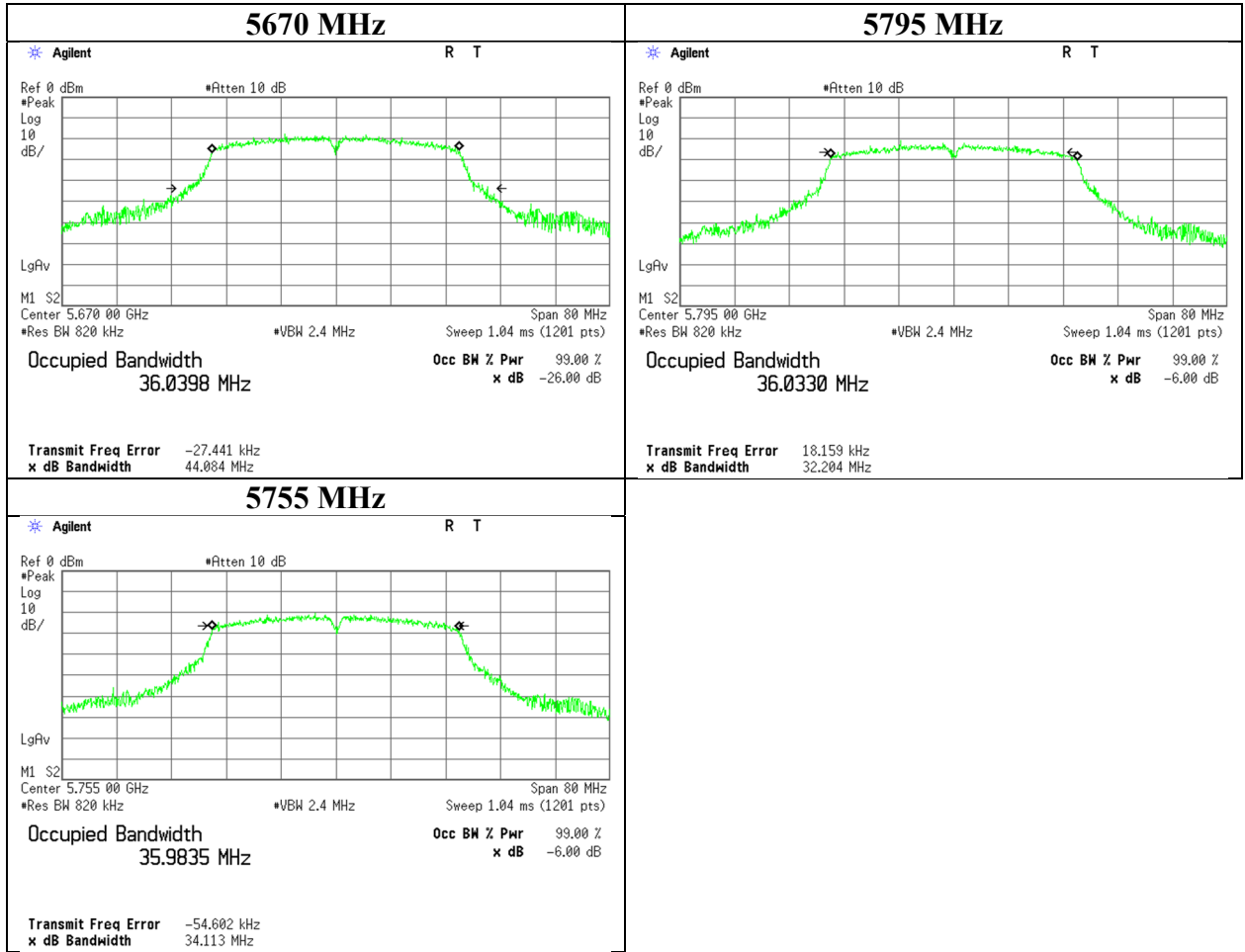


**99 % Occupied Bandwidth**

**11n-40**



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## 6 dB Bandwidth

Report No. 13809761H  
Test place Ise EMC Lab. No.8 Measurement Room  
Date May 19, 2021  
Temperature / Humidity 23 deg. C / 66 % RH  
Engineer Akihiko Maeda  
Mode Tx

### 11a

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
Antenna 1	5745	15.109	> 0.500
	5785	15.437	> 0.500
	5825	15.390	> 0.500

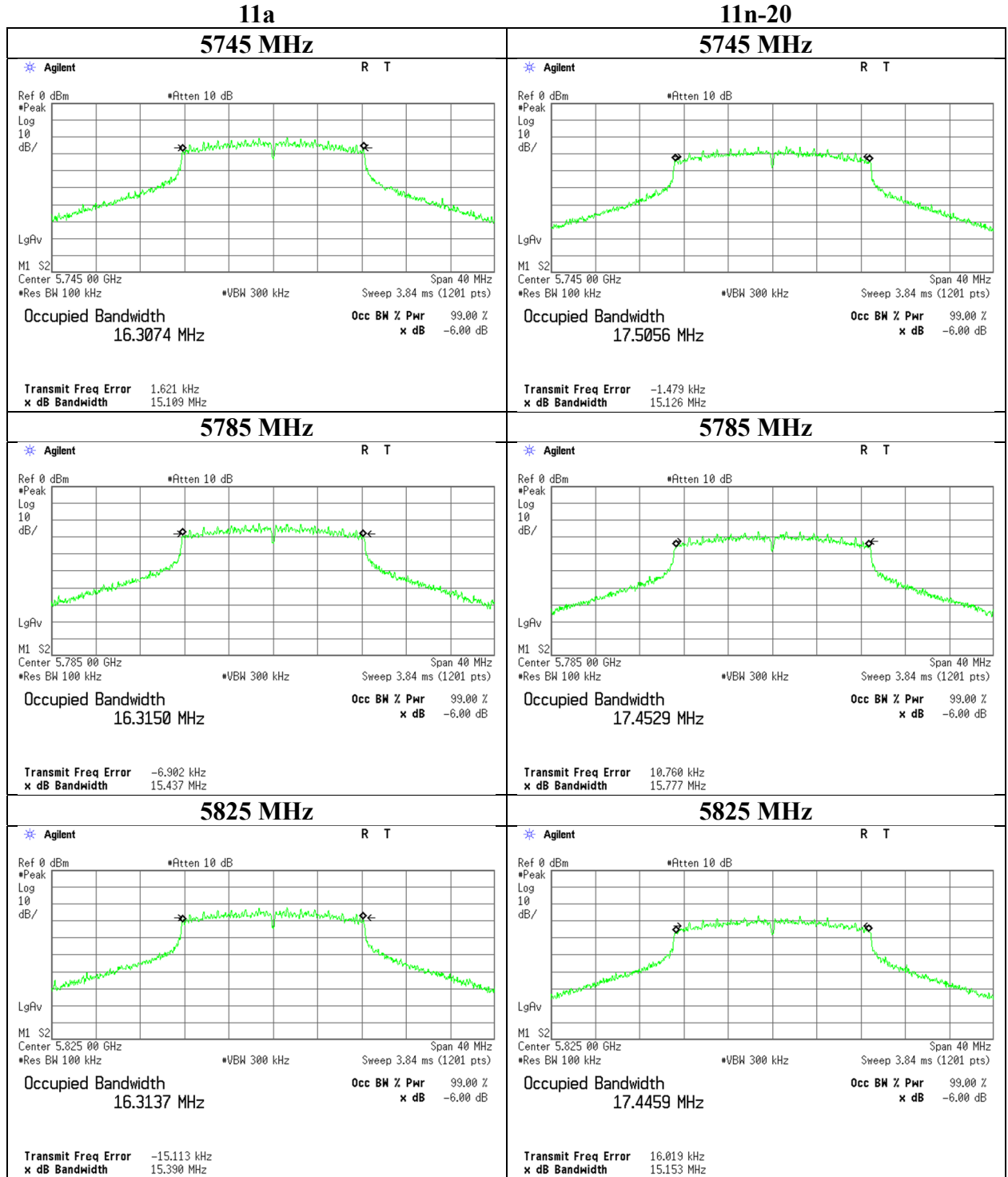
### 11n-20

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
Antenna 1	5745	15.126	> 0.500
	5785	15.777	> 0.500
	5825	15.153	> 0.500

### 11n-40

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
Antenna 1	5755	35.126	> 0.500
	5795	35.141	> 0.500

**6 dB Bandwidth**



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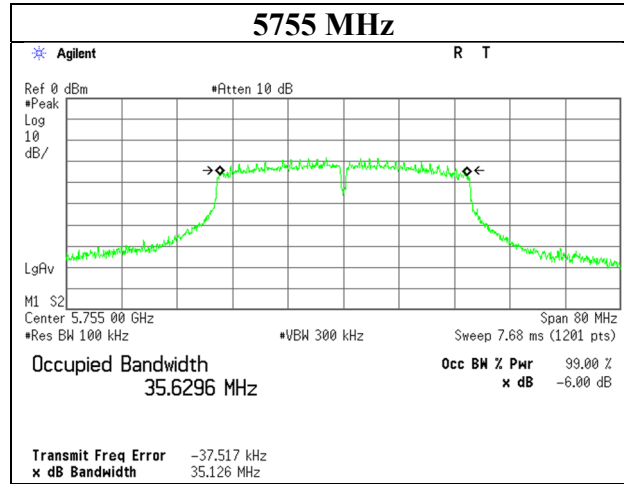
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

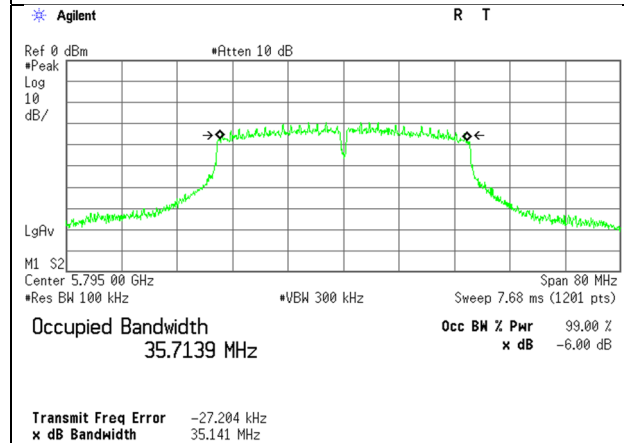
## 6 dB Bandwidth

11n-40

5755 MHz



5795 MHz



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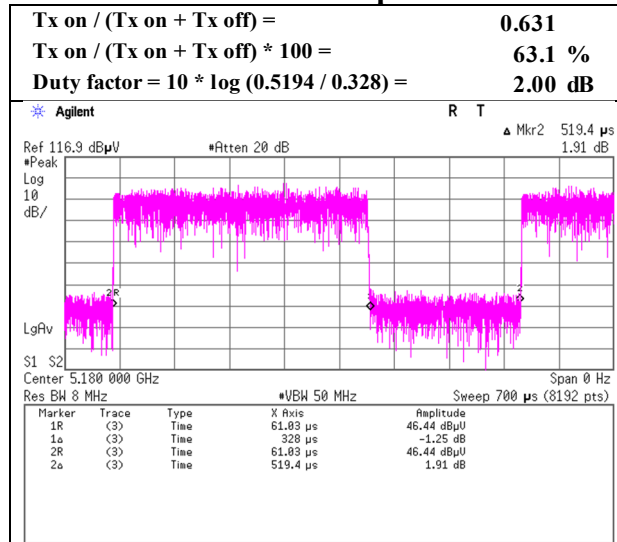
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

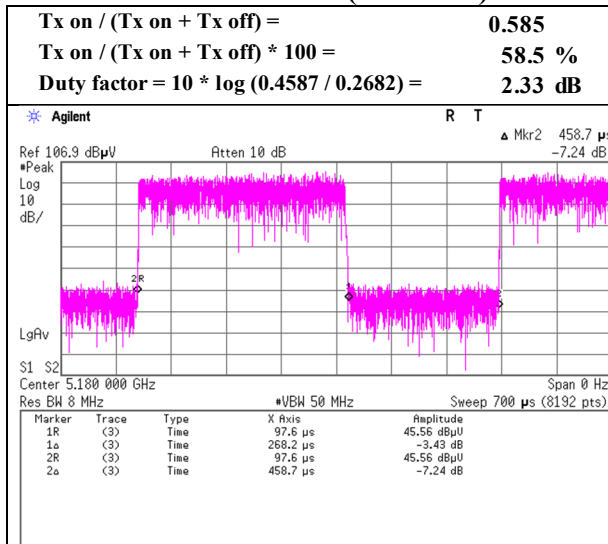
### Burst rate confirmation

Report No. 13809761H  
 Test place Ise EMC Lab. No.2 Semi Anechoic Chamber  
 Date May 11, 2021  
 Temperature / Humidity 23 deg. C / 41 % RH  
 Engineer Hiroki Numata  
 Mode Tx

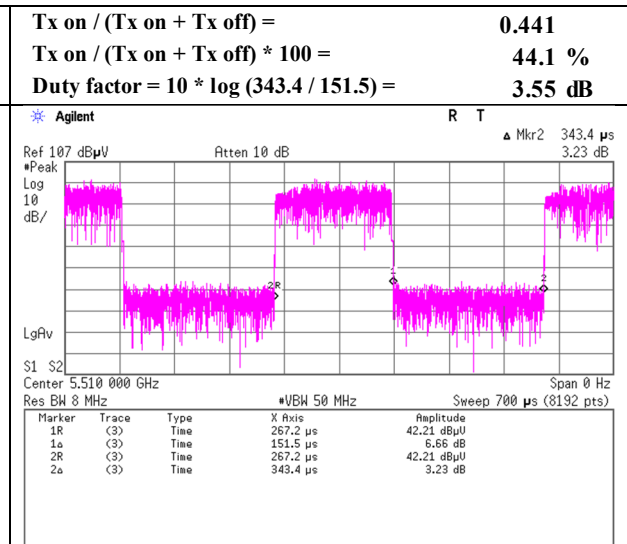
#### 11a 54 Mbps



#### 11n-20 MCS 7 (Short GI)



#### 11n-40 MCS 7



## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11a 5180 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5150.000	PK	44.9	32.0	5.5	34.3	-	48.0	73.9	25.9	
Hori.	10360.000	PK	50.8	40.1	-3.0	34.8	-	53.1	68.2	15.1	
Hori.	15540.000	PK	44.0	37.4	-1.5	33.7	-	46.2	73.9	27.7	Floor noise
Hori.	5150.000	AV	33.6	32.0	5.5	34.3	2.0	38.8	53.9	15.2	*1)
Hori.	15540.000	AV	35.8	37.4	-1.5	33.7	-	38.0	53.9	15.9	Floor noise
Vert.	5150.000	PK	46.5	32.0	5.5	34.3	-	49.6	73.9	24.3	
Vert.	10360.000	PK	50.6	40.1	-3.0	34.8	-	52.9	68.2	15.3	
Vert.	15540.000	PK	43.9	37.4	-1.5	33.7	-	46.1	73.9	27.8	Floor noise
Vert.	5150.000	AV	33.9	32.0	5.5	34.3	2.0	39.0	53.9	14.9	*1)
Vert.	15540.000	AV	35.5	37.4	-1.5	33.7	-	37.7	53.9	16.2	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

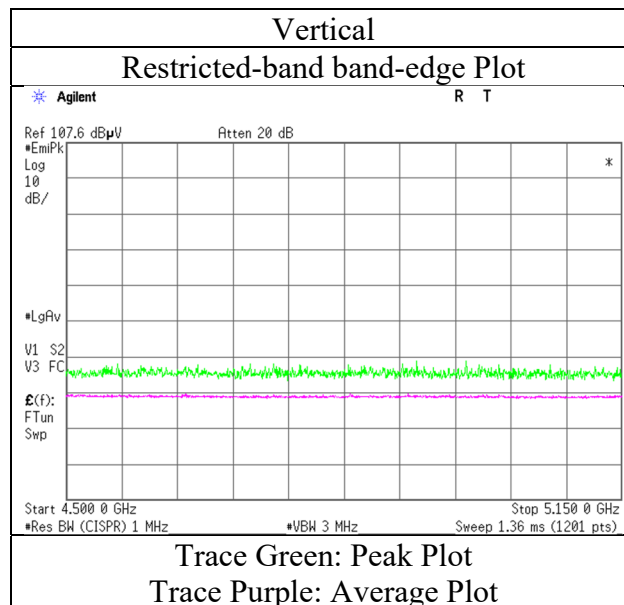
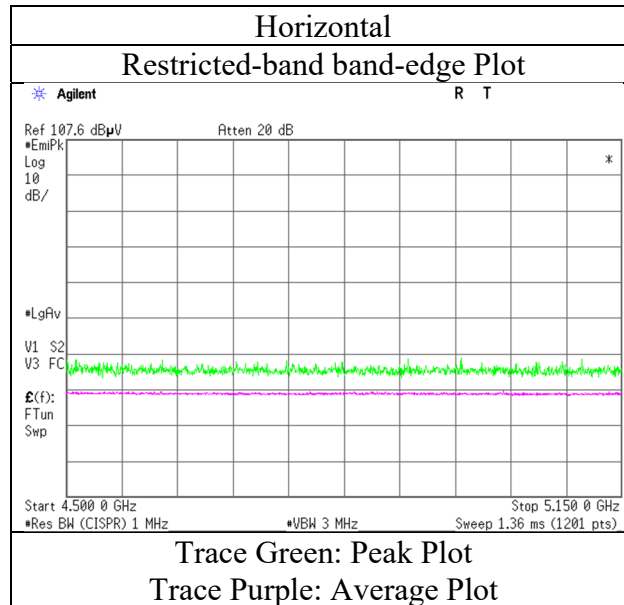
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11a 5180 MHz



\* 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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## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11a 5260 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	10520.000	PK	49.4	39.9	-2.9	34.7	-	51.7	68.2	16.5	
Hori.	15780.000	PK	44.5	37.0	-1.5	33.9	-	46.1	73.9	27.9	Floor noise
Hori.	15780.000	AV	35.9	37.0	-1.5	33.9	-	37.4	53.9	16.5	Floor noise
Vert.	10520.000	PK	48.1	39.9	-2.9	34.7	-	50.4	68.2	17.8	
Vert.	15780.000	PK	44.0	37.0	-1.5	33.9	-	45.5	73.9	28.4	Floor noise
Vert.	15780.000	AV	35.1	37.0	-1.5	33.9	-	36.6	53.9	17.3	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$



## Radiated Spurious Emission

Report No.	13809761H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.2	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021	May 15, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata	Takafumi Noguchi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)	(Below 1 GHz)
Mode	Tx 11a 5320 MHz			

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	172.067	QP	30.2	15.6	8.0	28.2	-	25.6	43.5	17.9	
Hori.	187.970	QP	34.8	15.9	8.1	28.1	-	30.7	43.5	12.8	
Hori.	236.000	QP	38.5	11.4	8.4	27.9	-	30.4	46.0	15.6	
Hori.	243.998	QP	35.4	11.7	8.5	27.9	-	27.7	46.0	18.3	
Hori.	336.772	QP	31.2	14.7	9.1	28.0	-	27.0	46.0	19.0	
Hori.	483.960	QP	30.0	17.5	9.8	29.1	-	28.2	46.0	17.8	
Hori.	639.994	QP	41.2	19.3	10.4	29.3	-	41.6	46.0	4.4	
Hori.	650.226	QP	33.6	19.3	10.4	29.3	-	34.0	46.0	12.0	
Hori.	873.611	QP	33.1	21.8	11.2	29.0	-	37.2	46.0	8.8	
Hori.	5350.000	PK	46.2	31.5	5.6	34.2	-	49.1	73.9	24.8	
Hori.	10640.000	PK	47.8	39.9	-2.9	34.6	-	50.3	73.9	23.6	
Hori.	15960.000	PK	43.1	37.6	-1.6	34.1	-	45.1	73.9	28.8	Floor noise
Hori.	5350.000	AV	34.6	31.5	5.6	34.2	2.0	39.5	53.9	14.4	*1)
Hori.	10640.000	AV	42.6	39.9	-2.9	34.6	2.0	47.1	53.9	6.8	
Hori.	15960.000	AV	35.6	37.6	-1.6	34.1	-	37.6	53.9	16.3	Floor noise
Vert.	172.067	QP	36.4	15.6	8.0	28.2	-	31.8	43.5	11.7	
Vert.	187.970	QP	23.5	15.9	8.1	28.1	-	19.4	43.5	24.1	
Vert.	236.000	QP	28.4	11.4	8.4	27.9	-	20.3	46.0	25.7	
Vert.	243.998	QP	29.6	11.7	8.5	27.9	-	21.9	46.0	24.1	
Vert.	336.772	QP	31.0	14.7	9.1	28.0	-	26.8	46.0	19.2	
Vert.	483.960	QP	38.7	17.5	9.8	29.1	-	36.8	46.0	9.2	
Vert.	639.994	QP	39.2	19.3	10.4	29.3	-	39.6	46.0	6.4	
Vert.	650.226	QP	34.0	19.3	10.4	29.3	-	34.4	46.0	11.6	
Vert.	873.611	QP	31.6	21.8	11.2	29.0	-	35.7	46.0	10.3	
Vert.	5350.000	PK	45.7	31.5	5.6	34.2	-	48.6	73.9	25.3	
Vert.	10640.000	PK	46.0	39.9	-2.9	34.6	-	48.4	73.9	25.5	
Vert.	15960.000	PK	43.2	37.6	-1.6	34.1	-	45.2	73.9	28.8	Floor noise
Vert.	5350.000	AV	34.1	31.5	5.6	34.2	2.0	39.0	53.9	14.9	*1)
Vert.	10640.000	AV	40.3	39.9	-2.9	34.6	2.0	44.7	53.9	9.2	
Vert.	15960.000	AV	35.3	37.6	-1.6	34.1	-	37.3	53.9	16.7	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB  
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

\*1) Not Out of Band emission(Leakage Power)

**UL Japan, Inc.**

**Ise EMC Lab.**

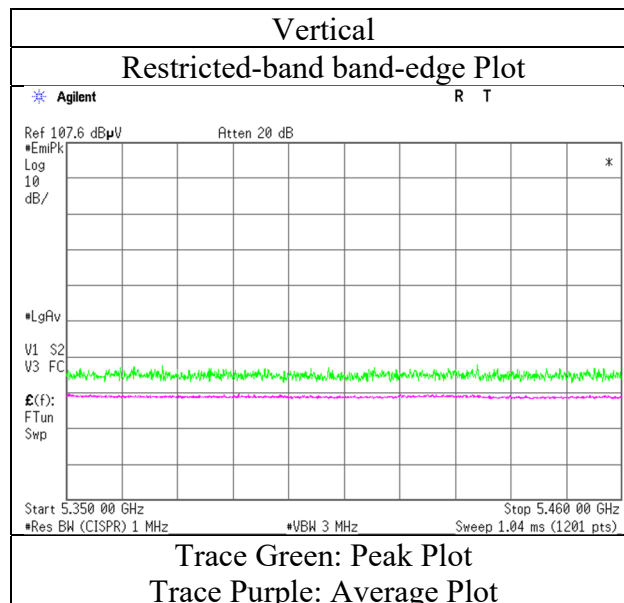
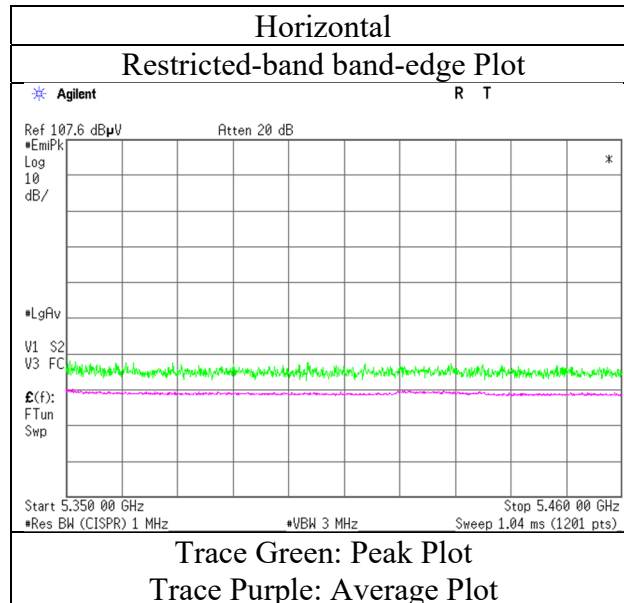
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## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11a 5320 MHz



\* 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.**

**Ise EMC Lab.**

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Facsimile : +81 596 24 8124

## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11a 5500 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5460.000	PK	43.9	31.7	5.6	34.2	-	47.0	68.2	21.2	
Hori.	5470.000	PK	46.7	31.7	5.7	34.2	-	49.9	68.2	18.3	
Hori.	11000.000	PK	49.7	40.0	-2.8	34.3	-	52.7	73.9	21.2	
Hori.	16500.000	PK	40.5	39.5	-1.3	33.7	-	45.1	68.2	23.1	Floor noise
Hori.	5460.000	AV	34.2	31.7	5.6	34.2	2.0	39.3	68.2	28.9	*1)
Hori.	11000.000	AV	43.0	40.0	-2.8	34.3	2.0	48.0	53.9	5.9	
Vert.	5460.000	PK	41.8	31.7	5.6	34.2	-	44.9	68.2	23.3	
Vert.	5470.000	PK	43.8	31.7	5.7	34.2	-	47.0	68.2	21.2	
Vert.	11000.000	PK	52.7	40.0	-2.8	34.3	-	55.7	73.9	18.2	
Vert.	16500.000	PK	40.2	39.5	-1.3	33.7	-	44.8	68.2	23.4	Floor noise
Vert.	5460.000	AV	33.6	31.7	5.6	34.2	2.0	38.8	68.2	29.4	*1)
Vert.	11000.000	AV	45.8	40.0	-2.8	34.3	2.0	50.8	53.9	3.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

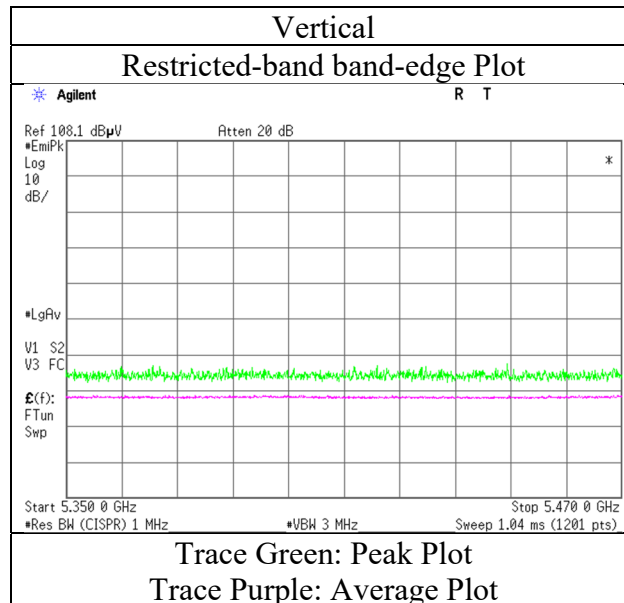
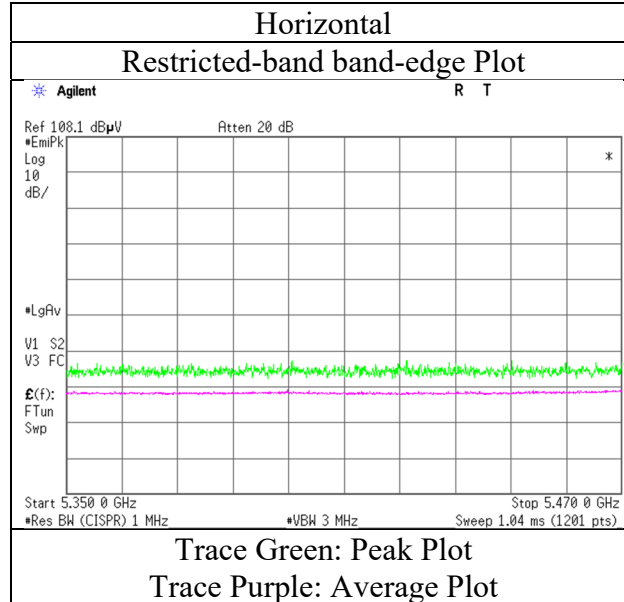
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11a 5500 MHz



\* 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.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11a 5580 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	7440.005	PK	45.0	36.3	6.4	34.4	-	53.3	73.9	20.6	
Hori.	11160.000	PK	46.8	39.6	-2.7	34.3	-	49.5	73.9	24.4	
Hori.	16740.000	PK	42.9	40.9	-1.1	33.5	-	49.2	68.2	19.0	Floor noise
Hori.	7440.005	AV	39.8	36.3	6.4	34.4	-	48.0	53.9	5.9	
Hori.	11160.000	AV	41.6	39.6	-2.7	34.3	2.0	46.3	53.9	7.6	
Vert.	7440.005	PK	45.2	36.3	6.4	34.4	-	53.5	73.9	20.4	
Vert.	11160.000	PK	48.7	39.6	-2.7	34.3	-	51.4	73.9	22.5	
Vert.	16740.000	PK	42.6	40.9	-1.1	33.5	-	48.8	68.2	19.4	Floor noise
Vert.	7440.005	AV	39.5	36.3	6.4	34.4	-	47.7	53.9	6.2	
Vert.	11160.000	AV	43.2	39.6	-2.7	34.3	2.0	47.9	53.9	6.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11a 5700 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5725.000	PK	46.9	32.0	5.8	34.2	-	50.4	68.2	17.8	
Hori.	11400.000	PK	46.4	39.9	-2.5	34.2	-	49.5	73.9	24.4	
Hori.	17100.000	PK	42.5	42.0	-0.9	33.3	-	50.3	68.2	17.9	Floor noise
Hori.	11400.000	AV	40.8	39.9	-2.5	34.2	2.0	45.9	53.9	8.0	
Hori.	17100.000	AV	35.1	42.0	-0.9	33.3	-	42.9	68.2	25.3	Floor noise
Vert.	5725.000	PK	50.1	32.0	5.8	34.2	-	53.6	68.2	14.6	
Vert.	11400.000	PK	45.6	39.9	-2.5	34.2	-	48.6	73.9	25.3	
Vert.	17100.000	PK	42.2	42.0	-0.9	33.3	-	50.0	68.2	18.2	Floor noise
Vert.	11400.000	AV	40.9	39.9	-2.5	34.2	2.0	46.0	53.9	7.9	
Vert.	17100.000	AV	35.5	42.0	-0.9	33.3	-	43.3	68.2	24.9	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

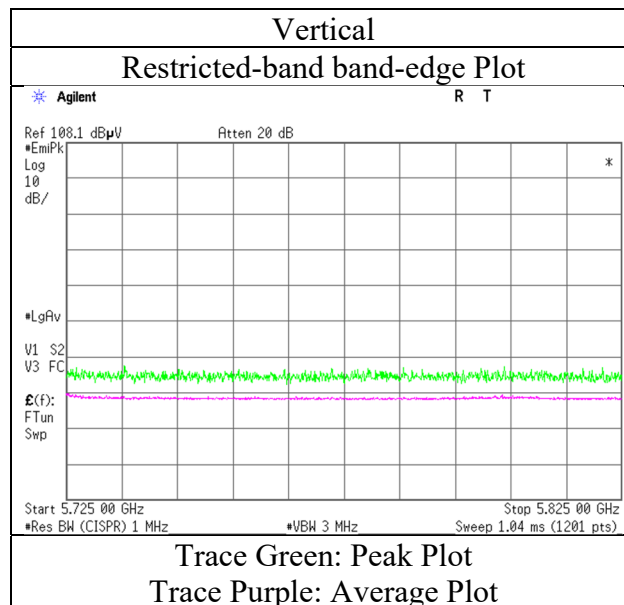
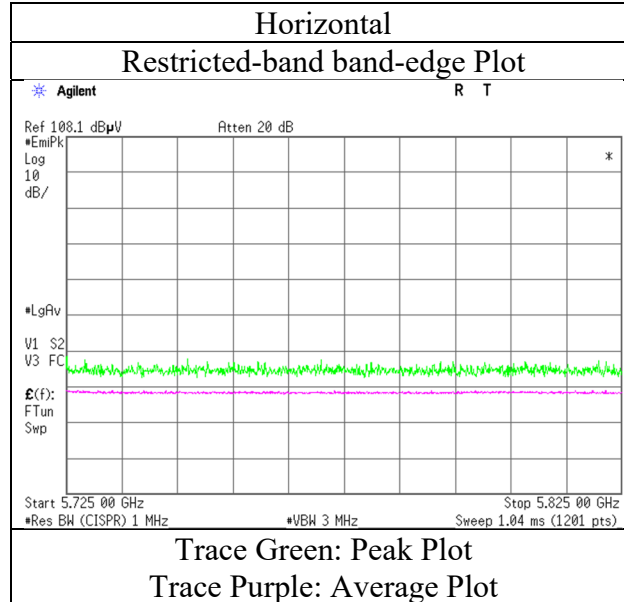
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11a 5700 MHz



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

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## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11a 5745 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5650.000	PK	41.5	31.7	5.7	34.2	-	44.7	68.2	23.5	
Hori.	5700.000	PK	41.4	31.8	5.8	34.2	-	44.7	105.2	60.5	
Hori.	5720.000	PK	49.0	31.9	5.8	34.2	-	52.5	110.8	58.3	
Hori.	5725.000	PK	55.9	32.0	5.8	34.2	-	59.4	122.2	62.8	
Hori.	7660.000	PK	45.1	36.1	6.5	34.5	-	53.2	73.9	20.7	
Hori.	11490.000	PK	46.8	39.7	-2.5	34.2	-	49.7	73.9	24.2	
Hori.	17235.000	PK	42.1	42.6	-0.9	33.3	-	50.5	68.2	17.7	Floor noise
Hori.	7660.000	AV	38.7	36.1	6.5	34.5	-	46.8	53.9	7.1	
Hori.	11490.000	AV	41.5	39.7	-2.5	34.2	2.0	46.5	53.9	7.4	
Vert.	5650.000	PK	42.8	31.7	5.7	34.2	-	46.0	68.2	22.2	
Vert.	5700.000	PK	42.0	31.8	5.8	34.2	-	45.4	105.2	59.9	
Vert.	5720.000	PK	48.5	31.9	5.8	34.2	-	52.0	110.8	58.8	
Vert.	5725.000	PK	54.5	32.0	5.8	34.2	-	58.1	122.2	64.1	
Vert.	7660.000	PK	44.3	36.1	6.5	34.5	-	52.4	73.9	21.5	
Vert.	11490.000	PK	45.4	39.7	-2.5	34.2	-	48.3	73.9	25.6	
Vert.	17235.000	PK	42.2	42.6	-0.9	33.3	-	50.6	68.2	17.6	Floor noise
Vert.	7660.000	AV	38.5	36.1	6.5	34.5	-	46.6	53.9	7.3	
Vert.	11490.000	AV	39.7	39.7	-2.5	34.2	2.0	44.7	53.9	9.2	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

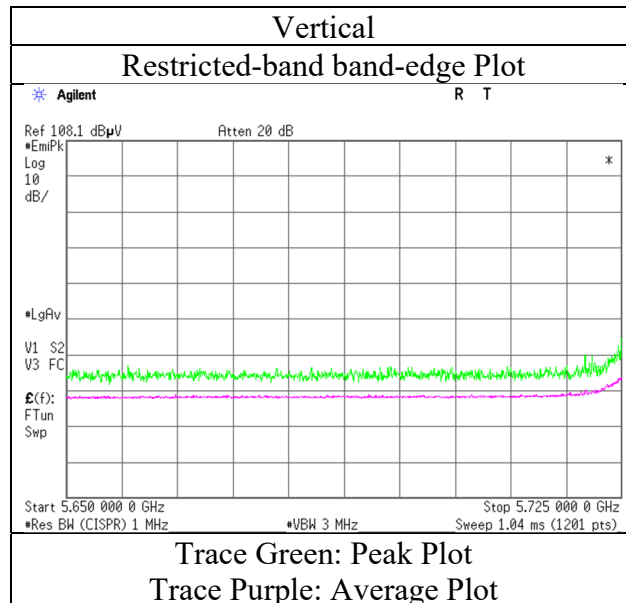
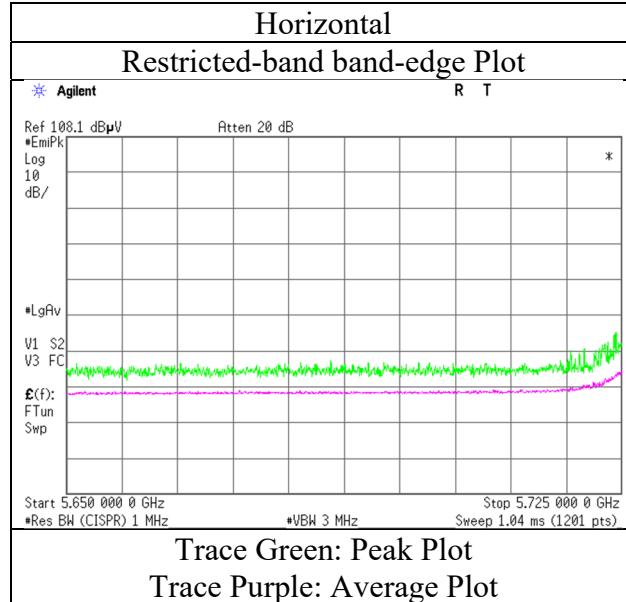
Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)



## Radiated Spurious Emission

Report No.	13809761H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	May 11, 2021
Temperature / Humidity	23 deg. C / 41 % RH
Engineer	Hiroki Numata
Mode	Tx 11a 5745 MHz



\* 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.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11a 5785 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	11570.000	PK	46.7	39.5	-2.5	34.2	-	49.5	73.9	24.4	
Hori.	17355.000	PK	42.8	43.7	-0.9	33.2	-	52.3	68.2	15.9	Floor noise
Hori.	11570.000	AV	42.6	39.5	-2.5	34.2	2.0	47.4	53.9	6.5	
Vert.	11570.000	PK	43.9	39.5	-2.5	34.2	-	46.7	73.9	27.2	
Vert.	17355.000	PK	43.0	43.7	-0.9	33.2	-	52.5	68.2	15.7	Floor noise
Vert.	11570.000	AV	39.1	39.5	-2.5	34.2	2.0	43.9	53.9	10.0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 11, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11a 5825 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5850.000	PK	46.6	32.3	5.8	34.2	-	50.5	122.2	71.7	
Hori.	5855.000	PK	43.3	32.3	5.8	34.2	-	47.2	110.8	63.6	
Hori.	5875.000	PK	41.0	32.3	5.8	34.2	-	45.0	105.2	60.3	
Hori.	5925.000	PK	41.9	32.4	5.9	34.3	-	45.8	68.2	22.4	
Hori.	7766.000	PK	43.8	36.2	6.5	34.5	-	52.0	73.9	21.9	
Hori.	11650.000	PK	47.5	39.2	-2.4	34.2	-	50.1	73.9	23.8	
Hori.	17475.000	PK	42.6	44.6	-0.9	33.2	-	53.1	68.2	15.1	Floor noise
Hori.	7766.000	AV	39.3	36.2	6.5	34.5	-	47.4	53.9	6.5	
Hori.	11650.000	AV	43.1	39.2	-2.4	34.2	2.0	47.7	53.9	6.2	
Vert.	5850.000	PK	48.1	32.3	5.8	34.2	-	52.0	122.2	70.2	
Vert.	5855.000	PK	46.8	32.3	5.8	34.2	-	50.7	110.8	60.1	
Vert.	5875.000	PK	41.4	32.3	5.8	34.2	-	45.4	105.2	59.9	
Vert.	5925.000	PK	41.3	32.4	5.9	34.3	-	45.3	68.2	22.9	
Vert.	7766.000	PK	43.6	36.2	6.5	34.5	-	51.7	73.9	22.2	
Vert.	11650.000	PK	45.8	39.2	-2.4	34.2	-	48.4	73.9	25.5	
Vert.	17475.000	PK	42.5	44.6	-0.9	33.2	-	53.1	68.2	15.1	Floor noise
Vert.	7766.000	AV	37.2	36.2	6.5	34.5	-	45.4	53.9	8.5	
Vert.	11650.000	AV	40.8	39.2	-2.4	34.2	2.0	45.4	53.9	8.5	

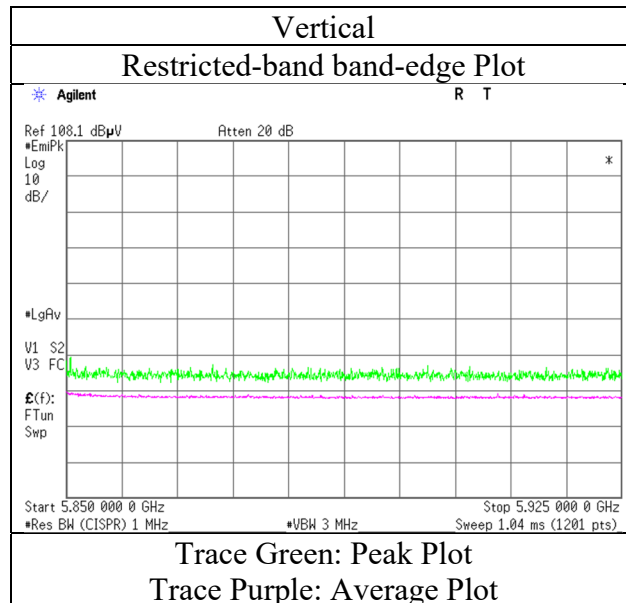
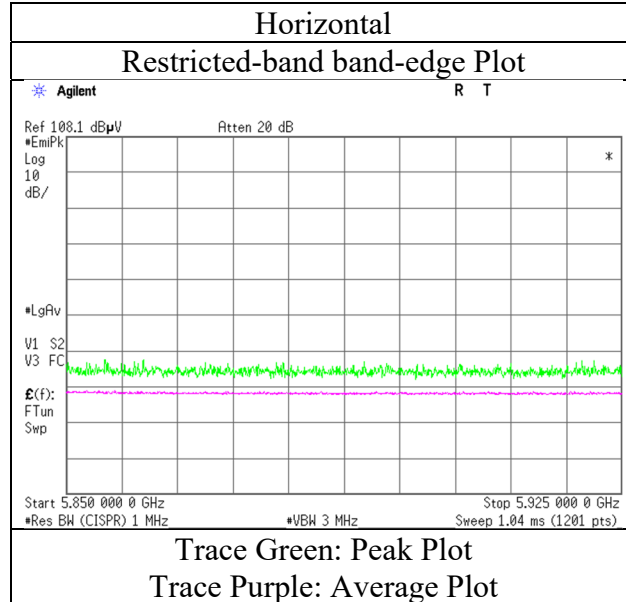
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11a 5825 MHz



\* 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. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
(Band edge)  
Mode Tx 11n-20 5180 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5150.000	PK	41.0	32.0	5.5	34.3	-	44.2	73.9	29.8	
Hori.	5150.000	AV	32.2	32.0	5.5	34.3	2.3	37.7	53.9	16.3	*1)
Vert.	5150.000	PK	42.1	32.0	5.5	34.3	-	45.2	73.9	28.7	
Vert.	5150.000	AV	33.6	32.0	5.5	34.3	2.3	39.0	53.9	14.9	*1)

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

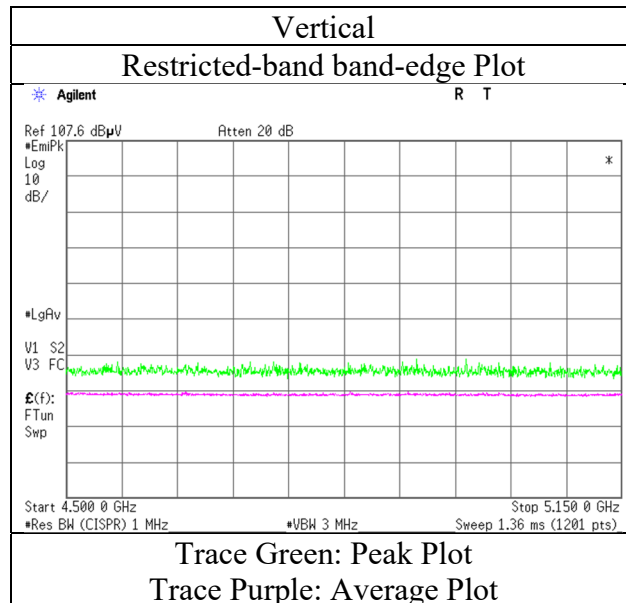
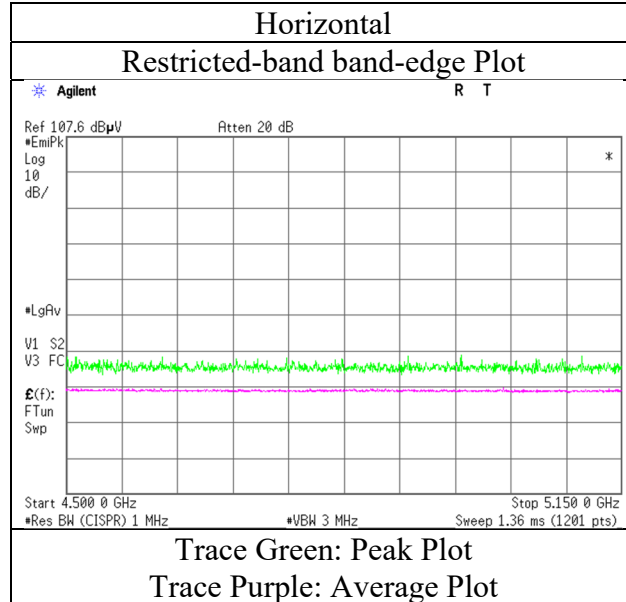
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz  $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
10 GHz - 40 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11n-20 5810 MHz



\* 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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## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
(Band edge)  
Mode Tx 11n-20 5320 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5350.000	PK	47.1	31.5	5.6	34.2	-	50.0	73.9	23.9	
Hori.	5350.000	AV	35.5	31.5	5.6	34.2	2.3	40.7	53.9	13.2	*1)
Vert.	5350.000	PK	45.3	31.5	5.6	34.2	-	48.2	73.9	25.7	
Vert.	5350.000	AV	35.2	31.5	5.6	34.2	2.3	40.4	53.9	13.5	*1)

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

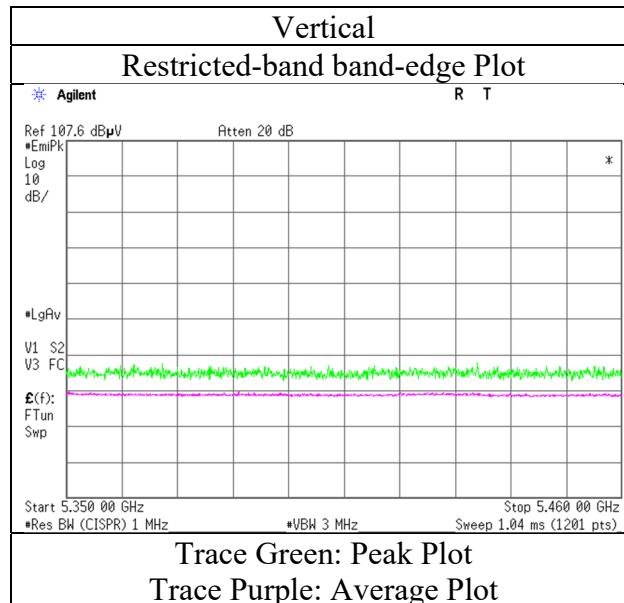
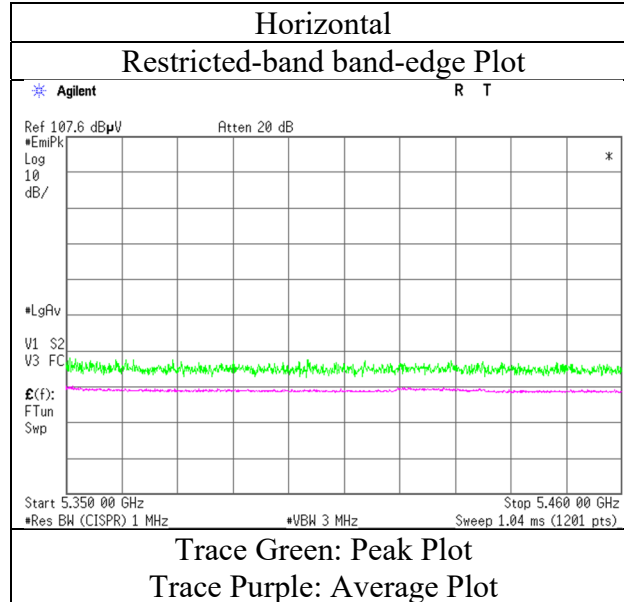
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz  $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
10 GHz - 40 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
 Test place Ise EMC Lab.  
 Semi Anechoic Chamber No.2  
 Date May 11, 2021  
 Temperature / Humidity 23 deg. C / 41 % RH  
 Engineer Hiroki Numata  
 Mode Tx 11n-20 5320 MHz



\* 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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## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
(Band edge)  
Mode Tx 11n-20 5500 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5460.000	PK	42.8	31.7	5.6	34.2	-	46.0	68.2	22.2	
Hori.	5470.000	PK	44.9	31.7	5.7	34.2	-	48.1	68.2	20.1	
Hori.	5460.000	AV	33.5	31.7	5.6	34.2	2.3	39.0	68.2	29.2	*1)
Vert.	5460.000	PK	41.8	31.7	5.6	34.2	-	44.9	68.2	23.3	
Vert.	5470.000	PK	43.2	31.7	5.7	34.2	-	46.4	68.2	21.9	
Vert.	5460.000	AV	33.8	31.7	5.6	34.2	2.3	39.3	68.2	28.9	*1)

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

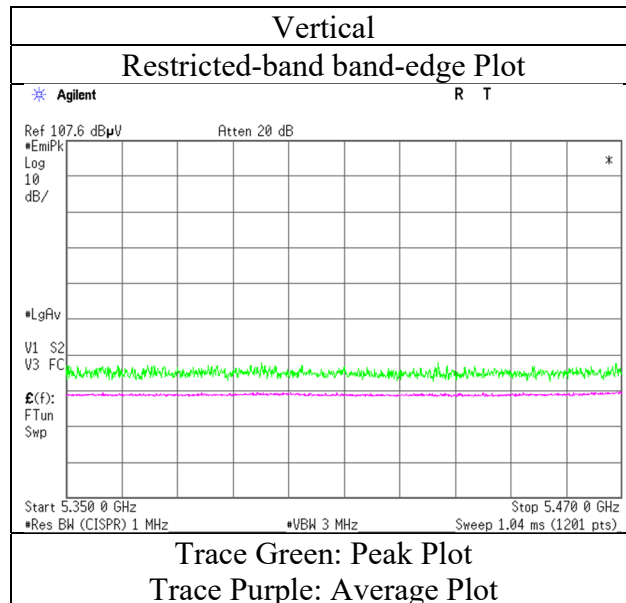
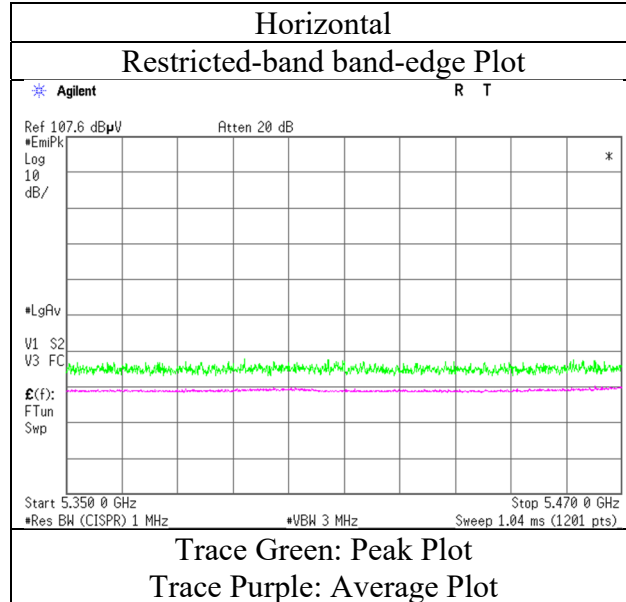
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz  $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
10 GHz - 40 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11n-20 5500 MHz



\* 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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## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
(Band edge)  
Mode Tx 11n-20 5700 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5725.000	PK	43.2	32.0	5.8	34.2	-	46.7	68.2	21.5	
Vert.	5725.000	PK	43.3	32.0	5.8	34.2	-	46.9	68.2	21.3	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

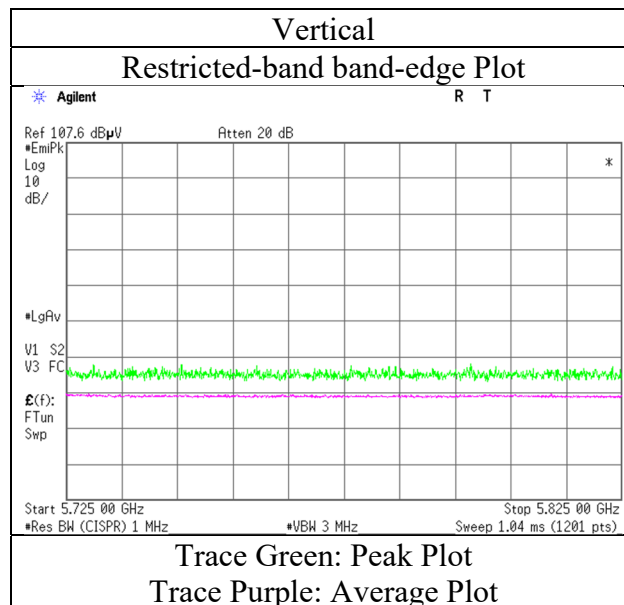
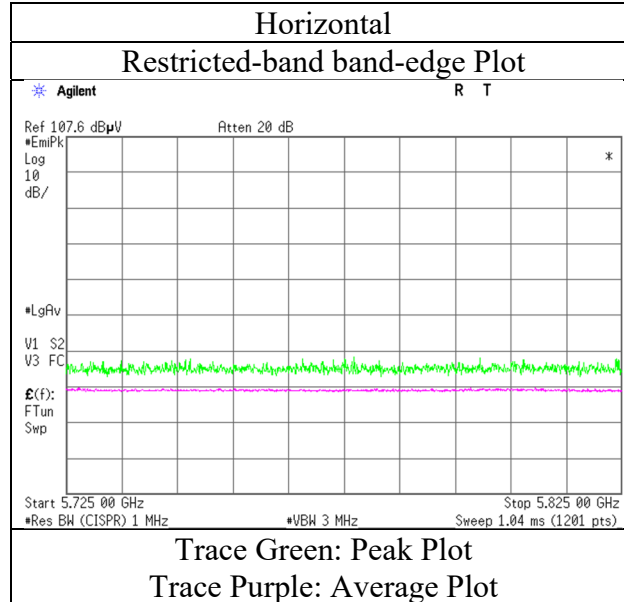
Distance factor: 1 GHz - 10 GHz  $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$

10 GHz - 40 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11n-20 5700 MHz



\* 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. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
(Band edge)  
Mode Tx 11n-20 5745 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5650.000	PK	41.9	31.7	5.7	34.2	-	45.1	68.2	23.1	
Hori.	5700.000	PK	41.4	31.8	5.8	34.2	-	44.7	105.2	60.5	
Hori.	5720.000	PK	42.5	31.9	5.8	34.2	-	46.0	110.8	64.8	
Hori.	5725.000	PK	47.3	32.0	5.8	34.2	-	50.9	122.2	71.3	
Vert.	5650.000	PK	42.4	31.7	5.7	34.2	-	45.6	68.2	22.6	
Vert.	5700.000	PK	42.3	31.8	5.8	34.2	-	45.6	105.2	59.6	
Vert.	5720.000	PK	42.8	31.9	5.8	34.2	-	46.3	110.8	64.5	
Vert.	5725.000	PK	50.6	32.0	5.8	34.2	-	54.1	122.2	68.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

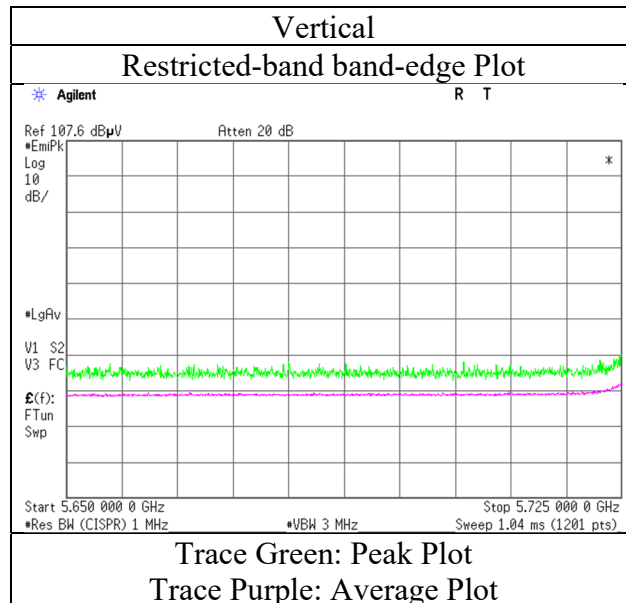
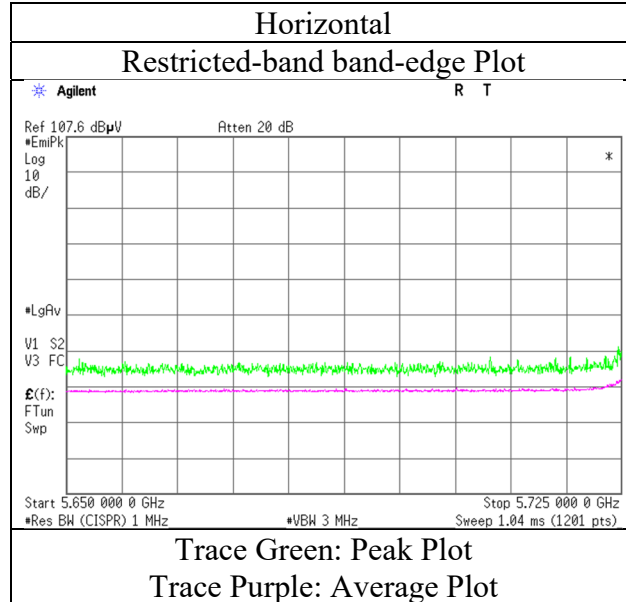
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz  $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
10 GHz - 40 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11n-20 5745 MHz



\* 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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## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
(Band edge)  
Mode Tx 11n-20 5825 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5850.000	PK	42.4	32.3	5.8	34.2	-	46.3	122.2	75.9	
Hori.	5855.000	PK	41.7	32.3	5.8	34.2	-	45.6	110.8	65.2	
Hori.	5875.000	PK	41.5	32.3	5.8	34.2	-	45.4	105.2	59.8	
Hori.	5925.000	PK	41.8	32.4	5.9	34.3	-	45.8	68.2	22.5	
Vert.	5850.000	PK	42.5	32.3	5.8	34.2	-	46.3	122.2	75.9	
Vert.	5855.000	PK	42.0	32.3	5.8	34.2	-	45.8	110.8	65.0	
Vert.	5875.000	PK	41.5	32.3	5.8	34.2	-	45.4	105.2	59.8	
Vert.	5925.000	PK	40.8	32.4	5.9	34.3	-	44.8	68.2	23.4	

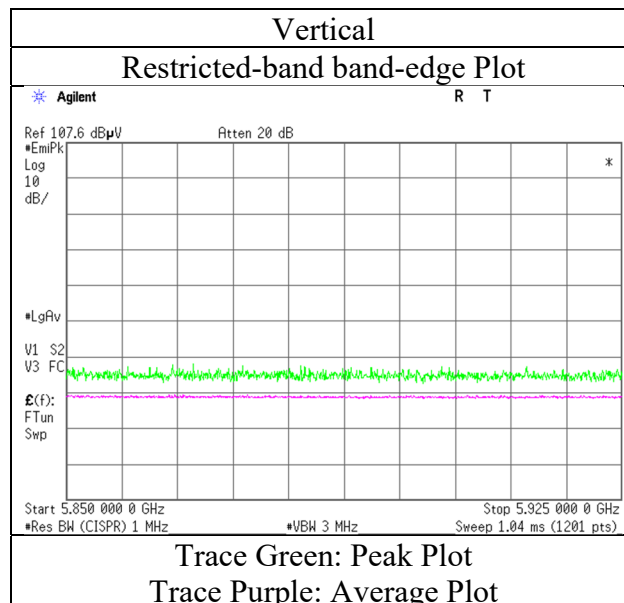
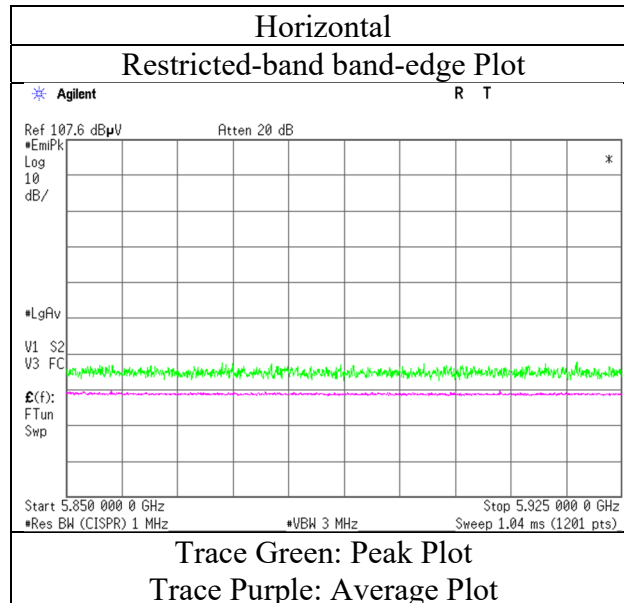
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

Distance factor: 1 GHz - 10 GHz  $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
10 GHz - 40 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 11, 2021  
Temperature / Humidity 23 deg. C / 41 % RH  
Engineer Hiroki Numata  
Mode Tx 11n-20 5825 MHz



\* 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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## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 12, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	22 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Hiroki Numata (10 GHz - 18 GHz)	Hiroki Numata (Above 18 GHz)
Mode	Tx 11n-40 5190 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5150.000	PK	42.8	32.0	5.5	34.3	-	46.0	73.9	27.9	
Hori.	10380.000	PK	46.6	40.0	-2.9	34.8	-	48.9	68.2	19.3	
Hori.	15570.000	PK	40.5	37.2	-1.5	33.7	-	42.5	73.9	31.4	Floor noise
Hori.	20760.000	PK	45.4	40.3	-1.3	33.9	-	50.5	73.9	23.4	Floor noise
Hori.	5150.000	AV	33.7	32.0	5.5	34.3	3.6	40.3	53.9	13.6	*1)
Hori.	15570.000	AV	35.7	37.2	-1.5	33.7	-	37.7	53.9	16.2	Floor noise
Hori.	20760.000	AV	37.9	40.3	-1.3	33.9	-	43.0	53.9	10.9	Floor noise
Vert.	5150.000	PK	47.7	32.0	5.5	34.3	-	50.9	73.9	23.0	
Vert.	10380.000	PK	46.7	40.0	-2.9	34.8	-	49.0	68.2	19.2	
Vert.	15570.000	PK	40.1	37.2	-1.5	33.7	-	42.1	73.9	31.8	Floor noise
Vert.	20760.000	PK	44.5	40.3	-1.3	33.9	-	49.6	73.9	24.3	Floor noise
Vert.	5150.000	AV	35.3	32.0	5.5	34.3	3.6	42.0	53.9	11.9	*1)
Vert.	15570.000	AV	35.2	37.2	-1.5	33.7	-	37.2	53.9	16.7	Floor noise
Vert.	20760.000	AV	37.1	40.3	-1.3	33.9	-	42.2	53.9	11.7	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

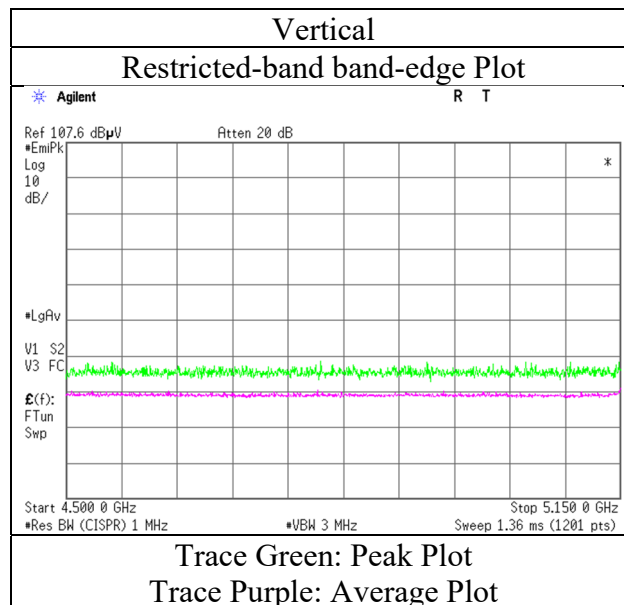
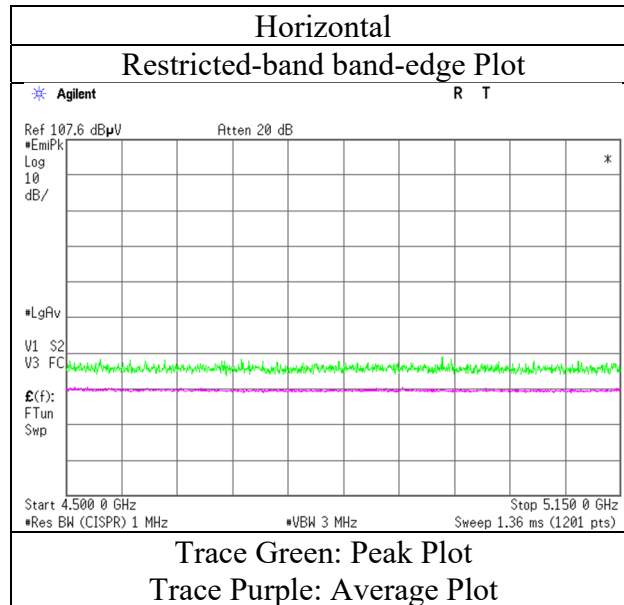
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor:     1 GHz - 10 GHz   20log (3.65 m / 3.0 m) = 1.71 dB  
                          10 GHz - 40 GHz   20log (1.0 m / 3.0 m) = -9.5 dB

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 12, 2021  
Temperature / Humidity 22 deg. C / 41 % RH  
Engineer Takafumi Noguchi  
Mode Tx 11n-40 5190 MHz



\* 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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## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 12, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	22 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Hiroki Numata (10 GHz - 18 GHz)	Hiroki Numata (Above 18 GHz)
Mode	Tx 11n-40 5270 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	10540.000	PK	47.4	39.9	-2.9	34.7	-	49.8	68.2	18.5	
Hori.	15810.000	PK	40.3	36.8	-1.5	33.9	-	41.6	73.9	32.3	Floor noise
Hori.	21080.000	PK	43.9	40.3	-1.2	33.9	-	49.1	68.2	19.1	Floor noise
Hori.	15810.000	AV	35.2	36.8	-1.5	33.9	-	36.5	53.9	17.4	Floor noise
Vert.	10540.000	PK	48.1	39.9	-2.9	34.7	-	50.5	68.2	17.7	
Vert.	15810.000	PK	40.5	36.8	-1.5	33.9	-	41.8	73.9	32.1	Floor noise
Vert.	21080.000	PK	43.6	40.3	-1.2	33.9	-	48.8	68.2	19.4	Floor noise
Vert.	15810.000	AV	35.4	36.8	-1.5	33.9	-	36.7	53.9	17.2	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 12, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	22 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Hiroki Numata (10 GHz - 18 GHz)	Hiroki Numata (Above 18 GHz)
Mode	Tx 11n-40 5310 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5350.000	PK	47.7	31.5	5.6	34.2	-	50.6	73.9	23.3	
Hori.	10620.000	PK	48.1	39.9	-2.9	34.6	-	50.5	73.9	23.4	
Hori.	15930.000	PK	40.5	37.3	-1.6	34.0	-	42.3	73.9	31.7	Floor noise
Hori.	21240.000	PK	45.2	40.2	-1.1	33.8	-	50.5	68.2	17.7	Floor noise
Hori.	5350.000	AV	35.1	31.5	5.6	34.2	3.6	41.5	53.9	12.4	*1)
Hori.	10620.000	AV	41.8	39.9	-2.9	34.6	3.6	47.7	53.9	6.2	
Hori.	15930.000	AV	35.1	37.3	-1.6	34.0	-	36.8	53.9	17.1	Floor noise
Vert.	5350.000	PK	43.7	31.5	5.6	34.2	-	46.6	73.9	27.3	
Vert.	10620.000	PK	45.9	39.9	-2.9	34.6	-	48.3	73.9	25.6	
Vert.	15930.000	PK	40.5	37.3	-1.6	34.0	-	42.2	73.9	31.7	Floor noise
Vert.	21240.000	PK	45.4	40.2	-1.1	33.8	-	50.7	68.2	17.5	Floor noise
Vert.	5350.000	AV	34.0	31.5	5.6	34.2	3.6	40.5	53.9	13.4	*1)
Vert.	10620.000	AV	39.6	39.9	-2.9	34.6	3.6	45.5	53.9	8.4	
Vert.	15930.000	AV	35.7	37.3	-1.6	34.0	-	37.4	53.9	16.5	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

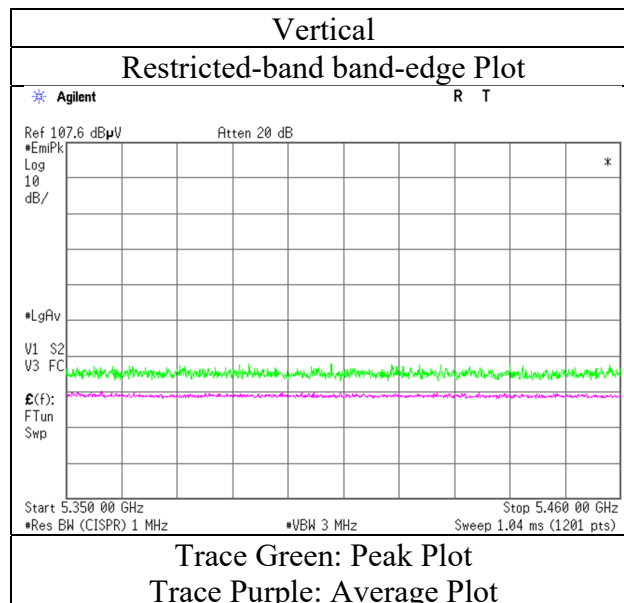
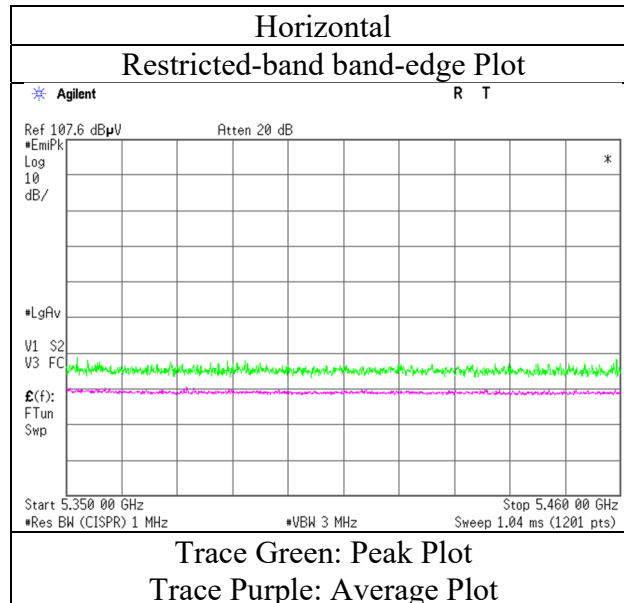
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No.	13809761H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	May 12, 2021
Temperature / Humidity	22 deg. C / 41 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11n-40 5310 MHz



\* 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.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 12, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	22 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Hiroki Numata (10 GHz - 18 GHz)	Hiroki Numata (Above 18 GHz)
Mode	Tx 11n-40 5510 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5460.000	PK	45.4	31.7	5.6	34.2	-	48.5	68.2	19.7	
Hori.	5470.000	PK	52.6	31.7	5.7	34.2	-	55.8	68.2	12.4	
Hori.	7346.718	PK	46.2	36.3	6.4	34.4	-	54.5	73.9	19.4	
Hori.	11020.000	PK	44.5	40.0	-2.8	34.3	-	47.5	68.2	20.8	
Hori.	16530.000	PK	40.3	39.6	-1.2	33.7	-	44.9	68.2	23.3	Floor noise
Hori.	22040.000	PK	43.9	40.3	-0.9	33.3	-	50.0	68.2	18.2	Floor noise
Hori.	5460.000	AV	34.8	31.7	5.6	34.2	3.6	41.5	68.2	26.7	*1)
Hori.	7346.718	AV	40.5	36.3	6.4	34.4	-	48.8	53.9	5.1	
Vert.	5460.000	PK	44.0	31.7	5.6	34.2	-	47.2	68.2	21.0	
Vert.	5470.000	PK	50.0	31.7	5.7	34.2	-	53.2	68.2	15.0	
Vert.	7346.718	PK	44.5	36.3	6.4	34.4	-	52.8	73.9	21.1	
Vert.	11020.000	PK	45.6	40.0	-2.8	34.3	-	48.5	68.2	19.7	
Vert.	16530.000	PK	40.9	39.6	-1.2	33.7	-	45.6	68.2	22.6	Floor noise
Vert.	22040.000	PK	43.1	40.3	-0.9	33.3	-	49.3	68.2	18.9	Floor noise
Vert.	5460.000	AV	34.2	31.7	5.6	34.2	3.6	40.9	68.2	27.3	*1)
Vert.	7346.718	AV	37.9	36.3	6.4	34.4	-	46.2	53.9	7.7	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

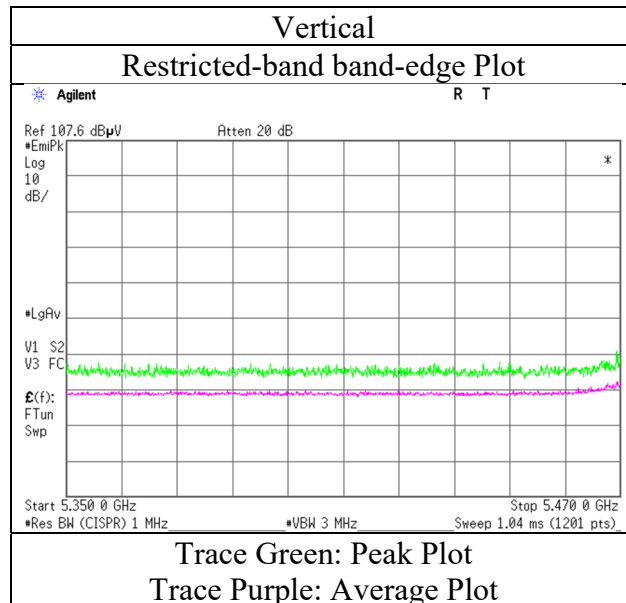
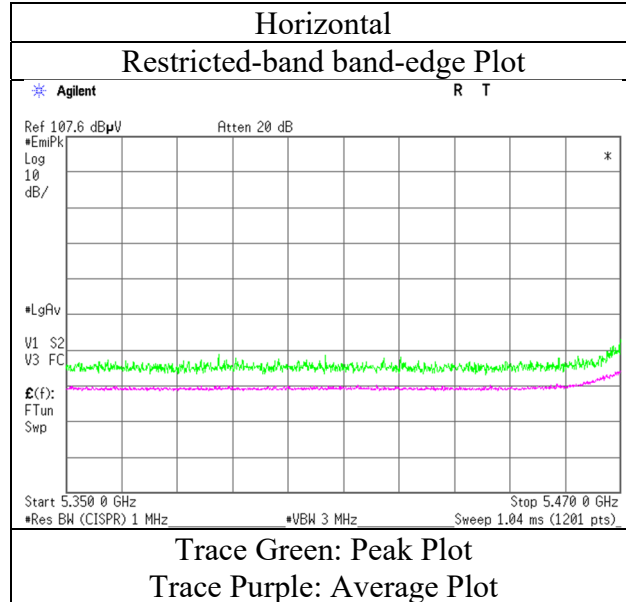
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 12, 2021  
Temperature / Humidity 22 deg. C / 41 % RH  
Engineer Takafumi Noguchi  
Mode Tx 11n-40 5510 MHz



\* 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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## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 12, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	22 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Hiroki Numata (10 GHz - 18 GHz)	Hiroki Numata (Above 18 GHz)
Mode	Tx 11n-40 5550 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	7400.067	PK	45.0	36.2	6.4	34.4	-	53.2	73.9	20.7	
Hori.	11100.000	PK	45.4	39.6	-2.7	34.3	-	48.0	73.9	25.9	
Hori.	16650.000	PK	40.5	40.2	-1.2	33.6	-	46.0	68.2	22.2	Floor noise
Hori.	22200.000	PK	43.2	40.4	-0.9	33.2	-	49.6	73.9	24.3	Floor noise
Hori.	7400.067	AV	38.7	36.2	6.4	34.4	-	46.9	53.9	7.0	
Hori.	11100.000	AV	39.1	39.6	-2.7	34.3	3.6	45.2	53.9	8.7	
Hori.	22200.000	AV	37.2	40.4	-0.9	33.2	-	43.5	53.9	10.4	Floor noise
Vert.	7400.067	PK	45.5	36.2	6.4	34.4	-	53.8	73.9	20.1	
Vert.	11100.000	PK	46.1	39.6	-2.7	34.3	-	48.7	73.9	25.2	
Vert.	16650.000	PK	40.5	40.2	-1.2	33.6	-	45.9	68.2	22.3	Floor noise
Vert.	22200.000	PK	43.9	40.4	-0.9	33.2	-	50.2	73.9	23.7	Floor noise
Vert.	7400.067	AV	37.4	36.2	6.4	34.4	-	45.6	53.9	8.3	
Vert.	11100.000	AV	40.8	39.6	-2.7	34.3	3.6	46.9	53.9	7.0	
Vert.	22200.000	AV	37.2	40.4	-0.9	33.2	-	43.6	53.9	10.4	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

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

Distance factor:    1 GHz - 10 GHz    20log (3.65 m / 3.0 m) = 1.71 dB  
                          10 GHz - 40 GHz    20log (1.0 m / 3.0 m) = -9.5 dB



## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 12, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	22 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Hiroki Numata (10 GHz - 18 GHz)	Hiroki Numata (Above 18 GHz)
Mode	Tx 11n-40 5670 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5725.000	PK	41.9	32.0	5.8	34.2	-	45.4	68.2	22.8	
Hori.	11340.000	PK	45.1	39.8	-2.6	34.2	-	48.1	73.9	25.8	
Hori.	17010.000	PK	40.2	41.7	-0.9	33.3	-	47.7	68.2	20.5	Floor noise
Hori.	22680.000	PK	44.3	40.5	-0.8	32.9	-	51.1	73.9	22.8	Floor noise
Hori.	11340.000	AV	39.1	39.8	-2.6	34.2	3.6	45.7	53.9	8.2	
Hori.	22680.000	AV	36.3	40.5	-0.8	32.9	-	43.1	53.9	10.8	Floor noise
Vert.	5725.000	PK	42.5	32.0	5.8	34.2	-	46.0	68.2	22.2	
Vert.	11340.000	PK	46.9	39.8	-2.6	34.2	-	49.9	73.9	24.0	
Vert.	17010.000	PK	40.6	41.7	-0.9	33.3	-	48.1	68.2	20.1	Floor noise
Vert.	22680.000	PK	44.3	40.5	-0.8	32.9	-	51.1	73.9	22.8	Floor noise
Vert.	11340.000	AV	40.9	39.8	-2.6	34.2	3.6	47.5	53.9	6.4	
Vert.	22680.000	AV	36.5	40.5	-0.8	32.9	-	43.3	53.9	10.6	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

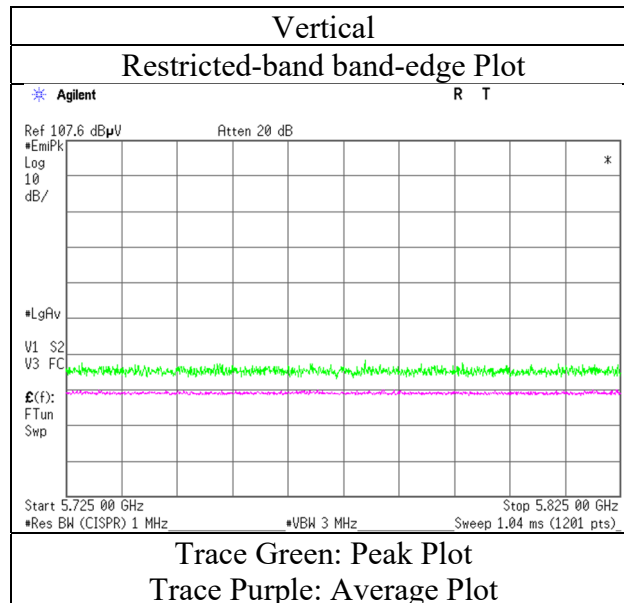
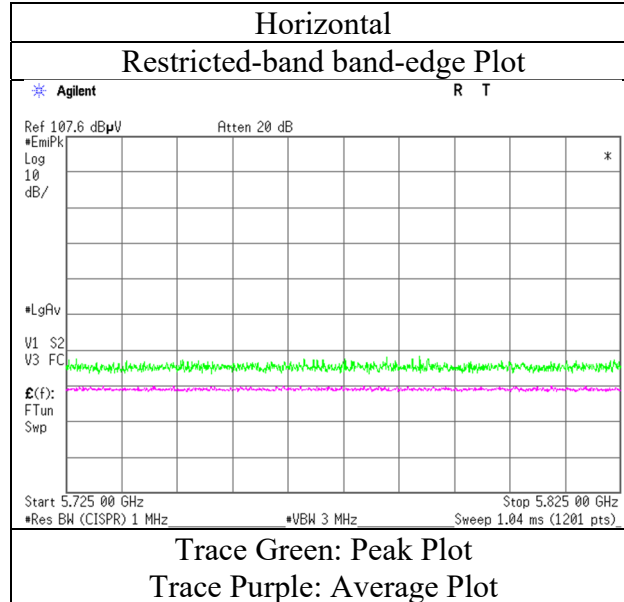
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz  $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
10 GHz - 40 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
 Test place Ise EMC Lab.  
 Semi Anechoic Chamber No.2  
 Date May 12, 2021  
 Temperature / Humidity 22 deg. C / 41 % RH  
 Engineer Takafumi Noguchi  
 Mode Tx 11n-40 5670 MHz



\* 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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**Ise EMC Lab.**

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## Radiated Spurious Emission

Report No.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 12, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	22 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Hiroki Numata (10 GHz - 18 GHz)	Hiroki Numata (Above 18 GHz)
Mode	Tx 11n-40 5755 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5650.000	PK	42.2	31.7	5.7	34.2	-	45.4	68.2	22.8	
Hori.	5700.000	PK	43.0	31.8	5.8	34.2	-	46.3	105.2	58.9	
Hori.	5720.000	PK	49.0	31.9	5.8	34.2	-	52.5	110.8	58.3	
Hori.	5725.000	PK	51.4	32.0	5.8	34.2	-	54.9	122.2	67.3	
Hori.	11510.000	PK	46.3	39.6	-2.5	34.2	-	49.2	73.9	24.7	
Hori.	17265.000	PK	40.8	42.8	-0.9	33.3	-	49.5	68.2	18.7	Floor noise
Hori.	23020.000	PK	43.5	40.3	-0.7	32.7	-	50.5	73.9	23.4	Floor noise
Hori.	11510.000	AV	41.2	39.6	-2.5	34.2	3.6	47.7	53.9	6.2	
Hori.	23020.000	AV	36.8	40.3	-0.7	32.7	-	43.8	53.9	10.1	Floor noise
Vert.	5650.000	PK	42.2	31.7	5.7	34.2	-	45.4	68.2	22.8	
Vert.	5700.000	PK	42.7	31.8	5.8	34.2	-	46.0	105.2	59.2	
Vert.	5720.000	PK	47.1	31.9	5.8	34.2	-	50.6	110.8	60.2	
Vert.	5725.000	PK	50.1	32.0	5.8	34.2	-	53.6	122.2	68.6	
Vert.	11510.000	PK	45.4	39.6	-2.5	34.2	-	48.4	73.9	25.5	
Vert.	17265.000	PK	40.6	42.8	-0.9	33.3	-	49.3	68.2	18.9	Floor noise
Vert.	23020.000	PK	43.0	40.3	-0.7	32.7	-	50.0	73.9	23.9	Floor noise
Vert.	11510.000	AV	40.6	39.6	-2.5	34.2	3.6	47.0	53.9	6.9	
Vert.	23020.000	AV	36.4	40.3	-0.7	32.7	-	43.4	53.9	10.5	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

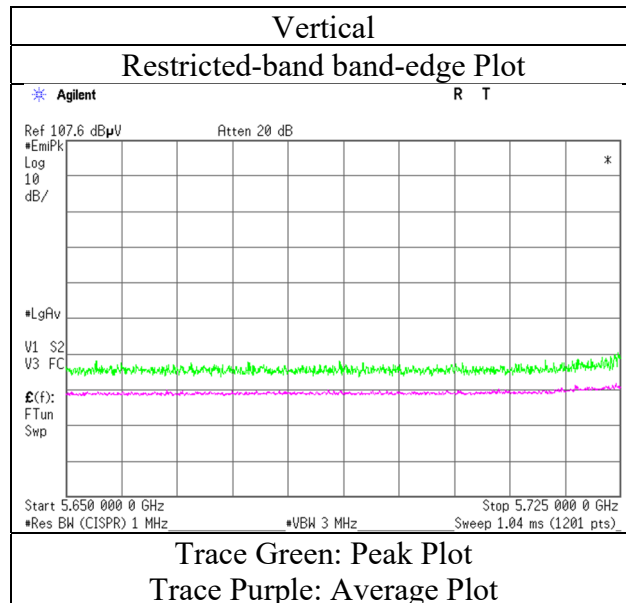
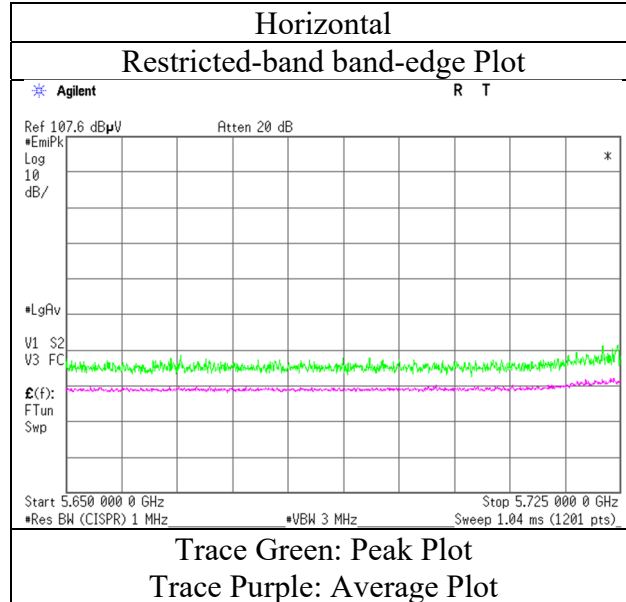
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor:    1 GHz - 10 GHz     $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
                          10 GHz - 40 GHz     $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 12, 2021  
Temperature / Humidity 22 deg. C / 41 % RH  
Engineer Takafumi Noguchi  
Mode Tx 11n-40 5755 MHz



\* 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.	13809761H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 12, 2021	May 12, 2021	May 13, 2021
Temperature / Humidity	22 deg. C / 41 % RH	21 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Takafumi Noguchi	Hiroki Numata	Hiroki Numata
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(Above 18 GHz)
Mode	Tx 11n-40 5795 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	5650.000	PK	42.0	31.7	5.7	34.2	-	45.2	68.2	23.0	
Hori.	5700.000	PK	42.2	31.8	5.8	34.2	-	45.6	105.2	59.6	
Hori.	5720.000	PK	42.6	31.9	5.8	34.2	-	46.0	110.8	64.8	
Hori.	5725.000	PK	42.3	32.0	5.8	34.2	-	45.8	122.2	76.4	
Hori.	7726.603	PK	45.2	36.1	6.5	34.5	-	53.3	73.9	20.6	
Hori.	11590.000	PK	46.9	39.2	-2.5	34.2	-	49.4	73.9	24.5	
Hori.	17385.000	PK	40.9	44.2	-0.9	33.2	-	51.0	68.2	17.2	Floor noise
Hori.	23180.000	PK	44.6	40.3	-0.6	32.7	-	51.6	68.2	16.6	Floor noise
Hori.	7726.603	AV	39.8	36.1	6.5	34.5	-	47.9	53.9	6.0	
Hori.	11590.000	AV	42.6	39.2	-2.5	34.2	3.6	48.7	53.9	5.2	
Vert.	5650.000	PK	42.5	31.7	5.7	34.2	-	45.7	68.2	22.5	
Vert.	5700.000	PK	42.5	31.8	5.8	34.2	-	45.9	105.2	59.3	
Vert.	5720.000	PK	42.2	31.9	5.8	34.2	-	45.7	110.8	65.1	
Vert.	5725.000	PK	42.1	32.0	5.8	34.2	-	45.6	122.2	76.6	
Vert.	7726.603	PK	45.9	36.1	6.5	34.5	-	54.0	73.9	19.9	
Vert.	11590.000	PK	44.9	39.2	-2.5	34.2	-	47.5	73.9	26.4	
Vert.	17385.000	PK	40.6	44.2	-0.9	33.2	-	50.7	68.2	17.5	Floor noise
Vert.	23180.000	PK	44.5	40.3	-0.6	32.7	-	51.5	68.2	16.7	Floor noise
Vert.	7726.603	AV	39.8	36.1	6.5	34.5	-	47.9	53.9	6.0	
Vert.	11590.000	AV	39.7	39.2	-2.5	34.2	3.6	45.8	53.9	8.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

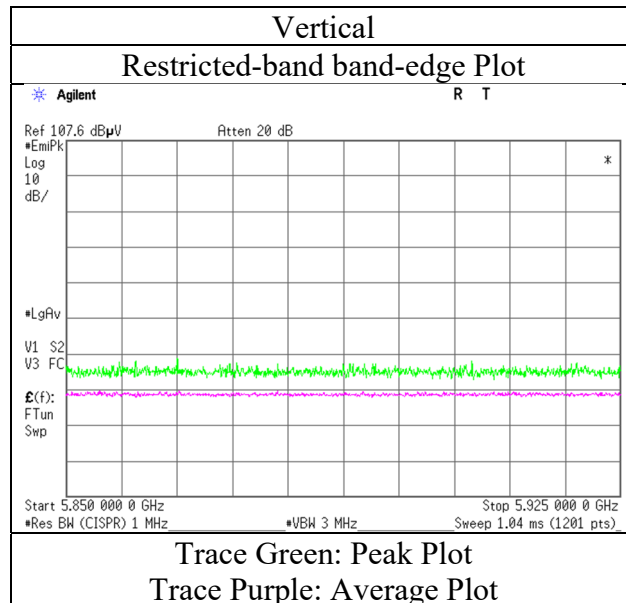
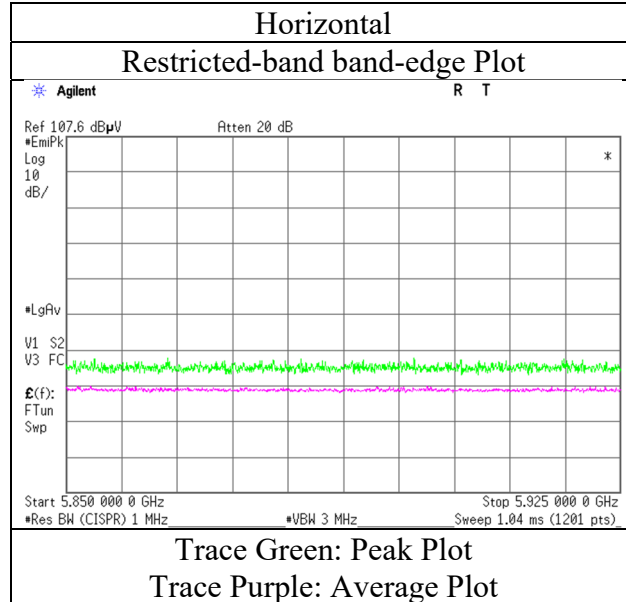
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz  $20\log(3.65\text{ m} / 3.0\text{ m}) = 1.71\text{ dB}$   
10 GHz - 40 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

\*1) Not Out of Band emission(Leakage Power)

## Radiated Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab.  
Semi Anechoic Chamber No.2  
Date May 12, 2021  
Temperature / Humidity 22 deg. C / 41 % RH  
Engineer Takafumi Noguchi  
Mode Tx 11n-40 5795 MHz



\* 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.**

**Ise EMC Lab.**

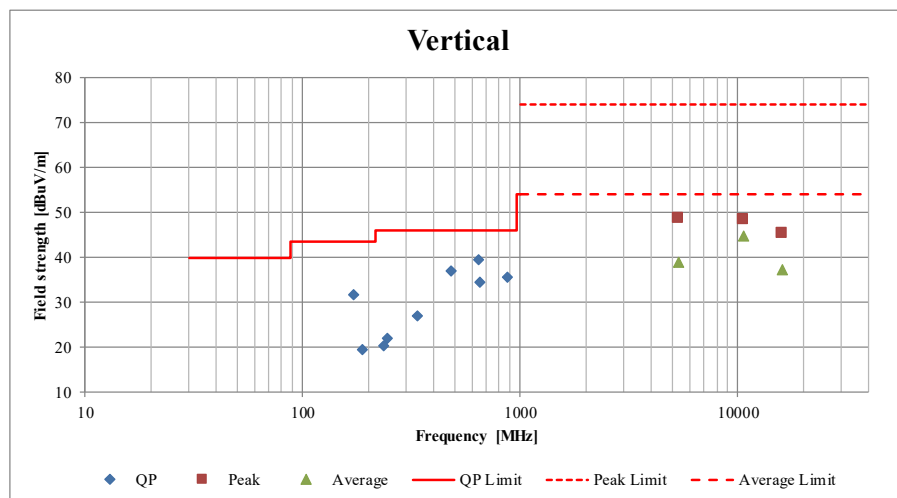
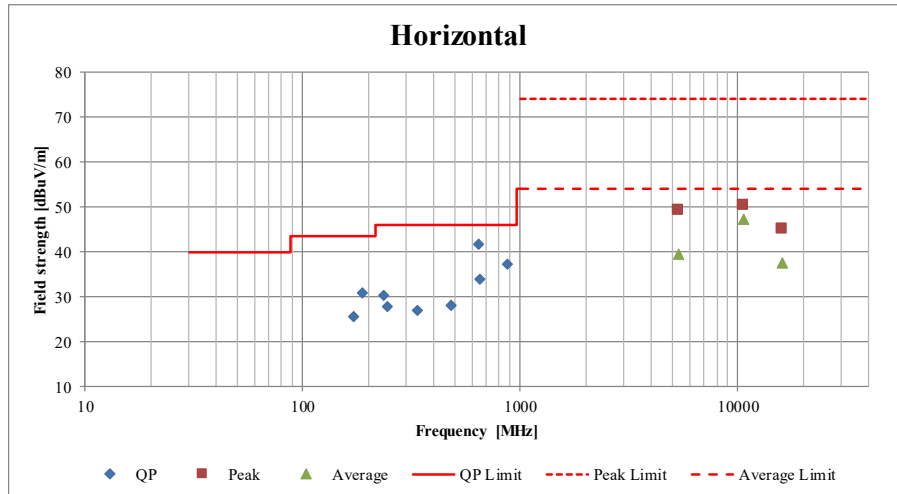
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**Radiated Spurious Emission**  
**(Plot data, Worst case)**

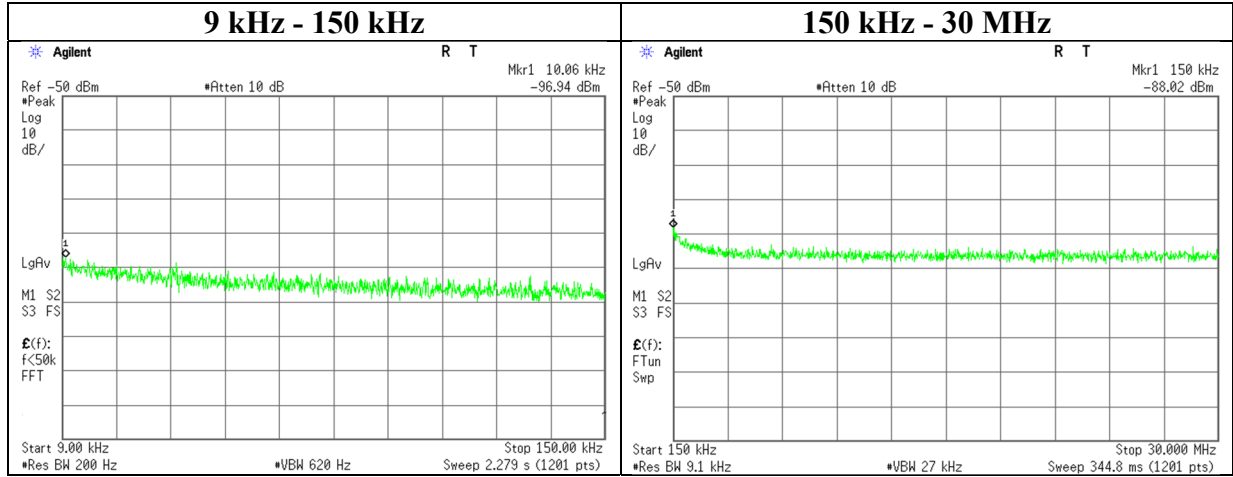
Report No.	13809761H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	May 11, 2021	May 15, 2021
Temperature / Humidity	23 deg. C / 41 % RH	21 deg. C / 44 % RH
Engineer	Hiroki Numata (1 GHz - 10 GHz)	Takafumi Noguchi (Below 1 GHz)
Mode	Tx 11a 5320 MHz	



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

## Conducted Spurious Emission

Report No. 13809761H  
Test place Ise EMC Lab. No.8 Measurement Room  
Date May 19, 2021  
Temperature / Humidity 23 deg. C / 66 % RH  
Engineer Akihiko Maeda  
Mode Tx 11a 5320 MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenuator [dB]	Antenna Gain* [dBi]	N (Number of Output)	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
10.06	-96.9	0.50	9.8	2.0	1	-84.6	300	6.0	-23.4	47.5	70.9	
150.00	-88.0	0.51	9.8	2.0	1	-75.7	300	6.0	-14.5	24.0	38.5	

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

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

N: Number of output

\*2.0 dBi was applied to the test result based on KDB 789033 since antenna gain was less than 2.0 dBi.



## APPENDIX 2: Test instruments

### Test equipment

Test Item	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
RE	MRENT-130	141855	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY46187750	11/18/2020	12
RE	MHF-25	141232	High Pass Filter 3.5-18.0GHz	UL Japan	HPF SELECTOR	001	09/23/2020	12
RE	MPA-10	141579	Pre Amplifier	Keysight Technologies Inc	8449B	3008A02142	02/18/2021	12
RE	MCC-231	177964	Microwave Cable	Junkosha INC.	MMX221	1901S329(1m)/1902S579(5m)	03/04/2021	12
RE	MHA-20	141507	Horn Antenna 1-18GHz	Schwarzbeck Mess-Elektronik OHG	BBHA9120D	258	10/01/2020	12
RE	MAEC-02	142004	AC2_Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	05/26/2020	24
RE	MOS-41	192300	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	0013	12/06/2020	12
RE	MMM-01	141542	Digital Tester	Fluke Corporation	FLUKE 26-3	78030611	08/18/2020	12
RE	MJM-27	142228	Measure	KOMELON	KMC-36	-	-	-
RE	COTS-ME MI-02	178648	EMI measurement program	TSJ (Techno Science Japan)	TEPTO-DV	-	-	-
RE	MPA-22	141588	Pre Amplifier	MITEQ, Inc	AMF-6F-2600400 -33-8P / AMF-4F-2600400 -33-8P	1871355 / 1871328	09/07/2020	12
RE	MHA-29	141517	Horn Antenna 26.5-40GHz	ETS-Lindgren	3160-10	152399	08/03/2020	12
RE	MCC-224	160324	Coaxial Cable	Huber+Suhner	SUCOFLEX 102A	MY009/2A	11/17/2020	12
RE	MHA-02	141503	Horn Antenna 18-26.5GHz	EMCO	3160-09	1265	06/15/2020	12
RE	MAEC-02-SVSWR	142006	AC2_Semi Anechoic Chamber(SVSWR)	TDK	Semi Anechoic Chamber 3m	DA-06902	04/09/2021	24
RE	MTR-08	141949	Test Receiver	Rohde & Schwarz	ESCI	100767	08/18/2020	12
RE	MCC-12	141317	Coaxial Cable	UL Japan Inc.	-	-	09/25/2020	12
RE	MPA-24	141594	Pre Amplifier	Keysight Technologies Inc	8447D	2944A10150	02/18/2021	12
RE	MBA-08	141427	Biconical Antenna	Schwarzbeck Mess-Elektronik OHG	VHA9103B+BBA9106	8031	07/29/2020	12
RE	MLA-21	141265	Logperiodic Antenna (200-1000MHz)	Schwarzbeck Mess-Elektronik OHG	VUSLP9111B	9111B-190	07/29/2020	12
RE	MAT-07	141203	Attenuator(6dB)	Weinschel Corp	2	BK7970	11/13/2020	12
RE	MAEC-02	142004	AC2_Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	05/26/2020	24
RE	MOS-41	192300	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	0013	12/06/2020	12
RE	MMM-01	141542	Digital Tester	Fluke Corporation	FLUKE 26-3	78030611	08/18/2020	12
RE	COTS-MEMI-02	178648	EMI measurement program	TSJ (Techno Science Japan)	TEPTO-DV	-	-	-
RE	MAEC-02-SVSWR	142006	AC2_Semi Anechoic Chamber(SVSWR)	TDK	Semi Anechoic Chamber 3m	DA-06902	04/09/2021	24
AT	MSA-03	141884	Spectrum Analyzer	Keysight Technologies Inc	E4448A	MY44020357	03/10/2021	12
AT	MCC-92	141398	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	30813/2	05/11/2021	12
AT	MAT-57	141333	Attenuator(10dB)	Suhner	6810.19.A	-	12/07/2020	12
AT	MCC-64	141327	Coaxial Cable	UL Japan	-	-	02/03/2021	12
AT	MAT-10	141156	Attenuator(10dB)	Weinschel Corp	2	BL1173	11/13/2020	12
AT	MOS-28	141567	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	0008	01/15/2021	12
AT	MMM-17	141557	DIGITAL HiTESTER	HIOKI E.E. CORPORATION	3805	70900530	01/07/2021	12

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\*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

AT: Antenna Terminal Conducted test

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