Report on the RF Testing of:

KYOCERA Corporation
Mobile Phone, Model: EB1017
FCC ID: JOYEB1017

In accordance with FCC Part15 Subpart E

Japan

Add value.
Inspire trust.

Prepared for: KYOCERA Corporation
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Hiroaki Suzuki	Deputy Manager of RF Group	Approved Signatory	07 JUL 2020

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.

ilac-MRA
A2LA ACCREDITED
Certificate #3686.03

ACCREDIATION
This test report must not be used by the client to claim product certification, approval, or endorsement by A2LA or any agency of the U.S. Government.

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1 Summary of Test

1.1 Modification history of the test report

Document Number	Modification History	Issue Date
JPD-TR-20160-0	First Issue	Refer to the cover page

1.2 Standards

CFR47 FCC Part 15 Subpart E

1.3 Test methods

ANSI C63.10-2013
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	N/A	*1
15.407(a)	Maximum Conducted Output Power	Conducted	N/A	*1
15.407(a)	Peak Power Spectral Density	Conducted	N/A	*1
15.407(b) 15.205 15.209	Radiated emissions (Restricted Bands of Operation)	Radiated	PASS	-
15.407(g)	Frequency Stability	Conducted	N/A	*1
15.207	AC Power Line Conducted Emissions	Conducted	PASS	-

*1 Since there is no change in Module from FCC ID: JOYDB05, only the Radiated test items were performed. Please refer to the test report “JPD-TR-19157-0” of “FCC ID: JOYDB05”.

1.6 Test information

None

1.7 Test set up

Table-top

1.8 Test period

2-June-2020 - 11-June-2020

Japan

2 Equipment Under Test

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	EB1017
Serial number	N/A
Trade name	Kyocera
Number of sample(s)	1
EUT condition	Pre-Production
Power rating	Battery: DC 3.85 V
Size	(W) 73.0 × (D) 153.0 × (H) 8.9 mm
Environment	Indoor and Outdoor use
Terminal limitation	-20˚C to 60˚C
Hardware version	DMT1.5
Software version	0.040RE.0022.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-5700 MHz IEEE802.11n (HT40) / IEEE802.11ac (VHT40): 5190 MHz-5310 MHz, 5510 MHz-5670 MHz IEEE802.11ac (VHT80): 5210 MHz, 5290 MHz, 5530 MHz, 5610 MHz
Number of RF Channels	IEEE802.11a/n (HT20) / IEEE802.11ac (VHT20): 19 Channels IEEE802.11n (HT40) / IEEE802.11ac (VHT40): 9 Channels IEEE802.11ac (VHT80): 4 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, 65Mbps IEEE802.11n (HT20 SGI): 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2Mbps 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, 135Mbps IEEE802.11n (HT40 SGI): 15, 30, 45, 60, 90, 120, 135, 150Mbps 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): 29.3, 58.5, 87.8, 117, 175.5, 234, 263.3, 292.6, 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	27.805 mW (IEEE802.11a) 26.683 mW (IEEE802.11n: HT20) 20.405 mW (IEEE802.11n: HT40) 20.423 mW (IEEE802.11ac: VHT80)
Antenna type	Internal antenna
Antenna gain	5.15-5.25 GHz band: +0.8 dBi 5.25-5.35 GHz band: +0.8 dBi 5.47-5.725 GHz band: +1.4 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: EB1017, Serial Number: N/A			
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

Japan

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

[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

[IEEE802.11ac (VHT80)]

Channel	Frequency [MHz]
42	5210
58	5290
106	5530
122	5610

2.5 Description of test mode

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

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

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
5.2 GHz Band	IEEE802.11a: OFDM	6Mbps
	IEEE802.11n (HT20): OFDM	MCS0 (6.5Mbps)
	IEEE802.11n (HT40): OFDM	MCS0 (13.5Mbps)
	IEEE802.11ac (VHT80): OFDM	MCS0 (29.3Mbps)
5.3 GHz Band	IEEE802.11a: OFDM	6Mbps
	IEEE802.11n (HT20): OFDM	MCS0 (6.5Mbps)
	IEEE802.11n (HT40): OFDM	MCS0 (13.5Mbps)
	IEEE802.11ac (VHT80): OFDM	MCS0 (29.3Mbps)
5.6 GHz Band	IEEE802.11a: OFDM	6Mbps
	IEEE802.11n (HT20): OFDM	MCS0 (6.5Mbps)
	IEEE802.11n (HT40): OFDM	MCS0 (13.5Mbps)
	IEEE802.11ac (VHT80): OFDM	MCS0 (29.3Mbps)

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 Y 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

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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”.
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	EB1017	N/A	JOYEB1017	EUT
2	AC Adapter	KDDI	0301PQA	N/A	N/A	*

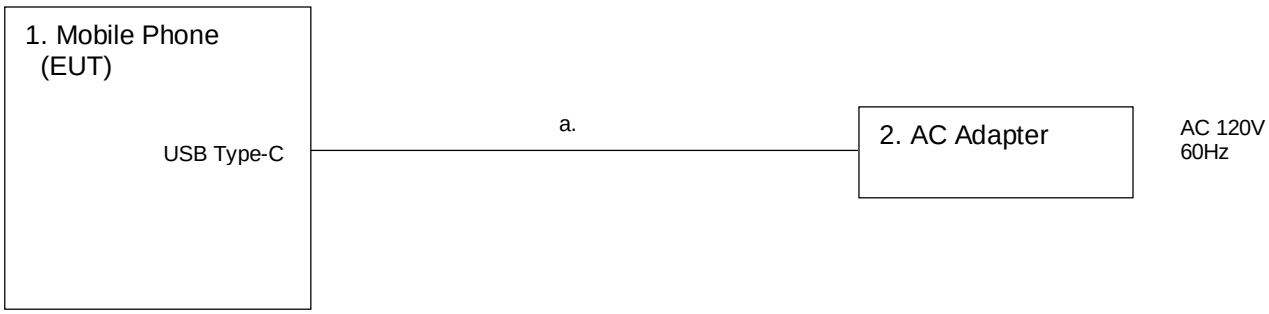
*: AC power line Conducted Emission Test.

3.2 Cable(s) used

No.	Cable	Length[m]	Shield	Connector	Comment
a	USB cable (for AC Adapter)	1.0	Yes	Metal	*

*: AC power line Conducted Emission Test.

3.3 System configuration



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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 × (D) 1.0 ×(H) 0.8 m (below 1 GHz) Styrofoam table / (W) 0.6 × (D) 0.6 ×(H) 1.5 m (above 1 GHz)
Antenna distance	:	3m
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.

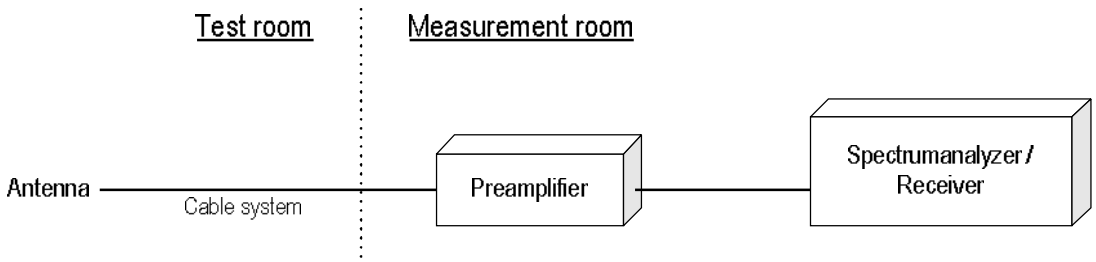
The EUT was set to operate with following conditions.

- 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

Mode	Band	On Time(ms)	On+Off Time(ms)	Duty Cycle (%)	DCF (dB)
802.11a	W52	1.392	1.436	96.94	0.135
	W53	1.392	1.438	96.80	0.141
	W56	1.392	1.438	96.80	0.141
802.11n (20MHz)	W52	1.288	1.334	96.55	0.152
	W53	1.288	1.334	96.55	0.152
	W56	1.288	1.334	96.55	0.152
802.11n (40MHz)	W52	0.635	0.680	93.38	0.297
	W53	0.636	0.680	93.52	0.291
	W56	0.635	0.680	93.38	0.297
802.11ac (80MHz)	W52	0.323	0.368	87.77	0.570
	W53	0.323	0.368	87.77	0.570
	W56	0.324	0.369	87.80	0.561

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

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

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

Japan

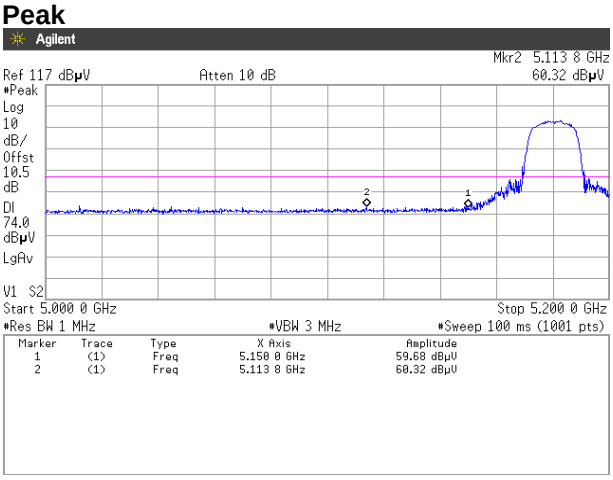
4.1.4 Test data

Date	:	5-June-2020		
Temperature	:	23.9 [˚C]		
Humidity	:	55.8 [%]	Test engineer	:
Test place	:	3m Semi-anechoic chamber		Tadahiro Seino

4.1.4.1 Restricted Bandedge

[IEEE802.11a]

5.2 GHz Band, Channel Low
Horizontal
Peak



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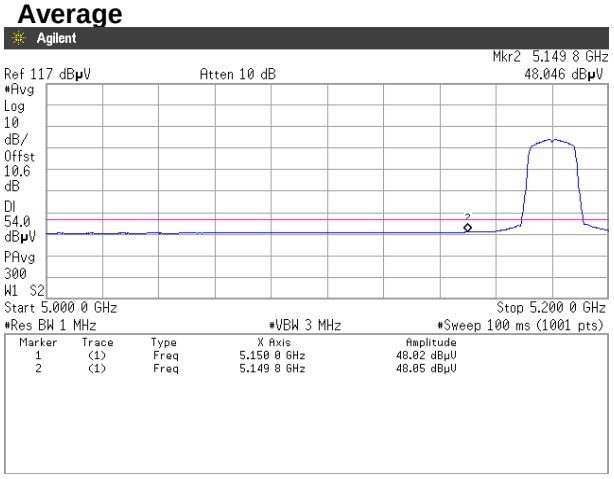
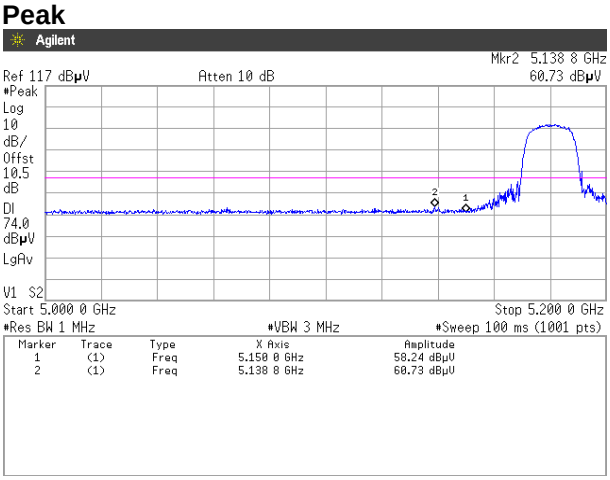


Vertical
Peak



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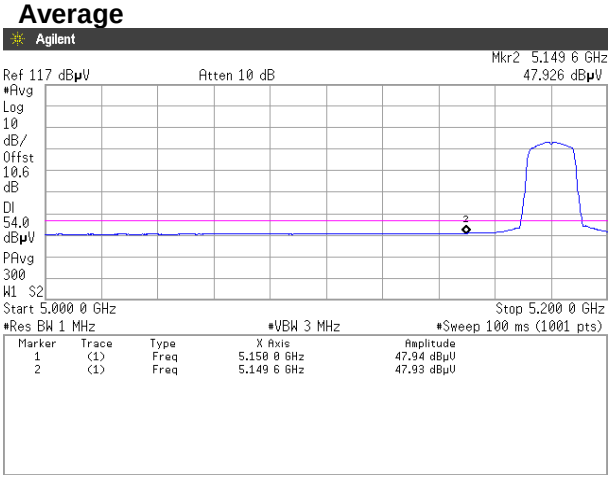
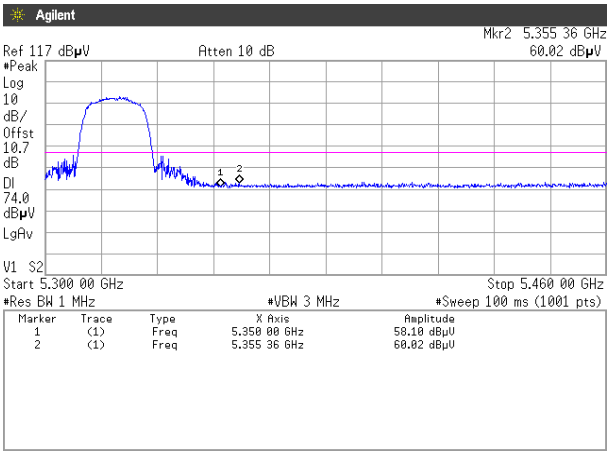


[IEEE802.11a]

5.3 GHz Band, Channel High
Horizontal
Peak



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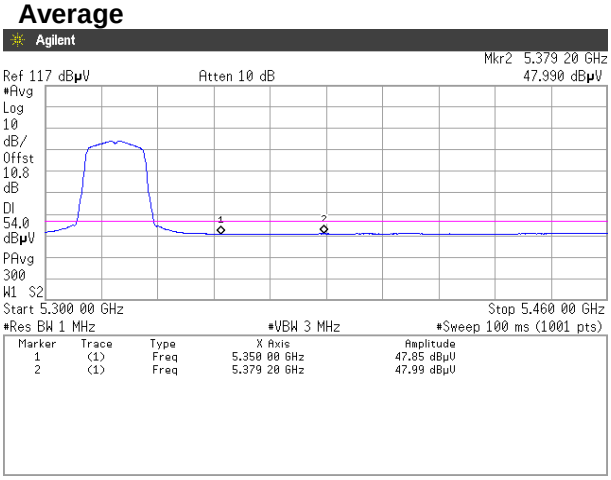
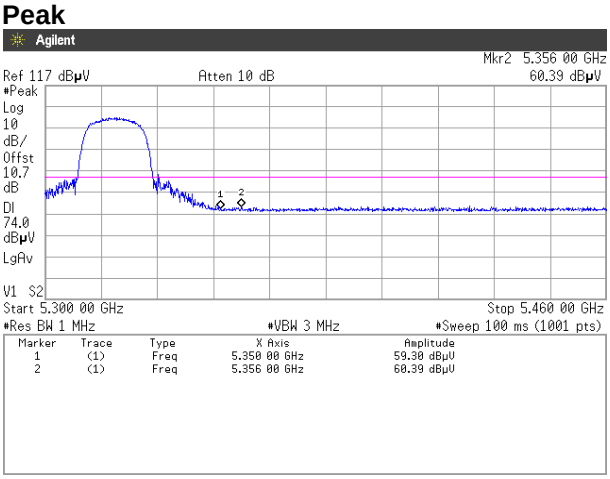


Vertical
Peak



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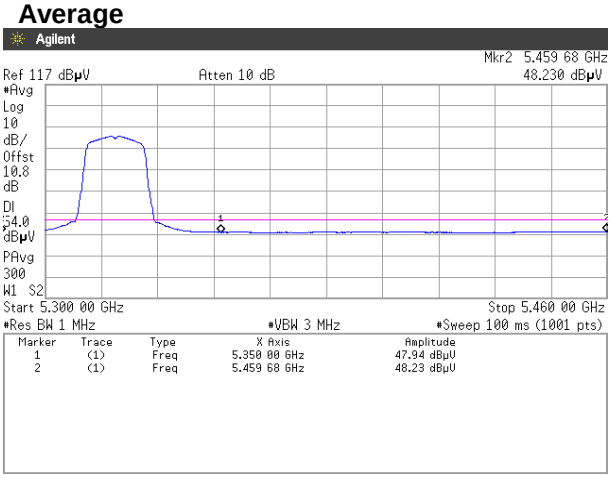
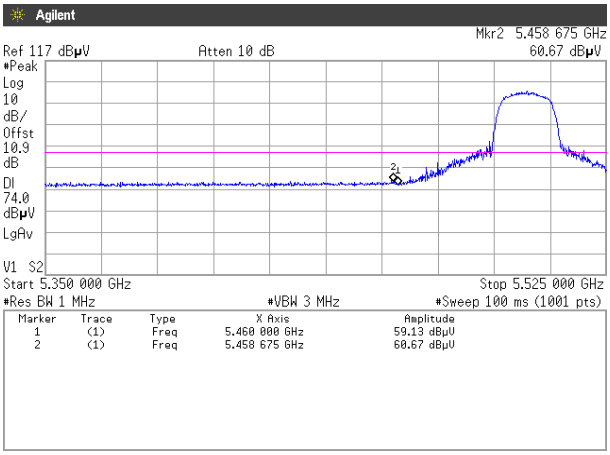


[IEEE802.11a]

5.6 GHz Band, Channel Low

Horizontal

Peak



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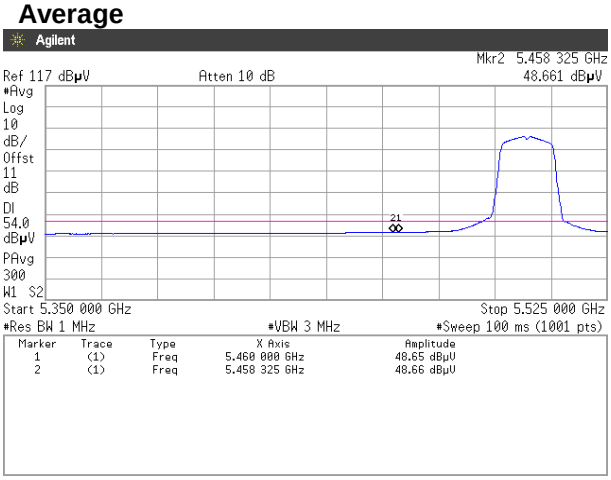
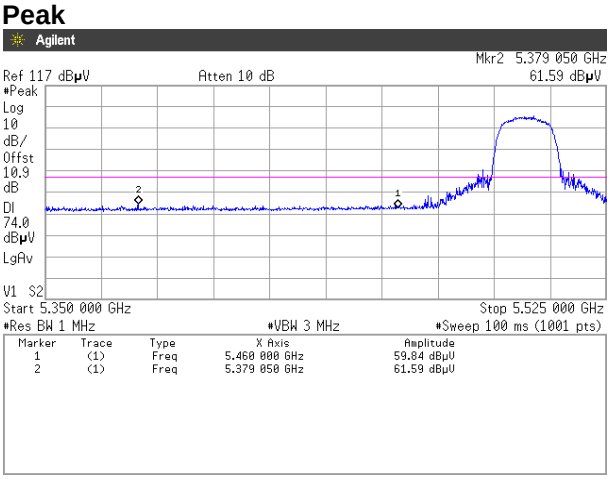


Vertical

Peak



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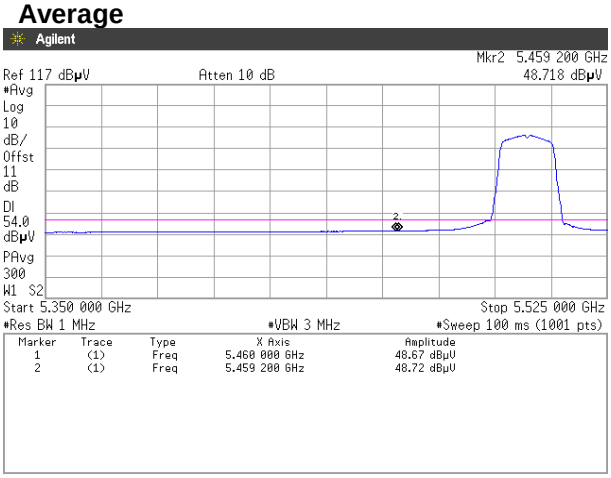
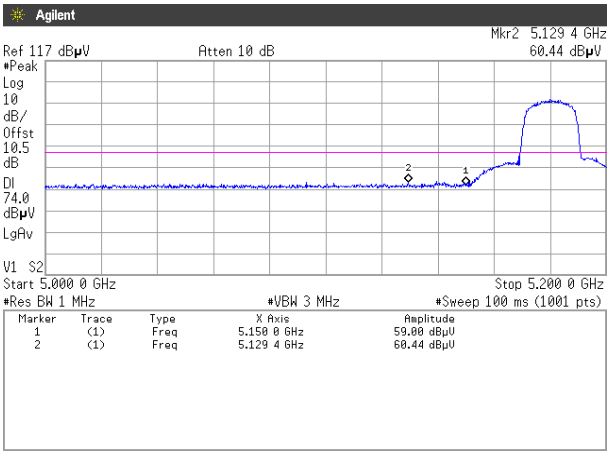


[IEEE802.11n (HT20)]

5.2 GHz Band, Channel Low
Horizontal
Peak



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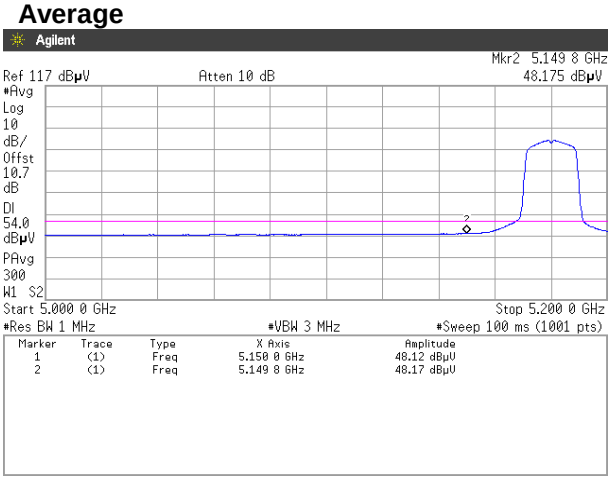
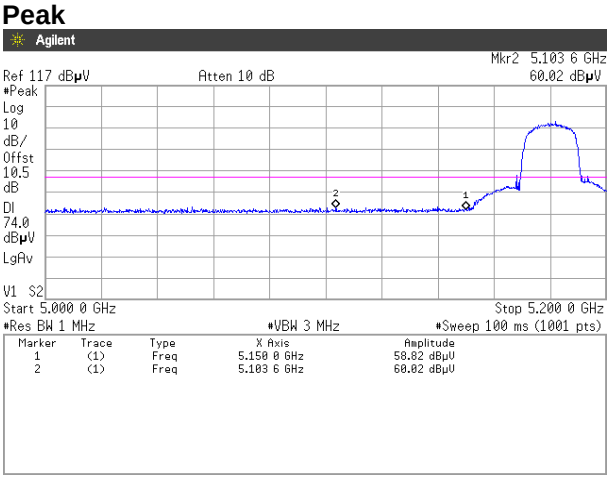


Vertical
Peak



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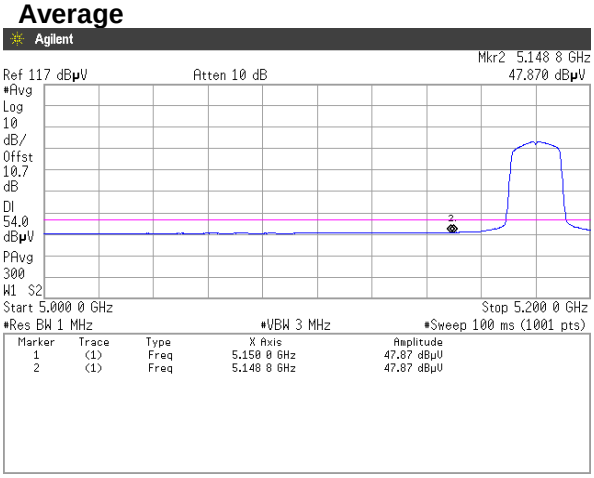
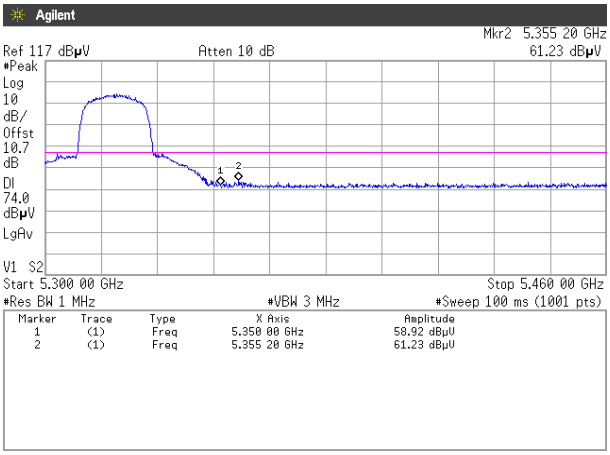


[IEEE802.11n (HT20)]

5.3 GHz Band, Channel High
Horizontal
Peak



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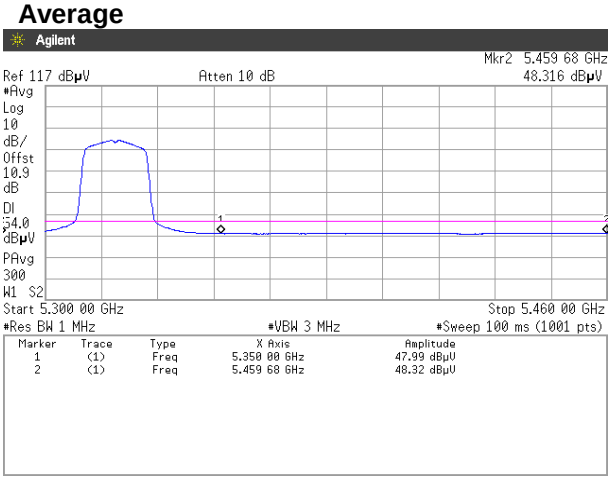
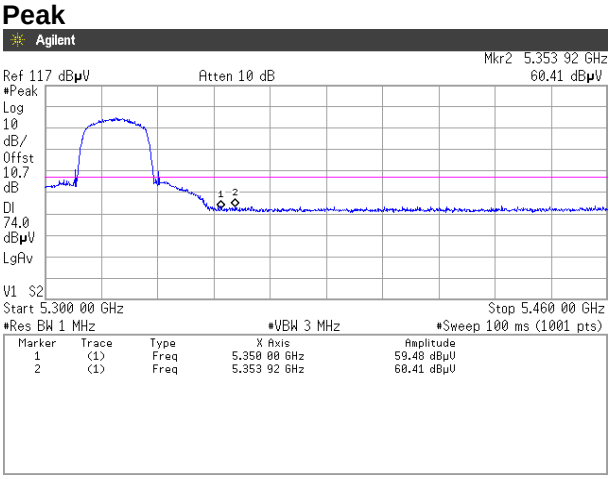
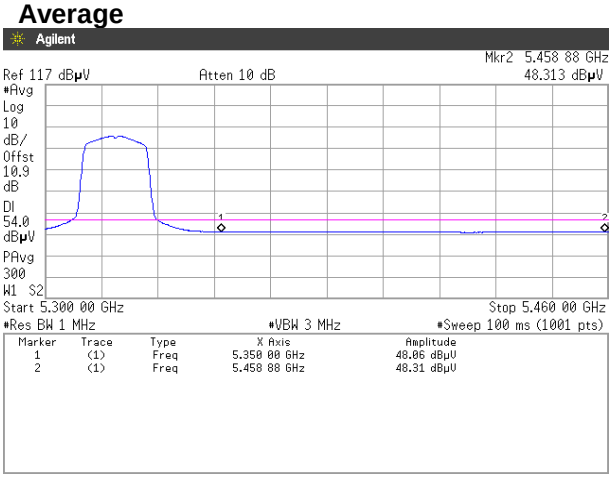


Vertical
Peak

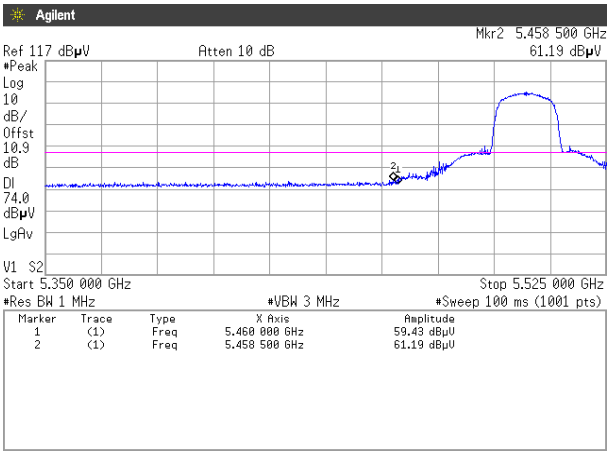


Average

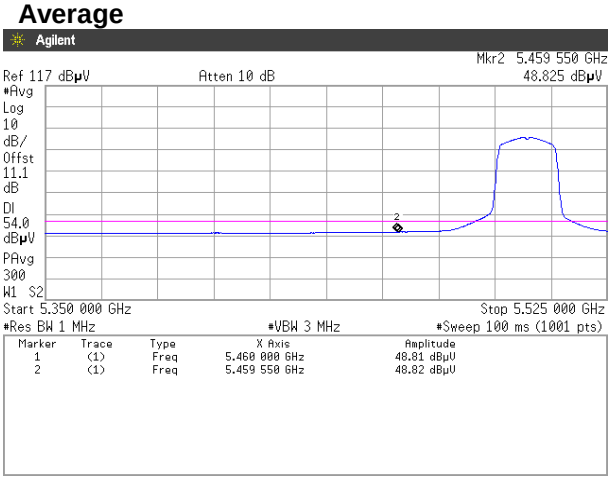


[IEEE802.11n (HT20)]

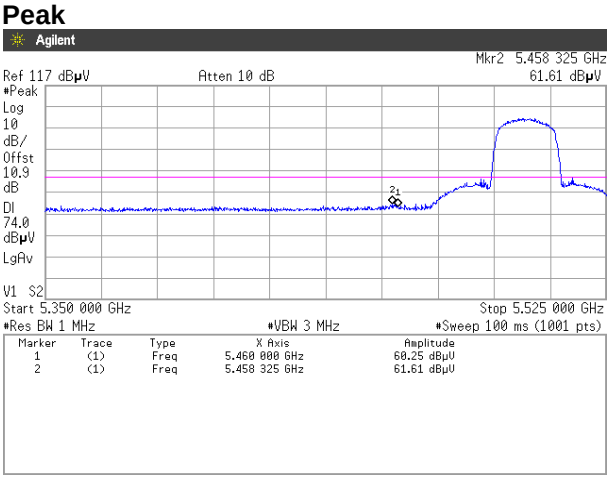
5.6 GHz Band, Channel Low
Horizontal
Peak



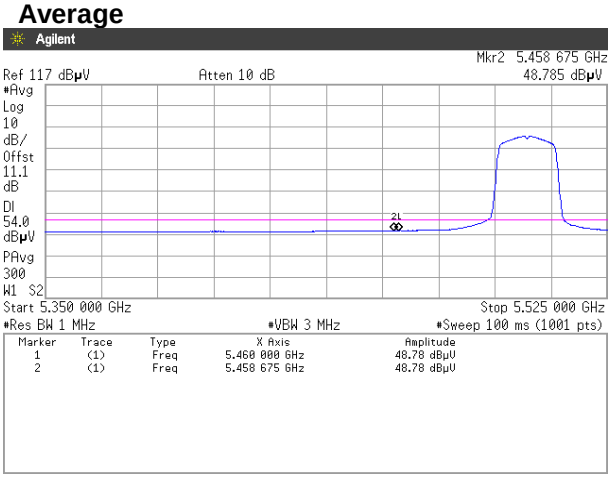
Average



Vertical
Peak

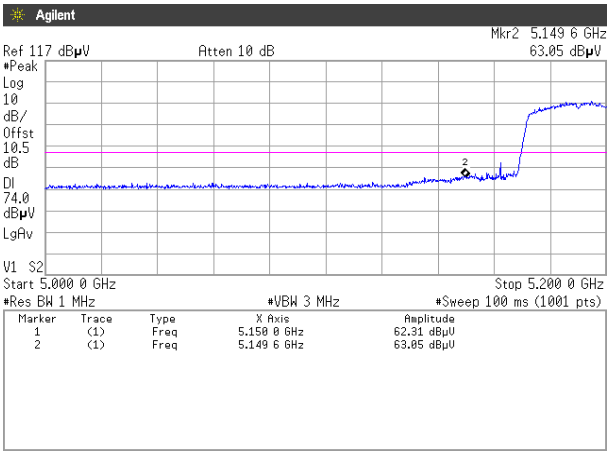


Average

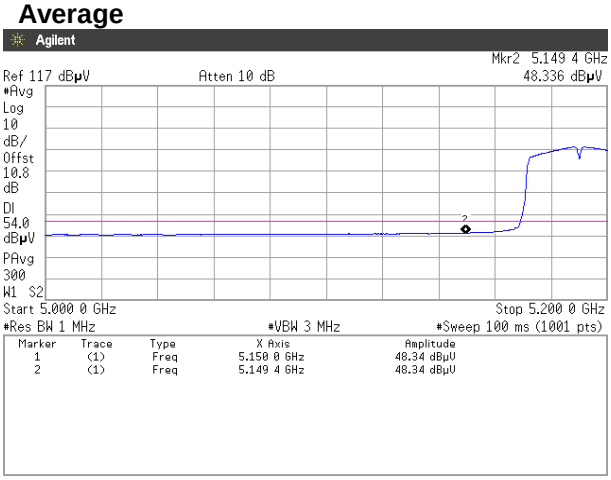


[IEEE802.11n (HT40)]

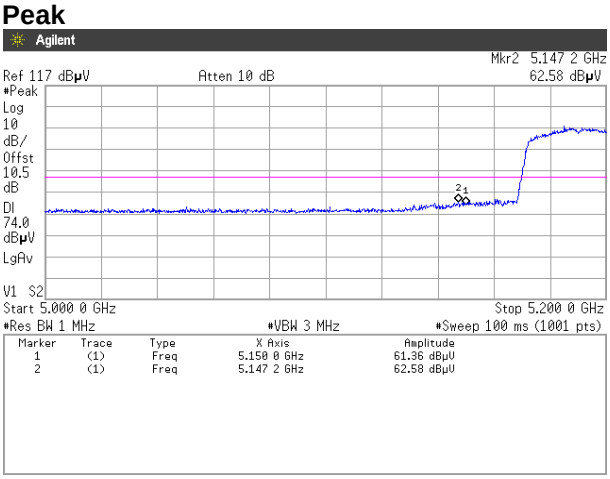
5.2 GHz Band, Channel Low
Horizontal
Peak



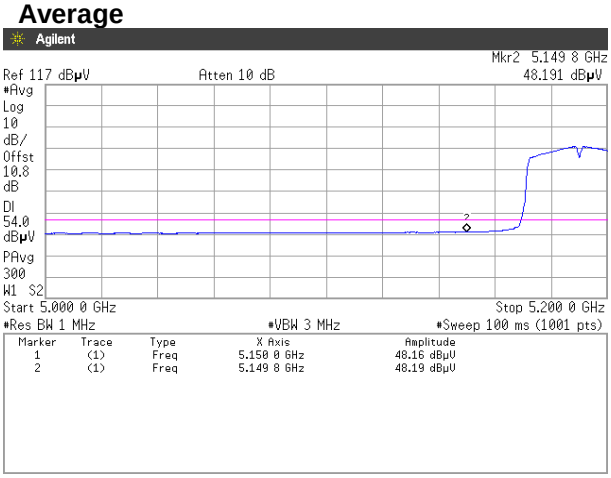
Average



Vertical
Peak

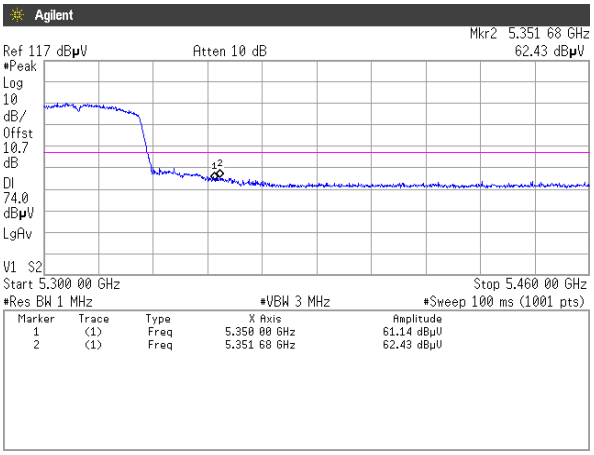


Average

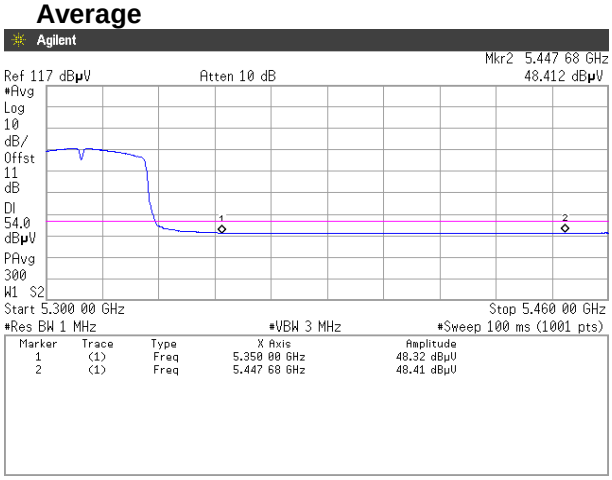


[IEEE802.11n (HT40)]

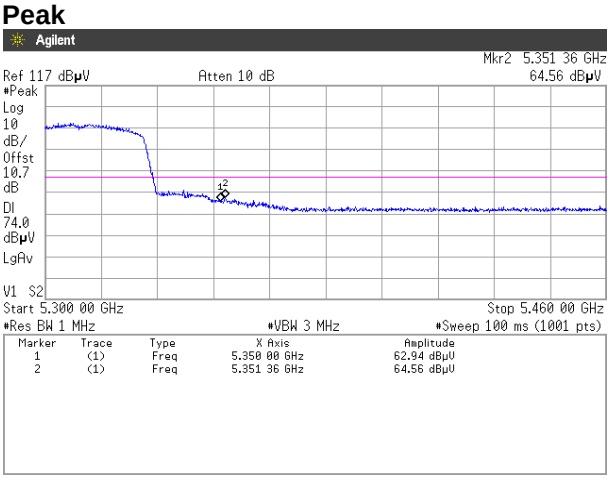
5.3 GHz Band, Channel High
Horizontal
Peak



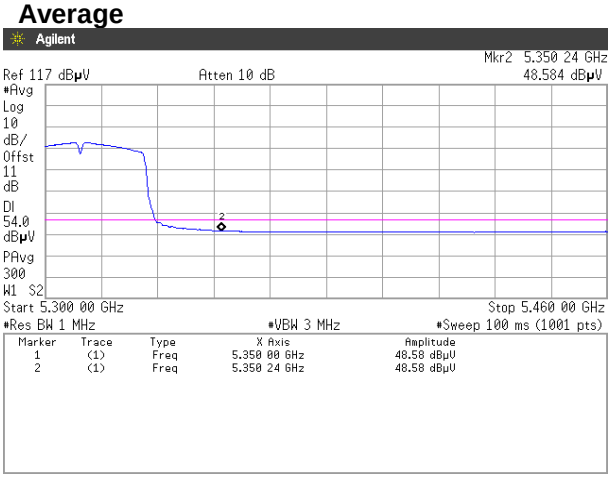
Average



Vertical
Peak

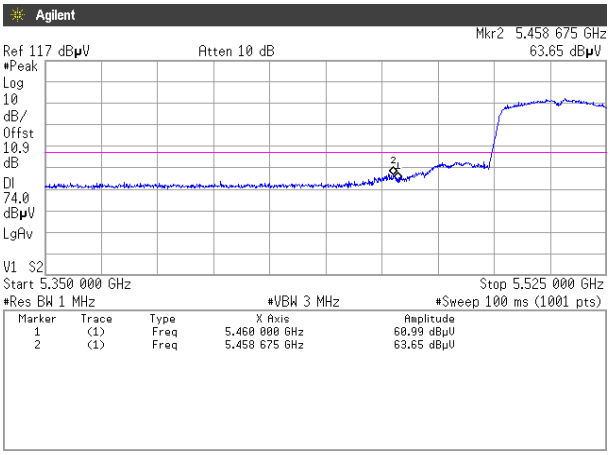


Average

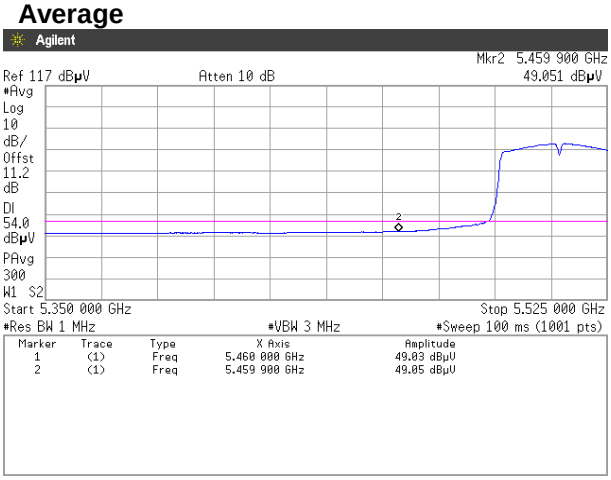


[IEEE802.11n (HT40)]

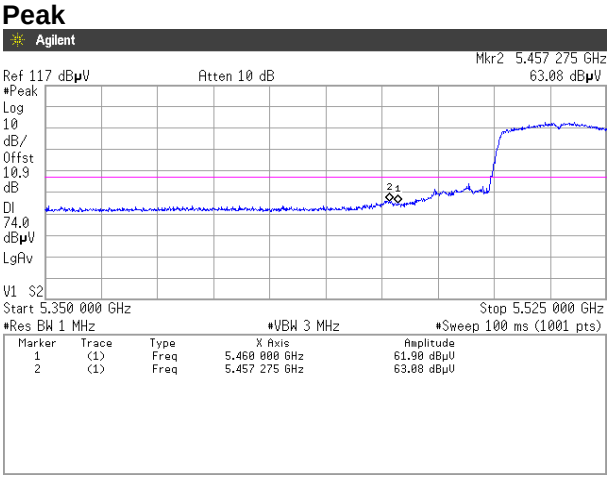
5.6 GHz Band, Channel Low
Horizontal
Peak



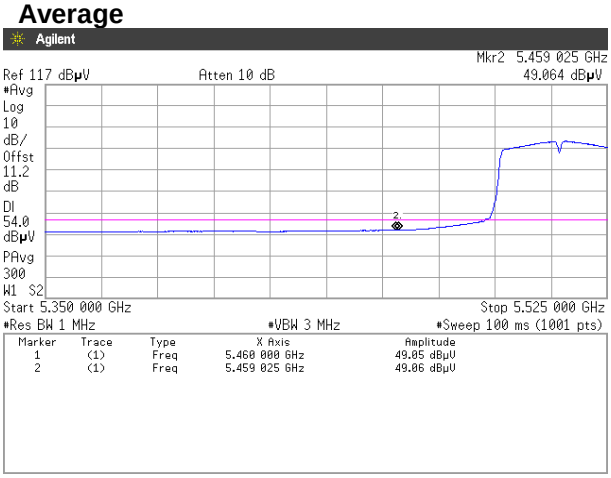
Average



Vertical
Peak

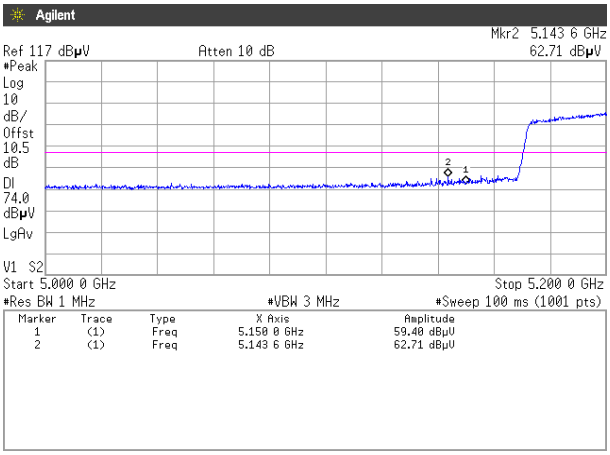


Average

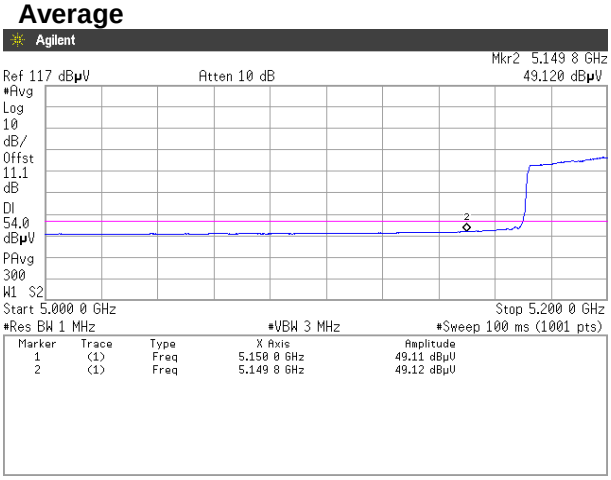


[IEEE802.11ac (VHT80)]

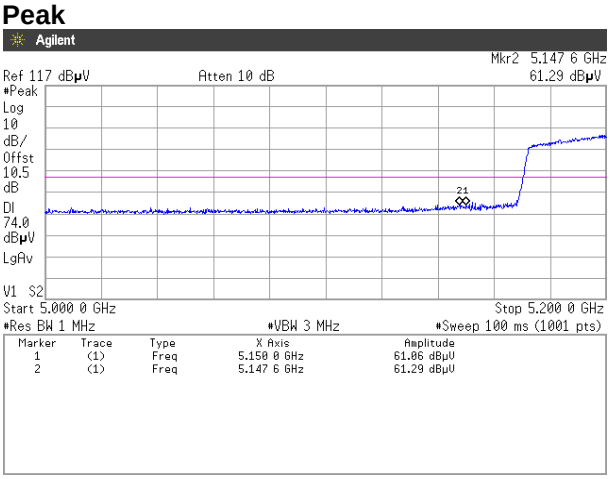
5.2 GHz Band, Channel Low
Horizontal
Peak



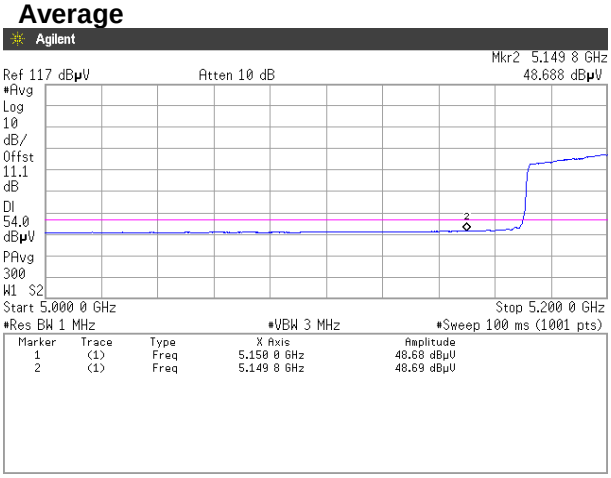
Average



Vertical
Peak

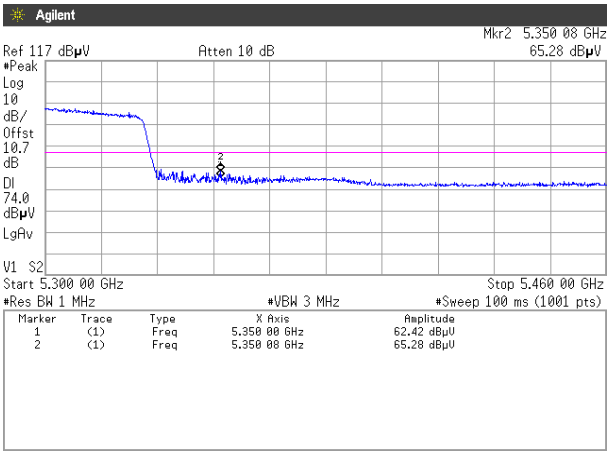


Average

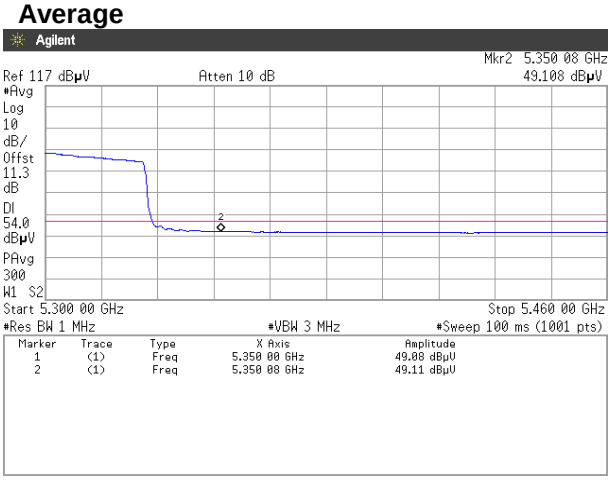


[IEEE802.11ac (VHT80)]

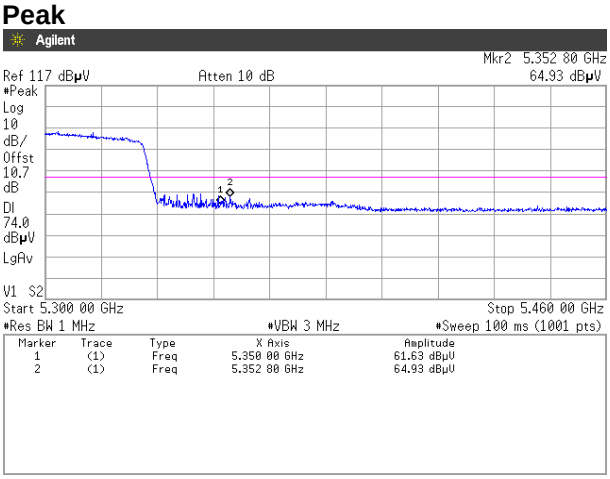
5.3 GHz Band, Channel High
Horizontal
Peak



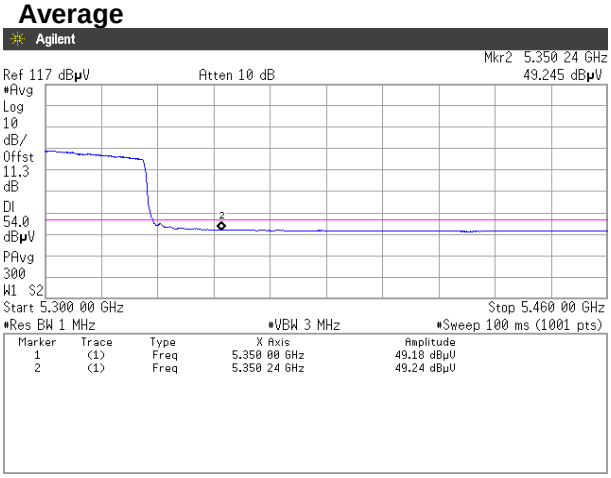
Average



Vertical
Peak

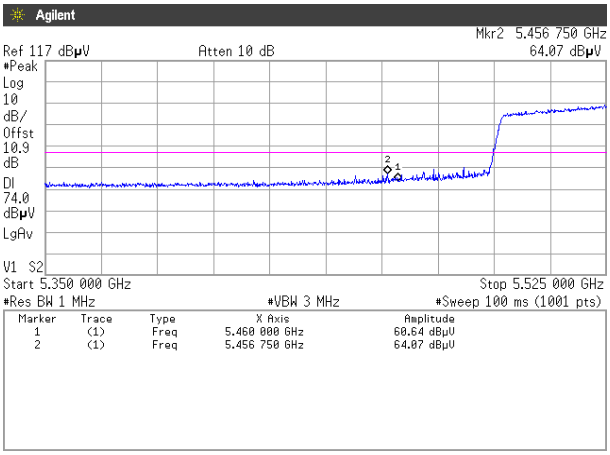


Average

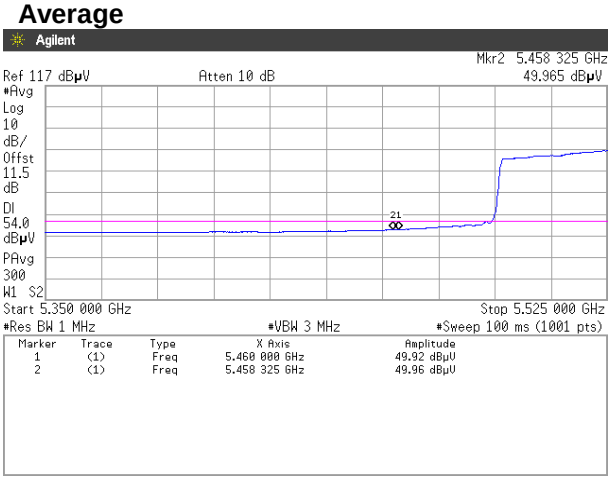


[IEEE802.11ac (VHT80)]

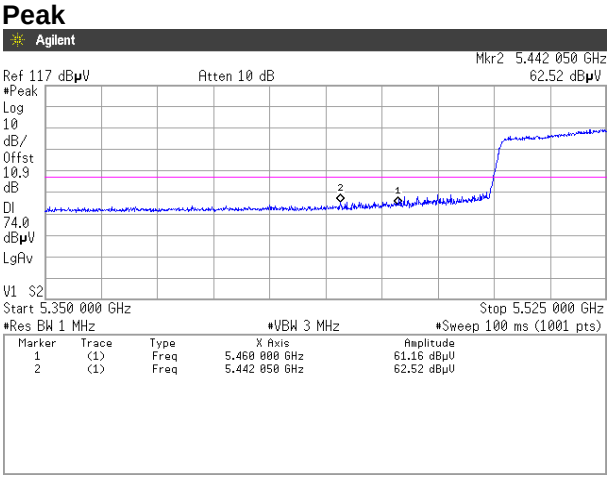
5.6 GHz Band, Channel Low
Horizontal
Peak



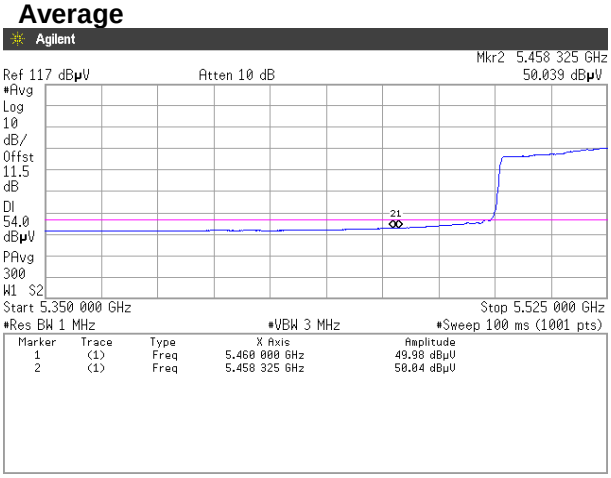
Average



Vertical
Peak



Average

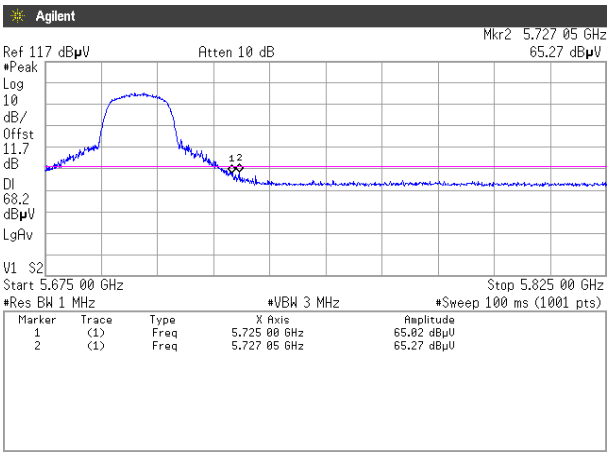


Japan

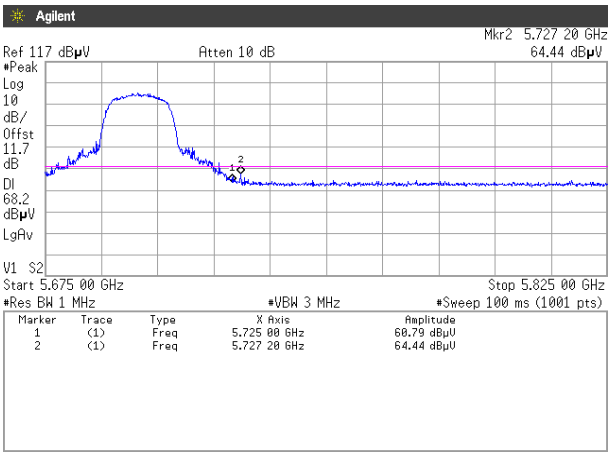
4.1.4.2 Non-Restricted Bandedge

[IEEE802.11a]

5.6 GHz Band, Channel High
Peak
Horizontal

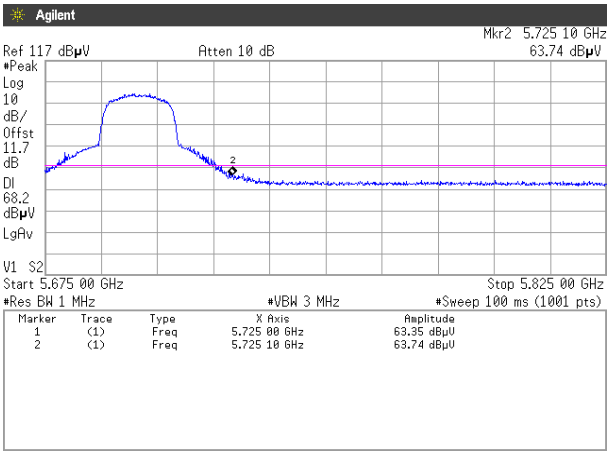


Vertical

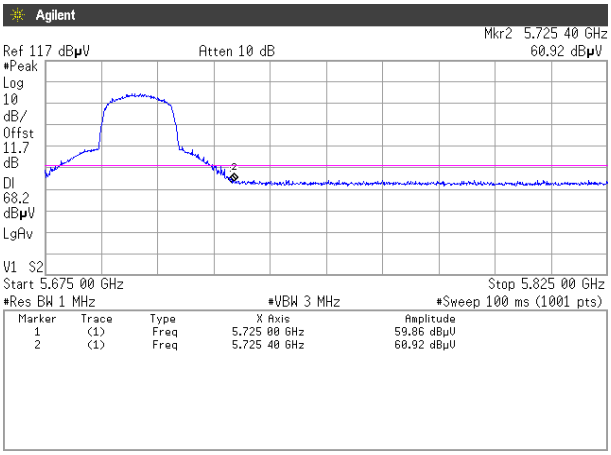


[IEEE802.11n (HT20)]

5.6GHz Band, Channel High
Peak
Horizontal

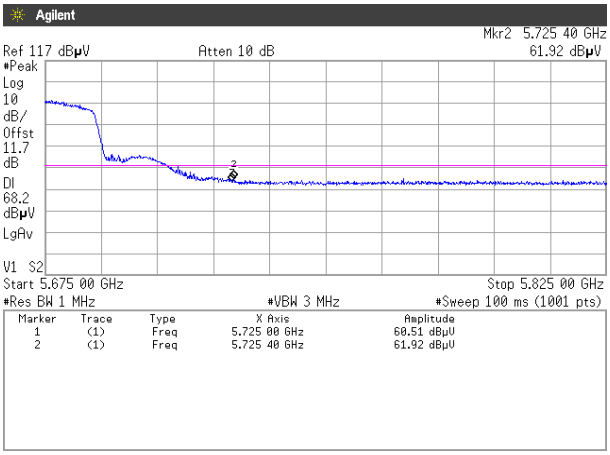


Vertical

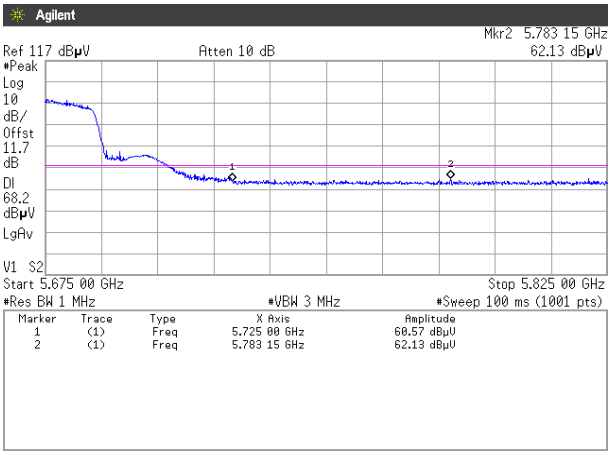


[IEEE802.11n (HT40)]

5.6GHz Band, Channel High
Peak
Horizontal

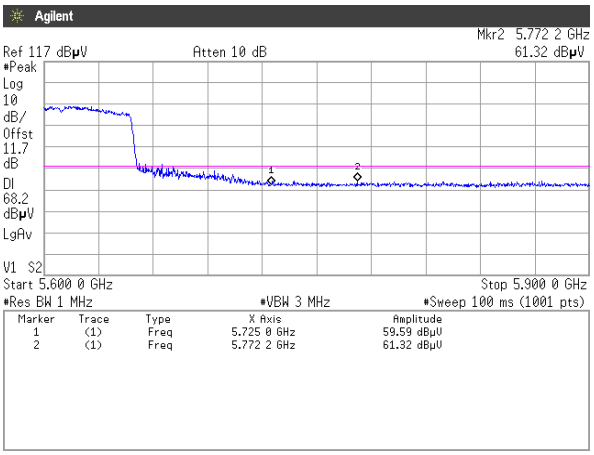


Vertical

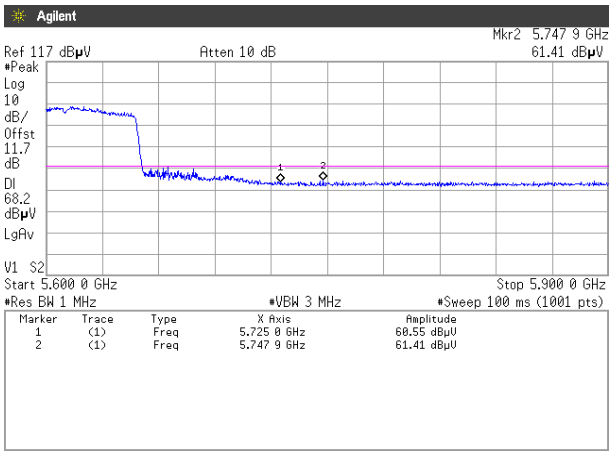


[IEEE802.11ac (VHT80)]

5.6GHz Band, Channel High
Peak
Horizontal



Vertical



Japan

4.1.4.3 Radiated Emissions

Date	:	2~3-June-2020			
Temperature	:	21.9 [˚C]			
Humidity	:	50.6 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino
Date	:	3~4-June-2020			
Temperature	:	22.1 [˚C]			
Humidity	:	51.9 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino
Date	:	4~5-June-2020			
Temperature	:	22.2 [˚C]			
Humidity	:	52.8 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino
Date	:	5~6-June-2020			
Temperature	:	23.9 [˚C]			
Humidity	:	55.5 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino
Date	:	8~9-June-2020			
Temperature	:	23.6 [˚C]			
Humidity	:	42.2 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino
Date	:	9-June-2020			
Temperature	:	21.4 [˚C]			
Humidity	:	43.3 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Kazunori Saito
Date	:	10-June-2020			
Temperature	:	20.7 [˚C]			
Humidity	:	51.9 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Kazunori Saito
Date	:	11-June-2020			
Temperature	:	20.8 [˚C]			
Humidity	:	59.2 [%]	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)
802.11a	36	5180	10360.00	H	PK	46.0	10.6		56.6	68.2	11.6
	40	5200	10400.00	H	PK	45.2	10.7		55.9	68.2	12.3
	48	5240	10480.00	H	PK	45.6	10.9		56.5	68.2	11.7

(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)
802.11a	52	5260	10520.00	H	PK	45.1	10.9		56.0	68.2	12.2
	56	5280	10560.00	H	PK	45.3	11.0		56.3	68.2	11.9
	64	5320	10640.00	H	PK	46.1	11.2		57.3	74.0	16.7
			10640.00	H	AV	33.6	11.2	0.141	44.9	54.0	9.1

(5.6 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)
802.11a	100	5500	5465.70	H	PK	48.6	11.3		59.9	68.2	8.3
			5465.90	V	PK	48.3	11.3		59.6	68.2	8.6
			11000.00	H	PK	45.4	11.9		57.3	74.0	16.7
			11000.00	H	AV	32.9	11.9	0.141	44.9	54.0	9.1
	116	5580	11160.00	H	PK	45.5	12.0		57.5	74.0	16.5
			11160.00	H	AV	33.2	12.0	0.141	45.3	54.0	8.7
	140	5700	11400.00	H	PK	45.6	12.1		57.7	74.0	16.3
			11400.00	H	AV	34.9	12.1	0.141	47.1	54.0	6.9

Note:
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.

[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 (dBµV/m)	Margin (dB)
802.11n (20MHz)	36	5180	10360.00	H	PK	45.5	10.6		56.1	68.2	12.1
	40	5200	10400.00	H	PK	44.5	10.7		55.2	68.2	13.0
	48	5240	10480.00	H	PK	45.0	10.9		55.9	68.2	12.3

(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)
802.11n (20MHz)	52	5260	10520.00	H	PK	45.3	10.9		56.2	68.2	12.0
	56	5280	10560.00	H	PK	45.4	11.0		56.4	68.2	11.8
	64	5320	10640.00	H	PK	45.6	11.2		56.8	74.0	17.2
			10640.00	H	AV	33.5	11.2	0.152	44.9	54.0	9.1

(5.6 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)
802.11n (20MHz)	100	5500	5467.00	H	PK	49.8	11.3		61.1	68.2	7.1
			5463.00	V	PK	50.1	11.3		61.4	68.2	6.8
			11000.00	H	PK	50.9	11.9		62.8	74.0	11.2
			11000.00	H	AV	35.8	11.9	0.152	47.9	54.0	6.1
	116	5580	11160.00	H	PK	45.5	12.0		57.5	74.0	16.5
			11160.00	H	AV	34.8	12.0	0.152	47.0	54.0	7.0
	140	5700	11400.00	H	PK	46.1	12.1		58.2	74.0	15.8
			11400.00	H	AV	33.4	12.1	0.152	45.7	54.0	8.3

Note:
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.

[IEEE802.11n (HT40)]

(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)
802.11n (40MHz)	38	5190	10380.00	H	PK	46.1	10.7		56.8	68.2	11.4
	46	5230	10460.00	H	PK	45.1	10.8		55.9	68.2	12.3

(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)
802.11n (40MHz)	54	5270	10540.00	H	PK	45.2	11.0		56.2	68.2	12.0
	62	5310	10620.00	H	PK	46.5	11.2		57.7	74.0	16.3
			10620.00	H	AV	33.4	11.2	0.291	44.9	54.0	9.1

(5.6 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)
802.11n (40MHz)	102	5510	5468.82	H	PK	52.7	11.3		64.0	68.2	4.2
			5462.30	V	PK	50.5	11.3		61.8	68.2	6.4
			11020.00	H	PK	55.3	11.9		67.2	74.0	6.8
			11020.00	H	AV	33.7	11.9	0.297	45.9	54.0	8.1
	110	5550	11100.00	H	PK	45.2	11.9		57.1	74.0	16.9
			11100.00	H	AV	33.5	11.9	0.297	45.7	54.0	8.3
	134	5670	11340.00	H	PK	46.2	12.0		58.2	74.0	15.8
			11340.00	H	AV	33.6	12.0	0.297	45.9	54.0	8.1

Note:
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.

[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 (dBµV/m)	Limit (dBµV/m)	Margin (dB)
802.11ac (80MHz)	42	5210	10420.00	H	PK	44.7	10.7		55.4	68.2	12.8

(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	H	PK	45.1	11.0		56.1	68.2	12.1

(5.6 GHz Band)

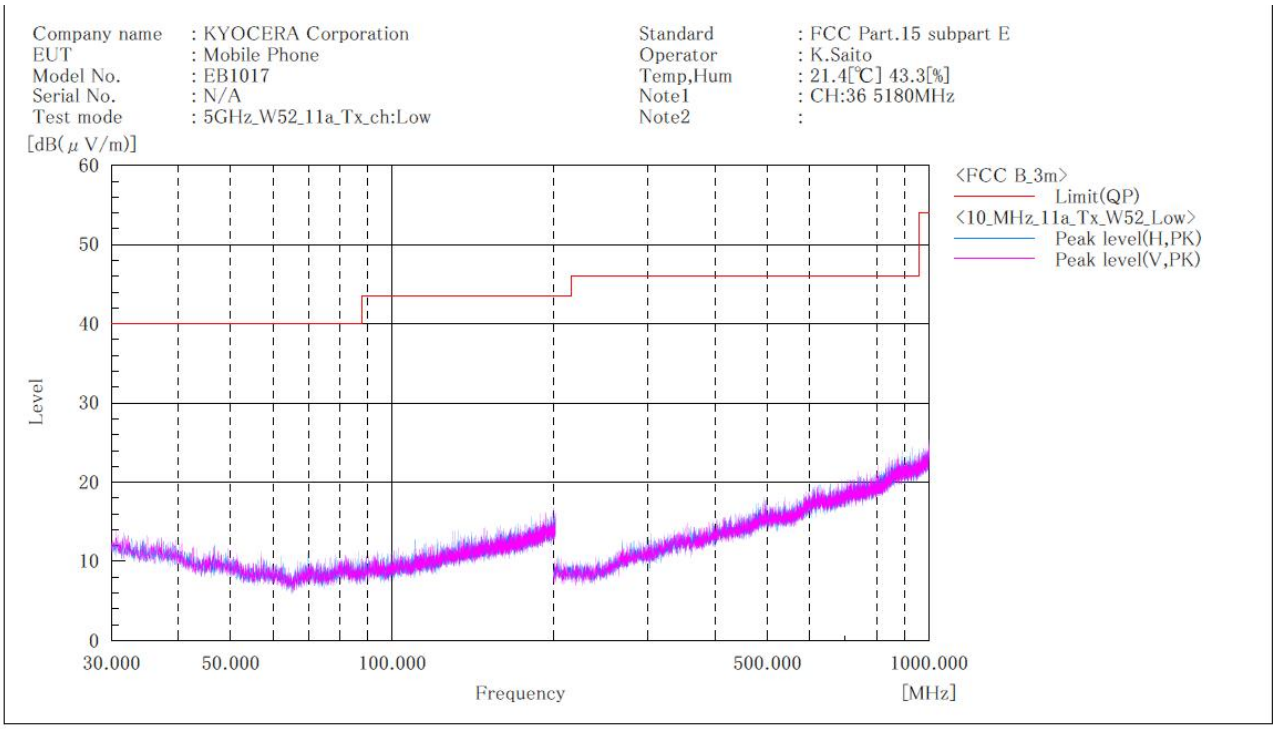
Mode	Channel	Frequency (MHz)	Frequency (MHz)	ANT H/V	Detector PK/AV	Reading (dBµV)	C.F (dB)	DCF (dB)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
802.11ac (80MHz)	106	5530	5463.36	H	PK	51.0	11.3		62.3	68.2	5.9
			5467.61	V	PK	50.6	11.3		61.9	68.2	6.3
			11060.00	H	PK	45.7	11.9		57.6	74.0	16.4
			11060.00	H	AV	33.4	11.9	0.561	45.9	54.0	8.1
	122	5610	11220.00	H	PK	45.3	12.0		57.3	74.0	16.7
			11220.00	H	AV	33.5	12.0	0.570	46.1	54.0	7.9

Note:
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]
W52 / Channel Low
BELOW 1GHz



Final Result

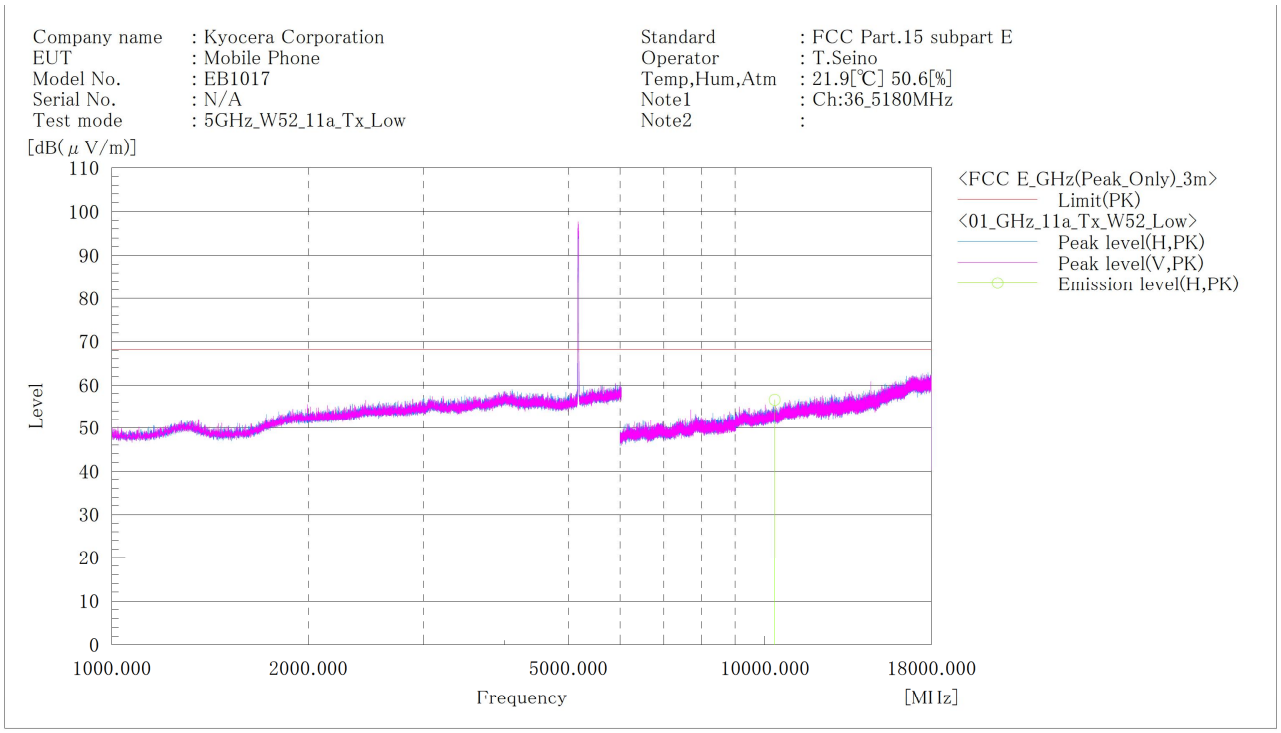
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W52 / Channel Low
ABOVE 1GHz

Company name	: Kyocera Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 21.9[℃] 50.6[%]
Serial No.	: N/A	Note1	: Ch:36_5180MHz
Test mode	: 5GHz_W52_11a_Tx_Low	Note2	:



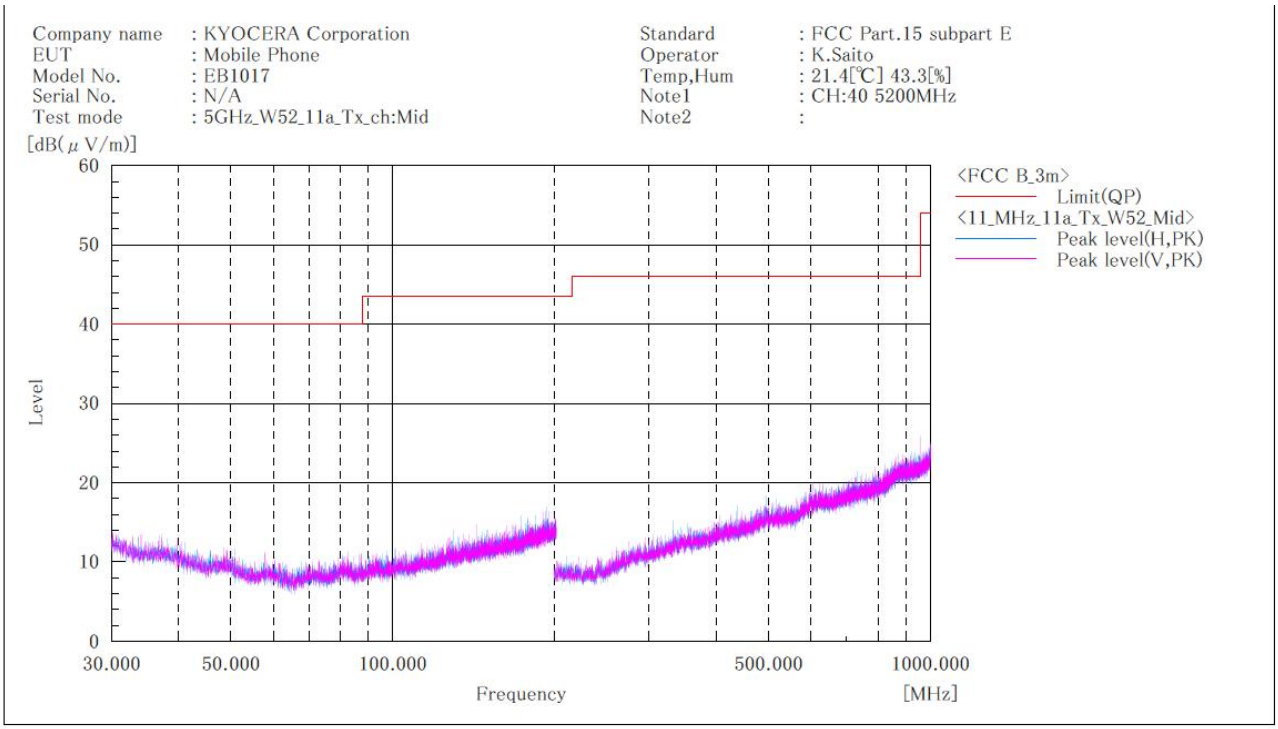
Final Result

No.	Frequency	(P)	Reading PK	c.f	Result PK	Limit PK	Margin PK	Height	Angle
	[MHz]		[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[cm]	[°]
1	10360.000	H	46.0	10.6	56.6	68.2	11.6	178.0	235.0

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]
W52 / Channel Middle
BELOW 1GHz



Final Result

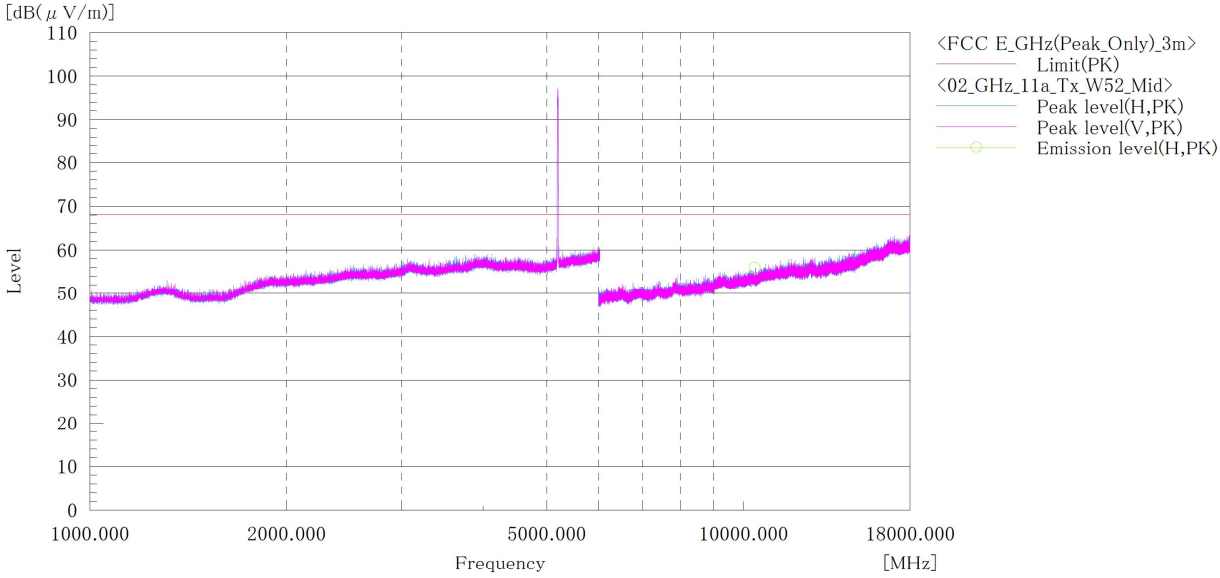
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W52 / Channel Middle
ABOVE 1GHz

Company name	: Kyocera Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 21.9[℃] 50.6[%]
Serial No.	: N/A	Note1	: Ch:40_5200MHz
Test mode	: 5GHz_W52_11a_Tx_Mid	Note2	:



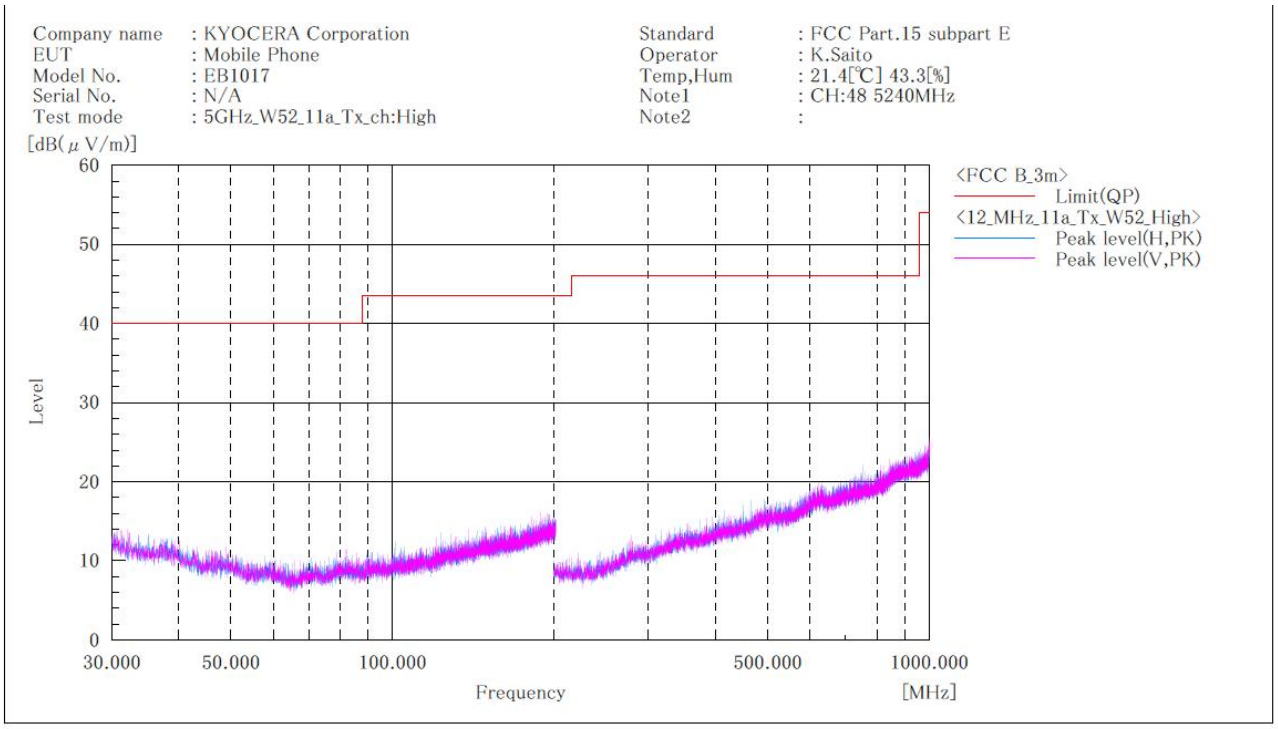
Final Result

No.	Frequency	(P)	Reading PK	c.f	Result PK	Limit PK	Margin PK	Height	Angle
	[MHz]		[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[cm]	[°]
1	10400.000	H	45.2	10.7	55.9	68.2	12.3	175.0	235.0

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]
W52 / Channel High
BELOW 1GHz



Final Result

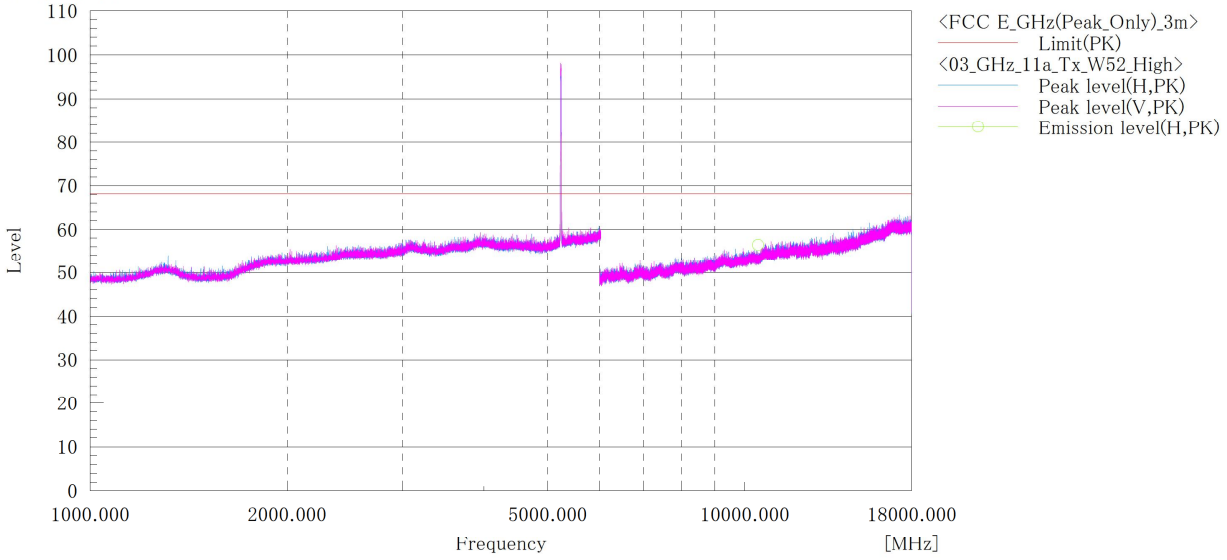
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W52 / Channel High
ABOVE 1GHz

Company name	: Kyocera Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 21.9[℃] 50.6[%]
Serial No.	: N/A	Note1	: Ch:48_5240MHz
Test mode	: 5GHz_W52_11a_Tx_High	Note2	:



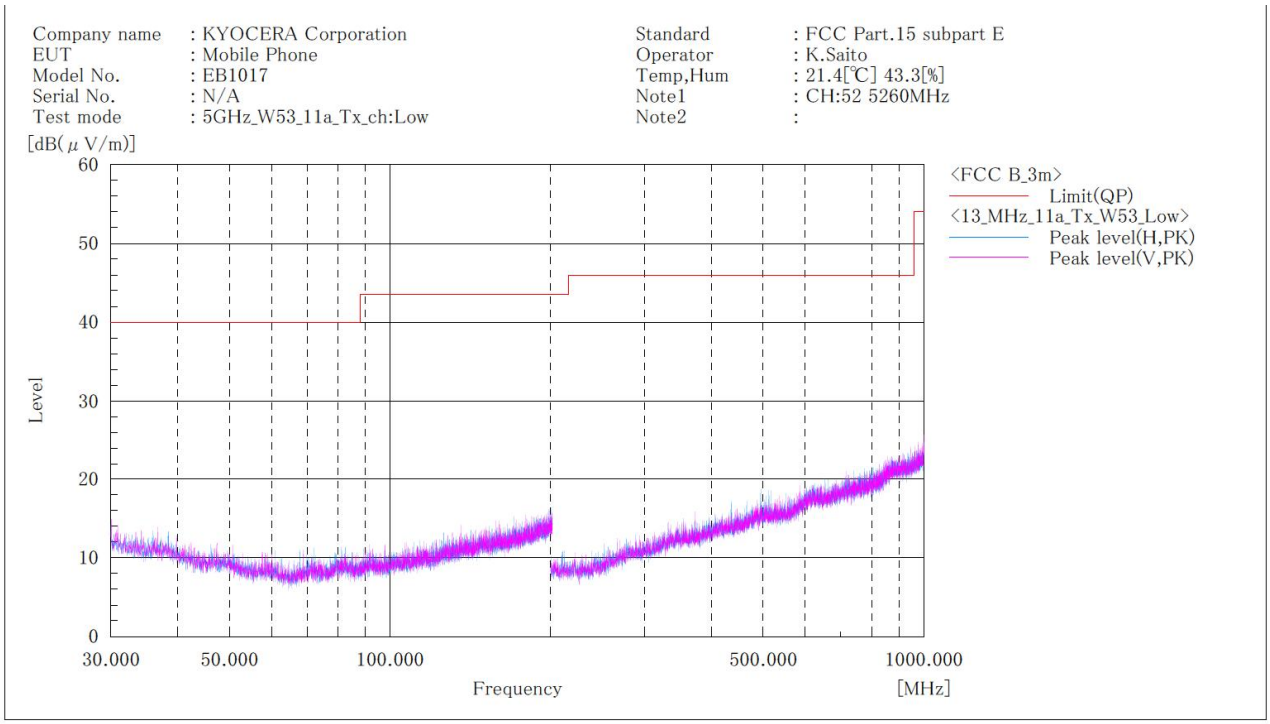
Final Result

No.	Frequency	(P)	Reading PK	c.f	Result PK	Limit PK	Margin PK	Height	Angle
	[MHz]		[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[cm]	[°]
1	10480.000	H	45.6	10.9	56.5	68.2	11.7	100.0	149.0

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 Low
BELOW 1GHz



Final Result

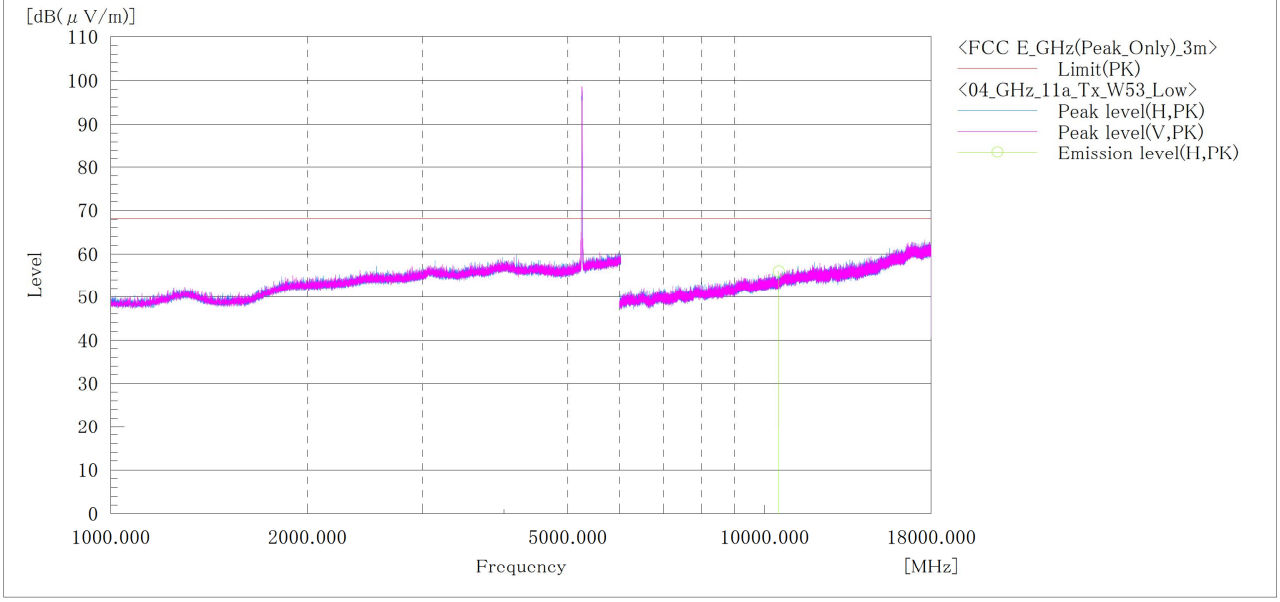
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W53 / Channel Low
ABOVE 1GHz

Company name	: Kyocera Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 21.9[℃] 50.6[%]
Serial No.	: N/A	Note1	: Ch:52_5260MHz
Test mode	: 5GHz_W53_11a_Tx_Low	Note2	:



Final Result

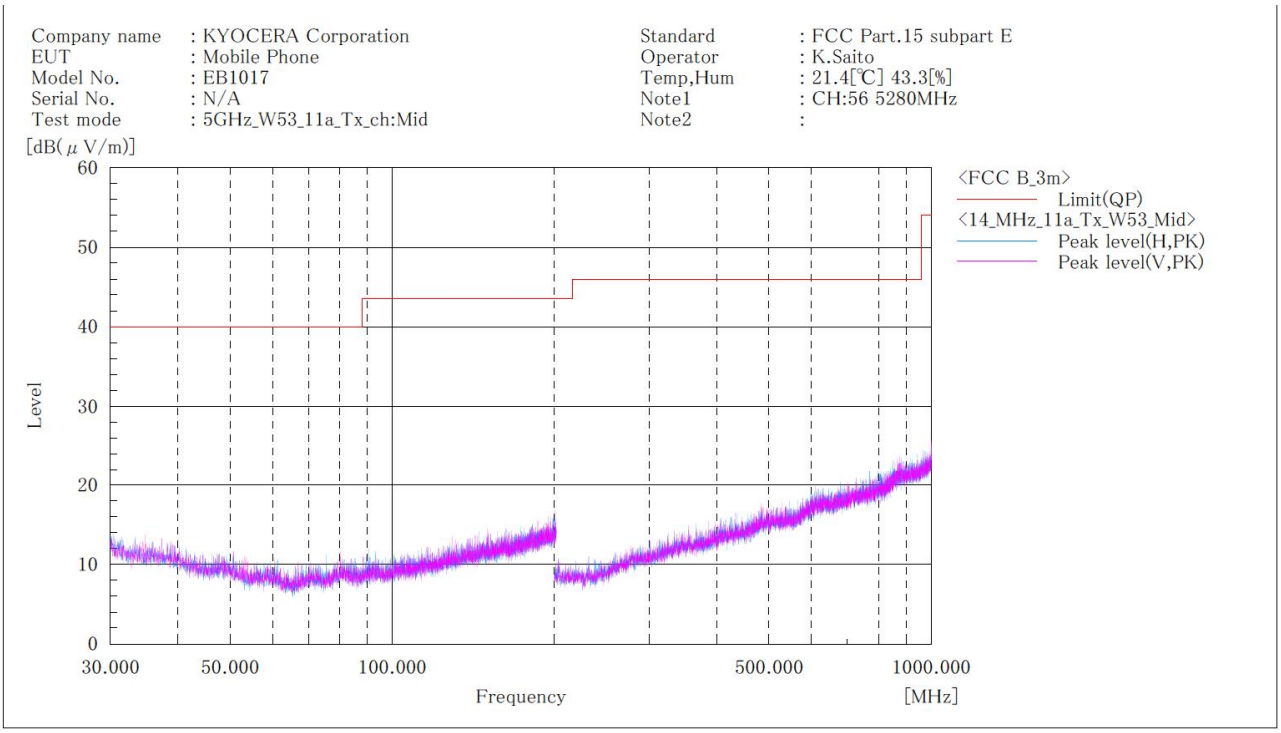
No.	Frequency	(P)	Reading PK	c.f	Result PK	Limit PK	Margin PK	Height	Angle
	[MHz]		[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[cm]	[°]
1	10520.000	H	45.1	10.9	56.0	68.2	12.2	100.0	272.0

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 Middle
BELOW 1GHz

Company name	: KYOCERA Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: K.Saito
Model No.	: EB1017	Temp,Hum	: 21.4[℃] 43.3[%]
Serial No.	: N/A	Note1	: CH:56 5280MHz
Test mode	: 5GHz_W53_11a_Tx_ch:Mid	Note2	:



Final Result

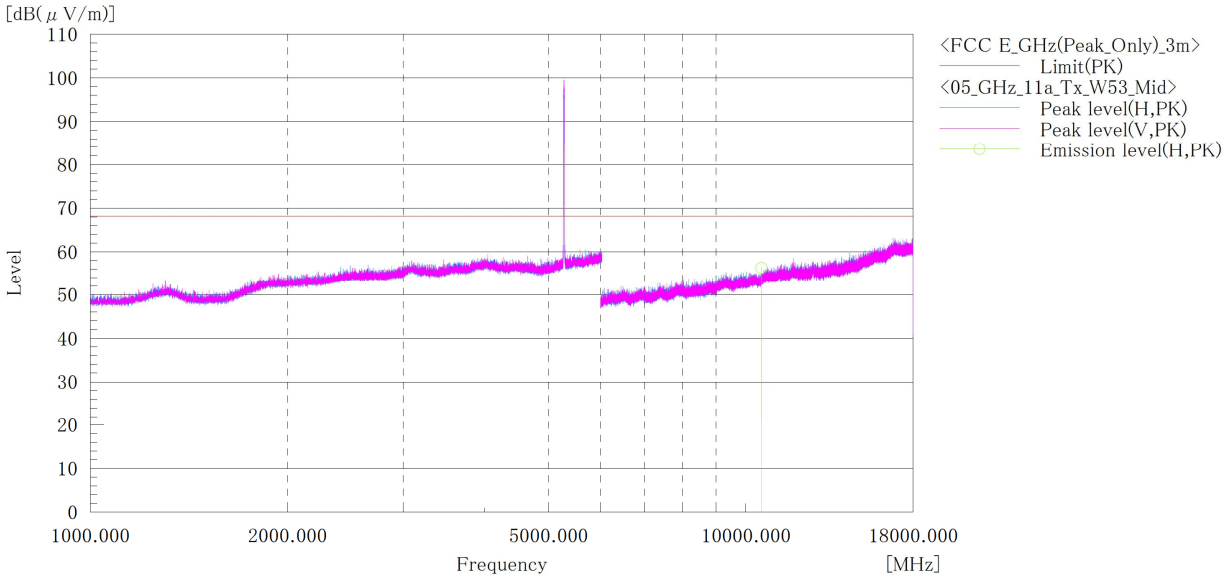
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W53 / Channel Middle
ABOVE 1GHz

Company name	: Kyocera Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 21.9[℃] 50.6[%]
Serial No.	: N/A	Note1	: Ch:56_5280MHz
Test mode	: 5GHz_W53_11a_Tx_Mid	Note2	:



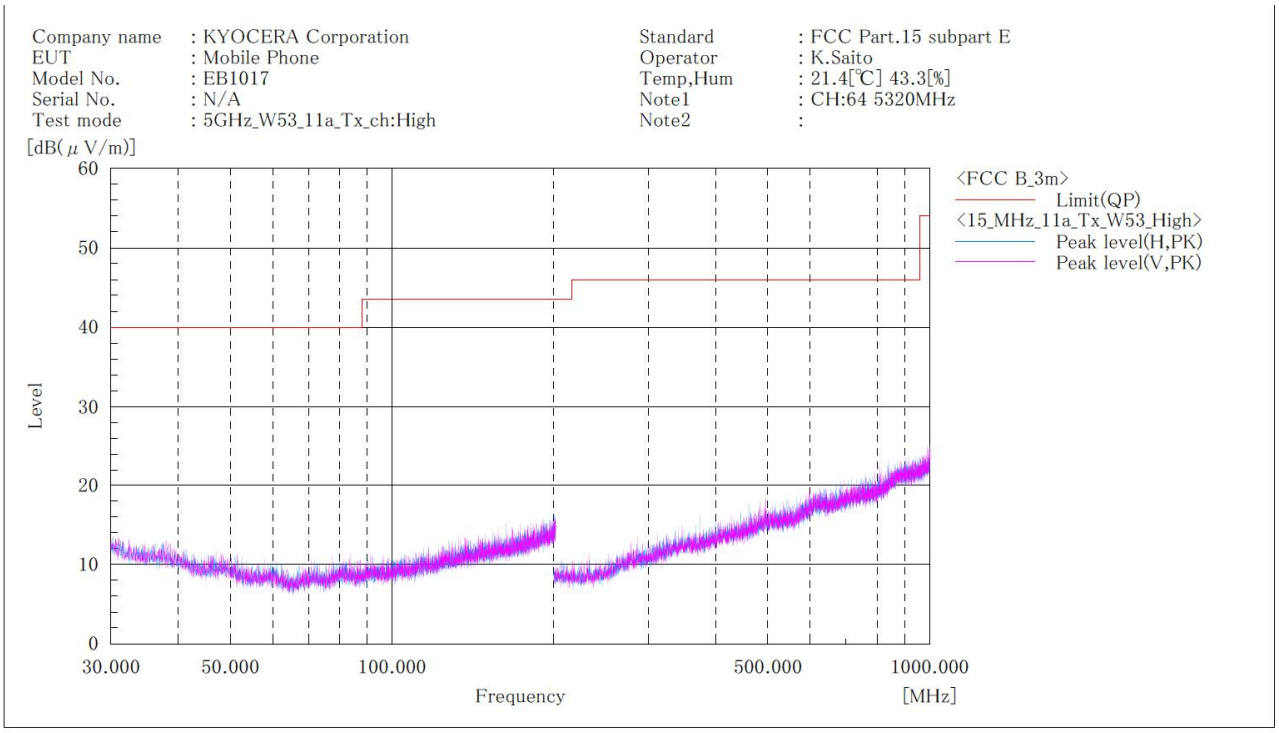
Final Result

No.	Frequency	(P)	Reading PK	c.f	Result PK	Limit PK	Margin PK	Height	Angle
	[MHz]		[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[cm]	[°]
1	10560.000	H	45.3	11.0	56.3	68.2	11.9	100.0	245.0

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

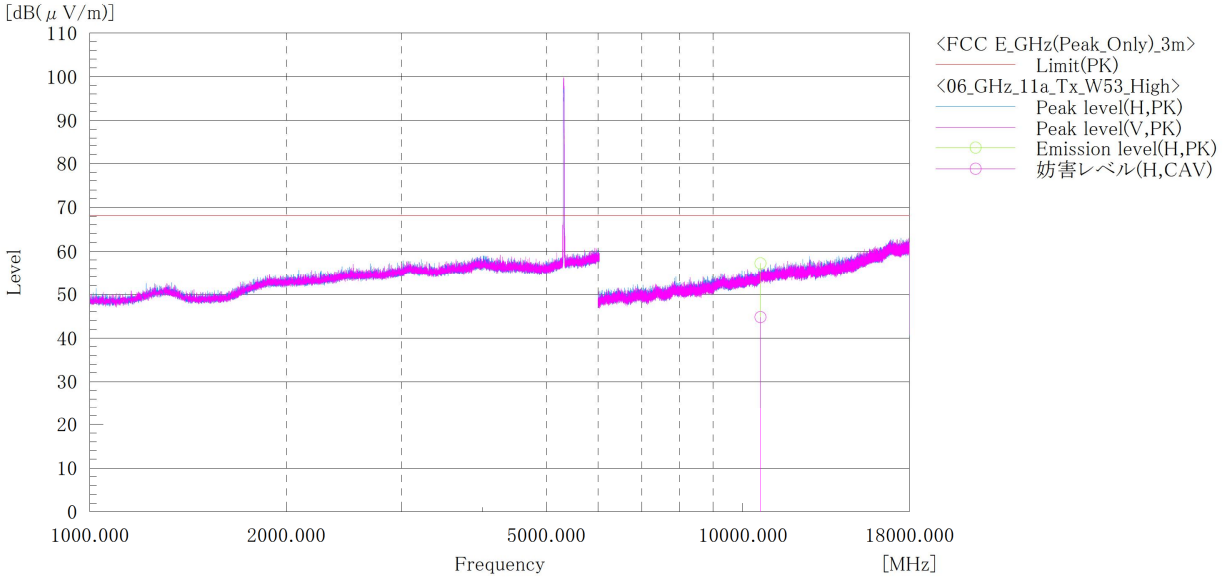
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W53 / Channel High
ABOVE 1GHz

Company name	: Kyocera Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 21.9[℃] 50.6[%]
Serial No.	: N/A	Note1	: Ch:64_5320MHz
Test mode	: 5GHz_W53_11a_Tx_High	Note2	:



Final Result

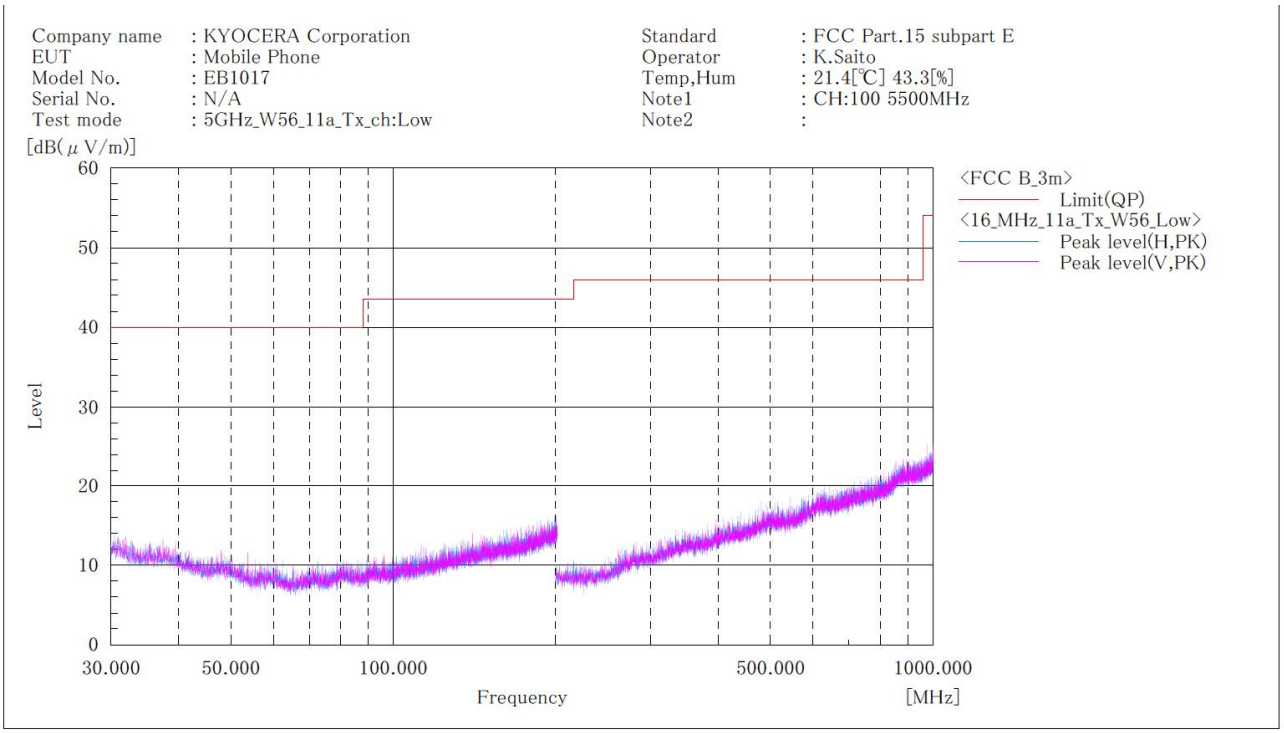
No.	Frequency	(P)	Reading PK	Reading CAV	c.f	Result PK	Result CAV	Limit PK	Margin PK	Margin CAV	Height	Angle
	[MHz]		[dB(μV)]	[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[dB]	[cm]	[°]
1	10640.000	H	46.1	33.6	11.2	57.3	44.8	74.0	16.7	9.2	170.0	224.0

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]
W56 / Channel Low
BELOW 1GHz

Company name	: KYOCERA Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: K.Saito
Model No.	: EB1017	Temp,Hum	: 21.4[℃] 43.3[%]
Serial No.	: N/A	Note1	: CH:100 5500MHz
Test mode	: 5GHz_W56_11a_Tx_ch:Low	Note2	:



Final Result

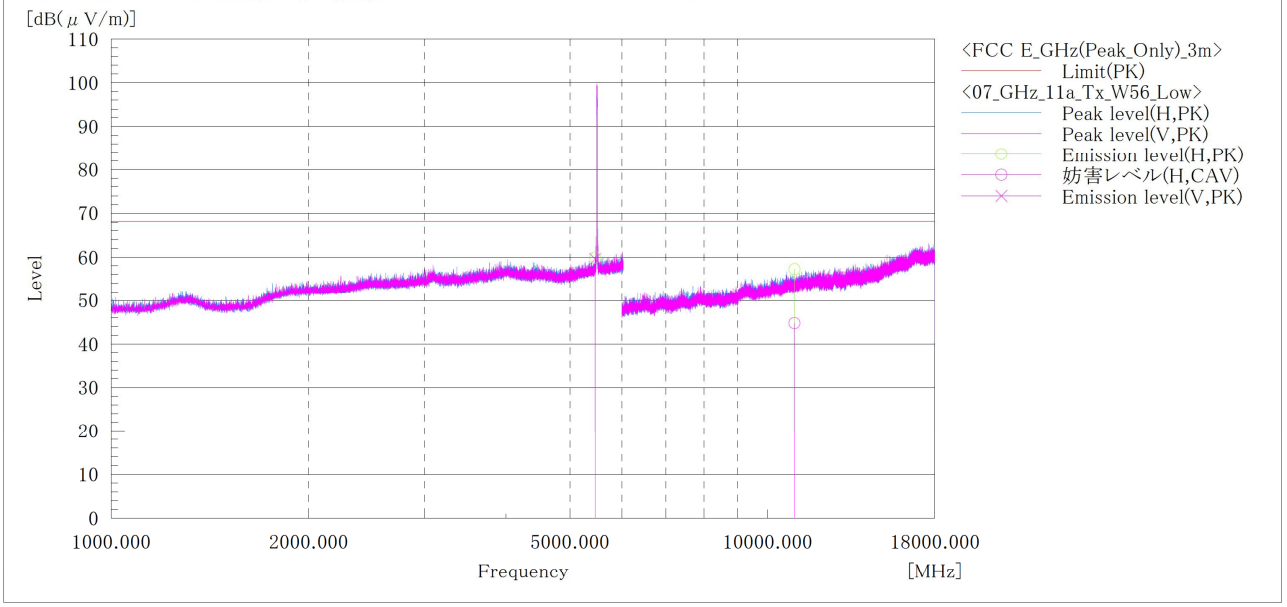
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W56 / Channel Low
ABOVE 1GHz

Company name	: KYOCERA Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 21.9[℃] 50.6[%]
Serial No.	: N/A	Note1	: Ch:100_5500MHz
Test mode	: 5GHz_W56_11a_Tx_Low	Note2	:



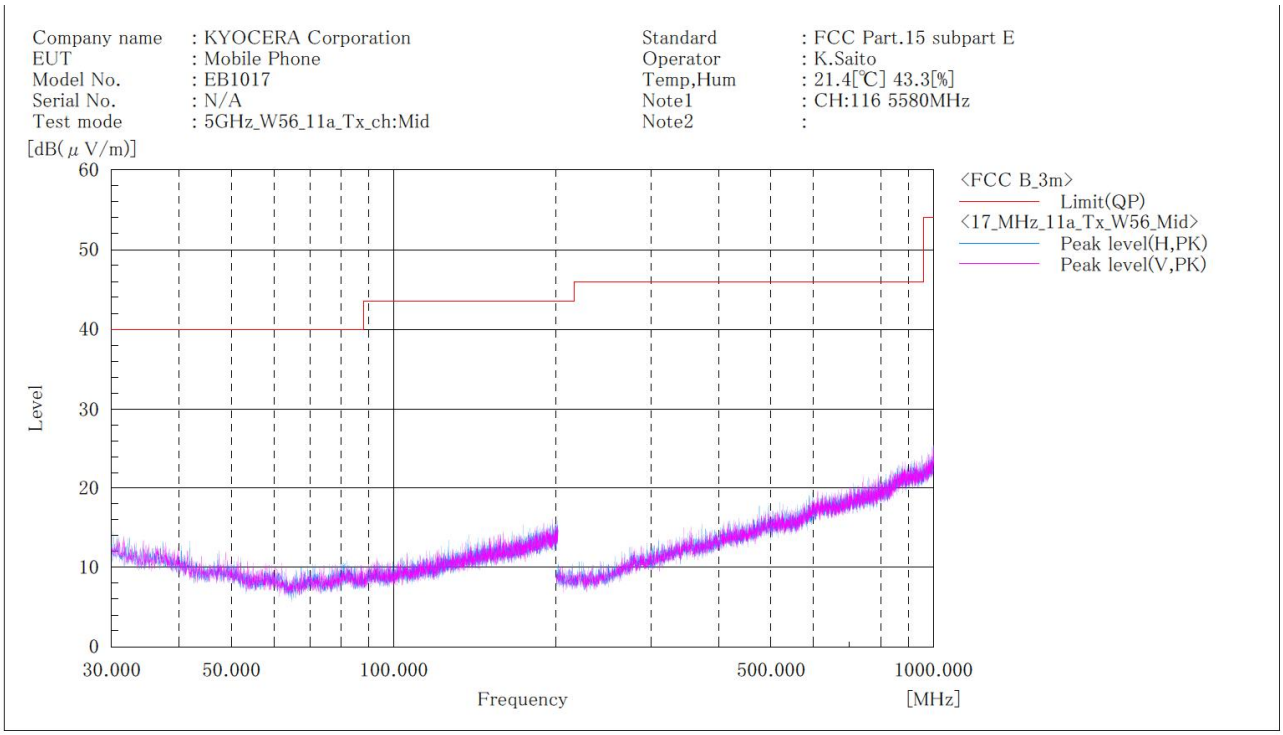
Final Result

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	5465.700	H	48.6	---------	11.3	59.9	---------	68.2	8.3	---------	130.0	207.0
2	5465.900	V	48.3	---------	11.3	59.6	---------	68.2	8.6	---------	100.0	77.0
3	11000.000	H	45.4	32.9	11.9	57.3	44.8	74.0	16.7	9.2	163.0	232.0

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]
W56 / Channel Middle
BELOW 1GHz



Final Result

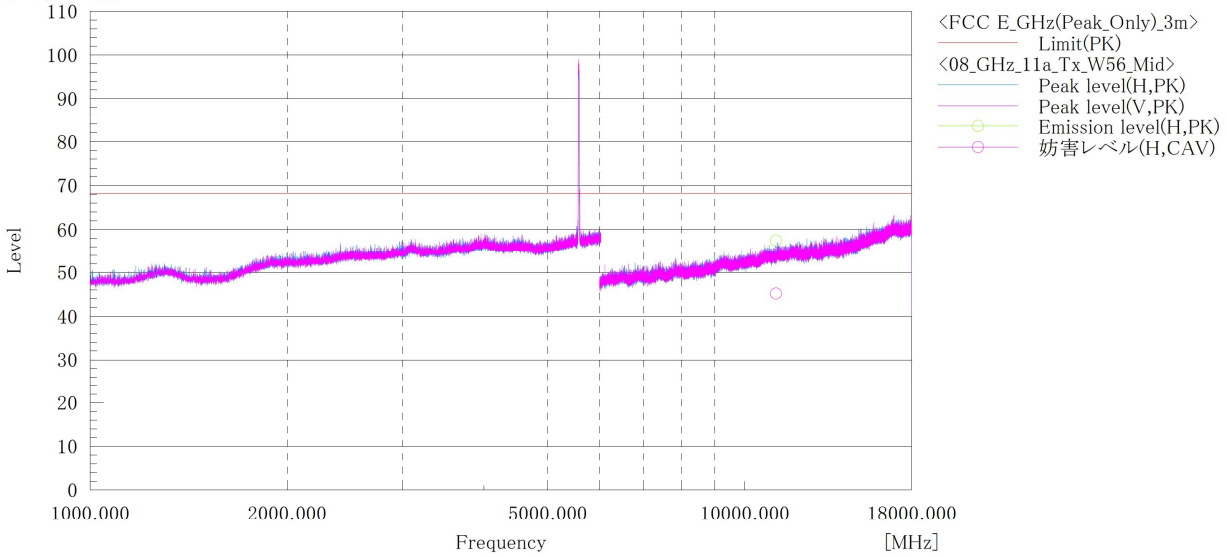
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W56 / Channel Middle
ABOVE 1GHz

Company name	: KYOCERA Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 21.9[℃] 50.6[%]
Serial No.	: N/A	Note1	: Ch:116_5580MHz
Test mode	: 5GHz_W56_11a_Tx_Mid	Note2	:



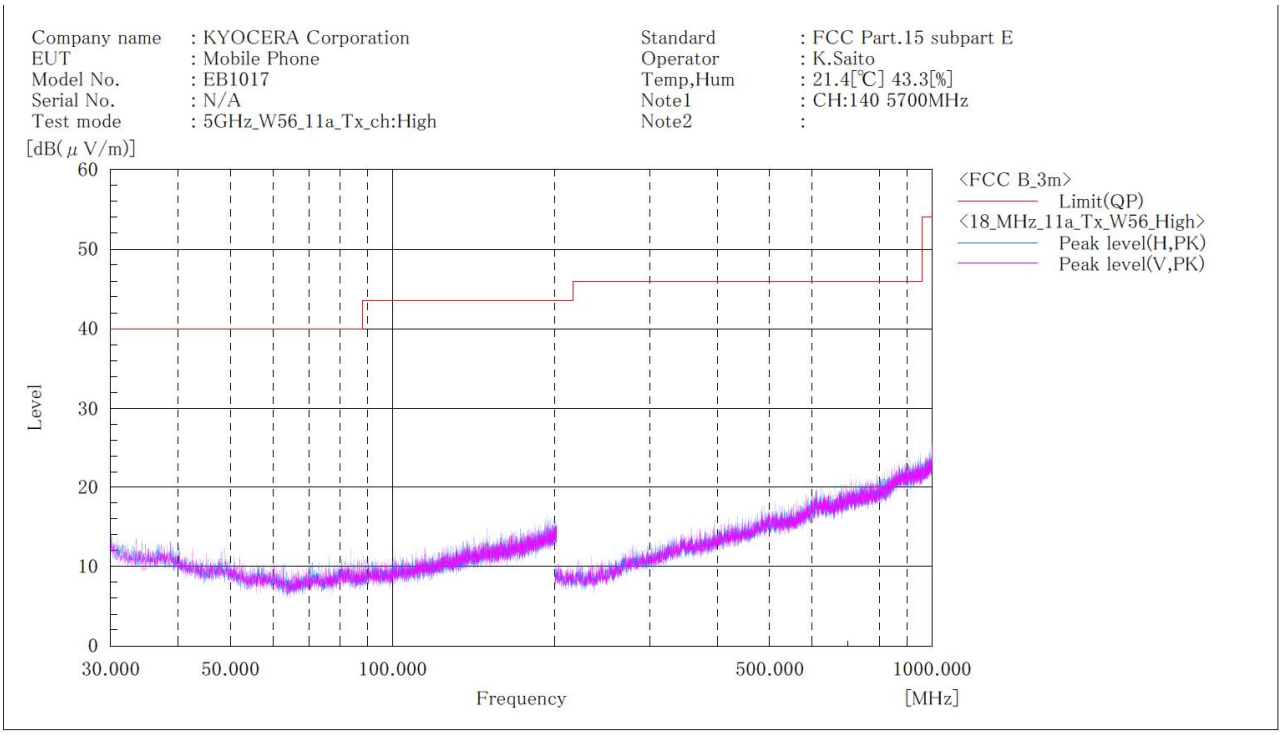
Final Result

No.	Frequency	(P)	Reading PK	Reading CAV	c.f	Result PK	Result CAV	Limit PK	Margin PK	Margin CAV	Height	Angle
	[MHz]		[dB(μV)]	[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[dB]	[cm]	[°]
1	11160.000	H	45.5	33.2	12.0	57.5	45.2	74.0	16.5	8.8	159.0	227.0

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]
W56 / Channel High
BELOW 1GHz



Final Result

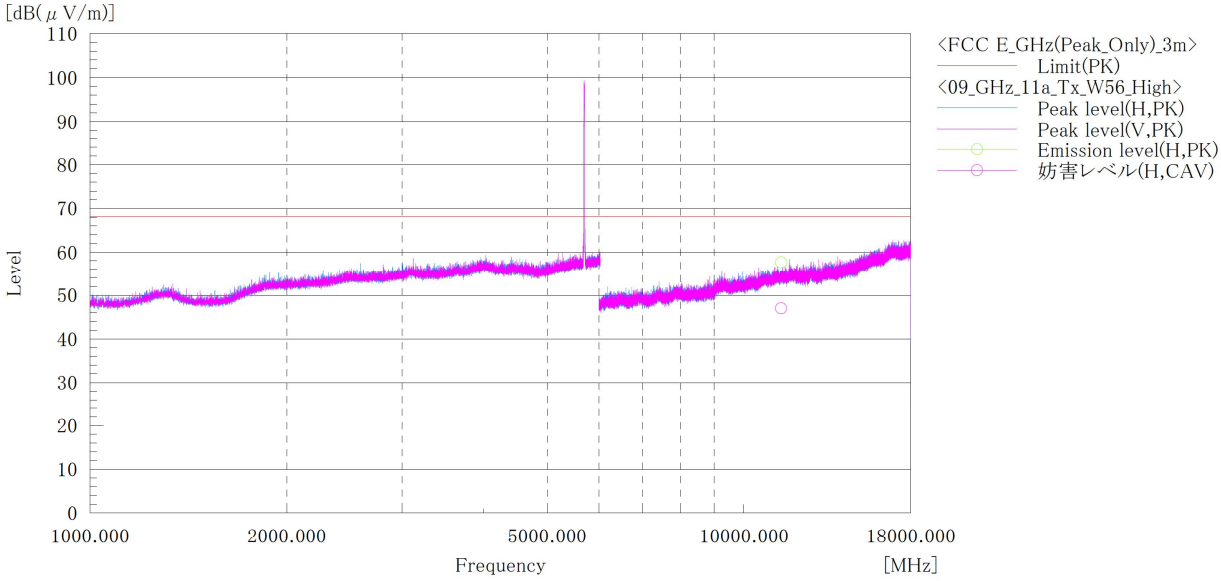
No.	Frequency [MHz]	(P)	c.f [dB(1/m)]	Height [cm]	Angle [°]	Remark

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]
W56 / Channel High
ABOVE 1GHz

Company name	: KYOCERA Corporation	Standard	: FCC Part.15 subpart E
EUT	: Mobile Phone	Operator	: T.Seino
Model No.	: EB1017	Temp,Hum,Atm	: 20.8[℃] 55.8[%]
Serial No.	: N/A	Note1	: Ch:140_5700MHz
Test mode	: 5GHz_W56_11a_Tx_High	Note2	:



Final Result

No.	Frequency	(P)	Reading PK	Reading CAV	c.f	Result PK	Result CAV	Limit PK	Margin PK	Margin CAV	Height	Angle
	[MHz]		[dB(μV)]	[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[dB]	[cm]	[°]
1	11400.000	H	45.6	34.9	12.1	57.7	47.0	74.0	16.3	7.0	157.0	231.0

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.