RADIO TEST REPORT

(for 5 GHz WLAN)

Project No.	:	JB-Z0967-C
Client's Control No.	:	AF21039
Client	:	Sony Corporation
Client's Address	:	1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan
Product Name	:	Digital Media Player
Model No.	:	YY1299B
FCC ID	:	AK8YY1299B
Test Standard	:	47 CFR Part 15 Subpart E
Sample Receipt Date	:	July 29, 2021
Test Date	:	August 5, 2021 to September 24, 2021
Report Date	:	November 30, 2021
Test Result	:	Complied

Notice :

** These test results relate only to the items (combination equipment, test configuration, operation condition etc.) tested.*
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** All test results are traceable to the national and / or international standards.*
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** This report replaces and supersedes all previous versions. Refer to Revision History on the following page.*

Reported by:

H. Takayama

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TESTING CERT #3203.01

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Note

☒-indicates that the listed condition, standard or equipment is applicable for this report.

☐-indicates that the listed condition, standard or equipment is not applicable for this report.

Revision History

Revision	Date	Overview	Page
JB-Z0967 (Original)	September 30, 2021	-	-
JB-Z0967-A	November 16, 2021	Revice of the title name.	P57
JB-Z0967-B	November 19, 2021	Update the A2LA expiration date.	P7
JB-Z0967-C	November 30, 2021	Added the Appendix data.	P69-78

Disclaimer

This report includes the information provided by the customer as below;
- Cover page : Client and product related information
- Clause 1.1 : Description of Equipment Under Test (EUT)
- Clause 2 : Operating mode / conditions

* The laboratory is not responsible for any test results affected by the above information.

1. General Information

1.1. Description of Equipment Under Test (EUT)

General Specification

Test Sample Condition : ☐ Prototype ☒ Pre-production ☐ Mass-production
Product Name : Digital Media Player
Trade Name : SONY
Model No. : YY1299B
Serial No. :

Serial No.	Test Method	Note
0310124	Radiated Conducted (AC Power-line Conducted Emissions only)	-
0310150	Conducted (Others)	The tests were performed on model YY1298B with the same RF module, circuits, and specifications as the EUT.

Power Rating of the EUT : DC 3.8 V (Internal Battery) or DC 5 V (USB)

Similar model(s) to be covered by this report
Model No. : None

Radio Specification

Function of the Equipment : Transceiver
Operating Frequency :

IEEE Standard	Operating Frequency Band [MHz]			
	U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
802.11a/n (HT20) 802.11ac (VHT20)	5180 to 5240	5260 to 5320	5500 to 5700 (except 5600 - 5640 MHz)	5745 to 5825
802.11n (HT40) 802.11ac (VHT40)	5190 to 5230	5270 to 5310	5510 to 5670 (except 5590 - 5630MHz)	5755 to 5795
802.11ac (VHT80)	5210 to 5290		5530	5775

Modulation Type : OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Antenna Type : Inverted-F Antenna
Antenna Connector Type : None
Antenna Gain : +2.39 dBi
Operating Temperature : +5.0 to +35.0 deg.C

1.2. Summary of Test Result

Test Item	Test Method	Worst Margin	Results	Note
AC Power-line Conducted Emissions	Conducted	13.8 dB (QP) 0.150 MHz L1	Complied	-
26dB Emission Bandwidth	Conducted	Refer to the test data	Complied	-
6dB Emission Bandwidth	Conducted	Refer to the test data	Complied	-
Maximum Conducted Output Power	Conducted	12.70 dB	Complied	-
Maximum Power Spectral Density	Conducted	7.62 dB	Complied	-
Unwanted Emissions	Radiated	4.1 dB (PK) 5470.00 MHz Vertical	Complied	-
Dynamic Frequency Selection	-	-	-	*1

Note

*1: For DFS test results, referred to JB-Z0968 issued by Sony Global Manufacturing & Operations Corporation.

Test Item	Test Method	Worst Margin	Results	Note
99% Occupied Bandwidth	Conducted	Refer to the test data	Complied	-

Other requirements

Part 15.31(e) Supply voltage requirement
: Complied (The voltage supplied from USB or battery are converted to regulated DC voltage by the built-in power circuit of the EUT.)

Part 15.203 / 212 Antenna requirement
: Complied (The EUT has an internal antenna which cannot be replaced by users.)

1.3. Tested Methodology

Test Standard : 47 CFR Part15 Subpart E
Test Method : ANSI C63.10 - 2013
KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test Condition

AC Power-line Conducted Emissions
Dimensions of the EUT table : 0.8 m height, 2 m width and 1 m depth.

Unwanted Emissions
Test Distance : ☒ 3 m ☐ 10m (9 kHz to 30 MHz)
☒ 3 m ☐ 10m (30 MHz to 1000 MHz)
☒ 3 m (1 GHz to 40 GHz)
Dimensions of the EUT table : 0.8 m (below 1 GHz) or 1.5 m (above 1 GHz) height, 2 m width and 1 m depth.
Dimensions of validated test volume : 2.5 m diameter, 3.5 m top height, 0 m bottom height.

1.4. Measurement Procedures

We performed the measurements in accordance with NV3-10, available upon the request.

☒ No deviation

☐ Deviation from the above procedure

The summary of the above procedure is mentioned below

AC Power-line Conducted Emissions

1. The non-conductive table (EUT table) made of (☒ FRP, ☐ wood, ☐ other non-conductive material) was placed 0.4 m from its rear to the vertical reference ground plane.
2. The EUT was placed on the center of tabletop and its rear was flush with the rear of the table, connected through a LISN to the input power mains.
3. The LISN was placed in 80 cm from the nearest part of the EUT chassis.
4. The excess length of the AC cable between the EUT and the LISN receptacle, or an adaptor or extension cable connected to and measured with LISN, was folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
5. The connection of the all other equipment to the second LISN was performed. The second LISN was terminated with a 50-ohm terminator.
6. Interconnecting cables that hang closer than 40 cm to the horizontal reference ground plane was folded back and forth forming a bundle 30 to 40 cm long, hanging approximately in the middle between the horizontal reference ground plane and the tabletop.
7. Find the worst mode and arrangement of the EUT according to the follows;
   - Connecting all peripherals and change the position of peripherals and cables.
   - Changing the all test operation modes of the EUT.
   - On every condition, exploring the highest emissions with the spectrum analyzer.
     (150 kHz to 30 MHz, peak detector, RBW: 10 kHz)
8. On the worst condition of the EUT found in above, choose the six highest emissions on the spectrum data.
   The final measurements carried out on these emissions with EMI test receiver.
   (quasi-peak and average detector, RBW: 9 kHz)

Antenna-port Conducted Measurements

1. Antenna-port of the EUT was connected to the power sensor (Maximum Conducted Output Power) or the spectrum analyzer (other test items).
2. For each EUT operation mode, the Antenna-port Conducted Measurements were measured with the power sensor or the spectrum analyzer.

Test Item Antenna-port Conducted Measurements	Detector	RBW
26dB Emission Bandwidth	Peak	100 kHz : IEEE 802.11a, 11n(HT20), 11ac(VHT20) 300 kHz : IEEE 802.11n(HT40), 11ac(VHT40) 1 MHz : IEEE 802.11ac(VHT80)
6dB Emission Bandwidth	Peak	100 kHz
99% Occupied Bandwidth	Peak	300 kHz : IEEE 802.11a, 11n(HT20), 11ac(VHT20) 1 MHz : IEEE 802.11n(HT40), 11ac(VHT40), 11ac(VHT80)
Maximum Conducted Output Power	Average	-
Maximum Power Spectral Density	RMS	100 kHz : U-NII-3 1 MHz : U-NII-1/ -2A/ -2C

Unwanted Emissions

1. The non-conductive table (EUT table) made of (☐ FRP, ☒ Styrene Foam, ☐ other non-conductive material) was placed in the center of the turntable.
2. The EUT was placed on the center of the tabletop.
3. The test antenna was placed away from the EUT at test distance.
4. The limits were compensated the distance factor with follows;
   9 kHz to 490 kHz [Limit at 3 m] = [Limit at 300 m] + 40 log (300[m] / 3[m])
   490 kHz to 30 MHz [Limit at 3 m] = [Limit at 30 m] + 40 log (30[m] / 3[m])
5. Find the worst arrangement of the EUT according to follows;
   - Rotating the turntable and/or scanning the antenna.
   - On every condition, exploring the highest emissions with the spectrum analyzer. (9 kHz to 40 GHz, peak detector)
6. On the worst arrangement of the EUT found in above, choose the six highest harmonics or spurious emissions on the spectrum data.(*excluding carrier band edges)
   The final measurements of all test operating modes carried out on these emissions as follows;

   The test antenna and the turntable were performed with follows;

	9 kHz to 30 MHz	30 MHz to 1000 MHz	1 GHz to 40 GHz
Antenna	Loop Antenna	Bi-conical Antenna, Log-periodic Antenna	Horn Antenna
Antenna scanning range	1 m, Vertical, 360 degrees	1 m to 4 m, Horizontal and Vertical	1 m to 4 m *, Horizontal and Vertical
Turntable rotating range	360 degrees	360 degrees	360 degrees

   *: When the measurement frequencies above 1 GHz, final measurements are performed keeping the antenna in the "cone of radiation" from EUT area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.

   Instruments settings were carried out with follows;

	9 kHz to 90 kHz 110 kHz to 490 kHz	90 kHz to 110 kHz 490 kHz to 30 MHz	30 MHz to 1000 MHz	1 GHz to 40 GHz
Detector	Peak / Average	Quasi-peak	Quasi-peak	Peak / Average
RBW	200 Hz (6 dB) or 9 kHz (6 dB) *1	200 Hz (6 dB) or 9 kHz (6 dB) *1	120 kHz (6 dB)	1 MHz (6 dB)
VBW	N/A	N/A	N/A	3 MHz (for peak) 10 kHz (for average) *2
Instrument	EMI test receiver	EMI test receiver	EMI test receiver	Spectrum analyzer

   *1: When the measurement frequencies below 150 kHz, RBW: 200 Hz was used.
   *2: VBW setting (for average) was higher than 1/T. (T is the minimum transmission duration)

7. If the final average measurement result exceeded the limit in the authorized band edge, the integration method is carried out with follows;

	Unwanted emissions within 2 MHz of the band edge
Detector	Peak
RBW	100 kHz (6 dB)
Instrument	Spectrum analyzer
Function	Channel Power (integration BW : 1 MHz)

8. Although these tests for below 30MHz were performed other than open field area test site, adequate comparison measurements were confirmed against 30 m open field area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788 D01.
   Further these test for above 1GHz were performed test site complied with CISPR 16-1-4.
   In the case of EUT size smaller than the validated test volume, the antenna position is adjusted such that the distance between the EUT and the antenna reference point is identical to the 3m used for the S-VSWR validation measurements. These method based on clause 7.3.1 of CISPR16-1-4 Edition 4, therefore correcting distance factor is not applied.

1.5. Test Location

Test Facility Name : Sony Global Manufacturing & Operations Corporation
EMC/RF Test Laboratory, Main Lab.
Address : 8-4 Shiomi Kisarazu-shi Chiba-ken, 292-0834, Japan
Phone : +81 438 37 2750

A2LA Certificate No. : 3203.01
Expiration : December 31, 2021

AC Power-line Conducted Emissions
Shielded Room
☒ 4th Site ☐ EMC Site

Antenna-port Conducted Measurements
Shielded Room
☒ 4th Site SR1

Unwanted Emissions
Semi-Anechoic chamber
☒ 4th Site ☐ EMC Site

1.6. Uncertainty

Test Item	Frequency	4th Site SR1
Maximum Conducted Output Power	1 GHz to 6 GHz	± 0.84 dB
Maximum Power Spectral Density	below 6 GHz	± 1.25 dB

Test Item	Frequency	Distance	4th Site	EMC Site
AC Power-line Conducted Emissions	150 kHz to 30 MHz	-	± 3.34 dB	± 3.35 dB
Radiated Emissions	9 kHz to 30 MHz	3m	± 2.60 dB	± 3.13 dB
	30 MHz to 1000 MHz	3m	± 4.96 dB	± 5.26 dB
	1 GHz to 18 GHz	3m	± 5.68 dB	± 5.94 dB
	18 GHz to 26.5 GHz	3m	± 4.66 dB	± 4.98 dB
	26.5 GHz to 40 GHz	3m	± 4.64 dB	± 4.97 dB

2. Test Specification

2.1. Validation

The system was configured for testing in a typical (as a customer would normally use it).
The tests were conducted with the worst-case modes as follows.

2.2. Operating Condition

The tests have been carried out the following conditions.
[Transmitting mode]

Test Items	Test Channels [MHz]				Worst Data Rate *1
	U-NII-1	U-NII-2A	U-NII-2C	U-NII-3	
AC Power-line Conducted Emissions *2	5180	-	-	-	802.11a : 18 Mbps
26dB Emission Bandwidth	-	5260 5300 5320	5500 5580 5700	-	802.11a : 18 Mbps 802.11n(HT20) : MCS2 802.11ac(VHT20) : MCS2
	-	5270 5310	5510 5550 5670	-	802.11n(HT40) : MCS2 802.11ac(VHT40) : MCS2
	-	5290	5530	-	802.11ac(VHT80) : MCS6
6dB Emission Bandwidth	-	-	-	5745 5785 5825	802.11a : 18 Mbps 802.11n(HT20) : MCS2 802.11ac(VHT20) : MCS2
	-	-	-	5755 5795	802.11n(HT40) : MCS2 802.11ac(VHT40) : MCS2
	-	-	-	5775	802.11ac(VHT80) : MCS6
Maximum Conducted Output Power	5180 5200 5220 5240	5260 5280 5300 5320	5500 5580 5700	5745 5785 5825	802.11a : 18 Mbps 802.11n(HT20) : MCS2 802.11ac(VHT20) : MCS2
	5190 5230	5270 5310	5510 5550 5670	5755 5795	802.11n(HT40) : MCS2 802.11ac(VHT40) : MCS2
	5210	5290	5530	5775	802.11ac(VHT80) : MCS6
99% Occupied Bandwidth, Maximum Power Spectral Density	5180 5220 5240	5260 5300 5320	5500 5580 5700	5745 5785 5825	802.11a : 18 Mbps 802.11n(HT20) : MCS2 802.11ac(VHT20) : MCS2
	5190 5230	5270 5310	5510 5550 5670	5755 5795	802.11n(HT40) : MCS2 802.11ac(VHT40) : MCS2
	5210	5290	5530	5775	802.11ac(VHT80) : MCS6

Test Items	Test Channels [MHz]				Worst Data Rate *1
	U-NII-1	U-NII-2A	U-NII-2C	U-NII-3	
Unwanted Emissions *2 (Below 1 GHz)	5180	-	-	-	802.11a : 18 Mbps
Unwanted Emissions (Above 1 GHz)	5180	5240 5320	5500 5580 *3 5700	5745 5785 *3 5825	802.11a : 18 Mbps 802.11ac(VHT20) : MCS2
	5190	5230 5310	5510 5550 *4 5670	5755 5795	802.11n(HT40) : MCS2 802.11ac(VHT40) : MCS2
	5210	5290	5530	5775	802.11ac(VHT80) : MCS6

Note
*1: The worst data rate has been decided based on the result of Maximum Conducted Output Power.
*2: The test was performed with the representative mode that had been found as the worst emissions while exploratory testing.
*3: It applies only to IEEE802.11a.
*4: It applies only to IEEE802.11n.

The Software for Operating Mode

Software Name : amb50_LBEE5ZZ1PJ-331 RF Test
Software Version : 0.60

2.3. Special Accessories

Special accessories needed for connecting the EUT to achieve compliance:

Item	Manufacturer	Model No.	Serial No.	Remark
-	-	-	-	-

2.4. EUT Modifications

☒ No equipment modification to achieve compliance to the standard levels was done during the tests.
☐ Equipment was modified to achieve compliance to the standard level as below.

Responsible Party Signature

Typed/ Print Name :
Responsible Party :
Position :
Date :

2.5. Configuration of EUT System

AC Power-line Conducted Emissions

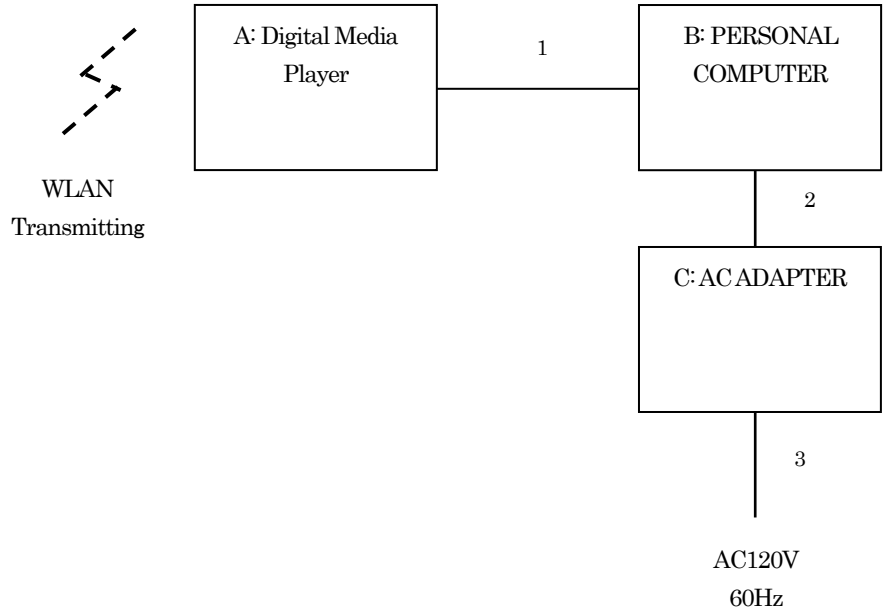
[EUT and Associated Equipment (AE)]

Symbol	EUT/ AE	Item	Manufacturer	Model No.	Serial No.
A	EUT	Digital Media Player	SONY	YY1299B	0310124
B	AE	PERSONAL COMPUTER	SONY	VJPF11C11N	4350372
C	AE	AC ADAPTER	SONY	VJ8AC10V9	0077385

[Type of Cable]

Symbol	Description	Identification (Manufacturer etc.)	Shielded Yes / No	Ferrite Core	Length (m)	Bundled
1	USB Cable	-	Yes	No	0.5	No
2	DC Cable	-	No	No	1.7	Yes
3	AC Cable	-	No	No	1.0	No

[Connecting Diagram]



Antenna-port Conducted Measurements

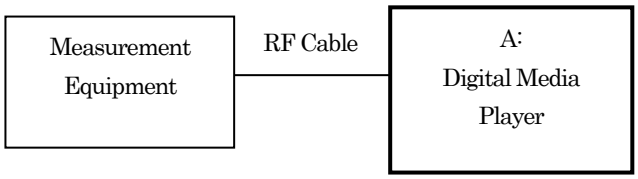
[EUT and Associated Equipment (AE)]

Symbol	EUT/ AE	Item	Manufacturer	Model No.	Serial No.
A	EUT	Digital Media Player	SONY	YY1298B	0310150

[Type of Cable]

Symbol	Description	Identification (Manufacturer etc.)	Shielded Yes / No	Ferrite Core	Length (m)	Bundled
-	-	-	-	-	-	-

[Connecting Diagram]



Unwanted Emissions

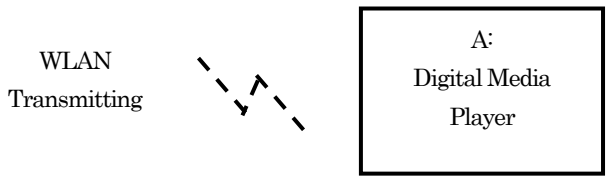
[EUT and Associated Equipment (AE)]

Symbol	EUT/ AE	Item	Manufacturer	Model No.	Serial No.
A	EUT	Digital Media Player	SONY	YY1299B	0310124

[Type of Cable]

Symbol	Description	Identification (Manufacturer etc.)	Shielded Yes / No	Ferrite Core	Length (m)	Bundled
-	-	-	-	-	-	-

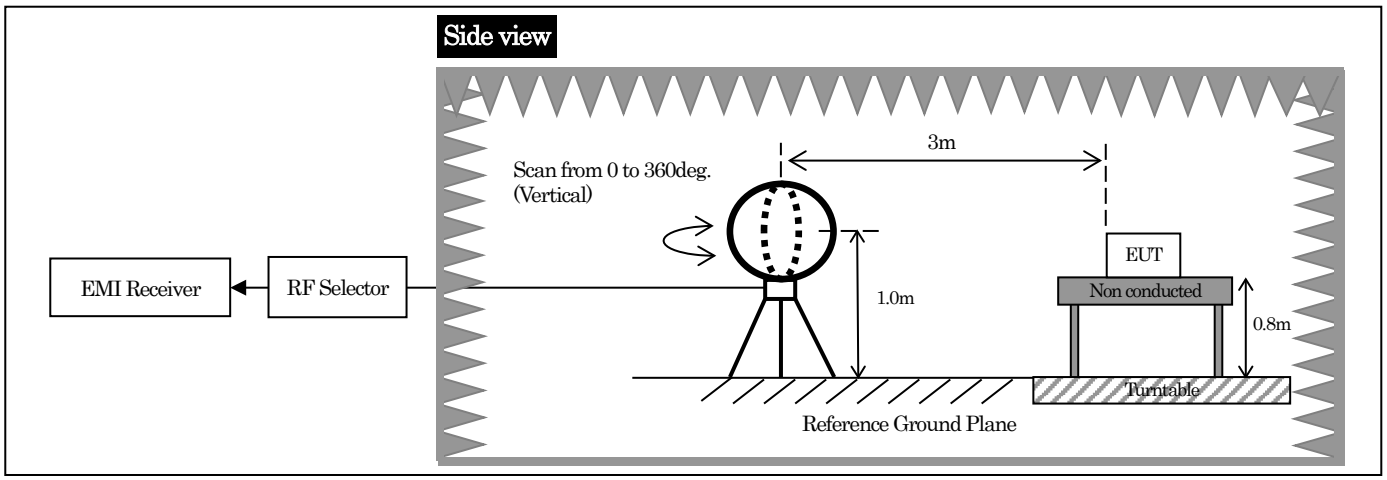
[Connecting Diagram]



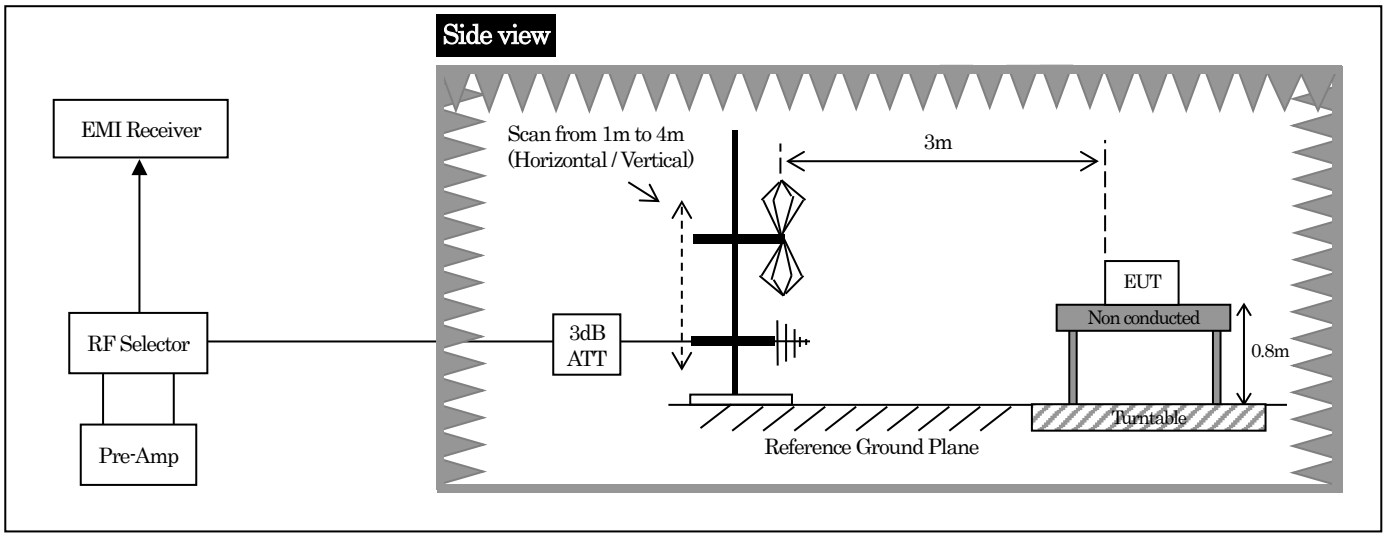
2.6. Typical setup arrangement

Radiated spurious emissions

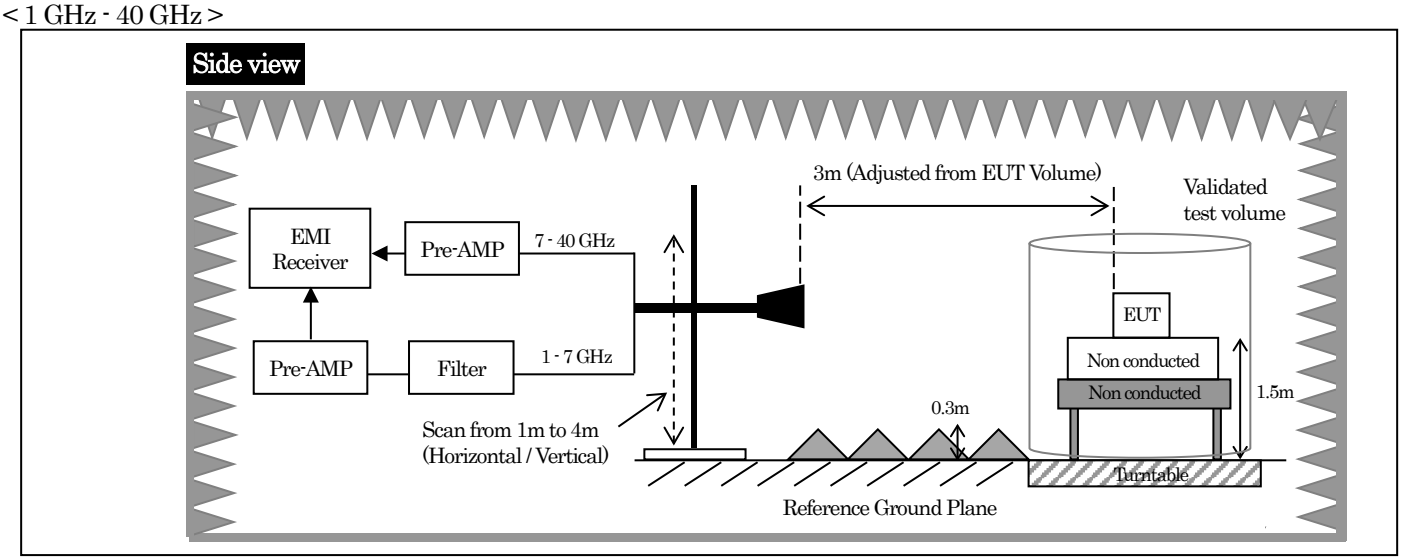
< 9 kHz - 30 MHz >



< 30 MHz - 1000 MHz >



< 1 GHz - 40 GHz >



3. Test Data

3.1. AC Power-line Conducted Emissions

Date of measurement	Ambient temperature	Relative humidity	Measured by
September 24, 2021	24.0 deg.C	62.0 %	Taito Nakamura

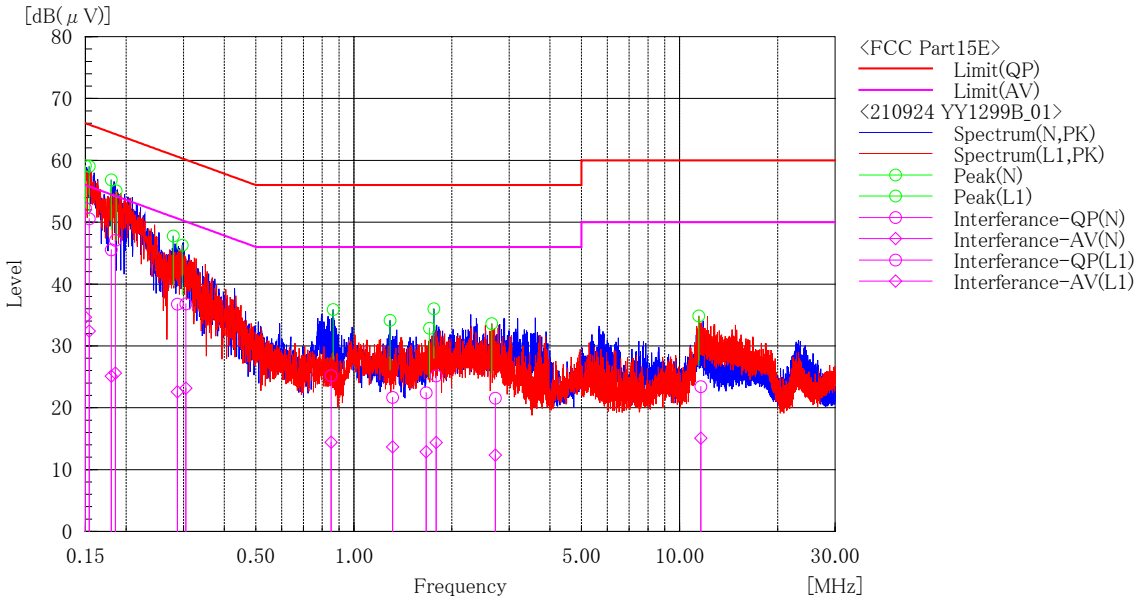
The test data is mentioned as follows.

[802.11a/ 5180 MHz]

Sony Global M&O Corp
Kisarazu DTS

<<Conducted Emission>>

Model	: YY1299B	Limit	: FCC Part15E
Serial	: 0310124	Remark1	:
Operator	: Taito Nakamura	Remark2	:
Power	: AC 120V / 60Hz	Remark3	: 11a_18M
Environment	: 24deg.C / 62% / 1017hPa	Remark4	: 5180MHz



Final Result

--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading CAV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result CAV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin CAV [dB]
1	0.154	40.9	22.7	9.7	50.6	32.4	65.8	55.8	15.2	23.4
2	0.185	37.4	15.9	9.7	47.1	25.6	64.2	54.2	17.1	28.6
3	0.287	27.1	12.9	9.7	36.8	22.6	60.6	50.6	23.8	28.0
4	0.851	15.5	4.7	9.7	25.2	14.4	56.0	46.0	30.8	31.6
5	1.316	11.8	3.9	9.8	21.6	13.7	56.0	46.0	34.4	32.3
6	1.789	15.4	4.6	9.8	25.2	14.4	56.0	46.0	30.8	31.6

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading CAV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result CAV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin CAV [dB]
1	0.150	42.5	24.9	9.7	52.2	34.6	66.0	56.0	13.8	21.4
2	0.180	35.8	15.4	9.7	45.5	25.1	64.5	54.5	19.0	29.4
3	0.305	27.1	13.4	9.7	36.8	23.1	60.1	50.1	23.3	27.0
4	1.667	12.6	3.1	9.8	22.4	12.9	56.0	46.0	33.6	33.1
5	2.718	11.6	2.4	9.9	21.5	12.3	56.0	46.0	34.5	33.7
6	11.619	13.2	4.9	10.2	23.4	15.1	60.0	50.0	36.6	34.9

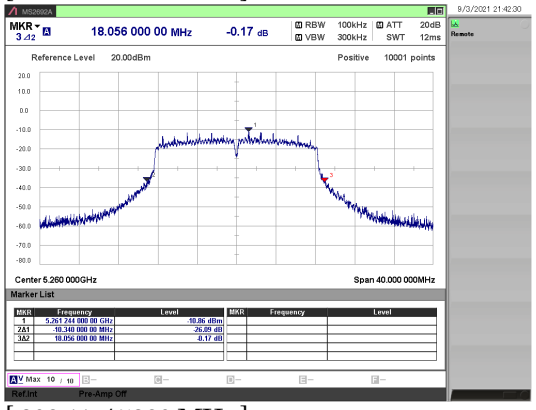
3.2. 26dB Emission Bandwidth

Date of measurement	Ambient temperature	Relative humidity	Measured by
September 3, 2021	21.5 deg.C	53.3 %	Yohei Yamaguchi Mikiko Kouga

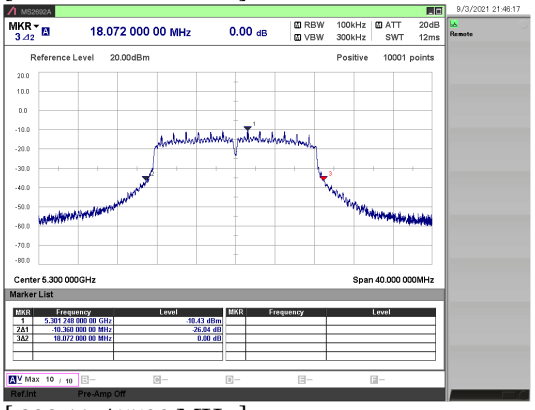
Mode	Rate [Mbps]	Channel [MHz]	Result [MHz]	Limit [MHz]
11a	18	5260	18.056	-
		5300	18.072	-
		5320	18.120	-
		5500	18.200	-
		5580	18.124	-
		5700	18.204	-
11n (HT20)	MCS2	5260	19.020	-
		5300	18.992	-
		5320	19.188	-
		5500	18.876	-
		5580	18.852	-
		5700	19.032	-
11n (HT40)	MCS2	5270	40.976	-
		5310	40.240	-
		5510	39.624	-
		5550	41.392	-
		5670	40.000	-

Mode	Rate [Mbps]	Channel [MHz]	Result [MHz]	Limit [MHz]
11ac (VHT20)	MCS2	5260	18.868	-
		5300	19.032	-
		5320	18.876	-
		5500	18.976	-
		5580	18.896	-
		5700	18.888	-
11ac (VHT40)	MCS2	5270	40.096	-
		5310	40.136	-
		5510	42.192	-
		5550	39.648	-
		5670	40.032	-
11ac (VHT80)	MCS6	5290	85.616	-
		5530	87.984	-

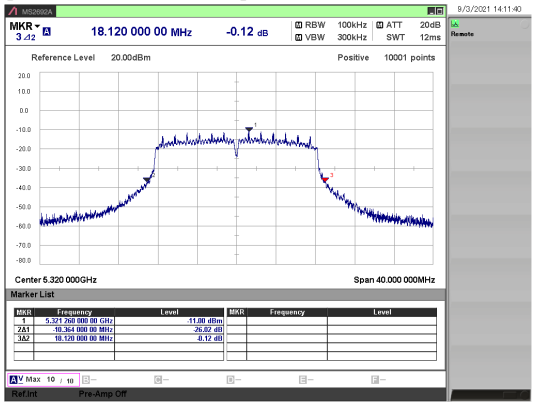
[802.11a/ 5260 MHz]



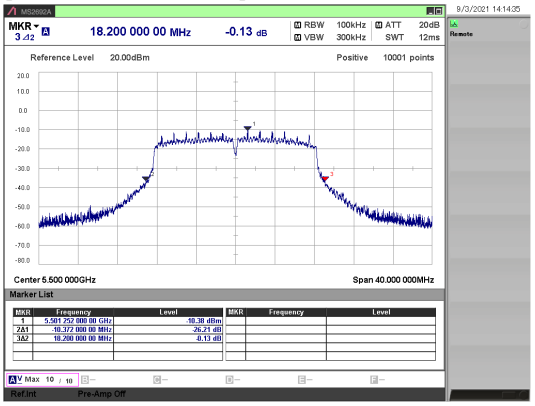
[802.11a/ 5300 MHz]



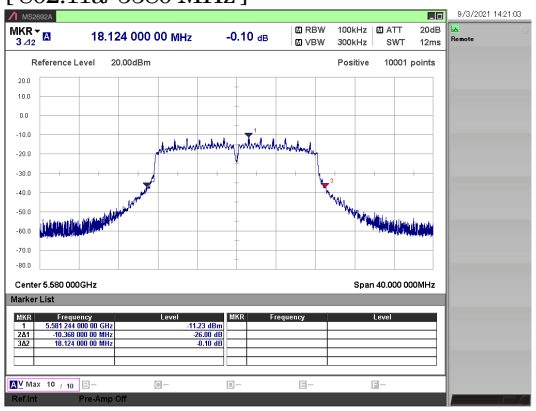
[802.11a/ 5320 MHz]



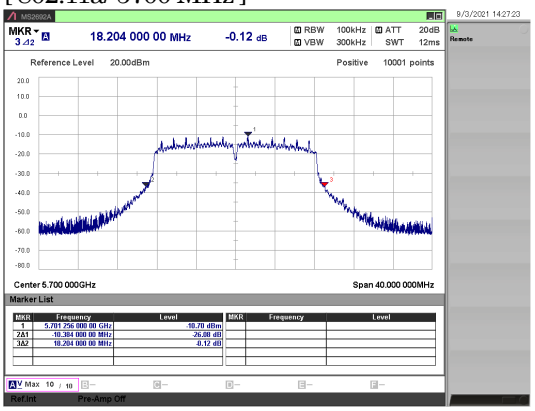
[802.11a/ 5500 MHz]



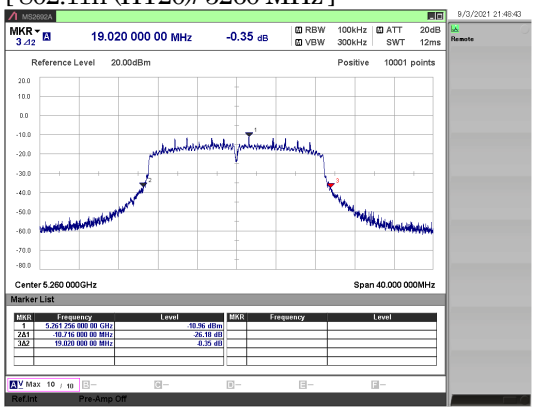
[802.11a/ 5580 MHz]



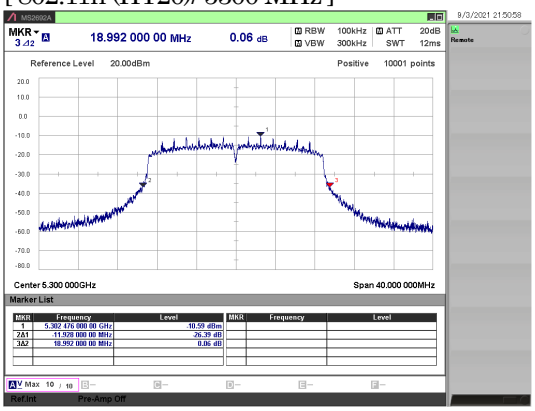
[802.11a/ 5700 MHz]



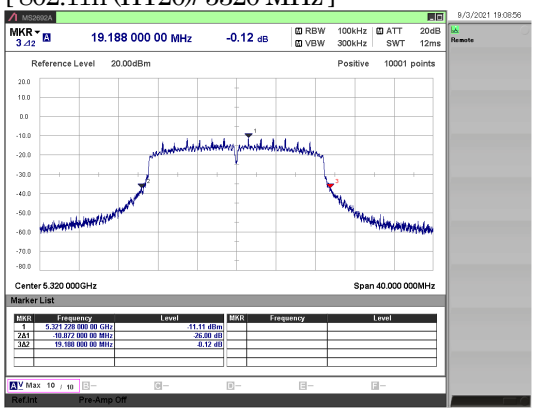
[802.11n (HT20)/ 5260 MHz]



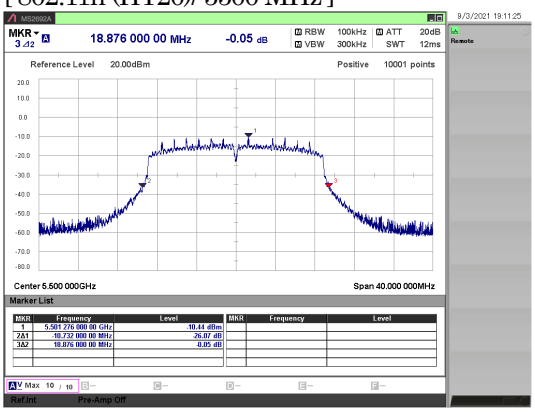
[802.11n (HT20)/ 5300 MHz]



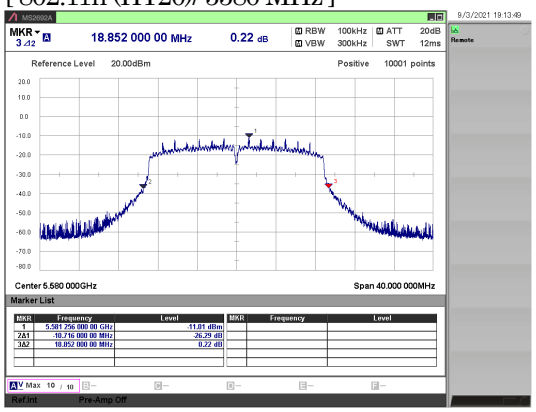
[802.11n (HT20)/ 5320 MHz]



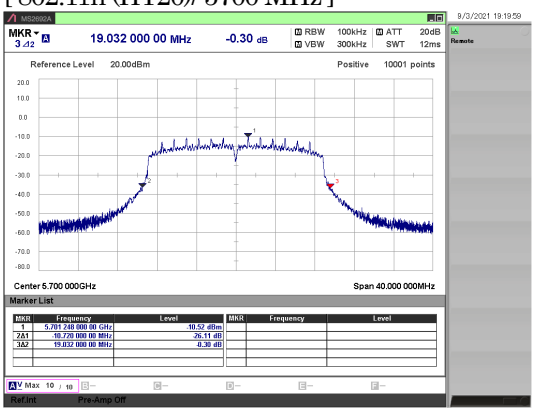
[802.11n (HT20)/ 5500 MHz]



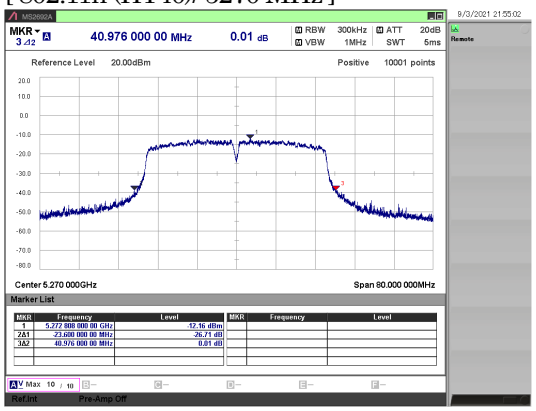
[802.11n (HT20)/ 5580 MHz]



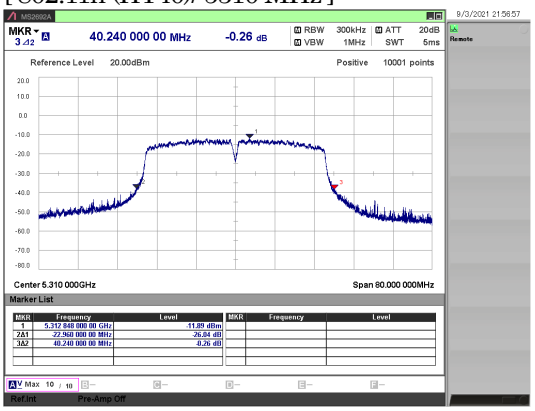
[802.11n (HT20)/ 5700 MHz]



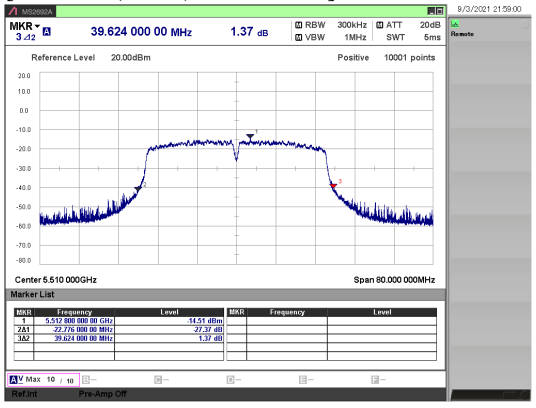
[802.11n (HT40)/ 5270 MHz]



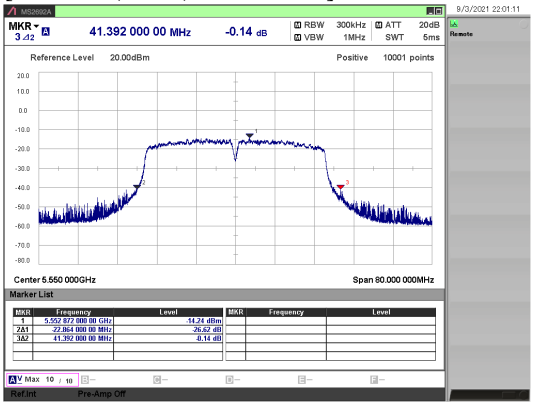
[802.11n (HT40)/ 5310 MHz]



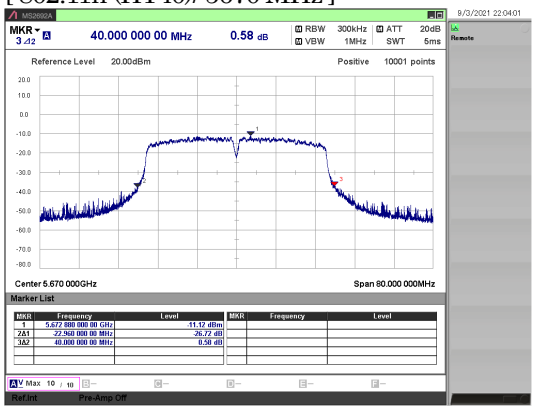
[802.11n (HT40)/ 5510 MHz]



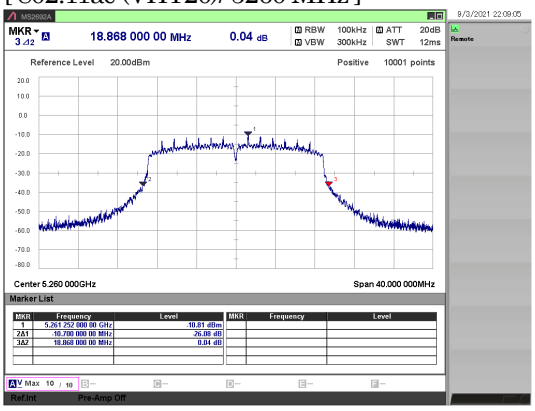
[802.11n (HT40)/ 5550 MHz]



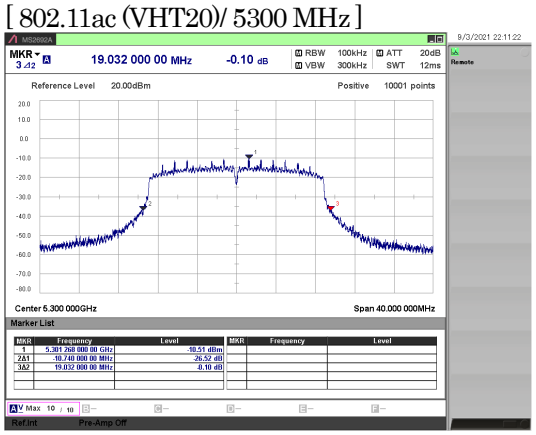
[802.11n (HT40)/ 5670 MHz]



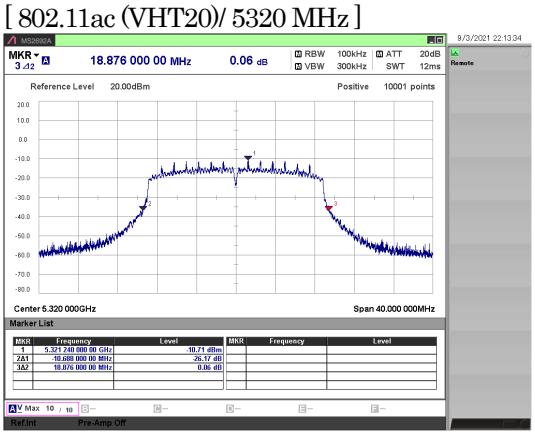
[802.11ac (VHT20)/ 5260 MHz]



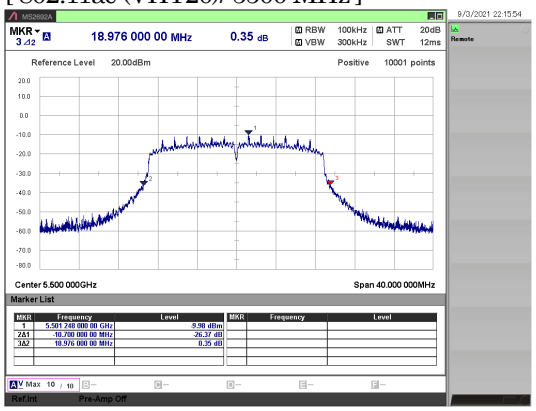
[802.11ac (VHT20)/ 5300 MHz]



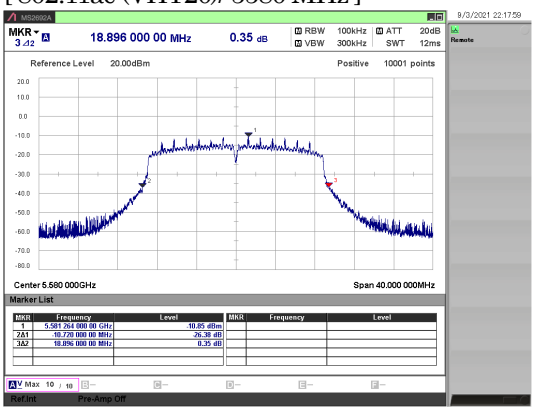
[802.11ac (VHT20)/ 5320 MHz]



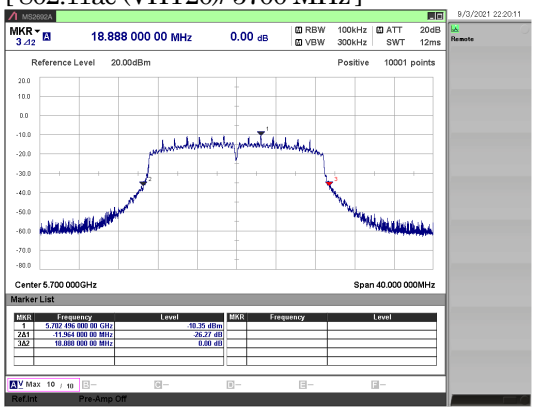
[802.11ac (VHT20)/ 5500 MHz]



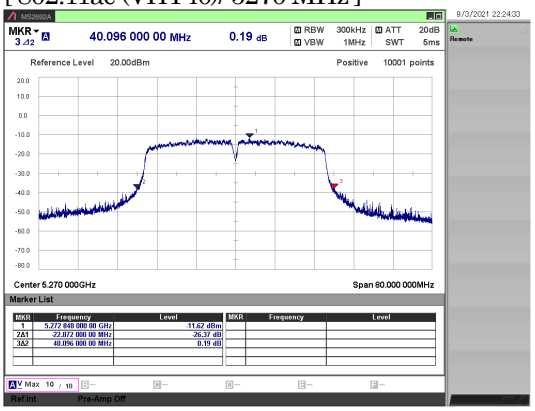
[802.11ac (VHT20)/ 5580 MHz]



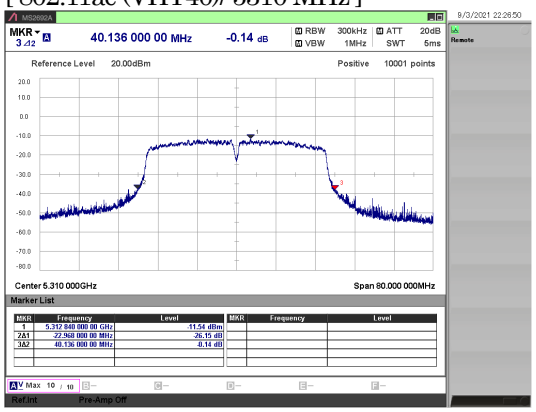
[802.11ac (VHT20)/ 5700 MHz]



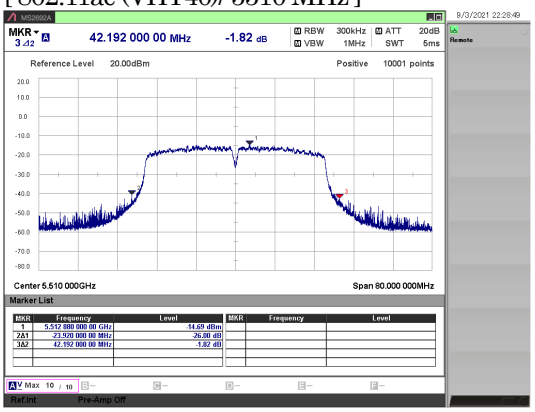
[802.11ac (VHT40)/ 5270 MHz]



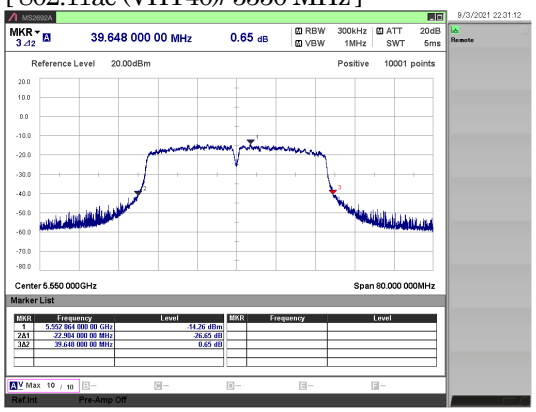
[802.11ac (VHT40)/ 5310 MHz]



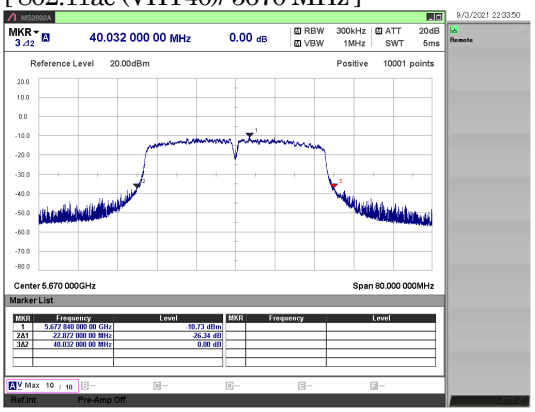
[802.11ac (VHT40)/ 5510 MHz]



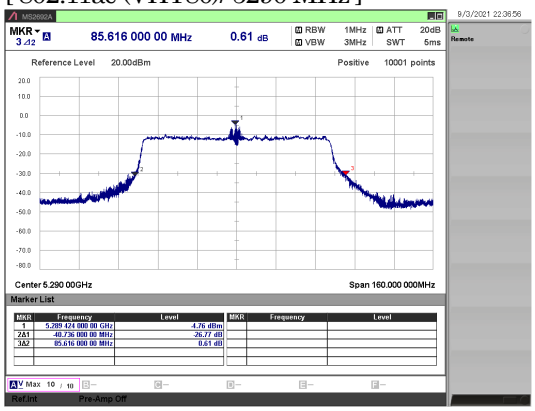
[802.11ac (VHT40)/ 5550 MHz]



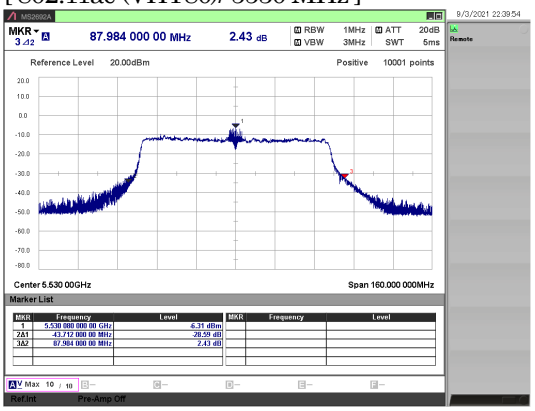
[802.11ac (VHT40)/ 5670 MHz]



[802.11ac (VHT80)/ 5290 MHz]



[802.11ac (VHT80)/ 5530 MHz]



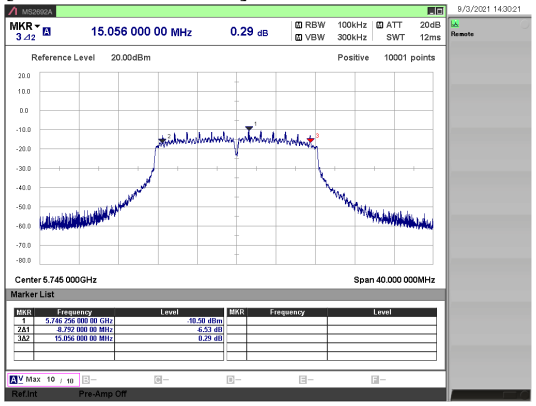
3.3. 6dB Emission Bandwidth

Date of measurement	Ambient temperature	Relative humidity	Measured by
September 3, 2021	21.5 deg.C	53.3 %	Yohei Yamaguchi Mikiko Kouga

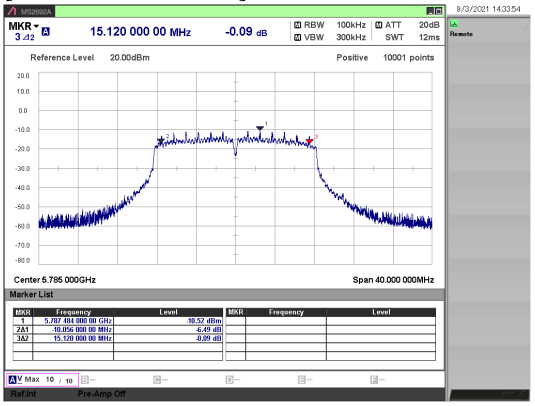
Mode	Rate [Mbps]	Channel [MHz]	Result [MHz]	Limit [MHz]
11a	18	5745	15.056	≥0.5
		5785	15.120	≥0.5
		5825	15.124	≥0.5
11n (HT20)	MCS2	5745	15.120	≥0.5
		5785	15.048	≥0.5
		5825	15.088	≥0.5
11n (HT40)	MCS2	5755	35.104	≥0.5
		5795	35.104	≥0.5

Mode	Rate [Mbps]	Channel [MHz]	Result [MHz]	Limit [MHz]
11ac (VHT20)	MCS2	5745	15.104	≥0.5
		5785	15.076	≥0.5
		5825	15.132	≥0.5
11ac (VHT40)	MCS2	5755	35.104	≥0.5
		5795	35.072	≥0.5
11ac (VHT80)	MCS6	5775	76.368	≥0.5

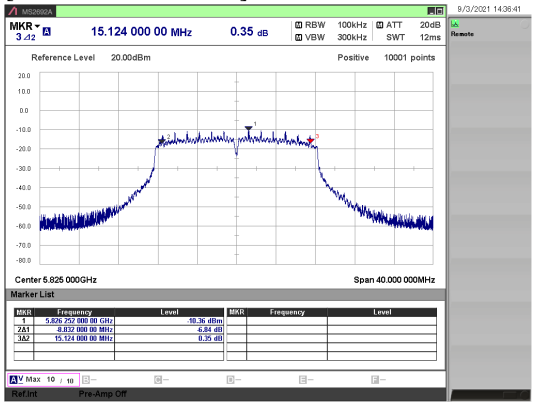
[802.11a/ 5745 MHz]



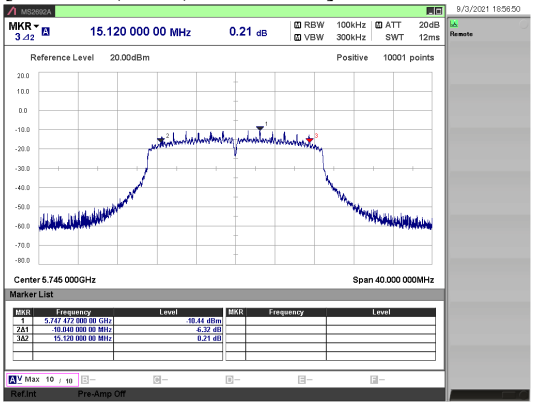
[802.11a/ 5785 MHz]



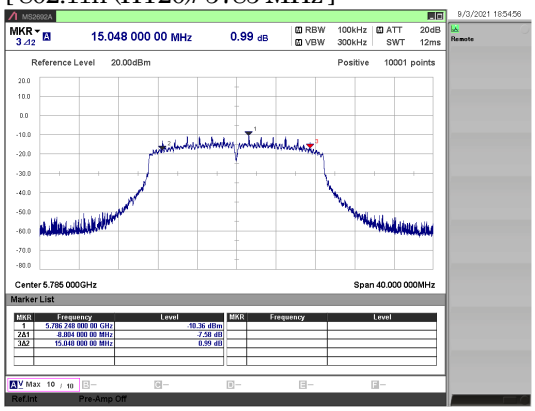
[802.11a/ 5825 MHz]



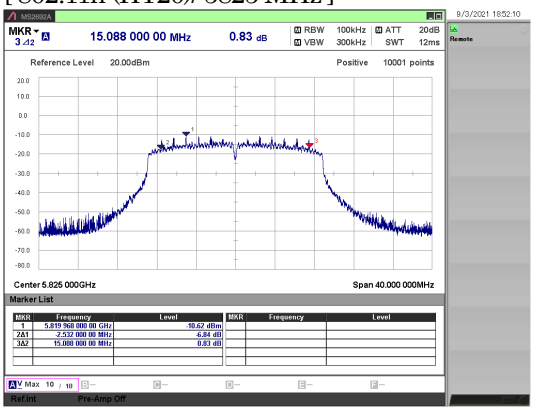
[802.11n (HT20)/ 5745 MHz]



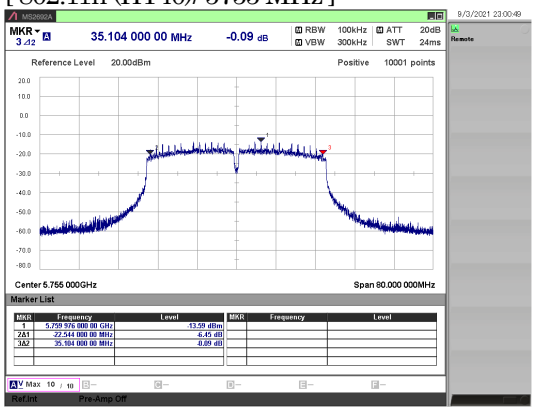
[802.11n (HT20)/ 5785 MHz]



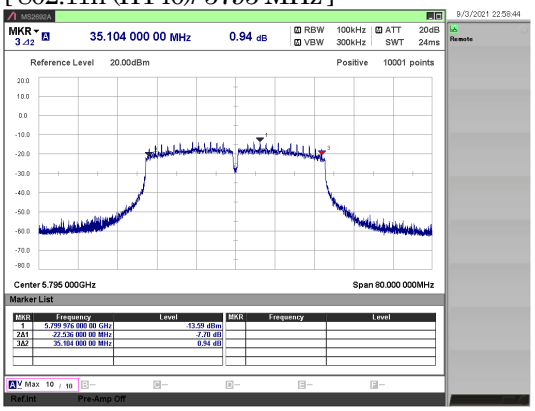
[802.11n (HT20)/ 5825 MHz]



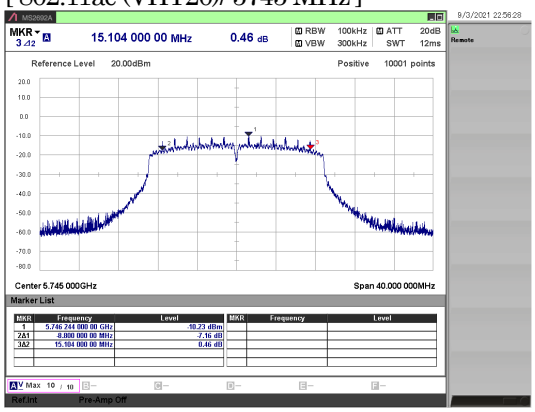
[802.11n (HT40)/ 5755 MHz]



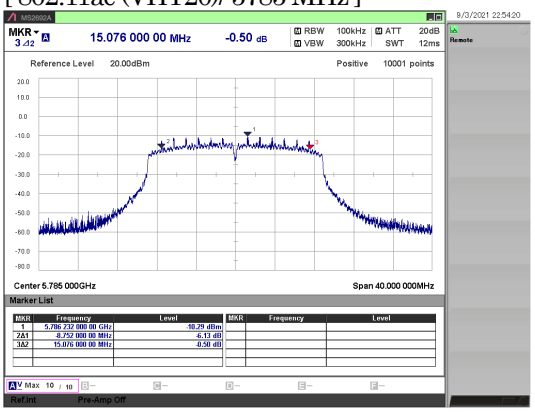
[802.11n (HT40)/ 5795 MHz]



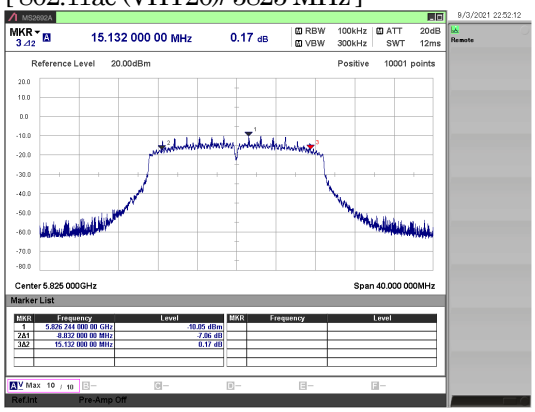
[802.11ac (VHT20)/ 5745 MHz]



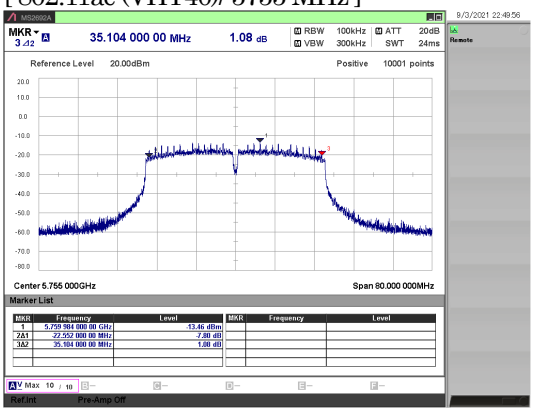
[802.11ac (VHT20)/ 5785 MHz]



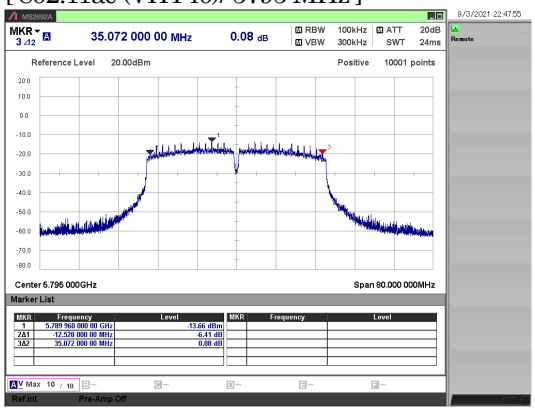
[802.11ac (VHT20)/ 5825 MHz]



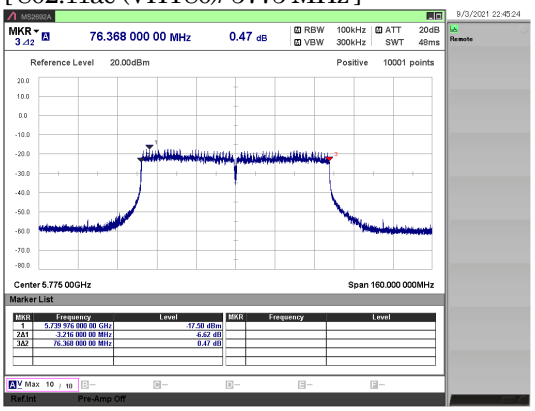
[802.11ac (VHT40)/ 5755 MHz]



[802.11ac (VHT40)/ 5795 MHz]



[802.11ac (VHT80)/ 5775 MHz]



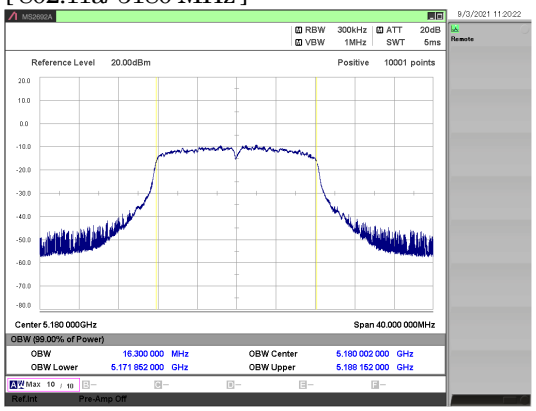
3.4. 99% Occupied Bandwidth

Date of measurement	Ambient temperature	Relative humidity	Measured by
September 3, 2021	21.5 deg.C	53.3 %	Yohei Yamaguchi Mikiko Kouga

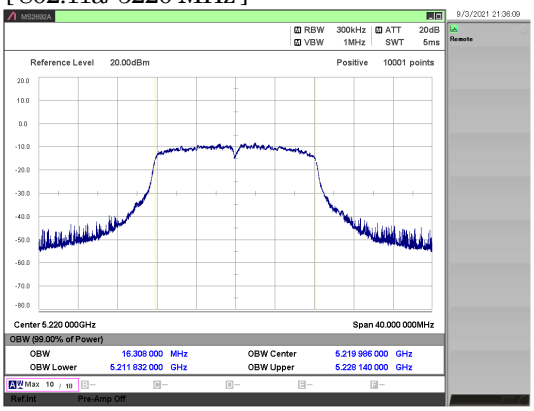
Mode	Rate [Mbps]	Channel [MHz]	Result [MHz]	Limit [MHz]
11a	18	5180	16.300	-
		5220	16.308	-
		5240	16.312	-
		5260	16.308	-
		5300	16.312	-
		5320	16.308	-
		5500	16.300	-
		5580	16.296	-
		5700	16.304	-
		5745	16.296	-
		5785	16.300	-
		5825	16.300	-
11n (HT20)	MCS2	5180	17.448	-
		5220	17.456	-
		5240	17.448	-
		5260	17.452	-
		5300	17.452	-
		5320	17.448	-
		5500	17.440	-
		5580	17.444	-
		5700	17.444	-
		5745	17.444	-
		5785	17.436	-
		5825	17.444	-
11n (HT40)	MCS2	5190	36.136	-
		5230	36.144	-
		5270	36.184	-
		5310	36.160	-
		5510	36.184	-
		5550	36.192	-
		5670	36.160	-
		5755	36.184	-
		5795	36.168	-

Mode	Rate [Mbps]	Channel [MHz]	Result [MHz]	Limit [MHz]
11ac (VHT20)	MCS2	5180	17.460	-
		5220	17.456	-
		5240	17.456	-
		5260	17.452	-
		5300	17.452	-
		5320	17.448	-
		5500	17.444	-
		5580	17.440	-
		5700	17.448	-
		5745	17.452	-
		5785	17.440	-
		5825	17.444	-
11ac (VHT40)	MCS2	5190	36.152	-
		5230	36.168	-
		5270	36.208	-
		5310	36.192	-
		5510	36.168	-
		5550	36.192	-
		5670	36.224	-
		5755	36.176	-
		5795	36.184	-
11ac (VHT80)	MCS6	5210	76.624	-
		5290	76.560	-
		5530	76.560	-
		5775	76.560	-

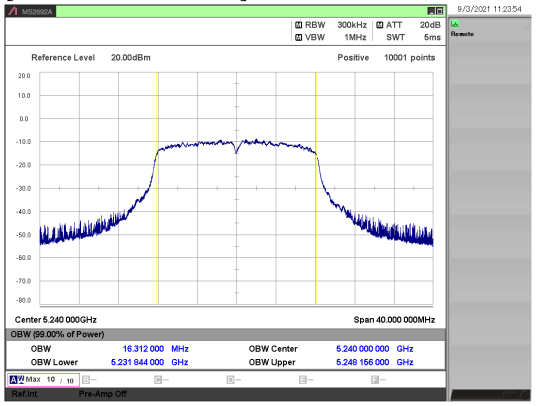
[802.11a/ 5180 MHz]



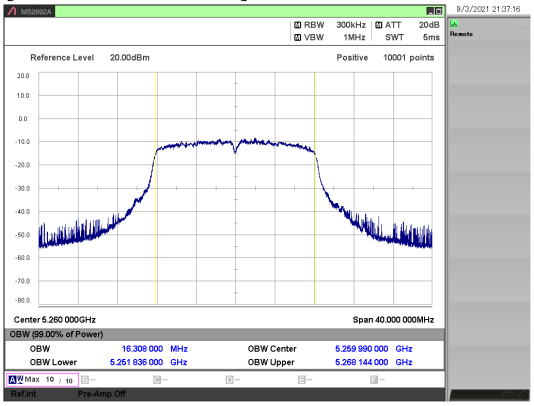
[802.11a/ 5220 MHz]



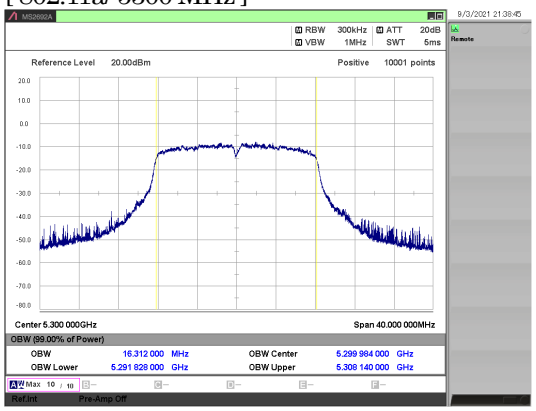
[802.11a/ 5240 MHz]



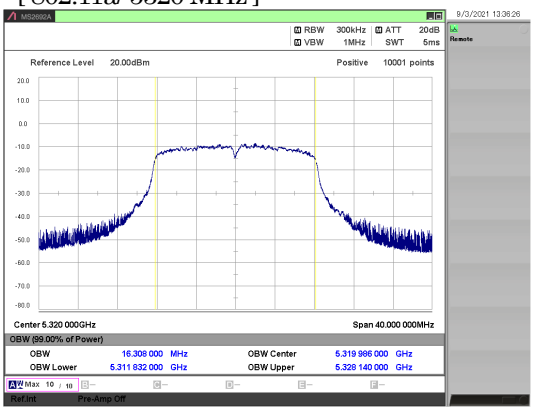
[802.11a/ 5260 MHz]



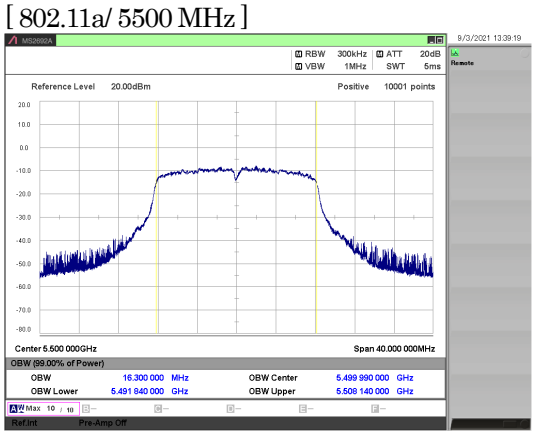
[802.11a/ 5300 MHz]



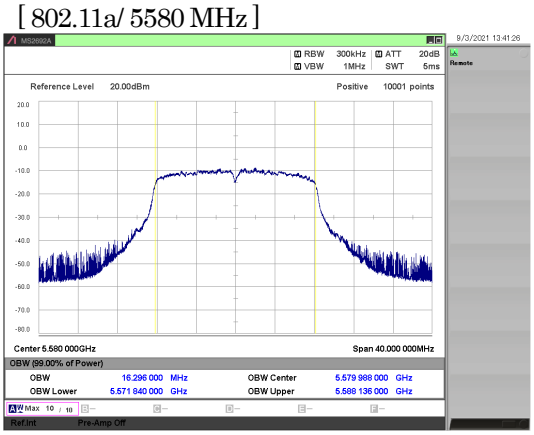
[802.11a/ 5320 MHz]



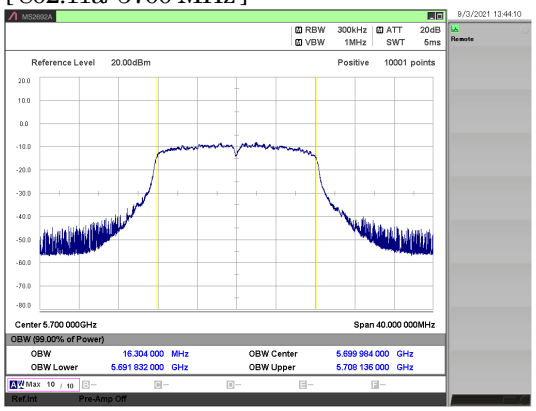
[802.11a/ 5500 MHz]



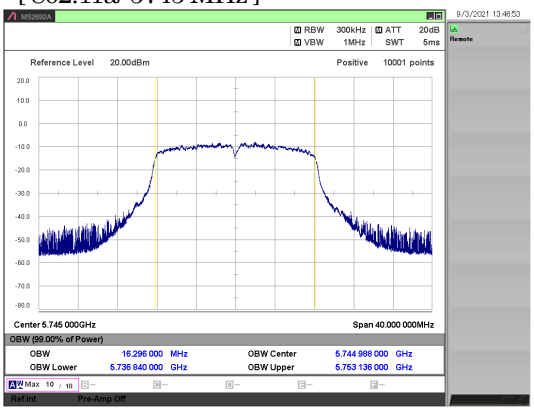
[802.11a/ 5580 MHz]



[802.11a/ 5700 MHz]



[802.11a/ 5745 MHz]



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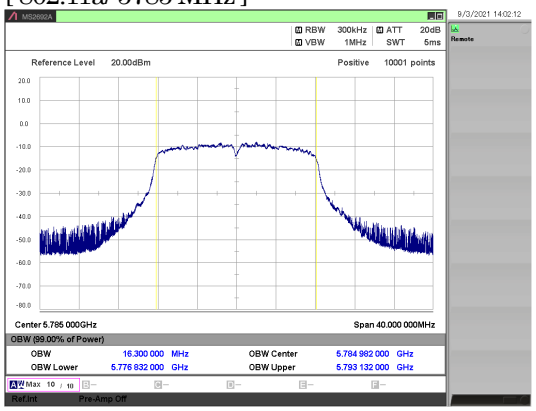
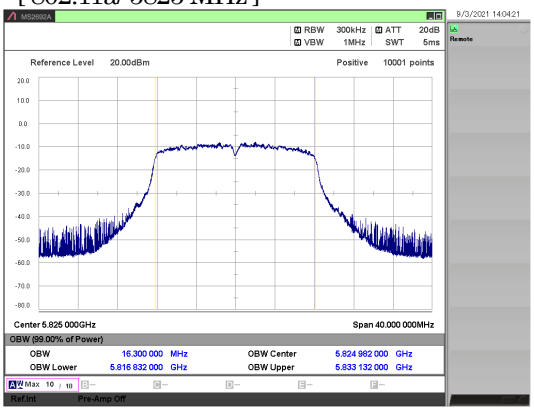
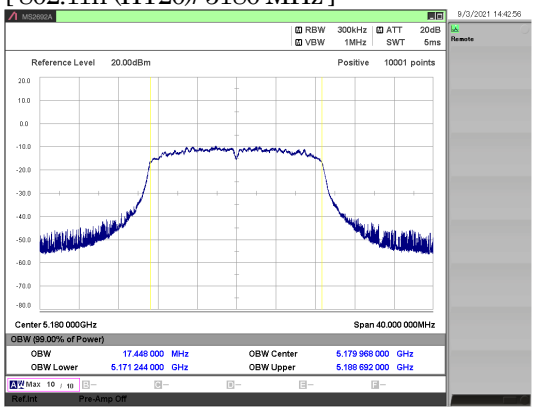


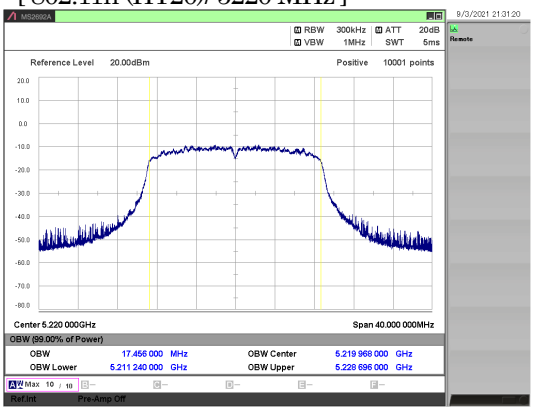
[802.11a/ 5825 MHz]



[802.11n (HT20)/ 5180 MHz]



[802.11n (HT20)/ 5220 MHz]



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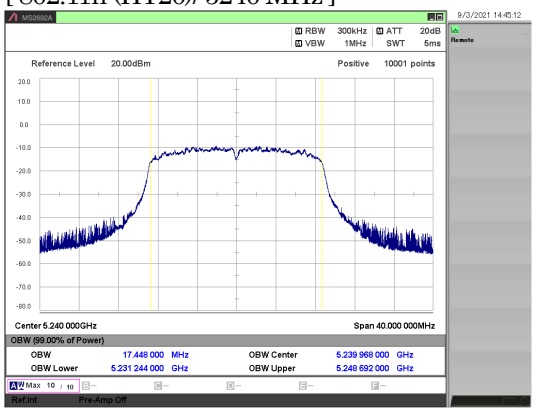
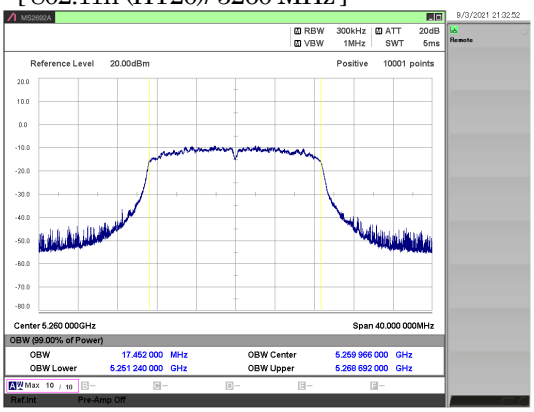
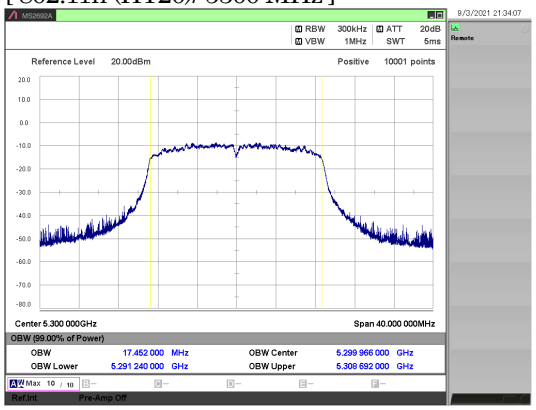


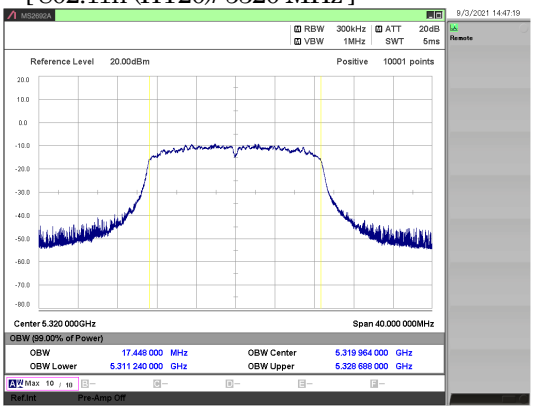
[802.11n (HT20)/ 5260 MHz]



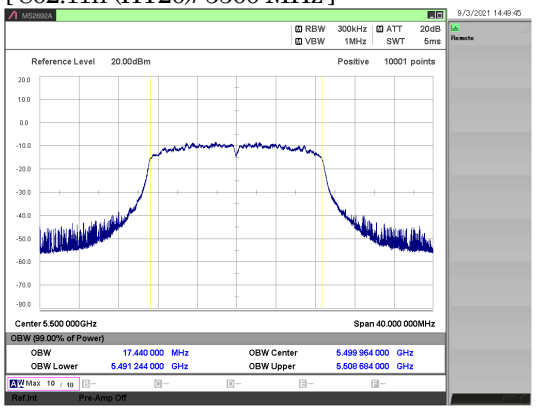
[802.11n (HT20)/ 5300 MHz]



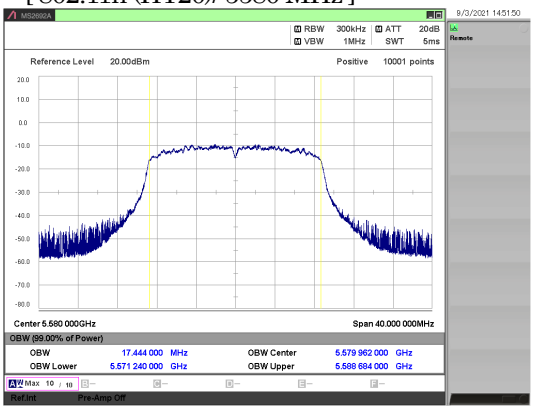
[802.11n (HT20)/ 5320 MHz]



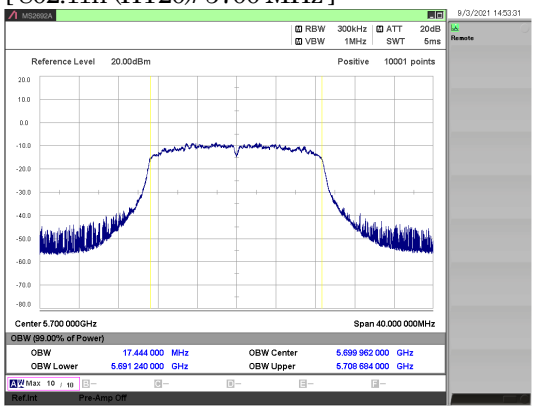
[802.11n (HT20)/ 5500 MHz]



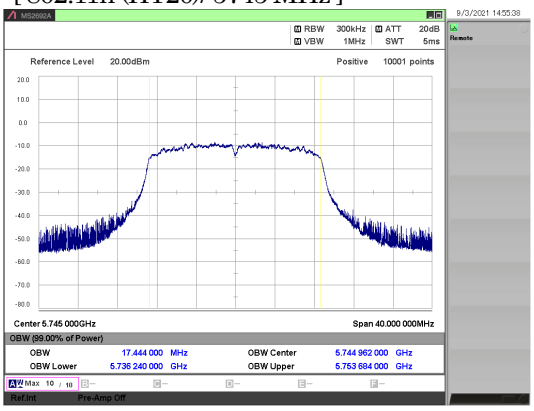
[802.11n (HT20)/ 5580 MHz]



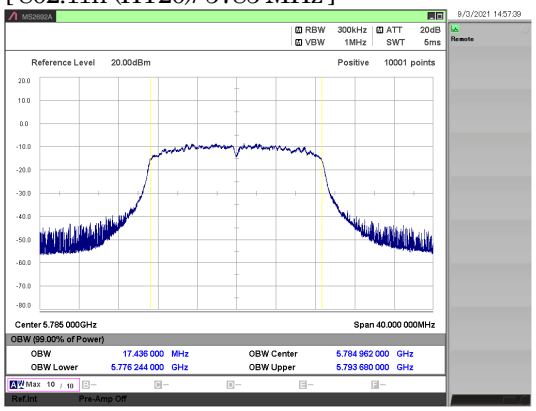
[802.11n (HT20)/ 5700 MHz]



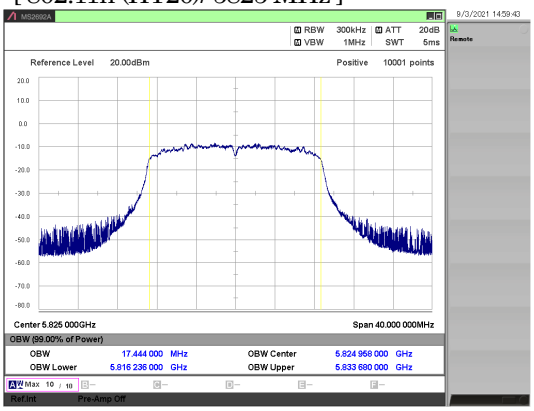
[802.11n (HT20)/ 5745 MHz]



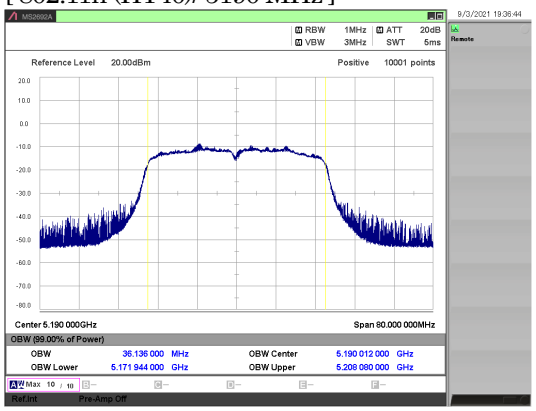
[802.11n (HT20)/ 5785 MHz]



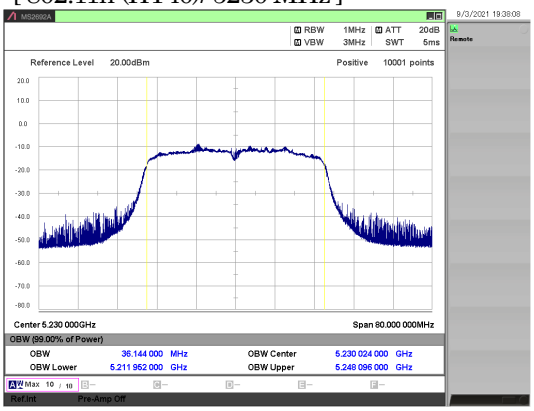
[802.11n (HT20)/ 5825 MHz]



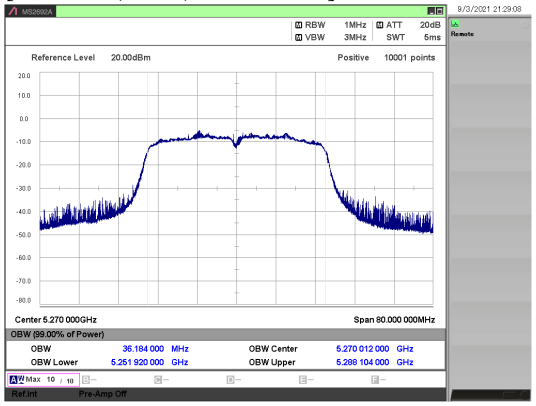
[802.11n (HT40)/ 5190 MHz]



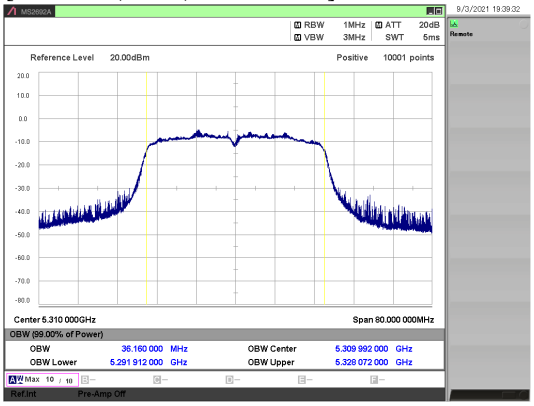
[802.11n (HT40)/ 5230 MHz]



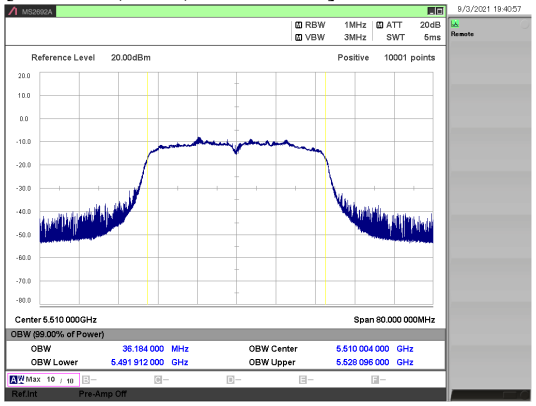
[802.11n (HT40)/ 5270 MHz]



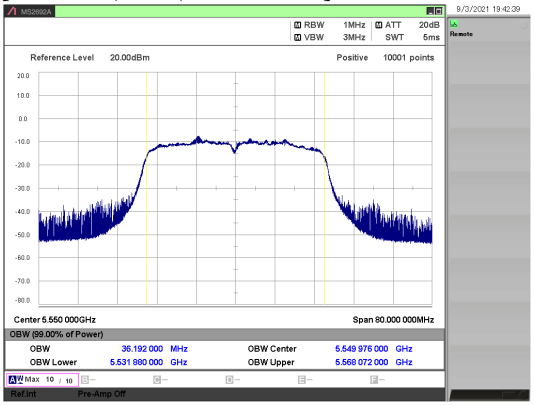
[802.11n (HT40)/ 5310 MHz]



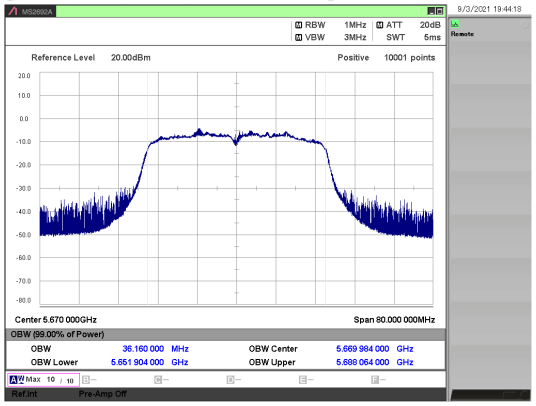
[802.11n (HT40)/ 5510 MHz]



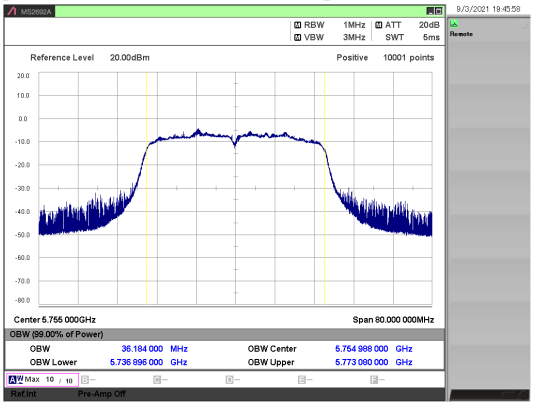
[802.11n (HT40)/ 5550 MHz]



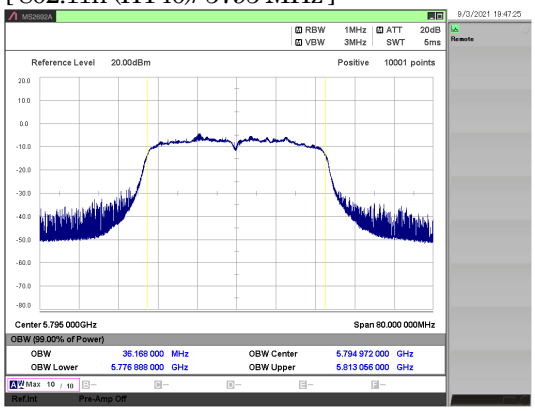
[802.11n (HT40)/ 5670 MHz]



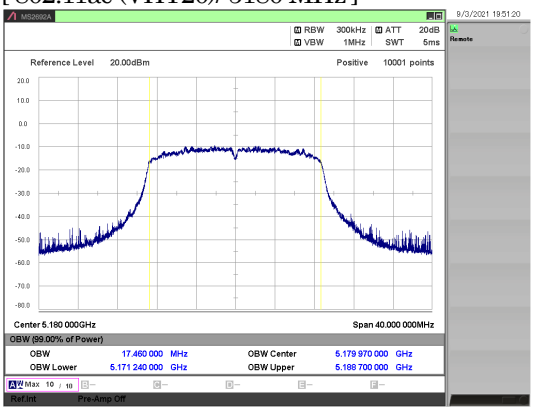
[802.11n (HT40)/ 5755 MHz]



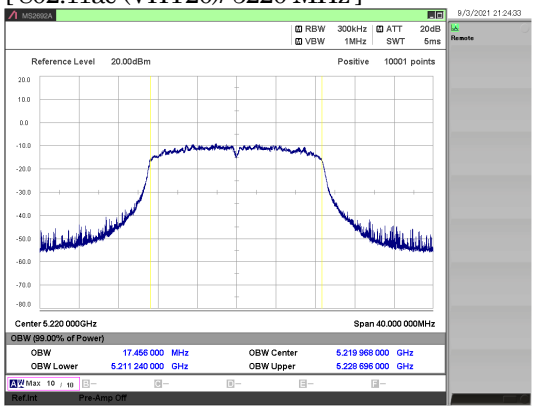
[802.11n (HT40)/ 5795 MHz]



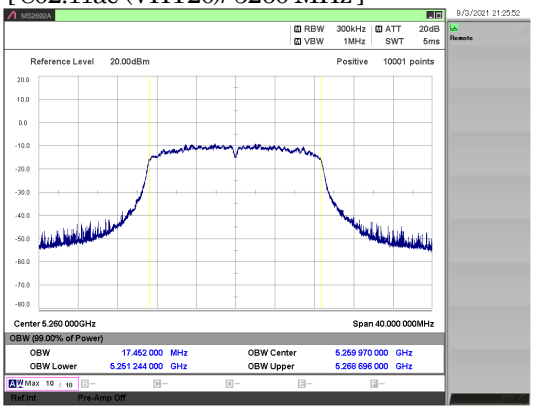
[802.11ac (VHT20)/ 5180 MHz]



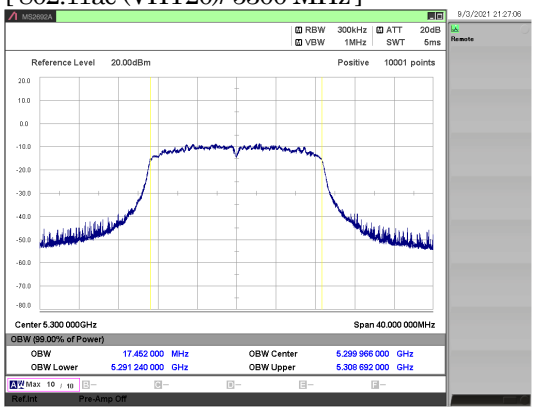
[802.11ac (VHT20)/ 5220 MHz]



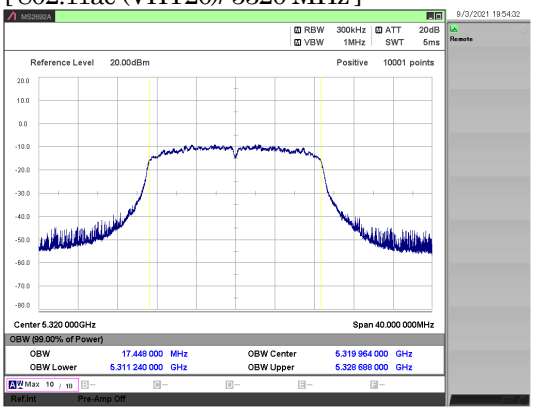
[802.11ac (VHT20)/ 5260 MHz]



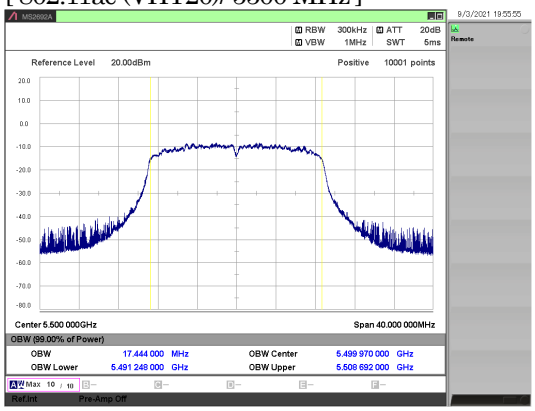
[802.11ac (VHT20)/ 5300 MHz]



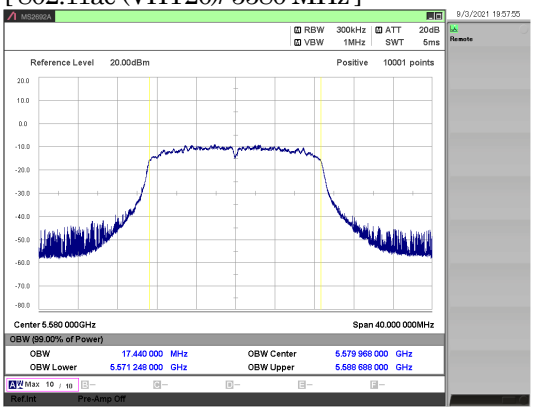
[802.11ac (VHT20)/ 5320 MHz]



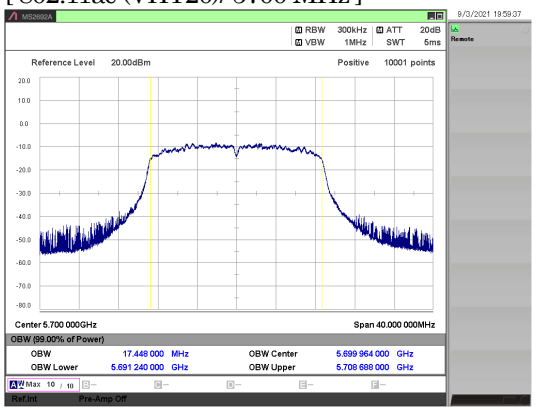
[802.11ac (VHT20)/ 5500 MHz]



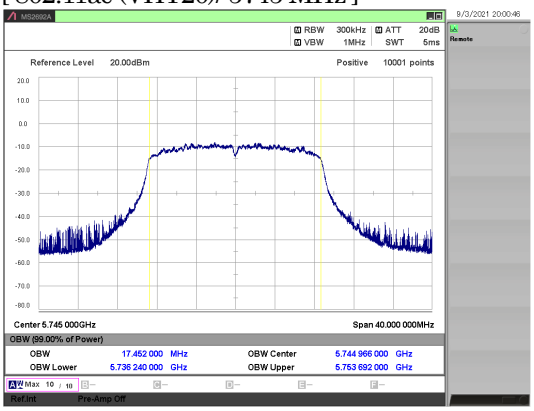
[802.11ac (VHT20)/ 5580 MHz]



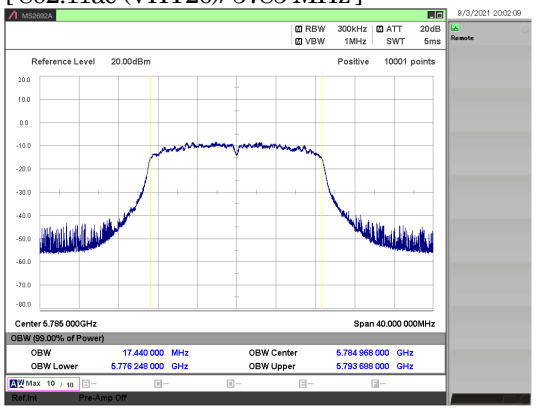
[802.11ac (VHT20)/ 5700 MHz]



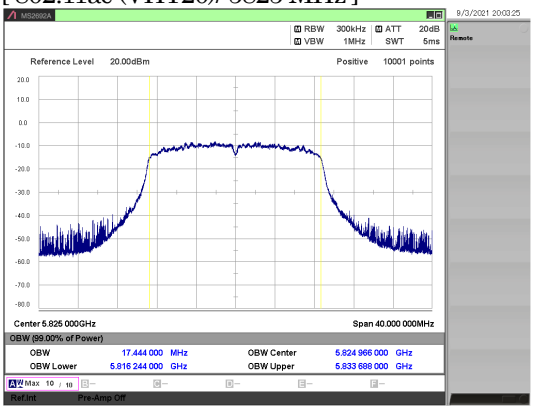
[802.11ac (VHT20)/ 5745 MHz]



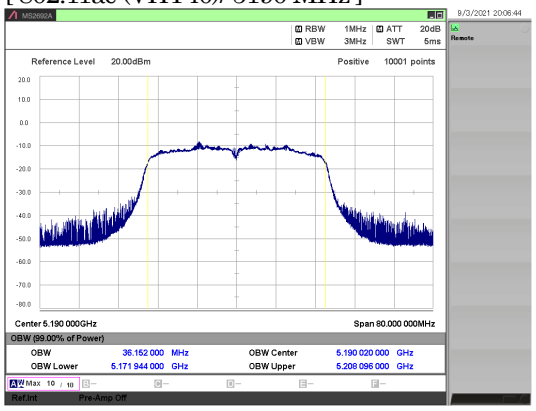
[802.11ac (VHT20)/ 5785 MHz]



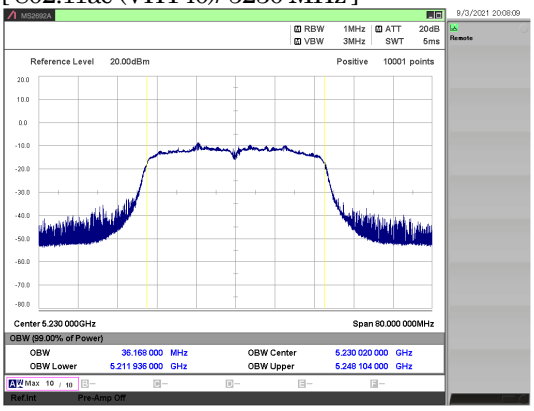
[802.11ac (VHT20)/ 5825 MHz]



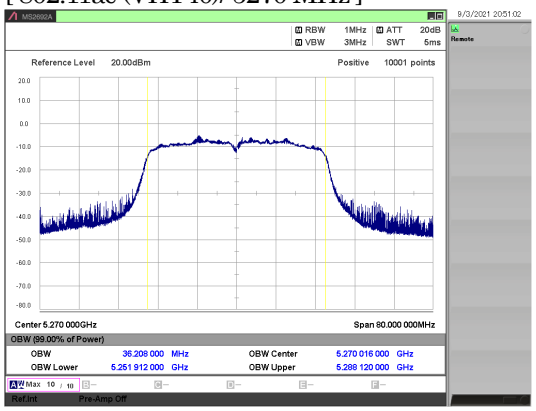
[802.11ac (VHT40)/ 5190 MHz]



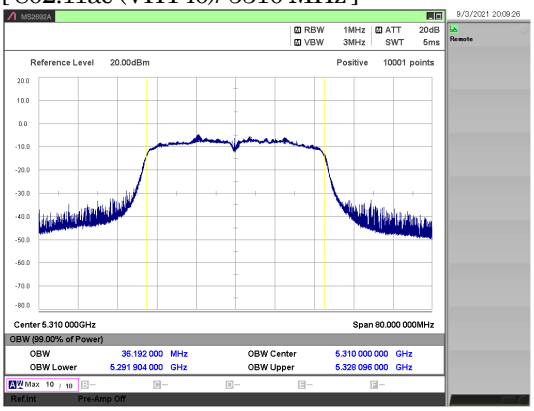
[802.11ac (VHT40)/ 5230 MHz]



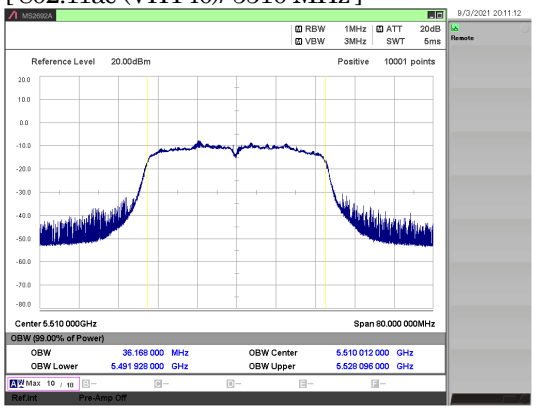
[802.11ac (VHT40)/ 5270 MHz]



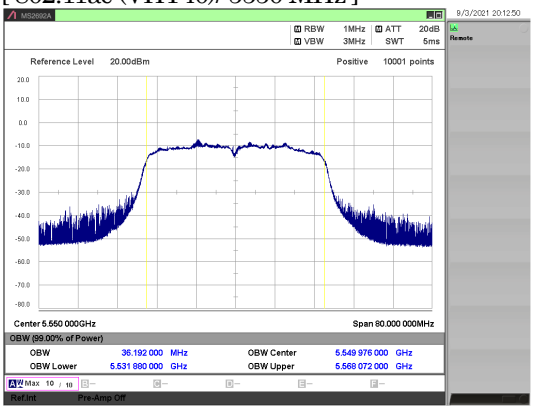
[802.11ac (VHT40)/ 5310 MHz]



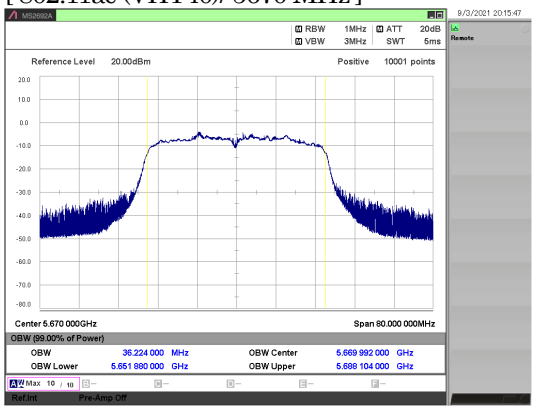
[802.11ac (VHT40)/ 5510 MHz]



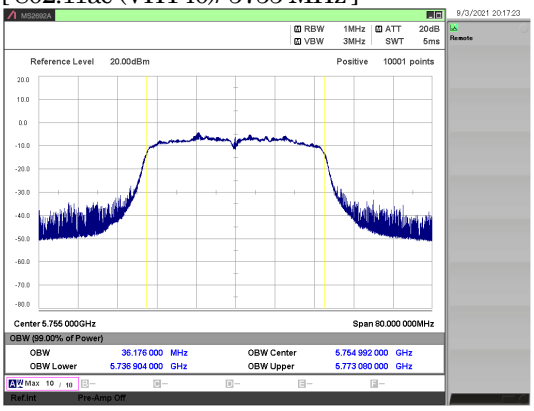
[802.11ac (VHT40)/ 5550 MHz]



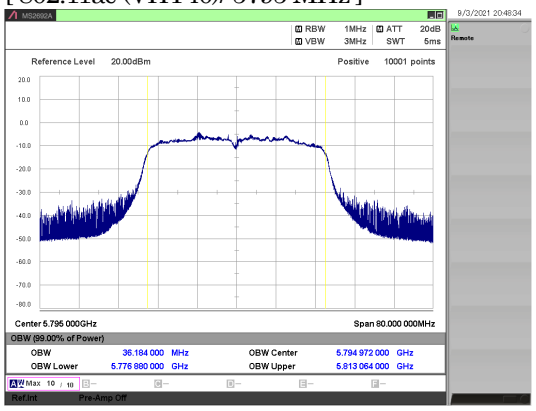
[802.11ac (VHT40)/ 5670 MHz]



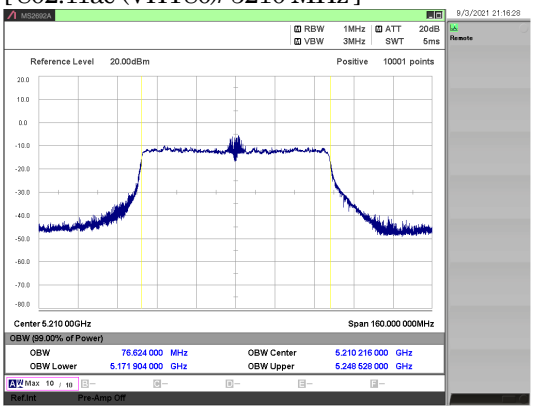
[802.11ac (VHT40)/ 5755 MHz]



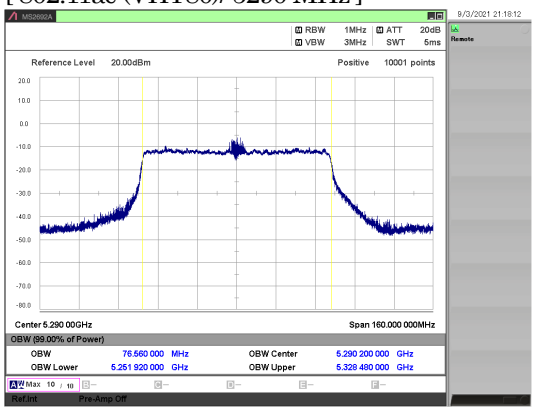
[802.11ac (VHT40)/ 5795 MHz]



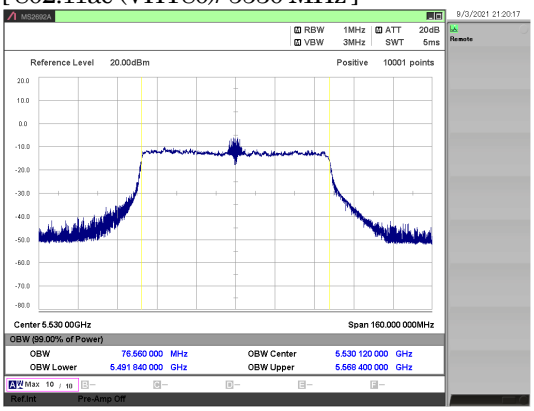
[802.11ac (VHT80)/ 5210 MHz]



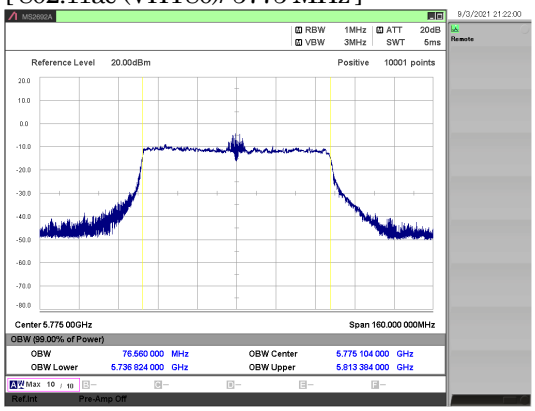
[802.11ac (VHT80)/ 5290 MHz]



[802.11ac (VHT80)/ 5530 MHz]



[802.11ac (VHT80)/ 5775 MHz]



3.5. Maximum Conducted Output Power

Date of measurement	Ambient temperature	Relative humidity	Measured by
August 5, 2021	22.4 deg.C	47.1 %	Mikiko Kouga
August 6, 2021	23.2 deg.C	66.1 %	Mikiko Kouga
August 20, 2021	23.9 deg.C	64.0 %	Mikiko Kouga

Mode	Rate [Mbps]	Ch. [MHz]	Reading (AV) [dBm]	C.F. [dB]	Duty Factor [dB]	Ant. Gain [dBi]	Conducted Output Power				Equivalent Isotropically Radiated Power			
							Result (AV) [dBm]	Result (AV) [mW]	Limit [dBm]	Margin [dB]	Result (AV) [dBm]	Result (AV) [mW]	Limit [dBm]	Margin [dB]
11a	18	5180	-0.71	10.33	0.00	2.39	9.62	9.16	≤ 23.98	14.36	12.01	15.89	≤ 29.98	17.97
		5200	-0.26	10.33	0.00	2.39	10.07	10.16	≤ 23.98	13.91	12.46	17.62	≤ 29.98	17.52
		5220	-0.14	10.33	0.00	2.39	10.19	10.45	≤ 23.98	13.79	12.58	18.11	≤ 29.98	17.40
		5240	-0.19	10.33	0.00	2.39	10.14	10.33	≤ 23.98	13.84	12.53	17.91	≤ 29.98	17.45
		5260	-0.24	10.33	0.00	2.39	10.09	10.21	≤ 23.56	13.47	12.48	17.70	≤ 29.56	17.08
		5280	0.19	10.33	0.00	2.39	10.52	11.27	≤ 23.56	13.04	12.91	19.54	≤ 29.56	16.65
		5300	0.18	10.33	0.00	2.39	10.51	11.25	≤ 23.56	13.05	12.90	19.50	≤ 29.56	16.66
		5320	-0.18	10.33	0.00	2.39	10.15	10.35	≤ 23.56	13.41	12.54	17.95	≤ 29.56	17.02
		5500	0.52	10.34	0.00	2.39	10.86	12.19	≤ 23.56	12.70	13.25	21.13	≤ 29.56	16.31
		5580	-0.31	10.34	0.00	2.39	10.03	10.07	≤ 23.56	13.53	12.42	17.46	≤ 29.56	17.14
		5700	0.35	10.34	0.00	2.39	10.69	11.72	≤ 23.56	12.87	13.08	20.32	≤ 29.56	16.48
		5745	0.38	10.34	0.00	2.39	10.72	11.80	≤ 30.00	19.28	13.11	20.46	≤ 36.00	22.89
		5785	0.36	10.34	0.00	2.39	10.70	11.75	≤ 30.00	19.30	13.09	20.37	≤ 36.00	22.91
		5825	0.55	10.34	0.00	2.39	10.89	12.27	≤ 30.00	19.11	13.28	21.28	≤ 36.00	22.72
11n (HT20)	MCS2	5180	-0.81	10.33	0.00	2.39	9.52	8.95	≤ 23.98	14.46	11.91	15.52	≤ 23.98	18.07
		5200	-0.54	10.33	0.00	2.39	9.79	9.53	≤ 23.98	14.19	12.18	16.52	≤ 23.98	17.80
		5220	-0.35	10.33	0.00	2.39	9.98	9.95	≤ 23.98	14.00	12.37	17.26	≤ 23.98	17.61
		5240	-0.48	10.33	0.00	2.39	9.85	9.66	≤ 23.98	14.13	12.24	16.75	≤ 23.98	17.74
		5260	-0.52	10.33	0.00	2.39	9.81	9.57	≤ 23.75	13.94	12.20	16.60	≤ 23.75	17.55
		5280	-0.17	10.33	0.00	2.39	10.16	10.38	≤ 23.75	13.59	12.55	17.99	≤ 23.75	17.20
		5300	-0.18	10.33	0.00	2.39	10.15	10.35	≤ 23.75	13.60	12.54	17.95	≤ 23.75	17.21
		5320	-0.34	10.33	0.00	2.39	9.99	9.98	≤ 23.75	13.76	12.38	17.30	≤ 23.75	17.37
		5500	0.20	10.34	0.00	2.39	10.54	11.32	≤ 23.75	13.21	12.93	19.63	≤ 23.75	16.82
		5580	-0.51	10.34	0.00	2.39	9.83	9.62	≤ 23.75	13.92	12.22	16.67	≤ 23.75	17.53
		5700	0.04	10.34	0.00	2.39	10.38	10.91	≤ 23.75	13.37	12.77	18.92	≤ 23.75	16.98
		5745	0.18	10.34	0.00	2.39	10.52	11.27	≤ 30.00	19.48	12.91	19.54	≤ 36.00	23.09
		5785	-0.05	10.34	0.00	2.39	10.29	10.69	≤ 30.00	19.71	12.68	18.54	≤ 36.00	23.32
		5825	0.21	10.34	0.00	2.39	10.55	11.35	≤ 30.00	19.45	12.94	19.68	≤ 36.00	23.06
11n (HT40)	MCS2	5190	-3.70	10.33	0.00	2.39	6.63	4.60	≤ 23.98	17.35	9.02	7.98	≤ 23.98	20.96
		5230	-4.06	10.33	0.00	2.39	6.27	4.24	≤ 23.98	17.71	8.66	7.35	≤ 23.98	21.32
		5270	-0.59	10.33	0.00	2.39	9.74	9.42	≤ 23.98	17.35	12.13	16.33	≤ 23.98	17.85
		5310	-0.29	10.33	0.00	2.39	10.04	10.09	≤ 23.98	17.71	12.43	17.50	≤ 23.98	17.55
		5510	-3.35	10.34	0.00	2.39	6.99	5.00	≤ 23.98	14.24	9.38	8.67	≤ 23.98	20.60
		5550	-2.88	10.34	0.00	2.39	7.46	5.57	≤ 23.98	13.94	9.85	9.66	≤ 23.98	20.13
		5670	0.56	10.34	0.00	2.39	10.90	12.30	≤ 23.98	16.99	13.29	21.33	≤ 23.98	16.69
		5755	0.31	10.34	0.00	2.39	10.65	11.61	≤ 30.00	19.35	13.04	20.14	≤ 36.00	22.96
		5795	0.22	10.34	0.00	2.39	10.56	11.38	≤ 30.00	19.44	12.95	19.72	≤ 36.00	23.05

Mode	Rate [Mbps]	Ch. [MHz]	Reading (AV) [dBm]	C.F. [dB]	Duty Factor [dB]	Ant. Gain [dBi]	Maximum Conducted Power				Equivalent Isotropically Radiated Power			
							Result (AV) [dBm]	Result (AV) [mW]	Limit [dBm]	Margin [dB]	Result (AV) [dBm]	Result (AV) [mW]	Limit [dBm]	Margin [dB]
11ac (VHT20)	MCS2	5180	-0.84	10.33	0.00	2.39	9.49	8.89	≤ 23.98	14.49	11.88	15.42	≤ 29.98	18.10
		5200	-0.49	10.33	0.00	2.39	9.84	9.64	≤ 23.98	14.14	12.23	16.71	≤ 29.98	17.75
		5220	-0.36	10.33	0.00	2.39	9.97	9.93	≤ 23.98	14.01	12.36	17.22	≤ 29.98	17.62
		5240	-0.46	10.33	0.00	2.39	9.87	9.71	≤ 23.98	14.11	12.26	16.83	≤ 29.98	17.72
		5260	-0.54	10.33	0.00	2.39	9.79	9.53	≤ 23.76	13.97	12.18	16.52	≤ 29.76	17.58
		5280	-0.06	10.33	0.00	2.39	10.27	10.64	≤ 23.76	13.49	12.66	18.45	≤ 29.76	17.10
		5300	-0.07	10.33	0.00	2.39	10.26	10.62	≤ 23.76	13.50	12.65	18.41	≤ 29.76	17.11
		5320	-0.42	10.33	0.00	2.39	9.91	9.79	≤ 23.76	13.85	12.30	16.98	≤ 29.76	17.46
		5500	0.14	10.34	0.00	2.39	10.48	11.17	≤ 23.76	13.28	12.87	19.36	≤ 29.76	16.89
		5580	-0.54	10.34	0.00	2.39	9.80	9.55	≤ 23.76	13.96	12.19	16.56	≤ 29.76	17.57
		5700	0.11	10.34	0.00	2.39	10.45	11.09	≤ 23.76	13.31	12.84	19.23	≤ 29.76	16.92
		5745	0.18	10.34	0.00	2.39	10.52	11.27	≤ 30.00	19.48	12.91	19.54	≤ 36.00	23.09
		5785	0.04	10.34	0.00	2.39	10.38	10.91	≤ 30.00	19.62	12.77	18.92	≤ 36.00	23.23
		5825	0.20	10.34	0.00	2.39	10.54	11.32	≤ 30.00	19.46	12.93	19.63	≤ 36.00	23.07
11ac (VHT40)	MCS2	5190	-3.66	10.33	0.00	2.39	6.67	4.65	≤ 23.98	17.31	9.06	8.05	≤ 29.98	20.92
		5230	-3.87	10.33	0.00	2.39	6.46	4.43	≤ 23.98	17.52	8.85	7.67	≤ 29.98	21.13
		5270	-0.34	10.33	0.00	2.39	9.99	9.98	≤ 23.98	13.99	12.38	17.30	≤ 29.98	17.60
		5310	0.01	10.33	0.00	2.39	10.34	10.81	≤ 23.98	13.64	12.73	18.75	≤ 29.98	17.25
		5510	-3.25	10.34	0.00	2.39	7.09	5.12	≤ 23.98	16.89	9.48	8.87	≤ 29.98	20.50
		5550	-2.68	10.34	0.00	2.39	7.66	5.83	≤ 23.98	16.32	10.05	10.12	≤ 29.98	19.93
		5670	0.54	10.34	0.00	2.39	10.88	12.25	≤ 23.98	13.10	13.27	21.23	≤ 29.98	16.71
		5755	0.27	10.34	0.00	2.39	10.61	11.51	≤ 30.00	19.39	13.00	19.95	≤ 36.00	23.00
		5795	0.22	10.34	0.00	2.39	10.56	11.38	≤ 30.00	19.44	12.95	19.72	≤ 36.00	23.05
11ac (VHT80)	MCS6	5210	-1.28	10.33	0.00	2.39	9.05	8.04	≤ 23.98	14.93	11.44	13.93	≤ 29.98	18.54
		5290	-0.90	10.33	0.00	2.39	9.43	8.77	≤ 23.98	14.55	11.82	15.21	≤ 29.98	18.16
		5530	-1.94	10.34	0.00	2.39	8.40	6.92	≤ 23.98	15.58	10.79	11.99	≤ 29.98	19.19
		5775	-0.65	10.34	0.00	2.39	9.69	9.31	≤ 30.00	20.31	12.08	16.14	≤ 36.00	23.92

Worst Data Rate check

Mode	Rate [Mbps]	Channel [MHz]	Reading(AV) [dBm]	C.F. [dB]	$T_{(on+off)}$ [msec]	T [msec]	Duty Factor [dB]	Result(AV) [dBm]
11a	6	5180	-0.79	10.33	20.215	20.060	0.00	9.54
	9	5180	-0.80	10.33	13.526	13.384	0.00	9.53
	12	5180	-0.82	10.33	10.186	10.044	0.00	9.51
	18	5180	-0.71	10.33	6.874	6.703	0.00	9.62
	24	5180	-0.94	10.33	5.184	5.032	0.00	9.39
	36	5180	-0.94	10.33	3.542	3.363	0.00	9.39
	48	5180	-0.92	10.33	2.697	2.528	0.00	9.41
	54	5180	-0.99	10.33	2.417	2.248	0.00	9.34
11n (HT20)	MCS0	5180	-1.01	10.33	18.701	18.538	0.00	9.32
	MCS1	5180	-1.05	10.33	9.467	9.288	0.00	9.28
	MCS2	5180	-0.81	10.33	6.355	6.203	0.00	9.52
	MCS3	5180	-0.92	10.33	4.825	4.664	0.00	9.41
	MCS4	5180	-0.85	10.33	3.289	3.119	0.00	9.48
	MCS5	5180	-0.90	10.33	2.467	2.351	0.00	9.43
	MCS6	5180	-0.84	10.33	2.252	2.092	0.00	9.49
	MCS7	5180	-0.92	10.33	2.030	1.887	0.00	9.41
11n (HT40)	MCS0	5190	-3.83	10.33	9.118	8.945	0.00	6.50
	MCS1	5190	-3.82	10.33	4.634	4.492	0.00	6.51
	MCS2	5190	-3.70	10.33	3.168	3.008	0.00	6.63
	MCS3	5190	-3.78	10.33	2.433	2.264	0.00	6.55
	MCS4	5190	-3.77	10.33	1.693	1.524	0.00	6.56
	MCS5	5190	-3.76	10.33	1.303	1.152	0.00	6.57
	MCS6	5190	-3.74	10.33	1.206	1.028	0.00	6.59
	MCS7	5190	-3.76	10.33	1.097	0.927	0.00	6.57
11ac (VHT20)	MCS0	5180	-0.96	10.33	18.717	18.547	0.00	9.37
	MCS1	5180	-1.06	10.33	9.466	9.295	0.00	9.27
	MCS2	5180	-0.84	10.33	6.373	6.211	0.00	9.49
	MCS3	5180	-0.87	10.33	4.802	4.667	0.00	9.46
	MCS4	5180	-0.92	10.33	3.306	3.127	0.00	9.41
	MCS5	5180	-0.95	10.33	2.471	2.356	0.00	9.38
	MCS6	5180	-0.92	10.33	2.242	2.100	0.00	9.41
	MCS7	5180	-0.89	10.33	2.016	1.892	0.00	9.44
11ac (VHT40)	MCS0	5190	-3.78	10.33	9.123	8.952	0.00	6.55
	MCS1	5190	-3.73	10.33	4.648	4.496	0.00	6.60
	MCS2	5190	-3.66	10.33	3.172	3.012	0.00	6.67
	MCS3	5190	-3.78	10.33	2.428	2.267	0.00	6.55
	MCS4	5190	-3.84	10.33	1.706	1.528	0.00	6.49
	MCS5	5190	-3.83	10.33	1.307	1.156	0.00	6.50
	MCS6	5190	-3.82	10.33	1.201	1.032	0.00	6.51
	MCS7	5190	-3.78	10.33	1.083	0.932	0.00	6.55
	MCS8	5190	-3.76	10.33	0.953	0.784	0.00	6.57
	MCS9	5190	-3.73	10.33	0.881	0.712	0.00	6.60
11ac (VHT80)	MCS0	5210	-1.84	10.33	4.325	4.155	0.00	8.49
	MCS1	5210	-1.61	10.33	2.269	2.100	0.00	8.72
	MCS2	5210	-1.62	10.33	1.563	1.412	0.00	8.71
	MCS3	5210	-1.29	10.33	1.232	1.072	0.00	9.04
	MCS4	5210	-1.30	10.33	0.870	0.728	0.00	9.03
	MCS5	5210	-1.35	10.33	0.716	0.556	0.00	8.98
	MCS6	5210	-1.28	10.33	0.651	0.500	0.00	9.05
	MCS7	5210	-2.91	10.33	0.621	0.452	0.00	7.42
	MCS8	5210	-2.84	10.33	0.553	0.384	0.00	7.49
	MCS9	5210	-2.90	10.33	0.521	0.352	0.00	7.43

3.6. Maximum Power Spectral Density

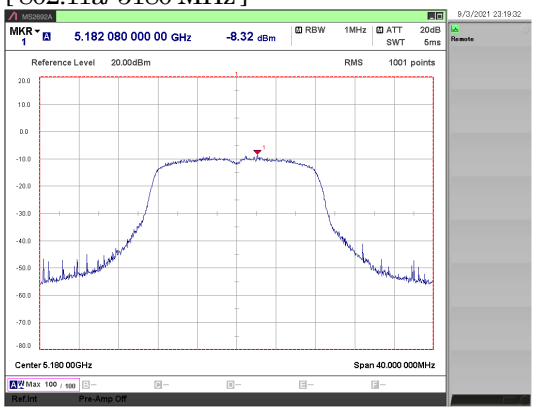
Date of measurement	Ambient temperature	Relative humidity	Measured by
September 3, 2021	21.5 deg.C	53.3 %	Mikiko Kouga

Mode	Rate [Mbps]	Ch. [MHz]	Reading (RMS) [dBm/MHz]	C.F. [dB]	RBW Factor [dB]	Ant. Gain [dBi]	Power Spectral Density			Power Spectral Density(EIRP)		
							Result (RMS) [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]	Result (RMS) [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
11a	18	5180	-8.32	10.86	-	2.39	2.54	≤ 11.00	8.46	4.93	≤ 17.00	12.07
		5220	-7.80	10.87	-	2.39	3.07	≤ 11.00	7.93	5.46	≤ 17.00	11.54
		5240	-7.87	10.87	-	2.39	3.00	≤ 11.00	8.00	5.39	≤ 17.00	11.61
		5260	-8.21	10.87	-	2.39	2.66	≤ 11.00	8.34	5.05	≤ 17.00	11.95
		5300	-7.96	10.87	-	2.39	2.91	≤ 11.00	8.09	5.30	≤ 17.00	11.70
		5320	-8.26	10.87	-	2.39	2.61	≤ 11.00	8.39	5.00	≤ 17.00	12.00
		5500	-7.51	10.89	-	2.39	3.38	≤ 11.00	7.62	5.77	≤ 17.00	11.23
		5580	-8.54	10.89	-	2.39	2.35	≤ 11.00	8.65	4.74	≤ 17.00	12.26
		5700	-7.62	10.90	-	2.39	3.28	≤ 11.00	7.72	5.67	≤ 17.00	11.33
		5745	-13.09	10.90	6.99	2.39	4.80	≤ 30.00	25.20	7.19	≤ 36.00	28.81
		5785	-12.26	10.91	6.99	2.39	5.64	≤ 30.00	24.36	8.03	≤ 36.00	27.97
		5825	-12.26	10.91	6.99	2.39	5.64	≤ 30.00	24.36	8.03	≤ 36.00	27.97
11n (HT20)	MCS2	5180	-9.41	10.86	-	2.39	1.45	≤ 11.00	9.55	3.84	≤ 17.00	13.16
		5220	-8.91	10.87	-	2.39	1.96	≤ 11.00	9.04	4.35	≤ 17.00	12.65
		5240	-8.64	10.87	-	2.39	2.23	≤ 11.00	8.77	4.62	≤ 17.00	12.38
		5260	-8.78	10.87	-	2.39	2.09	≤ 11.00	8.91	4.48	≤ 17.00	12.52
		5300	-8.63	10.87	-	2.39	2.24	≤ 11.00	8.76	4.63	≤ 17.00	12.37
		5320	-8.68	10.87	-	2.39	2.19	≤ 11.00	8.81	4.58	≤ 17.00	12.42
		5500	-8.00	10.89	-	2.39	2.89	≤ 11.00	8.11	5.28	≤ 17.00	11.72
		5580	-8.76	10.89	-	2.39	2.13	≤ 11.00	8.87	4.52	≤ 17.00	12.48
		5700	-8.44	10.90	-	2.39	2.46	≤ 11.00	8.54	4.85	≤ 17.00	12.15
		5745	-13.08	10.90	6.99	2.39	4.81	≤ 30.00	25.19	7.20	≤ 36.00	28.80
		5785	-12.37	10.91	6.99	2.39	5.53	≤ 30.00	24.47	7.92	≤ 36.00	28.08
		5825	-13.28	10.91	6.99	2.39	4.62	≤ 30.00	25.38	7.01	≤ 36.00	28.99
11ac (VHT20)	MCS 2	5180	-9.50	10.86	-	2.39	1.36	≤ 11.00	9.64	3.75	≤ 17.00	13.25
		5220	-8.98	10.87	-	2.39	1.89	≤ 11.00	9.11	4.28	≤ 17.00	12.72
		5240	-8.71	10.87	-	2.39	2.16	≤ 11.00	8.84	4.55	≤ 17.00	12.45
		5260	-8.82	10.87	-	2.39	2.05	≤ 11.00	8.95	4.44	≤ 17.00	12.56
		5300	-8.51	10.87	-	2.39	2.36	≤ 11.00	8.64	4.75	≤ 17.00	12.25
		5320	-8.47	10.87	-	2.39	2.40	≤ 11.00	8.60	4.79	≤ 17.00	12.21
		5500	-8.03	10.89	-	2.39	2.86	≤ 11.00	8.14	5.25	≤ 17.00	11.75
		5580	-9.03	10.89	-	2.39	1.86	≤ 11.00	9.14	4.25	≤ 17.00	12.75
		5700	-8.01	10.90	-	2.39	2.89	≤ 11.00	8.11	5.28	≤ 17.00	11.72
		5745	-12.89	10.90	6.99	2.39	5.00	≤ 30.00	25.00	7.39	≤ 36.00	28.61
		5785	-12.91	10.91	6.99	2.39	4.99	≤ 30.00	25.01	7.38	≤ 36.00	28.62
		5825	-13.33	10.91	6.99	2.39	4.57	≤ 30.00	25.43	6.96	≤ 36.00	29.04

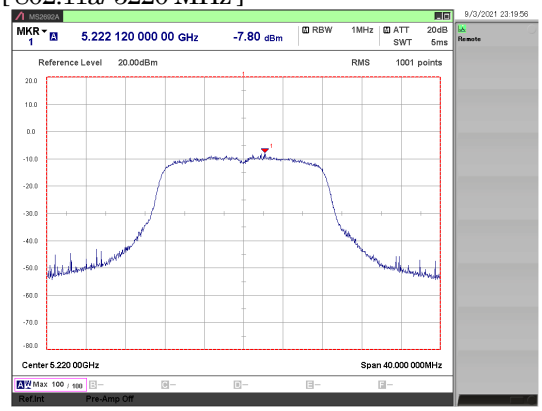
Mode	Rate [Mbps]	Ch. [MHz]	Reading (RMS) [dBm/MHz]	C.F. [dB]	RBW Factor [dB]	Ant. Gain [dBi]	Power Spectral Density			Power Spectral Density(EIRP)		
							Result (RMS) [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]	Result (RMS) [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
11n (HT40)	MCS2	5190	-15.42	10.86	-	2.39	-4.56	≤ 11.00	15.56	-2.17	≤ 17.00	19.17
		5230	-15.33	10.87	-	2.39	-4.46	≤ 11.00	15.46	-2.07	≤ 17.00	19.07
		5270	-12.16	10.87	-	2.39	-1.29	≤ 11.00	12.29	1.10	≤ 17.00	15.90
		5310	-11.76	10.87	-	2.39	-0.89	≤ 11.00	11.89	1.50	≤ 17.00	15.50
		5510	-14.94	10.89	-	2.39	-4.05	≤ 11.00	15.05	-1.66	≤ 17.00	18.66
		5550	-14.93	10.89	-	2.39	-4.04	≤ 11.00	15.04	-1.65	≤ 17.00	18.65
		5670	-11.52	10.90	-	2.39	-0.62	≤ 11.00	11.62	1.77	≤ 17.00	15.23
		5755	-18.11	10.91	6.99	2.39	-0.21	≤ 30.00	30.21	2.18	≤ 36.00	33.82
		5795	-18.28	10.91	6.99	2.39	-0.38	≤ 30.00	30.38	2.01	≤ 36.00	33.99
11ac (VHT40)	MCS2	5190	-15.30	10.86	-	2.39	-4.44	≤ 11.00	15.44	-2.05	≤ 17.00	19.05
		5230	-15.75	10.87	-	2.39	-4.88	≤ 11.00	15.88	-2.49	≤ 17.00	19.49
		5270	-12.50	10.87	-	2.39	-1.63	≤ 11.00	12.63	0.76	≤ 17.00	16.24
		5310	-11.86	10.87	-	2.39	-0.99	≤ 11.00	11.99	1.40	≤ 17.00	15.60
		5510	-15.16	10.89	-	2.39	-4.27	≤ 11.00	15.27	-1.88	≤ 17.00	18.88
		5550	-14.59	10.89	-	2.39	-3.70	≤ 11.00	14.70	-1.31	≤ 17.00	18.31
		5670	-11.29	10.90	-	2.39	-0.39	≤ 11.00	11.39	2.00	≤ 17.00	15.00
		5190	-15.30	10.86	-	2.39	-4.44	≤ 11.00	15.44	-2.05	≤ 17.00	19.05
		5755	-18.53	10.91	6.99	2.39	-0.63	≤ 30.00	30.63	1.76	≤ 36.00	34.24
		5795	-17.72	10.91	6.99	2.39	0.18	≤ 30.00	29.82	2.57	≤ 36.00	33.43
11ac (VHT80)	MCS6	5210	-15.77	10.87	-	2.39	-4.90	≤ 11.00	15.90	-2.51	≤ 17.00	19.51
		5290	-15.80	10.87	-	2.39	-4.93	≤ 11.00	15.93	-2.54	≤ 17.00	19.54
		5530	-15.82	10.89	-	2.39	-4.93	≤ 11.00	15.93	-2.54	≤ 17.00	19.54
		5775	-23.67	10.91	6.99	2.39	-5.77	≤ 30.00	35.77	-3.38	≤ 36.00	39.38

Note For the U-NII-3 Band, the power spectral density is based on any 500 kHz band.

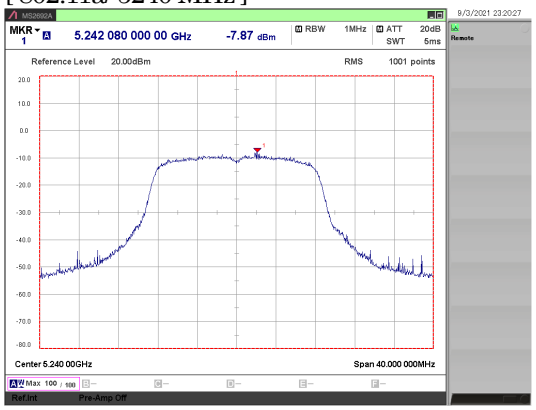
[802.11a/ 5180 MHz]



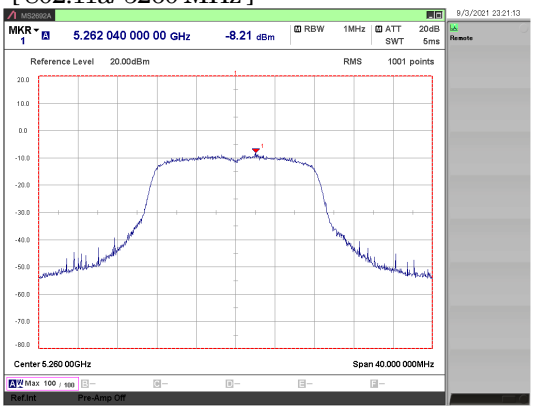
[802.11a/ 5220 MHz]



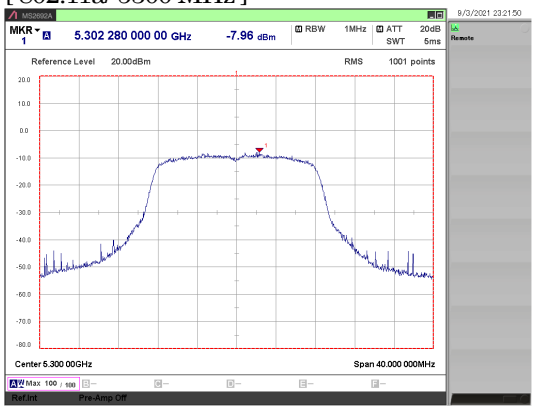
[802.11a/ 5240 MHz]



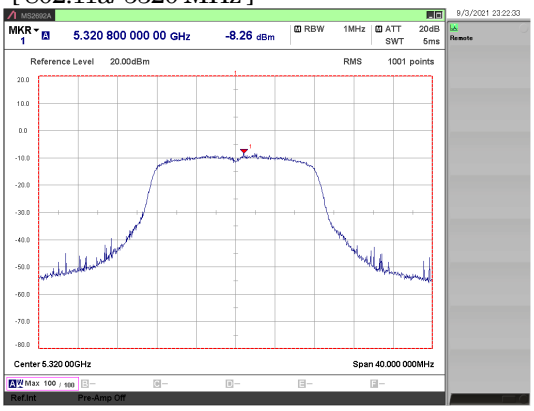
[802.11a/ 5260 MHz]



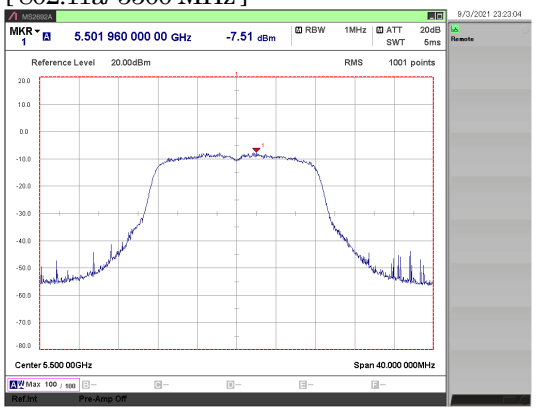
[802.11a/ 5300 MHz]



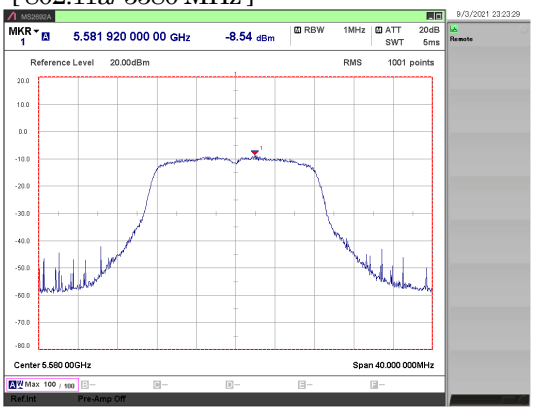
[802.11a/ 5320 MHz]



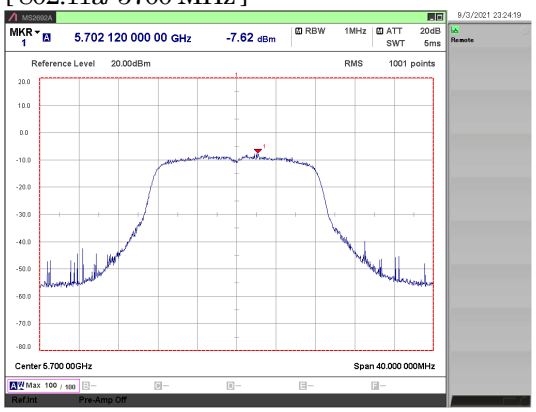
[802.11a/ 5500 MHz]



[802.11a/ 5580 MHz]



[802.11a/ 5700 MHz]



[802.11a/ 5745 MHz]