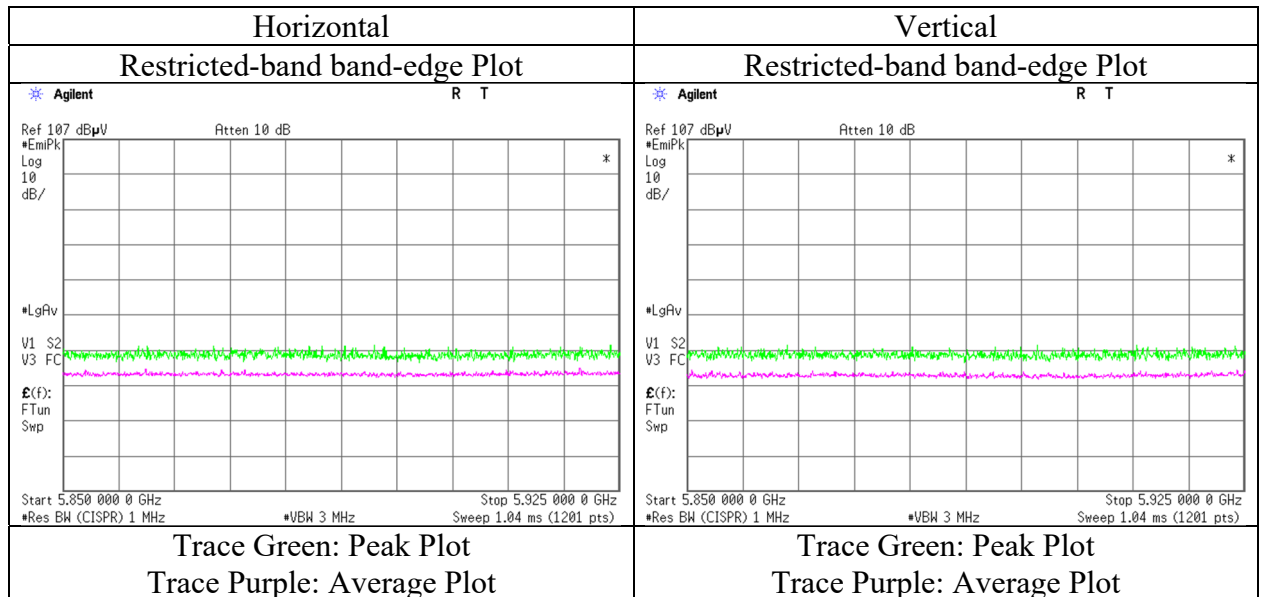
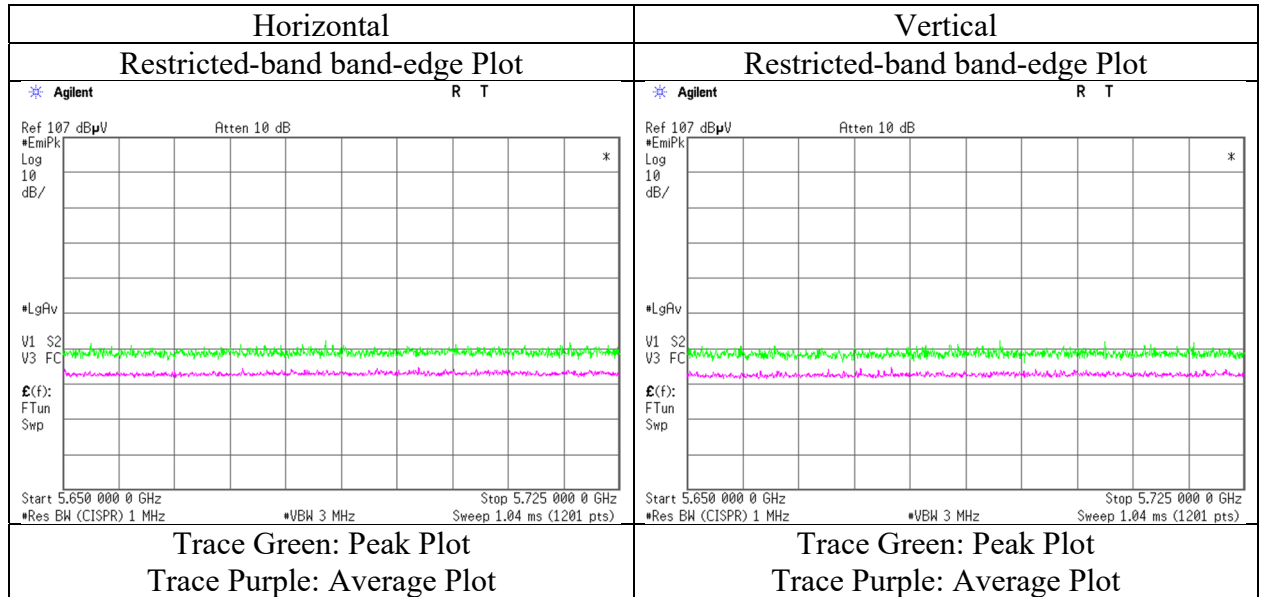


## Radiated Spurious Emission

Report No.	13385909S-C-R2
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	3
Date	July 9, 2020
Temperature / Humidity	25 deg. C / 63 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-80 MIMO 5775 MHz
EUT	Lo type(9.8 inch Display)



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

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**Shonan EMC Lab.**

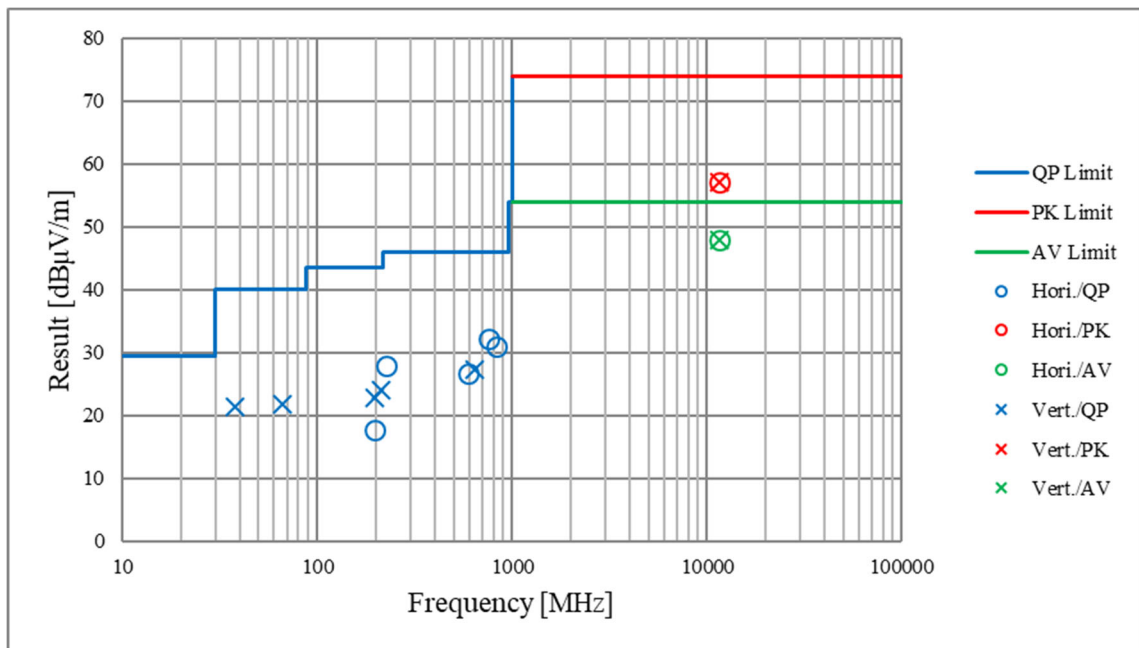
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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**Radiated Spurious Emission**  
**(Plot data, Worst case)**

Report No.	13385909S-C-R2			
Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	3	3	3	3
Date	August 3, 2020	July 9, 2020	July 23, 2020	July 23, 2020
Temperature / Humidity	23 deg. C / 56 % RH	25 deg. C / 63 % RH	24 deg.C / 61 %RH	22 deg.C / 63 %RH
Engineer	Shiro Kobayashi (30 MHz - 1 GHz)	Kazuya Noda (1 GHz - 13 GHz)	Hiromasa Sato (13 GHz - 18 GHz)	Toshinori Yamada (18 GHz - 26.5 GHz) (26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 MIMO 5745 MHz			
EUT	Lo type(9.8 inch Display)			



\*These plots data contains sufficient number to show the trend of characteristic features for EUT.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-20 MIMO 5180 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

**(above 1 GHz Inside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

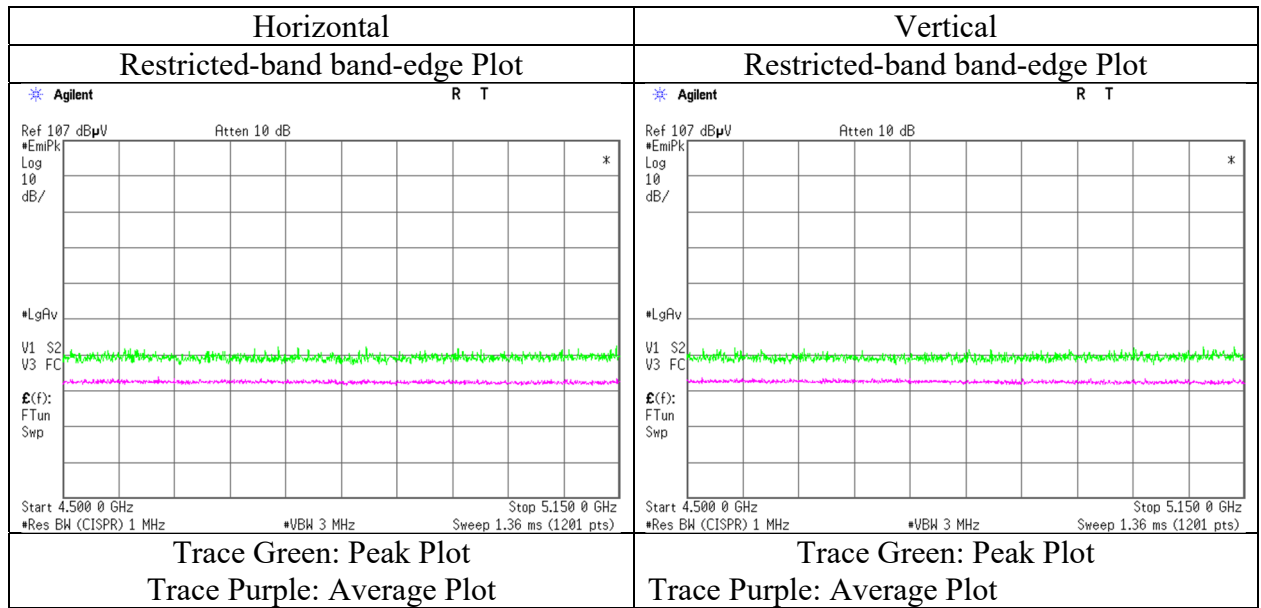
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	49.32	32.12	17.10	43.11	2.13	57.56	73.9	16.3	248	100	VBW:10 kHz
Hori.	5150.000	AV	39.79	32.12	17.10	43.11	2.13	48.03	53.9	5.8	248	100	
Vert.	5150.000	PK	49.21	32.12	17.10	43.11	2.13	57.45	73.9	16.4	247	251	
Vert.	5150.000	AV	39.78	32.12	17.10	43.11	2.13	48.02	53.9	5.8	247	251	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log(3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log(1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-20 MIMO 5240 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

**(above 1 GHz Inside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

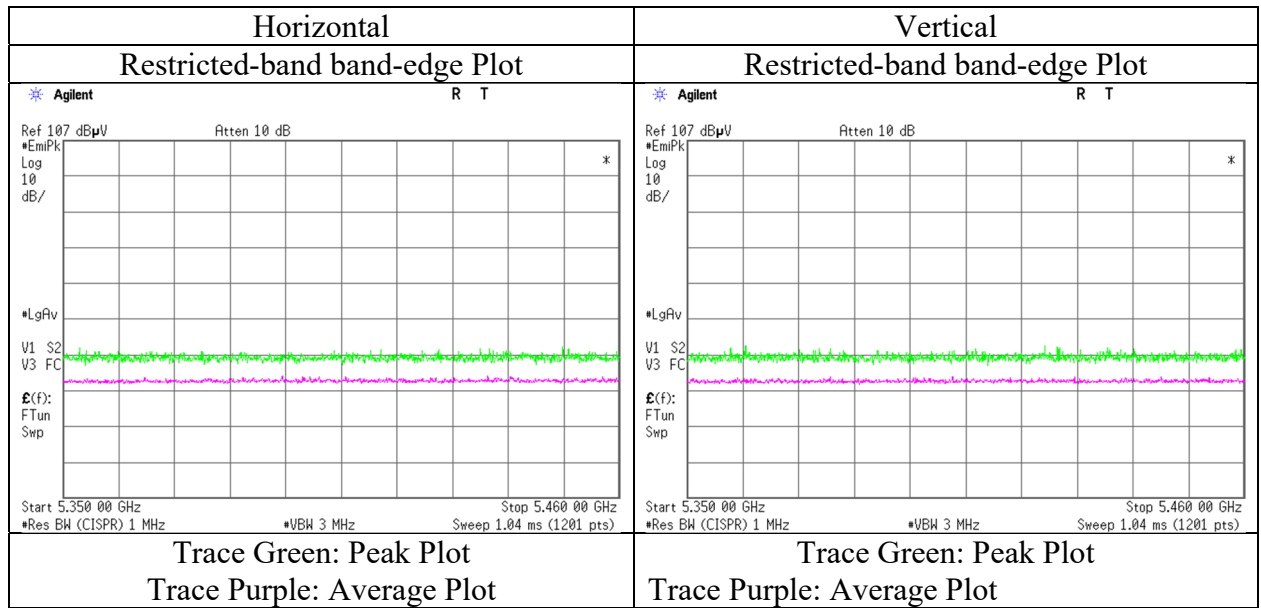
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5320.000	PK	49.56	31.75	17.24	43.30	2.13	57.38	73.9	16.5	108	185	VBW:10 kHz
Hori.	5320.000	AV	40.31	31.75	17.24	43.30	2.13	48.13	53.9	5.7	108	185	
Vert.	5320.000	PK	49.49	31.75	17.24	43.30	2.13	57.31	73.9	16.5	282	258	VBW:10 kHz
Vert.	5320.000	AV	40.32	31.75	17.24	43.30	2.13	48.14	53.9	5.7	282	258	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log(3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log(1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

**Shonan EMC Lab.**

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Facsimile : +81 463 50 6401

## Radiated Spurious Emission

Report No.	13385909S-C-R2		
Test place	Shonan EMC Lab.		
Semi Anechoic Chamber	3	3	3
Date	August 3, 2020	July 22, 2020	July 23, 2020
Temperature / Humidity	23 deg.C / 56 %RH	23 deg. C / 65 % RH	24 deg.C / 61 %RH
Engineer	Shiro Kobayashi	Toshinori Yamada	Hiromasa Sato
	(30 MHz - 1 GHz)	(1 GHz - 13 GHz)	(13 GHz - 18 GHz)
			(18 GHz - 26.5 GHz)
			(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 MIMO 5745 MHz with 11g 2437 MHz		
EUT	Lo type(9.8 inch Display)		

### (below 1 GHz and above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	212.972	QP	39.10	11.25	8.05	32.03	0.00	26.37	43.5	17.1	159	45	
Hori.	224.840	QP	40.00	11.26	8.12	32.01	0.00	27.37	46.0	18.6	145	52	
Hori.	640.001	QP	31.50	19.27	9.94	31.95	0.00	28.76	46.0	17.2	136	185	
Hori.	652.843	QP	31.10	19.23	9.98	31.94	0.00	28.37	46.0	17.6	151	164	
Hori.	760.297	QP	32.50	20.30	10.38	31.72	0.00	31.46	46.0	14.5	100	194	
Hori.	831.332	QP	30.30	21.06	10.60	31.44	0.00	30.52	46.0	15.4	100	177	
Hori.	11490.000	PK	48.10	39.69	10.05	42.63	2.13	57.34	73.9	16.5	100	0	
Hori.	11490.000	AV	38.74	39.69	10.05	42.63	2.13	47.98	53.9	5.9	100	0	VBW:10 kHz
Vert.	37.739	QP	31.10	15.74	6.60	32.17	0.00	21.27	40.0	18.7	100	238	
Vert.	65.677	QP	40.30	7.13	6.50	32.15	0.00	21.78	40.0	18.2	100	204	
Vert.	130.581	QP	30.60	13.92	7.39	32.10	0.00	19.81	43.5	23.6	100	174	
Vert.	195.854	QP	30.20	16.51	7.80	32.05	0.00	22.46	43.5	21.0	100	347	
Vert.	11490.000	PK	48.33	39.69	10.05	42.63	2.13	57.57	73.9	16.3	100	0	
Vert.	11490.000	AV	38.83	39.69	10.05	42.63	2.13	48.07	53.9	5.8	100	0	VBW:10 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log(3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log(1.0 m / 3.0 m) = -9.54 dB

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	49.51	32.49	17.48	43.46	2.13	58.15	-37.07	-27.0	10.0	100	202	-
Hori.	5700.000	PK	49.72	32.60	17.51	43.45	2.13	58.51	-36.71	10.0	46.7	100	202	
Hori.	5720.000	PK	50.44	32.66	17.52	43.44	2.13	59.31	-35.91	15.6	51.5	100	202	
Hori.	5725.000	PK	54.54	32.68	17.53	43.44	2.13	63.44	-31.78	27.0	58.7	100	202	
Hori.	17235.000	PK	47.33	41.57	12.73	40.31	-9.54	51.78	-43.44	-27.0	16.4	100	0	
Vert.	5650.000	PK	49.65	32.49	17.48	43.46	2.13	58.29	-36.93	-27.0	9.9	250	254	
Vert.	5700.000	PK	50.10	32.60	17.51	43.45	2.13	58.89	-36.33	10.0	46.3	250	254	
Vert.	5720.000	PK	51.87	32.66	17.52	43.44	2.13	60.74	-34.48	15.6	50.0	250	254	
Vert.	5725.000	PK	55.69	32.68	17.53	43.44	2.13	64.59	-30.63	27.0	57.6	250	254	
Vert.	17235.000	PK	47.19	41.57	12.73	40.31	-9.54	51.64	-43.58	-27.0	16.5	100	0	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP) [dBm] = 10 \* LOG( (10^(Electric Field Strength [dBuV/m] / 20) \* 10^(-6) \* Distance : 3 [m])^2 / 30 \* 10^3 )

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log(3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log(1.0 m / 3.0 m) = -9.54 dB

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**Shonan EMC Lab.**

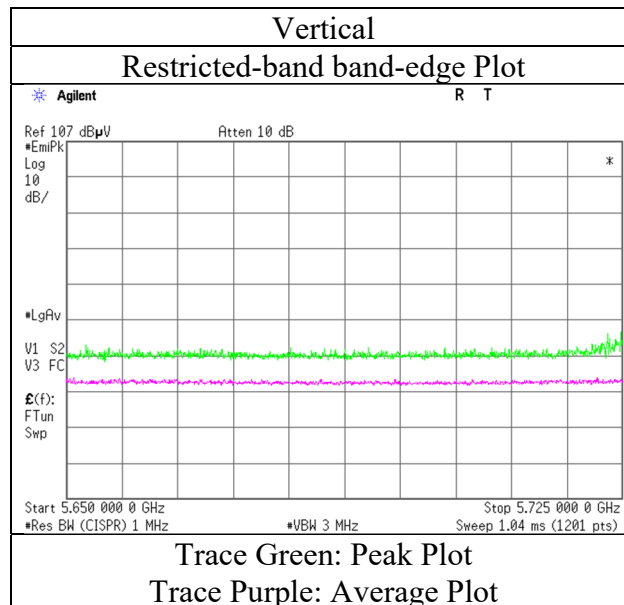
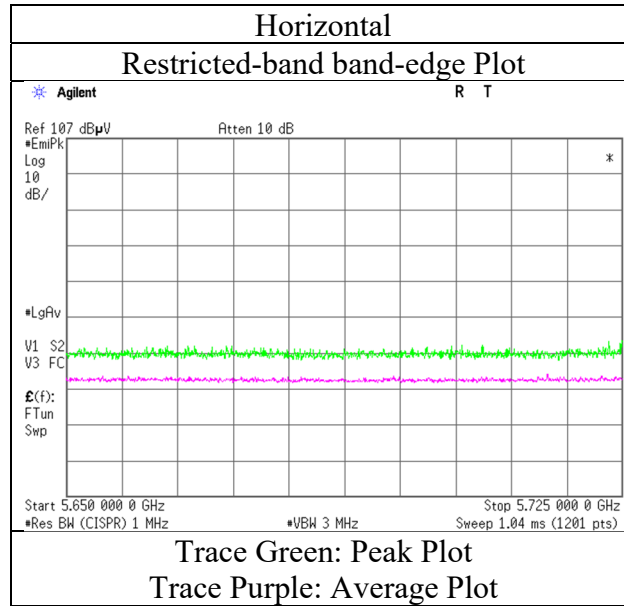
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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## Radiated Spurious Emission

Report No.	13385909S-C-R2
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	3
Date	July 22, 2020
Temperature / Humidity	23 deg. C / 65 % RH
Engineer	Toshinori Yamada
Mode	Tx 11ac-20 MIMO 5745 MHz with 11g 2437 MHz
EUT	Lo type(9.8 inch Display)



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.  
Final result of restricted band edge was shown in tabular data.

### Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-20 MIMO 5825 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

**(Calculation) (above 1 GHz Outside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	50.43	33.07	17.60	43.41	2.13	59.82	-35.40	27.0	62.4	106	201	-
Hori.	5855.000	PK	50.38	33.08	17.60	43.41	2.13	59.78	-35.44	15.6	51.0	106	201	
Hori.	5875.000	PK	50.02	33.12	17.63	43.41	2.13	59.49	-35.73	10.0	45.7	106	201	
Hori.	5925.000	PK	49.86	33.21	17.64	43.40	2.13	59.44	-35.78	-27.0	8.7	106	201	
Vert.	5850.000	PK	51.73	33.07	17.60	43.41	2.13	61.12	-34.10	27.0	61.1	249	253	
Vert.	5855.000	PK	50.65	33.08	17.60	43.41	2.13	60.05	-35.17	15.6	50.7	249	253	
Vert.	5875.000	PK	49.87	33.12	17.63	43.41	2.13	59.34	-35.88	10.0	45.8	249	253	
Vert.	5925.000	PK	49.40	33.21	17.64	43.40	2.13	58.98	-36.24	-27.0	9.2	249	253	

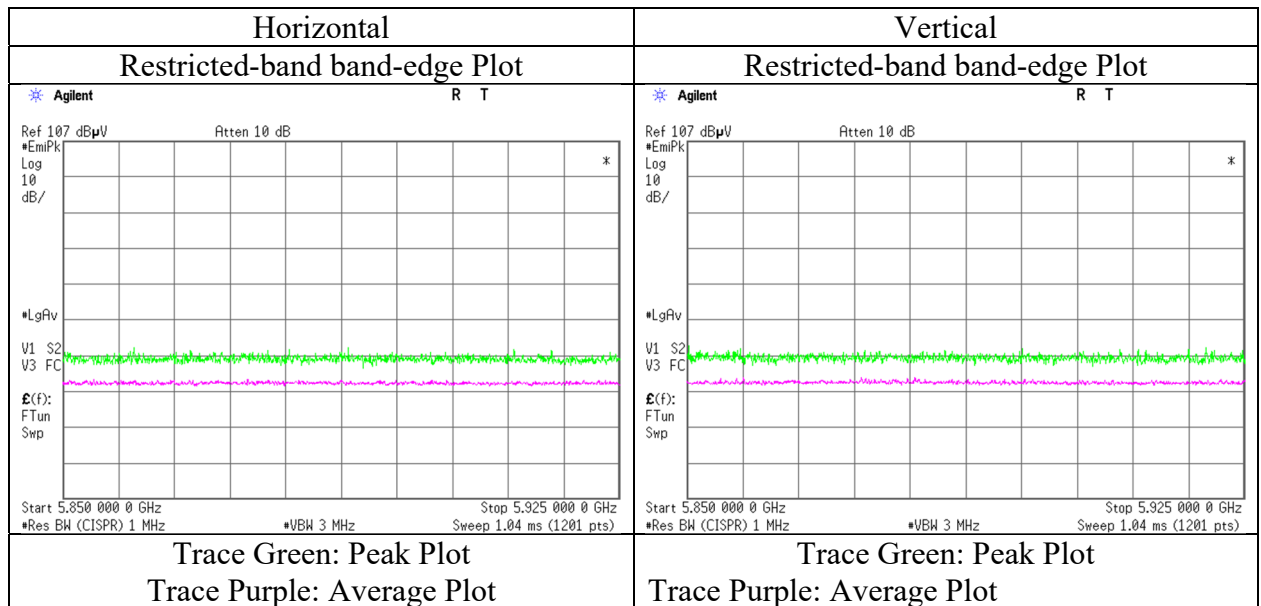
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP) [dBm] = 10 \* LOG( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m] ) ^ 2 / 30 \* 10 ^ 3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log (3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-40 MIMO 5190 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

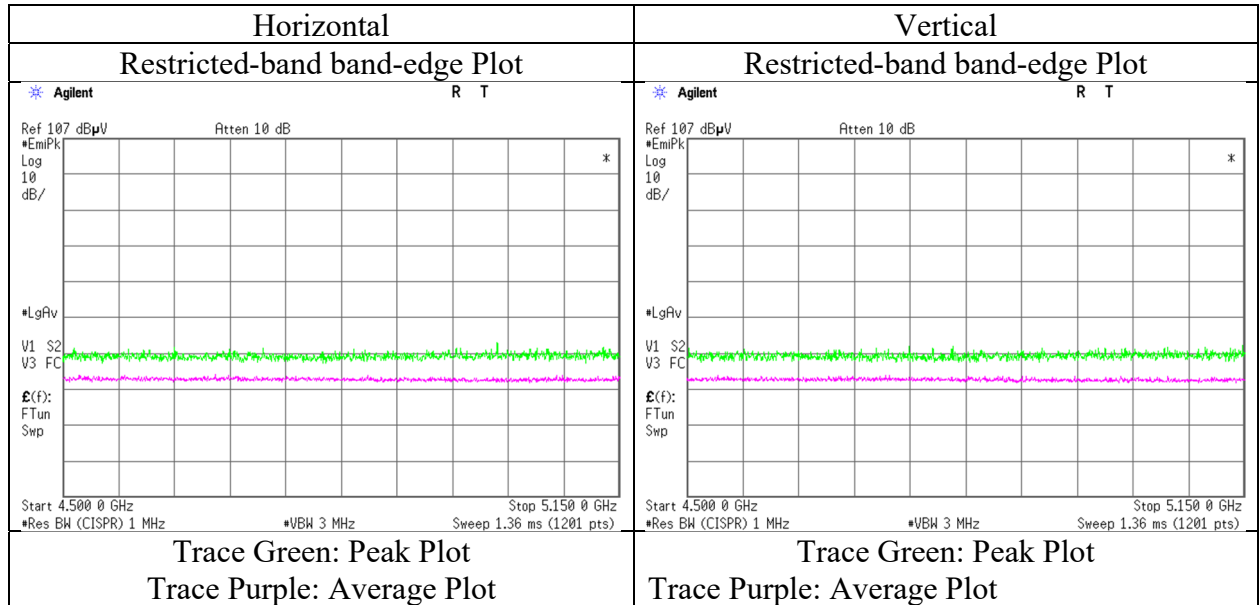
(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	50.58	32.12	17.10	43.11	2.13	58.82	73.9	15.0	221	98	
Hori.	5150.000	AV	40.54	32.12	17.10	43.11	2.13	48.78	53.9	5.1	221	98	VBW:13 kHz
Vert.	5150.000	PK	52.52	32.12	17.10	43.11	2.13	60.76	73.9	13.1	295	259	
Vert.	5150.000	AV	41.48	32.12	17.10	43.11	2.13	49.72	53.9	4.1	295	259	VBW:13 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain (Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz :  $20\log(3.83\text{ m} / 3.0\text{ m}) = 2.13\text{ dB}$   
13 GHz - 40 GHz :  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-40 MIMO 5230 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

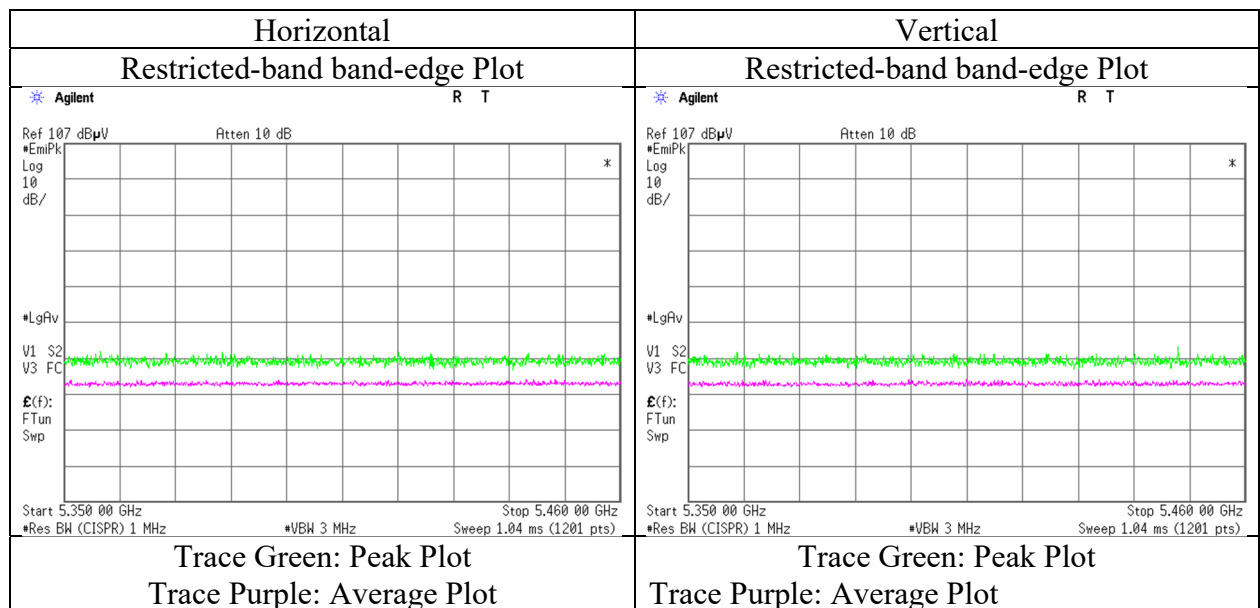
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	49.50	31.83	17.27	43.33	2.13	57.40	73.9	16.5	159	184	VBW:13 kHz
Hori.	5350.000	AV	40.54	31.83	17.27	43.33	2.13	48.44	53.9	5.4	159	184	
Vert.	5350.000	PK	49.26	31.83	17.27	43.33	2.13	57.16	73.9	16.7	298	258	VBW:13 kHz
Vert.	5350.000	AV	40.65	31.83	17.27	43.33	2.13	48.55	53.9	5.3	298	258	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Anprifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz :  $20\log(3.83\text{ m} / 3.0\text{ m}) = 2.13\text{ dB}$

13 GHz - 40 GHz :  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-40 MIMO 5755 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	49.44	32.49	17.48	43.46	2.13	58.08	-37.14	-27.0	10.1	100	207	-
Hori.	5700.000	PK	50.06	32.60	17.51	43.45	2.13	58.85	-36.37	10.0	46.3	100	207	
Hori.	5720.000	PK	51.86	32.66	17.52	43.44	2.13	60.73	-34.49	15.6	50.0	100	207	
Hori.	5725.000	PK	54.24	32.68	17.53	43.44	2.13	63.14	-32.08	27.0	59.0	100	207	
Vert.	5650.000	PK	49.66	32.49	17.48	43.46	2.13	58.30	-36.92	-27.0	9.9	255	252	
Vert.	5700.000	PK	49.85	32.60	17.51	43.45	2.13	58.64	-36.58	10.0	46.5	255	252	
Vert.	5720.000	PK	52.91	32.66	17.52	43.44	2.13	61.78	-33.44	15.6	49.0	255	252	
Vert.	5725.000	PK	56.56	32.68	17.53	43.44	2.13	65.46	-29.76	27.0	56.7	255	252	

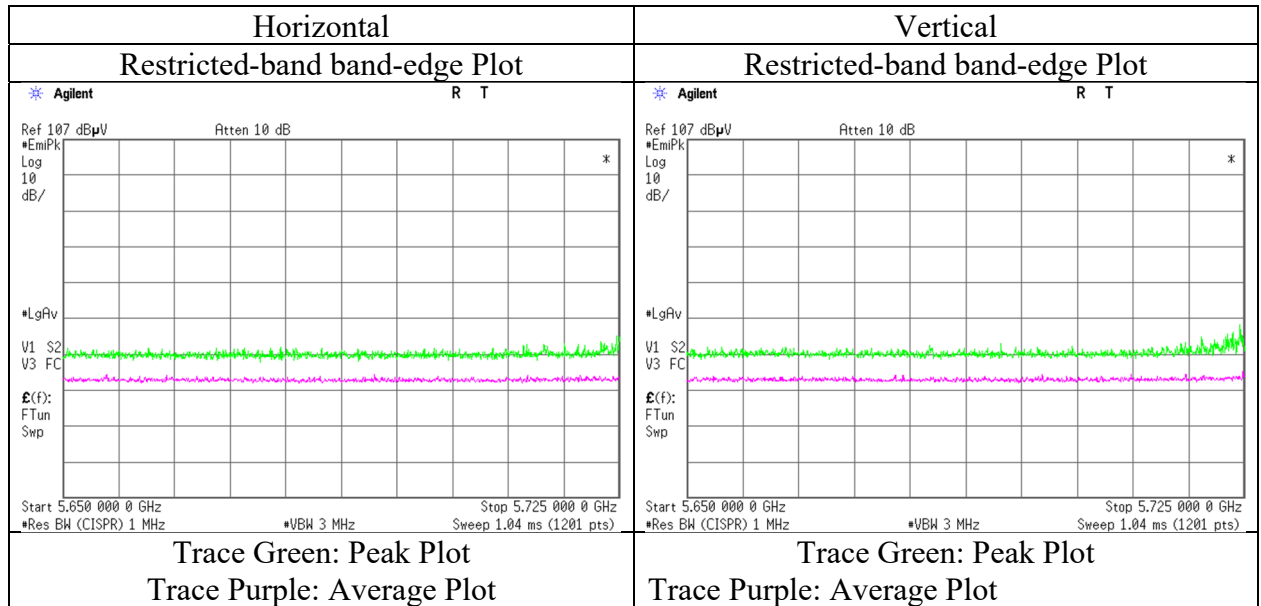
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 \* LOG( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m] ) ^ 2 / 30 \* 10 ^ 3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log (3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-40 MIMO 5795 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	50.00	33.07	17.60	43.41	2.13	59.39	-35.83	27.0	62.8	100	207	-
Hori.	5855.000	PK	49.91	33.08	17.60	43.41	2.13	59.31	-35.91	15.6	51.5	100	207	
Hori.	5875.000	PK	49.62	33.12	17.63	43.41	2.13	59.09	-36.13	10.0	46.1	100	207	
Hori.	5925.000	PK	49.41	33.21	17.64	43.40	2.13	58.99	-36.23	-27.0	9.2	100	207	
Vert.	5850.000	PK	49.55	33.07	17.60	43.41	2.13	58.94	-36.28	27.0	63.2	259	257	
Vert.	5855.000	PK	49.36	33.08	17.60	43.41	2.13	58.76	-36.46	15.6	52.0	259	257	
Vert.	5875.000	PK	49.28	33.12	17.63	43.41	2.13	58.75	-36.47	10.0	46.4	259	257	
Vert.	5925.000	PK	49.06	33.21	17.64	43.40	2.13	58.64	-36.58	-27.0	9.5	259	257	

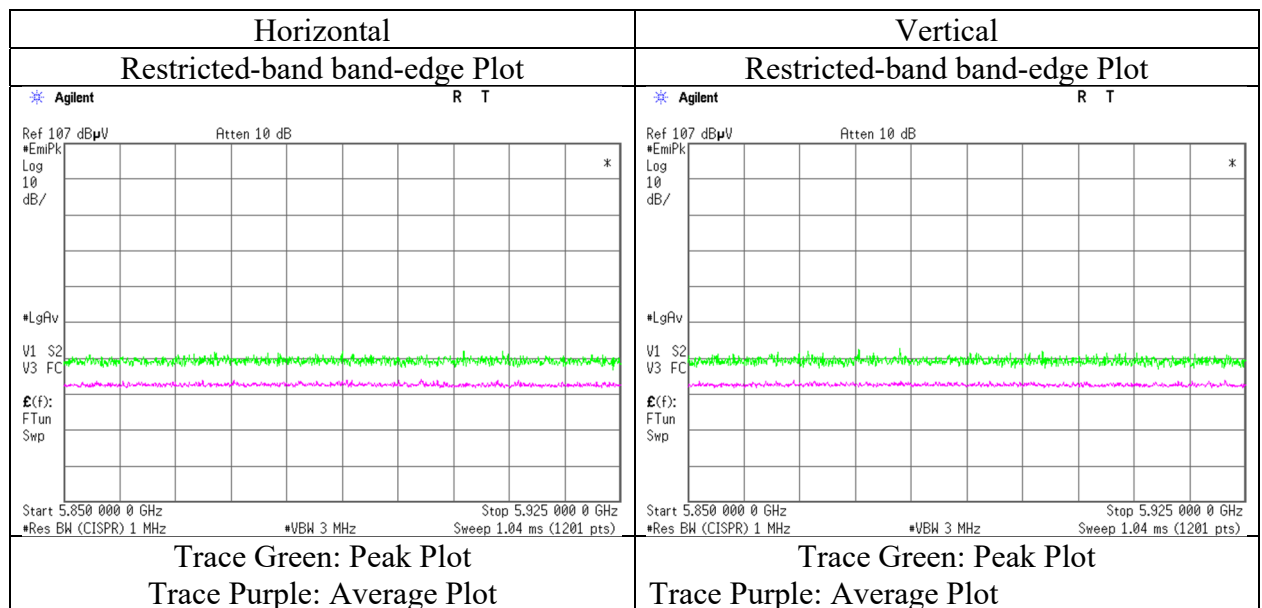
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 \* LOG( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m]) ^ 2 / 30 \* 10 ^ 3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log (3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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Facsimile : +81 463 50 6401

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-80 MIMO 5210 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	49.75	32.12	17.10	43.11	2.13	57.99	73.9	15.9	100	186	
Hori.	5350.000	PK	49.98	31.83	17.27	43.33	2.13	57.88	73.9	16.0	100	186	
Hori.	5150.000	AV	41.20	32.12	17.10	43.11	2.13	49.44	53.9	4.4	100	186	VBW:18 kHz
Hori.	5350.000	AV	41.26	31.83	17.27	43.33	2.13	49.16	53.9	4.7	100	186	VBW:18 kHz
Vert.	5150.000	PK	50.10	32.12	17.10	43.11	2.13	58.34	73.9	15.5	313	263	
Vert.	5350.000	PK	50.01	31.83	17.27	43.33	2.13	57.91	73.9	15.9	313	263	
Vert.	5150.000	AV	41.45	32.12	17.10	43.11	2.13	49.69	53.9	4.2	313	263	VBW:18 kHz
Vert.	5350.000	AV	41.32	31.83	17.27	43.33	2.13	49.22	53.9	4.6	313	263	VBW:18 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz :  $20\log(3.83 \text{ m} / 3.0 \text{ m}) = 2.13 \text{ dB}$

13 GHz - 40 GHz :  $20\log(1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$

**UL Japan, Inc.**

**Shonan EMC Lab.**

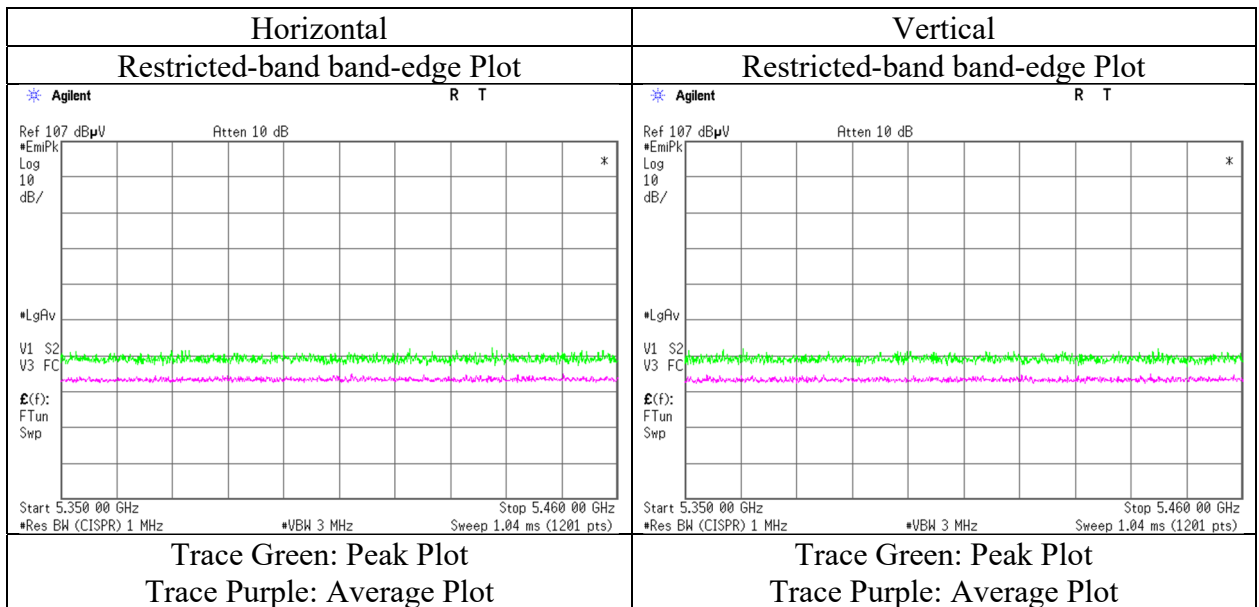
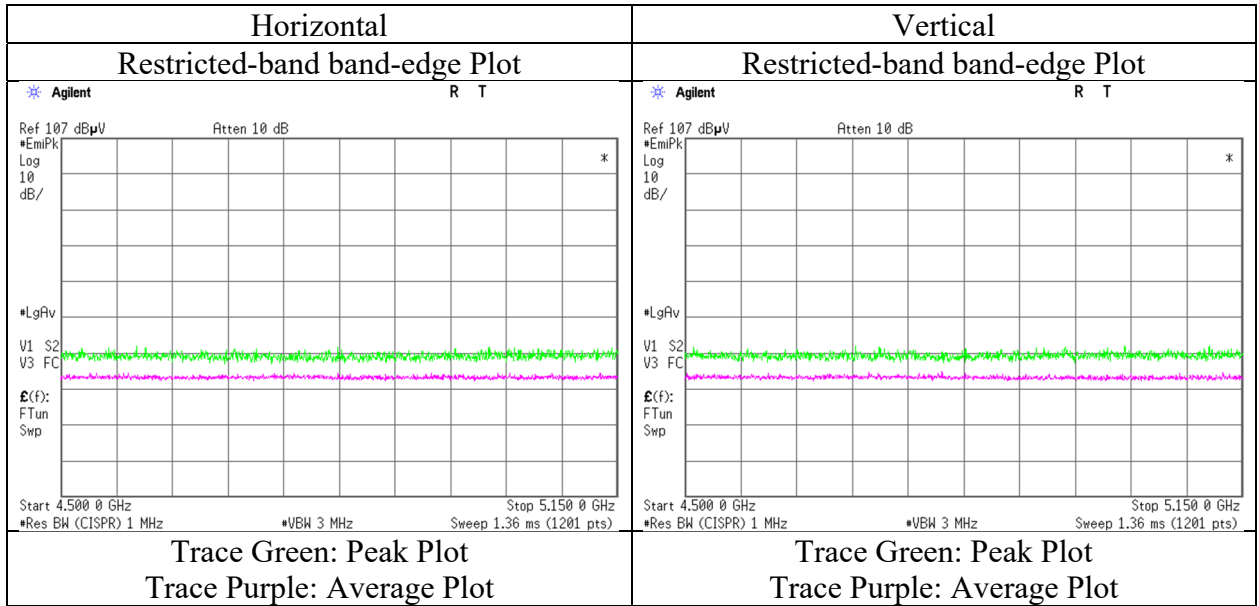
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## Radiated Spurious Emission

Report No.	13385909S-C-R2
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	3
Date	July 22, 2020
Temperature / Humidity	23 deg. C / 65 % RH
Engineer	Toshinori Yamada
Mode	Tx 11ac-80 MIMO 5210 MHz with 11g 2437 MHz
EUT	Lo type(9.8 inch Display)



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 22, 2020  
Temperature / Humidity 23 deg. C / 65 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-80 MIMO 5775 MHz with 11g 2437 MHz  
EUT Lo type(9.8 inch Display)

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	49.97	32.49	17.48	43.46	2.13	58.61	-36.61	-27.0	9.6	100	206	-
Hori.	5700.000	PK	50.27	32.60	17.51	43.45	2.13	59.06	-36.16	10.0	46.1	100	206	
Hori.	5720.000	PK	50.32	32.66	17.52	43.44	2.13	59.19	-36.03	15.6	51.6	100	206	
Hori.	5725.000	PK	50.44	32.68	17.53	43.44	2.13	59.34	-35.88	27.0	62.8	100	206	
Hori.	5850.000	PK	50.46	33.07	17.60	43.41	2.13	59.85	-35.37	27.0	62.3	100	206	
Hori.	5855.000	PK	50.25	33.08	17.60	43.41	2.13	59.65	-35.57	15.6	51.1	100	206	
Hori.	5875.000	PK	50.08	33.12	17.63	43.41	2.13	59.55	-35.67	10.0	45.6	100	206	
Hori.	5925.000	PK	49.71	33.21	17.64	43.40	2.13	59.29	-35.93	-27.0	8.9	100	206	
Vert.	5650.000	PK	49.94	32.49	17.48	43.46	2.13	58.58	-36.64	-27.0	9.6	274	255	
Vert.	5700.000	PK	50.11	32.60	17.51	43.45	2.13	58.90	-36.32	10.0	46.3	274	255	
Vert.	5720.000	PK	50.33	32.66	17.52	43.44	2.13	59.20	-36.02	15.6	51.6	274	255	
Vert.	5725.000	PK	50.67	32.68	17.53	43.44	2.13	59.57	-35.65	27.0	62.6	274	255	
Vert.	5850.000	PK	50.42	33.07	17.60	43.41	2.13	59.81	-35.41	27.0	62.4	274	255	
Vert.	5855.000	PK	50.30	33.08	17.60	43.41	2.13	59.70	-35.52	15.6	51.1	274	255	
Vert.	5875.000	PK	49.97	33.12	17.63	43.41	2.13	59.44	-35.78	10.0	45.7	274	255	
Vert.	5925.000	PK	49.46	33.21	17.64	43.40	2.13	59.04	-36.18	-27.0	9.1	274	255	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 \* LOG( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m] ) ^ 2 / 30 \* 10 ^ 3)

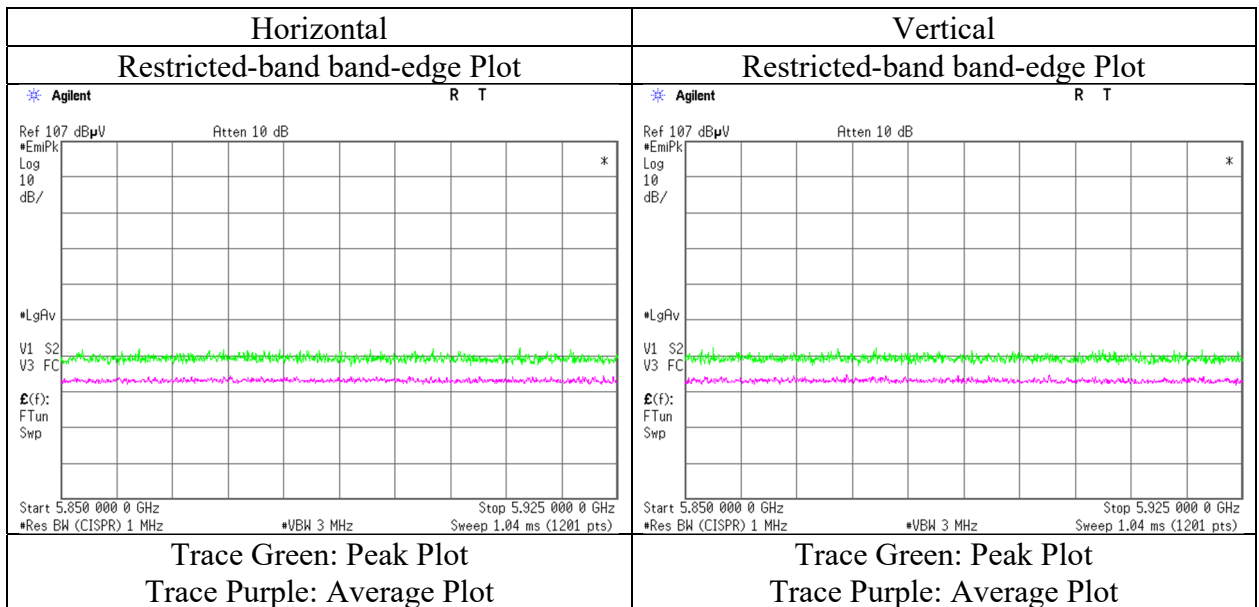
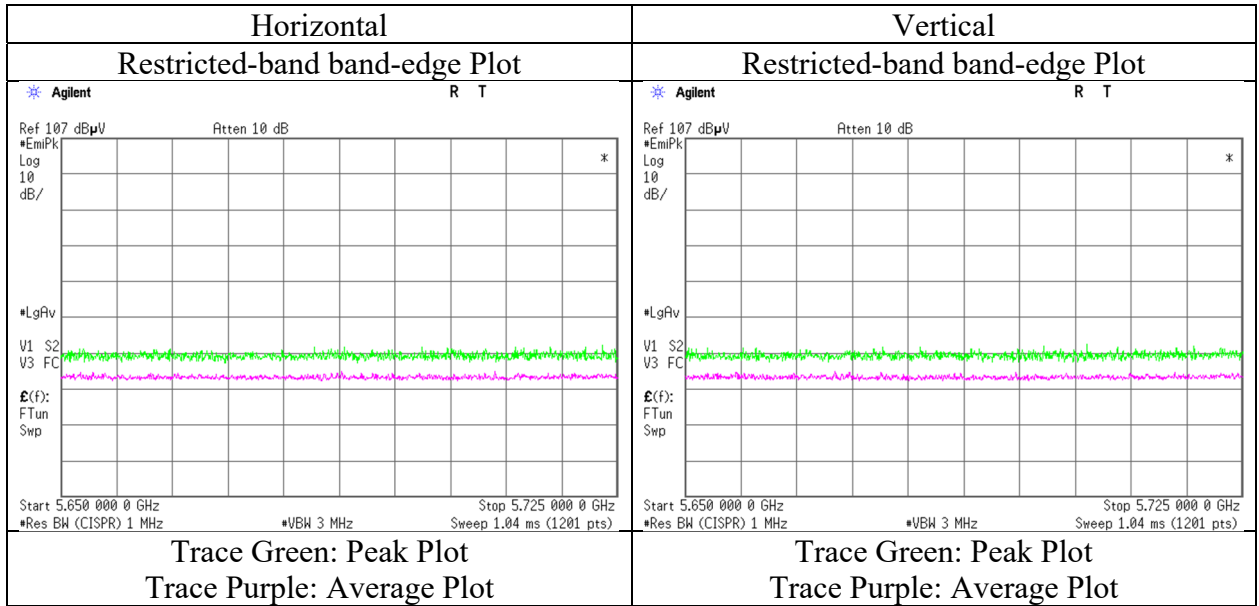
\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log (3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

## Radiated Spurious Emission

Report No.	13385909S-C-R2
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	3
Date	July 22, 2020
Temperature / Humidity	23 deg. C / 65 % RH
Engineer	Toshinori Yamada
Mode	Tx 11ac-80 MIMO 5775 MHz with 11g 2437 MHz
EUT	Lo type(9.8 inch Display)



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

**Shonan EMC Lab.**

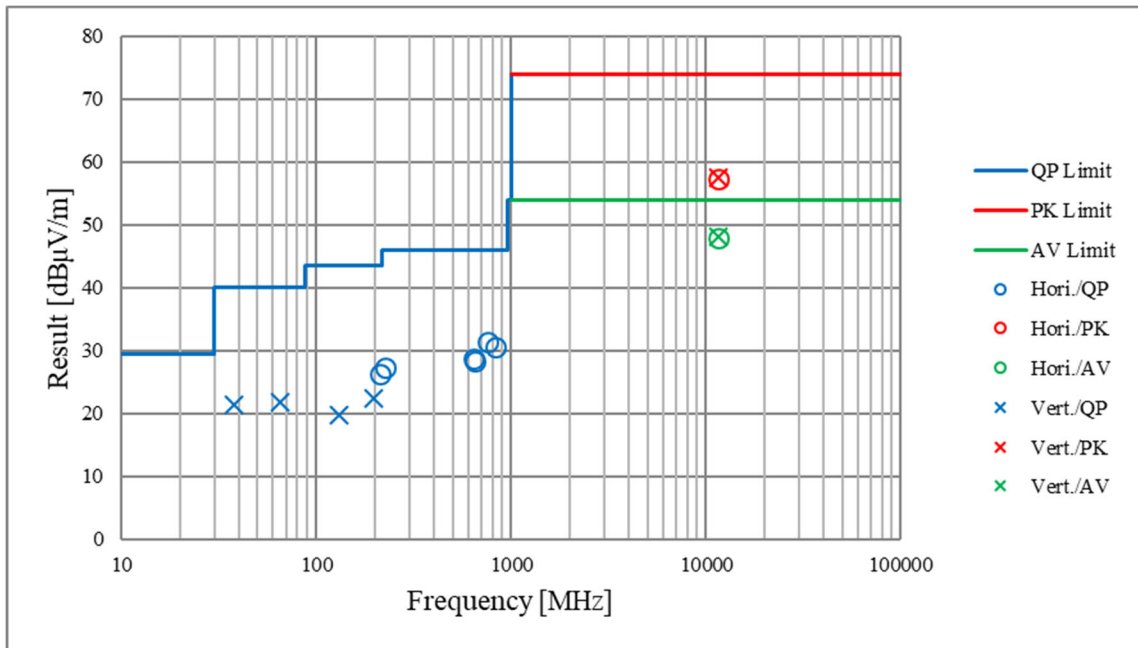
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**Radiated Spurious Emission**  
**(Plot data, Worst case)**

Report No.	13385909S-C-R2			
Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	3	3	3	3
Date	August 3, 2020	July 22, 2020	July 23, 2020	July 23, 2020
Temperature / Humidity	23 deg.C / 56 %RH	23 deg. C / 65 % RH	24 deg.C / 61 %RH	22 deg.C / 63 %RH
Engineer	Shiro Kobayashi (30 MHz - 1 GHz)	Toshinori Yamada (1 GHz - 13 GHz)	Hiromasa Sato (13 GHz - 18 GHz)	Toshinori Yamada (18 GHz - 26.5 GHz) (26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 MIMO 5745 MHz with 11g 2437 MHz			
EUT	Lo type(9.8 inch Display)			



\*These plots data contains sufficient number to show the trend of characteristic features for EUT.



## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 13, 2020  
Temperature / Humidity 25 deg. C / 64 % RH  
Engineer Takahiro Kawakami  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-20 MIMO 5180 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

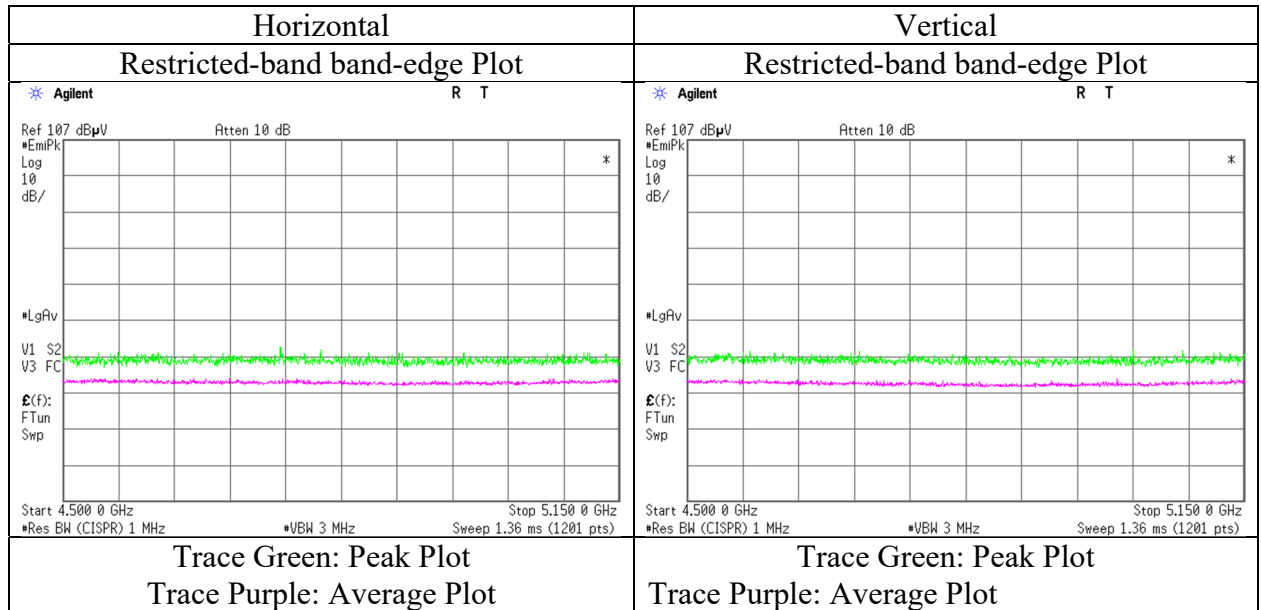
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	48.99	32.12	17.10	43.11	2.13	57.23	73.9	16.6	100	0	VBW:10 kHz
Hori.	5150.000	AV	39.40	32.12	17.10	43.11	2.13	47.64	53.9	<b>6.2</b>	100	0	
Vert.	5150.000	PK	49.51	32.12	17.10	43.11	2.13	57.75	73.9	16.1	105	354	
Vert.	5150.000	AV	38.63	32.12	17.10	43.11	2.13	46.87	53.9	7.0	105	354	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log(3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log(1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

**Shonan EMC Lab.**

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## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 13, 2020  
Temperature / Humidity 25 deg. C / 64 % RH  
Engineer Takahiro Kawakami  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-20 MIMO 5240 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

**(above 1 GHz Inside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

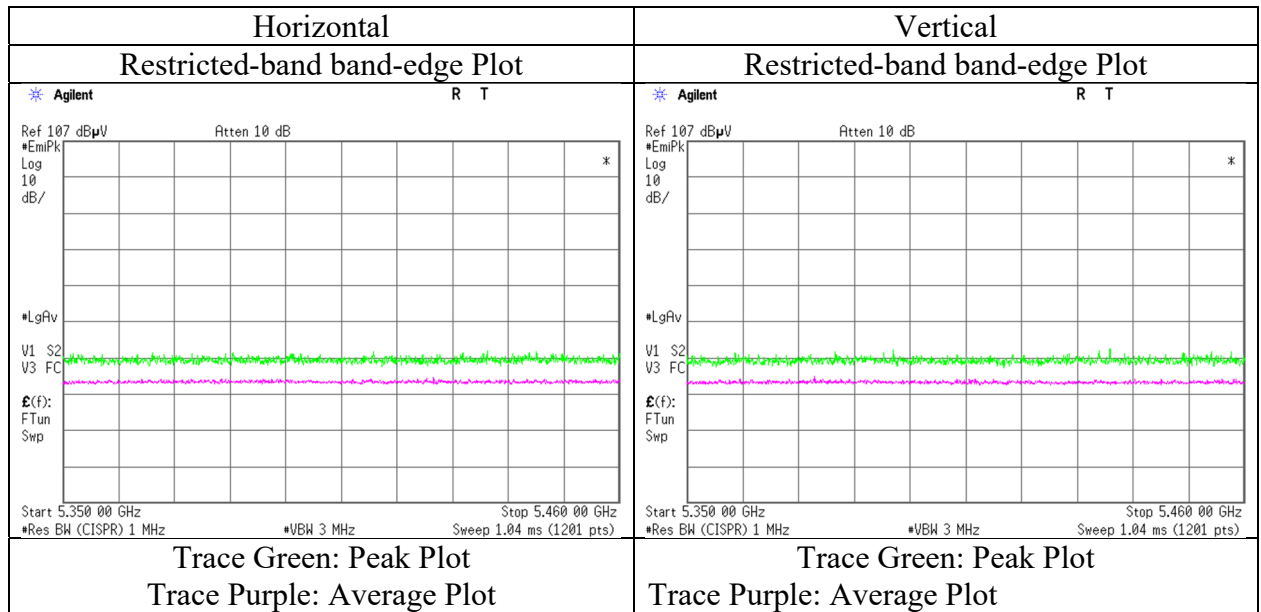
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	48.90	31.83	17.27	43.33	2.13	56.80	73.9	17.1	207	187	VBW:10 kHz
Hori.	5350.000	AV	39.57	31.83	17.27	43.33	2.13	47.47	53.9	6.4	207	187	
Vert.	5350.000	PK	49.22	31.83	17.27	43.33	2.13	57.12	73.9	16.7	107	286	VBW:10 kHz
Vert.	5350.000	AV	39.88	31.83	17.27	43.33	2.13	47.78	53.9	6.1	107	286	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log(3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log(1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3 3 3 3 3  
Date July 28, 2020 July 20, 2020 July 20, 2020 July 24, 2020 July 26, 2020  
Temperature / Humidity 25 deg. C / 64 % RH 22 deg. C / 60 % RH 22 deg. C / 62 % RH 23 deg. C / 65 % RH 23 deg. C / 69 % RH  
Engineer Makoto Hosaka Shiro Kobayashi Shiro Kobayashi Toshinori Yamada Takahiro Suzuki  
(30 MHz - 1 GHz) (1 GHz - 6.4 GHz) (6.4 GHz - 13 GHz) (13 GHz - 18 GHz) (18 GHz - 26.5 GHz)

Mode Tx 11ac-20 MIMO 5745 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (below 1 GHz and above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	213.034	QP	39.00	11.25	8.05	32.03	0.00	26.27	43.5	17.2	175	49	
Hori.	224.824	QP	40.00	11.26	8.12	32.01	0.00	27.37	46.0	18.6	162	54	
Hori.	236.652	QP	38.80	11.50	8.19	32.00	0.00	26.49	46.0	19.5	155	65	
Hori.	736.874	QP	31.10	20.09	10.29	31.77	0.00	29.71	46.0	16.2	127	223	
Hori.	772.116	QP	32.60	20.41	10.41	31.70	0.00	31.72	46.0	14.2	100	195	
Hori.	11490.000	PK	48.31	39.69	10.05	42.63	2.13	57.55	73.9	16.3	100	0	
Hori.	11490.000	AV	39.48	39.69	10.05	42.63	2.13	48.72	53.9	5.1	100	0	VBW:10 kHz
Vert.	37.677	QP	31.10	15.75	6.60	32.17	0.00	21.28	40.0	18.7	100	243	
Vert.	65.649	QP	40.60	7.13	6.50	32.15	0.00	22.08	40.0	17.9	100	206	
Vert.	121.687	QP	27.30	13.18	7.25	32.11	0.00	15.62	43.5	27.8	100	251	
Vert.	195.851	QP	32.70	16.51	7.80	32.05	0.00	24.96	43.5	18.5	100	1	
Vert.	640.008	QP	31.80	19.27	9.94	31.95	0.00	29.06	46.0	16.9	100	22	
Vert.	11490.000	PK	48.12	39.69	10.05	42.63	2.13	57.36	73.9	16.5	100	0	
Vert.	11490.000	AV	39.54	39.69	10.05	42.63	2.13	48.78	53.9	5.1	100	0	VBW:10 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log(3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log(1.0 m / 3.0 m) = -9.54 dB

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	48.10	32.49	17.48	43.46	2.13	56.74	-38.48	-27.0	11.4	152	205	-
Hori.	5700.000	PK	49.12	32.60	17.51	43.45	2.13	57.91	-37.31	10.0	47.3	152	205	
Hori.	5720.000	PK	50.86	32.66	17.52	43.44	2.13	59.73	-35.49	15.6	51.0	152	205	
Hori.	5725.000	PK	53.88	32.68	17.53	43.44	2.13	62.78	-32.44	27.0	59.4	152	205	
Hori.	17235.000	PK	47.46	41.57	12.73	40.31	-9.54	51.91	-43.31	-27.0	16.3	100	0	
Vert.	5650.000	PK	48.73	32.49	17.48	43.46	2.13	57.37	-37.85	-27.0	10.8	102	283	
Vert.	5700.000	PK	48.96	32.60	17.51	43.45	2.13	57.75	-37.47	10.0	47.4	102	283	
Vert.	5720.000	PK	51.26	32.66	17.52	43.44	2.13	60.13	-35.09	15.6	50.6	102	283	
Vert.	5725.000	PK	54.43	32.68	17.53	43.44	2.13	63.33	-31.89	27.0	58.8	102	283	
Vert.	17235.000	PK	46.93	41.57	12.73	40.31	-9.54	51.38	-43.84	-27.0	16.8	100	0	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 \* LOG( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m] ) ^ 2 / 30 \* 10 ^ 3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log(3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log(1.0 m / 3.0 m) = -9.54 dB

**UL Japan, Inc.**

**Shonan EMC Lab.**

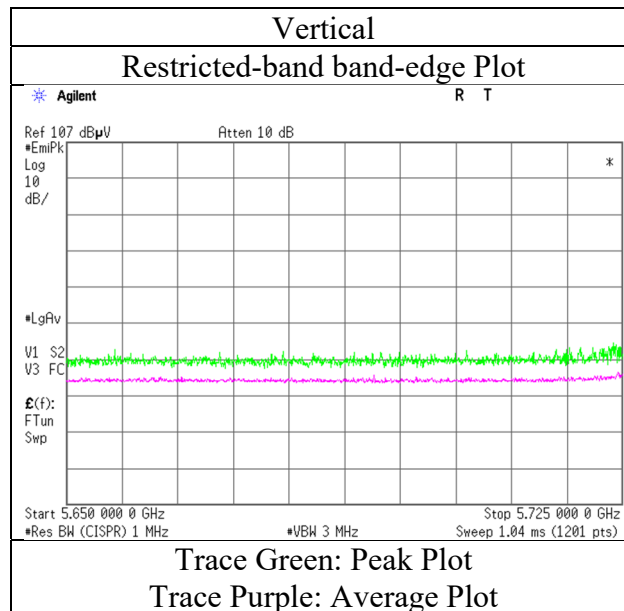
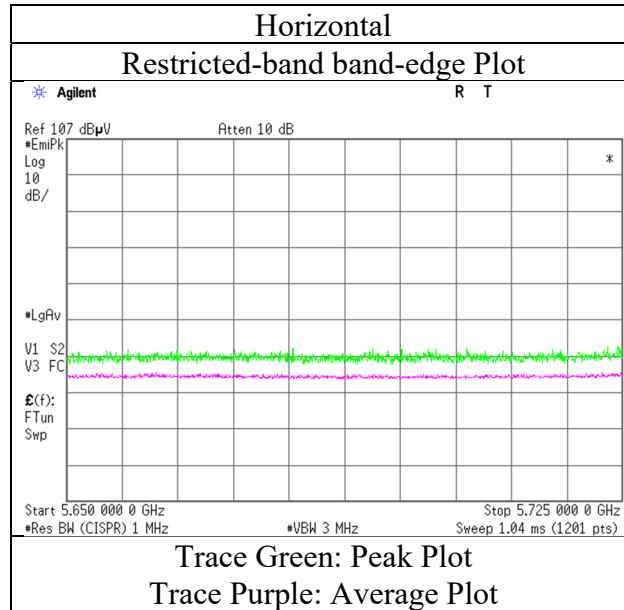
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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## Radiated Spurious Emission

Report No.	13385909S-C-R2
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	3
Date	July 20, 2020
Temperature / Humidity	22 deg. C / 60 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 MIMO 5745 MHz with BT Hopping On DH5
EUT	Lo type(9.8 inch Display)



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 20, 2020  
Temperature / Humidity 22 deg. C / 60 % RH  
Engineer Shiro Kobayashi  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-20 MIMO 5825 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	50.00	33.07	17.60	43.41	2.13	59.39	-35.83	27.0	62.8	126	207	-
Hori.	5855.000	PK	47.50	33.08	17.60	43.41	2.13	56.90	-38.32	15.6	53.9	126	207	
Hori.	5875.000	PK	48.10	33.12	17.63	43.41	2.13	57.57	-37.65	10.0	47.6	126	207	
Hori.	5925.000	PK	47.56	33.21	17.64	43.40	2.13	57.14	-38.08	-27.0	11.0	126	207	
Vert.	5850.000	PK	47.66	33.07	17.60	43.41	2.13	57.05	-38.17	27.0	65.1	148	1	
Vert.	5855.000	PK	47.23	33.08	17.60	43.41	2.13	56.63	-38.59	15.6	54.1	148	1	
Vert.	5875.000	PK	49.05	33.12	17.63	43.41	2.13	58.52	-36.70	10.0	46.7	148	1	
Vert.	5925.000	PK	47.68	33.21	17.64	43.40	2.13	57.26	-37.96	-27.0	10.9	148	1	

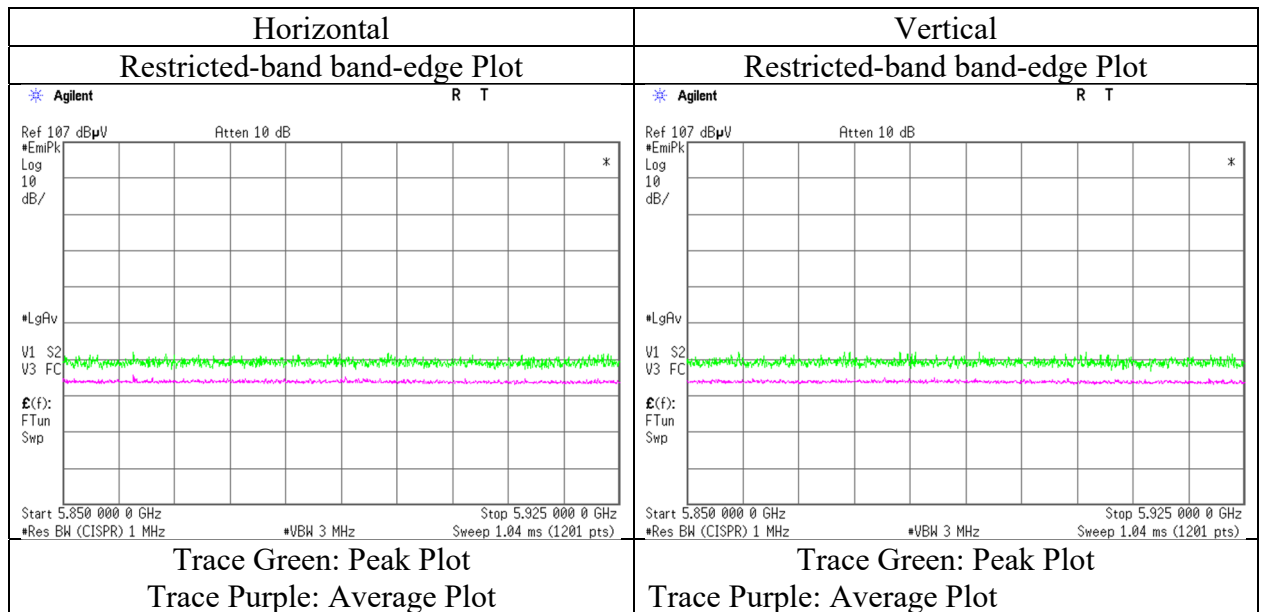
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 \* LOG( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m] ) ^ 2 / 30 \* 10 ^ 3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log (3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

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## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 20, 2020  
Temperature / Humidity 22 deg. C / 60 % RH  
Engineer Shiro Kobayashi  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-40 MIMO 5190 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

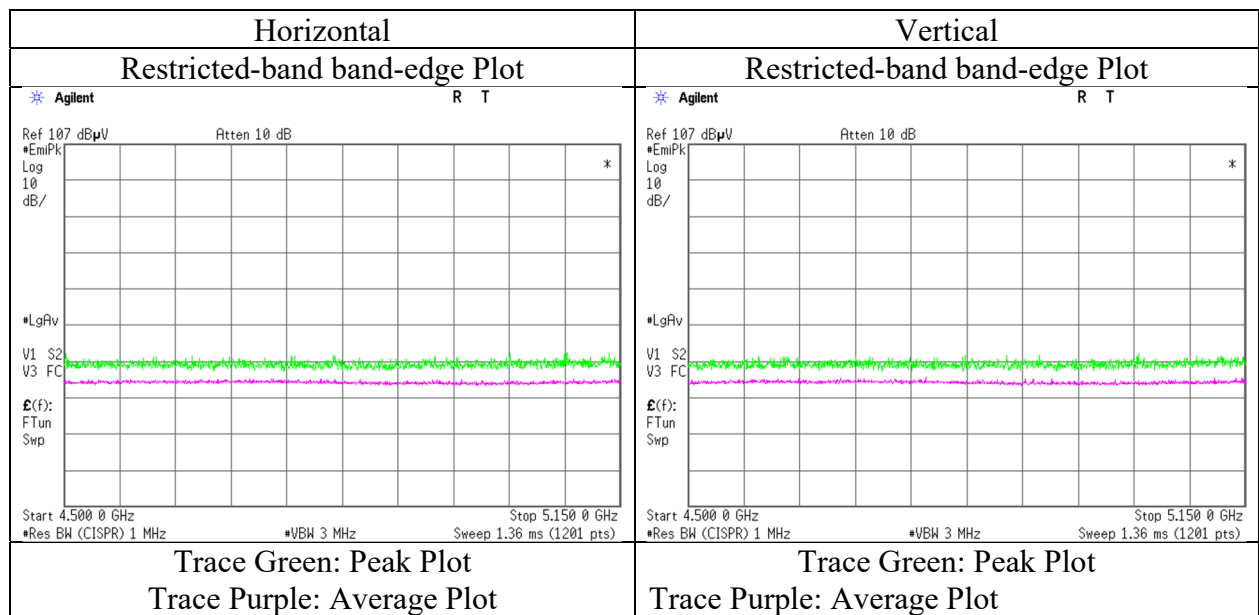
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	48.16	32.12	17.10	43.11	2.13	56.40	73.9	17.5	105	186	VBW:13 kHz
Hori.	5150.000	AV	39.52	32.12	17.10	43.11	2.13	47.76	53.9	6.1	105	186	
Vert.	5150.000	PK	49.31	32.12	17.10	43.11	2.13	57.55	73.9	16.4	103	286	VBW:13 kHz
Vert.	5150.000	AV	39.56	32.12	17.10	43.11	2.13	47.80	53.9	6.1	103	286	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz :  $20\log(3.83 \text{ m} / 3.0 \text{ m}) = 2.13 \text{ dB}$

13 GHz - 40 GHz :  $20\log(1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 20, 2020  
Temperature / Humidity 22 deg. C / 60 % RH  
Engineer Shiro Kobayashi  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-40 MIMO 5230 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

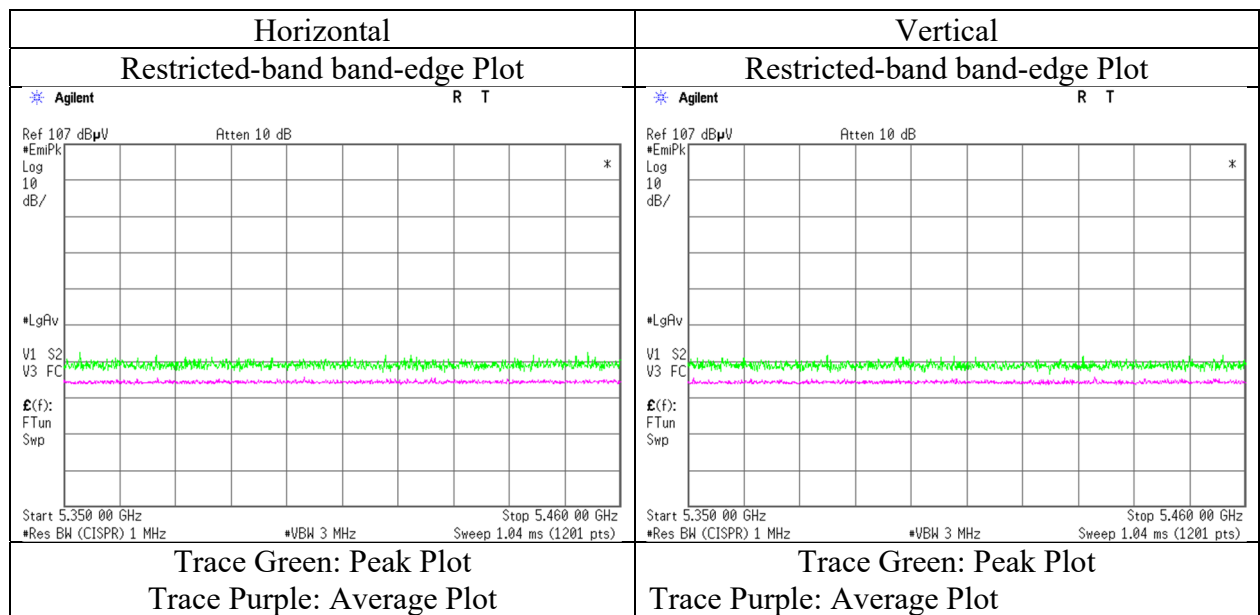
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	48.33	31.83	17.27	43.33	2.13	56.23	73.9	17.6	147	226	VBW:13 kHz
Hori.	5350.000	AV	39.43	31.83	17.27	43.33	2.13	47.33	53.9	6.5	147	226	
Vert.	5350.000	PK	48.60	31.83	17.27	43.33	2.13	56.50	73.9	17.4	102	285	VBW:13 kHz
Vert.	5350.000	AV	39.75	31.83	17.27	43.33	2.13	47.65	53.9	6.2	102	285	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz :  $20\log(3.83 \text{ m} / 3.0 \text{ m}) = 2.13 \text{ dB}$

13 GHz - 40 GHz :  $20\log(1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 20, 2020  
Temperature / Humidity 22 deg. C / 60 % RH  
Engineer Shiro Kobayashi  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-40 MIMO 5755 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	49.35	32.49	17.48	43.46	2.13	57.99	-37.23	-27.0	10.2	126	208	-
Hori.	5700.000	PK	50.00	32.60	17.51	43.45	2.13	58.79	-36.43	10.0	46.4	126	208	
Hori.	5720.000	PK	50.35	32.66	17.52	43.44	2.13	59.22	-36.00	15.6	51.6	126	208	
Hori.	5725.000	PK	54.12	32.68	17.53	43.44	2.13	63.02	-32.20	27.0	59.2	126	208	
Vert.	5650.000	PK	50.57	32.49	17.48	43.46	2.13	59.21	-36.01	-27.0	9.0	135	2	
Vert.	5700.000	PK	51.64	32.60	17.51	43.45	2.13	60.43	-34.79	10.0	44.7	135	2	
Vert.	5720.000	PK	53.46	32.66	17.52	43.44	2.13	62.33	-32.89	15.6	48.4	135	2	
Vert.	5725.000	PK	55.62	32.68	17.53	43.44	2.13	64.52	-30.70	27.0	57.7	135	2	

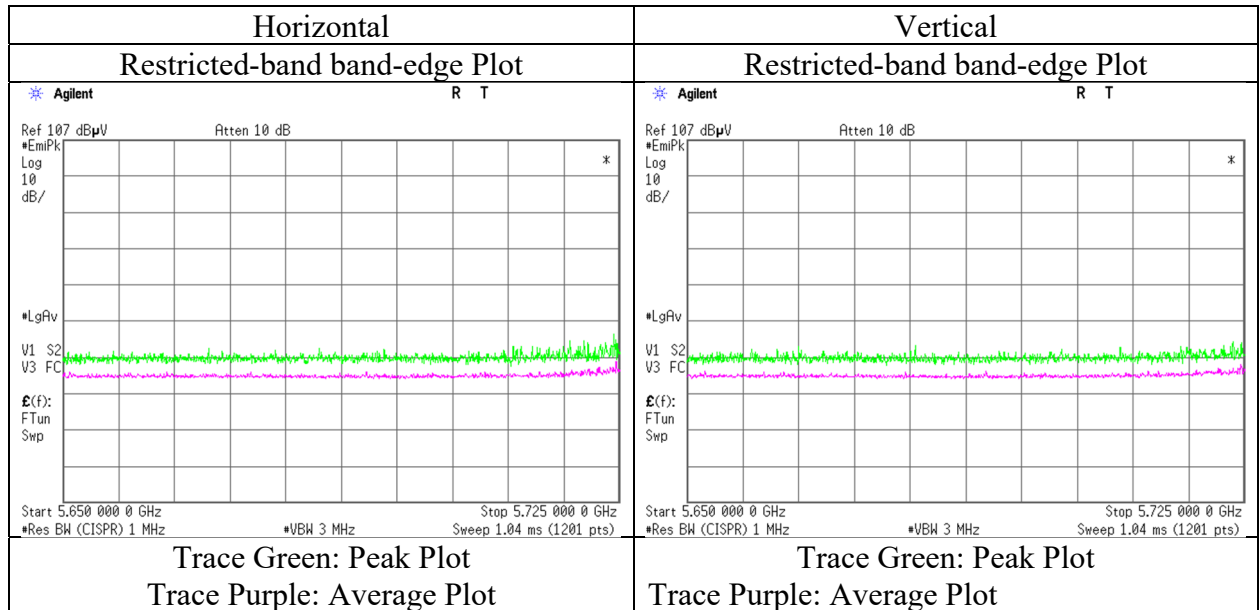
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 \* LOG ( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m] ) ^ 2 / 30 \* 10 ^ 3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log (3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.



## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 20, 2020  
Temperature / Humidity 22 deg. C / 60 % RH  
Engineer Shiro Kobayashi  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-40 MIMO 5795 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	49.22	33.07	17.60	43.41	2.13	58.61	-36.61	27.0	63.6	130	207	-
Hori.	5855.000	PK	49.28	33.08	17.60	43.41	2.13	58.68	-36.54	15.6	52.1	130	207	
Hori.	5875.000	PK	49.37	33.12	17.63	43.41	2.13	58.84	-36.38	10.0	46.3	130	207	
Hori.	5925.000	PK	49.17	33.21	17.64	43.40	2.13	58.75	-36.47	-27.0	9.4	130	207	
Vert.	5850.000	PK	49.56	33.07	17.60	43.41	2.13	58.95	-36.27	27.0	63.2	125	291	
Vert.	5855.000	PK	49.73	33.08	17.60	43.41	2.13	59.13	-36.09	15.6	51.6	125	291	
Vert.	5875.000	PK	49.32	33.12	17.63	43.41	2.13	58.79	-36.43	10.0	46.4	125	291	
Vert.	5925.000	PK	49.00	33.21	17.64	43.40	2.13	58.58	-36.64	-27.0	9.6	125	291	

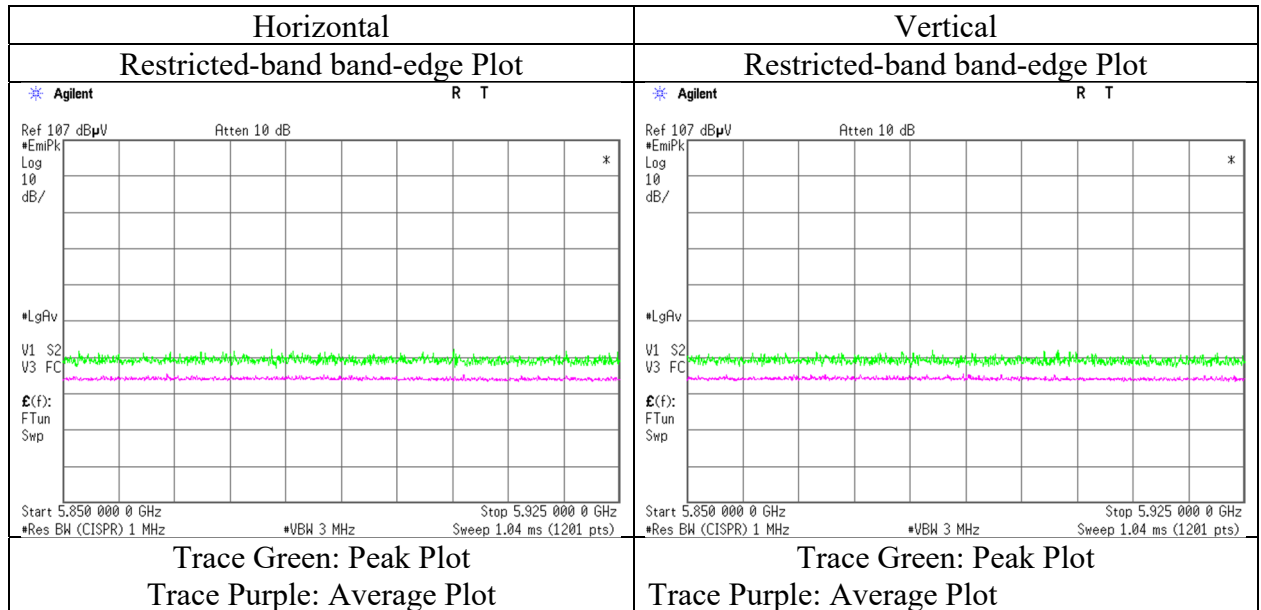
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 \* LOG( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m]) ^ 2 / 30 \* 10 ^ 3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log (3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 20, 2020  
Temperature / Humidity 22 deg. C / 60 % RH  
Engineer Shiro Kobayashi  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-80 MIMO 5210 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	50.91	32.12	17.10	43.11	2.13	59.15	73.9	14.7	119	228	
Hori.	5350.000	PK	49.57	31.83	17.27	43.33	2.13	57.47	73.9	16.4	119	228	
Hori.	5150.000	AV	40.30	32.12	17.10	43.11	2.13	48.54	53.9	5.3	119	228	VBW:18 kHz
Hori.	5350.000	AV	40.70	31.83	17.27	43.33	2.13	48.60	53.9	5.3	119	228	VBW:18 kHz
Vert.	5150.000	PK	50.34	32.12	17.10	43.11	2.13	58.58	73.9	15.3	121	289	
Vert.	5350.000	PK	49.85	31.83	17.27	43.33	2.13	57.75	73.9	16.1	121	289	
Vert.	5150.000	AV	41.47	32.12	17.10	43.11	2.13	49.71	53.9	4.1	121	289	VBW:18 kHz
Vert.	5350.000	AV	40.73	31.83	17.27	43.33	2.13	48.63	53.9	5.2	121	289	VBW:18 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz :  $20\log(3.83 \text{ m} / 3.0 \text{ m}) = 2.13 \text{ dB}$

13 GHz - 40 GHz :  $20\log(1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$

**UL Japan, Inc.**

**Shonan EMC Lab.**

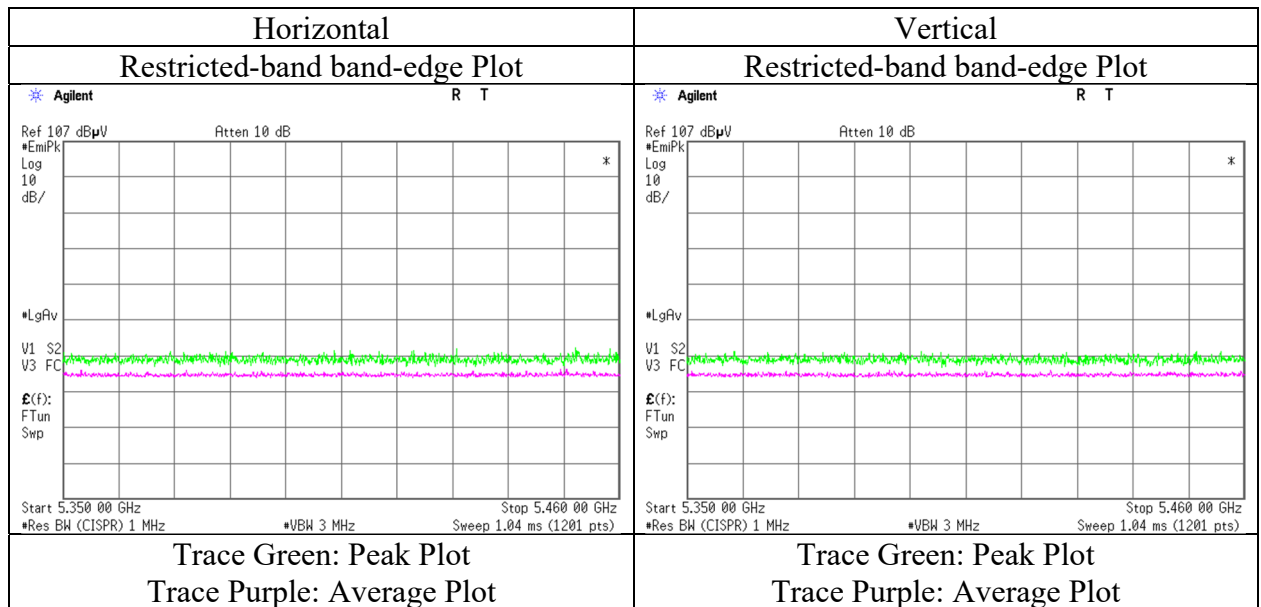
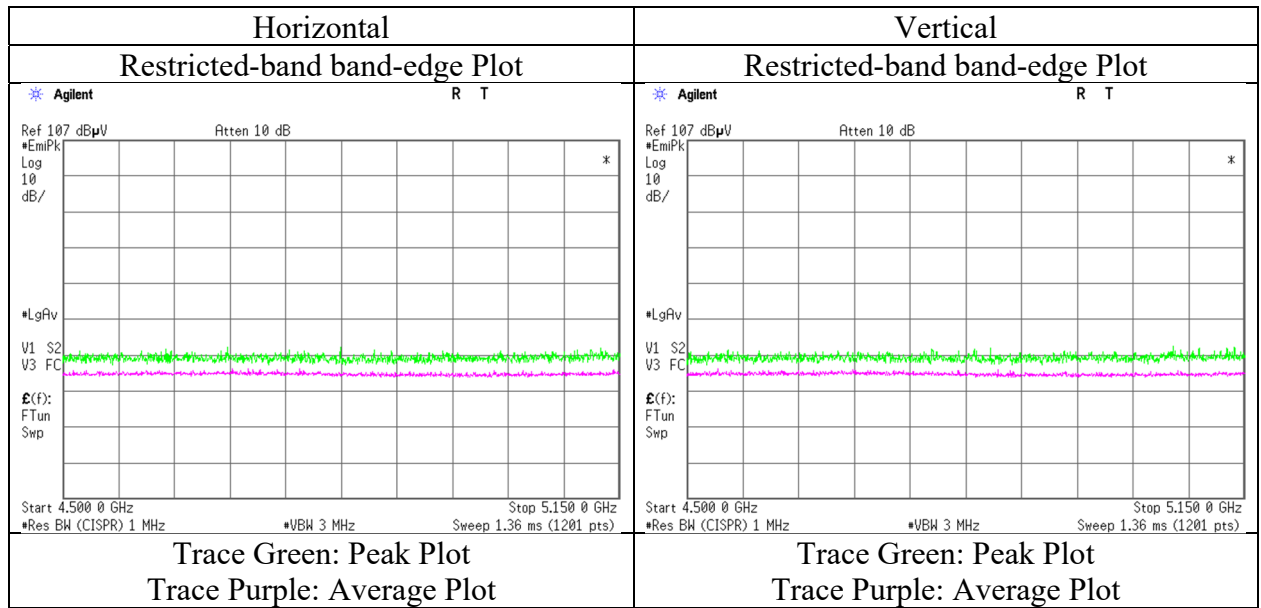
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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### Radiated Spurious Emission

Report No.	13385909S-C-R2
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	3
Date	July 20, 2020
Temperature / Humidity	22 deg. C / 60 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 MIMO 5210 MHz with BT Hopping On DH5
EUT	Lo type(9.8 inch Display)



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.  
Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date July 20, 2020  
Temperature / Humidity 22 deg. C / 62 % RH  
Engineer Toshinori Yamada  
(1 GHz – 6.4 GHz)  
Mode Tx 11ac-80 MIMO 5775 MHz with BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (Calculation) (above 1 GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	50.34	32.49	17.48	43.46	2.13	58.98	-36.24	-27.0	9.2	126	211	-
Hori.	5700.000	PK	50.50	32.60	17.51	43.45	2.13	59.29	-35.93	10.0	45.9	126	211	
Hori.	5720.000	PK	50.83	32.66	17.52	43.44	2.13	59.70	-35.52	15.6	51.1	126	211	
Hori.	5725.000	PK	50.90	32.68	17.53	43.44	2.13	59.80	-35.42	27.0	62.4	126	211	
Hori.	5850.000	PK	50.47	33.07	17.60	43.41	2.13	59.86	-35.36	27.0	62.3	126	211	
Hori.	5855.000	PK	50.07	33.08	17.60	43.41	2.13	59.47	-35.75	15.6	51.3	126	211	
Hori.	5875.000	PK	49.89	33.12	17.63	43.41	2.13	59.36	-35.86	10.0	45.8	126	211	
Hori.	5925.000	PK	49.87	33.21	17.64	43.40	2.13	59.45	-35.77	-27.0	8.7	126	211	
Vert.	5650.000	PK	50.43	32.49	17.48	43.46	2.13	59.07	-36.15	-27.0	9.1	115	284	
Vert.	5700.000	PK	50.63	32.60	17.51	43.45	2.13	59.42	-35.80	10.0	45.8	115	284	
Vert.	5720.000	PK	50.72	32.66	17.52	43.44	2.13	59.59	-35.63	15.6	51.2	115	284	
Vert.	5725.000	PK	50.80	32.68	17.53	43.44	2.13	59.70	-35.52	27.0	62.5	115	284	
Vert.	5850.000	PK	50.09	33.07	17.60	43.41	2.13	59.48	-35.74	27.0	62.7	115	284	
Vert.	5855.000	PK	49.98	33.08	17.60	43.41	2.13	59.38	-35.84	15.6	51.4	115	284	
Vert.	5875.000	PK	49.88	33.12	17.63	43.41	2.13	59.35	-35.87	10.0	45.8	115	284	
Vert.	5925.000	PK	49.65	33.21	17.64	43.40	2.13	59.23	-35.99	-27.0	8.9	115	284	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 \* LOG( (10 ^ (Electric Field Strength [dBuV/m] / 20) \* 10 ^ (-6) \* Distance : 3 [m] ) ^ 2 / 30 \* 10 ^ 3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 13 GHz : 20log (3.83 m / 3.0 m) = 2.13 dB

13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

**UL Japan, Inc.**

**Shonan EMC Lab.**

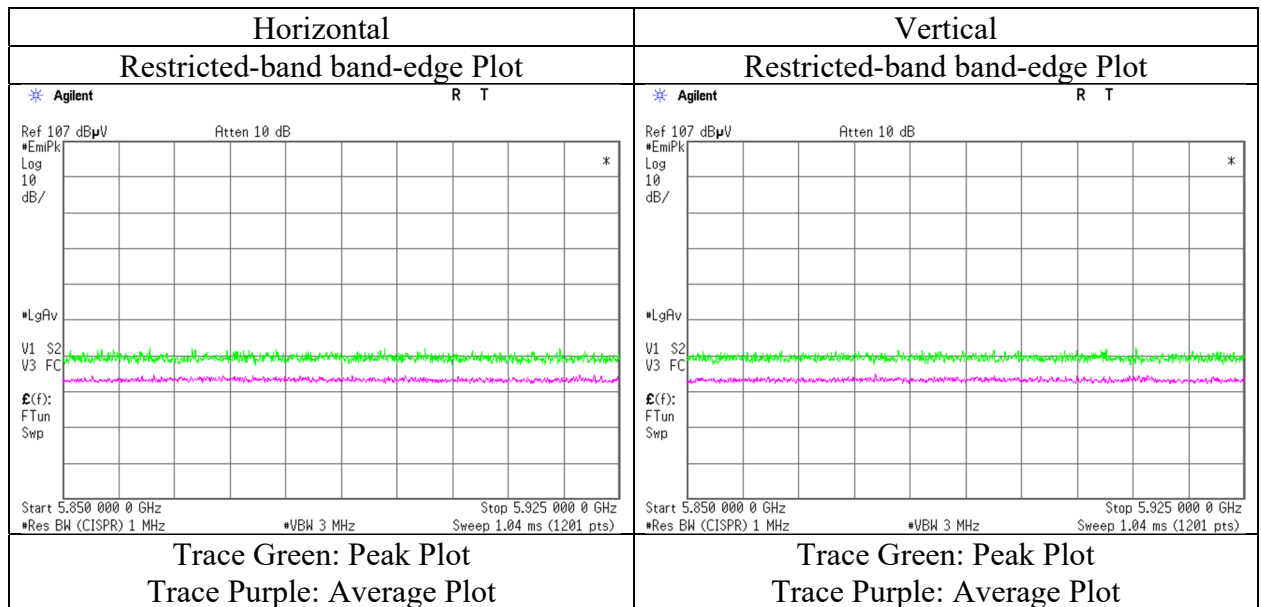
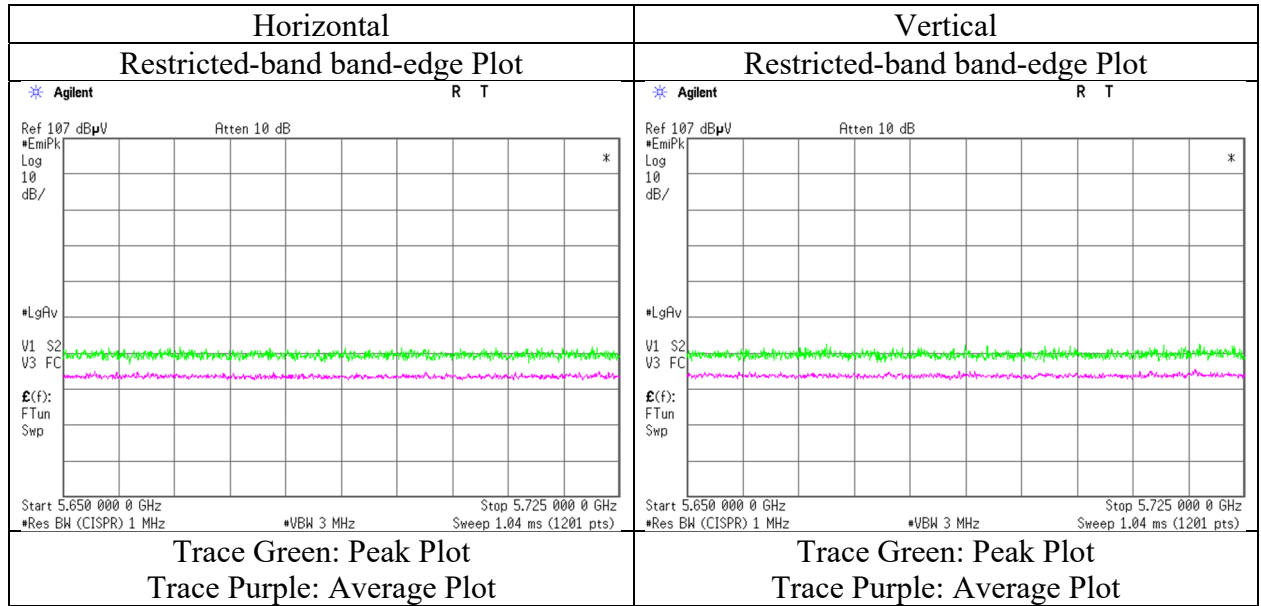
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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Facsimile : +81 463 50 6401

## Radiated Spurious Emission

Report No.	13385909S-C-R2
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	3
Date	July 20, 2020
Temperature / Humidity	22 deg. C / 62 % RH
Engineer	Toshinori Yamada
Mode	Tx 11ac-80 MIMO 5775 MHz with BT Hopping On DH5
EUT	Lo type(9.8 inch Display)



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

**UL Japan, Inc.**

**Shonan EMC Lab.**

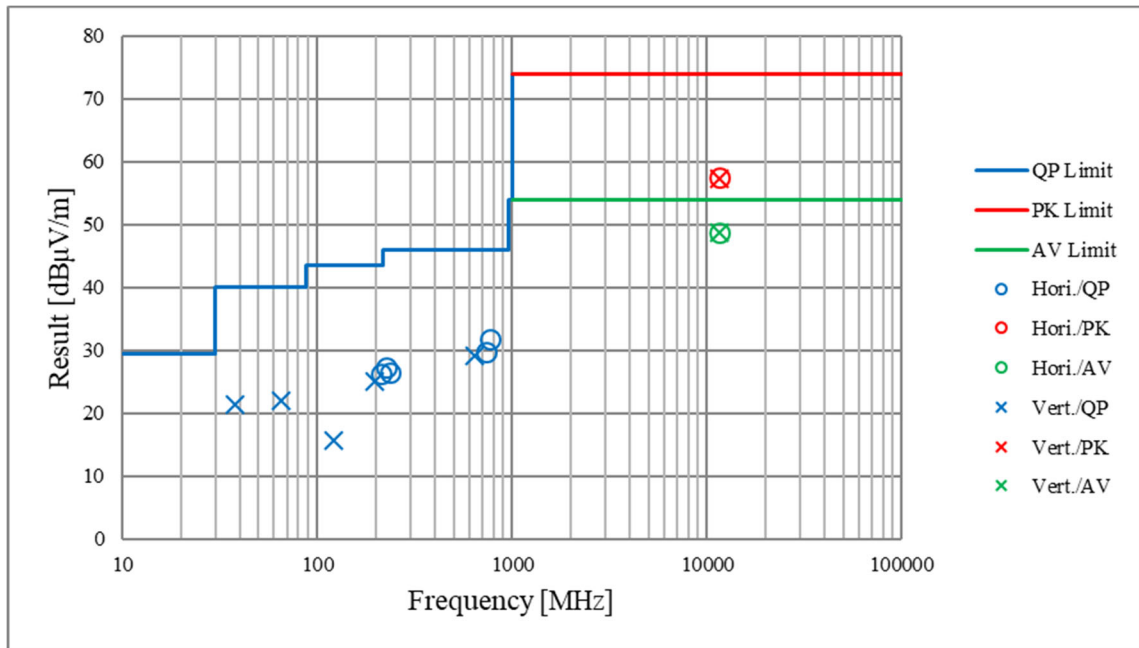
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

Telephone : +81 463 50 6400

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**Radiated Spurious Emission**  
**(Plot data, Worst case)**

Report No.	13385909S-C-R2				
Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	3	3	3	3	3
Date	July 28, 2020	July 20, 2020	July 20, 2020	July 24, 2020	July 26, 2020
Temperature / Humidity	25 deg. C / 64 % RH	22 deg. C / 60 % RH	22 deg. C / 62 % RH	23 deg. C / 65 % RH	23 deg. C / 69 % RH
Engineer	Makoto Hosaka (30 MHz - 1 GHz)	Shiro Kobayashi (1 GHz - 6.4 GHz)	Shiro Kobayashi (6.4 GHz - 13 GHz)	Toshinori Yamada (13 GHz - 18 GHz) (26.5 GHz - 40 GHz)	Takahiro Suzuki (18 GHz - 26.5 GHz)
Mode	Tx 11ac-20 MIMO 5745 MHz with BT Hopping On DH5				
EUT	Lo type(9.8 inch Display)				



\*These plots data contains sufficient number to show the trend of characteristic features for EUT.

## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date November 10, 2020  
Temperature / Humidity 25 deg. C / 41 % RH  
Engineer Kazuya Noda  
(1 GHz – 13 GHz)  
Mode Tx 11ac-40 MIMO 5190 MHz with 11g 2437 MHz and BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	49.73	32.12	17.10	43.11	2.13	57.97	73.9	15.9	257	98	VBW:13 kHz
Hori.	5150.000	AV	40.51	32.12	17.10	43.11	2.13	48.75	53.9	5.1	257	98	
Vert.	5150.000	PK	51.82	32.12	17.10	43.11	2.13	60.06	73.9	13.8	121	291	VBW:13 kHz
Vert.	5150.000	AV	40.68	32.12	17.10	43.11	2.13	48.92	53.9	4.9	121	291	

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

\*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz :  $20\log(3.83 \text{ m} / 3.0 \text{ m}) = 2.13 \text{ dB}$

13 GHz - 40 GHz :  $20\log(1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$

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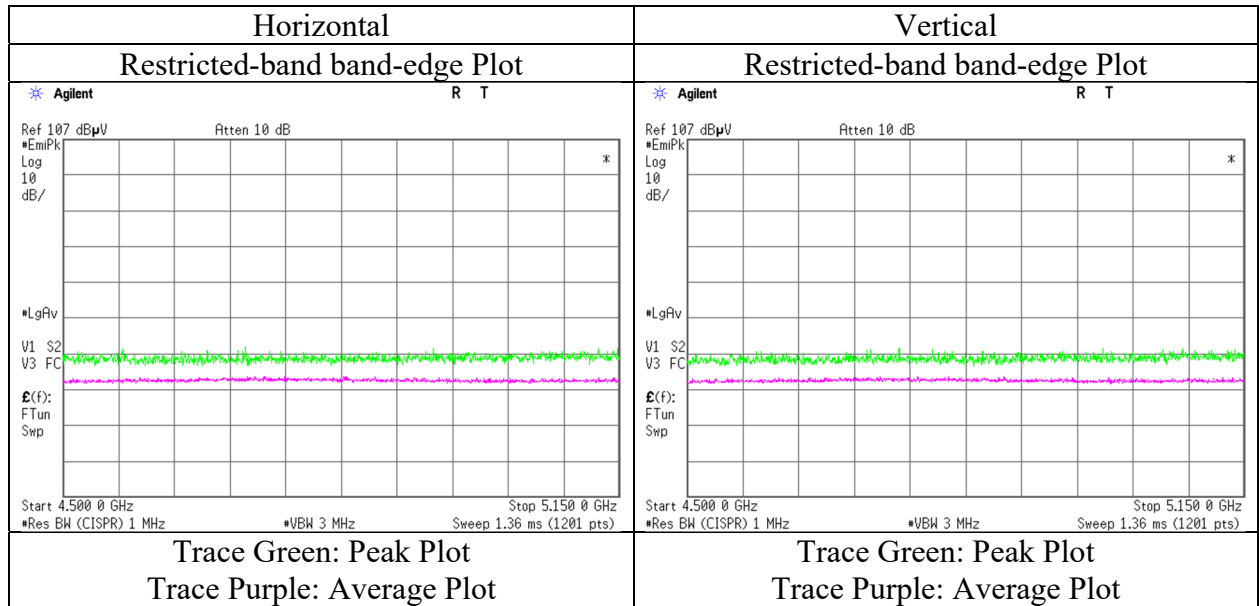
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## Radiated Spurious Emission

Report No. 13385909S-C-R2  
 Test place Shonan EMC Lab.  
 Semi Anechoic Chamber 3  
 Date November 10, 2020  
 Temperature / Humidity 25 deg. C / 41 % RH  
 Engineer Kazuya Noda  
 (1 GHz – 13 GHz)  
 Mode Tx 11ac-40 MIMO 5190 MHz with 11g 2437 MHz and BT Hopping On DH5  
 EUT Lo type(9.8 inch Display)



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.



## Radiated Spurious Emission

Report No. 13385909S-C-R2  
Test place Shonan EMC Lab.  
Semi Anechoic Chamber 3  
Date November 10, 2020  
Temperature / Humidity 25 deg. C / 41 % RH  
Engineer Kazuya Noda  
(1 GHz – 13 GHz)  
Mode Tx 11ac-80 MIMO 5210 MHz with 11g 2437 MHz and BT Hopping On DH5  
EUT Lo type(9.8 inch Display)

### (above 1 GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	49.48	32.12	17.10	43.11	2.13	57.72	73.9	16.1	108	40	
Hori.	5350.000	PK	49.39	31.83	17.26	43.33	2.13	57.28	73.9	16.6	108	40	
Hori.	5150.000	AV	41.16	32.12	17.10	43.11	2.13	49.40	53.9	4.5	108	40	VBW:18 kHz
Hori.	5350.000	AV	41.03	31.83	17.26	43.33	2.13	48.92	53.9	4.9	108	40	VBW:18 kHz
Vert.	5150.000	PK	49.62	32.12	17.10	43.11	2.13	57.86	73.9	16.0	255	286	
Vert.	5350.000	PK	49.71	31.83	17.26	43.33	2.13	57.60	73.9	16.3	255	286	
Vert.	5150.000	AV	41.22	32.12	17.10	43.11	2.13	49.46	53.9	4.4	255	286	VBW:18 kHz
Vert.	5350.000	AV	41.18	31.83	17.26	43.33	2.13	49.07	53.9	4.8	255	286	VBW:18 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

\*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz :  $20\log(3.83\text{ m} / 3.0\text{ m}) = 2.13\text{ dB}$

13 GHz - 40 GHz :  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

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**Shonan EMC Lab.**

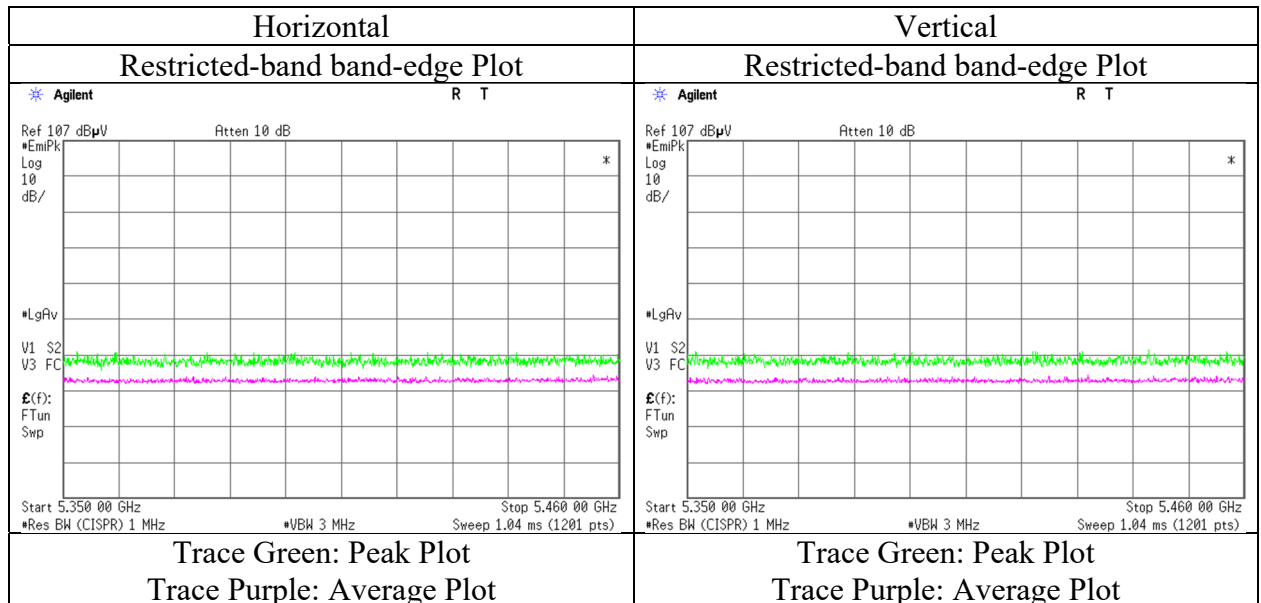
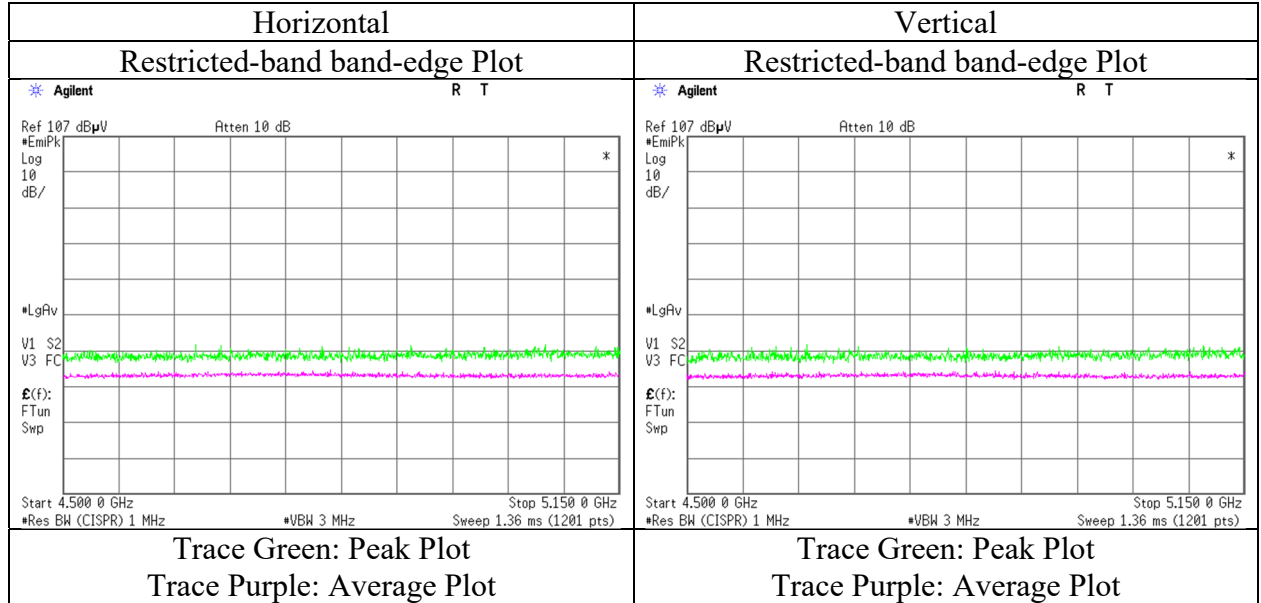
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## Radiated Spurious Emission

Report No.	13385909S-C-R2
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	3
Date	November 10, 2020
Temperature / Humidity	25 deg. C / 41 % RH
Engineer	Kazuya Noda
	(1 GHz – 13 GHz)
Mode	Tx 11ac-80 MIMO 5210 MHz with 11g 2437 MHz and BT Hopping On DH5
EUT	Lo type(9.8 inch Display)

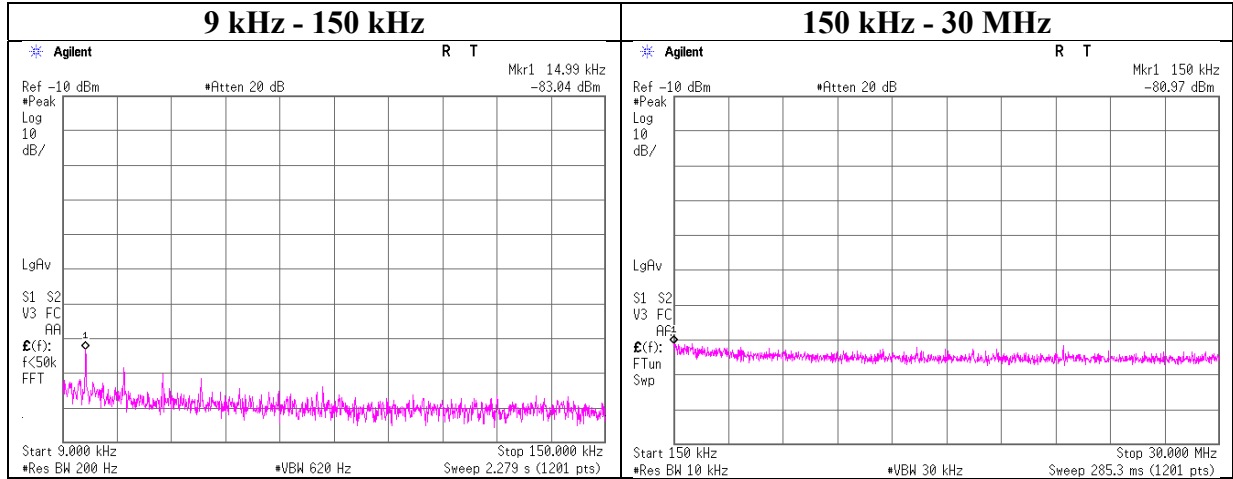


\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Conducted Spurious Emission

Report No. 13385909S-C-R2  
 Test place Shonan EMC Lab. No.5 Shielded Room  
 Date July 31, 2020  
 Temperature / Humidity 23 deg. C / 61 % RH  
 Engineer Shiro Kobayashi  
 Mode Tx 11ac-20 MIMO 5745 MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenuator [dB]	Antenna Gain *1) [dBi]	N (Number of Output)	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
14.99	-83.0	0.01	9.81	2.59	2	-67.6	300	6.0	-6.4	44.0	50.4	-
150.00	-81.0	0.01	9.81	2.59	2	-65.5	300	6.0	-4.3	24.0	28.3	-

\*1) Antenna Gain applied the higher of the two models.

$$E \text{ [dBuV/m]} = \text{EIRP [dBm]} - 20 \log(\text{Distance [m]}) + \text{Ground bounce [dB]} + 104.8 \text{ [dBuV/m]}$$

$$\text{EIRP [dBm]} = \text{Reading [dBm]} + \text{Cable loss [dB]} + \text{Attenuator Loss [dB]} + \text{Antenna gain [dBi]} + 10 * \log(N)$$

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## APPENDIX 2: Test instruments

### Test equipment (1/2)

Test Name	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Calibration Interval (Month)
AT	KTS-07	145111	Digital Tester	SANWA	PC500	7019232	2019/10/01	12
AT	SAT10-09	145132	Attenuator	Weinschel Corp.	54A-10	W5692	2019/11/05	12
AT	SAT10-12	151609	Attenuator	Weinschel Corp.	54A-10	81601	2020/03/02	12
AT	SAT10-14	154591	Attenuator	Weinschel Corp.	54A-10	81595	2020/04/01	12
AT	SAT10-16	160494	Attenuator	Weinschel Corp.	54A-10	83420	2019/12/12	12
AT	SCC-G13	145166	Coaxial Cable	Suhner	SUCOFLEX 102	31599/2	2019/12/12	12
AT	SCC-G14	145175	Coaxial Cable	Suhner	SUCOFLEX 102	31600/2	2019/12/12	12
AT	SCC-G66	196947	Coaxial Cable	HUBER+SUNER	SUCOFLEX 102	803478/2	2020/03/10	12
AT	SCC-G67	196949	Coaxial Cable	HUBER+SUNER	SUCOFLEX 102	803480/2	2020/03/10	12
AT	SOS-19	175823	Humidity Indicator	CUSTOM. Inc	CTH-201	-	2019/12/19	12
AT	SPM-07	146247	Power Meter	Keysight Technologies Inc	8990B	MY5100272	2020/05/27	12
AT	SPSS-04	146310	Power sensor	Keysight Technologies Inc	N1923A	MY5326009	2020/05/27	12
AT	SPSS-05	146311	Power sensor	Keysight Technologies Inc	N1923A	MY5349008	2020/05/27	12
AT	STM-G6	146207	Terminator	JFW	50T-128	-	2019/11/05	12
AT,RE	KSA-08	145089	Spectrum Analyzer	Keysight Technologies Inc	E4446A	MY46180525	2019/11/05	12
RE	COTS-SEMI-5	170932	EMI Software	TSJ (Techno Science Japan)	TEPTO-DV3(RE,CE,ME,PE)	-	-	-
RE	KJM-02	146432	Measure	TAJIMA	GL19-55	-	-	-
RE	SAEC-03(NSA)	145565	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	2020/04/12	12
RE	SAEC-03(SVSWR)	145566	Semi-Anechoic Chamber	TDK	SAEC-03(SVSWR)	3	2020/05/11	12
RE	SAF-03	145126	Pre Amplifier	SONOMA	310N	290213	2020/02/19	12
RE	SAF-04	145127	Pre Amplifier	Toyo Corporation	TPA0118-36	2072554	2020/06/02	12
RE	SAF-06	145005	Pre Amplifier	Toyo Corporation	TPA0118-36	1440491	2020/02/20	12
RE	SAF-08	145007	Pre Amplifier	Toyo Corporation	HAP18-26W	19	2020/03/03	12
RE	SAF-10	145129	Pre Amplifier	Toyo Corporation	HAP26-40W	10	2020/03/03	12
RE	SAT10-05	145136	Attenuator	Keysight Technologies Inc	8493C-010	74864	2020/10/05	12
RE	SAT10-06	145137	Attenuator	Keysight Technologies Inc	8493C-010	74865	2019/11/06	12
RE	SAT6-13	167094	Attenuator	JFW	50HF-006N	-	2020/02/21	12
RE	SBA-03	145023	Biconical Antenna	Schwarzbeck Mess - Elektronik	BBA9106	91032666	2020/05/17	12
RE	SCC-C1/C2/C3/C4/C5/C10/SRSE-03	145171	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/Suhner/T OYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-271(RF Selector)	2020/04/12	12
RE	SCC-G15	145176	Coaxial Cable	Suhner	SUCOFLEX 102	32703/2	2020/03/04	12

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**Test equipment (2/2)**

Test Name	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Calibration Interval (Month)
RE	SCC-G40	166491	Coaxial Cable	Junkosha	MWX221-01000NFSNMS /B	1612S005	2020/01/08	12
RE	SCC-G43	156380	Coaxial Cable	HUBER+SUNER	SUCOFLEX_104_E	SN MY 13406/4E	2020/06/04	12
RE	SCC-G44	168300	Coaxial Cable	HUBER+SUNER	SUCOFLEX 104	800375/4A	2019/11/11	12
RE	SCC-G57	179540	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	802815/2	2020/05/12	12
RE	SCC-G58	183047	Coaxial Cable	HUBER+SUNER	SUCOFLEX 104	800287/4A	2020/06/04	12
RE	SFL-02	145301	Highpass Filter	MICRO-TRONICS	HPM50111	51	2019/11/06	12
RE	SFL-03	145377	Highpass Filter	MICRO-TRONICS	HPM50112	28	2019/11/06	12
RE	SHA-03	145501	Horn Antenna	Schwarzbeck Mess - Elektronik	BBHA9120D	9120D-739	2020/06/15	12
RE	SHA-04	145512	Horn Antenna	ETS LINDGREN	3160-09	00094868	2020/06/15	12
RE	SHA-06	145514	Horn Antenna	ETS LINDGREN	3160-10	00092383	2020/07/16	12
RE	SLA-07	145529	Logperiodic Antenna	Schwarzbeck Mess - Elektronik	VUSLP9111B	196	2020/05/17	12
RE	SOS-23	191840	Humidity Indicator	CUSTOM. Inc	CTH-201	-	2019/12/12	12
RE	SSA-03*1)	145801	Spectrum Analyzer	Keysight Technologies Inc	E4448A	MY48250152	2019/08/08	12
RE	STR-08	150463	Test Receiver	Rohde & Schwarz	ESW44	101581	2019/11/22	12
RE	STS-03	146210	Digital Hitester	Hioki	3805-50	80997823	2019/10/01	12

\*Hyphens for Last Calibration Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.

The expiration date of the calibration is the end of the expired month.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

Test item:

RE: Radiated Emission test

AT: Antenna Terminal Conducted test

**UL Japan, Inc.**

**Shonan EMC Lab.**

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