

RADIO TEST REPORT

(for 2.4 GHz WLAN)

Project No. : JB-Z0492-A
Client : Sony Corporation, Japan and Other Sony Group Companies
Client's Address : 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan
Product Name : Wireless Transceiver Module
Model No. : BNSY25
FCC ID : AK8BNSY25
Test Standard : 47 CFR Part 15 Subpart C
Sample Receipt Date : October 16, 2018
Test Date : January 8, 2019 to January 24, 2019
Report Date : January 25, 2019
Amend Report Date : February 15, 2019
Test Result : Complied

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- * All test results are traceable to the national and / or international standards.
- * The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in Sony Global Manufacturing & Operations Corporation EMC/RF Test Laboratory.

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Format No.: NV1-1-01 Version 5.0

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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-Z0492 (Original)	January 25, 2019	-	-
JB-Z0492-A	February 15, 2019	Change model name to module name.	P1,3,4

1. General Information

1.1. Description of Equipment Under Test (EUT)

General Specification

Test Sample Condition : ☐ Prototype ☒ Pre-production ☐ Mass-production
 Product Name : Wireless Transceiver Module
 Trade Name : SONY
 Model No. : BNSY25
 Serial No. : 001
 Power Rating of the EUT : DC 3.3 V, DC 2.8 V, DC 1.8 V
 (The EUT was supplied with the power from the host device)

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	Channel Spacing	Bandwidth	Number of Channel
802.11b	2412 MHz to 2462 MHz	5 MHz	20 MHz	11
802.11g	2412 MHz to 2462 MHz	5 MHz	20 MHz	11
802.11n-HT20	2412 MHz to 2462 MHz	5 MHz	20 MHz	11

Modulation Type :

IEEE Standard	Type of modulation
802.11b	DSSS (DBPSK, DQPSK)
802.11g	OFDM (BPSK, QPSK, 16QAM, 64QAM)
802.11n	OFDM(BPSK, QPSK, 16QAM, 64QAM)

Antenna Type : Pattern antenna

Antenna Connector Type : None

Antenna Gain : -2.91 dBi

1.2. Summary of Test Result

Test Item	Worst Margin	Results	Note
AC Power-line Conducted Emissions	28.5 dB (QP) 0.192 MHz N	Complied	-
6dB Bandwidth	-	N/A	*1
Maximum Conducted Output Power	-	N/A	*1
Power Spectral Density	-	N/A	*1
Radiated Spurious Emissions	4.7 dB (AV) 2483.500 MHz Horizontal	Complied	-
Conducted Spurious Emissions for Band Edge	-	N/A	*1

Note

*1: This item is referred to BNSY25 Radio Test Report (issued by UL Japan Inc.).

Other requirements

Part 15.31(e) Supply voltage requirement

: Complied (The EUT is provided with stable DC Voltage from the host device)

Part 15.203 / 212 Antenna requirement

: Complied (Users cannot replace the external antenna, since it is mounted to the inside of the host device.)

1.3. Tested Methodology

Test Standard : 47 CFR Part15 Subpart C

Test Method : ANSI C63.10 - 2013
KDB 558074 D01 15.247 Meas Guidance v05

Test Condition

AC Power-line Conducted Emissions

Dimensions of the EUT table : 0.8 m height, 2 m width and 1 m depth.

Radiated Spurious Emissions

Test Distance : ☒ 3 m ☐ 10m (9 kHz to 30 MHz)
☒ 3 m ☐ 10m (30 MHz to 1000 MHz)
☒ 3 m (1 GHz to 26.5 GHz)

Dimensions of the EUT table : 0.8 m (below 1 GHz) or 1.5 m (above 1 GHz) height, 1.5 m width and 1 m depth.

1.4. Measurement Procedures

We performed the measurements in accordance with NV3-06, 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)

Radiated Spurious Emissions

- The non-conductive table (EUT table) made of (☐ FRP, ☒ Styrene Foam, ☐ other non-conductive material) was placed in the center of the turntable.
- The EUT was placed on the center of the tabletop.
- The test antenna was placed away from the EUT at test distance.
- The limits were compensated the distance factor with follows;
 $9 \text{ kHz to } 490 \text{ kHz [Limit at 3 m]} = [\text{Limit at 300 m}] + 40\log(300[\text{m}] / 3[\text{m}])$
 $490 \text{ kHz to } 30 \text{ MHz [Limit at 3 m]} = [\text{Limit at 30 m}] + 40\log(30[\text{m}] / 3[\text{m}])$
- 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 26.5 GHz, peak detector)
- 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 26.5 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 26.5 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)

- If the final measurement result exceeded the limit in non-restricted band(excluding carrier band edges), the measurement is carried out additionally with follows;

Measurement points

- Fundamental Frequency
- Frequency that exceeded the limit in non-restricted band (excluding carrier band edges)

	9 kHz to 150 kHz	150 kHz to 30 MHz	30 MHz to 26.5 GHz
Detector	Peak	Peak	Peak
RBW	300 Hz (6 dB) *	10 kHz (6 dB) *	100 kHz (6 dB)
Instrument	Spectrum analyzer	Spectrum analyzer	Spectrum analyzer

*: Correction factor of RBW was compensated to a measurement result by the following formula.

$$\text{C.F. of RBW [dB]} = 10 \cdot \log(100 \text{ kHz} / \text{used RBW})$$

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

	2.4835 GHz to 2.4855 GHz
Detector	Peak
RBW	100 kHz (6 dB)
Instrument	Spectrum analyzer
Function	Channel Power (integration BW : 1 MHz)

9. Although these tests 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.

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
Cert. Validated Date : Oct. 31, 2019

AC Power-line Conducted Emissions

Shielded Room

☒ 4th Site ☐ EMC Site

Radiated Spurious 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
Power Spectral Density Conducted Spurious Emissions	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	± 2.59 dB	± 3.12 dB
	30 MHz to 1000 MHz	3m	± 4.18 dB	± 5.26 dB
	1 GHz to 18 GHz	3m	± 5.31 dB	± 5.50 dB
	18 GHz to 26.5 GHz	3m	± 5.78 dB	± 5.63 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	Worst Data Rate
AC Power-line Conducted Emissions *1	2412 MHz	802.11b : 1 Mbps
Radiated Spurious Emissions (below 1GHz) *1	2412 MHz	802.11b : 1 Mbps
Radiated Spurious Emissions (above 1GHz)	2412 MHz	802.11b : 1 Mbps
	2437 MHz	802.11g : 48 Mbps
	2462 MHz	802.11n(HT20) : MCS7

Note

*1: The test was performed with the representative mode that had been found as the worst emissions while exploratory testing.

The Software for Operating Mode (Control Software of Personal Computer)

Software Name : MT6625 RF Test
Software Version : 0.5

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

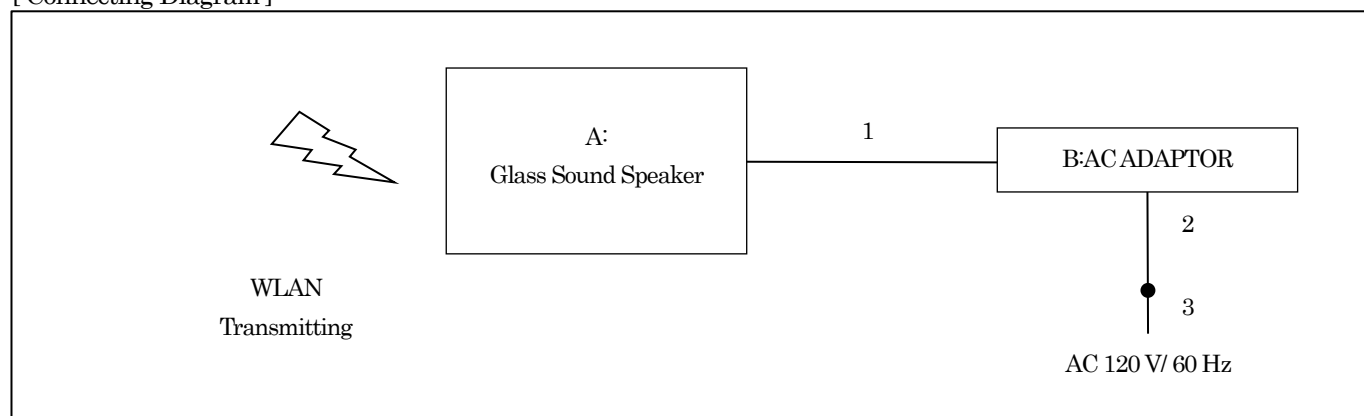
[EUT and Associated Equipment (AE)]

Symbol	EUT/ AE	Item	Manufacturer	Model No.	Serial No.
A	EUT	Glass Sound Speaker	SONY	LSPX-S2	0001048
B	AE	AC ADAPTOR	SONY	AC-UUE12	17115KD1004705

[Type of Cable]

Symbol	Description	Identification (Manufacturer etc.)	Shielded Yes / No	Ferrite Core	Length (m)	Bundled
1	USB Cable	iTak	Yes	No	1.0	-
2	AC Cable	I-Shen	No	No	0.5	-
3	Extension Cable	SANWA	No	No	0.3	-

[Connecting Diagram]



Radiated Spurious Emissions

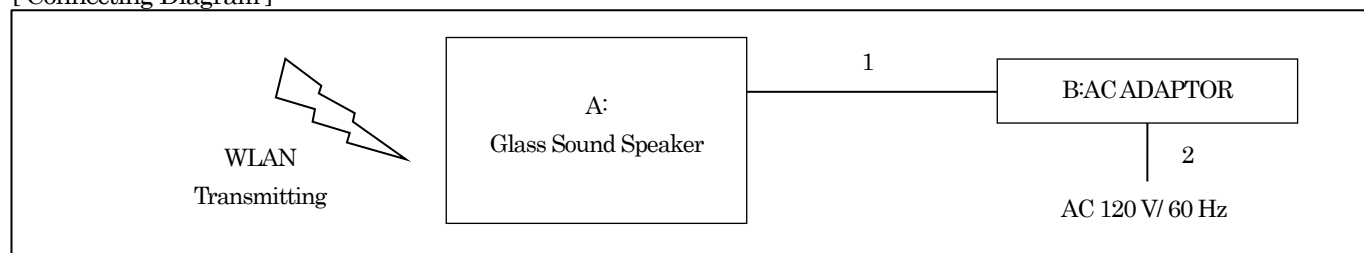
[EUT and Associated Equipment (AE)]

Symbol	EUT/ AE	Item	Manufacturer	Model No.	Serial No.
A	EUT	Glass Sound Speaker	SONY	LSPX-S2	0001048
B	AE	AC ADAPTOR	SONY	AC-UUE12	17115KD1004705

[Type of Cable]

Symbol	Description	Identification (Manufacturer etc.)	Shielded Yes / No	Ferrite Core	Length (m)	Bundled
1	USB Cable	ELECOM	Yes	No	2.0	-
2	AC Cable	I-Shen	No	No	0.5	-

[Connecting Diagram]



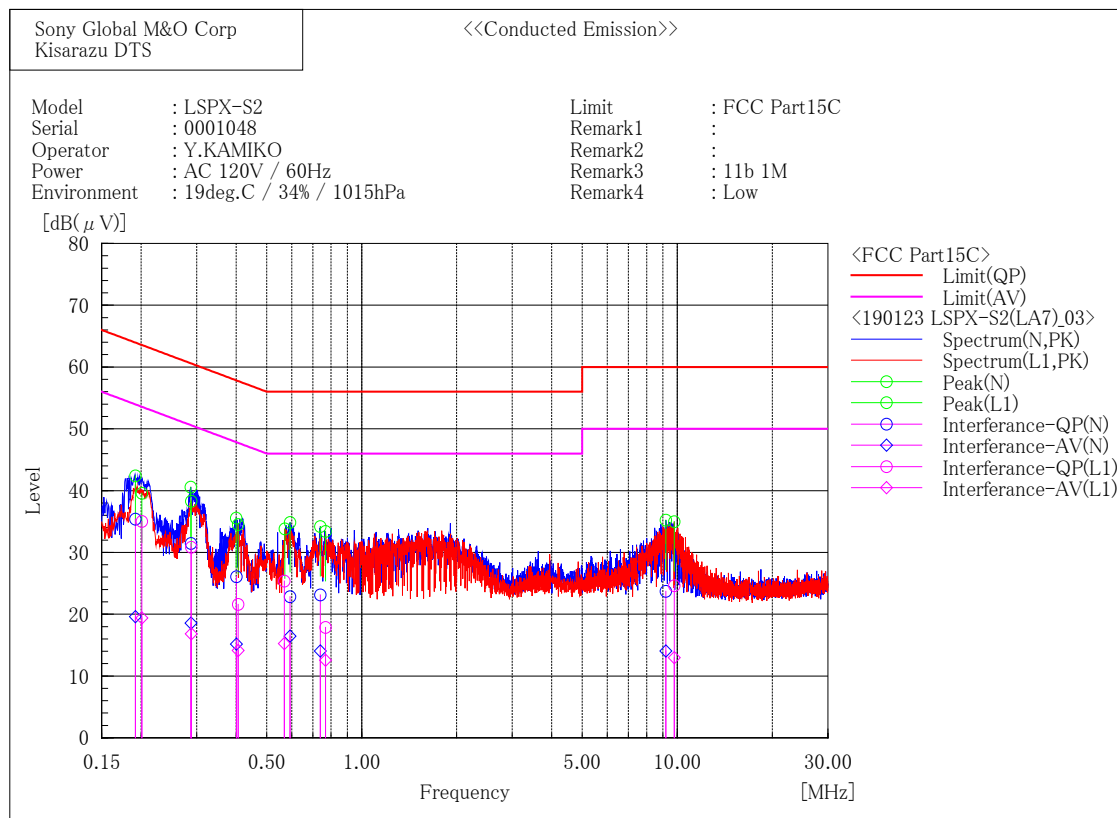
3. Test Data

3.1. AC Power-line Conducted Emissions

1) Date of measurement : January 23, 2019

The test data is mentioned as follows.

[802.11b/ 2412 MHz]



Final Result

--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c. f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.192	19.1	3.3	16.3	35.4	19.6	63.9	53.9	28.5	34.3
2	0.288	15.4	2.6	16.0	31.4	18.6	60.6	50.6	29.2	32.0
3	0.401	9.8	-1.1	16.3	26.1	15.2	57.8	47.8	31.7	32.6
4	0.593	6.5	0.2	16.3	22.8	16.5	56.0	46.0	33.2	29.5
5	0.740	6.9	-2.2	16.2	23.1	14.0	56.0	46.0	32.9	32.0
6	9.201	7.4	-2.2	16.3	23.7	14.1	60.0	50.0	36.3	35.9

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c. f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.201	18.8	3.2	16.2	35.0	19.4	63.6	53.6	28.6	34.2
2	0.289	14.8	0.8	16.0	30.8	16.8	60.6	50.6	29.8	33.8
3	0.406	5.3	-2.2	16.3	21.6	14.1	57.7	47.7	36.1	33.6
4	0.569	9.0	-1.0	16.3	25.3	15.3	56.0	46.0	30.7	30.7
5	0.768	1.7	-3.6	16.2	17.9	12.6	56.0	46.0	38.1	33.4
6	9.786	8.3	-3.3	16.3	24.6	13.0	60.0	50.0	35.4	37.0

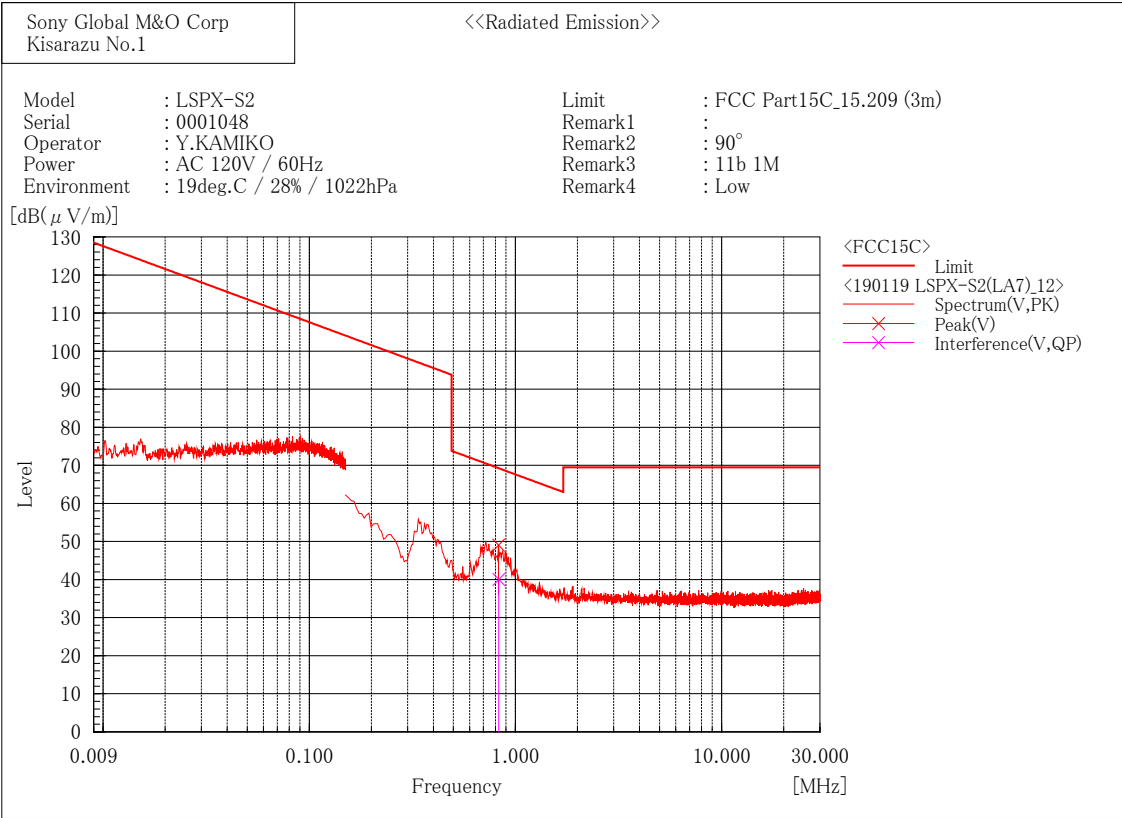
3.2. Radiated Spurious Emissions

1) Date of measurement

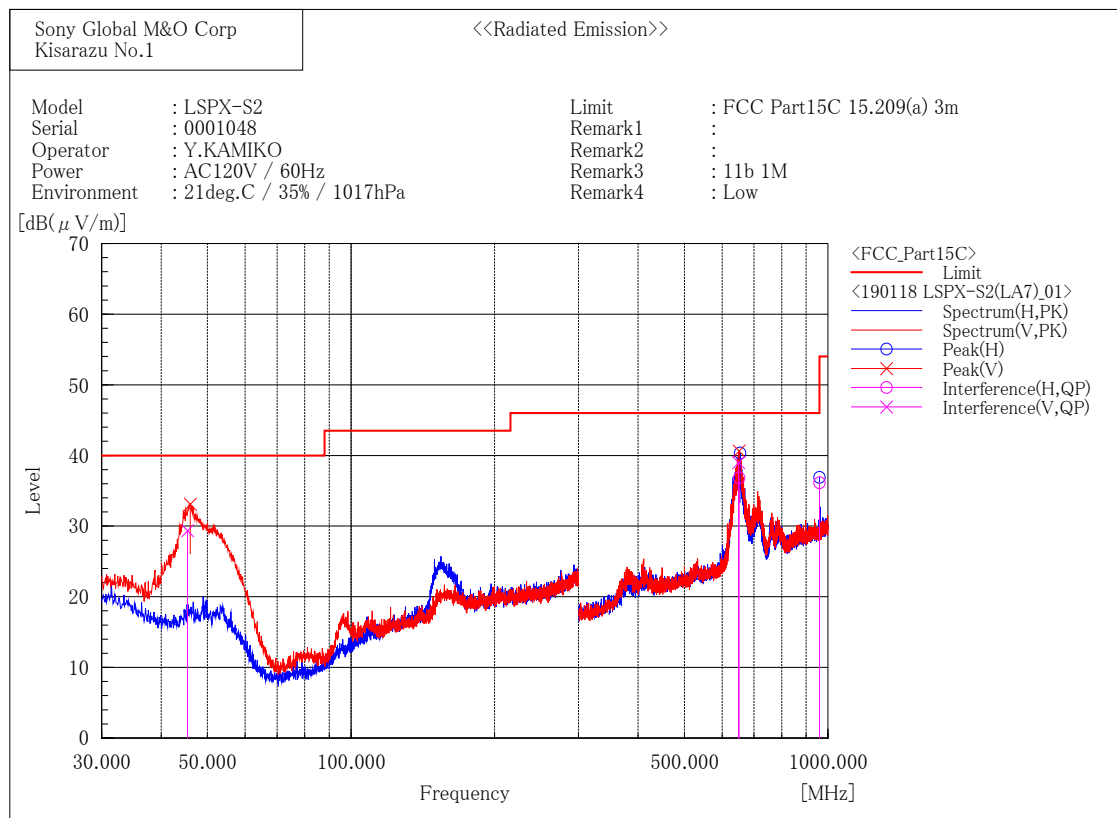
9 kHz to 30 MHz	: January 19, 2019	(all mode)
30 MHz to 1000 MHz	: January 18, 2019	(all mode)
1 GHz to 6 GHz	: January 8, 2019 to January 11, 2019	(all mode)
6 GHz to 18 GHz	: January 14, 2019	(all mode)
18 GHz to 26.5 GHz	: January 24, 2019	(all mode)

The test data is mentioned as follows.

9 kHz to 30 MHz
[802.11b/ 2412 MHz]



30 MHz to 1000 MHz
[802.11b/ 2412 MHz]



Final Result

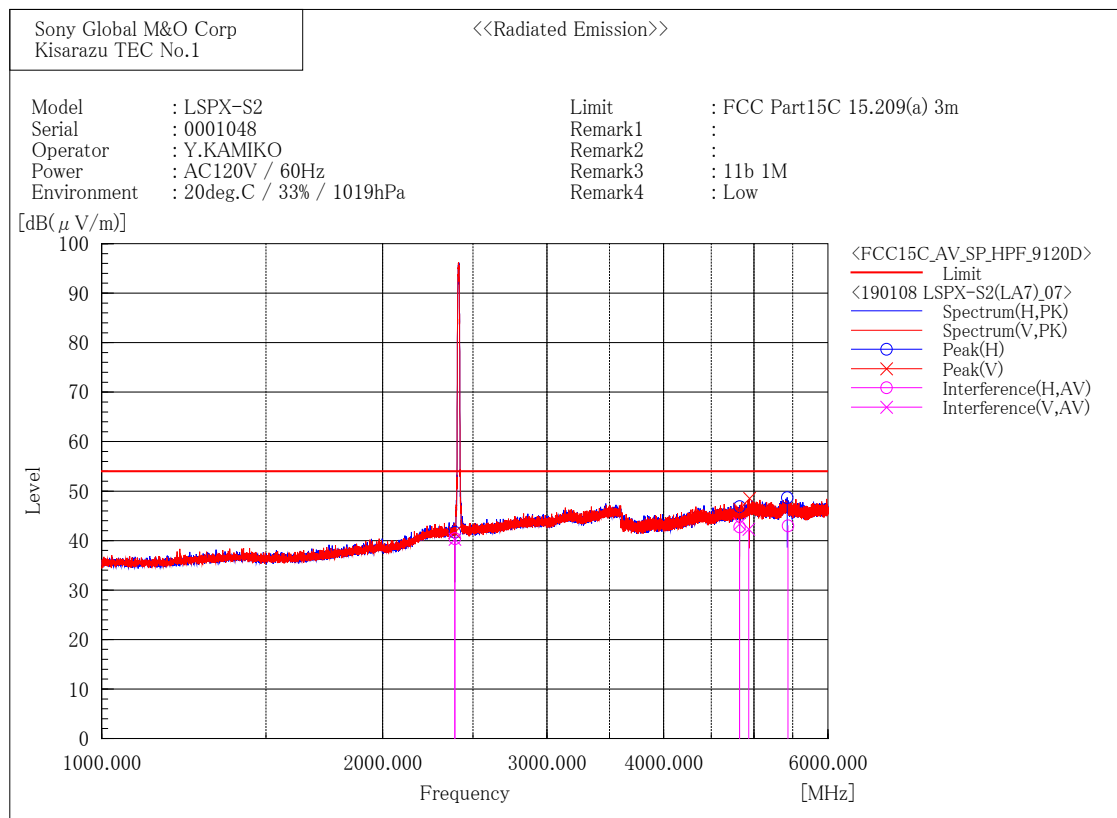
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	650.900	39.9	-3.1	36.8	46.0	9.2	128.0	216.3
2	959.999	34.5	1.6	36.1	46.0	9.9	151.0	118.9

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	45.417	41.9	-12.5	29.4	40.0	10.6	100.0	78.1
2	649.633	42.1	-3.1	39.0	46.0	7.0	162.0	185.2

1 GHz to 6 GHz
[802.11b/ 2412 MHz]



Final Result

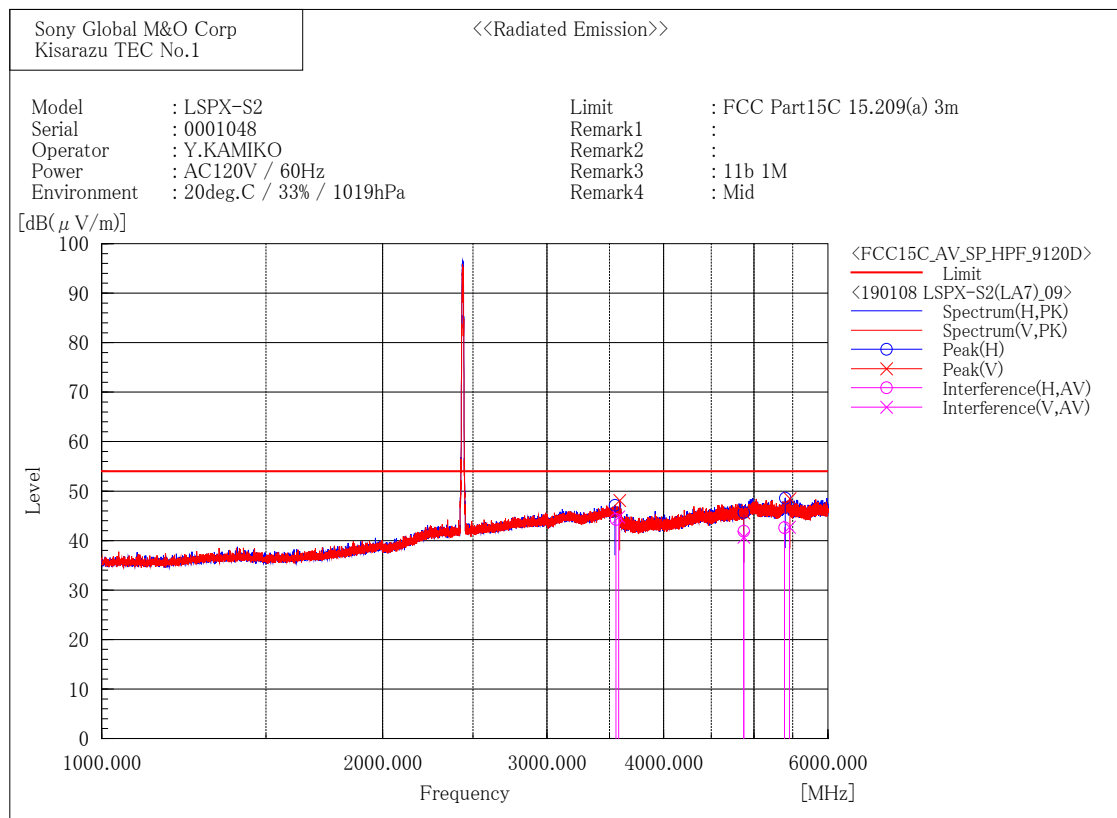
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2390.000	37.7	2.7	40.4	54.0	13.6	168.1	51.7
2	4824.000	31.9	10.9	42.8	54.0	11.2	269.0	51.1
3	5435.857	31.3	11.7	43.0	54.0	11.0	125.0	105.8

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2390.000	37.6	2.7	40.3	54.0	13.7	115.0	183.5
2	4824.000	32.5	10.9	43.4	54.0	10.6	273.5	282.1
3	4935.409	31.1	11.2	42.3	54.0	11.7	227.2	308.9

[802.11b/ 2437 MHz]



Final Result

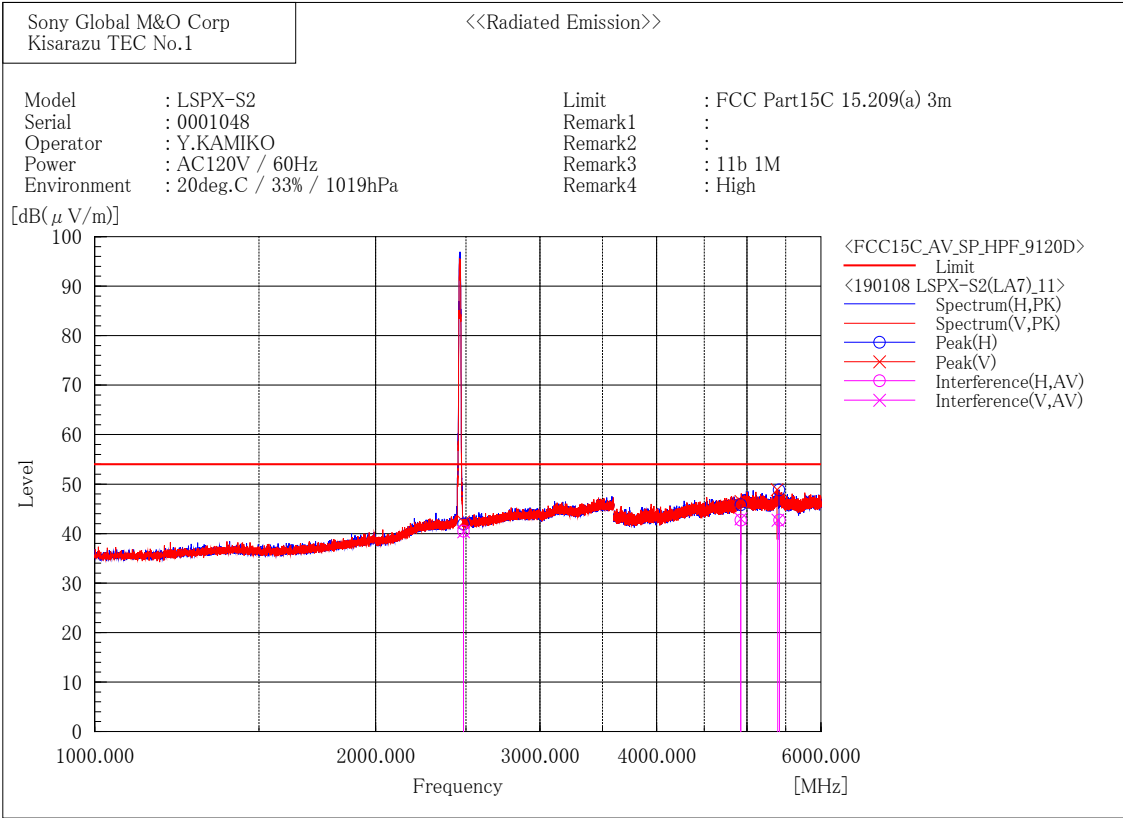
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3556.748	37.1	7.2	44.3	54.0	9.7	226.1	53.6
2	4874.000	30.9	11.0	41.9	54.0	12.1	251.0	59.4
3	5391.556	31.0	11.6	42.6	54.0	11.4	128.0	60.4

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3580.230	37.5	7.3	44.8	54.0	9.2	124.1	82.8
2	4874.000	29.7	11.0	40.7	54.0	13.3	278.0	11.7
3	5455.135	31.1	11.6	42.7	54.0	11.3	307.4	79.8

[802.11b/ 2462 MHz]



Final Result

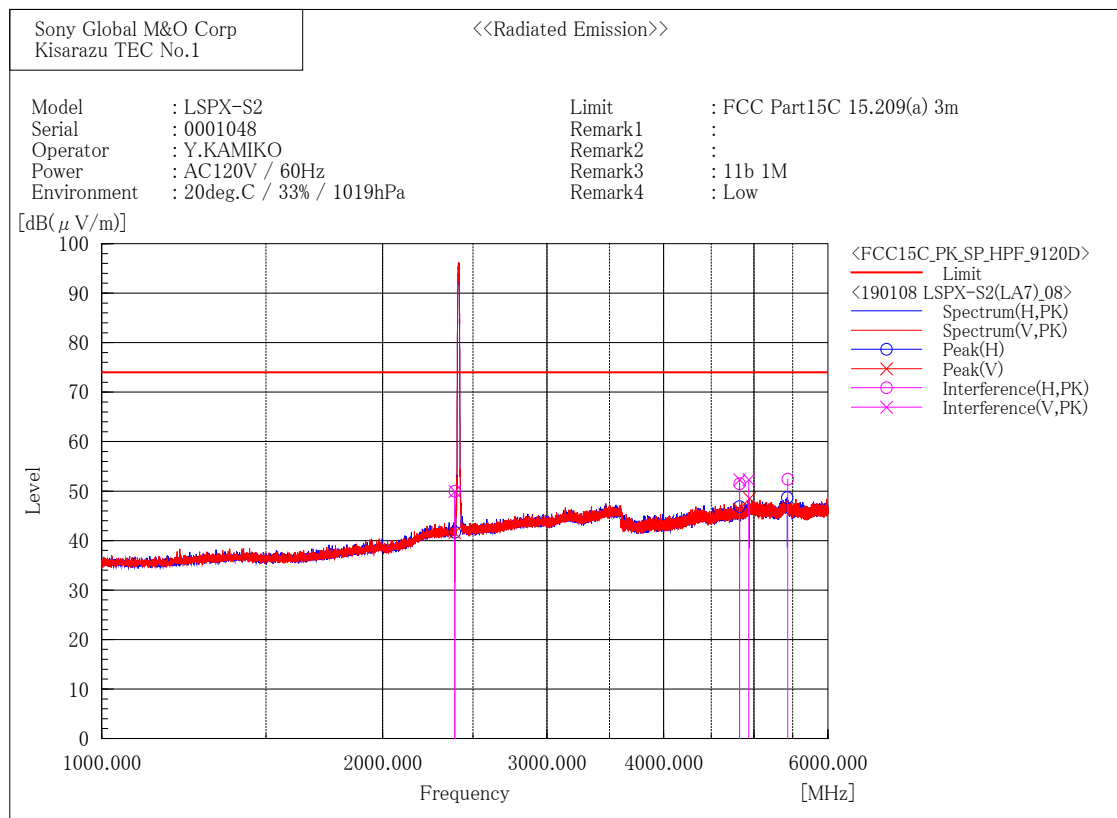
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	37.4	3.1	40.5	54.0	13.5	100.0	3.3
2	4924.000	31.6	11.1	42.7	54.0	11.3	431.0	92.4
3	5416.080	31.0	11.7	42.7	54.0	11.3	343.2	276.5

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	37.3	3.1	40.4	54.0	13.6	103.5	317.2
2	4924.000	31.9	11.1	43.0	54.0	11.0	258.7	296.9
3	5393.719	31.1	11.6	42.7	54.0	11.3	256.9	39.5

[802.11b/ 2412 MHz]



Final Result

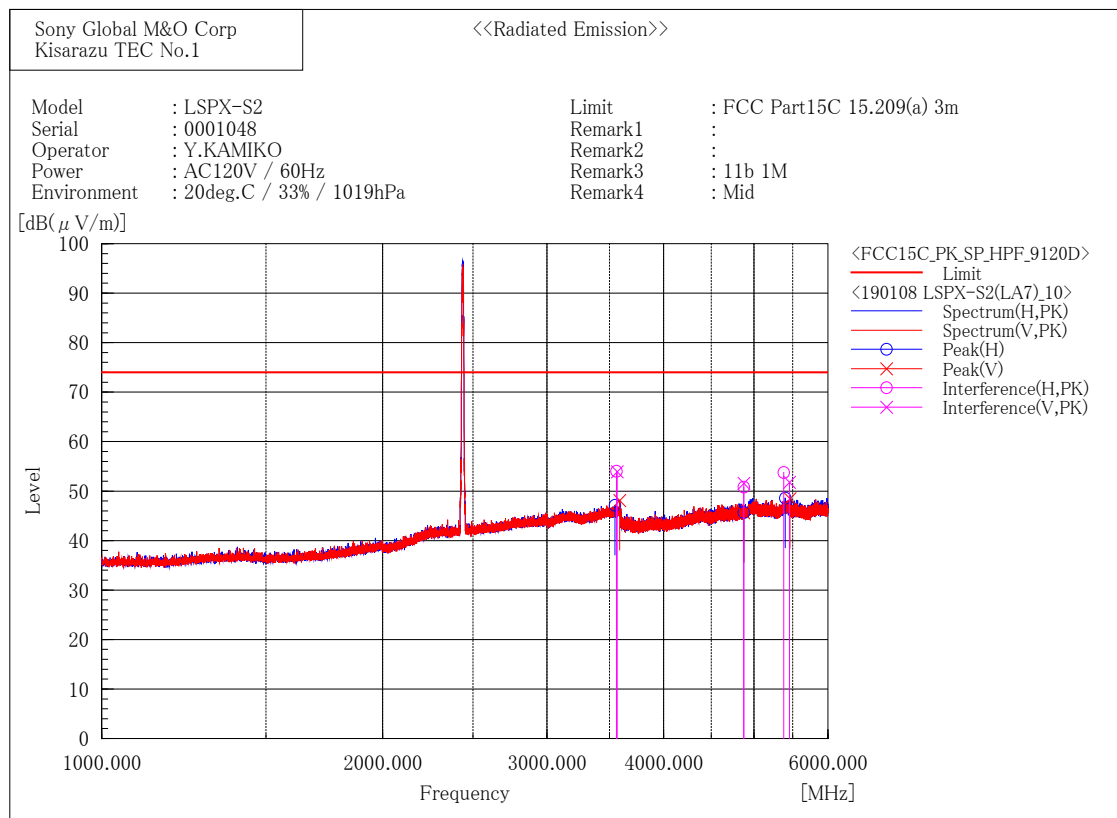
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2390.000	47.3	2.7	50.0	74.0	24.0	167.8	52.8
2	4824.000	40.6	10.9	51.5	74.0	22.5	269.0	52.4
3	5434.628	40.7	11.7	52.4	74.0	21.6	125.0	105.8

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2390.000	47.2	2.7	49.9	74.0	24.1	115.0	181.4
2	4824.000	41.4	10.9	52.3	74.0	21.7	273.5	280.1
3	4935.028	41.1	11.2	52.3	74.0	21.7	227.2	307.0

[802.11b/ 2437 MHz]



Final Result

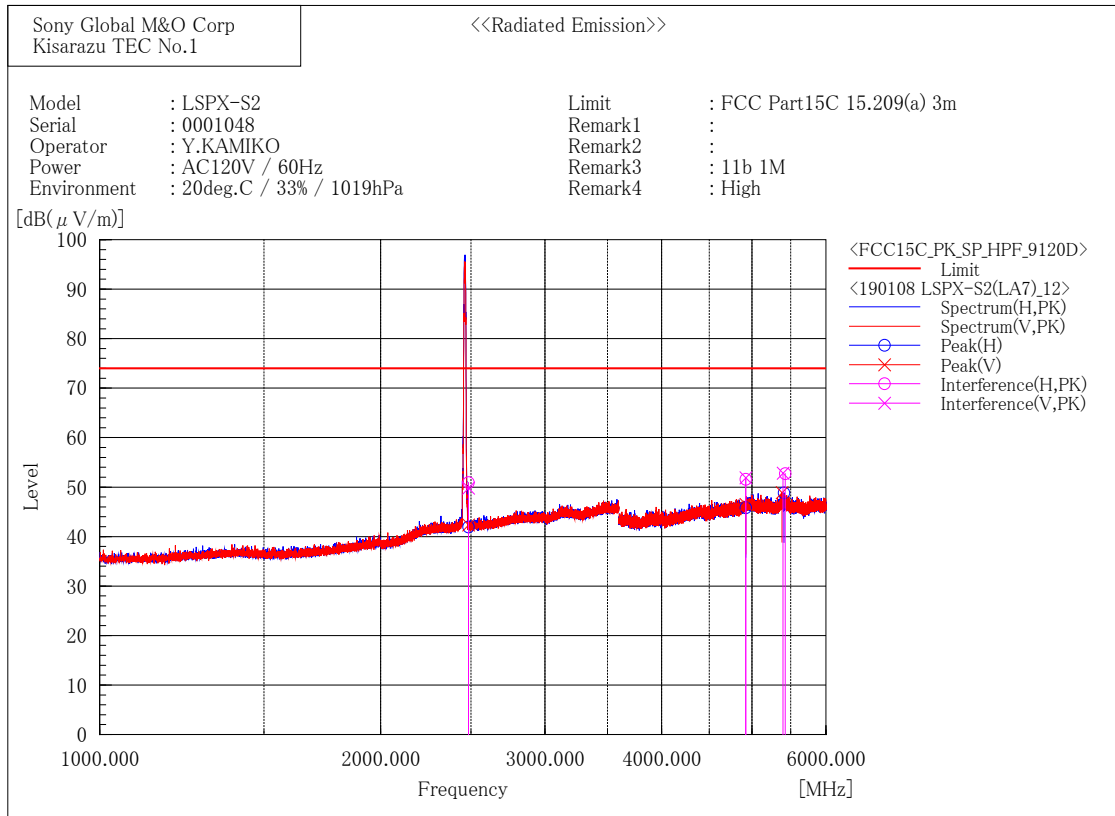
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3561.035	46.8	7.2	54.0	74.0	20.0	227.0	55.3
2	4874.000	39.8	11.0	50.8	74.0	23.2	251.0	58.5
3	5381.289	42.3	11.5	53.8	74.0	20.2	128.0	63.8

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3567.884	46.6	7.3	53.9	74.0	20.1	124.0	83.5
2	4874.000	40.6	11.0	51.6	74.0	22.4	277.0	9.8
3	5456.340	40.2	11.6	51.8	74.0	22.2	307.4	79.8

[802.11b/ 2462 MHz]



Final Result

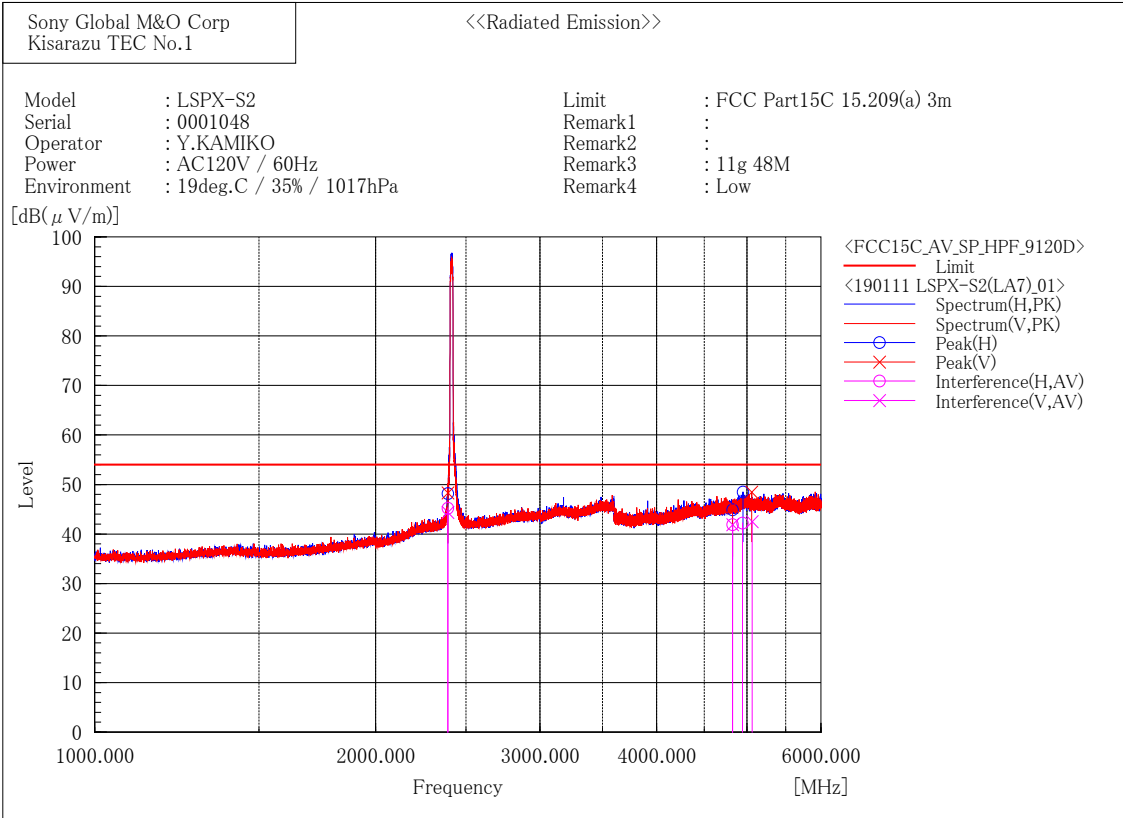
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	47.8	3.1	50.9	74.0	23.1	100.0	3.3
2	4924.000	40.5	11.1	51.6	74.0	22.4	430.0	95.7
3	5426.678	41.0	11.7	52.7	74.0	21.3	343.2	278.6

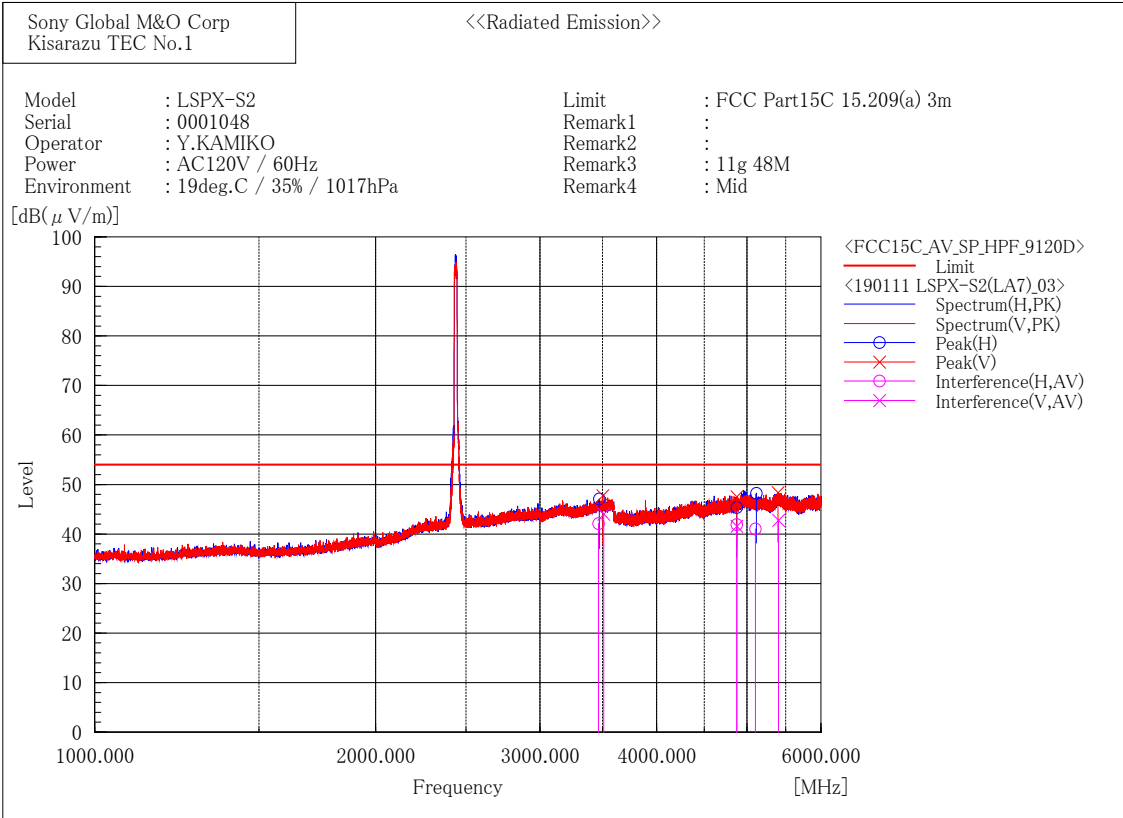
--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	46.7	3.1	49.8	74.0	24.2	105.0	317.7
2	4924.000	40.8	11.1	51.9	74.0	22.1	258.7	298.7
3	5397.409	41.2	11.6	52.8	74.0	21.2	259.7	45.0

[802.11g/ 2412 MHz]



[802.11g/ 2437 MHz]



Final Result

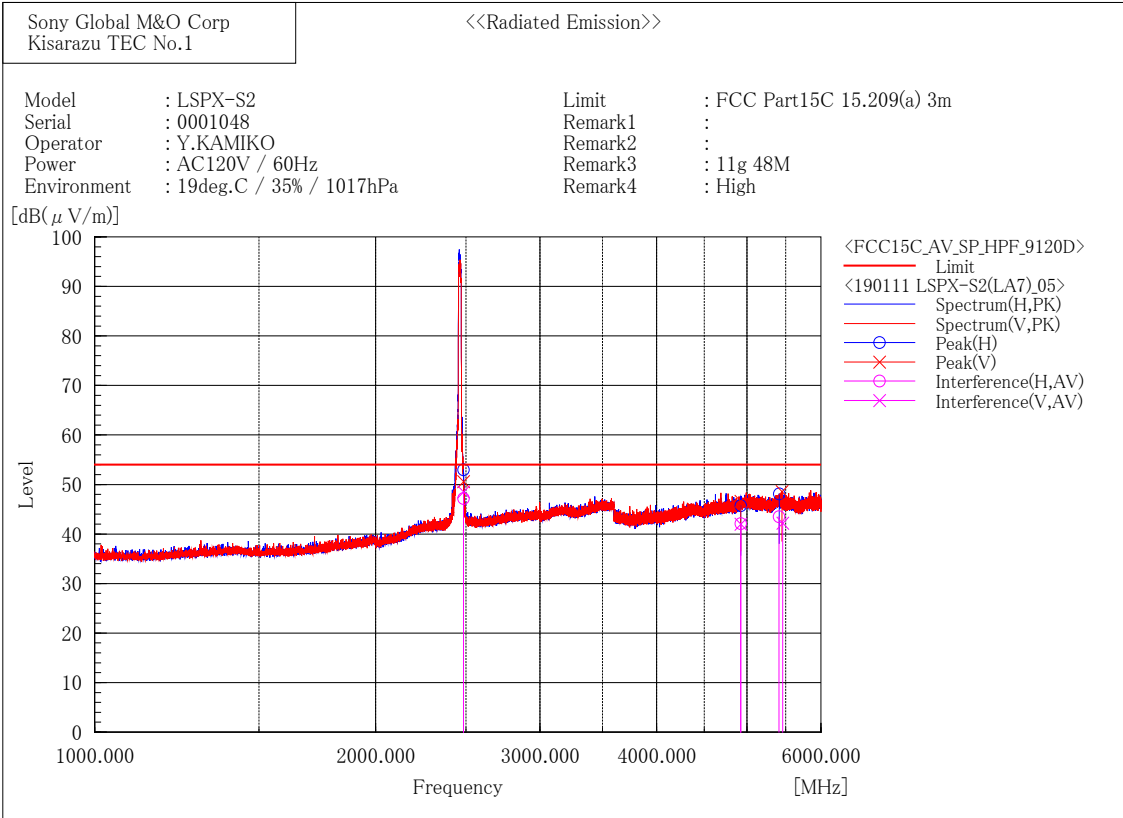
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3466.111	35.6	6.5	42.1	54.0	11.9	365.0	26.6
2	4874.000	30.9	11.0	41.9	54.0	12.1	229.9	166.3
3	5105.816	29.3	11.7	41.0	54.0	13.0	100.6	153.5

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3510.173	37.0	7.0	44.0	54.0	10.0	197.4	173.7
2	4874.000	30.6	11.0	41.6	54.0	12.4	181.4	4.8
3	5404.297	31.2	11.6	42.8	54.0	11.2	343.8	83.3

[802.11g/ 2462 MHz]



Final Result

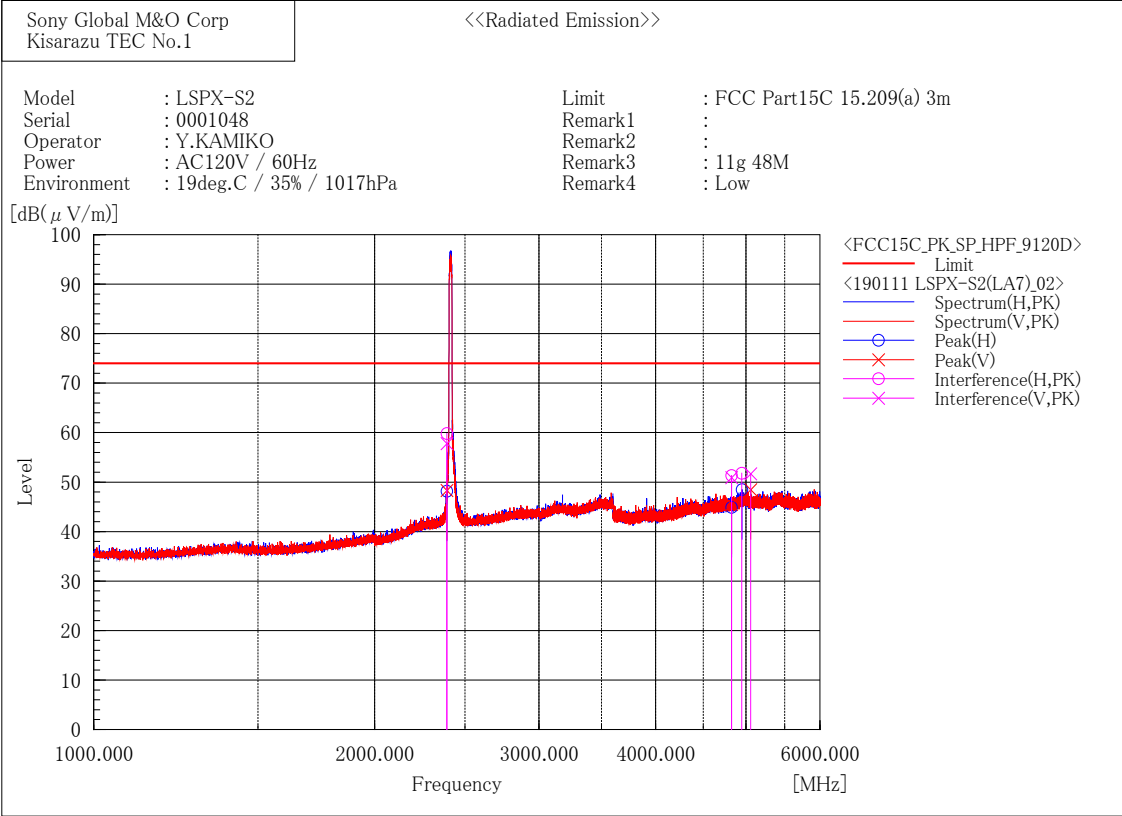
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	44.1	3.1	47.2	54.0	6.8	431.0	154.3
2	4924.000	31.0	11.1	42.1	54.0	11.9	151.1	265.2
3	5409.154	31.9	11.6	43.5	54.0	10.5	159.9	17.3

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	45.4	3.1	48.5	54.0	5.5	371.1	231.2
2	4924.000	30.9	11.1	42.0	54.0	12.0	160.0	207.3
3	5460.257	30.6	11.6	42.2	54.0	11.8	109.4	280.7

[802.11g/ 2412 MHz]



Final Result

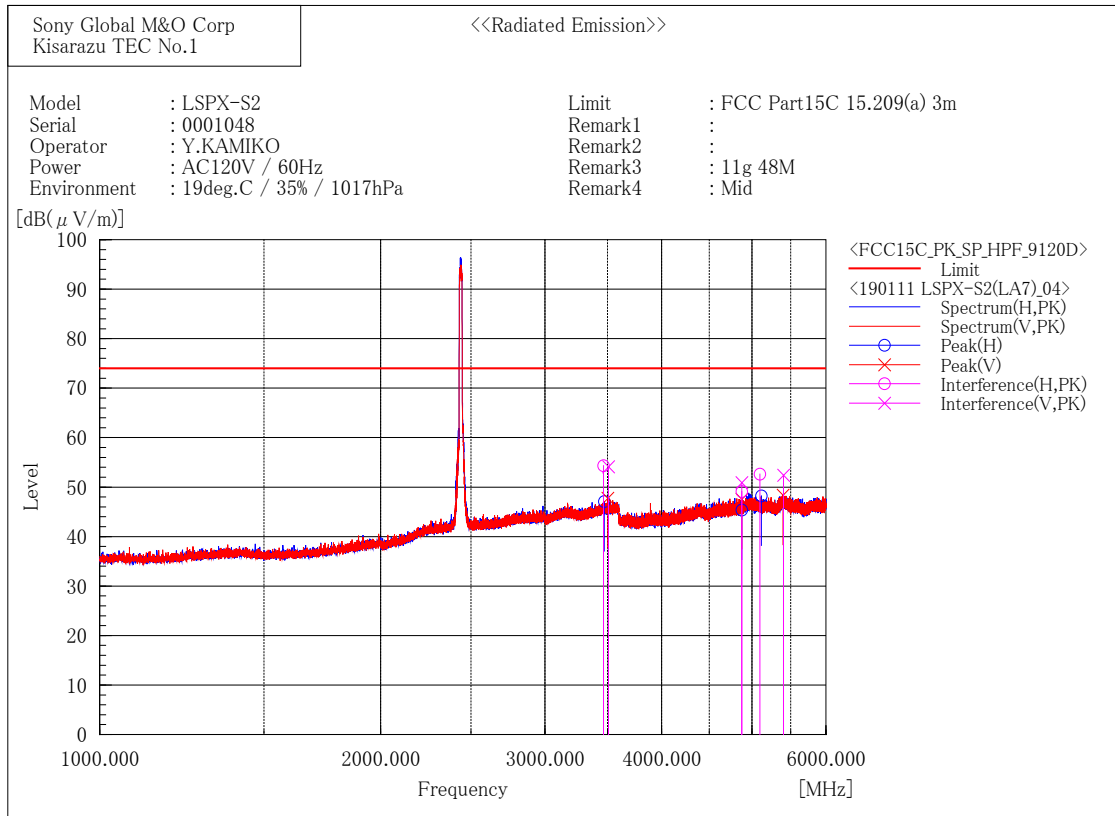
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2390.000	57.1	2.7	59.8	74.0	14.2	237.9	101.3
2	4824.000	40.4	10.9	51.3	74.0	22.7	129.7	228.9
3	4945.949	40.6	11.2	51.8	74.0	22.2	310.7	104.0

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2390.000	55.1	2.7	57.8	74.0	16.2	349.4	244.2
2	4824.000	40.0	10.9	50.9	74.0	23.1	326.6	140.7
3	5056.679	40.0	11.7	51.7	74.0	22.3	138.8	122.8

[802.11g/ 2437 MHz]



Final Result

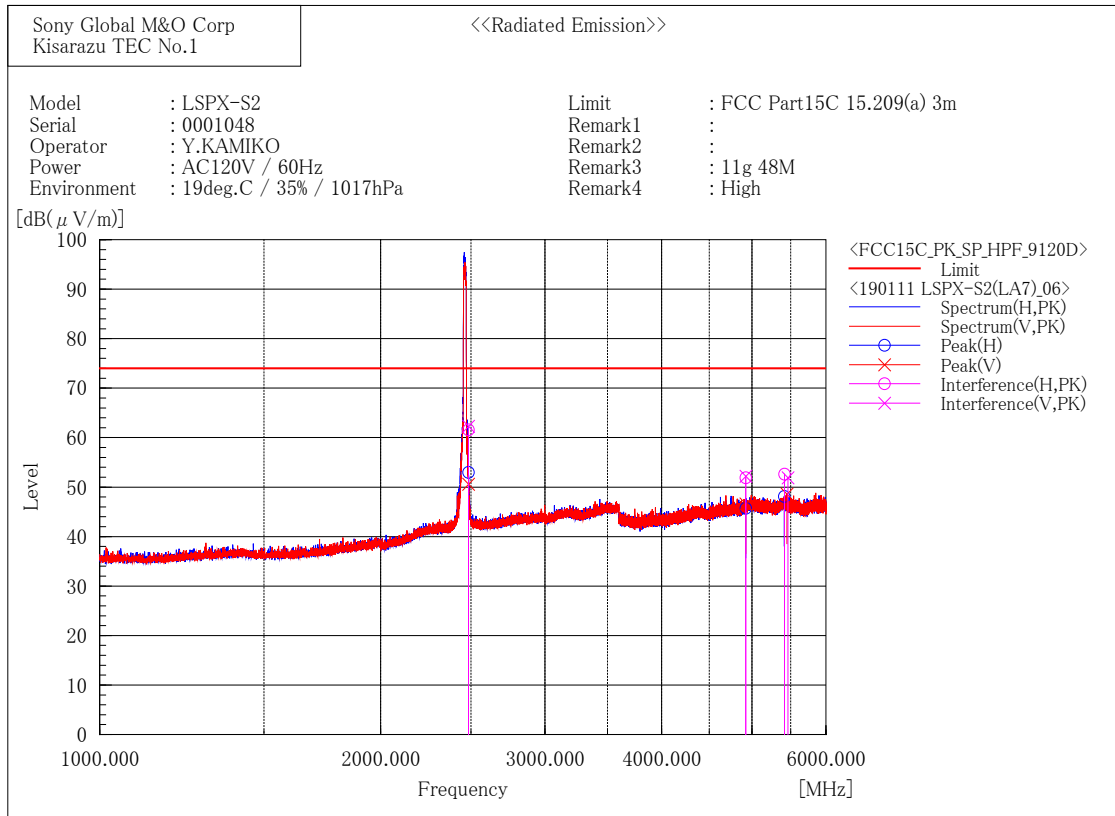
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3466.705	47.7	6.6	54.3	74.0	19.7	365.0	26.6
2	4874.000	38.1	11.0	49.1	74.0	24.9	229.9	185.1
3	5098.024	40.9	11.7	52.6	74.0	21.4	109.0	170.2

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3508.971	47.1	7.0	54.1	74.0	19.9	199.2	191.6
2	4874.000	39.9	11.0	50.9	74.0	23.1	188.0	16.7
3	5403.107	40.8	11.6	52.4	74.0	21.6	347.6	95.2

[802.11g/ 2462 MHz]



Final Result

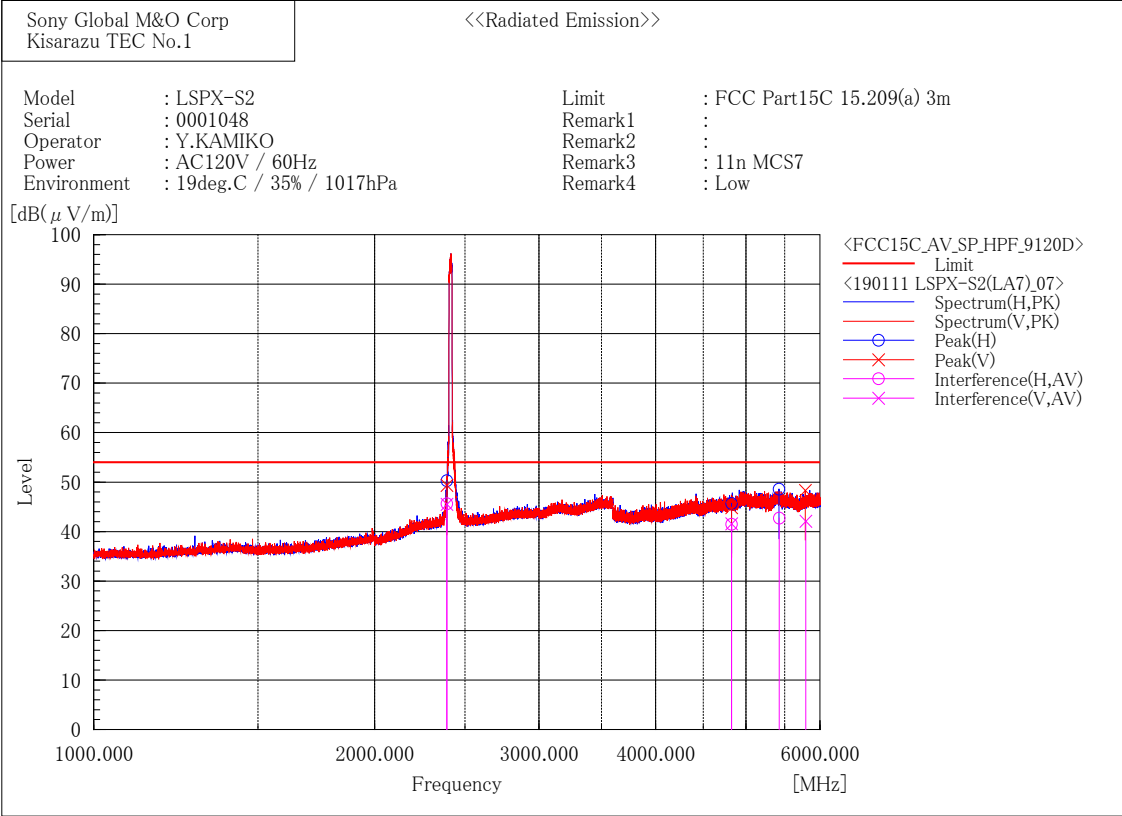
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	58.5	3.1	61.6	74.0	12.4	431.0	168.3
2	4924.000	40.8	11.1	51.9	74.0	22.1	159.0	273.5
3	5417.874	40.9	11.7	52.6	74.0	21.4	159.9	15.2

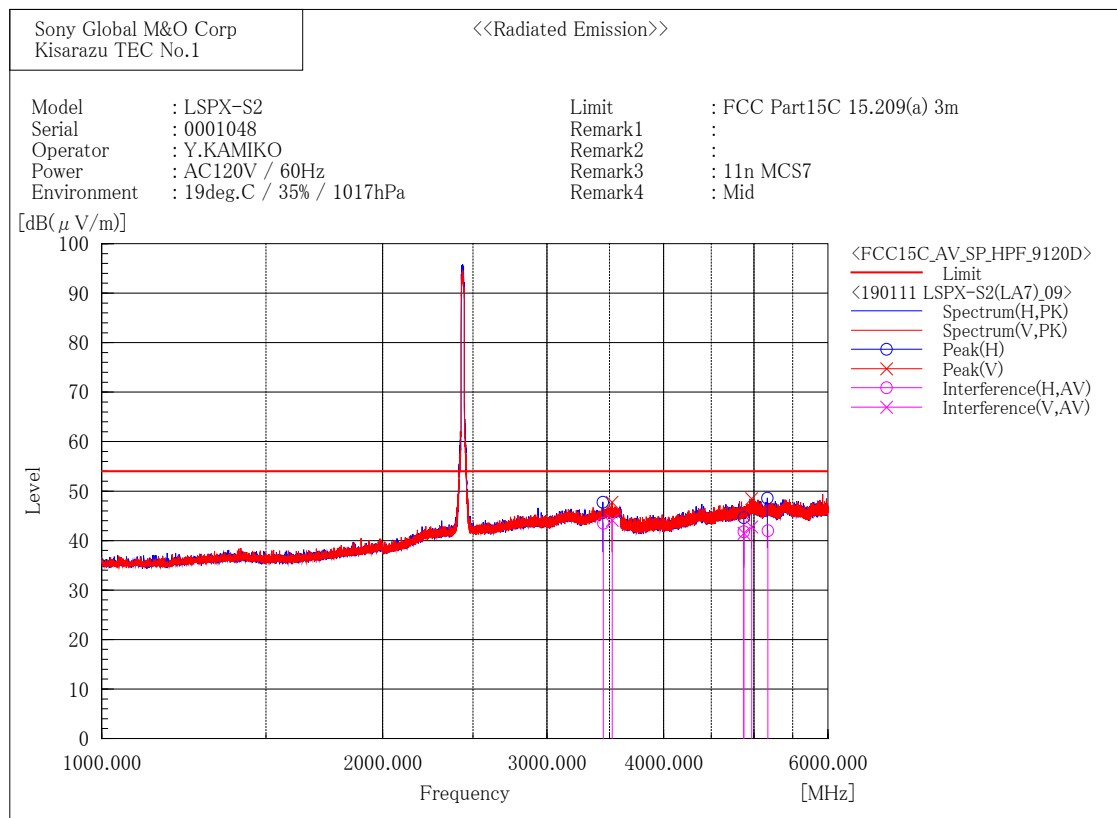
--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	59.2	3.1	62.3	74.0	11.7	384.0	241.2
2	4924.000	41.1	11.1	52.2	74.0	21.8	169.0	202.1
3	5461.887	40.3	11.6	51.9	74.0	22.1	109.4	280.7

[802.11n (HT20)/ 2412 MHz]



[802.11n (HT20)/ 2437 MHz]



Final Result

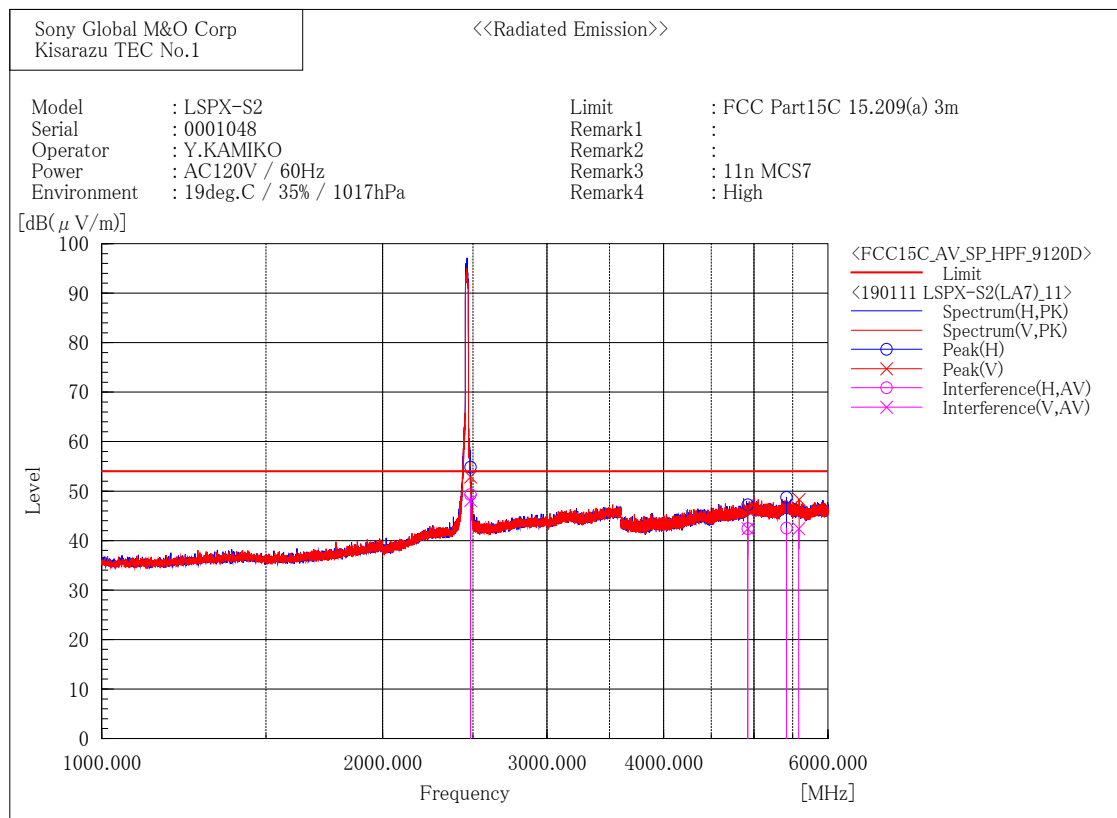
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3447.492	37.2	6.3	43.5	54.0	10.5	132.3	159.3
2	4874.000	30.8	11.0	41.8	54.0	12.2	156.0	125.3
3	5174.605	30.4	11.6	42.0	54.0	12.0	219.3	19.1

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3523.662	37.0	7.1	44.1	54.0	9.9	392.0	334.6
2	4874.000	30.5	11.0	41.5	54.0	12.5	225.8	267.8
3	4972.367	31.4	11.4	42.8	54.0	11.2	139.4	341.6

[802.11n (HT20)/ 2462 MHz]



Final Result

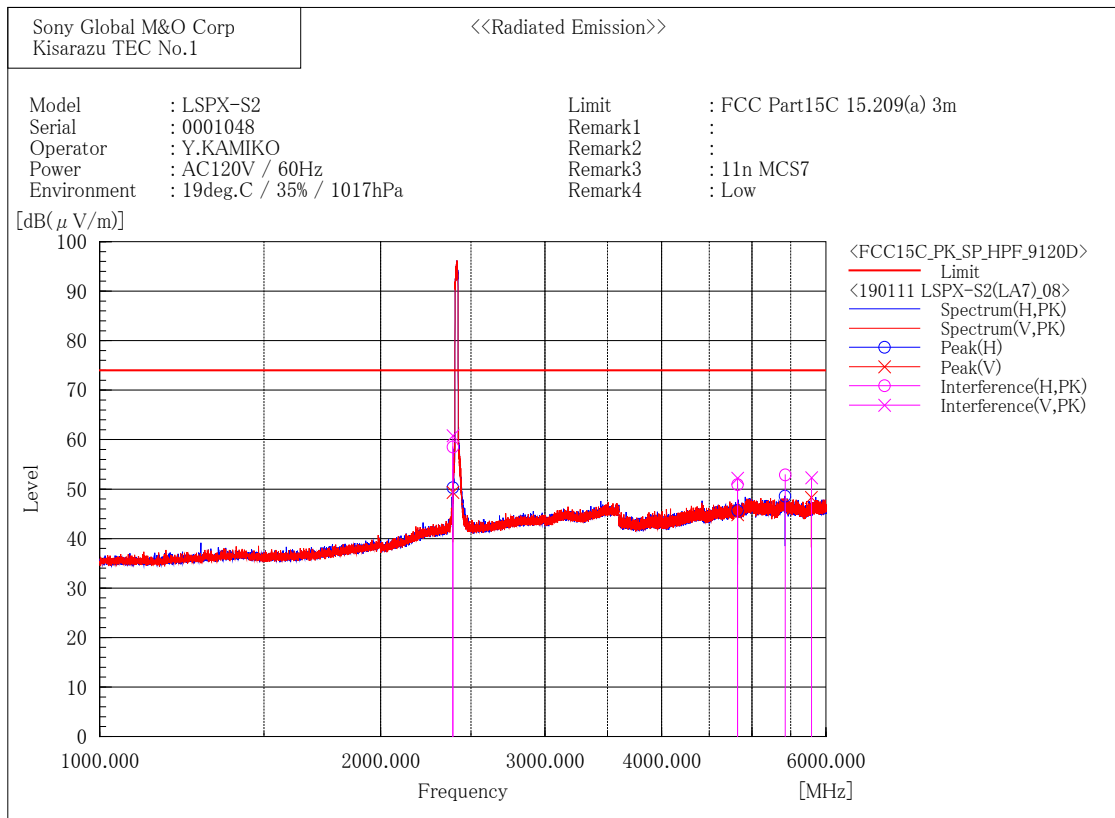
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	46.2	3.1	49.3	54.0	4.7	219.4	115.9
2	4924.000	31.3	11.1	42.4	54.0	11.6	128.1	308.8
3	5418.245	30.8	11.7	42.5	54.0	11.5	246.9	19.0

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	45.0	3.1	48.1	54.0	5.9	319.3	220.8
2	4924.000	31.3	11.1	42.4	54.0	11.6	244.0	316.6
3	5582.871	30.5	11.9	42.4	54.0	11.6	317.0	216.6

[802.11n (HT20)/ 2412 MHz]



Final Result

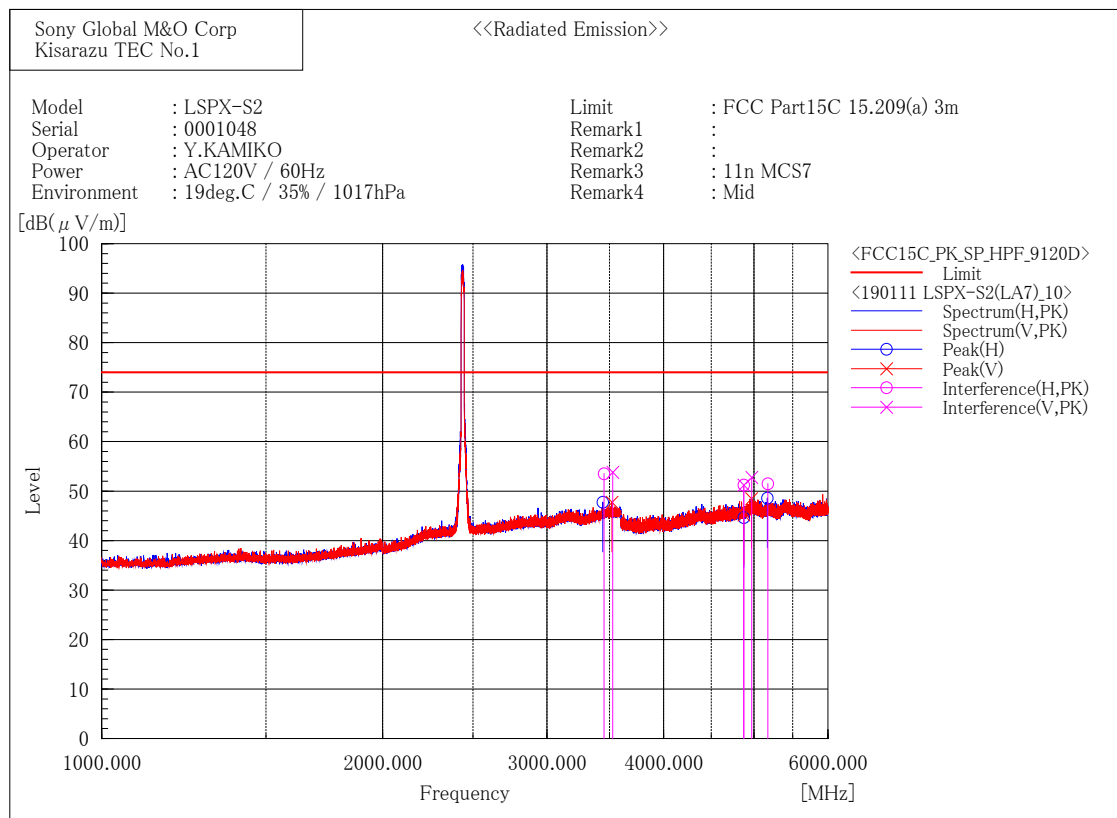
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2390.000	55.8	2.7	58.5	74.0	15.5	191.0	122.8
2	4824.000	40.0	10.9	50.9	74.0	23.1	328.1	263.1
3	5425.973	41.2	11.7	52.9	74.0	21.1	137.5	159.1

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2390.000	58.1	2.7	60.8	74.0	13.2	372.0	223.5
2	4824.000	41.3	10.9	52.2	74.0	21.8	181.0	135.8
3	5791.189	40.3	12.0	52.3	74.0	21.7	159.8	129.0

[802.11n (HT20)/ 2437 MHz]



Final Result

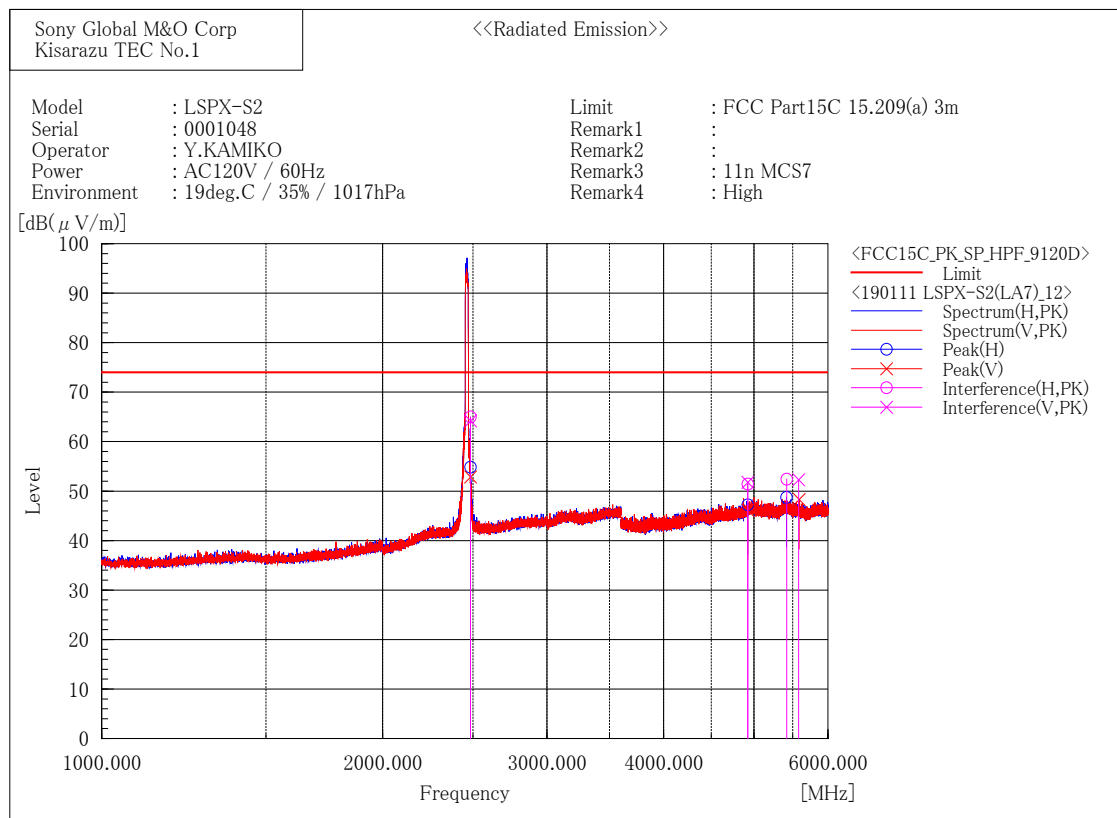
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3453.746	47.1	6.4	53.5	74.0	20.5	136.0	172.0
2	4874.000	40.2	11.0	51.2	74.0	22.8	154.7	123.3
3	5174.259	39.9	11.6	51.5	74.0	22.5	219.3	19.1

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	3527.964	46.7	7.1	53.8	74.0	20.2	389.1	4.4
2	4874.000	40.2	11.0	51.2	74.0	22.8	236.0	299.9
3	4971.459	41.4	11.4	52.8	74.0	21.2	144.0	333.4

[802.11n (HT20)/ 2462 MHz]



Final Result

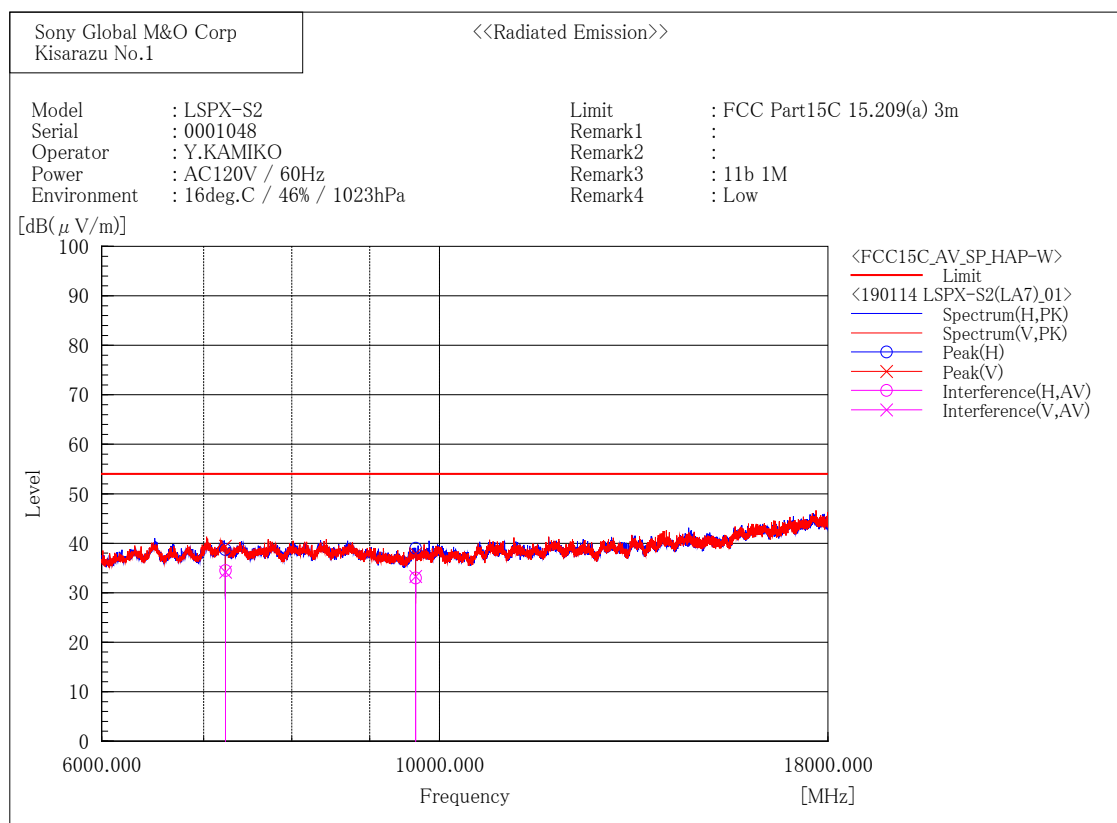
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	61.9	3.1	65.0	74.0	9.0	231.3	110.3
2	4924.000	40.3	11.1	51.4	74.0	22.6	128.1	318.0
3	5418.692	40.7	11.7	52.4	74.0	21.6	246.9	19.0

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	2483.500	61.1	3.1	64.2	74.0	9.8	315.8	205.7
2	4924.000	40.7	11.1	51.8	74.0	22.2	249.0	336.5
3	5583.341	40.4	11.9	52.3	74.0	21.7	318.0	220.3

6 GHz to 18 GHz
[802.11b/ 2412 MHz]



Final Result

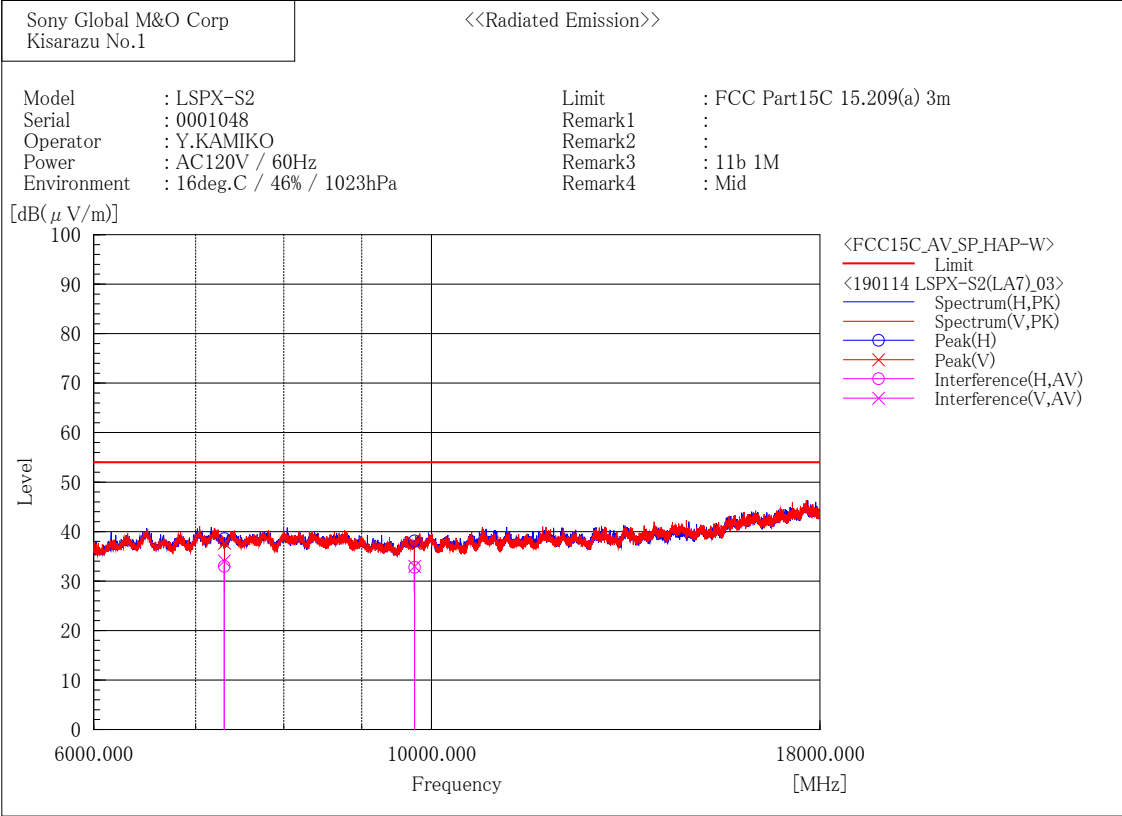
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7236.000	42.1	-7.6	34.5	54.0	19.5	420.1	11.2
2	9648.000	38.8	-5.8	33.0	54.0	21.0	360.2	192.4

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7236.000	41.8	-7.6	34.2	54.0	19.8	431.0	108.8
2	9648.000	39.1	-5.8	33.3	54.0	20.7	140.2	247.1

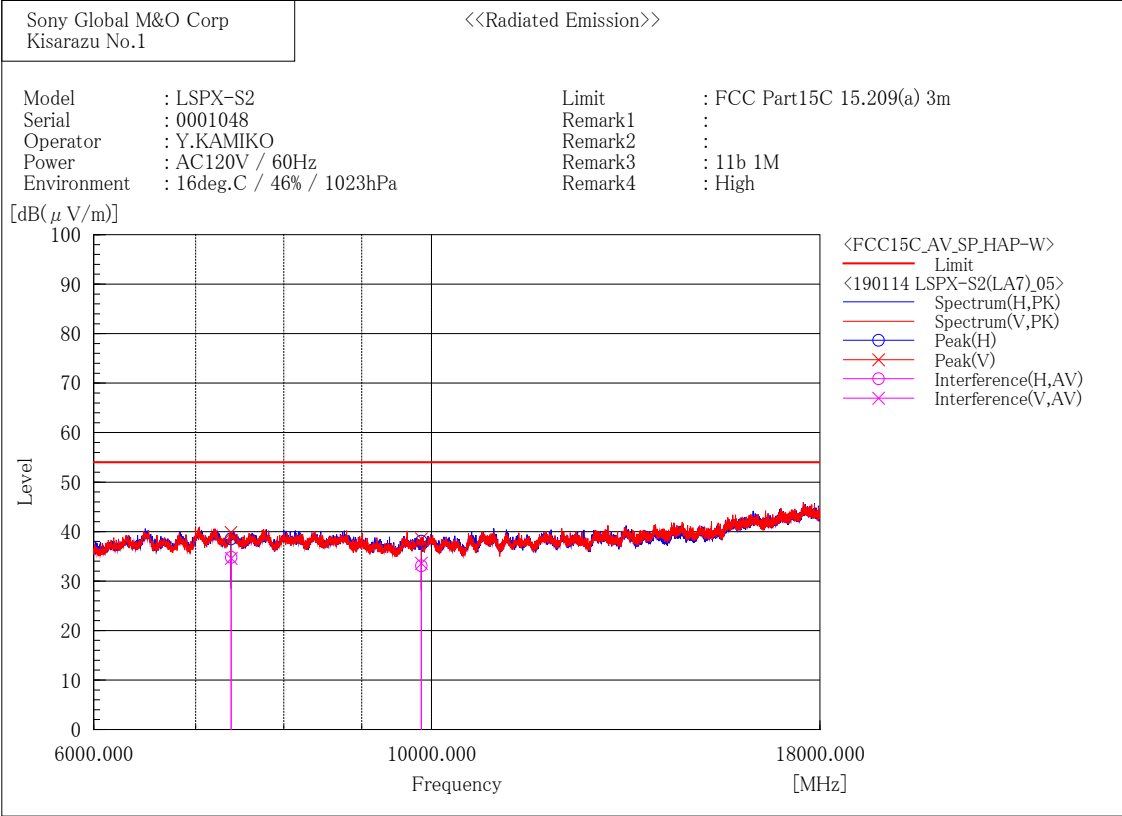
[802.11b/ 2437 MHz]



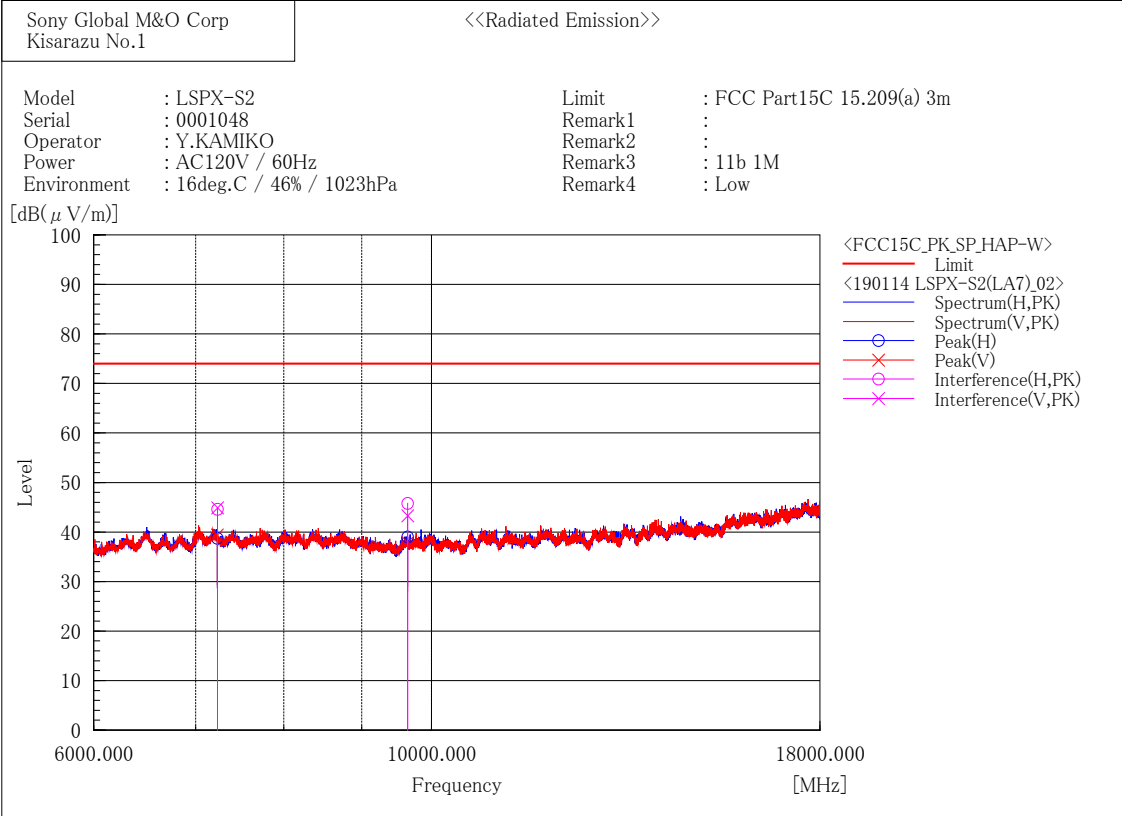
Final Result

--- Horizontal Polarization (AV)---								
No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7311.000	40.8	-7.8	33.0	54.0	21.0	183.5	272.4
2	9748.000	38.3	-5.5	32.8	54.0	21.2	113.3	148.7
--- Vertical Polarization (AV)---								
No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7311.000	41.9	-7.8	34.1	54.0	19.9	430.0	223.5
2	9748.000	38.5	-5.5	33.0	54.0	20.9	264.2	1.0

[802.11b/ 2462 MHz]



[802.11b/ 2412 MHz]



Final Result

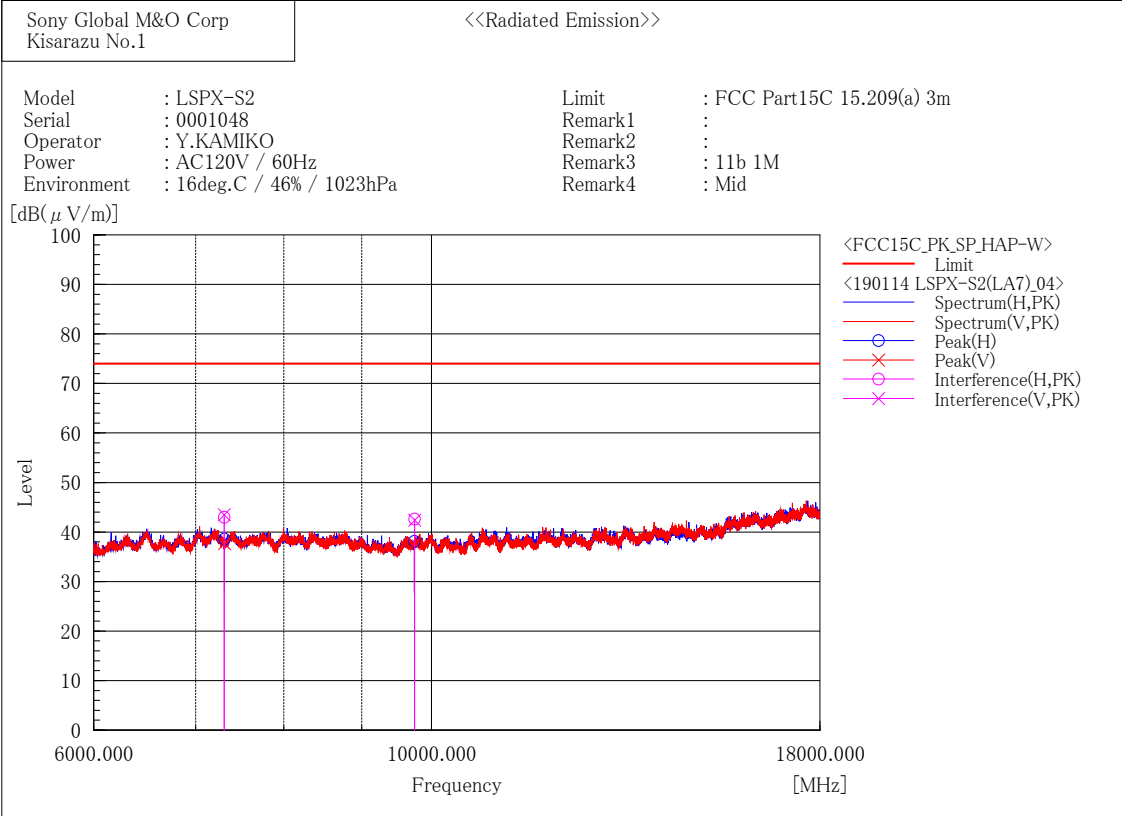
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7236.000	52.2	-7.6	44.6	74.0	29.4	420.0	18.4
2	9648.000	51.6	-5.8	45.8	74.0	28.1	360.2	192.4

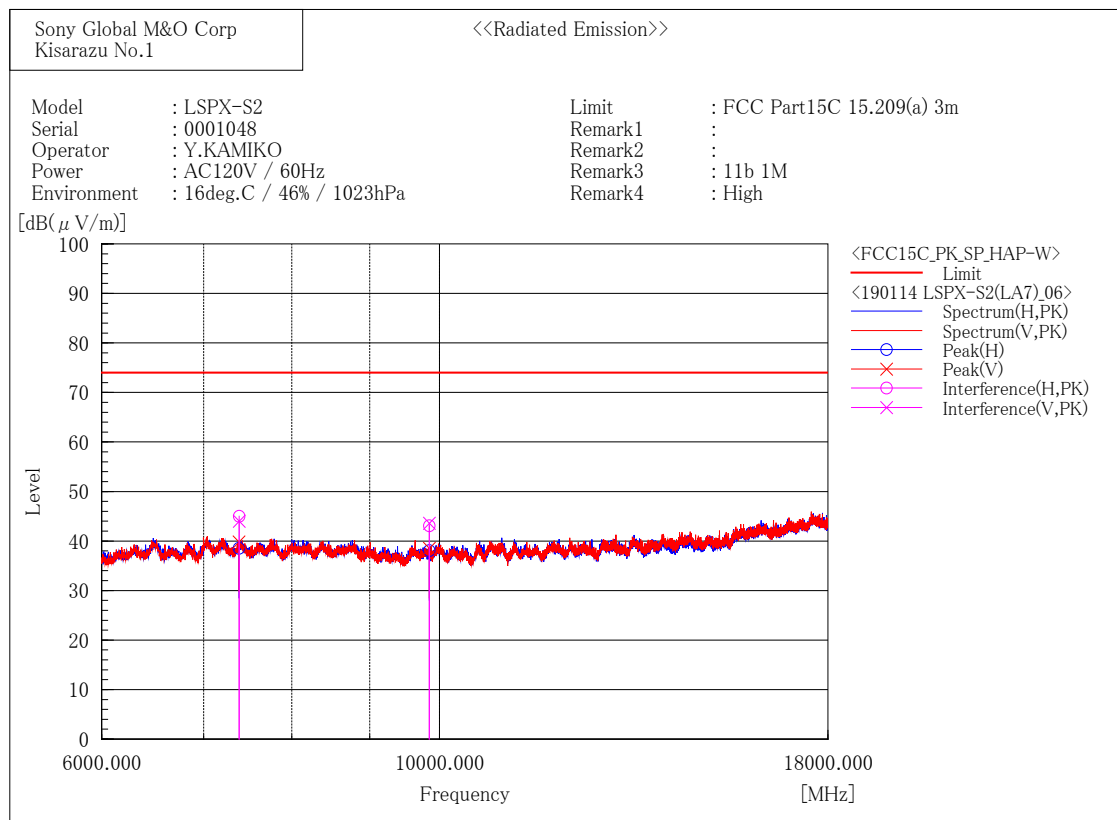
--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7236.000	52.5	-7.6	44.9	74.0	29.1	431.0	95.4
2	9648.000	49.1	-5.8	43.3	74.0	30.7	140.2	245.0

[802.11b/ 2437 MHz]



[802.11b/ 2462 MHz]



Final Result

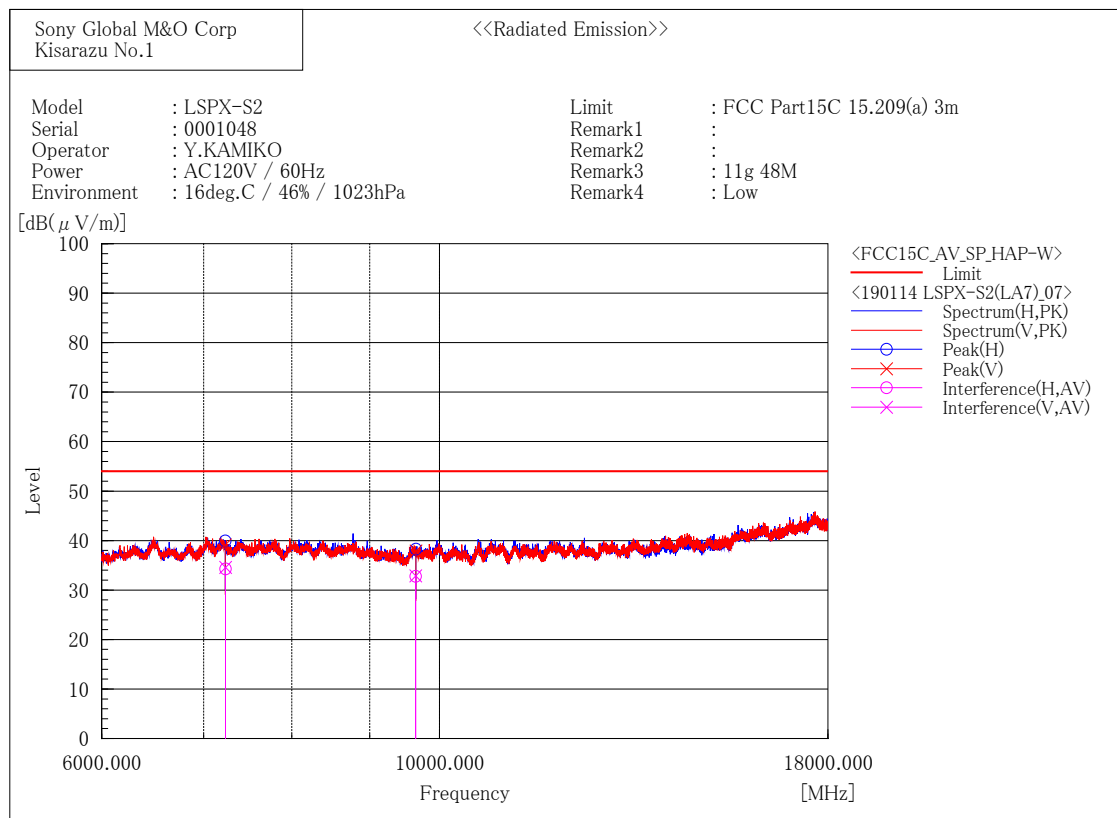
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7386.000	52.9	-7.9	45.0	74.0	29.0	352.2	332.1
2	9848.000	48.2	-5.1	43.1	74.0	30.9	100.3	20.9

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7386.000	51.9	-7.9	44.0	74.0	30.0	352.2	334.1
2	9848.000	48.7	-5.1	43.6	74.0	30.4	260.5	37.2

[802.11g/ 2412 MHz]



Final Result

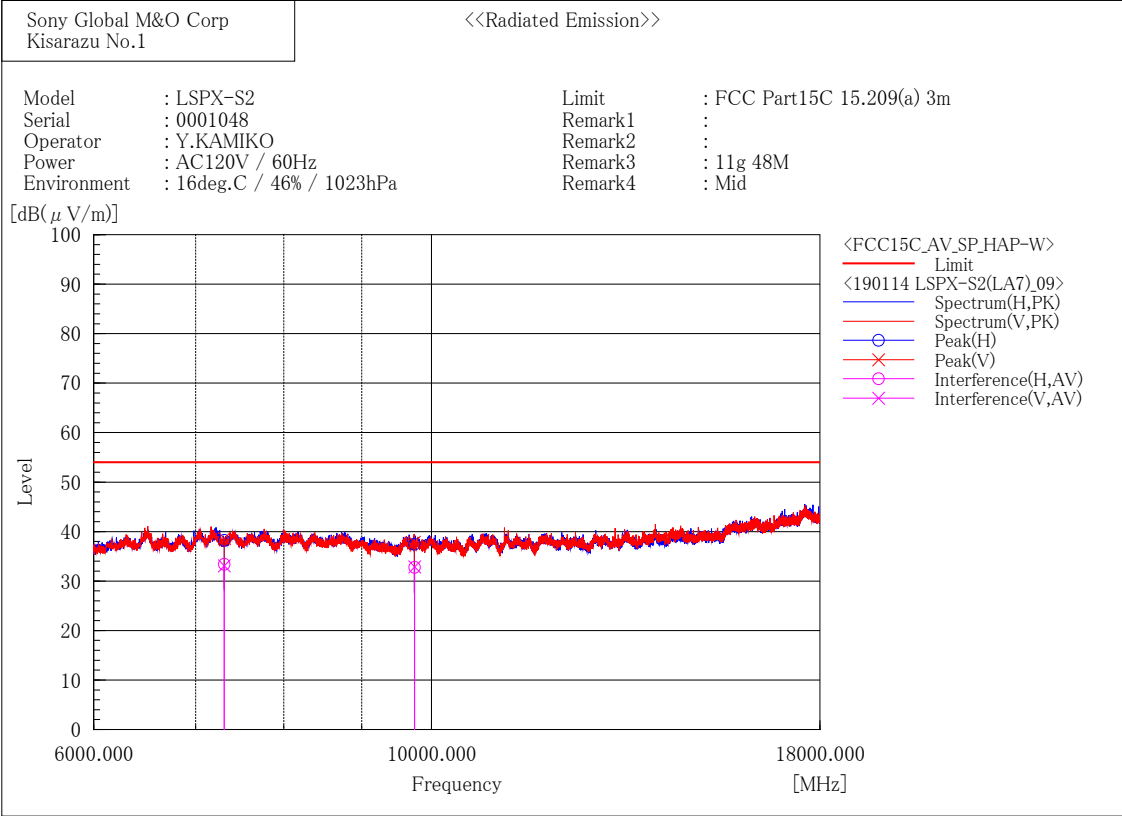
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7236.000	41.9	-7.6	34.3	54.0	19.7	418.8	3.1
2	9648.000	38.6	-5.8	32.8	54.0	21.2	139.1	333.8

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7236.000	42.2	-7.6	34.6	54.0	19.4	431.0	207.2
2	9648.000	38.7	-5.8	32.9	54.0	21.1	333.7	339.0

[802.11g/ 2437 MHz]



Final Result

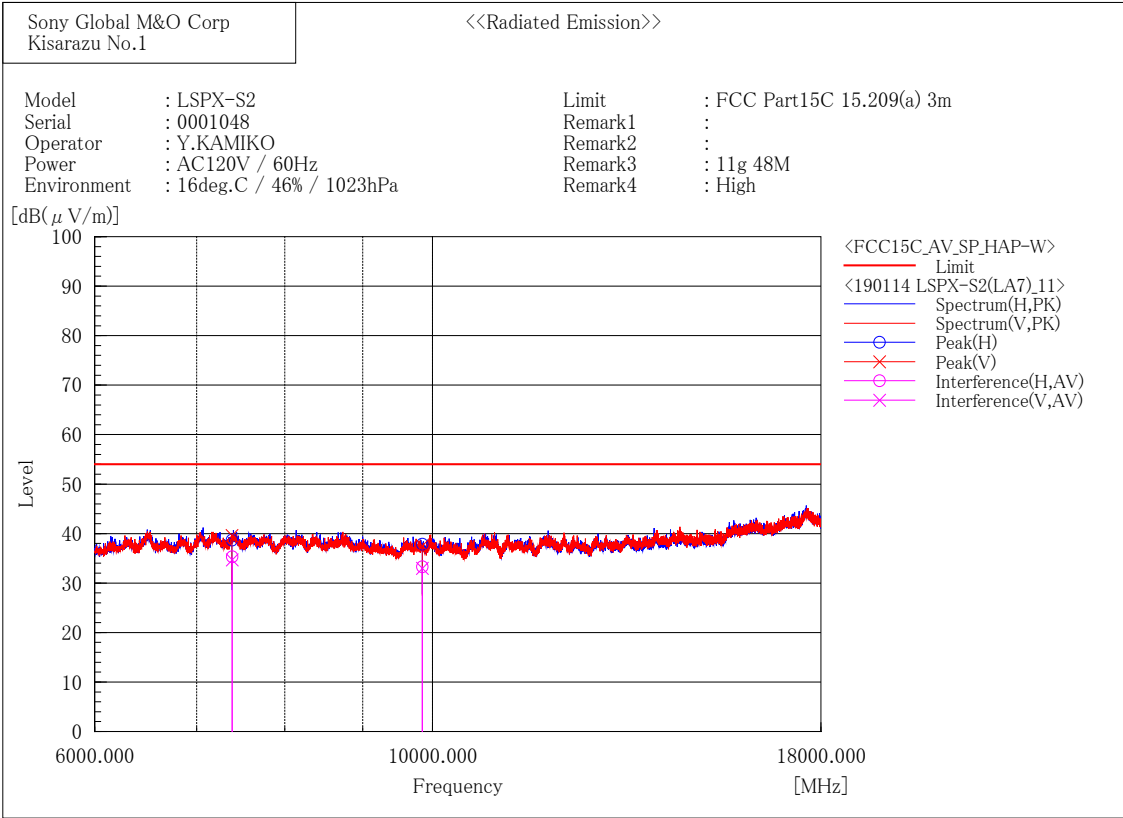
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7311.000	41.2	-7.8	33.4	54.0	20.6	387.9	233.4
2	9748.000	38.3	-5.5	32.8	54.0	21.2	100.0	252.4

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7311.000	40.9	-7.8	33.1	54.0	20.9	203.3	269.3
2	9748.000	38.4	-5.5	32.9	54.0	21.1	241.8	268.2

[802.11g/ 2462 MHz]



Final Result

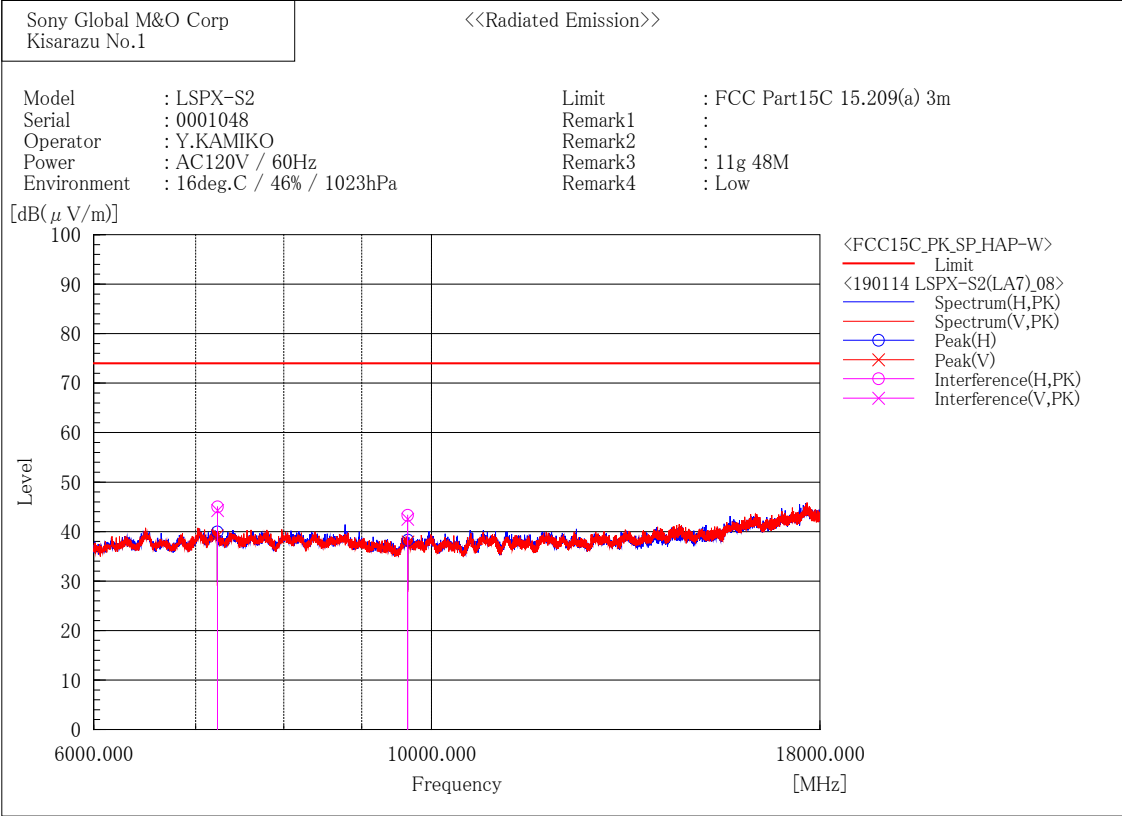
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7386.000	43.2	-7.9	35.3	54.0	18.7	377.8	76.1
2	9848.000	38.4	-5.1	33.3	54.0	20.7	424.6	149.1

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7386.000	42.6	-7.9	34.7	54.0	19.3	364.9	76.1
2	9848.000	38.1	-5.1	33.0	54.0	21.0	194.0	192.9

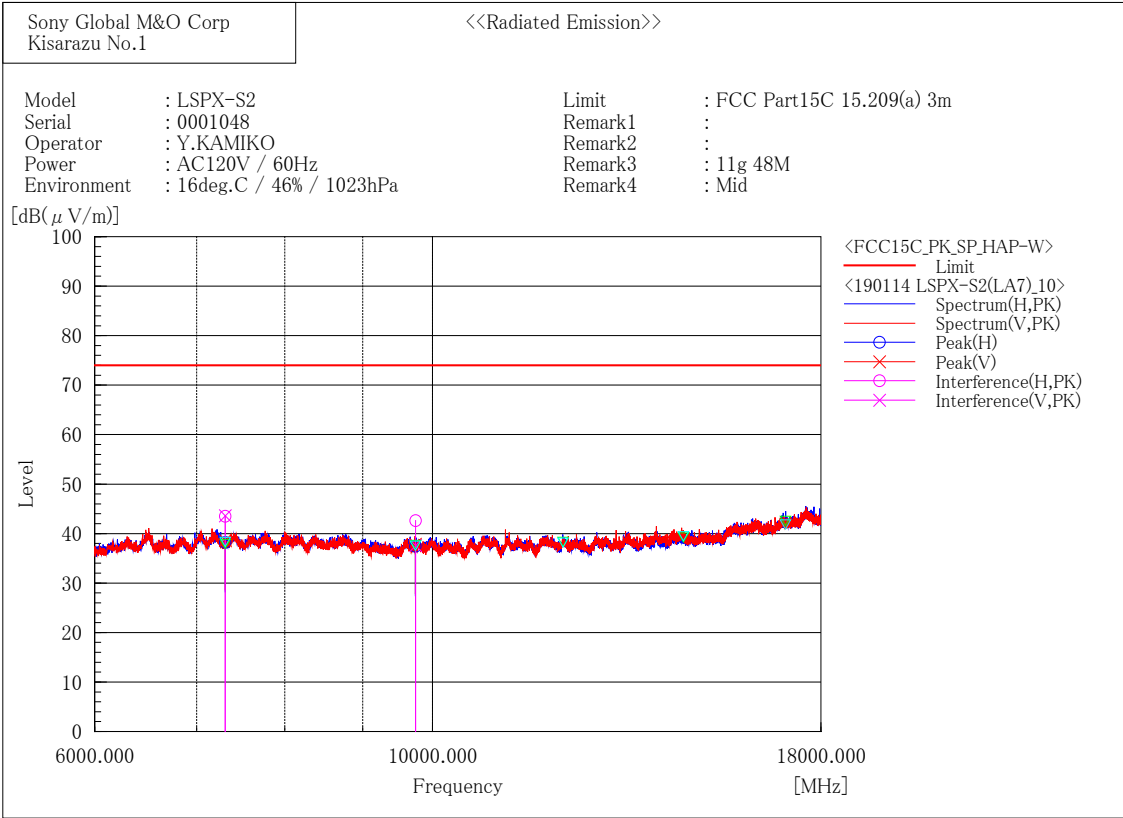
[802.11g/ 2412 MHz]



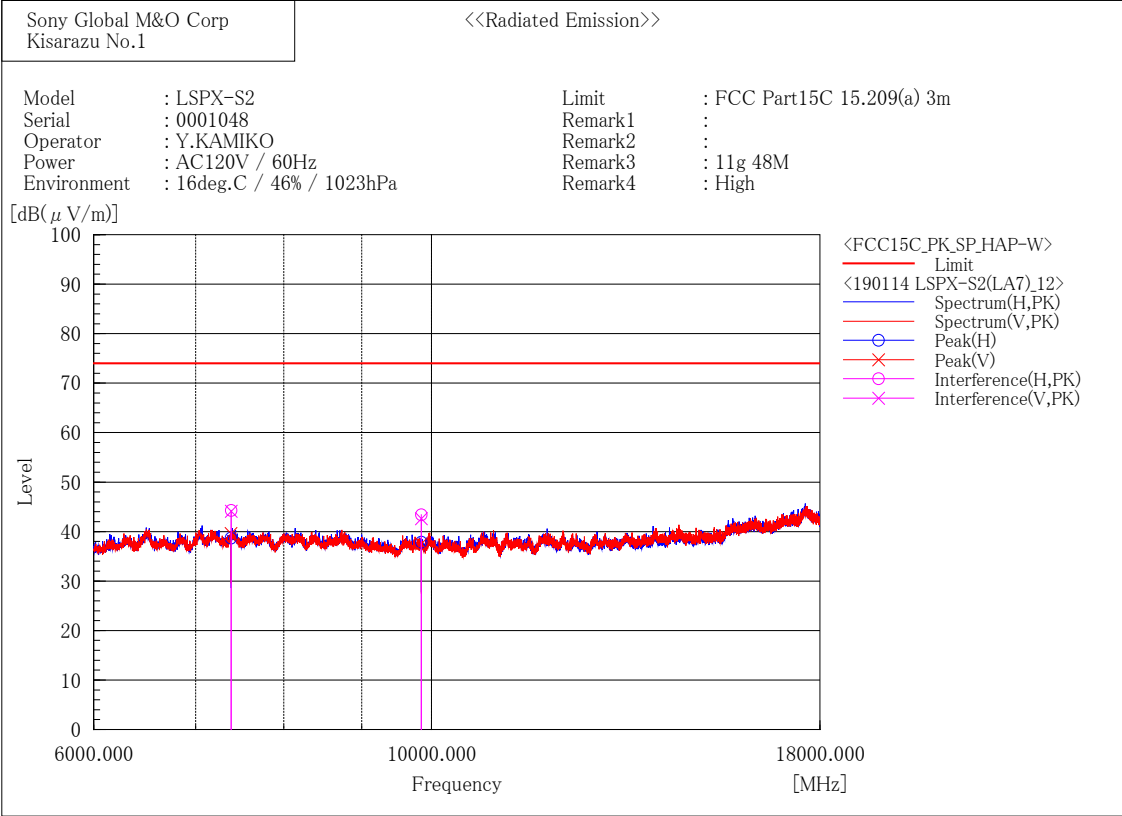
Final Result

--- Horizontal Polarization (PK)---								
No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7236.000	52.6	-7.6	45.0	74.0	29.0	418.8	1.1
2	9648.000	49.1	-5.8	43.3	74.0	30.7	139.1	335.8
--- Vertical Polarization (PK)---								
No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7236.000	51.9	-7.6	44.3	74.0	29.7	430.0	212.3
2	9648.000	48.3	-5.8	42.5	74.0	31.5	139.1	333.8

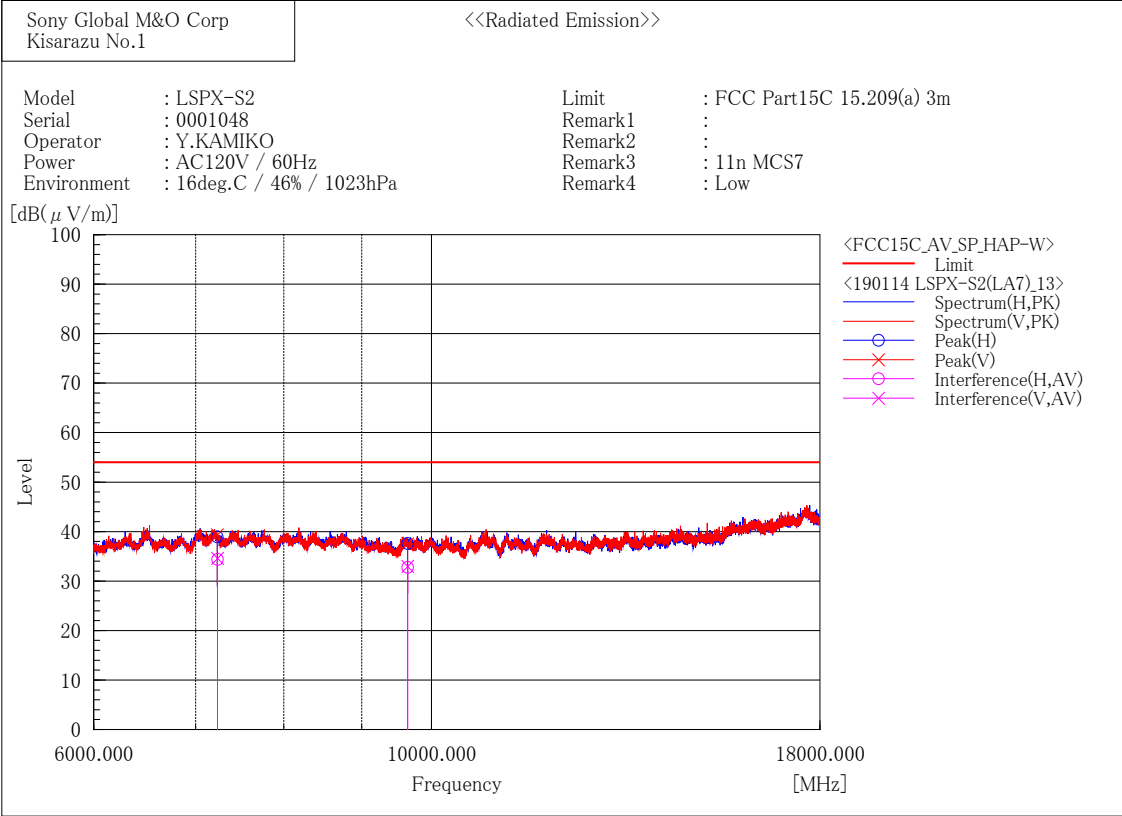
[802.11g/ 2437 MHz]



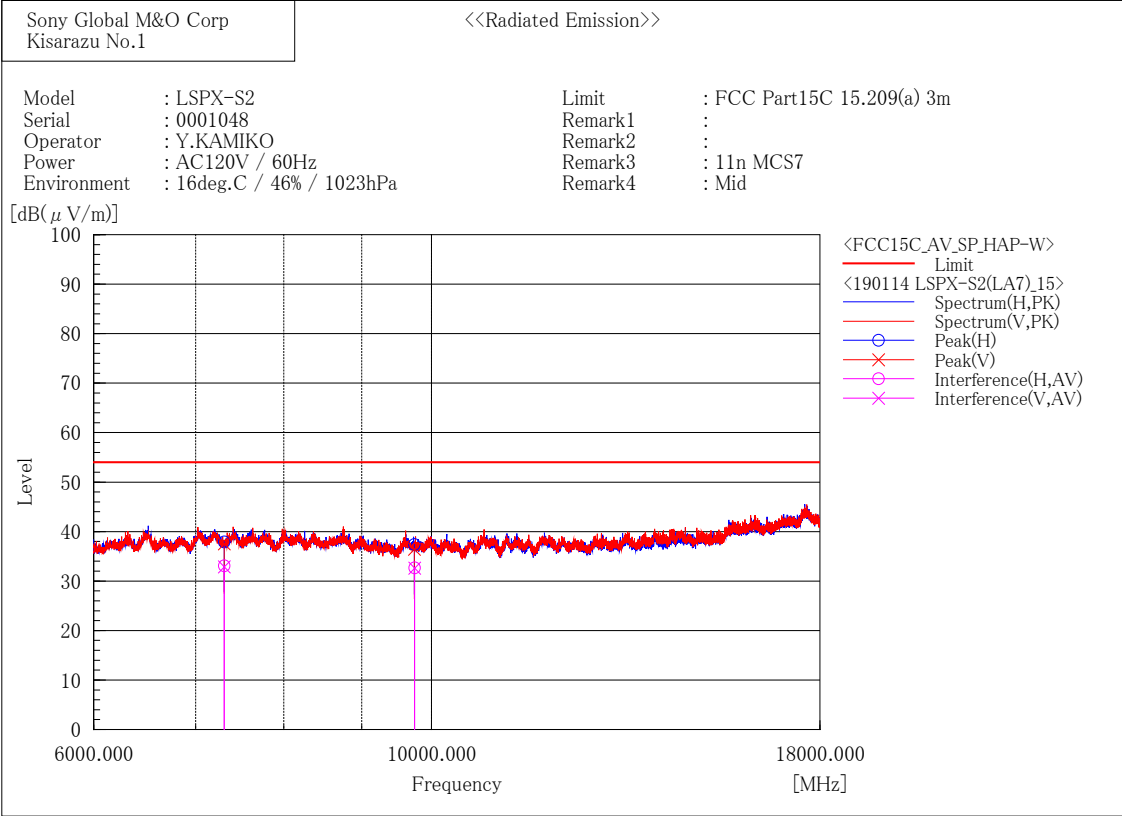
[802.11g/ 2462 MHz]



[802.11n (HT20)/ 2412 MHz]



[802.11n (HT20)/ 2437 MHz]



Final Result

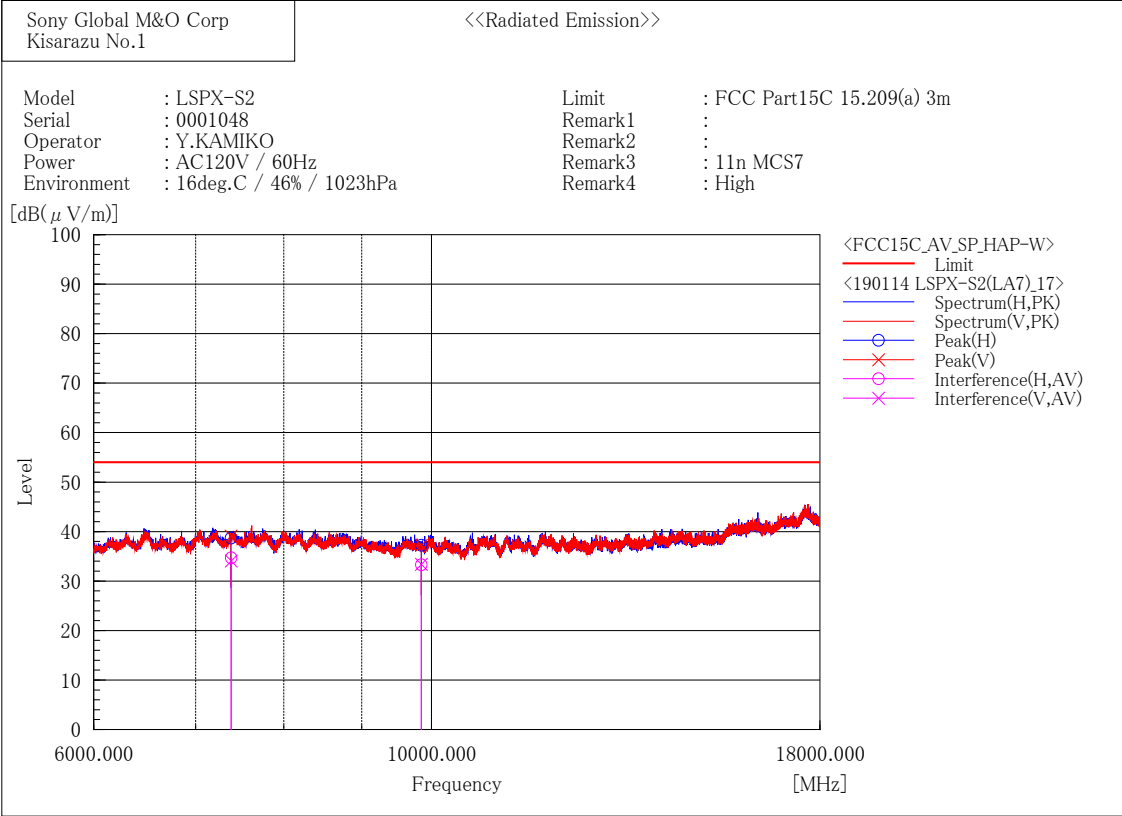
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7311.000	40.9	-7.8	33.1	54.0	20.9	296.3	112.7
2	9748.000	38.2	-5.5	32.7	54.0	21.3	236.0	9.0

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7311.000	40.7	-7.8	32.9	54.0	21.1	107.0	179.3
2	9748.000	38.1	-5.5	32.6	54.0	21.4	431.0	16.2

[802.11n (HT20)/ 2462 MHz]



Final Result

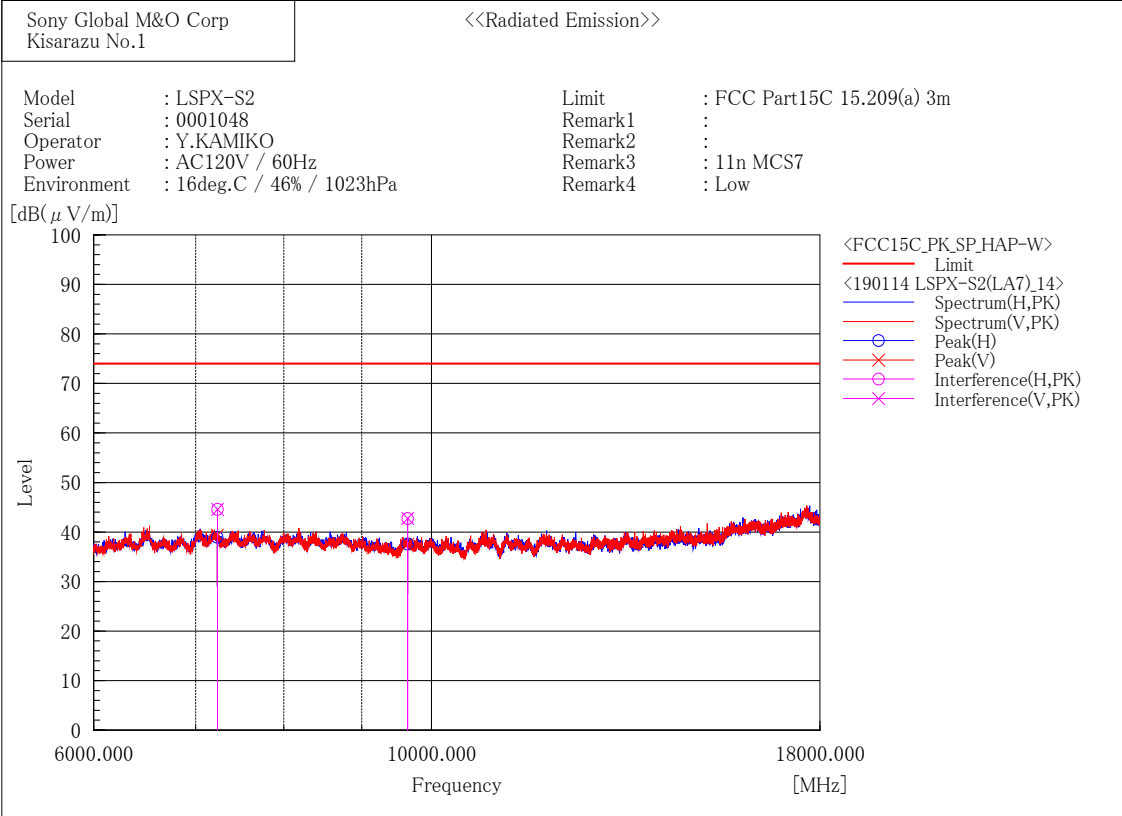
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7386.000	42.6	-7.9	34.7	54.0	19.3	372.6	353.8
2	9848.000	38.4	-5.1	33.3	54.0	20.7	134.6	7.2

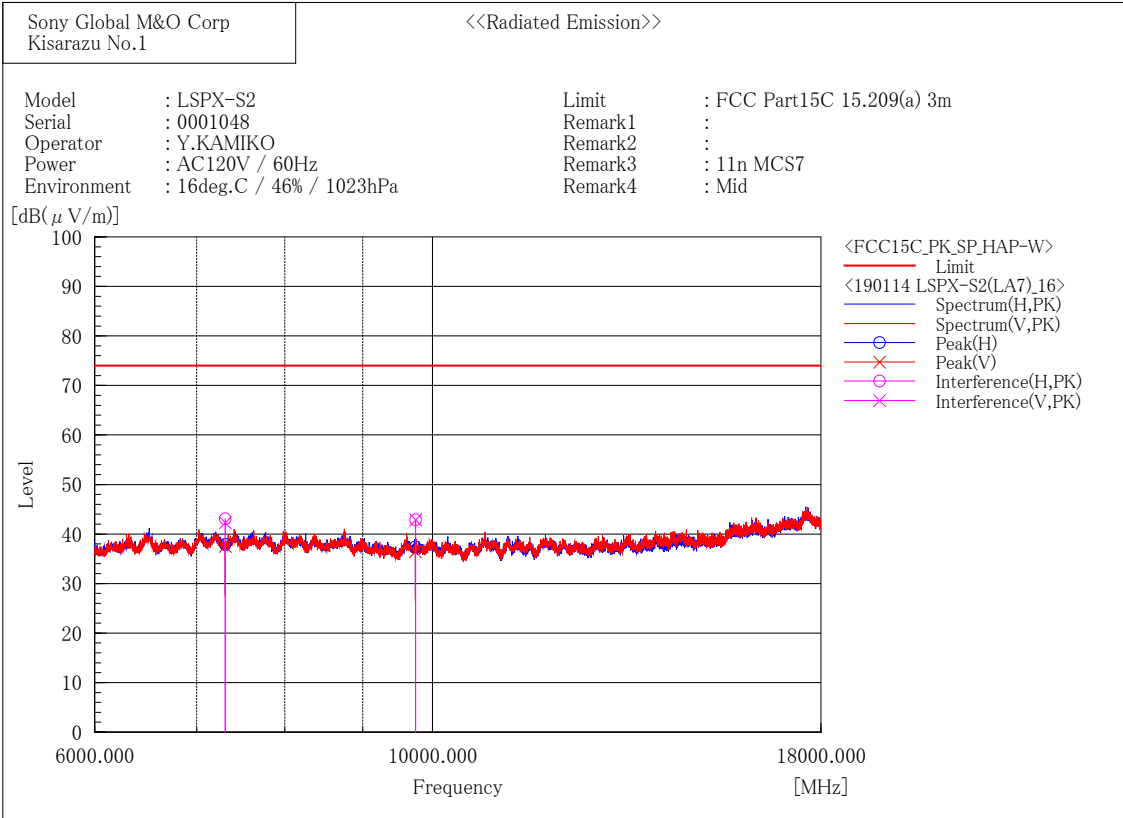
--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7386.000	42.0	-7.9	34.1	54.0	19.9	161.0	56.2
2	9848.000	38.5	-5.1	33.4	54.0	20.6	318.0	5.7

[802.11n (HT20)/ 2412 MHz]



[802.11n (HT20)/ 2437 MHz]



Final Result

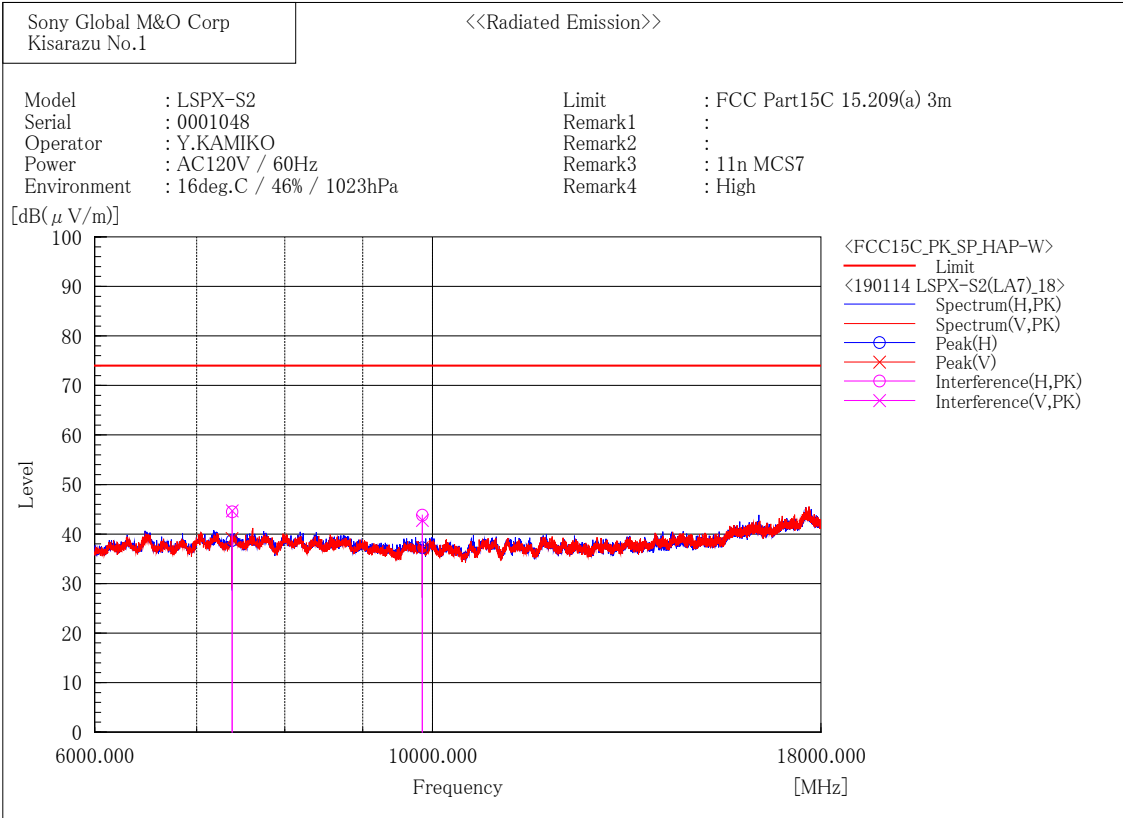
--- Horizontal Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7311.000	50.9	-7.8	43.1	74.0	30.9	301.7	104.8
2	9748.000	48.4	-5.5	42.9	74.0	31.1	242.0	346.0

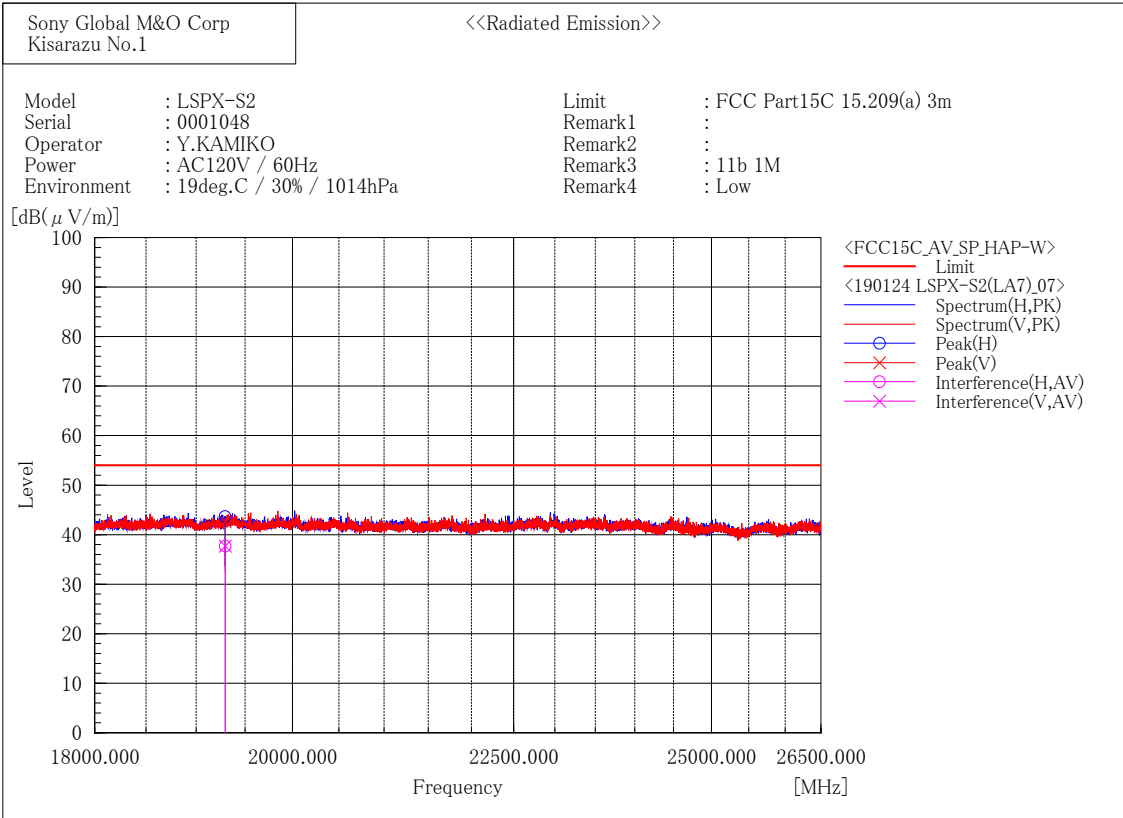
--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7311.000	50.1	-7.8	42.3	74.0	31.7	107.0	179.3
2	9748.000	48.4	-5.5	42.9	74.0	31.1	431.0	359.9

[802.11n (HT20)/ 2462 MHz]



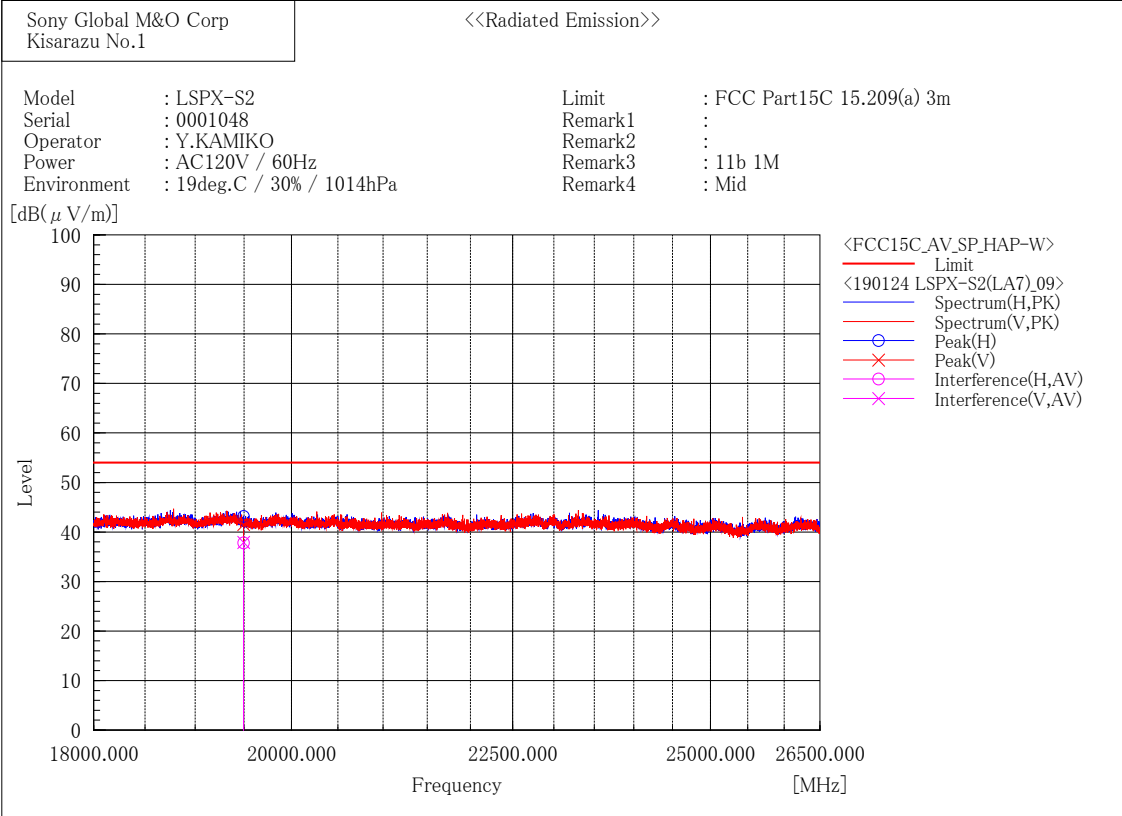
18 GHz to 26.5 GHz
[802.11b/ 2412 MHz]



Final Result

--- Horizontal Polarization (AV)---								
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19296.000	38.5	-0.8	37.7	54.0	16.3	188.0	65.8
--- Vertical Polarization (AV)---								
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19296.000	38.5	-0.8	37.7	54.0	16.3	102.4	236.0

[802.11b/ 2437 MHz]



Final Result

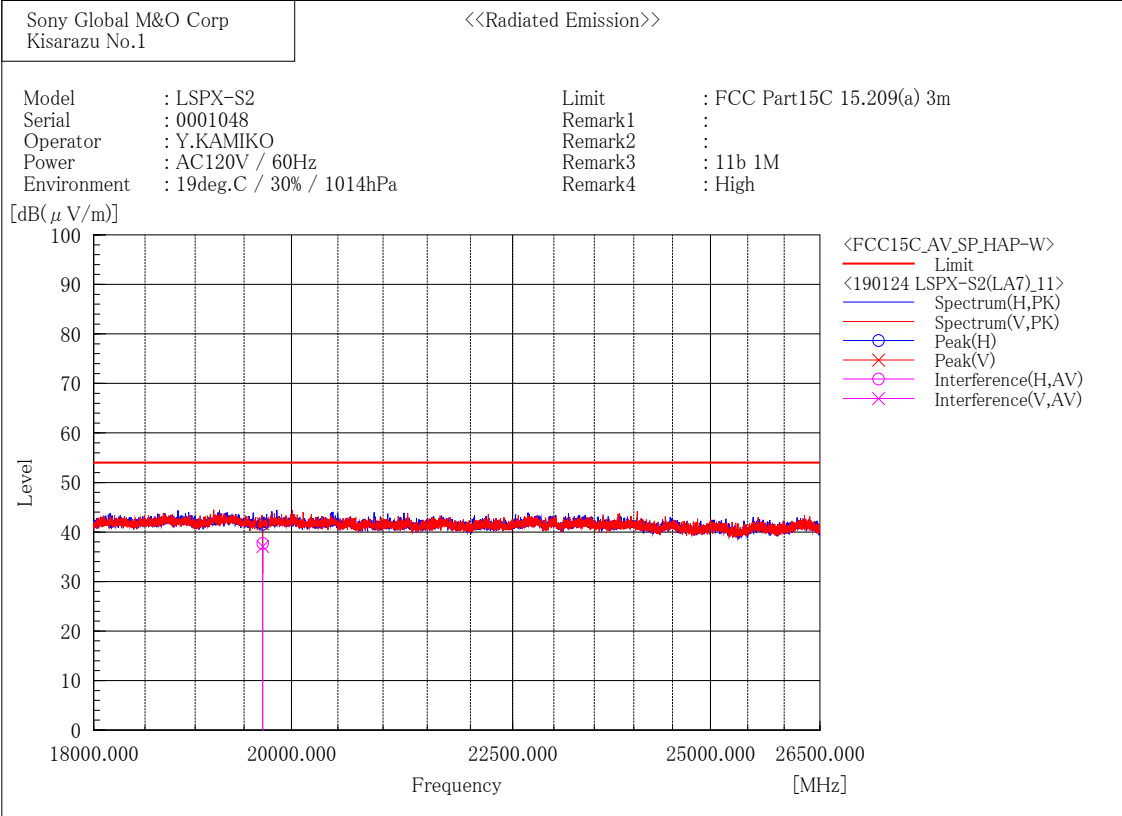
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19496.000	38.6	-0.8	37.8	54.0	16.2	100.0	2.0

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19496.000	38.7	-0.8	37.9	54.0	16.1	395.6	331.4

[802.11b/ 2462 MHz]



Final Result

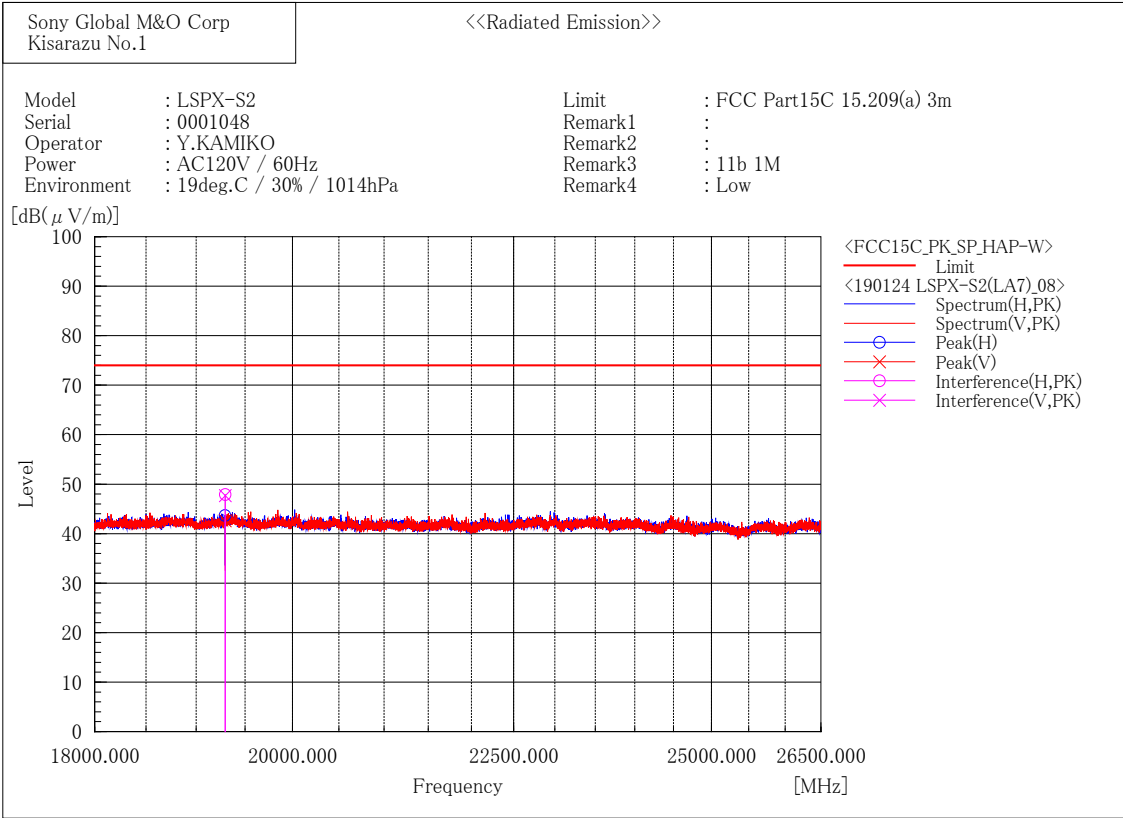
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19696.000	38.6	-0.9	37.7	54.0	16.3	335.1	120.0

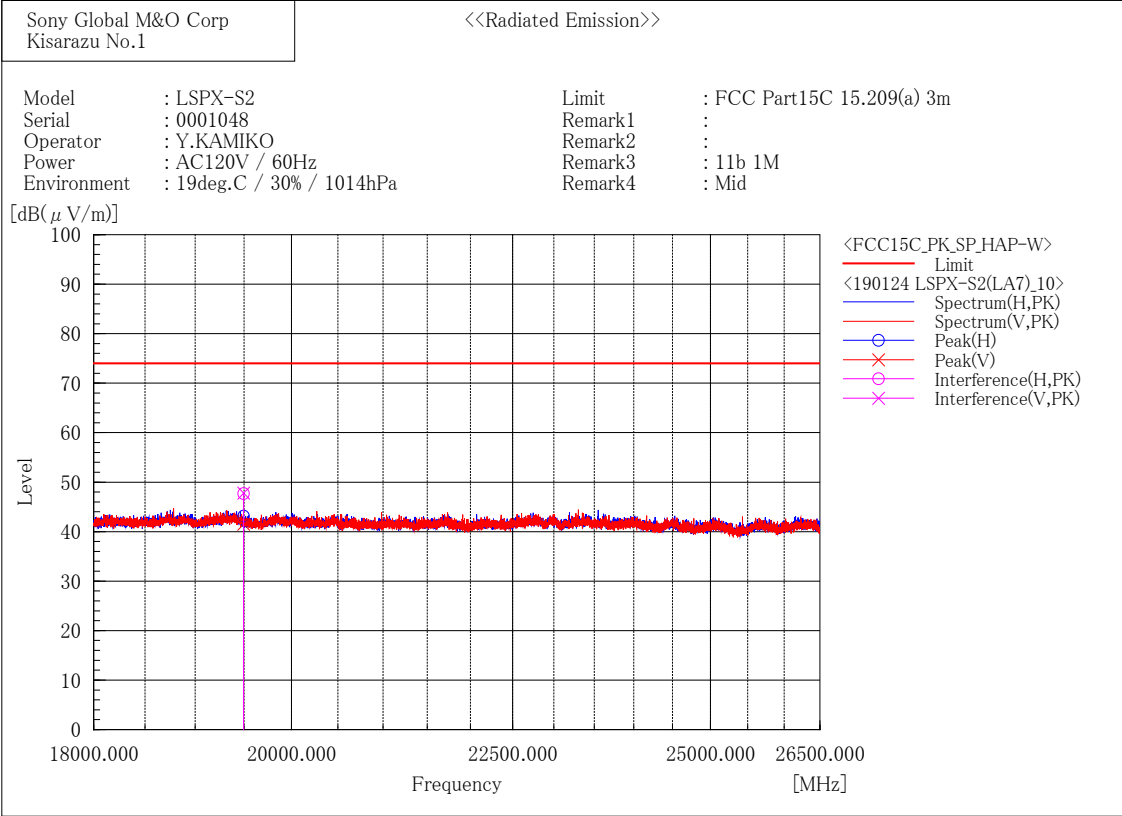
--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19696.000	38.0	-0.9	37.1	54.0	16.9	138.0	223.8

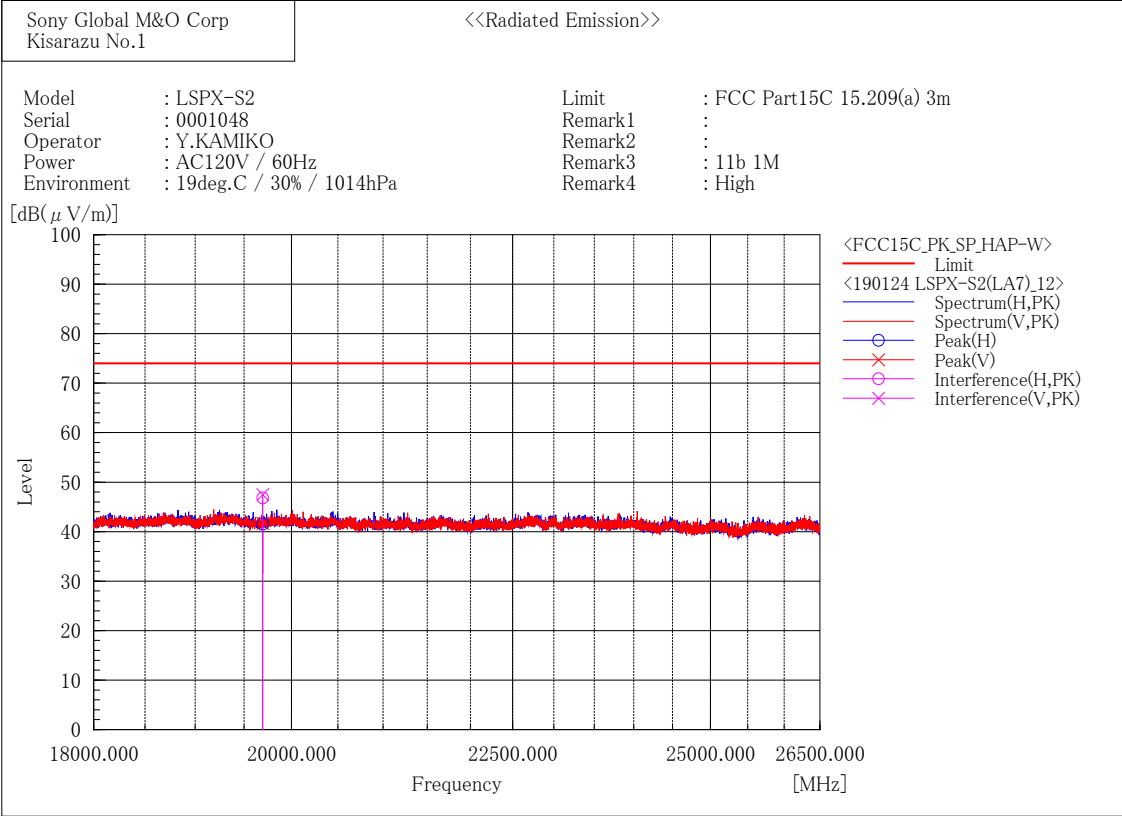
[802.11b/ 2412 MHz]



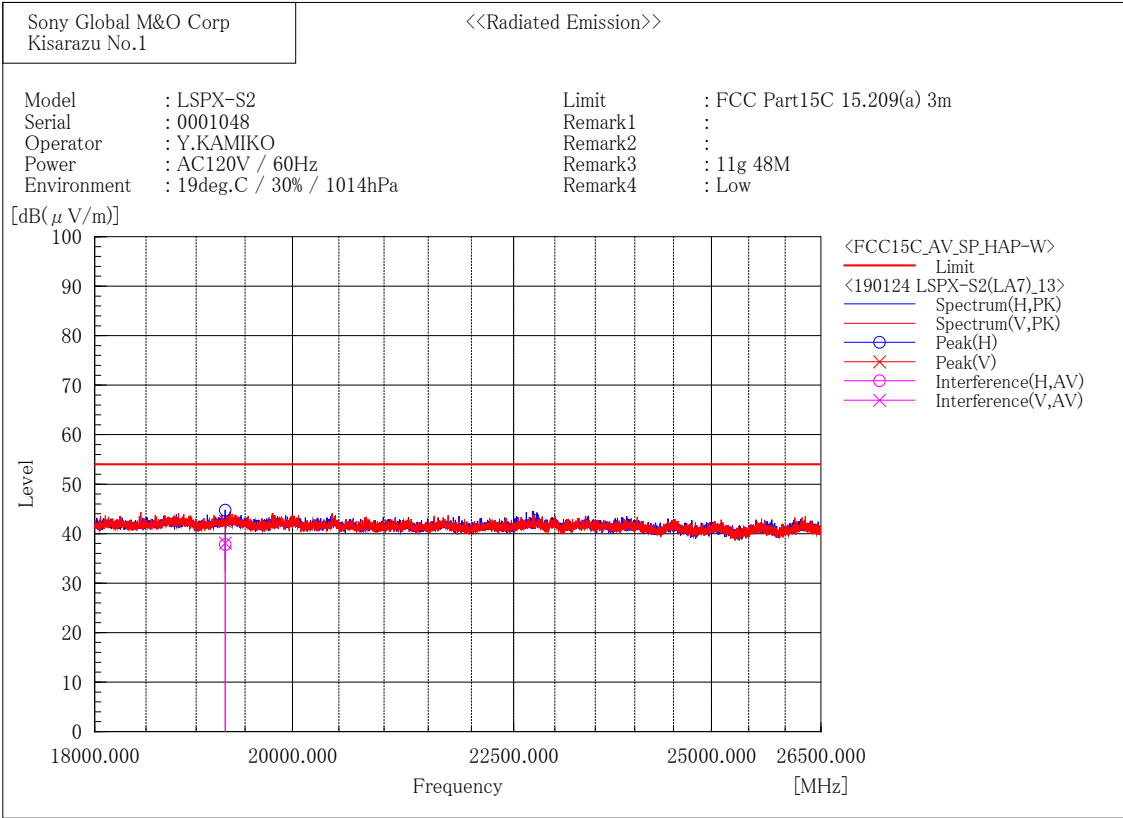
[802.11b/ 2437 MHz]



[802.11b/ 2462 MHz]



[802.11g/ 2412 MHz]



Final Result

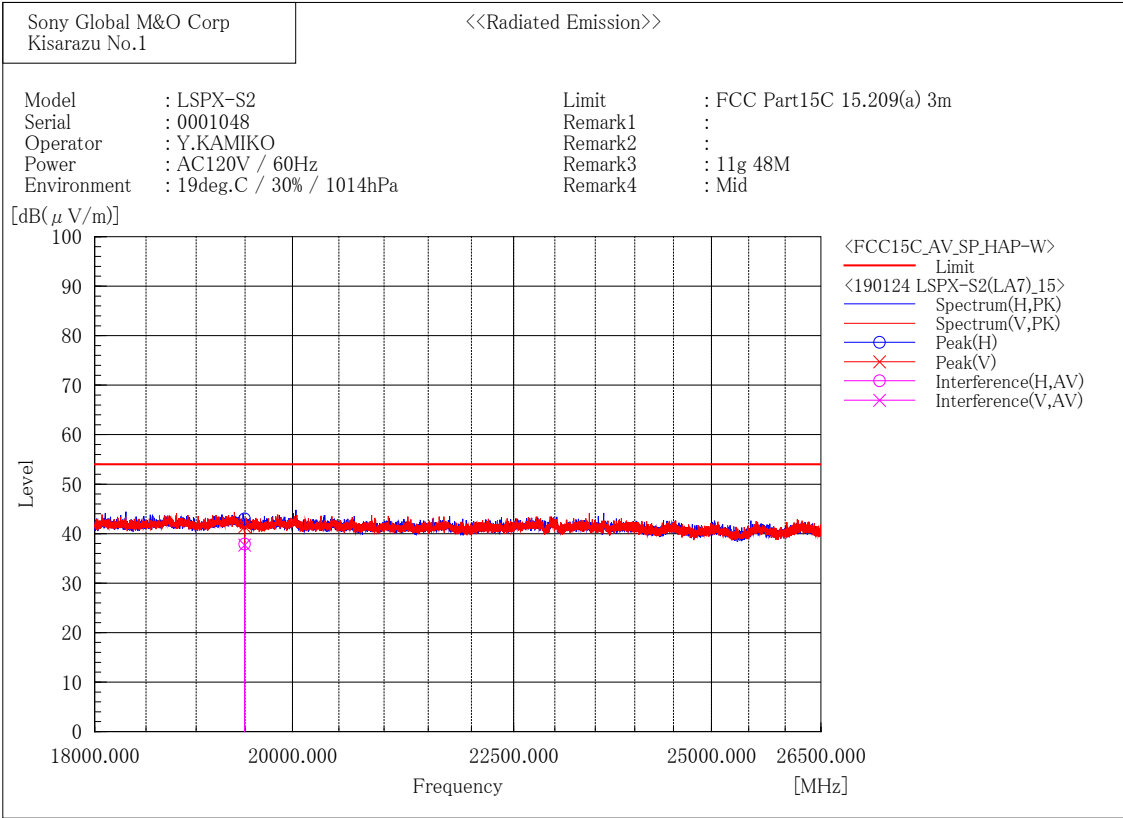
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19296.000	38.6	-0.8	37.8	54.0	16.2	295.9	124.9

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19296.000	38.9	-0.8	38.1	54.0	15.9	145.8	159.1

[802.11g/ 2437 MHz]



Final Result

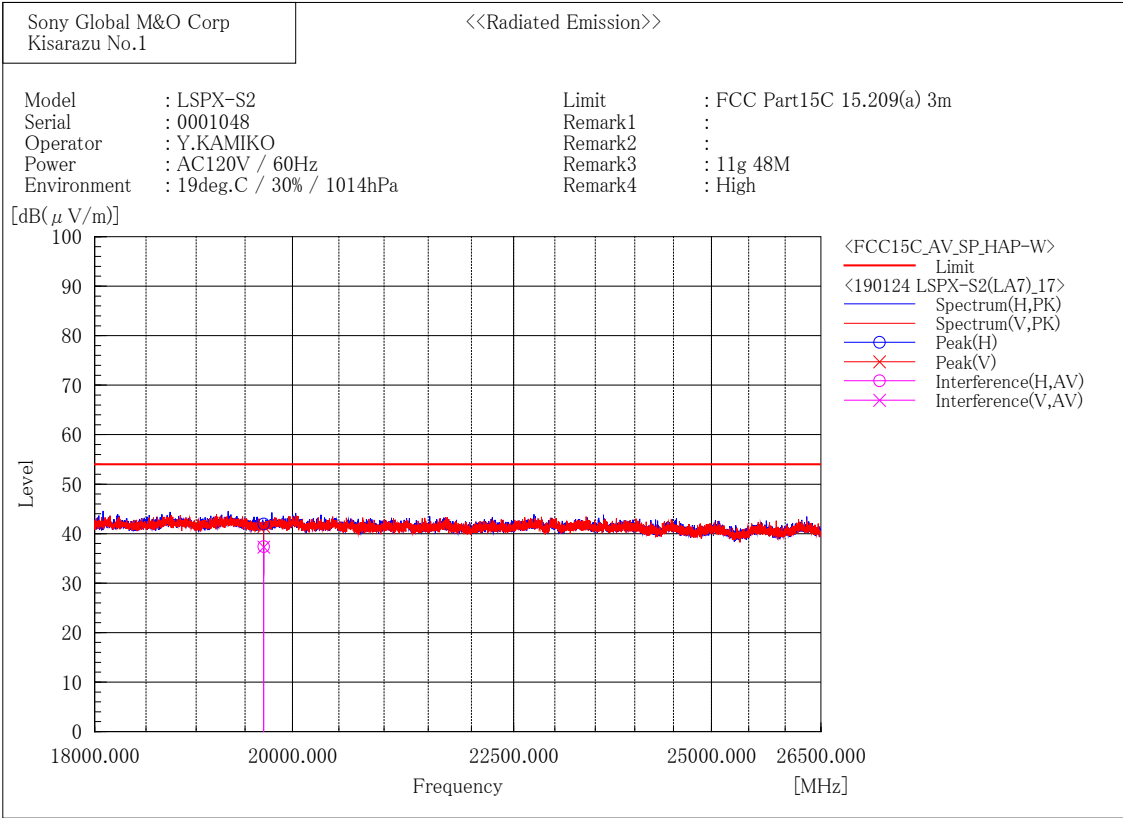
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19496.000	38.7	-0.8	37.9	54.0	16.1	219.0	331.7

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19496.000	38.5	-0.8	37.7	54.0	16.3	377.1	22.9

[802.11g/ 2462 MHz]



Final Result

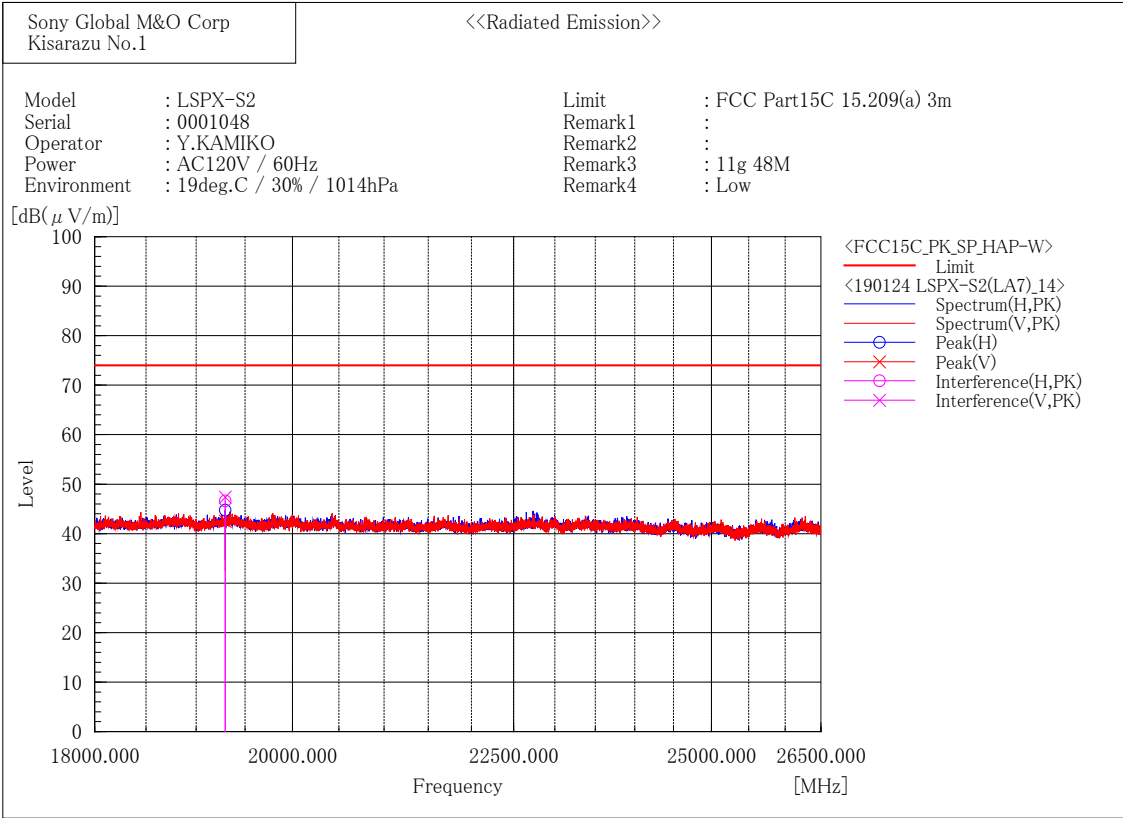
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19696.000	38.3	-0.9	37.4	54.0	16.6	108.9	105.2

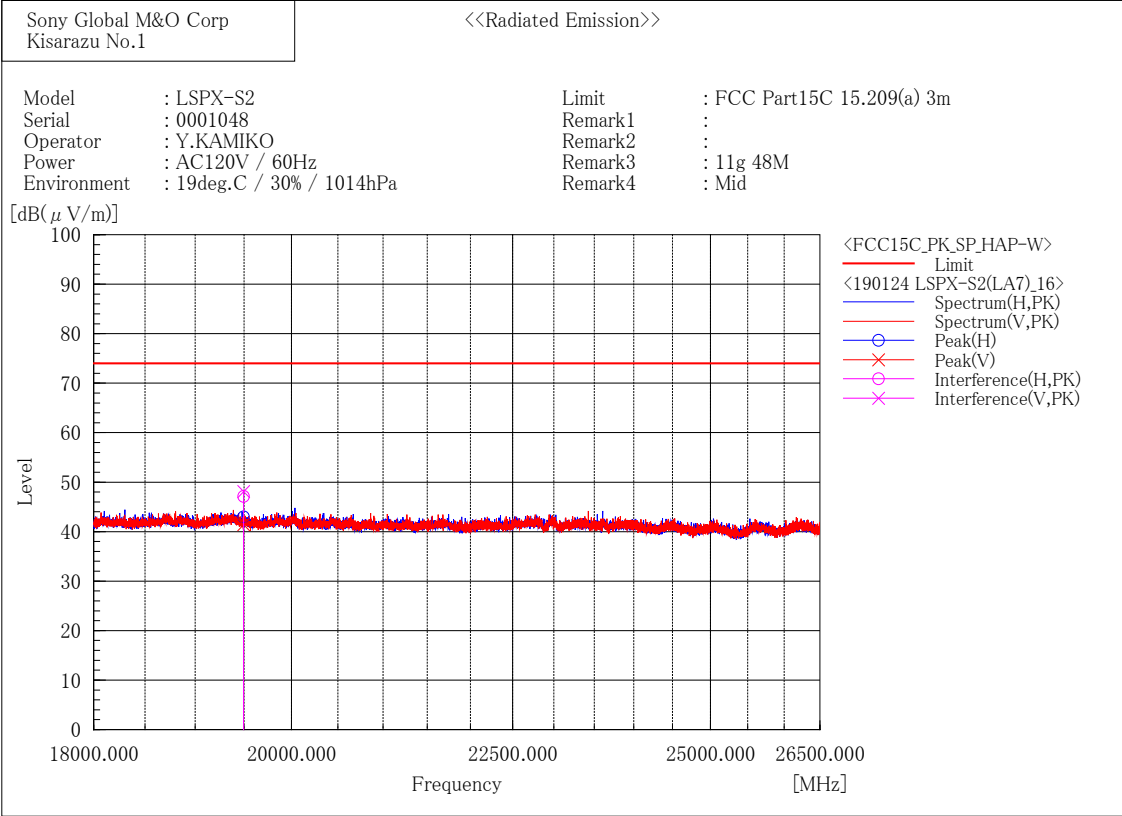
--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19696.000	38.2	-0.9	37.3	54.0	16.7	298.2	13.2

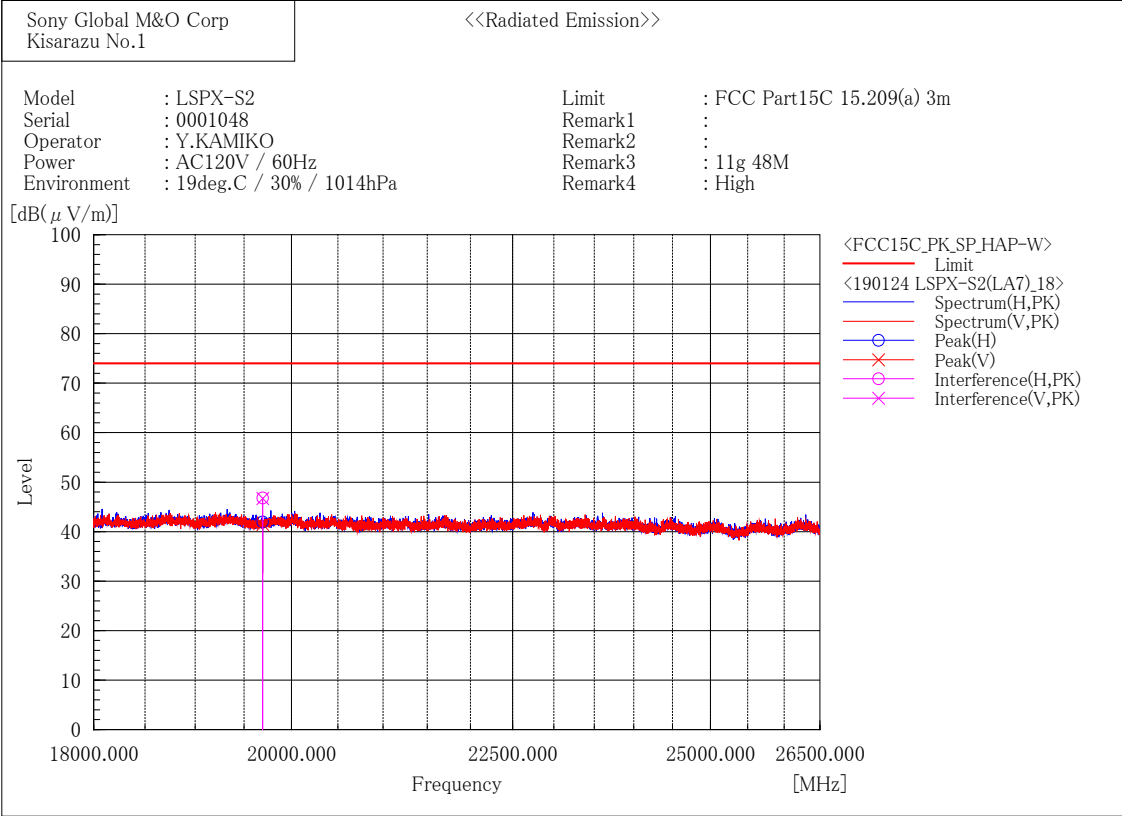
[802.11g/ 2412 MHz]



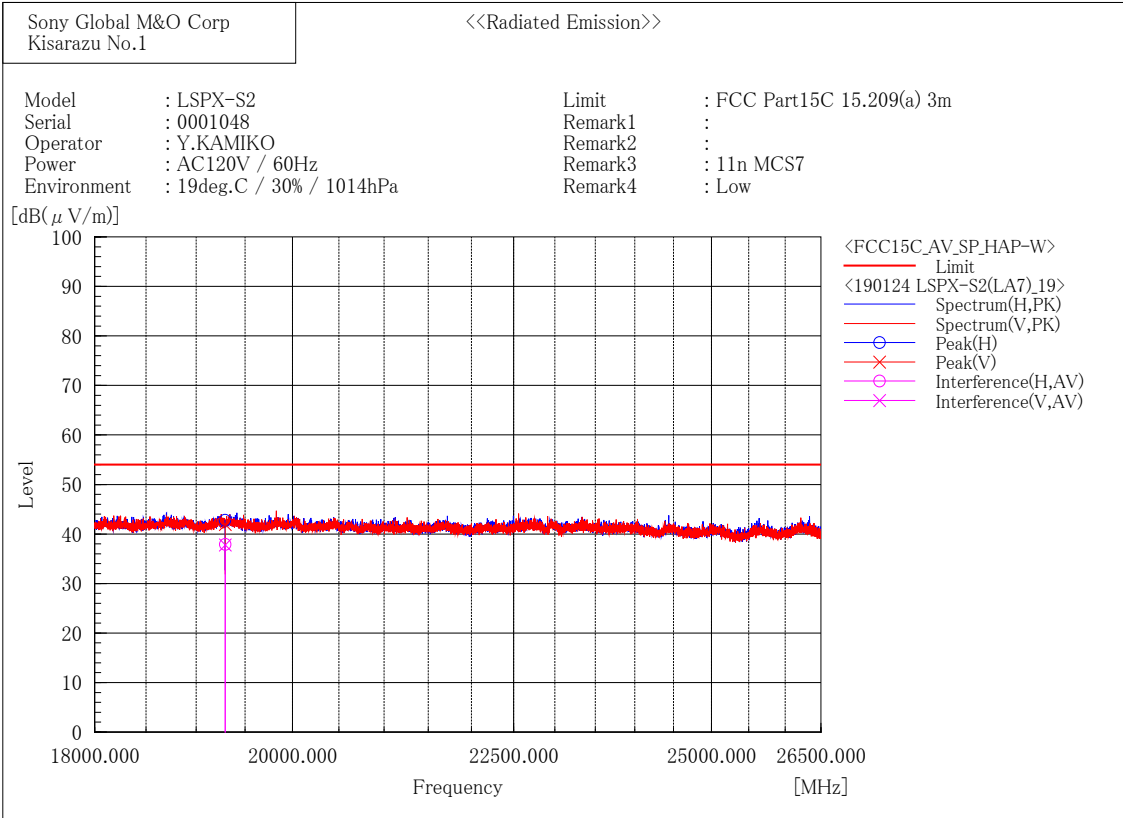
[802.11g/ 2437 MHz]



[802.11g/ 2462 MHz]



[802.11n (HT20)/ 2412 MHz]



Final Result

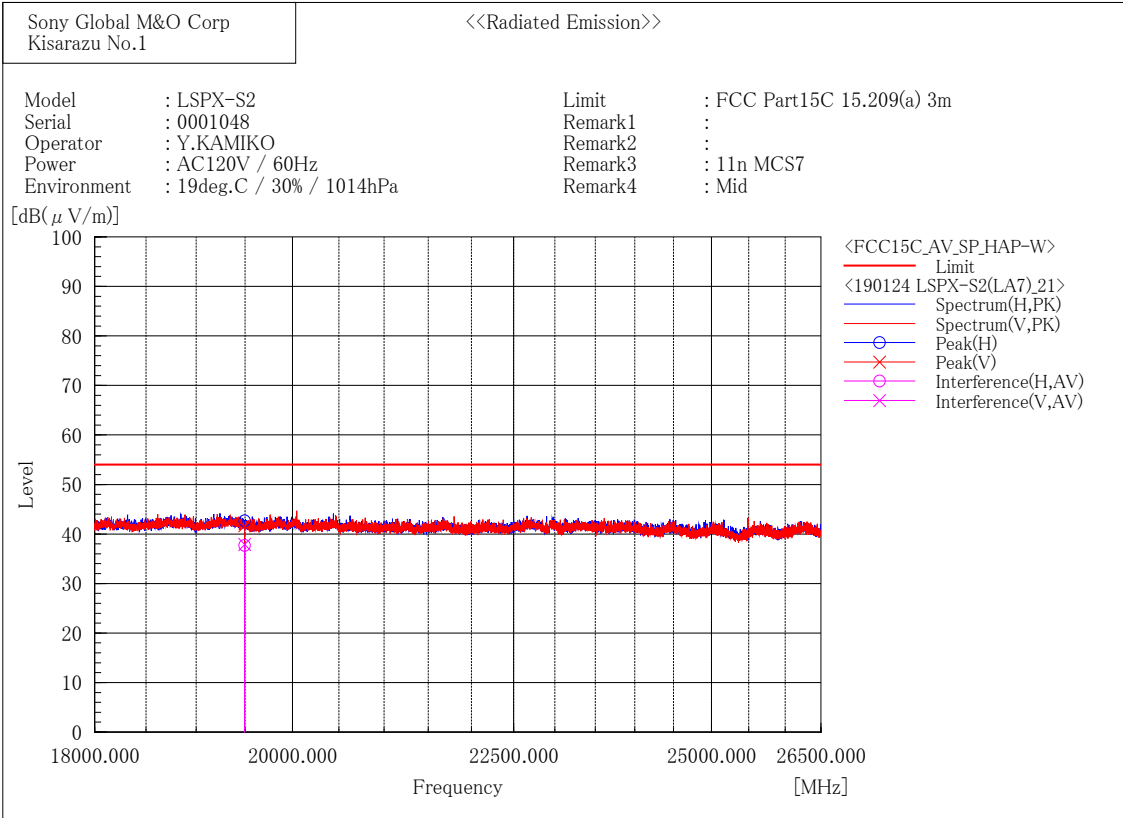
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19296.000	38.7	-0.8	37.9	54.0	16.1	215.7	223.1

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19296.000	38.6	-0.8	37.8	54.0	16.2	431.0	248.6

[802.11n (HT20)/ 2437 MHz]



Final Result

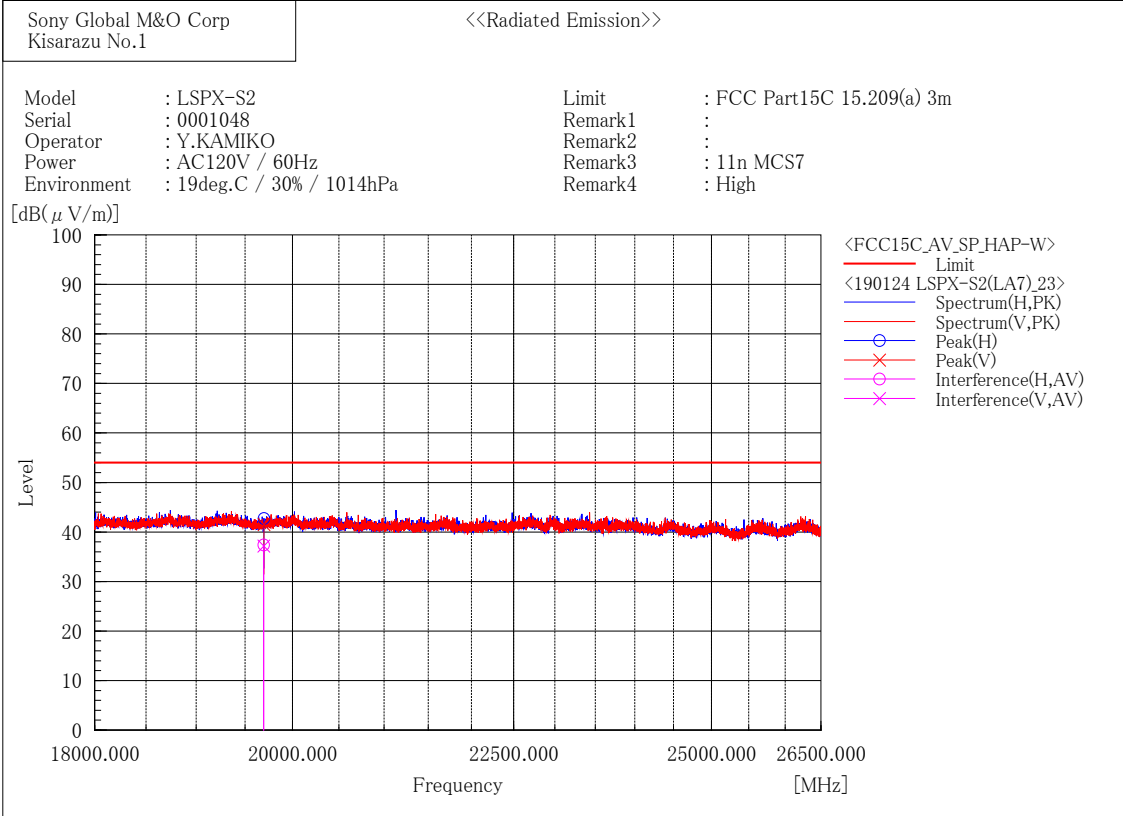
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19496.000	38.5	-0.8	37.7	54.0	16.3	155.0	51.9

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19496.000	38.7	-0.8	37.9	54.0	16.1	323.3	282.6

[802.11n (HT20)/ 2462 MHz]



Final Result

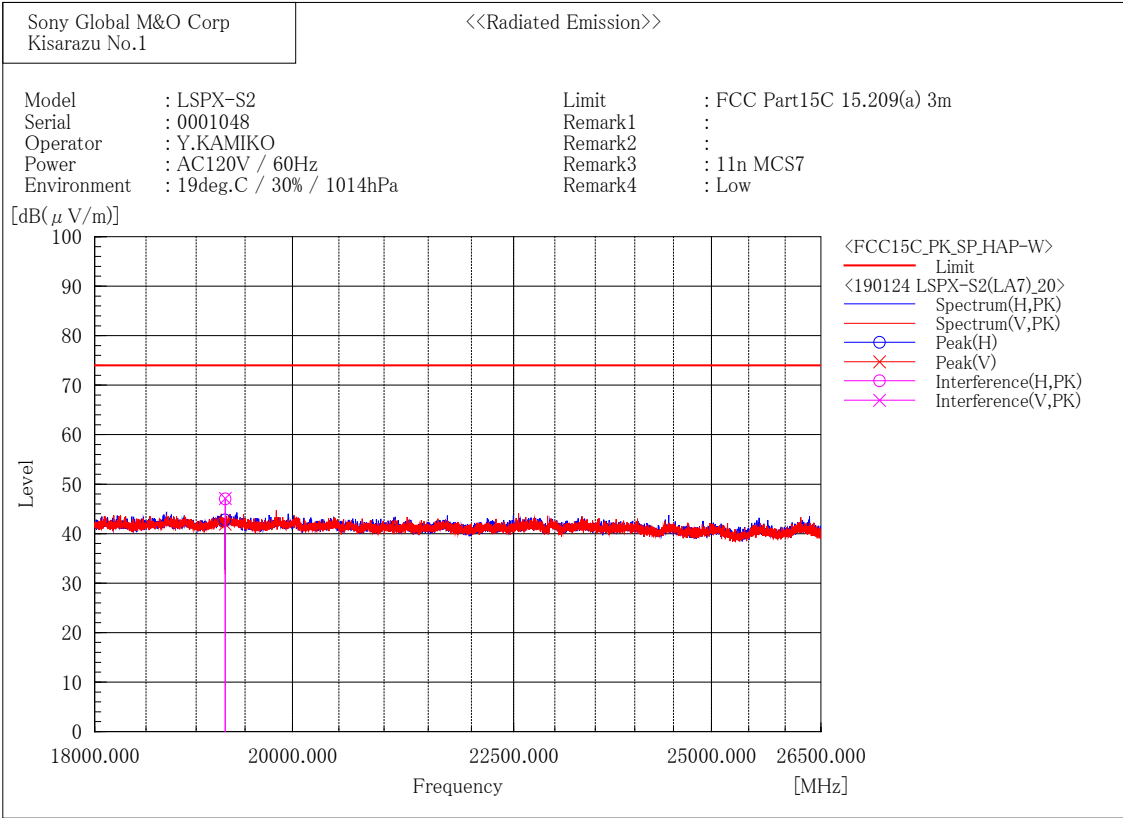
--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19696.000	38.3	-0.9	37.4	54.0	16.6	431.0	114.5

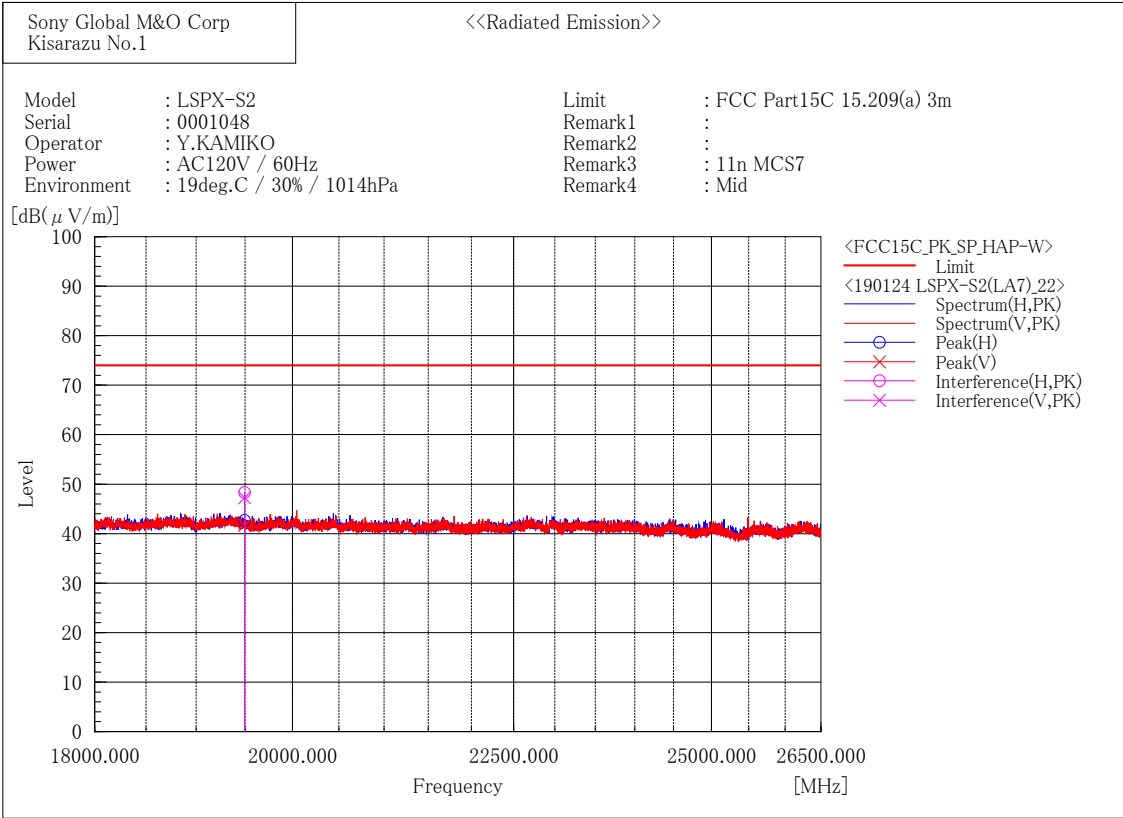
--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	19696.000	38.1	-0.9	37.2	54.0	16.8	180.6	110.1

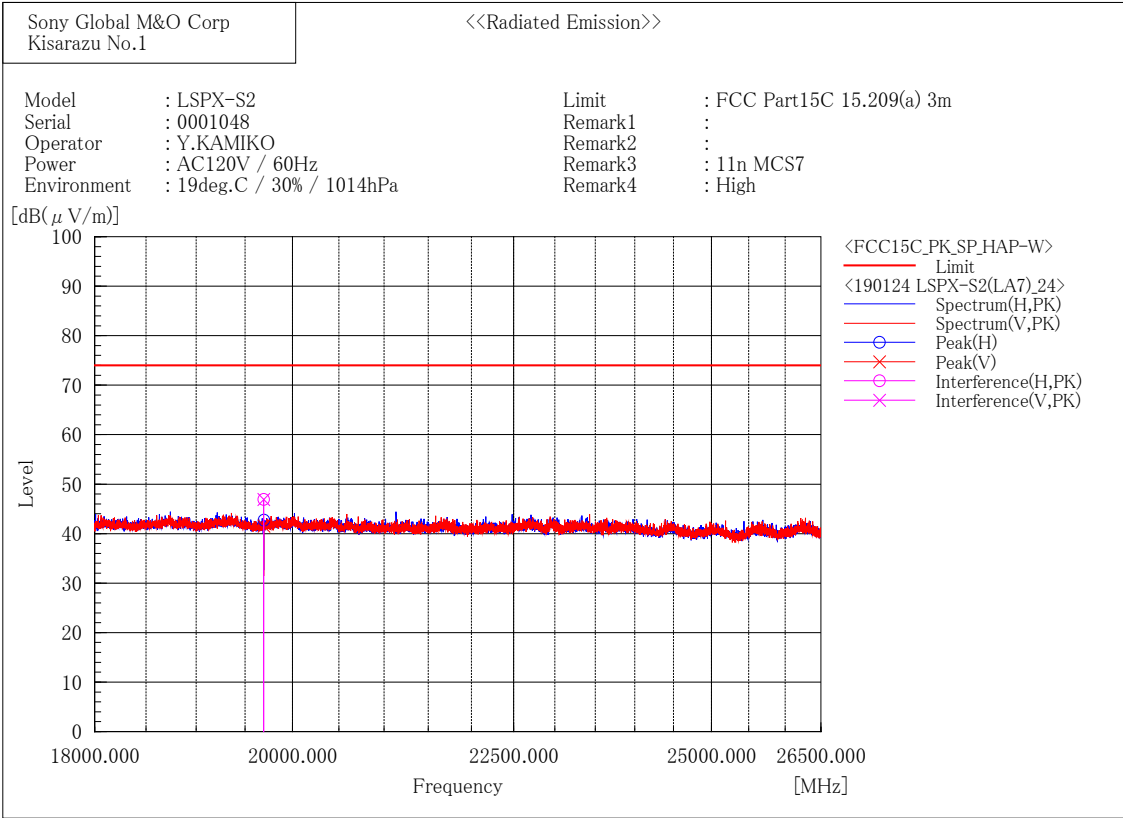
[802.11n (HT20)/ 2412 MHz]



[802.11n (HT20)/ 2437 MHz]



[802.11n (HT20)/ 2462 MHz]



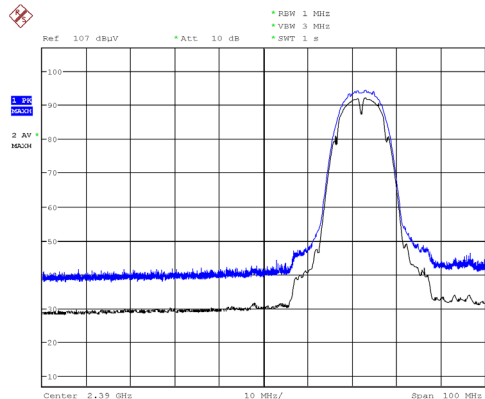
2.4 GHz Restricted-Band Edge (Plot data)

These plot data show peak (trace blue) and average (trace black) spectrum for worst case emissions in the restricted-band edges. (Restricted band edges: below 2390 MHz and above 2483.5 MHz)

The result of the final radiated spurious emissions measurement refers in previous pages.

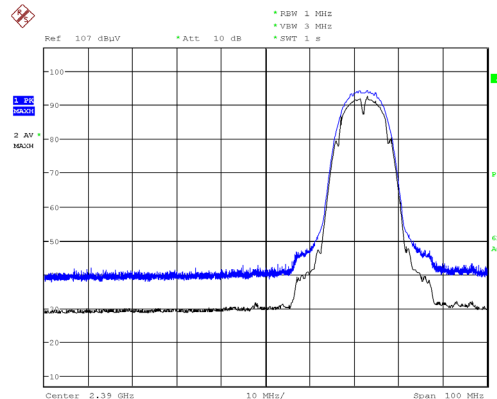
[802.11b/ 2412 MHz]

Horizontal



Date: 8.JAN.2019 14:31:36

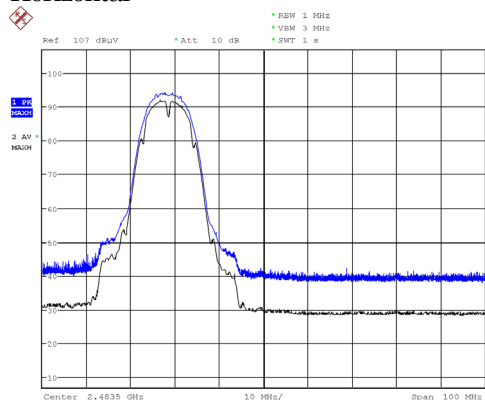
Vertical



Date: 8.JAN.2019 14:44:38

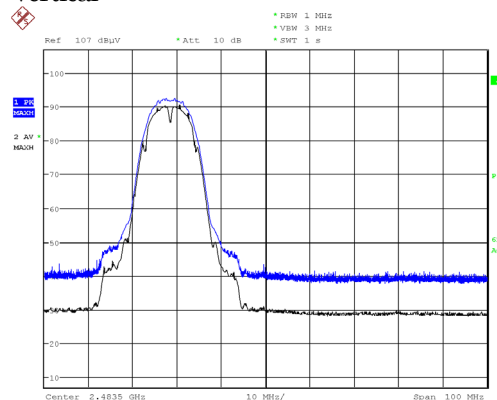
[802.11b/ 2462 MHz]

Horizontal



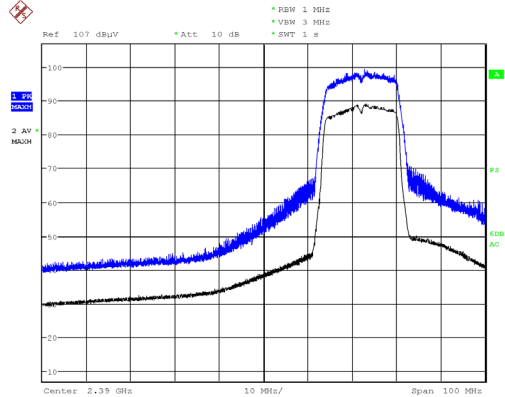
Date: 8.JAN.2019 19:00:47

Vertical



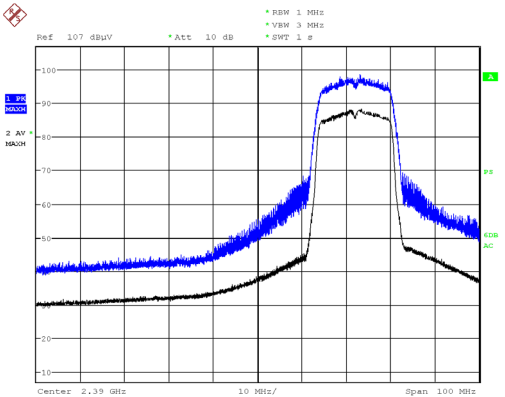
Date: 8.JAN.2019 19:14:46

[802.11g/ 2412 MHz]
Horizontal



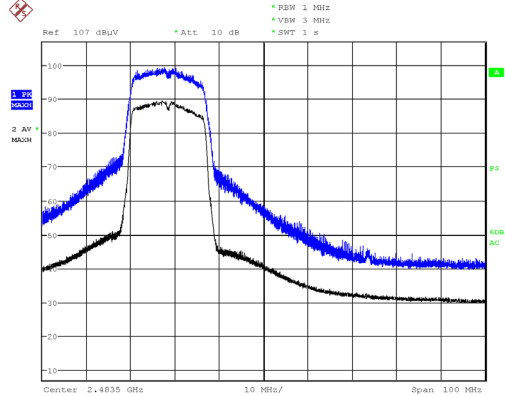
Date: 11.JAN.2019 10:14:56

Vertical



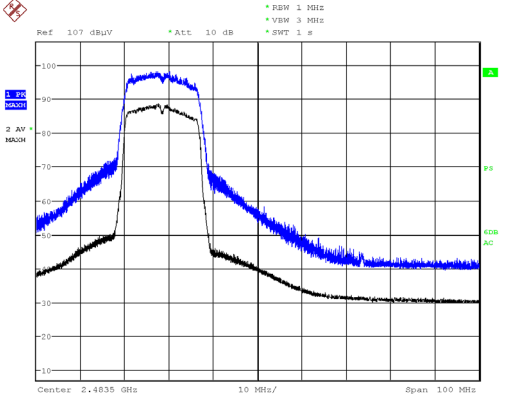
Date: 11.JAN.2019 10:26:48

[802.11g/ 2462 MHz]
Horizontal



Date: 11.JAN.2019 14:12:30

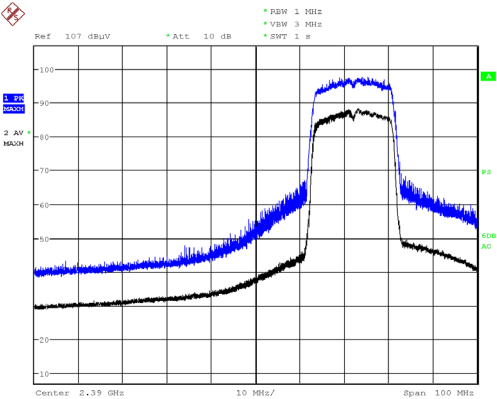
Vertical



Date: 11.JAN.2019 14:09:07

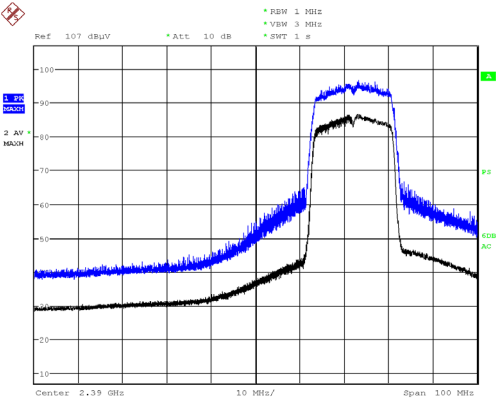
[802.11n (HT20)/ 2412 MHz]

Horizontal



Date: 11.JAN.2019 15:01:56

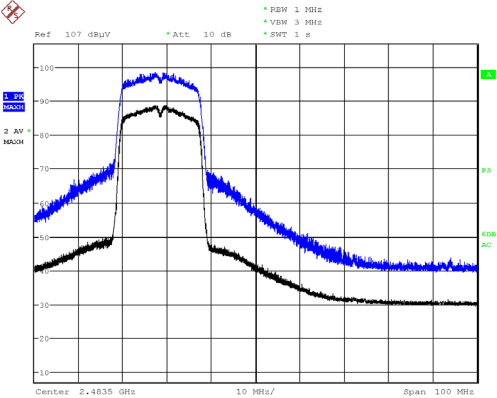
Vertical



Date: 11.JAN.2019 15:13:22

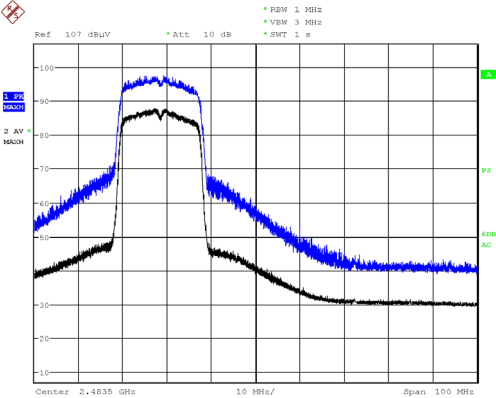
[802.11n (HT20)/ 2462 MHz]

Horizontal



Date: 11.JAN.2019 16:57:56

Vertical



Date: 11.JAN.2019 17:22:05

4. Method of Calculation

4.1. AC Power-line Conducted Emissions

Method of calculation : Software
Software Name : EP5/ CE
Software Version : Ver5.0.0

Test Result [dBuV] = Meter Reading [dBuV] + C.F. [dB]

Note (a) Meter Reading : Reading of the EMI test receiver.
(b) C.F. : System Loss + Correction Factor of LISN

4.2. Radiated Spurious Emissions

Method of calculation : Software
Software Name : V-Scan
Software Version : Ver.4.0.30

Test Result [dBuV/ m] = Meter Reading [dBuV] + C.F. [dB/ m]

Note (a) Meter Reading : Reading of the EMI test receiver or the spectrum analyzer.
(b) C.F. : ☒ Antenna Factor (including Balun Loss) + System GainLoss
: ☐ Antenna Factor (including Balun Loss) + System GainLoss + 20 log (3 m/ 10 m)

5. List of Test Equipment

All test results are traceable to the national and/ or international standards.

5.1. AC Power-line Conducted Emissions

	Ctrl.#	Equipment	Model No.	Serial No.	Manufacturer	Cal.Interval	Last Cal.
x	M0575	EMI Receiver	ESCI	100161	Rohde & Schwarz	12 months	18.04.18
x	CS0043	Fourth Site CE Cable SYSTEM	-	-	-	12 months	18.06.01
x	M0664	6dB Attenuator	6806.01A	-	HUBER+SUHNER AG	12 months	18.06.01
x	M0619	HIGH FREQUENCY FUSE	MP612A	-	Anritsu	12 months	18.06.01
x	M0514	LISN	ENV216	100424	Rohde & Schwarz	12 months	18.04.17
-	M0505	LISN	ENV216	100425	Rohde & Schwarz	12 months	18.04.17
-	M2289	LISN	KNW-407	8-1182-12	Kyoritsu	12 months	18.04.23
-	M2290	LISN	KNW-242C	8-1183-1	Kyoritsu	12 months	18.04.23
-	M0153	50 ohm Terminator	CT-01	-	TME	12 months	18.04.17
-	M0597	50 ohm Terminator	CT-01	-	TME	12 months	18.08.02
-	M2292	50 ohm Terminator	T1302	-	Stack	12 months	18.04.23
-	M2293	50 ohm Terminator	T1302	-	Stack	12 months	18.04.23
x	M5061	Scientific Ambient Monitor	0560 6220	39515471/801	testo	12 months	18.07.17
x	M5152	Temperature Meter	608-H2	41475965	testo	12 months	18.11.08

5.2. Radiated Spurious Emissions

	Ctrl.#	Equipment	Model No.	Serial No.	Manufacturer	Cal.Interval	Last Cal.
x	M0686	EMI Receiver	N9038A	MY52260113	Agilent Technologies	12 months	18.11.13
x	M0486	EMI Receiver	ESU40	100050	Rohde & Schwarz	12 months	18.10.01
-	M0562	EMI Receiver	ESU26	100068	Rohde & Schwarz	12 months	18.07.25
-	M0959	EMI Receiver	ESU40	100041	Rohde & Schwarz	12 months	18.01.30
x	A0073	Loop Antenna	HFH2-Z2	100171	Rohde & Schwarz	12 months	18.12.10
x	A0089	Biconical Antenna	BBA9106	VHA91032835	Schwarzbeck	12 months	18.12.03
x	A0088	Log periodic Antenna	UHLP9108A1	0649	Schwarzbeck	12 months	18.12.03
x	A0064	Horn Antenna	BBHA9120D	746	Schwarzbeck	12 months	18.11.04
x	A0078	Horn Antenna	HAP06-18W	00000070	Toyo Corporation	12 months	18.11.04
x	A0058	Horn Antenna	HAP18-26W	00000016	Toyo Corporation	12 months	18.12.01
x	CS0017	N-RE Cable System 1	-	-	-	12 months	18.11.04
x	CS0018	N-RE Cable System 2	-	-	-	12 months	18.11.04
x	CS0045	N-3m EMF Cable System	-	-	-	12 months	18.11.04
x	CS0074/0075	N-RE Cable SYSTEM 4	-	-	-	12 months	18.11.04
x	M0126	Step Attenuator	8494H	3837M01144	Agilent Technologies	12 months	18.11.04
x	M0752	Pre Amplifier	310N	320621	SONOMA INSTRUMENT	12 months	18.11.04
x	M0128	3dB Attenuator	8491A	53541	Agilent Technologies	12 months	18.11.04
x	M0609	3dB Attenuator	8491B	MY39265960	Agilent Technologies	12 months	18.11.04
x	M0737	GHz Filter Box	FB-G1	001	Sony EMCS	12 months	18.11.04
x	M5079	Temperature Meter	608-H2	41475953	testo	12 months	18.10.18
x	M5062	Scientific Ambient Monitor	0560 6220	39515563/802	testo	12 months	18.07.17

About calibration interval

Valid until the end of the month listed in "Cal. Int." column.