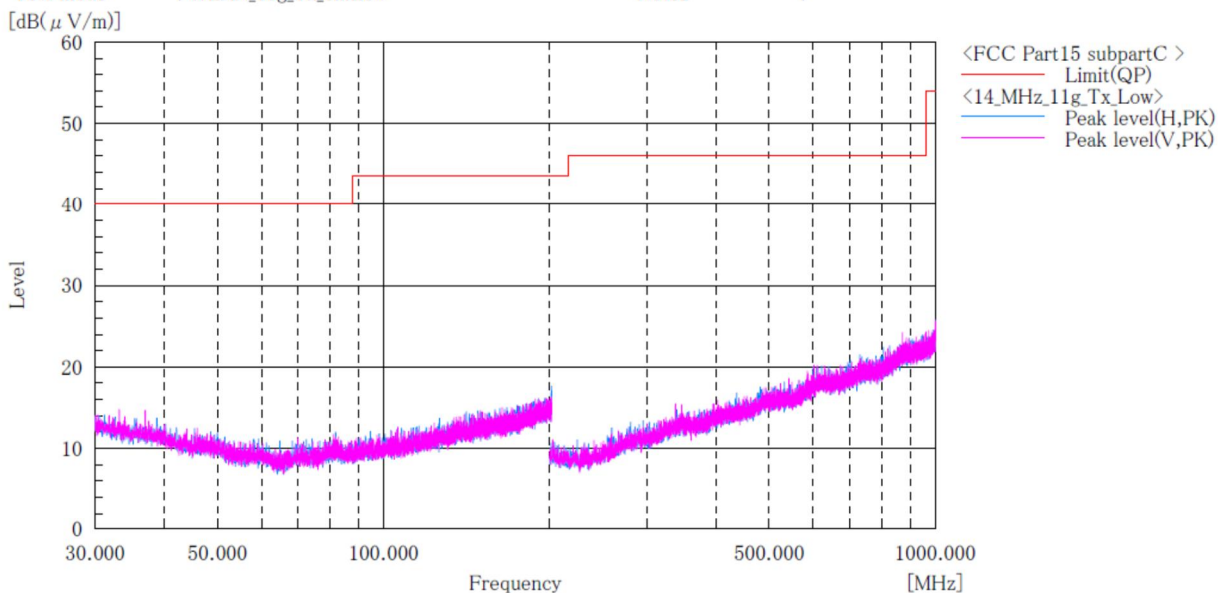
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

[11g]
Channel Low
BELOW 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11g_Tx_ch:Low

Standard : FCC Part.15 subpartC
 Operator : C.Kanno
 Temp,Hum : 22.2[°C] 21.3[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

Note:

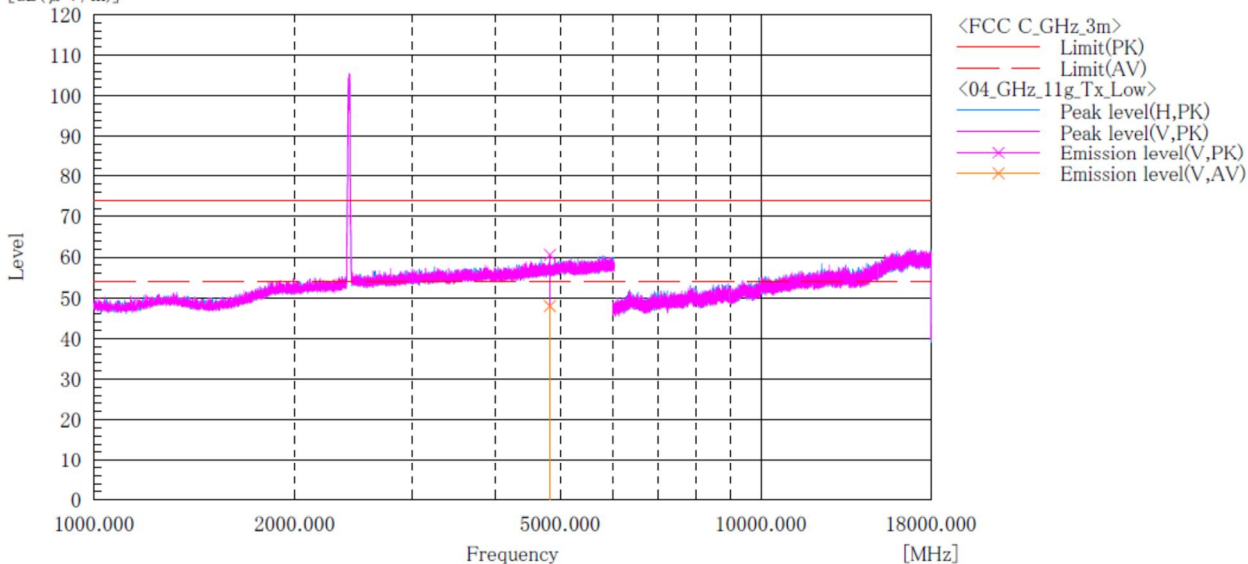
1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11g]
Channel Low
ABOVE 1GHz

Company name : KYOCERA Corporation
EUT : Mobile Phone
Model No. : EB1065
Serial No. : N/A
Test mode : WLAN2.4GHz_11g_Tx_ch:Low

Standard : FCC Part.15 subpart C
Operator : T.Seino
Temp,Hum,Atm : 22.6[°C] 26.8[%]
Note1 :
Note2 :

[dB(μV/m)]



Final Result

No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin	Height	Angle	Remark
	[MHz]		PK	AV		PK	AV	PK	AV	PK	AV			
			[dB(μV)]	[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[dB]	[cm]	[°]	
1	4824.000	V	50.2	37.6	10.4	60.6	48.0	74.0	54.0	13.4	6.0	100.0	280.0	

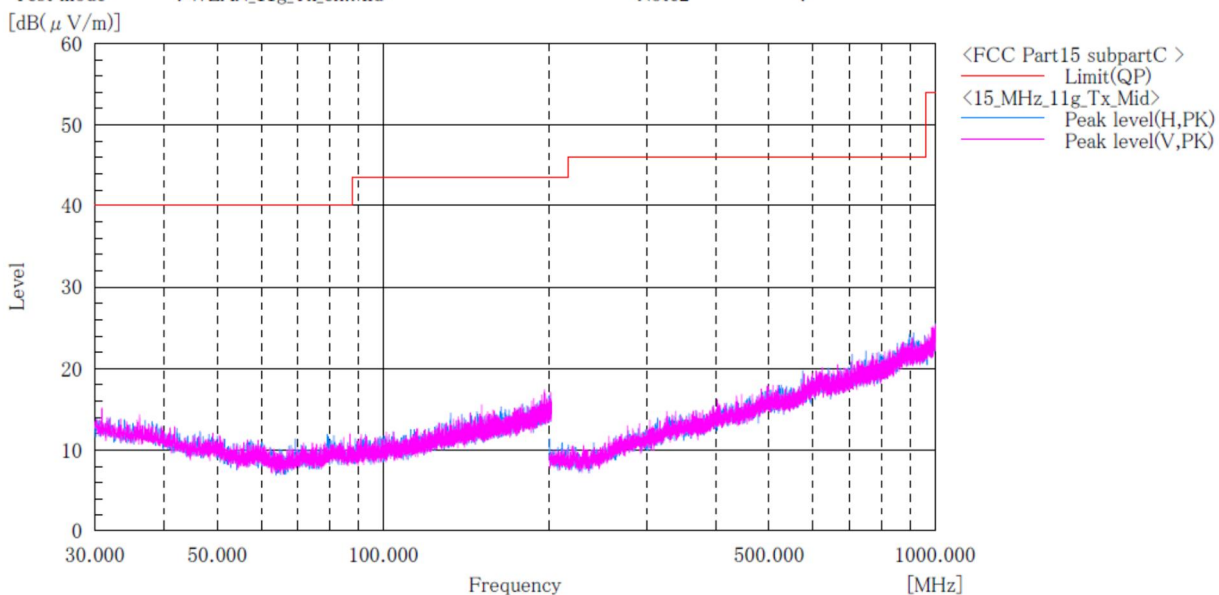
Note:

- Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
- No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

[11g]
Channel Middle
BELOW 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11g_Tx_ch:Mid

Standard : FCC Part.15 subpartC
 Operator : C.Kanno
 Temp,Hum : 22.2[°C] 21.3[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

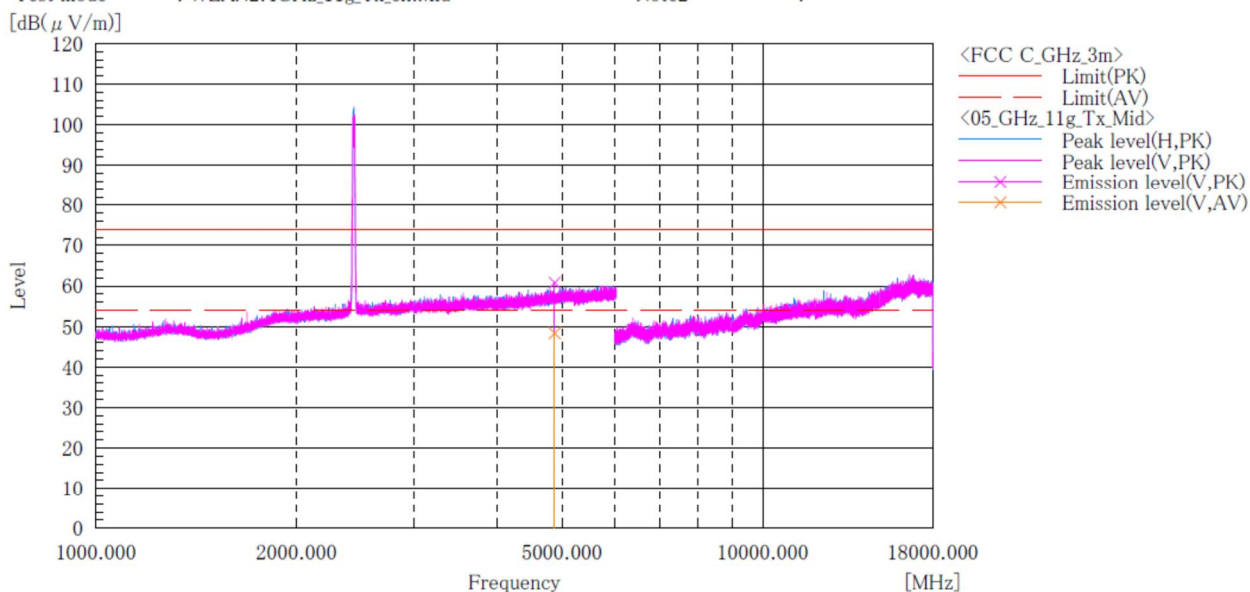
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11g]
Channel Middle
ABOVE 1GHz

Company name : KYOCERA Corporation
EUT : Mobile Phone
Model No. : EB1065
Serial No. : N/A
Test mode : WLAN2.4GHz_11g_Tx_ch:Mid

Standard : FCC Part.15 subpart C
Operator : T.Seino
Temp,Hum,Atm : 22.6[°C] 26.8[%]
Note1 :
Note2 :



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]	Remark
1	4874.000	V	50.2	37.8	10.6	60.8	48.4	74.0	54.0	13.2	5.6	100.0	254.0	

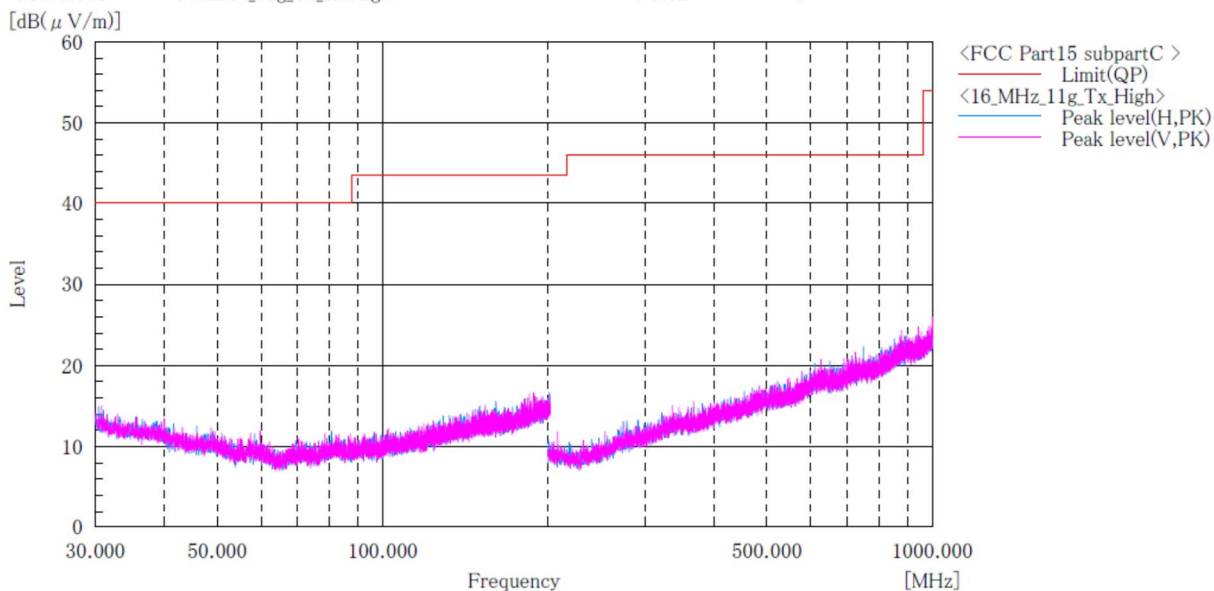
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

[11g]
Channel High
BELOW 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11g_Tx_ch:High

Standard : FCC Part.15 subpartC
 Operator : C.Kanno
 Temp,Hum : 22.2[°C] 21.3[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

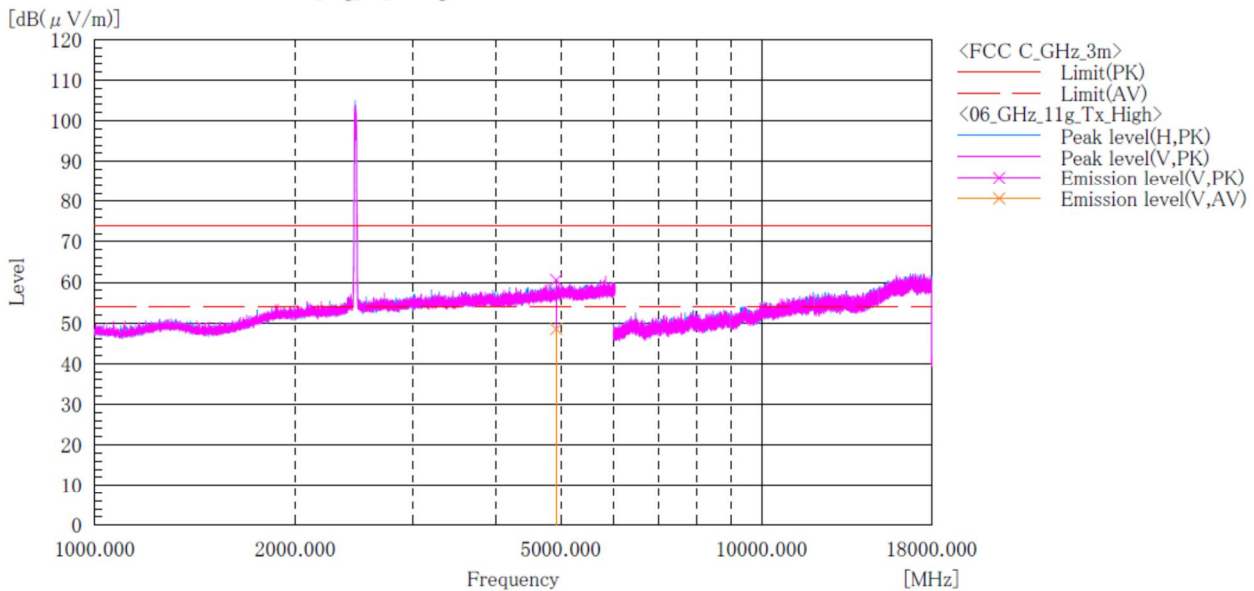
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11g]
Channel High
ABOVE 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN2.4GHz_11g_Tx_ch:High

Standard : FCC Part.15 subpart C
 Operator : T.Seino
 Temp,Hum,Atm : 22.6[°C] 26.8[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]	Remark
1	4924.000	V	49.9	37.8	10.7	60.6	48.5	74.0	54.0	13.4	5.5	117.0	274.0	

Note:

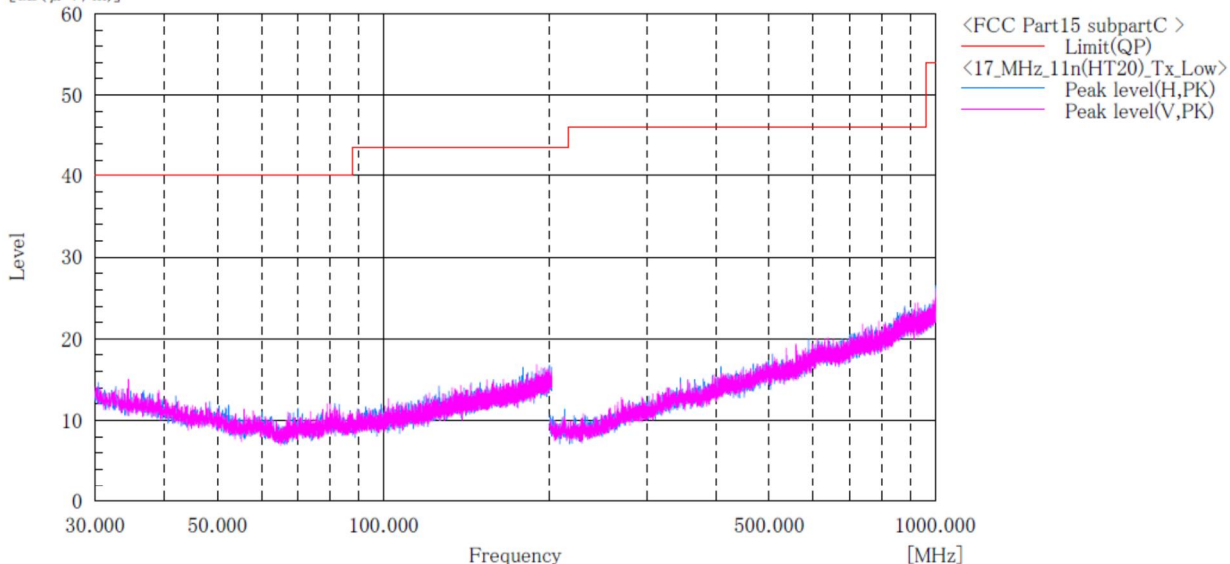
1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

[11n(HT20)]
Channel Low
BELOW 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11n(HT20)_Tx_ch:Low

Standard : FCC Part.15 subpartC
 Operator : C.Kanno
 Temp,Hum : 22.2[°C] 21.3[%]
 Note1 :
 Note2 :

[dB(μV/m)]



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

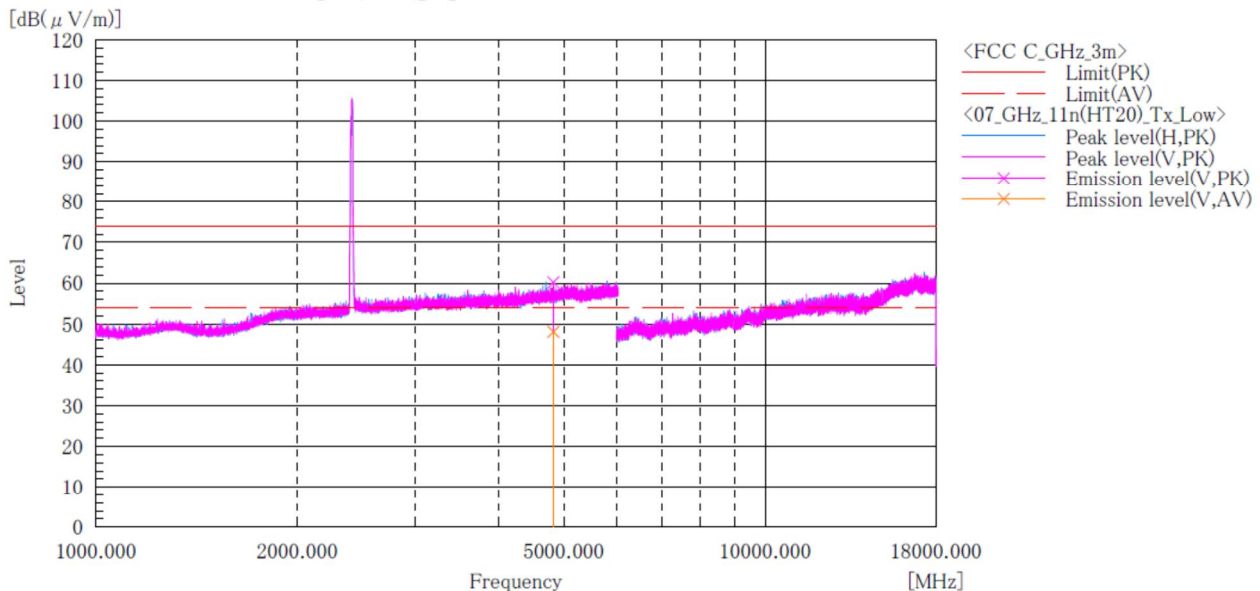
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11n(HT20)]
Channel Low
ABOVE 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN2.4GHz_11n(HT20)_Tx_ch:Low

Standard : FCC Part.15 subpart C
 Operator : T.Seino
 Temp,Hum,Atm : 22.6[°C] 26.8[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]	Remark
1	4824.000	V	49.9	37.7	10.4	60.3	48.1	74.0	54.0	13.7	5.9	123.0	278.0	

Note:

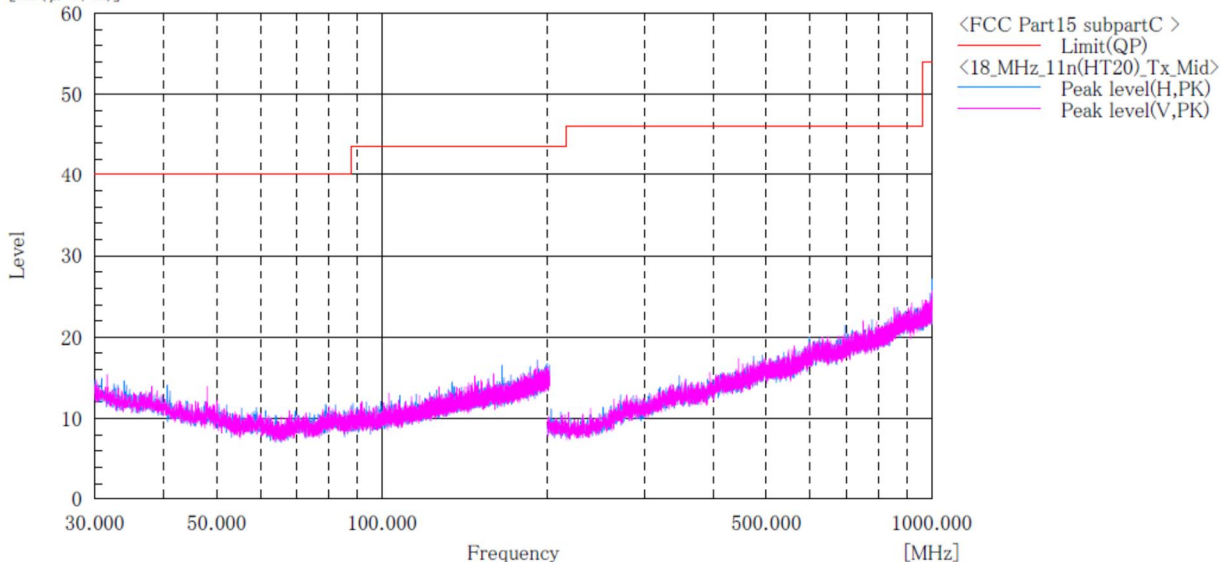
- Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
- No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

[11n(HT20)]
Channel Middle
BELOW 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11n(HT20)_Tx_ch:Mid

Standard : FCC Part.15 subpartC
 Operator : C.Kanno
 Temp,Hum : 22.2[°C] 21.3[%]
 Note1 :
 Note2 :

[dB(μV/m)]



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

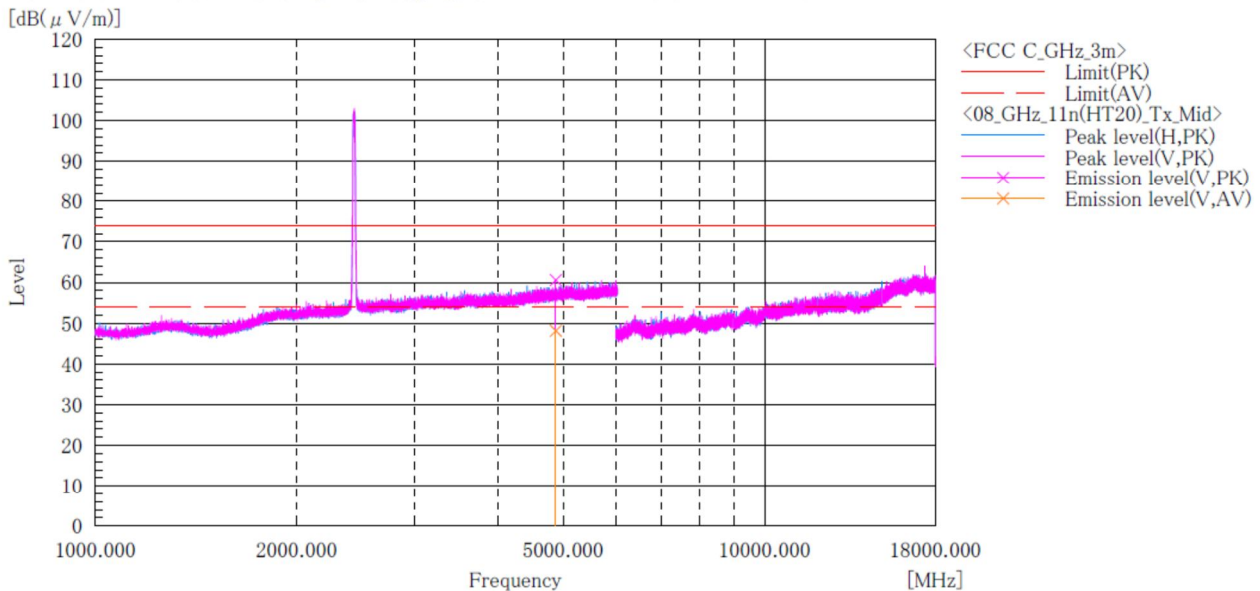
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11n(HT20)]
Channel Middle
ABOVE 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN2.4GHz_11n(HT20)_Tx_ch:Mid

Standard : FCC Part.15 subpart C
 Operator : T.Seino
 Temp,Hum,Atm : 22.6[°C] 26.8[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]	Remark
1	4874.000	V	50.0	37.6	10.6	60.6	48.2	74.0	54.0	13.4	5.8	115.0	271.0	

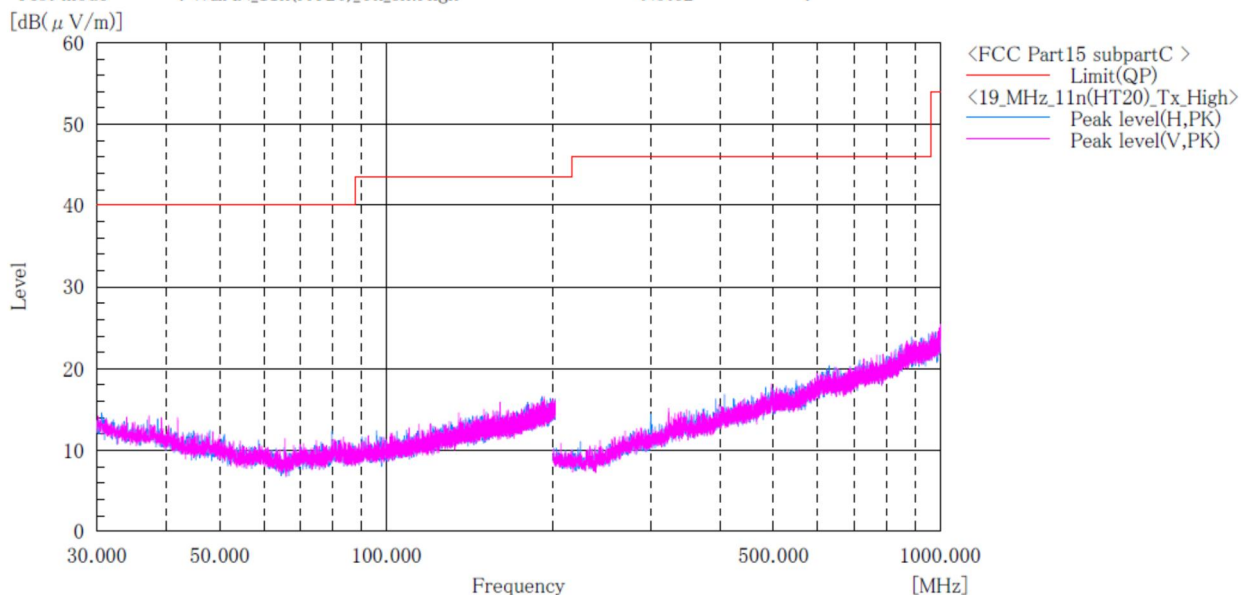
Note:

- Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
- No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

[11n(HT20)]
Channel High
BELOW 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11n(HT20)_Tx_ch:High

Standard : FCC Part.15 subpartC
 Operator : C.Kanno
 Temp,Hum : 22.2[°C] 21.3[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency (P) [MHz]	c.f [dB(1/m)]	Height [cm]	Angle [°]
-----	------------------------	------------------	----------------	--------------

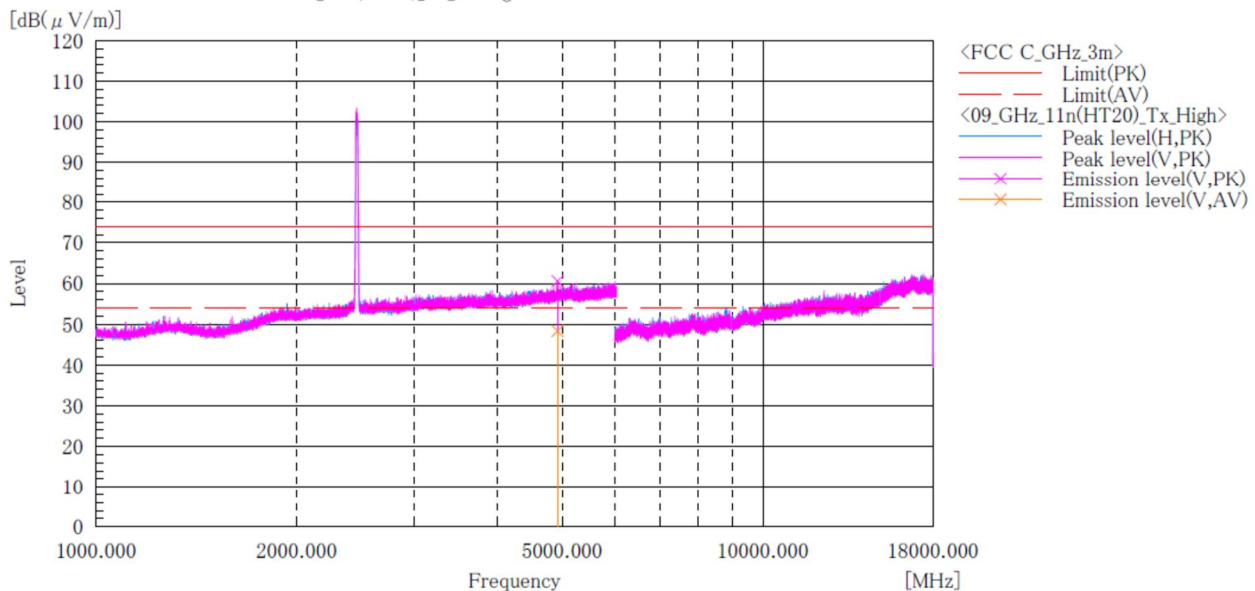
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.

[11n(HT20)]
Channel High
ABOVE 1GHz

Company name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN2.4GHz_11n(HT20)_Tx_ch:High

Standard : FCC Part.15 subpart C
 Operator : T.Seino
 Temp,Hum,Atm : 22.6[°C] 26.8[%]
 Note1 :
 Note2 :



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]	Remark
1	4924.000	V	49.9	37.7	10.7	60.6	48.4	74.0	54.0	13.4	5.6	120.0	271.0	

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.

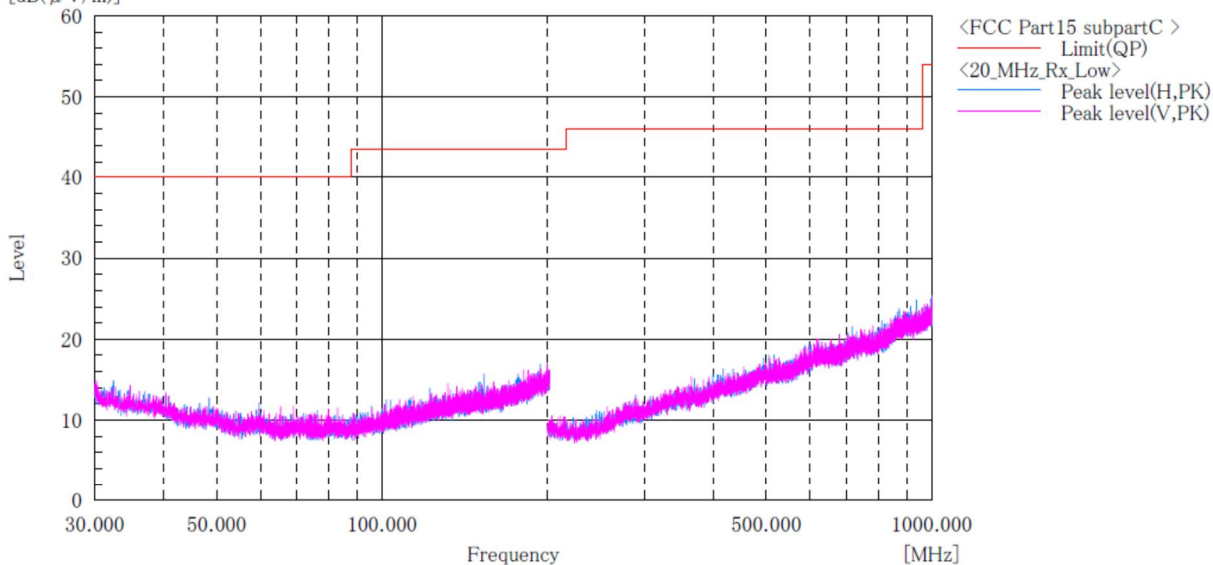
4.5.5.2 Receive mode

Channel Low BELOW 1GHz

Company name : KYOCERA Corporation
EUT : Mobile Phone
Model No. : EB1065
Serial No. : N/A
Test mode : WLAN_11b_Rx_ch:Low

Standard : FCC Part.15 subpartC
Operator : C.Kanno
Temp,Hum : 20.9[°C] 31.8[%]
Note1 :
Note2 :

[dB(μV/m)]



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

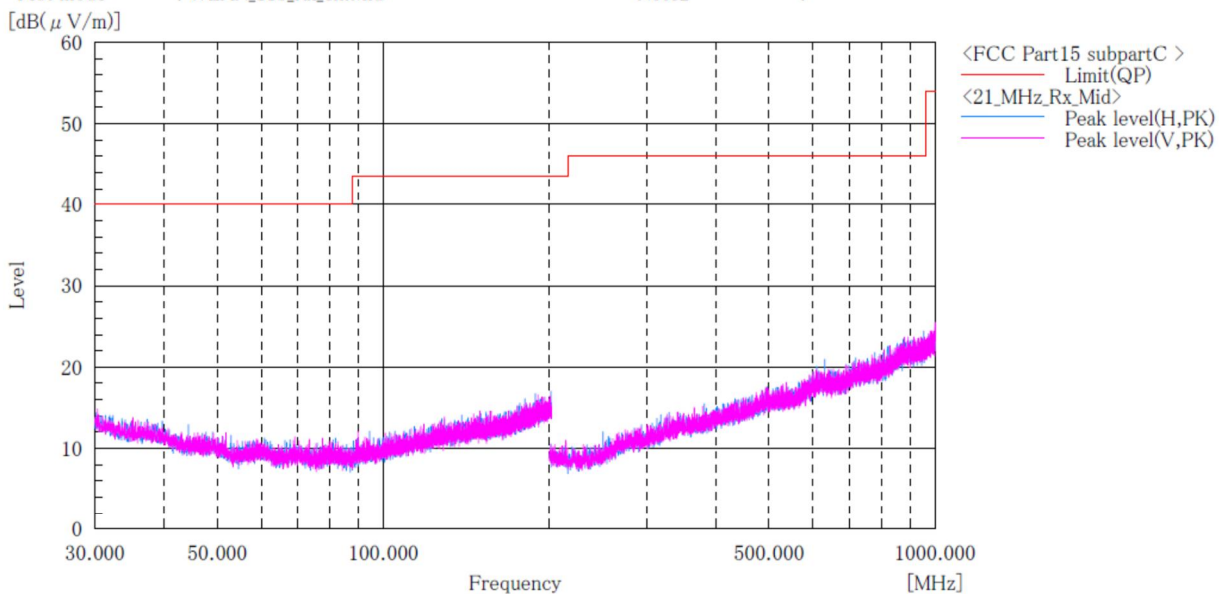
Note:

- Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
- No emission were detected in frequency range 9kHz to 1000MHz and 1GHz to 25GHz at the 3 meters distance.

**Channel Middle
BELOW 1GHz**

Company name : KYOCERA Corporation
EUT : Mobile Phone
Model No. : EB1065
Serial No. : N/A
Test mode : WLAN_11b_Rx_ch:Mid

Standard : FCC Part.15 subpartC
Operator : C.Kanno
Temp,Hum : 20.9[°C] 31.8[%]
Note1 :
Note2 :

**Final Result**

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

Note:

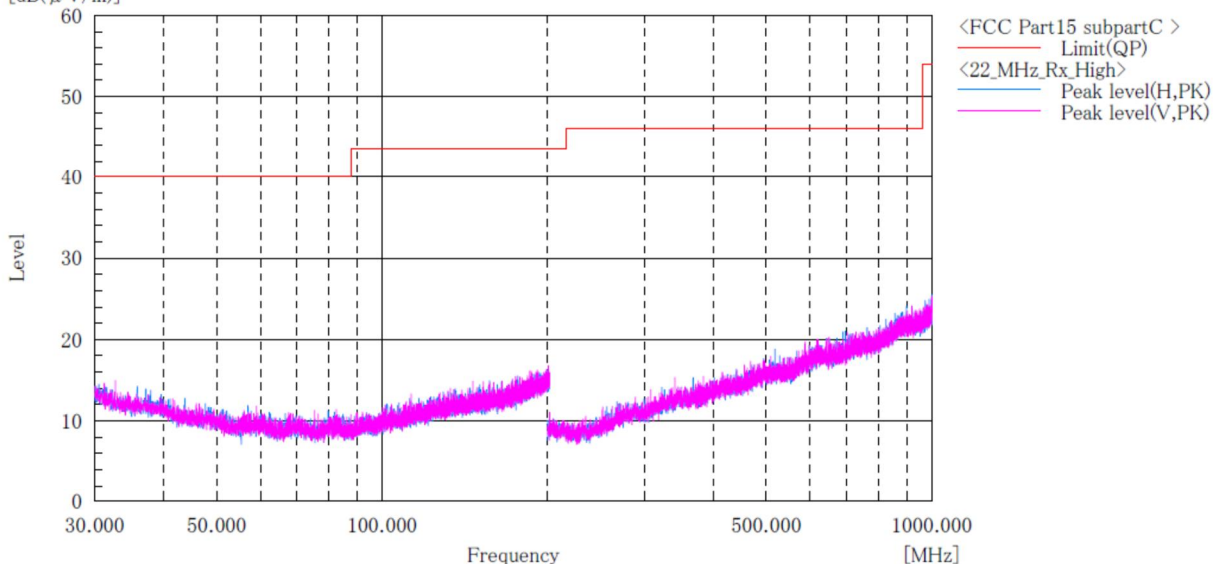
1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz and 1GHz to 25GHz at the 3 meters distance.

Channel High BELOW 1GHz

Company name : KYOCERA Corporation
EUT : Mobile Phone
Model No. : EB1065
Serial No. : N/A
Test mode : WLAN_11b_Rx_ch:High

Standard : FCC Part.15 subpartC
Operator : C.Kanno
Temp,Hum : 20.9[°C] 31.8[%]
Note1 :
Note2 :

[dB(μV/m)]



Final Result

No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable – Amp)]
2. No emission were detected in frequency range 9kHz to 1000MHz and 1GHz to 25GHz at the 3 meters distance.

4.6 Restricted Band of Operation

4.6.1 Measurement procedure

[FCC 15.247(d), 15.205, 15.209, KDB 558074 D01 v05r02, Section 8.6]

Test was applied by following conditions.

Test method	: ANSI C63.10
Test place	: 3m Semi-anechoic chamber
EUT was placed on	: Styrofoam table / (W) 1.0 × (D) 1.0 × (H) 0.8 m (below 1 GHz) Styrofoam table / (W) 0.6 × (D) 0.6 × (H) 1.5 m (above 1 GHz)
Antenna distance	: 3m
Spectrum analyzer setting	
- Peak	: RBW=1 MHz, VBW=3 MHz, Span=Arbitrary setting, Sweep=auto
- Average	: RBW=1 MHz, VBW=1kHz, 3kHz, Span=0 Hz, Sweep=auto Display mode=Linear

Average Measurement Setting [VBW]

Mode	Duty Cycle (%)	T _{on} (us)	T _{off} (us)	1/T _{on} (kHz)	Determined VBW Setting
IEEE802.11b	90.79	946	96	1.057	3kHz
IEEE802.11g	97.40	1346	36	0.743	1kHz
IEEE802.11n(HT20)	97.07	1260	38	0.794	1kHz

Although these tests were performed other than open area test site, adequate comparison measurements

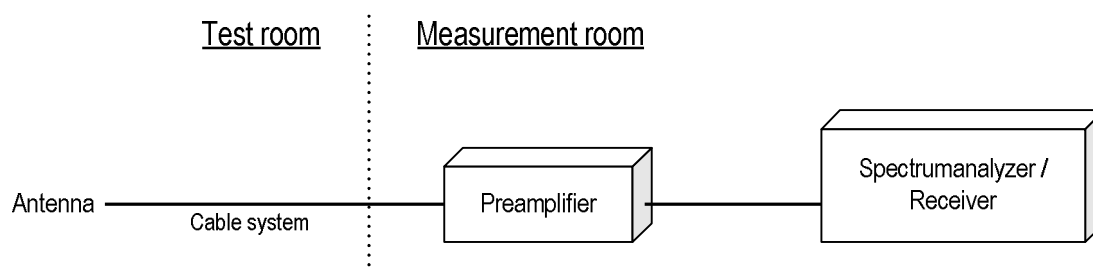
were confirmed against 30 m open area test site.

Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 937606.

Radiated emission measurements are performed at 3m distance with the broadband antenna (Double ridged guide antenna). The antenna is positioned both the horizontal and vertical planes of polarization and height is varied 1m to 4m and stopped at height producing the maximum emission.

The EUT is Placed on a turntable, which is 0.8m/1.5m above ground plane. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. The test results represent the worst case emission for each emission with manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation. Sufficient time for the EUT, support equipment, and test equipment are allowed in order for them to warm up to their normal operating condition.

- Test configuration



4.6.2 Limit

Emission at the boundary of the restricted band provided by 15.205 shall be lower than 15.209 limit.

4.6.3 Measurement Result

[IEEE802.11b、IEEE802.11g、IEEE802.11n (HT20)]

Channel	Frequency [MHz]	Results Chart	Result
Low	2412	See the Trace Data	Pass
High	2462	See the Trace Data	Pass

4.6.4 Transmission mode

Modulation Type	Mode
IEEE802.11b IEEE802.11g	Simultaneous transmission (ANT3 + ANT5)
IEEE802.11n (HT20)	MIMO (ANT3 + ANT5)

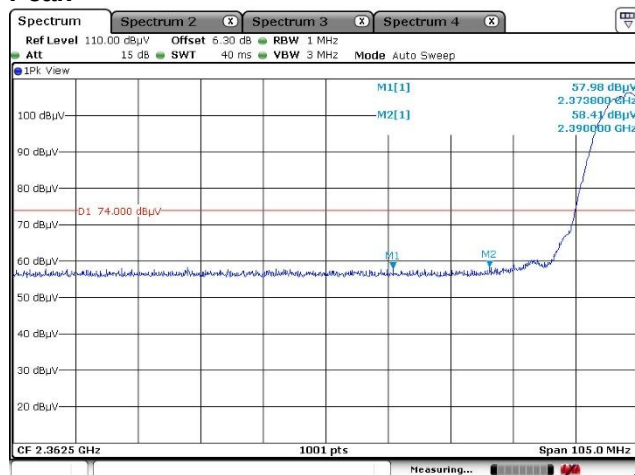
4.6.5 Test data

Date : 17-December-2020
 Temperature : 21.8 [°C]
 Humidity : 19.0 [%]
 Test place : 3m Semi-anechoic chamber

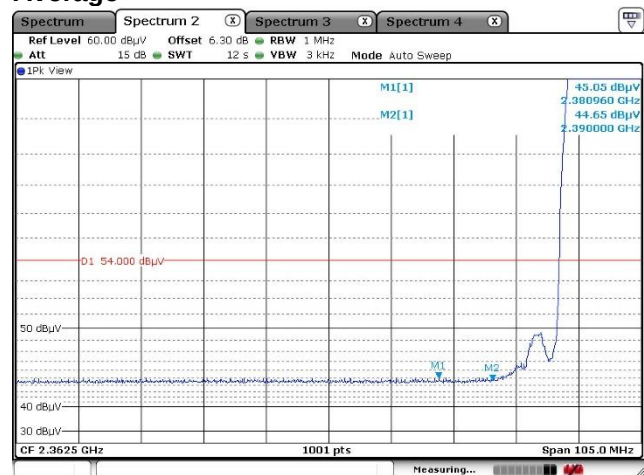
Test engineer : Tadahiro Seino

[IEEE802.11b]

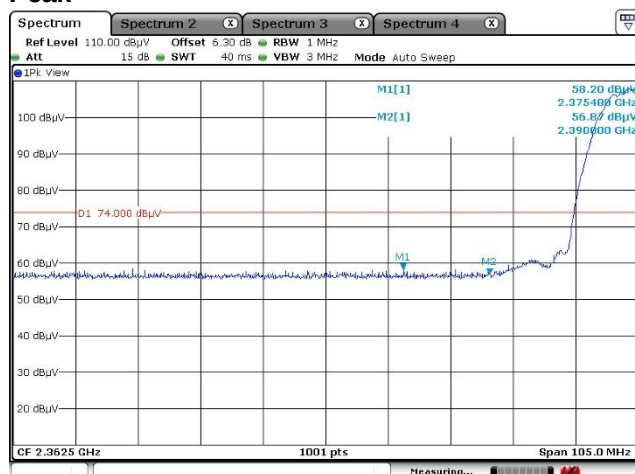
Channel Low Horizontal Peak



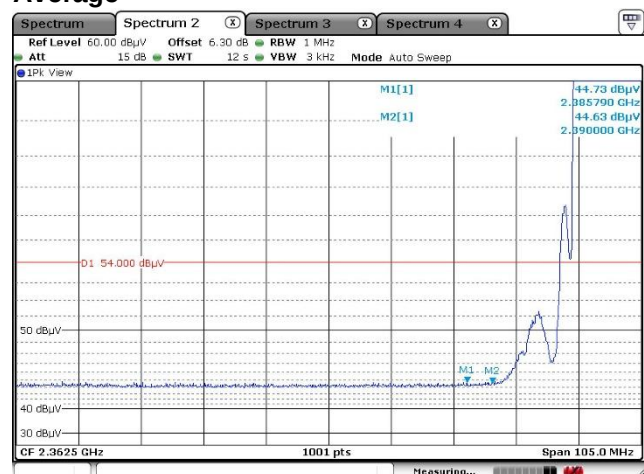
Average



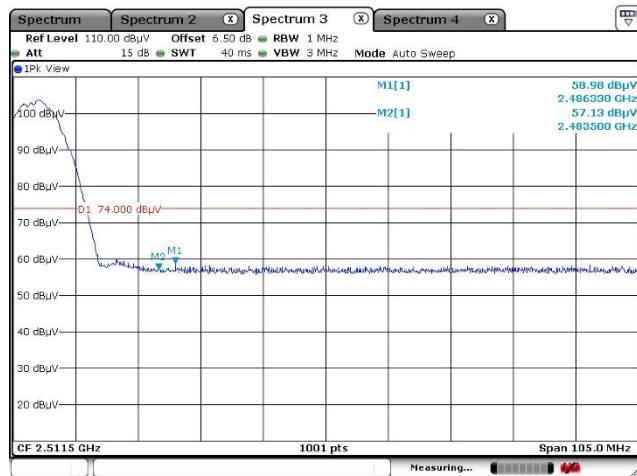
Vertical Peak



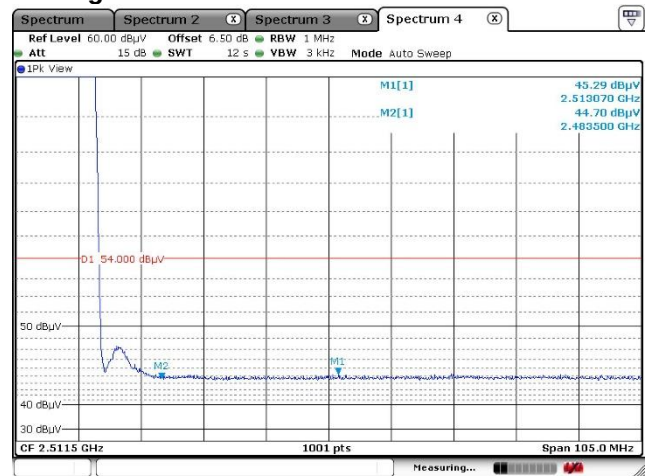
Average



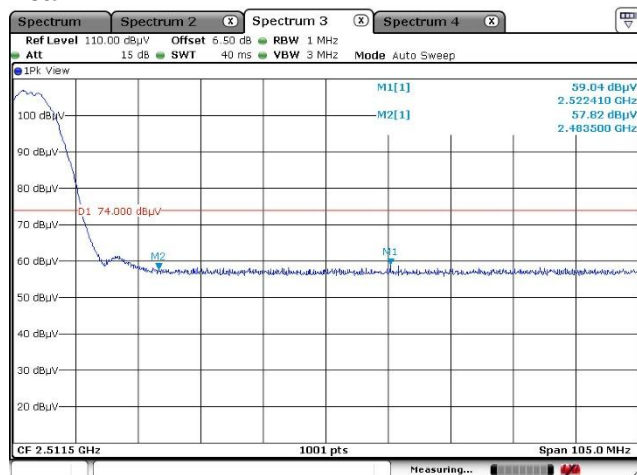
Channel High Horizontal Peak



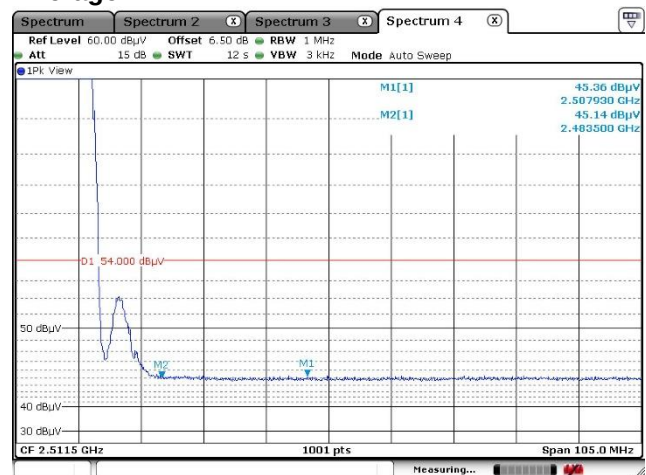
Average



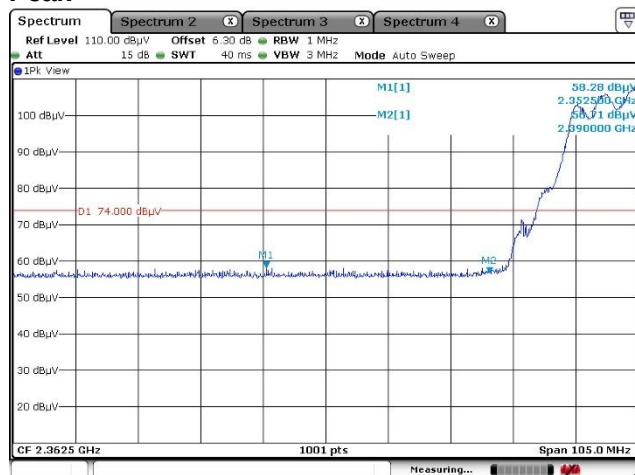
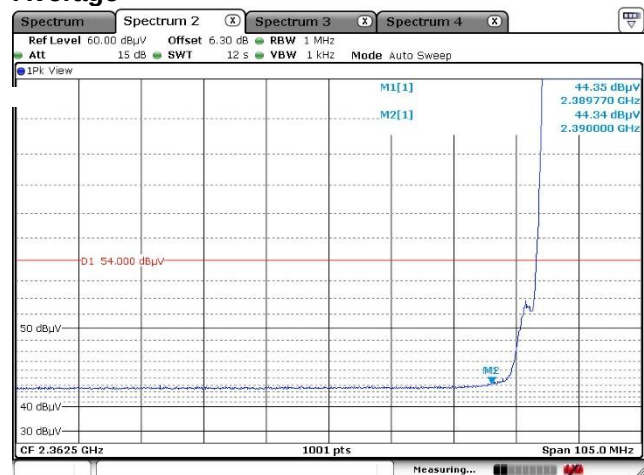
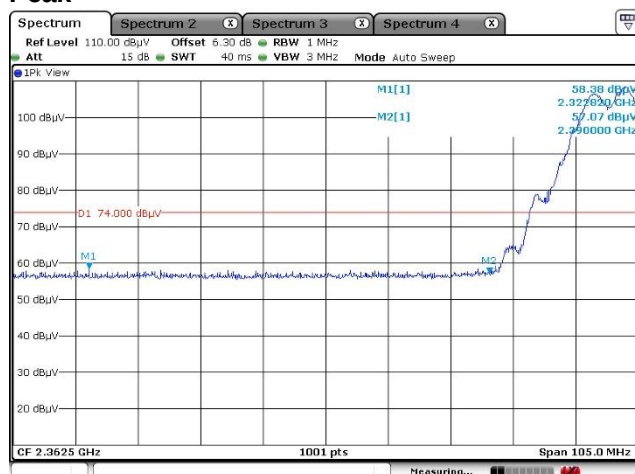
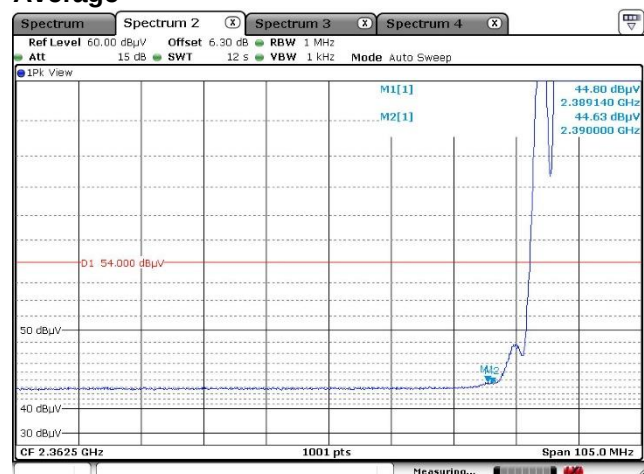
Vertical Peak



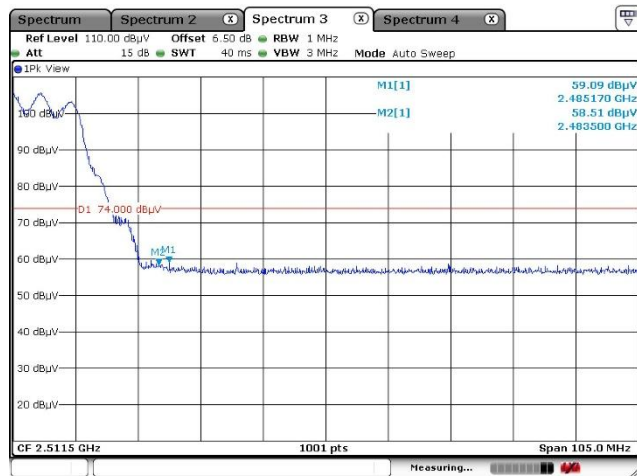
Average



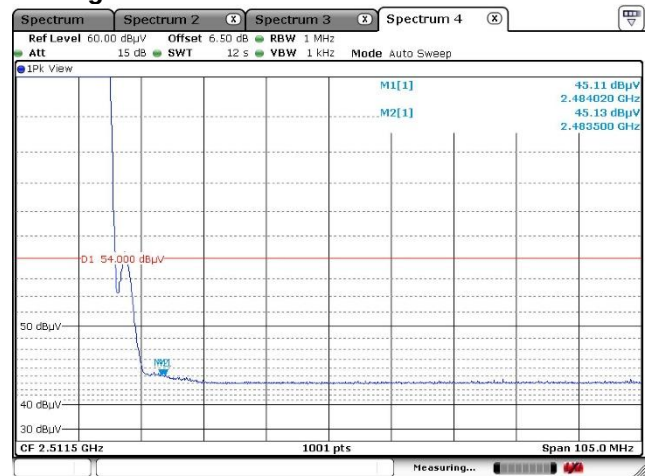
[IEEE802.11g]

**Channel Low
Horizontal
Peak****Average****Vertical
Peak****Average**

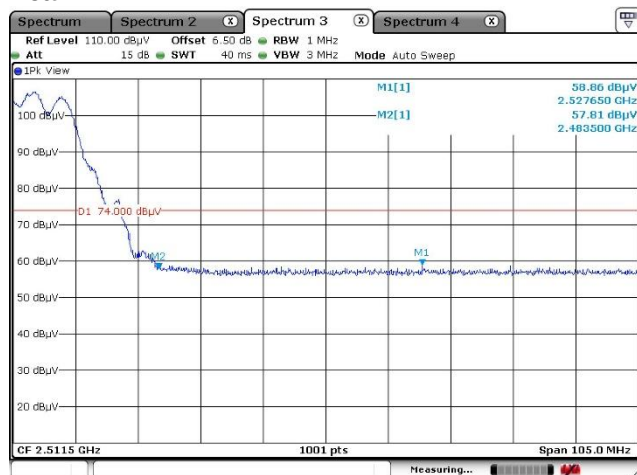
Channel High Horizontal Peak



Average



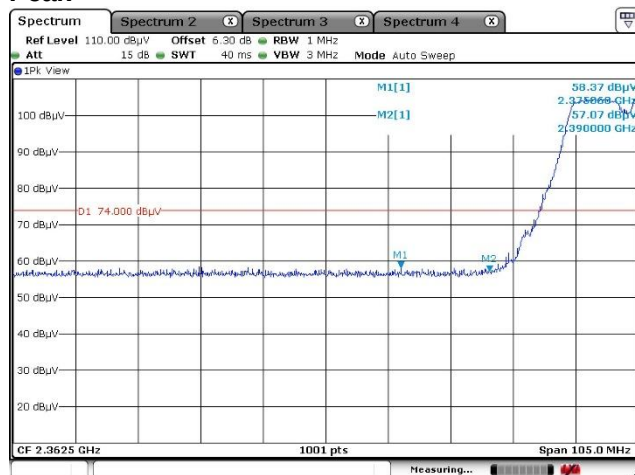
Vertical Peak



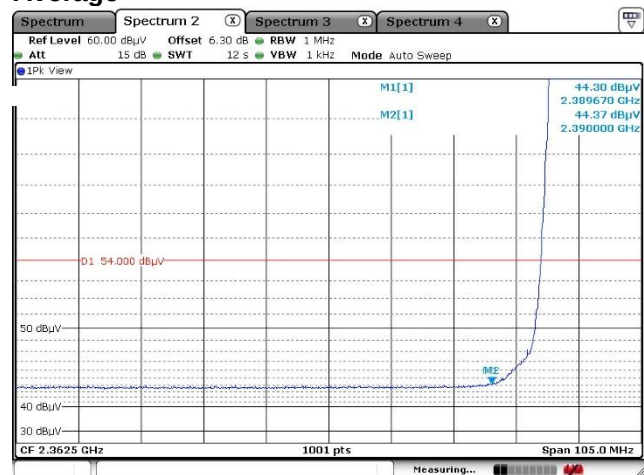
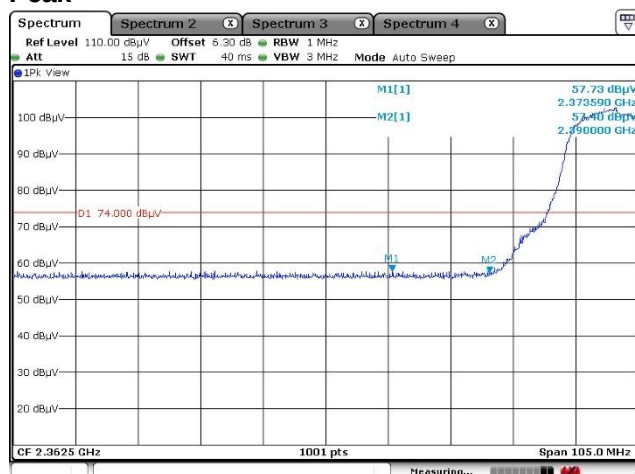
Average



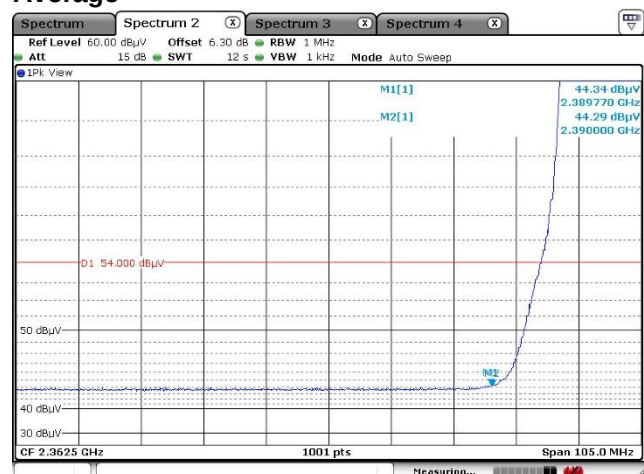
[IEEE802.11n (HT20)]

Channel Low
Horizontal
Peak

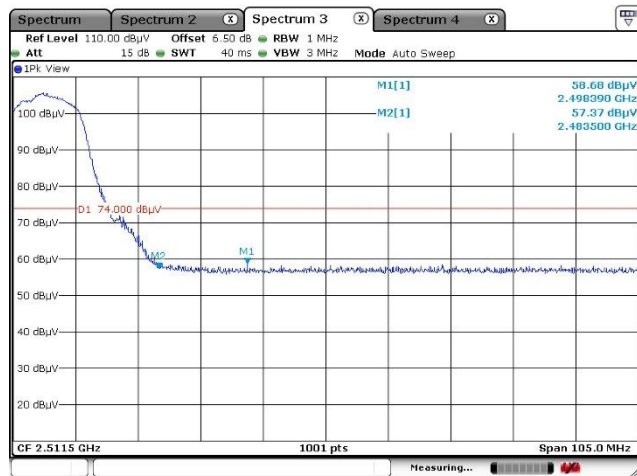
Average

Vertical
Peak

Average



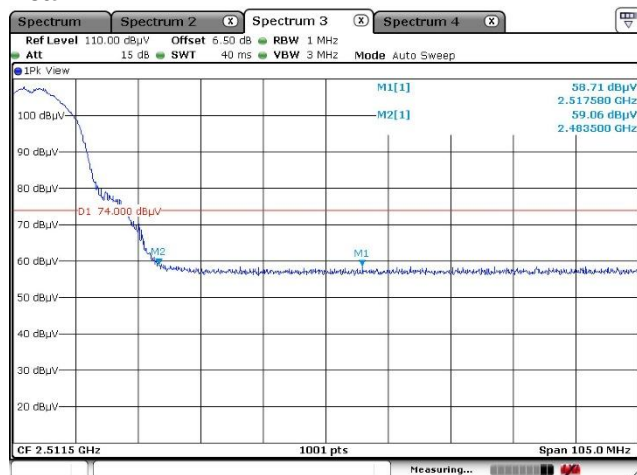
Channel High Horizontal Peak



Average



Vertical Peak



Average



4.7 Transmitter Power Spectral Density

4.7.1 Measurement procedure

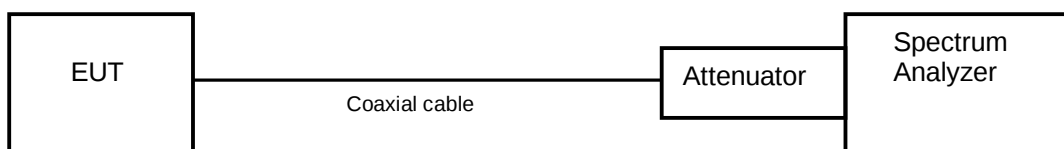
[FCC 15.247(e), KDB 558074 D01 v05r02, Section 8.4]

The peak power is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

The spectrum analyzer is set to;

- a) Span = 1.5 times the 6 dB bandwidth.
- b) RBW = 3kHz - 100kHz.
- c) VBW $\geq 3 \times$ RBW.
- d) Sweep time = auto-couple.
- e) Detector = peak.
- f) Trace mode = max hold.

- Test configuration



4.7.2 Limit

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band.

4.7.3 Measurement result

Date : 9-December-2020
 Temperature : 20.9 [°C]
 Humidity : 27.9 [%]
 Test place : Shielded room No.4

Test engineer : Taiki Watanabe

Date : 10-December-2020
 Temperature : 21.8 [°C]
 Humidity : 25.3 [%]
 Test place : Shielded room No.4

Test engineer : Taiki Watanabe

[IEEE802.11b]**ANT3**

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-24.91	10.63	-14.28	8.00	22.28	PASS
Middle	2437	-24.55	10.63	-13.92	8.00	21.92	PASS
High	2462	-24.66	10.63	-14.03	8.00	22.03	PASS

ANT5

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-26.31	10.63	-15.68	8.00	23.68	PASS
Middle	2437	-25.98	10.63	-15.35	8.00	23.35	PASS
High	2462	-26.10	10.63	-15.47	8.00	23.47	PASS

Calculation;

Transmitter Power Spectral Density Level (Margin) = Limit – (Reading + Factor)

ANT3+ANT5

Note: 802.11b does not support MIMO.

[IEEE802.11g]**ANT3**

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-28.25	10.63	-17.62	8.00	25.62	PASS
Middle	2437	-27.31	10.63	-16.68	8.00	24.68	PASS
High	2462	-26.73	10.63	-16.10	8.00	24.10	PASS

ANT5

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-28.16	10.63	-17.53	8.00	25.53	PASS
Middle	2437	-28.99	10.63	-18.36	8.00	26.36	PASS
High	2462	-28.64	10.63	-18.01	8.00	26.01	PASS

Calculation;

Transmitter Power Spectral Density Level (Margin) = Limit – (Reading + Factor)

ANT3+ANT5

Note: 802.11g does not support MIMO.

[IEEE802.11n (HT20)]**ANT3**

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-27.34	10.63	-16.71	8.00	24.71	PASS
Middle	2437	-27.46	10.63	-16.83	8.00	24.83	PASS
High	2462	-27.46	10.63	-16.83	8.00	24.83	PASS

ANT5

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-28.95	10.63	-18.32	8.00	26.32	PASS
Middle	2437	-28.61	10.63	-17.98	8.00	25.98	PASS
High	2462	-28.18	10.63	-17.55	8.00	25.55	PASS

ANT3+ANT5

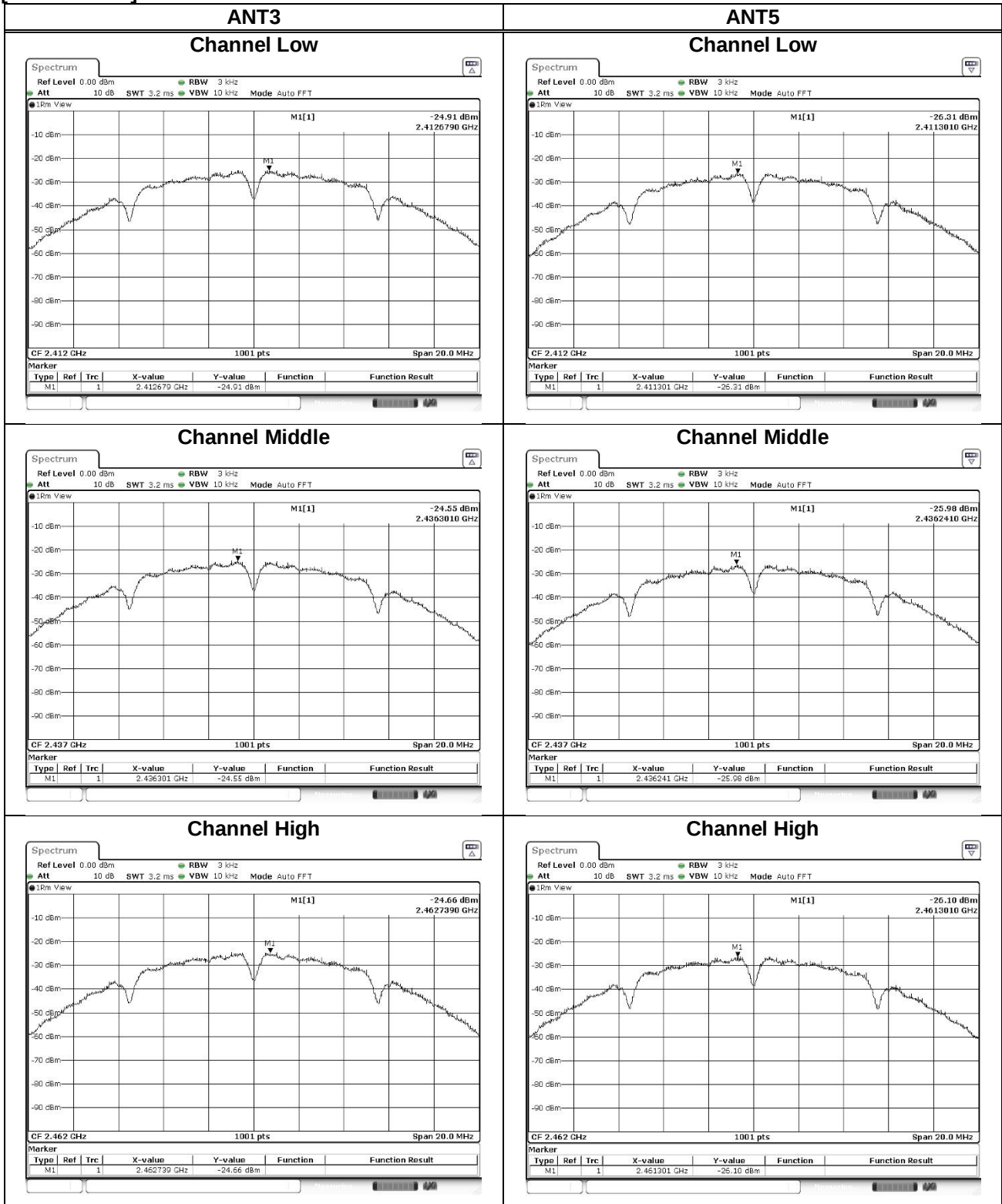
Channel	Center Frequency (MHz)	Level (dBm)		Total Level (dBm)	Limit (dBm)	Margin (dBm)	Result
		ANT3	ANT5				
Low	2412	-16.71	-18.32	-14.43	8.00	22.43	PASS
Middle	2437	-16.83	-17.98	-14.36	8.00	22.36	PASS
High	2462	-16.83	-17.55	-14.16	8.00	22.16	PASS

Calculation;

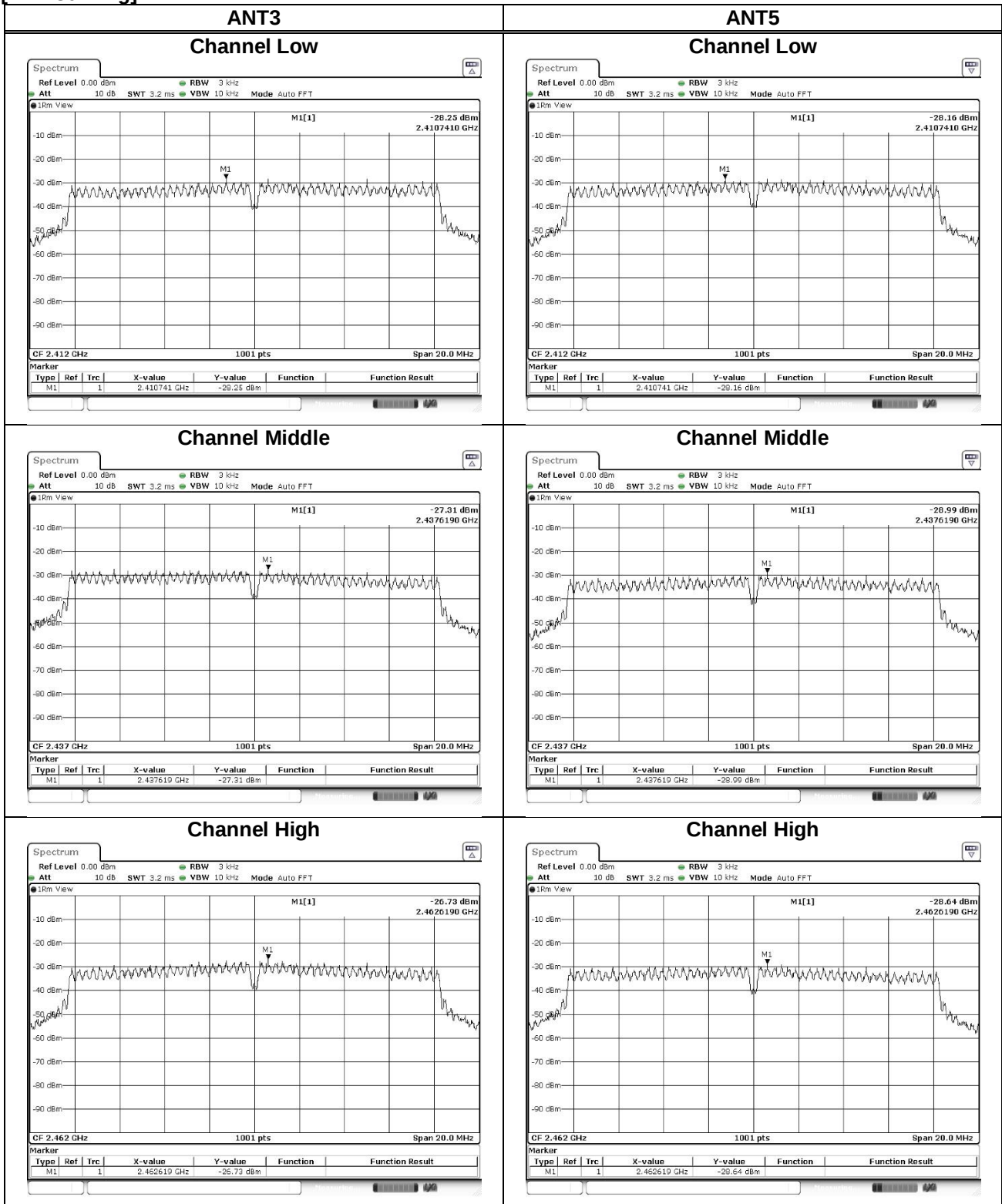
Transmitter Power Spectral Density Level (Margin) = Limit – (Reading + Factor)

4.7.4 Trace data

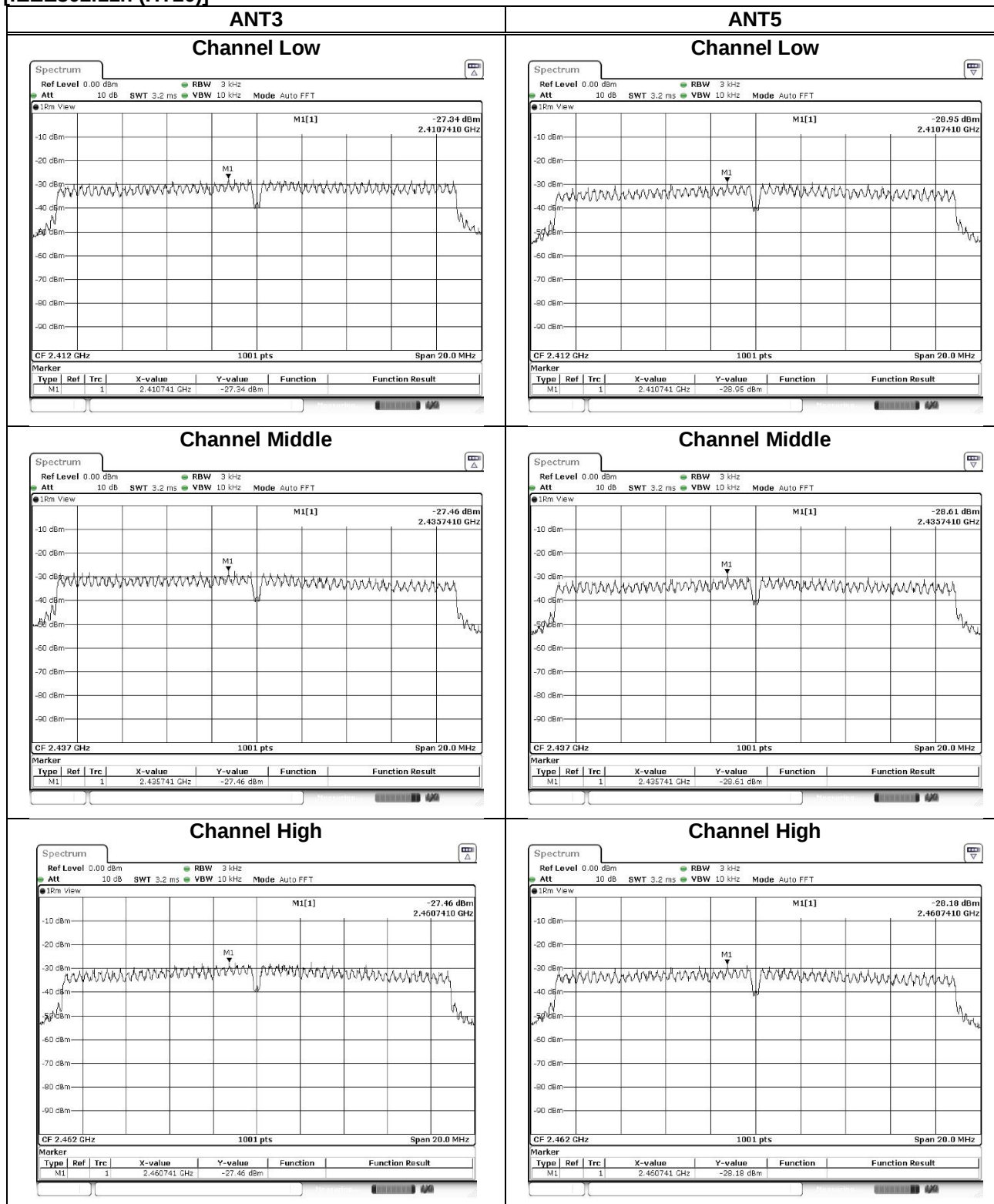
[IEEE802.11b]



[IEEE802.11g]



IEEE802.11n (HT20)



4.8 AC Power Line Conducted Emissions

4.8.1 Measurement procedure

[FCC 15.207]

Test was applied by following conditions.

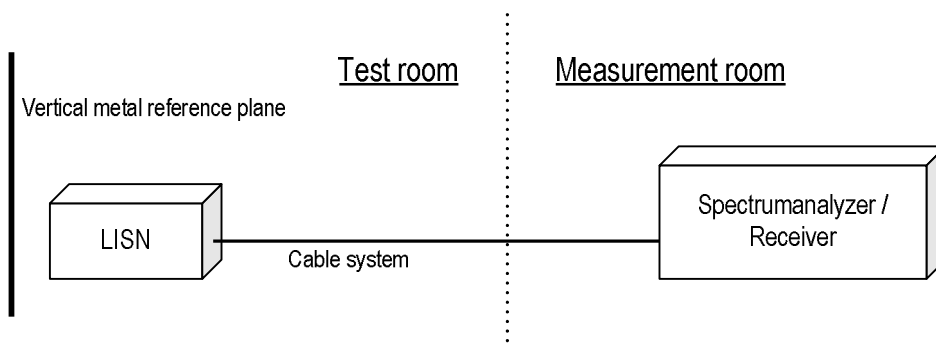
Test method	: ANSI C63.10
Frequency range	: 0.15 MHz to 30 MHz
Test place	: 3m Semi-anechoic chamber
EUT was placed on	: FRP table / (W) 2.0 × (D) 1.0 × (H) 0.8 m
Vertical Metal Reference Plane	: (W) 2.0 × (H) 2.0 m, 0.4 m away from EUT
Test receiver setting	
- Detector	: Quasi-peak, Average
- Bandwidth	: 9 kHz

EUT and peripherals are connected to 50Ω/50 μH Line Impedance Stabilization Network (LISN) which are connected to reference ground plane, and are placed 80cm away from EUT. Excess of AC power cable is bundled in center.

LISN for peripheral is terminated in 50Ω.

EUT operating mode is selected to emit the maximum noise. Overall frequency range is investigated with spectrum analyzer using peak detector. Maximum emission configuration is determined by manipulating the EUT, peripherals, interconnecting cables. Then, emission measurements are performed with test receiver in above setting to each current-carrying conductor of the mains port. Sufficient time for EUT, peripherals and test equipment is provided in order for them to warm up to their normal operating condition. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits.

- Test configuration



4.8.2 Calculation method

Emission level = Reading + (LISN. Factor + Cable system loss)

Margin = Limit – Emission level

Example:

Limit @ 0.403 MHz: 57.8 dBμV(Quasi-peak)
: 47.8 dBμV(Average)

(Quasi peak) Reading = 22.7 dBμV c.f. = 10.4 dB

Emission level = 22.7 + 10.4 = 33.1 dBμV

Margin = 57.8 – 33.1 = 24.7 dB

(Average) Reading = 6.5 dBμV c.f. = 10.4 dB

Emission level = 6.5 + 10.4 = 16.9 dBμV

Margin = 47.8 – 16.9 = 30.9 dB

4.8.3 Limit

Frequency [MHz]	Limit	
	QP [dBuV]	AV [dBuV]
0.15-0.5	66-56*	56-46*
0.5-5	56	46
5-30	60	50

*: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

4.8.4 Transmission mode

Modulation Type	Mode
IEEE802.11b	Simultaneous transmission (ANT3 + ANT5)

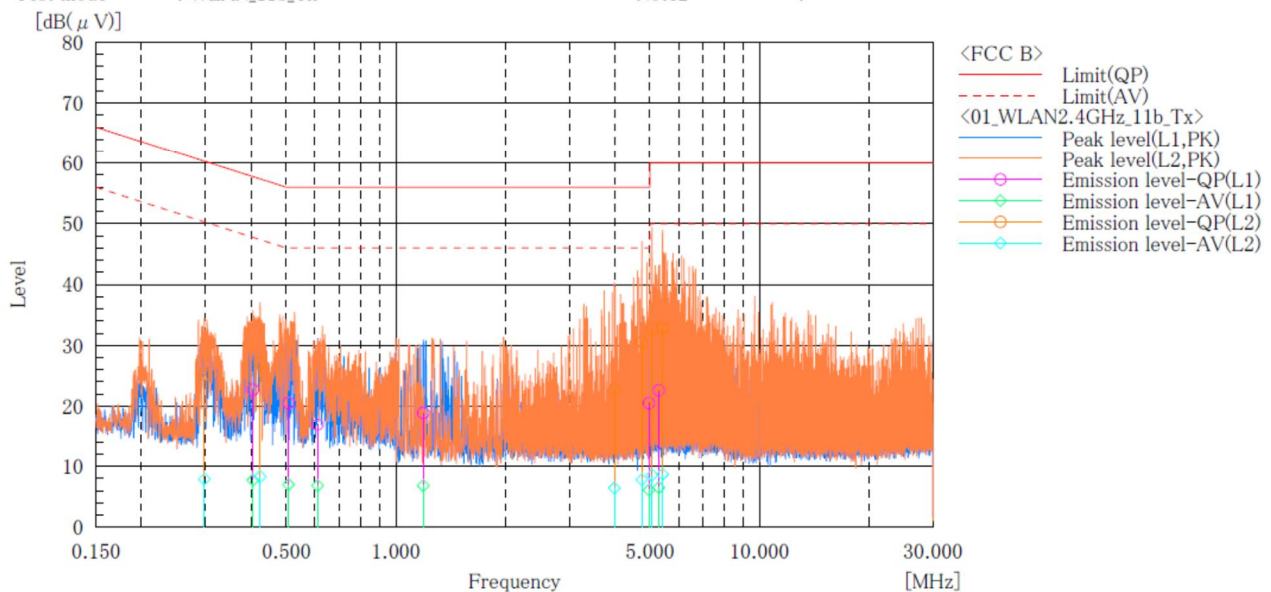
4.8.5 Test data

Date : 17-December-2020
 Temperature : 22.2 [°C]
 Humidity : 37.6 [%]
 Test place : 3m Semi-anechoic chamber

Test engineer : Chiaki Kanno

Company Name : KYOCERA Corporation
 EUT : Mobile Phone
 Model No. : EB1065
 Serial No. : N/A
 Test mode : WLAN_11b_Tx

Standard : FCC Part.15 Subpart C
 Operator : C.Kanno
 Temp,Hum,Atm : 22.2[°C] 37.6[%]
 Note1 :
 Note2 :



Final Result

--- L1 Phase ---										
No.	Frequency	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin
	[MHz]	QP	AV		QP	AV	QP	AV	QP	AV
		[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	0.405	12.4	-2.6	10.3	22.7	7.7	57.8	47.8	35.1	40.1
2	0.507	10.2	-3.3	10.3	20.5	7.0	56.0	46.0	35.5	39.0
3	0.610	6.6	-3.5	10.3	16.9	6.8	56.0	46.0	39.1	39.2
4	1.191	8.6	-3.5	10.3	18.9	6.8	56.0	46.0	37.1	39.2
5	4.969	10.0	-4.4	10.5	20.5	6.1	56.0	46.0	35.5	39.9
6	5.288	12.1	-4.0	10.5	22.6	6.5	60.0	50.0	37.4	43.5

--- L2 Phase ---										
No.	Frequency	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin
	[MHz]	QP	AV		QP	AV	QP	AV	QP	AV
		[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	0.298	15.0	-2.3	10.2	25.2	7.9	60.3	50.3	35.1	42.4
2	0.424	16.8	-2.0	10.3	27.1	8.3	57.4	47.4	30.3	39.1
3	3.993	12.3	-4.0	10.4	22.7	6.4	56.0	46.0	33.3	39.6
4	4.754	20.0	-2.7	10.5	30.5	7.8	56.0	46.0	25.5	38.2
5	5.067	22.2	-2.0	10.5	32.7	8.5	60.0	50.0	27.3	41.5
6	5.414	22.4	-1.8	10.5	32.9	8.7	60.0	50.0	27.1	41.3



Japan

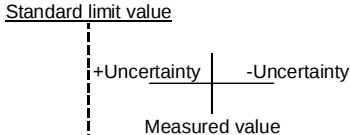
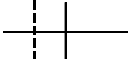
5 Antenna requirement

According to FCC section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The antenna is a special antenna mounted inside of the EUT. Therefore, the EUT complies with the antenna requirement of FCC section 15.203.

6 Measurement Uncertainty

Expanded uncertainties stated are calculated with a coverage Factor $k=2$.
Please note that these results are not taken into account when measurement uncertainty considerations contained in ETSI TR 100 028 Parts 1 and 2 determining compliance or non-compliance with test result.

Test item	Measurement uncertainty
Conducted emission, AMN (9 kHz – 150 kHz)	± 3.7 dB
Conducted emission, AMN (150 kHz – 30 MHz)	± 3.3 dB
Radiated emission (9kHz – 30 MHz)	± 3.7 dB
Radiated emission (30 MHz – 1000 MHz)	± 5.3 dB
Radiated emission (1 GHz – 6 GHz)	± 4.4 dB
Radiated emission (6 GHz – 18 GHz)	± 4.7 dB
Radiated emission (18 GHz – 40 GHz)	± 5.8 dB
Radio Frequency	$\pm 1.4 \cdot 10^{-8}$
RF power, conducted	± 0.8 dB
Temperature	± 0.6 °C
Humidity	± 1.2 %
Voltage (DC)	± 0.4 %
Voltage (AC, <10kHz)	± 0.2 %

Judge	Measured value and standard limit value	
PASS	Case1  Even if it takes uncertainty into consideration, a standard limit value is fulfilled.	
	Case2  Although measured value is in a standard limit value, a limit value won't be fulfilled if uncertainty is taken into consideration.	
FAIL	Case3  Although measured value exceeds a standard limit value, a limit value will be fulfilled if uncertainty is taken into consideration.	
	Case4  Even if it takes uncertainty into consideration, a standard limit value isn't fulfilled.	

7 Laboratory Information

Testing was performed and the report was issued at:

TÜV SÜD Japan Ltd. Yonezawa Testing Center

Address: 5-4149-7 Hachimanpara, Yonezawa-shi, Yamagata, 992-1128 Japan
Phone: +81-238-28-2881
Fax: +81-238-28-2888

Accreditation and Registration

A2LA

Certificate #3686.03

VLAC

Accreditation No.: VLAC-013

BSMI

Laboratory Code: SL2-IN-E-6018, SL2-A1-E-6018

Innovation, Science and Economic Development Canada

ISED#: 4224A

VCCI Council

Registration number	Expiration date
A-0166	03-July-2021

Appendix A. Test Equipment

Antenna port conducted test

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
Spectrum analyzer	Agilent Technologies	E4440A	US40420937	31-Dec-2021	11-Dec-2020
Spectrum analyzer	Agilent Technologies	E4440A	US44302655	31-Aug-2021	20-Aug-2020
Spectrum analyzer	ROHDE&SCHWARZ	FSV40	101731	30-Jun-2021	22-Jun-2020
Attenuator	Weinschel	56-10	J4180	31-Jul-2021	21-Jul-2020
Power meter	ROHDE&SCHWARZ	NRP2	103269	31-Jul-2021	17-Jul-2020
Power sensor	ROHDE&SCHWARZ	NRP-Z81	102467	31-Jul-2021	17-Jul-2020

Radiated emission

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI Receiver	ROHDE&SCHWARZ	ESCI	100765	30-Sep-2021	28-Sep-2020
Spectrum analyzer	Agilent Technologies	E4447A	MY46180188	31-Mar-2021	27-Mar-2020
Spectrum analyzer	Agilent Technologies	E4440A	US40420937	31-Dec-2021	11-Dec-2020
Spectrum analyzer	Agilent Technologies	E4440A	US44302655	31-Aug-2021	20-Aug-2020
Spectrum analyzer	ROHDE&SCHWARZ	FSV40	101731	30-Jun-2021	22-Jun-2020
Preamplifier	SONOMA	310	372170	30-Sep-2021	29-Sep-2020
Loop antenna	ROHDE&SCHWARZ	HFH2-Z2	100515	30-Apr-2021	15-Apr-2020
Biconical antenna	Schwarzbeck	VHBB9124/BBA9106	1344	31-Dec-2020	04-Dec-2019
Biconical antenna	Schwarzbeck	VHBB9124/BBA9106	1333	31-Dec-2021	15-Dec-2020
Log periodic antenna	Schwarzbeck	VUSLP9111B	344	30-Apr-2021	17-Apr-2020
Attenuator	TAMAGAWA.ELEC	CFA-01NPJ-6	N/A(S275)	30-Jun-2021	04-Jun-2020
Attenuator	TAMAGAWA.ELEC	CFA-10/3dB	N/A(S503)	31-Jul-2021	20-Jul-2020
Attenuator	AEROFLEX	26A-10	081217-08	31-Jan-2021	10-Jan-2020
Double ridged guide antenna	ETS LINDGREN	3117	00052315	30-Apr-2021	08-Apr-2020
Attenuator	HUBER+SUHNER	6803.17.B	N/A(2341)	31-Dec-2020	18-Dec-2019
				31-Dec-2021	16-Dec-2020
Double ridged guide antenna	A.H.Systems Inc.	SAS-574	469	30-Sep-2021	02-Sep-2020
Preamplifier	TSJ	MLA-1840-B03-35	1240332	30-Sep-2021	02-Sep-2020
Band rejection filter	Micro-Tronics	BRC50702	045	31-May-2021	15-May-2020
Microwave cable	HUBER+SUHNER	SUCOFLEX104/9m	MY30037/4	31-Jan-2021	08-Jan-2020
		SUCOFLEX104/1m	my24610/4	31-Jan-2021	08-Jan-2020
		SUCOFLEX104/8m	SN MY30031/4	31-Jan-2021	09-Jan-2020
		SUCOFLEX104	MY32976/4	31-Jan-2021	08-Jan-2020
		SUCOFLEX104/1.5m	MY19309/4	31-Jan-2021	08-Jan-2020
		SUCOFLEX104/7m	41625/6	31-Jan-2021	08-Jan-2020
PC	DELL	DIMENSION E521	75465BX	N/A	N/A
Software	TOYO Corporation	EP5/RE-AJ	0611193/V5.6.0	N/A	N/A
Absorber	RIKEN	PFP30	N/A	N/A	N/A
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-NSA)	31-May-2021	29-May-2020
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-SVSWR)	31-May-2021	28-May-2020

Conducted emission at mains port

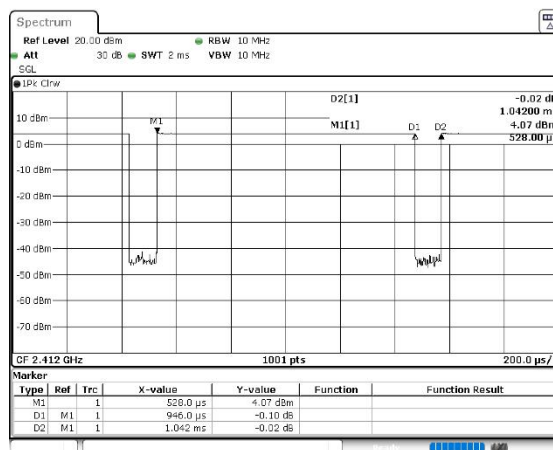
Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI Receiver	ROHDE&SCHWARZ	ESCI	100765	30-Sep-2021	28-Sep-2020
Attenuator	HUBER+SUHNER	6810.01.A	N/A (S411)	31-Jan-2021	08-Jan-2020
Line impedance stabilization network	Kyoritsu Electrical Works, Ltd.	TNW-407F2	12-17-110-2	30-Jun-2021	03-Jun-2020
Coaxial cable	FUJIKURA	5D-2W/4m	N/A (S350)	31-Jan-2021	08-Jan-2020
Coaxial cable	FUJIKURA	5D-2W/1m	N/A (S193)	31-Jan-2021	08-Jan-2020
Coaxial cable	HUBER+SUHNER	RG214/U/10m	N/A (S194)	31-Jan-2021	08-Jan-2020
PC	DELL	DIMENSION	75465BX	N/A	N/A
Software	TOYO Corporation	EP5/CE-AJ	0611193/V5.4.11	N/A	N/A

*: The calibrations of the above equipment are traceable to NIST or equivalent standards of the reference organizations.

Appendix B. Duty Cycle

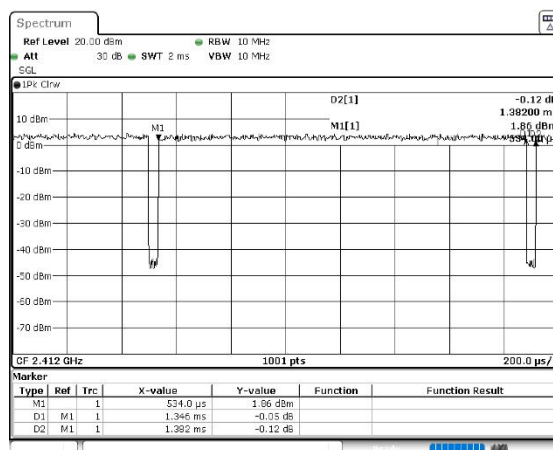
[Plot & Calculation]

11b



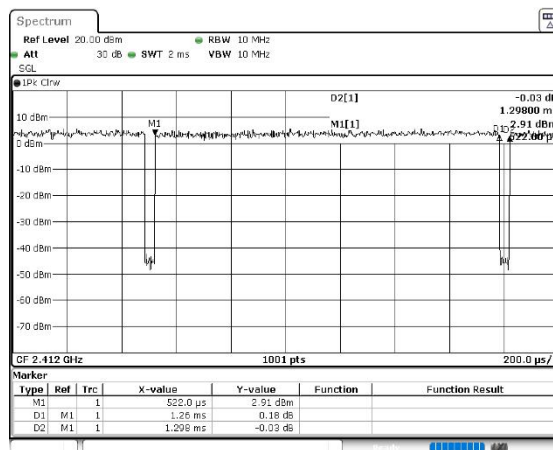
$$\text{Duty Cycle} = \text{Ton} / (\text{Ton} + \text{Toff}) = 946[\mu\text{s}] / (946[\mu\text{s}] + 96[\mu\text{s}]) = 90.79[\%]$$

11g



$$\text{Duty Cycle} = \text{Ton} / (\text{Ton} + \text{Toff}) = 1346[\mu\text{s}] / (1346[\mu\text{s}] + 36[\mu\text{s}]) = 97.4[\%]$$

11n (HT20)



$$\text{Duty Cycle} = \text{Ton} / (\text{Ton} + \text{Toff}) = 1260[\mu\text{s}] / (1260[\mu\text{s}] + 38[\mu\text{s}]) = 97.07[\%]$$