Report on the RF Testing of:

KYOCERA Corporation

Mobile Phone, Model: EB1147

FCC ID: JOYEB1147

In accordance with FCC Part15 Subpart E

Prepared for: KYOCERA Corporation

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Document Number: JPD-TR-22209-0

SIGNATURE SIGNATURE SIGNATURE SIGNATURE RESPONSIBLE FOR ISSUE DATE Hiroaki Suzuki Deputy Manager of RF Group Approved Signatory 2022-11-28

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Japan Ltd. document control rules.

EXECUTIVE SUMMARY - Result: Complied

A sample of this product was tested and the result above was confirmed in accordance with FCC Part15 Subpart E.



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1 Summary of Test

1.1 Modification history of the test report

Document Number	Modification History	Issue Date
JPD-TR-22209-0	First Issue	Refer to the cover page

1.2 Standards

CFR47 FCC Part 15 Subpart E

1.3 Test methods

ANSI C63.10-2013 KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General U-NII Test Procedures New Rules v02r01

1.4 Deviation from standards

None

1.5 List of applied test(s) of the EUT

Test item section	Test item	Condition	Result	Remark
15.407(a)	26dB Bandwidth	Conducted	Reporting Purposes only	*1
15.407(a)	Maximum Conducted Output Power	Conducted PASS		*1
15.407(a)	Peak Power Spectral Density	Conducted	PASS	*1
15.407(b) 15.205 15.209	Radiated emissions (Restricted Bands of Operation)	Radiated	PASS	-
15.407(g)	Frequency Stability	Conducted	PASS	*1
15.207	AC Power Line Conducted Emissions	Conducted	PASS	-
ANSI C63.10, Section 12.2	Duty Cycle	Conducted	Reporting Purposes only	*1

^{*1} Since there is no change in Module from FCC ID: JOYEB1146, only the Radiated test items were performed. Please refer to the test report "JPD-TR-22193-0" of "FCC ID: JOYEB1146".

1.6 Test information

None

1.7 Test set up

Table-top

1.8 Test period

25-October-2022 - 8-November-2022



2 Equipment Under Test

All information in this chapter was provided by the applicant.

2.1 EUT information

Applicant KYOCERA Corporation

Yokohama Office 2-1-1 Kagahara, Tsuzuki-ku Yokohama-shi,

Kanagawa, Japan

Phone: +81-45-943-6253 Fax: +81-45-943-6314

Equipment Under Test (EUT) Mobile Phone

Model number EB1147

Serial number 358067760004090, 358067760004108

Trade name Kyocera

Number of sample(s) 2

EUT condition Pre-Production

Power rating Battery: DC 3.87 V

Size (W) 72 mm \times (D) 156 mm \times (H) 8.9 mm

Environment Indoor and Outdoor use

Terminal limitation -20 °C to 60 °C

Hardware version DMT

Software version 0.100CX.9011.a Firmware version Not applicable

RF Specification

Protocol IEEE802.11a,

IEEE802.11n (HT20), IEEE802.11n (HT40) IEEE802.11ac (VHT20), IEEE802.11ac (VHT40),

EEE802.11ac (VHT80)

Frequency range IEEE802.11a/n (HT20) / IEEE802.11ac (VHT20): 5180 MHz-5320 MHz,

5500 MHz-5720 MHz

IEEE802.11n (HT40) / IEEE802.11ac (VHT40): 5190 MHz-5310 MHz, 5510

MHz-5710 MHz

IEEE802.11ac (VHT80): 5210 MHz, 5290 MHz, 5530 MHz, 5610 MHz,

5690MHz

Number of RF Channels IEEE802.11a/n (HT20) / IEEE802.11ac (VHT20): 20 Channels

IEEE802.11n (HT40) / IEEE802.11ac (VHT40): 10 Channels

IEEE802.11ac (VHT80): 5 Channels

Modulation type IEEE802.11a/n/ac: OFDM (BPSK, QPSK, 16QAM, 64QAM,

256QAM)



Data rate IEEE802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

IEEE802.11n (HT20 LGI): 6.5, 13, 19.5, 26, 39, 52, 58.5, 65, 78, 86.5Mbps

IEEE802.11n (HT20 SGI): 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2, 86.7, 96.1Mbps IEEE802.11ac (VHT20 LGI): 6.5, 13, 19.5, 26, 39, 52, 58.5, 65, 78, 86.5Mbps IEEE802.11ac (VHT20 SGI): 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2, 86.6,

96.1Mbps

IEEE802.11n (HT40 LGI): 13.5, 27, 40.5, 54, 81, 108, 121.5, 135, 162, 180Mbps IEEE802.11n (HT40 SGI): 15, 30, 45, 60, 90, 120, 135, 150, 180, 200Mbps

IEEE802.11ac (VHT40 LGI): 13.5, 27, 40.5, 54, 81, 108, 121.5, 135, 162, 180Mbps IEEE802.11ac (VHT40 SGI): 15, 30, 45, 60, 90, 120, 135, 150, 180, 200Mbps IEEE802.11ac (VHT80 LGI): 29.5, 58.5, 87.8, 117, 175.5, 234, 263.3, 292.5, 351,

390Mbps

IEEE802.11ac (VHT80 SGI): 32.5, 65, 97.5, 130, 195, 260, 292.5, 325, 390,

433.3Mbps

Channel separation IEEE802.11a/n(HT20) / IEEE802.11ac (VHT20): 20 MHz

IEEE802.11n (HT40) / IEEE802.11ac (VHT40): 40 MHz

IEEE802.11ac (VHT80): 80 MHz

Conducted power 15.588 mW (IEEE802.11a)

13.957 mW (IEEE802.11n: HT20) 16.188 mW (IEEE802.11n: HT40) 15.321 mW (IEEE802.11ac: VHT80)

Antenna type Internal antenna

Antenna gain 5.15-5.35 GHz band: 1.0 dBi

5.47-5.725 GHz band: 1.0 dBi

2.2 Modification to the EUT

The table below details modifications made to the EUT during the test project.

Modification State Description of Modification		Modification fitted by	Date of Modification		
Model: EB1147, Serial Number: 358067760004090, 358067760004108					
0	As supplied by the applicant	Not Applicable	Not Applicable		

2.3 Variation of family model(s)

2.3.1 List of family model(s)

Not applicable

2.3.2 Reason for selection of EUT

Not applicable



2.4 Operating channels and frequencies

[IEEE802.11a/n (HT20) / IEEE802.11ac (VHT20)]

Channel	Frequency [MHz]
36	5180
40	5200
44	5220
48	5240
52	5260
56	5280
60	5300
64	5320
100	5500
104	5520
108	5540
112	5560
116	5580
120	5600
124	5620
128	5640
132	5660
136	5680
140	5700
144	5720

[IEEE802.11n (HT40) / IEEE802.11ac (VHT40)]

Channel	Frequency [MHz]
38	5190
46	5230
54	5270
62	5310
102	5510
110	5550
118	5590
126	5630
134	5670
142	5710

[IEEE802.11ac (VHT80)]

[IEEE002:11ac (VIII00)]				
Channel	Frequency [MHz]			
42	5210			
58	5290			
106	5530			
122	5610			
138	5690			



2.5 Description of test mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Donal		1a/n (HT20) 1ac (VHT20)	IEEE802.11n (HT40) IEEE802.11ac (VHT40)		IEEE802.11ac (HT80)	
Band	Channel	Frequency [MHz]	Channel	Frequency [MHz]	Channel	Frequency [MHz]
5 0 CH-	36	5180	38	5190	42	5210
5.2 GHz Band	40	5200	-	-	-	-
Danu	48	5240	46	5230	-	-
5 2 CH-	52	5260	54	5270	58	5290
5.3 GHz Band	56	5280	-	-	-	-
Danu	64	5320	62	5310	-	-
	100	5500	102	5510	106	5530
5.6 GHz	116	5580	110	5550	122	5610
Band	140	5700	134	5670	138	5690
	144	5720	142	5710	-	-

The pre-test has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates.

Band Modulation Type		Data Rate
	IEEE802.11a: OFDM	6Mbps
5.2 GHz Band	IEEE802.11n (HT20): OFDM	MCS0 (6.5Mbps)
5.2 GHZ Bariu	IEEE802.11n (HT40): OFDM	MCS0 (13.5Mbps)
	IEEE802.11ac (VHT80): OFDM	MCS0 (29.5Mbps)
	IEEE802.11a: OFDM	6Mbps
5.3 GHz Band	IEEE802.11n (HT20): OFDM	MCS0 (6.5Mbps)
5.5 GHZ Ballu	IEEE802.11n (HT40): OFDM	MCS0 (13.5Mbps)
	IEEE802.11ac (VHT80): OFDM	MCS0 (29.5Mbps)
	IEEE802.11a: OFDM	6Mbps
5.6 GHz Band	IEEE802.11n (HT20): OFDM	MCS0 (6.5Mbps)
5.0 GHZ Band	IEEE802.11n (HT40): OFDM	MCS0 (13.5Mbps)
	IEEE802.11ac (VHT80): OFDM	MCS0 (29.5Mbps)

The field strength of spurious emissions was measured at each position of all three axis X, Y and Z to compare the level, and the maximum noise.

The worst emission was found in Z-axis and the worst case recorded.

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports.



2.6 Operating flow

- Tx mode

- i) Test program setup to the Software
- ii) Select a Test mode Operating frequency: 5.2GHz Band, 5.3GHz Band, 5.6GHz Band
- iii) Start test mode

- Rx mode

- i) Test program setup to the Software
- ii) Select a Test mode
 - Operating frequency: 5.2GHz Band, 5.3GHz Band, 5.6GHz Band
- iii) Start test mode



3 Configuration of Equipment

Numbers assigned to equipment on the diagram in "3.3 System configuration" correspond to the lists in "3.1 Equipment used" and "3.2 Cable(s) used".

This test configuration is based on the manufacture's instruction.

Cabling and setup(s) were taken into consideration and test data was taken under worse case condition.

3.1 Equipment used

No.	Equipment	Company	Model No.	Serial No.	FCC ID / DoC	Comment
1	Mobile Phone	KYOCERA	EB1147	358067760004090 358067760004108	JOYEB1147	EUT
2	AC Adapter	KDDI	0602PQA	N/A	N/A	*

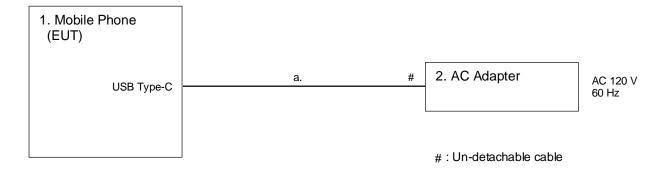
^{*:} AC power line Conducted Emission Test.

3.2 Cable(s) used

No.	Cable	Length[m]	Shield	Connector	Comment
а	USB cable (for AC Adapter)	1.5	No	Plastic	*

^{*:} AC power line Conducted Emission Test.

3.3 System configuration





4 Test Result

4.1 Radiated Emissions (Restricted Bands of Operation)

4.1.1 Measurement procedure

[FCC 15.407(b), 15.205, 15.209, KDB 789033 D02, Section G.4, 5, 6.c) Method AD]

Test was applied by following conditions.

Test method : ANSI C63.10 Frequency range : 9 kHz to 40 GHz

Test place : 3m Semi-anechoic chamber

EUT was placed on : Styrofoam table / (W) 1.0 x (D) 1.0 x(H) 0.8 m (below 1 GHz)

Styrofoam table / (W) 0.6 x (D) 0.6 x(H) 1.5 m (above 1 GHz)

Antenna distance : 3m

Test receiver setting Below 1 GHz
- Detector : Quasi-peak
- Bandwidth : 120 kHz
Spectrum analyzer setting Above 1 GHz

- Peak : RBW=1 MHz, VBW=3 MHz, Span=0 Hz, Sweep=auto, Detector=Peak

Trace mode=Max hold

- Average : RBW=1 MHz, VBW=3 MHz, Span=0 Hz, Sweep=auto, Detector=RMS

Trace mode=Averaging (300 counts)

Radiated emission measurements are performed at 3m distance with the broadband antenna (Loop antenna, Biconical antenna, Log periodic antenna, Double ridged guide antenna and Bload-band horn 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.

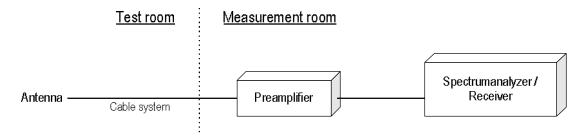
The EUT is Placed on a turntable, which is 0.8m (below 1 GHz) and 1.5m (above 1 GHz) above ground plane. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. The test results represent the worst case emission for each emission with manipulating the EUT, 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.

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, Rx mode
- Test configuration





Duty cycle result

Mada	Dond	On	On+Off	Duty Cycle	DCF
Mode	Band	Time(ms)	Time(ms)	(%)	(dB)
	W52	1.376	1.412	97.45	0.112
802.11a	W53	1.394	1.430	97.48	0.111
	W56	1.342	1.382	97.11	0.128
	W52	1.288	1.324	97.28	0.120
802.11n (20MHz)	W53	1.392	1.430	97.34	0.117
(2011112)	W56	1.260	1.298	97.07	0.129
	W52	0.636	0.672	94.64	0.239
802.11n (40MHz)	W53	0.636	0.672	94.64	0.239
(10111112)	W56	0.637	0.672	94.79	0.232
	W52	0.325	0.360	90.28	0.444
802.11ac (80MHz)	W53	0.315	0.352	89.49	0.482
(00//11/2)	W56	0.324	0.359	90.25	0.445

Note: DCF = 10log(1/x)

4.1.2 Calculation method

[150 kHz to 25 GHz]

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

Margin = Limit - Emission level

Example: Detector: Peak

Limit @ 5147.0 MHz: 74.0 dBuV/m (Peak Limit) S.A Reading = 40.9 dBuV Cable system loss = 16.4 dB

Result = 40.9 + 16.4 = 57.3 dBuV/m Margin = 74.0 - 57.3 = 16.7 dB

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4.1.3 Limit

- (1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725GHz band: all emissions outside of the 5.47 5-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.

Frequency	Field s	strength	Distance
[MHz]	[uV/m]	[dBuV/m]	[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 20dB under any condition modulation.



4.1.4 Test data

: 26-October-2022 Date

Temperature : 24.2 [°C]
Humidity : 25.1 [%]
Test place : 3m Semi-anechoic chamber

Test engineer

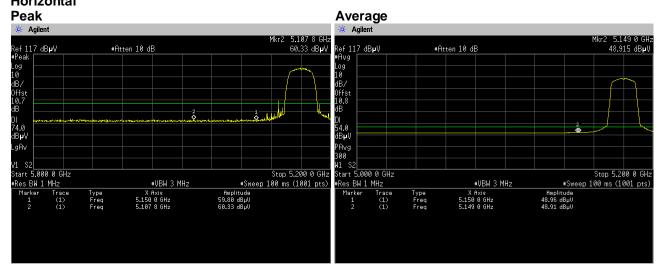
Tadahiro Seino

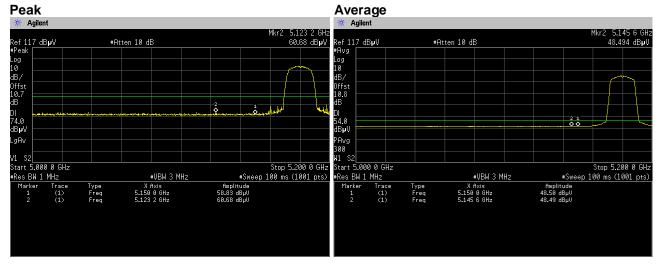


4.1.4.1 Restricted Bandedge

[IEEE802.11a]

5.2 GHz Band, Channel Low Horizontal

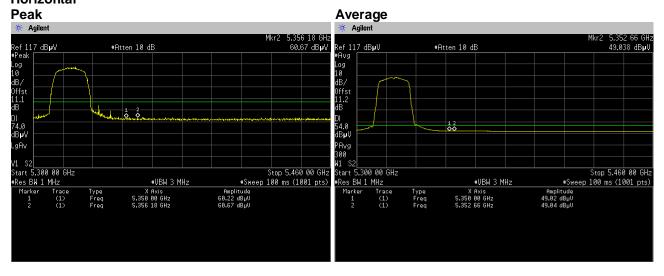


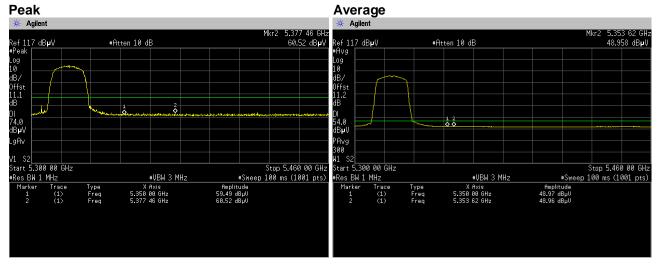




[IEEE802.11a]

5.3 GHz Band, Channel High Horizontal

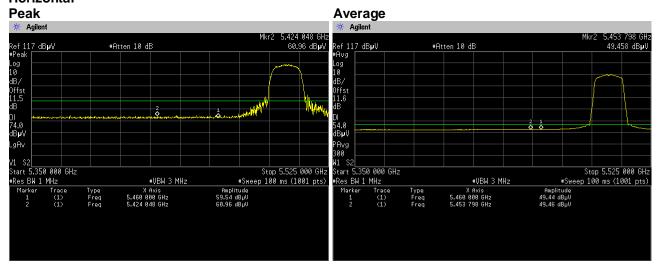


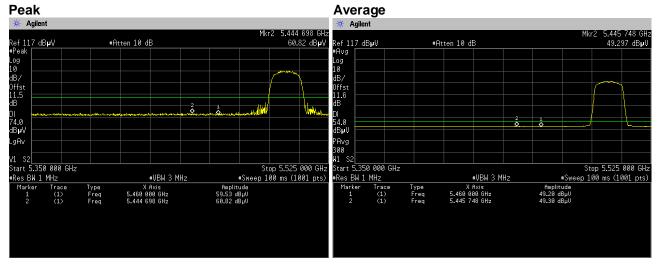




[IEEE802.11a]

5.6 GHz Band, Channel Low Horizontal

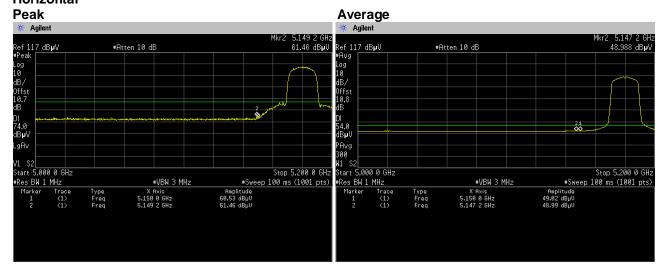


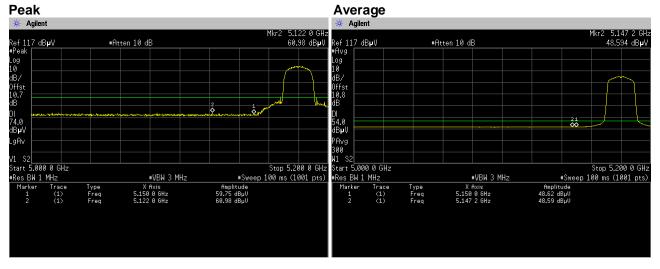




[IEEE802.11n (HT20)]

5.2 GHz Band, Channel Low Horizontal

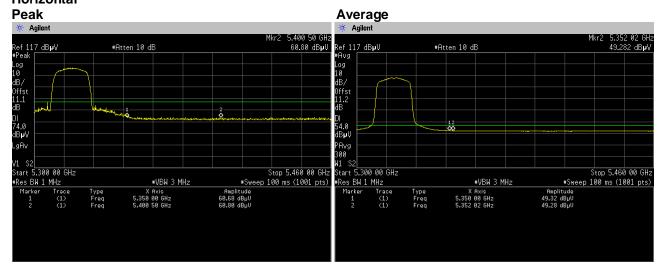


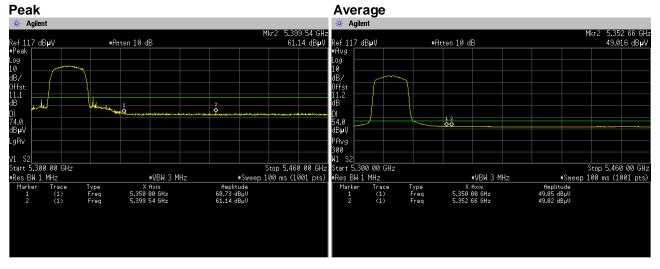




[IEEE802.11n (HT20)]

5.3 GHz Band, Channel High Horizontal



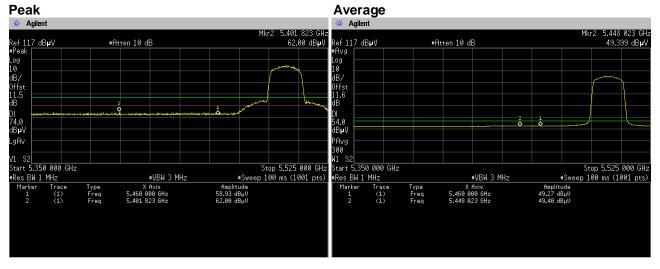




[IEEE802.11n (HT20)]

5.6 GHz Band, Channel Low Horizontal

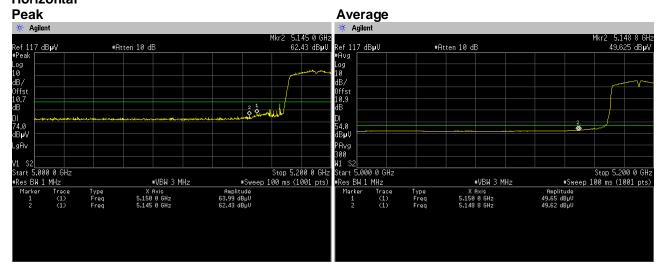


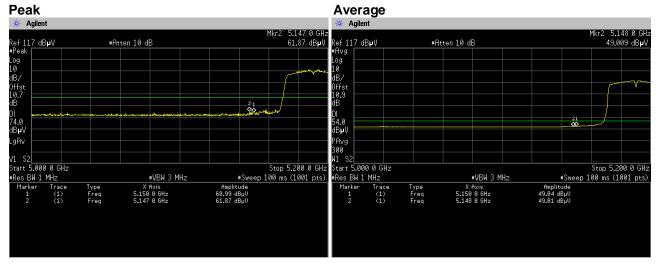




[IEEE802.11n (HT40)]

5.2 GHz Band, Channel Low Horizontal

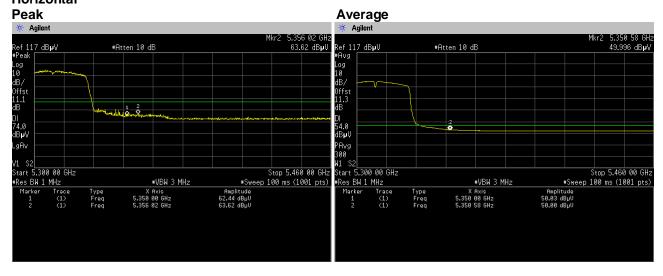


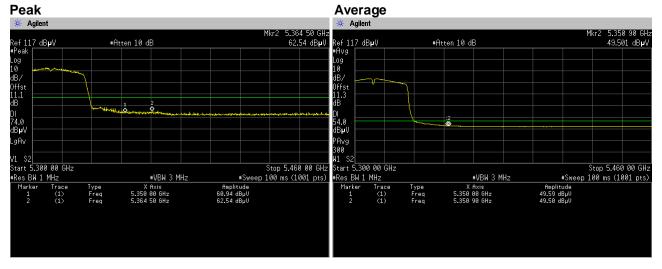




[IEEE802.11n (HT40)]

5.3 GHz Band, Channel High Horizontal

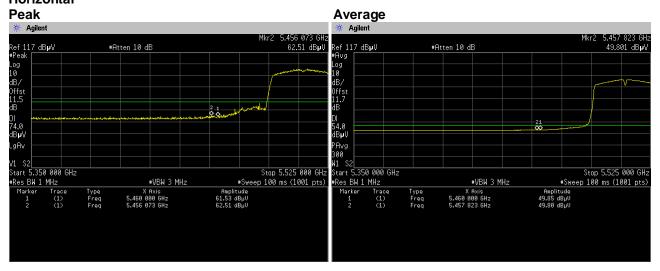


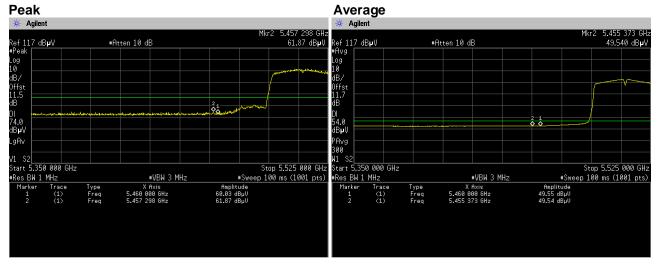




[IEEE802.11n (HT40)]

5.6 GHz Band, Channel Low Horizontal

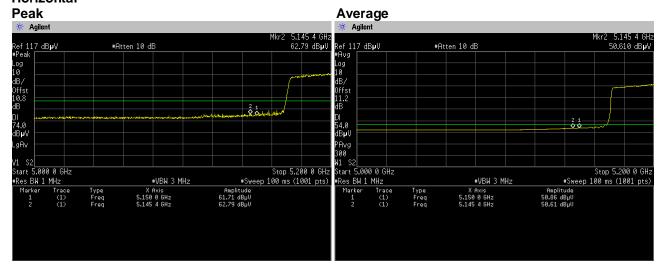


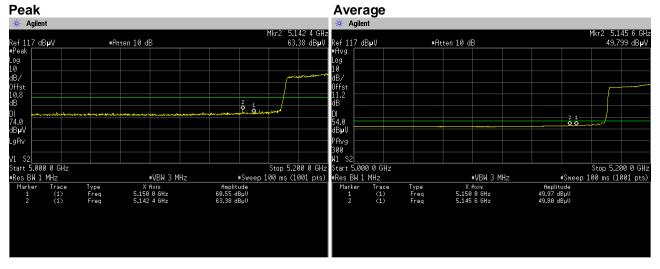




[IEEE802.11ac (VHT80)]

5.2 GHz Band, Channel Low Horizontal

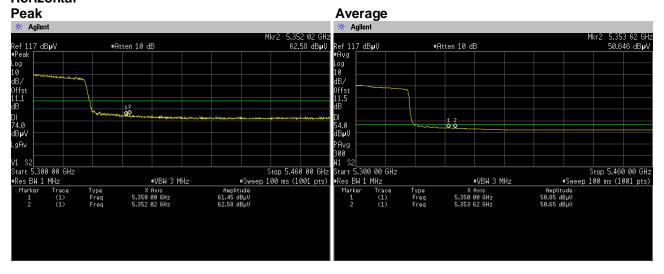


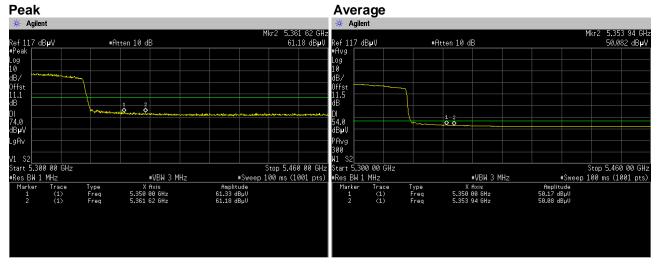




[IEEE802.11ac (VHT80)]

5.3 GHz Band, Channel High Horizontal

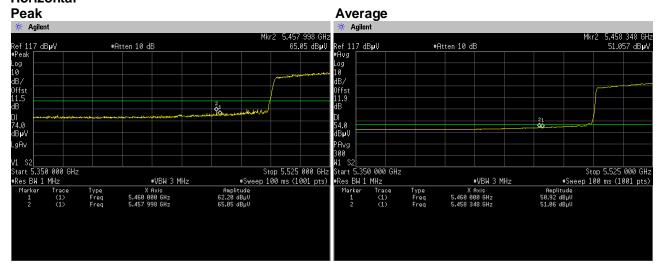


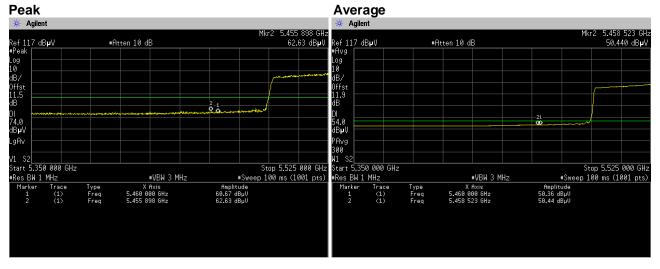




[IEEE802.11ac (VHT80)]

5.6 GHz Band, Channel Low Horizontal



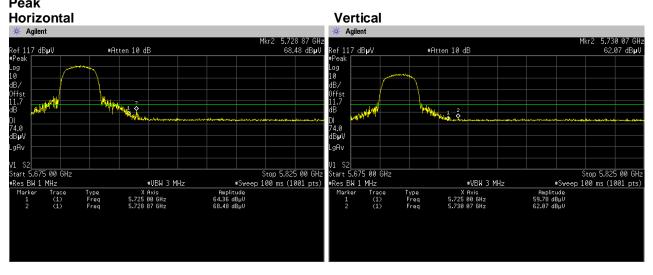




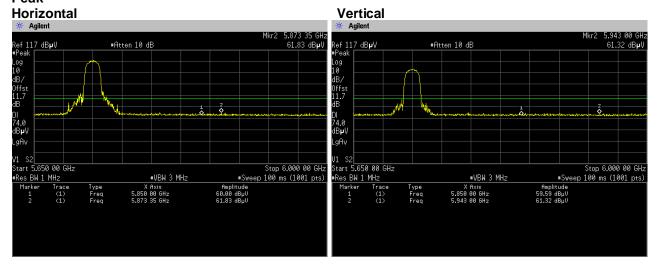
4.1.4.2 Non-Restricted Bandedge

[IEEE802.11a]

5.6 GHz Band, Channel High (140)



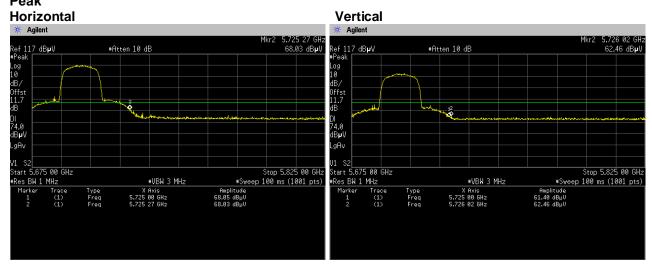
5.6 GHz Band, Channel High (144) Peak



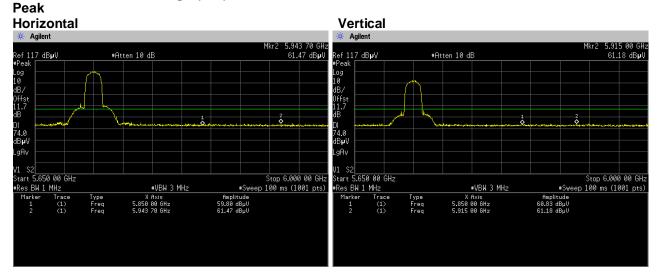


[IEEE802.11n (HT20)]

5.6 GHz Band, Channel High (140) Peak



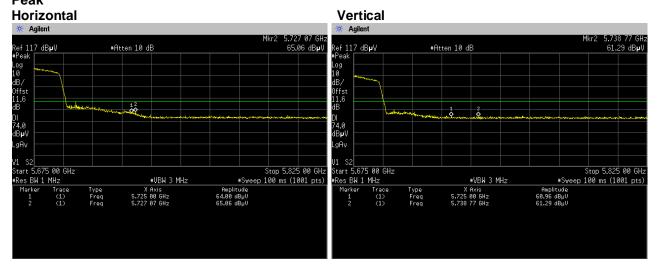
5.6 GHz Band, Channel High (144)



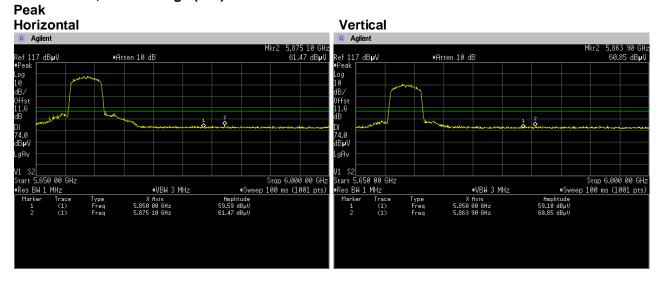


[IEEE802.11n (HT40)]

5.6GHz Band, Channel High (134) Peak



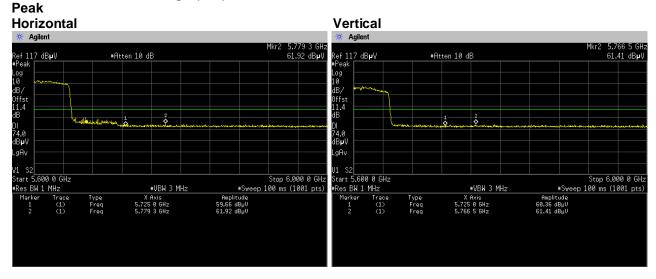
5.6GHz Band, Channel High (142)



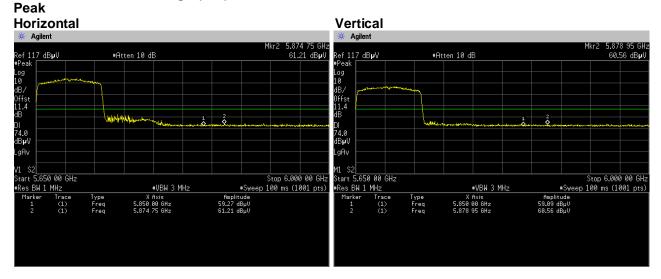


[IEEE802.11ac (VHT80)]

5.6 GHz Band, Channel High (122)



5.6 GHz Band, Channel High (138)





4.1.4.3 Radiated Emissions

Date : 25-October-2022

Temperature : 23.3 [°C]

Humidity : 26.7 [%] Test engineer :

Test place : 3m Semi-anechoic chamber <u>Chiaki Kanno</u>

Date : 25-October-2022

Temperature : 23.5 [°C]

Humidity : 33.2 [%] Test engineer

Test place : 3m Semi-anechoic chamber Tadahiro Seino

Test engineer

Test engineer

Date : 2-November-2022

Temperature : 23.3 [°C]

Humidity : 36.3 [%]

Test place : 3m Semi-anechoic chamber Kazunori Saito

Date : 3-November-2022

Temperature : 23.8 [°C]

Humidity : 32.1 [%]

Test place : 3m Semi-anechoic chamber Kazunori Saito

Date : 4-November-2022

Temperature : 23.5 [°C]

Humidity : 33.6 [%] Test engineer

Test place : 3m Semi-anechoic chamber Kazunori Saito



[IEEE802.11a] (5.2 GHz Band)

Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBμV/m)	Limit (dBµV/m)	Margin (dB)
	36	5180	10360.00	Н	PK	46.6	11.1		57.7	68.2	10.5
802.11a	40	5200	10400.00	Н	PK	45.7	11.1		56.8	68.2	11.4
	48	5240	10480.00	Η	PK	46.1	11.2		57.3	68.2	10.9

(5.3 GHz Band)

•	1 .										
Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBμV/m)	Limit (dBµV/m)	Margin (dB)
	52	5260	10520.00	Н	PK	46.2	11.2		57.4	68.2	10.8
802.11a	56	5280	10560.00	Н	PK	46.1	11.2		57.3	68.2	10.9
002.11a	64	5320	10640.00	Н	PK	46.2	11.3		57.5	74.0	16.5
	04	5520	10640.00	Н	AV	31.9	11.3	0.111	43.3	54.0	10.7

(5.6 GHz Band)

(3.0 GHZ Da	anu <i>)</i>										
Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBμV/m)	Limit (dΒμV/m)	Margin (dB)
			5468.70	Н	PK	49.5	11.4		60.9	68.2	7.3
	100	5500	5465.70	V	PK	49.4	11.4		60.8	68.2	7.4
	100	5500	11000.00	Н	PK	45.3	11.8		57.1	74.0	16.9
			11000.00	Н	AV	34.4	11.8	0.128	46.3	54.0	7.7
802.11a	116	5580	11160.00	Η	PK	45.8	11.9		57.7	74.0	16.3
002.11a	110	5560	11160.00	Н	AV	35.0	11.9	0.128	47.0	54.0	7.0
	140	5700	11400.00	Н	PK	45.3	12.2		57.5	74.0	16.5
	140	3700	11400.00	Н	AV	34.5	12.2	0.128	46.8	54.0	7.2
	144	5720	11440.00	Η	PK	46.2	12.2		58.4	74.0	15.6
	144	3120	11440.00	Η	AV	34.6	12.2	0.128	46.9	54.0	7.1

[IEEE802.11n (HT20)] (5.2 GHz Band)

Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBμV/m)	Limit (dΒμV/m)	Margin (dB)
000 44-	36	5180	10360.00	Н	PK	46.3	11.1		57.4	68.2	10.8
802.11n (20MHz)	40	5200	10400.00	Н	PK	45.1	11.1		56.2	68.2	12.0
	48	5240	10480.00	Н	PK	46.0	11.2		57.2	68.2	11.0

- Emission Level (Margin) = Limit [Reading + C.F (Antenna + Cable Amp)]
 No emission were detected in frequency range 30 MHz to 1000 MHz at the 3 meters distance.
- 3. No emission was detected in the receive mode.



[IEEE802.11n (HT20)] (5.3 GHz Band)

Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBμV/m)	Limit (dΒμV/m)	Margin (dB)
	52	5260	10520.00	Н	PK	46.3	11.2		57.5	68.2	10.7
802.11n	56	5280	10560.00	Н	PK	46.0	11.2		57.2	68.2	11.0
(20MHz)	64	5320	10640.00	Н	PK	45.9	11.3		57.2	74.0	16.8
	04	5520	10640.00	Н	AV	35.1	11.3	0.117	46.5	54.0	7.5

(5.6 GHz Band)

(0.0 OI IZ Da											
Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
			5462.60	Н	PK	49.6	11.4		61.0	68.2	7.2
	100	5500	5469.50	V	PK	49.8	11.4		61.2	68.2	7.0
	100	0000	11000.00	Н	PK	45.6	11.8		57.4	74.0	16.6
			11000.00	Η	AV	34.4	11.8	0.129	46.3	54.0	7.7
802.11n	116	5580	11160.00	Н	PK	46.1	11.9		58.0	74.0	16.0
(20MHz)	116	5560	11160.00	Н	AV	35.4	11.9	0.129	47.4	54.0	6.6
	140	5700	11400.00	Η	PK	45.6	12.2		57.8	74.0	16.2
	140	5700	11400.00	Н	AV	34.7	12.2	0.129	47.0	54.0	7.0
	144	5720	11440.00	Н	PK	46.6	12.2		58.8	74.0	15.2
	144	3720	11440.00	Н	AV	34.7	12.2	0.129	47.0	54.0	7.0

[IEEE802.11n (HT40)]

(5.2 GHz Band)

Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dB _µ V)	C.F (dB)	DCF (dB)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
802.11n	38	5190	10380.00	Н	PK	46.0	11.1		57.1	68.2	11.1
(40MHz)	46	5230	10460.00	Η	PK	46.3	11.2		57.5	68.2	10.7

(5.3 GHz Band)

(3.3 CHZ D	aria <i>j</i>										
Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBµV/m)	Limit (dΒμV/m)	Margin (dB)
802.11n	54	5270	10540.00	Н	PK	46.1	11.2		57.3	68.2	10.9
(40MHz)	62	5310	10620.00	Н	PK	46.2	11.3		57.5	74.0	16.5
` '	02	5310	10620.00	Н	AV	34.2	11.3	0.239	45.7	54.0	8.3

- Emission Level (Margin) = Limit [Reading + C.F (Antenna + Cable Amp)]
 No emission were detected in frequency range 30 MHz to 1000 MHz at the 3 meters distance.
- 3. No emission was detected in the receive mode.



[IEEE802.11n (HT40)] (5.6 GHz Band)

COLO CLIE DO											
Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
			5464.22	Н	PK	52.0	11.4		63.4	68.2	4.8
	102	5510	5467.20	V	PK	52.0	11.4		63.4	68.2	4.8
	.02	00.0	11020.00	Н	PK	46.3	11.8		58.1	74.0	15.9
			11020.00	Н	AV	33.9	11.8	0.232	45.9	54.0	8.1
802.11n	110	5550	11100.00	Н	PK	45.3	11.9		57.2	74.0	16.8
(40MHz)	110	5550	11100.00	Н	AV	35.1	11.9	0.232	47.2	54.0	6.8
	134	5670	11340.00	Н	PK	46.1	12.2		58.3	74.0	15.7
	134	0100	11340.00	Н	AV	34.3	12.2	0.232	46.7	54.0	7.3
	142	5710	11420.00	Н	PK	45.2	12.2		57.4	74.0	16.6
	142	37 10	11420.00	Н	AV	33.9	12.2	0.232	46.3	54.0	7.7

[IEEE802.11ac (VHT80)]

(5.2 GHz Band)

Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dΒμV/m)	Limit (dΒμV/m)	Margin (dB)
802.11ac (80MHz)	42	5210	10420.00	Н	PK	45.5	11.1		56.6	68.2	11.6

(5.3 GHz Band)

Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBμV/m)	Limit (dBµV/m)	Margin (dB)
802.11ac (80MHz)	58	5290	10580.00	Н	PK	46.5	11.2		57.7	68.2	10.5

(5.6 GHz Band)

(0.0 0.1= 20.10)											
Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBμV/m)	Limit (dBµV/m)	Margin (dB)
802.11ac (80MHz)	106	5530	5467.20	Н	PK	52.9	11.4		64.3	68.2	3.9
			5463.80	V	PK	51.3	11.4		62.7	68.2	5.5
			11060.00	Н	PK	46.9	11.9		58.8	74.0	15.2
			11060.00	Н	AV	34.1	11.9	0.445	46.4	54.0	7.6
	122	5610	11220.00	Н	PK	46.0	12.0		58.0	74.0	16.0
			11220.00	Η	AV	34.0	12.0	0.445	46.4	54.0	7.6
	138	5690	11380.00	Н	PK	45.9	12.2		58.1	74.0	15.9
			11380.00	Н	AV	33.9	12.2	0.445	46.5	54.0	7.5

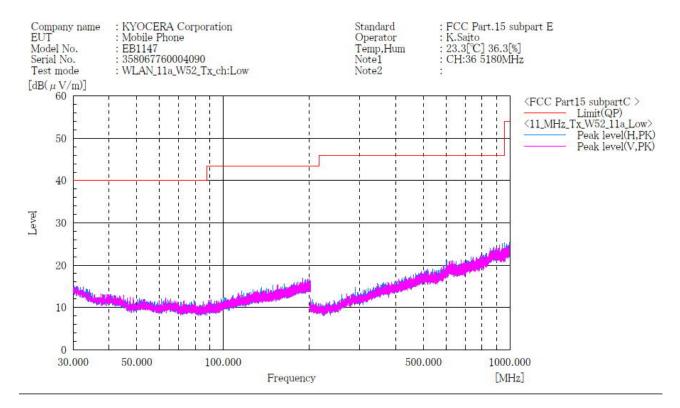
- 1. Emission Level (Margin) = Limit [Reading + C.F (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 30 MHz to 1000 MHz at the 3 meters distance.
- 3. No emission was detected in the receive mode.



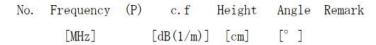
4.1.4.4 Measurement chart

Transmission mode

[11a] 5.2 GHz Band / Channel Low BELOW 1GHz



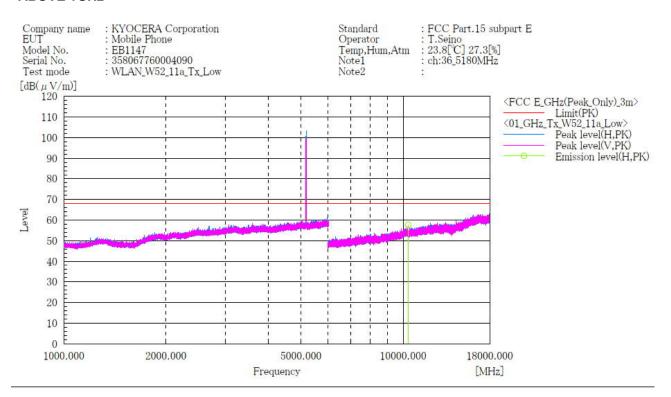
Final Result



- 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] 5.2 GHz Band / Channel Low ABOVE 1GHz



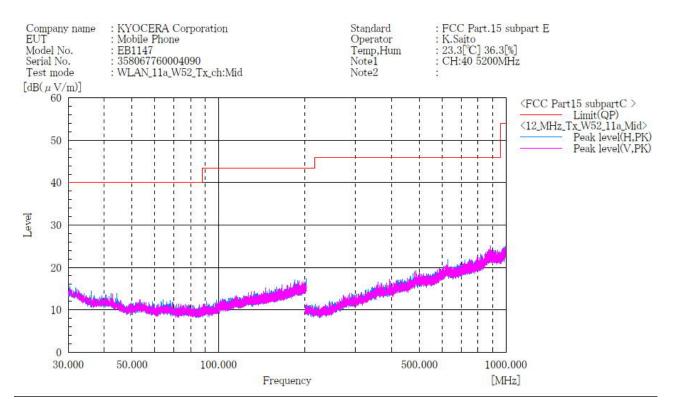
Final Result

No.	Frequency	(P)	Reading	c. f	Result PK	Limit PK	Margin PK	Height	Angle	Remark
1	[MHz] 10360.000	Н		[dB(1/m)] 11.1		[dB(μ V/m)] 68.2	[dB] 10.5	[cm] 100.0	[°] 122.0	

- 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] 5.2 GHz Band / Channel Middle BELOW 1GHz

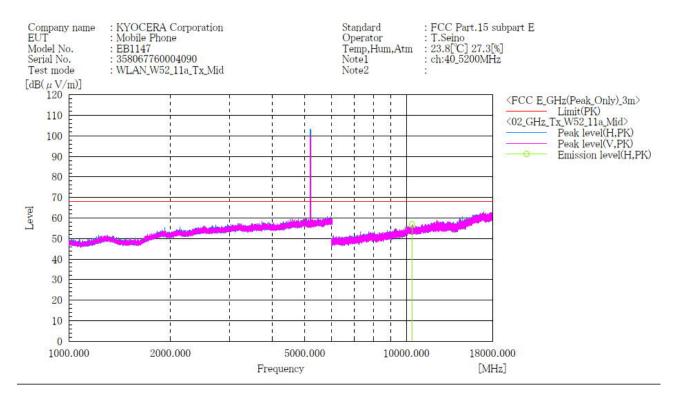


Final Result

- 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] 5.2 GHz Band / Channel Middle ABOVE 1GHz



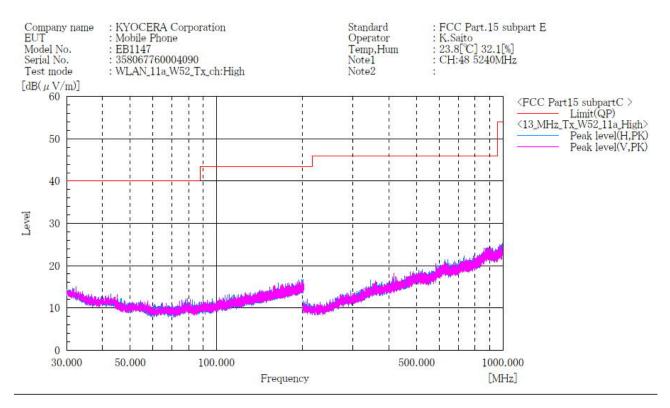
Final Result

No.	Frequency	(P)	Reading	c. f	Result PK	Limit PK	Margin PK	Height	Angle	Remark
1	[MHz] 10400,000	Н	[dB(μV)] 45.7	[dB(1/m)] 11.1	[dB($\mu V/m$)] 56.8	[dB($\mu V/m$)] 68.2	[dB] 11.4	[cm] 100.0	[°] 119.0	

- 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] 5.2 GHz Band / Channel High BELOW 1GHz

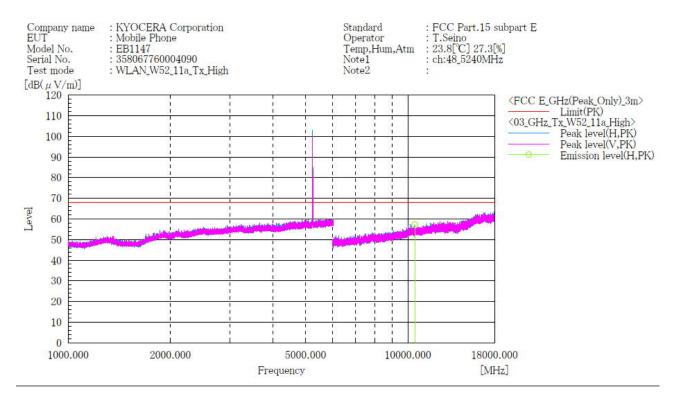


Final Result

- 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] 5.2 GHz Band / Channel High ABOVE 1GHz



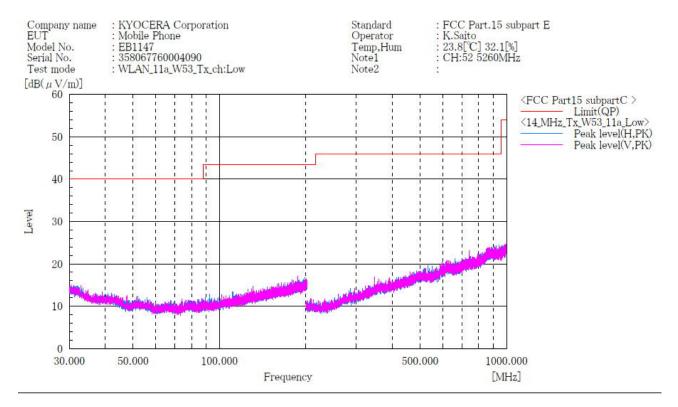
Final Result

No.	Frequency	(P)	Reading PK	c. f	Result PK	Limit PK	Margin PK	Height	Angle	Remark
1	[MHz] 10480.000	Н	[dB(μV)] 46.1	[dB(1/m)] 11.2	[dB($\mu V/m$)] 57.3	[dB(μ V/m)] 68.2	[dB] 10.9	[cm] 100.0	[°] 118.0	

- 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] 5.3 GHz Band / Channel Low BELOW 1GHz

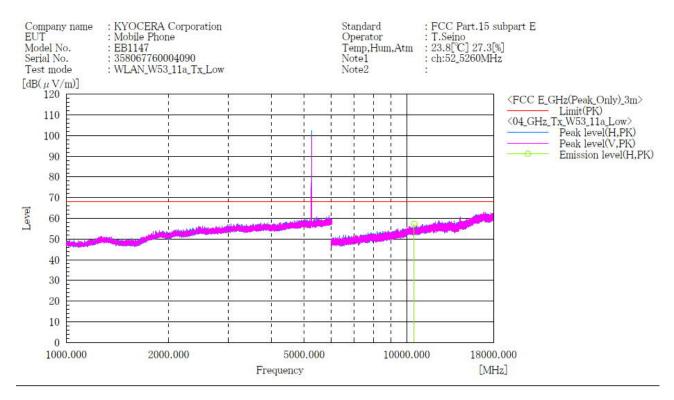


Final Result

- 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] 5.3 GHz Band / Channel Low ABOVE 1GHz



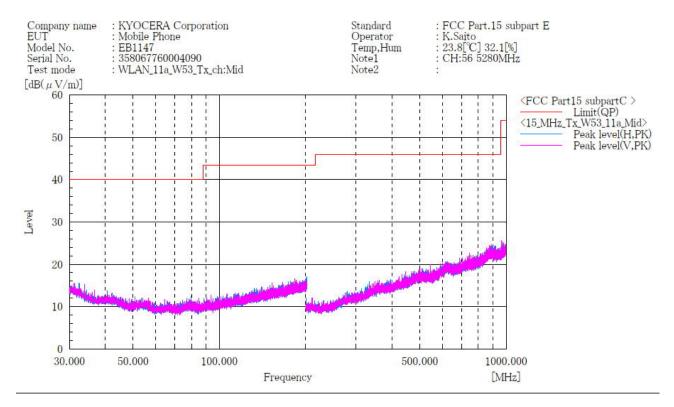
Final Result

No.	Frequency	(P)	Reading PK	c. f	Result	Limit PK	Margin	Height	Angle	Remark
1	[MHz] 10520,000	Н	[dB(μV)] 46.2	[dB(1/m)] 11.2	[dB($\mu V/m$)] 57.4	[dB($\mu V/m$)] 68.2	[dB] 10.8	[cm] 130.0	[°] 118. 0	

- 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] 5.3 GHz Band / Channel Middle BELOW 1GHz

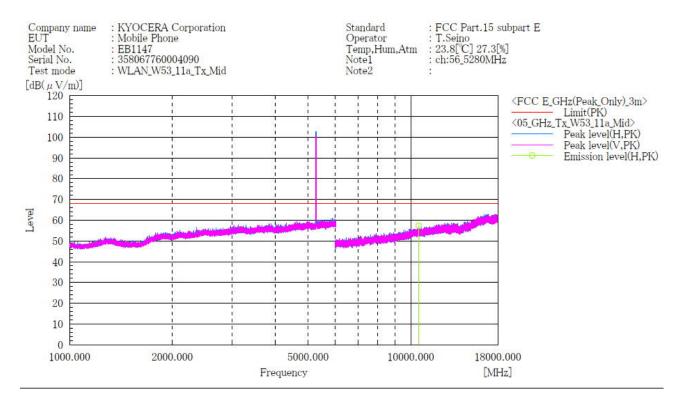


Final Result

- 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] 5.3 GHz Band / Channel Middle ABOVE 1GHz



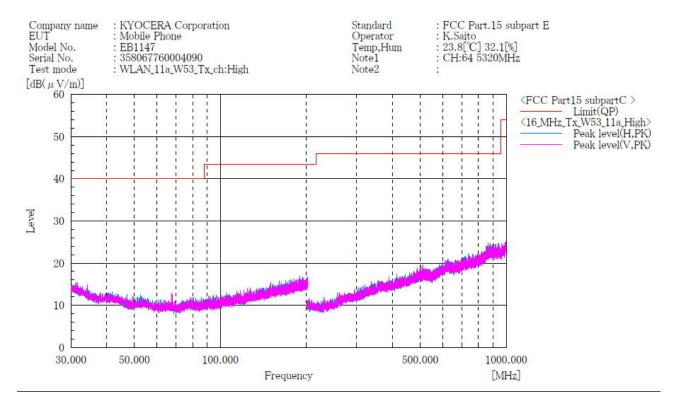
Final Result

No.	Frequency	(P)	Reading PK	c. f	Result PK	Limit PK	Margin PK	Height	Angle	Remark
1	[MHz] 10560,000	Н	[dB(μV)] 46.1	[dB(1/m)] 11.2	[dB($\mu V/m$)] 57.3	[dB($\mu V/m$)] 68.2	[dB] 10.9	[cm] 118.0	[°]	

- 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] 5.3 GHz Band / Channel High BELOW 1GHz

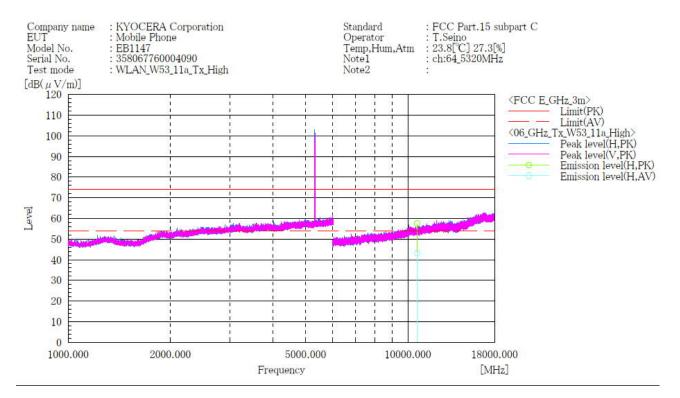


Final Result

- 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] 5.3 GHz Band / Channel High ABOVE 1GHz

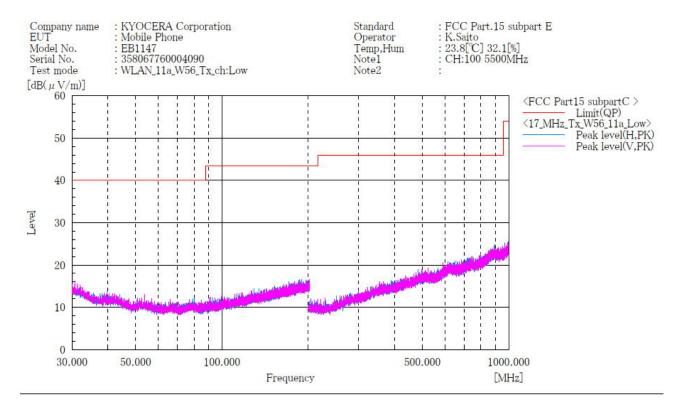




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11a] 5.6 GHz Band / Channel Low BELOW 1GHz

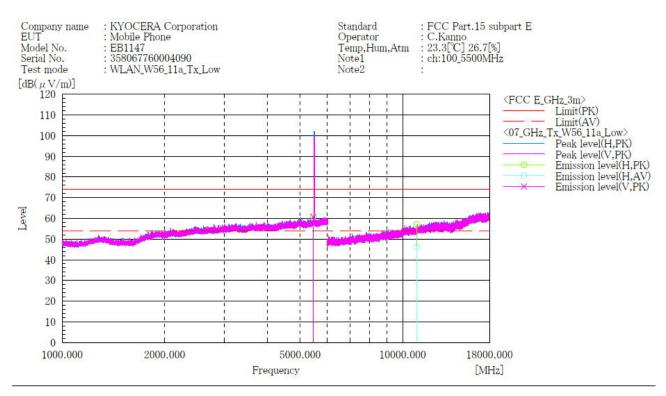


Final Result

- 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] 5.6 GHz Band / Channel Low ABOVE 1GHz

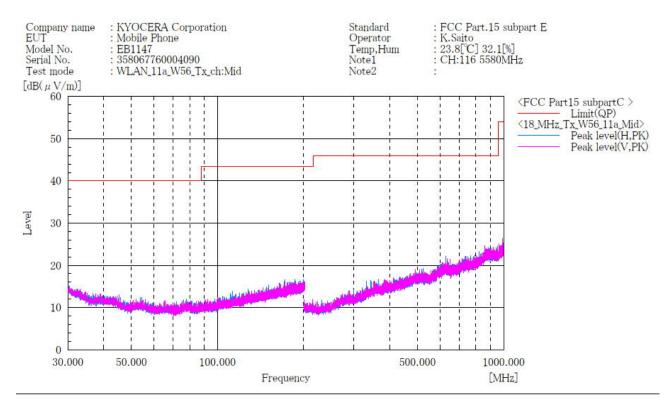


Fina	l Result													
No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin	Height	Angle	Remark
			PK	AV		PK	AV	PK	AV	PK	AV			
	[MHz]		[dB(µV)]	[dB(µV)]	[dB(1/m)]	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	[dB]	[dB]	[cm]	[0]	
1	5468, 700	H	49.5		11.4	60.9		68. 2	54.0	7.3		148.0	300.0	
2	5465, 700	V	49.4		11.4	60.8		68. 2	54.0	7.4		198.0	53.0	
3	11000,000	H	45. 3	34. 4	11.8	57. 1	46, 2	74.0	54.0	16.9	7.8	128.0	156, 0	

- 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] 5.6 GHz Band / Channel Middle BELOW 1GHz

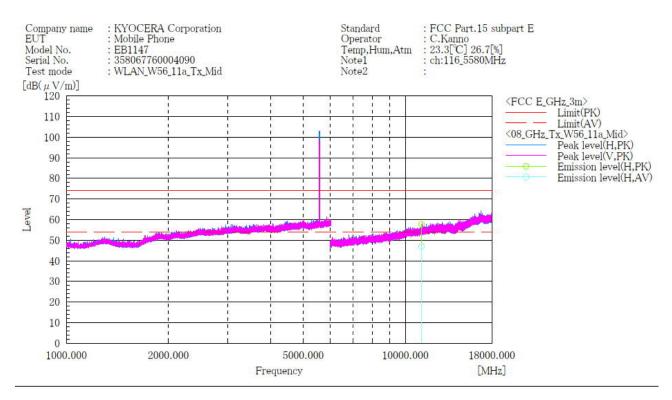


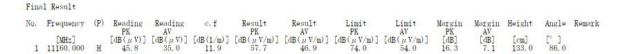
Final Result

- 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] 5.6 GHz Band / Channel Middle ABOVE 1GHz

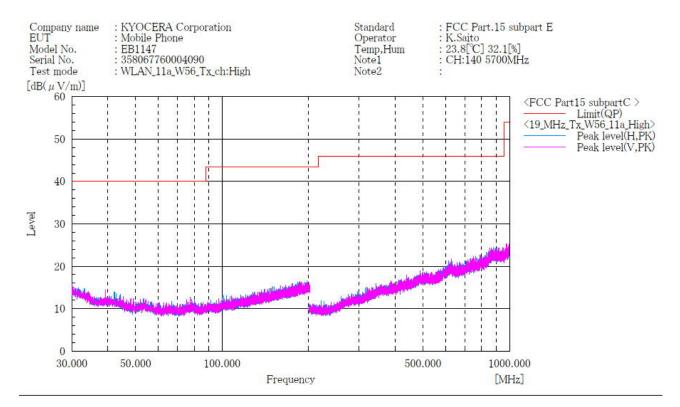




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11a] 5.6 GHz Band / Channel High BELOW 1GHz

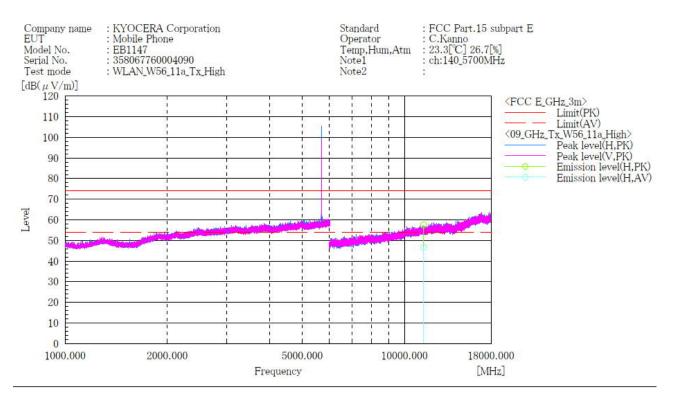


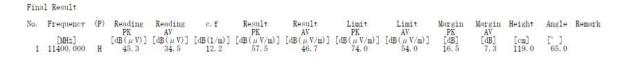
Final Result

- 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] 5.6 GHz Band / Channel High ABOVE 1GHz

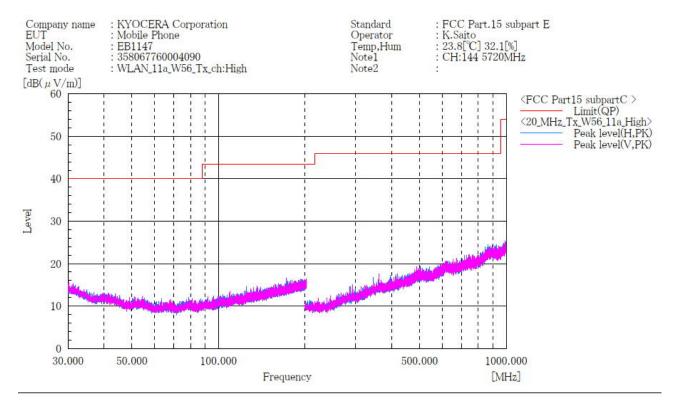




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11a] 5.6 GHz Band / Channel High BELOW 1GHz

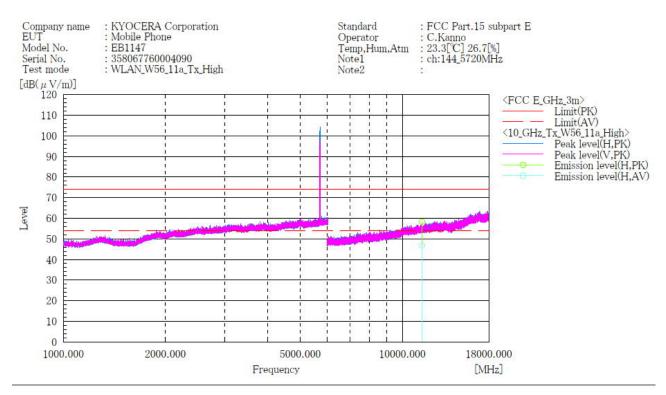


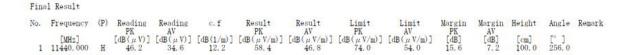
Final Result

- 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] 5.6 GHz Band / Channel High ABOVE 1GHz

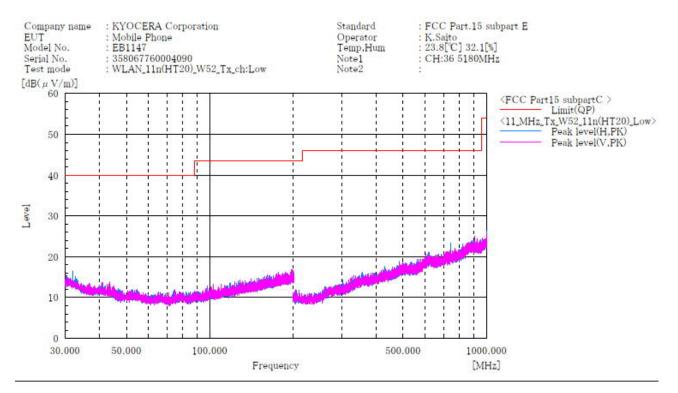




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11n(HT20)] 5.2 GHz Band / Channel Low BELOW 1GHz

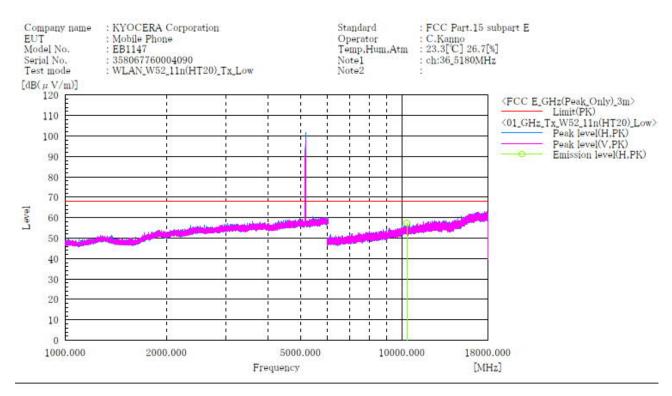


Final Result

- 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)] 5.2 GHz Band / Channel Low ABOVE 1GHz

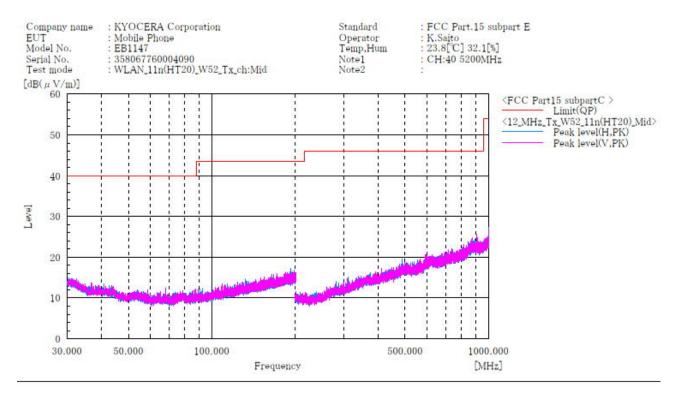


Final Result

- 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)] 5.2 GHz Band / Channel Middle BELOW 1GHz

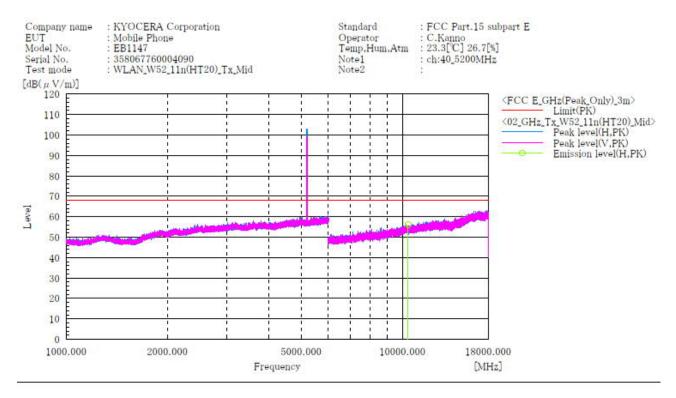


Final Result

- 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)] 5.2 GHz Band / Channel Middle ABOVE 1GHz

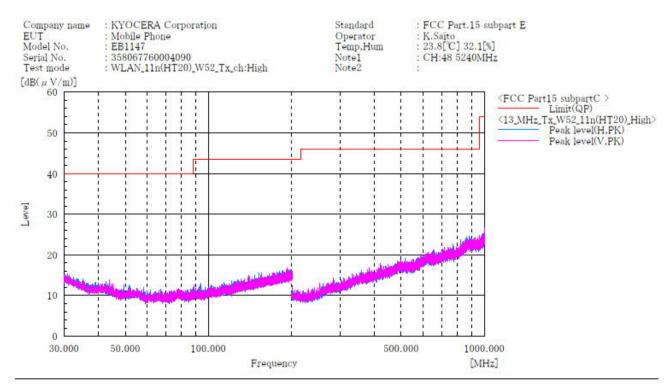


Final Result

- 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)] 5.2 GHz Band / Channel High BELOW 1GHz

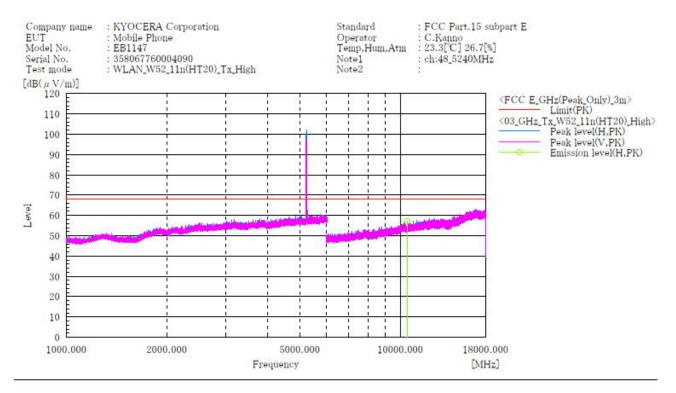


Final Result

- 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)] 5.2 GHz Band / Channel High ABOVE 1GHz

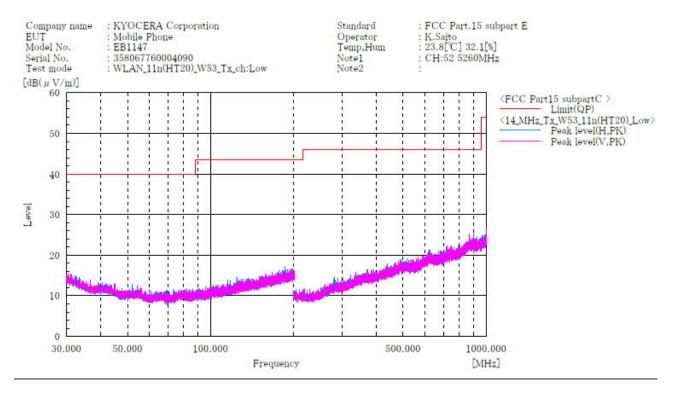


Final Result

- 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)] 5.3 GHz Band / Channel Low BELOW 1GHz

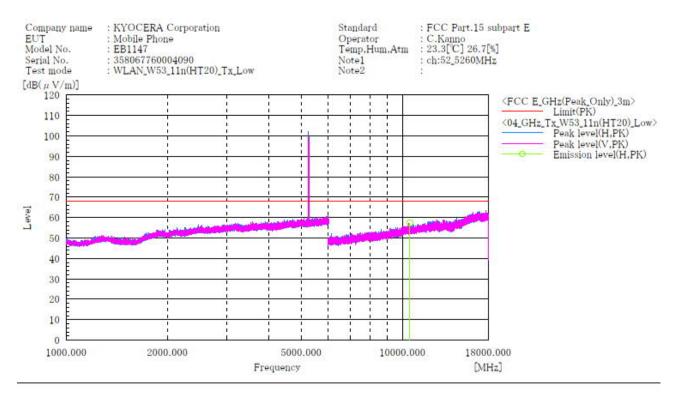


Final Result

- 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)] 5.3 GHz Band / Channel Low ABOVE 1GHz

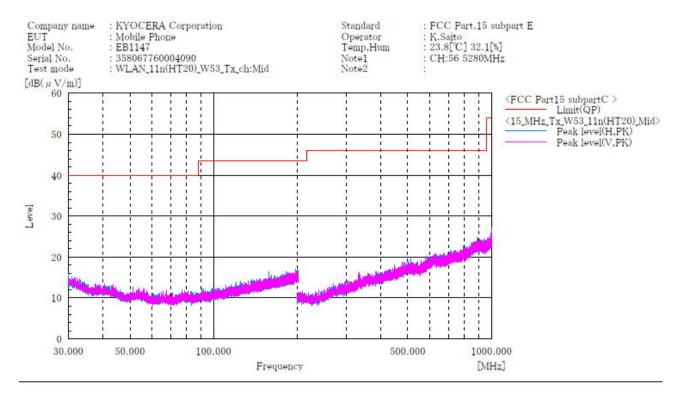


Final Result

- 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)] 5.3 GHz Band / Channel Middle BELOW 1GHz

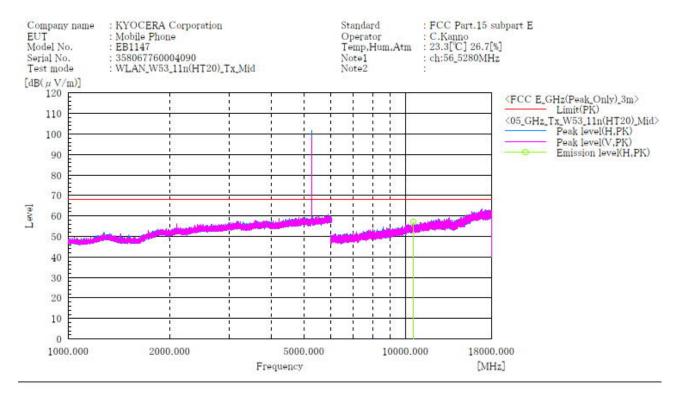


Final Result

- 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)] 5.3 GHz Band / Channel Middle ABOVE 1GHz

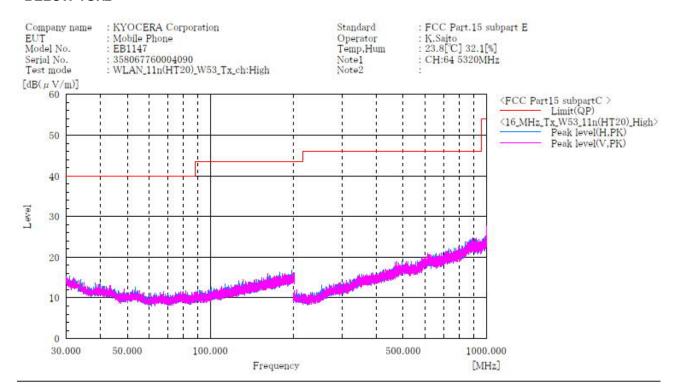


Final Result

- 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)] 5.3 GHz Band / Channel High BELOW 1GHz



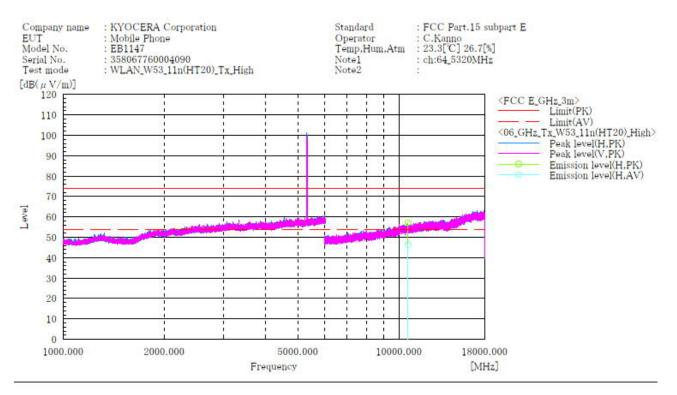
Final Result

- 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)] 5.3 GHz Band / Channel High ABOVE 1GHz

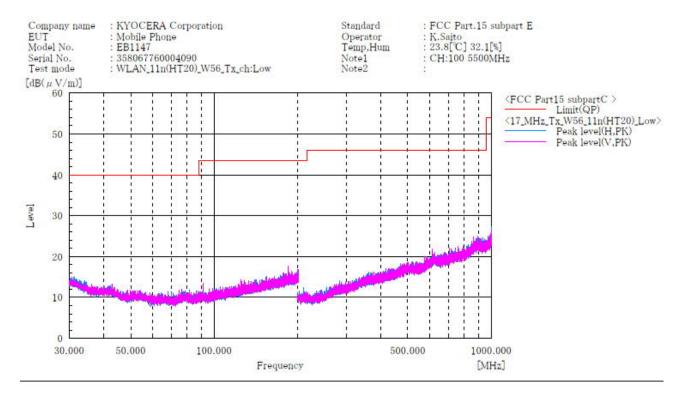




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11n(HT20)] 5.6 GHz Band / Channel Low BELOW 1GHz

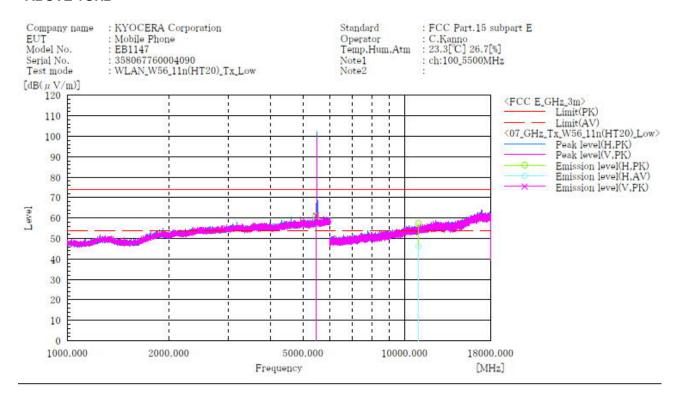


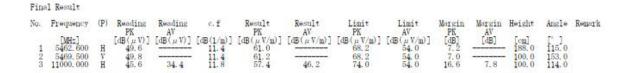
Final Result

- 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)] 5.6 GHz Band / Channel Low ABOVE 1GHz

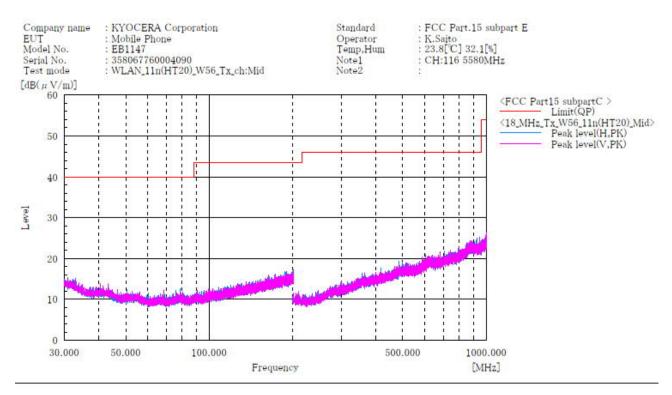




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11n(HT20)] 5.6 GHz Band / Channel Middle BELOW 1GHz

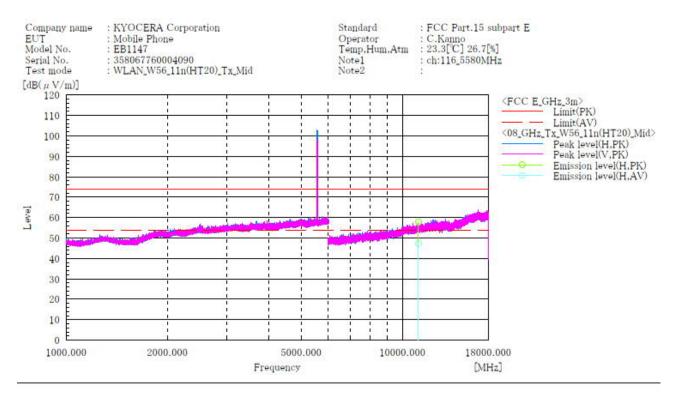


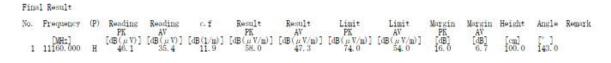
Final Result

- 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)] 5.6 GHz Band / Channel Middle ABOVE 1GHz

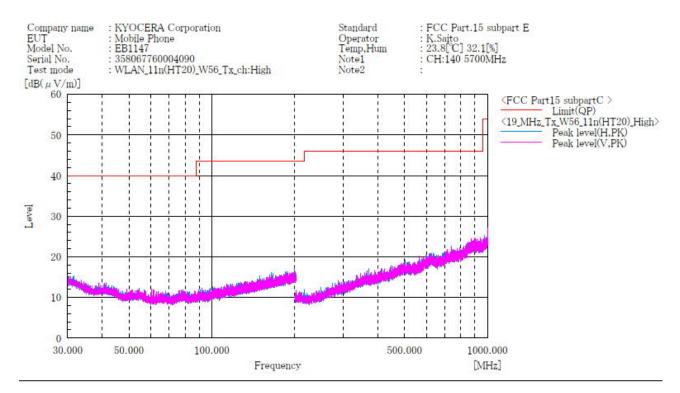




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11n(HT20)] 5.6 GHz Band / Channel High BELOW 1GHz

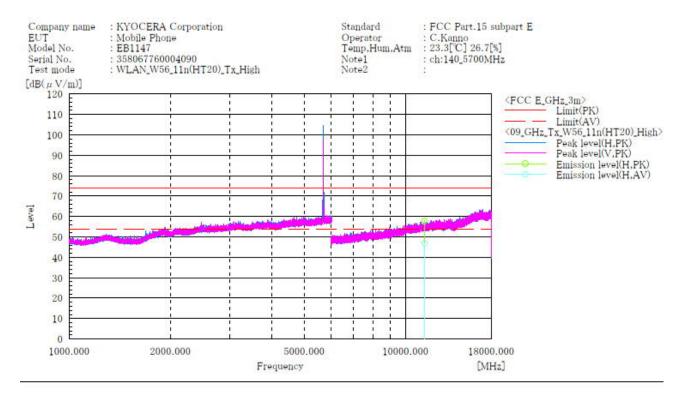


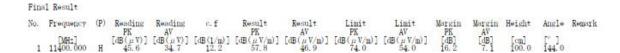
Final Result

- 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)] 5.6 GHz Band / Channel High ABOVE 1GHz

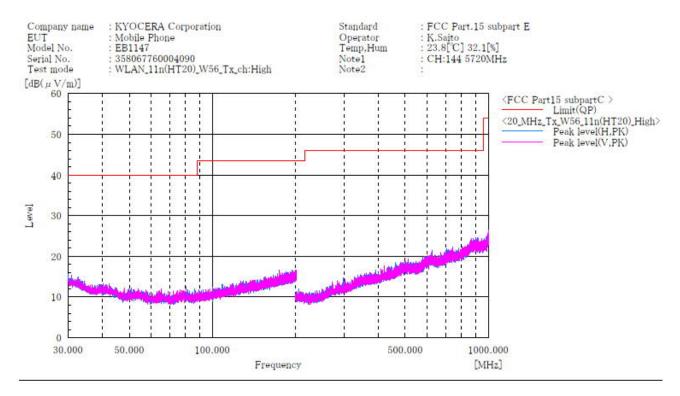




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11n(HT20)] 5.6 GHz Band / Channel High BELOW 1GHz

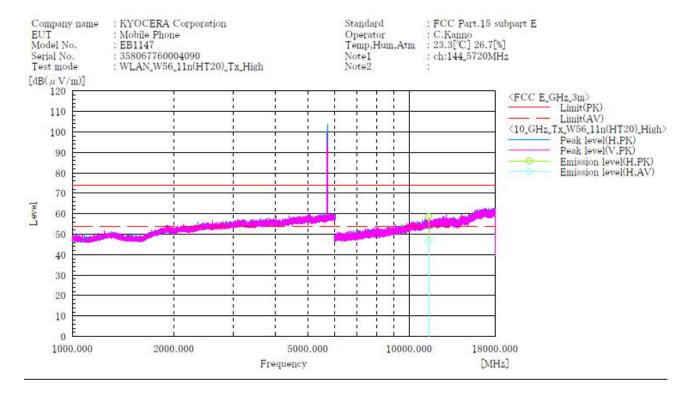


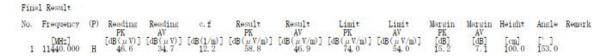
Final Result

- 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)] 5.6 GHz Band / Channel High ABOVE 1GHz

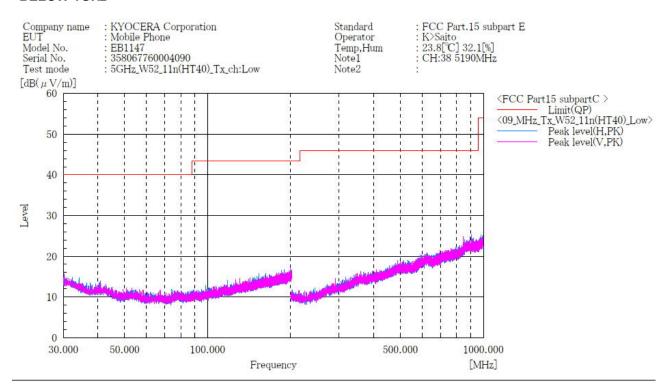




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11n(HT40)] 5.2 GHz Band / Channel Low BELOW 1GHz

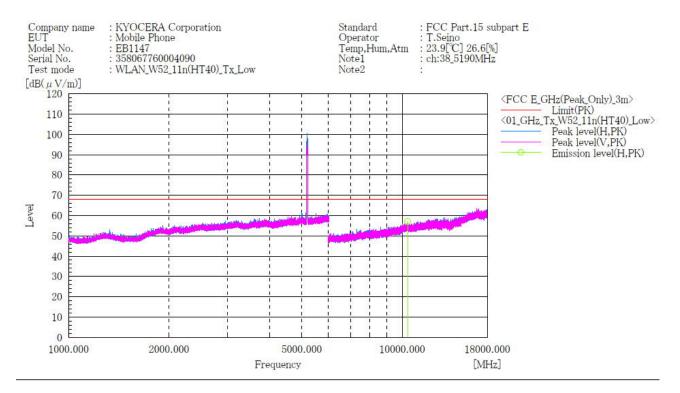


Final Result

- 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)] 5.2 GHz Band / Channel Low ABOVE 1GHz

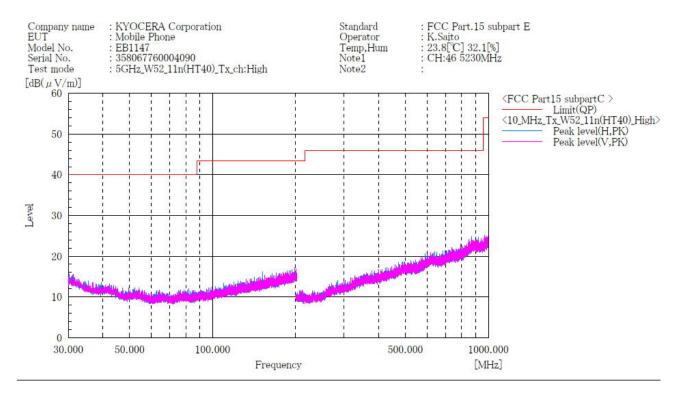


Final Result

- 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)] 5.2 GHz Band / Channel High BELOW 1GHz

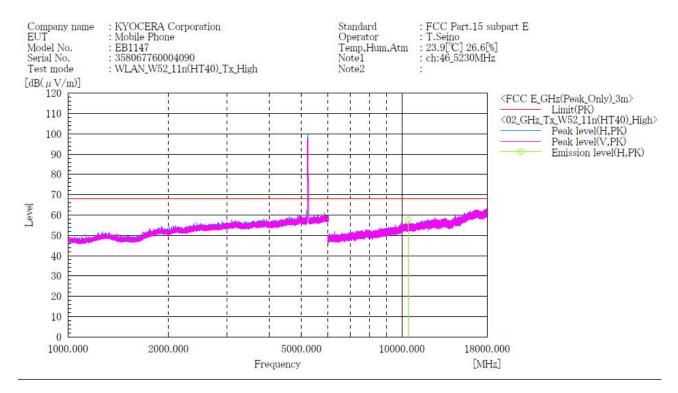


Final Result

- 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)] 5.2 GHz Band / Channel High ABOVE 1GHz



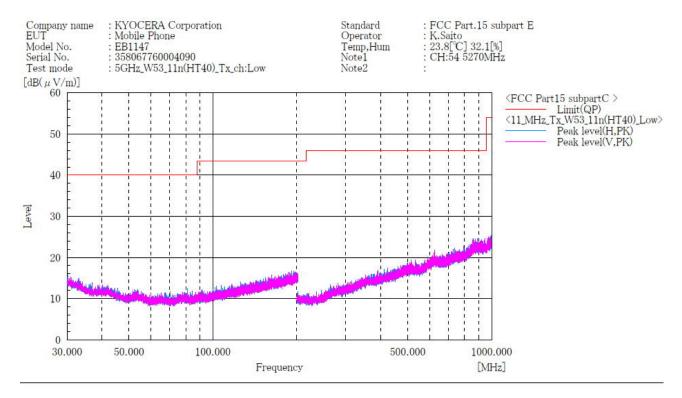
Final Result

No.	Frequency	(P)	Reading	c.f	Result	Limit	Margin	Height	Angle	Remark
1	[MHz] 10460,000	Н	[dB(µV)] 46.3	[dB(1/m)] 11.2	$\begin{bmatrix} dB \left(\mu V/m \right) \end{bmatrix}$ 57.5	[dB(µV/m)] 68.2	[dB] 10. 7	[cm] 100.0	[°]	
1	10400.000	п	40. 3	11. 4	31.3	00. 4	10.7	100.0	110.0	

- 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)] 5.3 GHz Band / Channel Low BELOW 1GHz

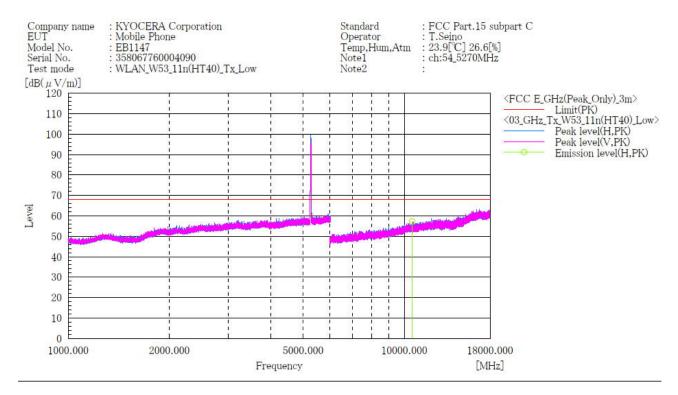


Final Result

- 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)] 5.3 GHz Band / Channel Low ABOVE 1GHz



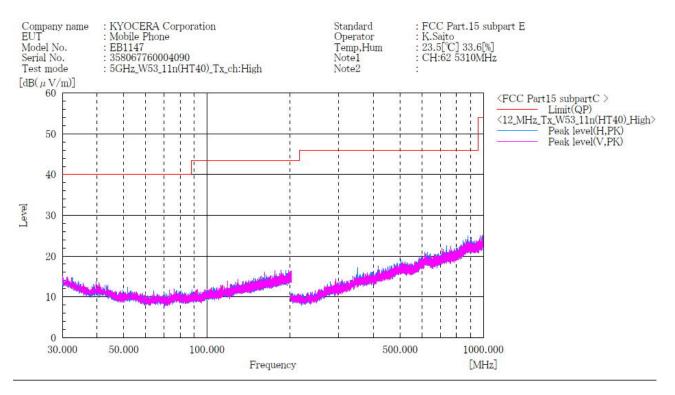
Final Result

No.	Frequency	(P)	Reading PK	c. f	Result PK	Limit PK	Margin PK	Height	Angle	Remark
1	[MHz] 10540.000	Н	[dB(μ V)] 46.1	[dB(1/m)] 11.2	[dB($\mu V/m$)] 57.3	[dB (μ V/m)] 68.2	[dB] 10.9	[cm] 100.0	[°] 119. 0	

- 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)] 5.3 GHz Band / Channel High BELOW 1GHz

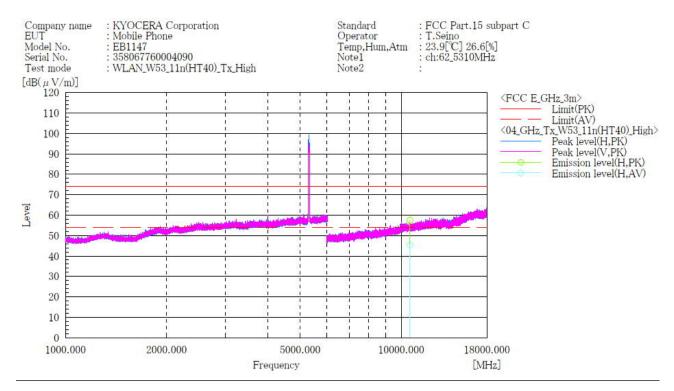


Final Result

- 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)] 5.3 GHz Band / Channel High ABOVE 1GHz

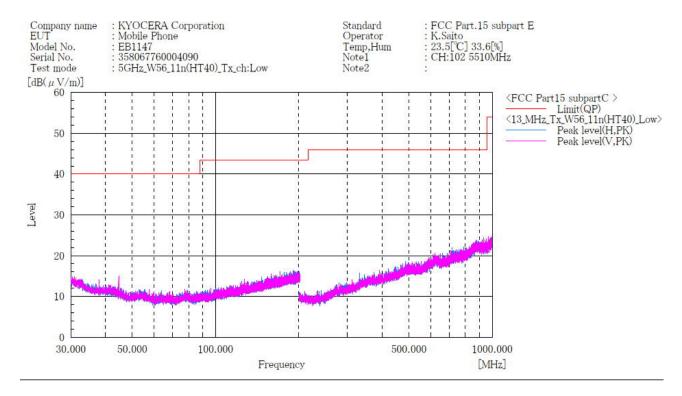


Fina	al Kesult													
No.	Frequency		Reading	Reading	c.f	Result	Result	Limit PK	Limit AV	Margin PK	4.4	Height	Angle	Remark
- 2	[MHz]	623	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB(1/m)]	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	AV [dB(μV/m)]	[dB]	[dB]	[cm]	[°]	
1	10620, 000	H	46. 2	34. 2	11. 3	57. 5	45. 5	74. 0	54. 0	16.5	8. 5	137.0	119.0	

- 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)] 5.6 GHz Band / Channel Low BELOW 1GHz

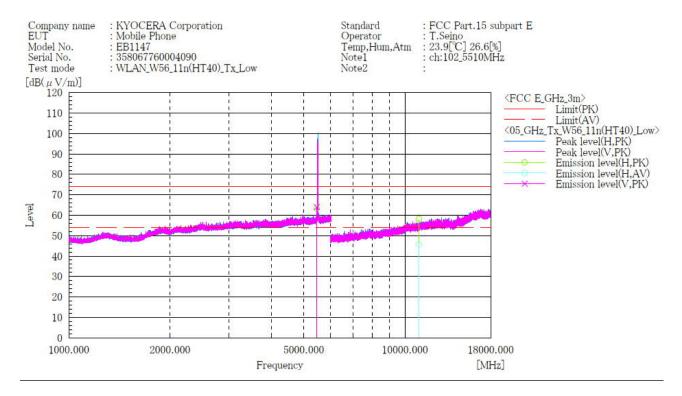


Final Result

- 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)] 5.6 GHz Band / Channel Low ABOVE 1GHz

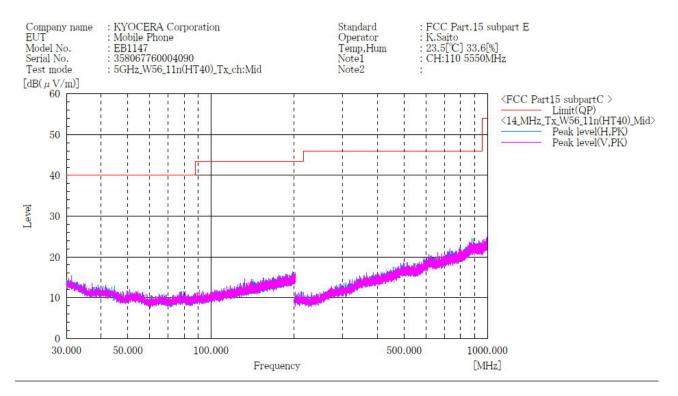


Fin	al Result													
No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin	Height	Angle	Remark
	600		PK	AV		PK	AV	PK	AV	PK	AV			
	[MHz]		[dB(µV)]	[dB(µV)]	[dB(1/m)]	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	[dB]	[dB]	[cm]	[]	
1	5464. 220	H	52.0		11.4	63. 4		68, 2	54.0	4.8		142.0	124.0	
2	5467, 200	V	52.6		11.4	64.0		68. 2	54.0	4.2		142.0	124.0	
3	11020, 000	H	46.3	33, 9	11.8	58. 1	45.7	74.0	54.0	15.9	8.3	100.0	122.0	

- 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)] 5.6 GHz Band / Channel Middle BELOW 1GHz

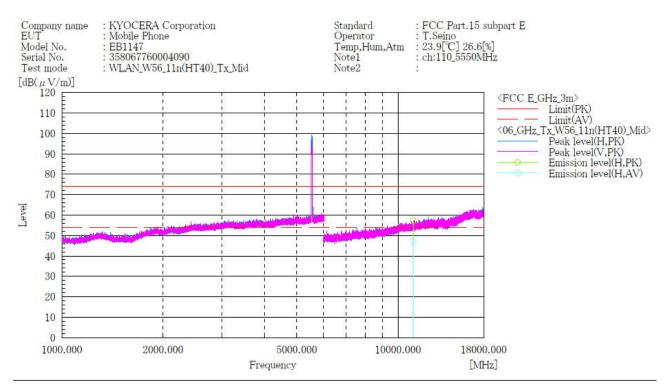


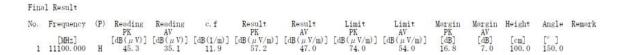
Final Result

- 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)] 5.6 GHz Band / Channel Middle ABOVE 1GHz

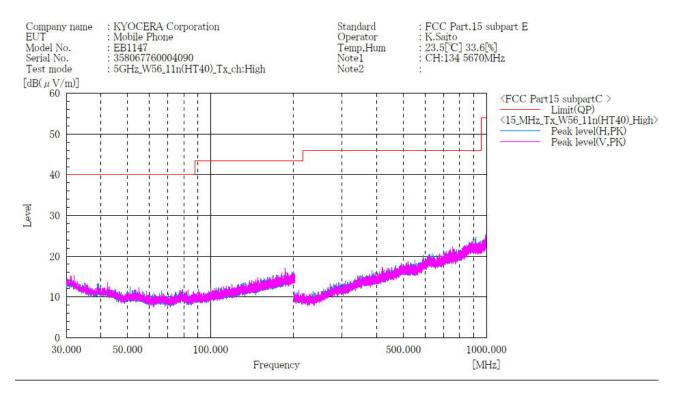




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11n(HT40)] 5.6 GHz Band / Channel High BELOW 1GHz

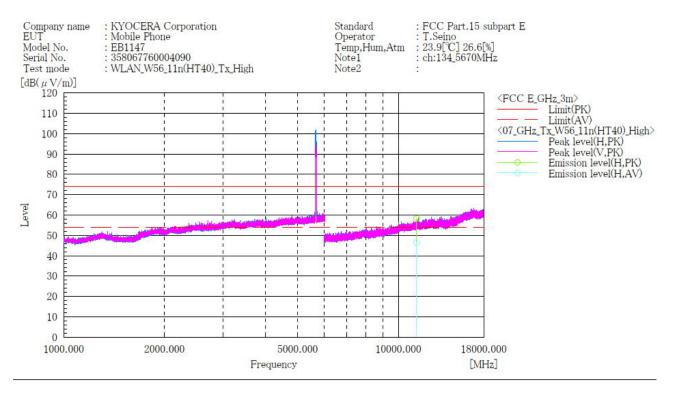


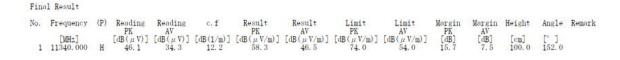
Final Result

- 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)] 5.6 GHz Band / Channel High ABOVE 1GHz

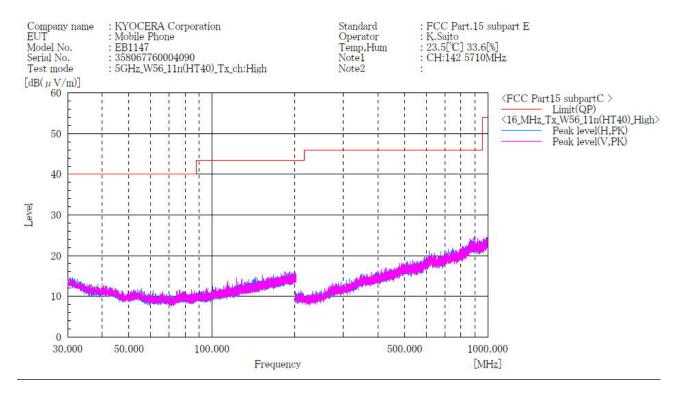




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11n(HT40)] 5.6 GHz Band / Channel High BELOW 1GHz

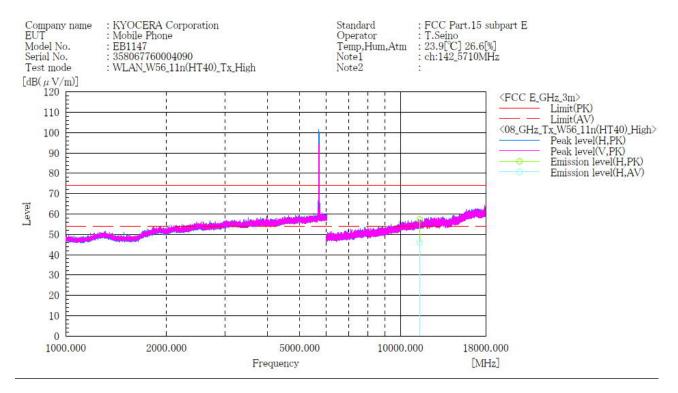


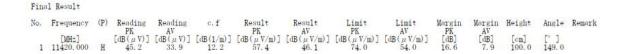
Final Result

- 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)] 5.6 GHz Band / Channel High ABOVE 1GHz

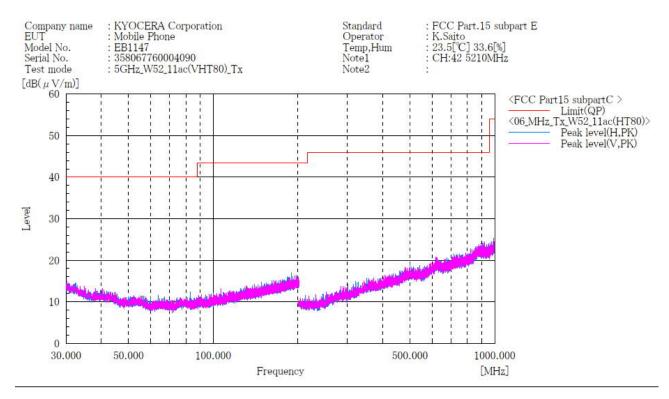




- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



[11ac(VHT80)] 5.2 GHz Band BELOW 1GHz

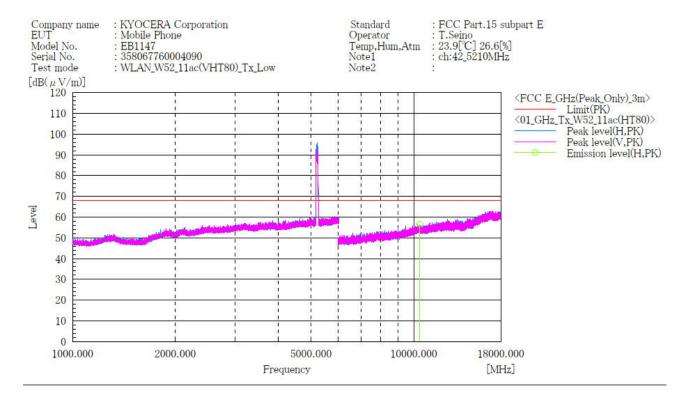


Final Result

- 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.



[11ac(VHT80)] 5.2 GHz Band ABOVE 1GHz



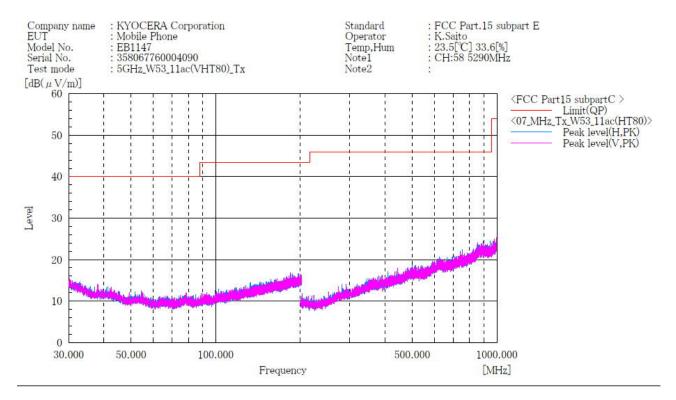
Final Result

No.	Frequency	(P)	Reading PK	c. f	Result	Limit	Margin PK	Height	Angle	Remark
1	[MHz] 10420.000	Н	[dB(µV)] 45.5	[dB(1/m)] 11.1	[dB($\mu V/m$)] 56.6	[dB($\mu V/m$)] 68.2	[dB]	[cm] 100.0	[°] 114.0	

- 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.



[11ac(VHT80)] 5.3 GHz Band BELOW 1GHz

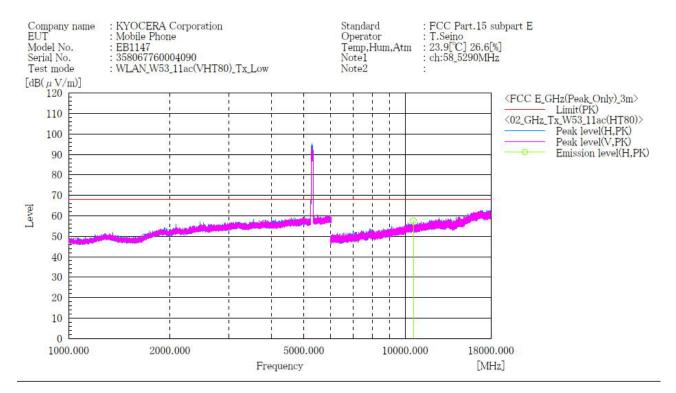


Final Result

- 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.



[11ac(VHT80)] 5.3 GHz Band ABOVE 1GHz



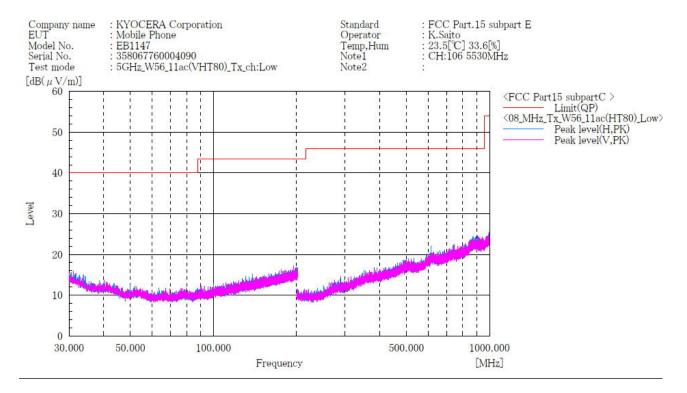
Final Result

No.	Frequency	(P)	Reading	c. f	Result	Limit	Margin	Height	Angle	Remark
1	[MHz] 10580.000	Н	[dB(μV)] 46.5		$\begin{bmatrix} dB \left(\mu V/m \right) \end{bmatrix}$ 57.7	$\begin{bmatrix} dB (\mu V/m) \end{bmatrix}$ 68. 2	[dB] 10.5	[cm] 100.0	[°]	

- 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.



[11ac(VHT80)] 5.6 GHz Band / Channel Low BELOW 1GHz

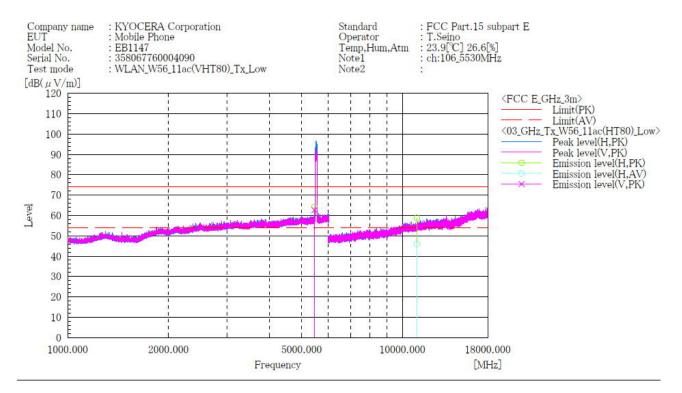


Final Result

- 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.



[11ac(VHT80)] 5.6 GHz Band / Channel Low ABOVE 1GHz

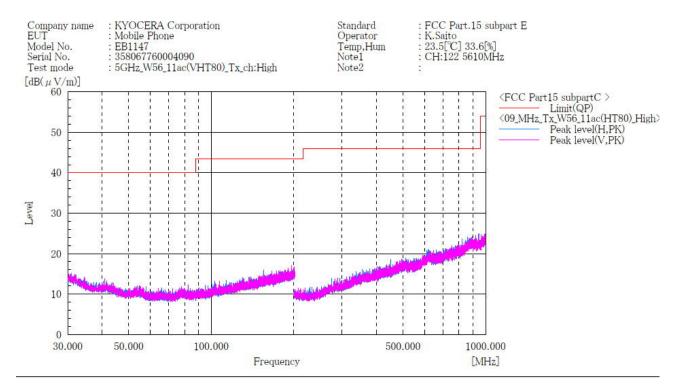


Fina	al Kesult													
No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin	Height	Angle	Remark
	[MHz]		PK [dB(uV)]	AV [dR(,,v)]	[dR(1/m)]	PK [dR(uV/m)]	AV [dR(,,V/m)]	PK [dB(μV/m)]	AV [dR(,,V/m)]	PK [dB]	AV [dB]	[cm]	[°]	
1	5467, 200	Н	52.9	[dD(pr/)]	11.4	64. 3	Long (Jr. 4 / III / J	74. 0	54.0	9. 7	fub1	100.0	151.0	
2	5463, 800	V	51.3		11.4	62.7		74.0	54.0	11.3		100.0	84.0	
3	11060,000	H	46. 9	34. 1	11.9	58.8	46.0	74.0	54.0	15. 2	8.0	100.0	149.0	

- 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.



[11ac(VHT80)] 5.6 GHz Band / Channel High BELOW 1GHz

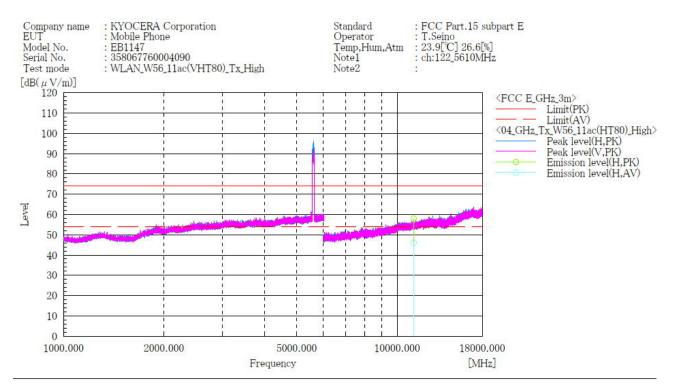


Final Result

- 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.



[11ac(VHT80)] 5.6 GHz Band / Channel High ABOVE 1GHz



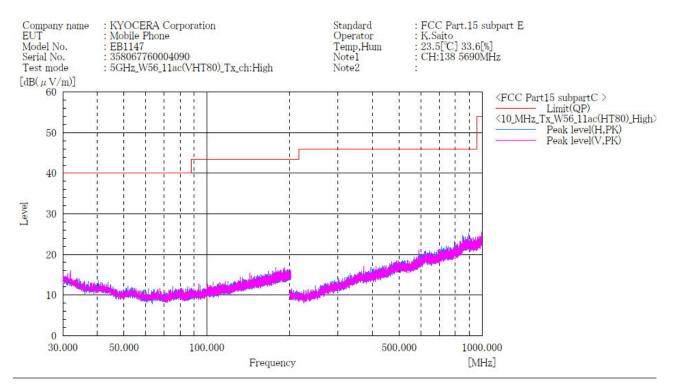


No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin	Height	Angle	Remark	
	[MHz]		$[dB(\mu V)]$	AV [dB(μV)]	[dB(1/m)]	[dB(uV/m)]	[dB(µV/m)]	[dB(uV/m)]	[dB(uV/m)]	[dB]	AV [dB]	[cm]	[°]		
1	11220, 000	H	46, 0	34.0	12.0	58, 0	46.0	74.0	54.0	16.0	8.0	100.0	150.0		

- 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.



[11ac(VHT80)] 5.6 GHz Band / Channel High BELOW 1GHz

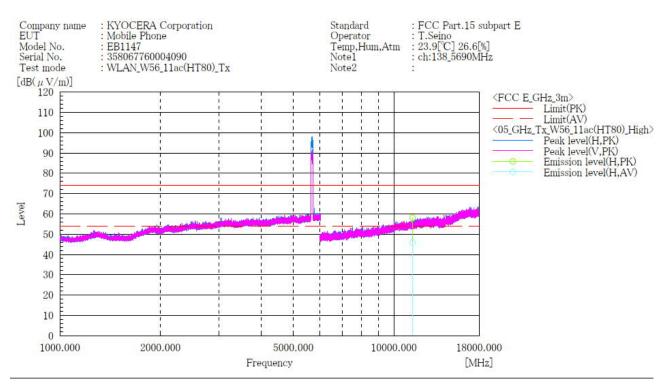


Final Result

- 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.



[11ac(VHT80)] 5.6 GHz Band / Channel High ABOVE 1GHz





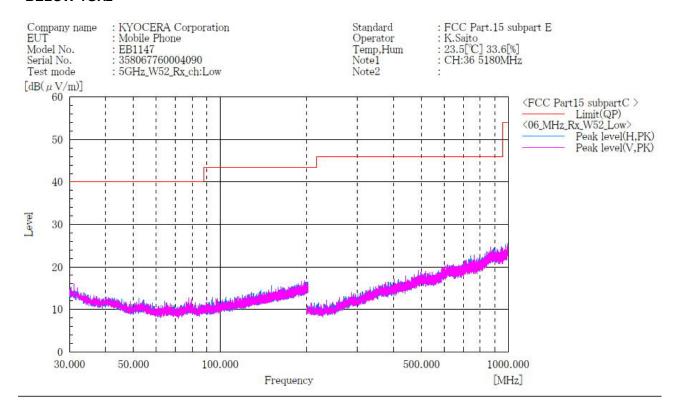
No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin	Height	Angle	Remark
			PK	AV		PK	AV	PK	AV	PK	AV			
	[MHz]		$[dB(\mu V)]$	$[dB(\mu V)]$	[dB(1/m)]	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	AV [dB(μV/m)]	[dB]	[dB]	[cm]	[°]	
1	11380 000	H	45 9	33 0	12 2	58 1	46 1	74 0	54 0	15 9	7.9	100 0	154 0	

- 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

5.2 GHz Band / Channel Low BELOW 1GHz

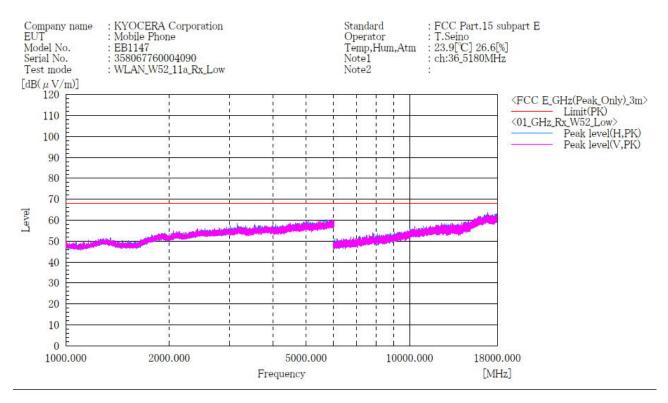


Final Result

- 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.



5.2 GHz Band / Channel Low ABOVE 1GHz

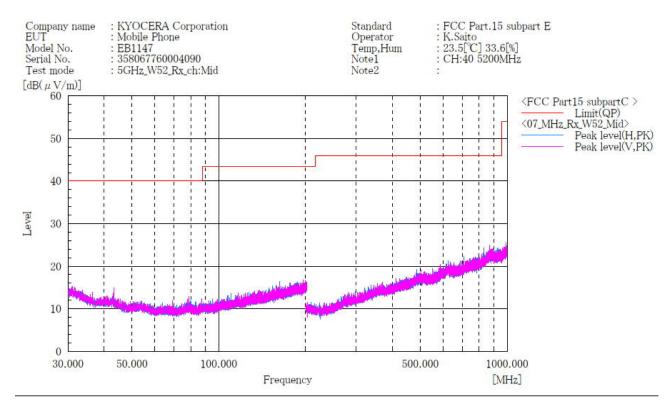


Final Result

- 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.



5.2 GHz Band / Channel Mid BELOW 1GHz

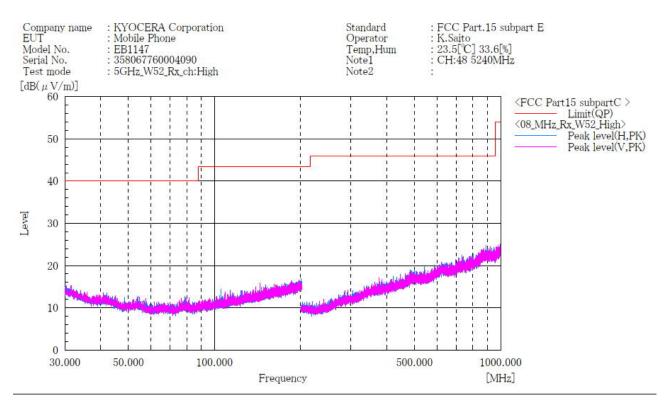


Final Result

- 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.



5.2 GHz Band / Channel High BELOW 1GHz

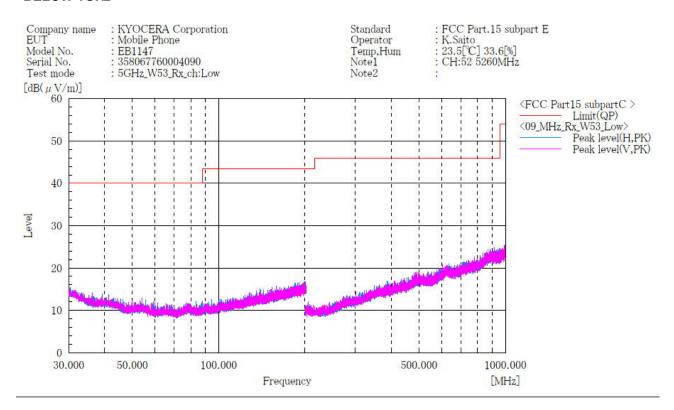


Final Result

- 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.



5.3 GHz Band / Channel Low BELOW 1GHz

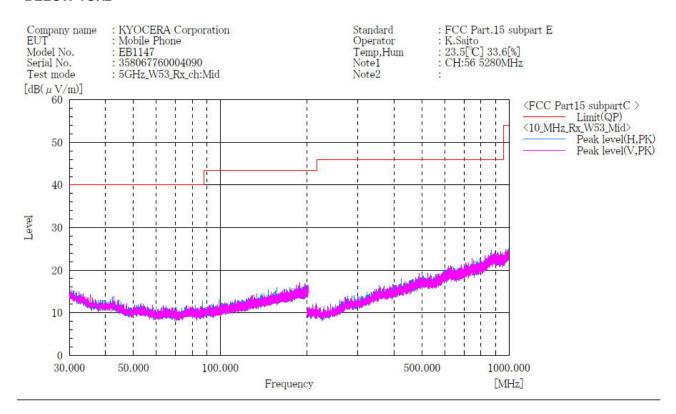


Final Result

- 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.



5.3 GHz Band / Channel Mid BELOW 1GHz

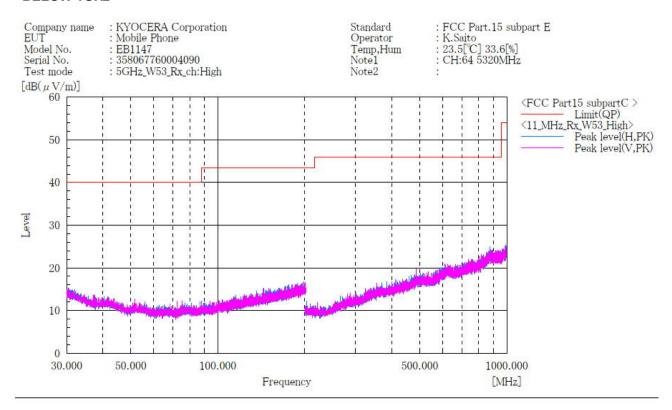


Final Result

- 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.



5.3 GHz Band / Channel High BELOW 1GHz

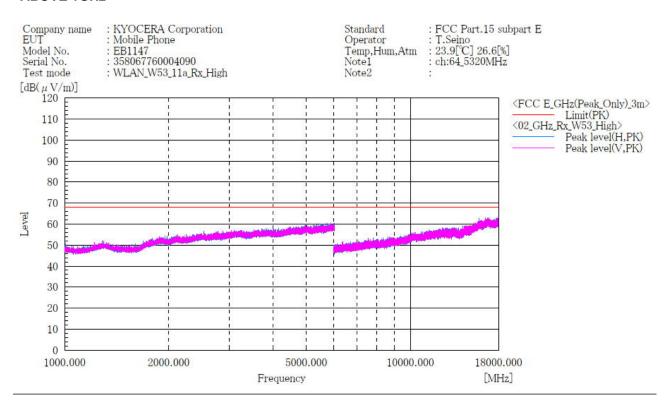


Final Result

- 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.



5.3 GHz Band / Channel High ABOVE 1GHz

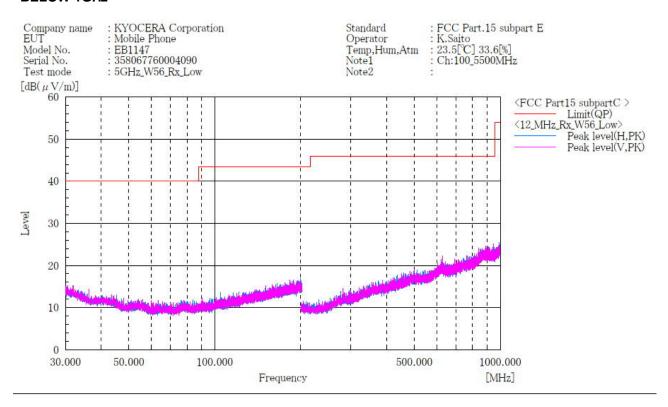


Final Result

- 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.



5.6 GHz Band / Channel Low BELOW 1GHz

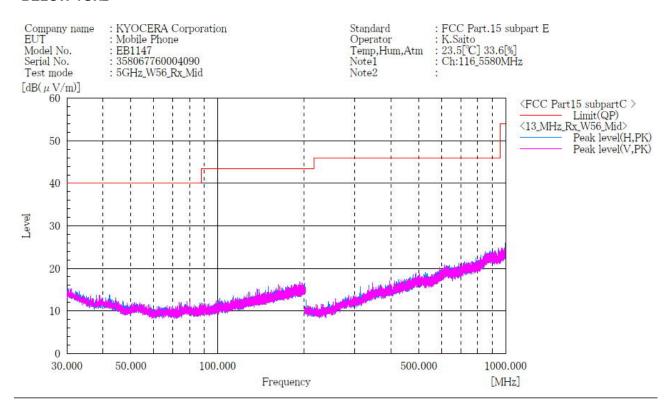


Final Result

- 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.



5.6 GHz Band / Channel Mid BELOW 1GHz

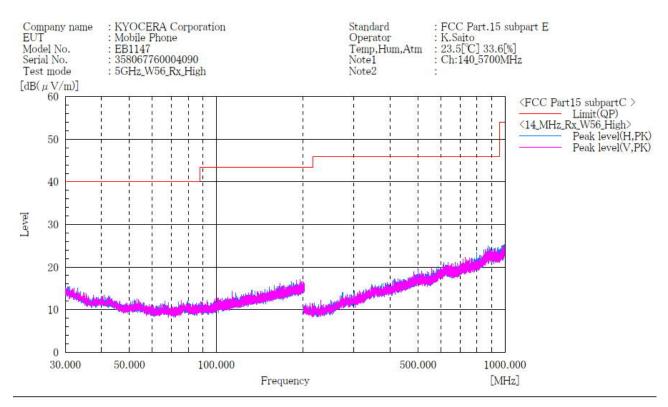


Final Result

- 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.



5.6 GHz Band / Channel High BELOW 1GHz

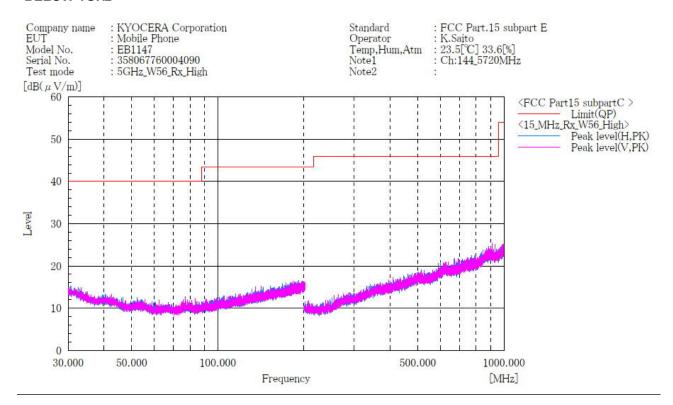


Final Result

- 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.



5.6 GHz Band / Channel High BELOW 1GHz

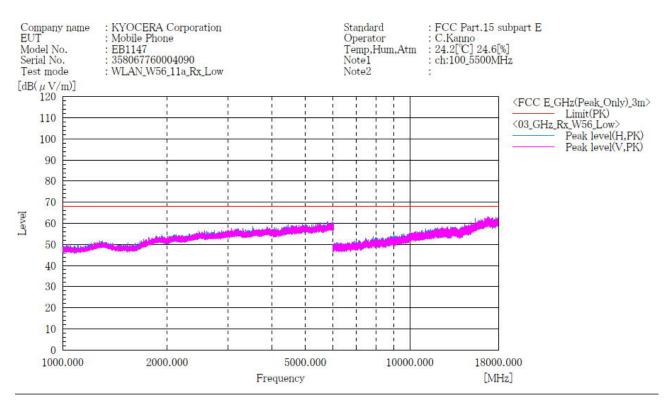


Final Result

- 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.



5.6 GHz Band / Channel Low ABOVE 1GHz

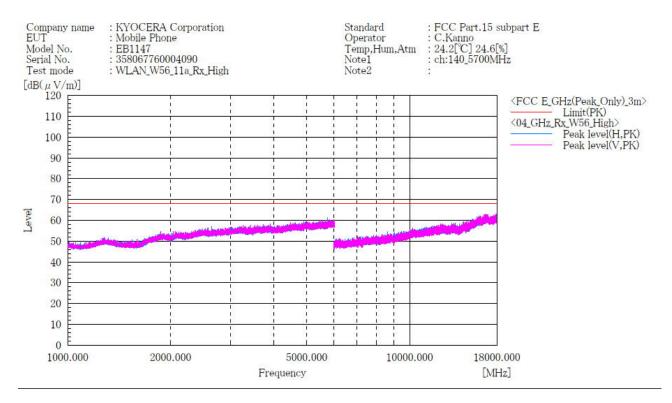


Final Result

- 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.



5.6 GHz Band / Channel High ABOVE 1GHz

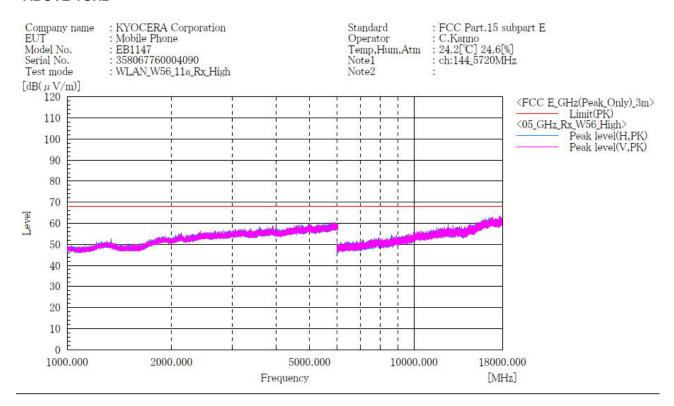


Final Result

- 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.



5.6 GHz Band / Channel High ABOVE 1GHz



Final Result

- 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.



4.2 AC Power Line Conducted Emissions

4.2.1 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) $2.0 \times$ (D) $1.0 \times$ (H) 0.8 m Vertical Metal Reference Plane : (W) $2.0 \times$ (H) $2.0 \times$ (D) $1.0 \times$ (H) $0.8 \times$ m

Test receiver setting

- Detector : Quasi-peak, Average

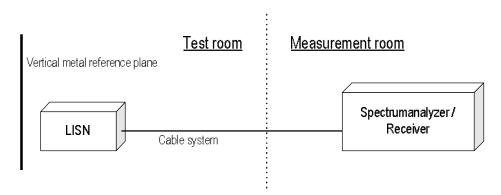
- Bandwidth : 9 kHz

EUT and peripherals are connected to $50\Omega/50\mu H$ 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



4.2.2 Calculation method

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



4.2.3 Limit

Frequency	Lir	mit
[MHz]	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.

4.2.4 Test data

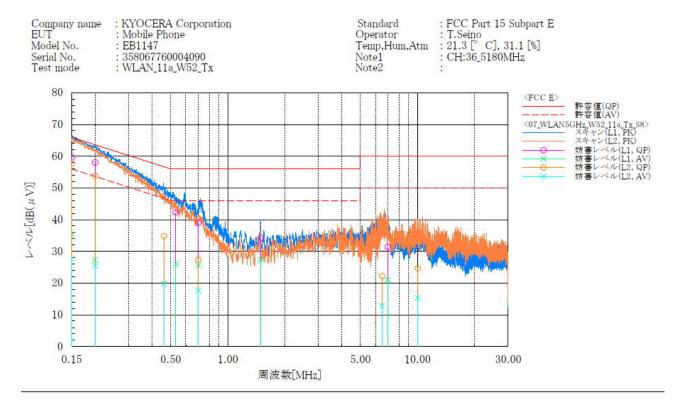
Date : 8-November-2022

Test place : 21.3 [°C]
Humidity : 31.1 [%]
Test place : 3m Semi-anechoic chamber Test engineer

Tadahiro Seino



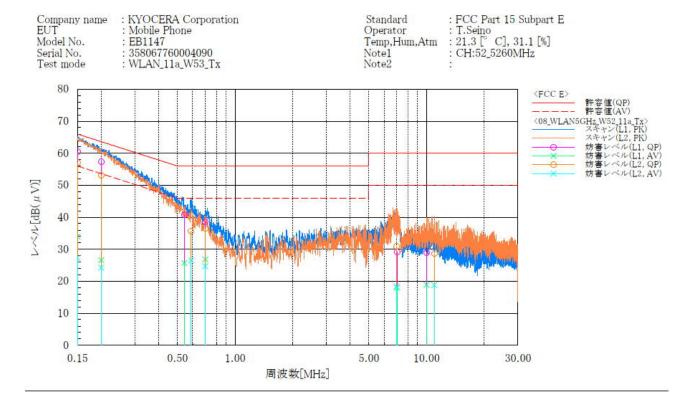
[5.2 GHz Band]



Fina	al Result										
	L1										
No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin	Margin AV	Remark
	[MHz]	[dB(μV)]	$[dB(\mu V)]$	[dB]	$[dB(\mu V)]$	[dB(μV)]	[dB(μV)]	LdB(μV)	[dB]	[dB]	
1	0.150	49.1	24.7	10.6	59. 7	35. 3	66. 0	56.0	6. 3	20.7	
2	0.200	47.6	16.8	10.5	58. 1	27.3	63. 6	53.6	5. 5	26.3	
2 3 4 5 6	0.532		15.6	10.4	42. 2 39. 0	26.0	56.0	46.0	13.8	20.0	
4	0.700	28. 6	15. 2	10.4	39.0	25. 6	56. 0	46.0	17.0	20.4	
5	1.486	23.8	16.9	10.5	34. 3	27.4	56. 0	46.0	21.7	18.6	
6	6.964	20.5	10.1	10.9	31. 4	21.0	60.0	50.0	28.6	29.0	
	L2										
No.	Frequency	QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin	Margin AV	Remark
	[MHz]	$[dB(\mu V)]$	[dB(µV)]	[dB]	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB(µV)]	[dB(µV)]	[dB]	[dB]	
1	0.150	47.1	17.0	10.6	57. 7	27.6	66. 0	56.0	8. 3	28.4	
2	0.200	43.4	15.0	10.5	53. 9	25. 5	63.6	53.6	9. 7	28.1	
3	0.463	24. 4	9.4	10.4	34. 8	19.8	56. 6	46.6	21.8	26.8	
4	0.700	17.0	7.2	10.4	27.4	17.6	56. 0	46.0	28.6	28.4	
1 2 3 4 5	6.507	11.3	2.0	10.9	22. 2	12.9	60.0	50.0	37.8	37.1	
6	9.999	13.6	4. 1	11.2	24. 8	15.3	60. 0	50.0	35. 2	34.7	



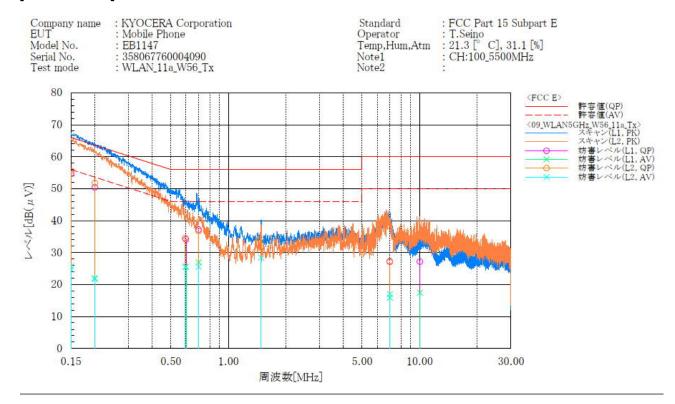
[5.3 GHz Band]



Final Result Reading QP [dB(μV)] Result QP [dB(µV)] Margin QP [dB] 5.5 6.3 Margin Remark AV [dB] 22.1 27.0 Result AV [dB(μV)] Limit QP No. Reading Frequency c.f AV [dB(μV)] [MHz] [dB] [dB(µV)] 0. 150 0. 200 49. 9 46. 8 30. 3 28. 2 18. 3 10.6 10.5 23. 3 16. 1 15. 3 16. 4 60. 5 57. 3 66. 0 63. 6 56. 0 53. 6 33.9 1 2 3 4 5 26. 6 25. 7 26. 8 18. 0 15. 3 17. 4 30. 8 0. 543 0. 700 7. 020 10. 4 10. 4 10. 9 40. 7 38. 6 29. 2 56. 0 56. 0 60. 0 46. 0 46. 0 50. 0 20.3 19.2 32.0 6 10.021 17.8 11.2 29.0 18.9 60.0 50.0 31.0 31.1 -- L2 ---o. Frequency Margin Remark AV [dB] 28.7 29.4 19.5 21.3 31.7 31.2 Limit AV [dB(µV)] 56.0 Margin QP [dB] No. Reading Reading c.f Result Limit Result AV [dB (μV)] 27, 3 24, 2 26, 5 24, 7 18, 3 18, 8 QP [dB(μV)] 57.1 53.2 35.7 QP [dB(μV)] 66.0 QP [dB(μV)] AV [dB(μV)] [MHz] [dB] 10. 6 10. 5 10. 4 10. 4 10. 9 8. 9 10. 4 20. 3 19. 6 29. 1 0. 150 0. 200 0. 591 46. 5 42. 7 25. 3 16. 7 13. 7 16. 1 14. 3 7. 4 7. 5 2 3 63. 6 56. 0 53. 6 46. 0 0.700 6.956 26. 0 20. 0 36. 4 30. 9 56. 0 60. 0 46.0 50.0 10.986 11.3 60.0



[5.6 GHz Band]



Fin	a1	Re	511	1+

-	L1										
No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin	Margin AV	Remark
	[MHz]	$\lceil dB(uV) \rceil$	[dB(µV)]	[dB]	$[dB(\mu V)]$	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB(μV)]	[dB]	[dB]	
1	0.150	44. 1	14.1	10.6	54. 7	24. 7	66. 0	56.0	11. 3	31. 3	
2	0, 200	39. 9	11.2	10.5	50. 4	21.7	63.6	53.6	13. 2	31.9	
2 3	0,600	23.8	15. 2	10.4	34. 2	25. 6	56. 0	46.0	21.8	20.4	
4	0,700	26. 7	16.5	10.4	37. 1	26. 9		46.0	18. 9	19.1	
5	6.983	16. 2	5.0	10.9	27. 1	15.9	60.0	50.0	32. 9	34.1	
6	10.038	16.0	6. 2	11.2	27. 2	17.4	60.0	50.0	32.8	32.6	
	L2										
No.	Frequency		Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin	Margin AV	Remark
	[MHz]	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB]	$[dB(\mu V)]$	[dB(µV)]	$[dB(\mu V)]$	[dB(µV)]	[dB]	[dB]	
1	0.150	45. 1	15. 1	10.6	55. 7	25. 7	66, 0	56.0	10.3	30.3	
2	0,200	41.3	11.5	10.5	51. 8	22.0	63, 6	53.6	11.8	31.6	
2 3	0.594	24. 1	15.0	10.4	34. 5	25. 4	56. 0	46.0	21.5	20.6	
4	0.700	26. 3	15.2	10.4	36. 7	25. 6	56. 0	46.0	19. 3	20.4	
5	1.484	23. 5	17.9	10.5	34.0	28.4	56. 0	46.0	22.0	17.6	
6	6. 987	16. 4	6. 1	10.9	27. 3	17.0	60.0	50.0	32.7	33.0	



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 noncompliance 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)	±3.2 dB
Radiated emission (30 MHz – 1000 MHz)	±5.3 dB
Radiated emission (1 GHz – 6 GHz)	±4.8 dB
Radiated emission (6 GHz – 18 GHz)	±4.5 dB
Radiated emission (18 GHz – 40 GHz)	±6.4 dB
Radio Frequency	±1.4 * 10 ⁻⁸
RF power, conducted	±0.8 dB
Adjacent channel power	±2.4 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 +Uncertainty -Uncertainty Even if it takes uncertainty into consideration, Measured value a standard limit value is fulfilled. Case2							
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

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: A-0166



Appendix A. Test Equipment

Radiated emission

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI Receiver	ROHDE&SCHWARZ	ESCI	100765	30-Sep-2023	14-Sep-2022
Spectrum analyzer	Agilent Technologies	E4440A	US40420937	30-Sep-2023	05-Sep-2022
Spectrum analyzer	ROHDE&SCHWARZ	FSV40	101731	31-Mar-2023	03-Mar-2022
Preamplifier	SONOMA	310	372170	30-Sep-2023	28-Sep-2022
Loop antenna	ROHDE&SCHWARZ	HFH2-Z2	100515	30-Apr-2023	18-Apr-2022
Attenuator	TOYO Connector	NA-PJ-6	N/A(S507)	28-Feb-2023	03-Feb-2022
Biconical antenna	Schwarzbeck	VHBB9124/BBA9106	1333	31-Dec-2022	15-Dec-2021
Log periodic antenna	Schwarzbeck	VUSLP9111B	345	30-Nov-2022	08-Nov-2021
Attenuator	TOYO Connector	NA-PJ-6/6dB	N/A(S541)	30-Sep-2023	28-Sep-2022
Attenuator	TAMAGAWA.ELEC	CFA-10/3dB	N/A(S503)	31-Jul-2023	14-Jul-2022
Preamplifier	TSJ	MLA-100M18-B02-40	1929118	31-Dec-2022	22-Dec-2021
Attenuator	AEROFLEX	26A-10	081217-08	31-Dec-2022	22-Dec-2021
Double ridged guide antenna	ETS LINDGREN	3117	00052315	30-Jun-2023	22-Jun-2022
Attenuator	HUBER+SUHNER	6803.17.B	N/A(2340)	31-Dec-2022	23-Dec-2021
Double ridged guide antenna	A.H.Systems Inc.	SAS-574	469	31-Aug-2023	19-Aug-2022
Preamplifier	TSJ	MLA-1840-B03-35	1240332	31-Aug-2023	19-Aug-2022
Notch Filter	Micro-Tronics	BRM50716	006	31-Jul-2023	14-Jul-2022
		SUCOFLEX104/9m	MY30037/4	31-Dec-2022	22-Dec-2021
		SUCOFLEX104/1m	my24610/4	31-Dec-2022	22-Dec-2021
Microwave cable	HUBER+SUHNER	SUCOFLEX104/8m	SN MY30033/4	31-Dec-2022	22-Dec-2021
Microwave cable	HUBER+SUHNER	SUCOFLEX104/1m	MY32976/4	31-Dec-2022	22-Dec-2021
		SUCOFLEX104/2m	SN MY28404/4	31-Dec-2022	22-Dec-2021
		SUCOFLEX104/7m	41625/6	31-Dec-2022	22-Dec-2021
PC	DELL	DIMENSION E521	75465BX	N/A	N/A
Software	TOYO Corporation	EP5/RE-AJ	0611193/V6.0.140	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-2023	28-May-2022
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-SVSWR)	31-May-2023	28-May-2022

Conducted emission at mains port

Conducted emission at mains port									
Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date				
EMI Receiver	ROHDE&SCHWARZ	ESCI	100765	30-Sep-2023	14-Sep-2022				
Attenuator	HUBER+SUHNER	6810.01.A	N/A (S411)	31-Dec-2022	22-Dec-2021				
Line impedance stabilization network	Kyoritsu Electrical Works, Ltd.	TNW-407F2	12-17-110-2	30-Jun-2023	15-Jun-2022				
Microwave cable	HUBER+SUHNER	SUCOFLEX104/5m	MY33601/4	31-Oct-2023	22-Oct-2022				
Microwave cable	HUBER+SUHNER	SUCOFLEX104/2m	MY37268/4	31-Oct-2023	22-Oct-2022				
Coaxial cable	HUBER+SUHNER	RG214/U/10m	N/A (S194)	31-Dec-2022	22-Dec-2021				
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.