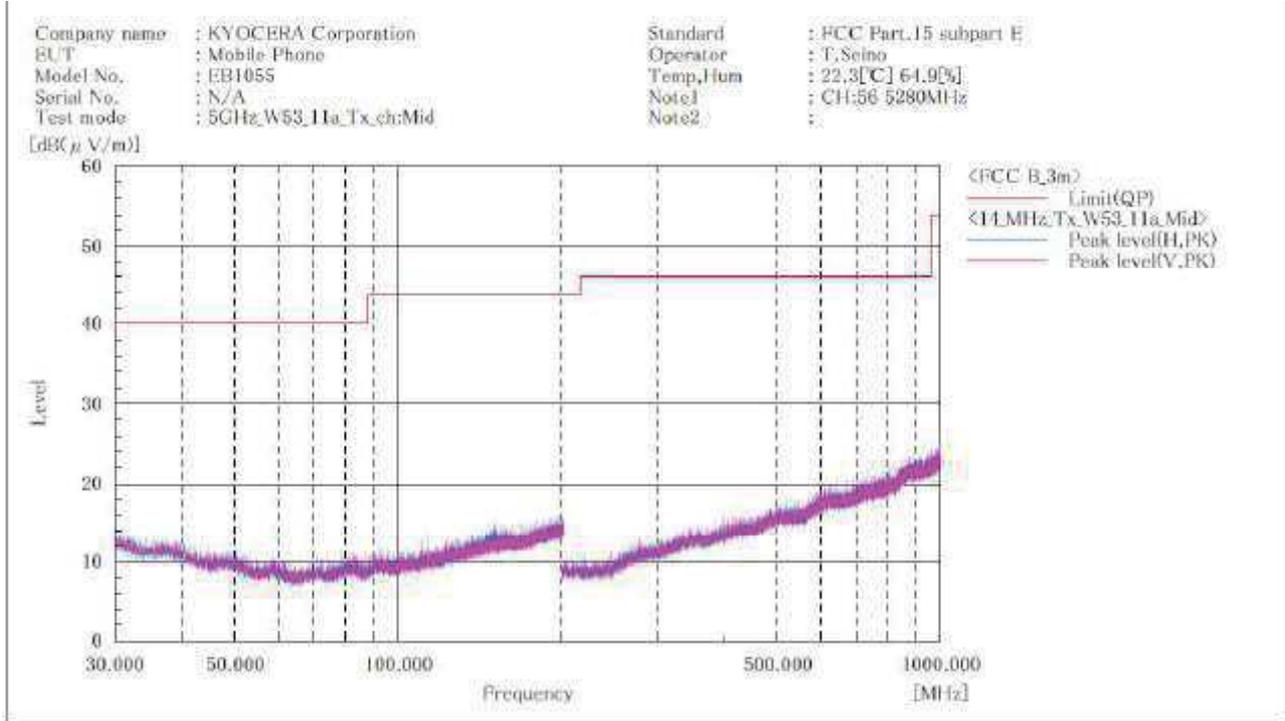




[11a]  
**W53 / Channel Middle**  
**BELOW 1GHz**



Final Result

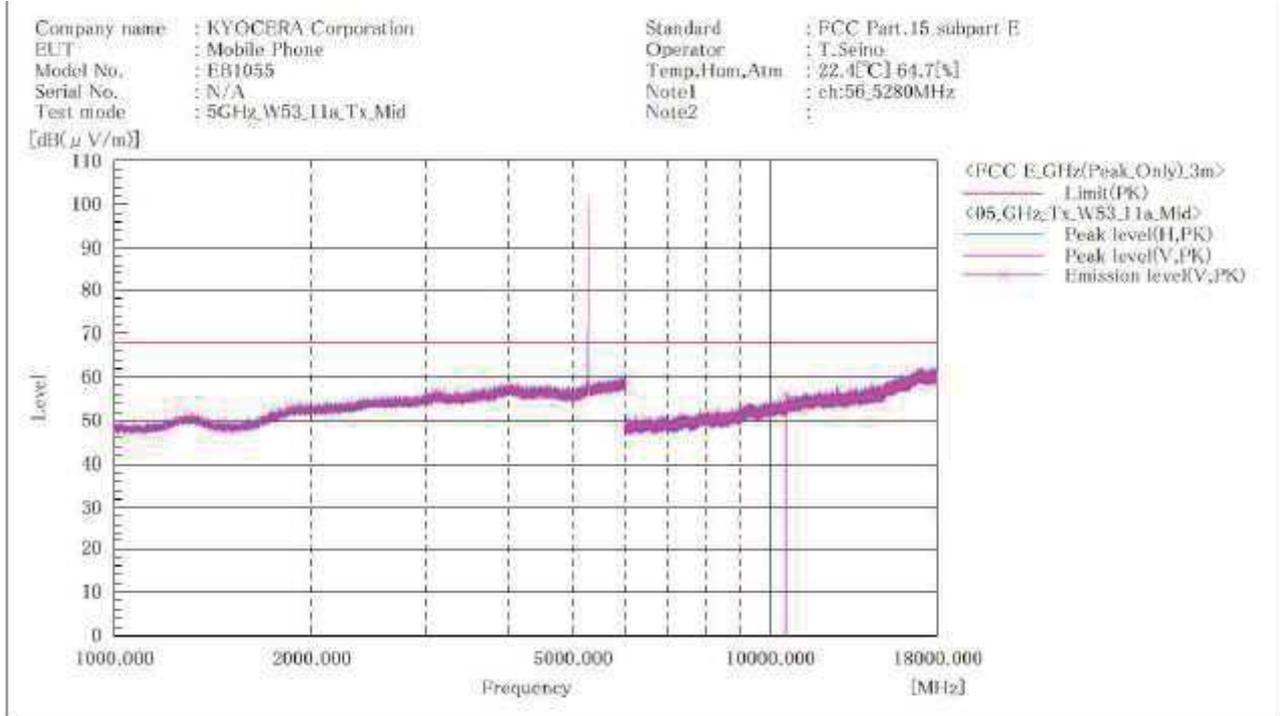
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

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.



[11a]  
**W53 / Channel Middle**  
**ABOVE 1GHz**



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1.	10560.000	V	45.4	11.0	56.4	68.2	11.8	130.0	186.0

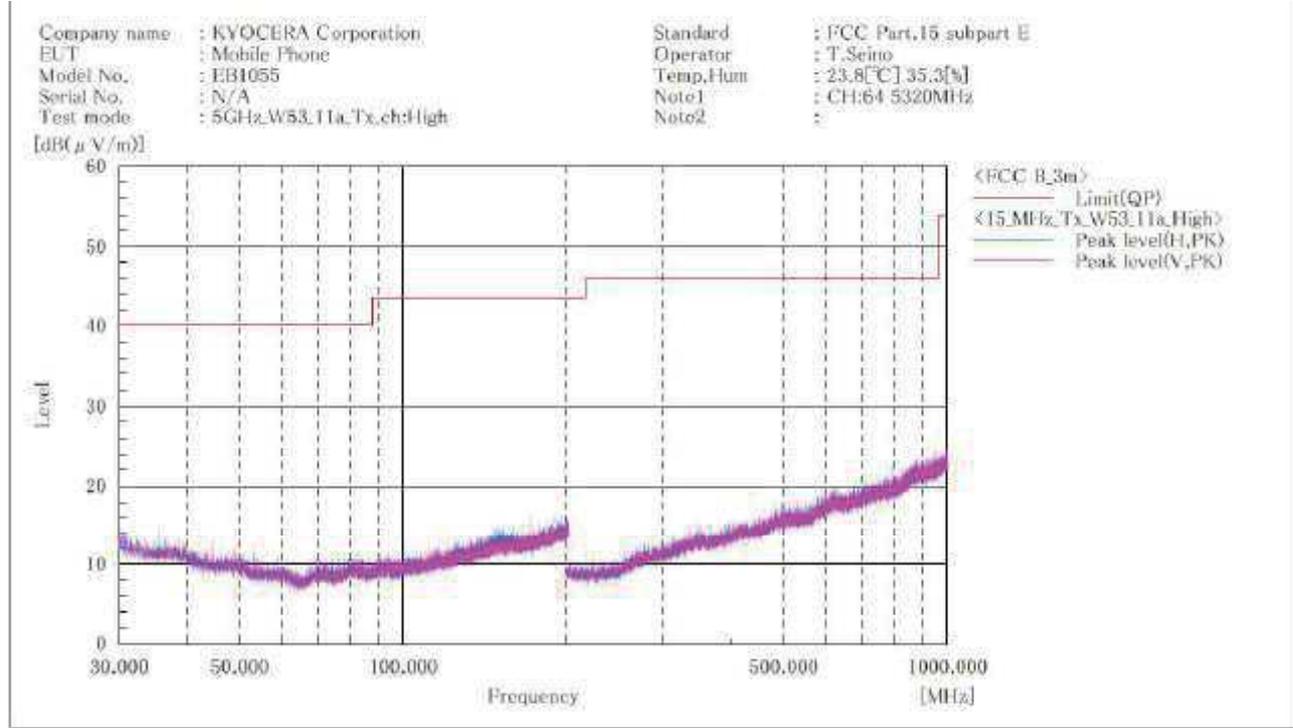
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable - Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

[11a]  
**W53 / Channel High**  
**BELOW 1GHz**



**Final Result**

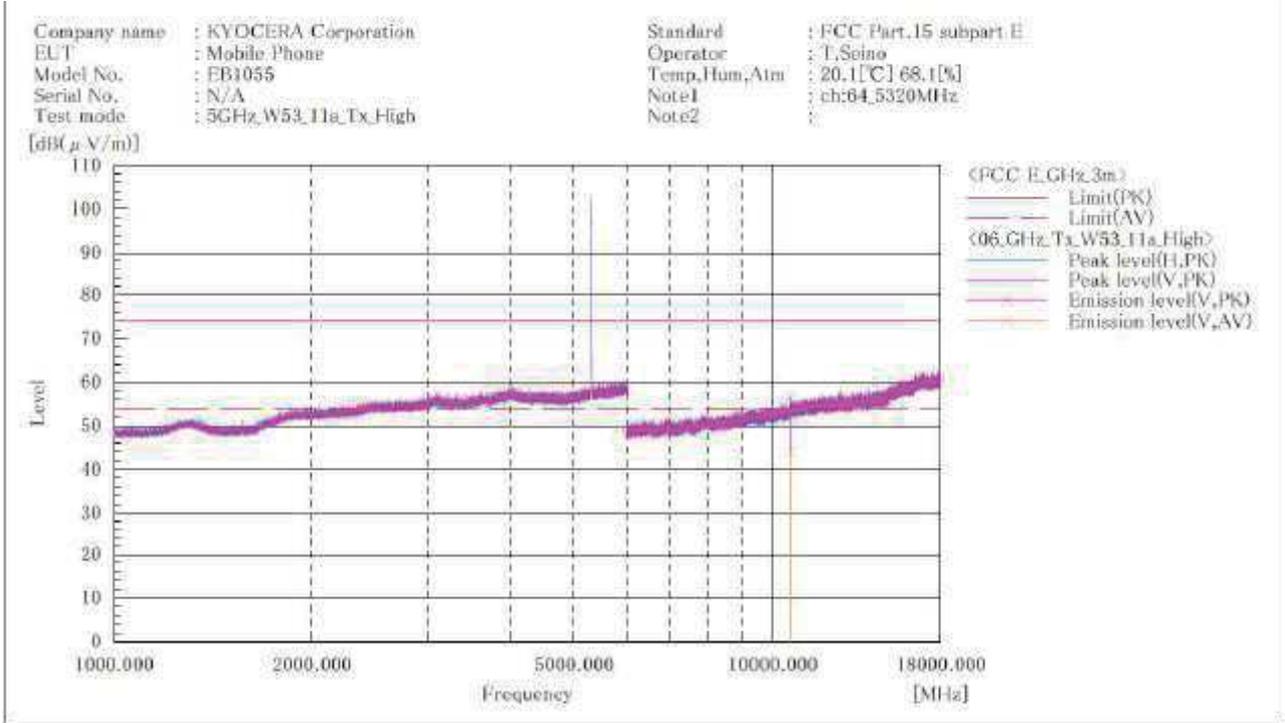
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**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.



[11a]  
**W53 / Channel High**  
**ABOVE 1GHz**



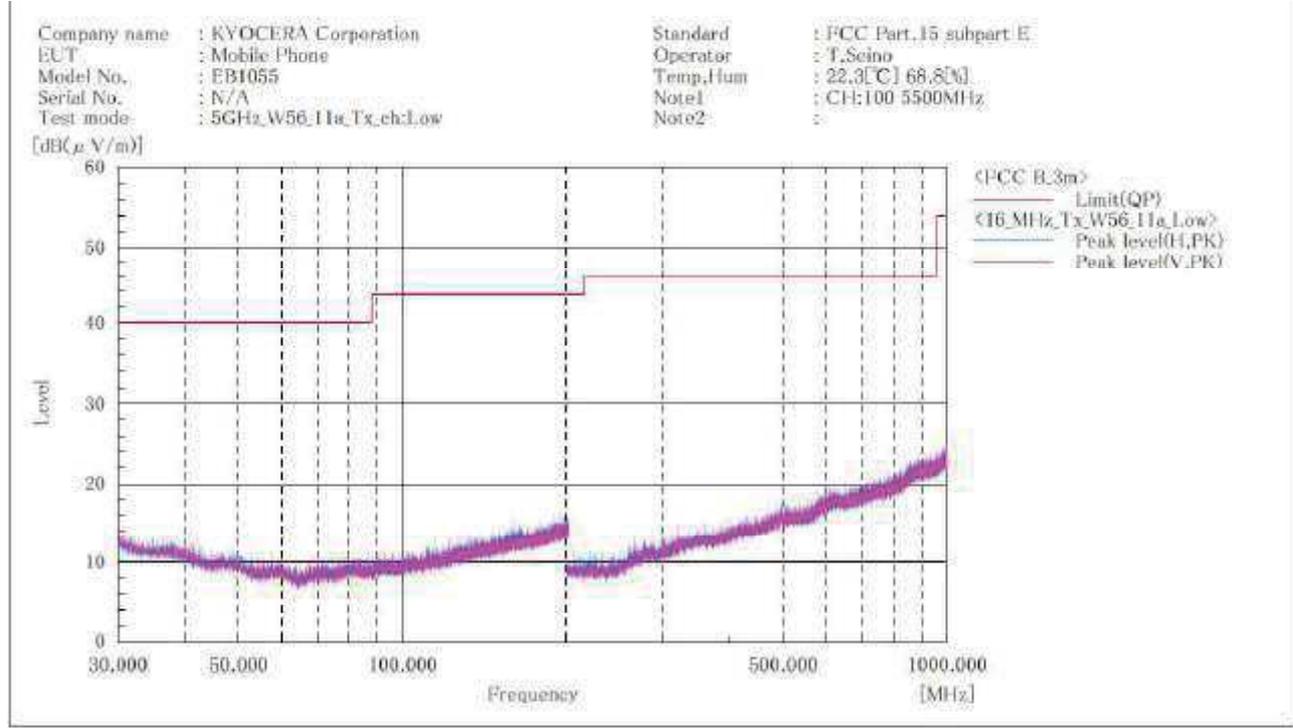
Final Result

No.	Frequency [MHz]	IP	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 [°]
1	10640.000	V	45.4	32.8	11.2	56.6	44.0	74.0	54.0	17.4	10.0	158.0	192.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable - Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.

**[11a]**  
**W56 / Channel Low**  
**BELOW 1GHz**



**Final Result**

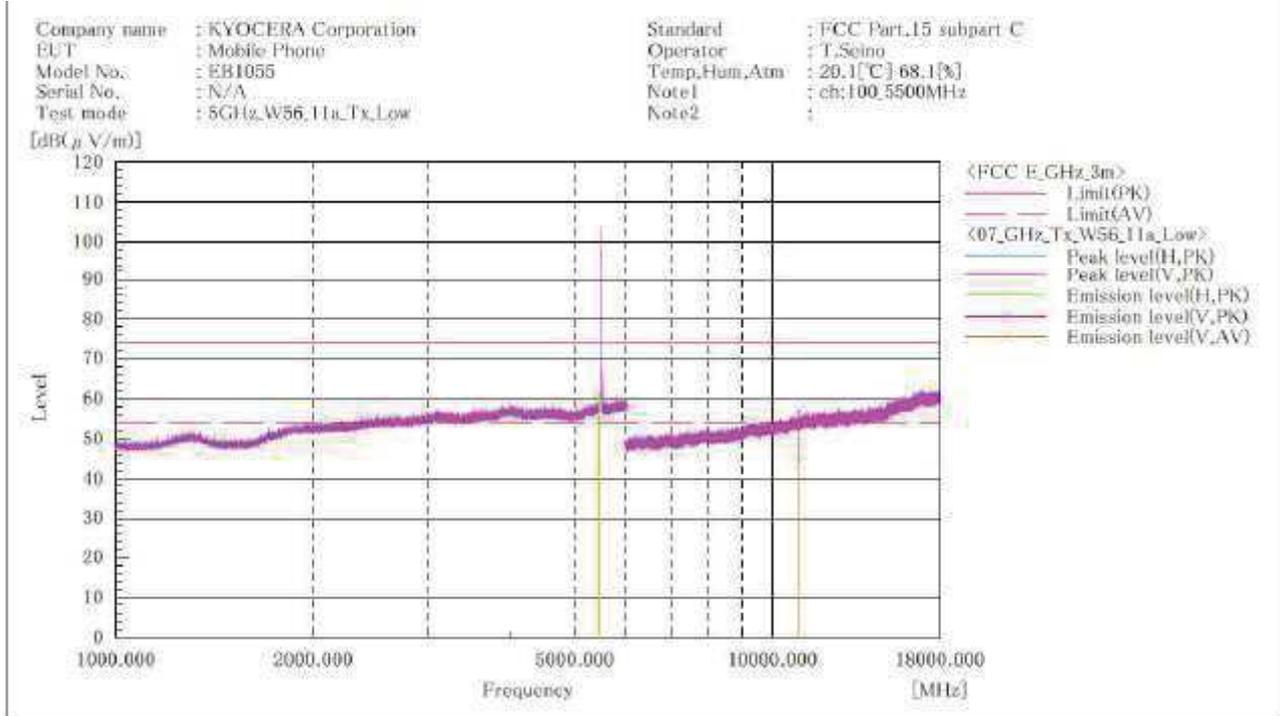
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**Note:**

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



[11a]  
W56 / Channel Low  
ABOVE 1GHz



Final Result

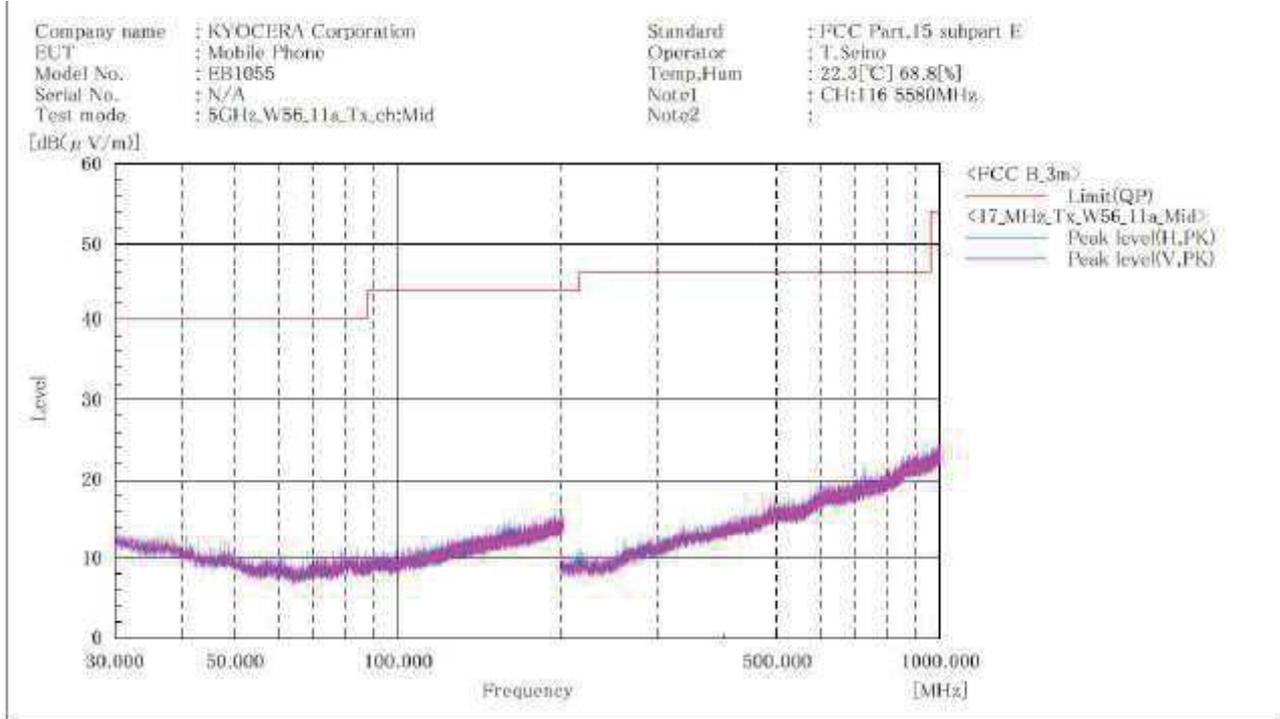
No.	Frequency [MHz]	(P)	Reading PK [dB(µV)]	Reading AV [dB(µV)]	c.F [dB(1/m)]	Result PK [dB(µV/m)]	Result AV [dB(µV/m)]	Limit PK [dB(µV/m)]	Limit AV [dB(µV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	5464.900	H	49.7	---	11.3	61.0	---	68.2	---	7.2	---	127.0	343.0
2	5468.500	V	50.3	---	11.3	61.6	---	68.2	---	6.6	---	169.0	199.0
3	11000.000	V	45.1	31.9	11.9	57.0	43.8	74.0	54.0	17.0	10.2	164.0	191.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp )]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11a]  
**W56 / Channel Middle**  
**BELOW 1GHz**



**Final Result**

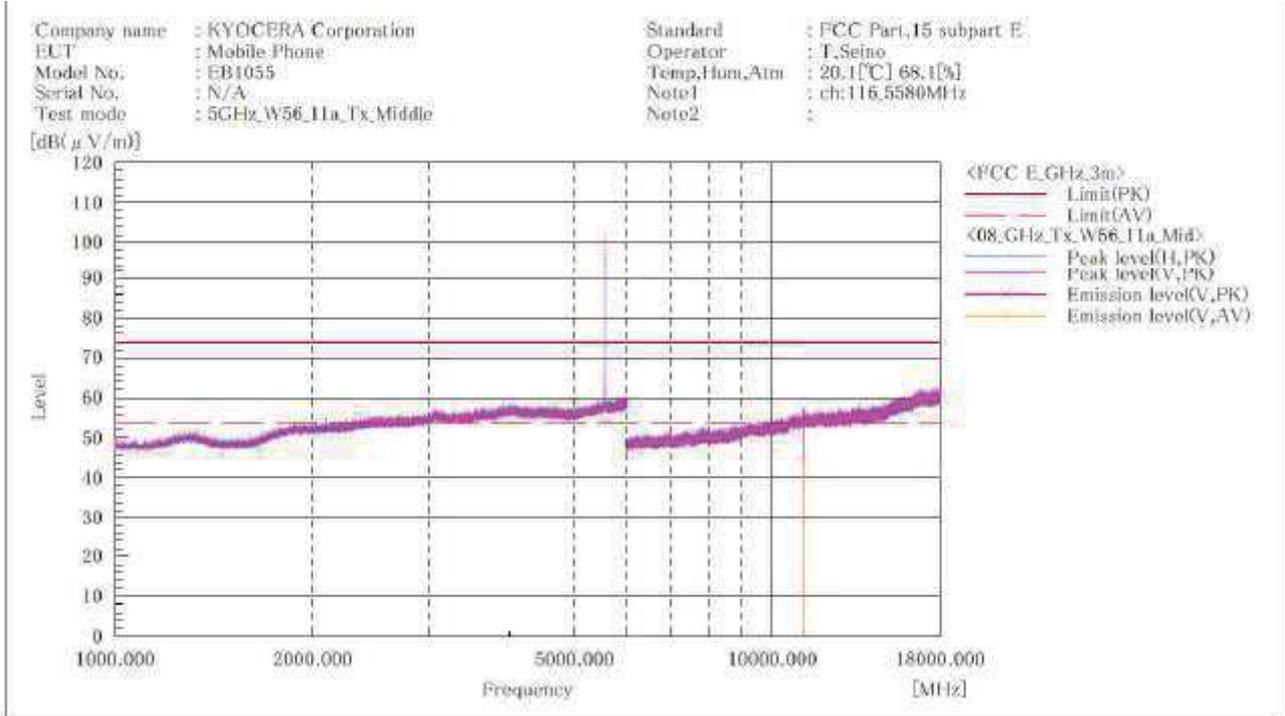
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[° ]

**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.



[11a]  
**W56 / Channel Middle**  
**ABOVE 1GHz**



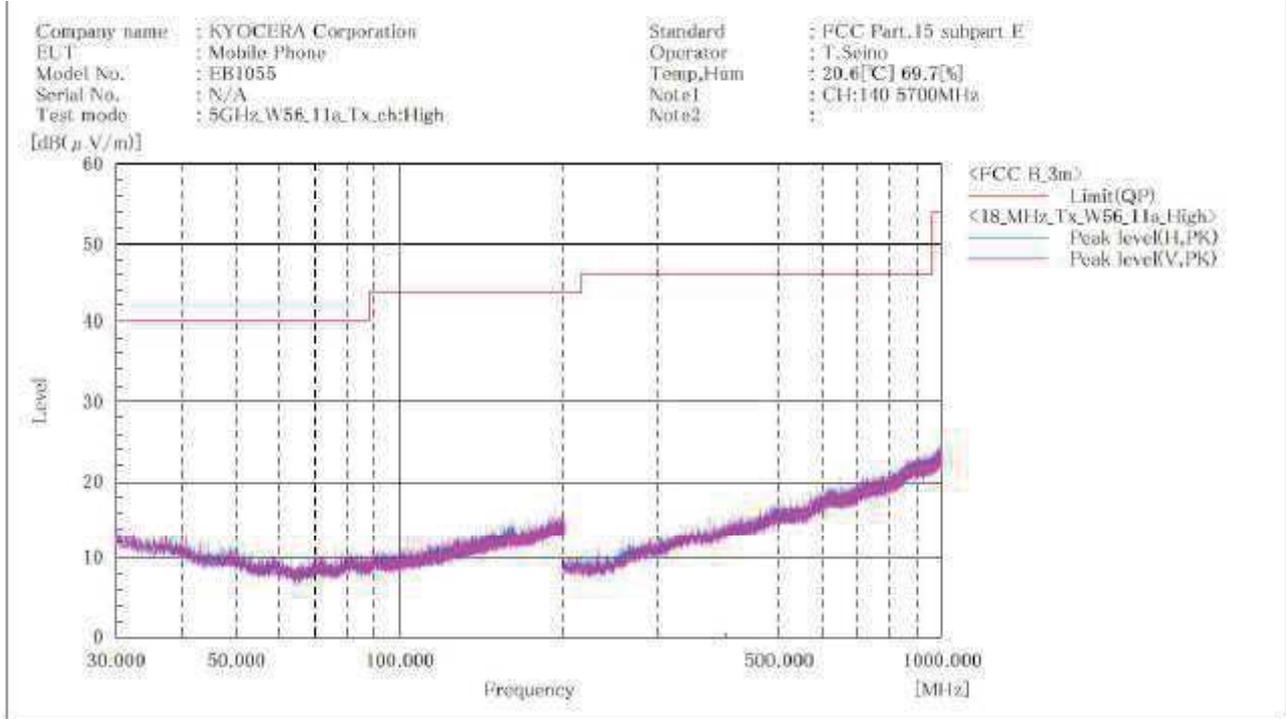
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.f. [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	11160.000	V	45.4	32.3	12.0	57.4	44.3	74.0	54.0	16.6	9.7	125.0	194.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11a]  
**W56 / Channel High**  
**BELOW 1GHz**



Final Result

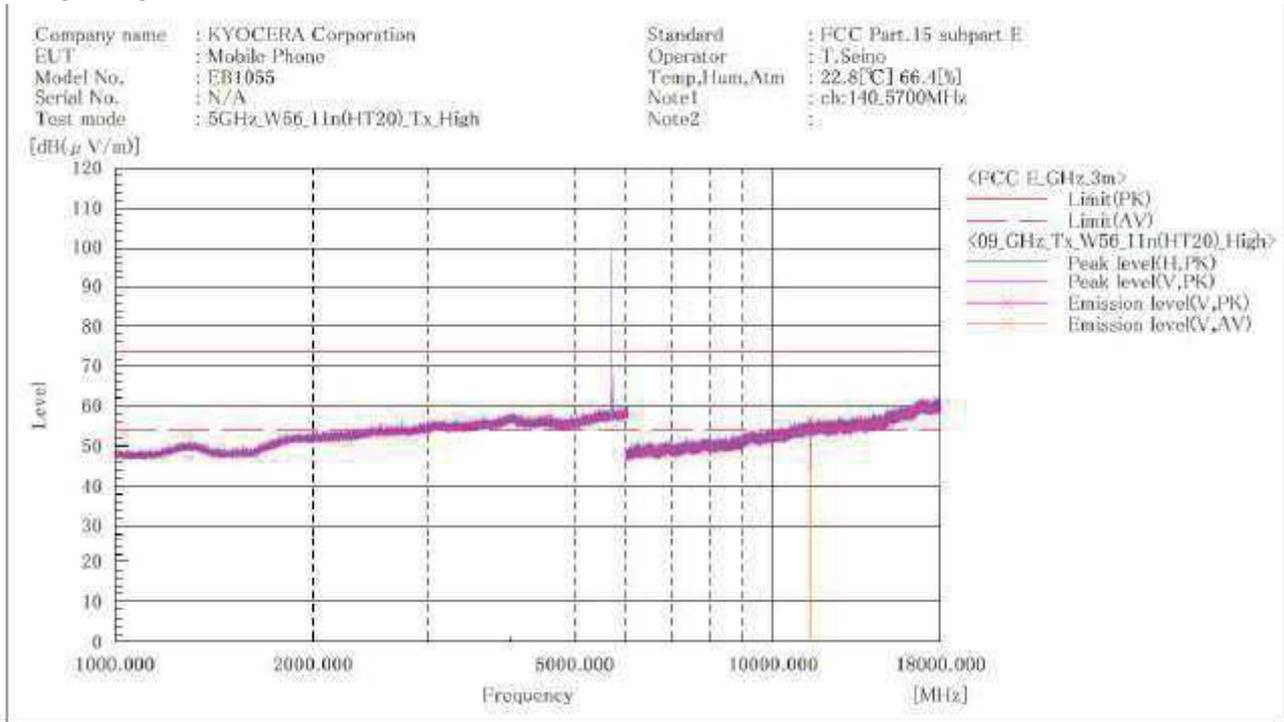
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[° ]

Note:

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



[11a]  
**W56 / Channel High**  
**ABOVE 1GHz**



Final Result

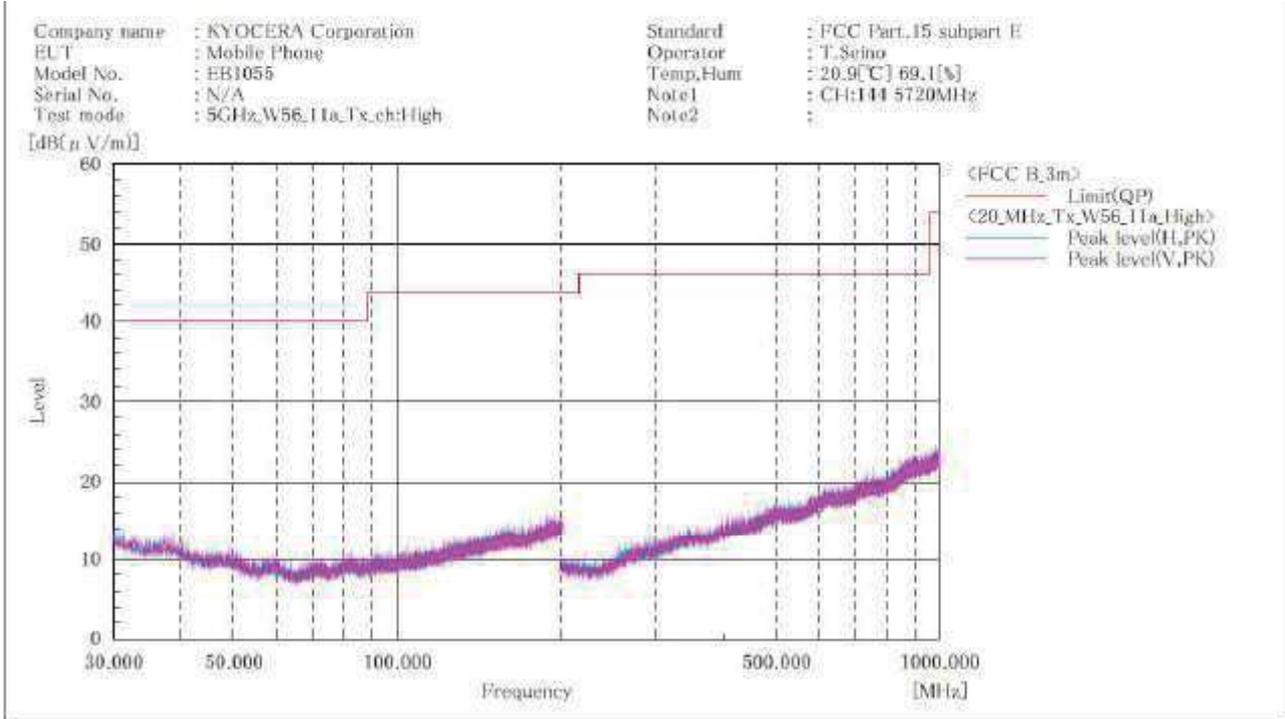
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.F [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	11400.000	Y	45.0	32.4	12.1	57.1	44.5	74.0	54.0	16.9	9.5	138.0	206.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11a]**  
**W56 / Channel High**  
**BELOW 1GHz**



**Final Result**

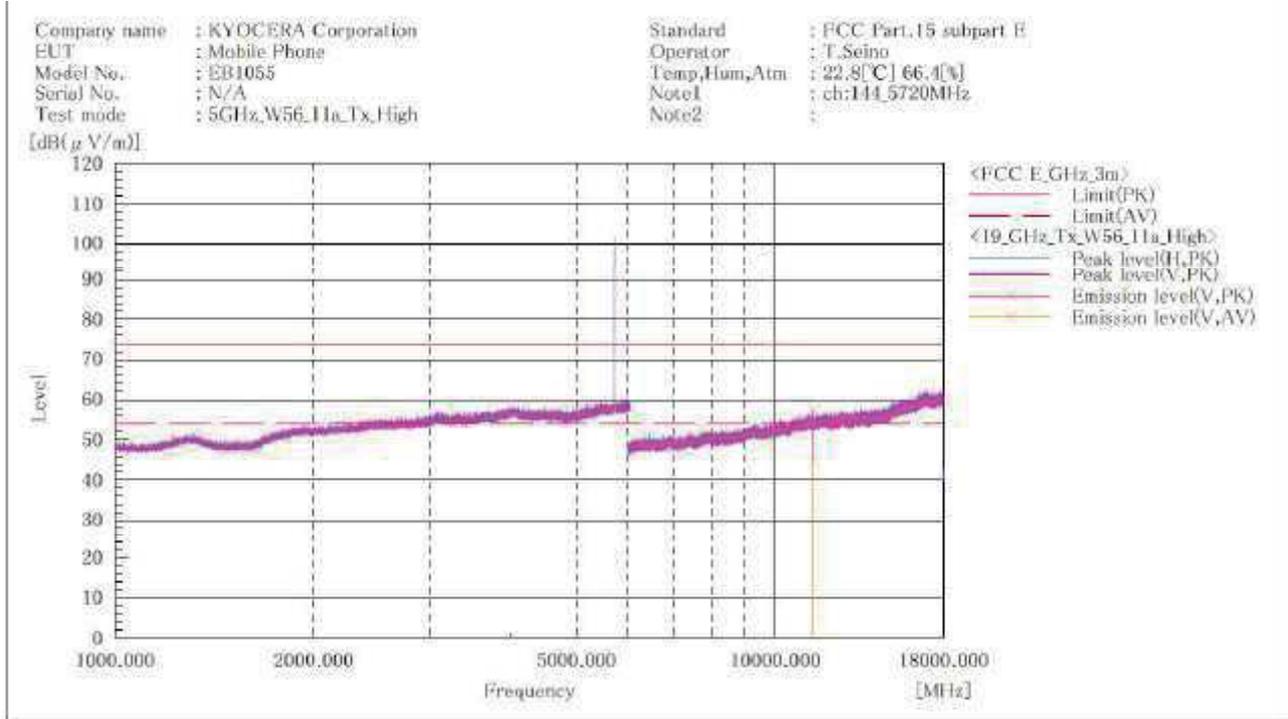
No.	Frequency (P)	o. f	Height	Angle
	[MHz]	[dB (1/m)]	[cm]	[° ]

**Note:**

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



[11a]  
**W56 / Channel High**  
**ABOVE 1GHz**



Final Result

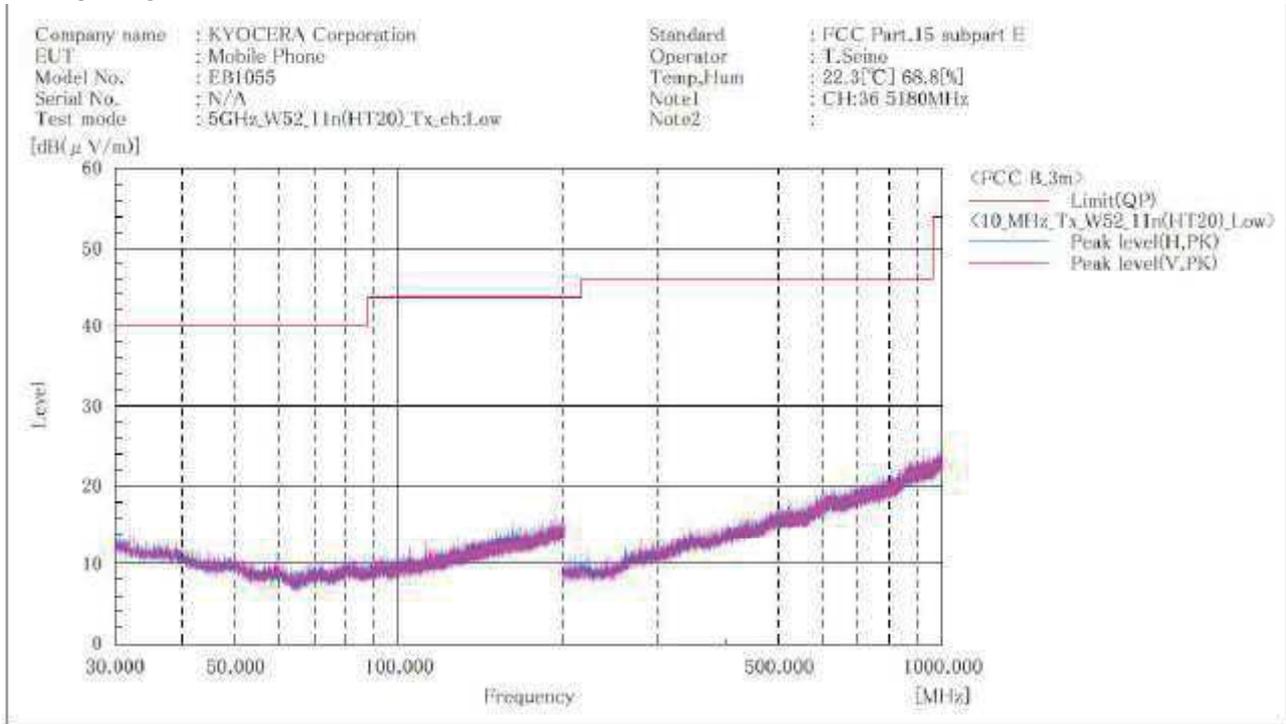
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	11446.000	Y	45.3	32.5	12.1	57.4	44.6	74.0	54.0	16.6	9.4	157.0	207.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT20)]**  
**W52 / Channel Low**  
**BELOW 1GHz**



**Final Result**

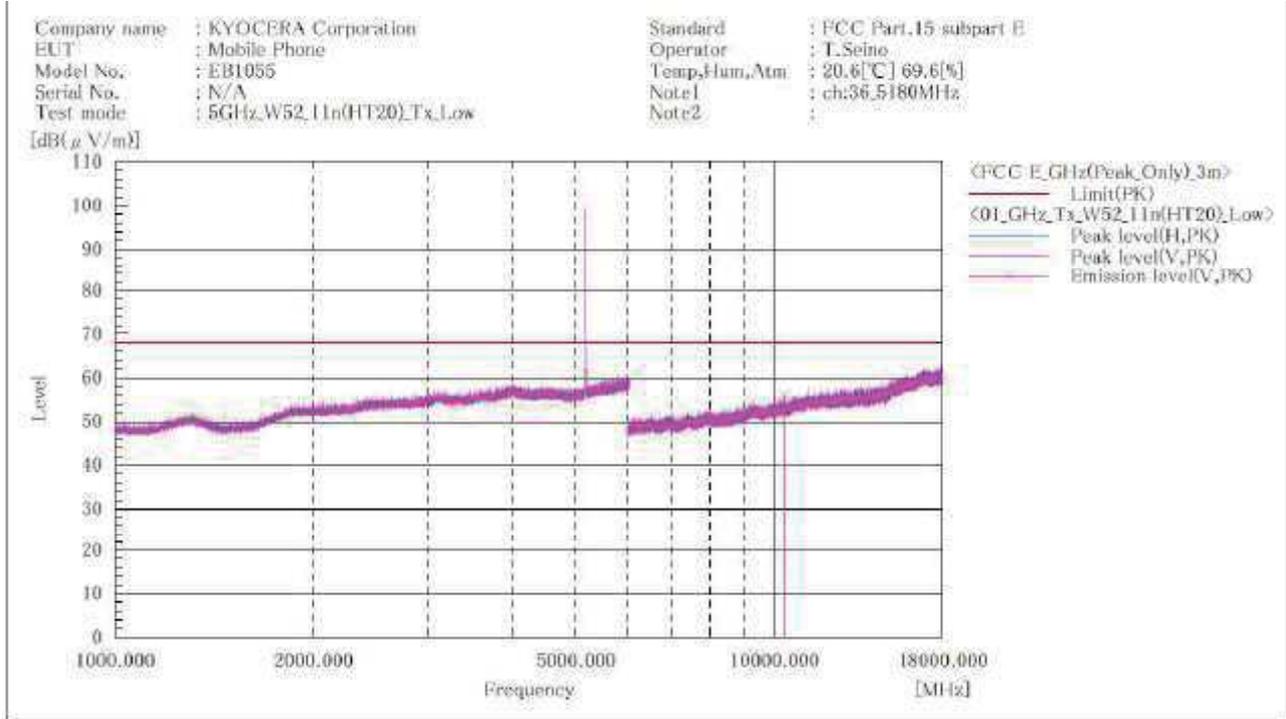
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB (1/m)]	[cm]	[° ]

**Note:**

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



**[11n (HT20)]**  
**W52 / Channel Low**  
**ABOVE 1GHz**



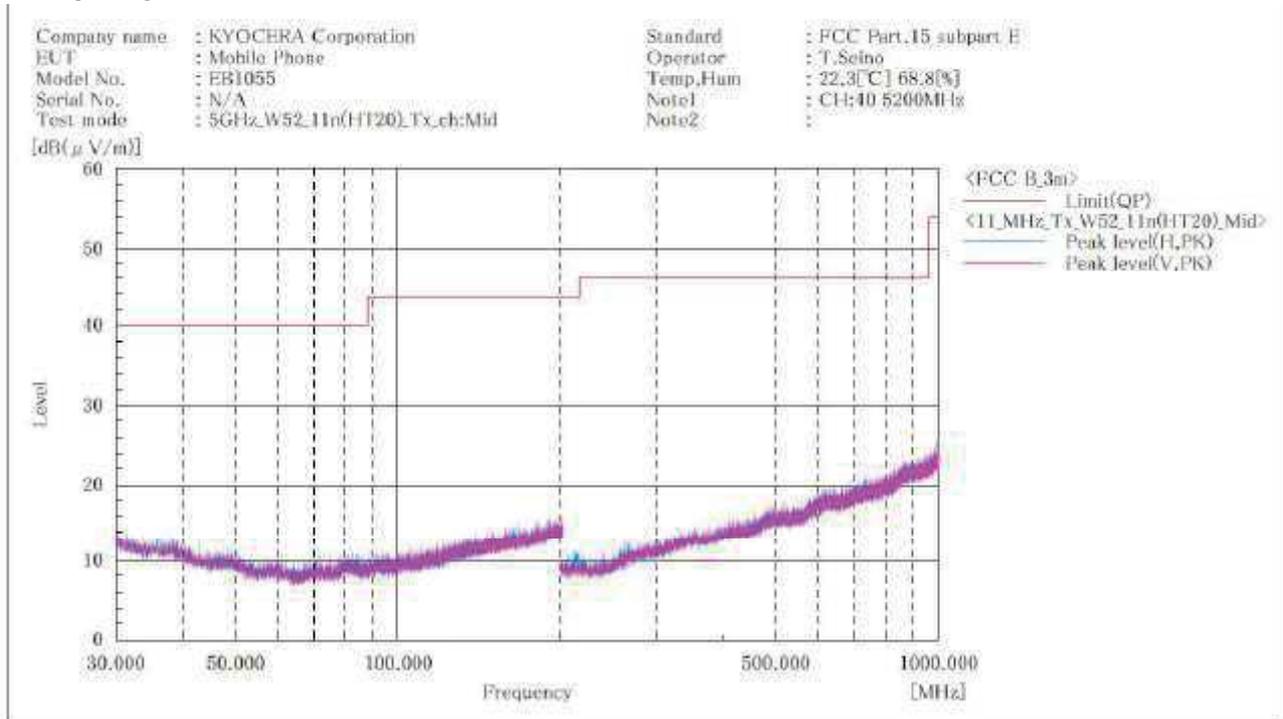
**Final Result**

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c. f. [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10360.000	V	45.4	10.6	56.0	68.2	12.2	127.0	184.0

**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.

**[11n (HT20)]**  
**W52 / Channel Middle**  
**BELOW 1GHz**



**Final Result**

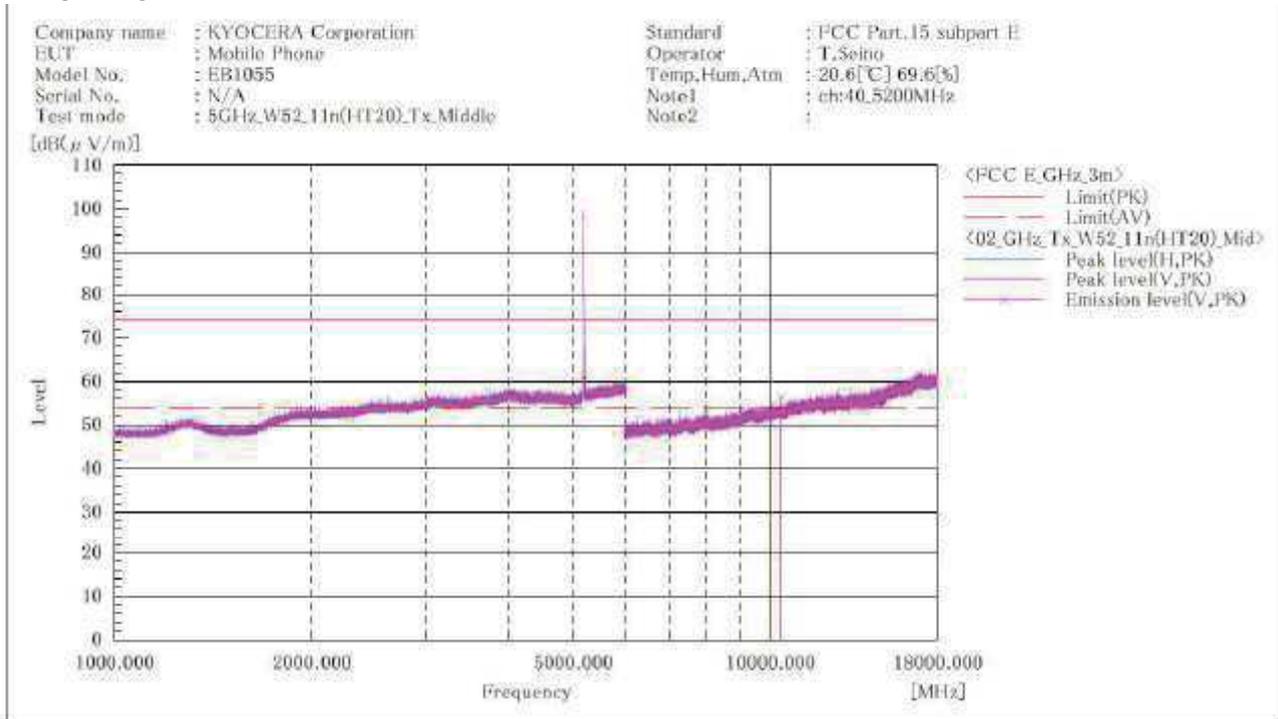
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**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)]**  
**W52 / Channel Middle**  
**ABOVE 1GHz**



**Final Result**

No.	Frequency (P)	Reading	c. f	Result	Limit	Margin	Height	Angle
	[MHz]	PK [dB(μV)]	[dB(1/m)]	PK [dB(μV/m)]	PK [dB(μV/m)]	PK [dB]	[cm]	[°]
1	10400.000	Y 45.8	10.7	56.5	68.2	11.7	125.0	186.0

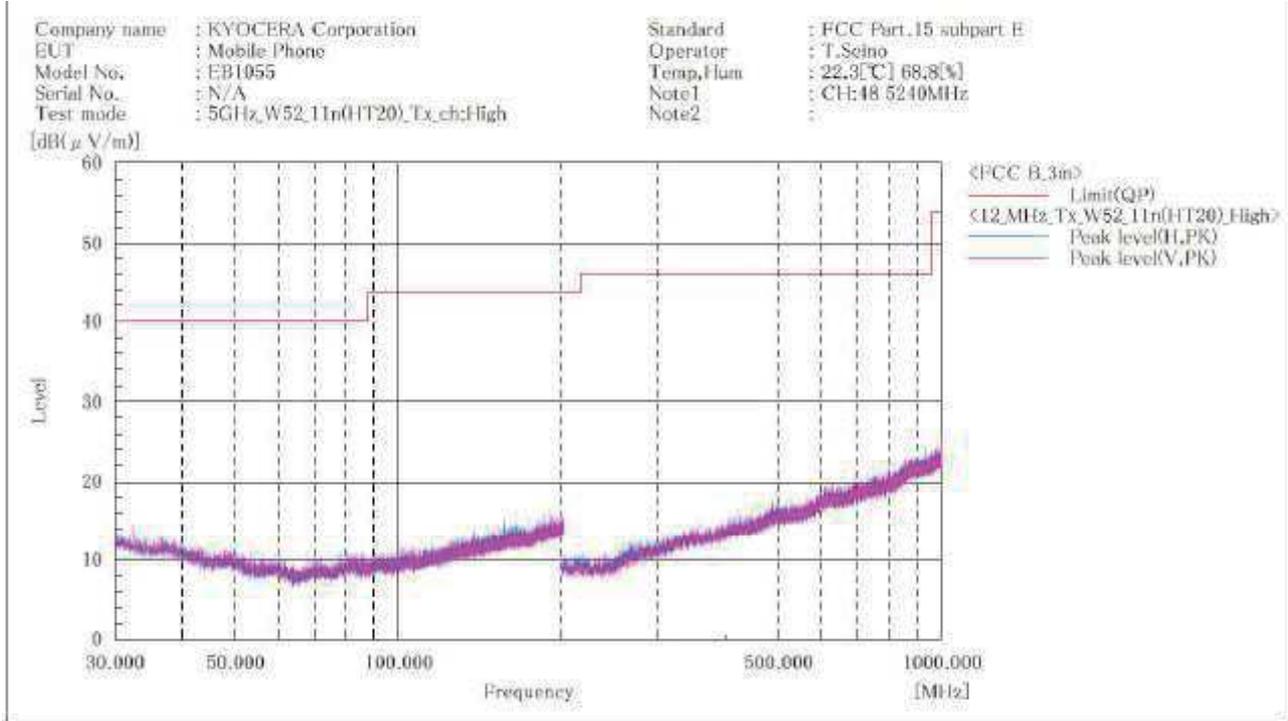
**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp )]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**[11n (HT20)]**  
**W52 / Channel High**  
**BELOW 1GHz**



**Final Result**

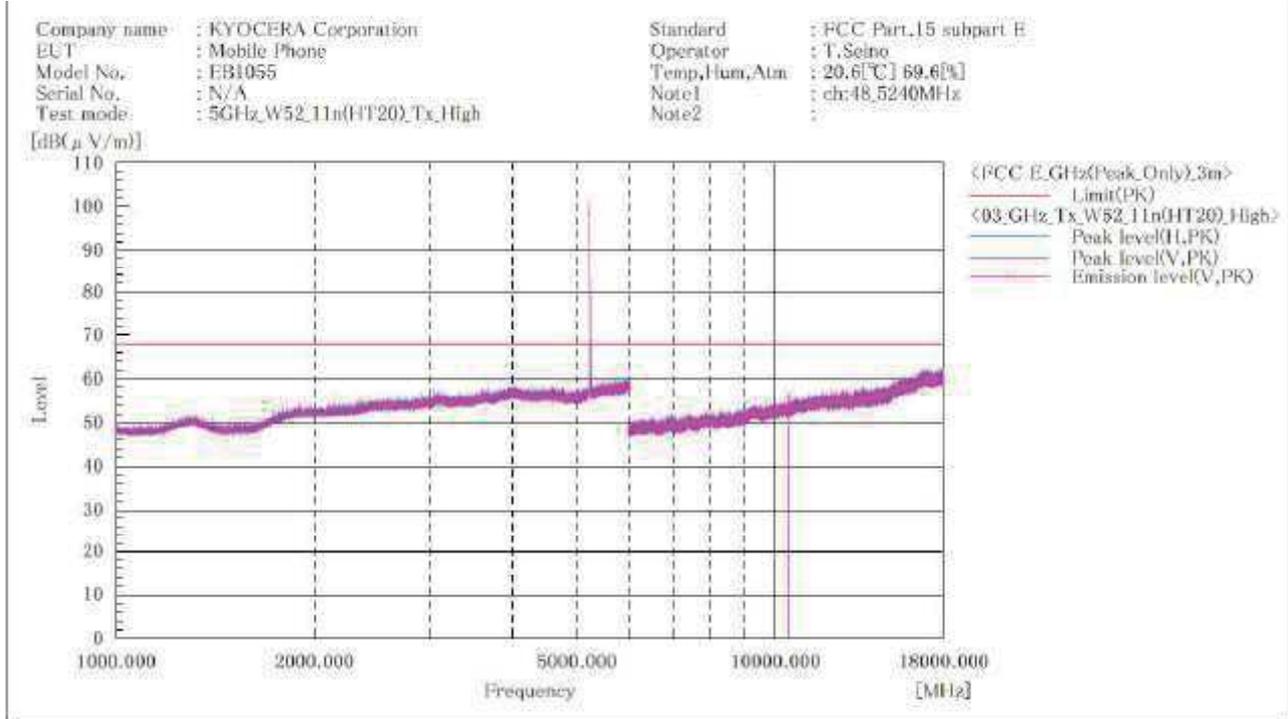
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**Note:**

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



**[11n (HT20)]**  
**W52 / Channel High**  
**ABOVE 1GHz**



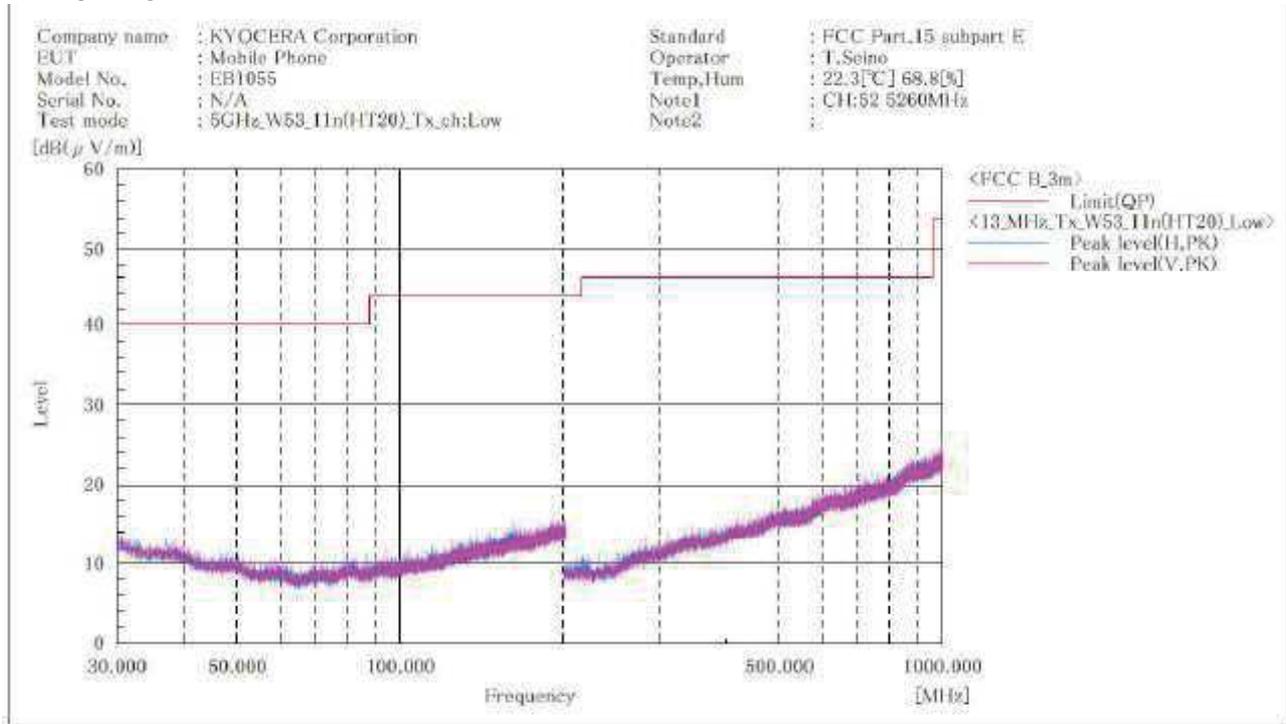
**Final Result**

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10480.000	V	45.5	10.9	56.4	68.2	11.8	137.0	186.0

**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.

**[11n (HT20)]**  
**W53 / Channel Low**  
**BELOW 1GHz**



**Final Result**

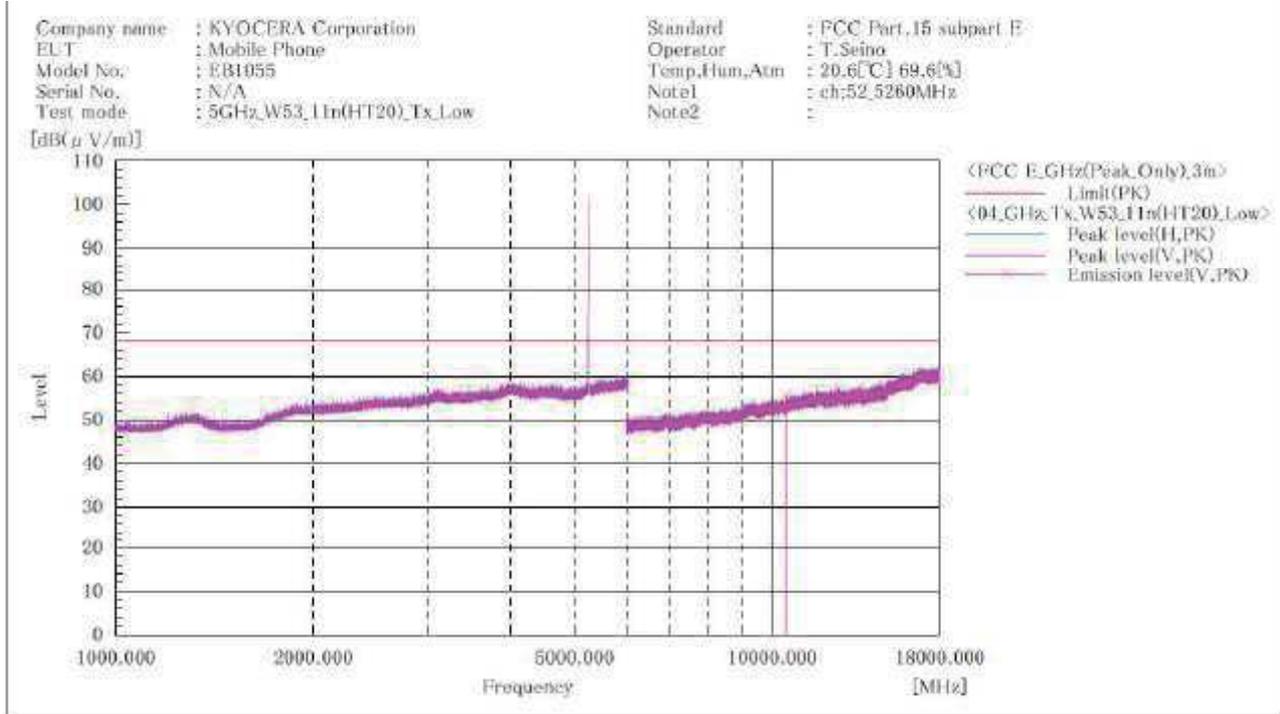
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**Note:**

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



**[11n (HT20)]  
W53 / Channel Low  
ABOVE 1GHz**



**Final Result**

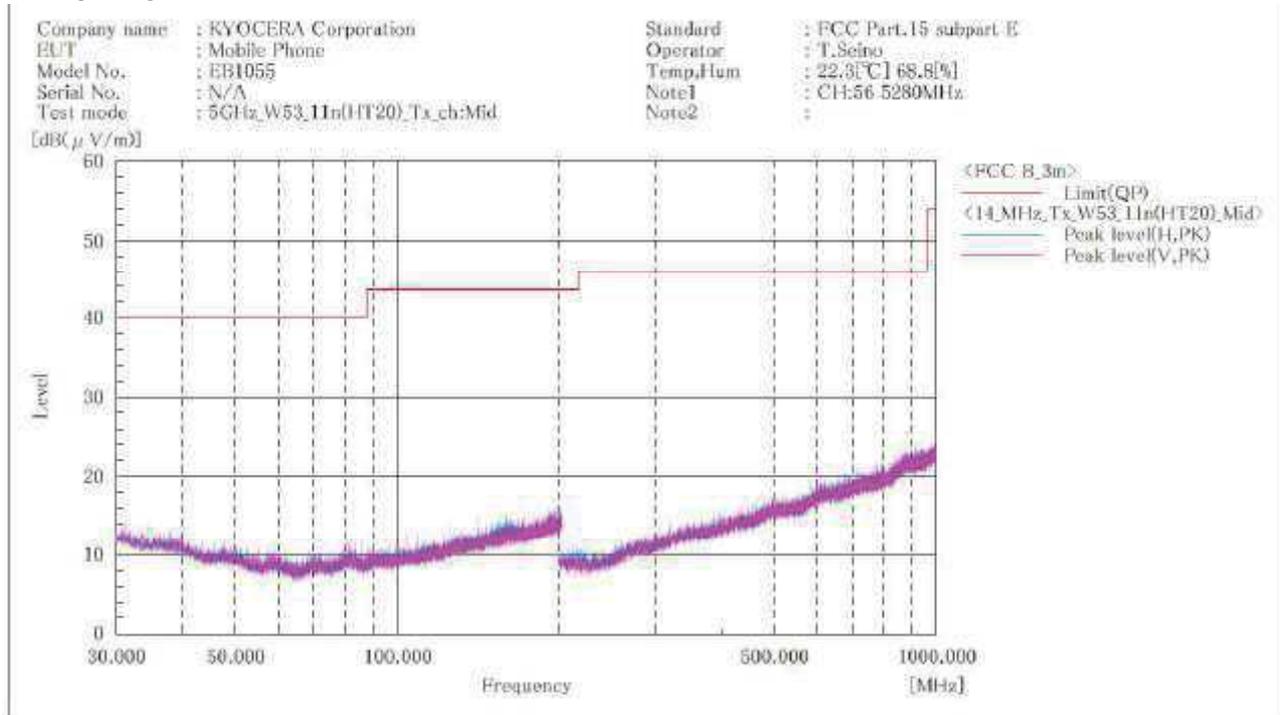
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10520.000	V	44.9	10.9	55.8	68.2	12.4	140.0	187.0

**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp )]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT20)]**  
**W53 / Channel Middle**  
**BELOW 1GHz**



**Final Result**

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

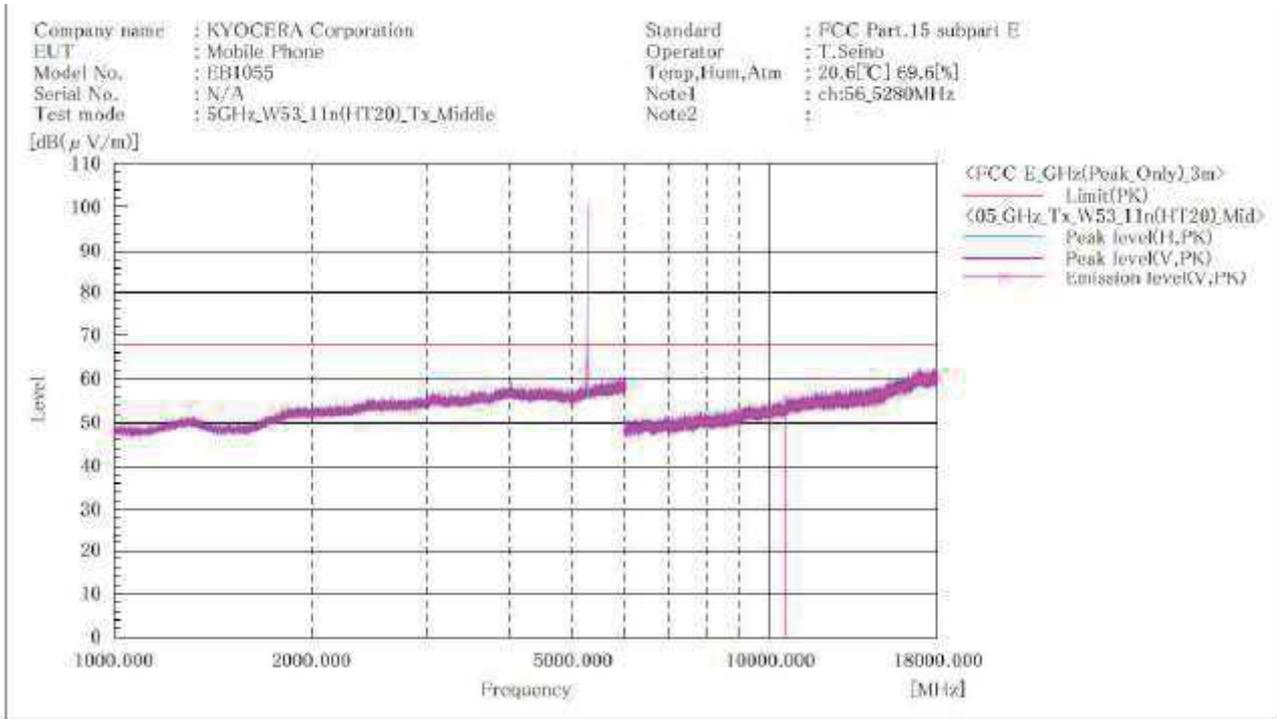
**Note:**

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.



Japan

**[11n (HT20)]**  
**W53 / Channel Middle**  
**ABOVE 1GHz**



**Final Result**

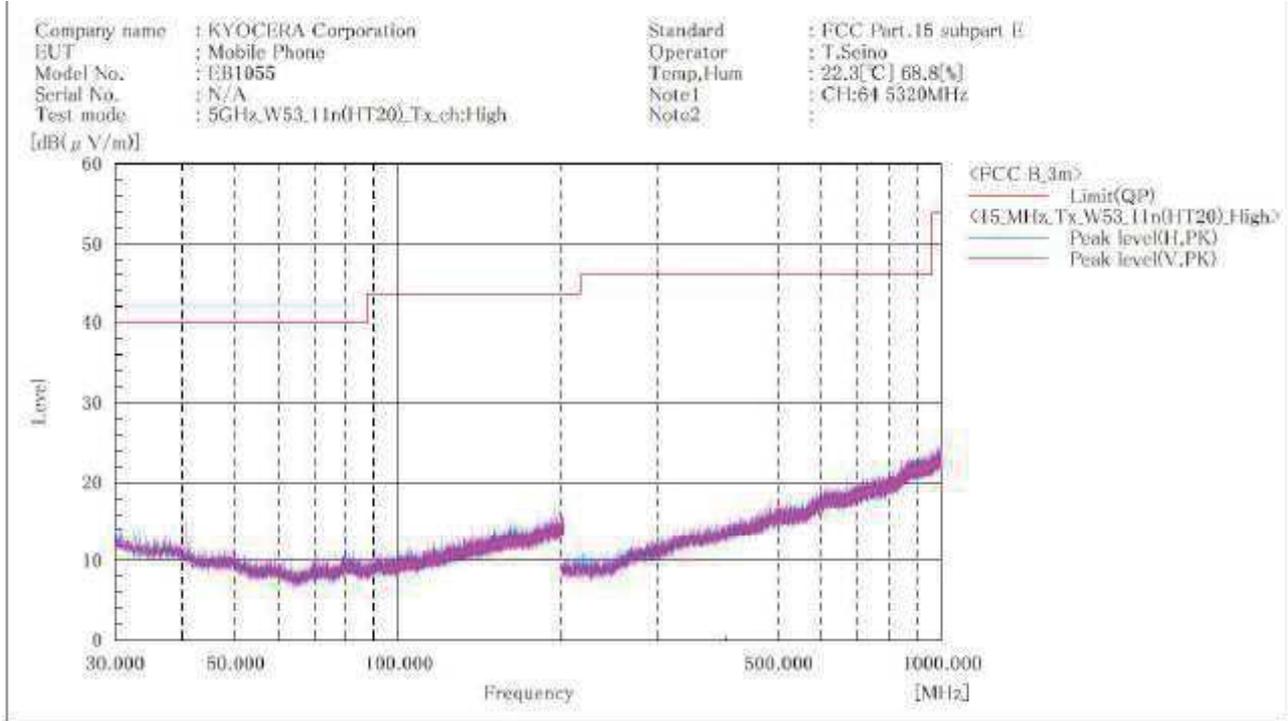
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10560.000	V	45.1	11.0	56.1	68.2	12.1	134.0	182.0

**Note:**

1. Emission Level (Margin) = Limit - [Reading + Fa ctor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT20)]**  
**W53 / Channel High**  
**BELOW 1GHz**



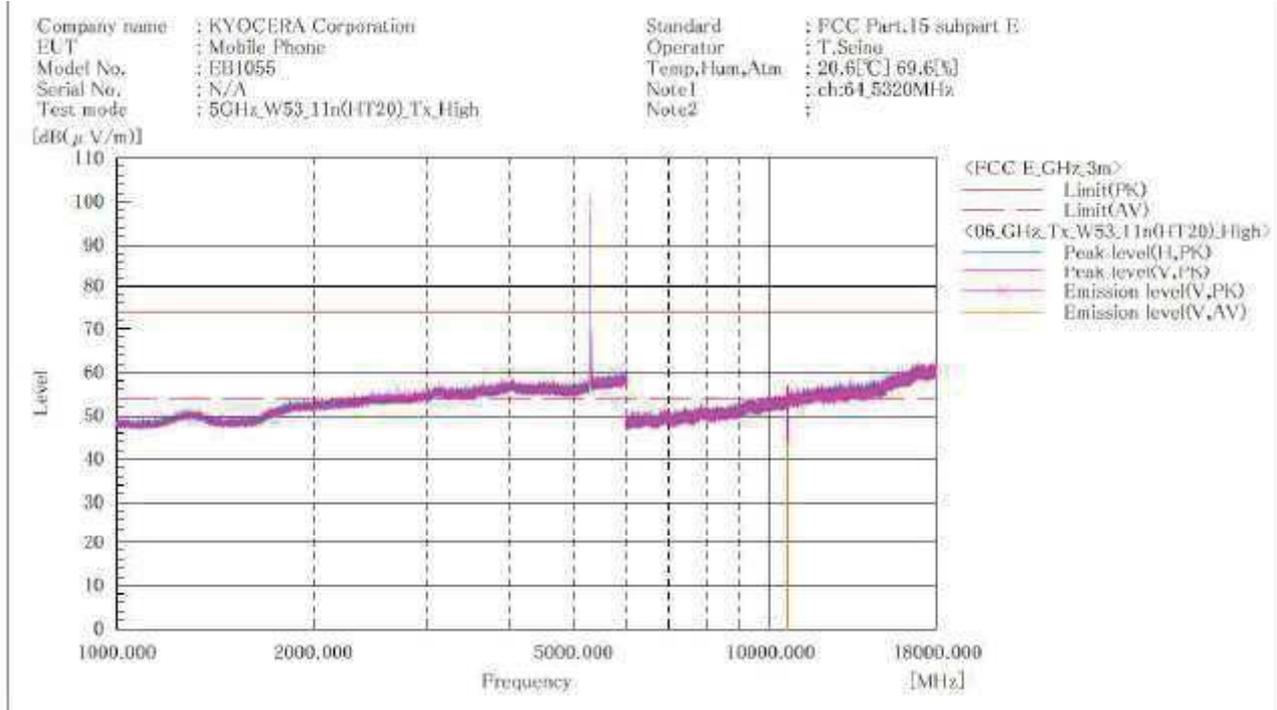
**Final Result**

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 1000 MHz at the 3 meters distance.

**[11n (HT20)]**  
**W53 / Channel High**  
**ABOVE 1GHz**



Final Result

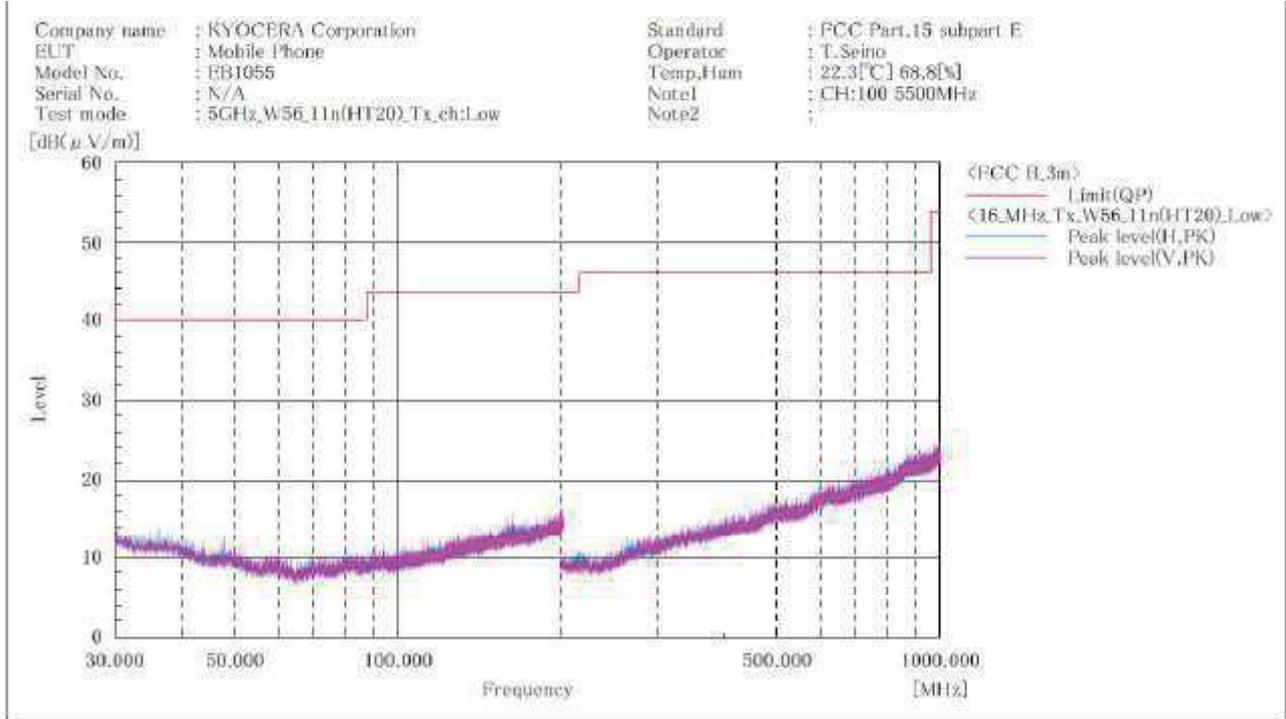
No.	Frequency (f)	Reading	Reading	c.F	Result	Result	Limit	Limit	Margin	Margin	Height	Angle	
	[MHz]	PK	AV	[dB(1/m)]	PK	AV	PK	AV	PK	AV	[cm]	[°]	
		[dB(μV)]	[dB(μV)]		[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[dB]			
1	10640.000	V	45.7	32.8	11.2	56.9	44.0	74.0	54.0	17.1	10.0	136.0	188.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT20)]**  
**W56 / Channel Low**  
**BELOW 1GHz**



**Final Result**

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

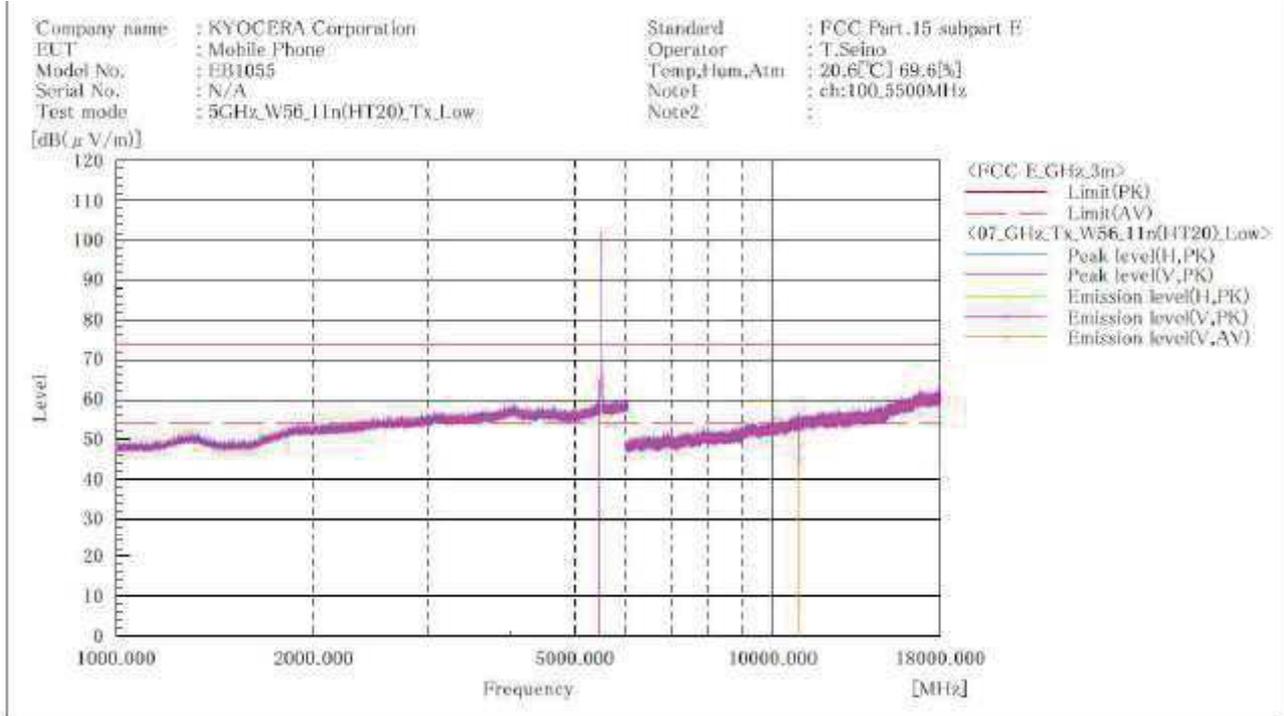
**Note:**

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.



Japan

**[11n (HT20)]  
W56 / Channel Low  
ABOVE 1GHz**



Final Results

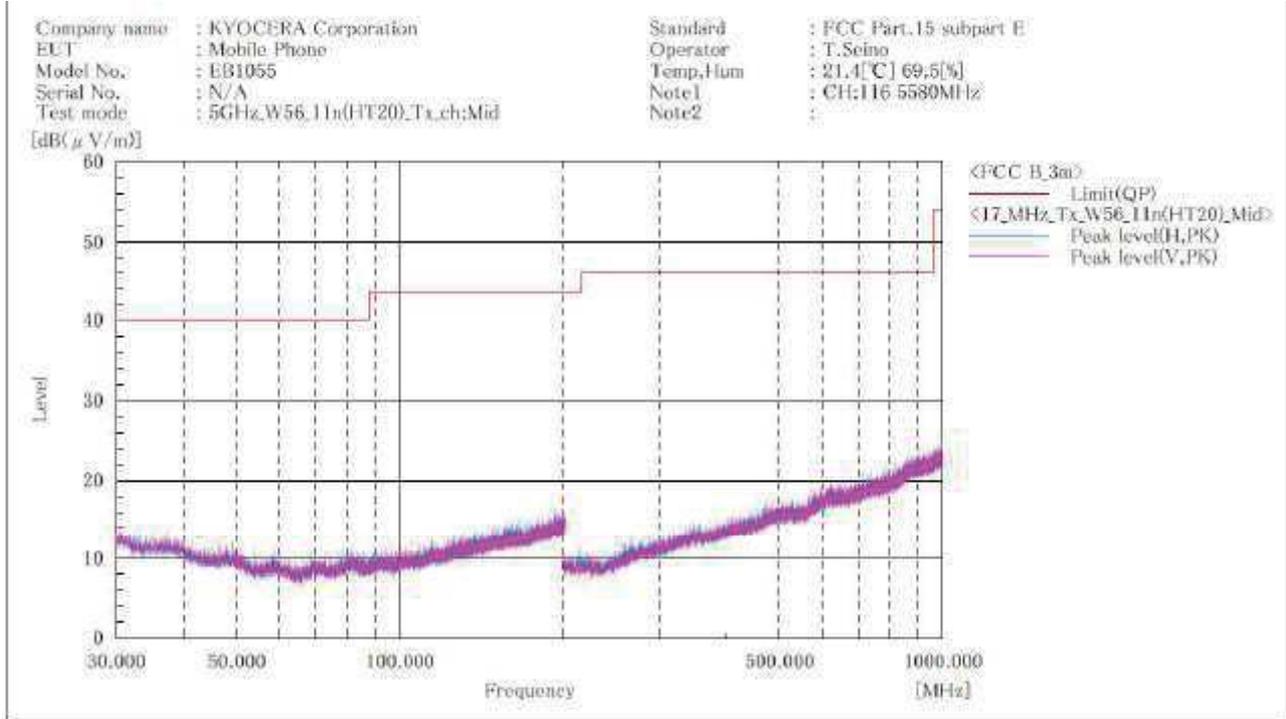
No.	Frequency [MHz]	(F)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.F [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	5469.900	H	52.2		11.3	63.5		68.2	54.0	4.7		149.0	0.0
2	5464.700	V	53.4		11.3	64.7		68.2	54.0	3.5		136.0	193.0
3	11000.000	V	44.7	32.1	11.9	56.6	44.0	74.0	54.0	17.4	10.9	121.0	188.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT20)]**  
**W56 / Channel Middle**  
**BELOW 1GHz**



Final Result

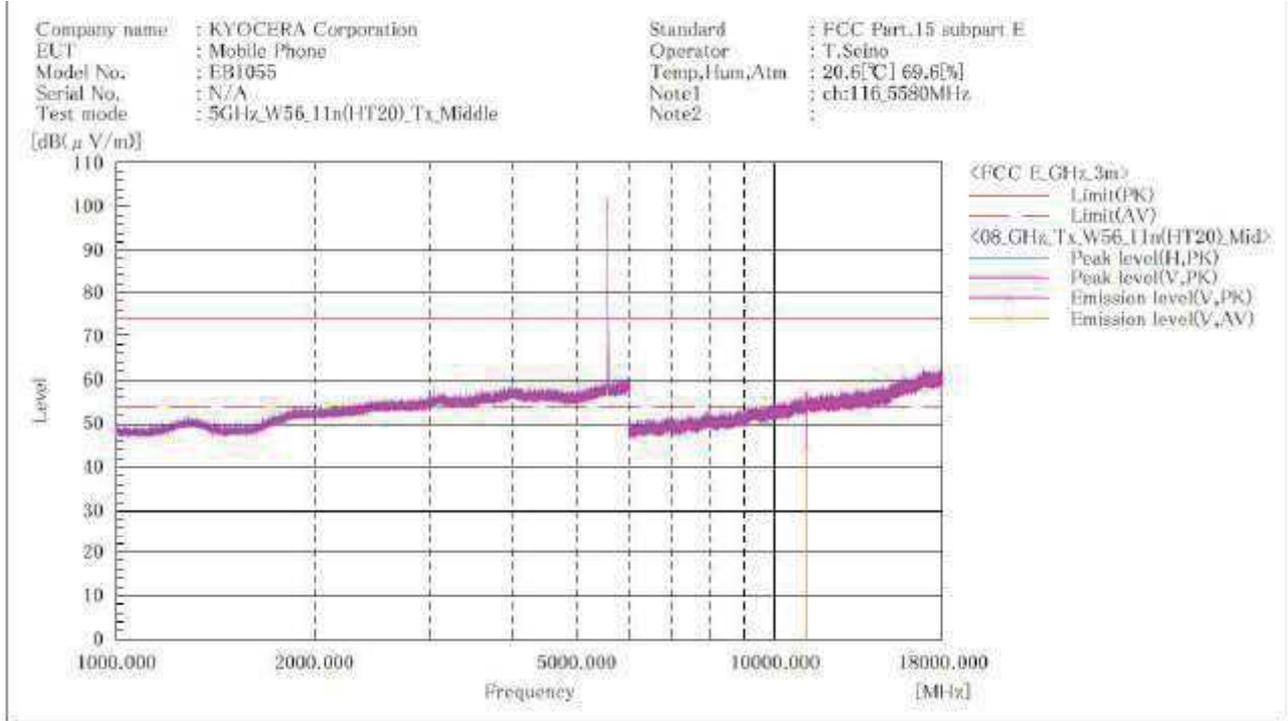
No.	Frequency (P)	c. f.	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

Note:

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



**[11n (HT20)]**  
**W56 / Channel Middle**  
**ABOVE 1GHz**



Final Result

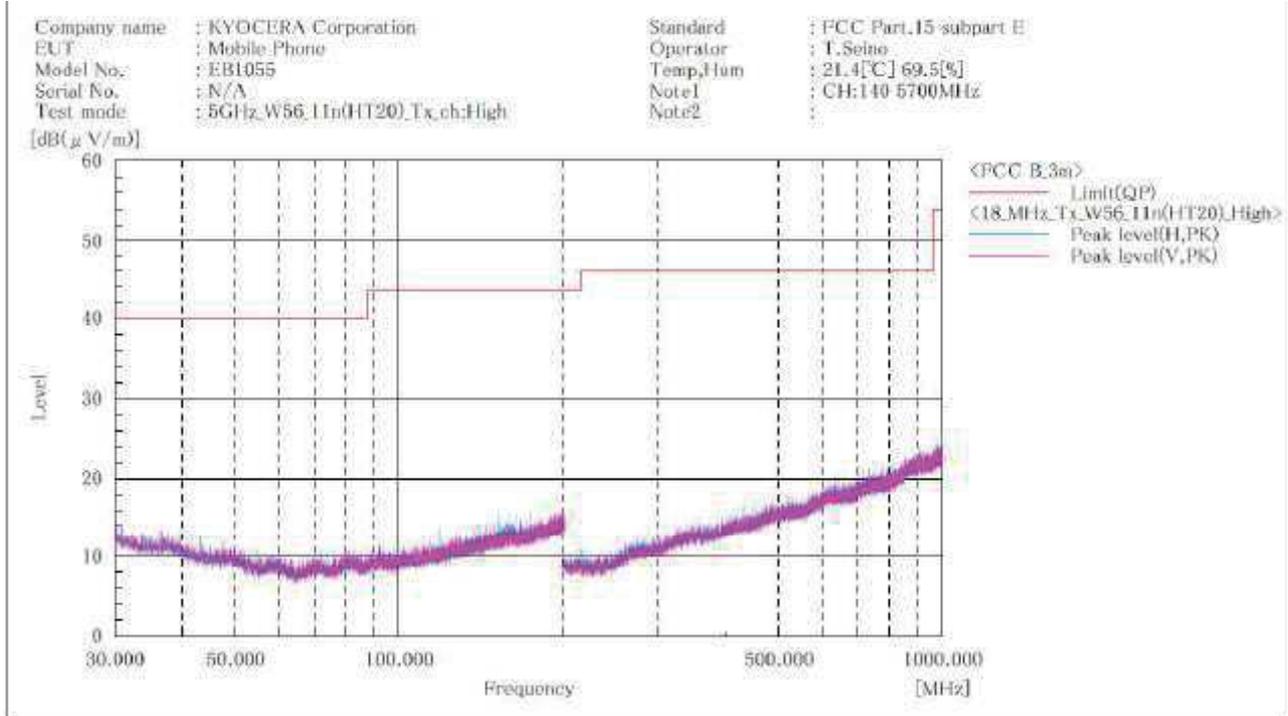
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.f. [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	11160.000	V	45.1	32.3	12.0	57.1	44.3	74.0	54.0	16.9	9.7	127.0	193.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT20)]**  
**W56 / Channel High**  
**BELOW 1GHz**



Final Result

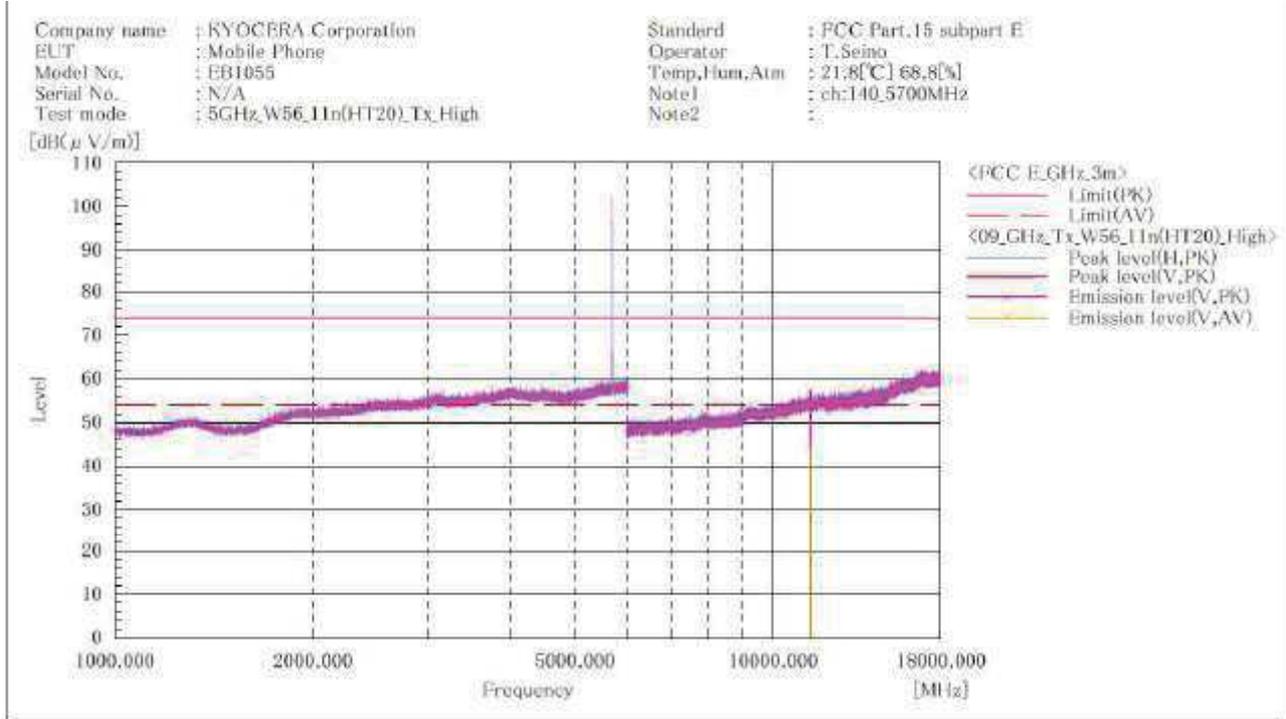
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB (1/m)]	[cm]	[° ]

Note:

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



**[11n (HT20)]**  
**W56 / Channel High**  
**ABOVE 1GHz**



Final Result

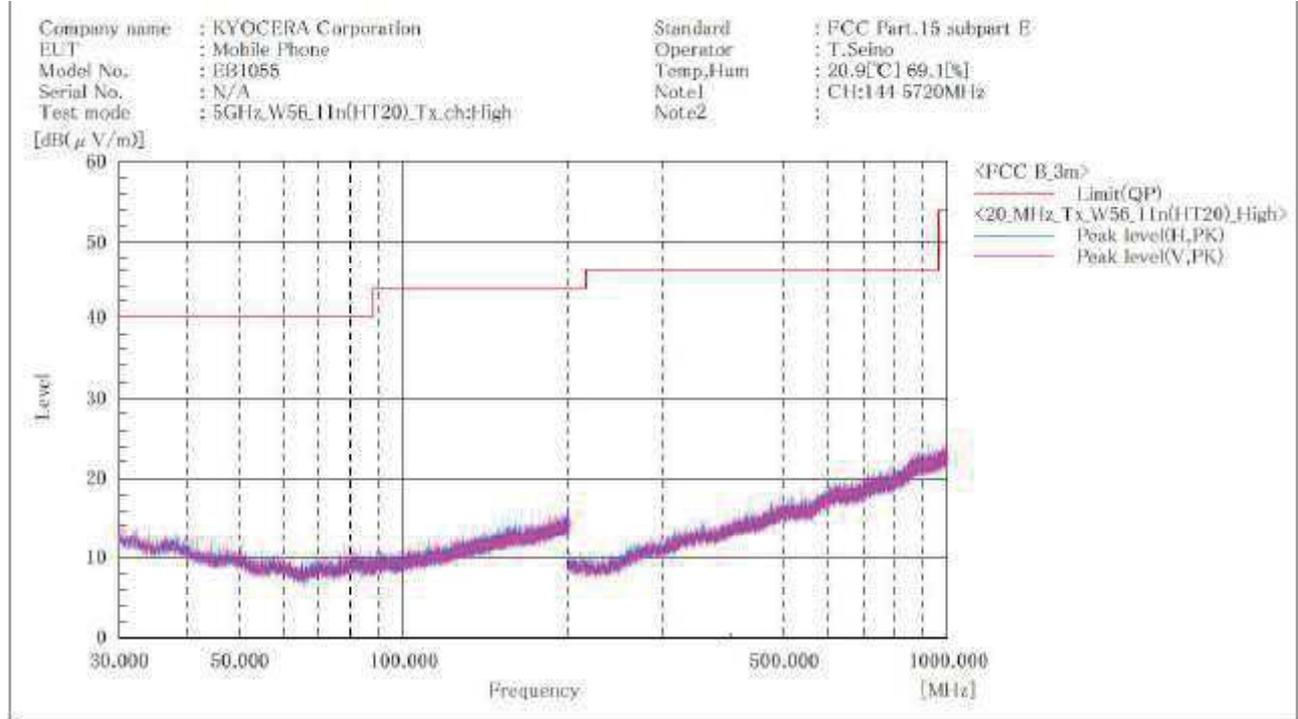
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.F [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	11400.000	Y	45.2	32.2	12.1	57.3	44.3	74.0	54.0	16.7	9.7	136.0	197.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT20)]**  
**W56 / Channel High**  
**BELOW 1GHz**



**Final Result**

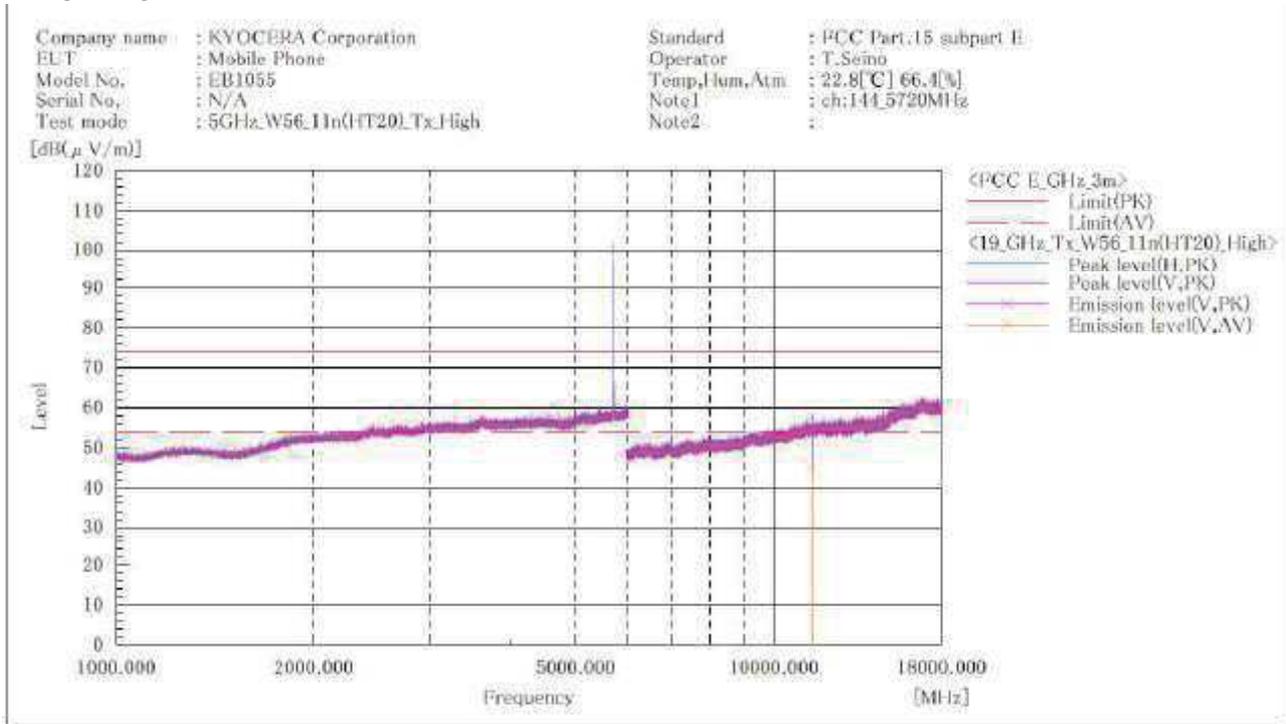
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**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)]  
W56 / Channel High  
ABOVE 1GHz**



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 [°]
1	11440.000	V	45.8	32.5	12.2	58.0	44.7	74.0	54.0	16.0	9.3	140.0	208.0

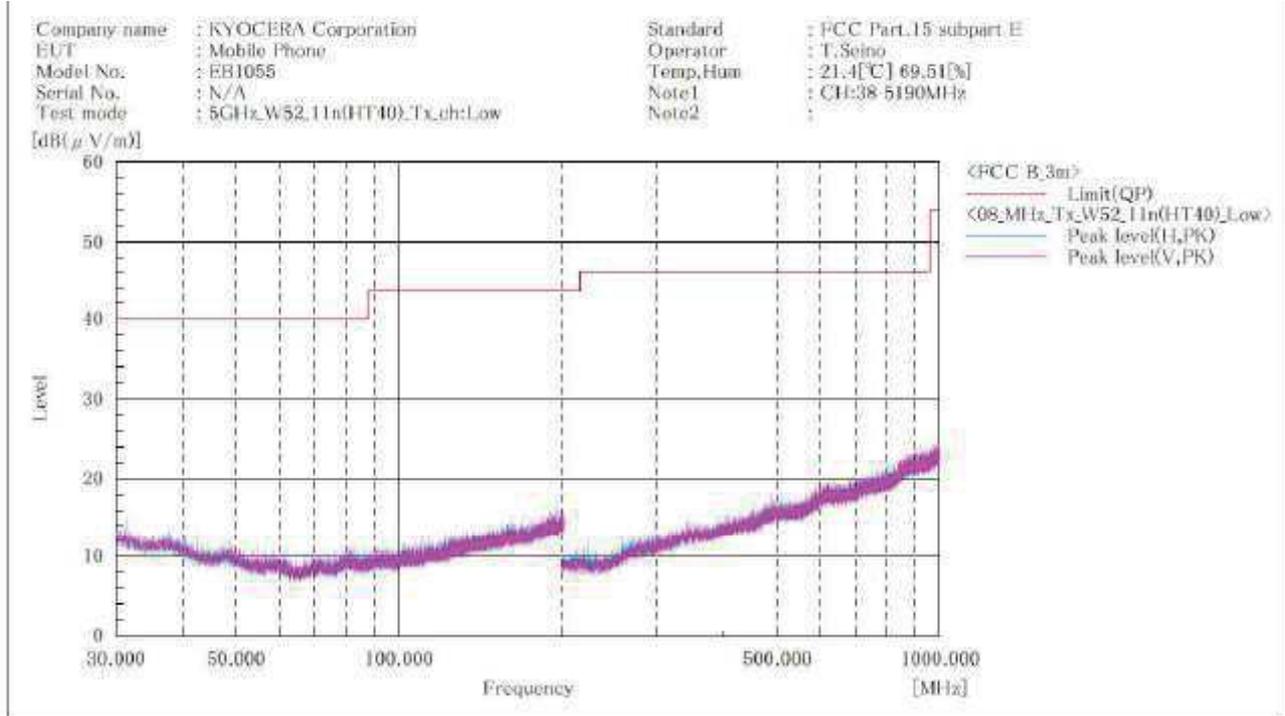
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**[11n (HT40)]**  
**W52 / Channel Low**  
**BELOW 1GHz**



**Final Result.**

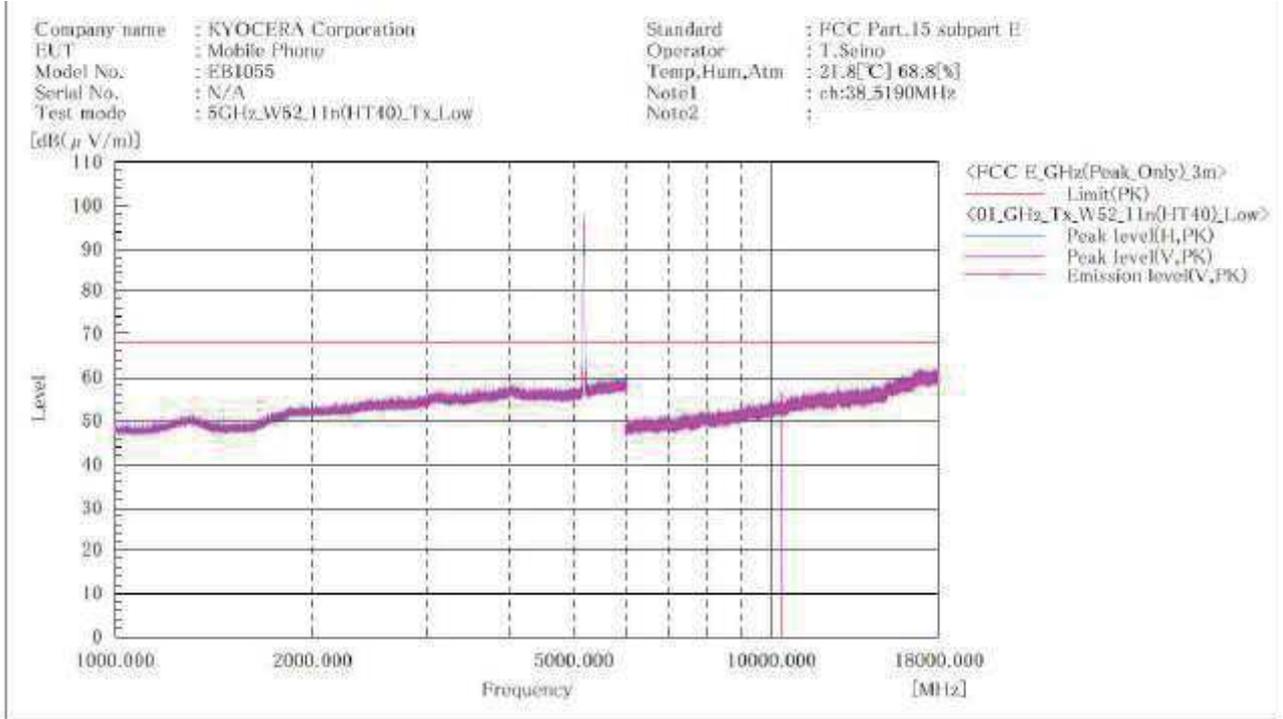
No.	Frequency (P)	c.F	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[° ]

**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 (HT40)]**  
**W52 / Channel Low**  
**ABOVE 1GHz**



**Final Result**

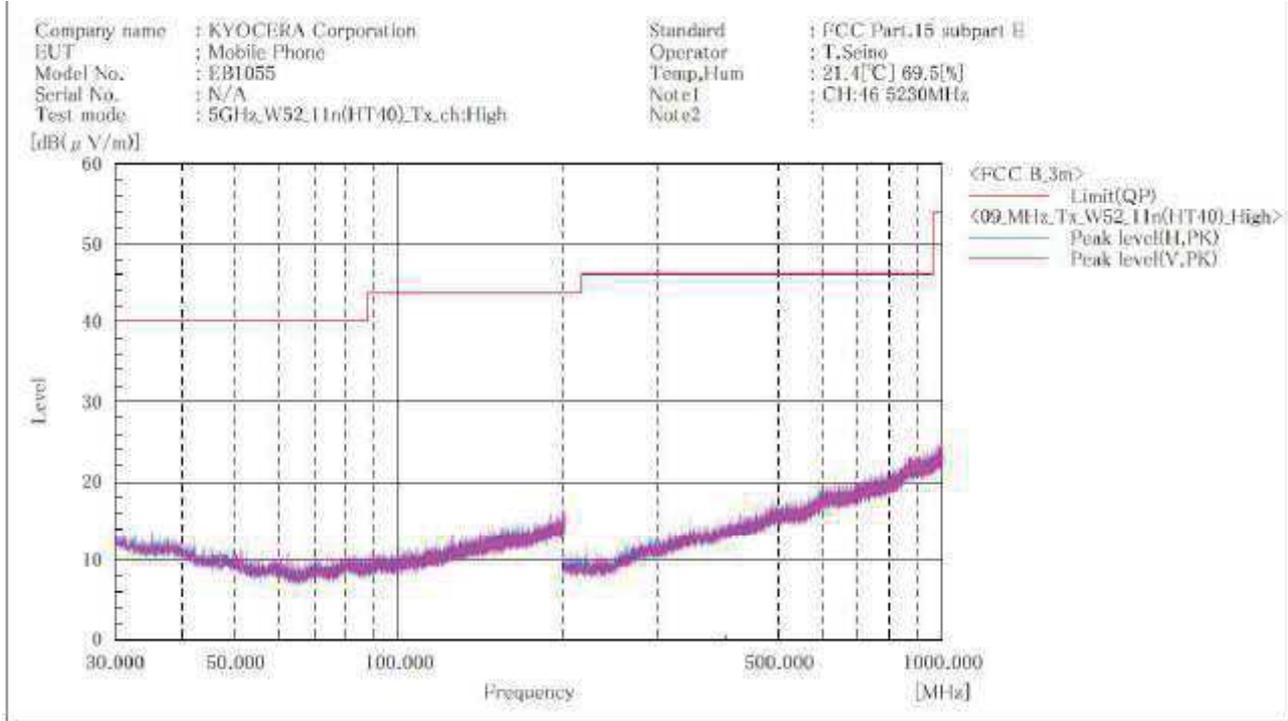
No.	Frequency [MHz]	(P)	Reading PK [dB(µV)]	c.F [dB(1/m)]	Result PK [dB(µV/m)]	Limit PK [dB(µV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10380.000	V	45.6	10.7	56.3	68.2	11.9	144.0	187.0

**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp )]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT40)]**  
**W52 / Channel High**  
**BELOW 1GHz**



**Final Result**

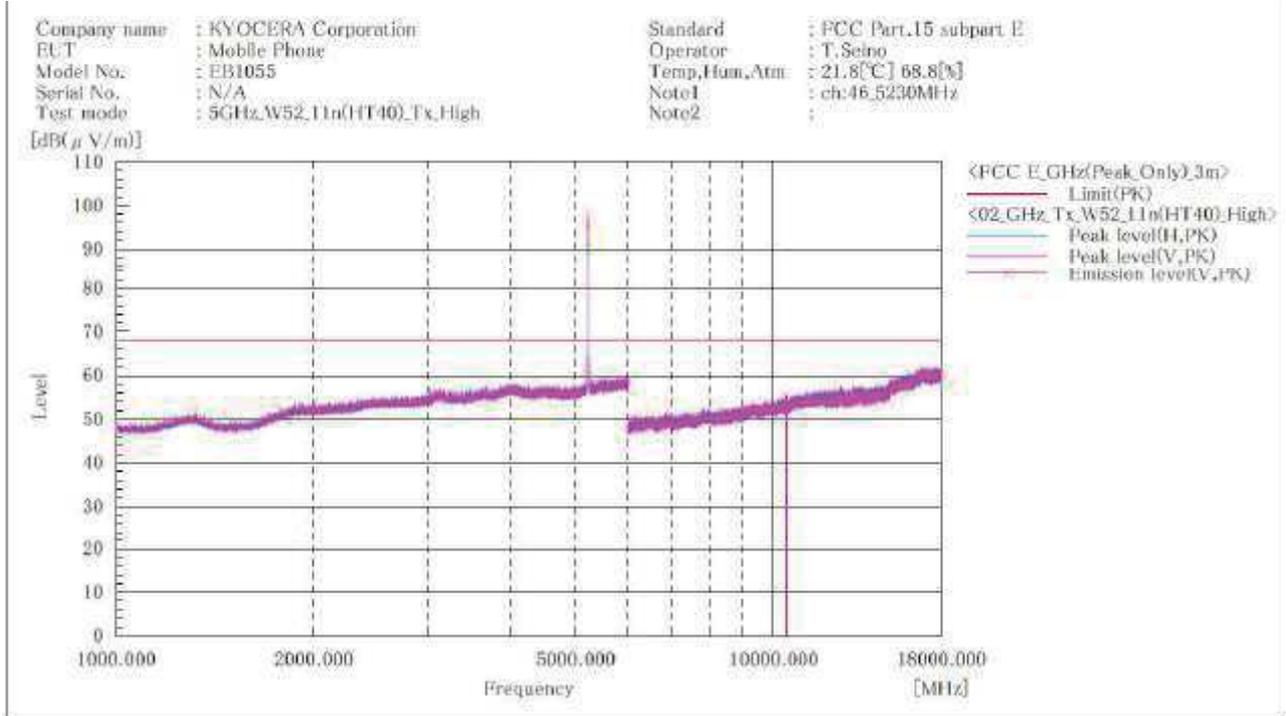
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**Note:**

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



**[11n (HT40)]**  
**W52 / Channel High**  
**ABOVE 1GHz**



**Final Result**

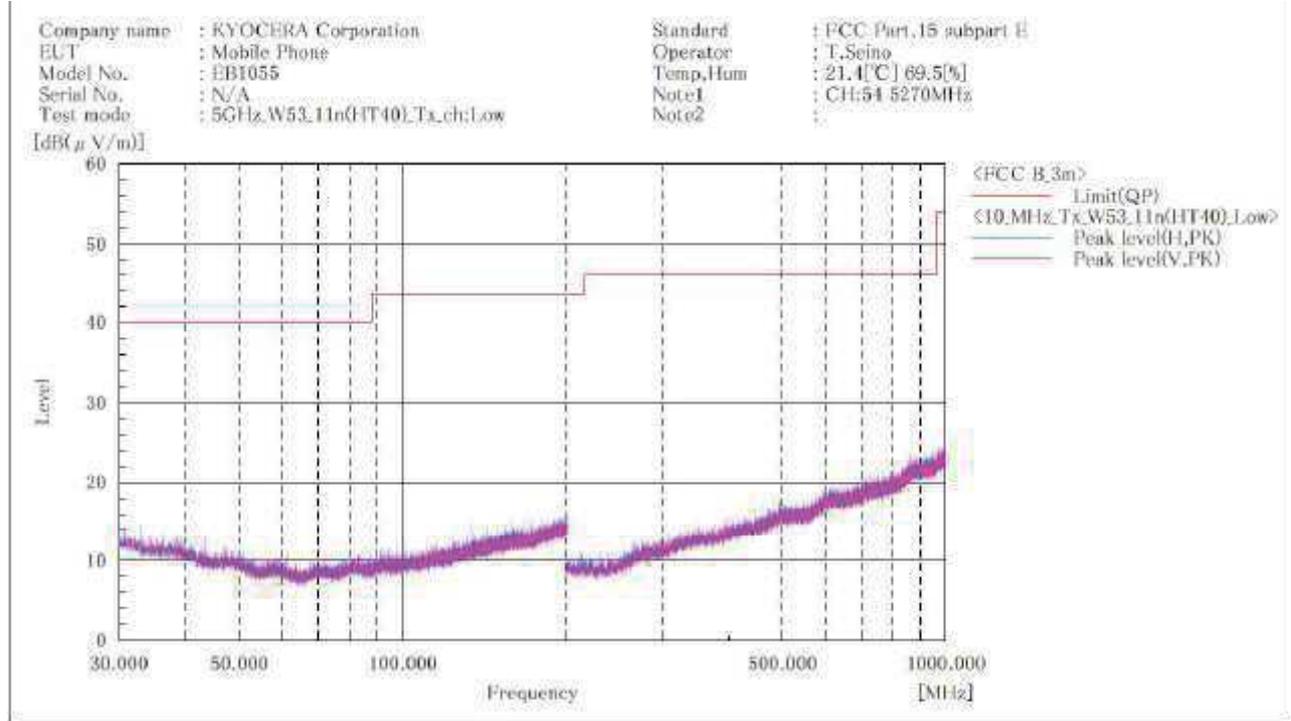
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10460.000	V	44.7	10.8	55.5	68.2	12.7	129.0	185.0

**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp )]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT40)]**  
**W53 / Channel Low**  
**BELOW 1GHz**



Final Result

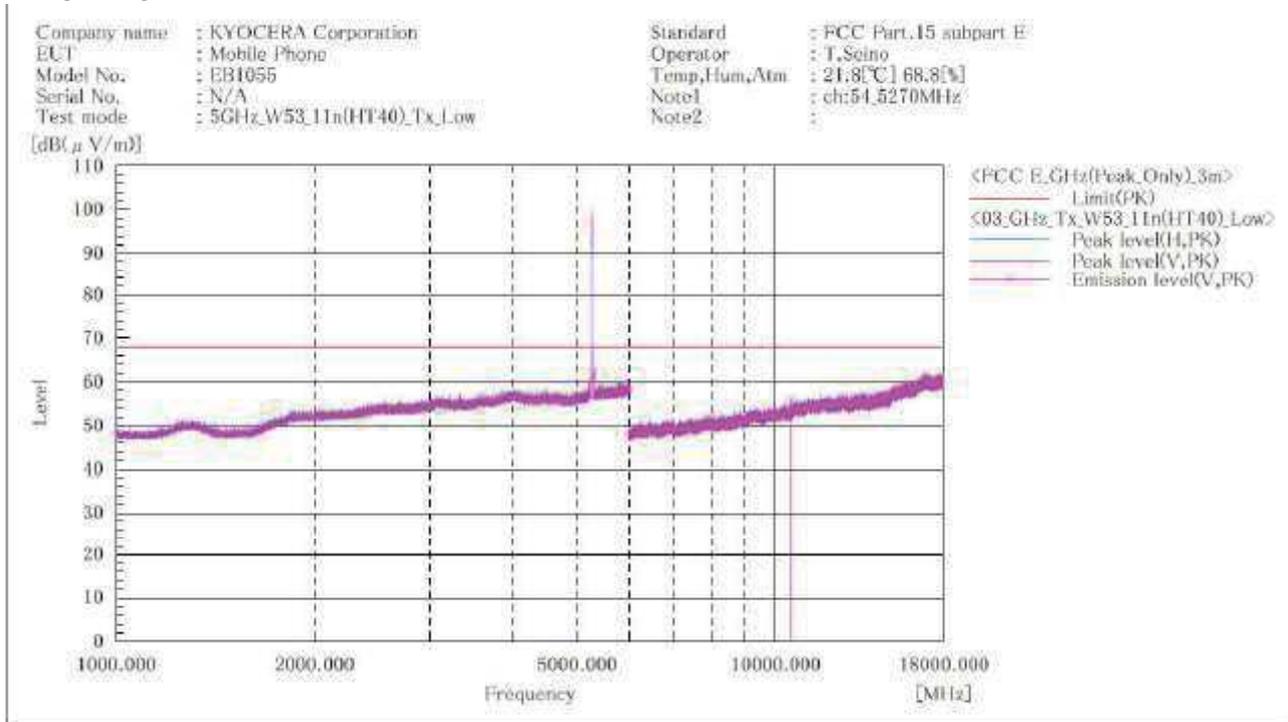
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

Note:

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



**[11n (HT40)]**  
**W53 / Channel Low**  
**ABOVE 1GHz**



**Final Result**

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10540.000	V	45.2	11.0	56.2	68.2	12.0	152.0	185.0

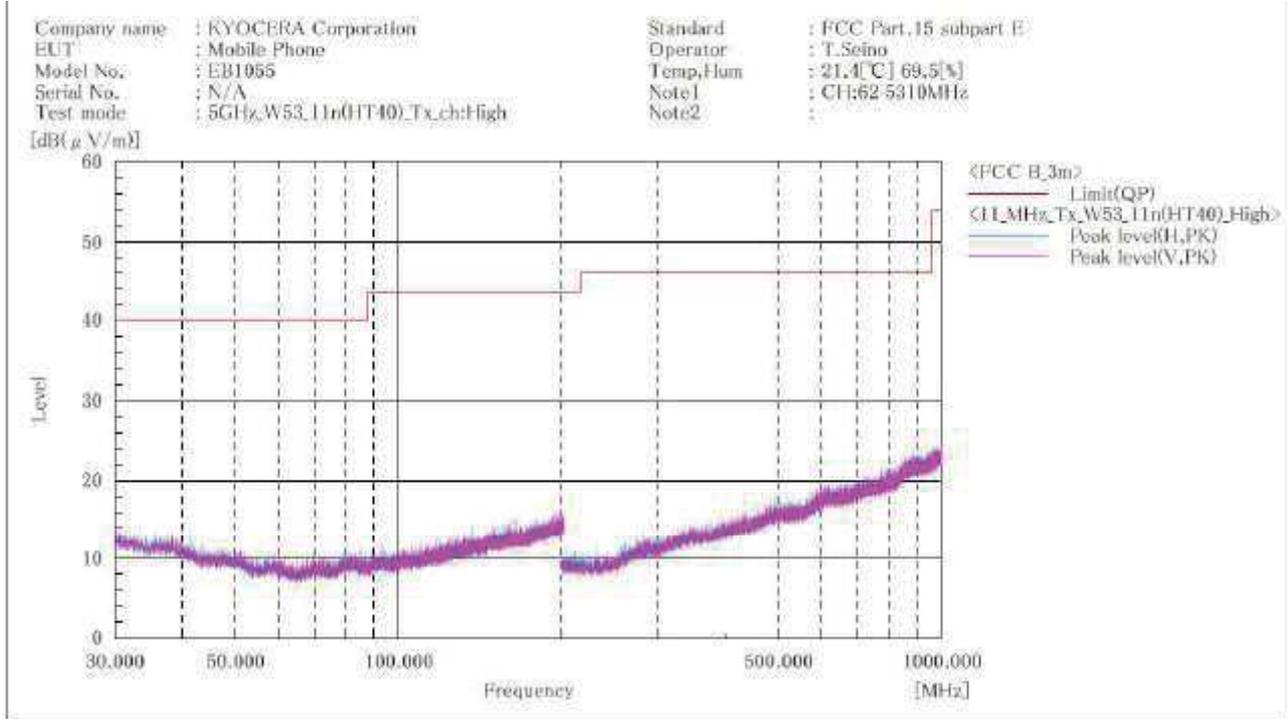
**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**[11n (HT40)]**  
**W53 / Channel High**  
**BELOW 1GHz**



**Final Result**

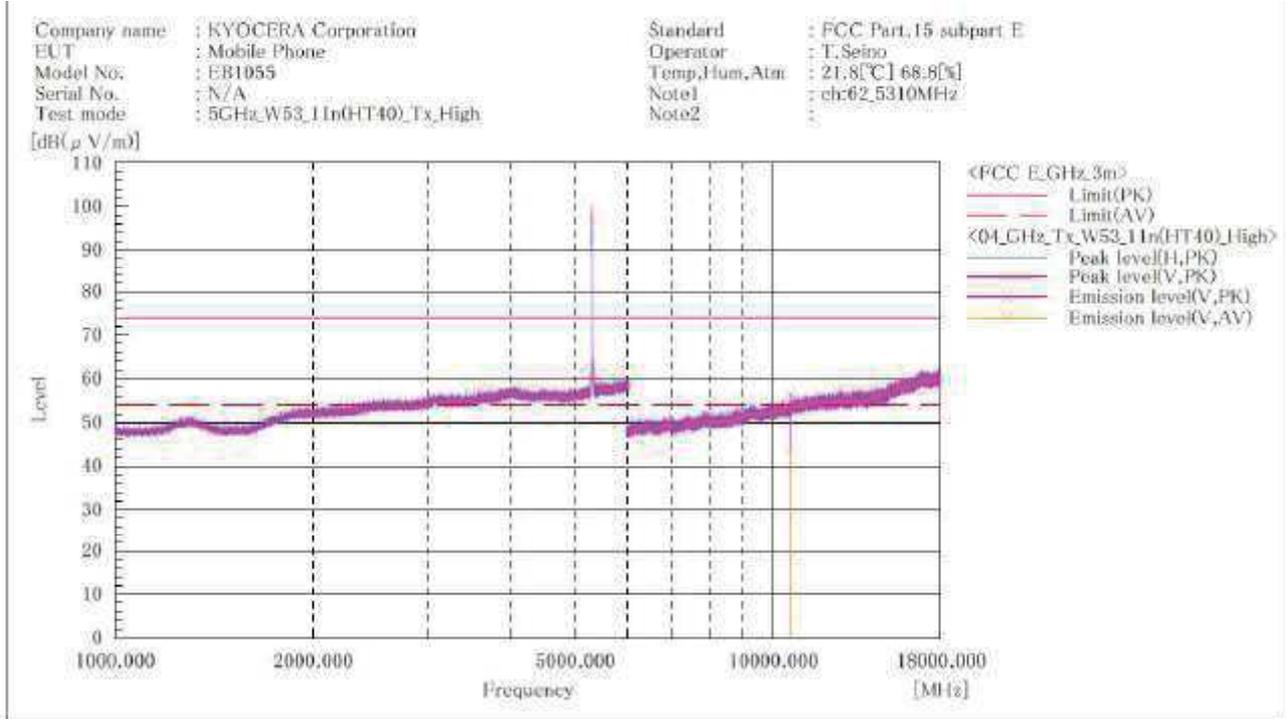
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[° ]

**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 (HT40)]**  
**W53 / Channel High**  
**ABOVE 1GHz**



Final Results

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 [°]
1	10620.000	V	45.2	32.4	11.2	56.4	43.6	74.0	54.0	17.6	10.4	146.0	181.0

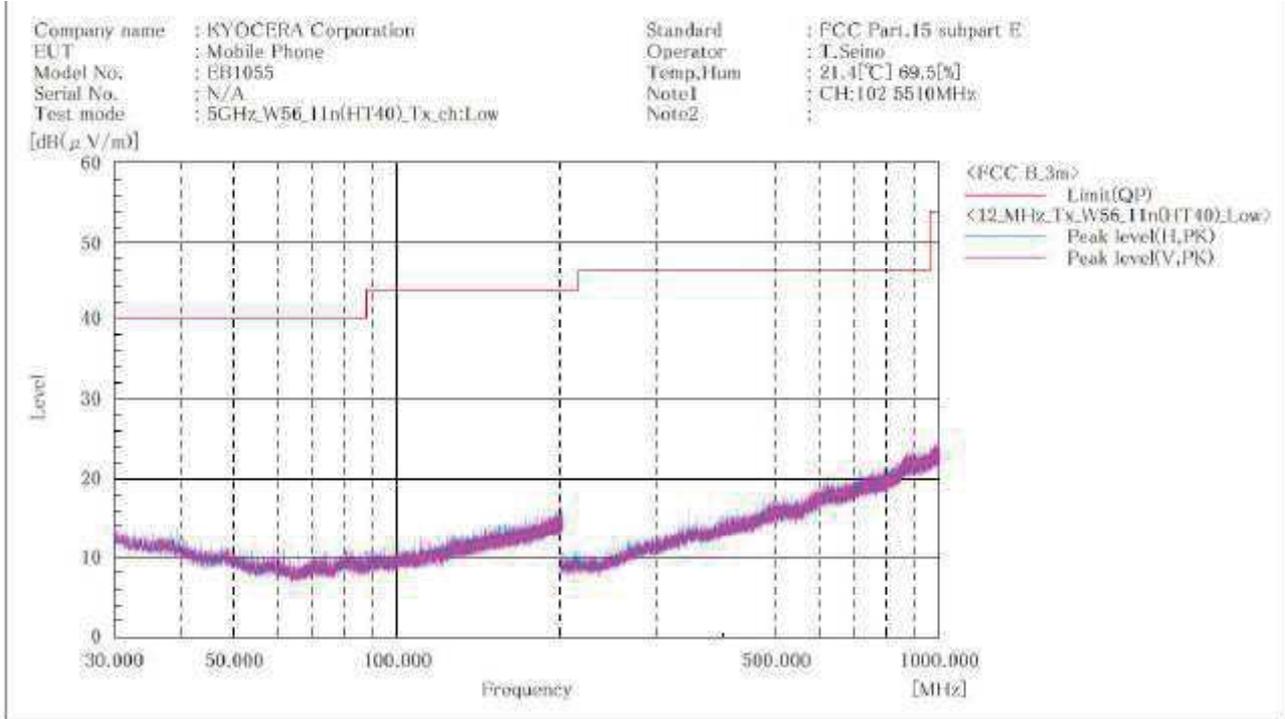
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp )]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**[11n (HT40)]**  
**W56 / Channel Low**  
**BELOW 1GHz**



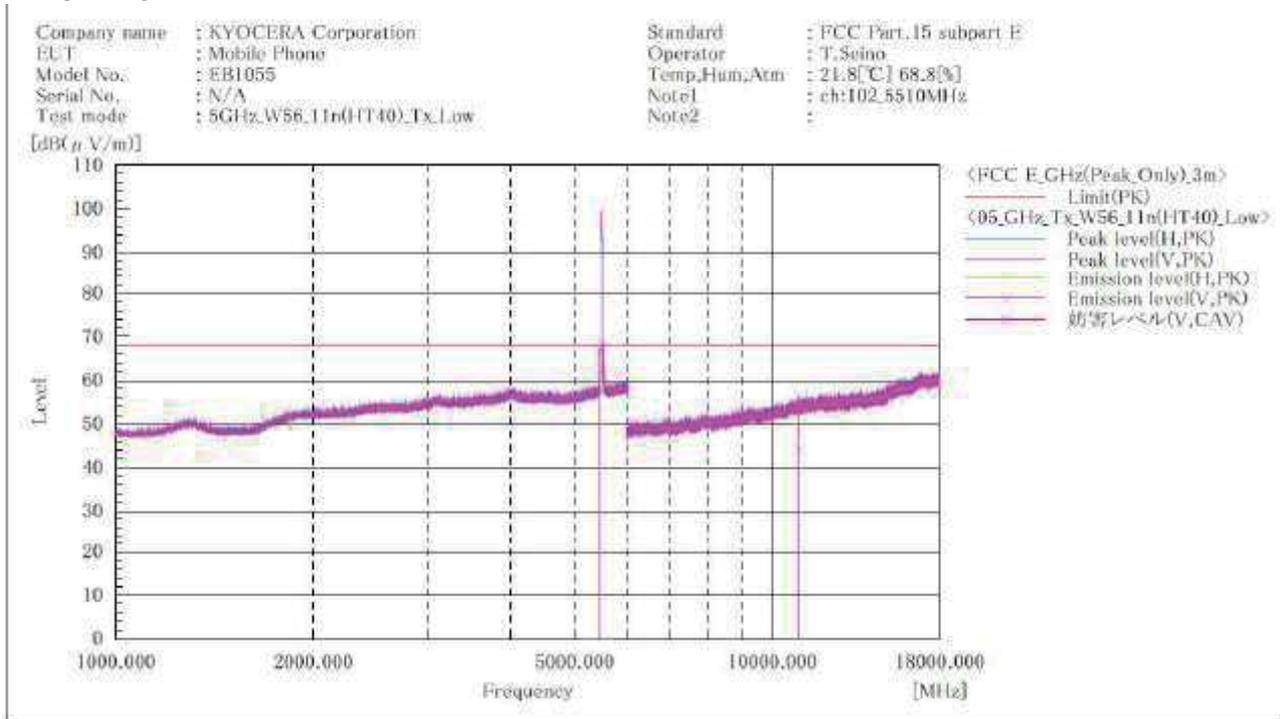
**Final Result**

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 (HT40)]**  
**W56 / Channel Low**  
**ABOVE 1GHz**



Final Result

No.	Frequency [MHz]	(F)	Reading PK [dB(μV)]	Reading CAV [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Result CAV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [°]
1	5467.900	H	52.8		11.3	64.1		68.2	4.1		114.0	343.0
2	5469.700	V	55.9		11.3	67.2		68.2	1.0		139.0	197.0
3	11020.000	V	44.5	32.1	11.9	56.4	44.0	74.0	17.6	10.0	139.0	195.0

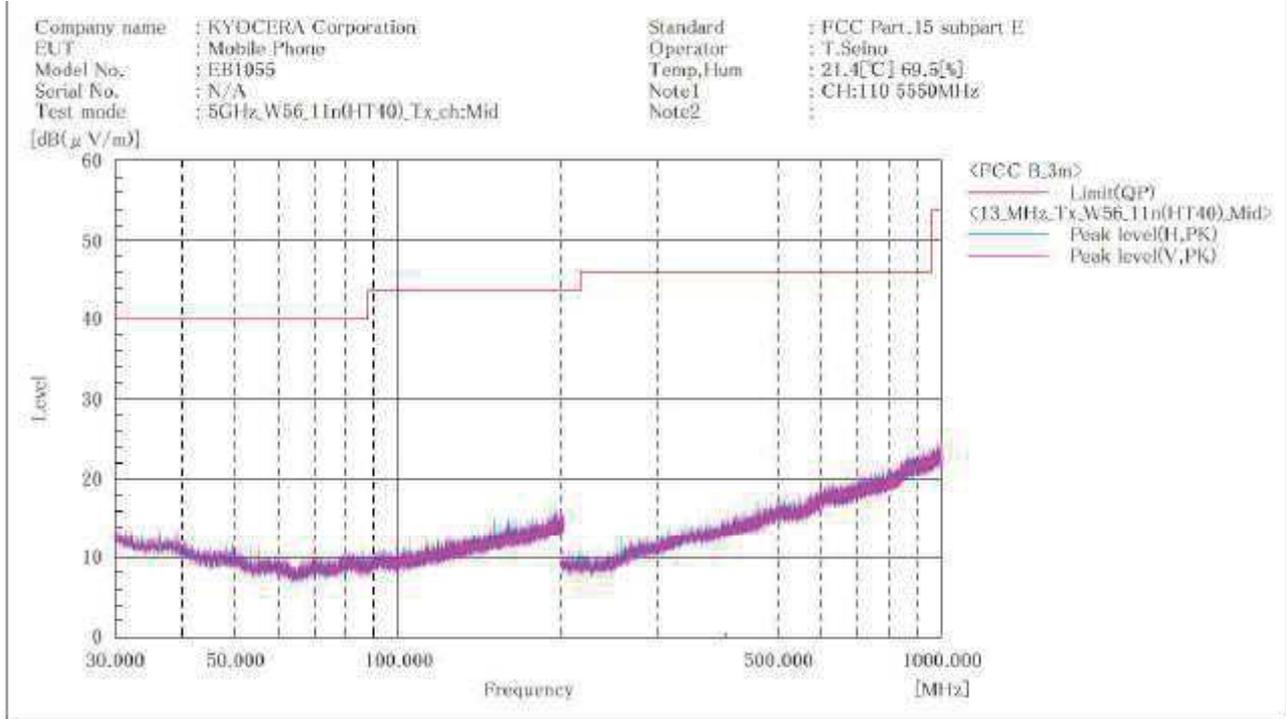
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**[11n (HT40)]**  
**W56 / Channel Middle**  
**BELOW 1GHz**



Final Result

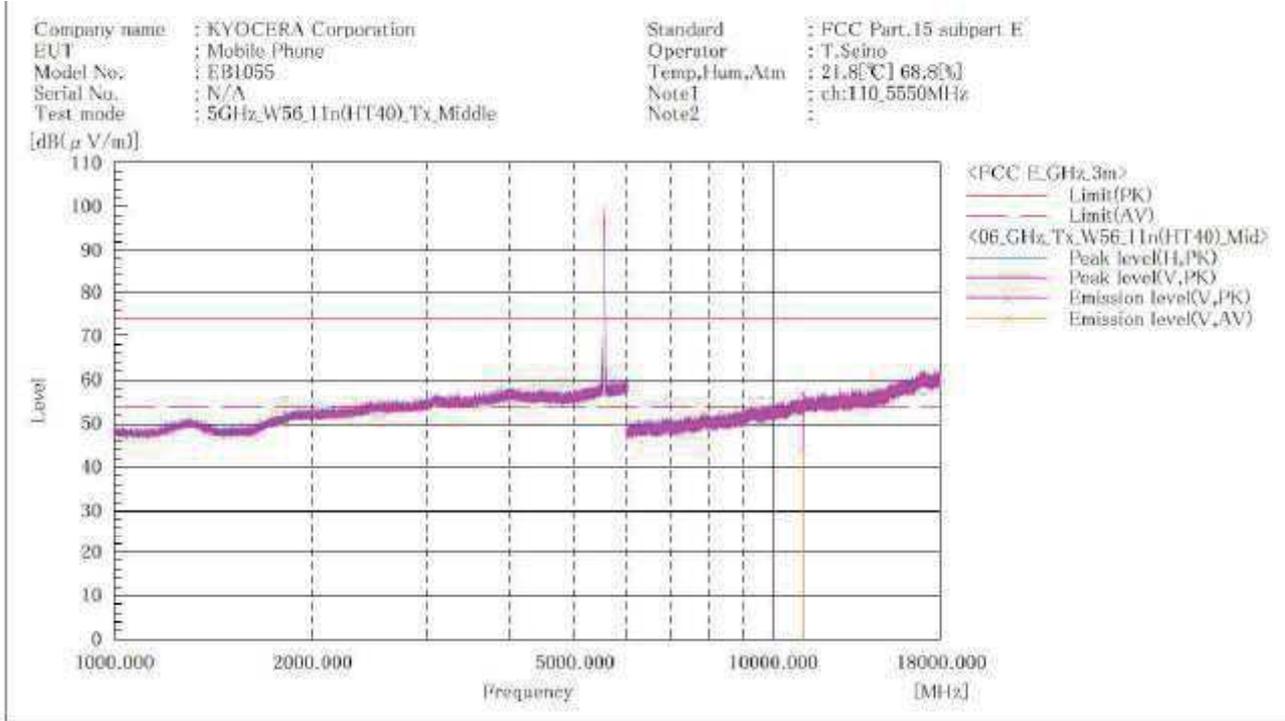
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

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 (HT40)]**  
**W56 / Channel Middle**  
**ABOVE 1GHz**



**Final Result**

No.	Frequency (F)	Reading PK	Reading AV	c.F	Result PK	Result AV	Limit PK	Limit AV	Margin PK	Margin AV	Height	Angle
	[MHz]	[dB(μV)]	[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[dB]	[cm]	[°]
1	11190.000	45.1	32.1	11.9	57.0	44.0	74.0	54.0	17.0	10.0	128.0	185.0

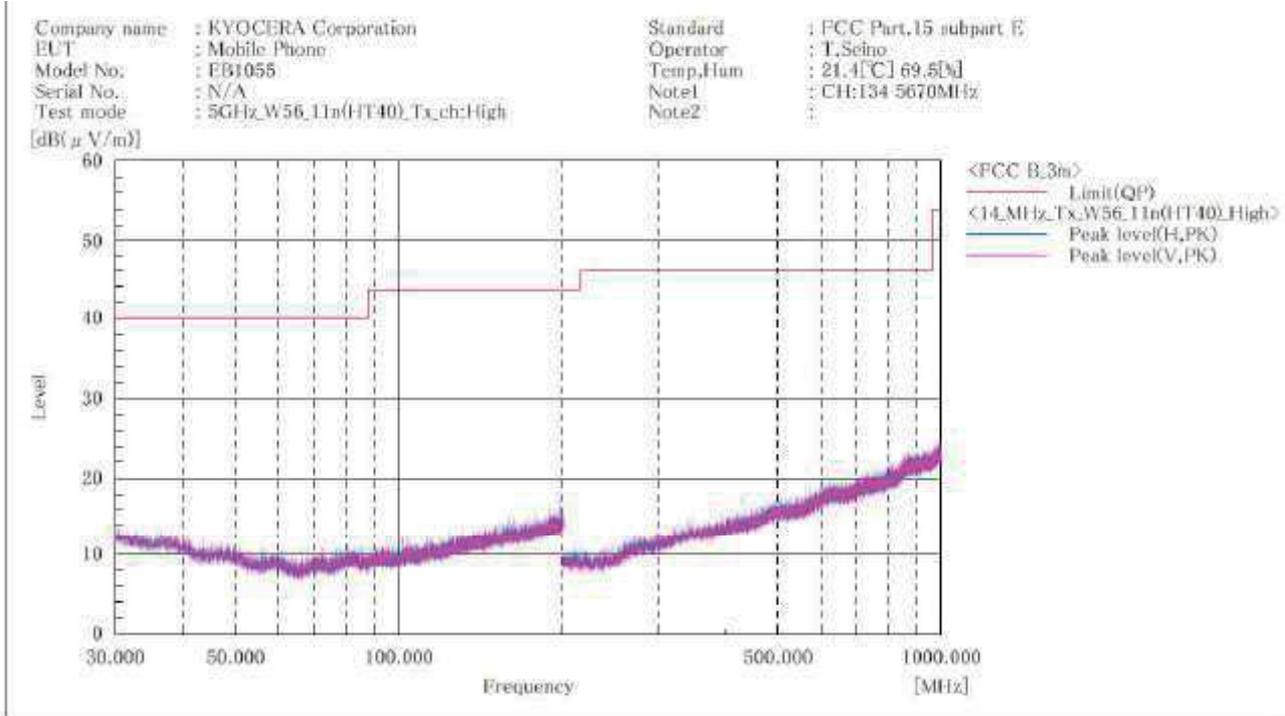
**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**[11n (HT40)]**  
**W56 / Channel High**  
**BELOW 1GHz**



Final Result

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

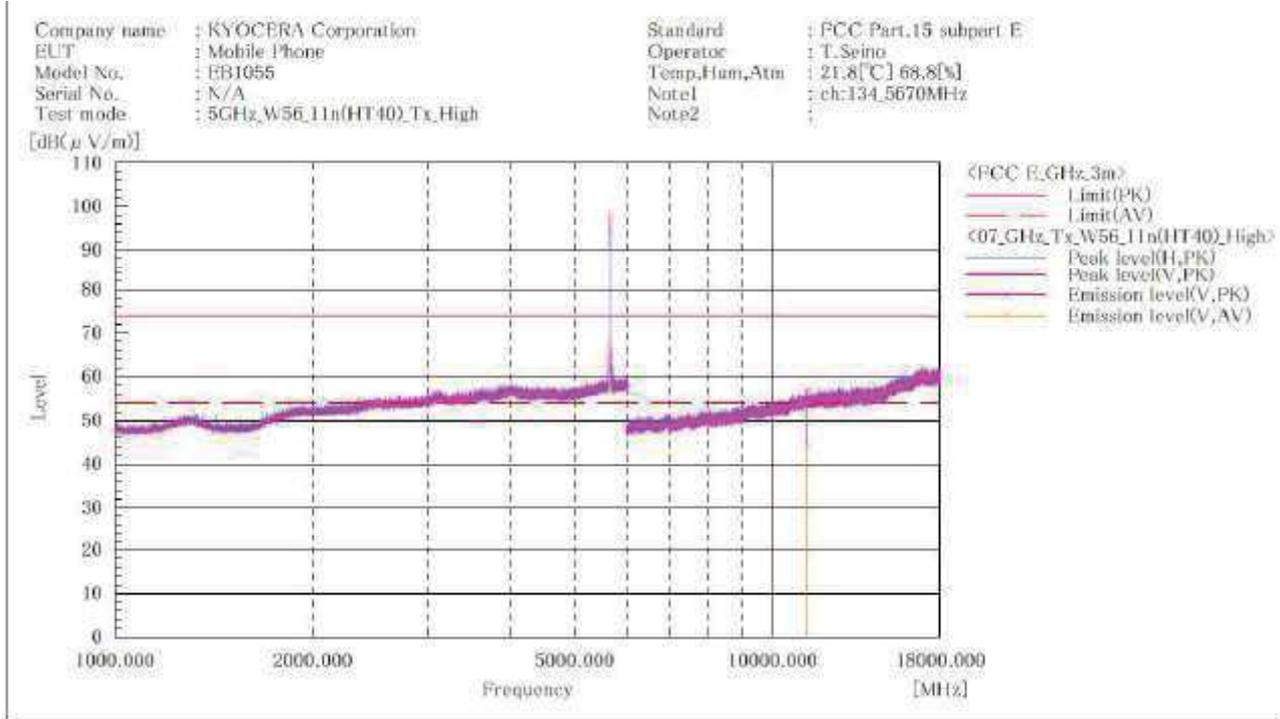
Note:

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



Japan

**[11n (HT40)]  
W56 / Channel High  
ABOVE 1GHz**



Final Results

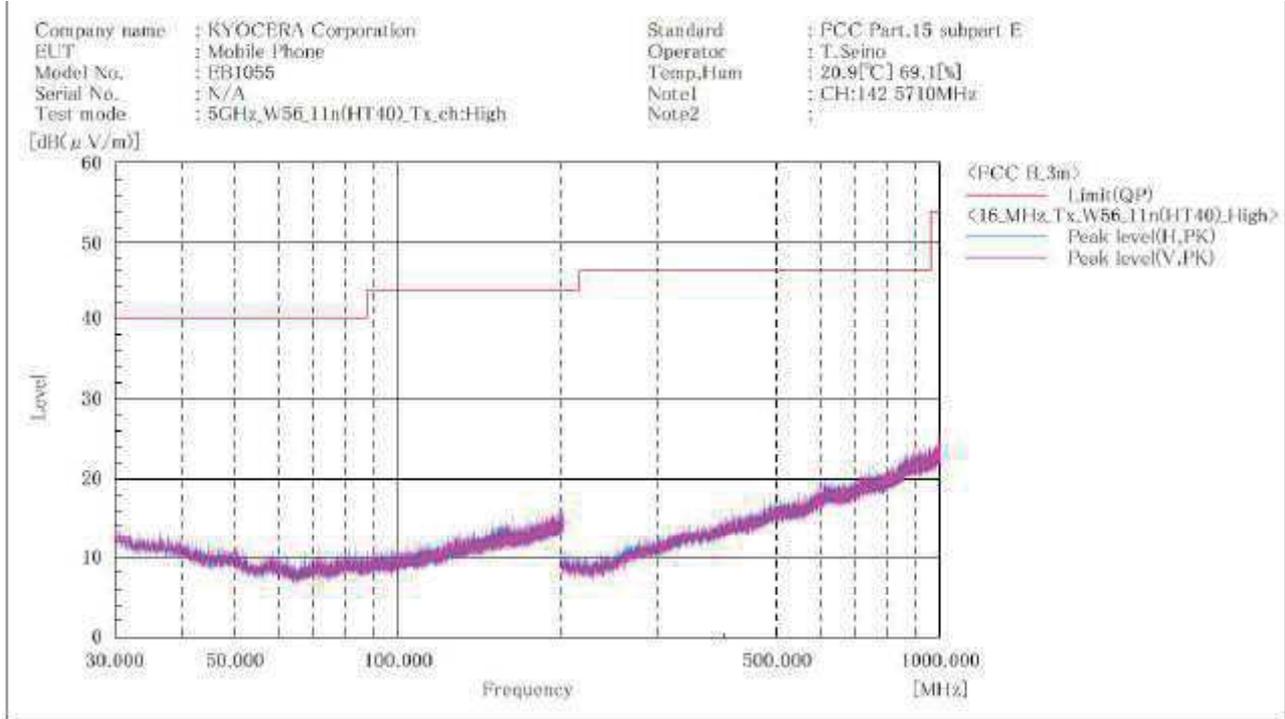
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.F [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	11340.000	V	45.1	32.4	12.0	57.1	44.4	74.0	54.0	16.9	9.6	148.0	201.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11n (HT40)]**  
**W56 / Channel High**  
**BELOW 1GHz**



**Final Result**

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

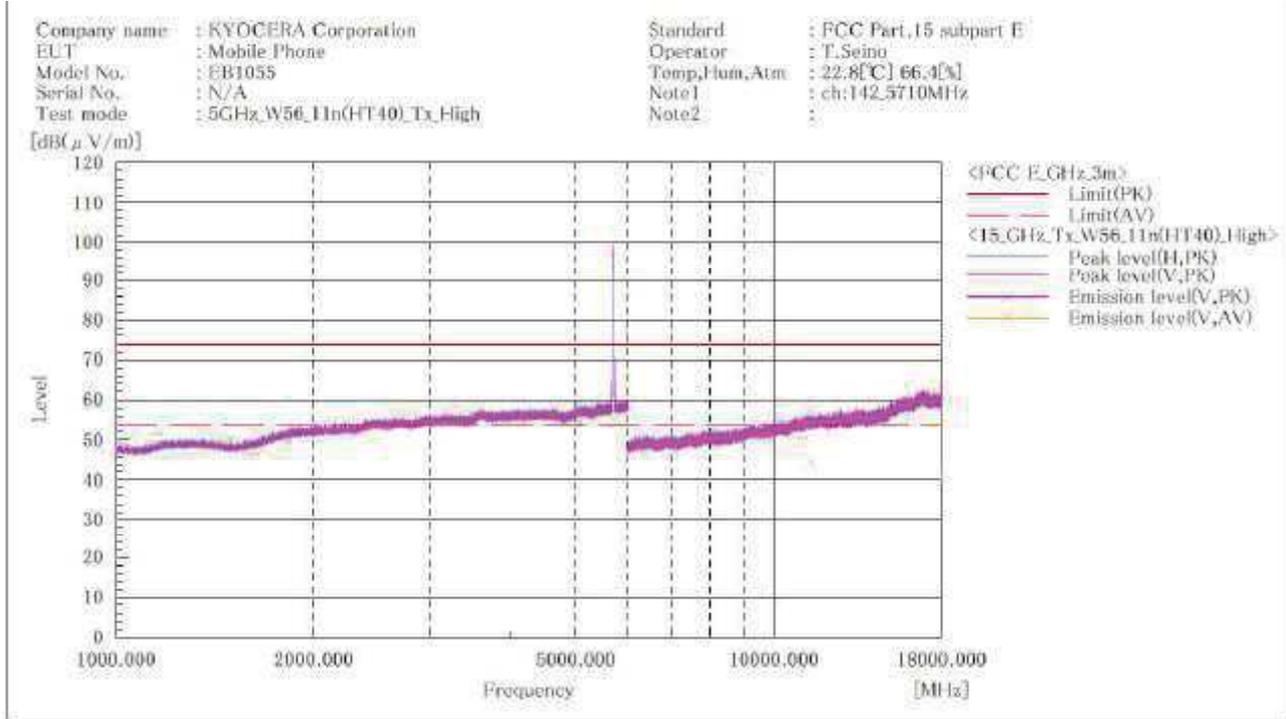
**Note:**

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.



Japan

**[11n (HT40)]**  
**W56 / Channel High**  
**ABOVE 1GHz**



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 [°]
1	11420.000	V	44.9	32.3	12.2	57.1	44.5	74.0	54.0	16.9	9.5	143.0	208.0

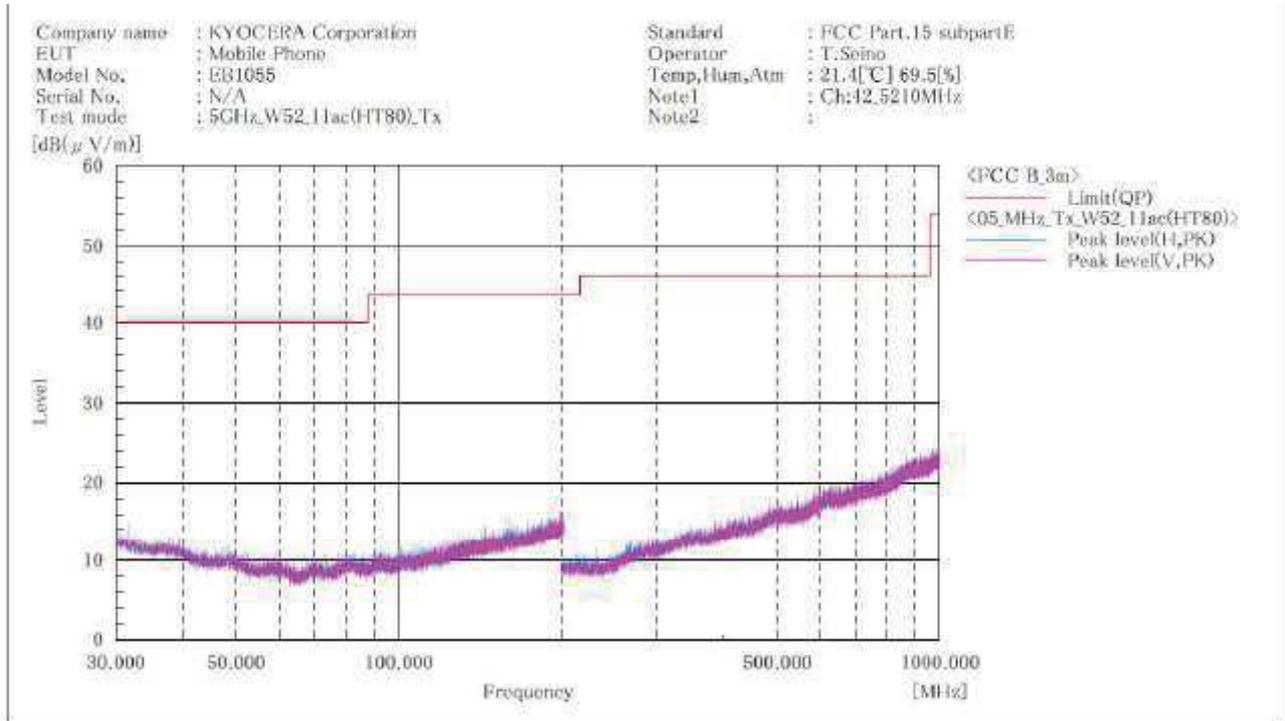
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

[11a c(VHT80)]  
 W52  
 BELOW 1GHz



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.

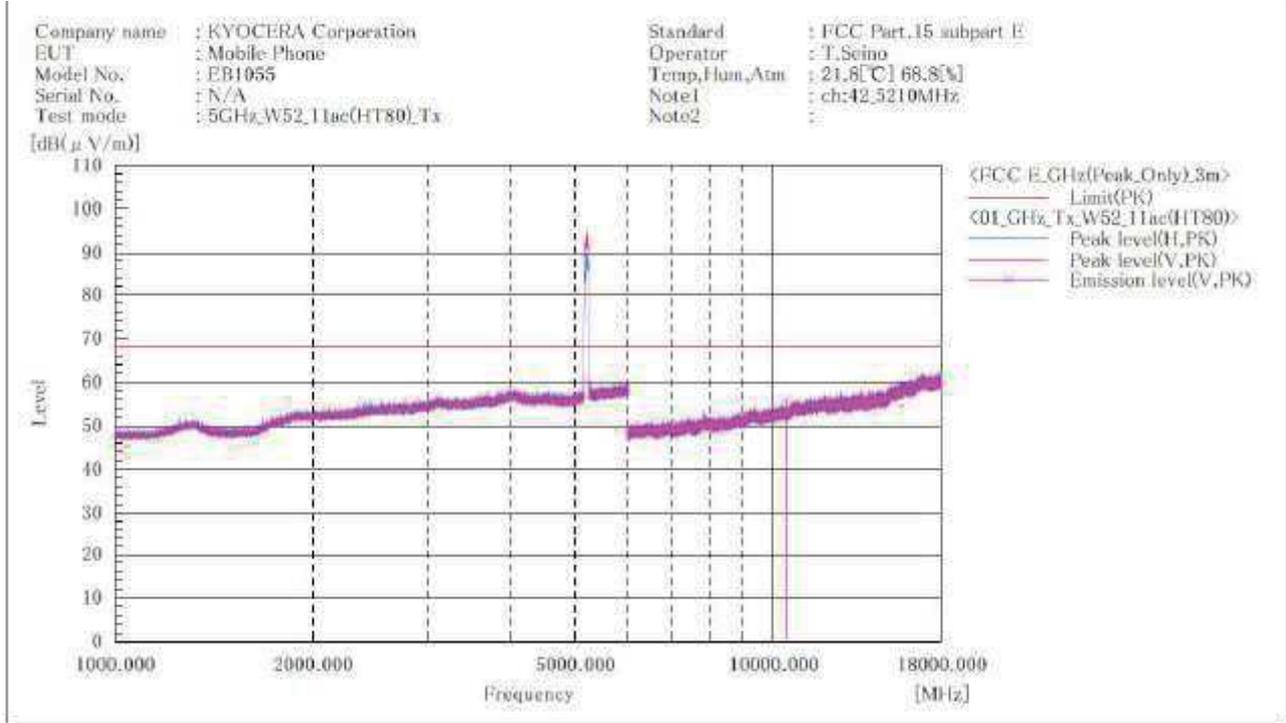


Japan

[11a c(VHT80)]

W52

ABOVE 1GHz



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10420.000	V	45.2	10.7	55.9	68.2	12.3	142.0	185.0

Note:

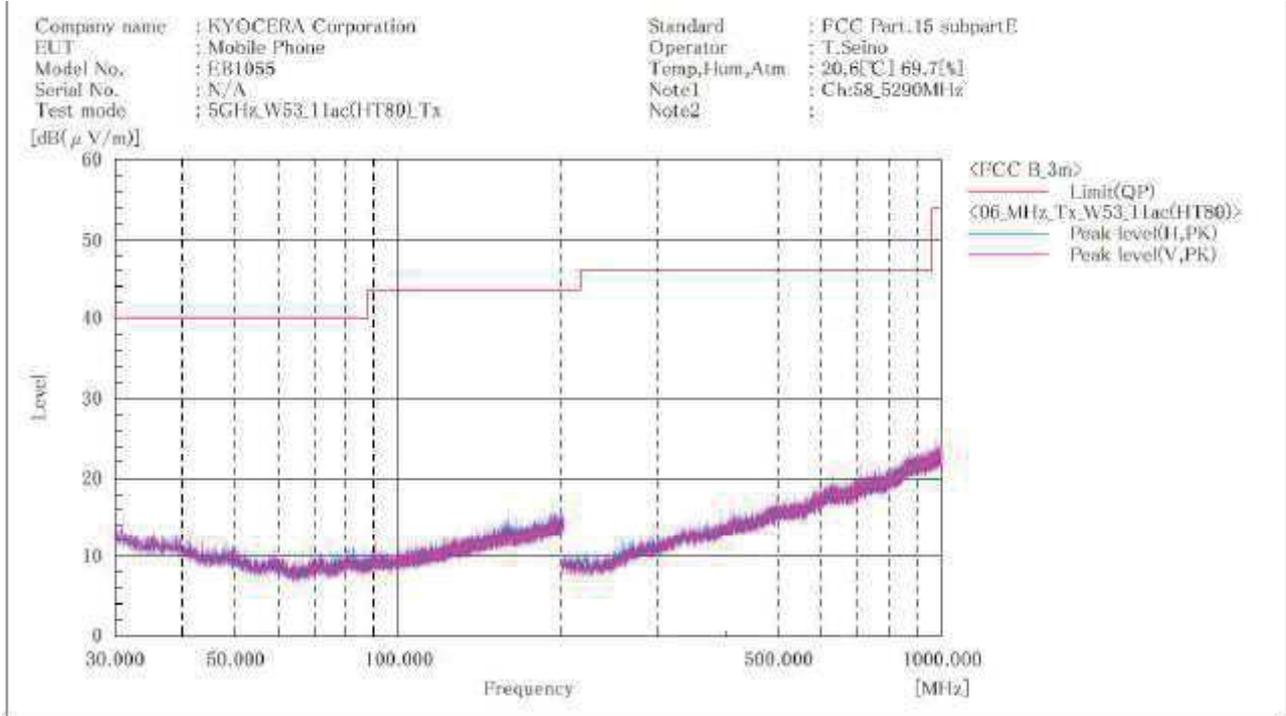
1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable - Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

[11a c(VHT80)]  
W53

BELOW 1GHz



Final Result

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

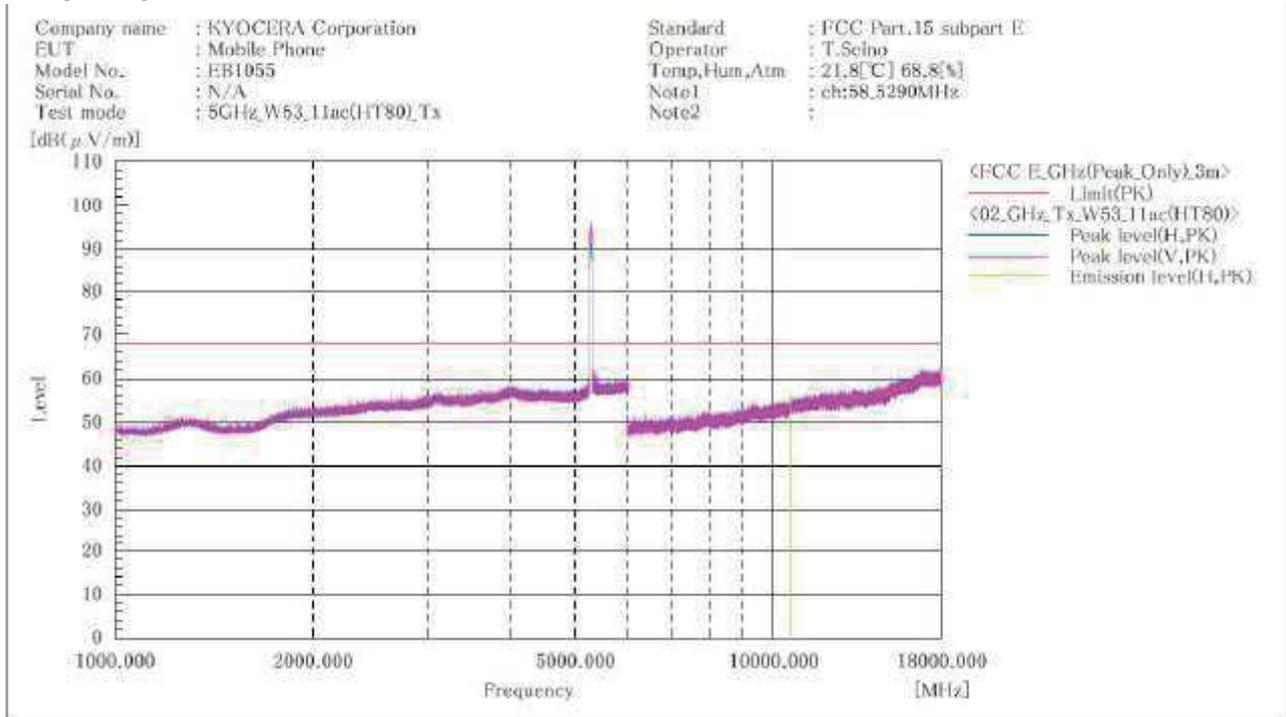
Note:

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.



[11a c(VHT80)]  
W53

ABOVE 1GHz



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	c. f [dB(1/m)]	Result PK [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Height [cm]	Angle [°]
1	10580.000	H	44.9	11.0	55.9	68.2	12.3	125.0	187.0

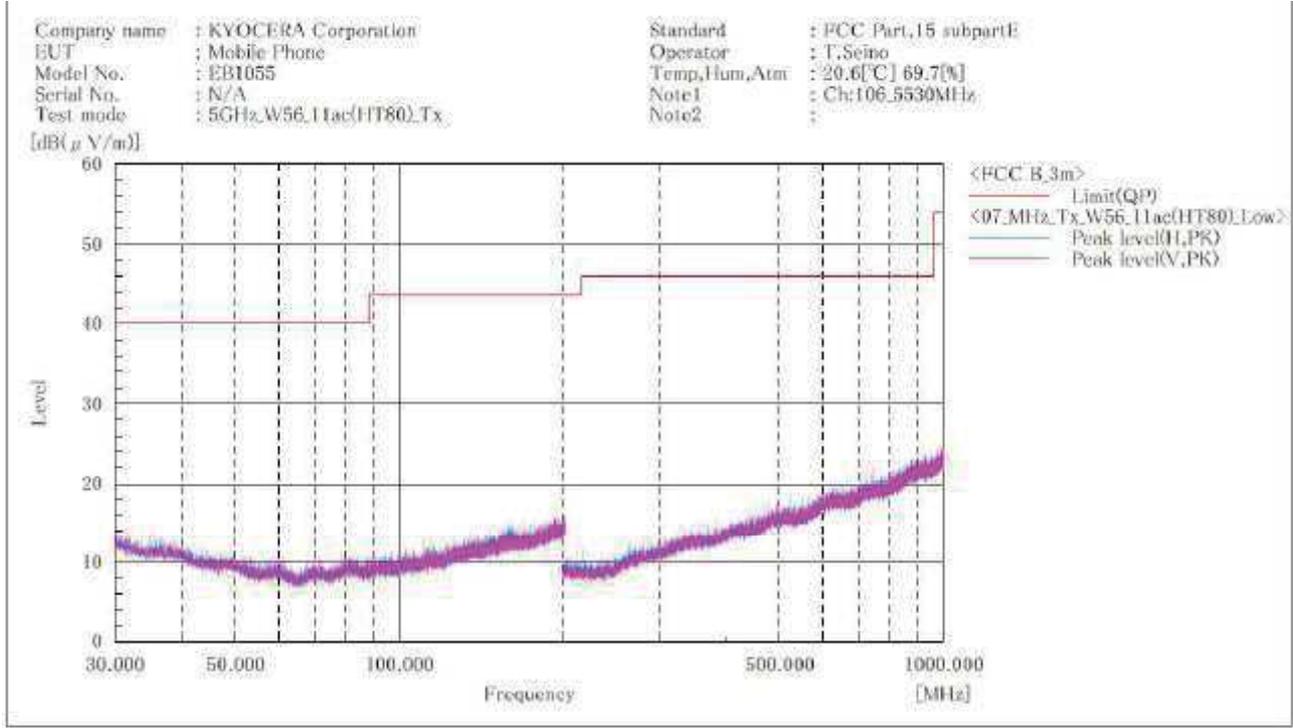
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**[11a c(VHT80)]**  
**W56 / Channel Low**  
**BELOW 1GHz**



**Final Result**

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

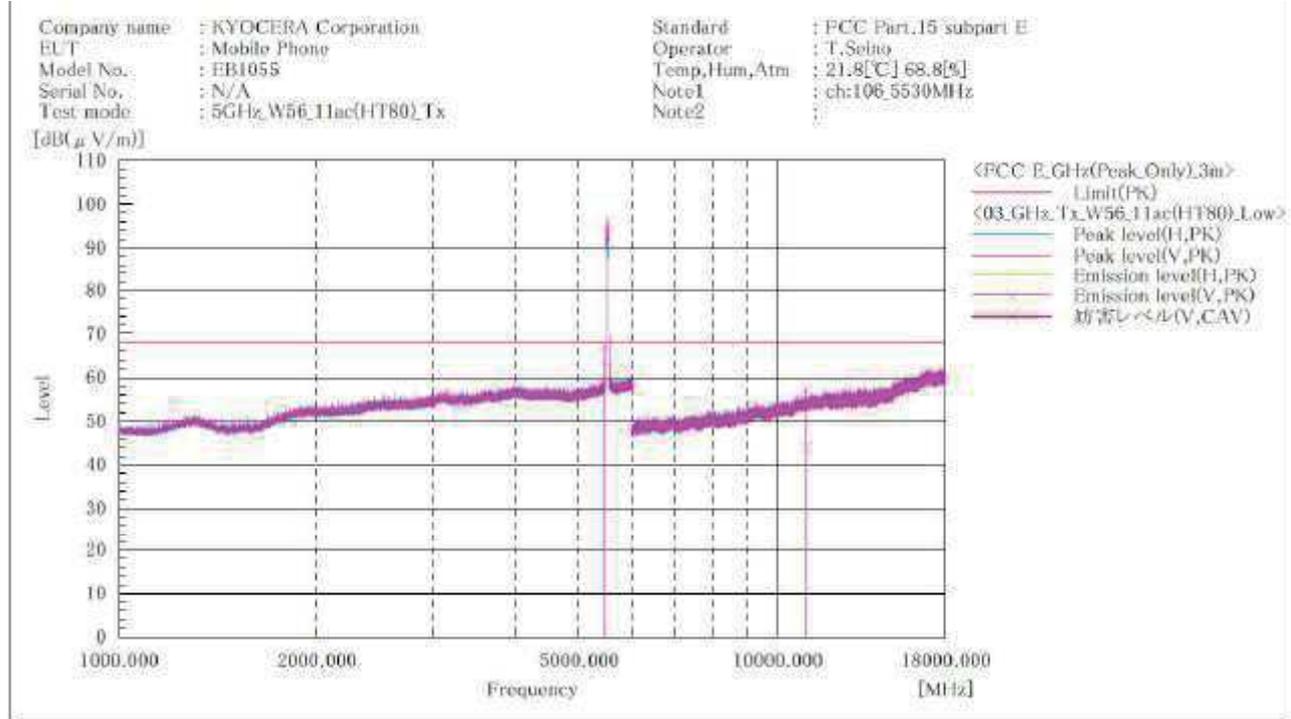
**Note:**

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



Japan

[11a c(VHT80)]  
W56 / Channel Low  
ABOVE 1GHz



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading CAV [dB(μV)]	c, f [dB(1/m)]	Result PK [dB(μV/m)]	Result CAV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [°]
1	5468.000	H	49.6		11.3	60.9		68.2	7.3		160.0	0.0
2	5461.700	V	56.0		11.3	67.3		68.2	0.9		138.0	200.0
3	11060.000	V	45.5	32.1	11.9	57.4	44.0	68.2	10.8	10.0	135.0	194.0

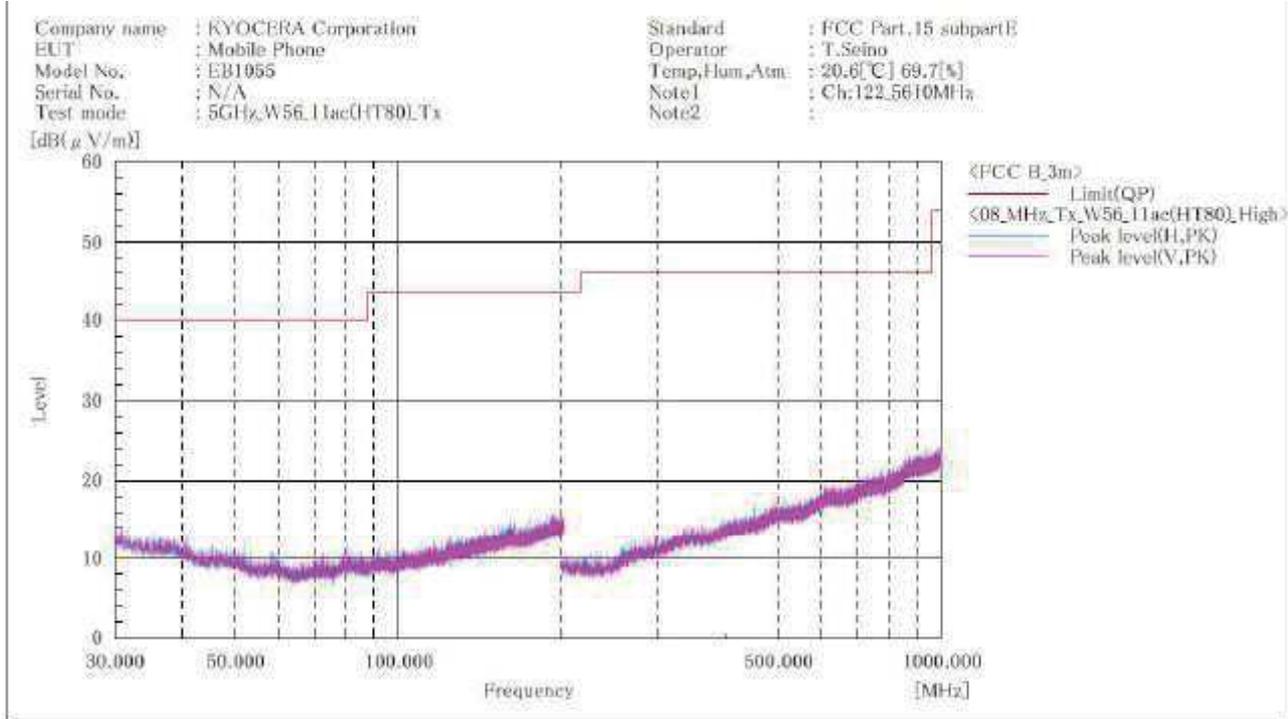
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**[11a c(VHT80)]  
W56 / Channel High  
BELOW 1GHz**



**Final Result**

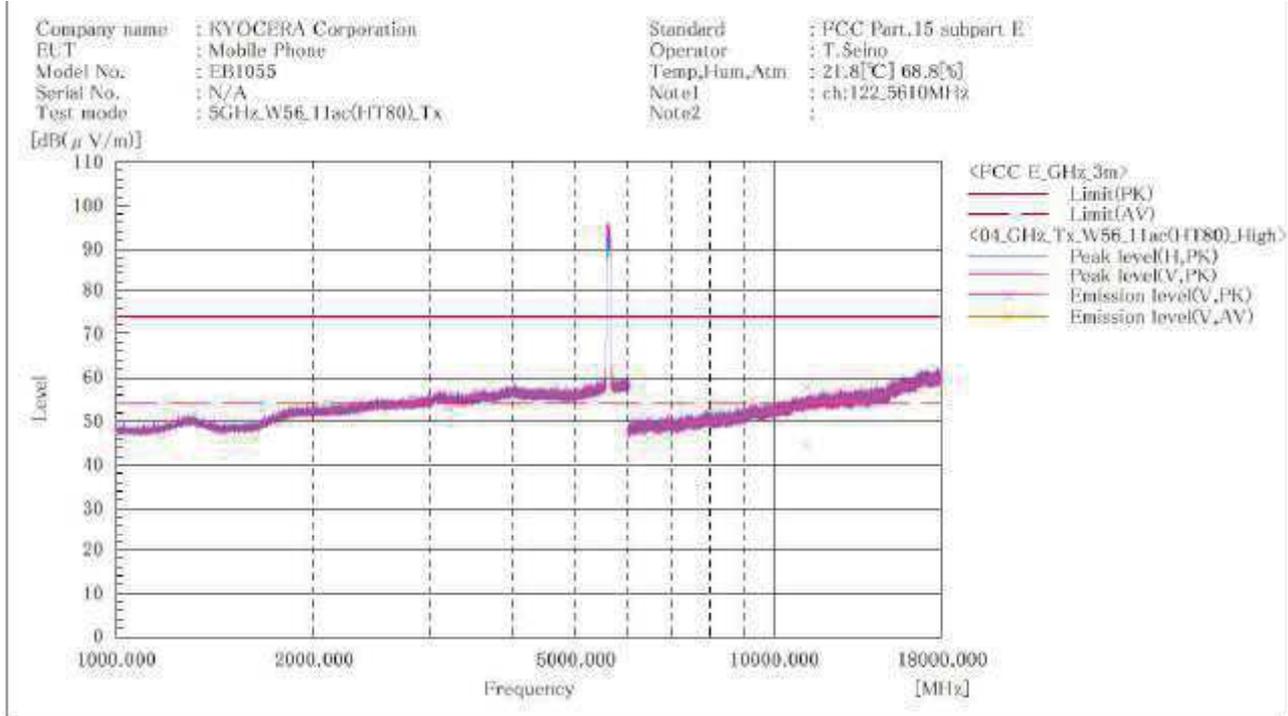
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**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.



**[11a c(VHT80)]  
W56 / Channel High  
ABOVE 1GHz**



Final Result

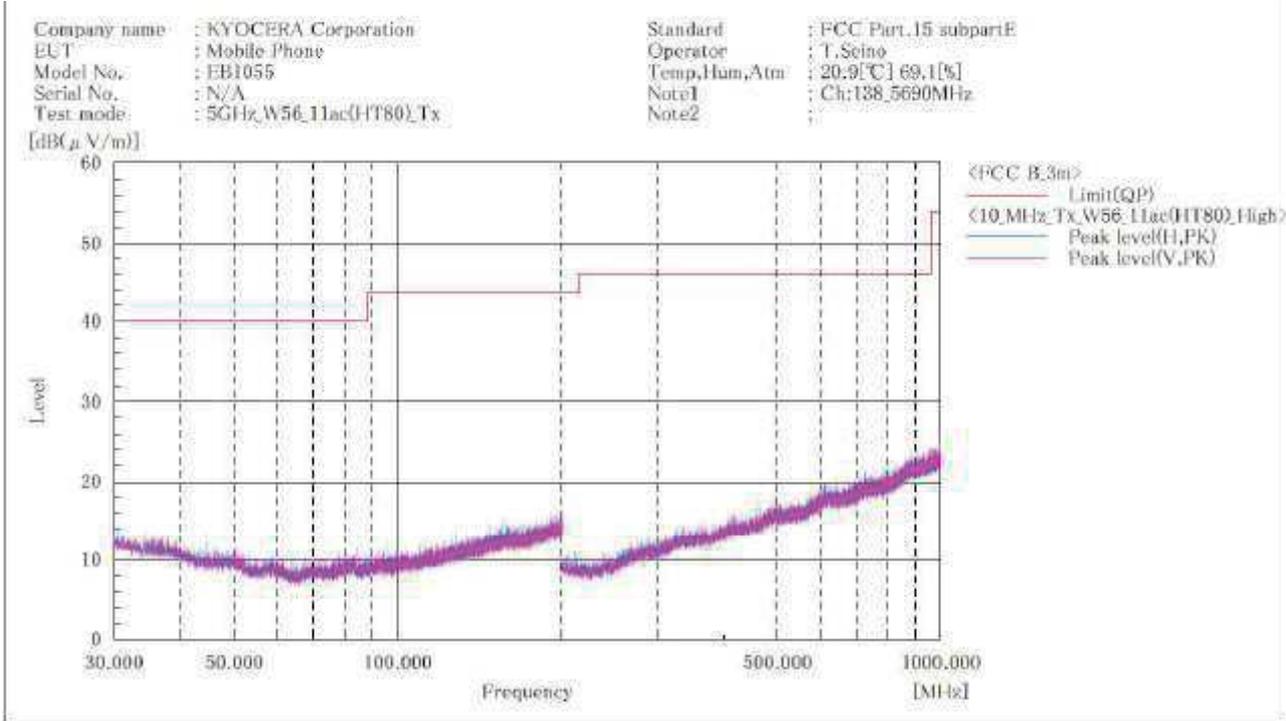
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	11220.000	V	45.8	32.8	12.0	57.8	44.8	74.0	54.0	16.2	9.2	134.0	200.0

Note:

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable - Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**[11a c(VHT80)]  
W56 / Channel High  
BELOW 1GHz**



Final Result

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

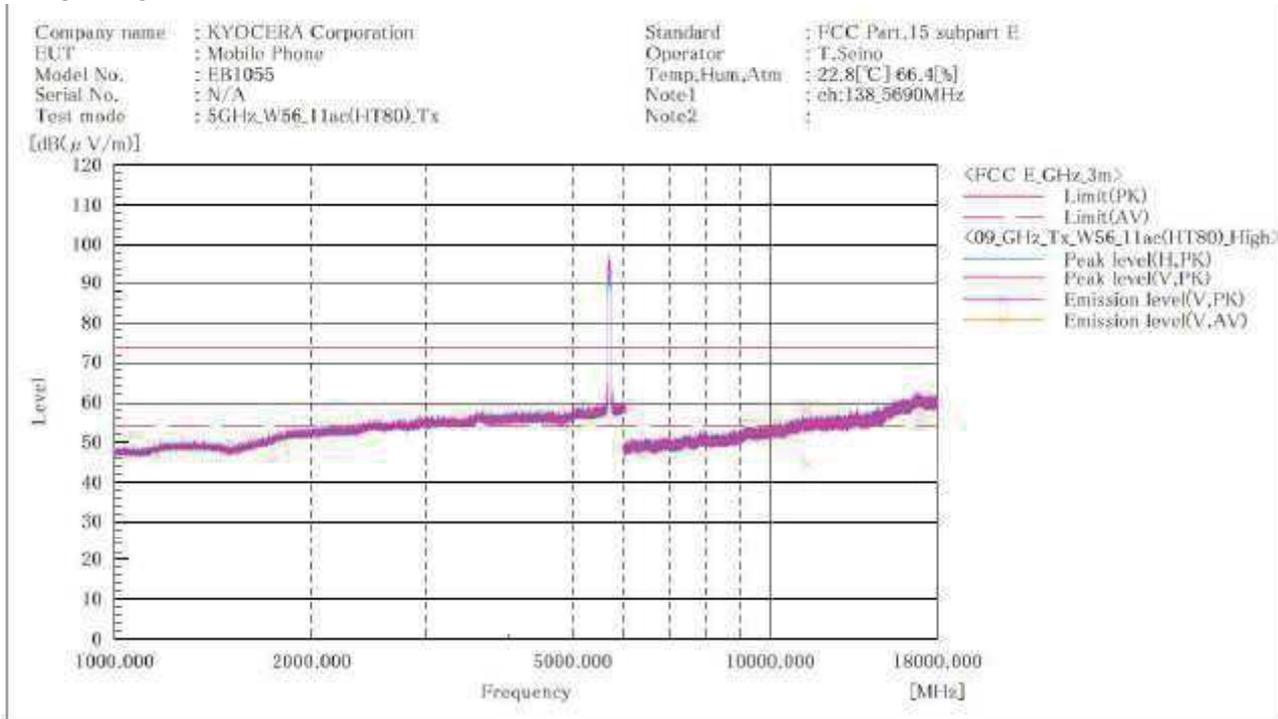
Note:

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.



Japan

**[11a c(VHT80)]  
W56 / Channel High  
ABOVE 1GHz**



Pinel Results

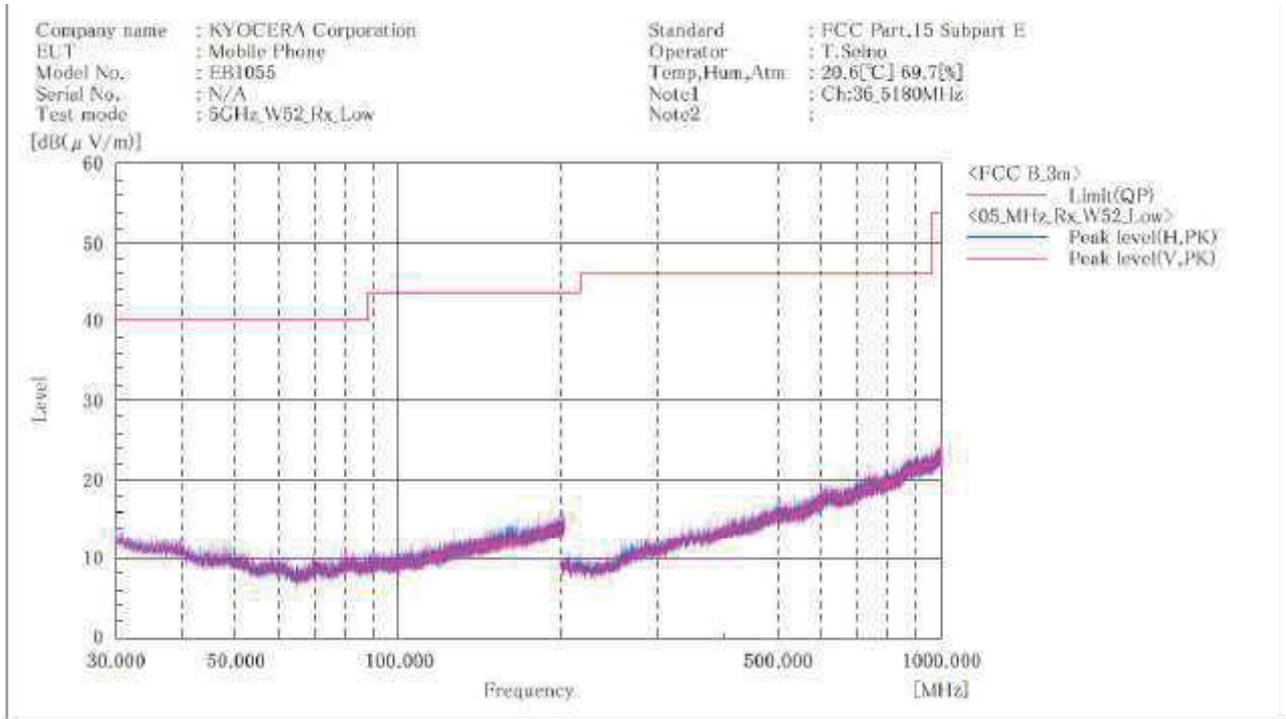
No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.F [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	11380.000	V	45.8	32.5	12.2	58.0	44.7	74.0	54.0	16.0	9.3	126.0	208.0

**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable – Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.

Receive mode

W52 / Channel Low  
BELOW 1GHz



Final Result

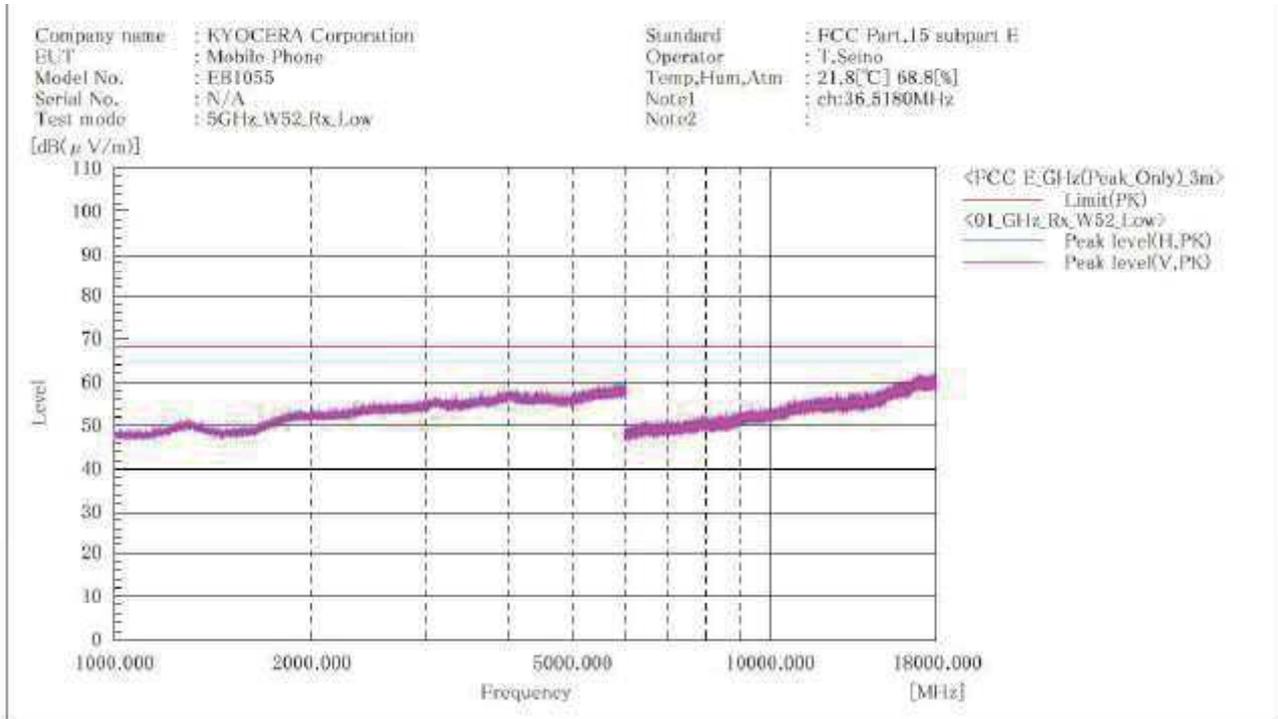
No.	Frequency (P)	c.f	Height	Angle
	[MHz]	[dB (1/m)]	[cm]	[°]

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.



**W52 / Channel Low  
ABOVE 1GHz**



**Final Result**

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

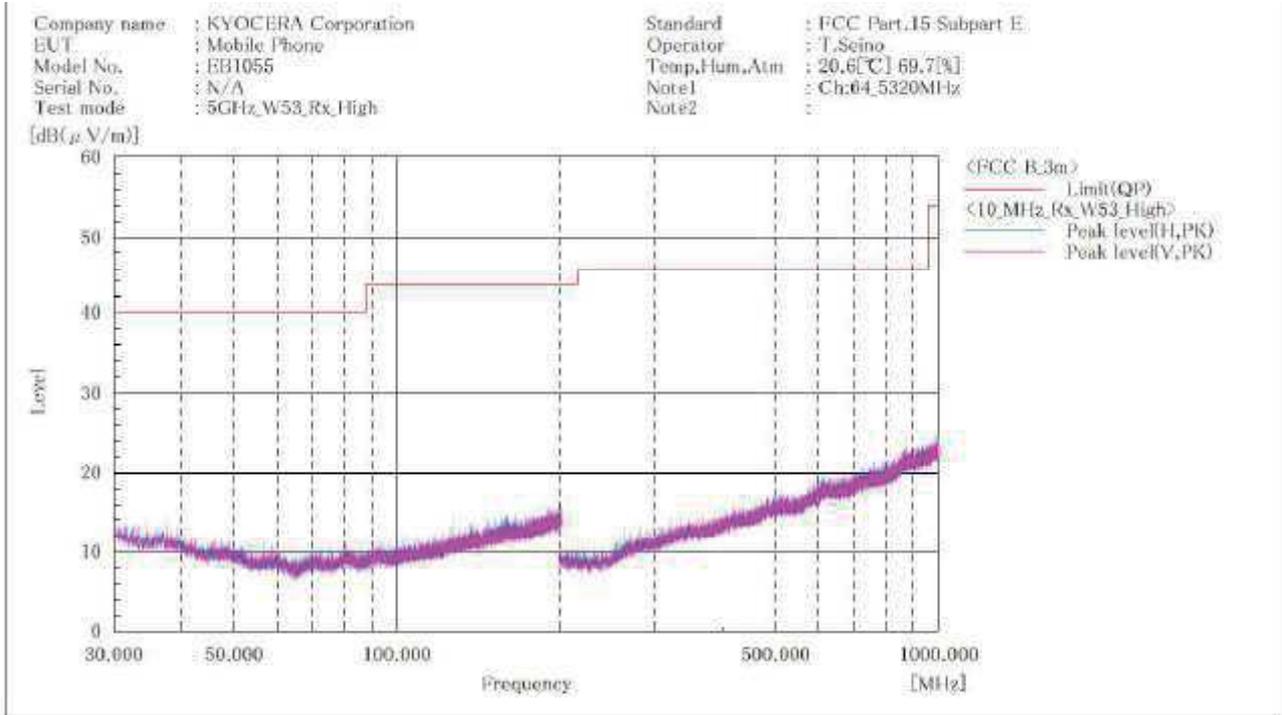
**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable - Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**W53 / Channel High  
BELOW 1GHz**



**Final Result**

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

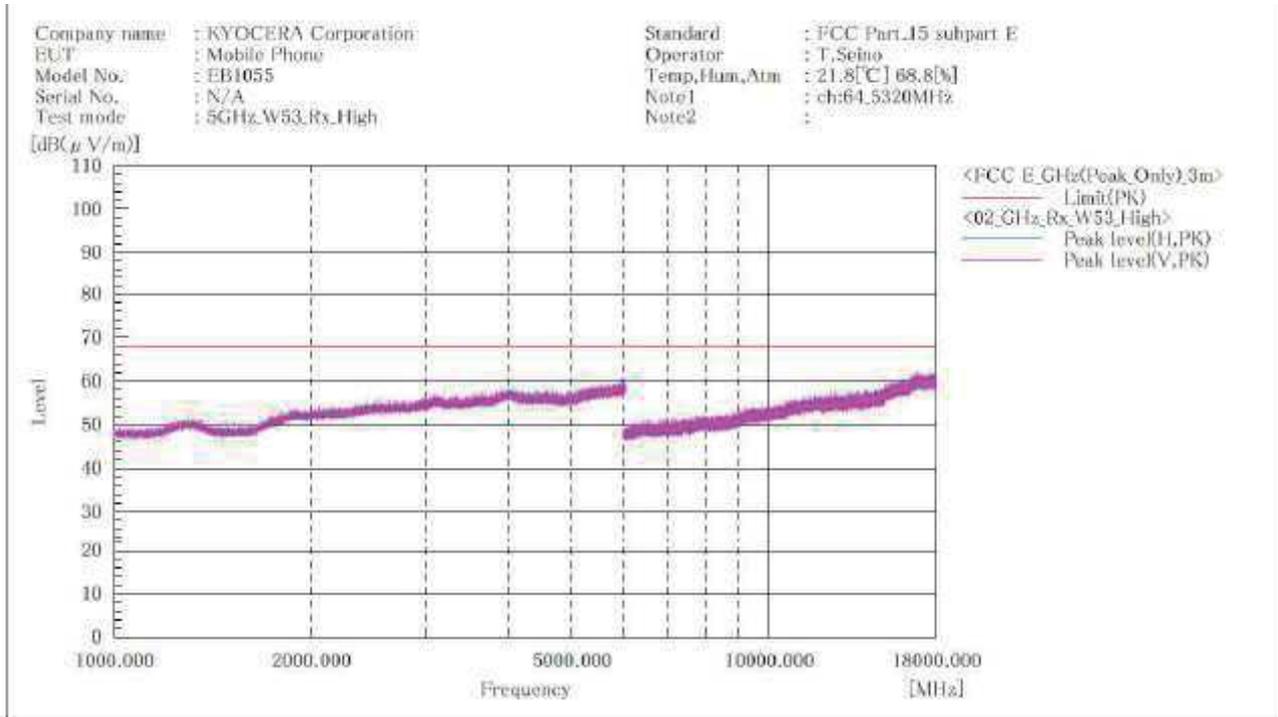
**Note:**

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.



Japan

**W53 / Channel High  
ABOVE 1GHz**



**Final Result**

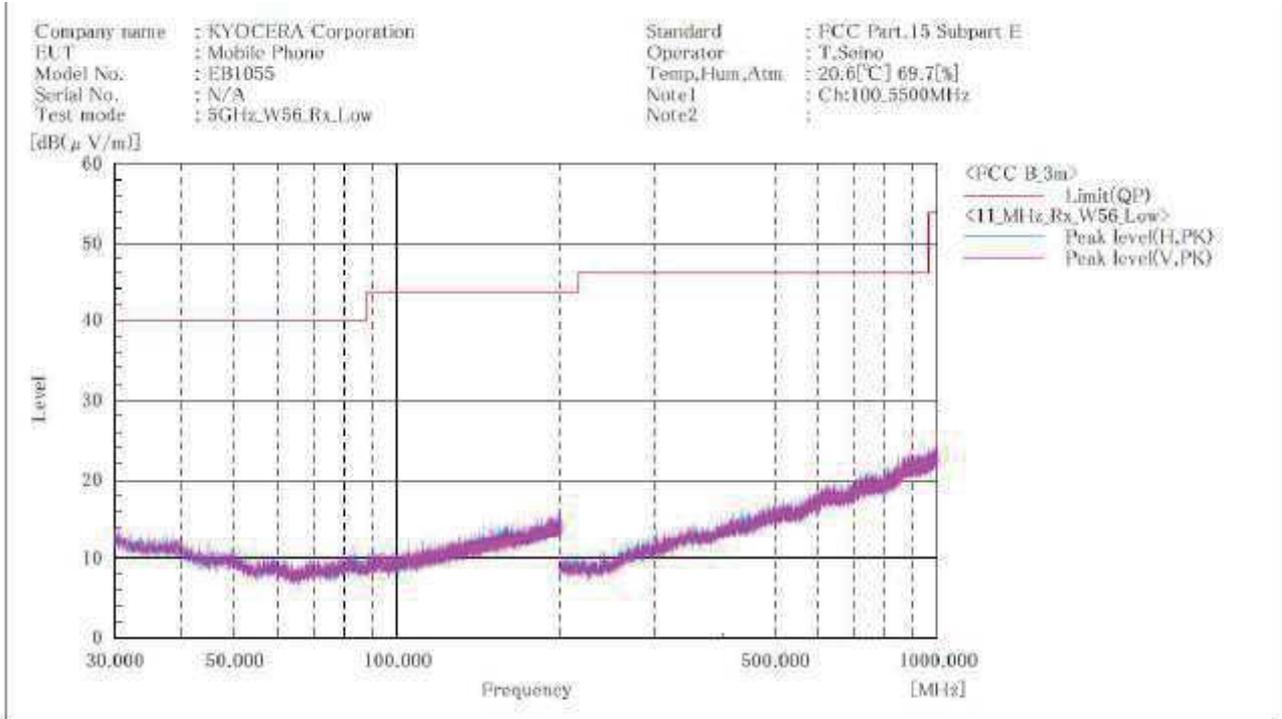
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable - Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



**W56 / Channel Low  
BELOW 1GHz**



**Final Result**

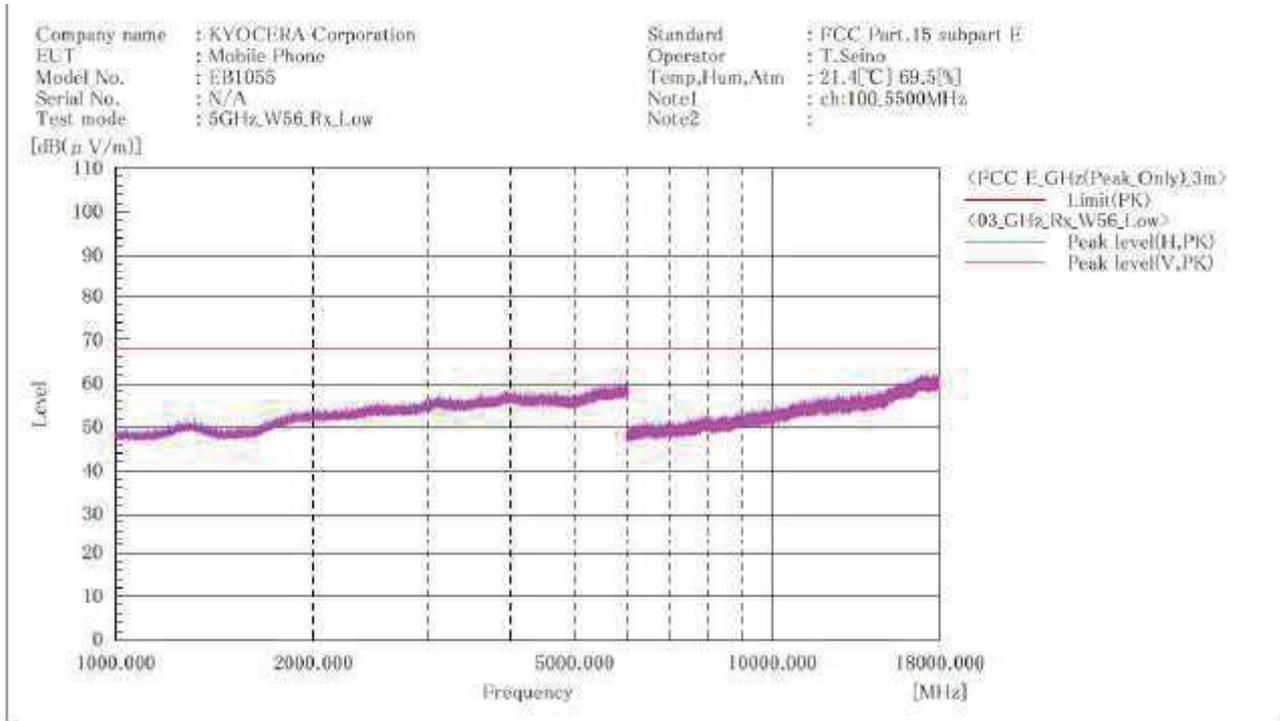
No.	Frequency (P) [MHz]	c.f [dB(1/m)]	Height [cm]	Angle [°]

**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.



**W56 / Channel Low  
ABOVE 1GHz**



**Final Result**

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

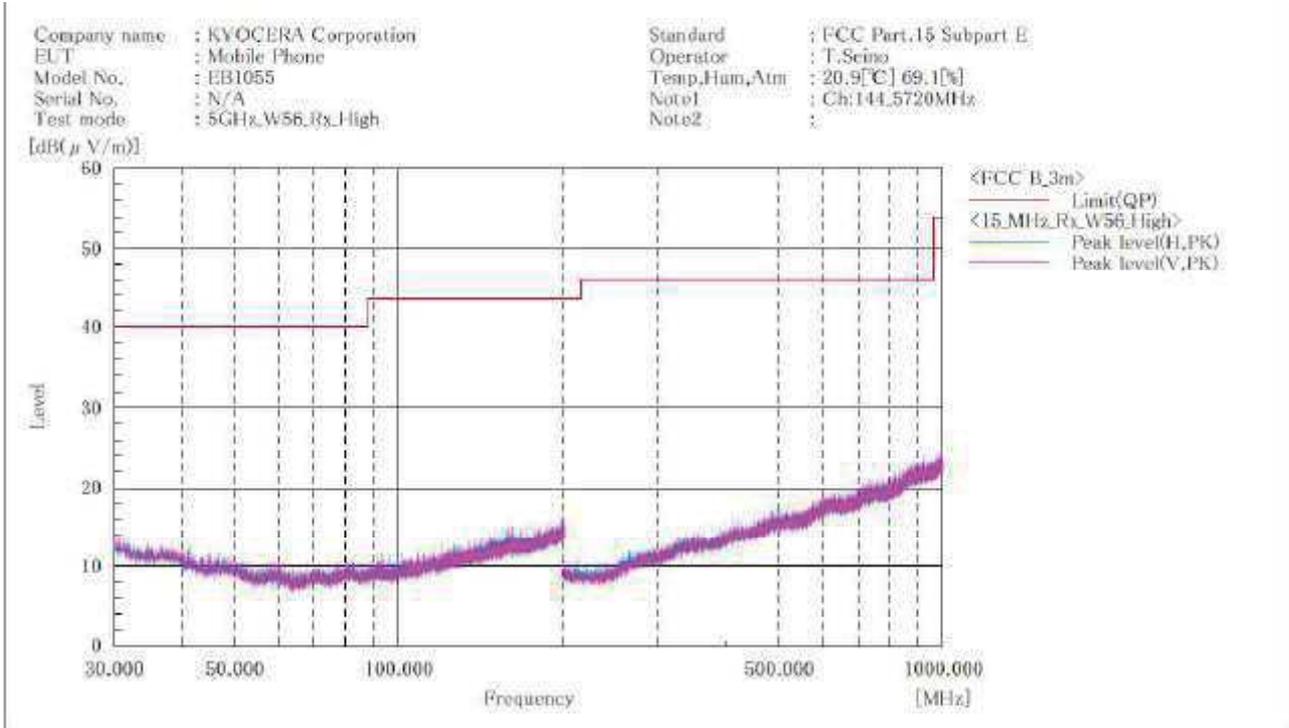
**Note:**

1. Emission Level (Margin) = Limit - [Reading + Factor ( Antenna + Cable - Amp)]
2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



Japan

**W56 / Channel High  
BELOW 1GHz**



**Final Result**

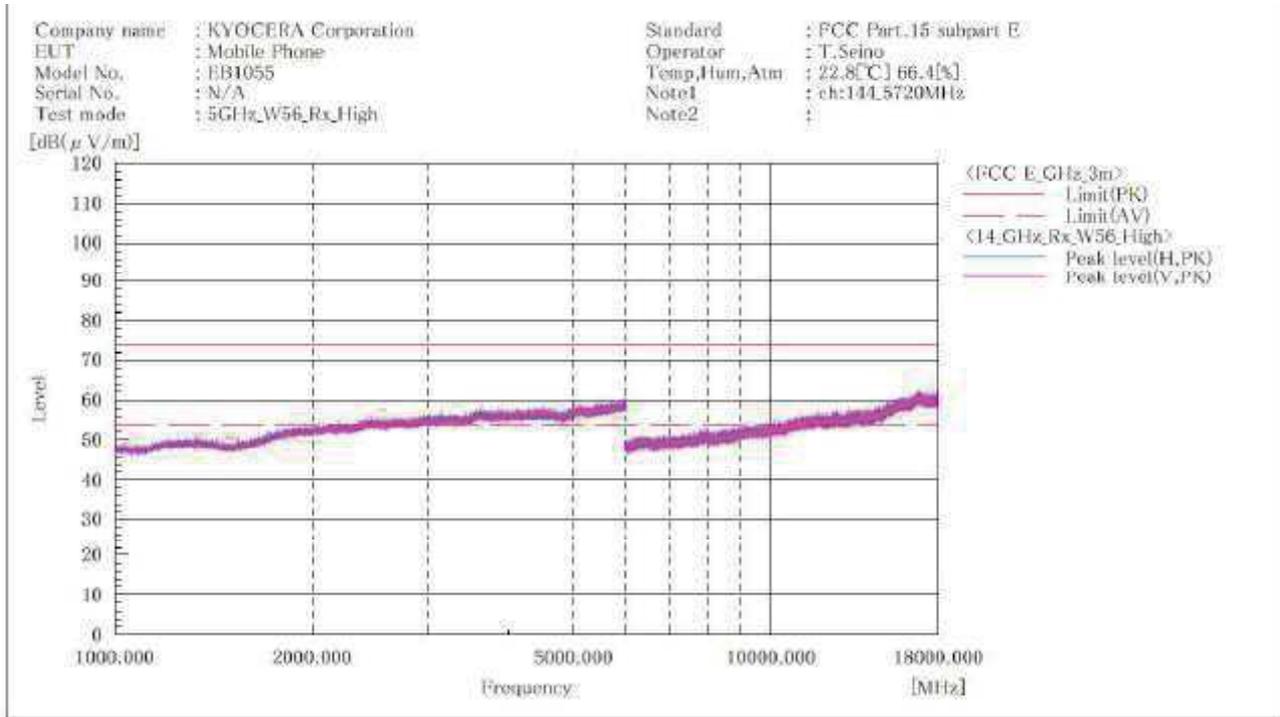
No.	Frequency (P)	c. f	Height	Angle
	[MHz]	[dB(1/m)]	[cm]	[°]

**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.



**W56 / Channel High  
ABOVE 1GHz**



**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 18GHz to 40GHz at the 3 meters distance.

## 4.5 Frequency Stability

### 4.5.1 Measurement procedure

#### [FCC 15.407(g)]

The EUT was placed inside of a constant temperature chamber as the temperature in the chamber was varied between  $-30^{\circ}\text{C}$  and  $+60^{\circ}\text{C}$ . The temperature was incremented by  $10^{\circ}\text{C}$  intervals and the unit was allowed to stabilize at each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.

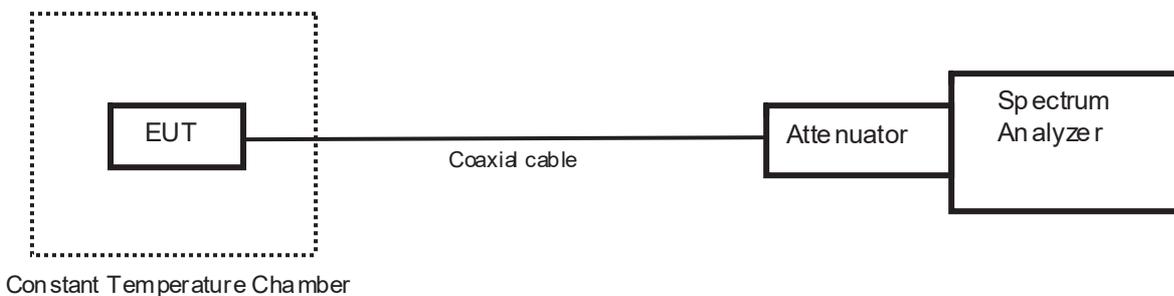
The EUT was set to operate with the following conditions.

- 5.2 GHz Band, 5.3 GHz Band, 5.6 GHz Band

The test mode of EUT is as follows.

- Tx mode

- Test configuration



### 4.5.2 Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified.

### 4.5.3 Measurement result

Date : 11-September-2020  
 Temperature : 24.7 [°C]  
 Humidity : 51.1 [%]  
 Test place : Shielded room No. 4

Test engineer : Tadahiro Seino

#### [Channel: 36 (5180 MHz)]

Power Supply	Temperature	Measurements Frequency (startup)	Frequency Tolerance (startup)	Measurements Frequency (2mins)	Frequency Tolerance (2mins)	Measurements Frequency (5mins)	Frequency Tolerance (5mins)	Measurements Frequency (10mins)	Frequency Tolerance (10mins)
[V]	[°C]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]
3.85	25 (Ref.)	5180013581	0.00000000	5180008844	-0.91447637	5180005011	-1.65443582	5179997734	-3.0525839
	60	5179989722	-4.60597248	5179992315	-4.10539464	5179989093	-4.72740073	5179991072	-4.34535540
	50	5180000039	-2.61427886	5179992086	-4.14960302	5179996193	-3.3574796	5179996193	-3.3574796
	40	5179991388	-4.28435170	5179994389	-3.70500959	5179993341	-3.90732566	5179993690	-3.83995132
	30	5179999860	-2.64883475	5180007998	-1.07779640	5180012446	-0.21911139	5180009367	-0.81351138
	20	5180029737	3.11891074	5180019573	1.15675372	5180015473	0.36525001	5180021405	1.51042075
	10	5180017146	0.68822213	5180010863	-0.52470905	5180005960	-1.47123166	5180022405	1.70347044
	0	5180042667	5.61504319	5180041662	5.42102826	5180014476	0.17277947	5180041931	5.47295862
	-10	5180031048	3.37199888	5180022251	1.67374079	5180031564	3.47161252	5180043233	5.72430932
	-20	5179988538	-4.83454331	5180011214	-0.45694861	5180021374	1.50443621	5180021848	1.59594176
	-30	5180003471	-1.95173233	5180019172	1.07934080	5180019749	1.19073047	5180016977	0.65559674
3.27	25	5180003988	-1.85192565	5180022953	1.80926167	5180016245	0.51428437	5180018854	1.01795100
4.43	25	5179994620	-3.66041511	5180008586	-0.96428319	5180007516	-1.17084635	5180002352	-2.16775493

Frequency Tolerance (ppm) = Measurements Frequency (Hz) - Reference Frequency (Hz) / Reference Frequency (Hz) x 100000

**[Channel: 64 (5320 MHz)]**

Power Supply	Temperature	Measurements Frequency (startup)	Frequency Tolerance (startup)	Measurements Frequency (2min s)	Frequency Tolerance (2mins)	Measurements Frequency (5min s)	Frequency Tolerance (5mins)	Measurements Frequency (10mins)	Frequency Tolerance (10mins)
[V]	[°C]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]
3.85	25 (Ref.)	5319993358	0.00000000	5320001807	1.58815988	5319995537	0.40958698	5320014727	4.01673434
	60	5320006488	2.46804819	5319987922	-1.02180579	5319976930	-3.08797378	5319984096	-1.74097962
	50	5320011407	3.39267341	5319972478	-3.92481693	5319978094	-2.86917651	5319976953	-3.08365047
	40	5319983629	-1.82876168	5319975335	-3.38778618	5319989465	-0.73176783	5319983357	-1.87988957
	30	5319983798	-1.79699472	5320002328	1.68609233	5319993074	-0.05338353	5319988351	-0.94116659
	20	5320011564	3.42218472	5320006170	2.40827368	5319997074	0.69849711	5319995606	0.42255692
	10	5320011299	3.37237263	5320005656	2.31165702	5320007496	2.65752211	5320007688	2.69361239
	0	5319981763	-2.17951400	5320016866	4.41880251	5320011284	3.36955308	5320028161	6.54192546
	-10	5320024891	5.92726304	5320029678	6.82707619	5320014221	3.92162144	5320026620	6.25226345
	-20	5320019204	4.85827674	5320027541	6.42538396	5320021315	5.25508175	5320019541	4.92162269
	-30	5320017096	4.46203565	5319995536	0.40939901	5320010349	3.19380098	5319984920	-1.58609221
3.27	25	5319989511	-0.72312120	5319991771	-0.29830864	5320010058	3.13910166	5319982031	-2.12913800
4.43	25	5319985876	-1.40639273	5320003977	1.99605512	5319987993	-1.00845991	5319977921	-2.90169535

Frequency Tolerance (ppm) = Measurements Frequency (Hz) – Reference Frequency (Hz) / Reference Frequency (Hz) x 1000000

**[Channel: 144 (5720 MHz)]**

Power Supply	Temperature	Measurements Frequency (startup)	Frequency Tolerance (startup)	Measurements Frequency (2min s)	Frequency Tolerance (2mins)	Measurements Frequency (5min s)	Frequency Tolerance (5mins)	Measurements Frequency (10mins)	Frequency Tolerance (10mins)
[V]	[°C]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]
3.85	25 (Ref.)	5700009392	0.00000000	5700002570	-1.19684013	5699989412	-3.50525738	5700007694	-0.29789425
	60	5700015931	1.14719109	5699988774	-3.61718702	5699987210	-3.89157254	5699982524	-4.71367644
	50	5699982500	-4.71788696	5699979058	-5.32174562	5699980357	-5.09885126	5699980403	-5.08578109
	40	5699995447	-2.44648720	5699998665	-1.88192672	5699996103	-2.33139967	5699992963	-2.88227595
	30	5700005655	-0.65561295	5699997356	-2.11157547	5699997188	-2.14104910	5699998057	-1.98859321
	20	5699994766	-2.56596068	5700006620	-0.48631499	5700007756	-0.28701707	5700009418	0.00456140
	10	5700002513	-1.20684012	5700014416	0.88140206	5700010521	0.19806985	5700021745	2.16718941
	0	5700007919	-0.25842063	5700022664	2.32841722	5700033654	4.25648421	5700039388	5.26244747
	-10	5700051078	7.31332128	5700030002	3.61578352	5700031149	3.81701125	5700045897	6.40437541
	-20	5700032527	4.05876524	5700025014	2.74069724	5700025872	2.89122331	5700021712	2.16139995
	-30	5699987979	-3.75666048	5700010353	0.16859621	5700012445	0.53561315	5699998154	-1.97157570
3.27	25	5700009139	-0.04438589	5700011703	0.40543793	5699990643	-3.28929283	5699994680	-2.58104838
4.43	25	5700040139	5.39420164	5700001725	-1.34508550	5699995296	-2.47297838	5699997647	-2.06052292

Frequency Tolerance (ppm) = Measurements Frequency (Hz) – Reference Frequency (Hz) / Reference Frequency (Hz) x 1000000

## 4.6 AC Power Line Conducted Emissions

### 4.6.1 Measurement procedure

#### [FCC 15.207]

Test was applied by following conditions.

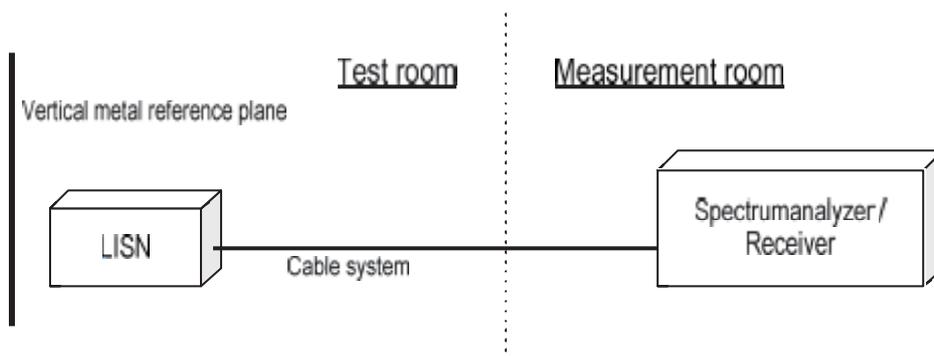
Test method	: ANSI C63.10
Frequency range	: 0.15 MHz to 30 MHz
Test place	: 3m Semi-anechoic chamber
EUT was placed on	: FRP table / (W) 2.0 × (D) 1.0 × (H) 0.8 m
Vertical Metal Reference Plane	: (W) 2.0 × (H) 2.0 m, 0.4 m away from EUT
Test receiver setting	
- Detector	: Quasi-peak, Average
- Bandwidth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

EUT and peripherals are connected to 50Ω/50μH 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



### 4.6.2 Calculation method

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

Margin = Limit – Emission level

#### 4.6.3 Limit

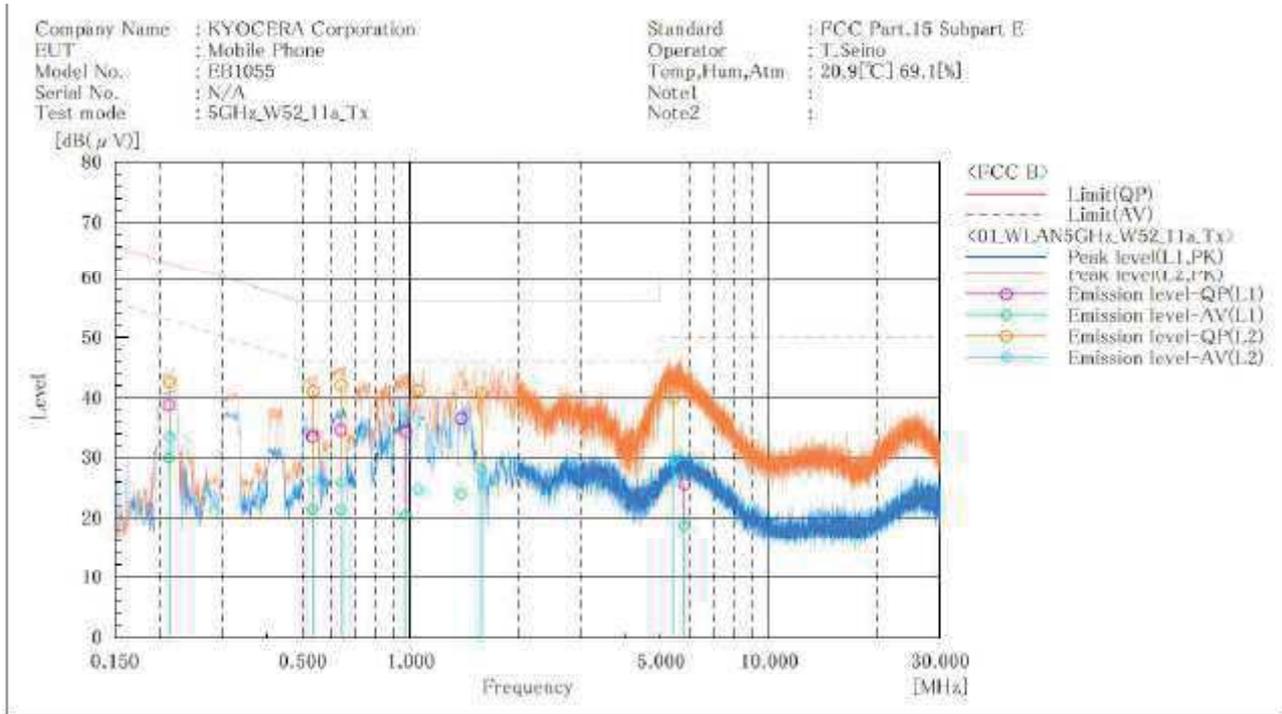
Frequency [MHz]	Limit	
	QP [dBuV]	AV [dBuV]
0.15-0.5	66-56*	56-46*
0.5-5	56	46
5-30	60	50

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



4.6.4 Test data

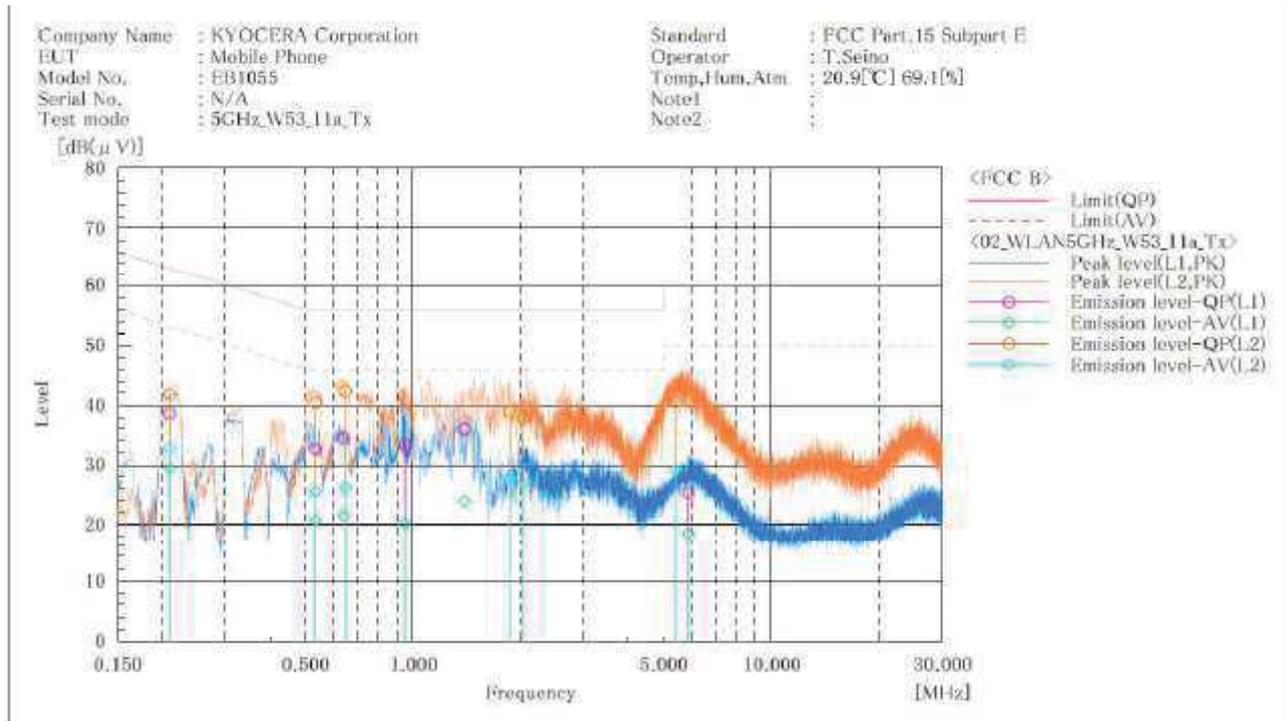
Date : 2-September-2020  
 Temperature : 20.9 [°C]  
 Humidity : 69.1 [%]  
 Test place : 3m Semi-anechoic chamber  
 Test engineer : Tadahiro Seino



Final Result

L1 Phase										
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c. f. [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.213	28.4	19.6	10.4	38.8	30.0	63.1	53.1	24.3	23.1
2	0.534	23.2	11.2	10.3	33.5	21.5	56.0	46.0	22.5	24.5
3	0.642	24.4	11.1	10.3	34.7	21.4	56.0	46.0	21.3	24.6
4	0.972	24.1	10.2	10.3	34.4	20.5	56.0	46.0	21.6	25.5
5	1.393	26.2	13.6	10.4	36.6	24.0	56.0	46.0	19.4	22.0
6	5.828	15.0	8.1	10.6	25.6	18.7	60.0	50.0	34.4	31.3

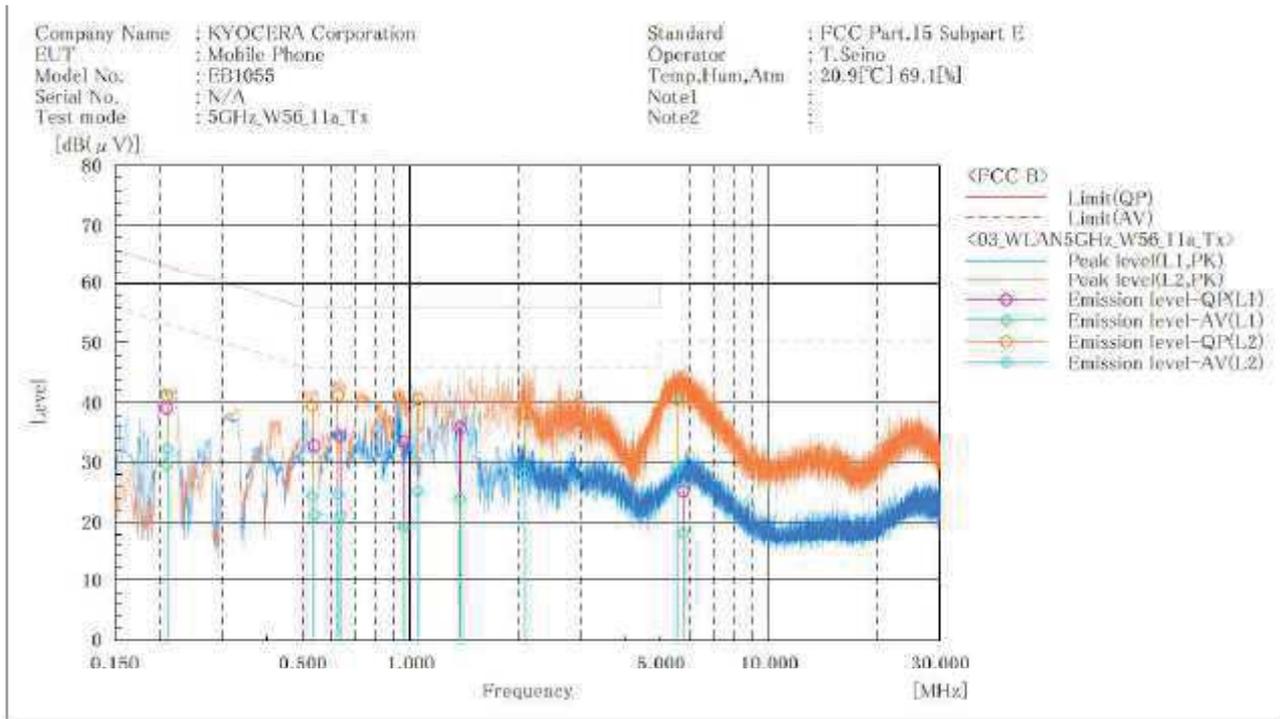
L2 Phase										
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c. f. [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.214	32.3	23.0	10.4	42.7	33.4	63.0	53.0	20.3	19.6
2	0.536	30.8	15.9	10.3	41.1	26.2	56.0	46.0	14.9	19.8
3	0.645	31.8	15.8	10.3	42.1	26.1	56.0	46.0	13.9	19.9
4	1.054	30.8	14.4	10.4	41.2	24.8	56.0	46.0	14.8	21.2
5	1.581	30.5	17.6	10.4	40.9	28.0	56.0	46.0	15.1	18.0
6	5.435	29.5	19.3	10.5	40.0	29.8	60.0	50.0	20.0	20.2



Final Result

— L1 Phase —										
No.	Frequency	Reading QP	Reading AV	e. f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	0.210	28.2	19.0	10.4	38.6	29.4	63.2	53.2	24.6	23.8
2	0.535	22.4	10.5	10.3	32.7	20.8	56.0	46.0	23.3	25.2
3	0.643	24.2	11.2	10.3	34.5	21.5	56.0	46.0	21.5	24.5
4	0.952	23.1	10.0	10.3	33.4	20.3	56.0	46.0	22.6	25.7
5	1.394	25.6	13.6	10.4	36.0	24.0	56.0	46.0	20.0	22.0
6	5.857	14.8	7.9	10.6	25.4	18.5	60.0	50.0	34.6	31.5

— L2 Phase —										
No.	Frequency	Reading QP	Reading AV	e. f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	0.210	31.4	22.5	10.4	41.8	32.9	63.2	53.2	21.4	20.3
2	0.536	30.1	15.3	10.3	40.4	25.6	56.0	46.0	15.6	20.4
3	0.649	32.1	16.0	10.3	42.4	26.3	56.0	46.0	13.6	19.7
4	1.863	28.6	17.5	10.4	39.0	27.9	56.0	46.0	17.0	18.1
5	2.028	27.4	16.8	10.4	37.8	27.2	56.0	46.0	18.2	18.8
6	5.396	30.1	18.7	10.5	40.6	29.2	60.0	50.0	19.4	20.8



Final Result

— L1 Phase —

No.	Frequency [MHz]	Reading		c. f [dB]	Result		Limit		Margin	
		QP [dB(μV)]	AV [dB(μV)]		QP [dB(μV)]	AV [dB(μV)]	QP [dB(μV)]	AV [dB(μV)]	QP [dB]	AV [dB]
1	0.210	28.7	19.2	10.4	39.1	29.6	63.2	53.2	24.1	23.6
2	0.541	22.6	11.0	10.3	32.9	21.3	56.0	46.0	23.1	24.7
3	0.641	24.1	10.9	10.3	34.4	21.2	56.0	46.0	21.6	24.8
4	0.963	23.3	9.0	10.3	33.6	19.3	56.0	46.0	22.4	26.7
5	1.381	25.4	13.6	10.4	35.8	24.0	56.0	46.0	20.2	22.0
6	5.774	14.7	7.7	10.6	25.3	18.3	60.0	50.0	34.7	31.7

— L2 Phase —

No.	Frequency [MHz]	Reading		c. f [dB]	Result		Limit		Margin	
		QP [dB(μV)]	AV [dB(μV)]		QP [dB(μV)]	AV [dB(μV)]	QP [dB(μV)]	AV [dB(μV)]	QP [dB]	AV [dB]
1	0.211	30.8	21.9	10.4	41.2	32.3	63.2	53.2	22.0	20.9
2	0.533	29.2	14.2	10.3	39.5	24.5	56.0	46.0	16.5	21.5
3	0.632	30.9	14.5	10.3	41.2	24.8	56.0	46.0	14.8	21.2
4	1.052	30.3	15.0	10.4	40.7	25.4	56.0	46.0	15.3	20.6
5	2.089	27.8	17.8	10.4	38.2	28.2	56.0	46.0	17.8	17.8
6	5.552	30.1	18.6	10.6	40.7	29.2	60.0	50.0	19.3	20.8



**4.7 Duty Cycle**

**4.7.1 Measurement procedure**

**[KDB 789033 D02, Section B, Zero-Span Spectrum Analyzer Method]**

The duty cycle 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;

- RBW=8 MHz, VBW=8 MHz, Span=0 Hz, Sweep=Auto, Detector=Peak, Trace mode=Single

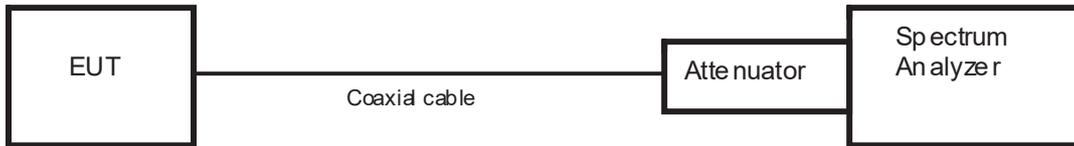
The EUT was set to operate with following conditions.

- 5.2 GHz Band, 5.3 GHz Band, 5.6 GHz Band

The test mode of EUT is as follows.

- Tx mode

- Test configuration



**4.7.2 Limit**

None

**4.7.3 Measurement result**

Date : 4-August-2020  
 Temperature : 24.2 [°C]  
 Humidity : 44.6 [%]  
 Test place : Shielded room No.4

Test engineer : Tadahiro Seino

Date : 31-August-2020  
 Temperature : 24.9 [°C]  
 Humidity : 60.5 [%]  
 Test place : Shielded room No.4

Test engineer : Tadahiro Seino

Mode	Channel	Frequency (MHz)	Duty Cycle				DCF (dB) 10log(1/x)	DCF (dB) 20log(1/x)
			On Time(ms)	On+Off Time(ms)	X	1/T		
802.11a	36	5180	1.390	1.436	0.968	719.4	0.141	0.283
	40	5200						
	48	5240						
	52	5260	1.392	1.438	0.968	718.4	0.141	0.282
	56	5280						
	64	5320						
	100	5500	1.390	1.436	0.968	719.4	0.141	0.283
	116	5580						
	140	5700						
	144	5720						

Note: X = On time / (On + Off time)

Mode	Channel	Frequency (MHz)	Duty Cycle				DCF (dB) 10log(1/x)	DCF (dB) 20log(1/x)
			On Time(m s)	On+Off Time(ms)	X	1/T		
802.11n (20MHz)	36	5180	1.288	1.332	0.967	776.4	0.146	0.292
	40	5200						
	48	5240						
	52	5260	1.286	1.332	0.965	777.6	0.153	0.305
	56	5280						
	64	5320						
	100	5500	1.288	1.332	0.967	776.4	0.146	0.292
	116	5580						
	140	5700						
	144	5720						

Note: X = On time / (On + Off time)

Mode	Channel	Frequency (MHz)	Duty Cycle				DCF (dB) 10log(1/x)	DCF (dB) 20log(1/x)
			On Time(ms)	On+Off Time(ms)	X	1/T		
802.11n (40MHz)	38	5190	0.636	0.680	0.935	1572.3	0.291	0.581
	46	5230						
	54	5270	0.636	0.680	0.935	1572.3	0.291	0.581
	62	5310						
	102	5510	0.635	0.681	0.932	1574.8	0.304	0.607
	110	5550						
	134	5670						
	142	5710						

Note: X = On time / (On + Off time)

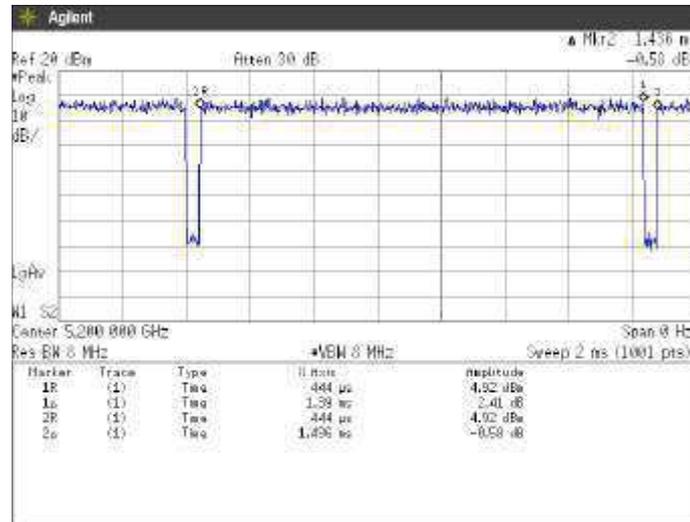
Mode	Channel	Frequency (MHz)	Duty Cycle				DCF (dB) 10log(1/x)	DCF (dB) 20log(1/x)
			On Time(ms)	On+Off Time(ms)	X	1/T		
802.11ac (80MHz)	42	5210	0.323	0.458	0.706	3096.9	1.514	3.028
	58	5290	0.324	0.447	0.725	3086.4	1.400	2.799
	106	5530	0.322	0.458	0.705	3101.7	1.521	3.042
	122	5610	0.323	0.452	0.714	3096.9	1.465	2.929
	138	5690	0.323	0.452	0.714	3096.9	1.465	2.929

Note: X = On time / (On + Off time)

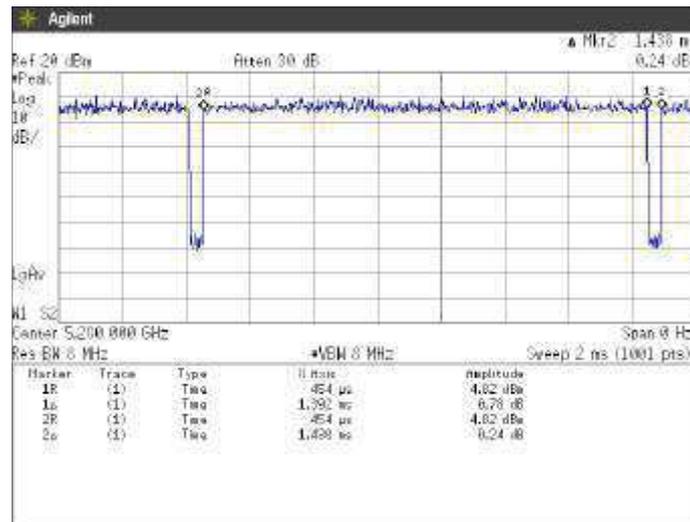
4.7.4 Trace data

[IEEE802.11a]

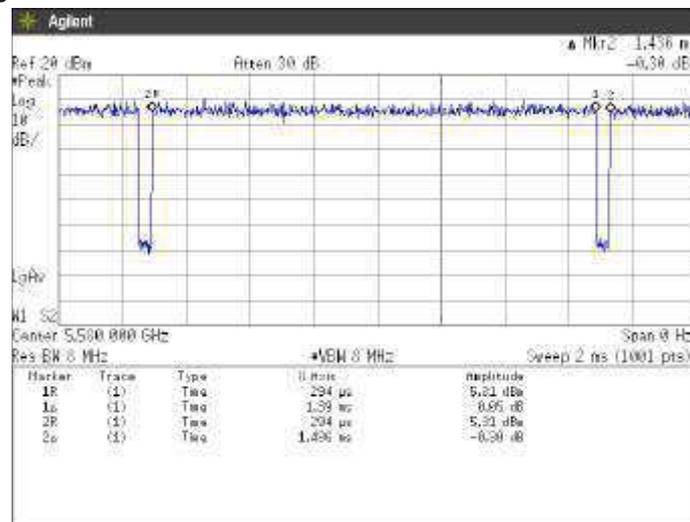
Channel: 40



Channel: 56



Channel: 116

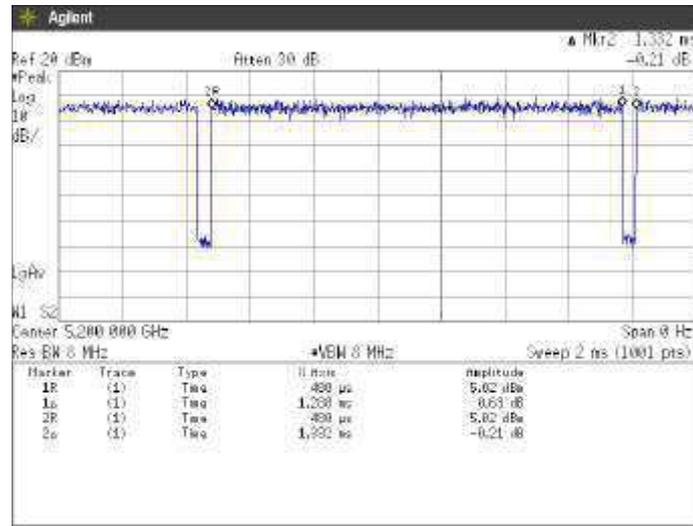




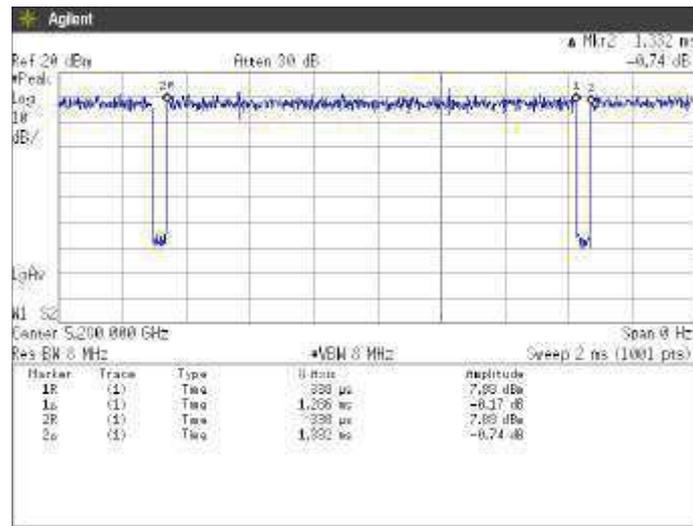
Japan

[IEEE 802.11n (HT20)]

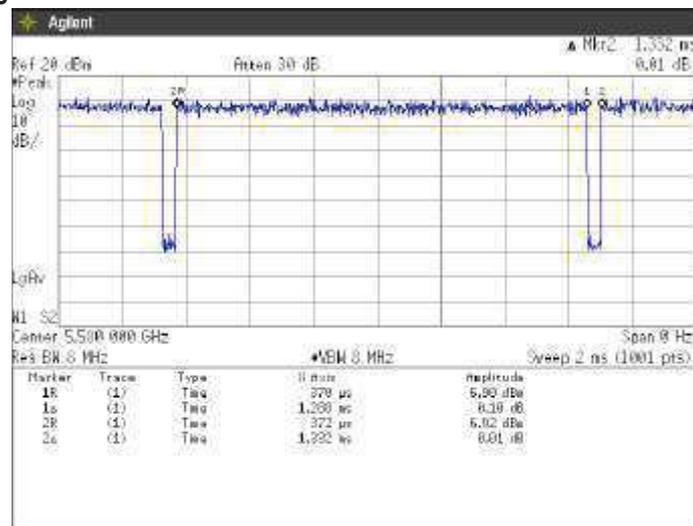
Channel: 40



Channel: 56

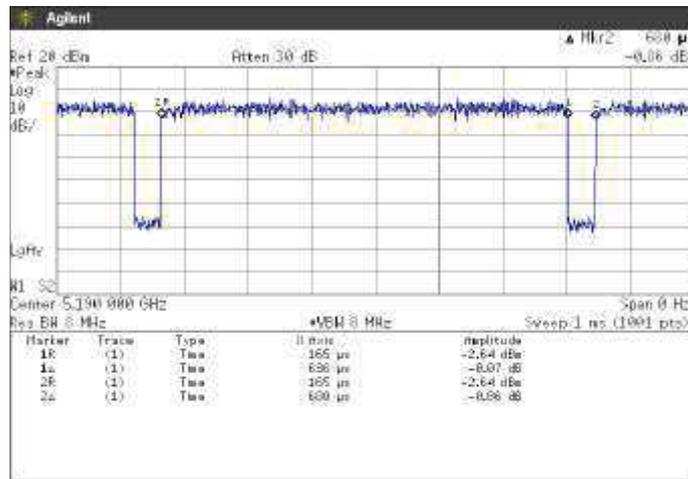


Channel: 116

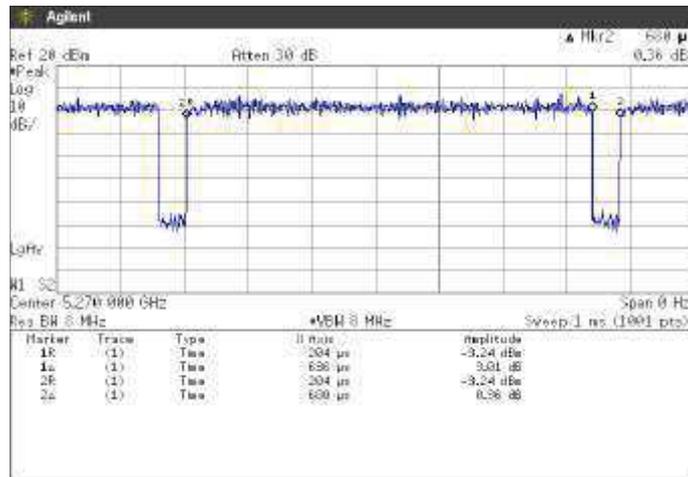


[IEEE 802.11n (HT40)]

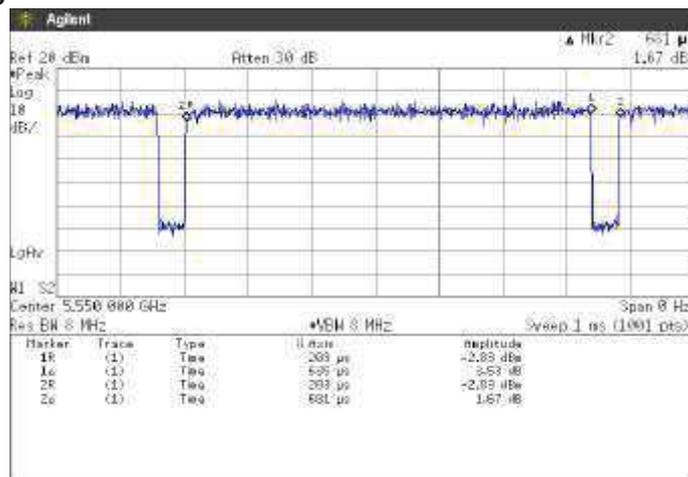
Channel: 38



Channel: 54



Channel: 110

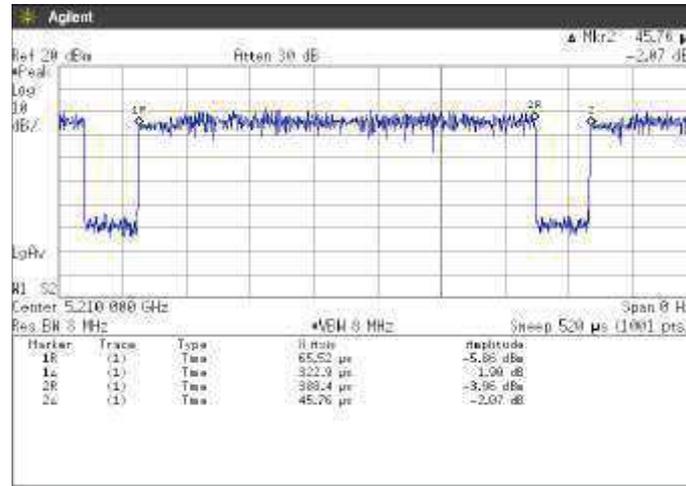




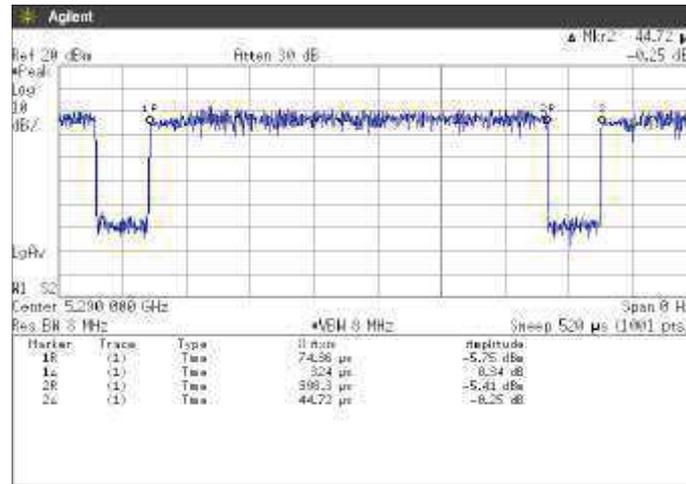
Japan

[IEEE 802.11ac (HT80)]

Channel: 42

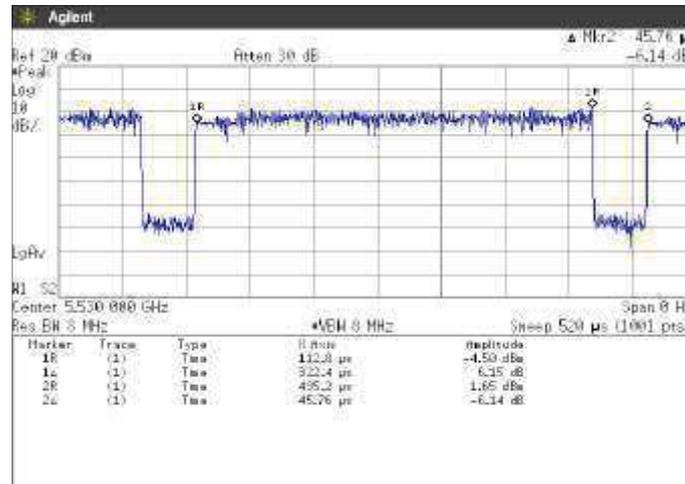


Channel: 58

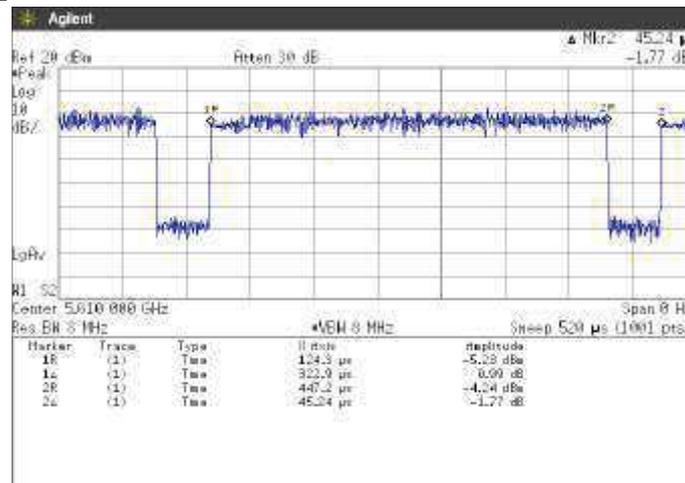


[IEEE 802.11ac (HT80)]

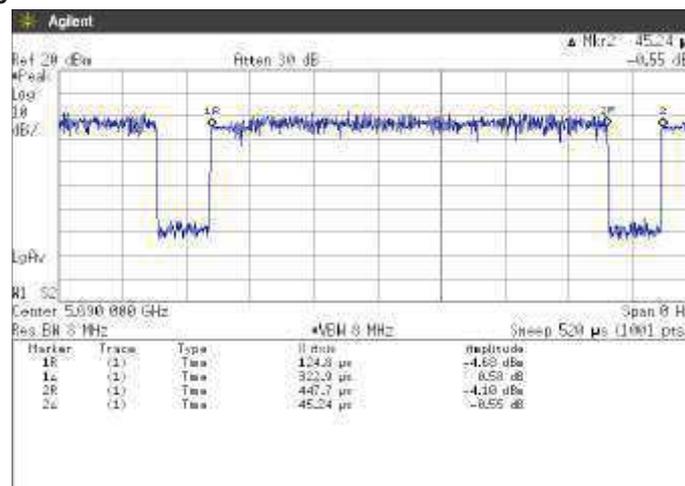
Channel: 106



Channel: 122



Channel: 138



## 5 Antenna requirement

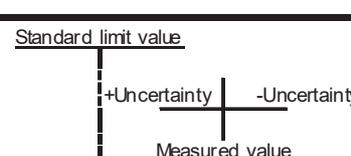
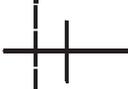
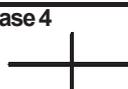
According to FCC section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

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)	±3.8 dB
Conducted emission, AMN (150 kHz – 30 MHz)	±3.4 dB
Radiated emission (9kHz – 30 MHz)	±3.9 dB
Radiated emission (30 MHz – 1000 MHz)	±4.9 dB
Radiated emission (1 GHz – 6 GHz)	±4.6 dB
Radiated emission (6 GHz – 18 GHz)	±4.9 dB
Radiated emission (18 GHz – 40 GHz)	±5.8 dB
Radio Frequency	±1.4 * 10 <sup>-8</sup>
RF power, conducted	±0.6 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	<p><b>Case 1</b></p>  <p>Even if it takes uncertainty into consideration, a standard limit value is fulfilled.</p>
	<p><b>Case 2</b></p>  <p>Although measured value is in a standard limit value, a limit value won't be fulfilled if uncertainty is taken into consideration.</p>
FAIL	<p><b>Case 3</b></p>  <p>Although measured value exceeds a standard limit value, a limit value will be fulfilled if uncertainty is taken into consideration.</p>
	<p><b>Case 4</b></p>  <p>Even if it takes uncertainty into consideration, a standard limit value isn't fulfilled.</p>



## 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	25-Sep-2020	26-Sep-2019
Spectrum analyzer	Agilent Technologies	E4440A	US44302655	19-Aug-2021	20-Aug-2020
Attenuator	Weinschel	56-10	J4180	20-Jul-2021	21-Jul-2020
Power meter	Keysight	N1911A	MY57390003	09-Dec-2020	10-Dec-2019
Power sensor	Keysight	N1921A	MY57370009	09-Dec-2020	10-Dec-2019

### Radiated emission

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI Receiver	ROHDE&SCHWARZ	ESCI	100765	24-Sep-2020	25-Sep-2019
Spectrum analyzer	Agilent Technologies	E4447A	MY46180188	26-Mar-2021	27-Mar-2020
Spectrum analyzer	Agilent Technologies	E4440A	US40420937	25-Sep-2020	26-Sep-2019
Spectrum analyzer	ROHDE&SCHWARZ	FSV40	101731	21-Jun-2021	22-Jun-2020
Preamplifier	SONOMA	310	372170	25-Sep-2020	26-Sep-2019
Loop antenna	ROHDE&SCHWARZ	HFH2-Z2	100515	14-Apr-2021	15-Apr-2020
Attenuator	TOYO Connector	NA-PJ-6	N/A(S507)	17-Dec-2020	18-Dec-2019
Biconical antenna	Schwarzbeck	VHBB9124/BBA9106	1344	03-Dec-2020	04-Dec-2019
Log periodic antenna	Schwarzbeck	VUSLP9111B	344	16-Apr-2021	17-Apr-2020
Attenuator	TAMAGAWA.ELEC	CFA-01/6dB	N/A(S466)	01-Oct-2020	02-Oct-2019
Attenuator	TAMAGAWA.ELEC	CFA-10/3dB	N/A(S503)	19-Jul-2021	20-Jul-2020
Preamplifier	SONOMA	310	372170	25-Sep-2020	26-Sep-2019
Attenuator	AEROFLEX	26A-10	081217-08	09-Jan-2021	10-Jan-2020
Double ridged guide antenna	ETS LINDGREN	3117	00052315	07-Apr-2021	08-Apr-2020
Attenuator	HUBER+SUHNER	6803.17.B	N/A(2341)	17-Dec-2020	18-Dec-2019
Double ridged guide antenna	A.H.Systems Inc.	SAS-574	469	27-Aug-2020	28-Aug-2019
Preamplifier	TSJ	MLA-1840-B03-35	1240332	27-Aug-2020	28-Aug-2019
Band rejection filter	Micro-Tronics	BRC50716	006	31-Jul-2020	18-Jul-2019
Microwave cable	HUBER+SUHNER	SUCOFLEX104/9m	MY30037/4	07-Jan-2021	08-Jan-2020
		SUCOFLEX104/1m	my24610/4	07-Jan-2021	08-Jan-2020
		SUCOFLEX104/8m	SNMY30031/4	08-Jan-2021	09-Jan-2020
		SUCOFLEX104	MY32976/4	07-Jan-2021	08-Jan-2020
		SUCOFLEX104/1.5m	MY19309/4	07-Jan-2021	08-Jan-2020
		SUCOFLEX104/7m	41625/6	07-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	PPF30	N/A	N/A	N/A
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-NSA)	28-May-2021	29-May-2020
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-SVSWR)	27-May-2021	28-May-2020

### Conducted emission at main s port

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI Receiver	ROHDE&SCHWARZ	ESCI	100765	24-Sep-2020	25-Sep-2019
Attenuator	HUBER+SUHNER	6810.01.A	N/A (S411)	07-Jan-2021	08-Jan-2020
Line impedance stabilization network	Kyoritsu Electrical Works, Ltd.	TNW-407F2	12-17-110-2	02-Jun-2021	03-Jun-2020
Coaxial cable	FUJIKURA	5D-2W/4m	N/A (S350)	07-Jan-2021	08-Jan-2020
Coaxial cable	FUJIKURA	5D-2W/1m	N/A (S193)	07-Jan-2021	08-Jan-2020
Coaxial cable	HUBER+SUHNER	RG214/U/10m	N/A (S194)	07-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.